Transportation Impact Report
Mather South Specific Plan Amendment

prepared for:
Sacramento County
Community Development PERD

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1. INTRODUCTION

1.1 STUDY DEFINITION

This transportation analysis discusses existing and cumulative transportation and circulation conditions associated with the implementation of the Mather South Specific Plan Amendment development. In addition, the report discusses the combined effects of implementing the following four developments (FOUR PROJECTS):

- West Jackson Highway Master Plan (West Jackson)
- Jackson Township Specific Plan (Jackson Township)
- NewBridge Specific Plan (NewBridge)
- Mather South Specific Plan Amendment (Mather South)

The FOUR PROJECTS are located adjacent to each other in the Jackson Road corridor. Because of this proximity and the concurrent entitlement process, the transportation analysis addresses the combined effects of the FOUR PROJECTS on existing and cumulative transportation and circulation conditions.

Figure 1.1 illustrates the location of the Mather South project. The Mather South project is located in unincorporated Sacramento County, generally east of the City of Sacramento, south and east of the City of Rancho Cordova, and south of Mather Airport. It is bounded on the south by Kiefer Boulevard, on the west by Zinfandel Drive, and on the east by the Folsom South Canal (which parallels the west side of Sunrise Boulevard). The north boundary is south of Douglas Road.

For more details of the West Jackson, Jackson Township, and NewBridge projects, please refer to Section 4.1.

Other development projects in the vicinity are included in the California Environmental Quality Act (CEQA) cumulative analysis scenarios and are discussed in Section 6.1.1.

The transportation analysis documented in this report includes consideration of vehicular traffic impacts on roadway and intersection capacity and safety, transit impacts, and bicycle and pedestrian facility impacts. Quantitative transportation analyses have been conducted for the following scenarios, summarized in **Table 1.1**:

- Existing (without FOUR PROJECTS)
- Existing Plus Mather South Project
- Existing Plus FOUR PROJECTS (West Jackson, Jackson Township, NewBridge, and Mather South developments)
- MTP Cumulative (without FOUR PROJECTS)
- MTP Cumulative Plus FOUR PROJECTS

- CEQA Cumulative (without FOUR PROJECTS)
- CEQA Cumulative Plus FOUR PROJECTS
- CEQA Cumulative Plus Mather South Project

The scenarios followed by the notation "(without FOUR PROJECTS)" contain no development, beyond existing levels, within the boundaries of the West Jackson, Jackson Township, NewBridge, and Mather South projects.

FIGURE 1.1
WEST JACKSON HWY PROJECT
PROJECT LOCATION

Legend

- MS Study Roadway Segments
- Freeways
- Other Major Roadways

Name

- Mather South Project
- Cities
- Mather Airport

Table 1.1: Analysis Scenarios			
Scenario	**Land Use**	**Base Transportation Network**	**Project Improvements**
Existing	Existing	Existing	None
Existing Plus Mather South	Existing Plus Mather South	Existing	Mather South Project
Existing Plus FOUR PROJECTS	Existing Plus West Jackson, Jackson Township, New Bridge, and Mather South	Existing	West Jackson Project Jackson Township Project NewBridge Project Mather South Project
MTP Cumulative	2035 Development Levels without FOUR PROJECTS	Year 2035 (Based on 2012 MTP)	None
MTP Cumulative Plus FOUR PROJECTS	2035 Development Levels plus West Jackson, Jackson Township, New Bridge, and Mather South	Year 2035 (Based on 2012 MTP)	West Jackson Project Jackson Township Project NewBridge Project Mather South Project
CEQA Cumulative	2035 Development Levels (SACOG Projections), Build Out of Additional Readily Foreseeable Projects in Study Area, without FOUR PROJECTS	Year 2035 (Based on 2012 MTP) Plus Improvements Fully Funded by Additional Readily Foreseeable Projects in Study Area	None
CEQA Cumulative Plus FOUR PROJECTS	2035 Development Levels (SACOG Projections), Build Out of Additional Readily Foreseeable Projects in Study Area, plus West Jackson, Jackson Township, New Bridge, and Mather South	Year 2035 (Based on 2012 MTP) Plus Improvements Fully Funded by Additional Readily Foreseeable Projects in Study Area	West Jackson Project Jackson Township Project NewBridge Project Mather South Project
CEQA Cumulative Plus Mather South Project	Estimation of Mather South Project Impacts based upon CEQA Cumulative Plus FOUR PROJECTS scenario		
Source: *DKS Associates, 2018.*			

1.2 STUDY AREA

For transportation analysis purposes, a set of existing, proposed, and future intersections, roadway segments, and freeway facilities were selected based upon the anticipated volume of additional traffic, the distributional patterns of traffic, and known locations of operational difficulty. The Sacramento County Department of Transportation, Caltrans, City of Sacramento, City of Rancho Cordova, City of Elk Grove, City of Folsom, and Capital Southeast Corridor Joint Powers Authority were consulted. **Figures 1.2 through 1.4** illustrate the study area, which was agreed to by all of the above jurisdictions and agencies.

1.3 ANALYSIS METHODOLOGY

1.3.1 Forecasting

In this transportation analysis, the forecasting of travel patterns and volumes for each of the scenarios was developed through utilization of the Sacramento Area Council of Governments' (SACOG's) SACSIM travel model. SACSIM is an "activity-based" model that tracks the travel of individuals throughout the day in trip "tours", and allocates household and employment to the parcel level. This allows the model to capture smaller-scale land use changes and differences. SACSIM is sensitive to the local physical environment, including the presence (or absence) of pedestrian and bicycle facilities, the patterns of local street networks (e.g., grid vs. cul-de-sacs), and the density, proximity and mix of surrounding land uses (i.e. employment destinations, schools, retail, parks, etc.). SACSIM forecasts automobile, transit, bicycle, and walk trips. SACSIM requires a detailed definition of household population/demographics and employment by type at a parcel-level of geography. During the analysis, SACOG staff assisted in developing household population and demographics within the study area, and was consulted to ensure consistency with the latest and most appropriate modeling procedures and databases.

1.3.2 Operations Analysis

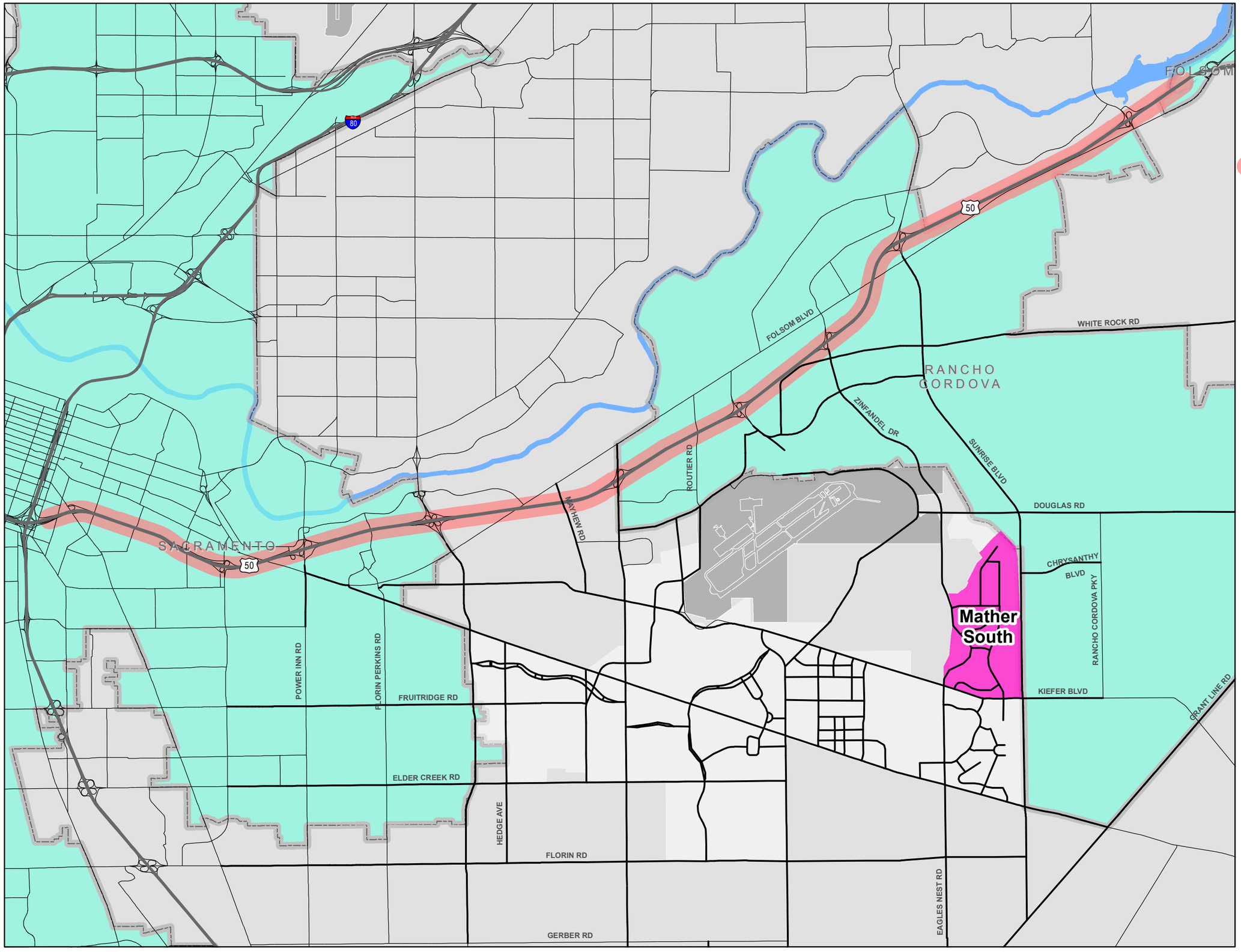
Field reconnaissance was undertaken to ascertain the traffic control and capacity characteristics of each of the study area intersections, roadway segments, and freeway elements. Combined with known or projected traffic volumes, these characteristics enable the calculation of performance measures. Levels of service are a quantitative stratification of performance measures that represent quality of service. There are six levels of service, ranging from A to F. LOS A represents the best operating conditions from the traveler's perspective and LOS F the worst. The specific performance measures that define LOS vary by type of transportation facility, and are discussed in the following sections.

FIGURE 1.2
STUDY AREA MAP
ROADWAY SEGMENTS

Legend

- Study Roadway Segments
- Other Project Roadways
- Freeways
- Other Major Roadways
- Mather South Project
- Cities
- Mather Airport

FIGURE 1.3
FREEWAY STUDY AREA



Legend

- Freeway Study Area
- Study Roadway Segments
- Freeways
- Other Major Roadways

Name

- Mather South Project
- Cities
- Mather Airport

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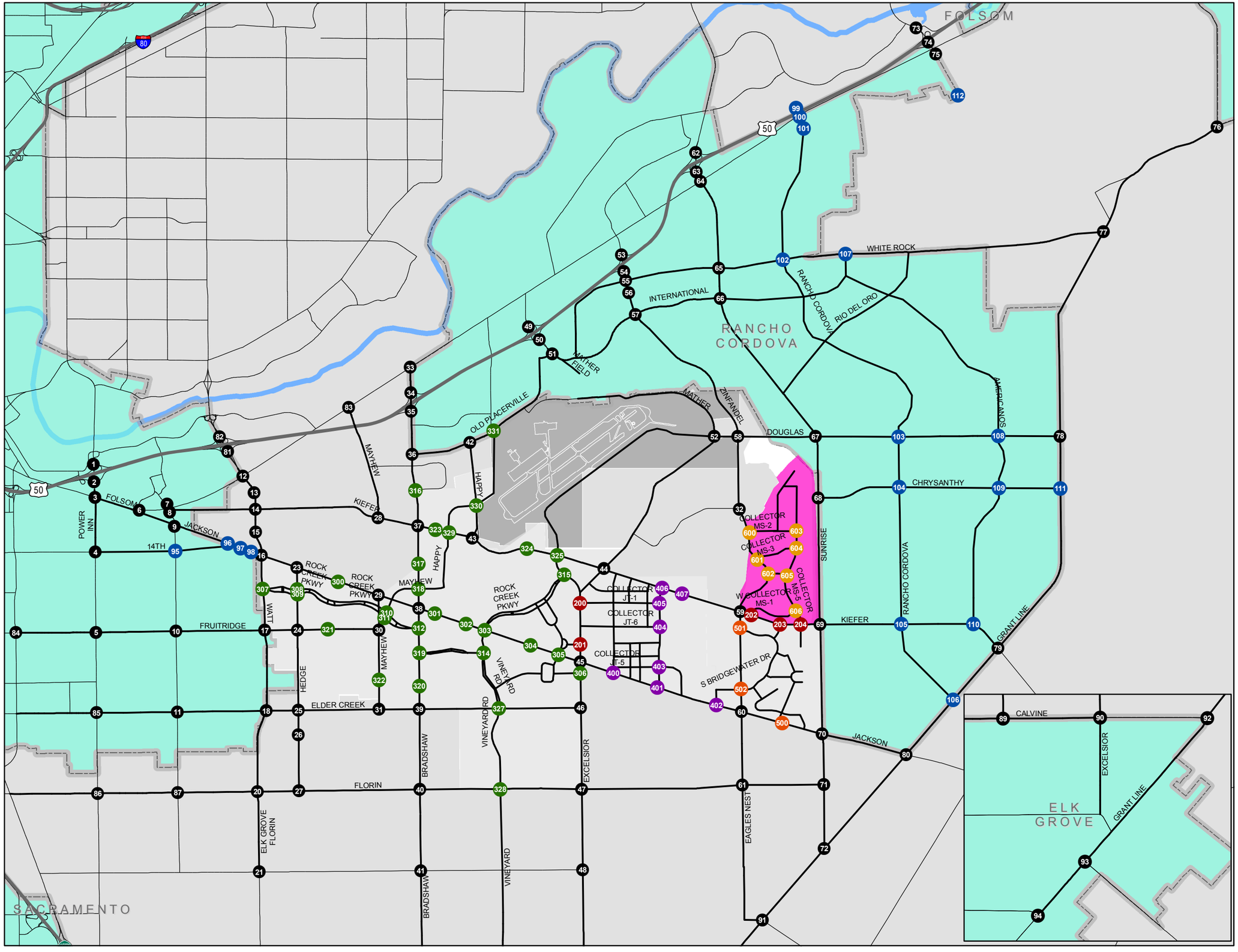
FIGURE 1.4
STUDY AREA MAP
INTERSECTIONS



Legend

- Existing
- Future Outside Project Boundaries
- Shared Between Two Projects
- West Jackson
- Jackson Township
- NewBridge
- Mather South
- Study Roadways
- Freeways
- Other Major Roadways
- Mather South Project
- Cities
- Mather Airport

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1.3.2.1 Roadway Segment Analysis

Level of service analyses were conducted for roadway segments in the study area based upon daily traffic volumes, number of traffic lanes between intersections, and roadway characteristics. In this methodology, study area roadways are stratified into "capacity class" categories for level of service determination, as shown in **Tables 1.2, 1.3, and 1.4**, for Sacramento County, the City of Sacramento, and the Capital SouthEast Connector Joint Powers Authority, respectively. The Sacramento County criteria were also utilized for segments in the City of Rancho Cordova and City of Elk Grove, as these jurisdictions utilize the same roadway segment level of service criteria.

The capacity class categories are based upon the nature of traffic flow along the facility, including number of interruptions due to intersection control and "side-friction" due to driveways and local streets. For each capacity class, relationships were developed between daily traffic volumes and roadway level of service.

Tables 1.2 and 1.3 summarize the maximum daily traffic volumes associated with each level of service designation and capacity class combination. Although the segment-based level of service calculations are based upon daily traffic volumes, the resultant levels of service are representative of peak hour conditions. While a roadway segment's daily capacity could theoretically be very high if traffic were spread evenly throughout the 24-hour period, this is clearly not a realistic condition. The daily roadway segment capacity methodology takes into account typical peak hour volume profiles, as well as the effects of signalized intersections in reducing the roadway's carrying capacity. With good signal timing, spacing, and additional intersection capacity improvements (e.g. additional turn lanes, overlap phasing), a segment would be able to carry more vehicles than one having less-than-ideal intersection conditions.

1.3.2.2 Intersection Analysis

For signalized and unsignalized intersections, operational analyses were conducted using a methodology outlined in the Transportation Research Board's *Highway Capacity Manual, 2000* (HCM 2000) and *Highway Capacity Manual, 2010* (HCM 2010). The HCM 2010 methodology was used in all locations except where signalized intersection characteristics deemed the methodology inappropriate. These locations include intersections with unconventional signal phasing, and locations adjacent to light rail tracks where additional delay occurs due to light rail operations. In the selected locations, the HCM 2000 methodology was employed.

The methodology utilized is known as an "operational analysis". This procedure calculates an average control delay per vehicle for each movement at an intersection, and assigns a level of service designation based upon the average delay per vehicle. **Table 1.5** presents the level of service criteria for signalized and unsignalized intersections based on the HCM methodology.

Table 1.2: Daily Volume Threshold For Roadway Segments (Sacramento County)						
Roadway Capacity Class	**Number of Lanes**	**Daily Volume Threshold (Level of Service)**				
		LOS A	**LOS B**	**LOS C**	**LOS D**	**LOS E**
Residential	2	600	1,200	2,000	3,000	4,500
Residential Collector with Frontage	2	1,600	3,200	4,800	6,400	8,000
Residential Collector without Frontage	2	6,000	7,000	8,000	9,000	10,000
Arterial, Low Access Control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, Moderate Access Control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial, High Access Control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	43,000	48,000	54,000	60,000
Rural, 2-lane Highway	2	2,400	4,800	7,900	13,500	22,900
Rural, 2-lane Road, 24' - 36' of pavement, Paved Shoulders	2	2,200	4,300	7,100	12,200	20,000
Rural, 2-lane Road, 24' - 36' of pavement, No Shoulders	2	1,800	3,600	5,900	10,100	17,000

Roadway Capacity Class	**Stops per Mile**	**Driveways**	**Speed**
Arterial, Low Access Control	4 +	Frequent	25 – 35 mph
Arterial, Moderate Access Control	2 – 4	Limited	35 – 45 mph
Arterial, High Access Control	1 - 2	None	45 – 55 mph

Note: *LOS = level of service*

Source: *Traffic Impact Analysis Guidelines, County of Sacramento Department of Transportation, July 2004.*

Table 1.3: Daily Volume Threshold For Roadway Segments (City of Sacramento)						
Roadway Capacity Class	**Number of Lanes**	**Daily Volume Threshold (Level of Service)**				
		LOS A	**LOS B**	**LOS C**	**LOS D**	**LOS E**
Arterial, Low Access Control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, Moderate Access Control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial, High Access Control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	43,000	48,000	54,000	60,000
Collector, minor	2	5,250	6,125	7,000	7,875	8,750
Residential	2	3,000	3,500	4,000	4,500	5,000

Roadway Capacity Class	**Stops per Mile**	**Driveways**	**Speed**
Arterial, Low Access Control	4 +	Frequent	25 – 35 mph
Arterial, Moderate Access Control	2 – 4	Limited	35 – 45 mph
Arterial, High Access Control	1 - 2	None	45 – 55 mph

Note: *LOS = level of service*

Source: *City of Sacramento Traffic Impact Analysis Guidelines, 1996; City of Sacramento, Department of Transportation Staff, 2007.*

Table 1.4: Daily Volume Threshold For Roadway Segments (Connector JPA)						
Roadway Capacity Class	**Number of Lanes**	**Daily Volume Threshold (Level of Service)**				
		LOS A	**LOS B**	**LOS C**	**LOS D**	**LOS E**
Expressway (Connector)	4	43,200	50,400	57,600	64,800	72,000
	4+2 HOV	64,800	75,600	86,400	97,200	108,000

Note: *LOS = level of service*

Source: *Capital SouthEast Connector Joint Powers Authority*

Table 1.5: Level of Service Criteria (Intersections)		
Level of Service (LOS)	**Total Delay Per Vehicle (seconds)**	
	Signalized Intersections	**Unsignalized Intersections**
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50
Source: *HCM 2010 Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2010.*		

1.3.2.3 Traffic Signal Warrant Analysis

Traffic signals control motor vehicle, pedestrian, and bicycle traffic. However, because they assign the right-of-way to the various traffic movements, signals exert a profound influence on traffic flow. Properly located and operated control signals may provide for the orderly movement of traffic (motor vehicle, pedestrian, and bicycle), increase the traffic-handling capacity of an intersection, and reduce the frequency of certain types of crashes. After extensive study and analysis, the Federal Highway Administration and Caltrans developed traffic signal warrants. These warrants define minimum conditions under which signal installations may be justified. Traffic control signals should not be installed unless one or more of the signal warrants are met. However, the satisfaction of a warrant or warrants is not in itself justification for a signal. Every situation is unique and warrant guidelines must be supplemented by the review of specific site conditions and the application of good engineering judgment. Installation of a traffic signal should improve the overall safety and/or operation of an intersection and should be considered only when deemed necessary by careful traffic analysis and after less restrictive solutions have been attempted.

1.3.2.4 Freeway Analysis

Freeway mainline segments, ramp junctions, and weaving segments were analyzed utilizing methodologies outlined in the HCM 2010. **Table 1.6** presents the level of service criteria for the freeway mainline, which are divided into basic, merge, diverge, and weaving segments.

1.4 LEVEL OF SERVICE POLICIES

For analysis purposes, each of the study area roadway segments, intersections, and freeway elements was assigned to a particular jurisdiction (County of Sacramento, City of Sacramento, City of Rancho Cordova, City of Elk Grove, City of Folsom, or Caltrans) for purposes of specifying acceptable traffic operating conditions (level of service) and standards of significance for impact determination. In cases where transportation elements are located on a jurisdictional boundary, the more conservative (e.g., LOS D rather than LOS E) policy was utilized.

1.4.1 County of Sacramento

The County of Sacramento has the following level of service policy:

> *Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.*[1]

1 Sacramento County General Plan, amended November 9, 2011, Circulation Element Policy CI-9.

Table 1.6: Level of Service Criteria (Freeway Mainline)			
Level of Service (LOS)	**Maximum Density (Passenger Cars Per Mile Per Lane)**		
	Basic	**Merge/Diverge Segments**	**Weaving Segments**
A	≤ 11	≤ 10	≤ 10
B	> 11 and ≤ 18	> 10 and ≤ 20	> 10 and ≤ 20
C	> 18 and ≤ 26	> 20 and ≤ 28	> 20 and ≤ 28
D	> 26 and ≤ 35	> 28 and ≤ 35	> 28 and ≤ 35
E	> 35 and ≤ 45	> 35	> 35
F	> 45	Demand Exceeds Capacity	Demand Exceeds Capacity
Source: *HCM 2010 Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2010.*			

The county roadway segments and intersections in the study area are located within the Urban Service Boundary. Therefore, the LOS E standard applies.

1.4.2 City of Sacramento

The Mobility Element of the City of Sacramento 2030 General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The City of Sacramento has the following level of service policy relevant to this study:

> ***Policy M 1.2.2 LOS Standard.*** *The City shall allow for flexible Level of Service (LOS) standards, which will permit increased densities and mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.*
>
> *…*
>
> *b.* ***Level of Service Standard for Multi-Modal Districts*** *– The City shall seek to maintain the following standards in the Central Business District, in areas within ½ mile walking distance of light rail stations, and in areas designated for urban scale development (Urban Centers, Urban Corridors, and Urban Neighborhoods as designated in the Land Use and Urban Form Diagram). These areas are characterized by frequent transit service, enhanced pedestrian and bicycle systems, a mix of uses, and higher density development.*
>
> - *Maintain operations on all roadways and intersections at LOS A-E at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. LOS F conditions may be acceptable, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation and transit as part of a development project or a City-initiated project.*
>
> *c.* ***Base Level of Service Standard*** *– the City shall seek to maintain the following standards for all areas outside of multi-modal districts.*
>
> - *Maintain operations on all roadways and intersections at LOS A-D at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. LOS E or F conditions may be accepted, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation as part of a development project or a City-initiated project.*

d. ***Roadways Exempt from Level of Service Standard*** *– The above LOS standards shall apply to all roads, intersections, or interchanges within the City except as specified below. If a Traffic Study is prepared and identifies a significant LOS impact to a roadway or intersection that is located within one of the roadway corridors described below, the project would not be required in that particular instance to widen roadways in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the city wide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to the listed road segment in order to conform to the General Plan.*

- *12th/14th Avenue: State Route 99 to 36th Street*
- *24th Street: Meadowview Road to Delta Shores Circle*
- *65th Street: Folsom Boulevard to 14th Avenue*
- *Alhambra Boulevard: Folsom Boulevard to P Street*
- *Arcade Boulevard: Marysville Boulevard to Del Paso Boulevard*
- *Arden Way: Capital City Freeway to Ethan Way*
- *Blair Avenue/47th Avenue: S. Land Park Drive to Freeport Boulevard*
- *Broadway: 15th Street to Franklin Boulevard*
- *Broadway: 58th to 65th Streets*
- *El Camino Avenue: Stonecreek Drive to Marysville Boulevard*
- *El Camino Avenue: Capital City Freeway to Howe Avenue*
- *Elder Creek Road: 65th Street to Power Inn Road*
- *Florin Perkins Road: 14th Avenue to Elder Creek Road*
- *Florin Road: Greenhaven Drive to I-5; 24th Street to Franklin Boulevard*
- *Folsom Boulevard: 34th Street to Watt Avenue*
- *Freeport Boulevard: Broadway to Seamas Avenue*
- *Fruitridge Road: Franklin Boulevard to SR 99*
- *Garden Highway: Truxel Road to Northgate Boulevard*
- *Howe Avenue: American River Drive to Folsom Boulevard*
- *J Street: 43rd Street to 56th Street*
- *Mack Road: Meadowview Road to Stockton Boulevard*
- *Martin Luther King Boulevard: Broadway to 12th Avenue*
- *Marysville Boulevard: I-80 to Arcade Boulevard*
- *Northgate Boulevard: Del Paso Road to SR 160*
- *Raley Boulevard: Bell Avenue to I-80*
- *Roseville Road: Marconi Avenue to I-80*

- *Royal Oaks Drive: SR 160 to Arden Way*
- *Truxel Road: I-80 to Gateway Park*[2]

1.4.3 City of Rancho Cordova

The City General Plan Circulation Element has the following level of service policy:

> ***Policy C.1.2*** *- Seek to maintain operations on all roadways and intersections at Level of Service D or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City's judgment, be infeasible and / or conflict with the achievement of other goals. Congestion in excess of Level of Service D may be accepted in these cases, provided that provisions are made to improve traffic flow and / or promote non-vehicular transportation as part of a development project of a City-initiated project.*[3]

1.4.4 City of Elk Grove

The City General Plan Circulation Element has the following level of service policy:

> ***CI-13*** *- The City shall require that all roadways and intersections in Elk Grove operate at a minimum Level of Service "D" at all times.*[4]

1.4.5 City of Folsom

Policy 17.17 of the City of Folsom General Plan identifies the minimum acceptable level of service for traffic operations in the City. Specifically, this policy states:

> *The City should strive to achieve at least a traffic Level of Service 'C' throughout the City.*[5]

As part of the Folsom South of U.S. Highway 50 Specific Plan, the level of service policy for the portion of the City of Folsom to be located south of US 50 is amended as follows:

> *The City should strive to achieve at least a traffic Level of Service "C" within the Folsom South of US 50 Specific Plan. For roadways and intersections within the Specific Plan, LOS "D" conditions may be considered on a case by case basis if improvements required to meet LOS "C" exceeds the "normally accepted maximum" improvements established by the City.*[6]

2 Sacramento 2030 General Plan, Master Environmental Impact Report, Certified March 3, 2009.
3 City of Rancho Cordova General Plan Circulation Element, June 26, 2006.
4 Elk Grove General Plan Circulation Element, Adopted November 19, 2003, Reflects Amendments through July 22, 2009.
5 City of Folsom General Plan, 1993.
6 Folsom South of U.S. Highway 50 Specific Plan DEIR/DEIS, June 2010.

1.4.6 Caltrans

The standards for Caltrans' facilities in the study area are detailed in the U.S. 50 Corridor System Management Plan (CSMP)[7]. Typical Concept LOS standards in Caltrans District 3 are LOS "D" in rural areas and LOS "E" in urban areas. The 20-Year Concept LOS for U.S. 50 in the study area is LOS F, because improvements necessary to improve the LOS to E are not feasible due to environmental, right-of-way, financial, and other constraints. Although the US 50 CSMP allows LOS F, standards of significance hold that any increase in mainline volume greater than 5% would constitute an impact.

1.4.7 Capital SouthEast Connector Joint Powers Authority (Connector JPA)

The Capital SouthEast Connector Joint Powers Authority (JPA) was formed in December 2006 and includes the cities of Elk Grove, Folsom and Rancho Cordova, and El Dorado and Sacramento Counties. Under a policy set forth by the JPA, signalized intersections along the Connector facility are required to operate at level of service "C" or better (with LOS "D" being allowed in the Sheldon area). The Connector JPA's intersection LOS policy does not apply to roadway segments.

1.5 SIGNIFICANCE CRITERIA

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. The standards of significance in this analysis are based upon current practice of the appropriate regulatory agencies.

1.5.1 Roadways Segments and Intersections

Table 1.7 summarizes the significance criteria for intersections and roadway segments for Sacramento County, the City of Sacramento, the City of Rancho Cordova, the City of Elk Grove, and the City of Folsom.

1.5.2 Freeway Facilities

Caltrans considers the following to be significant impacts:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway.
- Project traffic increases that cause any ramp's merge / diverge level of service to be worse than the freeway's level of service.
- Project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility.

7 Highway 50 Corridor System Management Plan, May 2009.

- The expected ramp queue is greater than the storage capacity.

Further, it is Caltrans' position that on segments of the SHS main line where the existing LOS is at or below the Concept LOS, any land use development should not directly or cumulatively lower the existing LOS and/or increase the V/C ratio now or in the future on the identified highway segments by 5 percent or greater. Any impacts exceeding this 5 percent threshold will be viewed by Caltrans as significant and warrant appropriate mitigation.

Table 1.7: Level of Service Standards and Thresholds of Significance						
Jurisdiction	**Area**	**LOS Policy**	**Thresholds of Significance**			**Notes**
			Signalized Intersection	**Unsignalized Intersection**	**Roadway Segment**	
County of Sacramento	Inside Urban Service Boundary	E	> 5 seconds (intersection average)	> 5 seconds (movement / approach) and meet traffic signal warrant	> .05 V/C	
	Outside Urban Service Boundary	D				
City of Sacramento	Base	D	≥ 5 seconds (intersection average)		≥ .02 V/C	Deficient LOS may be accepted provided provisions are made to improve the overall system and / or promote non-vehicular transportation
	Exempt Areas	E / F				
City of Elk Grove	All	D	≥ 5 seconds (intersection average)		≥ .05 V/C	
City of Folsom	Base	C	≥ 5 seconds (intersection average)		Not Applicable	
	South of US 50 Specific Plan	D				
City of Rancho Cordova	All	D	> 5 seconds (intersection average)	> 5 seconds (movement / approach) and meet traffic signal warrant	> .05 V/C	
Connector JPA	Base	C	> 5 seconds (intersection average)	N/A	≥ .05 V/C	
	Sheldon	D		N/A	≥ .05 V/C	

1.5.3 Bicycle and Pedestrian Facilities

Impacts to bicycle and pedestrian facilities are considered significant if the proposed project would:

- Eliminate or adversely affect an existing bikeway or pedestrian facility in a way that would discourage its use;
- Interfere with the implementation of a planned bikeway as shown in the Bicycle Master Plan, or be in conflict with the Pedestrian Master Plan; or
- Result in unsafe conditions for bicyclists or pedestrians, including unsafe bicycle / pedestrian, bicycle / motor vehicle, or pedestrian / motor vehicle conflict.

1.5.4 Transit

Impacts to the transit system are considered significant if the proposed project would:

- Adversely affect public transit operations; or,
- Fail to adequately provide access to transit.

1.5.5 Rural Roadway Functionality

Of specific concern in the study area of this project is the functionality of substandard rural roadways. The County's current rural roadway standard consists of two-twelve foot wide travel lanes and six-foot wide paved shoulders. Therefore, any rural roadway not fitting this definition can be considered substandard.

Many of the existing rural roadways in the study area have travel lanes as narrow as 10 feet wide with no roadside shoulders. These roadways were constructed many years ago and tended to serve as roadway connections between small towns and communities and to serve as farm to market roadways. While these narrow roadways have adequately served the travel demand of the historical past, they are not intended to serve the greater travel demands that nearby residential and commercial development may impose.

The County expects that the functionality of these roadways will change with nearby development, the increase in population, the introduction of various modes of travel in the study area, and the addition of project traffic on these substandard roadways. No longer will these roadways only serve farm to market and small communities. With these changes in functionality of the roadway comes the possibility of increased interactions between varying modes of travel (i.e. pedestrians, bicyclists, etc.) as well as the increased interaction between a greater number of vehicles on substandard roads.

General Plan Policy CI-1 states *Provide complete streets to provide safe and efficient access to a diversity of travel modes for all urban, suburban and rural land uses within Sacramento County. Within rural areas of the County, a complete street may be accommodated through roadway shoulders of sufficient width or other means to accommodate all modes of travel.*

General Plan Policy CI-7 states *Plan and construct transportation facilities as delineated on the Transportation Plan of the Sacramento County General Plan. Transportation facilities shall be consistent with the Sacramento County, Municipal Services Agency Improvement Standards…*

General Plan Policy CI-10 states *Land development projects shall be responsible to mitigate the project's adverse impacts to local and regional roadways.*

Therefore, the County has applied an impact standard to these substandard roadways as follows:

Impacts to substandard rural roadway functionality are considered significant if the proposed project would:

- Cause the substandard rural roadway to exceed an average daily traffic volume of 6,000 daily vehicles; or

- Add 600 or more new daily vehicle trips to a substandard rural roadway that already carries 6,000 or more daily vehicles.

Significant impacts shall be mitigated by requiring reconstruction of the substandard rural roadway to the County standard of 12-foot vehicle lanes with 6-foot paved shoulders.

1.6 DEVELOPMENT OF MITIGATION MEASURES

This transportation analysis includes the development of mitigation measures for those impacts that have been determined to exceed the level of service policies. Important considerations in the development of such mitigation measures are feasibility, consistency with the General Plan and secondary impacts. While most impacts could theoretically be mitigated by adding more traffic lanes, grade separations, new roadways, and other similar measures, such mitigation may not be consistent with public policy, and could result in secondary impacts to the environment and other users.

The Sacramento County General Plan Circulation Element provides guidance regarding the development of mitigation measures. In particular, the Circulation Element specifies the maximum number of through lanes for major County roadways. The General Plans of the other jurisdictions in the study area provide similar guidance. In general, for those impacts that exceed the level of service policies, mitigation measures have been developed for the widening of roadway segments to accommodate additional travel lanes up to the maximum number of lanes designated in the general plans.

Similarly, the County and other jurisdictions have typical intersection cross-sections. In general, on each approach to an intersection on a four-lane or six-lane roadway, the typical cross-section includes two left turn lanes, the appropriate number of through lanes (two or three), and a single right turn lane. Exceptions to the typical intersection geometry will be considered on a case-by-case basis and in special circumstances. Mitigation measures that exceed the typical intersection geometry will be noted as so.

In the development of mitigation measures, the number of roadway segment lanes and intersection lanes has been expanded, where appropriate, to reduce impacts. In most cases, the mitigation measure does not exceed the maximum number of roadway lanes identified in the General Plans nor exceeds the typical intersection geometry. In some cases, mitigation measures consistent with the General Plan and the typical intersection geometry may not reduce the impact consistent with the level of service policies. In these cases, an alternative mitigation measure may be considered that may necessitate an amendment to the County's General Plan or deviate from the typical intersection geometry. In other cases where the roadway is already constructed to the full General Plan designation or an intersection is already constructed to the standard intersection geometry and no alternative mitigation measure is feasible, no mitigation measure may be available to reduce the impacts.

1.7 HIGH CAPACITY INTERSECTIONS

The Sacramento County General Plan recognizes that at-grade intersections may not be able to accommodate all traffic demands along the County's busiest roadways. In selected locations, the General Plan designates High Capacity Intersections. A high capacity intersection would utilize special treatments to increase the capacity of the intersection to reduce congestion and travel delay. Since each intersection has unique travel movements, volumes and existing context sensitive conditions, the special treatments utilized at each high capacity intersection will vary to meet the specific needs of each intersection. The range of special treatments is quite wide, ranging from the restriction of certain turning movements to various combinations that could include grade separating certain movements. Special treatments such as the following could be utilized at a high capacity intersection:

- Restricting turning movements
- Median U-turns
- Roundabouts
- Split intersections
- Quadrant roadway intersections
- Bowtie intersections
- Directional flyovers
- Center turn overpass
- Grade separated roundabout
- Diverging diamond grade separation
- Compact diamond grade separation
- Single point urban grade separation
- Traditional urban grade separation

Implementation of a high capacity intersection treatment could result in secondary impacts, including right-of-way, pedestrian and bicycle impacts, restrictions to local access, fiscal, and many others. As there are many possible solutions that would provide an acceptable LOS at any location, each with related impacts, this transportation analysis cannot identify specific high capacity intersection solutions. While high capacity intersections could theoretically mitigate any of the identified LOS impacts, the feasibility of such measures has not been established at this time.

2. EXISTING CONDITIONS

2.1 ROADWAY SYSTEM

Figure 2.1 illustrates the existing roadway network.

2.1.1 Regional Access

Regional automobile access to the site is provided by the freeway system and by State Route 16.

U.S. Highway 50 (US 50) is an east-west freeway that extends from the Interstate 80 (I-80) junction in West Sacramento to Canal Street in the City of Placerville, where it continues as a highway across the Sierra Nevada to South Lake Tahoe and Nevada. Primary access to US 50 is via a series of interchanges, including (from west to east) Howe Avenue, Watt Avenue, Bradshaw Road, Mather Field Road, and Sunrise Boulevard. To the west, US 50 provides access to Central City Sacramento, SR 99, I-5, and I-80. To the east, US 50 provides access to eastern Sacramento County, the cities of Rancho Cordova and Folsom, and El Dorado County.

State Route 16 (SR 16) is a Caltrans facility. In the vicinity of the site, SR 16 is located on **Jackson Road**, which is south of the Mather South project site. The roadway generally travels from west-northwest to east-southeast from Folsom Boulevard to the west into Amador County to the east. It is generally a two-lane roadway with some widening at intersections. To the west, SR 16 continues to US 50 via Folsom Boulevard and Howe Avenue in the City of Sacramento.

2.1.2 Local Access

Direct access to the site is provided primarily via Eagles Nest Road, Kiefer Boulevard, and Zinfandel Drive.

Eagles Nest Road is a north-south roadway that begins at Kiefer Boulevard at the southwest corner of the Mather South project site. North of Kiefer Boulevard, the roadway is named Zinfandel Drive. Eagles Nest Road extends to the south to Grant Line Road. Eagles Nest Road is a two-lane roadway.

Kiefer Boulevard is an east-west roadway that is the southern boundary of the Mather South project site. The roadway consists of two segments, divided by Mather Field. The western segment extends from Florin-Perkins Road in the City of Sacramento through the Rosemont community to Happy Lane. This segment has two to four through lanes. East of Mather Field, the roadway begins at Eagles Nest Road (at the southwest corner of the Mather South project site) and continues easterly to Jackson Road as a two-lane roadway.

Zinfandel Drive is a north-south roadway that is the western boundary of the Mather South project site. Adjacent to the Mather South project site, the roadway is in poor condition and generally not utilized for through traffic. To the north, the roadway continues through the City of Rancho Cordova, providing direct access to US 50. The roadway extends to Sunrise Boulevard. Zinfandel Drive accommodates two to seven through lanes.

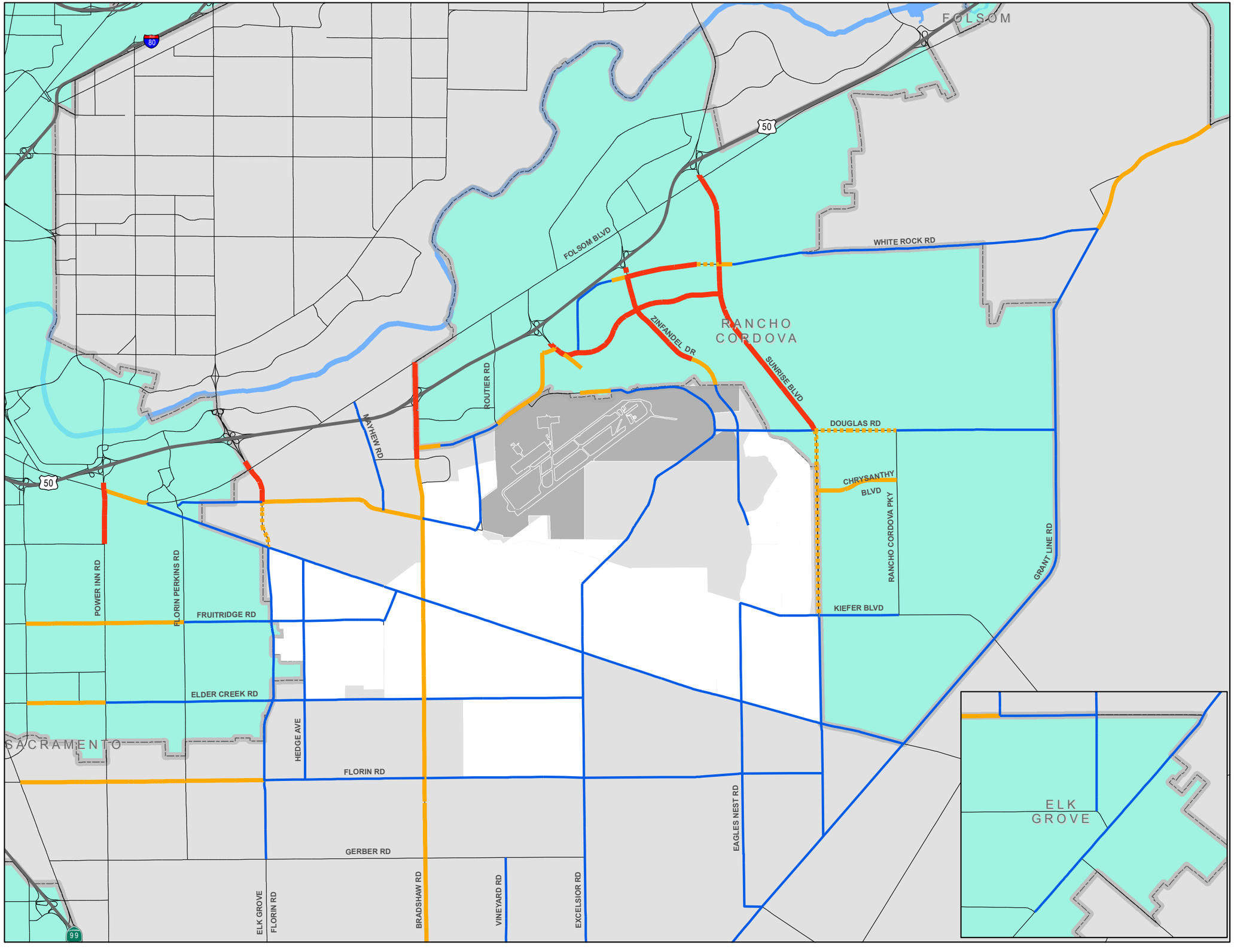


FIGURE 2.1
EXISTING CONDITIONS
ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

2.2 TRANSIT SYSTEM

The Sacramento Regional Transit District (RT) operates 67 bus routes and 38.6 miles of light rail covering a 418 square-mile service area. Buses and light rail run 365 days a year using 76 light rail vehicles, 182 buses (with an additional 30 buses in reserve) powered by compressed natural gas (CNG) and 11 shuttle vans. Buses operate daily from 5 a.m. to 11 p.m. every 12 to 75 minutes, depending on the route. Light rail trains begin operation at 4 a.m. with service every 15 minutes during the day and every 30 minutes in the evening and on weekends. Blue Line and Gold Line trains operate until 12:30 a.m. and the Gold Line to Folsom operates until 7 p.m. Green Line trains operate every 30 minutes Monday through Friday.

Passenger amenities include 50 light rail stops or stations, 31 bus and light rail transfer centers and 18 park-and-ride lots. RT also serves over 3,300 bus stops throughout Sacramento County.[8]

Figure 2.2 illustrates selected RT service near the Mather South project site. The RT Gold Line light rail service is located parallel to Folsom Boulevard north of the Mather South project site. Nearby stations include (from west to east) Watt / Manlove, Starfire, Tiber, Butterfield, Mather Field / Mills, Zinfandel, Cordova Town Center, and Sunrise. No RT bus routes currently provide access to the Mather South project site.

2.3 BICYCLE SYSTEM

Figure 2.3 illustrates the Sacramento County Bikeway Master Plan in the vicinity of the Mather South project site, depicting existing and planned bikeways. An existing Class I bikeway parallels the Folsom South Canal. Future Class II Bikeways are planned on Eagles Nest Road, Kiefer Boulevard, and Zinfandel Drive.

2.4 PEDESTRIAN SYSTEM

The pedestrian sidewalk system is incomplete within the Mather South project site and in many areas in the vicinity of the Mather South project site. As development occurs, sidewalks are being installed along many roadways in the area. With the exception of those locations where such improvements have already occurred, pedestrian access in the immediate vicinity of the Mather South project is limited to roadway shoulders, where such shoulders exist.

2.5 TRAFFIC VOLUMES

Peak period (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) intersection turning movement counts were collected on Tuesdays, Wednesdays, and Thursdays in April and Early May, 2013 for the existing intersections in the study area.

Daily (24-hour) segment counts were collected on Tuesdays, Wednesdays, and Thursdays in April and Early May, 2013 for the existing segments in the study area. The existing daily traffic volumes are summarized later in Section 2.6.1 of this report.

8 http://www.sacrt.com/rtataglance.stm Accessed 14 February 2014.

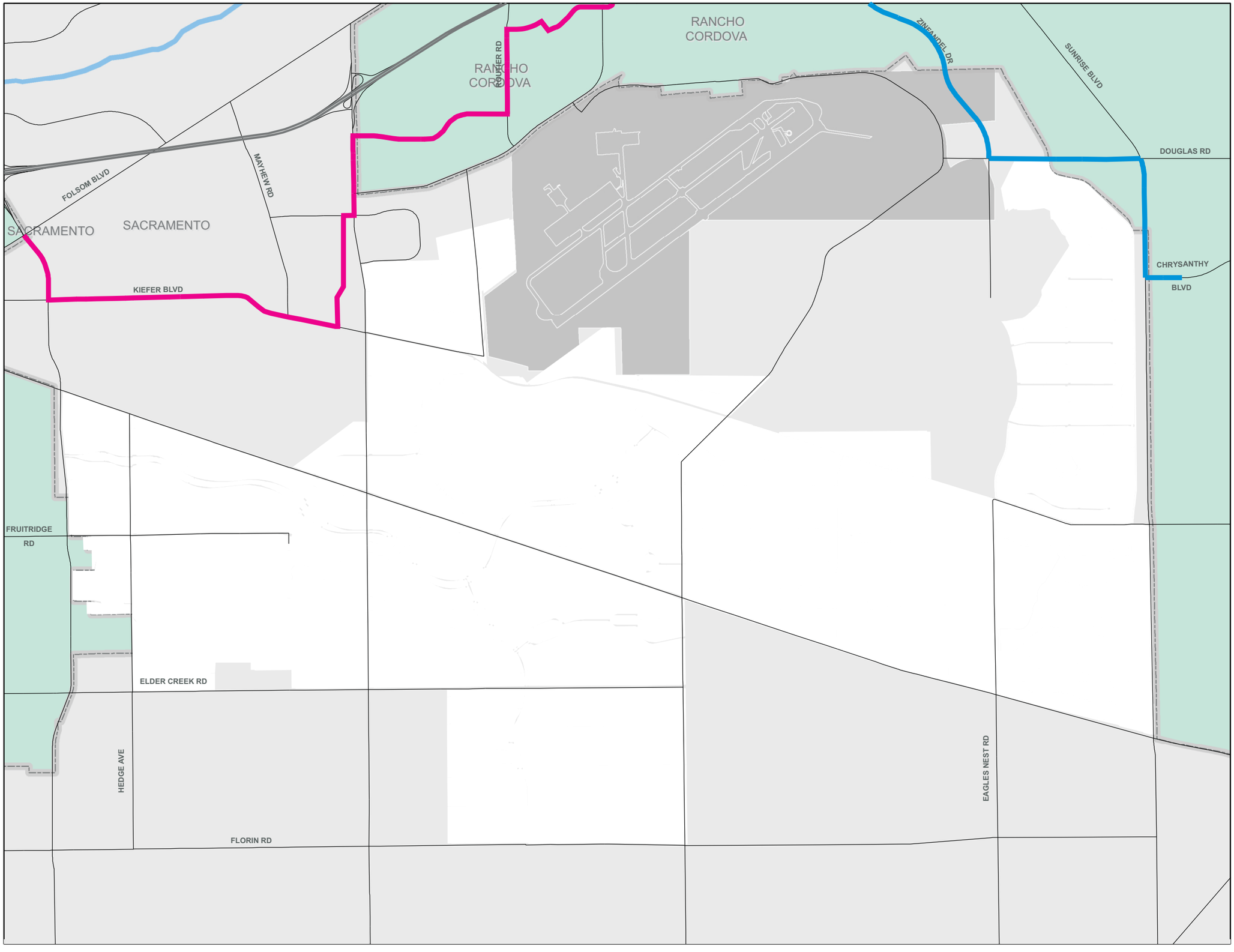


FIGURE 2.2
STUDY AREA TRANSIT NETWORK EXISTING CONDITIONS

Legend

- Route 72 (Rosemont - Lincoln Village)
- Route 76 (Anatolia Shuttle)
- Cities
- Mather Airport

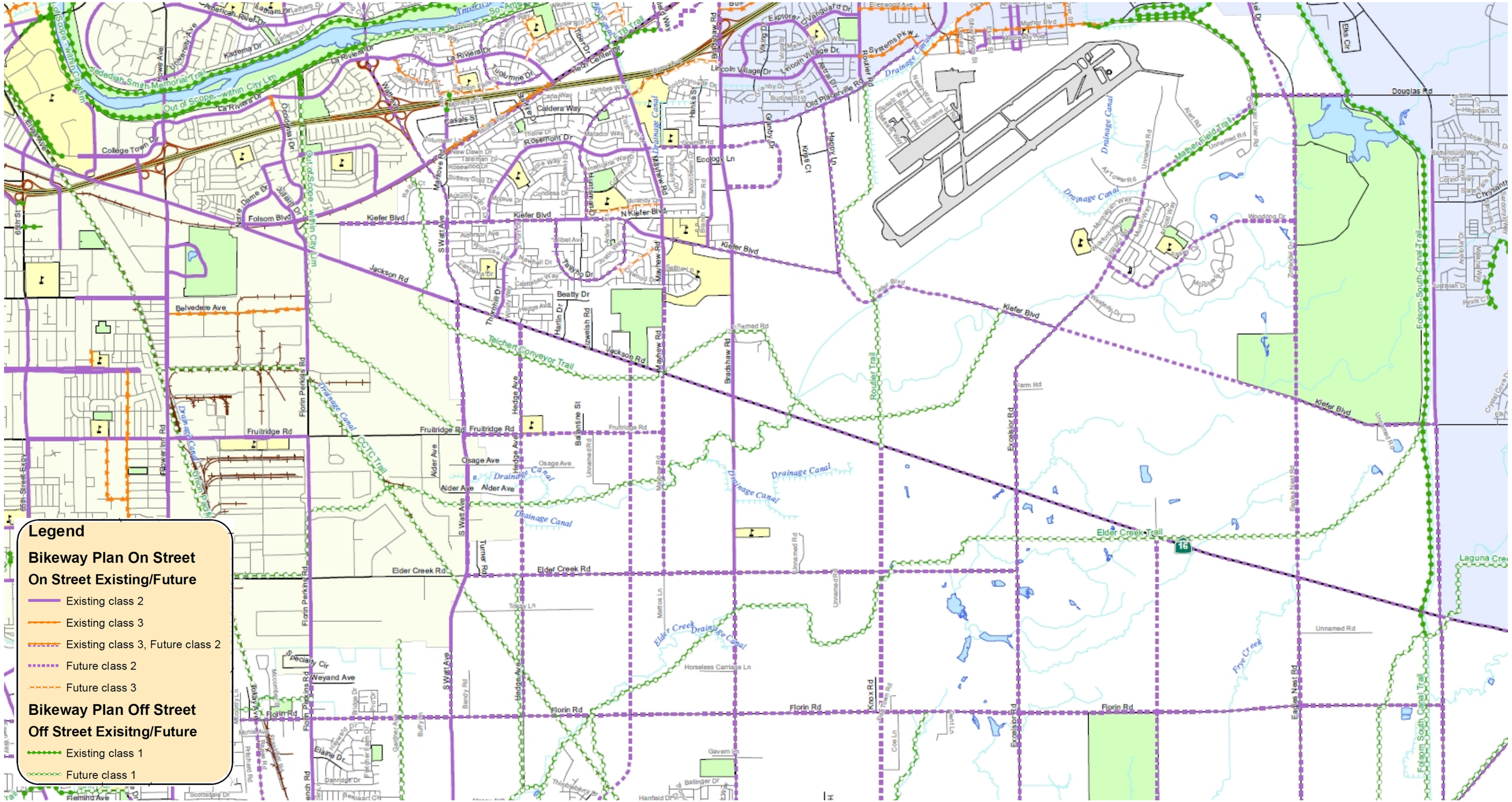


FIGURE 2.3
EXISTING BICYCLE NETWORK

Peak period traffic volumes on the US 50 freeway system (mainline and ramps) were obtained from the California Freeway Performance Measurement System (PeMS). Data recorded on April 16 through 18, 2013, and April 23 through 25, 2013 were utilized in these analyses. Peak hour volumes are summarized later in Section 2.6.3 of this report.

2.6 EXISTING OPERATING CONDITIONS

Figure 2.4 summarizes existing roadway operating conditions.

2.6.1 Roadway Segments

Level of service analyses were also conducted for the roadway segments in the study area based upon daily traffic volumes, number of traffic lanes between intersections, and roadway characteristics. **Table 2.1** summarizes the roadway levels of service, and the performance of the segment compared to the level of service policies of the assigned jurisdiction.

The following segments do not meet the level of service policies:

- Bradshaw Road - US 50 to Lincoln Village Drive
- Elk Grove Florin Road - Florin Road to Gerber Road
- Folsom Boulevard - Howe Avenue to Jackson Road
- Grant Line Road - Calvine Road to Bond Road
- South Watt Avenue - Jackson Road to Florin Road
- Sunrise Boulevard - US 50 to Trade Center Drive
- Sunrise Boulevard - Kiefer Boulevard to Jackson Road
- Watt Avenue - US 50 to Folsom Boulevard

2.6.2 Intersections

Existing intersection geometry (number of approach lanes) is illustrated in tables below.

Table 2.2 summarizes the existing a.m. and p.m. peak hour operating conditions at the study area intersections, and the performance of the segment compared to the level of service policies of the assigned jurisdiction. At two-way stop unsignalized intersections, Sacramento County determines conformity with the level of service policy on an approach / movement basis, while the City of Sacramento utilizes a calculation of the average intersection level of service (similar to signalized intersections and all-way stop intersections). Details of the intersection operating condition calculations are included in the technical appendix.

FIGURE 2.4
EXISTING CONDITIONS ROADWAY SEGMENT AND INTERSECTION LOS

Legend

Intersections (AM Peak Hour)

- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)

- LOS A-D
- LOS E
- LOS F

Roadway Segments

- LOS A-D
- LOS E
- LOS F
- Cities
- Mather Airport

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service
1	Bradshaw Rd	Folsom Blvd	US 50	Rancho Cordova/County	Rancho Cordova	D	6	Arterial M	20,592	0.38	A
2	Bradshaw Rd	US 50	Lincoln Village Dr	Rancho Cordova/County	Rancho Cordova	D	6	Arterial M	52,590	0.97	**E**
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	Rancho Cordova/County	Rancho Cordova	D	6	Arterial M	42,787	0.79	C
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	County	County Urban	E	6	Arterial M	38,984	0.72	C
5	Bradshaw Rd	Goethe Rd	Kiefer Blvd	County	County Urban	E	4	Arterial M	28,651	0.80	C
6	Bradshaw Rd	Kiefer Blvd	Jackson Rd	County	County Urban	E	4	Arterial M	30,726	0.85	D
7	Bradshaw Rd	Jackson Rd	Elder Creek Rd	County	County Urban	E	4	Arterial M	22,871	0.64	B
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	County	County Urban	E	4	Arterial M	22,265	0.62	B
9	Bradshaw Rd	Florin Rd	Gerber Rd	County	County Urban	E	4	Arterial M	22,883	0.64	B
10	Bradshaw Rd	Gerber Rd	Calvine Rd	County	County Urban	E	4	Arterial M	16,984	0.47	A
11	Calvine Rd	Waterman Rd	Bradshaw Rd	Elk Grove/County	Elk Grove	D	4	Arterial M	16,015	0.44	A
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	Elk Grove/County	Elk Grove	D	4	Arterial M	12,395	0.34	A
13	Calvine Rd	Vineyard Rd	Excelsior Rd	Elk Grove/County	Elk Grove	D	2	Arterial M	6,036	0.34	A
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	Rancho Cordova/County	Rancho Cordova	D	4	Arterial M	3,411	0.09	A
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	County Urban	E	2	Arterial M	6,635	0.37	A
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	8,369	0.46	A
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	Rancho Cordova	Rancho Cordova	D	5	Arterial M	3,674	0.10	A
18	Douglas Rd	Rancho Cordova Pkwy	Grant Line Rd	Rancho Cordova	Rancho Cordova	D	2	Arterial M	3,674	0.20	A
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	County Urban	E	2	Arterial M	740	0.04	A
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	County Urban	E	2	Arterial M	517	0.03	A
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	County Urban	E	2	Arterial M	189	0.01	A
22	Elder Creek Rd	65th St	Power Inn Rd	City of Sacramento	City Exempt Roadway	E	4	Arterial M	17,891	0.50	A
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	City of Sacramento	City Default	D	2	Arterial M	15,734	0.87	D
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	City of Sacramento	City Default	D	2	Arterial M	11,092	0.62	B
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	County Urban	E	2	Arterial M	5,576	0.31	A
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	County Urban	E	2	Arterial M	5,797	0.32	A
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	County Urban	E	2	Arterial M	5,355	0.30	A
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	County Urban	E	2	Arterial M	2,158	0.12	A
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	County	County Urban	E	2	Arterial M	22,960	1.28	**F**
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	County Urban	E	2	Arterial M	3,716	0.21	A
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	County Urban	E	2	Arterial M	5,075	0.28	A
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	County Urban	E	2	Arterial M	4,203	0.23	A
33	Excelsior Rd	Florin Rd	Gerber Rd	County	County Urban	E	2	Arterial M	5,423	0.30	A
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	County Urban	E	2	Arterial M	4,229	0.23	A

Bold values do not meet LOS policy.

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service
35	Excelsior Rd	Calvine Rd	Sheldon Rd	Elk Grove	Elk Grove	D	2	Arterial M	4,473	0.25	A
36	Florin Rd	Stockton Blvd	Power Inn Rd	County	County Urban	E	4	Arterial M	27,495	0.76	C
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	County	County Urban	E	4	Arterial M	21,595	0.60	A
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	County	County Urban	E	4	Arterial M	14,163	0.39	A
39	Florin Rd	South Watt Ave	Hedge Ave	County	County Urban	E	2	Arterial M	7,718	0.43	A
40	Florin Rd	Hedge Ave	Mayhew Rd	County	County Urban	E	2	Arterial M	6,312	0.35	A
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	County Urban	E	2	Arterial M	6,317	0.35	A
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	County Urban	E	2	Arterial M	3,478	0.19	A
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	County Urban	E	2	Arterial M	3,835	0.21	A
44	Folsom Blvd	Howe Ave	Jackson Rd	City of Sacramento	City Exempt Roadway	E	4	Arterial M	37,516	1.04	**F**
45	Fruitridge Rd	65th St	Power Inn Rd	City of Sacramento	City Default	D	4	Arterial M	16,634	0.46	A
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	City of Sacramento	City Default	D	4	Arterial M	15,214	0.42	A
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	City of Sacramento	City Default	D	2	Arterial M	10,280	0.57	A
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	City Default	D	2	Arterial M	2,890	0.16	A
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	County Urban	E	2	Arterial M	1,790	0.10	A
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	Rancho Cordova	D	2	Rural NS	7,189	0.42	D
51	Grant Line Rd	Douglas Rd	Kiefer Blvd	Rancho Cordova/County	Rancho Cordova	D	2	Rural S	6,143	0.31	C
52	Grant Line Rd	Kiefer Blvd	Jackson Rd	Rancho Cordova/County	Rancho Cordova	D	2	Rural S	5,758	0.29	C
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	County	County Urban	E	2	Rural S	14,720	0.74	E
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	County	County Urban	E	2	Rural S	14,812	0.74	E
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit	Elk Grove/County	Elk Grove	D	2	Rural S	13,140	0.66	**E**
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd	Elk Grove/County	Elk Grove	D	2	Rural S	13,140	0.66	**E**
56	Grant Line Rd	Sheldon Rd	Wilton Rd	Elk Grove	Elk Grove	D	2	Rural S	17,459	0.87	**E**
57	Grant Line Rd	Wilton Rd	Bond Rd	Elk Grove	Elk Grove	D	2	Rural S	16,064	0.80	**E**
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	County Urban	E	2	Rural S	4,635	0.23	C
58.1	Happy Lane	Old Placerville Road	Routier Ext	County	County Urban	E	2	Rural S	4,635	0.23	C
58.2	Happy Lane	Routier Ext	Kiefer Boulevard	County	County Urban	E	2	Rural S	4,635	0.23	C
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	County Urban	E	2	Arterial M	3,061	0.17	A
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	County Urban	E	2	Arterial M	3,737	0.21	A
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	County Urban	E	2	Arterial M	2,722	0.15	A
62	Howe Ave	US 50	Folsom Blvd	City of Sacramento	City Exempt Roadway	E	6	Arterial M	53,849	1.00	E
63	International Dr	Mather Field Rd	Zinfandel Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	17,500	0.32	A

Bold values do not meet LOS policy.

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service
64	International Dr	Zinfandel Dr	Sunrise Blvd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	8,802	0.16	A
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	City of Sacramento	City Exempt Light Rail	E	2	Arterial M	12,358	0.69	B
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	City Exempt Light Rail	E	2	Arterial M	10,414	0.58	A
67	Jackson Rd	South Watt Ave	Hedge Ave	County	County Urban	E	2	Arterial M	17,060	0.95	E
68	Jackson Rd	Hedge Ave	Mayhew Rd	County	County Urban	E	2	Arterial M	12,616	0.70	C
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	County	County Urban	E	2	Arterial M	14,996	0.83	D
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	County Urban	E	2	Arterial M	13,030	0.72	C
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	County Urban	E	2	Rural Hwy	10,478	0.46	D
72	Jackson Rd	Eagles Nest Rd	Sunrise Blvd	County	County Urban	E	2	Rural Hwy	9,976	0.44	D
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	Rancho Cordova/County	Rancho Cordova	D	2	Rural Hwy	13,306	0.58	D
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	City Exempt Light Rail	E	2	Arterial M	4,616	0.26	A
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	County	County Urban	E	4	Arterial M	18,668	0.52	A
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	County	County Urban	E	4	Arterial M	9,274	0.26	A
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	County Urban	E	2	Arterial M	4,618	0.26	A
77.3	Kiefer Boulevard	Routier Ext	Happy Lane	County	County Urban	E	2	Arterial M	4,618	0.26	A
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	County Urban	E	2	Arterial M	656	0.04	A
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	Rancho Cordova	Rancho Cordova	D	2	Arterial M	2,786	0.15	A
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	Rancho Cordova	Rancho Cordova	D	4	Arterial M	4,373	0.12	A
81	Mather Blvd	Bleckely St	Femoyer St	Rancho Cordova	Rancho Cordova	D	4	Arterial M	4,373	0.12	A
82	Mather Blvd	Femoyer St	Douglas Rd	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	4,373	0.24	A
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	County	County Urban	E	2	Res Collector F	6,751	0.84	E
84	Mather Field Rd	US 50	Rockingham Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	37,755	0.70	B
85	Mather Field Rd	Rockingham Dr	International Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	37,520	0.69	B
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	Rancho Cordova	Rancho Cordova	D	4	Arterial M	14,857	0.41	A
87	Mayhew Rd	Folsom Blvd	Goethe Rd	County	County Urban	E	2	Arterial M	6,977	0.39	A
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	County	County Urban	E	2	Arterial L	6,593	0.44	A
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	County Urban	E	2	Arterial L	1,616	0.11	A
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	Rancho Cordova/County	Rancho Cordova	D	4	Arterial M	15,800	0.44	A
91	Old Placerville Rd	Granby Dr	Happy Ln	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	13,573	0.75	C
92	Old Placerville Rd	Happy Ln	Routier Rd	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	10,710	0.60	A

Bold values do not meet LOS policy.

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service
93	Old Placerville Rd	Routier Rd	Rockingham Dr	Rancho Cordova/County	Rancho Cordova	D	4	Arterial M	10,710	0.30	A
94	Power Inn Rd	Folsom Blvd	14th Ave	City of Sacramento	City Exempt Light Rail	E	6	Arterial M	36,175	0.67	B
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	Rancho Cordova	Rancho Cordova	D	4	Arterial M	19,881	0.55	A
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	County	County Urban	E	6	Arterial M	40,920	0.76	C
97	South Watt Ave	Kiefer Blvd	Jackson Rd	County	County Urban	E	5	Arterial M	32,415	0.90	E
98	South Watt Ave	Jackson Rd	Fruitridge Rd	City of Sacramento/County	City Default	D	2	Arterial M	25,832	1.44	**F**
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	City Default	D	2	Arterial M	21,567	1.20	**F**
100	South Watt Ave	Elder Creek Rd	Florin Rd	City of Sacramento/County	City Default	D	2	Arterial M	19,069	1.06	**F**
101	Sunrise Blvd	US 50	Folsom Blvd	Rancho Cordova	Rancho Cordova	D	7	Arterial M	54,500	1.01	**F**
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	49,500	0.92	**E**
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	34,571	0.64	B
104.1	Sunrise Blvd	White Rock Rd	International Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	25,811	0.48	A
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	Rancho Cordova	Rancho Cordova	D	6	Arterial M	28,400	0.53	A
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	25,811	0.48	A
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	Rancho Cordova/County	Rancho Cordova	D	5	Arterial M	21,878	0.61	B
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	16,894	0.94	**E**
107	Sunrise Blvd	Jackson Rd	Florin Rd	County	County Urban	E	2	Rural S	11,181	0.56	D
108	Sunrise Blvd	Florin Rd	Grant Line Rd	County	County Urban	E	2	Rural S	7,752	0.39	D
109	Vineyard Rd	Gerber Rd	Calvine Rd	County	County Urban	E	2	Arterial M	5,515	0.31	A
110	Watt Ave	US 50	Folsom Blvd	City of Sacramento/County	City Exempt Light Rail	E	6	Arterial H	65,242	1.09	**F**
111	White Rock Rd	International Rd	Quality Dr	Rancho Cordova	Rancho Cordova	D	2	Arterial M	3,962	0.22	A
112	White Rock Rd	Quality Dr	Zinfandel Dr	Rancho Cordova	Rancho Cordova	D	4	Arterial M	11,200	0.31	A
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	14,756	0.27	A
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	Rancho Cordova	Rancho Cordova	D	5	Arterial M	14,756	0.41	A
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	Rancho Cordova	Rancho Cordova	D	4	Arterial M	15,433	0.43	A
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	Rancho Cordova	D	2	Rural NS	2,490	0.15	B
117	White Rock Rd	Grant Line Rd	Prairie City Rd	County	County Urban	E	4	Arterial M	9,400	0.26	A
118	Zinfandel Dr	US 50	White Rock Rd	Rancho Cordova	Rancho Cordova	D	7	Arterial M	45,228	0.84	D
119	Zinfandel Dr	White Rock Rd	International Rd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	17,923	0.33	A
120	Zinfandel Dr	International Rd	Baroque Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	7,595	0.14	A
121	Zinfandel Dr	Baroque Dr	City Limit	Rancho Cordova	Rancho Cordova	D	4	Arterial M	7,595	0.21	A
122	Zinfandel Dr	City Limit	Douglas Rd	County	County Urban	E	2	Arterial M	7,595	0.42	A
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	County Urban	E	2	Arterial M	2,848	0.16	A

Bold values do not meet LOS policy.

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
1	Howe Ave & College Town Dr/US 50 WB Ramps	City of Sacramento	City Exempt Roadway	E	Signal	D	36.6	Signal	D	44.4
2	Howe Ave & US 50 EB Ramps	City of Sacramento	City Exempt Roadway	E	Signal	B	16.9	Signal	C	20.5
3	Power Inn Rd/Howe Ave & Folsom Blvd	City of Sacramento	City Exempt Roadway	E	Signal	D	39.1	Signal	D	55.0
4	Power Inn Rd & 14th Ave	City of Sacramento	City Default	D	Signal	C	31.5	Signal	D	39.6
5	Power Inn Rd & Fruitridge Rd	City of Sacramento	City Default	D	Signal	D	43.4	Signal	C	33.5
6	Jackson Rd/Notre Dame Dr. & Folsom Blvd.	City of Sacramento	City Exempt Roadway	E	Signal	D	36.8	Signal	C	32.1
7	Florin Perkins Rd/Julliard Dr. & Folsom Blvd	City of Sacramento	City Exempt Roadway	E	Signal	D	39.0	Signal	E	55.6
8	Florin Perkins Rd & Kiefer Blvd.	City of Sacramento	City Exempt Light Rail	E	Two-way stop			Two-way stop		
	Westbound Left Turn					*C*	*20.1*		*C*	*23.3*
	Westbound Right Turn					*B*	*13.3*		*B*	*12.6*
	Southbound Left Turn					*A*	*10.0*		*B*	*10.9*

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
9	Florin Perkins Rd & Jackson Rd	City of Sacramento	City Exempt Light Rail	E	Signal	D	51.5	Signal	D	54.1
10	Florin Perkins Rd & Fruitridge Rd	City of Sacramento	City Exempt Roadway	E	Signal	C	25.1	Signal	C	25.4
11	Florin Perkins Rd & Elder Creek Rd	City of Sacramento	City Exempt Roadway	E	Signal	C	25.7	Signal	C	26.2
12	Watt Ave & Folsom Blvd.	County	County Urban	E	Signal	E	66.2	Signal	E	71.9
13	S. Watt Ave. & Reith Ct/Manlove Rd	County	County Urban	E	Signal	B	19.6	Signal	D	54.1
14	S. Watt Ave & Kiefer Blvd.	County	County Urban	E	Signal	E	56.0	Signal	E	75.9
15	S. Watt Ave & Canberra Dr.	County	County Urban	E	Signal	B	11.5	Signal	A	9.7
16	S. Watt Ave & Jackson Rd	County	County Urban	E	Signal	E	62.5	Signal	E	66.4
17	S. Watt Ave & Fruitridge Rd	City of Sacramento / County	City Default	D	Signal	D	38.1	Signal	D	41.7
18	S. Watt Ave & Elder Creek Rd	City of Sacramento / County	City Default	D	Signal	E	62.7	Signal	E	68.8

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
20	Elk Grove Florin Rd/S. Watt Ave. & Florin Rd	County	County Urban	E	Signal	D	54.7	Signal	D	51.8
21	Elk Grove Florin Rd & Gerber Rd	County	County Urban	E	Signal	D	49.1	Signal	E	64.6
23	Hedge Ave & Jackson Rd	County	County Urban	E	Signal	D	35.1	Signal	D	37.3
24	Hedge Ave & Fruitridge Rd	County	County Urban	E	All-way stop	B	13.6	All-way stop	A	9.4
25	Hedge Ave & Elder Creek Rd	County	County Urban	E	All-way stop	C	15.9	All-way stop	B	11.6
26	Hedge Ave & Tokay Lane	County	County Urban	E	Two-way stop			Two-way stop		
	Northbound Left Turn			*E*		*A*	*0.0*		*A*	*0.0*
	Southbound Left Turn			*E*		*A*	*8.0*		*A*	*7.3*
	Eastbound			*E*		*B*	*12.2*		*B*	*10.2*
	Westbound			*E*		*B*	*11.1*		*A*	*9.6*
27	Hedge Ave & Florin Rd	County	County Urban	E	All-way stop	B	12.9	All-way stop	B	11.1
28	Mayhew Rd & Kiefer Blvd	County	County Urban	E	Signal	D	48.6	Signal	D	51.1

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
29	Mayhew Rd & Jackson Rd	County	County Urban	E	Two-way stop			Two-way stop		
	Northbound Through - Left Turn			*E*		*D*	*27.6*		*D*	*34.0*
	Northbound Right Turn			*E*		*B*	*11.8*		*C*	*15.0*
	Southbound			*E*		*C*	*18.3*		*C*	*24.9*
	Eastbound Left Turn			*E*		*A*	*8.9*		*A*	*8.4*
	Westbound Left Turn			*E*		*A*	*8.3*		*A*	*9.3*
30	Mayhew Rd & Fruitridge Rd	County	County Urban	E	Two-way stop			Two-way stop		
	Northbound Left Turn			*E*		*A*	*0.0*		*A*	*7.4*
	Eastbound			*E*		*A*	*9.2*		*A*	*9.2*

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
31	Mayhew Rd & Elder Creek Rd	County	County Urban	E	Two-way stop			Two-way stop		
	Northbound			*E*		*B*	*11.9*		*B*	*10.9*
	Southbound			*E*		*B*	*11.1*		*A*	*9.8*
	Eastbound Left Turn			*E*		*A*	*8.3*		*A*	*7.6*
	Westbound Left Turn			*E*		*A*	*7.5*		*A*	*0.0*
32	Woodring Dr & Zinfandel Dr	County	County Urban	E	Two-way stop			Two-way stop		
	Eastbound			*E*		*A*	*9.3*		*A*	*9.3*
	Northbound Left Turn			*E*		*A*	*0.0*		*A*	*0.0*
33	Bradshaw Rd & Folsom Blvd.	City of Rancho Cordova / County	Rancho Cordova	D	Signal	E	56.7	Signal	D	49.9
34	Bradshaw Rd & US 50 WB Ramps	City of Rancho Cordova / County	Rancho Cordova	D	Signal	B	15.9	Signal	B	15.2
35	Bradshaw Rd & US 50 EB Ramps	City of Rancho Cordova / County	Rancho Cordova	D	Signal	C	24.4	Signal	B	16.0
36	Bradshaw Rd & Old Placerville Rd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	D	45.9	Signal	D	52.0
37	Bradshaw Rd & Kiefer Blvd	County	County Urban	E	Signal	D	45.7	Signal	E	66.2

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
38	Bradshaw Rd & Jackson Rd	County	County Urban	E	Signal	E	73.1	Signal	E	59.4
39	Bradshaw Rd & Elder Creek Rd	County	County Urban	E	Signal	D	36.8	Signal	D	36.1
40	Bradshaw Rd & Florin Rd	County	County Urban	E	Signal	D	38.1	Signal	D	53.6
41	Bradshaw Rd & Gerber Rd	County	County Urban	E	Signal	E	72.2	Signal	D	49.9
42	Happy Lane & Old Placerville Rd	City of Rancho Cordova / County	Rancho Cordova	D	Two-way stop			Two-way stop		
	Northbound Left Turn			*D*		*F*	*64.8*		*F*	*95.9*
	Northbound Right Turn			*D*		*D*	*30.6*		*C*	*15.4*
	Westbound Left Turn			*D*		*B*	*10.2*		*B*	*10.1*
45	Excelsior Rd & Jackson Rd	County	County Urban	E	Signal	D	36.7	Signal	D	40.3
46	Excelsior Rd & Elder Creek Rd	County	County Urban	E	Two-way stop			Two-way stop		
	Northbound Left Turn			*E*		*A*	*7.5*		*A*	*8.0*
	Eastbound			*E*		*C*	*18.6*		*B*	*12.3*

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
47	Excelsior Rd & Florin Rd	County	County Urban	E	All-way stop	C	24.9	All-way stop	B	12.5
48	Excelsior Rd & Gerber Rd/Birch Ranch Dr	County	County Urban	E	All-way stop	B	14.0	All-way stop	B	10.6
49	Mather Field Rd & US 50 WB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	C	24.7	Signal	A	9.4
50	Mather Field Rd & US 50 EB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	C	27.7	Signal	B	13.4
51	Mather Field Rd & Rockingham Dr	City of Rancho Cordova	Rancho Cordova	D	Signal	E	56.4	Signal	D	54.7
52	Mather Blvd & Douglas Rd	County	County Urban	E	All-way stop	E	39.3	All-way stop	C	15.5
53	Zinfandel Dr & US 50 WB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	B	16.4	Signal	D	51.7
54	Zinfandel Dr & US 50 EB Ramps/Gold Center Dr	City of Rancho Cordova	Rancho Cordova	D	Signal	D	40.0	Signal	E	60.1
55	Zinfandel Dr & White Rock Rd	City of Rancho Cordova	Rancho Cordova	D	Signal	D	47.7	Signal	D	54.7
56	Zinfandel Dr & Data Dr	City of Rancho Cordova	Rancho Cordova	D	Signal	D	49.3	Signal	D	52.9

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
57	Zinfandel Dr & International Dr	City of Rancho Cordova	Rancho Cordova	D	Signal	C	34.0	Signal	D	48.5
58	Zinfandel Dr & Douglas Rd	County	County Urban	E	Signal	E	55.5	Signal	D	54.2
60	Eagles Nest Rd & Jackson Rd	County	County Urban	E	Two-way stop			Two-way stop		
	Northbound			*E*		*C*	*22.0*		*C*	*23.8*
	Southbound			*E*		*B*	*13.9*		*C*	*22.0*
	Eastbound Left Turn			*E*		*A*	*8.8*		*A*	*7.9*
	Westbound Left Turn			*E*		*A*	*7.9*		*A*	*8.7*
61	Eagles Nest Rd & Florin Rd	County	County Urban	E	Two-way stop			Two-way stop		
	Northbound			*E*		*B*	*12.7*		*B*	*12.1*
	Southbound			*E*		*B*	*10.0*		*B*	*10.5*
	Eastbound Left Turn			*E*		*A*	*7.7*		*A*	*7.7*
	Westbound Left Turn			*E*		*A*	*0.0*		*A*	*7.6*
62	Sunrise Blvd & US 50 WB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	D	44.7	Signal	B	19.7
63	Sunrise Blvd & US 50 EB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	B	16.9	Signal	B	17.6

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
64	Sunrise Blvd & Folsom Blvd	City of Rancho Cordova	Rancho Cordova	D	Signal	D	54.4	Signal	D	48.6
65	Sunrise Blvd & White Rock Rd	City of Rancho Cordova	Rancho Cordova	D	Signal	D	47.8	Signal	D	51.6
66	Sunrise Blvd & International Dr/Monier Circle	City of Rancho Cordova	Rancho Cordova	D	Signal	D	47.8	Signal	D	45.8
67	Sunrise Blvd & Douglas Rd	City of Rancho Cordova	Rancho Cordova	D	Signal	D	51.7	Signal	D	46.5
68	Sunrise Blvd & Chrysanthy Blvd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	C	27.0	Signal	C	21.0
69	Sunrise Blvd & Kiefer Blvd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	D	53.6	Signal	C	27.0
70	Sunrise Blvd & Jackson Rd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	E	57.0	Signal	D	47.2
71	Sunrise Blvd & Florin Rd	County	County Urban	E	Signal	B	11.3	Signal	D	48.3
72	Sheldon Lake Dr/Sunrise Blvd & Grant Line Rd	County [Connector JPA]	County [Connector JPA]	E [C]	Signal	D	43.2	Signal	D	40.7
73	Hazel Ave & Tributary Point Dr/US 50 WB Off-ramp	County	County Urban	E	Signal	C	31.2	Signal	D	41.4

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

Intersection		Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
74	Hazel Ave & US 50 EB Ramps	City of Rancho Cordova / County	Rancho Cordova	D	Signal	C	20.6	Signal	C	29.9
75	Hazel Ave & Folsom Blvd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	D	51.7	Signal	D	46.7
76	Prairie City Rd & White Rock Rd	City of Folsom / County [Connector JPA]	Folsom / [Connector JPA]	C [C]	Signal	B	19.2	Signal	B	15.0
77	Grant Line Rd & White Rock Rd	County [Connector JPA]	County [Connector JPA]	E [C]	Signal	B	10.9	Signal	B	11.2
78	Grant Line Rd & Douglas Rd	City of Rancho Cordova / County [Connector JPA]	Rancho Cordova [Connector JPA]	D [C]	All-way stop	C	15.2	All-way stop	B	12.3
79	Grant Line Rd & Kiefer Blvd	City of Rancho Cordova / County [Connector JPA]	Rancho Cordova [Connector JPA]	D [C]	All-way stop	B	11.4	All-way stop	B	10.5
80	Grant Line Rd & Jackson Rd	City of Rancho Cordova / County [Connector JPA]	Rancho Cordova [Connector JPA]	D [C]	Signal	E	74.0	Signal	E	78.9
81	Watt Ave & US-50 EB Ramps	City of Sacramento / County	City Exempt Light Rail	E	Signal	B	13.0	Signal	B	14.9

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
82	Watt Ave & US-50 WB Ramps	City of Sacramento / County	City Default	D	Signal	C	32.9	Signal	C	28.6
83	Mayhew Rd & Folsom Blvd.	County	County Urban	E	Signal	B	19.8	Signal	C	20.1
84	65th Street Expy & Fruitridge Rd	City of Sacramento	City Default	D	Signal	C	31.2	Signal	D	35.3
85	Power Inn Rd & Elder Creek Rd	City of Sacramento	City Exempt Roadway	E	Signal	D	35.2	Signal	D	36.3
86	Power Inn Rd & Florin Rd	County	County Urban	E	Signal	D	36.3	Signal	D	45.9
87	Florin Perkins Rd & Florin Rd	County	County Urban	E	Signal	D	36.7	Signal	C	32.5
88	Bradshaw Rd & Calvine Rd	City of Elk Grove / County	Elk Grove	D	Signal	C	30.5	Signal	D	36.9
89	Vineyard Rd & Calvine Rd	City of Elk Grove / County	Elk Grove	D	Signal	C	30.8	Signal	C	34.9
90	Excelsior Rd & Calvine Rd	City of Elk Grove / County	Elk Grove	D	All-way stop	C	16.6	All-way stop	B	13.0
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	County [Connector JPA]	County [Connector JPA]	E [C]	Signal	D	51.7	Signal	D	46.5

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

Intersection		Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
92	Grant Line Rd & Calvine Rd	City of Elk Grove / County [Connector JPA]	Elk Grove [Connector JPA]	D [C]	Signal	C	21.4	Signal	C	24.0
93	Grant Line Rd & Dwy/Wilton Rd	City of Elk Grove / Connector JPA	Elk Grove [Connector JPA]	D [C]	Signal	E	65.9	Signal	E	64.8
94	Grant Line Rd & Bond Rd/Wrangler Dr	City of Elk Grove / Connector JPA	Elk Grove [Connector JPA]	D [C]	Signal	C	33.3	Signal	D	46.4

[1] The following classifications are used to determine the applicable LOS Policy:
County Rural - Sacramento County, Outside Urban Service Boundary
County Urban - Sacramento County, Within Urban Service Boundary
City Default - City of Sacramento, Base Level of Service Standard
City Exempt Roadway - City of Sacramento, Roadways Exempt from Base Level of Service Standard
City Exempt Light Rail - City of Sacramento, Within 1/2 Mile Walking Distance of Light Rail Station

Bold values do not meet LOS policy.

The following intersections do not meet the level of service policies:

- South Watt Avenue and Elder Creek Road - a.m. and p.m. peak hours
- Bradshaw Road and Folsom Boulevard - a.m. peak hour
- Happy Lane and Old Placerville Road - northbound left turn - a.m. and p.m. peak hours
- Mather Field Road and Rockingham Drive - a.m. peak hour
- Zinfandel Drive and US 50 Eastbound Ramps / Gold Center Drive - p.m. peak hour
- Sunrise Boulevard and Jackson Road - a.m. peak hour
- Grant Line Road and Jackson Road - a.m. and p.m. peak hours
- Grant Line Road and Wilton Road - a.m. and p.m. peak hours

2.6.3 U.S. 50 Freeway

2.6.3.1 Freeway Basic Segments

Table 2.3 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. The following locations exhibit LOS F conditions:

- Eastbound
  - Stockton Boulevard to 59th Street - a.m. and p.m. peak hours
  - Bradshaw Road to Mather Field Road - a.m. peak hour
  - Zinfandel Drive to Hazel Avenue - p.m. peak hour
- Westbound
  - Mather Field Road to Watt Avenue - a.m. peak hour
  - Watt Avenue to 59th Street - a.m. and p.m. peak hours
  - 59th Street to SR 51 / SR 99 - p.m. peak hour

2.6.3.2 Freeway Merge / Diverge / Weave Segments

Table 2.4 summarizes a.m. and p.m. peak hour freeway operations at merge/diverge/weave segments. Details of the analysis are included in the technical appendix. The following locations exhibit LOS F conditions:

- Eastbound
  - Watt Avenue Entrance Merge - a.m. peak hour
  - Mather Field Road to Zinfandel Drive weave - a.m. peak hour
- Westbound
  - Sunrise Boulevard Entrance - a.m. peak hour

2.6.3.3 Freeway Ramp Intersection Queuing

Table 2.5 summarizes a.m. and p.m. peak hour freeway ramp intersection queuing. None of the existing queues extends onto the freeway mainline.

Table 2.3: Existing Peak Hour Freeway Basic Segment Level of Service

Direc-tion	Location	Mixed Flow Lanes	AM Peak Hour			PM Peak Hour		
			Volume	Density	LOS	Volume	Density	LOS
East-bound US 50	SR 99 / SR 51 to Stockton Boulevard	5	7,068	23.46	C	6,415	23.33	C
	Stockton Boulevard to 59th Street	5	7,470	35.05	**F**	7,228	41.46	**F**
	59th Street to 65th Street	4	6,767	27.40	D	6,641	28.36	D
	65th Street to Howe Avenue	5	7,962	28.05	D	7,562	29.71	D
	Howe Avenue to Watt Avenue	4	7,405	31.77	D	7,602	33.01	D
	Watt Avenue to Bradshaw Road	4	7,935	27.22	D	7,176	24.80	C
	Bradshaw Rd to Mather Field Rd	4	7,725	45.10	**F**	7,366	25.50	C
	Mather Field Rd to Zinfandel Drive	5	7,275	19.18	C	7,224	20.13	C
	Zinfandel Drive to Sunrise Blvd	4	5,121	20.08	C	6,649	42.12	**F**
	Sunrise Boulevard to Hazel Avenue	3	4,985	27.67	D	5,323	37.30	**F**
West-bound US 50	Hazel Avenue to Sunrise Boulevard	3	6,068	32.91	D	4,370	23.17	C
	Sunrise Blvd to Zinfandel Drive	4	7,502	33.31	D	4,762	19.30	C
	Zinfandel Drive to Mather Field Rd	5	7,548	21.96	C	5,765	14.85	B
	Mather Field Rd to Bradshaw Road	4	7,859	44.40	**F**	6,939	28.66	D
	Bradshaw Road to Watt Avenue	4	7,488	53.92	**F**	6,466	32.91	D
	Watt Avenue to Howe Avenue	5	7,376	53.44	**F**	6,234	28.04	**F**
	Howe Avenue to 65th Street	5	8,157	35.68	**F**	7,407	41.55	**F**
	65th Street to 59th Street	4	8,278	44.85	**F**	7,358	51.56	**F**
	59th Street to Stockton Boulevard	5	9,115	29.39	D	7,945	32.31	**F**
	Stockton Boulevard to SR 99 / SR 51	5	8,546	31.89	D	8,136	33.25	**F**

Density = passenger cars per hour per lane (pc/ph/pl). **Bold** values denote level of service "F" conditions.

Source: *DKS Associates, 2018.*

Table 2.4: Existing Peak Hour Freeway Merge/Diverge/Weave Segment Level of Service						
Direc-tion	**Location**	**Junction Type**	**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**
East-bound US 50	Northbound 65th Street Slip Entrance	Weave	765	D	653	C
	Howe Avenue / Hornet Drive Exit		1,631		1,417	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	484	C	881	C
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	419	C	431	C
	Watt Avenue Exit	Two-Lane Diverge	1,317	B	1,634	B
	Watt Avenue Entrance	One-Lane Merge	2,134	**F**	1,724	D
	Bradshaw Road Exit	Two-Lane Diverge	1,520	B	1,228	B
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	220	C	422	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	971	C	918	C
	Mather Field Road Exit	Two-Lane Diverge	1,266	B	1,062	A
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	125	C	101	B
	Northbound Mather Field Road Slip Entrance	Weave	317	**F**	816	C
	Zinfandel Drive Exit		2,932		1,452	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	182	B	129	C
	Northbound Zinfandel Drive Slip Entrance	One-Lane Merge	348	B	540	C
	Sunrise Boulevard Exit	Major Diverge	1,773	C	1,959	D
	Sunrise Boulevard Entrance	One-Lane Merge	992	C	889	D
	Hazel Avenue Exit	Two-Lane Diverge	933	B	1,541	C
	Hazel Avenue Entrance	Weave	804	C	945	C
	Aerojet Road Exit		241		55	

Table 2.4: Existing Peak Hour Freeway Merge/Diverge/Weave Segment Level of Service						
Direc-tion	**Location**	**Junction Type**	**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**
West-bound US 50	Hazel Avenue Exit	Two-Lane Diverge	631	A	869	A
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	160	B	600	B
	Southbound Hazel Avenue Slip Entrance	One-Lane Merge	1,550	B	800	B
	Sunrise Boulevard Exit	One-Lane Diverge	749	E	758	D
	Sunrise Blvd Entrance	Lane Addition	2,183	**F**	1,656	D
	Zinfandel Drive Exit	One-Lane Diverge	1,034	E	608	C
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	585	B	1,197	B
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	442	C	561	B
	Mather Field Road Exit	One-Lane Drop	1,093	C	556	A
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	515	B	861	B
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	387	B	380	B
	Bradshaw Road Exit	Two-Lane Diverge	1,236	B	1,327	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	914	D	910	C
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	338	D	590	C
	Watt Avenue Exit	Major Diverge	1,373	D	1,188	C
	Northbound Watt Avenue Entrance	One-Lane Merge	820	D	943	C
	Southbound Watt Avenue Slip Entrance	Lane Addition / Weave	1,232	C	1,317	D
	Howe Avenue Exit	Major Diverge / Weave	1,531	D	1,419	
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	654	D	602	C
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	574	C	574	C

Bold values denote level of service "F" conditions.

Source: *DKS Associates, 2018.*

Table 2.5: Existing Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					Existing AM Peak Hour			Existing PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	200	-	378	224	-	247
	Watt Avenue	1,500	-	1,500	179	-	201	254	-	181
	Bradshaw Road	1,250	-	1,250	198	-	509	164	-	414
	Mather Field Road	1,385	-	1,385	207	-	554	271	-	61
	Zinfandel Drive	1,025	1,025	1,025	218	810	746	430	361	131
	Sunrise Boulevard	1,695	-	1,695	283	-	184	360	-	76
	Hazel Avenue	1,310	-	1,310	317	-	76	808	-	29
Westbound US-50	Hazel Avenue	1,995		1,995	271		48	281	271	499
	Sunrise Boulevard	1,540	-	1,540	134	-	165	133	-	172
	Zinfandel Drive	1,065	-	1,065	390	-	68	132	-	199
	Mather Field Road	1,335	-	1,335	594	-	538	222	-	97
	Bradshaw Road	1,330	-	1,330	326	-	107	389	-	31
	Watt Avenue	1,480	-	1,480	147	-	448	94	-	425
	Howe Avenue	1,355	1,355	1,355	192	412	123	241	412	239

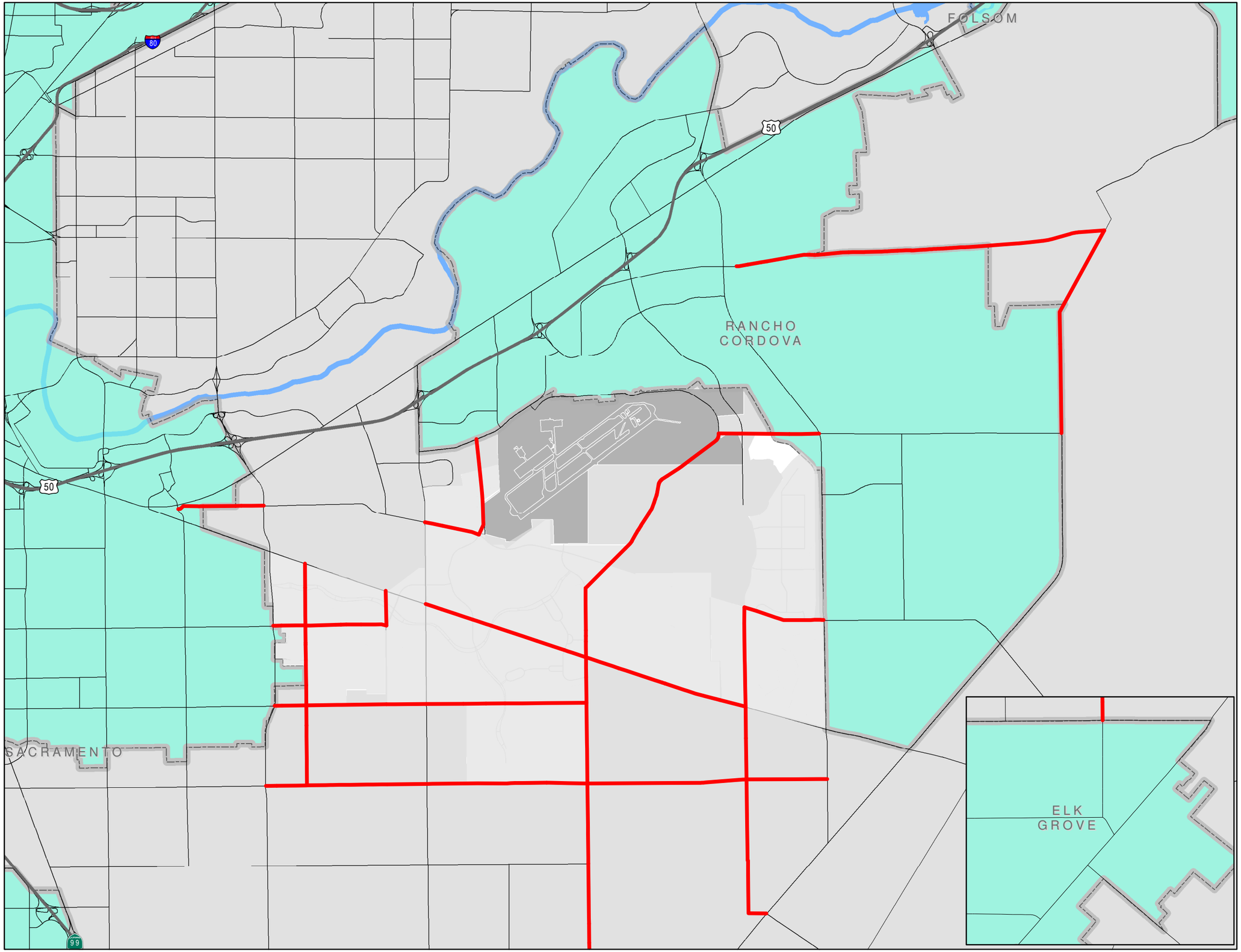
L = left turn movement, T = through movement, R = right turn movement

Source: *DKS Associates, 2018.*

2.6.4 Rural Roadway Functionality

Figure 2.5 shows rural roadway segments that currently do not meet the County standard of 12-foot vehicle lanes with 6-foot paved shoulders. Sacramento County is currently the only jurisdiction that has policies regarding the functionality of rural roadways, therefore the functionality of rural roadways in other jurisdictions was not considered in the traffic study. **Table 2.6** summarizes substandard County rural roadways in the study area.

FIGURE 2.5
EXISTING SUBSTANDARD ROADWAYS



Legend

- Substandard Roadways
- Cities
- Mather Airport

Table 2.6
Existing Substandard Roadway Segments

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722

Table 2.6
Existing Substandard Roadway Segments

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

3. EXISTING PLUS MATHER SOUTH PROJECT

3.1 MATHER SOUTH PROJECT DESCRIPTION

As illustrated previously in Figure 1.1, the Mather South project is located in unincorporated Sacramento County, generally east of the City of Sacramento, south and east of the City of Rancho Cordova, and south of Mather Airport. It is bounded on the south by Kiefer Boulevard, on the west by Zinfandel Drive, and on the east by the Folsom South Canal (which parallels the west side of Sunrise Boulevard). The north boundary is south of Douglas Road.

3.1.1 Land Use

Table 3.1 summarizes the Mather South project land use.

The SACSIM model (used to estimate travel demand by travel mode) requires estimates of the number and demographics of people who would live in each household as well as key social/economic characteristics of each household. SACOG helped estimate the required household demographics based on the number housing units by density category and detailed local Census data compiled by housing types.

SACSIM also requires employment by type for each parcel in the Mather South project. The applicant provided number of acres and square feet by non-residential category on each parcel. Employment estimates were then estimated using average square feet per employee and per student. The environmental education campus contains 200 high-density residential units and 275,000 square feet of employment space, which was assumed to have a mixed commercial and office character. The research and development campus contains 325,000 square feet of employment space, which was assumed to have a primarily office character. The total employment in the Mather South project was estimated to be about 2,350.

The model also requires the estimated enrollment at each school within the Mather South project. The total enrollment for the two elementary schools was estimated at about 1,500 students. Some of those students would come from housing units outside the Mather South project.

3.1.2 Transportation Network

3.1.2.1 Roadway Segments and Intersections

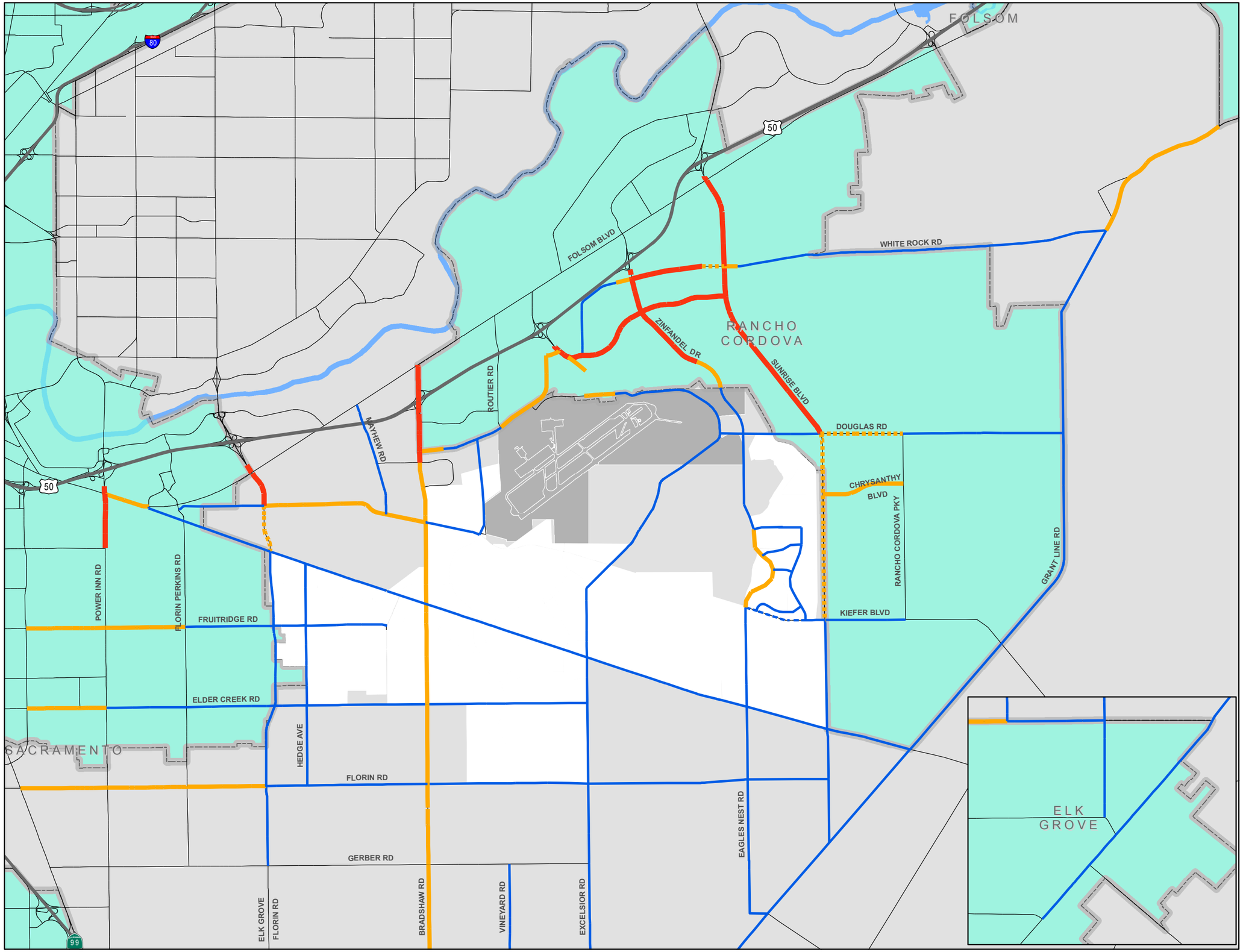
Figure 3.1 illustrates the Mather South project transportation network. The Mather South project would widen and / or complete many roadways that cross or border the site, and would include new roadways to serve the proposed land use. Sections 3.4.1 and 3.4.2 include information regarding the roadway segment and intersection improvements that are considered part of the Mather South project.

3.1.2.2 Pedestrian and Bicycle Facilities

Figure 3.2 illustrates the proposed bikeway plan of the Mather South project. The roadways within the Mather South project would meet County standards, which would provide sidewalks and on- street (Class II) bike lanes on all collector, arterial and thoroughfare roadways. The Mather South project also provides several off-street (Class I) multi-purpose trails.

Table 3.1: Land Use Summary for the Mather South Specific Plan Amendment						
		Residential			Non-Residential	
Land Use Category	Acres	Density Range	Ave Density	Dwelling Units	Floor Area Ratio	Estimated Square Feet
Low Density	308.32	5 – 7.9	6.2	1,925		
Medium Low Density	91.25	8 - 10	8.9	816		
Medium High Density	29.08	20	20	581		
High Density Bonus Units				30		
Commercial/Retail	21.06				0.25	185,000
Environmental Education Campus	27.9			200		275,000
Research and Development	21.35					325,000
Parks & Recreation	43.05					
Public Utilities	3.5					
Schools	23.67					
Open Space	210.5					
Streets	62.7					
Total	**848.2**			**3,552**		**800,000**
Source: *Project Applicant*						

FIGURE 3.1
EXISTING PLUS MATHER SOUTH ROADWAY NETWORK



Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

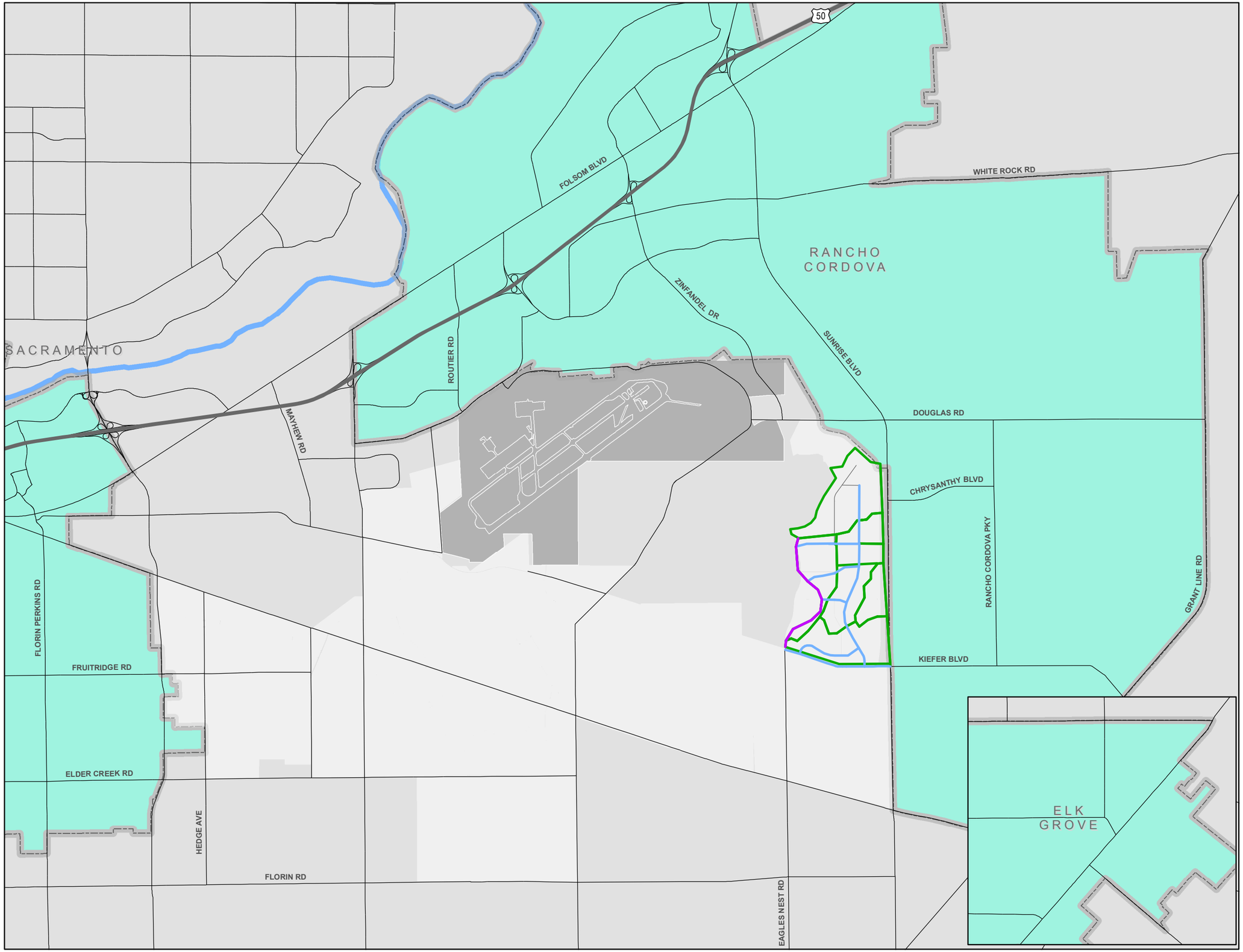


FIGURE 3.2
PROPOSED BIKEWAY MASTER PLAN
WEST JACKSON

Legend

- Bikeways (Class IV)
- Bicycle Lanes (Class II)
- Bicycle Paths (Class I)
- Cities
- Mather Airport

3.1.2.3 Transit System

Consistent with Sacramento County's General Plan policy LU-120, the Mather South project incorporates higher density land uses and mixed uses along transportation corridors to help support transit use. However, as described in Section 2.2, existing transit service is very limited near the Mather South project. The transit provider for the area, Sacramento Regional Transit (RT), has developed a long-range transit plan that anticipates three additional high frequency transit lines in the general area by the year 2035. However, even with this additional transit network, the Mather South project would likely not meet the County's General Plan policy.

To comply with the County's General Plan Policy LU-120, a separate planning effort involving staff from Sacramento County, RT, DKS, and the applicants of the FOUR PROJECTS was conducted to define an appropriate transit network and frequency that could serve the proposed development in the Jackson Corridor consistent with the intent of the County's policies.

An important consideration in the development of a transit network for the Jackson Corridor is that there are four major development projects proposed in the Jackson Corridor (FOUR PROJECTS). The transit planning effort needed to define standalone transit systems for each of the FOUR PROJECTS that would not only serve the transit needs of each of the FOUR PROJECTS independently, but would also serve as cohesive and complementary transit system units that could operate efficiently together should more than one of the FOUR PROJECTS be approved for development.

A series of transit networks and service frequencies were developed and tested using the SACSIM model with the objective of optimizing transit ridership and the number of boardings. Utilizing RT's performance criteria for evaluating the effectiveness of the various transit lines and service frequencies, an optimum transit network and frequency was developed for the Jackson Corridor.

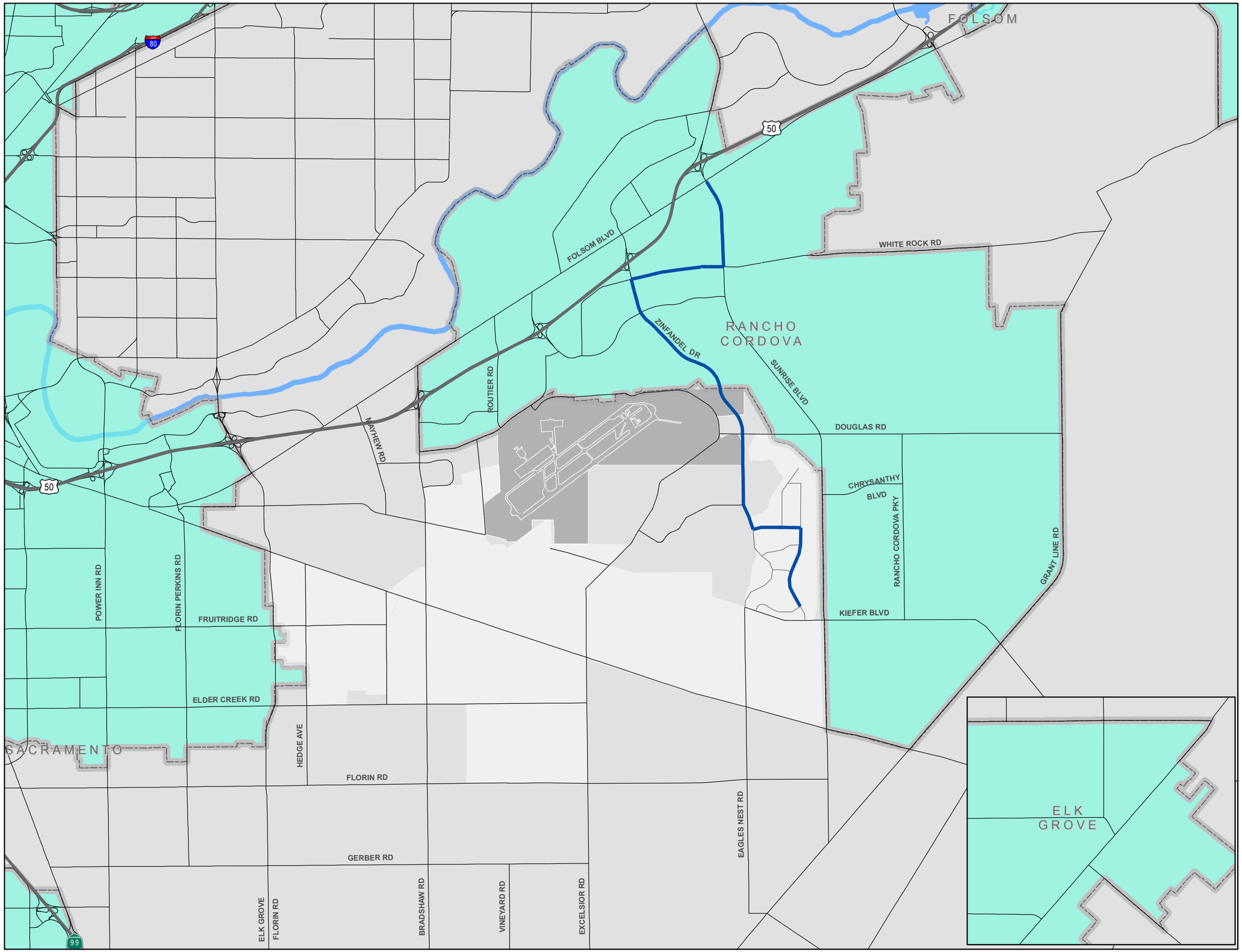
The planning effort resulted in four transit lines that would serve the FOUR PROJECTS in the Jackson Corridor at a frequency of 15 minutes during the peak commute hours (approximately 6-9 AM and 3-6 PM) and 30 minutes during off-peak service hours (approximately 9AM-3PM and 6PM-8PM) on weekdays. **Figure 3.3** illustrates the proposed transit system for the Mather South project, which represents a portion of the ultimate transit system that would serve the FOUR PROJECTS. The combined transit system for the FOUR PROJECTS is discussed and illustrated in Section 4.1.2.3.

The proposed transit system for the Mather South project has been assumed as an attribute of the Mather South project and has been included in the traffic modeling for this traffic analysis. The assumed transit routes and service frequency would be required at full development of the Mather South project. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the Mather South project, must be phased with development of the Mather South project.

FIGURE 3.3
PROJECT TRANSIT NETWORK
EXISTING PLUS MATHER SOUTH

Legend

- Mather south Local Route (MS)
- Cities
- Mather Airport



3.2 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the Mather South project. **Table 3.2** summarizes the person trip generation. The Mather South project would generate over 7,100 daily work person trip ends, and over 45,400 daily person trip ends for all trip purposes.

Table 3.3 summarizes the estimated mode choice for the Existing plus Mather South project scenario. About 90.9 percent of all person trips are expected to be accommodated by automobile, while transit will serve about 0.9 percent of all trips. Walk and bike modes will accommodate about 8.2 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 3.4 summarizes the vehicular (auto) trip generation of the Mather South project. The Mather South project is estimated to generate over 31,000 daily vehicle trip ends. It should be noted that more than one person trip may be accommodated by a vehicle trip (e.g. carpooling). About 4,000 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the Mather South project, about 30 percent of the trip ends. The internal trip ends represent about 2,000 daily vehicle trips (one-half the number of internal trip ends). The Mather South project will generate over 27,000 external vehicle trips that have an origin or destination inside the Mather South project but the other end of the trip is outside the Mather South project. Table 3.4 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

3.3 TRIP DISTRIBUTION

The distribution of trips associated with development on the Mather South project site was derived utilizing SACSIM, incorporating the proposed land use and access locations associated with the Mather South project site. Trip distribution varies by land use and time period. **Figure 3.4** illustrates the overall trip distribution of daily Mather South project trips with the Existing Plus Mather South project scenario. The highest percentages of Mather South project traffic are accommodated on Eagles Nest Road and Zinfandel Drive.

3.4 OPERATIONS ANALYSIS AND IMPACTS

For purposes of this analysis, full development of the Mather South project is assumed to occur "instantaneously." In this manner, the traffic and impacts associated with the Mather South project can be directly compared to known and measured conditions. Existing scenario impacts are determined by comparing the traffic operating conditions associated with the Mather South project with the traffic operating conditions associated with the existing (without development) conditions, and comparing the change to the thresholds of significance. **Figure 3.5** illustrates the resultant traffic operating conditions.

Table 3.2 Estimated Person Trip Generation Mather South

Trip Purpose	Daily Person Trip Ends
Work Trips	7,135
Non-Work Trips	38,320
All Trip Purposes	45,456

***Source**: DKS Associates, 2018*

Table 3.3: Mode Split Mather South

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	85.3%	47.3%	53.2%
Auto - HOV	11.1%	42.7%	37.7%
Transit	2.0%	0.6%	0.9%
Walk	1.1%	8.7%	7.5%
Bike	0.4%	0.7%	0.7%

***Source**: DKS Associates, 2018*

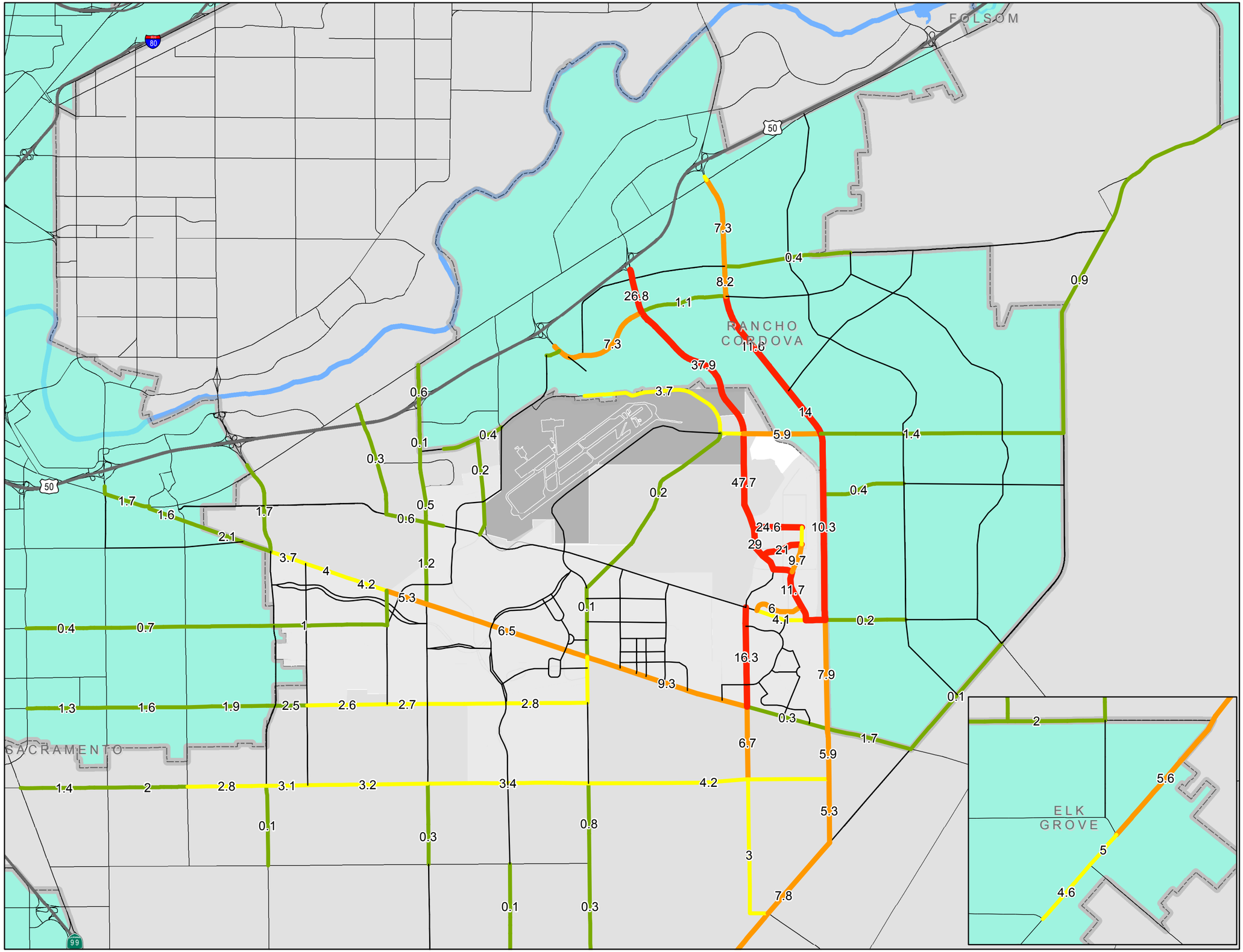
Table 3.4 Estimated Daily Vehicle Trip Generation Mather South

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		2,895	2,809	31,129
Percent Internal Trip Ends1		12.4%	12.0%	12.8%
Vehicle Trips	Internal to Project	179	169	1,996
	External to Project	2,536	2,471	27,139
	Total	2,715	2,640	29,134

[1.] Both trip ends within the project.

***Source:** DKS Associates, 2018.*

FIGURE 3.4
EXISTING PLUS MATHER SOUTH
TRIP DISTRIBUTION



Legend

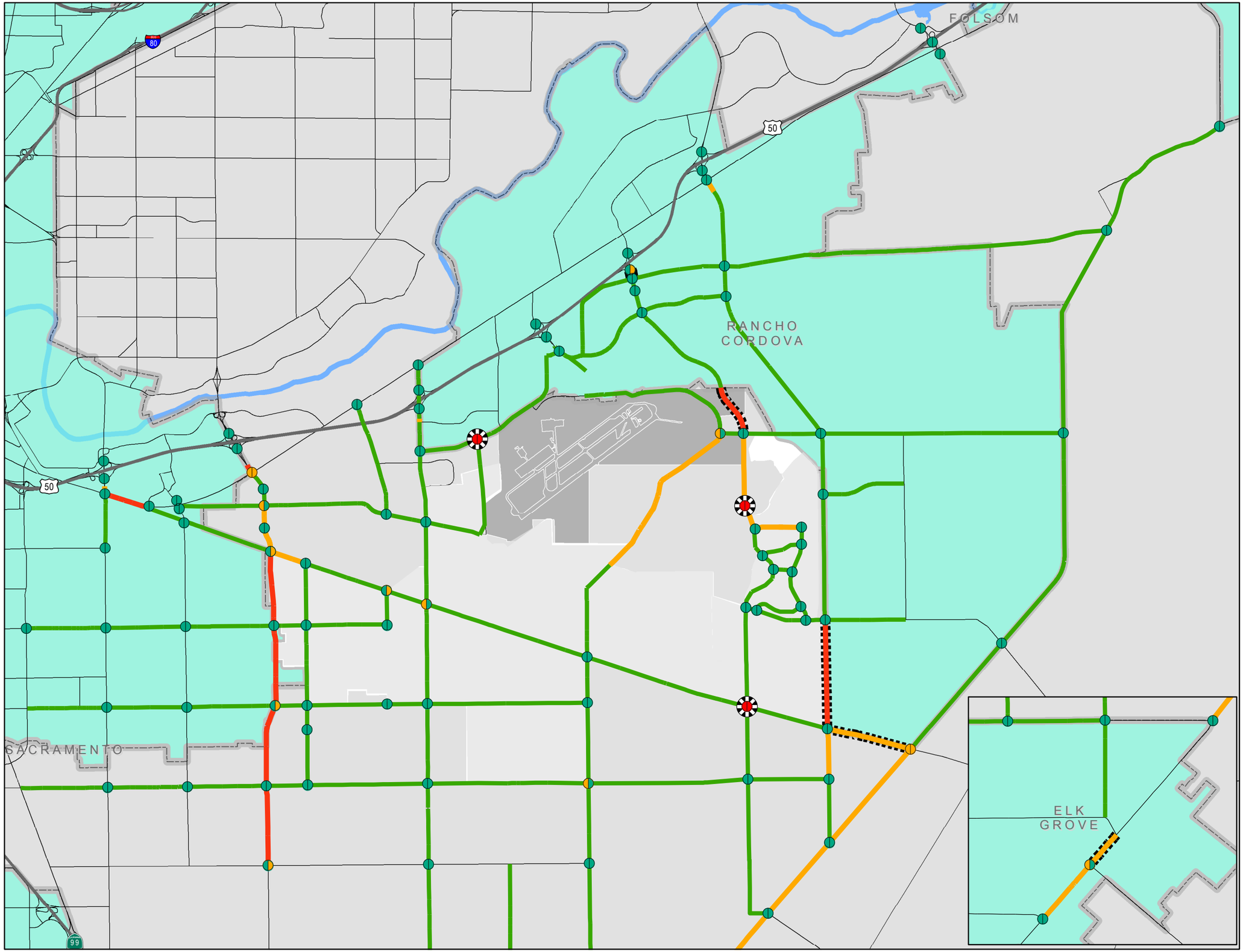
Mather South Distribution

Existing Conditions

- 0%
- 0.1% to 2.5%
- 2.6% to 5.0%
- 5.1% to 10.0%
- 10.0% and up
- Freeways
- Other Major Roadways
- Cities
- Mather Airport

DKS

FIGURE 3.5
EXISTING PLUS MATHER SOUTH ROADWAY SEGMENT AND INTERSECTION LOS AND IMPACTS



Legend

Intersections (AM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Mitigable Intersection Impact
- Mitigable Intersection Impact
- Mitigable Intersection Impact

- LOS A-D
- LOS E
- LOS F

Impacts
- Unavoidable Segment Impact
- Mitigable Segment Impact
- Cities
- Mather Airport

DKS

3.4.1 Existing Plus Mather South Project Roadway Segment Impacts

Table 3.5 summarizes the results of the operations analysis for the study area roadway segments. The table includes the number of lanes assumed with the implementation of the Mather South project, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways and widened roadways that are assumed part of the Mather South project. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

As stated above, the traffic analysis assumed that the Mather South project would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the Mather South project, which would be greater than the number of lanes in the existing condition. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South project.

3.4.2 Existing Plus Mather South Project Intersection Impacts

Tables 3.6 and 3.7 summarize the results of the operations analysis for the study area intersections. The tables include the implementation of intersection changes associated with the Mather South project. Table 3.7 illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type were assumed to be implemented by the Mather South project. Shaded table cells in Table 3.6 illustrate those locations with an LOS impact. Detailed analysis information is included in the technical appendix.

As stated above, the traffic analysis assumed that the Mather South project would construct a number of changes to many of the intersections that are internal to or on the boundary of the Mather South project, which would be an improvement over the existing condition. The timing of implementation of such intersection improvements on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South project.

Signal warrant analysis was conducted for all unsignalized intersections along Jackson Road, and other unsignalized intersections in close proximity to the project. The project is considered to have a significant impact at an unsignalized location if both the impact criteria in Table 1.6 are met, and one or more of the signal warrants specified in the California Manual on Uniform Traffic Control Devices (CAMUTCD) are met. The following unsignalized intersections exhibit significant impacts and meet one or more traffic signal warrants:

- Happy Lane and Old Placerville Road
- Eagles Nest Road and Jackson Road

Table 3.5
Existing Plus Mather South Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Revised Project)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	20,592	0.38	A	6	Arterial M	20,440	0.38	A
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	52,590	0.97	**E**	6	Arterial M	53,170	0.98	**E**
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	42,787	0.79	C	6	Arterial M	43,050	0.80	C
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	38,984	0.72	C	6	Arterial M	38,920	0.72	C
5	Bradshaw Rd	Goethe Rd	Kiefer Blvd	4	Arterial M	28,651	0.80	C	4	Arterial M	28,480	0.79	C
6	Bradshaw Rd	Kiefer Blvd	Jackson Rd	4	Arterial M	30,726	0.85	D	4	Arterial M	31,240	0.87	D
7	Bradshaw Rd	Jackson Rd	Elder Creek Rd	4	Arterial M	22,871	0.64	B	4	Arterial M	22,990	0.64	B
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	4	Arterial M	22,265	0.62	B	4	Arterial M	22,100	0.61	B
9	Bradshaw Rd	Florin Rd	Gerber Rd	4	Arterial M	22,883	0.64	B	4	Arterial M	22,820	0.63	B
10	Bradshaw Rd	Gerber Rd	Calvine Rd	4	Arterial M	16,984	0.47	A	4	Arterial M	16,900	0.47	A
11	Calvine Rd	Waterman Rd	Bradshaw Rd	4	Arterial M	16,015	0.44	A	4	Arterial M	16,200	0.45	A
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	12,395	0.34	A	4	Arterial M	12,920	0.36	A
13	Calvine Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	6,036	0.34	A	2	Arterial M	6,580	0.37	A
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	3,411	0.09	A	4	Arterial M	2,570	0.07	A
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Arterial M	6,635	0.37	A	2	Arterial M	7,520	0.42	A
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Arterial M	8,369	0.46	A	2	Arterial M	9,670	0.54	A
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	3,674	0.10	A	5	Arterial M	4,230	0.12	A
18	Douglas Rd	Rancho Cordova Pkwy	Grant Line Rd	2	Arterial M	3,674	0.20	A	2	Arterial M	4,200	0.23	A
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	740	0.04	A	2	Arterial M	7,010	0.39	A
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	517	0.03	A	2	Arterial M	3570	0.20	A
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	189	0.01	A	2	Arterial M	1810	0.10	A
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	17,891	0.50	A	4	Arterial M	18,100	0.50	A
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	15,734	0.87	D	2	Arterial M	15,960	0.89	D
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	11,092	0.62	B	2	Arterial M	11,540	0.64	B
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,576	0.31	A	2	Arterial M	5,920	0.33	A
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	5,797	0.32	A	2	Arterial M	6,100	0.34	A
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	5,355	0.30	A	2	Arterial M	5,910	0.33	A
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	2,158	0.12	A	2	Arterial M	2,420	0.13	A
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	22,960	1.28	**F**	2	Arterial M	23,020	1.28	**F**
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	3,716	0.21	A	2	Arterial M	1,630	0.09	A
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	2	Arterial M	5,075	0.28	A	2	Arterial M	4,770	0.27	A
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,203	0.23	A	2	Arterial M	3,750	0.21	A
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	5,423	0.30	A	2	Arterial M	5,350	0.30	A
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	4,229	0.23	A	2	Arterial M	4,090	0.23	A

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 3.5
Existing Plus Mather South Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Revised Project)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	4,473	0.25	A	2	Arterial M	4,240	0.24	A
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	27,495	0.76	C	4	Arterial M	27,940	0.78	C
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	21,595	0.60	A	4	Arterial M	22,240	0.62	B
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	4	Arterial M	14,163	0.39	A	4	Arterial M	14,860	0.41	A
39	Florin Rd	South Watt Ave	Hedge Ave	2	Arterial M	7,718	0.43	A	2	Arterial M	8,400	0.47	A
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Arterial M	6,312	0.35	A	2	Arterial M	7,130	0.40	A
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	6,317	0.35	A	2	Arterial M	7,160	0.40	A
42	Florin Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	3,478	0.19	A	2	Arterial M	4,650	0.26	A
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	3,835	0.21	A	2	Arterial M	5,430	0.30	A
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	37,516	1.04	**F**	4	Arterial M	37,820	1.05	**F**
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	16,634	0.46	A	4	Arterial M	16,640	0.46	A
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	15,214	0.42	A	4	Arterial M	15,530	0.43	A
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,280	0.57	A	2	Arterial M	10,330	0.57	A
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	2,890	0.16	A	2	Arterial M	3,110	0.17	A
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	2	Arterial M	1,790	0.10	A	2	Arterial M	2,020	0.11	A
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Rural NS	7,189	0.42	D	2	Rural NS	7,310	0.43	D
51	Grant Line Rd	Douglas Rd	Kiefer Blvd	2	Rural S	6,143	0.31	C	2	Rural S	6,080	0.30	C
52	Grant Line Rd	Kiefer Blvd	Jackson Rd	2	Rural S	5,758	0.29	C	2	Rural S	5,790	0.29	C
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	2	Rural S	14,720	0.74	E	2	Rural S	14,610	0.73	E
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	2	Rural S	14,812	0.74	E	2	Rural S	17,110	0.86	E
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit	2	Rural S	13,140	0.66	E	2	Rural S	14,750	0.74	E
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd	2	Rural S	13,140	0.66	**E**	2	Rural S	14,740	0.74	**E**
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	17,459	0.87	**E**	2	Rural S	18,640	0.93	**E**
57	Grant Line Rd	Wilton Rd	Bond Rd	2	Rural S	16,064	0.80	**E**	2	Rural S	17,020	0.85	**E**
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Rural S	4,635	0.23	C	2	Rural S	6,630	0.33	C
58.1	Happy Lane	Old Placerville Road	Routier Ext	2	Rural S	4,635	0.23	C	2	Rural S	6,630	0.33	C
58.2	Happy Lane	Routier Ext	Kiefer Boulevard	2	Rural S	4,635	0.23	C	2	Rural S	5,580	0.28	C
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	3,061	0.17	A	2	Arterial M	2,960	0.16	A
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	3,737	0.21	A	2	Arterial M	3,630	0.20	A
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	2,722	0.15	A	2	Arterial M	2,700	0.15	A
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	53,849	1.00	E	6	Arterial M	53,860	1.00	E
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	17,500	0.32	A	6	Arterial M	19,790	0.37	A
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	8,802	0.16	A	6	Arterial M	8,910	0.17	A
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	2	Arterial M	12,358	0.69	B	2	Arterial M	12,330	0.69	B
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,414	0.58	A	2	Arterial M	10,800	0.60	B

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Table 3.5
Existing Plus Mather South Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Revised Project)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	17,060	0.95	E	2	Arterial M	17,530	0.97	E
68	Jackson Rd	Hedge Ave	Mayhew Rd	2	Arterial M	12,616	0.70	C	2	Arterial M	13,190	0.73	C
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	14,996	0.83	D	2	Arterial M	15,800	0.88	D
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	13,030	0.72	C	2	Arterial M	14,210	0.79	C
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Rural Hwy	10,478	0.46	D	2	Rural Hwy	13,330	0.58	D
72	Jackson Rd	Eagles Nest Rd	Sunrise Blvd	2	Rural Hwy	9,976	0.44	D	2	Rural Hwy	9,860	0.43	D
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,306	0.58	D	2	Rural Hwy	13,610	0.59	**E**
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	4,616	0.26	A	2	Arterial M	4,740	0.26	A
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	18,668	0.52	A	4	Arterial M	19,180	0.53	A
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	9,274	0.26	A	4	Arterial M	9,750	0.27	A
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	2	Arterial M	4,618	0.26	A	2	Arterial M	5,540	0.31	A
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	3180	0.18	A
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	656	0.04	A	3	Arterial M	1890	0.11	A
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	1890	0.11	A
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	656	0.04	A	2	Arterial M	6730	0.37	A
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	2	Arterial M	2,786	0.15	A	2	Arterial M	2,780	0.15	A
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	4,373	0.12	A	4	Arterial M	6,120	0.17	A
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	4,373	0.12	A	4	Arterial M	6,120	0.17	A
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	4,373	0.24	A	2	Arterial M	6,110	0.34	A
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	6,751	0.84	E	2	Res Collector F	7,060	0.88	E
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	37,755	0.70	B	6	Arterial M	40,280	0.75	C
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	37,520	0.69	B	6	Arterial M	39,980	0.74	C
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	4	Arterial M	14,857	0.41	A	4	Arterial M	15,190	0.42	A
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	6,977	0.39	A	2	Arterial M	7,230	0.40	A
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial L	6,593	0.44	A	2	Arterial L	6,690	0.45	A
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	2	Arterial L	1,616	0.11	A	2	Arterial L	1,820	0.12	A
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	15,800	0.44	A	4	Arterial M	16,640	0.46	A
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	13,573	0.75	C	2	Arterial M	14,410	0.80	D
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	10,710	0.60	A	2	Arterial M	12,220	0.68	B

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Table 3.5
Existing Plus Mather South Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Revised Project)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	10,710	0.30	A	4	Arterial M	11,790	0.33	A
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	36,175	0.67	B	6	Arterial M	36,100	0.67	B
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	19,881	0.55	A	4	Arterial M	21,030	0.58	A
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	40,920	0.76	C	6	Arterial M	41,250	0.76	C
97	South Watt Ave	Kiefer Blvd	Jackson Rd	5	Arterial M	32,415	0.90	E	5	Arterial M	32,480	0.90	E
98	South Watt Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	25,832	1.44	**F**	2	Arterial M	25,810	1.43	**F**
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	21,567	1.20	**F**	2	Arterial M	21,610	1.20	**F**
100	South Watt Ave	Elder Creek Rd	Florin Rd	2	Arterial M	19,069	1.06	**F**	2	Arterial M	19,130	1.06	**F**
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	54,500	1.01	**F**	7	Arterial M	55,180	1.02	**F**
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	49,500	0.92	**E**	6	Arterial M	50,450	0.93	**E**
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	34,571	0.64	B	6	Arterial M	36,290	0.67	B
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	25,811	0.48	A	6	Arterial M	27,680	0.51	A
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	28,400	0.53	A	6	Arterial M	31,090	0.58	A
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	25,811	0.48	A	6	Arterial M	29,410	0.54	A
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	21,878	0.61	B	5	Arterial M	23,810	0.66	B
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	16,894	0.94	**E**	2	Arterial M	18,540	1.03	**F**
107	Sunrise Blvd	Jackson Rd	Florin Rd	2	Rural S	11,181	0.56	D	2	Rural S	12,250	0.61	E
108	Sunrise Blvd	Florin Rd	Grant Line Rd	2	Rural S	7,752	0.39	D	2	Rural S	8,610	0.43	D
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	5,515	0.31	A	2	Arterial M	5,620	0.31	A
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	65,242	1.09	**F**	6	Arterial H	65,100	1.09	**F**
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	3,962	0.22	A	2	Arterial M	4,090	0.23	A
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	11,200	0.31	A	4	Arterial M	11,230	0.31	A
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	14,756	0.27	A	6	Arterial M	14,630	0.27	A
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	14,756	0.41	A	5	Arterial M	14,750	0.41	A
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	15,433	0.43	A	4	Arterial M	15,510	0.43	A
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	2	Rural NS	2,490	0.15	B	2	Rural NS	2,450	0.14	B
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	9,400	0.26	A	4	Arterial M	9,460	0.26	A
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	45,228	0.84	D	7	Arterial M	51,390	0.95	**E**
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	17,923	0.33	A	6	Arterial M	25,170	0.47	A
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	7,595	0.14	A	6	Arterial M	18,860	0.35	A
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	7,595	0.21	A	4	Arterial M	18,860	0.52	A
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	7,595	0.42	A	2	Arterial M	18,860	1.05	**F**
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	2	Arterial M	2,848	0.16	A	2	Arterial M	17,990	1.00	E

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Table 3.5
Existing Plus Mather South Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Revised Project)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3						4	Arterial M	10,140	0.28	A
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4						4	Arterial M	7,030	0.20	A
123.4	Zinfandel Dr	Collector MS-4	Kiefer Blvd						4	Arterial M	4,640	0.13	A
600	Collector MS-1	Kiefer Boulevard	Collector MS-5						2	Arterial M	6,640	0.37	A
601	Collector MS-1	Collector MS-5	Collector MS-4						2	Arterial M	3,780	0.21	A
602	Collector MS-1	Collector MS-4	Collector MS-3						2	Arterial M	3,050	0.17	A
603	Collector MS-1	Collector MS-3	Collector MS-2						2	Arterial M	1,380	0.08	A
604	Collector MS-2	Eagles Nest Road	Collector MS-5						2	Res Collector I	7,710	0.96	E
605	Collector MS-3	Eagles Nest Road	Collector MS-5						2	Arterial M	6,410	0.36	A
606	Collector MS-4	Eagles Nest Road	Collector MS-5						2	Arterial M	4,410	0.25	A
607	Collector MS-5	Kiefer Boulevard	Collector MS-1						2	Arterial M	1,900	0.11	A

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

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Table 3.6
Revised Project
Existing Plus Mather South Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	36.6	Signal	B	19.5	No	Signal	D	44.4	Signal	C	29.7	No
2	Howe Avenue & US 50 EB Ramps	Signal	B	16.9	Signal	B	10.3	No	Signal	C	20.5	Signal	A	9.1	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	D	39.1	Signal	C	30.4	No	Signal	D	55.0	Signal	D	41.6	No
4	Power Inn Road & 14th Avenue	Signal	C	31.5	Signal	B	16.3	No	Signal	D	39.6	Signal	C	20.7	No
5	Power Inn Road & Fruitridge Road	Signal	D	43.4	Signal	C	34.9	No	Signal	C	33.5	Signal	C	24.6	No
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	D	36.8	Signal	C	22.1	No	Signal	C	32.1	Signal	B	15.6	No
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	D	39.0	Signal	C	24.1	No	Signal	E	55.6	Signal	C	26.0	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	A	2.8	Two-way stop	A	3.0	No	Two-way stop	A	3.2	Two-way stop	A	3.4	No
	Westbound Left Turn		*C*	*20.1*		*C*	*19.8*			*C*	*23.3*		*D*	*26.4*	
	Westbound Right Turn		*B*	*13.3*		*B*	*13.3*			*B*	*12.6*		*B*	*12.8*	
	Southbound Left Turn		*A*	*10.0*		*A*	*9.9*			*B*	*10.9*		*B*	*11.5*	
9	Florin Perkins Road & Jackson Road	Signal	D	51.5	Signal	B	18.0	No	Signal	D	54.1	Signal	C	24.7	No
10	Florin Perkins Road & Fruitridge Road	Signal	C	25.1	Signal	B	16.3	No	Signal	C	25.4	Signal	B	18.2	No
11	Florin Perkins Road & Elder Creek Road	Signal	C	25.7	Signal	B	17.4	No	Signal	C	26.2	Signal	B	19.5	No
12	Watt Avenue & Folsom Blvd.	Signal	E	66.2	Signal	E	72.0	No	Signal	E	71.9	Signal	E	65.7	No
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	B	19.6	Signal	B	12.6	No	Signal	D	54.1	Signal	B	11.9	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	E	56.0	Signal	E	59.3	No	Signal	E	75.9	Signal	D	36.6	No

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Table 3.6
Revised Project
Existing Plus Mather South Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	11.5	Signal	A	7.5	No	Signal	A	9.7	Signal	A	6.1	No
16	S. Watt Avenue & Jackson Road	Signal	E	62.5	Signal	D	51.0	No	Signal	E	66.4	Signal	E	59.6	No
17	S. Watt Avenue & Fruitridge Road	Signal	D	38.1	Signal	B	19.4	No	Signal	D	41.7	Signal	C	21.1	No
18	S. Watt Avenue & Elder Creek Road	Signal	E	62.7	Signal	D	45.7	No	Signal	E	68.8	Signal	E	57.2	No
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	D	54.7	Signal	C	27.3	No	Signal	D	51.8	Signal	C	34.4	No
21	Elk Grove Florin Road & Gerber Road	Signal	D	49.1	Signal	D	41.1	No	Signal	E	64.6	Signal	E	61.6	No
23	Hedge Avenue & Jackson Road	Signal	D	35.1	Signal	B	19.1	No	Signal	D	37.3	Signal	B	12.8	No
24	Hedge Avenue & Fruitridge Road	All-way stop	B	13.6	All-way stop	B	14.2	No	All-way stop	A	9.4	All-way stop	A	9.3	No
25	Hedge Avenue & Elder Creek Road	All-way stop	C	15.9	All-way stop	C	17.2	No	All-way stop	B	11.6	All-way stop	B	11.6	No
26	Hedge Avenue & Tokay Lane	Two-way stop	A	0.4	Two-way stop	A	0.4	No	Two-way stop	A	0.2	Two-way stop	A	0.2	No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*A*	*8.0*		*A*	*8.1*			*A*	*7.3*		*A*	*7.3*	
	Eastbound		*B*	*12.2*		*B*	*12.4*			*B*	*10.2*		*B*	*10.2*	
	Westbound		*B*	*11.1*		*B*	*11.3*			*A*	*9.6*		*A*	*9.6*	
27	Hedge Avenue & Florin Road	All-way stop	B	12.9	All-way stop	B	14.3	No	All-way stop	B	11.1	All-way stop	B	12.0	No
28	Mayhew Road & Kiefer Boulevard	Signal	D	48.6	Signal	B	17.4	No	Signal	D	51.1	Signal	B	18.0	No

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Table 3.6
Revised Project
Existing Plus Mather South Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop	A	1.8	Two-way stop	A	2.0	No	Two-way stop	A	1.9	Two-way stop	A	2.0	No
	Northbound Through - Left Turn		*D*	*27.6*		*D*	*32.3*			*D*	*34.0*		*E*	*38.3*	
	Northbound Right Turn		*B*	*11.8*		*B*	*12.6*			*C*	*15.0*		*C*	*15.3*	
	Southbound		*C*	*18.3*		*C*	*20.1*			*C*	*24.9*		*D*	*27.5*	
	Eastbound Left Turn		*A*	*8.9*		*A*	*8.8*			*A*	*8.4*		*A*	*8.4*	
	Westbound Left Turn		*A*	*8.3*		*A*	*8.6*			*A*	*9.3*		*A*	*9.4*	
30	Mayhew Road & Fruitridge Road	Two-way stop	A	6.2	Two-way stop	A	5.5	No	Two-way stop	A	5.1	Two-way stop	A	4.9	No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.4*		*A*	*7.4*	
	Eastbound		*A*	*9.2*		*A*	*9.3*			*A*	*9.2*		*A*	*9.3*	
31	Mayhew Road & Elder Creek Road	Two-way stop	A	0.2	Two-way stop	A	0.2	No	Two-way stop	A	0.3	Two-way stop	A	0.3	No
	Northbound		*B*	*11.9*		*B*	*12.6*			*B*	*10.9*		*B*	*11.2*	
	Southbound		*B*	*11.1*		*B*	*11.0*			*A*	*9.8*		*A*	*9.9*	
	Eastbound Left Turn		*A*	*8.3*		*A*	*8.3*			*A*	*7.6*		*A*	*7.5*	
	Westbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*0.0*		*A*	*0.0*	
32	Woodring Drive & Zinfandel Drive	Two-way stop	A	5.9	Two-way stop	C	15.8	Yes	Two-way stop	A	3.0	Two-way stop	A	6.1	Yes
	Eastbound		*A*	*9.3*		*F*	*112.3*			*A*	*9.3*		*F*	*72.7*	
	Northbound Left Turn		*A*	*0.0*		*A*	*8.6*			*A*	*0.0*		*B*	*10.2*	
33	Bradshaw Road & Folsom Blvd.	Signal	E	56.7	Signal	C	21.7	No	Signal	D	49.9	Signal	B	19.1	No
34	Bradshaw Road & US 50 WB Ramps	Signal	B	15.9	Signal	A	8.5	No	Signal	B	15.2	Signal	A	6.1	No
35	Bradshaw Road & US 50 EB Ramps	Signal	C	24.4	Signal	B	12.5	No	Signal	B	16.0	Signal	A	9.8	No
36	Bradshaw Road & Old Placerville Road	Signal	D	45.9	Signal	C	30.7	No	Signal	D	52.0	Signal	C	32.5	No
37	Bradshaw Road & Kiefer Boulevard	Signal	D	45.7	Signal	B	17.2	No	Signal	E	66.2	Signal	C	29.8	No

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Table 3.6
Revised Project
Existing Plus Mather South Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
38	Bradshaw Road & Jackson Road	Signal	E	73.1	Signal	E	74.2	No	Signal	E	59.4	Signal	D	52.5	No
39	Bradshaw Road & Elder Creek Road	Signal	D	36.8	Signal	C	21.1	No	Signal	D	36.1	Signal	C	22.7	No
40	Bradshaw Road & Florin Road	Signal	D	38.1	Signal	C	23.2	No	Signal	D	53.6	Signal	C	28.0	No
41	Bradshaw Road & Gerber Road	Signal	E	72.2	Signal	D	54.7	No	Signal	D	49.9	Signal	C	27.1	No
42	Happy Lane & Old Placerville Road	Two-way stop	A	7.3	Two-way stop	B	11.6	Yes	Two-way stop	A	4.7	Two-way stop	B	10.1	Yes
	Northbound Left Turn		*F*	*64.8*		*F*	*214.3*			*F*	*95.9*		*F*	*243.7*	
	Northbound Right Turn		*D*	*30.6*		*E*	*36.1*			*C*	*15.4*		*C*	*19.6*	
	Westbound Left Turn		*B*	*10.2*		*B*	*11.0*			*B*	*10.1*		*B*	*10.4*	
45	Excelsior Road & Jackson Road	Signal	D	36.7	Signal	C	24.1	No	Signal	D	40.3	Signal	B	16.4	No
46	Excelsior Road & Elder Creek Road	Two-way stop	A	3.5	Two-way stop	A	4.7	No	Two-way stop	A	2.7	Two-way stop	A	3.7	No
	Northbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*8.0*		*A*	*7.8*	
	Eastbound		*C*	*18.6*		*C*	*20.8*			*B*	*12.3*		*B*	*12.0*	
47	Excelsior Road & Florin Road	All-way stop	C	24.9	All-way stop	E	39.2	No	All-way stop	B	12.5	All-way stop	B	13.5	No
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	B	14.0	All-way stop	B	14.8	No	All-way stop	B	10.6	All-way stop	B	10.2	No
49	Mather Field Road & US 50 WB Ramps	Signal	C	24.7	Signal	A	8.8	No	Signal	A	9.4	Signal	A	5.2	No
50	Mather Field Road & US 50 EB Ramps	Signal	C	27.7	Signal	B	17.9	No	Signal	B	13.4	Signal	A	7.6	No
51	Mather Field Road & Rockingham Drive	Signal	E	56.4	Signal	D	51.1	No	Signal	D	54.7	Signal	D	40.7	No
52	Mather Boulevard & Douglas Road	All-way stop	E	39.3	All-way stop	E	40.1	No	All-way stop	C	15.5	All-way stop	C	15.7	No

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Existing Plus Mather South Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
53	Zinfandel Drive & US 50 WB Ramps	Signal	B	16.4	Signal	A	8.5	No	Signal	D	51.7	Signal	D	40.7	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	D	40.0	Signal	D	51.1	No	Signal	E	60.1	Signal	E	63.7	No
55	Zinfandel Drive & White Rock Road	Signal	D	47.7	Signal	C	27.3	No	Signal	D	54.7	Signal	D	42.8	No
56	Zinfandel Drive & Data Drive	Signal	D	49.3	Signal	B	16.1	No	Signal	D	52.9	Signal	C	20.8	No
57	Zinfandel Drive & International Dr	Signal	C	34.0	Signal	C	22.6	No	Signal	D	48.5	Signal	C	30.1	No
58	Zinfandel Drive & Douglas Road	Signal	E	55.5	Signal	D	51.8	No	Signal	D	54.2	Signal	C	27.1	No
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Free Turn			Signal	A	7.2	No	Free Turn			Signal	A	8.2	No
60	Eagles Nest Road & Jackson Road	Two-way stop	A	2.3	Two-way stop	A	0.8	Yes	Two-way stop	A	3.6	Two-way stop	*F*	*176.0*	Yes
	Northbound		*C*	*22.0*		*F*	*>300*			*C*	*23.8*		*F*	*>300*	
	Southbound		*B*	*13.9*		*F*	*>300*			*C*	*22.0*		*F*	*>300*	
	Eastbound Left Turn		*A*	*8.8*		*A*	*9.1*			*A*	*7.9*		*A*	*8.2*	
	Westbound Left Turn		*A*	*7.9*		*A*	*7.8*			*A*	*8.7*		*A*	*8.6*	
61	Eagles Nest Road & Florin Road	Two-way stop	A	2.3	Two-way stop	A	9.3	No	Two-way stop	A	2.6	Two-way stop	A	7.8	No
	Northbound		*B*	*12.7*		*C*	*21.0*			*B*	*12.1*		*C*	*15.4*	
	Southbound		*B*	*10.0*		*C*	*17.9*			*B*	*10.5*		*C*	*15.2*	
	Eastbound Left Turn		*A*	*7.7*		*A*	*7.9*			*A*	*7.7*		*A*	*7.9*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.6*		*A*	*7.5*	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	D	44.7	Signal	C	26.3	No	Signal	B	19.7	Signal	A	9.2	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	16.9	Signal	A	9.9	No	Signal	B	17.6	Signal	A	9.8	No

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	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
53	Zinfandel Drive & US 50 WB Ramps	Signal	B	16.4	Signal	A	8.5	No	Signal	D	51.7	Signal	D	40.7	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	D	40.0	Signal	D	51.1	No	Signal	E	60.1	Signal	E	63.7	No
55	Zinfandel Drive & White Rock Road	Signal	D	47.7	Signal	C	27.3	No	Signal	D	54.7	Signal	D	42.8	No
56	Zinfandel Drive & Data Drive	Signal	D	49.3	Signal	B	16.1	No	Signal	D	52.9	Signal	C	20.8	No
57	Zinfandel Drive & International Dr	Signal	C	34.0	Signal	C	22.6	No	Signal	D	48.5	Signal	C	30.1	No
58	Zinfandel Drive & Douglas Road	Signal	E	55.5	Signal	D	51.8	No	Signal	D	54.2	Signal	C	27.1	No
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Free Turn			Signal	A	7.2	No	Free Turn			Signal	A	8.2	No
60	Eagles Nest Road & Jackson Road	Two-way stop	A	2.3	Two-way stop	A	0.8	Yes	Two-way stop	A	3.6	Two-way stop	*F*	*176.0*	Yes
	Northbound		*C*	*22.0*		*F*	*>300*			*C*	*23.8*		*F*	*>300*	
	Southbound		*B*	*13.9*		*F*	*>300*			*C*	*22.0*		*F*	*>300*	
	Eastbound Left Turn		*A*	*8.8*		*A*	*9.1*			*A*	*7.9*		*A*	*8.2*	
	Westbound Left Turn		*A*	*7.9*		*A*	*7.8*			*A*	*8.7*		*A*	*8.6*	
61	Eagles Nest Road & Florin Road	Two-way stop	A	2.3	Two-way stop	A	9.3	No	Two-way stop	A	2.6	Two-way stop	A	7.8	No
	Northbound		*B*	*12.7*		*C*	*21.0*			*B*	*12.1*		*C*	*15.4*	
	Southbound		*B*	*10.0*		*C*	*17.9*			*B*	*10.5*		*C*	*15.2*	
	Eastbound Left Turn		*A*	*7.7*		*A*	*7.9*			*A*	*7.7*		*A*	*7.9*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.6*		*A*	*7.5*	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	D	44.7	Signal	C	26.3	No	Signal	B	19.7	Signal	A	9.2	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	16.9	Signal	A	9.9	No	Signal	B	17.6	Signal	A	9.8	No

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Existing Plus Mather South Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	54.4	Signal	C	26.3	No	Signal	D	48.6	Signal	C	34.1	No
65	Sunrise Boulevard & White Rock Road	Signal	D	47.8	Signal	C	31.5	No	Signal	D	51.6	Signal	C	35.0	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	D	47.8	Signal	B	16.5	No	Signal	D	45.8	Signal	B	19.5	No
67	Sunrise Boulevard & Douglas Road	Signal	D	51.7	Signal	C	24.6	No	Signal	D	46.5	Signal	B	19.1	No
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	C	27.0	Signal	B	16.2	No	Signal	C	21.0	Signal	A	7.8	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	D	53.6	Signal	C	23.5	No	Signal	C	27.0	Signal	C	21.6	No
70	Sunrise Boulevard & Jackson Road	Signal	E	57.0	Signal	D	47.5	No	Signal	D	47.2	Signal	C	31.1	No
71	Sunrise Boulevard & Florin Road	Signal	B	11.3	Signal	A	8.8	No	Signal	D	48.3	Signal	B	12.2	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	D	43.2	Signal	C	21.1	No	Signal	D	40.7	Signal	B	19.3	No
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	C	31.2	Signal	C	27.7	No	Signal	D	41.4	Signal	B	16.9	No
74	Hazel Avenue & US 50 EB Ramps	Signal	C	20.6	Signal	A	8.3	No	Signal	C	29.9	Signal	A	5.8	No
75	Hazel Avenue & Folsom Boulevard	Signal	D	51.7	Signal	C	22.5	No	Signal	D	46.7	Signal	D	39.9	No
76	Prairie City Road & White Rock Road	Signal	B	19.2	Signal	B	12.5	No	Signal	B	15.0	Signal	A	9.8	No
77	Grant Line Road & White Rock Road	Signal	B	10.9	Signal	A	7.3	No	Signal	B	11.2	Signal	A	7.8	No
78	Grant Line Road & Douglas Road	Two-way stop	C	15.2	Signal	B	10.4	No	Two-way stop	B	12.3	Signal	A	9.5	No

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	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
79	Grant Line Road & Kiefer Boulevard	All-way stop	B	11.4	All-way stop	B	11.3	No	All-way stop	B	10.5	All-way stop	B	10.6	No
80	Grant Line Road & Jackson Road	Signal	E	74.0	Signal	E	61.3	No	Signal	E	78.9	Signal	E	71.8	No
81	Watt Avenue & US-50 EB Ramps	Signal	B	13.0	Signal	B	12.3	No	Signal	B	14.9	Signal	B	13.5	No
82	Watt Avenue & US-50 WB Ramps	Signal	C	32.9	Signal	D	37.4	No	Signal	C	28.6	Signal	C	29.2	No
83	Mayhew Rd & Folsom Blvd.	Signal	B	19.8	Signal	B	12.1	No	Signal	C	20.1	Signal	B	12.3	No
84	65th Street Expy & Fruitridge Road	Signal	C	31.2	Signal	C	25.9	No	Signal	D	35.3	Signal	C	26.9	No
85	Power Inn Road & Elder Creek Road	Signal	D	35.2	Signal	C	27.9	No	Signal	D	36.3	Signal	C	32.2	No
86	Power Inn Road & Florin Rd	Signal	D	36.3	Signal	C	32.4	No	Signal	D	45.9	Signal	D	41.9	No
87	Florin Perkins Road & Florin Rd	Signal	D	36.7	Signal	C	29.9	No	Signal	C	32.5	Signal	C	25.0	No
88	Bradshaw Rd & Calvine Rd	Signal	C	30.5	Signal	C	23.3	No	Signal	D	36.9	Signal	C	24.7	No
89	Vineyard Rd & Calvine Rd	Signal	C	30.8	Signal	B	17.7	No	Signal	C	34.9	Signal	B	18.2	No
90	Excelsior Road & Calvine Rd	All-way stop	C	16.6	All-way stop	C	17.3	No	All-way stop	B	13.0	All-way stop	B	13.5	No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	D	51.7	Signal	B	14.0	No	Signal	D	46.5	Signal	C	26.0	No
92	Grant Line Rd & Calvine Rd	Signal	C	21.4	Signal	B	20.0	No	Signal	C	24.0	Signal	B	19.1	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	E	65.9	Signal	E	61.7	No	Signal	E	64.8	Signal	D	46.7	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 3.7
Revised Project
Existing and Existing Plus Mather South Project Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	Signal								
2	Howe Avenue & US 50 EB Ramps	Signal	Signal								
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal								
4	Power Inn Road & 14th Avenue	Signal	Signal								
5	Power Inn Road & Fruitridge Road	Signal	Signal								
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal								
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal								
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop								
9	Florin Perkins Road & Jackson Road	Signal	Signal								
10	Florin Perkins Road & Fruitridge Road	Signal	Signal								
11	Florin Perkins Road & Elder Creek Road	Signal	Signal								
12	Watt Avenue & Folsom Blvd.	Signal	Signal								
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal								
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal								
15	S. Watt Avenue & Canberra Dr.	Signal	Signal								
16	S. Watt Avenue & Jackson Road	Signal	Signal								
17	S. Watt Avenue & Fruitridge Road	Signal	Signal								
18	S. Watt Avenue & Elder Creek Road	Signal	Signal								
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal								
21	Elk Grove Florin Road & Gerber Road	Signal	Signal								
23	Hedge Avenue & Jackson Road	Signal	Signal								
24	Hedge Avenue & Fruitridge Road	All-way stop	All-way stop								
25	Hedge Avenue & Elder Creek Road	All-way stop	All-way stop								
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop								
27	Hedge Avenue & Florin Road	All-way stop	All-way stop								
28	Mayhew Road & Kiefer Boulevard	Signal	Signal								
29	Mayhew Road & Jackson Road	Two-way stop	Two-way stop								
30	Mayhew Road & Fruitridge Road	Two-way stop	Two-way stop								

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 3.7
Revised Project
Existing and Existing Plus Mather South Project Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
31	Mayhew Road & Elder Creek Road	Two-way stop	Two-way stop								
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop								
33	Bradshaw Road & Folsom Blvd.	Signal	Signal								
34	Bradshaw Road & US 50 WB Ramps	Signal	Signal								
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal								
36	Bradshaw Road & Old Placerville Road	Signal	Signal								
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal								
38	Bradshaw Road & Jackson Road	Signal	Signal								
39	Bradshaw Road & Elder Creek Road	Signal	Signal								
40	Bradshaw Road & Florin Road	Signal	Signal								
41	Bradshaw Road & Gerber Road	Signal	Signal								
42	Happy Lane & Old Placerville Road	Two-way stop	Two-way stop								
45	Excelsior Road & Jackson Road	Signal	Signal								
46	Excelsior Road & Elder Creek Road	Two-way stop	Two-way stop								
47	Excelsior Road & Florin Road	All-way stop	All-way stop								
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop								
49	Mather Field Road & US 50 WB Ramps	Signal	Signal								
50	Mather Field Road & US 50 EB Ramps	Signal	Signal								
51	Mather Field Road & Rockingham Drive	Signal	Signal								
52	Mather Boulevard & Douglas Road	All-way stop	All-way stop								
53	Zinfandel Drive & US 50 WB Ramps	Signal	Signal								
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal								
55	Zinfandel Drive & White Rock Road	Signal	Signal								
56	Zinfandel Drive & Data Drive	Signal	Signal								
57	Zinfandel Drive & International Dr	Signal	Signal								
58	Zinfandel Drive & Douglas Road	Signal	Signal								
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard		Signal								
60	Eagles Nest Road & Jackson Road	Two-way stop	Two-way stop								

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 3.7
Revised Project
Existing and Existing Plus Mather South Project Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
61	Eagles Nest Road & Florin Road	Two-way stop	Two-way stop	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
62	Sunrise Boulevard & US 50 WB Ramps	Signal	Signal	↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓		↰ ↰ ⌐ ⌐	↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓		↰ ↰ ⌐ ⌐
63	Sunrise Boulevard & US 50 EB Ramps	Signal	Signal	↑ ↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓	↰ ↰ ↰ ⌐ ⌐		↑ ↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓	↰ ↰ ↰ ⌐ ⌐	
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal	↰ ↰ ↑ ↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓ ↰ ↰	↰ ↰ ↑ ↑ ⌐	↰ ↰ ↑ ⊬ ⌐	↰ ↰ ↑ ↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓ ↰ ↰	↰ ↰ ↑ ↑ ⌐	↰ ↰ ↑ ⊬ ⌐
65	Sunrise Boulevard & White Rock Road	Signal	Signal	↰ ↰ ↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓ ↰ ↰	↰ ↰ ↑ ↑ ⌐	↰ ↰ ↑ ↑ ↑ ⌐	↰ ↰ ↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓ ↰ ↰	↰ ↰ ↑ ↑ ⌐	↰ ↰ ↑ ↑ ↑ ⌐
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal	↰ ↰ ↑ ↑ ⊬	⌟ ↓ ↓ ↓ ↰	↰ ↰ ↑ ⌐ ⌐	↰ ⊬	↰ ↰ ↑ ↑ ⊬	⌟ ↓ ↓ ↓ ↰	↰ ↰ ↑ ⌐ ⌐	↰ ⊬
67	Sunrise Boulevard & Douglas Road	Signal	Signal	↰ ↰ ↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓ ↰ ↰	↰ ↰ ↑ ⊬	↰ ↰ ↑ ↑ ⌐	↰ ↰ ↑ ↑ ↑ ⌐	⌟ ↓ ↓ ↓ ↰ ↰	↰ ↰ ↑ ⊬	↰ ↰ ↑ ↑ ⌐
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal	↑ ↑ ↑ ⌐	↓ ↓ ↰ ↰		↰ ↰ ⌐	↑ ↑ ↑ ⌐	↓ ↓ ↰ ↰		↰ ↰ ⌐
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal	↰ ↑ ↑ ⌐	⅂ ↓ ↰ ↰	⅄	↰ ⌐	↰ ↑ ↑ ⌐	⅂ ↓ ↰ ↰	↰ ⊬	↰ ⌐
70	Sunrise Boulevard & Jackson Road	Signal	Signal	↰ ⊬	⌟ ↓ ↰	↰ ↑ ⌐	↰ ↑ ⌐	↰ ⊬	⌟ ↓ ↰	↰ ↑ ⌐	↰ ↑ ⌐
71	Sunrise Boulevard & Florin Road	Signal	Signal	↰ ↑	⅂	⅄		↰ ↑	⅂	⅄	
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal	⅄	⅄⅂	↰ ↑ ⌐	↰ ⊬	⅄	⅄⅂	↰ ↑ ⌐	↰ ⊬
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	Signal	↰ ↰ ↑ ↑ ↑	⌟ ↓ ↓ ↓ ↓	⌐	⅂ ⌐ ⌐	↰ ↰ ↑ ↑ ↑	⌟ ↓ ↓ ↓ ↓	⌐	⅂ ⌐ ⌐
74	Hazel Avenue & US 50 EB Ramps	Signal	Signal		⌟ ↓ ↓	↰ ⅄ ⌐			⌟ ↓ ↓	↰ ⅄ ⌐	
75	Hazel Avenue & Folsom Boulevard	Signal	Signal	↰ ⊬	⌟ ⅄ ⅂ ↰	↰ ↰ ↑ ⊬	↰ ↑ ⌐	↰ ⊬	⌟ ⅄ ⅂ ↰	↰ ↰ ↑ ⊬	↰ ↑ ⌐
76	Prairie City Road & White Rock Road	Signal	Signal		⌟ ↰	↰ ↑ ↑	↑ ↑ ⌐		⌟ ↰	↰ ↑ ↑	↑ ↑ ⌐
77	Grant Line Road & White Rock Road	Signal	Signal	↰ ↑ ↑	⌟ ↓ ↓	↰ ↰ ⌐		↰ ↑ ↑	⌟ ↓ ↓	↰ ↰ ⌐	
78	Grant Line Road & Douglas Road	Two-way stop	Signal	⅄	⅄	⅄		↰ ↑	⌟ ↓	↰ ⌐	
79	Grant Line Road & Kiefer Boulevard	All-way stop	All-way stop	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
80	Grant Line Road & Jackson Road	Signal	Signal	⅄	⅄	↰ ⊬	↰ ⊬	⅄	⅄	↰ ⊬	↰ ⊬
81	Watt Avenue & US-50 EB Ramps	Signal	Signal	↑ ↑ ↑ ↑ ⌐	⌟ ⅄ ↓ ↓	↰ ↰ ⌐ ⌐		↑ ↑ ↑ ↑ ⌐	⌟ ⅄ ↓ ↓	↰ ↰ ⌐ ⌐	
82	Watt Avenue & US-50 WB Ramps	Signal	Signal	↑ ↑ ⊬ ⌐	⌟ ⅄ ↓ ↓ ↓		↰ ↰ ⌐ ⌐ ⌐	↑ ↑ ⊬ ⌐	⌟ ⅄ ↓ ↓ ↓		↰ ↰ ⌐ ⌐ ⌐
83	Mayhew Rd & Folsom Blvd.	Signal	Signal	↰ ↰ ⌐		↑ ↑ ⌐	↰ ↑ ↑	↰ ↰ ⌐		↑ ↑ ⌐	↰ ↑ ↑
84	65th Street Expy & Fruitridge Road	Signal	Signal	↰ ↑ ↑ ⌐	⌟ ↓ ↓ ↰	↰ ↑ ↑	↰ ↑ ↑ ⌐	↰ ↑ ↑ ⌐	⌟ ↓ ↓ ↰	↰ ↑ ↑	↰ ↑ ↑ ⌐
85	Power Inn Road & Elder Creek Road	Signal	Signal	↰ ↑ ⊬	⅂ ↓ ↰	↰ ↑ ↑ ⌐	↰ ↑ ⊬	↰ ↑ ⊬	⅂ ↓ ↰	↰ ↑ ↑ ⌐	↰ ↑ ⊬
86	Power Inn Road & Florin Rd	Signal	Signal	↰ ↑ ⊬	⌟ ↓ ↓ ↰	↰ ↑ ↑ ⊬	↰ ↑ ↑ ⌐	↰ ↑ ⊬	⌟ ↓ ↓ ↰	↰ ↑ ↑ ⊬	↰ ↑ ↑ ⌐
87	Florin Perkins Road & Florin Rd	Signal	Signal	↰ ↑ ↑ ⌐	⌟ ↓ ↓ ↰	↰ ↑ ⊬	↰ ↑ ⊬	↰ ↑ ↑ ⌐	⌟ ↓ ↓ ↰	↰ ↑ ⊬	↰ ↑ ⊬
88	Bradshaw Rd & Calvine Rd	Signal	Signal	↰ ↰ ↑ ⊬	⌟ ↓ ↓ ↰ ↰	↰ ↰ ↑ ↑ ⌐	↰ ↰ ↑ ⊬	↰ ↰ ↑ ⊬	⌟ ↓ ↓ ↰ ↰	↰ ↰ ↑ ↑ ⌐	↰ ↰ ↑ ⊬

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 3.7
Revised Project
Existing and Existing Plus Mather South Project Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
89	Vineyard Rd & Calvine Rd	Signal	Signal	1	2	1	1	1	2	1	1
90	Excelsior Road & Calvine Rd	All-way stop	All-way stop	1	1	1	1	1	1	1	1
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal	1	1	1	1	1	1	1	1
92	Grant Line Rd & Calvine Rd	Signal	Signal	1	1	1		1	1	1	
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal	1	1	1	1	1	1	1	1
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	Signal	1	1	1	1	1	1	1	1
202	W Collector MS-1 & Kiefer Boulevard		Signal						1	1	1
204	E Collector MS-5 & Kiefer Boulevard		Signal						1	1	1
600	Zinfandel Drive & Collector MS-2		Roundabout					1	1		1
601	Zinfandel Drive & Collector MS-3		Roundabout					1	1		1
602	Zinfandel Drive & Collector MS-4		Roundabout					1	1		1
603	Collector MS-5 & Collector MS-2		Two-way stop					1	1	1	
604	Collector MS-5 & Collector MS-3		Two-way stop					1	1	1	
605	Collector MS-5 & Collector MS-4		Two-way stop					1	1	1	
606	Collector MS-5 & W Collector MS-1/E Collector MS-1		Two-way stop					1	1	1	

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

3.4.3 Existing Plus Mather South Project U.S. 50 Freeway Impacts

3.4.3.1 Freeway Basic Segments

Table 3.8 summarizes a.m. and p.m. peak hour US 50 freeway basic segment operations. Details of the analysis are included in the technical appendix. No locations exhibit significant impacts, based on Caltrans' threshold of significance (5% V/C increase).

3.4.3.2 Freeway Merge / Diverge / Weave Segments

Table 3.9 summarizes a.m. and p.m. peak hour freeway operations at merge/diverge/weave segments. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Westbound
  - Watt Avenue to Howe Avenue weave - p.m. peak hour

3.4.3.3 Freeway Ramp Intersection Queuing

Table 3.10 summarizes a.m. and p.m. peak hour freeway ramp intersection queuing. No locations exhibit a significant impact.

3.4.4 Existing Plus Mather South Project Pedestrian and Bicycle Facility Impacts

The Mather South project would not remove any existing or planned pedestrian facility. The Mather South project would not remove any existing bicycle facility. The Mather South project would add pedestrian and bicycle demands within the Mather South project site and to and from nearby land uses. As illustrated in Figure 3.2, the Mather South project has proposed changes to the Bikeway Master Plan. Because the Mather South project would add demand for pedestrian and bicycle facilities that may not be available in the site vicinity, the impact of the Mather South project on pedestrian and bicycle circulation is potentially significant.

Table 3.8: Existing Plus Mather South Project Peak Hour Freeway Basic Segment Level of Service									
Direc-tion	**Location**	**Existing**				**Existing Plus Mather South Project**			
		AM Peak Hour		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**	
		Volume	**LOS**	**Volume**	**LOS**	**Volume**	**LOS**	**Volume**	**LOS**
East-bound US 50	SR 99 / SR 51 to Stockton Boulevard	7,068	C	6,415	C	7,095	C	6,453	C
	Stockton Boulevard to 59th Street	7,470	**F**	7,228	**F**	7,508	**F**	7,275	**F**
	59th Street to 65th Street	6,767	D	6,641	D	6,798	D	6,679	D
	65th Street to Howe Avenue	7,962	D	7,562	D	7,996	D	7,624	D
	Howe Avenue to Watt Avenue	7,405	D	7,602	D	7,434	D	7,687	D
	Watt Avenue to Bradshaw Road	7,935	D	7,176	C	7,956	D	7,288	C
	Bradshaw Rd to Mather Field Rd	7,725	**F**	7,366	C	7,724	**F**	7,403	C
	Mather Field Rd to Zinfandel Drive	7,275	C	7,224	C	7,298	C	7,269	C
	Zinfandel Drive to Sunrise Blvd	5,121	C	6,649	**F**	5,267	C	6,693	**F**
	Sunrise Boulevard to Hazel Avenue	4,985	C	5,323	**F**	5,057	C	5,357	**F**
West-bound US 50	Hazel Avenue to Sunrise Boulevard	6,068	D	4,370	C	6,095	D	4,461	C
	Sunrise Blvd to Zinfandel Drive	7,502	D	4,762	C	7,544	D	4,901	C
	Zinfandel Drive to Mather Field Rd	7,548	C	5,765	B	7,642	C	5,727	B
	Mather Field Rd to Bradshaw Road	7,859	**F**	6,939	D	7,919	**F**	6,909	D
	Bradshaw Road to Watt Avenue	7,550	**F**	6,466	D	7,673	**F**	6,520	D
	Watt Avenue to Howe Avenue	7,376	**F**	5,106	**F**	7,470	**F**	5,148	**F**
	Howe Avenue to 65th Street	8,157	**F**	7,407	**F**	8,205	**F**	7,441	**F**
	65th Street to 59th Street	8,278	**F**	7,358	**F**	8,304	**F**	7,385	**F**
	59th Street to Stockton Boulevard	9,115	D	7,945	**F**	9,140	D	7,974	**F**
	Stockton Boulevard to SR 99 / SR 51	8,546	D	8,136	**F**	8,557	D	8,156	**F**

Bold values denote level of service "F" conditions. **Red shaded** values indicate project impacts.

Source: *DKS Associates, 2018.*

Table 3.9: Existing Plus Mather South Project Peak Hour Freeway Merge/Diverge/Weave Segment Level of Service

Direc-tion	Location	Junction Type	Existing				Existing Plus Mather South Project			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
East-bound US 50	Northbound 65th Street Slip Entrance	Weave	765	D	653	C	749	D	663	C
	Howe Avenue / Hornet Drive Exit		1,631		1,417		1,646		1,400	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	484	C	881	C	510	C	884	D
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	419	C	431	C	421	C	419	C
	Watt Avenue Exit	Two-Lane Diverge	1,317	B	1,634	B	1,315	B	1,605	B
	Watt Avenue Entrance	One-Lane Merge	2,134	**F**	1,724	D	2,122	**F**	1,737	D
	Bradshaw Road Exit	Two-Lane Diverge	1,520	B	1,228	B	1,555	B	1,297	B
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	220	C	422	C	237	C	423	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	971	C	918	C	971	C	915	C
	Mather Field Road Exit	Two-Lane Diverge	1,266	B	1,062	A	1,268	B	1,100	A
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	125	C	101	B	138	C	100	B

	Northbound Mather Field Road Slip Entrance	Weave	317	**F**	816	C	323	**F**	842	C
	Zinfandel Drive Exit		2,932		1,452		2,941		1,481	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	182	B	129	C	178	B	129	C
	Northbound Zinfandel Drive Slip Entrance	One-Lane Merge	348	B	540	C	498	B	588	C
	Sunrise Boulevard Exit	Major Diverge	1,773	C	1,959	D	1,859	C	1,976	D
	Sunrise Boulevard Entrance	One-Lane Merge	992	C	889	D	1,002	C	893	D
	Hazel Avenue Exit	Two-Lane Diverge	933	B	1,541	C	950	B	1,552	C
	Hazel Avenue Entrance	Weave	804	C	945	C	799	C	950	C
	Aerojet Road Exit		241		55		240		52	
West-bound US 50	Hazel Avenue Exit	Two-Lane Diverge	631	A	869	A	692	A	864	B
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	160	B	600	B	165	B	592	B
	Southbound Hazel Avenue Slip Entrance	One-Lane Merge	1,550	B	800	B	1,568	B	831	B
	Sunrise Boulevard Exit	One-Lane Diverge	749	E	758	D	706	E	773	D
	Sunrise Blvd Entrance	Lane Addition	2,183	**F**	1,656	D	2,191	**F**	1,712	D
	Zinfandel Drive Exit	One-Lane Diverge	1,034	E	608	C	1,034	E	737	C
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	585	B	1,197	B	654	B	1,200	B
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	442	C	561	B	460	C	535	B
	Mather Field Road Exit	One-Lane Drop	1,093	C	556	A	1,126	C	587	A

Northbound Mather Field Road Loop Entrance	One-Lane Merge	515	B	861	B	538	B	911	B
Southbound Mather Field Road Slip Entrance	One-Lane Merge	387	B	380	B	367	B	360	B
Bradshaw Road Exit	Two-Lane Diverge	1,236	B	1,327	B	1,241	B	1,300	B
Northbound Bradshaw Road Loop Entrance	One-Lane Merge	914	D	910	C	931	D	925	C
Southbound Bradshaw Road Slip Entrance	One-Lane Merge	338	D	590	C	346	D	613	C
Watt Avenue Exit	Major Diverge	1,373	D	1,188	C	1,412	D	1,199	C
Northbound Watt Avenue Entrance	One-Lane Merge	820	D	943	C	815	D	938	C
Southbound Watt Avenue Slip Entrance	Lane Addition / Weave	1,232	C	1,317	D	1,247	C	1,321	**F**
Howe Avenue Exit	Major Diverge / Weave	1,531	D	1,419		1,567	D	1,441	
Northbound Howe Avenue Loop Entrance	One-Lane Merge	654	D	602	C	651	D	624	C
Southbound Howe Avenue Slip Entrance	One-Lane Merge	574	C	574	C	564	C	572	C

Bold values denote level of service "F" conditions.
Red shaded values indicate project impacts.
Source: *DKS Associates, 2018.*

Table 3.10: Existing Plus Mather South Project Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					AM Peak Hour			PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	88	-	229	123	-	131
	Watt Avenue	1,500	-	1,500	#175	-	210	257	-	209
	Bradshaw Road	1,250	-	1,250	90	-	310	79	-	211
	Mather Field Road	1,385	-	1,385	89	-	351	172	-	55
	Zinfandel Drive	1,025	1,025	1,025	216	851	797	491	394	227
	Sunrise Boulevard	1,695	-	1,695	148	-	89	177	-	51
	Hazel Avenue	1,310	-	1,310	142	-	39	151	-	8
Westbound US-50	Hazel Avenue	1,995		1,995	282		50	152		219
	Sunrise Boulevard	1,540	-	1,540	56	-	57	96	-	137
	Zinfandel Drive	1,065	-	1,065	171	-	45	88	-	97
	Mather Field Road	1,335	-	1,335	249	-	169	97	-	43
	Bradshaw Road	1,330	-	1,330	154	-	69	123	-	13
	Watt Avenue	1,480	-	1,480	187	-	592	92	-	428
	Howe Avenue	1,355	1,355	1,355	127	412	113	161	412	149

Red shaded values indicate project impacts.
L = left turn movement, T = through movement, R = right turn movement
Source: *DKS Associates, 2018.*

3.4.5 Existing Plus Mather South Project Transit System Impacts

Public transit is not currently provided to the Mather South project site. In the preparation of this analysis, a conceptual transit system to serve the Mather South project and adjacent future projects was developed (see Section 3.1.2.3). The additional transit service was assumed to be funded by the Mather South project. However, the timing and implementation of the transit system are uncertain at this time. The Mather South project would increase demands for public transit facilities. Therefore, the impact of the Mather South project on the transit system is potentially significant.

3.4.6 Existing Plus Mather South Functionality Impacts

Table 3.11 summarizes the results of the rural roadway segment functionality analysis. **Figure 3.6** illustrates the resultant functionality impacts. The table includes the number of lanes assumed with the implementation of the Mather South project, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the Mather South project. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the project makes improvements to a roadway segment such as widening, it would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the Mather South project would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the Mather South project, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South project.

Table 3.11
Existing Plus Mather South Project Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + Mather South Project (Revised Project)			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	2	Yes	7,520	**Yes**
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	2	Yes	9,670	**Yes**
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	2	Yes	7,010	**Yes**
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Yes	3,570	No
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Yes	1,810	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	2	Yes	5,920	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	2	Yes	6,100	**Yes**
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	2	Yes	5,910	No
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	2	Yes	2,420	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Yes	1,630	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	2	Yes	4,770	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	2	Yes	3,750	No
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Yes	5,350	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Yes	4,090	No
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	2	Yes	8,400	**Yes**
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	2	Yes	7,130	**Yes**
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	2	Yes	7,160	**Yes**
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	2	Yes	4,650	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Yes	5,430	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	2	Yes	3,110	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	2	Yes	2,020	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	2	Yes	7,310	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	2	Yes	6,630	**Yes**
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Yes	2,960	No
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Yes	3,630	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Yes	2,700	No

Red text with light gray shading indicate project impacts.

Table 3.11
Existing Plus Mather South Project Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + Mather South Project (Revised Project)			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	2	Yes	14,210	**Yes**
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	2	Yes	13,330	**Yes**
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Yes	4,740	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	2	Yes	5,540	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	2	Yes	6,730	**Yes**
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Yes	7,060	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	2	Yes	1,820	No
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	2	Yes	2,450	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	2	Yes	17,990	**Yes**

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

FIGURE 3.6
EXISTING PLUS MATHER SOUTH
FUNCTIONALITY IMPACTS

Legend

- Substandard Roadways
- Functionality Impact
- Functionality Impact if Roadway is Not Already Improved
- Study_Area_Segments
- Cities
- Mather Airport

FOLSOM

RANCHO CORDOVA

SACRAMENTO

ELK GROVE

DKS

3.5 MITIGATION

3.5.1 Existing Plus Mather South Project Roadway Segment Mitigation

Table 3.12 summarizes the results of the operations analysis for the study area roadway segments with mitigation. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the Mather South project to implement. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

3.5.2 Existing Plus Mather South Project Intersection Mitigation

Tables 3.13 and 3.14 summarize the results of the operations analysis for the study area intersections with mitigation. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. Shaded table cells in Table 3.14 indicate those locations where changes in traffic control and / or number of approach lanes by type have been made which would be the responsibility of the Mather South project to implement. As shown in Table 3.13, all LOS impacts have been fully mitigated. Detailed analysis information is included in the technical appendix.

The "LOS Impact with Mitigation?" column in Table 3.14 shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

3.5.3 Existing Plus Mather South Project U.S. 50 Freeway Mitigation

Capacity improvements such as widening of the freeway and freeway junctions would reduce the severity of the impacts, but were generally not considered feasible due to right-of-way

restrictions, legal constraints, and the numerous transportation structures that would need to be modified and/or replaced. Potential alternative improvements have been identified from Caltrans' US-50 Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP). The TCR and CSMP is focused on intelligent transportation systems (ITS) and integrated corridor management (ICM) projects that would have operational benefits to US-50 without adding additional capacity. The TCR and CSMP also identify potential improvements to parallel local facilities that would be expected to reduce travel demand on US-50. The Mather South project will participate in one or more of these alternative improvements that could directly reduce the severity of the project's impact and/or provide operational benefits to the US-50 corridor in general.

3.5.3.1 US-50 Westbound Alternative Improvements

To lessen the impact to the westbound US-50 weave between Watt Avenue and Howe Avenue, the project may pay a fair share toward the construction of:

- Bus/HOV lanes from Watt Avenue to Downtown Sacramento (2035 SACOG MTP)
- Replacement of existing communication lines with fiber optics to improve performance between SR-51/SR-99 and Watt Avenue (2013 10-Year SHOPP Plan)
- Auxiliary lane between the NB Howe Avenue on-ramp and the SB Howe Avenue on-ramp (2035 SACOG MTP)
- Ramp meter improvements (Caltrans ITS/OPS Project List)

Table 3.12
Existing Plus Mather South Project Roadway Segment Mitigations

ID	Roadway	Segment		Existing + Mather South Project					Mitigated Existing + Mather South Project (Revised Project)						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd	2	Rural S	14,740	0.74	**E**	4	Arterial M	0.41	A	No		
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	18,640	0.93	**E**	4	Arterial M	0.52	A	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,610	0.59	**E**	4	Arterial M	0.38	A	No		
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	18,540	1.03	**F**	4	Arterial M	0.52	A	No		
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	51,390	0.95	**E**	7	Arterial M	0.95	**E**	Yes		Maximum General Plan lanes
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	18,860	1.05	**F**	4	Arterial M	0.52	A	No		

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 3.13
Revised Project
Existing Plus Mather South Project Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus Mather South Project			LOS Impact	Mitigated Existing Plus Mather South Project			Existing Plus Mather South Project			LOS Impact	Mitigated Existing Plus Mather South Project		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
32	Woodring Drive & Zinfandel Drive	Two-way stop			Yes	Roundabout	C	23.4	Two-way stop			Yes	Roundabout	C	20.7
	Eastbound		*F*	*112.3*			*A*	*9.8*		*F*	*72.7*			*B*	*11.7*
	Northbound Left Turn		*A*	*8.6*			*E*	*35.3*		*B*	*10.2*			*B*	*11.8*
42	Happy Lane & Old Placerville Road	Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane.			Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane.		
	Northbound Left Turn		*F*	*214.3*						*F*	*243.7*				
	Northbound Right Turn		*E*	*36.1*						*C*	*19.6*				
	Westbound Left Turn		*B*	*11.0*						*B*	*10.4*				
60	Eagles Nest Road & Jackson Road	Two-way stop			Yes	Signal	D	45.5	Two-way stop			Yes	Signal	D	44.2
	Northbound		*F*	*>300*						*F*	*>300*				
	Southbound		*F*	*>300*						*F*	*>300*				
	Eastbound Left Turn		*A*	*9.1*						*A*	*8.2*				
	Westbound Left Turn		*A*	*7.8*						*A*	*8.6*				

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 3.14
Revised Project
Existing Plus Mather South Project Intersection Impacts and Mitigations

Intersection		Traffic Control		Existing Plus Mather South Project Lane Geometrics				Mitigated Existing Plus Mather South Project Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Existing Plus Project	Mitigated Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
32	Zinfandel Drive & Woodring Drive	Two-way stop	Roundabout	١ ↑	٤	٧		٢	٤	٧		No	No		
42	Happy Lane & Old Placerville Road	Two-way stop	Access Control	١٢		↑ ٢	١ ↑	Happy Lane to become right-in and right-out only. Median will allow westbound left turns.				Yes	No	Construct Routier extension from Old Placerville Road to Kiefer Road.	
60	Eagles Nest Road & Jackson Road	Two-way stop	Signal	٣	٨	١٢	١٢	٣	٢١	١٢	١٢	No	No		

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

3.5.4 Existing Plus Mather South Project Pedestrian and Bicycle Facility Mitigation

The Mather South project applicant shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the Mather South project and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the Mather South project vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

3.5.5 Existing Plus Mather South Project Transit System Mitigation

The Mather South project applicant shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis (see Section 3.1.2.3), or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the Mather South project. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the Mather South project, must be phased with development of the Mather South project.

3.5.6 Existing Plus Mather South Project Functionality Mitigation

Table 3.15 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation.

3.5.7 Existing Plus Mather South Project Mitigation Summary

Tables 3.16 through 3.19 summarize all of the roadway segments, intersections, and freeway facilities that would exhibit significant LOS impacts along with the mitigation success for these impacts.

Table 3.15
Existing Plus Mather South Project Functionality Mitigations

ID	Roadway	Segment		Existing + Mather South Project (Revised Project)				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Yes	7,520	**Yes**	Widen to County standards [5]	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Yes	9,670	**Yes**	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	2	Yes	7,010	**Yes**	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Yes	6,100	**Yes**	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	2	Yes	8,400	**Yes**	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Yes	7,130	**Yes**	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Yes	7,160	**Yes**	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Yes	6,630	**Yes**	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Yes	14,210	**Yes**	Widen to County standards [5]	No
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Yes	13,330	**Yes**	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	2	Yes	6,730	**Yes**	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	2	Yes	17,990	**Yes**	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

Table 3.16
Existing Plus Mather South Project Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd
56	Grant Line Rd	Sheldon Rd	Wilton Rd
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd
122	Zinfandel Dr	City Limit	Douglas Rd
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
118	Zinfandel Dr	US 50	White Rock Rd

Note: Refer to Table 3.12 for detailed description of impacts and mitigations.

Table 3.17
Revised Project
Existing Plus Mather South Project Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
32	Woodring Drive & Zinfandel Drive	
42	Happy Lane & Old Placerville Road	**
60	Eagles Nest Road & Jackson Road	

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 3.18

Existing Plus Mather South Project
Summary of Impacted Freeway Merge/Diverge/Weave Segments

Direction	Location	Junction Type
Level of Service Impact Not Mitigated		
Westbound US-50	Southbound Watt Avenue Slip Entrance	Weave
	Howe Avenue Exit	

Source: *DKS Associates, 2018.*

Table 3.19
Existing Plus Mather South Project Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

4. EXISTING PLUS FOUR PROJECTS SCENARIO

4.1 PROJECT DESCRIPTION

The existing plus FOUR PROJECTS scenario evaluates the effects of the traffic of four developments (FOUR PROJECTS) added to existing conditions. **Figure 4.1** illustrates the location of the FOUR PROJECTS:

- West Jackson
- Jackson Township
- NewBridge
- Mather South

The FOUR PROJECTS are located in unincorporated Sacramento County, generally east of the City of Sacramento and south of the community of Rosemont and the City of Rancho Cordova. The FOUR PROJECTS are located both north and south of Jackson Road (SR 16). The FOUR PROJECTS are generally bounded to the west by South Watt Avenue, to the north by the Community of Rosemont and Mather Airport, to the east by Sunrise Boulevard, and to the south by Elder Creek Road and Florin Road.

4.1.1 Land Use

Table 4.1 summarizes the land use assumptions for the FOUR PROJECTS in Jackson Corridor. Together, the FOUR PROJECTS would contain over 28,600 dwelling units and contain enough non-residential land uses to employ over 38,200 workers.

4.1.2 Transportation Network

4.1.2.1 Roadway Segments and Intersections

Figure 4.2 illustrates the FOUR PROJECTS transportation network. The FOUR PROJECTS would widen and / or complete many roadways that cross or border the FOUR PROJECTS sites. The FOUR PROJECTS would improve many intersections within or on the borders of the projects. In addition, the FOUR PROJECTS would include new roadways to serve the proposed land use. The proposed improvements associated with the FOUR PROJECTS are summarized later in Sections 4.2.1 and 4.2.2.

4.1.2.2 Pedestrian and Bicycle Facilities

The roadways within the FOUR PROJECTS would meet County standards, which would provide sidewalks and on-street (Class II) bike lanes on all collector, arterial and thoroughfare roadways. The FOUR PROJECTS also provide several off-street (Class I) multi-purpose trails.

FIGURE 4.1
FOUR PROJECTS
PROJECT LOCATIONS

Legend

- Study Roadway Segments
- Freeways
- Other Major Roadways
- West Jackson Hwy Project
- Jackson Township Project
- NewBridge Project
- Mather South Project
- Cities
- Mather Airport

Table 4.1: Assumed Land Use for Existing Plus FOUR PROJECTS Scenario			
Project	**General Land Use**	**Acres**	**Dwelling Units**
West Jackson	Residential	1979.9	12,345
	Assumed Density Bonus[1]		237
	Mixed Use	120.9	2,418
	Commercial	342.8	
	Employment	803.3	
	Industrial	154.8	
	Schools	131.7	
	Park/Open Space/Ag	2108.3	
	Institutional	23.4	
	Primary Roadways	248.2	
	Subtotal	**5913.3**	**15,000**
Jackson Township	Residential	589.1	5,590
	Assumed Density Bonus[1]		76
	Commercial/Mixed Use	95.6	100
	Office	35.2	
	Pubic/Quasi Public	102.5	
	Park/Open Space/Ag	409.4	448
	Primary Roadways	84.2	
	Subtotal	**1,391.0**	**6,214**
NewBridge	Residential	368.0	2,915
	Assumed Density Bonus[1]		108
	Commercial/Mixed Use	31.7	160
	Office	13.8	
	Pubic/Quasi Public	13.8	
	Park/Open Space/Ag	514.7	660
	Primary Roadways	47.9	
	Subtotal	**1,095.3**	**3,843**

Mather South	Residential	428.7	3,352
	Assumed Density Bonus[1]		30
	Commercial	21.1	
	Environmental Education Campus	27.9	200
	Research and Development	21.4	
	Parks & Recreation	43.1	
	Public Utilities	3.5	
	Schools	23.7	
	Open Space	210.5	
	Streets	62.7	
	Subtotal	**848.2**	**3,552**

[1] Reflects estimated potential for additional units that may occur due to County's Housing Incentive Program.

Source: *Project Applicants and Sacramento County, 2018*

FIGURE 4.2
EXISTING PLUS FOUR PROJECTS (JACKSON TOWNSHIP ALT 2) ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

4.1.2.3 Transit System

As described in Section 2.2, transit service in the vicinity of the FOUR PROJECTS is very limited. The FOUR PROJECTS are designed with significant amounts of higher density and mixed uses to help support transit use but transit service within walking distances of those uses is required to achieve significant transit ridership.

An accurate estimation of transit use requires the definition of specific transit routes and frequency of service on those routes. A separate planning effort, involving staff from Sacramento County and Sacramento Regional Transit (RT), was conducted to define an appropriate transit system for the transportation analysis. That effort is described in Section 3.1.2.3.

The planning effort resulted in four transit lines that would serve the FOUR PROJECTS at a frequency of 15 minutes during the peak commute hours (approximately 6-9 AM and 3-6 PM) and 30 minutes during off-peak service hours (approximately 9AM-3PM and 6PM-8PM) on weekdays. Another key characteristic of the proposed transit system built into the modeling assumptions is the targeted use of queue jumps on portions of key corridors (Bradshaw Road from Kiefer Boulevard to Rock Creek Parkway, and Jackson Road from Watt Avenue to Excelsior Road). Queue jumps ensure that buses are not excessively delayed at signals along congested corridors, and therefore not too heavily penalized from a travel time perspective. This is necessary to achieve the adequate ridership levels that were forecast and ensure reliable operations. **Figure 4.3** shows the assumed transit routes for this scenario.

The assumed transit routes, service frequency, and supporting infrastructure (i.e. queue jumps) would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

4.2 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the FOUR PROJECTS. **Table 4.2** summarizes the person trip generation. The FOUR PROJECTS would generate over 85,000 daily work person trip ends, and over 672,000 daily person trip ends for all trip purposes.

Table 4.3 summarizes the estimated mode choice for the Existing plus FOUR PROJECTS scenario. Over 90 percent of all person trips are expected to be accommodated by automobile. Transit will serve about 1.4 percent of all trips, while walk and bike modes will accommodate about 7.7 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 4.4 summarizes the vehicular (auto) trip generation of the FOUR PROJECTS. The FOUR PROJECTS are estimated to generate nearly 462,000 daily vehicle trip ends. About 100,700 of the daily vehicle trip ends will be associated with trips with both an origin and destination within

the individual projects, about 21.8 percent of the trip ends. The internal trip ends represent about 50,300 daily vehicle trips (one-half the number of internal trip ends). The FOUR PROJECTS will generate about 361,200 external vehicle trips that have an origin or destination inside one of the FOUR PROJECTS but the other end of the trip is outside the project from which it originated. **Table 4.4** also shows the vehicle trips generated during the a.m. and p.m. peak hours.

Table 4.2: Estimated Daily Person Trip Generation (Existing Plus FOUR PROJECTS Scenario)

Trip Purpose	Daily Person Trip Ends
Work Trips	85,601
Non-Work Trips	587,097
All Trip Purposes	672,698

Source: *DKS Associates, 2018.*

Table 4.3: Mode Split (Existing Plus FOUR PROJECTS Scenario)

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	85.5%	48.7%	53.4%
Auto - HOV	10.3%	41.5%	37.5%
Transit	2.7%	1.3%	1.4%
Walk	1.0%	7.7%	6.9%
Bike	0.5%	0.8%	0.8%

Source: *DKS Associates, 2018.*

Table 4.4: Estimated Daily Vehicle Trip Generation (Existing Plus FOUR PROJECTS Scenario)

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		39,960	43,388	461,920
Percent Internal Trip Ends[1]		18.5%	22.3%	21.8%
Vehicle Trips	Internal to Projects	3,687	4,838	50,315
	External to Projects	32,585	33,712	361,290
	Total	36,273	38,550	411,605

[1.] Both trip ends within individual projects.

Source: *DKS Associates, 2018.*

4.3 TRIP DISTRIBUTION

The distribution of trips associated with development of the FOUR PROJECTS was derived utilizing SACSIM, incorporating the proposed land use and access locations associated with the FOUR PROJECTS. Trip distribution varies by land use and time period. **Figure 4.4** illustrates the overall trip distribution of daily FOUR PROJECTS trips with the Existing Plus FOUR PROJECTS scenario. The highest percentages of FOUR PROJECTS traffic are accommodated on Jackson Road, Bradshaw Road, Kiefer Boulevard, and Vineyard Road.

4.4 OPERATIONS ANALYSIS AND IMPACTS

For purposes of this analysis, full development of the FOUR PROJECTS is assumed to occur "instantaneously." In this manner, the traffic and impacts associated with the FOUR PROJECTS can be directly compared to known and measured conditions. Existing scenario impacts are determined by comparing the traffic operating conditions associated with the FOUR PROJECTS with the traffic operating conditions associated with the existing (without FOUR PROJECTS) conditions, and comparing the change to the thresholds of significance. **Figure 4.5** illustrates the resultant traffic operating conditions.

4.4.1 Existing Plus FOUR PROJECTS Roadway Segment Impacts

Table 4.5 summarizes the results of the operations analysis for the study area roadway segments. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways or widened roadways. The last column of the table shows the project(s) responsible for the increase in the number of roadway lanes. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

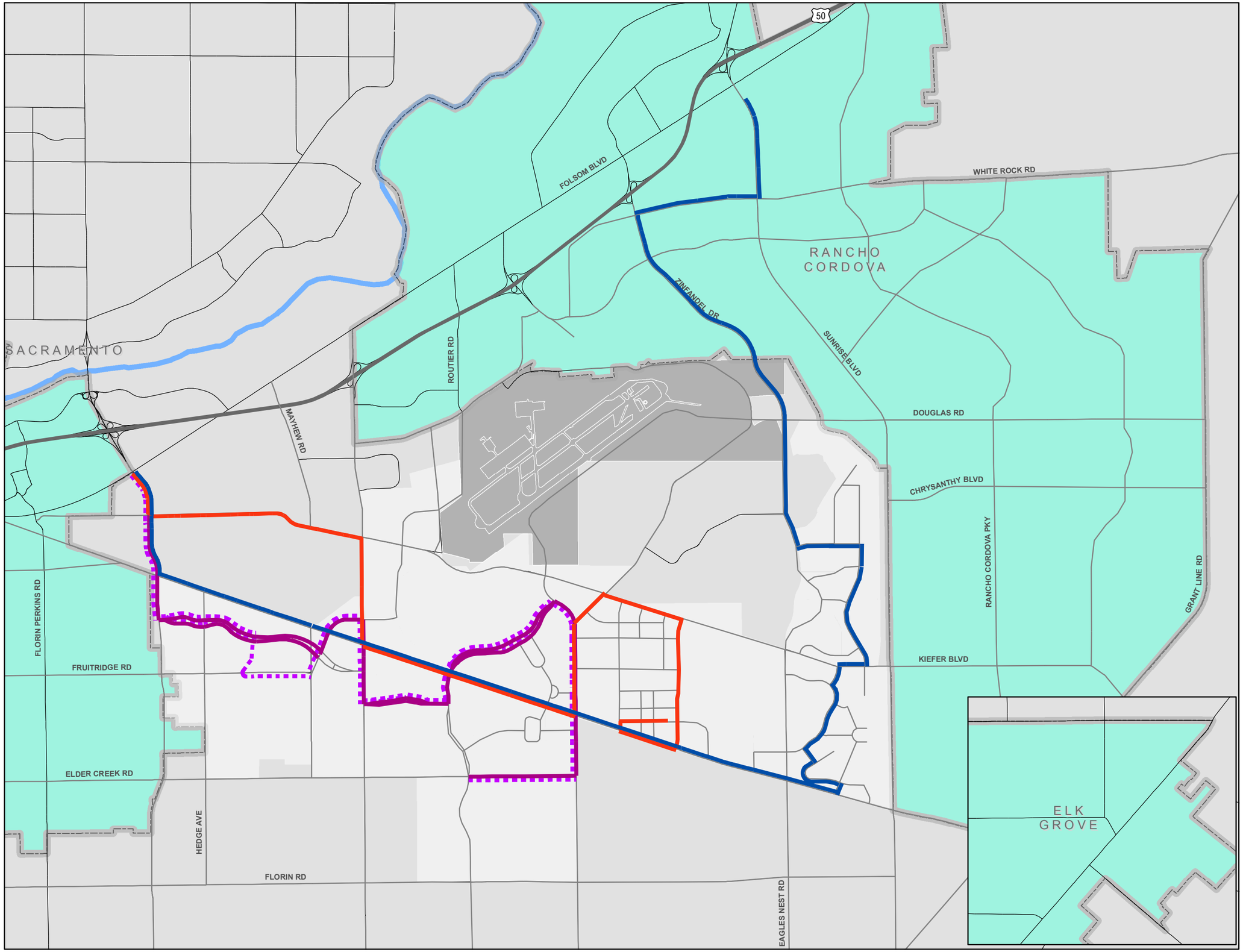

FIGURE 4.3
PROJECT TRANSIT NETWORK
EXISTING PLUS FOUR PROJECTS

Legend

- Jackson Express Route
- Kiefer Jackson Local Route
- West Jackson Local Route A
- West Jackson Local Route B
- Cities
- Mather Airport

DKS

FIGURE 4.4
EXISTING PLUS FOUR PROJECTS
TRIP DISTRIBUTION

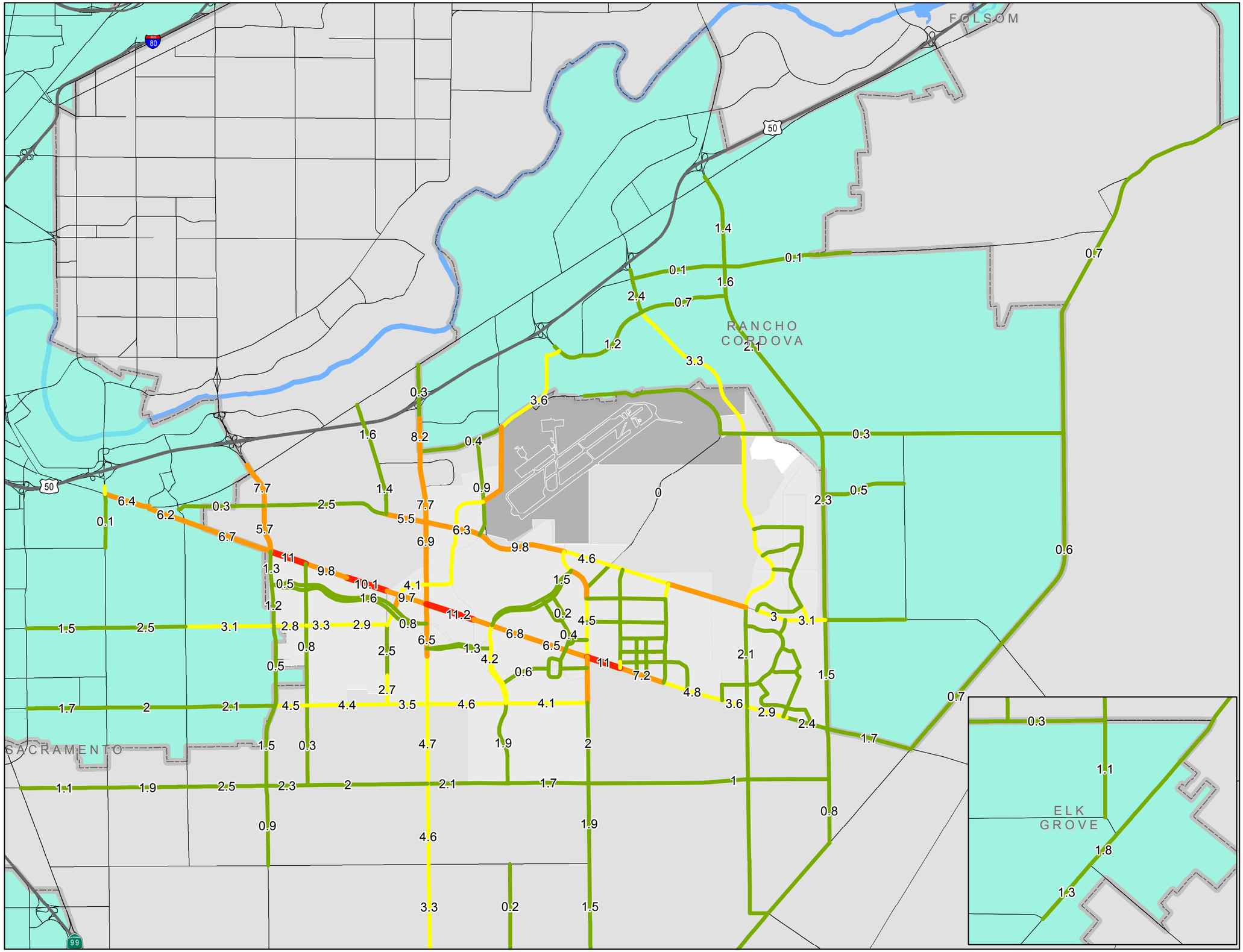

FIGURE 4.5
EXISTING PLUS FOUR PROJECTS (JACKSON TOWNSHIP ALT 2) ROADWAY SEGMENT AND INTERSECTION LOS AND IMPACTS

FOLSOM

RANCHO CORDOVA

SACRAMENTO

ELK GROVE

80

50

99

Legend

Intersections (AM Peak Hour)

- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)

- LOS A-D
- LOS E
- LOS F
- Mitigable Intersection Impact
- Unavoidable Intersection Impact

Roadway Segments

- LOS A-D
- LOS E
- LOS F

Impacts

- Unavoidable Segment Impact
- Mitigable Segment Impact
- Cities
- Mather Airport

DKS

Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	20,592	0.38	A	6	Arterial M	19,200	0.36	A	
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	52,590	0.97	**E**	6	Arterial M	74,850	1.39	**F**	
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	42,787	0.79	C	6	Arterial M	68,340	1.27	**F**	
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	38,984	0.72	C	6	Arterial M	60,800	1.13	**F**	
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	4	Arterial M	28,651	0.80	C	4	Arterial M	52,590	1.46	**F**	
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	4	Arterial M	28,651	0.80	C	5	Arterial M	48,280	1.34	**F**	West Jackson
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	4	Arterial M	30,726	0.85	D	5	Arterial M	43,190	1.20	**F**	West Jackson
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	4	Arterial M	30,726	0.85	D	5	Arterial M	43,450	1.21	**F**	West Jackson
6.3	Bradshaw Rd	Mayhew Rd	Jackson Rd	4	Arterial M	30,726	0.85	D	6	Arterial M	45,410	0.84	D	West Jackson
7.1	Bradshaw Rd	Jackson Rd	Rock Creek Pkwy	4	Arterial M	22,871	0.64	B	6	Arterial M	35,380	0.66	B	West Jackson
7.2	Bradshaw Rd	Rock Creek Pkwy	Collector WJ-10	4	Arterial M	22,871	0.64	B	6	Arterial M	36,740	0.68	B	West Jackson
7.3	Bradshaw Rd	Collector WJ-10	Collector WJ-11	4	Arterial M	22,871	0.64	B	6	Arterial M	29,220	0.54	A	West Jackson
7.4	Bradshaw Rd	Collector WJ-11	Elder Creek Rd	4	Arterial M	22,871	0.64	B	6	Arterial M	23,920	0.44	A	West Jackson
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	4	Arterial M	22,265	0.62	B	4	Arterial M	32,200	0.89	D	
9	Bradshaw Rd	Florin Rd	Gerber Rd	4	Arterial M	22,883	0.64	B	4	Arterial M	32,640	0.91	E	
10	Bradshaw Rd	Gerber Rd	Calvine Rd	4	Arterial M	16,984	0.47	A	4	Arterial M	24,860	0.69	B	
11	Calvine Rd	Waterman Rd	Bradshaw Rd	4	Arterial M	16,015	0.44	A	4	Arterial M	21,490	0.60	A	
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	12,395	0.34	A	4	Arterial M	13,180	0.37	A	
13	Calvine Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	6,036	0.34	A	2	Arterial M	6,840	0.38	A	
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	3,411	0.09	A	4	Arterial M	4,910	0.14	A	
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Arterial M	6,635	0.37	A	2	Arterial M	5,950	0.33	A	
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Arterial M	8,369	0.46	A	2	Arterial M	8,740	0.49	A	
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	3,674	0.10	A	5	Arterial M	5,370	0.15	A	
18	Douglas Rd	Rancho Cordova Pkwy	Grant Line Rd	2	Arterial M	3,674	0.20	A	2	Arterial M	5,150	0.29	A	
19.1	Eagles Nest Rd	Kiefer Blvd	N Bridgewater Dr	2	Arterial M	740	0.04	A	4	Arterial M	8,640	0.24	A	NewBridge
19.2	Eagles Nest Rd	N Bridgewater Dr	S Bridgewater Dr	2	Arterial M	740	0.04	A	4	Arterial M	8,840	0.25	A	NewBridge
19.3	Eagles Nest Rd	S Bridgewater Dr	Jackson Rd	2	Arterial M	740	0.04	A	4	Arterial M	9,500	0.26	A	NewBridge
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	517	0.03	A	2	Arterial M	6470	0.36	A	
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	189	0.01	A	2	Arterial M	3430	0.19	A	
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	17,891	0.50	A	4	Arterial M	23,360	0.65	B	
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	15,734	0.87	D	2	Arterial M	22,490	1.25	**F**	
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	11,092	0.62	B	2	Arterial M	17,930	1.00	**E**	
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,576	0.31	A	2	Arterial M	24,370	1.35	**F**	
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	5,797	0.32	A	2	Arterial M	23,830	1.32	**F**	

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	5,355	0.30	A	3	Arterial M	14,080	0.78	C	West Jackson
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	2	Arterial M	2,158	0.12	A	3	Arterial M	20,830	1.16	**F**	West Jackson
28.2	Elder Creek Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	2,158	0.12	A	4	Arterial M	17,660	0.49	A	West Jackson
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	22,960	1.28	**F**	2	Arterial M	24,620	1.37	**F**	
30.1	Excelsior Rd	Kiefer Blvd	Douglas Rd	2	Arterial M	3,716	0.21	A	2	Arterial M	3,900	0.22	A	
30.2	Excelsior Rd	Douglas Rd	Collector WJ-1/ Collector JT-1	2	Arterial M	3,716	0.21	A	4	Arterial M	22,740	0.63	B	West Jackson; Jackson Township
30.3	Excelsior Rd	Collector WJ-1/ Collector JT-1	Collector WJ-2/ Collector JT-2	2	Arterial M	3,716	0.21	A	4	Arterial M	19,950	0.55	A	West Jackson; Jackson Township
30.4	Excelsior Rd	Collector WJ-2/ Collector JT-2	Jackson Rd	2	Arterial M	3,716	0.21	A	4	Arterial M	18,210	0.51	A	West Jackson; Jackson Township
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	2	Arterial M	5,075	0.28	A	3	Arterial M	28,310	1.57	**F**	West Jackson
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	2	Arterial M	5,075	0.28	A	3	Arterial M	27,210	1.51	**F**	West Jackson
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,203	0.23	A	3	Arterial M	11,850	0.66	B	West Jackson
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	5,423	0.30	A	2	Arterial M	12,980	0.72	C	
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	4,229	0.23	A	2	Arterial M	10,200	0.57	A	
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	4,473	0.25	A	2	Arterial M	8,490	0.47	A	
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	27,495	0.76	C	4	Arterial M	31,530	0.88	D	
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	21,595	0.60	A	4	Arterial M	30,800	0.86	D	
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	4	Arterial M	14,163	0.39	A	4	Arterial M	23,570	0.65	B	
39	Florin Rd	South Watt Ave	Hedge Ave	2	Arterial M	7,718	0.43	A	2	Arterial M	16,070	0.89	D	
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Arterial M	6,312	0.35	A	2	Arterial M	13,050	0.73	C	
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	6,317	0.35	A	2	Arterial M	13,290	0.74	C	
42.1	Florin Rd	Bradshaw Rd	Vineyard Rd	2	Arterial M	3,478	0.19	A	2	Arterial M	12,760	0.71	C	
42.2	Florin Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	3,478	0.19	A	3	Arterial M	10,520	0.58	A	West Jackson
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	3,835	0.21	A	2	Arterial M	7,380	0.41	A	
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	37,516	1.04	**F**	4	Arterial M	54,050	1.50	**F**	
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	16,634	0.46	A	4	Arterial M	22,930	0.64	B	
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	15,214	0.42	A	4	Arterial M	27,790	0.77	C	
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,280	0.57	A	2	Arterial M	22,220	1.23	**F**	
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	2,890	0.16	A	3	Arterial M	14,950	0.83	D	West Jackson
49.1	Fruitridge Rd	Hedge Ave	Collector WJ-12	2	Arterial M	1,790	0.10	A	4	Arterial M	17,660	0.49	A	West Jackson

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
49.2	Fruitridge Rd	Collector WJ-12	Mayhew Rd	2	Arterial M	1,790	0.10	A	4	Arterial M	15,820	0.44	A	West Jackson
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Rural NS	7,189	0.42	D	2	Rural NS	9,020	0.53	D	
51	Grant Line Rd	Douglas Rd	Kiefer Blvd	2	Rural S	6,143	0.31	C	2	Rural S	8,210	0.41	D	
52	Grant Line Rd	Kiefer Blvd	Jackson Rd	2	Rural S	5,758	0.29	C	2	Rural S	7,480	0.37	D	
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	2	Rural S	14,720	0.74	E	2	Rural S	13,300	0.67	E	
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	2	Rural S	14,812	0.74	E	2	Rural S	18,610	0.93	E	
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit	2	Rural S	13,140	0.66	E	2	Rural S	15,900	0.80	E	
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd	2	Rural S	13,140	0.66	**E**	2	Rural S	15,870	0.79	**E**	
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	17,459	0.87	**E**	2	Rural S	22,700	1.14	**F**	
57	Grant Line Rd	Wilton Rd	Bond Rd	2	Rural S	16,064	0.80	**E**	2	Rural S	20,180	1.01	**F**	
58.1	Happy Lane	Old Placerville Road	Routier Ext	2	Rural S	4,635	0.23	C	2	Arterial M	7,540	0.42	A	
58.2	Happy Lane	Routier Ext	Kiefer Boulevard	2	Rural S	4,635	0.23	C	2	Arterial M	19,200	1.07	**F**	
59.1	Hedge Ave	Jackson Rd	Rock Creek Pkwy	2	Arterial M	3,061	0.17	A	2	Arterial M	7,900	0.44	A	
59.2	Hedge Ave	Rock Creek Pkwy	Fruitridge Rd	2	Arterial M	3,061	0.17	A	2	Arterial M	2,480	0.14	A	
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	3,737	0.21	A	2	Arterial M	3,630	0.20	A	
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	2,722	0.15	A	2	Arterial M	3,650	0.20	A	
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	53,849	1.00	E	6	Arterial M	61,820	1.14	**F**	
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	17,500	0.32	A	6	Arterial M	22,320	0.41	A	
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	8,802	0.16	A	6	Arterial M	10,890	0.20	A	
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	2	Arterial M	12,358	0.69	B	2	Arterial M	33,010	1.83	**F**	
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,414	0.58	A	2	Arterial M	37,200	2.07	**F**	
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	17,060	0.95	E	4	Arterial M	58,720	1.63	**F**	West Jackson
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	2	Arterial M	12,616	0.70	C	4	Arterial M	50,220	1.40	**F**	West Jackson
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	2	Arterial M	12,616	0.70	C	4	Arterial M	51,620	1.43	**F**	West Jackson
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	14,996	0.83	D	6	Arterial M	49,790	0.92	E	West Jackson
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4	2	Arterial M	13,030	0.72	C	6	Arterial M	52,830	0.98	E	West Jackson
70.2	Jackson Rd	Collector WJ-4	Rock Creek Pkwy	2	Arterial M	13,030	0.72	C	6	Arterial M	52,860	0.98	E	West Jackson
70.3	Jackson Rd	Happy Ln	Rock Creek Pkwy	2	Arterial M	13,030	0.72	C	6	Arterial M	33,860	0.63	B	West Jackson
70.4	Jackson Rd	Rock Creek Pkwy	Collector WJ-5	2	Arterial M	13,030	0.72	C	6	Arterial M	33,510	0.62	B	West Jackson
70.5	Jackson Rd	Collector WJ-5	Collector WJ-6	2	Arterial M	13,030	0.72	C	6	Arterial M	30,650	0.57	A	West Jackson
70.6	Jackson Rd	Collector WJ-6	Excelsior Rd	2	Arterial M	13,030	0.72	C	6	Arterial M	30,660	0.57	A	West Jackson
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	2	Rural Hwy	10,478	0.46	D	4	Arterial M	46,410	1.29	**F**	Jackson Township
71.2	Jackson Rd	Collector JT-3	Tree View Ln	2	Rural Hwy	10,478	0.46	D	4	Arterial M	32,930	0.91	E	Jackson Township
71.3	Jackson Rd	Tree View Ln	Collector JT-4	2	Rural Hwy	10,478	0.46	D	4	Arterial M	25,300	0.70	C	Jackson Township
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd	2	Rural Hwy	10,478	0.46	D	4	Arterial M	21,520	0.60	A	Jackson Township

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr	2	Rural Hwy	9,976	0.44	D	4	Arterial M	19,150	0.53	A	NewBridge
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd	2	Rural Hwy	9,976	0.44	D	4	Arterial M	18,210	0.51	A	NewBridge
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,306	0.58	D	2	Rural Hwy	17,610	0.77	**E**	
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	4,616	0.26	A	2	Arterial M	5,490	0.31	A	
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	18,668	0.52	A	4	Arterial M	25,980	0.72	C	
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	9,274	0.26	A	4	Arterial M	36,970	1.03	**F**	
77.1	Kiefer Boulevard	Bradshaw Road	Collector WJ-14	2	Arterial M	4,618	0.26	A	6	Arterial M	42,680	0.79	C	West Jackson
77.2	Kiefer Boulevard	Collector WJ-14	Routier Ext	2	Arterial M	4,618	0.26	A	6	Arterial M	38,960	0.72	C	West Jackson
77.3	Kiefer Boulevard	Routier Ext	Happy Lane	2	Arterial M	4,618	0.26	A	6	Arterial M	38,960	0.72	C	West Jackson
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	656	0.04	A	4	Arterial M	15,450	0.43	A	NewBridge; Mather South
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	656	0.04	A	4	Arterial M	12,100	0.34	A	NewBridge; Mather South
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	656	0.04	A	4	Arterial M	12,590	0.35	A	NewBridge; Mather South
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	656	0.04	A	4	Arterial M	14,640	0.41	A	NewBridge; Mather South
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	2	Arterial M	2,786	0.15	A	2	Arterial M	2,870	0.16	A	
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	4,373	0.12	A	4	Arterial M	5,110	0.14	A	
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	4,373	0.12	A	4	Arterial M	5,110	0.14	A	
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	4,373	0.24	A	2	Arterial M	5,060	0.28	A	
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	6,751	0.84	E	2	Res Collector F	4,400	0.55	C	
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	37,755	0.70	B	6	Arterial M	39,970	0.74	C	
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	37,520	0.69	B	6	Arterial M	43,990	0.81	D	
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	4	Arterial M	14,857	0.41	A	4	Arterial M	15,120	0.42	A	
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	6,977	0.39	A	2	Arterial M	13,250	0.74	C	
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial L	6,593	0.44	A	2	Arterial L	10,550	0.70	C	
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy	2	Arterial L	1,616	0.11	A	4	Arterial M	34,140	0.95	E	West Jackson
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd	2	Arterial L	1,616	0.11	A	4	Arterial M	30,710	0.85	D	West Jackson
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	15,800	0.44	A	4	Arterial M	13,480	0.37	A	
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	13,573	0.75	C	2	Arterial M	10,000	0.56	A	
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	10,710	0.60	A	2	Arterial M	6,820	0.38	A	
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	10,710	0.30	A	4	Arterial M	28,740	0.80	C	

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	36,175	0.67	B	6	Arterial M	35,440	0.66	B	
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	19,881	0.55	A	4	Arterial M	32,640	0.91	**E**	
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	40,920	0.76	C	6	Arterial M	64,430	1.19	**F**	
97	South Watt Ave	Kiefer Blvd	Jackson Rd	5	Arterial M	32,415	0.90	E	5	Arterial M	49,470	1.37	**F**	
98.1	South Watt Ave	Jackson Rd	Rock Creek Pkwy	2	Arterial M	25,832	1.44	**F**	4	Arterial M	30,560	0.85	D	West Jackson
98.2	South Watt Ave	Rock Creek Pkwy	Fruitridge Rd	2	Arterial M	25,832	1.44	**F**	4	Arterial M	29,530	0.82	D	West Jackson
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	21,567	1.20	**F**	2	Arterial M	22,290	1.24	**F**	
100	South Watt Ave	Elder Creek Rd	Florin Rd	2	Arterial M	19,069	1.06	**F**	2	Arterial M	24,510	1.36	**F**	
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	54,500	1.01	**F**	7	Arterial M	56,110	1.04	**F**	
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	49,500	0.92	**E**	6	Arterial M	52,840	0.98	**E**	
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	34,571	0.64	B	6	Arterial M	39,700	0.74	C	
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	25,811	0.48	A	6	Arterial M	30,620	0.57	A	
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	28,400	0.53	A	6	Arterial M	34,510	0.64	B	
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	25,811	0.48	A	6	Arterial M	33,060	0.61	B	
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	21,878	0.61	B	5	Arterial M	28,140	0.78	C	
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	16,894	0.94	**E**	2	Arterial M	20,300	1.13	**F**	
107	Sunrise Blvd	Jackson Rd	Florin Rd	2	Rural S	11,181	0.56	D	2	Rural S	14,360	0.72	E	
108	Sunrise Blvd	Florin Rd	Grant Line Rd	2	Rural S	7,752	0.39	D	2	Rural S	10,370	0.52	D	
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	5,515	0.31	A	2	Arterial M	5,610	0.31	A	
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	65,242	1.09	**F**	6	Arterial H	77,770	1.30	**F**	
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	3,962	0.22	A	2	Arterial M	4,010	0.22	A	
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	11,200	0.31	A	4	Arterial M	10,270	0.29	A	
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	14,756	0.27	A	6	Arterial M	14,920	0.28	A	
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	14,756	0.41	A	5	Arterial M	15,670	0.44	A	
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	15,433	0.43	A	4	Arterial M	15,950	0.44	A	
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	2	Rural NS	2,490	0.15	B	2	Rural NS	2,090	0.12	B	
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	9,400	0.26	A	4	Arterial M	10,840	0.30	A	
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	45,228	0.84	D	7	Arterial M	49,950	0.93	**E**	
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	17,923	0.33	A	6	Arterial M	26,460	0.49	A	
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	7,595	0.14	A	6	Arterial M	20,710	0.38	A	
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	7,595	0.21	A	4	Arterial M	20,710	0.58	A	
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	7,595	0.42	A	2	Arterial M	20,710	1.15	**F**	
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	2	Arterial M	2,848	0.16	A	2	Arterial M	19,830	1.10	**F**	

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3						4	Arterial M	14,290	0.40	A	Mather South
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4						4	Arterial M	13,870	0.39	A	Mather South
123.4	Zinfandel Dr	Collector MS-4	Kiefer Blvd						4	Arterial M	14,340	0.40	A	Mather South
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd						2	Arterial M	22,170	1.23	**F**	West Jackson; Jackson Township; NewBridge; Mather South
300	Douglas Rd	Excelsior Rd	Rock Creek Pkwy						4	Arterial M	22,870	0.64	B	West Jackson
301	Douglas Rd	Rock Creek Pkwy	Kiefer Blvd						4	Arterial M	25,560	0.71	C	West Jackson
302	Kiefer Blvd	Happy Ln	Douglas Rd						6	Arterial M	48,300	0.89	D	West Jackson
303	Kiefer Blvd	Douglas Rd	Excelsior Rd						4	Arterial M	22,770	0.63	B	West Jackson
304	Mayhew Rd	Routier Ext	Bradshaw Rd						4	Arterial M	24,750	0.69	B	West Jackson
305	Mayhew Rd	Bradshaw Rd	Jackson Rd						4	Arterial M	26,950	0.75	C	West Jackson
306	Mayhew Rd	Fruitridge Rd	Collector WJ-13						4	Arterial M	17,410	0.48	A	West Jackson
307	Mayhew Rd	Collector WJ-13	Elder Creek Rd						3	Arterial M	17,620	0.98	E	West Jackson
308	Rock Creek Pkwy	South Watt Ave	Hedge Ave						2	Arterial M	2,370	0.13	A	West Jackson
309	Rock Creek Pkwy	Hedge Ave	Mayhew Rd						2	Arterial M	7,530	0.42	A	West Jackson
310	Rock Creek Pkwy	Mayhew Rd	Bradshaw Rd						2	Arterial M	3,550	0.20	A	West Jackson
311	Rock Creek Pkwy East	Excelsior Road	Collector WJ-16						2	Arterial M	6,200	0.34	A	West Jackson
312	Rock Creek Pkwy East	Collector WJ-16	Jackson Road						2	Arterial M	12,670	0.70	C	West Jackson
313	Vineyard Rd	Jackson Road	New Collector						4	Arterial M	22,670	0.63	B	West Jackson
314	Vineyard Rd	New Collector	Collector WJ-18						4	Arterial M	19,780	0.55	A	West Jackson
315	Vineyard Rd	Collector WJ-18	Elder Creek Road						4	Arterial M	17,170	0.48	A	West Jackson
316	Vineyard Rd	Elder Creek Road	Florin Road						4	Arterial M	8,760	0.24	A	West Jackson
317	Routier Ext	Old Placerville Road	Happy Lane						4	Arterial M	34,000	0.94	E	West Jackson
318	Routier Ext	Happy Lane	Kiefer Boulevard						4	Arterial M	22,830	0.63	B	West Jackson
319	Routier Ext	Kiefer Boulevard	Mayhew Road						4	Arterial M	23,730	0.66	B	West Jackson
320	Collector WJ-16	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	780	0.10	A	West Jackson
321	Collector WJ-17	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	710	0.09	A	West Jackson
322	Collector WJ-6	Collector WJ-16/WJ-17	Jackson Road						2	Res Collector F	2,600	0.33	B	West Jackson

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
323	Collector WJ-6	Jackson Road	Collector WJ-18						2	Res Collector F	2,860	0.36	B	West Jackson
324	Collector WJ-2	Excelsior Road	Collector WJ-6						2	Res Collector F	2,360	0.30	B	West Jackson
325	Collector WJ-18	Vineyard Rd	Collector WJ-6						2	Res Collector F	2,880	0.36	B	West Jackson
326	Collector WJ-18	Collector WJ-6	Excelsior Road						2	Res Collector F	3,110	0.39	B	West Jackson
327	Collector WJ-19	Bradshaw Road	Vineyard Road						2	Arterial M	4,740	0.26	A	West Jackson
400	Collector JT-1	Excelsior Rd	Collector JT-3						2	Res Collector F	3,340	0.42	C	Jackson Township
401	Collector JT-1	Collector JT-3	Tree View Ln						2	Res Collector F	1,170	0.15	A	Jackson Township
402	Collector JT-3	Kiefer Blvd	Collector JT-1						2	Res Collector F	2,980	0.37	B	Jackson Township
403	Collector JT-3	Collector JT-1	Collector JT-6						2	Res Collector F	1,400	0.18	A	Jackson Township
404	Collector JT-3	Collector JT-6	Collector JT-5						2	Res Collector F	2,670	0.33	B	Jackson Township
405	Collector JT-3	Collector JT-5	Jackson Rd						2	Arterial M	15,060	0.84	D	Jackson Township
406	Collector JT-4	Jackson Rd	Bridgewater Dr						2	Arterial M	3,930	0.22	A	Jackson Township
407	Collector JT-5	Collector JT-3	Tree View Ln						2	Arterial M	7,370	0.41	A	Jackson Township
408	Collector JT-6	Excelsior Rd	Collector JT-3						2	Res Collector F	3,420	0.43	C	Jackson Township
409	Collector JT-6	Collector JT-3	Tree View Ln						2	Res Collector F	630	0.08	A	Jackson Township
410	Kiefer Blvd	Excelsior Rd	Tree View Ln						4	Arterial M	20,080	0.56	A	Jackson Township
411	Tree View Ln	Kiefer Blvd	Collector JT-1						4	Arterial M	9,360	0.26	A	Jackson Township
412	Tree View Ln	Collector JT-1	Collector JT-6						2	Arterial M	8,940	0.50	A	Jackson Township
413	Tree View Ln	Collector JT-6	Collector JT-5						2	Arterial M	8,860	0.49	A	Jackson Township
414	Tree View Ln	Collector JT-5	Jackson Rd						4	Arterial M	4,520	0.13	A	Jackson Township
415	Collector JT-7	Collector JT-3	Tree View Ln						2	Arterial M	1,320	0.07	A	Jackson Township
416	Collector JT-8	Collector JT-3	Tree View Ln						2	Arterial M	1,740	0.10	A	Jackson Township

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
417	Collector JT-9	Jackson Rd	Collector JT-8						2	Arterial M	6,240	0.35	A	Jackson Township
418	Collector JT-10	Jackson Rd	Collector JT-8						2	Arterial M	1,820	0.10	A	Jackson Township
419	Collector JT-6	Tree View Ln	Jackson Rd						2	Res Collector F	640	0.08	A	Jackson Township
500	S Bridgewater Dr	Collector JT-4	Eagles Nest Rd						2	Res Collector F	4,000	0.50	C	NewBridge
501	S Bridgewater Dr	Eagles Nest Rd	Northbridge Dr						2	Res Collector F	3,240	0.41	C	NewBridge
502	N Bridgewater Dr	Northbridge Dr	Eagles Nest Rd						2	Res Collector F	1,060	0.13	A	NewBridge
503	Northbridge Dr	Kiefer Blvd	Bridgewater Dr						2	Arterial M	2,710	0.15	A	NewBridge
504	Street A	S Bridgewater Dr	Street B						2	Res Collector F	1,470	0.18	A	NewBridge
505	Street B	S Bridgewater Dr	Street A						2	Res Collector F	1,270	0.16	A	NewBridge
506	Rockbridge Dr	Street B	Stonebridge Dr						2	Res Collector F	1,480	0.19	A	NewBridge
507	Rockbridge Dr	Stonebridge Dr	Jackson Rd						2	Arterial M	4,320	0.24	A	NewBridge
508	Stonebridge Dr	S Bridgewater Dr	Rockbridge Dr						2	Arterial M	2,290	0.13	A	NewBridge
509	Stonebridge Dr	Rockbridge Dr	Jackson Rd						2	Res Collector F	2,440	0.31	B	NewBridge
600	Collector MS-1	Kiefer Boulevard	Collector MS-5						2	Arterial M	9,920	0.55	A	Mather South
601	Collector MS-1	Collector MS-5	Collector MS-4						2	Arterial M	4,820	0.27	A	Mather South
602	Collector MS-1	Collector MS-4	Collector MS-3						2	Res Collector F	5,130	0.64	D	Mather South
603	Collector MS-1	Collector MS-3	Collector MS-2						2	Arterial M	2,470	0.14	A	Mather South
604	Collector MS-2	Eagles Nest Road	Collector MS-5						2	Arterial M	7,530	0.42	A	Mather South
605	Collector MS-3	Eagles Nest Road	Collector MS-5						2	Arterial M	6,120	0.34	A	Mather South
606	Collector MS-4	Eagles Nest Road	Collector MS-5						2	Arterial M	5,940	0.33	A	Mather South
607	Collector MS-5	Kiefer Boulevard	Collector MS-1						2	Arterial M	4,650	0.26	A	Mather South

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

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4.4.2 Existing Plus FOUR PROJECTS Intersection Impacts

Tables 4.6 and 4.7 summarize the results of the operations analysis for the study area intersections. The tables include the implementation of intersection changes associated with the FOUR PROJECTS. Table 4.7 illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type would be fully funded by the project(s) shown in the last column. Shaded table cells in Table 4.6 illustrate those locations with an LOS impact. Detailed analysis information is included in the technical appendix.

Signal warrant analysis was conducted for all unsignalized intersections along Jackson Road, and other unsignalized intersections in close proximity to the project. The project is considered to have a significant impact at an unsignalized location if both the impact criteria in Table 1.6 are met, and one or more of the signal warrants specified in the California Manual on Uniform Traffic Control Devices (CAMUTCD) are met. The following unsignalized intersections exhibit significant impacts and meet one or more traffic signal warrants:

- Hedge Avenue and Florin Road
- Happy Lane and Old Placerville Road
- Excelsior Road and Gerber Road
- Eagles Nest Road and Florin Road
- Excelsior Road and Calvine Road

4.4.3 Existing Plus FOUR PROJECTS U.S. 50 Freeway Impacts

4.4.3.1 Freeway Basic Segments

Table 4.8 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound US 50
  - Stockton Boulevard to 59th Street - a.m. peak hour
  - Zinfandel Drive to Hazel Avenue - p.m. peak hour
- Westbound US 50
  - Watt Avenue to SR 99 / SR 51 - p.m. peak hour

4.4.3.2 Freeway Merge/Diverge/Weave Segments

Table 4.9 summarizes a.m. and p.m. peak hour freeway operations at ramp junctions and weaving areas. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound
  - 65th Street to Howe Avenue weave - a.m. peak hour

- Mather Field Road to Zinfandel Drive weave - a.m. peak hour

4.4.3.3 Freeway Ramp Intersection Queuing

Table 4.10 summarizes a.m. and p.m. peak hour freeway ramp intersection queuing. No locations exhibit a significant impact.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	36.6	Signal	B	18.1	No	Signal	D	44.4	Signal	C	25.2	No
2	Howe Avenue & US 50 EB Ramps	Signal	B	16.9	Signal	C	27.2	No	Signal	C	20.5	Signal	B	11.9	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	D	39.1	Signal	E	73.4	No	Signal	D	55.0	Signal	D	53.3	No
4	Power Inn Road & 14th Avenue	Signal	C	31.5	Signal	B	16.6	No	Signal	D	39.6	Signal	C	20.5	No
5	Power Inn Road & Fruitridge Road	Signal	D	43.4	Signal	E	59.5	Yes	Signal	C	33.5	Signal	D	35.3	No
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	D	36.8	Signal	C	30.5	No	Signal	C	32.1	Signal	D	41.8	No
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	D	39.0	Signal	C	23.9	No	Signal	E	55.6	Signal	C	30.1	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Westbound Left Turn		*C*	*20.1*		*C*	*19.4*			*C*	*23.3*		D	33.5	
	Westbound Right Turn		*B*	*13.3*		*B*	*11.3*			*B*	*12.6*		*B*	*13.3*	
	Southbound Left Turn		*A*	*10.0*		*A*	*9.3*			*B*	*10.9*		*B*	*12.9*	
9	Florin Perkins Road & Jackson Road	Signal	D	51.5	Signal	**E**	**70.0**	No	Signal	D	54.1	Signal	F	144.0	Yes
10	Florin Perkins Road & Fruitridge Road	Signal	C	25.1	Signal	C	29.3	No	Signal	C	25.4	Signal	C	22.6	No
11	Florin Perkins Road & Elder Creek Road	Signal	C	25.7	Signal	B	18.5	No	Signal	C	26.2	Signal	C	26.9	No
12	Watt Avenue & Folsom Blvd.	Signal	E	66.2	Signal	E	78.0	No	Signal	E	71.9	Signal	E	75.9	No
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	B	19.6	Signal	B	10.6	No	Signal	D	54.1	Signal	B	13.4	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	E	56.0	Signal	F	121.3	Yes	Signal	E	75.9	Signal	F	105.7	Yes

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Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	11.5	Signal	A	8.4	No	Signal	A	9.7	Signal	A	6.4	No
16	S. Watt Avenue & Jackson Road	Signal	E	62.5	Signal	F	331.7	Yes	Signal	E	66.4	Signal	F	773.1	Yes
17	S. Watt Avenue & Fruitridge Road	Signal	D	38.1	Signal	D	52.2	No	Signal	D	41.7	Signal	E	65.2	Yes
18	S. Watt Avenue & Elder Creek Road	Signal	E	62.7	Signal	F	125.6	Yes	Signal	E	68.8	Signal	F	143.8	Yes
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	D	54.7	Signal	D	45.9	No	Signal	D	51.8	Signal	E	56.1	No
21	Elk Grove Florin Road & Gerber Road	Signal	D	49.1	Signal	D	44.5	No	Signal	E	64.6	Signal	E	73.9	No
23	Hedge Avenue & Jackson Road	Signal	D	35.1	Signal	E	75.7	No	Signal	D	37.3	Signal	C	32.0	No
24	Hedge Avenue & Fruitridge Road	All-way stop	B	13.6	Signal	B	17.4	No	All-way stop	A	9.4	Signal	B	14.6	No
25	Hedge Avenue & Elder Creek Road	All-way stop	C	15.9	Signal	B	18.2	No	All-way stop	B	11.6	Signal	C	23.5	No
26	Hedge Avenue & Tokay Lane	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*A*	*8.0*		*A*	*0.0*			*A*	*7.3*		*A*	*7.4*	
	Eastbound		*B*	*12.2*		*B*	*14.6*			*B*	*10.2*		*B*	*12.4*	
	Westbound		*B*	*11.1*		*B*	*13.1*			*A*	*9.6*		*B*	*10.9*	
27	Hedge Avenue & Florin Road	All-way stop	B	12.9	All-way stop	F	217.6	Yes	All-way stop	B	11.1	All-way stop	F	68.8	Yes
28	Mayhew Road & Kiefer Boulevard	Signal	D	48.6	Signal	E	74.9	No	Signal	D	51.1	Signal	D	49.5	No

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Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop			Signal	D	48.6	No	Two-way stop			Signal	D	51.0	No
	Northbound Through - Left Turn		*D*	*27.6*						*D*	*34.0*				
	Northbound Right Turn		*B*	*11.8*						*C*	*15.0*				
	Southbound		*C*	*18.3*						*C*	*24.9*				
	Eastbound Left Turn		*A*	*8.9*						*A*	*8.4*				
	Westbound Left Turn		*A*	*8.3*						*A*	*9.3*				
30	Mayhew Road & Fruitridge Road	Two-way stop			Signal	B	13.8	No	Two-way stop			Signal	B	19.7	No
	Northbound Left Turn		*A*	*0.0*						*A*	*7.4*				
	Eastbound		*A*	*9.2*						*A*	*9.2*				
31	Mayhew Road & Elder Creek Road	Two-way stop			Signal	F	294.2	Yes	Two-way stop			Signal	F	275.9	Yes
	Northbound		*B*	*11.9*						*B*	*10.9*				
	Southbound		*B*	*11.1*						*A*	*9.8*				
	Eastbound Left Turn		*A*	*8.3*						*A*	*7.6*				
	Westbound Left Turn		*A*	*7.5*						*A*	*0.0*				
32	Woodring Drive & Zinfandel Drive	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Eastbound		*A*	*9.3*		F	83.8			*A*	*9.3*		F	78.8	
	Northbound Left Turn		*A*	*0.0*		*A*	*9.4*			*A*	*0.0*		*B*	*10.1*	
33	Bradshaw Road & Folsom Blvd.	Signal	E	56.7	Signal	B	19.7	No	Signal	D	49.9	Signal	B	18.7	No
34	Bradshaw Road & US 50 WB Ramps	Signal	B	15.9	Signal	A	7.6	No	Signal	B	15.2	Signal	C	22.4	No
35	Bradshaw Road & US 50 EB Ramps	Signal	C	24.4	Signal	D	37.8	No	Signal	B	16.0	Signal	C	28.9	No
36	Bradshaw Road & Old Placerville Road	Signal	D	45.9	Signal	E	61.2	Yes	Signal	D	52.0	Signal	E	62.7	Yes
37	Bradshaw Road & Kiefer Boulevard	Signal	D	45.7	Signal	F	101.3	Yes	Signal	E	66.2	Signal	F	104.5	Yes

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Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
38	Bradshaw Road & Jackson Road	Signal	E	73.1	Signal	F	92.6	Yes	Signal	E	59.4	Signal	F	82.1	Yes
39	Bradshaw Road & Elder Creek Road	Signal	D	36.8	Signal	F	80.1	Yes	Signal	D	36.1	Signal	E	71.5	No
40	Bradshaw Road & Florin Road	Signal	D	38.1	Signal	F	109.0	Yes	Signal	D	53.6	Signal	E	72.3	No
41	Bradshaw Road & Gerber Road	Signal	E	72.2	Signal	E	74.9	No	Signal	D	49.9	Signal	D	44.1	No
42	Happy Lane & Old Placerville Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound Left Turn		*F*	*64.8*		*E*	*40.0*			*F*	*95.9*		*F*	*>300*	
	Northbound Right Turn		*D*	*30.6*		C	16.2			*C*	*15.4*		B	13.6	
	Westbound Left Turn		*B*	*10.2*		A	9.0			*B*	*10.1*		*A*	*9.2*	
43	Happy Lane & Kiefer Boulevard	Free Turn			Signal	D	46.8	No	Free Turn			Signal	C	26.5	No
44	Excelsior Road & Kiefer Boulevard	West Jackson/Jackson Township Project Int.			Signal	C	30.2	No	West Jackson/Jackson Township Project Int.			Signal	C	21.3	No
45	Excelsior Road & Jackson Road	Signal	D	36.7	Signal	F	273.0	Yes	Signal	D	40.3	Signal	F	222.4	Yes
46	Excelsior Road & Elder Creek Road	Two-way stop			Signal	D	44.9	No	Two-way stop			Signal	D	42.5	No
	Northbound Left Turn		*A*	*7.5*						*A*	*8.0*				
	Eastbound		*C*	*18.6*						*B*	*12.3*				
47	Excelsior Road & Florin Road	All-way stop	C	24.9	Signal	D	48.4	No	All-way stop	B	12.5	Signal	D	41.2	No
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	B	14.0	All-way stop	F	151.9	Yes	All-way stop	B	10.6	All-way stop	F	108.0	Yes
49	Mather Field Road & US 50 WB Ramps	Signal	C	24.7	Signal	B	13.5	No	Signal	A	9.4	Signal	A	6.0	No
50	Mather Field Road & US 50 EB Ramps	Signal	C	27.7	Signal	B	17.7	No	Signal	B	13.4	Signal	A	6.8	No

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Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
51	Mather Field Road & Rockingham Drive	Signal	E	56.4	Signal	F	125.6	Yes	Signal	D	54.7	Signal	E	61.8	Yes
52	Mather Boulevard & Douglas Road	All-way stop	E	39.3	All-way stop	B	14.9	No	All-way stop	C	15.5	All-way stop	B	12.3	No
53	Zinfandel Drive & US 50 WB Ramps	Signal	B	16.4	Signal	B	10.1	No	Signal	D	51.7	Signal	C	28.7	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	D	40.0	Signal	D	54.5	No	Signal	E	60.1	Signal	D	47.6	No
55	Zinfandel Drive & White Rock Road	Signal	D	47.7	Signal	C	22.9	No	Signal	D	54.7	Signal	D	40.2	No
56	Zinfandel Drive & Data Drive	Signal	D	49.3	Signal	B	15.8	No	Signal	D	52.9	Signal	C	21.9	No
57	Zinfandel Drive & International Dr	Signal	C	34.0	Signal	C	23.0	No	Signal	D	48.5	Signal	C	29.4	No
58	Zinfandel Drive & Douglas Road	Signal	E	55.5	Signal	D	38.3	No	Signal	D	54.2	Signal	C	25.5	No
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Free Turn			Signal	C	27.6	No	Free Turn			Signal	C	22.2	No
60	Eagles Nest Road & Jackson Road	Two-way stop			Signal	C	23.1	No	Two-way stop			Signal	C	20.3	No
	Northbound		*C*	*22.0*						*C*	*23.8*				
	Southbound		*B*	*13.9*						*C*	*22.0*				
	Eastbound Left Turn		*A*	*8.8*						*A*	*7.9*				
	Westbound Left Turn		*A*	*7.9*						*A*	*8.7*				
61	Eagles Nest Road & Florin Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound		*B*	*12.7*		*F*	*147.4**			*B*	*12.1*		D	25.4	
	Southbound		*B*	*10.0*		C	20.3*			*B*	*10.5*		*F*	*71.3*	
	Eastbound Left Turn		*A*	*7.7*		*A*	*5.4**			*A*	*7.7*		*A*	*8.0*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0**			*A*	*7.6*		*A*	*0.0*	

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Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	D	44.7	Signal	D	35.8	No	Signal	B	19.7	Signal	A	9.5	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	16.9	Signal	B	13.7	No	Signal	B	17.6	Signal	B	12.6	No
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	54.4	Signal	C	31.6	No	Signal	D	48.6	Signal	D	37.1	No
65	Sunrise Boulevard & White Rock Road	Signal	D	47.8	Signal	C	33.0	No	Signal	D	51.6	Signal	D	38.3	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	D	47.8	Signal	B	16.1	No	Signal	D	45.8	Signal	C	22.8	No
67	Sunrise Boulevard & Douglas Road	Signal	D	51.7	Signal	C	32.3	No	Signal	D	46.5	Signal	C	20.8	No
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	C	27.0	Signal	B	10.3	No	Signal	C	21.0	Signal	A	8.0	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	D	53.6	Signal	E	59.7	Yes	Signal	C	27.0	Signal	D	40.0	No
70	Sunrise Boulevard & Jackson Road	Signal	E	57.0	Signal	F	124.5	Yes	Signal	D	47.2	Signal	E	69.9	Yes
71	Sunrise Boulevard & Florin Road	Signal	B	11.3	Signal	A	8.9	No	Signal	D	48.3	Signal	B	15.3	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	D	43.2	Signal	C	22.8	No	Signal	D	40.7	Signal	C	20.7	No
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	C	31.2	Signal	C	27.7	No	Signal	D	41.4	Signal	B	17.1	No
74	Hazel Avenue & US 50 EB Ramps	Signal	C	20.6	Signal	B	10.3	No	Signal	C	29.9	Signal	A	4.8	No
75	Hazel Avenue & Folsom Boulevard	Signal	D	51.7	Signal	C	30.8	No	Signal	D	46.7	Signal	D	39.4	No
76	Prairie City Road & White Rock Road	Signal	B	19.2	Signal	B	12.4	No	Signal	B	15.0	Signal	A	9.8	No

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Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
77	Grant Line Road & White Rock Road	Signal	B	10.9	Signal	A	6.7	No	Signal	B	11.2	Signal	A	7.3	No
78	Grant Line Road & Douglas Road	Two-way stop	C	15.2	Signal	D	38.5	No	Two-way stop	B	12.3	Signal	B	10.9	No
79	Grant Line Road & Kiefer Boulevard	All-way stop	B	11.4	All-way stop	B	14.1	No	All-way stop	B	10.5	All-way stop	B	14.6	No
80	Grant Line Road & Jackson Road	Signal	E	74.0	Signal	F	86.2	Yes	Signal	E	78.9	Signal	E	63.6	No
81	Watt Avenue & US-50 EB Ramps	Signal	B	13.0	Signal	B	12.1	No	Signal	B	14.9	Signal	B	13.3	No
82	Watt Avenue & US-50 WB Ramps	Signal	C	32.9	Signal	C	33.8	No	Signal	C	28.6	Signal	C	28.9	No
83	Mayhew Rd & Folsom Blvd.	Signal	B	19.8	Signal	B	15.6	No	Signal	C	20.1	Signal	B	16.7	No
84	65th Street Expy & Fruitridge Road	Signal	C	31.2	Signal	C	34.5	No	Signal	D	35.3	Signal	C	29.8	No
85	Power Inn Road & Elder Creek Road	Signal	D	35.2	Signal	D	35.7	No	Signal	D	36.3	Signal	C	34.2	No
86	Power Inn Road & Florin Rd	Signal	D	36.3	Signal	E	67.2	No	Signal	D	45.9	Signal	E	65.7	No
87	Florin Perkins Road & Florin Rd	Signal	D	36.7	Signal	D	38.4	No	Signal	C	32.5	Signal	D	44.0	No
88	Bradshaw Rd & Calvine Rd	Signal	C	30.5	Signal	C	34.0	No	Signal	D	36.9	Signal	D	51.1	No
89	Vineyard Rd & Calvine Rd	Signal	C	30.8	Signal	B	14.1	No	Signal	C	34.9	Signal	B	12.8	No
90	Excelsior Road & Calvine Rd	All-way stop	C	16.6	All-way stop	F	106.7	Yes	All-way stop	B	13.0	All-way stop	F	82.2	Yes
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	D	51.7	Signal	B	16.2	No	Signal	D	46.5	Signal	D	51.3	No

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	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
92	Grant Line Rd & Calvine Rd	Signal	C	21.4	Signal	C	21.9	No	Signal	C	24.0	Signal	C	24.8	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	E	65.9	Signal	E	79.8	Yes	Signal	E	64.8	Signal	E	71.9	Yes
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	C	33.3	Signal	B	13.8	No	Signal	D	46.4	Signal	B	15.6	No
200	Excelsior Road & Collector WJ-1/Collector JT-1	West Jackson/Jackson Township Project Int.			Signal	B	18.3	No	West Jackson/Jackson Township Project Int.			Signal	B	17.4	No
201	Excelsior Road & Collector WJ-2/Collector JT-2	West Jackson/Jackson Township Project Int.			Signal	B	15.8	No	West Jackson/Jackson Township Project Int.			Signal	B	17.6	No
202	W Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	18.5	No	Mather South Project Int.			Signal	B	14.5	No
203	Northbridge Dr & Kiefer Boulevard	NewBridge Project Int.			Signal	B	11.2	No	NewBridge Project Int.			Signal	A	6.6	No
204	E Collector MS-5 & Kiefer Boulevard	Mather South Project Int.			Signal	B	11.9	No	Mather South Project Int.			Signal	B	13.2	No
300	Collector WJ-3 & Jackson Road	West Jackson Project Int.			Signal	B	14.2	No	West Jackson Project Int.			Signal	A	8.9	No
301	Collector WJ-4 & Jackson Road	West Jackson Project Int.			Signal	B	17.4	No	West Jackson Project Int.			Signal	B	17.7	No
302	Happy Lane & Jackson Road	West Jackson Project Int.			Signal	E	63.0	No	West Jackson Project Int.			Signal	E	65.3	No
304	Collector WJ-5 & Jackson Road	West Jackson Project Int.			Signal	B	12.7	No	West Jackson Project Int.			Signal	B	14.7	No
305	Collector WJ-6 & Jackson Road	West Jackson Project Int.			Signal	B	13.1	No	West Jackson Project Int.			Signal	B	13.9	No
306	Excelsior Road & Collector WJ-6	West Jackson Project Int.			Signal	C	20.9	No	West Jackson Project Int.			Signal	A	6.4	No
307	S. Watt Avenue & Rock Creek Pkwy	West Jackson Project Int.			Signal	A	6.0	No	West Jackson Project Int.			Signal	A	7.9	No

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Intersection		AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
308	Hedge Avenue & Rock Creek Pkwy WB	West Jackson Project Int.			Roundabout	A	7.3	No	West Jackson Project Int.			Roundabout	A	6.3	No
309	Hedge Avenue & Rock Creek Pkwy EB	West Jackson Project Int.			Roundabout	A	6.9	No	West Jackson Project Int.			Roundabout	A	6.2	No
310	Mayhew Road & Rock Creek Pkwy WB	West Jackson Project Int.			Roundabout	C	21.6	No	West Jackson Project Int.			Roundabout	C	24.2	No
311	Mayhew Road & Rock Creek Pkwy EB	West Jackson Project Int.			Roundabout	C	24.5	No	West Jackson Project Int.			Roundabout	C	18.2	No
312	Bradshaw Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	A	6.6	No	West Jackson Project Int.			Signal	B	13.1	No
315	Douglas Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	A	9.8	No	West Jackson Project Int.			Signal	B	11.7	No
316	Bradshaw Road & Collector WJ-8	West Jackson Project Int.			Signal	B	12.1	No	West Jackson Project Int.			Signal	A	7.7	No
317	Bradshaw Road & Collector WJ-9	West Jackson Project Int.			Signal	A	2.6	No	West Jackson Project Int.			Signal	A	3.2	No
318	Bradshaw Road & Mayhew Road	West Jackson Project Int.			Signal	D	41.0	No	West Jackson Project Int.			Signal	D	41.5	No
319	Bradshaw Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	F	96.4	Yes	West Jackson Project Int.			Signal	B	16.5	No
320	Bradshaw Road & Collector WJ-11	West Jackson Project Int.			Signal	A	7.4	No	West Jackson Project Int.			Signal	A	9.4	No
321	Collector WJ-12 & Fruitridge Road	West Jackson Project Int.			Signal	A	6.9	No	West Jackson Project Int.			Signal	A	6.8	No
322	Mayhew Road & Collector WJ-13	West Jackson Project Int.			Signal	B	12.5	No	West Jackson Project Int.			Signal	B	13.8	No
323	Collector WJ-14 & Kiefer Boulevard	West Jackson Project Int.			Signal	B	16.9	No	West Jackson Project Int.			Signal	B	17.2	No
325	Douglas Road & Kiefer Boulevard	West Jackson Project Int.			Signal	F	111.2	Yes	West Jackson Project Int.			Signal	F	133.8	Yes

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

Intersection		AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
327	Vineyard Road & Elder Creek Road	West Jackson Project Int.			Signal	B	16.1	No	West Jackson Project Int.			Signal	B	16.1	No
328	Vineyard Road & Florin Road	West Jackson Project Int.			Signal	B	10.6	No	West Jackson Project/CEQA Cumulative Intersection			Signal	A	6.3	No
329	Routier Ext & Kiefer Boulevard	West Jackson Project Int.			Signal	C	32.5	No	West Jackson Project Int.			Signal	C	27.3	No
330	Happy Ln & Routier Ext	West Jackson Project Int.			Signal	E	63.8	No	West Jackson Project Int.			Signal	D	49.5	No
331	Routier Ext/Routier Rd & Old Placerville Rd.	West Jackson Project Int.			Signal	F	231.2	Yes	West Jackson Project Int.			Signal	F	189.8	Yes
400	Collector JT-3 & Jackson Road	Jackson Township Project Int.			Signal	B	19.6	No	Jackson Township Project Int.			Signal	C	25.1	No
401	Tree View Lane & Jackson Road	Jackson Township Project Int.			Signal	A	9.6	No	Jackson Township Project Int.			Signal	A	7.0	No
402	Collector JT-4 & Jackson Road	Jackson Township Project Int.			Signal	B	10.3	No	Jackson Township Project Int.			Signal	A	7.1	No
403	Tree View Lane & Collector JT-5	Jackson Township Project Int.			Signal	B	13.5	No	Jackson Township Project Int.			Signal	B	13.1	No
404	Tree View Lane & Collector JT-6	Jackson Township Project Int.			Signal	A	4.2	No	Jackson Township Project Int.			Signal	A	4.5	No
405	Tree View Lane & Collector JT-1	Jackson Township Project Int.			Signal	B	14.8	No	Jackson Township Project Int.			Signal	B	14.0	No
406	Tree View Lane & Kiefer Boulevard	Jackson Township Project Int.			Signal	B	11.1	No	Jackson Township Project Int.			Signal	C	24.4	No
407	HS/MS Dwy & Kiefer Boulevard	Jackson Township Project Int.			Signal	A	7.3	No	Jackson Township Project Int.			Signal	A	7.5	No
500	Rockbridge Dr & Jackson Road	NewBridge Project Int.			Signal	A	9.8	No	NewBridge Project Int.			Signal	A	7.3	No
501	Eagles Nest Road & N Bridgewater Dr	NewBridge Project Int.			Signal	A	5.5	No	NewBridge Project Int.			Signal	A	4.0	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
502	Eagles Nest Road & S Bridgewater Dr	NewBridge Project Int.			Signal	B	14.5	No	NewBridge Project Int.			Signal	B	13.8	No
600	Zinfandel Drive & Collector MS-2	Mather South Project Int.			Roundabout	C	16.8	No	Mather South Project Int.			Roundabout	C	21.8	No
601	Zinfandel Drive & Collector MS-3	Mather South Project Int.			Roundabout	B	13.8	No	Mather South Project Int.			Roundabout	B	13.7	No
602	Zinfandel Drive & Collector MS-4	Mather South Project Int.			Roundabout	C	15.2	No	Mather South Project Int.			Roundabout	B	13.2	No
603	Collector MS-5 & Collector MS-2	Mather South Project Int.			Two-way stop	A	2.6	No	Mather South Project Int.			Two-way stop	A	4.6	No
604	Collector MS-5 & Collector MS-3	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*1.2*						*A*	*0.4*	
	Southbound Left Turn					*A*	*0.0*						*A*	*0.0*	
	Eastbound					*A*	*9.7*						*A*	*8.3*	
605	Collector MS-5 & Collector MS-4	Mather South Project Int.			Two-way stop	A	5.1	No	Mather South Project Int.			Two-way stop	A	8.3	No
606	Collector MS-5 & W Collector MS-1/E Collector MS-1	Mather South Project Int.			Two-way stop	A	1.0	No	Mather South Project Int.			Two-way stop	A	2.0	No

Note: Gray shading represents changes in traffic control for which the project is responsible to pay a fair share.

* : 2000 HCM methodology was used, 2010 HCM does not produce an output for SB movement.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
1	Howe Avenue & College Town Drive/US 50 Westbound Ramps	Signal	Signal	↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↓ ↓	↰ ⌜⌜	↰ ↰ ↰ ↱ ⌜	↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↓ ↓	↰ ⌜⌜	↰ ↰ ↰ ↱ ⌜	
2	Howe Avenue & US 50 Eastbound Ramps/US 50 Eastbound Entrance	Signal	Signal	↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↓	↰ ↰ ⌜ ⌜		↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↓	↰ ↰ ⌜ ⌜		
3	Power Inn Road/Howe Avenue & Folsom Blvd.	Signal	Signal	↰ ↰ ↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↱	↰ ↰ ↑ ↑ ⌜⌜	↰ ↰ ↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↱	↰ ↰ ↑ ↑ ⌜⌜	
4	Power Inn Road & 14th Avenue	Signal	Signal	↰ ↰ ↑ ↑ ↱	⌟ ↓ ↓ ↘	↰ ↰ ⌜	↱	↰ ↰ ↑ ↑ ↱	⌟ ↓ ↓ ↘	↰ ↰ ⌜	↱	
5	Power Inn Road & Fruitridge Road	Signal	Signal	↰ ↰ ↑ ↱	⌟ ↓ ↓ ↘ ↘	↰ ↑ ↱	↰ ↑ ↑ ⌜	↰ ↰ ↑ ↱	⌟ ↓ ↓ ↘ ↘	↰ ↑ ↱	↰ ↑ ↑ ⌜	
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal	↰ ↰ ⌜	⌟ ↱	↰ ↑ ↑ ⌜	↰ ↑ ↑ ⌜	↰ ↰ ⌜	⌟ ↱	↰ ↑ ↑ ⌜	↰ ↑ ↑ ⌜	
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal	↰ ↰ ⌜	⌟ ↱	↰ ↑ ↑ ⌜	↰ ↑ ↱	↰ ↰ ⌜	⌟ ↱	↰ ↑ ↑ ⌜	↰ ↑ ↱	
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop	↑ ↱	↓ ↓ ↘		↰ ⌜	↑ ↱	↓ ↓ ↘		↰ ⌜	
9	Florin Perkins Road & Jackson Road	Signal	Signal	↰ ↑ ↑ ⌜	⌟ ↓ ↘	↰ ↑ ⌜⌜	↰ ↑ ↱	↰ ↑ ↑ ⌜	⌟ ↓ ↘	↰ ↑ ⌜⌜	↰ ↑ ↱	
10	Florin Perkins Road & Fruitridge Road	Signal	Signal	↰ ↑ ↑ ⌜	⌟ ↓ ↓ ↘	↰ ↑ ↑ ⌜	↰ ↑ ↱	↰ ↑ ↑ ⌜	⌟ ↓ ↓ ↘	↰ ↑ ↑ ⌜	↰ ↑ ↱	
11	Florin Perkins Road & Elder Creek Road	Signal	Signal	↰ ↑ ↑ ⌜	⌟ ↓ ↓ ↘	↰ ↑ ↑ ⌜	↰ ↑ ↑ ⌜	↰ ↑ ↑ ⌜	⌟ ↓ ↓ ↘	↰ ↑ ↑ ⌜	↰ ↑ ↑ ⌜	
12	S. Watt Ave./Watt Avenue & Folsom Blvd.	Signal	Signal	↰ ↰ ↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ⌜	↰ ↰ ↑ ↑ ⌜	↰ ↰ ↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ⌜	↰ ↰ ↑ ↑ ⌜	
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal	↰ ↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↘	↰	↰ ↱ ⌜	↰ ↑ ↑ ↑ ⌜	⌟ ↓ ↓ ↘	↰	↰ ↱ ⌜	
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal	↰ ↰ ↑ ↑ ↱	⌟ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ⌜	↰ ↰ ↑ ↑ ⌜	↰ ↰ ↑ ↑ ↱	⌟ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ⌜	↰ ↰ ↑ ↑ ⌜	
15	S. Watt Avenue & Canberra Dr.	Signal	Signal	↑ ↑ ↱	↓ ↓ ↘		↰ ⌜	↑ ↑ ↱	↓ ↓ ↘		↰ ⌜	
16	S. Watt Avenue & Jackson Road	Signal	Signal	↰ ↑ ↑ ⌜	⌟ ↓ ↓ ↘	↰ ↱	↰ ↑ ⌜	↰ ↰ ↑ ↑ ⌜	⌟ ↓ ↓ ↘	↰ ↱	↰ ↰ ↑ ↑ ⌜	West Jackson
17	S. Watt Avenue & Fruitridge Road	Signal	Signal	↰ ↑ ↱	⌟ ↓ ↓ ↘	↰ ↑ ⌜	↰ ↱	↰ ↑ ↱	⌟ ↓ ↓ ↘	↰ ↑ ⌜	↰ ↑ ↱	West Jackson
18	S. Watt Avenue & Elder Creek Road	Signal	Signal	↰ ↑ ⌜	⌟ ↓ ↘	↰ ⌜	↰ ↑ ⌜	↰ ↑ ⌜	⌟ ↓ ↘	↰ ⌜	↰ ↑ ⌜	
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal	↰ ↑ ↱	⌟ ↓ ↘	↰ ↑ ↱	↰ ↑ ↑ ⌜	↰ ↑ ↱	⌟ ↓ ↘	↰ ↑ ↱	↰ ↑ ↑ ⌜	
21	Elk Grove Florin Road & Gerber Rd./Gerber Road	Signal	Signal	↰ ↰ ↑ ↱	⌟ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ⌜	↰ ↰ ↑ ↑ ⌜	↰ ↰ ↑ ↱	⌟ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ⌜	↰ ↰ ↑ ↑ ⌜	
23	Hedge Avenue & Jackson Road	Signal	Signal	↰ ↱	⌟ ↘	↰ ↑ ⌜	↰ ↑ ⌜	↰ ↱	⌟ ↘	↰ ↑ ↱	↰ ↑ ↱	West Jackson
24	Hedge Avenue & Fruitridge Road	All-way stop	Signal	↰	↰	↰	↰	↰ ↑ ⌜	⌟ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	West Jackson
25	Hedge Avenue & Elder Creek Road	All-way stop	Signal	↰	↰	↰	↰	↰ ↑ ⌜	⌟ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	West Jackson
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop	↰	↰	↰	↰	↰	↰	↰	↰	
27	Hedge Avenue & Florin Road	All-way stop	All-way stop	↰	↰	↰	↰	↰	↰	↰	↰	
28	Mayhew Road & Kiefer Boulevard	Signal	Signal	↰ ↑ ⌜	⌟ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	↰ ↑ ⌜	⌟ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
29	Mayhew Road & Jackson Road	Two-way stop	Signal	↰ ↱	⅄	↰ ↑ ↱	↰ ↱	↰ ↰ ↑ ↑ ↱	↲ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	West Jackson
30	Mayhew Road & Fruitridge Road	Two-way stop	Signal	↰	⅄	↾		↰ ↰ ↑ ↑	↲ ↓ ↓	↰ ↰ ↱		West Jackson
31	Mayhew Road & Elder Creek Road	Two-way stop	Signal	⅄	⅄	⅄	⅄	⅄	⅄	⅄	↰ ↑ ↱	West Jackson
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop	↰	⅄	↾		↰ ↑	⅄	↾		Mather South
33	Bradshaw Road & Folsom Blvd.	Signal	Signal	↰ ↰ ↑ ↱	↲ ↓ ↓ ↘	↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↱	↲ ↓ ↓ ↘	↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	
34	Bradshaw Road & US 50 Westbound Ramps	Signal	Signal	↑ ↑ ↑ ↱	↲ ↓ ↓ ↓		↰ ↰ ↱ ↱	↑ ↑ ↑ ↱	↲ ↓ ↓ ↓		↰ ↰ ↱ ↱	
35	Bradshaw Road & US 50 Eastbound Ramps	Signal	Signal	↑ ↑ ↑ ↱	↲ ↓ ↓ ↓	↰ ↰ ↱ ↱		↑ ↑ ↑ ↱	↲ ↓ ↓ ↓	↰ ↰ ↱ ↱		
36	Bradshaw Road & Old Placerville Road	Signal	Signal	↰ ↑ ↑ ↑ ↱	⅄ ↓ ↓ ↘ ↘	↰ ↱	↰ ↰ ↑ ↱	↰ ↑ ↑ ↑ ↱	⅄ ↓ ↓ ↘ ↘	↰ ↱	↰ ↰ ↑ ↱	
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal	↰ ↰ ↑ ↑ ↑ ↱	↲ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↱	↰ ↰ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	↲ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	West Jackson
38	Jackson Road & Bradshaw Road	Signal	Signal	↰ ↑ ↱	↲ ↓ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	↲ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	West Jackson
39	Bradshaw Road & Elder Creek Road	Signal	Signal	↰ ↑ ↱	⅄ ↓ ↘	↰ ↰ ↱	↰ ↰ ↱	↰ ↑ ↱	↲ ↓ ↓ ↘ ↘	↰ ↰ ↱	↰ ↰ ↑ ↑ ↱	West Jackson
40	Bradshaw Road & Florin Road	Signal	Signal	↰ ↑ ↱	⅄ ↓ ↘	↰ ↰ ↱	↰ ↰ ↱	↰ ↑ ↱	⅄ ↓ ↘	↰ ↰ ↱	↰ ↰ ↱	
41	Bradshaw Road & Gerber Road	Signal	Signal	↰ ↑ ↱	⅄ ↓ ↘	↰ ↰ ↱	↰ ↱	↰ ↑ ↱	⅄ ↓ ↘	↰ ↰ ↱	↰ ↱	
42	Happy Lane & Old Placerville Road	Two-way stop	Two-way stop	↰ ↱		↑ ↱	↰ ↑	↰ ↱		↑ ↱	↰ ↑	
43	Kiefer Boulevard & Happy Ln		Signal		↲	↰			↲ ↓ ↘	↰ ↰ ↑ ↑ ↑	↑ ↑ ↑ ↱	West Jackson
44	Excelsior Road & Kiefer Boulevard	Two-way stop	Signal	↱	⅄		↾ ↱	↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	West Jackson; Jackson Township
45	Excelsior Road & Jackson Road	Signal	Signal	↰ ↱	⅄ ↘	↰ ↑ ↱	↰ ↑ ↱	↰ ↱	↲ ↓ ↓ ↘ ↘	↰ ↑ ↑ ↱	↰ ↑ ↑ ↱	West Jackson; Jackson Township
46	Excelsior Road & Elder Creek Road	Two-way stop	Signal	↰	↲ ↓	↾		↰ ↑	↲ ↓	↰ ↱		West Jackson
47	Excelsior Road & Florin Road	All-way stop	Signal	⅄	⅄	⅄	⅄	↰ ↱	⅄ ↘	↰ ↱	↰ ↱	West Jackson
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	
49	Mather Field Road & US 50 Westbound Ramps	Signal	Signal	↑ ↑ ↱	↲ ↓ ↓		↰ ⅄	↑ ↑ ↱	↲ ↓ ↓		↰ ⅄	
50	Mather Field Road & US 50 Eastbound Ramps	Signal	Signal	↑ ↑ ↑ ↱	↲ ↓ ↓	↰ ⅄ ↱		↑ ↑ ↑ ↱	↲ ↓ ↓	↰ ⅄ ↱		
51	Mather Field Road & Rockingham Drive	Signal	Signal	↰ ↑ ↑ ↱	↲ ↓ ↓ ↓ ↘	↰ ↰ ↱	↰ ↱	↰ ↑ ↑ ↱	↲ ↓ ↓ ↓ ↘	↰ ↰ ↱	↰ ↱	
52	Mather Boulevard & Douglas Road	All-way stop	All-way stop	⅄	⅄ ↘	⅄	⅄	⅄	⅄ ↘	⅄	⅄	
53	Zinfandel Drive & US 50 Westbound	Signal	Signal	↑ ↑ ↑ ↱	↲ ↓ ↓		↰ ↰ ↱	↑ ↑ ↑ ↱	↲ ↓ ↓		↰ ↰ ↱	
54	Zinfandel Drive & US 50 Eastbound Ramps/Gold Center Drive	Signal	Signal	↑ ↑ ↑ ↱	↲ ↓ ↓	↰ ↰ ↱ ↱	↱ ↱	↑ ↑ ↑ ↱	↲ ↓ ↓	↰ ↰ ↱ ↱	↱ ↱	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
55	Zinfandel Drive & White Rock Road	Signal	Signal	↰↰↑↑ ↱	↲↓↓↓↘↘	↰↰↑↑ ↱	↰↰↑ ↱↱	↰↰↑↑ ↱	↲↓↓↓↘↘	↰↰↑↑ ↱	↰↰↑ ↱↱	
56	Zinfandel Drive & Data Drive	Signal	Signal	↰↑↑ ↱	↲↓↓↘	↰Y	↰↱ ↱	↰↑↑ ↱	↲↓↓↘	↰Y	↰↱ ↱	
57	Zinfandel Dr & International Dr	Signal	Signal	↰↰↑↑↑ ↱	↲↓↓↘↘	↰↰↑↑ ↱	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	↲↓↓↘↘	↰↰↑↑ ↱	↰↰↑↑↑ ↱	
58	Zinfandel Drive & Douglas Road	Signal	Signal	↰↱	↲↓↘↘	↰↑ ↱	↰↑ ↱	↰↱	↲↓↘↘	↰↑ ↱	↰↑ ↱	
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard		Signal	↱			↰	↰↰↑↑ ↱	↲↓↓↘↘	↰↰↑↑ ↱	↰↰↑↑ ↱	NewBridge; Mather South
60	Eagles Nest Road & Jackson Road	Two-way stop	Signal	Y	⅄	↰↱	↰↱	↰↑↱	↲↓↘↘	↰↰↑ ↱	↰↑↑ ↱	NewBridge
61	Eagles Nest Rd/Eagles Nest Road & Florin Road	Two-way stop	Two-way stop	Y	⅄	Y	Y	Y	⅄	Y	Y	
62	Sunrise Boulevard & US 50 Westbound Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓↓		↰↰↱↱	↑↑↑ ↱	↲↓↓↓		↰↰↱↱	
63	Sunrise Boulevard & US 50 Eastbound Ramps	Signal	Signal	↑↑↑↑ ↱	↲↓↓↓	↰↰↰↱↱		↑↑↑↑ ↱	↲↓↓↓	↰↰↰↱↱	Y	
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal	↰↰↑↑↑↑ ↱	↲↓↓↓↘↘	↰↰↑↑ ↱	↰↰↑ ↱↱	↰↰↑↑↑↑ ↱	↲↓↓↓↘↘	↰↰↑↑ ↱	↰↰↑ ↱↱	
65	Sunrise Boulevard & White Rock Road	Signal	Signal	↰↰↑↑↑ ↱	↲↓↓↓↘↘	↰↰↑↑ ↱	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	↲↓↓↓↘↘	↰↰↑↑ ↱	↰↰↑↑↑ ↱	
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal	↰↰↑↑ ↱	↲↓↓↓↘	↰↰↑ ↱↱	↰↱	↰↰↑↑ ↱	↲↓↓↓↘	↰↰↑ ↱↱	↰↱	
67	Sunrise Boulevard & Douglas Road	Signal	Signal	↰↰↑↑↑ ↱	↲↓↓↓↘↘	↰↰↑ ↱	↰↰↑↑ ↱	↰↰↑↑↑ ↱	↲↓↓↓↘↘	↰↰↑ ↱	↰↰↑↑ ↱	
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal	↑↑↑ ↱	↓↓↘↘		↰↰↱	↑↑↑ ↱	↓↓↘↘		↰↰↱	
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal	↰↑↑ ↱	↲↓↘↘	Y	↰↱	↰↑↑ ↱	↲↓↘↘	↰↰↑↑ ↱	↰↱	NewBridge; Mather South
70	Sunrise Boulevard & Jackson Road	Signal	Signal	↰↱	↲↓↘	↰↑ ↱	↰↑ ↱	↰↱	↲↓↘	↰↑ ↱	↰↑ ↱	
71	Sunrise Boulevard & Florin Road	Signal	Signal	↰↑	↲	⅄		↰↑	↲	⅄		
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal	Y	↲⅄	↰↑ ↱	↰↱	Y	↲⅄	↰↑ ↱	↰↱	
73	Hazel Avenue & Tributary Point Drive/US 50 Westbound Off-ramp	Signal	Signal	↰↰↑↑↑	↲↓↓↓↓	↱	↰↱↱	↰↰↑↑↑	↲↓↓↓↓	↱	↰↱↱	
74	Hazel Aveneu/Hazel Avenue & US 50 Eastbound Ramps	Signal	Signal		↲↓↓	↰⅄↱			↲↓↓	↰⅄↱		
75	Hazel Avenue & Folsom Boulevard	Signal	Signal	↰↱	↲⅄⅄↘	↰↰↑ ↱	↰↑ ↱	↰↱	↲⅄⅄↘	↰↰↑ ↱	↰↑ ↱	
76	White Rock Road & Prairie City Road	Signal	Signal		↲↘	↰↑↑	↑↑ ↱		↲↘	↰↑↑	↑↑ ↱	
77	Grant Line Road & White Rock Road	Signal	Signal	↰↑↑	↲↓↓	↰↰↱		↰↑↑	↲↓↓	↰↰↱		
78	Grant Line Road & Douglas Road	All-way stop	Signal[1]	Y	⅄	Y		↰↑	↲↓	↰↱		
79	Grant Line Road & Kiefer Boulevard	All-way stop	All-way stop	Y	⅄	Y	Y	Y	⅄	Y	Y	
80	Grant Line Road & Jackson Road	Signal	Signal	Y	⅄	↰↱	↰↱	Y	⅄	↰↱	↰↱	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
81	Watt Avenue & US-50 EB Ramps	Signal	Signal	5	4	3		5	4	3		
82	Watt Avenue & US-50 WB Ramps	Signal	Signal	3	5		5	3	5		5	
83	Mayhew Rd & Folsom Blvd.	Signal	Signal	3		3	3	3		3	3	
84	65th Street Expy & Fruitridge Road	Signal	Signal	4	4	3	4	4	4	3	4	
85	Power Inn Road & Elder Creek Road	Signal	Signal	3	3	4	3	3	3	4	3	
86	Power Inn Road & Florin Rd	Signal	Signal	3	4	4	4	3	4	4	4	
87	Florin Perkins Road & Florin Rd	Signal	Signal	4	4	3	3	4	4	3	3	
88	Bradshaw Rd & Calvine Rd	Signal	Signal	5	5	5	5	5	5	5	5	
89	Vineyard Rd & Calvine Rd	Signal	Signal	1	3	3	3	1	3	3	3	
90	Excelsior Road & Calvine Rd	All-way stop	All-way stop	1	1	1	1	1	1	1	1	
91	Grant Line Road & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal	3	2	1	2	3	2	1	2	
92	Grant Line Road & Calvine Rd	Signal	Signal	2	1	1		2	1	1		
93	Grant Line Road & Driveway/Wilton Rd	Signal	Signal	2	2	2	2	2	2	2	2	
94	Bond Rd/Wrangler Dr & Grant Line Road	Signal	Signal	2	3	3	1	2	3	3	1	
200	Excelsior Road & Collector WJ-1/Collector JT-1		Signal					3	2	3	3	West Jackson; Jackson Township
201	Excelsior Road & Collector WJ-2/Collector JT-2		Signal					3	2	3	3	West Jackson; Jackson Township
202	Kiefer Boulevard & W Collector MS-1		Signal						3	3	2	Mather South
203	Northbridge Dr & Kiefer Boulevard		Signal					2		2	3	NewBridge
204	Kiefer Boulevard & E Collector MS-5		Signal						3	3	3	Mather South
300	Collector WJ-3 & Jackson Road		Signal					2		2	3	West Jackson
301	Collector WJ-4 & Jackson Road		Signal					3	3	3	3	West Jackson
302	Rock Creek Pkwy & Jackson Road		Signal					5	3	5	5	West Jackson
304	Collector WJ-5 & Jackson Road		Signal					3	3	3	3	West Jackson
305	Collector WJ-6 & Jackson Road		Signal					3	3	3	3	West Jackson
306	Excelsior Road & Collector WJ-6		Signal					3	2	2		West Jackson

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
307	S. Watt Avenue & Rock Creek Pkwy		Signal					↑ ↱	↓ ↓ ↳		↰	West Jackson
308	Hedge Avenue & Rock Creek Pkwy WB		Roundabout					↰	↲		↟	West Jackson
309	Hedge Avenue & Rock Creek Pkwy EB		Roundabout					↱	↳	↟		West Jackson
310	Mayhew Road & Rock Creek Pkwy WB		Roundabout					↰ ↑	↲ ↓		↟	West Jackson
311	Mayhew Road & Rock Creek Pkwy EB		Roundabout					↑ ↱	↓ ↳	↰ ↱		West Jackson
312	Bradshaw Road & Rock Creek Pkwy		Signal					↰ ↑ ↑ ↑	↲ ↓ ↓	↰		West Jackson
314	Vineyard Road & Rock Creek Pkwy		Signal					↰ ↑ ↑	↲ ↓	↰		West Jackson
315	Douglas Road & Rock Creek Pkwy		Signal					↰ ↑ ↑	↲ ↓	↰		West Jackson
316	Bradshaw Road & Collector WJ-8		Signal					↑ ↑ ↱	↓ ↓ ↳		↰	West Jackson
317	Bradshaw Road & Collector WJ-9		Signal					↑ ↑ ↱	↓ ↓ ↳		↰	West Jackson
318	Bradshaw Road & Mayhew Road		Signal					↰ ↰ ↑ ↑ ↱	↲ ↓ ↓ ↓ ↳ ↳	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	West Jackson
319	Bradshaw Road & Rock Creek Pkwy		Signal					↑ ↑ ↱	↓ ↓ ↓ ↳		↰	West Jackson
320	Bradshaw Road & Collector WJ-11		Signal					↰ ↑ ↑ ↑	↲ ↓ ↓	↰		West Jackson
321	Collector WJ-12 & Fruitridge Road		Signal					↰ ↑ ↱	↲ ↓ ↳	↰ ↑ ↱	↰ ↑ ↱	West Jackson
322	Collector WJ-13 & Mayhew Road		Signal					↰ ↑ ↑	↲ ↓	↰		West Jackson
323	Collector WJ-14 & Kiefer Boulevard		Signal					↰ ↱	↲ ↓ ↳	↰ ↑ ↑ ↱	↰ ↑ ↑ ↱	West Jackson
325	Douglas Road & Kiefer Boulevard		Signal					↰ ↰ ↑ ↱	↲ ↓ ↳	↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	West Jackson
327	Vineyard Road & Elder Creek Road		Signal					↰ ↰ ↑ ↑ ↱	↲ ↓ ↓ ↳ ↳	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	West Jackson
328	Florin Road & Vineyard Road		Signal						↲ ↳	↰ ↑	↑ ↱	West Jackson
329	Routier Ext & Kiefer Boulevard		Signal					↰ ↰ ↑ ↑ ↱	↲ ↓ ↓ ↳ ↳	↰ ↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	West Jackson
330	Happy Ln & Routier Ext		Signal					↰ ↑ ↑ ↱	↲ ↓ ↓ ↳	↰ ↰ ↑ ↱	↰ ↰ ↑ ↱	West Jackson
331	Routier Ext/Routier Rd & Old Placerville Rd		Signal					↰ ↑ ↑ ↱	↲ ↓ ↓ ↳ ↳	↰ ↑ ↱	↰ ↰ ↑ ↱	West Jackson
400	Jackson Road & Collector JT-3		Signal						↲ ↳	↰ ↰ ↑ ↑	↑ ↑ ↱	Jackson Township
401	Jackson Road & Tree View Lane		Signal						↲ ↳ ↳	↰ ↰ ↑ ↑	↑ ↑ ↱	Jackson Township
402	Jackson Road & Collector JT-4		Signal						↲ ↳	↰ ↑ ↑	↑ ↱	Jackson Township
403	Tree View Lane & Collector JT-5		Signal					↰ ↑ ↱	↲ ↓ ↳	↰ ↑ ↱	↰ ↑ ↱	Jackson Township
404	Tree View Lane & Collector JT-6		Signal					↰ ↑ ↱	↲ ↓ ↳	↰ ↑ ↱	↰ ↑ ↱	Jackson Township

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
405	Tree View Lane & Collector JT-1		Signal					↰ ↑ ↱	↰ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	Jackson Township
406	Tree View Lane & Kiefer Boulevard		Signal					↰ ↰ ↱		↑ ↑ ↱	↰ ↰ ↑ ↑	Jackson Township
407	HS/MS Dwy & Kiefer Boulevard		Signal					↰ ↱		↑ ↱	↰ ↑ ↑	Jackson Township
500	Jackson Road & Rockbridge Dr		Signal						↙ ↘	↰ ↑ ↑	↑ ↱	NewBridge
501	Eagles Nest Road & N Bridgewater Dr		Signal					↑ ↱	↓ ↓ ↘		↰ ↱	NewBridge
502	Eagles Nest Road & S Bridgewater Dr		Signal					↰ ↑ ↱	↰ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	NewBridge
600	Zinfandel Drive & Collector MS-2		Roundabout					↱	↳		↱	Mather South
601	Zinfandel Drive & Collector MS-3		Roundabout					↱	↳		↱	Mather South
602	Zinfandel Drive & Collector MS-4		Roundabout					↱	↳		↱	Mather South
603	Collector MS-5 & Collector MS-2		Two-way stop					↰	↰	↱		Mather South
604	Collector MS-5 & Collector MS-3		Two-way stop					↰	↰	↱		Mather South
605	Collector MS-5 & Collector MS-4		Two-way stop					↰	↰	↱		Mather South
606	E Collector MS-1/Collector MS-5 & W Collector MS-1		Two-way stop					↰ ↑	↲ ↓	↰ ↱		Mather South

1. Reflects 2017 intersection improvements.

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.8: Existing Plus FOUR PROJECTS Peak Hour Freeway Mainline Level of Service

Direc-tion	Location	Existing				Existing Plus FOUR PROJECTS			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Volume	LOS	Volume	LOS	Volume	LOS	Volume	LOS
East-bound US 50	SR 99 / SR 51 to Stockton Boulevard	7,068	C	6,415	C	7,705	C	6,711	C
	Stockton Boulevard to 59th Street	7,470	**F**	7,228	**F**	8,136	**F**	7,546	**F**
	59th Street to 65th Street	6,767	D	6,641	D	7,439	D	6,931	D
	65th Street to Howe Avenue	7,962	D	7,562	D	8,668	D	7,854	D
	Howe Avenue to Watt Avenue	7,405	D	7,602	D	7,609	D	7,700	D
	Watt Avenue to Bradshaw Road	7,935	D	7,176	C	8,145	D	7,310	C
	Bradshaw Rd to Mather Field Rd	7,725	**F**	7,366	C	7,761	**F**	7,248	C
	Mather Field Rd to Zinfandel Drive	7,275	C	7,224	C	7,713	C	7,560	C
	Zinfandel Drive to Sunrise Blvd	5,121	C	6,649	**F**	5,726	C	7,083	**F**
	Sunrise Boulevard to Hazel Avenue	4,985	C	5,323	**F**	5,461	C	5,611	**F**
West-bound US 50	Hazel Avenue to Sunrise Boulevard	6,068	D	4,370	C	6,334	E	4,707	C
	Sunrise Blvd to Zinfandel Drive	7,502	D	4,762	C	7,846	E	5,134	C
	Zinfandel Drive to Mather Field Rd	7,548	C	5,765	B	7,829	C	5,928	B
	Mather Field Rd to Bradshaw Road	7,859	**F**	6,939	D	7,810	**F**	6,892	D
	Bradshaw Road to Watt Avenue	7,550	**F**	6,466	D	7,424	**F**	6,913	E
	Watt Avenue to Howe Avenue	7,376	**F**	5,106	**F**	7,192	**F**	5,395	**F**
	Howe Avenue to 65th Street	8,157	**F**	7,407	**F**	8,489	**F**	8,031	**F**
	65th Street to 59th Street	8,278	**F**	7,358	**F**	8,605	**F**	7,953	**F**
	59th Street to Stockton Boulevard	9,115	D	7,945	**F**	9,448	D	8,537	**F**
	Stockton Boulevard to SR 99 / SR 51	8,546	D	8,136	**F**	8,836	D	8,635	**F**

Bold values denote level of service "F" conditions.
Red shaded values indicate project impacts.
Source: *DKS Associates, 2018.*

Table 4.9: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service										
Direc-tion	**Location**	**Junction Type**	**Existing**				**Existing Plus FOUR PROJECTS**			
			A.M. Peak Hour		**P.M. Peak Hour**		**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**
East-bound US 50	Northbound 65th Street Slip Entrance	Weave	765	D	653	C	730	F	576	C
	Howe Avenue / Hornet Drive Exit		1,631		1,417		2,175		1,627	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	484	C	881	C	556	C	927	D
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	419	C	431	C	390	C	401	C
	Watt Avenue Exit	Two-Lane Diverge	1,317	B	1,634	B	1,149	B	1,470	B
	Watt Avenue Entrance	One-Lane Merge	2,134	**F**	1,724	D	1,951	E	1,553	D
	Bradshaw Road Exit	Two-Lane Diverge	1,520	B	1,228	B	1,891	C	1,574	B
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	220	C	422	C	151	C	423	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	971	C	918	C	1,280	D	1,105	C
	Mather Field Road Exit	Two-Lane Diverge	1,266	B	1,062	A	1,188	B	987	A
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	125	C	101	B	121	C	107	B

Table 4.9: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service										
Direc-tion	**Location**	**Junction Type**	**Existing**				**Existing Plus FOUR PROJECTS**			
			A.M. Peak Hour		**P.M. Peak Hour**		**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**
	Northbound Mather Field Road Slip Entrance	Weave	317	**F**	816	C	634	**F**	1,187	D
	Zinfandel Drive Exit		2,932		1,452		2,918		1,419	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	182	B	129	C	177	B	116	C
	Northbound Zinfandel Drive Slip Entrance	One-Lane Merge	348	B	540	C	522	C	627	C
	Sunrise Boulevard Exit	Major Diverge	1,773	C	1,959	D	1,953	C	2,073	D
	Sunrise Boulevard Entrance	One-Lane Merge	992	C	889	D	1,028	C	834	D
	Hazel Avenue Exit	Two-Lane Diverge	933	B	1,541	C	1,094	C	1,673	C
	Hazel Avenue Entrance	Weave	804	C	945	C	704	C	945	C
	Aerojet Road Exit		241		55		241		52	
West-bound US 50	Hazel Avenue Exit	Two-Lane Diverge	631	A	869	A	622	A	849	B
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	160	B	600	B	174	B	593	B
	Southbound Hazel Avenue Slip Entrance	One-Lane Merge	1,550	B	800	B	1,748	C	962	B

Table 4.9: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service										
Direc-tion	Location	Junction Type	Existing				Existing Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Sunrise Boulevard Exit	One-Lane Diverge	749	E	758	D	655	E	763	D
	Sunrise Blvd Entrance	Lane Addition	2,183	**F**	1,656	D	2,192	**F**	1,686	D
	Zinfandel Drive Exit	One-Lane Diverge	1,034	E	608	C	1,088	E	759	C
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	585	B	1,197	B	532	B	1,118	B
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	442	C	561	B	410	C	550	B
	Mather Field Road Exit	One-Lane Drop	1,093	C	556	A	1,496	C	740	A
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	515	B	861	B	385	B	843	B
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	387	B	380	B	519	B	363	B
	Bradshaw Road Exit	Two-Lane Diverge	1,236	B	1,327	B	1,583	B	1,510	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	914	D	910	C	1,236	D	1,523	D
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	338	D	590	C	365	D	669	D
	Watt Avenue Exit	Major Diverge	1,373	D	1,188	C	1,257	D	1,181	C
	Northbound Watt Avenue Entrance	One-Lane Merge	820	D	943	C	788	D	900	C

Table 4.9: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	Existing				Existing Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Southbound Watt Avenue Slip Entrance	Lane Addition / Weave	1,232	C	1,317	D	1,091	C	1,196	B
	Howe Avenue Exit	Major Diverge / Weave	1,531	D	1,419		1,349	D	1,313	D
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	654	D	602	C	689	D	647	C
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	574	C	574	C	688	C	484	C

Bold values denote level of service "F" conditions.
Red shaded values indicate project impacts.
Source: *DKS Associates, 2018.*

Table 4.10: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					AM Peak Hour			PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	118	-	603	120	-	248
	Watt Avenue	1,500	-	1,500	110	-	221	162	-	242
	Bradshaw Road	1,250	-	1,250	119	-	759	67	-	604
	Mather Field Road	1,385	-	1,385	157	-	354	103	-	63
	Zinfandel Drive	1,025	1,025	1,025	231	776	698	439	324	180
	Sunrise Boulevard	1,695	-	1,695	231	-	119	217	-	72
	Hazel Avenue	1,310	-	1,310	186	-	50	201	-	8
Westbound US-50	Hazel Avenue	1,995		1,995	262		47	177		218
	Sunrise Boulevard	1,540	-	1,540	67	-	48	136	-	122
	Zinfandel Drive	1,065	-	1,065	203	-	38	94	-	89
	Mather Field Road	1,335	-	1,335	417	-	396	121	-	101
	Bradshaw Road	1,330	-	1,330	184	-	32	189	-	13
	Watt Avenue	1,480	-	1,480	205	-	571	104	-	460
	Howe Avenue	1,355	1,355	1,355	81	412	79	147	412	160

Red shaded values indicate project impacts.
L = left turn movement, T = through movement, R = right turn movement
Source: *DKS Associates, 2018.*

4.4.4 Existing Plus FOUR PROJECTS Pedestrian and Bicycle Facility Impacts

The FOUR PROJECTS would not remove any existing or planned pedestrian facility. The FOUR PROJECTS would not remove any existing bicycle facility or any facility that is planned in the Bikeway Master Plan. The FOUR PROJECTS would add pedestrian and bicycle demands within the FOUR PROJECTS site and to and from nearby land uses. Complete information on improvements to on- and off-site bicycle and pedestrian facilities is not available at this time. Because the FOUR PROJECTS would add demand for pedestrian and bicycle facilities that may not be available, the impact of the FOUR PROJECTS on pedestrian and bicycle circulation is potentially significant.

4.4.5 Existing Plus FOUR PROJECTS Transit System Impacts

Public transit service is currently limited in the vicinity of the FOUR PROJECTS. In the preparation of this analysis, a conceptual transit system to serve the FOUR PROJECTS was developed (see Section 3.1.2.3). The additional transit service was assumed to be funded by the FOUR PROJECTS. However, the timing and implementation of the transit system are uncertain at this time. The FOUR PROJECTS would increase demands for public transit facilities. Therefore, the impact of the FOUR PROJECTS on the transit system is potentially significant.

4.4.6 Existing Plus FOUR PROJECTS Functionality Impacts

Table 4.11 summarizes the results of the rural roadway segment functionality analysis. **Figure 4.6** illustrates the resultant functionality impacts. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the FOUR PROJECTS. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the FOUR PROJECTS make improvements to a roadway segment such as widening, they would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the FOUR PROJECTS would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the FOUR PROJECTS, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the FOUR PROJECTS.

Table 4.11
Existing Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	2	Yes	5,950	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	2	Yes	8,740	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	4	No	9,500	Yes[3]
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Yes	6,470	Yes
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Yes	3,430	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	2	Yes	24,370	Yes
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	2	Yes	23,830	Yes
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	3	No	14,080	Yes[3]
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	3	No	20,830	Yes[3]
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Yes	22,740	Yes
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	3	No	27,210	Yes[3]
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	3	No	11,850	Yes[3]
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Yes	12,980	Yes
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Yes	10,200	Yes
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	2	Yes	16,070	Yes
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	2	Yes	13,050	Yes
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	2	Yes	13,290	Yes
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	2	Yes	12,760	Yes
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Yes	7,380	Yes
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	3	No	14,950	Yes[3]
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	4	No	15,820	Yes[3]
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	2	Yes	9,020	Yes
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	4	No	7,540	Yes[3]
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Yes	7,900	Yes
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Yes	3,630	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Yes	3,650	No

Red text with light gray shading indicate project impacts.

Table 4.11
Existing Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	6	No	52,830	Yes[3]
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	4	No	46,410	Yes[3]
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Yes	5,490	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	6	No	42,680	Yes[3]
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	3	No	14,640	Yes[3]
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Yes	4,400	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	4	No	34,140	Yes[3]
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	2	Yes	2,090	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	2	Yes	19,830	Yes

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

FIGURE 4.6
EXISTING PLUS FOUR PROJECTS
FUNCTIONALITY IMPACTS

Legend

- Substandard Roadways
- Functionality Impact
- Functionality Impact if Roadway is Not Already Improved
- Study_Area_Segments
- Cities
- Mather Airport

4.5 MITIGATION

4.5.1 Existing Plus FOUR PROJECTS Roadway Segment Mitigation

Table 4.12 summarizes the results of the operations analysis for the study area roadway segments with mitigation. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the FOUR PROJECTS to fund and provide. The Mather South project would contribute a fair share. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

4.5.2 Existing Plus FOUR PROJECTS Intersection Mitigation

Tables 4.13 and 4.14 summarize the results of the operations analysis for the study area intersections with mitigation. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. Shaded table cells in Table 4.14 indicate those locations where changes in traffic control and / or number of approach lanes by type have been made to mitigate impacts, which would be the responsibility of the FOUR PROJECTS to fund and provide. The Mather South project would contribute a fair share. The shaded table cells in Table 4.13 under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. Table 4.14 also identifies those intersections that would continue to have LOS impacts after mitigation, along with the constraint that precluded full mitigation. Detailed analysis information is included in the technical appendix.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

High Capacity Intersections

Three intersections are currently designated as "High Capacity Intersections" on the County's General Plan: Watt Avenue & Folsom Boulevard, Watt Avenue & Kiefer Boulevard, and Watt Avenue & Jackson Road.

A high capacity intersection would utilize special treatments to increase the capacity of the intersection so as to reduce congestion and travel delay. Since each intersection could have unique travel movements, volumes and existing context sensitive conditions, the special treatments utilized at each high capacity intersection will be selected to meet the specific needs of each intersection. The range of special treatments is quite wide, ranging from the restriction of certain turning movements to various combinations that could include grade separating certain movements. While the field of traffic engineering is ever expending and evolving resulting in the use of new technologies and treatments, special treatments such as the following could be utilized at a high capacity intersection:

- Restricting turning movements
- Median U-turns
- Roundabouts
- Split intersections
- Quadrant roadway intersections
- Bowtie intersections
- Directional flyovers
- Center turn overpass
- Grade separated Roundabout
- Diverging diamond grade separation
- Compact diamond grade separation
- Single point urban grade separation
- Traditional urban grade separation

The County has conducted conceptual engineering to define potential improvements at the three study area intersections on Watt Avenue that are currently designated as "High Capacity Intersections" on the County's General Plan. These are:

- At the **Watt Avenue & Folsom Boulevard** intersection, the County proposes an ultimate configuration involving grade separation of the northbound and southbound through movements of Watt Avenue. Access to and from Folsom Boulevard would be accomplished via on and off-ramps from the left lanes of Watt Avenue to a single signalized intersection. A bus rapid transit (BRT) lane along Watt Avenue would also intersect Folsom Boulevard at the traffic signal. This design is consistent with the recommendations of the South Watt Area Transportation Study (SWATS) dated November 1, 2002 and approved by the Board of Supervisors on November 26, 2002, and with the planning study for the *State Route 16 (Jackson Road) Corridor Study* (Fehr & Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Kiefer Boulevard** intersection, the County proposes a tight diamond interchange as the ultimate improvement. The through movements (and BRT lane) on Watt Avenue would be grade separated from Kiefer Boulevard. Access to and from Kiefer Boulevard would be accomplished via on and off-ramps at two signalized intersections along Kiefer Boulevard. This design is proposed in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr & Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation,

City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Jackson Road** intersection, the County proposes a standard six-by-six signalized intersection (two left-turn lanes, three through lanes, and one right-turn lane, on each approach) with three modifications. 1) The southbound left-turn movement would be grade separated; 2) The westbound right-turn movement would be grade separated; and 3) Three northbound left-turn lanes are proposed. This configuration represents an enhanced version of Alternative 6 in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr and Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

Table 4.12
Existing Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS					Mitigated Existing + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	74,850	1.39	**F**	6	Arterial M	1.39	**F**	Yes		Maximum General Plan lanes
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	68,340	1.27	**F**	6	Arterial M	1.27	**F**	Yes		Maximum General Plan lanes
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	60,800	1.13	**F**	6	Arterial M	1.13	**F**	Yes		Maximum General Plan lanes
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	4	Arterial M	52,590	1.46	**F**	6	Arterial M	0.97	E	No		
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	5	Arterial M	48,280	1.34	**F**	6	Arterial M	0.89	D	No		
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	5	Arterial M	43,190	1.20	**F**	6	Arterial M	0.80	C	No		
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	5	Arterial M	43,450	1.21	**F**	6	Arterial M	0.80	D	No		
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	22,490	1.25	**F**	4	Arterial M	0.62	B	No		
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	17,930	1.00	**E**	4	Arterial M	0.50	A	No		
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	24,370	1.35	**F**	4	Arterial M	0.68	B	No		
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	23,830	1.32	**F**	4	Arterial M	0.66	B	No		
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	3	Arterial M	20,830	1.16	**F**	4	Arterial M	0.58	A	No		
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	24,620	1.37	**F**	4	Arterial M	0.68	B	No		
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	3	Arterial M	28,310	1.57	**F**	4	Arterial M	0.79	C	No		
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	3	Arterial M	27,210	1.51	**F**	4	Arterial M	0.76	C	No		
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	54,050	1.50	**F**	4	Arterial M	1.50	**F**	Yes		Maximum General Plan lanes
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	22,220	1.23	**F**	4	Arterial M	0.62	B	No		
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit	2	Rural S	15,900	0.80	E	2	Arterial M	0.88	D	No		
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd	2	Rural S	15,870	0.79	**E**	4	Arterial M	0.44	A	No		
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	22,700	1.14	**F**	4	Arterial M	0.63	B	No		
57	Grant Line Rd	Wilton Rd	Bond Rd	2	Rural S	20,180	1.01	**F**	4	Arterial M	0.56	A	No		

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.12
Existing Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS					Mitigated Existing + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
58.2	Happy Ln	Routier Ext	Kiefer Blvd	2	Arterial M	19,200	1.07	**F**	2	Arterial M	1.07	**F**	Yes	Construct Routier Extension	
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	61,820	1.14	**F**	6	Arterial M	1.14	**F**	Yes		Maximum General Plan lanes
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	2	Arterial M	33,010	1.83	**F**	4	Arterial M	0.92	E	No		
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	37,200	2.07	**F**	4	Arterial M	1.03	**F**	Yes		Maximum General Plan lanes
67	Jackson Rd	South Watt Ave	Hedge Ave	4	Arterial M	58,720	1.63	**F**	6	Arterial M	1.09	**F**	Yes		Maximum General Plan lanes
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	4	Arterial M	50,220	1.40	**F**	6	Arterial M	0.93	E	No		
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	4	Arterial M	51,620	1.43	**F**	6	Arterial M	0.96	E	No		
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	4	Arterial M	46,410	1.29	**F**	6	Arterial M	0.86	D	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	17,610	0.77	**E**	4	Arterial M	0.49	A	No		
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	36,970	1.03	**F**	4	Arterial M	1.03	**F**	Yes		Maximum General Plan lanes

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Table 4.12
Existing Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS					Mitigated Existing + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	32,640	0.91	**E**	4	Arterial M	0.91	**E**	Yes		Maximum General Plan lanes
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	64,430	1.19	**F**	6	Arterial M	1.19	**F**	Yes		Maximum General Plan lanes
97	South Watt Ave	Kiefer Blvd	Jackson Rd	5	Arterial M	49,470	1.37	**F**	6	Arterial M	0.92	E	No		
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	22,290	1.24	**F**	4	Arterial M	0.62	B	No		
100	South Watt Ave	Elder Creek Rd	Florin Rd	2	Arterial M	24,510	1.36	**F**	4	Arterial M	0.68	B	No		
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	52,840	0.98	**E**	6	Arterial M	0.98	**E**	Yes		Maximum General Plan lanes
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	20,300	1.13	**F**	4	Arterial M	0.56	A	No		
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	77,770	1.30	**F**	6	Arterial H	1.30	**F**	Yes		Maximum General Plan lanes
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	49,950	0.93	**E**	7	Arterial M	0.93	**E**	Yes		Maximum General Plan lanes
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	20,710	1.15	**F**	4	Arterial M	0.58	A	No		
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	2	Arterial M	19,830	1.10	**F**	4	Arterial M	0.55	A	No		
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd	2	Arterial M	22,170	1.23	**F**	4	Arterial M	0.62	B	No		

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Table 4.12
Existing Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS					Mitigated Existing + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.13

Existing Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus FOUR PROJECTS				Mitigated Existing Plus FOUR PROJECTS			Existing Plus FOUR PROJECTS				Mitigated Existing Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)	LOS Impact	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	LOS Impact	Control	Int LOS	Delay (sec)
5	Power Inn Road & Fruitridge Road	Signal	E	59.5	Yes	Signal	D	46.8	Signal	D	35.3	No	Signal	C	33.0
9	Florin Perkins Road & Jackson Road	Signal	E	70.0	Yes	Signal	C	29.8	Signal	F	144.0	Yes	Signal	D	44.0
14	S. Watt Avenue & Kiefer Blvd.	Signal	F	121.3	Yes	Signal	E	71.2	Signal	F	105.7	Yes	Signal	E	59.3
16	S. Watt Avenue & Jackson Road	Signal	F	331.7	Yes	Signal	E	62.0	Signal	F	773.1	Yes	Signal	E	61.7
17	S. Watt Avenue & Fruitridge Road	Signal	D	52.2	No	Signal	D	30.7	Signal	E	65.2	Yes	Signal	D	50.0
18	S. Watt Avenue & Elder Creek Road	Signal	F	125.6	Yes	Signal	D	38.8	Signal	F	143.8	Yes	Signal	D	43.6
27	Hedge Avenue & Florin Road	All-way stop	F	217.6	Yes	Signal	D	47.5	All-way stop	F	68.8	Yes	Signal	B	10.1
31	Mayhew Road & Elder Creek Road	Signal	F	294.2	Yes	Signal	C	33.0	Signal	F	275.9	Yes	Signal	C	25.6
32	Woodring Drive & Zinfandel Drive	Two-way stop			Yes	Roundabout	C	18.0	Two-way stop			Yes	Roundabout	C	19.6
	Eastbound		F	83.8						F	78.8				
	Northbound Left Turn		*A*	*9.4*						B	10.1				
36	Bradshaw Road & Old Placerville Road	Signal	E	61.2	Yes	Signal	-	-	Signal	E	62.7	Yes	Signal	-	-
37	Bradshaw Road & Kiefer Boulevard	Signal	F	101.3	Yes	Signal	F	96.5	Signal	F	104.5	Yes	Signal	E	73.1
38	Bradshaw Road & Jackson Road	Signal	F	92.6	Yes	Signal	E	73.9	Signal	F	82.1	Yes	Signal	E	69.3
39	Bradshaw Road & Elder Creek Road	Signal	F	80.1	Yes	Signal	D	52.0	Signal	E	71.5	No	Signal	E	63.7

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.13

Existing Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus FOUR PROJECTS				Mitigated Existing Plus FOUR PROJECTS			Existing Plus FOUR PROJECTS				Mitigated Existing Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)	LOS Impact	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	LOS Impact	Control	Int LOS	Delay (sec)
40	Bradshaw Road & Florin Road	Signal	F	109.0	Yes	Signal	D	54.9	Signal	E	72.3	No	Signal	E	71.9
42	Happy Lane & Old Placerville Road	Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct Routier extension.			Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct Routier Extension.		
	Northbound Left Turn		*E*	*40.0*						F	>300				
	Northbound Right Turn		C	16.2						B	13.6				
	Westbound Left Turn		A	9.0						A	9.2				
45	Excelsior Road & Jackson Road	Signal	F	273.0	Yes	Signal	D	47.6	Signal	F	222.4	Yes	Signal	D	38.3
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	F	151.9	Yes	Signal	C	30.0	All-way stop	F	108.0	Yes	Signal	A	8.6
51	Mather Field Road & Rockingham Drive	Signal	F	125.6	Yes	Signal	-	-	Signal	E	61.8	Yes	Signal	-	-
61	Eagles Nest Road & Florin Road	Two-way stop			Yes	Signal	C	26.7	Two-way stop			Yes	Signal	C	29.9
	Northbound		*F*	*147.4**						D	25.4				
	Southbound		C	20.3*						F	71.3				
	Eastbound Left Turn		*A*	*5.4**						A	8.0				
	Westbound Left Turn		*A*	*0.0**						A	0.0				
69	Sunrise Boulevard & Kiefer Boulevard	Signal	E	59.7	Yes	Signal	D	47.1	Signal	D	40.0	No	Signal	C	30.1
70	Sunrise Boulevard & Jackson Road	Signal	F	124.5	Yes	Signal	D	39.4	Signal	E	69.9	Yes	Signal	D	46.0
80	Grant Line Road & Jackson Road	Signal	F	86.2	Yes	Signal	D	44.6	Signal	E	63.6	No	Signal	E	**61.4**
90	Excelsior Road & Calvine Rd	All-way stop	F	106.7	Yes	Signal	C	30.8	All-way stop	F	82.2	Yes	Signal	C	30.3
93	Grant Line Rd & Dwy/Wilton Rd	Signal	E	79.8	Yes	Signal	C	31.2	Signal	E	71.9	Yes	Signal	C	34.1

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.13

Existing Plus FOUR PROJECTS Impacted Intersections and Mitigations

Intersection		AM Peak Hour							PM Peak Hour						
		Existing Plus FOUR PROJECTS				Mitigated Existing Plus FOUR PROJECTS			Existing Plus FOUR PROJECTS				Mitigated Existing Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)	LOS Impact	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	LOS Impact	Control	Int LOS	Delay (sec)
319	Bradshaw Road & Rock Creek Pkwy	Signal	F	96.4	Yes	Signal	C	33.5	Signal	B	16.5	No	Signal	B	14.0
325	Douglas Road & Kiefer Boulevard	Signal	F	111.2	Yes	Signal	D	52.3	Signal	F	133.8	Yes	Signal	D	48.6
331	Routier Ext/Routier Rd & Old Placerville Rd.	Signal	F	231.2	Yes	Signal	E	65.5	Signal	F	189.8	Yes	Signal	E	56.6

Note: Gray shading represents changes in traffic control for which the project is responsible to pay a fair share.
(-): No change to tintersection geometry or operation.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.14

Existing Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		Existing Plus FOUR PROJECTS Lane Geometrics				Mitigated Existing Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Existing Plus FOUR PROJECTS	Mitigated Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
5	Power Inn Road & Fruitridge Road	Signal	Signal									No	No		
9	Florin Perkins Road & Jackson Road	Signal	Signal									No	No		
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal									No	No	WBR Overlap	
16	S. Watt Avenue & Jackson Road	Signal	Signal									No	Yes	Free WBR	
17	S. Watt Avenue & Fruitridge Road	Signal	Signal									No	No		
18	S. Watt Avenue & Elder Creek Road	Signal	Signal									No	No		
27	Hedge Avenue & Florin Road	All-way stop	Signal									No	No		
31	Mayhew Road & Elder Creek Road	Signal	Signal									No	No	Dual SBR	
32	Zinfandel Drive & Woodring Drive	Two-way stop	Roundabout									No	No		
36	Bradshaw Road & Old Placerville Road	Signal	Signal									Yes	No		Existing development
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal									Yes	No	Carry 3 EBT and 3 WBT lanes through intersection	Maximum General Plan Lanes
38	Jackson Road & Bradshaw Road	Signal	Signal									No	No	Dual WBR	
39	Bradshaw Road & Elder Creek Road	Signal	Signal									No	No		
40	Bradshaw Road & Florin Road	Signal	Signal									No	No		
42	Happy Lane & Old Placerville Road	Two-way stop	Access Control					Happy Lane to become right-in and right-out only. Median will allow westbound left turns.				Yes	No	Construct Routier extension from Old Placerville Road to Kiefer Road.	
45	Excelsior Road & Jackson Road	Signal	Signal									No	No	NBR overlap	
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	Signal										No		
51	Mather Field Road & Rockingham Drive	Signal	Signal									Yes	No		Existing development
61	Eagles Nest Rd/Eagles Nest Road & Florin Road	Two-way stop	Signal									No	No		

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.14

Existing Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		Existing Plus FOUR PROJECTS Lane Geometrics				Mitigated Existing Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Existing Plus FOUR PROJECTS	Mitigated Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									No	No		
70	Sunrise Boulevard & Jackson Road	Signal	Signal									No	No		
80	Grant Line Road & Jackson Road	Signal	Signal									No	No		
90	Excelsior Road & Calvine Rd	All-way stop	Signal									No	No		
93	Grant Line Road & Driveway/Wilton Rd	Signal	Signal									No	No		
319	Bradshaw Road & Rock Creek Pkwy	Signal	Signal									No	No	Dual WBR	
325	Douglas Road & Kiefer Boulevard	Signal	Signal									No	No	Dual EBR	
331	Routier Ext/Routier Rd & Old Placerville Road	Signal	Signal									No	No	NBR overlap	

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

4.5.3 Existing Plus FOUR PROJECTS U.S. 50 Freeway Mitigation

According to Caltrans' US-50 Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP), all mainline freeway lanes of the 8-lane ultimate facility (4 lanes in each direction) have already been built, with the exception of the segment between Zinfandel Drive and Sunrise Boulevard (where 6 of the 8 ultimate lanes exist today). With the exception of this segment, capacity improvements to widen the freeway mainline are precluded by the ultimate configuration in the TCR/CSMP. The TCR/CSMP does conceptualize other projects that will benefit the US-50 corridor without adding additional mainline travel lanes. These improvements generally fall into one of three categories:

- Intelligent transportation systems (ITS) and integrated corridor management (ICM) projects. Some examples may include ramp metering and multimodal improvements.
- Improvements to parallel local facilities. Such projects are expected to reduce travel demand on US-50.
- Future HOV lanes and auxiliary lanes. These projects would extend, or bridge gaps in, the existing HOV and auxiliary lane network. Constructing these lanes is permissible even when further widening of the mainline is not allowable, and is consistent with the ultimate configuration in the TCR/CSMP.

The FOUR PROJECTS shall participate in one or more of these alternative improvements that could directly reduce the severity of the project's impact and/or provide operational benefits to the US-50 corridor in general.

4.5.3.1 US-50 Eastbound Alternative Improvements

To lessen the impact to the eastbound US-50 mainline between Stockton Boulevard and 59th Street, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)

To lessen the impact to the eastbound US-50 weave between 65th Street and Howe Avenue, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)
- Widen 65th Street to 5 lanes from US-50 to Broadway (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 weave between Mather Field Road and Zinfandel Drive, the project may pay a fair share toward the construction of:

- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Zinfandel Drive and Hazel Avenue, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Zinfandel Drive and Sunrise Boulevard (2035 SACOG MTP)
- Auxiliary lanes between Sunrise Boulevard and Hazel Avenue (2035 SACOG MTP)
- Widen Sunrise Boulevard to 6 lanes with special treatments, including intersection improvements at White Rock Road, Folsom Boulevard, Coloma Road, Gold Express Drive, and Gold Country Boulevard (2035 SACOG MTP)
- A new interchange at Rancho Cordova Parkway, including a 4-lane arterial from US-50 to White Rock Road (2035 SACOG MTP)
- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)

4.5.3.2 US-50 Westbound Alternative Improvements

To lessen the impact to the westbound US-50 mainline between Watt Avenue and SR-51/SR-99, the project may pay a fair share toward the construction of:

- Bus/HOV lanes from Watt Avenue to Downtown Sacramento (2035 SACOG MTP)
- Replacement of existing communication lines with fiber optics to improve performance between SR-51/SR-99 and Watt Avenue (2013 10-Year SHOPP Plan)
- Auxiliary lane between the NB Howe Avenue on-ramp and the SB Howe Avenue on-ramp (2035 SACOG MTP)
- Ramp meter improvements (Caltrans ITS/OPS Project List)

4.5.4 Existing Plus FOUR PROJECTS Pedestrian and Bicycle Facility Mitigation

The FOUR PROJECTS applicants shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the FOUR PROJECTS and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the FOUR PROJECTS vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

4.5.5 Existing Plus FOUR PROJECTS Transit System Mitigation

The applicants of the FOUR PROJECTS shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis (see Section 3.1.2.3), or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

4.5.6 Existing Plus FOUR PROJECTS Functionality Mitigation

Table 4.15 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation.

4.5.7 Existing Plus FOUR PROJECTS Mitigation Summary

Tables 4.16 through 4.21 summarize all of the roadway segments, intersections, and freeway facilities that would exhibit significant LOS impacts along with the mitigation success for these impacts.

Table 4.15
Existing Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	4	No	9,500	Yes[3]	Widen to County standards [5]	No
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Yes	6,470	Yes	Widen to County standards [5]	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Yes	24,370	Yes	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Yes	23,830	Yes	Widen to County standards [5]	No
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	3	No	14,080	Yes[3]	Widen to County standards [5]	No
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	3	No	20,830	Yes[3]	Widen to County standards [5]	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Yes	22,740	Yes	Widen to County standards [5]	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	3	No	27,210	Yes[3]	Widen to County standards [5]	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	3	No	11,850	Yes[3]	Widen to County standards [5]	No
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Yes	12,980	Yes	Widen to County standards [5]	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Yes	10,200	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	2	Yes	16,070	Yes	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Yes	13,050	Yes	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Yes	13,290	Yes	Widen to County standards [5]	No
42	Florin Rd	Bradshaw Rd	Excelsior Rd	2	Yes	12,760	Yes	Widen to County standards [5]	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Yes	7,380	Yes	Widen to County standards [5]	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	No	14,950	Yes[3]	Widen to County standards [5]	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	4	No	15,820	Yes[3]	Widen to County standards [5]	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Yes	9,020	Yes	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	4	No	7,540	Yes[3]	Widen to County standards [5]	No
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Yes	7,900	Yes	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	6	No	52,830	Yes[3]	Widen to County standards [5]	No
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	4	No	46,410	Yes[3]	Widen to County standards [5]	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	6	No	42,680	Yes[3]	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	3	No	14,640	Yes[3]	Widen to County standards [5]	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	4	No	34,140	Yes[3]	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	2	Yes	19,830	Yes	Widen to County standards [5]	No

Red text with light gray shading indicate project impacts.

Table 4.15
Existing Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

Table 4.16
Existing Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd
56	Grant Line Rd	Sheldon Rd	Wilton Rd
57	Grant Line Rd	Wilton Rd	Bond Rd
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd
68.1	Jackson Rd	Hedge Ave	Collector WJ-3
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd
71.1	Jackson Rd	Excelsior Rd	Collector JT-3
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
97	South Watt Ave	Kiefer Blvd	Jackson Rd
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd
100	South Watt Ave	Elder Creek Rd	Florin Rd
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd
122	Zinfandel Dr	City Limit	Douglas Rd
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
2	Bradshaw Rd	US 50	Lincoln Village Dr
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd
44	Folsom Blvd	Howe Ave	Jackson Rd
62	Howe Ave	US 50	Folsom Blvd
66	Jackson Rd	Florin Perkins Rd	South Watt Ave

Note: Refer to Table 4.12 for detailed description of impacts and mitigations.

Table 4.16
Existing Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
67	Jackson Rd	South Watt Ave	Hedge Ave
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd
96	South Watt Ave	Folsom Blvd	Kiefer Blvd
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr
110	Watt Ave	US 50	Folsom Blvd
118	Zinfandel Dr	US 50	White Rock Rd

Note: Refer to Table 4.12 for detailed description of impacts and mitigations.

Table 4.17
Existing Plus FOUR PROJECTS (Alternative 2) Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
5	Power Inn Road & Fruitridge Road	
9	Florin Perkins Road & Jackson Road	
14	S. Watt Avenue & Kiefer Blvd.	**
17	S. Watt Avenue & Fruitridge Road	
18	S. Watt Avenue & Elder Creek Road	
27	Hedge Avenue & Florin Road	
31	Mayhew Road & Elder Creek Road	**
32	Woodring Drive & Zinfandel Drive	
38	Bradshaw Road & Jackson Road	**
39	Bradshaw Road & Elder Creek Road	
40	Bradshaw Road & Florin Road	
45	Excelsior Road & Jackson Road	**
48	Excelsior Road & Gerber Road/Birch Ranch Drive	
61	Eagles Nest Road & Florin Road	
69	Sunrise Boulevard & Kiefer Boulevard	
70	Sunrise Boulevard & Jackson Road	
80	Grant Line Road & Jackson Road	
90	Excelsior Road & Calvine Rd	

Table 4.17
Existing Plus FOUR PROJECTS (Alternative 2) Summary of Impacted Intersections

	Intersection	Alternative Mitigation
93	Grant Line Rd & Dwy/Wilton Rd	
319	Bradshaw Road & Rock Creek Pkwy	
325	Douglas Road & Kiefer Boulevard	**
331	Routier Ext/Routier Rd & Old Placerville Rd.	**
	Level of Service Impact Not Fully Mitigated by General Plan Lanes But Designated High Capacity Intersection	
16	S. Watt Avenue & Jackson Road	**
	Level of Service Impact Not Fully Mitigated by General Plan Lanes	
36	Bradshaw Road & Old Placerville Road	
37	Bradshaw Road & Kiefer Boulevard	
42	Happy Lane & Old Placerville Road	**
51	Mather Field Road & Rockingham Drive	

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 4.18

Existing Plus FOUR PROJECTS
Summary of Impacted Freeway Basic Segments

Direction	Location
Level of Service Impact Not Mitigated	
Eastbound US-50	Stockton Boulevard to 59th Street
	Zinfandel Drive to Sunrise Boulevard
	Sunrise Boulevard to Hazel Avenue
Westbound US-50	Watt Avenue to Howe Avenue
	Howe Avenue to 65th Street
	65th Street to 59th Street
	59th Street to Stockton Boulevard
	Stockton Boulevard to SR 99 / SR 51

Source: *DKS Associates, 2018.*

Table 4.19

Existing Plus FOUR PROJECTS
Summary of Impacted Freeway Merge/Diverge/Weave Segments

Direction	Location	Junction Type
Level of Service Impact Not Mitigated		
Eastbound US-50	Northbound 65th Street Slip Entrance	Weave
	Howe Avenue / Hornet Drive Exit	
	Northbound Mather Field Road Slip Entrance	Weave
	Zinfandel Drive Exit	

Source: *DKS Associates, 2018.*

Table 4.20
Existing Plus FOUR PROJECTS Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
20	Eagles Nest Rd	Jackson Rd	Florin Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd
30	Excelsior Rd	Kiefer Blvd	Jackson Rd
31	Excelsior Rd	Jackson Rd	Elder Creek Rd
32	Excelsior Rd	Elder Creek Rd	Florin Rd
33	Excelsior Rd	Florin Rd	Gerber Rd
34	Excelsior Rd	Gerber Rd	Calvine Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
42	Florin Rd	Bradshaw Rd	Excelsior Rd
43	Florin Rd	Excelsior Rd	Sunrise Blvd
48	Fruitridge Rd	South Watt Ave	Hedge Ave
49	Fruitridge Rd	Hedge Ave	Mayhew Rd
50	Grant Line Rd	White Rock Rd	Douglas Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
59	Hedge Ave	Jackson Rd	Fruitridge Rd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
77	Kiefer Blvd	Bradshaw Rd	Happy Ln
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
89	Mayhew Rd	Jackson Rd	Fruitridge Rd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

5. MTP CUMULATIVE PLUS FOUR PROJECTS SCENARIO

5.1 FOUR PROJECTS DESCRIPTION

The MTP Cumulative plus FOUR PROJECTS scenario evaluates the effects of the traffic of four developments (the FOUR PROJECTS) added to MTP Cumulative conditions.

5.1.1 MTP Cumulative Land Use

Outside the FOUR PROJECTS, SACOG's 2035 development forecasts (the amount and location of housing and employment) for the adopted 2012 Metropolitan Transportation Plan (MTP) were used to prepare travel demand forecasts for this scenario.

Table 5.1 summarizes the MTP Cumulative Plus Four Project scenario land use.

Table 5.1: Assumed Land Use for MTP Cumulative Plus FOUR PROJECTS Scenario			
Project	**General Land Use**	**Acres**	**Dwelling Units**
West Jackson	Residential	1979.9	12,345
	Assumed Density Bonus[1]		237
	Mixed Use	120.9	2,418
	Commercial	342.8	
	Employment	803.3	
	Industrial	154.8	
	Schools	131.7	
	Park/Open Space/Ag	2108.3	
	Institutional	23.4	
	Primary Roadways	248.2	
	Subtotal	**5913.3**	**15,000**
Jackson Township	Residential	589.1	5,590
	Assumed Density Bonus[1]		76
	Commercial/Mixed Use	95.6	100
	Office	35.2	
	Pubic/Quasi Public	102.5	
	Park/Open Space/Ag	409.4	448
	Primary Roadways	84.2	
	Subtotal	**1,391.0**	**6,214**
New Bridge	Residential	368.0	2,915
	Assumed Density Bonus[1]		108
	Commercial/Mixed Use	31.7	160
	Office	13.8	
	Pubic/Quasi Public	13.8	
	Park/Open Space/Ag	514.7	660
	Primary Roadways	47.9	
	Subtotal	**1,095.3**	**3,843**

Project	General Land Use	Acres	Dwelling Units
Mather South	Residential	428.7	3,352
	Assumed Density Bonus[1]		30
	Commercial	21.1	
	Environmental Education Campus	27.9	200
	Research and Development	21.4	
	Parks & Recreation	43.1	
	Public Utilities	3.5	
	Schools	23.7	
	Open Space	210.5	
	Streets	62.7	
	Subtotal	**848.2**	**3,552**

[1] Reflects estimated potential for additional units that may occur due to County's Housing Incentive Program.

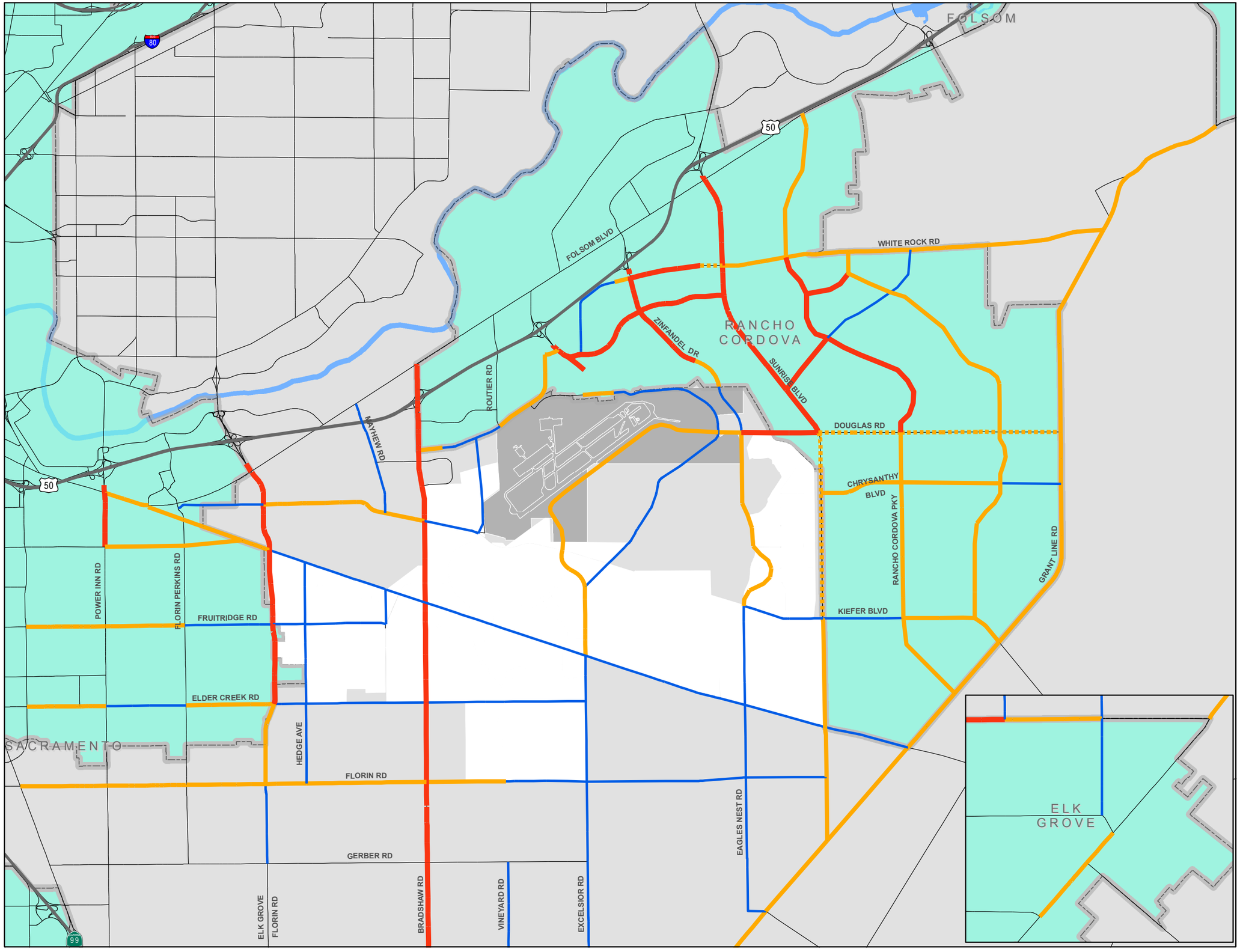
Source: *Project Applicants and Sacramento County, 2018*

5.1.2 Transportation Network

Figure 5.1 illustrates the transportation network associated with the MTP Cumulative without FOUR PROJECTS scenario, consisting of the improvements in the adopted 2012 Metropolitan Transportation Plan (MTP).

Figure 5.2 shows the transportation network associated with the MTP Cumulative with FOUR PROJECTS scenario. The FOUR PROJECTS would widen and / or complete many roadways that cross or border the PROJECT site. The FOUR PROJECTS would include new roadways to serve the proposed land use.

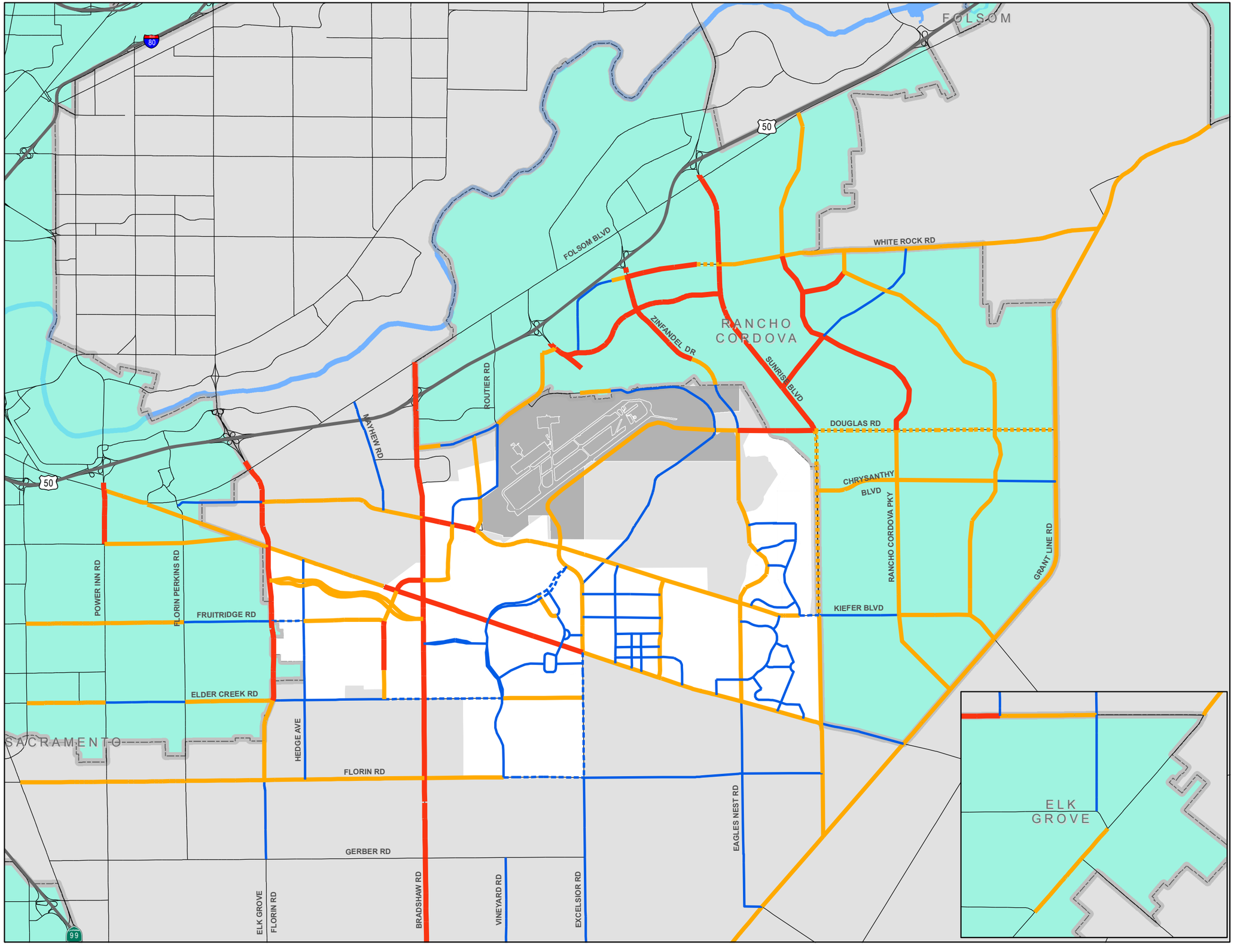
FIGURE 5.1
MTP CUMULATIVE NO PROJECT ROADWAY NETWORK



Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

FIGURE 5.2
MTP CUM PLUS FOUR PROJECTS
ROADWAY NETWORK



Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

DKS

5.2 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the FOUR PROJECTS. **Table 5.2** summarizes the person trip generation. The FOUR PROJECTS would generate over 84,500 daily work person trip ends, and over 688,000 daily person trip ends for all trip purposes.

Table 5.3 summarizes the estimated mode choice for the MTP plus FOUR PROJECTS scenario. Over 90 percent of all person trips are expected to be accommodated by automobile. Transit will serve about 2.2 percent of all trips, while walk and bike modes will accommodate about 7.3 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 5.4 summarizes the vehicular (auto) trip generation of the FOUR PROJECTS. The FOUR PROJECTS are estimated to generate over 464,500 daily vehicle trip ends. Over 96,000 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the individual projects, representing over 20.5 percent of the trip ends. The internal trip ends represent over 48,000 daily vehicle trips (one-half the number of internal trip ends). The FOUR PROJECTS will generate over 363,500 external vehicle trips that have an origin or destination inside one of the FOUR PROJECTS but the other end of the trip is outside the project from which it originated. **Table 5.4** also shows the vehicle trips generated during the a.m. and p.m. peak hours.

Table 5.2: Estimated Daily Person Trip Generation (MTP Cumulative)

FOUR PROJECTS

Trip Purpose	Daily Person Trip Ends
Work Trips	84,574
Non-Work Trips	603,767
All Trip Purposes	688,341

Source: *DKS Associates, 2018.*

Table 5.3: Mode Split (MTP Cumulative)

FOUR PROJECTS

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	82.8%	47.4%	51.7%
Auto - HOV	11.1%	42.7%	38.8%
Transit	4.8%	1.8%	2.2%
Walk	0.7%	7.2%	6.4%
Bike	0.6%	0.9%	0.9%

Source: *DKS Associates, 2018.*

Table 5.4: Estimated Daily Vehicle Trip Generation (MTP Cumulative)

FOUR PROJECTS

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		39,936	43,134	464,853
Percent Internal Trip Ends[1]		16.7%	21.4%	20.7%
Vehicle Trips	Internal to Projects	3,341	4,608	48,083
	External to Projects	33,254	33,917	368,687
	Total	36,595	38,525	416,770

[1.] Both trip ends within individual projects.

Source: *DKS Associates, 2018.*

5.3 OPERATIONS ANALYSIS

This analysis compares the traffic operating conditions associated with the FOUR PROJECTS with the traffic operating conditions associated with the MTP Cumulative (without FOUR PROJECTS) conditions. While the MTP Cumulative scenario is not used for purposes of impact determination, this analysis notes where thresholds of significance are exceeded.

5.3.1 MTP Cumulative Plus FOUR PROJECTS Roadway Segments

Table 5.5 summarizes the results of the operations analysis for the study area roadway segments. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways or widened roadways. The last column of the table shows the project(s) responsible for the increase in the number of roadway lanes. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS that has exceeded the threshold of significance.

Table 5.5
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	25,820	0.48	A	6	Arterial M	23,520	0.44	A	
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	63,890	1.18	**F**	6	Arterial M	81,320	1.51	**F**	
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	49,520	0.92	**E**	6	Arterial M	73,450	1.36	**F**	
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	57,310	1.06	**F**	6	Arterial M	69,670	1.29	**F**	
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	6	Arterial M	41,070	0.76	C	6	Arterial M	57,850	1.07	**F**	
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	6	Arterial M	39,290	0.73	C	6	Arterial M	53,030	0.98	E	
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	6	Arterial M	44,340	0.82	D	6	Arterial M	51,160	0.95	E	
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	6	Arterial M	45,100	0.84	D	6	Arterial M	49,820	0.92	E	
6.3	Bradshaw Rd	Mayhew Rd	Jackson Rd	6	Arterial M	45,040	0.83	D	6	Arterial M	54,530	1.01	**F**	
7.1	Bradshaw Rd	Jackson Rd	Rock Creek Pkwy	6	Arterial M	38,180	0.71	C	6	Arterial M	44,110	0.82	D	
7.2	Bradshaw Rd	Rock Creek Pkwy	Collector WJ-10	6	Arterial M	38,210	0.71	C	6	Arterial M	46,280	0.86	D	
7.3	Bradshaw Rd	Collector WJ-10	Collector WJ-11	6	Arterial M	38,380	0.71	C	6	Arterial M	39,710	0.74	C	
7.4	Bradshaw Rd	Collector WJ-11	Elder Creek Rd	6	Arterial M	38,180	0.71	C	6	Arterial M	34,100	0.63	B	
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	6	Arterial M	38,550	0.71	C	6	Arterial M	43,150	0.80	C	
9	Bradshaw Rd	Florin Rd	Gerber Rd	6	Arterial M	36,170	0.67	B	6	Arterial M	43,350	0.80	D	
10	Bradshaw Rd	Gerber Rd	Calvine Rd	6	Arterial M	27,310	0.51	A	6	Arterial M	32,350	0.60	A	
11	Calvine Rd	Waterman Rd	Bradshaw Rd	6	Arterial M	14,350	0.27	A	6	Arterial M	14,120	0.26	A	
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	6	Arterial M	11,570	0.21	A	6	Arterial M	11,570	0.21	A	
13	Calvine Rd	Vineyard Rd	Excelsior Rd	4	Arterial M	5,470	0.15	A	4	Arterial M	5,500	0.15	A	
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	6,190	0.17	A	4	Arterial M	9,680	0.27	A	
15	Douglas Rd	Mather Blvd	Zinfandel Dr	4	Arterial M	16,800	0.47	A	4	Arterial M	26,770	0.74	C	
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial M	28,850	0.53	A	6	Arterial M	40,360	0.75	C	
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	35,190	0.98	**E**	5	Arterial M	29,070	0.81	D	
18.1	Douglas Rd	Rancho Cordova Pkwy	Americanos Blvd	5	Arterial M	30,030	0.83	D	5	Arterial M	23,400	0.65	B	
18.2	Douglas Rd	Americanos Blvd	Grant Line Rd	5	Arterial M	7,100	0.20	A	5	Arterial M	7,400	0.21	A	
19.1	Eagles Nest Rd	Kiefer Blvd	N Bridgewater Dr	2	Arterial M	6,090	0.34	A	4	Arterial M	10,950	0.30	A	NewBridge
19.2	Eagles Nest Rd	N Bridgewater Dr	S Bridgewater Dr	2	Arterial M	6,090	0.34	A	4	Arterial M	11,190	0.31	A	NewBridge
19.3	Eagles Nest Rd	S Bridgewater Dr	Jackson Rd	2	Arterial M	6,220	0.35	A	4	Arterial M	11,050	0.31	A	NewBridge
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	4540	0.25	A	2	Arterial M	7810	0.43	A	
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	4020	0.22	A	2	Arterial M	4730	0.26	A	
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	21,860	0.61	B	4	Arterial M	26,920	0.75	C	
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	22,160	1.23	**F**	2	Arterial M	27,090	1.51	**F**	
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	4	Arterial M	20,990	0.58	A	4	Arterial M	26,210	0.73	C	
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	17,360	0.96	E	2	Arterial M	40,370	2.24	**F**	

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Table 5.5
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	20,040	1.11	**F**	2	Arterial M	41,550	2.31	**F**	
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	3,460	0.19	A	3	Arterial M	18,490	1.03	**F**	West Jackson
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	2	Arterial M	4,580	0.25	A	3	Arterial M	25,250	1.40	**F**	West Jackson
28.2	Elder Creek Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	4,450	0.25	A	4	Arterial M	20,780	0.58	A	West Jackson
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	27,430	1.52	**F**	2	Arterial M	26,590	1.48	**F**	
30.1	Excelsior Rd	Kiefer Blvd	Douglas Rd	2	Arterial M	4,420	0.25	A	2	Arterial M	5,210	0.29	A	
30.2	Excelsior Rd	Douglas Rd	Collector WJ-1/ Collector JT-1	4	Arterial M	6,380	0.18	A	4	Arterial M	25,650	0.71	C	
30.3	Excelsior Rd	Collector WJ-1/ Collector JT-1	Collector WJ-2/ Collector JT-2	4	Arterial M	6,830	0.19	A	4	Arterial M	22,760	0.63	B	
30.4	Excelsior Rd	Collector WJ-2/ Collector JT-2	Jackson Rd	4	Arterial M	6,830	0.19	A	4	Arterial M	21,410	0.59	A	
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	2	Arterial M	8,280	0.46	A	3	Arterial M	30,840	1.71	**F**	West Jackson
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	2	Arterial M	8,280	0.46	A	3	Arterial M	30,360	1.69	**F**	West Jackson
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,780	0.27	A	3	Arterial M	12,360	0.69	B	West Jackson
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	6,760	0.38	A	2	Arterial M	12,480	0.69	B	
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	3,920	0.22	A	2	Arterial M	7,870	0.44	A	
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	4,720	0.26	A	2	Arterial M	8,270	0.46	A	
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	33,820	0.94	E	4	Arterial M	37,580	1.04	**F**	
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	32,940	0.92	E	4	Arterial M	38,320	1.06	**F**	
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	4	Arterial M	16,770	0.47	A	4	Arterial M	21,460	0.60	A	
39	Florin Rd	South Watt Ave	Hedge Ave	4	Arterial M	9,690	0.27	A	4	Arterial M	7,750	0.22	A	
40	Florin Rd	Hedge Ave	Mayhew Rd	4	Arterial M	11,120	0.31	A	4	Arterial M	7,540	0.21	A	
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	21,320	0.59	A	4	Arterial M	27,800	0.77	C	
42.1	Florin Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	4,900	0.14	A	4	Arterial M	13,870	0.39	A	
42.2	Florin Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	4,940	0.27	A	3	Arterial M	11,050	0.61	B	West Jackson
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	6,840	0.38	A	2	Arterial M	10,280	0.57	A	
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	47,700	1.33	**F**	4	Arterial M	54,410	1.51	**F**	
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	21,560	0.60	A	4	Arterial M	25,610	0.71	C	
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	18,680	0.52	A	4	Arterial M	27,950	0.78	C	

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Table 5.5
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	12,750	0.71	C	2	Arterial M	24,750	1.38	**F**	
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,140	0.29	A	3	Arterial M	18,250	1.01	**F**	West Jackson
49.1	Fruitridge Rd	Hedge Ave	Collector WJ-12	2	Arterial M	1,230	0.07	A	4	Arterial M	19,210	0.53	A	West Jackson
49.2	Fruitridge Rd	Collector WJ-12	Mayhew Rd	2	Arterial M	1,200	0.07	A	4	Arterial M	16,840	0.47	A	West Jackson
50	Grant Line Rd	White Rock Rd	Douglas Rd	4	Arterial H	17,660	0.44	A	4	Arterial H	20,260	0.51	A	
51.1	Grant Line Rd	Douglas Rd	Chrysanthy Blvd	4	Arterial M	10,670	0.30	A	4	Arterial M	15,950	0.44	A	
51.2	Grant Line Rd	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	10,610	0.29	A	4	Arterial M	15,630	0.43	A	
52.1	Grant Line Rd	Kiefer Blvd	Rancho Cordova Pkwy	4	Arterial M	11,540	0.32	A	4	Arterial M	14,910	0.41	A	
52.2	Grant Line Rd	Rancho Cordova Pkwy	Jackson Rd	4	Arterial M	15,280	0.42	A	4	Arterial M	16,510	0.46	A	
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	4	Arterial H	19,260	0.48	A	4	Arterial H	18,970	0.47	A	
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	4	Arterial H	29,550	0.74	C	4	Arterial H	30,590	0.76	C	
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit	4	Arterial M	27,060	0.75	C	4	Arterial M	27,900	0.78	C	
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd	4	Arterial M	27,110	0.75	C	4	Arterial M	28,020	0.78	C	
56	Grant Line Rd	Sheldon Rd	Wilton Rd	4	Arterial M	32,400	0.90	**E**	4	Arterial M	37,210	1.03	**F**	
57	Grant Line Rd	Wilton Rd	Bond Rd	4	Arterial M	27,860	0.77	C	4	Arterial M	32,640	0.91	**E**	
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Arterial M	3,890	0.22	A	4	Arterial M	15,650	0.43	A	West Jackson
58.1	Happy Lane	Old Placerville Road	Routier Ext	2	Arterial M	3,890	0.22	A	4	Arterial M	15,650	0.43	A	West Jackson
58.2	Happy Lane	Routier Ext	Kiefer Boulevard	2	Arterial M	4,930	0.27	A	4	Arterial M	21,060	0.59	A	West Jackson
59.1	Hedge Ave	Jackson Rd	Rock Creek Pkwy	2	Arterial M	2,100	0.12	A	2	Arterial M	8,450	0.47	A	
59.2	Hedge Ave	Rock Creek Pkwy	Fruitridge Rd	2	Arterial M	2,210	0.12	A	2	Arterial M	3,090	0.17	A	
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	3,400	0.19	A	2	Arterial M	2,980	0.17	A	
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	4,060	0.23	A	2	Arterial M	2,350	0.13	A	
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	65,240	1.21	**F**	6	Arterial M	70,390	1.30	**F**	
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	40,150	0.74	C	6	Arterial M	39,820	0.74	C	
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	18,880	0.35	A	6	Arterial M	25,300	0.47	A	
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	4	Arterial M	27,560	0.77	C	4	Arterial M	35,200	0.98	E	
66.1	Jackson Rd	Florin Perkins Rd	14th Ave	4	Arterial M	23,560	0.65	B	4	Arterial M	40,500	1.13	**F**	
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy	4	Arterial M	30,220	0.84	D	4	Arterial M	55,280	1.54	**F**	
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy	4	Arterial M	23,660	0.66	B	4	Arterial M	56,280	1.56	**F**	

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Table 5.5
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave	4	Arterial M	23,660	0.66	B	4	Arterial M	56,280	1.56	**F**	
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	20,730	1.15	**F**	4	Arterial M	62,720	1.74	**F**	West Jackson
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	2	Arterial M	17,260	0.96	E	4	Arterial M	55,150	1.53	**F**	West Jackson
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	2	Arterial M	17,220	0.96	E	4	Arterial M	56,230	1.56	**F**	West Jackson
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	19,150	1.06	**F**	6	Arterial M	51,740	0.96	E	West Jackson
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4	2	Rural Hwy	16,970	0.74	E	6	Arterial M	55,490	1.03	**F**	West Jackson
70.2	Jackson Rd	Collector WJ-4	Happy Ln	2	Rural Hwy	17,050	0.74	E	6	Arterial M	54,270	1.01	**F**	West Jackson
70.3	Jackson Rd	Happy Ln	Rock Creek Pkwy	2	Rural Hwy	16,900	0.74	E	6	Arterial M	34,360	0.64	B	West Jackson
70.4	Jackson Rd	Rock Creek Pkwy	Collector WJ-5	2	Rural Hwy	16,900	0.74	E	6	Arterial M	33,710	0.62	B	West Jackson
70.5	Jackson Rd	Collector WJ-5	Collector WJ-6	2	Rural Hwy	16,910	0.74	E	6	Arterial M	31,930	0.59	A	West Jackson
70.6	Jackson Rd	Collector WJ-6	Excelsior Rd	2	Rural Hwy	16,910	0.74	E	6	Arterial M	32,280	0.60	A	West Jackson
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	2	Rural Hwy	13,810	0.60	E	4	Arterial M	48,840	1.36	**F**	Jackson Township
71.2	Jackson Rd	Collector JT-3	Tree View Ln	2	Rural Hwy	13,810	0.60	E	4	Arterial M	33,840	0.94	E	Jackson Township
71.3	Jackson Rd	Tree View Ln	Collector JT-4	2	Rural Hwy	13,790	0.60	E	4	Arterial M	27,320	0.76	C	Jackson Township
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd	2	Rural Hwy	13,820	0.60	E	4	Arterial M	23,920	0.66	B	Jackson Township
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr	2	Rural Hwy	14,460	0.63	E	4	Arterial M	22,840	0.63	B	NewBridge
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd	2	Rural Hwy	14,940	0.65	E	4	Arterial M	22,150	0.62		NewBridge
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	17,950	0.78	**E**	2	Rural Hwy	20,810	0.91	**E**	
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	2,860	0.16	A	2	Arterial M	4,190	0.23	A	
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	24,250	0.67	B	4	Arterial M	30,240	0.84	D	
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	13,590	0.38	A	4	Arterial M	38,980	1.08	**F**	
77.1	Kiefer Boulevard	Bradshaw Road	Collector WJ-14	2	Arterial M	5,900	0.33	A	6	Arterial M	43,390	0.80	D	West Jackson
77.2	Kiefer Boulevard	Collector WJ-14	Routier Ext	2	Arterial M	6,060	0.34	A	6	Arterial M	39,400	0.73	C	West Jackson
77.3	Kiefer Boulevard	Routier Ext	Happy Lane	2	Arterial M	6,060	0.34	A	6	Arterial M	39,400	0.73	C	West Jackson
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	3420	0.19	A	4	Arterial M	18,390	0.51	A	NewBridge; Mather South
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	3420	0.19	A	4	Arterial M	19,480	0.54	A	NewBridge; Mather South
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	3350	0.19	A	3	Arterial M	24,640	1.37	**F**	NewBridge
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	2	Arterial M	7,140	0.40	A	2	Arterial M	13,850	0.77	C	
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	12,240	0.34	A	4	Arterial M	12,910	0.36	A	
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	12,240	0.34	A	4	Arterial M	12,910	0.36	A	

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MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	12,280	0.68	B	2	Arterial M	12,940	0.72	C	
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	6,290	0.79	D	2	Res Collector F	6,290	0.79	D	
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	60,650	1.12	**F**	6	Arterial M	60,700	1.12	**F**	
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	66,090	1.22	**F**	6	Arterial M	68,600	1.27	**F**	
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	6	Arterial M	18,050	0.33	A	6	Arterial M	19,120	0.35	A	
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	6,240	0.35	A	2	Arterial M	13,020	0.72	C	
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial M	10,000	0.56	A	2	Arterial M	12,830	0.71	C	
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy						4	Arterial M	39,500	1.10	**F**	West Jackson
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd						4	Arterial M	36,780	1.02	**F**	West Jackson
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	28,420	0.79	C	4	Arterial M	22,730	0.63	B	
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	24,920	1.38	**F**	2	Arterial M	20,000	1.11	**F**	
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	21,080	1.17	**F**	2	Arterial M	18,780	1.04	**F**	
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	22,110	0.61	B	4	Arterial M	34,480	0.96	**E**	
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	41,910	0.78	C	6	Arterial M	45,960	0.85	D	
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	28,120	0.78	C	4	Arterial M	37,930	1.05	**F**	
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	62,480	1.16	**F**	6	Arterial M	79,530	1.47	**F**	
97	South Watt Ave	Kiefer Blvd	Jackson Rd	6	Arterial M	61,930	1.15	**F**	6	Arterial M	71,890	1.33	**F**	
98.1	South Watt Ave	Jackson Rd	Rock Creek Pkwy	6	Arterial M	59,430	1.10	**F**	6	Arterial M	47,920	0.89	D	
98.2	South Watt Ave	Rock Creek Pkwy	Fruitridge Rd	6	Arterial M	58,210	1.08	**F**	6	Arterial M	50,380	0.93	**E**	
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	6	Arterial M	52,470	0.97	**E**	6	Arterial M	47,790	0.89	D	
100	South Watt Ave	Elder Creek Rd	Florin Rd	4	Arterial M	34,420	0.96	**E**	4	Arterial M	36,240	1.01	**F**	
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	58,140	1.08	**F**	7	Arterial M	56,480	1.05	**F**	
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	54,340	1.01	**F**	6	Arterial M	53,000	0.98	**E**	
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	31,660	0.59	A	6	Arterial M	34,240	0.63	B	
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	37,910	0.70	C	6	Arterial M	41,100	0.76	C	
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	43,690	0.81	D	6	Arterial M	52,620	0.97	**E**	
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	35,010	0.65	B	6	Arterial M	50,780	0.94	**E**	
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	21,430	0.60	A	5	Arterial M	37,070	1.03	**F**	
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	4	Arterial M	25,040	0.70	B	4	Arterial M	30,550	0.85	D	
107	Sunrise Blvd	Jackson Rd	Florin Rd	4	Arterial M	20,680	0.57	A	4	Arterial M	22,430	0.62	B	
108	Sunrise Blvd	Florin Rd	Grant Line Rd	4	Arterial M	14,480	0.40	A	4	Arterial M	15,560	0.43	A	
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	9,080	0.50	A	2	Arterial M	9,210	0.51	A	

Bold values do not meet LOS policy. **Red** values with light gray shading indicate LOS that exceeds the threshold.

Table 5.5
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	93,840	1.56	**F**	6	Arterial H	104,320	1.74	**F**	
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	4,670	0.26	A	2	Arterial M	4,690	0.26	A	
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	19,310	0.54	A	4	Arterial M	17,450	0.48	A	
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	29,180	0.54	A	6	Arterial M	27,210	0.50	A	
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	33,540	0.93	**E**	5	Arterial M	30,970	0.86	D	
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	33,750	0.94	**E**	4	Arterial M	31,660	0.88	D	
116.1	White Rock Rd	Fitzgerald Rd	Rancho Cordova Pkwy	4	Arterial M	45,470	1.26	**F**	4	Arterial M	39,330	1.09	**F**	
116.2	White Rock Rd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	10,970	0.30	A	4	Arterial M	6,160	0.17	A	
116.3	White Rock Rd	Americanos Blvd	Grant Line Rd	4	Arterial M	8,250	0.23	A	4	Arterial M	8,990	0.25	A	
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial H	26,710	0.67	B	4	Arterial H	30,060	0.75	C	
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	77,540	1.44	**F**	7	Arterial M	77,630	1.44	**F**	
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	33,300	0.62	B	6	Arterial M	39,280	0.73	C	
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	26,950	0.50	A	6	Arterial M	31,440	0.58	A	
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	26,950	0.75	C	4	Arterial M	31,440	0.87	D	
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	26,950	1.50	**F**	2	Arterial M	31,440	1.75	**F**	
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	4	Arterial M	10,000	0.28	A	4	Arterial M	22,420	0.62	B	
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3	4	Arterial M	8,420	0.23	A	4	Arterial M	17,460	0.49	A	
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4	4	Arterial M	0	0.00	A	4	Arterial M	17,200	0.48	A	
124	14th Ave	Power Inn Rd	Florin Perkins Rd	4	Arterial M	13,060	0.36	A	4	Arterial M	25,160	0.70	B	
125	14th Ave	Florin Perkins Rd	Jackson Rd	4	Arterial M	7,070	0.20	A	4	Arterial M	14,860	0.41	A	
126	Chrysanthy Blvd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	8,010	0.22	A	4	Arterial M	16,980	0.47	A	
127	Chrysanthy Blvd	Americanos Blvd	Grant Line Rd	2	Arterial M	2,200	0.12	A	2	Arterial M	4,650	0.26	A	
128	Douglas Rd (Extension)	Mather Blvd	Kiefer Blvd	4	Arterial M	2,210	0.06	A	4	Arterial M	16,100	0.45	A	
130	International Dr	Rancho Cordova Pkwy	Americanos Blvd	6	Arterial M	2,340	0.04	A	6	Arterial M	1,620	0.03	A	
131	Kiefer Blvd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	520	0.01	A	4	Arterial M	2,330	0.06	A	
132	Kiefer Blvd	Americanos Blvd	Grant Line Rd	4	Arterial M	520	0.01	A	4	Arterial M	2,340	0.07	A	
133	Rancho Cordova Pkwy	US 50	Easton Valley Pkwy	4	Arterial M	34,920	0.97	E	4	Arterial M	36,140	1.00	**F**	
134	Rancho Cordova Pkwy	Easton Valley Pkwy	White Rock Rd	4	Arterial M	35,100	0.98	E	4	Arterial M	36,410	1.01	**F**	
135	Rancho Cordova Pkwy	White Rock Rd	International Dr	6	Arterial M	43,480	0.81	D	6	Arterial M	39,260	0.73	C	
136	Rancho Cordova Pkwy	International Dr	Rio Del Oro Pkwy	6	Arterial M	41,770	0.77	C	6	Arterial M	38,350	0.71	C	
137	Rancho Cordova Pkwy	Rio Del Oro Pkwy	Villagio Dr	6	Arterial M	27,820	0.52	A	6	Arterial M	22,260	0.41	A	
138	Rancho Cordova Pkwy	Villagio Dr	Douglas Rd	6	Arterial M	14,600	0.27	A	6	Arterial M	14,130	0.26	A	
139	Rancho Cordova Pkwy	Douglas Rd	Chrysanthy Blvd	4	Arterial M	15,040	0.42	A	4	Arterial M	17,790	0.49	A	
140	Rancho Cordova Pkwy	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	7,500	0.21	A	4	Arterial M	5,340	0.15	A	

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Table 5.5
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
141	Rancho Cordova Pkwy	Kiefer Blvd	Grant Line Rd	4	Arterial M	6,190	0.17	A	4	Arterial M	1,690	0.05	A	
142	Americanos Blvd	White Rock Rd	Douglas Rd	4	Arterial M	2,670	0.07	A	4	Arterial M	2,780	0.08	A	
143	Americanos Blvd	Douglas Rd	Chrysanthy Blvd	4	Arterial M	7,740	0.22	A	4	Arterial M	6,410	0.18	A	
144	Americanos Blvd	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	2,000	0.06	A	4	Arterial M	3,250	0.09	A	
146	Rio Del Oro Pkwy	Sunrise Blvd	Rancho Cordova Pkwy	6	Arterial M	19,290	0.36	A	6	Arterial M	37,670	0.70	B	
147	Rio Del Oro Pkwy	Rancho Cordova Pkwy	White Rock Rd	2	Arterial M	2,630	0.15	A	2	Arterial M	2,960	0.16	A	
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd						4	Arterial M	27,770	0.77	C	West Jackson; Jackson Township; NewBridge; Mather South
300	Douglas Rd	Excelsior Rd	Rock Creek Pkwy	4	Arterial M	2,210	0.06	A	4	Arterial M	25,530	0.71	C	
301	Douglas Rd	Rock Creek Pkwy	Kiefer Blvd	4	Arterial M	2,210	0.06	A	4	Arterial M	31,850	0.88	D	
302	Kiefer Blvd	Happy Ln	Douglas Rd						4	Arterial M	55,000	1.53	**F**	West Jackson
303	Kiefer Blvd	Douglas Rd	Excelsior Rd						4	Arterial M	26,330	0.73	C	West Jackson
304	Mayhew Rd	Routier Ext	Bradshaw Rd						4	Arterial M	34,870	0.97	E	West Jackson
305	Mayhew Rd	Bradshaw Rd	Jackson Rd						6	Arterial M	34,520	0.64	B	West Jackson
306	Mayhew Rd	Fruitridge Rd	Collector WJ-13						6	Arterial M	22,890	0.42	A	West Jackson
307	Mayhew Rd	Collector WJ-13	Elder Creek Rd						4	Arterial M	23,660	0.66	B	West Jackson
308	Rock Creek Pkwy	South Watt Ave	Hedge Ave						4	Arterial M	4,730	0.13	A	West Jackson
309	Rock Creek Pkwy	Hedge Ave	Mayhew Rd						4	Arterial M	8,200	0.23	A	West Jackson
310	Rock Creek Pkwy	Mayhew Rd	Bradshaw Rd						4	Arterial M	3,640	0.10	A	West Jackson
311	Rock Creek Pkwy East	Excelsior Road	Collector WJ-16						3	Arterial M	10,960	0.61	B	West Jackson
313	Vineyard Rd	Jackson Road	New Collector						2	Arterial M	24,890	1.38	**F**	West Jackson
314	Vineyard Rd	New Collector	Collector WJ-18						2	Arterial M	21,750	1.21	**F**	West Jackson
315	Vineyard Rd	Collector WJ-18	Elder Creek Road						2	Arterial M	19,030	1.06	**F**	West Jackson
316	Vineyard Rd	Elder Creek Road	Florin Road						2	Arterial M	8,300	0.46	A	West Jackson
320	Collector WJ-16	Rock Creek Pkwy	Collector WJ-6						4	Arterial M	900	0.03	A	West Jackson
321	Collector WJ-17	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	800	0.10	A	West Jackson
322	Collector WJ-6	Collector WJ-16/WJ-17	Jackson Road						2	Res Collector F	2,390	0.30	B	West Jackson
323	Collector WJ-6	Jackson Road	Collector WJ-18						2	Res Collector F	2,800	0.35	B	West Jackson

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Table 5.5
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
324	Collector WJ-2	Excelsior Road	Collector WJ-6						2	Res Collector F	2,470	0.31	B	West Jackson
325	Collector WJ-18	Vineyard Rd	Collector WJ-6						2	Arterial M	2,810	0.16	A	West Jackson
327	Collector WJ-19	Bradshaw Road	Vineyard Road						2	Arterial M	5,540	0.31	A	West Jackson
400	Collector JT-1	Excelsior Rd	Collector JT-3						2	Res Collector F	3,590	0.45	C	Jackson Township
401	Collector JT-1	Collector JT-3	Tree View Ln						2	Res Collector F	1,030	0.13	A	Jackson Township
402	Collector JT-3	Kiefer Blvd	Collector JT-1						2	Res Collector F	2,020	0.25	B	Jackson Township
403	Collector JT-3	Collector JT-1	Collector JT-6						2	Res Collector F	1,270	0.16	A	Jackson Township
404	Collector JT-3	Collector JT-6	Collector JT-5						2	Res Collector F	2,470	0.31	B	Jackson Township
405	Collector JT-3	Collector JT-5	Jackson Rd						2	Arterial M	17,850	0.99	E	Jackson Township
406	Collector JT-4	Jackson Rd	Bridgewater Dr						2	Arterial M	3,870	0.22	A	Jackson Township
407	Collector JT-5	Collector JT-3	Tree View Ln						2	Arterial M	9,260	0.51	A	Jackson Township
408	Collector JT-6	Excelsior Rd	Collector JT-3						2	Res Collector F	3,630	0.45	C	Jackson Township
409	Collector JT-6	Collector JT-3	Tree View Ln						2	Res Collector F	630	0.08	A	Jackson Township
410	Kiefer Blvd	Excelsior Rd	Tree View Ln						4	Arterial M	22,760	0.63	B	Jackson Township
411	Tree View Ln	Kiefer Blvd	Collector JT-1						4	Arterial M	10,840	0.30	A	Jackson Township
412	Tree View Ln	Collector JT-1	Collector JT-6						2	Arterial M	10,470	0.29	A	Jackson Township
414	Tree View Ln	Collector JT-5	Jackson Rd						4	Arterial M	5,840	0.16	A	Jackson Township
415	Collector JT-7	Collector JT-3	Tree View Ln						2	Arterial M	1,520	0.08	A	Jackson Township
416	Collector JT-8	Collector JT-3	Tree View Ln						2	Arterial M	1,930	0.11	A	Jackson Township
417	Collector JT-9	Jackson Rd	Collector JT-8						2	Arterial M	4,290	0.24	A	Jackson Township
418	Collector JT-10	Jackson Rd	Collector JT-8						2	Arterial M	1,610	0.09	A	Jackson Township
419	Collector JT-6	Tree View Ln	Jackson Rd						2	Res Collector F	1,420	0.18	A	Jackson Township

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Table 5.5
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
500	S Bridgewater Dr	Collector JT-4	Eagles Nest Rd						2	Res Collector F	4,700	0.59	C	NewBridge
501	S Bridgewater Dr	Eagles Nest Rd	Northbridge Dr						2	Res Collector F	3,880	0.49	C	NewBridge
502	N Bridgewater Dr	Northbridge Dr	Eagles Nest Rd						2	Res Collector F	1,040	0.13	A	NewBridge
503	Northbridge Dr	Kiefer Blvd	Bridgewater Dr						2	Arterial M	3,640	0.20	A	NewBridge
504	Street A	S Bridgewater Dr	Street B						2	Res Collector F	1,630	0.20	B	NewBridge
505	Street B	S Bridgewater Dr	Street A						2	Res Collector F	1,280	0.16	A	NewBridge
506	Rockbridge Dr	Street B	Stonebridge Dr						2	Res Collector F	1,480	0.19	A	NewBridge
507	Rockbridge Dr	Stonebridge Dr	Jackson Rd						2	Arterial M	5,870	0.33	A	NewBridge
508	Stonebridge Dr	S Bridgewater Dr	Rockbridge Dr						2	Arterial M	2,520	0.14	A	NewBridge
509	Stonebridge Dr	Rockbridge Dr	Jackson Rd						2	Res Collector F	3,640	0.46	C	NewBridge
605	Collector MS-3	Eagles Nest Road	Collector MS-5						2	Arterial M	3,640	0.20	A	Mather South
606	Collector MS-4	Eagles Nest Road	Collector MS-5						2	Arterial M	12,790	0.71	C	Mather South
608	Collector MS-3	Collector MS-5	Sunrise Boulevard						2	Arterial M	5,770	0.32	A	Mather South

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

Bold values do not meet LOS policy. **Red** values with light gray shading indicate LOS that exceeds the threshold.

5.3.2 MTP Cumulative Plus FOUR PROJECTS Functionality Exceeding the Threshold

Table 5.6 summarizes the results of the rural roadway segment functionality analysis. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the FOUR PROJECTS. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the FOUR PROJECTS make improvements to a roadway segment such as widening, they would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Exceed Functionality Threshold?" heading indicate those locations with a functionality that exceeds the threshold of significance.

As stated above, the traffic analysis assumed that the FOUR PROJECTS would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the FOUR PROJECTS, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not volumes would exceed the threshold of significance at some time prior to full build out of the FOUR PROJECTS.

Table 5.6
MTP Cumulative Plus FOUR PROJECTS Roadway Segment Functionality

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				MTP Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Exceeed Functionality Threshold? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	4	No	26,770	Yes[3]
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	6	No	40,360	Yes[3]
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	4	No	11,050	Yes[3]
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Yes	7,810	Yes
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Yes	4,730	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	2	Yes	40,370	Yes
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	2	Yes	41,550	Yes
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	3	No	18,490	Yes[3]
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	3	No	25,250	Yes[3]
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Yes	25,650	Yes
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	3	No	30,360	Yes[3]
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	3	No	12,360	Yes[3]
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Yes	12,480	Yes
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Yes	7,870	Yes
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	4	No	7,750	No
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	4	No	7,540	Yes[3]
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	4	No	27,800	Yes[3]
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	4	No	13,870	Yes[3]
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Yes	10,280	Yes
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	3	No	18,250	Yes[3]
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	4	No	16,840	Yes[3]
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	4	No	20,260	Yes[3]
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	4	No	15,650	Yes[3]
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Yes	8,450	Yes

Red text with light gray shading indicates threshold exceeded.

Table 5.6
MTP Cumulative Plus FOUR PROJECTS Roadway Segment Functionality

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				MTP Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Exceeed Functionality Threshold? [2]
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Yes	2,980	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Yes	2,350	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	6	No	55,490	Yes[3]
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	4	No	48,840	Yes[3]
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Yes	4,190	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	6	No	43,390	Yes[3]
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	3	No	24,640	Yes[3]
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Yes	6,290	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	4	No	39,500	Yes[3]
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	4	No	39,330	Yes[3]
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	4	No	22,420	Yes[3]

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicates threshold exceeded.

5.4 MTP Cumulative Plus FOUR PROJECTS Mitigation Summary

Tables 5.7 and 5.8 summarize all roadway segments that would exceed the thresholds of significance for level of service and functionality.

Table 5.7
MTP Cumulative Plus FOUR PROJECTS Roadway Segment Summary

ID	Roadway	Segment	
		From	To
Roadway Segments Exceeding the Threshold of Significance			
2	Bradshaw Rd	US 50	Lincoln Village Dr
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8
6.3	Bradshaw Rd	Mayhew Rd	Jackson Rd
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd
36	Florin Rd	Stockton Blvd	Power Inn Rd
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd
44	Folsom Blvd	Howe Ave	Jackson Rd
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave
48	Fruitridge Rd	South Watt Ave	Hedge Ave
56	Grant Line Rd	Sheldon Rd	Wilton Rd
57	Grant Line Rd	Wilton Rd	Bond Rd
62	Howe Ave	US 50	Folsom Blvd
66.1	Jackson Rd	Florin Perkins Rd	14th Ave
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave
67	Jackson Rd	South Watt Ave	Hedge Ave
68.1	Jackson Rd	Hedge Ave	Collector WJ-3
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4
70.2	Jackson Rd	Collector WJ-4	Happy Ln
71.1	Jackson Rd	Excelsior Rd	Collector JT-3
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd
93	Old Placerville Rd	Routier Rd	Rockingham Dr

Table 5.7
MTP Cumulative Plus FOUR PROJECTS Roadway Segment Summary

ID	Roadway	Segment	
		From	To
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd
96	South Watt Ave	Folsom Blvd	Kiefer Blvd
97	South Watt Ave	Kiefer Blvd	Jackson Rd
100	South Watt Ave	Elder Creek Rd	Florin Rd
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd
110	Watt Ave	US 50	Folsom Blvd
122	Zinfandel Dr	City Limit	Douglas Rd
133	Rancho Cordova Pkwy	US 50	Easton Valley Pkwy
134	Rancho Cordova Pkwy	Easton Valley Pkwy	White Rock Rd
302	Kiefer Blvd	Happy Ln	Douglas Rd
313	Vineyard Rd	Jackson Road	New Collector
314	Vineyard Rd	New Collector	Collector WJ-18
315	Vineyard Rd	Collector WJ-18	Elder Creek Road

Table 5.8
MTP Cumulative Plus FOUR PROJECTS Functionality Summary

ID	Roadway	Segment	
		From	To
Roadway Segments Exceeding the Functionality Threshold			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
20	Eagles Nest Rd	Jackson Rd	Florin Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd
30	Excelsior Rd	Kiefer Blvd	Jackson Rd
31	Excelsior Rd	Jackson Rd	Elder Creek Rd
32	Excelsior Rd	Elder Creek Rd	Florin Rd
33	Excelsior Rd	Florin Rd	Gerber Rd
34	Excelsior Rd	Gerber Rd	Calvine Rd
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
42	Florin Rd	Bradshaw Rd	Excelsior Rd
43	Florin Rd	Excelsior Rd	Sunrise Blvd
48	Fruitridge Rd	South Watt Ave	Hedge Ave
49	Fruitridge Rd	Hedge Ave	Mayhew Rd
50	Grant Line Rd	White Rock Rd	Douglas Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
59	Hedge Ave	Jackson Rd	Fruitridge Rd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd

Table 5.8
MTP Cumulative Plus FOUR PROJECTS Functionality Summary

ID	Roadway	Segment	
		From	To
77	Kiefer Blvd	Bradshaw Rd	Happy Ln
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
89	Mayhew Rd	Jackson Rd	Fruitridge Rd
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

6. CEQA CUMULATIVE PLUS FOUR PROJECTS SCENARIO

6.1 FOUR PROJECTS DESCRIPTION

The CEQA Cumulative plus FOUR PROJECTS scenario evaluates the effects of the traffic of four developments added to CEQA Cumulative conditions. Figure 4.1 illustrates the location of the FOUR PROJECTS:

- West Jackson Highway Master Plan (West Jackson)
- Jackson Township Specific Plan (Jackson Township)
- NewBridge Specific Plan (NewBridge)
- Mather South Specific Plan Amendment (Mather South)

6.1.1 CEQA Cumulative Land Use

Outside the FOUR PROJECTS area (see Figure 4.1), SACOG's 2035 development forecasts (the amount and location of housing and employment) for the adopted 2012 Metropolitan Transportation Plan (MTP) were used to prepare travel demand forecasts for this scenario. In addition, full build out of all reasonably foreseeable development projects was assumed within the study area, including the following major developments:

- Unincorporated Sacramento County
  - Vineyard Springs Comprehensive Plan
  - North Vineyard Station Specific Plan
  - Florin Vineyard Gap Community Plan
  - Mather Airport Specific Plan
  - Cordova Hills
  - Easton
  - Glenborough
  - East County Quarries

- City of Ranch Cordova
  - Arboretum
  - Suncreek
  - Sunridge Ranch
  - Rio del Oro
  - Westborough

- City of Folsom
  - Folsom South of 50 Specific Plan

- City of Sacramento
  - Aspen 1

6.1.2 Transportation Network

Figure 6.1 illustrates the transportation network associated with the CEQA Cumulative without FOUR PROJECTS scenario. Outside the FOUR PROJECTS area (see Figure 4.1), it consists of the improvements through 2035 in the adopted 2012 Metropolitan Transportation Plan (MTP). Within the FOUR PROJECTS area, it includes roadway improvements beyond those in the MTP, which would be fully funded by the developments assumed in this scenario or by other committed funding sources. Sacramento County staff helped define such improvements and the number of roadway lanes for this scenario.

Figure 6.2 illustrates the transportation network associated with the CEQA Cumulative with FOUR PROJECTS scenario. The FOUR PROJECTS would construct new roadways within their sites, and widen many existing roadways within or on the borders of their sites. Details of this expansion of the roadway system is included in Section 6.2.1.

6.1.2.3 Pedestrian and Bicycle Facilities

The roadways within the FOUR PROJECTS would meet County standards, which would provide sidewalks and on-street (Class II) bike lanes on all collector, arterial and thoroughfare roadways. The FOUR PROJECTS also provide several off-street (Class I) multi-purpose trails.

6.1.2.4 Transit System

The FOUR PROJECTS are designed with significant amounts of higher density and mixed uses to help support transit use but transit service within walking distances of those uses is required to achieve a significant transit ridership. An accurate estimation of transit use requires the definition of specific transit routes and frequency of service on those routes. A separate planning effort, involving staff from Sacramento County and Sacramento Regional Transit (RT), was conducted to define an appropriate transit system for the transportation analysis. That effort is described in Section 3.1.2.3.

The planning effort resulted in four transit lines that would serve the FOUR PROJECTS at a frequency of 15 minutes during the peak commute hours (approximately 6-9 AM and 3-6 PM) and 30 minutes during off-peak service hours (approximately 9AM-3PM and 6PM-8PM) on weekdays. Another key characteristic of the proposed transit system built into the modeling assumptions is the targeted use of queue jumps on portions of key corridors (Bradshaw Road from Kiefer Boulevard to Rock Creek Parkway, and Jackson Road from Watt Avenue to Excelsior Road). Queue jumps ensure that buses are not excessively delayed at signals along congested corridors, and therefore not too heavily penalized from a travel time perspective. This is necessary to achieve the adequate ridership levels that were forecast and ensure reliable operations. **Figure 6.3** shows the assumed transit routes for this scenario.

The assumed transit routes, service frequency, and supporting infrastructure (i.e. queue jumps) would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like

the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

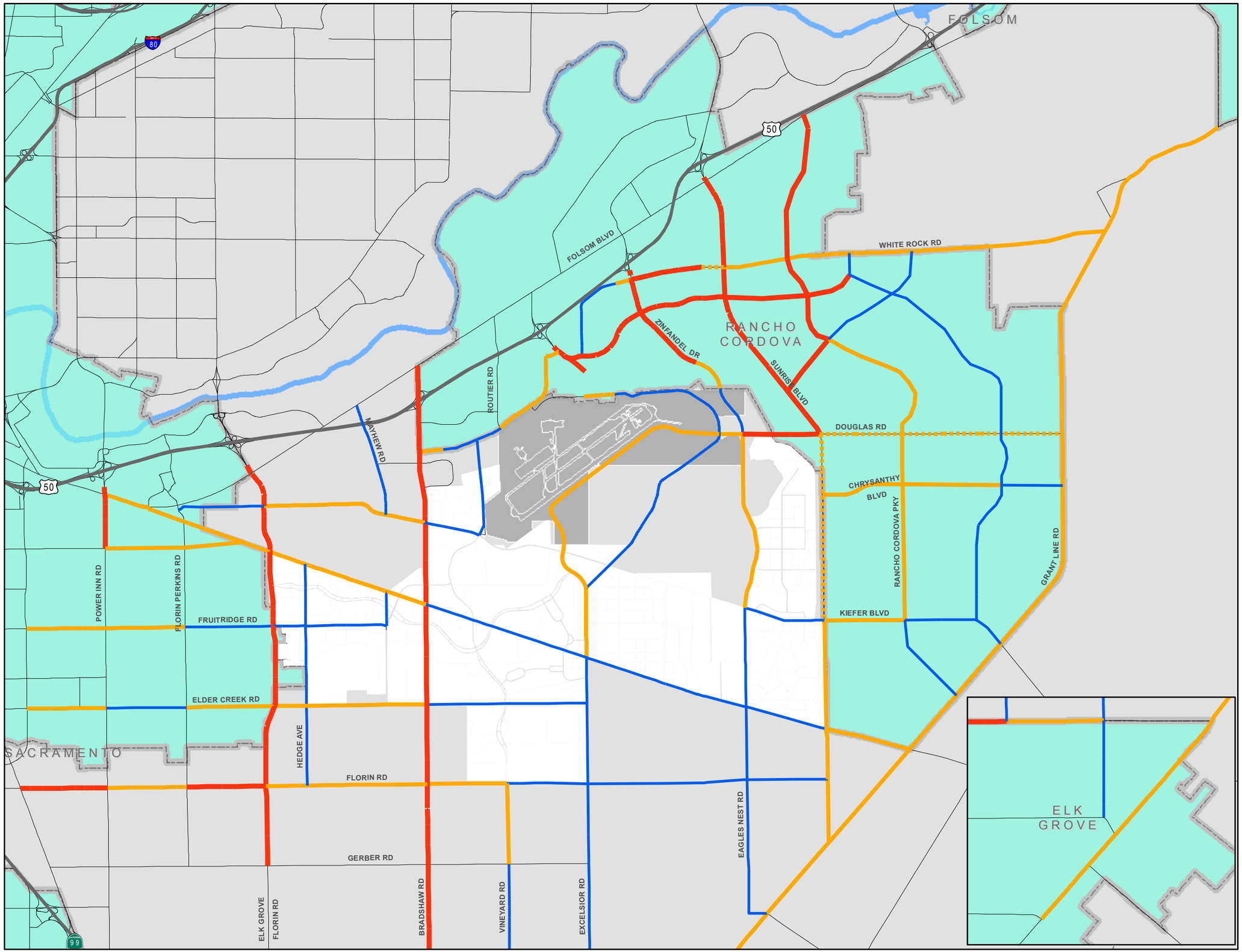


FIGURE 6.1
CEQA CUMULATIVE NO PROJECT ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

FIGURE 6.2
CEQA CUM PLUS FOUR PROJECTS
(JACKSON TOWNSHIP ALT 2)
ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

FIGURE 6.3
PROJECT TRANSIT NETWORK
CEQA CUM PLUS FOUR PROJECTS

Legend

- Jackson Express Route
- Kiefer Jackson Local Route
- West Jackson Local Route A
- West Jackson Local Route B
- Cities
- Mather Airport

6.2 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the FOUR PROJECTS. **Table 6.1** summarizes the person trip generation. The FOUR PROJECTS would generate over 86,000 daily work person trip ends, and over 730,000 daily person trip ends for all trip purposes.

Table 6.2 summarizes the estimated mode choice for the CEQA cumulative with FOUR PROJECTS scenario. Over 90 percent of all person trips are expected to be accommodated by automobile. Transit will serve about 1.9 percent of all trips, while walk and bike modes will accommodate about 6.9 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 6.3 summarizes the vehicular (auto) trip generation of the FOUR PROJECTS. The FOUR PROJECTS are estimated to generate nearly 498,000 daily vehicle trip ends. Over 62,700 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the individual projects, about 12.6 percent of the trip ends. The internal trip ends represent over 31,000 daily vehicle trips (one-half the number of internal trip ends). The FOUR PROJECTS will generate about 435,000 external vehicle trips that have an origin or destination inside one of the FOUR PROJECTS but the other end of the trip is outside the project from which it originated. Table 6.3 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

6.3 TRIP DISTRIBUTION

The distribution of trips associated with development of the FOUR PROJECTS was derived utilizing SACSIM, incorporating the proposed land use and access locations associated with the FOUR PROJECTS. Trip distribution varies by land use and time period. **Figure 6.4** illustrates the overall trip distribution of daily FOUR PROJECTS trips with the CEQA Plus FOUR PROJECTS scenario. The highest percentages of FOUR PROJECTS traffic are accommodated on Jackson Road, Bradshaw Road, Kiefer Boulevard, and Vineyard Road.

Table 6.1: Estimated Daily Person Trip Generation (CEQA Cumulative Plus FOUR PROJECTS Scenario)

Trip Purpose	Daily Person Trip Ends
Work Trips	86,484
Non-Work Trips	643,573
All Trip Purposes	730,057

Source: *DKS Associates, 2018.*

Table 6.2: Mode Split (CEQA Cumulative Plus FOUR PROJECTS Scenario)

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	83.4%	48.2%	52.4%
Auto - HOV	10.3%	42.6%	38.8%
Transit	4.1%	1.6%	1.9%
Walk	1.2%	6.7%	6.0%
Bike	0.9%	0.9%	0.9%

Source: *DKS Associates, 2018.*

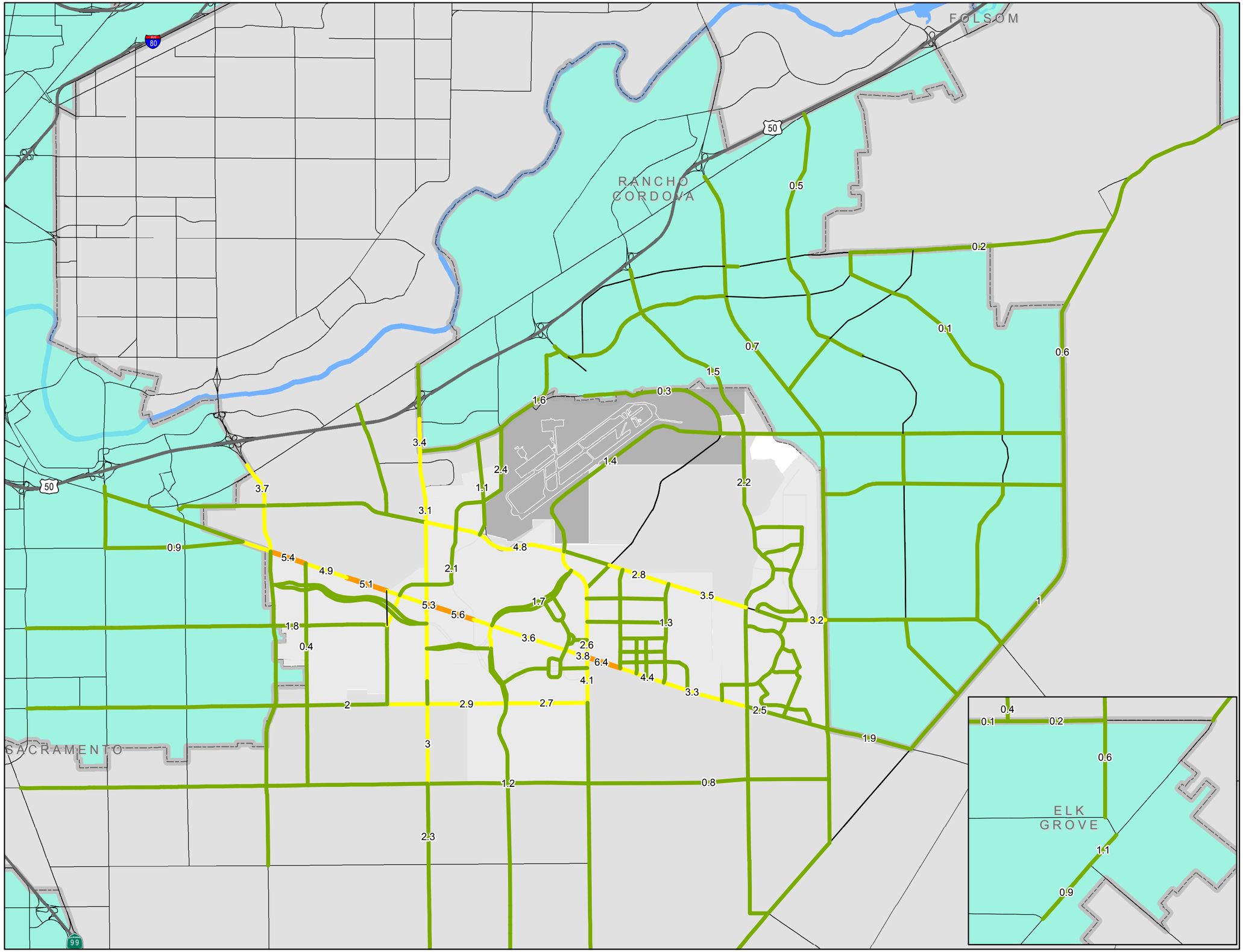
Table 6.3: Estimated Daily Vehicle Trip Generation (CEQA Cumulative Plus FOUR PROJECTS Scenario)

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		42,469	68,316	497,930
Percent Internal Trip Ends[1]		15.9%	22.5%	19.2%
Vehicle Trips	Internal to Projects	3,384	7,673	47,725
	External to Projects	35,700	52,970	402,480
	Total	39,084	60,643	450,205

[1.] Both trip ends within individual projects.

Source: *DKS Associates, 2018.*

FIGURE 6.4
CEQA CUM PLUS FOUR PROJECTS
FOUR PROJECTS TRIP DISTRIBUTION



Legend

- 0.0%
- 0.1% to 2.5%
- 2.6% to 5.0%
- 5.1% to 10.0%
- 10.0% and up
- Freeways
- Other Major Roadways
- Cities
- Mather Airport

DKS

6.4 OPERATIONS ANALYSIS AND IMPACTS

Cumulative scenario impacts are determined by comparing the traffic operating conditions associated with the FOUR PROJECTS with the traffic operating conditions associated with the cumulative (without FOUR PROJECTS) conditions, and comparing the change to the thresholds of significance. **Figure 6.5** illustrates the resultant traffic operating conditions associated with the CEQA Cumulative (without FOUR PROJECTS) scenario. **Figure 6.6** illustrates the resultant traffic operating conditions associated with the CEQA Cumulative Plus FOUR PROJECTS scenario.

6.4.1 CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Impacts

Table 6.4 summarizes the results of the operations analysis for the study area roadway segments. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways or widened roadways. The last column of the table shows the project(s) responsible for the increase in the number of roadway lanes. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

6.4.2 CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts

Table 6.5 and 6.6 summarize the results of the operations analysis for the study area intersections. The tables include the implementation of intersection changes associated with the FOUR PROJECTS. Table 6.6 illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type would be fully funded by the project(s) shown in the last column. Shaded table cells in Table 6.5 illustrate those locations with an LOS impact. Detailed analysis information is included in the technical appendix.

Signal warrant analysis was conducted for all unsignalized intersections along Jackson Road, and other unsignalized intersections in close proximity to the project. The project is considered to have a significant impact at an unsignalized location if both the impact criteria in Table 1.6 are met, and one or more of the signal warrants specified in the California Manual on Uniform Traffic Control Devices (CAMUTCD) are met. The following unsignalized intersections exhibit significant impacts and meet one or more traffic signal warrants:

- Happy Lane and Old Placerville Road
- Eagles Nest Road and Florin Road

6.4.3 CEQA Cumulative Plus FOUR PROJECTS U.S. 50 Freeway Impacts

6.4.3.1 Freeway Basic Segments

Table 6.7 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound
  - Stockton Boulevard to 59th Street - a.m. peak hour

6.4.3.2 Freeway Merge/Diverge/Weave Segments

Table 6.8 summarizes a.m. and p.m. peak hour freeway operations at ramp junctions and weaving areas. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Westbound
  - Hazel Avenue to Rancho Cordova Parkway weave - a.m. peak hour

6.4.3.3 Freeway Ramp Intersection Queuing

Tables 6.9 and 6.10 summarize a.m. and p.m. peak hour freeway ramp intersection queuing. The following locations exhibit a significant impact:

- Eastbound
  - Exit ramp to Howe Avenue - right turn queue length exceeds available storage – a.m. peak hour
  - Exit ramp to Zinfandel Drive-right turn and through queue length exceeds available storage – a.m. peak hour
- Westbound
  - Exit ramp to Rancho Cordova Parkway - left turn queue length exceeds available storage – a.m. and p.m. peak hours

FOLSOM

RANCHO CORDOVA

SACRAMENTO

ELK GROVE

80

50

99

FIGURE 6.5
CEQA CUMULATIVE NO PROJECT ROADWAY SEGMENT AND INTERSECTION LOS

Legend

Intersections (AM Peak Hour)

- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)

- LOS A-D
- LOS E
- LOS F

Roadway Segments

- LOS A-D
- LOS E
- LOS F
- Cities
- Mather Airport

DKS

FOLSOM

RANCHO CORDOVA

SACRAMENTO

ELK GROVE

80

50

99

FIGURE 6.6
CEQA CUM PLUS FOUR PROJECTS (JACKSON TOWNSHIP ALT 2) ROADWAY SEGMENT AND INTERSECTION LOS AND IMPACTS

Legend

Intersections (AM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)
- LOS A-D
- LOS E
- LOS F
- Mitigable Intersection Impact
- Unavoidable Intersection Impact

Roadway Segments
- LOS A-D
- LOS E
- LOS F

Impacts
- Unavoidable Segment Impact
- Mitigable Segment Impact
- Cities
- Mather Airport

DKS

Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	27,240	0.50	A	6	Arterial M	24,460	0.45	A	
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	66,770	1.24	**F**	6	Arterial M	84,620	1.57	**F**	
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	52,940	0.98	**E**	6	Arterial M	76,770	1.42	**F**	
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	62,600	1.16	**F**	6	Arterial M	73,340	1.36	**F**	
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	6	Arterial M	47,100	0.87	D	6	Arterial M	62,160	1.15	**F**	
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	6	Arterial M	45,320	0.84	D	6	Arterial M	58,600	1.09	**F**	
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	6	Arterial M	51,270	0.95	E	6	Arterial M	53,770	1.00	E	
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	6	Arterial M	52,070	0.96	E	6	Arterial M	54,090	1.00	**F**	
6.3	Bradshaw Rd	Mayhew Rd	Jackson Rd	6	Arterial M	52,020	0.96	E	6	Arterial M	57,490	1.06	**F**	
7.1	Bradshaw Rd	Jackson Rd	Rock Creek Pkwy	6	Arterial M	52,190	0.97	E	6	Arterial M	49,210	0.91	E	
7.2	Bradshaw Rd	Rock Creek Pkwy	Collector WJ-10	6	Arterial M	52,220	0.97	E	6	Arterial M	51,610	0.96	E	
7.3	Bradshaw Rd	Collector WJ-10	Collector WJ-11	6	Arterial M	52,390	0.97	E	6	Arterial M	47,250	0.88	D	
7.4	Bradshaw Rd	Collector WJ-11	Elder Creek Rd	6	Arterial M	52,410	0.97	E	6	Arterial M	43,190	0.80	C	
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	6	Arterial M	44,990	0.83	D	6	Arterial M	51,950	0.96	E	
9	Bradshaw Rd	Florin Rd	Gerber Rd	6	Arterial M	42,300	0.78	C	6	Arterial M	51,660	0.96	E	
10	Bradshaw Rd	Gerber Rd	Calvine Rd	6	Arterial M	29,810	0.55	A	6	Arterial M	36,900	0.68	B	
11	Calvine Rd	Waterman Rd	Bradshaw Rd	6	Arterial M	16,370	0.30	A	6	Arterial M	18,310	0.34	A	
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	6	Arterial M	14,540	0.27	A	6	Arterial M	14,680	0.27	A	
13	Calvine Rd	Vineyard Rd	Excelsior Rd	4	Arterial M	8,500	0.24	A	4	Arterial M	9,620	0.27	A	
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	8,010	0.22	A	4	Arterial M	9,590	0.27	A	
15	Douglas Rd	Mather Blvd	Zinfandel Dr	4	Arterial M	21,870	0.61	B	4	Arterial M	33,390	0.93	E	
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial M	37,550	0.70	B	6	Arterial M	50,360	0.93	**E**	
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	42,770	1.19	**F**	5	Arterial M	43,250	1.20	**F**	
18.1	Douglas Rd	Rancho Cordova Pkwy	Americanos Blvd	5	Arterial M	42,630	1.18	**F**	5	Arterial M	42,870	1.19	**F**	
18.2	Douglas Rd	Americanos Blvd	Grant Line Rd	5	Arterial M	33,520	0.93	**E**	5	Arterial M	31,900	0.89	D	
19.1	Eagles Nest Rd	Kiefer Blvd	N Bridgewater Dr	2	Arterial M	4,620	0.26	A	4	Arterial M	11,220	0.31	A	NewBridge
19.2	Eagles Nest Rd	N Bridgewater Dr	S Bridgewater Dr	2	Arterial M	4,620	0.26	A	4	Arterial M	11,620	0.32	A	NewBridge
19.3	Eagles Nest Rd	S Bridgewater Dr	Jackson Rd	2	Arterial M	4,710	0.26	A	4	Arterial M	13,130	0.36	A	NewBridge
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	3,670	0.20	A	2	Arterial M	9110	0.51	A	
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	3,300	0.18	A	2	Arterial M	4530	0.25	A	
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	24,130	0.67	B	4	Arterial M	27,900	0.78	C	
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	25,170	1.40	**F**	2	Arterial M	28,360	1.58	**F**	
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	4	Arterial M	27,840	0.77	C	4	Arterial M	30,940	0.86	D	
25	Elder Creek Rd	South Watt Ave	Hedge Ave	4	Arterial M	40,860	1.14	**F**	4	Arterial M	52,900	1.47	**F**	

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	4	Arterial M	29,970	0.83	D	4	Arterial M	33,660	0.94	E	
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	17,980	0.50	A	4	Arterial M	40,490	1.12	**F**	
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	2	Arterial M	9,230	0.51	A	3	Arterial M	30,740	1.71	**F**	West Jackson
28.2	Elder Creek Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	9,430	0.52	A	4	Arterial M	25,360	0.70	C	West Jackson
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	6	Arterial M	48,390	0.90	D	6	Arterial M	47,190	0.87	D	
30.1	Excelsior Rd	Kiefer Blvd	Douglas Rd	2	Arterial M	4,150	0.23	A	2	Arterial M	5,600	0.31	A	
30.2	Excelsior Rd	Douglas Rd	Collector WJ-1/ Collector JT-1	4	Arterial M	11,290	0.31	A	4	Arterial M	26,970	0.75	C	
30.3	Excelsior Rd	Collector WJ-1/ Collector JT-1	Collector WJ-2/ Collector JT-2	4	Arterial M	11,840	0.33	A	4	Arterial M	25,900	0.72	C	
30.4	Excelsior Rd	Collector WJ-2/ Collector JT-2	Jackson Rd	4	Arterial M	11,840	0.33	A	4	Arterial M	25,400	0.71	C	
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	2	Arterial M	11,960	0.66	B	3	Arterial M	36,910	2.05	**F**	West Jackson
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	2	Arterial M	11,960	0.66	B	3	Arterial M	36,220	2.01	**F**	West Jackson
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,670	0.26	A	3	Arterial M	12,520	0.70	B	West Jackson
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	5,970	0.33	A	2	Arterial M	13,080	0.73	C	
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	2,520	0.14	A	2	Arterial M	8,360	0.46	A	
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	2,960	0.16	A	2	Arterial M	9,180	0.51	A	
36	Florin Rd	Stockton Blvd	Power Inn Rd	6	Arterial M	42,720	0.79	C	6	Arterial M	47,560	0.88	D	
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	37,240	1.03	**F**	4	Arterial M	43,690	1.21	**F**	
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	6	Arterial M	29,890	0.55	A	6	Arterial M	36,490	0.68	B	
39	Florin Rd	South Watt Ave	Hedge Ave	4	Arterial M	9,760	0.27	A	4	Arterial M	12,010	0.33	A	
40	Florin Rd	Hedge Ave	Mayhew Rd	4	Arterial M	10,420	0.29	A	4	Arterial M	13,280	0.37	A	
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	30,290	0.84	D	4	Arterial M	40,200	1.12	**F**	
42.1	Florin Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	19,680	0.55	A	4	Arterial M	26,070	0.72	C	
42.2	Florin Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	11,650	0.65	B	3	Arterial M	19,920	1.11	**F**	West Jackson
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	14,020	0.78	C	2	Arterial M	17,090	0.95	E	
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	50,520	1.40	**F**	4	Arterial M	56,000	1.56	**F**	
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	23,040	0.64	B	4	Arterial M	27,610	0.77	C	
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	20,400	0.57	A	4	Arterial M	31,090	0.86	D	
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	13,770	0.77	C	2	Arterial M	27,770	1.54	**F**	
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,770	0.32	A	3	Arterial M	24,240	1.35	**F**	West Jackson

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
49.1	Fruitridge Rd	Hedge Ave	Collector WJ-12	2	Arterial M	2,140	0.12	A	4	Arterial M	24,260	0.67	B	West Jackson
49.2	Fruitridge Rd	Collector WJ-12	Mayhew Rd	2	Arterial M	2,110	0.12	A	4	Arterial M	21,800	0.61	B	West Jackson
50	Grant Line Rd	White Rock Rd	Douglas Rd	4	Arterial H	39,480	0.99	**E**	4	Arterial H	41,130	1.03	**F**	
51.1	Grant Line Rd	Douglas Rd	Chrysanthy Blvd	4	Arterial H	58,610	1.47	**F**	4	Arterial H	57,810	1.45	**F**	
51.2	Grant Line Rd	Chrysanthy Blvd	Kiefer Blvd	4	Arterial H	44,930	1.12	**F**	4	Arterial H	47,640	1.19	**F**	
52.1	Grant Line Rd	Kiefer Blvd	Rancho Cordova Pkwy	4	Arterial H	34,170	0.85	D	4	Arterial H	37,030	0.93	**E**	
52.2	Grant Line Rd	Rancho Cordova Pkwy	Jackson Rd	4	Arterial H	43,400	1.09	**F**	4	Arterial H	41,700	1.04	**F**	
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	4	Arterial H	33,180	0.83	D	4	Arterial H	30,160	0.75	C	
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	4	Arterial H	42,840	1.07	**F**	4	Arterial H	43,760	1.09	**F**	
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit	4	Arterial H	36,290	0.91	E	4	Arterial H	36,840	0.92	E	
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd	4	Arterial M	36,380	1.01	**F**	4	Arterial M	36,890	1.02	**F**	
56	Grant Line Rd	Sheldon Rd	Wilton Rd	4	Arterial M	40,570	1.13	**F**	4	Arterial M	45,430	1.26	**F**	
57	Grant Line Rd	Wilton Rd	Bond Rd	4	Arterial M	36,110	1.00	**F**	4	Arterial M	40,370	1.12	**F**	
58.1	Happy Lane	Old Placerville Road	Routier Ext	2	Arterial M	3,980	0.22	A	2	Arterial M	13,820	0.77	C	West Jackson
58.2	Happy Lane	Routier Ext	Kiefer Boulevard	2	Arterial M	4,970	0.28	A	2	Arterial M	20,580	1.14	**F**	West Jackson
59.1	Hedge Ave	Jackson Rd	Rock Creek Pkwy	2	Arterial M	7,060	0.39	A	2	Arterial M	11,760	0.65	B	
59.2	Hedge Ave	Rock Creek Pkwy	Fruitridge Rd	2	Arterial M	7,180	0.40	A	2	Arterial M	7,720	0.43	A	
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	8,460	0.47	A	2	Arterial M	10,010	0.56	A	
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	22,520	1.25	**F**	2	Arterial M	22,460	1.25	**F**	
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	67,180	1.24	**F**	6	Arterial M	71,420	1.32	**F**	
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	48,380	0.90	D	6	Arterial M	47,100	0.87	D	
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	35,840	0.66	B	6	Arterial M	39,710	0.74	C	
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	4	Arterial M	30,450	0.85	D	4	Arterial M	35,860	1.00	E	
66.1	Jackson Rd	Florin Perkins Rd	14th Ave	4	Arterial M	30,980	0.86	D	4	Arterial M	44,100	1.23	**F**	
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy	4	Arterial M	40,320	1.12	**F**	4	Arterial M	61,980	1.72	**F**	
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy	4	Arterial M	34,630	0.96	E	4	Arterial M	57,690	1.60	**F**	
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave	4	Arterial M	32,480	0.90	E	4	Arterial M	55,370	1.54	**F**	
67	Jackson Rd	South Watt Ave	Hedge Ave	4	Arterial M	38,240	1.06	**F**	4	Arterial M	66,380	1.84	**F**	
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	4	Arterial M	31,080	0.86	D	4	Arterial M	56,540	1.57	**F**	
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	4	Arterial M	31,040	0.86	D	4	Arterial M	57,880	1.61	**F**	
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	33,920	0.94	E	6	Arterial M	56,220	1.04	**F**	West Jackson

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4	2	Rural Hwy	23,120	1.01	**F**	6	Arterial M	59,380	1.10	**F**	West Jackson
70.2	Jackson Rd	Collector WJ-4	Rock Creek Pkwy	2	Rural Hwy	23,190	1.01	**F**	6	Arterial M	59,660	1.10	**F**	West Jackson
70.3	Jackson Rd	Happy Ln	Rock Creek Pkwy	2	Rural Hwy	23,000	1.00	**F**	6	Arterial M	41,550	0.77	C	West Jackson
70.4	Jackson Rd	Rock Creek Pkwy	Collector WJ-5	2	Rural Hwy	23,000	1.00	**F**	6	Arterial M	41,200	0.76	C	West Jackson
70.5	Jackson Rd	Collector WJ-5	Collector WJ-6	2	Rural Hwy	23,010	1.00	**F**	6	Arterial M	38,910	0.72	C	West Jackson
70.6	Jackson Rd	Collector WJ-6	Excelsior Rd	2	Rural Hwy	23,010	1.00	**F**	6	Arterial M	39,330	0.73	C	West Jackson
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	2	Rural Hwy	23,020	1.01	**F**	4	Arterial M	62,220	1.73	**F**	Jackson Township
71.2	Jackson Rd	Collector JT-3	Tree View Ln	2	Rural Hwy	23,020	1.01	**F**	4	Arterial M	46,480	1.29	**F**	Jackson Township
71.3	Jackson Rd	Tree View Ln	Collector JT-4	2	Rural Hwy	22,990	1.00	**F**	4	Arterial M	41,360	1.15	**F**	Jackson Township
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd	2	Rural Hwy	23,020	1.01	**F**	4	Arterial M	37,600	1.04	**F**	Jackson Township
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr	2	Rural Hwy	21,910	0.96	E	4	Arterial M	37,120	1.03	**F**	NewBridge
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd	2	Rural Hwy	22,630	0.99	E	4	Arterial M	37,910	1.05	**F**	NewBridge
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	4	Arterial M	31,730	0.88	D	4	Arterial M	45,290	1.26	**F**	
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	3,290	0.18	A	2	Arterial M	4,830	0.27	A	
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	21,620	0.60	B	4	Arterial M	32,130	0.89	D	
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	13,290	0.37	A	4	Arterial M	42,310	1.18	**F**	
77.1	Kiefer Boulevard	Bradshaw Road	Collector WJ-14	2	Arterial M	5,940	0.33	A	6	Arterial M	50,960	0.94	E	West Jackson
77.2	Kiefer Boulevard	Collector WJ-14	Routier Ext	2	Arterial M	6,100	0.34	A	6	Arterial M	47,140	0.87	D	West Jackson
77.3	Kiefer Boulevard	Routier Ext	Happy Lane	2	Arterial M	6,100	0.34	A	6	Arterial M	49,820	0.92	E	West Jackson
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	10,210	0.57	A	4	Arterial M	31,900	0.89	D	NewBridge; Mather South
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	10,210	0.57	A	4	Arterial M	29,740	0.83	D	NewBridge; Mather South
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	10,210	0.57	A	4	Arterial M	31,570	0.88	D	NewBridge; Mather South
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	10,150	0.56	A	3	Arterial M	39,820	2.21	**F**	NewBridge
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	20,760	0.58	A	4	Arterial M	33,580	0.93	**E**	
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	14,470	0.40	A	4	Arterial M	14,820	0.41	A	
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	14,470	0.40	A	4	Arterial M	14,820	0.41	A	
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	14,510	0.81	D	2	Arterial M	14,850	0.83	D	
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	8,260	1.03	**F**	2	Res Collector F	6,410	0.80	E	
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	65,530	1.21	**F**	6	Arterial M	63,760	1.18	**F**	

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	71,740	1.33	**F**	6	Arterial M	73,260	1.36	**F**	
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	6	Arterial M	15,810	0.29	A	6	Arterial M	16,910	0.31	A	
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	7,280	0.40	A	2	Arterial M	14,330	0.80	C	
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial M	10,630	0.59	A	2	Arterial M	13,680	0.76	C	
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy	2	Arterial L	1,930	0.13	A	4	Arterial M	47,790	1.33	**F**	West Jackson
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd	2	Arterial L	1,930	0.13	A	4	Arterial M	46,860	1.30	**F**	West Jackson
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	30,190	0.84	D	4	Arterial M	22,760	0.63	B	
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	26,590	1.48	**F**	2	Arterial M	20,690	1.15	**F**	
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	22,820	1.27	**F**	2	Arterial M	18,090	1.01	**F**	
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	24,070	0.67	B	4	Arterial M	36,350	1.01	**F**	
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	43,320	0.80	D	6	Arterial M	47,170	0.87	D	
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	31,970	0.89	D	4	Arterial M	40,280	1.12	**F**	
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	68,980	1.28	**F**	6	Arterial M	81,880	1.52	**F**	
97	South Watt Ave	Kiefer Blvd	Jackson Rd	6	Arterial M	67,470	1.25	**F**	6	Arterial M	70,930	1.31	**F**	
98.1	South Watt Ave	Jackson Rd	Rock Creek Pkwy	6	Arterial M	61,290	1.14	**F**	6	Arterial M	59,970	1.11	**F**	
98.2	South Watt Ave	Rock Creek Pkwy	Fruitridge Rd	6	Arterial M	64,380	1.19	**F**	6	Arterial M	60,090	1.11	**F**	
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	6	Arterial M	61,240	1.13	**F**	6	Arterial M	59,400	1.10	**F**	
100	South Watt Ave	Elder Creek Rd	Florin Rd	6	Arterial M	55,580	1.03	**F**	6	Arterial M	59,670	1.11	**F**	
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	64,250	1.19	**F**	7	Arterial M	63,100	1.17	**F**	
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	61,340	1.14	**F**	6	Arterial M	60,460	1.12	**F**	
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	38,330	0.71	C	6	Arterial M	37,470	0.69	B	
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	49,020	0.91	**E**	6	Arterial M	49,770	0.92	**E**	
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	54,190	1.00	**F**	6	Arterial M	53,890	1.00	**E**	
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	54,110	1.00	**F**	6	Arterial M	63,690	1.18	**F**	
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	34,760	0.97	**E**	5	Arterial M	43,880	1.22	**F**	
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	4	Arterial M	30,000	0.83	D	4	Arterial M	33,930	0.94	**E**	
107	Sunrise Blvd	Jackson Rd	Florin Rd	4	Arterial M	28,280	0.79	C	4	Arterial M	30,370	0.84	D	
108	Sunrise Blvd	Florin Rd	Grant Line Rd	4	Arterial M	15,030	0.42	A	4	Arterial M	18,270	0.51	A	
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	7,900	0.44	A	2	Arterial M	10,620	0.59	A	
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	98,040	1.63	**F**	6	Arterial H	106,480	1.77	**F**	
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	5,420	0.30	A	2	Arterial M	5,490	0.31	A	
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	18,300	0.51	A	4	Arterial M	18,020	0.50	A	
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	31,760	0.59	A	6	Arterial M	31,090	0.58	A	

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		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	40,310	1.12	**F**	5	Arterial M	39,540	1.10	**F**	
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	34,470	0.96	**E**	4	Arterial M	35,570	0.99	**E**	
116.1	White Rock Rd	Fitzgerald Rd	Rancho Cordova Pkwy	4	Arterial M	56,320	1.56	**F**	4	Arterial M	55,810	1.55	**F**	
116.2	White Rock Rd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	22,050	0.61	B	4	Arterial M	21,040	0.58	A	
116.3	White Rock Rd	Americanos Blvd	Grant Line Rd	4	Arterial M	15,870	0.44	A	4	Arterial M	16,530	0.46	A	
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial H	53,780	1.34	**F**	4	Arterial H	56,000	1.40	**F**	
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	82,790	1.53	**F**	7	Arterial M	81,540	1.51	**F**	
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	40,800	0.76	C	6	Arterial M	42,520	0.79	C	
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	32,660	0.60	B	6	Arterial M	33,450	0.62	B	
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	32,660	0.91	**E**	4	Arterial M	33,450	0.93	**E**	
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	32,660	1.81	**F**	2	Arterial M	33,450	1.86	**F**	
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	4	Arterial M	14,770	0.41	A	4	Arterial M	22,250	0.62	B	
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3	4	Arterial M	12,590	0.35	A	4	Arterial M	16,860	0.47	A	
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4	4	Arterial M	0	0.00	A	4	Arterial M	17,200	0.48	A	
123.4	Zinfandel Dr	Collector MS-4	Kiefer Blvd	4	Arterial M	12,590	0.35	A	4	Arterial M	16,970	0.47	A	
124	14th Ave	Power Inn Rd	Florin Perkins Rd	4	Arterial M	15,910	0.44	A	4	Arterial M	27,820	0.77	C	
125	14th Ave	Florin Perkins Rd	Jackson Rd	4	Arterial M	9,360	0.26	A	4	Arterial M	17,910	0.50	A	
126	Chrysanthy Blvd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	22,200	0.62	B	4	Arterial M	21,510	0.60	A	
127	Chrysanthy Blvd	Americanos Blvd	Grant Line Rd	2	Arterial M	16,570	0.92	**E**	2	Arterial M	15,790	0.88	D	
128	Douglas Rd (Extension)	Mather Blvd	Kiefer Blvd	4	Arterial M	7,380	0.21	A	4	Arterial M	20,970	0.58	A	
129	International Dr	Sunrise Blvd	Rancho Cordova Pkwy	6	Arterial M	31,010	0.57	A	6	Arterial M	31,560	0.58	A	
130	International Dr	Rancho Cordova Pkwy	Americanos Blvd	6	Arterial M	19,350	0.36	A	6	Arterial M	18,670	0.35	A	
131	Kiefer Blvd	Rancho Cordova Pkwy	Americanos Blvd	2	Arterial M	3,870	0.22	A	2	Arterial M	9,730	0.54	A	
132	Kiefer Blvd	Americanos Blvd	Grant Line Rd	2	Arterial M	10,250	0.57	A	2	Arterial M	19,200	1.07	**F**	
133	Rancho Cordova Pkwy	US 50	Easton Valley Pkwy	6	Arterial M	70,390	1.30	**F**	6	Arterial M	69,710	1.29	**F**	
134	Rancho Cordova Pkwy	Easton Valley Pkwy	White Rock Rd	6	Arterial M	72,220	1.34	**F**	6	Arterial M	72,320	1.34	**F**	
135	Rancho Cordova Pkwy	White Rock Rd	International Dr	6	Arterial M	46,590	0.86	D	6	Arterial M	49,960	0.93	**E**	
136	Rancho Cordova Pkwy	International Dr	Rio Del Oro Pkwy	6	Arterial M	55,520	1.03	**F**	6	Arterial M	59,540	1.10	**F**	
137	Rancho Cordova Pkwy	Rio Del Oro Pkwy	Villagio Dr	4	Arterial M	37,890	1.05	**F**	4	Arterial M	37,840	1.05	**F**	
138	Rancho Cordova Pkwy	Villagio Dr	Douglas Rd	4	Arterial M	32,060	0.89	D	4	Arterial M	32,000	0.89	D	
139	Rancho Cordova Pkwy	Douglas Rd	Chrysanthy Blvd	4	Arterial M	34,220	0.95	**E**	4	Arterial M	33,340	0.93	**E**	
140	Rancho Cordova Pkwy	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	20,780	0.58	A	4	Arterial M	19,280	0.54	A	
141	Rancho Cordova Pkwy	Kiefer Blvd	Grant Line Rd	2	Arterial M	15,510	0.86	D	2	Arterial M	14,180	0.79	C	
142	Americanos Blvd	White Rock Rd	Douglas Rd	2	Arterial M	5,630	0.31	A	2	Arterial M	6,150	0.34	A	
143	Americanos Blvd	Douglas Rd	Chrysanthy Blvd	2	Arterial M	9,560	0.53	A	2	Arterial M	9,060	0.50	A	

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
144	Americanos Blvd	Chrysanthy Blvd	Kiefer Blvd	2	Arterial M	9,030	0.50	A	2	Arterial M	8,210	0.46	A	
145	Vineyard Rd	Florin Rd	Gerber Rd	4	Arterial M	1,500	0.04	A	4	Arterial M	10,060	0.28	A	
146	Rio Del Oro Pkwy	Sunrise Blvd	Rancho Cordova Pkwy	6	Arterial M	24,000	0.44	A	6	Arterial M	31,920	0.59	A	
147	Rio Del Oro Pkwy	Rancho Cordova Pkwy	White Rock Rd	2	Arterial M	8,220	0.46	A	2	Arterial M	8,590	0.48	A	
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd						4	Arterial M	37,180	1.03	**F**	Jackson Township; NewBridge
300	Douglas Rd	Excelsior Rd	Rock Creek Pkwy	4	Arterial M	7,380	0.21	A	4	Arterial M	27,160	0.75	C	
301	Douglas Rd	Rock Creek Pkwy	Kiefer Blvd	4	Arterial M	7,380	0.21	A	4	Arterial M	36,990	1.03	**F**	
302	Kiefer Blvd	Happy Ln	Douglas Rd						6	Arterial M	63,170	1.17	**F**	West Jackson
303	Kiefer Blvd	Douglas Rd	Excelsior Rd						4	Arterial M	33,150	0.92	E	West Jackson
304	Mayhew Rd	Routier Ext	Bradshaw Rd						4	Arterial M	39,470	1.10	**F**	West Jackson
305	Mayhew Rd	Bradshaw Rd	Jackson Rd						4	Arterial M	40,970	1.14	**F**	West Jackson
306	Mayhew Rd	Fruitridge Rd	Collector WJ-13						4	Arterial M	30,030	0.83	D	West Jackson
307	Mayhew Rd	Collector WJ-13	Elder Creek Rd						3	Arterial M	32,580	1.81	**F**	West Jackson
308	Rock Creek Pkwy	South Watt Ave	Hedge Ave						2	Arterial M	7,450	0.41	A	West Jackson
309	Rock Creek Pkwy	Hedge Ave	Mayhew Rd						2	Arterial M	10,940	0.61	B	West Jackson
310	Rock Creek Pkwy	Mayhew Rd	Bradshaw Rd						2	Arterial M	4,730	0.26	A	West Jackson
311	Rock Creek Pkwy East	Excelsior Road	Collector WJ-16						2	Arterial M	13,510	0.75	C	West Jackson
312	Rock Creek Pkwy East	Collector WJ-16	Jackson Road						2	Arterial M	19,230	1.07	**F**	West Jackson
313	Vineyard Rd	Jackson Road	New Collector						4	Arterial M	31,060	0.86	D	West Jackson
314	Vineyard Rd	New Collector	Collector WJ-18						4	Arterial M	26,270	0.73	C	West Jackson
315	Vineyard Rd	Collector WJ-18	Elder Creek Road						4	Arterial M	25,590	0.71	C	West Jackson
316	Vineyard Rd	Elder Creek Road	Florin Road						4	Arterial M	14,340	0.40	A	West Jackson
317	Routier Ext	Old Placerville Road	Happy Lane						4	Arterial H	41,410	1.04	**F**	West Jackson
318	Routier Ext	Happy Lane	Kiefer Boulevard						4	Arterial H	34,670	0.87	D	West Jackson
319	Routier Ext	Kiefer Boulevard	Mayhew Road						4	Arterial H	39,110	0.98	E	West Jackson
320	Collector WJ-16	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	950	0.12	A	West Jackson
321	Collector WJ-17	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	850	0.11	A	West Jackson
322	Collector WJ-6	Collector WJ-16/WJ-17	Jackson Road						2	Res Collector F	2,730	0.34	B	West Jackson

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
323	Collector WJ-6	Jackson Road	Collector WJ-18						2	Res Collector F	3,640	0.46	C	West Jackson
324	Collector WJ-2	Excelsior Road	Collector WJ-6						2	Res Collector F	2,860	0.36	B	West Jackson
325	Collector WJ-18	Vineyard Rd	Collector WJ-6						2	Res Collector F	3,360	0.42	C	West Jackson
326	Collector WJ-18	Collector WJ-6	Excelsior Road						2	Res Collector F	3,270	0.41	C	West Jackson
327	Collector WJ-19	Bradshaw Road	Vineyard Road						2	Arterial M	7,820	0.43	A	West Jackson
400	Collector JT-1	Excelsior Rd	Collector JT-3						2	Res Collector F	4,570	0.57	C	Jackson Township
401	Collector JT-1	Collector JT-3	Tree View Ln						2	Res Collector F	1,550	0.19	A	Jackson Township
402	Collector JT-3	Kiefer Blvd	Collector JT-1						2	Res Collector F	1,840	0.23	B	Jackson Township
403	Collector JT-3	Collector JT-1	Collector JT-6						2	Res Collector F	1,290	0.16	A	Jackson Township
404	Collector JT-3	Collector JT-6	Collector JT-5						2	Res Collector F	2,630	0.33	B	Jackson Township
405	Collector JT-3	Collector JT-5	Jackson Rd						2	Arterial M	20,070	1.12	**F**	Jackson Township
406	Collector JT-4	Jackson Rd	Bridgewater Dr						2	Arterial M	4,440	0.25	A	Jackson Township
407	Collector JT-5	Collector JT-3	Tree View Ln						2	Arterial M	10,100	0.56	A	Jackson Township
408	Collector JT-6	Excelsior Rd	Collector JT-3						2	Res Collector F	4,370	0.55	C	Jackson Township
409	Collector JT-6	Collector JT-3	Tree View Ln						2	Res Collector F	850	0.11	A	Jackson Township
410	Kiefer Blvd	Excelsior Rd	Tree View Ln						4	Arterial M	31,510	0.88	D	Jackson Township
411	Tree View Ln	Kiefer Blvd	Collector JT-1						4	Arterial M	10,660	0.30	A	Jackson Township
412	Tree View Ln	Collector JT-1	Collector JT-6						2	Arterial M	10,340	0.57	A	Jackson Township
413	Tree View Ln	Collector JT-6	Collector JT-5						2	Arterial M	10,250	0.57	A	Jackson Township
414	Tree View Ln	Collector JT-5	Jackson Rd						4	Arterial M	7,370	0.20	A	Jackson Township
415	Collector JT-7	Collector JT-3	Tree View Ln						2	Arterial M	1,590	0.09	A	Jackson Township
416	Collector JT-8	Collector JT-3	Tree View Ln						2	Arterial M	1,740	0.10	A	Jackson Township

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
417	Collector JT-9	Jackson Rd	Collector JT-8						2	Arterial M	3,600	0.20	A	Jackson Township
418	Collector JT-10	Jackson Rd	Collector JT-8						2	Arterial M	1,570	0.09	A	Jackson Township
419	Collector JT-6	Tree View Ln	Jackson Rd						2	Res Collector F	1,770	0.22	B	Jackson Township
500	S Bridgewater Dr	Collector JT-4	Eagles Nest Rd						2	Res Collector F	5,220	0.65	D	NewBridge
501	S Bridgewater Dr	Eagles Nest Rd	Northbridge Dr						2	Res Collector F	4,620	0.58	C	NewBridge
502	N Bridgewater Dr	Northbridge Dr	Eagles Nest Rd						2	Res Collector F	1,240	0.16	A	NewBridge
503	Northbridge Dr	Kiefer Blvd	Bridgewater Dr						2	Arterial M	4,320	0.24	A	NewBridge
504	Street A	S Bridgewater Dr	Street B						2	Res Collector F	1,800	0.23	B	NewBridge
505	Street B	S Bridgewater Dr	Street A						2	Res Collector F	1,440	0.18	A	NewBridge
506	Rockbridge Dr	Street B	Stonebridge Dr						2	Res Collector F	1,850	0.23	B	NewBridge
507	Rockbridge Dr	Stonebridge Dr	Jackson Rd						2	Arterial M	7,640	0.42	A	NewBridge
508	Stonebridge Dr	S Bridgewater Dr	Rockbridge Dr						2	Arterial M	2,480	0.14	A	NewBridge
509	Stonebridge Dr	Rockbridge Dr	Jackson Rd						2	Res Collector F	4,440	0.56	C	NewBridge
600	Collector MS-1	Kiefer Boulevard	Collector MS-5						2	Arterial M	16,870	0.94	E	Mather South
601	Collector MS-1	Collector MS-5	Collector MS-4						2	Arterial M	7,670	0.43	A	Mather South
602	Collector MS-1	Collector MS-4	Collector MS-3						2	Res Collector F	6,350	0.79	D	Mather South
603	Collector MS-1	Collector MS-3	Collector MS-2						2	Arterial M	3,140	0.17	A	Mather South
604	Collector MS-2	Eagles Nest Road	Collector MS-5						2	Arterial M	8,910	0.50	A	Mather South
605	Collector MS-3	Eagles Nest Road	Collector MS-5						2	Arterial M	6,860	0.38	A	Mather South
606	Collector MS-4	Eagles Nest Road	Collector MS-5						2	Arterial M	7,130	0.40	A	Mather South
607	Collector MS-5	Kiefer Boulevard	Collector MS-1						2	Arterial M	8,770	0.49	A	Mather South

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	45.6	Signal	D	34.3	No	Signal	E	77.0	Signal	E	73.6	No
2	Howe Avenue & US 50 EB Ramps	Signal	C	34.6	Signal	D	50.5	No	Signal	B	16.5	Signal	C	23.6	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	F	88.0	Signal	F	108.2	Yes	Signal	E	66.5	Signal	F	88.4	Yes
4	Power Inn Road & 14th Avenue	Signal	E	61.0	Signal	F	166.0	Yes	Signal	E	72.6	Signal	F	123.7	Yes
5	Power Inn Road & Fruitridge Road	Signal	F	114.5	Signal	F	112.7	No	Signal	D	47.4	Signal	D	48.7	No
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	C	27.7	Signal	C	27.8	No	Signal	C	24.1	Signal	D	38.6	No
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	C	20.8	Signal	C	29.6	No	Signal	D	41.2	Signal	C	31.2	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Westbound Left Turn		*C*	*16.4*		*C*	*21.3*			*C*	*20.7*		*E*	*35.1*	
	Westbound Right Turn		*C*	*10.9*		*B*	*12.2*			*B*	*11.2*		*B*	*13.6*	
	Southbound Left Turn		*A*	*9.3*		*B*	*10.1*			*B*	*10.4*		*B*	*13.4*	
9	Florin Perkins Road & Jackson Road	Signal	C	25.1	Signal	D	46.3	No	Signal	D	38.5	Signal	D	49.0	No
10	Florin Perkins Road & Fruitridge Road	Signal	C	26.7	Signal	D	40.4	No	Signal	D	50.3	Signal	D	41.7	No
11	Florin Perkins Road & Elder Creek Road	Signal	C	31.7	Signal	C	29.4	No	Signal	C	30.0	Signal	C	33.4	No
12	Watt Avenue & Folsom Blvd.	Signal	F	169.1	Signal	F	182.3	Yes	Signal	F	140.0	Signal	F	199.9	Yes
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	B	15.7	Signal	B	13.5	No	Signal	A	9.8	Signal	B	10.9	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	E	62.2	Signal	F	91.8	Yes	Signal	D	41.7	Signal	E	73.3	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	13.4	Signal	B	13.6	No	Signal	A	9.1	Signal	A	9.2	No
16	S. Watt Avenue & Jackson Road	Signal	F	135.9	Signal	F	237.3	Yes	Signal	F	98.2	Signal	F	185.0	Yes
17	S. Watt Avenue & Fruitridge Road	Signal	D	44.4	Signal	F	93.1	Yes	Signal	E	79.3	Signal	F	114.3	Yes
18	S. Watt Avenue & Elder Creek Road	Signal	F	222.9	Signal	F	160.8	No	Signal	F	177.7	Signal	F	116.5	No
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	F	199.7	Signal	F	>300	Yes	Signal	F	137.1	Signal	F	238.2	Yes
21	Elk Grove Florin Road & Gerber Road	Signal	E	56.7	Signal	E	59.3	No	Signal	E	74.9	Signal	E	78.2	No
23	Hedge Avenue & Jackson Road	Signal	C	34.7	Signal	F	123.1	Yes	Signal	B	16.3	Signal	D	41.8	No
24	Hedge Avenue & Fruitridge Road	All-way stop	E	44.2	All-way stop	C	34.3	No	All-way stop	D	30.7	All-way stop	D	36.5	No
25	Hedge Avenue & Elder Creek Road	Signal	F	103.7	Signal	F	138.8	Yes	Signal	F	103.2	Signal	F	135.0	Yes
26	Hedge Avenue & Tokay Lane	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*B*	*10.9*		*B*	*10.9*			*A*	*9.3*		*A*	*9.3*	
	Eastbound		*F*	*99.5*		*F*	*102.1*			*E*	*47.3*		*E*	*49.9*	
	Westbound		*F*	*52.9*		*F*	*52.9*			*E*	*38.3*		*E*	*38.0*	
27	Hedge Avenue & Florin Road	All-way stop	B	15.8	Signal	A	9.9	No	All-way stop	B	12.6	Signal	A	6.1	No
28	Mayhew Road & Kiefer Boulevard	Signal	C	27.7	Signal	F	91.2	Yes	Signal	D	44.9	Signal	E	74.2	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop			Signal	F	117.9	Yes	Two-way stop			Signal	F	107.2	Yes
	Northbound Through - Left Turn		*F*	*114.1*						*F*	*>300*				
	Northbound Right Turn		*C*	*16.1*						*C*	*18.5*				
	Southbound		*F*	*99.2*						*F*	*>300*				
	Eastbound Left Turn		*B*	*13.5*						*B*	*11.0*				
	Westbound Left Turn		*B*	*11.2*						*C*	*17.6*				
30	Mayhew Road & Fruitridge Road	Two-way stop			Signal	B	18.5	No	Two-way stop			Signal	B	18.8	No
	Northbound Left Turn		*A*	*0.0*						*A*	*7.5*				
	Eastbound		*A*	*9.8*						*A*	*9.3*				
31	Mayhew Road & Elder Creek Road	Signal	A	7.0	Signal	F	>300	Yes	Signal	A	6.0	Signal	F	<300	Yes
32	Woodring Drive & Zinfandel Drive	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Eastbound		*C*	*20.1*		*F*	*85.0*			*A*	*9.0*		*F*	*223.4*	
	Northbound Left Turn		*A*	*8.0*		*B*	*10.6*			*A*	*0.0*		*B*	*12.4*	
33	Bradshaw Road & Folsom Blvd.	Signal	C	31.9	Signal	C	25.5	No	Signal	C	25.3	Signal	C	22.4	No
34	Bradshaw Road & US 50 WB Ramps	Signal	A	7.8	Signal	B	11.1	No	Signal	A	8.9	Signal	B	12.2	No
35	Bradshaw Road & US 50 EB Ramps	Signal	C	24.5	Signal	D	54.7	No	Signal	B	15.1	Signal	D	39.5	No
36	Bradshaw Road & Old Placerville Road	Signal	F	81.9	Signal	F	101.6	Yes	Signal	E	68.1	Signal	F	82.4	Yes
37	Bradshaw Road & Kiefer Boulevard	Signal	C	27.6	Signal	F	144.2	Yes	Signal	D	54.1	Signal	F	137.6	Yes
38	Bradshaw Road & Jackson Road	Signal	F	186.0	Signal	F	172.2	No	Signal	F	118.2	Signal	F	161.0	Yes
39	Bradshaw Road & Elder Creek Road	Signal	F	122.6	Signal	F	173.1	Yes	Signal	F	98.8	Signal	F	201.7	Yes

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
40	Bradshaw Road & Florin Road	Signal	F	129.5	Signal	F	125.3	No	Signal	E	59.7	Signal	F	89.9	Yes
41	Bradshaw Road & Gerber Road	Signal	F	83.1	Signal	F	80.6	No	Signal	D	43.0	Signal	D	49.7	No
42	Happy Lane & Old Placerville Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound Left Turn		*F*	*>300*		*F*	*>300*			*F*	*294.1*		*F*	*>300*	
	Northbound Right Turn		*E*	*40.9*		*F*	*236.0*			*C*	*16.9*		*C*	*19.2*	
	Westbound Left Turn		*C*	*16.0*		*C*	*23.4*			*C*	*15.3*		*F*	*53.3*	
43	Happy Lane & Kiefer Boulevard	Free Turn			Signal	F	139.2	Yes	Free Turn			Signal	E	67.8	No
44	Excelsior Road & Kiefer Boulevard	Two-way stop	A	0.0	Signal	A	9.9	No	Two-way stop	A	0.0	Signal	B	14.0	No
45	Excelsior Road & Jackson Road	Signal	E	59.9	Signal	F	330.8	Yes	Signal	D	39.0	Signal	F	269.1	Yes
46	Excelsior Road & Elder Creek Road	Two-way stop			Signal	F	81.2	No	Two-way stop			Signal	E	58.8	No
	Northbound Left Turn		*A*	*7.9*						*A*	*7.9*				
	Eastbound		*F*	*>300*						*D*	*30.0*				
47	Excelsior Road & Florin Road	All-way stop	F	62.4	Signal	F	111.2	Yes	All-way stop	F	67.3	Signal	E	74.2	No
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	B	13.6	Signal	B	11.7	No	All-way stop	B	14.3	Signal	B	11.7	No
49	Mather Field Road & US 50 WB Ramps	Signal	B	14.4	Signal	B	18.1	No	Signal	A	8.6	Signal	B	10.1	No
50	Mather Field Road & US 50 EB Ramps	Signal	B	19.2	Signal	B	17.9	No	Signal	C	21.1	Signal	B	14.6	No
51	Mather Field Road & Rockingham Drive	Signal	F	156.5	Signal	F	>300	Yes	Signal	F	119.4	Signal	F	170.3	Yes
52	Mather Boulevard & Douglas Road	All-way stop	E	55.6	Signal	E	55.8	No	All-way stop	C	27.2	Signal	D	36.5	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
53	Zinfandel Drive & US 50 WB Ramps	Signal	C	20.9	Signal	B	10.6	No	Signal	E	65.0	Signal	D	49.1	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	F	120.8	Signal	F	116.8	No	Signal	F	95.0	Signal	E	79.3	No
55	Zinfandel Drive & White Rock Road	Signal	E	76.3	Signal	E	68.2	No	Signal	F	117.3	Signal	F	111.6	No
56	Zinfandel Drive & Data Drive	Signal	B	18.9	Signal	B	19.1	No	Signal	C	25.6	Signal	C	26.7	No
57	Zinfandel Drive & International Dr	Signal	E	77.2	Signal	E	77.5	No	Signal	F	97.3	Signal	F	81.8	No
58	Zinfandel Drive & Douglas Road	Signal	F	156.8	Signal	F	216.8	Yes	Signal	E	73.1	Signal	F	220.1	Yes
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Two-way stop			Signal	D	42.5	No	Two-way stop			Signal	D	39.2	No
	Southbound Left Turn		*A*	*8.1*						*A*	*9.2*				
	Westbound		*F*	*85.8*						*F*	*208.0*				
60	Eagles Nest Road & Jackson Road	Signal	C	23.0	Signal	E	69.6	No	Signal	C	23.3	Signal	E	63.7	No
61	Eagles Nest Road & Florin Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound		*F*	*>300*		*F*	*>300*			*F*	*>300*		*F*	*>300*	
	Southbound		*F*	*>300*		*F*	*>300*			*F*	*>300*		*F*	*>300*	
	Eastbound Left Turn		*B*	*10.2*		*B*	*11.3*			*A*	*8.5*		*A*	*9.3*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*9.4*		*A*	*8.7*	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	E	68.1	Signal	E	71.2	No	Signal	C	22.7	Signal	C	21.5	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	10.2	Signal	B	10.1	No	Signal	B	12.7	Signal	B	13.2	No
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	43.5	Signal	D	47.3	No	Signal	D	40.5	Signal	D	43.1	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
65	Sunrise Boulevard & White Rock Road	Signal	E	69.3	Signal	E	69.5	No	Signal	F	127.3	Signal	F	126.9	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	F	109.1	Signal	F	118.6	Yes	Signal	F	81.3	Signal	E	76.7	No
67	Sunrise Boulevard & Douglas Road	Signal	F	140.5	Signal	F	190.0	Yes	Signal	E	73.5	Signal	F	105.4	Yes
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	C	21.4	Signal	B	18.8	No	Signal	A	9.4	Signal	B	10.2	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	F	151.0	Signal	F	>300	Yes	Signal	F	138.0	Signal	F	261.4	Yes
70	Sunrise Boulevard & Jackson Road	Signal	D	39.6	Signal	F	90.0	Yes	Signal	D	45.4	Signal	E	79.3	Yes
71	Sunrise Boulevard & Florin Road	Signal	D	50.3	Signal	C	22.9	No	Signal	E	57.4	Signal	D	45.9	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	F	91.2	Signal	F	120.4	Yes	Signal	C	33.1	Signal	E	71.0	Yes
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	F	148.3	Signal	F	149.4	No	Signal	F	103.3	Signal	F	105.3	No
74	Hazel Avenue & US 50 EB Ramps	Signal	B	16.4	Signal	B	17.6	No	Signal	F	83.6	Signal	F	81.4	No
76	Prairie City Road & White Rock Road	Signal	C	32.8	Signal	D	37.6	No	Signal	D	35.2	Signal	D	36.1	No
77	Grant Line Road & White Rock Road	Signal	C	26.1	Signal	B	16.2	No	Signal	C	29.8	Signal	C	33.4	No
78	Grant Line Road & Douglas Road	Signal	D	44.8	Signal	D	39.0	No	Signal	F	107.9	Signal	F	92.2	No
79	Grant Line Road & Kiefer Boulevard	Signal	B	12.5	Signal	B	14.7	No	Signal	B	10.6	Signal	B	16.8	No
80	Grant Line Road & Jackson Road	Signal	F	88.9	Signal	F	119.0	Yes	Signal	E	67.4	Signal	F	101.1	Yes

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

Intersection		AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
81	Watt Avenue & US-50 EB Ramps	Signal	C	23.3	Signal	C	33.1	No	Signal	B	15.6	Signal	B	18.8	No
82	Watt Avenue & US-50 WB Ramps	Signal	F	82.8	Signal	E	67.2	No	Signal	E	57.1	Signal	E	61.2	No
83	Mayhew Rd & Folsom Blvd.	Signal	B	12.8	Signal	B	19.8	No	Signal	B	15.8	Signal	C	20.4	No
84	65th Street Expy & Fruitridge Road	Signal	D	44.3	Signal	D	46.0	No	Signal	D	41.1	Signal	D	46.2	No
85	Power Inn Road & Elder Creek Road	Signal	E	67.3	Signal	E	79.0	No	Signal	D	45.0	Signal	E	61.6	No
86	Power Inn Road & Florin Rd	Signal	F	97.4	Signal	F	119.3	Yes	Signal	E	65.8	Signal	E	73.9	No
87	Florin Perkins Road & Florin Rd	Signal	D	44.2	Signal	E	60.6	No	Signal	F	107.4	Signal	F	111.6	No
88	Bradshaw Rd & Calvine Rd	Signal	C	26.4	Signal	D	37.0	No	Signal	C	20.9	Signal	C	25.0	No
89	Vineyard Rd & Calvine Rd	Signal	B	18.5	Signal	B	18.6	No	Signal	B	17.6	Signal	B	19.5	No
90	Excelsior Road & Calvine Rd	All-way stop	B	12.8	All-way stop	C	21.0	No	All-way stop	B	12.9	All-way stop	B	17.9	No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	C	34.4	Signal	D	43.2	Yes	Signal	D	44.8	Signal	D	52.0	Yes
92	Grant Line Rd & Calvine Rd	Signal	C	32.4	Signal	D	36.5	Yes	Signal	C	33.3	Signal	C	30.9	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	E	78.8	Signal	F	83.4	Yes	Signal	E	69.8	Signal	F	95.2	Yes
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	B	14.8	Signal	B	17.6	No	Signal	B	15.5	Signal	B	17.3	No
95	Florin Perkins Road & 14th Avenue	Signal	D	44.1	Signal	E	67.8	Yes	Signal	C	30.9	Signal	D	46.9	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
96	Jackson Road & 14th Avenue	Signal	F	91.0	Signal	F	119.3	Yes	Signal	B	15.3	Signal	E	57.0	Yes
98	Aspen 1 Access Road & Jackson Road	Signal	A	0.0	Signal	A	0.0	No	Signal	A	6.6	Signal	A	0.0	No
99	Rancho Cordova Pkwy & US-50 WB Ramps	Signal	F	147.0	Signal	F	147.6	No	Signal	F	117.9	Signal	F	104.1	No
100	Rancho Cordova Pkwy & US-50 EB Ramps	Signal	C	24.0	Signal	B	16.9	No	Signal	C	28.3	Signal	C	30.1	No
101	Rancho Cordova Pkwy & Easton Valley Pkwy	Signal	C	24.2	Signal	C	24.7	No	Signal	B	11.2	Signal	B	14.5	No
102	Rancho Cordova Pkwy & White Rock Road	Signal	F	221.3	Signal	F	200.8	No	Signal	F	135.5	Signal	F	128.0	No
103	Rancho Cordova Pkwy & Douglas Road	Signal	E	67.2	Signal	E	57.2	No	Signal	E	58.0	Signal	E	76.1	Yes
104	Rancho Cordova Pkwy & Chrysanthy Boulevard/Chrysanthy Blvd	Signal	F	105.7	Signal	F	93.5	No	Signal	D	54.9	Signal	D	54.9	No
105	Rancho Cordova Pkwy & Kiefer Blvd	Signal	B	17.9	Signal	C	20.9	No	Signal	B	16.1	Signal	B	19.4	No
106	Rancho Cordova Pkwy & Grant Line Road	Signal	E	78.8	Signal	D	38.4	No	Signal	C	28.8	Signal	B	14.8	No
107	Americanos Blvd & White Rock Road	Signal	A	9.5	Signal	A	8.9	No	Signal	A	9.5	Signal	A	8.4	No
108	Americanos Blvd & Douglas Road	Signal	C	34.9	Signal	D	47.0	No	Signal	C	22.4	Signal	C	23.5	No
109	Americanos Blvd & Chrysanthy Blvd	Signal	C	24.7	Signal	C	22.2	No	Signal	C	22.2	Signal	C	25.4	No
110	Americanos Blvd & Kiefer Blvd	Signal	A	7.6	Signal	A	8.7	No	Signal	A	7.3	Signal	A	9.8	No
111	Grant Line Road & Chrysanthy Blvd	Signal	E	72.0	Signal	E	71.1	No	Signal	E	57.5	Signal	D	54.9	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

Intersection		AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
112	Hazel Avenue & Easton Valley Pkwy	Signal	B	10.3	Signal	B	10.2	No	Signal	A	6.0	Signal	A	6.1	No
200	Excelsior Road & Collector WJ-1/Collector JT-1	West Jackson/Jackson Township Project Int.			Signal	C	22.4	No	West Jackson/Jackson Township Project Int.			Signal	B	19.6	No
201	Excelsior Road & Collector WJ-2/Collector JT-2	West Jackson/Jackson Township Project Int.			Signal	B	15.2	No	West Jackson/Jackson Township Project Int.			Signal	B	19.8	No
202	W Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	17.3	No	Mather South Project Int.			Signal	B	12.6	No
203	Northbridge Dr & Kiefer Boulevard	NewBridge Project Int.			Signal	A	7.3	No	NewBridge Project Int.			Signal	A	6.8	No
204	E Collector MS-5 & Kiefer Boulevard	Mather South Project Int.			Signal	B	19.1	No	Mather South Project Int.			Signal	C	29.9	No
300	Collector WJ-3 & Jackson Road	West Jackson Project Int.			Signal	B	13.7	No	West Jackson Project Int.			Signal	A	9.2	No
301	Collector WJ-4 & Jackson Road	West Jackson Project Int.			Signal	C	23.3	No	West Jackson Project Int.			Signal	C	22.5	No
303	Rock Creek Pkwy & Jackson Road	West Jackson Project Int.			Signal	F	128.3	Yes	West Jackson Project Int.			Signal	F	96.4	Yes
304	Collector WJ-5 & Jackson Road	West Jackson Project Int.			Signal	B	13.6	No	West Jackson Project Int.			Signal	B	14.7	No
305	Collector WJ-6 & Jackson Road	West Jackson Project Int.			Signal	B	17.7	No	West Jackson Project Int.			Signal	B	15.7	No
306	Excelsior Road & Collector WJ-6	West Jackson Project Int.			Signal	D	38.3	No	West Jackson Project Int.			Signal	B	14.5	No
307	S. Watt Avenue & Rock Creek Pkwy	West Jackson Project Int.			Signal	B	18.2	No	West Jackson Project Int.			Signal	B	18.4	No
308	Hedge Avenue & Rock Creek Pkwy Westbound	West Jackson Project Int.			Round	F	60.5	Yes	West Jackson Project Int.			Round	B	11.2	No
309	Hedge Avenue & Rock Creek Pkwy Eastbound	West Jackson Project Int.			Round	C	24.0	No	West Jackson Project Int.			Round	B	11.2	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

Intersection		AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
310	Mayhew Road & Rock Creek Pkwy Westbound	West Jackson Project Int.			Round	F	181.2	Yes	West Jackson Project Int.			Round	F	106.4	Yes
311	Mayhew Road & Rock Creek Pkwy Eastbound	West Jackson Project Int.			Round	F	126.7	Yes	West Jackson Project Int.			Round	F	126.5	Yes
312	Bradshaw Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	B	11.0	No	West Jackson Project Int.			Signal	D	47.7	No
314	Vineyard Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	B	10.7	No	West Jackson Project Int.			Signal	C	21.9	No
315	Douglas Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	C	32.1	No	West Jackson Project Int.			Signal	E	61.9	No
316	Bradshaw Road & Collector WJ-8	West Jackson Project Int.			Signal	B	12.2	No	West Jackson Project Int.			Signal	A	6.6	No
317	Bradshaw Road & Collector WJ-9	West Jackson Project Int.			Signal	A	9.3	No	West Jackson Project Int.			Signal	A	5.8	No
318	Bradshaw Road & Mayhew Road	West Jackson Project Int.			Signal	F	142.3	Yes	West Jackson Project Int.			Signal	F	118.1	Yes
319	Bradshaw Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	F	182.7	Yes	West Jackson Project Int.			Signal	C	26.9	No
320	Bradshaw Road & Collector WJ-11	West Jackson Project Int.			Signal	A	7.6	No	West Jackson Project Int.			Signal	B	15.0	No
321	Collector WJ-12 & Fruitridge Road	West Jackson Project Int.			Signal	B	17.9	No	West Jackson Project Int.			Signal	B	15.6	No
322	Mayhew Road & Collector WJ-13	West Jackson Project Int.			Signal	C	22.3	No	West Jackson Project Int.			Signal	C	20.9	No
323	Collector WJ-14 & Kiefer Boulevard	West Jackson Project Int.			Signal	C	30.0	No	West Jackson Project Int.			Signal	C	24.7	No
325	Douglas Road & Kiefer Boulevard	West Jackson Project Int.			Signal	F	237.5	Yes	West Jackson Project Int.			Signal	F	191.3	Yes
327	Vineyard Road & Elder Creek Road	West Jackson Project Int.			Signal	C	34.6	No	West Jackson Project Int.			Signal	C	28.1	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

Intersection		AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
328	Vineyard Road & Florin Road	West Jackson Project Int.			Signal	C	29.1	No	West Jackson Project Int.			Signal	C	29.6	No
329	Routier Ext & Kiefer Boulevard	West Jackson Project Int.			Signal	**F**	**87.8**	Yes	West Jackson Project Int.			Signal	E	71.6	No
330	Happy Ln/Happy Lane & Routier Ext	West Jackson Project Int.			Signal	E	79.6	No	West Jackson Project Int.			Signal	E	79.3	No
331	Routier Ext/Routier Rd & Old Placerville Road	West Jackson Project Int.			Signal	**F**	**164.0**	Yes	West Jackson Project Int.			Signal	**F**	**117.3**	Yes
400	Collector JT-3 & Jackson Road	Jackson Township Project Int.			Signal	**F**	**81.2**	Yes	Jackson Township Project Int.			Signal	D	47.0	No
401	Tree View Lane & Jackson Road	Jackson Township Project Int.			Signal	D	37.7	No	Jackson Township Project Int.			Signal	B	12.5	No
402	Collector JT-4 & Jackson Road	Jackson Township Project Int.			Signal	C	23.5	No	Jackson Township Project Int.			Signal	B	10.2	No
403	Tree View Lane & Collector JT-5	Jackson Township Project Int.			Signal	B	12.7	No	Jackson Township Project Int.			Signal	B	13.1	No
404	Tree View Lane & Collector JT-6	Jackson Township Project Int.			Signal	A	7.9	No	Jackson Township Project Int.			Signal	A	7.0	No
405	Tree View Lane & Collector JT-1	Jackson Township Project Int.			Signal	B	14.4	No	Jackson Township Project Int.			Signal	B	14.4	No
406	Tree View Lane & Kiefer Boulevard	Jackson Township Project Int.			Signal	B	10.8	No	Jackson Township Project Int.			Signal	B	13.2	No
407	HS/MS Dwy & Kiefer Boulevard	Jackson Township Project Int.			Signal	A	5.3	No	Jackson Township Project Int.			Signal	A	7.7	No
500	Rockbridge Dr & Jackson Road	NewBridge Project Int.			Signal	C	34.2	No	NewBridge Project Int.			Signal	B	19.7	No
501	Eagles Nest Road & N Bridgewater Dr	NewBridge Project Int.			Signal	A	3.4	No	NewBridge Project Int.			Signal	A	3.1	No
502	Eagles Nest Road & S Bridgewater Dr	NewBridge Project Int.			Signal	B	15.7	No	NewBridge Project Int.			Signal	B	13.6	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
600	Zinfandel Drive & Collector MS-2	Mather South Project Int.			Round	B	10.9	No	Mather South Project Int.			Round	B	11.6	No
601	Zinfandel Drive & Collector MS-3	Mather South Project Int.			Round	A	8.3	No	Mather South Project Int.			Round	A	9.1	No
602	Zinfandel Drive & Collector MS-4	Mather South Project Int.			Round	A	9.1	No	Mather South Project Int.			Round	A	9.1	No
603	Collector MS-5 & Collector MS-2	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*7.8*						*A*	*7.5*	
	Eastbound Left Turn					*B*	*10.2*						*B*	*10.8*	
604	Collector MS-5 & Collector MS-3	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					A	7.8						*A*	*7.5*	
	Eastbound					A	9.9						*A*	*9.7*	
605	Collector MS-5 & Collector MS-4	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*8.4*						*A*	*8.2*	
	Eastbound					*C*	*17.7*						*D*	*33.0*	
606	Collector MS-5 & W Collector MS-1/E Collector MS-1	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*7.6*						*A*	*7.7*	
	Eastbound Left Turn					*B*	*11.7*						*B*	*12.3*	
	Eastbound					*A*	*9.3*						*A*	*9.3*	

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

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Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		CEQA Cumulative No Project Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
1	Howe Avenue & College Town Drive/US 50 Westbound Ramps	Signal	Signal									
2	Howe Avenue & US 50 Eastbound Ramps/US 50 Eastbound Entrance	Signal	Signal									
3	Power Inn Road/Howe Avenue & Folsom Blvd.	Signal	Signal									
4	Power Inn Road & 14th Avenue	Signal	Signal									
5	Power Inn Road & Fruitridge Road	Signal	Signal									
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal									
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal									
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop									
9	Florin Perkins Road & Jackson Road	Signal	Signal									
10	Florin Perkins Road & Fruitridge Road	Signal	Signal									
11	Florin Perkins Road & Elder Creek Road	Signal	Signal									
12	S. Watt Ave./Watt Avenue & Folsom Blvd.	Signal	Signal									
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal									
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal									
15	S. Watt Avenue & Canberra Dr.	Signal	Signal									
16	S. Watt Avenue & Jackson Road	Signal	Signal									West Jackson
17	S. Watt Avenue & Fruitridge Road	Signal	Signal									West Jackson
18	S. Watt Avenue & Elder Creek Road	Signal	Signal									
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal									
21	Elk Grove Florin Road & Gerber Rd./Gerber Road	Signal	Signal									
23	Hedge Avenue & Jackson Road	Signal	Signal									West Jackson
24	Hedge Avenue & Fruitridge Road	All-way stop	Signal									West Jackson
25	Hedge Avenue & Elder Creek Road	All-way stop	Signal									West Jackson
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop									
27	Hedge Avenue & Florin Road	All-way stop	All-way stop									
28	Mayhew Road & Kiefer Boulevard	Signal	Signal									

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		CEQA Cumulative No Project Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
29	Mayhew Road & Jackson Road	Two-way stop	Signal									West Jackson
30	Mayhew Road & Fruitridge Road	Two-way stop	Signal									West Jackson
31	Mayhew Road & Elder Creek Road	Two-way stop	Signal									West Jackson
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop									Mather South
33	Bradshaw Road & Folsom Blvd.	Signal	Signal									
34	Bradshaw Road & US 50 Westbound Ramps	Signal	Signal									
35	Bradshaw Road & US 50 Eastbound Ramps	Signal	Signal									
36	Bradshaw Road & Old Placerville Road	Signal	Signal									
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal									West Jackson
38	Jackson Road & Bradshaw Road	Signal	Signal									West Jackson
39	Bradshaw Road & Elder Creek Road	Signal	Signal									West Jackson
40	Bradshaw Road & Florin Road	Signal	Signal									
41	Bradshaw Road & Gerber Road	Signal	Signal									
42	Happy Lane & Old Placerville Road	Two-way stop	Signal									
43	Kiefer Boulevard & Happy Ln		Signal									West Jackson
44	Excelsior Road & Kiefer Boulevard	Two-way stop	Signal									West Jackson; Jackson Township
45	Excelsior Road & Jackson Road	Signal	Signal									West Jackson; Jackson Township
46	Excelsior Road & Elder Creek Road	Two-way stop	Signal									West Jackson
47	Excelsior Road & Florin Road	All-way stop	Signal									West Jackson
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop									
49	Mather Field Road & US 50 Westbound Ramps	Signal	Signal									
50	Mather Field Road & US 50 Eastbound Ramps	Signal	Signal									
51	Mather Field Road & Rockingham Drive	Signal	Signal									
52	Mather Boulevard & Douglas Road	All-way stop	All-way stop									
53	Zinfandel Drive & US 50 Westbound	Signal	Signal									
54	Zinfandel Drive & US 50 Eastbound Ramps/Gold Center Drive	Signal	Signal									

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		CEQA Cumulative No Project Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
55	Zinfandel Drive & White Rock Road	Signal	Signal	↰↰↑↑↑	↲↓↓↓↘↘	↰↰↑↑↑	↰↰↑↑	↰↰↑↑↑	↲↓↓↓↘↘	↰↰↑↑↑	↰↰↑↑	
56	Zinfandel Drive & Data Drive	Signal	Signal	↰↑↑↑	↳↓↓↘	↰↱	↰↱	↰↑↑↑	↳↓↓↘	↰↱	↰↱	
57	Zinfandel Dr & International Dr	Signal	Signal	↰↰↑↑↑	↳↓↓↘↘	↰↰↑↑↑	↰↰↑↑↑	↰↰↑↑↑	↳↓↓↘↘	↰↰↑↑↑	↰↰↑↑↑	
58	Zinfandel Drive & Douglas Road	Signal	Signal	↰↱	↲↓↘↘	↰↑↑	↰↰↑↑	↰↱	↲↓↘↘	↰↑↑	↰↰↑↑	
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard		Signal	↱			↰	↰↰↑↑	↲↓↓↘↘	↰↰↑↑	↰↰↑↑	NewBridge; Mather South
60	Eagles Nest Road & Jackson Road	Two-way stop	Signal	↟	↟	↰↱	↰↱	↰↑↱	↲↓↘↘	↰↰↑	↰↑↑	NewBridge
61	Eagles Nest Rd/Eagles Nest Road & Florin Road	Two-way stop	Signal	↟	↟	↟	↟	↟	↟	↟	↟	
62	Sunrise Boulevard & US 50 Westbound Ramps	Signal	Signal	↑↑↑↱	↲↓↓↓		↰↰↱↱	↑↑↑↱	↲↓↓↓		↰↰↱↱	
63	Sunrise Boulevard & US 50 Eastbound Ramps	Signal	Signal	↑↑↑↑↱	↲↓↓↓	↰↰↰↱↱		↑↑↑↑↱	↲↓↓↓	↰↰↰↱↱		
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal	↰↰↑↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↱↱	↰↰↑↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↱↱	
65	Sunrise Boulevard & White Rock Road	Signal	Signal	↰↰↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↑↑↱	↰↰↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↑↑↱	
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal	↰↰↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↑↱	↰↰↑↑↑↱	↰↰↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↑↱	↰↰↑↑↑↱	
67	Sunrise Boulevard & Douglas Road	Signal	Signal	↰↰↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↑↑↱	↰↰↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↑↑↱	
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal	↑↑↑↱	↓↓↘↘		↰↰↱	↑↑↑↱	↓↓↘↘		↰↰↱	
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal	↰↑↑↱	↳↓↘↘	↟	↰↱	↰↑↑↱	↳↓↘↘	↰↰↑↑↱	↰↱	NewBridge; Mather South
70	Sunrise Boulevard & Jackson Road	Signal	Signal	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	
71	Sunrise Boulevard & Florin Road	Signal	Signal	↰↑↑	↳↓	↾		↰↑↑	↳↓	↾		
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal	↟	↲↳	↰↑↑↱	↰↑↱	↟	↲↳	↰↑↑↱	↰↑↱	
73	Hazel Avenue & Tributary Point Drive/US 50 Westbound Off-ramp	Signal	Signal	↰↰↑↑↑	↲↓↓↓↓	↱	↰↱↱	↰↰↑↑↑	↲↓↓↓↓	↱	↰↱↱	
74	Hazel Aveneu/Hazel Avenue & US 50 Eastbound Ramps	Signal	Signal	↑↑↱	↲↓↓↓	↰↰↰↱↱		↑↑↱	↲↓↓↓	↰↰↰↱↱		
76	White Rock Road & Prairie City Road	Signal	Signal		↲↲↘↘	↰↰↑↑	↑↑↱		↲↲↘↘	↰↰↑↑	↑↑↱	
77	Grant Line Road & White Rock Road	Signal	Signal	↰↑↑	↲↓↓	↰↰↱		↰↑↑	↲↓↓	↰↰↱		
78	Grant Line Road & Douglas Road	All-way stop	All-way stop	↰↰↑↑	↲↓↓	↰↱		↰↰↑↑	↲↓↓	↰↱		
79	Grant Line Road & Kiefer Boulevard	All-way stop	All-way stop	↰↰↑↑↱	↲↓↓↘	↰↰↑↱	↰↑↱	↰↰↑↑↱	↲↓↓↘	↰↰↑↱	↰↑↱	
80	Grant Line Road & Jackson Road	Signal	Signal	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	
81	Watt Avenue & US-50 EB Ramps	Signal	Signal	↑↑↑↑↱	↲↲↓↓	↰↰↱↱		↑↑↑↑↱	↲↲↓↓	↰↰↱↱		

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		CEQA Cumulative No Project Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
82	Watt Avenue & US-50 WB Ramps	Signal	Signal	↑↑ ↱	↲↲↓↓↓		↰↰↱↱	↑↑ ↱	↲↲↓↓↓		↰↰↱↱	
83	Mayhew Rd & Folsom Blvd.	Signal	Signal	↰↰↱		↑↑ ↱	↰↑↑	↰↰↱		↑↑ ↱	↰↑↑	
84	65th Street Expy & Fruitridge Road	Signal	Signal	↰↑↑ ↱	↲↓↓↳	↰↑↑	↰↑↑ ↱	↰↑↑ ↱	↲↓↓↳	↰↑↑	↰↑↑ ↱	
85	Power Inn Road & Elder Creek Road	Signal	Signal	↰↑ ↱	↲↓↳	↰↑↑ ↱	↰↑ ↱	↰↑ ↱	↲↓↳	↰↑↑ ↱	↰↑ ↱	
86	Power Inn Road & Florin Rd	Signal	Signal	↰↑ ↱	↲↓↓↳	↰↑↑ ↱	↰↑↑↑ ↱	↰↑ ↱	↲↓↓↳	↰↑↑ ↱	↰↑↑↑ ↱	
87	Florin Perkins Road & Florin Rd	Signal	Signal	↰↑↑ ↱	↲↓↓↳	↰↑ ↱	↰↑↑ ↱	↰↑↑ ↱	↲↓↓↳	↰↑ ↱	↰↑↑ ↱	
88	Bradshaw Rd & Calvine Rd	Signal	Signal	↰↰↑ ↱	↲↓↓↳↳	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	↰↰↑ ↱	↲↓↓↳↳	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	
89	Vineyard Rd & Calvine Rd	Signal	Signal	↟	↲↱↳	↰↑ ↱	↰↑ ↱	↟	↲↱↳	↰↑ ↱	↰↑ ↱	
90	Excelsior Road & Calvine Rd	All-way stop	Signal	↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	
91	Grant Line Road & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal	↰↑↑ ↱	↲↓↳	↟	↰↱	↰↑↑ ↱	↲↓↳	↟	↰↱	
92	Grant Line Road & Calvine Rd	Signal	Signal	↰↑↑	↲↓	↰↱		↰↑↑	↲↓	↰↱		
93	Grant Line Road & Driveway/Wilton Rd	Signal	Signal	↰↑↱	↲↓↳	↰↱	↰↱	↰↑↱	↲↓↳	↰↱	↰↱	
94	Bond Rd/Wrangler Dr & Grant Line Road	Signal	Signal	↰↑↱	↲↓↓↳	↰↱	↟	↰↑↱	↲↓↓↳	↰↱	↟	
95	Florin Perkins Road & 14th Avenue		Signal	↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑ ↱	↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑ ↱	
96	14th Avenue & Jackson Road		Signal		↲↳	↰↑↑	↑↑ ↱		↲↳	↰↰↑↑	↑↑ ↱	
97	Rock Creek Pkwy & Jackson Road		Signal	↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	
98	Aspen 1 Access Road & Jackson Road		Signal	↰↱		↑ ↱	↰↑↑	↰↱		↑ ↱	↰↑↑	
99	Rancho Cordova Pkwy & US-50 WB Ramps		Signal	↰↰			↰↰	↰↰			↰↰	
100	Rancho Cordova Pkwy & US-50 EB Ramps		Signal	↑↱↱	↓↓↳	↟↱		↑↱↱	↓↓↳	↟↱		
101	Rancho Cordova Pkwy & Easton Valley Pkwy		Signal	↑↑↑ ↱	↓↓↓↳↳		↰↰↱	↑↑↑ ↱	↓↓↓↳↳		↰↰↱	
102	Rancho Cordova Pkwy & White Rock Road		Signal	↰↰↑↑↑ ↱	↲↓↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑ ↱	↰↰↑↑↑ ↱	↲↓↓↓↳↳	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	
103	Rancho Cordova Pkwy & Douglas Road		Signal	↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	
104	Rancho Cordova Pkwy & Chrysanthy Blvd		Signal	↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑ ↱	↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑ ↱	
105	Rancho Cordova Pkwy & Kiefer Blvd		Signal	↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑ ↱	↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑ ↱	
106	Grant Line Road & Rancho Cordova Pkwy		Signal		↲↳	↰↑↑	↑↑ ↱		↲↳	↰↑↑	↑↑ ↱	
107	Americanos Blvd & White Rock Road		Signal	↰↱		↑↑ ↱	↰↰↑↑	↰↱		↑↑ ↱	↰↰↑↑	
108	Americanos Blvd & Douglas Road		Signal	↰↑↱	↲↓↳	↰↑↑ ↱	↰↑↑ ↱	↰↑↱	↲↓↳	↰↑↑ ↱	↰↑↑ ↱	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		CEQA Cumulative No Project Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
109	Americanos Blvd & Chrysanthy Blvd		Signal									
110	Kiefer Blvd & Americanos Blvd		Signal									
111	Grant Line Road & Chrysanthy Blvd		Signal									
112	Easton Valley Pkwy & Hazel Avenue		Signal									
200	Excelsior Road & Collector WJ-1/Collector JT-1		Signal									West Jackson; Jackson Township
201	Excelsior Road & Collector WJ-2/Collector JT-2		Signal									West Jackson; Jackson Township
202	Kiefer Boulevard & W Collector MS-1		Signal									Mather South
203	Northbridge Dr & Kiefer Boulevard		Signal									NewBridge
204	Kiefer Boulevard & E Collector MS-5		Signal									Mather South
300	Collector WJ-3 & Jackson Road		Signal									West Jackson
301	Collector WJ-4 & Jackson Road		Signal									West Jackson
303	Vineyard Road & Jackson Road		Signal									West Jackson
304	Collector WJ-5 & Jackson Road		Signal									West Jackson
305	Collector WJ-6 & Jackson Road		Signal									West Jackson
306	Excelsior Road & Collector WJ-6		Signal									West Jackson
307	S. Watt Avenue & Rock Creek Pkwy		Signal									West Jackson
308	Hedge Avenue & Rock Creek Pkwy Westbound		Roundabout									West Jackson
309	Hedge Avenue & Rock Creek Pkwy Eastbound		Roundabout									West Jackson
310	Mayhew Road & Rock Creek Pkwy Westbound		Roundabout									West Jackson
311	Mayhew Road & Rock Creek Pkwy Eastbound		Roundabout									West Jackson
312	Bradshaw Road & Rock Creek Pkwy		Signal									West Jackson
314	Vineyard Road & Rock Creek Pkwy		Signal									West Jackson
315	Douglas Road & Rock Creek Pkwy		Signal									West Jackson
316	Bradshaw Road & Collector WJ-8		Signal									West Jackson
317	Bradshaw Road & Collector WJ-9		Signal									West Jackson

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		CEQA Cumulative No Project Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
318	Bradshaw Road & Mayhew Road		Signal					↰↰↑↑↑↱	↲↓↓↓↳↳	↰↰↑↑↱	↰↰↑↑↱	West Jackson
319	Bradshaw Road & Rock Creek Pkwy		Signal					↑↑↱	↓↓↓↳		↰↱	West Jackson
320	Bradshaw Road & Collector WJ-11		Signal					↰↑↑↑	↲↓↓	↰↱		West Jackson
321	Collector WJ-12 & Fruitridge Road		Signal					↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	West Jackson
322	Mayhew Road & Collector WJ-13		Signal					↰↑↑	↲↓	↰↱		West Jackson
323	Collector WJ-14 & Kiefer Boulevard		Signal					↰↑↱	↲↓↳	↰↑↑ ↱	↰↑↑ ↱	West Jackson
325	Douglas Road Extension & Kiefer Boulevard		Signal					↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑↑ ↱	↰↰↑↑ ↱	West Jackson
327	Vineyard Road & Elder Creek Road		Signal					↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑ ↱	West Jackson
328	Vineyard Road & Florin Road	Signal	Signal	↰↰↱		↑↱	↰↑	↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑ ↱	↰↰↑↑ ↱	West Jackson
329	Routier Ext & Kiefer Boulevard		Signal					↰↰↑↑ ↱	↲↓↓↳↳	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	West Jackson
330	Happy Lane & Routier Ext		Signal					↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	West Jackson
331	Routier Ext/Routier Rd & Old Placerville Road		Signal					↰↑↑ ↱	↲↓↓↳↳	↰↑↑ ↱	↰↰↑ ↱	West Jackson
400	Jackson Road & Collector JT-3		Signal						↲↳	↰↰↑↑	↑↑ ↱	Jackson Township
401	Jackson Road & Tree View Lane		Signal						↲↳↳	↰↰↑↑	↑↑ ↱	Jackson Township
402	Jackson Road & Collector JT-4		Signal						↲↳	↰↑↑	↑ ↱	Jackson Township
403	Tree View Lane & Collector JT-5		Signal					↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	Jackson Township
404	Tree View Lane & Collector JT-6		Signal					↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	Jackson Township
405	Tree View Lane & Collector JT-1		Signal					↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	Jackson Township
406	Tree View Lane & Kiefer Boulevard		Signal					↰↰↱		↑↑ ↱	↰↰↑↑	Jackson Township
407	HS/MS Dwy & Kiefer Boulevard		Signal					↰↱		↑ ↱	↰↑↑	Jackson Township
500	Jackson Road & Rockbridge Dr		Signal						↲↳	↰↑↑	↑ ↱	NewBridge
501	Eagles Nest Road & N Bridgewater Dr		Signal					↑↱	↓↓↳		↰↱	NewBridge
502	Eagles Nest Road & S Bridgewater Dr		Signal					↰↑↱	↲↓↳	↰↑ ↱	↰↑ ↱	NewBridge
600	Zinfandel Drive & Collector MS-2		Roundabout					↑↱	↓↰		↾	Mather South
601	Zinfandel Drive & Collector MS-3		Roundabout					↑↱	↓↰		↰↱	Mather South
602	Zinfandel Drive & Collector MS-4		Roundabout					↑↱	↓↰		↰↱	Mather South
603	Collector MS-5 & Collector MS-2		Two-way stop					↰	↲	↾		Mather South

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		CEQA Cumulative No Project Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
604	Collector MS-5 & Collector MS-3		Two-way stop					1	1	2		Mather South
605	Collector MS-5 & Collector MS-4		Two-way stop					1	1	2		Mather South
606	E Collector MS-1/Collector MS-5 & W Collector MS-1		Two-way stop					1 1	2 1	1 2		Mather South

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.7: CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Basic Segment Level of Service									
Direc-tion	**Location**	**CEQA Cumulative**				**CEQA Cumulative Plus FOUR PROJECTS**			
		AM Peak Hour		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**	
		Volume	**LOS**	**Volume**	**LOS**	**Volume**	**LOS**	**Volume**	**LOS**
East-bound US 50	SR 99 / SR 51 to Stockton Boulevard	8,751	D	8,638	D	9,295	D	8,855	D
	Stockton Boulevard to 59th Street	8,168	**F**	7,819	**F**	8,642	**F**	8,051	**F**
	59th Street to 65th Street	7,637	D	7,343	D	8,099	E	7,521	D
	65th Street to Howe Avenue	8,019	D	7,667	D	8,272	D	7,812	D
	Howe Avenue to Watt Avenue	7,213	C	6,672	C	7,366	C	6,679	C
	Watt Avenue to Bradshaw Road	9,633	**F**	8,982	E	9,825	**F**	9,056	E
	Bradshaw Rd to Mather Field Rd	9,467	**F**	9,052	C	9,483	**F**	9,015	C
	Mather Field Rd to Zinfandel Drive	9,072	D	8,767	D	9,211	D	8,916	D
	Zinfandel Drive to Sunrise Blvd	6,313	C	6,370	**F**	6,400	C	6,551	**F**
	Sunrise Bl to Rancho Cordova Pkwy	5,835	C	5,878	**F**	5,892	C	6,121	**F**
	Rancho Cordova Pkwy to Hazel Ave	7,170	D	6,636	**F**	7,249	D	6,929	**F**
West-bound US 50	Hazel Ave to Rancho Cordova Pkwy	5,376	B	5,162	C	5,643	B	5,218	C
	Rancho Cordova Pkwy to Sunrise Bl	6,906	C	4,366	B	7,103	C	4,461	B
	Sunrise Blvd to Zinfandel Drive	8,587	D	5,233	B	8,801	D	5,378	B
	Zinfandel Drive to Mather Field Rd	9,480	D	7,406	C	9,493	D	7,454	C
	Mather Field Rd to Bradshaw Road	9,560	**F**	8,720	D	9,406	**F**	8,544	D
	Bradshaw Road to Watt Avenue	9,001	**F**	7,882	D	8,854	**F**	8,099	E
	Watt Avenue to Howe Avenue	7,880	**F**	5,892	**F**	7,679	**F**	6,132	**F**
	Howe Avenue to 65th Street	8,761	**F**	8,070	**F**	8,972	**F**	8,384	**F**
	65th Street to 59th Street	8,809	**F**	7,978	**F**	9,012	**F**	8,296	**F**
	59th Street to Stockton Boulevard	9,692	D	8,294	**F**	9,890	D	8,656	**F**
	Stockton Boulevard to SR 99 / SR 51	10,187	E	9,674	**F**	10,300	E	9,916	**F**

Bold values denote level of service "F" conditions.

Red shaded values indicate project impacts.

Source: *DKS Associates, 2018.*

6.4.4 CEQA Cumulative Plus FOUR PROJECTS Pedestrian and Bicycle Facility Impacts

The FOUR PROJECTS would not remove any existing or planned pedestrian facility that is planned in the Bikeway Master Plan. The FOUR PROJECTS would add pedestrian and bicycle demands within the FOUR PROJECTS site and to and from nearby land uses. Specific information on improvements to on- and off-site bicycle and pedestrian facilities is not available at this time. Because the FOUR PROJECTS would add demand for pedestrian and bicycle facilities that may not be available, the impact of the FOUR PROJECTS on pedestrian and bicycle circulation is potentially significant.

Table 6.8: CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Merge/Diverge/Weave Segment Level of Service										
Direc-tion	**Location**	**Junction Type**	**CEQA Cumulative**				**CEQA Cumulative Plus FOUR PROJECTS**			
			A.M. Peak Hour		**P.M. Peak Hour**		**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**
East-bound US 50	Northbound 65th Street Slip Entrance	Weave	945	**F**	777	**F**	918	**F**	724	**F**
	Howe Avenue / Hornet Drive Exit		2,088		2,140		2,120		2,267	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	729	D	1,342	D	750	D	1,332	D
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	609	D	532	D	528	D	524	D
	Watt Avenue Exit	Two-Lane Diverge	1,538	B	1,705	B	1,532	B	1,604	A
	Southbound Watt Avenue Loop Entrance	One-Lane Merge	1,615	D	1,368	C	1,551	D	1,213	C
	Northbound Watt Avenue Slip Entrance	One-Lane Merge	682	D	588	C	608	D	597	C
	Bradshaw Road Exit	Two-Lane Diverge	2,068	**F**	1,631	B	2,264	**F**	1,835	C
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	268	D	422	D	274	D	505	D
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	1,486	D	1,029	C	1,511	D	1,102	C

Table 6.8
CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	CEQA Cumulative				CEQA Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Mather Field Road Exit	Two-Lane Diverge	1,490	B	1,530	B	1,481	B	1,489	B
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	252	C	222	C	252	C	169	C
	Northbound Mather Field Road Slip Entrance	Weave	431	**F**	894	**F**	571	**F**	1,123	**F**
	Zinfandel Drive Exit		3,083		1,861		3,082		1,797	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	183	C	173	C	185	C	151	C
	Northbound Zinfandel Drive Slip Entrance	Lane Addition	665	A	714	B	656	B	784	B
	Sunrise Boulevard Exit	Major Diverge	1,878	C	2,308	C	1,899	C	2,364	C
	Sunrise Boulevard Entrance	Lane Addition / Weave	1,233	D	1,122	C	1,174	B	1,162	C
	Rancho Cordova Parkway Exit	Major Diverge / Weave	374		763		327	C	816	
	Rancho Cordova Parkway Entrance	Weave	1,787	**F**	1,748	**F**	1,748	**F**	1,823	**F**
	Hazel Avenue Exit		1,904		2,611		1,950		2,718	

Table 6.8
CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	CEQA Cumulative				CEQA Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Hazel Avenue Entrance	Weave	1,174	E	2,148	**F**	1,072	D	2,091	D
	Aerojet Road Exit		584		203		613		171	
West-bound US 50	Hazel Avenue Exit	Two-Lane Diverge	1,098	B	1,031	C	1,057	B	1,032	C
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	69	B	434	C	93	B	434	C
	Southbound Hazel Avenue Slip Entrance	Weave	2,306	**F**	2,263	**F**	2,369	**F**	2,302	**F**
	Rancho Cordova Parkway Exit		1,800		2,225		1,867		2,173	
	Rancho Cordova Parkway Entrance	Lane Addition / Weave	1,428	C	1,165	B	1,389	C	1,138	B
	Sunrise Boulevard Exit	Major Diverge / Weave	729		751	C	760		729	C
	Northbound Sunrise Boulevard Loop Entrance	Lane Addition	169	A	259	A	170	A	234	A
	Southbound Sunrise Boulevard Slip Entrance	Lane Addition	2,323	**F**	1,524	C	2,354	**F**	1,613	C
	Zinfandel Drive Exit	One-Lane Diverge	1,384	E	1,183	D	1,393	E	1,200	D

Table 6.8
CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	CEQA Cumulative				CEQA Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	909	C	1,443	D	803	C	1,295	C
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	1,544	D	663	B	1,349	D	663	B
	Mather Field Road Exit	One-Lane Drop	1,350	D	826	C	1,581	D	1,025	C
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	626	C	1,192	C	499	C	1,193	C
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	303	C	504	C	427	C	428	B
	Bradshaw Road Exit	Two-Lane Diverge	1,533	C	1,756	B	1,692	C	1,809	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	999	**F**	927	D	1,318	**F**	1,593	D
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	385	**F**	851	D	391	**F**	816	D
	Watt Avenue Exit	Major Diverge	1,568	E	1,112	D	1,364	E	991	D
	Northbound Watt Avenue Loop Entrance	One-Lane Merge	774	D	1,125	D	726	D	1,100	D
	Southbound Watt Avenue Slip Entrance	Lane Addition	1,134	D	1,062	C	919	D	1,006	D
	Howe Avenue Exit	Major Diverge	1,879	E	1,687	D	1,709	E	1,695	D

Table 6.8
CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	CEQA Cumulative				CEQA Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	613	D	572	D	607	D	563	D
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	668	**F**	699	C	807	**F**	646	C

Bold values denote level of service "F" conditions.
Red shaded values indicate project impacts.
Source: *DKS Associates, 2018.*

Table 6.9: CEQA Cumulative Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					AM Peak Hour			PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	136	-	797	137	-	346
	Watt Avenue	1,500	-	1,500	210	-	403	244	-	242
	Bradshaw Road	1,250	-	1,250	149	-	566	159	-	317
	Mather Field Road	1,385	-	1,385	132	-	383	241	-	453
	Zinfandel Drive	1,025	1,025	1,025	163	**1,416**	**1,306**	396	368	930
	Sunrise Boulevard	1,695	-	1,695	106	-	199	196	-	114
	Rancho Cordova Pkwy.	-	-	1,850	-	-	394	-	-	528
	Hazel Avenue	1,310	-	1,310	305	-	23	711	-	18
Westbound US-50	Hazel Avenue	1,995		1,995	302		855	300		669
	Rancho Cordova Pkwy	1,065	-	-	**1,651**	-	-	**1,746**	-	-
	Sunrise Boulevard	1,540	-	1,540	52	-	198	23	-	442
	Zinfandel Drive	1,065	-	1,065	245	-	70	143	-	197
	Mather Field Road	1,335	-	1,335	362	-	331	176	-	183
	Bradshaw Road	1,330	-	1,330	177	-	122	265	-	47
	Watt Avenue	1,480	-	1,480	230	-	778	164	-	567
	Howe Avenue	1,355	1,355	1,355	85	412	804	199	412	684

Bold values exceed storage capacity.
L = left turn movement, T = through movement, R = right turn movement
Source: *DKS Associates, 2018.*

Table 6.10: CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Termini Queuing											
		Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)						
					AM Peak Hour			PM Peak Hour			
Direction	US 50 Exit Ramp	L	T	R	L	T	R	L	T	R	
Eastbound US-50	Howe Avenue	765	-	765	143	-	**1,025**	161	-	514	
	Watt Avenue	1,500	-	1,500	274	-	605	226	-	328	
	Bradshaw Road	1,250	-	1,250	191	-	1,147	119	-	734	
	Mather Field Road	1,385	-	1,385	168	-	386	311	-	289	
	Zinfandel Drive	1,025	1,025	1,025	152	**1,398**	**1,359**	439	369	662	
	Sunrise Boulevard	1,695	-	1,695	111	-	188	220	-	98	
	Rancho Cordova Pkwy.	-	-	1,850	-	-	365	-	-	555	
	Hazel Avenue	1,310	-	1,310	311	-	27	760	-	16	
Westbound US-50	Hazel Avenue	1,995		1,995	317		796	319		656	
	Rancho Cordova Pkwy	1,065	-	-	**1,705**	-	-	**1,682**	-	-	
	Sunrise Boulevard	1,540	-	1,540	57	-	185	38	-	410	
	Zinfandel Drive	1,065	-	1,065	253	-	69	183	-	192	
	Mather Field Road	1,335	-	1,335	489	-	456	248	-	221	
	Bradshaw Road	1,330	-	1,330	232	-	118	291	-	53	
	Watt Avenue	1,480	-	1,480	268	-	682	174	-	607	
	Howe Avenue	1,355	1,355	1,355	47	412	754	170	412	785	

Red shaded values indicate project impacts.
L = left turn movement, T = through movement, R = right turn movement
Source: *DKS Associates, 2018.*

6.4.5 CEQA Cumulative Plus FOUR PROJECTS Transit System Impacts

Public transit would not be provided to the sites of the FOUR PROJECTS under CEQA Cumulative scenario without development of the FOUR PROJECTS. In the preparation of this analysis, a transit system to serve the FOUR PROJECTS was developed (see Section 3.1.2.3). However, the timing and implementation of the transit system are uncertain at this time. The FOUR PROJECTS would increase demands for public transit facilities. Therefore, the impact of the FOUR PROJECTS on the transit system is potentially significant.

6.4.6 CEQA Cumulative Plus FOUR PROJECTS Functionality Impacts

Table 6.11 summarizes the results of the rural roadway segment functionality analysis. **Figure 6.7** illustrates the resultant functionality impacts. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the FOUR PROJECTS. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the FOUR PROJECTS make improvements to a roadway segment such as widening, they would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the FOUR PROJECTS would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the FOUR PROJECTS, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the FOUR PROJECTS.

Table 6.11
CEQA Cumulative Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				CEQA Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	4	Arterial M	33,390	Yes[3]
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	6	Arterial M	50,360	Yes[3]
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	4	Arterial M	13,130	Yes[3]
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Arterial M	9,110	Yes
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Arterial M	4,530	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	4	Arterial M	52,900	Yes[3]
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	4	Arterial M	43,330	Yes[3]
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	4	Arterial M	27,860	Yes[3]
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	3	Arterial M	30,740	Yes[3]
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Arterial M	26,970	Yes
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	3	Arterial M	36,220	Yes[3]
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	3	Arterial M	12,520	Yes[3]
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Arterial M	13,080	Yes
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Arterial M	8,360	Yes
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	4	Arterial M	12,010	Yes[3]
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	4	Arterial M	13,280	Yes[3]
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	4	Arterial M	40,200	Yes[3]
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	4	Arterial M	26,070	Yes[3]
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Arterial M	17,090	Yes
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	3	Arterial M	24,240	Yes[3]
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	4	Arterial M	21,800	Yes[3]
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	4	Arterial M	41,130	Yes[3]
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	4	Arterial M	17,440	Yes[3]
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Arterial M	11,760	Yes
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Arterial M	10,010	Yes
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Arterial M	22,460	Yes

Red text with light gray shading indicate project impacts.

Table 6.11
CEQA Cumulative Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				CEQA Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	6	Arterial M	59,380	Yes[3]
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	4	Arterial M	62,220	Yes[3]
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Arterial M	4,830	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	6	Arterial M	50,960	Yes[3]
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	3	Arterial M	39,820	Yes[3]
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Res Collector F	6,410	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	4	Arterial M	47,790	Yes[3]
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	4	Arterial M	55,810	Yes[3]
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	4	Arterial M	22,250	Yes[3]

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

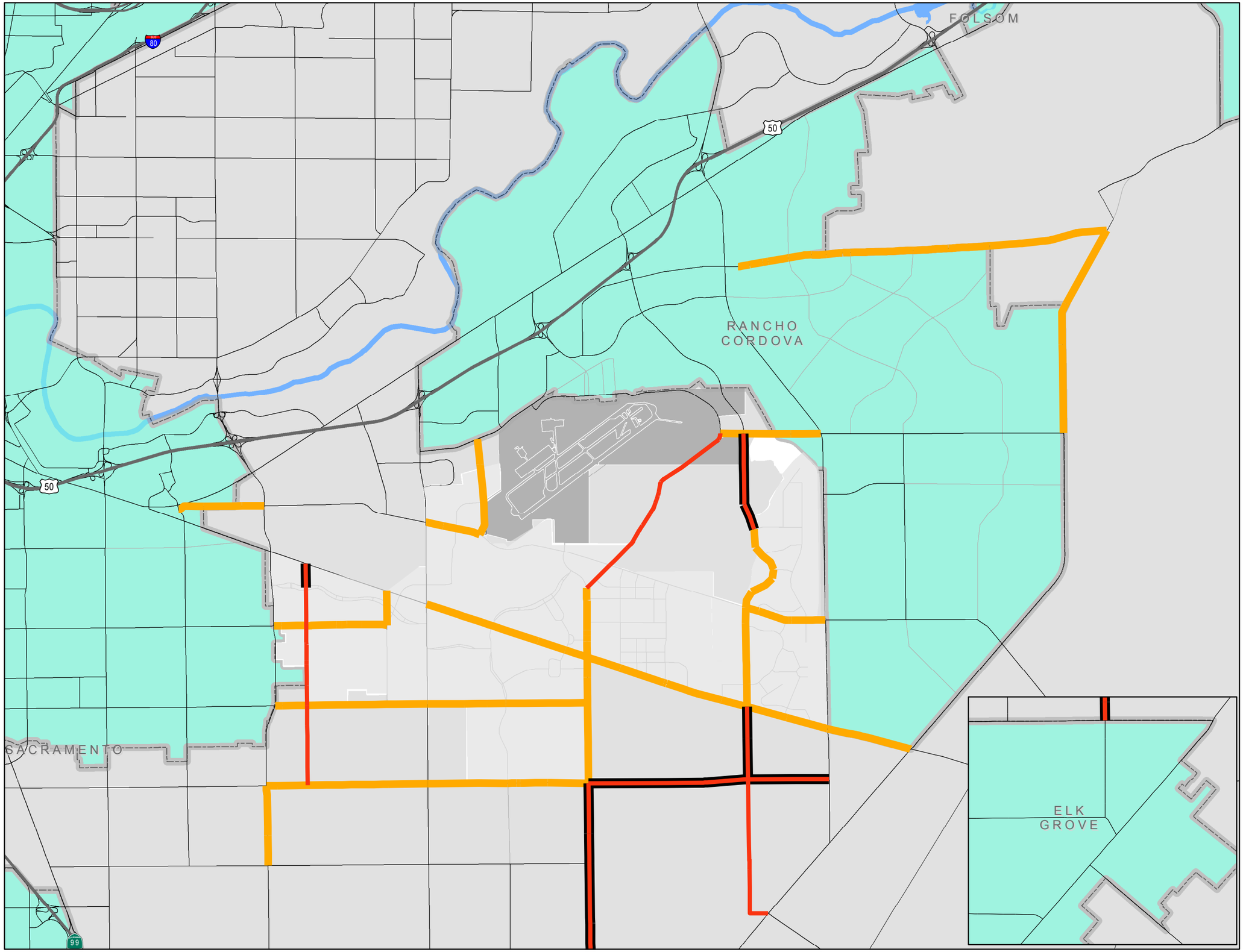

FIGURE 6.7
CEQA CUM PLUS FOUR PROJECTS
FUNCTIONALITY IMPACTS

Legend

- Substandard Roadways
- Functionality Impact
- Functionality Impact if Roadway is Not Already Improved
- Study_Area_Segments
- Cities
- Mather Airport

6.5 MITIGATION

6.5.1 CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigation

Table 6.12 summarizes the results of the operations analysis for the study area roadway segments with mitigation. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the FOUR PROJECTS to fund. The Mather South project would contribute a fair share. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

Most of the Connector is limited to four travel lanes and its capacity will be dictated by the level and type of improvements that are implemented over time at its major intersections. The Connector segments with LOS impacts also have intersection LOS impacts at one or both ends of those segments. Thus segment mitigation is addressed in Section 6.5.2 on intersection mitigation.

6.5.2 CEQA Cumulative Plus FOUR PROJECTS Intersection Mitigation

Tables 6.13a and 6.14a summarize the results of the operations analysis for the study area intersections with mitigation. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. **Tables 6.13b and 6.14b** summarize the results of the operations analysis for the study area intersections with the ultimate mitigation, which may exceed the County's standard number of approach lanes. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type have been made to mitigate impacts, which would be the responsibility of the FOUR PROJECTS to fund. The Mather South project would contribute a fair share. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. Table 6.14a and Table 6.14b also identify those intersections that would continue to have LOS impacts after mitigation, along with the constraint that precluded full mitigation. Detailed analysis information is included in the technical appendix.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation"

column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

High Capacity Intersections

Three intersections are currently designated as "High Capacity Intersections" on the County's General Plan: Watt Avenue & Folsom Boulevard, Watt Avenue & Kiefer Boulevard, and Watt Avenue & Jackson Road. At the intersection of Bradshaw Road and Jackson Road, where an LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed an alternative mitigation measure by designating this intersection as a High Capacity Intersection.

A high capacity intersection would utilize special treatments to increase the capacity of the intersection so as to reduce congestion and travel delay. Since each intersection could have unique travel movements, volumes and existing context sensitive conditions, the special treatments utilized at each high capacity intersection will be selected to meet the specific needs of each intersection. The range of special treatments is quite wide, ranging from the restriction of certain turning movements to various combinations that could include grade separating certain movements. While the field of traffic engineering is ever expending and evolving resulting in the use of new technologies and treatments, special treatments such as the following could be utilized at a high capacity intersection:

- Restricting turning movements
- Median U-turns
- Roundabouts
- Split intersections
- Quadrant roadway intersections
- Bowtie intersections
- Directional flyovers
- Center turn overpass
- Grade separated Roundabout
- Diverging diamond grade separation
- Compact diamond grade separation
- Single point urban grade separation
- Traditional urban grade separation

The County has conducted conceptual engineering to define potential improvements at the three study area intersections on Watt Avenue that are currently designated as "High Capacity Intersections" on the County's General Plan. These are:

- At the **Watt Avenue & Folsom Boulevard** intersection, the County proposes an ultimate configuration involving grade separation of the northbound and southbound through movements of Watt Avenue. Access to and from Folsom Boulevard would be

accomplished via on and off-ramps from the left lanes of Watt Avenue to a single signalized intersection. A bus rapid transit (BRT) lane along Watt Avenue would also intersect Folsom Boulevard at the traffic signal. This design is consistent with the recommendations of the South Watt Area Transportation Study (SWATS) dated November 1, 2002 and approved by the Board of Supervisors on November 26, 2002, and with the planning study for the *State Route 16 (Jackson Road) Corridor Study* (Fehr & Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Kiefer Boulevard** intersection, the County proposes a tight diamond interchange as the ultimate improvement. The through movements (and BRT lane) on Watt Avenue would be grade separated from Kiefer Boulevard. Access to and from Kiefer Boulevard would be accomplished via on and off-ramps at two signalized intersections along Kiefer Boulevard. This design is proposed in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr & Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Jackson Road** intersection, the County proposes a standard six-by-six signalized intersection (two left-turn lanes, three through lanes, and one right-turn lane, on each approach) with three modifications. 1) The southbound left-turn movement would be grade separated; 2) The westbound right-turn movement would be grade separated; and 3) Three northbound left-turn lanes are proposed. This configuration represents an enhanced version of Alternative 6 in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr and Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

At the new proposed "High Capacity Intersection" at Bradshaw Road and Jackson Road, the ultimate configuration has not been defined. A number of improvement options involving one or more of the special treatments identified above could be defined that would mitigate the LOS impact at this location.

Additionally, intersections along the Connector meet the Connector JPA's level of service policy, operate within the threshold of significance, or are mitigated to do so. Most of the Connector is limited to four travel lanes and its capacity will be dictated by the level and type of improvements that are implemented over time at its major intersections. Mitigation for intersection LOS impacts along Connector represent additional turn lanes that would reduce peak hour vehicle delay to below the threshold of significance.

Since each of these intersections have unique travel movements, volumes and existing context sensitive conditions (potential environmental issues, right-of-way, physical constraints, etc.), the special treatments utilized at each location will need to be studied to select the treatments that mitigate the LOS impact, while avoiding or minimizing other impacts.

6.5.3 CEQA Cumulative Plus FOUR PROJECTS U.S. 50 Freeway Mitigation

According to Caltrans' US-50 Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP), all mainline freeway lanes of the 8-lane ultimate facility (4 lanes in each direction) have already been built, with the exception of the segment between Zinfandel Drive and Sunrise Boulevard (where 6 of the 8 ultimate lanes exist today). With the exception of this segment, capacity improvements to widen the freeway mainline are precluded by the ultimate configuration in the TCR/CSMP. The TCR/CSMP does conceptualize other projects that will benefit the US-50 corridor without adding additional mainline travel lanes. These improvements generally fall into one of three categories:

- Intelligent transportation systems (ITS) and integrated corridor management (ICM) projects. Some examples may include ramp metering and multimodal improvements.
- Improvements to parallel local facilities. Such projects are expected to reduce travel demand on US-50.
- Future HOV lanes and auxiliary lanes. These projects would extend, or bridge gaps in, the existing HOV and auxiliary lane network. Constructing these lanes is permissible even when further widening of the mainline is not allowable, and is consistent with the ultimate configuration in the TCR/CSMP.

The FOUR PROJECTS shall participate in one or more of these alternative improvements that could directly reduce the severity of the project's impact and/or provide operational benefits to the US-50 corridor in general.

6.5.3.1 US-50 Eastbound Alternative Improvements

To lessen the impact to the eastbound US-50 mainline between Stockton Boulevard and 59th Street, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)

6.5.3.2 US-50 Westbound Alternative Improvements

To lessen the impact to the westbound US-50 weave between Hazel Avenue and Rancho Cordova Parkway, the project may pay a fair share toward the construction of:

- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)
- Auxiliary lanes between Hazel Avenue and Rancho Cordova Parkway (2035 SACOG MTP)

Table 6.12
CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS					Mitigated CEQA Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	84,620	1.57	**F**	6	Arterial M	1.57	**F**	Yes		Maximum General Plan lanes
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	76,770	1.42	**F**	6	Arterial M	1.42	**F**	Yes		Maximum General Plan lanes
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	73,340	1.36	**F**	6	Arterial M	1.36	**F**	Yes		Maximum General Plan lanes
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	6	Arterial M	62,160	1.15	**F**	6	Arterial M	1.15	**F**	Yes		Maximum General Plan lanes
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	6	Arterial M	58,600	1.09	**F**	6	Arterial M	1.09	**F**	Yes		Maximum General Plan lanes
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	6	Arterial M	54,090	1.00	**F**	6	Arterial M	1.00	**F**	Yes		Maximum General Plan lanes
6.3	Bradshaw Rd	Mayhew Rd	Jackson Rd	6	Arterial M	57,490	1.06	**F**	6	Arterial M	1.06	**F**	Yes		Maximum General Plan lanes
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial M	50,360	0.93	**E**	6	Arterial M	0.93	**E**	Yes		Maximum General Plan lanes
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	28,360	1.58	**F**	4	Arterial M	0.79	C	No		
25	Elder Creek Rd	South Watt Ave	Hedge Ave	4	Arterial M	52,900	1.47	**F**	6	Arterial M	0.98	**E**	No		
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	40,490	1.12	**F**	6	Arterial M	0.75	C	No		
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	3	Arterial M	30,740	1.71	**F**	4	Arterial M	0.85	D	No		
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	3	Arterial M	36,910	2.05	**F**	6	Arterial M	0.68	B	No		
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	3	Arterial M	36,220	2.01	**F**	6	Arterial M	0.67	B	No		
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	43,690	1.21	**F**	4	Arterial M	1.21	**F**	Yes	Construct 2-lane Alta Florin Road	Maximum General Plan lanes
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	40,200	1.12	**F**	6	Arterial M	0.74	C	No		
42.2	Florin Rd	Vineyard Rd	Excelsior Rd	3	Arterial M	19,920	1.11	**F**	4	Arterial M	0.55	A	No		

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Table 6.12
CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS					Mitigated CEQA Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	56,000	1.56	**F**	4	Arterial M	1.56	**F**	Yes		Maximum General Plan lanes
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	27,770	1.54	**F**	4	Arterial M	0.77	C	No		
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	Arterial M	24,240	1.35	**F**	4	Arterial M	0.67	B	No		
51.2	Grant Line Rd	Chrysanthy Blvd	Kiefer Blvd	4	Arterial H	47,640	1.19	**F**	4	Arterial H	1.19	**F**	Yes		Maximum General Plan lanes
52.1	Grant Line Rd	Kiefer Blvd	Rancho Cordova Pkwy	4	Arterial H	37,030	0.93	**E**	4	Arterial H	0.93	**E**	Yes		Maximum General Plan lanes
56	Grant Line Rd	Sheldon Rd	Wilton Rd	4	Arterial M	45,430	1.26	**F**	4	Arterial M	1.26	**F**	Yes		Maximum General Plan lanes
57	Grant Line Rd	Wilton Rd	Bond Rd	4	Arterial M	40,370	1.12	**F**	4	Arterial M	1.12	**F**	Yes		Maximum General Plan lanes
58.2	Happy Ln	Routier Ext	Kiefer Blvd	2	Arterial M	20,580	1.14	**F**	2	Arterial M	1.14	**F**	Yes		Maximum General Plan lanes
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	71,420	1.32	**F**	6	Arterial M	1.32	**F**	Yes		Maximum General Plan lanes
66.1	Jackson Rd	Florin Perkins Rd	14th Ave	4	Arterial M	44,100	1.23	**F**	4	Arterial M	1.23	**F**	Yes		Maximum General Plan lanes
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy	4	Arterial M	61,980	1.72	**F**	4	Arterial M	1.72	**F**	Yes		Maximum General Plan lanes
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy	4	Arterial M	57,690	1.60	**F**	4	Arterial M	1.60	**F**	Yes		Maximum General Plan lanes
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave	4	Arterial M	55,370	1.54	**F**	4	Arterial M	1.54	**F**	Yes		Maximum General Plan lanes

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Table 6.12
CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS					Mitigated CEQA Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
67	Jackson Rd	South Watt Ave	Hedge Ave	4	Arterial M	66,380	1.84	**F**	6	Arterial M	1.23	**F**	Yes		Maximum General Plan lanes
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	4	Arterial M	56,540	1.57	**F**	6	Arterial M	1.05	**F**	Yes		Maximum General Plan lanes
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	4	Arterial M	57,880	1.61	**F**	6	Arterial M	1.07	**F**	Yes		Maximum General Plan lanes
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	6	Arterial M	56,220	1.04	**F**	6	Arterial M	1.04	**F**	Yes		Maximum General Plan lanes
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4	6	Arterial M	59,380	1.10	**F**	6	Arterial M	1.10	**F**	Yes		Maximum General Plan lanes
70.2	Jackson Rd	Collector WJ-4	Happy Ln	6	Arterial M	59,660	1.10	**F**	6	Arterial M	1.10	**F**	Yes		Maximum General Plan lanes
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	4	Arterial M	62,220	1.73	**F**	6	Arterial M	1.15	**F**	Yes		Maximum General Plan lanes
71.2	Jackson Rd	Collector JT-3	Tree View Ln	4	Arterial M	46,480	1.29	**F**	6	Arterial M	0.86	D	No		
71.3	Jackson Rd	Tree View Ln	Collector JT-4	4	Arterial M	41,360	1.15	**F**	6	Arterial M	0.77	C	No		
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr	4	Arterial M	37,120	1.03	**F**	6	Arterial M	0.69	B	No		
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd	4	Arterial M	37,910	1.05	**F**	6	Arterial M	0.70	C	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	4	Arterial M	45,290	1.26	**F**	6	Arterial M	0.84	D	No		
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	42,310	1.18	**F**	4	Arterial M	1.18	**F**	Yes		Maximum General Plan lanes
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	3	Arterial M	39,820	2.21	**F**	4	Arterial M	1.11	**F**	Yes		Maximum General Plan lanes
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	33,580	0.93	**E**	4	Arterial M	0.93	**E**	Yes		Maximum General Plan lanes

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Table 6.12
CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS					Mitigated CEQA Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy	4	Arterial M	47,790	1.33	**F**	6	Arterial M	0.89	D	No		
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd	4	Arterial M	46,860	1.30	**F**	6	Arterial M	0.87	D	No		
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	36,350	1.01	**F**	4	Arterial M	1.01	**F**	Yes		Maximum General Plan lanes
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	40,280	1.12	**F**	4	Arterial M	1.12	**F**	Yes		Maximum General Plan lanes
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	81,880	1.52	**F**	6	Arterial M	1.52	**F**	Yes		Maximum General Plan lanes
97	South Watt Ave	Kiefer Blvd	Jackson Rd	6	Arterial M	70,930	1.31	**F**	6	Arterial M	1.31	**F**	Yes		Maximum General Plan lanes
100	South Watt Ave	Elder Creek Rd	Florin Rd	6	Arterial M	59,670	1.11	**F**	6	Arterial M	1.11	**F**	Yes		Maximum General Plan lanes
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	63,690	1.18	**F**	6	Arterial M	1.18	**F**	Yes		Maximum General Plan lanes
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	43,880	1.22	**F**	6	Arterial M	0.81	D	No		
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	4	Arterial M	33,930	0.94	**E**	6	Arterial M	0.63	B	No		
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	106,480	1.77	**F**	6	Arterial H	1.77	**F**	Yes		Maximum General Plan lanes
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial H	56,000	1.40	**F**	4	Arterial H	1.40	**F**	Yes		Maximum General Plan lanes
132	Kiefer Blvd	Americanos Blvd	Grant Line Rd	2	Arterial M	19,200	1.07	**F**	4	Arterial M	0.53	A	No		
135	Rancho Cordova Pkwy	White Rock Rd	International Dr	6	Arterial M	49,960	0.93	**E**	6	Arterial M	0.93	**E**	Yes		Maximum General Plan lanes
136	Rancho Cordova Pkwy	International Dr	Rio Del Oro Pkwy	6	Arterial M	59,540	1.10	**F**	6	Arterial M	1.10	**F**	Yes		Maximum General Plan lanes

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Table 6.12
CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS					Mitigated CEQA Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd	4	Arterial M	37,180	1.03	**F**	4	Arterial M	1.03	**F**	Yes		Maximum General Plan lanes
301	Douglas Rd	Rock Creek Pkwy	Kiefer Blvd	4	Arterial M	36,990	1.03	**F**	4	Arterial M	1.03	**F**	Yes		Maximum General Plan lanes
302	Kiefer Blvd	Happy Ln	Douglas Rd	6	Arterial M	63,170	1.17	**F**	6	Arterial M	1.17	**F**	Yes		Maximum General Plan lanes
304	Mayhew Rd	Routier Ext	Bradshaw Rd	4	Arterial M	39,470	1.10	**F**	6	Arterial M	0.73	C	No		
305	Mayhew Rd	Bradshaw Rd	Jackson Rd	4	Arterial M	40,970	1.14	**F**	6	Arterial M	0.76	C	No		
307	Mayhew Rd	Collector WJ-13	Elder Creek Rd	3	Arterial M	32,580	1.81	**F**	4	Arterial M	0.91	E	No		
312	Rock Creek Pkwy East	Collector WJ-16	Jackson Road	2	Arterial M	19,230	1.07	**F**	2	Arterial M	1.07	**F**	Yes		Maximum General Plan lanes
317	Routier Ext	Old Placerville Road	Happy Lane	4	Arterial H	41,410	1.04	**F**	4	Arterial H	1.04	**F**	Yes		Maximum General Plan lanes
405	Collector JT-3	Collector JT-5	Jackson Rd	2	Arterial M	20,070	1.12	**F**	4	Arterial M	0.56	A	No		

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

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Table 6.13a

CEQA Cumulative Plus FOUR PROJECTS Impacted Intersections and County Standard Intersection Geometry

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation	CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	F	108.2	-	-	-	Yes	Signal	F	88.4	-	-	-	Yes
4	Power Inn Road & 14th Avenue	Signal	F	166.0	Signal	F	126.4	Yes	Signal	F	123.7	Signal	F	109.2	Yes
12	Watt Avenue & Folsom Blvd.	Signal	F	182.3	Signal	F	185.2	Yes	Signal	F	199.9	Signal	E	57.6	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	F	91.8	Signal	F	83.2	Yes	Signal	E	73.3	Signal	E	66.2	No
16	S. Watt Avenue & Jackson Road	Signal	F	237.3	Signal	F	153.4	Yes	Signal	F	185.0	Signal	F	121.0	Yes
17	S. Watt Avenue & Fruitridge Road	Signal	F	93.1	Signal	D	44.0	No	Signal	F	114.3	Signal	D	49.6	No
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	F	>300	Signal	F	157.3	No	Signal	F	238.2	Signal	F	164.5	Yes
23	Hedge Avenue & Jackson Road	Signal	F	123.1	Signal	D	53.3	No	Signal	D	41.8	Signal	C	24.1	No
25	Hedge Avenue & Elder Creek Road	Signal	F	138.8	-	-	-	Yes	Signal	F	135.0	-	-	-	Yes
28	Mayhew Road & Kiefer Boulevard	Signal	F	91.2	Signal	E	68.2	No	Signal	E	74.2	Signal	E	62.4	No
29	Mayhew Road & Jackson Road	Signal	F	117.9	Signal	E	64.5	No	Signal	F	107.2	Signal	E	61.7	No
31	Mayhew Road & Elder Creek Road	Signal	F	>300	Signal	E	68.5	No	Signal	F	<300	Signal	D	43.3	No
32	Woodring Drive & Zinfandel Drive	Two-way stop			Round	A	8.7	No	Two-way stop			Round	B	10.4	No
	Eastbound		*F*	*85.0*						*F*	*223.4*				

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Table 6.13a

CEQA Cumulative Plus FOUR PROJECTS Impacted Intersections and County Standard Intersection Geometry

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation	CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
	Northbound Left Turn		*B*	*10.6*						*B*	*12.4*				
36	Bradshaw Road & Old Placerville Road	Signal	F	101.6	Signal	F	98.6	Yes	Signal	F	82.4	Signal	E	76.4	No
37	Bradshaw Road & Kiefer Boulevard	Signal	F	144.2	Signal	F	117.3	Yes	Signal	F	137.6	Signal	F	113.1	Yes
38	Bradshaw Road & Jackson Road	Signal	F	172.2	-	-	-	No	Signal	F	161.0	-	-	-	Yes
39	Bradshaw Road & Elder Creek Road	Signal	F	173.1	Signal	E	66.1	No	Signal	F	201.7	Signal	D	49.4	No
40	Bradshaw Road & Florin Road	Signal	F	125.3	Signal	F	85.3	No	Signal	F	89.9	Signal	E	72.8	No
42	Happy Lane & Old Placerville Road	Two-way stop			Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct 4-lane Routier extension.			Yes	Two-way stop			Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct 4-lane Routier extension.			Yes
	Northbound Left Turn		*F*	*>300*						*F*	*>300*				
	Northbound Right Turn		*F*	*236.0*						*C*	*19.2*				
	Westbound Left Turn		*C*	*23.4*						*F*	*53.3*				
43	Happy Lane & Kiefer Boulevard	Signal	F	139.2	-	-	-	Yes	Signal	E	67.8	-	-	-	No
45	Excelsior Road & Jackson Road	Signal	F	330.8	Signal	F	106.9	Yes	Signal	F	269.1	Signal	F	**155.3**	Yes
47	Excelsior Road & Florin Road	Signal	F	111.2	Signal	D	48.4	No	Signal	E	74.2	Signal	E	73.1	No
51	Mather Field Road & Rockingham Drive	Signal	F	>300	-	-	-	Yes	Signal	F	170.3	-	-	-	Yes
58	Zinfandel Drive & Douglas Road	Signal	F	216.8	Signal	E	62.1	No	Signal	F	220.1	Signal	E	66.9	No

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Table 6.13a

CEQA Cumulative Plus FOUR PROJECTS Impacted Intersections and County Standard Intersection Geometry

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation	CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
61	Eagles Nest Road & Florin Road	Two-way stop			Signal	F	121.3	Yes	Two-way stop			Signal	F	138.5	Yes
	Northbound		*F*	*>300*						*F*	*>300*				
	Southbound		*F*	*>300*						*F*	*>300*				
	Eastbound Left Turn		*B*	*11*						*A*	*9.3*				
	Westbound Left Turn		*A*	*0*						*A*	*8.7*				
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	F	118.6	-	-	-	Yes	Signal	E	76.7	-	-	-	No
67	Sunrise Boulevard & Douglas Road	Signal	F	190.0	Signal	F	189.8	Yes	Signal	F	105.4	Signal	F	90.9	Yes
69	Sunrise Boulevard & Kiefer Boulevard	Signal	F	>300	Signal	F	113.3	No	Signal	F	261.4	Signal	E	70.7	No
70	Sunrise Boulevard & Jackson Road	Signal	F	90.0	Signal	D	53.7	No	Signal	E	79.3	Signal	D	52.9	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	F	120.4	Signal	D	36.7	No	Signal	E	71.0	Signal	E	70.1	Yes
80	Grant Line Road & Jackson Road	Signal	F	119.0	Signal	F	119.0	Yes	Signal	F	101.1	Signal	F	101.1	Yes
86	Power Inn Road & Florin Rd	Signal	F	119.3	Signal	E	57.1	No	Signal	E	73.9	Signal	D	47.1	No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	D	43.2	Signal	D	39.1	No	Signal	D	52.0	Signal	D	38.4	No
92	Grant Line Rd & Calvine Rd	Signal	D	36.5	Signal	B	11.6	No	Signal	C	30.9	Signal	A	9.5	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	F	83.4	Signal	E	59.8	No	Signal	F	95.2	Signal	F	82.1	Yes

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.13a

CEQA Cumulative Plus FOUR PROJECTS Impacted Intersections and County Standard Intersection Geometry

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation	CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
95	Florin Perkins Road & 14th Avenue	Signal	E	67.8	-	-	-	Yes	Signal	D	46.9	-	-	-	No
96	Jackson Road & 14th Avenue	Signal	F	119.3	-	-	-	Yes	Signal	E	57.0	-	-	-	Yes
103	Rancho Cordova Pkwy & Douglas Road	Signal	E	57.9	Signal	E	57.2	No	Signal	E	76.1	Signal	E	76.1	Yes
303	Vineyard Road & Jackson Road	Signal	F	128.3	Signal	E	77.4	No	Signal	F	96.4	Signal	D	54.7	No
308	Hedge Avenue & Rock Creek Pkwy WB	Round	F	60.5	Round	C	15.5	No	Round	B	11.2	Round	B	10.2	No
310	Mayhew Road & Rock Creek Pkwy WB	Round	F	181.2	-	-	-	Yes	Round	F	106.4	-	-	-	Yes
311	Mayhew Road & Rock Creek Pkwy EB	Round	F	126.7	Round	F	171.2	Yes	Round	F	126.5	Round	F	215.2	Yes
318	Bradshaw Road & Mayhew Road	Signal	F	142.3	Signal	F	115.8	Yes	Signal	F	118.1	Signal	F	95.2	Yes
319	Bradshaw Road & Rock Creek Pkwy	Signal	F	182.7	Signal	F	146.9	Yes	Signal	C	26.9	Signal	C	22.5	No
325	Douglas Road & Kiefer Boulevard	Signal	F	237.5	Signal	F	128.4	Yes	Signal	F	191.3	Signal	F	103.7	Yes
329	Routier Ext & Kiefer Boulevard	Signal	F	87.8	-	-	-	Yes	Signal	E	71.6	-	-	-	No
331	Routier Ext/Routier Rd & Old Placerville Road	Signal	F	164.0	Signal	F	127.4	Yes	Signal	F	117.3	Signal	F	108.8	Yes
400	Collector JT-3 & Jackson Road	Signal	F	81.2	Signal	D	47.2	No	Signal	D	47.0	Signal	B	18.9	No

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.13a

CEQA Cumulative Plus FOUR PROJECTS Impacted Intersections and County Standard Intersection Geometry

Intersection	AM Peak Hour							PM Peak Hour						
	CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation	CEQA Cumulative Plus All			County Standard Geometry CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation
	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
(-): No changes to intersection geometry or operation.														

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.13b

CEQA Cumulative Plus FOUR PROJECTS County Standard and Ultimate Mitigations

	Intersection	AM Peak Hour						PM Peak Hour					
		County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS			County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	F	108.2	-	-	-	Signal	F	88.4	-	-	-
4	Power Inn Road & 14th Avenue	Signal	F	126.4	-	-	-	Signal	F	109.2	-	-	-
12	Watt Avenue & Folsom Blvd.	Signal	F	185.2	Signal	D	*39.4*	Signal	E	57.6	Signal	D	41.7
14	S. Watt Avenue & Kiefer Blvd.	Signal	F	83.2	Signal	SB Ramps A NB Ramps A	SB Ramps 6.5 NB Ramps 4.8	Signal	E	66.2	Signal	SB Ramps B NB Ramps B	SB Ramps 15.9 NB Ramps 12.7
16	S. Watt Avenue & Jackson Road	Signal	F	153.4	Signal	F	130.1	Signal	F	121.0	Signal	F	102.6
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	F	157.3	Signal	F	103.5	Signal	F	164.5	Signal	F	101.9
25	Hedge Avenue & Elder Creek Road	Signal	F	138.8	Signal	E	76.1	A	F	145.8	Signal	E	79.5
36	Bradshaw Road & Old Placerville Road	Signal	F	98.6	-	-	-	Signal	E	76.4	-	-	-
37	Bradshaw Road & Kiefer Boulevard	Signal	F	117.3	-	-	-	Signal	F	113.1	-	-	-
38	Bradshaw Road & Jackson Road	Signal	F	139.2	Grade Separate			Signal	F	67.8	Grade Separate		
42	Happy Lane & Old Placerville Road	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Alternative mitigation is to construct the 4-lane Routier extension from Old Placerville Rd to Kiefer Blvd..											
43	Happy Lane & Kiefer Boulevard	Signal	F	106.9	-	-	-	Signal	E	67.8	-	-	-
45	Excelsior Road & Jackson Road	Signal	F	106.9	-	-	-	Signal	F	144.6	-	-	-
51	Mather Field Road & Rockingham Drive	Signal	F	>300	-	-	-	Signal	F	170.3	-	-	-

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.13b

CEQA Cumulative Plus FOUR PROJECTS County Standard and Ultimate Mitigations

	Intersection	AM Peak Hour						PM Peak Hour					
		County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS			County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
61	Eagles Nest Road & Florin Road	Signal	F	121.3	Signal	D	45.5	Signal	F	138.5	Signal	D	44.5
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	F	118.6	-	-	-	Signal	E	76.7	-	-	-
67	Sunrise Boulevard & Douglas Road	Signal	F	189.8	-	-	-	Signal	F	90.9	-	-	-
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	D	36.4	Signal	D	35.1	Signal	E	70.1	Signal	C	25.8
80	Grant Line Road & Jackson Road	Signal	F	119.0	Signal	F	87.6	Signal	F	101.1	Signal	D	52.7
93	Grant Line Rd & Dwy/Wilton Rd	Signal	E	59.8	Signal	D	52.6	Signal	F	82.1	Signal	E	62.4
95	Florin Perkins Road & 14th Avenue	Signal	E	67.8	-	-	-	Signal	D	46.9	-	-	-
96	Jackson Road & 14th Avenue	Signal	F	119.3	-	-	-	Signal	E	57.0	-	-	-
103	Rancho Cordova Pkwy & Douglas Road	Signal	E	57.2	Signal	D	39.5	Signal	E	76.1	Signal	E	68.7
310	Mayhew Road & Rock Creek Pkwy WB	Round	F	181.2	Signal	E	78.6	Round	F	106.4	Signal	D	40.5
311	Mayhew Road & Rock Creek Pkwy EB	Round	F	171.2				Round	F	215.2			
318	Bradshaw Road & Mayhew Road	Signal	F	115.8	Signal	F	85.0	Signal	F	95.2	Signal	F	80.4
319	Bradshaw Road & Rock Creek Pkwy	Signal	F	146.9	Signal	D	40.7	Signal	C	22.5	Signal	B	17.0
325	Douglas Road & Kiefer Boulevard	Signal	F	128.4	-	-	-	Signal	F	103.7	-	-	-
329	Routier Ext & Kiefer Boulevard	Signal	F	87.8	Signal	D	48.4	Signal	E	71.6	Signal	C	30.1

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.13b

CEQA Cumulative Plus FOUR PROJECTS County Standard and Ultimate Mitigations

	Intersection	AM Peak Hour						PM Peak Hour					
		County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS			County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
331	Routier Ext/Routier Rd & Old Placerville Road	Signal	F	127.4	Signal	D	52.0	Signal	F	108.8	Signal	C	35.9

Note: Gray shading represents changes in traffic control that the project is responsible to provide.
(-): No changes to intersection geometry or operation.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.14a

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				CEQA County Standard Mitigated Super Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?
		CEQA Cumulative Plus FOUR PROJECTS	Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
3	Power Inn Road/Howe Avenue & Folsom Blvd.	Signal	Signal									Yes
4	Power Inn Road & 14th Avenue	Signal	Signal									Yes
12	S. Watt Ave./Watt Avenue & Folsom Blvd.	Signal	Signal									Yes
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal									Yes
16	S. Watt Avenue & Jackson Road	Signal	Signal									Yes
17	S. Watt Avenue & Fruitridge Road	Signal	Signal									No
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal									Yes
23	Hedge Avenue & Jackson Road	Signal	Signal									No
25	Hedge Avenue & Elder Creek Road	Signal	Signal									Yes
28	Mayhew Road & Kiefer Boulevard	Signal	Signal									No
29	Mayhew Road & Jackson Road	Signal	Signal									No
31	Waterman Road/Mayhew Road & Elder Creek Road	Signal	Signal									No
32	Woodring Drive & Zinfandel Drive	Two-way stop	Roundabout									No
36	Bradshaw Road & Old Placerville Road	Signal	Signal									Yes
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal									Yes
38	Jackson Road & Bradshaw Road	Signal	Signal									Yes
39	Bradshaw Road & Elder Creek Road	Signal	Signal									No
40	Bradshaw Road & Florin Road	Signal	Signal									No
42	Happy Lane & Old Placerville Road	Two-way stop	Access Control					Happy Lane to become right-in and right-out only. Median will allow westbound left turns.				Yes

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.14a

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				CEQA County Standard Mitigated Super Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?
		CEQA Cumulative Plus FOUR PROJECTS	Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
43	Kiefer Boulevard & Happy Ln	Signal	Signal									Yes
45	Excelsior Road & Jackson Road	Signal	Signal									Yes
47	Excelsior Road & Florin Road	Signal	Signal									No
51	Mather Field Road & Rockingham Drive	Signal	Signal									Yes
58	Zinfandel Drive & Douglas Road	Signal	Signal									No
61	Eagles Nest Rd/Eagles Nest Road & Florin Road	Two-way stop	Signal									Yes
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal									Yes
67	Sunrise Boulevard & Douglas Road	Signal	Signal									Yes
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									No
70	Jackson Road & Sunrise Boulevard	Signal	Signal									No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Rd/Grant	Signal	Signal									Yes
80	Grant Line Road & Jackson Road	Signal	Signal									Yes
86	Power Inn Road & Florin Rd	Signal	Signal									No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal									No
92	Grant Line Rd & Calvine Rd	Signal	Signal									No
93	Grant Line Rd & Driveway/Wilton Rd	Signal	Signal									Yes
95	Florin Perkins Road & 14th Avenue	Signal	Signal									Yes
96	14th Avenue & Jackson Road	Signal	Signal									Yes
103	Rancho Cordova Pkwy & Douglas Road	Signal	Signal									Yes

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.14a

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

Intersection		Traffic Control		CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				CEQA County Standard Mitigated Super Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?
		CEQA Cumulative Plus FOUR PROJECTS	Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
303	Vineyard Road & Jackson Road	Signal	Signal									No
308	Hedge Avenue & Rock Creek Pkwy Westbound	Roundabout	Roundabout									No
310	Mayhew Road & Rock Creek Pkwy Westbound	Roundabout	Signal									Yes
311	Mayhew Road & Rock Creek Pkwy Eastbound	Roundabout										Yes
318	Bradshaw Road & Mayhew Road	Signal	Signal									Yes
319	Bradshaw Road & Rock Creek Pkwy	Signal	Signal									No
325	Douglas Road Extension & Kiefer Boulevard	Signal	Signal									Yes
329	Routier Ext & Kiefer Boulevard	Signal	Signal									Yes
331	Routier Ext/Routier Rd & Old Placerville Road	Signal	Signal									Yes
400	Collector JT-3 & Jackson Road	Signal	Signal									No

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan or standard intersection geometry, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.14b

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		County Standard CEQA Cumulative Plus FOUR PROJECTS	Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
3	Power Inn Road/Howe Avenue & Folsom Blvd.	Signal	Signal									Yes	No		Existing development
4	Power Inn Road & 14th Avenue	Signal	Signal									Yes	No		Existing development
12	S. Watt Ave./Watt Avenue & Folsom Blvd.	Signal	Signal									No	Yes	Grade separated NBT and SBT	
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal									No	Yes	Tight Diamond Interchange (SB Watt Ramps/Kiefer intersection shown)	
			Signal											Tight Diamond Interchange (NB Watt Ramps/Kiefer intersection shown)	
16	S. Watt Avenue & Jackson Road	Signal	Signal									No	Yes	Triple SBL, Free WBR	
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal								*Free right	No	No	Dual SBR, Triple EBL	
25	Hedge Avenue & Elder Creek Road	Signal	Signal									No	No	Dual NBL, Dual SBL	
36	Bradshaw Road & Old Placerville Road	Signal	Signal									Yes	No		Existing development
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal									Yes	No	Carry 3 EBT and 3 WBT lanes through intersection	Maximum General Plan Lanes
38	Jackson Road & Bradshaw Road	Signal	Signal					Grade Separate				No	No	HCI, high NBT and peak EBT/WBT movements, Cumulative Fair Share	
42	Happy Lane & Old Placerville Road	Access Control	Access Control	Happy Lane to become right-in and right-out only. Median will allow westbound left turns.								Yes	No	Construct 4-lane Routier extension from Old Placerville Rd to Kiefer Blvd	Maximum General Plan Lanes
43	Kiefer Boulevard & Happy Ln	Signal	Signal									Yes	No		Maximum lanes
45	Excelsior Road & Jackson Road	Signal	Signal									Yes	No	NBR overlap	Maximum General Plan Lanes
51	Mather Field Road & Rockingham Drive	Signal	Signal									Yes	No		Existing development
61	Eagles Nest Rd/Eagles Nest Road & Florin Road	Signal	Signal									No	No		
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal									Yes	No		Maximum General Plan Lanes
67	Sunrise Boulevard & Douglas Road	Signal	Signal									Yes	No		Maximum General Plan Lanes
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Rd/Grant	Signal	Signal									No	No	Dual SBL	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.14b

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

Intersection		Traffic Control		County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		County Standard CEQA Cumulative Plus FOUR PROJECTS	Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
80	Grant Line Road & Jackson Road	Signal	Signal									No	No	Dual SBR	
93	Grant Line Rd & Driveway/Wilton Rd	Signal	Signal									No	No		
95	Florin Perkins Road & 14th Avenue	Signal	Signal									Yes	No		Maximum lanes
96	14th Avenue & Jackson Road	Signal	Signal									Yes	No		Maximum lanes
103	Rancho Cordova Pkwy & Douglas Road	Signal	Signal									Yes	No	WBR Overlap	
310	Mayhew Road & Rock Creek Pkwy Westbound	Roundabout	Signal									No	No		
311	Mayhew Road & Rock Creek Pkwy Eastbound	Roundabout										No	No		
318	Bradshaw Road & Mayhew Road	Signal	Signal									Yes	No	HCI, Triple EBL and dual SBR, Cumulative Fair Share	Maximum General Plan lanes
319	Bradshaw Road & Rock Creek Pkwy	Signal	Signal									No	No	Dual SBL and Dual WBL	
325	Douglas Road Extension & Kiefer Boulevard	Signal	Signal									Yes	No		Maximum lanes
329	Routier Ext & Kiefer Boulevard	Signal	Signal									No	No		
331	Routier Ext/Routier Rd & Old Placerville Road	Signal	Signal									No	No	NBR overlap	

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan or standard intersection geometry, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

6.5.4 CEQA Cumulative Plus FOUR PROJECTS Pedestrian and Bicycle Facility Mitigation

The FOUR PROJECTS applicants shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the FOUR PROJECTS and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the FOUR PROJECTS vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

6.5.5 CEQA Cumulative Plus FOUR PROJECTS Transit System Mitigation

The applicants of the FOUR PROJECTS shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis (see Section 3.1.2.3), or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

6.5.6 CEQA Cumulative Plus FOUR PROJECTS Functionality Mitigation

Table 6.15 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation.

6.5.7 CEQA Cumulative Plus FOUR PROJECTS Mitigation Summary

Tables 6.16 through 6.21 summarize the roadway segments, intersections, and freeway facilities that would exhibit significant LOS impacts, along with the mitigation success for these impacts.

Table 6.15
CEQA Cumulative Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	4	Arterial M	33,390	Yes[3]	Widen to County standards [5]	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial M	50,360	Yes[3]	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	4	Arterial M	13,130	Yes[3]	Widen to County standards [5]	No
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	9,110	Yes	Widen to County standards [5]	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	4	Arterial M	52,900	Yes[3]	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	4	Arterial M	43,330	Yes[3]	Widen to County standards [5]	No
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	27,860	Yes[3]	Widen to County standards [5]	No
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	3	Arterial M	30,740	Yes[3]	Widen to County standards [5]	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	26,970	Yes	Widen to County standards [5]	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	3	Arterial M	36,220	Yes[3]	Widen to County standards [5]	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	3	Arterial M	12,520	Yes[3]	Widen to County standards [5]	No
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	13,080	Yes	Widen to County standards [5]	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	8,360	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	4	Arterial M	12,010	Yes[3]	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	4	Arterial M	13,280	Yes[3]	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	40,200	Yes[3]	Widen to County standards [5]	No
42	Florin Rd	Bradshaw Rd	Excelsior Rd	4	Arterial M	26,070	Yes[3]	Widen to County standards [5]	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	17,090	Yes	Widen to County standards [5]	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	Arterial M	24,240	Yes[3]	Widen to County standards [5]	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	4	Arterial M	21,800	Yes[3]	Widen to County standards [5]	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	4	Arterial M	41,130	Yes[3]	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	4	Arterial M	17,440	Yes[3]	Widen to County standards [5]	No
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	11,760	Yes	Widen to County standards [5]	No
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	10,010	Yes	Widen to County standards [5]	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	22,460	Yes	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	6	Arterial M	59,380	Yes[3]	Widen to County standards [5]	No

Red text with light gray shading indicate project impacts.

Table 6.15
CEQA Cumulative Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]		
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	4	Arterial M	62,220	Yes[3]	Widen to County standards [5]	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	6	Arterial M	50,960	Yes[3]	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	3	Arterial M	39,820	Yes[3]	Widen to County standards [5]	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	4	Arterial M	47,790	Yes[3]	Widen to County standards [5]	No
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	4	Arterial M	55,810	Yes[3]	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	4	Arterial M	22,250	Yes[3]	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

Table 6.16
CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
42.2	Florin Rd	Vineyard Rd	Excelsior Rd
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave
48	Fruitridge Rd	South Watt Ave	Hedge Ave
51.2	Grant Line Rd	Chrysanthy Blvd	Kiefer Blvd
52.1	Grant Line Rd	Kiefer Blvd	Rancho Cordova Pkwy
56	Grant Line Rd	Sheldon Rd	Wilton Rd
57	Grant Line Rd	Wilton Rd	Bond Rd
58.2	Happy Lane	Routier Ext	Kiefer Boulevard
71.2	Jackson Rd	Collector JT-3	Tree View Ln
71.3	Jackson Rd	Tree View Ln	Collector JT-4
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd
117	White Rock Rd	Grant Line Rd	Prairie City Rd
132	Kiefer Blvd	Americanos Blvd	Grant Line Rd
304	Mayhew Rd	Routier Ext	Bradshaw Rd
305	Mayhew Rd	Bradshaw Rd	Jackson Rd
307	Mayhew Rd	Collector WJ-13	Elder Creek Rd
312	Rock Creek Pkwy East	Collector WJ-16	Jackson Road
405	Collector JT-3	Collector JT-5	Jackson Rd
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
2	Bradshaw Rd	US 50	Lincoln Village Dr
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8

Note: Refer to Table 6.12 for detailed description of impacts and mitigations.

Table 6.16
CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd
6.3	Bradshaw Rd	Mayhew Rd	Jackson Rd
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd
44	Folsom Blvd	Howe Ave	Jackson Rd
62	Howe Ave	US 50	Folsom Blvd
66.1	Jackson Rd	Florin Perkins Rd	14th Ave
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave
67	Jackson Rd	South Watt Ave	Hedge Ave
68.1	Jackson Rd	Hedge Ave	Collector WJ-3
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd
69	Jackson Rd	Mayhew Rd	Bradshaw Rd
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4
70.2	Jackson Rd	Collector WJ-4	Rock Creek Pkwy
71.1	Jackson Rd	Excelsior Rd	Collector JT-3
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd
93	Old Placerville Rd	Routier Rd	Rockingham Dr
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd
96	South Watt Ave	Folsom Blvd	Kiefer Blvd
97	South Watt Ave	Kiefer Blvd	Jackson Rd
100	South Watt Ave	Elder Creek Rd	Florin Rd
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd
110	Watt Ave	US 50	Folsom Blvd
135	Rancho Cordova Pkwy	White Rock Rd	International Dr
136	Rancho Cordova Pkwy	International Dr	Rio Del Oro Pkwy
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd
301	Douglas Rd	Rock Creek Pkwy	Kiefer Blvd
302	Kiefer Blvd	Happy Ln	Douglas Rd
317	Routier Ext	Old Placerville Road	Happy Lane

Note: Refer to Table 6.12 for detailed description of impacts and mitigations.

Table 6.17

CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
17	S. Watt Avenue & Fruitridge Road	
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	**
23	Hedge Avenue & Jackson Road	
28	Mayhew Road & Kiefer Boulevard	
29	Mayhew Road & Jackson Road	
31	Mayhew Road & Elder Creek Road	
32	Woodring Drive & Zinfandel Drive	
39	Bradshaw Road & Elder Creek Road	
40	Bradshaw Road & Florin Road	
47	Excelsior Road & Florin Road	
58	Zinfandel Drive & Douglas Road	
69	Sunrise Boulevard & Kiefer Boulevard	
70	Sunrise Boulevard & Jackson Road	
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	**
86	Power Inn Road & Florin Rd	

Table 6.17

CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	
92	Grant Line Rd & Calvine Rd	
303	Happy Lane & Jackson Road	
308	Hedge Avenue & Rock Creek Pkwy WB	
400	Collector JT-3 & Jackson Road	
	Level of Service Impact Not Fully Mitigated by General Plan Lanes But Designated High Capacity Intersection	
12	Watt Avenue & Folsom Blvd.	**
14	S. Watt Avenue & Kiefer Blvd.	**
16	S. Watt Avenue & Jackson Road	**
	Level of Service Impact Not Fully Mitigated by General Plan Lanes	
3	Power Inn Road/Howe Avenue & Folsom Blvd	
4	Power Inn Road & 14th Avenue	
25	Hedge Avenue & Elder Creek Road	**
36	Bradshaw Road & Old Placerville Road	
37	Bradshaw Road & Kiefer Boulevard	*
38	Bradshaw Road & Jackson Road	**

Table 6.17

CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
42	Happy Lane & Old Placerville Road	
43	Happy Lane & Kiefer Boulevard	**
45	Excelsior Road & Jackson Road	*
51	Mather Field Road & Rockingham Drive	
61	Eagles Nest Road & Florin Road	**
66	Sunrise Boulevard & International Drive/Monier Circle	
67	Sunrise Boulevard & Douglas Road	
80	Grant Line Road & Jackson Road	**
93	Grant Line Rd & Dwy/Wilton Rd	**
95	Florin Perkins Road & 14th Avenue	
96	Jackson Road & 14th Avenue	
103	Rancho Cordova Pkwy & Douglas Road	**
310	Mayhew Road & Rock Creek Pkwy WB	**
311	Mayhew Road & Rock Creek Pkwy EB	**
318	Bradshaw Road & Mayhew Road	*
319	Bradshaw Road & Rock Creek Pkwy	**

Table 6.17

CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
325	Douglas Road & Kiefer Boulevard	
329	Routier Ext & Kiefer Boulevard	*
331	Routier Ext/Routier Rd & Old Placerville Road	**

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 6.18

CEQA Cumulative Plus FOUR PROJECTS
Summary of Impacted Freeway Basic Segments

Direction	Location
Level of Service Impact Not Mitigated	
Eastbound US-50	Stockton Boulevard to 59th Street

Source: *DKS Associates, 2018.*

Table 6.19

CEQA Cumulative Plus FOUR PROJECTS
Summary of Impacted Freeway Merge/Diverge/Weave Segments

Direction	Location	Junction Type
Level of Service Impact Not Mitigated		
Westbound US-50	Southbound Hazel Avenue Slip Entrance	Weave
	Rancho Cordova Parkway Exit	

Source: *DKS Associates, 2018.*

Table 6.20

CEQA Cumulative Plus FOUR PROJECTS
Summary of Impacted Freeway Ramp Termini

Direction	US 50 Exit Ramp
Queuing Impact Not Mitigated	
Eastbound US-50	Howe Avenue
	Zinfandel Drive
Westbound US-50	Rancho Cordova Parkway

Source: *DKS Associates, 2018.*

Table 6.21
CEQA Cumulative Plus FOUR PROJECTS Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
20	Eagles Nest Rd	Jackson Rd	Florin Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd
30	Excelsior Rd	Kiefer Blvd	Jackson Rd
31	Excelsior Rd	Jackson Rd	Elder Creek Rd
32	Excelsior Rd	Elder Creek Rd	Florin Rd
33	Excelsior Rd	Florin Rd	Gerber Rd
34	Excelsior Rd	Gerber Rd	Calvine Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
42	Florin Rd	Bradshaw Rd	Excelsior Rd
43	Florin Rd	Excelsior Rd	Sunrise Blvd
48	Fruitridge Rd	South Watt Ave	Hedge Ave
49	Fruitridge Rd	Hedge Ave	Mayhew Rd
50	Grant Line Rd	White Rock Rd	Douglas Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
59	Hedge Ave	Jackson Rd	Fruitridge Rd
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd
61	Hedge Ave	Elder Creek Rd	Florin Rd

Table 6.21
CEQA Cumulative Plus FOUR PROJECTS Functionality Impact Summary

ID	Roadway	Segment	
		From	To
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
77	Kiefer Blvd	Bradshaw Rd	Happy Ln
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
89	Mayhew Rd	Jackson Rd	Fruitridge Rd
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

7. CEQA CUMULATIVE PLUS MATHER SOUTH PROJECT SCENARIO

7.1 MATHER SOUTH PROJECT DESCRIPTION AND METHODOLOGY

7.1.1 Project Description

As illustrated previously in Figure 1.1, the Mather South project is located in unincorporated Sacramento County, generally east of the City of Sacramento, south and east of the City of Rancho Cordova, and south of Mather Airport. It is bounded on the south by Kiefer Boulevard, on the west by Zinfandel Drive, and on the east by the Folsom South Canal (which parallels the west side of Sunrise Boulevard). The north boundary is south of Douglas Road.

7.1.2 Methodology

The analysis of the CEQA Cumulative Plus Mather South Project scenario is based upon the analysis of the CEQA Cumulative Plus FOUR PROJECTS scenario discussed in Section 6. The travel model was utilized to estimate the portion of the FOUR PROJECTS traffic that is associated with the Mather South project. With this information, it was possible to identify whether the Mather South project, on its own, would trigger significant impacts. It should be noted that, even at locations where the Mather South project on its own would not trigger a significant impact, the Mather South project contributes to the cumulative impacts associated with the CEQA Cumulative Plus FOUR PROJECTS scenario.

7.1.1 CEQA Cumulative Land Use

Section 6.1.1 discusses land use associated with CEQA Cumulative conditions.

7.1.2 Transportation Network

Section 6.1.2 discusses the transportation network associated with the CEQA Cumulative conditions, including the transportation network improvements associated with the FOUR PROJECTS.

7.1.3 Mather South Project Trip Generation

The trip generation of the Mather South project was estimated by the SACSIM model, which has been utilized to prepare transportation forecasts for this analysis. **Table 7.1** summarizes the person trip generation. The Mather South project would generate over 7,000 daily work person trip ends, and nearly 80,000 daily person trip ends for all trip purposes. The total trip generation of the Mather South project is higher under the CEQA Cumulative scenario than with existing conditions. The SACSIM model will vary the trips generated by retail and service uses depending on the amount of development that is near those uses. This result is expected as commercial development with much housing and/or employment nearby will be more successful (and generate more trips) than the same commercial development located in an area with less nearby population.

Table 7.1: Estimated Daily Person Trip Generation (CEQA Cumulative Plus FOUR PROJECTS Scenario)

Mather South Specific Plan Amendment

Project	Trip Purpose	Daily Person Trip Ends
Mather South	Work Trips	7,045
	Non-Work Trips	72,934
	All Trip Purposes	79,979

Source: *DKS Associates, 2018.*

Table 7.2 summarizes the estimated mode choice for the Mather South Project. Almost 90 percent of all person trips are expected to be accommodated by automobile. Transit will serve about 2.0 percent of all trips, while walk and bike modes will accommodate about 8.4 percent of all trips.

Table 7.3 summarizes the vehicular (auto) trip generation of the Mather South project. The Mather South project is estimated to generate over 54,000 daily vehicle trip ends. About 3,500 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the Mather South project, about 13 percent of the trip ends. Those internal trip ends represent about 1,750 daily vehicle trips (one-half the number of internal trip ends). The Mather South project will generate over 47,000 external vehicle trips that have an origin or destination inside the Mather South project but the other end of the trip is outside the Mather South project. Table 7.3 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

7.1.4 Mather South Project Trip Distribution

The distribution of trips associated with development on the Mather South project site was derived utilizing SACSIM, incorporating the proposed land use and access locations associated with the Mather South project site. Trip distribution varies by land use and time period. **Figure 7.1** illustrates the overall trip distribution of daily Mather South project trips with the CEQA Cumulative scenario.

7.2 OPERATIONS ANALYSIS AND IMPACTS

7.2.1 CEQA Cumulative Plus Mather South Project Roadway Segment Impacts

Table 7.4 summarizes the results of the operations analysis for the study area roadway segments. Only those segments where an impact would be triggered by the Mather South project are shown. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways or widened roadways. The last column of the table shows the project(s) responsible for the increase in the number of roadway lanes. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

7.2.2 CEQA Cumulative Plus Mather South Project Intersection Impacts

Table 7.5 and 7.6 summarize the results of the operations analysis for the study area intersections. Only those intersections where an impact would be triggered by the Mather South project are shown. The tables include the implementation of intersection changes associated with the FOUR PROJECTS. Table 7.6 illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type would be fully funded by the project(s) shown in the last column. Shaded table cells in Table 7.5 illustrate those locations with an LOS impact. Detailed analysis information is included in the technical appendix.

Signal warrant analysis was conducted for all unsignalized intersections along Jackson Road, and other unsignalized intersections in close proximity to the project. The project is considered to have a significant impact at an unsignalized location if both the impact criteria in Table 1.6 are met, and one or more of the signal warrants specified in the California Manual on Uniform Traffic Control Devices (CAMUTCD) are met. The following unsignalized intersections exhibit significant impacts and meet one or more traffic signal warrants:

- Eagles Nest Road and Florin Road

Table 7.2: Mode Split (CEQA Cumulative Plus FOUR PROJECTS Scenario)

Mather South Specific Plan Amendment

Project	Mode	Percentage of Person Trips by Trip Purpose		
		Work Trips	Non-Work Trips	All Trip Purposes
Mather South	Auto - SOV	83.7%	50.5%	53.4%
	Auto - HOV	11.3%	38.7%	36.3%
	Transit	2.7%	1.9%	2.0%
	Walk	1.5%	7.5%	7.0%
	Bike	0.9%	1.4%	1.4%

Source: *DKS Associates, 2018.*

Table 7.3: Estimated Daily Vehicle Trip Generation (CEQA CUMULATIVE Plus FOUR PROJECTS Scenario)

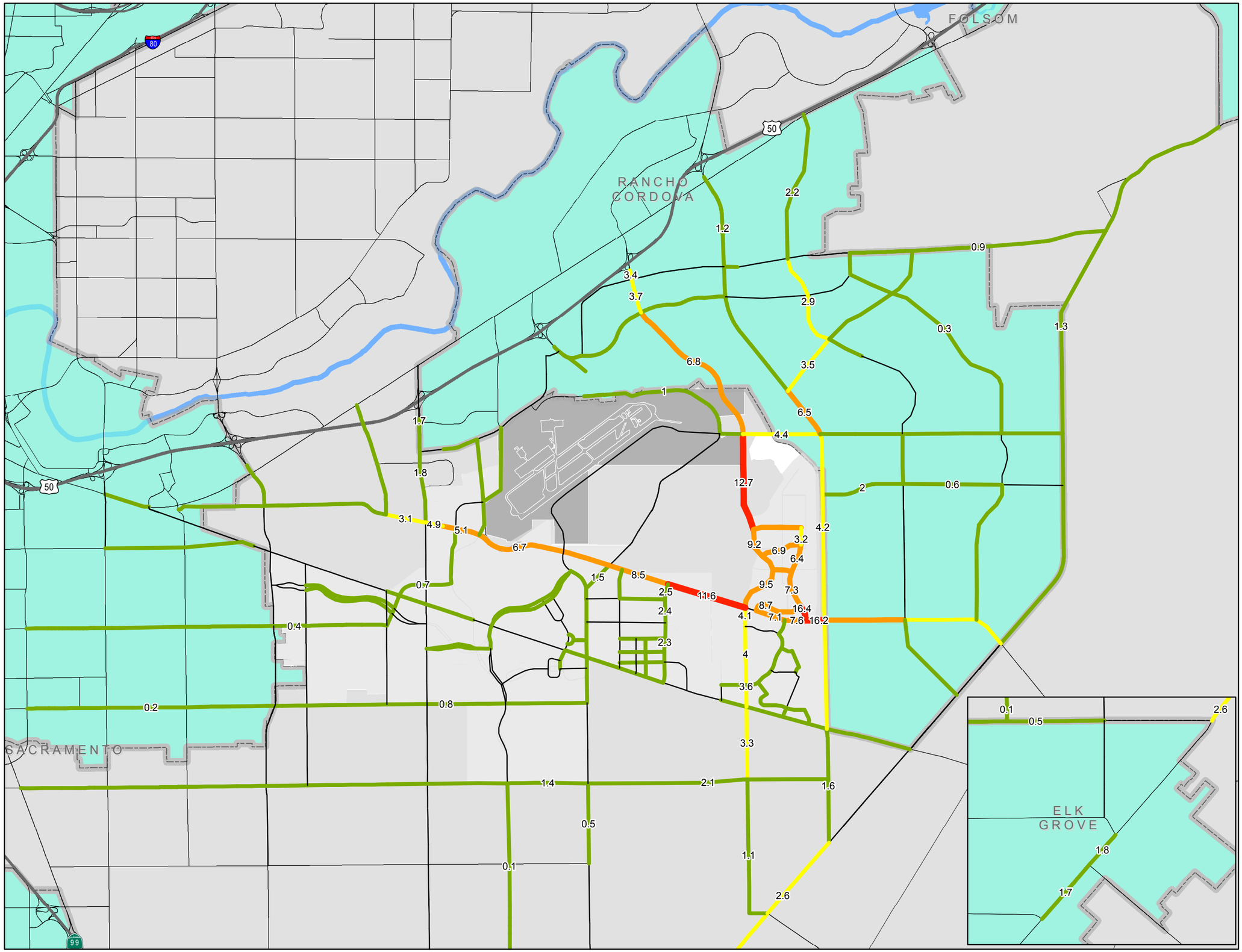
Mather South Specific Plan Amendment

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		5,225	7,170	54,222
Percent Internal Trip Ends[1]		14.4%	13.8%	13.0%
Vehicle trips	Internal to Project	377	497	3,524
	External to Project	4,471	6,177	47,175
	Total	4,848	6,673	50,698

[1.] Both trip ends within the project.

Source: *DKS Associates, 2018.*

FIGURE 7.1
CEQA CUM PLUS FOUR PROJECTS
MATHER SOUTH TRIP DISTRIBUTION



Legend

- 0.0%
- 0.1% to 2.5%
- 2.6% to 5.0%
- 5.1% to 10.0%
- 10.0% and up
- Freeways
- Other Major Roadways
- Cities
- Mather Airport

DKS

Table 7.4
CEQA Cumulative Roadway Segment Levels of Service - Impacts Triggered by Mather South Project

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	4	Arterial M	31,730	0.88	D	4	Arterial M	45,290	1.26	**F**	
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	10,150	0.56	A	3	Arterial M	39,820	2.21	**F**	NewBridge
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	54,110	1.00	**F**	6	Arterial M	63,690	1.18	**F**	
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	34,760	0.97	**E**	5	Arterial M	43,880	1.22	**F**	

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 7.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service - Impacts Triggered by Mather South Project

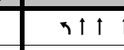
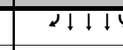
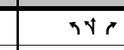
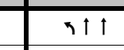
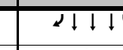
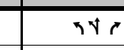
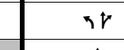
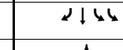
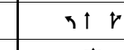
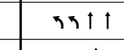
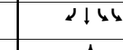
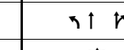
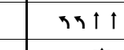
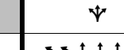
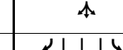
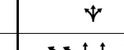
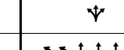
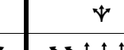
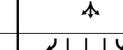
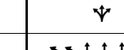
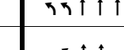
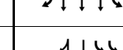
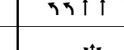
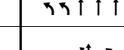
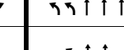
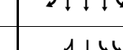
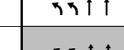
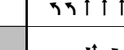
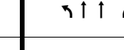
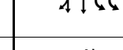
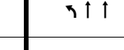
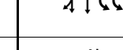
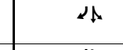
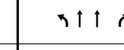
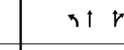
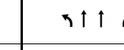
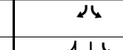
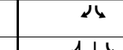
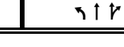
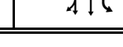
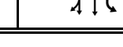
	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No Project			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
51	Mather Field Road & Rockingham Drive	Signal	F	156.5	Signal	F	>300	Yes	Signal	F	119.4	Signal	F	170.3	Yes
58	Zinfandel Drive & Douglas Road	Signal	F	156.8	Signal	F	216.8	Yes	Signal	E	73.1	Signal	F	220.1	Yes
61	Eagles Nest Road & Florin Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound		*F*	*>300*		*F*	*>300*			*F*	*>300*		*F*	*>300*	
	Southbound		*F*	*>300*		*F*	*>300*			*F*	*>300*		*F*	*>300*	
	Eastbound Left Turn		*B*	*10.2*		*B*	*11.3*			*A*	*8.5*		*A*	*9.3*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*9.4*		*A*	*8.7*	
67	Sunrise Boulevard & Douglas Road	Signal	F	140.5	Signal	F	190.0	Yes	Signal	E	73.5	Signal	F	105.4	Yes
69	Sunrise Boulevard & Kiefer Boulevard	Signal	F	151.0	Signal	F	>300	Yes	Signal	F	138.0	Signal	F	261.4	Yes
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	F	91.2	Signal	F	120.4	Yes	Signal	C	33.1	Signal	E	71.0	Yes
93	Grant Line Rd & Dwy/Wilton Rd	Signal	E	78.8	Signal	F	83.4	Yes	Signal	E	69.8	Signal	F	95.2	Yes

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 7.6

CEQA Cumulative Intersection Geometrics - Impacts Triggered by Mather South Project

	Intersection	Traffic Control		Super Cumulative No Project Lane Geometrics				Super Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
51	Mather Field Road & Rockingham Drive	Signal	Signal									
58	Zinfandel Drive & Douglas Road	Signal	Signal									
61	Eagles Nest Rd/Eagles Nest Road & Florin Road	Two-way stop	Signal									
67	Sunrise Boulevard & Douglas Road	Signal	Signal									
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									NewBridge; Mather South
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal									
76	White Rock Road & Prairie City Road	Signal	Signal									
93	Grant Line Road & Driveway/Wilton Rd	Signal	Signal									

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

7.2.3 CEQA Cumulative Plus Mather South Project U.S. 50 Freeway Impacts

The contribution of traffic attributed to the Mather South development was compared to Caltrans' thresholds of significance to determine if the impact would be triggered by the Mather South project alone. Only those locations where an impact would be triggered by the Mather South project are listed.

7.2.3.1 Freeway Basic Segments

Table 6.7 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. None of the impacts would be triggered by the Mather South project alone.

7.2.3.2 Freeway Merge/Diverge/Weave Segments

Table 6.8 summarizes a.m. and p.m. peak hour freeway operations at ramp junctions and weaving areas. Details of the analysis are included in the technical appendix. None of the impacts would be triggered by the Mather South project alone.

7.2.3.3 Freeway Ramp Intersection Queuing

Tables 6.9 and 6.10 summarizes a.m. and p.m. peak hour freeway ramp intersection queuing. The following location would be triggered by the Mather South project, which would lengthen the queue by more than 25 feet (one car length):

- Westbound
  - Exit ramp to Rancho Cordova Parkway - left turn queue length exceeds available storage

7.2.4 CEQA Cumulative Plus Mather South Project Pedestrian and Bicycle Facility Impacts

The Mather South project would not remove any existing or planned pedestrian facility. The Mather South project would not remove any existing bicycle facility, but would modify facilities that are planned in the Bikeway Master Plan. The Mather South project would add pedestrian and bicycle demands within the Mather South project site and to and from nearby land uses. As illustrated in Figure 3.2, the Mather South project has proposed changes to the Bikeway Master Plan. Because the Mather South project would add demand for pedestrian and bicycle facilities that may not be available in the site vicinity, the impact of the Mather South project on pedestrian and bicycle circulation is potentially significant.

7.2.5 CEQA Cumulative Plus Mather South Project Transit System Impacts

Public transit would not be provided to the site of the Mather South project under CEQA Cumulative scenario without development of the Mather South project. In the preparation of this analysis, a transit system to serve the FOUR PROJECTS was developed (see Section 3.1.2.3).

However, the timing and implementation of the transit system are uncertain at this time. The Mather South project would increase demands for public transit facilities. Therefore, the impact of the Mather South project on the transit system is potentially significant.

7.2.6 CEQA Cumulative Plus Mather South Project Functionality Impacts

Table 7.7 summarizes the results of the functionality analysis. Only those segments where an impact would be triggered by the Mather South project are shown. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the FOUR PROJECTS. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the FOUR PROJECTS make improvements to a roadway segment such as widening, they would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the FOUR PROJECTS would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the FOUR PROJECTS, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the FOUR PROJECTS.

Table 7.7
CEQA Cumulative Plus FOUR PROJECTS Functionality Impacts Triggered by Mather South Project

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				CEQA Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	4	Arterial M	33,390	Yes[3]
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	6	Arterial M	50,360	Yes[3]
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	4	Arterial M	52,900	Yes[3]
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	4	Arterial M	33,660	Yes[3]
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Arterial M	13,080	Yes
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	4	Arterial M	12,010	Yes[3]
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	4	Arterial M	13,280	Yes[3]
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	4	Arterial M	40,200	Yes[3]
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Arterial M	17,090	Yes
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	4	Arterial M	41,130	Yes[3]
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	6	Arterial M	50,960	Yes[3]
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	3	Arterial M	39,820	Yes[3]
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	4	Arterial M	22,250	Yes[3]

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

7.3 MITIGATION

7.3.1 CEQA Cumulative Plus Mather South Project Roadway Segment Mitigation

Table 7.8 summarizes the results of the operations analysis for the study area roadway segments with mitigation. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the FOUR PROJECTS to fund. The Mather South project would contribute a fair share. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

Table 7.8
CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations - Impacts Triggered by Mather South Project

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS					Mitigated CEQA Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	4	Arterial M	45,290	1.26	**F**	6	Arterial M	0.84	D	No		
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	3	Arterial M	39,820	2.21	**F**	4	Arterial M	1.11	**F**	Yes		Maximum General Plan lanes
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	63,690	1.18	**F**	6	Arterial M	1.18	**F**	Yes		Maximum General Plan lanes
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	43,880	1.22	**F**	6	Arterial M	0.81	D	No		

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

7.3.2 CEQA Cumulative Plus Mather South Project Intersection Mitigation

Tables 7.9a and 7.10a summarize the results of the operations analysis for the study area intersections with mitigation. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. **Tables 7.9b and 7.10b** summarize the results of the operations analysis for the study area intersections with the ultimate mitigation, which may exceed the County's standard number of approach lanes. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type have been made to mitigate impacts, which would be the responsibility of the FOUR PROJECTS to fund. The Mather South project would contribute a fair share. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. Table 7.10a and Table 7.10b also identifies those intersections that would continue to have LOS impacts after mitigation, along with the constraint that precluded full mitigation. Detailed analysis information is included in the technical appendix.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

7.3.3 CEQA Cumulative Plus Mather South Project U.S. 50 Freeway Mitigation

According to Caltrans' US-50 Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP), all mainline freeway lanes of the 8-lane ultimate facility (4 lanes in each direction) have already been built, with the exception of the segment between Zinfandel Drive and Sunrise Boulevard (where 6 of the 8 ultimate lanes exist today). With the exception of this segment, capacity improvements to widen the freeway mainline are precluded by the ultimate configuration in the TCR/CSMP. The TCR/CSMP does conceptualize other projects that will benefit the US-50 corridor without adding additional mainline travel lanes. These improvements generally fall into one of three categories:

- Intelligent transportation systems (ITS) and integrated corridor management (ICM) projects. Some examples may include ramp metering and multimodal improvements.

- Improvements to parallel local facilities. Such projects are expected to reduce travel demand on US-50.

- Future HOV lanes and auxiliary lanes. These projects would extend, or bridge gaps in, the existing HOV and auxiliary lane network. Constructing these lanes is permissible

even when further widening of the mainline is not allowable, and is consistent with the ultimate configuration in the TCR/CSMP.

The Mather South project shall participate in one or more of these alternative improvements that could directly reduce the severity of the project's impact and/or provide operational benefits to the US-50 corridor in general.

7.3.3.1 US-50 Westbound Alternative Improvements

To lessen the impact to the westbound US-50 off-ramp to Rancho Cordova Parkway, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Hazel Avenue and Rancho Cordova Parkway (2035 SACOG MTP)

7.3.4 CEQA Cumulative Plus Mather South Project Pedestrian and Bicycle Facility Mitigation

The Mather South project applicant shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the Mather South project and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the Mather South project vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

7.3.5 CEQA Cumulative Plus Mather South Project Transit System Mitigation

The applicant of the Mather South project shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis (see Section 3.1.2.3), or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the Mather South project. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the Mather South project, must be phased with development of the Mather South project.

7.3.6 CEQA Cumulative Plus Mather South Project Functionality Mitigation

Table 7.11 summarizes the results of the functionality analysis for the rural roadway segments with mitigation.

Table 7.9a

CEQA Cumulative Plus FOUR PROJECTS Impacted Intersections and County Standard Mitigations - Impacts Triggered by Mather South Project

	Intersection	AM Peak Hour													
		CEQA Cumulative Plus FOUR PROJECTS			County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation Needed	CEQA Cumulative Plus FOUR PROJECTS			County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Alternative Mitigation Needed
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
51	Mather Field Road & Rockingham Drive	Signal	F	>300	Signal	-	-	Yes	Signal	F	170.3	Signal	-	-	Yes
58	Zinfandel Drive & Douglas Road	Signal	F	216.8	Signal	E	62.1	No	Signal	F	220.1	Signal	E	66.9	No
61	Eagles Nest Road & Florin Road	Two-way stop			Signal	F	121.3	Yes	Two-way stop			Signal	F	138.5	Yes
	Northbound		*F*	*>300*						*F*	*>300*				
	Southbound		*F*	*>300*						*F*	*>300*				
	Eastbound Left Turn		*B*	*11*						*A*	*9.3*				
	Westbound Left Turn		*A*	*0*						*A*	*8.7*				
67	Sunrise Boulevard & Douglas Road	Signal	F	190.0	Signal	F	189.8	Yes	Signal	F	105.4	Signal	F	90.9	Yes
69	Sunrise Boulevard & Kiefer Boulevard	Signal	F	>300	Signal	F	113.3	No	Signal	F	261.4	Signal	E	70.7	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	F	120.4	Signal	D	36.4	Yes	Signal	E	71.0	Signal	E	70.1	Yes
93	Grant Line Rd & Dwy/Wilton Rd	Signal	F	83.4	Signal	E	59.8	Yes	Signal	F	95.2	Signal	F	82.1	Yes

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 7.9b

CEQA Cumulative Plus FOUR PROJECTS County Standard and Ultimate Mitigations - Impacts Triggered by Mather South Project

	Intersection	AM Peak Hour						PM Peak Hour					
		County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS			County Standard Mitigated CEQA Cumulative Plus FOUR PROJECTS			Ultimate Mitigated CEQA Cumulative Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
51	Mather Field Road & Rockingham Drive	Signal	F	>300	Signal	-	-	Signal	F	170.3	Signal	-	-
61	Eagles Nest Road & Florin Road	Signal	F	121.3	Signal	E	69.6	Signal	F	138.5	Signal	D	49.1
67	Sunrise Boulevard & Douglas Road	Signal	F	189.8	Signal	-	-	Signal	F	90.9	Signal	-	-
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	D	36.4	Signal	D	35.1	Signal	E	71.0	Signal	C	27.5
93	Grant Line Rd & Dwy/Wilton Rd	Signal	F	83.4	Signal	C	21.3	Signal	F	95.2	Signal	C	27.9

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 7.10a

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations - Impacts Triggered by Mather South

Intersection		Traffic Control		Super Cumulative Plus FOUR PROJECTS Lane Geometrics				County Standard Mitigated Super Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?
		Super Cumulative Plus FOUR PROJECTS	Mitigated Super Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
51	Mather Field Road & Rockingham Drive	Signal	Signal									Yes
58	Zinfandel Drive & Douglas Road	Signal	Signal									No
61	Eagles Nest Rd/Eagles Nest Road & Florin Road	Two-way stop	Signal									Yes
67	Sunrise Boulevard & Douglas Road	Signal	Signal									Yes
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Rd/Grant	Signal	Signal									Yes
76	White Rock Road & Prairie City Road	Signal	Signal									Yes
93	Grant Line Rd & Driveway/Wilton Rd	Signal	Signal									Yes

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan or standard intersection geometry, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 7.10b

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations - Impacts Triggered by Mather South Project

	Intersection	Traffic Control		County Standard Mitigated Super Cumulative Plus FOUR PROJECTS Lane Geometrics				Ultimate Mitigated Super Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Super Cumulative Plus FOUR PROJECTS	Mitigated Super Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
51	Mather Field Road & Rockingham Drive	Signal	Signal	1T 1T 1R	1L 1T 1T 1R	1T 1T 1R	1T 1R	1T 1T 1R	1L 1T 1T 1R	1T 1T 1R	1T 1R	Yes	No		Existing development
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Rd/Grant	Signal	Signal	1T	1L 1T	1T 1T 1T 1R	1T 1R	Grade Separate				No	No		
76	White Rock Road & Prairie City Road	Signal	Signal		1L 1T	1T 1T 1T	1T 1R	Grade Separate				No	Yes		
93	Grant Line Rd & Driveway/Wilton Rd	Signal	Signal	1T 1R	1L 1T 1R	1T 1R	1T 1R	1T 1T 1R	1L 1T 1T 1R	1T 1R	1T 1T 1R	No	No	Dual SBL, Dual WBL, Dual WBR	

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan or standard intersection geometry, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 7.11
CEQA Cumulative Plus FOUR PROJECTS Functionality Mitigations - Impacts Triggered by Mather South Project

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	4	Arterial M	33,390	Yes[3]	Widen to County standards [5]	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial M	50,360	Yes[3]	Widen to County standards [5]	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	4	Arterial M	52,900	Yes[3]	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	4	Arterial M	33,660	Yes[3]	Widen to County standards [5]	No
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	13,080	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	4	Arterial M	12,010	Yes[3]	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	4	Arterial M	13,280	Yes[3]	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	40,200	Yes[3]	Widen to County standards [5]	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	17,090	Yes	Widen to County standards [5]	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	4	Arterial M	41,130	Yes[3]	Widen to County standards [5]	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	6	Arterial M	50,960	Yes[3]	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	3	Arterial M	39,820	Yes[3]	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	4	Arterial M	22,250	Yes[3]	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

7.3.7 CEQA Cumulative Plus Mather South Project Mitigation Summary

Tables 7.12 and 7.13 summarize the mitigation success for the roadway segments and intersections that exhibit significant LOS impacts. **Table 7.14** summarizes the mitigation success for the rural roadway segments that exhibit functionality impacts. Tables 6.13 through 6.15 summarize the mitigation success for the freeway system facilities that exhibit significant impacts.

Table 7.12
CEQA Cumulative Plus FOUR PROJECTS
Summary of Impacted Roadway Segments Triggered by Mather South Project

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd

Note: Refer to Table 7.8 for detailed description of impacts and mitigations.

Table 7.13

CEQA Cumulative Plus FOUR PROJECTS -
Summary of Intersection Impacts Triggered by Mather South

	Intersection	Alternative Mitigation
	Level of Service Impact Fully Mitigated by General Plan Lanes	
58	Zinfandel Drive & Douglas Road	
61	Eagles Nest Road & Florin Road	
69	Sunrise Boulevard & Kiefer Boulevard	
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	
76	Prairie City Road & White Rock Road	
93	Grant Line Rd & Dwy/Wilton Rd	**
	Level of Service Impact Not Fully Mitigated by General Plan Lanes	
51	Mather Field Road & Rockingham Drive	
67	Sunrise Boulevard & Douglas Road	

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 7.14
CEQA Cumulative Plus FOUR PROJECTS
Summary of Functionality Impacts Triggered by Mather South Project

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
33	Excelsior Rd	Florin Rd	Gerber Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
43	Florin Rd	Excelsior Rd	Sunrise Blvd
50	Grant Line Rd	White Rock Rd	Douglas Rd
77	Kiefer Blvd	Bradshaw Rd	Happy Ln
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

8 ALTERNATIVE 1 QUANTITATIVE IMPACT ANALYSIS

8.1 INTRODUCTION

The Mather South project proposes three additional alternatives for analysis, in addition to the base alternative. The additional alternatives are further described in Section 8.3, but are identified as follows:

- Alternative 1: Project variation adding the canal crossing
- Alternative 2: Project variation with the staff land use alternative
- Alternative 3: Project variation with the staff land use alternative and canal crossing

The analysis for the Mather South project (base alternative) can be found in Section 3 (existing conditions) and Sections 6 and 7 (CEQA cumulative conditions). Please refer to those sections for the transportation analysis of the project. Note that this alternatives analysis provides a comparison of the impacts of the alternatives *relative* to the impacts of the project.

Two types of analyses are typically used to evaluate the traffic impacts of a proposed project or alternative: quantitative analysis and qualitative analysis. **Quantitative** analysis includes running a travel demand model and using forecasted volumes to conduct level of service analysis, VMT-related calculations, and evaluate other measures of performance. **Qualitative** analysis may or may not include running a travel demand model, but takes a more macro approach to evaluating traffic operations. Instead of making numerous calculations at each intersection and roadway segment, a qualitative approach to analyzing an alternative may look at the project as a whole and analyze whether traffic volumes generally decreased, increased, or remained constant. A qualitative approach may also evaluate if changes to proposed land use caused traffic patterns to shift temporally and / or spatially.

8.2 METHODOLOGY

A quantitative analysis is provided for the following alternatives:

- Alternative 1
- Alternative 2
- Alternative 3

For a description of the study area, forecasting and operations analysis methodology, level of service policies, and standards of significance, please refer to the base project documentation in Chapter 2 of this report.

8.3 ALTERNATIVE DESCRIPTION

In Alternative 1, the variation from the proposed project is the construction of a roadway crossing the canal. The proposed crossing is assumed to have a single travel lane in each direction, class 2 bike lanes, and sidewalk, and would connect the Mather South project with Justinian Drive. A full access traffic signal is assumed at this intersection, which is noted to be closely spaced with the existing Bosphorus Drive signal.

The land use, transit service, and pedestrian and bicycle network is otherwise the same as the proposed project, as described in Section 3.1.

8.4 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the Mather South project. Despite the fact that the land use is the same as the proposed project, the roadway network changes result in slightly different trip generation characteristics in an activity-based model. **Table 8.1** summarizes the person trip generation. The Mather South project would generate over 7,200 daily work person trip ends, and over 46,400 daily person trip ends for all trip purposes.

Table 8.2 summarizes the estimated mode choice for the Existing plus Mather South project scenario. About 90.9 percent of all person trips are expected to be accommodated by automobile, while transit will serve about 0.9 percent of all trips. Walk and bike modes will accommodate about 8.2 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 8.3 summarizes the vehicular (auto) trip generation of the Mather South project. The Mather South project is estimated to generate over 31,000 daily vehicle trip ends. It should be noted that more than one person trip may be accommodated by a vehicle trip (e.g. carpooling). About 2,000 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the Mather South project, about 12.5 percent of the trip ends. The internal trip ends represent about 1,000 daily vehicle trips (one-half the number of internal trip ends). The Mather South project will generate over 27,000 external vehicle trips that have an origin or destination inside the Mather South project but the other end of the trip is outside the Mather South project. Table 8.5 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

Table 8.1 Estimated Person Trip Generation Mather South (Alternative 1)	
Trip Purpose	**Daily Person Trip Ends**
Work Trips	7,269
Non-Work Trips	39,160
All Trip Purposes	46,430
***Source**: DKS Associates, 2018.*	

Table 8.2 Mode Split Mather South (Alternative 1)			
Mode	**Percentage of Person Trips by Trip Purpose**		
	Work Trips	**Non-Work Trips**	**All Trip Purposes**
Auto - SOV	85.3%	47.3%	53.2%
Auto - HOV	11.5%	42.6%	37.7%
Transit	1.7%	0.7%	0.9%
Walk	0.9%	8.8%	7.6%
Bike	0.6%	0.7%	0.6%
***Source**: DKS Associates, 2018.*			

Table 8.3 Estimated Daily Vehicle Trip Generation Mather South (Alternative 1)				
Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		2,966	2,928	31,804
Percent Internal Trip Ends[1]		11.1%	12.3%	12.5%
Vehicle Trips	Internal to Project	165	180	1,991
	External to Project	2,637	2,568	27,820
	Total	2,802	2,748	29,812
[1.] Both trip ends within the project. ***Source:** DKS Associates, 2018.*				

8.5 OPERATIONS ANALYSIS AND IMPACTS

For purposes of this analysis, full development of the Mather South alternative is assumed to occur "instantaneously." In this manner, the traffic and impacts associated with the Mather South alternative can be directly compared to known and measured conditions. Existing scenario

impacts are determined by comparing the traffic operating conditions associated with the Mather South alternative with the traffic operating conditions associated with the existing (without development) conditions, and comparing the change to the thresholds of significance.

8.6 ROADWAY SEGMENT ANALYSIS

8.6.1 Roadway Segment Operations and Impacts

Table 8.4 summarizes the results of the operations analysis for the study area roadway segments under existing conditions. The table includes the number of lanes assumed with the implementation of the Mather South alternative, which in many cases is greater than the number of lanes in the existing project condition. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways and widened roadways that are assumed part of the Mather South alternative. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

As stated above, the traffic analysis assumed that the Mather South alternative would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the Mather South project, which would be greater than the number of lanes in the existing condition. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South alternative.

Table 8.4
Existing Plus Mather South Project (Alt. 1) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South (Revised Project with Crossing)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	20,592	0.38	A	6	Arterial M	20,660	0.38	A
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	52,590	0.97	**E**	6	Arterial M	53,440	0.99	**E**
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	42,787	0.79	C	6	Arterial M	43,290	0.80	D
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	38,984	0.72	C	6	Arterial M	39,110	0.72	C
5	Bradshaw Rd	Goethe Rd	Kiefer Blvd	4	Arterial M	28,651	0.80	C	4	Arterial M	28,560	0.79	C
6	Bradshaw Rd	Kiefer Blvd	Jackson Rd	4	Arterial M	30,726	0.85	D	4	Arterial M	31,280	0.87	D
7	Bradshaw Rd	Jackson Rd	Elder Creek Rd	4	Arterial M	22,871	0.64	B	4	Arterial M	22,910	0.64	B
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	4	Arterial M	22,265	0.62	B	4	Arterial M	22,000	0.61	B
9	Bradshaw Rd	Florin Rd	Gerber Rd	4	Arterial M	22,883	0.64	B	4	Arterial M	22,780	0.63	B
10	Bradshaw Rd	Gerber Rd	Calvine Rd	4	Arterial M	16,984	0.47	A	4	Arterial M	16,820	0.47	A
11	Calvine Rd	Waterman Rd	Bradshaw Rd	4	Arterial M	16,015	0.44	A	4	Arterial M	16,320	0.45	A
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	12,395	0.34	A	4	Arterial M	12,910	0.36	A
13	Calvine Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	6,036	0.34	A	2	Arterial M	6,560	0.36	A
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	3,411	0.09	A	4	Arterial M	2,810	0.08	A
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Arterial M	6,635	0.37	A	2	Arterial M	7,500	0.42	A
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Arterial M	8,369	0.46	A	2	Arterial M	7,780	0.43	A
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	3,674	0.10	A	5	Arterial M	4,530	0.13	A
18	Douglas Rd	Rancho Cordova Pkwy	Grant Line Rd	2	Arterial M	3,674	0.20	A	2	Arterial M	4,230	0.24	A
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	740	0.04	A	2	Arterial M	6,800	0.38	A
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	517	0.03	A	2	Arterial M	3660	0.20	A
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	189	0.01	A	2	Arterial M	1950	0.11	A
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	17,891	0.50	A	4	Arterial M	18,210	0.51	A
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	15,734	0.87	D	2	Arterial M	16,010	0.89	D
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	11,092	0.62	B	2	Arterial M	11,500	0.64	B
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,576	0.31	A	2	Arterial M	5,940	0.33	A
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	5,797	0.32	A	2	Arterial M	6,060	0.34	A
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	5,355	0.30	A	2	Arterial M	5,920	0.33	A
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	2,158	0.12	A	2	Arterial M	2,330	0.13	A
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	22,960	1.28	**F**	2	Arterial M	22,980	1.28	**F**
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	3,716	0.21	A	2	Arterial M	1,620	0.09	A
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	2	Arterial M	5,075	0.28	A	2	Arterial M	4,640	0.26	A
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,203	0.23	A	2	Arterial M	3,670	0.20	A
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	5,423	0.30	A	2	Arterial M	5,280	0.29	A
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	4,229	0.23	A	2	Arterial M	4,030	0.22	A

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 8.4
Existing Plus Mather South Project (Alt. 1) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South (Revised Project with Crossing)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	4,473	0.25	A	2	Arterial M	4,120	0.23	A
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	27,495	0.76	C	4	Arterial M	27,970	0.78	C
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	21,595	0.60	A	4	Arterial M	22,290	0.62	B
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	4	Arterial M	14,163	0.39	A	4	Arterial M	14,900	0.41	A
39	Florin Rd	South Watt Ave	Hedge Ave	2	Arterial M	7,718	0.43	A	2	Arterial M	8,460	0.47	A
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Arterial M	6,312	0.35	A	2	Arterial M	7,150	0.40	A
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	6,317	0.35	A	2	Arterial M	7,170	0.40	A
42	Florin Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	3,478	0.19	A	2	Arterial M	4,590	0.26	A
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	3,835	0.21	A	2	Arterial M	5,430	0.30	A
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	37,516	1.04	**F**	4	Arterial M	37,970	1.05	**F**
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	16,634	0.46	A	4	Arterial M	16,710	0.46	A
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	15,214	0.42	A	4	Arterial M	15,540	0.43	A
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,280	0.57	A	2	Arterial M	10,270	0.57	A
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	2,890	0.16	A	2	Arterial M	3,050	0.17	A
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	2	Arterial M	1,790	0.10	A	2	Arterial M	1,990	0.11	A
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Rural NS	7,189	0.42	D	2	Rural NS	7,320	0.43	D
51	Grant Line Rd	Douglas Rd	Kiefer Blvd	2	Rural S	6,143	0.31	C	2	Rural S	5,990	0.30	C
52	Grant Line Rd	Kiefer Blvd	Jackson Rd	2	Rural S	5,758	0.29	C	2	Rural S	5,680	0.28	C
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	2	Rural S	14,720	0.74	E	2	Rural S	14,530	0.73	E
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	2	Rural S	14,812	0.74	E	2	Rural S	16,940	0.85	E
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit	2	Rural S	13,140	0.66	**E**	2	Rural S	14,560	0.73	**E**
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd	2	Rural S	13,140	0.66	**E**	2	Rural S	14,550	0.73	**E**
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	17,459	0.87	**E**	2	Rural S	18,410	0.92	**E**
57	Grant Line Rd	Wilton Rd	Bond Rd	2	Rural S	16,064	0.80	**E**	2	Rural S	16,850	0.84	**E**
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Rural S	4,635	0.23	C	2	Rural S	6,490	0.32	C
58.1	Happy Lane	Old Placerville Road	Routier Ext	2	Rural S	4,635	0.23	C	2	Rural S	6,490	0.32	C
58.2	Happy Lane	Routier Ext	Kiefer Boulevard	2	Rural S	4,635	0.23	C	2	Rural S	5,550	0.28	C
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	3,061	0.17	A	2	Arterial M	2,920	0.16	A
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	3,737	0.21	A	2	Arterial M	3,600	0.20	A
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	2,722	0.15	A	2	Arterial M	2,740	0.15	A
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	53,849	1.00	E	6	Arterial M	53,860	1.00	E
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	17,500	0.32	A	6	Arterial M	19,650	0.36	A

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Table 8.4
Existing Plus Mather South Project (Alt. 1) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South (Revised Project with Crossing)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	8,802	0.16	A	6	Arterial M	8,680	0.16	A
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	2	Arterial M	12,358	0.69	B	2	Arterial M	12,370	0.69	B
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,414	0.58	A	2	Arterial M	10,660	0.59	A
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	17,060	0.95	E	2	Arterial M	17,320	0.96	E
68	Jackson Rd	Hedge Ave	Mayhew Rd	2	Arterial M	12,616	0.70	C	2	Arterial M	13,080	0.73	C
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	14,996	0.83	D	2	Arterial M	15,700	0.87	D
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	13,030	0.72	C	2	Arterial M	14,150	0.79	C
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Rural Hwy	10,478	0.46	D	2	Rural Hwy	13,200	0.58	D
72	Jackson Rd	Eagles Nest Rd	Sunrise Blvd	2	Rural Hwy	9,976	0.44	D	2	Rural Hwy	9,870	0.43	D
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,306	0.58	D	2	Rural Hwy	13,580	0.59	**E**
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	4,616	0.26	A	2	Arterial M	4,740	0.26	A
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	18,668	0.52	A	4	Arterial M	18,990	0.53	A
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	9,274	0.26	A	4	Arterial M	9,740	0.27	A
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	2	Arterial M	4,618	0.26	A	2	Arterial M	5,530	0.31	A
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	3020	0.17	A
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	656	0.04	A	3	Arterial M	1720	0.10	A
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	1720	0.10	A
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	656	0.04	A	2	Arterial M	4930	0.27	A
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	2	Arterial M	2,786	0.15	A	2	Arterial M	2,750	0.15	A
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	4,373	0.12	A	4	Arterial M	6,200	0.17	A
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	4,373	0.12	A	4	Arterial M	6,200	0.17	A
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	4,373	0.24	A	2	Arterial M	6,200	0.34	A
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	6,751	0.84	E	2	Res Collector F	7,010	0.88	E
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	37,755	0.70	B	6	Arterial M	40,030	0.74	C
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	37,520	0.69	B	6	Arterial M	39,850	0.74	C
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	4	Arterial M	14,857	0.41	A	4	Arterial M	15,170	0.42	A
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	6,977	0.39	A	2	Arterial M	7,160	0.40	A

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Table 8.4
Existing Plus Mather South Project (Alt. 1) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South (Revised Project with Crossing)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial L	6,593	0.44	A	2	Arterial L	6,720	0.45	A
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	2	Arterial L	1,616	0.11	A	2	Arterial L	1,820	0.12	A
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	15,800	0.44	A	4	Arterial M	16,500	0.46	A
91	Old Placerville Rd	Granby Dr		2	Arterial M	13,573	0.75	C	2	Arterial M	14,360	0.80	C
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	10,710	0.60	A	2	Arterial M	12,120	0.67	B
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	10,710	0.30	A	4	Arterial M	11,490	0.32	A
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	36,175	0.67	B	6	Arterial M	35,900	0.66	B
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	19,881	0.55	A	4	Arterial M	20,870	0.58	A
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	40,920	0.76	C	6	Arterial M	41,200	0.76	C
97	South Watt Ave	Kiefer Blvd	Jackson Rd	5	Arterial M	32,415	0.90	E	5	Arterial M	32,490	0.90	E
98	South Watt Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	25,832	1.44	**F**	2	Arterial M	25,870	1.44	**F**
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	21,567	1.20	**F**	2	Arterial M	21,700	1.21	**F**
100	South Watt Ave	Elder Creek Rd	Florin Rd	2	Arterial M	19,069	1.06	**F**	2	Arterial M	19,080	1.06	**F**
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	54,500	1.01	**F**	7	Arterial M	56,070	1.04	**F**
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	49,500	0.92	**E**	6	Arterial M	51,760	0.96	**E**
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	34,571	0.64	B	6	Arterial M	37,600	0.70	B
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	25,811	0.48	A	6	Arterial M	28,820	0.53	A
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	28,400	0.53	A	6	Arterial M	32,540	0.60	B
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	25,811	0.48	A	6	Arterial M	31,060	0.58	A
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	21,878	0.61	B	5	Arterial M	26,700	0.74	C
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	16,894	0.94	**E**	2	Arterial M	18,370	1.02	**F**
107	Sunrise Blvd	Jackson Rd	Florin Rd	2	Rural S	11,181	0.56	D	2	Rural S	12,140	0.61	D
108	Sunrise Blvd	Florin Rd	Grant Line Rd	2	Rural S	7,752	0.39	D	2	Rural S	8,520	0.43	D
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	5,515	0.31	A	2	Arterial M	5,600	0.31	A
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	65,242	1.09	**F**	6	Arterial H	65,370	1.09	**F**
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	3,962	0.22	A	2	Arterial M	4,080	0.23	A
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	11,200	0.31	A	4	Arterial M	11,090	0.31	A
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	14,756	0.27	A	6	Arterial M	14,680	0.27	A
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	14,756	0.41	A	5	Arterial M	15,010	0.42	A
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	15,433	0.43	A	4	Arterial M	15,560	0.43	A
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	2	Rural NS	2,490	0.15	B	2	Rural NS	2,420	0.14	B
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	9,400	0.26	A	4	Arterial M	9,460	0.26	A
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	45,228	0.84	D	7	Arterial M	50,210	0.93	**E**

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Table 8.4
Existing Plus Mather South Project (Alt. 1) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South (Revised Project with Crossing)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	17,923	0.33	A	6	Arterial M	23,510	0.44	A
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	7,595	0.14	A	6	Arterial M	17,360	0.32	A
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	7,595	0.21	A	4	Arterial M	17,360	0.48	A
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	7,595	0.42	A	2	Arterial M	17,360	0.96	E
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	2	Arterial M	2,848	0.16	A	2	Arterial M	15,000	0.83	D
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3						4	Arterial M	9,060	0.25	A
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4						4	Arterial M	6,960	0.19	A
123.4	Zinfandel Dr	Collector MS-4	Kiefer Blvd						4	Arterial M	4,680	0.13	A
600	Collector MS-1	Kiefer Boulevard	Collector MS-5						2	Arterial M	4,920	0.27	A
601	Collector MS-1	Collector MS-5	Collector MS-4						2	Arterial M	2,370	0.13	A
602	Collector MS-1	Collector MS-4	Collector MS-3						2	Arterial M	2,530	0.14	A
603	Collector MS-1	Collector MS-3	Collector MS-2						2	Arterial M	3,820	0.21	A
604	Collector MS-2	Eagles Nest Road	Collector MS-5						2	Res Collector I	5,470	0.68	D
605	Collector MS-3	Eagles Nest Road	Collector MS-5						2	Arterial M	4,860	0.27	A
606	Collector MS-4	Eagles Nest Road	Collector MS-5						2	Arterial M	3,990	0.22	A
607	Collector MS-5	Kiefer Boulevard	Collector MS-1						2	Arterial M	1,830	0.10	A
608	Collector MS-3	Collector MS-5	Sunrise Boulevard						2	Arterial M	6,490	0.36	A

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

8.6.2 Roadway Segment Mitigations

Table 8.5 summarizes the results of the operations analysis for the study area roadway segments with mitigation under existing conditions. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the Mather South alternative to implement. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

Table 8.5
Existing Plus Mather South Project (Alt. 1) Roadway Segment Mitigations

ID	Roadway	Segment		Existing + Mather South Project					Mitigated Existing + Mather South Project (Revised Project with Crossing)						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit	2	Rural S	14,560	0.73	**E**	4	Arterial M	0.40	A	No		
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd	2	Rural S	14,550	0.73	**E**	4	Arterial M	0.40	A	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,580	0.59	**E**	4	Arterial M	0.38	A	No		
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	18,370	1.02	**F**	4	Arterial M	0.51	A	No		
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	50,210	0.93	**E**	7	Arterial M	0.93	**E**	Yes		Maximum General Plan lanes

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

8.7 INTERSECTION ANALYSIS

8.7.1 Intersection Operations and Impacts

Table 8.6 and **Table 8.7** summarize the results of the operations analysis for the study area intersections under existing conditions. The table includes the implementation of intersection changes associated with the Mather South alternative. Shaded table cells in the first table for each scenario illustrate those locations with an LOS impact. The second table illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type were assumed to be implemented by the Mather South alternative. Detailed analysis information is included in the technical appendix.

As stated above, the traffic analysis assumed that the Mather South alternative would construct a number of changes to many of the intersections that are internal to or on the boundary of the Mather South alternative, which would be an improvement over the existing condition. The timing of implementation of such intersection improvements on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South alternative.

Table 8.6
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	36.6	Signal	B	19.2	No	Signal	D	44.4	Signal	C	28.6	No
2	Howe Avenue & US 50 EB Ramps	Signal	B	16.9	Signal	B	10.3	No	Signal	C	20.5	Signal	A	9.1	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	D	39.1	Signal	C	30.6	No	Signal	D	55.0	Signal	D	42.4	No
4	Power Inn Road & 14th Avenue	Signal	C	31.5	Signal	B	16.7	No	Signal	D	39.6	Signal	C	20.5	No
5	Power Inn Road & Fruitridge Road	Signal	D	43.4	Signal	D	36.7	No	Signal	C	33.5	Signal	C	25.5	No
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	D	36.8	Signal	C	21.6	No	Signal	C	32.1	Signal	B	16.6	No
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	D	39.0	Signal	C	23.9	No	Signal	E	55.6	Signal	C	25.0	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Westbound Left Turn		*C*	*20.1*		*C*	*19.0*			*C*	*23.3*		*C*	*24.9*	
	Westbound Right Turn		*B*	*13.3*		*B*	*13.5*			*B*	*12.6*		*B*	*13.1*	
	Southbound Left Turn		*A*	*10.0*		*A*	*9.8*			*B*	*10.9*		*B*	*11.2*	
9	Florin Perkins Road & Jackson Road	Signal	D	51.5	Signal	B	17.7	No	Signal	D	54.1	Signal	C	24.4	No
10	Florin Perkins Road & Fruitridge Road	Signal	C	25.1	Signal	B	16.7	No	Signal	C	25.4	Signal	B	19.0	No
11	Florin Perkins Road & Elder Creek Road	Signal	C	25.7	Signal	B	17.9	No	Signal	C	26.2	Signal	B	19.4	No
12	Watt Avenue & Folsom Blvd.	Signal	E	66.2	Signal	E	74.2	No	Signal	E	71.9	Signal	E	66.3	No
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	B	19.6	Signal	B	13.9	No	Signal	D	54.1	Signal	B	11.7	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	E	56.0	Signal	D	45.9	No	Signal	E	75.9	Signal	C	34.4	No

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Table 8.6
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	11.5	Signal	A	7.6	No	Signal	A	9.7	Signal	A	6.1	No
16	S. Watt Avenue & Jackson Road	Signal	E	62.5	Signal	D	51.5	No	Signal	E	66.4	Signal	E	58.1	No
17	S. Watt Avenue & Fruitridge Road	Signal	D	38.1	Signal	C	20.4	No	Signal	D	41.7	Signal	C	20.3	No
18	S. Watt Avenue & Elder Creek Road	Signal	E	62.7	Signal	D	45.6	No	Signal	E	68.8	Signal	E	59.9	No
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	D	54.7	Signal	C	27.2	No	Signal	D	51.8	Signal	D	36.3	No
21	Elk Grove Florin Road & Gerber Road	Signal	D	49.1	Signal	D	41.6	No	Signal	E	64.6	Signal	E	60.7	No
22	Sunrise Blvd & MS-3/Justinian Dr	Mather South Project Int.			Signal	B	18.6	No	Mather South Project Int.			Signal	C	23.9	No
23	Hedge Avenue & Jackson Road	Signal	D	35.1	Signal	B	18.6	No	Signal	D	37.3	Signal	B	13.4	No
24	Hedge Avenue & Fruitridge Road	All-way stop	B	13.6	All-way stop	B	13.6	No	All-way stop	A	9.4	All-way stop	A	9.7	No
25	Hedge Avenue & Elder Creek Road	All-way stop	C	15.9	All-way stop	C	16.4	No	All-way stop	B	11.6	All-way stop	B	12.0	No
26	Hedge Avenue & Tokay Lane	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*A*	*8.0*		*A*	*8.3*			*A*	*7.3*		*A*	*7.4*	
	Eastbound		*B*	*12.2*		*B*	*12.6*			*B*	*10.2*		*B*	*10.8*	
	Westbound		*B*	*11.1*		*B*	*11.3*			*A*	*9.6*		*A*	*9.8*	
27	Hedge Avenue & Florin Road	All-way stop	B	12.9	All-way stop	B	14.3	No	All-way stop	B	11.1	All-way stop	B	12.5	No
28	Mayhew Road & Kiefer Boulevard	Signal	D	48.6	Signal	B	17.6	No	Signal	D	51.1	Signal	B	18.1	No

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Table 8.6
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Through - Left Turn		*D*	*27.6*		*D*	*32.1*			*D*	*34.0*		*E*	*37.4*	
	Northbound Right Turn		*B*	*11.8*		*B*	*12.7*			*C*	*15.0*		*C*	*15.4*	
	Southbound		*C*	*18.3*		*C*	*20.1*			*C*	*24.9*		*D*	*27.1*	
	Eastbound Left Turn		*A*	*8.9*		*A*	*8.8*			*A*	*8.4*		*A*	*8.4*	
	Westbound Left Turn		*A*	*8.3*		*A*	*8.6*			*A*	*9.3*		*A*	*9.3*	
30	Mayhew Road & Fruitridge Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.4*		*A*	*7.4*	
	Eastbound		*A*	*9.2*		*A*	*9.3*			*A*	*9.2*		*A*	*9.3*	
31	Mayhew Road & Elder Creek Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound		*B*	*11.9*		*B*	*12.5*			*B*	*10.9*		*B*	*11.3*	
	Southbound		*B*	*11.1*		*B*	*10.9*			*A*	*9.8*		*A*	*9.9*	
	Eastbound Left Turn		*A*	*8.3*		*A*	*8.2*			*A*	*7.6*		*A*	*7.5*	
	Westbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*0.0*		*A*	*0.0*	
32	Woodring Drive & Zinfandel Drive	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Eastbound		*A*	*9.3*		*E*	*47.8*			*A*	*9.3*		*E*	*41.5*	
	Northbound Left Turn		*A*	*0.0*		*A*	*8.3*			*A*	*0.0*		*A*	*9.7*	
33	Bradshaw Road & Folsom Blvd.	Signal	E	56.7	Signal	C	22.4	No	Signal	D	49.9	Signal	B	19.2	No
34	Bradshaw Road & US 50 WB Ramps	Signal	B	15.9	Signal	A	6.0	No	Signal	B	15.2	Signal	A	6.1	No
35	Bradshaw Road & US 50 EB Ramps	Signal	C	24.4	Signal	B	12.4	No	Signal	B	16.0	Signal	A	9.9	No
36	Bradshaw Road & Old Placerville Road	Signal	D	45.9	Signal	C	30.8	No	Signal	D	52.0	Signal	C	32.7	No
37	Bradshaw Road & Kiefer Boulevard	Signal	D	45.7	Signal	C	21.8	No	Signal	E	66.2	Signal	C	29.0	No

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Table 8.6
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
38	Bradshaw Road & Jackson Road	Signal	E	73.1	Signal	E	69.2	No	Signal	E	59.4	Signal	D	54.3	No
39	Bradshaw Road & Elder Creek Road	Signal	D	36.8	Signal	C	21.8	No	Signal	D	36.1	Signal	C	21.0	No
40	Bradshaw Road & Florin Road	Signal	D	38.1	Signal	C	23.7	No	Signal	D	53.6	Signal	C	28.2	No
41	Bradshaw Road & Gerber Road	Signal	E	72.2	Signal	E	58.2	No	Signal	D	49.9	Signal	C	28.2	No
42	Happy Lane & Old Placerville Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound Left Turn		*F*	*64.8*		*F*	*187.3*			*F*	*95.9*		*F*	*240.1*	
	Northbound Right Turn		*D*	*30.6*		*E*	*35.7*			*C*	*15.4*		*C*	*20.0*	
	Westbound Left Turn		*B*	*10.2*		*B*	*10.8*			*B*	*10.1*		*B*	*10.6*	
45	Excelsior Road & Jackson Road	Signal	D	36.7	Signal	C	23.1	No	Signal	D	40.3	Signal	B	16.8	No
46	Excelsior Road & Elder Creek Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*8.0*		*A*	*7.8*	
	Eastbound		*C*	*18.6*		*C*	*19.2*			*B*	*12.3*		*B*	*11.8*	
47	Excelsior Road & Florin Road	All-way stop	C	24.9	All-way stop	E	35.1	No	All-way stop	B	12.5	All-way stop	B	13.5	No
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	B	14.0	All-way stop	B	14.7	No	All-way stop	B	10.6	All-way stop	B	10.1	No
49	Mather Field Road & US 50 WB Ramps	Signal	C	24.7	Signal	A	8.6	No	Signal	A	9.4	Signal	A	5.3	No
50	Mather Field Road & US 50 EB Ramps	Signal	C	27.7	Signal	B	16.9	No	Signal	B	13.4	Signal	A	7.6	No
51	Mather Field Road & Rockingham Drive	Signal	E	56.4	Signal	D	47.1	No	Signal	D	54.7	Signal	D	39.7	No
52	Mather Boulevard & Douglas Road	All-way stop	E	39.3	All-way stop	E	40.2	No	All-way stop	C	15.5	All-way stop	C	15.9	No

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Table 8.6
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
53	Zinfandel Drive & US 50 WB Ramps	Signal	B	16.4	Signal	A	8.6	No	Signal	D	51.7	Signal	D	45.5	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	D	40.0	Signal	D	49.2	No	Signal	E	60.1	Signal	E	64.9	Yes
55	Zinfandel Drive & White Rock Road	Signal	D	47.7	Signal	C	26.5	No	Signal	D	54.7	Signal	D	41.5	No
56	Zinfandel Drive & Data Drive	Signal	D	49.3	Signal	B	15.7	No	Signal	D	52.9	Signal	C	20.2	No
57	Zinfandel Drive & International Dr	Signal	C	34.0	Signal	C	23.8	No	Signal	D	48.5	Signal	C	30.9	No
58	Zinfandel Drive & Douglas Road	Signal	E	55.5	Signal	D	38.9	No	Signal	D	54.2	Signal	C	20.5	No
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Free Turn			Signal	A	6.9	No	Free Turn			Signal	A	8.3	No
60	Eagles Nest Road & Jackson Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound		*C*	*22.0*		*F*	*>300*			*C*	*23.8*		*F*	*>300*	
	Southbound		*B*	*13.9*		*F*	*>300*			*C*	*22.0*		*F*	*>300*	
	Eastbound Left Turn		*A*	*8.8*		*A*	*9.1*			*A*	*7.9*		*A*	*8.2*	
	Westbound Left Turn		*A*	*7.9*		*A*	*7.8*			*A*	*8.7*		*A*	*8.6*	
61	Eagles Nest Road & Florin Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound		*B*	*12.7*		*C*	*23.3*			*B*	*12.1*		*C*	*15.4*	
	Southbound		*B*	*10.0*		*C*	*17.1*			*B*	*10.5*		*C*	*16.8*	
	Eastbound Left Turn		*A*	*7.7*		*A*	*7.9*			*A*	*7.7*		*A*	*7.9*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.6*		*A*	*7.5*	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	D	44.7	Signal	C	25.7	No	Signal	B	19.7	Signal	A	9.2	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	16.9	Signal	A	9.2	No	Signal	B	17.6	Signal	A	9.7	No

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Table 8.6
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	54.4	Signal	C	27.8	No	Signal	D	48.6	Signal	C	33.6	No
65	Sunrise Boulevard & White Rock Road	Signal	D	47.8	Signal	C	31.3	No	Signal	D	51.6	Signal	D	35.9	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	D	47.8	Signal	B	15.8	No	Signal	D	45.8	Signal	B	19.9	No
67	Sunrise Boulevard & Douglas Road	Signal	D	51.7	Signal	C	23.3	No	Signal	D	46.5	Signal	B	19.5	No
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	C	27.0	Signal	B	17.8	No	Signal	C	21.0	Signal	A	7.7	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	D	53.6	Signal	B	19.7	No	Signal	C	27.0	Signal	B	16.4	No
70	Sunrise Boulevard & Jackson Road	Signal	E	57.0	Signal	D	44.0	No	Signal	D	47.2	Signal	C	29.4	No
71	Sunrise Boulevard & Florin Road	Signal	B	11.3	Signal	A	8.8	No	Signal	D	48.3	Signal	B	11.8	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	D	43.2	Signal	C	20.0	No	Signal	D	40.7	Signal	B	18.3	No
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	C	31.2	Signal	C	27.0	No	Signal	D	41.4	Signal	B	17.1	No
74	Hazel Avenue & US 50 EB Ramps	Signal	C	20.6	Signal	A	8.0	No	Signal	C	29.9	Signal	A	6.0	No
75	Hazel Avenue & Folsom Boulevard	Signal	D	51.7	Signal	C	24.8	No	Signal	D	46.7	Signal	D	42.1	No
76	Prairie City Road & White Rock Road	Signal	B	19.2	Signal	B	12.6	No	Signal	B	15.0	Signal	A	10.0	No
77	Grant Line Road & White Rock Road	Signal	B	10.9	Signal	A	7.8	No	Signal	B	11.2	Signal	A	7.8	No
78	Grant Line Road & Douglas Road	All-way stop	C	15.2	All-way stop	B	10.2	No	All-way stop	B	12.3	All-way stop	A	7.1	No

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Table 8.6
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
79	Grant Line Road & Kiefer Boulevard	All-way stop	B	11.4	All-way stop	B	11.0	No	All-way stop	B	10.5	All-way stop	B	10.4	No
80	Grant Line Road & Jackson Road	Signal	E	74.0	Signal	E	61.3	No	Signal	E	78.9	Signal	E	67.5	No
81	Watt Avenue & US-50 EB Ramps	Signal	B	13.0	Signal	B	12.3	No	Signal	B	14.9	Signal	B	13.5	No
82	Watt Avenue & US-50 WB Ramps	Signal	C	32.9	Signal	D	35.2	No	Signal	C	28.6	Signal	C	29.0	No
83	Mayhew Rd & Folsom Blvd.	Signal	B	19.8	Signal	B	12.0	No	Signal	C	20.1	Signal	B	12.5	No
84	65th Street Expy & Fruitridge Road	Signal	C	31.2	Signal	C	25.7	No	Signal	D	35.3	Signal	C	25.0	No
85	Power Inn Road & Elder Creek Road	Signal	D	35.2	Signal	C	28.3	No	Signal	D	36.3	Signal	C	32.9	No
86	Power Inn Road & Florin Rd	Signal	D	36.3	Signal	C	33.0	No	Signal	D	45.9	Signal	D	41.7	No
87	Florin Perkins Road & Florin Rd	Signal	D	36.7	Signal	C	29.4	No	Signal	C	32.5	Signal	C	26.9	No
88	Bradshaw Rd & Calvine Rd	Signal	C	30.5	Signal	C	23.0	No	Signal	D	36.9	Signal	C	24.0	No
89	Vineyard Rd & Calvine Rd	Signal	C	30.8	Signal	B	17.6	No	Signal	C	34.9	Signal	B	18.1	No
90	Excelsior Road & Calvine Rd	All-way stop	C	16.6	All-way stop	C	16.8	No	All-way stop	B	13.0	All-way stop	B	13.4	No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	D	51.7	Signal	B	15.0	No	Signal	D	46.5	Signal	C	25.9	No
92	Grant Line Rd & Calvine Rd	Signal	C	21.4	Signal	B	19.6	No	Signal	C	24.0	Signal	C	20.3	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	E	65.9	Signal	E	60.6	No	Signal	E	64.8	Signal	D	44.0	No

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Table 8.6
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	C	33.3	Signal	B	12.7	No	Signal	D	46.4	Signal	B	14.6	No
202	W Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	A	8.0	No	Mather South Project Int.			Signal	B	17.1	No
204	E Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	14.0	No	Mather South Project Int.			Signal	B	15.2	No
600	Zinfandel Drive & Collector MS-2	Mather South Project Int.			Roundabout	B	10.2	No	Mather South Project Int.			Roundabout	B	11.9	No
601	Zinfandel Drive & Collector MS-3	Mather South Project Int.			Roundabout	A	7.8	No	Mather South Project Int.			Roundabout	A	7.8	No
602	Zinfandel Drive & Collector MS-4	Mather South Project Int.			Roundabout	A	6.7	No	Mather South Project Int.			Roundabout	A	6.6	No
603	Collector MS-5 & Collector MS-2	Mather South Project Int.			Two-way stop	A	2.6	No	Mather South Project Int.			Two-way stop	A	3.3	No
	Northbound Left Turn					*A*	*7.9*						*A*	*7.5*	
	Eastbound					*B*	*10.2*						*B*	*10.2*	
604	Collector MS-5 & Collector MS-3	Mather South Project Int.			All-way stop	B	11.1	No	Mather South Project Int.			All-way stop	A	10.0	No
605	Collector MS-5 & Collector MS-4	Mather South Project Int.			Two-way stop	A	4.8	No	Mather South Project Int.			Two-way stop	A	6.5	No
	Northbound Left Turn					*A*	*7.8*						*A*	*7.7*	
	Eastbound					*B*	*10.2*						*B*	*11.3*	
606	Collector MS-5 & W Collector MS-1/E Collector MS-1	Mather South Project Int.			Two-way stop	A	4.5	No	Mather South Project Int.			Two-way stop	A	3.6	No
	Northbound Left Turn					*A*	*7.3*						*A*	*7.3*	
	Eastbound Left Turn					*A*	*9.0*						*A*	*9.2*	
	Eastbound					*B*	*8.6*						*A*	*8.5*	

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

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Table 8.7
Revised Project with Canal Crossing
Existing and Existing Plus Mather South Project (Alt. 1) Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	Signal								
2	Howe Avenue & US 50 EB Ramps	Signal	Signal								
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal								
4	Power Inn Road & 14th Avenue	Signal	Signal								
5	Power Inn Road & Fruitridge Road	Signal	Signal								
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal								
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal								
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop								
9	Florin Perkins Road & Jackson Road	Signal	Signal								
10	Florin Perkins Road & Fruitridge Road	Signal	Signal								
11	Florin Perkins Road & Elder Creek Road	Signal	Signal								
12	Watt Avenue & Folsom Blvd.	Signal	Signal								
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal								
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal								
15	S. Watt Avenue & Canberra Dr.	Signal	Signal								
16	S. Watt Avenue & Jackson Road	Signal	Signal								
17	S. Watt Avenue & Fruitridge Road	Signal	Signal								
18	S. Watt Avenue & Elder Creek Road	Signal	Signal								
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal								
21	Elk Grove Florin Road & Gerber Road	Signal	Signal								
22	Sunrise Boulevard & Justinian Drive	Two-way stop	Two-way stop								
23	Hedge Avenue & Jackson Road	Signal	Signal								
24	Hedge Avenue & Fruitridge Road	All-way stop	All-way stop								
25	Hedge Avenue & Elder Creek Road	All-way stop	All-way stop								
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop								
27	Hedge Avenue & Florin Road	All-way stop	All-way stop								
28	Mayhew Road & Kiefer Boulevard	Signal	Signal								
29	Mayhew Road & Jackson Road	Two-way stop	Two-way stop								

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 8.7
Revised Project with Canal Crossing
Existing and Existing Plus Mather South Project (Alt. 1) Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
30	Mayhew Road & Fruitridge Road	Two-way stop	Two-way stop	↰	↲	↱		↰	↲	↱	
31	Mayhew Road & Elder Creek Road	Two-way stop	Two-way stop	↰↑↱	↰↑↱	↰↑↱	↰↑↱	↰↑↱	↰↑↱	↰↑↱	↰↑↱
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop	↰	↲	↱		↰	↲	↱	
33	Bradshaw Road & Folsom Blvd.	Signal	Signal	↰↰↑↱	↲↓↓↳	↰↑↑ ↱	↰↰↑↑ ↱	↰↰↑↱	↲↓↓↳	↰↑↑ ↱	↰↰↑↑ ↱
34	Bradshaw Road & US 50 WB Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓↓		↰↰↱↱	↑↑↑ ↱	↲↓↓↓		↰↰↱↱
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓↓	↰↰↱↱		↑↑↑ ↱	↲↓↓↓	↰↰↱↱	
36	Bradshaw Road & Old Placerville Road	Signal	Signal	↰↑↑↑ ↱	↲↓↓↰↰	↰↱	↰↰↑ ↱	↰↑↑↑ ↱	↲↓↓↰↰	↰↱	↰↰↑ ↱
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal	↰↰↑↑↑ ↱	↲↓↓↰↰	↰↰↑ ↱	↰↰↑ ↱	↰↰↑↑↑ ↱	↲↓↓↰↰	↰↰↑ ↱	↰↰↑ ↱
38	Bradshaw Road & Jackson Road	Signal	Signal	↰↑↱	↲↓↓↳	↰↑ ↱	↰↑ ↱	↰↑↱	↲↓↓↳	↰↑ ↱	↰↑ ↱
39	Bradshaw Road & Elder Creek Road	Signal	Signal	↰↑↱	↲↓↳	↰↰↱	↰↰↱	↰↑↱	↲↓↳	↰↰↱	↰↰↱
40	Bradshaw Road & Florin Road	Signal	Signal	↰↑↱	↲↓↳	↰↰↱	↰↰↱	↰↑↱	↲↓↳	↰↰↱	↰↰↱
41	Bradshaw Road & Gerber Road	Signal	Signal	↰↑↱	↲↓↳	↰↰↱	↰↱	↰↑↱	↲↓↳	↰↰↱	↰↱
42	Happy Lane & Old Placerville Road	Two-way stop	Two-way stop	↰↱		↑ ↱	↰↑	↰↱		↑ ↱	↰↑
45	Excelsior Road & Jackson Road	Signal	Signal	↰↱	↲↳	↰↑ ↱	↰↑ ↱	↰↱	↲↳	↰↑ ↱	↰↑ ↱
46	Excelsior Road & Elder Creek Road	Two-way stop	Two-way stop	↰	↲↓	↱		↰	↲↓	↱	
47	Excelsior Road & Florin Road	All-way stop	All-way stop	↰↑↱	↲↑↳	↰↑↱	↰↑↱	↰↑↱	↲↑↳	↰↑↱	↰↑↱
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop	↰↑↱	↲↑↳	↰↑↱	↰↑↱	↰↑↱	↲↑↳	↰↑↱	↰↑↱
49	Mather Field Road & US 50 WB Ramps	Signal	Signal	↑↑ ↱	↲↓↓		↰↰↱	↑↑ ↱	↲↓↓		↰↰↱
50	Mather Field Road & US 50 EB Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓	↰↰↱↱		↑↑↑ ↱	↲↓↓	↰↰↱↱	
51	Mather Field Road & Rockingham Drive	Signal	Signal	↰↑↑ ↱	↲↓↓↓↳	↰↰↱	↰↱	↰↑↑ ↱	↲↓↓↓↳	↰↰↱	↰↱
52	Mather Boulevard & Douglas Road	All-way stop	All-way stop	↰↑↱	↲↳	↰↑↱	↰↑↱	↰↑↱	↲↳	↰↑↱	↰↑↱
53	Zinfandel Drive & US 50 WB Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓		↰↰↱	↑↑↑ ↱	↲↓↓		↰↰↱
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal	↑↑↑ ↱	↲↓↓	↰↰↱↱	↱↱	↑↑↑ ↱	↲↓↓	↰↰↱↱	↱↱
55	Zinfandel Drive & White Rock Road	Signal	Signal	↰↰↑↑ ↱	↲↓↓↓↰↰	↰↰↑↑ ↱	↰↰↑ ↱↱	↰↰↑↑ ↱	↲↓↓↓↰↰	↰↰↑↑ ↱	↰↰↑ ↱↱
56	Zinfandel Drive & Data Drive	Signal	Signal	↰↑↑ ↱	↲↓↓↳	↰↰	↰↰↱	↰↑↑ ↱	↲↓↓↳	↰↰	↰↰↱
57	Zinfandel Drive & International Dr	Signal	Signal	↰↰↑↑↑ ↱	↲↓↓↰↰	↰↰↑↑ ↱	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	↲↓↓↰↰	↰↰↑↑ ↱	↰↰↑↑↑ ↱
58	Zinfandel Drive & Douglas Road	Signal	Signal	↰↱	↲↓↰↰	↰↑ ↱	↰↑ ↱	↰↱	↲↓↰↰	↰↑ ↱	↰↑ ↱
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard		Signal	↱			↰	↑↱	↓↳		↰↱

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 8.7
Revised Project with Canal Crossing
Existing and Existing Plus Mather South Project (Alt. 1) Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
60	Eagles Nest Road & Jackson Road	Two-way stop	Two-way stop								
61	Eagles Nest Road & Florin Road	Two-way stop	Two-way stop								
62	Sunrise Boulevard & US 50 WB Ramps	Signal	Signal								
63	Sunrise Boulevard & US 50 EB Ramps	Signal	Signal								
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal								
65	Sunrise Boulevard & White Rock Road	Signal	Signal								
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal								
67	Sunrise Boulevard & Douglas Road	Signal	Signal								
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal								
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal								
70	Sunrise Boulevard & Jackson Road	Signal	Signal								
71	Sunrise Boulevard & Florin Road	Signal	Signal								
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal								
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	Signal								
74	Hazel Avenue & US 50 EB Ramps	Signal	Signal								
75	Hazel Avenue & Folsom Boulevard	Signal	Signal								
76	Prairie City Road & White Rock Road	Signal	Signal								
77	Grant Line Road & White Rock Road	Signal	Signal								
78	Grant Line Road & Douglas Road	All-way stop	Signal[1]								
79	Grant Line Road & Kiefer Boulevard	All-way stop	All-way stop								
80	Grant Line Road & Jackson Road	Signal	Signal								
81	Watt Avenue & US-50 EB Ramps	Signal	Signal								
82	Watt Avenue & US-50 WB Ramps	Signal	Signal								
83	Mayhew Rd & Folsom Blvd.	Signal	Signal								
84	65th Street Expy & Fruitridge Road	Signal	Signal								
85	Power Inn Road & Elder Creek Road	Signal	Signal								
86	Power Inn Road & Florin Rd	Signal	Signal								
87	Florin Perkins Road & Florin Rd	Signal	Signal								

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 8.7
Revised Project with Canal Crossing
Existing and Existing Plus Mather South Project (Alt. 1) Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
88	Bradshaw Rd & Calvine Rd	Signal	Signal								
89	Vineyard Rd & Calvine Rd	Signal	Signal								
90	Excelsior Road & Calvine Rd	All-way stop	All-way stop								
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal								
92	Grant Line Rd & Calvine Rd	Signal	Signal								
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal								
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	Signal								
202	W Collector MS-1 & Kiefer Boulevard		Signal								
204	E Collector MS-1 & Kiefer Boulevard		Signal								
600	Zinfandel Drive & Collector MS-2		Roundabout								
601	Zinfandel Drive & Collector MS-3		Roundabout								
602	Zinfandel Drive & Collector MS-4		Roundabout								
603	Collector MS-5 & Collector MS-2		Two-way stop								
604	Collector MS-5 & Collector MS-3		All-way stop								
605	Collector MS-5 & Collector MS-4		Two-way stop								
606	Collector MS-5 & W Collector MS-1/E Collector MS-1		Two-way stop								

1. Reflects 2017 intersection improvements.

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

8.7.2 Intersection Mitigations

Table 8.8 and **Table 8.9** summarize the results of the operations analysis for the study area intersections with mitigation under existing conditions. Where feasible, the number of approach lanes was increased to mitigate the impact. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. The shaded table cells in the first table for each scenario under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. The second table indicates those locations where changes in traffic control and / or number of approach lanes by type have been made, which would be the responsibility of the Mather South alternative to implement.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

Table 8.8
Revised Project with Canal Crossing
Existing Plus Mather South Project Impacted (Alt. 1) Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus Mather South Project			LOS Impact	Mitigated Existing Plus Mather South Project			Existing Plus Mather South Project			LOS Impact	Mitigated Existing Plus Mather South Project		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
42	Happy Lane & Old Placerville Road	Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct Routier extension.			Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct Routier extension.		
	Northbound Left Turn		***F***	***187.3***						***F***	***240.1***				
	Northbound Right Turn		***E***	***35.7***						*C*	*20.0*				
60	Eagles Nest Road & Jackson Road	Two-way stop			Yes	Signal	D	45.5	Two-way stop			Yes	Signal	C	22.9
	Northbound		***F***	***>300***						***F***	***>300***				
	Southbound		***F***	***>300***						***F***	***>300***				
	Eastbound Left Turn		*A*	*9.1*						*A*	*8.2*				
	Westbound Left Turn		*A*	*7.8*						*A*	*8.6*				

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 8.9
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Intersection Impacts and Mitigations

	Intersection	Traffic Control		Existing Plus Mather South Project Lane Geometrics				Mitigated Existing Plus Mather South Project Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Existing Plus Project	Mitigated Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
42	Happy Lane & Old Placerville Road	Two-way stop	Access Control	٦ ٢		١ ٢	٦ ١	Happy Lane to become right-in and right-out only. Median will allow westbound left turns.				Yes	No	Construct Routier extension from Old Placerville Road to Kiefer Road.	
60	Eagles Nest Road & Jackson Road	Two-way stop	Signal	٣	٣	٦ ٢	٦ ٢	٣	٢١	٦ ٢	٦ ٢	No	No		

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

8.8 PEDESTRIAN AND BICYCLE FACILITY ANALYSIS

8.8.1 Pedestrian and Bicycle Facility Impacts

The Mather South alternative would not remove any existing or planned pedestrian facility. The Mather South alternative would not remove any existing bicycle facility, but would modify facilities that are planned in the Bikeway Master Plan. The Mather South alternative would add pedestrian and bicycle demands within the Mather South alternative site and to and from nearby land uses. Because the Mather South alternative would add demand for pedestrian and bicycle facilities that may not be available in the site vicinity, the impact of the Mather South project on pedestrian and bicycle circulation is potentially significant.

8.8.2 Pedestrian and Bicycle Facility Mitigations

The Mather South alternative applicant shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the Mather South alternative and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the Mather South project vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

8.9 TRANSIT SYSTEM IMPACTS

8.9.1 Transit System Impacts

Public transit is not currently provided to the Mather South alternative site. In the preparation of this analysis, a conceptual transit system to serve the Mather South alternative and adjacent future projects was developed. The additional transit service was assumed to be funded by the Mather South alternative. However, the timing and implementation of the transit system are uncertain at this time. The Mather South alternative would increase demands for public transit facilities. Therefore, the impact of the Mather South alternative on the transit system is potentially significant.

8.9.2 Transit System Mitigations

The Mather South project applicant shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis, or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the Mather South alternative. The full level of transit service would not achieve adequate transit

ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the Mather South alternative, must be phased with development of the Mather South alternative.

8.10 FUNCTIONALITY ANALYSIS

8.10.1 Functionality Impacts

Table 8.10 summarizes the results of the rural roadway segment functionality analysis under existing conditions. The table includes the number of lanes assumed with the implementation of the Mather South alternatives, which in many cases is greater than the number of lanes in the base condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the Mather South alternative. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the alternative makes improvements to a roadway segment such as widening, it would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the Mather South alternative would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the Mather South alternative, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South alternative.

Table 8.10
Existing Plus Mather South Project (Alt. 1) Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + Mather South (Revised Project with Crossing)			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	2	Yes	7,500	**Yes**
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	2	Yes	7,780	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	2	Yes	6,800	**Yes**
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Yes	3,660	No
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Yes	1,950	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	2	Yes	5,940	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	2	Yes	6,060	**Yes**
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	2	Yes	5,920	No
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	2	Yes	2,330	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Yes	1,620	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	2	Yes	4,640	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	2	Yes	3,670	No
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Yes	5,280	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Yes	4,030	No
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	2	Yes	8,460	**Yes**
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	2	Yes	7,150	**Yes**
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	2	Yes	7,170	**Yes**
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	2	Yes	4,590	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Yes	5,430	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	2	Yes	3,050	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	2	Yes	1,990	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	2	Yes	7,320	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	2	Yes	6,490	**Yes**
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Yes	2,920	No
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Yes	3,600	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Yes	2,740	No

Red text with light gray shading indicate project impacts.

Table 8.10
Existing Plus Mather South Project (Alt. 1) Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + Mather South (Revised Project with Crossing)			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	2	Yes	14,150	Yes
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	2	Yes	13,200	Yes
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Yes	4,740	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	2	Yes	5,530	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	2	Yes	4,930	No
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Yes	7,010	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	2	Yes	1,820	No
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	2	Yes	2,420	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	2	Yes	15,000	Yes

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

8.10.2 Functionality Mitigations

Table 8.11 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation under existing conditions.

Table 8.11
Existing Plus Mather South Project (Alt. 1) Functionality Mitigations

ID	Roadway	Segment		Existing + Mather South (Revised Project with Crossing)				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Yes	7,500	Yes	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	2	Yes	6,800	Yes	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Yes	6,060	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	2	Yes	8,460	Yes	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Yes	7,150	Yes	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Yes	7,170	Yes	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Yes	6,490	Yes	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Yes	14,150	Yes	Widen to County standards [5]	No
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Yes	13,200	Yes	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	2	Yes	15,000	Yes	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

8.11 MITIGATION SUMMARY

Table 8.12 through **Table 8.14** summarize all of the roadway segments, intersections, and substandard roadways that would exhibit significant LOS impacts under existing conditions along with the mitigation success for these impacts.

Compared to the proposed project, the following changes occur to roadway segment impacts:

- #56: Grant Line Road from Sheldon Road to Wilton Road is no longer an impact
- #122: Zinfandel Drive from International Road to Baroque Drive is no longer an impact

Compared to the proposed project, the following changes occur to intersection impacts:

- #32: Woodring Drive and Zinfandel Drive is no longer an impact

Compared to the proposed project, the following changes occur to functionality impacts:

- #16: Douglas Road from Zinfandel Drive to Sunrise Boulevard is no longer an impact
- #78: Kiefer Boulevard from Zinfandel Drive to Sunrise Boulevard is no longer an impact

Table 8.12
Existing Plus Mather South Project (Alt. 1) Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
55.1	Grant Line Rd	Calvine Rd	Elk Grove City Limit
55.2	Grant Line Rd	Elk Grove City Limit	Sheldon Rd
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
106	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
118	Zinfandel Dr	US 50	White Rock Rd

Note: Refer to Table 8.5 for detailed description of impacts and mitigations.

Table 8.13
Revised Project with Canal Crossing
Existing Plus Mather South Project (Alt. 1) Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
42	Happy Lane & Old Placerville Road	**
60	Eagles Nest Road & Jackson Road	

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 8.14
Existing Plus Mather South Project (Alt. 1) Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

9 ALTERNATIVE 2 QUANTITATIVE IMPACT ANALYSIS

9.1 INTRODUCTION

The Mather South project proposes three additional alternatives for analysis, in addition to the base alternative. The additional alternatives are further described in Section 9.3, but are identified as follows:

- Alternative 1: Project variation adding the canal crossing
- Alternative 2: Project variation with the staff land use alternative
- Alternative 3: Project variation with the staff land use alternative and canal crossing

The analysis for the Mather South project (base alternative) can be found in Section 3 (existing conditions) and Sections 6 and 7 (CEQA cumulative conditions). Please refer to those sections for the transportation analysis of the project. Note that this alternatives analysis provides a comparison of the impacts of the alternatives *relative* to the impacts of the project.

Two types of analyses are typically used to evaluate the traffic impacts of a proposed project or alternative: quantitative analysis and qualitative analysis. **Quantitative** analysis includes running a travel demand model and using forecasted volumes to conduct level of service analysis, VMT-related calculations, and evaluate other measures of performance. **Qualitative** analysis may or may not include running a travel demand model, but takes a more macro approach to evaluating traffic operations. Instead of making numerous calculations at each intersection and roadway segment, a qualitative approach to analyzing an alternative may look at the project as a whole and analyze whether traffic volumes generally decreased, increased, or remained constant. A qualitative approach may also evaluate if changes to proposed land use caused traffic patterns to shift temporally and / or spatially.

9.2 METHODOLOGY

A quantitative analysis is provided for the following alternatives:

- Alternative 1
- Alternative 2
- Alternative 3

For a description of the study area, forecasting and operations analysis methodology, level of service policies, and standards of significance, please refer to the base project documentation in Chapter 2 of this report.

9.3 ALTERNATIVE DESCRIPTION

In Alternative 2, the variation from the proposed project is 534 high density residential units (plus 19 additional bonus units) that would be constructed on the research and development campus. These units would be additive to the 325,000 square feet of office space that would be constructed on that parcel by the proposed project.

Table 9.1 summarizes the Mather South Alternative 2 land use. **Table 9.2** shows the difference in dwelling unit and square footage totals between the proposed project and Alternative 2.

Table 9.1: Land Use Summary for Alternative 2 – Staff Alternative

Land Use Category	Acres	Residential			Non-Residential	
		Density Range	Ave Density	Dwelling Units	Floor Area Ratio	Estimated Square Feet
Low Density	308.32	5 – 7.9	6.2	1,925		
Medium Low Density	91.25	8 - 10	8.9	816		
Medium High Density	29.08	20	20	581		
High Density Bonus Units				49		
Commercial/Retail	21.06				0.25	185,000
Environmental Education Campus	27.9			200		275,000
Research and Development	21.35			534		325,000
Parks & Recreation	43.05					
Public Utilities	3.5					
Schools	23.67					
Open Space	210.5					
Streets	62.7					
Total	**848.2**			**4,105**		**800,000**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant*

Table 9.2: Change in Land Use Totals Between Base Project and Mather South Alternative 2 – Staff Alternative

Land Use Category	Acres	Residential	Non-Residential
		Dwelling Units	Estimated Square Feet
Low Density	0.0	0	
Medium Low Density	0.0	0	
Medium High Density	0.0	0	
High Density Bonus Units	0.0	+19	
Commercial/Retail	0.0	0	0
Environmental Education Campus	0.0	0	0
Research and Development	0.0	+534	0
Parks & Recreation	0.0		
Public Utilities	0.0		
Schools	0.0		
Open Space	0.0		
Streets	0.0		
Total	**0.0**	**+553**	**+0**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant and DKS Associates, 2018.*

9.4 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the Mather South project. **Table 9.3** summarizes the person trip generation. The Mather South project would generate over 7,600 daily work person trip ends, and over 48,300 daily person trip ends for all trip purposes.

Table 9.4 summarizes the estimated mode choice for the Existing plus Mather South project scenario. About 90.2 percent of all person trips are expected to be accommodated by automobile, while transit will serve about 1 percent of all trips. Walk and bike modes will accommodate about 8.9 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 9.5 summarizes the vehicular (auto) trip generation of the Mather South project. The Mather South project is estimated to generate over 32,600 daily vehicle trip ends. It should be noted that more than one person trip may be accommodated by a vehicle trip (e.g. carpooling). Over 2,000 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the Mather South project, about 12.6 percent of the trip ends. The internal trip ends represent over 1,000 daily vehicle trips (one-half the number of internal trip ends). The Mather South project will generate over 28,000 external vehicle trips that have an origin or destination inside the Mather South project but the other end of the trip is outside the Mather South project. Table 9.5 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

Table 9.3 Estimated Person Trip Generation Mather South (Alternative 2)

Trip Purpose	Daily Person Trip Ends
Work Trips	7,616
Non-Work Trips	40,723
All Trip Purposes	48,339

***Source**: DKS Associates, 2018.*

Table 9.4 Mode Split Mather South (Alternative 2)

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	83.9%	46.4%	52.3%
Auto - HOV	11.6%	42.9%	37.9%
Transit	2.0%	0.8%	1.0%
Walk	2.0%	9.3%	8.2%
Bike	0.4%	0.7%	0.7%

***Source**: DKS Associates, 2018.*

Table 9.5 Estimated Daily Vehicle Trip Generation Mather South (Alternative 2)

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		3,054	2,972	32,694
Percent Internal Trip Ends1		12.9%	12.5%	12.6%
Vehicle Trips	Internal to Project	196	186	2,053
	External to Project	2,662	2,600	28,589
	Total	2,858	2,786	30,642

[1.] Both trip ends within the project.
***Source:** DKS Associates, 2018.*

9.5 OPERATIONS ANALYSIS AND IMPACTS

For purposes of this analysis, full development of the Mather South alternative is assumed to occur "instantaneously." In this manner, the traffic and impacts associated with the Mather South alternative can be directly compared to known and measured conditions. Existing scenario impacts are determined by comparing the traffic operating conditions associated with the Mather South alternative with the traffic operating conditions associated with the existing (without development) conditions, and comparing the change to the thresholds of significance.

9.6 ROADWAY SEGMENT ANALYSIS

9.6.1 Roadway Segment Operations and Impacts

Table 9.6 summarizes the results of the operations analysis for the study area roadway segments under existing conditions. The table includes the number of lanes assumed with the implementation of the Mather South alternative, which in many cases is greater than the number

of lanes in the existing project condition. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways and widened roadways that are assumed part of the Mather South alternative. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

As stated above, the traffic analysis assumed that the Mather South alternative would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the Mather South project, which would be greater than the number of lanes in the existing condition. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South alternative.

Table 9.6
Existing Plus Mather South Project (Alt. 2) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	20,592	0.38	A	6	Arterial M	20,460	0.38	A
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	52,590	0.97	**E**	6	Arterial M	53,190	0.99	**E**
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	42,787	0.79	C	6	Arterial M	43,110	0.80	C
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	38,984	0.72	C	6	Arterial M	38,980	0.72	C
5	Bradshaw Rd	Goethe Rd	Kiefer Blvd	4	Arterial M	28,651	0.80	C	4	Arterial M	28,580	0.79	C
6	Bradshaw Rd	Kiefer Blvd	Jackson Rd	4	Arterial M	30,726	0.85	D	4	Arterial M	31,300	0.87	D
7	Bradshaw Rd	Jackson Rd	Elder Creek Rd	4	Arterial M	22,871	0.64	B	4	Arterial M	22,920	0.64	B
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	4	Arterial M	22,265	0.62	B	4	Arterial M	22,010	0.61	B
9	Bradshaw Rd	Florin Rd	Gerber Rd	4	Arterial M	22,883	0.64	B	4	Arterial M	22,750	0.63	B
10	Bradshaw Rd	Gerber Rd	Calvine Rd	4	Arterial M	16,984	0.47	A	4	Arterial M	16,850	0.47	A
11	Calvine Rd	Waterman Rd	Bradshaw Rd	4	Arterial M	16,015	0.44	A	4	Arterial M	16,210	0.45	A
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	12,395	0.34	A	4	Arterial M	12,920	0.36	A
13	Calvine Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	6,036	0.34	A	2	Arterial M	6,570	0.37	A
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	3,411	0.09	A	4	Arterial M	2,530	0.07	A
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Arterial M	6,635	0.37	A	2	Arterial M	7,590	0.42	A
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Arterial M	8,369	0.46	A	2	Arterial M	9,690	0.54	A
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	3,674	0.10	A	5	Arterial M	4,200	0.12	A
18	Douglas Rd	Rancho Cordova Pkwy	Grant Line Rd	2	Arterial M	3,674	0.20	A	2	Arterial M	4,140	0.23	A
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	740	0.04	A	2	Arterial M	7,300	0.41	A
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	517	0.03	A	2	Arterial M	3540	0.20	A
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	189	0.01	A	2	Arterial M	1810	0.10	A
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	17,891	0.50	A	4	Arterial M	18,070	0.50	A
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	15,734	0.87	D	2	Arterial M	15,960	0.89	D
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	11,092	0.62	B	2	Arterial M	11,500	0.64	B
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,576	0.31	A	2	Arterial M	5,980	0.33	A
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	5,797	0.32	A	2	Arterial M	6,100	0.34	A
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	5,355	0.30	A	2	Arterial M	6,000	0.33	A
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	2,158	0.12	A	2	Arterial M	2,450	0.14	A
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	22,960	1.28	**F**	2	Arterial M	23,060	1.28	**F**
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	3,716	0.21	A	2	Arterial M	1,610	0.09	A
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	2	Arterial M	5,075	0.28	A	2	Arterial M	4,860	0.27	A
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,203	0.23	A	2	Arterial M	3,730	0.21	A
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	5,423	0.30	A	2	Arterial M	5,340	0.30	A
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	4,229	0.23	A	2	Arterial M	4,100	0.23	A

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.6
Existing Plus Mather South Project (Alt. 2) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	4,473	0.25	A	2	Arterial M	4,240	0.24	A
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	27,495	0.76	C	4	Arterial M	27,870	0.77	C
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	21,595	0.60	A	4	Arterial M	22,250	0.62	B
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	4	Arterial M	14,163	0.39	A	4	Arterial M	14,860	0.41	A
39	Florin Rd	South Watt Ave	Hedge Ave	2	Arterial M	7,718	0.43	A	2	Arterial M	8,490	0.47	A
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Arterial M	6,312	0.35	A	2	Arterial M	7,200	0.40	A
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	6,317	0.35	A	2	Arterial M	7,220	0.40	A
42	Florin Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	3,478	0.19	A	2	Arterial M	4,730	0.26	A
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	3,835	0.21	A	2	Arterial M	5,520	0.31	A
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	37,516	1.04	**F**	4	Arterial M	38,150	1.06	**F**
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	16,634	0.46	A	4	Arterial M	16,650	0.46	A
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	15,214	0.42	A	4	Arterial M	15,500	0.43	A
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,280	0.57	A	2	Arterial M	10,220	0.57	A
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	2,890	0.16	A	2	Arterial M	3,030	0.17	A
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	2	Arterial M	1,790	0.10	A	2	Arterial M	1,970	0.11	A
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Rural NS	7,189	0.42	D	2	Rural NS	7,150	0.42	D
51	Grant Line Rd	Douglas Rd	Kiefer Blvd	2	Rural S	6,143	0.31	C	2	Rural S	5,970	0.30	C
52	Grant Line Rd	Kiefer Blvd	Jackson Rd	2	Rural S	5,758	0.29	C	2	Rural S	5,640	0.28	C
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	2	Rural S	14,720	0.74	E	2	Rural S	14,480	0.72	E
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	2	Rural S	14,812	0.74	E	2	Rural S	17,130	0.86	E
55.1	Grant Line Road	Calvine Rd	Elk Grove City Limit	2	Rural S	13,140	0.66	**E**	2	Rural S	14,680	0.73	**E**
55.2	Grant Line Road	Elk Grove City Limit	Sheldon Rd	2	Rural S	13,140	0.66	**E**	2	Rural S	14,710	0.74	**E**
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	17,459	0.87	**E**	2	Rural S	18,570	0.93	**E**
57	Grant Line Rd	Wilton Rd	Bond Rd	2	Rural S	16,064	0.80	**E**	2	Rural S	17,040	0.85	**E**
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Rural S	4,635	0.23	C	2	Rural S	6,530	0.33	C
58.1	Happy Lane	Old Placerville Road	Routier Ext	2	Rural S	4,635	0.23	C	2	Rural S	6,530	0.33	C
58.2	Happy Lane	Routier Ext	Kiefer Boulevard	2	Rural S	4,635	0.23	C	2	Rural S	5,510	0.28	C
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	3,061	0.17	A	2	Arterial M	2,970	0.17	A
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	3,737	0.21	A	2	Arterial M	3,630	0.20	A
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	2,722	0.15	A	2	Arterial M	2,670	0.15	A
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	53,849	1.00	E	6	Arterial M	53,860	1.00	E
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	17,500	0.32	A	6	Arterial M	19,830	0.37	A

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.6
Existing Plus Mather South Project (Alt. 2) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	8,802	0.16	A	6	Arterial M	9,030	0.17	A
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	2	Arterial M	12,358	0.69	B	2	Arterial M	12,450	0.69	B
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,414	0.58	A	2	Arterial M	10,770	0.60	A
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	17,060	0.95	E	2	Arterial M	17,470	0.97	E
68	Jackson Rd	Hedge Ave	Mayhew Rd	2	Arterial M	12,616	0.70	C	2	Arterial M	13,290	0.74	C
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	14,996	0.83	D	2	Arterial M	15,860	0.88	D
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	13,030	0.72	C	2	Arterial M	14,440	0.80	D
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Rural Hwy	10,478	0.46	D	2	Rural Hwy	13,590	0.59	E
72	Jackson Rd	Eagles Nest Rd	Sunrise Blvd	2	Rural Hwy	9,976	0.44	D	2	Rural Hwy	9,790	0.43	D
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,306	0.58	D	2	Rural Hwy	13,480	0.59	D
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	4,616	0.26	A	2	Arterial M	4,700	0.26	A
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	18,668	0.52	A	4	Arterial M	19,110	0.53	A
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	9,274	0.26	A	4	Arterial M	9,800	0.27	A
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	2	Arterial M	4,618	0.26	A	2	Arterial M	5,470	0.30	A
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	3530	0.20	A
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	656	0.04	A	3	Arterial M	2210	0.12	A
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	2210	0.12	A
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	656	0.04	A	2	Arterial M	7370	0.41	A
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	2	Arterial M	2,786	0.15	A	2	Arterial M	2,780	0.15	A
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	4,373	0.12	A	4	Arterial M	6,240	0.17	A
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	4,373	0.12	A	4	Arterial M	6,240	0.17	A
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	4,373	0.24	A	2	Arterial M	6,230	0.35	A
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	6,751	0.84	E	2	Res Collector F	7,110	0.89	E
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	37,755	0.70	B	6	Arterial M	40,590	0.75	C
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	37,520	0.69	B	6	Arterial M	40,320	0.75	C
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	4	Arterial M	14,857	0.41	A	4	Arterial M	15,310	0.43	A
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	6,977	0.39	A	2	Arterial M	7,110	0.40	A

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.6
Existing Plus Mather South Project (Alt. 2) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial L	6,593	0.44	A	2	Arterial L	6,720	0.45	A
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	2	Arterial L	1,616	0.11	A	2	Arterial L	1,770	0.12	A
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	15,800	0.44	A	4	Arterial M	16,550	0.46	A
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	13,573	0.75	C	2	Arterial M	14,330	0.80	C
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	10,710	0.60	A	2	Arterial M	12,130	0.67	B
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	10,710	0.30	A	4	Arterial M	11,700	0.33	A
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	36,175	0.67	B	6	Arterial M	36,080	0.67	B
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	19,881	0.55	A	4	Arterial M	21,030	0.58	A
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	40,920	0.76	C	6	Arterial M	41,260	0.76	C
97	South Watt Ave	Kiefer Blvd	Jackson Rd	5	Arterial M	32,415	0.90	E	5	Arterial M	32,410	0.90	E
98	South Watt Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	25,832	1.44	**F**	2	Arterial M	25,750	1.43	**F**
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	21,567	1.20	**F**	2	Arterial M	21,570	1.20	**F**
100	South Watt Ave	Elder Creek Rd	Florin Rd	2	Arterial M	19,069	1.06	**F**	2	Arterial M	19,210	1.07	**F**
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	54,500	1.01	**F**	7	Arterial M	55,060	1.02	**F**
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	49,500	0.92	**E**	6	Arterial M	50,440	0.93	**E**
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	34,571	0.64	B	6	Arterial M	36,080	0.67	B
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	25,811	0.48	A	6	Arterial M	27,630	0.51	A
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	28,400	0.53	A	6	Arterial M	31,290	0.58	A
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	25,811	0.48	A	6	Arterial M	29,620	0.55	A
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	21,878	0.61	B	5	Arterial M	24,000	0.67	B
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	16,894	0.94	**E**	2	Arterial M	18,620	1.03	**F**
107	Sunrise Blvd	Jackson Rd	Florin Rd	2	Rural S	11,181	0.56	D	2	Rural S	12,470	0.62	E
108	Sunrise Blvd	Florin Rd	Grant Line Rd	2	Rural S	7,752	0.39	D	2	Rural S	8,760	0.44	D
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	5,515	0.31	A	2	Arterial M	5,670	0.32	A
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	65,242	1.09	**F**	6	Arterial H	65,170	1.09	**F**
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	3,962	0.22	A	2	Arterial M	4,090	0.23	A
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	11,200	0.31	A	4	Arterial M	11,190	0.31	A
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	14,756	0.27	A	6	Arterial M	14,760	0.27	A
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	14,756	0.41	A	5	Arterial M	14,910	0.41	A
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	15,433	0.43	A	4	Arterial M	15,530	0.43	A
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	2	Rural NS	2,490	0.15	B	2	Rural NS	2,400	0.14	B
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	9,400	0.26	A	4	Arterial M	9,330	0.26	A
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	45,228	0.84	D	7	Arterial M	51,640	0.96	**E**

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.6
Existing Plus Mather South Project (Alt. 2) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	17,923	0.33	A	6	Arterial M	25,350	0.47	A
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	7,595	0.14	A	6	Arterial M	19,200	0.36	A
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	7,595	0.21	A	4	Arterial M	19,200	0.53	A
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	7,595	0.42	A	2	Arterial M	19,200	1.07	**F**
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	2	Arterial M	2,848	0.16	A	2	Arterial M	18,350	1.02	**F**
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3						4	Arterial M	10,420	0.29	A
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4						4	Arterial M	7,250	0.20	A
123.4	Zinfandel Dr	Collector MS-4	Kiefer Blvd						4	Arterial M	4,710	0.13	A
600	Collector MS-1	Kiefer Boulevard	Collector MS-5						2	Arterial M	7,560	0.42	A
601	Collector MS-1	Collector MS-5	Collector MS-4						2	Arterial M	3,950	0.22	A
602	Collector MS-1	Collector MS-4	Collector MS-3						2	Arterial M	3,090	0.17	A
603	Collector MS-1	Collector MS-3	Collector MS-2						2	Arterial M	1,400	0.08	A
604	Collector MS-2	Eagles Nest Road	Collector MS-5						2	Res Collector I	7,700	0.96	E
605	Collector MS-3	Eagles Nest Road	Collector MS-5						2	Arterial M	6,390	0.36	A
606	Collector MS-4	Eagles Nest Road	Collector MS-5						2	Arterial M	4,720	0.26	A
607	Collector MS-5	Kiefer Boulevard	Collector MS-1						2	Arterial M	1,880	0.10	A

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

9.6.2 Roadway Segment Mitigations

Table 9.7 summarizes the results of the operations analysis for the study area roadway segments with mitigation under existing conditions. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the Mather South alternative to implement. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

Table 9.7
Existing Plus Mather South Project (Alt. 2) Roadway Segment Mitigations

ID	Roadway	Segment		Existing + Mather South Project					Mitigated Existing + Mather South Project (Staff Alt.)						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
55.1	Grant Line Road	Calvine Rd	Elk Grove City Limit	2	Rural S	14,680	0.73	**E**	4	Arterial M	0.41	A	No		
55.2	Grant Line Road	Elk Grove City Limit	Sheldon Rd	2	Rural S	14,710	0.74	**E**	4	Arterial M	0.41	A	No		
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	18,570	0.93	**E**	4	Arterial M	0.52	A	No		
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	18,620	1.03	**F**	4	Arterial M	0.52	A	No		
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	51,640	0.96	**E**	7	Arterial M	0.96	**E**	Yes		Maximum General Plan lanes
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	19,200	1.07	**F**	4	Arterial M	0.53	A	No		
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	2	Arterial M	18,350	1.02	**F**	4	Arterial M	0.51	A	No		

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

9.7 INTERSECTION ANALYSIS

9.7.1 Intersection Operations and Impacts

Table 9.8 and **Table 9.9** summarize the results of the operations analysis for the study area intersections under existing conditions. The table includes the implementation of intersection changes associated with the Mather South alternative. Shaded table cells in the first table for each scenario illustrate those locations with an LOS impact. The second table illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type were assumed to be implemented by the Mather South alternative. Detailed analysis information is included in the technical appendix.

As stated above, the traffic analysis assumed that the Mather South alternative would construct a number of changes to many of the intersections that are internal to or on the boundary of the Mather South alternative, which would be an improvement over the existing condition. The timing of implementation of such intersection improvements on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South alternative.

Table 9.8
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	36.6	Signal	B	19.1	No	Signal	D	44.4	Signal	C	28.1	No
2	Howe Avenue & US 50 EB Ramps	Signal	B	16.9	Signal	B	10.1	No	Signal	C	20.5	Signal	A	9.1	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	D	39.1	Signal	C	30.8	No	Signal	D	55.0	Signal	D	42.4	No
4	Power Inn Road & 14th Avenue	Signal	C	31.5	Signal	B	16.6	No	Signal	D	39.6	Signal	C	20.7	No
5	Power Inn Road & Fruitridge Road	Signal	D	43.4	Signal	D	36.4	No	Signal	C	33.5	Signal	C	25.8	No
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	D	36.8	Signal	C	22.9	No	Signal	C	32.1	Signal	B	16.3	No
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	D	39.0	Signal	C	23.8	No	Signal	E	55.6	Signal	C	23.9	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Westbound Left Turn		*C*	*20.1*		*C*	*19.9*			*C*	*23.3*		*C*	*24.7*	
	Westbound Right Turn		*B*	*13.3*		*B*	*13.7*			*B*	*12.6*		*B*	*12.9*	
	Southbound Left Turn		*A*	*10.0*		*A*	*10.0*			*B*	*10.9*		*B*	*11.2*	
9	Florin Perkins Road & Jackson Road	Signal	D	51.5	Signal	B	17.8	No	Signal	D	54.1	Signal	C	24.4	No
10	Florin Perkins Road & Fruitridge Road	Signal	C	25.1	Signal	B	17.1	No	Signal	C	25.4	Signal	B	19.5	No
11	Florin Perkins Road & Elder Creek Road	Signal	C	25.7	Signal	B	17.1	No	Signal	C	26.2	Signal	B	18.8	No
12	Watt Avenue & Folsom Blvd.	Signal	E	66.2	Signal	E	74.9	No	Signal	E	71.9	Signal	E	67.9	No
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	B	19.6	Signal	B	12.2	No	Signal	D	54.1	Signal	B	11.8	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	E	56.0	Signal	E	59.6	No	Signal	E	75.9	Signal	C	30.8	No

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Table 9.8
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	11.5	Signal	A	7.6	No	Signal	A	9.7	Signal	A	6.1	No
16	S. Watt Avenue & Jackson Road	Signal	E	62.5	Signal	D	52.0	No	Signal	E	66.4	Signal	E	58.9	No
17	S. Watt Avenue & Fruitridge Road	Signal	D	38.1	Signal	B	18.5	No	Signal	D	41.7	Signal	C	20.6	No
18	S. Watt Avenue & Elder Creek Road	Signal	E	62.7	Signal	D	45.6	No	Signal	E	68.8	Signal	E	61.8	No
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	D	54.7	Signal	C	27.6	No	Signal	D	51.8	Signal	C	34.5	No
21	Elk Grove Florin Road & Gerber Road	Signal	D	49.1	Signal	D	42.0	No	Signal	E	64.6	Signal	E	61.9	No
23	Hedge Avenue & Jackson Road	Signal	D	35.1	Signal	B	19.1	No	Signal	D	37.3	Signal	B	13.3	No
24	Hedge Avenue & Fruitridge Road	All-way stop	B	13.6	All-way stop	B	13.6	No	All-way stop	A	9.4	All-way stop	A	9.4	No
25	Hedge Avenue & Elder Creek Road	All-way stop	C	15.9	All-way stop	C	17.3	No	All-way stop	B	11.6	All-way stop	B	12.0	No
26	Hedge Avenue & Tokay Lane	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*A*	*8.0*		*A*	*8.1*			*A*	*7.3*		*A*	*7.3*	
	Eastbound		*B*	*12.2*		*B*	*12.3*			*B*	*10.2*		*B*	*10.3*	
	Westbound		*B*	*11.1*		*B*	*11.2*			*A*	*9.6*		*A*	*9.6*	
27	Hedge Avenue & Florin Road	All-way stop	B	12.9	All-way stop	B	14.4	No	All-way stop	B	11.1	All-way stop	B	12.3	No
28	Mayhew Road & Kiefer Boulevard	Signal	D	48.6	Signal	B	17.7	No	Signal	D	51.1	Signal	B	18.1	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.8
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Through - Left Turn		*D*	*27.6*		*D*	*31.5*			*D*	*34.0*		*E*	*37.1*	
	Northbound Right Turn		*B*	*11.8*		*B*	*12.5*			*C*	*15.0*		*C*	*15.3*	
	Southbound		*C*	*18.3*		*C*	*19.8*			*C*	*24.9*		*D*	*26.6*	
	Eastbound Left Turn		*A*	*8.9*		*A*	*8.8*			*A*	*8.4*		*A*	*8.4*	
	Westbound Left Turn		*A*	*8.3*		*A*	*8.5*			*A*	*9.3*		*A*	*9.3*	
30	Mayhew Road & Fruitridge Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.4*		*A*	*7.4*	
	Eastbound		*A*	*9.2*		*A*	*9.3*			*A*	*9.2*		*A*	*9.2*	
31	Mayhew Road & Elder Creek Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound		*B*	*11.9*		*B*	*12.6*			*B*	*10.9*		*B*	*11.3*	
	Southbound		*B*	*11.1*		*B*	*11.0*			*A*	*9.8*		*A*	*9.9*	
	Eastbound Left Turn		*A*	*8.3*		*A*	*8.2*			*A*	*7.6*		*A*	*7.5*	
	Westbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*0.0*		*A*	*0.0*	
32	Woodring Drive & Zinfandel Drive	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Eastbound		*A*	*9.3*		***F***	***129.9***			*A*	*9.3*		***F***	***74.2***	
	Northbound Left Turn		*A*	*0.0*		*A*	*8.6*			*A*	*0.0*		*B*	*10.2*	
33	Bradshaw Road & Folsom Blvd.	Signal	E	56.7	Signal	C	22.4	No	Signal	D	49.9	Signal	B	18.9	No
34	Bradshaw Road & US 50 WB Ramps	Signal	B	15.9	Signal	A	5.4	No	Signal	B	15.2	Signal	A	6.1	No
35	Bradshaw Road & US 50 EB Ramps	Signal	C	24.4	Signal	B	12.0	No	Signal	B	16.0	Signal	A	9.7	No
36	Bradshaw Road & Old Placerville Road	Signal	D	45.9	Signal	C	31.2	No	Signal	D	52.0	Signal	C	33.2	No
37	Bradshaw Road & Kiefer Boulevard	Signal	D	45.7	Signal	C	22.4	No	Signal	E	66.2	Signal	C	30.9	No

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Table 9.8
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
38	Bradshaw Road & Jackson Road	Signal	E	73.1	Signal	E	71.6	No	Signal	E	59.4	Signal	E	55.8	No
39	Bradshaw Road & Elder Creek Road	Signal	D	36.8	Signal	C	22.0	No	Signal	D	36.1	Signal	C	21.9	No
40	Bradshaw Road & Florin Road	Signal	D	38.1	Signal	C	24.4	No	Signal	D	53.6	Signal	C	28.9	No
41	Bradshaw Road & Gerber Road	Signal	E	72.2	Signal	E	61.2	No	Signal	D	49.9	Signal	C	27.8	No
42	Happy Lane & Old Placerville Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound Left Turn		*F*	*64.8*		*F*	*192.7*			*F*	*95.9*		*F*	*311.6*	
	Northbound Right Turn		*D*	*30.6*		*D*	*33.6*			*C*	*15.4*		*C*	*18.5*	
	Westbound Left Turn		*B*	*10.2*		*B*	*10.8*			*B*	*10.1*		*B*	*10.3*	
45	Excelsior Road & Jackson Road	Signal	D	36.7	Signal	C	23.8	No	Signal	D	40.3	Signal	B	16.8	No
46	Excelsior Road & Elder Creek Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*8.0*		*A*	*7.8*	
	Eastbound		*C*	*18.6*		*C*	*18.8*			*B*	*12.3*		*B*	*12.0*	
47	Excelsior Road & Florin Road	All-way stop	C	24.9	All-way stop	E	35.3	No	All-way stop	B	12.5	All-way stop	B	13.8	No
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	B	14.0	All-way stop	B	14.4	No	All-way stop	B	10.6	All-way stop	B	10.1	No
49	Mather Field Road & US 50 WB Ramps	Signal	C	24.7	Signal	C	26.8	No	Signal	A	9.4	Signal	A	5.2	No
50	Mather Field Road & US 50 EB Ramps	Signal	C	27.7	Signal	C	32.4	No	Signal	B	13.4	Signal	A	7.6	No
51	Mather Field Road & Rockingham Drive	Signal	E	56.4	Signal	D	53.9	No	Signal	D	54.7	Signal	D	40.1	No
52	Mather Boulevard & Douglas Road	All-way stop	E	39.3	All-way stop	E	40.5	No	All-way stop	C	15.5	All-way stop	C	15.8	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.8
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
53	Zinfandel Drive & US 50 WB Ramps	Signal	B	16.4	Signal	B	19.4	No	Signal	D	51.7	Signal	D	42.1	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	D	40.0	Signal	D	50.9	No	Signal	E	60.1	Signal	E	63.8	No
55	Zinfandel Drive & White Rock Road	Signal	D	47.7	Signal	D	35.7	No	Signal	D	54.7	Signal	D	41.1	No
56	Zinfandel Drive & Data Drive	Signal	D	49.3	Signal	B	18.6	No	Signal	D	52.9	Signal	C	20.5	No
57	Zinfandel Drive & International Dr	Signal	C	34.0	Signal	C	34.6	No	Signal	D	48.5	Signal	C	29.2	No
58	Zinfandel Drive & Douglas Road	Signal	E	55.5	Signal	E	75.7	No	Signal	D	54.2	Signal	C	27.4	No
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Free Turn			Signal	A	9.3	No	Free Turn			Signal	A	8.4	No
60	Eagles Nest Road & Jackson Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound		*C*	*22.0*		*F*	*>300*			*C*	*23.8*		*F*	*>300*	
	Southbound		*B*	*13.9*		*F*	*>300*			*C*	*22.0*		*F*	*>300*	
	Eastbound Left Turn		*A*	*8.8*		*A*	*9.1*			*A*	*7.9*		*A*	*8.2*	
	Westbound Left Turn		*A*	*7.9*		*A*	*7.8*			*A*	*8.7*		*A*	*8.6*	
61	Eagles Nest Road & Florin Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound		*B*	*12.7*		*C*	*20.7*			*B*	*12.1*		*C*	*16.4*	
	Southbound		*B*	*10.0*		*C*	*17.9*			*B*	*10.5*		*C*	*16.4*	
	Eastbound Left Turn		*A*	*7.7*		*A*	*7.9*			*A*	*7.7*		*A*	*7.9*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.6*		*A*	*7.6*	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	D	44.7	Signal	C	26.6	No	Signal	B	19.7	Signal	A	9.1	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	16.9	Signal	A	9.7	No	Signal	B	17.6	Signal	A	9.6	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.8
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	54.4	Signal	C	26.8	No	Signal	D	48.6	Signal	C	34.6	No
65	Sunrise Boulevard & White Rock Road	Signal	D	47.8	Signal	C	31.2	No	Signal	D	51.6	Signal	C	34.9	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	D	47.8	Signal	B	16.5	No	Signal	D	45.8	Signal	B	19.7	No
67	Sunrise Boulevard & Douglas Road	Signal	D	51.7	Signal	C	24.5	No	Signal	D	46.5	Signal	B	19.5	No
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	C	27.0	Signal	B	10.9	No	Signal	C	21.0	Signal	A	7.6	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	D	53.6	Signal	C	26.7	No	Signal	C	27.0	Signal	C	23.5	No
70	Sunrise Boulevard & Jackson Road	Signal	E	57.0	Signal	D	49.4	No	Signal	D	47.2	Signal	C	32.7	No
71	Sunrise Boulevard & Florin Road	Signal	B	11.3	Signal	A	8.8	No	Signal	D	48.3	Signal	B	20.0	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	D	43.2	Signal	C	21.6	No	Signal	D	40.7	Signal	B	18.9	No
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	C	31.2	Signal	C	25.5	No	Signal	D	41.4	Signal	B	17.2	No
74	Hazel Avenue & US 50 EB Ramps	Signal	C	20.6	Signal	A	8.1	No	Signal	C	29.9	Signal	A	5.9	No
75	Hazel Avenue & Folsom Boulevard	Signal	D	51.7	Signal	C	24.3	No	Signal	D	46.7	Signal	D	39.7	No
76	Prairie City Road & White Rock Road	Signal	B	19.2	Signal	B	12.5	No	Signal	B	15.0	Signal	A	9.2	No
77	Grant Line Road & White Rock Road	Signal	B	10.9	Signal	A	7.5	No	Signal	B	11.2	Signal	A	7.6	No
78	Grant Line Road & Douglas Road	All-way stop	C	15.2	Signal	A	7.8	No	All-way stop	B	12.3	Signal	A	7.0	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.8
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
79	Grant Line Road & Kiefer Boulevard	All-way stop	B	11.4	All-way stop	B	10.9	No	All-way stop	B	10.5	All-way stop	B	10.3	No
80	Grant Line Road & Jackson Road	Signal	E	74.0	Signal	E	58.3	No	Signal	E	78.9	Signal	E	64.2	No
81	Watt Avenue & US-50 EB Ramps	Signal	B	13.0	Signal	B	12.3	No	Signal	B	14.9	Signal	B	13.5	No
82	Watt Avenue & US-50 WB Ramps	Signal	C	32.9	Signal	D	37.5	No	Signal	C	28.6	Signal	C	28.6	No
83	Mayhew Rd & Folsom Blvd.	Signal	B	19.8	Signal	B	12.5	No	Signal	C	20.1	Signal	B	11.8	No
84	65th Street Expy & Fruitridge Road	Signal	C	31.2	Signal	C	24.6	No	Signal	D	35.3	Signal	C	25.1	No
85	Power Inn Road & Elder Creek Road	Signal	D	35.2	Signal	C	27.5	No	Signal	D	36.3	Signal	C	32.2	No
86	Power Inn Road & Florin Rd	Signal	D	36.3	Signal	C	34.2	No	Signal	D	45.9	Signal	D	40.8	No
87	Florin Perkins Road & Florin Rd	Signal	D	36.7	Signal	C	28.9	No	Signal	C	32.5	Signal	C	26.8	No
88	Bradshaw Rd & Calvine Rd	Signal	C	30.5	Signal	C	22.4	No	Signal	D	36.9	Signal	C	23.7	No
89	Vineyard Rd & Calvine Rd	Signal	C	30.8	Signal	B	17.6	No	Signal	C	34.9	Signal	B	18.0	No
90	Excelsior Road & Calvine Rd	All-way stop	C	16.6	All-way stop	C	17.7	No	All-way stop	B	13.0	All-way stop	B	13.4	No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	D	51.7	Signal	B	14.2	No	Signal	D	46.5	Signal	C	25.6	No
92	Grant Line Rd & Calvine Rd	Signal	C	21.4	Signal	C	20.6	No	Signal	C	24.0	Signal	C	20.1	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	E	65.9	Signal	E	66.5	No	Signal	E	64.8	Signal	D	45.2	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.8
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	C	33.3	Signal	B	13.3	No	Signal	D	46.4	Signal	B	14.9	No
202	W Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	17.6	No	Mather South Project Int.			Signal	B	15.2	No
204	E Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	13.0	No	Mather South Project Int.			Signal	B	14.4	No
600	Zinfandel Drive & Collector MS-2	Mather South Project Int.			Roundabout	B	14.8	No	Mather South Project Int.			Roundabout	C	16.4	No
601	Zinfandel Drive & Collector MS-3	Mather South Project Int.			Roundabout	A	8.2	No	Mather South Project Int.			Roundabout	A	8.6	No
602	Zinfandel Drive & Collector MS-4	Mather South Project Int.			Roundabout	A	6.5	No	Mather South Project Int.			Roundabout	A	6.4	No
603	Collector MS-5 & Collector MS-2	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*7.7*						*A*	*7.4*	
	Eastbound					*A*	*9.9*						*A*	*9.9*	
604	Collector MS-5 & Collector MS-3	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*7.5*						*A*	*7.3*	
	Eastbound					*A*	*9.2*						*A*	*8.8*	
605	Collector MS-5 & Collector MS-4	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*7.9*						*A*	*7.6*	
	Eastbound					*A*	*10.4*						*B*	*11.5*	
606	Collector MS-5 & W Collector MS-1/E Collector MS-1	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*7.5*						*A*	*7.4*	
	Eastbound Left Turn					*A*	*9.9*						*B*	*10.0*	
	Eastbound					*A*	*9.2*						*A*	*8.6*	

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.9
Staff Alternative
Existing and Existing Plus Mather South Project (Alt. 2) Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	Signal								
2	Howe Avenue & US 50 EB Ramps	Signal	Signal								
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal								
4	Power Inn Road & 14th Avenue	Signal	Signal								
5	Power Inn Road & Fruitridge Road	Signal	Signal								
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal								
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal								
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop								
9	Florin Perkins Road & Jackson Road	Signal	Signal								
10	Florin Perkins Road & Fruitridge Road	Signal	Signal								
11	Florin Perkins Road & Elder Creek Road	Signal	Signal								
12	Watt Avenue & Folsom Blvd.	Signal	Signal								
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal								
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal								
15	S. Watt Avenue & Canberra Dr.	Signal	Signal								
16	S. Watt Avenue & Jackson Road	Signal	Signal								
17	S. Watt Avenue & Fruitridge Road	Signal	Signal								
18	S. Watt Avenue & Elder Creek Road	Signal	Signal								
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal								
21	Elk Grove Florin Road & Gerber Road	Signal	Signal								
23	Hedge Avenue & Jackson Road	Signal	Signal								
24	Hedge Avenue & Fruitridge Road	All-way stop	All-way stop								
25	Hedge Avenue & Elder Creek Road	All-way stop	All-way stop								
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop								
27	Hedge Avenue & Florin Road	All-way stop	All-way stop								
28	Mayhew Road & Kiefer Boulevard	Signal	Signal								
29	Mayhew Road & Jackson Road	Two-way stop	Two-way stop								
30	Mayhew Road & Fruitridge Road	Two-way stop	Two-way stop								

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 9.9
Staff Alternative
Existing and Existing Plus Mather South Project (Alt. 2) Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
31	Mayhew Road & Elder Creek Road	Two-way stop	Two-way stop								
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop								
33	Bradshaw Road & Folsom Blvd.	Signal	Signal								
34	Bradshaw Road & US 50 WB Ramps	Signal	Signal								
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal								
36	Bradshaw Road & Old Placerville Road	Signal	Signal								
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal								
38	Bradshaw Road & Jackson Road	Signal	Signal								
39	Bradshaw Road & Elder Creek Road	Signal	Signal								
40	Bradshaw Road & Florin Road	Signal	Signal								
41	Bradshaw Road & Gerber Road	Signal	Signal								
42	Happy Lane & Old Placerville Road	Two-way stop	Two-way stop								
45	Excelsior Road & Jackson Road	Signal	Signal								
46	Excelsior Road & Elder Creek Road	Two-way stop	Two-way stop								
47	Excelsior Road & Florin Road	All-way stop	All-way stop								
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop								
49	Mather Field Road & US 50 WB Ramps	Signal	Signal								
50	Mather Field Road & US 50 EB Ramps	Signal	Signal								
51	Mather Field Road & Rockingham Drive	Signal	Signal								
52	Mather Boulevard & Douglas Road	All-way stop	All-way stop								
53	Zinfandel Drive & US 50 WB Ramps	Signal	Signal								
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal								
55	Zinfandel Drive & White Rock Road	Signal	Signal								
56	Zinfandel Drive & Data Drive	Signal	Signal								
57	Zinfandel Drive & International Dr	Signal	Signal								
58	Zinfandel Drive & Douglas Road	Signal	Signal								
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard		Signal								
60	Eagles Nest Road & Jackson Road	Two-way stop	Two-way stop								

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 9.9
Staff Alternative
Existing and Existing Plus Mather South Project (Alt. 2) Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
61	Eagles Nest Road & Florin Road	Two-way stop	Two-way stop								
62	Sunrise Boulevard & US 50 WB Ramps	Signal	Signal								
63	Sunrise Boulevard & US 50 EB Ramps	Signal	Signal								
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal								
65	Sunrise Boulevard & White Rock Road	Signal	Signal								
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal								
67	Sunrise Boulevard & Douglas Road	Signal	Signal								
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal								
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal								
70	Sunrise Boulevard & Jackson Road	Signal	Signal								
71	Sunrise Boulevard & Florin Road	Signal	Signal								
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal								
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	Signal								
74	Hazel Avenue & US 50 EB Ramps	Signal	Signal								
75	Hazel Avenue & Folsom Boulevard	Signal	Signal								
76	Prairie City Road & White Rock Road	Signal	Signal								
77	Grant Line Road & White Rock Road	Signal	Signal								
78	Grant Line Road & Douglas Road	All-way stop	Signal[1]								
79	Grant Line Road & Kiefer Boulevard	All-way stop	All-way stop								
80	Grant Line Road & Jackson Road	Signal	Signal								
81	Watt Avenue & US-50 EB Ramps	Signal	Signal								
82	Watt Avenue & US-50 WB Ramps	Signal	Signal								
83	Mayhew Rd & Folsom Blvd.	Signal	Signal								
84	65th Street Expy & Fruitridge Road	Signal	Signal								
85	Power Inn Road & Elder Creek Road	Signal	Signal								
86	Power Inn Road & Florin Rd	Signal	Signal								
87	Florin Perkins Road & Florin Rd	Signal	Signal								
88	Bradshaw Rd & Calvine Rd	Signal	Signal								

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 9.9
Staff Alternative
Existing and Existing Plus Mather South Project (Alt. 2) Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
89	Vineyard Rd & Calvine Rd	Signal	Signal								
90	Excelsior Road & Calvine Rd	All-way stop	All-way stop								
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal								
92	Grant Line Rd & Calvine Rd	Signal	Signal								
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal								
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	Signal								
202	W Collector MS-1 & Kiefer Boulevard		Signal								
204	E Collector MS-1 & Kiefer Boulevard		Signal								
600	Zinfandel Drive & Collector MS-2		Roundabout								
601	Zinfandel Drive & Collector MS-3		Roundabout								
602	Zinfandel Drive & Collector MS-4		Roundabout								
603	Collector MS-5 & Collector MS-2		Two-way stop								
604	Collector MS-5 & Collector MS-3		Two-way stop								
605	Collector MS-5 & Collector MS-4		Two-way stop								
606	Collector MS-5 & W Collector MS-1/E Collector MS-1		Two-way stop								

1. Reflects 2017 intersection improvements.

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

9.7.2 Intersection Mitigations

Table 9.10 and **Table 9.11** summarize the results of the operations analysis for the study area intersections with mitigation under existing conditions. Where feasible, the number of approach lanes was increased to mitigate the impact. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. The shaded table cells in the first table for each scenario under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. The second table indicates those locations where changes in traffic control and / or number of approach lanes by type have been made, which would be the responsibility of the Mather South alternative to implement.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

Table 9.10
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus Mather South Project			LOS Impact	Mitigated Existing Plus Mather South Project			Existing Plus Mather South Project			LOS Impact	Mitigated Existing Plus Mather South Project		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
32	Woodring Drive & Zinfandel Drive	Two-way stop			Yes	Roundabout	C	24.9	Two-way stop			Yes	Roundabout	C	19.9
	Eastbound		***F***	***129.9***			*A*	*9.9*		***F***	***74.2***			*B*	*11.6*
	Northbound Left Turn		*A*	*8.6*			*E*	*38.1*		*B*	*10.2*			*B*	*11.8*
42	Happy Lane & Old Placerville Road	Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct Routier extension.			Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct Routier extension.		
	Northbound Left Turn		***F***	***214.3***						***F***	***243.7***				
	Northbound Right Turn		***E***	***36.1***						*C*	*19.6*				
	Westbound Left Turn		*B*	*11.0*						*B*	*10.4*				
60	Eagles Nest Road & Jackson Road	Two-way stop			Yes	Signal	D	47.6	Two-way stop			Yes	Signal	D	43.3
	Northbound		***F***	***>300***						***F***	***>300***				
	Southbound		***F***	***>300***						***F***	***>300***				
	Eastbound Left Turn		*A*	*9.1*						*A*	*8.2*				
	Westbound Left Turn		*A*	*7.8*						*A*	*8.6*				

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 9.11
Staff Alternative
Existing Plus Mather South Project (Alt. 2) Intersection Impacts and Mitigations

	Intersection	Traffic Control		Existing Plus Mather South Project Lane Geometrics				Mitigated Existing Plus Mather South Project Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Existing Plus Project	Mitigated Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
32	Zinfandel Drive & Woodring Drive	Two-way stop	Roundabout	١ ↑	٤	٧		٩	٤	٧					
42	Happy Lane & Old Placerville Road	Two-way stop	Access Control	١٢		↑ ٢	١ ↑	Happy Lane to become right-in and right-out only. Median will allow westbound left turns.				Yes	No	Construct Routier extension from Old Placerville Road to Kiefer Road.	
60	Eagles Nest Road & Jackson Road	Two-way stop	Signal	٣	٨	١٢	١٢	٣	٢١	١٢	١٢	No	No		

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

9.8 PEDESTRIAN AND BICYCLE FACILITY ANALYSIS

9.8.1 Pedestrian and Bicycle Facility Impacts

The Mather South alternative would not remove any existing or planned pedestrian facility. The Mather South alternative would not remove any existing bicycle facility, but would modify facilities that are planned in the Bikeway Master Plan. The Mather South alternative would add pedestrian and bicycle demands within the Mather South alternative site and to and from nearby land uses. Because the Mather South alternative would add demand for pedestrian and bicycle facilities that may not be available in the site vicinity, the impact of the Mather South project on pedestrian and bicycle circulation is potentially significant.

9.8.2 Pedestrian and Bicycle Facility Mitigations

The Mather South alternative applicant shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the Mather South alternative and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the Mather South project vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

9.9 TRANSIT SYSTEM IMPACTS

9.9.1 Transit System Impacts

Public transit is not currently provided to the Mather South alternative site. In the preparation of this analysis, a conceptual transit system to serve the Mather South alternative and adjacent future projects was developed. The additional transit service was assumed to be funded by the Mather South alternative. However, the timing and implementation of the transit system are uncertain at this time. The Mather South alternative would increase demands for public transit facilities. Therefore, the impact of the Mather South alternative on the transit system is potentially significant.

9.9.2 Transit System Mitigations

The Mather South project applicant shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis, or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the Mather South alternative. The full level of transit service would not achieve adequate transit

ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the Mather South alternative, must be phased with development of the Mather South alternative.

9.10 FUNCTIONALITY ANALYSIS

9.10.1 Functionality Impacts

Table 9.12 summarizes the results of the rural roadway segment functionality analysis under existing conditions. The table includes the number of lanes assumed with the implementation of the Mather South alternatives, which in many cases is greater than the number of lanes in the base condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the Mather South alternative. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the alternative makes improvements to a roadway segment such as widening, it would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the Mather South alternative would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the Mather South alternative, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South alternative.

Table 9.12
Existing Plus Mather South Project (Alt. 2) Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + Mather South Project (Staff Alt.)			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	2	Yes	7,590	**Yes**
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	2	Yes	9,690	**Yes**
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	2	Yes	7,300	**Yes**
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Yes	3,540	No
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Yes	1,810	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	2	Yes	5,980	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	2	Yes	6,100	**Yes**
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	2	Yes	6,000	No
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	2	Yes	2,450	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Yes	1,610	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	2	Yes	4,860	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	2	Yes	3,730	No
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Yes	5,340	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Yes	4,100	No
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	2	Yes	8,490	**Yes**
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	2	Yes	7,200	**Yes**
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	2	Yes	7,220	**Yes**
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	2	Yes	4,730	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Yes	5,520	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	2	Yes	3,030	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	2	Yes	1,970	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	2	Yes	7,150	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	2	Yes	6,530	**Yes**
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Yes	2,970	No
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Yes	3,630	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Yes	2,670	No

Red text with light gray shading indicate project impacts.

Table 9.12
Existing Plus Mather South Project (Alt. 2) Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + Mather South Project (Staff Alt.)			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	2	Yes	14,440	**Yes**
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	2	Yes	13,590	**Yes**
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Yes	4,700	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	2	Yes	5,470	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	2	Yes	7,370	**Yes**
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Yes	7,110	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	2	Yes	1,770	No
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	2	Yes	2,400	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	2	Yes	18,350	**Yes**

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

9.10.2 Functionality Mitigations

Table 9.13 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation under existing conditions.

Table 9.13
Existing Plus Mather South Project (Alt. 2) Functionality Mitigations

ID	Roadway	Segment		Existing + Mather South Project (Staff Alt.)				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Yes	7,590	Yes	Widen to County standards [5]	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Yes	9,690	Yes	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	2	Yes	7,300	Yes	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Yes	6,100	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	2	Yes	8,490	Yes	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Yes	7,200	Yes	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Yes	7,220	Yes	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Yes	6,530	Yes	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Yes	14,440	Yes	Widen to County standards [5]	No
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Yes	13,590	Yes	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	2	Yes	7,370	Yes	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	2	Yes	18,350	Yes	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

9.11 MITIGATION SUMMARY AND COMPARISON TO BASE PROJECT

Table 9.14 through **Table 9.16** summarize all of the roadway segments, intersections, and freeway facilities that would exhibit significant LOS impacts under existing conditions along with the mitigation success for these impacts.

Compared to the proposed project, the following changes occur to roadway segment impacts:

- #73: Jackson Road from Sunrise Boulevard to Grant Line Road is no longer an impact
- #123.1: Zinfandel Drive from Douglas Road to Collector MS-2 is a new impact

Compared to the proposed project, no changes occur to intersection impacts.

Compared to the proposed project, no changes occur to functionality impacts.

Table 9.14
Existing Plus Mather South Project (Alt. 2) Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
55.1	Grant Line Road	Calvine Rd	Elk Grove City Limit
55.2	Grant Line Road	Elk Grove City Limit	Sheldon Rd
56	Grant Line Rd	Sheldon Rd	Wilton Rd
106	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd
122	Zinfandel Dr	International Rd	Baroque Dr
123.1	Zinfandel Dr	City Limit	Douglas Rd
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
118	Zinfandel Dr	US 50	White Rock Rd

Note: Refer to Table 9.7 for detailed description of impacts and mitigations.

Table 9.15
Staff Alternative
Existing Plus Mather South Project (9.15) Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
32	Woodring Drive & Zinfandel Drive	
42	Happy Lane & Old Placerville Road	**
60	Eagles Nest Road & Jackson Road	

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 9.16
Existing Plus Mather South Project (Alt. 2) Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

10 ALTERNATIVE 3 QUANTITATIVE IMPACT ANALYSIS

10.1 INTRODUCTION

Ther South project proposes three additional alternatives for analysis, in addition to the base alternative. The additional alternatives are further described in Section 8.3, but are identified as follows:

- Alternative 1: Project variation adding the canal crossing
- Alternative 2: Project variation with the staff land use alternative
- Alternative 3: Project variation with the staff land use alternative and canal crossing

The analysis for the Mather South project (base alternative) can be found in Section 3 (existing conditions) and Sections 6 and 7 (CEQA cumulative conditions). Please refer to those sections for the transportation analysis of the project. Note that this alternatives analysis provides a comparison of the impacts of the alternatives *relative* to the impacts of the project.

Two types of analyses are typically used to evaluate the traffic impacts of a proposed project or alternative: quantitative analysis and qualitative analysis. **Quantitative** analysis includes running a travel demand model and using forecasted volumes to conduct level of service analysis, VMT-related calculations, and evaluate other measures of performance. **Qualitative** analysis may or may not include running a travel demand model, but takes a more macro approach to evaluating traffic operations. Instead of making numerous calculations at each intersection and roadway segment, a qualitative approach to analyzing an alternative may look at the project as a whole and analyze whether traffic volumes generally decreased, increased, or remained constant. A qualitative approach may also evaluate if changes to proposed land use caused traffic patterns to shift temporally and / or spatially.

10.2 METHODOLOGY

A quantitative analysis is provided for the following alternatives:

- Alternative 1
- Alternative 2
- Alternative 3

For a description of the study area, forecasting and operations analysis methodology, level of service policies, and standards of significance, please refer to the base project documentation in Chapter 2 of this report.

10.3 ALTERNATIVE DESCRIPTION

In Alternative 3, the roadway network variation from the proposed project is the same as in Alternative 1 (construction of a roadway crossing the canal). The proposed crossing is assumed to have a single travel lane in each direction, class 2 bike lanes, and sidewalk, and would connect the Mather South project with Justinian Drive. A full access traffic signal is assumed at this intersection, which is noted to be closely spaced with the existing Bosphorus Drive signal.

In Alternative 3, the land use variation from the proposed project is the same as Alternative 2. 534 high density residential units (plus 19 additional bonus units) would be constructed on the research and development campus. These units would be additive to the 325,000 square feet of office space that would be constructed on that parcel by the proposed project.

The transit service, pedestrian and bicycle network is otherwise the same as the proposed project, as described in Section 3.1.

10.4 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the Mather South project. **Table 10.1** summarizes the person trip generation. The Mather South project would generate over 7,500 daily work person trip ends, and over 49,100 daily person trip ends for all trip purposes.

Table 10.2 summarizes the estimated mode choice for the Existing plus Mather South project scenario. About 90.3 percent of all person trips are expected to be accommodated by automobile, while transit will serve about 1 percent of all trips. Walk and bike modes will accommodate about 8.8 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 10.3 summarizes the vehicular (auto) trip generation of the Mather South project. The Mather South project is estimated to generate over 33,000 daily vehicle trip ends. It should be noted that more than one person trip may be accommodated by a vehicle trip (e.g. carpooling). About 2,000 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the Mather South project, about 11.7 percent of the trip ends. The internal trip ends represent about 1,000 daily vehicle trips (one-half the number of internal trip ends). The Mather South project will generate over 29,000 external vehicle trips that have an origin or destination inside the Mather South project but the other end of the trip is outside the Mather South project. Table 10.3 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

Table 10.1 Estimated Person Trip Generation Mather South (Alternative 3)

Trip Purpose	Daily Person Trip Ends
Work Trips	7,587
Non-Work Trips	41,570
All Trip Purposes	49,157

***Source**: DKS Associates, 2018.*

Table 10.2 Mode Split Mather South (Alternative 3)

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	84.7%	45.9%	51.9%
Auto - HOV	11.4%	43.4%	38.4%
Transit	1.8%	0.8%	1.0%
Walk	1.6%	9.2%	8.1%
Bike	0.5%	0.7%	0.7%

***Source**: DKS Associates, 2018.*

Table 10.3 Estimated Daily Vehicle Trip Generation Mather South (Alternative 3)

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		3,124	3,069	33,147
Percent Internal Trip Ends1		11.5%	11.9%	11.7%
Vehicle Trips	Internal to Project	179	183	1,947
	External to Project	2,765	2,703	29,252
	Total	2,945	2,886	31,199

[1.] Both trip ends within the project.
***Source:** DKS Associates, 2018.*

10.5 OPERATIONS ANALYSIS AND IMPACTS

For purposes of this analysis, full development of the Mather South alternative is assumed to occur "instantaneously." In this manner, the traffic and impacts associated with the Mather South alternative can be directly compared to known and measured conditions. Existing scenario impacts are determined by comparing the traffic operating conditions associated with the Mather South alternative with the traffic operating conditions associated with the existing (without development) conditions, and comparing the change to the thresholds of significance.

10.6 ROADWAY SEGMENT ANALYSIS

10.6.1 Roadway Segment Operations and Impacts

Table 10.4 summarizes the results of the operations analysis for the study area roadway segments under existing conditions. The table includes the number of lanes assumed with the implementation of the Mather South alternative, which in many cases is greater than the number

of lanes in the existing project condition. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways and widened roadways that are assumed part of the Mather South alternative. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

As stated above, the traffic analysis assumed that the Mather South alternative would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the Mather South project, which would be greater than the number of lanes in the existing condition. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South alternative.

Table 10.4
Existing Plus Mather South Project (Alt. 3) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	20,592	0.38	A	6	Arterial M	20,420	0.38	A
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	52,590	0.97	**E**	6	Arterial M	53,330	0.99	**E**
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	42,787	0.79	C	6	Arterial M	43,230	0.80	D
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	38,984	0.72	C	6	Arterial M	38,950	0.72	C
5	Bradshaw Rd	Goethe Rd	Kiefer Blvd	4	Arterial M	28,651	0.80	C	4	Arterial M	28,500	0.79	C
6	Bradshaw Rd	Kiefer Blvd	Jackson Rd	4	Arterial M	30,726	0.85	D	4	Arterial M	31,250	0.87	D
7	Bradshaw Rd	Jackson Rd	Elder Creek Rd	4	Arterial M	22,871	0.64	B	4	Arterial M	22,840	0.63	B
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	4	Arterial M	22,265	0.62	B	4	Arterial M	22,010	0.61	B
9	Bradshaw Rd	Florin Rd	Gerber Rd	4	Arterial M	22,883	0.64	B	4	Arterial M	22,690	0.63	B
10	Bradshaw Rd	Gerber Rd	Calvine Rd	4	Arterial M	16,984	0.47	A	4	Arterial M	16,820	0.47	A
11	Calvine Rd	Waterman Rd	Bradshaw Rd	4	Arterial M	16,015	0.44	A	4	Arterial M	16,470	0.46	A
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	12,395	0.34	A	4	Arterial M	13,040	0.36	A
13	Calvine Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	6,036	0.34	A	2	Arterial M	6,700	0.37	A
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	3,411	0.09	A	4	Arterial M	2,820	0.08	A
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Arterial M	6,635	0.37	A	2	Arterial M	7,570	0.42	A
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Arterial M	8,369	0.46	A	2	Arterial M	7,750	0.43	A
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	3,674	0.10	A	5	Arterial M	4,580	0.13	A
18	Douglas Rd	Rancho Cordova Pkwy	Grant Line Rd	2	Arterial M	3,674	0.20	A	2	Arterial M	4,230	0.24	A
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	740	0.04	A	2	Arterial M	7,080	0.39	A
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	517	0.03	A	2	Arterial M	3660	0.20	A
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	189	0.01	A	2	Arterial M	1920	0.11	A
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	17,891	0.50	A	4	Arterial M	18,300	0.51	A
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	15,734	0.87	D	2	Arterial M	15,980	0.89	D
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	11,092	0.62	B	2	Arterial M	11,390	0.63	B
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,576	0.31	A	2	Arterial M	5,980	0.33	A
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	5,797	0.32	A	2	Arterial M	6,090	0.34	A
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	5,355	0.30	A	2	Arterial M	5,970	0.33	A
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	2,158	0.12	A	2	Arterial M	2,400	0.13	A
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	22,960	1.28	**F**	2	Arterial M	23,050	1.28	**F**
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	3,716	0.21	A	2	Arterial M	1,640	0.09	A
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	2	Arterial M	5,075	0.28	A	2	Arterial M	4,750	0.26	A
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,203	0.23	A	2	Arterial M	3,740	0.21	A
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	5,423	0.30	A	2	Arterial M	5,280	0.29	A
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	4,229	0.23	A	2	Arterial M	4,050	0.23	A

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 10.4
Existing Plus Mather South Project (Alt. 3) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	4,473	0.25	A	2	Arterial M	4,230	0.24	A
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	27,495	0.76	C	4	Arterial M	27,890	0.77	C
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	21,595	0.60	A	4	Arterial M	22,270	0.62	B
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	4	Arterial M	14,163	0.39	A	4	Arterial M	14,860	0.41	A
39	Florin Rd	South Watt Ave	Hedge Ave	2	Arterial M	7,718	0.43	A	2	Arterial M	8,530	0.47	A
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Arterial M	6,312	0.35	A	2	Arterial M	7,180	0.40	A
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	6,317	0.35	A	2	Arterial M	7,170	0.40	A
42	Florin Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	3,478	0.19	A	2	Arterial M	4,660	0.26	A
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	3,835	0.21	A	2	Arterial M	5,460	0.30	A
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	37,516	1.04	**F**	4	Arterial M	38,010	1.06	**F**
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	16,634	0.46	A	4	Arterial M	16,680	0.46	A
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	15,214	0.42	A	4	Arterial M	15,610	0.43	A
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,280	0.57	A	2	Arterial M	10,360	0.58	A
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	2,890	0.16	A	2	Arterial M	3,150	0.18	A
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	2	Arterial M	1,790	0.10	A	2	Arterial M	2,070	0.12	A
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Rural NS	7,189	0.42	D	2	Rural NS	7,380	0.43	D
51	Grant Line Rd	Douglas Rd	Kiefer Blvd	2	Rural S	6,143	0.31	C	2	Rural S	6,050	0.30	C
52	Grant Line Rd	Kiefer Blvd	Jackson Rd	2	Rural S	5,758	0.29	C	2	Rural S	5,690	0.28	C
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	2	Rural S	14,720	0.74	E	2	Rural S	14,470	0.72	E
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	2	Rural S	14,812	0.74	E	2	Rural S	17,070	0.85	E
55.1	Grant Line Road	Calvine Rd	Elk Grove City Limit	2	Rural S	13,140	0.66	**E**	2	Rural S	14,610	0.73	**E**
55.2	Grant Line Road	Elk Grove City Limit	Sheldon Rd	2	Rural S	13,140	0.66	**E**	2	Rural S	14,590	0.73	**E**
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	17,459	0.87	**E**	2	Rural S	18,550	0.93	**E**
57	Grant Line Rd	Wilton Rd	Bond Rd	2	Rural S	16,064	0.80	**E**	2	Rural S	16,880	0.84	**E**
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Rural S	4,635	0.23	C	2	Rural S	6,590	0.33	C
58.1	Happy Lane	Old Placerville Road	Routier Ext	2	Rural S	4,635	0.23	C	2	Rural S	6,590	0.33	C
58.2	Happy Lane	Routier Ext	Kiefer Boulevard	2	Rural S	4,635	0.23	C	2	Rural S	5,540	0.28	C
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	3,061	0.17	A	2	Arterial M	3,030	0.17	A
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	3,737	0.21	A	2	Arterial M	3,690	0.21	A
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	2,722	0.15	A	2	Arterial M	2,700	0.15	A
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	53,849	1.00	E	6	Arterial M	53,900	1.00	E
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	17,500	0.32	A	6	Arterial M	19,840	0.37	A

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Table 10.4
Existing Plus Mather South Project (Alt. 3) Roadway Segment Levels of Service

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ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	8,802	0.16	A	6	Arterial M	8,640	0.16	A
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	2	Arterial M	12,358	0.69	B	2	Arterial M	12,300	0.68	B
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,414	0.58	A	2	Arterial M	10,820	0.60	B
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	17,060	0.95	E	2	Arterial M	17,480	0.97	E
68	Jackson Rd	Hedge Ave	Mayhew Rd	2	Arterial M	12,616	0.70	C	2	Arterial M	13,180	0.73	C
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	14,996	0.83	D	2	Arterial M	15,850	0.88	D
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	13,030	0.72	C	2	Arterial M	14,340	0.80	C
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Rural Hwy	10,478	0.46	D	2	Rural Hwy	13,440	0.59	D
72	Jackson Rd	Eagles Nest Rd	Sunrise Blvd	2	Rural Hwy	9,976	0.44	D	2	Rural Hwy	9,870	0.43	D
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,306	0.58	D	2	Rural Hwy	13,510	0.59	**E**
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	4,616	0.26	A	2	Arterial M	4,810	0.27	A
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	18,668	0.52	A	4	Arterial M	19,040	0.53	A
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	9,274	0.26	A	4	Arterial M	9,760	0.27	A
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	2	Arterial M	4,618	0.26	A	2	Arterial M	5,500	0.31	A
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	3350	0.19	A
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	656	0.04	A	3	Arterial M	2010	0.11	A
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	2010	0.11	A
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	656	0.04	A	2	Arterial M	5610	0.31	A
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	2	Arterial M	2,786	0.15	A	2	Arterial M	2,760	0.15	A
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	4,373	0.12	A	4	Arterial M	6,180	0.17	A
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	4,373	0.12	A	4	Arterial M	6,180	0.17	A
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	4,373	0.24	A	2	Arterial M	6,180	0.34	A
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	6,751	0.84	E	2	Res Collector F	7,030	0.88	E
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	37,755	0.70	B	6	Arterial M	40,240	0.75	C
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	37,520	0.69	B	6	Arterial M	39,920	0.74	C
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	4	Arterial M	14,857	0.41	A	4	Arterial M	15,050	0.42	A
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	6,977	0.39	A	2	Arterial M	7,140	0.40	A

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Table 10.4
Existing Plus Mather South Project (Alt. 3) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial L	6,593	0.44	A	2	Arterial L	6,510	0.43	A
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	2	Arterial L	1,616	0.11	A	2	Arterial L	1,880	0.13	A
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	15,800	0.44	A	4	Arterial M	16,460	0.46	A
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	13,573	0.75	C	2	Arterial M	14,190	0.79	C
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	10,710	0.60	A	2	Arterial M	11,970	0.67	B
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	10,710	0.30	A	4	Arterial M	11,440	0.32	A
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	36,175	0.67	B	6	Arterial M	35,930	0.67	B
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	19,881	0.55	A	4	Arterial M	20,870	0.58	A
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	40,920	0.76	C	6	Arterial M	41,050	0.76	C
97	South Watt Ave	Kiefer Blvd	Jackson Rd	5	Arterial M	32,415	0.90	E	5	Arterial M	32,390	0.90	D
98	South Watt Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	25,832	1.44	**F**	2	Arterial M	25,740	1.43	**F**
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	21,567	1.20	**F**	2	Arterial M	21,580	1.20	**F**
100	South Watt Ave	Elder Creek Rd	Florin Rd	2	Arterial M	19,069	1.06	**F**	2	Arterial M	19,210	1.07	**F**
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	54,500	1.01	**F**	7	Arterial M	56,490	1.05	**F**
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	49,500	0.92	**E**	6	Arterial M	52,110	0.97	**E**
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	34,571	0.64	B	6	Arterial M	37,900	0.70	C
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	25,811	0.48	A	6	Arterial M	29,050	0.54	A
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	28,400	0.53	A	6	Arterial M	33,040	0.61	B
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	25,811	0.48	A	6	Arterial M	31,420	0.58	A
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	21,878	0.61	B	5	Arterial M	27,040	0.75	C
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	16,894	0.94	**E**	2	Arterial M	18,600	1.03	**F**
107	Sunrise Blvd	Jackson Rd	Florin Rd	2	Rural S	11,181	0.56	D	2	Rural S	12,340	0.62	E
108	Sunrise Blvd	Florin Rd	Grant Line Rd	2	Rural S	7,752	0.39	D	2	Rural S	8,700	0.44	D
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	5,515	0.31	A	2	Arterial M	5,610	0.31	A
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	65,242	1.09	**F**	6	Arterial H	65,100	1.09	**F**
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	3,962	0.22	A	2	Arterial M	4,070	0.23	A
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	11,200	0.31	A	4	Arterial M	10,990	0.31	A
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	14,756	0.27	A	6	Arterial M	14,720	0.27	A
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	14,756	0.41	A	5	Arterial M	15,110	0.42	A
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	15,433	0.43	A	4	Arterial M	15,460	0.43	A
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	2	Rural NS	2,490	0.15	B	2	Rural NS	2,400	0.14	B
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	9,400	0.26	A	4	Arterial M	9,510	0.26	A
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	45,228	0.84	D	7	Arterial M	50,210	0.93	**E**

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Table 10.4
Existing Plus Mather South Project (Alt. 3) Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + Mather South Project (Staff Alt.)				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	17,923	0.33	A	6	Arterial M	23,820	0.44	A
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	7,595	0.14	A	6	Arterial M	17,700	0.33	A
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	7,595	0.21	A	4	Arterial M	17,700	0.49	A
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	7,595	0.42	A	2	Arterial M	17,700	0.98	E
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	2	Arterial M	2,848	0.16	A	2	Arterial M	15,290	0.85	D
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3						4	Arterial M	9,350	0.26	A
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4						4	Arterial M	7,210	0.20	A
123.4	Zinfandel Dr	Collector MS-4	Kiefer Blvd						4	Arterial M	4,620	0.13	A
600	Collector MS-1	Kiefer Boulevard	Collector MS-5						2	Arterial M	5,880	0.33	A
601	Collector MS-1	Collector MS-5	Collector MS-4						2	Arterial M	2,650	0.15	A
602	Collector MS-1	Collector MS-4	Collector MS-3						2	Arterial M	2,550	0.14	A
603	Collector MS-1	Collector MS-3	Collector MS-2						2	Arterial M	3,790	0.21	A
604	Collector MS-2	Eagles Nest Road	Collector MS-5						2	Res Collector F	5,450	0.68	D
605	Collector MS-3	Eagles Nest Road	Collector MS-5						2	Arterial M	4,890	0.27	A
606	Collector MS-4	Eagles Nest Road	Collector MS-5						2	Arterial M	4,330	0.24	A
607	Collector MS-5	Kiefer Boulevard	Collector MS-1						2	Arterial M	1,840	0.10	A
608	Collector MS-3	Collector MS-5	Sunrise Boulevard						2	Arterial M	6,620	0.37	A

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

10.6.2 Roadway Segment Mitigations

Table 10.5 summarizes the results of the operations analysis for the study area roadway segments with mitigation under existing conditions. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the Mather South alternative to implement. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

Table 10.5
Existing Plus Mather South Project (Alt. 3) Roadway Segment Mitigations

ID	Roadway	Segment		Existing + Mather South Project					Mitigated Existing + Mather South Project (Staff Alt.)						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
55.1	Grant Line Road	Calvine Rd	Elk Grove City Limit	2	Rural S	14,610	0.73	**E**	4	Arterial M	0.41	A	No		
55.2	Grant Line Road	Elk Grove City Limit	Sheldon Rd	2	Rural S	14,590	0.73	**E**	4	Arterial M	0.41	A	No		
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	18,550	0.93	**E**	4	Arterial M	0.52	A	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,510	0.59	**E**	4	Arterial M	0.38	A	No		
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	18,600	1.03	**F**	4	Arterial M	0.52	A	No		
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	50,210	0.93	**E**	7	Arterial M	0.93	**E**	Yes		Maximum General Plan lanes

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

10.7 INTERSECTION ANALYSIS

10.7.1 Intersection Operations and Impacts

Table 10.6 and **Table 10.7** summarize the results of the operations analysis for the study area intersections under existing conditions. The table includes the implementation of intersection changes associated with the Mather South alternative. Shaded table cells in the first table for each scenario illustrate those locations with an LOS impact. The second table illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type were assumed to be implemented by the Mather South alternative. Detailed analysis information is included in the technical appendix.

As stated above, the traffic analysis assumed that the Mather South alternative would construct a number of changes to many of the intersections that are internal to or on the boundary of the Mather South alternative, which would be an improvement over the existing condition. The timing of implementation of such intersection improvements on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South alternative.

Table 10.6
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	36.6	Signal	B	19.4	No	Signal	D	44.4	Signal	C	29.6	No
2	Howe Avenue & US 50 EB Ramps	Signal	B	16.9	Signal	B	10.7	No	Signal	C	20.5	Signal	A	9.1	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	D	39.1	Signal	C	31.5	No	Signal	D	55.0	Signal	D	41.8	No
4	Power Inn Road & 14th Avenue	Signal	C	31.5	Signal	B	14.9	No	Signal	D	39.6	Signal	C	20.4	No
5	Power Inn Road & Fruitridge Road	Signal	D	43.4	Signal	D	36.3	No	Signal	C	33.5	Signal	C	25.5	No
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	D	36.8	Signal	C	22.8	No	Signal	C	32.1	Signal	B	16.7	No
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	D	39.0	Signal	C	24.1	No	Signal	E	55.6	Signal	C	23.9	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Westbound Left Turn		*C*	*20.1*		*C*	*19.6*			*C*	*23.3*		*C*	*24.6*	
	Westbound Right Turn		*B*	*13.3*		*B*	*13.6*			*B*	*12.6*		*B*	*12.5*	
	Southbound Left Turn		*A*	*10.0*		*A*	*9.9*			*B*	*10.9*		*B*	*11.1*	
9	Florin Perkins Road & Jackson Road	Signal	D	51.5	Signal	B	18.4	No	Signal	D	54.1	Signal	C	23.5	No
10	Florin Perkins Road & Fruitridge Road	Signal	C	25.1	Signal	B	16.6	No	Signal	C	25.4	Signal	B	19.2	No
11	Florin Perkins Road & Elder Creek Road	Signal	C	25.7	Signal	B	18.0	No	Signal	C	26.2	Signal	B	19.3	No
12	Watt Avenue & Folsom Blvd.	Signal	E	66.2	Signal	E	72.7	No	Signal	E	71.9	Signal	E	65.0	No
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	B	19.6	Signal	B	12.6	No	Signal	D	54.1	Signal	B	12.7	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	E	56.0	Signal	D	52.7	No	Signal	E	75.9	Signal	D	36.4	No

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Table 10.6
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	11.5	Signal	A	7.6	No	Signal	A	9.7	Signal	A	6.1	No
16	S. Watt Avenue & Jackson Road	Signal	E	62.5	Signal	D	52.4	No	Signal	E	66.4	Signal	E	57.1	No
17	S. Watt Avenue & Fruitridge Road	Signal	D	38.1	Signal	B	19.9	No	Signal	D	41.7	Signal	C	20.7	No
18	S. Watt Avenue & Elder Creek Road	Signal	E	62.7	Signal	D	47.9	No	Signal	E	68.8	Signal	E	60.5	No
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	D	54.7	Signal	C	26.6	No	Signal	D	51.8	Signal	D	35.6	No
21	Elk Grove Florin Road & Gerber Road	Signal	D	49.1	Signal	D	42.7	No	Signal	E	64.6	Signal	E	58.9	No
22	Sunrise Blvd & MS-3/Justinian Dr	Mather South Project Int.			Signal	B	19.2	No	Mather South Project Int.			Signal	B	13.5	No
23	Hedge Avenue & Jackson Road	Signal	D	35.1	Signal	B	19.2	No	Signal	D	37.3	Signal	B	13.5	No
24	Hedge Avenue & Fruitridge Road	All-way stop	B	13.6	All-way stop	B	13.8	No	All-way stop	A	9.4	All-way stop	A	9.5	No
25	Hedge Avenue & Elder Creek Road	All-way stop	C	15.9	All-way stop	C	16.5	No	All-way stop	B	11.6	All-way stop	B	11.8	No
26	Hedge Avenue & Tokay Lane	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*A*	*8.0*		*A*	*8.4*			*A*	*7.3*		*A*	*7.5*	
	Eastbound		*B*	*12.2*		*B*	*12.8*			*B*	*10.2*		*B*	*10.4*	
	Westbound		*B*	*11.1*		*B*	*11.7*			*A*	*9.6*		*A*	*9.8*	
27	Hedge Avenue & Florin Road	All-way stop	B	12.9	All-way stop	B	14.2	No	All-way stop	B	11.1	All-way stop	B	12.0	No
28	Mayhew Road & Kiefer Boulevard	Signal	D	48.6	Signal	B	17.4	No	Signal	D	51.1	Signal	B	17.9	No

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Table 10.6
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Through - Left Turn		*D*	*27.6*		*D*	*31.1*			*D*	*34.0*		*E*	*39.6*	
	Northbound Right Turn		*B*	*11.8*		*B*	*12.6*			*C*	*15.0*		*C*	*15.6*	
	Southbound		*C*	*18.3*		*C*	*19.8*			*C*	*24.9*		*D*	*28.4*	
	Eastbound Left Turn		*A*	*8.9*		*A*	*8.8*			*A*	*8.4*		*A*	*8.5*	
	Westbound Left Turn		*A*	*8.3*		*A*	*8.5*			*A*	*9.3*		*A*	*9.4*	
30	Mayhew Road & Fruitridge Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.4*		*A*	*7.4*	
	Eastbound		*A*	*9.2*		*A*	*9.3*			*A*	*9.2*		*A*	*9.3*	
31	Mayhew Road & Elder Creek Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound		*B*	*11.9*		*B*	*12.6*			*B*	*10.9*		*B*	*11.3*	
	Southbound		*B*	*11.1*		*B*	*10.9*			*A*	*9.8*		*A*	*9.9*	
	Eastbound Left Turn		*A*	*8.3*		*A*	*8.2*			*A*	*7.6*		*A*	*7.5*	
	Westbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*0.0*		*A*	*0.0*	
32	Woodring Drive & Zinfandel Drive	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Eastbound		*A*	*9.3*		*E*	*44.9*			*A*	*9.3*		*E*	*43.5*	
	Northbound Left Turn		*A*	*0.0*		*A*	*8.3*			*A*	*0.0*		*A*	*9.7*	
33	Bradshaw Road & Folsom Blvd.	Signal	E	56.7	Signal	C	22.2	No	Signal	D	49.9	Signal	B	19.3	No
34	Bradshaw Road & US 50 WB Ramps	Signal	B	15.9	Signal	A	5.5	No	Signal	B	15.2	Signal	A	6.3	No
35	Bradshaw Road & US 50 EB Ramps	Signal	C	24.4	Signal	B	12.4	No	Signal	B	16.0	Signal	A	9.9	No
36	Bradshaw Road & Old Placerville Road	Signal	D	45.9	Signal	C	31.7	No	Signal	D	52.0	Signal	C	32.5	No
37	Bradshaw Road & Kiefer Boulevard	Signal	D	45.7	Signal	B	17.4	No	Signal	E	66.2	Signal	C	28.7	No

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Table 10.6
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
38	Bradshaw Road & Jackson Road	Signal	E	73.1	Signal	E	72.5	No	Signal	E	59.4	Signal	D	55.0	No
39	Bradshaw Road & Elder Creek Road	Signal	D	36.8	Signal	C	22.4	No	Signal	D	36.1	Signal	C	23.3	No
40	Bradshaw Road & Florin Road	Signal	D	38.1	Signal	C	22.9	No	Signal	D	53.6	Signal	C	27.0	No
41	Bradshaw Road & Gerber Road	Signal	E	72.2	Signal	E	60.2	No	Signal	D	49.9	Signal	C	28.1	No
42	Happy Lane & Old Placerville Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound Left Turn		*F*	*64.8*		*F*	*152.9*			*F*	*95.9*		*F*	*291.6*	
	Northbound Right Turn		*D*	*30.6*		*D*	*34.8*			*C*	*15.4*		*C*	*20.1*	
	Westbound Left Turn		*B*	*10.2*		*B*	*10.9*			*B*	*10.1*		*B*	*10.6*	
45	Excelsior Road & Jackson Road	Signal	D	36.7	Signal	C	22.1	No	Signal	D	40.3	Signal	B	16.8	No
46	Excelsior Road & Elder Creek Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*8.0*		*A*	*7.8*	
	Eastbound		*C*	*18.6*		*C*	*21.8*			*B*	*12.3*		*B*	*12.1*	
47	Excelsior Road & Florin Road	All-way stop	C	24.9	All-way stop	D	34.1	No	All-way stop	B	12.5	All-way stop	B	13.3	No
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	B	14.0	All-way stop	B	13.9	No	All-way stop	B	10.6	All-way stop	B	10.2	No
49	Mather Field Road & US 50 WB Ramps	Signal	C	24.7	Signal	A	8.9	No	Signal	A	9.4	Signal	A	5.3	No
50	Mather Field Road & US 50 EB Ramps	Signal	C	27.7	Signal	B	17.4	No	Signal	B	13.4	Signal	A	7.7	No
51	Mather Field Road & Rockingham Drive	Signal	E	56.4	Signal	D	51.6	No	Signal	D	54.7	Signal	D	41.2	No
52	Mather Boulevard & Douglas Road	All-way stop	E	39.3	All-way stop	E	40.4	No	All-way stop	C	15.5	All-way stop	C	15.9	No

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Table 10.6
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
53	Zinfandel Drive & US 50 WB Ramps	Signal	B	16.4	Signal	A	8.6	No	Signal	D	51.7	Signal	D	47.5	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	D	40.0	Signal	D	48.2	No	Signal	E	60.1	Signal	E	60.1	Yes
55	Zinfandel Drive & White Rock Road	Signal	D	47.7	Signal	C	25.2	No	Signal	D	54.7	Signal	D	42.6	No
56	Zinfandel Drive & Data Drive	Signal	D	49.3	Signal	B	15.7	No	Signal	D	52.9	Signal	C	20.4	No
57	Zinfandel Drive & International Dr	Signal	C	34.0	Signal	C	23.6	No	Signal	D	48.5	Signal	C	31.1	No
58	Zinfandel Drive & Douglas Road	Signal	E	55.5	Signal	D	39.3	No	Signal	D	54.2	Signal	C	20.8	No
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Free Turn			Signal	A	7.2	No	Free Turn			Signal	A	8.5	No
60	Eagles Nest Road & Jackson Road	Two-way stop			Two-way stop			Yes	Two-way stop			Two-way stop			Yes
	Northbound		*C*	*22.0*		*F*	*>300*			*C*	*23.8*		*F*	*>300*	
	Southbound		*B*	*13.9*		*F*	*>300*			*C*	*22.0*		*F*	*>300*	
	Eastbound Left Turn		*A*	*8.8*		*A*	*9.1*			*A*	*7.9*		*A*	*8.2*	
	Westbound Left Turn		*A*	*7.9*		*A*	*7.8*			*A*	*8.7*		*A*	*8.7*	
61	Eagles Nest Road & Florin Road	Two-way stop			Two-way stop			No	Two-way stop			Two-way stop			No
	Northbound		*B*	*12.7*		*C*	*21.9*			*B*	*12.1*		*C*	*15.3*	
	Southbound		*B*	*10.0*		*C*	*16.5*			*B*	*10.5*		*C*	*17.1*	
	Eastbound Left Turn		*A*	*7.7*		*A*	*7.9*			*A*	*7.7*		*A*	*7.8*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.6*		*A*	*7.5*	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	D	44.7	Signal	C	25.2	No	Signal	B	19.7	Signal	A	9.3	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	16.9	Signal	A	9.4	No	Signal	B	17.6	Signal	A	9.7	No

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Table 10.6
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	54.4	Signal	C	29.7	No	Signal	D	48.6	Signal	C	34.4	No
65	Sunrise Boulevard & White Rock Road	Signal	D	47.8	Signal	C	31.9	No	Signal	D	51.6	Signal	D	35.5	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	D	47.8	Signal	B	15.9	No	Signal	D	45.8	Signal	B	19.2	No
67	Sunrise Boulevard & Douglas Road	Signal	D	51.7	Signal	C	24.4	No	Signal	D	46.5	Signal	B	19.7	No
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	C	27.0	Signal	B	17.7	No	Signal	C	21.0	Signal	A	7.9	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	D	53.6	Signal	C	22.3	No	Signal	C	27.0	Signal	B	17.5	No
70	Sunrise Boulevard & Jackson Road	Signal	E	57.0	Signal	D	51.0	No	Signal	D	47.2	Signal	C	31.4	No
71	Sunrise Boulevard & Florin Road	Signal	B	11.3	Signal	A	8.6	No	Signal	D	48.3	Signal	B	12.4	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	D	43.2	Signal	C	21.2	No	Signal	D	40.7	Signal	B	18.3	No
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	C	31.2	Signal	C	26.4	No	Signal	D	41.4	Signal	B	16.5	No
74	Hazel Avenue & US 50 EB Ramps	Signal	C	20.6	Signal	A	8.1	No	Signal	C	29.9	Signal	A	6.3	No
75	Hazel Avenue & Folsom Boulevard	Signal	D	51.7	Signal	C	23.9	No	Signal	D	46.7	Signal	D	42.0	No
76	Prairie City Road & White Rock Road	Signal	B	19.2	Signal	B	12.1	No	Signal	B	15.0	Signal	A	9.8	No
77	Grant Line Road & White Rock Road	Signal	B	10.9	Signal	A	8.2	No	Signal	B	11.2	Signal	A	7.7	No
78	Grant Line Road & Douglas Road	All-way stop	C	15.2	All-way stop	A	8.1	No	All-way stop	B	12.3	All-way stop	A	9.7	No

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Table 10.6
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
79	Grant Line Road & Kiefer Boulevard	All-way stop	B	11.4	All-way stop	B	10.7	No	All-way stop	B	10.5	All-way stop	B	10.5	No
80	Grant Line Road & Jackson Road	Signal	E	74.0	Signal	E	55.8	No	Signal	E	78.9	Signal	E	66.1	No
81	Watt Avenue & US-50 EB Ramps	Signal	B	13.0	Signal	B	12.1	No	Signal	B	14.9	Signal	B	13.2	No
82	Watt Avenue & US-50 WB Ramps	Signal	C	32.9	Signal	D	37.9	No	Signal	C	28.6	Signal	C	28.5	No
83	Mayhew Rd & Folsom Blvd.	Signal	B	19.8	Signal	B	12.1	No	Signal	C	20.1	Signal	B	12.2	No
84	65th Street Expy & Fruitridge Road	Signal	C	31.2	Signal	C	26.0	No	Signal	D	35.3	Signal	C	23.7	No
85	Power Inn Road & Elder Creek Road	Signal	D	35.2	Signal	C	27.3	No	Signal	D	36.3	Signal	C	33.5	No
86	Power Inn Road & Florin Rd	Signal	D	36.3	Signal	C	33.3	No	Signal	D	45.9	Signal	D	41.8	No
87	Florin Perkins Road & Florin Rd	Signal	D	36.7	Signal	C	28.0	No	Signal	C	32.5	Signal	C	27.0	No
88	Bradshaw Rd & Calvine Rd	Signal	C	30.5	Signal	C	22.6	No	Signal	D	36.9	Signal	C	24.7	No
89	Vineyard Rd & Calvine Rd	Signal	C	30.8	Signal	B	17.5	No	Signal	C	34.9	Signal	B	18.0	No
90	Excelsior Road & Calvine Rd	All-way stop	C	16.6	All-way stop	C	18.4	No	All-way stop	B	13.0	All-way stop	B	13.6	No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	D	51.7	Signal	B	14.9	No	Signal	D	46.5	Signal	C	24.9	No
92	Grant Line Rd & Calvine Rd	Signal	C	21.4	Signal	C	20.6	No	Signal	C	24.0	Signal	C	21.8	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	E	65.9	Signal	E	64.3	No	Signal	E	64.8	Signal	D	43.1	No

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Table 10.6
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus Mather South Project			LOS Impact	Existing			Existing Plus Mather South Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	C	33.3	Signal	B	12.9	No	Signal	D	46.4	Signal	B	14.8	No
202	W Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	A	8.0	No	Mather South Project Int.			Signal	B	12.1	No
204	E Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	10.5	No	Mather South Project Int.			Signal	C	32.3	No
600	Zinfandel Drive & Collector MS-2	Mather South Project Int.			Roundabout	B	10.3	No	Mather South Project Int.			Roundabout	B	12.5	No
601	Zinfandel Drive & Collector MS-3	Mather South Project Int.			Roundabout	A	7.7	No	Mather South Project Int.			Roundabout	A	8.1	No
602	Zinfandel Drive & Collector MS-4	Mather South Project Int.			Roundabout	A	6.6	No	Mather South Project Int.			Roundabout	A	6.8	No
603	Collector MS-5 & Collector MS-2	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*7.9*						*A*	*7.5*	
	Eastbound					*B*	*10.3*						*B*	*10.2*	
604	Collector MS-5 & Collector MS-3	Mather South Project Int.			All-way Stop	B	11.2	No	Mather South Project Int.			All-way Stop	B	10.1	No
605	Collector MS-5 & Collector MS-4	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*7.9*						*A*	*7.7*	
	Eastbound					*B*	*10.5*						*B*	*11.5*	
606	Collector MS-5 & W Collector MS-1/E Collector MS-1	Mather South Project Int.			Two-way stop			No	Mather South Project Int.			Two-way stop			No
	Northbound Left Turn					*A*	*7.3*						*A*	*7.3*	
	Eastbound Left Turn					*A*	*9.0*						*A*	*9.2*	
	Eastbound					*A*	*8.6*						*A*	*8.5*	

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

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Table 10.7
Staff Alternative with Canal Crossing
Existing and Existing Plus Mather South Project (Alt. 3) Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	Signal	1 1 1 r	2 1 1 1 1	1 r r	1 1 1 2 r r	1 1 1 r	2 1 1 1 1	1 r r	1 1 1 2 r r
2	Howe Avenue & US 50 EB Ramps	Signal	Signal	1 1 1 r	2 1 1 1	1 1 r r		1 1 1 r	2 1 1 1	1 1 r r	
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal	1 1 1 1 1 r	2 1 1 1 L L	1 1 1 2	1 1 1 1 r r	1 1 1 1 1 r	2 1 1 1 L L	1 1 1 2	1 1 1 1 r r
4	Power Inn Road & 14th Avenue	Signal	Signal	1 1 1 1 2	2 1 1 L	1 1 r	T	1 1 1 1 2	2 1 1 L	1 1 r	T
5	Power Inn Road & Fruitridge Road	Signal	Signal	1 1 1 2	2 1 1 L L	1 1 2	1 1 1 r	1 1 1 2	2 1 1 L L	1 1 2	1 1 1 r
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal	1 1 r	2 2	1 1 1 r	1 1 1 r	1 1 r	2 2	1 1 1 r	1 1 1 r
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal	1 1 r	1 2	1 1 1 r	1 1 2	1 1 r	1 2	1 1 1 r	1 1 2
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop	1 2	1 1 L		1 r	1 2	1 1 L		1 r
9	Florin Perkins Road & Jackson Road	Signal	Signal	1 1 1 r	1 1 L	1 1 r r	1 1 2	1 1 1 r	1 1 L	1 1 r r	1 1 2
10	Florin Perkins Road & Fruitridge Road	Signal	Signal	1 1 1 r	2 1 1 L	1 1 1 r	1 1 2	1 1 1 r	2 1 1 L	1 1 1 r	1 1 2
11	Florin Perkins Road & Elder Creek Road	Signal	Signal	1 1 1 r	2 1 1 L	1 1 1 r	1 1 1 r	1 1 1 r	2 1 1 L	1 1 1 r	1 1 1 r
12	Watt Avenue & Folsom Blvd.	Signal	Signal	1 1 1 1 1 r	2 1 1 1 L L	1 1 1 1 r	1 1 1 1 r	1 1 1 1 1 r	2 1 1 1 L L	1 1 1 1 r	1 1 1 1 r
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal	1 1 1 1 r	1 1 1 L	T	1 2 r	1 1 1 1 r	1 1 1 L	T	1 2 r
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal	1 1 1 1 2	1 1 1 L L	1 1 1 1 r	1 1 1 1 r	1 1 1 1 2	1 1 1 L L	1 1 1 1 r	1 1 1 1 r
15	S. Watt Avenue & Canberra Dr.	Signal	Signal	1 1 2	1 1 L		1 r	1 1 2	1 1 L		1 r
16	S. Watt Avenue & Jackson Road	Signal	Signal	1 1 1 r	2 1 1 L	1 2	1 1 r	1 1 1 r	2 1 1 L	1 2	1 1 r
17	S. Watt Avenue & Fruitridge Road	Signal	Signal	1 1 2	2 1 1 L	1 1 r	1 2	1 1 2	2 1 1 L	1 1 r	1 2
18	S. Watt Avenue & Elder Creek Road	Signal	Signal	1 1 r	2 1 L	T r	1 1 r	1 1 r	2 1 L	T r	1 1 r
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal	1 1 2	1 1 L	1 1 2	1 1 1 r	1 1 2	1 1 L	1 1 2	1 1 1 r
21	Elk Grove Florin Road & Gerber Road	Signal	Signal	1 1 1 2	2 1 1 L L	1 1 1 1 r	1 1 1 1 r	1 1 1 2	2 1 1 L L	1 1 1 1 r	1 1 1 1 r
22	Sunrise Boulevard & Justinian Drive	Two-way stop	Two-way stop	1 1 2	1 1 L		r	1 1 1 2	1 1 L	1 2	1 2
23	Hedge Avenue & Jackson Road	Signal	Signal	1 2	1 L	1 1 r	1 1 r	1 2	1 L	1 1 r	1 1 r
24	Hedge Avenue & Fruitridge Road	All-way stop	All-way stop	T	+	T	T	T	+	T	T
25	Hedge Avenue & Elder Creek Road	All-way stop	All-way stop	T	+	T	T	T	+	T	T
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop	T	+	T	T	T	+	T	T
27	Hedge Avenue & Florin Road	All-way stop	All-way stop	T	+	T	T	T	+	T	T
28	Mayhew Road & Kiefer Boulevard	Signal	Signal	1 1 r	2 1 L	1 1 2	1 1 2	1 1 r	2 1 L	1 1 2	1 1 2
29	Mayhew Road & Jackson Road	Two-way stop	Two-way stop	T r	+	1 1 r	1 2	T r	+	1 1 r	1 2

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 10.7
Staff Alternative with Canal Crossing
Existing and Existing Plus Mather South Project (Alt. 3) Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
30	Mayhew Road & Fruitridge Road	Two-way stop	Two-way stop	↰	↲	↱		↰	↲	↱	
31	Mayhew Road & Elder Creek Road	Two-way stop	Two-way stop	↰↑↱	↰↑↱	↰↑↱	↰↑↱	↰↑↱	↰↑↱	↰↑↱	↰↑↱
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop	↰	↲	↱		↰	↲	↱	
33	Bradshaw Road & Folsom Blvd.	Signal	Signal	↰↰↑↱	↲↓↓↳	↰↑↑ ↱	↰↰↑↑ ↱	↰↰↑↱	↲↓↓↳	↰↑↑ ↱	↰↰↑↑ ↱
34	Bradshaw Road & US 50 WB Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓↓		↰↰↱↱	↑↑↑ ↱	↲↓↓↓		↰↰↱↱
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓↓	↰↰↱↱		↑↑↑ ↱	↲↓↓↓	↰↰↱↱	
36	Bradshaw Road & Old Placerville Road	Signal	Signal	↰↑↑↑ ↱	↲↓↓↳↳	↰↱	↰↰↑ ↱	↰↑↑↑ ↱	↲↓↓↳↳	↰↱	↰↰↑ ↱
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal	↰↰↑↑↑ ↱	↲↓↓↳↳	↰↰↑ ↱	↰↰↑ ↱	↰↰↑↑↑ ↱	↲↓↓↳↳	↰↰↑ ↱	↰↰↑ ↱
38	Bradshaw Road & Jackson Road	Signal	Signal	↰↑↱	↲↓↓↳	↰↑ ↱	↰↑ ↱	↰↑↱	↲↓↓↳	↰↑ ↱	↰↑ ↱
39	Bradshaw Road & Elder Creek Road	Signal	Signal	↰↑↱	↲↓↳	↰↰↱	↰↰↱	↰↑↱	↲↓↳	↰↰↱	↰↰↱
40	Bradshaw Road & Florin Road	Signal	Signal	↰↑↱	↲↓↳	↰↰↱	↰↰↱	↰↑↱	↲↓↳	↰↰↱	↰↰↱
41	Bradshaw Road & Gerber Road	Signal	Signal	↰↑↱	↲↓↳	↰↰↱	↰↱	↰↑↱	↲↓↳	↰↰↱	↰↱
42	Happy Lane & Old Placerville Road	Two-way stop	Two-way stop	↰↱		↑ ↱	↰↑	↰↱		↑ ↱	↰↑
45	Excelsior Road & Jackson Road	Signal	Signal	↰↱	↲↳	↰↑ ↱	↰↑ ↱	↰↱	↲↳	↰↑ ↱	↰↑ ↱
46	Excelsior Road & Elder Creek Road	Two-way stop	Two-way stop	↰	↲↓	↱		↰	↲↓	↱	
47	Excelsior Road & Florin Road	All-way stop	All-way stop	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱
49	Mather Field Road & US 50 WB Ramps	Signal	Signal	↑↑ ↱	↲↓↓		↰↲↱	↑↑ ↱	↲↓↓		↰↲↱
50	Mather Field Road & US 50 EB Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓	↰↲↱↱		↑↑↑ ↱	↲↓↓	↰↲↱↱	
51	Mather Field Road & Rockingham Drive	Signal	Signal	↰↑↑ ↱	↲↓↓↓↳	↰↰↱	↰↱	↰↑↑ ↱	↲↓↓↓↳	↰↰↱	↰↱
52	Mather Boulevard & Douglas Road	All-way stop	All-way stop	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱	↰↲↱
53	Zinfandel Drive & US 50 WB Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓		↰↰↱	↑↑↑ ↱	↲↓↓		↰↰↱
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal	↑↑↑ ↱	↲↓↓	↰↰↱↱	↱↱	↑↑↑ ↱	↲↓↓	↰↰↱↱	↱↱
55	Zinfandel Drive & White Rock Road	Signal	Signal	↰↰↑↑ ↱	↲↓↓↓↳↳	↰↰↑↑ ↱	↰↰↑ ↱↱	↰↰↑↑ ↱	↲↓↓↓↳↳	↰↰↑↑ ↱	↰↰↑ ↱↱
56	Zinfandel Drive & Data Drive	Signal	Signal	↰↑↑ ↱	↲↓↓↳	↰↲↱	↰↰↱	↰↑↑ ↱	↲↓↓↳	↰↲↱	↰↰↱
57	Zinfandel Drive & International Dr	Signal	Signal	↰↰↑↑↑ ↱	↲↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	↲↓↓↳↳	↰↰↑↑ ↱	↰↰↑↑↑ ↱
58	Zinfandel Drive & Douglas Road	Signal	Signal	↰↱	↲↓↳↳	↰↑ ↱	↰↑ ↱	↰↱	↲↓↳↳	↰↑ ↱	↰↑ ↱
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard		Signal	↱			↰	↑↱	↓↳		↰↱

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 10.7
Staff Alternative with Canal Crossing
Existing and Existing Plus Mather South Project (Alt. 3) Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
60	Eagles Nest Road & Jackson Road	Two-way stop	Two-way stop								
61	Eagles Nest Road & Florin Road	Two-way stop	Two-way stop								
62	Sunrise Boulevard & US 50 WB Ramps	Signal	Signal								
63	Sunrise Boulevard & US 50 EB Ramps	Signal	Signal								
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal								
65	Sunrise Boulevard & White Rock Road	Signal	Signal								
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal								
67	Sunrise Boulevard & Douglas Road	Signal	Signal								
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal								
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal								
70	Sunrise Boulevard & Jackson Road	Signal	Signal								
71	Sunrise Boulevard & Florin Road	Signal	Signal								
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal								
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	Signal								
74	Hazel Avenue & US 50 EB Ramps	Signal	Signal								
75	Hazel Avenue & Folsom Boulevard	Signal	Signal								
76	Prairie City Road & White Rock Road	Signal	Signal								
77	Grant Line Road & White Rock Road	Signal	Signal								
78	Grant Line Road & Douglas Road	All-way stop	Signal[1]								
79	Grant Line Road & Kiefer Boulevard	All-way stop	All-way stop								
80	Grant Line Road & Jackson Road	Signal	Signal								
81	Watt Avenue & US-50 EB Ramps	Signal	Signal								
82	Watt Avenue & US-50 WB Ramps	Signal	Signal								
83	Mayhew Rd & Folsom Blvd.	Signal	Signal								
84	65th Street Expy & Fruitridge Road	Signal	Signal								
85	Power Inn Road & Elder Creek Road	Signal	Signal								
86	Power Inn Road & Florin Rd	Signal	Signal								
87	Florin Perkins Road & Florin Rd	Signal	Signal								

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 10.7
Staff Alternative with Canal Crossing
Existing and Existing Plus Mather South Project (Alt. 3) Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus Mather South Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
88	Bradshaw Rd & Calvine Rd	Signal	Signal								
89	Vineyard Rd & Calvine Rd	Signal	Signal								
90	Excelsior Road & Calvine Rd	All-way stop	All-way stop								
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal								
92	Grant Line Rd & Calvine Rd	Signal	Signal								
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal								
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	Signal								
202	W Collector MS-1 & Kiefer Boulevard		Signal								
204	E Collector MS-1 & Kiefer Boulevard		Signal								
600	Zinfandel Drive & Collector MS-2		Roundabout								
601	Zinfandel Drive & Collector MS-3		Roundabout								
602	Zinfandel Drive & Collector MS-4		Roundabout								
603	Collector MS-5 & Collector MS-2		Two-way stop								
604	Collector MS-5 & Collector MS-3		All-way stop								
605	Collector MS-5 & Collector MS-4		Two-way stop								
606	Collector MS-5 & W Collector MS-1/E Collector MS-1		Two-way stop								

1. Reflects 2017 intersection improvements.

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

10.7.2 Intersection Mitigations

Table 10.8 and **Table 10.9** summarize the results of the operations analysis for the study area intersections with mitigation under existing conditions. Where feasible, the number of approach lanes was increased to mitigate the impact. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. The shaded table cells in the first table for each scenario under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. The second table indicates those locations where changes in traffic control and / or number of approach lanes by type have been made, which would be the responsibility of the Mather South alternative to implement.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

Table 10.8
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus Mather South Project			LOS Impact	Mitigated Existing Plus Mather South Project			Existing Plus Mather South Project			LOS Impact	Mitigated Existing Plus Mather South Project		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
42	Happy Lane & Old Placerville Road	Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct Routier extension.			Two-way stop			Yes	Modify access control to allow only right-in and right-out on Happy Lane. Median will allow Westbound left-turns to Happy Lane. Construct Routier extension.		
	Northbound Left Turn		***F***	***152.9***						***F***	***291.6***				
	Northbound Right Turn		***E***	***34.8***						*C*	*20.1*				
	Westbound Left Turn		*B*	*10.9*						*B*	*10.6*				
60	Eagles Nest Road & Jackson Road	Two-way stop			Yes	Signal	D	39.0	Two-way stop			Yes	Signal	C	24.5
	Northbound		***F***	***>300***						***F***	***>300***				
	Southbound		***F***	***>300***						***F***	***>300***				
	Eastbound Left Turn		*A*	*9.1*						*A*	*8.2*				
	Westbound Left Turn		*A*	*7.8*						*A*	*8.7*				

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 10.9
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Intersection Impacts and Mitigations

	Intersection	Traffic Control		Existing Plus Mather South Project Lane Geometrics				Mitigated Existing Plus Mather South Project Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Existing Plus Project	Mitigated Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
42	Happy Lane & Old Placerville Road	Two-way stop	Access Control	↰ ↱		↑ ↱	↰ ↑	Happy Lane to become right-in and right-out only. Median will allow westbound left turns.				Yes	No	Construct Routier extension from Old Placerville Road to Kiefer Road.	
60	Eagles Nest Road & Jackson Road	Two-way stop	Signal	↾	↿	↰ ↱	↰ ↱	↾	↿ ↾	↰ ↱	↰ ↱	No	No		

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

10.8 PEDESTRIAN AND BICYCLE FACILITY ANALYSIS

10.8.1 Pedestrian and Bicycle Facility Impacts

The Mather South alternative would not remove any existing or planned pedestrian facility. The Mather South alternative would not remove any existing bicycle facility, but would modify facilities that are planned in the Bikeway Master Plan. The Mather South alternative would add pedestrian and bicycle demands within the Mather South alternative site and to and from nearby land uses. Because the Mather South alternative would add demand for pedestrian and bicycle facilities that may not be available in the site vicinity, the impact of the Mather South project on pedestrian and bicycle circulation is potentially significant.

10.8.2 Pedestrian and Bicycle Facility Mitigations

The Mather South alternative applicant shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the Mather South alternative and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the Mather South project vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

10.9 TRANSIT SYSTEM IMPACTS

10.9.1 Transit System Impacts

Public transit is not currently provided to the Mather South alternative site. In the preparation of this analysis, a conceptual transit system to serve the Mather South alternative and adjacent future projects was developed. The additional transit service was assumed to be funded by the Mather South alternative. However, the timing and implementation of the transit system are uncertain at this time. The Mather South alternative would increase demands for public transit facilities. Therefore, the impact of the Mather South alternative on the transit system is potentially significant.

10.9.2 Transit System Mitigations

The Mather South project applicant shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis, or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the Mather South alternative. The full level of transit service would not achieve adequate transit

ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the Mather South alternative, must be phased with development of the Mather South alternative.

10.10 FUNCTIONALITY ANALYSIS

10.10.1 Functionality Impacts

Table 10.10 summarizes the results of the rural roadway segment functionality analysis under existing conditions. The table includes the number of lanes assumed with the implementation of the Mather South alternatives, which in many cases is greater than the number of lanes in the base condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the Mather South alternative. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the alternative makes improvements to a roadway segment such as widening, it would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the Mather South alternative would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the Mather South alternative, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the Mather South alternative.

Table 10.10
Existing Plus Mather South Project (Alt. 3) Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + Mather South Project (Staff Alt.)			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	2	Yes	7,570	**Yes**
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	2	Yes	7,750	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	2	Yes	7,080	**Yes**
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Yes	3,660	No
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Yes	1,920	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	2	Yes	5,980	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	2	Yes	6,090	**Yes**
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	2	Yes	5,970	No
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	2	Yes	2,400	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Yes	1,640	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	2	Yes	4,750	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	2	Yes	3,740	No
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Yes	5,280	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Yes	4,050	No
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	2	Yes	8,530	**Yes**
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	2	Yes	7,180	**Yes**
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	2	Yes	7,170	**Yes**
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	2	Yes	4,660	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Yes	5,460	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	2	Yes	3,150	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	2	Yes	2,070	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	2	Yes	7,380	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	2	Yes	6,590	**Yes**
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Yes	3,030	No
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Yes	3,690	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Yes	2,700	No

Red text with light gray shading indicate project impacts.

Table 10.10
Existing Plus Mather South Project (Alt. 3) Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + Mather South Project (Staff Alt.)			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	2	Yes	14,340	Yes
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	2	Yes	13,440	Yes
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Yes	4,810	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	2	Yes	5,500	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	2	Yes	5,610	No
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Yes	7,030	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	2	Yes	1,880	No
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	2	Yes	2,400	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	2	Yes	15,290	Yes

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

10.10.2 Functionality Mitigations

Table 10.11 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation under existing conditions.

Table 10.11
Existing Plus Mather South Project (Alt. 3) Functionality Mitigations

ID	Roadway	Segment		Existing + Mather South Project (Staff Alt.)				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Yes	7,570	Yes	Widen to County standards [5]	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Yes	7,750	No	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	2	Yes	7,080	Yes	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Yes	6,090	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	2	Yes	8,530	Yes	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Yes	7,180	Yes	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Yes	7,170	Yes	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Yes	6,590	Yes	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Yes	14,340	Yes	Widen to County standards [5]	No
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Yes	13,440	Yes	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	2	Yes	5,610	No	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	2	Yes	15,290	Yes	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

10.13 Mitigation Summary and Comparison to Base Project

Table 10.12 through **Table 10.14** summarize all of the roadway segments, intersections, and freeway facilities that would exhibit significant LOS impacts under existing conditions along with the mitigation success for these impacts.

Compared to the proposed project, the following changes occur to roadway segment impacts:

- #122: Zinfandel Drive from International Road to Baroque Drive is no longer an impact

Compared to the proposed project, the following changes occur to intersection impacts:

- #32: Woodring Drive and Zinfandel Drive is no longer an impact

Compared to the proposed project, the following changes occur to functionality impacts:

- #16: Douglas Road from Zinfandel Drive to Sunrise Boulevard is no longer an impact
- #78: Kiefer Boulevard from Zinfandel Drive to Sunrise Boulevard is no longer an impact

Table 10.12
Existing Plus Mather South Project (Alt. 3) Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
55.1	Grant Line Road	Calvine Rd	Elk Grove City Limit
55.2	Grant Line Road	Elk Grove City Limit	Sheldon Rd
56	Grant Line Rd	Sheldon Rd	Wilton Rd
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
106	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
118	Zinfandel Dr	US 50	White Rock Rd

Note: Refer to Table 10.5 for detailed description of impacts and mitigations.

Table 10.13
Staff Alternative with Canal Crossing
Existing Plus Mather South Project (Alt. 3) Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
42	Happy Lane & Old Placerville Road	**
60	Eagles Nest Road & Jackson Road	

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 10.14
Existing Plus Mather South Project (Alt. 3) Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

11. VEHICLE MILES TRAVELED PER CAPITA

11.1 VMT DESCRIPTION

For CEQA purposes, California Senate Bill 743 (SB 743) dictates a change in the evaluation of transportation impacts, primarily shifting from level of service (LOS) to vehicle miles traveled (VMT). The VMT metric combines mode choice and trip length into a single parameter that is generally proportional to greenhouse gas (GHG) effects. The CEQA changes proposed under SB 743, however, are currently voluntary and will not become mandatory until at least January 1, 2020. This section discusses VMT analysis that was prepared for the proposed projects under Existing Plus Project and MTP Cumulative Plus Four Projects conditions.

11.2 METHODOLOGY

The analysis presented in this section was prepared using a methodology generally consistent with the methodology adopted by SACOG to determine regional thresholds and VMT Per Capita regionally. Because SACOG's adopted model (SacSIM) is a "tour-based" Activity Based Model (ABM) it is possible to trace every daily trip undertaken by each member of each household, whether or not each trip originates or terminates at the person's home or somewhere else. Therefore, it is also possible to trace the total distance traveled by each person during the day and the mode used for each trip. This allows SACOG (and this analysis) to calculate detailed VMT per capita for all trips undertaken by residents of the region or a particular study or project area. This VMT, combined with VMT of trips for non-residential uses within the study or project area, results in overall VMT (and VMT per capita) generated by the study or project area.

11.3 EXISTING PLUS PROJECT

Table 11.1 shows the estimated VMT per capita under Existing Plus Mather South conditions. Over 8,700 people are anticipated to generate over 190,600 vehicle miles traveled per day. That equates to an average 21.9 vehicle miles traveled per capita per day, higher than the predicted 18.6 VMT per capita average in the total region.

11.4 MTP PLUS ALL PROJECTS

Table 11.1 also depicts the estimated VMT per capita in the Jackson Corridor under MTP Cumulative Plus Four Projects condition. Each of the four projects are anticipated to have a higher VMT per capita than the remainder of the region. In total, the population in the region (3,139,601) is predicted to generate 54,154,989 daily vehicle miles; translating to 17.3 vehicle miles traveled per capita per day.

Table 11.1
Estimated VMT per Capita Jackson Corridor Joint TIS

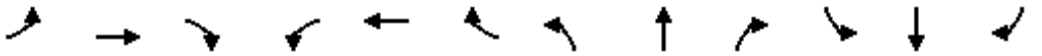
Scenario	Population	VMT	VMT/Capita
Existing plus Mather South			
Mather South	8,703	190,627	21.9
Remainder of Regional	2,214,577	Varies	18.5
Total Region	Varies	Varies	18.6
MTP Plus All Projects			
Jackson Township	14,597	264,306	18.1
Mather South	8,703	159,094	18.3
New Bridge	9,183	187,527	20.4
West Jackson	35,561	674,632	19.0
Remainder of Regional	3,071,557	52,869,430	17.2
Total Region	3,139,601	54,154,989	17.3

Appendix A

Existing Synchro Reports

Existing No Project

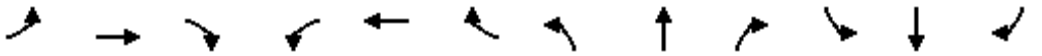
AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	662	0	969	0	0	0	0	1392	552	0	1131	343
Future Volume (vph)	662	0	969	0	0	0	0	1392	552	0	1131	343
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	662	0	969	0	0	0	0	1392	552	0	1131	343
RTOR Reduction (vph)	0	0	26	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	662	0	943	0	0	0	0	1392	552	0	1131	343
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	61.0		61.0					51.0	120.0		51.0	120.0
Effective Green, g (s)	61.0		61.0					51.0	120.0		51.0	120.0
Actuated g/C Ratio	0.51		0.51					0.42	1.00		0.42	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Lane Grp Cap (vph)	1711		1389					2119	1553		2119	1553
v/s Ratio Prot								c0.28			0.23	
v/s Ratio Perm	0.20		c0.35						0.36			0.22
v/c Ratio	0.39		0.68					0.66	0.36		0.53	0.22
Uniform Delay, d1	18.1		22.2					27.5	0.0		25.7	0.0
Progression Factor	1.00		1.00					0.68	1.00		0.69	1.00
Incremental Delay, d2	0.7		2.7					1.2	0.5		0.8	0.3
Delay (s)	18.7		24.8					20.0	0.5		18.4	0.3
Level of Service	B		C					B	A		B	A
Approach Delay (s)		22.4			0.0			14.4			14.2	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	62.4%	ICU Level of Service	B
Analysis Period (min)	15		

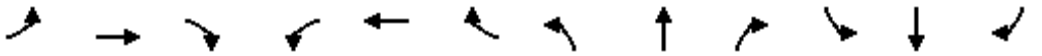
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	250	71	238	743	706	292	1103	178	665	1409	132
Future Volume (vph)	133	250	71	238	743	706	292	1103	178	665	1409	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3356		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3356		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	133	250	71	238	743	706	292	1103	178	665	1409	132
RTOR Reduction (vph)	0	21	0	0	0	518	0	0	101	0	0	74
Lane Group Flow (vph)	133	300	0	238	743	188	292	1103	77	665	1409	58
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	7.0	25.0		14.0	32.0	32.0	16.0	35.0	35.0	30.0	49.0	49.0
Effective Green, g (s)	7.0	25.0		14.0	32.0	32.0	16.0	35.0	35.0	30.0	49.0	49.0
Actuated g/C Ratio	0.06	0.21		0.12	0.27	0.27	0.13	0.29	0.29	0.25	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	196	699		392	925	728	448	1454	452	841	2036	634
v/s Ratio Prot	c0.04	0.09		0.07	c0.21		0.09	c0.22		c0.20	0.28	
v/s Ratio Perm						0.07			0.05			0.04
v/c Ratio	0.68	0.43		0.61	0.80	0.26	0.65	0.76	0.17	0.79	0.69	0.09
Uniform Delay, d1	55.4	41.3		50.4	41.1	34.7	49.4	38.7	31.7	42.1	29.3	21.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.65	0.61	0.42	1.12	1.16	1.60
Incremental Delay, d2	17.3	1.9		6.8	7.3	0.9	5.9	3.1	0.7	6.3	1.6	0.2
Delay (s)	72.7	43.2		57.2	48.4	35.5	38.0	26.7	13.9	53.2	35.7	35.2
Level of Service	E	D		E	D	D	D	C	B	D	D	D
Approach Delay (s)		51.9			44.3			27.3			41.0	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	39.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		

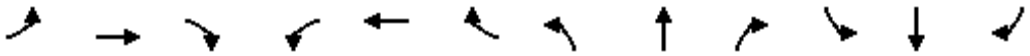
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	357	376	5	1001	27	351	12	2	20	13	225
Future Volume (vph)	138	357	376	5	1001	27	351	12	2	20	13	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00		0.97	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1627	1524		1790	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00		0.97	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1627	1524		1790	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	138	357	376	5	1001	27	351	12	2	20	13	225
RTOR Reduction (vph)	0	0	147	0	0	19	0	0	2	0	0	170
Lane Group Flow (vph)	138	357	229	5	1001	8	183	180	0	0	33	55
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.0	39.0	64.0	4.0	32.0	32.0	25.0	25.0	25.0		16.0	16.0
Effective Green, g (s)	11.0	39.0	64.0	4.0	32.0	32.0	25.0	25.0	25.0		16.0	16.0
Actuated g/C Ratio	0.10	0.37	0.61	0.04	0.30	0.30	0.24	0.24	0.24		0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	181	1289	946	66	1057	473	385	387	362		272	238
v/s Ratio Prot	c0.08	0.10	0.06	0.00	c0.29		c0.11	0.11			0.02	
v/s Ratio Perm			0.09			0.01			0.00			c0.03
v/c Ratio	0.76	0.28	0.24	0.08	0.95	0.02	0.48	0.47	0.00		0.12	0.23
Uniform Delay, d1	45.7	23.1	9.4	48.7	35.7	25.5	34.4	34.3	30.5		38.4	39.1
Progression Factor	1.00	1.00	1.00	1.20	0.84	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	25.7	0.5	0.6	1.8	15.3	0.1	4.2	4.0	0.0		0.9	2.2
Delay (s)	71.5	23.7	10.0	60.3	45.4	25.6	38.5	38.3	30.5		39.3	41.3
Level of Service	E	C	A	E	D	C	D	D	C		D	D
Approach Delay (s)		25.3			44.9			38.3			41.1	
Approach LOS		C			D			D			D	

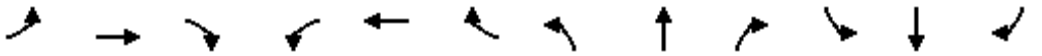
Intersection Summary			
HCM 2000 Control Delay	36.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	214	97	183	471	56	592	57	275	87	114	34
Future Volume (vph)	26	214	97	183	471	56	592	57	275	87	114	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		0.98	
Satd. Flow (prot)	1752	3505	1568	1752	3449		1665	1683	1568		3366	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		0.98	
Satd. Flow (perm)	1752	3505	1568	1752	3449		1665	1683	1568		3366	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	214	97	183	471	56	592	57	275	87	114	34
RTOR Reduction (vph)	0	0	82	0	9	0	0	0	186	0	13	0
Lane Group Flow (vph)	26	214	15	183	518	0	326	323	89	0	222	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	5.0	16.0	16.0	18.0	29.0		34.0	34.0	34.0		16.0	
Effective Green, g (s)	5.0	16.0	16.0	18.0	29.0		34.0	34.0	34.0		16.0	
Actuated g/C Ratio	0.05	0.15	0.15	0.17	0.28		0.32	0.32	0.32		0.15	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	83	534	238	300	952		539	544	507		512	
v/s Ratio Prot	0.01	0.06		c0.10	c0.15		c0.20	0.19			c0.07	
v/s Ratio Perm			0.01						0.06			
v/c Ratio	0.31	0.40	0.06	0.61	0.54		0.60	0.59	0.18		0.43	
Uniform Delay, d1	48.3	40.2	38.1	40.3	32.4		29.9	29.7	25.5		40.4	
Progression Factor	0.91	1.55	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	9.4	2.2	0.5	8.9	2.2		5.0	4.7	0.8		2.7	
Delay (s)	53.3	64.5	38.6	49.2	34.6		34.8	34.4	26.2		43.1	
Level of Service	D	E	D	D	C		C	C	C		D	
Approach Delay (s)		56.2			38.4			32.1			43.1	
Approach LOS		E			D			C			D	

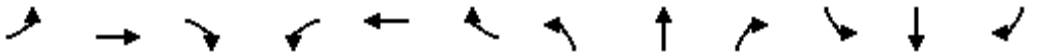
Intersection Summary			
HCM 2000 Control Delay	39.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	277	262	250	691	19	462	48	135	28	144	39
Future Volume (vph)	21	277	262	250	691	19	462	48	135	28	144	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3087		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3087		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	277	262	250	691	19	462	48	135	28	144	39
RTOR Reduction (vph)	0	0	166	0	0	12	0	108	0	0	0	31
Lane Group Flow (vph)	21	277	96	250	691	7	462	75	0	28	144	8
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	19.5	66.1	66.1	19.5	66.0	66.0	35.7	35.7		34.9	34.9	34.9
Effective Green, g (s)	19.5	66.1	66.1	19.5	66.0	66.0	35.7	35.7		34.9	34.9	34.9
Actuated g/C Ratio	0.11	0.37	0.37	0.11	0.37	0.37	0.20	0.20		0.19	0.19	0.19
Clearance Time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Grp Cap (vph)	189	1287	575	368	1285	574	667	612		339	679	304
v/s Ratio Prot	0.01	0.08		c0.07	c0.20		c0.14	0.02		0.02	c0.04	
v/s Ratio Perm			0.06			0.00						0.00
v/c Ratio	0.11	0.22	0.17	0.68	0.54	0.01	0.69	0.12		0.08	0.21	0.02
Uniform Delay, d1	72.4	39.1	38.4	77.2	45.0	36.3	67.1	59.3		59.4	61.0	58.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.2	0.4	0.6	9.7	1.6	0.0	5.8	0.4		0.5	0.7	0.2
Delay (s)	73.6	39.5	39.0	87.0	46.6	36.3	72.9	59.7		59.9	61.7	58.9
Level of Service	E	D	D	F	D	D	E	E		E	E	E
Approach Delay (s)		40.6			56.9			69.1			61.0	
Approach LOS		D			E			E			E	

Intersection Summary			
HCM 2000 Control Delay	56.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	22.9
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		

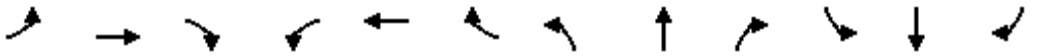
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	794	0	480	0	881	850	0	374	338
Future Volume (vph)	0	0	0	794	0	480	0	881	850	0	374	338
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.6		4.6		3.5	4.0		5.1	5.1
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3367		2733		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3367		2733		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	794	0	480	0	881	850	0	374	338
RTOR Reduction (vph)	0	0	0	0	0	192	0	0	0	0	0	139
Lane Group Flow (vph)	0	0	0	794	0	288	0	881	850	0	374	199
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Perm
Protected Phases				4				6			2	
Permitted Phases						4			Free			2
Actuated Green, G (s)				35.4		35.4		66.5	110.0		64.9	64.9
Effective Green, g (s)				35.4		35.4		66.5	110.0		64.9	64.9
Actuated g/C Ratio				0.32		0.32		0.60	1.00		0.59	0.59
Clearance Time (s)				4.6		4.6		3.5			5.1	5.1
Lane Grp Cap (vph)				1083		879		3015	1553		2942	916
v/s Ratio Prot				c0.24				0.18			0.07	
v/s Ratio Perm						0.11			c0.55			0.13
v/c Ratio				0.73		0.33		0.29	0.55		0.13	0.22
Uniform Delay, d1				33.1		28.3		10.4	0.0		10.0	10.6
Progression Factor				1.00		1.00		0.70	1.00		1.00	1.00
Incremental Delay, d2				4.4		1.0		0.2	1.3		0.1	0.5
Delay (s)				37.5		29.3		7.6	1.3		10.1	11.2
Level of Service				D		C		A	A		B	B
Approach Delay (s)		0.0			34.4			4.5			10.6	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.7
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

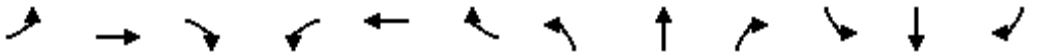
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	499	0	1021	0	0	0	0	1232	807	0	944	220
Future Volume (vph)	499	0	1021	0	0	0	0	1232	807	0	944	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	499	0	1021	0	0	0	0	1232	807	0	944	220
RTOR Reduction (vph)	0	0	165	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	499	0	856	0	0	0	0	1232	807	0	944	220
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	33.6		33.6					64.9	110.0		65.4	110.0
Effective Green, g (s)	33.6		33.6					64.9	110.0		65.4	110.0
Actuated g/C Ratio	0.31		0.31					0.59	1.00		0.59	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Lane Grp Cap (vph)	1028		834					2942	1553		2965	1553
v/s Ratio Prot								0.25			0.19	
v/s Ratio Perm	0.15		c0.31						c0.52			0.14
v/c Ratio	0.49		1.03					0.42	0.52		0.32	0.14
Uniform Delay, d1	31.2		38.2					12.3	0.0		11.2	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.39	1.00
Incremental Delay, d2	1.6		38.2					0.4	1.2		0.2	0.2
Delay (s)	32.8		76.4					12.7	1.2		4.5	0.2
Level of Service	C		E					B	A		A	A
Approach Delay (s)		62.1			0.0			8.2			3.7	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

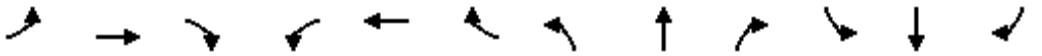
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	792	0	198	0	624	473	0	691	345
Future Volume (vph)	0	0	0	792	0	198	0	624	473	0	691	345
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.95	1.00		0.95	1.00
Frt				1.00	0.94			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1582			3471	1553		3471	1553
Flt Permitted				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1582			3471	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	792	0	198	0	624	473	0	691	345
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	507	461	0	0	624	473	0	691	345
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA			NA	Free		NA	Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				35.1	35.1			65.2	110.0		65.2	110.0
Effective Green, g (s)				35.1	35.1			65.2	110.0		65.2	110.0
Actuated g/C Ratio				0.32	0.32			0.59	1.00		0.59	1.00
Clearance Time (s)				4.9	4.9			4.8			4.8	
Lane Grp Cap (vph)				526	504			2057	1553		2057	1553
v/s Ratio Prot								0.18			c0.20	
v/s Ratio Perm				c0.31	0.29				0.30			0.22
v/c Ratio				0.96	0.91			0.30	0.30		0.34	0.22
Uniform Delay, d1				36.8	36.0			11.1	0.0		11.4	0.0
Progression Factor				1.00	1.00			0.75	1.00		1.00	1.00
Incremental Delay, d2				31.2	23.5			0.4	0.5		0.4	0.3
Delay (s)				68.1	59.5			8.7	0.5		11.8	0.3
Level of Service				E	E			A	A		B	A
Approach Delay (s)		0.0			63.9			5.2			8.0	
Approach LOS		A			E			A			A	

Intersection Summary			
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.7
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

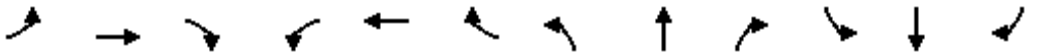
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	0	977	0	0	0	0	898	295	0	1234	201
Future Volume (vph)	250	0	977	0	0	0	0	898	295	0	1234	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.95	1.00
Frt	1.00	0.86	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1422	1475					4988	1553		3471	1553
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1422	1475					4988	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	250	0	977	0	0	0	0	898	295	0	1234	201
RTOR Reduction (vph)	0	46	46	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	225	458	452	0	0	0	0	898	295	0	1234	201
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm					NA	Free		NA	Free
Protected Phases		4						2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	34.9	34.9	34.9					65.1	110.0		65.2	110.0
Effective Green, g (s)	34.9	34.9	34.9					65.1	110.0		65.2	110.0
Actuated g/C Ratio	0.32	0.32	0.32					0.59	1.00		0.59	1.00
Clearance Time (s)	5.1	5.1	5.1					4.9			4.8	
Lane Grp Cap (vph)	523	451	467					2951	1553		2057	1553
v/s Ratio Prot								0.18			c0.36	
v/s Ratio Perm	0.14	0.32	0.31						0.19			0.13
v/c Ratio	0.43	1.01	0.97					0.30	0.19		0.60	0.13
Uniform Delay, d1	29.7	37.5	37.0					11.2	0.0		14.2	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.60	1.00
Incremental Delay, d2	2.6	46.1	34.2					0.3	0.3		1.0	0.1
Delay (s)	32.3	83.6	71.2					11.4	0.3		9.5	0.1
Level of Service	C	F	E					B	A		A	A
Approach Delay (s)		69.2			0.0			8.7			8.1	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

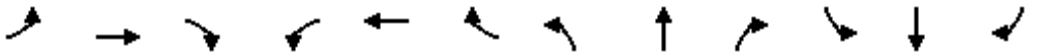
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	880	0	154	0	815	686	0	737	303
Future Volume (vph)	0	0	0	880	0	154	0	815	686	0	737	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		3505	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	880	0	154	0	815	686	0	737	303
RTOR Reduction (vph)	0	0	0	0	0	82	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	880	0	72	0	815	686	0	737	303
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				33.2		33.2		65.4	110.0		65.4	110.0
Effective Green, g (s)				33.2		33.2		65.4	110.0		65.4	110.0
Actuated g/C Ratio				0.30		0.30		0.59	1.00		0.59	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Lane Grp Cap (vph)				1026		473		2994	1568		2083	1568
v/s Ratio Prot								0.16			0.21	
v/s Ratio Perm				c0.26		0.05			c0.44			0.19
v/c Ratio				0.86		0.15		0.27	0.44		0.35	0.19
Uniform Delay, d1				36.2		28.1		10.8	0.0		11.5	0.0
Progression Factor				1.00		1.00		0.56	1.00		1.00	1.00
Incremental Delay, d2				9.2		0.7		0.2	0.7		0.5	0.3
Delay (s)				45.4		28.8		6.2	0.7		11.9	0.3
Level of Service				D		C		A	A		B	A
Approach Delay (s)		0.0			42.9			3.7			8.5	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		

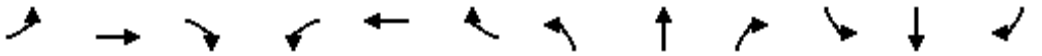
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	344	947	1227	0	0	202	0	1376	9	0	1439	178
Future Volume (vph)	344	947	1227	0	0	202	0	1376	9	0	1439	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		0.86			0.95	1.00
Frt	1.00	0.95	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	3000	1427			2733		6339			3505	1568
Flt Permitted	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (perm)	1595	3000	1427			2733		6339			3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	344	947	1227	0	0	202	0	1376	9	0	1439	178
RTOR Reduction (vph)	0	6	25	0	0	191	0	1	0	0	0	61
Lane Group Flow (vph)	310	1516	662	0	0	11	0	1384	0	0	1439	117
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA			NA	Perm
Protected Phases	4	4				1		2			6	
Permitted Phases			4									6
Actuated Green, G (s)	55.0	55.0	55.0			6.0		37.0			47.0	47.0
Effective Green, g (s)	55.0	55.0	55.0			6.0		37.0			47.0	47.0
Actuated g/C Ratio	0.50	0.50	0.50			0.05		0.34			0.43	0.43
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Grp Cap (vph)	797	1500	713			149		2132			1497	669
v/s Ratio Prot	0.19	c0.51				0.00		0.22			c0.41	
v/s Ratio Perm			0.46									0.07
v/c Ratio	0.39	1.01	0.93			0.07		0.65			0.96	0.17
Uniform Delay, d1	17.1	27.5	25.7			49.4		31.0			30.6	19.5
Progression Factor	1.00	1.00	1.00			1.00		1.00			0.78	0.62
Incremental Delay, d2	1.4	25.8	20.2			1.0		1.5			13.2	0.4
Delay (s)	18.5	53.3	45.8			50.3		32.5			36.9	12.5
Level of Service	B	D	D			D		C			D	B
Approach Delay (s)		47.0			50.3			32.5			34.2	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	40.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.1%	ICU Level of Service	F
Analysis Period (min)	15		

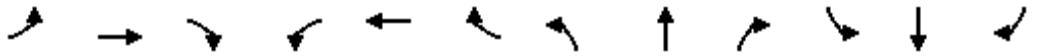
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	352	0	397	0	1893	295	0	1863	1771
Future Volume (vph)	0	0	0	352	0	397	0	1893	295	0	1863	1771
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	352	0	397	0	1893	295	0	1863	1771
RTOR Reduction (vph)	0	0	0	0	0	16	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	352	0	381	0	1893	295	0	1863	1771
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				36.5		36.5		65.2	110.0		64.9	110.0
Effective Green, g (s)				36.5		36.5		65.2	110.0		64.9	110.0
Actuated g/C Ratio				0.33		0.33		0.59	1.00		0.59	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Lane Grp Cap (vph)				1095		889		2956	1553		2942	1553
v/s Ratio Prot								0.38			0.37	
v/s Ratio Perm				0.11		0.14			0.19			c1.14
v/c Ratio				0.32		0.43		0.64	0.19		0.63	1.14
Uniform Delay, d1				27.5		28.6		14.7	0.0		14.8	55.0
Progression Factor				1.00		1.00		0.60	1.00		1.00	1.00
Incremental Delay, d2				0.8		1.5		1.0	0.2		1.0	71.5
Delay (s)				28.3		30.1		9.7	0.2		15.8	126.5
Level of Service				C		C		A	A		B	F
Approach Delay (s)		0.0			29.3			8.4			69.7	
Approach LOS		A			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	44.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.6
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		

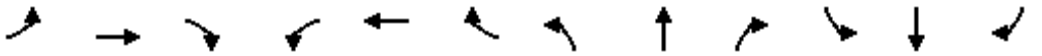
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1092	0	436	0	0	0	0	1103	449	0	1977	236
Future Volume (vph)	1092	0	436	0	0	0	0	1103	449	0	1977	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1092	0	436	0	0	0	0	1103	449	0	1977	236
RTOR Reduction (vph)	0	0	14	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1092	0	422	0	0	0	0	1103	449	0	1977	236
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	36.5		36.5					65.2	110.0		64.9	110.0
Effective Green, g (s)	36.5		36.5					65.2	110.0		64.9	110.0
Actuated g/C Ratio	0.33		0.33					0.59	1.00		0.59	1.00
Clearance Time (s)	3.5		3.5					4.8			5.1	
Lane Grp Cap (vph)	1623		906					3725	1553		2942	1553
v/s Ratio Prot								0.18			c0.40	
v/s Ratio Perm	c0.22		0.15						0.29			0.15
v/c Ratio	0.67		0.47					0.30	0.29		0.67	0.15
Uniform Delay, d1	31.6		29.0					11.1	0.0		15.3	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.80	1.00
Incremental Delay, d2	2.2		1.7					0.2	0.5		1.0	0.2
Delay (s)	33.9		30.8					11.3	0.5		13.3	0.2
Level of Service	C		C					B	A		B	A
Approach Delay (s)		33.0			0.0			8.1			11.9	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.6
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		

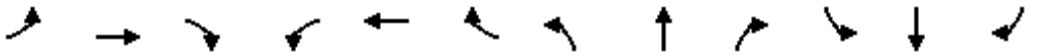
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	570	328	7	0	285	15	8	30	5	7	6	227
Future Volume (vph)	570	328	7	0	285	15	8	30	5	7	6	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Lane Util. Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.99			0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (prot)	1703	1792	1524		1796			1799			1779	1553
Flt Permitted	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (perm)	1703	1792	1524		1796			1799			1779	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	570	328	7	0	285	15	8	30	5	7	6	227
RTOR Reduction (vph)	0	0	2	0	1	0	0	3	0	0	0	125
Lane Group Flow (vph)	570	328	5	0	299	0	0	40	0	0	13	102
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	Over
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									
Actuated Green, G (s)	80.5	120.8	120.8		44.2			9.5			22.0	80.5
Effective Green, g (s)	80.5	120.8	120.8		44.2			9.5			22.0	80.5
Actuated g/C Ratio	0.45	0.67	0.67		0.25			0.05			0.12	0.45
Clearance Time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Lane Grp Cap (vph)	761	1202	1022		441			94			217	694
v/s Ratio Prot	c0.33	0.18			c0.17			c0.02			c0.01	0.07
v/s Ratio Perm			0.00									
v/c Ratio	0.75	0.27	0.00		0.68			0.43			0.06	0.15
Uniform Delay, d1	41.4	11.9	9.8		61.5			82.6			69.9	29.4
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	6.7	0.6	0.0		8.2			13.6			0.5	0.4
Delay (s)	48.0	12.5	9.8		69.6			96.2			70.4	29.9
Level of Service	D	B	A		E			F			E	C
Approach Delay (s)		34.8			69.6			96.2			32.1	
Approach LOS		C			E			F			C	

Intersection Summary			
HCM 2000 Control Delay	43.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	24.7
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

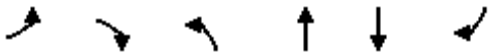
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	229	55	163	413	284	654	0	0	2885	161
Future Volume (vph)	0	0	229	55	163	413	284	654	0	0	2885	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1770	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1770	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	229	55	163	413	284	654	0	0	2885	161
RTOR Reduction (vph)	0	0	159	0	0	337	0	0	0	0	0	50
Lane Group Flow (vph)	0	0	70	0	218	76	284	654	0	0	2885	111
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			20.0		24.8	24.8	20.0	99.0			74.1	74.1
Effective Green, g (s)			20.0		24.8	24.8	20.0	99.0			74.1	74.1
Actuated g/C Ratio			0.15		0.18	0.18	0.15	0.73			0.55	0.55
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Grp Cap (vph)			236		325	492	489	3588			3384	836
v/s Ratio Prot			0.04		c0.12		c0.09	0.13			c0.47	
v/s Ratio Perm						0.03						0.07
v/c Ratio			0.30		0.67	0.15	0.58	0.18			0.85	0.13
Uniform Delay, d1			51.2		51.3	46.3	53.6	5.5			25.8	14.8
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			3.2		10.5	0.7	5.0	0.1			2.9	0.3
Delay (s)			54.4		61.8	47.0	58.6	5.7			28.8	15.1
Level of Service			D		E	D	E	A			C	B
Approach Delay (s)		54.4			52.1			21.7			28.0	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		

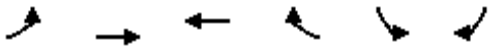
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	794	139	0	0	999	741
Future Volume (vph)	794	139	0	0	999	741
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5			4.7	4.0
Lane Util. Factor	0.97	0.91			0.95	1.00
Frt	1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3306	1386			3406	1524
Flt Permitted	0.95	1.00			1.00	1.00
Satd. Flow (perm)	3306	1386			3406	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	794	139	0	0	999	741
RTOR Reduction (vph)	1	33	0	0	0	0
Lane Group Flow (vph)	807	92	0	0	999	741
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%
Turn Type	Prot	Perm			NA	Free
Protected Phases	4				2	
Permitted Phases		4				Free
Actuated Green, G (s)	66.5	66.5			65.3	140.0
Effective Green, g (s)	66.5	66.5			65.3	140.0
Actuated g/C Ratio	0.48	0.48			0.47	1.00
Clearance Time (s)	3.5	3.5			4.7	
Lane Grp Cap (vph)	1570	658			1588	1524
v/s Ratio Prot	c0.24				c0.29	
v/s Ratio Perm		0.07				0.49
v/c Ratio	0.51	0.14			0.63	0.49
Uniform Delay, d1	25.5	20.7			28.2	0.0
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	1.2	0.4			1.9	1.1
Delay (s)	26.7	21.1			30.1	1.1
Level of Service	C	C			C	A
Approach Delay (s)	26.0			0.0	17.8	
Approach LOS	C			A	B	

Intersection Summary			
HCM 2000 Control Delay	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		

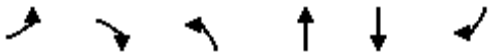
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	313	215	440	118	23	141
Future Volume (vph)	313	215	440	118	23	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3343	3343	1495	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3343	3343	1495	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	313	215	440	118	23	141
RTOR Reduction (vph)	0	0	0	87	0	103
Lane Group Flow (vph)	313	215	440	31	23	38
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	16.0	36.0	16.0	16.0	16.0	16.0
Effective Green, g (s)	16.0	36.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.27	0.60	0.27	0.27	0.27	0.27
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	445	2005	891	398	467	418
v/s Ratio Prot	c0.19	0.06	c0.13		0.01	
v/s Ratio Perm				0.02		c0.02
v/c Ratio	0.70	0.11	0.49	0.08	0.05	0.09
Uniform Delay, d1	19.9	5.1	18.6	16.5	16.3	16.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.0	0.1	2.0	0.4	0.2	0.4
Delay (s)	28.8	5.2	20.5	16.9	16.5	17.0
Level of Service	C	A	C	B	B	B
Approach Delay (s)		19.2	19.8		16.9	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

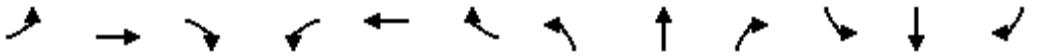
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	13	7	23	522	257	329
Future Volume (vph)	13	7	23	522	257	329
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3367	1553	1719	3438	3343	1495
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3367	1553	1719	3438	3343	1495
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	7	23	522	257	329
RTOR Reduction (vph)	0	6	0	0	0	211
Lane Group Flow (vph)	13	1	23	522	257	118
Heavy Vehicles (%)	4%	4%	5%	5%	8%	8%
Turn Type	Prot	Over	Prot	NA	NA	Over
Protected Phases	4	5	5	2	6	4
Permitted Phases						
Actuated Green, G (s)	18.0	4.0	4.0	24.0	16.0	18.0
Effective Green, g (s)	18.0	4.0	4.0	24.0	16.0	18.0
Actuated g/C Ratio	0.36	0.08	0.08	0.48	0.32	0.36
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	1212	124	137	1650	1069	538
v/s Ratio Prot	0.00	0.00	0.01	c0.15	0.08	c0.08
v/s Ratio Perm						
v/c Ratio	0.01	0.00	0.17	0.32	0.24	0.22
Uniform Delay, d1	10.3	21.2	21.4	8.0	12.5	11.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	0.1	2.6	0.5	0.5	0.9
Delay (s)	10.3	21.2	24.1	8.5	13.1	12.1
Level of Service	B	C	C	A	B	B
Approach Delay (s)	14.1			9.1	12.5	
Approach LOS	B			A	B	

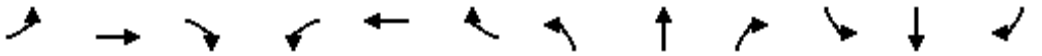
Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	695	0	622	0	0	0	0	2255	550	0	1790	1584
Future Volume (vph)	695	0	622	0	0	0	0	2255	550	0	1790	1584
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.95	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4540	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4540	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	695	0	622	0	0	0	0	2255	550	0	1790	1584
RTOR Reduction (vph)	0	0	24	0	0	0	0	0	0	0	133	0
Lane Group Flow (vph)	695	0	598	0	0	0	0	2255	550	0	2449	792
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	16.0		16.0					36.0	60.0		36.0	60.0
Effective Green, g (s)	16.0		16.0					36.0	60.0		36.0	60.0
Actuated g/C Ratio	0.27		0.27					0.60	1.00		0.60	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Lane Grp Cap (vph)	906		736					3807	1568		2724	1348
v/s Ratio Prot	0.20							0.36			c0.54	
v/s Ratio Perm			c0.22						0.35			0.59
v/c Ratio	0.77		0.81					0.59	0.35		0.90	0.59
Uniform Delay, d1	20.3		20.6					7.4	0.0		10.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	6.2		9.5					0.7	0.6		5.3	1.9
Delay (s)	26.5		30.1					8.1	0.6		15.7	1.9
Level of Service	C		C					A	A		B	A
Approach Delay (s)		28.2			0.0			6.7			12.5	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

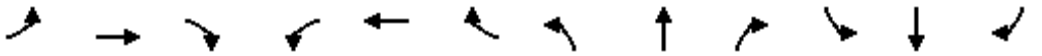


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	460	0	1232	0	2123	823	0	2914	1435
Future Volume (vph)	0	0	0	460	0	1232	0	2123	823	0	2914	1435
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		0.99	0.85		0.97	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4708	1348		5814	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4708	1348		5814	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	460	0	1232	0	2123	823	0	2914	1435
RTOR Reduction (vph)	0	0	0	0	0	13	0	8	0	0	36	0
Lane Group Flow (vph)	0	0	0	460	0	1219	0	2280	658	0	3524	789
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				36.0		36.0		66.0	110.0		66.0	110.0
Effective Green, g (s)				36.0		36.0		66.0	110.0		66.0	110.0
Actuated g/C Ratio				0.33		0.33		0.60	1.00		0.60	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Lane Grp Cap (vph)				1112		1170		2824	1348		3488	1270
v/s Ratio Prot				0.14				0.48			c0.61	
v/s Ratio Perm						c0.34			0.49			0.62
v/c Ratio				0.41		1.04		0.81	0.49		1.01	0.62
Uniform Delay, d1				28.8		37.0		17.1	0.0		22.0	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				1.1		37.9		2.6	1.3		17.8	2.3
Delay (s)				29.9		74.9		19.7	1.3		39.8	2.3
Level of Service				C		E		B	A		D	A
Approach Delay (s)		0.0			62.7			15.6			33.0	
Approach LOS		A			E			B			C	

Intersection Summary			
HCM 2000 Control Delay	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	597	367	217	693	291	149
Future Volume (vph)	597	367	217	693	291	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	597	367	217	693	291	149
RTOR Reduction (vph)	0	271	0	0	0	112
Lane Group Flow (vph)	597	96	217	693	291	37
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	17.0	17.0	15.0	36.0	16.0	16.0
Effective Green, g (s)	17.0	17.0	15.0	36.0	16.0	16.0
Actuated g/C Ratio	0.26	0.26	0.23	0.55	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	824	369	363	1746	753	347
v/s Ratio Prot	c0.19		c0.14	0.22	c0.10	
v/s Ratio Perm		0.07				0.03
v/c Ratio	0.72	0.26	0.60	0.40	0.39	0.11
Uniform Delay, d1	21.9	19.0	22.3	8.3	20.4	19.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.5	1.7	7.1	0.7	1.5	0.6
Delay (s)	27.4	20.7	29.4	9.0	21.9	19.6
Level of Service	C	C	C	A	C	B
Approach Delay (s)	24.8			13.8	21.1	
Approach LOS	C			B	C	

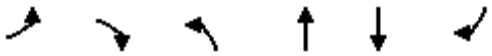
Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	340	0	1	278	32	1	1	0	45	2	455
Future Volume (vph)	219	340	0	1	278	32	1	1	0	45	2	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00		0.95	0.95	1.00
Frt	1.00	1.00		1.00	0.98			1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (prot)	1736	3471		1736	3417			1800		1665	1676	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (perm)	1736	3471		1736	3417			1800		1665	1676	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	340	0	1	278	32	1	1	0	45	2	455
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	0	358
Lane Group Flow (vph)	219	340	0	1	298	0	0	2	0	23	24	97
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	11.0	23.0		4.0	16.0			16.0		16.0	16.0	16.0
Effective Green, g (s)	11.0	23.0		4.0	16.0			16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.15	0.31		0.05	0.21			0.21		0.21	0.21	0.21
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	254	1064		92	728			384		355	357	334
v/s Ratio Prot	c0.13	0.10		0.00	c0.09			c0.00		0.01	0.01	
v/s Ratio Perm												c0.06
v/c Ratio	0.86	0.32		0.01	0.41			0.01		0.06	0.07	0.29
Uniform Delay, d1	31.3	20.0		33.6	25.4			23.2		23.5	23.5	24.7
Progression Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	29.9	0.8		0.2	1.7			0.0		0.4	0.4	2.2
Delay (s)	61.2	20.8		33.8	27.1			23.3		23.9	23.9	26.9
Level of Service	E	C		C	C			C		C	C	C
Approach Delay (s)		36.6			27.2			23.3			26.6	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

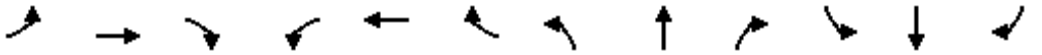


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	277	27	21	784	654	103
Future Volume (vph)	277	27	21	784	654	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.99		1.00	1.00	0.98	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1743		1752	1845	1811	
Flt Permitted	0.96		0.95	1.00	1.00	
Satd. Flow (perm)	1743		1752	1845	1811	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	277	27	21	784	654	103
RTOR Reduction (vph)	6	0	0	0	10	0
Lane Group Flow (vph)	298	0	21	784	747	0
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	16.0		4.0	36.0	28.0	
Effective Green, g (s)	16.0		4.0	36.0	28.0	
Actuated g/C Ratio	0.27		0.07	0.60	0.47	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Lane Grp Cap (vph)	464		116	1107	845	
v/s Ratio Prot	c0.17		0.01	c0.43	c0.41	
v/s Ratio Perm						
v/c Ratio	0.64		0.18	0.71	0.88	
Uniform Delay, d1	19.5		26.5	8.3	14.5	
Progression Factor	1.00		0.97	1.37	1.00	
Incremental Delay, d2	6.7		1.6	1.9	13.0	
Delay (s)	26.2		27.4	13.3	27.6	
Level of Service	C		C	B	C	
Approach Delay (s)	26.2			13.7	27.6	
Approach LOS	C			B	C	

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 Signalized Intersection Summary
1: Howe Avenue & College Town Drive/US 50 Westbound Ramps

03/07/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	0	223	458	534	539	0	1438	662	0	1266	311
Future Volume (veh/h)	58	0	223	458	534	539	0	1438	662	0	1266	311
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1827	1827	1827	0	1827	1827	0	1827	1827
Adj Flow Rate, veh/h	58	0	223	458	804	359	0	1438	0	0	1266	311
Adj No. of Lanes	0	1	2	2	2	1	0	3	1	0	4	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	0	4	4	0	4	4
Cap, veh/h	366	0	575	1189	1248	531	0	1746	544	0	2200	544
Arrive On Green	0.21	0.00	0.21	0.34	0.34	0.34	0.00	0.35	0.00	0.00	0.35	0.35
Sat Flow, veh/h	1757	0	2760	3480	3654	1553	0	5152	1553	0	6540	1553
Grp Volume(v), veh/h	58	0	223	458	804	359	0	1438	0	0	1266	311
Grp Sat Flow(s),veh/h/ln	1757	0	1380	1740	1827	1553	0	1663	1553	0	1571	1553
Q Serve(g_s), s	3.2	0.0	8.4	12.0	22.3	23.8	0.0	31.6	0.0	0.0	19.7	19.5
Cycle Q Clear(g_c), s	3.2	0.0	8.4	12.0	22.3	23.8	0.0	31.6	0.0	0.0	19.7	19.5
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	366	0	575	1189	1248	531	0	1746	544	0	2200	544
V/C Ratio(X)	0.16	0.00	0.39	0.39	0.64	0.68	0.00	0.82	0.00	0.00	0.58	0.57
Avail Cap(c_a), veh/h	366	0	575	1189	1248	531	0	1746	544	0	2200	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	0.0	40.9	29.9	33.3	33.8	0.0	35.6	0.0	0.0	31.7	31.7
Incr Delay (d2), s/veh	0.9	0.0	2.0	0.9	2.6	6.8	0.0	4.6	0.0	0.0	1.1	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.3	5.9	11.7	11.2	0.0	15.3	0.0	0.0	8.7	9.0
LnGrp Delay(d),s/veh	39.8	0.0	42.9	30.9	35.9	40.6	0.0	40.2	0.0	0.0	32.8	36.0
LnGrp LOS	D		D	C	D	D		D			C	D
Approach Vol, veh/h		281			1621			1438			1577	
Approach Delay, s/veh		42.2			35.5			40.2			33.5	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		46.0		29.0		46.0		45.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		42.0		25.0		42.0		41.0
Max Q Clear Time (g_c+I1), s		33.6		10.4		21.7		25.8
Green Ext Time (p_c), s		4.0		0.2		5.5		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	36.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	34	137	10	73	39	151	1419	19	20	846	219
Future Volume (veh/h)	249	34	137	10	73	39	151	1419	19	20	846	219
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	273	0	137	10	73	39	151	1419	19	20	846	219
Adj No. of Lanes	2	0	1	0	1	0	2	3	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	644	0	287	22	163	87	338	2367	32	101	1475	660
Arrive On Green	0.18	0.00	0.18	0.16	0.16	0.16	0.10	0.47	0.47	0.06	0.43	0.43
Sat Flow, veh/h	3514	0	1568	141	1031	551	3375	5072	68	1740	3471	1553
Grp Volume(v), veh/h	273	0	137	122	0	0	151	930	508	20	846	219
Grp Sat Flow(s),veh/h/ln	1757	0	1568	1723	0	0	1688	1663	1815	1740	1736	1553
Q Serve(g_s), s	8.3	0.0	9.4	7.7	0.0	0.0	5.1	24.9	24.9	1.3	22.2	11.3
Cycle Q Clear(g_c), s	8.3	0.0	9.4	7.7	0.0	0.0	5.1	24.9	24.9	1.3	22.2	11.3
Prop In Lane	1.00		1.00	0.08		0.32	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	644	0	287	273	0	0	338	1552	847	101	1475	660
V/C Ratio(X)	0.42	0.00	0.48	0.45	0.00	0.00	0.45	0.60	0.60	0.20	0.57	0.33
Avail Cap(c_a), veh/h	644	0	287	273	0	0	338	1552	847	101	1475	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	0.0	43.8	45.7	0.0	0.0	50.9	23.7	23.7	53.8	26.2	23.1
Incr Delay (d2), s/veh	2.0	0.0	5.6	5.2	0.0	0.0	4.2	1.7	3.1	4.3	1.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	4.5	4.1	0.0	0.0	2.6	11.7	13.1	0.8	10.9	5.1
LnGrp Delay(d),s/veh	45.4	0.0	49.4	51.0	0.0	0.0	55.1	25.4	26.8	58.1	27.9	24.4
LnGrp LOS	D		D	D			E	C	C	E	C	C
Approach Vol, veh/h		410			122			1589			1085	
Approach Delay, s/veh		46.8			51.0			28.7			27.7	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	60.0		26.0	16.0	55.0		23.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	56.0		22.0	12.0	51.0		19.0
Max Q Clear Time (g_c+I1), s	3.3	26.9		11.4	7.1	24.2		9.7
Green Ext Time (p_c), s	0.8	1.9		0.4	0.1	1.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	380	41	90	270	187	70	1237	97	254	441	88
Future Volume (veh/h)	239	380	41	90	270	187	70	1237	97	254	441	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	239	380	41	90	270	187	70	1237	97	254	441	88
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	273	710	76	195	623	279	188	1341	105	263	1504	673
Arrive On Green	0.16	0.22	0.22	0.11	0.18	0.18	0.06	0.41	0.41	0.08	0.43	0.43
Sat Flow, veh/h	1757	3194	343	1757	3505	1568	3375	3262	255	3375	3471	1553
Grp Volume(v), veh/h	239	207	214	90	270	187	70	657	677	254	441	88
Grp Sat Flow(s),veh/h/ln	1757	1752	1784	1757	1752	1568	1688	1736	1782	1688	1736	1553
Q Serve(g_s), s	12.0	9.4	9.5	4.3	6.2	10.0	1.8	32.3	32.5	6.8	7.4	3.1
Cycle Q Clear(g_c), s	12.0	9.4	9.5	4.3	6.2	10.0	1.8	32.3	32.5	6.8	7.4	3.1
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	273	389	396	195	623	279	188	714	733	263	1504	673
V/C Ratio(X)	0.87	0.53	0.54	0.46	0.43	0.67	0.37	0.92	0.92	0.97	0.29	0.13
Avail Cap(c_a), veh/h	273	389	396	195	623	279	188	714	733	263	1504	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	30.9	30.9	37.5	33.0	34.5	41.0	25.1	25.2	41.4	16.6	15.3
Incr Delay (d2), s/veh	30.0	5.1	5.2	7.6	2.2	12.2	5.6	19.1	19.2	47.8	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	5.1	5.3	2.5	3.2	5.3	1.0	19.1	19.7	4.9	3.7	1.4
LnGrp Delay(d),s/veh	67.1	36.0	36.1	45.1	35.2	46.7	46.6	44.2	44.3	89.2	17.0	15.7
LnGrp LOS	E	D	D	D	D	D	D	D	D	F	B	B
Approach Vol, veh/h		660			547			1404			783	
Approach Delay, s/veh		47.3			40.7			44.4			40.3	
Approach LOS		D			D			D			D	

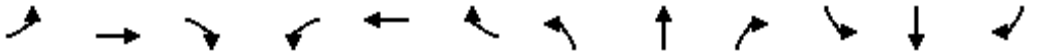
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	41.0	14.0	24.0	9.0	43.0	18.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	10.0	20.0	5.0	39.0	14.0	16.0
Max Q Clear Time (g_c+I1), s	8.8	34.5	6.3	11.5	3.8	9.4	14.0	12.0
Green Ext Time (p_c), s	0.0	1.0	0.0	0.8	0.0	2.2	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	43.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	116	303	197	283	206	114	616	102	16	409	5
Future Volume (veh/h)	11	116	303	197	283	206	114	616	102	16	409	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	11	116	303	197	283	206	114	616	102	16	409	5
Adj No. of Lanes	1	1	2	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	85	329	492	474	785	554	322	1382	618	98	946	12
Arrive On Green	0.05	0.18	0.18	0.28	0.41	0.41	0.18	0.39	0.39	0.06	0.27	0.27
Sat Flow, veh/h	1707	1792	2682	1707	1909	1349	1757	3505	1568	1757	3546	43
Grp Volume(v), veh/h	11	116	303	197	252	237	114	616	102	16	202	212
Grp Sat Flow(s),veh/h/ln	1707	1792	1341	1707	1703	1554	1757	1752	1568	1757	1752	1837
Q Serve(g_s), s	1.1	10.2	18.7	17.0	18.4	19.1	10.2	23.2	7.6	1.6	17.2	17.2
Cycle Q Clear(g_c), s	1.1	10.2	18.7	17.0	18.4	19.1	10.2	23.2	7.6	1.6	17.2	17.2
Prop In Lane	1.00		1.00	1.00		0.87	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	85	329	492	474	700	639	322	1382	618	98	467	490
V/C Ratio(X)	0.13	0.35	0.62	0.42	0.36	0.37	0.35	0.45	0.16	0.16	0.43	0.43
Avail Cap(c_a), veh/h	85	329	492	474	700	639	322	1382	618	98	467	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	81.8	64.2	67.7	53.1	36.6	36.8	64.2	40.0	35.3	81.0	54.7	54.7
Incr Delay (d2), s/veh	3.1	3.0	5.7	2.7	1.4	1.7	3.0	1.0	0.6	3.6	2.9	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.3	7.3	8.3	8.9	8.5	5.2	11.5	3.4	0.9	8.7	9.2
LnGrp Delay(d),s/veh	84.8	67.1	73.4	55.7	38.1	38.5	67.2	41.1	35.9	84.6	57.6	57.5
LnGrp LOS	F	E	E	E	D	D	E	D	D	F	E	E
Approach Vol, veh/h		430			686			832			430	
Approach Delay, s/veh		72.0			43.3			44.0			58.6	
Approach LOS		E			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	75.0	54.0	37.0	37.0	52.0	13.0	78.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	71.0	50.0	33.0	33.0	48.0	9.0	74.0
Max Q Clear Time (g_c+I1), s	3.6	25.2	19.0	20.7	12.2	19.2	3.1	21.1
Green Ext Time (p_c), s	0.0	1.3	0.2	0.9	0.1	1.3	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	51.5
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	225	115	115	275	102	166	760	117	44	384	104
Future Volume (veh/h)	84	225	115	115	275	102	166	760	117	44	384	104
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	84	225	115	115	275	102	166	760	117	44	384	104
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	935	418	146	672	244	205	1110	497	117	935	418
Arrive On Green	0.08	0.27	0.27	0.08	0.27	0.27	0.12	0.32	0.32	0.07	0.27	0.27
Sat Flow, veh/h	1757	3505	1568	1757	2522	914	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	84	225	115	115	189	188	166	760	117	44	384	104
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1683	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	2.8	3.0	3.5	3.9	5.3	5.5	5.5	11.4	3.3	1.4	5.4	3.1
Cycle Q Clear(g_c), s	2.8	3.0	3.5	3.9	5.3	5.5	5.5	11.4	3.3	1.4	5.4	3.1
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	935	418	146	467	449	205	1110	497	117	935	418
V/C Ratio(X)	0.57	0.24	0.28	0.79	0.40	0.42	0.81	0.68	0.24	0.38	0.41	0.25
Avail Cap(c_a), veh/h	146	935	418	146	467	449	205	1110	497	117	935	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	17.2	17.4	27.0	18.1	18.2	25.9	17.9	15.1	26.8	18.1	17.3
Incr Delay (d2), s/veh	15.3	0.6	1.6	33.4	2.6	2.9	28.2	3.4	1.1	9.0	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.5	1.7	3.2	2.9	2.9	4.3	6.0	1.6	1.0	2.8	1.5
LnGrp Delay(d),s/veh	41.8	17.8	19.0	60.4	20.7	21.0	54.0	21.3	16.3	35.8	19.5	18.7
LnGrp LOS	D	B	B	E	C	C	D	C	B	D	B	B
Approach Vol, veh/h		424			492			1043			532	
Approach Delay, s/veh		22.9			30.1			26.0			20.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	23.0	9.0	20.0	11.0	20.0	9.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	5.0	16.0	7.0	16.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	3.4	13.4	5.9	5.5	7.5	7.4	4.8	7.5
Green Ext Time (p_c), s	0.0	1.3	0.0	0.7	0.0	1.5	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	219	99	79	204	98	114	791	99	39	252	85
Future Volume (veh/h)	146	219	99	79	204	98	114	791	99	39	252	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	146	219	99	79	204	98	114	791	99	39	252	85
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	176	935	418	176	935	418	146	1051	470	117	993	444
Arrive On Green	0.10	0.27	0.27	0.10	0.27	0.27	0.08	0.30	0.30	0.07	0.28	0.28
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	146	219	99	79	204	98	114	791	99	39	252	85
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	4.9	2.9	3.0	2.5	2.7	2.9	3.8	12.2	2.8	1.3	3.3	2.5
Cycle Q Clear(g_c), s	4.9	2.9	3.0	2.5	2.7	2.9	3.8	12.2	2.8	1.3	3.3	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	935	418	176	935	418	146	1051	470	117	993	444
V/C Ratio(X)	0.83	0.23	0.24	0.45	0.22	0.23	0.78	0.75	0.21	0.33	0.25	0.19
Avail Cap(c_a), veh/h	176	935	418	176	935	418	146	1051	470	117	993	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	17.2	17.2	25.4	17.1	17.2	27.0	19.0	15.7	26.7	16.6	16.3
Incr Delay (d2), s/veh	34.6	0.6	1.3	8.1	0.5	1.3	32.6	5.0	1.0	7.5	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.5	1.4	1.6	1.4	1.4	3.2	6.5	1.3	0.9	1.7	1.2
LnGrp Delay(d),s/veh	61.1	17.8	18.6	33.6	17.7	18.5	59.5	24.0	16.7	34.2	17.2	17.2
LnGrp LOS	E	B	B	C	B	B	E	C	B	C	B	B
Approach Vol, veh/h		464			381			1004			376	
Approach Delay, s/veh		31.6			21.2			27.3			19.0	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	22.0	10.0	20.0	9.0	21.0	10.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	18.0	6.0	16.0	5.0	17.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	3.3	14.2	4.5	5.0	5.8	5.3	6.9	4.9
Green Ext Time (p_c), s	0.0	0.9	0.0	0.6	0.0	1.5	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	25.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	364	344	77	111	357	543	85	1898	204	616	1290	507
Future Volume (veh/h)	364	344	77	111	357	543	85	1898	204	616	1290	507
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	364	344	77	111	357	543	85	1898	204	616	1290	507
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	366	946	423	206	781	630	172	1852	577	604	2489	775
Arrive On Green	0.11	0.27	0.27	0.06	0.22	0.22	0.05	0.37	0.37	0.18	0.50	0.50
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	364	344	77	111	357	543	85	1898	204	616	1290	507
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	18.2	13.5	6.4	5.4	15.0	38.0	4.2	63.3	16.2	30.5	29.8	41.4
Cycle Q Clear(g_c), s	18.2	13.5	6.4	5.4	15.0	38.0	4.2	63.3	16.2	30.5	29.8	41.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	366	946	423	206	781	630	172	1852	577	604	2489	775
V/C Ratio(X)	1.00	0.36	0.18	0.54	0.46	0.86	0.49	1.03	0.35	1.02	0.52	0.65
Avail Cap(c_a), veh/h	366	946	423	206	781	630	172	1852	577	604	2489	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.1	50.4	47.8	77.8	57.3	46.7	78.8	53.6	38.8	70.0	28.8	31.8
Incr Delay (d2), s/veh	45.8	1.1	0.9	9.8	1.9	14.5	9.8	27.5	1.7	41.8	0.8	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	6.7	2.9	2.8	7.5	25.9	2.2	33.7	7.3	17.7	13.8	18.6
LnGrp Delay(d),s/veh	121.9	51.5	48.7	87.6	59.2	61.1	88.5	81.1	40.5	111.8	29.6	36.0
LnGrp LOS	F	D	D	F	E	E	F	F	D	F	C	D
Approach Vol, veh/h		785			1011			2187			2413	
Approach Delay, s/veh		83.9			63.4			77.6			52.0	
Approach LOS		F			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	89.9	23.8	42.6	36.0	68.1	15.8	50.6
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	8.7	84.9	18.3	* 38	30.5	* 63	10.3	45.7
Max Q Clear Time (g_c+I1), s	6.2	43.4	20.2	40.0	32.5	65.3	7.4	15.5
Green Ext Time (p_c), s	0.0	8.8	0.0	0.0	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	66.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	2	32	0	232	0	1858	47	70	1335	6
Future Volume (veh/h)	10	0	2	32	0	232	0	1858	47	70	1335	6
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	10	0	2	32	0	232	0	1858	47	70	1335	6
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	60	0	12	292	0	521	2	2141	667	123	2924	13
Arrive On Green	0.04	0.00	0.04	0.17	0.00	0.17	0.00	0.43	0.43	0.07	0.57	0.57
Sat Flow, veh/h	1435	0	287	1757	0	3136	1740	4988	1553	1740	5125	23
Grp Volume(v), veh/h	12	0	0	32	0	232	0	1858	47	70	866	475
Grp Sat Flow(s),veh/h/ln	1722	0	0	1757	0	1568	1740	1663	1553	1740	1663	1823
Q Serve(g_s), s	0.5	0.0	0.0	1.1	0.0	4.8	0.0	24.5	1.3	2.8	10.9	10.9
Cycle Q Clear(g_c), s	0.5	0.0	0.0	1.1	0.0	4.8	0.0	24.5	1.3	2.8	10.9	10.9
Prop In Lane	0.83		0.17	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	72	0	0	292	0	521	2	2141	667	123	1897	1040
V/C Ratio(X)	0.17	0.00	0.00	0.11	0.00	0.45	0.00	0.87	0.07	0.57	0.46	0.46
Avail Cap(c_a), veh/h	72	0	0	292	0	521	72	2141	667	123	1897	1040
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	0.0	0.0	25.6	0.0	27.1	0.0	18.7	12.1	32.5	9.0	9.0
Incr Delay (d2), s/veh	5.0	0.0	0.0	0.8	0.0	2.7	0.0	5.1	0.2	17.8	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.6	0.0	2.3	0.0	12.2	0.6	1.9	5.1	5.8
LnGrp Delay(d),s/veh	38.4	0.0	0.0	26.3	0.0	29.8	0.0	23.8	12.3	50.2	9.8	10.4
LnGrp LOS	D			C		C		C	B	D	A	B
Approach Vol, veh/h		12			264			1905			1411	
Approach Delay, s/veh		38.4			29.4			23.5			12.0	
Approach LOS		D			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	46.2		8.5	10.2	36.0		17.5
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 3	33.4		3.0	* 5.1	* 31		12.0
Max Q Clear Time (g_c+I1), s	0.0	12.9		2.5	4.8	26.5		6.8
Green Ext Time (p_c), s	0.0	6.2		0.0	0.0	2.9		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	100	23	195	172	529	34	1438	162	263	946	104
Future Volume (veh/h)	48	100	23	195	172	529	34	1438	162	263	946	104
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	48	100	23	195	172	529	34	1438	162	263	946	104
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	97	959	429	326	1203	538	105	1775	200	367	2134	234
Arrive On Green	0.03	0.28	0.28	0.10	0.34	0.34	0.03	0.39	0.39	0.11	0.47	0.47
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4549	512	3375	4563	500
Grp Volume(v), veh/h	48	100	23	195	172	529	34	1051	549	263	689	361
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1737	1688	1663	1739
Q Serve(g_s), s	2.4	3.7	1.9	9.3	5.8	56.9	1.7	48.0	48.0	12.8	23.7	23.8
Cycle Q Clear(g_c), s	2.4	3.7	1.9	9.3	5.8	56.9	1.7	48.0	48.0	12.8	23.7	23.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.29
Lane Grp Cap(c), veh/h	97	959	429	326	1203	538	105	1297	677	367	1555	813
V/C Ratio(X)	0.49	0.10	0.05	0.60	0.14	0.98	0.32	0.81	0.81	0.72	0.44	0.44
Avail Cap(c_a), veh/h	97	959	429	326	1203	538	105	1297	677	367	1555	813
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	81.4	45.9	45.3	73.8	38.6	55.4	80.7	46.3	46.3	73.3	30.4	30.4
Incr Delay (d2), s/veh	16.8	0.2	0.2	7.8	0.2	34.9	8.0	5.6	10.2	11.4	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.8	0.8	4.8	2.8	29.9	0.9	23.0	24.9	6.6	11.1	11.8
LnGrp Delay(d),s/veh	98.3	46.1	45.5	81.6	38.9	90.3	88.7	51.8	56.4	84.7	31.3	32.2
LnGrp LOS	F	D	D	F	D	F	F	D	E	F	C	C
Approach Vol, veh/h		171			896			1634			1313	
Approach Delay, s/veh		60.7			78.5			54.2			42.3	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	84.9	10.4	64.1	24.0	71.7	21.8	52.7
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	5.3	79.5	4.9	* 58	18.5	* 66	16.3	* 47
Max Q Clear Time (g_c+I1), s	3.7	25.8	4.4	58.9	14.8	50.0	11.3	5.7
Green Ext Time (p_c), s	0.0	4.2	0.0	0.0	0.1	4.0	0.1	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	56.0
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	46	103	1462	24	61	1153
Future Volume (veh/h)	46	103	1462	24	61	1153
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	46	103	1462	24	61	1153
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	244	218	2265	37	235	2327
Arrive On Green	0.14	0.14	0.45	0.45	0.14	0.67
Sat Flow, veh/h	1757	1568	5219	83	1740	3563
Grp Volume(v), veh/h	46	103	962	524	61	1153
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1812	1740	1736
Q Serve(g_s), s	1.3	3.3	12.1	12.1	1.7	8.9
Cycle Q Clear(g_c), s	1.3	3.3	12.1	12.1	1.7	8.9
Prop In Lane	1.00	1.00		0.05	1.00	
Lane Grp Cap(c), veh/h	244	218	1490	812	235	2327
V/C Ratio(X)	0.19	0.47	0.65	0.65	0.26	0.50
Avail Cap(c_a), veh/h	244	218	1490	812	235	2327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	21.4	11.6	11.6	20.9	4.4
Incr Delay (d2), s/veh	1.7	7.2	2.2	3.9	2.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.8	5.9	6.9	1.0	4.4
LnGrp Delay(d),s/veh	22.3	28.6	13.7	15.5	23.6	5.2
LnGrp LOS	C	C	B	B	C	A
Approach Vol, veh/h	149		1486			1214
Approach Delay, s/veh	26.7		14.4			6.1
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		41.0			12.0	29.0		13.0
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		36.2			* 7.3	24.2		7.5
Max Q Clear Time (g_c+I1), s		10.9			3.7	14.1		5.3
Green Ext Time (p_c), s		4.4			0.0	3.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	175	26	73	429	481	81	1010	55	231	842	149
Future Volume (veh/h)	64	175	26	73	429	481	81	1010	55	231	842	149
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	64	175	26	73	429	481	81	1010	55	231	842	149
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	90	433	64	141	567	482	159	1166	522	312	1466	656
Arrive On Green	0.05	0.28	0.28	0.08	0.32	0.32	0.09	0.34	0.34	0.18	0.42	0.42
Sat Flow, veh/h	1707	1526	227	1707	1792	1524	1740	3471	1553	1740	3471	1553
Grp Volume(v), veh/h	64	0	201	73	429	481	81	1010	55	231	842	149
Grp Sat Flow(s),veh/h/ln	1707	0	1752	1707	1792	1524	1740	1736	1553	1740	1736	1553
Q Serve(g_s), s	6.3	0.0	15.8	7.0	36.6	53.7	7.6	46.4	4.2	21.4	31.5	10.4
Cycle Q Clear(g_c), s	6.3	0.0	15.8	7.0	36.6	53.7	7.6	46.4	4.2	21.4	31.5	10.4
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	0	497	141	567	482	159	1166	522	312	1466	656
V/C Ratio(X)	0.71	0.00	0.40	0.52	0.76	1.00	0.51	0.87	0.11	0.74	0.57	0.23
Avail Cap(c_a), veh/h	90	0	497	141	567	482	159	1166	522	312	1466	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	79.4	0.0	49.4	74.8	52.3	58.1	73.7	53.0	38.9	66.2	37.5	31.4
Incr Delay (d2), s/veh	37.8	0.0	2.4	12.8	9.1	40.4	11.1	8.7	0.4	14.7	1.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	8.0	3.8	19.5	28.0	4.1	23.7	1.8	11.6	15.4	4.6
LnGrp Delay(d),s/veh	117.2	0.0	51.8	87.7	61.4	98.5	84.8	61.7	39.3	80.9	39.2	32.3
LnGrp LOS	F		D	F	E	F	F	E	D	F	D	C
Approach Vol, veh/h		265			983			1146			1222	
Approach Delay, s/veh		67.6			81.5			62.3			46.2	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	59.3	20.3	76.7	19.6	53.7	35.0	62.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.5	4.8
Max Green Setting (Gmax), s	9.0	* 54	* 16	71.9	14.1	* 48	30.5	57.2
Max Q Clear Time (g_c+I1), s	8.3	55.7	9.6	33.5	9.0	17.8	23.4	48.4
Green Ext Time (p_c), s	0.0	0.0	0.0	3.1	0.0	0.9	0.1	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	62.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	105	32	31	105	11	95	897	19	18	584	276
Future Volume (veh/h)	180	105	32	31	105	11	95	897	19	18	584	276
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	180	105	32	31	105	11	95	897	19	18	584	276
Adj No. of Lanes	1	1	1	1	1	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	171	371	315	179	330	35	193	1001	21	175	999	447
Arrive On Green	0.10	0.20	0.20	0.10	0.20	0.20	0.11	0.29	0.29	0.10	0.29	0.29
Sat Flow, veh/h	1757	1845	1568	1757	1642	172	1740	3476	74	1740	3471	1553
Grp Volume(v), veh/h	180	105	32	31	0	116	95	448	468	18	584	276
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1814	1740	1736	1814	1740	1736	1553
Q Serve(g_s), s	6.5	3.2	1.1	1.1	0.0	3.6	3.4	16.5	16.5	0.6	9.6	10.3
Cycle Q Clear(g_c), s	6.5	3.2	1.1	1.1	0.0	3.6	3.4	16.5	16.5	0.6	9.6	10.3
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	171	371	315	179	0	364	193	500	522	175	999	447
V/C Ratio(X)	1.05	0.28	0.10	0.17	0.00	0.32	0.49	0.90	0.90	0.10	0.58	0.62
Avail Cap(c_a), veh/h	171	371	315	179	0	364	193	500	522	175	999	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	22.6	21.7	27.4	0.0	22.8	27.9	22.8	22.8	27.3	20.3	20.6
Incr Delay (d2), s/veh	83.0	1.9	0.6	2.1	0.0	2.3	8.7	21.4	20.7	1.2	2.5	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	1.8	0.5	0.6	0.0	2.0	2.1	10.8	11.2	0.4	4.9	5.2
LnGrp Delay(d),s/veh	113.2	24.5	22.4	29.5	0.0	25.0	36.6	44.2	43.5	28.4	22.8	26.8
LnGrp LOS	F	C	C	C		C	D	D	D	C	C	C
Approach Vol, veh/h		317			147			1011			878	
Approach Delay, s/veh		74.6			26.0			43.1			24.2	
Approach LOS		E			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	24.0	12.0	18.7	12.0	24.0	12.0	18.7
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 7.4	19.2	6.5	* 13	* 6.7	19.2	* 6.8	* 13
Max Q Clear Time (g_c+I1), s	5.4	12.3	8.5	5.6	2.6	18.5	3.1	5.2
Green Ext Time (p_c), s	0.0	1.6	0.0	0.2	0.0	0.3	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	39.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	153	36	21	183	56	87	846	18	34	350	221
Future Volume (veh/h)	115	153	36	21	183	56	87	846	18	34	350	221
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	115	153	36	21	183	56	87	846	18	34	350	221
Adj No. of Lanes	0	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	142	189	287	291	306	260	163	887	754	47	771	656
Arrive On Green	0.18	0.18	0.18	0.17	0.17	0.17	0.09	0.49	0.49	0.03	0.42	0.42
Sat Flow, veh/h	775	1031	1568	1757	1845	1568	1740	1827	1553	1740	1827	1553
Grp Volume(v), veh/h	268	0	36	21	183	56	87	846	18	34	350	221
Grp Sat Flow(s),veh/h/ln	1806	0	1568	1757	1845	1568	1740	1827	1553	1740	1827	1553
Q Serve(g_s), s	24.9	0.0	3.4	1.8	16.1	5.4	8.3	77.6	1.1	3.4	24.0	16.8
Cycle Q Clear(g_c), s	24.9	0.0	3.4	1.8	16.1	5.4	8.3	77.6	1.1	3.4	24.0	16.8
Prop In Lane	0.43		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	0	287	291	306	260	163	887	754	47	771	656
V/C Ratio(X)	0.81	0.00	0.13	0.07	0.60	0.22	0.53	0.95	0.02	0.73	0.45	0.34
Avail Cap(c_a), veh/h	330	0	287	291	306	260	163	887	754	47	771	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.6	0.0	59.8	61.6	67.6	63.2	75.7	43.1	23.4	84.5	36.1	34.0
Incr Delay (d2), s/veh	19.2	0.0	0.9	0.5	8.4	1.9	11.9	20.8	0.1	66.6	1.9	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	0.0	1.5	0.9	8.9	2.5	4.6	44.1	0.5	2.5	12.5	7.4
LnGrp Delay(d),s/veh	87.8	0.0	60.7	62.1	76.0	65.1	87.6	63.9	23.5	151.2	38.0	35.4
LnGrp LOS	F		E	E	E	E	F	E	C	F	D	D
Approach Vol, veh/h		304			260			951			605	
Approach Delay, s/veh		84.6			72.5			65.3			43.5	
Approach LOS		F			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.1	79.0		35.8	10.0	90.1		39.1
Change Period (Y+Rc), s	* 4.7	5.1		6.8	* 5.3	5.1		7.1
Max Green Setting (Gmax), s	* 16	73.9		29.0	* 4.7	85.0		32.0
Max Q Clear Time (g_c+I1), s	10.3	26.0		18.1	5.4	79.6		26.9
Green Ext Time (p_c), s	0.0	1.5		0.2	0.0	1.1		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	62.7
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	286	101	44	242	7	340	860	182	9	303	94
Future Volume (veh/h)	73	286	101	44	242	7	340	860	182	9	303	94
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	73	286	101	44	242	7	340	860	182	9	303	94
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	290	100	200	397	178	803	1313	278	260	403	123
Arrive On Green	0.11	0.11	0.11	0.12	0.11	0.11	0.46	0.46	0.46	0.15	0.15	0.15
Sat Flow, veh/h	1740	2532	876	1740	3471	1553	1740	2852	604	1740	2622	799
Grp Volume(v), veh/h	73	194	193	44	242	7	340	523	519	9	199	198
Grp Sat Flow(s),veh/h/ln	1740	1736	1672	1740	1736	1553	1740	1736	1720	1740	1736	1686
Q Serve(g_s), s	5.1	14.5	14.9	3.0	8.6	0.5	17.0	30.3	30.4	0.6	14.3	14.7
Cycle Q Clear(g_c), s	5.1	14.5	14.9	3.0	8.6	0.5	17.0	30.3	30.4	0.6	14.3	14.7
Prop In Lane	1.00		0.52	1.00		1.00	1.00		0.35	1.00		0.47
Lane Grp Cap(c), veh/h	199	198	191	200	397	178	803	799	792	260	266	259
V/C Ratio(X)	0.37	0.98	1.01	0.22	0.61	0.04	0.42	0.65	0.65	0.03	0.75	0.77
Avail Cap(c_a), veh/h	199	198	191	200	397	178	803	799	792	260	266	259
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	57.5	57.7	52.3	54.9	51.3	23.5	27.1	27.2	47.4	52.7	52.9
Incr Delay (d2), s/veh	5.1	58.4	67.4	2.5	6.8	0.4	1.6	4.2	4.2	0.2	17.2	19.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	10.2	10.4	1.6	4.5	0.2	8.6	15.5	15.3	0.3	8.1	8.2
LnGrp Delay(d),s/veh	58.5	115.9	125.1	54.8	61.8	51.7	25.1	31.3	31.3	47.6	69.9	72.2
LnGrp LOS	E	F	F	D	E	D	C	C	C	D	E	E
Approach Vol, veh/h		460			293			1382			406	
Approach Delay, s/veh		110.7			60.5			29.8			70.5	
Approach LOS		F			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	65.0	25.2	20.0	20.1	25.0	65.2	20.0	20.1
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 60	* 20	* 15	* 15	19.5	* 60	15.0	* 15
Max Q Clear Time (g_c+I1), s	19.0	16.7	7.1	10.6	2.6	32.4	5.0	16.9
Green Ext Time (p_c), s	0.4	0.8	0.0	0.4	0.0	1.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	246	257	44	277	46	660	1218	186	27	351	55
Future Volume (veh/h)	98	246	257	44	277	46	660	1218	186	27	351	55
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	98	246	257	44	277	46	660	1218	186	27	351	55
Adj No. of Lanes	2	2	1	2	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	236	750	336	142	653	292	1002	1787	272	103	1128	505
Arrive On Green	0.07	0.21	0.21	0.04	0.19	0.19	0.30	0.59	0.59	0.03	0.33	0.33
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	3022	459	3375	3471	1553
Grp Volume(v), veh/h	98	246	257	44	277	46	660	697	707	27	351	55
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1736	1746	1688	1736	1553
Q Serve(g_s), s	5.0	10.7	27.8	2.3	12.6	4.4	30.8	49.4	50.2	1.4	13.7	4.5
Cycle Q Clear(g_c), s	5.0	10.7	27.8	2.3	12.6	4.4	30.8	49.4	50.2	1.4	13.7	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	236	750	336	142	653	292	1002	1026	1032	103	1128	505
V/C Ratio(X)	0.41	0.33	0.77	0.31	0.42	0.16	0.66	0.68	0.69	0.26	0.31	0.11
Avail Cap(c_a), veh/h	236	750	336	142	653	292	1002	1026	1032	103	1128	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	80.4	59.9	66.6	83.9	64.8	61.5	55.4	25.2	25.3	85.4	45.7	42.6
Incr Delay (d2), s/veh	5.3	1.2	15.3	5.6	2.0	1.1	3.4	3.6	3.7	6.1	0.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.3	13.5	1.2	6.3	2.0	14.9	24.6	25.2	0.7	6.7	2.0
LnGrp Delay(d),s/veh	85.7	61.1	81.9	89.5	66.8	62.6	58.8	28.8	29.0	91.5	46.4	43.0
LnGrp LOS	F	E	F	F	E	E	E	C	C	F	D	D
Approach Vol, veh/h		601			367			2064			433	
Approach Delay, s/veh		74.0			69.0			38.5			48.8	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	59.0	64.1	18.0	39.2	11.0	112.1	13.0	44.2
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	53.5	* 59	12.5	33.4	5.5	* 1.1E2	7.5	* 39
Max Q Clear Time (g_c+I1), s	32.8	15.7	7.0	14.6	3.4	52.2	4.3	29.8
Green Ext Time (p_c), s	1.0	2.2	0.0	0.8	0.0	2.2	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	49.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	391	36	26	612	8	196	42	139	7	16	55
Future Volume (veh/h)	14	391	36	26	612	8	196	42	139	7	16	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	14	391	36	26	612	8	196	42	139	7	16	55
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	54	803	683	85	836	710	328	124	410	56	61	210
Arrive On Green	0.03	0.45	0.45	0.05	0.47	0.47	0.19	0.33	0.33	0.03	0.17	0.17
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1757	377	1248	1757	366	1257
Grp Volume(v), veh/h	14	391	36	26	612	8	196	0	181	7	0	71
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1757	0	1625	1757	0	1623
Q Serve(g_s), s	1.0	19.4	1.7	1.8	34.8	0.4	12.9	0.0	10.6	0.5	0.0	4.8
Cycle Q Clear(g_c), s	1.0	19.4	1.7	1.8	34.8	0.4	12.9	0.0	10.6	0.5	0.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.77	1.00		0.77
Lane Grp Cap(c), veh/h	54	803	683	85	836	710	328	0	534	56	0	271
V/C Ratio(X)	0.26	0.49	0.05	0.30	0.73	0.01	0.60	0.00	0.34	0.13	0.00	0.26
Avail Cap(c_a), veh/h	54	803	683	85	836	710	328	0	534	56	0	271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.5	24.5	19.6	57.7	27.2	18.0	46.9	0.0	31.9	59.2	0.0	45.7
Incr Delay (d2), s/veh	11.2	2.1	0.1	9.0	5.6	0.0	7.8	0.0	1.7	4.6	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	10.0	0.7	1.1	18.5	0.2	7.0	0.0	5.0	0.3	0.0	2.3
LnGrp Delay(d),s/veh	70.7	26.6	19.8	66.6	32.9	18.1	54.7	0.0	33.6	63.8	0.0	48.0
LnGrp LOS	E	C	B	E	C	B	D		C	E		D
Approach Vol, veh/h		441			646			377			78	
Approach Delay, s/veh		27.5			34.0			44.6			49.5	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	62.8	27.9	25.4	7.5	65.1	7.5	45.8
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	6.3	56.4	23.5	* 21	4.0	58.7	4.0	40.5
Max Q Clear Time (g_c+I1), s	3.8	21.4	14.9	6.8	3.0	36.8	2.5	12.6
Green Ext Time (p_c), s	0.0	1.0	0.1	0.3	0.0	1.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	35.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	114	101	114	121	99	110	437	105	40	248	133
Future Volume (veh/h)	137	114	101	114	121	99	110	437	105	40	248	133
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	137	114	101	114	121	99	110	437	105	40	248	133
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	305	418	339	263	385	291	269	779	662	137	641	545
Arrive On Green	0.17	0.23	0.23	0.15	0.20	0.20	0.15	0.42	0.42	0.08	0.35	0.35
Sat Flow, veh/h	1757	1839	1494	1757	1904	1439	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	137	108	107	114	111	109	110	437	105	40	248	133
Grp Sat Flow(s),veh/h/ln	1757	1752	1581	1757	1752	1591	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	11.2	8.1	9.0	9.5	8.6	9.4	9.1	28.7	6.6	3.4	16.2	9.7
Cycle Q Clear(g_c), s	11.2	8.1	9.0	9.5	8.6	9.4	9.1	28.7	6.6	3.4	16.2	9.7
Prop In Lane	1.00		0.95	1.00		0.90	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	398	359	263	354	322	269	779	662	137	641	545
V/C Ratio(X)	0.45	0.27	0.30	0.43	0.31	0.34	0.41	0.56	0.16	0.29	0.39	0.24
Avail Cap(c_a), veh/h	305	398	359	263	354	322	269	779	662	137	641	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	51.0	51.4	62.0	54.5	54.8	61.4	35.0	28.7	69.7	39.4	37.3
Incr Delay (d2), s/veh	4.7	1.7	2.1	5.1	2.3	2.9	4.6	2.9	0.5	5.3	1.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	4.2	4.1	5.0	4.4	4.4	4.7	15.3	3.0	1.9	8.6	4.4
LnGrp Delay(d),s/veh	64.1	52.7	53.5	67.1	56.8	57.7	65.9	38.0	29.2	75.1	41.2	38.4
LnGrp LOS	E	D	D	E	E	E	E	D	C	E	D	D
Approach Vol, veh/h		352			334			652			421	
Approach Delay, s/veh		57.4			60.6			41.3			43.5	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	37.2	30.0	60.1	29.0	41.2	18.0	72.1
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 28	32.2	24.5	* 56	24.0	* 36	12.5	* 68
Max Q Clear Time (g_c+I1), s	13.2	11.4	11.1	18.2	11.5	11.0	5.4	30.7
Green Ext Time (p_c), s	0.1	0.4	0.1	0.8	0.1	0.5	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	48.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	40	32	300	30	210	57	1401	264	481	968	59
Future Volume (veh/h)	76	40	32	300	30	210	57	1401	264	481	968	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	76	40	32	300	30	210	57	1401	264	481	968	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	159	86	69	564	305	260	140	1959	610	727	2550	155
Arrive On Green	0.09	0.09	0.09	0.17	0.17	0.17	0.08	0.39	0.39	0.22	0.53	0.53
Sat Flow, veh/h	1757	950	760	3408	1845	1568	1740	4988	1553	3375	4808	293
Grp Volume(v), veh/h	76	0	72	300	30	210	57	1401	264	481	669	358
Grp Sat Flow(s),veh/h/ln	1757	0	1711	1704	1845	1568	1740	1663	1553	1688	1663	1775
Q Serve(g_s), s	6.6	0.0	6.4	12.9	2.2	20.7	5.0	38.0	19.9	20.9	18.9	19.0
Cycle Q Clear(g_c), s	6.6	0.0	6.4	12.9	2.2	20.7	5.0	38.0	19.9	20.9	18.9	19.0
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	159	0	155	564	305	260	140	1959	610	727	1763	941
V/C Ratio(X)	0.48	0.00	0.46	0.53	0.10	0.81	0.41	0.71	0.43	0.66	0.38	0.38
Avail Cap(c_a), veh/h	159	0	155	564	305	260	140	1959	610	727	1763	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.2	0.0	69.1	61.1	56.7	64.4	70.0	41.0	35.5	57.5	22.1	22.1
Incr Delay (d2), s/veh	9.9	0.0	9.7	3.6	0.6	23.2	8.5	2.3	2.2	4.7	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	3.4	6.4	1.2	10.6	2.7	17.8	8.9	10.2	8.8	9.6
LnGrp Delay(d),s/veh	79.1	0.0	78.8	64.7	57.3	87.5	78.5	43.3	37.8	62.1	22.7	23.3
LnGrp LOS	E		E	E	E	F	E	D	D	E	C	C
Approach Vol, veh/h		148			540			1722			1508	
Approach Delay, s/veh		79.0			73.2			43.6			35.4	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	90.1		20.0	40.0	68.1		32.0
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 13	* 85		14.5	34.5	* 63		26.5
Max Q Clear Time (g_c+I1), s	7.0	21.0		8.6	22.9	40.0		22.7
Green Ext Time (p_c), s	0.0	4.5		0.1	0.6	4.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	45.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	141	95	98	96	10	126	1484	184	43	561	176
Future Volume (veh/h)	234	141	95	98	96	10	126	1484	184	43	561	176
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	234	141	95	98	96	10	126	1484	184	43	561	176
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	414	446	282	414	693	71	410	2006	625	410	1396	625
Arrive On Green	0.12	0.22	0.22	0.12	0.22	0.22	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	2062	1305	3408	3209	330	3375	4988	1553	3375	3471	1553
Grp Volume(v), veh/h	234	118	118	98	52	54	126	1484	184	43	561	176
Grp Sat Flow(s),veh/h/ln	1704	1752	1614	1704	1752	1786	1688	1663	1553	1688	1736	1553
Q Serve(g_s), s	10.4	9.1	9.9	4.2	3.8	3.9	5.5	40.7	12.9	1.8	18.5	12.3
Cycle Q Clear(g_c), s	10.4	9.1	9.9	4.2	3.8	3.9	5.5	40.7	12.9	1.8	18.5	12.3
Prop In Lane	1.00		0.81	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	379	349	414	379	386	410	2006	625	410	1396	625
V/C Ratio(X)	0.57	0.31	0.34	0.24	0.14	0.14	0.31	0.74	0.29	0.10	0.40	0.28
Avail Cap(c_a), veh/h	414	379	349	414	379	386	410	2006	625	410	1396	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.6	52.9	53.2	63.8	50.9	50.9	64.4	40.8	32.5	62.8	34.2	32.4
Incr Delay (d2), s/veh	5.5	2.1	2.6	1.3	0.8	0.8	1.9	2.5	1.2	0.5	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	4.7	4.7	2.1	1.9	2.0	2.7	19.2	5.7	0.9	9.0	5.5
LnGrp Delay(d),s/veh	72.1	55.1	55.8	65.2	51.6	51.7	66.3	43.3	33.7	63.3	35.1	33.5
LnGrp LOS	E	E	E	E	D	D	E	D	C	E	D	C
Approach Vol, veh/h		470			204			1794			780	
Approach Delay, s/veh		63.7			58.1			44.0			36.3	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.2	25.0	40.4	25.0	70.2	25.0	40.4
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	19.5	* 65	19.5	* 35	19.5	* 64	19.5	* 34
Max Q Clear Time (g_c+I1), s	7.5	20.5	12.4	5.9	3.8	42.7	6.2	11.9
Green Ext Time (p_c), s	0.1	3.9	0.2	0.3	0.0	3.8	0.1	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	45.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	201	59	13	418	228	107	1520	24	99	556	170
Future Volume (veh/h)	216	201	59	13	418	228	107	1520	24	99	556	170
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	216	201	59	13	418	228	107	1520	24	99	556	0
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	227	606	515	54	430	365	187	1576	25	109	1400	626
Arrive On Green	0.13	0.34	0.34	0.03	0.24	0.24	0.11	0.45	0.45	0.06	0.40	0.00
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1740	3498	55	1740	3471	1553
Grp Volume(v), veh/h	216	201	59	13	418	228	107	754	790	99	556	0
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1740	1736	1817	1740	1736	1553
Q Serve(g_s), s	22.0	14.7	4.7	1.3	40.6	23.5	10.3	74.0	74.2	9.9	20.0	0.0
Cycle Q Clear(g_c), s	22.0	14.7	4.7	1.3	40.6	23.5	10.3	74.0	74.2	9.9	20.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	227	606	515	54	430	365	187	782	819	109	1400	626
V/C Ratio(X)	0.95	0.33	0.11	0.24	0.97	0.62	0.57	0.96	0.97	0.91	0.40	0.00
Avail Cap(c_a), veh/h	227	606	515	54	430	365	187	782	819	109	1400	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	75.6	43.3	40.0	82.9	66.1	59.6	74.4	46.8	46.9	81.7	37.2	0.0
Incr Delay (d2), s/veh	48.7	1.5	0.5	10.1	37.0	7.8	12.0	24.4	24.0	63.9	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	7.5	2.0	0.8	24.5	10.7	5.6	40.7	42.6	6.7	9.7	0.0
LnGrp Delay(d),s/veh	124.3	44.8	40.5	92.9	103.1	67.4	86.5	71.2	70.9	145.7	38.0	0.0
LnGrp LOS	F	D	D	F	F	E	F	E	E	F	D	
Approach Vol, veh/h		476			659			1651			655	
Approach Delay, s/veh		80.3			90.6			72.0			54.3	
Approach LOS		F			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.3	75.9	27.6	47.7	16.0	84.2	10.4	64.9
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 19	70.8	* 23	41.6	11.0	79.1	* 5.6	* 59
Max Q Clear Time (g_c+I1), s	12.3	22.0	24.0	42.6	11.9	76.2	3.3	16.7
Green Ext Time (p_c), s	0.0	2.7	0.0	0.0	0.0	1.2	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	73.4
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	48	51	12	129	30	214	1587	29	14	499	115
Future Volume (veh/h)	35	48	51	12	129	30	214	1587	29	14	499	115
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	35	48	51	12	129	30	214	1587	29	14	499	115
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	117	173	183	77	288	67	364	2079	38	66	1192	273
Arrive On Green	0.03	0.21	0.21	0.02	0.20	0.20	0.21	0.60	0.60	0.04	0.43	0.43
Sat Flow, veh/h	3408	820	871	3408	1448	337	1740	3488	64	1740	2806	643
Grp Volume(v), veh/h	35	0	99	12	0	159	214	789	827	14	308	306
Grp Sat Flow(s),veh/h/ln	1704	0	1691	1704	0	1785	1740	1736	1816	1740	1736	1713
Q Serve(g_s), s	1.6	0.0	7.9	0.6	0.0	12.5	17.7	53.8	54.1	1.2	19.8	20.0
Cycle Q Clear(g_c), s	1.6	0.0	7.9	0.6	0.0	12.5	17.7	53.8	54.1	1.2	19.8	20.0
Prop In Lane	1.00		0.52	1.00		0.19	1.00		0.04	1.00		0.38
Lane Grp Cap(c), veh/h	117	0	356	77	0	355	364	1035	1083	66	738	728
V/C Ratio(X)	0.30	0.00	0.28	0.16	0.00	0.45	0.59	0.76	0.76	0.21	0.42	0.42
Avail Cap(c_a), veh/h	117	0	356	77	0	355	364	1035	1083	66	738	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	75.4	0.0	52.9	76.7	0.0	56.4	57.0	23.9	24.0	74.6	32.1	32.2
Incr Delay (d2), s/veh	6.4	0.0	1.9	4.3	0.0	4.1	6.8	5.3	5.1	7.1	1.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.9	0.3	0.0	6.6	9.2	27.2	28.4	0.7	9.8	9.8
LnGrp Delay(d),s/veh	81.8	0.0	54.9	81.0	0.0	60.4	63.8	29.2	29.1	81.7	33.9	34.0
LnGrp LOS	F		D	F		E	E	C	C	F	C	C
Approach Vol, veh/h		134			171			1830			628	
Approach Delay, s/veh		61.9			61.9			33.2			35.0	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.0	73.0	11.0	37.0	11.6	100.4	9.1	38.9
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	33.5	68.0	5.5	* 32	6.1	95.4	3.6	* 34
Max Q Clear Time (g_c+I1), s	19.7	22.0	3.6	14.5	3.2	56.1	2.6	9.9
Green Ext Time (p_c), s	0.2	2.7	0.0	0.2	0.0	2.7	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	36.8
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	87	55	23	81	17	131	1834	69	7	439	79
Future Volume (veh/h)	63	87	55	23	81	17	131	1834	69	7	439	79
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1792	1792	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	63	87	55	23	81	17	131	1834	69	7	439	79
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	6	6	6	4	4	4	4	4	4
Cap, veh/h	116	212	134	85	279	58	236	2114	79	36	1485	265
Arrive On Green	0.03	0.20	0.20	0.03	0.19	0.19	0.14	0.62	0.62	0.02	0.50	0.50
Sat Flow, veh/h	3375	1048	662	3312	1438	302	1740	3412	128	1740	2943	526
Grp Volume(v), veh/h	63	0	142	23	0	98	131	928	975	7	258	260
Grp Sat Flow(s),veh/h/ln	1688	0	1710	1656	0	1739	1740	1736	1804	1740	1736	1734
Q Serve(g_s), s	2.9	0.0	11.6	1.1	0.0	7.7	11.3	69.9	71.7	0.6	13.8	14.0
Cycle Q Clear(g_c), s	2.9	0.0	11.6	1.1	0.0	7.7	11.3	69.9	71.7	0.6	13.8	14.0
Prop In Lane	1.00		0.39	1.00		0.17	1.00		0.07	1.00		0.30
Lane Grp Cap(c), veh/h	116	0	346	85	0	337	236	1075	1118	36	875	875
V/C Ratio(X)	0.54	0.00	0.41	0.27	0.00	0.29	0.56	0.86	0.87	0.20	0.29	0.30
Avail Cap(c_a), veh/h	116	0	346	85	0	337	236	1075	1118	36	875	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.0	0.0	55.5	76.5	0.0	55.1	64.6	24.9	25.2	77.0	23.1	23.1
Incr Delay (d2), s/veh	17.0	0.0	3.6	7.7	0.0	2.2	9.1	9.2	9.5	11.8	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	5.8	0.6	0.0	3.9	6.0	36.0	38.4	0.4	6.8	6.9
LnGrp Delay(d),s/veh	93.0	0.0	59.1	84.2	0.0	57.3	73.7	34.1	34.7	88.8	23.9	24.0
LnGrp LOS	F		E	F		E	E	C	C	F	C	C
Approach Vol, veh/h		205			121			2034			525	
Approach Delay, s/veh		69.5			62.4			36.9			24.8	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.2	85.8	11.0	36.0	8.8	104.2	9.6	37.4
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	21.7	* 81	5.5	* 31	3.3	* 99	4.1	* 32
Max Q Clear Time (g_c+I1), s	13.3	16.0	4.9	9.7	2.6	73.7	3.1	13.6
Green Ext Time (p_c), s	0.1	3.2	0.0	0.2	0.0	3.1	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	38.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	380	141	128	22	134	268	69	1388	49	57	380	77
Future Volume (veh/h)	380	141	128	22	134	268	69	1388	49	57	380	77
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	380	141	128	22	134	268	69	1388	49	57	380	77
Adj No. of Lanes	2	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	465	319	290	61	141	282	138	1542	54	88	1219	245
Arrive On Green	0.14	0.36	0.36	0.03	0.26	0.26	0.08	0.45	0.45	0.05	0.42	0.42
Sat Flow, veh/h	3408	892	810	1757	550	1100	1740	3421	121	1740	2882	578
Grp Volume(v), veh/h	380	0	269	22	0	402	69	703	734	57	227	230
Grp Sat Flow(s),veh/h/ln	1704	0	1702	1757	0	1650	1740	1736	1806	1740	1736	1725
Q Serve(g_s), s	21.7	0.0	24.1	2.5	0.0	48.0	7.6	74.9	75.3	6.4	17.4	17.8
Cycle Q Clear(g_c), s	21.7	0.0	24.1	2.5	0.0	48.0	7.6	74.9	75.3	6.4	17.4	17.8
Prop In Lane	1.00		0.48	1.00		0.67	1.00		0.07	1.00		0.34
Lane Grp Cap(c), veh/h	465	0	609	61	0	423	138	782	814	88	734	729
V/C Ratio(X)	0.82	0.00	0.44	0.36	0.00	0.95	0.50	0.90	0.90	0.65	0.31	0.31
Avail Cap(c_a), veh/h	465	0	609	61	0	423	138	782	814	88	734	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	84.1	0.0	49.0	94.6	0.0	73.3	88.4	50.8	50.9	93.4	38.4	38.5
Incr Delay (d2), s/veh	14.8	0.0	2.3	16.1	0.0	33.1	12.3	15.3	15.1	31.7	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	0.0	11.7	1.5	0.0	25.8	4.2	39.3	40.9	3.9	8.6	8.7
LnGrp Delay(d),s/veh	98.8	0.0	51.3	110.6	0.0	106.3	100.7	66.1	66.0	125.0	39.5	39.6
LnGrp LOS	F		D	F		F	F	E	E	F	D	D
Approach Vol, veh/h		649			424			1506			514	
Approach Delay, s/veh		79.2			106.6			67.6			49.0	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	89.8	32.8	56.7	15.4	95.4	12.4	77.1
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 16	84.7	27.3	* 51	* 10	90.3	6.9	* 71
Max Q Clear Time (g_c+I1), s	9.6	19.8	23.7	50.0	8.4	77.3	4.5	26.1
Green Ext Time (p_c), s	0.0	2.1	0.2	0.2	0.0	2.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	72.3
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	210	24	71	532	4	102	398	97	6	63	63
Future Volume (veh/h)	40	210	24	71	532	4	102	398	97	6	63	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	40	210	24	71	532	4	102	398	97	6	63	63
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	116	794	90	172	1006	8	223	623	152	46	280	280
Arrive On Green	0.07	0.26	0.26	0.10	0.29	0.29	0.13	0.43	0.43	0.03	0.33	0.33
Sat Flow, veh/h	1707	3085	349	1707	3465	26	1757	1434	349	1757	848	848
Grp Volume(v), veh/h	40	115	119	71	261	275	102	0	495	6	0	126
Grp Sat Flow(s),veh/h/ln	1707	1703	1731	1707	1703	1788	1757	0	1783	1757	0	1695
Q Serve(g_s), s	2.6	6.2	6.3	4.5	14.8	14.8	6.2	0.0	25.0	0.4	0.0	6.2
Cycle Q Clear(g_c), s	2.6	6.2	6.3	4.5	14.8	14.8	6.2	0.0	25.0	0.4	0.0	6.2
Prop In Lane	1.00		0.20	1.00		0.01	1.00		0.20	1.00		0.50
Lane Grp Cap(c), veh/h	116	438	446	172	495	519	223	0	775	46	0	560
V/C Ratio(X)	0.35	0.26	0.27	0.41	0.53	0.53	0.46	0.00	0.64	0.13	0.00	0.22
Avail Cap(c_a), veh/h	116	438	446	172	495	519	223	0	775	46	0	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.2	34.0	34.1	48.5	34.2	34.2	46.5	0.0	25.4	54.7	0.0	27.8
Incr Delay (d2), s/veh	8.0	1.5	1.5	7.1	4.0	3.8	6.6	0.0	4.0	5.8	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.1	3.2	2.5	7.5	7.9	3.4	0.0	13.1	0.3	0.0	3.0
LnGrp Delay(d),s/veh	59.2	35.5	35.5	55.6	38.2	38.0	53.1	0.0	29.4	60.6	0.0	28.8
LnGrp LOS	E	D	D	E	D	D	D		C	E		C
Approach Vol, veh/h		274			607			597			132	
Approach Delay, s/veh		38.9			40.2			33.5			30.2	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	36.0	19.0	44.0	12.2	39.8	7.0	56.0
Change Period (Y+Rc), s	4.4	6.4	4.4	6.0	4.4	6.4	* 4	6.0
Max Green Setting (Gmax), s	11.6	29.6	14.6	38.0	7.8	33.4	* 3	50.0
Max Q Clear Time (g_c+I1), s	6.5	8.3	8.2	8.2	4.6	16.8	2.4	27.0
Green Ext Time (p_c), s	0.0	0.7	0.0	0.7	0.0	0.7	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	47	323	25	63	161	194	614	13	105	1248	867
Future Volume (veh/h)	326	47	323	25	63	161	194	614	13	105	1248	867
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	360	0	323	25	63	161	194	614	13	105	1248	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	1042	0	465	32	79	96	218	1427	30	233	1443	449
Arrive On Green	0.30	0.00	0.30	0.06	0.06	0.06	0.13	0.28	0.28	0.13	0.29	0.00
Sat Flow, veh/h	3480	0	1553	517	1302	1568	1740	5027	106	1740	4988	1553
Grp Volume(v), veh/h	360	0	323	88	0	161	194	406	221	105	1248	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1819	0	1568	1740	1663	1808	1740	1663	1553
Q Serve(g_s), s	7.3	0.0	16.6	4.3	0.0	5.5	9.9	9.0	9.0	5.0	21.4	0.0
Cycle Q Clear(g_c), s	7.3	0.0	16.6	4.3	0.0	5.5	9.9	9.0	9.0	5.0	21.4	0.0
Prop In Lane	1.00		1.00	0.28		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	1042	0	465	111	0	96	218	944	513	233	1443	449
V/C Ratio(X)	0.35	0.00	0.69	0.79	0.00	1.68	0.89	0.43	0.43	0.45	0.86	0.00
Avail Cap(c_a), veh/h	1042	0	465	111	0	96	218	944	513	233	1443	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.7	0.0	28.0	41.8	0.0	42.3	38.8	26.3	26.4	36.0	30.4	0.0
Incr Delay (d2), s/veh	0.9	0.0	8.3	42.7	0.0	348.7	37.9	1.4	2.6	6.2	7.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	8.2	3.5	0.0	11.6	7.0	4.3	4.9	2.8	10.8	0.0
LnGrp Delay(d),s/veh	25.6	0.0	36.3	84.5	0.0	391.1	76.7	27.8	29.0	42.1	37.5	0.0
LnGrp LOS	C		D	F		F	E	C	C	D	D	
Approach Vol, veh/h		683			249			821			1353	
Approach Delay, s/veh		30.6			282.7			39.7			37.9	
Approach LOS		C			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.0	30.9		11.0	16.5	30.4		32.3
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 11	25.9		5.5	* 12	* 26		27.0
Max Q Clear Time (g_c+I1), s	11.9	23.4		7.5	7.0	11.0		18.6
Green Ext Time (p_c), s	0.0	1.1		0.0	0.0	2.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	56.4
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	114	35	44	117	282	37	886	30	668	1355	644
Future Volume (veh/h)	226	114	35	44	117	282	37	886	30	668	1355	644
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	226	114	35	44	117	282	37	886	30	668	1355	644
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	410	987	281	135	316	1476	113	1477	50	1020	2826	880
Arrive On Green	0.12	0.25	0.25	0.04	0.17	0.17	0.03	0.30	0.30	0.30	0.56	0.56
Sat Flow, veh/h	3408	3898	1109	3514	1845	3136	3408	5003	169	3408	5036	1568
Grp Volume(v), veh/h	226	97	52	44	117	282	37	594	322	668	1355	644
Grp Sat Flow(s),veh/h/ln	1704	1679	1649	1757	1845	1568	1704	1679	1815	1704	1679	1568
Q Serve(g_s), s	12.2	4.3	4.8	2.4	11.0	10.2	2.1	29.6	29.7	33.4	31.6	59.8
Cycle Q Clear(g_c), s	12.2	4.3	4.8	2.4	11.0	10.2	2.1	29.6	29.7	33.4	31.6	59.8
Prop In Lane	1.00		0.67	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	410	850	418	135	316	1476	113	991	536	1020	2826	880
V/C Ratio(X)	0.55	0.11	0.12	0.33	0.37	0.19	0.33	0.60	0.60	0.65	0.48	0.73
Avail Cap(c_a), veh/h	410	850	418	135	316	1476	113	991	536	1020	2826	880
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	81.0	56.1	56.3	91.5	71.7	30.1	92.4	59.0	59.0	59.7	25.8	32.0
Incr Delay (d2), s/veh	5.3	0.3	0.6	6.3	3.3	0.3	7.5	2.7	4.9	3.3	0.6	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	2.1	2.2	1.3	5.9	4.5	1.1	14.1	15.7	16.2	14.8	27.2
LnGrp Delay(d),s/veh	86.3	56.4	56.9	97.9	75.0	30.4	99.9	61.7	64.0	63.0	26.3	37.3
LnGrp LOS	F	E	E	F	E	C	F	E	E	E	C	D
Approach Vol, veh/h		375			443			953			2667	
Approach Delay, s/veh		74.5			48.9			63.9			38.2	
Approach LOS		E			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	115.3	29.0	39.2	64.0	63.3	13.0	55.2
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	6.5	109.4	23.5	* 34	58.5	* 58	7.5	* 49
Max Q Clear Time (g_c+I1), s	4.1	61.8	14.2	13.0	35.4	31.7	4.4	6.8
Green Ext Time (p_c), s	0.0	4.6	0.2	0.6	1.0	4.5	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	47.8
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	64	13	38	46	66	37	817	63	133	754	215
Future Volume (veh/h)	105	64	13	38	46	66	37	817	63	133	754	215
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	91	84	13	38	46	66	37	817	63	133	754	215
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	346	308	48	346	364	309	203	1777	137	205	1455	411
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.37	0.37	0.12	0.37	0.37
Sat Flow, veh/h	1757	1561	242	1757	1845	1568	1757	4771	366	1757	3905	1102
Grp Volume(v), veh/h	91	0	97	38	46	66	37	574	306	133	647	322
Grp Sat Flow(s),veh/h/ln	1757	0	1802	1757	1845	1568	1757	1679	1780	1757	1679	1650
Q Serve(g_s), s	7.7	0.0	8.0	3.1	3.6	6.2	3.3	22.6	22.8	12.7	26.2	26.6
Cycle Q Clear(g_c), s	7.7	0.0	8.0	3.1	3.6	6.2	3.3	22.6	22.8	12.7	26.2	26.6
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.21	1.00		0.67
Lane Grp Cap(c), veh/h	346	0	355	346	364	309	203	1251	663	205	1251	615
V/C Ratio(X)	0.26	0.00	0.27	0.11	0.13	0.21	0.18	0.46	0.46	0.65	0.52	0.52
Avail Cap(c_a), veh/h	346	0	355	346	364	309	203	1251	663	205	1251	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	0.0	59.6	57.6	57.8	58.9	69.9	41.5	41.6	73.9	42.7	42.8
Incr Delay (d2), s/veh	1.8	0.0	1.9	0.6	0.7	1.6	2.0	1.2	2.3	14.9	1.5	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	4.2	1.6	1.9	2.8	1.7	10.7	11.6	7.0	12.4	12.7
LnGrp Delay(d),s/veh	61.3	0.0	61.5	58.3	58.6	60.5	71.9	42.8	43.9	88.8	44.2	46.0
LnGrp LOS	E		E	E	E	E	E	D	D	F	D	D
Approach Vol, veh/h		188			150			917			1102	
Approach Delay, s/veh		61.4			59.3			44.3			50.1	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.0	70.0		40.0	25.0	70.0		40.0
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 20	65.2		34.5	* 20	65.2		34.5
Max Q Clear Time (g_c+I1), s	5.3	28.6		8.2	14.7	24.8		10.0
Green Ext Time (p_c), s	0.0	2.6		0.1	0.1	2.6		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	49.3
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

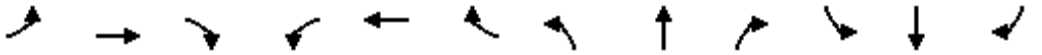
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	289	128	70	279	123	242	673	89	120	261	160
Future Volume (veh/h)	109	289	128	70	279	123	242	673	89	120	261	160
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	109	289	128	70	279	123	242	673	89	120	261	160
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	1120	463	144	1623	505	258	1662	517	201	1052	491
Arrive On Green	0.04	0.32	0.32	0.04	0.32	0.32	0.08	0.33	0.33	0.06	0.31	0.31
Sat Flow, veh/h	3408	3501	1446	3408	5036	1568	3408	5036	1568	3408	3357	1568
Grp Volume(v), veh/h	109	276	141	70	279	123	242	673	89	120	261	160
Grp Sat Flow(s),veh/h/ln	1704	1679	1590	1704	1679	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	2.9	5.5	5.9	1.8	3.6	5.2	6.4	9.3	3.6	3.1	5.2	7.0
Cycle Q Clear(g_c), s	2.9	5.5	5.9	1.8	3.6	5.2	6.4	9.3	3.6	3.1	5.2	7.0
Prop In Lane	1.00		0.91	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	1074	509	144	1623	505	258	1662	517	201	1052	491
V/C Ratio(X)	0.80	0.26	0.28	0.49	0.17	0.24	0.94	0.40	0.17	0.60	0.25	0.33
Avail Cap(c_a), veh/h	136	1074	509	144	1623	505	258	1662	517	201	1052	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	22.7	22.8	42.1	21.9	22.4	41.4	23.3	21.4	41.3	23.0	23.6
Incr Delay (d2), s/veh	37.3	0.6	1.3	11.3	0.2	1.1	42.5	0.7	0.7	12.5	0.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.6	2.8	1.1	1.7	2.4	4.5	4.4	1.7	1.8	2.5	3.3
LnGrp Delay(d),s/veh	80.1	23.3	24.2	53.4	22.1	23.6	83.9	24.1	22.1	53.8	23.6	25.4
LnGrp LOS	F	C	C	D	C	C	F	C	C	D	C	C
Approach Vol, veh/h		526			472			1004			541	
Approach Delay, s/veh		35.3			27.1			38.3			30.8	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	33.8	9.1	34.8	10.8	35.3	9.3	34.6
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	6.8	* 28	3.6	29.0	5.3	* 30	3.8	28.8
Max Q Clear Time (g_c+I1), s	8.4	9.0	4.9	7.2	5.1	11.3	3.8	7.9
Green Ext Time (p_c), s	0.0	1.6	0.0	1.0	0.0	1.6	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	181	11	34	264	226	13	75	45	64	32	57
Future Volume (veh/h)	298	181	11	34	264	226	13	75	45	64	32	57
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	298	181	11	34	264	226	13	75	45	64	32	57
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	577	1873	113	119	544	463	78	223	134	206	409	348
Arrive On Green	0.33	0.56	0.56	0.07	0.30	0.30	0.04	0.21	0.21	0.06	0.22	0.22
Sat Flow, veh/h	1757	3359	203	1757	1845	1568	1757	1081	649	3408	1845	1568
Grp Volume(v), veh/h	298	94	98	34	264	226	13	0	120	64	32	57
Grp Sat Flow(s),veh/h/ln	1757	1752	1809	1757	1845	1568	1757	0	1730	1704	1845	1568
Q Serve(g_s), s	26.1	4.8	4.8	3.5	22.4	22.6	1.4	0.0	11.3	3.4	2.6	5.6
Cycle Q Clear(g_c), s	26.1	4.8	4.8	3.5	22.4	22.6	1.4	0.0	11.3	3.4	2.6	5.6
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	577	977	1009	119	544	463	78	0	356	206	409	348
V/C Ratio(X)	0.52	0.10	0.10	0.29	0.48	0.49	0.17	0.00	0.34	0.31	0.08	0.16
Avail Cap(c_a), veh/h	577	977	1009	119	544	463	78	0	356	206	409	348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	19.7	19.7	84.4	55.2	55.3	87.5	0.0	64.5	85.7	58.7	59.9
Incr Delay (d2), s/veh	3.3	0.2	0.2	5.9	3.1	3.7	4.5	0.0	2.5	3.9	0.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	2.4	2.5	1.9	11.9	10.3	0.8	0.0	5.7	1.7	1.4	2.5
LnGrp Delay(d),s/veh	55.0	19.9	19.9	90.3	58.3	58.9	92.0	0.0	67.1	89.6	59.1	60.9
LnGrp LOS	E	B	B	F	E	E	F		E	F	E	E
Approach Vol, veh/h		490			524			133			153	
Approach Delay, s/veh		41.2			60.6			69.5			72.5	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	68.0	61.1	14.0	47.3	18.0	111.1	17.0	44.3
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	62.5	* 56	8.5	* 42	* 13	* 1.1E2	11.5	* 39
Max Q Clear Time (g_c+I1), s	28.1	24.6	3.4	7.6	5.5	6.8	5.4	13.3
Green Ext Time (p_c), s	0.3	0.6	0.0	0.2	0.0	0.6	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	55.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	106	60	399	279	187	56	1147	86	224	1919	319
Future Volume (veh/h)	159	106	60	399	279	187	56	1147	86	224	1919	319
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	159	106	60	399	327	155	56	1147	86	224	1919	319
Adj No. of Lanes	2	2	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	415	751	336	428	790	527	411	2536	627	411	2012	627
Arrive On Green	0.12	0.21	0.21	0.12	0.21	0.21	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	3505	1568	3514	3689	1568	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	159	106	60	399	327	155	56	1147	86	224	1919	319
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	6.9	3.9	5.0	18.0	12.2	11.7	2.4	21.3	5.6	10.0	59.7	24.7
Cycle Q Clear(g_c), s	6.9	3.9	5.0	18.0	12.2	11.7	2.4	21.3	5.6	10.0	59.7	24.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	751	336	428	790	527	411	2536	627	411	2012	627
V/C Ratio(X)	0.38	0.14	0.18	0.93	0.41	0.29	0.14	0.45	0.14	0.54	0.95	0.51
Avail Cap(c_a), veh/h	415	751	336	428	790	527	411	2536	627	411	2012	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.8	51.0	51.4	69.6	54.2	39.2	62.8	34.8	30.2	66.1	46.3	35.8
Incr Delay (d2), s/veh	2.7	0.4	1.2	29.5	1.6	1.4	0.7	0.6	0.5	5.1	11.8	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	1.9	2.3	10.5	6.4	5.3	1.1	9.3	2.5	5.0	29.6	11.1
LnGrp Delay(d),s/veh	67.4	51.4	52.6	99.1	55.8	40.6	63.5	35.4	30.6	71.2	58.1	38.8
LnGrp LOS	E	D	D	F	E	D	E	D	C	E	E	D
Approach Vol, veh/h		325			881			1289			2462	
Approach Delay, s/veh		59.4			72.7			36.3			56.8	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.0	25.0	40.1	25.0	70.0	25.0	40.1
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	19.5	* 65	19.5	34.2	19.5	* 65	19.5	* 34
Max Q Clear Time (g_c+I1), s	4.4	61.7	8.9	14.2	12.0	23.3	20.0	7.0
Green Ext Time (p_c), s	0.0	2.1	0.1	0.7	0.2	7.6	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	54.5
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	195	118	138	328	129	316	1117	62	217	853	326
Future Volume (veh/h)	107	195	118	138	328	129	316	1117	62	217	853	326
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	107	195	118	138	328	129	316	1117	62	217	853	326
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	414	747	334	410	1063	331	410	2002	623	410	2002	623
Arrive On Green	0.12	0.21	0.21	0.12	0.21	0.21	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	107	195	118	138	328	129	316	1117	62	217	853	326
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	4.6	7.4	10.3	6.0	8.9	11.4	14.6	27.7	4.0	9.7	19.8	25.5
Cycle Q Clear(g_c), s	4.6	7.4	10.3	6.0	8.9	11.4	14.6	27.7	4.0	9.7	19.8	25.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	747	334	410	1063	331	410	2002	623	410	2002	623
V/C Ratio(X)	0.26	0.26	0.35	0.34	0.31	0.39	0.77	0.56	0.10	0.53	0.43	0.52
Avail Cap(c_a), veh/h	414	747	334	410	1063	331	410	2002	623	410	2002	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.9	52.6	53.7	64.5	53.1	54.1	68.3	37.0	29.9	66.1	34.7	36.4
Incr Delay (d2), s/veh	1.5	0.8	2.9	2.2	0.8	3.4	13.0	1.1	0.3	4.8	0.7	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.7	4.7	2.9	4.2	5.2	7.5	12.9	1.8	4.8	9.2	11.5
LnGrp Delay(d),s/veh	65.4	53.4	56.6	66.7	53.9	57.6	81.3	38.1	30.2	71.0	35.3	39.5
LnGrp LOS	E	D	E	E	D	E	F	D	C	E	D	D
Approach Vol, veh/h		420			595			1495			1396	
Approach Delay, s/veh		57.4			57.7			46.9			41.8	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.2	25.0	40.2	25.0	70.2	25.0	40.2
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	19.5	* 64	19.5	* 34	19.5	* 64	19.5	34.0
Max Q Clear Time (g_c+I1), s	16.6	27.5	6.6	13.4	11.7	29.7	8.0	12.3
Green Ext Time (p_c), s	0.2	3.8	0.1	0.9	0.2	3.8	0.1	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	47.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	70	151	12	30	14	354	1360	5	51	643	214
Future Volume (veh/h)	107	70	151	12	30	14	354	1360	5	51	643	214
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	107	70	151	12	30	14	354	1360	5	51	643	214
Adj No. of Lanes	2	1	2	1	1	0	2	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	413	394	589	213	254	119	409	2057	8	211	2000	623
Arrive On Green	0.12	0.21	0.21	0.12	0.21	0.21	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	1845	2760	1757	1191	556	3375	5130	19	1740	4988	1553
Grp Volume(v), veh/h	107	70	151	12	0	44	354	882	483	51	643	214
Grp Sat Flow(s),veh/h/ln	1704	1845	1380	1757	0	1747	1688	1663	1824	1740	1663	1553
Q Serve(g_s), s	4.6	5.0	7.3	1.0	0.0	3.3	16.6	34.8	34.8	4.3	14.3	15.4
Cycle Q Clear(g_c), s	4.6	5.0	7.3	1.0	0.0	3.3	16.6	34.8	34.8	4.3	14.3	15.4
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	413	394	589	213	0	373	409	1333	731	211	2000	623
V/C Ratio(X)	0.26	0.18	0.26	0.06	0.00	0.12	0.87	0.66	0.66	0.24	0.32	0.34
Avail Cap(c_a), veh/h	413	394	589	213	0	373	409	1333	731	211	2000	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.2	51.8	52.7	62.7	0.0	51.1	69.5	39.3	39.3	64.1	33.2	33.5
Incr Delay (d2), s/veh	1.5	1.0	1.0	0.5	0.0	0.6	21.1	2.6	4.7	2.7	0.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.7	2.9	0.5	0.0	1.6	9.0	16.4	18.4	2.2	6.6	6.9
LnGrp Delay(d),s/veh	65.8	52.8	53.8	63.2	0.0	51.8	90.7	41.9	44.0	66.8	33.6	35.0
LnGrp LOS	E	D	D	E		D	F	D	D	E	C	D
Approach Vol, veh/h		328			56			1719			908	
Approach Delay, s/veh		57.5			54.2			52.5			35.8	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.6	25.0	40.5	25.0	70.6	25.0	40.5
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	19.5	64.0	19.5	* 34	19.5	* 65	19.5	* 34
Max Q Clear Time (g_c+I1), s	18.6	17.4	6.6	5.3	6.3	36.8	3.0	9.3
Green Ext Time (p_c), s	0.1	3.2	0.1	0.2	0.0	3.2	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	48.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	42	71	31	163	191	383	1484	47	50	433	65
Future Volume (veh/h)	146	42	71	31	163	191	383	1484	47	50	433	65
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	146	42	71	31	163	191	383	1484	47	50	433	65
Adj No. of Lanes	2	2	0	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	415	378	338	396	721	322	411	2011	626	411	2011	626
Arrive On Green	0.12	0.22	0.22	0.12	0.22	0.22	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	1752	1568	3250	3343	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	146	42	71	31	163	191	383	1484	47	50	433	65
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1625	1671	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	6.3	3.1	6.0	1.4	6.4	18.4	18.0	40.5	3.0	2.1	9.1	4.2
Cycle Q Clear(g_c), s	6.3	3.1	6.0	1.4	6.4	18.4	18.0	40.5	3.0	2.1	9.1	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	378	338	396	721	322	411	2011	626	411	2011	626
V/C Ratio(X)	0.35	0.11	0.21	0.08	0.23	0.59	0.93	0.74	0.08	0.12	0.22	0.10
Avail Cap(c_a), veh/h	415	378	338	396	721	322	411	2011	626	411	2011	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.4	50.4	51.6	62.3	51.7	56.4	69.6	40.6	29.4	62.6	31.2	29.7
Incr Delay (d2), s/veh	2.3	0.6	1.4	0.4	0.7	7.8	30.0	2.5	0.2	0.6	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.6	2.7	0.6	3.0	8.3	10.1	19.0	1.3	1.0	4.2	1.9
LnGrp Delay(d),s/veh	66.8	51.0	53.0	62.7	52.5	64.2	99.6	43.0	29.6	63.2	31.5	30.1
LnGrp LOS	E	D	D	E	D	E	F	D	C	E	C	C
Approach Vol, veh/h		259			385			1914			548	
Approach Delay, s/veh		60.4			59.1			54.0			34.2	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	64.5	19.5	34.5	19.5	64.5	19.5	34.5
Max Q Clear Time (g_c+I1), s	20.0	11.1	8.3	20.4	4.1	42.5	3.4	8.0
Green Ext Time (p_c), s	0.0	3.5	0.1	0.4	0.0	3.4	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	51.7
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	38	269	1356	36	57	445
Future Volume (veh/h)	38	269	1356	36	57	445
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1827	1827	1827
Adj Flow Rate, veh/h	38	269	1356	36	57	445
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	871	401	2364	736	513	2314
Arrive On Green	0.26	0.26	0.47	0.47	0.15	0.67
Sat Flow, veh/h	3408	1568	5152	1553	3375	3563
Grp Volume(v), veh/h	38	269	1356	36	57	445
Grp Sat Flow(s),veh/h/ln	1704	1568	1663	1553	1688	1736
Q Serve(g_s), s	1.1	20.8	26.5	1.7	2.0	6.6
Cycle Q Clear(g_c), s	1.1	20.8	26.5	1.7	2.0	6.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	871	401	2364	736	513	2314
V/C Ratio(X)	0.04	0.67	0.57	0.05	0.11	0.19
Avail Cap(c_a), veh/h	871	401	2364	736	513	2314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	45.2	25.6	19.1	49.4	8.6
Incr Delay (d2), s/veh	0.1	8.7	1.0	0.1	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	18.5	12.4	0.7	0.9	3.2
LnGrp Delay(d),s/veh	37.9	53.8	26.7	19.2	49.8	8.8
LnGrp LOS	D	D	C	B	D	A
Approach Vol, veh/h	307		1392			502
Approach Delay, s/veh	51.9		26.5			13.4
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		95.0		40.0	26.0	69.0		
Change Period (Y+Rc), s		5.0		5.5	5.5	5.0		
Max Green Setting (Gmax), s		90.0		34.5	20.5	64.0		
Max Q Clear Time (g_c+I1), s		8.6		22.8	4.0	28.5		
Green Ext Time (p_c), s		3.1		0.2	0.0	3.1		

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	1	3	46	3	143	5	1062	29	59	423	12
Future Volume (veh/h)	74	1	3	46	3	143	5	1062	29	59	423	12
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1900	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	74	1	3	46	3	143	5	1062	29	59	423	12
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	4	4	4	4	4	4
Cap, veh/h	312	4	13	327	21	310	203	1289	577	388	1281	36
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.37	0.37	0.11	0.37	0.37
Sat Flow, veh/h	1583	21	64	1654	108	1568	1740	3471	1553	3375	3448	98
Grp Volume(v), veh/h	78	0	0	49	0	143	5	1062	29	59	213	222
Grp Sat Flow(s),veh/h/ln	1669	0	0	1762	0	1568	1740	1736	1553	1688	1736	1810
Q Serve(g_s), s	6.9	0.0	0.0	4.0	0.0	14.1	0.4	48.5	2.1	2.8	15.4	15.4
Cycle Q Clear(g_c), s	6.9	0.0	0.0	4.0	0.0	14.1	0.4	48.5	2.1	2.8	15.4	15.4
Prop In Lane	0.95		0.04	0.94		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	329	0	0	348	0	310	203	1289	577	388	645	672
V/C Ratio(X)	0.24	0.00	0.00	0.14	0.00	0.46	0.02	0.82	0.05	0.15	0.33	0.33
Avail Cap(c_a), veh/h	329	0	0	348	0	310	203	1289	577	388	645	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.2	0.0	0.0	57.9	0.0	62.0	68.5	49.8	35.2	69.8	39.4	39.4
Incr Delay (d2), s/veh	1.7	0.0	0.0	0.8	0.0	4.9	0.2	6.1	0.2	0.8	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	2.0	0.0	6.5	0.2	24.4	0.9	1.3	7.6	8.0
LnGrp Delay(d),s/veh	60.9	0.0	0.0	58.8	0.0	66.8	68.7	55.9	35.4	70.6	40.8	40.7
LnGrp LOS	E			E		E	E	E	D	E	D	D
Approach Vol, veh/h		78			192			1096			494	
Approach Delay, s/veh		60.9			64.8			55.4			44.3	
Approach LOS		E			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.0	70.0		40.0	25.0	70.0		40.0
Change Period (Y+Rc), s	* 4.6	5.0		* 5.4	* 4.9	5.0		5.5
Max Green Setting (Gmax), s	* 20	65.0		* 35	* 20	65.0		34.5
Max Q Clear Time (g_c+I1), s	2.4	17.4		16.1	4.8	50.5		8.9
Green Ext Time (p_c), s	0.0	2.1		0.1	0.0	2.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	53.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	187	3	31	510	276	11	670	21	110	307	86
Future Volume (veh/h)	84	187	3	31	510	276	11	670	21	110	307	86
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	84	187	3	31	510	276	11	670	21	110	307	86
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	102	621	528	80	597	620	35	705	22	128	828	797
Arrive On Green	0.06	0.35	0.35	0.05	0.33	0.33	0.02	0.40	0.40	0.07	0.45	0.45
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1740	1762	55	1740	1827	1553
Grp Volume(v), veh/h	84	187	3	31	510	276	11	0	691	110	307	86
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1740	0	1817	1740	1827	1553
Q Serve(g_s), s	7.3	11.4	0.2	2.6	39.8	19.7	0.9	0.0	55.2	9.4	16.6	4.3
Cycle Q Clear(g_c), s	7.3	11.4	0.2	2.6	39.8	19.7	0.9	0.0	55.2	9.4	16.6	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	102	621	528	80	597	620	35	0	727	128	828	797
V/C Ratio(X)	0.82	0.30	0.01	0.39	0.85	0.45	0.32	0.00	0.95	0.86	0.37	0.11
Avail Cap(c_a), veh/h	102	621	528	80	597	620	35	0	727	128	828	797
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.7	35.7	32.1	69.4	46.6	32.2	72.5	0.0	43.6	68.7	26.9	18.8
Incr Delay (d2), s/veh	49.7	1.2	0.0	13.7	14.4	2.3	22.3	0.0	23.3	49.2	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	5.9	0.1	1.6	22.1	8.7	0.7	0.0	32.3	6.3	8.7	1.9
LnGrp Delay(d),s/veh	119.4	37.0	32.1	83.1	61.0	34.6	94.8	0.0	66.9	117.9	28.2	19.1
LnGrp LOS	F	D	C	F	E	C	F		E	F	C	B
Approach Vol, veh/h		274			817			702			503	
Approach Delay, s/veh		62.2			52.9			67.3			46.3	
Approach LOS		E			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	58.0	7.0	74.0	13.0	56.0	15.0	66.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	7.0	52.0	3.0	68.0	9.0	50.0	11.0	60.0
Max Q Clear Time (g_c+I1), s	4.6	13.4	2.9	18.6	9.3	41.8	11.4	57.2
Green Ext Time (p_c), s	0.0	0.9	0.0	1.1	0.0	0.8	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	57.0
HCM 2010 LOS	E

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	123	8	31	570	228	118
Future Volume (veh/h)	123	8	31	570	228	118
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	123	8	31	570	228	118
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	252	16	208	1199	495	256
Arrive On Green	0.17	0.17	0.12	0.66	0.44	0.44
Sat Flow, veh/h	1522	99	1740	1827	1136	588
Grp Volume(v), veh/h	132	0	31	570	0	346
Grp Sat Flow(s),veh/h/ln	1634	0	1740	1827	0	1723
Q Serve(g_s), s	4.0	0.0	0.9	8.5	0.0	7.7
Cycle Q Clear(g_c), s	4.0	0.0	0.9	8.5	0.0	7.7
Prop In Lane	0.93	0.06	1.00			0.34
Lane Grp Cap(c), veh/h	270	0	208	1199	0	751
V/C Ratio(X)	0.49	0.00	0.15	0.48	0.00	0.46
Avail Cap(c_a), veh/h	270	0	208	1199	0	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	21.5	4.7	0.0	10.8
Incr Delay (d2), s/veh	6.2	0.0	1.5	1.4	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.5	4.6	0.0	4.1
LnGrp Delay(d),s/veh	26.8	0.0	23.0	6.0	0.0	12.9
LnGrp LOS	C		C	A		B
Approach Vol, veh/h	132			601	346	
Approach Delay, s/veh	26.8			6.9	12.9	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	12.0	29.4		13.0		41.4		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.5	* 23		9.0		* 36		
Max Q Clear Time (g_c+I1), s	2.9	9.7		6.0		10.5		
Green Ext Time (p_c), s	0.0	0.9		0.0		0.9		

Intersection Summary	
HCM 2010 Ctrl Delay	11.2
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	126	17	24	499	288	9	25	4	280	206	652
Future Volume (veh/h)	113	126	17	24	499	288	9	25	4	280	206	652
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1792	1792	1900	1792	1792	1792
Adj Flow Rate, veh/h	113	126	17	24	499	288	9	25	4	187	296	679
Adj No. of Lanes	2	2	0	1	1	1	1	1	0	1	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	6	6	6	6	6	6
Cap, veh/h	145	874	116	99	536	456	355	313	50	405	426	723
Arrive On Green	0.04	0.28	0.28	0.06	0.29	0.29	0.21	0.21	0.21	0.24	0.24	0.24
Sat Flow, veh/h	3408	3111	413	1757	1845	1568	1707	1508	241	1707	1792	3047
Grp Volume(v), veh/h	113	70	73	24	499	288	9	0	29	187	296	679
Grp Sat Flow(s),veh/h/ln	1704	1752	1772	1757	1845	1568	1707	0	1750	1707	1792	1524
Q Serve(g_s), s	3.3	3.0	3.1	1.3	26.6	16.1	0.4	0.0	1.3	9.5	15.3	22.1
Cycle Q Clear(g_c), s	3.3	3.0	3.1	1.3	26.6	16.1	0.4	0.0	1.3	9.5	15.3	22.1
Prop In Lane	1.00		0.23	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	145	492	498	99	536	456	355	0	363	405	426	723
V/C Ratio(X)	0.78	0.14	0.15	0.24	0.93	0.63	0.03	0.00	0.08	0.46	0.70	0.94
Avail Cap(c_a), veh/h	145	492	498	99	536	456	355	0	363	405	426	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.9	27.2	27.3	45.6	34.9	31.1	31.9	0.0	32.3	33.0	35.2	37.8
Incr Delay (d2), s/veh	33.0	0.6	0.6	5.7	24.9	6.5	0.1	0.0	0.4	3.7	9.1	21.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.5	1.6	0.8	17.3	7.8	0.2	0.0	0.7	4.9	8.6	11.4
LnGrp Delay(d),s/veh	80.9	27.8	27.9	51.3	59.8	37.7	32.0	0.0	32.7	36.8	44.3	59.3
LnGrp LOS	F	C	C	D	E	D	C		C	D	D	E
Approach Vol, veh/h		256			811			38			1162	
Approach Delay, s/veh		51.3			51.7			32.5			51.8	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	35.3		29.5	10.8	34.3		26.5
Change Period (Y+Rc), s	5.5	* 5.9		5.5	* 5.1	* 5.9		5.5
Max Green Setting (Gmax), s	4.3	* 29		24.0	* 5.7	* 27		21.0
Max Q Clear Time (g_c+I1), s	5.3	28.6		24.1	3.3	5.1		3.3
Green Ext Time (p_c), s	0.0	0.2		0.0	0.0	0.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.4
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	252	5	70	724	40	2	282	31	13	222	13
Future Volume (veh/h)	38	252	5	70	724	40	2	282	31	13	222	13
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1900	1810	1900	1900	1810	1900
Adj Flow Rate, veh/h	38	252	5	70	724	40	2	282	31	13	222	13
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	68	755	15	143	799	44	2	327	36	15	263	15
Arrive On Green	0.04	0.43	0.43	0.08	0.47	0.47	0.21	0.21	0.21	0.16	0.16	0.16
Sat Flow, veh/h	1707	1752	35	1707	1683	93	11	1592	175	94	1601	94
Grp Volume(v), veh/h	38	0	257	70	0	764	315	0	0	248	0	0
Grp Sat Flow(s),veh/h/ln	1707	0	1786	1707	0	1776	1778	0	0	1788	0	0
Q Serve(g_s), s	4.3	0.0	18.6	7.6	0.0	77.3	33.4	0.0	0.0	26.2	0.0	0.0
Cycle Q Clear(g_c), s	4.3	0.0	18.6	7.6	0.0	77.3	33.4	0.0	0.0	26.2	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.05	0.01		0.10	0.05		0.05
Lane Grp Cap(c), veh/h	68	0	770	143	0	843	365	0	0	293	0	0
V/C Ratio(X)	0.56	0.00	0.33	0.49	0.00	0.91	0.86	0.00	0.00	0.85	0.00	0.00
Avail Cap(c_a), veh/h	68	0	770	143	0	843	365	0	0	293	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	91.9	0.0	36.8	85.4	0.0	47.2	74.9	0.0	0.0	79.1	0.0	0.0
Incr Delay (d2), s/veh	28.9	0.0	1.2	11.6	0.0	15.1	22.8	0.0	0.0	24.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	9.5	4.1	0.0	41.3	18.8	0.0	0.0	15.0	0.0	0.0
LnGrp Delay(d),s/veh	120.8	0.0	38.0	96.9	0.0	62.3	97.7	0.0	0.0	103.8	0.0	0.0
LnGrp LOS	F		D	F		E	F			F		
Approach Vol, veh/h		295			834			315			248	
Approach Delay, s/veh		48.7			65.2			97.7			103.8	
Approach LOS		D			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	98.6		38.0	20.9	90.1		46.0
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0
Max Green Setting (Gmax), s	7.8	92.6		32.0	16.3	84.1		40.0
Max Q Clear Time (g_c+I1), s	6.3	79.3		28.2	9.6	20.6		35.4
Green Ext Time (p_c), s	0.0	1.1		0.1	0.0	1.1		0.2

Intersection Summary		
HCM 2010 Ctrl Delay		74.0
HCM 2010 LOS		E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	456	92	119	451	206	110	992	170	114	547	154
Future Volume (veh/h)	177	456	92	119	451	206	110	992	170	114	547	154
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	177	456	92	119	451	206	110	992	170	114	547	154
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	189	716	144	189	863	386	216	1132	507	135	971	434
Arrive On Green	0.11	0.25	0.25	0.11	0.25	0.25	0.12	0.32	0.32	0.08	0.28	0.28
Sat Flow, veh/h	1757	2911	583	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	177	273	275	119	451	206	110	992	170	114	547	154
Grp Sat Flow(s),veh/h/ln	1757	1752	1742	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	6.5	9.1	9.2	4.2	7.2	7.4	3.8	17.4	5.4	4.2	8.7	5.1
Cycle Q Clear(g_c), s	6.5	9.1	9.2	4.2	7.2	7.4	3.8	17.4	5.4	4.2	8.7	5.1
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	431	429	189	863	386	216	1132	507	135	971	434
V/C Ratio(X)	0.94	0.63	0.64	0.63	0.52	0.53	0.51	0.88	0.34	0.84	0.56	0.35
Avail Cap(c_a), veh/h	189	431	429	189	863	386	216	1132	507	135	971	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	21.9	21.9	27.8	21.2	21.3	26.7	20.8	16.7	29.6	20.1	18.8
Incr Delay (d2), s/veh	50.4	6.9	7.2	14.8	2.3	5.2	8.3	9.6	1.8	44.1	2.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	5.2	5.2	2.8	3.8	3.8	2.3	9.8	2.6	3.7	4.5	2.5
LnGrp Delay(d),s/veh	79.2	28.8	29.1	42.6	23.5	26.5	35.0	30.4	18.5	73.8	22.5	21.1
LnGrp LOS	E	C	C	D	C	C	C	C	B	E	C	C
Approach Vol, veh/h		725			776			1272			815	
Approach Delay, s/veh		41.2			27.2			29.2			29.4	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	25.0	11.0	20.0	12.0	22.0	11.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	21.0	7.0	16.0	8.0	18.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	6.2	19.4	6.2	11.2	5.8	10.7	8.5	9.4
Green Ext Time (p_c), s	0.0	0.7	0.0	0.9	0.0	2.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	341	113	79	291	95	73	1087	108	70	458	109
Future Volume (veh/h)	177	341	113	79	291	95	73	1087	108	70	458	109
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	177	341	113	79	291	95	73	1087	108	70	458	109
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	201	801	358	201	597	191	174	1185	118	99	916	216
Arrive On Green	0.11	0.23	0.23	0.11	0.23	0.23	0.10	0.37	0.37	0.06	0.33	0.33
Sat Flow, veh/h	1757	3505	1568	1757	2613	836	1740	3190	317	1740	2787	659
Grp Volume(v), veh/h	177	341	113	79	193	193	73	591	604	70	284	283
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1697	1740	1736	1771	1740	1736	1711
Q Serve(g_s), s	6.9	5.8	4.2	2.9	6.7	6.9	2.8	22.7	22.8	2.8	9.2	9.3
Cycle Q Clear(g_c), s	6.9	5.8	4.2	2.9	6.7	6.9	2.8	22.7	22.8	2.8	9.2	9.3
Prop In Lane	1.00		1.00	1.00		0.49	1.00		0.18	1.00		0.39
Lane Grp Cap(c), veh/h	201	801	358	201	401	388	174	645	658	99	570	562
V/C Ratio(X)	0.88	0.43	0.32	0.39	0.48	0.50	0.42	0.92	0.92	0.70	0.50	0.50
Avail Cap(c_a), veh/h	201	801	358	201	401	388	174	645	658	99	570	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	23.1	22.4	28.7	23.4	23.5	29.6	21.0	21.0	32.4	18.9	18.9
Incr Delay (d2), s/veh	38.7	1.7	2.3	5.7	4.1	4.5	7.3	20.0	19.9	34.3	3.1	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	3.0	2.0	1.7	3.7	3.7	1.7	14.4	14.7	2.3	4.8	4.9
LnGrp Delay(d),s/veh	69.2	24.7	24.7	34.4	27.5	28.0	36.9	41.0	40.9	66.7	22.0	22.1
LnGrp LOS	E	C	C	C	C	C	D	D	D	E	C	C
Approach Vol, veh/h		631			465			1268			637	
Approach Delay, s/veh		37.2			28.9			40.7			26.9	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	30.0	12.0	20.0	11.0	27.0	12.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	26.0	8.0	16.0	7.0	23.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	4.8	24.8	4.9	7.8	4.8	11.3	8.9	8.9
Green Ext Time (p_c), s	0.0	0.5	0.0	0.8	0.0	1.8	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	35.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	518	166	55	683	137	209	1009	152	106	462	125
Future Volume (veh/h)	156	518	166	55	683	137	209	1009	152	106	462	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	156	518	166	55	683	137	209	1009	152	106	462	125
Adj No. of Lanes	1	3	0	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	916	285	149	793	355	298	1124	169	124	942	421
Arrive On Green	0.10	0.24	0.24	0.09	0.23	0.23	0.17	0.37	0.37	0.07	0.27	0.27
Sat Flow, veh/h	1740	3771	1174	1740	3471	1553	1740	3027	456	1740	3471	1553
Grp Volume(v), veh/h	156	455	229	55	683	137	209	578	583	106	462	125
Grp Sat Flow(s),veh/h/ln	1740	1663	1620	1740	1736	1553	1740	1736	1747	1740	1736	1553
Q Serve(g_s), s	6.2	8.4	8.7	2.1	13.2	5.2	7.9	22.0	22.0	4.2	7.8	4.5
Cycle Q Clear(g_c), s	6.2	8.4	8.7	2.1	13.2	5.2	7.9	22.0	22.0	4.2	7.8	4.5
Prop In Lane	1.00		0.72	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	174	808	393	149	793	355	298	645	649	124	942	421
V/C Ratio(X)	0.90	0.56	0.58	0.37	0.86	0.39	0.70	0.90	0.90	0.85	0.49	0.30
Avail Cap(c_a), veh/h	174	808	393	149	793	355	298	645	649	124	942	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	23.2	23.4	30.2	25.9	22.8	27.3	20.7	20.8	32.1	21.4	20.2
Incr Delay (d2), s/veh	45.4	2.8	6.2	6.9	11.8	3.2	12.9	17.6	17.7	48.5	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	4.2	4.6	1.3	7.6	2.6	4.8	13.6	13.7	3.7	4.0	2.1
LnGrp Delay(d),s/veh	76.5	26.1	29.5	37.1	37.7	26.0	40.2	38.3	38.4	80.6	23.3	22.0
LnGrp LOS	E	C	C	D	D	C	D	D	D	F	C	C
Approach Vol, veh/h		840			875			1370			693	
Approach Delay, s/veh		36.4			35.9			38.7			31.8	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	30.0	10.0	21.0	16.0	23.0	11.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	26.0	6.0	17.0	12.0	19.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	6.2	24.0	4.1	10.7	9.9	9.8	8.2	15.2
Green Ext Time (p_c), s	0.0	0.8	0.0	1.5	0.1	1.8	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	307	93	59	556	203	148	726	41	44	170	81
Future Volume (veh/h)	232	307	93	59	556	203	148	726	41	44	170	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	232	307	93	59	556	203	148	726	41	44	170	81
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	268	812	242	161	614	224	162	1024	458	108	917	410
Arrive On Green	0.15	0.31	0.31	0.09	0.25	0.25	0.09	0.29	0.29	0.06	0.26	0.26
Sat Flow, veh/h	1740	2638	785	1740	2494	908	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	232	200	200	59	386	373	148	726	41	44	170	81
Grp Sat Flow(s),veh/h/ln	1740	1736	1688	1740	1736	1667	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	8.5	5.9	6.0	2.1	14.0	14.1	5.4	12.0	1.2	1.6	2.4	2.6
Cycle Q Clear(g_c), s	8.5	5.9	6.0	2.1	14.0	14.1	5.4	12.0	1.2	1.6	2.4	2.6
Prop In Lane	1.00		0.47	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	534	519	161	427	410	162	1024	458	108	917	410
V/C Ratio(X)	0.87	0.37	0.38	0.37	0.90	0.91	0.91	0.71	0.09	0.41	0.19	0.20
Avail Cap(c_a), veh/h	268	534	519	161	427	410	162	1024	458	108	917	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	17.6	17.7	27.7	23.8	23.8	29.2	20.5	16.7	29.4	18.6	18.7
Incr Delay (d2), s/veh	29.4	2.0	2.2	6.4	25.2	26.5	50.7	4.1	0.4	11.0	0.4	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	3.1	3.1	1.3	9.6	9.4	4.9	6.3	0.6	1.1	1.2	1.2
LnGrp Delay(d),s/veh	56.2	19.6	19.8	34.1	48.9	50.3	79.9	24.7	17.1	40.3	19.1	19.8
LnGrp LOS	E	B	B	C	D	D	E	C	B	D	B	B
Approach Vol, veh/h		632			818			915			295	
Approach Delay, s/veh		33.1			48.5			33.3			22.4	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	23.0	10.0	24.0	10.0	21.0	14.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	6.0	20.0	6.0	17.0	10.0	16.0
Max Q Clear Time (g_c+I1), s	3.6	14.0	4.1	8.0	7.4	4.6	10.5	16.1
Green Ext Time (p_c), s	0.0	0.9	0.0	1.2	0.0	1.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	367	393	17	70	541	254	45	476	39	95	267	284
Future Volume (veh/h)	367	393	17	70	541	254	45	476	39	95	267	284
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	367	393	17	70	541	254	45	476	39	95	267	284
Adj No. of Lanes	2	2	1	2	2	0	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	450	1157	518	225	613	287	225	867	71	225	926	414
Arrive On Green	0.13	0.33	0.33	0.07	0.27	0.27	0.07	0.27	0.27	0.07	0.27	0.27
Sat Flow, veh/h	3375	3471	1553	3375	2297	1076	3375	3250	265	3375	3471	1553
Grp Volume(v), veh/h	367	393	17	70	408	387	45	254	261	95	267	284
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1688	1736	1637	1688	1736	1780	1688	1736	1553
Q Serve(g_s), s	6.3	5.1	0.4	1.2	13.5	13.6	0.8	7.5	7.6	1.6	3.7	9.8
Cycle Q Clear(g_c), s	6.3	5.1	0.4	1.2	13.5	13.6	0.8	7.5	7.6	1.6	3.7	9.8
Prop In Lane	1.00		1.00	1.00		0.66	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	450	1157	518	225	463	437	225	463	475	225	926	414
V/C Ratio(X)	0.82	0.34	0.03	0.31	0.88	0.89	0.20	0.55	0.55	0.42	0.29	0.69
Avail Cap(c_a), veh/h	450	1157	518	225	463	437	225	463	475	225	926	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	15.0	13.5	26.7	21.1	21.1	26.5	18.9	18.9	26.9	17.5	19.7
Incr Delay (d2), s/veh	15.0	0.8	0.1	3.6	20.9	22.3	2.0	4.6	4.5	5.7	0.8	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	2.5	0.2	0.7	9.2	8.8	0.4	4.2	4.3	0.9	1.8	5.2
LnGrp Delay(d),s/veh	40.3	15.8	13.6	30.3	42.0	43.4	28.5	23.5	23.5	32.6	18.3	28.7
LnGrp LOS	D	B	B	C	D	D	C	C	C	C	B	C
Approach Vol, veh/h		777			865			560			646	
Approach Delay, s/veh		27.3			41.7			23.9			24.9	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	20.0	8.0	24.0	8.0	20.0	12.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	4.0	20.0	4.0	16.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	3.6	9.6	3.2	7.1	2.8	11.8	8.3	15.6
Green Ext Time (p_c), s	0.0	0.8	0.0	1.4	0.0	0.7	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	30.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	1	110	3	1	20	941	37	0	488	0
Future Volume (veh/h)	0	1	1	110	3	1	20	941	37	0	488	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	0	1	1	110	3	1	20	941	37	0	488	0
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	0	134	134	291	219	73	29	890	757	12	872	0
Arrive On Green	0.00	0.17	0.17	0.17	0.17	0.17	0.02	0.50	0.50	0.00	0.49	0.00
Sat Flow, veh/h	0	808	808	1757	1325	442	1707	1792	1524	1707	1792	0
Grp Volume(v), veh/h	0	0	2	110	0	4	20	941	37	0	488	0
Grp Sat Flow(s),veh/h/ln	0	0	1617	1757	0	1767	1707	1792	1524	1707	1792	0
Q Serve(g_s), s	0.0	0.0	0.1	5.4	0.0	0.2	1.1	48.0	1.2	0.0	18.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.1	5.4	0.0	0.2	1.1	48.0	1.2	0.0	18.6	0.0
Prop In Lane	0.00		0.50	1.00		0.25	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	268	291	0	292	29	890	757	12	872	0
V/C Ratio(X)	0.00	0.00	0.01	0.38	0.00	0.01	0.68	1.06	0.05	0.00	0.56	0.00
Avail Cap(c_a), veh/h	0	0	268	291	0	292	88	890	757	71	872	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	33.7	35.9	0.0	33.7	47.2	24.3	12.6	0.0	17.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	3.7	0.0	0.1	9.8	46.5	0.1	0.0	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.9	0.0	0.1	0.6	35.0	0.5	0.0	9.7	0.0
LnGrp Delay(d),s/veh	0.0	0.0	33.8	39.6	0.0	33.8	57.1	70.8	12.7	0.0	20.1	0.0
LnGrp LOS			C	D		C	E	F	B		C	
Approach Vol, veh/h		2			114			998			488	
Approach Delay, s/veh		33.7			39.4			68.4			20.1	
Approach LOS		C			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	52.0		20.0	5.7	51.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	48.0		16.0	5.0	47.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	50.0		2.1	3.1	20.6		7.4
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.5		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	51.6	
HCM 2010 LOS	D	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	250	1	404	3	727	122	186	527	0
Future Volume (veh/h)	2	2	2	250	1	404	3	727	122	186	527	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	2	2	2	250	1	404	3	727	122	186	527	0
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	59	113	113	264	1	391	59	732	123	190	1015	0
Arrive On Green	0.03	0.13	0.13	0.15	0.25	0.25	0.03	0.47	0.47	0.11	0.55	0.00
Sat Flow, veh/h	1757	848	848	1757	4	1565	1757	1541	259	1757	1845	0
Grp Volume(v), veh/h	2	0	4	250	0	405	3	0	849	186	527	0
Grp Sat Flow(s),veh/h/ln	1757	0	1695	1757	0	1569	1757	0	1799	1757	1845	0
Q Serve(g_s), s	0.1	0.0	0.2	16.9	0.0	30.0	0.2	0.0	56.3	12.7	21.6	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.2	16.9	0.0	30.0	0.2	0.0	56.3	12.7	21.6	0.0
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	59	0	226	264	0	392	59	0	855	190	1015	0
V/C Ratio(X)	0.03	0.00	0.02	0.95	0.00	1.03	0.05	0.00	0.99	0.98	0.52	0.00
Avail Cap(c_a), veh/h	59	0	226	264	0	392	59	0	855	190	1015	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.1	0.0	45.2	50.5	0.0	45.0	56.2	0.0	31.3	53.4	17.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.1	43.7	0.0	54.2	1.7	0.0	29.3	59.6	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	11.4	0.0	18.9	0.1	0.0	34.8	9.3	11.5	0.0
LnGrp Delay(d),s/veh	57.2	0.0	45.3	94.2	0.0	99.2	57.8	0.0	60.6	112.9	18.9	0.0
LnGrp LOS	E		D	F		F	E		E	F	B	
Approach Vol, veh/h		6			655			852			713	
Approach Delay, s/veh		49.3			97.3			60.6			43.4	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	61.0	22.0	20.0	8.0	70.0	8.0	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	57.0	18.0	16.0	4.0	66.0	4.0	30.0
Max Q Clear Time (g_c+I1), s	14.7	58.3	18.9	2.2	2.2	23.6	2.1	32.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	1.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	65.9
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	6	4	1	5	7	3	378	1	0	480	286
Future Volume (veh/h)	290	6	4	1	5	7	3	378	1	0	480	286
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	290	6	4	1	5	7	3	378	1	0	480	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	368	8	334	28	138	193	94	760	2	2	566	481
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.05	0.41	0.41	0.00	0.31	0.00
Sat Flow, veh/h	1723	36	1568	129	646	904	1757	1839	5	1757	1845	1568
Grp Volume(v), veh/h	296	0	4	13	0	0	3	0	379	0	480	0
Grp Sat Flow(s),veh/h/ln	1759	0	1568	1679	0	0	1757	0	1844	1757	1845	1568
Q Serve(g_s), s	11.9	0.0	0.2	0.5	0.0	0.0	0.1	0.0	11.4	0.0	18.3	0.0
Cycle Q Clear(g_c), s	11.9	0.0	0.2	0.5	0.0	0.0	0.1	0.0	11.4	0.0	18.3	0.0
Prop In Lane	0.98		1.00	0.08		0.54	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	375	0	334	358	0	0	94	0	762	2	566	481
V/C Ratio(X)	0.79	0.00	0.01	0.04	0.00	0.00	0.03	0.00	0.50	0.00	0.85	0.00
Avail Cap(c_a), veh/h	375	0	334	358	0	0	94	0	762	94	566	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	27.9	0.0	23.3	23.4	0.0	0.0	33.7	0.0	16.2	0.0	24.4	0.0
Incr Delay (d2), s/veh	15.4	0.0	0.1	0.2	0.0	0.0	0.6	0.0	2.3	0.0	14.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.0	0.1	0.2	0.0	0.0	0.1	0.0	6.3	0.0	11.5	0.0
LnGrp Delay(d),s/veh	43.3	0.0	23.3	23.6	0.0	0.0	34.3	0.0	18.6	0.0	39.0	0.0
LnGrp LOS	D		C	C			C		B		D	
Approach Vol, veh/h		300			13			382			480	
Approach Delay, s/veh		43.1			23.6			18.7			39.0	
Approach LOS		D			C			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	35.0		20.0	8.0	27.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	23.0		16.0	4.0	23.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	13.4		13.9	2.1	20.3		2.5
Green Ext Time (p_c), s	0.0	0.8		0.1	0.0	0.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.3
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	97	10	68	72	17	44	311	144	7	46	17
Future Vol, veh/h	32	97	10	68	72	17	44	311	144	7	46	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	97	10	68	72	17	44	311	144	7	46	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	10.6	16.7	9.1
HCM LOS	B	B	C	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	23%	43%	10%
Vol Thru, %	62%	70%	46%	66%
Vol Right, %	29%	7%	11%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	499	139	157	70
LT Vol	44	32	68	7
Through Vol	311	97	72	46
RT Vol	144	10	17	17
Lane Flow Rate	499	139	157	70
Geometry Grp	1	1	1	1
Degree of Util (X)	0.663	0.219	0.247	0.105
Departure Headway (Hd)	4.785	5.676	5.662	5.382
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	758	632	634	665
Service Time	2.785	3.717	3.701	3.421
HCM Lane V/C Ratio	0.658	0.22	0.248	0.105
HCM Control Delay	16.7	10.3	10.6	9.1
HCM Lane LOS	C	B	B	A
HCM 95th-tile Q	5.1	0.8	1	0.4

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	147	3	5	250	140	18	335	21	29	87	12
Future Vol, veh/h	27	147	3	5	250	140	18	335	21	29	87	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	27	147	3	5	250	140	18	335	21	29	87	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.2	17.4	18	11.4
HCM LOS	B	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	15%	1%	23%
Vol Thru, %	90%	83%	63%	68%
Vol Right, %	6%	2%	35%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	374	177	395	128
LT Vol	18	27	5	29
Through Vol	335	147	250	87
RT Vol	21	3	140	12
Lane Flow Rate	374	177	395	128
Geometry Grp	1	1	1	1
Degree of Util (X)	0.617	0.311	0.614	0.23
Departure Headway (Hd)	5.935	6.324	5.716	6.472
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	613	568	636	556
Service Time	3.935	4.357	3.716	4.498
HCM Lane V/C Ratio	0.61	0.312	0.621	0.23
HCM Control Delay	18	12.2	17.4	11.4
HCM Lane LOS	C	B	C	B
HCM 95th-tile Q	4.2	1.3	4.2	0.9

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	285	188	5	1	211	76	10	3	2	17	4	72
Future Vol, veh/h	285	188	5	1	211	76	10	3	2	17	4	72
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	3	3	3	3	3	3
Mvmt Flow	285	188	5	1	211	76	10	3	2	17	4	72
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.2	10.4	9.1	9.2
HCM LOS	C	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	60%	0%	18%
Vol Thru, %	20%	39%	73%	4%
Vol Right, %	13%	1%	26%	77%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	478	288	93
LT Vol	10	285	1	17
Through Vol	3	188	211	4
RT Vol	2	5	76	72
Lane Flow Rate	15	478	288	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.622	0.37	0.136
Departure Headway (Hd)	5.897	4.681	4.63	5.261
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	601	770	772	676
Service Time	3.994	2.731	2.686	3.339
HCM Lane V/C Ratio	0.025	0.621	0.373	0.138
HCM Control Delay	9.1	15.2	10.4	9.2
HCM Lane LOS	A	C	B	A
HCM 95th-tile Q	0.1	4.4	1.7	0.5

Intersection	
Intersection Delay, s/veh	24.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	63	105	6	38	81	11	20	507	113	3	69	15
Future Vol, veh/h	63	105	6	38	81	11	20	507	113	3	69	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	6	6	6	8	8	8	3	3	3	3	3	3
Mvmt Flow	63	105	6	38	81	11	20	507	113	3	69	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12	11.3	33.3	9.8
HCM LOS	B	B	D	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	36%	29%	3%
Vol Thru, %	79%	60%	62%	79%
Vol Right, %	18%	3%	8%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	640	174	130	87
LT Vol	20	63	38	3
Through Vol	507	105	81	69
RT Vol	113	6	11	15
Lane Flow Rate	640	174	130	87
Geometry Grp	1	1	1	1
Degree of Util (X)	0.882	0.301	0.228	0.14
Departure Headway (Hd)	4.963	6.234	6.321	5.778
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	730	574	566	618
Service Time	2.998	4.293	4.385	3.839
HCM Lane V/C Ratio	0.877	0.303	0.23	0.141
HCM Control Delay	33.3	12	11.3	9.8
HCM Lane LOS	D	B	B	A
HCM 95th-tile Q	11	1.3	0.9	0.5

Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	223	2	11	8	1	1	25	459	2	0	62	41
Future Vol, veh/h	223	2	11	8	1	1	25	459	2	0	62	41
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	223	2	11	8	1	1	25	459	2	0	62	41
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.8	9.1	16.2	9
HCM LOS	B	A	C	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	94%	80%	0%
Vol Thru, %	94%	1%	10%	60%
Vol Right, %	0%	5%	10%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	486	236	10	103
LT Vol	25	223	8	0
Through Vol	459	2	1	62
RT Vol	2	11	1	41
Lane Flow Rate	486	236	10	103
Geometry Grp	1	1	1	1
Degree of Util (X)	0.644	0.362	0.017	0.146
Departure Headway (Hd)	4.772	5.62	5.991	5.095
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	748	644	601	708
Service Time	2.844	3.62	3.996	3.095
HCM Lane V/C Ratio	0.65	0.366	0.017	0.145
HCM Control Delay	16.2	11.8	9.1	9
HCM Lane LOS	C	B	A	A
HCM 95th-tile Q	4.7	1.6	0.1	0.5

Intersection	
Intersection Delay, s/veh	39.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	99	0	235	0	297	440	48	40	0
Future Vol, veh/h	0	0	0	99	0	235	0	297	440	48	40	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	99	0	235	0	297	440	48	40	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	0	14.8	53.9	10.1
HCM LOS	-	B	F	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	30%	100%	0%
Vol Thru, %	40%	100%	0%	0%	100%
Vol Right, %	60%	0%	70%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	737	0	334	48	40
LT Vol	0	0	99	48	0
Through Vol	297	0	0	0	40
RT Vol	440	0	235	0	0
Lane Flow Rate	737	0	334	48	40
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.996	0	0.525	0.093	0.072
Departure Headway (Hd)	4.863	6.792	5.659	6.958	6.448
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	744	0	635	514	554
Service Time	2.899	4.877	3.71	4.721	4.211
HCM Lane V/C Ratio	0.991	0	0.526	0.093	0.072
HCM Control Delay	53.9	9.9	14.8	10.4	9.7
HCM Lane LOS	F	N	B	B	A
HCM 95th-tile Q	16.4	0	3.1	0.3	0.2

Intersection	
Intersection Delay, s/veh	15.5
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	161	21	82	424	217	61
Future Vol, veh/h	161	21	82	424	217	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	8	8	6	6	5	5
Mvmt Flow	161	21	82	424	217	61
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	11.8	19.1	11.4
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	16%	88%	0%
Vol Thru, %	84%	0%	78%
Vol Right, %	0%	12%	22%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	506	182	278
LT Vol	82	161	0
Through Vol	424	0	217
RT Vol	0	21	61
Lane Flow Rate	506	182	278
Geometry Grp	1	1	1
Degree of Util (X)	0.706	0.307	0.394
Departure Headway (Hd)	5.021	6.07	5.108
Convergence, Y/N	Yes	Yes	Yes
Cap	724	592	706
Service Time	3.021	4.106	3.138
HCM Lane V/C Ratio	0.699	0.307	0.394
HCM Control Delay	19.1	11.8	11.4
HCM Lane LOS	C	B	B
HCM 95th-tile Q	5.9	1.3	1.9

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	0	6	0	81	0	409	31	16	220	0
Future Vol, veh/h	0	1	0	6	0	81	0	409	31	16	220	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	20	20	20	5	5	5	6	6	6
Mvmt Flow	0	1	0	6	0	81	0	409	31	16	220	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	9	12.6	9.9
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	7%	7%
Vol Thru, %	93%	100%	0%	93%
Vol Right, %	7%	0%	93%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	440	1	87	236
LT Vol	0	0	6	16
Through Vol	409	1	0	220
RT Vol	31	0	81	0
Lane Flow Rate	440	1	87	236
Geometry Grp	1	1	1	1
Degree of Util (X)	0.542	0.002	0.125	0.309
Departure Headway (Hd)	4.434	5.605	5.192	4.708
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	814	634	687	762
Service Time	2.466	3.675	3.247	2.747
HCM Lane V/C Ratio	0.541	0.002	0.127	0.31
HCM Control Delay	12.6	8.7	9	9.9
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	3.3	0	0.4	1.3

Intersection	
Intersection Delay, s/veh	16.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	142	210	42	9	151	23	64	296	22	10	67	28
Future Vol, veh/h	142	210	42	9	151	23	64	296	22	10	67	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	3	3	3
Mvmt Flow	142	210	42	9	151	23	64	296	22	10	67	28
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	18.6	12.1	18.3	10.9
HCM LOS	C	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	36%	5%	10%
Vol Thru, %	77%	53%	83%	64%
Vol Right, %	6%	11%	13%	27%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	382	394	183	105
LT Vol	64	142	9	10
Through Vol	296	210	151	67
RT Vol	22	42	23	28
Lane Flow Rate	382	394	183	105
Geometry Grp	1	1	1	1
Degree of Util (X)	0.622	0.635	0.316	0.187
Departure Headway (Hd)	5.866	5.8	6.225	6.418
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	611	619	580	562
Service Time	3.963	3.893	4.232	4.429
HCM Lane V/C Ratio	0.625	0.637	0.316	0.187
HCM Control Delay	18.3	18.6	12.1	10.9
HCM Lane LOS	C	C	B	B
HCM 95th-tile Q	4.3	4.5	1.3	0.7

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	62	148	776	50	74	320
Future Vol, veh/h	62	148	776	50	74	320
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	62	148	776	50	74	320

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1109	413	0	0	826	0
Stage 1	801	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	201	583	-	-	794	-
Stage 1	397	-	-	-	-	-
Stage 2	713	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	182	583	-	-	794	-
Mov Cap-2 Maneuver	300	-	-	-	-	-
Stage 1	397	-	-	-	-	-
Stage 2	647	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	1.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	300	583	794	-
HCM Lane V/C Ratio	-	-	0.207	0.254	0.093	-
HCM Control Delay (s)	-	-	20.1	13.3	10	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	1	0.3	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	952	0	0	409
Future Vol, veh/h	0	0	952	0	0	409
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	0	0	952	0	0	409

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1361	952	0	0	952	0
Stage 1	952	-	-	-	-	-
Stage 2	409	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	163	313	-	-	714	-
Stage 1	373	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	163	313	-	-	714	-
Mov Cap-2 Maneuver	163	-	-	-	-	-
Stage 1	373	-	-	-	-	-
Stage 2	668	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	714	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	418	844	34	10	93
Future Vol, veh/h	27	418	844	34	10	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	190	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	3	3
Mvmt Flow	27	418	844	34	10	93

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	878	0	-	0	1333	861
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	472	-
Critical Hdwy	4.16	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.254	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	753	-	-	-	169	354
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	626	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	753	-	-	-	163	354
Mov Cap-2 Maneuver	-	-	-	-	163	-
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	604	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	21.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	753	-	-	-	318
HCM Lane V/C Ratio	0.036	-	-	-	0.324
HCM Control Delay (s)	10	-	-	-	21.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	1	0	3	1	6	0	365	1	1	89	1
Future Vol, veh/h	3	1	0	3	1	6	0	365	1	1	89	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	3	1	0	3	1	6	0	365	1	1	89	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	461	458	90	458	458	366	90	0	0	366	0	0
Stage 1	92	92	-	366	366	-	-	-	-	-	-	-
Stage 2	369	366	-	92	92	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	509	498	965	511	498	677	1499	-	-	1187	-	-
Stage 1	913	817	-	651	621	-	-	-	-	-	-	-
Stage 2	649	621	-	913	817	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	503	498	965	510	498	677	1499	-	-	1187	-	-
Mov Cap-2 Maneuver	503	498	-	510	498	-	-	-	-	-	-	-
Stage 1	913	816	-	651	621	-	-	-	-	-	-	-
Stage 2	642	621	-	911	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	11.1	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1499	-	-	502	597	1187	-	-
HCM Lane V/C Ratio	-	-	-	0.008	0.017	0.001	-	-
HCM Control Delay (s)	0	-	-	12.2	11.1	8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	401	2	58	616	3	3	0	119	2	0	5
Future Vol, veh/h	11	401	2	58	616	3	3	0	119	2	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	90	200	-	-	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	6	6	3	3	3	3	3	3
Mvmt Flow	11	401	2	58	616	3	3	0	119	2	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	619	0	0	401	0	0	1159	1158	401	1157	1157	618
Stage 1	-	-	-	-	-	-	423	423	-	734	734	-
Stage 2	-	-	-	-	-	-	736	735	-	423	423	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	942	-	-	1136	-	-	172	195	647	173	195	487
Stage 1	-	-	-	-	-	-	607	586	-	410	424	-
Stage 2	-	-	-	-	-	-	409	424	-	607	586	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	942	-	-	1136	-	-	162	183	647	134	183	487
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	183	-	134	183	-
Stage 1	-	-	-	-	-	-	600	579	-	405	402	-
Stage 2	-	-	-	-	-	-	384	402	-	490	579	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	12.2	18.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	162	647	942	-	-	1136	-	-	278
HCM Lane V/C Ratio	0.019	0.184	0.012	-	-	0.051	-	-	0.025
HCM Control Delay (s)	27.6	11.8	8.9	-	-	8.3	-	-	18.3
HCM Lane LOS	D	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.7	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	118	1	0	2	3	54
Future Vol, veh/h	118	1	0	2	3	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	118	1	0	2	3	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	32	30	57	0	-	0
Stage 1	30	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	979	1042	1541	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	979	1042	1541	-	-	-
Mov Cap-2 Maneuver	979	-	-	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	1019	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1541	-	979	-	-
HCM Lane V/C Ratio	-	-	0.122	-	-
HCM Control Delay (s)	0	-	9.2	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	134	6	1	464	0	4	0	1	0	0	5
Future Vol, veh/h	1	134	6	1	464	0	4	0	1	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	1	134	6	1	464	0	4	0	1	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	464	0	0	140	0	0	608	605	137	606	608	464
Stage 1	-	-	-	-	-	-	139	139	-	466	466	-
Stage 2	-	-	-	-	-	-	469	466	-	140	142	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1092	-	-	1437	-	-	406	411	909	408	409	596
Stage 1	-	-	-	-	-	-	862	780	-	575	561	-
Stage 2	-	-	-	-	-	-	573	561	-	861	777	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1092	-	-	1437	-	-	402	410	909	407	408	596
Mov Cap-2 Maneuver	-	-	-	-	-	-	402	410	-	407	408	-
Stage 1	-	-	-	-	-	-	861	779	-	574	560	-
Stage 2	-	-	-	-	-	-	568	560	-	859	776	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	13.1	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	452	1092	-	-	1437	-	-	596
HCM Lane V/C Ratio	0.011	0.001	-	-	0.001	-	-	0.008
HCM Control Delay (s)	13.1	8.3	0	-	7.5	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	133	0	0	0	0	77
Future Vol, veh/h	133	0	0	0	0	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	133	0	0	0	0	77

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	39	39	77	0	-	0
Stage 1	39	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	970	1030	1515	-	-	-
Stage 1	981	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	970	1030	1515	-	-	-
Mov Cap-2 Maneuver	970	-	-	-	-	-
Stage 1	981	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1515	-	970	-	-
HCM Lane V/C Ratio	-	-	0.137	-	-
HCM Control Delay (s)	0	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	639	26	243	621	10	347
Future Vol, veh/h	639	26	243	621	10	347
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	250	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	639	26	243	621	10	347

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	639	0	1746	639
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	1107	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	940	-	94	474
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	315	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	940	-	70	474
Mov Cap-2 Maneuver	-	-	-	-	70	-
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	234	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	31.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	70	474	-	-	940	-
HCM Lane V/C Ratio	0.143	0.732	-	-	0.259	-
HCM Control Delay (s)	64.8	30.6	-	-	10.2	-
HCM Lane LOS	F	D	-	-	B	-
HCM 95th %tile Q(veh)	0.5	6	-	-	1	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	450	0	0	117
Future Vol, veh/h	0	0	450	0	0	117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	450	0	0	117

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	567	450	0	0	450	0
Stage 1	450	-	-	-	-	-
Stage 2	117	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	483	607	-	-	1105	-
Stage 1	640	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	483	607	-	-	1105	-
Mov Cap-2 Maneuver	483	-	-	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	906	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1105	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	109	7	66	512	82	85
Future Vol, veh/h	109	7	66	512	82	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	109	7	66	512	82	85

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	726	82	82	0	-	0
Stage 1	82	-	-	-	-	-
Stage 2	644	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	390	975	1509	-	-	0
Stage 1	939	-	-	-	-	0
Stage 2	521	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	366	975	1509	-	-	-
Mov Cap-2 Maneuver	366	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	489	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.6	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	1509	-	380	-
HCM Lane V/C Ratio	0.044	-	0.305	-
HCM Control Delay (s)	7.5	0	18.6	-
HCM Lane LOS	A	A	C	-
HCM 95th %tile Q(veh)	0.1	-	1.3	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	272	1	9	591	0	10	57	19	0	2	7
Future Vol, veh/h	19	272	1	9	591	0	10	57	19	0	2	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	6	6	8	8	8	8	8	8
Mvmt Flow	19	272	1	9	591	0	10	57	19	0	2	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	591	0	0	273	0	0	925	920	273	958	920	591
Stage 1	-	-	-	-	-	-	311	311	-	609	609	-
Stage 2	-	-	-	-	-	-	614	609	-	349	311	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	965	-	-	1267	-	-	243	265	752	231	265	496
Stage 1	-	-	-	-	-	-	687	648	-	472	476	-
Stage 2	-	-	-	-	-	-	469	476	-	655	648	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	965	-	-	1267	-	-	233	258	752	183	258	496
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	258	-	183	258	-
Stage 1	-	-	-	-	-	-	673	635	-	463	473	-
Stage 2	-	-	-	-	-	-	457	473	-	570	635	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	22	13.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	297	965	-	-	1267	-	-	412
HCM Lane V/C Ratio	0.29	0.02	-	-	0.007	-	-	0.022
HCM Control Delay (s)	22	8.8	-	-	7.9	-	-	13.9
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	72	135	0	0	142	7	5	10	0	0	3	9
Future Vol, veh/h	72	135	0	0	142	7	5	10	0	0	3	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	72	135	0	0	142	7	5	10	0	0	3	9

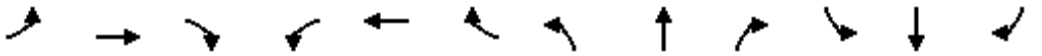
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	149	0	0	135	0	0	431	428	135	430	425	146
Stage 1	-	-	-	-	-	-	279	279	-	146	146	-
Stage 2	-	-	-	-	-	-	152	149	-	284	279	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1396	-	-	1401	-	-	524	510	898	525	512	885
Stage 1	-	-	-	-	-	-	715	669	-	843	765	-
Stage 2	-	-	-	-	-	-	836	763	-	710	669	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1396	-	-	1401	-	-	494	481	898	495	483	885
Mov Cap-2 Maneuver	-	-	-	-	-	-	494	481	-	495	483	-
Stage 1	-	-	-	-	-	-	675	632	-	796	765	-
Stage 2	-	-	-	-	-	-	824	763	-	660	632	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0	12.7	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	485	1396	-	-	1401	-	-	733
HCM Lane V/C Ratio	0.031	0.052	-	-	-	-	-	0.016
HCM Control Delay (s)	12.7	7.7	0	-	0	-	-	10
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.1

Existing No Project

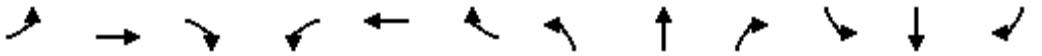
PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	729	0	688	0	0	0	0	1581	509	0	1679	789
Future Volume (vph)	729	0	688	0	0	0	0	1581	509	0	1679	789
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	729	0	688	0	0	0	0	1581	509	0	1679	789
RTOR Reduction (vph)	0	0	4	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	729	0	684	0	0	0	0	1581	509	0	1679	789
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	61.0		61.0					51.0	120.0		51.0	120.0
Effective Green, g (s)	61.0		61.0					51.0	120.0		51.0	120.0
Actuated g/C Ratio	0.51		0.51					0.42	1.00		0.42	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Lane Grp Cap (vph)	1711		1389					2119	1553		2119	1553
v/s Ratio Prot								0.32			c0.34	
v/s Ratio Perm	0.22		0.25						0.33			c0.51
v/c Ratio	0.43		0.49					0.75	0.33		0.79	0.51
Uniform Delay, d1	18.5		19.3					29.0	0.0		29.9	0.0
Progression Factor	1.00		1.00					0.67	1.00		1.15	1.00
Incremental Delay, d2	0.8		1.2					1.6	0.4		1.7	0.6
Delay (s)	19.3		20.6					20.9	0.4		36.1	0.6
Level of Service	B		C					C	A		D	A
Approach Delay (s)		19.9			0.0			15.9			24.8	
Approach LOS		B			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

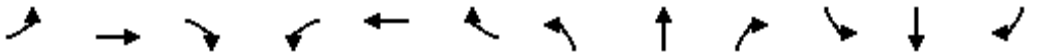
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	245	631	147	284	473	765	228	1078	165	889	1443	150
Future Volume (vph)	245	631	147	284	473	765	228	1078	165	889	1443	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3373		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3373		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	245	631	147	284	473	765	228	1078	165	889	1443	150
RTOR Reduction (vph)	0	17	0	0	0	561	0	0	95	0	0	82
Lane Group Flow (vph)	245	761	0	284	473	204	228	1078	70	889	1443	68
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	7.0	25.0		14.0	32.0	32.0	16.0	35.0	35.0	30.0	49.0	49.0
Effective Green, g (s)	7.0	25.0		14.0	32.0	32.0	16.0	35.0	35.0	30.0	49.0	49.0
Actuated g/C Ratio	0.06	0.21		0.12	0.27	0.27	0.13	0.29	0.29	0.25	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	196	702		392	925	728	448	1454	452	841	2036	634
v/s Ratio Prot	0.07	c0.23		c0.08	0.14		0.07	c0.22		c0.26	0.29	
v/s Ratio Perm						0.07			0.05			0.04
v/c Ratio	1.25	1.08		0.72	0.51	0.28	0.51	0.74	0.16	1.06	0.71	0.11
Uniform Delay, d1	56.5	47.5		51.1	37.4	34.9	48.3	38.4	31.5	45.0	29.6	22.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.78	0.79	0.64	0.86	0.80	0.67
Incremental Delay, d2	147.5	59.2		11.1	2.0	1.0	4.0	3.4	0.7	43.0	1.6	0.3
Delay (s)	204.0	106.7		62.2	39.4	35.8	41.7	33.8	21.0	81.7	25.2	15.1
Level of Service	F	F		E	D	D	D	C	C	F	C	B
Approach Delay (s)		130.0			41.9			33.6			44.8	
Approach LOS		F			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

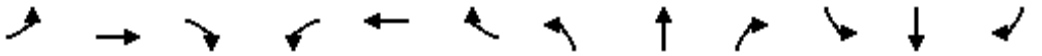
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	788	696	12	920	19	309	2	3	14	11	89
Future Volume (vph)	125	788	696	12	920	19	309	2	3	14	11	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1623	1524		1794	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1623	1524		1794	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	125	788	696	12	920	19	309	2	3	14	11	89
RTOR Reduction (vph)	0	0	272	0	0	13	0	0	2	0	0	75
Lane Group Flow (vph)	125	788	424	12	920	6	154	157	1	0	25	14
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.0	39.0	64.0	4.0	32.0	32.0	25.0	25.0	25.0		16.0	16.0
Effective Green, g (s)	11.0	39.0	64.0	4.0	32.0	32.0	25.0	25.0	25.0		16.0	16.0
Actuated g/C Ratio	0.10	0.37	0.61	0.04	0.30	0.30	0.24	0.24	0.24		0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	181	1289	946	66	1057	473	385	386	362		273	238
v/s Ratio Prot	c0.07	0.23	c0.11	0.01	c0.27		0.10	0.10			c0.01	
v/s Ratio Perm			0.17			0.00			0.00			0.01
v/c Ratio	0.69	0.61	0.45	0.18	0.87	0.01	0.40	0.41	0.00		0.09	0.06
Uniform Delay, d1	45.4	26.8	11.0	48.9	34.5	25.5	33.7	33.7	30.5		38.3	38.0
Progression Factor	1.00	1.00	1.00	1.04	0.99	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	19.5	2.2	1.5	4.9	8.2	0.0	3.1	3.2	0.0		0.7	0.5
Delay (s)	64.8	29.0	12.6	55.9	42.6	25.5	36.8	36.9	30.5		38.9	38.5
Level of Service	E	C	B	E	D	C	D	D	C		D	D
Approach Delay (s)		24.7			42.4			36.8			38.6	
Approach LOS		C			D			D			D	

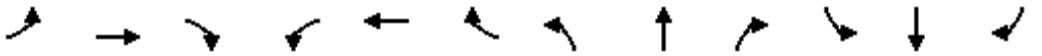
Intersection Summary			
HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	437	189	136	530	98	383	149	329	123	99	37
Future Volume (vph)	38	437	189	136	530	98	383	149	329	123	99	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.98	
Satd. Flow (prot)	1752	3505	1568	1752	3423		1665	1714	1568		3350	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.98	
Satd. Flow (perm)	1752	3505	1568	1752	3423		1665	1714	1568		3350	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	437	189	136	530	98	383	149	329	123	99	37
RTOR Reduction (vph)	0	0	160	0	14	0	0	0	222	0	13	0
Lane Group Flow (vph)	38	437	29	136	614	0	264	268	107	0	246	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	5.0	16.0	16.0	18.0	29.0		34.0	34.0	34.0		16.0	
Effective Green, g (s)	5.0	16.0	16.0	18.0	29.0		34.0	34.0	34.0		16.0	
Actuated g/C Ratio	0.05	0.15	0.15	0.17	0.28		0.32	0.32	0.32		0.15	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	83	534	238	300	945		539	555	507		510	
v/s Ratio Prot	0.02	c0.12		c0.08	c0.18		c0.16	0.16			c0.07	
v/s Ratio Perm			0.02						0.07			
v/c Ratio	0.46	0.82	0.12	0.45	0.65		0.49	0.48	0.21		0.48	
Uniform Delay, d1	48.7	43.1	38.4	39.1	33.5		28.5	28.5	25.8		40.7	
Progression Factor	0.79	1.49	5.58	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	13.9	10.8	0.8	4.9	3.5		3.2	3.0	0.9		3.3	
Delay (s)	52.4	74.9	215.3	44.0	37.0		31.7	31.4	26.7		44.0	
Level of Service	D	E	F	D	D		C	C	C		D	
Approach Delay (s)		113.5			38.2			29.7			44.0	
Approach LOS		F			D			C			D	

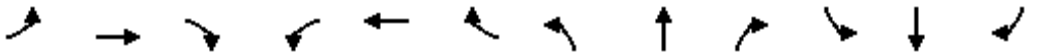
Intersection Summary			
HCM 2000 Control Delay	55.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	618	767	226	463	40	366	160	305	36	80	31
Future Volume (vph)	34	618	767	226	463	40	366	160	305	36	80	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3130		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3130		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	618	767	226	463	40	366	160	305	36	80	31
RTOR Reduction (vph)	0	0	366	0	0	19	0	190	0	0	0	27
Lane Group Flow (vph)	34	618	401	226	463	21	366	275	0	36	80	4
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	9.5	82.9	82.9	19.5	92.8	92.8	29.7	29.7		24.1	24.1	24.1
Effective Green, g (s)	9.5	82.9	82.9	19.5	92.8	92.8	29.7	29.7		24.1	24.1	24.1
Actuated g/C Ratio	0.05	0.46	0.46	0.11	0.52	0.52	0.16	0.16		0.13	0.13	0.13
Clearance Time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Grp Cap (vph)	92	1614	722	368	1807	808	555	516		234	469	209
v/s Ratio Prot	0.02	0.18		c0.07	0.13		c0.11	0.09		0.02	c0.02	
v/s Ratio Perm			c0.26			0.01						0.00
v/c Ratio	0.37	0.38	0.56	0.61	0.26	0.03	0.66	0.53		0.15	0.17	0.02
Uniform Delay, d1	82.4	31.8	35.2	76.7	24.3	21.4	70.4	68.8		68.9	69.1	67.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	11.0	0.7	3.1	7.5	0.3	0.1	6.0	3.9		1.4	0.8	0.2
Delay (s)	93.4	32.5	38.3	84.1	24.7	21.5	76.5	72.7		70.3	69.9	67.9
Level of Service	F	C	D	F	C	C	E	E		E	E	E
Approach Delay (s)		37.1			42.9			74.3			69.6	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	49.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	22.9
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		

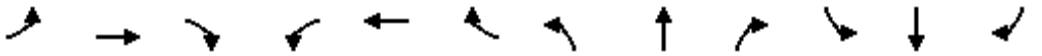
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	914	0	280	0	599	860	0	883	590
Future Volume (vph)	0	0	0	914	0	280	0	599	860	0	883	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.6		4.6		3.5	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3367		2733		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3367		2733		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	914	0	280	0	599	860	0	883	590
RTOR Reduction (vph)	0	0	0	0	0	190	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	914	0	90	0	599	860	0	883	590
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				4				6			2	
Permitted Phases						4			Free			Free
Actuated Green, G (s)				35.4		35.4		66.5	110.0		64.9	110.0
Effective Green, g (s)				35.4		35.4		66.5	110.0		64.9	110.0
Actuated g/C Ratio				0.32		0.32		0.60	1.00		0.59	1.00
Clearance Time (s)				4.6		4.6		3.5			5.1	
Lane Grp Cap (vph)				1083		879		3015	1553		2942	1553
v/s Ratio Prot				c0.27				0.12			0.18	
v/s Ratio Perm						0.03			c0.55			0.38
v/c Ratio				0.84		0.10		0.20	0.55		0.30	0.38
Uniform Delay, d1				34.7		26.2		9.8	0.0		11.2	0.0
Progression Factor				1.00		1.00		0.72	1.00		1.00	1.00
Incremental Delay, d2				8.1		0.2		0.1	1.4		0.3	0.7
Delay (s)				42.8		26.4		7.2	1.4		11.5	0.7
Level of Service				D		C		A	A		B	A
Approach Delay (s)		0.0			38.9			3.7			7.2	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.7
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

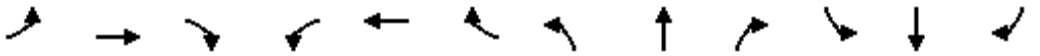
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	415	0	813	0	0	0	0	1043	801	0	1372	422
Future Volume (vph)	415	0	813	0	0	0	0	1043	801	0	1372	422
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	415	0	813	0	0	0	0	1043	801	0	1372	422
RTOR Reduction (vph)	0	0	60	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	415	0	753	0	0	0	0	1043	801	0	1372	422
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	33.6		33.6					64.9	110.0		65.4	110.0
Effective Green, g (s)	33.6		33.6					64.9	110.0		65.4	110.0
Actuated g/C Ratio	0.31		0.31					0.59	1.00		0.59	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Lane Grp Cap (vph)	1028		834					2942	1553		2965	1553
v/s Ratio Prot								0.21			0.28	
v/s Ratio Perm	0.12		c0.28						c0.52			0.27
v/c Ratio	0.40		0.90					0.35	0.52		0.46	0.27
Uniform Delay, d1	30.3		36.6					11.7	0.0		12.5	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.50	1.00
Incremental Delay, d2	1.2		14.9					0.3	1.2		0.4	0.4
Delay (s)	31.4		51.5					12.0	1.2		6.7	0.4
Level of Service	C		D					B	A		A	A
Approach Delay (s)		44.7			0.0			7.3			5.2	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		

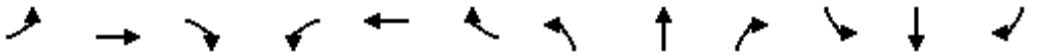
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	268	0	198	0	857	980	0	574	390
Future Volume (vph)	0	0	0	268	0	198	0	857	980	0	574	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.95	1.00		0.95	1.00
Frt				1.00	0.87			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.99			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1497			3471	1553		3471	1553
Flt Permitted				0.95	0.99			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1497			3471	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	268	0	198	0	857	980	0	574	390
RTOR Reduction (vph)	0	0	0	0	111	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	241	114	0	0	857	980	0	574	390
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA			NA	Free		NA	Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				35.1	35.1			65.2	110.0		65.2	110.0
Effective Green, g (s)				35.1	35.1			65.2	110.0		65.2	110.0
Actuated g/C Ratio				0.32	0.32			0.59	1.00		0.59	1.00
Clearance Time (s)				4.9	4.9			4.8			4.8	
Lane Grp Cap (vph)				526	477			2057	1553		2057	1553
v/s Ratio Prot								0.25			0.17	
v/s Ratio Perm				0.15	0.08				c0.63			0.25
v/c Ratio				0.46	0.24			0.42	0.63		0.28	0.25
Uniform Delay, d1				29.9	27.6			12.1	0.0		10.9	0.0
Progression Factor				1.00	1.00			0.73	1.00		1.00	1.00
Incremental Delay, d2				2.9	1.2			0.5	1.7		0.3	0.4
Delay (s)				32.7	28.8			9.3	1.7		11.3	0.4
Level of Service				C	C			A	A		B	A
Approach Delay (s)		0.0			30.8			5.3			6.9	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.7
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

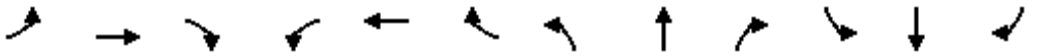
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	414	0	426	0	0	0	0	1424	852	0	608	235
Future Volume (vph)	414	0	426	0	0	0	0	1424	852	0	608	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.95	1.00
Frt	1.00	0.92	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	0.98	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1490	1475					4988	1553		3471	1553
Flt Permitted	0.95	0.98	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1490	1475					4988	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	414	0	426	0	0	0	0	1424	852	0	608	235
RTOR Reduction (vph)	0	42	183	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	290	240	85	0	0	0	0	1424	852	0	608	235
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm					NA	Free		NA	Free
Protected Phases		4						2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	34.9	34.9	34.9					65.1	110.0		65.2	110.0
Effective Green, g (s)	34.9	34.9	34.9					65.1	110.0		65.2	110.0
Actuated g/C Ratio	0.32	0.32	0.32					0.59	1.00		0.59	1.00
Clearance Time (s)	5.1	5.1	5.1					4.9			4.8	
Lane Grp Cap (vph)	523	472	467					2951	1553		2057	1553
v/s Ratio Prot								0.29			0.18	
v/s Ratio Perm	0.18	0.16	0.06						c0.55			0.15
v/c Ratio	0.55	0.51	0.18					0.48	0.55		0.30	0.15
Uniform Delay, d1	31.1	30.6	27.2					12.8	0.0		11.1	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.73	1.00
Incremental Delay, d2	4.2	3.9	0.9					0.6	1.4		0.4	0.2
Delay (s)	35.3	34.5	28.1					13.4	1.4		8.5	0.2
Level of Service	D	C	C					B	A		A	A
Approach Delay (s)		32.7			0.0			8.9			6.2	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

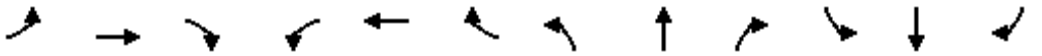
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	352	0	256	0	1429	1790	0	720	540
Future Volume (vph)	0	0	0	352	0	256	0	1429	1790	0	720	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		3505	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	352	0	256	0	1429	1790	0	720	540
RTOR Reduction (vph)	0	0	0	0	0	23	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	352	0	233	0	1429	1790	0	720	540
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				37.2		37.2		61.4	110.0		61.4	110.0
Effective Green, g (s)				37.2		37.2		61.4	110.0		61.4	110.0
Actuated g/C Ratio				0.34		0.34		0.56	1.00		0.56	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Lane Grp Cap (vph)				1149		530		2811	1568		1956	1568
v/s Ratio Prot								0.28			0.21	
v/s Ratio Perm				0.10		0.15			c1.14			0.34
v/c Ratio				0.31		0.44		0.51	1.14		0.37	0.34
Uniform Delay, d1				26.9		28.3		15.0	55.0		13.5	0.0
Progression Factor				1.00		1.00		0.97	1.00		1.00	1.00
Incremental Delay, d2				0.7		2.6		0.1	64.5		0.5	0.6
Delay (s)				27.6		31.0		14.5	119.5		14.0	0.6
Level of Service				C		C		B	F		B	A
Approach Delay (s)		0.0			29.0			72.9			8.3	
Approach LOS		A			C			E			A	

Intersection Summary			
HCM 2000 Control Delay	51.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		

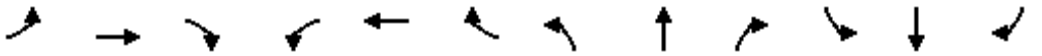
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	578	135	419	0	0	923	0	2340	8	0	942	128
Future Volume (vph)	578	135	419	0	0	923	0	2340	8	0	942	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		*0.75			0.95	1.00
Frt	1.00	0.96	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	0.98	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	2971	1427			2733		5531			3505	1568
Flt Permitted	0.95	0.98	1.00			1.00		1.00			1.00	1.00
Satd. Flow (perm)	1595	2971	1427			2733		5531			3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	578	135	419	0	0	923	0	2340	8	0	942	128
RTOR Reduction (vph)	0	29	171	0	0	35	0	1	0	0	0	33
Lane Group Flow (vph)	295	544	93	0	0	888	0	2347	0	0	942	95
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA			NA	Perm
Protected Phases	4	4				1		2			6	
Permitted Phases			4									6
Actuated Green, G (s)	20.0	20.0	20.0			33.0		45.0			82.0	82.0
Effective Green, g (s)	20.0	20.0	20.0			33.0		45.0			82.0	82.0
Actuated g/C Ratio	0.18	0.18	0.18			0.30		0.41			0.75	0.75
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Grp Cap (vph)	290	540	259			819		2262			2612	1168
v/s Ratio Prot	c0.18	0.18				c0.32		c0.42			0.27	
v/s Ratio Perm			0.07									0.06
v/c Ratio	1.02	1.01	0.36			1.08		1.04			0.36	0.08
Uniform Delay, d1	45.0	45.0	39.4			38.5		32.5			4.9	3.8
Progression Factor	1.00	1.00	1.00			1.00		1.00			0.77	1.17
Incremental Delay, d2	57.3	40.7	3.8			56.8		29.6			0.4	0.1
Delay (s)	102.3	85.7	43.2			95.3		62.1			4.1	4.6
Level of Service	F	F	D			F		E			A	A
Approach Delay (s)		80.2			95.3			62.1			4.2	
Approach LOS		F			F			E			A	

Intersection Summary			
HCM 2000 Control Delay	60.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.0%	ICU Level of Service	F
Analysis Period (min)	15		

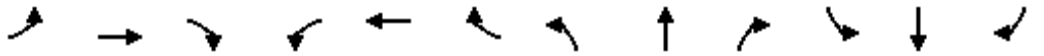
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	349	0	409	0	2985	520	0	1205	1078
Future Volume (vph)	0	0	0	349	0	409	0	2985	520	0	1205	1078
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	349	0	409	0	2985	520	0	1205	1078
RTOR Reduction (vph)	0	0	0	0	0	14	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	349	0	395	0	2985	520	0	1205	1078
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				36.5		36.5		65.2	110.0		64.9	110.0
Effective Green, g (s)				36.5		36.5		65.2	110.0		64.9	110.0
Actuated g/C Ratio				0.33		0.33		0.59	1.00		0.59	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Lane Grp Cap (vph)				1095		889		2956	1553		2942	1553
v/s Ratio Prot								c0.60			0.24	
v/s Ratio Perm				0.11		0.15			0.33			c0.69
v/c Ratio				0.32		0.44		1.01	0.33		0.41	0.69
Uniform Delay, d1				27.5		28.8		22.4	0.0		12.2	0.0
Progression Factor				1.00		1.00		0.58	1.00		1.00	1.00
Incremental Delay, d2				0.8		1.6		16.6	0.4		0.4	2.6
Delay (s)				28.2		30.4		29.6	0.4		12.6	2.6
Level of Service				C		C		C	A		B	A
Approach Delay (s)		0.0			29.4			25.3			7.9	
Approach LOS		A			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.6
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		

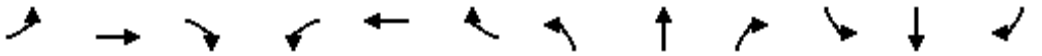
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1327	0	304	0	0	0	0	2177	394	0	1095	458
Future Volume (vph)	1327	0	304	0	0	0	0	2177	394	0	1095	458
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1327	0	304	0	0	0	0	2177	394	0	1095	458
RTOR Reduction (vph)	0	0	109	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1327	0	195	0	0	0	0	2177	394	0	1095	458
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	36.5		36.5					65.2	110.0		64.9	110.0
Effective Green, g (s)	36.5		36.5					65.2	110.0		64.9	110.0
Actuated g/C Ratio	0.33		0.33					0.59	1.00		0.59	1.00
Clearance Time (s)	3.5		3.5					4.8			5.1	
Lane Grp Cap (vph)	1623		906					3725	1553		2942	1553
v/s Ratio Prot								c0.35			0.22	
v/s Ratio Perm	c0.27		0.07						0.25			0.29
v/c Ratio	0.82		0.22					0.58	0.25		0.37	0.29
Uniform Delay, d1	33.7		26.4					14.0	0.0		11.8	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.75	1.00
Incremental Delay, d2	4.7		0.5					0.7	0.4		0.3	0.5
Delay (s)	38.4		27.0					14.6	0.4		9.3	0.5
Level of Service	D		C					B	A		A	A
Approach Delay (s)		36.3			0.0			12.5			6.7	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.6
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		

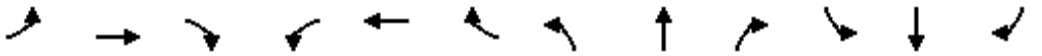
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	328	9	2	344	6	7	15	2	5	21	581
Future Volume (vph)	203	328	9	2	344	6	7	15	2	5	21	581
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1703	1792	1524	1719	1805			1798			1810	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (perm)	1703	1792	1524	1719	1805			1798			1810	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	203	328	9	2	344	6	7	15	2	5	21	581
RTOR Reduction (vph)	0	0	3	0	1	0	0	2	0	0	0	177
Lane Group Flow (vph)	203	328	6	2	349	0	0	22	0	0	26	404
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									4
Actuated Green, G (s)	66.5	121.1	121.1	3.5	59.0			7.9			22.8	89.3
Effective Green, g (s)	66.5	121.1	121.1	3.5	59.0			7.9			22.8	89.3
Actuated g/C Ratio	0.37	0.67	0.67	0.02	0.33			0.04			0.13	0.50
Clearance Time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Lane Grp Cap (vph)	629	1205	1025	33	591			78			229	770
v/s Ratio Prot	0.12	0.18		0.00	c0.19			c0.01			0.01	c0.19
v/s Ratio Perm			0.00									0.07
v/c Ratio	0.32	0.27	0.01	0.06	0.59			0.28			0.11	0.52
Uniform Delay, d1	40.6	11.8	9.7	86.6	50.4			83.3			69.6	30.9
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	1.4	0.6	0.0	3.5	4.3			8.9			1.0	2.5
Delay (s)	42.0	12.4	9.7	90.1	54.7			92.2			70.6	33.4
Level of Service	D	B	A	F	D			F			E	C
Approach Delay (s)		23.4			54.9			92.2			35.0	
Approach LOS		C			D			F			D	

Intersection Summary			
HCM 2000 Control Delay	36.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	24.7
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		

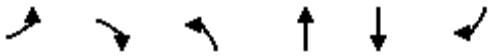
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	333	39	187	643	167	1915	0	0	1266	77
Future Volume (vph)	0	0	333	39	187	643	167	1915	0	0	1266	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1777	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1777	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	333	39	187	643	167	1915	0	0	1266	77
RTOR Reduction (vph)	0	0	210	0	0	46	0	0	0	0	0	35
Lane Group Flow (vph)	0	0	123	0	226	597	167	1915	0	0	1266	42
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			20.0		24.8	24.8	20.0	99.0			74.1	74.1
Effective Green, g (s)			20.0		24.8	24.8	20.0	99.0			74.1	74.1
Actuated g/C Ratio			0.15		0.18	0.18	0.15	0.73			0.55	0.55
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Grp Cap (vph)			236		326	492	489	3588			3384	836
v/s Ratio Prot			0.08		0.13		0.05	c0.39			0.21	
v/s Ratio Perm						c0.22						0.03
v/c Ratio			0.52		0.69	1.21	0.34	0.53			0.37	0.05
Uniform Delay, d1			53.1		51.5	55.1	51.6	7.9			17.3	14.1
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			8.1		11.5	113.9	1.9	0.6			0.3	0.1
Delay (s)			61.2		63.1	169.0	53.5	8.5			17.6	14.2
Level of Service			E		E	F	D	A			B	B
Approach Delay (s)		61.2			141.4			12.1			17.4	
Approach LOS		E			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	41.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		

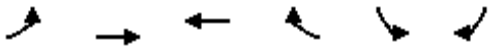
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1468	73	0	0	264	779
Future Volume (vph)	1468	73	0	0	264	779
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5			4.7	4.0
Lane Util. Factor	0.97	0.91			0.95	1.00
Frt	1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3310	1386			3406	1524
Flt Permitted	0.95	1.00			1.00	1.00
Satd. Flow (perm)	3310	1386			3406	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1468	73	0	0	264	779
RTOR Reduction (vph)	0	35	0	0	0	0
Lane Group Flow (vph)	1475	31	0	0	264	779
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%
Turn Type	Prot	Perm			NA	Free
Protected Phases	4				2	
Permitted Phases		4				Free
Actuated Green, G (s)	66.5	66.5			65.3	140.0
Effective Green, g (s)	66.5	66.5			65.3	140.0
Actuated g/C Ratio	0.48	0.48			0.47	1.00
Clearance Time (s)	3.5	3.5			4.7	
Lane Grp Cap (vph)	1572	658			1588	1524
v/s Ratio Prot	c0.45				0.08	
v/s Ratio Perm		0.02				c0.51
v/c Ratio	0.94	0.05			0.17	0.51
Uniform Delay, d1	34.8	19.7			21.6	0.0
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	12.1	0.1			0.2	1.2
Delay (s)	46.9	19.9			21.8	1.2
Level of Service	D	B			C	A
Approach Delay (s)	45.8			0.0	6.4	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

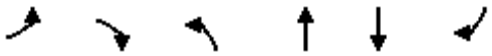
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	190	395	250	69	65	230
Future Volume (vph)	190	395	250	69	65	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3343	3343	1495	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3343	3343	1495	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	190	395	250	69	65	230
RTOR Reduction (vph)	0	0	0	51	0	157
Lane Group Flow (vph)	190	395	250	18	65	73
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	13.0	33.0	16.0	16.0	19.0	19.0
Effective Green, g (s)	13.0	33.0	16.0	16.0	19.0	19.0
Actuated g/C Ratio	0.22	0.55	0.27	0.27	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	362	1838	891	398	554	496
v/s Ratio Prot	c0.11	0.12	c0.07		0.04	
v/s Ratio Perm				0.01		c0.05
v/c Ratio	0.52	0.21	0.28	0.05	0.12	0.15
Uniform Delay, d1	20.8	6.9	17.4	16.3	14.5	14.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.4	0.3	0.8	0.2	0.4	0.6
Delay (s)	26.1	7.2	18.2	16.6	15.0	15.3
Level of Service	C	A	B	B	B	B
Approach Delay (s)		13.3	17.9		15.2	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	31.0%	ICU Level of Service	A
Analysis Period (min)	15		

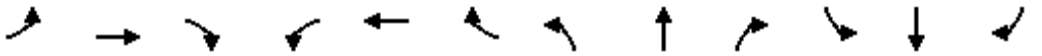
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	289	24	6	323	433	33
Future Volume (vph)	289	24	6	323	433	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3367	1553	1719	3438	3343	1495
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3367	1553	1719	3438	3343	1495
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	289	24	6	323	433	33
RTOR Reduction (vph)	0	22	0	0	0	22
Lane Group Flow (vph)	289	2	6	323	433	11
Heavy Vehicles (%)	4%	4%	5%	5%	8%	8%
Turn Type	Prot	Over	Prot	NA	NA	Over
Protected Phases	4	5	5	2	6	4
Permitted Phases						
Actuated Green, G (s)	16.0	4.0	4.0	26.0	18.0	16.0
Effective Green, g (s)	16.0	4.0	4.0	26.0	18.0	16.0
Actuated g/C Ratio	0.32	0.08	0.08	0.52	0.36	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	1077	124	137	1787	1203	478
v/s Ratio Prot	c0.09	0.00	0.00	c0.09	c0.13	0.01
v/s Ratio Perm						
v/c Ratio	0.27	0.02	0.04	0.18	0.36	0.02
Uniform Delay, d1	12.6	21.2	21.2	6.4	11.8	11.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.2	0.6	0.2	0.8	0.1
Delay (s)	13.3	21.4	21.8	6.6	12.6	11.7
Level of Service	B	C	C	A	B	B
Approach Delay (s)	13.9			6.9	12.5	
Approach LOS	B			A	B	

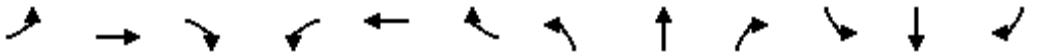
Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	26.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	943	0	691	0	0	0	0	2139	616	0	1888	1108
Future Volume (vph)	943	0	691	0	0	0	0	2139	616	0	1888	1108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.97	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4626	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4626	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	943	0	691	0	0	0	0	2139	616	0	1888	1108
RTOR Reduction (vph)	0	0	12	0	0	0	0	0	0	0	56	0
Lane Group Flow (vph)	943	0	679	0	0	0	0	2139	616	0	2264	676
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	20.0		20.0					32.0	60.0		32.0	60.0
Effective Green, g (s)	20.0		20.0					32.0	60.0		32.0	60.0
Actuated g/C Ratio	0.33		0.33					0.53	1.00		0.53	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Lane Grp Cap (vph)	1133		920					3384	1568		2467	1348
v/s Ratio Prot	c0.28							0.34			c0.49	
v/s Ratio Perm			0.25						0.39			0.50
v/c Ratio	0.83		0.74					0.63	0.39		0.92	0.50
Uniform Delay, d1	18.5		17.7					9.9	0.0		12.8	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	7.2		5.3					0.9	0.7		6.9	1.3
Delay (s)	25.7		23.0					10.8	0.7		19.7	1.3
Level of Service	C		C					B	A		B	A
Approach Delay (s)		24.5			0.0			8.5			15.5	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

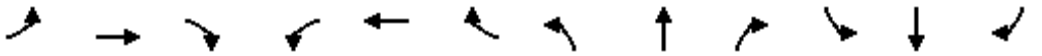


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	342	0	1317	0	2515	572	0	2715	750
Future Volume (vph)	0	0	0	342	0	1317	0	2515	572	0	2715	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		1.00	0.85		0.99	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4743	1348		5934	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4743	1348		5934	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	342	0	1317	0	2515	572	0	2715	750
RTOR Reduction (vph)	0	0	0	0	0	9	0	3	0	0	8	0
Lane Group Flow (vph)	0	0	0	342	0	1308	0	2569	515	0	2842	615
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				29.0		29.0		43.0	80.0		43.0	80.0
Effective Green, g (s)				29.0		29.0		43.0	80.0		43.0	80.0
Actuated g/C Ratio				0.36		0.36		0.54	1.00		0.54	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Lane Grp Cap (vph)				1232		1295		2549	1348		3189	1270
v/s Ratio Prot				0.10				c0.54			0.48	
v/s Ratio Perm						c0.37			0.38			0.48
v/c Ratio				0.28		1.01		1.01	0.38		0.89	0.48
Uniform Delay, d1				18.1		25.5		18.5	0.0		16.4	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.6		27.5		19.8	0.8		4.2	1.3
Delay (s)				18.6		53.0		38.3	0.8		20.7	1.3
Level of Service				B		D		D	A		C	A
Approach Delay (s)		0.0			45.9			32.0			17.2	
Approach LOS		A			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	662	216	163	920	387	262
Future Volume (vph)	662	216	163	920	387	262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	662	216	163	920	387	262
RTOR Reduction (vph)	0	158	0	0	0	198
Lane Group Flow (vph)	662	58	163	920	387	64
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	17.0	17.0	15.0	36.0	16.0	16.0
Effective Green, g (s)	17.0	17.0	15.0	36.0	16.0	16.0
Actuated g/C Ratio	0.26	0.26	0.23	0.55	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	824	369	363	1746	753	347
v/s Ratio Prot	c0.21		0.10	c0.29	c0.13	
v/s Ratio Perm		0.04				0.05
v/c Ratio	0.80	0.16	0.45	0.53	0.51	0.19
Uniform Delay, d1	22.4	18.5	21.5	9.1	21.1	19.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.2	0.9	4.0	1.1	2.5	1.2
Delay (s)	30.6	19.4	25.4	10.3	23.6	20.5
Level of Service	C	B	C	B	C	C
Approach Delay (s)	27.8			12.6	22.4	
Approach LOS	C			B	C	

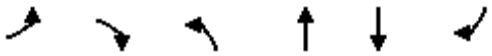
Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	235	1	0	335	23	0	0	0	21	0	247
Future Volume (vph)	309	235	1	0	335	23	0	0	0	21	0	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95					0.95	0.95	1.00
Frt	1.00	1.00			0.99					1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (prot)	1736	3469			3438					1665	1665	1568
Flt Permitted	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (perm)	1736	3469			3438					1665	1665	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	309	235	1	0	335	23	0	0	0	21	0	247
RTOR Reduction (vph)	0	1	0	0	6	0	0	0	0	0	0	198
Lane Group Flow (vph)	309	235	0	0	352	0	0	0	0	10	11	49
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA					Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	16.0	28.0			16.0					16.0	16.0	16.0
Effective Green, g (s)	16.0	28.0			16.0					16.0	16.0	16.0
Actuated g/C Ratio	0.20	0.35			0.20					0.20	0.20	0.20
Clearance Time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Grp Cap (vph)	347	1214			687					333	333	313
v/s Ratio Prot	c0.18	0.07			c0.10					0.01	0.01	
v/s Ratio Perm												c0.03
v/c Ratio	0.89	0.19			0.51					0.03	0.03	0.16
Uniform Delay, d1	31.1	18.1			28.5					25.8	25.8	26.4
Progression Factor	1.00	1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2	27.2	0.4			2.7					0.2	0.2	1.1
Delay (s)	58.3	18.5			31.2					25.9	26.0	27.5
Level of Service	E	B			C					C	C	C
Approach Delay (s)		41.1			31.2			0.0			27.4	
Approach LOS		D			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	34.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	104	47	22	426	819	267
Future Volume (vph)	104	47	22	426	819	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.96		1.00	1.00	0.97	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1708		1752	1845	1783	
Flt Permitted	0.97		0.95	1.00	1.00	
Satd. Flow (perm)	1708		1752	1845	1783	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	104	47	22	426	819	267
RTOR Reduction (vph)	18	0	0	0	13	0
Lane Group Flow (vph)	133	0	22	426	1073	0
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	16.0		4.0	66.0	58.0	
Effective Green, g (s)	16.0		4.0	66.0	58.0	
Actuated g/C Ratio	0.18		0.04	0.73	0.64	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Lane Grp Cap (vph)	303		77	1353	1149	
v/s Ratio Prot	c0.08		0.01	c0.23	c0.60	
v/s Ratio Perm						
v/c Ratio	0.44		0.29	0.31	0.93	
Uniform Delay, d1	33.0		41.6	4.2	14.3	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	4.6		9.1	0.6	14.8	
Delay (s)	37.6		50.7	4.8	29.0	
Level of Service	D		D	A	C	
Approach Delay (s)	37.6			7.0	29.0	
Approach LOS	D			A	C	

Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	0	508	567	249	603	0	1628	681	0	2030	359
Future Volume (veh/h)	230	0	508	567	249	603	0	1628	681	0	2030	359
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1827	1827	1827	0	1827	1827	0	1827	1827
Adj Flow Rate, veh/h	230	0	508	454	327	657	0	1628	0	0	2030	359
Adj No. of Lanes	0	1	2	2	1	3	0	3	1	0	4	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	0	4	4	0	4	4
Cap, veh/h	366	0	575	1189	624	1592	0	1746	544	0	2200	544
Arrive On Green	0.21	0.00	0.21	0.34	0.34	0.34	0.00	0.35	0.00	0.00	0.35	0.35
Sat Flow, veh/h	1757	0	2760	3480	1827	4659	0	5152	1553	0	6540	1553
Grp Volume(v), veh/h	230	0	508	454	327	657	0	1628	0	0	2030	359
Grp Sat Flow(s),veh/h/ln	1757	0	1380	1740	1827	1553	0	1663	1553	0	1571	1553
Q Serve(g_s), s	14.3	0.0	21.4	11.9	17.2	13.0	0.0	37.8	0.0	0.0	37.2	23.5
Cycle Q Clear(g_c), s	14.3	0.0	21.4	11.9	17.2	13.0	0.0	37.8	0.0	0.0	37.2	23.5
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	366	0	575	1189	624	1592	0	1746	544	0	2200	544
V/C Ratio(X)	0.63	0.00	0.88	0.38	0.52	0.41	0.00	0.93	0.00	0.00	0.92	0.66
Avail Cap(c_a), veh/h	366	0	575	1189	624	1592	0	1746	544	0	2200	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	0.0	46.1	29.9	31.7	30.3	0.0	37.6	0.0	0.0	37.4	33.0
Incr Delay (d2), s/veh	7.9	0.0	17.8	0.9	3.1	0.8	0.0	10.6	0.0	0.0	8.0	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.0	9.6	5.8	9.3	5.7	0.0	19.0	0.0	0.0	17.3	11.0
LnGrp Delay(d),s/veh	51.2	0.0	63.8	30.8	34.8	31.1	0.0	48.2	0.0	0.0	45.4	39.2
LnGrp LOS	D		E	C	C	C		D			D	D
Approach Vol, veh/h		738			1438			1628			2389	
Approach Delay, s/veh		59.9			31.8			48.2			44.5	
Approach LOS		E			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		46.0		29.0		46.0		45.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		42.0		25.0		42.0		41.0
Max Q Clear Time (g_c+I1), s		39.8		23.4		39.2		19.2
Green Ext Time (p_c), s		2.2		0.6		2.7		7.2

Intersection Summary	
HCM 2010 Ctrl Delay	44.4
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	33	163	17	47	15	133	881	6	5	1418	402
Future Volume (veh/h)	191	33	163	17	47	15	133	881	6	5	1418	402
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	215	0	163	17	47	15	133	881	6	5	1418	402
Adj No. of Lanes	2	0	1	0	1	0	2	3	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	644	0	287	60	165	53	338	2385	16	101	1475	660
Arrive On Green	0.18	0.00	0.18	0.16	0.16	0.16	0.10	0.47	0.47	0.06	0.43	0.43
Sat Flow, veh/h	3514	0	1568	376	1041	332	3375	5111	35	1740	3471	1553
Grp Volume(v), veh/h	215	0	163	79	0	0	133	573	314	5	1418	402
Grp Sat Flow(s),veh/h/ln	1757	0	1568	1749	0	0	1688	1663	1821	1740	1736	1553
Q Serve(g_s), s	6.4	0.0	11.4	4.8	0.0	0.0	4.4	13.3	13.3	0.3	47.7	24.1
Cycle Q Clear(g_c), s	6.4	0.0	11.4	4.8	0.0	0.0	4.4	13.3	13.3	0.3	47.7	24.1
Prop In Lane	1.00		1.00	0.22		0.19	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	644	0	287	277	0	0	338	1552	850	101	1475	660
V/C Ratio(X)	0.33	0.00	0.57	0.29	0.00	0.00	0.39	0.37	0.37	0.05	0.96	0.61
Avail Cap(c_a), veh/h	644	0	287	277	0	0	338	1552	850	101	1475	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	0.0	44.7	44.5	0.0	0.0	50.6	20.6	20.6	53.4	33.5	26.8
Incr Delay (d2), s/veh	1.4	0.0	7.9	2.6	0.0	0.0	3.4	0.7	1.2	0.9	15.8	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	5.6	2.5	0.0	0.0	2.2	6.3	7.0	0.2	25.9	11.0
LnGrp Delay(d),s/veh	44.0	0.0	52.5	47.1	0.0	0.0	54.0	21.3	21.9	54.3	49.4	30.9
LnGrp LOS	D		D	D			D	C	C	D	D	C
Approach Vol, veh/h		378			79			1020			1825	
Approach Delay, s/veh		47.7			47.1			25.7			45.3	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	60.0		26.0	16.0	55.0		23.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	56.0		22.0	12.0	51.0		19.0
Max Q Clear Time (g_c+I1), s	2.3	15.3		13.4	6.4	49.7		6.8
Green Ext Time (p_c), s	3.5	4.6		1.0	0.2	1.1		0.2

Intersection Summary		
HCM 2010 Ctrl Delay		39.6
HCM 2010 LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	304	106	123	484	228	127	605	79	147	1158	269
Future Volume (veh/h)	144	304	106	123	484	228	127	605	79	147	1158	269
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	144	304	106	123	484	228	127	605	79	147	1158	269
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	273	570	195	195	623	279	188	1270	165	263	1504	673
Arrive On Green	0.16	0.22	0.22	0.11	0.18	0.18	0.06	0.41	0.41	0.08	0.43	0.43
Sat Flow, veh/h	1757	2565	877	1757	3505	1568	3375	3089	403	3375	3471	1553
Grp Volume(v), veh/h	144	206	204	123	484	228	127	339	345	147	1158	269
Grp Sat Flow(s),veh/h/ln	1757	1752	1690	1757	1752	1568	1688	1736	1756	1688	1736	1553
Q Serve(g_s), s	6.8	9.3	9.6	6.0	11.9	12.6	3.3	12.9	12.9	3.8	25.5	10.7
Cycle Q Clear(g_c), s	6.8	9.3	9.6	6.0	11.9	12.6	3.3	12.9	12.9	3.8	25.5	10.7
Prop In Lane	1.00		0.52	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	273	389	376	195	623	279	188	714	722	263	1504	673
V/C Ratio(X)	0.53	0.53	0.54	0.63	0.78	0.82	0.68	0.48	0.48	0.56	0.77	0.40
Avail Cap(c_a), veh/h	273	389	376	195	623	279	188	714	722	263	1504	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	30.8	31.0	38.2	35.3	35.6	41.7	19.4	19.4	40.0	21.7	17.5
Incr Delay (d2), s/veh	7.1	5.1	5.6	14.5	9.2	22.7	17.9	2.3	2.3	8.4	3.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	5.1	5.1	3.7	6.5	7.2	2.0	6.6	6.7	2.1	13.0	4.9
LnGrp Delay(d),s/veh	42.1	35.9	36.5	52.7	44.5	58.3	59.6	21.7	21.7	48.4	25.5	19.2
LnGrp LOS	D	D	D	D	D	E	E	C	C	D	C	B
Approach Vol, veh/h		554			835			811			1574	
Approach Delay, s/veh		37.7			49.5			27.6			26.6	
Approach LOS		D			D			C			C	

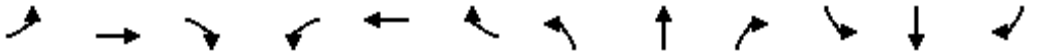
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	41.0	14.0	24.0	9.0	43.0	18.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	10.0	20.0	5.0	39.0	14.0	16.0
Max Q Clear Time (g_c+I1), s	5.8	14.9	8.0	11.6	5.3	27.5	8.8	14.6
Green Ext Time (p_c), s	0.1	11.6	0.1	3.3	0.0	7.6	0.2	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	436	325	134	163	48	141	736	192	50	265	5
Future Volume (veh/h)	25	436	325	134	163	48	141	736	192	50	265	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	25	436	325	134	163	48	141	736	192	50	265	5
Adj No. of Lanes	1	1	2	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	66	677	1013	247	1264	361	254	1110	497	127	860	16
Arrive On Green	0.04	0.38	0.38	0.14	0.48	0.48	0.14	0.32	0.32	0.07	0.24	0.24
Sat Flow, veh/h	1707	1792	2682	1707	2616	748	1757	3505	1568	1757	3519	66
Grp Volume(v), veh/h	25	436	325	134	104	107	141	736	192	50	132	138
Grp Sat Flow(s),veh/h/ln	1707	1792	1341	1707	1703	1661	1757	1752	1568	1757	1752	1833
Q Serve(g_s), s	2.6	36.0	15.4	13.1	6.1	6.4	13.4	32.7	17.2	4.9	11.1	11.1
Cycle Q Clear(g_c), s	2.6	36.0	15.4	13.1	6.1	6.4	13.4	32.7	17.2	4.9	11.1	11.1
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	66	677	1013	247	823	803	254	1110	497	127	428	448
V/C Ratio(X)	0.38	0.64	0.32	0.54	0.13	0.13	0.56	0.66	0.39	0.39	0.31	0.31
Avail Cap(c_a), veh/h	66	677	1013	247	823	803	254	1110	497	127	428	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	84.4	46.0	39.7	71.5	25.6	25.7	71.6	53.2	47.9	79.7	55.6	55.6
Incr Delay (d2), s/veh	15.5	4.7	0.8	8.3	0.3	0.3	8.5	3.1	2.3	8.9	1.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	18.7	5.9	6.8	2.9	3.0	7.1	16.3	7.8	2.7	5.6	5.9
LnGrp Delay(d),s/veh	99.9	50.7	40.5	79.8	25.9	26.0	80.1	56.3	50.2	88.7	57.4	57.4
LnGrp LOS	F	D	D	E	C	C	F	E	D	F	E	E
Approach Vol, veh/h		786			345			1069			320	
Approach Delay, s/veh		48.0			46.9			58.4			62.3	
Approach LOS		D			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	61.0	30.0	72.0	30.0	48.0	11.0	91.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	57.0	26.0	68.0	26.0	44.0	7.0	87.0
Max Q Clear Time (g_c+I1), s	6.9	34.7	15.1	38.0	15.4	13.1	4.6	8.4
Green Ext Time (p_c), s	0.0	5.8	0.3	4.6	0.3	6.2	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	54.1
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	233	179	112	331	64	136	544	172	35	769	149
Future Volume (veh/h)	89	233	179	112	331	64	136	544	172	35	769	149
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	89	233	179	112	331	64	136	544	172	35	769	149
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	935	418	146	783	150	205	1110	497	117	935	418
Arrive On Green	0.08	0.27	0.27	0.08	0.27	0.27	0.12	0.32	0.32	0.07	0.27	0.27
Sat Flow, veh/h	1757	3505	1568	1757	2937	561	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	89	233	179	112	196	199	136	544	172	35	769	149
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1746	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	2.9	3.1	5.7	3.7	5.5	5.7	4.4	7.5	5.1	1.1	12.4	4.6
Cycle Q Clear(g_c), s	2.9	3.1	5.7	3.7	5.5	5.7	4.4	7.5	5.1	1.1	12.4	4.6
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	935	418	146	467	465	205	1110	497	117	935	418
V/C Ratio(X)	0.61	0.25	0.43	0.77	0.42	0.43	0.66	0.49	0.35	0.30	0.82	0.36
Avail Cap(c_a), veh/h	146	935	418	146	467	465	205	1110	497	117	935	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	17.3	18.2	26.9	18.2	18.2	25.4	16.6	15.7	26.7	20.7	17.8
Incr Delay (d2), s/veh	17.4	0.6	3.2	31.0	2.8	2.9	15.7	1.5	1.9	6.4	8.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	1.6	2.8	3.1	3.0	3.1	3.0	3.9	2.4	0.8	7.0	2.3
LnGrp Delay(d),s/veh	43.9	17.9	21.4	57.9	20.9	21.1	41.1	18.1	17.6	33.1	28.8	20.2
LnGrp LOS	D	B	C	E	C	C	D	B	B	C	C	C
Approach Vol, veh/h		501			507			852			953	
Approach Delay, s/veh		23.8			29.1			21.7			27.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	23.0	9.0	20.0	11.0	20.0	9.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	5.0	16.0	7.0	16.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	3.1	9.5	5.7	7.7	6.4	14.4	4.9	7.7
Green Ext Time (p_c), s	0.0	5.3	0.0	2.3	0.0	1.2	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	267	131	112	333	47	121	374	96	52	838	154
Future Volume (veh/h)	105	267	131	112	333	47	121	374	96	52	838	154
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	105	267	131	112	333	47	121	374	96	52	838	154
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	176	935	418	176	935	418	146	1051	470	117	993	444
Arrive On Green	0.10	0.27	0.27	0.10	0.27	0.27	0.08	0.30	0.30	0.07	0.28	0.28
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	105	267	131	112	333	47	121	374	96	52	838	154
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	3.4	3.6	4.0	3.7	4.6	1.4	4.1	5.0	2.7	1.7	13.5	4.7
Cycle Q Clear(g_c), s	3.4	3.6	4.0	3.7	4.6	1.4	4.1	5.0	2.7	1.7	13.5	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	935	418	176	935	418	146	1051	470	117	993	444
V/C Ratio(X)	0.60	0.29	0.31	0.64	0.36	0.11	0.83	0.36	0.20	0.44	0.84	0.35
Avail Cap(c_a), veh/h	176	935	418	176	935	418	146	1051	470	117	993	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	17.5	17.6	26.0	17.8	16.6	27.1	16.5	15.7	26.9	20.3	17.1
Incr Delay (d2), s/veh	14.1	0.8	2.0	16.4	1.1	0.5	39.0	0.9	1.0	11.7	8.7	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.8	1.9	2.6	2.4	0.7	3.5	2.5	1.3	1.2	7.7	2.3
LnGrp Delay(d),s/veh	40.0	18.2	19.6	42.3	18.9	17.2	66.1	17.4	16.6	38.7	29.0	19.2
LnGrp LOS	D	B	B	D	B	B	E	B	B	D	C	B
Approach Vol, veh/h		503			492			591			1044	
Approach Delay, s/veh		23.1			24.1			27.2			28.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	22.0	10.0	20.0	9.0	21.0	10.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	18.0	6.0	16.0	5.0	17.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	3.7	7.0	5.7	6.0	6.1	15.5	5.4	6.6
Green Ext Time (p_c), s	0.0	5.4	0.0	2.6	0.0	1.0	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	461	410	107	219	391	765	80	1528	133	495	1684	401
Future Volume (veh/h)	461	410	107	219	391	765	80	1528	133	495	1684	401
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	461	410	107	219	391	765	80	1528	133	495	1684	401
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	430	865	387	348	781	731	168	1436	447	822	2402	748
Arrive On Green	0.13	0.25	0.25	0.10	0.22	0.22	0.05	0.29	0.29	0.24	0.48	0.48
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	461	410	107	219	391	765	80	1528	133	495	1684	401
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	21.5	17.0	9.4	10.5	16.6	38.0	3.9	49.1	11.4	22.2	45.1	30.8
Cycle Q Clear(g_c), s	21.5	17.0	9.4	10.5	16.6	38.0	3.9	49.1	11.4	22.2	45.1	30.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	430	865	387	348	781	731	168	1436	447	822	2402	748
V/C Ratio(X)	1.07	0.47	0.28	0.63	0.50	1.05	0.48	1.06	0.30	0.60	0.70	0.54
Avail Cap(c_a), veh/h	430	865	387	348	781	731	168	1436	447	822	2402	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.5	54.8	51.9	73.5	57.9	45.5	78.8	60.7	47.3	57.2	34.6	30.9
Incr Delay (d2), s/veh	64.2	1.9	1.8	8.4	2.3	46.0	9.3	42.8	1.7	3.3	1.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.9	8.5	4.3	5.4	8.3	43.7	2.1	28.2	5.1	10.7	21.1	13.8
LnGrp Delay(d),s/veh	138.7	56.6	53.7	81.8	60.2	91.5	88.2	103.5	49.0	60.4	36.3	33.6
LnGrp LOS	F	E	D	F	E	F	F	F	D	E	D	C
Approach Vol, veh/h		978			1375			1741			2580	
Approach Delay, s/veh		95.0			81.1			98.6			40.5	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	86.9	27.0	42.6	47.0	53.9	22.9	46.7
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	8.5	81.9	21.5	* 38	41.5	* 49	17.4	41.8
Max Q Clear Time (g_c+I1), s	5.9	47.1	23.5	40.0	24.2	51.1	12.5	19.0
Green Ext Time (p_c), s	0.0	8.3	0.0	0.0	1.4	0.0	0.1	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	72.0
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	1	51	0	102	0	1476	30	149	1737	4
Future Volume (veh/h)	1	0	1	51	0	102	0	1476	30	149	1737	4
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	1	0	1	51	0	102	0	1476	30	149	1737	4
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	143	0	143	304	0	543	2	1326	413	166	2220	5
Arrive On Green	0.17	0.00	0.17	0.17	0.00	0.17	0.00	0.27	0.27	0.10	0.43	0.43
Sat Flow, veh/h	828	0	828	1757	0	3136	1740	4988	1553	1740	5138	12
Grp Volume(v), veh/h	2	0	0	51	0	102	0	1476	30	149	1124	617
Grp Sat Flow(s),veh/h/ln	1657	0	0	1757	0	1568	1740	1663	1553	1740	1663	1825
Q Serve(g_s), s	0.1	0.0	0.0	1.8	0.0	2.0	0.0	19.2	1.0	6.1	20.9	20.9
Cycle Q Clear(g_c), s	0.1	0.0	0.0	1.8	0.0	2.0	0.0	19.2	1.0	6.1	20.9	20.9
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	287	0	0	304	0	543	2	1326	413	166	1437	789
V/C Ratio(X)	0.01	0.00	0.00	0.17	0.00	0.19	0.00	1.11	0.07	0.90	0.78	0.78
Avail Cap(c_a), veh/h	287	0	0	304	0	543	178	1326	413	166	1437	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	0.0	0.0	25.4	0.0	25.5	0.0	26.5	19.8	32.3	17.6	17.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.2	0.0	0.8	0.0	61.8	0.3	46.7	4.3	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.0	0.0	0.9	0.0	16.3	0.5	5.1	10.4	12.1
LnGrp Delay(d),s/veh	24.8	0.0	0.0	26.6	0.0	26.3	0.0	88.3	20.2	79.0	21.9	25.2
LnGrp LOS	C			C		C		F	C	E	C	C
Approach Vol, veh/h		2			153			1506			1890	
Approach Delay, s/veh		24.8			26.4			86.9			27.5	
Approach LOS		C			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	36.2		18.0	12.0	24.2		18.0
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 7.4	19.0		12.5	* 6.9	* 19		12.5
Max Q Clear Time (g_c+I1), s	0.0	22.9		2.1	8.1	21.2		4.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	52.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	229	23	160	130	355	9	1086	156	514	1237	38
Future Volume (veh/h)	101	229	23	160	130	355	9	1086	156	514	1237	38
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	101	229	23	160	130	355	9	1086	156	514	1237	38
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	97	959	429	326	1203	538	105	1720	247	367	2325	71
Arrive On Green	0.03	0.28	0.28	0.10	0.34	0.34	0.03	0.39	0.39	0.11	0.47	0.47
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4408	633	3375	4972	153
Grp Volume(v), veh/h	101	229	23	160	130	355	9	819	423	514	827	448
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1715	1688	1663	1800
Q Serve(g_s), s	4.9	8.7	1.9	7.6	4.3	32.7	0.4	33.9	34.0	18.5	30.0	30.0
Cycle Q Clear(g_c), s	4.9	8.7	1.9	7.6	4.3	32.7	0.4	33.9	34.0	18.5	30.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		0.08
Lane Grp Cap(c), veh/h	97	959	429	326	1203	538	105	1297	669	367	1555	842
V/C Ratio(X)	1.04	0.24	0.05	0.49	0.11	0.66	0.09	0.63	0.63	1.40	0.53	0.53
Avail Cap(c_a), veh/h	97	959	429	326	1203	538	105	1297	669	367	1555	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	82.7	47.7	45.3	73.0	38.1	47.5	80.1	42.0	42.0	75.8	32.1	32.1
Incr Delay (d2), s/veh	102.3	0.6	0.2	5.2	0.2	6.2	1.6	2.3	4.5	196.2	1.3	2.4
Initial Q Delay(d3),s/veh	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	4.2	0.8	3.8	2.1	15.1	0.2	16.0	16.9	18.6	14.1	15.5
LnGrp Delay(d),s/veh	185.7	48.3	45.5	78.2	38.3	53.7	81.7	44.3	46.5	272.0	33.4	34.5
LnGrp LOS	F	D	D	E	D	D	F	D	D	F	C	C
Approach Vol, veh/h		353			645			1251			1789	
Approach Delay, s/veh		87.4			56.7			45.3			102.2	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	84.9	10.4	64.1	24.0	71.7	21.8	52.7
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	5.3	79.5	4.9	* 58	18.5	* 66	16.3	* 47
Max Q Clear Time (g_c+I1), s	2.4	32.0	6.9	34.7	20.5	36.0	9.6	10.7
Green Ext Time (p_c), s	0.0	3.8	0.0	0.7	0.0	3.8	0.1	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	76.0
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	34	1200	23	79	1340
Future Volume (veh/h)	13	34	1200	23	79	1340
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	13	34	1200	23	79	1340
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	244	218	2258	43	235	2327
Arrive On Green	0.14	0.14	0.45	0.45	0.14	0.67
Sat Flow, veh/h	1757	1568	5203	97	1740	3563
Grp Volume(v), veh/h	13	34	792	431	79	1340
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1810	1740	1736
Q Serve(g_s), s	0.3	1.0	9.3	9.3	2.2	11.2
Cycle Q Clear(g_c), s	0.3	1.0	9.3	9.3	2.2	11.2
Prop In Lane	1.00	1.00		0.05	1.00	
Lane Grp Cap(c), veh/h	244	218	1490	811	235	2327
V/C Ratio(X)	0.05	0.16	0.53	0.53	0.34	0.58
Avail Cap(c_a), veh/h	244	218	1490	811	235	2327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	20.5	10.8	10.8	21.2	4.8
Incr Delay (d2), s/veh	0.4	1.5	1.4	2.5	3.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	4.5	5.1	1.3	5.5
LnGrp Delay(d),s/veh	20.6	22.0	12.2	13.3	25.0	5.8
LnGrp LOS	C	C	B	B	C	A
Approach Vol, veh/h	47		1223			1419
Approach Delay, s/veh	21.6		12.6			6.9
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		41.0			12.0	29.0		13.0
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		36.2			* 7.3	24.2		7.5
Max Q Clear Time (g_c+I1), s		13.2			4.2	11.3		3.0
Green Ext Time (p_c), s		4.3			0.0	3.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.7
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	519	56	43	194	270	39	922	85	343	863	97
Future Volume (veh/h)	130	519	56	43	194	270	39	922	85	343	863	97
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	130	519	56	43	194	270	39	922	85	343	863	97
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	211	568	61	56	483	411	96	962	430	373	1510	676
Arrive On Green	0.12	0.36	0.36	0.03	0.27	0.27	0.06	0.28	0.28	0.21	0.44	0.44
Sat Flow, veh/h	1707	1591	172	1707	1792	1524	1740	3471	1553	1740	3471	1553
Grp Volume(v), veh/h	130	0	575	43	194	270	39	922	85	343	863	97
Grp Sat Flow(s),veh/h/ln	1707	0	1762	1707	1792	1524	1740	1736	1553	1740	1736	1553
Q Serve(g_s), s	12.3	0.0	53.0	4.3	15.1	26.8	3.7	44.5	7.1	32.9	31.8	6.4
Cycle Q Clear(g_c), s	12.3	0.0	53.0	4.3	15.1	26.8	3.7	44.5	7.1	32.9	31.8	6.4
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	0	629	56	483	411	96	962	430	373	1510	676
V/C Ratio(X)	0.62	0.00	0.91	0.77	0.40	0.66	0.41	0.96	0.20	0.92	0.57	0.14
Avail Cap(c_a), veh/h	211	0	629	56	483	411	96	962	430	373	1510	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.8	0.0	52.3	81.7	50.9	55.2	77.8	60.6	47.1	65.5	36.2	29.0
Incr Delay (d2), s/veh	12.8	0.0	20.0	64.9	2.5	8.0	12.3	20.5	1.0	30.2	1.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	29.4	3.0	7.8	12.2	2.1	24.1	3.2	18.9	15.6	2.8
LnGrp Delay(d),s/veh	83.7	0.0	72.3	146.6	53.4	63.2	90.0	81.1	48.1	95.6	37.7	29.4
LnGrp LOS	F		E	F	D	E	F	F	D	F	D	C
Approach Vol, veh/h		705			507			1046			1303	
Approach Delay, s/veh		74.4			66.5			78.8			52.4	
Approach LOS		E			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	51.3	14.1	78.9	11.1	66.2	41.0	52.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.5	4.8
Max Green Setting (Gmax), s	21.0	* 46	* 9.4	74.1	5.6	* 61	36.5	47.2
Max Q Clear Time (g_c+I1), s	14.3	28.8	5.7	33.8	6.3	55.0	34.9	46.5
Green Ext Time (p_c), s	0.1	1.0	0.0	2.9	0.0	0.7	0.2	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	66.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	168	68	8	93	18	77	663	13	25	770	213
Future Volume (veh/h)	325	168	68	8	93	18	77	663	13	25	770	213
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	325	168	68	8	93	18	77	663	13	25	770	213
Adj No. of Lanes	1	1	1	1	1	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	277	575	489	79	293	57	89	1002	20	81	1020	456
Arrive On Green	0.16	0.31	0.31	0.04	0.19	0.19	0.05	0.29	0.29	0.05	0.29	0.29
Sat Flow, veh/h	1757	1845	1568	1757	1503	291	1740	3482	68	1740	3471	1553
Grp Volume(v), veh/h	325	168	68	8	0	111	77	330	346	25	770	213
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1793	1740	1736	1815	1740	1736	1553
Q Serve(g_s), s	10.5	4.6	2.1	0.3	0.0	3.5	2.9	11.2	11.2	0.9	13.4	7.5
Cycle Q Clear(g_c), s	10.5	4.6	2.1	0.3	0.0	3.5	2.9	11.2	11.2	0.9	13.4	7.5
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	277	575	489	79	0	350	89	500	522	81	1020	456
V/C Ratio(X)	1.18	0.29	0.14	0.10	0.00	0.32	0.87	0.66	0.66	0.31	0.75	0.47
Avail Cap(c_a), veh/h	277	575	489	79	0	350	89	500	522	81	1020	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	17.4	16.5	30.6	0.0	23.0	31.4	20.9	20.9	30.8	21.4	19.3
Incr Delay (d2), s/veh	110.1	1.3	0.6	2.6	0.0	2.4	64.2	6.7	6.5	9.7	5.2	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	2.5	1.0	0.2	0.0	2.0	3.0	6.3	6.5	0.7	7.2	3.6
LnGrp Delay(d),s/veh	138.2	18.7	17.1	33.1	0.0	25.4	95.6	27.6	27.4	40.4	26.6	22.7
LnGrp LOS	F	B	B	C		C	F	C	C	D	C	C
Approach Vol, veh/h		561			119			753			1008	
Approach Delay, s/veh		87.7			25.9			34.5			26.1	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	24.4	16.0	18.3	8.4	24.0	8.2	26.1
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 3.4	19.6	10.5	* 13	* 3.1	19.2	* 3	* 20
Max Q Clear Time (g_c+I1), s	4.9	15.4	12.5	5.5	2.9	13.2	2.3	6.6
Green Ext Time (p_c), s	0.0	1.2	0.0	0.2	0.0	1.5	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	42.8
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	183	156	54	189	53	60	450	12	31	769	101
Future Volume (veh/h)	180	183	156	54	189	53	60	450	12	31	769	101
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	180	183	156	54	189	53	60	450	12	31	769	101
Adj No. of Lanes	0	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	188	191	331	291	306	260	73	793	674	87	815	693
Arrive On Green	0.21	0.21	0.21	0.17	0.17	0.17	0.04	0.43	0.43	0.05	0.45	0.45
Sat Flow, veh/h	893	907	1568	1757	1845	1568	1740	1827	1553	1740	1827	1553
Grp Volume(v), veh/h	363	0	156	54	189	53	60	450	12	31	769	101
Grp Sat Flow(s),veh/h/ln	1800	0	1568	1757	1845	1568	1740	1827	1553	1740	1827	1553
Q Serve(g_s), s	34.9	0.0	15.3	4.6	16.7	5.1	6.0	32.4	0.8	3.0	70.4	6.7
Cycle Q Clear(g_c), s	34.9	0.0	15.3	4.6	16.7	5.1	6.0	32.4	0.8	3.0	70.4	6.7
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	0	331	291	306	260	73	793	674	87	815	693
V/C Ratio(X)	0.96	0.00	0.47	0.19	0.62	0.20	0.83	0.57	0.02	0.35	0.94	0.15
Avail Cap(c_a), veh/h	380	0	331	291	306	260	73	793	674	87	815	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.3	0.0	60.5	62.8	67.9	63.0	83.2	37.2	28.2	80.4	46.3	28.7
Incr Delay (d2), s/veh	36.4	0.0	4.8	1.4	9.1	1.8	64.7	2.9	0.0	10.9	20.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.2	0.0	7.1	2.4	9.3	2.4	4.2	17.0	0.3	1.7	40.1	3.0
LnGrp Delay(d),s/veh	104.7	0.0	65.3	64.2	76.9	64.8	147.9	40.1	28.3	91.2	66.7	29.1
LnGrp LOS	F		E	E	E	E	F	D	C	F	E	C
Approach Vol, veh/h		519			296			522			901	
Approach Delay, s/veh		92.8			72.4			52.2			63.3	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	83.2		35.8	14.1	81.1		44.0
Change Period (Y+Rc), s	* 4.7	5.1		6.8	* 5.3	5.1		7.1
Max Green Setting (Gmax), s	* 7.3	78.1		29.0	* 8.8	76.0		36.9
Max Q Clear Time (g_c+I1), s	8.0	72.4		18.7	5.0	34.4		36.9
Green Ext Time (p_c), s	0.0	1.0		0.2	0.0	1.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.8
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	213	284	135	299	10	141	412	36	19	842	117
Future Volume (veh/h)	103	213	284	135	299	10	141	412	36	19	842	117
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	103	213	284	135	299	10	141	412	36	19	842	117
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	212	305	273	240	663	297	258	1553	135	79	1170	163
Arrive On Green	0.12	0.18	0.18	0.14	0.19	0.19	0.15	0.48	0.48	0.05	0.38	0.38
Sat Flow, veh/h	1740	1736	1553	1740	3471	1553	1740	3232	281	1740	3062	425
Grp Volume(v), veh/h	103	213	284	135	299	10	141	220	228	19	477	482
Grp Sat Flow(s),veh/h/ln	1740	1736	1553	1740	1736	1553	1740	1736	1777	1740	1736	1752
Q Serve(g_s), s	7.2	15.0	22.9	9.4	9.9	0.7	9.8	9.9	9.9	1.4	30.5	30.5
Cycle Q Clear(g_c), s	7.2	15.0	22.9	9.4	9.9	0.7	9.8	9.9	9.9	1.4	30.5	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		0.24
Lane Grp Cap(c), veh/h	212	305	273	240	663	297	258	834	854	79	663	670
V/C Ratio(X)	0.49	0.70	1.04	0.56	0.45	0.03	0.55	0.26	0.27	0.24	0.72	0.72
Avail Cap(c_a), veh/h	212	305	273	240	663	297	258	834	854	79	663	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.4	50.5	53.7	52.5	46.6	42.9	51.4	20.1	20.2	60.0	34.3	34.3
Incr Delay (d2), s/veh	7.7	12.5	65.5	9.2	2.2	0.2	8.1	0.8	0.8	7.1	6.6	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	8.3	14.7	5.1	5.0	0.3	5.3	4.9	5.0	0.8	15.8	15.9
LnGrp Delay(d),s/veh	61.1	63.0	119.2	61.6	48.9	43.1	59.6	20.9	20.9	67.2	40.9	40.9
LnGrp LOS	E	E	F	E	D	D	E	C	C	E	D	D
Approach Vol, veh/h		600			444			589			978	
Approach Delay, s/veh		89.2			52.6			30.2			41.4	
Approach LOS		F			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.2	55.0	21.0	30.1	11.4	67.8	23.0	28.1
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 19	* 50	* 16	* 25	5.9	* 63	18.0	* 23
Max Q Clear Time (g_c+I1), s	11.8	32.5	9.2	11.9	3.4	11.9	11.4	24.9
Green Ext Time (p_c), s	0.1	14.7	0.0	7.7	0.0	36.2	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.8
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	206	609	118	261	39	202	472	57	48	1089	101
Future Volume (veh/h)	64	206	609	118	261	39	202	472	57	48	1089	101
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	64	206	609	118	261	39	202	472	57	48	1089	101
Adj No. of Lanes	2	2	1	2	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	138	1334	597	172	1369	612	271	1288	155	114	1271	568
Arrive On Green	0.04	0.38	0.38	0.05	0.39	0.39	0.08	0.41	0.41	0.03	0.37	0.37
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	3121	375	3375	3471	1553
Grp Volume(v), veh/h	64	206	609	118	261	39	202	262	267	48	1089	101
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1736	1761	1688	1736	1553
Q Serve(g_s), s	3.3	7.0	68.6	6.1	8.8	2.8	10.6	18.8	19.0	2.5	52.3	8.0
Cycle Q Clear(g_c), s	3.3	7.0	68.6	6.1	8.8	2.8	10.6	18.8	19.0	2.5	52.3	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	138	1334	597	172	1369	612	271	716	727	114	1271	568
V/C Ratio(X)	0.46	0.15	1.02	0.69	0.19	0.06	0.74	0.37	0.37	0.42	0.86	0.18
Avail Cap(c_a), veh/h	138	1334	597	172	1369	612	271	716	727	114	1271	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	84.6	36.8	55.8	84.2	36.2	34.3	81.1	36.6	36.7	85.4	52.8	38.8
Incr Delay (d2), s/veh	10.8	0.2	42.2	20.0	0.3	0.2	16.8	1.4	1.4	11.0	7.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.4	36.6	3.4	4.3	1.2	5.6	9.3	9.5	1.3	26.4	3.5
LnGrp Delay(d),s/veh	95.4	37.0	98.1	104.2	36.5	34.5	97.9	38.1	38.1	96.3	60.4	39.4
LnGrp LOS	F	D	F	F	D	C	F	D	D	F	E	D
Approach Vol, veh/h		879			418			731			1238	
Approach Delay, s/veh		83.6			55.4			54.6			60.1	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	71.5	12.8	76.0	11.6	79.9	14.6	74.2
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	14.5	* 66	7.3	70.2	6.1	* 74	9.1	* 69
Max Q Clear Time (g_c+I1), s	12.6	54.3	5.3	10.8	4.5	21.0	8.1	70.6
Green Ext Time (p_c), s	0.1	10.3	0.0	25.0	0.0	35.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	64.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	630	128	77	441	5	37	30	37	4	32	23
Future Volume (veh/h)	14	630	128	77	441	5	37	30	37	4	32	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	14	630	128	77	441	5	37	30	37	4	32	23
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	54	803	683	85	836	710	328	247	305	56	167	120
Arrive On Green	0.03	0.45	0.45	0.05	0.47	0.47	0.19	0.33	0.33	0.03	0.17	0.17
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1757	753	928	1757	999	718
Grp Volume(v), veh/h	14	630	128	77	441	5	37	0	67	4	0	55
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1757	0	1681	1757	0	1718
Q Serve(g_s), s	1.0	37.7	6.4	5.6	21.9	0.2	2.2	0.0	3.5	0.3	0.0	3.5
Cycle Q Clear(g_c), s	1.0	37.7	6.4	5.6	21.9	0.2	2.2	0.0	3.5	0.3	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		0.42
Lane Grp Cap(c), veh/h	54	803	683	85	836	710	328	0	553	56	0	287
V/C Ratio(X)	0.26	0.78	0.19	0.90	0.53	0.01	0.11	0.00	0.12	0.07	0.00	0.19
Avail Cap(c_a), veh/h	54	803	683	85	836	710	328	0	553	56	0	287
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.5	29.6	20.9	59.5	23.8	18.0	42.5	0.0	29.5	59.1	0.0	45.1
Incr Delay (d2), s/veh	11.2	7.6	0.6	72.9	2.4	0.0	0.7	0.0	0.4	2.5	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	20.2	2.8	4.4	11.3	0.1	1.1	0.0	1.7	0.2	0.0	1.8
LnGrp Delay(d),s/veh	70.7	37.2	21.6	132.4	26.2	18.0	43.2	0.0	30.0	61.6	0.0	46.6
LnGrp LOS	E	D	C	F	C	B	D		C	E		D
Approach Vol, veh/h		772			523			104			59	
Approach Delay, s/veh		35.2			41.7			34.7			47.6	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	62.8	27.9	25.4	7.5	65.1	7.5	45.8
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	6.3	56.4	23.5	* 21	4.0	58.7	4.0	40.5
Max Q Clear Time (g_c+I1), s	7.6	39.7	4.2	5.5	3.0	23.9	2.3	5.5
Green Ext Time (p_c), s	0.0	8.8	0.1	0.3	0.0	12.6	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	38.0
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	59	161	77	68	95	131	254	44	64	342	58
Future Volume (veh/h)	144	59	161	77	68	95	131	254	44	64	342	58
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	144	59	161	77	68	95	131	254	44	64	342	58
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	305	398	356	263	354	317	269	779	662	137	641	545
Arrive On Green	0.17	0.23	0.23	0.15	0.20	0.20	0.15	0.42	0.42	0.08	0.35	0.35
Sat Flow, veh/h	1757	1752	1568	1757	1752	1568	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	144	59	161	77	68	95	131	254	44	64	342	58
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	11.8	4.3	14.2	6.2	5.2	8.2	10.9	14.8	2.7	5.6	23.8	4.0
Cycle Q Clear(g_c), s	11.8	4.3	14.2	6.2	5.2	8.2	10.9	14.8	2.7	5.6	23.8	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	398	356	263	354	317	269	779	662	137	641	545
V/C Ratio(X)	0.47	0.15	0.45	0.29	0.19	0.30	0.49	0.33	0.07	0.47	0.53	0.11
Avail Cap(c_a), veh/h	305	398	356	263	354	317	269	779	662	137	641	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.6	49.6	53.4	60.6	53.1	54.3	62.2	31.0	27.5	70.7	41.9	35.4
Incr Delay (d2), s/veh	5.2	0.8	4.1	2.8	1.2	2.4	6.2	1.1	0.2	11.0	3.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	2.2	6.6	3.2	2.6	3.8	5.8	7.8	1.2	3.1	12.7	1.8
LnGrp Delay(d),s/veh	64.8	50.3	57.5	63.4	54.3	56.7	68.4	32.1	27.7	81.7	45.1	35.8
LnGrp LOS	E	D	E	E	D	E	E	C	C	F	D	D
Approach Vol, veh/h		364			240			429			464	
Approach Delay, s/veh		59.2			58.2			42.7			49.0	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	37.2	30.0	60.1	29.0	41.2	18.0	72.1
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 28	32.2	24.5	* 56	24.0	* 36	12.5	* 68
Max Q Clear Time (g_c+I1), s	13.8	10.2	12.9	25.8	8.2	16.2	7.6	16.8
Green Ext Time (p_c), s	0.1	0.4	0.1	0.6	0.0	0.4	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	51.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	31	17	451	44	391	48	1096	164	382	1223	59
Future Volume (veh/h)	73	31	17	451	44	391	48	1096	164	382	1223	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	73	31	17	451	44	391	48	1096	164	382	1223	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	170	109	60	862	467	397	118	1648	513	622	2189	106
Arrive On Green	0.10	0.10	0.10	0.25	0.25	0.25	0.07	0.33	0.33	0.18	0.45	0.45
Sat Flow, veh/h	1757	1121	615	3408	1845	1568	1740	4988	1553	3375	4875	235
Grp Volume(v), veh/h	73	0	48	451	44	391	48	1096	164	382	834	448
Grp Sat Flow(s),veh/h/ln	1757	0	1736	1704	1845	1568	1740	1663	1553	1688	1663	1785
Q Serve(g_s), s	6.3	0.0	4.1	18.2	2.9	39.7	4.2	30.2	12.7	16.7	29.5	29.5
Cycle Q Clear(g_c), s	6.3	0.0	4.1	18.2	2.9	39.7	4.2	30.2	12.7	16.7	29.5	29.5
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	170	0	168	862	467	397	118	1648	513	622	1493	802
V/C Ratio(X)	0.43	0.00	0.29	0.52	0.09	0.99	0.41	0.67	0.32	0.61	0.56	0.56
Avail Cap(c_a), veh/h	170	0	168	862	467	397	118	1648	513	622	1493	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.1	0.0	67.2	51.5	45.8	59.5	71.5	46.0	40.1	60.1	32.4	32.4
Incr Delay (d2), s/veh	7.7	0.0	4.2	2.3	0.4	41.8	10.0	2.1	1.6	4.5	1.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	2.2	8.9	1.5	21.8	2.4	14.2	5.7	8.2	13.9	15.2
LnGrp Delay(d),s/veh	75.9	0.0	71.4	53.8	46.2	101.3	81.5	48.1	41.8	64.6	33.9	35.2
LnGrp LOS	E		E	D	D	F	F	D	D	E	C	D
Approach Vol, veh/h		121			886			1308			1664	
Approach Delay, s/veh		74.1			74.4			48.6			41.3	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.0	77.1		21.0	35.0	58.1		46.0
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 11	* 72		15.5	29.5	* 53		40.5
Max Q Clear Time (g_c+I1), s	6.2	31.5		8.3	18.7	32.2		41.7
Green Ext Time (p_c), s	0.0	4.1		0.1	0.5	4.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	81	197	264	101	15	89	717	94	3	1479	194
Future Volume (veh/h)	171	81	197	264	101	15	89	717	94	3	1479	194
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	171	81	197	264	101	15	89	717	94	3	1479	194
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	414	379	339	414	663	97	410	2006	625	410	1396	625
Arrive On Green	0.12	0.22	0.22	0.12	0.22	0.22	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	1752	1568	3408	3071	447	3375	4988	1553	3375	3471	1553
Grp Volume(v), veh/h	171	81	197	264	57	59	89	717	94	3	1479	194
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1766	1688	1663	1553	1688	1736	1553
Q Serve(g_s), s	7.5	6.1	18.1	11.8	4.2	4.4	3.8	16.1	6.2	0.1	64.6	13.7
Cycle Q Clear(g_c), s	7.5	6.1	18.1	11.8	4.2	4.4	3.8	16.1	6.2	0.1	64.6	13.7
Prop In Lane	1.00		1.00	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	379	339	414	379	382	410	2006	625	410	1396	625
V/C Ratio(X)	0.41	0.21	0.58	0.64	0.15	0.16	0.22	0.36	0.15	0.01	1.06	0.31
Avail Cap(c_a), veh/h	414	379	339	414	379	382	410	2006	625	410	1396	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	51.7	56.4	67.2	51.0	51.1	63.7	33.5	30.5	62.0	48.0	32.8
Incr Delay (d2), s/veh	3.0	1.3	7.1	7.3	0.8	0.9	1.2	0.5	0.5	0.0	41.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.1	8.5	6.0	2.1	2.2	1.8	7.5	2.8	0.1	38.9	6.1
LnGrp Delay(d),s/veh	68.3	53.0	63.6	74.5	51.8	51.9	64.9	34.0	31.1	62.1	89.5	34.1
LnGrp LOS	E	D	E	E	D	D	E	C	C	E	F	C
Approach Vol, veh/h		449			380			900			1676	
Approach Delay, s/veh		63.5			67.6			36.8			83.0	
Approach LOS		E			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.2	25.0	40.4	25.0	70.2	25.0	40.4
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	19.5	* 65	19.5	* 35	19.5	* 64	19.5	* 34
Max Q Clear Time (g_c+I1), s	5.8	66.6	9.5	6.4	2.1	18.1	13.8	20.1
Green Ext Time (p_c), s	0.1	0.0	0.2	0.4	0.0	4.3	0.2	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	66.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	481	141	36	244	101	76	614	42	165	1532	215
Future Volume (veh/h)	147	481	141	36	244	101	76	614	42	165	1532	215
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	147	481	141	36	244	101	76	614	42	165	1532	0
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	189	540	459	60	411	349	105	1313	90	258	1679	751
Arrive On Green	0.11	0.30	0.30	0.04	0.23	0.23	0.06	0.40	0.40	0.15	0.48	0.00
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1740	3297	225	1740	3471	1553
Grp Volume(v), veh/h	147	481	141	36	244	101	76	323	333	165	1532	0
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1740	1736	1787	1740	1736	1553
Q Serve(g_s), s	14.7	45.0	12.5	3.6	21.3	9.6	7.5	24.1	24.2	15.7	71.6	0.0
Cycle Q Clear(g_c), s	14.7	45.0	12.5	3.6	21.3	9.6	7.5	24.1	24.2	15.7	71.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	189	540	459	60	411	349	105	691	712	258	1679	751
V/C Ratio(X)	0.78	0.89	0.31	0.60	0.59	0.29	0.72	0.47	0.47	0.64	0.91	0.00
Avail Cap(c_a), veh/h	189	540	459	60	411	349	105	691	712	258	1679	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	76.0	58.5	47.2	83.4	60.4	55.9	81.0	39.0	39.1	70.3	41.9	0.0
Incr Delay (d2), s/veh	26.5	19.4	1.7	36.8	6.2	2.1	34.9	2.3	2.2	11.6	9.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	25.2	5.5	2.3	11.3	4.3	4.7	12.0	12.4	8.4	36.4	0.0
LnGrp Delay(d),s/veh	102.5	77.9	48.9	120.2	66.6	57.9	116.0	41.3	41.3	81.9	50.9	0.0
LnGrp LOS	F	E	D	F	E	E	F	D	D	F	D	
Approach Vol, veh/h		769			381			732			1697	
Approach Delay, s/veh		77.3			69.4			49.0			53.9	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	90.0	23.7	45.8	31.0	75.0	11.0	58.5
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 11	84.9	* 19	39.7	26.0	69.9	* 6.2	* 53
Max Q Clear Time (g_c+I1), s	9.5	73.6	16.7	23.3	17.7	26.2	5.6	47.0
Green Ext Time (p_c), s	0.0	3.1	0.0	0.8	0.1	3.5	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	59.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	88	81	13	46	11	40	640	9	7	1607	96
Future Volume (veh/h)	83	88	81	13	46	11	40	640	9	7	1607	96
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	83	88	81	13	46	11	40	640	9	7	1607	96
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	160	194	179	75	280	67	92	2118	30	38	1908	113
Arrive On Green	0.05	0.22	0.22	0.02	0.19	0.19	0.05	0.60	0.60	0.02	0.57	0.57
Sat Flow, veh/h	3408	886	815	3408	1440	344	1740	3505	49	1740	3330	198
Grp Volume(v), veh/h	83	0	169	13	0	57	40	317	332	7	833	870
Grp Sat Flow(s),veh/h/ln	1704	0	1701	1704	0	1784	1740	1736	1818	1740	1736	1792
Q Serve(g_s), s	3.8	0.0	13.8	0.6	0.0	4.3	3.6	14.1	14.1	0.6	63.1	64.4
Cycle Q Clear(g_c), s	3.8	0.0	13.8	0.6	0.0	4.3	3.6	14.1	14.1	0.6	63.1	64.4
Prop In Lane	1.00		0.48	1.00		0.19	1.00		0.03	1.00		0.11
Lane Grp Cap(c), veh/h	160	0	373	75	0	347	92	1049	1099	38	995	1027
V/C Ratio(X)	0.52	0.00	0.45	0.17	0.00	0.16	0.43	0.30	0.30	0.18	0.84	0.85
Avail Cap(c_a), veh/h	160	0	373	75	0	347	92	1049	1099	38	995	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.5	0.0	54.1	76.8	0.0	53.6	73.4	15.3	15.3	76.8	28.0	28.3
Incr Delay (d2), s/veh	11.6	0.0	3.9	5.0	0.0	1.0	14.1	0.7	0.7	10.4	8.4	8.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	6.9	0.3	0.0	2.2	2.1	7.0	7.3	0.4	32.4	34.1
LnGrp Delay(d),s/veh	86.1	0.0	58.1	81.9	0.0	54.7	87.5	16.1	16.0	87.2	36.4	36.9
LnGrp LOS	F		E	F		D	F	B	B	F	D	D
Approach Vol, veh/h		252			70			689			1710	
Approach Delay, s/veh		67.3			59.7			20.2			36.9	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	96.7	13.0	36.3	9.0	101.7	9.0	40.3
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	8.5	91.7	7.5	* 31	3.5	96.7	3.5	* 35
Max Q Clear Time (g_c+I1), s	5.6	66.4	5.8	6.3	2.6	16.1	2.6	15.8
Green Ext Time (p_c), s	0.0	2.9	0.0	0.2	0.0	2.9	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	36.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	102	126	50	133	31	34	512	21	6	1564	129
Future Volume (veh/h)	77	102	126	50	133	31	34	512	21	6	1564	129
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1792	1792	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	77	102	126	50	133	31	34	512	21	6	1564	129
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	6	6	6	4	4	4	4	4	4
Cap, veh/h	116	151	186	85	273	64	236	2105	86	36	1639	134
Arrive On Green	0.03	0.20	0.20	0.03	0.19	0.19	0.14	0.62	0.62	0.02	0.50	0.50
Sat Flow, veh/h	3375	745	920	3312	1407	328	1740	3399	139	1740	3250	266
Grp Volume(v), veh/h	77	0	228	50	0	164	34	261	272	6	830	863
Grp Sat Flow(s),veh/h/ln	1688	0	1665	1656	0	1735	1740	1736	1802	1740	1736	1780
Q Serve(g_s), s	3.6	0.0	20.3	2.4	0.0	13.5	2.8	10.8	10.8	0.5	72.7	74.7
Cycle Q Clear(g_c), s	3.6	0.0	20.3	2.4	0.0	13.5	2.8	10.8	10.8	0.5	72.7	74.7
Prop In Lane	1.00		0.55	1.00		0.19	1.00		0.08	1.00		0.15
Lane Grp Cap(c), veh/h	116	0	337	85	0	336	236	1075	1116	36	875	898
V/C Ratio(X)	0.66	0.00	0.68	0.59	0.00	0.49	0.14	0.24	0.24	0.17	0.95	0.96
Avail Cap(c_a), veh/h	116	0	337	85	0	336	236	1075	1116	36	875	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.3	0.0	59.0	77.1	0.0	57.4	61.0	13.6	13.6	77.0	37.7	38.2
Incr Delay (d2), s/veh	26.1	0.0	10.4	26.6	0.0	5.0	1.3	0.5	0.5	9.8	20.1	22.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	10.3	1.4	0.0	6.9	1.4	5.3	5.5	0.4	39.7	42.2
LnGrp Delay(d),s/veh	102.4	0.0	69.4	103.7	0.0	62.4	62.2	14.2	14.2	86.8	57.8	60.2
LnGrp LOS	F		E	F		E	E	B	B	F	E	E
Approach Vol, veh/h		305			214			567			1699	
Approach Delay, s/veh		77.7			72.1			17.1			59.1	
Approach LOS		E			E			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.2	85.8	11.0	36.0	8.8	104.2	9.6	37.4
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	21.7	* 81	5.5	* 31	3.3	* 99	4.1	* 32
Max Q Clear Time (g_c+I1), s	4.8	76.7	5.6	15.5	2.5	12.8	4.4	22.3
Green Ext Time (p_c), s	0.0	1.6	0.0	0.4	0.0	2.7	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	53.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	97	82	38	116	79	48	382	16	206	1245	222
Future Volume (veh/h)	101	97	82	38	116	79	48	382	16	206	1245	222
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	101	97	82	38	116	79	48	382	16	206	1245	222
Adj No. of Lanes	2	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	213	175	148	101	189	128	121	1507	63	354	1706	302
Arrive On Green	0.06	0.19	0.19	0.06	0.18	0.18	0.07	0.44	0.44	0.20	0.58	0.58
Sat Flow, veh/h	3408	925	782	1757	1024	697	1740	3396	142	1740	2949	522
Grp Volume(v), veh/h	101	0	179	38	0	195	48	195	203	206	729	738
Grp Sat Flow(s),veh/h/ln	1704	0	1707	1757	0	1722	1740	1736	1802	1740	1736	1735
Q Serve(g_s), s	5.7	0.0	19.0	4.2	0.0	20.9	5.3	14.1	14.2	21.4	61.1	62.5
Cycle Q Clear(g_c), s	5.7	0.0	19.0	4.2	0.0	20.9	5.3	14.1	14.2	21.4	61.1	62.5
Prop In Lane	1.00		0.46	1.00		0.41	1.00		0.08	1.00		0.30
Lane Grp Cap(c), veh/h	213	0	323	101	0	317	121	770	800	354	1004	1004
V/C Ratio(X)	0.47	0.00	0.55	0.38	0.00	0.61	0.40	0.25	0.25	0.58	0.73	0.74
Avail Cap(c_a), veh/h	213	0	323	101	0	317	121	770	800	354	1004	1004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	90.7	0.0	73.5	90.9	0.0	75.2	89.2	34.9	34.9	72.1	30.7	31.0
Incr Delay (d2), s/veh	7.4	0.0	6.7	10.4	0.0	8.6	9.5	0.8	0.8	6.9	4.6	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	9.6	2.3	0.0	10.7	2.9	6.9	7.2	11.0	30.4	31.3
LnGrp Delay(d),s/veh	98.1	0.0	80.3	101.3	0.0	83.8	98.7	35.7	35.7	79.0	35.2	35.7
LnGrp LOS	F		F	F		F	F	D	D	E	D	D
Approach Vol, veh/h		280			233			446			1673	
Approach Delay, s/veh		86.7			86.7			42.5			40.8	
Approach LOS		F			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	121.0	18.0	42.3	46.0	94.0	17.0	43.3
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 14	115.9	12.5	* 37	* 41	88.9	11.5	* 38
Max Q Clear Time (g_c+I1), s	7.3	64.5	7.7	22.9	23.4	16.2	6.2	21.0
Green Ext Time (p_c), s	0.0	2.2	0.0	0.4	0.2	2.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	50.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	511	76	59	247	5	30	61	58	4	262	57
Future Volume (veh/h)	62	511	76	59	247	5	30	61	58	4	262	57
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	62	511	76	59	247	5	30	61	58	4	262	57
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	116	766	113	172	992	20	223	379	360	46	485	106
Arrive On Green	0.07	0.26	0.26	0.10	0.29	0.29	0.13	0.43	0.43	0.03	0.33	0.33
Sat Flow, veh/h	1707	2977	441	1707	3414	69	1757	871	828	1757	1469	320
Grp Volume(v), veh/h	62	291	296	59	123	129	30	0	119	4	0	319
Grp Sat Flow(s),veh/h/ln	1707	1703	1715	1707	1703	1780	1757	0	1699	1757	0	1788
Q Serve(g_s), s	4.0	17.6	17.8	3.7	6.4	6.4	1.7	0.0	4.9	0.3	0.0	16.7
Cycle Q Clear(g_c), s	4.0	17.6	17.8	3.7	6.4	6.4	1.7	0.0	4.9	0.3	0.0	16.7
Prop In Lane	1.00		0.26	1.00		0.04	1.00		0.49	1.00		0.18
Lane Grp Cap(c), veh/h	116	438	441	172	495	517	223	0	739	46	0	591
V/C Ratio(X)	0.54	0.67	0.67	0.34	0.25	0.25	0.13	0.00	0.16	0.09	0.00	0.54
Avail Cap(c_a), veh/h	116	438	441	172	495	517	223	0	739	46	0	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	38.3	38.3	48.1	31.2	31.2	44.6	0.0	19.8	54.7	0.0	31.4
Incr Delay (d2), s/veh	16.6	7.8	7.9	5.4	1.2	1.2	1.3	0.0	0.5	3.7	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	9.2	9.3	2.0	3.1	3.3	0.9	0.0	2.4	0.2	0.0	8.8
LnGrp Delay(d),s/veh	68.4	46.0	46.2	53.5	32.4	32.4	45.8	0.0	20.2	58.4	0.0	34.9
LnGrp LOS	E	D	D	D	C	C	D		C	E		C
Approach Vol, veh/h		649			311			149			323	
Approach Delay, s/veh		48.2			36.4			25.4			35.2	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	36.0	19.0	44.0	12.2	39.8	7.0	56.0
Change Period (Y+Rc), s	4.4	6.4	4.4	6.0	4.4	6.4	* 4	6.0
Max Green Setting (Gmax), s	11.6	29.6	14.6	38.0	7.8	33.4	* 3	50.0
Max Q Clear Time (g_c+I1), s	5.7	19.8	3.7	18.7	6.0	8.4	2.3	6.9
Green Ext Time (p_c), s	0.0	3.7	0.0	7.0	0.0	5.8	0.0	10.1

Intersection Summary	
HCM 2010 Ctrl Delay	40.3
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	784	44	201	27	77	110	284	1365	17	146	560	333
Future Volume (veh/h)	784	44	201	27	77	110	284	1365	17	146	560	333
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	815	0	201	27	77	110	284	1365	17	146	560	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	1119	0	499	41	116	135	387	1693	21	211	1147	357
Arrive On Green	0.32	0.00	0.32	0.09	0.09	0.09	0.22	0.33	0.33	0.12	0.23	0.00
Sat Flow, veh/h	3480	0	1553	473	1348	1568	1740	5078	63	1740	4988	1553
Grp Volume(v), veh/h	815	0	201	104	0	110	284	894	488	146	560	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1821	0	1568	1740	1663	1816	1740	1663	1553
Q Serve(g_s), s	30.1	0.0	14.6	8.0	0.0	10.0	22.0	35.6	35.6	11.7	14.1	0.0
Cycle Q Clear(g_c), s	30.1	0.0	14.6	8.0	0.0	10.0	22.0	35.6	35.6	11.7	14.1	0.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	1119	0	499	157	0	135	387	1108	605	211	1147	357
V/C Ratio(X)	0.73	0.00	0.40	0.66	0.00	0.81	0.73	0.81	0.81	0.69	0.49	0.00
Avail Cap(c_a), veh/h	1119	0	499	157	0	135	387	1108	605	211	1147	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.6	0.0	38.4	64.3	0.0	65.2	52.5	44.1	44.1	61.2	48.5	0.0
Incr Delay (d2), s/veh	4.2	0.0	2.4	20.0	0.0	39.7	11.7	6.3	11.0	17.1	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	0.0	6.6	4.9	0.0	5.8	11.8	17.4	19.7	6.6	6.6	0.0
LnGrp Delay(d),s/veh	47.8	0.0	40.8	84.3	0.0	105.0	64.1	50.4	55.1	78.3	50.0	0.0
LnGrp LOS	D		D	F		F	E	D	E	E	D	
Approach Vol, veh/h		1016			214			1666			706	
Approach Delay, s/veh		46.4			94.9			54.2			55.8	
Approach LOS		D			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	37.0	38.2		18.0	22.0	53.2		52.0
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 32	33.2		12.5	* 18	* 48		46.7
Max Q Clear Time (g_c+I1), s	24.0	16.1		12.0	13.7	37.6		32.1
Green Ext Time (p_c), s	0.2	2.8		0.0	0.0	2.5		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	54.7
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	151	31	37	114	699	56	1248	15	309	795	258
Future Volume (veh/h)	408	151	31	37	114	699	56	1248	15	309	795	258
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	408	151	31	37	114	699	56	1248	15	309	795	258
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	584	1268	248	101	290	1094	131	1730	21	654	2615	814
Arrive On Green	0.17	0.30	0.30	0.03	0.16	0.16	0.04	0.37	0.37	0.19	0.52	0.52
Sat Flow, veh/h	3408	4230	827	3514	1845	3136	3408	4729	57	3408	5036	1568
Grp Volume(v), veh/h	408	118	64	37	114	699	56	779	484	309	795	258
Grp Sat Flow(s),veh/h/ln	1704	1679	1699	1757	1845	1568	1704	1476	1835	1704	1679	1568
Q Serve(g_s), s	22.0	5.0	5.3	2.0	10.9	30.7	3.1	44.5	44.5	15.8	17.6	18.5
Cycle Q Clear(g_c), s	22.0	5.0	5.3	2.0	10.9	30.7	3.1	44.5	44.5	15.8	17.6	18.5
Prop In Lane	1.00		0.49	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	584	1006	509	101	290	1094	131	1079	671	654	2615	814
V/C Ratio(X)	0.70	0.12	0.13	0.37	0.39	0.64	0.43	0.72	0.72	0.47	0.30	0.32
Avail Cap(c_a), veh/h	584	1006	509	101	290	1094	131	1079	671	654	2615	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.2	49.7	49.8	93.2	74.0	53.3	91.9	53.4	53.4	70.2	26.8	27.0
Incr Delay (d2), s/veh	6.8	0.2	0.5	10.0	4.0	2.9	9.9	4.2	6.6	2.4	0.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	2.3	2.6	1.1	5.9	16.3	1.7	18.8	23.8	7.6	8.2	8.3
LnGrp Delay(d),s/veh	83.1	49.9	50.3	103.3	78.0	56.2	101.8	57.6	60.0	72.7	27.1	28.1
LnGrp LOS	F	D	D	F	E	E	F	E	E	E	C	C
Approach Vol, veh/h		590			850			1319			1362	
Approach Delay, s/veh		72.9			61.2			60.4			37.6	
Approach LOS		E			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	107.1	39.0	36.4	43.0	77.1	11.1	64.3
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	7.5	101.2	33.5	* 31	37.5	* 72	5.6	* 58
Max Q Clear Time (g_c+I1), s	5.1	20.5	24.0	32.7	17.8	46.5	4.0	7.3
Green Ext Time (p_c), s	0.0	3.3	0.5	0.0	0.4	3.3	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	54.8
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	103	44	69	49	159	17	706	31	71	717	51
Future Volume (veh/h)	311	103	44	69	49	159	17	706	31	71	717	51
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	229	218	44	59	63	159	17	706	31	71	717	51
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	346	294	59	346	364	309	203	1843	81	205	1789	127
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.37	0.37	0.12	0.37	0.37
Sat Flow, veh/h	1757	1491	301	1757	1845	1568	1757	4947	216	1757	4802	340
Grp Volume(v), veh/h	229	0	262	59	63	159	17	478	259	71	500	268
Grp Sat Flow(s),veh/h/ln	1757	0	1792	1757	1845	1568	1757	1679	1806	1757	1679	1785
Q Serve(g_s), s	21.1	0.0	24.1	4.9	5.0	15.9	1.5	18.2	18.4	6.5	19.2	19.4
Cycle Q Clear(g_c), s	21.1	0.0	24.1	4.9	5.0	15.9	1.5	18.2	18.4	6.5	19.2	19.4
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.12	1.00		0.19
Lane Grp Cap(c), veh/h	346	0	353	346	364	309	203	1251	673	205	1251	665
V/C Ratio(X)	0.66	0.00	0.74	0.17	0.17	0.51	0.08	0.38	0.38	0.35	0.40	0.40
Avail Cap(c_a), veh/h	346	0	353	346	364	309	203	1251	673	205	1251	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	0.0	66.1	58.4	58.4	62.8	69.1	40.2	40.2	71.2	40.5	40.5
Incr Delay (d2), s/veh	9.5	0.0	13.2	1.1	1.0	6.0	0.8	0.9	1.7	4.6	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	0.0	13.2	2.5	2.6	7.4	0.8	8.6	9.4	3.4	9.1	9.9
LnGrp Delay(d),s/veh	74.4	0.0	79.2	59.4	59.4	68.8	69.9	41.1	41.9	75.8	41.4	42.3
LnGrp LOS	E		E	E	E	E	E	D	D	E	D	D
Approach Vol, veh/h		491			281			754			839	
Approach Delay, s/veh		77.0			64.7			42.0			44.6	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.0	70.0		40.0	25.0	70.0		40.0
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 20	65.2		34.5	* 20	65.2		34.5
Max Q Clear Time (g_c+I1), s	3.5	21.4		17.9	8.5	20.4		26.1
Green Ext Time (p_c), s	0.0	1.9		0.2	0.0	1.9		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	52.9
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	285	178	135	393	142	143	314	38	150	511	150
Future Volume (veh/h)	188	285	178	135	393	142	143	314	38	150	511	150
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	188	285	178	135	393	142	143	314	38	150	511	150
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	170	1074	502	178	1623	505	133	1712	533	133	1324	378
Arrive On Green	0.05	0.32	0.32	0.05	0.32	0.32	0.04	0.34	0.34	0.04	0.34	0.34
Sat Flow, veh/h	3408	3357	1568	3408	5036	1568	3408	5036	1568	3408	3894	1112
Grp Volume(v), veh/h	188	285	178	135	393	142	143	314	38	150	439	222
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1648
Q Serve(g_s), s	4.5	5.7	7.8	3.5	5.2	6.1	3.5	4.0	1.5	3.5	8.9	9.3
Cycle Q Clear(g_c), s	4.5	5.7	7.8	3.5	5.2	6.1	3.5	4.0	1.5	3.5	8.9	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	170	1074	502	178	1623	505	133	1712	533	133	1141	560
V/C Ratio(X)	1.10	0.27	0.35	0.76	0.24	0.28	1.08	0.18	0.07	1.13	0.38	0.40
Avail Cap(c_a), veh/h	170	1074	502	178	1623	505	133	1712	533	133	1141	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	22.7	23.5	42.1	22.4	22.7	43.3	20.9	20.1	43.3	22.5	22.7
Incr Delay (d2), s/veh	99.3	0.6	2.0	25.7	0.4	1.4	100.9	0.2	0.3	117.9	1.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.7	3.6	2.3	2.5	2.8	3.5	1.9	0.7	3.8	4.3	4.5
LnGrp Delay(d),s/veh	142.0	23.3	25.4	67.8	22.8	24.1	144.1	21.1	20.3	161.2	23.5	24.8
LnGrp LOS	F	C	C	E	C	C	F	C	C	F	C	C
Approach Vol, veh/h		651			670			495			811	
Approach Delay, s/veh		58.2			32.1			56.6			49.3	
Approach LOS		E			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	36.2	10.0	34.8	9.0	36.2	10.2	34.6
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	3.5	* 31	4.5	29.0	3.5	* 31	4.7	28.8
Max Q Clear Time (g_c+I1), s	5.5	11.3	6.5	8.1	5.5	6.0	5.5	9.8
Green Ext Time (p_c), s	0.0	1.3	0.0	1.3	0.0	1.3	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	48.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	191	17	55	199	100	4	37	40	246	101	266
Future Volume (veh/h)	67	191	17	55	199	100	4	37	40	246	101	266
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	67	191	17	55	199	100	4	37	40	246	101	266
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	263	1065	94	230	564	479	88	188	204	689	709	603
Arrive On Green	0.15	0.33	0.33	0.13	0.31	0.31	0.05	0.23	0.23	0.20	0.38	0.38
Sat Flow, veh/h	1757	3259	287	1757	1845	1568	1757	812	878	3408	1845	1568
Grp Volume(v), veh/h	67	102	106	55	199	100	4	0	77	246	101	266
Grp Sat Flow(s),veh/h/ln	1757	1752	1794	1757	1845	1568	1757	0	1690	1704	1845	1568
Q Serve(g_s), s	6.4	7.9	8.1	5.3	16.0	9.0	0.4	0.0	7.0	11.8	6.8	23.9
Cycle Q Clear(g_c), s	6.4	7.9	8.1	5.3	16.0	9.0	0.4	0.0	7.0	11.8	6.8	23.9
Prop In Lane	1.00		0.16	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	263	572	586	230	564	479	88	0	392	689	709	603
V/C Ratio(X)	0.25	0.18	0.18	0.24	0.35	0.21	0.05	0.00	0.20	0.36	0.14	0.44
Avail Cap(c_a), veh/h	263	572	586	230	564	479	88	0	392	689	709	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	45.8	45.9	74.3	51.4	49.0	86.1	0.0	58.8	65.3	38.2	43.4
Incr Delay (d2), s/veh	2.3	0.7	0.7	2.4	1.7	1.0	1.0	0.0	1.1	1.4	0.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.0	4.1	2.8	8.5	4.0	0.2	0.0	3.4	5.7	3.6	10.8
LnGrp Delay(d),s/veh	73.9	46.5	46.6	76.7	53.2	50.0	87.1	0.0	59.9	66.7	38.6	45.8
LnGrp LOS	E	D	D	E	D	D	F		E	E	D	D
Approach Vol, veh/h		275			354			81			613	
Approach Delay, s/veh		53.2			55.9			61.3			53.0	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	63.1	15.0	78.3	30.0	67.1	44.0	49.3
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	28.5	* 58	9.5	* 73	* 25	* 62	38.5	* 44
Max Q Clear Time (g_c+I1), s	8.4	18.0	2.4	25.9	7.3	10.1	13.8	9.0
Green Ext Time (p_c), s	0.0	0.4	0.0	0.3	0.0	0.4	0.3	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	54.3
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	510	97	171	210	366	46	1897	235	282	916	200
Future Volume (veh/h)	309	510	97	171	210	366	46	1897	235	282	916	200
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	309	510	97	171	210	366	46	1897	235	282	916	200
Adj No. of Lanes	2	2	1	2	1	2	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	415	751	336	428	395	1054	411	2536	627	411	2012	627
Arrive On Green	0.12	0.21	0.21	0.12	0.21	0.21	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	3505	1568	3514	1845	3136	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	309	510	97	171	210	366	46	1897	235	282	916	200
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	14.0	21.4	8.3	7.2	16.2	14.0	1.9	41.3	17.0	12.8	21.5	14.1
Cycle Q Clear(g_c), s	14.0	21.4	8.3	7.2	16.2	14.0	1.9	41.3	17.0	12.8	21.5	14.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	751	336	428	395	1054	411	2536	627	411	2012	627
V/C Ratio(X)	0.74	0.68	0.29	0.40	0.53	0.35	0.11	0.75	0.38	0.69	0.46	0.32
Avail Cap(c_a), veh/h	415	751	336	428	395	1054	411	2536	627	411	2012	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	57.8	52.7	64.9	55.8	40.0	62.6	40.8	33.6	67.4	34.9	32.7
Incr Delay (d2), s/veh	11.5	4.9	2.2	2.8	5.0	0.9	0.6	2.1	1.7	9.0	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	10.9	3.8	3.7	8.8	6.2	0.9	18.3	7.6	6.5	10.0	6.3
LnGrp Delay(d),s/veh	79.4	62.7	54.8	67.7	60.8	40.9	63.1	42.9	35.3	76.4	35.6	34.0
LnGrp LOS	E	E	D	E	E	D	E	D	D	E	D	C
Approach Vol, veh/h		916			747			2178			1398	
Approach Delay, s/veh		67.5			52.6			42.5			43.6	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.0	25.0	40.1	25.0	70.0	25.0	40.1
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	19.5	* 65	19.5	34.2	19.5	* 65	19.5	* 34
Max Q Clear Time (g_c+I1), s	3.9	23.5	16.0	18.2	14.8	43.3	9.2	23.4
Green Ext Time (p_c), s	0.1	25.2	0.2	8.6	0.2	16.1	0.2	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	48.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	347	415	244	179	288	224	193	945	99	184	1088	120
Future Volume (veh/h)	347	415	244	179	288	224	193	945	99	184	1088	120
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	347	415	244	179	288	224	193	945	99	184	1088	120
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	414	747	334	410	1063	331	410	2002	623	410	2002	623
Arrive On Green	0.12	0.21	0.21	0.12	0.21	0.21	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	347	415	244	179	288	224	193	945	99	184	1088	120
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	16.0	16.9	23.3	7.9	7.7	21.3	8.5	22.4	6.5	8.1	26.8	8.0
Cycle Q Clear(g_c), s	16.0	16.9	23.3	7.9	7.7	21.3	8.5	22.4	6.5	8.1	26.8	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	747	334	410	1063	331	410	2002	623	410	2002	623
V/C Ratio(X)	0.84	0.56	0.73	0.44	0.27	0.68	0.47	0.47	0.16	0.45	0.54	0.19
Avail Cap(c_a), veh/h	414	747	334	410	1063	331	410	2002	623	410	2002	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.9	56.3	58.8	65.4	52.7	58.0	65.6	35.4	30.7	65.5	36.7	31.1
Incr Delay (d2), s/veh	18.0	3.0	13.1	3.3	0.6	10.6	3.8	0.8	0.5	3.5	1.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	8.6	11.3	3.9	3.6	10.1	4.2	10.5	2.9	4.0	12.5	3.6
LnGrp Delay(d),s/veh	86.9	59.3	71.9	68.7	53.3	68.6	69.5	36.2	31.2	69.0	37.8	31.8
LnGrp LOS	F	E	E	E	D	E	E	D	C	E	D	C
Approach Vol, veh/h		1006			691			1237			1392	
Approach Delay, s/veh		71.9			62.3			41.0			41.4	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.2	25.0	40.2	25.0	70.2	25.0	40.2
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	19.5	* 64	19.5	* 34	19.5	* 64	19.5	34.0
Max Q Clear Time (g_c+I1), s	10.5	28.8	18.0	23.3	10.1	24.4	9.9	25.3
Green Ext Time (p_c), s	0.2	27.9	0.1	7.1	0.2	30.7	0.2	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	233	15	379	13	24	66	161	981	11	20	1261	132
Future Volume (veh/h)	233	15	379	13	24	66	161	981	11	20	1261	132
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	233	15	379	13	24	66	161	981	11	20	1261	132
Adj No. of Lanes	2	1	2	1	1	0	2	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	413	394	589	213	93	256	409	2039	23	211	2000	623
Arrive On Green	0.12	0.21	0.21	0.12	0.21	0.21	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	1845	2760	1757	436	1198	3375	5085	57	1740	4988	1553
Grp Volume(v), veh/h	233	15	379	13	0	90	161	641	351	20	1261	132
Grp Sat Flow(s),veh/h/ln	1704	1845	1380	1757	0	1633	1688	1663	1817	1740	1663	1553
Q Serve(g_s), s	10.4	1.0	20.2	1.1	0.0	7.4	7.1	23.1	23.1	1.6	32.7	9.0
Cycle Q Clear(g_c), s	10.4	1.0	20.2	1.1	0.0	7.4	7.1	23.1	23.1	1.6	32.7	9.0
Prop In Lane	1.00		1.00	1.00		0.73	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	413	394	589	213	0	349	409	1333	729	211	2000	623
V/C Ratio(X)	0.56	0.04	0.64	0.06	0.00	0.26	0.39	0.48	0.48	0.09	0.63	0.21
Avail Cap(c_a), veh/h	413	394	589	213	0	349	409	1333	729	211	2000	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.8	50.2	57.8	62.7	0.0	52.7	65.3	35.8	35.8	63.0	38.7	31.6
Incr Delay (d2), s/veh	5.5	0.2	5.3	0.6	0.0	1.8	2.8	1.2	2.3	0.9	1.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.5	8.2	0.5	0.0	3.5	3.5	10.8	12.1	0.8	15.2	4.0
LnGrp Delay(d),s/veh	72.3	50.4	63.1	63.2	0.0	54.5	68.2	37.1	38.1	63.8	40.2	32.4
LnGrp LOS	E	D	E	E		D	E	D	D	E	D	C
Approach Vol, veh/h		627			103			1153			1413	
Approach Delay, s/veh		66.2			55.6			41.7			39.8	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.6	25.0	40.5	25.0	70.6	25.0	40.5
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	19.5	64.0	19.5	* 34	19.5	* 65	19.5	* 34
Max Q Clear Time (g_c+I1), s	9.1	34.7	12.4	9.4	3.6	25.1	3.1	22.2
Green Ext Time (p_c), s	0.1	3.8	0.2	0.5	0.0	3.8	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	140	261	39	46	100	109	611	47	133	1479	121
Future Volume (veh/h)	68	140	261	39	46	100	109	611	47	133	1479	121
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	68	140	261	39	46	100	109	611	47	133	1479	121
Adj No. of Lanes	2	2	0	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	415	378	338	396	721	322	411	2011	626	411	2011	626
Arrive On Green	0.12	0.22	0.22	0.12	0.22	0.22	0.12	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	3408	1752	1568	3250	3343	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	68	140	261	39	46	100	109	611	47	133	1479	121
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1625	1671	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	2.9	10.9	25.1	1.7	1.8	9.0	4.7	13.3	3.0	5.8	40.3	8.1
Cycle Q Clear(g_c), s	2.9	10.9	25.1	1.7	1.8	9.0	4.7	13.3	3.0	5.8	40.3	8.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	378	338	396	721	322	411	2011	626	411	2011	626
V/C Ratio(X)	0.16	0.37	0.77	0.10	0.06	0.31	0.26	0.30	0.08	0.32	0.74	0.19
Avail Cap(c_a), veh/h	415	378	338	396	721	322	411	2011	626	411	2011	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.9	53.5	59.0	62.4	49.9	52.7	63.7	32.5	29.4	64.2	40.5	30.9
Incr Delay (d2), s/veh	0.8	2.8	15.6	0.5	0.2	2.5	1.6	0.4	0.2	2.1	2.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.6	12.3	0.8	0.8	3.9	2.3	6.2	1.3	2.8	18.9	3.6
LnGrp Delay(d),s/veh	63.8	56.3	74.7	62.9	50.1	55.2	65.3	32.9	29.6	66.3	43.0	31.6
LnGrp LOS	E	E	E	E	D	E	E	C	C	E	D	C
Approach Vol, veh/h		469			185			767			1733	
Approach Delay, s/veh		67.6			55.6			37.3			44.0	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	64.5	19.5	34.5	19.5	64.5	19.5	34.5
Max Q Clear Time (g_c+I1), s	6.7	42.3	4.9	11.0	7.8	15.3	3.7	27.1
Green Ext Time (p_c), s	0.1	3.9	0.1	0.6	0.1	4.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	46.5
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	27	115	528	28	221	1365
Future Volume (veh/h)	27	115	528	28	221	1365
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1827	1827	1827
Adj Flow Rate, veh/h	27	115	528	28	221	1365
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	871	401	2364	736	513	2314
Arrive On Green	0.26	0.26	0.47	0.47	0.15	0.67
Sat Flow, veh/h	3408	1568	5152	1553	3375	3563
Grp Volume(v), veh/h	27	115	528	28	221	1365
Grp Sat Flow(s),veh/h/ln	1704	1568	1663	1553	1688	1736
Q Serve(g_s), s	0.8	8.0	8.4	1.3	8.0	29.2
Cycle Q Clear(g_c), s	0.8	8.0	8.4	1.3	8.0	29.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	871	401	2364	736	513	2314
V/C Ratio(X)	0.03	0.29	0.22	0.04	0.43	0.59
Avail Cap(c_a), veh/h	871	401	2364	736	513	2314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	40.4	20.9	19.0	52.0	12.4
Incr Delay (d2), s/veh	0.1	1.8	0.2	0.1	2.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	7.7	3.9	0.6	3.9	14.2
LnGrp Delay(d),s/veh	37.8	42.2	21.1	19.1	54.6	13.5
LnGrp LOS	D	D	C	B	D	B
Approach Vol, veh/h	142		556			1586
Approach Delay, s/veh	41.3		21.0			19.2
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		95.0		40.0	26.0	69.0		
Change Period (Y+Rc), s		5.0		5.5	5.5	5.0		
Max Green Setting (Gmax), s		90.0		34.5	20.5	64.0		
Max Q Clear Time (g_c+I1), s		31.2		10.0	10.0	10.4		
Green Ext Time (p_c), s		3.3		0.1	0.2	3.3		

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	2	1	8	5	56	2	459	42	99	1108	75
Future Volume (veh/h)	7	2	1	8	5	56	2	459	42	99	1108	75
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1900	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	7	2	1	8	5	56	2	459	42	99	1108	75
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	4	4	4	4	4	4
Cap, veh/h	130	37	19	142	89	202	64	1924	861	291	1999	135
Arrive On Green	0.11	0.11	0.11	0.13	0.13	0.13	0.04	0.55	0.55	0.09	0.61	0.61
Sat Flow, veh/h	1170	334	167	1101	688	1568	1740	3471	1553	3375	3300	223
Grp Volume(v), veh/h	10	0	0	13	0	56	2	459	42	99	582	601
Grp Sat Flow(s),veh/h/ln	1671	0	0	1790	0	1568	1740	1736	1553	1688	1736	1788
Q Serve(g_s), s	0.9	0.0	0.0	1.1	0.0	5.6	0.2	11.9	2.2	4.8	34.9	34.9
Cycle Q Clear(g_c), s	0.9	0.0	0.0	1.1	0.0	5.6	0.2	11.9	2.2	4.8	34.9	34.9
Prop In Lane	0.70		0.10	0.62		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	186	0	0	231	0	202	64	1924	861	291	1051	1083
V/C Ratio(X)	0.05	0.00	0.00	0.06	0.00	0.28	0.03	0.24	0.05	0.34	0.55	0.55
Avail Cap(c_a), veh/h	186	0	0	231	0	202	64	1924	861	291	1051	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	0.0	0.0	66.8	0.0	68.8	81.3	20.0	17.9	75.3	20.5	20.5
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.5	0.0	3.4	0.9	0.3	0.1	3.1	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.6	0.0	2.6	0.1	5.8	1.0	2.4	17.3	17.8
LnGrp Delay(d),s/veh	70.1	0.0	0.0	67.3	0.0	72.2	82.2	20.3	18.0	78.4	22.6	22.5
LnGrp LOS	E			E		E	F	C	B	E	C	C
Approach Vol, veh/h		10			69			503			1282	
Approach Delay, s/veh		70.1			71.3			20.4			26.9	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	111.0		28.0	20.0	102.0		25.0
Change Period (Y+Rc), s	* 4.6	5.0		* 5.4	* 4.9	5.0		5.5
Max Green Setting (Gmax), s	* 6.4	106.0		* 23	* 15	97.0		19.5
Max Q Clear Time (g_c+I1), s	2.2	36.9		7.6	6.8	13.9		2.9
Green Ext Time (p_c), s	0.0	11.2		0.1	0.2	11.3		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		27.0
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	480	21	23	210	131	7	275	51	267	751	84
Future Volume (veh/h)	99	480	21	23	210	131	7	275	51	267	751	84
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	99	480	21	23	210	131	7	275	51	267	751	84
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	197	579	492	53	427	668	40	438	81	348	857	908
Arrive On Green	0.12	0.32	0.32	0.03	0.24	0.24	0.02	0.29	0.29	0.20	0.47	0.47
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1740	1500	278	1740	1827	1553
Grp Volume(v), veh/h	99	480	21	23	210	131	7	0	326	267	751	84
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1740	0	1778	1740	1827	1553
Q Serve(g_s), s	7.1	32.2	1.2	1.7	13.1	6.9	0.5	0.0	20.7	18.9	48.2	3.1
Cycle Q Clear(g_c), s	7.1	32.2	1.2	1.7	13.1	6.9	0.5	0.0	20.7	18.9	48.2	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	197	579	492	53	427	668	40	0	520	348	857	908
V/C Ratio(X)	0.50	0.83	0.04	0.44	0.49	0.20	0.17	0.00	0.63	0.77	0.88	0.09
Avail Cap(c_a), veh/h	197	579	492	53	427	668	40	0	520	348	857	908
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	40.7	30.2	61.9	42.7	22.4	62.3	0.0	39.9	49.1	31.1	11.9
Incr Delay (d2), s/veh	8.9	12.9	0.2	24.4	4.0	0.7	9.2	0.0	5.6	14.9	12.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	17.9	0.5	1.2	7.0	3.0	0.3	0.0	11.0	10.5	27.1	1.4
LnGrp Delay(d),s/veh	62.9	53.6	30.4	86.2	46.7	23.1	71.5	0.0	45.5	64.1	43.3	12.1
LnGrp LOS	E	D	C	F	D	C	E		D	E	D	B
Approach Vol, veh/h		600			364			333			1102	
Approach Delay, s/veh		54.3			40.7			46.1			45.9	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	48.0	7.0	67.0	19.0	37.0	30.0	44.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	4.0	42.0	3.0	61.0	15.0	31.0	26.0	38.0
Max Q Clear Time (g_c+I1), s	3.7	34.2	2.5	50.2	9.1	15.1	20.9	22.7
Green Ext Time (p_c), s	0.0	1.5	0.0	2.6	0.1	1.9	0.3	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	47.2
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	118	15	11	207	611	188
Future Volume (veh/h)	118	15	11	207	611	188
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	118	15	11	207	611	188
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	237	30	208	1199	584	180
Arrive On Green	0.17	0.17	0.12	0.66	0.44	0.44
Sat Flow, veh/h	1430	182	1740	1827	1341	413
Grp Volume(v), veh/h	134	0	11	207	0	799
Grp Sat Flow(s),veh/h/ln	1624	0	1740	1827	0	1754
Q Serve(g_s), s	4.1	0.0	0.3	2.4	0.0	23.7
Cycle Q Clear(g_c), s	4.1	0.0	0.3	2.4	0.0	23.7
Prop In Lane	0.88	0.11	1.00			0.24
Lane Grp Cap(c), veh/h	269	0	208	1199	0	764
V/C Ratio(X)	0.50	0.00	0.05	0.17	0.00	1.05
Avail Cap(c_a), veh/h	269	0	208	1199	0	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	21.2	3.6	0.0	15.4
Incr Delay (d2), s/veh	6.5	0.0	0.5	0.3	0.0	45.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.2	1.3	0.0	20.8
LnGrp Delay(d),s/veh	27.1	0.0	21.7	3.9	0.0	60.4
LnGrp LOS	C		C	A		F
Approach Vol, veh/h	134			218	799	
Approach Delay, s/veh	27.1			4.8	60.4	
Approach LOS	C			A	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	12.0	29.4		13.0		41.4		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.5	* 23		9.0		* 36		
Max Q Clear Time (g_c+I1), s	2.3	25.7		6.1		4.4		
Green Ext Time (p_c), s	0.0	0.0		0.1		1.2		

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Pedestrian Green has to be less than Phase Max Green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	702	4	58	300	13	4	205	69	42	286	25
Future Volume (veh/h)	40	702	4	58	300	13	4	205	69	42	286	25
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1900	1810	1900	1900	1810	1900
Adj Flow Rate, veh/h	40	702	4	58	300	13	4	205	69	42	286	25
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	91	813	5	82	770	33	4	216	73	44	303	26
Arrive On Green	0.05	0.46	0.46	0.05	0.45	0.45	0.17	0.17	0.17	0.21	0.21	0.21
Sat Flow, veh/h	1707	1781	10	1707	1706	74	25	1277	430	211	1440	126
Grp Volume(v), veh/h	40	0	706	58	0	313	278	0	0	353	0	0
Grp Sat Flow(s),veh/h/ln	1707	0	1791	1707	0	1779	1732	0	0	1777	0	0
Q Serve(g_s), s	4.4	0.0	69.0	6.5	0.0	22.8	31.0	0.0	0.0	38.2	0.0	0.0
Cycle Q Clear(g_c), s	4.4	0.0	69.0	6.5	0.0	22.8	31.0	0.0	0.0	38.2	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.04	0.01		0.25	0.12		0.07
Lane Grp Cap(c), veh/h	91	0	817	82	0	803	293	0	0	374	0	0
V/C Ratio(X)	0.44	0.00	0.86	0.70	0.00	0.39	0.95	0.00	0.00	0.94	0.00	0.00
Avail Cap(c_a), veh/h	91	0	817	82	0	803	293	0	0	374	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	89.5	0.0	47.6	91.4	0.0	35.6	80.2	0.0	0.0	75.9	0.0	0.0
Incr Delay (d2), s/veh	14.6	0.0	11.7	40.1	0.0	1.4	40.8	0.0	0.0	34.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	36.8	4.0	0.0	11.5	18.2	0.0	0.0	22.3	0.0	0.0
LnGrp Delay(d),s/veh	104.1	0.0	59.3	131.5	0.0	37.0	121.0	0.0	0.0	110.4	0.0	0.0
LnGrp LOS	F		E	F		D	F			F		
Approach Vol, veh/h		746			371			278			353	
Approach Delay, s/veh		61.7			51.8			121.0			110.4	
Approach LOS		E			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	94.0		47.0	14.0	95.0		39.0
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0
Max Green Setting (Gmax), s	10.4	88.0		41.0	9.4	89.0		33.0
Max Q Clear Time (g_c+I1), s	6.4	24.8		40.2	8.5	71.0		33.0
Green Ext Time (p_c), s	0.0	15.1		0.1	0.0	9.2		0.0

Intersection Summary		
HCM 2010 Ctrl Delay	78.9	
HCM 2010 LOS	E	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	473	105	161	651	157	82	403	97	153	836	224
Future Volume (veh/h)	131	473	105	161	651	157	82	403	97	153	836	224
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	131	473	105	161	651	157	82	403	97	153	836	224
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	189	703	155	189	863	386	216	1132	507	135	971	434
Arrive On Green	0.11	0.25	0.25	0.11	0.25	0.25	0.12	0.32	0.32	0.08	0.28	0.28
Sat Flow, veh/h	1757	2856	630	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	131	289	289	161	651	157	82	403	97	153	836	224
Grp Sat Flow(s),veh/h/ln	1757	1752	1733	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	4.7	9.7	9.8	5.9	11.2	5.5	2.8	5.7	2.9	5.0	14.7	7.8
Cycle Q Clear(g_c), s	4.7	9.7	9.8	5.9	11.2	5.5	2.8	5.7	2.9	5.0	14.7	7.8
Prop In Lane	1.00		0.36	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	431	427	189	863	386	216	1132	507	135	971	434
V/C Ratio(X)	0.69	0.67	0.68	0.85	0.75	0.41	0.38	0.36	0.19	1.13	0.86	0.52
Avail Cap(c_a), veh/h	189	431	427	189	863	386	216	1132	507	135	971	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	22.1	22.2	28.5	22.7	20.5	26.2	16.8	15.9	30.0	22.3	19.8
Incr Delay (d2), s/veh	18.8	8.0	8.4	35.5	6.1	3.2	5.0	0.9	0.8	117.3	9.9	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.6	5.6	4.7	6.1	2.7	1.6	2.9	1.4	6.8	8.4	3.9
LnGrp Delay(d),s/veh	46.8	30.2	30.5	64.0	28.8	23.7	31.2	17.7	16.7	147.3	32.3	24.2
LnGrp LOS	D	C	C	E	C	C	C	B	B	F	C	C
Approach Vol, veh/h		709			969			582			1213	
Approach Delay, s/veh		33.4			33.8			19.4			45.3	
Approach LOS		C			C			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	25.0	11.0	20.0	12.0	22.0	11.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	21.0	7.0	16.0	8.0	18.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	7.0	7.7	7.9	11.8	4.8	16.7	6.7	13.2
Green Ext Time (p_c), s	0.0	6.3	0.0	2.5	0.1	0.9	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	291	143	115	462	73	108	530	61	113	1166	160
Future Volume (veh/h)	98	291	143	115	462	73	108	530	61	113	1166	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	98	291	143	115	462	73	108	530	61	113	1166	160
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	141	748	334	141	648	102	116	1130	130	232	1309	179
Arrive On Green	0.08	0.21	0.21	0.08	0.21	0.21	0.07	0.36	0.36	0.13	0.43	0.43
Sat Flow, veh/h	1757	3505	1568	1757	3036	477	1740	3139	360	1740	3069	420
Grp Volume(v), veh/h	98	291	143	115	266	269	108	292	299	113	658	668
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1760	1740	1736	1763	1740	1736	1753
Q Serve(g_s), s	4.1	5.3	5.9	4.8	10.5	10.7	4.6	9.7	9.8	4.5	26.3	26.5
Cycle Q Clear(g_c), s	4.1	5.3	5.9	4.8	10.5	10.7	4.6	9.7	9.8	4.5	26.3	26.5
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.20	1.00		0.24
Lane Grp Cap(c), veh/h	141	748	334	141	374	376	116	625	635	232	741	748
V/C Ratio(X)	0.70	0.39	0.43	0.82	0.71	0.72	0.93	0.47	0.47	0.49	0.89	0.89
Avail Cap(c_a), veh/h	141	748	334	141	374	376	116	625	635	232	741	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	25.3	25.5	34.0	27.4	27.4	34.8	18.5	18.5	30.1	19.9	19.9
Incr Delay (d2), s/veh	24.9	1.5	4.0	39.0	10.9	11.2	66.6	2.5	2.5	7.1	14.9	15.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	2.7	2.9	3.9	6.2	6.3	4.4	5.1	5.2	2.6	15.5	15.8
LnGrp Delay(d),s/veh	58.6	26.8	29.5	73.0	38.3	38.6	101.4	21.0	21.0	37.3	34.8	35.2
LnGrp LOS	E	C	C	E	D	D	F	C	C	D	C	D
Approach Vol, veh/h		532			650			699			1439	
Approach Delay, s/veh		33.4			44.5			33.4			35.2	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	31.0	10.0	20.0	9.0	36.0	10.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	27.0	6.0	16.0	5.0	32.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	6.5	11.8	6.8	7.9	6.6	28.5	6.1	12.7
Green Ext Time (p_c), s	0.1	8.4	0.0	2.8	0.0	2.7	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	611	197	201	763	115	176	504	91	143	1196	194
Future Volume (veh/h)	157	611	197	201	763	115	176	504	91	143	1196	194
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	157	611	197	201	763	115	176	504	91	143	1196	194
Adj No. of Lanes	1	3	0	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	751	237	217	781	349	196	919	165	283	1258	563
Arrive On Green	0.10	0.20	0.20	0.13	0.22	0.22	0.11	0.31	0.31	0.16	0.36	0.36
Sat Flow, veh/h	1740	3756	1187	1740	3471	1553	1740	2941	529	1740	3471	1553
Grp Volume(v), veh/h	157	539	269	201	763	115	176	297	298	143	1196	194
Grp Sat Flow(s),veh/h/ln	1740	1663	1618	1740	1736	1553	1740	1736	1734	1740	1736	1553
Q Serve(g_s), s	7.1	12.4	12.7	9.1	17.5	5.0	8.0	11.3	11.4	6.0	26.8	7.3
Cycle Q Clear(g_c), s	7.1	12.4	12.7	9.1	17.5	5.0	8.0	11.3	11.4	6.0	26.8	7.3
Prop In Lane	1.00		0.73	1.00		1.00	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	174	665	324	217	781	349	196	542	542	283	1258	563
V/C Ratio(X)	0.90	0.81	0.83	0.92	0.98	0.33	0.90	0.55	0.55	0.51	0.95	0.34
Avail Cap(c_a), veh/h	174	665	324	217	781	349	196	542	542	283	1258	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	30.6	30.7	34.6	30.8	25.9	35.1	22.8	22.8	30.6	24.8	18.6
Incr Delay (d2), s/veh	46.5	10.4	21.3	44.0	27.1	2.5	42.4	3.9	4.0	6.3	16.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	6.7	7.6	7.1	11.3	2.4	6.1	6.0	6.1	3.4	15.6	3.4
LnGrp Delay(d),s/veh	82.1	40.9	52.0	78.7	57.9	28.5	77.4	26.7	26.8	36.9	40.8	20.2
LnGrp LOS	F	D	D	E	E	C	E	C	C	D	D	C
Approach Vol, veh/h		965			1079			771			1533	
Approach Delay, s/veh		50.7			58.6			38.3			37.8	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	29.0	14.0	20.0	13.0	33.0	12.0	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	25.0	10.0	16.0	9.0	29.0	8.0	18.0
Max Q Clear Time (g_c+I1), s	8.0	13.4	11.1	14.7	10.0	28.8	9.1	19.5
Green Ext Time (p_c), s	0.2	7.4	0.0	1.0	0.0	0.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	473	141	87	489	64	143	198	61	155	821	291
Future Volume (veh/h)	122	473	141	87	489	64	143	198	61	155	821	291
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	122	473	141	87	489	64	143	198	61	155	821	291
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	145	705	209	145	824	107	146	993	444	176	1051	470
Arrive On Green	0.08	0.27	0.27	0.08	0.27	0.27	0.08	0.28	0.28	0.10	0.30	0.30
Sat Flow, veh/h	1740	2642	782	1740	3089	403	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	122	310	304	87	274	279	143	198	61	155	821	291
Grp Sat Flow(s),veh/h/ln	1740	1736	1689	1740	1736	1756	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	4.1	9.6	9.7	2.9	8.2	8.3	4.9	2.6	1.7	5.2	12.8	9.6
Cycle Q Clear(g_c), s	4.1	9.6	9.7	2.9	8.2	8.3	4.9	2.6	1.7	5.2	12.8	9.6
Prop In Lane	1.00		0.46	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	463	450	145	463	468	146	993	444	176	1051	470
V/C Ratio(X)	0.84	0.67	0.68	0.60	0.59	0.60	0.98	0.20	0.14	0.88	0.78	0.62
Avail Cap(c_a), veh/h	145	463	450	145	463	468	146	993	444	176	1051	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	19.6	19.7	26.5	19.2	19.2	27.4	16.3	16.0	26.7	19.2	18.0
Incr Delay (d2), s/veh	41.6	7.5	7.9	17.0	5.5	5.5	68.5	0.5	0.6	42.6	5.8	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	5.5	5.5	2.1	4.7	4.7	5.1	1.3	0.8	4.6	7.0	4.9
LnGrp Delay(d),s/veh	68.7	27.1	27.6	43.6	24.6	24.7	95.9	16.8	16.7	69.2	25.0	24.0
LnGrp LOS	E	C	C	D	C	C	F	B	B	E	C	C
Approach Vol, veh/h		736			640			402			1267	
Approach Delay, s/veh		34.2			27.2			44.9			30.2	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	21.0	9.0	20.0	9.0	22.0	9.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	17.0	5.0	16.0	5.0	18.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	7.2	4.6	4.9	11.7	6.9	14.8	6.1	10.3
Green Ext Time (p_c), s	0.0	5.3	0.0	2.2	0.0	1.9	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	455	22	56	477	59	41	310	86	164	542	578
Future Volume (veh/h)	146	455	22	56	477	59	41	310	86	164	542	578
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	146	455	22	56	477	59	41	310	86	164	542	578
Adj No. of Lanes	2	2	1	2	2	0	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	225	926	414	225	830	102	225	809	221	338	1157	518
Arrive On Green	0.07	0.27	0.27	0.07	0.27	0.27	0.07	0.30	0.30	0.10	0.33	0.33
Sat Flow, veh/h	3375	3471	1553	3375	3112	383	3375	2697	736	3375	3471	1553
Grp Volume(v), veh/h	146	455	22	56	265	271	41	198	198	164	542	578
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1688	1736	1759	1688	1736	1697	1688	1736	1553
Q Serve(g_s), s	2.5	6.6	0.6	0.9	7.9	8.0	0.7	5.4	5.6	2.8	7.4	20.0
Cycle Q Clear(g_c), s	2.5	6.6	0.6	0.9	7.9	8.0	0.7	5.4	5.6	2.8	7.4	20.0
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	225	926	414	225	463	469	225	521	509	338	1157	518
V/C Ratio(X)	0.65	0.49	0.05	0.25	0.57	0.58	0.18	0.38	0.39	0.49	0.47	1.12
Avail Cap(c_a), veh/h	225	926	414	225	463	469	225	521	509	338	1157	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	18.6	16.4	26.6	19.0	19.1	26.5	16.6	16.6	25.5	15.8	20.0
Incr Delay (d2), s/veh	13.6	1.9	0.2	2.6	5.1	5.1	1.8	2.1	2.2	4.9	1.4	75.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.4	0.3	0.5	4.4	4.5	0.4	2.9	2.9	1.5	3.8	19.4
LnGrp Delay(d),s/veh	40.9	20.4	16.6	29.2	24.1	24.2	28.2	18.7	18.9	30.5	17.2	95.6
LnGrp LOS	D	C	B	C	C	C	C	B	B	C	B	F
Approach Vol, veh/h		623			592			437			1284	
Approach Delay, s/veh		25.1			24.6			19.7			54.2	
Approach LOS		C			C			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	22.0	8.0	20.0	8.0	24.0	8.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	18.0	4.0	16.0	4.0	20.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	4.8	7.6	2.9	8.6	2.7	22.0	4.5	10.0
Green Ext Time (p_c), s	0.1	5.1	0.0	2.9	0.0	0.0	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	6	12	50	9	1	12	530	55	1	1005	0
Future Volume (veh/h)	1	6	12	50	9	1	12	530	55	1	1005	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	1	6	12	50	9	1	12	530	55	1	1005	0
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	12	74	149	262	243	27	19	970	824	19	970	0
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.54	0.54	0.01	0.54	0.00
Sat Flow, veh/h	83	499	997	1757	1631	181	1707	1792	1524	1707	1792	0
Grp Volume(v), veh/h	19	0	0	50	0	10	12	530	55	1	1005	0
Grp Sat Flow(s),veh/h/ln	1579	0	0	1757	0	1813	1707	1792	1524	1707	1792	0
Q Serve(g_s), s	1.1	0.0	0.0	2.7	0.0	0.5	0.8	20.7	1.8	0.1	58.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	2.7	0.0	0.5	0.8	20.7	1.8	0.1	58.0	0.0
Prop In Lane	0.05		0.63	1.00		0.10	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	236	0	0	262	0	271	19	970	824	19	970	0
V/C Ratio(X)	0.08	0.00	0.00	0.19	0.00	0.04	0.63	0.55	0.07	0.05	1.04	0.00
Avail Cap(c_a), veh/h	236	0	0	262	0	271	64	970	824	64	970	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.3	0.0	0.0	39.9	0.0	39.0	52.8	16.0	11.7	52.4	24.6	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.6	0.0	0.3	29.1	2.2	0.2	1.1	38.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.4	0.0	0.3	0.5	10.8	0.8	0.0	39.0	0.0
LnGrp Delay(d),s/veh	39.9	0.0	0.0	41.5	0.0	39.3	81.9	18.2	11.9	53.6	63.3	0.0
LnGrp LOS	D			D		D	F	B	B	D	F	
Approach Vol, veh/h		19			60			597			1006	
Approach Delay, s/veh		39.9			41.2			18.9			63.3	
Approach LOS		D			D			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.2	62.0		20.0	5.2	62.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	58.0		16.0	4.0	58.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	22.7		3.1	2.8	60.0		4.7
Green Ext Time (p_c), s	1.1	2.8		0.0	0.0	0.0		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		46.5
HCM 2010 LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	11	7	179	3	149	9	453	250	424	599	1
Future Volume (veh/h)	5	11	7	179	3	149	9	453	250	424	599	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	5	11	7	179	3	149	9	453	250	424	599	1
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	59	141	90	176	6	308	59	438	242	425	1105	2
Arrive On Green	0.03	0.13	0.13	0.10	0.20	0.20	0.03	0.39	0.39	0.24	0.60	0.60
Sat Flow, veh/h	1757	1055	671	1757	31	1542	1757	1118	617	1757	1841	3
Grp Volume(v), veh/h	5	0	18	179	0	152	9	0	703	424	0	600
Grp Sat Flow(s),veh/h/ln	1757	0	1726	1757	0	1573	1757	0	1736	1757	0	1844
Q Serve(g_s), s	0.3	0.0	1.1	12.0	0.0	10.3	0.6	0.0	47.0	28.9	0.0	23.1
Cycle Q Clear(g_c), s	0.3	0.0	1.1	12.0	0.0	10.3	0.6	0.0	47.0	28.9	0.0	23.1
Prop In Lane	1.00		0.39	1.00		0.98	1.00		0.36	1.00		0.00
Lane Grp Cap(c), veh/h	59	0	230	176	0	315	59	0	680	425	0	1106
V/C Ratio(X)	0.09	0.00	0.08	1.02	0.00	0.48	0.15	0.00	1.03	1.00	0.00	0.54
Avail Cap(c_a), veh/h	59	0	230	176	0	315	59	0	680	425	0	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.2	0.0	45.5	54.0	0.0	42.5	56.4	0.0	36.5	45.5	0.0	14.2
Incr Delay (d2), s/veh	2.8	0.0	0.7	72.9	0.0	5.2	5.5	0.0	43.6	43.4	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.6	9.4	0.0	4.9	0.4	0.0	30.7	19.1	0.0	12.3
LnGrp Delay(d),s/veh	59.1	0.0	46.2	127.1	0.0	47.7	61.9	0.0	80.1	88.8	0.0	16.1
LnGrp LOS	E		D	F		D	E		F	F		B
Approach Vol, veh/h		23			331			712			1024	
Approach Delay, s/veh		49.0			90.7			79.9			46.2	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	51.0	16.0	20.0	8.0	76.0	8.0	28.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	29.0	47.0	12.0	16.0	4.0	72.0	4.0	24.0
Max Q Clear Time (g_c+I1), s	30.9	49.0	14.0	3.1	2.6	25.1	2.3	12.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	8.1	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	64.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	12	14	1	6	4	10	370	0	3	563	286
Future Volume (veh/h)	266	12	14	1	6	4	10	370	0	3	563	286
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	266	12	14	1	6	4	10	370	0	3	563	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	359	16	334	33	201	134	94	566	0	94	566	481
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.05	0.31	0.00	0.05	0.31	0.00
Sat Flow, veh/h	1684	76	1568	157	941	628	1757	1845	0	1757	1845	1568
Grp Volume(v), veh/h	278	0	14	11	0	0	10	370	0	3	563	0
Grp Sat Flow(s),veh/h/ln	1760	0	1568	1726	0	0	1757	1845	0	1757	1845	1568
Q Serve(g_s), s	11.1	0.0	0.5	0.4	0.0	0.0	0.4	13.0	0.0	0.1	22.8	0.0
Cycle Q Clear(g_c), s	11.1	0.0	0.5	0.4	0.0	0.0	0.4	13.0	0.0	0.1	22.8	0.0
Prop In Lane	0.96		1.00	0.09		0.36	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	0	334	368	0	0	94	566	0	94	566	481
V/C Ratio(X)	0.74	0.00	0.04	0.03	0.00	0.00	0.11	0.65	0.00	0.03	1.00	0.00
Avail Cap(c_a), veh/h	376	0	334	368	0	0	94	566	0	94	566	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.6	0.0	23.4	23.4	0.0	0.0	33.8	22.5	0.0	33.7	25.9	0.0
Incr Delay (d2), s/veh	12.4	0.0	0.2	0.2	0.0	0.0	2.3	5.8	0.0	0.6	36.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	0.3	0.2	0.0	0.0	0.3	7.5	0.0	0.1	17.3	0.0
LnGrp Delay(d),s/veh	39.9	0.0	23.7	23.5	0.0	0.0	36.1	28.3	0.0	34.3	62.6	0.0
LnGrp LOS	D		C	C			D	C		C	E	
Approach Vol, veh/h		292			11			380			566	
Approach Delay, s/veh		39.1			23.5			28.6			62.5	
Approach LOS		D			C			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	27.0		20.0	8.0	27.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	23.0		16.0	4.0	23.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	15.0		13.1	2.4	24.8		2.4
Green Ext Time (p_c), s	0.0	2.8		0.3	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		46.4
HCM 2010 LOS		D

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	98	51	43	55	7	16	58	11	12	211	19
Future Vol, veh/h	32	98	51	43	55	7	16	58	11	12	211	19
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	98	51	43	55	7	16	58	11	12	211	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	8.9	8.6	10
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	18%	41%	5%
Vol Thru, %	68%	54%	52%	87%
Vol Right, %	13%	28%	7%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	85	181	105	242
LT Vol	16	32	43	12
Through Vol	58	98	55	211
RT Vol	11	51	7	19
Lane Flow Rate	85	181	105	242
Geometry Grp	1	1	1	1
Degree of Util (X)	0.116	0.238	0.146	0.317
Departure Headway (Hd)	4.906	4.74	5.009	4.713
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	726	753	712	760
Service Time	2.967	2.794	3.069	2.762
HCM Lane V/C Ratio	0.117	0.24	0.147	0.318
HCM Control Delay	8.6	9.3	8.9	10
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.9	0.5	1.4

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	178	11	26	217	34	13	33	8	62	210	29
Future Vol, veh/h	18	178	11	26	217	34	13	33	8	62	210	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	18	178	11	26	217	34	13	33	8	62	210	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	11.7	9.3	12.6
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	9%	9%	21%
Vol Thru, %	61%	86%	78%	70%
Vol Right, %	15%	5%	12%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	207	277	301
LT Vol	13	18	26	62
Through Vol	33	178	217	210
RT Vol	8	11	34	29
Lane Flow Rate	54	207	277	301
Geometry Grp	1	1	1	1
Degree of Util (X)	0.086	0.308	0.401	0.445
Departure Headway (Hd)	5.732	5.359	5.217	5.318
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	624	671	690	677
Service Time	3.776	3.393	3.25	3.348
HCM Lane V/C Ratio	0.087	0.308	0.401	0.445
HCM Control Delay	9.3	10.8	11.7	12.6
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.3	1.3	1.9	2.3

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	222	9	4	283	11	10	6	1	87	4	151
Future Vol, veh/h	37	222	9	4	283	11	10	6	1	87	4	151
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	3	3	3	3	3	3
Mvmt Flow	37	222	9	4	283	11	10	6	1	87	4	151
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.1	11.5	9.1	10.7
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	14%	1%	36%
Vol Thru, %	35%	83%	95%	2%
Vol Right, %	6%	3%	4%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	268	298	242
LT Vol	10	37	4	87
Through Vol	6	222	283	4
RT Vol	1	9	11	151
Lane Flow Rate	17	268	298	242
Geometry Grp	1	1	1	1
Degree of Util (X)	0.028	0.373	0.409	0.337
Departure Headway (Hd)	5.908	5.004	4.943	5.016
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	610	710	721	709
Service Time	3.908	3.095	3.031	3.109
HCM Lane V/C Ratio	0.028	0.377	0.413	0.341
HCM Control Delay	9.1	11.1	11.5	10.7
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.1	1.7	2	1.5

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	76	21	126	126	8	14	73	36	1	343	34
Future Vol, veh/h	9	76	21	126	126	8	14	73	36	1	343	34
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	6	6	6	8	8	8	3	3	3	3	3	3
Mvmt Flow	9	76	21	126	126	8	14	73	36	1	343	34
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	12.5	9.8	14.2
HCM LOS	A	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	8%	48%	0%
Vol Thru, %	59%	72%	48%	91%
Vol Right, %	29%	20%	3%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	123	106	260	378
LT Vol	14	9	126	1
Through Vol	73	76	126	343
RT Vol	36	21	8	34
Lane Flow Rate	123	106	260	378
Geometry Grp	1	1	1	1
Degree of Util (X)	0.186	0.168	0.408	0.542
Departure Headway (Hd)	5.455	5.719	5.646	5.159
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	657	626	637	699
Service Time	3.501	3.766	3.684	3.193
HCM Lane V/C Ratio	0.187	0.169	0.408	0.541
HCM Control Delay	9.8	9.9	12.5	14.2
HCM Lane LOS	A	A	B	B
HCM 95th-tile Q	0.7	0.6	2	3.3

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	3	23	0	1	1	13	78	1	1	302	171
Future Vol, veh/h	40	3	23	0	1	1	13	78	1	1	302	171
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	40	3	23	0	1	1	13	78	1	1	302	171
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	8	8.2	11.5
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	61%	0%	0%
Vol Thru, %	85%	5%	50%	64%
Vol Right, %	1%	35%	50%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	92	66	2	474
LT Vol	13	40	0	1
Through Vol	78	3	1	302
RT Vol	1	23	1	171
Lane Flow Rate	92	66	2	474
Geometry Grp	1	1	1	1
Degree of Util (X)	0.118	0.093	0.003	0.53
Departure Headway (Hd)	4.602	5.062	4.947	4.026
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	780	708	722	901
Service Time	2.625	3.093	2.984	2.026
HCM Lane V/C Ratio	0.118	0.093	0.003	0.526
HCM Control Delay	8.2	8.6	8	11.5
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.4	0.3	0	3.2

Intersection	
Intersection Delay, s/veh	15.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	383	0	70	0	40	131	171	205	0
Future Vol, veh/h	0	0	0	383	0	70	0	40	131	171	205	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	383	0	70	0	40	131	171	205	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	0	19.9	10.6	12.3
HCM LOS	-	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	85%	100%	0%
Vol Thru, %	23%	100%	0%	0%	100%
Vol Right, %	77%	0%	15%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	171	0	453	171	205
LT Vol	0	0	383	171	0
Through Vol	40	0	0	0	205
RT Vol	131	0	70	0	0
Lane Flow Rate	171	0	453	171	205
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.263	0	0.69	0.316	0.35
Departure Headway (Hd)	5.536	6.307	5.483	6.661	6.153
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	648	0	661	540	584
Service Time	3.581	4.369	3.515	4.403	3.894
HCM Lane V/C Ratio	0.264	0	0.685	0.317	0.351
HCM Control Delay	10.6	9.4	19.9	12.5	12.2
HCM Lane LOS	B	N	C	B	B
HCM 95th-tile Q	1.1	0	5.5	1.3	1.6

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	92	50	19	262	352	97
Future Vol, veh/h	92	50	19	262	352	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	8	8	6	6	5	5
Mvmt Flow	92	50	19	262	352	97
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	10.3	11	13.7
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	7%	65%	0%
Vol Thru, %	93%	0%	78%
Vol Right, %	0%	35%	22%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	281	142	449
LT Vol	19	92	0
Through Vol	262	0	352
RT Vol	0	50	97
Lane Flow Rate	281	142	449
Geometry Grp	1	1	1
Degree of Util (X)	0.383	0.22	0.572
Departure Headway (Hd)	4.912	5.578	4.586
Convergence, Y/N	Yes	Yes	Yes
Cap	728	638	781
Service Time	2.98	3.671	2.644
HCM Lane V/C Ratio	0.386	0.223	0.575
HCM Control Delay	11	10.3	13.7
HCM Lane LOS	B	B	B
HCM 95th-tile Q	1.8	0.8	3.7

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	0	18	1	262	2	51	326	0
Future Vol, veh/h	0	0	0	20	0	18	1	262	2	51	326	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	20	20	20	5	5	5	6	6	6
Mvmt Flow	0	0	0	20	0	18	1	262	2	51	326	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	0	8.8	9.7	11.2
HCM LOS	-	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	53%	14%
Vol Thru, %	99%	100%	0%	86%
Vol Right, %	1%	0%	47%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	265	0	38	377
LT Vol	1	0	20	51
Through Vol	262	0	0	326
RT Vol	2	0	18	0
Lane Flow Rate	265	0	38	377
Geometry Grp	1	1	1	1
Degree of Util (X)	0.329	0	0.058	0.462
Departure Headway (Hd)	4.473	5.43	5.467	4.409
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	806	0	655	818
Service Time	2.492	3.474	3.504	2.426
HCM Lane V/C Ratio	0.329	0	0.058	0.461
HCM Control Delay	9.7	8.5	8.8	11.2
HCM Lane LOS	A	N	A	B
HCM 95th-tile Q	1.4	0	0.2	2.5

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	138	68	17	213	15	46	77	14	18	244	87
Future Vol, veh/h	36	138	68	17	213	15	46	77	14	18	244	87
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	3	3	3
Mvmt Flow	36	138	68	17	213	15	46	77	14	18	244	87
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.2	12.5	10.9	14.6
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	15%	7%	5%
Vol Thru, %	56%	57%	87%	70%
Vol Right, %	10%	28%	6%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	137	242	245	349
LT Vol	46	36	17	18
Through Vol	77	138	213	244
RT Vol	14	68	15	87
Lane Flow Rate	137	242	245	349
Geometry Grp	1	1	1	1
Degree of Util (X)	0.228	0.381	0.392	0.529
Departure Headway (Hd)	6.003	5.663	5.765	5.461
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	595	632	620	656
Service Time	4.082	3.73	3.834	3.522
HCM Lane V/C Ratio	0.23	0.383	0.395	0.532
HCM Control Delay	10.9	12.2	12.5	14.6
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	0.9	1.8	1.9	3.1

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	106	752	82	176	248
Future Vol, veh/h	54	106	752	82	176	248
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	54	106	752	82	176	248

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1269	417	0	0	834	0
Stage 1	793	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	157	579	-	-	789	-
Stage 1	401	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	122	579	-	-	789	-
Mov Cap-2 Maneuver	250	-	-	-	-	-
Stage 1	401	-	-	-	-	-
Stage 2	455	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.2	0	4.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	250	579	789	-
HCM Lane V/C Ratio	-	-	0.216	0.183	0.223	-
HCM Control Delay (s)	-	-	23.3	12.6	10.9	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.8	0.7	0.9	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	526	0	0	979
Future Vol, veh/h	0	0	526	0	0	979
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	0	0	526	0	0	979

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1505	526	0	0	526	0
Stage 1	526	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	133	550	-	-	1031	-
Stage 1	591	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	133	550	-	-	1031	-
Mov Cap-2 Maneuver	133	-	-	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	363	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1031	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	794	452	25	14	30
Future Vol, veh/h	83	794	452	25	14	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	190	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	3	3
Mvmt Flow	83	794	452	25	14	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	477	0	-	0	1425	465
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	960	-
Critical Hdwy	4.16	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.254	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1065	-	-	-	149	595
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	370	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1065	-	-	-	137	595
Mov Cap-2 Maneuver	-	-	-	-	137	-
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	341	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1065	-	-	-	288
HCM Lane V/C Ratio	0.078	-	-	-	0.153
HCM Control Delay (s)	8.7	-	-	-	19.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	1	2	0	2	0	51	6	1	240	4
Future Vol, veh/h	2	0	1	2	0	2	0	51	6	1	240	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	0	1	2	0	2	0	51	6	1	240	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	299	301	242	299	300	54	244	0	0	57	0	0
Stage 1	244	244	-	54	54	-	-	-	-	-	-	-
Stage 2	55	57	-	245	246	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	651	610	794	651	611	1010	1316	-	-	1541	-	-
Stage 1	757	702	-	956	848	-	-	-	-	-	-	-
Stage 2	955	845	-	756	701	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	649	609	794	650	610	1010	1316	-	-	1541	-	-
Mov Cap-2 Maneuver	649	609	-	650	610	-	-	-	-	-	-	-
Stage 1	757	701	-	956	848	-	-	-	-	-	-	-
Stage 2	953	845	-	754	700	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	9.6	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1316	-	-	691	791	1541	-	-
HCM Lane V/C Ratio	-	-	-	0.004	0.005	0.001	-	-
HCM Control Delay (s)	0	-	-	10.2	9.6	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	672	2	69	465	1	4	0	96	2	4	4
Future Vol, veh/h	4	672	2	69	465	1	4	0	96	2	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	90	200	-	-	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	6	6	3	3	3	3	3	3
Mvmt Flow	4	672	2	69	465	1	4	0	96	2	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	466	0	0	672	0	0	1288	1284	672	1284	1284	466
Stage 1	-	-	-	-	-	-	680	680	-	604	604	-
Stage 2	-	-	-	-	-	-	608	604	-	680	680	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1075	-	-	900	-	-	140	164	454	141	164	595
Stage 1	-	-	-	-	-	-	439	449	-	484	486	-
Stage 2	-	-	-	-	-	-	481	486	-	439	449	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1075	-	-	900	-	-	128	151	454	104	151	595
Mov Cap-2 Maneuver	-	-	-	-	-	-	128	151	-	104	151	-
Stage 1	-	-	-	-	-	-	437	447	-	482	449	-
Stage 2	-	-	-	-	-	-	437	449	-	345	447	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.2	15.8	24.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	128	454	1075	-	-	900	-	-	191
HCM Lane V/C Ratio	0.031	0.211	0.004	-	-	0.077	-	-	0.052
HCM Control Delay (s)	34	15	8.4	-	-	9.3	-	-	24.9
HCM Lane LOS	D	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.8	0	-	-	0.2	-	-	0.2

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	94	1	3	3	2	72
Future Vol, veh/h	94	1	3	3	2	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	94	1	3	3	2	72

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	47	38	74	0	-	0
Stage 1	38	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	960	1031	1519	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	958	1031	1519	-	-	-
Mov Cap-2 Maneuver	958	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	1009	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	3.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1519	-	959	-	-
HCM Lane V/C Ratio	0.002	-	0.099	-	-
HCM Control Delay (s)	7.4	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	248	0	0	182	1	6	0	1	1	0	2
Future Vol, veh/h	2	248	0	0	182	1	6	0	1	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	248	0	0	182	1	6	0	1	1	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	183	0	0	248	0	0	436	435	248	436	435	183
Stage 1	-	-	-	-	-	-	252	252	-	183	183	-
Stage 2	-	-	-	-	-	-	184	183	-	253	252	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1386	-	-	1312	-	-	529	513	788	529	513	857
Stage 1	-	-	-	-	-	-	750	697	-	816	746	-
Stage 2	-	-	-	-	-	-	815	746	-	749	697	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1386	-	-	1312	-	-	527	512	788	528	512	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	527	512	-	528	512	-
Stage 1	-	-	-	-	-	-	749	696	-	814	746	-
Stage 2	-	-	-	-	-	-	813	746	-	747	696	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	11.6	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	553	1386	-	-	1312	-	-	710
HCM Lane V/C Ratio	0.013	0.001	-	-	-	-	-	0.004
HCM Control Delay (s)	11.6	7.6	0	-	0	-	-	10.1
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	81	0	0	0	0	173
Future Vol, veh/h	81	0	0	0	0	173
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	81	0	0	0	0	173

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	87	87	173	0	-	0
Stage 1	87	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	912	969	1398	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	912	969	1398	-	-	-
Mov Cap-2 Maneuver	912	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1398	-	912	-	-
HCM Lane V/C Ratio	-	-	0.089	-	-
HCM Control Delay (s)	0	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	494	13	358	669	13	228
Future Vol, veh/h	494	13	358	669	13	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	250	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	494	13	358	669	13	228

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	494	0	1879	494
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	1385	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1064	-	78	573
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	231	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1064	-	52	573
Mov Cap-2 Maneuver	-	-	-	-	52	-
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	153	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.5	19.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	52	573	-	-	1064	-
HCM Lane V/C Ratio	0.25	0.398	-	-	0.336	-
HCM Control Delay (s)	95.9	15.4	-	-	10.1	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	0.9	1.9	-	-	1.5	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	122	0	0	309
Future Vol, veh/h	0	0	122	0	0	309
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	122	0	0	309

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	431	122	0	0	122	0
Stage 1	122	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	579	926	-	-	1459	-
Stage 1	901	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	579	926	-	-	1459	-
Mov Cap-2 Maneuver	579	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1459	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	35	15	77	342	55
Future Vol, veh/h	72	35	15	77	342	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	72	35	15	77	342	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	449	342	342	0	-	0
Stage 1	342	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	566	698	1211	-	-	0
Stage 1	717	-	-	-	-	0
Stage 2	915	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	559	698	1211	-	-	-
Mov Cap-2 Maneuver	559	-	-	-	-	-
Stage 1	717	-	-	-	-	-
Stage 2	903	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	1211	-	598	-
HCM Lane V/C Ratio	0.012	-	0.179	-
HCM Control Delay (s)	8	0	12.3	-
HCM Lane LOS	A	A	B	-
HCM 95th %tile Q(veh)	0	-	0.6	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	573	3	16	272	1	3	4	0	0	89	61
Future Vol, veh/h	11	573	3	16	272	1	3	4	0	0	89	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	6	6	8	8	8	8	8	8
Mvmt Flow	11	573	3	16	272	1	3	4	0	0	89	61

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	273	0	0	576	0	0	977	902	575	904	903	273
Stage 1	-	-	-	-	-	-	597	597	-	305	305	-
Stage 2	-	-	-	-	-	-	380	305	-	599	598	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1267	-	-	978	-	-	224	271	506	252	271	752
Stage 1	-	-	-	-	-	-	479	482	-	692	652	-
Stage 2	-	-	-	-	-	-	630	652	-	478	481	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1267	-	-	978	-	-	149	264	506	244	264	752
Mov Cap-2 Maneuver	-	-	-	-	-	-	149	264	-	244	264	-
Stage 1	-	-	-	-	-	-	475	478	-	686	641	-
Stage 2	-	-	-	-	-	-	490	641	-	470	477	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	23.8	22
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	198	1267	-	-	978	-	-	359
HCM Lane V/C Ratio	0.035	0.009	-	-	0.016	-	-	0.418
HCM Control Delay (s)	23.8	7.9	-	-	8.7	-	-	22
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	2

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	119	7	1	197	1	8	2	0	0	22	67
Future Vol, veh/h	5	119	7	1	197	1	8	2	0	0	22	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	5	119	7	1	197	1	8	2	0	0	22	67

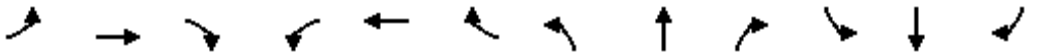
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	198	0	0	126	0	0	377	333	123	334	336	198
Stage 1	-	-	-	-	-	-	133	133	-	200	200	-
Stage 2	-	-	-	-	-	-	244	200	-	134	136	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1339	-	-	1412	-	-	570	577	912	608	575	828
Stage 1	-	-	-	-	-	-	856	775	-	788	725	-
Stage 2	-	-	-	-	-	-	746	725	-	855	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1339	-	-	1412	-	-	507	574	912	604	572	828
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	574	-	604	572	-
Stage 1	-	-	-	-	-	-	853	772	-	785	724	-
Stage 2	-	-	-	-	-	-	664	724	-	849	770	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	12.1	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	519	1339	-	-	1412	-	-	746
HCM Lane V/C Ratio	0.019	0.004	-	-	0.001	-	-	0.119
HCM Control Delay (s)	12.1	7.7	0	-	7.6	0	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

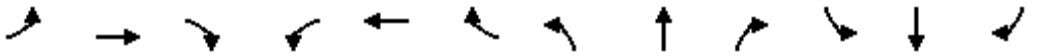
Existing Plus Mather South

AM



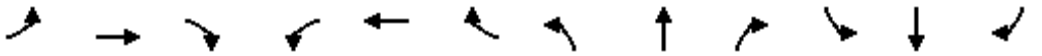
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	629	0	988	0	0	0	0	1413	560	0	1128	392
Future Volume (vph)	629	0	988	0	0	0	0	1413	560	0	1128	392
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	629	0	988	0	0	0	0	1413	560	0	1128	392
RTOR Reduction (vph)	0	0	24	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	629	0	964	0	0	0	0	1413	560	0	1128	392
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	18.3		18.3					17.2	43.5		17.2	43.5
Effective Green, g (s)	18.3		18.3					17.2	43.5		17.2	43.5
Actuated g/C Ratio	0.42		0.42					0.40	1.00		0.40	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1416		1149					1972	1553		1972	1553
v/s Ratio Prot								c0.28			0.23	
v/s Ratio Perm	0.19		c0.35						0.36			0.25
v/c Ratio	0.44		0.84					0.72	0.36		0.57	0.25
Uniform Delay, d1	9.0		11.3					11.1	0.0		10.3	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.2		5.5					1.3	0.7		0.4	0.4
Delay (s)	9.2		16.8					12.4	0.7		10.7	0.4
Level of Service	A		B					B	A		B	A
Approach Delay (s)		13.8			0.0			9.0			8.0	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	43.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



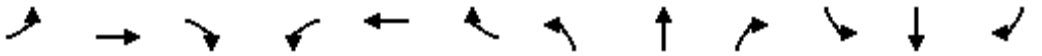
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	245	62	246	728	699	274	1135	172	699	1386	137
Future Volume (vph)	137	245	62	246	728	699	274	1135	172	699	1386	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3366		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3366		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	137	245	62	246	728	699	274	1135	172	699	1386	137
RTOR Reduction (vph)	0	32	0	0	0	531	0	0	126	0	0	84
Lane Group Flow (vph)	137	275	0	246	728	168	274	1135	46	699	1386	53
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	4.0	11.3		10.7	18.0	18.0	8.0	19.9	19.9	17.0	28.9	28.9
Effective Green, g (s)	4.0	11.3		10.7	18.0	18.0	8.0	19.9	19.9	17.0	28.9	28.9
Actuated g/C Ratio	0.05	0.15		0.14	0.24	0.24	0.11	0.27	0.27	0.23	0.39	0.39
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	179	507		481	834	656	359	1325	412	764	1924	599
v/s Ratio Prot	c0.04	0.08		0.07	c0.21		0.08	c0.23		c0.21	0.28	
v/s Ratio Perm						0.06			0.03			0.03
v/c Ratio	0.77	0.54		0.51	0.87	0.26	0.76	0.86	0.11	0.91	0.72	0.09
Uniform Delay, d1	35.0	29.4		29.7	27.4	23.0	32.5	26.1	20.8	28.2	19.6	14.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.6	1.2		0.9	10.0	0.2	9.3	5.7	0.1	15.5	1.4	0.1
Delay (s)	52.5	30.6		30.6	37.3	23.2	41.8	31.8	20.9	43.7	20.9	14.7
Level of Service	D	C		C	D	C	D	C	C	D	C	B
Approach Delay (s)		37.4			30.5			32.4			27.7	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	30.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	356	384	5	977	27	356	12	2	20	13	230
Future Volume (vph)	154	356	384	5	977	27	356	12	2	20	13	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00		0.97	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1627	1524		1790	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00		0.97	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1627	1524		1790	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	154	356	384	5	977	27	356	12	2	20	13	230
RTOR Reduction (vph)	0	0	126	0	0	17	0	0	2	0	0	184
Lane Group Flow (vph)	154	356	258	5	977	10	185	183	0	0	33	46
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	9.1	37.3	50.9	0.7	28.9	28.9	13.6	13.6	13.6		8.2	8.2
Effective Green, g (s)	9.1	37.3	50.9	0.7	28.9	28.9	13.6	13.6	13.6		8.2	8.2
Actuated g/C Ratio	0.12	0.49	0.67	0.01	0.38	0.38	0.18	0.18	0.18		0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	208	1708	1124	16	1323	592	290	291	273		193	169
v/s Ratio Prot	c0.09	0.10	0.04	0.00	c0.28		c0.11	0.11			0.02	
v/s Ratio Perm			0.12			0.01			0.00			c0.03
v/c Ratio	0.74	0.21	0.23	0.31	0.74	0.02	0.64	0.63	0.00		0.17	0.27
Uniform Delay, d1	32.2	10.9	4.8	37.3	20.2	14.6	28.8	28.8	25.5		30.7	31.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	13.2	0.1	0.1	10.9	2.2	0.0	4.6	4.2	0.0		0.4	0.9
Delay (s)	45.4	11.0	4.9	48.2	22.4	14.6	33.4	33.0	25.5		31.1	31.9
Level of Service	D	B	A	D	C	B	C	C	C		C	C
Approach Delay (s)		14.3			22.3			33.1			31.8	
Approach LOS		B			C			C			C	

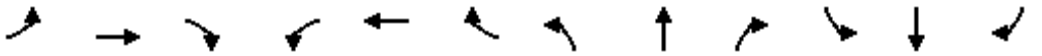
Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	75.8	Sum of lost time (s)	20.0
Intersection Capacity Utilization	62.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	216	94	188	478	67	561	49	294	93	117	34
Future Volume (vph)	26	216	94	188	478	67	561	49	294	93	117	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		0.98	
Satd. Flow (prot)	1752	3505	1568	1752	3440		1665	1682	1568		3367	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		0.98	
Satd. Flow (perm)	1752	3505	1568	1752	3440		1665	1682	1568		3367	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	216	94	188	478	67	561	49	294	93	117	34
RTOR Reduction (vph)	0	0	75	0	13	0	0	0	222	0	17	0
Lane Group Flow (vph)	26	216	19	188	532	0	303	307	72	0	227	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	1.8	13.0	13.0	9.9	21.1		15.8	15.8	15.8		9.5	
Effective Green, g (s)	1.8	13.0	13.0	9.9	21.1		15.8	15.8	15.8		9.5	
Actuated g/C Ratio	0.03	0.20	0.20	0.15	0.33		0.25	0.25	0.25		0.15	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	49	709	317	270	1130		409	413	385		498	
v/s Ratio Prot	0.01	0.06		c0.11	c0.15		0.18	c0.18			c0.07	
v/s Ratio Perm			0.01						0.05			
v/c Ratio	0.53	0.30	0.06	0.70	0.47		0.74	0.74	0.19		0.46	
Uniform Delay, d1	30.8	21.8	20.7	25.7	17.1		22.3	22.3	19.1		25.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	10.6	0.2	0.1	7.6	0.3		7.1	7.1	0.2		0.7	
Delay (s)	41.4	22.0	20.7	33.3	17.4		29.4	29.4	19.4		25.7	
Level of Service	D	C	C	C	B		C	C	B		C	
Approach Delay (s)		23.2			21.5			26.1			25.7	
Approach LOS		C			C			C			C	

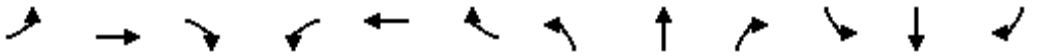
Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	64.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



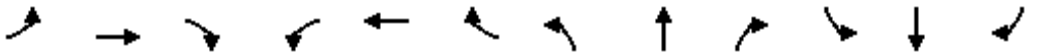
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	276	280	241	715	19	457	48	175	28	144	39
Future Volume (vph)	21	276	280	241	715	19	457	48	175	28	144	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3063		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3063		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	276	280	241	715	19	457	48	175	28	144	39
RTOR Reduction (vph)	0	0	194	0	0	12	0	139	0	0	0	35
Lane Group Flow (vph)	21	276	86	241	715	7	457	84	0	28	144	4
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	1.1	19.9	19.9	6.7	25.4	25.4	13.4	13.4		6.3	6.3	6.3
Effective Green, g (s)	1.1	19.9	19.9	6.7	25.4	25.4	13.4	13.4		6.3	6.3	6.3
Actuated g/C Ratio	0.02	0.31	0.31	0.10	0.39	0.39	0.21	0.21		0.10	0.10	0.10
Clearance Time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Vehicle Extension (s)	1.0	4.9	4.9	1.0	4.1	4.1	2.0	2.0		1.0	1.0	1.0
Lane Grp Cap (vph)	29	1071	479	349	1367	611	693	630		169	339	151
v/s Ratio Prot	0.01	0.08		c0.07	c0.20		c0.14	0.03		0.02	c0.04	
v/s Ratio Perm			0.05			0.00						0.00
v/c Ratio	0.72	0.26	0.18	0.69	0.52	0.01	0.66	0.13		0.17	0.42	0.02
Uniform Delay, d1	31.8	17.0	16.6	28.2	15.2	12.2	23.8	21.1		27.0	27.7	26.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	54.4	0.3	0.4	4.7	0.5	0.0	1.7	0.0		0.2	0.3	0.0
Delay (s)	86.2	17.3	17.0	32.9	15.7	12.2	25.5	21.1		27.2	28.0	26.6
Level of Service	F	B	B	C	B	B	C	C		C	C	C
Approach Delay (s)		19.6			19.9			24.1			27.6	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	65.1	Sum of lost time (s)	22.9
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



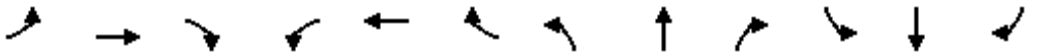
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	791	0	479	0	895	860	0	379	338
Future Volume (vph)	0	0	0	791	0	479	0	895	860	0	379	338
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.6		4.6		3.5	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3367		2733		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3367		2733		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	791	0	479	0	895	860	0	379	338
RTOR Reduction (vph)	0	0	0	0	0	133	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	791	0	346	0	895	860	0	379	338
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				4				6			2	
Permitted Phases						4			Free			Free
Actuated Green, G (s)				13.9		13.9		25.6	47.6		24.0	47.6
Effective Green, g (s)				13.9		13.9		25.6	47.6		24.0	47.6
Actuated g/C Ratio				0.29		0.29		0.54	1.00		0.50	1.00
Clearance Time (s)				4.6		4.6		3.5			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				983		798		2682	1553		2514	1553
v/s Ratio Prot				c0.23				0.18			0.08	
v/s Ratio Perm						0.13			c0.55			0.22
v/c Ratio				0.80		0.43		0.33	0.55		0.15	0.22
Uniform Delay, d1				15.6		13.7		6.2	0.0		6.3	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				4.6		0.1		0.0	1.4		0.1	0.3
Delay (s)				20.2		13.8		6.2	1.4		6.5	0.3
Level of Service				C		B		A	A		A	A
Approach Delay (s)		0.0			17.8			3.9			3.6	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	47.6	Sum of lost time (s)	9.7
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



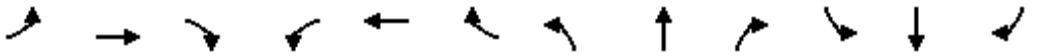
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	520	0	1075	0	0	0	0	1235	774	0	936	230
Future Volume (vph)	520	0	1075	0	0	0	0	1235	774	0	936	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	520	0	1075	0	0	0	0	1235	774	0	936	230
RTOR Reduction (vph)	0	0	35	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	520	0	1040	0	0	0	0	1235	774	0	936	230
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	22.2		22.2					16.5	50.2		17.0	50.2
Effective Green, g (s)	22.2		22.2					16.5	50.2		17.0	50.2
Actuated g/C Ratio	0.44		0.44					0.33	1.00		0.34	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1488		1208					1639	1553		1689	1553
v/s Ratio Prot								c0.25			0.19	
v/s Ratio Perm	0.15		c0.38						0.50			0.15
v/c Ratio	0.35		0.86					0.75	0.50		0.55	0.15
Uniform Delay, d1	9.2		12.6					15.0	0.0		13.5	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1		6.3					1.8	1.1		0.2	0.2
Delay (s)	9.3		18.9					16.8	1.1		13.7	0.2
Level of Service	A		B					B	A		B	A
Approach Delay (s)		15.7			0.0			10.8			11.1	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	50.2	Sum of lost time (s)	11.5
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



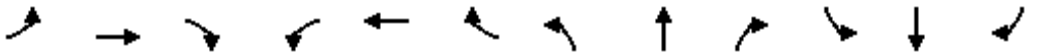
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	807	0	198	0	634	531	0	738	293
Future Volume (vph)	0	0	0	807	0	198	0	634	531	0	738	293
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.95	1.00		0.95	1.00
Frt				1.00	0.94			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1583			3471	1553		3471	1553
Flt Permitted				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1583			3471	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	807	0	198	0	634	531	0	738	293
RTOR Reduction (vph)	0	0	0	0	57	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	516	432	0	0	634	531	0	738	293
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA			NA	Free		NA	Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				14.2	14.2			11.2	35.1		11.2	35.1
Effective Green, g (s)				14.2	14.2			11.2	35.1		11.2	35.1
Actuated g/C Ratio				0.40	0.40			0.32	1.00		0.32	1.00
Clearance Time (s)				4.9	4.9			4.8			4.8	
Vehicle Extension (s)				1.0	1.0			1.0			1.0	
Lane Grp Cap (vph)				667	640			1107	1553		1107	1553
v/s Ratio Prot								0.18			c0.21	
v/s Ratio Perm				c0.31	0.27				0.34			0.19
v/c Ratio				0.77	0.68			0.57	0.34		0.67	0.19
Uniform Delay, d1				9.1	8.6			10.0	0.0		10.3	0.0
Progression Factor				1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2				5.1	2.2			0.4	0.6		1.2	0.3
Delay (s)				14.2	10.8			10.4	0.6		11.5	0.3
Level of Service				B	B			B	A		B	A
Approach Delay (s)		0.0			12.5			5.9			8.3	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	35.1	Sum of lost time (s)	9.7
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



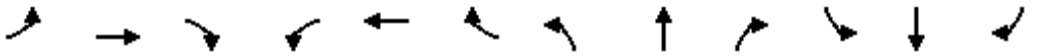
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	0	1037	0	0	0	0	1007	304	0	1286	211
Future Volume (vph)	209	0	1037	0	0	0	0	1007	304	0	1286	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.95	1.00
Frt	1.00	0.86	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1420	1475					4988	1553		3471	1553
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1420	1475					4988	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	209	0	1037	0	0	0	0	1007	304	0	1286	211
RTOR Reduction (vph)	0	21	21	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	188	508	508	0	0	0	0	1007	304	0	1286	211
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm					NA	Free		NA	Free
Protected Phases		4						2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	21.7	21.7	21.7					23.0	54.7		23.1	54.7
Effective Green, g (s)	21.7	21.7	21.7					23.0	54.7		23.1	54.7
Actuated g/C Ratio	0.40	0.40	0.40					0.42	1.00		0.42	1.00
Clearance Time (s)	5.1	5.1	5.1					4.9			4.8	
Vehicle Extension (s)	1.0	1.0	1.0					1.0			1.0	
Lane Grp Cap (vph)	654	563	585					2097	1553		1465	1553
v/s Ratio Prot								0.20			c0.37	
v/s Ratio Perm	0.11	0.36	0.34						0.20			0.14
v/c Ratio	0.29	0.90	0.87					0.48	0.20		0.88	0.14
Uniform Delay, d1	11.2	15.5	15.2					11.5	0.0		14.5	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	17.3	12.5					0.1	0.3		6.1	0.2
Delay (s)	11.3	32.8	27.7					11.6	0.3		20.6	0.2
Level of Service	B	C	C					B	A		C	A
Approach Delay (s)		27.4			0.0			9.0			17.7	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	54.7	Sum of lost time (s)	10.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



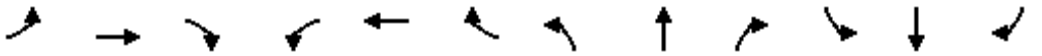
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	932	0	154	0	854	778	0	802	308
Future Volume (vph)	0	0	0	932	0	154	0	854	778	0	802	308
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		3505	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	932	0	154	0	854	778	0	802	308
RTOR Reduction (vph)	0	0	0	0	0	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	932	0	113	0	854	778	0	802	308
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				12.8		12.8		12.0	36.2		12.0	36.2
Effective Green, g (s)				12.8		12.8		12.0	36.2		12.0	36.2
Actuated g/C Ratio				0.35		0.35		0.33	1.00		0.33	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1202		554		1669	1568		1161	1568
v/s Ratio Prot								0.17			c0.23	
v/s Ratio Perm				c0.27		0.07			0.50			0.20
v/c Ratio				0.78		0.20		0.51	0.50		0.69	0.20
Uniform Delay, d1				10.4		8.2		9.7	0.0		10.5	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				2.9		0.1		0.1	1.1		1.4	0.3
Delay (s)				13.3		8.2		9.9	1.1		11.9	0.3
Level of Service				B		A		A	A		B	A
Approach Delay (s)		0.0			12.6			5.7			8.7	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	36.2	Sum of lost time (s)	11.4
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



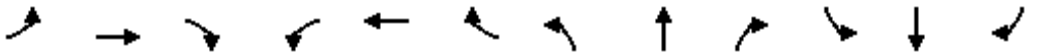
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	329	951	1259	0	0	194	0	1844	9	0	1561	172
Future Volume (vph)	329	951	1259	0	0	194	0	1844	9	0	1561	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		*0.75			0.95	1.00
Frt	1.00	0.95	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	2998	1427			2733		5530			3505	1568
Flt Permitted	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (perm)	1595	2998	1427			2733		5530			3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	329	951	1259	0	0	194	0	1844	9	0	1561	172
RTOR Reduction (vph)	0	5	26	0	0	187	0	1	0	0	0	55
Lane Group Flow (vph)	296	1533	679	0	0	7	0	1852	0	0	1561	117
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA			NA	Perm
Protected Phases	4	4				1		2			6	
Permitted Phases			4									6
Actuated Green, G (s)	53.0	53.0	53.0			4.0		41.0			49.0	49.0
Effective Green, g (s)	53.0	53.0	53.0			4.0		41.0			49.0	49.0
Actuated g/C Ratio	0.48	0.48	0.48			0.04		0.37			0.45	0.45
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	768	1444	687			99		2061			1561	698
v/s Ratio Prot	0.19	c0.51				0.00		0.33			c0.45	
v/s Ratio Perm			0.48									0.07
v/c Ratio	0.39	1.06	0.99			0.07		0.90			1.00	0.17
Uniform Delay, d1	18.1	28.5	28.2			51.2		32.5			30.5	18.3
Progression Factor	1.00	1.00	1.00			1.00		1.00			1.00	1.00
Incremental Delay, d2	0.3	42.0	31.1			0.3		5.7			22.8	0.1
Delay (s)	18.5	70.5	59.3			51.5		38.2			53.3	18.4
Level of Service	B	E	E			D		D			D	B
Approach Delay (s)		61.3			51.5			38.2			49.8	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	51.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



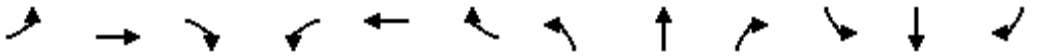
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	315	0	321	0	2008	328	0	1892	1743
Future Volume (vph)	0	0	0	315	0	321	0	2008	328	0	1892	1743
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	315	0	321	0	2008	328	0	1892	1743
RTOR Reduction (vph)	0	0	0	0	0	46	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	315	0	275	0	2008	328	0	1892	1743
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				6.7		6.7		18.5	33.5		18.2	33.5
Effective Green, g (s)				6.7		6.7		18.5	33.5		18.2	33.5
Actuated g/C Ratio				0.20		0.20		0.55	1.00		0.54	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				660		536		2754	1553		2709	1553
v/s Ratio Prot								0.40			0.38	
v/s Ratio Perm				0.10		0.10			0.21			c1.12
v/c Ratio				0.48		0.51		0.73	0.21		0.70	1.12
Uniform Delay, d1				11.9		11.9		5.6	0.0		5.6	16.8
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.2		0.3		0.8	0.3		0.6	64.2
Delay (s)				12.1		12.3		6.5	0.3		6.3	80.9
Level of Service				B		B		A	A		A	F
Approach Delay (s)		0.0			12.2			5.6			42.1	
Approach LOS		A			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.51		
Actuated Cycle Length (s)	33.5	Sum of lost time (s)	8.6
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



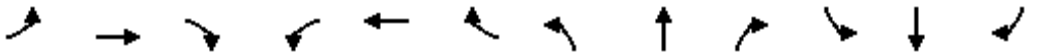
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1166	0	439	0	0	0	0	1177	429	0	1970	235
Future Volume (vph)	1166	0	439	0	0	0	0	1177	429	0	1970	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1166	0	439	0	0	0	0	1177	429	0	1970	235
RTOR Reduction (vph)	0	0	32	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1166	0	407	0	0	0	0	1177	429	0	1970	235
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	13.4		13.4					21.6	43.3		21.3	43.3
Effective Green, g (s)	13.4		13.4					21.6	43.3		21.3	43.3
Actuated g/C Ratio	0.31		0.31					0.50	1.00		0.49	1.00
Clearance Time (s)	3.5		3.5					4.8			5.1	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1514		845					3135	1553		2453	1553
v/s Ratio Prot								0.19			c0.39	
v/s Ratio Perm	c0.24		0.15						0.28			0.15
v/c Ratio	0.77		0.48					0.38	0.28		0.80	0.15
Uniform Delay, d1	13.6		12.1					6.7	0.0		9.2	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	2.3		0.2					0.0	0.4		1.9	0.2
Delay (s)	15.8		12.3					6.7	0.4		11.1	0.2
Level of Service	B		B					A	A		B	A
Approach Delay (s)		14.9			0.0			5.0			10.0	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	43.3	Sum of lost time (s)	8.6
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



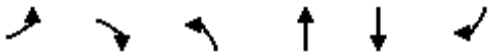
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	548	316	7	0	277	15	8	30	5	7	6	247
Future Volume (vph)	548	316	7	0	277	15	8	30	5	7	6	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Lane Util. Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.99			0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (prot)	1703	1792	1524		1796			1799			1779	1553
Flt Permitted	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (perm)	1703	1792	1524		1796			1799			1779	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	548	316	7	0	277	15	8	30	5	7	6	247
RTOR Reduction (vph)	0	0	2	0	2	0	0	4	0	0	0	141
Lane Group Flow (vph)	548	316	5	0	290	0	0	39	0	0	13	106
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	Over
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									
Actuated Green, G (s)	32.2	52.2	52.2		15.4			2.5			0.8	32.2
Effective Green, g (s)	32.2	52.2	52.2		15.4			2.5			0.8	32.2
Actuated g/C Ratio	0.43	0.70	0.70		0.21			0.03			0.01	0.43
Clearance Time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0		1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	734	1252	1064		370			60			19	669
v/s Ratio Prot	c0.32	0.18			c0.16			c0.02			c0.01	0.07
v/s Ratio Perm			0.00									
v/c Ratio	0.75	0.25	0.00		0.78			0.65			0.68	0.16
Uniform Delay, d1	17.8	4.1	3.4		28.1			35.7			36.8	13.0
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	3.6	0.0	0.0		9.7			17.7			58.7	0.0
Delay (s)	21.5	4.2	3.4		37.8			53.4			95.5	13.0
Level of Service	C	A	A		D			D			F	B
Approach Delay (s)		15.0			37.8			53.4			17.1	
Approach LOS		B			D			D			B	

Intersection Summary			
HCM 2000 Control Delay	21.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	74.7	Sum of lost time (s)	24.7
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



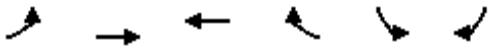
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	219	55	171	452	313	693	0	0	2947	157
Future Volume (vph)	0	0	219	55	171	452	313	693	0	0	2947	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1771	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1771	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	219	55	171	452	313	693	0	0	2947	157
RTOR Reduction (vph)	0	0	162	0	0	379	0	0	0	0	0	45
Lane Group Flow (vph)	0	0	57	0	226	73	313	693	0	0	2947	112
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			16.9		20.6	20.6	16.9	95.2			73.4	73.4
Effective Green, g (s)			16.9		20.6	20.6	16.9	95.2			73.4	73.4
Actuated g/C Ratio			0.13		0.16	0.16	0.13	0.75			0.58	0.58
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Vehicle Extension (s)			3.0		3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)			212		287	435	439	3667			3563	880
v/s Ratio Prot			0.04		c0.13		c0.09	0.14			c0.48	
v/s Ratio Perm						0.03						0.07
v/c Ratio			0.27		0.79	0.17	0.71	0.19			0.83	0.13
Uniform Delay, d1			49.5		51.1	45.8	52.7	4.6			21.7	12.2
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			0.7		13.3	0.2	5.4	0.0			1.7	0.1
Delay (s)			50.2		64.4	46.0	58.1	4.7			23.4	12.3
Level of Service			D		E	D	E	A			C	B
Approach Delay (s)		50.2			52.1			21.3			22.8	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	127.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



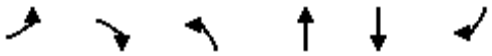
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	830	134	0	0	1044	700
Future Volume (vph)	830	134	0	0	1044	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5			4.7	4.0
Lane Util. Factor	0.97	0.91			0.95	1.00
Frt	1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3307	1386			3406	1524
Flt Permitted	0.95	1.00			1.00	1.00
Satd. Flow (perm)	3307	1386			3406	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	830	134	0	0	1044	700
RTOR Reduction (vph)	3	33	0	0	0	0
Lane Group Flow (vph)	840	88	0	0	1044	700
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%
Turn Type	Prot	Perm			NA	Free
Protected Phases	4				2	
Permitted Phases		4				Free
Actuated Green, G (s)	11.6	11.6			13.7	33.5
Effective Green, g (s)	11.6	11.6			13.7	33.5
Actuated g/C Ratio	0.35	0.35			0.41	1.00
Clearance Time (s)	3.5	3.5			4.7	
Vehicle Extension (s)	1.5	1.5			1.0	
Lane Grp Cap (vph)	1145	479			1392	1524
v/s Ratio Prot	c0.25				c0.31	
v/s Ratio Perm		0.06				0.46
v/c Ratio	0.73	0.18			0.75	0.46
Uniform Delay, d1	9.6	7.6			8.4	0.0
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	2.1	0.1			2.1	1.0
Delay (s)	11.7	7.7			10.5	1.0
Level of Service	B	A			B	A
Approach Delay (s)	11.2			0.0	6.7	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	33.5	Sum of lost time (s)	8.2
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



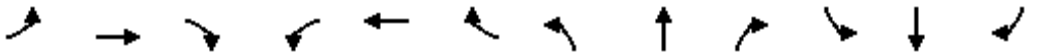
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	309	211	435	105	26	163
Future Volume (vph)	309	211	435	105	26	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3343	3343	1495	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3343	3343	1495	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	309	211	435	105	26	163
RTOR Reduction (vph)	0	0	0	77	0	137
Lane Group Flow (vph)	309	211	435	28	26	26
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	12.8	28.2	11.4	11.4	6.8	6.8
Effective Green, g (s)	12.8	28.2	11.4	11.4	6.8	6.8
Actuated g/C Ratio	0.30	0.66	0.27	0.27	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	497	2192	886	396	277	247
v/s Ratio Prot	c0.18	0.06	c0.13		0.01	
v/s Ratio Perm				0.02		c0.02
v/c Ratio	0.62	0.10	0.49	0.07	0.09	0.10
Uniform Delay, d1	13.0	2.7	13.3	11.8	15.5	15.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.0	0.4	0.1	0.1	0.2
Delay (s)	15.4	2.7	13.8	11.9	15.6	15.7
Level of Service	B	A	B	B	B	B
Approach Delay (s)		10.3	13.4		15.7	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	43.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	3	20	515	305	299
Future Volume (vph)	12	3	20	515	305	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3367	1553	1719	3438	3343	1495
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3367	1553	1719	3438	3343	1495
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	3	20	515	305	299
RTOR Reduction (vph)	0	3	0	0	0	234
Lane Group Flow (vph)	12	0	20	515	305	65
Heavy Vehicles (%)	4%	4%	5%	5%	8%	8%
Turn Type	Prot	Over	Prot	NA	NA	Over
Protected Phases	4	5	5	2	6	4
Permitted Phases						
Actuated Green, G (s)	6.9	0.6	0.6	16.7	12.1	6.9
Effective Green, g (s)	6.9	0.6	0.6	16.7	12.1	6.9
Actuated g/C Ratio	0.22	0.02	0.02	0.53	0.38	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	735	29	32	1816	1280	326
v/s Ratio Prot	0.00	0.00	0.01	c0.15	0.09	c0.04
v/s Ratio Perm						
v/c Ratio	0.02	0.00	0.62	0.28	0.24	0.20
Uniform Delay, d1	9.7	15.2	15.4	4.1	6.6	10.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	0.0	32.4	0.1	0.1	0.3
Delay (s)	9.7	15.2	47.8	4.2	6.7	10.4
Level of Service	A	B	D	A	A	B
Approach Delay (s)	10.8			5.8	8.5	
Approach LOS	B			A	A	

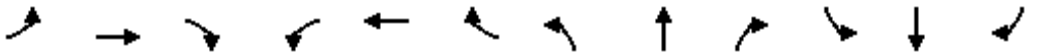
Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	31.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	28.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	688	0	640	0	0	0	0	2246	548	0	1790	1584
Future Volume (vph)	688	0	640	0	0	0	0	2246	548	0	1790	1584
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.95	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4540	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4540	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	688	0	640	0	0	0	0	2246	548	0	1790	1584
RTOR Reduction (vph)	0	0	24	0	0	0	0	0	0	0	132	0
Lane Group Flow (vph)	688	0	616	0	0	0	0	2246	548	0	2450	792
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	15.9		15.9					36.0	59.9		36.0	59.9
Effective Green, g (s)	15.9		15.9					36.0	59.9		36.0	59.9
Actuated g/C Ratio	0.27		0.27					0.60	1.00		0.60	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	902		732					3813	1568		2728	1348
v/s Ratio Prot	0.20							0.35			c0.54	
v/s Ratio Perm			c0.22						0.35			0.59
v/c Ratio	0.76		0.84					0.59	0.35		0.90	0.59
Uniform Delay, d1	20.3		20.8					7.4	0.0		10.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	3.9		8.6					0.2	0.6		4.4	1.9
Delay (s)	24.1		29.5					7.6	0.6		14.7	1.9
Level of Service	C		C					A	A		B	A
Approach Delay (s)		26.7			0.0			6.2			11.7	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	59.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	465	0	1296	0	2106	824	0	2901	1445
Future Volume (vph)	0	0	0	465	0	1296	0	2106	824	0	2901	1445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		0.99	0.85		0.97	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4705	1348		5810	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4705	1348		5810	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	465	0	1296	0	2106	824	0	2901	1445
RTOR Reduction (vph)	0	0	0	0	0	12	0	7	0	0	34	0
Lane Group Flow (vph)	0	0	0	465	0	1284	0	2272	651	0	3532	780
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				41.0		41.0		71.0	120.0		71.0	120.0
Effective Green, g (s)				41.0		41.0		71.0	120.0		71.0	120.0
Actuated g/C Ratio				0.34		0.34		0.59	1.00		0.59	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1161		1221		2783	1348		3437	1270
v/s Ratio Prot				0.14				0.48			c0.61	
v/s Ratio Perm						c0.36			0.48			0.61
v/c Ratio				0.40		1.05		0.82	0.48		1.03	0.61
Uniform Delay, d1				30.1		39.5		19.3	0.0		24.5	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.2		40.5		2.0	1.2		23.0	2.2
Delay (s)				30.4		80.0		21.3	1.2		47.5	2.2
Level of Service				C		F		C	A		D	A
Approach Delay (s)		0.0			66.9			16.8			39.3	
Approach LOS		A			E			B			D	

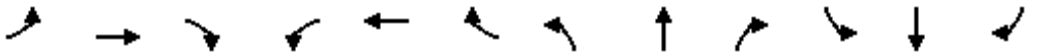
Intersection Summary			
HCM 2000 Control Delay	37.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	618	372	214	733	279	143
Future Volume (vph)	618	372	214	733	279	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	618	372	214	733	279	143
RTOR Reduction (vph)	0	250	0	0	0	111
Lane Group Flow (vph)	618	122	214	733	279	32
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	15.5	15.5	9.2	28.7	10.5	10.5
Effective Green, g (s)	15.5	15.5	9.2	28.7	10.5	10.5
Actuated g/C Ratio	0.33	0.33	0.19	0.61	0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1035	463	307	1917	680	313
v/s Ratio Prot	c0.20		c0.14	0.23	c0.09	
v/s Ratio Perm		0.09				0.02
v/c Ratio	0.60	0.26	0.70	0.38	0.41	0.10
Uniform Delay, d1	13.2	11.7	17.7	4.7	15.7	14.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.3	6.7	0.1	0.4	0.1
Delay (s)	14.2	12.0	24.4	4.9	16.1	14.7
Level of Service	B	B	C	A	B	B
Approach Delay (s)	13.3			9.3	15.6	
Approach LOS	B			A	B	

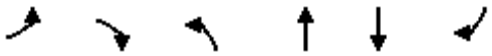
Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	47.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	356	0	1	293	34	1	1	0	45	2	455
Future Volume (vph)	219	356	0	1	293	34	1	1	0	45	2	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00		0.95	0.95	1.00
Frt	1.00	1.00		1.00	0.98			1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (prot)	1736	3471		1736	3417			1800		1665	1676	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (perm)	1736	3471		1736	3417			1800		1665	1676	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	356	0	1	293	34	1	1	0	45	2	455
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	0	385
Lane Group Flow (vph)	219	356	0	1	316	0	0	2	0	23	24	70
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	10.8	23.5		0.7	13.4			5.7		8.3	8.3	8.3
Effective Green, g (s)	10.8	23.5		0.7	13.4			5.7		8.3	8.3	8.3
Actuated g/C Ratio	0.20	0.43		0.01	0.25			0.11		0.15	0.15	0.15
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	345	1504		22	844			189		254	256	240
v/s Ratio Prot	c0.13	0.10		0.00	c0.09			c0.00		0.01	0.01	
v/s Ratio Perm												c0.04
v/c Ratio	0.63	0.24		0.05	0.37			0.01		0.09	0.09	0.29
Uniform Delay, d1	19.9	9.7		26.4	16.9			21.7		19.7	19.7	20.3
Progression Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	3.8	0.1		0.9	0.3			0.0		0.2	0.2	0.7
Delay (s)	23.7	9.8		27.3	17.2			21.7		19.9	19.9	21.0
Level of Service	C	A		C	B			C		B	B	C
Approach Delay (s)		15.1			17.2			21.7			20.9	
Approach LOS		B			B			C			C	

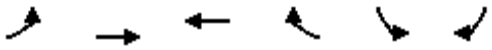
Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	54.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	301	27	21	828	745	129
Future Volume (vph)	301	27	21	828	745	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.99		1.00	1.00	0.98	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1744		1752	1845	1808	
Flt Permitted	0.96		0.95	1.00	1.00	
Satd. Flow (perm)	1744		1752	1845	1808	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	301	27	21	828	745	129
RTOR Reduction (vph)	5	0	0	0	9	0
Lane Group Flow (vph)	323	0	21	828	865	0
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	14.4		0.7	37.4	32.7	
Effective Green, g (s)	14.4		0.7	37.4	32.7	
Actuated g/C Ratio	0.24		0.01	0.63	0.55	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	419		20	1153	988	
v/s Ratio Prot	c0.19		0.01	c0.45	c0.48	
v/s Ratio Perm						
v/c Ratio	0.77		1.05	0.72	0.88	
Uniform Delay, d1	21.2		29.5	7.6	11.8	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	8.5		217.8	2.2	8.8	
Delay (s)	29.6		247.3	9.8	20.6	
Level of Service	C		F	A	C	
Approach Delay (s)	29.6			15.7	20.6	
Approach LOS	C			B	C	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	59.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

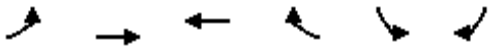
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	31	193	38	4	26	119
Future Volume (vph)	31	193	38	4	26	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1845	3455		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1845	3455		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	193	38	4	26	119
RTOR Reduction (vph)	0	0	3	0	0	76
Lane Group Flow (vph)	31	193	39	0	26	43
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	1.1	11.1	6.0		10.7	10.7
Effective Green, g (s)	1.1	11.1	6.0		10.7	10.7
Actuated g/C Ratio	0.04	0.37	0.20		0.36	0.36
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	64	687	695		629	563
v/s Ratio Prot	0.02	c0.10	0.01		0.01	
v/s Ratio Perm						c0.03
v/c Ratio	0.48	0.28	0.06		0.04	0.08
Uniform Delay, d1	14.1	6.6	9.6		6.2	6.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.7	0.2	0.0		0.0	0.1
Delay (s)	19.7	6.8	9.6		6.2	6.4
Level of Service	B	A	A		A	A
Approach Delay (s)		8.6	9.6		6.3	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	29.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	90	113	15	263	283	26
Future Volume (vph)	90	113	15	263	283	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	1845	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	1845	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	90	113	15	263	283	26
RTOR Reduction (vph)	0	0	0	211	0	16
Lane Group Flow (vph)	90	113	15	52	283	10
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	3.1	14.1	7.0	7.0	13.2	13.2
Effective Green, g (s)	3.1	14.1	7.0	7.0	13.2	13.2
Actuated g/C Ratio	0.09	0.40	0.20	0.20	0.37	0.37
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	153	736	695	310	655	586
v/s Ratio Prot	c0.05	c0.06	0.00		c0.16	
v/s Ratio Perm				0.03		0.01
v/c Ratio	0.59	0.15	0.02	0.17	0.43	0.02
Uniform Delay, d1	15.5	6.8	11.4	11.7	8.3	7.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.7	0.1	0.0	0.3	0.5	0.0
Delay (s)	21.2	6.9	11.4	12.0	8.7	7.0
Level of Service	C	A	B	B	A	A
Approach Delay (s)		13.2	12.0		8.6	
Approach LOS		B	B		A	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	35.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	0	223	467	589	558	0	1437	651	0	1303	300
Future Volume (veh/h)	72	0	223	467	589	558	0	1437	651	0	1303	300
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1827	1827	1827	0	1827	1827	0	1827	1827
Adj Flow Rate, veh/h	72	0	223	467	868	372	0	1437	0	0	1303	300
Adj No. of Lanes	0	1	2	2	2	1	0	3	1	0	4	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	0	4	4	0	4	4
Cap, veh/h	211	0	332	1084	1138	484	0	1897	591	0	2391	591
Arrive On Green	0.12	0.00	0.12	0.31	0.31	0.31	0.00	0.38	0.00	0.00	0.38	0.38
Sat Flow, veh/h	1757	0	2760	3480	3654	1553	0	5152	1553	0	6540	1553
Grp Volume(v), veh/h	72	0	223	467	868	372	0	1437	0	0	1303	300
Grp Sat Flow(s),veh/h/ln	1757	0	1380	1740	1827	1553	0	1663	1553	0	1571	1553
Q Serve(g_s), s	2.4	0.0	4.9	6.8	13.7	13.8	0.0	16.0	0.0	0.0	10.3	9.5
Cycle Q Clear(g_c), s	2.4	0.0	4.9	6.8	13.7	13.8	0.0	16.0	0.0	0.0	10.3	9.5
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	211	0	332	1084	1138	484	0	1897	591	0	2391	591
V/C Ratio(X)	0.34	0.00	0.67	0.43	0.76	0.77	0.00	0.76	0.00	0.00	0.54	0.51
Avail Cap(c_a), veh/h	440	0	691	1199	1259	535	0	1953	608	0	2461	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	0.0	26.9	17.5	19.9	19.9	0.0	17.2	0.0	0.0	15.5	15.2
Incr Delay (d2), s/veh	1.0	0.0	2.4	0.3	2.5	6.1	0.0	1.7	0.0	0.0	0.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.0	3.3	7.3	6.7	0.0	7.6	0.0	0.0	4.5	4.1
LnGrp Delay(d),s/veh	26.7	0.0	29.3	17.8	22.4	26.0	0.0	18.9	0.0	0.0	15.7	15.9
LnGrp LOS	C		C	B	C	C		B			B	B
Approach Vol, veh/h		295			1707			1437			1603	
Approach Delay, s/veh		28.6			21.9			18.9			15.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		28.3		11.7		28.3		23.9
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		25.0		16.0		25.0		22.0
Max Q Clear Time (g_c+I1), s		18.0		6.9		12.3		15.8
Green Ext Time (p_c), s		6.3		0.8		10.8		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	20	136	10	82	22	148	1402	19	19	823	215
Future Volume (veh/h)	260	20	136	10	82	22	148	1402	19	19	823	215
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	274	0	136	10	82	22	148	1402	19	19	823	215
Adj No. of Lanes	2	0	1	0	1	0	2	3	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	542	0	242	13	109	29	256	1829	25	64	1116	499
Arrive On Green	0.15	0.00	0.15	0.09	0.09	0.09	0.08	0.36	0.36	0.04	0.32	0.32
Sat Flow, veh/h	3514	0	1568	154	1265	340	3375	5071	69	1740	3471	1553
Grp Volume(v), veh/h	274	0	136	114	0	0	148	919	502	19	823	215
Grp Sat Flow(s),veh/h/ln	1757	0	1568	1759	0	0	1688	1663	1815	1740	1736	1553
Q Serve(g_s), s	3.2	0.0	3.5	2.8	0.0	0.0	1.9	10.8	10.8	0.5	9.3	4.8
Cycle Q Clear(g_c), s	3.2	0.0	3.5	2.8	0.0	0.0	1.9	10.8	10.8	0.5	9.3	4.8
Prop In Lane	1.00		1.00	0.09		0.19	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	542	0	242	152	0	0	256	1199	655	64	1116	499
V/C Ratio(X)	0.51	0.00	0.56	0.75	0.00	0.00	0.58	0.77	0.77	0.30	0.74	0.43
Avail Cap(c_a), veh/h	1272	0	568	637	0	0	306	1354	739	157	1414	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	0.0	17.3	19.7	0.0	0.0	19.7	12.5	12.5	20.7	13.3	11.8
Incr Delay (d2), s/veh	0.7	0.0	2.0	7.3	0.0	0.0	2.1	2.4	4.3	2.6	1.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.7	1.7	0.0	0.0	0.9	5.2	6.1	0.3	4.7	2.1
LnGrp Delay(d),s/veh	17.9	0.0	19.3	27.0	0.0	0.0	21.8	14.9	16.8	23.3	14.9	12.4
LnGrp LOS	B		B	C			C	B	B	C	B	B
Approach Vol, veh/h		410			114			1569			1057	
Approach Delay, s/veh		18.4			27.0			16.1			14.5	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.6	19.9		10.8	7.3	18.2		7.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	18.0		16.0	4.0	18.0		16.0
Max Q Clear Time (g_c+I1), s	2.5	12.8		5.5	3.9	11.3		4.8
Green Ext Time (p_c), s	0.8	3.1		1.3	0.0	2.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	233	360	38	87	264	174	71	1234	112	240	443	82
Future Volume (veh/h)	233	360	38	87	264	174	71	1234	112	240	443	82
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	233	360	38	87	264	174	71	1234	112	240	443	82
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	268	746	78	112	505	226	130	1384	125	281	1647	737
Arrive On Green	0.15	0.23	0.23	0.06	0.14	0.14	0.04	0.43	0.43	0.08	0.47	0.47
Sat Flow, veh/h	1757	3202	336	1757	3505	1568	3375	3219	292	3375	3471	1553
Grp Volume(v), veh/h	233	196	202	87	264	174	71	664	682	240	443	82
Grp Sat Flow(s),veh/h/ln	1757	1752	1785	1757	1752	1568	1688	1736	1775	1688	1736	1553
Q Serve(g_s), s	10.9	8.1	8.2	4.1	5.9	9.0	1.7	29.7	29.9	5.9	6.5	2.5
Cycle Q Clear(g_c), s	10.9	8.1	8.2	4.1	5.9	9.0	1.7	29.7	29.9	5.9	6.5	2.5
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	268	408	416	112	505	226	130	746	763	281	1647	737
V/C Ratio(X)	0.87	0.48	0.49	0.78	0.52	0.77	0.55	0.89	0.89	0.86	0.27	0.11
Avail Cap(c_a), veh/h	271	408	416	209	666	298	200	783	801	281	1649	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	27.9	27.9	38.8	33.4	34.7	39.8	22.2	22.2	38.1	13.3	12.3
Incr Delay (d2), s/veh	24.4	0.9	0.9	10.8	0.8	8.6	3.5	11.9	12.1	21.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	4.0	4.1	2.3	2.9	4.4	0.9	16.7	17.2	3.6	3.1	1.1
LnGrp Delay(d),s/veh	59.2	28.8	28.8	49.7	34.2	43.2	43.3	34.1	34.3	60.0	13.4	12.3
LnGrp LOS	E	C	C	D	C	D	D	C	C	E	B	B
Approach Vol, veh/h		631			525			1417			765	
Approach Delay, s/veh		40.0			39.8			34.7			27.9	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	40.2	9.4	23.6	7.2	44.0	16.9	16.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	38.0	10.0	19.0	5.0	40.0	13.0	16.0
Max Q Clear Time (g_c+I1), s	7.9	31.9	6.1	10.2	3.7	8.5	12.9	11.0
Green Ext Time (p_c), s	0.0	4.3	0.1	2.5	0.0	11.9	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	34.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	120	309	193	294	186	108	600	112	11	405	5
Future Volume (veh/h)	11	120	309	193	294	186	108	600	112	11	405	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	11	120	309	193	294	186	108	600	112	11	405	5
Adj No. of Lanes	1	1	2	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	19	373	558	239	683	421	137	1028	460	20	805	10
Arrive On Green	0.01	0.21	0.21	0.14	0.34	0.34	0.08	0.29	0.29	0.01	0.23	0.23
Sat Flow, veh/h	1707	1792	2682	1707	2027	1248	1757	3505	1568	1757	3546	44
Grp Volume(v), veh/h	11	120	309	193	246	234	108	600	112	11	200	210
Grp Sat Flow(s),veh/h/ln	1707	1792	1341	1707	1703	1572	1757	1752	1568	1757	1752	1837
Q Serve(g_s), s	0.3	2.6	4.8	5.1	5.2	5.4	2.8	6.7	2.5	0.3	4.6	4.6
Cycle Q Clear(g_c), s	0.3	2.6	4.8	5.1	5.2	5.4	2.8	6.7	2.5	0.3	4.6	4.6
Prop In Lane	1.00		1.00	1.00		0.79	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	19	373	558	239	574	530	137	1028	460	20	398	417
V/C Ratio(X)	0.57	0.32	0.55	0.81	0.43	0.44	0.79	0.58	0.24	0.55	0.50	0.50
Avail Cap(c_a), veh/h	148	622	930	259	701	648	152	1292	578	152	646	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	15.5	16.3	19.2	11.9	11.9	20.9	13.9	12.4	22.7	15.6	15.6
Incr Delay (d2), s/veh	23.2	0.5	0.9	16.0	0.5	0.6	21.9	0.5	0.3	21.4	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.4	1.8	3.4	2.5	2.4	2.2	3.3	1.1	0.3	2.3	2.4
LnGrp Delay(d),s/veh	45.9	16.0	17.2	35.2	12.4	12.5	42.8	14.4	12.7	44.1	16.5	16.5
LnGrp LOS	D	B	B	D	B	B	D	B	B	D	B	B
Approach Vol, veh/h		440			673			820			421	
Approach Delay, s/veh		17.6			19.0			17.9			17.2	
Approach LOS		B			B			B			B	

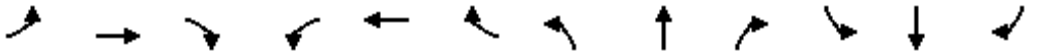
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	17.5	10.5	13.6	7.6	14.5	4.5	19.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	17.0	7.0	16.0	4.0	17.0	4.0	19.0
Max Q Clear Time (g_c+I1), s	2.3	8.7	7.1	6.8	4.8	6.6	2.3	7.4
Green Ext Time (p_c), s	0.0	3.4	0.0	2.8	0.0	3.9	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	224	125	112	281	106	159	765	117	34	379	125
Future Volume (veh/h)	67	224	125	112	281	106	159	765	117	34	379	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	67	224	125	112	281	106	159	765	117	34	379	125
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	618	276	142	516	190	203	1182	529	55	886	396
Arrive On Green	0.05	0.18	0.18	0.08	0.21	0.21	0.12	0.34	0.34	0.03	0.25	0.25
Sat Flow, veh/h	1757	3505	1568	1757	2509	925	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	67	224	125	112	194	193	159	765	117	34	379	125
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1681	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	1.6	2.4	3.0	2.7	4.2	4.4	3.8	7.9	2.3	0.8	3.9	2.8
Cycle Q Clear(g_c), s	1.6	2.4	3.0	2.7	4.2	4.4	3.8	7.9	2.3	0.8	3.9	2.8
Prop In Lane	1.00		1.00	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	618	276	142	360	346	203	1182	529	55	886	396
V/C Ratio(X)	0.74	0.36	0.45	0.79	0.54	0.56	0.78	0.65	0.22	0.62	0.43	0.32
Avail Cap(c_a), veh/h	206	1313	588	206	657	630	288	1560	698	165	1313	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	15.5	15.7	19.3	15.2	15.2	18.4	12.0	10.1	20.4	13.4	13.0
Incr Delay (d2), s/veh	11.3	0.4	1.2	12.1	1.3	1.4	8.7	0.6	0.2	11.0	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.2	1.4	1.8	2.2	2.2	2.3	3.8	1.0	0.6	1.9	1.2
LnGrp Delay(d),s/veh	31.3	15.8	16.9	31.4	16.4	16.6	27.1	12.6	10.3	31.5	13.7	13.4
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		416			499			1041			538	
Approach Delay, s/veh		18.6			19.9			14.5			14.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	18.4	7.4	11.5	8.9	14.8	6.2	12.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	5.0	16.0	7.0	16.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	2.8	9.9	4.7	5.0	5.8	5.9	3.6	6.4
Green Ext Time (p_c), s	0.0	4.5	0.0	2.5	0.1	4.8	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	213	99	74	235	108	123	751	107	48	270	64
Future Volume (veh/h)	158	213	99	74	235	108	123	751	107	48	270	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	158	213	99	74	235	108	123	751	107	48	270	64
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	200	769	344	96	561	251	156	1108	496	71	939	420
Arrive On Green	0.11	0.22	0.22	0.05	0.16	0.16	0.09	0.32	0.32	0.04	0.27	0.27
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	158	213	99	74	235	108	123	751	107	48	270	64
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	3.8	2.2	2.3	1.8	2.6	2.7	3.0	8.1	2.2	1.2	2.6	1.3
Cycle Q Clear(g_c), s	3.8	2.2	2.3	1.8	2.6	2.7	3.0	8.1	2.2	1.2	2.6	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	769	344	96	561	251	156	1108	496	71	939	420
V/C Ratio(X)	0.79	0.28	0.29	0.77	0.42	0.43	0.79	0.68	0.22	0.67	0.29	0.15
Avail Cap(c_a), veh/h	243	1295	579	243	1295	579	203	1457	652	162	1376	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	14.0	14.1	20.2	16.4	16.4	19.3	12.9	10.9	20.5	12.6	12.1
Incr Delay (d2), s/veh	13.3	0.2	0.5	12.4	0.5	1.2	14.4	0.8	0.2	10.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.1	1.0	1.2	1.3	1.2	2.1	4.0	1.0	0.8	1.3	0.6
LnGrp Delay(d),s/veh	31.9	14.2	14.5	32.6	16.9	17.6	33.7	13.7	11.1	31.0	12.7	12.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		470			417			981			382	
Approach Delay, s/veh		20.3			19.8			15.9			15.0	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	17.7	6.4	13.5	7.8	15.6	8.9	10.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	18.0	6.0	16.0	5.0	17.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	3.2	10.1	3.8	4.3	5.0	4.6	5.8	4.7
Green Ext Time (p_c), s	0.0	3.6	0.0	2.3	0.0	4.7	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	362	367	70	113	386	539	80	1893	211	630	1286	507
Future Volume (veh/h)	362	367	70	113	386	539	80	1893	211	630	1286	507
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	362	367	70	113	386	539	80	1893	211	630	1286	507
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	328	1062	475	156	885	662	120	1727	538	572	2395	746
Arrive On Green	0.10	0.30	0.30	0.05	0.25	0.25	0.04	0.35	0.35	0.17	0.48	0.48
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	362	367	70	113	386	539	80	1893	211	630	1286	507
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	14.5	12.3	4.9	4.9	13.9	38.0	3.5	52.1	15.5	25.5	27.2	37.9
Cycle Q Clear(g_c), s	14.5	12.3	4.9	4.9	13.9	38.0	3.5	52.1	15.5	25.5	27.2	37.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	1062	475	156	885	662	120	1727	538	572	2395	746
V/C Ratio(X)	1.10	0.35	0.15	0.72	0.44	0.81	0.67	1.10	0.39	1.10	0.54	0.68
Avail Cap(c_a), veh/h	328	1062	475	220	885	662	168	1727	538	572	2395	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.0	40.8	38.3	70.9	47.3	38.3	71.7	49.2	37.2	62.5	27.4	30.2
Incr Delay (d2), s/veh	80.1	0.1	0.1	3.1	0.1	7.3	2.4	53.1	0.2	68.5	0.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	6.0	2.1	2.4	6.8	21.1	1.7	32.3	6.7	17.3	12.5	16.7
LnGrp Delay(d),s/veh	148.1	40.9	38.3	74.0	47.4	45.6	74.1	102.3	37.4	131.0	27.5	32.3
LnGrp LOS	F	D	D	E	D	D	E	F	D	F	C	C
Approach Vol, veh/h		799			1038			2184			2423	
Approach Delay, s/veh		89.2			49.3			95.0			55.4	
Approach LOS		F			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	77.1	20.0	42.6	31.0	56.9	12.4	50.2
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	7.5	69.9	14.5	* 38	25.5	* 52	9.7	42.5
Max Q Clear Time (g_c+I1), s	5.5	39.9	16.5	40.0	27.5	54.1	6.9	14.3
Green Ext Time (p_c), s	0.0	8.4	0.0	0.0	0.0	0.0	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	72.0
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	2	37	0	214	0	1873	49	55	1340	6
Future Volume (veh/h)	10	0	2	37	0	214	0	1873	49	55	1340	6
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	10	0	2	37	0	214	0	1873	49	55	1340	6
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	13	0	3	178	0	318	3	2407	749	67	3128	14
Arrive On Green	0.01	0.00	0.01	0.10	0.00	0.10	0.00	0.48	0.48	0.04	0.61	0.61
Sat Flow, veh/h	1435	0	287	1757	0	3136	1740	4988	1553	1740	5125	23
Grp Volume(v), veh/h	12	0	0	37	0	214	0	1873	49	55	869	477
Grp Sat Flow(s),veh/h/ln	1722	0	0	1757	0	1568	1740	1663	1553	1740	1663	1823
Q Serve(g_s), s	0.4	0.0	0.0	1.1	0.0	3.8	0.0	17.8	1.0	1.8	7.9	7.9
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.1	0.0	3.8	0.0	17.8	1.0	1.8	7.9	7.9
Prop In Lane	0.83		0.17	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	16	0	0	178	0	318	3	2407	749	67	2029	1113
V/C Ratio(X)	0.77	0.00	0.00	0.21	0.00	0.67	0.00	0.78	0.07	0.82	0.43	0.43
Avail Cap(c_a), veh/h	90	0	0	368	0	657	91	2629	818	118	2029	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	0.0	23.6	0.0	24.8	0.0	12.3	7.9	27.3	5.9	5.9
Incr Delay (d2), s/veh	24.4	0.0	0.0	0.2	0.0	0.9	0.0	2.1	0.1	8.7	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.5	0.0	1.7	0.0	8.5	0.4	1.0	3.6	4.1
LnGrp Delay(d),s/veh	52.7	0.0	0.0	23.8	0.0	25.8	0.0	14.4	8.0	36.0	6.4	6.7
LnGrp LOS	D			C		C		B	A	D	A	A
Approach Vol, veh/h		12			251			1922			1401	
Approach Delay, s/veh		52.7			25.5			14.2			7.7	
Approach LOS		D			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	40.0		6.0	7.3	32.7		11.3
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 3	31.4		3.0	* 3.9	* 30		12.0
Max Q Clear Time (g_c+I1), s	0.0	9.9		2.4	3.8	19.8		5.8
Green Ext Time (p_c), s	0.0	21.2		0.0	0.0	7.8		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	118	23	196	202	542	34	1455	159	260	984	79
Future Volume (veh/h)	35	118	23	196	202	542	34	1455	159	260	984	79
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	35	118	23	196	202	542	34	1455	159	260	984	79
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	66	1103	494	173	1223	547	65	1470	161	209	1717	138
Arrive On Green	0.02	0.32	0.32	0.05	0.35	0.35	0.02	0.32	0.32	0.06	0.36	0.36
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4565	499	3375	4708	377
Grp Volume(v), veh/h	35	118	23	196	202	542	34	1060	554	260	694	369
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1739	1688	1663	1760
Q Serve(g_s), s	0.9	2.1	0.9	4.5	3.5	30.6	0.9	28.2	28.2	5.5	14.9	14.9
Cycle Q Clear(g_c), s	0.9	2.1	0.9	4.5	3.5	30.6	0.9	28.2	28.2	5.5	14.9	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.29	1.00		0.21
Lane Grp Cap(c), veh/h	66	1103	494	173	1223	547	65	1070	560	209	1213	642
V/C Ratio(X)	0.53	0.11	0.05	1.14	0.17	0.99	0.53	0.99	0.99	1.24	0.57	0.57
Avail Cap(c_a), veh/h	114	1157	517	173	1223	547	137	1070	560	209	1213	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	21.4	21.0	42.2	20.0	28.8	43.2	30.0	30.0	41.7	22.7	22.7
Incr Delay (d2), s/veh	2.5	0.0	0.0	109.5	0.0	35.9	2.4	24.9	35.4	143.5	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.0	0.4	4.7	1.7	18.7	0.4	16.5	18.9	6.7	6.9	7.4
LnGrp Delay(d),s/veh	45.6	21.4	21.0	151.7	20.0	64.7	45.6	54.9	65.4	185.1	23.1	23.5
LnGrp LOS	D	C	C	F	C	E	D	D	E	F	C	C
Approach Vol, veh/h		176			940			1648			1323	
Approach Delay, s/veh		26.2			73.2			58.2			55.0	
Approach LOS		C			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	37.7	7.2	36.7	11.0	33.9	10.0	33.9
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	3.6	30.4	3.0	* 31	5.5	* 29	4.5	* 30
Max Q Clear Time (g_c+I1), s	2.9	16.9	2.9	32.6	7.5	30.2	6.5	4.1
Green Ext Time (p_c), s	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	59.3
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	46	103	1476	24	61	1192
Future Volume (veh/h)	46	103	1476	24	61	1192
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	46	103	1476	24	61	1192
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	163	145	2065	34	71	2058
Arrive On Green	0.09	0.09	0.41	0.41	0.04	0.59
Sat Flow, veh/h	1757	1568	5220	82	1740	3563
Grp Volume(v), veh/h	46	103	971	529	61	1192
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1812	1740	1736
Q Serve(g_s), s	0.8	2.1	8.0	8.0	1.1	7.0
Cycle Q Clear(g_c), s	0.8	2.1	8.0	8.0	1.1	7.0
Prop In Lane	1.00	1.00		0.05	1.00	
Lane Grp Cap(c), veh/h	163	145	1358	740	71	2058
V/C Ratio(X)	0.28	0.71	0.71	0.71	0.85	0.58
Avail Cap(c_a), veh/h	241	215	1877	1023	372	3198
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	14.4	8.1	8.1	15.6	4.1
Incr Delay (d2), s/veh	0.3	2.4	0.4	0.7	10.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.0	3.6	4.0	0.7	3.2
LnGrp Delay(d),s/veh	14.2	16.8	8.5	8.8	25.9	4.2
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	149		1500			1253
Approach Delay, s/veh	16.0		8.6			5.3
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		24.2			6.0	18.2		8.5
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		30.2			* 7	18.5		4.5
Max Q Clear Time (g_c+I1), s		9.0			3.1	10.0		4.1
Green Ext Time (p_c), s		4.4			0.0	3.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	182	11	73	428	466	89	1016	55	259	848	153
Future Volume (veh/h)	67	182	11	73	428	466	89	1016	55	259	848	153
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	67	182	11	73	428	466	89	1016	55	259	848	153
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	81	516	31	86	567	482	112	1031	461	263	1326	593
Arrive On Green	0.05	0.31	0.31	0.05	0.32	0.32	0.06	0.30	0.30	0.15	0.38	0.38
Sat Flow, veh/h	1707	1673	101	1707	1792	1524	1740	3471	1553	1740	3471	1553
Grp Volume(v), veh/h	67	0	193	73	428	466	89	1016	55	259	848	153
Grp Sat Flow(s),veh/h/ln	1707	0	1775	1707	1792	1524	1740	1736	1553	1740	1736	1553
Q Serve(g_s), s	4.1	0.0	8.9	4.5	22.5	31.6	5.3	30.5	2.7	15.6	21.0	7.1
Cycle Q Clear(g_c), s	4.1	0.0	8.9	4.5	22.5	31.6	5.3	30.5	2.7	15.6	21.0	7.1
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	0	548	86	567	482	112	1031	461	263	1326	593
V/C Ratio(X)	0.82	0.00	0.35	0.85	0.76	0.97	0.79	0.99	0.12	0.98	0.64	0.26
Avail Cap(c_a), veh/h	81	0	553	86	567	482	199	1031	461	263	1326	593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	0.0	28.2	49.4	32.2	35.4	48.4	36.7	26.9	44.4	26.5	22.2
Incr Delay (d2), s/veh	44.8	0.0	0.1	48.7	5.1	32.4	4.7	24.3	0.0	50.4	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	4.4	3.3	12.0	17.6	2.7	18.0	1.2	11.2	10.2	3.0
LnGrp Delay(d),s/veh	94.4	0.0	28.3	98.2	37.4	67.8	53.1	60.9	26.9	94.8	27.3	22.3
LnGrp LOS	F		C	F	D	E	D	E	C	F	C	C
Approach Vol, veh/h		260			967			1160			1260	
Approach Delay, s/veh		45.3			56.6			58.7			40.6	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	38.6	11.5	44.9	10.8	37.8	20.4	36.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.5	4.8
Max Green Setting (Gmax), s	5.0	* 33	* 12	34.9	5.3	* 33	15.9	31.2
Max Q Clear Time (g_c+I1), s	6.1	33.6	7.3	23.0	6.5	10.9	17.6	32.5
Green Ext Time (p_c), s	0.0	0.0	0.0	2.8	0.0	0.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.0
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	107	28	33	118	9	88	921	23	18	585	267
Future Volume (veh/h)	173	107	28	33	118	9	88	921	23	18	585	267
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1845	1827	1827
Adj Flow Rate, veh/h	173	107	28	33	118	9	88	921	23	18	585	267
Adj No. of Lanes	1	1	1	1	1	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	3	4	4
Cap, veh/h	218	401	341	39	185	14	110	1110	28	23	990	443
Arrive On Green	0.12	0.22	0.22	0.02	0.11	0.11	0.06	0.32	0.32	0.01	0.29	0.29
Sat Flow, veh/h	1757	1845	1568	1757	1693	129	1740	3462	86	1757	3471	1553
Grp Volume(v), veh/h	173	107	28	33	0	127	88	462	482	18	585	267
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1822	1740	1736	1812	1757	1736	1553
Q Serve(g_s), s	4.6	2.3	0.7	0.9	0.0	3.2	2.4	11.9	11.9	0.5	7.0	7.2
Cycle Q Clear(g_c), s	4.6	2.3	0.7	0.9	0.0	3.2	2.4	11.9	11.9	0.5	7.0	7.2
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	218	401	341	39	0	199	110	557	581	23	990	443
V/C Ratio(X)	0.79	0.27	0.08	0.85	0.00	0.64	0.80	0.83	0.83	0.77	0.59	0.60
Avail Cap(c_a), veh/h	309	584	497	200	0	479	158	737	769	113	1430	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	15.7	15.1	23.5	0.0	20.6	22.3	15.2	15.2	23.8	14.8	14.9
Incr Delay (d2), s/veh	5.6	0.1	0.0	16.3	0.0	1.3	10.6	4.7	4.5	17.5	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.2	0.3	0.6	0.0	1.7	1.5	6.4	6.6	0.3	3.4	3.1
LnGrp Delay(d),s/veh	26.2	15.8	15.1	39.9	0.0	21.9	32.9	19.9	19.7	41.3	15.1	15.4
LnGrp LOS	C	B	B	D		C	C	B	B	D	B	B
Approach Vol, veh/h		308			160			1032			870	
Approach Delay, s/veh		21.6			25.6			20.9			15.7	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	18.6	11.5	10.6	5.9	20.3	6.3	15.8
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 4.4	19.9	8.5	* 13	* 3.1	20.5	* 5.5	* 15
Max Q Clear Time (g_c+I1), s	4.4	9.2	6.6	5.2	2.5	13.9	2.9	4.3
Green Ext Time (p_c), s	0.0	1.9	0.0	0.2	0.0	1.6	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	151	31	14	209	61	80	861	12	38	356	214
Future Volume (veh/h)	102	151	31	14	209	61	80	861	12	38	356	214
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	102	151	31	14	209	61	80	861	12	38	356	214
Adj No. of Lanes	0	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	114	168	244	227	239	203	101	889	763	48	842	716
Arrive On Green	0.16	0.16	0.16	0.13	0.13	0.13	0.06	0.49	0.49	0.03	0.46	0.46
Sat Flow, veh/h	729	1079	1568	1757	1845	1568	1740	1827	1568	1757	1827	1553
Grp Volume(v), veh/h	253	0	31	14	209	61	80	861	12	38	356	214
Grp Sat Flow(s),veh/h/ln	1808	0	1568	1757	1845	1568	1740	1827	1568	1757	1827	1553
Q Serve(g_s), s	16.6	0.0	2.1	0.8	13.4	4.3	5.5	55.3	0.5	2.6	15.8	10.4
Cycle Q Clear(g_c), s	16.6	0.0	2.1	0.8	13.4	4.3	5.5	55.3	0.5	2.6	15.8	10.4
Prop In Lane	0.40		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	282	0	244	227	239	203	101	889	763	48	842	716
V/C Ratio(X)	0.90	0.00	0.13	0.06	0.88	0.30	0.79	0.97	0.02	0.79	0.42	0.30
Avail Cap(c_a), veh/h	479	0	415	250	262	223	194	1094	939	60	961	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	0.0	44.0	46.2	51.7	47.7	56.2	30.2	16.1	58.4	21.8	20.4
Incr Delay (d2), s/veh	6.5	0.0	0.1	0.1	25.0	0.8	5.2	17.2	0.0	41.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	0.0	0.9	0.4	8.5	1.9	2.8	32.0	0.2	1.8	7.9	4.5
LnGrp Delay(d),s/veh	56.6	0.0	44.0	46.3	76.6	48.5	61.4	47.4	16.1	100.3	21.9	20.5
LnGrp LOS	E		D	D	E	D	E	D	B	F	C	C
Approach Vol, veh/h		284			284			953			608	
Approach Delay, s/veh		55.3			69.1			48.2			26.3	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.7	60.8		22.4	8.6	63.9		25.9
Change Period (Y+Rc), s	* 4.7	5.1		6.8	* 5.3	5.1		7.1
Max Green Setting (Gmax), s	* 14	63.6		17.2	* 4.1	72.4		32.0
Max Q Clear Time (g_c+I1), s	7.5	17.8		15.4	4.6	57.3		18.6
Green Ext Time (p_c), s	0.0	1.5		0.2	0.0	1.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	45.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	327	110	27	260	7	339	868	183	9	313	78
Future Volume (veh/h)	68	327	110	27	260	7	339	868	183	9	313	78
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	68	327	110	27	260	7	339	868	183	9	313	78
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	86	498	165	31	561	251	382	1353	285	12	747	183
Arrive On Green	0.05	0.19	0.19	0.02	0.16	0.16	0.22	0.47	0.47	0.01	0.27	0.27
Sat Flow, veh/h	1740	2565	848	1740	3471	1553	1740	2855	602	1740	2764	679
Grp Volume(v), veh/h	68	219	218	27	260	7	339	528	523	9	195	196
Grp Sat Flow(s),veh/h/ln	1740	1736	1677	1740	1736	1553	1740	1736	1721	1740	1736	1707
Q Serve(g_s), s	2.6	7.9	8.2	1.1	4.6	0.3	12.9	15.7	15.7	0.4	6.3	6.5
Cycle Q Clear(g_c), s	2.6	7.9	8.2	1.1	4.6	0.3	12.9	15.7	15.7	0.4	6.3	6.5
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.35	1.00		0.40
Lane Grp Cap(c), veh/h	86	337	326	31	561	251	382	823	816	12	469	461
V/C Ratio(X)	0.79	0.65	0.67	0.87	0.46	0.03	0.89	0.64	0.64	0.75	0.42	0.43
Avail Cap(c_a), veh/h	100	380	367	77	713	319	437	851	844	77	502	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	25.3	25.4	33.4	25.9	24.1	25.8	13.5	13.5	33.8	20.4	20.5
Incr Delay (d2), s/veh	26.2	9.4	10.4	21.8	2.7	0.2	16.5	3.8	3.9	28.7	2.7	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.7	4.7	0.7	2.4	0.1	7.9	8.3	8.3	0.3	3.3	3.4
LnGrp Delay(d),s/veh	58.3	34.7	35.8	55.2	28.6	24.3	42.3	17.4	17.4	62.5	23.1	23.3
LnGrp LOS	E	C	D	E	C	C	D	B	B	E	C	C
Approach Vol, veh/h		505			294			1390			400	
Approach Delay, s/veh		38.3			31.0			23.5			24.1	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	23.6	8.5	16.2	6.0	37.5	6.2	18.4
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 17	* 20	* 3.9	* 14	3.0	* 33	3.0	* 15
Max Q Clear Time (g_c+I1), s	14.9	8.5	4.6	6.6	2.4	17.7	3.1	10.2
Green Ext Time (p_c), s	0.1	10.0	0.0	4.4	0.0	13.5	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	258	262	41	250	55	651	1223	184	31	355	47
Future Volume (veh/h)	96	258	262	41	250	55	651	1223	184	31	355	47
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	96	258	262	41	250	55	651	1223	184	31	355	47
Adj No. of Lanes	2	2	1	2	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	140	777	347	71	706	316	706	1788	268	55	1380	617
Arrive On Green	0.04	0.22	0.22	0.02	0.20	0.20	0.21	0.59	0.59	0.02	0.40	0.40
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	3029	453	3375	3471	1553
Grp Volume(v), veh/h	96	258	262	41	250	55	651	698	709	31	355	47
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1736	1747	1688	1736	1553
Q Serve(g_s), s	4.1	9.1	22.9	1.7	9.0	4.3	27.7	40.4	41.0	1.3	10.1	2.8
Cycle Q Clear(g_c), s	4.1	9.1	22.9	1.7	9.0	4.3	27.7	40.4	41.0	1.3	10.1	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	140	777	347	71	706	316	706	1025	1031	55	1380	617
V/C Ratio(X)	0.69	0.33	0.75	0.58	0.35	0.17	0.92	0.68	0.69	0.56	0.26	0.08
Avail Cap(c_a), veh/h	291	924	413	175	799	358	1233	1262	1270	127	1389	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	47.9	53.3	71.1	50.3	48.4	56.7	20.6	20.7	71.5	29.6	27.4
Incr Delay (d2), s/veh	2.2	1.1	14.1	2.7	1.0	0.8	3.6	2.7	2.8	3.3	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.5	11.3	0.9	4.4	1.9	13.3	20.0	20.5	0.6	4.9	1.2
LnGrp Delay(d),s/veh	71.5	49.0	67.3	73.8	51.3	49.2	60.3	23.3	23.5	74.8	29.9	27.6
LnGrp LOS	E	D	E	E	D	D	E	C	C	E	C	C
Approach Vol, veh/h		616			346			2058			433	
Approach Delay, s/veh		60.3			53.6			35.0			32.9	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.1	63.7	11.5	35.1	7.9	91.9	8.5	38.1
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	53.5	* 59	12.5	33.4	5.5	* 1.1E2	7.5	* 39
Max Q Clear Time (g_c+I1), s	29.7	12.1	6.1	11.0	3.3	43.0	3.7	24.9
Green Ext Time (p_c), s	1.0	34.8	0.1	10.4	0.0	43.5	0.0	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	41.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	454	33	26	600	8	194	42	142	7	16	55
Future Volume (veh/h)	14	454	33	26	600	8	194	42	142	7	16	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	14	454	33	26	600	8	194	42	142	7	16	55
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	24	781	664	40	798	678	243	87	294	13	32	112
Arrive On Green	0.01	0.44	0.44	0.02	0.45	0.45	0.14	0.23	0.23	0.01	0.09	0.09
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1757	371	1253	1757	366	1257
Grp Volume(v), veh/h	14	454	33	26	600	8	194	0	184	7	0	71
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1757	0	1624	1757	0	1623
Q Serve(g_s), s	0.5	11.4	0.7	0.9	16.6	0.2	6.4	0.0	5.8	0.2	0.0	2.5
Cycle Q Clear(g_c), s	0.5	11.4	0.7	0.9	16.6	0.2	6.4	0.0	5.8	0.2	0.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.77	1.00		0.77
Lane Grp Cap(c), veh/h	24	781	664	40	798	678	243	0	381	13	0	144
V/C Ratio(X)	0.59	0.58	0.05	0.65	0.75	0.01	0.80	0.00	0.48	0.54	0.00	0.49
Avail Cap(c_a), veh/h	115	1041	885	115	1041	885	372	0	807	118	0	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.2	12.7	9.7	28.8	13.8	9.2	24.9	0.0	19.7	29.5	0.0	25.9
Incr Delay (d2), s/veh	14.9	1.2	0.1	11.4	3.1	0.0	5.2	0.0	0.9	21.9	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.8	0.3	0.5	8.9	0.1	3.4	0.0	2.7	0.2	0.0	1.2
LnGrp Delay(d),s/veh	44.1	13.9	9.8	40.2	16.9	9.2	30.0	0.0	20.5	51.4	0.0	28.2
LnGrp LOS	D	B	A	D	B	A	C		C	D		C
Approach Vol, veh/h		501			634			378			78	
Approach Delay, s/veh		14.5			17.7			25.4			30.3	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	32.4	12.6	9.7	4.3	32.9	3.9	18.4
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	4.0	34.6	12.6	* 21	4.0	34.6	4.0	29.6
Max Q Clear Time (g_c+I1), s	2.9	13.4	8.4	4.5	2.5	18.6	2.2	7.8
Green Ext Time (p_c), s	0.0	9.3	0.2	0.9	0.0	7.9	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	152	101	114	134	100	110	437	105	46	248	155
Future Volume (veh/h)	115	152	101	114	134	100	110	437	105	46	248	155
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	115	152	101	114	134	100	110	437	105	46	248	155
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	276	173	144	252	175	139	531	451	54	441	375
Arrive On Green	0.08	0.13	0.13	0.08	0.13	0.13	0.08	0.29	0.29	0.03	0.24	0.24
Sat Flow, veh/h	1757	2071	1297	1757	1978	1377	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	115	127	126	114	118	116	110	437	105	46	248	155
Grp Sat Flow(s),veh/h/ln	1757	1752	1616	1757	1752	1602	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	2.7	2.9	3.1	2.7	2.7	2.9	2.6	9.3	2.2	1.1	5.0	3.5
Cycle Q Clear(g_c), s	2.7	2.9	3.1	2.7	2.7	2.9	2.6	9.3	2.2	1.1	5.0	3.5
Prop In Lane	1.00		0.80	1.00		0.86	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	234	215	144	223	204	139	531	451	54	441	375
V/C Ratio(X)	0.79	0.54	0.58	0.79	0.53	0.57	0.79	0.82	0.23	0.85	0.56	0.41
Avail Cap(c_a), veh/h	374	1249	1151	249	1107	1012	279	1354	1150	141	1214	1032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	17.1	17.2	19.0	17.2	17.3	19.1	14.0	11.5	20.4	14.1	13.6
Incr Delay (d2), s/veh	3.5	0.7	0.9	3.6	0.7	0.9	3.8	1.2	0.1	13.1	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.4	1.4	1.4	1.3	1.3	1.4	4.9	0.9	0.7	2.6	1.5
LnGrp Delay(d),s/veh	22.5	17.8	18.1	22.7	18.0	18.3	22.9	15.3	11.6	33.5	14.6	13.8
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		368			348			652			449	
Approach Delay, s/veh		19.4			19.6			16.0			16.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	10.2	8.8	14.5	8.5	10.4	6.8	16.6
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 9	26.7	6.7	* 28	6.0	* 30	3.4	* 31
Max Q Clear Time (g_c+I1), s	4.7	4.9	4.6	7.0	4.7	5.1	3.1	11.3
Green Ext Time (p_c), s	0.0	0.5	0.0	0.8	0.0	0.5	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	40	32	330	30	231	57	1348	305	516	961	59
Future Volume (veh/h)	76	40	32	330	30	231	57	1348	305	516	961	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	76	40	32	330	30	231	57	1348	305	516	961	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	84	45	36	604	327	278	72	1613	502	528	2135	131
Arrive On Green	0.05	0.05	0.05	0.18	0.18	0.18	0.04	0.32	0.32	0.16	0.44	0.44
Sat Flow, veh/h	1757	950	760	3408	1845	1568	1740	4988	1553	3375	4805	295
Grp Volume(v), veh/h	76	0	72	330	30	231	57	1348	305	516	664	356
Grp Sat Flow(s),veh/h/ln	1757	0	1711	1704	1845	1568	1740	1663	1553	1688	1663	1775
Q Serve(g_s), s	3.2	0.0	3.1	6.5	1.0	10.4	2.4	18.4	12.2	11.2	10.2	10.2
Cycle Q Clear(g_c), s	3.2	0.0	3.1	6.5	1.0	10.4	2.4	18.4	12.2	11.2	10.2	10.2
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	84	0	81	604	327	278	72	1613	502	528	1477	788
V/C Ratio(X)	0.91	0.00	0.88	0.55	0.09	0.83	0.80	0.84	0.61	0.98	0.45	0.45
Avail Cap(c_a), veh/h	84	0	81	1113	602	512	173	1989	619	528	1538	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	0.0	34.8	27.5	25.3	29.2	34.9	23.1	20.9	30.9	14.2	14.2
Incr Delay (d2), s/veh	67.3	0.0	61.0	0.3	0.0	2.5	7.3	2.2	0.4	33.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	2.8	3.0	0.5	4.7	1.3	8.7	5.2	7.6	4.6	5.0
LnGrp Delay(d),s/veh	102.1	0.0	95.8	27.8	25.3	31.7	42.2	25.3	21.4	63.9	14.3	14.3
LnGrp LOS	F		F	C	C	C	D	C	C	E	B	B
Approach Vol, veh/h		148			591			1710			1536	
Approach Delay, s/veh		99.0			29.2			25.2			30.9	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.1	37.8		9.0	17.0	29.0		18.5
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 7.3	* 34		3.5	11.5	* 29		24.0
Max Q Clear Time (g_c+I1), s	4.4	12.2		5.2	13.2	20.4		12.4
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	3.3		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	30.7
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	172	110	107	109	11	125	1488	215	42	574	175
Future Volume (veh/h)	232	172	110	107	109	11	125	1488	215	42	574	175
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	232	172	110	107	109	11	125	1488	215	42	574	175
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	355	267	162	190	253	25	216	1879	585	88	1176	526
Arrive On Green	0.10	0.13	0.13	0.06	0.08	0.08	0.06	0.38	0.38	0.03	0.34	0.34
Sat Flow, veh/h	3408	2099	1273	3408	3220	321	3375	4988	1553	3375	3471	1553
Grp Volume(v), veh/h	232	142	140	107	59	61	125	1488	215	42	574	175
Grp Sat Flow(s),veh/h/ln	1704	1752	1620	1704	1752	1788	1688	1663	1553	1688	1736	1553
Q Serve(g_s), s	3.5	4.1	4.4	1.6	1.7	1.8	1.9	14.3	5.4	0.7	7.0	4.5
Cycle Q Clear(g_c), s	3.5	4.1	4.4	1.6	1.7	1.8	1.9	14.3	5.4	0.7	7.0	4.5
Prop In Lane	1.00		0.79	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	355	223	206	190	137	140	216	1879	585	88	1176	526
V/C Ratio(X)	0.65	0.64	0.68	0.56	0.43	0.44	0.58	0.79	0.37	0.48	0.49	0.33
Avail Cap(c_a), veh/h	1235	1117	1033	1235	1130	1153	1223	5970	1859	1223	4168	1865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	22.3	22.4	24.8	23.6	23.7	24.5	14.9	12.1	25.8	14.1	13.3
Incr Delay (d2), s/veh	0.8	1.1	1.5	1.0	0.8	0.8	0.9	0.3	0.1	1.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.1	2.1	0.8	0.9	0.9	0.9	6.5	2.3	0.3	3.4	1.9
LnGrp Delay(d),s/veh	23.9	23.4	23.9	25.7	24.4	24.5	25.4	15.2	12.3	27.3	14.2	13.4
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		514			227			1828			791	
Approach Delay, s/veh		23.8			25.0			15.5			14.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	23.8	11.1	9.9	6.9	25.9	8.5	12.5
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	19.5	* 65	19.5	* 35	19.5	* 64	19.5	* 34
Max Q Clear Time (g_c+I1), s	3.9	9.0	5.5	3.8	2.7	16.3	3.6	6.4
Green Ext Time (p_c), s	0.1	4.0	0.3	0.4	0.0	4.0	0.1	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	270	47	13	419	236	105	1535	27	121	550	186
Future Volume (veh/h)	226	270	47	13	419	236	105	1535	27	121	550	186
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1900	1827	1845	1827
Adj Flow Rate, veh/h	226	270	47	13	419	236	105	1535	27	121	550	0
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	213	637	557	15	435	370	126	1501	26	128	1489	660
Arrive On Green	0.12	0.36	0.36	0.01	0.24	0.24	0.07	0.43	0.43	0.07	0.42	0.00
Sat Flow, veh/h	1707	1792	1568	1757	1792	1524	1757	3524	62	1740	3505	1553
Grp Volume(v), veh/h	226	270	47	13	419	236	105	762	800	121	550	0
Grp Sat Flow(s),veh/h/ln	1707	1792	1568	1757	1792	1524	1757	1752	1834	1740	1752	1553
Q Serve(g_s), s	18.7	17.1	3.0	1.1	34.7	20.8	8.9	63.9	63.9	10.4	16.1	0.0
Cycle Q Clear(g_c), s	18.7	17.1	3.0	1.1	34.7	20.8	8.9	63.9	63.9	10.4	16.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	213	637	557	15	435	370	126	747	781	128	1489	660
V/C Ratio(X)	1.06	0.42	0.08	0.85	0.96	0.64	0.83	1.02	1.02	0.95	0.37	0.00
Avail Cap(c_a), veh/h	213	637	557	64	435	370	216	747	781	128	1489	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	65.7	36.7	32.1	74.3	56.1	50.9	68.7	43.0	43.1	69.2	29.4	0.0
Incr Delay (d2), s/veh	79.0	0.2	0.0	71.3	33.5	2.8	5.3	38.4	38.3	63.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	8.5	1.3	0.8	21.2	9.0	4.5	38.9	40.6	7.2	7.8	0.0
LnGrp Delay(d),s/veh	144.7	36.9	32.2	145.6	89.6	53.7	74.1	81.5	81.4	132.3	29.5	0.0
LnGrp LOS	F	D	C	F	F	D	E	F	F	F	C	
Approach Vol, veh/h		543			668			1667			671	
Approach Delay, s/veh		81.3			78.0			80.9			48.0	
Approach LOS		F			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	68.8	23.0	42.0	16.0	69.0	6.1	58.9
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 18	56.1	* 19	36.4	11.0	63.9	* 5.5	* 50
Max Q Clear Time (g_c+I1), s	10.9	18.1	20.7	36.7	12.4	65.9	3.1	19.1
Green Ext Time (p_c), s	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	74.2
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	65	52	2	181	36	197	1606	29	17	506	102
Future Volume (veh/h)	25	65	52	2	181	36	197	1606	29	17	506	102
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	25	65	52	2	181	36	197	1606	29	17	506	102
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	162	130	6	234	47	247	1965	35	21	1249	251
Arrive On Green	0.02	0.17	0.17	0.00	0.16	0.16	0.14	0.56	0.56	0.01	0.43	0.43
Sat Flow, veh/h	3408	950	760	3408	1495	297	1757	3522	64	1757	2910	584
Grp Volume(v), veh/h	25	0	117	2	0	217	197	798	837	17	304	304
Grp Sat Flow(s),veh/h/ln	1704	0	1711	1704	0	1792	1757	1752	1833	1757	1752	1742
Q Serve(g_s), s	0.6	0.0	5.0	0.0	0.0	9.6	8.9	30.4	30.5	0.8	9.8	9.9
Cycle Q Clear(g_c), s	0.6	0.0	5.0	0.0	0.0	9.6	8.9	30.4	30.5	0.8	9.8	9.9
Prop In Lane	1.00		0.44	1.00		0.17	1.00		0.03	1.00		0.34
Lane Grp Cap(c), veh/h	54	0	292	6	0	281	247	978	1023	21	752	748
V/C Ratio(X)	0.46	0.00	0.40	0.36	0.00	0.77	0.80	0.82	0.82	0.82	0.40	0.41
Avail Cap(c_a), veh/h	149	0	661	228	0	734	716	2033	2127	130	1449	1440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	0.0	30.3	41.0	0.0	33.3	34.2	14.8	14.8	40.6	16.2	16.2
Incr Delay (d2), s/veh	6.0	0.0	0.9	35.1	0.0	4.5	5.9	1.7	1.7	53.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.4	0.0	0.0	5.1	4.7	14.9	15.8	0.7	4.8	4.8
LnGrp Delay(d),s/veh	46.1	0.0	31.2	76.2	0.0	37.8	40.1	16.5	16.5	93.5	16.3	16.4
LnGrp LOS	D		C	E		D	D	B	B	F	B	B
Approach Vol, veh/h		142			219			1832			625	
Approach Delay, s/veh		33.9			38.1			19.0			18.4	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	40.3	5.6	19.3	6.5	50.9	6.8	18.1
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	33.5	68.0	5.5	* 32	6.1	95.4	3.6	* 34
Max Q Clear Time (g_c+I1), s	10.9	11.9	2.0	7.0	2.8	32.5	2.6	11.6
Green Ext Time (p_c), s	0.8	13.2	0.0	1.4	0.0	13.3	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	124	58	33	114	23	138	1830	69	10	411	63
Future Volume (veh/h)	64	124	58	33	114	23	138	1830	69	10	411	63
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1833	1900	1845	1801	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	64	124	58	33	114	23	138	1830	69	10	411	63
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	6	3	3	3	3	3	3
Cap, veh/h	110	150	70	63	164	33	172	2156	81	13	1633	249
Arrive On Green	0.03	0.13	0.13	0.02	0.11	0.11	0.10	0.63	0.63	0.01	0.54	0.54
Sat Flow, veh/h	3408	1182	553	3408	1456	294	1757	3445	129	1757	3051	464
Grp Volume(v), veh/h	64	0	182	33	0	137	138	926	973	10	235	239
Grp Sat Flow(s),veh/h/ln	1704	0	1735	1704	0	1749	1757	1752	1822	1757	1752	1763
Q Serve(g_s), s	1.8	0.0	9.7	0.9	0.0	7.2	7.3	39.8	40.8	0.5	6.8	6.9
Cycle Q Clear(g_c), s	1.8	0.0	9.7	0.9	0.0	7.2	7.3	39.8	40.8	0.5	6.8	6.9
Prop In Lane	1.00		0.32	1.00		0.17	1.00		0.07	1.00		0.26
Lane Grp Cap(c), veh/h	110	0	220	63	0	197	172	1097	1140	13	938	943
V/C Ratio(X)	0.58	0.00	0.83	0.53	0.00	0.70	0.80	0.84	0.85	0.78	0.25	0.25
Avail Cap(c_a), veh/h	133	0	569	125	0	570	305	1310	1362	57	1063	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	0.0	40.5	46.3	0.0	40.6	42.0	14.1	14.3	47.1	11.9	11.9
Incr Delay (d2), s/veh	4.8	0.0	3.1	6.7	0.0	1.6	8.4	4.5	4.7	64.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	4.8	0.5	0.0	3.6	4.0	20.4	21.8	0.5	3.3	3.4
LnGrp Delay(d),s/veh	50.2	0.0	43.6	53.0	0.0	42.3	50.4	18.6	19.0	111.4	12.0	12.0
LnGrp LOS	D		D	D		D	D	B	B	F	B	B
Approach Vol, veh/h		246			170			2037			484	
Approach Delay, s/veh		45.3			44.3			21.0			14.1	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	64.6	8.6	15.7	14.8	56.0	7.2	17.0
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	3.1	* 71	3.7	* 31	16.5	* 58	3.5	* 31
Max Q Clear Time (g_c+I1), s	2.5	42.8	3.8	9.2	9.3	8.9	2.9	11.7
Green Ext Time (p_c), s	0.0	16.7	0.0	0.3	0.2	21.8	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	367	167	132	27	130	261	59	1410	48	53	356	90
Future Volume (veh/h)	367	167	132	27	130	261	59	1410	48	53	356	90
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1844	1900	1845	1845	1900
Adj Flow Rate, veh/h	367	167	132	27	130	261	59	1410	48	53	356	90
Adj No. of Lanes	2	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	3	3	3	3	3
Cap, veh/h	425	340	268	34	137	275	75	1578	54	67	1253	313
Arrive On Green	0.12	0.36	0.36	0.02	0.25	0.25	0.04	0.46	0.46	0.04	0.45	0.45
Sat Flow, veh/h	3408	956	756	1757	549	1102	1740	3458	118	1757	2780	694
Grp Volume(v), veh/h	367	0	299	27	0	391	59	713	745	53	223	223
Grp Sat Flow(s),veh/h/ln	1704	0	1711	1757	0	1650	1740	1752	1823	1757	1752	1722
Q Serve(g_s), s	17.1	0.0	22.1	2.5	0.0	37.6	5.4	60.4	60.7	4.8	12.9	13.2
Cycle Q Clear(g_c), s	17.1	0.0	22.1	2.5	0.0	37.6	5.4	60.4	60.7	4.8	12.9	13.2
Prop In Lane	1.00		0.44	1.00		0.67	1.00		0.06	1.00		0.40
Lane Grp Cap(c), veh/h	425	0	608	34	0	413	75	799	832	67	790	776
V/C Ratio(X)	0.86	0.00	0.49	0.79	0.00	0.95	0.79	0.89	0.89	0.79	0.28	0.29
Avail Cap(c_a), veh/h	565	0	801	79	0	577	147	952	990	88	889	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.4	0.0	40.7	78.9	0.0	59.6	76.6	40.3	40.4	77.1	27.9	28.0
Incr Delay (d2), s/veh	10.3	0.0	0.2	13.8	0.0	18.1	6.9	9.5	9.4	21.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	10.5	1.3	0.0	19.2	2.8	31.2	32.6	2.8	6.3	6.3
LnGrp Delay(d),s/veh	79.7	0.0	40.9	92.7	0.0	77.7	83.5	49.8	49.8	98.5	28.1	28.2
LnGrp LOS	E		D	F		E	F	D	D	F	C	C
Approach Vol, veh/h		666			418			1517			499	
Approach Delay, s/veh		62.3			78.7			51.1			35.6	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	78.9	25.7	45.8	12.2	77.9	8.6	62.8
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 8.1	87.8	26.8	* 57	* 14	82.0	7.3	* 76
Max Q Clear Time (g_c+I1), s	6.8	62.7	19.1	39.6	7.4	15.2	4.5	24.1
Green Ext Time (p_c), s	0.0	11.1	1.1	0.8	0.0	14.1	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	54.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	309	26	148	632	2	100	339	126	4	3	5
Future Volume (veh/h)	34	309	26	148	632	2	100	339	126	4	3	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1796	1900	1845	1793	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	34	309	26	148	632	2	100	339	126	4	3	5
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	6	3	6	6	3	3	3	3	3	3
Cap, veh/h	39	745	62	188	1108	4	127	390	145	4	146	243
Arrive On Green	0.02	0.23	0.23	0.11	0.32	0.32	0.07	0.30	0.30	0.00	0.23	0.23
Sat Flow, veh/h	1757	3189	267	1757	3483	11	1757	1283	477	1757	623	1038
Grp Volume(v), veh/h	34	164	171	148	309	325	100	0	465	4	0	8
Grp Sat Flow(s),veh/h/ln	1757	1707	1749	1757	1703	1791	1757	0	1760	1757	0	1661
Q Serve(g_s), s	1.0	4.3	4.3	4.3	7.9	7.9	2.9	0.0	13.0	0.1	0.0	0.2
Cycle Q Clear(g_c), s	1.0	4.3	4.3	4.3	7.9	7.9	2.9	0.0	13.0	0.1	0.0	0.2
Prop In Lane	1.00		0.15	1.00		0.01	1.00		0.27	1.00		0.63
Lane Grp Cap(c), veh/h	39	399	409	188	542	570	127	0	536	4	0	389
V/C Ratio(X)	0.86	0.41	0.42	0.79	0.57	0.57	0.79	0.00	0.87	1.00	0.00	0.02
Avail Cap(c_a), veh/h	168	772	791	236	836	879	168	0	641	67	0	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.4	16.9	17.0	22.7	14.8	14.8	23.8	0.0	17.2	26.0	0.0	15.4
Incr Delay (d2), s/veh	37.9	1.0	1.0	13.0	1.3	1.3	16.4	0.0	10.7	207.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.1	2.2	2.7	3.9	4.1	2.0	0.0	7.8	0.3	0.0	0.1
LnGrp Delay(d),s/veh	63.3	17.9	17.9	35.7	16.2	16.1	40.2	0.0	27.8	233.2	0.0	15.4
LnGrp LOS	E	B	B	D	B	B	D		C	F		B
Approach Vol, veh/h		369			782			565			12	
Approach Delay, s/veh		22.1			19.8			30.0			88.0	
Approach LOS		C			B			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	18.6	7.8	16.2	5.2	23.0	4.1	19.9
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	7.0	23.6	5.0	16.0	5.0	25.6	2.0	19.0
Max Q Clear Time (g_c+I1), s	6.3	6.3	4.9	2.2	3.0	9.9	2.1	15.0
Green Ext Time (p_c), s	0.0	5.9	0.0	1.8	0.0	5.6	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	47	339	25	63	161	239	731	13	105	1346	881
Future Volume (veh/h)	326	47	339	25	63	161	239	731	13	105	1346	881
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	360	0	339	25	63	161	239	731	13	105	1346	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	846	0	377	32	81	98	270	1889	34	133	1458	454
Arrive On Green	0.24	0.00	0.24	0.06	0.06	0.06	0.15	0.37	0.37	0.08	0.29	0.00
Sat Flow, veh/h	3480	0	1553	517	1302	1568	1740	5046	90	1740	4988	1553
Grp Volume(v), veh/h	360	0	339	88	0	161	239	481	263	105	1346	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1819	0	1568	1740	1663	1811	1740	1663	1553
Q Serve(g_s), s	7.2	0.0	17.3	3.9	0.0	5.1	11.0	8.7	8.7	4.9	21.4	0.0
Cycle Q Clear(g_c), s	7.2	0.0	17.3	3.9	0.0	5.1	11.0	8.7	8.7	4.9	21.4	0.0
Prop In Lane	1.00		1.00	0.28		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	846	0	377	113	0	98	270	1245	678	133	1458	454
V/C Ratio(X)	0.43	0.00	0.90	0.78	0.00	1.65	0.89	0.39	0.39	0.79	0.92	0.00
Avail Cap(c_a), veh/h	1146	0	511	113	0	98	270	1245	678	257	1515	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	0.0	30.1	37.9	0.0	38.4	33.9	18.8	18.8	37.2	28.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	12.6	26.1	0.0	333.9	27.1	0.1	0.1	3.9	9.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	8.8	2.8	0.0	11.3	7.3	4.0	4.3	2.5	11.1	0.0
LnGrp Delay(d),s/veh	26.3	0.0	42.6	64.0	0.0	372.3	61.0	18.8	18.9	41.1	37.4	0.0
LnGrp LOS	C		D	E		F	E	B	B	D	D	
Approach Vol, veh/h		699			249			983			1451	
Approach Delay, s/veh		34.2			263.4			29.1			37.7	
Approach LOS		C			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.4	28.8		10.6	10.7	35.5		25.2
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 13	24.9		5.1	* 12	* 26		27.0
Max Q Clear Time (g_c+I1), s	13.0	23.4		7.1	6.9	10.7		19.3
Green Ext Time (p_c), s	0.0	0.5		0.0	0.0	3.2		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	51.1
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	126	35	49	125	262	37	1344	64	676	1501	645
Future Volume (veh/h)	256	126	35	49	125	262	37	1344	64	676	1501	645
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	256	126	35	49	125	262	37	1344	64	676	1501	645
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	326	651	169	89	172	987	68	1596	76	755	2786	867
Arrive On Green	0.10	0.16	0.16	0.03	0.09	0.09	0.02	0.35	0.35	0.22	0.55	0.55
Sat Flow, veh/h	3408	3985	1034	3514	1845	3136	3408	4542	216	3408	5036	1568
Grp Volume(v), veh/h	256	105	56	49	125	262	37	873	535	676	1501	645
Grp Sat Flow(s),veh/h/ln	1704	1679	1662	1757	1845	1568	1704	1476	1806	1704	1679	1568
Q Serve(g_s), s	6.9	2.5	2.7	1.3	6.2	5.8	1.0	25.5	25.5	18.0	17.8	29.2
Cycle Q Clear(g_c), s	6.9	2.5	2.7	1.3	6.2	5.8	1.0	25.5	25.5	18.0	17.8	29.2
Prop In Lane	1.00		0.62	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	326	548	272	89	172	987	68	1037	635	755	2786	867
V/C Ratio(X)	0.79	0.19	0.21	0.55	0.73	0.27	0.55	0.84	0.84	0.90	0.54	0.74
Avail Cap(c_a), veh/h	386	1262	625	195	591	1700	149	1308	801	950	3400	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	33.8	33.9	45.1	41.3	24.0	45.5	28.0	28.0	35.4	13.3	15.9
Incr Delay (d2), s/veh	7.2	0.1	0.1	2.0	2.2	0.1	2.5	3.4	5.4	8.1	0.1	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	1.2	1.3	0.7	3.2	2.5	0.5	10.8	13.6	9.3	8.2	12.9
LnGrp Delay(d),s/veh	48.6	33.9	34.0	47.0	43.5	24.0	48.0	31.4	33.4	43.5	13.4	17.5
LnGrp LOS	D	C	C	D	D	C	D	C	C	D	B	B
Approach Vol, veh/h		417			436			1445			2822	
Approach Delay, s/veh		42.9			32.2			32.6			21.5	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	57.4	14.4	14.4	26.2	38.5	7.9	21.0
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	4.1	63.2	10.6	* 30	26.1	* 42	5.2	* 35
Max Q Clear Time (g_c+I1), s	3.0	31.2	8.9	8.2	20.0	27.5	3.3	4.7
Green Ext Time (p_c), s	0.0	6.4	0.1	0.6	0.7	5.4	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	27.3
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

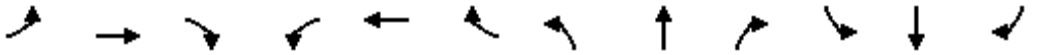
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	64	13	38	46	66	37	1309	63	133	905	215
Future Volume (veh/h)	105	64	13	38	46	66	37	1309	63	133	905	215
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	91	84	13	38	46	66	37	1309	63	133	905	215
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	153	136	21	126	133	113	43	1682	81	195	1727	409
Arrive On Green	0.09	0.09	0.09	0.07	0.07	0.07	0.02	0.34	0.34	0.11	0.42	0.42
Sat Flow, veh/h	1757	1561	242	1757	1845	1568	1757	4923	237	1757	4069	963
Grp Volume(v), veh/h	91	0	97	38	46	66	37	893	479	133	746	374
Grp Sat Flow(s),veh/h/ln	1757	0	1802	1757	1845	1568	1757	1679	1803	1757	1679	1675
Q Serve(g_s), s	2.6	0.0	2.7	1.1	1.2	2.1	1.1	12.5	12.5	3.8	8.6	8.7
Cycle Q Clear(g_c), s	2.6	0.0	2.7	1.1	1.2	2.1	1.1	12.5	12.5	3.8	8.6	8.7
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.13	1.00		0.57
Lane Grp Cap(c), veh/h	153	0	157	126	133	113	43	1147	616	195	1425	711
V/C Ratio(X)	0.59	0.00	0.62	0.30	0.35	0.59	0.85	0.78	0.78	0.68	0.52	0.53
Avail Cap(c_a), veh/h	936	0	960	902	948	805	120	1737	933	247	1967	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	23.1	23.1	23.2	23.6	25.5	15.5	15.5	22.5	11.2	11.2
Incr Delay (d2), s/veh	1.4	0.0	1.5	0.5	0.6	1.8	15.8	0.6	1.1	2.9	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	1.4	0.5	0.7	1.0	0.7	5.8	6.3	2.0	4.0	4.0
LnGrp Delay(d),s/veh	24.5	0.0	24.6	23.6	23.8	25.4	41.3	16.1	16.6	25.3	11.3	11.4
LnGrp LOS	C		C	C	C	C	D	B	B	C	B	B
Approach Vol, veh/h		188			150			1409			1253	
Approach Delay, s/veh		24.5			24.5			16.9			12.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.1	27.1		9.3	10.4	22.8		10.1
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 3.6	30.8		27.0	* 7.4	27.2		28.0
Max Q Clear Time (g_c+I1), s	3.1	10.7		4.1	5.8	14.5		4.7
Green Ext Time (p_c), s	0.0	3.7		0.1	0.0	3.4		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



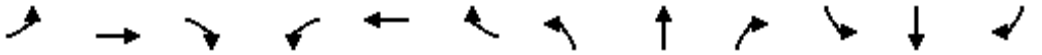
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	268	276	78	287	129	324	1152	100	127	396	170
Future Volume (veh/h)	116	268	276	78	287	129	324	1152	100	127	396	170
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	116	268	276	78	287	129	324	1152	100	127	396	170
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	176	742	347	139	1059	330	381	1466	457	211	848	346
Arrive On Green	0.05	0.22	0.22	0.04	0.21	0.21	0.11	0.29	0.29	0.06	0.24	0.24
Sat Flow, veh/h	3408	3357	1568	3408	5036	1568	3408	5036	1568	3408	3514	1435
Grp Volume(v), veh/h	116	268	276	78	287	129	324	1152	100	127	377	189
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1592
Q Serve(g_s), s	1.9	3.9	9.7	1.3	2.8	4.1	5.4	12.2	2.8	2.1	5.6	5.9
Cycle Q Clear(g_c), s	1.9	3.9	9.7	1.3	2.8	4.1	5.4	12.2	2.8	2.1	5.6	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.90
Lane Grp Cap(c), veh/h	176	742	347	139	1059	330	381	1466	457	211	810	384
V/C Ratio(X)	0.66	0.36	0.80	0.56	0.27	0.39	0.85	0.79	0.22	0.60	0.47	0.49
Avail Cap(c_a), veh/h	176	1622	757	228	2510	782	381	2640	822	299	1679	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	19.2	21.4	27.4	19.2	19.8	25.4	18.9	15.6	26.6	18.9	19.0
Incr Delay (d2), s/veh	7.1	0.1	1.6	1.3	0.1	0.3	15.8	0.4	0.1	1.0	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.8	4.3	0.6	1.3	1.8	3.4	5.7	1.2	1.0	2.6	2.7
LnGrp Delay(d),s/veh	34.2	19.3	23.0	28.7	19.3	20.0	41.2	19.3	15.7	27.6	19.0	19.4
LnGrp LOS	C	B	C	C	B	C	D	B	B	C	B	B
Approach Vol, veh/h		660			494			1576			693	
Approach Delay, s/veh		23.5			21.0			23.6			20.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	19.6	8.5	18.0	9.1	22.5	7.9	18.7
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	6.5	* 29	3.0	29.0	5.1	* 31	3.9	28.1
Max Q Clear Time (g_c+I1), s	7.4	7.9	3.9	6.1	4.1	14.2	3.3	11.7
Green Ext Time (p_c), s	0.0	2.8	0.0	1.2	0.0	2.7	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	182	66	101	246	206	78	789	136	41	370	40
Future Volume (veh/h)	224	182	66	101	246	206	78	789	136	41	370	40
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	224	182	66	101	246	206	78	789	136	41	370	40
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	248	572	201	124	278	236	98	802	138	72	901	766
Arrive On Green	0.14	0.22	0.22	0.07	0.15	0.15	0.06	0.52	0.52	0.02	0.49	0.49
Sat Flow, veh/h	1757	2546	893	1757	1845	1568	1757	1534	264	3408	1845	1568
Grp Volume(v), veh/h	224	123	125	101	246	206	78	0	925	41	370	40
Grp Sat Flow(s),veh/h/ln	1757	1752	1687	1757	1845	1568	1757	0	1798	1704	1845	1568
Q Serve(g_s), s	16.1	7.5	7.9	7.3	16.8	16.5	5.6	0.0	64.8	1.5	16.5	1.7
Cycle Q Clear(g_c), s	16.1	7.5	7.9	7.3	16.8	16.5	5.6	0.0	64.8	1.5	16.5	1.7
Prop In Lane	1.00		0.53	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	248	393	379	124	278	236	98	0	941	72	901	766
V/C Ratio(X)	0.90	0.31	0.33	0.81	0.88	0.87	0.79	0.00	0.98	0.57	0.41	0.05
Avail Cap(c_a), veh/h	255	512	493	218	496	422	179	0	956	82	901	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	41.5	41.7	58.8	53.4	53.3	59.8	0.0	30.0	62.2	21.0	17.2
Incr Delay (d2), s/veh	30.9	0.2	0.2	4.8	3.7	3.9	5.3	0.0	24.7	2.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	3.7	3.7	3.7	8.8	7.4	2.9	0.0	38.3	0.7	8.4	0.7
LnGrp Delay(d),s/veh	85.1	41.7	41.9	63.6	57.1	57.1	65.2	0.0	54.7	64.8	21.1	17.2
LnGrp LOS	F	D	D	E	E	E	E		D	E	C	B
Approach Vol, veh/h		472			553			1003			451	
Approach Delay, s/veh		62.3			58.3			55.5			24.7	
Approach LOS		E			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.6	24.3	12.7	67.8	14.2	33.7	8.2	72.2
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	18.6	* 35	13.1	* 58	* 16	* 38	3.1	* 68
Max Q Clear Time (g_c+I1), s	18.1	18.8	7.6	18.5	9.3	9.9	3.5	66.8
Green Ext Time (p_c), s	0.0	0.6	0.0	1.5	0.0	0.6	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	51.8
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	142	13	225	191	17	288
Future Volume (veh/h)	142	13	225	191	17	288
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	142	13	225	191	17	288
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	202	181	584	497	24	950
Arrive On Green	0.12	0.12	0.32	0.32	0.01	0.52
Sat Flow, veh/h	1757	1568	1845	1568	1757	1845
Grp Volume(v), veh/h	142	13	225	191	17	288
Grp Sat Flow(s),veh/h/ln	1757	1568	1845	1568	1757	1845
Q Serve(g_s), s	1.7	0.2	2.1	2.1	0.2	1.9
Cycle Q Clear(g_c), s	1.7	0.2	2.1	2.1	0.2	1.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	202	181	584	497	24	950
V/C Ratio(X)	0.70	0.07	0.38	0.38	0.72	0.30
Avail Cap(c_a), veh/h	1380	1232	2216	1884	406	2983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.2	8.5	5.8	5.8	10.6	3.0
Incr Delay (d2), s/veh	4.4	0.2	0.4	0.5	33.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1	1.1	0.9	0.3	1.0
LnGrp Delay(d),s/veh	13.6	8.7	6.2	6.2	43.9	3.2
LnGrp LOS	B	A	A	A	D	A
Approach Vol, veh/h	155		416			305
Approach Delay, s/veh	13.2		6.2			5.5
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.3	10.9				15.1		6.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	5.0	26.0				35.0		17.0
Max Q Clear Time (g_c+I1), s	2.2	4.1				3.9		3.7
Green Ext Time (p_c), s	0.0	2.8				2.9		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	112	61	406	282	196	23	1223	96	221	1899	338
Future Volume (veh/h)	128	112	61	406	282	196	23	1223	96	221	1899	338
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	128	112	61	406	337	159	23	1223	96	221	1899	338
Adj No. of Lanes	2	2	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	196	459	205	481	777	468	49	2466	609	297	2322	723
Arrive On Green	0.06	0.13	0.13	0.14	0.21	0.21	0.01	0.39	0.39	0.09	0.47	0.47
Sat Flow, veh/h	3408	3505	1568	3514	3689	1568	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	128	112	61	406	337	159	23	1223	96	221	1899	338
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	3.2	2.5	3.1	9.9	7.0	7.0	0.6	12.9	3.5	5.6	29.0	13.1
Cycle Q Clear(g_c), s	3.2	2.5	3.1	9.9	7.0	7.0	0.6	12.9	3.5	5.6	29.0	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	459	205	481	777	468	49	2466	609	297	2322	723
V/C Ratio(X)	0.65	0.24	0.30	0.84	0.43	0.34	0.46	0.50	0.16	0.75	0.82	0.47
Avail Cap(c_a), veh/h	329	1153	516	538	1419	741	115	2466	609	486	2399	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	34.4	34.6	37.1	30.2	24.1	43.1	20.2	17.3	39.2	20.3	16.1
Incr Delay (d2), s/veh	1.4	0.4	1.2	9.7	1.1	1.2	2.5	0.1	0.0	1.4	3.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.3	1.4	5.4	3.7	3.1	0.3	5.6	1.5	2.7	13.8	5.9
LnGrp Delay(d),s/veh	42.1	34.8	35.8	46.8	31.3	25.3	45.6	20.3	17.4	40.6	23.3	17.7
LnGrp LOS	D	C	D	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		301			902			1342			2458	
Approach Delay, s/veh		38.1			37.2			20.5			24.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	46.4	10.6	24.4	13.2	40.0	17.6	17.3
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	3.0	* 42	8.5	33.9	12.7	* 33	13.5	* 29
Max Q Clear Time (g_c+I1), s	2.6	31.0	5.2	9.0	7.6	14.9	11.9	5.1
Green Ext Time (p_c), s	0.0	10.1	0.0	6.5	0.1	17.1	0.1	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	223	118	136	324	150	316	1182	76	181	899	319
Future Volume (veh/h)	111	223	118	136	324	150	316	1182	76	181	899	319
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	111	223	118	136	324	150	316	1182	76	181	899	319
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	166	589	263	193	880	274	376	2542	791	240	2341	729
Arrive On Green	0.05	0.17	0.17	0.06	0.18	0.18	0.11	0.51	0.51	0.07	0.47	0.47
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	111	223	118	136	324	150	316	1182	76	181	899	319
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	3.8	6.6	7.9	4.6	6.7	10.3	10.8	17.9	3.0	6.2	13.7	16.1
Cycle Q Clear(g_c), s	3.8	6.6	7.9	4.6	6.7	10.3	10.8	17.9	3.0	6.2	13.7	16.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	589	263	193	880	274	376	2542	791	240	2341	729
V/C Ratio(X)	0.67	0.38	0.45	0.71	0.37	0.55	0.84	0.47	0.10	0.75	0.38	0.44
Avail Cap(c_a), veh/h	566	1015	454	561	1453	453	561	2737	852	561	2728	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	43.4	43.9	54.4	42.6	44.1	51.1	18.5	14.8	53.5	20.2	20.8
Incr Delay (d2), s/veh	1.7	0.8	2.4	1.8	0.9	5.7	4.7	0.3	0.1	1.8	0.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.3	3.6	2.2	3.2	4.9	5.2	8.3	1.3	3.0	6.3	7.0
LnGrp Delay(d),s/veh	56.6	44.2	46.3	56.1	43.4	49.8	55.8	18.8	14.9	55.3	20.4	21.6
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	C
Approach Vol, veh/h		452			610			1574			1399	
Approach Delay, s/veh		47.8			47.8			26.0			25.2	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	60.9	11.2	26.7	13.8	65.6	12.2	25.7
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	19.5	* 64	19.5	* 34	19.5	* 64	19.5	34.0
Max Q Clear Time (g_c+I1), s	12.8	18.1	5.8	12.3	8.2	19.9	6.6	9.9
Green Ext Time (p_c), s	0.3	37.0	0.1	8.4	0.2	36.0	0.1	8.8

Intersection Summary	
HCM 2010 Ctrl Delay	31.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	70	132	12	30	14	371	1449	5	51	693	208
Future Volume (veh/h)	96	70	132	12	30	14	371	1449	5	51	693	208
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	96	70	132	12	30	14	371	1449	5	51	693	208
Adj No. of Lanes	2	1	2	1	1	0	2	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	171	201	301	16	81	38	513	1869	6	61	1233	384
Arrive On Green	0.05	0.11	0.11	0.01	0.07	0.07	0.15	0.36	0.36	0.04	0.25	0.25
Sat Flow, veh/h	3408	1845	2760	1757	1191	556	3375	5131	18	1740	4988	1553
Grp Volume(v), veh/h	96	70	132	12	0	44	371	939	515	51	693	208
Grp Sat Flow(s),veh/h/ln	1704	1845	1380	1757	0	1747	1688	1663	1824	1740	1663	1553
Q Serve(g_s), s	1.3	1.7	2.1	0.3	0.0	1.2	5.0	12.0	12.0	1.4	5.8	5.6
Cycle Q Clear(g_c), s	1.3	1.7	2.1	0.3	0.0	1.2	5.0	12.0	12.0	1.4	5.8	5.6
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	171	201	301	16	0	119	513	1211	664	61	1233	384
V/C Ratio(X)	0.56	0.35	0.44	0.74	0.00	0.37	0.72	0.78	0.78	0.84	0.56	0.54
Avail Cap(c_a), veh/h	278	1310	1959	125	0	1240	881	2861	1569	323	3854	1200
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	19.8	20.0	23.7	0.0	21.3	19.3	13.5	13.5	23.0	15.8	15.7
Incr Delay (d2), s/veh	1.1	0.4	0.4	21.3	0.0	0.7	0.7	0.4	0.7	10.5	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.9	0.8	0.2	0.0	0.6	2.4	5.5	6.1	0.8	2.6	2.4
LnGrp Delay(d),s/veh	23.3	20.1	20.3	44.9	0.0	22.0	20.1	13.9	14.2	33.5	15.9	16.1
LnGrp LOS	C	C	C	D		C	C	B	B	C	B	B
Approach Vol, veh/h		298			56			1825			952	
Approach Delay, s/veh		21.2			26.9			15.2			16.9	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	17.8	7.9	9.4	7.2	23.4	5.9	11.3
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	12.5	37.0	3.9	* 34	8.9	* 41	3.4	* 34
Max Q Clear Time (g_c+I1), s	7.0	7.8	3.3	3.2	3.4	14.0	2.3	4.1
Green Ext Time (p_c), s	0.3	3.5	0.0	0.2	0.0	3.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

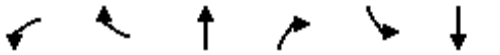
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	44	53	70	176	190	363	1547	56	50	474	101
Future Volume (veh/h)	231	44	53	70	176	190	363	1547	56	50	474	101
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	231	44	53	70	176	190	363	1547	56	50	474	101
Adj No. of Lanes	2	2	0	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	304	373	334	122	539	241	411	1817	566	95	1349	420
Arrive On Green	0.09	0.21	0.21	0.04	0.16	0.16	0.12	0.36	0.36	0.03	0.27	0.27
Sat Flow, veh/h	3408	1752	1568	3250	3343	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	231	44	53	70	176	190	363	1547	56	50	474	101
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1625	1671	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	4.1	1.2	1.7	1.3	2.9	7.5	6.5	17.6	1.5	0.9	4.7	3.1
Cycle Q Clear(g_c), s	4.1	1.2	1.7	1.3	2.9	7.5	6.5	17.6	1.5	0.9	4.7	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	304	373	334	122	539	241	411	1817	566	95	1349	420
V/C Ratio(X)	0.76	0.12	0.16	0.57	0.33	0.79	0.88	0.85	0.10	0.53	0.35	0.24
Avail Cap(c_a), veh/h	304	635	568	274	1194	534	411	2227	693	164	1863	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	19.6	19.7	29.1	22.9	24.8	26.6	18.0	12.9	29.5	18.1	17.5
Incr Delay (d2), s/veh	9.5	0.1	0.1	1.6	0.1	2.2	19.0	2.4	0.0	1.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.6	0.7	0.6	1.3	3.2	4.1	8.4	0.6	0.4	2.2	1.4
LnGrp Delay(d),s/veh	36.9	19.6	19.8	30.7	23.0	27.0	45.7	20.4	12.9	31.2	18.2	17.6
LnGrp LOS	D	B	B	C	C	C	D	C	B	C	B	B
Approach Vol, veh/h		328			436			1966			625	
Approach Delay, s/veh		31.8			26.0			24.9			19.1	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.2	11.0	15.4	7.2	27.9	7.8	18.6
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	7.5	23.0	5.5	22.0	3.0	27.5	5.2	22.3
Max Q Clear Time (g_c+I1), s	8.5	6.7	6.1	9.5	2.9	19.6	3.3	3.7
Green Ext Time (p_c), s	0.0	3.6	0.0	0.4	0.0	2.8	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	222	1460	27	49	486
Future Volume (veh/h)	13	222	1460	27	49	486
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1827	1827	1827
Adj Flow Rate, veh/h	13	222	1460	27	49	486
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	467	215	1955	609	109	1996
Arrive On Green	0.14	0.14	0.39	0.39	0.03	0.58
Sat Flow, veh/h	3408	1568	5152	1553	3375	3563
Grp Volume(v), veh/h	13	222	1460	27	49	486
Grp Sat Flow(s),veh/h/ln	1704	1568	1663	1553	1688	1736
Q Serve(g_s), s	0.1	5.0	9.2	0.4	0.5	2.5
Cycle Q Clear(g_c), s	0.1	5.0	9.2	0.4	0.5	2.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	467	215	1955	609	109	1996
V/C Ratio(X)	0.03	1.03	0.75	0.04	0.45	0.24
Avail Cap(c_a), veh/h	467	215	3419	1064	1758	4711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	15.7	9.5	6.9	17.3	3.8
Incr Delay (d2), s/veh	0.0	70.2	0.2	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.1	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.2	4.1	0.2	0.3	1.2
LnGrp Delay(d),s/veh	13.6	86.0	9.7	6.9	18.4	3.9
LnGrp LOS	B	F	A	A	B	A
Approach Vol, veh/h	235		1487			535
Approach Delay, s/veh	82.0		9.7			5.2
Approach LOS	F		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		26.0		10.5	6.7	19.3		
Change Period (Y+Rc), s		5.0		5.5	5.5	5.0		
Max Green Setting (Gmax), s		49.5		5.0	19.0	25.0		
Max Q Clear Time (g_c+I1), s		4.5		7.0	2.5	11.2		
Green Ext Time (p_c), s		3.4		0.0	0.0	3.1		

Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	1	127	41	9	140	99	999	32	57	349	180
Future Volume (veh/h)	257	1	127	41	9	140	99	999	32	57	349	180
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1900	1845	1845	1845	1827	1827	1827	1833	1900
Adj Flow Rate, veh/h	257	1	127	41	9	140	99	999	32	57	349	180
Adj No. of Lanes	1	1	0	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	4
Cap, veh/h	325	2	288	176	39	189	128	1213	543	103	721	365
Arrive On Green	0.19	0.19	0.19	0.12	0.12	0.12	0.07	0.35	0.35	0.03	0.32	0.32
Sat Flow, veh/h	1757	12	1558	1453	319	1568	1757	3471	1553	3375	2239	1135
Grp Volume(v), veh/h	257	0	128	50	0	140	99	999	32	57	270	259
Grp Sat Flow(s),veh/h/ln	1757	0	1570	1772	0	1568	1757	1736	1553	1688	1741	1633
Q Serve(g_s), s	8.6	0.0	4.4	1.6	0.0	5.3	3.4	16.2	0.8	1.0	7.6	7.9
Cycle Q Clear(g_c), s	8.6	0.0	4.4	1.6	0.0	5.3	3.4	16.2	0.8	1.0	7.6	7.9
Prop In Lane	1.00		0.99	0.82		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	325	0	291	214	0	189	128	1213	543	103	561	526
V/C Ratio(X)	0.79	0.00	0.44	0.23	0.00	0.74	0.77	0.82	0.06	0.55	0.48	0.49
Avail Cap(c_a), veh/h	457	0	409	507	0	449	257	1361	609	165	561	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	22.2	24.5	0.0	26.1	28.0	18.3	13.3	29.4	16.7	16.8
Incr Delay (d2), s/veh	6.1	0.0	1.0	0.6	0.0	5.6	9.5	3.8	0.0	4.5	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	2.0	0.8	0.0	2.6	2.0	8.3	0.4	0.5	3.8	3.6
LnGrp Delay(d),s/veh	30.0	0.0	23.3	25.0	0.0	31.6	37.5	22.1	13.3	33.9	17.4	17.5
LnGrp LOS	C		C	C		C	D	C	B	C	B	B
Approach Vol, veh/h		385			190			1130			586	
Approach Delay, s/veh		27.8			29.9			23.2			19.0	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.5	24.8		12.8	6.8	26.5		15.4
Change Period (Y+Rc), s	4.0	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	9.0	19.0		* 18	* 3	24.1		16.0
Max Q Clear Time (g_c+I1), s	5.4	9.9		7.3	3.0	18.2		10.6
Green Ext Time (p_c), s	0.1	5.2		0.4	0.0	3.3		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	23.5
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	188	1	31	472	299	11	657	32	124	325	92
Future Volume (veh/h)	98	188	1	31	472	299	11	657	32	124	325	92
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1792	1845	1845	1900	1827	1845	1845
Adj Flow Rate, veh/h	98	188	1	31	472	299	11	657	32	124	325	92
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	6	3	3	3	4	3	3
Cap, veh/h	120	614	522	39	529	566	13	710	35	147	893	867
Arrive On Green	0.07	0.33	0.33	0.02	0.29	0.29	0.01	0.41	0.41	0.08	0.48	0.48
Sat Flow, veh/h	1757	1845	1568	1757	1845	1524	1757	1745	85	1740	1845	1568
Grp Volume(v), veh/h	98	188	1	31	472	299	11	0	689	124	325	92
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1524	1757	0	1830	1740	1845	1568
Q Serve(g_s), s	7.2	9.9	0.1	2.3	32.1	20.1	0.8	0.0	46.8	9.2	14.4	3.6
Cycle Q Clear(g_c), s	7.2	9.9	0.1	2.3	32.1	20.1	0.8	0.0	46.8	9.2	14.4	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	120	614	522	39	529	566	13	0	745	147	893	867
V/C Ratio(X)	0.82	0.31	0.00	0.79	0.89	0.53	0.83	0.00	0.92	0.84	0.36	0.11
Avail Cap(c_a), veh/h	121	663	563	121	663	677	81	0	867	160	959	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	32.4	29.1	63.6	44.7	32.1	64.8	0.0	36.9	59.0	21.1	13.9
Incr Delay (d2), s/veh	33.4	0.3	0.0	28.9	12.3	0.8	72.8	0.0	14.2	27.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	5.1	0.0	1.4	18.2	8.5	0.7	0.0	26.5	5.5	7.4	1.6
LnGrp Delay(d),s/veh	93.5	32.7	29.1	92.5	57.0	32.9	137.7	0.0	51.1	86.5	21.4	14.0
LnGrp LOS	F	C	C	F	E	C	F		D	F	C	B
Approach Vol, veh/h		287			802			700			541	
Approach Delay, s/veh		53.4			49.4			52.4			35.0	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	49.6	5.0	69.4	12.9	43.5	15.1	59.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	9.0	47.0	6.0	68.0	9.0	47.0	12.0	62.0
Max Q Clear Time (g_c+I1), s	4.3	11.9	2.8	16.4	9.2	34.1	11.2	48.8
Green Ext Time (p_c), s	0.0	4.4	0.0	6.0	0.0	3.5	0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	47.5
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	145	12	34	545	245	118
Future Volume (veh/h)	145	12	34	545	245	118
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	145	12	34	545	245	118
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	183	15	43	953	344	166
Arrive On Green	0.12	0.12	0.02	0.52	0.29	0.29
Sat Flow, veh/h	1496	124	1740	1827	1166	562
Grp Volume(v), veh/h	158	0	34	545	0	363
Grp Sat Flow(s),veh/h/ln	1631	0	1740	1827	0	1728
Q Serve(g_s), s	2.6	0.0	0.5	5.5	0.0	5.1
Cycle Q Clear(g_c), s	2.6	0.0	0.5	5.5	0.0	5.1
Prop In Lane	0.92	0.08	1.00			0.33
Lane Grp Cap(c), veh/h	199	0	43	953	0	509
V/C Ratio(X)	0.79	0.00	0.78	0.57	0.00	0.71
Avail Cap(c_a), veh/h	539	0	415	2394	0	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.6	0.0	13.2	4.4	0.0	8.6
Incr Delay (d2), s/veh	6.9	0.0	10.7	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.4	2.8	0.0	2.5
LnGrp Delay(d),s/veh	18.6	0.0	23.9	4.6	0.0	9.3
LnGrp LOS	B		C	A		A
Approach Vol, veh/h	158			579	363	
Approach Delay, s/veh	18.6			5.8	9.3	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	6.2	13.7		7.3		19.9		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.5	* 23		9.0		* 36		
Max Q Clear Time (g_c+I1), s	2.5	7.1		4.6		7.5		
Green Ext Time (p_c), s	0.0	0.9		0.2		0.9		

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	113	15	36	448	307	13	28	4	301	233	646
Future Volume (veh/h)	126	113	15	36	448	307	13	28	4	301	233	646
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1792	1792	1900	1792	1792	1792
Adj Flow Rate, veh/h	126	113	15	36	448	307	13	28	4	201	314	685
Adj No. of Lanes	2	2	0	1	1	1	1	1	0	1	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	6	6	6	6	6	6
Cap, veh/h	207	998	130	43	511	434	47	42	6	452	475	807
Arrive On Green	0.06	0.32	0.32	0.02	0.28	0.28	0.03	0.03	0.03	0.26	0.26	0.26
Sat Flow, veh/h	3408	3118	407	1757	1845	1568	1707	1535	219	1707	1792	3047
Grp Volume(v), veh/h	126	63	65	36	448	307	13	0	32	201	314	685
Grp Sat Flow(s),veh/h/ln	1704	1752	1773	1757	1845	1568	1707	0	1754	1707	1792	1524
Q Serve(g_s), s	2.2	1.5	1.6	1.2	14.0	10.7	0.5	0.0	1.1	5.9	9.5	12.9
Cycle Q Clear(g_c), s	2.2	1.5	1.6	1.2	14.0	10.7	0.5	0.0	1.1	5.9	9.5	12.9
Prop In Lane	1.00		0.23	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	207	561	567	43	511	434	47	0	48	452	475	807
V/C Ratio(X)	0.61	0.11	0.12	0.84	0.88	0.71	0.28	0.00	0.67	0.44	0.66	0.85
Avail Cap(c_a), veh/h	231	813	823	160	920	782	561	0	576	691	725	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	14.5	14.5	29.4	20.9	19.7	28.9	0.0	29.2	18.5	19.8	21.1
Incr Delay (d2), s/veh	2.2	0.0	0.0	15.0	1.9	0.8	1.2	0.0	5.8	0.3	0.6	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	0.8	0.8	7.4	4.7	0.2	0.0	0.6	2.8	4.7	5.6
LnGrp Delay(d),s/veh	29.9	14.5	14.6	44.4	22.8	20.5	30.1	0.0	35.0	18.8	20.4	23.3
LnGrp LOS	C	B	B	D	C	C	C		C	B	C	C
Approach Vol, veh/h		254			791			45			1200	
Approach Delay, s/veh		22.2			22.9			33.6			21.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.2	22.7		21.5	6.6	25.3		7.2
Change Period (Y+Rc), s	5.5	* 5.9		5.5	* 5.1	* 5.9		5.5
Max Green Setting (Gmax), s	4.1	* 30		24.5	* 5.5	* 28		19.9
Max Q Clear Time (g_c+I1), s	4.2	16.0		14.9	3.2	3.6		3.1
Green Ext Time (p_c), s	0.0	0.7		1.1	0.0	0.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	169	19	86	409	215	108
Future Volume (veh/h)	169	19	86	409	215	108
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1759	1792	1792	1810	1810
Adj Flow Rate, veh/h	169	19	86	409	215	108
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	6	6	5	5
Cap, veh/h	237	211	116	896	457	388
Arrive On Green	0.14	0.14	0.07	0.50	0.25	0.25
Sat Flow, veh/h	1675	1495	1707	1792	1810	1538
Grp Volume(v), veh/h	169	19	86	409	215	108
Grp Sat Flow(s),veh/h/ln	1675	1495	1707	1792	1810	1538
Q Serve(g_s), s	3.0	0.3	1.5	4.5	3.1	1.7
Cycle Q Clear(g_c), s	3.0	0.3	1.5	4.5	3.1	1.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	237	211	116	896	457	388
V/C Ratio(X)	0.71	0.09	0.74	0.46	0.47	0.28
Avail Cap(c_a), veh/h	820	732	306	1725	1092	929
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	11.4	14.0	5.0	9.7	9.2
Incr Delay (d2), s/veh	4.0	0.2	9.0	0.4	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.3	1.0	2.2	1.6	0.8
LnGrp Delay(d),s/veh	16.5	11.6	23.1	5.3	10.5	9.6
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	188			495	323	
Approach Delay, s/veh	16.0			8.4	10.2	
Approach LOS	B			A	B	

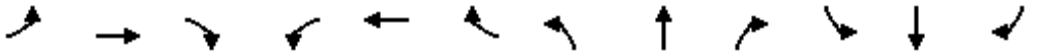
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		20.8		9.8	7.6	13.2		
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		
Max Green Setting (Gmax), s		29.5		15.0	5.5	18.5		
Max Q Clear Time (g_c+I1), s		6.5		5.0	3.5	5.1		
Green Ext Time (p_c), s		3.1		0.5	0.0	2.6		

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	267	5	56	719	40	2	271	30	13	228	3
Future Volume (veh/h)	49	267	5	56	719	40	2	271	30	13	228	3
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1900	1810	1900	1900	1810	1900
Adj Flow Rate, veh/h	49	267	5	56	719	40	2	271	30	13	228	3
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	71	766	14	71	735	41	2	300	33	13	232	3
Arrive On Green	0.04	0.44	0.44	0.04	0.44	0.44	0.19	0.19	0.19	0.14	0.14	0.14
Sat Flow, veh/h	1707	1754	33	1707	1682	94	12	1590	176	96	1683	22
Grp Volume(v), veh/h	49	0	272	56	0	759	303	0	0	244	0	0
Grp Sat Flow(s),veh/h/ln	1707	0	1787	1707	0	1776	1778	0	0	1801	0	0
Q Serve(g_s), s	3.3	0.0	11.7	3.8	0.0	48.7	19.3	0.0	0.0	15.6	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	11.7	3.8	0.0	48.7	19.3	0.0	0.0	15.6	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.05	0.01		0.10	0.05		0.01
Lane Grp Cap(c), veh/h	71	0	780	71	0	776	335	0	0	249	0	0
V/C Ratio(X)	0.69	0.00	0.35	0.79	0.00	0.98	0.90	0.00	0.00	0.98	0.00	0.00
Avail Cap(c_a), veh/h	71	0	780	144	0	776	399	0	0	249	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	54.8	0.0	21.7	55.0	0.0	32.1	46.0	0.0	0.0	49.8	0.0	0.0
Incr Delay (d2), s/veh	21.6	0.0	0.6	7.0	0.0	27.1	21.1	0.0	0.0	51.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	5.9	1.9	0.0	29.7	11.5	0.0	0.0	11.3	0.0	0.0
LnGrp Delay(d),s/veh	76.4	0.0	22.3	61.9	0.0	59.2	67.1	0.0	0.0	101.3	0.0	0.0
LnGrp LOS	E		C	E		E	E			F		
Approach Vol, veh/h		321			815			303			244	
Approach Delay, s/veh		30.5			59.4			67.1			101.3	
Approach LOS		C			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.4	56.6		22.0	9.4	56.6		27.8
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0
Max Green Setting (Gmax), s	4.8	50.6		16.0	9.8	45.6		26.0
Max Q Clear Time (g_c+I1), s	5.3	50.7		17.6	5.8	13.7		21.3
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	13.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	61.3
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	435	93	114	458	201	110	1010	179	116	538	150
Future Volume (veh/h)	182	435	93	114	458	201	110	1010	179	116	538	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	182	435	93	114	458	201	110	1010	179	116	538	150
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	205	686	146	146	717	321	142	1149	514	147	1160	519
Arrive On Green	0.12	0.24	0.24	0.08	0.20	0.20	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	1757	2878	611	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	182	264	264	114	458	201	110	1010	179	116	538	150
Grp Sat Flow(s),veh/h/ln	1757	1752	1737	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	6.1	8.1	8.2	3.8	7.2	7.0	3.7	16.3	5.2	3.9	7.3	4.2
Cycle Q Clear(g_c), s	6.1	8.1	8.2	3.8	7.2	7.0	3.7	16.3	5.2	3.9	7.3	4.2
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	418	414	146	717	321	142	1149	514	147	1160	519
V/C Ratio(X)	0.89	0.63	0.64	0.78	0.64	0.63	0.78	0.88	0.35	0.79	0.46	0.29
Avail Cap(c_a), veh/h	205	468	464	205	936	419	235	1229	550	147	1160	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	20.4	20.5	26.9	21.8	21.7	27.0	19.0	15.3	26.9	15.8	14.8
Incr Delay (d2), s/veh	33.8	2.3	2.5	11.9	1.0	2.0	8.8	7.2	0.4	24.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	4.1	4.2	2.3	3.5	3.2	2.1	9.0	2.3	2.9	3.6	1.9
LnGrp Delay(d),s/veh	59.8	22.7	23.0	38.9	22.8	23.7	35.8	26.2	15.7	51.6	16.1	15.1
LnGrp LOS	E	C	C	D	C	C	D	C	B	D	B	B
Approach Vol, veh/h		710			773			1299			804	
Approach Delay, s/veh		32.3			25.4			25.6			21.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	23.6	9.0	18.3	8.8	23.8	11.0	16.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	21.0	7.0	16.0	8.0	18.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	5.9	18.3	5.8	10.2	5.7	9.3	8.1	9.2
Green Ext Time (p_c), s	0.0	1.3	0.0	2.7	0.1	5.7	0.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	335	109	63	329	91	75	1092	112	77	460	118
Future Volume (veh/h)	186	335	109	63	329	91	75	1092	112	77	460	118
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	186	335	109	63	329	91	75	1092	112	77	460	118
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	223	907	406	80	483	132	95	1228	126	97	1061	270
Arrive On Green	0.13	0.26	0.26	0.05	0.18	0.18	0.05	0.39	0.39	0.06	0.39	0.39
Sat Flow, veh/h	1757	3505	1568	1757	2724	742	1740	3179	326	1740	2741	698
Grp Volume(v), veh/h	186	335	109	63	210	210	75	596	608	77	290	288
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1714	1740	1736	1769	1740	1736	1704
Q Serve(g_s), s	6.5	4.9	3.5	2.2	7.1	7.2	2.7	20.2	20.3	2.8	7.8	7.9
Cycle Q Clear(g_c), s	6.5	4.9	3.5	2.2	7.1	7.2	2.7	20.2	20.3	2.8	7.8	7.9
Prop In Lane	1.00		1.00	1.00		0.43	1.00		0.18	1.00		0.41
Lane Grp Cap(c), veh/h	223	907	406	80	311	304	95	670	683	97	672	660
V/C Ratio(X)	0.83	0.37	0.27	0.79	0.68	0.69	0.79	0.89	0.89	0.79	0.43	0.44
Avail Cap(c_a), veh/h	223	907	406	223	445	435	193	716	730	110	672	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	19.1	18.6	29.8	24.2	24.3	29.4	18.1	18.1	29.4	14.2	14.2
Incr Delay (d2), s/veh	23.0	0.3	0.4	15.7	2.6	2.8	13.3	12.6	12.6	28.5	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	2.4	1.5	1.4	3.6	3.7	1.6	11.9	12.2	2.1	3.8	3.8
LnGrp Delay(d),s/veh	49.8	19.4	19.0	45.5	26.8	27.1	42.7	30.7	30.7	57.9	14.6	14.7
LnGrp LOS	D	B	B	D	C	C	D	C	C	E	B	B
Approach Vol, veh/h		630			483			1279			655	
Approach Delay, s/veh		28.3			29.4			31.4			19.7	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	28.3	6.9	20.3	7.5	28.4	12.0	15.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	26.0	8.0	16.0	7.0	23.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	4.8	22.3	4.2	6.9	4.7	9.9	8.5	9.2
Green Ext Time (p_c), s	0.0	2.1	0.0	2.7	0.0	7.1	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	527	166	52	680	129	215	1017	133	98	441	119
Future Volume (veh/h)	157	527	166	52	680	129	215	1017	133	98	441	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	157	527	166	52	680	129	215	1017	133	98	441	119
Adj No. of Lanes	1	3	0	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	179	1099	337	65	780	349	259	1131	148	124	1002	448
Arrive On Green	0.10	0.29	0.29	0.04	0.22	0.22	0.15	0.37	0.37	0.07	0.29	0.29
Sat Flow, veh/h	1740	3787	1160	1740	3471	1553	1740	3088	404	1740	3471	1553
Grp Volume(v), veh/h	157	461	232	52	680	129	215	571	579	98	441	119
Grp Sat Flow(s),veh/h/ln	1740	1663	1622	1740	1736	1553	1740	1736	1756	1740	1736	1553
Q Serve(g_s), s	6.1	7.8	8.1	2.0	12.9	4.8	8.2	21.2	21.2	3.8	7.1	4.0
Cycle Q Clear(g_c), s	6.1	7.8	8.1	2.0	12.9	4.8	8.2	21.2	21.2	3.8	7.1	4.0
Prop In Lane	1.00		0.72	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	179	965	471	65	780	349	259	636	643	124	1002	448
V/C Ratio(X)	0.88	0.48	0.49	0.81	0.87	0.37	0.83	0.90	0.90	0.79	0.44	0.27
Avail Cap(c_a), veh/h	179	965	471	153	815	365	306	662	670	128	1002	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	19.9	20.0	32.6	25.5	22.3	28.2	20.4	20.4	31.1	19.7	18.7
Incr Delay (d2), s/veh	35.6	0.4	0.8	20.2	9.9	0.7	15.0	14.9	14.9	26.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.6	3.7	1.3	7.2	2.1	5.0	12.6	12.8	2.7	3.4	1.7
LnGrp Delay(d),s/veh	65.7	20.3	20.8	52.8	35.4	23.0	43.2	35.3	35.3	57.8	20.0	19.0
LnGrp LOS	E	C	C	D	D	C	D	D	D	E	C	B
Approach Vol, veh/h		850			861			1365			658	
Approach Delay, s/veh		28.8			34.6			36.5			25.5	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	28.9	6.5	23.8	14.1	23.7	11.0	19.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	26.0	6.0	17.0	12.0	19.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	5.8	23.2	4.0	10.1	10.2	9.1	8.1	14.9
Green Ext Time (p_c), s	0.0	1.7	0.0	4.0	0.1	5.7	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	336	88	46	573	203	152	722	49	43	191	81
Future Volume (veh/h)	219	336	88	46	573	203	152	722	49	43	191	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	219	336	88	46	573	203	152	722	49	43	191	81
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	226	990	256	64	678	240	163	940	421	62	738	330
Arrive On Green	0.13	0.36	0.36	0.04	0.27	0.27	0.09	0.27	0.27	0.04	0.21	0.21
Sat Flow, veh/h	1740	2732	706	1740	2516	889	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	219	212	212	46	395	381	152	722	49	43	191	81
Grp Sat Flow(s),veh/h/ln	1740	1736	1702	1740	1736	1670	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	6.7	4.8	4.9	1.4	11.6	11.6	4.6	10.2	1.3	1.3	2.5	2.3
Cycle Q Clear(g_c), s	6.7	4.8	4.9	1.4	11.6	11.6	4.6	10.2	1.3	1.3	2.5	2.3
Prop In Lane	1.00		0.41	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	629	617	64	468	450	163	940	421	62	738	330
V/C Ratio(X)	0.97	0.34	0.34	0.72	0.84	0.85	0.93	0.77	0.12	0.69	0.26	0.25
Avail Cap(c_a), veh/h	226	629	617	162	516	496	163	1106	495	130	1041	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	12.5	12.5	25.7	18.6	18.6	24.3	18.2	14.9	25.7	17.7	17.7
Incr Delay (d2), s/veh	50.8	0.3	0.3	13.7	11.3	12.0	50.8	2.8	0.1	13.1	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	2.3	2.4	0.9	7.0	6.8	4.5	5.3	0.6	0.8	1.2	1.0
LnGrp Delay(d),s/veh	74.1	12.8	12.8	39.4	30.0	30.6	75.1	21.0	15.0	38.7	17.9	18.1
LnGrp LOS	E	B	B	D	C	C	E	C	B	D	B	B
Approach Vol, veh/h		643			822			923			315	
Approach Delay, s/veh		33.7			30.8			29.6			20.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	18.4	6.0	23.5	9.0	15.3	11.0	18.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	17.0	5.0	18.0	5.0	16.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	3.3	12.2	3.4	6.9	6.6	4.5	8.7	13.6
Green Ext Time (p_c), s	0.0	2.2	0.0	4.3	0.0	4.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	407	18	79	551	251	41	490	41	98	272	269
Future Volume (veh/h)	353	407	18	79	551	251	41	490	41	98	272	269
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	353	407	18	79	551	251	41	490	41	98	272	269
Adj No. of Lanes	2	2	1	2	2	0	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	469	1284	575	174	656	298	115	729	61	193	860	385
Arrive On Green	0.14	0.37	0.37	0.05	0.28	0.28	0.03	0.22	0.22	0.06	0.25	0.25
Sat Flow, veh/h	3375	3471	1553	3375	2321	1055	3375	3244	271	3375	3471	1553
Grp Volume(v), veh/h	353	407	18	79	412	390	41	261	270	98	272	269
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1688	1736	1641	1688	1736	1779	1688	1736	1553
Q Serve(g_s), s	5.4	4.5	0.4	1.2	12.0	12.1	0.6	7.4	7.5	1.5	3.4	8.5
Cycle Q Clear(g_c), s	5.4	4.5	0.4	1.2	12.0	12.1	0.6	7.4	7.5	1.5	3.4	8.5
Prop In Lane	1.00		1.00	1.00		0.64	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	469	1284	575	174	490	464	115	390	400	193	860	385
V/C Ratio(X)	0.75	0.32	0.03	0.45	0.84	0.84	0.36	0.67	0.67	0.51	0.32	0.70
Avail Cap(c_a), veh/h	501	1288	576	250	515	487	250	515	528	250	1030	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	12.1	10.8	24.8	18.2	18.2	25.5	19.1	19.1	24.7	16.6	18.5
Incr Delay (d2), s/veh	6.0	0.1	0.0	1.9	11.4	12.2	1.9	2.1	2.1	2.1	0.2	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.2	0.2	0.6	7.3	7.0	0.3	3.8	3.9	0.8	1.6	4.0
LnGrp Delay(d),s/veh	28.3	12.3	10.8	26.7	29.6	30.4	27.3	21.2	21.2	26.8	16.8	22.1
LnGrp LOS	C	B	B	C	C	C	C	C	C	C	B	C
Approach Vol, veh/h		778			881			572			639	
Approach Delay, s/veh		19.5			29.7			21.7			20.6	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	16.1	6.8	24.0	5.8	17.4	11.5	19.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	4.0	20.0	4.0	16.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	3.5	9.5	3.2	6.5	2.6	10.5	7.4	14.1
Green Ext Time (p_c), s	0.0	2.7	0.0	5.0	0.0	2.3	0.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	1	1	110	13	1	20	941	37	0	488	108
Future Volume (veh/h)	100	1	1	110	13	1	20	941	37	0	488	108
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	100	1	1	110	13	1	20	941	37	0	488	108
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	130	1	1	154	148	11	33	1071	910	3	710	157
Arrive On Green	0.08	0.08	0.08	0.09	0.09	0.09	0.02	0.60	0.60	0.00	0.50	0.50
Sat Flow, veh/h	1641	16	16	1757	1692	130	1707	1792	1524	1707	1422	315
Grp Volume(v), veh/h	102	0	0	110	0	14	20	941	37	0	0	596
Grp Sat Flow(s),veh/h/ln	1674	0	0	1757	0	1822	1707	1792	1524	1707	0	1737
Q Serve(g_s), s	3.0	0.0	0.0	3.1	0.0	0.4	0.6	22.6	0.5	0.0	0.0	13.3
Cycle Q Clear(g_c), s	3.0	0.0	0.0	3.1	0.0	0.4	0.6	22.6	0.5	0.0	0.0	13.3
Prop In Lane	0.98		0.01	1.00		0.07	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	132	0	0	154	0	159	33	1071	910	3	0	868
V/C Ratio(X)	0.77	0.00	0.00	0.72	0.00	0.09	0.61	0.88	0.04	0.00	0.00	0.69
Avail Cap(c_a), veh/h	527	0	0	553	0	573	168	1692	1438	134	0	1605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	23.0	0.0	0.0	22.6	0.0	21.3	24.7	8.7	4.2	0.0	0.0	9.7
Incr Delay (d2), s/veh	9.1	0.0	0.0	6.1	0.0	0.2	16.5	3.5	0.0	0.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	1.8	0.0	0.2	0.4	12.0	0.2	0.0	0.0	6.5
LnGrp Delay(d),s/veh	32.1	0.0	0.0	28.7	0.0	21.6	41.2	12.1	4.2	0.0	0.0	10.7
LnGrp LOS	C			C		C	D	B	A			B
Approach Vol, veh/h		102			124			998			596	
Approach Delay, s/veh		32.1			27.9			12.4			10.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	34.4		8.0	5.0	29.4		8.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	48.0		16.0	5.0	47.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	24.6		5.0	2.6	15.3		5.1
Green Ext Time (p_c), s	0.0	5.8		0.2	0.0	3.1		0.3

Intersection Summary		
HCM 2010 Ctrl Delay		14.0
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	5	228	2	410	3	758	121	187	603	0
Future Volume (veh/h)	2	2	5	228	2	410	3	758	121	187	603	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	2	2	5	228	2	410	3	758	121	187	603	0
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	54	135	232	2	382	6	760	121	198	1105	0
Arrive On Green	0.00	0.12	0.12	0.13	0.24	0.24	0.00	0.49	0.49	0.11	0.60	0.00
Sat Flow, veh/h	1757	468	1170	1757	8	1561	1757	1553	248	1757	1845	0
Grp Volume(v), veh/h	2	0	7	228	0	412	3	0	879	187	603	0
Grp Sat Flow(s),veh/h/ln	1757	0	1638	1757	0	1569	1757	0	1801	1757	1845	0
Q Serve(g_s), s	0.1	0.0	0.4	13.8	0.0	26.0	0.2	0.0	51.7	11.2	20.7	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.4	13.8	0.0	26.0	0.2	0.0	51.7	11.2	20.7	0.0
Prop In Lane	1.00		0.71	1.00		1.00	1.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	4	0	189	232	0	384	6	0	882	198	1105	0
V/C Ratio(X)	0.53	0.00	0.04	0.98	0.00	1.07	0.54	0.00	1.00	0.94	0.55	0.00
Avail Cap(c_a), veh/h	66	0	247	232	0	384	66	0	882	198	1105	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.9	0.0	41.8	46.0	0.0	40.1	52.9	0.0	27.0	46.8	12.7	0.0
Incr Delay (d2), s/veh	82.5	0.0	0.1	54.7	0.0	66.7	61.7	0.0	29.6	47.6	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	10.2	0.0	18.3	0.2	0.0	32.9	8.1	10.6	0.0
LnGrp Delay(d),s/veh	135.5	0.0	41.8	100.7	0.0	106.8	114.6	0.0	56.6	94.3	13.2	0.0
LnGrp LOS	F		D	F		F	F		E	F	B	
Approach Vol, veh/h		9			640			882			790	
Approach Delay, s/veh		62.7			104.6			56.8			32.4	
Approach LOS		E			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	56.0	18.0	16.2	4.3	67.7	4.2	30.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	52.0	14.0	16.0	4.0	60.0	4.0	26.0
Max Q Clear Time (g_c+I1), s	13.2	53.7	15.8	2.4	2.2	22.7	2.1	28.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.7	0.0	9.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	61.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	287	6	4	1	5	7	3	403	1	0	510	313
Future Volume (veh/h)	287	6	4	1	5	7	3	403	1	0	510	313
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	287	6	4	1	5	7	3	403	1	0	510	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	373	8	339	2	9	12	6	870	2	4	684	582
Arrive On Green	0.22	0.22	0.22	0.01	0.01	0.01	0.00	0.47	0.47	0.00	0.37	0.00
Sat Flow, veh/h	1723	36	1568	129	646	904	1757	1839	5	1757	1845	1568
Grp Volume(v), veh/h	293	0	4	13	0	0	3	0	404	0	510	0
Grp Sat Flow(s),veh/h/ln	1759	0	1568	1679	0	0	1757	0	1844	1757	1845	1568
Q Serve(g_s), s	6.3	0.0	0.1	0.3	0.0	0.0	0.1	0.0	6.0	0.0	9.7	0.0
Cycle Q Clear(g_c), s	6.3	0.0	0.1	0.3	0.0	0.0	0.1	0.0	6.0	0.0	9.7	0.0
Prop In Lane	0.98		1.00	0.08		0.54	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	0	339	23	0	0	6	0	873	4	684	582
V/C Ratio(X)	0.77	0.00	0.01	0.58	0.00	0.00	0.52	0.00	0.46	0.00	0.75	0.00
Avail Cap(c_a), veh/h	696	0	621	664	0	0	174	0	1049	174	1049	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	14.9	0.0	12.4	19.8	0.0	0.0	20.1	0.0	7.2	0.0	11.1	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	21.1	0.0	0.0	57.9	0.0	0.4	0.0	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	0.3	0.0	0.0	0.1	0.0	3.0	0.0	5.1	0.0
LnGrp Delay(d),s/veh	18.2	0.0	12.5	40.9	0.0	0.0	78.0	0.0	7.6	0.0	12.7	0.0
LnGrp LOS	B		B	D			E		A		B	
Approach Vol, veh/h		297			13			407			510	
Approach Delay, s/veh		18.1			40.9			8.1			12.7	
Approach LOS		B			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	23.1		12.8	4.1	19.0		4.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	23.0		16.0	4.0	23.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	8.0		8.3	2.1	11.7		2.3
Green Ext Time (p_c), s	0.0	3.7		0.7	0.0	3.3		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		12.8
HCM 2010 LOS		B

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	542	443	585
Demand Flow Rate, veh/h	559	456	603
Vehicles Circulating, veh/h	426	163	52
Vehicles Exiting, veh/h	193	492	933
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	22.8	9.7	10.6
Approach LOS	C	A	B

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	559	456	603
Cap Entry Lane, veh/h	738	960	1073
Entry HV Adj Factor	0.970	0.971	0.970
Flow Entry, veh/h	542	443	585
Cap Entry, veh/h	716	932	1041
V/C Ratio	0.757	0.475	0.562
Control Delay, s/veh	22.8	9.7	10.6
LOS	C	A	B
95th %tile Queue, veh	7	3	4

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	277	343	477
Demand Flow Rate, veh/h	285	353	491
Vehicles Circulating, veh/h	214	181	43
Vehicles Exiting, veh/h	320	353	456
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.5	8.1	8.5
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	285	353	491
Cap Entry Lane, veh/h	912	943	1082
Entry HV Adj Factor	0.972	0.971	0.971
Flow Entry, veh/h	277	343	477
Cap Entry, veh/h	887	916	1051
V/C Ratio	0.312	0.374	0.454
Control Delay, s/veh	7.5	8.1	8.5
LOS	A	A	A
95th %tile Queue, veh	1	2	2

Intersection	
Intersection Delay, s/veh	6.6
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	221	232	342
Demand Flow Rate, veh/h	227	239	352
Vehicles Circulating, veh/h	202	114	76
Vehicles Exiting, veh/h	151	314	353
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.5	6.0	7.0
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	227	239	352
Cap Entry Lane, veh/h	923	1008	1047
Entry HV Adj Factor	0.974	0.971	0.972
Flow Entry, veh/h	221	232	342
Cap Entry, veh/h	899	979	1018
V/C Ratio	0.246	0.237	0.336
Control Delay, s/veh	6.5	6.0	7.0
LOS	A	A	A
95th %tile Queue, veh	1	1	1

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	102	10	67	95	21	58	305	142	6	28	16
Future Vol, veh/h	34	102	10	67	95	21	58	305	142	6	28	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	34	102	10	67	95	21	58	305	142	6	28	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.5	11	17.6	9
HCM LOS	B	B	C	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	23%	37%	12%
Vol Thru, %	60%	70%	52%	56%
Vol Right, %	28%	7%	11%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	505	146	183	50
LT Vol	58	34	67	6
Through Vol	305	102	95	28
RT Vol	142	10	21	16
Lane Flow Rate	505	146	183	50
Geometry Grp	1	1	1	1
Degree of Util (X)	0.682	0.232	0.287	0.076
Departure Headway (Hd)	4.861	5.711	5.645	5.471
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	747	628	635	653
Service Time	2.861	3.756	3.688	3.518
HCM Lane V/C Ratio	0.676	0.232	0.288	0.077
HCM Control Delay	17.6	10.5	11	9
HCM Lane LOS	C	B	B	A
HCM 95th-tile Q	5.4	0.9	1.2	0.2

Intersection	
Intersection Delay, s/veh	17.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	147	7	5	279	141	21	347	20	22	86	4
Future Vol, veh/h	20	147	7	5	279	141	21	347	20	22	86	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	20	147	7	5	279	141	21	347	20	22	86	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.3	19.8	19.3	11.4
HCM LOS	B	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	11%	1%	20%
Vol Thru, %	89%	84%	66%	77%
Vol Right, %	5%	4%	33%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	388	174	425	112
LT Vol	21	20	5	22
Through Vol	347	147	279	86
RT Vol	20	7	141	4
Lane Flow Rate	388	174	425	112
Geometry Grp	1	1	1	1
Degree of Util (X)	0.646	0.308	0.675	0.207
Departure Headway (Hd)	5.994	6.381	5.72	6.644
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	605	562	633	539
Service Time	4.017	4.431	3.742	4.698
HCM Lane V/C Ratio	0.641	0.31	0.671	0.208
HCM Control Delay	19.3	12.3	19.8	11.4
HCM Lane LOS	C	B	C	B
HCM 95th-tile Q	4.7	1.3	5.2	0.8

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	286	230	5	1	210	101	10	4	4	14	4	75
Future Vol, veh/h	286	230	5	1	210	101	10	4	4	14	4	75
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	3	3	3	3	3	3
Mvmt Flow	286	230	5	1	210	101	10	4	4	14	4	75
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	17.4	10.9	9.3	9.4
HCM LOS	C	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	56%	55%	0%	15%
Vol Thru, %	22%	44%	67%	4%
Vol Right, %	22%	1%	32%	81%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	521	312	93
LT Vol	10	286	1	14
Through Vol	4	230	210	4
RT Vol	4	5	101	75
Lane Flow Rate	18	521	312	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.03	0.682	0.404	0.139
Departure Headway (Hd)	6.086	4.713	4.66	5.383
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	592	761	768	659
Service Time	4.086	2.769	2.722	3.475
HCM Lane V/C Ratio	0.03	0.685	0.406	0.141
HCM Control Delay	9.3	17.4	10.9	9.4
HCM Lane LOS	A	C	B	A
HCM 95th-tile Q	0.1	5.4	2	0.5

Intersection	
Intersection Delay, s/veh	41.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	149	6	44	151	15	12	496	180	3	43	14
Future Vol, veh/h	61	149	6	44	151	15	12	496	180	3	43	14
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	6	6	6	8	8	8	3	3	3	3	3	3
Mvmt Flow	61	149	6	44	151	15	12	496	180	3	43	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14	13.9	60.6	10.4
HCM LOS	B	B	F	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	28%	21%	5%
Vol Thru, %	72%	69%	72%	72%
Vol Right, %	26%	3%	7%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	688	216	210	60
LT Vol	12	61	44	3
Through Vol	496	149	151	43
RT Vol	180	6	15	14
Lane Flow Rate	688	216	210	60
Geometry Grp	1	1	1	1
Degree of Util (X)	1.012	0.396	0.386	0.107
Departure Headway (Hd)	5.294	6.714	6.721	6.582
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	681	540	540	548
Service Time	3.365	4.714	4.721	4.582
HCM Lane V/C Ratio	1.01	0.4	0.389	0.109
HCM Control Delay	60.6	14	13.9	10.4
HCM Lane LOS	F	B	B	B
HCM 95th-tile Q	16.5	1.9	1.8	0.4

Intersection	
Intersection Delay, s/veh	14.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	238	2	12	8	1	1	24	479	2	0	45	38
Future Vol, veh/h	238	2	12	8	1	1	24	479	2	0	45	38
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	238	2	12	8	1	1	24	479	2	0	45	38
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.2	9.1	17.3	8.9
HCM LOS	B	A	C	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	94%	80%	0%
Vol Thru, %	95%	1%	10%	54%
Vol Right, %	0%	5%	10%	46%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	505	252	10	83
LT Vol	24	238	8	0
Through Vol	479	2	1	45
RT Vol	2	12	1	38
Lane Flow Rate	505	252	10	83
Geometry Grp	1	1	1	1
Degree of Util (X)	0.672	0.394	0.017	0.119
Departure Headway (Hd)	4.793	5.631	6.029	5.14
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	747	643	596	699
Service Time	2.881	3.631	4.043	3.158
HCM Lane V/C Ratio	0.676	0.392	0.017	0.119
HCM Control Delay	17.3	12.2	9.1	8.9
HCM Lane LOS	C	B	A	A
HCM 95th-tile Q	5.2	1.9	0.1	0.4

Intersection	
Intersection Delay, s/veh	60.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	75	0	289	0	392	387	82	42	0
Future Vol, veh/h	0	0	0	75	0	289	0	392	387	82	42	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	75	0	289	0	392	387	82	42	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	0	16.5	88.5	10.9
HCM LOS	-	C	F	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	21%	100%	0%
Vol Thru, %	50%	100%	0%	0%	100%
Vol Right, %	50%	0%	79%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	779	0	364	82	42
LT Vol	0	0	75	82	0
Through Vol	392	0	0	0	42
RT Vol	387	0	289	0	0
Lane Flow Rate	779	0	364	82	42
Geometry Grp	5	2	2	7	7
Degree of Util (X)	1.108	0	0.571	0.158	0.075
Departure Headway (Hd)	5.122	7.321	5.917	7.254	6.742
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	717	0	615	498	535
Service Time	3.122	5.321	3.917	4.954	4.442
HCM Lane V/C Ratio	1.086	0	0.592	0.165	0.079
HCM Control Delay	88.5	10.3	16.5	11.3	10
HCM Lane LOS	F	N	C	B	A
HCM 95th-tile Q	22.5	0	3.6	0.6	0.2

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	0	6	0	74	0	404	36	14	217	0
Future Vol, veh/h	0	1	0	6	0	74	0	404	36	14	217	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	20	20	20	5	5	5	6	6	6
Mvmt Flow	0	1	0	6	0	74	0	404	36	14	217	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.9	12.5	9.7
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	7%	6%
Vol Thru, %	92%	100%	0%	94%
Vol Right, %	8%	0%	93%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	440	1	80	231
LT Vol	0	0	6	14
Through Vol	404	1	0	217
RT Vol	36	0	74	0
Lane Flow Rate	440	1	80	231
Geometry Grp	1	1	1	1
Degree of Util (X)	0.538	0.002	0.115	0.301
Departure Headway (Hd)	4.401	5.574	5.179	4.684
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	818	638	689	767
Service Time	2.431	3.64	3.233	2.72
HCM Lane V/C Ratio	0.538	0.002	0.116	0.301
HCM Control Delay	12.5	8.7	8.9	9.7
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	3.3	0	0.4	1.3

Intersection	
Intersection Delay, s/veh	17.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	142	234	41	6	182	23	47	302	26	9	51	28
Future Vol, veh/h	142	234	41	6	182	23	47	302	26	9	51	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	3	3	3
Mvmt Flow	142	234	41	6	182	23	47	302	26	9	51	28
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	20.2	12.8	18.8	10.9
HCM LOS	C	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	34%	3%	10%
Vol Thru, %	81%	56%	86%	58%
Vol Right, %	7%	10%	11%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	375	417	211	88
LT Vol	47	142	6	9
Through Vol	302	234	182	51
RT Vol	26	41	23	28
Lane Flow Rate	375	417	211	88
Geometry Grp	1	1	1	1
Degree of Util (X)	0.631	0.672	0.364	0.161
Departure Headway (Hd)	6.059	5.925	6.214	6.568
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	600	613	580	547
Service Time	4.059	3.925	4.248	4.598
HCM Lane V/C Ratio	0.625	0.68	0.364	0.161
HCM Control Delay	18.8	20.2	12.8	10.9
HCM Lane LOS	C	C	B	B
HCM 95th-tile Q	4.4	5.1	1.7	0.6

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	62	165	739	51	88	311
Future Vol, veh/h	62	165	739	51	88	311
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	62	165	739	51	88	311

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1097	395	0	0	790	0
Stage 1	765	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	204	599	-	-	819	-
Stage 1	415	-	-	-	-	-
Stage 2	693	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	182	599	-	-	819	-
Mov Cap-2 Maneuver	305	-	-	-	-	-
Stage 1	415	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	2.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	305	599	819	-
HCM Lane V/C Ratio	-	-	0.203	0.275	0.107	-
HCM Control Delay (s)	-	-	19.8	13.3	9.9	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	1.1	0.4	-

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	165	35	60	289	93	72
Future Vol, veh/h	165	35	60	289	93	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	165	35	60	289	93	72

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	463	205	0	0	349	0
Stage 1	205	-	-	-	-	-
Stage 2	258	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	555	833	-	-	1199	-
Stage 1	827	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	510	833	-	-	1199	-
Mov Cap-2 Maneuver	510	-	-	-	-	-
Stage 1	827	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	4.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	547	1199	-
HCM Lane V/C Ratio	-	-	0.366	0.078	-
HCM Control Delay (s)	-	-	15.3	8.3	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.7	0.3	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	437	830	34	10	93
Future Vol, veh/h	27	437	830	34	10	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	190	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	3	3
Mvmt Flow	27	437	830	34	10	93

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	864	0	-	0	1338	847
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	491	-
Critical Hdwy	4.16	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.254	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	762	-	-	-	168	360
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	762	-	-	-	162	360
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	591	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	21.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	762	-	-	-	322
HCM Lane V/C Ratio	0.035	-	-	-	0.32
HCM Control Delay (s)	9.9	-	-	-	21.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	1	0	3	1	6	0	378	1	1	92	1
Future Vol, veh/h	3	1	0	3	1	6	0	378	1	1	92	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	3	1	0	3	1	6	0	378	1	1	92	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	477	474	93	474	474	379	93	0	0	379	0	0
Stage 1	95	95	-	379	379	-	-	-	-	-	-	-
Stage 2	382	379	-	95	95	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	497	488	961	499	488	666	1495	-	-	1174	-	-
Stage 1	909	814	-	641	613	-	-	-	-	-	-	-
Stage 2	638	613	-	909	814	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	491	488	961	498	488	666	1495	-	-	1174	-	-
Mov Cap-2 Maneuver	491	488	-	498	488	-	-	-	-	-	-	-
Stage 1	909	813	-	641	613	-	-	-	-	-	-	-
Stage 2	631	613	-	907	813	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	11.3	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1495	-	-	490	585	1174	-	-
HCM Lane V/C Ratio	-	-	-	0.008	0.017	0.001	-	-
HCM Control Delay (s)	0	-	-	12.4	11.3	8.1	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	461	3	84	605	3	4	0	124	2	0	5
Future Vol, veh/h	11	461	3	84	605	3	4	0	124	2	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	90	200	-	-	-	-	200	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	6	3	3	6	3	3	3	3	3	3	3
Mvmt Flow	11	461	3	84	605	3	4	0	124	2	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	608	0	0	461	0	0	1260	1259	461	1258	1258	607
Stage 1	-	-	-	-	-	-	483	483	-	775	775	-
Stage 2	-	-	-	-	-	-	777	776	-	483	483	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	966	-	-	1095	-	-	147	170	598	147	170	495
Stage 1	-	-	-	-	-	-	563	551	-	389	406	-
Stage 2	-	-	-	-	-	-	388	406	-	563	551	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	966	-	-	1095	-	-	136	155	598	109	155	495
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	155	-	109	155	-
Stage 1	-	-	-	-	-	-	557	545	-	385	375	-
Stage 2	-	-	-	-	-	-	355	375	-	441	545	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1	13.2	20.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	136	598	966	-	-	1095	-	-	246
HCM Lane V/C Ratio	0.029	0.207	0.011	-	-	0.077	-	-	0.028
HCM Control Delay (s)	32.3	12.6	8.8	-	-	8.6	-	-	20.1
HCM Lane LOS	D	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.8	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	124	1	0	2	3	80
Future Vol, veh/h	124	1	0	2	3	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	124	1	0	2	3	80

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	45	43	83	0	-	0
Stage 1	43	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	963	1025	1508	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	963	1025	1508	-	-	-
Mov Cap-2 Maneuver	963	-	-	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	1019	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1508	-	963	-	-
HCM Lane V/C Ratio	-	-	0.13	-	-
HCM Control Delay (s)	0	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	117	6	1	447	0	4	0	1	0	0	5
Future Vol, veh/h	1	117	6	1	447	0	4	0	1	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	1	117	6	1	447	0	4	0	1	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	447	0	0	123	0	0	574	571	120	572	574	447
Stage 1	-	-	-	-	-	-	122	122	-	449	449	-
Stage 2	-	-	-	-	-	-	452	449	-	123	125	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1108	-	-	1458	-	-	428	429	929	429	428	609
Stage 1	-	-	-	-	-	-	880	793	-	587	571	-
Stage 2	-	-	-	-	-	-	585	571	-	879	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1108	-	-	1458	-	-	424	428	929	428	427	609
Mov Cap-2 Maneuver	-	-	-	-	-	-	424	428	-	428	427	-
Stage 1	-	-	-	-	-	-	879	792	-	586	570	-
Stage 2	-	-	-	-	-	-	580	570	-	877	790	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12.6	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	476	1108	-	-	1458	-	-	609
HCM Lane V/C Ratio	0.011	0.001	-	-	0.001	-	-	0.008
HCM Control Delay (s)	12.6	8.3	0	-	7.5	0	-	11
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	15.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	117	117	25	881	465	71
Future Vol, veh/h	117	117	25	881	465	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	117	117	25	881	465	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1432	501	536	0	-	0
Stage 1	501	-	-	-	-	-
Stage 2	931	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	147	568	1027	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	143	568	1027	-	-	-
Mov Cap-2 Maneuver	143	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	373	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	112.3	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1027	-	228	-	-
HCM Lane V/C Ratio	0.024	-	1.026	-	-
HCM Control Delay (s)	8.6	-	112.3	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0.1	-	9.8	-	-

Intersection	
Int Delay, s/veh	11.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	639	61	342	652	33	377
Future Vol, veh/h	639	61	342	652	33	377
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	250	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	639	61	342	652	33	377

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	639	0	1975	639
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	1336	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	940	-	68	474
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	244	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	940	-	43	474
Mov Cap-2 Maneuver	-	-	-	-	43	-
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	155	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	50.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	43	474	-	-	940	-
HCM Lane V/C Ratio	0.767	0.795	-	-	0.364	-
HCM Control Delay (s)	214.3	36.1	-	-	11	-
HCM Lane LOS	F	E	-	-	B	-
HCM 95th %tile Q(veh)	2.9	7.3	-	-	1.7	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	379	0	0	5
Future Vol, veh/h	0	0	379	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	379	0	0	5

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	384	379	0	0	379	0
Stage 1	379	-	-	-	-	-
Stage 2	5	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	617	666	-	-	1174	-
Stage 1	690	-	-	-	-	-
Stage 2	1016	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	617	666	-	-	1174	-
Mov Cap-2 Maneuver	617	-	-	-	-	-
Stage 1	690	-	-	-	-	-
Stage 2	1016	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1174	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	127	8	110	462	55	49
Future Vol, veh/h	127	8	110	462	55	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	127	8	110	462	55	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	737	55	55	0	-	0
Stage 1	55	-	-	-	-	-
Stage 2	682	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	384	1009	1544	-	-	0
Stage 1	965	-	-	-	-	0
Stage 2	500	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	347	1009	1544	-	-	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	452	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.8	1.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	1544	-	361	-
HCM Lane V/C Ratio	0.071	-	0.374	-
HCM Control Delay (s)	7.5	0	20.8	-
HCM Lane LOS	A	A	C	-
HCM 95th %tile Q(veh)	0.2	-	1.7	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	136	283	0	9	539	20	7	243	19	1	191	237
Future Vol, veh/h	136	283	0	9	539	20	7	243	19	1	191	237
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	8	3	3	8	3
Mvmt Flow	136	283	0	9	539	20	7	243	19	1	191	237

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	559	0	0	283	0	0	1336	1132	283	1253	1122	549
Stage 1	-	-	-	-	-	-	555	555	-	567	567	-
Stage 2	-	-	-	-	-	-	781	577	-	686	555	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.58	6.23	7.13	6.58	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.58	-	6.13	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.58	-	6.13	5.58	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.072	3.327	3.527	4.072	3.327
Pot Cap-1 Maneuver	1007	-	-	1274	-	-	130	~ 198	754	148	201	534
Stage 1	-	-	-	-	-	-	514	504	-	507	497	-
Stage 2	-	-	-	-	-	-	386	492	-	436	504	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1007	-	-	1274	-	-	-	~ 170	754	-	~ 173	534
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 170	-	-	~ 173	-
Stage 1	-	-	-	-	-	-	445	436	-	439	493	-
Stage 2	-	-	-	-	-	-	131	489	-	163	436	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3	0.1		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1007	-	-	1274	-	-	-
HCM Lane V/C Ratio	-	0.135	-	-	0.007	-	-	-
HCM Control Delay (s)	-	9.1	-	-	7.8	-	-	-
HCM Lane LOS	-	A	-	-	A	-	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-	0	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	155	160	0	0	143	7	4	113	0	0	112	89
Future Vol, veh/h	155	160	0	0	143	7	4	113	0	0	112	89
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	155	160	0	0	143	7	4	113	0	0	112	89

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	150	0	0	160	0	0	717	620	160	674	617	147
Stage 1	-	-	-	-	-	-	470	470	-	147	147	-
Stage 2	-	-	-	-	-	-	247	150	-	527	470	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1395	-	-	1372	-	-	337	396	870	360	398	884
Stage 1	-	-	-	-	-	-	563	550	-	842	764	-
Stage 2	-	-	-	-	-	-	744	762	-	524	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1395	-	-	1372	-	-	208	348	870	246	349	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	208	348	-	246	349	-
Stage 1	-	-	-	-	-	-	494	483	-	739	764	-
Stage 2	-	-	-	-	-	-	571	762	-	352	483	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.9	0	21	17.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	340	1395	-	-	1372	-	-	477
HCM Lane V/C Ratio	0.344	0.111	-	-	-	-	-	0.421
HCM Control Delay (s)	21	7.9	0	-	0	-	-	17.9
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	1.5	0.4	-	-	0	-	-	2.1

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	23	45	19	77	119
Future Vol, veh/h	21	23	45	19	77	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	21	23	45	19	77	119

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	246	137	196	0	-	0
Stage 1	137	-	-	-	-	-
Stage 2	109	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	740	909	1371	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	913	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	716	909	1371	-	-	-
Mov Cap-2 Maneuver	716	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	883	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	5.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1371	-	805	-	-
HCM Lane V/C Ratio	0.033	-	0.055	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	6	30	33	97	9
Future Vol, veh/h	3	6	30	33	97	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	6	30	33	97	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	195	102	106	0	-	0
Stage 1	102	-	-	-	-	-
Stage 2	93	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	792	950	1479	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	775	950	1479	-	-	-
Mov Cap-2 Maneuver	775	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1479	-	884	-	-
HCM Lane V/C Ratio	0.02	-	0.01	-	-
HCM Control Delay (s)	7.5	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	109	81	22	111	122
Future Vol, veh/h	35	109	81	22	111	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	35	109	81	22	111	122

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	356	172	233	0	-	0
Stage 1	172	-	-	-	-	-
Stage 2	184	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	640	869	1329	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	600	869	1329	-	-	-
Mov Cap-2 Maneuver	600	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	6.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1329	-	784	-	-
HCM Lane V/C Ratio	0.061	-	0.184	-	-
HCM Control Delay (s)	7.9	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	43	11	54	148	18
Future Vol, veh/h	20	43	11	54	148	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	20	43	11	54	148	18

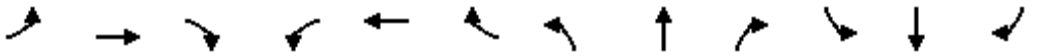
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	224	148	148	0	-	0
Stage 1	148	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	762	896	1427	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	944	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	756	896	1427	-	-	-
Mov Cap-2 Maneuver	756	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	937	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1427	-	756	896	-	-
HCM Lane V/C Ratio	0.008	-	0.026	0.048	-	-
HCM Control Delay (s)	7.5	-	9.9	9.2	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.2	-	-

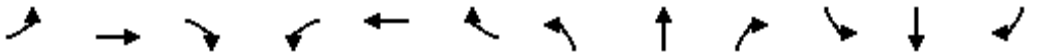
Existing Plus Mather South

PM



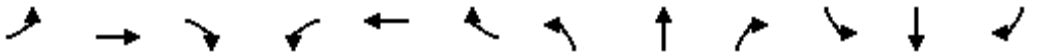
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	747	0	686	0	0	0	0	1574	490	0	1716	792
Future Volume (vph)	747	0	686	0	0	0	0	1574	490	0	1716	792
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	747	0	686	0	0	0	0	1574	490	0	1716	792
RTOR Reduction (vph)	0	0	16	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	747	0	670	0	0	0	0	1574	490	0	1716	792
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	15.1		15.1					20.2	43.3		20.2	43.3
Effective Green, g (s)	15.1		15.1					20.2	43.3		20.2	43.3
Actuated g/C Ratio	0.35		0.35					0.47	1.00		0.47	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1174		953					2326	1553		2326	1553
v/s Ratio Prot								0.32			c0.34	
v/s Ratio Perm	0.22		c0.25						0.32			0.51
v/c Ratio	0.64		0.70					0.68	0.32		0.74	0.51
Uniform Delay, d1	11.8		12.2					9.0	0.0		9.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	1.1		2.4					0.8	0.5		1.3	1.2
Delay (s)	12.9		14.5					9.8	0.5		10.6	1.2
Level of Service	B		B					A	A		B	A
Approach Delay (s)		13.7			0.0			7.6			7.7	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	43.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



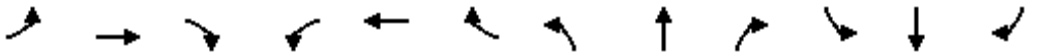
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	244	650	149	275	488	772	234	1046	161	882	1484	150
Future Volume (vph)	244	650	149	275	488	772	234	1046	161	882	1484	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3374		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3374		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	244	650	149	275	488	772	234	1046	161	882	1484	150
RTOR Reduction (vph)	0	25	0	0	0	608	0	0	127	0	0	92
Lane Group Flow (vph)	244	774	0	275	488	164	234	1046	34	882	1484	58
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	8.0	18.0		7.0	17.0	17.0	8.0	17.0	17.0	22.0	31.0	31.0
Effective Green, g (s)	8.0	18.0		7.0	17.0	17.0	8.0	17.0	17.0	22.0	31.0	31.0
Actuated g/C Ratio	0.10	0.22		0.09	0.21	0.21	0.10	0.21	0.21	0.28	0.39	0.39
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	336	759		294	737	580	336	1059	330	925	1932	601
v/s Ratio Prot	0.07	c0.23		c0.08	0.14		0.07	c0.21		c0.26	0.30	
v/s Ratio Perm						0.06			0.02			0.04
v/c Ratio	0.73	1.02		0.94	0.66	0.28	0.70	0.99	0.10	0.95	0.77	0.10
Uniform Delay, d1	34.9	31.0		36.3	28.9	26.4	34.8	31.4	25.4	28.5	21.4	15.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.6	37.8		35.5	2.2	0.3	6.2	24.4	0.1	19.2	1.9	0.1
Delay (s)	42.5	68.8		71.7	31.1	26.7	41.0	55.8	25.5	47.7	23.3	15.7
Level of Service	D	E		E	C	C	D	E	C	D	C	B
Approach Delay (s)		62.7			36.2			50.0			31.4	
Approach LOS		E			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	819	698	12	945	19	302	2	3	14	11	84
Future Volume (vph)	101	819	698	12	945	19	302	2	3	14	11	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1623	1524		1794	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1623	1524		1794	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	101	819	698	12	945	19	302	2	3	14	11	84
RTOR Reduction (vph)	0	0	238	0	0	12	0	0	2	0	0	77
Lane Group Flow (vph)	101	819	460	12	945	7	151	153	1	0	25	7
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.1	29.2	41.9	0.7	24.8	24.8	12.7	12.7	12.7		5.0	5.0
Effective Green, g (s)	5.1	29.2	41.9	0.7	24.8	24.8	12.7	12.7	12.7		5.0	5.0
Actuated g/C Ratio	0.08	0.46	0.66	0.01	0.39	0.39	0.20	0.20	0.20		0.08	0.08
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	139	1593	1120	19	1353	605	323	324	304		141	123
v/s Ratio Prot	c0.06	0.24	c0.08	0.01	c0.27		0.09	0.09			c0.01	
v/s Ratio Perm			0.21			0.00			0.00			0.00
v/c Ratio	0.73	0.51	0.41	0.63	0.70	0.01	0.47	0.47	0.00		0.18	0.05
Uniform Delay, d1	28.6	12.2	5.1	31.3	16.3	11.9	22.5	22.5	20.4		27.4	27.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	17.2	0.3	0.2	52.7	1.6	0.0	1.1	1.1	0.0		0.6	0.2
Delay (s)	45.7	12.5	5.3	84.1	17.9	11.9	23.5	23.6	20.4		28.0	27.3
Level of Service	D	B	A	F	B	B	C	C	C		C	C
Approach Delay (s)		11.5			18.6			23.5			27.5	
Approach LOS		B			B			C			C	

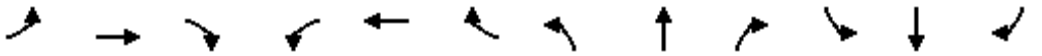
Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	63.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	443	214	151	535	94	404	155	341	126	108	37
Future Volume (vph)	38	443	214	151	535	94	404	155	341	126	108	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.98	
Satd. Flow (prot)	1752	3505	1568	1752	3426		1665	1714	1568		3355	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.98	
Satd. Flow (perm)	1752	3505	1568	1752	3426		1665	1714	1568		3355	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	443	214	151	535	94	404	155	341	126	108	37
RTOR Reduction (vph)	0	0	160	0	17	0	0	0	262	0	18	0
Lane Group Flow (vph)	38	443	54	151	612	0	275	284	79	0	253	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	1.4	15.6	15.6	6.1	20.3		14.3	14.3	14.3		9.9	
Effective Green, g (s)	1.4	15.6	15.6	6.1	20.3		14.3	14.3	14.3		9.9	
Actuated g/C Ratio	0.02	0.25	0.25	0.10	0.33		0.23	0.23	0.23		0.16	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	39	883	395	172	1123		384	395	362		536	
v/s Ratio Prot	0.02	0.13		c0.09	c0.18		0.17	c0.17			c0.08	
v/s Ratio Perm			0.03						0.05			
v/c Ratio	0.97	0.50	0.14	0.88	0.55		0.72	0.72	0.22		0.47	
Uniform Delay, d1	30.2	19.8	17.9	27.5	17.0		21.9	21.9	19.3		23.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	133.2	0.5	0.2	36.0	0.5		6.2	6.2	0.3		0.7	
Delay (s)	163.4	20.3	18.1	63.5	17.6		28.2	28.1	19.6		24.3	
Level of Service	F	C	B	E	B		C	C	B		C	
Approach Delay (s)		27.4			26.5			24.9			24.3	
Approach LOS		C			C			C			C	

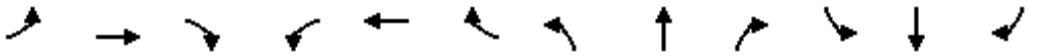
Intersection Summary			
HCM 2000 Control Delay	26.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	61.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



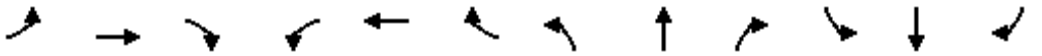
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	647	739	208	561	40	271	160	329	36	80	31
Future Volume (vph)	34	647	739	208	561	40	271	160	329	36	80	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3121		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3121		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	647	739	208	561	40	271	160	329	36	80	31
RTOR Reduction (vph)	0	0	445	0	0	20	0	280	0	0	0	29
Lane Group Flow (vph)	34	647	294	208	561	20	271	209	0	36	80	2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	2.1	26.5	26.5	7.1	32.9	32.9	10.0	10.0		4.1	4.1	4.1
Effective Green, g (s)	2.1	26.5	26.5	7.1	32.9	32.9	10.0	10.0		4.1	4.1	4.1
Actuated g/C Ratio	0.03	0.40	0.40	0.11	0.49	0.49	0.15	0.15		0.06	0.06	0.06
Clearance Time (s)	4.0	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Vehicle Extension (s)	1.0	4.9	4.9	1.0	4.1	4.1	2.0	2.0		1.0	1.0	1.0
Lane Grp Cap (vph)	55	1396	624	363	1734	775	506	469		108	216	96
v/s Ratio Prot	0.02	0.18		c0.06	0.16		c0.08	0.07		0.02	c0.02	
v/s Ratio Perm			c0.19			0.01						0.00
v/c Ratio	0.62	0.46	0.47	0.57	0.32	0.03	0.54	0.45		0.33	0.37	0.02
Uniform Delay, d1	31.8	14.8	14.8	28.3	10.1	8.6	26.1	25.7		29.9	30.0	29.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	13.6	0.5	1.1	1.4	0.2	0.0	0.5	0.2		0.7	0.4	0.0
Delay (s)	45.5	15.2	16.0	29.6	10.3	8.6	26.7	26.0		30.6	30.4	29.3
Level of Service	D	B	B	C	B	A	C	C		C	C	C
Approach Delay (s)		16.3			15.2			26.2			30.2	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	66.5	Sum of lost time (s)	22.8
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	920	0	216	0	632	897	0	862	573
Future Volume (vph)	0	0	0	920	0	216	0	632	897	0	862	573
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.6		4.6		3.5	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3367		2733		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3367		2733		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	920	0	216	0	632	897	0	862	573
RTOR Reduction (vph)	0	0	0	0	0	131	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	920	0	85	0	632	897	0	862	573
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				4				6			2	
Permitted Phases						4			Free			Free
Actuated Green, G (s)				12.6		12.6		11.2	31.9		9.6	31.9
Effective Green, g (s)				12.6		12.6		11.2	31.9		9.6	31.9
Actuated g/C Ratio				0.39		0.39		0.35	1.00		0.30	1.00
Clearance Time (s)				4.6		4.6		3.5			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1329		1079		1751	1553		1501	1553
v/s Ratio Prot				0.27				0.13			0.17	
v/s Ratio Perm						0.03			c0.58			0.37
v/c Ratio				0.69		0.08		0.36	0.58		0.57	0.37
Uniform Delay, d1				8.0		6.0		7.7	0.0		9.4	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				1.3		0.0		0.0	1.6		0.3	0.7
Delay (s)				9.3		6.0		7.7	1.6		9.8	0.7
Level of Service				A		A		A	A		A	A
Approach Delay (s)		0.0			8.7			4.1			6.1	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	31.9	Sum of lost time (s)	9.7
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

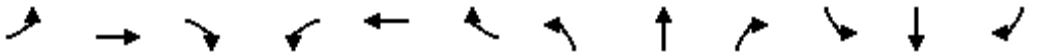


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	464	0	829	0	0	0	0	1064	807	0	1366	414
Future Volume (vph)	464	0	829	0	0	0	0	1064	807	0	1366	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	464	0	829	0	0	0	0	1064	807	0	1366	414
RTOR Reduction (vph)	0	0	29	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	464	0	800	0	0	0	0	1064	807	0	1366	414
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	15.1		15.1					15.0	41.6		15.5	41.6
Effective Green, g (s)	15.1		15.1					15.0	41.6		15.5	41.6
Actuated g/C Ratio	0.36		0.36					0.36	1.00		0.37	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1222		992					1798	1553		1858	1553
v/s Ratio Prot								0.21			c0.27	
v/s Ratio Perm	0.14		c0.29						0.52			0.27
v/c Ratio	0.38		0.81					0.59	0.52		0.74	0.27
Uniform Delay, d1	9.8		11.9					10.8	0.0		11.3	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1		4.6					0.4	1.2		1.3	0.4
Delay (s)	9.9		16.5					11.2	1.2		12.6	0.4
Level of Service	A		B					B	A		B	A
Approach Delay (s)		14.1			0.0			6.9			9.8	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	41.6	Sum of lost time (s)	11.5
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

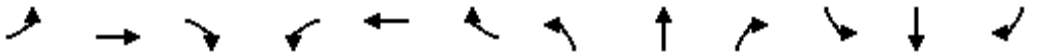
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	282	0	187	0	803	1084	0	601	394
Future Volume (vph)	0	0	0	282	0	187	0	803	1084	0	601	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.95	1.00		0.95	1.00
Frt				1.00	0.87			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.99			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1506			3471	1553		3471	1553
Flt Permitted				0.95	0.99			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1506			3471	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	282	0	187	0	803	1084	0	601	394
RTOR Reduction (vph)	0	0	0	0	133	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	245	91	0	0	803	1084	0	601	394
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA			NA	Free		NA	Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				8.9	8.9			12.8	31.4		12.8	31.4
Effective Green, g (s)				8.9	8.9			12.8	31.4		12.8	31.4
Actuated g/C Ratio				0.28	0.28			0.41	1.00		0.41	1.00
Clearance Time (s)				4.9	4.9			4.8			4.8	
Vehicle Extension (s)				1.0	1.0			1.0			1.0	
Lane Grp Cap (vph)				467	426			1414	1553		1414	1553
v/s Ratio Prot								0.23			0.17	
v/s Ratio Perm				0.15	0.06				c0.70			0.25
v/c Ratio				0.52	0.21			0.57	0.70		0.43	0.25
Uniform Delay, d1				9.5	8.6			7.2	0.0		6.7	0.0
Progression Factor				1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2				0.5	0.1			0.3	2.6		0.1	0.4
Delay (s)				10.0	8.7			7.5	2.6		6.7	0.4
Level of Service				A	A			A	A		A	A
Approach Delay (s)		0.0			9.3			4.7			4.2	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	31.4	Sum of lost time (s)	9.7
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



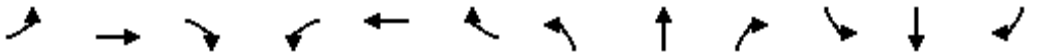
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	369	0	518	0	0	0	0	1518	867	0	660	224
Future Volume (vph)	369	0	518	0	0	0	0	1518	867	0	660	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.95	1.00
Frt	1.00	0.88	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1449	1475					4988	1553		3471	1553
Flt Permitted	0.95	0.99	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1449	1475					4988	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	369	0	518	0	0	0	0	1518	867	0	660	224
RTOR Reduction (vph)	0	133	180	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	310	159	105	0	0	0	0	1518	867	0	660	224
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm					NA	Free		NA	Free
Protected Phases		4						2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	12.7	12.7	12.7					20.2	42.9		20.3	42.9
Effective Green, g (s)	12.7	12.7	12.7					20.2	42.9		20.3	42.9
Actuated g/C Ratio	0.30	0.30	0.30					0.47	1.00		0.47	1.00
Clearance Time (s)	5.1	5.1	5.1					4.9			4.8	
Vehicle Extension (s)	1.0	1.0	1.0					1.0			1.0	
Lane Grp Cap (vph)	488	428	436					2348	1553		1642	1553
v/s Ratio Prot								0.30			0.19	
v/s Ratio Perm	0.19	0.11	0.07						c0.56			0.14
v/c Ratio	0.64	0.37	0.24					0.65	0.56		0.40	0.14
Uniform Delay, d1	13.1	11.9	11.4					8.6	0.0		7.4	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	2.0	0.2	0.1					0.5	1.5		0.1	0.2
Delay (s)	15.1	12.1	11.5					9.1	1.5		7.4	0.2
Level of Service	B	B	B					A	A		A	A
Approach Delay (s)		13.0			0.0			6.3			5.6	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	42.9	Sum of lost time (s)	10.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



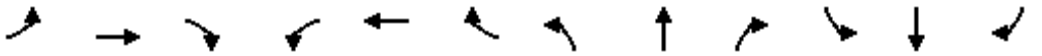
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	526	0	250	0	1485	1843	0	760	497
Future Volume (vph)	0	0	0	526	0	250	0	1485	1843	0	760	497
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		3505	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	526	0	250	0	1485	1843	0	760	497
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	526	0	217	0	1485	1843	0	760	497
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				8.2		8.2		13.9	33.5		13.9	33.5
Effective Green, g (s)				8.2		8.2		13.9	33.5		13.9	33.5
Actuated g/C Ratio				0.24		0.24		0.41	1.00		0.41	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				832		383		2089	1568		1454	1568
v/s Ratio Prot								0.29			0.22	
v/s Ratio Perm				0.15		0.14			c1.18			0.32
v/c Ratio				0.63		0.57		0.71	1.18		0.52	0.32
Uniform Delay, d1				11.3		11.1		8.1	16.8		7.3	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				1.2		1.1		1.0	86.0		0.2	0.5
Delay (s)				12.5		12.2		9.1	102.7		7.5	0.5
Level of Service				B		B		A	F		A	A
Approach Delay (s)		0.0			12.4			61.0			4.7	
Approach LOS		A			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	40.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.78		
Actuated Cycle Length (s)	33.5	Sum of lost time (s)	11.4
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



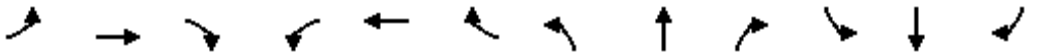
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	553	108	489	0	0	905	0	2526	8	0	1154	130
Future Volume (vph)	553	108	489	0	0	905	0	2526	8	0	1154	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		*0.75			0.95	1.00
Frt	1.00	0.94	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	0.98	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	2929	1427			2733		5531			3505	1568
Flt Permitted	0.95	0.98	1.00			1.00		1.00			1.00	1.00
Satd. Flow (perm)	1595	2929	1427			2733		5531			3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	553	108	489	0	0	905	0	2526	8	0	1154	130
RTOR Reduction (vph)	0	56	126	0	0	33	0	1	0	0	0	30
Lane Group Flow (vph)	299	526	143	0	0	872	0	2533	0	0	1154	100
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA			NA	Perm
Protected Phases	4	4				1		2			6	
Permitted Phases			4									6
Actuated Green, G (s)	20.0	20.0	20.0			33.0		55.0			92.0	92.0
Effective Green, g (s)	20.0	20.0	20.0			33.0		55.0			92.0	92.0
Actuated g/C Ratio	0.17	0.17	0.17			0.28		0.46			0.77	0.77
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	265	488	237			751		2535			2687	1202
v/s Ratio Prot	c0.19	0.18				c0.32		c0.46			0.33	
v/s Ratio Perm			0.10									0.06
v/c Ratio	1.13	1.08	0.60			1.16		1.00			0.43	0.08
Uniform Delay, d1	50.0	50.0	46.3			43.5		32.5			4.9	3.5
Progression Factor	1.00	1.00	1.00			1.00		1.00			1.00	1.00
Incremental Delay, d2	94.3	63.4	4.3			87.1		17.6			0.1	0.0
Delay (s)	144.3	113.4	50.6			130.6		50.1			5.0	3.5
Level of Service	F	F	D			F		D			A	A
Approach Delay (s)		106.8			130.6			50.1			4.8	
Approach LOS		F			F			D			A	

Intersection Summary			
HCM 2000 Control Delay	63.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



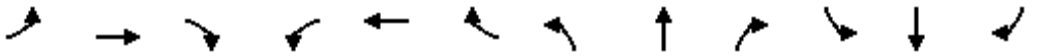
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	374	0	404	0	2991	566	0	1189	1113
Future Volume (vph)	0	0	0	374	0	404	0	2991	566	0	1189	1113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	374	0	404	0	2991	566	0	1189	1113
RTOR Reduction (vph)	0	0	0	0	0	35	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	374	0	369	0	2991	566	0	1189	1113
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				8.9		8.9		34.3	51.5		34.0	51.5
Effective Green, g (s)				8.9		8.9		34.3	51.5		34.0	51.5
Actuated g/C Ratio				0.17		0.17		0.67	1.00		0.66	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				570		463		3322	1553		3293	1553
v/s Ratio Prot								c0.60			0.24	
v/s Ratio Perm				0.11		0.14			0.36			c0.72
v/c Ratio				0.66		0.80		0.90	0.36		0.36	0.72
Uniform Delay, d1				19.9		20.4		7.2	0.0		3.9	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				2.1		8.7		3.7	0.7		0.0	2.9
Delay (s)				22.0		29.1		10.9	0.7		3.9	2.9
Level of Service				C		C		B	A		A	A
Approach Delay (s)		0.0			25.7			9.3			3.4	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	51.5	Sum of lost time (s)	8.6
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



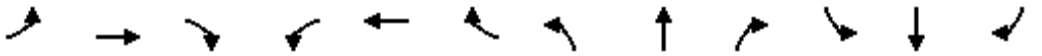
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1327	0	307	0	0	0	0	2229	363	0	1119	443
Future Volume (vph)	1327	0	307	0	0	0	0	2229	363	0	1119	443
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1327	0	307	0	0	0	0	2229	363	0	1119	443
RTOR Reduction (vph)	0	0	64	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1327	0	243	0	0	0	0	2229	363	0	1119	443
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	14.6		14.6					20.6	43.5		20.3	43.5
Effective Green, g (s)	14.6		14.6					20.6	43.5		20.3	43.5
Actuated g/C Ratio	0.34		0.34					0.47	1.00		0.47	1.00
Clearance Time (s)	3.5		3.5					4.8			5.1	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1642		917					2976	1553		2327	1553
v/s Ratio Prot								c0.35			0.22	
v/s Ratio Perm	c0.27		0.09						0.23			0.29
v/c Ratio	0.81		0.27					0.75	0.23		0.48	0.29
Uniform Delay, d1	13.2		10.5					9.3	0.0		8.0	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	2.9		0.1					0.9	0.4		0.1	0.5
Delay (s)	16.0		10.6					10.3	0.4		8.0	0.5
Level of Service	B		B					B	A		A	A
Approach Delay (s)		15.0			0.0			8.9			5.9	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	43.5	Sum of lost time (s)	8.6
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



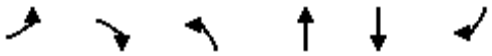
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	218	338	9	2	334	6	7	15	2	5	21	571
Future Volume (vph)	218	338	9	2	334	6	7	15	2	5	21	571
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1703	1792	1524	1719	1805			1798			1810	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (perm)	1703	1792	1524	1719	1805			1798			1810	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	218	338	9	2	334	6	7	15	2	5	21	571
RTOR Reduction (vph)	0	0	4	0	1	0	0	2	0	0	0	459
Lane Group Flow (vph)	218	338	5	2	339	0	0	22	0	0	26	112
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	Over
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									
Actuated Green, G (s)	10.9	28.5	28.5	0.4	18.9			0.8			1.4	10.9
Effective Green, g (s)	10.9	28.5	28.5	0.4	18.9			0.8			1.4	10.9
Actuated g/C Ratio	0.20	0.51	0.51	0.01	0.34			0.01			0.03	0.20
Clearance Time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	332	915	778	12	611			25			45	303
v/s Ratio Prot	c0.13	0.19		0.00	c0.19			c0.01			c0.01	0.07
v/s Ratio Perm			0.00									
v/c Ratio	0.66	0.37	0.01	0.17	0.56			0.88			0.58	0.37
Uniform Delay, d1	20.7	8.2	6.7	27.5	15.0			27.5			26.9	19.5
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	3.5	0.1	0.0	2.4	0.6			125.2			10.7	0.3
Delay (s)	24.3	8.3	6.7	29.9	15.7			152.7			37.6	19.7
Level of Service	C	A	A	C	B			F			D	B
Approach Delay (s)		14.5			15.7			152.7			20.5	
Approach LOS		B			B			F			C	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	55.8	Sum of lost time (s)	24.7
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



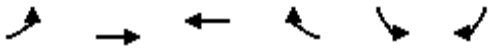
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	313	39	181	589	159	1979	0	0	1327	67
Future Volume (vph)	0	0	313	39	181	589	159	1979	0	0	1327	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1777	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1777	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	313	39	181	589	159	1979	0	0	1327	67
RTOR Reduction (vph)	0	0	258	0	0	84	0	0	0	0	0	44
Lane Group Flow (vph)	0	0	55	0	220	505	159	1979	0	0	1327	23
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			11.3		14.4	14.4	11.3	38.3			22.1	22.1
Effective Green, g (s)			11.3		14.4	14.4	11.3	38.3			22.1	22.1
Actuated g/C Ratio			0.18		0.23	0.23	0.18	0.60			0.35	0.35
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Vehicle Extension (s)			3.0		3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)			282		400	604	584	2932			2132	527
v/s Ratio Prot			0.03		0.12		0.05	c0.40			0.22	
v/s Ratio Perm						c0.19						0.02
v/c Ratio			0.20		0.55	0.84	0.27	0.67			0.62	0.04
Uniform Delay, d1			22.4		21.9	23.6	22.7	8.6			17.4	13.9
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			0.3		1.6	9.8	0.3	0.6			0.6	0.0
Delay (s)			22.8		23.5	33.4	23.0	9.2			18.0	13.9
Level of Service			C		C	C	C	A			B	B
Approach Delay (s)		22.8			30.7			10.3			17.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	16.1
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



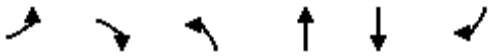
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1496	68	0	0	221	804
Future Volume (vph)	1496	68	0	0	221	804
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5			4.7	4.0
Lane Util. Factor	0.97	0.91			0.95	1.00
Frt	1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3310	1386			3406	1524
Flt Permitted	0.95	1.00			1.00	1.00
Satd. Flow (perm)	3310	1386			3406	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1496	68	0	0	221	804
RTOR Reduction (vph)	1	26	0	0	0	0
Lane Group Flow (vph)	1502	35	0	0	221	804
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%
Turn Type	Prot	Perm			NA	Free
Protected Phases	4				2	
Permitted Phases		4				Free
Actuated Green, G (s)	19.0	19.0			5.6	32.8
Effective Green, g (s)	19.0	19.0			5.6	32.8
Actuated g/C Ratio	0.58	0.58			0.17	1.00
Clearance Time (s)	3.5	3.5			4.7	
Vehicle Extension (s)	1.5	1.5			1.0	
Lane Grp Cap (vph)	1917	802			581	1524
v/s Ratio Prot	c0.45				0.06	
v/s Ratio Perm		0.03				c0.53
v/c Ratio	0.78	0.04			0.38	0.53
Uniform Delay, d1	5.3	3.0			12.1	0.0
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	2.0	0.0			0.2	1.3
Delay (s)	7.3	3.0			12.2	1.3
Level of Service	A	A			B	A
Approach Delay (s)	7.1			0.0	3.7	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	32.8	Sum of lost time (s)	8.2
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



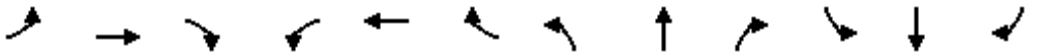
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	209	405	276	71	81	207
Future Volume (vph)	209	405	276	71	81	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3343	3343	1495	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3343	3343	1495	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	209	405	276	71	81	207
RTOR Reduction (vph)	0	0	0	53	0	163
Lane Group Flow (vph)	209	405	276	18	81	44
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	7.3	20.3	9.0	9.0	7.6	7.6
Effective Green, g (s)	7.3	20.3	9.0	9.0	7.6	7.6
Actuated g/C Ratio	0.20	0.57	0.25	0.25	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	339	1890	838	374	370	331
v/s Ratio Prot	c0.13	0.12	c0.08		c0.05	
v/s Ratio Perm				0.01		0.03
v/c Ratio	0.62	0.21	0.33	0.05	0.22	0.13
Uniform Delay, d1	13.0	3.9	11.0	10.2	11.7	11.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.3	0.1	0.2	0.1	0.3	0.2
Delay (s)	16.3	3.9	11.2	10.3	12.0	11.7
Level of Service	B	A	B	B	B	B
Approach Delay (s)		8.1	11.0		11.8	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	35.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	292	27	5	349	432	38
Future Volume (vph)	292	27	5	349	432	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3367	1553	1719	3438	3343	1495
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3367	1553	1719	3438	3343	1495
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	292	27	5	349	432	38
RTOR Reduction (vph)	0	27	0	0	0	28
Lane Group Flow (vph)	292	0	5	349	432	10
Heavy Vehicles (%)	4%	4%	5%	5%	8%	8%
Turn Type	Prot	Over	Prot	NA	NA	Over
Protected Phases	4	5	5	2	6	4
Permitted Phases						
Actuated Green, G (s)	8.4	0.6	0.6	17.0	12.4	8.4
Effective Green, g (s)	8.4	0.6	0.6	17.0	12.4	8.4
Actuated g/C Ratio	0.25	0.02	0.02	0.51	0.37	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	846	27	30	1749	1241	375
v/s Ratio Prot	c0.09	0.00	0.00	c0.10	c0.13	0.01
v/s Ratio Perm						
v/c Ratio	0.35	0.02	0.17	0.20	0.35	0.03
Uniform Delay, d1	10.2	16.1	16.2	4.5	7.6	9.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.3	2.6	0.1	0.2	0.0
Delay (s)	10.5	16.4	18.8	4.5	7.8	9.4
Level of Service	B	B	B	A	A	A
Approach Delay (s)	11.0			4.7	7.9	
Approach LOS	B			A	A	

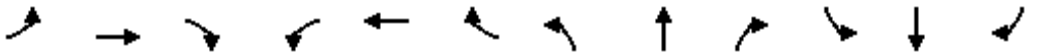
Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	33.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	26.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	923	0	691	0	0	0	0	2158	615	0	1888	1108
Future Volume (vph)	923	0	691	0	0	0	0	2158	615	0	1888	1108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.97	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4626	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4626	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	923	0	691	0	0	0	0	2158	615	0	1888	1108
RTOR Reduction (vph)	0	0	12	0	0	0	0	0	0	0	55	0
Lane Group Flow (vph)	923	0	679	0	0	0	0	2158	615	0	2265	676
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	19.0		19.0					33.0	60.0		33.0	60.0
Effective Green, g (s)	19.0		19.0					33.0	60.0		33.0	60.0
Actuated g/C Ratio	0.32		0.32					0.55	1.00		0.55	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1076		874					3490	1568		2544	1348
v/s Ratio Prot	c0.27							0.34			c0.49	
v/s Ratio Perm			0.25						0.39			0.50
v/c Ratio	0.86		0.78					0.62	0.39		0.89	0.50
Uniform Delay, d1	19.2		18.6					9.2	0.0		11.9	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	6.9		4.4					0.3	0.7		4.3	1.3
Delay (s)	26.2		23.0					9.5	0.7		16.2	1.3
Level of Service	C		C					A	A		B	A
Approach Delay (s)		24.8			0.0			7.6			12.9	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	342	0	1346	0	2497	588	0	2761	774
Future Volume (vph)	0	0	0	342	0	1346	0	2497	588	0	2761	774
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		1.00	0.85		0.99	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4743	1348		5931	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4743	1348		5931	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	342	0	1346	0	2497	588	0	2761	774
RTOR Reduction (vph)	0	0	0	0	0	9	0	3	0	0	9	0
Lane Group Flow (vph)	0	0	0	342	0	1337	0	2553	529	0	2899	627
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				29.0		29.0		43.0	80.0		43.0	80.0
Effective Green, g (s)				29.0		29.0		43.0	80.0		43.0	80.0
Actuated g/C Ratio				0.36		0.36		0.54	1.00		0.54	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1232		1295		2549	1348		3187	1270
v/s Ratio Prot				0.10				c0.54			0.49	
v/s Ratio Perm						c0.37			0.39			0.49
v/c Ratio				0.28		1.03		1.00	0.39		0.91	0.49
Uniform Delay, d1				18.1		25.5		18.5	0.0		16.7	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.1		33.8		18.2	0.9		4.3	1.4
Delay (s)				18.2		59.3		36.7	0.9		21.1	1.4
Level of Service				B		E		D	A		C	A
Approach Delay (s)		0.0			50.9			30.6			17.6	
Approach LOS		A			D			C			B	

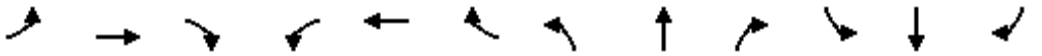
Intersection Summary			
HCM 2000 Control Delay	29.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	711	211	166	931	369	263
Future Volume (vph)	711	211	166	931	369	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	711	211	166	931	369	263
RTOR Reduction (vph)	0	139	0	0	0	195
Lane Group Flow (vph)	711	72	166	931	369	68
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	15.7	15.7	6.6	26.3	11.9	11.9
Effective Green, g (s)	15.7	15.7	6.6	26.3	11.9	11.9
Actuated g/C Ratio	0.34	0.34	0.14	0.57	0.26	0.26
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1071	479	225	1795	788	363
v/s Ratio Prot	c0.23		c0.11	0.30	c0.12	
v/s Ratio Perm		0.05				0.05
v/c Ratio	0.66	0.15	0.74	0.52	0.47	0.19
Uniform Delay, d1	13.0	10.6	19.0	6.1	14.5	13.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.1	11.9	0.3	0.4	0.3
Delay (s)	14.6	10.8	30.9	6.3	14.9	13.6
Level of Service	B	B	C	A	B	B
Approach Delay (s)	13.7			10.0	14.4	
Approach LOS	B			B	B	

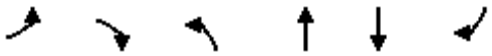
Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	46.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	243	1	0	387	23	0	0	0	26	0	247
Future Volume (vph)	309	243	1	0	387	23	0	0	0	26	0	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95					0.95	0.95	1.00
Frt	1.00	1.00			0.99					1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (prot)	1736	3469			3442					1665	1665	1568
Flt Permitted	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (perm)	1736	3469			3442					1665	1665	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	309	243	1	0	387	23	0	0	0	26	0	247
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	0	215
Lane Group Flow (vph)	309	244	0	0	404	0	0	0	0	13	13	32
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA					Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	15.0	30.9			11.9					7.2	7.2	7.2
Effective Green, g (s)	15.0	30.9			11.9					7.2	7.2	7.2
Actuated g/C Ratio	0.27	0.55			0.21					0.13	0.13	0.13
Clearance Time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)	467	1924			735					215	215	202
v/s Ratio Prot	c0.18	0.07			c0.12					0.01	0.01	
v/s Ratio Perm												c0.02
v/c Ratio	0.66	0.13			0.55					0.06	0.06	0.16
Uniform Delay, d1	18.1	5.9			19.5					21.3	21.3	21.6
Progression Factor	1.00	1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2	3.5	0.0			0.9					0.1	0.1	0.4
Delay (s)	21.6	6.0			20.4					21.4	21.4	21.9
Level of Service	C	A			C					C	C	C
Approach Delay (s)		14.7			20.4			0.0			21.9	
Approach LOS		B			C			A			C	

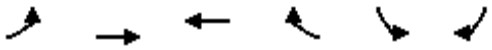
Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	55.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	123	47	22	514	860	303
Future Volume (vph)	123	47	22	514	860	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.96		1.00	1.00	0.96	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1714		1752	1845	1780	
Flt Permitted	0.97		0.95	1.00	1.00	
Satd. Flow (perm)	1714		1752	1845	1780	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	123	47	22	514	860	303
RTOR Reduction (vph)	16	0	0	0	12	0
Lane Group Flow (vph)	154	0	22	514	1151	0
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	12.4		1.5	68.4	62.9	
Effective Green, g (s)	12.4		1.5	68.4	62.9	
Actuated g/C Ratio	0.14		0.02	0.77	0.71	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	239		29	1421	1260	
v/s Ratio Prot	c0.09		c0.01	0.28	c0.65	
v/s Ratio Perm						
v/c Ratio	0.64		0.76	0.36	0.91	
Uniform Delay, d1	36.1		43.5	3.2	10.7	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	5.8		71.7	0.2	10.2	
Delay (s)	41.9		115.2	3.4	21.0	
Level of Service	D		F	A	C	
Approach Delay (s)	41.9			8.0	21.0	
Approach LOS	D			A	C	

Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	88.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

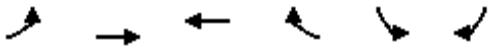
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	88	38	212	18	7	54
Future Volume (vph)	88	38	212	18	7	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1845	3464		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1845	3464		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	88	38	212	18	7	54
RTOR Reduction (vph)	0	0	14	0	0	36
Lane Group Flow (vph)	88	38	216	0	7	18
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	1.9	12.0	6.1		9.8	9.8
Effective Green, g (s)	1.9	12.0	6.1		9.8	9.8
Actuated g/C Ratio	0.06	0.40	0.20		0.33	0.33
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	111	742	709		576	515
v/s Ratio Prot	c0.05	0.02	c0.06		0.00	
v/s Ratio Perm						c0.01
v/c Ratio	0.79	0.05	0.30		0.01	0.03
Uniform Delay, d1	13.8	5.4	10.1		6.7	6.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	31.0	0.0	0.2		0.0	0.0
Delay (s)	44.8	5.5	10.3		6.7	6.8
Level of Service	D	A	B		A	A
Approach Delay (s)		32.9	10.3		6.8	
Approach LOS		C	B		A	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	29.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	27	17	132	231	250	80
Future Volume (vph)	27	17	132	231	250	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	1845	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	1845	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	27	17	132	231	250	80
RTOR Reduction (vph)	0	0	0	188	0	47
Lane Group Flow (vph)	27	17	132	43	250	33
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	0.4	10.3	5.9	5.9	13.1	13.1
Effective Green, g (s)	0.4	10.3	5.9	5.9	13.1	13.1
Actuated g/C Ratio	0.01	0.33	0.19	0.19	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	22	605	658	294	730	654
v/s Ratio Prot	c0.02	0.01	c0.04		c0.14	
v/s Ratio Perm				0.03		0.02
v/c Ratio	1.23	0.03	0.20	0.15	0.34	0.05
Uniform Delay, d1	15.5	7.2	10.8	10.6	6.2	5.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	269.8	0.0	0.2	0.2	0.3	0.0
Delay (s)	285.3	7.2	10.9	10.9	6.5	5.5
Level of Service	F	A	B	B	A	A
Approach Delay (s)		177.8	10.9		6.3	
Approach LOS		F	B		A	

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	31.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	0	513	567	260	626	0	1645	675	0	2064	342
Future Volume (veh/h)	203	0	513	567	260	626	0	1645	675	0	2064	342
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1827	1827	1827	0	1827	1827	0	1827	1827
Adj Flow Rate, veh/h	203	0	513	454	336	681	0	1645	0	0	2064	342
Adj No. of Lanes	0	1	2	2	1	3	0	3	1	0	4	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	0	4	4	0	4	4
Cap, veh/h	397	0	623	833	437	1115	0	1697	529	0	2139	529
Arrive On Green	0.23	0.00	0.23	0.24	0.24	0.24	0.00	0.34	0.00	0.00	0.34	0.34
Sat Flow, veh/h	1757	0	2760	3480	1827	4659	0	5152	1553	0	6540	1553
Grp Volume(v), veh/h	203	0	513	454	336	681	0	1645	0	0	2064	342
Grp Sat Flow(s),veh/h/ln	1757	0	1380	1740	1827	1553	0	1663	1553	0	1571	1553
Q Serve(g_s), s	6.2	0.0	10.9	7.0	10.6	8.0	0.0	20.0	0.0	0.0	19.9	11.5
Cycle Q Clear(g_c), s	6.2	0.0	10.9	7.0	10.6	8.0	0.0	20.0	0.0	0.0	19.9	11.5
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	397	0	623	833	437	1115	0	1697	529	0	2139	529
V/C Ratio(X)	0.51	0.00	0.82	0.55	0.77	0.61	0.00	0.97	0.00	0.00	0.96	0.65
Avail Cap(c_a), veh/h	456	0	716	902	474	1208	0	1697	529	0	2139	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	0.0	22.7	20.5	21.9	20.9	0.0	20.0	0.0	0.0	20.0	17.2
Incr Delay (d2), s/veh	1.0	0.0	6.9	0.6	7.0	0.8	0.0	15.1	0.0	0.0	12.3	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	4.7	3.4	6.2	3.5	0.0	11.5	0.0	0.0	10.4	5.3
LnGrp Delay(d),s/veh	21.9	0.0	29.6	21.1	28.8	21.7	0.0	35.2	0.0	0.0	32.3	20.0
LnGrp LOS	C		C	C	C	C		D			C	B
Approach Vol, veh/h		716			1471			1645			2406	
Approach Delay, s/veh		27.4			23.1			35.2			30.5	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		25.0		17.9		25.0		18.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		21.0		16.0		21.0		16.0
Max Q Clear Time (g_c+I1), s		22.0		12.9		21.9		12.6
Green Ext Time (p_c), s		0.0		1.0		0.0		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	29.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	28	168	17	35	15	137	868	6	8	1436	407
Future Volume (veh/h)	185	28	168	17	35	15	137	868	6	8	1436	407
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	205	0	168	17	35	15	137	868	6	8	1436	407
Adj No. of Lanes	2	0	1	0	1	0	2	3	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	515	0	230	22	45	19	205	1276	9	542	1736	777
Arrive On Green	0.15	0.00	0.15	0.05	0.05	0.05	0.06	0.25	0.25	0.31	0.50	0.50
Sat Flow, veh/h	3514	0	1568	441	907	389	3375	5110	35	1740	3471	1553
Grp Volume(v), veh/h	205	0	168	67	0	0	137	565	309	8	1436	407
Grp Sat Flow(s),veh/h/ln	1757	0	1568	1736	0	0	1688	1663	1821	1740	1736	1553
Q Serve(g_s), s	3.5	0.0	6.7	2.5	0.0	0.0	2.6	10.1	10.1	0.2	23.2	11.7
Cycle Q Clear(g_c), s	3.5	0.0	6.7	2.5	0.0	0.0	2.6	10.1	10.1	0.2	23.2	11.7
Prop In Lane	1.00		1.00	0.25		0.22	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	515	0	230	86	0	0	205	830	454	542	1736	777
V/C Ratio(X)	0.40	0.00	0.73	0.78	0.00	0.00	0.67	0.68	0.68	0.01	0.83	0.52
Avail Cap(c_a), veh/h	853	0	381	422	0	0	205	1917	1050	542	2002	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	0.0	26.9	30.9	0.0	0.0	30.3	22.3	22.3	15.7	14.0	11.2
Incr Delay (d2), s/veh	0.5	0.0	4.4	13.7	0.0	0.0	8.1	1.0	1.8	0.0	2.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.2	1.5	0.0	0.0	1.4	4.7	5.3	0.1	11.6	5.1
LnGrp Delay(d),s/veh	26.0	0.0	31.3	44.7	0.0	0.0	38.4	23.3	24.2	15.7	16.7	11.7
LnGrp LOS	C		C	D			D	C	C	B	B	B
Approach Vol, veh/h		373			67			1011			1851	
Approach Delay, s/veh		28.4			44.7			25.6			15.6	
Approach LOS		C			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	24.5	20.4		13.7	8.0	37.0		7.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	38.0		16.0	4.0	38.0		16.0
Max Q Clear Time (g_c+I1), s	2.2	12.1		8.7	4.6	25.2		4.5
Green Ext Time (p_c), s	1.4	4.3		0.9	0.0	7.7		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	20.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	308	107	111	506	230	109	597	97	135	1181	261
Future Volume (veh/h)	145	308	107	111	506	230	109	597	97	135	1181	261
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	145	308	107	111	506	230	109	597	97	135	1181	261
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	181	582	198	142	715	320	181	1150	186	218	1372	614
Arrive On Green	0.10	0.23	0.23	0.08	0.20	0.20	0.05	0.38	0.38	0.06	0.40	0.40
Sat Flow, veh/h	1757	2567	875	1757	3505	1568	3375	2992	485	3375	3471	1553
Grp Volume(v), veh/h	145	208	207	111	506	230	109	346	348	135	1181	261
Grp Sat Flow(s),veh/h/ln	1757	1752	1690	1757	1752	1568	1688	1736	1741	1688	1736	1553
Q Serve(g_s), s	5.3	6.8	7.1	4.1	8.8	9.0	2.1	10.0	10.1	2.6	20.5	8.0
Cycle Q Clear(g_c), s	5.3	6.8	7.1	4.1	8.8	9.0	2.1	10.0	10.1	2.6	20.5	8.0
Prop In Lane	1.00		0.52	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	181	397	383	142	715	320	181	667	669	218	1372	614
V/C Ratio(X)	0.80	0.52	0.54	0.78	0.71	0.72	0.60	0.52	0.52	0.62	0.86	0.43
Avail Cap(c_a), veh/h	187	427	412	187	855	382	206	667	669	309	1429	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	22.3	22.4	29.6	24.3	24.4	30.4	15.5	15.5	29.9	18.2	14.4
Incr Delay (d2), s/veh	20.7	1.1	1.2	14.4	2.2	5.2	3.9	0.7	0.7	2.9	5.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.4	3.4	2.5	4.4	4.3	1.1	4.9	5.0	1.3	10.7	3.5
LnGrp Delay(d),s/veh	49.5	23.3	23.5	44.0	26.5	29.6	34.2	16.2	16.3	32.8	23.6	14.9
LnGrp LOS	D	C	C	D	C	C	C	B	B	C	C	B
Approach Vol, veh/h		560			847			803			1577	
Approach Delay, s/veh		30.2			29.6			18.7			22.9	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	29.2	9.3	18.9	7.5	29.9	10.8	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	25.0	7.0	16.0	4.0	27.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	4.6	12.1	6.1	9.1	4.1	22.5	7.3	11.0
Green Ext Time (p_c), s	0.1	8.4	0.0	3.0	0.0	3.5	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	458	311	149	178	70	122	751	194	49	283	3
Future Volume (veh/h)	25	458	311	149	178	70	122	751	194	49	283	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	25	458	311	149	178	70	122	751	194	49	283	3
Adj No. of Lanes	1	1	2	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	39	521	780	177	899	341	155	1018	455	66	852	9
Arrive On Green	0.02	0.29	0.29	0.10	0.37	0.37	0.09	0.29	0.29	0.04	0.24	0.24
Sat Flow, veh/h	1707	1792	2682	1707	2417	917	1757	3505	1568	1757	3553	38
Grp Volume(v), veh/h	25	458	311	149	123	125	122	751	194	49	139	147
Grp Sat Flow(s),veh/h/ln	1707	1792	1341	1707	1703	1631	1757	1752	1568	1757	1752	1838
Q Serve(g_s), s	0.8	14.1	5.4	4.9	2.8	3.0	3.9	11.2	5.8	1.6	3.8	3.8
Cycle Q Clear(g_c), s	0.8	14.1	5.4	4.9	2.8	3.0	3.9	11.2	5.8	1.6	3.8	3.8
Prop In Lane	1.00		1.00	1.00		0.56	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	39	521	780	177	633	606	155	1018	455	66	420	441
V/C Ratio(X)	0.64	0.88	0.40	0.84	0.20	0.21	0.79	0.74	0.43	0.74	0.33	0.33
Avail Cap(c_a), veh/h	148	559	836	177	633	606	183	1275	570	122	577	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	19.5	16.4	25.4	12.3	12.3	25.8	18.5	16.6	27.5	18.1	18.1
Incr Delay (d2), s/veh	16.1	14.2	0.3	28.6	0.1	0.2	17.4	1.7	0.6	14.8	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	8.9	2.0	3.7	1.4	1.4	2.6	5.6	2.6	1.0	1.9	2.0
LnGrp Delay(d),s/veh	44.1	33.7	16.8	54.0	12.4	12.5	43.2	20.2	17.2	42.3	18.6	18.6
LnGrp LOS	D	C	B	D	B	B	D	C	B	D	B	B
Approach Vol, veh/h		794			397			1067			335	
Approach Delay, s/veh		27.4			28.0			22.3			22.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	20.8	10.0	20.8	9.1	17.9	5.3	25.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	21.0	6.0	18.0	6.0	19.0	5.0	19.0
Max Q Clear Time (g_c+I1), s	3.6	13.2	6.9	16.1	5.9	5.8	2.8	5.0
Green Ext Time (p_c), s	0.0	3.6	0.0	0.7	0.0	4.9	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	203	216	91	310	58	139	548	159	43	758	159
Future Volume (veh/h)	93	203	216	91	310	58	139	548	159	43	758	159
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	93	203	216	91	310	58	139	548	159	43	758	159
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	118	740	331	115	619	114	178	1264	566	64	1037	464
Arrive On Green	0.07	0.21	0.21	0.07	0.21	0.21	0.10	0.36	0.36	0.04	0.30	0.30
Sat Flow, veh/h	1757	3505	1568	1757	2955	546	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	93	203	216	91	182	186	139	548	159	43	758	159
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1748	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	2.6	2.4	6.2	2.5	4.5	4.6	3.8	5.8	3.5	1.2	9.5	3.9
Cycle Q Clear(g_c), s	2.6	2.4	6.2	2.5	4.5	4.6	3.8	5.8	3.5	1.2	9.5	3.9
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	740	331	115	367	366	178	1264	566	64	1037	464
V/C Ratio(X)	0.79	0.27	0.65	0.79	0.50	0.51	0.78	0.43	0.28	0.68	0.73	0.34
Avail Cap(c_a), veh/h	179	1145	512	179	572	571	251	1288	576	179	1145	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	16.2	17.7	22.6	17.1	17.1	21.5	11.9	11.1	23.3	15.5	13.5
Incr Delay (d2), s/veh	12.6	0.2	2.2	12.0	1.0	1.1	9.9	0.2	0.3	11.8	2.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.2	2.9	1.6	2.3	2.3	2.3	2.9	1.6	0.8	4.8	1.7
LnGrp Delay(d),s/veh	35.1	16.4	19.9	34.6	18.1	18.2	31.4	12.1	11.4	35.2	17.7	14.0
LnGrp LOS	D	B	B	C	B	B	C	B	B	D	B	B
Approach Vol, veh/h		512			459			846			960	
Approach Delay, s/veh		21.2			21.4			15.1			17.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	21.7	7.2	14.3	9.0	18.5	7.3	14.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	16.0	7.0	16.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	3.2	7.8	4.5	8.2	5.8	11.5	4.6	6.6
Green Ext Time (p_c), s	0.0	5.6	0.0	2.2	0.1	3.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	299	126	131	348	60	124	359	83	66	830	159
Future Volume (veh/h)	97	299	126	131	348	60	124	359	83	66	830	159
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	97	299	126	131	348	60	124	359	83	66	830	159
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	123	617	276	167	703	315	157	1236	553	85	1092	489
Arrive On Green	0.07	0.18	0.18	0.09	0.20	0.20	0.09	0.35	0.35	0.05	0.31	0.31
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	97	299	126	131	348	60	124	359	83	66	830	159
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	2.7	3.7	3.5	3.6	4.3	1.6	3.4	3.6	1.8	1.8	10.4	3.8
Cycle Q Clear(g_c), s	2.7	3.7	3.5	3.6	4.3	1.6	3.4	3.6	1.8	1.8	10.4	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	617	276	167	703	315	157	1236	553	85	1092	489
V/C Ratio(X)	0.79	0.48	0.46	0.79	0.49	0.19	0.79	0.29	0.15	0.78	0.76	0.33
Avail Cap(c_a), veh/h	216	1149	514	216	1149	514	180	1293	578	144	1221	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	18.1	18.0	21.6	17.3	16.2	21.8	11.4	10.8	22.9	15.1	12.9
Incr Delay (d2), s/veh	10.5	0.6	1.2	13.3	0.5	0.3	18.2	0.1	0.1	13.8	2.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.8	1.6	2.3	2.1	0.7	2.4	1.8	0.8	1.2	5.3	1.7
LnGrp Delay(d),s/veh	32.8	18.7	19.2	34.9	17.8	16.5	40.0	11.5	10.9	36.8	17.7	13.3
LnGrp LOS	C	B	B	C	B	B	D	B	B	D	B	B
Approach Vol, veh/h		522			539			566			1055	
Approach Delay, s/veh		21.4			21.8			17.7			18.2	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	21.2	8.6	12.6	8.4	19.2	7.4	13.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	18.0	6.0	16.0	5.0	17.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	3.8	5.6	5.6	5.7	5.4	12.4	4.7	6.3
Green Ext Time (p_c), s	0.0	5.6	0.0	2.8	0.0	2.8	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	457	422	114	197	402	763	83	1551	124	480	1724	401
Future Volume (veh/h)	457	422	114	197	402	763	83	1551	124	480	1724	401
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	457	422	114	197	402	763	83	1551	124	480	1724	401
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	441	1109	496	243	906	653	124	1575	490	532	2178	678
Arrive On Green	0.13	0.32	0.32	0.07	0.26	0.26	0.04	0.32	0.32	0.16	0.44	0.44
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	457	422	114	197	402	763	83	1551	124	480	1724	401
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	19.0	13.8	7.9	8.4	14.1	38.0	3.6	45.4	8.7	20.5	43.7	28.8
Cycle Q Clear(g_c), s	19.0	13.8	7.9	8.4	14.1	38.0	3.6	45.4	8.7	20.5	43.7	28.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	441	1109	496	243	906	653	124	1575	490	532	2178	678
V/C Ratio(X)	1.04	0.38	0.23	0.81	0.44	1.17	0.67	0.99	0.25	0.90	0.79	0.59
Avail Cap(c_a), veh/h	441	1109	496	336	906	653	149	1575	490	613	2253	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.0	39.0	37.0	67.3	45.6	42.9	69.9	49.9	37.4	60.8	35.6	31.4
Incr Delay (d2), s/veh	52.8	0.1	0.1	7.0	0.1	91.9	5.2	19.1	0.1	14.1	1.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	6.7	3.4	4.2	6.8	43.1	1.8	23.6	3.8	10.6	20.5	12.5
LnGrp Delay(d),s/veh	116.8	39.1	37.1	74.3	45.8	134.8	75.2	69.0	37.5	74.9	37.4	32.2
LnGrp LOS	F	D	D	E	D	F	E	E	D	E	D	C
Approach Vol, veh/h		993			1362			1758			2605	
Approach Delay, s/veh		74.6			99.8			67.1			43.5	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	69.0	24.5	42.6	28.7	51.2	16.0	51.1
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	6.5	66.4	19.0	* 38	26.7	* 46	14.5	42.2
Max Q Clear Time (g_c+I1), s	5.6	45.7	21.0	40.0	22.5	47.4	10.4	15.8
Green Ext Time (p_c), s	0.0	7.7	0.0	0.0	0.7	0.0	0.1	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	65.7
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	1	45	0	94	0	1502	33	148	1763	4
Future Volume (veh/h)	1	0	1	45	0	94	0	1502	33	148	1763	4
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	1	0	1	45	0	94	0	1502	33	148	1763	4
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	2	0	2	107	0	191	4	1953	608	187	3109	7
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.06	0.00	0.39	0.39	0.11	0.61	0.61
Sat Flow, veh/h	828	0	828	1757	0	3136	1740	4988	1553	1740	5138	12
Grp Volume(v), veh/h	2	0	0	45	0	94	0	1502	33	148	1141	626
Grp Sat Flow(s),veh/h/ln	1657	0	0	1757	0	1568	1740	1663	1553	1740	1663	1825
Q Serve(g_s), s	0.1	0.0	0.0	1.2	0.0	1.4	0.0	12.6	0.6	4.0	9.9	9.9
Cycle Q Clear(g_c), s	0.1	0.0	0.0	1.2	0.0	1.4	0.0	12.6	0.6	4.0	9.9	9.9
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	3	0	0	107	0	191	4	1953	608	187	2012	1104
V/C Ratio(X)	0.58	0.00	0.00	0.42	0.00	0.49	0.00	0.77	0.05	0.79	0.57	0.57
Avail Cap(c_a), veh/h	103	0	0	438	0	782	108	2299	716	249	2012	1104
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	0.0	21.8	0.0	21.9	0.0	12.7	9.1	21.0	5.7	5.7
Incr Delay (d2), s/veh	46.6	0.0	0.0	1.0	0.0	0.7	0.0	2.4	0.1	8.4	0.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.6	0.0	0.6	0.0	6.1	0.3	2.3	4.7	5.4
LnGrp Delay(d),s/veh	70.6	0.0	0.0	22.8	0.0	22.6	0.0	15.1	9.2	29.4	6.6	7.3
LnGrp LOS	E			C		C		B	A	C	A	A
Approach Vol, veh/h		2			139			1535			1915	
Approach Delay, s/veh		70.6			22.7			15.0			8.6	
Approach LOS		E			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	34.1		5.6	10.3	23.9		8.4
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 3	26.4		3.0	* 6.9	* 22		12.0
Max Q Clear Time (g_c+I1), s	0.0	11.9		2.1	6.0	14.6		3.4
Green Ext Time (p_c), s	0.0	14.3		0.0	0.0	4.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	261	23	148	137	391	9	1100	149	534	1244	32
Future Volume (veh/h)	80	261	23	148	137	391	9	1100	149	534	1244	32
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	80	261	23	148	137	391	9	1100	149	534	1244	32
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	121	861	385	201	949	425	23	1228	166	597	2233	57
Arrive On Green	0.04	0.25	0.25	0.06	0.27	0.27	0.01	0.28	0.28	0.18	0.45	0.45
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4444	601	3375	5001	129
Grp Volume(v), veh/h	80	261	23	148	137	391	9	823	426	534	827	449
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1721	1688	1663	1804
Q Serve(g_s), s	2.1	5.6	1.0	3.9	2.7	22.2	0.2	21.8	21.9	14.2	16.8	16.8
Cycle Q Clear(g_c), s	2.1	5.6	1.0	3.9	2.7	22.2	0.2	21.8	21.9	14.2	16.8	16.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		0.07
Lane Grp Cap(c), veh/h	121	861	385	201	949	425	23	919	476	597	1485	806
V/C Ratio(X)	0.66	0.30	0.06	0.74	0.14	0.92	0.40	0.90	0.90	0.89	0.56	0.56
Avail Cap(c_a), veh/h	121	1098	491	201	1185	530	110	990	512	607	1485	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	28.0	26.3	42.5	25.4	32.5	45.4	31.9	31.9	36.9	18.7	18.7
Incr Delay (d2), s/veh	10.0	0.1	0.0	11.8	0.0	17.2	4.1	9.6	16.7	15.0	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.7	0.4	2.2	1.3	11.6	0.1	11.2	12.5	7.8	7.8	8.5
LnGrp Delay(d),s/veh	53.6	28.1	26.4	54.3	25.4	49.7	49.5	41.5	48.6	51.9	19.0	19.2
LnGrp LOS	D	C	C	D	C	D	D	D	D	D	B	B
Approach Vol, veh/h		364			676			1258			1810	
Approach Delay, s/veh		33.6			45.8			44.0			28.8	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	46.3	8.8	30.5	21.7	30.6	10.9	28.4
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	3.0	40.7	3.3	* 31	16.5	* 27	5.4	* 29
Max Q Clear Time (g_c+I1), s	2.2	18.8	4.1	24.2	16.2	23.9	5.9	7.6
Green Ext Time (p_c), s	0.0	3.8	0.0	0.6	0.0	1.5	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	36.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	34	1207	23	79	1335
Future Volume (veh/h)	13	34	1207	23	79	1335
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	13	34	1207	23	79	1335
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	57	51	1969	38	94	2112
Arrive On Green	0.03	0.03	0.39	0.39	0.05	0.61
Sat Flow, veh/h	1757	1568	5203	96	1740	3563
Grp Volume(v), veh/h	13	34	796	434	79	1335
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1810	1740	1736
Q Serve(g_s), s	0.2	0.6	5.5	5.5	1.3	7.0
Cycle Q Clear(g_c), s	0.2	0.6	5.5	5.5	1.3	7.0
Prop In Lane	1.00	1.00		0.05	1.00	
Lane Grp Cap(c), veh/h	57	51	1299	707	94	2112
V/C Ratio(X)	0.23	0.66	0.61	0.61	0.84	0.63
Avail Cap(c_a), veh/h	214	191	2224	1211	443	3773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	13.7	7.0	7.0	13.5	3.6
Incr Delay (d2), s/veh	0.7	5.4	0.2	0.3	7.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	2.5	2.7	0.8	3.2
LnGrp Delay(d),s/veh	14.3	19.1	7.2	7.3	20.9	3.7
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	47		1230			1414
Approach Delay, s/veh	17.8		7.2			4.7
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		22.3			6.2	16.0		6.4
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		31.2			* 7.3	19.2		3.5
Max Q Clear Time (g_c+I1), s		9.0			3.3	7.5		2.6
Green Ext Time (p_c), s		4.2			0.0	3.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	6.1
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	531	63	43	227	272	33	924	85	342	852	93
Future Volume (veh/h)	138	531	63	43	227	272	33	924	85	342	852	93
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	138	531	63	43	227	272	33	924	85	342	852	93
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	150	542	64	54	525	446	41	922	413	341	1514	678
Arrive On Green	0.09	0.34	0.34	0.03	0.29	0.29	0.02	0.27	0.27	0.20	0.44	0.44
Sat Flow, veh/h	1707	1573	187	1707	1792	1524	1740	3471	1553	1740	3471	1553
Grp Volume(v), veh/h	138	0	594	43	227	272	33	924	85	342	852	93
Grp Sat Flow(s),veh/h/ln	1707	0	1760	1707	1792	1524	1740	1736	1553	1740	1736	1553
Q Serve(g_s), s	10.0	0.0	41.7	3.1	12.8	19.2	2.4	33.2	5.3	24.5	22.9	4.5
Cycle Q Clear(g_c), s	10.0	0.0	41.7	3.1	12.8	19.2	2.4	33.2	5.3	24.5	22.9	4.5
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	150	0	607	54	525	446	41	922	413	341	1514	678
V/C Ratio(X)	0.92	0.00	0.98	0.79	0.43	0.61	0.80	1.00	0.21	1.00	0.56	0.14
Avail Cap(c_a), veh/h	150	0	607	59	525	446	93	922	413	341	1514	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	0.0	40.5	60.1	35.8	38.1	60.7	45.9	35.6	50.2	26.3	21.1
Incr Delay (d2), s/veh	49.1	0.0	31.0	43.7	0.2	1.8	12.1	30.1	0.1	49.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	25.5	2.1	6.4	8.3	1.3	19.7	2.3	16.4	11.1	1.9
LnGrp Delay(d),s/veh	105.6	0.0	71.5	103.8	36.0	39.8	72.8	76.0	35.7	99.6	26.6	21.2
LnGrp LOS	F		E	F	D	D	E	F	D	F	C	C
Approach Vol, veh/h		732			542			1042			1287	
Approach Delay, s/veh		77.9			43.3			72.6			45.6	
Approach LOS		E			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	42.0	7.7	59.3	9.5	48.5	29.0	38.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.5	4.8
Max Green Setting (Gmax), s	11.0	* 37	* 6.7	50.8	4.3	* 43	24.5	33.2
Max Q Clear Time (g_c+I1), s	12.0	21.2	4.4	24.9	5.1	43.7	26.5	35.2
Green Ext Time (p_c), s	0.0	1.0	0.0	2.9	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

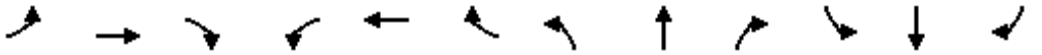
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	160	58	13	88	18	70	657	18	25	783	196
Future Volume (veh/h)	327	160	58	13	88	18	70	657	18	25	783	196
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1845	1827	1827
Adj Flow Rate, veh/h	327	160	58	13	88	18	70	657	18	25	783	196
Adj No. of Lanes	1	1	1	1	1	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	3	4	4
Cap, veh/h	381	569	484	17	142	29	87	1020	28	30	955	427
Arrive On Green	0.22	0.31	0.31	0.01	0.10	0.10	0.05	0.30	0.30	0.02	0.28	0.28
Sat Flow, veh/h	1757	1845	1568	1757	1487	304	1740	3452	95	1757	3471	1553
Grp Volume(v), veh/h	327	160	58	13	0	106	70	330	345	25	783	196
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1791	1740	1736	1811	1757	1736	1553
Q Serve(g_s), s	10.0	3.7	1.5	0.4	0.0	3.2	2.2	9.2	9.3	0.8	11.8	5.8
Cycle Q Clear(g_c), s	10.0	3.7	1.5	0.4	0.0	3.2	2.2	9.2	9.3	0.8	11.8	5.8
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	381	569	484	17	0	172	87	513	535	30	955	427
V/C Ratio(X)	0.86	0.28	0.12	0.75	0.00	0.62	0.80	0.64	0.64	0.82	0.82	0.46
Avail Cap(c_a), veh/h	551	875	744	104	0	407	137	659	687	107	1299	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	14.6	13.9	27.6	0.0	24.3	26.3	17.1	17.1	27.4	18.9	16.8
Incr Delay (d2), s/veh	6.5	0.1	0.0	21.5	0.0	1.3	7.7	0.5	0.5	18.1	2.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	1.9	0.6	0.3	0.0	1.6	1.2	4.5	4.7	0.5	6.0	2.5
LnGrp Delay(d),s/veh	27.5	14.7	13.9	49.1	0.0	25.6	34.0	17.6	17.6	45.4	21.2	17.1
LnGrp LOS	C	B	B	D		C	C	B	B	D	C	B
Approach Vol, veh/h		545			119			745			1004	
Approach Delay, s/veh		22.3			28.2			19.2			21.0	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	20.2	17.6	10.6	6.3	21.3	5.7	22.5
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 4.4	20.9	17.5	* 13	* 3.4	21.2	* 3.3	* 27
Max Q Clear Time (g_c+I1), s	4.2	13.8	12.0	5.2	2.8	11.3	2.4	5.7
Green Ext Time (p_c), s	0.0	1.6	0.2	0.2	0.0	1.8	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	216	158	53	187	48	61	472	11	35	772	103
Future Volume (veh/h)	167	216	158	53	187	48	61	472	11	35	772	103
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	167	216	158	53	187	48	61	472	11	35	772	103
Adj No. of Lanes	0	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	178	231	355	206	216	184	71	798	685	44	778	661
Arrive On Green	0.23	0.23	0.23	0.12	0.12	0.12	0.04	0.44	0.44	0.03	0.43	0.43
Sat Flow, veh/h	787	1018	1568	1757	1845	1568	1740	1827	1568	1757	1827	1553
Grp Volume(v), veh/h	383	0	158	53	187	48	61	472	11	35	772	103
Grp Sat Flow(s),veh/h/ln	1805	0	1568	1757	1845	1568	1740	1827	1568	1757	1827	1553
Q Serve(g_s), s	26.0	0.0	10.8	3.4	12.4	3.5	4.4	24.5	0.5	2.5	52.5	5.1
Cycle Q Clear(g_c), s	26.0	0.0	10.8	3.4	12.4	3.5	4.4	24.5	0.5	2.5	52.5	5.1
Prop In Lane	0.44		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	409	0	355	206	216	184	71	798	685	44	778	661
V/C Ratio(X)	0.94	0.00	0.44	0.26	0.87	0.26	0.86	0.59	0.02	0.79	0.99	0.16
Avail Cap(c_a), veh/h	462	0	402	225	236	201	71	798	685	97	778	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	0.0	41.6	50.2	54.2	50.2	59.5	26.7	20.0	60.5	35.7	22.0
Incr Delay (d2), s/veh	24.1	0.0	0.3	0.7	25.5	0.7	59.1	0.8	0.0	25.8	30.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	0.0	4.7	1.7	7.9	1.5	3.3	12.5	0.2	1.5	32.9	2.2
LnGrp Delay(d),s/veh	71.5	0.0	41.9	50.9	79.7	51.0	118.6	27.5	20.0	86.3	65.9	22.1
LnGrp LOS	E		D	D	E	D	F	C	B	F	E	C
Approach Vol, veh/h		541			288			544			910	
Approach Delay, s/veh		62.9			69.6			37.6			61.7	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	58.3		21.4	8.5	59.6		35.4
Change Period (Y+Rc), s	* 4.7	5.1		6.8	* 5.3	5.1		7.1
Max Green Setting (Gmax), s	* 5.1	53.2		16.0	* 6.9	50.8		32.0
Max Q Clear Time (g_c+I1), s	6.4	54.5		14.4	4.5	26.5		28.0
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	1.4		0.3

Intersection Summary		
HCM 2010 Ctrl Delay		57.2
HCM 2010 LOS		E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

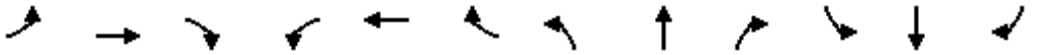
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	242	280	128	333	9	118	434	40	19	851	112
Future Volume (veh/h)	89	242	280	128	333	9	118	434	40	19	851	112
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	89	242	280	128	333	9	118	434	40	19	851	112
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	113	336	301	160	761	340	149	1326	122	23	1074	141
Arrive On Green	0.07	0.19	0.19	0.09	0.22	0.22	0.09	0.41	0.41	0.01	0.35	0.35
Sat Flow, veh/h	1740	1736	1553	1740	3471	1553	1740	3215	295	1740	3085	406
Grp Volume(v), veh/h	89	242	280	128	333	9	118	233	241	19	479	484
Grp Sat Flow(s),veh/h/ln	1740	1736	1553	1740	1736	1553	1740	1736	1775	1740	1736	1755
Q Serve(g_s), s	3.6	9.5	12.8	5.2	6.0	0.3	4.8	6.6	6.7	0.8	18.0	18.0
Cycle Q Clear(g_c), s	3.6	9.5	12.8	5.2	6.0	0.3	4.8	6.6	6.7	0.8	18.0	18.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.23
Lane Grp Cap(c), veh/h	113	336	301	160	761	340	149	716	732	23	604	611
V/C Ratio(X)	0.79	0.72	0.93	0.80	0.44	0.03	0.79	0.33	0.33	0.83	0.79	0.79
Avail Cap(c_a), veh/h	166	336	301	168	761	340	195	720	736	79	614	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	27.3	28.7	32.2	24.4	22.2	32.4	14.4	14.5	35.6	21.2	21.2
Incr Delay (d2), s/veh	7.9	12.6	37.1	20.3	1.8	0.1	11.3	1.2	1.2	23.5	10.2	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	5.7	8.6	3.4	3.1	0.2	2.8	3.4	3.5	0.5	10.2	10.3
LnGrp Delay(d),s/veh	41.2	39.9	65.8	52.5	26.2	22.3	43.8	15.6	15.7	59.1	31.5	31.4
LnGrp LOS	D	D	E	D	C	C	D	B	B	E	C	C
Approach Vol, veh/h		611			470			592			982	
Approach Delay, s/veh		52.0			33.3			21.3			31.9	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	30.4	9.8	21.1	6.5	35.0	11.7	19.2
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 8.1	* 26	* 6.9	* 14	3.3	* 30	7.0	* 14
Max Q Clear Time (g_c+I1), s	6.8	20.0	5.6	8.0	2.8	8.7	7.2	14.8
Green Ext Time (p_c), s	0.0	5.2	0.0	4.3	0.0	18.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.4
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	198	627	118	277	27	204	481	56	59	1085	93
Future Volume (veh/h)	68	198	627	118	277	27	204	481	56	59	1085	93
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	68	198	627	118	277	27	204	481	56	59	1085	93
Adj No. of Lanes	2	2	1	2	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	116	1136	508	151	1172	524	231	1156	134	102	1148	514
Arrive On Green	0.03	0.32	0.32	0.04	0.33	0.33	0.07	0.37	0.37	0.03	0.33	0.33
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	3135	364	3375	3471	1553
Grp Volume(v), veh/h	68	198	627	118	277	27	204	265	272	59	1085	93
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1736	1763	1688	1736	1553
Q Serve(g_s), s	1.9	3.8	30.8	3.3	5.4	1.1	5.7	10.8	10.9	1.6	28.9	4.1
Cycle Q Clear(g_c), s	1.9	3.8	30.8	3.3	5.4	1.1	5.7	10.8	10.9	1.6	28.9	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	116	1136	508	151	1172	524	231	640	650	102	1148	514
V/C Ratio(X)	0.59	0.17	1.23	0.78	0.24	0.05	0.88	0.41	0.42	0.58	0.95	0.18
Avail Cap(c_a), veh/h	147	1136	508	151	1172	524	231	640	650	181	1158	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	23.0	32.1	45.0	22.9	21.4	43.9	22.3	22.4	45.5	31.0	22.6
Incr Delay (d2), s/veh	1.8	0.3	121.4	21.3	0.3	0.1	29.7	2.0	2.0	1.9	15.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.9	30.4	2.0	2.7	0.5	3.6	5.5	5.6	0.8	16.4	1.8
LnGrp Delay(d),s/veh	47.0	23.3	153.5	66.3	23.2	21.6	73.6	24.3	24.3	47.4	46.8	23.2
LnGrp LOS	D	C	F	E	C	C	E	C	C	D	D	C
Approach Vol, veh/h		893			422			741			1237	
Approach Delay, s/veh		116.6			35.1			37.9			45.0	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	36.9	8.7	37.4	8.4	40.6	9.7	36.4
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	6.5	* 32	4.1	30.7	5.1	* 33	4.2	* 31
Max Q Clear Time (g_c+I1), s	7.7	30.9	3.9	7.4	3.6	12.9	5.3	32.8
Green Ext Time (p_c), s	0.0	0.5	0.0	15.1	0.0	16.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	61.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	634	135	61	489	5	19	30	32	4	32	23
Future Volume (veh/h)	14	634	135	61	489	5	19	30	32	4	32	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	14	634	135	61	489	5	19	30	32	4	32	23
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	24	894	760	78	951	808	33	79	85	8	65	47
Arrive On Green	0.01	0.50	0.50	0.05	0.53	0.53	0.02	0.10	0.10	0.00	0.06	0.06
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1757	818	873	1757	999	718
Grp Volume(v), veh/h	14	634	135	61	489	5	19	0	62	4	0	55
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1757	0	1691	1757	0	1718
Q Serve(g_s), s	0.4	13.8	2.4	1.8	8.9	0.1	0.5	0.0	1.7	0.1	0.0	1.6
Cycle Q Clear(g_c), s	0.4	13.8	2.4	1.8	8.9	0.1	0.5	0.0	1.7	0.1	0.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.42
Lane Grp Cap(c), veh/h	24	894	760	78	951	808	33	0	164	8	0	111
V/C Ratio(X)	0.58	0.71	0.18	0.78	0.51	0.01	0.58	0.00	0.38	0.53	0.00	0.49
Avail Cap(c_a), veh/h	136	1166	991	153	1184	1006	140	0	706	140	0	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	9.8	6.9	23.7	7.6	5.6	24.5	0.0	21.3	25.0	0.0	22.7
Incr Delay (d2), s/veh	14.1	2.1	0.2	11.0	0.7	0.0	10.7	0.0	1.3	33.4	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.2	1.1	1.1	4.5	0.0	0.4	0.0	0.9	0.1	0.0	0.8
LnGrp Delay(d),s/veh	38.7	11.8	7.1	34.7	8.4	5.6	35.2	0.0	22.6	58.4	0.0	25.7
LnGrp LOS	D	B	A	C	A	A	D		C	E		C
Approach Vol, veh/h		783			555			81			59	
Approach Delay, s/veh		11.5			11.2			25.5			28.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	31.5	5.3	7.7	4.2	33.1	3.7	9.3
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	4.5	32.7	4.0	* 21	4.0	33.2	4.0	21.0
Max Q Clear Time (g_c+I1), s	3.8	15.8	2.5	3.6	2.4	10.9	2.1	3.7
Green Ext Time (p_c), s	0.0	9.3	0.0	0.3	0.0	11.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.8
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	109	161	77	106	98	131	254	44	78	343	48
Future Volume (veh/h)	108	109	161	77	106	98	131	254	44	78	343	48
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	108	109	161	77	106	98	131	254	44	78	343	48
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	137	272	244	95	229	193	167	509	432	96	434	369
Arrive On Green	0.08	0.16	0.16	0.05	0.13	0.13	0.10	0.28	0.28	0.05	0.24	0.24
Sat Flow, veh/h	1757	1752	1568	1757	1806	1522	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	108	109	161	77	103	101	131	254	44	78	343	48
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1576	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	2.6	2.4	4.1	1.9	2.3	2.6	3.1	5.0	0.9	1.9	7.5	1.0
Cycle Q Clear(g_c), s	2.6	2.4	4.1	1.9	2.3	2.6	3.1	5.0	0.9	1.9	7.5	1.0
Prop In Lane	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	137	272	244	95	222	200	167	509	432	96	434	369
V/C Ratio(X)	0.79	0.40	0.66	0.81	0.46	0.51	0.78	0.50	0.10	0.81	0.79	0.13
Avail Cap(c_a), veh/h	357	1252	1120	164	1044	938	402	1335	1135	201	1129	959
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	16.3	17.0	20.0	17.3	17.5	18.9	13.0	11.6	20.0	15.4	12.9
Incr Delay (d2), s/veh	3.8	0.4	1.1	6.1	0.6	0.7	3.0	0.3	0.0	5.9	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.2	1.9	1.0	1.1	1.1	1.6	2.5	0.4	1.0	4.0	0.5
LnGrp Delay(d),s/veh	23.2	16.6	18.2	26.1	17.9	18.2	21.9	13.3	11.6	25.9	16.6	13.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		378			281			429			469	
Approach Delay, s/veh		19.2			20.3			15.8			17.8	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	10.2	9.6	14.5	7.3	11.5	7.8	16.2
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 8.7	25.5	9.8	* 26	4.0	* 31	4.9	* 31
Max Q Clear Time (g_c+I1), s	4.6	4.6	5.1	9.5	3.9	6.1	3.9	7.0
Green Ext Time (p_c), s	0.0	0.5	0.0	0.6	0.0	0.5	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	31	17	475	44	411	48	1060	186	407	1217	59
Future Volume (veh/h)	73	31	17	475	44	411	48	1060	186	407	1217	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	73	31	17	475	44	411	48	1060	186	407	1217	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	97	62	34	960	519	441	60	1309	408	468	1811	88
Arrive On Green	0.06	0.06	0.06	0.28	0.28	0.28	0.03	0.26	0.26	0.14	0.37	0.37
Sat Flow, veh/h	1757	1121	615	3408	1845	1568	1740	4988	1553	3375	4874	236
Grp Volume(v), veh/h	73	0	48	475	44	411	48	1060	186	407	830	446
Grp Sat Flow(s),veh/h/ln	1757	0	1736	1704	1845	1568	1740	1663	1553	1688	1663	1785
Q Serve(g_s), s	3.4	0.0	2.2	9.6	1.5	21.2	2.3	16.5	8.3	9.8	17.3	17.3
Cycle Q Clear(g_c), s	3.4	0.0	2.2	9.6	1.5	21.2	2.3	16.5	8.3	9.8	17.3	17.3
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	97	0	96	960	519	441	60	1309	408	468	1235	663
V/C Ratio(X)	0.75	0.00	0.50	0.50	0.08	0.93	0.80	0.81	0.46	0.87	0.67	0.67
Avail Cap(c_a), veh/h	97	0	96	987	534	454	143	1697	528	468	1340	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	0.0	38.0	24.9	21.9	29.0	39.7	28.6	25.6	35.0	21.8	21.8
Incr Delay (d2), s/veh	24.3	0.0	1.5	0.1	0.0	25.1	8.7	1.8	0.3	15.4	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	1.1	4.6	0.7	12.2	1.2	7.8	3.6	5.6	8.1	8.9
LnGrp Delay(d),s/veh	62.9	0.0	39.5	25.0	21.9	54.1	48.5	30.4	25.9	50.3	22.7	23.5
LnGrp LOS	E		D	C	C	D	D	C	C	D	C	C
Approach Vol, veh/h		121			930			1294			1683	
Approach Delay, s/veh		53.6			37.7			30.4			29.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	36.0		10.1	17.0	27.0		28.8
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 6.8	* 33		4.6	11.5	* 28		24.0
Max Q Clear Time (g_c+I1), s	4.3	19.3		5.4	11.8	18.5		23.2
Green Ext Time (p_c), s	0.0	3.7		0.0	0.0	3.3		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	32.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	98	232	283	126	16	96	703	107	3	1487	189
Future Volume (veh/h)	148	98	232	283	126	16	96	703	107	3	1487	189
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	148	98	232	283	126	16	96	703	107	3	1487	189
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	214	296	265	353	658	82	153	2523	786	8	1607	719
Arrive On Green	0.06	0.17	0.17	0.10	0.21	0.21	0.05	0.51	0.51	0.00	0.46	0.46
Sat Flow, veh/h	3408	1752	1568	3408	3136	392	3375	4988	1553	3375	3471	1553
Grp Volume(v), veh/h	148	98	232	283	70	72	96	703	107	3	1487	189
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1775	1688	1663	1553	1688	1736	1553
Q Serve(g_s), s	4.3	5.0	14.7	8.3	3.3	3.4	2.8	8.2	3.7	0.1	40.9	7.6
Cycle Q Clear(g_c), s	4.3	5.0	14.7	8.3	3.3	3.4	2.8	8.2	3.7	0.1	40.9	7.6
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	296	265	353	368	373	153	2523	786	8	1607	719
V/C Ratio(X)	0.69	0.33	0.88	0.80	0.19	0.19	0.63	0.28	0.14	0.37	0.93	0.26
Avail Cap(c_a), veh/h	653	591	529	653	598	605	647	3157	983	647	2204	986
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	37.2	41.2	44.6	33.1	33.1	47.7	14.5	13.3	50.7	25.7	16.7
Incr Delay (d2), s/veh	1.5	0.2	3.6	1.6	0.1	0.1	1.6	0.0	0.0	10.1	4.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.4	6.6	4.0	1.6	1.7	1.4	3.8	1.6	0.1	20.5	3.3
LnGrp Delay(d),s/veh	48.2	37.5	44.9	46.2	33.2	33.2	49.3	14.5	13.4	60.8	30.5	16.8
LnGrp LOS	D	D	D	D	C	C	D	B	B	E	C	B
Approach Vol, veh/h		478			425			906			1679	
Approach Delay, s/veh		44.4			41.8			18.0			29.0	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	52.7	11.9	27.1	5.7	57.1	16.0	22.9
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	19.5	* 65	19.5	* 35	19.5	* 64	19.5	* 34
Max Q Clear Time (g_c+I1), s	4.8	42.9	6.3	5.4	2.1	10.2	10.3	16.7
Green Ext Time (p_c), s	0.1	4.2	0.2	0.5	0.0	4.3	0.3	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	513	115	40	305	108	66	604	39	203	1553	215
Future Volume (veh/h)	155	513	115	40	305	108	66	604	39	203	1553	215
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1900	1827	1845	1827
Adj Flow Rate, veh/h	155	513	115	40	305	108	66	604	39	203	1553	0
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	170	519	454	51	399	340	78	1213	78	232	1570	696
Arrive On Green	0.10	0.29	0.29	0.03	0.22	0.22	0.04	0.36	0.36	0.13	0.45	0.00
Sat Flow, veh/h	1707	1792	1568	1757	1792	1524	1757	3343	216	1740	3505	1553
Grp Volume(v), veh/h	155	513	115	40	305	108	66	316	327	203	1553	0
Grp Sat Flow(s),veh/h/ln	1707	1792	1568	1757	1792	1524	1757	1752	1807	1740	1752	1553
Q Serve(g_s), s	9.9	31.4	6.2	2.5	17.6	6.5	4.1	15.5	15.5	12.6	48.4	0.0
Cycle Q Clear(g_c), s	9.9	31.4	6.2	2.5	17.6	6.5	4.1	15.5	15.5	12.6	48.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	170	519	454	51	399	340	78	636	655	232	1570	696
V/C Ratio(X)	0.91	0.99	0.25	0.79	0.76	0.32	0.85	0.50	0.50	0.87	0.99	0.00
Avail Cap(c_a), veh/h	170	519	454	54	399	340	78	636	655	331	1570	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.1	39.0	30.1	53.2	40.1	35.8	52.3	27.3	27.3	46.9	30.2	0.0
Incr Delay (d2), s/veh	43.2	36.6	0.1	51.3	7.7	0.2	51.8	0.6	0.6	12.7	20.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	20.8	2.7	1.9	9.6	2.8	3.1	7.6	7.8	6.9	27.7	0.0
LnGrp Delay(d),s/veh	92.4	75.6	30.2	104.6	47.8	36.0	104.1	27.9	27.9	59.6	50.2	0.0
LnGrp LOS	F	E	C	F	D	D	F	C	C	E	D	
Approach Vol, veh/h		783			453			709			1756	
Approach Delay, s/veh		72.3			50.0			35.0			51.3	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	54.5	15.3	30.2	19.7	45.1	8.0	37.5
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 4.9	49.4	* 11	24.3	21.0	33.7	* 3.4	* 32
Max Q Clear Time (g_c+I1), s	6.1	50.4	11.9	19.6	14.6	17.5	4.5	33.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.1	5.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	131	75	12	53	8	40	637	7	8	1623	79
Future Volume (veh/h)	71	131	75	12	53	8	40	637	7	8	1623	79
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	71	131	75	12	53	8	40	637	7	8	1623	79
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	124	170	98	30	199	30	49	1942	21	11	1788	87
Arrive On Green	0.04	0.15	0.15	0.01	0.13	0.13	0.03	0.55	0.55	0.01	0.53	0.53
Sat Flow, veh/h	3408	1102	631	3408	1566	236	1757	3551	39	1757	3403	165
Grp Volume(v), veh/h	71	0	206	12	0	61	40	314	330	8	832	870
Grp Sat Flow(s),veh/h/ln	1704	0	1733	1704	0	1803	1757	1752	1838	1757	1752	1816
Q Serve(g_s), s	1.5	0.0	8.5	0.3	0.0	2.3	1.7	7.4	7.4	0.3	32.1	32.7
Cycle Q Clear(g_c), s	1.5	0.0	8.5	0.3	0.0	2.3	1.7	7.4	7.4	0.3	32.1	32.7
Prop In Lane	1.00		0.36	1.00		0.13	1.00		0.02	1.00		0.09
Lane Grp Cap(c), veh/h	124	0	268	30	0	229	49	959	1005	11	920	954
V/C Ratio(X)	0.57	0.00	0.77	0.40	0.00	0.27	0.82	0.33	0.33	0.74	0.90	0.91
Avail Cap(c_a), veh/h	150	0	746	141	0	771	82	1181	1238	73	1171	1214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	0.0	30.3	36.9	0.0	29.5	36.2	9.4	9.4	37.1	16.1	16.2
Incr Delay (d2), s/veh	4.1	0.0	4.6	8.3	0.0	0.6	26.7	0.2	0.2	65.9	7.4	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	4.4	0.2	0.0	1.2	1.2	3.6	3.8	0.4	17.1	18.3
LnGrp Delay(d),s/veh	39.6	0.0	35.0	45.1	0.0	30.1	62.9	9.6	9.5	103.1	23.4	24.0
LnGrp LOS	D		C	D		C	E	A	A	F	C	C
Approach Vol, veh/h		277			73			684			1710	
Approach Delay, s/veh		36.1			32.6			12.7			24.1	
Approach LOS		D			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	44.3	6.2	16.8	6.0	45.9	8.2	14.7
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	3.5	50.0	3.1	* 32	3.1	50.4	3.3	* 32
Max Q Clear Time (g_c+I1), s	3.7	34.7	2.3	10.5	2.3	9.4	3.5	4.3
Green Ext Time (p_c), s	0.0	4.6	0.0	1.0	0.0	5.2	0.0	1.1

Intersection Summary		
HCM 2010 Ctrl Delay		22.7
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	137	120	50	180	31	33	485	24	10	1574	122
Future Volume (veh/h)	87	137	120	50	180	31	33	485	24	10	1574	122
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1835	1900	1845	1800	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	87	137	120	50	180	31	33	485	24	10	1574	122
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	6	3	3	3	3	3	3
Cap, veh/h	142	158	139	89	239	41	40	1882	93	13	1775	137
Arrive On Green	0.04	0.18	0.18	0.03	0.16	0.16	0.02	0.55	0.55	0.01	0.54	0.54
Sat Flow, veh/h	3408	904	792	3408	1497	258	1757	3400	168	1757	3298	254
Grp Volume(v), veh/h	87	0	257	50	0	211	33	250	259	10	831	865
Grp Sat Flow(s),veh/h/ln	1704	0	1695	1704	0	1754	1757	1752	1815	1757	1752	1800
Q Serve(g_s), s	2.2	0.0	13.1	1.3	0.0	10.2	1.7	6.6	6.6	0.5	37.0	38.0
Cycle Q Clear(g_c), s	2.2	0.0	13.1	1.3	0.0	10.2	1.7	6.6	6.6	0.5	37.0	38.0
Prop In Lane	1.00		0.47	1.00		0.15	1.00		0.09	1.00		0.14
Lane Grp Cap(c), veh/h	142	0	297	89	0	280	40	970	1005	13	943	969
V/C Ratio(X)	0.61	0.00	0.87	0.56	0.00	0.75	0.82	0.26	0.26	0.77	0.88	0.89
Avail Cap(c_a), veh/h	142	0	594	138	0	612	65	1004	1040	65	1004	1031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	0.0	35.6	42.7	0.0	35.6	43.2	10.3	10.3	44.0	18.0	18.2
Incr Delay (d2), s/veh	7.6	0.0	3.0	5.4	0.0	1.5	32.3	0.1	0.1	62.7	8.9	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	6.4	0.7	0.0	5.0	1.2	3.2	3.4	0.5	20.1	21.3
LnGrp Delay(d),s/veh	49.4	0.0	38.6	48.1	0.0	37.2	75.5	10.5	10.5	106.7	26.9	27.9
LnGrp LOS	D		D	D		D	E	B	B	F	C	C
Approach Vol, veh/h		344			261			542			1706	
Approach Delay, s/veh		41.3			39.3			14.4			27.9	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	54.3	9.2	19.2	7.5	52.9	7.8	20.6
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	3.3	* 51	3.7	* 31	3.3	* 51	3.6	* 31
Max Q Clear Time (g_c+I1), s	2.5	8.6	4.2	12.2	3.7	40.0	3.3	15.1
Green Ext Time (p_c), s	0.0	17.4	0.0	0.5	0.0	7.8	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	103	76	32	122	69	39	362	17	206	1232	239
Future Volume (veh/h)	105	103	76	32	122	69	39	362	17	206	1232	239
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1844	1900	1845	1845	1900
Adj Flow Rate, veh/h	105	103	76	32	122	69	39	362	17	206	1232	239
Adj No. of Lanes	2	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	3	3	3	3	3
Cap, veh/h	177	168	124	38	155	88	47	1263	59	247	1412	272
Arrive On Green	0.05	0.17	0.17	0.02	0.14	0.14	0.03	0.37	0.37	0.14	0.48	0.48
Sat Flow, veh/h	3408	987	729	1757	1108	626	1740	3408	160	1757	2933	564
Grp Volume(v), veh/h	105	0	179	32	0	191	39	186	193	206	732	739
Grp Sat Flow(s),veh/h/ln	1704	0	1716	1757	0	1734	1740	1752	1816	1757	1752	1745
Q Serve(g_s), s	2.1	0.0	6.9	1.3	0.0	7.6	1.6	5.3	5.3	8.1	26.4	27.1
Cycle Q Clear(g_c), s	2.1	0.0	6.9	1.3	0.0	7.6	1.6	5.3	5.3	8.1	26.4	27.1
Prop In Lane	1.00		0.42	1.00		0.36	1.00		0.09	1.00		0.32
Lane Grp Cap(c), veh/h	177	0	292	38	0	242	47	649	673	247	844	840
V/C Ratio(X)	0.59	0.00	0.61	0.84	0.00	0.79	0.83	0.29	0.29	0.83	0.87	0.88
Avail Cap(c_a), veh/h	326	0	749	74	0	671	73	661	685	324	905	901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	0.0	27.3	34.6	0.0	29.5	34.4	15.7	15.8	29.7	16.4	16.6
Incr Delay (d2), s/veh	3.1	0.0	0.8	16.2	0.0	2.2	20.0	0.2	0.2	10.5	8.5	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.3	0.8	0.0	3.8	1.0	2.6	2.7	4.7	14.6	15.2
LnGrp Delay(d),s/veh	36.1	0.0	28.1	50.9	0.0	31.7	54.4	16.0	16.0	40.2	24.9	26.1
LnGrp LOS	D		C	D		C	D	B	B	D	C	C
Approach Vol, veh/h		284			223			418			1677	
Approach Delay, s/veh		31.1			34.5			19.6			27.3	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	31.4	9.2	15.3	7.2	39.3	7.0	17.5
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 13	26.8	6.8	* 28	* 3	36.7	3.0	* 31
Max Q Clear Time (g_c+I1), s	10.1	7.3	4.1	9.6	3.6	29.1	3.3	8.9
Green Ext Time (p_c), s	0.1	9.7	0.1	0.4	0.0	5.1	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	571	77	96	368	6	27	24	111	0	162	12
Future Volume (veh/h)	64	571	77	96	368	6	27	24	111	0	162	12
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1799	1900	1845	1793	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	64	571	77	96	368	6	27	24	111	0	162	12
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	6	3	6	6	3	3	3	3	3	3
Cap, veh/h	79	1012	136	123	1233	20	30	76	351	4	265	20
Arrive On Green	0.04	0.33	0.33	0.07	0.36	0.36	0.02	0.27	0.27	0.00	0.16	0.16
Sat Flow, veh/h	1757	3028	407	1757	3431	56	1757	286	1325	1757	1697	126
Grp Volume(v), veh/h	64	322	326	96	183	191	27	0	135	0	0	174
Grp Sat Flow(s),veh/h/ln	1757	1709	1727	1757	1704	1783	1757	0	1611	1757	0	1822
Q Serve(g_s), s	1.6	6.7	6.8	2.3	3.3	3.4	0.7	0.0	2.9	0.0	0.0	3.9
Cycle Q Clear(g_c), s	1.6	6.7	6.8	2.3	3.3	3.4	0.7	0.0	2.9	0.0	0.0	3.9
Prop In Lane	1.00		0.24	1.00		0.03	1.00		0.82	1.00		0.07
Lane Grp Cap(c), veh/h	79	571	577	123	612	641	30	0	427	4	0	285
V/C Ratio(X)	0.81	0.56	0.57	0.78	0.30	0.30	0.90	0.00	0.32	0.00	0.00	0.61
Avail Cap(c_a), veh/h	282	926	936	323	962	1007	161	0	851	81	0	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	11.9	11.9	19.9	10.0	10.0	21.4	0.0	12.8	0.0	0.0	17.1
Incr Delay (d2), s/veh	17.9	1.2	1.2	10.4	0.4	0.4	53.1	0.0	0.4	0.0	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.3	3.4	1.5	1.6	1.7	0.8	0.0	1.3	0.0	0.0	2.1
LnGrp Delay(d),s/veh	38.5	13.1	13.1	30.3	10.4	10.4	74.5	0.0	13.2	0.0	0.0	19.2
LnGrp LOS	D	B	B	C	B	B	E		B			B
Approach Vol, veh/h		712			470			162			174	
Approach Delay, s/veh		15.4			14.5			23.5			19.2	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	21.0	4.7	10.8	5.9	22.0	0.0	15.6
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	8.0	23.6	4.0	21.0	7.0	24.6	2.0	23.0
Max Q Clear Time (g_c+I1), s	4.3	8.8	2.7	5.9	3.6	5.4	0.0	4.9
Green Ext Time (p_c), s	0.1	5.8	0.0	1.1	0.0	6.6	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	822	44	259	27	77	110	306	1437	17	146	683	355
Future Volume (veh/h)	822	44	259	27	77	110	306	1437	17	146	683	355
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	853	0	259	27	77	110	306	1437	17	146	683	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	949	0	423	35	99	115	340	1605	19	171	1073	334
Arrive On Green	0.27	0.00	0.27	0.07	0.07	0.07	0.20	0.32	0.32	0.10	0.22	0.00
Sat Flow, veh/h	3480	0	1553	473	1348	1568	1740	5081	60	1740	4988	1553
Grp Volume(v), veh/h	853	0	259	104	0	110	306	940	514	146	683	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1821	0	1568	1740	1663	1816	1740	1663	1553
Q Serve(g_s), s	19.7	0.0	12.1	4.7	0.0	5.8	14.3	22.5	22.5	6.9	10.4	0.0
Cycle Q Clear(g_c), s	19.7	0.0	12.1	4.7	0.0	5.8	14.3	22.5	22.5	6.9	10.4	0.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	949	0	423	133	0	115	340	1050	574	171	1073	334
V/C Ratio(X)	0.90	0.00	0.61	0.78	0.00	0.96	0.90	0.90	0.90	0.85	0.64	0.00
Avail Cap(c_a), veh/h	1127	0	503	133	0	115	346	1153	630	171	1197	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.2	0.0	26.5	38.0	0.0	38.5	32.7	27.2	27.2	37.0	29.8	0.0
Incr Delay (d2), s/veh	8.0	0.0	0.7	23.2	0.0	70.3	24.1	8.2	13.7	30.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	0.0	5.2	3.2	0.0	4.8	9.2	11.5	13.5	4.7	4.8	0.0
LnGrp Delay(d),s/veh	37.2	0.0	27.2	61.2	0.0	108.8	56.8	35.4	40.9	67.5	30.4	0.0
LnGrp LOS	D		C	E		F	E	D	D	E	C	
Approach Vol, veh/h		1112			214			1760			829	
Approach Delay, s/veh		34.8			85.7			40.8			36.9	
Approach LOS		C			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	22.7		11.6	12.6	31.1		28.0
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 17	20.0		6.1	* 8.2	* 29		27.0
Max Q Clear Time (g_c+I1), s	16.3	12.4		7.8	8.9	24.5		21.7
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	1.8		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.7
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	452	152	31	95	116	669	56	1420	54	334	1040	270
Future Volume (veh/h)	452	152	31	95	116	669	56	1420	54	334	1040	270
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	452	152	31	95	116	669	56	1420	54	334	1040	270
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	502	1331	258	149	386	1012	96	1519	58	387	2096	652
Arrive On Green	0.15	0.31	0.31	0.04	0.21	0.21	0.03	0.33	0.33	0.11	0.42	0.42
Sat Flow, veh/h	3408	4234	822	3514	1845	3136	3408	4591	175	3408	5036	1568
Grp Volume(v), veh/h	452	119	64	95	116	669	56	913	561	334	1040	270
Grp Sat Flow(s),veh/h/ln	1704	1679	1700	1757	1845	1568	1704	1476	1814	1704	1679	1568
Q Serve(g_s), s	14.6	2.8	3.0	3.0	5.9	20.6	1.8	33.6	33.6	10.8	17.0	13.6
Cycle Q Clear(g_c), s	14.6	2.8	3.0	3.0	5.9	20.6	1.8	33.6	33.6	10.8	17.0	13.6
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	502	1055	534	149	386	1012	96	977	600	387	2096	652
V/C Ratio(X)	0.90	0.11	0.12	0.64	0.30	0.66	0.58	0.93	0.93	0.86	0.50	0.41
Avail Cap(c_a), veh/h	502	1172	593	226	494	1196	161	1028	632	387	2096	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	27.3	27.4	52.8	37.4	32.7	53.8	36.3	36.3	48.8	24.1	23.1
Incr Delay (d2), s/veh	18.6	0.0	0.0	1.7	0.2	0.7	2.1	14.2	20.2	17.3	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	1.3	1.4	1.5	3.0	9.0	0.9	15.6	20.2	6.0	7.9	5.9
LnGrp Delay(d),s/veh	65.6	27.3	27.4	54.5	37.5	33.3	55.8	50.5	56.5	66.1	24.1	23.2
LnGrp LOS	E	C	C	D	D	C	E	D	E	E	C	C
Approach Vol, veh/h		635			880			1530			1644	
Approach Delay, s/veh		54.5			36.2			52.9			32.5	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	52.2	22.0	29.1	18.2	42.7	10.2	40.9
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	5.3	46.1	16.5	* 30	12.7	* 39	7.2	* 39
Max Q Clear Time (g_c+I1), s	3.8	19.0	16.6	22.6	12.8	35.6	5.0	5.0
Green Ext Time (p_c), s	0.0	4.4	0.0	0.9	0.0	1.5	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.8
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	103	44	69	49	159	17	917	31	71	1020	51
Future Volume (veh/h)	311	103	44	69	49	159	17	917	31	71	1020	51
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	229	218	44	59	63	159	17	917	31	71	1020	51
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	323	274	55	237	249	212	22	1225	41	131	1491	74
Arrive On Green	0.18	0.18	0.18	0.14	0.14	0.14	0.01	0.24	0.24	0.07	0.30	0.30
Sat Flow, veh/h	1757	1491	301	1757	1845	1568	1757	5003	169	1757	4913	245
Grp Volume(v), veh/h	229	0	262	59	63	159	17	615	333	71	697	374
Grp Sat Flow(s),veh/h/ln	1757	0	1792	1757	1845	1568	1757	1679	1815	1757	1679	1801
Q Serve(g_s), s	6.9	0.0	7.9	1.7	1.7	5.5	0.5	9.5	9.6	2.2	10.3	10.3
Cycle Q Clear(g_c), s	6.9	0.0	7.9	1.7	1.7	5.5	0.5	9.5	9.6	2.2	10.3	10.3
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.09	1.00		0.14
Lane Grp Cap(c), veh/h	323	0	329	237	249	212	22	822	444	131	1019	546
V/C Ratio(X)	0.71	0.00	0.80	0.25	0.25	0.75	0.78	0.75	0.75	0.54	0.68	0.69
Avail Cap(c_a), veh/h	873	0	890	842	884	751	94	1168	631	156	1275	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	22.0	21.8	21.8	23.5	27.8	19.7	19.7	25.2	17.3	17.3
Incr Delay (d2), s/veh	1.1	0.0	1.7	0.2	0.2	2.0	19.3	0.8	1.6	1.3	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	4.0	0.8	0.9	2.5	0.4	4.5	4.9	1.1	4.8	5.3
LnGrp Delay(d),s/veh	22.7	0.0	23.7	22.0	22.0	25.5	47.1	20.5	21.2	26.4	17.9	18.5
LnGrp LOS	C		C	C	C	C	D	C	C	C	B	B
Approach Vol, veh/h		491			281			965			1142	
Approach Delay, s/veh		23.2			24.0			21.2			18.6	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.5	21.9		13.1	8.8	18.6		15.9
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 3	21.4		27.0	* 5	19.6		28.0
Max Q Clear Time (g_c+I1), s	2.5	12.3		7.5	4.2	11.6		9.9
Green Ext Time (p_c), s	0.0	2.3		0.2	0.0	2.2		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

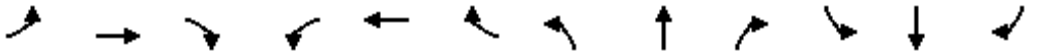
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	355	345	145	398	146	327	529	48	161	820	133
Future Volume (veh/h)	180	355	345	145	398	146	327	529	48	161	820	133
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	180	355	345	145	398	146	327	529	48	161	820	133
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	259	956	446	224	1381	430	419	1475	459	239	1050	169
Arrive On Green	0.08	0.28	0.28	0.07	0.27	0.27	0.12	0.29	0.29	0.07	0.24	0.24
Sat Flow, veh/h	3408	3357	1568	3408	5036	1568	3408	5036	1568	3408	4373	705
Grp Volume(v), veh/h	180	355	345	145	398	146	327	529	48	161	628	325
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1720
Q Serve(g_s), s	4.0	6.6	15.8	3.2	4.9	5.8	7.3	6.5	1.7	3.6	13.7	13.8
Cycle Q Clear(g_c), s	4.0	6.6	15.8	3.2	4.9	5.8	7.3	6.5	1.7	3.6	13.7	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	259	956	446	224	1381	430	419	1475	459	239	806	413
V/C Ratio(X)	0.69	0.37	0.77	0.65	0.29	0.34	0.78	0.36	0.10	0.67	0.78	0.79
Avail Cap(c_a), veh/h	283	1211	566	327	1881	586	501	1637	510	283	876	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	22.4	25.6	35.6	22.3	22.7	33.2	21.8	20.2	35.5	27.8	27.8
Incr Delay (d2), s/veh	6.5	0.2	5.1	3.1	0.1	0.5	6.5	0.1	0.1	4.8	4.2	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.1	7.4	1.6	2.3	2.6	3.8	3.0	0.8	1.9	6.8	7.4
LnGrp Delay(d),s/veh	41.7	22.6	30.7	38.8	22.5	23.2	39.7	22.0	20.3	40.3	32.0	36.1
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	D
Approach Vol, veh/h		880			689			904			1114	
Approach Delay, s/veh		29.7			26.0			28.3			34.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	24.4	11.4	27.2	11.0	28.5	10.6	28.1
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	11.5	* 20	6.5	29.2	6.5	* 25	7.5	28.2
Max Q Clear Time (g_c+I1), s	9.3	15.8	6.0	7.8	5.6	8.5	5.2	17.8
Green Ext Time (p_c), s	0.3	3.0	0.0	6.2	0.1	7.2	0.1	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	30.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	181	79	162	198	82	51	497	112	195	707	209
Future Volume (veh/h)	55	181	79	162	198	82	51	497	112	195	707	209
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	55	181	79	162	198	82	51	497	112	195	707	209
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	272	114	201	336	286	63	548	124	286	782	665
Arrive On Green	0.04	0.11	0.11	0.11	0.18	0.18	0.04	0.38	0.38	0.08	0.42	0.42
Sat Flow, veh/h	1757	2408	1011	1757	1845	1568	1757	1458	329	3408	1845	1568
Grp Volume(v), veh/h	55	130	130	162	198	82	51	0	609	195	707	209
Grp Sat Flow(s),veh/h/ln	1757	1752	1666	1757	1845	1568	1757	0	1787	1704	1845	1568
Q Serve(g_s), s	2.0	4.7	5.0	5.9	6.5	3.0	1.9	0.0	21.3	3.7	23.6	5.8
Cycle Q Clear(g_c), s	2.0	4.7	5.0	5.9	6.5	3.0	1.9	0.0	21.3	3.7	23.6	5.8
Prop In Lane	1.00		0.61	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	69	198	188	201	336	286	63	0	672	286	782	665
V/C Ratio(X)	0.80	0.66	0.69	0.81	0.59	0.29	0.81	0.00	0.91	0.68	0.90	0.31
Avail Cap(c_a), veh/h	237	896	852	259	958	814	101	0	938	347	1042	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	28.0	28.1	28.5	24.7	23.2	31.5	0.0	19.5	29.3	17.7	12.6
Incr Delay (d2), s/veh	7.8	1.4	1.7	10.3	0.6	0.2	9.3	0.0	7.8	2.6	7.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.3	2.4	3.5	3.4	1.3	1.1	0.0	11.8	1.8	13.4	2.5
LnGrp Delay(d),s/veh	39.2	29.4	29.8	38.8	25.3	23.4	40.9	0.0	27.3	31.9	25.3	12.7
LnGrp LOS	D	C	C	D	C	C	D		C	C	C	B
Approach Vol, veh/h		315			442			660			1111	
Approach Delay, s/veh		31.3			29.9			28.3			24.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	16.9	7.9	33.0	12.6	12.3	11.0	29.9
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	8.9	* 34	3.8	* 37	* 9.7	* 34	6.7	* 35
Max Q Clear Time (g_c+I1), s	4.0	8.5	3.9	25.6	7.9	7.0	5.7	23.3
Green Ext Time (p_c), s	0.0	0.5	0.0	1.5	0.0	0.5	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	227	22	169	105	21	216
Future Volume (veh/h)	227	22	169	105	21	216
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	227	22	169	105	21	216
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	334	298	441	375	29	812
Arrive On Green	0.19	0.19	0.24	0.24	0.02	0.44
Sat Flow, veh/h	1757	1568	1845	1568	1757	1845
Grp Volume(v), veh/h	227	22	169	105	21	216
Grp Sat Flow(s),veh/h/ln	1757	1568	1845	1568	1757	1845
Q Serve(g_s), s	2.6	0.2	1.7	1.2	0.3	1.6
Cycle Q Clear(g_c), s	2.6	0.2	1.7	1.2	0.3	1.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	334	298	441	375	29	812
V/C Ratio(X)	0.68	0.07	0.38	0.28	0.73	0.27
Avail Cap(c_a), veh/h	1218	1087	1278	1087	244	1875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.2	7.2	6.9	6.7	10.6	3.8
Incr Delay (d2), s/veh	2.4	0.1	0.5	0.4	29.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.1	0.9	0.5	0.3	0.8
LnGrp Delay(d),s/veh	10.6	7.3	7.4	7.1	39.6	4.0
LnGrp LOS	B	A	A	A	D	A
Approach Vol, veh/h	249		274			237
Approach Delay, s/veh	10.3		7.3			7.2
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.4	9.2				13.5		8.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	3.0	15.0				22.0		15.0
Max Q Clear Time (g_c+I1), s	2.3	3.7				3.6		4.6
Green Ext Time (p_c), s	0.0	1.5				1.8		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	8.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	302	491	129	181	205	371	36	1920	251	313	925	187
Future Volume (veh/h)	302	491	129	181	205	371	36	1920	251	313	925	187
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	302	491	129	181	205	371	36	1920	251	313	925	187
Adj No. of Lanes	2	2	1	2	1	2	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	362	891	399	250	404	1027	65	2146	530	366	2147	668
Arrive On Green	0.11	0.25	0.25	0.07	0.22	0.22	0.02	0.34	0.34	0.11	0.43	0.43
Sat Flow, veh/h	3408	3505	1568	3514	1845	3136	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	302	491	129	181	205	371	36	1920	251	313	925	187
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	8.6	12.0	6.6	5.0	9.6	8.9	1.0	28.6	12.5	9.0	12.8	7.7
Cycle Q Clear(g_c), s	8.6	12.0	6.6	5.0	9.6	8.9	1.0	28.6	12.5	9.0	12.8	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	891	399	250	404	1027	65	2146	530	366	2147	668
V/C Ratio(X)	0.83	0.55	0.32	0.72	0.51	0.36	0.55	0.89	0.47	0.86	0.43	0.28
Avail Cap(c_a), veh/h	362	1125	503	388	598	1356	133	2201	544	366	2147	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	31.9	29.9	44.9	33.9	25.3	48.0	30.8	25.5	43.3	19.7	18.2
Incr Delay (d2), s/veh	14.5	0.8	0.7	1.5	2.7	0.6	2.7	4.9	0.2	17.0	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	5.9	2.9	2.5	5.2	3.9	0.5	13.1	5.4	5.1	5.9	3.4
LnGrp Delay(d),s/veh	57.8	32.7	30.6	46.4	36.6	25.9	50.7	35.8	25.8	60.3	20.1	19.0
LnGrp LOS	E	C	C	D	D	C	D	D	C	E	C	B
Approach Vol, veh/h		922			757			2207			1425	
Approach Delay, s/veh		40.6			33.7			34.9			28.8	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	47.9	16.0	27.4	16.2	39.1	12.5	30.9
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	3.9	* 41	10.5	32.0	10.7	* 35	10.9	* 32
Max Q Clear Time (g_c+I1), s	3.0	14.8	10.6	11.6	11.0	30.6	7.0	14.0
Green Ext Time (p_c), s	0.0	19.0	0.0	10.0	0.0	3.1	0.1	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	34.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	359	425	244	234	251	207	193	999	86	198	1143	114
Future Volume (veh/h)	359	425	244	234	251	207	193	999	86	198	1143	114
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	359	425	244	234	251	207	193	999	86	198	1143	114
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	408	955	427	304	1211	377	235	1583	493	243	1593	496
Arrive On Green	0.12	0.27	0.27	0.09	0.24	0.24	0.07	0.32	0.32	0.07	0.32	0.32
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	359	425	244	234	251	207	193	999	86	198	1143	114
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	9.5	9.2	12.3	6.2	3.7	10.7	5.2	15.7	3.7	5.3	18.6	5.0
Cycle Q Clear(g_c), s	9.5	9.2	12.3	6.2	3.7	10.7	5.2	15.7	3.7	5.3	18.6	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	408	955	427	304	1211	377	235	1583	493	243	1593	496
V/C Ratio(X)	0.88	0.44	0.57	0.77	0.21	0.55	0.82	0.63	0.17	0.82	0.72	0.23
Avail Cap(c_a), veh/h	408	1191	533	353	1629	507	235	1629	507	243	1629	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	27.6	28.8	40.9	27.7	30.4	42.1	26.8	22.7	42.0	27.6	22.9
Incr Delay (d2), s/veh	18.6	0.7	2.4	7.1	0.3	4.2	18.9	1.1	0.3	17.9	1.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	4.5	5.6	3.2	1.7	5.0	3.0	7.4	1.6	3.1	8.7	2.2
LnGrp Delay(d),s/veh	58.4	28.3	31.2	48.0	28.0	34.6	61.1	27.9	23.0	59.9	29.5	23.4
LnGrp LOS	E	C	C	D	C	C	E	C	C	E	C	C
Approach Vol, veh/h		1028			692			1278			1455	
Approach Delay, s/veh		39.5			36.7			32.5			33.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	35.1	16.5	28.3	12.1	34.9	13.8	31.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	6.4	* 30	11.0	* 30	6.6	* 30	9.6	31.2
Max Q Clear Time (g_c+I1), s	7.2	20.6	11.5	12.7	7.3	17.7	8.2	14.3
Green Ext Time (p_c), s	0.0	8.8	0.0	9.6	0.0	11.3	0.1	9.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	15	457	13	24	66	164	1050	11	20	1336	167
Future Volume (veh/h)	205	15	457	13	24	66	164	1050	11	20	1336	167
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	205	15	457	13	24	66	164	1050	11	20	1336	167
Adj No. of Lanes	2	1	2	1	1	0	2	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	311	369	552	17	52	142	261	2058	22	25	1702	530
Arrive On Green	0.09	0.20	0.20	0.01	0.12	0.12	0.08	0.40	0.40	0.01	0.34	0.34
Sat Flow, veh/h	3408	1845	2760	1757	436	1198	3375	5089	53	1740	4988	1553
Grp Volume(v), veh/h	205	15	457	13	0	90	164	686	375	20	1336	167
Grp Sat Flow(s),veh/h/ln	1704	1845	1380	1757	0	1633	1688	1663	1818	1740	1663	1553
Q Serve(g_s), s	3.6	0.4	9.9	0.5	0.0	3.2	2.9	9.6	9.6	0.7	15.0	4.9
Cycle Q Clear(g_c), s	3.6	0.4	9.9	0.5	0.0	3.2	2.9	9.6	9.6	0.7	15.0	4.9
Prop In Lane	1.00		1.00	1.00		0.73	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	311	369	552	17	0	193	261	1345	735	25	1702	530
V/C Ratio(X)	0.66	0.04	0.83	0.76	0.00	0.47	0.63	0.51	0.51	0.82	0.79	0.32
Avail Cap(c_a), veh/h	1069	1006	1505	551	0	904	1059	3456	1889	546	5136	1599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	20.0	23.8	30.7	0.0	25.6	27.8	13.9	13.9	30.6	18.4	15.1
Incr Delay (d2), s/veh	0.9	0.0	1.2	22.4	0.0	0.6	0.9	0.1	0.2	20.8	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.2	3.8	0.3	0.0	1.5	1.4	4.4	4.8	0.5	6.9	2.1
LnGrp Delay(d),s/veh	28.2	20.1	25.1	53.1	0.0	26.2	28.7	14.0	14.1	51.3	18.7	15.2
LnGrp LOS	C	C	C	D		C	C	B	B	D	B	B
Approach Vol, veh/h		677			103			1225			1523	
Approach Delay, s/veh		25.9			29.6			16.0			18.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	27.2	11.2	13.5	6.4	31.1	6.1	18.5
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	19.5	64.0	19.5	* 34	19.5	* 65	19.5	* 34
Max Q Clear Time (g_c+I1), s	4.9	17.0	5.6	5.2	2.7	11.6	2.5	11.9
Green Ext Time (p_c), s	0.2	4.2	0.2	0.6	0.0	4.2	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

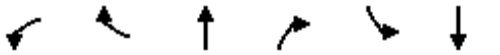
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	139	221	50	52	108	92	701	71	159	1527	221
Future Volume (veh/h)	120	139	221	50	52	108	92	701	71	159	1527	221
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	120	139	221	50	52	108	92	701	71	159	1527	221
Adj No. of Lanes	2	2	0	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	201	311	278	93	492	220	159	1714	534	253	1853	577
Arrive On Green	0.06	0.18	0.18	0.03	0.15	0.15	0.05	0.34	0.34	0.07	0.37	0.37
Sat Flow, veh/h	3408	1752	1568	3250	3343	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	120	139	221	50	52	108	92	701	71	159	1527	221
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1625	1671	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	2.0	4.2	7.9	0.9	0.8	3.9	1.6	6.3	1.8	2.7	16.3	6.1
Cycle Q Clear(g_c), s	2.0	4.2	7.9	0.9	0.8	3.9	1.6	6.3	1.8	2.7	16.3	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	311	278	93	492	220	159	1714	534	253	1853	577
V/C Ratio(X)	0.60	0.45	0.79	0.54	0.11	0.49	0.58	0.41	0.13	0.63	0.82	0.38
Avail Cap(c_a), veh/h	262	673	602	222	1255	561	202	1991	620	466	2382	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	21.5	23.1	28.1	21.7	23.0	27.4	14.7	13.2	26.3	16.7	13.5
Incr Delay (d2), s/veh	1.1	0.4	2.0	1.8	0.0	0.6	1.2	0.1	0.0	1.0	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.0	3.6	0.4	0.4	1.6	0.8	2.9	0.8	1.3	7.6	2.6
LnGrp Delay(d),s/veh	28.0	21.9	25.0	29.9	21.7	23.6	28.6	14.7	13.3	27.3	18.2	13.7
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		480			210			864			1907	
Approach Delay, s/veh		24.9			24.6			16.1			18.4	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	27.3	9.0	14.1	9.9	25.6	7.2	15.9
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	3.5	28.0	4.5	22.0	8.1	23.4	4.0	22.5
Max Q Clear Time (g_c+I1), s	3.6	18.3	4.0	5.9	4.7	8.3	2.9	9.9
Green Ext Time (p_c), s	0.0	3.5	0.0	0.5	0.1	4.1	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	127	612	1	210	1416
Future Volume (veh/h)	12	127	612	1	210	1416
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1827	1827	1827
Adj Flow Rate, veh/h	12	127	612	1	210	1416
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	343	158	1379	429	371	1953
Arrive On Green	0.10	0.10	0.28	0.28	0.11	0.56
Sat Flow, veh/h	3408	1568	5152	1553	3375	3563
Grp Volume(v), veh/h	12	127	612	1	210	1416
Grp Sat Flow(s),veh/h/ln	1704	1568	1663	1553	1688	1736
Q Serve(g_s), s	0.1	2.5	3.2	0.0	1.8	9.4
Cycle Q Clear(g_c), s	0.1	2.5	3.2	0.0	1.8	9.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	343	158	1379	429	371	1953
V/C Ratio(X)	0.04	0.81	0.44	0.00	0.57	0.72
Avail Cap(c_a), veh/h	547	251	3999	1245	2057	5511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	13.7	9.3	8.2	13.2	5.0
Incr Delay (d2), s/veh	0.0	4.0	0.1	0.0	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	1.4	0.0	0.9	4.4
LnGrp Delay(d),s/veh	12.7	17.8	9.4	8.2	13.7	5.2
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	139		613			1626
Approach Delay, s/veh	17.3		9.4			6.3
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		22.5		8.6	8.9	13.6		
Change Period (Y+Rc), s		5.0		5.5	5.5	5.0		
Max Green Setting (Gmax), s		49.5		5.0	19.0	25.0		
Max Q Clear Time (g_c+I1), s		11.4		4.5	3.8	5.2		
Green Ext Time (p_c), s		3.6		0.0	0.2	3.5		

Intersection Summary	
HCM 2010 Ctrl Delay	7.8
HCM 2010 LOS	A

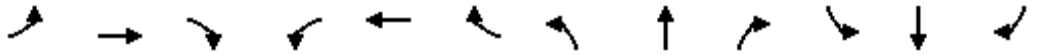
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	7	90	12	3	55	100	393	45	93	1031	230
Future Volume (veh/h)	173	7	90	12	3	55	100	393	45	93	1031	230
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1900	1845	1845	1845	1827	1827	1827	1830	1900
Adj Flow Rate, veh/h	173	7	90	12	3	55	100	393	45	93	1031	230
Adj No. of Lanes	1	1	0	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	4
Cap, veh/h	239	16	200	69	17	76	127	1592	712	162	1269	282
Arrive On Green	0.14	0.14	0.14	0.05	0.05	0.05	0.07	0.46	0.46	0.05	0.45	0.45
Sat Flow, veh/h	1757	114	1471	1419	355	1568	1757	3471	1553	3375	2829	629
Grp Volume(v), veh/h	173	0	97	15	0	55	100	393	45	93	632	629
Grp Sat Flow(s),veh/h/ln	1757	0	1585	1774	0	1568	1757	1736	1553	1688	1739	1719
Q Serve(g_s), s	5.9	0.0	3.5	0.5	0.0	2.2	3.5	4.3	1.0	1.7	19.7	19.8
Cycle Q Clear(g_c), s	5.9	0.0	3.5	0.5	0.0	2.2	3.5	4.3	1.0	1.7	19.7	19.8
Prop In Lane	1.00		0.93	0.80		1.00	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	239	0	216	86	0	76	127	1592	712	162	780	771
V/C Ratio(X)	0.72	0.00	0.45	0.18	0.00	0.73	0.79	0.25	0.06	0.57	0.81	0.82
Avail Cap(c_a), veh/h	450	0	406	511	0	452	141	1712	766	319	908	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	0.0	24.8	28.5	0.0	29.3	28.5	10.3	9.4	29.1	14.9	15.0
Incr Delay (d2), s/veh	4.1	0.0	1.5	1.0	0.0	12.4	22.9	0.1	0.0	3.2	4.9	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.6	0.3	0.0	1.2	2.5	2.1	0.4	0.9	10.4	10.4
LnGrp Delay(d),s/veh	30.0	0.0	26.3	29.5	0.0	41.7	51.3	10.4	9.5	32.3	19.8	20.1
LnGrp LOS	C		C	C		D	D	B	A	C	B	C
Approach Vol, veh/h		270			70			538			1354	
Approach Delay, s/veh		28.6			39.1			17.9			20.8	
Approach LOS		C			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.5	33.0		8.4	7.9	33.6		12.5
Change Period (Y+Rc), s	4.0	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	5.0	32.6		* 18	* 5.9	30.8		16.0
Max Q Clear Time (g_c+I1), s	5.5	21.8		4.2	3.7	6.3		7.9
Green Ext Time (p_c), s	0.0	6.1		0.1	0.1	9.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	472	22	36	213	135	3	292	48	263	742	108
Future Volume (veh/h)	101	472	22	36	213	135	3	292	48	263	742	108
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1792	1845	1845	1900	1827	1845	1845
Adj Flow Rate, veh/h	101	472	22	36	213	135	3	292	48	263	742	108
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	6	3	3	3	4	3	3
Cap, veh/h	130	555	472	45	465	650	4	441	72	303	843	833
Arrive On Green	0.07	0.30	0.30	0.03	0.25	0.25	0.00	0.29	0.29	0.17	0.46	0.46
Sat Flow, veh/h	1757	1845	1568	1757	1845	1524	1757	1546	254	1740	1845	1568
Grp Volume(v), veh/h	101	472	22	36	213	135	3	0	340	263	742	108
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1524	1757	0	1800	1740	1845	1568
Q Serve(g_s), s	5.3	22.4	0.9	1.9	9.1	5.2	0.2	0.0	15.5	13.7	34.1	3.2
Cycle Q Clear(g_c), s	5.3	22.4	0.9	1.9	9.1	5.2	0.2	0.0	15.5	13.7	34.1	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	130	555	472	45	465	650	4	0	513	303	843	833
V/C Ratio(X)	0.78	0.85	0.05	0.81	0.46	0.21	0.71	0.00	0.66	0.87	0.88	0.13
Avail Cap(c_a), veh/h	282	948	806	75	731	869	56	0	848	634	1482	1375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	30.7	23.2	45.3	29.5	16.8	46.5	0.0	29.4	37.5	23.0	11.0
Incr Delay (d2), s/veh	9.6	3.8	0.0	27.7	0.7	0.2	118.2	0.0	1.5	3.0	3.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	12.0	0.4	1.3	4.7	2.2	0.2	0.0	8.0	6.8	18.1	1.4
LnGrp Delay(d),s/veh	52.1	34.5	23.2	73.0	30.2	17.0	164.7	0.0	30.9	40.4	26.2	11.1
LnGrp LOS	D	C	C	E	C	B	F		C	D	C	B
Approach Vol, veh/h		595			384			343			1113	
Approach Delay, s/veh		37.0			29.6			32.0			28.1	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	34.1	4.2	48.7	10.9	29.6	20.3	32.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	4.0	48.0	3.0	75.0	15.0	37.0	34.0	44.0
Max Q Clear Time (g_c+I1), s	3.9	24.4	2.2	36.1	7.3	11.1	15.7	17.5
Green Ext Time (p_c), s	0.0	3.6	0.0	6.6	0.2	3.7	0.6	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	114	11	12	220	605	199
Future Volume (veh/h)	114	11	12	220	605	199
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	114	11	12	220	605	199
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	141	14	16	1196	663	218
Arrive On Green	0.10	0.10	0.01	0.65	0.50	0.50
Sat Flow, veh/h	1473	142	1740	1827	1317	433
Grp Volume(v), veh/h	126	0	12	220	0	804
Grp Sat Flow(s),veh/h/ln	1629	0	1740	1827	0	1750
Q Serve(g_s), s	2.9	0.0	0.3	1.8	0.0	16.4
Cycle Q Clear(g_c), s	2.9	0.0	0.3	1.8	0.0	16.4
Prop In Lane	0.90	0.09	1.00			0.25
Lane Grp Cap(c), veh/h	155	0	16	1196	0	881
V/C Ratio(X)	0.81	0.00	0.74	0.18	0.00	0.91
Avail Cap(c_a), veh/h	252	0	274	2106	0	1476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	19.2	2.6	0.0	8.8
Incr Delay (d2), s/veh	9.6	0.0	20.8	0.0	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.2	0.9	0.0	8.4
LnGrp Delay(d),s/veh	26.8	0.0	40.0	2.7	0.0	12.1
LnGrp LOS	C		D	A		B
Approach Vol, veh/h	126			232	804	
Approach Delay, s/veh	26.8			4.6	12.1	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	5.9	25.2		7.7		31.1		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.1	* 33		6.0		* 45		
Max Q Clear Time (g_c+I1), s	2.3	18.4		4.9		3.8		
Green Ext Time (p_c), s	0.0	1.1		0.0		1.2		

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	682	599	1	2	250	499	14	217	16	118	1	173
Future Volume (veh/h)	682	599	1	2	250	499	14	217	16	118	1	173
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1792	1792	1900	1792	1792	1792
Adj Flow Rate, veh/h	682	599	1	2	250	499	14	217	16	125	0	173
Adj No. of Lanes	2	2	0	1	1	1	1	1	0	2	0	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	6	6	6	6	6	6
Cap, veh/h	760	1954	3	3	588	499	259	250	18	213	0	285
Arrive On Green	0.22	0.54	0.54	0.00	0.32	0.32	0.15	0.15	0.15	0.06	0.00	0.06
Sat Flow, veh/h	3408	3590	6	1757	1845	1568	1707	1649	122	3414	0	4571
Grp Volume(v), veh/h	682	292	308	2	250	499	14	0	233	125	0	173
Grp Sat Flow(s),veh/h/ln	1704	1752	1844	1757	1845	1568	1707	0	1771	1707	0	1524
Q Serve(g_s), s	17.8	8.4	8.4	0.1	9.8	29.2	0.6	0.0	11.8	3.3	0.0	3.4
Cycle Q Clear(g_c), s	17.8	8.4	8.4	0.1	9.8	29.2	0.6	0.0	11.8	3.3	0.0	3.4
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	760	954	1003	3	588	499	259	0	269	213	0	285
V/C Ratio(X)	0.90	0.31	0.31	0.70	0.43	1.00	0.05	0.00	0.87	0.59	0.00	0.61
Avail Cap(c_a), veh/h	911	956	1006	57	588	499	391	0	406	894	0	1197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.6	11.4	11.4	45.7	24.6	31.2	33.3	0.0	38.0	41.8	0.0	41.9
Incr Delay (d2), s/veh	9.3	0.1	0.1	75.6	0.2	40.0	0.0	0.0	8.3	1.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	4.0	4.2	0.1	5.0	18.0	0.3	0.0	6.4	1.6	0.0	1.4
LnGrp Delay(d),s/veh	43.9	11.5	11.5	121.3	24.8	71.2	33.3	0.0	46.3	42.8	0.0	42.6
LnGrp LOS	D	B	B	F	C	E	C		D	D		D
Approach Vol, veh/h		1282			751			247			298	
Approach Delay, s/veh		28.7			55.9			45.6			42.7	
Approach LOS		C			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.9	35.1		11.2	5.2	55.8		19.4
Change Period (Y+Rc), s	5.5	* 5.9		5.5	* 5.1	* 5.9		5.5
Max Green Setting (Gmax), s	24.5	* 29		24.0	* 3	* 50		21.0
Max Q Clear Time (g_c+I1), s	19.8	31.2		5.4	2.1	10.4		13.8
Green Ext Time (p_c), s	0.6	0.0		0.3	0.0	1.1		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	39.9
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	122	61	20	262	351	101
Future Volume (veh/h)	122	61	20	262	351	101
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1759	1792	1792	1810	1810
Adj Flow Rate, veh/h	122	61	20	262	351	101
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	6	6	5	5
Cap, veh/h	199	178	35	931	576	490
Arrive On Green	0.12	0.12	0.02	0.52	0.32	0.32
Sat Flow, veh/h	1675	1495	1707	1792	1810	1538
Grp Volume(v), veh/h	122	61	20	262	351	101
Grp Sat Flow(s),veh/h/ln	1675	1495	1707	1792	1810	1538
Q Serve(g_s), s	2.1	1.1	0.4	2.5	5.0	1.5
Cycle Q Clear(g_c), s	2.1	1.1	0.4	2.5	5.0	1.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	199	178	35	931	576	490
V/C Ratio(X)	0.61	0.34	0.57	0.28	0.61	0.21
Avail Cap(c_a), veh/h	908	811	252	1914	1338	1137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	12.3	14.8	4.1	8.8	7.6
Incr Delay (d2), s/veh	3.0	1.1	13.9	0.2	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.0	0.3	1.3	2.6	0.6
LnGrp Delay(d),s/veh	15.8	13.5	28.7	4.3	9.8	7.8
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	183			282	452	
Approach Delay, s/veh	15.0			6.0	9.4	
Approach LOS	B			A	A	

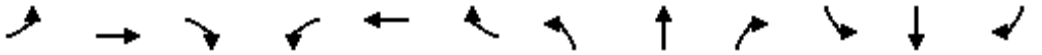
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		21.3		9.1	6.1	15.2		
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		
Max Green Setting (Gmax), s		32.5		16.5	4.5	22.5		
Max Q Clear Time (g_c+I1), s		4.5		4.1	2.4	7.0		
Green Ext Time (p_c), s		3.1		0.5	0.0	2.7		

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	692	4	55	305	13	4	215	70	42	279	40
Future Volume (veh/h)	35	692	4	55	305	13	4	215	70	42	279	40
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1900	1810	1900	1900	1810	1900
Adj Flow Rate, veh/h	35	692	4	55	305	13	4	215	70	42	279	40
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	64	689	4	70	666	28	4	239	78	39	260	37
Arrive On Green	0.04	0.39	0.39	0.04	0.39	0.39	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1707	1780	10	1707	1707	73	24	1290	420	205	1364	196
Grp Volume(v), veh/h	35	0	696	55	0	318	289	0	0	361	0	0
Grp Sat Flow(s),veh/h/ln	1707	0	1791	1707	0	1780	1734	0	0	1765	0	0
Q Serve(g_s), s	2.3	0.0	44.6	3.7	0.0	15.3	18.8	0.0	0.0	22.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	44.6	3.7	0.0	15.3	18.8	0.0	0.0	22.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.04	0.01		0.24	0.12		0.11
Lane Grp Cap(c), veh/h	64	0	693	70	0	695	321	0	0	337	0	0
V/C Ratio(X)	0.55	0.00	1.00	0.79	0.00	0.46	0.90	0.00	0.00	1.07	0.00	0.00
Avail Cap(c_a), veh/h	101	0	693	71	0	695	391	0	0	337	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	54.5	0.0	35.3	54.8	0.0	26.1	45.9	0.0	0.0	46.6	0.0	0.0
Incr Delay (d2), s/veh	2.7	0.0	35.2	39.8	0.0	1.0	20.5	0.0	0.0	69.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	28.7	2.5	0.0	7.7	10.8	0.0	0.0	17.2	0.0	0.0
LnGrp Delay(d),s/veh	57.2	0.0	70.5	94.6	0.0	27.1	66.5	0.0	0.0	115.9	0.0	0.0
LnGrp LOS	E		F	F		C	E			F		
Approach Vol, veh/h		731			373			289			361	
Approach Delay, s/veh		69.9			37.0			66.5			115.9	
Approach LOS		E			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.9	51.0		28.0	9.3	50.6		27.3
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0
Max Green Setting (Gmax), s	6.8	42.6		22.0	4.8	44.6		26.0
Max Q Clear Time (g_c+I1), s	4.3	17.3		24.0	5.7	46.6		20.8
Green Ext Time (p_c), s	0.0	11.1		0.0	0.0	0.0		0.5

Intersection Summary		
HCM 2010 Ctrl Delay		71.8
HCM 2010 LOS		E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	482	113	182	650	153	83	391	94	175	840	217
Future Volume (veh/h)	130	482	113	182	650	153	83	391	94	175	840	217
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	130	482	113	182	650	153	83	391	94	175	840	217
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	165	699	163	191	921	412	105	855	382	191	1027	459
Arrive On Green	0.09	0.25	0.25	0.11	0.26	0.26	0.06	0.24	0.24	0.11	0.29	0.29
Sat Flow, veh/h	1757	2823	658	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	130	298	297	182	650	153	83	391	94	175	840	217
Grp Sat Flow(s),veh/h/ln	1757	1752	1729	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	4.0	8.5	8.6	5.7	9.2	4.4	2.6	5.2	2.7	5.4	12.3	6.3
Cycle Q Clear(g_c), s	4.0	8.5	8.6	5.7	9.2	4.4	2.6	5.2	2.7	5.4	12.3	6.3
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	434	428	191	921	412	105	855	382	191	1027	459
V/C Ratio(X)	0.79	0.69	0.69	0.95	0.71	0.37	0.79	0.46	0.25	0.91	0.82	0.47
Avail Cap(c_a), veh/h	191	509	502	191	1018	456	160	1018	456	191	1082	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	18.8	18.8	24.4	18.4	16.6	25.5	17.7	16.7	24.3	18.1	16.0
Incr Delay (d2), s/veh	17.1	3.1	3.3	50.9	2.0	0.6	14.0	0.4	0.3	41.7	4.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.4	4.4	5.4	4.7	2.0	1.7	2.5	1.2	4.8	6.5	2.8
LnGrp Delay(d),s/veh	41.5	21.9	22.1	75.3	20.4	17.1	39.5	18.1	17.1	66.0	22.9	16.7
LnGrp LOS	D	C	C	E	C	B	D	B	B	E	C	B
Approach Vol, veh/h		725			985			568			1232	
Approach Delay, s/veh		25.5			30.0			21.1			27.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	17.4	10.0	17.6	7.3	20.1	9.2	18.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	16.0	6.0	16.0	5.0	17.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	7.4	7.2	7.7	10.6	4.6	14.3	6.0	11.2
Green Ext Time (p_c), s	0.0	4.8	0.0	3.0	0.0	1.9	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	302	148	111	478	84	97	538	62	119	1149	176
Future Volume (veh/h)	116	302	148	111	478	84	97	538	62	119	1149	176
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	116	302	148	111	478	84	97	538	62	119	1149	176
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	147	717	321	141	600	105	122	1268	146	152	1272	194
Arrive On Green	0.08	0.20	0.20	0.08	0.20	0.20	0.07	0.40	0.40	0.09	0.42	0.42
Sat Flow, veh/h	1757	3505	1568	1757	2983	522	1740	3138	361	1740	3020	461
Grp Volume(v), veh/h	116	302	148	111	280	282	97	297	303	119	659	666
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1753	1740	1736	1763	1740	1736	1746
Q Serve(g_s), s	4.6	5.4	5.9	4.4	10.8	11.0	3.9	8.8	8.8	4.8	25.3	25.5
Cycle Q Clear(g_c), s	4.6	5.4	5.9	4.4	10.8	11.0	3.9	8.8	8.8	4.8	25.3	25.5
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.20	1.00		0.26
Lane Grp Cap(c), veh/h	147	717	321	141	353	353	122	701	712	152	731	735
V/C Ratio(X)	0.79	0.42	0.46	0.79	0.79	0.80	0.80	0.42	0.43	0.78	0.90	0.91
Avail Cap(c_a), veh/h	148	785	351	148	393	393	122	701	712	244	778	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	24.7	24.9	32.3	27.1	27.2	32.7	15.3	15.3	31.9	19.3	19.3
Incr Delay (d2), s/veh	24.5	0.4	1.0	23.4	9.7	10.3	29.7	0.4	0.4	8.5	13.1	13.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	2.6	2.6	3.1	6.2	6.3	2.9	4.3	4.4	2.6	14.7	15.0
LnGrp Delay(d),s/veh	56.6	25.1	26.0	55.7	36.9	37.4	62.4	15.7	15.7	40.4	32.4	33.1
LnGrp LOS	E	C	C	E	D	D	E	B	B	D	C	C
Approach Vol, veh/h		566			673			697			1444	
Approach Delay, s/veh		31.8			40.2			22.2			33.4	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	32.8	9.7	18.6	9.0	34.1	10.0	18.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	27.0	6.0	16.0	5.0	32.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	6.8	10.8	6.4	7.9	5.9	27.5	6.6	13.0
Green Ext Time (p_c), s	0.1	8.8	0.0	2.9	0.0	2.6	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	613	198	212	749	114	174	513	93	156	1186	183
Future Volume (veh/h)	158	613	198	212	749	114	174	513	93	156	1186	183
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	158	613	198	212	749	114	174	513	93	156	1186	183
Adj No. of Lanes	1	3	0	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	175	751	238	240	825	369	175	1030	186	193	1253	560
Arrive On Green	0.10	0.20	0.20	0.14	0.24	0.24	0.10	0.35	0.35	0.11	0.36	0.36
Sat Flow, veh/h	1740	3754	1188	1740	3471	1553	1740	2938	530	1740	3471	1553
Grp Volume(v), veh/h	158	542	269	212	749	114	174	302	304	156	1186	183
Grp Sat Flow(s),veh/h/ln	1740	1663	1617	1740	1736	1553	1740	1736	1733	1740	1736	1553
Q Serve(g_s), s	7.2	12.4	12.8	9.5	16.7	4.8	8.0	10.9	11.0	7.0	26.4	6.8
Cycle Q Clear(g_c), s	7.2	12.4	12.8	9.5	16.7	4.8	8.0	10.9	11.0	7.0	26.4	6.8
Prop In Lane	1.00		0.73	1.00		1.00	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	175	665	323	240	825	369	175	608	607	193	1253	560
V/C Ratio(X)	0.90	0.81	0.83	0.88	0.91	0.31	1.00	0.50	0.50	0.81	0.95	0.33
Avail Cap(c_a), veh/h	175	667	325	240	827	370	175	608	607	262	1263	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	30.5	30.6	33.7	29.5	25.0	35.8	20.4	20.4	34.6	24.7	18.5
Incr Delay (d2), s/veh	42.1	7.7	16.7	29.6	13.8	0.5	67.0	0.6	0.6	12.6	14.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	6.4	7.2	6.6	9.6	2.1	7.0	5.3	5.3	4.0	15.0	2.9
LnGrp Delay(d),s/veh	77.5	38.1	47.3	63.3	43.3	25.5	102.8	21.0	21.0	47.2	39.1	18.8
LnGrp LOS	E	D	D	E	D	C	F	C	C	D	D	B
Approach Vol, veh/h		969			1075			780			1525	
Approach Delay, s/veh		47.1			45.4			39.3			37.5	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	31.9	15.0	19.9	12.0	32.8	12.0	22.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	25.0	11.0	16.0	8.0	29.0	8.0	19.0
Max Q Clear Time (g_c+I1), s	9.0	13.0	11.5	14.8	10.0	28.4	9.2	18.7
Green Ext Time (p_c), s	0.1	7.5	0.0	1.0	0.0	0.3	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	41.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	489	129	82	519	44	131	217	55	148	847	284
Future Volume (veh/h)	121	489	129	82	519	44	131	217	55	148	847	284
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	121	489	129	82	519	44	131	217	55	148	847	284
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	153	711	186	103	753	64	159	996	445	187	1051	470
Arrive On Green	0.09	0.26	0.26	0.06	0.23	0.23	0.09	0.28	0.28	0.11	0.30	0.30
Sat Flow, veh/h	1740	2722	714	1740	3240	274	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	121	311	307	82	277	286	131	217	55	148	847	284
Grp Sat Flow(s),veh/h/ln	1740	1736	1701	1740	1736	1779	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	3.8	8.9	9.0	2.6	8.1	8.1	4.1	2.6	1.4	4.5	12.3	8.6
Cycle Q Clear(g_c), s	3.8	8.9	9.0	2.6	8.1	8.1	4.1	2.6	1.4	4.5	12.3	8.6
Prop In Lane	1.00		0.42	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	153	453	444	103	403	413	159	996	445	187	1051	470
V/C Ratio(X)	0.79	0.69	0.69	0.79	0.69	0.69	0.83	0.22	0.12	0.79	0.81	0.60
Avail Cap(c_a), veh/h	157	502	492	157	502	514	159	1077	482	191	1140	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	18.4	18.4	25.7	19.4	19.4	24.7	15.1	14.7	24.1	17.9	16.6
Incr Delay (d2), s/veh	22.7	3.4	3.6	14.5	2.9	2.9	28.5	0.1	0.1	19.8	4.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	4.7	4.6	1.6	4.2	4.3	3.2	1.3	0.6	3.2	6.5	3.9
LnGrp Delay(d),s/veh	47.4	21.8	22.1	40.2	22.3	22.3	53.2	15.2	14.8	44.0	21.9	18.3
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		739			645			403			1279	
Approach Delay, s/veh		26.1			24.6			27.5			23.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	19.7	7.3	18.5	9.0	20.6	8.9	16.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	17.0	5.0	16.0	5.0	18.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	6.5	4.6	4.6	11.0	6.1	14.3	5.8	10.1
Green Ext Time (p_c), s	0.0	5.5	0.0	2.4	0.0	2.3	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	461	19	59	520	61	42	293	89	160	555	562
Future Volume (veh/h)	136	461	19	59	520	61	42	293	89	160	555	562
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	136	461	19	59	520	61	42	293	89	160	555	562
Adj No. of Lanes	2	2	1	2	2	0	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	224	898	402	147	738	86	117	860	257	259	1279	572
Arrive On Green	0.07	0.26	0.26	0.04	0.24	0.24	0.03	0.33	0.33	0.08	0.37	0.37
Sat Flow, veh/h	3375	3471	1553	3375	3132	366	3375	2637	786	3375	3471	1553
Grp Volume(v), veh/h	136	461	19	59	287	294	42	191	191	160	555	562
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1688	1736	1762	1688	1736	1688	1688	1736	1553
Q Serve(g_s), s	2.1	6.2	0.5	0.9	8.2	8.3	0.7	4.5	4.7	2.5	6.5	19.4
Cycle Q Clear(g_c), s	2.1	6.2	0.5	0.9	8.2	8.3	0.7	4.5	4.7	2.5	6.5	19.4
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	224	898	402	147	409	415	117	566	551	259	1279	572
V/C Ratio(X)	0.61	0.51	0.05	0.40	0.70	0.71	0.36	0.34	0.35	0.62	0.43	0.98
Avail Cap(c_a), veh/h	249	1023	458	249	512	520	249	576	560	373	1279	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	17.2	15.1	25.3	19.0	19.0	25.6	13.8	13.9	24.3	12.9	17.0
Incr Delay (d2), s/veh	3.5	0.5	0.0	1.8	3.2	3.2	1.9	0.3	0.4	2.4	0.2	32.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.0	0.2	0.5	4.3	4.4	0.3	2.2	2.2	1.2	3.1	13.4
LnGrp Delay(d),s/veh	28.2	17.7	15.1	27.0	22.2	22.3	27.5	14.2	14.3	26.6	13.1	49.9
LnGrp LOS	C	B	B	C	C	C	C	B	B	C	B	D
Approach Vol, veh/h		616			640			424			1277	
Approach Delay, s/veh		19.9			22.7			15.5			31.0	
Approach LOS		B			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	21.7	6.4	18.0	5.9	24.0	7.6	16.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	18.0	4.0	16.0	4.0	20.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	4.5	6.7	2.9	8.2	2.7	21.4	4.1	10.3
Green Ext Time (p_c), s	0.1	5.3	0.0	3.1	0.0	0.0	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	44	12	50	9	1	12	530	55	1	1005	87
Future Volume (veh/h)	68	44	12	50	9	1	12	530	55	1	1005	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	68	44	12	50	9	1	12	530	55	1	1005	87
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	86	56	15	70	65	7	20	602	512	579	1080	93
Arrive On Green	0.09	0.09	0.09	0.04	0.04	0.04	0.01	0.34	0.34	0.34	0.66	0.66
Sat Flow, veh/h	924	598	163	1757	1631	181	1707	1792	1524	1707	1627	141
Grp Volume(v), veh/h	124	0	0	50	0	10	12	530	55	1	0	1092
Grp Sat Flow(s),veh/h/ln	1684	0	0	1757	0	1813	1707	1792	1524	1707	0	1768
Q Serve(g_s), s	6.0	0.0	0.0	2.4	0.0	0.4	0.6	23.3	2.1	0.0	0.0	45.5
Cycle Q Clear(g_c), s	6.0	0.0	0.0	2.4	0.0	0.4	0.6	23.3	2.1	0.0	0.0	45.5
Prop In Lane	0.55		0.10	1.00		0.10	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	157	0	0	70	0	73	20	602	512	579	0	1173
V/C Ratio(X)	0.79	0.00	0.00	0.71	0.00	0.14	0.60	0.88	0.11	0.00	0.00	0.93
Avail Cap(c_a), veh/h	322	0	0	336	0	347	82	1671	1420	579	0	1648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	0.0	39.7	0.0	38.8	41.2	26.2	19.1	18.3	0.0	12.4
Incr Delay (d2), s/veh	8.5	0.0	0.0	12.4	0.0	0.9	26.1	4.4	0.1	0.0	0.0	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.0	1.4	0.0	0.2	0.4	12.2	0.9	0.0	0.0	24.4
LnGrp Delay(d),s/veh	45.7	0.0	0.0	52.1	0.0	39.6	67.2	30.6	19.2	18.3	0.0	20.1
LnGrp LOS	D			D		D	E	C	B	B		C
Approach Vol, veh/h		124			60			597			1093	
Approach Delay, s/veh		45.7			50.0			30.3			20.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	32.4	32.1		11.8	5.0	59.6		7.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	78.0		16.0	4.0	78.0		16.0
Max Q Clear Time (g_c+I1), s	2.0	25.3		8.0	2.6	47.5		4.4
Green Ext Time (p_c), s	1.3	2.8		0.2	0.0	8.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	12	7	172	1	144	4	542	243	429	623	1
Future Volume (veh/h)	2	12	7	172	1	144	4	542	243	429	623	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	2	12	7	172	1	144	4	542	243	429	623	1
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	35	20	197	2	221	7	566	254	455	1332	2
Arrive On Green	0.00	0.03	0.03	0.11	0.14	0.14	0.00	0.47	0.47	0.26	0.72	0.72
Sat Flow, veh/h	1757	1094	638	1757	11	1559	1757	1208	541	1757	1841	3
Grp Volume(v), veh/h	2	0	19	172	0	145	4	0	785	429	0	624
Grp Sat Flow(s),veh/h/ln	1757	0	1732	1757	0	1570	1757	0	1749	1757	0	1844
Q Serve(g_s), s	0.1	0.0	1.3	12.0	0.0	10.9	0.3	0.0	53.9	29.8	0.0	17.6
Cycle Q Clear(g_c), s	0.1	0.0	1.3	12.0	0.0	10.9	0.3	0.0	53.9	29.8	0.0	17.6
Prop In Lane	1.00		0.37	1.00		0.99	1.00		0.31	1.00		0.00
Lane Grp Cap(c), veh/h	4	0	55	197	0	223	7	0	819	455	0	1334
V/C Ratio(X)	0.53	0.00	0.34	0.87	0.00	0.65	0.55	0.00	0.96	0.94	0.00	0.47
Avail Cap(c_a), veh/h	56	0	222	197	0	327	56	0	842	479	0	1334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.1	0.0	59.0	54.5	0.0	50.6	61.9	0.0	31.9	45.3	0.0	7.2
Incr Delay (d2), s/veh	83.4	0.0	3.6	32.2	0.0	3.2	51.7	0.0	21.1	26.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.7	7.6	0.0	4.9	0.2	0.0	30.8	17.8	0.0	8.9
LnGrp Delay(d),s/veh	145.6	0.0	62.7	86.6	0.0	53.7	113.6	0.0	53.1	72.0	0.0	7.5
LnGrp LOS	F		E	F		D	F		D	E		A
Approach Vol, veh/h		21			317			789			1053	
Approach Delay, s/veh		70.6			71.6			53.4			33.7	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.3	62.4	18.0	8.0	4.5	94.2	4.3	21.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	34.0	60.0	14.0	16.0	4.0	90.0	4.0	26.0
Max Q Clear Time (g_c+I1), s	31.8	55.9	14.0	3.3	2.3	19.6	2.1	12.9
Green Ext Time (p_c), s	0.4	2.5	0.0	0.5	0.0	9.5	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	12	14	1	6	4	10	418	0	3	557	309
Future Volume (veh/h)	294	12	14	1	6	4	10	418	0	3	557	309
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	294	12	14	1	6	4	10	418	0	3	557	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	374	15	347	2	11	7	18	744	0	6	730	621
Arrive On Green	0.22	0.22	0.22	0.01	0.01	0.01	0.01	0.40	0.00	0.00	0.40	0.00
Sat Flow, veh/h	1691	69	1568	157	941	628	1757	1845	0	1757	1845	1568
Grp Volume(v), veh/h	306	0	14	11	0	0	10	418	0	3	557	0
Grp Sat Flow(s),veh/h/ln	1760	0	1568	1726	0	0	1757	1845	0	1757	1845	1568
Q Serve(g_s), s	7.3	0.0	0.3	0.3	0.0	0.0	0.3	7.8	0.0	0.1	11.6	0.0
Cycle Q Clear(g_c), s	7.3	0.0	0.3	0.3	0.0	0.0	0.3	7.8	0.0	0.1	11.6	0.0
Prop In Lane	0.96		1.00	0.09		0.36	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	0	347	20	0	0	18	744	0	6	730	621
V/C Ratio(X)	0.79	0.00	0.04	0.56	0.00	0.00	0.54	0.56	0.00	0.52	0.76	0.00
Avail Cap(c_a), veh/h	635	0	566	623	0	0	158	1165	0	158	1165	990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.3	0.0	13.6	21.8	0.0	0.0	21.8	10.2	0.0	22.1	11.6	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.0	22.3	0.0	0.0	22.8	0.7	0.0	58.1	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.1	0.3	0.0	0.0	0.2	4.0	0.0	0.1	6.1	0.0
LnGrp Delay(d),s/veh	19.8	0.0	13.6	44.1	0.0	0.0	44.6	10.9	0.0	80.2	13.3	0.0
LnGrp LOS	B		B	D			D	B		F	B	
Approach Vol, veh/h		320			11			428			560	
Approach Delay, s/veh		19.5			44.1			11.7			13.6	
Approach LOS		B			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.1	21.9		13.8	4.5	21.6		4.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	28.0		16.0	4.0	28.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	9.8		9.3	2.3	13.6		2.3
Green Ext Time (p_c), s	0.0	4.3		0.7	0.0	4.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	16.9
Intersection LOS	C

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	259	437	853
Demand Flow Rate, veh/h	267	450	878
Vehicles Circulating, veh/h	407	423	37
Vehicles Exiting, veh/h	466	492	637
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.4	15.5	19.8
Approach LOS	A	C	C

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	267	450	878
Cap Entry Lane, veh/h	752	740	1089
Entry HV Adj Factor	0.970	0.971	0.971
Flow Entry, veh/h	259	437	853
Cap Entry, veh/h	730	719	1058
V/C Ratio	0.355	0.608	0.806
Control Delay, s/veh	9.4	15.5	19.8
LOS	A	C	C
95th %tile Queue, veh	2	4	9

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	311	278	477
Demand Flow Rate, veh/h	320	287	492
Vehicles Circulating, veh/h	235	227	105
Vehicles Exiting, veh/h	279	370	450
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.2	7.6	9.4
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	320	287	492
Cap Entry Lane, veh/h	893	900	1017
Entry HV Adj Factor	0.972	0.969	0.970
Flow Entry, veh/h	311	278	477
Cap Entry, veh/h	868	873	987
V/C Ratio	0.358	0.319	0.484
Control Delay, s/veh	8.2	7.6	9.4
LOS	A	A	A
95th %tile Queue, veh	2	1	3

Intersection	
Intersection Delay, s/veh	6.4
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	179	193	359
Demand Flow Rate, veh/h	184	198	370
Vehicles Circulating, veh/h	148	174	47
Vehicles Exiting, veh/h	224	243	285
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.6	6.0	6.9
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	184	198	370
Cap Entry Lane, veh/h	974	949	1078
Entry HV Adj Factor	0.973	0.973	0.971
Flow Entry, veh/h	179	193	359
Cap Entry, veh/h	948	924	1047
V/C Ratio	0.189	0.209	0.343
Control Delay, s/veh	5.6	6.0	6.9
LOS	A	A	A
95th %tile Queue, veh	1	1	2

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	105	53	41	70	8	15	46	12	12	213	7
Future Vol, veh/h	23	105	53	41	70	8	15	46	12	12	213	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	23	105	53	41	70	8	15	46	12	12	213	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	9	8.5	9.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	13%	34%	5%
Vol Thru, %	63%	58%	59%	92%
Vol Right, %	16%	29%	7%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	181	119	232
LT Vol	15	23	41	12
Through Vol	46	105	70	213
RT Vol	12	53	8	7
Lane Flow Rate	73	181	119	232
Geometry Grp	1	1	1	1
Degree of Util (X)	0.099	0.236	0.163	0.306
Departure Headway (Hd)	4.906	4.692	4.942	4.753
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	726	762	722	754
Service Time	2.968	2.742	2.998	2.802
HCM Lane V/C Ratio	0.101	0.238	0.165	0.308
HCM Control Delay	8.5	9.2	9	9.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.9	0.6	1.3

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	205	9	25	209	27	14	31	8	61	212	28
Future Vol, veh/h	15	205	9	25	209	27	14	31	8	61	212	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	205	9	25	209	27	14	31	8	61	212	28
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.1	11.5	9.3	12.6
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	7%	10%	20%
Vol Thru, %	58%	90%	80%	70%
Vol Right, %	15%	4%	10%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	229	261	301
LT Vol	14	15	25	61
Through Vol	31	205	209	212
RT Vol	8	9	27	28
Lane Flow Rate	53	229	261	301
Geometry Grp	1	1	1	1
Degree of Util (X)	0.085	0.34	0.381	0.446
Departure Headway (Hd)	5.759	5.339	5.262	5.336
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	621	673	684	674
Service Time	3.804	3.375	3.297	3.368
HCM Lane V/C Ratio	0.085	0.34	0.382	0.447
HCM Control Delay	9.3	11.1	11.5	12.6
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.3	1.5	1.8	2.3

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	248	9	2	318	8	10	4	3	95	7	141
Future Vol, veh/h	43	248	9	2	318	8	10	4	3	95	7	141
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	3	3	3	3	3	3
Mvmt Flow	43	248	9	2	318	8	10	4	3	95	7	141
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.1	12.6	9.3	11.3
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	14%	1%	39%
Vol Thru, %	24%	83%	97%	3%
Vol Right, %	18%	3%	2%	58%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	300	328	243
LT Vol	10	43	2	95
Through Vol	4	248	318	7
RT Vol	3	9	8	141
Lane Flow Rate	17	300	328	243
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.431	0.466	0.358
Departure Headway (Hd)	6.047	5.176	5.117	5.308
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	591	696	705	678
Service Time	4.091	3.202	3.143	3.338
HCM Lane V/C Ratio	0.029	0.431	0.465	0.358
HCM Control Delay	9.3	12.1	12.6	11.3
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.1	2.2	2.5	1.6

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	122	16	171	177	8	14	55	46	0	285	30
Future Vol, veh/h	9	122	16	171	177	8	14	55	46	0	285	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	6	6	6	8	8	8	3	3	3	3	3	3
Mvmt Flow	9	122	16	171	177	8	14	55	46	0	285	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.7	15.5	10.1	13.7
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	6%	48%	0%
Vol Thru, %	48%	83%	50%	90%
Vol Right, %	40%	11%	2%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	115	147	356	315
LT Vol	14	9	171	0
Through Vol	55	122	177	285
RT Vol	46	16	8	30
Lane Flow Rate	115	147	356	315
Geometry Grp	1	1	1	1
Degree of Util (X)	0.184	0.237	0.555	0.485
Departure Headway (Hd)	5.758	5.807	5.608	5.541
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	620	616	641	649
Service Time	3.826	3.871	3.658	3.595
HCM Lane V/C Ratio	0.185	0.239	0.555	0.485
HCM Control Delay	10.1	10.7	15.5	13.7
HCM Lane LOS	B	B	C	B
HCM 95th-tile Q	0.7	0.9	3.4	2.7

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	3	28	0	1	1	15	71	1	1	283	172
Future Vol, veh/h	40	3	28	0	1	1	15	71	1	1	283	172
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	40	3	28	0	1	1	15	71	1	1	283	172
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8	8.2	11.1
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	56%	0%	0%
Vol Thru, %	82%	4%	50%	62%
Vol Right, %	1%	39%	50%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	87	71	2	456
LT Vol	15	40	0	1
Through Vol	71	3	1	283
RT Vol	1	28	1	172
Lane Flow Rate	87	71	2	456
Geometry Grp	1	1	1	1
Degree of Util (X)	0.111	0.098	0.003	0.509
Departure Headway (Hd)	4.603	4.977	4.903	4.02
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	780	720	729	903
Service Time	2.623	3.006	2.938	2.02
HCM Lane V/C Ratio	0.112	0.099	0.003	0.505
HCM Control Delay	8.2	8.5	8	11.1
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.4	0.3	0	3

Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	333	0	110	0	71	122	221	214	0
Future Vol, veh/h	0	0	0	333	0	110	0	71	122	221	214	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	333	0	110	0	71	122	221	214	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	0	20.1	11.2	13.3
HCM LOS	-	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	75%	100%	0%
Vol Thru, %	37%	100%	0%	0%	100%
Vol Right, %	63%	0%	25%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	193	0	443	221	214
LT Vol	0	0	333	221	0
Through Vol	71	0	0	0	214
RT Vol	122	0	110	0	0
Lane Flow Rate	193	0	443	221	214
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.305	0	0.688	0.411	0.368
Departure Headway (Hd)	5.689	6.546	5.59	6.695	6.187
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	629	0	647	537	580
Service Time	3.74	4.624	3.631	4.442	3.934
HCM Lane V/C Ratio	0.307	0	0.685	0.412	0.369
HCM Control Delay	11.2	9.6	20.1	14.1	12.5
HCM Lane LOS	B	N	C	B	B
HCM 95th-tile Q	1.3	0	5.4	2	1.7

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	22	0	15	1	265	2	55	333	0
Future Vol, veh/h	0	0	0	22	0	15	1	265	2	55	333	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	20	20	20	5	5	5	6	6	6
Mvmt Flow	0	0	0	22	0	15	1	265	2	55	333	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	0	8.9	9.7	11.4
HCM LOS	-	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	59%	14%
Vol Thru, %	99%	100%	0%	86%
Vol Right, %	1%	0%	41%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	268	0	37	388
LT Vol	1	0	22	55
Through Vol	265	0	0	333
RT Vol	2	0	15	0
Lane Flow Rate	268	0	37	388
Geometry Grp	1	1	1	1
Degree of Util (X)	0.334	0	0.057	0.476
Departure Headway (Hd)	4.482	5.459	5.551	4.412
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	804	0	644	819
Service Time	2.502	3.506	3.592	2.429
HCM Lane V/C Ratio	0.333	0	0.057	0.474
HCM Control Delay	9.7	8.5	8.9	11.4
HCM Lane LOS	A	N	A	B
HCM 95th-tile Q	1.5	0	0.2	2.6

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	159	62	16	259	6	47	74	12	18	234	87
Future Vol, veh/h	36	159	62	16	259	6	47	74	12	18	234	87
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	3	3	3
Mvmt Flow	36	159	62	16	259	6	47	74	12	18	234	87
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.8	13.7	11.1	14.9
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	14%	6%	5%
Vol Thru, %	56%	62%	92%	69%
Vol Right, %	9%	24%	2%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	133	257	281	339
LT Vol	47	36	16	18
Through Vol	74	159	259	234
RT Vol	12	62	6	87
Lane Flow Rate	133	257	281	339
Geometry Grp	1	1	1	1
Degree of Util (X)	0.229	0.411	0.454	0.529
Departure Headway (Hd)	6.192	5.752	5.816	5.616
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	575	622	615	637
Service Time	4.288	3.833	3.896	3.691
HCM Lane V/C Ratio	0.231	0.413	0.457	0.532
HCM Control Delay	11.1	12.8	13.7	14.9
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	0.9	2	2.4	3.1

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	103	794	78	208	265
Future Vol, veh/h	53	103	794	78	208	265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	53	103	794	78	208	265

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1382	436	0	0	872	0
Stage 1	833	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	133	563	-	-	763	-
Stage 1	382	-	-	-	-	-
Stage 2	537	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	97	563	-	-	763	-
Mov Cap-2 Maneuver	221	-	-	-	-	-
Stage 1	382	-	-	-	-	-
Stage 2	391	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.4	0	5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	221	563	763	-
HCM Lane V/C Ratio	-	-	0.24	0.183	0.273	-
HCM Control Delay (s)	-	-	26.4	12.8	11.5	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.7	1.1	-

Intersection	
Int Delay, s/veh	8.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	299	79	78	158	25	62
Future Vol, veh/h	299	79	78	158	25	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	299	79	78	158	25	62

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	269	157	0	0	236	0
Stage 1	157	-	-	-	-	-
Stage 2	112	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	718	886	-	-	1319	-
Stage 1	869	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	704	886	-	-	1319	-
Mov Cap-2 Maneuver	704	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	2.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	736	1319	-
HCM Lane V/C Ratio	-	-	0.514	0.019	-
HCM Control Delay (s)	-	-	14.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	3	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	1	2	0	2	0	49	6	1	238	4
Future Vol, veh/h	2	0	1	2	0	2	0	49	6	1	238	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	0	1	2	0	2	0	49	6	1	238	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	295	297	240	295	296	52	242	0	0	55	0	0
Stage 1	242	242	-	52	52	-	-	-	-	-	-	-
Stage 2	53	55	-	243	244	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	655	613	796	655	614	1013	1319	-	-	1544	-	-
Stage 1	759	704	-	958	850	-	-	-	-	-	-	-
Stage 2	957	847	-	758	702	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	653	612	796	654	613	1013	1319	-	-	1544	-	-
Mov Cap-2 Maneuver	653	612	-	654	613	-	-	-	-	-	-	-
Stage 1	759	703	-	958	850	-	-	-	-	-	-	-
Stage 2	955	847	-	756	701	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	9.6	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1319	-	-	695	795	1544	-	-
HCM Lane V/C Ratio	-	-	-	0.004	0.005	0.001	-	-
HCM Control Delay (s)	0	-	-	10.2	9.6	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	680	3	83	502	1	5	0	100	2	4	4
Future Vol, veh/h	4	680	3	83	502	1	5	0	100	2	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	90	200	-	-	-	-	200	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	6	3	3	6	3	3	3	3	3	3	3
Mvmt Flow	4	680	3	83	502	1	5	0	100	2	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	503	0	0	680	0	0	1361	1357	680	1357	1357	503
Stage 1	-	-	-	-	-	-	688	688	-	669	669	-
Stage 2	-	-	-	-	-	-	673	669	-	688	688	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1056	-	-	908	-	-	125	148	449	126	148	567
Stage 1	-	-	-	-	-	-	435	445	-	445	454	-
Stage 2	-	-	-	-	-	-	443	454	-	435	445	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1056	-	-	908	-	-	113	134	449	91	134	567
Mov Cap-2 Maneuver	-	-	-	-	-	-	113	134	-	91	134	-
Stage 1	-	-	-	-	-	-	433	443	-	443	413	-
Stage 2	-	-	-	-	-	-	396	413	-	337	443	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	16.4	27.5
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	113	449	1056	-	-	908	-	-	170
HCM Lane V/C Ratio	0.044	0.223	0.004	-	-	0.091	-	-	0.059
HCM Control Delay (s)	38.3	15.3	8.4	-	-	9.4	-	-	27.5
HCM Lane LOS	E	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.1	0.8	0	-	-	0.3	-	-	0.2

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	100	1	3	3	2	87
Future Vol, veh/h	100	1	3	3	2	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	100	1	3	3	2	87

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	55	46	89	0	-	0
Stage 1	46	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	950	1021	1500	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	948	1021	1500	-	-	-
Mov Cap-2 Maneuver	948	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	1009	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	3.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1500	-	949	-	-
HCM Lane V/C Ratio	0.002	-	0.106	-	-
HCM Control Delay (s)	7.4	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	241	0	0	150	1	6	0	1	1	0	2
Future Vol, veh/h	2	241	0	0	150	1	6	0	1	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	241	0	0	150	1	6	0	1	1	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	151	0	0	241	0	0	397	396	241	397	396	151
Stage 1	-	-	-	-	-	-	245	245	-	151	151	-
Stage 2	-	-	-	-	-	-	152	151	-	246	245	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1424	-	-	1320	-	-	561	540	795	561	540	893
Stage 1	-	-	-	-	-	-	756	702	-	849	770	-
Stage 2	-	-	-	-	-	-	848	770	-	756	702	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1424	-	-	1320	-	-	559	539	795	559	539	893
Mov Cap-2 Maneuver	-	-	-	-	-	-	559	539	-	559	539	-
Stage 1	-	-	-	-	-	-	754	701	-	847	770	-
Stage 2	-	-	-	-	-	-	846	770	-	754	701	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	11.2	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	584	1424	-	-	1320	-	-	745
HCM Lane V/C Ratio	0.012	0.001	-	-	-	-	-	0.004
HCM Control Delay (s)	11.2	7.5	0	-	0	-	-	9.9
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	74	64	34	582	787	158
Future Vol, veh/h	74	64	34	582	787	158
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	74	64	34	582	787	158

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1516	866	945	0	-	0
Stage 1	866	-	-	-	-	-
Stage 2	650	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	131	351	722	-	-	-
Stage 1	410	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	125	351	722	-	-	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	410	-	-	-	-	-
Stage 2	494	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	72.7	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	722	-	178	-	-
HCM Lane V/C Ratio	0.047	-	0.775	-	-
HCM Control Delay (s)	10.2	-	72.7	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.1	-	5.1	-	-

Intersection	
Int Delay, s/veh	10.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	511	40	388	670	39	321
Future Vol, veh/h	511	40	388	670	39	321
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	250	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	511	40	388	670	39	321

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	511	0	1957	511
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	1446	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1049	-	70	561
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	216	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1049	-	44	561
Mov Cap-2 Maneuver	-	-	-	-	44	-
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	136	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	43.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	44	561	-	-	1049	-
HCM Lane V/C Ratio	0.886	0.572	-	-	0.37	-
HCM Control Delay (s)	243.7	19.6	-	-	10.4	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	3.5	3.6	-	-	1.7	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	83	0	0	156
Future Vol, veh/h	0	0	83	0	0	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	83	0	0	156

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	239	83	0	0	83	0
Stage 1	83	-	-	-	-	-
Stage 2	156	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	747	974	-	-	1508	-
Stage 1	938	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	747	974	-	-	1508	-
Mov Cap-2 Maneuver	747	-	-	-	-	-
Stage 1	938	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1508	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	102	39	15	60	275	58
Future Vol, veh/h	102	39	15	60	275	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	102	39	15	60	275	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	365	275	275	0	-	0
Stage 1	275	-	-	-	-	-
Stage 2	90	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	633	761	1282	-	-	0
Stage 1	769	-	-	-	-	0
Stage 2	931	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	625	761	1282	-	-	-
Mov Cap-2 Maneuver	625	-	-	-	-	-
Stage 1	769	-	-	-	-	-
Stage 2	920	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	1282	-	658	-
HCM Lane V/C Ratio	0.012	-	0.214	-
HCM Control Delay (s)	7.8	0	12	-
HCM Lane LOS	A	A	B	-
HCM 95th %tile Q(veh)	0	-	0.8	-

Intersection	
Int Delay, s/veh	176

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	142	552	1	16	291	3	4	135	0	17	261	201
Future Vol, veh/h	142	552	1	16	291	3	4	135	0	17	261	201
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	-	350	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	8	3	3	8	3
Mvmt Flow	142	552	1	16	291	3	4	135	0	17	261	201

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	294	0	0	553	0	0	1393	1163	553	1229	1162	293
Stage 1	-	-	-	-	-	-	837	837	-	325	325	-
Stage 2	-	-	-	-	-	-	556	326	-	904	837	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.58	6.23	7.13	6.58	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.58	-	6.13	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.58	-	6.13	5.58	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.072	3.327	3.527	4.072	3.327
Pot Cap-1 Maneuver	1262	-	-	1012	-	-	119	190	531	154	~ 190	744
Stage 1	-	-	-	-	-	-	360	374	-	685	638	-
Stage 2	-	-	-	-	-	-	514	638	-	330	374	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1262	-	-	1012	-	-	-	166	531	46	~ 166	744
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	166	-	46	~ 166	-
Stage 1	-	-	-	-	-	-	319	332	-	608	628	-
Stage 2	-	-	-	-	-	-	216	628	-	174	332	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0.4		$ 593.7
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1262	-	-	1012	-	-	217
HCM Lane V/C Ratio	-	0.113	-	-	0.016	-	-	2.207
HCM Control Delay (s)	-	8.2	-	-	8.6	-	-	$ 593.7
HCM Lane LOS	-	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0.4	-	-	0	-	-	37.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	68	111	7	2	207	1	8	72	0	0	111	151
Future Vol, veh/h	68	111	7	2	207	1	8	72	0	0	111	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	68	111	7	2	207	1	8	72	0	0	111	151

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	208	0	0	118	0	0	594	463	115	499	466	208
Stage 1	-	-	-	-	-	-	251	251	-	212	212	-
Stage 2	-	-	-	-	-	-	343	212	-	287	254	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1328	-	-	1422	-	-	408	487	921	472	485	817
Stage 1	-	-	-	-	-	-	740	688	-	777	716	-
Stage 2	-	-	-	-	-	-	660	716	-	708	686	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1328	-	-	1422	-	-	259	459	921	398	457	817
Mov Cap-2 Maneuver	-	-	-	-	-	-	259	459	-	398	457	-
Stage 1	-	-	-	-	-	-	699	650	-	734	715	-
Stage 2	-	-	-	-	-	-	454	715	-	595	648	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.1	15.4	15.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	426	1328	-	-	1422	-	-	613
HCM Lane V/C Ratio	0.188	0.051	-	-	0.001	-	-	0.427
HCM Control Delay (s)	15.4	7.9	0	-	7.5	0	-	15.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0	-	-	2.1

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	101	41	28	54	23	47
Future Vol, veh/h	101	41	28	54	23	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	101	41	28	54	23	47

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	157	47	70	0	-	0
Stage 1	47	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	832	1019	1524	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	816	1019	1524	-	-	-
Mov Cap-2 Maneuver	816	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	895	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1524	-	866	-	-
HCM Lane V/C Ratio	0.018	-	0.164	-	-
HCM Control Delay (s)	7.4	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	25	13	70	38	4
Future Vol, veh/h	7	25	13	70	38	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	7	25	13	70	38	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	136	40	42	0	-	0
Stage 1	40	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	855	1028	1561	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	925	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	847	1028	1561	-	-	-
Mov Cap-2 Maneuver	847	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	917	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1561	-	982	-	-
HCM Lane V/C Ratio	0.008	-	0.033	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	91	111	110	86	28	61
Future Vol, veh/h	91	111	110	86	28	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	91	111	110	86	28	61

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	365	59	89	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	633	1004	1500	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	584	1004	1500	-	-	-
Mov Cap-2 Maneuver	584	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	4.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1500	-	758	-	-
HCM Lane V/C Ratio	0.073	-	0.266	-	-
HCM Control Delay (s)	7.6	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	16	32	119	64	20
Future Vol, veh/h	17	16	32	119	64	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	17	16	32	119	64	20

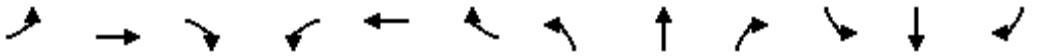
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	247	64	64	0	-	0
Stage 1	64	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	739	998	1532	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	724	998	1532	-	-	-
Mov Cap-2 Maneuver	724	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	828	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1532	-	724	998	-	-
HCM Lane V/C Ratio	0.021	-	0.023	0.016	-	-
HCM Control Delay (s)	7.4	-	10.1	8.7	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

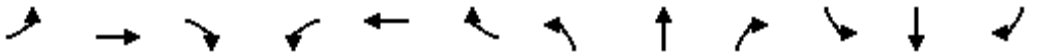
Existing Plus All Projects

AM



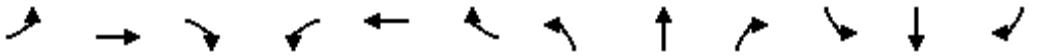
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	644	0	1526	0	0	0	0	1662	522	0	1162	449
Future Volume (vph)	644	0	1526	0	0	0	0	1662	522	0	1162	449
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	644	0	1526	0	0	0	0	1662	522	0	1162	449
RTOR Reduction (vph)	0	0	9	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	644	0	1517	0	0	0	0	1662	522	0	1162	449
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	44.0		44.0					28.0	80.0		28.0	80.0
Effective Green, g (s)	44.0		44.0					28.0	80.0		28.0	80.0
Actuated g/C Ratio	0.55		0.55					0.35	1.00		0.35	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1851		1503					1745	1553		1745	1553
v/s Ratio Prot	0.19							c0.33			0.23	
v/s Ratio Perm			c0.56						0.34			0.29
v/c Ratio	0.35		1.01					0.95	0.34		0.67	0.29
Uniform Delay, d1	10.0		18.0					25.4	0.0		22.0	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1		25.5					12.1	0.6		1.0	0.5
Delay (s)	10.1		43.5					37.5	0.6		23.0	0.5
Level of Service	B		D					D	A		C	A
Approach Delay (s)		33.6			0.0			28.7			16.7	
Approach LOS		C			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



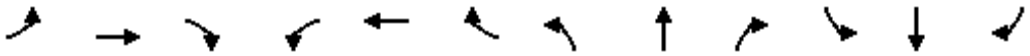
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	472	15	198	1041	880	399	1166	167	1306	1393	95
Future Volume (vph)	136	472	15	198	1041	880	399	1166	167	1306	1393	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3455		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3455		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	136	472	15	198	1041	880	399	1166	167	1306	1393	95
RTOR Reduction (vph)	0	2	0	0	0	645	0	0	92	0	0	56
Lane Group Flow (vph)	136	485	0	198	1041	235	399	1166	75	1306	1393	39
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	4.0	21.3		14.7	32.0	32.0	18.7	26.0	26.0	42.0	49.3	49.3
Effective Green, g (s)	4.0	21.3		14.7	32.0	32.0	18.7	26.0	26.0	42.0	49.3	49.3
Actuated g/C Ratio	0.03	0.18		0.12	0.27	0.27	0.16	0.22	0.22	0.35	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	112	613		412	925	728	524	1080	336	1178	2049	638
v/s Ratio Prot	c0.04	0.14		0.06	c0.30		0.12	c0.23		c0.39	0.28	
v/s Ratio Perm						0.09			0.05			0.03
v/c Ratio	1.21	0.79		0.48	1.13	0.32	0.76	1.08	0.22	1.11	0.68	0.06
Uniform Delay, d1	58.0	47.2		49.1	44.0	35.3	48.5	47.0	38.7	39.0	28.9	21.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	153.6	6.9		0.9	70.4	0.3	6.5	51.5	0.3	61.3	0.9	0.0
Delay (s)	211.6	54.2		50.0	114.4	35.6	55.0	98.5	39.0	100.3	29.8	21.4
Level of Service	F	D		D	F	D	D	F	D	F	C	C
Approach Delay (s)		88.5			75.7			82.8			62.5	
Approach LOS		F			E			F			E	

Intersection Summary			
HCM 2000 Control Delay	73.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	105.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	284	1367	5	634	27	1263	12	2	20	15	113
Future Volume (vph)	71	284	1367	5	634	27	1263	12	2	20	15	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1623	1524		1793	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1623	1524		1793	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	71	284	1367	5	634	27	1263	12	2	20	15	113
RTOR Reduction (vph)	0	0	210	0	0	21	0	0	1	0	0	105
Lane Group Flow (vph)	71	284	1157	5	634	6	631	644	1	0	35	8
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.0	28.5	85.5	0.8	24.3	24.3	57.0	57.0	57.0		7.7	7.7
Effective Green, g (s)	5.0	28.5	85.5	0.8	24.3	24.3	57.0	57.0	57.0		7.7	7.7
Actuated g/C Ratio	0.05	0.26	0.78	0.01	0.22	0.22	0.52	0.52	0.52		0.07	0.07
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	78	899	1263	12	766	343	838	841	789		125	109
v/s Ratio Prot	c0.04	0.08	c0.47	0.00	0.18		0.39	0.40			c0.02	
v/s Ratio Perm			0.27			0.00			0.00			0.01
v/c Ratio	0.91	0.32	0.92	0.42	0.83	0.02	0.75	0.77	0.00		0.28	0.07
Uniform Delay, d1	52.3	32.9	9.5	54.4	40.9	33.5	20.9	21.2	12.8		48.5	47.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	72.0	0.2	10.4	21.8	7.3	0.0	3.9	4.2	0.0		1.2	0.3
Delay (s)	124.3	33.1	19.9	76.1	48.2	33.5	24.8	25.4	12.8		49.7	48.1
Level of Service	F	C	B	E	D	C	C	C	B		D	D
Approach Delay (s)		26.4			47.8			25.1			48.5	
Approach LOS		C			D			C			D	

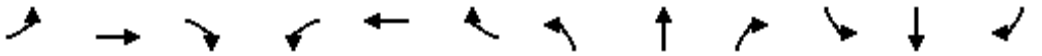
Intersection Summary			
HCM 2000 Control Delay	30.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	101.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	206	32	252	412	55	283	102	291	86	220	34
Future Volume (vph)	26	206	32	252	412	55	283	102	291	86	220	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.99	
Satd. Flow (prot)	1752	3505	1568	1752	3443		1665	1712	1568		3409	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.99	
Satd. Flow (perm)	1752	3505	1568	1752	3443		1665	1712	1568		3409	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	206	32	252	412	55	283	102	291	86	220	34
RTOR Reduction (vph)	0	0	26	0	12	0	0	0	234	0	11	0
Lane Group Flow (vph)	26	206	6	252	455	0	190	195	57	0	329	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	1.8	12.0	12.0	11.2	21.4		12.3	12.3	12.3		11.2	
Effective Green, g (s)	1.8	12.0	12.0	11.2	21.4		12.3	12.3	12.3		11.2	
Actuated g/C Ratio	0.03	0.19	0.19	0.18	0.34		0.20	0.20	0.20		0.18	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	50	670	300	312	1175		326	335	307		608	
v/s Ratio Prot	0.01	0.06		c0.14	c0.13		c0.11	0.11			c0.10	
v/s Ratio Perm			0.00						0.04			
v/c Ratio	0.52	0.31	0.02	0.81	0.39		0.58	0.58	0.19		0.54	
Uniform Delay, d1	30.0	21.8	20.6	24.7	15.7		22.9	22.9	21.0		23.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	9.4	0.3	0.0	14.2	0.2		2.6	2.6	0.3		1.0	
Delay (s)	39.4	22.0	20.6	38.9	15.9		25.5	25.4	21.3		24.4	
Level of Service	D	C	C	D	B		C	C	C		C	
Approach Delay (s)		23.6			23.9			23.7			24.4	
Approach LOS		C			C			C			C	

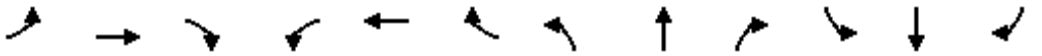
Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	62.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



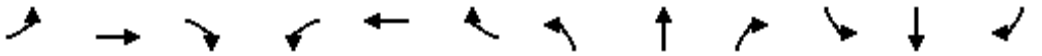
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	346	218	42	684	19	509	48	41	28	144	39
Future Volume (vph)	21	346	218	42	684	19	509	48	41	28	144	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3231		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3231		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	346	218	42	684	19	509	48	41	28	144	39
RTOR Reduction (vph)	0	0	146	0	0	13	0	32	0	0	0	35
Lane Group Flow (vph)	21	346	72	42	684	6	509	57	0	28	144	4
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	1.4	20.5	20.5	2.1	21.1	21.1	14.4	14.4		6.4	6.4	6.4
Effective Green, g (s)	1.4	20.5	20.5	2.1	21.1	21.1	14.4	14.4		6.4	6.4	6.4
Actuated g/C Ratio	0.02	0.33	0.33	0.03	0.34	0.34	0.23	0.23		0.10	0.10	0.10
Clearance Time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Vehicle Extension (s)	1.0	4.9	4.9	1.0	4.1	4.1	2.0	2.0		1.0	1.0	1.0
Lane Grp Cap (vph)	39	1155	516	114	1188	531	779	748		180	360	161
v/s Ratio Prot	0.01	0.10		c0.01	c0.20		c0.15	0.02		0.02	c0.04	
v/s Ratio Perm			0.05			0.00						0.00
v/c Ratio	0.54	0.30	0.14	0.37	0.58	0.01	0.65	0.08		0.16	0.40	0.02
Uniform Delay, d1	30.1	15.5	14.7	29.4	16.9	13.6	21.6	18.7		25.4	26.1	25.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.0	0.3	0.3	0.7	0.8	0.0	1.5	0.0		0.1	0.3	0.0
Delay (s)	37.1	15.8	14.9	30.1	17.7	13.6	23.2	18.7		25.6	26.4	25.1
Level of Service	D	B	B	C	B	B	C	B		C	C	C
Approach Delay (s)		16.2			18.3			22.5			26.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	62.2	Sum of lost time (s)	22.9
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



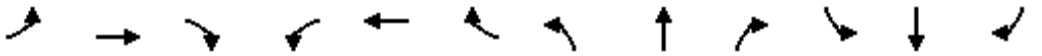
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1308	0	359	0	811	1227	0	353	363
Future Volume (vph)	0	0	0	1308	0	359	0	811	1227	0	353	363
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.6		4.6		3.5	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3367		2733		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3367		2733		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	1308	0	359	0	811	1227	0	353	363
RTOR Reduction (vph)	0	0	0	0	0	68	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1308	0	291	0	811	1227	0	353	363
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				4				6			2	
Permitted Phases						4			Free			Free
Actuated Green, G (s)				19.4		19.4		10.5	38.0		8.9	38.0
Effective Green, g (s)				19.4		19.4		10.5	38.0		8.9	38.0
Actuated g/C Ratio				0.51		0.51		0.28	1.00		0.23	1.00
Clearance Time (s)				4.6		4.6		3.5			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1718		1395		1378	1553		1168	1553
v/s Ratio Prot				0.39				0.16			0.07	
v/s Ratio Perm						0.11			c0.79			0.23
v/c Ratio				0.76		0.21		0.59	0.79		0.30	0.23
Uniform Delay, d1				7.4		5.1		11.9	0.0		12.0	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				1.8		0.0		0.4	4.2		0.1	0.4
Delay (s)				9.3		5.1		12.3	4.2		12.0	0.4
Level of Service				A		A		B	A		B	A
Approach Delay (s)		0.0			8.4			7.4			6.1	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	38.0	Sum of lost time (s)	9.7
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	479	0	1505	0	0	0	0	1844	1180	0	1536	121
Future Volume (vph)	479	0	1505	0	0	0	0	1844	1180	0	1536	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	479	0	1505	0	0	0	0	1844	1180	0	1536	121
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	479	0	1494	0	0	0	0	1844	1180	0	1536	121
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	50.6		50.6					37.8	99.9		38.3	99.9
Effective Green, g (s)	50.6		50.6					37.8	99.9		38.3	99.9
Actuated g/C Ratio	0.51		0.51					0.38	1.00		0.38	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1705		1384					1887	1553		1912	1553
v/s Ratio Prot	0.14							c0.37			0.31	
v/s Ratio Perm			c0.55						0.76			0.08
v/c Ratio	0.28		1.08					0.98	0.76		0.80	0.08
Uniform Delay, d1	14.2		24.7					30.6	0.0		27.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0		48.6					15.4	3.6		2.4	0.1
Delay (s)	14.2		73.3					46.1	3.6		29.8	0.1
Level of Service	B		E					D	A		C	A
Approach Delay (s)		59.0			0.0			29.5			27.7	
Approach LOS		E			A			C			C	

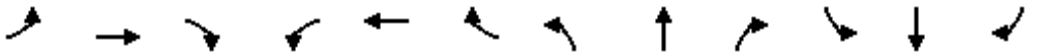
Intersection Summary			
HCM 2000 Control Delay	37.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	99.9	Sum of lost time (s)	11.5
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	676	13	79	1017	34	3	352	34	114	45	237
Future Volume (vph)	81	676	13	79	1017	34	3	352	34	114	45	237
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3495		1752	3488		1752	1845	1568	1752	1845	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	3495		1752	3488		1752	1845	1568	1752	1845	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	81	676	13	79	1017	34	3	352	34	114	45	237
RTOR Reduction (vph)	0	2	0	0	4	0	0	0	25	0	0	159
Lane Group Flow (vph)	81	687	0	79	1047	0	3	352	9	114	45	78
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	2.9	19.6		3.2	19.9		0.5	16.1	16.1	3.6	19.2	19.2
Effective Green, g (s)	2.9	19.6		3.2	19.9		0.5	16.1	16.1	3.6	19.2	19.2
Actuated g/C Ratio	0.05	0.34		0.05	0.34		0.01	0.28	0.28	0.06	0.33	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	86	1170		95	1186		14	507	431	107	605	514
v/s Ratio Prot	c0.05	0.20		0.05	c0.30		0.00	c0.19		c0.07	0.02	
v/s Ratio Perm									0.01			c0.05
v/c Ratio	0.94	0.59		0.83	0.88		0.21	0.69	0.02	1.07	0.07	0.15
Uniform Delay, d1	27.7	16.1		27.4	18.2		28.8	19.0	15.5	27.4	13.5	13.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	77.4	0.8		43.3	8.0		7.6	4.1	0.0	105.7	0.1	0.1
Delay (s)	105.1	16.9		70.7	26.2		36.4	23.1	15.5	133.2	13.6	14.0
Level of Service	F	B		E	C		D	C	B	F	B	B
Approach Delay (s)		26.1			29.3			22.5			48.3	
Approach LOS		C			C			C			D	

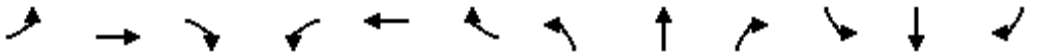
Intersection Summary			
HCM 2000 Control Delay	30.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	58.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



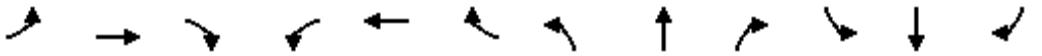
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1162	0	311	0	679	342	0	701	477
Future Volume (vph)	0	0	0	1162	0	311	0	679	342	0	701	477
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.95	1.00		0.95	1.00
Frt				1.00	0.94			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1578			3471	1553		3471	1553
Flt Permitted				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1578			3471	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	1162	0	311	0	679	342	0	701	477
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	755	697	0	0	679	342	0	701	477
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot	NA			NA	Free		NA	Free
Protected Phases				3	8			2			6	
Permitted Phases									Free			Free
Actuated Green, G (s)				30.1	30.1			13.4	52.3		13.4	52.3
Effective Green, g (s)				30.1	30.1			13.4	52.3		13.4	52.3
Actuated g/C Ratio				0.58	0.58			0.26	1.00		0.26	1.00
Clearance Time (s)				4.0	4.9			4.8			4.8	
Vehicle Extension (s)				3.0	1.0			1.0			1.0	
Lane Grp Cap (vph)				949	908			889	1553		889	1553
v/s Ratio Prot				c0.46	0.44			0.20			c0.20	
v/s Ratio Perm									0.22			0.31
v/c Ratio				0.80	0.77			0.76	0.22		0.79	0.31
Uniform Delay, d1				8.7	8.4			18.0	0.0		18.1	0.0
Progression Factor				1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2				4.7	3.6			3.5	0.3		4.3	0.5
Delay (s)				13.4	12.0			21.5	0.3		22.5	0.5
Level of Service				B	B			C	A		C	A
Approach Delay (s)		0.0			12.7			14.4			13.6	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	52.3	Sum of lost time (s)	9.7
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



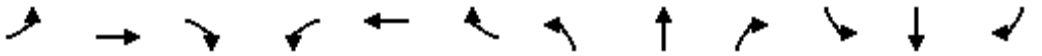
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	276	0	850	0	0	0	0	796	716	0	1626	189
Future Volume (vph)	276	0	850	0	0	0	0	796	716	0	1626	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.95	1.00
Frt	1.00	0.86	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1424	1475					4988	1553		3471	1553
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1424	1475					4988	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	276	0	850	0	0	0	0	796	716	0	1626	189
RTOR Reduction (vph)	0	18	18	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	248	427	415	0	0	0	0	796	716	0	1626	189
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA	Perm					NA	Free		NA	Free
Protected Phases	7	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	26.1	26.1	25.0					35.6	70.6		35.7	70.6
Effective Green, g (s)	26.1	26.1	25.0					35.6	70.6		35.7	70.6
Actuated g/C Ratio	0.37	0.37	0.35					0.50	1.00		0.51	1.00
Clearance Time (s)	4.0	5.1	5.1					4.9			4.8	
Vehicle Extension (s)	3.0	1.0	1.0					1.0			1.0	
Lane Grp Cap (vph)	609	526	522					2515	1553		1755	1553
v/s Ratio Prot	0.15	c0.30						0.16			c0.47	
v/s Ratio Perm			0.28						0.46			0.12
v/c Ratio	0.41	0.81	0.79					0.32	0.46		0.93	0.12
Uniform Delay, d1	16.5	20.0	20.5					10.3	0.0		16.2	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.4	8.8	7.6					0.0	1.0		8.8	0.2
Delay (s)	17.0	28.9	28.1					10.3	1.0		25.0	0.2
Level of Service	B	C	C					B	A		C	A
Approach Delay (s)		26.0			0.0			5.9			22.4	
Approach LOS		C			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	70.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



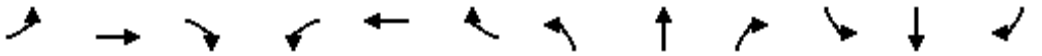
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	777	47	658	25	63	161	545	482	13	105	1229	1151
Future Volume (vph)	777	47	658	25	63	161	545	482	13	105	1229	1151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3	5.3		5.5	5.5	4.7	4.6		4.4	4.8	4.8
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1649	1662	1553		1819	1568	1736	4968		1736	4988	1553
Flt Permitted	0.95	0.96	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1649	1662	1553		1819	1568	1736	4968		1736	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	777	47	658	25	63	161	545	482	13	105	1229	1151
RTOR Reduction (vph)	0	0	274	0	0	155	0	2	0	0	0	459
Lane Group Flow (vph)	412	412	384	0	88	6	545	493	0	105	1229	692
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8			4						2
Actuated Green, G (s)	25.9	25.9	25.9		3.5	3.5	19.3	42.5		8.1	30.8	30.8
Effective Green, g (s)	25.9	25.9	25.9		3.5	3.5	19.3	42.5		8.1	30.8	30.8
Actuated g/C Ratio	0.26	0.26	0.26		0.04	0.04	0.19	0.43		0.08	0.31	0.31
Clearance Time (s)	5.3	5.3	5.3		5.5	5.5	4.7	4.6		4.4	4.8	4.8
Vehicle Extension (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lane Grp Cap (vph)	427	431	403		63	54	335	2115		140	1539	479
v/s Ratio Prot	c0.25	0.25			c0.05		c0.31	0.10		0.06	0.25	
v/s Ratio Perm			0.25			0.00						c0.45
v/c Ratio	0.96	0.96	0.95		1.40	0.10	1.63	0.23		0.75	0.80	1.44
Uniform Delay, d1	36.5	36.4	36.4		48.1	46.6	40.2	18.3		44.9	31.7	34.5
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	34.1	31.7	32.5		250.3	0.3	295.4	0.0		18.0	2.8	211.6
Delay (s)	70.6	68.1	68.8		298.5	46.9	335.7	18.3		62.8	34.4	246.1
Level of Service	E	E	E		F	D	F	B		E	C	F
Approach Delay (s)		69.1			135.8			184.6			133.7	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	125.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	20.3
Intersection Capacity Utilization	118.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



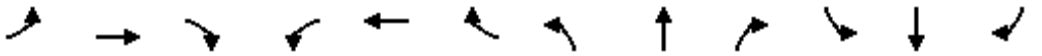
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1034	0	122	0	862	627	0	867	250
Future Volume (vph)	0	0	0	1034	0	122	0	862	627	0	867	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		3505	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	1034	0	122	0	862	627	0	867	250
RTOR Reduction (vph)	0	0	0	0	0	35	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1034	0	87	0	862	627	0	867	250
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				15.5		15.5		13.7	40.6		13.7	40.6
Effective Green, g (s)				15.5		15.5		13.7	40.6		13.7	40.6
Actuated g/C Ratio				0.38		0.38		0.34	1.00		0.34	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1298		598		1699	1568		1182	1568
v/s Ratio Prot								0.17			c0.25	
v/s Ratio Perm				c0.30		0.06			0.40			0.16
v/c Ratio				0.80		0.15		0.51	0.40		0.73	0.16
Uniform Delay, d1				11.1		8.2		10.8	0.0		11.8	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				3.3		0.0		0.1	0.8		2.1	0.2
Delay (s)				14.4		8.3		10.8	0.8		13.9	0.2
Level of Service				B		A		B	A		B	A
Approach Delay (s)		0.0			13.8			6.6			10.8	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	40.6	Sum of lost time (s)	11.4
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



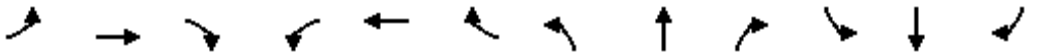
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	932	1195	0	0	146	0	1569	9	0	1740	173
Future Volume (vph)	360	932	1195	0	0	146	0	1569	9	0	1740	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		0.86			0.95	1.00
Frt	1.00	0.95	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	3002	1427			2733		6340			3505	1568
Flt Permitted	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (perm)	1595	3002	1427			2733		6340			3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	360	932	1195	0	0	146	0	1569	9	0	1740	173
RTOR Reduction (vph)	0	3	30	0	0	143	0	1	0	0	0	55
Lane Group Flow (vph)	324	1491	639	0	0	3	0	1577	0	0	1740	118
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA			NA	Perm
Protected Phases	4	4				1		2			6	
Permitted Phases			4									6
Actuated Green, G (s)	46.0	46.0	46.0			2.0		40.0			46.0	46.0
Effective Green, g (s)	46.0	46.0	46.0			2.0		40.0			46.0	46.0
Actuated g/C Ratio	0.46	0.46	0.46			0.02		0.40			0.46	0.46
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	733	1380	656			54		2536			1612	721
v/s Ratio Prot	0.20	c0.50				0.00		0.25			c0.50	
v/s Ratio Perm			0.45									0.08
v/c Ratio	0.44	1.08	0.97			0.05		0.62			1.08	0.16
Uniform Delay, d1	18.3	27.0	26.4			48.1		24.0			27.0	15.8
Progression Factor	1.00	1.00	1.00			1.00		1.00			1.00	1.00
Incremental Delay, d2	0.4	49.0	28.6			0.4		0.5			47.2	0.1
Delay (s)	18.7	76.0	55.0			48.5		24.4			74.2	15.9
Level of Service	B	E	E			D		C			E	B
Approach Delay (s)		62.9			48.5			24.4			68.9	
Approach LOS		E			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	54.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



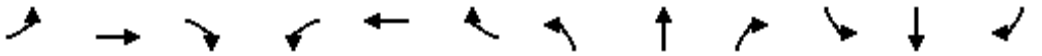
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	355	0	252	0	2154	221	0	1874	1856
Future Volume (vph)	0	0	0	355	0	252	0	2154	221	0	1874	1856
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	355	0	252	0	2154	221	0	1874	1856
RTOR Reduction (vph)	0	0	0	0	0	46	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	355	0	206	0	2154	221	0	1874	1856
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				6			2	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				6.5		6.5		20.3	35.1		20.0	35.1
Effective Green, g (s)				6.5		6.5		20.3	35.1		20.0	35.1
Actuated g/C Ratio				0.19		0.19		0.58	1.00		0.57	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				611		496		2884	1553		2842	1553
v/s Ratio Prot				0.11				0.43			0.38	
v/s Ratio Perm						0.08			0.14			c1.20
v/c Ratio				0.58		0.41		0.75	0.14		0.66	1.20
Uniform Delay, d1				13.1		12.6		5.5	0.0		5.2	17.6
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.9		0.2		0.9	0.2		0.4	94.4
Delay (s)				14.0		12.8		6.4	0.2		5.6	112.0
Level of Service				B		B		A	A		A	F
Approach Delay (s)		0.0			13.5			5.9			58.5	
Approach LOS		A			B			A			E	

Intersection Summary			
HCM 2000 Control Delay	35.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	35.1	Sum of lost time (s)	8.6
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



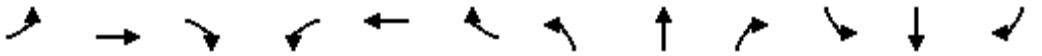
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1310	0	434	0	0	0	0	1072	535	0	2056	172
Future Volume (vph)	1310	0	434	0	0	0	0	1072	535	0	2056	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1310	0	434	0	0	0	0	1072	535	0	2056	172
RTOR Reduction (vph)	0	0	16	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1310	0	418	0	0	0	0	1072	535	0	2056	172
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	7				8			6			2	
Permitted Phases			4	8					Free			Free
Actuated Green, G (s)	23.1		23.6					34.1	66.0		33.8	66.0
Effective Green, g (s)	23.1		23.6					34.1	66.0		33.8	66.0
Actuated g/C Ratio	0.35		0.36					0.52	1.00		0.51	1.00
Clearance Time (s)	4.0		3.5					4.8			5.1	
Vehicle Extension (s)	3.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1712		977					3247	1553		2554	1553
v/s Ratio Prot	c0.27							0.17			c0.41	
v/s Ratio Perm			0.15						0.34			0.11
v/c Ratio	0.77		0.43					0.33	0.34		0.81	0.11
Uniform Delay, d1	19.0		16.1					9.3	0.0		13.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	2.1		0.1					0.0	0.6		1.8	0.1
Delay (s)	21.1		16.2					9.3	0.6		15.2	0.1
Level of Service	C		B					A	A		B	A
Approach Delay (s)		19.9			0.0			6.4			14.0	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	66.0	Sum of lost time (s)	13.1
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



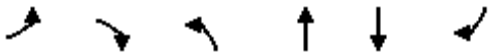
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	724	131	7	0	182	15	8	30	5	7	6	257
Future Volume (vph)	724	131	7	0	182	15	8	30	5	7	6	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Lane Util. Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.99			0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (prot)	1703	1792	1524		1789			1799			1779	1553
Flt Permitted	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (perm)	1703	1792	1524		1789			1799			1779	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	724	131	7	0	182	15	8	30	5	7	6	257
RTOR Reduction (vph)	0	0	2	0	3	0	0	4	0	0	0	114
Lane Group Flow (vph)	724	131	5	0	194	0	0	39	0	0	13	143
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									4
Actuated Green, G (s)	49.7	68.2	68.2		13.9			2.9			0.9	50.6
Effective Green, g (s)	49.7	68.2	68.2		13.9			2.9			0.9	50.6
Actuated g/C Ratio	0.54	0.75	0.75		0.15			0.03			0.01	0.55
Clearance Time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0		1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	928	1340	1139		272			57			17	861
v/s Ratio Prot	c0.43	0.07			c0.11			c0.02			c0.01	0.09
v/s Ratio Perm			0.00									0.00
v/c Ratio	0.78	0.10	0.00		0.71			0.69			0.76	0.17
Uniform Delay, d1	16.4	3.1	2.9		36.8			43.7			45.0	10.0
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	4.0	0.0	0.0		7.2			23.9			99.4	0.0
Delay (s)	20.4	3.1	2.9		44.0			67.6			144.4	10.0
Level of Service	C	A	A		D			E			F	A
Approach Delay (s)		17.6			44.0			67.6			16.5	
Approach LOS		B			D			E			B	

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	91.2	Sum of lost time (s)	24.7
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



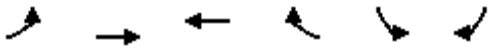
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	228	55	156	380	336	827	0	0	3095	151
Future Volume (vph)	0	0	228	55	156	380	336	827	0	0	3095	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1769	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1769	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	228	55	156	380	336	827	0	0	3095	151
RTOR Reduction (vph)	0	0	162	0	0	321	0	0	0	0	0	40
Lane Group Flow (vph)	0	0	66	0	211	59	336	827	0	0	3095	111
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			17.3		19.8	19.8	17.3	96.6			74.4	74.4
Effective Green, g (s)			17.3		19.8	19.8	17.3	96.6			74.4	74.4
Actuated g/C Ratio			0.14		0.16	0.16	0.14	0.76			0.58	0.58
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Vehicle Extension (s)			3.0		3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)			216		274	416	447	3704			3595	888
v/s Ratio Prot			0.04		c0.12		c0.10	0.17			c0.50	
v/s Ratio Perm						0.02						0.07
v/c Ratio			0.31		0.77	0.14	0.75	0.22			0.86	0.12
Uniform Delay, d1			49.7		51.7	46.6	53.1	4.5			22.3	12.0
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			0.8		12.5	0.2	7.0	0.0			2.3	0.1
Delay (s)			50.6		64.2	46.7	60.1	4.6			24.6	12.0
Level of Service			D		E	D	E	A			C	B
Approach Delay (s)		50.6			53.0			20.6			24.0	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	127.6	Sum of lost time (s)	16.1
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



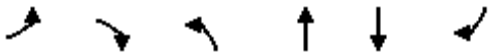
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	977	171	0	0	1085	599
Future Volume (vph)	977	171	0	0	1085	599
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5			4.7	4.0
Lane Util. Factor	0.97	0.91			0.95	1.00
Frt	1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3306	1386			3406	1524
Flt Permitted	0.95	1.00			1.00	1.00
Satd. Flow (perm)	3306	1386			3406	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	977	171	0	0	1085	599
RTOR Reduction (vph)	3	21	0	0	0	0
Lane Group Flow (vph)	991	133	0	0	1085	599
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%
Turn Type	Prot	Perm			NA	Free
Protected Phases	4				2	
Permitted Phases		4				Free
Actuated Green, G (s)	13.5	13.5			14.1	35.8
Effective Green, g (s)	13.5	13.5			14.1	35.8
Actuated g/C Ratio	0.38	0.38			0.39	1.00
Clearance Time (s)	3.5	3.5			4.7	
Vehicle Extension (s)	1.5	1.5			1.0	
Lane Grp Cap (vph)	1246	522			1341	1524
v/s Ratio Prot	c0.30				c0.32	
v/s Ratio Perm		0.10				0.39
v/c Ratio	0.80	0.25			0.81	0.39
Uniform Delay, d1	9.9	7.7			9.7	0.0
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	3.4	0.1			3.5	0.8
Delay (s)	13.3	7.8			13.2	0.8
Level of Service	B	A			B	A
Approach Delay (s)	12.5			0.0	8.7	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	35.8	Sum of lost time (s)	8.2
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



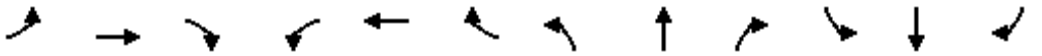
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	293	219	475	106	37	159
Future Volume (vph)	293	219	475	106	37	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3343	3343	1495	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3343	3343	1495	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	293	219	475	106	37	159
RTOR Reduction (vph)	0	0	0	77	0	134
Lane Group Flow (vph)	293	219	475	29	37	25
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	12.5	28.3	11.8	11.8	6.9	6.9
Effective Green, g (s)	12.5	28.3	11.8	11.8	6.9	6.9
Actuated g/C Ratio	0.29	0.66	0.27	0.27	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	483	2189	913	408	279	250
v/s Ratio Prot	c0.18	0.07	c0.14		c0.02	
v/s Ratio Perm				0.02		0.02
v/c Ratio	0.61	0.10	0.52	0.07	0.13	0.10
Uniform Delay, d1	13.2	2.7	13.3	11.6	15.6	15.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.0	0.5	0.1	0.2	0.2
Delay (s)	15.4	2.8	13.8	11.7	15.8	15.7
Level of Service	B	A	B	B	B	B
Approach Delay (s)		10.0	13.5		15.7	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	43.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	13	3	20	506	424	215
Future Volume (vph)	13	3	20	506	424	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3367	1553	1719	3438	3343	1495
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3367	1553	1719	3438	3343	1495
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	3	20	506	424	215
RTOR Reduction (vph)	0	3	0	0	0	179
Lane Group Flow (vph)	13	0	20	506	424	36
Heavy Vehicles (%)	4%	4%	5%	5%	8%	8%
Turn Type	Prot	Perm	Prot	NA	NA	Over
Protected Phases	4		5	2	6	4
Permitted Phases		4				
Actuated Green, G (s)	5.4	5.4	0.6	19.1	14.5	5.4
Effective Green, g (s)	5.4	5.4	0.6	19.1	14.5	5.4
Actuated g/C Ratio	0.17	0.17	0.02	0.59	0.45	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	559	258	31	2020	1491	248
v/s Ratio Prot	0.00		0.01	c0.15	0.13	c0.02
v/s Ratio Perm		0.00				
v/c Ratio	0.02	0.00	0.65	0.25	0.28	0.14
Uniform Delay, d1	11.3	11.3	15.8	3.2	5.7	11.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	0.0	37.9	0.1	0.1	0.3
Delay (s)	11.4	11.3	53.7	3.3	5.8	11.8
Level of Service	B	B	D	A	A	B
Approach Delay (s)	11.3			5.2	7.8	
Approach LOS	B			A	A	

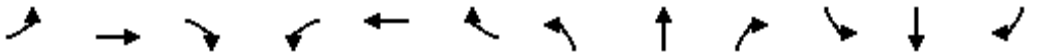
Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	32.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	455	0	661	0	0	0	0	2740	521	0	1790	1584
Future Volume (vph)	455	0	661	0	0	0	0	2740	521	0	1790	1584
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.95	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4540	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4540	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	455	0	661	0	0	0	0	2740	521	0	1790	1584
RTOR Reduction (vph)	0	0	24	0	0	0	0	0	0	0	132	0
Lane Group Flow (vph)	455	0	637	0	0	0	0	2740	521	0	2450	792
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	15.8		15.8					36.0	59.8		36.0	59.8
Effective Green, g (s)	15.8		15.8					36.0	59.8		36.0	59.8
Actuated g/C Ratio	0.26		0.26					0.60	1.00		0.60	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	898		729					3820	1568		2733	1348
v/s Ratio Prot	0.13							0.43			c0.54	
v/s Ratio Perm			c0.23						0.33			0.59
v/c Ratio	0.51		0.87					0.72	0.33		0.90	0.59
Uniform Delay, d1	18.7		21.0					8.3	0.0		10.3	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.5		11.3					0.7	0.6		4.3	1.9
Delay (s)	19.1		32.3					9.0	0.6		14.6	1.9
Level of Service	B		C					A	A		B	A
Approach Delay (s)		26.9			0.0			7.6			11.6	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	59.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	438	0	1136	0	2071	1120	0	3373	1268
Future Volume (vph)	0	0	0	438	0	1136	0	2071	1120	0	3373	1268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		0.98	0.85		0.98	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4643	1348		5872	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4643	1348		5872	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	438	0	1136	0	2071	1120	0	3373	1268
RTOR Reduction (vph)	0	0	0	0	0	22	0	20	0	0	17	0
Lane Group Flow (vph)	0	0	0	438	0	1114	0	2454	717	0	3800	824
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				38.0		38.0		84.0	130.0		84.0	130.0
Effective Green, g (s)				38.0		38.0		84.0	130.0		84.0	130.0
Actuated g/C Ratio				0.29		0.29		0.65	1.00		0.65	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				993		1045		3000	1348		3794	1270
v/s Ratio Prot				0.13				0.53			c0.65	
v/s Ratio Perm						c0.31			0.53			0.65
v/c Ratio				0.44		1.07		0.82	0.53		1.00	0.65
Uniform Delay, d1				37.4		46.0		17.3	0.0		23.0	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.3		47.2		1.8	1.5		15.0	2.6
Delay (s)				37.7		93.2		19.1	1.5		38.0	2.6
Level of Service				D		F		B	A		D	A
Approach Delay (s)		0.0			77.8			15.1			31.7	
Approach LOS		A			E			B			C	

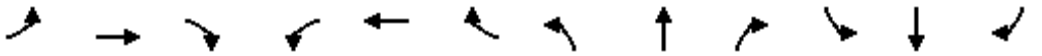
Intersection Summary			
HCM 2000 Control Delay	33.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	570	535	334	709	358	306
Future Volume (vph)	570	535	334	709	358	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	570	535	334	709	358	306
RTOR Reduction (vph)	0	388	0	0	0	238
Lane Group Flow (vph)	570	147	334	709	358	68
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	14.8	14.8	15.1	33.9	12.0	12.0
Effective Green, g (s)	14.8	14.8	15.1	33.9	12.0	12.0
Actuated g/C Ratio	0.27	0.27	0.28	0.63	0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	866	387	441	1983	681	314
v/s Ratio Prot	c0.18		c0.21	0.22	c0.12	
v/s Ratio Perm		0.10				0.05
v/c Ratio	0.66	0.38	0.76	0.36	0.53	0.22
Uniform Delay, d1	17.3	15.8	17.7	4.8	18.4	17.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.8	0.6	7.3	0.1	0.7	0.3
Delay (s)	19.1	16.5	25.0	4.9	19.2	17.5
Level of Service	B	B	C	A	B	B
Approach Delay (s)	17.8			11.3	18.4	
Approach LOS	B			B	B	

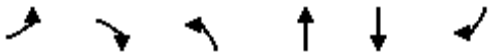
Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	53.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	481	0	1	225	33	1	1	0	45	2	455
Future Volume (vph)	219	481	0	1	225	33	1	1	0	45	2	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00		0.95	0.95	1.00
Frt	1.00	1.00		1.00	0.98			1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (prot)	1736	3471		1736	3405			1800		1665	1676	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (perm)	1736	3471		1736	3405			1800		1665	1676	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	481	0	1	225	33	1	1	0	45	2	455
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	0	378
Lane Group Flow (vph)	219	481	0	1	243	0	0	2	0	23	24	77
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	10.8	22.4		0.5	12.1			0.8		8.1	8.1	8.1
Effective Green, g (s)	10.8	22.4		0.5	12.1			0.8		8.1	8.1	8.1
Actuated g/C Ratio	0.23	0.47		0.01	0.25			0.02		0.17	0.17	0.17
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	392	1626		18	861			30		282	284	265
v/s Ratio Prot	c0.13	c0.14		0.00	0.07			c0.00		0.01	0.01	
v/s Ratio Perm												c0.05
v/c Ratio	0.56	0.30		0.06	0.28			0.07		0.08	0.08	0.29
Uniform Delay, d1	16.4	7.8		23.4	14.4			23.1		16.7	16.7	17.3
Progression Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	1.7	0.1		1.3	0.2			0.9		0.1	0.1	0.6
Delay (s)	18.1	7.9		24.7	14.5			24.1		16.8	16.9	18.0
Level of Service	B	A		C	B			C		B	B	B
Approach Delay (s)		11.1			14.6			24.1			17.8	
Approach LOS		B			B			C			B	

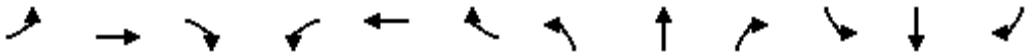
Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	47.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	392	27	21	881	655	98
Future Volume (vph)	392	27	21	881	655	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.99		1.00	1.00	0.98	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1747		1752	1845	1812	
Flt Permitted	0.96		0.95	1.00	1.00	
Satd. Flow (perm)	1747		1752	1845	1812	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	392	27	21	881	655	98
RTOR Reduction (vph)	4	0	0	0	8	0
Lane Group Flow (vph)	415	0	21	881	745	0
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	16.5		0.7	35.1	30.4	
Effective Green, g (s)	16.5		0.7	35.1	30.4	
Actuated g/C Ratio	0.28		0.01	0.59	0.51	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	483		20	1086	924	
v/s Ratio Prot	c0.24		0.01	c0.48	0.41	
v/s Ratio Perm						
v/c Ratio	0.86		1.05	0.81	0.81	
Uniform Delay, d1	20.5		29.4	9.6	12.2	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	14.5		217.8	4.7	5.2	
Delay (s)	34.9		247.2	14.3	17.4	
Level of Service	C		F	B	B	
Approach Delay (s)	34.9			19.8	17.4	
Approach LOS	C			B	B	

Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		

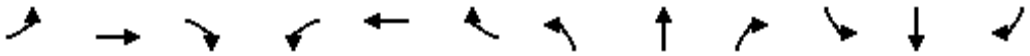
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	178	13	42	107	8	68	20	1384	49	45	547	30
Future Volume (vph)	178	13	42	107	8	68	20	1384	49	45	547	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	3487		1752	3478	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	1752	3487		1752	3478	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	178	13	42	107	8	68	20	1384	49	45	547	30
RTOR Reduction (vph)	0	0	39	0	0	64	0	3	0	0	4	0
Lane Group Flow (vph)	178	13	3	107	8	4	20	1430	0	45	573	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	9.2	5.6	5.6	7.5	3.9	3.9	1.1	36.3		2.1	37.3	
Effective Green, g (s)	9.2	5.6	5.6	7.5	3.9	3.9	1.1	36.3		2.1	37.3	
Actuated g/C Ratio	0.14	0.08	0.08	0.11	0.06	0.06	0.02	0.54		0.03	0.55	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	238	153	130	194	106	90	28	1875		54	1921	
v/s Ratio Prot	c0.10	c0.01		0.06	0.00		0.01	c0.41		c0.03	0.16	
v/s Ratio Perm			0.00			0.00						
v/c Ratio	0.75	0.08	0.03	0.55	0.08	0.04	0.71	0.76		0.83	0.30	
Uniform Delay, d1	28.0	28.6	28.4	28.4	30.1	30.0	33.0	12.2		32.5	8.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.1	0.2	0.1	3.4	0.3	0.2	60.5	1.9		65.0	0.1	
Delay (s)	40.1	28.8	28.5	31.8	30.4	30.2	93.6	14.1		97.5	8.2	
Level of Service	D	C	C	C	C	C	F	B		F	A	
Approach Delay (s)		37.4			31.1			15.2			14.6	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	3	41	0	4	33	15	1108	0	60	631	65
Future Volume (vph)	47	3	41	0	4	33	15	1108	0	60	631	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568		1845	1568	1752	3505		1752	3456	
Flt Permitted	0.95	1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1845	1568		1845	1568	1752	3505		1752	3456	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	47	3	41	0	4	33	15	1108	0	60	631	65
RTOR Reduction (vph)	0	0	35	0	0	32	0	0	0	0	8	0
Lane Group Flow (vph)	47	3	6	0	4	1	15	1108	0	60	688	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	1.0	6.9	6.9		1.9	1.9	0.5	26.6		2.2	28.3	
Effective Green, g (s)	1.0	6.9	6.9		1.9	1.9	0.5	26.6		2.2	28.3	
Actuated g/C Ratio	0.02	0.14	0.14		0.04	0.04	0.01	0.56		0.05	0.59	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	36	266	226		73	62	18	1954		80	2050	
v/s Ratio Prot	c0.03	0.00			0.00		0.01	c0.32		c0.03	0.20	
v/s Ratio Perm			c0.00			0.00						
v/c Ratio	1.31	0.01	0.03		0.05	0.02	0.83	0.57		0.75	0.34	
Uniform Delay, d1	23.4	17.5	17.5		22.0	22.0	23.6	6.8		22.5	4.9	
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	253.4	0.0	0.0		0.3	0.1	131.9	0.4		32.0	0.1	
Delay (s)	276.8	17.5	17.6		22.4	22.1	155.5	7.2		54.5	5.0	
Level of Service	F	B	B		C	C	F	A		D	A	
Approach Delay (s)		151.4			22.2			9.2			9.0	
Approach LOS		F			C			A			A	

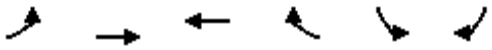
Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	47.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	635	23	33	552	99	124
Future Volume (vph)	635	23	33	552	99	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3486		1752	3505	1752	1568
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3486		1752	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	635	23	33	552	99	124
RTOR Reduction (vph)	4	0	0	0	0	102
Lane Group Flow (vph)	654	0	33	552	99	22
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)	16.9		0.6	21.5	6.2	6.2
Effective Green, g (s)	16.9		0.6	21.5	6.2	6.2
Actuated g/C Ratio	0.47		0.02	0.60	0.17	0.17
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1650		29	2110	304	272
v/s Ratio Prot	c0.19		c0.02	0.16	c0.06	
v/s Ratio Perm						0.01
v/c Ratio	0.40		1.14	0.26	0.33	0.08
Uniform Delay, d1	6.1		17.6	3.4	12.9	12.4
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		212.0	0.1	0.6	0.1
Delay (s)	6.3		229.5	3.4	13.5	12.5
Level of Service	A		F	A	B	B
Approach Delay (s)	6.3			16.2	13.0	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	35.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	264	511	423	432	161	77
Future Volume (vph)	264	511	423	432	161	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	1845	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	1845	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	264	511	423	432	161	77
RTOR Reduction (vph)	0	0	0	314	0	60
Lane Group Flow (vph)	264	511	423	118	161	17
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	10.3	26.3	12.0	12.0	9.5	9.5
Effective Green, g (s)	10.3	26.3	12.0	12.0	9.5	9.5
Actuated g/C Ratio	0.24	0.60	0.27	0.27	0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	412	1107	960	429	380	340
v/s Ratio Prot	c0.15	c0.28	0.12		c0.09	
v/s Ratio Perm				0.08		0.01
v/c Ratio	0.64	0.46	0.44	0.28	0.42	0.05
Uniform Delay, d1	15.1	4.8	13.1	12.5	14.8	13.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.3	0.3	0.4	0.8	0.1
Delay (s)	18.5	5.1	13.5	12.8	15.6	13.6
Level of Service	B	A	B	B	B	B
Approach Delay (s)		9.7	13.1		14.9	
Approach LOS		A	B		B	

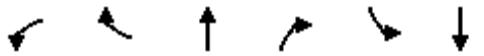
Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	43.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2435	24	19	2049	105	58
Future Volume (vph)	2435	24	19	2049	105	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3500		1752	3505	1752	1568
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3500		1752	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2435	24	19	2049	105	58
RTOR Reduction (vph)	1	0	0	0	0	48
Lane Group Flow (vph)	2458	0	19	2049	105	10
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)	69.3		1.1	74.4	10.7	10.7
Effective Green, g (s)	69.3		1.1	74.4	10.7	10.7
Actuated g/C Ratio	0.74		0.01	0.80	0.11	0.11
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2605		20	2800	201	180
v/s Ratio Prot	c0.70		0.01	c0.58	c0.06	
v/s Ratio Perm						0.01
v/c Ratio	0.94		0.95	0.73	0.52	0.06
Uniform Delay, d1	10.2		46.0	4.5	38.8	36.7
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	8.0		175.6	1.0	2.4	0.1
Delay (s)	18.2		221.6	5.5	41.2	36.8
Level of Service	B		F	A	D	D
Approach Delay (s)	18.2			7.5	39.7	
Approach LOS	B			A	D	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	93.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		

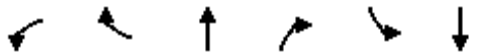
c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	49	70	1297	37	54	1038
Future Volume (vph)	49	70	1297	37	54	1038
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		0.97	0.95
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1568	3490		3400	3505
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1568	3490		3400	3505
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	49	70	1297	37	54	1038
RTOR Reduction (vph)	0	64	2	0	0	0
Lane Group Flow (vph)	49	6	1332	0	54	1038
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	4.4	4.4	32.5		1.1	37.6
Effective Green, g (s)	4.4	4.4	32.5		1.1	37.6
Actuated g/C Ratio	0.09	0.09	0.65		0.02	0.75
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	154	137	2268		74	2635
v/s Ratio Prot	c0.03		c0.38		0.02	c0.30
v/s Ratio Perm		0.00				
v/c Ratio	0.32	0.04	0.59		0.73	0.39
Uniform Delay, d1	21.4	20.9	5.0		24.3	2.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.2	0.1	0.4		29.9	0.4
Delay (s)	22.6	21.0	5.3		54.2	2.6
Level of Service	C	C	A		D	A
Approach Delay (s)	21.7		5.3			5.2
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	6.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	50	0	2335	102	0	1492
Future Volume (vph)	50	0	2335	102	0	1492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.91			0.95
Frt	1.00		0.99			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1752		5004			3505
Flt Permitted	0.95		1.00			1.00
Satd. Flow (perm)	1752		5004			3505
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	50	0	2335	102	0	1492
RTOR Reduction (vph)	0	0	3	0	0	0
Lane Group Flow (vph)	50	0	2434	0	0	1492
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	3.1		45.7			45.7
Effective Green, g (s)	3.1		45.7			45.7
Actuated g/C Ratio	0.05		0.80			0.80
Clearance Time (s)	4.0		4.0			4.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	95		4026			2820
v/s Ratio Prot	c0.03		c0.49			0.43
v/s Ratio Perm						
v/c Ratio	0.53		0.60			0.53
Uniform Delay, d1	26.1		2.1			1.9
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	5.2		0.3			0.2
Delay (s)	31.3		2.4			2.1
Level of Service	C		A			A
Approach Delay (s)	31.3		2.4			2.1
Approach LOS	C		A			A

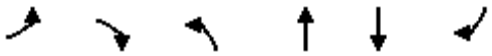
Intersection Summary			
HCM 2000 Control Delay	2.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	186	342	1781	370	865	255
Future Volume (vph)	186	342	1781	370	865	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1568	4906		1752	5036
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1568	4906		1752	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	186	342	1781	370	865	255
RTOR Reduction (vph)	0	265	32	0	0	0
Lane Group Flow (vph)	186	77	2119	0	865	255
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	3		2		1	6
Permitted Phases		3				
Actuated Green, G (s)	8.0	8.0	39.0		41.0	84.0
Effective Green, g (s)	8.0	8.0	39.0		41.0	84.0
Actuated g/C Ratio	0.08	0.08	0.39		0.41	0.84
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	140	125	1913		718	4230
v/s Ratio Prot	c0.11		c0.43		c0.49	0.05
v/s Ratio Perm		0.05				
v/c Ratio	1.33	0.62	1.11		1.20	0.06
Uniform Delay, d1	46.0	44.5	30.5		29.5	1.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	188.6	8.7	56.8		105.1	0.0
Delay (s)	234.6	53.2	87.3		134.6	1.4
Level of Service	F	D	F		F	A
Approach Delay (s)	117.1		87.3			104.2
Approach LOS	F		F			F

Intersection Summary			
HCM 2000 Control Delay	96.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	110.9%	ICU Level of Service	H
Analysis Period (min)	15		

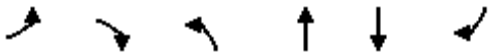
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	141	63	63	1735	240	82
Future Volume (vph)	141	63	63	1735	240	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	4844	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	4844	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	141	63	63	1735	240	82
RTOR Reduction (vph)	0	52	0	0	41	0
Lane Group Flow (vph)	141	11	63	1735	281	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	7.1	7.1	1.8	26.8	21.0	
Effective Green, g (s)	7.1	7.1	1.8	26.8	21.0	
Actuated g/C Ratio	0.17	0.17	0.04	0.64	0.50	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	296	265	75	3221	2427	
v/s Ratio Prot	c0.08		0.04	c0.34	0.06	
v/s Ratio Perm		0.01				
v/c Ratio	0.48	0.04	0.84	0.54	0.12	
Uniform Delay, d1	15.7	14.6	19.9	4.2	5.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	0.1	52.9	0.2	0.0	
Delay (s)	16.9	14.6	72.8	4.3	5.6	
Level of Service	B	B	E	A	A	
Approach Delay (s)	16.2			6.7	5.6	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	41.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

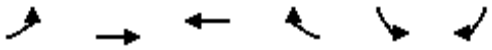
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	109	128	384	784	498	369
Future Volume (vph)	109	128	384	784	498	369
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.94	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	3505	3281	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	3505	3281	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	109	128	384	784	498	369
RTOR Reduction (vph)	0	110	0	0	211	0
Lane Group Flow (vph)	109	18	384	784	656	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	6.8	6.8	14.9	34.0	15.1	
Effective Green, g (s)	6.8	6.8	14.9	34.0	15.1	
Actuated g/C Ratio	0.14	0.14	0.31	0.70	0.31	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	244	218	534	2442	1015	
v/s Ratio Prot	c0.06		c0.22	0.22	c0.20	
v/s Ratio Perm		0.01				
v/c Ratio	0.45	0.08	0.72	0.32	0.65	
Uniform Delay, d1	19.3	18.3	15.1	2.9	14.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.3	0.2	4.6	0.1	1.4	
Delay (s)	20.6	18.4	19.7	3.0	16.0	
Level of Service	C	B	B	A	B	
Approach Delay (s)	19.4			8.5	16.0	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	48.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

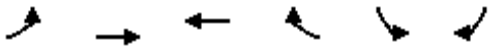
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	357	470	310	100	7	0
Future Volume (vph)	357	470	310	100	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	1.00	
Flt Protected	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (prot)	1752	1845	1845	1568	1752	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (perm)	1752	1845	1845	1568	1752	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	357	470	310	100	7	0
RTOR Reduction (vph)	0	0	0	72	0	0
Lane Group Flow (vph)	357	470	310	28	7	0
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	13.9	30.2	12.3	12.3	5.8	
Effective Green, g (s)	13.9	30.2	12.3	12.3	5.8	
Actuated g/C Ratio	0.32	0.69	0.28	0.28	0.13	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	553	1266	515	438	230	
v/s Ratio Prot	c0.20	0.25	c0.17		c0.00	
v/s Ratio Perm				0.02		
v/c Ratio	0.65	0.37	0.60	0.06	0.03	
Uniform Delay, d1	12.9	2.9	13.7	11.6	16.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.6	0.2	2.0	0.1	0.1	
Delay (s)	15.5	3.1	15.7	11.7	16.7	
Level of Service	B	A	B	B	B	
Approach Delay (s)		8.5	14.7		16.7	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	44.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

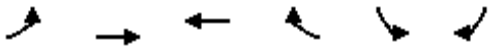
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	801	1052	1727	102	37	391
Future Volume (vph)	801	1052	1727	102	37	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.95	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3400	3505	4994		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3400	3505	4994		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	801	1052	1727	102	37	391
RTOR Reduction (vph)	0	0	7	0	0	343
Lane Group Flow (vph)	801	1052	1822	0	37	48
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	20.2	54.4	30.2		8.8	8.8
Effective Green, g (s)	20.2	54.4	30.2		8.8	8.8
Actuated g/C Ratio	0.28	0.76	0.42		0.12	0.12
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	964	2677	2118		216	193
v/s Ratio Prot	c0.24	0.30	c0.36		0.02	
v/s Ratio Perm						c0.03
v/c Ratio	0.83	0.39	0.86		0.17	0.25
Uniform Delay, d1	23.9	2.8	18.6		27.9	28.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.2	0.1	3.8		0.4	0.7
Delay (s)	30.1	2.9	22.4		28.3	28.9
Level of Service	C	A	C		C	C
Approach Delay (s)		14.7	22.4		28.9	
Approach LOS		B	C		C	

Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	71.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

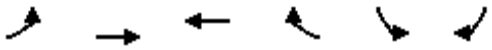
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	140	683	1606	40	47	149
Future Volume (vph)	140	683	1606	40	47	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	3505	3505	1568	3400	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	3505	3505	1568	3400	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	140	683	1606	40	47	149
RTOR Reduction (vph)	0	0	0	16	0	129
Lane Group Flow (vph)	140	683	1606	24	47	20
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	3.1	37.3	30.2	30.2	5.5	5.5
Effective Green, g (s)	3.1	37.3	30.2	30.2	5.5	5.5
Actuated g/C Ratio	0.06	0.73	0.59	0.59	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	2573	2083	932	368	169
v/s Ratio Prot	c0.04	0.19	c0.46		c0.01	
v/s Ratio Perm				0.02		0.01
v/c Ratio	0.68	0.27	0.77	0.03	0.13	0.12
Uniform Delay, d1	23.4	2.2	7.7	4.2	20.5	20.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.4	0.1	1.8	0.0	0.2	0.3
Delay (s)	31.8	2.3	9.5	4.3	20.6	20.8
Level of Service	C	A	A	A	C	C
Approach Delay (s)		7.3	9.4		20.7	
Approach LOS		A	A		C	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	50.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	105	652	1350	9	29	211
Future Volume (vph)	105	652	1350	9	29	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	3505	3501		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	3505	3501		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	105	652	1350	9	29	211
RTOR Reduction (vph)	0	0	0	0	0	181
Lane Group Flow (vph)	105	652	1359	0	29	30
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	4.7	35.6	26.9		7.1	7.1
Effective Green, g (s)	4.7	35.6	26.9		7.1	7.1
Actuated g/C Ratio	0.09	0.70	0.53		0.14	0.14
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	162	2461	1857		245	219
v/s Ratio Prot	c0.06	0.19	c0.39		0.02	
v/s Ratio Perm						c0.02
v/c Ratio	0.65	0.26	0.73		0.12	0.13
Uniform Delay, d1	22.2	2.8	9.1		19.1	19.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	8.6	0.1	1.5		0.2	0.3
Delay (s)	30.8	2.8	10.6		19.3	19.4
Level of Service	C	A	B		B	B
Approach Delay (s)		6.7	10.6		19.4	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	50.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	562	161	243	767	187	370
Future Volume (vph)	562	161	243	767	187	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1568	3400	3505	3400	1568
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1568	3400	3505	3400	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	562	161	243	767	187	370
RTOR Reduction (vph)	0	109	0	0	0	209
Lane Group Flow (vph)	562	52	243	767	187	161
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	11.4	11.4	3.1	18.5	9.0	9.0
Effective Green, g (s)	11.4	11.4	3.1	18.5	9.0	9.0
Actuated g/C Ratio	0.32	0.32	0.09	0.52	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1125	503	296	1826	861	397
v/s Ratio Prot	0.16		c0.07	c0.22	0.06	
v/s Ratio Perm		0.03				c0.10
v/c Ratio	0.50	0.10	0.82	0.42	0.22	0.41
Uniform Delay, d1	9.7	8.5	15.9	5.2	10.5	11.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	16.5	0.2	0.1	0.7
Delay (s)	10.1	8.5	32.4	5.4	10.6	11.7
Level of Service	B	A	C	A	B	B
Approach Delay (s)	9.8			11.9	11.3	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	35.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	932	0	215	1010	0	60
Future Volume (vph)	932	0	215	1010	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	0.95		1.00	0.95		1.00
Frt	1.00		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	3505		1752	3505		1568
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	3505		1752	3505		1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	932	0	215	1010	0	60
RTOR Reduction (vph)	0	0	0	0	0	56
Lane Group Flow (vph)	932	0	215	1010	0	4
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)	21.1		10.3	35.4		3.0
Effective Green, g (s)	21.1		10.3	35.4		3.0
Actuated g/C Ratio	0.45		0.22	0.76		0.06
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	1593		388	2674		101
v/s Ratio Prot	c0.27		c0.12	0.29		
v/s Ratio Perm						c0.00
v/c Ratio	0.59		0.55	0.38		0.04
Uniform Delay, d1	9.4		16.0	1.8		20.3
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.6		1.7	0.1		0.2
Delay (s)	10.0		17.7	1.9		20.5
Level of Service	A		B	A		C
Approach Delay (s)	10.0			4.7	20.5	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	46.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	0	223	311	478	552	0	1372	980	0	1550	278
Future Volume (veh/h)	96	0	223	311	478	552	0	1372	980	0	1550	278
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1827	1827	1827	0	1827	1827	0	1827	1827
Adj Flow Rate, veh/h	96	0	223	311	754	368	0	1372	0	0	1550	278
Adj No. of Lanes	0	1	2	2	2	1	0	3	1	0	4	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	0	4	4	0	4	4
Cap, veh/h	225	0	354	977	1025	436	0	1861	580	0	2346	580
Arrive On Green	0.13	0.00	0.13	0.28	0.28	0.28	0.00	0.37	0.00	0.00	0.37	0.37
Sat Flow, veh/h	1757	0	2760	3480	3654	1553	0	5152	1553	0	6540	1553
Grp Volume(v), veh/h	96	0	223	311	754	368	0	1372	0	0	1550	278
Grp Sat Flow(s),veh/h/ln	1757	0	1380	1740	1827	1553	0	1663	1553	0	1571	1553
Q Serve(g_s), s	2.8	0.0	4.2	3.9	10.3	12.3	0.0	13.1	0.0	0.0	11.3	7.5
Cycle Q Clear(g_c), s	2.8	0.0	4.2	3.9	10.3	12.3	0.0	13.1	0.0	0.0	11.3	7.5
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	225	0	354	977	1025	436	0	1861	580	0	2346	580
V/C Ratio(X)	0.43	0.00	0.63	0.32	0.74	0.84	0.00	0.74	0.00	0.00	0.66	0.48
Avail Cap(c_a), veh/h	510	0	802	1011	1062	451	0	1902	592	0	2397	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	22.1	0.0	22.8	15.6	18.0	18.7	0.0	14.9	0.0	0.0	14.4	13.2
Incr Delay (d2), s/veh	1.3	0.0	1.9	0.2	2.6	13.4	0.0	1.5	0.0	0.0	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.7	1.9	5.5	6.8	0.0	6.2	0.0	0.0	5.0	3.3
LnGrp Delay(d),s/veh	23.4	0.0	24.6	15.8	20.6	32.0	0.0	16.4	0.0	0.0	15.0	13.8
LnGrp LOS	C		C	B	C	C		B			B	B
Approach Vol, veh/h		319			1433			1372			1828	
Approach Delay, s/veh		24.3			22.5			16.4			14.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		24.6		11.1		24.6		19.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		21.0		16.0		21.0		16.0
Max Q Clear Time (g_c+I1), s		15.1		6.2		13.3		14.3
Green Ext Time (p_c), s		5.5		0.9		7.0		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.1
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	31	142	10	84	26	152	1470	19	16	812	131
Future Volume (veh/h)	355	31	142	10	84	26	152	1470	19	16	812	131
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	377	0	142	10	84	26	152	1470	19	16	812	131
Adj No. of Lanes	2	0	1	0	1	0	2	3	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	611	0	273	13	112	35	252	1982	26	28	1152	515
Arrive On Green	0.17	0.00	0.17	0.09	0.09	0.09	0.07	0.39	0.39	0.02	0.33	0.33
Sat Flow, veh/h	3514	0	1568	146	1227	380	3375	5075	66	1740	3471	1553
Grp Volume(v), veh/h	377	0	142	120	0	0	152	963	526	16	812	131
Grp Sat Flow(s),veh/h/ln	1757	0	1568	1753	0	0	1688	1663	1815	1740	1736	1553
Q Serve(g_s), s	4.8	0.0	4.0	3.3	0.0	0.0	2.1	12.1	12.1	0.4	9.9	3.0
Cycle Q Clear(g_c), s	4.8	0.0	4.0	3.3	0.0	0.0	2.1	12.1	12.1	0.4	9.9	3.0
Prop In Lane	1.00		1.00	0.08		0.22	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	611	0	273	160	0	0	252	1298	709	28	1152	515
V/C Ratio(X)	0.62	0.00	0.52	0.75	0.00	0.00	0.60	0.74	0.74	0.58	0.71	0.25
Avail Cap(c_a), veh/h	1154	0	515	576	0	0	347	1570	857	143	1568	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	18.3	21.6	0.0	0.0	21.8	12.7	12.7	23.8	14.2	11.9
Incr Delay (d2), s/veh	1.0	0.0	1.5	7.0	0.0	0.0	2.3	1.5	2.8	17.4	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	1.9	1.9	0.0	0.0	1.1	5.8	6.5	0.3	4.9	1.3
LnGrp Delay(d),s/veh	19.6	0.0	19.8	28.6	0.0	0.0	24.1	14.3	15.5	41.2	15.1	12.1
LnGrp LOS	B		B	C			C	B	B	D	B	B
Approach Vol, veh/h		519			120			1641			959	
Approach Delay, s/veh		19.7			28.6			15.6			15.1	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	23.0		12.5	7.6	20.2		8.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	23.0		16.0	5.0	22.0		16.0
Max Q Clear Time (g_c+I1), s	2.4	14.1		6.8	4.1	11.9		5.3
Green Ext Time (p_c), s	0.8	4.9		1.6	0.0	3.5		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.6
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	726	37	67	632	425	100	1120	148	248	469	68
Future Volume (veh/h)	216	726	37	67	632	425	100	1120	148	248	469	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	216	726	37	67	632	425	100	1120	148	248	469	68
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	242	981	50	85	701	314	163	1157	153	295	1437	643
Arrive On Green	0.14	0.29	0.29	0.05	0.20	0.20	0.05	0.38	0.38	0.09	0.41	0.41
Sat Flow, veh/h	1757	3394	173	1757	3505	1568	3375	3084	407	3375	3471	1553
Grp Volume(v), veh/h	216	375	388	67	632	425	100	629	639	248	469	68
Grp Sat Flow(s),veh/h/ln	1757	1752	1814	1757	1752	1568	1688	1736	1755	1688	1736	1553
Q Serve(g_s), s	9.7	15.5	15.5	3.0	14.1	16.0	2.3	28.4	28.6	5.8	7.3	2.1
Cycle Q Clear(g_c), s	9.7	15.5	15.5	3.0	14.1	16.0	2.3	28.4	28.6	5.8	7.3	2.1
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	242	506	524	85	701	314	163	651	658	295	1437	643
V/C Ratio(X)	0.89	0.74	0.74	0.79	0.90	1.36	0.61	0.97	0.97	0.84	0.33	0.11
Avail Cap(c_a), veh/h	242	506	524	110	701	314	211	651	658	295	1437	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	25.7	25.7	37.6	31.2	32.0	37.3	24.5	24.6	35.9	15.9	14.4
Incr Delay (d2), s/veh	31.6	5.7	5.6	24.0	14.9	179.4	3.7	27.1	27.7	18.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	8.3	8.6	2.0	8.2	22.5	1.2	18.4	18.9	3.5	3.5	0.9
LnGrp Delay(d),s/veh	65.5	31.4	31.3	61.7	46.1	211.4	41.0	51.7	52.3	54.9	16.0	14.4
LnGrp LOS	E	C	C	E	D	F	D	D	D	D	B	B
Approach Vol, veh/h		979			1124			1368			785	
Approach Delay, s/veh		38.9			109.5			51.2			28.2	
Approach LOS		D			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	34.0	7.9	27.1	7.9	37.1	15.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	5.0	22.0	5.0	32.0	11.0	16.0
Max Q Clear Time (g_c+I1), s	7.8	30.6	5.0	17.5	4.3	9.3	11.7	18.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.1	0.0	9.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.5
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1279	136	190	1628	88	14	536	111	58	474	2
Future Volume (veh/h)	10	1279	136	190	1628	88	14	536	111	58	474	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	10	1279	136	190	1628	88	14	536	111	58	474	2
Adj No. of Lanes	1	1	2	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	16	1111	1663	159	2315	124	21	537	240	47	602	3
Arrive On Green	0.01	0.62	0.62	0.09	0.70	0.70	0.01	0.15	0.15	0.03	0.17	0.17
Sat Flow, veh/h	1707	1792	2682	1707	3287	177	1757	3505	1568	1757	3579	15
Grp Volume(v), veh/h	10	1279	136	190	839	877	14	536	111	58	232	244
Grp Sat Flow(s),veh/h/ln	1707	1792	1341	1707	1703	1761	1757	1752	1568	1757	1752	1842
Q Serve(g_s), s	0.9	93.0	3.0	14.0	43.1	44.0	1.2	22.9	9.7	4.0	19.0	19.0
Cycle Q Clear(g_c), s	0.9	93.0	3.0	14.0	43.1	44.0	1.2	22.9	9.7	4.0	19.0	19.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	16	1111	1663	159	1199	1240	21	537	240	47	295	310
V/C Ratio(X)	0.64	1.15	0.08	1.19	0.70	0.71	0.68	1.00	0.46	1.24	0.79	0.79
Avail Cap(c_a), veh/h	46	1111	1663	159	1199	1240	47	537	240	47	295	310
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.1	28.5	11.4	68.0	12.9	13.1	73.8	63.5	57.9	73.0	59.8	59.8
Incr Delay (d2), s/veh	36.9	78.6	0.0	132.4	1.8	1.9	32.1	38.1	1.4	209.4	13.2	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	69.9	1.1	12.5	20.7	21.8	0.8	13.9	4.3	4.7	10.3	10.8
LnGrp Delay(d),s/veh	111.0	107.1	11.4	200.4	14.8	14.9	106.0	101.6	59.2	282.4	73.0	72.5
LnGrp LOS	F	F	B	F	B	B	F	F	E	F	E	E
Approach Vol, veh/h		1425			1906			661			534	
Approach Delay, s/veh		98.0			33.3			94.6			95.5	
Approach LOS		F			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	27.0	18.0	97.0	5.8	29.2	5.4	109.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	23.0	14.0	93.0	4.0	23.0	4.0	103.0
Max Q Clear Time (g_c+I1), s	6.0	24.9	16.0	95.0	3.2	21.0	2.9	46.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.1	0.0	39.5

Intersection Summary	
HCM 2010 Ctrl Delay	70.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	778	165	151	768	62	370	377	284	7	316	65
Future Volume (veh/h)	81	778	165	151	768	62	370	377	284	7	316	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	81	778	165	151	768	62	370	377	284	7	316	65
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	103	903	404	183	996	80	416	1374	615	13	570	255
Arrive On Green	0.06	0.26	0.26	0.10	0.30	0.30	0.24	0.39	0.39	0.01	0.16	0.16
Sat Flow, veh/h	1757	3505	1568	1757	3285	265	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	81	778	165	151	410	420	370	377	284	7	316	65
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1798	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	3.1	14.2	5.9	5.6	14.2	14.3	13.7	4.9	9.0	0.3	5.6	2.4
Cycle Q Clear(g_c), s	3.1	14.2	5.9	5.6	14.2	14.3	13.7	4.9	9.0	0.3	5.6	2.4
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	903	404	183	531	545	416	1374	615	13	570	255
V/C Ratio(X)	0.79	0.86	0.41	0.82	0.77	0.77	0.89	0.27	0.46	0.55	0.55	0.25
Avail Cap(c_a), veh/h	131	941	421	183	531	545	445	1568	702	105	889	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	23.8	20.7	29.4	21.2	21.2	24.7	13.9	15.1	33.2	25.8	24.5
Incr Delay (d2), s/veh	21.1	8.0	0.7	25.1	6.8	6.7	18.6	0.1	0.5	31.7	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	7.8	2.6	4.0	7.8	8.0	8.7	2.4	3.9	0.2	2.7	1.1
LnGrp Delay(d),s/veh	52.3	31.8	21.3	54.5	28.1	27.9	43.3	14.0	15.7	64.8	26.7	25.0
LnGrp LOS	D	C	C	D	C	C	D	B	B	E	C	C
Approach Vol, veh/h		1024			981			1031			388	
Approach Delay, s/veh		31.7			32.1			25.0			27.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	30.3	11.0	21.3	19.9	14.9	7.9	24.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	30.0	7.0	18.0	17.0	17.0	5.0	20.0
Max Q Clear Time (g_c+I1), s	2.3	11.0	7.6	16.2	15.7	7.6	5.1	16.3
Green Ext Time (p_c), s	0.0	4.6	0.0	1.1	0.2	3.3	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	237	508	108	47	445	94	132	787	150	0	248	108
Future Volume (veh/h)	237	508	108	47	445	94	132	787	150	0	248	108
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	237	508	108	47	445	94	132	787	150	0	248	108
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	290	1254	561	69	812	363	149	1223	547	4	628	281
Arrive On Green	0.16	0.36	0.36	0.04	0.23	0.23	0.08	0.35	0.35	0.00	0.18	0.18
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	237	508	108	47	445	94	132	787	150	0	248	108
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	6.1	5.1	2.2	1.2	5.3	2.3	3.5	8.9	3.2	0.0	2.9	2.9
Cycle Q Clear(g_c), s	6.1	5.1	2.2	1.2	5.3	2.3	3.5	8.9	3.2	0.0	2.9	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	1254	561	69	812	363	149	1223	547	4	628	281
V/C Ratio(X)	0.82	0.41	0.19	0.69	0.55	0.26	0.89	0.64	0.27	0.00	0.39	0.38
Avail Cap(c_a), veh/h	298	1412	632	186	1189	532	149	1223	547	149	1189	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	11.4	10.4	22.4	15.9	14.8	21.4	12.9	11.1	0.0	17.1	17.1
Incr Delay (d2), s/veh	15.9	0.2	0.2	11.5	0.6	0.4	42.2	1.2	0.3	0.0	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	2.5	1.0	0.8	2.6	1.0	3.4	4.5	1.4	0.0	1.4	1.3
LnGrp Delay(d),s/veh	34.9	11.6	10.6	33.9	16.5	15.2	63.6	14.1	11.3	0.0	17.5	17.9
LnGrp LOS	C	B	B	C	B	B	E	B	B		B	B
Approach Vol, veh/h		853			586			1069			356	
Approach Delay, s/veh		17.9			17.7			19.8			17.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	20.5	5.8	20.9	8.0	12.5	11.8	14.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	5.0	19.0	4.0	16.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	0.0	10.9	3.2	7.1	5.5	4.9	8.1	7.3
Green Ext Time (p_c), s	0.0	2.8	0.0	4.4	0.0	3.5	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	379	117	220	383	440	95	2486	290	561	2004	498
Future Volume (veh/h)	336	379	117	220	383	440	95	2486	290	561	2004	498
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	336	379	117	220	383	440	95	2486	290	561	2004	498
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	313	760	340	254	699	547	129	2254	702	505	2810	875
Arrive On Green	0.09	0.22	0.22	0.07	0.20	0.20	0.04	0.45	0.45	0.15	0.56	0.56
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	336	379	117	220	383	440	95	2486	290	561	2004	498
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	17.5	18.1	12.0	12.2	18.7	38.0	5.3	86.1	24.0	28.5	55.9	39.3
Cycle Q Clear(g_c), s	17.5	18.1	12.0	12.2	18.7	38.0	5.3	86.1	24.0	28.5	55.9	39.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	760	340	254	699	547	129	2254	702	505	2810	875
V/C Ratio(X)	1.07	0.50	0.34	0.87	0.55	0.80	0.74	1.10	0.41	1.11	0.71	0.57
Avail Cap(c_a), veh/h	313	760	340	277	699	547	179	2254	702	505	2810	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	86.5	65.5	63.1	87.2	68.5	56.1	90.7	52.2	35.2	81.0	30.4	26.7
Incr Delay (d2), s/veh	71.7	0.2	0.2	20.9	0.5	7.9	5.1	53.7	0.1	74.0	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	8.8	5.2	6.5	9.1	22.1	2.6	50.6	10.3	18.4	25.8	16.9
LnGrp Delay(d),s/veh	158.2	65.7	63.4	108.1	69.1	64.0	95.8	105.9	35.3	155.0	31.1	27.3
LnGrp LOS	F	E	E	F	E	E	F	F	D	F	C	C
Approach Vol, veh/h		832			1043			2871			3063	
Approach Delay, s/veh		102.7			75.2			98.4			53.2	
Approach LOS		F			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	112.1	23.0	42.6	34.0	90.9	19.7	45.9
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	10.1	104.3	17.5	* 38	28.5	* 86	15.5	39.7
Max Q Clear Time (g_c+I1), s	7.3	57.9	19.5	40.0	30.5	88.1	14.2	20.1
Green Ext Time (p_c), s	0.0	18.5	0.0	0.0	0.0	0.0	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	78.0
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	2	44	0	58	0	2716	103	30	2238	6
Future Volume (veh/h)	10	0	2	44	0	58	0	2716	103	30	2238	6
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	10	0	2	44	0	58	0	2716	103	30	2238	6
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	13	0	3	80	0	143	2	3211	1000	35	3761	10
Arrive On Green	0.01	0.00	0.01	0.05	0.00	0.05	0.00	0.64	0.64	0.02	0.73	0.73
Sat Flow, veh/h	1435	0	287	1757	0	3136	1740	4988	1553	1740	5136	14
Grp Volume(v), veh/h	12	0	0	44	0	58	0	2716	103	30	1449	795
Grp Sat Flow(s),veh/h/ln	1722	0	0	1757	0	1568	1740	1663	1553	1740	1663	1824
Q Serve(g_s), s	0.5	0.0	0.0	1.8	0.0	1.3	0.0	31.9	1.9	1.3	15.5	15.5
Cycle Q Clear(g_c), s	0.5	0.0	0.0	1.8	0.0	1.3	0.0	31.9	1.9	1.3	15.5	15.5
Prop In Lane	0.83		0.17	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	15	0	0	80	0	143	2	3211	1000	35	2435	1336
V/C Ratio(X)	0.79	0.00	0.00	0.55	0.00	0.41	0.00	0.85	0.10	0.85	0.60	0.60
Avail Cap(c_a), veh/h	69	0	0	281	0	502	70	3397	1058	70	2435	1336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	0.0	35.0	0.0	34.8	0.0	10.4	5.1	36.6	4.8	4.8
Incr Delay (d2), s/veh	27.3	0.0	0.0	2.2	0.0	0.7	0.0	2.6	0.1	17.8	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.9	0.0	0.6	0.0	15.1	0.8	0.8	7.1	8.1
LnGrp Delay(d),s/veh	64.4	0.0	0.0	37.2	0.0	35.5	0.0	13.1	5.2	54.4	5.6	6.3
LnGrp LOS	E			D		D		B	A	D	A	A
Approach Vol, veh/h		12			102			2819			2274	
Approach Delay, s/veh		64.4			36.2			12.8			6.5	
Approach LOS		E			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	59.9		6.2	6.6	53.3		8.9
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 3	51.4		3.0	* 3	* 51		12.0
Max Q Clear Time (g_c+I1), s	0.0	17.5		2.5	3.3	33.9		3.8
Green Ext Time (p_c), s	0.0	33.8		0.0	0.0	14.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	142	23	148	179	777	34	2115	149	553	1610	65
Future Volume (veh/h)	37	142	23	148	179	777	34	2115	149	553	1610	65
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	37	142	23	148	179	777	34	2115	149	553	1610	65
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	64	735	329	192	872	390	60	2103	147	484	2792	113
Arrive On Green	0.02	0.21	0.21	0.06	0.25	0.25	0.02	0.44	0.44	0.14	0.57	0.57
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4760	333	3375	4918	199
Grp Volume(v), veh/h	37	142	23	148	179	777	34	1473	791	553	1088	587
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1768	1688	1663	1792
Q Serve(g_s), s	1.6	5.0	1.8	6.4	6.1	37.3	1.5	66.2	66.2	21.5	31.5	31.5
Cycle Q Clear(g_c), s	1.6	5.0	1.8	6.4	6.1	37.3	1.5	66.2	66.2	21.5	31.5	31.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.11
Lane Grp Cap(c), veh/h	64	735	329	192	872	390	60	1469	781	484	1887	1017
V/C Ratio(X)	0.58	0.19	0.07	0.77	0.21	1.99	0.57	1.00	1.01	1.14	0.58	0.58
Avail Cap(c_a), veh/h	70	735	329	225	872	390	97	1469	781	484	1887	1017
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.9	48.5	47.3	69.8	44.5	56.3	73.0	41.8	41.8	64.2	20.8	20.8
Incr Delay (d2), s/veh	5.0	0.0	0.0	10.6	0.0	455.0	3.1	24.1	35.4	86.0	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.4	0.8	3.3	2.9	65.4	0.7	35.1	39.8	15.7	14.4	15.8
LnGrp Delay(d),s/veh	77.9	48.6	47.3	80.4	44.6	511.2	76.2	66.0	77.2	150.2	21.1	21.4
LnGrp LOS	E	D	D	F	D	F	E	F	F	F	C	C
Approach Vol, veh/h		202			1104			2298			2228	
Approach Delay, s/veh		53.8			377.8			70.0			53.2	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	90.4	8.4	43.0	27.0	71.5	13.9	37.4
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	4.3	83.3	3.1	* 37	21.5	* 66	9.9	* 31
Max Q Clear Time (g_c+I1), s	3.5	33.5	3.6	39.3	23.5	68.2	8.4	7.0
Green Ext Time (p_c), s	0.0	8.6	0.0	0.0	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	121.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	46	103	2126	24	61	1770
Future Volume (veh/h)	46	103	2126	24	61	1770
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	46	103	2126	24	61	1770
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	161	144	2729	31	74	2369
Arrive On Green	0.09	0.09	0.54	0.54	0.04	0.68
Sat Flow, veh/h	1757	1568	5249	57	1740	3563
Grp Volume(v), veh/h	46	103	1390	760	61	1770
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1817	1740	1736
Q Serve(g_s), s	1.1	2.9	15.2	15.2	1.6	15.1
Cycle Q Clear(g_c), s	1.1	2.9	15.2	15.2	1.6	15.1
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	161	144	1785	975	74	2369
V/C Ratio(X)	0.29	0.72	0.78	0.78	0.83	0.75
Avail Cap(c_a), veh/h	212	189	2364	1292	271	3367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	20.1	8.4	8.4	21.6	4.7
Incr Delay (d2), s/veh	0.4	4.9	0.8	1.6	8.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	7.0	7.8	0.9	7.0
LnGrp Delay(d),s/veh	19.7	25.1	9.2	10.0	30.0	5.0
LnGrp LOS	B	C	A	A	C	A
Approach Vol, veh/h	149		2150			1831
Approach Delay, s/veh	23.4		9.5			5.8
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		35.9			6.6	29.3		9.7
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		44.2			* 7.1	32.4		5.5
Max Q Clear Time (g_c+I1), s		17.1			3.6	17.2		4.9
Green Ext Time (p_c), s		8.9			0.0	7.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1322	106	283	1410	1114	407	1062	55	938	766	111
Future Volume (veh/h)	60	1322	106	283	1410	1114	407	1062	55	938	766	111
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	60	1322	106	283	1410	1114	407	1062	55	938	766	111
Adj No. of Lanes	1	1	0	2	2	1	2	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	35	687	55	125	1498	670	450	745	333	329	935	418
Arrive On Green	0.02	0.42	0.42	0.04	0.44	0.44	0.13	0.21	0.21	0.19	0.27	0.27
Sat Flow, veh/h	1707	1638	131	3312	3406	1524	3375	3471	1553	1740	3471	1553
Grp Volume(v), veh/h	60	0	1428	283	1410	1114	407	1062	55	938	766	111
Grp Sat Flow(s),veh/h/ln	1707	0	1769	1656	1703	1524	1688	1736	1553	1740	1736	1553
Q Serve(g_s), s	3.0	0.0	60.9	5.5	57.5	63.9	17.3	31.2	4.2	27.5	30.1	8.2
Cycle Q Clear(g_c), s	3.0	0.0	60.9	5.5	57.5	63.9	17.3	31.2	4.2	27.5	30.1	8.2
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	35	0	742	125	1498	670	450	745	333	329	935	418
V/C Ratio(X)	1.70	0.00	1.93	2.26	0.94	1.66	0.91	1.42	0.16	2.85	0.82	0.27
Avail Cap(c_a), veh/h	35	0	742	125	1498	670	469	745	333	329	935	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.1	0.0	42.2	69.9	38.9	40.7	62.1	57.1	46.4	58.9	49.8	41.8
Incr Delay (d2), s/veh	411.2	0.0	421.5	590.6	11.9	304.8	19.8	199.0	0.1	840.1	5.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	116.5	12.8	29.5	83.6	9.3	35.5	1.8	90.0	15.1	3.5
LnGrp Delay(d),s/veh	482.3	0.0	463.7	660.5	50.8	345.5	81.8	256.0	46.5	899.0	55.2	41.9
LnGrp LOS	F		F	F	D	F	F	F	D	F	E	D
Approach Vol, veh/h		1488			2807			1524			1815	
Approach Delay, s/veh		464.5			229.2			201.9			490.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	69.3	24.1	43.9	11.0	66.3	32.0	36.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.5	4.8
Max Green Setting (Gmax), s	3.0	* 64	* 20	38.3	5.5	* 61	27.5	31.2
Max Q Clear Time (g_c+I1), s	5.0	65.9	19.3	32.1	7.5	62.9	29.5	33.2
Green Ext Time (p_c), s	0.0	0.0	0.1	2.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	331.7
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	738	43	60	439	249	134	803	52	160	688	247
Future Volume (veh/h)	161	738	43	60	439	249	134	803	52	160	688	247
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1828	1900	1845	1827	1827
Adj Flow Rate, veh/h	161	738	43	60	439	249	134	803	52	160	688	247
Adj No. of Lanes	1	1	1	1	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	3	4	4
Cap, veh/h	192	733	623	77	711	400	163	842	54	174	926	414
Arrive On Green	0.11	0.40	0.40	0.04	0.33	0.33	0.09	0.25	0.25	0.10	0.27	0.27
Sat Flow, veh/h	1757	1845	1568	1757	2164	1218	1740	3312	214	1757	3471	1553
Grp Volume(v), veh/h	161	738	43	60	355	333	134	421	434	160	688	247
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1752	1630	1740	1737	1790	1757	1736	1553
Q Serve(g_s), s	9.0	39.7	1.7	3.4	17.0	17.3	7.6	23.9	23.9	9.0	18.1	13.9
Cycle Q Clear(g_c), s	9.0	39.7	1.7	3.4	17.0	17.3	7.6	23.9	23.9	9.0	18.1	13.9
Prop In Lane	1.00		1.00	1.00		0.75	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	192	733	623	77	576	535	163	441	455	174	926	414
V/C Ratio(X)	0.84	1.01	0.07	0.78	0.62	0.62	0.82	0.95	0.95	0.92	0.74	0.60
Avail Cap(c_a), veh/h	283	733	623	77	576	535	190	441	455	174	926	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	30.1	18.7	47.3	28.3	28.3	44.5	36.7	36.7	44.6	33.5	32.0
Incr Delay (d2), s/veh	9.0	35.1	0.0	36.2	1.5	1.7	19.1	31.0	30.5	45.0	2.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	27.3	0.7	2.4	8.5	8.0	4.5	15.3	15.7	6.6	9.1	6.1
LnGrp Delay(d),s/veh	52.6	65.2	18.7	83.5	29.7	30.0	63.6	67.7	67.2	89.6	36.4	33.6
LnGrp LOS	D	F	B	F	C	C	E	E	E	F	D	C
Approach Vol, veh/h		942			748			989			1095	
Approach Delay, s/veh		60.9			34.2			66.9			43.6	
Approach LOS		E			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	31.5	16.4	38.1	15.2	30.2	9.6	45.0
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 11	25.1	16.1	* 28	* 9.9	25.4	* 4.4	* 40
Max Q Clear Time (g_c+I1), s	9.6	20.1	11.0	19.3	11.0	25.9	5.4	41.7
Green Ext Time (p_c), s	0.0	1.4	0.1	1.4	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	642	28	225	434	191	70	693	310	78	430	206
Future Volume (veh/h)	49	642	28	225	434	191	70	693	310	78	430	206
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	49	642	28	225	434	191	70	693	310	78	430	206
Adj No. of Lanes	0	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	39	506	465	343	360	306	86	615	528	57	590	502
Arrive On Green	0.30	0.30	0.30	0.20	0.20	0.20	0.05	0.34	0.34	0.03	0.32	0.32
Sat Flow, veh/h	130	1708	1568	1757	1845	1568	1740	1827	1568	1757	1827	1553
Grp Volume(v), veh/h	691	0	28	225	434	191	70	693	310	78	430	206
Grp Sat Flow(s),veh/h/ln	1838	0	1568	1757	1845	1568	1740	1827	1568	1757	1827	1553
Q Serve(g_s), s	51.9	0.0	2.2	20.7	34.2	19.5	7.0	58.9	28.6	5.7	36.5	18.1
Cycle Q Clear(g_c), s	51.9	0.0	2.2	20.7	34.2	19.5	7.0	58.9	28.6	5.7	36.5	18.1
Prop In Lane	0.07		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	545	0	465	343	360	306	86	615	528	57	590	502
V/C Ratio(X)	1.27	0.00	0.06	0.66	1.20	0.62	0.81	1.13	0.59	1.36	0.73	0.41
Avail Cap(c_a), veh/h	545	0	465	343	360	306	101	615	528	57	590	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.6	0.0	44.1	65.0	70.4	64.5	82.3	58.0	48.0	84.6	52.5	46.2
Incr Delay (d2), s/veh	134.4	0.0	0.0	4.5	115.2	3.9	28.8	76.6	1.2	242.9	4.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	46.7	0.0	1.0	10.5	29.0	8.8	4.1	42.8	12.6	6.6	19.0	7.8
LnGrp Delay(d),s/veh	196.0	0.0	44.1	69.4	185.6	68.4	111.1	134.6	49.2	327.5	56.4	46.4
LnGrp LOS	F		D	E	F	E	F	F	D	F	E	D
Approach Vol, veh/h		719			850			1073			714	
Approach Delay, s/veh		190.1			128.5			108.4			83.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.4	61.6		41.0	11.0	64.0		59.0
Change Period (Y+Rc), s	* 4.7	5.1		6.8	* 5.3	5.1		7.1
Max Green Setting (Gmax), s	* 10	55.0		34.2	* 5.7	58.9		51.9
Max Q Clear Time (g_c+I1), s	9.0	38.5		36.2	7.7	60.9		53.9
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	125.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	237	881	72	39	361	7	331	818	299	9	330	343
Future Volume (veh/h)	237	881	72	39	361	7	331	818	299	9	330	343
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	237	881	72	39	361	7	331	818	299	9	330	343
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	271	955	78	48	571	255	365	1078	394	12	411	368
Arrive On Green	0.16	0.29	0.29	0.03	0.16	0.16	0.21	0.43	0.43	0.01	0.24	0.24
Sat Flow, veh/h	1740	3250	266	1740	3471	1553	1740	2492	910	1740	1736	1553
Grp Volume(v), veh/h	237	470	483	39	361	7	331	569	548	9	330	343
Grp Sat Flow(s),veh/h/ln	1740	1736	1780	1740	1736	1553	1740	1736	1666	1740	1736	1553
Q Serve(g_s), s	11.6	23.0	23.0	1.9	8.5	0.3	16.2	24.2	24.3	0.5	15.7	18.9
Cycle Q Clear(g_c), s	11.6	23.0	23.0	1.9	8.5	0.3	16.2	24.2	24.3	0.5	15.7	18.9
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	271	510	523	48	571	255	365	751	721	12	411	368
V/C Ratio(X)	0.87	0.92	0.92	0.81	0.63	0.03	0.91	0.76	0.76	0.77	0.80	0.93
Avail Cap(c_a), veh/h	297	514	527	60	571	255	400	751	721	62	411	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	29.9	29.9	42.3	34.1	30.7	33.7	20.9	21.0	43.4	31.4	32.7
Incr Delay (d2), s/veh	21.1	24.6	24.2	39.6	5.3	0.2	21.8	7.1	7.4	31.3	15.2	32.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	14.5	14.8	1.5	4.5	0.2	10.0	13.0	12.6	0.3	9.3	11.4
LnGrp Delay(d),s/veh	57.1	54.5	54.1	81.9	39.3	30.9	55.5	28.0	28.3	74.6	46.7	65.4
LnGrp LOS	E	D	D	F	D	C	E	C	C	E	D	E
Approach Vol, veh/h		1190			407			1448			682	
Approach Delay, s/veh		54.9			43.3			34.4			56.5	
Approach LOS		D			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	25.9	18.7	19.6	6.1	43.0	7.4	30.9
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 20	* 21	* 15	* 14	3.1	* 37	3.0	* 26
Max Q Clear Time (g_c+I1), s	18.2	20.9	13.6	10.5	2.5	26.3	3.9	25.0
Green Ext Time (p_c), s	0.1	0.0	0.0	3.2	0.0	10.5	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	45.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	297	311	43	301	52	667	1279	276	19	348	57
Future Volume (veh/h)	100	297	311	43	301	52	667	1279	276	19	348	57
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	100	297	311	43	301	52	667	1279	276	19	348	57
Adj No. of Lanes	2	2	1	2	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	135	951	425	77	891	399	719	1334	284	42	929	416
Arrive On Green	0.04	0.27	0.27	0.02	0.25	0.25	0.21	0.47	0.47	0.01	0.27	0.27
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	2849	607	3375	3471	1553
Grp Volume(v), veh/h	100	297	311	43	301	52	667	773	782	19	348	57
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1736	1720	1688	1736	1553
Q Serve(g_s), s	2.8	6.6	17.7	1.2	6.9	2.5	19.0	41.9	43.5	0.5	8.0	2.7
Cycle Q Clear(g_c), s	2.8	6.6	17.7	1.2	6.9	2.5	19.0	41.9	43.5	0.5	8.0	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	135	951	425	77	891	399	719	813	806	42	929	416
V/C Ratio(X)	0.74	0.31	0.73	0.56	0.34	0.13	0.93	0.95	0.97	0.46	0.37	0.14
Avail Cap(c_a), veh/h	135	1075	481	139	1072	479	719	813	806	107	998	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	28.5	32.5	47.4	29.8	28.2	37.9	25.0	25.4	48.1	29.2	27.3
Incr Delay (d2), s/veh	17.0	0.9	10.6	2.3	0.7	0.5	17.9	21.2	25.1	2.9	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.3	8.9	0.6	3.4	1.1	10.7	24.7	26.0	0.3	3.9	1.2
LnGrp Delay(d),s/veh	63.5	29.3	43.1	49.7	30.6	28.7	55.8	46.2	50.5	51.0	30.0	27.8
LnGrp LOS	E	C	D	D	C	C	E	D	D	D	C	C
Approach Vol, veh/h		708			396			2222			424	
Approach Delay, s/veh		40.2			32.4			50.6			30.7	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.4	31.8	9.4	30.5	6.7	51.5	7.7	32.2
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	20.9	* 28	3.9	30.0	3.1	* 46	4.0	* 30
Max Q Clear Time (g_c+I1), s	21.0	10.0	4.8	8.9	2.5	45.5	3.2	19.7
Green Ext Time (p_c), s	0.0	16.3	0.0	11.7	0.0	0.4	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	44.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	2173	33	24	2041	8	397	42	172	7	16	55
Future Volume (veh/h)	14	2173	33	24	2041	8	397	42	172	7	16	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	14	2173	33	24	2041	8	397	42	172	7	16	55
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	21	1994	30	30	2039	8	354	84	344	12	23	81
Arrive On Green	0.01	0.58	0.58	0.02	0.59	0.59	0.20	0.27	0.27	0.01	0.06	0.06
Sat Flow, veh/h	1707	3434	52	1707	3479	14	1757	317	1298	1757	366	1257
Grp Volume(v), veh/h	14	1075	1131	24	998	1051	397	0	214	7	0	71
Grp Sat Flow(s),veh/h/ln	1707	1703	1783	1707	1703	1790	1757	0	1616	1757	0	1623
Q Serve(g_s), s	1.1	79.6	79.6	1.9	80.3	80.3	27.6	0.0	15.4	0.5	0.0	5.9
Cycle Q Clear(g_c), s	1.1	79.6	79.6	1.9	80.3	80.3	27.6	0.0	15.4	0.5	0.0	5.9
Prop In Lane	1.00		0.03	1.00		0.01	1.00		0.80	1.00		0.77
Lane Grp Cap(c), veh/h	21	989	1035	30	998	1049	354	0	428	12	0	104
V/C Ratio(X)	0.68	1.09	1.09	0.80	1.00	1.00	1.12	0.00	0.50	0.58	0.00	0.68
Avail Cap(c_a), veh/h	50	989	1035	50	998	1049	354	0	526	51	0	249
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.5	28.7	28.7	67.1	28.4	28.4	54.7	0.0	42.7	67.9	0.0	62.8
Incr Delay (d2), s/veh	23.5	55.2	56.7	27.7	28.5	28.2	85.2	0.0	0.8	27.0	0.0	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	52.3	55.1	1.1	45.3	47.5	21.7	0.0	7.0	0.4	0.0	2.8
LnGrp Delay(d),s/veh	90.9	84.0	85.5	94.8	56.9	56.5	140.0	0.0	43.5	94.8	0.0	69.7
LnGrp LOS	F	F	F	F	F	F	F		D	F		E
Approach Vol, veh/h		2220			2073			611			78	
Approach Delay, s/veh		84.8			57.2			106.2			72.0	
Approach LOS		F			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	86.0	32.0	13.2	5.2	86.7	4.4	40.8
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	4.0	79.6	27.6	* 21	4.0	79.6	4.0	44.6
Max Q Clear Time (g_c+I1), s	3.9	81.6	29.6	7.9	3.1	82.3	2.5	17.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	75.7
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	701	13	155	722	78	20	65	218	24	26	8
Future Volume (veh/h)	61	701	13	155	722	78	20	65	218	24	26	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	61	701	13	155	722	78	20	65	218	24	26	8
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	74	1111	21	196	1229	133	26	358	304	30	362	308
Arrive On Green	0.04	0.32	0.32	0.11	0.38	0.38	0.01	0.19	0.19	0.02	0.20	0.20
Sat Flow, veh/h	1757	3520	65	1757	3192	345	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	61	349	365	155	396	404	20	65	218	24	26	8
Grp Sat Flow(s),veh/h/ln	1757	1752	1833	1757	1752	1784	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.5	7.5	7.5	3.8	7.9	8.0	0.5	1.3	5.8	0.6	0.5	0.2
Cycle Q Clear(g_c), s	1.5	7.5	7.5	3.8	7.9	8.0	0.5	1.3	5.8	0.6	0.5	0.2
Prop In Lane	1.00		0.04	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	553	578	196	675	687	26	358	304	30	362	308
V/C Ratio(X)	0.82	0.63	0.63	0.79	0.59	0.59	0.77	0.18	0.72	0.79	0.07	0.03
Avail Cap(c_a), veh/h	199	713	746	199	713	726	119	751	638	119	751	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	12.9	12.9	19.1	10.8	10.8	21.7	14.9	16.7	21.7	14.5	14.4
Incr Delay (d2), s/veh	19.5	1.2	1.1	18.9	1.1	1.1	37.0	0.2	3.2	34.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.8	3.9	2.9	4.0	4.0	0.5	0.7	2.7	0.6	0.3	0.1
LnGrp Delay(d),s/veh	40.5	14.1	14.1	38.0	12.0	11.9	58.7	15.1	19.9	56.6	14.6	14.4
LnGrp LOS	D	B	B	D	B	B	E	B	B	E	B	B
Approach Vol, veh/h		775			955			303			58	
Approach Delay, s/veh		16.2			16.2			21.4			31.9	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	12.6	8.9	18.0	4.7	12.7	5.9	21.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	18.0	5.0	18.0	3.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.6	7.8	5.8	9.5	2.5	2.5	3.5	10.0
Green Ext Time (p_c), s	0.0	0.8	0.0	4.4	0.0	1.0	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	954	2	8	856	32	58	220	297	44	72	9
Future Volume (veh/h)	46	954	2	8	856	32	58	220	297	44	72	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	46	954	2	8	856	32	58	220	297	44	72	9
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	1350	3	11	1211	45	70	460	391	52	441	375
Arrive On Green	0.03	0.38	0.38	0.01	0.35	0.35	0.04	0.25	0.25	0.03	0.24	0.24
Sat Flow, veh/h	1757	3588	8	1757	3446	129	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	46	466	490	8	435	453	58	220	297	44	72	9
Grp Sat Flow(s),veh/h/ln	1757	1752	1843	1757	1752	1822	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.2	10.7	10.7	0.2	10.1	10.1	1.6	4.8	8.3	1.2	1.5	0.2
Cycle Q Clear(g_c), s	1.2	10.7	10.7	0.2	10.1	10.1	1.6	4.8	8.3	1.2	1.5	0.2
Prop In Lane	1.00		0.00	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	54	659	694	11	616	641	70	460	391	52	441	375
V/C Ratio(X)	0.84	0.71	0.71	0.72	0.71	0.71	0.82	0.48	0.76	0.85	0.16	0.02
Avail Cap(c_a), veh/h	111	704	741	111	704	732	149	702	597	149	702	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	12.5	12.5	23.5	13.2	13.2	22.5	15.1	16.4	22.8	14.2	13.8
Incr Delay (d2), s/veh	27.8	3.0	2.9	60.6	2.8	2.7	20.5	0.8	3.0	29.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.6	5.9	0.3	5.3	5.5	1.1	2.5	3.9	1.0	0.8	0.1
LnGrp Delay(d),s/veh	50.6	15.6	15.4	84.1	16.0	15.9	43.0	15.9	19.5	52.0	14.4	13.8
LnGrp LOS	D	B	B	F	B	B	D	B	B	D	B	B
Approach Vol, veh/h		1002			896			575			125	
Approach Delay, s/veh		17.1			16.6			20.5			27.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	15.8	4.3	21.8	5.9	15.3	5.5	20.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	18.0	3.0	19.0	4.0	18.0	3.0	19.0
Max Q Clear Time (g_c+I1), s	3.2	10.3	2.2	12.7	3.6	3.5	3.2	12.1
Green Ext Time (p_c), s	0.0	1.5	0.0	4.2	0.0	2.0	0.0	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

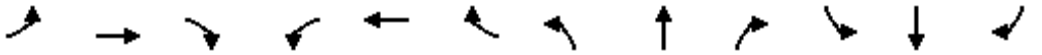
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	908	101	168	756	351	110	558	190	331	352	27
Future Volume (veh/h)	25	908	101	168	756	351	110	558	190	331	352	27
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	25	908	101	168	756	351	110	558	190	331	352	27
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	31	905	101	161	831	385	135	519	441	314	707	601
Arrive On Green	0.02	0.28	0.28	0.09	0.36	0.36	0.08	0.28	0.28	0.18	0.38	0.38
Sat Flow, veh/h	1757	3181	354	1757	2328	1079	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	25	500	509	168	569	538	110	558	190	331	352	27
Grp Sat Flow(s),veh/h/ln	1757	1752	1782	1757	1752	1654	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.7	34.2	34.2	11.0	37.2	37.3	7.4	33.8	11.9	21.5	17.5	1.3
Cycle Q Clear(g_c), s	1.7	34.2	34.2	11.0	37.2	37.3	7.4	33.8	11.9	21.5	17.5	1.3
Prop In Lane	1.00		0.20	1.00		0.65	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	31	499	507	161	625	590	135	519	441	314	707	601
V/C Ratio(X)	0.82	1.00	1.00	1.04	0.91	0.91	0.82	1.08	0.43	1.05	0.50	0.04
Avail Cap(c_a), veh/h	47	499	507	161	625	590	221	519	441	314	707	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	43.0	43.0	54.6	36.8	36.8	54.7	43.2	35.3	49.3	28.2	23.3
Incr Delay (d2), s/veh	27.9	41.1	40.8	83.4	17.0	18.1	4.5	61.4	0.2	65.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	22.2	22.5	9.0	20.8	20.0	3.8	26.0	5.2	16.1	8.9	0.6
LnGrp Delay(d),s/veh	86.8	84.1	83.8	138.1	53.8	54.9	59.2	104.6	35.6	114.8	28.4	23.3
LnGrp LOS	F	F	F	F	D	D	E	F	D	F	C	C
Approach Vol, veh/h		1034			1275			858			710	
Approach Delay, s/veh		84.0			65.4			83.5			68.5	
Approach LOS		F			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	47.7	14.7	50.5	16.0	39.0	27.0	38.2
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 3.2	41.6	15.1	* 40	11.0	* 34	21.5	* 34
Max Q Clear Time (g_c+I1), s	3.7	39.3	9.4	19.5	13.0	36.2	23.5	35.8
Green Ext Time (p_c), s	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.9
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	1831	231	197	1786	3	161	1198	322	2	1098	96
Future Volume (veh/h)	256	1831	231	197	1786	3	161	1198	322	2	1098	96
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	256	1831	231	197	1786	3	161	1198	322	2	1098	96
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	266	1802	577	228	1747	560	190	1348	603	6	1159	518
Arrive On Green	0.08	0.37	0.37	0.07	0.36	0.36	0.06	0.38	0.38	0.00	0.33	0.33
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	256	1831	231	197	1786	3	161	1198	322	2	1098	96
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	6.7	33.0	9.8	5.1	32.0	0.1	4.2	28.6	14.3	0.1	27.4	3.9
Cycle Q Clear(g_c), s	6.7	33.0	9.8	5.1	32.0	0.1	4.2	28.6	14.3	0.1	27.4	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	1802	577	228	1747	560	190	1348	603	6	1159	518
V/C Ratio(X)	0.96	1.02	0.40	0.86	1.02	0.01	0.85	0.89	0.53	0.36	0.95	0.19
Avail Cap(c_a), veh/h	266	1802	577	228	1747	560	190	1348	603	152	1173	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	28.3	21.0	41.4	28.8	18.6	41.9	25.8	21.3	44.7	29.2	21.4
Incr Delay (d2), s/veh	44.5	25.4	0.4	27.2	27.4	0.0	28.2	7.6	0.9	35.3	15.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	18.9	4.3	3.3	18.7	0.0	2.7	15.2	6.2	0.1	15.6	1.7
LnGrp Delay(d),s/veh	85.7	53.7	21.4	68.6	56.2	18.6	70.1	33.4	22.3	80.0	44.6	21.6
LnGrp LOS	F	F	C	E	F	B	E	C	C	E	D	C
Approach Vol, veh/h		2318			1986			1681			1196	
Approach Delay, s/veh		54.0			57.3			34.8			42.8	
Approach LOS		D			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.1	38.5	10.0	37.0	9.0	33.6	11.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	31.0	6.0	33.0	5.0	30.0	7.0	32.0
Max Q Clear Time (g_c+I1), s	2.1	30.6	7.1	35.0	6.2	29.4	8.7	34.0
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	48.6
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	788	74	47	830	779	552
Future Volume (veh/h)	788	74	47	830	779	552
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	788	74	47	830	779	552
Adj No. of Lanes	2	1	2	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	1043	480	100	1840	1442	645
Arrive On Green	0.31	0.31	0.03	0.53	0.41	0.41
Sat Flow, veh/h	3408	1568	3408	3597	3597	1568
Grp Volume(v), veh/h	788	74	47	830	779	552
Grp Sat Flow(s),veh/h/ln	1704	1568	1704	1752	1752	1568
Q Serve(g_s), s	9.9	1.6	0.6	7.0	8.0	15.2
Cycle Q Clear(g_c), s	9.9	1.6	0.6	7.0	8.0	15.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1043	480	100	1840	1442	645
V/C Ratio(X)	0.76	0.15	0.47	0.45	0.54	0.86
Avail Cap(c_a), veh/h	1366	629	288	2071	1479	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	12.0	22.6	7.0	10.6	12.7
Incr Delay (d2), s/veh	1.8	0.1	3.4	0.2	0.4	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	1.7	0.3	3.4	3.9	8.3
LnGrp Delay(d),s/veh	16.6	12.1	26.1	7.2	10.9	23.2
LnGrp LOS	B	B	C	A	B	C
Approach Vol, veh/h	862			877	1331	
Approach Delay, s/veh	16.2			8.2	16.0	
Approach LOS	B			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		28.9		18.5	5.4	23.5		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		28.0		19.0	4.0	20.0		
Max Q Clear Time (g_c+I1), s		9.0		11.9	2.6	17.2		
Green Ext Time (p_c), s		10.9		2.6	0.0	2.3		

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	895	412	6	1	465	274	4	0	1	106	0	526
Future Volume (veh/h)	895	412	6	1	465	274	4	0	1	106	0	526
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	895	412	6	1	465	274	4	0	1	106	0	526
Adj No. of Lanes	0	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	589	271	4	348	365	310	5	0	1	55	0	272
Arrive On Green	0.48	0.48	0.48	0.20	0.20	0.20	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	1215	559	8	1757	1845	1568	1372	0	343	268	0	1329
Grp Volume(v), veh/h	1313	0	0	1	465	274	5	0	0	632	0	0
Grp Sat Flow(s),veh/h/ln	1782	0	0	1757	1845	1568	1715	0	0	1597	0	0
Q Serve(g_s), s	71.0	0.0	0.0	0.1	29.0	24.9	0.4	0.0	0.0	30.0	0.0	0.0
Cycle Q Clear(g_c), s	71.0	0.0	0.0	0.1	29.0	24.9	0.4	0.0	0.0	30.0	0.0	0.0
Prop In Lane	0.68		0.00	1.00		1.00	0.80		0.20	0.17		0.83
Lane Grp Cap(c), veh/h	864	0	0	348	365	310	6	0	0	327	0	0
V/C Ratio(X)	1.52	0.00	0.00	0.00	1.27	0.88	0.77	0.00	0.00	1.93	0.00	0.00
Avail Cap(c_a), veh/h	864	0	0	348	365	310	47	0	0	327	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.8	0.0	0.0	47.2	58.8	57.1	72.9	0.0	0.0	58.3	0.0	0.0
Incr Delay (d2), s/veh	240.1	0.0	0.0	0.0	143.0	24.4	102.3	0.0	0.0	431.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	92.4	0.0	0.0	0.0	29.2	12.9	0.4	0.0	0.0	52.3	0.0	0.0
LnGrp Delay(d),s/veh	277.9	0.0	0.0	47.2	201.8	81.6	175.3	0.0	0.0	489.5	0.0	0.0
LnGrp LOS	F			D	F	F	F			F		
Approach Vol, veh/h		1313			740			5			632	
Approach Delay, s/veh		277.9			157.1			175.3			489.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		4.6		75.0		34.0		33.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		4.0		71.0		30.0		29.0
Max Q Clear Time (g_c+I1), s		2.4		73.0		32.0		31.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	294.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	40	32	9	30	234	57	2633	72	543	2091	59
Future Volume (veh/h)	76	40	32	9	30	234	57	2633	72	543	2091	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	76	40	32	9	30	234	57	2633	72	543	2091	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	81	44	35	545	295	251	72	2480	772	513	3044	86
Arrive On Green	0.05	0.05	0.05	0.16	0.16	0.16	0.04	0.50	0.50	0.15	0.61	0.61
Sat Flow, veh/h	1757	950	760	3408	1845	1568	1740	4988	1553	3375	4987	140
Grp Volume(v), veh/h	76	0	72	9	30	234	57	2633	72	543	1393	757
Grp Sat Flow(s),veh/h/ln	1757	0	1711	1704	1845	1568	1740	1663	1553	1688	1663	1802
Q Serve(g_s), s	6.5	0.0	6.3	0.3	2.1	22.1	4.9	74.6	3.7	22.8	42.1	42.3
Cycle Q Clear(g_c), s	6.5	0.0	6.3	0.3	2.1	22.1	4.9	74.6	3.7	22.8	42.1	42.3
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	81	0	79	545	295	251	72	2480	772	513	2030	1100
V/C Ratio(X)	0.94	0.00	0.92	0.02	0.10	0.93	0.79	1.06	0.09	1.06	0.69	0.69
Avail Cap(c_a), veh/h	81	0	79	545	295	251	123	2480	772	513	2030	1100
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.3	0.0	71.3	53.1	53.8	62.2	71.2	37.7	19.9	63.6	19.6	19.6
Incr Delay (d2), s/veh	79.2	0.0	72.1	0.0	0.1	38.4	6.9	37.0	0.0	56.1	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	4.6	0.2	1.1	12.2	2.5	42.7	1.6	14.6	19.4	21.5
LnGrp Delay(d),s/veh	150.5	0.0	143.3	53.1	53.9	100.6	78.1	74.7	19.9	119.7	20.4	21.2
LnGrp LOS	F		F	D	D	F	E	F	B	F	C	C
Approach Vol, veh/h		148			273			2762			2693	
Approach Delay, s/veh		147.0			93.9			73.4			40.6	
Approach LOS		F			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.3	96.8		12.4	28.3	79.8		29.5
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 11	* 87		6.9	22.8	* 75		24.0
Max Q Clear Time (g_c+I1), s	6.9	44.3		8.5	24.8	76.6		24.1
Green Ext Time (p_c), s	0.0	16.0		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	61.2
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	1166	473	188	1092	942	350	1491	300	484	873	139
Future Volume (veh/h)	204	1166	473	188	1092	942	350	1491	300	484	873	139
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	204	1166	473	188	1092	942	350	1491	300	484	873	139
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	182	1316	589	231	1365	611	377	1400	436	397	994	445
Arrive On Green	0.05	0.38	0.38	0.07	0.39	0.39	0.11	0.28	0.28	0.12	0.29	0.29
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	3471	1553
Grp Volume(v), veh/h	204	1166	473	188	1092	942	350	1491	300	484	873	139
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1736	1553
Q Serve(g_s), s	7.5	43.7	37.9	7.6	38.8	54.7	14.4	39.4	24.2	16.5	33.7	9.9
Cycle Q Clear(g_c), s	7.5	43.7	37.9	7.6	38.8	54.7	14.4	39.4	24.2	16.5	33.7	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	1316	589	231	1365	611	377	1400	436	397	994	445
V/C Ratio(X)	1.12	0.89	0.80	0.82	0.80	1.54	0.93	1.07	0.69	1.22	0.88	0.31
Avail Cap(c_a), veh/h	182	1316	589	231	1365	611	377	1400	436	397	999	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	41.0	39.2	64.6	38.0	42.9	61.8	50.5	45.0	62.0	47.8	39.3
Incr Delay (d2), s/veh	102.7	7.4	7.4	18.6	3.2	252.0	28.3	43.5	3.8	119.8	8.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	22.6	17.6	4.2	19.4	66.5	8.2	23.7	10.8	14.3	17.3	4.2
LnGrp Delay(d),s/veh	169.2	48.4	46.6	83.2	41.2	294.9	90.0	94.0	48.8	181.8	56.4	39.4
LnGrp LOS	F	D	D	F	D	F	F	F	D	F	E	D
Approach Vol, veh/h		1843			2222			2141			1496	
Approach Delay, s/veh		61.3			152.3			87.0			95.4	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	45.8	13.0	60.4	22.0	45.0	15.0	58.4
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	15.7	* 40	7.5	* 55	16.5	* 39	9.5	* 52
Max Q Clear Time (g_c+I1), s	16.4	35.7	9.5	56.7	18.5	41.4	9.6	45.7
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.0	0.0	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	101.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	335	1406	450	120	1570	664	370	1436	107	674	648	90
Future Volume (veh/h)	335	1406	450	120	1570	664	370	1436	107	674	648	90
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	335	1406	450	120	1570	664	370	1436	107	674	648	0
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	329	1674	536	169	1449	451	424	1340	417	623	1628	502
Arrive On Green	0.10	0.34	0.34	0.05	0.30	0.30	0.12	0.27	0.27	0.18	0.32	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	1524	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	335	1406	450	120	1570	664	370	1436	107	674	648	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1524	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	12.9	34.5	34.4	4.5	38.5	38.5	13.9	34.6	7.0	24.0	13.0	0.0
Cycle Q Clear(g_c), s	12.9	34.5	34.4	4.5	38.5	38.5	13.9	34.6	7.0	24.0	13.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	329	1674	536	169	1449	451	424	1340	417	623	1628	502
V/C Ratio(X)	1.02	0.84	0.84	0.71	1.08	1.47	0.87	1.07	0.26	1.08	0.40	0.00
Avail Cap(c_a), veh/h	329	1675	537	181	1449	451	558	1340	417	623	1628	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.6	39.5	39.5	60.9	45.8	45.8	55.9	47.7	37.6	53.0	34.2	0.0
Incr Delay (d2), s/veh	54.7	3.8	10.7	11.4	49.7	224.0	9.5	46.1	0.3	60.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	16.1	16.5	2.4	24.0	44.3	7.1	21.7	3.1	16.4	6.0	0.0
LnGrp Delay(d),s/veh	113.3	43.3	50.2	72.2	95.4	269.8	65.4	93.8	37.9	113.1	34.2	0.0
LnGrp LOS	F	D	D	E	F	F	E	F	D	F	C	
Approach Vol, veh/h		2191			2354			1913			1322	
Approach Delay, s/veh		55.4			143.4			85.2			74.4	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.6	47.1	17.2	44.1	29.0	39.7	11.2	50.1
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 21	36.9	* 13	38.5	24.0	34.6	* 6.9	* 45
Max Q Clear Time (g_c+I1), s	15.9	15.0	14.9	40.5	26.0	36.6	6.5	36.5
Green Ext Time (p_c), s	0.3	10.2	0.0	0.0	0.0	0.0	0.0	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	92.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	410	96	287	560	123	231	1668	202	37	357	57
Future Volume (veh/h)	9	410	96	287	560	123	231	1668	202	37	357	57
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	9	410	96	287	560	123	231	1668	202	37	357	57
Adj No. of Lanes	2	1	0	2	2	1	1	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	21	310	73	310	1048	469	253	1682	200	65	1429	639
Arrive On Green	0.01	0.21	0.21	0.09	0.30	0.30	0.14	0.53	0.53	0.02	0.41	0.41
Sat Flow, veh/h	3408	1446	339	3408	3505	1568	1757	3155	376	3408	3505	1568
Grp Volume(v), veh/h	9	0	506	287	560	123	231	914	956	37	357	57
Grp Sat Flow(s),veh/h/ln	1704	0	1785	1704	1752	1568	1757	1752	1778	1704	1752	1568
Q Serve(g_s), s	0.4	0.0	31.8	12.4	19.8	8.9	19.2	75.5	79.1	1.6	10.0	3.3
Cycle Q Clear(g_c), s	0.4	0.0	31.8	12.4	19.8	8.9	19.2	75.5	79.1	1.6	10.0	3.3
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	21	0	382	310	1048	469	253	934	948	65	1429	639
V/C Ratio(X)	0.42	0.00	1.32	0.93	0.53	0.26	0.91	0.98	1.01	0.57	0.25	0.09
Avail Cap(c_a), veh/h	239	0	382	310	1048	469	273	934	948	101	1429	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.5	0.0	58.3	67.0	43.4	39.6	62.6	33.8	34.7	72.2	29.0	27.0
Incr Delay (d2), s/veh	12.7	0.0	162.6	32.5	0.5	0.3	31.2	24.1	31.5	7.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	32.9	7.3	9.6	3.9	11.6	42.6	47.0	0.8	4.8	1.4
LnGrp Delay(d),s/veh	86.1	0.0	220.9	99.4	43.9	39.9	93.8	58.0	66.1	79.9	29.0	27.0
LnGrp LOS	F		F	F	D	D	F	E	F	E	C	C
Approach Vol, veh/h		515			970			2101			451	
Approach Delay, s/veh		218.6			59.8			65.6			32.9	
Approach LOS		F			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.9	65.5	19.0	37.0	8.3	84.1	6.4	49.6
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	23.1	60.4	13.5	* 32	4.4	79.1	10.4	* 35
Max Q Clear Time (g_c+I1), s	21.2	12.0	14.4	33.8	3.6	81.1	2.4	21.8
Green Ext Time (p_c), s	0.2	17.4	0.0	0.0	0.0	0.0	0.0	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	80.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	427	34	96	247	19	9	1987	465	20	492	186
Future Volume (veh/h)	170	427	34	96	247	19	9	1987	465	20	492	186
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1828	1900	1845	1796	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	170	427	34	96	247	19	9	1987	465	20	492	186
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	6	3	3	3	3	3	3
Cap, veh/h	149	370	29	103	342	26	11	1686	380	25	1498	563
Arrive On Green	0.04	0.22	0.22	0.03	0.21	0.21	0.01	0.59	0.59	0.01	0.60	0.60
Sat Flow, veh/h	3408	1672	133	3408	1647	127	1757	2844	640	1757	2494	937
Grp Volume(v), veh/h	170	0	461	96	0	266	9	1195	1257	20	345	333
Grp Sat Flow(s),veh/h/ln	1704	0	1805	1704	0	1774	1757	1752	1732	1757	1752	1679
Q Serve(g_s), s	6.5	0.0	33.0	4.2	0.0	20.8	0.8	88.4	88.4	1.7	14.6	14.7
Cycle Q Clear(g_c), s	6.5	0.0	33.0	4.2	0.0	20.8	0.8	88.4	88.4	1.7	14.6	14.7
Prop In Lane	1.00		0.07	1.00		0.07	1.00		0.37	1.00		0.56
Lane Grp Cap(c), veh/h	149	0	399	103	0	369	11	1039	1027	25	1053	1009
V/C Ratio(X)	1.14	0.00	1.15	0.93	0.00	0.72	0.82	1.15	1.22	0.82	0.33	0.33
Avail Cap(c_a), veh/h	149	0	399	103	0	369	41	1039	1027	35	1053	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.3	0.0	58.0	72.1	0.0	55.0	74.0	30.3	30.3	73.3	14.8	14.8
Incr Delay (d2), s/veh	117.8	0.0	94.1	67.4	0.0	5.9	80.3	78.7	109.9	60.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	26.9	2.9	0.0	10.8	0.6	65.1	73.3	1.2	7.0	6.9
LnGrp Delay(d),s/veh	189.0	0.0	152.2	139.6	0.0	60.9	154.3	109.0	140.2	133.5	15.0	15.0
LnGrp LOS	F		F	F		E	F	F	F	F	B	B
Approach Vol, veh/h		631			362			2461			698	
Approach Delay, s/veh		162.1			81.8			125.1			18.4	
Approach LOS		F			F			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	93.5	12.0	36.0	6.4	94.6	10.0	38.0
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	3.0	* 88	6.5	* 31	3.5	* 88	4.5	* 33
Max Q Clear Time (g_c+I1), s	3.7	90.4	8.5	22.8	2.8	16.7	6.2	35.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	48.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	109.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

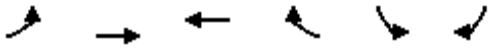
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	498	250	135	22	211	173	110	1665	89	35	486	92
Future Volume (veh/h)	498	250	135	22	211	173	110	1665	89	35	486	92
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1844	1900	1845	1845	1900
Adj Flow Rate, veh/h	498	250	135	22	211	173	110	1665	89	35	486	92
Adj No. of Lanes	2	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	3	3	3	3	3
Cap, veh/h	491	370	200	27	187	153	131	1644	87	45	1279	241
Arrive On Green	0.14	0.33	0.33	0.02	0.20	0.20	0.08	0.49	0.49	0.03	0.43	0.43
Sat Flow, veh/h	3408	1128	609	1757	939	770	1740	3384	180	1757	2945	555
Grp Volume(v), veh/h	498	0	385	22	0	384	110	857	897	35	288	290
Grp Sat Flow(s),veh/h/ln	1704	0	1737	1757	0	1709	1740	1752	1812	1757	1752	1747
Q Serve(g_s), s	20.9	0.0	27.8	1.8	0.0	28.9	9.1	70.5	70.5	2.9	16.2	16.3
Cycle Q Clear(g_c), s	20.9	0.0	27.8	1.8	0.0	28.9	9.1	70.5	70.5	2.9	16.2	16.3
Prop In Lane	1.00		0.35	1.00		0.45	1.00		0.10	1.00		0.32
Lane Grp Cap(c), veh/h	491	0	569	27	0	340	131	851	880	45	761	759
V/C Ratio(X)	1.01	0.00	0.68	0.81	0.00	1.13	0.84	1.01	1.02	0.78	0.38	0.38
Avail Cap(c_a), veh/h	491	0	569	52	0	340	203	851	880	47	761	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.1	0.0	42.1	71.2	0.0	58.1	66.2	37.3	37.3	70.3	27.8	27.8
Incr Delay (d2), s/veh	44.3	0.0	2.6	18.6	0.0	88.1	9.8	32.6	35.0	50.5	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	0.0	13.8	1.0	0.0	21.9	4.7	41.8	43.8	2.0	7.9	8.0
LnGrp Delay(d),s/veh	106.4	0.0	44.7	89.9	0.0	146.2	76.0	69.9	72.3	120.8	28.1	28.1
LnGrp LOS	F		D	F		F	E	F	F	F	C	C
Approach Vol, veh/h		883			406			1864			613	
Approach Delay, s/veh		79.5			143.2			71.4			33.4	
Approach LOS		E			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	75.6	26.4	34.3	16.3	68.1	7.7	53.0
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 3.9	70.5	20.9	* 29	* 17	57.3	4.3	* 45
Max Q Clear Time (g_c+I1), s	4.9	72.5	22.9	30.9	11.1	18.3	3.8	29.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	18.5	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	74.9
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	309	1079	1981	876	708	197
Future Volume (veh/h)	309	1079	1981	876	708	197
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	309	1079	1981	876	708	197
Adj No. of Lanes	2	3	3	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	358	3001	2118	660	899	414
Arrive On Green	0.11	0.60	0.42	0.42	0.26	0.26
Sat Flow, veh/h	3408	5202	5202	1568	3408	1568
Grp Volume(v), veh/h	309	1079	1981	876	708	197
Grp Sat Flow(s),veh/h/ln	1704	1679	1679	1568	1704	1568
Q Serve(g_s), s	5.1	6.3	21.4	24.0	11.0	6.0
Cycle Q Clear(g_c), s	5.1	6.3	21.4	24.0	11.0	6.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	358	3001	2118	660	899	414
V/C Ratio(X)	0.86	0.36	0.94	1.33	0.79	0.48
Avail Cap(c_a), veh/h	358	3001	2118	660	1075	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	5.9	15.8	16.5	19.5	17.7
Incr Delay (d2), s/veh	18.9	0.1	8.5	158.0	3.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	2.9	11.4	45.4	5.5	5.5
LnGrp Delay(d),s/veh	44.0	6.0	24.3	174.5	22.8	18.5
LnGrp LOS	D	A	C	F	C	B
Approach Vol, veh/h		1388	2857		905	
Approach Delay, s/veh		14.5	70.4		21.9	
Approach LOS		B	E		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				38.0		19.1	10.0	28.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				34.0		18.0	6.0	24.0
Max Q Clear Time (g_c+I1), s				8.3		13.0	7.1	26.0
Green Ext Time (p_c), s				23.0		2.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	833	133	562	1244	311	177	695	784	339	283	49
Future Volume (veh/h)	117	833	133	562	1244	311	177	695	784	339	283	49
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	117	833	133	562	1244	311	177	695	784	339	283	49
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	70	695	320	281	1103	508	202	365	411	182	1397	625
Arrive On Green	0.04	0.20	0.20	0.16	0.32	0.32	0.11	0.46	0.46	0.05	0.40	0.40
Sat Flow, veh/h	1757	3406	1568	1757	3406	1568	1757	793	894	3408	3505	1568
Grp Volume(v), veh/h	117	833	133	562	1244	311	177	0	1479	339	283	49
Grp Sat Flow(s),veh/h/ln	1757	1703	1568	1757	1703	1568	1757	0	1687	1704	1752	1568
Q Serve(g_s), s	6.0	30.6	11.1	24.0	48.6	25.1	14.9	0.0	69.0	8.0	7.9	2.9
Cycle Q Clear(g_c), s	6.0	30.6	11.1	24.0	48.6	25.1	14.9	0.0	69.0	8.0	7.9	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	70	695	320	281	1103	508	202	0	776	182	1397	625
V/C Ratio(X)	1.66	1.20	0.42	2.00	1.13	0.61	0.88	0.00	1.91	1.86	0.20	0.08
Avail Cap(c_a), veh/h	70	695	320	281	1103	508	281	0	776	182	1397	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.0	59.7	51.9	63.0	50.7	42.8	65.4	0.0	40.5	71.0	29.5	28.0
Incr Delay (d2), s/veh	353.5	103.1	1.2	462.2	69.3	2.6	19.8	0.0	412.5	409.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	24.3	4.9	47.7	33.5	11.2	8.3	0.0	121.0	14.1	3.9	1.3
LnGrp Delay(d),s/veh	425.5	162.8	53.2	525.2	120.0	45.3	85.1	0.0	453.0	480.5	29.6	28.1
LnGrp LOS	F	F	D	F	F	D	F		F	F	C	C
Approach Vol, veh/h		1083			2117			1656			671	
Approach Delay, s/veh		177.7			216.6			413.7			257.3	
Approach LOS		F			F			F			F	

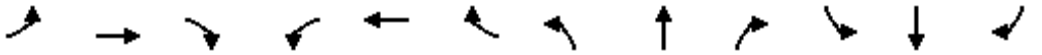
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	37.0	21.2	63.8	10.0	55.0	12.0	73.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	24.0	30.6	24.0	53.0	6.0	48.6	8.0	69.0
Max Q Clear Time (g_c+I1), s	26.0	32.6	16.9	9.9	8.0	50.6	10.0	71.0
Green Ext Time (p_c), s	0.0	0.0	0.4	24.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	273.0
HCM 2010 LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	664	22	69	981	259	554
Future Volume (veh/h)	664	22	69	981	259	554
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	664	22	69	981	259	554
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	664	592	89	984	809	687
Arrive On Green	0.38	0.38	0.05	0.53	0.44	0.44
Sat Flow, veh/h	1757	1568	1757	1845	1845	1568
Grp Volume(v), veh/h	664	22	69	981	259	554
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1845	1845	1568
Q Serve(g_s), s	34.0	0.8	3.5	47.7	8.3	27.6
Cycle Q Clear(g_c), s	34.0	0.8	3.5	47.7	8.3	27.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	664	592	89	984	809	687
V/C Ratio(X)	1.00	0.04	0.78	1.00	0.32	0.81
Avail Cap(c_a), veh/h	664	592	176	984	809	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	17.7	42.2	20.9	16.5	22.0
Incr Delay (d2), s/veh	35.0	0.0	13.4	28.0	0.2	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.9	0.9	2.0	31.6	4.2	13.2
LnGrp Delay(d),s/veh	63.0	17.7	55.6	48.9	16.7	29.0
LnGrp LOS	F	B	E	D	B	C
Approach Vol, veh/h	686			1050	813	
Approach Delay, s/veh	61.6			49.3	25.1	
Approach LOS	E			D	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		52.0		38.0	8.6	43.4		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		48.0		34.0	9.0	35.0		
Max Q Clear Time (g_c+I1), s		49.7		36.0	5.5	29.6		
Green Ext Time (p_c), s		0.0		0.0	0.0	3.8		

Intersection Summary	
HCM 2010 Ctrl Delay	44.9
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	221	21	46	193	8	125	956	171	7	161	14
Future Volume (veh/h)	55	221	21	46	193	8	125	956	171	7	161	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1759	1759	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	55	221	21	46	193	8	125	956	171	7	161	14
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	8	8	8	3	3	3	3	3	3
Cap, veh/h	82	241	23	72	243	10	154	990	177	55	993	86
Arrive On Green	0.05	0.15	0.15	0.04	0.14	0.14	0.09	0.65	0.65	0.03	0.59	0.59
Sat Flow, veh/h	1707	1612	153	1675	1677	70	1757	1524	273	1757	1673	146
Grp Volume(v), veh/h	55	0	242	46	0	201	125	0	1127	7	0	175
Grp Sat Flow(s),veh/h/ln	1707	0	1765	1675	0	1747	1757	0	1797	1757	0	1819
Q Serve(g_s), s	4.0	0.0	17.1	3.4	0.0	14.1	8.9	0.0	74.9	0.5	0.0	5.5
Cycle Q Clear(g_c), s	4.0	0.0	17.1	3.4	0.0	14.1	8.9	0.0	74.9	0.5	0.0	5.5
Prop In Lane	1.00		0.09	1.00		0.04	1.00		0.15	1.00		0.08
Lane Grp Cap(c), veh/h	82	0	264	72	0	253	154	0	1167	55	0	1079
V/C Ratio(X)	0.67	0.00	0.92	0.64	0.00	0.79	0.81	0.00	0.97	0.13	0.00	0.16
Avail Cap(c_a), veh/h	188	0	264	185	0	262	263	0	1232	194	0	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.4	0.0	53.2	59.7	0.0	52.4	56.9	0.0	20.9	59.7	0.0	11.6
Incr Delay (d2), s/veh	9.1	0.0	33.8	8.9	0.0	15.0	9.8	0.0	17.6	1.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	10.8	1.8	0.0	7.9	4.7	0.0	42.3	0.3	0.0	2.7
LnGrp Delay(d),s/veh	68.5	0.0	87.0	68.6	0.0	67.4	66.7	0.0	38.6	60.8	0.0	11.7
LnGrp LOS	E		F	E		E	E		D	E		B
Approach Vol, veh/h		297			247			1252			182	
Approach Delay, s/veh		83.6			67.6			41.4			13.6	
Approach LOS		F			E			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	86.4	9.5	23.0	15.1	79.3	10.1	22.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	87.0	14.0	19.0	19.0	82.0	14.0	19.0
Max Q Clear Time (g_c+I1), s	2.5	76.9	5.4	19.1	10.9	7.5	6.0	16.1
Green Ext Time (p_c), s	0.0	5.5	0.1	0.0	0.2	11.1	0.1	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	48.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	154	35	128	118	199	37	1215	61	600	1708	628
Future Volume (veh/h)	173	154	35	128	118	199	37	1215	61	600	1708	628
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	173	154	35	128	118	199	37	1215	61	600	1708	628
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	217	424	91	206	179	933	75	1591	80	682	2528	787
Arrive On Green	0.06	0.10	0.10	0.06	0.10	0.10	0.02	0.32	0.32	0.20	0.50	0.50
Sat Flow, veh/h	3408	4150	894	3514	1845	3136	3408	4912	247	3408	5036	1568
Grp Volume(v), veh/h	173	123	66	128	118	199	37	830	446	600	1708	628
Grp Sat Flow(s),veh/h/ln	1704	1679	1687	1757	1845	1568	1704	1679	1801	1704	1679	1568
Q Serve(g_s), s	3.5	2.4	2.6	2.5	4.4	3.4	0.8	15.7	15.7	12.1	18.1	23.5
Cycle Q Clear(g_c), s	3.5	2.4	2.6	2.5	4.4	3.4	0.8	15.7	15.7	12.1	18.1	23.5
Prop In Lane	1.00		0.53	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	217	343	172	206	179	933	75	1087	583	682	2528	787
V/C Ratio(X)	0.80	0.36	0.38	0.62	0.66	0.21	0.50	0.76	0.76	0.88	0.68	0.80
Avail Cap(c_a), veh/h	217	1400	703	238	782	1957	145	1385	743	698	2875	895
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	29.6	29.7	32.5	30.8	18.6	34.2	21.5	21.5	27.5	13.3	14.6
Incr Delay (d2), s/veh	17.3	0.2	0.5	2.1	1.5	0.0	1.9	1.4	2.6	11.7	0.4	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.1	1.2	1.3	2.3	1.5	0.4	7.5	8.2	6.8	8.3	10.8
LnGrp Delay(d),s/veh	50.0	29.8	30.2	34.6	32.3	18.7	36.1	22.9	24.1	39.2	13.6	18.5
LnGrp LOS	D	C	C	C	C	B	D	C	C	D	B	B
Approach Vol, veh/h		362			445			1313			2936	
Approach Delay, s/veh		39.5			26.9			23.7			19.9	
Approach LOS		D			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	41.1	10.0	12.6	19.7	28.5	9.7	12.9
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	3.0	40.4	4.5	* 30	14.5	* 29	4.8	* 30
Max Q Clear Time (g_c+I1), s	2.8	25.5	5.5	6.4	14.1	17.7	4.5	4.6
Green Ext Time (p_c), s	0.0	5.8	0.0	0.5	0.1	5.2	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	64	13	38	46	66	37	1177	63	133	1191	215
Future Volume (veh/h)	105	64	13	38	46	66	37	1177	63	133	1191	215
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	91	84	13	38	46	66	37	1177	63	133	1191	215
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	154	137	21	127	133	113	43	1595	85	198	1760	318
Arrive On Green	0.09	0.09	0.09	0.07	0.07	0.07	0.02	0.33	0.33	0.11	0.41	0.41
Sat Flow, veh/h	1757	1561	242	1757	1845	1568	1757	4894	262	1757	4291	775
Grp Volume(v), veh/h	91	0	97	38	46	66	37	807	433	133	932	474
Grp Sat Flow(s),veh/h/ln	1757	0	1802	1757	1845	1568	1757	1679	1798	1757	1679	1708
Q Serve(g_s), s	2.5	0.0	2.6	1.0	1.2	2.1	1.1	10.9	10.9	3.7	11.5	11.5
Cycle Q Clear(g_c), s	2.5	0.0	2.6	1.0	1.2	2.1	1.1	10.9	10.9	3.7	11.5	11.5
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.15	1.00		0.45
Lane Grp Cap(c), veh/h	154	0	158	127	133	113	43	1094	586	198	1377	700
V/C Ratio(X)	0.59	0.00	0.61	0.30	0.34	0.58	0.86	0.74	0.74	0.67	0.68	0.68
Avail Cap(c_a), veh/h	967	0	992	933	979	833	117	1703	913	304	2047	1041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	22.4	22.4	22.4	22.8	24.7	15.2	15.2	21.7	12.2	12.2
Incr Delay (d2), s/veh	1.3	0.0	1.4	0.5	0.6	1.8	16.1	0.4	0.7	1.5	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	1.4	0.5	0.6	1.0	0.7	5.0	5.4	1.9	5.3	5.5
LnGrp Delay(d),s/veh	23.6	0.0	23.8	22.8	23.0	24.6	40.8	15.6	15.9	23.1	12.5	12.7
LnGrp LOS	C		C	C	C	C	D	B	B	C	B	B
Approach Vol, veh/h		188			150			1277			1539	
Approach Delay, s/veh		23.7			23.7			16.4			13.5	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.0	25.7		9.2	10.3	21.4		10.0
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 3.4	31.0		27.0	* 8.8	25.8		28.0
Max Q Clear Time (g_c+I1), s	3.1	13.5		4.1	5.7	12.9		4.6
Green Ext Time (p_c), s	0.0	4.0		0.1	0.0	3.7		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	390	272	87	372	71	330	1105	136	123	614	241
Future Volume (veh/h)	89	390	272	87	372	71	330	1105	136	123	614	241
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	89	390	272	87	372	71	330	1105	136	123	614	241
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	155	744	347	152	1112	346	373	1493	465	205	885	340
Arrive On Green	0.05	0.22	0.22	0.04	0.22	0.22	0.11	0.30	0.30	0.06	0.25	0.25
Sat Flow, veh/h	3408	3357	1568	3408	5036	1568	3408	5036	1568	3408	3583	1376
Grp Volume(v), veh/h	89	390	272	87	372	71	330	1105	136	123	575	280
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1602
Q Serve(g_s), s	1.5	6.1	9.7	1.5	3.7	2.2	5.7	11.7	4.0	2.1	9.2	9.5
Cycle Q Clear(g_c), s	1.5	6.1	9.7	1.5	3.7	2.2	5.7	11.7	4.0	2.1	9.2	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	155	744	347	152	1112	346	373	1493	465	205	829	396
V/C Ratio(X)	0.57	0.52	0.78	0.57	0.33	0.21	0.88	0.74	0.29	0.60	0.69	0.71
Avail Cap(c_a), veh/h	172	1623	758	189	2459	766	373	2569	800	304	1645	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	20.4	21.8	27.8	19.5	18.9	26.1	18.8	16.1	27.2	20.3	20.4
Incr Delay (d2), s/veh	1.7	0.2	1.5	1.2	0.1	0.1	20.8	0.3	0.1	1.1	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.8	4.3	0.7	1.7	1.0	3.7	5.5	1.7	1.0	4.3	4.3
LnGrp Delay(d),s/veh	29.5	20.6	23.2	29.1	19.5	19.0	46.9	19.1	16.2	28.3	20.7	21.3
LnGrp LOS	C	C	C	C	B	B	D	B	B	C	C	C
Approach Vol, veh/h		751			530			1571			978	
Approach Delay, s/veh		22.6			21.0			24.7			21.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	20.3	8.2	18.9	9.1	23.2	8.2	19.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	6.5	* 29	3.0	29.0	5.3	* 30	3.3	28.7
Max Q Clear Time (g_c+I1), s	7.7	11.5	3.5	5.7	4.1	13.7	3.5	11.7
Green Ext Time (p_c), s	0.0	3.2	0.0	1.5	0.0	3.2	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

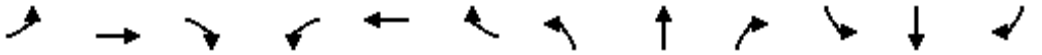
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	167	33	94	223	205	48	800	102	44	648	26
Future Volume (veh/h)	157	167	33	94	223	205	48	800	102	44	648	26
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	157	167	33	94	223	205	48	800	102	44	648	26
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	186	569	110	118	280	238	61	829	106	79	932	792
Arrive On Green	0.11	0.19	0.19	0.07	0.15	0.15	0.03	0.52	0.52	0.02	0.51	0.51
Sat Flow, veh/h	1757	2930	567	1757	1845	1568	1757	1604	205	3408	1845	1568
Grp Volume(v), veh/h	157	98	102	94	223	205	48	0	902	44	648	26
Grp Sat Flow(s),veh/h/ln	1757	1752	1745	1757	1845	1568	1757	0	1809	1704	1845	1568
Q Serve(g_s), s	9.1	5.0	5.2	5.5	12.1	13.2	2.8	0.0	49.9	1.3	27.8	0.9
Cycle Q Clear(g_c), s	9.1	5.0	5.2	5.5	12.1	13.2	2.8	0.0	49.9	1.3	27.8	0.9
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	186	341	339	118	280	238	61	0	935	79	932	792
V/C Ratio(X)	0.84	0.29	0.30	0.79	0.80	0.86	0.79	0.00	0.96	0.56	0.70	0.03
Avail Cap(c_a), veh/h	215	613	610	184	608	516	110	0	1122	102	1078	917
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	35.7	35.8	47.7	42.5	43.0	49.7	0.0	24.2	50.2	19.6	12.9
Incr Delay (d2), s/veh	20.3	0.2	0.2	5.4	2.0	3.6	8.0	0.0	16.6	2.3	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.4	2.5	2.8	6.3	6.0	1.5	0.0	29.1	0.6	14.3	0.4
LnGrp Delay(d),s/veh	65.8	35.9	36.0	53.1	44.5	46.5	57.7	0.0	40.7	52.5	20.8	12.9
LnGrp LOS	E	D	D	D	D	D	E		D	D	C	B
Approach Vol, veh/h		357			522			950			718	
Approach Delay, s/veh		49.1			46.8			41.6			22.4	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	20.7	9.1	57.5	12.1	25.1	7.9	58.8
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	12.7	* 34	6.5	* 61	* 11	* 36	3.1	* 64
Max Q Clear Time (g_c+I1), s	11.1	15.2	4.8	29.8	7.5	7.2	3.3	51.9
Green Ext Time (p_c), s	0.0	0.5	0.0	1.8	0.0	0.5	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

Notes

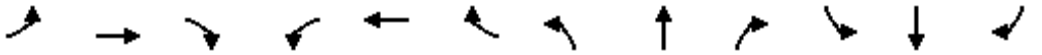
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	332	607	53	39	638	47	148	262	230	84	144	440
Future Volume (veh/h)	332	607	53	39	638	47	148	262	230	84	144	440
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	332	607	53	39	638	47	148	262	230	84	144	440
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	442	1206	539	110	864	387	236	1035	463	175	972	435
Arrive On Green	0.13	0.34	0.34	0.03	0.25	0.25	0.07	0.30	0.30	0.05	0.28	0.28
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	332	607	53	39	638	47	148	262	230	84	144	440
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	5.4	7.9	1.3	0.6	9.7	1.3	2.4	3.3	7.0	1.4	1.8	16.0
Cycle Q Clear(g_c), s	5.4	7.9	1.3	0.6	9.7	1.3	2.4	3.3	7.0	1.4	1.8	16.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	442	1206	539	110	864	387	236	1035	463	175	972	435
V/C Ratio(X)	0.75	0.50	0.10	0.36	0.74	0.12	0.63	0.25	0.50	0.48	0.15	1.01
Avail Cap(c_a), veh/h	472	1214	543	236	972	435	236	1035	463	236	972	435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	15.0	12.9	27.3	20.0	16.9	26.1	15.5	16.8	26.6	15.7	20.9
Incr Delay (d2), s/veh	6.2	0.3	0.1	1.9	2.7	0.1	5.1	0.1	0.8	2.0	0.1	46.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.8	0.6	0.3	4.9	0.6	1.3	1.6	3.1	0.7	0.9	12.4
LnGrp Delay(d),s/veh	30.4	15.3	12.9	29.3	22.7	17.0	31.3	15.6	17.6	28.7	15.8	67.2
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	F
Approach Vol, veh/h		992			724			640			668	
Approach Delay, s/veh		20.3			22.7			20.0			51.3	
Approach LOS		C			C			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	21.0	5.9	23.9	8.0	20.0	11.5	18.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	4.0	20.0	4.0	16.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	3.4	9.0	2.6	9.9	4.4	18.0	7.4	11.7
Green Ext Time (p_c), s	0.0	2.7	0.0	4.8	0.0	0.0	0.1	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	531	28	29	1070	103	112	378	39	59	144	178
Future Volume (veh/h)	102	531	28	29	1070	103	112	378	39	59	144	178
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	102	531	28	29	1070	103	112	378	39	59	144	178
Adj No. of Lanes	2	2	0	1	2	1	1	1	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	198	1265	67	46	1197	536	130	479	407	148	423	359
Arrive On Green	0.06	0.37	0.37	0.03	0.34	0.34	0.07	0.26	0.26	0.04	0.23	0.23
Sat Flow, veh/h	3408	3387	178	1757	3505	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	102	274	285	29	1070	103	112	378	39	59	144	178
Grp Sat Flow(s),veh/h/ln	1704	1752	1813	1757	1752	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	1.6	6.3	6.3	0.9	15.6	2.5	3.4	10.3	1.0	0.9	3.5	5.3
Cycle Q Clear(g_c), s	1.6	6.3	6.3	0.9	15.6	2.5	3.4	10.3	1.0	0.9	3.5	5.3
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	198	655	677	46	1197	536	130	479	407	148	423	359
V/C Ratio(X)	0.52	0.42	0.42	0.63	0.89	0.19	0.86	0.79	0.10	0.40	0.34	0.50
Avail Cap(c_a), veh/h	253	655	677	130	1236	553	130	582	495	253	582	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	12.5	12.5	26.0	16.8	12.5	24.7	18.6	15.1	25.1	17.4	18.1
Incr Delay (d2), s/veh	2.1	0.4	0.4	13.4	8.5	0.2	40.1	5.9	0.1	1.7	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.0	3.2	0.6	8.8	1.1	3.1	5.9	0.4	0.5	1.9	2.4
LnGrp Delay(d),s/veh	26.7	13.0	13.0	39.4	25.3	12.7	64.8	24.5	15.2	26.8	17.8	19.1
LnGrp LOS	C	B	B	D	C	B	E	C	B	C	B	B
Approach Vol, veh/h		661			1202			529			381	
Approach Delay, s/veh		15.1			24.5			32.3			19.8	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	18.0	5.4	24.1	8.0	16.3	7.1	22.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	17.0	4.0	19.0	4.0	17.0	4.0	19.0
Max Q Clear Time (g_c+I1), s	2.9	12.3	2.9	8.3	5.4	7.3	3.6	17.6
Green Ext Time (p_c), s	0.0	1.7	0.0	7.5	0.0	2.8	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	99	71	481	396	162	101	1269	113	210	1966	364
Future Volume (veh/h)	117	99	71	481	396	162	101	1269	113	210	1966	364
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	117	99	71	481	396	162	101	1269	113	210	1966	364
Adj No. of Lanes	2	2	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	177	458	205	546	864	495	147	2594	641	276	2250	700
Arrive On Green	0.05	0.13	0.13	0.16	0.23	0.23	0.04	0.41	0.41	0.08	0.45	0.45
Sat Flow, veh/h	3408	3505	1568	3514	3689	1568	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	117	99	71	481	396	162	101	1269	113	210	1966	364
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	3.4	2.6	4.2	13.5	9.3	8.0	3.0	15.0	4.7	6.2	36.1	17.0
Cycle Q Clear(g_c), s	3.4	2.6	4.2	13.5	9.3	8.0	3.0	15.0	4.7	6.2	36.1	17.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	458	205	546	864	495	147	2594	641	276	2250	700
V/C Ratio(X)	0.66	0.22	0.35	0.88	0.46	0.33	0.69	0.49	0.18	0.76	0.87	0.52
Avail Cap(c_a), veh/h	286	1005	450	594	1368	709	147	2594	641	430	2337	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	39.3	40.0	41.8	33.2	26.4	47.7	21.8	18.8	45.5	25.2	19.9
Incr Delay (d2), s/veh	1.6	0.3	1.5	12.8	1.0	1.1	10.7	0.1	0.0	1.6	4.7	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.3	1.9	7.5	4.9	3.6	1.6	6.5	2.0	2.9	17.5	7.6
LnGrp Delay(d),s/veh	48.7	39.7	41.5	54.6	34.3	27.4	58.4	21.9	18.9	47.1	29.9	22.0
LnGrp LOS	D	D	D	D	C	C	E	C	B	D	C	C
Approach Vol, veh/h		287			1039			1483			2540	
Approach Delay, s/veh		43.8			42.6			24.2			30.2	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	51.0	10.7	29.5	13.8	47.2	21.2	19.0
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	4.4	* 47	8.5	37.5	12.9	* 39	17.1	* 29
Max Q Clear Time (g_c+I1), s	5.0	38.1	5.4	11.3	8.2	17.0	15.5	6.2
Green Ext Time (p_c), s	0.0	7.5	0.0	7.4	0.1	21.1	0.2	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	273	118	88	345	130	316	1371	45	246	1132	335
Future Volume (veh/h)	138	273	118	88	345	130	316	1371	45	246	1132	335
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	138	273	118	88	345	130	316	1371	45	246	1132	335
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	193	638	286	136	828	258	372	2509	781	303	2406	749
Arrive On Green	0.06	0.18	0.18	0.04	0.17	0.17	0.11	0.50	0.50	0.09	0.48	0.48
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	138	273	118	88	345	130	316	1371	45	246	1132	335
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	4.9	8.5	8.2	3.2	7.7	9.4	11.3	23.3	1.8	8.8	18.8	17.6
Cycle Q Clear(g_c), s	4.9	8.5	8.2	3.2	7.7	9.4	11.3	23.3	1.8	8.8	18.8	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	638	286	136	828	258	372	2509	781	303	2406	749
V/C Ratio(X)	0.72	0.43	0.41	0.64	0.42	0.50	0.85	0.55	0.06	0.81	0.47	0.45
Avail Cap(c_a), veh/h	538	965	432	533	1382	430	533	2602	810	533	2594	808
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	44.8	44.6	58.4	46.1	46.9	53.9	21.0	15.7	55.2	21.4	21.1
Incr Delay (d2), s/veh	1.9	0.9	1.9	1.9	1.2	5.2	6.2	0.4	0.1	2.0	0.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.2	3.7	1.5	3.6	4.4	5.6	10.8	0.8	4.2	8.7	7.7
LnGrp Delay(d),s/veh	59.1	45.7	46.6	60.2	47.3	52.0	60.1	21.4	15.8	57.2	21.7	21.9
LnGrp LOS	E	D	D	E	D	D	E	C	B	E	C	C
Approach Vol, veh/h		529			563			1732			1713	
Approach Delay, s/veh		49.4			50.4			28.3			26.8	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.1	65.4	12.5	26.5	16.6	67.9	10.5	28.5
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	19.5	* 64	19.5	* 34	19.5	* 64	19.5	34.0
Max Q Clear Time (g_c+I1), s	13.3	20.8	6.9	11.4	10.8	25.3	5.2	10.5
Green Ext Time (p_c), s	0.3	38.8	0.1	9.1	0.2	35.3	0.1	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

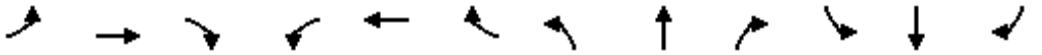
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	70	143	12	30	14	336	1682	5	51	934	153
Future Volume (veh/h)	22	70	143	12	30	14	336	1682	5	51	934	153
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	22	70	143	12	30	14	336	1682	5	51	934	153
Adj No. of Lanes	2	1	2	1	1	0	2	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	54	169	252	16	101	47	475	2126	6	62	1540	480
Arrive On Green	0.02	0.09	0.09	0.01	0.08	0.08	0.14	0.41	0.41	0.04	0.31	0.31
Sat Flow, veh/h	3408	1845	2760	1757	1191	556	3375	5134	15	1740	4988	1553
Grp Volume(v), veh/h	22	70	143	12	0	44	336	1089	598	51	934	153
Grp Sat Flow(s),veh/h/ln	1704	1845	1380	1757	0	1747	1688	1663	1824	1740	1663	1553
Q Serve(g_s), s	0.3	1.8	2.6	0.4	0.0	1.2	4.9	14.7	14.7	1.5	8.2	3.9
Cycle Q Clear(g_c), s	0.3	1.8	2.6	0.4	0.0	1.2	4.9	14.7	14.7	1.5	8.2	3.9
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	54	169	252	16	0	148	475	1377	755	62	1540	480
V/C Ratio(X)	0.41	0.41	0.57	0.74	0.00	0.30	0.71	0.79	0.79	0.83	0.61	0.32
Avail Cap(c_a), veh/h	1294	1217	1821	667	0	1170	1281	4182	2294	661	6214	1935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	22.0	22.4	25.4	0.0	22.1	21.1	13.1	13.1	24.6	15.1	13.6
Incr Delay (d2), s/veh	1.9	0.6	0.7	21.7	0.0	0.4	0.7	0.4	0.7	9.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	1.0	0.3	0.0	0.6	2.3	6.7	7.5	0.9	3.7	1.7
LnGrp Delay(d),s/veh	26.9	22.6	23.1	47.1	0.0	22.5	21.8	13.5	13.8	34.5	15.2	13.8
LnGrp LOS	C	C	C	D		C	C	B	B	C	B	B
Approach Vol, veh/h		235			56			2023			1138	
Approach Delay, s/veh		23.3			27.7			15.0			15.9	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	21.9	6.3	10.5	7.3	27.3	6.0	10.8
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	19.5	64.0	19.5	* 34	19.5	* 65	19.5	* 34
Max Q Clear Time (g_c+I1), s	6.9	10.2	2.3	3.2	3.5	16.7	2.4	4.6
Green Ext Time (p_c), s	0.4	4.6	0.0	0.2	0.0	4.6	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Notes

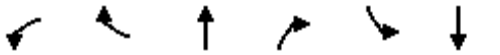
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	41	50	126	194	329	331	1676	81	50	723	84
Future Volume (veh/h)	192	41	50	126	194	329	331	1676	81	50	723	84
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	192	41	50	126	194	329	331	1676	81	50	723	84
Adj No. of Lanes	2	2	0	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	242	448	400	195	817	366	384	1812	564	90	1377	429
Arrive On Green	0.07	0.26	0.26	0.06	0.24	0.24	0.11	0.36	0.36	0.03	0.28	0.28
Sat Flow, veh/h	3408	1752	1568	3250	3343	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	192	41	50	126	194	329	331	1676	81	50	723	84
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1625	1671	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	4.1	1.3	1.8	2.8	3.5	15.9	7.2	24.1	2.6	1.1	9.2	3.1
Cycle Q Clear(g_c), s	4.1	1.3	1.8	2.8	3.5	15.9	7.2	24.1	2.6	1.1	9.2	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	448	400	195	817	366	384	1812	564	90	1377	429
V/C Ratio(X)	0.79	0.09	0.12	0.65	0.24	0.90	0.86	0.93	0.14	0.55	0.53	0.20
Avail Cap(c_a), veh/h	242	519	464	226	985	441	384	1850	576	136	1483	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	21.2	21.4	34.3	22.6	27.3	32.5	22.8	16.0	35.9	22.9	20.7
Incr Delay (d2), s/veh	15.2	0.0	0.1	3.0	0.1	17.1	17.0	8.2	0.0	2.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.6	0.8	1.3	1.6	8.3	4.3	12.4	1.1	0.5	4.2	1.3
LnGrp Delay(d),s/veh	49.4	21.2	21.4	37.4	22.7	44.5	49.5	31.0	16.0	37.9	23.0	20.8
LnGrp LOS	D	C	C	D	C	D	D	C	B	D	C	C
Approach Vol, veh/h		283			649			2088			857	
Approach Delay, s/veh		40.4			36.6			33.3			23.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	26.1	10.8	23.8	7.5	32.6	10.0	24.6
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	8.5	22.2	5.3	22.0	3.0	27.7	5.2	22.1
Max Q Clear Time (g_c+I1), s	9.2	11.2	6.1	17.9	3.1	26.1	4.8	3.8
Green Ext Time (p_c), s	0.0	3.9	0.0	0.3	0.0	1.1	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.3
HCM 2010 LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	294	179	1681	77	41	774
Future Volume (veh/h)	294	179	1681	77	41	774
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1827	1827	1827
Adj Flow Rate, veh/h	294	179	1681	77	41	774
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	537	247	2166	674	92	2056
Arrive On Green	0.16	0.16	0.43	0.43	0.03	0.59
Sat Flow, veh/h	3408	1568	5152	1553	3375	3563
Grp Volume(v), veh/h	294	179	1681	77	41	774
Grp Sat Flow(s),veh/h/ln	1704	1568	1663	1553	1688	1736
Q Serve(g_s), s	3.3	4.6	12.1	1.2	0.5	4.9
Cycle Q Clear(g_c), s	3.3	4.6	12.1	1.2	0.5	4.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	537	247	2166	674	92	2056
V/C Ratio(X)	0.55	0.72	0.78	0.11	0.45	0.38
Avail Cap(c_a), veh/h	609	280	3266	1017	1527	4298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	16.8	10.1	7.1	20.1	4.5
Incr Delay (d2), s/veh	0.3	6.1	0.3	0.0	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.4	5.5	0.5	0.2	2.3
LnGrp Delay(d),s/veh	16.6	23.0	10.4	7.1	21.4	4.5
LnGrp LOS	B	C	B	A	C	A
Approach Vol, veh/h	473		1758			815
Approach Delay, s/veh	19.0		10.3			5.4
Approach LOS	B		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		29.9		12.1	6.6	23.2		
Change Period (Y+Rc), s		5.0		5.5	5.5	5.0		
Max Green Setting (Gmax), s		52.0		7.5	19.0	27.5		
Max Q Clear Time (g_c+I1), s		6.9		6.6	2.5	14.1		
Green Ext Time (p_c), s		4.8		0.1	0.0	4.2		

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	644	3	92	34	33	123	224	877	29	55	450	574
Future Volume (veh/h)	644	3	92	34	33	123	224	877	29	55	450	574
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845	1845	1827	1827	1827	1837	1900
Adj Flow Rate, veh/h	644	3	92	34	33	123	224	877	29	55	450	574
Adj No. of Lanes	2	2	1	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	4
Cap, veh/h	739	760	340	96	93	165	263	1397	625	98	499	446
Arrive On Green	0.22	0.22	0.22	0.11	0.11	0.11	0.15	0.40	0.40	0.03	0.29	0.29
Sat Flow, veh/h	3408	3505	1568	913	886	1568	1757	3471	1553	3375	1745	1561
Grp Volume(v), veh/h	644	3	92	67	0	123	224	877	29	55	450	574
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1799	0	1568	1757	1736	1553	1688	1745	1561
Q Serve(g_s), s	14.3	0.1	3.8	2.7	0.0	6.0	9.7	15.8	0.9	1.3	19.5	22.4
Cycle Q Clear(g_c), s	14.3	0.1	3.8	2.7	0.0	6.0	9.7	15.8	0.9	1.3	19.5	22.4
Prop In Lane	1.00		1.00	0.51		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	739	760	340	190	0	165	263	1397	625	98	499	446
V/C Ratio(X)	0.87	0.00	0.27	0.35	0.00	0.74	0.85	0.63	0.05	0.56	0.90	1.29
Avail Cap(c_a), veh/h	783	805	360	413	0	360	282	1397	625	142	499	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	24.1	25.5	32.6	0.0	34.0	32.5	18.7	14.3	37.6	26.9	28.0
Incr Delay (d2), s/veh	10.2	0.0	0.4	1.1	0.0	6.5	20.4	0.9	0.0	4.9	19.5	145.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.0	1.7	1.4	0.0	2.9	6.2	7.7	0.4	0.7	12.1	27.5
LnGrp Delay(d),s/veh	39.8	24.1	26.0	33.7	0.0	40.5	52.9	19.6	14.3	42.5	46.5	173.0
LnGrp LOS	D	C	C	C		D	D	B	B	D	D	F
Approach Vol, veh/h		739			190			1130			1079	
Approach Delay, s/veh		38.0			38.1			26.1			113.6	
Approach LOS		D			D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.3	27.4		13.7	7.2	36.6		21.0
Change Period (Y+Rc), s	* 4.6	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	* 13	22.4		* 18	* 3.3	31.4		18.0
Max Q Clear Time (g_c+I1), s	11.7	24.4		8.0	3.3	17.8		16.3
Green Ext Time (p_c), s	0.1	0.0		0.4	0.0	8.2		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	59.7
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	386	38	45	870	120	88	753	31	106	298	214
Future Volume (veh/h)	193	386	38	45	870	120	88	753	31	106	298	214
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1792	1845	1845	1900	1827	1845	1845
Adj Flow Rate, veh/h	193	386	38	45	870	120	88	753	31	106	298	214
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	6	3	3	3	4	3	3
Cap, veh/h	145	830	705	58	738	683	109	582	24	84	585	627
Arrive On Green	0.08	0.45	0.45	0.03	0.40	0.40	0.06	0.33	0.33	0.05	0.32	0.32
Sat Flow, veh/h	1757	1845	1568	1757	1845	1524	1757	1759	72	1740	1845	1568
Grp Volume(v), veh/h	193	386	38	45	870	120	88	0	784	106	298	214
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1524	1757	0	1832	1740	1845	1568
Q Serve(g_s), s	12.0	21.1	2.0	3.7	58.0	6.8	7.2	0.0	48.0	7.0	19.1	13.7
Cycle Q Clear(g_c), s	12.0	21.1	2.0	3.7	58.0	6.8	7.2	0.0	48.0	7.0	19.1	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	145	830	705	58	738	683	109	0	606	84	585	627
V/C Ratio(X)	1.33	0.47	0.05	0.78	1.18	0.18	0.81	0.00	1.29	1.26	0.51	0.34
Avail Cap(c_a), veh/h	145	830	705	109	738	683	158	0	606	84	585	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	27.8	22.5	69.6	43.5	24.0	67.2	0.0	48.5	69.0	40.3	30.2
Incr Delay (d2), s/veh	186.9	0.4	0.0	19.6	94.3	0.1	17.9	0.0	143.8	184.0	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	10.8	0.9	2.1	48.8	2.9	4.0	0.0	48.5	7.7	9.8	6.0
LnGrp Delay(d),s/veh	253.4	28.2	22.5	89.2	137.8	24.1	85.0	0.0	192.3	253.0	41.0	30.5
LnGrp LOS	F	C	C	F	F	C	F		F	F	D	C
Approach Vol, veh/h		617			1035			872			618	
Approach Delay, s/veh		98.3			122.5			181.5			73.8	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	71.2	13.0	52.0	16.0	64.0	11.0	54.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	9.0	61.0	13.0	42.0	12.0	58.0	7.0	48.0
Max Q Clear Time (g_c+I1), s	5.7	23.1	9.2	21.1	14.0	60.0	9.0	50.0
Green Ext Time (p_c), s	0.0	8.6	0.1	6.4	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	124.5
HCM 2010 LOS	F

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	143	8	36	720	258	128
Future Volume (veh/h)	143	8	36	720	258	128
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	143	8	36	720	258	128
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	174	10	46	980	359	178
Arrive On Green	0.11	0.11	0.03	0.54	0.31	0.31
Sat Flow, veh/h	1538	86	1740	1827	1154	572
Grp Volume(v), veh/h	152	0	36	720	0	386
Grp Sat Flow(s),veh/h/ln	1635	0	1740	1827	0	1726
Q Serve(g_s), s	2.5	0.0	0.6	8.3	0.0	5.5
Cycle Q Clear(g_c), s	2.5	0.0	0.6	8.3	0.0	5.5
Prop In Lane	0.94	0.05	1.00			0.33
Lane Grp Cap(c), veh/h	185	0	46	980	0	537
V/C Ratio(X)	0.82	0.00	0.79	0.73	0.00	0.72
Avail Cap(c_a), veh/h	296	0	377	2027	0	1173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	0.0	13.4	4.9	0.0	8.5
Incr Delay (d2), s/veh	9.6	0.0	10.6	0.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.4	4.1	0.0	2.7
LnGrp Delay(d),s/veh	21.6	0.0	24.0	5.3	0.0	9.1
LnGrp LOS	C		C	A		A
Approach Vol, veh/h	152			756	386	
Approach Delay, s/veh	21.6			6.2	9.1	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	6.2	14.3		7.1		20.5		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.0	* 19		5.0		* 31		
Max Q Clear Time (g_c+I1), s	2.6	7.5		4.5		10.3		
Green Ext Time (p_c), s	0.0	1.1		0.0		1.2		

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	112	15	21	569	331	12	27	3	312	225	717
Future Volume (veh/h)	135	112	15	21	569	331	12	27	3	312	225	717
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1792	1792	1900	1792	1792	1792
Adj Flow Rate, veh/h	135	112	15	21	569	331	12	27	3	208	326	747
Adj No. of Lanes	2	2	0	1	1	1	1	1	0	1	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	6	6	6	6	6	6
Cap, veh/h	210	1202	158	25	614	522	44	41	5	470	493	839
Arrive On Green	0.06	0.39	0.39	0.01	0.33	0.33	0.03	0.03	0.03	0.28	0.28	0.28
Sat Flow, veh/h	3408	3115	410	1757	1845	1568	1707	1585	176	1707	1792	3047
Grp Volume(v), veh/h	135	62	65	21	569	331	12	0	30	208	326	747
Grp Sat Flow(s),veh/h/ln	1704	1752	1772	1757	1845	1568	1707	0	1761	1707	1792	1524
Q Serve(g_s), s	2.8	1.7	1.7	0.9	21.9	13.1	0.5	0.0	1.2	7.4	11.9	17.3
Cycle Q Clear(g_c), s	2.8	1.7	1.7	0.9	21.9	13.1	0.5	0.0	1.2	7.4	11.9	17.3
Prop In Lane	1.00		0.23	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	210	676	684	25	614	522	44	0	45	470	493	839
V/C Ratio(X)	0.64	0.09	0.09	0.84	0.93	0.63	0.28	0.00	0.67	0.44	0.66	0.89
Avail Cap(c_a), veh/h	213	676	684	131	730	620	487	0	503	557	585	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	14.4	14.4	36.2	23.7	20.7	35.2	0.0	35.5	22.0	23.6	25.6
Incr Delay (d2), s/veh	4.8	0.0	0.0	22.9	15.1	0.8	1.2	0.0	6.1	0.2	1.3	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.8	0.8	0.6	13.6	5.7	0.3	0.0	0.7	3.5	6.1	8.1
LnGrp Delay(d),s/veh	38.6	14.4	14.4	59.1	38.8	21.6	36.4	0.0	41.7	22.2	24.9	33.7
LnGrp LOS	D	B	B	E	D	C	D		D	C	C	C
Approach Vol, veh/h		262			921			42			1281	
Approach Delay, s/veh		26.9			33.1			40.2			29.6	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	30.4		25.7	6.1	34.3		7.4
Change Period (Y+Rc), s	5.5	* 5.9		5.5	* 5.1	* 5.9		5.5
Max Green Setting (Gmax), s	4.6	* 29		24.0	* 5.5	* 28		21.0
Max Q Clear Time (g_c+I1), s	4.8	23.9		19.3	2.9	3.7		3.2
Green Ext Time (p_c), s	0.0	0.6		0.9	0.0	0.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.8
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	169	14	248	401	305	138
Future Volume (veh/h)	169	14	248	401	305	138
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1759	1792	1792	1810	1810
Adj Flow Rate, veh/h	169	14	248	401	305	138
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	6	6	5	5
Cap, veh/h	233	208	200	966	551	468
Arrive On Green	0.14	0.14	0.12	0.54	0.30	0.30
Sat Flow, veh/h	1675	1495	1707	1792	1810	1538
Grp Volume(v), veh/h	169	14	248	401	305	138
Grp Sat Flow(s),veh/h/ln	1675	1495	1707	1792	1810	1538
Q Serve(g_s), s	3.3	0.3	4.0	4.5	4.8	2.3
Cycle Q Clear(g_c), s	3.3	0.3	4.0	4.5	4.8	2.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	233	208	200	966	551	468
V/C Ratio(X)	0.73	0.07	1.24	0.42	0.55	0.29
Avail Cap(c_a), veh/h	761	679	200	1496	1511	1284
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	12.8	15.1	4.7	9.9	9.1
Incr Delay (d2), s/veh	4.3	0.1	143.0	0.3	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.3	9.8	2.3	2.5	1.0
LnGrp Delay(d),s/veh	18.3	12.9	158.1	5.0	10.8	9.4
LnGrp LOS	B	B	F	A	B	A
Approach Vol, veh/h	183			649	443	
Approach Delay, s/veh	17.9			63.5	10.4	
Approach LOS	B			E	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		23.9		10.2	8.0	15.9		
Change Period (Y+Rc), s		5.5		5.5	4.0	5.5		
Max Green Setting (Gmax), s		28.5		15.5	4.0	28.5		
Max Q Clear Time (g_c+I1), s		6.5		5.3	6.0	6.8		
Green Ext Time (p_c), s		3.6		0.5	0.0	3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	291	5	39	768	40	2	107	9	13	150	187
Future Volume (veh/h)	203	291	5	39	768	40	2	107	9	13	150	187
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1900	1810	1900	1900	1810	1900
Adj Flow Rate, veh/h	203	291	5	39	768	40	2	107	9	13	150	187
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	207	957	16	49	763	40	2	131	11	11	126	157
Arrive On Green	0.12	0.54	0.54	0.03	0.45	0.45	0.08	0.08	0.08	0.18	0.18	0.18
Sat Flow, veh/h	1707	1757	30	1707	1689	88	30	1618	136	61	707	882
Grp Volume(v), veh/h	203	0	296	39	0	808	118	0	0	350	0	0
Grp Sat Flow(s),veh/h/ln	1707	0	1787	1707	0	1777	1784	0	0	1651	0	0
Q Serve(g_s), s	16.0	0.0	12.2	3.1	0.0	61.0	8.8	0.0	0.0	24.0	0.0	0.0
Cycle Q Clear(g_c), s	16.0	0.0	12.2	3.1	0.0	61.0	8.8	0.0	0.0	24.0	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.05	0.02		0.08	0.04		0.53
Lane Grp Cap(c), veh/h	207	0	973	49	0	803	145	0	0	294	0	0
V/C Ratio(X)	0.98	0.00	0.30	0.79	0.00	1.01	0.81	0.00	0.00	1.19	0.00	0.00
Avail Cap(c_a), veh/h	207	0	973	116	0	803	344	0	0	294	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	59.1	0.0	16.8	65.1	0.0	37.0	61.0	0.0	0.0	55.5	0.0	0.0
Incr Delay (d2), s/veh	56.0	0.0	0.4	10.0	0.0	33.3	10.4	0.0	0.0	115.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	0.0	6.1	1.6	0.0	37.3	4.7	0.0	0.0	20.3	0.0	0.0
LnGrp Delay(d),s/veh	115.1	0.0	17.2	75.1	0.0	70.3	71.4	0.0	0.0	170.6	0.0	0.0
LnGrp LOS	F		B	E		F	E			F		
Approach Vol, veh/h		499			847			118			350	
Approach Delay, s/veh		57.0			70.5			71.4			170.6	
Approach LOS		E			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	67.0		30.0	8.5	79.5		17.0
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0
Max Green Setting (Gmax), s	16.4	61.0		24.0	9.2	68.2		26.0
Max Q Clear Time (g_c+I1), s	18.0	63.0		26.0	5.1	14.2		10.8
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	17.3		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	86.2
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	698	91	140	680	239	31	1081	190	125	593	80
Future Volume (veh/h)	153	698	91	140	680	239	31	1081	190	125	593	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	153	698	91	140	680	239	31	1081	190	125	593	80
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	163	772	101	163	868	388	46	1173	525	136	1352	605
Arrive On Green	0.09	0.25	0.25	0.09	0.25	0.25	0.03	0.33	0.33	0.08	0.39	0.39
Sat Flow, veh/h	1757	3119	406	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	153	392	397	140	680	239	31	1081	190	125	593	80
Grp Sat Flow(s),veh/h/ln	1757	1752	1773	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	5.6	14.0	14.0	5.1	11.7	8.7	1.1	19.2	5.9	4.6	8.1	2.1
Cycle Q Clear(g_c), s	5.6	14.0	14.0	5.1	11.7	8.7	1.1	19.2	5.9	4.6	8.1	2.1
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	163	434	439	163	868	388	46	1173	525	136	1352	605
V/C Ratio(X)	0.94	0.90	0.90	0.86	0.78	0.62	0.67	0.92	0.36	0.92	0.44	0.13
Avail Cap(c_a), veh/h	163	434	439	163	868	388	136	1193	534	136	1352	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	23.6	23.6	28.9	22.7	21.6	31.2	20.7	16.3	29.6	14.7	12.9
Incr Delay (d2), s/veh	52.4	21.9	21.9	34.0	4.7	2.9	15.3	11.6	0.4	53.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	9.4	9.5	4.0	6.2	4.1	0.7	11.0	2.6	4.2	3.9	0.9
LnGrp Delay(d),s/veh	81.6	45.5	45.5	62.9	27.4	24.5	46.5	32.3	16.7	83.1	14.9	13.0
LnGrp LOS	F	D	D	E	C	C	D	C	B	F	B	B
Approach Vol, veh/h		942			1059			1302			798	
Approach Delay, s/veh		51.3			31.5			30.3			25.4	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	25.6	10.0	20.0	5.7	28.9	10.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	22.0	6.0	16.0	5.0	22.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	6.6	21.2	7.1	16.0	3.1	10.1	7.6	13.7
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	7.4	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	637	131	12	519	216	88	1055	123	147	411	32
Future Volume (veh/h)	90	637	131	12	519	216	88	1055	123	147	411	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	90	637	131	12	519	216	88	1055	123	147	411	32
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	103	982	439	21	565	234	113	1166	136	178	1336	104
Arrive On Green	0.06	0.28	0.28	0.01	0.23	0.23	0.07	0.37	0.37	0.10	0.41	0.41
Sat Flow, veh/h	1757	3505	1568	1757	2418	1002	1740	3133	365	1740	3265	253
Grp Volume(v), veh/h	90	637	131	12	376	359	88	584	594	147	218	225
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1668	1740	1736	1763	1740	1736	1782
Q Serve(g_s), s	3.5	10.9	4.5	0.5	14.3	14.4	3.4	21.8	21.9	5.7	5.8	5.9
Cycle Q Clear(g_c), s	3.5	10.9	4.5	0.5	14.3	14.4	3.4	21.8	21.9	5.7	5.8	5.9
Prop In Lane	1.00		1.00	1.00		0.60	1.00		0.21	1.00		0.14
Lane Grp Cap(c), veh/h	103	982	439	21	409	390	113	646	656	178	710	729
V/C Ratio(X)	0.88	0.65	0.30	0.57	0.92	0.92	0.78	0.90	0.91	0.83	0.31	0.31
Avail Cap(c_a), veh/h	103	982	439	103	409	390	229	684	695	178	710	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	21.7	19.4	33.7	25.6	25.6	31.5	20.3	20.4	30.1	13.7	13.7
Incr Delay (d2), s/veh	52.0	1.5	0.4	22.3	25.2	27.1	10.8	15.1	15.1	26.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.5	2.0	0.4	9.8	9.5	2.0	13.1	13.3	4.0	2.8	2.9
LnGrp Delay(d),s/veh	84.0	23.2	19.7	56.0	50.8	52.8	42.4	35.4	35.4	56.4	13.9	13.9
LnGrp LOS	F	C	B	E	D	D	D	D	D	E	B	B
Approach Vol, veh/h		858			747			1266			590	
Approach Delay, s/veh		29.0			51.8			35.9			24.5	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	29.5	4.8	23.2	8.5	32.0	8.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	27.0	4.0	16.0	9.0	25.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	7.7	23.9	2.5	12.9	5.4	7.9	5.5	16.4
Green Ext Time (p_c), s	0.0	1.6	0.0	2.0	0.1	7.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	872	159	218	891	125	51	1005	543	92	351	114
Future Volume (veh/h)	160	872	159	218	891	125	51	1005	543	92	351	114
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	160	872	159	218	891	125	51	1005	543	92	351	114
Adj No. of Lanes	1	3	0	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	158	926	168	221	884	395	65	1002	525	95	1637	732
Arrive On Green	0.09	0.22	0.22	0.13	0.25	0.25	0.04	0.45	0.45	0.05	0.47	0.47
Sat Flow, veh/h	1740	4246	770	1740	3471	1553	1740	2204	1154	1740	3471	1553
Grp Volume(v), veh/h	160	682	349	218	891	125	51	785	763	92	351	114
Grp Sat Flow(s),veh/h/ln	1740	1663	1691	1740	1736	1553	1740	1736	1623	1740	1736	1553
Q Serve(g_s), s	10.0	22.2	22.4	13.8	28.0	7.2	3.2	49.5	50.0	5.8	6.5	4.6
Cycle Q Clear(g_c), s	10.0	22.2	22.4	13.8	28.0	7.2	3.2	49.5	50.0	5.8	6.5	4.6
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	158	725	369	221	884	395	65	789	738	95	1637	732
V/C Ratio(X)	1.01	0.94	0.95	0.98	1.01	0.32	0.78	0.99	1.03	0.97	0.21	0.16
Avail Cap(c_a), veh/h	158	725	369	221	884	395	127	789	738	95	1637	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	42.3	42.4	47.9	41.0	33.2	52.5	29.9	30.0	51.9	17.1	16.6
Incr Delay (d2), s/veh	74.6	20.2	33.1	55.9	32.4	0.5	18.1	30.6	42.4	82.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	12.2	13.9	10.0	17.3	3.1	1.9	30.2	31.0	5.0	3.1	2.0
LnGrp Delay(d),s/veh	124.7	62.5	75.5	103.8	73.4	33.7	70.6	60.5	72.4	134.0	17.1	16.7
LnGrp LOS	F	E	E	F	F	C	E	E	F	F	B	B
Approach Vol, veh/h		1191			1234			1599			557	
Approach Delay, s/veh		74.6			74.7			66.5			36.4	
Approach LOS		E			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	54.0	18.0	28.0	8.1	55.9	14.0	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	50.0	14.0	24.0	8.0	48.0	10.0	28.0
Max Q Clear Time (g_c+I1), s	7.8	52.0	15.8	24.4	5.2	8.5	12.0	30.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	15.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	966	106	89	933	136	175	722	125	19	178	123
Future Volume (veh/h)	352	966	106	89	933	136	175	722	125	19	178	123
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	352	966	106	89	933	136	175	722	125	19	178	123
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	386	1522	167	114	991	144	208	862	386	30	507	227
Arrive On Green	0.22	0.48	0.48	0.07	0.33	0.33	0.12	0.25	0.25	0.02	0.14	0.14
Sat Flow, veh/h	1740	3155	346	1740	3041	443	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	352	531	541	89	532	537	175	722	125	19	178	123
Grp Sat Flow(s),veh/h/ln	1740	1736	1766	1740	1736	1749	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	16.7	19.3	19.3	4.3	25.2	25.2	8.2	16.5	5.5	0.9	3.9	6.2
Cycle Q Clear(g_c), s	16.7	19.3	19.3	4.3	25.2	25.2	8.2	16.5	5.5	0.9	3.9	6.2
Prop In Lane	1.00		0.20	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	837	852	114	566	570	208	862	386	30	507	227
V/C Ratio(X)	0.91	0.63	0.64	0.78	0.94	0.94	0.84	0.84	0.32	0.64	0.35	0.54
Avail Cap(c_a), veh/h	391	837	852	185	575	579	208	954	427	83	705	315
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	16.3	16.3	38.9	27.7	27.7	36.5	30.3	26.1	41.3	32.6	33.5
Incr Delay (d2), s/veh	25.1	1.6	1.6	11.0	23.7	23.6	25.5	6.1	0.5	20.1	0.4	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	9.5	9.7	2.4	15.7	15.8	5.5	8.8	2.4	0.6	1.9	2.8
LnGrp Delay(d),s/veh	57.2	17.9	17.9	49.9	51.4	51.3	62.0	36.4	26.6	61.4	33.0	35.6
LnGrp LOS	E	B	B	D	D	D	E	D	C	E	C	D
Approach Vol, veh/h		1424			1158			1022			320	
Approach Delay, s/veh		27.6			51.2			39.6			35.7	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	24.8	9.5	44.8	14.0	16.2	22.7	31.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	23.0	9.0	38.0	10.0	17.0	19.0	28.0
Max Q Clear Time (g_c+I1), s	2.9	18.5	6.3	21.3	10.2	8.2	18.7	27.2
Green Ext Time (p_c), s	0.0	2.3	0.1	9.8	0.0	3.7	0.1	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	38.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	656	504	17	65	494	254	40	542	43	116	269	368
Future Volume (veh/h)	656	504	17	65	494	254	40	542	43	116	269	368
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	656	504	17	65	494	254	40	542	43	116	269	368
Adj No. of Lanes	2	2	1	2	2	0	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	700	1439	644	146	557	285	108	751	59	192	886	396
Arrive On Green	0.21	0.41	0.41	0.04	0.25	0.25	0.03	0.23	0.23	0.06	0.26	0.26
Sat Flow, veh/h	3375	3471	1553	3375	2224	1138	3375	3259	258	3375	3471	1553
Grp Volume(v), veh/h	656	504	17	65	385	363	40	288	297	116	269	368
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1688	1736	1626	1688	1736	1781	1688	1736	1553
Q Serve(g_s), s	12.0	6.2	0.4	1.2	13.4	13.5	0.7	9.6	9.7	2.1	3.9	14.5
Cycle Q Clear(g_c), s	12.0	6.2	0.4	1.2	13.4	13.5	0.7	9.6	9.7	2.1	3.9	14.5
Prop In Lane	1.00		1.00	1.00		0.70	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	700	1439	644	146	435	407	108	400	410	192	886	396
V/C Ratio(X)	0.94	0.35	0.03	0.45	0.89	0.89	0.37	0.72	0.72	0.61	0.30	0.93
Avail Cap(c_a), veh/h	700	1439	644	215	443	415	215	443	455	215	886	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	12.6	10.9	29.3	22.6	22.7	29.7	22.3	22.3	28.9	18.9	22.8
Incr Delay (d2), s/veh	20.2	0.1	0.0	2.1	18.8	20.5	2.1	5.0	5.0	3.9	0.2	28.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	3.0	0.2	0.6	8.7	8.4	0.4	5.1	5.3	1.1	1.9	9.3
LnGrp Delay(d),s/veh	44.7	12.7	10.9	31.4	41.4	43.2	31.8	27.3	27.3	32.8	19.0	50.9
LnGrp LOS	D	B	B	C	D	D	C	C	C	C	B	D
Approach Vol, veh/h		1177			813			625			753	
Approach Delay, s/veh		30.5			41.4			27.6			36.7	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	18.4	6.7	30.0	6.0	20.0	17.0	19.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	4.0	25.0	4.0	16.0	13.0	16.0
Max Q Clear Time (g_c+I1), s	4.1	11.7	3.2	8.2	2.7	16.5	14.0	15.5
Green Ext Time (p_c), s	0.0	2.2	0.0	5.8	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1	88	110	3	1	281	879	37	0	397	0
Future Volume (veh/h)	11	1	88	110	3	1	281	879	37	0	397	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	11	1	88	110	3	1	281	879	37	0	397	0
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	14	1	109	149	112	37	361	1021	868	4	504	0
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.21	0.57	0.57	0.00	0.28	0.00
Sat Flow, veh/h	167	15	1334	1757	1325	442	1707	1792	1524	1707	1792	0
Grp Volume(v), veh/h	100	0	0	110	0	4	281	879	37	0	397	0
Grp Sat Flow(s),veh/h/ln	1516	0	0	1757	0	1767	1707	1792	1524	1707	1792	0
Q Serve(g_s), s	3.0	0.0	0.0	2.9	0.0	0.1	7.3	19.4	0.5	0.0	9.6	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.0	2.9	0.0	0.1	7.3	19.4	0.5	0.0	9.6	0.0
Prop In Lane	0.11		0.88	1.00		0.25	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	124	0	0	149	0	149	361	1021	868	4	504	0
V/C Ratio(X)	0.81	0.00	0.00	0.74	0.00	0.03	0.78	0.86	0.04	0.00	0.79	0.00
Avail Cap(c_a), veh/h	516	0	0	599	0	602	763	1832	1557	145	1183	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	21.2	0.0	0.0	21.0	0.0	19.7	17.5	8.5	4.5	0.0	15.6	0.0
Incr Delay (d2), s/veh	11.5	0.0	0.0	7.0	0.0	0.1	3.7	2.3	0.0	0.0	2.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	1.7	0.0	0.1	3.8	9.9	0.2	0.0	5.1	0.0
LnGrp Delay(d),s/veh	32.6	0.0	0.0	28.0	0.0	19.8	21.1	10.8	4.5	0.0	18.3	0.0
LnGrp LOS	C			C		B	C	B	A		B	
Approach Vol, veh/h		100			114			1197			397	
Approach Delay, s/veh		32.6			27.8			13.0			18.3	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.4	30.8		7.8	13.9	17.2		8.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	48.0		16.0	21.0	31.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	21.4		5.0	9.3	11.6		4.9
Green Ext Time (p_c), s	0.0	5.3		0.2	0.9	1.6		0.3

Intersection Summary		
HCM 2010 Ctrl Delay		16.2
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1	1	260	0	432	2	882	131	181	568	5
Future Volume (veh/h)	5	1	1	260	0	432	2	882	131	181	568	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	5	1	1	260	0	432	2	882	131	181	568	5
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	9	74	74	275	0	374	4	845	126	192	1178	10
Arrive On Green	0.01	0.09	0.09	0.16	0.00	0.24	0.00	0.54	0.54	0.11	0.65	0.65
Sat Flow, veh/h	1757	848	848	1757	0	1568	1757	1570	233	1757	1826	16
Grp Volume(v), veh/h	5	0	2	260	0	432	2	0	1013	181	0	573
Grp Sat Flow(s),veh/h/ln	1757	0	1695	1757	0	1568	1757	0	1804	1757	0	1842
Q Serve(g_s), s	0.4	0.0	0.2	21.5	0.0	35.0	0.2	0.0	79.0	15.0	0.0	23.5
Cycle Q Clear(g_c), s	0.4	0.0	0.2	21.5	0.0	35.0	0.2	0.0	79.0	15.0	0.0	23.5
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	9	0	147	275	0	374	4	0	971	192	0	1188
V/C Ratio(X)	0.57	0.00	0.01	0.94	0.00	1.16	0.53	0.00	1.04	0.94	0.00	0.48
Avail Cap(c_a), veh/h	48	0	185	275	0	374	48	0	971	192	0	1188
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	72.8	0.0	61.3	61.2	0.0	55.9	73.1	0.0	33.9	64.9	0.0	13.4
Incr Delay (d2), s/veh	46.4	0.0	0.0	39.3	0.0	95.9	84.6	0.0	40.8	49.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.1	13.5	0.0	25.0	0.2	0.0	50.1	9.9	0.0	12.0
LnGrp Delay(d),s/veh	119.3	0.0	61.3	100.6	0.0	151.8	157.7	0.0	74.7	114.2	0.0	13.7
LnGrp LOS	F		E	F		F	F		F	F		B
Approach Vol, veh/h		7			692			1015			754	
Approach Delay, s/veh		102.7			132.5			74.8			37.8	
Approach LOS		F			F			E			D	

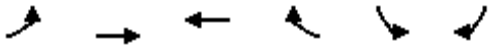
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	83.0	27.0	16.7	4.3	98.7	4.7	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	79.0	23.0	16.0	4.0	91.0	4.0	35.0
Max Q Clear Time (g_c+I1), s	17.0	81.0	23.5	2.2	2.2	25.5	2.4	37.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.8	0.0	12.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	79.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	315	6	4	1	5	7	3	516	1	0	547	269
Future Volume (veh/h)	315	6	4	1	5	7	3	516	1	0	547	269
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	315	6	4	1	5	7	3	516	1	0	547	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	397	8	361	2	9	12	6	886	2	4	713	606
Arrive On Green	0.23	0.23	0.23	0.01	0.01	0.01	0.00	0.48	0.48	0.00	0.39	0.00
Sat Flow, veh/h	1726	33	1568	129	646	904	1757	1840	4	1757	1845	1568
Grp Volume(v), veh/h	321	0	4	13	0	0	3	0	517	0	547	0
Grp Sat Flow(s),veh/h/ln	1758	0	1568	1679	0	0	1757	0	1844	1757	1845	1568
Q Serve(g_s), s	7.5	0.0	0.1	0.3	0.0	0.0	0.1	0.0	8.8	0.0	11.3	0.0
Cycle Q Clear(g_c), s	7.5	0.0	0.1	0.3	0.0	0.0	0.1	0.0	8.8	0.0	11.3	0.0
Prop In Lane	0.98		1.00	0.08		0.54	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	405	0	361	22	0	0	6	0	888	4	713	606
V/C Ratio(X)	0.79	0.00	0.01	0.58	0.00	0.00	0.52	0.00	0.58	0.00	0.77	0.00
Avail Cap(c_a), veh/h	644	0	574	615	0	0	161	0	971	161	971	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.8	0.0	13.0	21.4	0.0	0.0	21.7	0.0	8.2	0.0	11.7	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.0	21.5	0.0	0.0	58.1	0.0	0.8	0.0	2.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	0.0	0.3	0.0	0.0	0.1	0.0	4.6	0.0	6.1	0.0
LnGrp Delay(d),s/veh	19.4	0.0	13.0	42.9	0.0	0.0	79.8	0.0	8.9	0.0	14.2	0.0
LnGrp LOS	B		B	D			E		A		B	
Approach Vol, veh/h		325			13			520			547	
Approach Delay, s/veh		19.3			42.9			9.3			14.2	
Approach LOS		B			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	25.0		14.1	4.1	20.9		4.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	23.0		16.0	4.0	23.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	10.8		9.5	2.1	13.3		2.3
Green Ext Time (p_c), s	0.0	4.1		0.7	0.0	3.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	251	643	551	87	15	116
Future Volume (veh/h)	251	643	551	87	15	116
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	251	643	551	87	15	116
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	238	2208	1088	171	174	155
Arrive On Green	0.14	0.63	0.36	0.36	0.10	0.10
Sat Flow, veh/h	1757	3597	3127	478	1757	1568
Grp Volume(v), veh/h	251	643	317	321	15	116
Grp Sat Flow(s),veh/h/ln	1757	1752	1752	1760	1757	1568
Q Serve(g_s), s	4.0	2.5	4.2	4.2	0.2	2.1
Cycle Q Clear(g_c), s	4.0	2.5	4.2	4.2	0.2	2.1
Prop In Lane	1.00			0.27	1.00	1.00
Lane Grp Cap(c), veh/h	238	2208	628	631	174	155
V/C Ratio(X)	1.05	0.29	0.51	0.51	0.09	0.75
Avail Cap(c_a), veh/h	238	2852	951	955	1072	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	2.5	7.4	7.4	12.1	12.9
Incr Delay (d2), s/veh	73.0	0.1	0.6	0.6	0.2	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	1.2	2.0	2.2	0.1	2.1
LnGrp Delay(d),s/veh	85.8	2.5	8.0	8.0	12.3	20.0
LnGrp LOS	F	A	A	A	B	B
Approach Vol, veh/h		894	638		131	
Approach Delay, s/veh		25.9	8.0		19.1	
Approach LOS		C	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				22.6		6.9	8.0	14.6
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				24.0		18.0	4.0	16.0
Max Q Clear Time (g_c+I1), s				4.5		4.1	6.0	6.2
Green Ext Time (p_c), s				6.1		0.3	0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	1924	0	58	2372	0	1	2	29	52	0	0
Future Volume (veh/h)	264	1924	0	58	2372	0	1	2	29	52	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	264	1924	0	58	2372	0	1	2	29	52	0	0
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	303	3343	0	74	2686	0	2	83	71	65	150	127
Arrive On Green	0.17	0.66	0.00	0.04	0.53	0.00	0.00	0.04	0.04	0.04	0.00	0.00
Sat Flow, veh/h	1757	5202	0	1757	5202	0	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	264	1924	0	58	2372	0	1	2	29	52	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	0	1757	1679	0	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	11.0	15.7	0.0	2.5	31.3	0.0	0.0	0.1	1.4	2.2	0.0	0.0
Cycle Q Clear(g_c), s	11.0	15.7	0.0	2.5	31.3	0.0	0.0	0.1	1.4	2.2	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	303	3343	0	74	2686	0	2	83	71	65	150	127
V/C Ratio(X)	0.87	0.58	0.00	0.79	0.88	0.00	0.43	0.02	0.41	0.80	0.00	0.00
Avail Cap(c_a), veh/h	303	3343	0	163	2806	0	70	392	333	70	392	333
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.4	6.9	0.0	35.8	15.5	0.0	37.6	34.4	35.0	36.0	0.0	0.0
Incr Delay (d2), s/veh	23.2	0.2	0.0	16.7	3.6	0.0	92.3	0.1	3.8	44.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	7.2	0.0	1.5	15.2	0.0	0.1	0.0	0.7	1.9	0.0	0.0
LnGrp Delay(d),s/veh	53.5	7.1	0.0	52.5	19.1	0.0	129.9	34.5	38.8	80.0	0.0	0.0
LnGrp LOS	D	A		D	B		F	C	D	F		
Approach Vol, veh/h		2188			2430			32			52	
Approach Delay, s/veh		12.7			19.9			41.4			80.0	
Approach LOS		B			B			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	7.4	7.2	54.0	4.1	10.1	17.0	44.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	16.0	7.0	48.0	3.0	16.0	13.0	42.0
Max Q Clear Time (g_c+I1), s	4.2	3.4	4.5	17.7	2.0	0.0	13.0	33.3
Green Ext Time (p_c), s	0.0	0.0	0.0	28.4	0.0	0.0	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	387	1026	501	127	1364	0	824	266	117	42	225	227
Future Volume (veh/h)	387	1026	501	127	1364	0	824	266	117	42	225	227
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	387	1026	501	127	1364	0	824	266	117	42	225	227
Adj No. of Lanes	1	3	1	2	3	1	2	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	368	2068	644	185	1286	400	777	662	562	53	297	253
Arrive On Green	0.21	0.41	0.41	0.05	0.26	0.00	0.23	0.36	0.36	0.03	0.16	0.16
Sat Flow, veh/h	1757	5036	1568	3408	5036	1568	3408	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	387	1026	501	127	1364	0	824	266	117	42	225	227
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1704	1679	1568	1704	1845	1568	1757	1845	1568
Q Serve(g_s), s	23.0	16.5	30.4	4.0	28.0	0.0	25.0	11.9	5.7	2.6	12.8	15.6
Cycle Q Clear(g_c), s	23.0	16.5	30.4	4.0	28.0	0.0	25.0	11.9	5.7	2.6	12.8	15.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	368	2068	644	185	1286	400	777	662	562	53	297	253
V/C Ratio(X)	1.05	0.50	0.78	0.68	1.06	0.00	1.06	0.40	0.21	0.79	0.76	0.90
Avail Cap(c_a), veh/h	368	2068	644	249	1286	400	777	662	562	96	303	257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	23.9	28.0	50.9	40.8	0.0	42.3	26.3	24.4	52.8	43.9	45.1
Incr Delay (d2), s/veh	60.7	0.2	6.0	4.8	43.0	0.0	49.6	0.4	0.2	22.0	10.3	30.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	7.6	14.1	2.0	18.0	0.0	17.0	6.1	2.5	1.6	7.4	8.9
LnGrp Delay(d),s/veh	104.1	24.1	34.0	55.7	83.8	0.0	91.9	26.7	24.6	74.8	54.2	75.8
LnGrp LOS	F	C	C	E	F		F	C	C	E	D	E
Approach Vol, veh/h		1914			1491			1207			494	
Approach Delay, s/veh		42.9			81.4			71.0			65.9	
Approach LOS		D			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	43.3	10.0	49.0	29.0	21.7	27.0	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	37.0	8.0	43.0	25.0	18.0	23.0	28.0
Max Q Clear Time (g_c+I1), s	4.6	13.9	6.0	32.4	27.0	17.6	25.0	30.0
Green Ext Time (p_c), s	0.0	3.3	0.1	8.9	0.0	0.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	63.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	991	18	47	1339	2	150	0	0	4	1	61
Future Volume (veh/h)	12	991	18	47	1339	2	150	0	0	4	1	61
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	12	991	18	47	1339	2	150	0	0	4	1	61
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	16	1927	35	55	2080	3	192	359	305	6	163	139
Arrive On Green	0.01	0.38	0.38	0.03	0.40	0.40	0.11	0.00	0.00	0.00	0.09	0.09
Sat Flow, veh/h	1757	5093	92	1757	5193	8	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	12	653	356	47	866	475	150	0	0	4	1	61
Grp Sat Flow(s),veh/h/ln	1757	1679	1828	1757	1679	1843	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	0.3	6.1	6.1	1.1	8.5	8.5	3.4	0.0	0.0	0.1	0.0	1.5
Cycle Q Clear(g_c), s	0.3	6.1	6.1	1.1	8.5	8.5	3.4	0.0	0.0	0.1	0.0	1.5
Prop In Lane	1.00		0.05	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	16	1270	692	55	1344	738	192	359	305	6	163	139
V/C Ratio(X)	0.73	0.51	0.51	0.85	0.64	0.64	0.78	0.00	0.00	0.70	0.01	0.44
Avail Cap(c_a), veh/h	129	1317	717	215	1482	814	302	905	769	129	724	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	9.8	9.8	19.7	9.9	9.9	17.7	0.0	0.0	20.3	17.0	17.6
Incr Delay (d2), s/veh	46.4	0.3	0.6	28.5	0.8	1.5	6.7	0.0	0.0	93.3	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.9	3.2	0.9	4.0	4.5	2.0	0.0	0.0	0.2	0.0	0.7
LnGrp Delay(d),s/veh	66.6	10.1	10.4	48.2	10.7	11.4	24.4	0.0	0.0	113.6	17.0	19.8
LnGrp LOS	E	B	B	D	B	B	C			F	B	B
Approach Vol, veh/h		1021			1388			150			66	
Approach Delay, s/veh		10.9			12.2			24.4			25.5	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.1	11.9	5.3	19.4	8.5	7.6	4.4	20.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	20.0	5.0	16.0	7.0	16.0	3.0	18.0
Max Q Clear Time (g_c+I1), s	2.1	0.0	3.1	8.1	5.4	3.5	2.3	10.5
Green Ext Time (p_c), s	0.0	0.0	0.0	6.1	0.1	0.1	0.0	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	917	29	82	1233	32	88	6	61	51	7	67
Future Volume (veh/h)	49	917	29	82	1233	32	88	6	61	51	7	67
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	49	917	29	82	1233	32	88	6	61	51	7	67
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	57	1881	59	102	2021	52	109	235	199	60	183	155
Arrive On Green	0.03	0.37	0.37	0.06	0.40	0.40	0.06	0.13	0.13	0.03	0.10	0.10
Sat Flow, veh/h	1757	5016	158	1757	5048	131	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	49	613	333	82	820	445	88	6	61	51	7	67
Grp Sat Flow(s),veh/h/ln	1757	1679	1817	1757	1679	1822	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.1	5.5	5.5	1.8	7.6	7.6	2.0	0.1	1.4	1.1	0.1	1.6
Cycle Q Clear(g_c), s	1.1	5.5	5.5	1.8	7.6	7.6	2.0	0.1	1.4	1.1	0.1	1.6
Prop In Lane	1.00		0.09	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	57	1259	681	102	1344	729	109	235	199	60	183	155
V/C Ratio(X)	0.85	0.49	0.49	0.80	0.61	0.61	0.80	0.03	0.31	0.85	0.04	0.43
Avail Cap(c_a), veh/h	178	1362	737	267	1532	831	223	795	676	223	795	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	9.4	9.4	18.4	9.4	9.4	18.3	15.1	15.6	18.9	16.1	16.7
Incr Delay (d2), s/veh	27.8	0.3	0.5	13.6	0.6	1.0	12.7	0.0	0.9	26.1	0.1	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.5	2.9	1.3	3.6	4.0	1.3	0.1	0.6	1.0	0.1	0.8
LnGrp Delay(d),s/veh	46.8	9.7	10.0	32.0	10.0	10.4	31.0	15.1	16.5	45.0	16.2	18.6
LnGrp LOS	D	A	A	C	A	B	C	B	B	D	B	B
Approach Vol, veh/h		995			1347			155			125	
Approach Delay, s/veh		11.6			11.5			24.7			29.2	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	9.0	6.3	18.8	6.5	7.9	5.3	19.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	17.0	6.0	16.0	5.0	17.0	4.0	18.0
Max Q Clear Time (g_c+I1), s	3.1	3.4	3.8	7.5	4.0	3.6	3.1	9.6
Green Ext Time (p_c), s	0.0	0.3	0.0	6.2	0.0	0.3	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	109	25	74	1546	883	95
Future Volume (veh/h)	109	25	74	1546	883	95
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	109	25	74	1546	883	95
Adj No. of Lanes	1	1	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	137	122	95	1579	2457	264
Arrive On Green	0.08	0.08	0.05	0.86	0.77	0.77
Sat Flow, veh/h	1757	1568	1757	1845	3285	344
Grp Volume(v), veh/h	109	25	74	1546	485	493
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1845	1752	1784
Q Serve(g_s), s	7.4	1.8	5.1	90.6	10.7	10.7
Cycle Q Clear(g_c), s	7.4	1.8	5.1	90.6	10.7	10.7
Prop In Lane	1.00	1.00	1.00			0.19
Lane Grp Cap(c), veh/h	137	122	95	1579	1348	1373
V/C Ratio(X)	0.79	0.20	0.78	0.98	0.36	0.36
Avail Cap(c_a), veh/h	217	193	173	1622	1348	1373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	52.5	56.9	7.8	4.5	4.5
Incr Delay (d2), s/veh	10.1	0.8	13.1	17.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.6	2.8	51.8	5.2	5.3
LnGrp Delay(d),s/veh	65.2	53.4	69.9	25.1	4.6	4.6
LnGrp LOS	E	D	E	C	A	A
Approach Vol, veh/h	134			1620	978	
Approach Delay, s/veh	63.0			27.2	4.6	
Approach LOS	E			C	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		108.2		13.5	10.5	97.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		107.0		15.0	12.0	91.0		
Max Q Clear Time (g_c+I1), s		92.6		9.4	7.1	12.7		
Green Ext Time (p_c), s		11.6		0.2	0.1	44.6		

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	28	124	204	1912	975	20
Future Volume (veh/h)	28	124	204	1912	975	20
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	28	124	204	1912	975	20
Adj No. of Lanes	1	1	1	3	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	193	173	262	3341	2035	42
Arrive On Green	0.11	0.11	0.15	0.66	0.40	0.40
Sat Flow, veh/h	1757	1568	1757	5202	5245	104
Grp Volume(v), veh/h	28	124	204	1912	644	351
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1679	1679	1826
Q Serve(g_s), s	0.5	2.7	3.9	7.3	5.0	5.0
Cycle Q Clear(g_c), s	0.5	2.7	3.9	7.3	5.0	5.0
Prop In Lane	1.00	1.00	1.00			0.06
Lane Grp Cap(c), veh/h	193	173	262	3341	1345	732
V/C Ratio(X)	0.14	0.72	0.78	0.57	0.48	0.48
Avail Cap(c_a), veh/h	746	666	398	3851	1426	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	15.2	14.5	3.2	7.8	7.8
Incr Delay (d2), s/veh	0.3	5.5	5.4	0.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.6	2.3	3.2	2.3	2.6
LnGrp Delay(d),s/veh	14.5	20.7	19.8	3.4	8.1	8.3
LnGrp LOS	B	C	B	A	A	A
Approach Vol, veh/h	152			2116	995	
Approach Delay, s/veh	19.6			5.0	8.2	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		27.4		7.9	9.3	18.1		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		27.0		15.0	8.0	15.0		
Max Q Clear Time (g_c+I1), s		9.3		4.7	5.9	7.0		
Green Ext Time (p_c), s		14.1		0.3	0.2	7.0		

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	14	80	1106	625	219
Future Volume (veh/h)	90	14	80	1106	625	219
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	90	14	80	1106	625	219
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	120	107	97	2307	1189	416
Arrive On Green	0.07	0.07	0.05	0.66	0.47	0.47
Sat Flow, veh/h	1757	1568	1757	3597	2640	892
Grp Volume(v), veh/h	90	14	80	1106	430	414
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1687
Q Serve(g_s), s	1.5	0.2	1.3	4.6	5.1	5.1
Cycle Q Clear(g_c), s	1.5	0.2	1.3	4.6	5.1	5.1
Prop In Lane	1.00	1.00	1.00			0.53
Lane Grp Cap(c), veh/h	120	107	97	2307	818	787
V/C Ratio(X)	0.75	0.13	0.83	0.48	0.53	0.53
Avail Cap(c_a), veh/h	300	268	360	3233	1018	980
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	12.8	13.7	2.5	5.5	5.5
Incr Delay (d2), s/veh	8.9	0.5	16.0	0.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.2	1.1	2.2	2.5	2.4
LnGrp Delay(d),s/veh	22.3	13.4	29.7	2.7	6.0	6.1
LnGrp LOS	C	B	C	A	A	A
Approach Vol, veh/h	104			1186	844	
Approach Delay, s/veh	21.1			4.5	6.1	
Approach LOS	C			A	A	

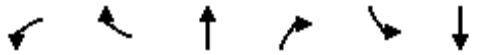
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		23.3		6.0	5.6	17.7		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		27.0		5.0	6.0	17.0		
Max Q Clear Time (g_c+I1), s		6.6		3.5	3.3	7.1		
Green Ext Time (p_c), s		10.6		0.0	0.0	6.6		

Intersection Summary	
HCM 2010 Ctrl Delay	5.9
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	230	9	214	1393	701	136
Future Volume (veh/h)	230	9	214	1393	701	136
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	230	9	214	1393	701	136
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	303	271	279	2265	1163	226
Arrive On Green	0.17	0.17	0.16	0.65	0.40	0.40
Sat Flow, veh/h	1757	1568	1757	3597	3021	568
Grp Volume(v), veh/h	230	9	214	1393	419	418
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1744
Q Serve(g_s), s	5.5	0.2	5.2	10.3	8.4	8.4
Cycle Q Clear(g_c), s	5.5	0.2	5.2	10.3	8.4	8.4
Prop In Lane	1.00	1.00	1.00			0.33
Lane Grp Cap(c), veh/h	303	271	279	2265	696	693
V/C Ratio(X)	0.76	0.03	0.77	0.61	0.60	0.60
Avail Cap(c_a), veh/h	597	533	517	2936	794	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	15.2	17.8	4.6	10.5	10.6
Incr Delay (d2), s/veh	3.9	0.0	4.4	0.3	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.2	2.8	4.9	4.2	4.1
LnGrp Delay(d),s/veh	21.3	15.3	22.2	4.9	11.6	11.6
LnGrp LOS	C	B	C	A	B	B
Approach Vol, veh/h	239			1607	837	
Approach Delay, s/veh	21.1			7.2	11.6	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		32.5		11.6	11.0	21.5		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		37.0		15.0	13.0	20.0		
Max Q Clear Time (g_c+I1), s		12.3		7.5	7.2	10.4		
Green Ext Time (p_c), s		13.9		0.5	0.4	7.2		

Intersection Summary	
HCM 2010 Ctrl Delay	9.8
HCM 2010 LOS	A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	140	2579	0	144	1223
Future Volume (veh/h)	0	140	2579	0	144	1223
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	0	140	2579	0	144	1223
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	196	175	3035	0	180	2686
Arrive On Green	0.00	0.11	0.60	0.00	0.10	0.77
Sat Flow, veh/h	1757	1568	5368	0	1757	3597
Grp Volume(v), veh/h	0	140	2579	0	144	1223
Grp Sat Flow(s),veh/h/ln	1757	1568	1679	0	1757	1752
Q Serve(g_s), s	0.0	5.7	27.4	0.0	5.3	8.2
Cycle Q Clear(g_c), s	0.0	5.7	27.4	0.0	5.3	8.2
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	196	175	3035	0	180	2686
V/C Ratio(X)	0.00	0.80	0.85	0.00	0.80	0.46
Avail Cap(c_a), veh/h	429	382	3071	0	187	2725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.4	10.6	0.0	28.8	2.8
Incr Delay (d2), s/veh	0.0	8.1	2.4	0.0	20.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	13.1	0.0	3.6	4.0
LnGrp Delay(d),s/veh	0.0	36.5	13.0	0.0	49.3	2.9
LnGrp LOS		D	B		D	A
Approach Vol, veh/h	140		2579			1367
Approach Delay, s/veh	36.5		13.0			7.8
Approach LOS	D		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		54.3			10.7	43.5		11.3
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		51.0			7.0	40.0		16.0
Max Q Clear Time (g_c+I1), s		10.2			7.3	29.4		7.7
Green Ext Time (p_c), s		35.4			0.0	10.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	716	534	40	544	522	0	131	1640	583	31	871	565
Future Volume (veh/h)	716	534	40	544	522	0	131	1640	583	31	871	565
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	716	534	40	544	522	0	131	1640	583	31	871	565
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	780	770	344	637	623	279	203	1870	582	64	1665	518
Arrive On Green	0.23	0.22	0.22	0.19	0.18	0.00	0.06	0.37	0.37	0.02	0.33	0.33
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	716	534	40	544	522	0	131	1640	583	31	871	565
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	16.1	11.0	1.6	12.1	11.3	0.0	3.0	23.9	29.2	0.7	11.0	26.0
Cycle Q Clear(g_c), s	16.1	11.0	1.6	12.1	11.3	0.0	3.0	23.9	29.2	0.7	11.0	26.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	780	770	344	637	623	279	203	1870	582	64	1665	518
V/C Ratio(X)	0.92	0.69	0.12	0.85	0.84	0.00	0.65	0.88	1.00	0.48	0.52	1.09
Avail Cap(c_a), veh/h	780	770	344	693	668	299	217	1870	582	130	1665	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	28.3	24.6	30.9	31.2	0.0	36.2	23.1	24.7	38.2	21.3	26.3
Incr Delay (d2), s/veh	15.8	2.7	0.1	9.6	8.8	0.0	6.0	5.1	37.7	5.6	0.3	66.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	5.6	0.7	6.5	6.2	0.0	1.6	11.8	18.6	0.4	5.1	20.7
LnGrp Delay(d),s/veh	45.4	31.0	24.7	40.5	40.0	0.0	42.1	28.1	62.4	43.8	21.6	92.5
LnGrp LOS	D	C	C	D	D		D	C	F	D	C	F
Approach Vol, veh/h		1290			1066			2354			1467	
Approach Delay, s/veh		38.8			40.3			37.4			49.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	33.2	18.7	21.3	8.7	30.0	22.0	18.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	28.0	16.0	17.0	5.0	26.0	18.0	15.0
Max Q Clear Time (g_c+I1), s	2.7	31.2	14.1	13.0	5.0	28.0	18.1	13.3
Green Ext Time (p_c), s	0.0	0.0	0.6	2.0	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	733	19	23	666	13	117	2	73	22	2	69
Future Volume (veh/h)	67	733	19	23	666	13	117	2	73	22	2	69
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	67	733	19	23	666	13	117	2	73	22	2	69
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	80	1235	32	30	1143	22	149	321	273	29	194	165
Arrive On Green	0.05	0.35	0.35	0.02	0.33	0.33	0.08	0.17	0.17	0.02	0.11	0.11
Sat Flow, veh/h	1757	3491	90	1757	3516	69	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	67	368	384	23	332	347	117	2	73	22	2	69
Grp Sat Flow(s),veh/h/ln	1757	1752	1829	1757	1752	1833	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.4	6.3	6.3	0.5	5.7	5.8	2.4	0.0	1.5	0.5	0.0	1.5
Cycle Q Clear(g_c), s	1.4	6.3	6.3	0.5	5.7	5.8	2.4	0.0	1.5	0.5	0.0	1.5
Prop In Lane	1.00		0.05	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	620	647	30	570	596	149	321	273	29	194	165
V/C Ratio(X)	0.83	0.59	0.59	0.77	0.58	0.58	0.78	0.01	0.27	0.76	0.01	0.42
Avail Cap(c_a), veh/h	193	817	853	145	769	804	337	1062	903	145	860	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	9.6	9.6	17.8	10.2	10.2	16.4	12.5	13.1	17.9	14.6	15.3
Incr Delay (d2), s/veh	19.2	0.9	0.9	32.4	0.9	0.9	8.7	0.0	0.5	33.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.1	3.3	0.5	2.9	3.0	1.5	0.0	0.7	0.5	0.0	0.7
LnGrp Delay(d),s/veh	36.5	10.5	10.5	50.2	11.2	11.2	25.0	12.5	13.6	50.8	14.6	16.9
LnGrp LOS	D	B	B	D	B	B	C	B	B	D	B	B
Approach Vol, veh/h		819			702			192			93	
Approach Delay, s/veh		12.7			12.4			20.5			24.9	
Approach LOS		B			B			C			C	

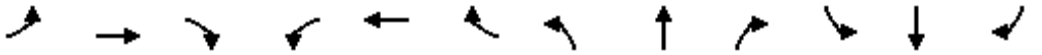
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.6	10.3	4.6	16.9	7.1	7.8	5.7	15.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	21.0	3.0	17.0	7.0	17.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	2.5	3.5	2.5	8.3	4.4	3.5	3.4	7.8
Green Ext Time (p_c), s	0.0	0.4	0.0	4.3	0.1	0.3	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	1539	180	71	2023	59	69	5	0	54	3	54
Future Volume (veh/h)	232	1539	180	71	2023	59	69	5	0	54	3	54
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	232	1539	180	71	2023	59	69	5	0	54	3	54
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	278	2821	330	91	2569	75	88	93	0	99	105	89
Arrive On Green	0.16	0.62	0.62	0.05	0.51	0.51	0.05	0.05	0.00	0.06	0.06	0.06
Sat Flow, veh/h	1757	4573	534	1757	5030	146	1757	1845	0	1757	1845	1568
Grp Volume(v), veh/h	232	1129	590	71	1349	733	69	5	0	54	3	54
Grp Sat Flow(s),veh/h/ln	1757	1679	1750	1757	1679	1819	1757	1845	0	1757	1845	1568
Q Serve(g_s), s	9.1	13.8	13.9	2.8	23.4	23.5	2.8	0.2	0.0	2.1	0.1	2.4
Cycle Q Clear(g_c), s	9.1	13.8	13.9	2.8	23.4	23.5	2.8	0.2	0.0	2.1	0.1	2.4
Prop In Lane	1.00		0.31	1.00		0.08	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	2071	1080	91	1715	929	88	93	0	99	105	89
V/C Ratio(X)	0.84	0.55	0.55	0.78	0.79	0.79	0.79	0.05	0.00	0.55	0.03	0.61
Avail Cap(c_a), veh/h	345	2071	1080	222	1791	970	99	466	0	99	466	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	7.9	7.9	33.4	14.3	14.3	33.5	32.2	0.0	32.7	31.7	32.8
Incr Delay (d2), s/veh	13.5	0.3	0.6	13.2	2.3	4.3	30.6	0.2	0.0	6.2	0.1	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	6.4	6.7	1.7	11.2	12.7	2.1	0.1	0.0	1.2	0.1	1.2
LnGrp Delay(d),s/veh	42.6	8.2	8.5	46.6	16.6	18.6	64.1	32.4	0.0	39.0	31.8	39.3
LnGrp LOS	D	A	A	D	B	B	E	C		D	C	D
Approach Vol, veh/h		1951			2153			74			111	
Approach Delay, s/veh		12.4			18.2			61.9			38.9	
Approach LOS		B			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	7.6	7.7	47.9	7.6	8.0	15.3	40.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	18.0	9.0	43.0	4.0	18.0	14.0	38.0
Max Q Clear Time (g_c+I1), s	4.1	2.2	4.8	15.9	4.8	4.4	11.1	25.5
Green Ext Time (p_c), s	0.0	0.1	0.1	23.6	0.0	0.1	0.2	10.9

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	263	752	772	20	1276	24	1484	124	38	18	45	96
Future Volume (veh/h)	263	752	772	20	1276	24	1484	124	38	18	45	96
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	263	752	772	20	1276	24	1484	124	38	18	45	96
Adj No. of Lanes	1	3	1	2	2	1	2	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	230	2196	684	39	1110	497	1244	793	674	22	143	121
Arrive On Green	0.13	0.44	0.44	0.01	0.32	0.32	0.36	0.43	0.43	0.01	0.08	0.08
Sat Flow, veh/h	1757	5036	1568	3408	3505	1568	3408	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	263	752	772	20	1276	24	1484	124	38	18	45	96
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1704	1752	1568	1704	1845	1568	1757	1845	1568
Q Serve(g_s), s	19.0	14.4	63.3	0.8	46.0	1.5	53.0	6.0	2.1	1.5	3.4	8.7
Cycle Q Clear(g_c), s	19.0	14.4	63.3	0.8	46.0	1.5	53.0	6.0	2.1	1.5	3.4	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	2196	684	39	1110	497	1244	793	674	22	143	121
V/C Ratio(X)	1.14	0.34	1.13	0.51	1.15	0.05	1.19	0.16	0.06	0.83	0.31	0.79
Avail Cap(c_a), veh/h	230	2196	684	70	1110	497	1244	813	691	60	203	173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	27.2	41.0	71.4	49.6	34.4	46.1	25.3	24.2	71.6	63.4	65.8
Incr Delay (d2), s/veh	103.8	0.1	75.8	10.1	78.1	0.0	95.2	0.1	0.0	51.3	1.2	14.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	6.7	41.7	0.5	34.2	0.7	41.3	3.1	0.9	1.0	1.8	4.3
LnGrp Delay(d),s/veh	167.0	27.2	116.7	81.4	127.7	34.5	141.3	25.4	24.2	122.9	64.6	80.5
LnGrp LOS	F	C	F	F	F	C	F	C	C	F	E	F
Approach Vol, veh/h		1787			1320			1646			159	
Approach Delay, s/veh		86.5			125.3			129.8			80.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	66.5	5.7	67.3	57.0	15.3	23.0	50.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	64.0	3.0	62.0	53.0	16.0	19.0	46.0
Max Q Clear Time (g_c+I1), s	3.5	8.0	2.8	65.3	55.0	10.7	21.0	48.0
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.5	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		111.2
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	401	32	20	560	276	119	572	92	109	245	201
Future Volume (veh/h)	144	401	32	20	560	276	119	572	92	109	245	201
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	144	401	32	20	560	276	119	572	92	109	245	201
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	243	1130	505	50	932	417	207	899	402	192	884	395
Arrive On Green	0.07	0.32	0.32	0.01	0.27	0.27	0.06	0.26	0.26	0.06	0.25	0.25
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	144	401	32	20	560	276	119	572	92	109	245	201
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	1.9	4.0	0.6	0.3	6.4	7.2	1.6	6.6	2.1	1.4	2.6	5.0
Cycle Q Clear(g_c), s	1.9	4.0	0.6	0.3	6.4	7.2	1.6	6.6	2.1	1.4	2.6	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	1130	505	50	932	417	207	899	402	192	884	395
V/C Ratio(X)	0.59	0.35	0.06	0.40	0.60	0.66	0.57	0.64	0.23	0.57	0.28	0.51
Avail Cap(c_a), veh/h	298	1226	548	224	1149	514	298	1226	548	298	1226	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	11.9	10.7	22.3	14.7	15.0	20.9	15.1	13.4	21.0	13.7	14.7
Incr Delay (d2), s/veh	2.3	0.2	0.1	5.0	0.6	2.3	2.5	0.8	0.3	2.6	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.9	0.3	0.2	3.1	3.3	0.8	3.3	1.0	0.7	1.2	2.2
LnGrp Delay(d),s/veh	22.9	12.0	10.8	27.4	15.3	17.2	23.4	15.9	13.7	23.6	13.9	15.7
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		577			856			783			555	
Approach Delay, s/veh		14.7			16.2			16.7			16.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	15.7	4.7	18.7	6.8	15.5	7.3	16.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	3.0	16.0	4.0	16.0	4.0	15.0
Max Q Clear Time (g_c+I1), s	3.4	8.6	2.3	6.0	3.6	7.0	3.9	9.2
Green Ext Time (p_c), s	0.0	3.1	0.0	4.3	0.0	3.5	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1304	99	182	1974	6	12	848	115	13	1009	160
Future Volume (veh/h)	220	1304	99	182	1974	6	12	848	115	13	1009	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	220	1304	99	182	1974	6	12	848	115	13	1009	160
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	238	2040	635	260	2074	646	40	1122	502	42	1125	503
Arrive On Green	0.07	0.41	0.41	0.08	0.41	0.41	0.01	0.32	0.32	0.01	0.32	0.32
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	220	1304	99	182	1974	6	12	848	115	13	1009	160
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	5.5	17.9	3.4	4.5	32.6	0.2	0.3	18.7	4.6	0.3	23.6	6.6
Cycle Q Clear(g_c), s	5.5	17.9	3.4	4.5	32.6	0.2	0.3	18.7	4.6	0.3	23.6	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	2040	635	260	2074	646	40	1122	502	42	1125	503
V/C Ratio(X)	0.93	0.64	0.16	0.70	0.95	0.01	0.30	0.76	0.23	0.31	0.90	0.32
Avail Cap(c_a), veh/h	238	2040	635	357	2107	656	158	1141	510	158	1141	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	20.5	16.2	38.8	24.5	14.9	42.2	26.2	21.5	42.1	27.9	22.1
Incr Delay (d2), s/veh	38.6	0.7	0.1	3.6	10.5	0.0	4.2	2.9	0.2	4.0	9.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	8.3	1.5	2.2	17.0	0.1	0.2	9.4	2.0	0.2	12.8	2.9
LnGrp Delay(d),s/veh	78.4	21.2	16.4	42.4	34.9	14.9	46.4	29.1	21.7	46.1	37.3	22.4
LnGrp LOS	E	C	B	D	C	B	D	C	C	D	D	C
Approach Vol, veh/h		1623			2162			975			1182	
Approach Delay, s/veh		28.7			35.5			28.5			35.4	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	31.5	10.6	38.9	5.0	31.6	10.0	39.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	28.0	9.0	33.0	4.0	28.0	6.0	36.0
Max Q Clear Time (g_c+I1), s	2.3	20.7	6.5	19.9	2.3	25.6	7.5	34.6
Green Ext Time (p_c), s	0.0	5.5	0.2	11.8	0.0	2.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	829	0	600	1185	0	0	107	763	0	117	120
Future Volume (veh/h)	224	829	0	600	1185	0	0	107	763	0	117	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	224	829	0	600	1185	0	0	107	763	0	117	120
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	288	969	0	691	1385	0	2	1233	551	2	1233	551
Arrive On Green	0.08	0.28	0.00	0.20	0.40	0.00	0.00	0.35	0.35	0.00	0.35	0.35
Sat Flow, veh/h	3408	3597	0	3408	3597	0	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	224	829	0	600	1185	0	0	107	763	0	117	120
Grp Sat Flow(s),veh/h/ln	1704	1752	0	1704	1752	0	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	4.6	15.9	0.0	12.1	22.0	0.0	0.0	1.5	25.0	0.0	1.6	3.8
Cycle Q Clear(g_c), s	4.6	15.9	0.0	12.1	22.0	0.0	0.0	1.5	25.0	0.0	1.6	3.8
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	969	0	691	1385	0	2	1233	551	2	1233	551
V/C Ratio(X)	0.78	0.86	0.00	0.87	0.86	0.00	0.00	0.09	1.38	0.00	0.09	0.22
Avail Cap(c_a), veh/h	288	986	0	719	1430	0	99	1233	551	99	1233	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	24.4	0.0	27.4	19.7	0.0	0.0	15.4	23.0	0.0	15.5	16.2
Incr Delay (d2), s/veh	12.7	7.4	0.0	10.7	5.2	0.0	0.0	0.0	183.7	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	8.7	0.0	6.7	11.5	0.0	0.0	0.7	38.9	0.0	0.8	1.7
LnGrp Delay(d),s/veh	44.6	31.7	0.0	38.1	24.9	0.0	0.0	15.4	206.7	0.0	15.5	16.4
LnGrp LOS	D	C		D	C			B	F		B	B
Approach Vol, veh/h		1053			1785			870			237	
Approach Delay, s/veh		34.5			29.3			183.2			15.9	
Approach LOS		C			C			F			B	

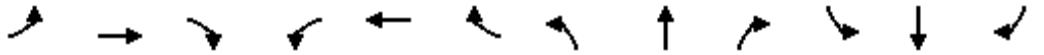
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	29.0	18.4	23.7	0.0	29.0	10.0	32.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	25.0	15.0	20.0	4.0	25.0	6.0	29.0
Max Q Clear Time (g_c+I1), s	0.0	27.0	14.1	17.9	0.0	5.8	6.6	24.0
Green Ext Time (p_c), s	0.0	0.0	0.3	1.7	0.0	4.9	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	63.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	140	0	1326	199	125	0	305	1328	147	561	88
Future Volume (veh/h)	18	140	0	1326	199	125	0	305	1328	147	561	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	18	140	0	1326	199	125	0	305	1328	147	561	88
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	25	174	148	1245	821	698	1	1331	596	149	1587	710
Arrive On Green	0.01	0.09	0.00	0.37	0.44	0.44	0.00	0.38	0.38	0.04	0.45	0.45
Sat Flow, veh/h	1757	1845	1568	3408	1845	1568	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	18	140	0	1326	199	125	0	305	1328	147	561	88
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1704	1845	1568	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	1.4	10.2	0.0	50.0	9.2	6.6	0.0	8.1	52.0	5.9	14.3	4.5
Cycle Q Clear(g_c), s	1.4	10.2	0.0	50.0	9.2	6.6	0.0	8.1	52.0	5.9	14.3	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	25	174	148	1245	821	698	1	1331	596	149	1587	710
V/C Ratio(X)	0.71	0.81	0.00	1.07	0.24	0.18	0.00	0.23	2.23	0.98	0.35	0.12
Avail Cap(c_a), veh/h	64	216	183	1245	822	699	51	1331	596	149	1587	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.2	60.8	0.0	43.4	23.6	22.9	0.0	28.8	42.4	65.4	24.4	21.7
Incr Delay (d2), s/veh	30.1	16.4	0.0	44.8	0.2	0.1	0.0	0.1	558.7	68.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.0	0.0	31.1	4.7	2.9	0.0	3.9	114.9	4.2	6.9	1.9
LnGrp Delay(d),s/veh	97.2	77.1	0.0	88.2	23.8	23.0	0.0	28.9	601.2	134.0	24.5	21.8
LnGrp LOS	F	E		F	C	C		C	F	F	C	C
Approach Vol, veh/h		158			1650			1633			796	
Approach Delay, s/veh		79.4			75.5			494.3			44.4	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	56.0	54.0	16.9	0.0	66.0	6.0	64.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	52.0	50.0	16.0	4.0	54.0	5.0	61.0
Max Q Clear Time (g_c+I1), s	7.9	54.0	52.0	12.2	0.0	16.3	3.4	11.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	19.9	0.0	1.9

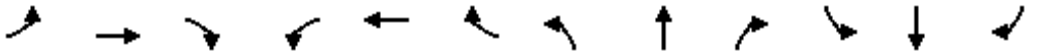
Intersection Summary	
HCM 2010 Ctrl Delay	231.2
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	1	9	10	2	42	6	207	2	12	172	81
Future Volume (veh/h)	56	1	9	10	2	42	6	207	2	12	172	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	56	1	9	10	2	42	6	207	2	12	172	81
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	137	117	14	80	68	9	821	8	17	553	250
Arrive On Green	0.04	0.07	0.07	0.01	0.04	0.04	0.00	0.23	0.23	0.01	0.24	0.24
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3557	34	1757	2349	1061
Grp Volume(v), veh/h	56	1	9	10	2	42	6	102	107	12	126	127
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1839	1757	1752	1658
Q Serve(g_s), s	0.7	0.0	0.1	0.1	0.0	0.6	0.1	1.1	1.1	0.2	1.4	1.5
Cycle Q Clear(g_c), s	0.7	0.0	0.1	0.1	0.0	0.6	0.1	1.1	1.1	0.2	1.4	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.64
Lane Grp Cap(c), veh/h	69	137	117	14	80	68	9	404	424	17	413	390
V/C Ratio(X)	0.82	0.01	0.08	0.71	0.02	0.62	0.70	0.25	0.25	0.71	0.31	0.32
Avail Cap(c_a), veh/h	446	1405	1194	223	1171	995	223	1112	1167	223	1112	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	10.1	10.2	11.7	10.8	11.1	11.7	7.4	7.4	11.7	7.4	7.5
Incr Delay (d2), s/veh	20.2	0.0	0.3	48.2	0.1	8.7	68.9	0.3	0.3	42.6	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.1	0.3	0.0	0.4	0.2	0.6	0.6	0.3	0.7	0.7
LnGrp Delay(d),s/veh	31.5	10.1	10.5	59.9	10.9	19.8	80.6	7.7	7.7	54.2	7.9	8.0
LnGrp LOS	C	B	B	E	B	B	F	A	A	D	A	A
Approach Vol, veh/h		66			54			215			265	
Approach Delay, s/veh		28.3			26.9			9.8			10.0	
Approach LOS		C			C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.2	9.5	4.2	5.8	4.1	9.6	4.9	5.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	15.0	3.0	18.0	3.0	15.0	6.0	15.0
Max Q Clear Time (g_c+I1), s	2.2	3.1	2.1	2.1	2.1	3.5	2.7	2.6
Green Ext Time (p_c), s	0.0	2.1	0.0	0.1	0.0	2.1	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	0	10	0	0	0	4	567	0	0	304	5
Future Volume (veh/h)	25	0	10	0	0	0	4	567	0	0	304	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	25	0	10	0	0	0	4	567	0	0	304	5
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	34	49	41	9	9	8	9	2040	0	9	1351	22
Arrive On Green	0.02	0.00	0.03	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.38	0.38
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3597	0	1757	3529	58
Grp Volume(v), veh/h	25	0	10	0	0	0	4	567	0	0	151	158
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	0	1757	1752	1834
Q Serve(g_s), s	0.3	0.0	0.1	0.0	0.0	0.0	0.0	1.6	0.0	0.0	1.2	1.2
Cycle Q Clear(g_c), s	0.3	0.0	0.1	0.0	0.0	0.0	0.0	1.6	0.0	0.0	1.2	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.03
Lane Grp Cap(c), veh/h	34	49	41	9	9	8	9	2040	0	9	671	702
V/C Ratio(X)	0.73	0.00	0.24	0.00	0.00	0.00	0.47	0.28	0.00	0.00	0.22	0.23
Avail Cap(c_a), veh/h	430	1535	1305	258	1354	1151	258	2745	0	258	1373	1437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.0	0.0	9.7	0.0	0.0	0.0	10.2	2.1	0.0	0.0	4.3	4.3
Incr Delay (d2), s/veh	25.7	0.0	3.0	0.0	0.0	0.0	34.4	0.1	0.0	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.0	0.0	0.0	0.1	0.8	0.0	0.0	0.6	0.6
LnGrp Delay(d),s/veh	35.7	0.0	12.7	0.0	0.0	0.0	44.6	2.2	0.0	0.0	4.4	4.4
LnGrp LOS	D		B				D	A			A	A
Approach Vol, veh/h		35			0			571			309	
Approach Delay, s/veh		29.1			0.0			2.5			4.4	
Approach LOS		C						A			A	

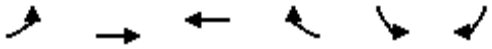
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	15.9	0.0	4.5	4.1	11.8	4.4	0.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	16.0	3.0	17.0	3.0	16.0	5.0	15.0
Max Q Clear Time (g_c+I1), s	0.0	3.6	0.0	2.1	2.0	3.2	2.3	0.0
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.0	4.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	4.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	38	15	46	12	47	21	451	120	133	247	24
Future Volume (veh/h)	59	38	15	46	12	47	21	451	120	133	247	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	59	38	15	46	12	47	21	451	120	133	247	24
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	153	130	55	138	117	28	826	218	168	1230	119
Arrive On Green	0.04	0.08	0.08	0.03	0.07	0.07	0.02	0.30	0.30	0.10	0.38	0.38
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	2744	725	1757	3231	311
Grp Volume(v), veh/h	59	38	15	46	12	47	21	287	284	133	133	138
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1717	1757	1752	1790
Q Serve(g_s), s	1.1	0.6	0.3	0.9	0.2	0.9	0.4	4.5	4.5	2.4	1.7	1.7
Cycle Q Clear(g_c), s	1.1	0.6	0.3	0.9	0.2	0.9	0.4	4.5	4.5	2.4	1.7	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		0.17
Lane Grp Cap(c), veh/h	69	153	130	55	138	117	28	527	517	168	667	682
V/C Ratio(X)	0.86	0.25	0.12	0.84	0.09	0.40	0.75	0.54	0.55	0.79	0.20	0.20
Avail Cap(c_a), veh/h	161	846	719	161	846	719	161	804	787	322	964	985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	14.0	13.9	15.8	14.1	14.4	16.0	9.6	9.6	14.5	6.8	6.8
Incr Delay (d2), s/veh	24.4	0.8	0.4	26.5	0.3	2.2	32.4	0.9	0.9	8.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.4	0.1	0.8	0.1	0.5	0.4	2.3	2.3	1.5	0.8	0.8
LnGrp Delay(d),s/veh	40.0	14.9	14.3	42.2	14.4	16.6	48.4	10.4	10.5	22.5	6.9	6.9
LnGrp LOS	D	B	B	D	B	B	D	B	B	C	A	A
Approach Vol, veh/h		112			105			592			404	
Approach Delay, s/veh		28.0			27.6			11.8			12.1	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	13.8	5.0	6.7	4.5	16.5	5.3	6.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	15.0	3.0	15.0	3.0	18.0	3.0	15.0
Max Q Clear Time (g_c+I1), s	4.4	6.5	2.9	2.6	2.4	3.7	3.1	2.9
Green Ext Time (p_c), s	0.0	3.3	0.0	0.3	0.0	4.5	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	116	503	1029	24	66	176
Future Volume (veh/h)	116	503	1029	24	66	176
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	116	503	1029	24	66	176
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	148	2207	1543	36	284	253
Arrive On Green	0.08	0.63	0.44	0.44	0.16	0.16
Sat Flow, veh/h	1757	3597	3593	82	1757	1568
Grp Volume(v), veh/h	116	503	515	538	66	176
Grp Sat Flow(s),veh/h/ln	1757	1752	1752	1830	1757	1568
Q Serve(g_s), s	2.5	2.4	8.9	8.9	1.3	4.1
Cycle Q Clear(g_c), s	2.5	2.4	8.9	8.9	1.3	4.1
Prop In Lane	1.00			0.04	1.00	1.00
Lane Grp Cap(c), veh/h	148	2207	772	807	284	253
V/C Ratio(X)	0.78	0.23	0.67	0.67	0.23	0.69
Avail Cap(c_a), veh/h	321	3111	1052	1099	825	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	3.1	8.5	8.5	14.0	15.2
Incr Delay (d2), s/veh	8.7	0.1	1.0	1.0	0.4	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.1	4.5	4.7	0.6	3.7
LnGrp Delay(d),s/veh	25.9	3.1	9.5	9.4	14.4	18.6
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		619	1053		242	
Approach Delay, s/veh		7.4	9.5		17.4	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				28.1		10.2	7.2	20.9
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				34.0		18.0	7.0	23.0
Max Q Clear Time (g_c+I1), s				4.4		6.1	4.5	10.9
Green Ext Time (p_c), s				8.8		0.6	0.1	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.8
HCM 2010 LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	30	37	601	16	9	226
Future Volume (veh/h)	30	37	601	16	9	226
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	30	37	601	16	9	226
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	108	96	1296	34	17	1987
Arrive On Green	0.06	0.06	0.37	0.37	0.01	0.57
Sat Flow, veh/h	1757	1568	3580	93	1757	3597
Grp Volume(v), veh/h	30	37	302	315	9	226
Grp Sat Flow(s),veh/h/ln	1757	1568	1752	1828	1757	1752
Q Serve(g_s), s	0.4	0.5	2.8	2.8	0.1	0.6
Cycle Q Clear(g_c), s	0.4	0.5	2.8	2.8	0.1	0.6
Prop In Lane	1.00	1.00		0.05	1.00	
Lane Grp Cap(c), veh/h	108	96	651	679	17	1987
V/C Ratio(X)	0.28	0.38	0.46	0.46	0.53	0.11
Avail Cap(c_a), veh/h	1306	1165	1465	1529	326	4233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	9.7	5.1	5.1	10.6	2.2
Incr Delay (d2), s/veh	1.4	2.5	0.5	0.5	22.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	1.4	1.5	0.2	0.3
LnGrp Delay(d),s/veh	11.0	12.2	5.7	5.6	33.4	2.2
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	67		617			235
Approach Delay, s/veh	11.7		5.6			3.4
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.2	12.0				16.2		5.3
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	18.0				26.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	4.8				2.6		2.5
Green Ext Time (p_c), s	0.0	3.2				3.8		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	5.5
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	9	49	129	18	66	64	413	49	19	147	90
Future Volume (veh/h)	139	9	49	129	18	66	64	413	49	19	147	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	139	9	49	129	18	66	64	413	49	19	147	90
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	178	227	193	165	213	181	96	799	94	34	466	270
Arrive On Green	0.10	0.12	0.12	0.09	0.12	0.12	0.05	0.25	0.25	0.02	0.22	0.22
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3159	373	1757	2141	1238
Grp Volume(v), veh/h	139	9	49	129	18	66	64	228	234	19	119	118
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1779	1757	1752	1626
Q Serve(g_s), s	2.4	0.1	0.9	2.3	0.3	1.2	1.1	3.5	3.5	0.3	1.8	1.9
Cycle Q Clear(g_c), s	2.4	0.1	0.9	2.3	0.3	1.2	1.1	3.5	3.5	0.3	1.8	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.76
Lane Grp Cap(c), veh/h	178	227	193	165	213	181	96	443	450	34	382	354
V/C Ratio(X)	0.78	0.04	0.25	0.78	0.08	0.36	0.67	0.51	0.52	0.56	0.31	0.33
Avail Cap(c_a), veh/h	393	942	801	393	942	801	224	951	965	224	951	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	12.1	12.4	13.9	12.4	12.8	14.5	10.1	10.1	15.2	10.3	10.3
Incr Delay (d2), s/veh	7.2	0.1	0.7	7.9	0.2	1.2	7.8	0.9	0.9	13.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.1	0.4	1.4	0.1	0.6	0.7	1.8	1.8	0.3	0.9	0.9
LnGrp Delay(d),s/veh	21.0	12.2	13.1	21.8	12.5	14.0	22.3	11.0	11.0	28.6	10.7	10.9
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		197			213			526			256	
Approach Delay, s/veh		18.6			18.6			12.4			12.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.6	11.9	6.9	7.9	5.7	10.8	7.2	7.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	17.0	7.0	16.0	4.0	17.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	2.3	5.5	4.3	2.9	3.1	3.9	4.4	3.2
Green Ext Time (p_c), s	0.0	2.4	0.1	0.3	0.0	2.5	0.1	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	346	266	78
Demand Flow Rate, veh/h	0	357	274	80
Vehicles Circulating, veh/h	88	274	0	68
Vehicles Exiting, veh/h	60	0	88	563
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	9.4	5.5	4.2
Approach LOS	-	A	A	A

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	357	274	80
Cap Entry Lane, veh/h	859	1130	1056
Entry HV Adj Factor	0.969	0.972	0.975
Flow Entry, veh/h	346	266	78
Cap Entry, veh/h	832	1098	1030
V/C Ratio	0.416	0.242	0.076
Control Delay, s/veh	9.4	5.5	4.2
LOS	A	A	A
95th %tile Queue, veh	2	1	0

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	0	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	44	0	291	265
Demand Flow Rate, veh/h	45	0	300	273
Vehicles Circulating, veh/h	273	274	276	0
Vehicles Exiting, veh/h	0	302	42	274
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.8	0.0	8.4	5.5
Approach LOS	A	-	A	A

Lane	Left	Left	Left
Designated Moves	LTR	TR	LT
Assumed Moves	LTR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	45	300	273
Cap Entry Lane, veh/h	860	857	1130
Entry HV Adj Factor	0.975	0.970	0.970
Flow Entry, veh/h	44	291	265
Cap Entry, veh/h	839	832	1097
V/C Ratio	0.052	0.350	0.242
Control Delay, s/veh	4.8	8.4	5.5
LOS	A	A	A
95th %tile Queue, veh	0	2	1

Intersection	
Intersection Delay, s/veh	21.6
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	0	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	130	1778	1537
Demand Flow Rate, veh/h	0	134	1831	1583
Vehicles Circulating, veh/h	1506	1831	0	209
Vehicles Exiting, veh/h	286	0	1506	1756
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	22.5	20.3	22.9
Approach LOS	-	C	C	C

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	134	861	970	744	839
Cap Entry Lane, veh/h	314	1130	1130	966	976
Entry HV Adj Factor	0.972	0.970	0.971	0.971	0.971
Flow Entry, veh/h	130	836	942	723	815
Cap Entry, veh/h	305	1097	1098	938	948
V/C Ratio	0.427	0.762	0.858	0.770	0.859
Control Delay, s/veh	22.5	16.7	23.5	19.3	26.2
LOS	C	C	C	C	D
95th %tile Queue, veh	2	8	11	8	11

Intersection	
Intersection Delay, s/veh	24.5
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	0	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	381	0	1703	1462
Demand Flow Rate, veh/h	392	0	1754	1506
Vehicles Circulating, veh/h	1506	1831	223	0
Vehicles Exiting, veh/h	0	146	1675	1831
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	22.3	0.0	34.7	13.1
Approach LOS	C	-	D	B

Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR
RT Channelized						
Lane Util	0.469	0.531	0.470	0.530	0.470	0.530
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	184	208	824	930	708	798
Cap Entry Lane, veh/h	365	394	956	967	1130	1130
Entry HV Adj Factor	0.973	0.970	0.971	0.970	0.971	0.971
Flow Entry, veh/h	179	202	800	903	687	775
Cap Entry, veh/h	355	382	929	938	1097	1097
V/C Ratio	0.504	0.528	0.862	0.962	0.627	0.706
Control Delay, s/veh	22.5	22.1	26.8	41.8	11.8	14.3
LOS	C	C	D	E	B	B
95th %tile Queue, veh	3	3	11	16	5	6

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	465	574	754
Demand Flow Rate, veh/h	479	592	777
Vehicles Circulating, veh/h	502	162	90
Vehicles Exiting, veh/h	252	705	891
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	20.6	12.9	17.4
Approach LOS	C	B	C

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	479	592	777
Cap Entry Lane, veh/h	684	961	1033
Entry HV Adj Factor	0.971	0.970	0.971
Flow Entry, veh/h	465	574	754
Cap Entry, veh/h	664	932	1002
V/C Ratio	0.700	0.616	0.752
Control Delay, s/veh	20.6	12.9	17.4
LOS	C	B	C
95th %tile Queue, veh	6	4	7

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	208	642	684
Demand Flow Rate, veh/h	214	661	704
Vehicles Circulating, veh/h	462	151	85
Vehicles Exiting, veh/h	350	638	591
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.9	14.9	14.1
Approach LOS	A	B	B

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	214	661	704
Cap Entry Lane, veh/h	712	972	1038
Entry HV Adj Factor	0.972	0.971	0.971
Flow Entry, veh/h	208	642	684
Cap Entry, veh/h	692	943	1008
V/C Ratio	0.301	0.680	0.678
Control Delay, s/veh	8.9	14.9	14.1
LOS	A	B	B
95th %tile Queue, veh	1	6	6

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	299	643	620
Demand Flow Rate, veh/h	308	663	638
Vehicles Circulating, veh/h	570	144	216
Vehicles Exiting, veh/h	237	710	662
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	13.5	14.8	16.5
Approach LOS	B	B	C

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	308	663	638
Cap Entry Lane, veh/h	639	978	910
Entry HV Adj Factor	0.971	0.970	0.971
Flow Entry, veh/h	299	643	620
Cap Entry, veh/h	620	949	884
V/C Ratio	0.482	0.678	0.701
Control Delay, s/veh	13.5	14.8	16.5
LOS	B	B	C
95th %tile Queue, veh	3	6	6

Intersection	
Intersection Delay, s/veh	217.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	586	599	5	1	317	6	20	5	3	14	8	70
Future Vol, veh/h	586	599	5	1	317	6	20	5	3	14	8	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	3	3	3	3	3	3
Mvmt Flow	586	599	5	1	317	6	20	5	3	14	8	70
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	293.9	13.9	11.4	11.5
HCM LOS	F	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	71%	49%	0%	15%
Vol Thru, %	18%	50%	98%	9%
Vol Right, %	11%	0%	2%	76%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	1190	324	92
LT Vol	20	586	1	14
Through Vol	5	599	317	8
RT Vol	3	5	6	70
Lane Flow Rate	28	1190	324	92
Geometry Grp	1	1	1	1
Degree of Util (X)	0.052	1.608	0.469	0.155
Departure Headway (Hd)	7.966	4.865	5.855	7.19
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	452	750	619	502
Service Time	5.966	2.902	3.855	5.19
HCM Lane V/C Ratio	0.062	1.587	0.523	0.183
HCM Control Delay	11.4	293.9	13.9	11.5
HCM Lane LOS	B	F	B	B
HCM 95th-tile Q	0.2	62.9	2.5	0.5

Intersection	
Intersection Delay, s/veh	151.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	417	2	9	8	1	1	26	872	2	0	167	50
Future Vol, veh/h	417	2	9	8	1	1	26	872	2	0	167	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	417	2	9	8	1	1	26	872	2	0	167	50
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	30.9	12.2	244.1	14.5
HCM LOS	D	B	F	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	97%	80%	0%
Vol Thru, %	97%	0%	10%	77%
Vol Right, %	0%	2%	10%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	900	428	10	217
LT Vol	26	417	8	0
Through Vol	872	2	1	167
RT Vol	2	9	1	50
Lane Flow Rate	900	428	10	217
Geometry Grp	1	1	1	1
Degree of Util (X)	1.485	0.766	0.021	0.388
Departure Headway (Hd)	5.941	7.46	9.018	7.112
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	621	488	399	510
Service Time	3.95	5.46	7.018	5.112
HCM Lane V/C Ratio	1.449	0.877	0.025	0.425
HCM Control Delay	244.1	30.9	12.2	14.5
HCM Lane LOS	F	D	B	B
HCM 95th-tile Q	44.3	6.7	0.1	1.8

Intersection	
Intersection Delay, s/veh	14.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	54	0	244	0	247	292	64	33	0
Future Vol, veh/h	0	0	0	54	0	244	0	247	292	64	33	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	54	0	244	0	247	292	64	33	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	0	11.7	17.6	9.7
HCM LOS	-	B	C	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	18%	100%	0%
Vol Thru, %	46%	100%	0%	0%	100%
Vol Right, %	54%	0%	82%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	539	0	298	64	33
LT Vol	0	0	54	64	0
Through Vol	247	0	0	0	33
RT Vol	292	0	244	0	0
Lane Flow Rate	539	0	298	64	33
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.692	0	0.42	0.115	0.055
Departure Headway (Hd)	4.723	6.075	5.07	6.454	5.947
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	771	0	715	557	604
Service Time	2.723	4.094	3.07	4.177	3.669
HCM Lane V/C Ratio	0.699	0	0.417	0.115	0.055
HCM Control Delay	17.6	9.1	11.7	10	9
HCM Lane LOS	C	N	B	A	A
HCM 95th-tile Q	5.7	0	2.1	0.4	0.2

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	0	8	0	237	0	397	32	10	318	0
Future Vol, veh/h	0	1	0	8	0	237	0	397	32	10	318	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	20	20	20	5	5	5	6	6	6
Mvmt Flow	0	1	0	8	0	237	0	397	32	10	318	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.5	12	16	13.3
HCM LOS	A	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	3%	3%
Vol Thru, %	93%	100%	0%	97%
Vol Right, %	7%	0%	97%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	429	1	245	328
LT Vol	0	0	8	10
Through Vol	397	1	0	318
RT Vol	32	0	237	0
Lane Flow Rate	429	1	245	328
Geometry Grp	1	1	1	1
Degree of Util (X)	0.613	0.002	0.379	0.486
Departure Headway (Hd)	5.142	6.443	5.574	5.335
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	704	553	644	676
Service Time	3.173	4.506	3.613	3.369
HCM Lane V/C Ratio	0.609	0.002	0.38	0.485
HCM Control Delay	16	9.5	12	13.3
HCM Lane LOS	C	A	B	B
HCM 95th-tile Q	4.2	0	1.8	2.7

Intersection	
Intersection Delay, s/veh	106.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	189	310	40	3	155	23	32	620	26	20	129	28
Future Vol, veh/h	189	310	40	3	155	23	32	620	26	20	129	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	3	3	3
Mvmt Flow	189	310	40	3	155	23	32	620	26	20	129	28
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	81.7	17.9	173.5	17.4
HCM LOS	F	C	F	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	35%	2%	11%
Vol Thru, %	91%	58%	86%	73%
Vol Right, %	4%	7%	13%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	678	539	181	177
LT Vol	32	189	3	20
Through Vol	620	310	155	129
RT Vol	26	40	23	28
Lane Flow Rate	678	539	181	177
Geometry Grp	1	1	1	1
Degree of Util (X)	1.305	1.043	0.399	0.391
Departure Headway (Hd)	7.223	7.791	9.017	8.845
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	509	469	402	409
Service Time	5.223	5.791	7.017	6.845
HCM Lane V/C Ratio	1.332	1.149	0.45	0.433
HCM Control Delay	173.5	81.7	17.9	17.4
HCM Lane LOS	F	F	C	C
HCM 95th-tile Q	27.8	14.7	1.9	1.8

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	102	575	52	105	399
Future Vol, veh/h	88	102	575	52	105	399
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	88	102	575	52	105	399

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1011	314	0	0	627	0
Stage 1	601	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	232	676	-	-	944	-
Stage 1	505	-	-	-	-	-
Stage 2	633	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	206	676	-	-	944	-
Mov Cap-2 Maneuver	337	-	-	-	-	-
Stage 1	505	-	-	-	-	-
Stage 2	563	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	1.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	337	676	944	-
HCM Lane V/C Ratio	-	-	0.261	0.151	0.111	-
HCM Control Delay (s)	-	-	19.4	11.3	9.3	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1	0.5	0.4	-

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	165	10	179	289	36	353
Future Vol, veh/h	165	10	179	289	36	353
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	165	10	179	289	36	353

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	749	324	0	0	468	0
Stage 1	324	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	378	715	-	-	1083	-
Stage 1	731	-	-	-	-	-
Stage 2	657	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	363	715	-	-	1083	-
Mov Cap-2 Maneuver	363	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.8	0	0.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	374	1083	-
HCM Lane V/C Ratio	-	-	0.468	0.033	-
HCM Control Delay (s)	-	-	22.8	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.4	0.1	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	2157	2474	34	10	93
Future Vol, veh/h	27	2157	2474	34	10	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	190	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	3	3
Mvmt Flow	27	2157	2474	34	10	93

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2508	0	-	0	3624	1254
Stage 1	-	-	-	-	2491	-
Stage 2	-	-	-	-	1133	-
Critical Hdwy	4.22	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.26	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	167	-	-	-	~ 4	162
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	267	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	167	-	-	-	~ 3	162
Mov Cap-2 Maneuver	-	-	-	-	36	-
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	224	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	113.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	167	-	-	-	121
HCM Lane V/C Ratio	0.162	-	-	-	0.851
HCM Control Delay (s)	30.7	-	-	-	113.2
HCM Lane LOS	D	-	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	5.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	1	0	3	1	6	0	565	1	1	76	1
Future Vol, veh/h	3	1	0	3	1	6	0	565	1	1	76	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	3	1	0	3	1	6	0	565	1	1	76	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	648	645	77	645	645	566	77	0	0	566	0	0
Stage 1	79	79	-	566	566	-	-	-	-	-	-	-
Stage 2	569	566	-	79	79	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	382	390	981	384	390	522	1515	-	-	1001	-	-
Stage 1	927	827	-	507	506	-	-	-	-	-	-	-
Stage 2	505	506	-	927	827	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	377	390	981	383	390	522	1515	-	-	1001	-	-
Mov Cap-2 Maneuver	377	390	-	383	390	-	-	-	-	-	-	-
Stage 1	927	826	-	507	506	-	-	-	-	-	-	-
Stage 2	498	506	-	925	826	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	13.1	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	380	457	1001	-	-
HCM Lane V/C Ratio	-	-	-	0.011	0.022	0.001	-	-
HCM Control Delay (s)	0	-	-	14.6	13.1	8.6	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	75	42	19	845	700	68
Future Vol, veh/h	75	42	19	845	700	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	75	42	19	845	700	68

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1617	734	768	0	-	0
Stage 1	734	-	-	-	-	-
Stage 2	883	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	113	418	841	-	-	-
Stage 1	473	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	110	418	841	-	-	-
Mov Cap-2 Maneuver	110	-	-	-	-	-
Stage 1	473	-	-	-	-	-
Stage 2	394	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	83.8	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	841	-	150	-	-
HCM Lane V/C Ratio	0.023	-	0.78	-	-
HCM Control Delay (s)	9.4	-	83.8	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0.1	-	4.9	-	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	343	195	313	264	42	380
Future Vol, veh/h	343	195	313	264	42	380
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	250	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	343	195	313	264	42	380

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	343	0	1233	343
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	890	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1210	-	194	697
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	400	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1210	-	144	697
Mov Cap-2 Maneuver	-	-	-	-	144	-
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	297	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	18.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	144	697	-	-	1210	-
HCM Lane V/C Ratio	0.292	0.545	-	-	0.259	-
HCM Control Delay (s)	40	16.2	-	-	9	-
HCM Lane LOS	E	C	-	-	A	-
HCM 95th %tile Q(veh)	1.1	3.3	-	-	1	-

Intersection	
Int Delay, s/veh	44.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	225	156	0	0	156	7	5	302	0	0	93	109
Future Vol, veh/h	225	156	0	0	156	7	5	302	0	0	93	109
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	225	156	0	0	156	7	5	302	0	0	93	109

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	163	0	0	156	0	0	867	769	156	917	766	160
Stage 1	-	-	-	-	-	-	606	606	-	160	160	-
Stage 2	-	-	-	-	-	-	261	163	-	757	606	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1380	-	-	1377	-	-	267	325	874	246	326	870
Stage 1	-	-	-	-	-	-	474	477	-	828	754	-
Stage 2	-	-	-	-	-	-	731	752	-	391	477	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1380	-	-	1377	-	-	149	~ 267	874	-	268	870
Mov Cap-2 Maneuver	-	-	-	-	-	-	149	~ 267	-	-	268	-
Stage 1	-	-	-	-	-	-	389	392	-	680	754	-
Stage 2	-	-	-	-	-	-	561	752	-	74	392	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.8	0	147.4	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	264	1380	-	-	1377	-	-	-
HCM Lane V/C Ratio	1.163	0.163	-	-	-	-	-	-
HCM Control Delay (s)	147.4	8.1	0	-	0	-	-	-
HCM Lane LOS	F	A	A	-	A	-	-	-
HCM 95th %tile Q(veh)	13.7	0.6	-	-	0	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	42	43	25	137	103
Future Vol, veh/h	19	42	43	25	137	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	19	42	43	25	137	103

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	300	189	240	0	-	0
Stage 1	189	-	-	-	-	-
Stage 2	111	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	689	850	1321	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	666	850	1321	-	-	-
Mov Cap-2 Maneuver	666	-	-	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	4.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1321	-	783	-	-
HCM Lane V/C Ratio	0.033	-	0.078	-	-
HCM Control Delay (s)	7.8	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	3	12	63	176	7
Future Vol, veh/h	3	3	12	63	176	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	3	12	63	176	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	267	180	183	0	-	0
Stage 1	180	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	720	860	1386	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	714	860	1386	-	-	-
Mov Cap-2 Maneuver	714	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	926	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1386	-	780	-	-
HCM Lane V/C Ratio	0.009	-	0.008	-	-
HCM Control Delay (s)	7.6	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	86	145	68	47	162	210
Future Vol, veh/h	86	145	68	47	162	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	86	145	68	47	162	210

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	450	267	372	0	-	0
Stage 1	267	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	565	769	1181	-	-	-
Stage 1	775	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	532	769	1181	-	-	-
Mov Cap-2 Maneuver	532	-	-	-	-	-
Stage 1	775	-	-	-	-	-
Stage 2	796	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	4.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1181	-	660	-	-
HCM Lane V/C Ratio	0.058	-	0.35	-	-
HCM Control Delay (s)	8.2	0	13.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.6	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	6	1	104	100	82
Future Vol, veh/h	26	6	1	104	100	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	26	6	1	104	100	82

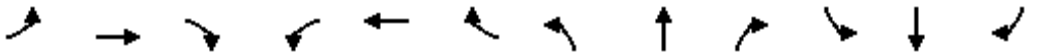
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	206	100	100	0	-	0
Stage 1	100	-	-	-	-	-
Stage 2	106	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	780	953	1486	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	779	953	1486	-	-	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	915	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1486	-	779	953	-	-
HCM Lane V/C Ratio	0.001	-	0.033	0.006	-	-
HCM Control Delay (s)	7.4	-	9.8	8.8	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

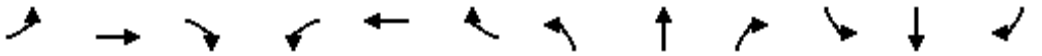
Existing Plus All Projects

PM



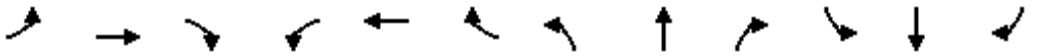
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	724	0	947	0	0	0	0	1745	470	0	1684	841
Future Volume (vph)	724	0	947	0	0	0	0	1745	470	0	1684	841
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	724	0	947	0	0	0	0	1745	470	0	1684	841
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	724	0	934	0	0	0	0	1745	470	0	1684	841
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	19.7		19.7					21.7	49.4		21.7	49.4
Effective Green, g (s)	19.7		19.7					21.7	49.4		21.7	49.4
Actuated g/C Ratio	0.40		0.40					0.44	1.00		0.44	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1342		1089					2191	1553		2191	1553
v/s Ratio Prot	0.22							c0.35			0.34	
v/s Ratio Perm			c0.34						0.30			0.54
v/c Ratio	0.54		0.86					0.80	0.30		0.77	0.54
Uniform Delay, d1	11.4		13.6					11.9	0.0		11.7	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.4		6.8					2.1	0.5		1.7	1.4
Delay (s)	11.8		20.4					14.0	0.5		13.4	1.4
Level of Service	B		C					B	A		B	A
Approach Delay (s)		16.7			0.0			11.2			9.4	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	49.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



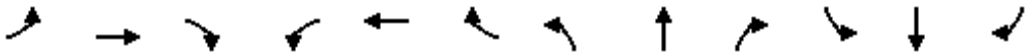
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	256	673	126	271	791	1057	327	900	166	1129	1467	150
Future Volume (vph)	256	673	126	271	791	1057	327	900	166	1129	1467	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3389		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3389		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	256	673	126	271	791	1057	327	900	166	1129	1467	150
RTOR Reduction (vph)	0	17	0	0	0	822	0	0	133	0	0	90
Lane Group Flow (vph)	256	782	0	271	791	235	327	900	33	1129	1467	60
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	7.0	19.0		8.0	20.0	20.0	10.9	18.0	18.0	29.0	36.1	36.1
Effective Green, g (s)	7.0	19.0		8.0	20.0	20.0	10.9	18.0	18.0	29.0	36.1	36.1
Actuated g/C Ratio	0.08	0.21		0.09	0.22	0.22	0.12	0.20	0.20	0.32	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	261	715		299	771	607	407	997	310	1084	2000	622
v/s Ratio Prot	0.08	c0.23		0.08	c0.23		0.10	c0.18		c0.34	0.29	
v/s Ratio Perm						0.09			0.02			0.04
v/c Ratio	0.98	1.09		0.91	1.03	0.39	0.80	0.90	0.11	1.04	0.73	0.10
Uniform Delay, d1	41.4	35.5		40.6	35.0	29.8	38.5	35.1	29.4	30.5	22.9	16.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	50.1	61.9		29.0	39.2	0.4	10.9	11.2	0.2	38.8	1.4	0.1
Delay (s)	91.6	97.4		69.6	74.2	30.2	49.4	46.3	29.6	69.3	24.3	16.9
Level of Service	F	F		E	E	C	D	D	C	E	C	B
Approach Delay (s)		96.0			51.7			45.1			42.4	
Approach LOS		F			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	53.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	434	1521	12	844	19	1045	2	3	14	10	27
Future Volume (vph)	80	434	1521	12	844	19	1045	2	3	14	10	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1622	1524		1792	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1622	1524		1792	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	80	434	1521	12	844	19	1045	2	3	14	10	27
RTOR Reduction (vph)	0	0	185	0	0	14	0	0	2	0	0	26
Lane Group Flow (vph)	80	434	1336	12	844	5	522	525	1	0	24	1
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.0	36.0	94.1	1.6	31.6	31.6	58.1	58.1	58.1		5.9	5.9
Effective Green, g (s)	6.0	36.0	94.1	1.6	31.6	31.6	58.1	58.1	58.1		5.9	5.9
Actuated g/C Ratio	0.05	0.31	0.80	0.01	0.27	0.27	0.49	0.49	0.49		0.05	0.05
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	88	1062	1295	23	932	417	799	801	752		89	78
v/s Ratio Prot	c0.05	0.13	c0.51	0.01	0.24		0.32	0.32			c0.01	
v/s Ratio Perm			0.35			0.00			0.00			0.00
v/c Ratio	0.91	0.41	1.03	0.52	0.91	0.01	0.65	0.66	0.00		0.27	0.02
Uniform Delay, d1	55.5	32.4	11.8	57.6	41.6	31.5	22.2	22.3	15.1		53.8	53.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	65.8	0.3	33.5	19.7	12.1	0.0	1.9	1.9	0.0		1.6	0.1
Delay (s)	121.4	32.6	45.2	77.3	53.7	31.6	24.2	24.2	15.1		55.4	53.2
Level of Service	F	C	D	E	D	C	C	C	B		E	D
Approach Delay (s)		45.5			53.5			24.2			54.2	
Approach LOS		D			D			C			D	

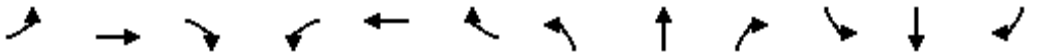
Intersection Summary			
HCM 2000 Control Delay	41.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	117.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	110.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	384	83	262	500	93	337	231	387	122	208	37
Future Volume (vph)	38	384	83	262	500	93	337	231	387	122	208	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		0.98	
Satd. Flow (prot)	1752	3505	1568	1752	3422		1665	1735	1568		3395	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		0.98	
Satd. Flow (perm)	1752	3505	1568	1752	3422		1665	1735	1568		3395	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	384	83	262	500	93	337	231	387	122	208	37
RTOR Reduction (vph)	0	0	65	0	17	0	0	0	303	0	11	0
Lane Group Flow (vph)	38	384	18	262	576	0	280	288	84	0	356	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	2.2	15.1	15.1	11.1	24.0		15.1	15.1	15.1		12.2	
Effective Green, g (s)	2.2	15.1	15.1	11.1	24.0		15.1	15.1	15.1		12.2	
Actuated g/C Ratio	0.03	0.22	0.22	0.16	0.35		0.22	0.22	0.22		0.18	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	55	761	340	279	1181		361	376	340		595	
v/s Ratio Prot	0.02	0.11		c0.15	c0.17		c0.17	0.17			c0.10	
v/s Ratio Perm			0.01						0.05			
v/c Ratio	0.69	0.50	0.05	0.94	0.49		0.78	0.77	0.25		0.60	
Uniform Delay, d1	33.3	23.9	21.5	28.9	17.9		25.6	25.5	22.5		26.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	31.3	0.5	0.1	37.4	0.3		10.0	9.0	0.4		1.6	
Delay (s)	64.6	24.4	21.6	66.2	18.2		35.6	34.5	22.9		28.0	
Level of Service	E	C	C	E	B		D	C	C		C	
Approach Delay (s)		27.0			32.9			30.1			28.0	
Approach LOS		C			C			C			C	

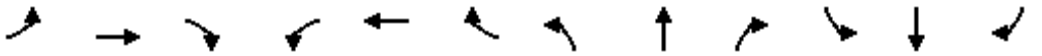
Intersection Summary			
HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	69.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



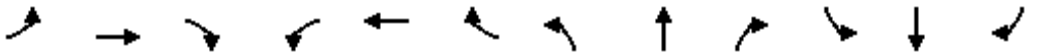
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	1383	322	161	1116	1075	157	1101	85	1011	705	79
Future Volume (vph)	105	1383	322	161	1116	1075	157	1101	85	1011	705	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.1		5.5	5.4	4.0	4.7	4.8	4.8	4.8	4.8	4.8
Lane Util. Factor	1.00	1.00		0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1703	1742		3303	3406	1524	3367	3471	1553	1736	3471	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)	1703	1742		3303	3406	1524	3367	3471	1553	258	3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	105	1383	322	161	1116	1075	157	1101	85	1011	705	79
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	36	0	0	48
Lane Group Flow (vph)	105	1699	0	161	1116	1075	157	1101	49	1011	705	31
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Free	Prot	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2		3	8			4	
Permitted Phases						Free			8	4		4
Actuated Green, G (s)	9.0	61.9		3.5	56.6	145.0	3.3	64.2	64.2	56.2	56.2	56.2
Effective Green, g (s)	9.0	61.9		3.5	56.6	145.0	3.3	64.2	64.2	56.2	56.2	56.2
Actuated g/C Ratio	0.06	0.43		0.02	0.39	1.00	0.02	0.44	0.44	0.39	0.39	0.39
Clearance Time (s)	5.0	5.1		5.5	5.4		4.7	4.8	4.8	4.8	4.8	4.8
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	105	743		79	1329	1524	76	1536	687	99	1345	601
v/s Ratio Prot	0.06	c0.98		c0.05	0.33		c0.05	0.32			0.20	
v/s Ratio Perm						0.71			0.03	c3.92		0.02
v/c Ratio	1.00	2.29		2.04	0.84	0.71	2.07	0.72	0.07	10.21	0.52	0.05
Uniform Delay, d1	68.0	41.5		70.8	40.1	0.0	70.8	33.0	23.3	44.4	34.1	27.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	87.8	583.4		508.2	4.6	2.8	521.8	1.4	0.0	4165.5	0.2	0.0
Delay (s)	155.8	625.0		579.0	44.7	2.8	592.6	34.3	23.3	4209.9	34.3	27.8
Level of Service	F	F		F	D	A	F	C	C	F	C	C
Approach Delay (s)		597.8			62.1			98.9			2385.8	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	773.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	5.79		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	20.1
Intersection Capacity Utilization	191.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



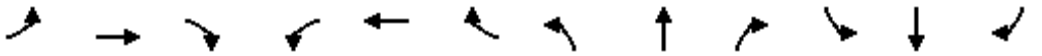
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	670	776	154	592	40	315	160	181	36	80	31
Future Volume (vph)	34	670	776	154	592	40	315	160	181	36	80	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3195		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3195		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	670	776	154	592	40	315	160	181	36	80	31
RTOR Reduction (vph)	0	0	447	0	0	21	0	153	0	0	0	29
Lane Group Flow (vph)	34	670	329	154	592	19	315	188	0	36	80	2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	2.1	28.9	28.9	5.7	32.4	32.4	10.6	10.6		4.1	4.1	4.1
Effective Green, g (s)	2.1	28.9	28.9	5.7	32.4	32.4	10.6	10.6		4.1	4.1	4.1
Actuated g/C Ratio	0.03	0.42	0.42	0.08	0.48	0.48	0.16	0.16		0.06	0.06	0.06
Clearance Time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Vehicle Extension (s)	1.0	4.9	4.9	1.0	4.1	4.1	2.0	2.0		1.0	1.0	1.0
Lane Grp Cap (vph)	54	1487	665	284	1667	746	524	497		105	211	94
v/s Ratio Prot	0.02	0.19		c0.05	c0.17		c0.09	0.06		0.02	c0.02	
v/s Ratio Perm			c0.21			0.01						0.00
v/c Ratio	0.63	0.45	0.50	0.54	0.36	0.03	0.60	0.38		0.34	0.38	0.02
Uniform Delay, d1	32.6	13.9	14.3	29.9	11.3	9.5	26.8	25.8		30.7	30.8	30.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	15.4	0.4	1.2	1.1	0.2	0.0	1.3	0.2		0.7	0.4	0.0
Delay (s)	48.0	14.4	15.5	31.1	11.4	9.5	28.1	26.0		31.4	31.2	30.1
Level of Service	D	B	B	C	B	A	C	C		C	C	C
Approach Delay (s)		15.7			15.2			27.0			31.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	68.1	Sum of lost time (s)	22.9
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



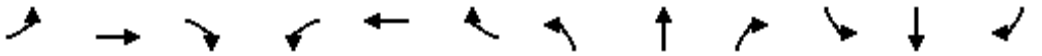
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1174	0	211	0	503	1603	0	881	626
Future Volume (vph)	0	0	0	1174	0	211	0	503	1603	0	881	626
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.6		4.6		3.5	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3367		2733		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3367		2733		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	1174	0	211	0	503	1603	0	881	626
RTOR Reduction (vph)	0	0	0	0	0	115	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1174	0	96	0	503	1603	0	881	626
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				4				6			2	
Permitted Phases						4			Free			Free
Actuated Green, G (s)				17.7		17.7		13.0	38.8		11.4	38.8
Effective Green, g (s)				17.7		17.7		13.0	38.8		11.4	38.8
Actuated g/C Ratio				0.46		0.46		0.34	1.00		0.29	1.00
Clearance Time (s)				4.6		4.6		3.5			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1535		1246		1671	1553		1465	1553
v/s Ratio Prot				0.35				0.10			0.18	
v/s Ratio Perm						0.04			c1.03			0.40
v/c Ratio				0.76		0.08		0.30	1.03		0.60	0.40
Uniform Delay, d1				8.8		5.9		9.5	19.4		11.8	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				2.1		0.0		0.0	31.6		0.5	0.8
Delay (s)				10.9		6.0		9.6	51.0		12.2	0.8
Level of Service				B		A		A	D		B	A
Approach Delay (s)		0.0			10.2			41.1			7.5	
Approach LOS		A			B			D			A	

Intersection Summary			
HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	38.8	Sum of lost time (s)	9.7
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	280	0	1351	0	0	0	0	1835	1030	0	1631	421
Future Volume (vph)	280	0	1351	0	0	0	0	1835	1030	0	1631	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	280	0	1351	0	0	0	0	1835	1030	0	1631	421
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	280	0	1338	0	0	0	0	1835	1030	0	1631	421
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	43.6		43.6					34.2	89.3		34.7	89.3
Effective Green, g (s)	43.6		43.6					34.2	89.3		34.7	89.3
Actuated g/C Ratio	0.49		0.49					0.38	1.00		0.39	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1643		1334					1910	1553		1938	1553
v/s Ratio Prot	0.08							c0.37			0.33	
v/s Ratio Perm			c0.49						0.66			0.27
v/c Ratio	0.17		1.00					0.96	0.66		0.84	0.27
Uniform Delay, d1	12.8		22.8					26.9	0.0		24.8	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0		25.4					12.5	2.2		3.4	0.4
Delay (s)	12.8		48.2					39.4	2.2		28.2	0.4
Level of Service	B		D					D	A		C	A
Approach Delay (s)		42.2			0.0			26.1			22.5	
Approach LOS		D			A			C			C	

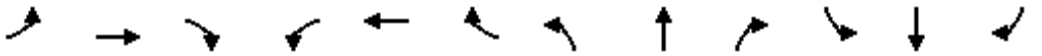
Intersection Summary			
HCM 2000 Control Delay	28.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	89.3	Sum of lost time (s)	11.5
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	938	49	60	729	66	4	26	35	79	181	95
Future Volume (vph)	205	938	49	60	729	66	4	26	35	79	181	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3479		1752	3461		1752	1845	1568	1752	1845	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	3479		1752	3461		1752	1845	1568	1752	1845	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	205	938	49	60	729	66	4	26	35	79	181	95
RTOR Reduction (vph)	0	6	0	0	10	0	0	0	29	0	0	75
Lane Group Flow (vph)	205	981	0	60	785	0	4	26	6	79	181	20
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	9.5	24.5		2.2	17.2		0.5	9.6	9.6	2.7	11.8	11.8
Effective Green, g (s)	9.5	24.5		2.2	17.2		0.5	9.6	9.6	2.7	11.8	11.8
Actuated g/C Ratio	0.17	0.45		0.04	0.31		0.01	0.17	0.17	0.05	0.21	0.21
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	302	1549		70	1082		15	322	273	86	395	336
v/s Ratio Prot	c0.12	c0.28		0.03	0.23		0.00	0.01		c0.05	c0.10	
v/s Ratio Perm									0.00			0.01
v/c Ratio	0.68	0.63		0.86	0.73		0.27	0.08	0.02	0.92	0.46	0.06
Uniform Delay, d1	21.3	11.8		26.2	16.8		27.1	19.0	18.8	26.0	18.8	17.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.0	0.9		60.4	2.4		9.3	0.1	0.0	69.7	0.8	0.1
Delay (s)	27.3	12.6		86.7	19.2		36.4	19.1	18.8	95.7	19.7	17.3
Level of Service	C	B		F	B		D	B	B	F	B	B
Approach Delay (s)		15.2			24.0			20.0			35.9	
Approach LOS		B			C			C			D	

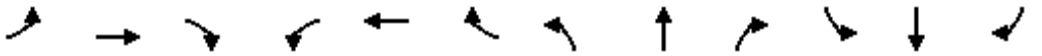
Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



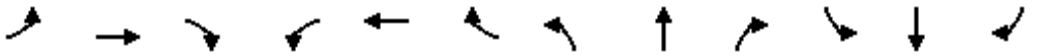
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	452	0	211	0	857	975	0	630	400
Future Volume (vph)	0	0	0	452	0	211	0	857	975	0	630	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.95	1.00		0.95	1.00
Frt				1.00	0.90			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1537			3471	1553		3471	1553
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1537			3471	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	452	0	211	0	857	975	0	630	400
RTOR Reduction (vph)	0	0	0	0	44	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	344	275	0	0	857	975	0	630	400
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot	NA			NA	Free		NA	Free
Protected Phases				3	8			2			6	
Permitted Phases									Free			Free
Actuated Green, G (s)				11.2	11.2			14.5	34.5		14.5	34.5
Effective Green, g (s)				11.2	11.2			14.5	34.5		14.5	34.5
Actuated g/C Ratio				0.32	0.32			0.42	1.00		0.42	1.00
Clearance Time (s)				4.0	4.9			4.8			4.8	
Vehicle Extension (s)				3.0	1.0			1.0			1.0	
Lane Grp Cap (vph)				535	498			1458	1553		1458	1553
v/s Ratio Prot				0.21	0.18			0.25			0.18	
v/s Ratio Perm									c0.63			0.26
v/c Ratio				0.64	0.55			0.59	0.63		0.43	0.26
Uniform Delay, d1				9.9	9.6			7.7	0.0		7.1	0.0
Progression Factor				1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2				2.6	0.8			0.4	1.9		0.1	0.4
Delay (s)				12.6	10.3			8.1	1.9		7.2	0.4
Level of Service				B	B			A	A		A	A
Approach Delay (s)		0.0			11.5			4.8			4.5	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	34.5	Sum of lost time (s)	9.7
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



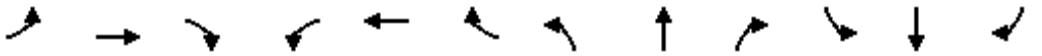
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	511	0	241	0	0	0	0	1321	1275	0	848	234
Future Volume (vph)	511	0	241	0	0	0	0	1321	1275	0	848	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.95	1.00
Frt	1.00	0.99	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	0.96	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1569	1475					4988	1553		3471	1553
Flt Permitted	0.95	0.96	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1569	1475					4988	1553		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	511	0	241	0	0	0	0	1321	1275	0	848	234
RTOR Reduction (vph)	0	37	69	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	271	227	148	0	0	0	0	1321	1275	0	848	234
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA	Perm					NA	Free		NA	Free
Protected Phases	7	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	10.0	10.0	8.9					16.1	35.0		16.2	35.0
Effective Green, g (s)	10.0	10.0	8.9					16.1	35.0		16.2	35.0
Actuated g/C Ratio	0.29	0.29	0.25					0.46	1.00		0.46	1.00
Clearance Time (s)	4.0	5.1	5.1					4.9			4.8	
Vehicle Extension (s)	3.0	1.0	1.0					1.0			1.0	
Lane Grp Cap (vph)	471	448	375					2294	1553		1606	1553
v/s Ratio Prot	0.16	0.14						0.26			0.24	
v/s Ratio Perm			0.10						c0.82			0.15
v/c Ratio	0.58	0.51	0.40					0.58	0.82		0.53	0.15
Uniform Delay, d1	10.7	10.4	10.8					6.9	0.0		6.7	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	1.7	0.3	0.3					0.2	5.0		0.1	0.2
Delay (s)	12.4	10.8	11.1					7.2	5.0		6.8	0.2
Level of Service	B	B	B					A	A		A	A
Approach Delay (s)		11.4			0.0			6.1			5.4	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	35.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



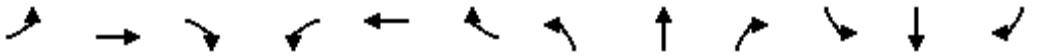
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1040	44	624	27	77	110	598	1430	17	146	362	586
Future Volume (vph)	1040	44	624	27	77	110	598	1430	17	146	362	586
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3	5.3		5.5	5.5	4.7	4.6		4.4	4.8	4.8
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1649	1659	1553		1821	1568	1736	4979		1736	4988	1553
Flt Permitted	0.95	0.96	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1649	1659	1553		1821	1568	1736	4979		1736	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1040	44	624	27	77	110	598	1430	17	146	362	586
RTOR Reduction (vph)	0	0	185	0	0	103	0	1	0	0	0	514
Lane Group Flow (vph)	541	543	439	0	104	7	598	1446	0	146	362	72
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8			4						2
Actuated Green, G (s)	44.5	44.5	44.5		8.5	8.5	46.7	47.3		13.7	13.8	13.8
Effective Green, g (s)	44.5	44.5	44.5		8.5	8.5	46.7	47.3		13.7	13.8	13.8
Actuated g/C Ratio	0.33	0.33	0.33		0.06	0.06	0.35	0.35		0.10	0.10	0.10
Clearance Time (s)	5.3	5.3	5.3		5.5	5.5	4.7	4.6		4.4	4.8	4.8
Vehicle Extension (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lane Grp Cap (vph)	548	551	516		115	99	605	1760		177	514	160
v/s Ratio Prot	c0.33	0.33			c0.06		c0.34	c0.29		0.08	0.07	
v/s Ratio Perm			0.28			0.00						0.05
v/c Ratio	0.99	0.99	0.85		0.90	0.07	0.99	0.82		0.82	0.70	0.45
Uniform Delay, d1	44.4	44.3	41.6		62.2	58.9	43.3	39.4		58.9	58.0	56.4
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	34.7	34.2	12.3		53.9	0.1	33.2	3.1		24.7	3.6	0.7
Delay (s)	79.1	78.6	53.9		116.1	59.0	76.5	42.5		83.5	61.6	57.2
Level of Service	E	E	D		F	E	E	D		F	E	E
Approach Delay (s)		69.7			86.8			52.4			62.2	
Approach LOS		E			F			D			E	

Intersection Summary			
HCM 2000 Control Delay	61.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	133.8	Sum of lost time (s)	20.3
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	561	0	242	0	1626	1720	0	743	512
Future Volume (vph)	0	0	0	561	0	242	0	1626	1720	0	743	512
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		3505	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	561	0	242	0	1626	1720	0	743	512
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	561	0	209	0	1626	1720	0	743	512
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				8.5		8.5		15.1	35.0		15.1	35.0
Effective Green, g (s)				8.5		8.5		15.1	35.0		15.1	35.0
Actuated g/C Ratio				0.24		0.24		0.43	1.00		0.43	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				825		380		2172	1568		1512	1568
v/s Ratio Prot								0.32			0.21	
v/s Ratio Perm				0.17		0.13			c1.10			0.33
v/c Ratio				0.68		0.55		0.75	1.10		0.49	0.33
Uniform Delay, d1				12.0		11.6		8.4	17.5		7.2	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				1.8		0.9		1.3	54.1		0.1	0.6
Delay (s)				13.9		12.4		9.6	71.6		7.3	0.6
Level of Service				B		B		A	E		A	A
Approach Delay (s)		0.0			13.4			41.5			4.5	
Approach LOS		A			B			D			A	

Intersection Summary			
HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.63		
Actuated Cycle Length (s)	35.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

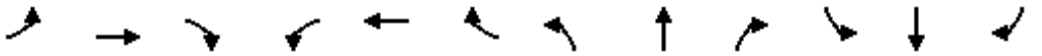


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	612	124	352	0	0	861	0	2598	8	0	1193	109
Future Volume (vph)	612	124	352	0	0	861	0	2598	8	0	1193	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		0.86			0.95	1.00
Frt	1.00	0.97	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	0.97	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	2992	1427			2733		6343			3505	1568
Flt Permitted	0.95	0.97	1.00			1.00		1.00			1.00	1.00
Satd. Flow (perm)	1595	2992	1427			2733		6343			3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	612	124	352	0	0	861	0	2598	8	0	1193	109
RTOR Reduction (vph)	0	18	104	0	0	36	0	1	0	0	0	29
Lane Group Flow (vph)	306	521	139	0	0	825	0	2605	0	0	1193	80
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA			NA	Perm
Protected Phases	4	4				1		2			6	
Permitted Phases			4									6
Actuated Green, G (s)	21.0	21.0	21.0			31.0		46.0			81.0	81.0
Effective Green, g (s)	21.0	21.0	21.0			31.0		46.0			81.0	81.0
Actuated g/C Ratio	0.19	0.19	0.19			0.28		0.42			0.74	0.74
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	304	571	272			770		2652			2580	1154
v/s Ratio Prot	c0.19	0.17				c0.30		c0.41			0.34	
v/s Ratio Perm			0.10									0.05
v/c Ratio	1.01	0.95dl	0.51			1.07		0.98			0.46	0.07
Uniform Delay, d1	44.5	43.6	39.9			39.5		31.6			5.8	4.0
Progression Factor	1.00	1.00	1.00			1.00		1.00			1.00	1.00
Incremental Delay, d2	53.3	19.0	1.6			53.3		13.5			0.1	0.0
Delay (s)	97.8	62.6	41.5			92.8		45.1			5.9	4.1
Level of Service	F	E	D			F		D			A	A
Approach Delay (s)		67.8			92.8			45.1			5.8	
Approach LOS		E			F			D			A	

Intersection Summary			
HCM 2000 Control Delay	47.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		

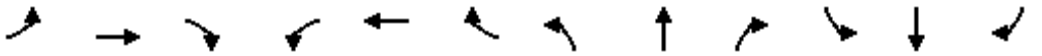
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



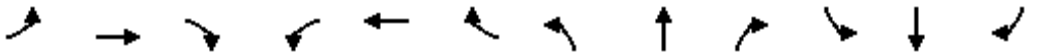
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	425	0	355	0	3085	515	0	1264	1121
Future Volume (vph)	0	0	0	425	0	355	0	3085	515	0	1264	1121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	425	0	355	0	3085	515	0	1264	1121
RTOR Reduction (vph)	0	0	0	0	0	35	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	425	0	320	0	3085	515	0	1264	1121
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				6			2	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				8.2		8.2		35.3	51.8		35.0	51.8
Effective Green, g (s)				8.2		8.2		35.3	51.8		35.0	51.8
Actuated g/C Ratio				0.16		0.16		0.68	1.00		0.68	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				522		424		3399	1553		3370	1553
v/s Ratio Prot				0.13				c0.62			0.25	
v/s Ratio Perm						0.12			0.33			c0.72
v/c Ratio				0.81		0.75		0.91	0.33		0.38	0.72
Uniform Delay, d1				21.1		20.8		6.9	0.0		3.6	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				9.0		6.6		3.9	0.6		0.0	2.9
Delay (s)				30.0		27.5		10.8	0.6		3.7	2.9
Level of Service				C		C		B	A		A	A
Approach Delay (s)		0.0			28.9			9.3			3.3	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	51.8	Sum of lost time (s)	8.6
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



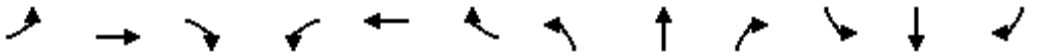
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1415	0	320	0	0	0	0	2184	363	0	1293	395
Future Volume (vph)	1415	0	320	0	0	0	0	2184	363	0	1293	395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1415	0	320	0	0	0	0	2184	363	0	1293	395
RTOR Reduction (vph)	0	0	17	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1415	0	303	0	0	0	0	2184	363	0	1293	395
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	7				8			6			2	
Permitted Phases			4	8					Free			Free
Actuated Green, G (s)	23.1		23.6					24.6	56.5		24.3	56.5
Effective Green, g (s)	23.1		23.6					24.6	56.5		24.3	56.5
Actuated g/C Ratio	0.41		0.42					0.44	1.00		0.43	1.00
Clearance Time (s)	4.0		3.5					4.8			5.1	
Vehicle Extension (s)	3.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	2000		1141					2736	1553		2145	1553
v/s Ratio Prot	c0.29							c0.35			0.26	
v/s Ratio Perm			0.11						0.23			0.25
v/c Ratio	0.71		0.27					0.80	0.23		0.60	0.25
Uniform Delay, d1	13.9		10.8					13.8	0.0		12.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	1.2		0.0					1.6	0.4		0.3	0.4
Delay (s)	15.1		10.8					15.4	0.4		12.7	0.4
Level of Service	B		B					B	A		B	A
Approach Delay (s)		14.3			0.0			13.2			9.8	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	56.5	Sum of lost time (s)	13.1
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



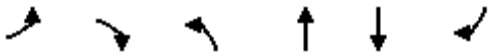
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	277	244	9	2	211	6	7	15	2	5	21	701
Future Volume (vph)	277	244	9	2	211	6	7	15	2	5	21	701
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1703	1792	1524	1719	1802			1798			1810	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (perm)	1703	1792	1524	1719	1802			1798			1810	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	277	244	9	2	211	6	7	15	2	5	21	701
RTOR Reduction (vph)	0	0	4	0	2	0	0	2	0	0	0	311
Lane Group Flow (vph)	277	244	5	2	215	0	0	22	0	0	26	390
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									4
Actuated Green, G (s)	17.7	30.8	30.8	0.4	14.4			0.9			1.6	19.3
Effective Green, g (s)	17.7	30.8	30.8	0.4	14.4			0.9			1.6	19.3
Actuated g/C Ratio	0.30	0.53	0.53	0.01	0.25			0.02			0.03	0.33
Clearance Time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	516	945	803	11	444			27			49	513
v/s Ratio Prot	0.16	0.14		0.00	c0.12			c0.01			0.01	c0.23
v/s Ratio Perm			0.00									0.02
v/c Ratio	0.54	0.26	0.01	0.18	0.49			0.82			0.53	0.76
Uniform Delay, d1	16.9	7.6	6.5	28.8	18.8			28.7			28.0	17.5
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.5	0.1	0.0	2.9	0.3			92.1			5.4	5.7
Delay (s)	17.5	7.6	6.5	31.7	19.1			120.8			33.5	23.2
Level of Service	B	A	A	C	B			F			C	C
Approach Delay (s)		12.7			19.2			120.8			23.5	
Approach LOS		B			B			F			C	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	24.7
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



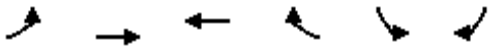
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	305	39	191	571	170	2118	0	0	1399	69
Future Volume (vph)	0	0	305	39	191	571	170	2118	0	0	1399	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1777	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1777	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	305	39	191	571	170	2118	0	0	1399	69
RTOR Reduction (vph)	0	0	252	0	0	85	0	0	0	0	0	44
Lane Group Flow (vph)	0	0	53	0	230	486	170	2118	0	0	1399	25
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			11.4		13.7	13.7	11.4	40.2			23.9	23.9
Effective Green, g (s)			11.4		13.7	13.7	11.4	40.2			23.9	23.9
Actuated g/C Ratio			0.18		0.21	0.21	0.18	0.62			0.37	0.37
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Vehicle Extension (s)			3.0		3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)			279		373	564	578	3021			2263	559
v/s Ratio Prot			0.03		0.13		0.05	c0.43			0.23	
v/s Ratio Perm						c0.18						0.02
v/c Ratio			0.19		0.62	0.86	0.29	0.70			0.62	0.05
Uniform Delay, d1			22.9		23.3	24.8	23.4	8.4			16.9	13.3
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			0.3		3.0	12.8	0.3	0.8			0.5	0.0
Delay (s)			23.3		26.3	37.5	23.6	9.1			17.4	13.3
Level of Service			C		C	D	C	A			B	B
Approach Delay (s)		23.3			34.3			10.2			17.2	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	65.1	Sum of lost time (s)	16.1
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



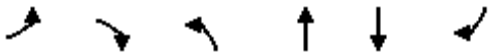
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1640	71	0	0	154	789
Future Volume (vph)	1640	71	0	0	154	789
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5			4.7	4.0
Lane Util. Factor	0.97	0.91			0.95	1.00
Frt	1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3310	1386			3406	1524
Flt Permitted	0.95	1.00			1.00	1.00
Satd. Flow (perm)	3310	1386			3406	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1640	71	0	0	154	789
RTOR Reduction (vph)	0	17	0	0	0	0
Lane Group Flow (vph)	1647	47	0	0	154	789
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%
Turn Type	Prot	Perm			NA	Free
Protected Phases	4				2	
Permitted Phases		4				Free
Actuated Green, G (s)	42.1	42.1			7.4	57.7
Effective Green, g (s)	42.1	42.1			7.4	57.7
Actuated g/C Ratio	0.73	0.73			0.13	1.00
Clearance Time (s)	3.5	3.5			4.7	
Vehicle Extension (s)	1.5	1.5			1.0	
Lane Grp Cap (vph)	2415	1011			436	1524
v/s Ratio Prot	c0.50				0.05	
v/s Ratio Perm		0.03				c0.52
v/c Ratio	0.68	0.05			0.35	0.52
Uniform Delay, d1	4.2	2.2			23.0	0.0
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	0.6	0.0			0.2	1.3
Delay (s)	4.8	2.2			23.1	1.3
Level of Service	A	A			C	A
Approach Delay (s)	4.7			0.0	4.8	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	4.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	57.7	Sum of lost time (s)	8.2
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



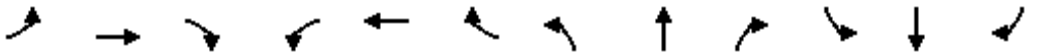
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	218	448	297	83	67	231
Future Volume (vph)	218	448	297	83	67	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3343	3343	1495	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3343	3343	1495	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	218	448	297	83	67	231
RTOR Reduction (vph)	0	0	0	62	0	183
Lane Group Flow (vph)	218	448	297	21	67	48
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	7.5	20.7	9.2	9.2	7.5	7.5
Effective Green, g (s)	7.5	20.7	9.2	9.2	7.5	7.5
Actuated g/C Ratio	0.21	0.57	0.25	0.25	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	346	1911	849	379	362	324
v/s Ratio Prot	c0.13	0.13	c0.09		c0.04	
v/s Ratio Perm				0.01		0.03
v/c Ratio	0.63	0.23	0.35	0.06	0.19	0.15
Uniform Delay, d1	13.1	3.8	11.1	10.2	11.8	11.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.7	0.1	0.3	0.1	0.2	0.2
Delay (s)	16.8	3.9	11.3	10.3	12.1	11.9
Level of Service	B	A	B	B	B	B
Approach Delay (s)		8.1	11.1		12.0	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	36.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	255	25	5	438	475	39
Future Volume (vph)	255	25	5	438	475	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3367	1553	1719	3438	3343	1495
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3367	1553	1719	3438	3343	1495
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	255	25	5	438	475	39
RTOR Reduction (vph)	0	19	0	0	0	30
Lane Group Flow (vph)	255	6	5	438	475	9
Heavy Vehicles (%)	4%	4%	5%	5%	8%	8%
Turn Type	Prot	Perm	Prot	NA	NA	Over
Protected Phases	4		5	2	6	4
Permitted Phases		4				
Actuated Green, G (s)	8.1	8.1	0.6	17.6	13.0	8.1
Effective Green, g (s)	8.1	8.1	0.6	17.6	13.0	8.1
Actuated g/C Ratio	0.24	0.24	0.02	0.52	0.39	0.24
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	809	373	30	1795	1289	359
v/s Ratio Prot	c0.08		0.00	c0.13	c0.14	0.01
v/s Ratio Perm		0.00				
v/c Ratio	0.32	0.02	0.17	0.24	0.37	0.03
Uniform Delay, d1	10.5	9.8	16.3	4.4	7.4	9.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.0	2.6	0.1	0.2	0.0
Delay (s)	10.7	9.8	18.9	4.5	7.6	9.8
Level of Service	B	A	B	A	A	A
Approach Delay (s)	10.7			4.6	7.8	
Approach LOS	B			A	A	

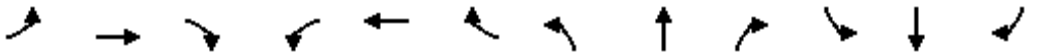
Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	33.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	27.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	706	0	755	0	0	0	0	2665	619	0	1888	1108
Future Volume (vph)	706	0	755	0	0	0	0	2665	619	0	1888	1108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.97	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4626	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4626	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	706	0	755	0	0	0	0	2665	619	0	1888	1108
RTOR Reduction (vph)	0	0	12	0	0	0	0	0	0	0	55	0
Lane Group Flow (vph)	706	0	743	0	0	0	0	2665	619	0	2265	676
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	18.7		18.7					33.0	59.7		33.0	59.7
Effective Green, g (s)	18.7		18.7					33.0	59.7		33.0	59.7
Actuated g/C Ratio	0.31		0.31					0.55	1.00		0.55	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1064		864					3507	1568		2557	1348
v/s Ratio Prot	0.21							0.42			c0.49	
v/s Ratio Perm			c0.27						0.39			0.50
v/c Ratio	0.66		0.86					0.76	0.39		0.89	0.50
Uniform Delay, d1	17.8		19.3					10.3	0.0		11.7	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	1.6		8.5					1.0	0.7		4.1	1.3
Delay (s)	19.3		27.8					11.3	0.7		15.8	1.3
Level of Service	B		C					B	A		B	A
Approach Delay (s)		23.7			0.0			9.3			12.5	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	59.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	342	0	1309	0	2454	921	0	2903	643
Future Volume (vph)	0	0	0	342	0	1309	0	2454	921	0	2903	643
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		0.99	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4714	1348		5957	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4714	1348		5957	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	342	0	1309	0	2454	921	0	2903	643
RTOR Reduction (vph)	0	0	0	0	0	8	0	8	0	0	3	0
Lane Group Flow (vph)	0	0	0	342	0	1301	0	2612	755	0	2964	579
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				32.0		32.0		50.0	90.0		50.0	90.0
Effective Green, g (s)				32.0		32.0		50.0	90.0		50.0	90.0
Actuated g/C Ratio				0.36		0.36		0.56	1.00		0.56	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1208		1271		2618	1348		3309	1270
v/s Ratio Prot				0.10				c0.55			0.50	
v/s Ratio Perm						c0.36			0.56			0.46
v/c Ratio				0.28		1.02		1.00	0.56		0.90	0.46
Uniform Delay, d1				20.8		29.0		19.9	0.0		17.7	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.1		31.5		16.9	1.7		3.6	1.2
Delay (s)				20.9		60.5		36.9	1.7		21.3	1.2
Level of Service				C		E		D	A		C	A
Approach Delay (s)		0.0			52.3			29.0			18.0	
Approach LOS		A			D			C			B	

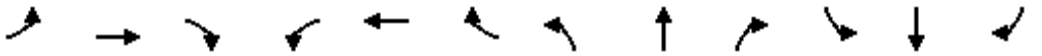
Intersection Summary			
HCM 2000 Control Delay	28.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	663	275	314	887	488	402
Future Volume (vph)	663	275	314	887	488	402
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	663	275	314	887	488	402
RTOR Reduction (vph)	0	195	0	0	0	301
Lane Group Flow (vph)	663	80	314	887	488	101
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	15.9	15.9	14.3	34.2	14.1	14.1
Effective Green, g (s)	15.9	15.9	14.3	34.2	14.1	14.1
Actuated g/C Ratio	0.28	0.28	0.25	0.61	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	890	398	400	1915	766	353
v/s Ratio Prot	c0.21		c0.20	0.28	c0.16	
v/s Ratio Perm		0.06				0.07
v/c Ratio	0.74	0.20	0.79	0.46	0.64	0.29
Uniform Delay, d1	18.4	15.4	19.6	6.0	18.8	17.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.2	9.7	0.2	1.7	0.4
Delay (s)	21.8	15.6	29.3	6.2	20.6	17.5
Level of Service	C	B	C	A	C	B
Approach Delay (s)	20.0			12.3	19.2	
Approach LOS	B			B	B	

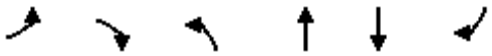
Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	56.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	226	1	0	443	26	0	0	0	23	0	247
Future Volume (vph)	309	226	1	0	443	26	0	0	0	23	0	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95					0.95	0.95	1.00
Frt	1.00	1.00			0.99					1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (prot)	1736	3469			3442					1665	1665	1568
Flt Permitted	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (perm)	1736	3469			3442					1665	1665	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	309	226	1	0	443	26	0	0	0	23	0	247
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	0	0	0	209
Lane Group Flow (vph)	309	227	0	0	464	0	0	0	0	11	12	38
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA					Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	14.5	30.1			11.6					6.9	6.9	6.9
Effective Green, g (s)	14.5	30.1			11.6					6.9	6.9	6.9
Actuated g/C Ratio	0.32	0.67			0.26					0.15	0.15	0.15
Clearance Time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)	559	2320			887					255	255	240
v/s Ratio Prot	c0.18	0.07			c0.13					0.01	0.01	
v/s Ratio Perm												c0.02
v/c Ratio	0.55	0.10			0.52					0.04	0.05	0.16
Uniform Delay, d1	12.6	2.6			14.3					16.2	16.2	16.5
Progression Factor	1.00	1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2	1.2	0.0			0.6					0.1	0.1	0.3
Delay (s)	13.8	2.7			14.9					16.3	16.3	16.8
Level of Service	B	A			B					B	B	B
Approach Delay (s)		9.1			14.9			0.0			16.8	
Approach LOS		A			B			A			B	

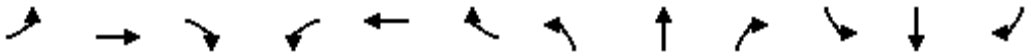
Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	109	47	22	493	962	336
Future Volume (vph)	109	47	22	493	962	336
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.96		1.00	1.00	0.97	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1710		1752	1845	1780	
Flt Permitted	0.97		0.95	1.00	1.00	
Satd. Flow (perm)	1710		1752	1845	1780	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	109	47	22	493	962	336
RTOR Reduction (vph)	15	0	0	0	9	0
Lane Group Flow (vph)	141	0	22	493	1289	0
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	13.2		1.6	89.8	84.2	
Effective Green, g (s)	13.2		1.6	89.8	84.2	
Actuated g/C Ratio	0.12		0.01	0.81	0.76	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	203		25	1492	1350	
v/s Ratio Prot	c0.08		c0.01	0.27	c0.72	
v/s Ratio Perm						
v/c Ratio	0.69		0.88	0.33	0.95	
Uniform Delay, d1	47.0		54.6	2.8	11.7	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	9.9		127.2	0.1	14.9	
Delay (s)	56.8		181.8	2.9	26.6	
Level of Service	E		F	A	C	
Approach Delay (s)	56.8			10.5	26.6	
Approach LOS	E			B	C	

Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	111.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		

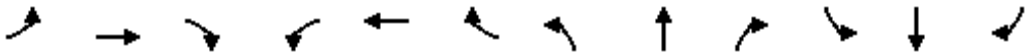
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	4	32	121	22	46	46	865	32	85	1069	115
Future Volume (vph)	58	4	32	121	22	46	46	865	32	85	1069	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	3486		1752	3454	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	1752	3486		1752	3454	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	4	32	121	22	46	46	865	32	85	1069	115
RTOR Reduction (vph)	0	0	31	0	0	40	0	3	0	0	11	0
Lane Group Flow (vph)	58	4	1	121	22	6	46	894	0	85	1173	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	2.2	2.2	2.2	7.0	7.0	7.0	1.7	23.4		2.8	24.5	
Effective Green, g (s)	2.2	2.2	2.2	7.0	7.0	7.0	1.7	23.4		2.8	24.5	
Actuated g/C Ratio	0.04	0.04	0.04	0.14	0.14	0.14	0.03	0.46		0.05	0.48	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	78	67	238	251	213	57	1587		95	1646	
v/s Ratio Prot	0.03	0.00		c0.07	c0.01		0.03	0.26		c0.05	c0.34	
v/s Ratio Perm			0.00			0.00						
v/c Ratio	0.78	0.05	0.02	0.51	0.09	0.03	0.81	0.56		0.89	0.71	
Uniform Delay, d1	24.4	23.6	23.6	20.6	19.4	19.3	24.7	10.3		24.2	10.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	40.6	0.3	0.1	1.7	0.2	0.1	55.0	0.5		59.1	1.5	
Delay (s)	64.9	23.9	23.7	22.3	19.6	19.3	79.7	10.7		83.2	12.1	
Level of Service	E	C	C	C	B	B	E	B		F	B	
Approach Delay (s)		49.1			21.3			14.1			16.9	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	51.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	4	67	0	5	67	28	819	0	44	962	51
Future Volume (vph)	77	4	67	0	5	67	28	819	0	44	962	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568		1845	1568	1752	3505		1752	3478	
Flt Permitted	0.95	1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1845	1568		1845	1568	1752	3505		1752	3478	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	77	4	67	0	5	67	28	819	0	44	962	51
RTOR Reduction (vph)	0	0	52	0	0	63	0	0	0	0	5	0
Lane Group Flow (vph)	77	4	15	0	5	4	28	819	0	44	1008	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	3.3	10.4	10.4		3.1	3.1	0.5	23.6		1.3	24.4	
Effective Green, g (s)	3.3	10.4	10.4		3.1	3.1	0.5	23.6		1.3	24.4	
Actuated g/C Ratio	0.07	0.22	0.22		0.07	0.07	0.01	0.50		0.03	0.52	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	122	405	344		120	102	18	1748		48	1794	
v/s Ratio Prot	c0.04	0.00			0.00		0.02	0.23		c0.03	c0.29	
v/s Ratio Perm			c0.01			0.00						
v/c Ratio	0.63	0.01	0.04		0.04	0.04	1.56	0.47		0.92	0.56	
Uniform Delay, d1	21.4	14.4	14.5		20.7	20.7	23.4	7.7		22.9	7.8	
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	10.2	0.0	0.1		0.1	0.2	417.6	0.2		97.8	0.4	
Delay (s)	31.6	14.4	14.6		20.9	20.9	441.0	7.9		120.8	8.2	
Level of Service	C	B	B		C	C	F	A		F	A	
Approach Delay (s)		23.4			20.9			22.3			12.9	
Approach LOS		C			C			C			B	

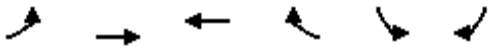
Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	47.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	543	81	103	659	34	50
Future Volume (vph)	543	81	103	659	34	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3437		1752	3505	1752	1568
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3437		1752	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	543	81	103	659	34	50
RTOR Reduction (vph)	18	0	0	0	0	45
Lane Group Flow (vph)	606	0	103	659	34	5
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)	18.6		3.1	25.7	3.6	3.6
Effective Green, g (s)	18.6		3.1	25.7	3.6	3.6
Actuated g/C Ratio	0.50		0.08	0.69	0.10	0.10
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1713		145	2414	169	151
v/s Ratio Prot	c0.18		c0.06	0.19	c0.02	
v/s Ratio Perm						0.00
v/c Ratio	0.35		0.71	0.27	0.20	0.03
Uniform Delay, d1	5.7		16.7	2.2	15.5	15.3
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		15.1	0.1	0.6	0.1
Delay (s)	5.8		31.8	2.3	16.1	15.4
Level of Service	A		C	A	B	B
Approach Delay (s)	5.8			6.3	15.7	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	37.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	141	391	515	212	361	241
Future Volume (vph)	141	391	515	212	361	241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	1845	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	1845	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	141	391	515	212	361	241
RTOR Reduction (vph)	0	0	0	150	0	165
Lane Group Flow (vph)	141	391	515	62	361	76
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	4.4	20.7	12.3	12.3	13.1	13.1
Effective Green, g (s)	4.4	20.7	12.3	12.3	13.1	13.1
Actuated g/C Ratio	0.11	0.50	0.29	0.29	0.31	0.31
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	184	913	1031	461	549	491
v/s Ratio Prot	c0.08	c0.21	0.15		c0.21	
v/s Ratio Perm				0.04		0.05
v/c Ratio	0.77	0.43	0.50	0.14	0.66	0.15
Uniform Delay, d1	18.2	6.8	12.2	10.8	12.4	10.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.2	0.3	0.4	0.1	2.8	0.1
Delay (s)	35.4	7.1	12.6	11.0	15.3	10.5
Level of Service	D	A	B	B	B	B
Approach Delay (s)		14.6	12.1		13.4	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	41.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2077	79	50	2210	30	24
Future Volume (vph)	2077	79	50	2210	30	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3486		1752	3505	1752	1568
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3486		1752	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2077	79	50	2210	30	24
RTOR Reduction (vph)	2	0	0	0	0	22
Lane Group Flow (vph)	2154	0	50	2210	30	2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)	69.6		5.2	78.8	7.9	7.9
Effective Green, g (s)	69.6		5.2	78.8	7.9	7.9
Actuated g/C Ratio	0.73		0.05	0.83	0.08	0.08
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2562		96	2916	146	130
v/s Ratio Prot	c0.62		0.03	c0.63	c0.02	
v/s Ratio Perm						0.00
v/c Ratio	0.84		0.52	0.76	0.21	0.02
Uniform Delay, d1	8.7		43.5	3.6	40.5	39.8
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	2.7		5.0	1.2	0.7	0.0
Delay (s)	11.4		48.6	4.8	41.2	39.9
Level of Service	B		D	A	D	D
Approach Delay (s)	11.4			5.7	40.6	
Approach LOS	B			A	D	

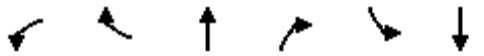
Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	94.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	63	52	1238	27	162	1073
Future Volume (vph)	63	52	1238	27	162	1073
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		0.97	0.95
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1568	3494		3400	3505
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1568	3494		3400	3505
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	63	52	1238	27	162	1073
RTOR Reduction (vph)	0	46	2	0	0	0
Lane Group Flow (vph)	63	6	1263	0	162	1073
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	6.3	6.3	32.6		4.1	40.7
Effective Green, g (s)	6.3	6.3	32.6		4.1	40.7
Actuated g/C Ratio	0.11	0.11	0.59		0.07	0.74
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	200	179	2070		253	2593
v/s Ratio Prot	c0.04		c0.36		c0.05	0.31
v/s Ratio Perm		0.00				
v/c Ratio	0.32	0.03	0.61		0.64	0.41
Uniform Delay, d1	22.4	21.6	7.1		24.7	2.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.9	0.1	0.5		5.4	0.5
Delay (s)	23.3	21.7	7.7		30.2	3.2
Level of Service	C	C	A		C	A
Approach Delay (s)	22.6		7.7			6.7
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	48	0	1561	44	0	2145
Future Volume (vph)	48	0	1561	44	0	2145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.91			0.95
Frt	1.00		1.00			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1752		5015			3505
Flt Permitted	0.95		1.00			1.00
Satd. Flow (perm)	1752		5015			3505
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	48	0	1561	44	0	2145
RTOR Reduction (vph)	0	0	1	0	0	0
Lane Group Flow (vph)	48	0	1604	0	0	2145
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	4.6		64.0			64.0
Effective Green, g (s)	4.6		64.0			64.0
Actuated g/C Ratio	0.06		0.84			0.84
Clearance Time (s)	4.0		4.0			4.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	105		4190			2928
v/s Ratio Prot	c0.03		0.32			c0.61
v/s Ratio Perm						
v/c Ratio	0.46		0.38			0.73
Uniform Delay, d1	34.8		1.5			2.7
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	3.1		0.1			1.0
Delay (s)	37.9		1.6			3.6
Level of Service	D		A			A
Approach Delay (s)	37.9		1.6			3.6
Approach LOS	D		A			A

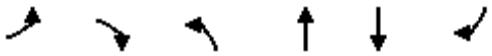
Intersection Summary			
HCM 2000 Control Delay	3.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	304	797	617	169	425	1874
Future Volume (vph)	304	797	617	169	425	1874
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1568	4874		1752	5036
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1568	4874		1752	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	304	797	617	169	425	1874
RTOR Reduction (vph)	0	470	99	0	0	0
Lane Group Flow (vph)	304	327	687	0	425	1874
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	3		2		1	6
Permitted Phases		3				
Actuated Green, G (s)	13.0	13.0	9.7		13.6	27.3
Effective Green, g (s)	13.0	13.0	9.7		13.6	27.3
Actuated g/C Ratio	0.27	0.27	0.20		0.28	0.57
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	471	422	978		493	2846
v/s Ratio Prot	0.17		0.14		c0.24	c0.37
v/s Ratio Perm		c0.21				
v/c Ratio	0.65	0.78	0.70		0.86	0.66
Uniform Delay, d1	15.6	16.3	18.0		16.5	7.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	3.0	8.6	2.3		14.4	0.6
Delay (s)	18.6	24.9	20.3		30.8	7.8
Level of Service	B	C	C		C	A
Approach Delay (s)	23.2		20.3			12.1
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	48.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

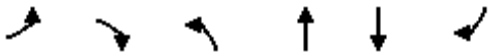
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	118	80	82	486	1767	162
Future Volume (vph)	118	80	82	486	1767	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	4972	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	4972	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	118	80	82	486	1767	162
RTOR Reduction (vph)	0	69	0	0	14	0
Lane Group Flow (vph)	118	11	82	486	1915	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	7.2	7.2	3.7	37.5	29.8	
Effective Green, g (s)	7.2	7.2	3.7	37.5	29.8	
Actuated g/C Ratio	0.14	0.14	0.07	0.71	0.57	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	239	214	123	3583	2811	
v/s Ratio Prot	c0.07		c0.05	0.10	c0.39	
v/s Ratio Perm		0.01				
v/c Ratio	0.49	0.05	0.67	0.14	0.68	
Uniform Delay, d1	21.1	19.8	23.9	2.4	8.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.6	0.1	12.8	0.0	0.7	
Delay (s)	22.7	19.9	36.7	2.4	8.8	
Level of Service	C	B	D	A	A	
Approach Delay (s)	21.5			7.4	8.8	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	52.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		

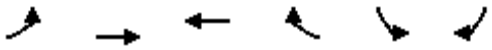
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	296	302	158	482	640	158
Future Volume (vph)	296	302	158	482	640	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	3505	3401	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	3505	3401	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	296	302	158	482	640	158
RTOR Reduction (vph)	0	218	0	0	43	0
Lane Group Flow (vph)	296	84	158	482	755	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	12.2	12.2	5.1	23.9	14.8	
Effective Green, g (s)	12.2	12.2	5.1	23.9	14.8	
Actuated g/C Ratio	0.28	0.28	0.12	0.54	0.34	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	484	433	202	1899	1141	
v/s Ratio Prot	c0.17		c0.09	0.14	c0.22	
v/s Ratio Perm		0.05				
v/c Ratio	0.61	0.19	0.78	0.25	0.66	
Uniform Delay, d1	13.9	12.2	19.0	5.4	12.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.3	0.2	17.7	0.1	1.5	
Delay (s)	16.2	12.4	36.6	5.4	14.0	
Level of Service	B	B	D	A	B	
Approach Delay (s)	14.3			13.1	14.0	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	44.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

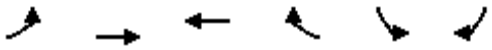
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	329	489	18	75	231
Future Volume (vph)	0	329	489	18	75	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		1845	1845	1568	1752	1568
Flt Permitted		1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)		1845	1845	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	329	489	18	75	231
RTOR Reduction (vph)	0	0	0	9	0	178
Lane Group Flow (vph)	0	329	489	9	75	53
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)		14.8	14.8	14.8	6.8	6.8
Effective Green, g (s)		14.8	14.8	14.8	6.8	6.8
Actuated g/C Ratio		0.50	0.50	0.50	0.23	0.23
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		922	922	784	402	360
v/s Ratio Prot		0.18	c0.27		c0.04	
v/s Ratio Perm				0.01		0.03
v/c Ratio		0.36	0.53	0.01	0.19	0.15
Uniform Delay, d1		4.5	5.0	3.7	9.2	9.1
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2	0.6	0.0	0.2	0.2
Delay (s)		4.7	5.6	3.7	9.4	9.3
Level of Service		A	A	A	A	A
Approach Delay (s)		4.7	5.6		9.3	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	29.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

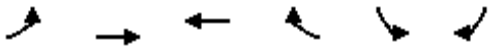
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	505	1585	1152	52	88	745
Future Volume (vph)	505	1585	1152	52	88	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.95	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3400	3505	5003		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3400	3505	5003		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	505	1585	1152	52	88	745
RTOR Reduction (vph)	0	0	8	0	0	269
Lane Group Flow (vph)	505	1585	1196	0	88	476
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	9.0	28.9	15.9		17.4	17.4
Effective Green, g (s)	9.0	28.9	15.9		17.4	17.4
Actuated g/C Ratio	0.17	0.53	0.29		0.32	0.32
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	563	1865	1464		561	502
v/s Ratio Prot	0.15	c0.45	0.24		0.05	
v/s Ratio Perm						c0.30
v/c Ratio	0.90	0.85	0.82		0.16	0.95
Uniform Delay, d1	22.2	10.8	17.8		13.2	18.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	16.8	3.8	3.6		0.1	27.3
Delay (s)	39.0	14.7	21.5		13.3	45.3
Level of Service	D	B	C		B	D
Approach Delay (s)		20.6	21.5		41.9	
Approach LOS		C	C		D	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	54.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

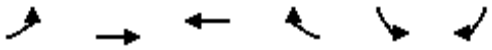
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	153	1380	757	51	51	175
Future Volume (vph)	153	1380	757	51	51	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	3505	3505	1568	3400	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	3505	3505	1568	3400	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	153	1380	757	51	51	175
RTOR Reduction (vph)	0	0	0	27	0	151
Lane Group Flow (vph)	153	1380	757	24	51	24
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	3.1	24.6	17.5	17.5	5.3	5.3
Effective Green, g (s)	3.1	24.6	17.5	17.5	5.3	5.3
Actuated g/C Ratio	0.08	0.65	0.46	0.46	0.14	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	278	2275	1618	724	475	219
v/s Ratio Prot	0.05	c0.39	0.22		0.02	
v/s Ratio Perm				0.02		c0.02
v/c Ratio	0.55	0.61	0.47	0.03	0.11	0.11
Uniform Delay, d1	16.7	3.8	7.0	5.6	14.2	14.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.5	0.2	0.0	0.1	0.2
Delay (s)	19.1	4.3	7.2	5.6	14.3	14.5
Level of Service	B	A	A	A	B	B
Approach Delay (s)		5.8	7.1		14.4	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	37.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	197	1195	699	17	8	123
Future Volume (vph)	197	1195	699	17	8	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	3505	3492		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	3505	3492		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	197	1195	699	17	8	123
RTOR Reduction (vph)	0	0	3	0	0	111
Lane Group Flow (vph)	197	1195	713	0	8	12
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	6.2	26.5	16.3		3.8	3.8
Effective Green, g (s)	6.2	26.5	16.3		3.8	3.8
Actuated g/C Ratio	0.16	0.69	0.43		0.10	0.10
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	283	2425	1486		173	155
v/s Ratio Prot	c0.11	c0.34	0.20		0.00	
v/s Ratio Perm						c0.01
v/c Ratio	0.70	0.49	0.48		0.05	0.08
Uniform Delay, d1	15.2	2.8	7.9		15.6	15.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.3	0.2	0.2		0.1	0.2
Delay (s)	22.4	2.9	8.2		15.7	15.9
Level of Service	C	A	A		B	B
Approach Delay (s)		5.7	8.2		15.9	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	38.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	705	181	338	580	171	270
Future Volume (vph)	705	181	338	580	171	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1568	3400	3505	3400	1568
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1568	3400	3505	3400	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	705	181	338	580	171	270
RTOR Reduction (vph)	0	117	0	0	0	183
Lane Group Flow (vph)	705	64	338	580	171	87
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	12.6	12.6	3.1	19.7	8.0	8.0
Effective Green, g (s)	12.6	12.6	3.1	19.7	8.0	8.0
Actuated g/C Ratio	0.35	0.35	0.09	0.55	0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1237	553	295	1934	761	351
v/s Ratio Prot	c0.20		c0.10	0.17	0.05	
v/s Ratio Perm		0.04				c0.06
v/c Ratio	0.57	0.12	1.15	0.30	0.22	0.25
Uniform Delay, d1	9.4	7.8	16.3	4.3	11.3	11.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.1	97.8	0.1	0.2	0.4
Delay (s)	10.0	7.9	114.1	4.4	11.5	11.7
Level of Service	A	A	F	A	B	B
Approach Delay (s)	9.5			44.8	11.6	
Approach LOS	A			D	B	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	35.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	975	0	79	918	0	163
Future Volume (vph)	975	0	79	918	0	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	0.95		1.00	0.95		1.00
Frt	1.00		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	3505		1752	3505		1568
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	3505		1752	3505		1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	975	0	79	918	0	163
RTOR Reduction (vph)	0	0	0	0	0	144
Lane Group Flow (vph)	975	0	79	918	0	19
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)	20.7		2.2	26.9		4.5
Effective Green, g (s)	20.7		2.2	26.9		4.5
Actuated g/C Ratio	0.53		0.06	0.68		0.11
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	1841		97	2393		179
v/s Ratio Prot	c0.28		c0.05	0.26		
v/s Ratio Perm						c0.01
v/c Ratio	0.53		0.81	0.38		0.10
Uniform Delay, d1	6.1		18.4	2.7		15.6
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.3		38.7	0.1		0.3
Delay (s)	6.4		57.1	2.8		15.9
Level of Service	A		E	A		B
Approach Delay (s)	6.4			7.1	15.9	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	39.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	0	494	476	228	596	0	1765	703	0	2192	360
Future Volume (veh/h)	179	0	494	476	228	596	0	1765	703	0	2192	360
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1827	1827	1827	0	1827	1827	0	1827	1827
Adj Flow Rate, veh/h	179	0	494	381	299	638	0	1765	0	0	2192	360
Adj No. of Lanes	0	1	2	2	1	3	0	3	1	0	4	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	0	4	4	0	4	4
Cap, veh/h	376	0	590	752	395	1007	0	1945	605	0	2450	605
Arrive On Green	0.21	0.00	0.21	0.22	0.22	0.22	0.00	0.39	0.00	0.00	0.39	0.39
Sat Flow, veh/h	1757	0	2760	3480	1827	4659	0	5152	1553	0	6540	1553
Grp Volume(v), veh/h	179	0	494	381	299	638	0	1765	0	0	2192	360
Grp Sat Flow(s),veh/h/ln	1757	0	1380	1740	1827	1553	0	1663	1553	0	1571	1553
Q Serve(g_s), s	5.9	0.0	11.4	6.4	10.2	8.3	0.0	22.3	0.0	0.0	21.8	12.3
Cycle Q Clear(g_c), s	5.9	0.0	11.4	6.4	10.2	8.3	0.0	22.3	0.0	0.0	21.8	12.3
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	376	0	590	752	395	1007	0	1945	605	0	2450	605
V/C Ratio(X)	0.48	0.00	0.84	0.51	0.76	0.63	0.00	0.91	0.00	0.00	0.89	0.59
Avail Cap(c_a), veh/h	422	0	663	835	439	1119	0	1946	606	0	2452	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	25.1	23.0	24.5	23.7	0.0	19.2	0.0	0.0	19.0	16.1
Incr Delay (d2), s/veh	0.9	0.0	8.5	0.5	6.7	1.0	0.0	6.7	0.0	0.0	4.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	5.0	3.1	5.9	3.6	0.0	11.3	0.0	0.0	10.1	5.5
LnGrp Delay(d),s/veh	23.9	0.0	33.5	23.5	31.2	24.7	0.0	25.9	0.0	0.0	23.8	17.7
LnGrp LOS	C		C	C	C	C		C			C	B
Approach Vol, veh/h		673			1318			1765			2552	
Approach Delay, s/veh		31.0			25.8			25.9			22.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		18.2		30.0		18.4
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		26.0		16.0		26.0		16.0
Max Q Clear Time (g_c+I1), s		24.3		13.4		23.8		12.2
Green Ext Time (p_c), s		1.7		0.8		2.2		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	27	163	17	40	16	136	839	6	17	1419	389
Future Volume (veh/h)	154	27	163	17	40	16	136	839	6	17	1419	389
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	173	0	163	17	40	16	136	839	6	17	1419	389
Adj No. of Lanes	2	0	1	0	1	0	2	3	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	500	0	223	22	52	21	207	1242	9	549	1726	772
Arrive On Green	0.14	0.00	0.14	0.05	0.05	0.05	0.06	0.24	0.24	0.32	0.50	0.50
Sat Flow, veh/h	3514	0	1568	405	953	381	3375	5109	37	1740	3471	1553
Grp Volume(v), veh/h	173	0	163	73	0	0	136	546	299	17	1419	389
Grp Sat Flow(s),veh/h/ln	1757	0	1568	1739	0	0	1688	1663	1820	1740	1736	1553
Q Serve(g_s), s	2.9	0.0	6.5	2.7	0.0	0.0	2.6	9.7	9.7	0.4	22.7	11.0
Cycle Q Clear(g_c), s	2.9	0.0	6.5	2.7	0.0	0.0	2.6	9.7	9.7	0.4	22.7	11.0
Prop In Lane	1.00		1.00	0.23		0.22	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	500	0	223	95	0	0	207	808	443	549	1726	772
V/C Ratio(X)	0.35	0.00	0.73	0.77	0.00	0.00	0.66	0.68	0.68	0.03	0.82	0.50
Avail Cap(c_a), veh/h	860	0	384	426	0	0	207	1933	1058	549	2018	903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	0.0	26.8	30.5	0.0	0.0	30.0	22.4	22.4	15.5	14.0	11.0
Incr Delay (d2), s/veh	0.4	0.0	4.6	12.4	0.0	0.0	7.4	1.0	1.8	0.0	2.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	3.1	1.6	0.0	0.0	1.4	4.6	5.1	0.2	11.2	4.8
LnGrp Delay(d),s/veh	25.7	0.0	31.4	42.9	0.0	0.0	37.5	23.4	24.2	15.5	16.5	11.5
LnGrp LOS	C		C	D			D	C	C	B	B	B
Approach Vol, veh/h		336			73			981			1825	
Approach Delay, s/veh		28.5			42.9			25.6			15.4	
Approach LOS		C			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	24.6	19.9		13.3	8.0	36.5		7.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	38.0		16.0	4.0	38.0		16.0
Max Q Clear Time (g_c+I1), s	2.4	11.7		8.5	4.6	24.7		4.7
Green Ext Time (p_c), s	1.3	4.2		0.8	0.0	7.8		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	636	124	158	855	204	132	616	15	225	1165	231
Future Volume (veh/h)	149	636	124	158	855	204	132	616	15	225	1165	231
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	149	636	124	158	855	204	132	616	15	225	1165	231
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	180	755	147	193	931	416	173	1159	28	314	1307	585
Arrive On Green	0.10	0.26	0.26	0.11	0.27	0.27	0.05	0.33	0.33	0.09	0.38	0.38
Sat Flow, veh/h	1757	2927	570	1757	3505	1568	3375	3463	84	3375	3471	1553
Grp Volume(v), veh/h	149	380	380	158	855	204	132	309	322	225	1165	231
Grp Sat Flow(s),veh/h/ln	1757	1752	1744	1757	1752	1568	1688	1736	1812	1688	1736	1553
Q Serve(g_s), s	6.5	16.1	16.2	6.9	18.5	8.6	3.0	11.3	11.3	5.1	24.6	8.5
Cycle Q Clear(g_c), s	6.5	16.1	16.2	6.9	18.5	8.6	3.0	11.3	11.3	5.1	24.6	8.5
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	180	452	450	193	931	416	173	581	606	314	1307	585
V/C Ratio(X)	0.83	0.84	0.84	0.82	0.92	0.49	0.77	0.53	0.53	0.72	0.89	0.39
Avail Cap(c_a), veh/h	180	452	450	202	941	421	173	581	606	431	1375	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	27.5	27.5	34.1	27.9	24.3	36.7	21.1	21.1	34.5	22.9	17.9
Incr Delay (d2), s/veh	26.6	13.4	13.7	21.8	13.6	0.9	18.3	0.9	0.9	3.5	7.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	9.4	9.4	4.5	10.7	3.8	1.9	5.5	5.8	2.5	13.0	3.7
LnGrp Delay(d),s/veh	61.0	40.9	41.2	55.8	41.5	25.2	55.0	22.0	22.0	38.0	30.3	18.3
LnGrp LOS	E	D	D	E	D	C	D	C	C	D	C	B
Approach Vol, veh/h		909			1217			763			1621	
Approach Delay, s/veh		44.4			40.7			27.7			29.7	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	30.2	12.6	24.2	8.0	33.5	12.0	24.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	25.0	9.0	20.0	4.0	31.0	8.0	21.0
Max Q Clear Time (g_c+I1), s	7.1	13.3	8.9	18.2	5.0	26.6	8.5	20.5
Green Ext Time (p_c), s	0.3	7.5	0.0	1.4	0.0	2.8	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1629	67	160	1087	105	88	802	185	27	236	2
Future Volume (veh/h)	23	1629	67	160	1087	105	88	802	185	27	236	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	23	1629	67	160	1087	105	88	802	185	27	236	2
Adj No. of Lanes	1	1	2	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	28	1108	1657	103	2078	201	108	683	305	34	543	5
Arrive On Green	0.02	0.62	0.62	0.06	0.66	0.66	0.06	0.19	0.19	0.02	0.15	0.15
Sat Flow, veh/h	1707	1792	2682	1707	3139	303	1757	3505	1568	1757	3562	30
Grp Volume(v), veh/h	23	1629	67	160	589	603	88	802	185	27	116	122
Grp Sat Flow(s),veh/h/ln	1707	1792	1341	1707	1703	1739	1757	1752	1568	1757	1752	1839
Q Serve(g_s), s	2.0	92.0	1.5	9.0	26.6	26.7	7.4	29.0	16.0	2.3	8.9	9.0
Cycle Q Clear(g_c), s	2.0	92.0	1.5	9.0	26.6	26.7	7.4	29.0	16.0	2.3	8.9	9.0
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	28	1108	1657	103	1127	1151	108	683	305	34	267	281
V/C Ratio(X)	0.82	1.47	0.04	1.55	0.52	0.52	0.81	1.17	0.61	0.80	0.43	0.43
Avail Cap(c_a), veh/h	69	1108	1657	103	1127	1151	142	683	305	47	267	281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.0	28.4	11.1	69.9	13.0	13.0	69.0	59.9	54.7	72.7	57.3	57.3
Incr Delay (d2), s/veh	41.0	216.8	0.0	289.7	0.4	0.4	23.1	93.5	3.4	45.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	111.9	0.5	12.5	12.6	12.9	4.3	22.8	7.2	1.5	4.4	4.7
LnGrp Delay(d),s/veh	114.0	245.2	11.2	359.6	13.5	13.5	92.1	153.5	58.1	118.0	58.4	58.3
LnGrp LOS	F	F	B	F	B	B	F	F	E	F	E	E
Approach Vol, veh/h		1719			1352			1075			265	
Approach Delay, s/veh		234.3			54.4			132.0			64.4	
Approach LOS		F			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	33.0	13.0	96.0	13.2	26.7	6.5	102.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	29.0	9.0	92.0	12.0	21.0	6.0	95.0
Max Q Clear Time (g_c+I1), s	4.3	31.0	11.0	94.0	9.4	11.0	4.0	28.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	4.2	0.0	50.2

Intersection Summary	
HCM 2010 Ctrl Delay	144.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	640	276	253	807	41	115	554	231	16	512	163
Future Volume (veh/h)	34	640	276	253	807	41	115	554	231	16	512	163
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	34	640	276	253	807	41	115	554	231	16	512	163
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	51	845	378	302	1303	66	146	1050	470	27	813	364
Arrive On Green	0.03	0.24	0.24	0.17	0.38	0.38	0.08	0.30	0.30	0.02	0.23	0.23
Sat Flow, veh/h	1757	3505	1568	1757	3394	172	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	34	640	276	253	417	431	115	554	231	16	512	163
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1814	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	1.1	10.0	9.5	8.2	11.3	11.3	3.8	7.7	7.1	0.5	7.7	5.2
Cycle Q Clear(g_c), s	1.1	10.0	9.5	8.2	11.3	11.3	3.8	7.7	7.1	0.5	7.7	5.2
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	51	845	378	302	673	697	146	1050	470	27	813	364
V/C Ratio(X)	0.67	0.76	0.73	0.84	0.62	0.62	0.79	0.53	0.49	0.58	0.63	0.45
Avail Cap(c_a), veh/h	149	952	426	328	673	697	149	1071	479	119	1012	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	20.7	20.6	23.6	14.7	14.7	26.5	17.2	16.9	28.8	20.3	19.4
Incr Delay (d2), s/veh	14.0	3.1	5.5	16.1	1.7	1.7	23.4	0.5	0.8	18.0	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.2	4.7	5.3	5.8	6.0	2.8	3.8	3.1	0.4	3.8	2.4
LnGrp Delay(d),s/veh	42.4	23.9	26.1	39.7	16.4	16.3	49.9	17.6	17.7	46.8	21.2	20.2
LnGrp LOS	D	C	C	D	B	B	D	B	B	D	C	C
Approach Vol, veh/h		950			1101			900			691	
Approach Delay, s/veh		25.2			21.7			21.8			21.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	21.6	14.1	18.2	8.9	17.7	5.7	26.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	18.0	11.0	16.0	5.0	17.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	2.5	9.7	10.2	12.0	5.8	9.7	3.1	13.3
Green Ext Time (p_c), s	0.0	4.3	0.1	2.2	0.0	3.9	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	465	63	178	510	45	119	240	99	74	793	219
Future Volume (veh/h)	222	465	63	178	510	45	119	240	99	74	793	219
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	222	465	63	178	510	45	119	240	99	74	793	219
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	254	839	375	222	776	347	127	1025	458	93	957	428
Arrive On Green	0.14	0.24	0.24	0.13	0.22	0.22	0.07	0.29	0.29	0.05	0.27	0.27
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	222	465	63	178	510	45	119	240	99	74	793	219
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	6.9	6.4	1.8	5.5	7.3	1.3	3.7	2.9	2.6	2.3	11.8	6.5
Cycle Q Clear(g_c), s	6.9	6.4	1.8	5.5	7.3	1.3	3.7	2.9	2.6	2.3	11.8	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	839	375	222	776	347	127	1025	458	93	957	428
V/C Ratio(X)	0.87	0.55	0.17	0.80	0.66	0.13	0.94	0.23	0.22	0.80	0.83	0.51
Avail Cap(c_a), veh/h	254	1012	453	254	1012	453	127	1025	458	127	1012	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	18.5	16.7	23.5	19.6	17.3	25.6	14.9	14.8	25.9	18.9	17.0
Incr Delay (d2), s/veh	27.0	0.6	0.2	14.9	1.0	0.2	60.9	0.1	0.2	21.4	5.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	3.2	0.8	3.5	3.6	0.6	3.9	1.4	1.2	1.7	6.4	2.9
LnGrp Delay(d),s/veh	50.2	19.0	16.9	38.4	20.6	17.4	86.5	15.0	15.0	47.3	24.5	18.0
LnGrp LOS	D	B	B	D	C	B	F	B	B	D	C	B
Approach Vol, veh/h		750			733			458			1086	
Approach Delay, s/veh		28.1			24.7			33.6			24.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	20.2	11.0	17.3	8.0	19.1	12.0	16.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	8.0	16.0	4.0	16.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	4.3	4.9	7.5	8.4	5.7	13.8	8.9	9.3
Green Ext Time (p_c), s	0.0	4.9	0.0	3.2	0.0	1.3	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	344	422	137	251	455	589	132	2350	233	340	2324	402
Future Volume (veh/h)	344	422	137	251	455	589	132	2350	233	340	2324	402
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	344	422	137	251	455	589	132	2350	233	340	2324	402
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	283	892	399	276	885	537	150	2191	682	303	2416	752
Arrive On Green	0.08	0.25	0.25	0.08	0.25	0.25	0.04	0.44	0.44	0.09	0.48	0.48
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	344	422	137	251	455	589	132	2350	233	340	2324	402
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	12.5	15.4	10.7	11.0	16.8	38.0	5.9	66.1	14.9	13.5	67.7	27.1
Cycle Q Clear(g_c), s	12.5	15.4	10.7	11.0	16.8	38.0	5.9	66.1	14.9	13.5	67.7	27.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	892	399	276	885	537	150	2191	682	303	2416	752
V/C Ratio(X)	1.22	0.47	0.34	0.91	0.51	1.10	0.88	1.07	0.34	1.12	0.96	0.53
Avail Cap(c_a), veh/h	283	892	399	276	885	537	150	2191	682	303	2416	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.0	47.5	45.8	68.6	48.3	49.5	71.5	42.2	27.8	68.5	37.5	27.0
Incr Delay (d2), s/veh	124.7	0.1	0.2	30.8	0.2	68.3	39.2	42.2	0.1	89.0	10.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	7.5	4.7	6.4	8.2	32.4	3.5	38.8	6.4	10.0	33.4	11.7
LnGrp Delay(d),s/veh	193.7	47.7	46.0	99.4	48.5	117.8	110.7	84.4	28.0	157.5	48.2	27.4
LnGrp LOS	F	D	D	F	D	F	F	F	C	F	D	C
Approach Vol, veh/h		903			1295			2715			3066	
Approach Delay, s/veh		103.1			89.9			80.8			57.6	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	77.7	18.0	42.6	19.0	70.9	17.7	42.9
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	6.7	72.7	12.5	* 38	13.5	* 66	12.2	38.0
Max Q Clear Time (g_c+I1), s	7.9	69.7	14.5	40.0	15.5	68.1	13.0	17.4
Green Ext Time (p_c), s	0.0	2.7	0.0	0.0	0.0	0.0	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	75.9
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	1	69	0	26	0	2526	59	113	2593	4
Future Volume (veh/h)	1	0	1	69	0	26	0	2526	59	113	2593	4
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	1	0	1	69	0	26	0	2526	59	113	2593	4
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	1	0	1	100	0	178	2	2890	900	142	3749	6
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.06	0.00	0.58	0.58	0.08	0.73	0.73
Sat Flow, veh/h	828	0	828	1757	0	3136	1740	4988	1553	1740	5143	8
Grp Volume(v), veh/h	2	0	0	69	0	26	0	2526	59	113	1676	921
Grp Sat Flow(s),veh/h/ln	1657	0	0	1757	0	1568	1740	1663	1553	1740	1663	1826
Q Serve(g_s), s	0.1	0.0	0.0	2.9	0.0	0.6	0.0	32.5	1.2	4.8	20.7	20.7
Cycle Q Clear(g_c), s	0.1	0.0	0.0	2.9	0.0	0.6	0.0	32.5	1.2	4.8	20.7	20.7
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	3	0	0	100	0	178	2	2890	900	142	2424	1331
V/C Ratio(X)	0.74	0.00	0.00	0.69	0.00	0.15	0.00	0.87	0.07	0.79	0.69	0.69
Avail Cap(c_a), veh/h	66	0	0	280	0	500	69	3129	974	160	2424	1331
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	0.0	34.8	0.0	33.8	0.0	13.5	6.9	33.9	5.6	5.6
Incr Delay (d2), s/veh	86.8	0.0	0.0	3.2	0.0	0.1	0.0	3.6	0.1	18.7	1.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.5	0.0	0.3	0.0	15.7	0.5	3.0	9.8	11.1
LnGrp Delay(d),s/veh	124.3	0.0	0.0	38.0	0.0	33.9	0.0	17.1	7.0	52.6	6.9	8.0
LnGrp LOS	F			D		C		B	A	D	A	A
Approach Vol, veh/h		2			95			2585			2710	
Approach Delay, s/veh		124.3			36.9			16.9			9.2	
Approach LOS		F			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	59.8		5.6	11.3	48.6		9.8
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 3	51.4		3.0	* 6.9	* 47		12.0
Max Q Clear Time (g_c+I1), s	0.0	22.7		2.1	6.8	34.5		4.9
Green Ext Time (p_c), s	0.0	28.6		0.0	0.0	9.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	333	23	115	149	648	9	1900	129	789	1879	23
Future Volume (veh/h)	74	333	23	115	149	648	9	1900	129	789	1879	23
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	74	333	23	115	149	648	9	1900	129	789	1879	23
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	92	705	316	143	764	342	21	1838	124	753	3057	37
Arrive On Green	0.03	0.20	0.20	0.04	0.22	0.22	0.01	0.39	0.39	0.22	0.60	0.60
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4772	323	3375	5079	62
Grp Volume(v), veh/h	74	333	23	115	149	648	9	1322	707	789	1230	672
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1770	1688	1663	1816
Q Serve(g_s), s	3.3	12.7	1.8	5.0	5.2	32.7	0.4	57.8	57.8	33.5	35.1	35.1
Cycle Q Clear(g_c), s	3.3	12.7	1.8	5.0	5.2	32.7	0.4	57.8	57.8	33.5	35.1	35.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.03
Lane Grp Cap(c), veh/h	92	705	316	143	764	342	21	1280	682	753	2002	1093
V/C Ratio(X)	0.80	0.47	0.07	0.80	0.20	1.90	0.43	1.03	1.04	1.05	0.61	0.61
Avail Cap(c_a), veh/h	92	708	317	143	764	342	67	1280	682	753	2002	1093
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.6	52.7	48.4	71.3	48.0	58.7	74.3	46.2	46.2	58.3	18.9	18.9
Incr Delay (d2), s/veh	36.0	0.2	0.0	25.6	0.0	414.5	5.0	33.9	44.5	45.9	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	6.1	0.8	2.9	2.5	53.5	0.2	32.5	36.6	20.4	16.2	17.8
LnGrp Delay(d),s/veh	108.6	52.9	48.4	96.9	48.0	473.2	79.3	80.0	90.7	104.2	19.3	19.6
LnGrp LOS	F	D	D	F	D	F	E	F	F	F	B	B
Approach Vol, veh/h		430			912			2038			2691	
Approach Delay, s/veh		62.2			356.3			83.7			44.3	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	95.7	9.6	38.4	39.0	63.1	11.8	36.2
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	3.0	88.2	4.1	* 33	33.5	* 58	6.3	* 31
Max Q Clear Time (g_c+I1), s	2.4	37.1	5.3	34.7	35.5	59.8	7.0	14.7
Green Ext Time (p_c), s	0.0	8.4	0.0	0.0	0.0	0.0	0.0	1.1

Intersection Summary		
HCM 2010 Ctrl Delay		105.7
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	34	1987	23	79	1936
Future Volume (veh/h)	13	34	1987	23	79	1936
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	13	34	1987	23	79	1936
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	54	48	2735	32	97	2470
Arrive On Green	0.03	0.03	0.54	0.54	0.06	0.71
Sat Flow, veh/h	1757	1568	5247	59	1740	3563
Grp Volume(v), veh/h	13	34	1299	711	79	1936
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1817	1740	1736
Q Serve(g_s), s	0.3	0.9	11.8	11.8	1.8	14.5
Cycle Q Clear(g_c), s	0.3	0.9	11.8	11.8	1.8	14.5
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	54	48	1789	977	97	2470
V/C Ratio(X)	0.24	0.71	0.73	0.73	0.82	0.78
Avail Cap(c_a), veh/h	136	122	2490	1361	305	3617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	19.2	7.0	7.0	18.6	3.8
Incr Delay (d2), s/veh	0.9	7.0	0.3	0.6	6.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	5.3	5.9	1.0	6.6
LnGrp Delay(d),s/veh	19.8	26.2	7.3	7.6	24.8	4.1
LnGrp LOS	B	C	A	A	C	A
Approach Vol, veh/h	47		2010			2015
Approach Delay, s/veh	24.4		7.4			4.9
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		33.2			6.9	26.3		6.7
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		41.6			* 7	29.9		3.1
Max Q Clear Time (g_c+I1), s		16.5			3.8	13.8		2.9
Green Ext Time (p_c), s		9.0			0.0	7.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	444	99	57	692	152	35	747	54	227	626	199
Future Volume (veh/h)	369	444	99	57	692	152	35	747	54	227	626	199
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1828	1900	1845	1827	1827
Adj Flow Rate, veh/h	369	444	99	57	692	152	35	747	54	227	626	199
Adj No. of Lanes	1	1	1	1	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	3	4	4
Cap, veh/h	375	758	644	73	675	148	44	792	57	238	1239	554
Arrive On Green	0.21	0.41	0.41	0.04	0.24	0.24	0.03	0.24	0.24	0.14	0.36	0.36
Sat Flow, veh/h	1757	1845	1568	1757	2859	628	1740	3285	237	1757	3471	1553
Grp Volume(v), veh/h	369	444	99	57	424	420	35	395	406	227	626	199
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1752	1734	1740	1737	1786	1757	1736	1553
Q Serve(g_s), s	25.1	22.5	4.8	3.9	28.4	28.4	2.4	26.9	26.9	15.4	17.0	11.4
Cycle Q Clear(g_c), s	25.1	22.5	4.8	3.9	28.4	28.4	2.4	26.9	26.9	15.4	17.0	11.4
Prop In Lane	1.00		1.00	1.00		0.36	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	375	758	644	73	414	409	44	419	430	238	1239	554
V/C Ratio(X)	0.98	0.59	0.15	0.78	1.02	1.03	0.80	0.94	0.94	0.95	0.51	0.36
Avail Cap(c_a), veh/h	375	758	644	139	414	409	97	424	437	238	1239	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	27.5	22.3	57.1	45.9	45.9	58.3	44.8	44.8	51.6	30.3	28.5
Incr Delay (d2), s/veh	41.7	0.8	0.0	6.6	50.7	51.3	11.4	29.1	28.7	45.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	11.6	2.1	2.0	19.5	19.4	1.3	16.2	16.6	10.5	8.2	4.9
LnGrp Delay(d),s/veh	88.8	28.3	22.3	63.7	96.7	97.2	69.7	73.9	73.5	96.6	30.5	28.7
LnGrp LOS	F	C	C	E	F	F	E	E	E	F	C	C
Approach Vol, veh/h		912			901			836			1052	
Approach Delay, s/veh		52.1			94.8			73.6			44.4	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	47.7	31.2	33.7	21.6	33.8	10.2	54.7
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 6.7	39.7	25.7	* 28	* 16	29.4	* 9.5	* 44
Max Q Clear Time (g_c+I1), s	4.4	19.0	27.1	30.4	17.4	28.9	5.9	24.5
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.0	0.1	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	65.2
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

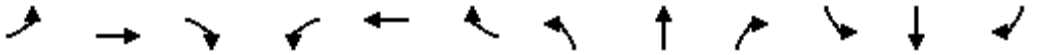
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	454	134	376	604	52	44	513	212	180	589	20
Future Volume (veh/h)	136	454	134	376	604	52	44	513	212	180	589	20
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	136	454	134	376	604	52	44	513	212	180	589	20
Adj No. of Lanes	0	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	115	383	428	424	445	378	38	462	396	125	559	475
Arrive On Green	0.27	0.27	0.27	0.24	0.24	0.24	0.02	0.25	0.25	0.07	0.31	0.31
Sat Flow, veh/h	420	1403	1568	1757	1845	1568	1740	1827	1568	1757	1827	1553
Grp Volume(v), veh/h	590	0	134	376	604	52	44	513	212	180	589	20
Grp Sat Flow(s),veh/h/ln	1824	0	1568	1757	1845	1568	1740	1827	1568	1757	1827	1553
Q Serve(g_s), s	40.9	0.0	10.2	31.0	36.2	3.9	3.3	37.9	17.5	10.7	45.9	1.4
Cycle Q Clear(g_c), s	40.9	0.0	10.2	31.0	36.2	3.9	3.3	37.9	17.5	10.7	45.9	1.4
Prop In Lane	0.23		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	497	0	428	424	445	378	38	462	396	125	559	475
V/C Ratio(X)	1.19	0.00	0.31	0.89	1.36	0.14	1.15	1.11	0.54	1.44	1.05	0.04
Avail Cap(c_a), veh/h	497	0	428	424	445	378	38	462	396	125	559	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	0.0	43.4	54.9	56.9	44.6	73.3	56.0	48.4	69.7	52.1	36.6
Incr Delay (d2), s/veh	102.8	0.0	0.2	19.7	174.7	0.2	193.2	75.8	0.8	235.7	52.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	34.8	0.0	4.5	17.4	40.0	1.7	3.6	28.8	7.7	13.4	31.4	0.6
LnGrp Delay(d),s/veh	157.3	0.0	43.5	74.6	231.6	44.8	270.7	131.9	49.2	305.4	105.0	36.6
LnGrp LOS	F		D	E	F	D	F	F	D	F	F	D
Approach Vol, veh/h		724			1032			769			789	
Approach Delay, s/veh		136.2			165.0			117.0			149.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	51.0		43.0	16.0	43.0		48.0
Change Period (Y+Rc), s	* 4.7	5.1		6.8	* 5.3	5.1		7.1
Max Green Setting (Gmax), s	* 3.3	45.9		36.2	* 11	37.9		40.9
Max Q Clear Time (g_c+I1), s	5.3	47.9		38.2	12.7	39.9		42.9
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		143.8
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	370	267	238	786	9	73	479	46	19	803	275
Future Volume (veh/h)	284	370	267	238	786	9	73	479	46	19	803	275
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	284	370	267	238	786	9	73	479	46	19	803	275
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	292	474	337	273	806	361	93	1134	109	22	813	278
Arrive On Green	0.17	0.24	0.24	0.16	0.23	0.23	0.05	0.35	0.35	0.01	0.32	0.32
Sat Flow, veh/h	1740	1939	1380	1740	3471	1553	1740	3202	306	1740	2540	869
Grp Volume(v), veh/h	284	331	306	238	786	9	73	259	266	19	549	529
Grp Sat Flow(s),veh/h/ln	1740	1736	1583	1740	1736	1553	1740	1736	1773	1740	1736	1674
Q Serve(g_s), s	14.6	16.0	16.3	12.0	20.2	0.4	3.7	10.2	10.3	1.0	28.3	28.3
Cycle Q Clear(g_c), s	14.6	16.0	16.3	12.0	20.2	0.4	3.7	10.2	10.3	1.0	28.3	28.3
Prop In Lane	1.00		0.87	1.00		1.00	1.00		0.17	1.00		0.52
Lane Grp Cap(c), veh/h	292	424	387	273	806	361	93	615	628	22	555	535
V/C Ratio(X)	0.97	0.78	0.79	0.87	0.98	0.02	0.79	0.42	0.42	0.87	0.99	0.99
Avail Cap(c_a), veh/h	292	424	387	309	806	361	95	615	628	68	555	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	31.7	31.9	37.1	34.3	26.7	42.1	22.1	22.1	44.4	30.4	30.4
Incr Delay (d2), s/veh	44.9	13.2	15.2	19.5	26.2	0.1	31.0	2.1	2.1	28.8	35.3	36.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	9.2	8.8	7.2	12.7	0.2	2.6	5.3	5.4	0.6	19.0	18.5
LnGrp Delay(d),s/veh	82.2	45.0	47.1	56.5	60.5	26.8	73.1	24.2	24.2	73.2	65.7	66.7
LnGrp LOS	F	D	D	E	E	C	E	C	C	E	E	E
Approach Vol, veh/h		921			1033			598			1097	
Approach Delay, s/veh		57.2			59.3			30.2			66.3	
Approach LOS		E			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	34.0	20.2	26.1	6.6	37.1	19.1	27.2
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 4.9	* 29	* 15	* 21	3.5	* 30	16.0	* 20
Max Q Clear Time (g_c+I1), s	5.7	30.3	16.6	22.2	3.0	12.3	14.0	18.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	15.9	0.1	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	56.1
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	280	653	175	306	13	283	492	59	46	1137	108
Future Volume (veh/h)	74	280	653	175	306	13	283	492	59	46	1137	108
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	74	280	653	175	306	13	283	492	59	46	1137	108
Adj No. of Lanes	2	2	1	2	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	120	1115	499	198	1196	535	302	1274	152	80	1187	531
Arrive On Green	0.04	0.32	0.32	0.06	0.34	0.34	0.09	0.41	0.41	0.02	0.34	0.34
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	3123	373	3375	3471	1553
Grp Volume(v), veh/h	74	280	653	175	306	13	283	273	278	46	1137	108
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1736	1761	1688	1736	1553
Q Serve(g_s), s	2.5	6.8	36.6	5.9	7.3	0.6	9.6	12.7	12.8	1.6	36.9	5.7
Cycle Q Clear(g_c), s	2.5	6.8	36.6	5.9	7.3	0.6	9.6	12.7	12.8	1.6	36.9	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	120	1115	499	198	1196	535	302	708	718	80	1187	531
V/C Ratio(X)	0.62	0.25	1.31	0.88	0.26	0.02	0.94	0.39	0.39	0.57	0.96	0.20
Avail Cap(c_a), veh/h	175	1115	499	198	1196	535	302	708	718	126	1195	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	29.1	39.2	53.8	27.4	25.2	52.1	23.9	24.0	55.6	37.0	26.8
Incr Delay (d2), s/veh	1.9	0.5	153.1	32.8	0.4	0.1	34.9	1.1	1.1	2.4	17.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.4	37.1	3.7	3.6	0.3	5.9	6.3	6.4	0.7	20.6	2.5
LnGrp Delay(d),s/veh	56.6	29.6	192.3	86.5	27.7	25.2	87.0	25.0	25.1	58.0	54.4	27.4
LnGrp LOS	E	C	F	F	C	C	F	C	C	E	D	C
Approach Vol, veh/h		1007			494			834			1291	
Approach Delay, s/veh		137.1			48.5			46.1			52.3	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	44.9	9.6	44.8	8.2	52.4	12.2	42.2
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	10.3	* 40	5.9	37.2	4.3	* 46	6.7	* 37
Max Q Clear Time (g_c+I1), s	11.6	38.9	4.5	9.3	3.6	14.8	7.9	38.6
Green Ext Time (p_c), s	0.0	0.5	0.0	18.8	0.0	24.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	73.9
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	2021	245	95	2036	5	96	30	44	4	32	23
Future Volume (veh/h)	14	2021	245	95	2036	5	96	30	44	4	32	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	14	2021	245	95	2036	5	96	30	44	4	32	23
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	21	2096	249	113	2571	6	112	77	114	7	48	35
Arrive On Green	0.01	0.68	0.68	0.07	0.74	0.74	0.06	0.11	0.11	0.00	0.05	0.05
Sat Flow, veh/h	1707	3067	364	1707	3485	9	1757	677	993	1757	999	718
Grp Volume(v), veh/h	14	1104	1162	95	994	1047	96	0	74	4	0	55
Grp Sat Flow(s),veh/h/ln	1707	1703	1728	1707	1703	1791	1757	0	1669	1757	0	1718
Q Serve(g_s), s	1.1	79.0	88.0	7.4	49.8	49.9	7.3	0.0	5.6	0.3	0.0	4.3
Cycle Q Clear(g_c), s	1.1	79.0	88.0	7.4	49.8	49.9	7.3	0.0	5.6	0.3	0.0	4.3
Prop In Lane	1.00		0.21	1.00		0.00	1.00		0.59	1.00		0.42
Lane Grp Cap(c), veh/h	21	1164	1181	113	1256	1321	112	0	191	7	0	83
V/C Ratio(X)	0.68	0.95	0.98	0.84	0.79	0.79	0.86	0.00	0.39	0.55	0.00	0.66
Avail Cap(c_a), veh/h	50	1177	1195	113	1256	1321	112	0	316	52	0	267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.6	19.3	20.7	62.5	11.2	11.2	62.8	0.0	55.5	67.3	0.0	63.3
Incr Delay (d2), s/veh	23.2	15.7	22.2	38.5	3.9	3.7	44.3	0.0	1.2	37.8	0.0	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	41.9	48.6	4.7	24.3	25.8	4.9	0.0	2.6	0.2	0.0	2.2
LnGrp Delay(d),s/veh	89.8	35.0	42.9	101.0	15.0	14.9	107.1	0.0	56.7	105.0	0.0	71.2
LnGrp LOS	F	C	D	F	B	B	F		E	F		E
Approach Vol, veh/h		2280			2136			170			59	
Approach Delay, s/veh		39.3			18.8			85.2			73.5	
Approach LOS		D			B			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	98.9	13.0	11.0	5.1	106.3	4.1	19.9
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	9.0	93.6	8.6	* 21	4.0	98.6	4.0	25.6
Max Q Clear Time (g_c+I1), s	9.4	90.0	9.3	6.3	3.1	51.9	2.3	7.6
Green Ext Time (p_c), s	0.0	2.5	0.0	0.3	0.0	46.4	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	652	11	136	645	72	59	35	91	64	29	13
Future Volume (veh/h)	13	652	11	136	645	72	59	35	91	64	29	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	13	652	11	136	645	72	59	35	91	64	29	13
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	18	1141	19	172	1308	146	70	217	185	77	224	190
Arrive On Green	0.01	0.32	0.32	0.10	0.41	0.41	0.04	0.12	0.12	0.04	0.12	0.12
Sat Flow, veh/h	1757	3527	59	1757	3180	355	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	13	324	339	136	355	362	59	35	91	64	29	13
Grp Sat Flow(s),veh/h/ln	1757	1752	1834	1757	1752	1782	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	0.3	5.9	5.9	2.9	5.7	5.8	1.3	0.7	2.1	1.4	0.5	0.3
Cycle Q Clear(g_c), s	0.3	5.9	5.9	2.9	5.7	5.8	1.3	0.7	2.1	1.4	0.5	0.3
Prop In Lane	1.00		0.03	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	18	567	594	172	721	733	70	217	185	77	224	190
V/C Ratio(X)	0.73	0.57	0.57	0.79	0.49	0.49	0.84	0.16	0.49	0.83	0.13	0.07
Avail Cap(c_a), veh/h	137	822	861	229	914	929	137	866	736	137	866	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	10.8	10.8	16.9	8.3	8.3	18.3	15.2	15.8	18.2	15.0	14.9
Incr Delay (d2), s/veh	43.8	0.9	0.9	12.7	0.5	0.5	22.4	0.3	2.0	20.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.9	3.1	2.0	2.9	2.9	1.0	0.4	1.0	1.1	0.3	0.1
LnGrp Delay(d),s/veh	62.7	11.7	11.6	29.6	8.9	8.9	40.7	15.6	17.9	38.3	15.3	15.1
LnGrp LOS	E	B	B	C	A	A	D	B	B	D	B	B
Approach Vol, veh/h		676			853			185			106	
Approach Delay, s/veh		12.6			12.2			24.7			29.2	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	8.5	7.8	16.4	5.5	8.7	4.4	19.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	18.0	5.0	18.0	3.0	18.0	3.0	20.0
Max Q Clear Time (g_c+I1), s	3.4	4.1	4.9	7.9	3.3	2.5	2.3	7.8
Green Ext Time (p_c), s	0.0	0.4	0.0	4.5	0.0	0.5	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	775	58	222	942	82	10	38	33	19	193	53
Future Volume (veh/h)	16	775	58	222	942	82	10	38	33	19	193	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	16	775	58	222	942	82	10	38	33	19	193	53
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	21	1162	87	199	1478	129	14	291	247	25	302	257
Arrive On Green	0.01	0.35	0.35	0.11	0.45	0.45	0.01	0.16	0.16	0.01	0.16	0.16
Sat Flow, veh/h	1757	3306	247	1757	3263	284	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	16	411	422	222	506	518	10	38	33	19	193	53
Grp Sat Flow(s),veh/h/ln	1757	1752	1801	1757	1752	1795	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	0.4	8.7	8.7	5.0	9.8	9.8	0.3	0.8	0.8	0.5	4.3	1.3
Cycle Q Clear(g_c), s	0.4	8.7	8.7	5.0	9.8	9.8	0.3	0.8	0.8	0.5	4.3	1.3
Prop In Lane	1.00		0.14	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	21	616	633	199	794	813	14	291	247	25	302	257
V/C Ratio(X)	0.75	0.67	0.67	1.11	0.64	0.64	0.73	0.13	0.13	0.77	0.64	0.21
Avail Cap(c_a), veh/h	120	716	736	199	796	815	120	754	641	120	754	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	12.1	12.1	19.5	9.3	9.3	21.8	16.0	16.0	21.6	17.2	15.9
Incr Delay (d2), s/veh	40.7	1.9	1.9	97.5	1.7	1.7	52.4	0.2	0.2	37.7	2.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.5	4.7	7.8	5.0	5.1	0.3	0.4	0.4	0.5	2.4	0.6
LnGrp Delay(d),s/veh	62.3	14.0	14.0	117.0	11.0	10.9	74.2	16.2	16.2	59.3	19.4	16.3
LnGrp LOS	E	B	B	F	B	B	E	B	B	E	B	B
Approach Vol, veh/h		849			1246			81			265	
Approach Delay, s/veh		14.9			29.8			23.3			21.7	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.6	10.9	9.0	19.5	4.3	11.2	4.5	24.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	18.0	5.0	18.0	3.0	18.0	3.0	20.0
Max Q Clear Time (g_c+I1), s	2.5	2.8	7.0	10.7	2.3	6.3	2.4	11.8
Green Ext Time (p_c), s	0.0	1.0	0.0	4.7	0.0	0.9	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.5
HCM 2010 LOS	C

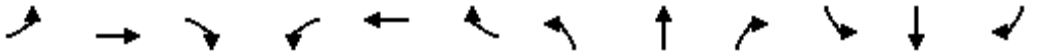
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	734	161	172	716	392	131	367	124	308	454	15
Future Volume (veh/h)	28	734	161	172	716	392	131	367	124	308	454	15
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	28	734	161	172	716	392	131	367	124	308	454	15
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	34	808	177	179	795	435	160	409	348	338	596	506
Arrive On Green	0.02	0.28	0.28	0.10	0.36	0.36	0.09	0.22	0.22	0.19	0.32	0.32
Sat Flow, veh/h	1757	2859	627	1757	2189	1197	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	28	450	445	172	573	535	131	367	124	308	454	15
Grp Sat Flow(s),veh/h/ln	1757	1752	1734	1757	1752	1634	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.6	24.3	24.3	9.5	30.3	30.4	7.2	18.9	6.5	16.8	21.7	0.6
Cycle Q Clear(g_c), s	1.6	24.3	24.3	9.5	30.3	30.4	7.2	18.9	6.5	16.8	21.7	0.6
Prop In Lane	1.00		0.36	1.00		0.73	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	34	495	490	179	637	593	160	409	348	338	596	506
V/C Ratio(X)	0.82	0.91	0.91	0.96	0.90	0.90	0.82	0.90	0.36	0.91	0.76	0.03
Avail Cap(c_a), veh/h	57	540	535	179	655	610	210	584	496	346	729	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.9	33.9	33.9	43.8	29.5	29.5	43.7	37.0	32.2	38.7	29.8	22.7
Incr Delay (d2), s/veh	16.4	17.5	17.7	54.8	14.7	15.9	13.3	9.9	0.2	26.4	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	14.2	14.0	7.4	17.2	16.3	4.1	10.8	2.9	10.6	11.4	0.3
LnGrp Delay(d),s/veh	64.2	51.4	51.6	98.5	44.2	45.4	57.0	47.0	32.4	65.1	32.7	22.7
LnGrp LOS	E	D	D	F	D	D	E	D	C	E	C	C
Approach Vol, veh/h		923			1280			622			777	
Approach Delay, s/veh		51.9			52.0			46.2			45.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	40.4	14.4	36.0	15.0	32.5	24.3	26.1
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 3.2	36.6	11.7	* 39	10.0	* 30	19.3	* 31
Max Q Clear Time (g_c+I1), s	3.6	32.4	9.2	23.7	11.5	26.3	18.8	20.9
Green Ext Time (p_c), s	0.0	1.5	0.0	0.9	0.0	1.4	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	49.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1830	92	280	1756	1	244	1058	191	2	1094	208
Future Volume (veh/h)	151	1830	92	280	1756	1	244	1058	191	2	1094	208
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	151	1830	92	280	1756	1	244	1058	191	2	1094	208
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	189	1740	557	265	1849	592	227	1357	607	6	1129	505
Arrive On Green	0.06	0.36	0.36	0.08	0.38	0.38	0.07	0.39	0.39	0.00	0.32	0.32
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	151	1830	92	280	1756	1	244	1058	191	2	1094	208
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	3.9	32.0	3.6	7.0	31.3	0.0	6.0	23.8	7.6	0.1	27.7	9.3
Cycle Q Clear(g_c), s	3.9	32.0	3.6	7.0	31.3	0.0	6.0	23.8	7.6	0.1	27.7	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	1740	557	265	1849	592	227	1357	607	6	1129	505
V/C Ratio(X)	0.80	1.05	0.17	1.06	0.95	0.00	1.07	0.78	0.31	0.36	0.97	0.41
Avail Cap(c_a), veh/h	189	1740	557	265	1849	592	227	1357	607	151	1129	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	29.0	19.9	41.5	27.2	17.4	42.0	24.2	19.2	44.9	30.1	23.8
Incr Delay (d2), s/veh	20.8	36.7	0.1	70.9	11.3	0.0	80.7	3.0	0.3	35.3	19.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	20.2	1.6	5.9	15.9	0.0	5.4	12.0	3.3	0.1	16.4	4.1
LnGrp Delay(d),s/veh	62.8	65.7	20.0	112.4	38.5	17.4	122.7	27.2	19.5	80.2	49.7	24.4
LnGrp LOS	E	F	B	F	D	B	F	C	B	F	D	C
Approach Vol, veh/h		2073			2037			1493			1304	
Approach Delay, s/veh		63.4			48.6			41.8			45.7	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.1	38.9	11.0	36.0	10.0	33.0	9.0	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	31.0	7.0	32.0	6.0	29.0	5.0	34.0
Max Q Clear Time (g_c+I1), s	2.1	25.8	9.0	34.0	8.0	29.7	5.9	33.3
Green Ext Time (p_c), s	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	51.0
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	610	35	73	695	748	708
Future Volume (veh/h)	610	35	73	695	748	708
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	610	35	73	695	748	708
Adj No. of Lanes	2	1	2	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	859	395	134	2019	1580	707
Arrive On Green	0.25	0.25	0.04	0.58	0.45	0.45
Sat Flow, veh/h	3408	1568	3408	3597	3597	1568
Grp Volume(v), veh/h	610	35	73	695	748	708
Grp Sat Flow(s),veh/h/ln	1704	1568	1704	1752	1752	1568
Q Serve(g_s), s	7.6	0.8	1.0	4.9	6.9	21.0
Cycle Q Clear(g_c), s	7.6	0.8	1.0	4.9	6.9	21.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	859	395	134	2019	1580	707
V/C Ratio(X)	0.71	0.09	0.54	0.34	0.47	1.00
Avail Cap(c_a), veh/h	1317	606	293	2182	1580	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	13.3	22.0	5.2	8.9	12.8
Incr Delay (d2), s/veh	1.1	0.1	3.4	0.1	0.2	34.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.8	0.5	2.3	3.4	15.6
LnGrp Delay(d),s/veh	17.0	13.4	25.4	5.3	9.1	47.0
LnGrp LOS	B	B	C	A	A	F
Approach Vol, veh/h	645			768	1456	
Approach Delay, s/veh	16.8			7.2	27.5	
Approach LOS	B			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		30.8		15.7	5.8	25.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		29.0		18.0	4.0	21.0		
Max Q Clear Time (g_c+I1), s		6.9		9.6	3.0	23.0		
Green Ext Time (p_c), s		11.8		2.2	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	515	296	0	0	484	129	6	0	1	197	0	748
Future Volume (veh/h)	515	296	0	0	484	129	6	0	1	197	0	748
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	515	296	0	0	484	129	6	0	1	197	0	748
Adj No. of Lanes	0	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	376	216	0	361	379	322	8	0	1	111	0	421
Arrive On Green	0.33	0.33	0.00	0.00	0.21	0.21	0.01	0.00	0.01	0.33	0.00	0.33
Sat Flow, veh/h	1135	653	0	1757	1845	1568	1480	0	247	334	0	1270
Grp Volume(v), veh/h	811	0	0	0	484	129	7	0	0	945	0	0
Grp Sat Flow(s),veh/h/ln	1788	0	0	1757	1845	1568	1727	0	0	1604	0	0
Q Serve(g_s), s	42.0	0.0	0.0	0.0	26.0	9.0	0.5	0.0	0.0	42.0	0.0	0.0
Cycle Q Clear(g_c), s	42.0	0.0	0.0	0.0	26.0	9.0	0.5	0.0	0.0	42.0	0.0	0.0
Prop In Lane	0.64		0.00	1.00		1.00	0.86		0.14	0.21		0.79
Lane Grp Cap(c), veh/h	593	0	0	361	379	322	9	0	0	532	0	0
V/C Ratio(X)	1.37	0.00	0.00	0.00	1.28	0.40	0.78	0.00	0.00	1.78	0.00	0.00
Avail Cap(c_a), veh/h	593	0	0	361	379	322	55	0	0	532	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.3	0.0	0.0	0.0	50.3	43.6	62.9	0.0	0.0	42.3	0.0	0.0
Incr Delay (d2), s/veh	176.2	0.0	0.0	0.0	144.1	0.8	84.5	0.0	0.0	357.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	49.6	0.0	0.0	0.0	28.3	4.0	0.5	0.0	0.0	71.2	0.0	0.0
LnGrp Delay(d),s/veh	218.5	0.0	0.0	0.0	194.5	44.4	147.4	0.0	0.0	399.4	0.0	0.0
LnGrp LOS	F				F	D	F			F		
Approach Vol, veh/h		811			613			7			945	
Approach Delay, s/veh		218.5			162.9			147.4			399.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		4.7		46.0		46.0		30.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		4.0		42.0		42.0		26.0
Max Q Clear Time (g_c+I1), s		2.5		44.0		44.0		28.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		275.9
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	31	17	128	44	479	48	2159	37	419	2225	59
Future Volume (veh/h)	73	31	17	128	44	479	48	2159	37	419	2225	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	73	31	17	128	44	479	48	2159	37	419	2225	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	83	53	29	712	385	327	61	2232	695	432	2715	72
Arrive On Green	0.05	0.05	0.05	0.21	0.21	0.21	0.04	0.45	0.45	0.13	0.54	0.54
Sat Flow, veh/h	1757	1121	615	3408	1845	1568	1740	4988	1553	3375	4996	132
Grp Volume(v), veh/h	73	0	48	128	44	479	48	2159	37	419	1479	805
Grp Sat Flow(s),veh/h/ln	1757	0	1736	1704	1845	1568	1740	1663	1553	1688	1663	1804
Q Serve(g_s), s	5.3	0.0	3.5	4.0	2.5	26.9	3.5	54.3	1.7	15.9	47.1	47.5
Cycle Q Clear(g_c), s	5.3	0.0	3.5	4.0	2.5	26.9	3.5	54.3	1.7	15.9	47.1	47.5
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	83	0	82	712	385	327	61	2232	695	432	1807	980
V/C Ratio(X)	0.88	0.00	0.58	0.18	0.11	1.46	0.78	0.97	0.05	0.97	0.82	0.82
Avail Cap(c_a), veh/h	83	0	82	712	385	327	88	2276	709	432	1807	980
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	0.0	60.1	41.9	41.3	51.0	61.7	34.7	20.2	55.9	24.2	24.3
Incr Delay (d2), s/veh	58.4	0.0	7.0	0.0	0.0	224.6	15.3	12.0	0.0	35.1	2.9	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	1.8	1.9	1.3	32.1	2.0	27.3	0.8	9.5	22.3	24.9
LnGrp Delay(d),s/veh	119.4	0.0	67.1	42.0	41.4	275.6	77.0	46.6	20.2	91.0	27.1	29.6
LnGrp LOS	F		E	D	D	F	E	D	C	F	C	C
Approach Vol, veh/h		121			651			2244			2703	
Approach Delay, s/veh		98.7			213.8			46.9			37.7	
Approach LOS		F			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.6	75.2		11.6	22.0	62.9		32.4
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 6.5	* 69		6.1	16.5	* 59		26.9
Max Q Clear Time (g_c+I1), s	5.5	49.5		7.3	17.9	56.3		28.9
Green Ext Time (p_c), s	0.0	10.1		0.0	0.0	1.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.7
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	1075	457	395	987	603	500	1023	148	728	1370	169
Future Volume (veh/h)	179	1075	457	395	987	603	500	1023	148	728	1370	169
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	179	1075	457	395	987	603	500	1023	148	728	1370	169
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	223	964	431	352	1097	491	438	1226	382	768	1192	533
Arrive On Green	0.07	0.27	0.27	0.10	0.31	0.31	0.13	0.25	0.25	0.23	0.34	0.34
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	3471	1553
Grp Volume(v), veh/h	179	1075	457	395	987	603	500	1023	148	728	1370	169
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1736	1553
Q Serve(g_s), s	7.8	41.3	41.3	15.5	40.5	47.0	19.5	29.2	11.9	31.9	51.6	12.0
Cycle Q Clear(g_c), s	7.8	41.3	41.3	15.5	40.5	47.0	19.5	29.2	11.9	31.9	51.6	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	223	964	431	352	1097	491	438	1226	382	768	1192	533
V/C Ratio(X)	0.80	1.12	1.06	1.12	0.90	1.23	1.14	0.83	0.39	0.95	1.15	0.32
Avail Cap(c_a), veh/h	247	964	431	352	1097	491	438	1226	382	793	1192	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	54.5	54.4	67.3	49.4	51.6	65.3	53.7	47.2	57.1	49.3	36.3
Incr Delay (d2), s/veh	14.1	66.1	60.1	85.6	9.9	120.0	87.5	4.8	0.2	19.7	77.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	28.8	25.0	11.5	21.1	36.7	14.4	14.0	5.1	17.0	37.4	5.2
LnGrp Delay(d),s/veh	83.4	120.6	114.6	152.9	59.2	171.6	152.9	58.6	47.5	76.8	126.4	36.4
LnGrp LOS	F	F	F	F	E	F	F	E	D	E	F	D
Approach Vol, veh/h		1711			1985			1671			2267	
Approach Delay, s/veh		115.1			112.0			85.8			103.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	57.2	15.3	52.7	39.7	42.5	21.0	47.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	19.5	* 52	10.9	* 46	35.3	* 36	15.5	* 41
Max Q Clear Time (g_c+I1), s	21.5	53.6	9.8	49.0	33.9	31.2	17.5	43.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.3	2.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	104.5
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	1576	354	240	1322	594	493	694	78	596	1666	161
Future Volume (veh/h)	276	1576	354	240	1322	594	493	694	78	596	1666	161
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	276	1576	354	240	1322	594	493	694	78	596	1666	0
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	302	1496	479	243	1417	441	486	1372	427	653	1613	497
Arrive On Green	0.09	0.31	0.31	0.07	0.29	0.29	0.14	0.27	0.27	0.19	0.32	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	1524	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	276	1576	354	240	1322	594	493	694	78	596	1666	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1524	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	10.8	39.9	26.4	9.2	34.3	37.8	18.6	15.2	5.0	22.6	41.8	0.0
Cycle Q Clear(g_c), s	10.8	39.9	26.4	9.2	34.3	37.8	18.6	15.2	5.0	22.6	41.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	302	1496	479	243	1417	441	486	1372	427	653	1613	497
V/C Ratio(X)	0.91	1.05	0.74	0.99	0.93	1.35	1.01	0.51	0.18	0.91	1.03	0.00
Avail Cap(c_a), veh/h	302	1496	479	243	1417	441	486	1372	427	828	1613	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.8	45.3	40.6	60.5	45.1	46.4	56.0	40.1	36.3	51.5	44.4	0.0
Incr Delay (d2), s/veh	30.0	38.7	5.3	54.3	11.2	170.2	44.6	0.3	0.2	10.9	31.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	23.2	12.2	6.1	16.9	36.8	11.7	7.1	2.2	11.5	23.9	0.0
LnGrp Delay(d),s/veh	88.8	84.0	45.9	114.8	56.4	216.6	100.6	40.4	36.5	62.5	75.7	0.0
LnGrp LOS	F	F	D	F	E	F	F	D	D	E	F	
Approach Vol, veh/h		2206			2156			1265			2262	
Approach Delay, s/veh		78.5			107.0			63.6			72.2	
Approach LOS		E			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	46.9	16.2	43.4	30.2	40.7	14.1	45.5
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 19	41.8	* 12	37.3	32.0	28.8	* 9.3	* 40
Max Q Clear Time (g_c+I1), s	20.6	43.8	12.8	39.8	24.6	17.2	11.2	41.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.7	5.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	82.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	535	43	190	493	63	73	612	311	91	1725	40
Future Volume (veh/h)	34	535	43	190	493	63	73	612	311	91	1725	40
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	34	535	43	190	493	63	73	612	311	91	1725	40
Adj No. of Lanes	2	1	0	2	2	1	1	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	60	492	40	195	1163	520	78	1058	538	134	1629	729
Arrive On Green	0.02	0.29	0.29	0.06	0.33	0.33	0.04	0.47	0.47	0.04	0.46	0.46
Sat Flow, veh/h	3408	1685	135	3408	3505	1568	1757	2251	1144	3408	3505	1568
Grp Volume(v), veh/h	34	0	578	190	493	63	73	476	447	91	1725	40
Grp Sat Flow(s),veh/h/ln	1704	0	1821	1704	1752	1568	1757	1752	1643	1704	1752	1568
Q Serve(g_s), s	1.5	0.0	43.8	8.3	16.4	4.2	6.2	29.7	29.7	4.0	69.7	2.1
Cycle Q Clear(g_c), s	1.5	0.0	43.8	8.3	16.4	4.2	6.2	29.7	29.7	4.0	69.7	2.1
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	60	0	532	195	1163	520	78	824	772	134	1629	729
V/C Ratio(X)	0.57	0.00	1.09	0.97	0.42	0.12	0.93	0.58	0.58	0.68	1.06	0.05
Avail Cap(c_a), veh/h	95	0	532	195	1163	520	78	824	772	191	1629	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.1	0.0	53.1	70.6	39.0	34.9	71.4	28.9	28.9	71.1	40.2	22.1
Incr Delay (d2), s/veh	8.1	0.0	64.8	56.2	0.2	0.1	78.1	1.0	1.1	6.0	39.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	31.6	5.5	8.0	1.8	4.7	14.5	13.6	2.0	42.7	0.9
LnGrp Delay(d),s/veh	81.2	0.0	117.9	126.8	39.2	35.0	149.5	29.9	30.0	77.1	80.0	22.1
LnGrp LOS	F		F	F	D	D	F	C	C	E	F	C
Approach Vol, veh/h		612			746			996			1856	
Approach Delay, s/veh		115.9			61.2			38.7			78.6	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	74.7	14.1	49.0	11.4	75.5	8.1	55.0
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	6.7	69.7	8.6	* 44	8.4	68.0	4.2	* 48
Max Q Clear Time (g_c+I1), s	8.2	71.7	10.3	45.8	6.0	31.7	3.5	18.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	9.7	0.0	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	71.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	253	14	355	459	31	4	670	130	13	1752	188
Future Volume (veh/h)	220	253	14	355	459	31	4	670	130	13	1752	188
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1828	1900	1845	1796	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	220	253	14	355	459	31	4	670	130	13	1752	188
Adj No. of Lanes	2	1	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	6	3	3	3	3	3	3
Cap, veh/h	238	363	20	397	429	29	5	1524	295	15	1683	177
Arrive On Green	0.07	0.21	0.21	0.12	0.26	0.26	0.00	0.52	0.52	0.01	0.53	0.53
Sat Flow, veh/h	3408	1716	95	3408	1663	112	1757	2929	568	1757	3200	337
Grp Volume(v), veh/h	220	0	267	355	0	490	4	401	399	13	945	995
Grp Sat Flow(s),veh/h/ln	1704	0	1811	1704	0	1776	1757	1752	1744	1757	1752	1785
Q Serve(g_s), s	9.5	0.0	20.1	15.1	0.0	38.0	0.3	20.9	21.0	1.1	77.5	77.5
Cycle Q Clear(g_c), s	9.5	0.0	20.1	15.1	0.0	38.0	0.3	20.9	21.0	1.1	77.5	77.5
Prop In Lane	1.00		0.05	1.00		0.06	1.00		0.33	1.00		0.19
Lane Grp Cap(c), veh/h	238	0	383	397	0	458	5	912	908	15	922	939
V/C Ratio(X)	0.92	0.00	0.70	0.89	0.00	1.07	0.74	0.44	0.44	0.85	1.03	1.06
Avail Cap(c_a), veh/h	238	0	383	398	0	458	37	912	908	66	922	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.1	0.0	53.7	64.2	0.0	54.7	73.4	22.0	22.0	72.9	34.9	34.9
Incr Delay (d2), s/veh	38.1	0.0	4.6	21.9	0.0	62.0	107.1	0.3	0.3	71.8	36.3	46.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	10.6	8.4	0.0	26.5	0.3	10.2	10.2	0.8	46.7	50.2
LnGrp Delay(d),s/veh	106.2	0.0	58.4	86.2	0.0	116.7	180.5	22.3	22.3	144.7	71.3	81.4
LnGrp LOS	F		E	F		F	F	C	C	F	F	F
Approach Vol, veh/h		487			845			804			1953	
Approach Delay, s/veh		80.0			103.9			23.1			76.9	
Approach LOS		E			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	81.8	15.8	43.0	6.0	82.6	22.7	36.1
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	5.5	* 75	10.3	* 38	3.1	* 78	17.2	* 31
Max Q Clear Time (g_c+I1), s	3.1	23.0	11.5	40.0	2.3	79.5	17.1	22.1
Green Ext Time (p_c), s	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	72.3
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

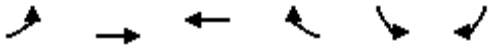
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	172	121	63	216	56	41	611	35	108	1562	314
Future Volume (veh/h)	117	172	121	63	216	56	41	611	35	108	1562	314
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1844	1900	1845	1845	1900
Adj Flow Rate, veh/h	117	172	121	63	216	56	41	611	35	108	1562	314
Adj No. of Lanes	2	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	3	3	3	3	3
Cap, veh/h	168	189	133	80	259	67	52	1762	101	132	1657	324
Arrive On Green	0.05	0.19	0.19	0.05	0.18	0.18	0.03	0.52	0.52	0.08	0.57	0.57
Sat Flow, veh/h	3408	1009	710	1757	1414	366	1740	3368	193	1757	2925	571
Grp Volume(v), veh/h	117	0	293	63	0	272	41	317	329	108	918	958
Grp Sat Flow(s),veh/h/ln	1704	0	1719	1757	0	1780	1740	1752	1810	1757	1752	1744
Q Serve(g_s), s	4.2	0.0	20.8	4.4	0.0	18.4	2.9	13.2	13.2	7.6	59.4	65.9
Cycle Q Clear(g_c), s	4.2	0.0	20.8	4.4	0.0	18.4	2.9	13.2	13.2	7.6	59.4	65.9
Prop In Lane	1.00		0.41	1.00		0.21	1.00		0.11	1.00		0.33
Lane Grp Cap(c), veh/h	168	0	321	80	0	327	52	916	946	132	993	988
V/C Ratio(X)	0.70	0.00	0.91	0.78	0.00	0.83	0.79	0.35	0.35	0.82	0.92	0.97
Avail Cap(c_a), veh/h	194	0	430	86	0	435	63	916	946	227	1010	1005
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	0.0	49.7	58.9	0.0	49.1	60.1	17.3	17.3	56.8	24.6	26.0
Incr Delay (d2), s/veh	8.8	0.0	16.8	31.4	0.0	7.7	34.2	0.2	0.2	4.6	13.5	21.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	11.4	2.9	0.0	9.8	1.9	6.4	6.6	3.8	32.3	37.2
LnGrp Delay(d),s/veh	67.1	0.0	66.5	90.3	0.0	56.8	94.3	17.6	17.6	61.5	38.1	47.2
LnGrp LOS	E		E	F		E	F	B	B	E	D	D
Approach Vol, veh/h		410			335			687			1984	
Approach Delay, s/veh		66.7			63.1			22.1			43.8	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	70.3	11.6	28.3	9.0	75.8	11.2	28.7
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 16	60.5	7.1	* 31	* 4.5	71.9	6.1	* 31
Max Q Clear Time (g_c+I1), s	9.6	15.2	6.2	20.4	4.9	67.9	6.4	22.8
Green Ext Time (p_c), s	0.0	23.1	0.0	0.5	0.0	2.7	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	141	1703	1282	717	773	322
Future Volume (veh/h)	141	1703	1282	717	773	322
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	141	1703	1282	717	773	322
Adj No. of Lanes	2	3	3	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	234	2722	1980	616	1030	474
Arrive On Green	0.07	0.54	0.39	0.39	0.30	0.30
Sat Flow, veh/h	3408	5202	5202	1568	3408	1568
Grp Volume(v), veh/h	141	1703	1282	717	773	322
Grp Sat Flow(s),veh/h/ln	1704	1679	1679	1568	1704	1568
Q Serve(g_s), s	2.0	11.9	10.5	20.0	10.4	9.2
Cycle Q Clear(g_c), s	2.0	11.9	10.5	20.0	10.4	9.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	234	2722	1980	616	1030	474
V/C Ratio(X)	0.60	0.63	0.65	1.16	0.75	0.68
Avail Cap(c_a), veh/h	268	2772	1980	616	1273	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	8.1	12.6	15.4	16.0	15.6
Incr Delay (d2), s/veh	2.9	0.4	0.7	90.3	2.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.5	5.0	29.3	5.1	8.0
LnGrp Delay(d),s/veh	26.0	8.6	13.3	105.8	18.0	17.9
LnGrp LOS	C	A	B	F	B	B
Approach Vol, veh/h		1844	1999		1095	
Approach Delay, s/veh		9.9	46.5		18.0	
Approach LOS		A	D		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				31.5		19.4	7.5	24.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				28.0		19.0	4.0	20.0
Max Q Clear Time (g_c+I1), s				13.9		12.4	4.0	22.0
Green Ext Time (p_c), s				12.8		3.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	1167	153	766	844	374	107	347	597	363	626	39
Future Volume (veh/h)	126	1167	153	766	844	374	107	347	597	363	626	39
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	126	1167	153	766	844	374	107	347	597	363	626	39
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	149	876	403	422	1405	647	129	195	336	204	1075	481
Arrive On Green	0.08	0.26	0.26	0.24	0.41	0.41	0.07	0.32	0.32	0.06	0.31	0.31
Sat Flow, veh/h	1757	3406	1568	1757	3406	1568	1757	610	1049	3408	3505	1568
Grp Volume(v), veh/h	126	1167	153	766	844	374	107	0	944	363	626	39
Grp Sat Flow(s),veh/h/ln	1757	1703	1568	1757	1703	1568	1757	0	1659	1704	1752	1568
Q Serve(g_s), s	10.6	38.6	12.0	36.0	29.0	27.6	9.0	0.0	48.0	9.0	22.6	2.7
Cycle Q Clear(g_c), s	10.6	38.6	12.0	36.0	29.0	27.6	9.0	0.0	48.0	9.0	22.6	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	149	876	403	422	1405	647	129	0	531	204	1075	481
V/C Ratio(X)	0.84	1.33	0.38	1.82	0.60	0.58	0.83	0.00	1.78	1.78	0.58	0.08
Avail Cap(c_a), veh/h	223	876	403	422	1405	647	176	0	531	204	1075	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.7	55.7	45.8	57.0	34.4	34.0	68.6	0.0	51.0	70.5	43.9	37.0
Incr Delay (d2), s/veh	16.9	157.1	0.8	376.8	0.9	1.6	20.9	0.0	357.5	367.9	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	37.3	5.3	61.6	13.8	12.2	5.1	0.0	74.7	14.7	11.1	1.2
LnGrp Delay(d),s/veh	84.6	212.8	46.7	433.8	35.3	35.6	89.5	0.0	408.5	438.4	44.7	37.0
LnGrp LOS	F	F	D	F	D	D	F		F	F	D	D
Approach Vol, veh/h		1446			1984			1051			1028	
Approach Delay, s/veh		184.0			189.2			376.1			183.4	
Approach LOS		F			F			F			F	

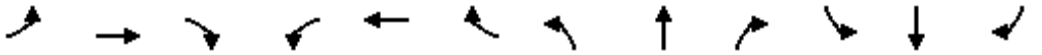
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	45.0	15.0	50.0	16.7	68.3	13.0	52.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	36.0	38.6	15.0	42.0	19.0	55.6	9.0	48.0
Max Q Clear Time (g_c+I1), s	38.0	40.6	11.0	24.6	12.6	31.0	11.0	50.0
Green Ext Time (p_c), s	0.0	0.0	0.1	8.8	0.2	19.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	222.4
HCM 2010 LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	702	37	27	345	804	536
Future Volume (veh/h)	702	37	27	345	804	536
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	702	37	27	345	804	536
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	714	637	32	929	812	690
Arrive On Green	0.41	0.41	0.02	0.50	0.44	0.44
Sat Flow, veh/h	1757	1568	1757	1845	1845	1568
Grp Volume(v), veh/h	702	37	27	345	804	536
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1845	1845	1568
Q Serve(g_s), s	35.0	1.3	1.4	10.1	38.3	25.8
Cycle Q Clear(g_c), s	35.0	1.3	1.4	10.1	38.3	25.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	714	637	32	929	812	690
V/C Ratio(X)	0.98	0.06	0.84	0.37	0.99	0.78
Avail Cap(c_a), veh/h	714	637	59	957	812	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	16.0	43.4	13.4	24.6	21.1
Incr Delay (d2), s/veh	29.5	0.0	39.7	0.2	29.1	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.8	1.5	1.0	5.1	26.0	12.1
LnGrp Delay(d),s/veh	55.6	16.0	83.1	13.7	53.8	26.7
LnGrp LOS	E	B	F	B	D	C
Approach Vol, veh/h	739			372	1340	
Approach Delay, s/veh	53.6			18.7	42.9	
Approach LOS	D			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		48.6		40.0	5.6	43.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		46.0		36.0	3.0	39.0		
Max Q Clear Time (g_c+I1), s		12.1		37.0	3.4	40.3		
Green Ext Time (p_c), s		9.9		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	42.5
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	196	109	159	257	12	53	273	65	1	757	30
Future Volume (veh/h)	10	196	109	159	257	12	53	273	65	1	757	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1759	1759	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	10	196	109	159	257	12	53	273	65	1	757	30
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	8	8	8	3	3	3	3	3	3
Cap, veh/h	80	203	113	198	431	20	94	663	158	82	799	32
Arrive On Green	0.05	0.19	0.19	0.12	0.26	0.26	0.05	0.46	0.46	0.05	0.45	0.45
Sat Flow, veh/h	1707	1084	603	1675	1668	78	1757	1441	343	1757	1762	70
Grp Volume(v), veh/h	10	0	305	159	0	269	53	0	338	1	0	787
Grp Sat Flow(s),veh/h/ln	1707	0	1686	1675	0	1746	1757	0	1784	1757	0	1832
Q Serve(g_s), s	0.5	0.0	15.3	7.9	0.0	11.5	2.5	0.0	10.8	0.0	0.0	35.1
Cycle Q Clear(g_c), s	0.5	0.0	15.3	7.9	0.0	11.5	2.5	0.0	10.8	0.0	0.0	35.1
Prop In Lane	1.00		0.36	1.00		0.04	1.00		0.19	1.00		0.04
Lane Grp Cap(c), veh/h	80	0	316	198	0	452	94	0	821	82	0	831
V/C Ratio(X)	0.13	0.00	0.97	0.80	0.00	0.60	0.56	0.00	0.41	0.01	0.00	0.95
Avail Cap(c_a), veh/h	280	0	316	275	0	452	288	0	836	288	0	858
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	34.4	36.7	0.0	27.7	39.4	0.0	15.3	38.8	0.0	22.4
Incr Delay (d2), s/veh	0.7	0.0	41.3	11.2	0.0	2.1	5.1	0.0	0.3	0.1	0.0	18.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	10.7	4.3	0.0	5.8	1.4	0.0	5.3	0.0	0.0	22.1
LnGrp Delay(d),s/veh	39.7	0.0	75.7	47.9	0.0	29.9	44.6	0.0	15.7	38.9	0.0	41.2
LnGrp LOS	D		E	D		C	D		B	D		D
Approach Vol, veh/h		315			428			391			788	
Approach Delay, s/veh		74.6			36.6			19.6			41.2	
Approach LOS		E			D			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	43.3	14.1	20.0	8.6	42.7	8.0	26.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	40.0	14.0	16.0	14.0	40.0	14.0	16.0
Max Q Clear Time (g_c+I1), s	2.0	12.8	9.9	17.3	4.5	37.1	2.5	13.5
Green Ext Time (p_c), s	0.0	6.2	0.2	0.0	0.1	1.6	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	421	148	31	118	140	668	56	1525	85	266	1053	227
Future Volume (veh/h)	421	148	31	118	140	668	56	1525	85	266	1053	227
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	421	148	31	118	140	668	56	1525	85	266	1053	227
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	469	1274	254	180	398	972	97	1618	90	321	1999	622
Arrive On Green	0.14	0.30	0.30	0.05	0.22	0.22	0.03	0.33	0.33	0.09	0.40	0.40
Sat Flow, veh/h	3408	4215	839	3514	1845	3136	3408	4882	272	3408	5036	1568
Grp Volume(v), veh/h	421	116	63	118	140	668	56	1049	561	266	1053	227
Grp Sat Flow(s),veh/h/ln	1704	1679	1697	1757	1845	1568	1704	1679	1797	1704	1679	1568
Q Serve(g_s), s	12.3	2.5	2.7	3.3	6.5	18.9	1.6	30.7	30.7	7.7	16.1	10.3
Cycle Q Clear(g_c), s	12.3	2.5	2.7	3.3	6.5	18.9	1.6	30.7	30.7	7.7	16.1	10.3
Prop In Lane	1.00		0.49	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	469	1015	513	180	398	972	97	1113	595	321	1999	622
V/C Ratio(X)	0.90	0.11	0.12	0.66	0.35	0.69	0.57	0.94	0.94	0.83	0.53	0.36
Avail Cap(c_a), veh/h	469	1181	597	285	548	1227	176	1158	619	321	1999	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	25.4	25.5	47.0	33.6	30.5	48.4	32.8	32.8	44.9	23.2	21.5
Incr Delay (d2), s/veh	19.1	0.0	0.0	1.5	0.2	0.7	2.0	14.2	22.2	15.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	1.2	1.3	1.7	3.3	8.2	0.8	16.3	18.8	4.3	7.4	4.5
LnGrp Delay(d),s/veh	62.0	25.5	25.5	48.5	33.8	31.2	50.4	47.0	55.0	60.5	23.3	21.6
LnGrp LOS	E	C	C	D	C	C	D	D	D	E	C	C
Approach Vol, veh/h		600			926			1666			1546	
Approach Delay, s/veh		51.1			33.8			49.8			29.5	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	45.7	19.4	27.5	15.0	39.0	10.7	36.2
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	5.2	38.8	13.9	* 30	9.5	* 35	8.2	* 36
Max Q Clear Time (g_c+I1), s	3.6	18.1	14.3	20.9	9.7	32.7	5.3	4.7
Green Ext Time (p_c), s	0.0	4.7	0.0	0.9	0.0	0.8	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.2
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	103	44	69	49	159	17	1053	31	71	1056	51
Future Volume (veh/h)	311	103	44	69	49	159	17	1053	31	71	1056	51
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	229	218	44	59	63	159	17	1053	31	71	1056	51
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	320	271	55	235	247	210	22	1340	39	128	1593	77
Arrive On Green	0.18	0.18	0.18	0.13	0.13	0.13	0.01	0.27	0.27	0.07	0.32	0.32
Sat Flow, veh/h	1757	1491	301	1757	1845	1568	1757	5028	148	1757	4923	238
Grp Volume(v), veh/h	229	0	262	59	63	159	17	703	381	71	720	387
Grp Sat Flow(s),veh/h/ln	1757	0	1792	1757	1845	1568	1757	1679	1819	1757	1679	1803
Q Serve(g_s), s	7.3	0.0	8.3	1.8	1.8	5.8	0.6	11.5	11.5	2.3	10.9	10.9
Cycle Q Clear(g_c), s	7.3	0.0	8.3	1.8	1.8	5.8	0.6	11.5	11.5	2.3	10.9	10.9
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.08	1.00		0.13
Lane Grp Cap(c), veh/h	320	0	326	235	247	210	22	895	485	128	1087	583
V/C Ratio(X)	0.72	0.00	0.80	0.25	0.26	0.76	0.78	0.79	0.79	0.55	0.66	0.66
Avail Cap(c_a), veh/h	832	0	848	802	842	716	89	1147	621	131	1215	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	0.0	23.2	23.0	23.0	24.7	29.1	20.1	20.1	26.5	17.2	17.2
Incr Delay (d2), s/veh	1.1	0.0	1.8	0.2	0.2	2.1	19.9	2.1	3.8	2.7	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	4.2	0.9	0.9	2.6	0.4	5.5	6.2	1.2	5.1	5.6
LnGrp Delay(d),s/veh	23.9	0.0	25.0	23.2	23.2	26.8	49.0	22.2	23.9	29.2	18.0	18.7
LnGrp LOS	C		C	C	C	C	D	C	C	C	B	B
Approach Vol, veh/h		491			281			1101			1178	
Approach Delay, s/veh		24.5			25.2			23.2			18.9	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.5	23.9		13.4	8.9	20.6		16.3
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 3	21.4		27.0	* 4.4	20.2		28.0
Max Q Clear Time (g_c+I1), s	2.6	12.9		7.8	4.3	13.5		10.3
Green Ext Time (p_c), s	0.0	2.5		0.2	0.0	2.3		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

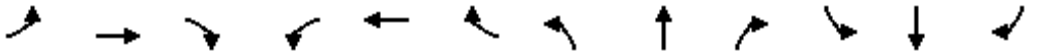
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	389	280	180	530	148	278	673	65	172	828	150
Future Volume (veh/h)	170	389	280	180	530	148	278	673	65	172	828	150
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	170	389	280	180	530	148	278	673	65	172	828	150
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	165	767	358	187	1183	368	357	1403	437	263	1078	194
Arrive On Green	0.05	0.23	0.23	0.05	0.23	0.23	0.10	0.28	0.28	0.08	0.25	0.25
Sat Flow, veh/h	3408	3357	1568	3408	5036	1568	3408	5036	1568	3408	4293	773
Grp Volume(v), veh/h	170	389	280	180	530	148	278	673	65	172	646	332
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1708
Q Serve(g_s), s	3.0	6.3	10.4	3.3	5.6	4.9	4.9	6.9	1.9	3.0	11.1	11.2
Cycle Q Clear(g_c), s	3.0	6.3	10.4	3.3	5.6	4.9	4.9	6.9	1.9	3.0	11.1	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	165	767	358	187	1183	368	357	1403	437	263	843	429
V/C Ratio(X)	1.03	0.51	0.78	0.96	0.45	0.40	0.78	0.48	0.15	0.65	0.77	0.77
Avail Cap(c_a), veh/h	165	1547	723	187	2353	733	357	2475	771	280	1574	801
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	20.9	22.5	29.3	20.3	20.1	27.1	18.6	16.8	27.8	21.6	21.6
Incr Delay (d2), s/veh	78.7	0.2	1.4	54.9	0.1	0.3	9.6	0.1	0.1	3.7	0.6	1.1
Initial Q Delay(d3),s/veh	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.9	4.7	2.9	2.6	2.1	2.8	3.2	0.8	1.6	5.2	5.4
LnGrp Delay(d),s/veh	108.5	21.1	23.9	84.2	20.4	20.3	36.7	18.7	16.9	31.5	22.1	22.7
LnGrp LOS	F	C	C	F	C	C	D	B	B	C	C	C
Approach Vol, veh/h		839			858			1016			1150	
Approach Delay, s/veh		39.7			33.8			23.5			23.7	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	21.2	8.5	20.4	10.3	22.9	8.9	20.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	6.5	* 29	3.0	29.0	5.1	* 31	3.4	28.6
Max Q Clear Time (g_c+I1), s	6.9	13.2	5.0	7.6	5.0	8.9	5.3	12.4
Green Ext Time (p_c), s	0.0	2.4	0.0	1.8	0.0	2.4	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	29.4
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



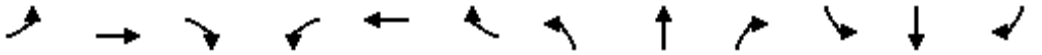
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	164	58	129	176	100	43	638	102	178	760	188
Future Volume (veh/h)	23	164	58	129	176	100	43	638	102	178	760	188
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	23	164	58	129	176	100	43	638	102	178	760	188
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	27	252	86	163	313	266	53	687	110	263	903	768
Arrive On Green	0.02	0.10	0.10	0.09	0.17	0.17	0.03	0.44	0.44	0.08	0.49	0.49
Sat Flow, veh/h	1757	2566	876	1757	1845	1568	1757	1553	248	3408	1845	1568
Grp Volume(v), veh/h	23	110	112	129	176	100	43	0	740	178	760	188
Grp Sat Flow(s),veh/h/ln	1757	1752	1690	1757	1845	1568	1757	0	1801	1704	1845	1568
Q Serve(g_s), s	0.9	4.3	4.5	5.1	6.2	4.0	1.7	0.0	27.6	3.6	25.4	4.9
Cycle Q Clear(g_c), s	0.9	4.3	4.5	5.1	6.2	4.0	1.7	0.0	27.6	3.6	25.4	4.9
Prop In Lane	1.00		0.52	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	27	172	166	163	313	266	53	0	797	263	903	768
V/C Ratio(X)	0.85	0.64	0.67	0.79	0.56	0.38	0.82	0.00	0.93	0.68	0.84	0.24
Avail Cap(c_a), veh/h	143	826	796	222	944	803	91	0	1145	336	1251	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	30.9	31.0	31.6	27.1	26.2	34.3	0.0	18.8	31.9	15.8	10.5
Incr Delay (d2), s/veh	22.6	1.5	1.8	8.8	0.6	0.3	10.7	0.0	8.2	1.9	2.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.2	2.2	2.9	3.2	1.7	1.0	0.0	15.4	1.8	13.6	2.1
LnGrp Delay(d),s/veh	57.5	32.3	32.7	40.4	27.7	26.5	45.0	0.0	26.9	33.9	18.6	10.6
LnGrp LOS	E	C	C	D	C	C	D		C	C	B	B
Approach Vol, veh/h		245			405			783			1126	
Approach Delay, s/veh		34.9			31.5			27.9			19.7	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	17.0	7.6	39.9	11.7	11.9	11.0	36.6
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	5.8	* 36	3.7	* 48	* 9	* 34	7.0	* 45
Max Q Clear Time (g_c+I1), s	2.9	8.2	3.7	27.4	7.1	6.5	5.6	29.6
Green Ext Time (p_c), s	0.0	0.4	0.0	1.8	0.0	0.4	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C

Notes

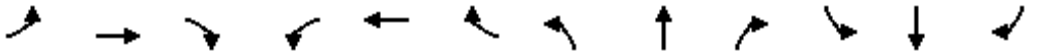
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	606	123	219	575	66	74	162	83	57	230	348
Future Volume (veh/h)	408	606	123	219	575	66	74	162	83	57	230	348
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	408	606	123	219	575	66	74	162	83	57	230	348
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	501	1030	461	335	860	385	169	952	426	145	928	415
Arrive On Green	0.15	0.29	0.29	0.10	0.25	0.25	0.05	0.27	0.27	0.04	0.26	0.26
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	408	606	123	219	575	66	74	162	83	57	230	348
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	6.3	8.0	3.3	3.4	8.1	1.8	1.1	1.9	2.2	0.9	2.8	11.4
Cycle Q Clear(g_c), s	6.3	8.0	3.3	3.4	8.1	1.8	1.1	1.9	2.2	0.9	2.8	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	501	1030	461	335	860	385	169	952	426	145	928	415
V/C Ratio(X)	0.82	0.59	0.27	0.65	0.67	0.17	0.44	0.17	0.19	0.39	0.25	0.84
Avail Cap(c_a), veh/h	501	1030	461	501	1030	461	250	1030	461	250	1030	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	16.4	14.7	23.7	18.6	16.2	25.2	15.1	15.3	25.4	15.8	18.9
Incr Delay (d2), s/veh	10.0	0.9	0.3	2.2	1.3	0.2	1.8	0.1	0.2	1.7	0.1	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	4.0	1.5	1.7	4.1	0.8	0.6	0.9	1.0	0.5	1.4	6.3
LnGrp Delay(d),s/veh	32.6	17.3	15.0	25.8	19.9	16.4	26.9	15.2	15.5	27.1	15.9	30.9
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	C
Approach Vol, veh/h		1137			860			319			635	
Approach Delay, s/veh		22.5			21.1			18.0			25.1	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	18.8	9.4	20.0	6.7	18.4	12.0	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	8.0	16.0	4.0	16.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	2.9	4.2	5.4	10.0	3.1	13.4	8.3	10.1
Green Ext Time (p_c), s	0.0	2.8	0.2	3.3	0.0	1.0	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	977	86	42	561	63	33	172	18	87	370	148
Future Volume (veh/h)	154	977	86	42	561	63	33	172	18	87	370	148
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	154	977	86	42	561	63	33	172	18	87	370	148
Adj No. of Lanes	2	2	0	1	2	1	1	1	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	252	1207	106	62	1161	520	51	424	361	188	472	401
Arrive On Green	0.07	0.37	0.37	0.04	0.33	0.33	0.03	0.23	0.23	0.06	0.26	0.26
Sat Flow, veh/h	3408	3260	287	1757	3505	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	154	525	538	42	561	63	33	172	18	87	370	148
Grp Sat Flow(s),veh/h/ln	1704	1752	1794	1757	1752	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	2.3	13.9	13.9	1.2	6.6	1.4	1.0	4.1	0.5	1.3	9.7	4.0
Cycle Q Clear(g_c), s	2.3	13.9	13.9	1.2	6.6	1.4	1.0	4.1	0.5	1.3	9.7	4.0
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	649	664	62	1161	520	51	424	361	188	472	401
V/C Ratio(X)	0.61	0.81	0.81	0.68	0.48	0.12	0.64	0.41	0.05	0.46	0.78	0.37
Avail Cap(c_a), veh/h	330	678	694	136	1288	576	136	571	485	264	571	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	14.6	14.6	24.7	13.8	12.0	24.8	16.9	15.5	23.7	17.9	15.8
Incr Delay (d2), s/veh	2.4	7.0	6.9	12.5	0.3	0.1	12.7	0.6	0.1	1.8	5.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.0	8.1	0.8	3.2	0.6	0.6	2.1	0.2	0.7	5.6	1.8
LnGrp Delay(d),s/veh	25.6	21.7	21.5	37.1	14.1	12.1	37.5	17.5	15.6	25.4	23.7	16.4
LnGrp LOS	C	C	C	D	B	B	D	B	B	C	C	B
Approach Vol, veh/h		1217			666			223			605	
Approach Delay, s/veh		22.1			15.3			20.3			22.2	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	15.9	5.8	23.1	5.5	17.2	7.8	21.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	4.0	20.0	4.0	16.0	5.0	19.0
Max Q Clear Time (g_c+I1), s	3.3	6.1	3.2	15.9	3.0	11.7	4.3	8.6
Green Ext Time (p_c), s	0.0	2.8	0.0	3.2	0.0	1.6	0.0	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	573	92	212	207	365	83	1858	339	294	1134	183
Future Volume (veh/h)	325	573	92	212	207	365	83	1858	339	294	1134	183
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	325	573	92	212	207	365	83	1858	339	294	1134	183
Adj No. of Lanes	2	2	1	2	1	2	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	322	908	406	288	455	1070	137	1993	493	319	1851	576
Arrive On Green	0.09	0.26	0.26	0.08	0.25	0.25	0.04	0.32	0.32	0.09	0.37	0.37
Sat Flow, veh/h	3408	3505	1568	3514	1845	3136	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	325	573	92	212	207	365	83	1858	339	294	1134	183
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	8.5	13.0	4.2	5.3	8.6	7.8	2.2	25.8	17.1	7.8	16.6	7.5
Cycle Q Clear(g_c), s	8.5	13.0	4.2	5.3	8.6	7.8	2.2	25.8	17.1	7.8	16.6	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	908	406	288	455	1070	137	1993	493	319	1851	576
V/C Ratio(X)	1.01	0.63	0.23	0.74	0.45	0.34	0.61	0.93	0.69	0.92	0.61	0.32
Avail Cap(c_a), veh/h	322	1143	511	442	657	1413	165	2014	498	319	1851	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	29.5	26.2	40.3	28.7	22.1	42.4	29.7	26.8	40.4	23.0	20.1
Incr Delay (d2), s/veh	52.2	1.1	0.4	1.4	2.0	0.5	1.7	8.3	3.3	30.3	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	6.4	1.9	2.6	4.6	3.4	1.0	12.3	7.7	4.9	7.8	3.4
LnGrp Delay(d),s/veh	92.9	30.6	26.6	41.7	30.7	22.6	44.1	38.1	30.1	70.7	24.2	21.2
LnGrp LOS	F	C	C	D	C	C	D	D	C	E	C	C
Approach Vol, veh/h		990			784			2280			1611	
Approach Delay, s/veh		50.7			29.9			37.1			32.4	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	38.8	14.0	28.0	14.0	33.9	12.9	29.1
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	4.4	* 33	8.5	32.0	8.5	* 29	11.3	* 29
Max Q Clear Time (g_c+I1), s	4.2	18.6	10.5	10.6	9.8	27.8	7.3	15.0
Green Ext Time (p_c), s	0.0	12.4	0.0	10.7	0.0	0.7	0.1	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	371	498	244	152	321	233	193	1147	75	199	1366	162
Future Volume (veh/h)	371	498	244	152	321	233	193	1147	75	199	1366	162
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	371	498	244	152	321	233	193	1147	75	199	1366	162
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	389	1081	484	218	1292	402	221	1592	496	225	1598	497
Arrive On Green	0.11	0.31	0.31	0.06	0.26	0.26	0.07	0.32	0.32	0.07	0.32	0.32
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	371	498	244	152	321	233	193	1147	75	199	1366	162
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	10.2	10.8	12.1	4.2	4.8	12.4	5.4	19.2	3.3	5.5	24.3	7.5
Cycle Q Clear(g_c), s	10.2	10.8	12.1	4.2	4.8	12.4	5.4	19.2	3.3	5.5	24.3	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	1081	484	218	1292	402	221	1592	496	225	1598	497
V/C Ratio(X)	0.95	0.46	0.50	0.70	0.25	0.58	0.87	0.72	0.15	0.89	0.86	0.33
Avail Cap(c_a), veh/h	389	1174	525	318	1582	492	221	1608	501	225	1603	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	26.4	26.8	43.3	27.8	30.6	43.8	28.5	23.0	43.8	30.1	24.4
Incr Delay (d2), s/veh	33.4	0.6	1.7	1.5	0.3	4.5	28.5	1.9	0.3	30.6	5.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	5.4	5.4	2.0	2.2	5.8	3.4	9.1	1.4	3.5	11.9	3.3
LnGrp Delay(d),s/veh	75.1	27.0	28.4	44.8	28.1	35.0	72.3	30.4	23.3	74.4	35.2	25.2
LnGrp LOS	E	C	C	D	C	D	E	C	C	E	D	C
Approach Vol, veh/h		1113			706			1415			1727	
Approach Delay, s/veh		43.3			34.0			35.8			38.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	36.1	16.3	30.5	11.8	36.0	11.6	35.2
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	6.2	* 30	10.8	* 30	6.3	* 31	8.9	31.7
Max Q Clear Time (g_c+I1), s	7.4	26.3	12.2	14.4	7.5	21.2	6.2	14.1
Green Ext Time (p_c), s	0.0	4.1	0.0	10.1	0.0	8.9	0.1	11.1

Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	15	446	13	24	66	296	1214	11	20	1563	81
Future Volume (veh/h)	178	15	446	13	24	66	296	1214	11	20	1563	81
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	178	15	446	13	24	66	296	1214	11	20	1563	81
Adj No. of Lanes	2	1	2	1	1	0	2	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	259	352	526	17	54	149	382	2416	22	24	1867	581
Arrive On Green	0.08	0.19	0.19	0.01	0.12	0.12	0.11	0.47	0.47	0.01	0.37	0.37
Sat Flow, veh/h	3408	1845	2760	1757	436	1198	3375	5098	46	1740	4988	1553
Grp Volume(v), veh/h	178	15	446	13	0	90	296	792	433	20	1563	81
Grp Sat Flow(s),veh/h/ln	1704	1845	1380	1757	0	1633	1688	1663	1819	1740	1663	1553
Q Serve(g_s), s	3.8	0.5	11.5	0.5	0.0	3.8	6.3	12.2	12.2	0.8	21.1	2.5
Cycle Q Clear(g_c), s	3.8	0.5	11.5	0.5	0.0	3.8	6.3	12.2	12.2	0.8	21.1	2.5
Prop In Lane	1.00		1.00	1.00		0.73	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	259	352	526	17	0	203	382	1576	862	24	1867	581
V/C Ratio(X)	0.69	0.04	0.85	0.78	0.00	0.44	0.77	0.50	0.50	0.84	0.84	0.14
Avail Cap(c_a), veh/h	290	908	1358	81	0	751	452	1892	1035	132	2508	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	24.4	28.9	36.6	0.0	30.0	31.9	13.4	13.4	36.4	21.1	15.3
Incr Delay (d2), s/veh	4.2	0.0	1.5	24.3	0.0	0.6	5.6	0.1	0.2	24.0	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.3	4.5	0.4	0.0	1.7	3.2	5.5	6.1	0.6	9.8	1.1
LnGrp Delay(d),s/veh	37.6	24.4	30.4	60.9	0.0	30.6	37.5	13.5	13.6	60.4	22.6	15.3
LnGrp LOS	D	C	C	E		C	D	B	B	E	C	B
Approach Vol, veh/h		639			103			1521			1664	
Approach Delay, s/veh		32.2			34.4			18.2			22.7	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	33.7	11.1	15.3	6.5	41.1	6.2	20.2
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	9.9	37.2	6.3	* 34	5.6	* 42	3.4	* 36
Max Q Clear Time (g_c+I1), s	8.3	23.1	5.8	5.8	2.8	14.2	2.5	13.5
Green Ext Time (p_c), s	0.1	4.6	0.0	0.6	0.0	5.2	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

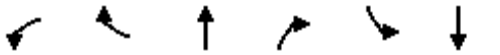
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	160	172	83	55	104	104	931	135	379	1635	168
Future Volume (veh/h)	104	160	172	83	55	104	104	931	135	379	1635	168
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	104	160	172	83	55	104	104	931	135	379	1635	168
Adj No. of Lanes	2	2	0	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	177	256	229	142	460	206	176	1513	471	483	1966	612
Arrive On Green	0.05	0.15	0.15	0.04	0.14	0.14	0.05	0.30	0.30	0.14	0.39	0.39
Sat Flow, veh/h	3408	1752	1568	3250	3343	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	104	160	172	83	55	104	104	931	135	379	1635	168
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1625	1671	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	1.8	5.2	6.4	1.5	0.9	3.9	1.8	9.7	4.0	6.6	17.9	4.4
Cycle Q Clear(g_c), s	1.8	5.2	6.4	1.5	0.9	3.9	1.8	9.7	4.0	6.6	17.9	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	256	229	142	460	206	176	1513	471	483	1966	612
V/C Ratio(X)	0.59	0.63	0.75	0.58	0.12	0.50	0.59	0.62	0.29	0.78	0.83	0.27
Avail Cap(c_a), veh/h	197	652	584	161	1216	544	195	1856	578	558	2393	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	24.3	24.8	28.4	22.8	24.2	28.0	18.0	16.1	25.0	16.5	12.4
Incr Delay (d2), s/veh	1.9	0.9	1.9	1.9	0.0	0.7	2.0	0.2	0.1	5.3	1.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.6	2.8	0.7	0.4	1.6	0.9	4.4	1.7	3.4	8.5	1.9
LnGrp Delay(d),s/veh	29.9	25.2	26.6	30.2	22.9	24.9	30.0	18.2	16.2	30.3	18.3	12.5
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		436			242			1170			2182	
Approach Delay, s/veh		26.9			26.3			19.0			20.0	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	29.3	8.6	13.8	14.2	23.8	8.1	14.3
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	3.5	29.0	3.5	22.0	10.0	22.5	3.0	22.5
Max Q Clear Time (g_c+I1), s	3.8	19.9	3.8	5.9	8.6	11.7	3.5	8.4
Green Ext Time (p_c), s	0.0	4.0	0.0	0.5	0.1	4.3	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	92	98	910	214	173	1674
Future Volume (veh/h)	92	98	910	214	173	1674
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1827	1827	1827
Adj Flow Rate, veh/h	92	98	910	214	173	1674
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	338	155	1738	541	308	2077
Arrive On Green	0.10	0.10	0.35	0.35	0.09	0.60
Sat Flow, veh/h	3408	1568	5152	1553	3375	3563
Grp Volume(v), veh/h	92	98	910	214	173	1674
Grp Sat Flow(s),veh/h/ln	1704	1568	1663	1553	1688	1736
Q Serve(g_s), s	0.9	2.1	5.0	3.6	1.7	13.0
Cycle Q Clear(g_c), s	0.9	2.1	5.0	3.6	1.7	13.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	338	155	1738	541	308	2077
V/C Ratio(X)	0.27	0.63	0.52	0.40	0.56	0.81
Avail Cap(c_a), veh/h	442	203	3666	1141	1849	5003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	15.0	9.0	8.5	15.1	5.4
Incr Delay (d2), s/veh	0.2	1.6	0.1	0.2	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	2.3	1.6	0.8	6.1
LnGrp Delay(d),s/veh	14.6	16.6	9.1	8.7	15.7	5.7
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	190		1124			1847
Approach Delay, s/veh	15.6		9.0			6.6
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		25.8		8.9	8.7	17.1		
Change Period (Y+Rc), s		5.0		5.5	5.5	5.0		
Max Green Setting (Gmax), s		50.0		4.5	19.0	25.5		
Max Q Clear Time (g_c+I1), s		15.0		4.1	3.7	7.0		
Green Ext Time (p_c), s		5.4		0.0	0.2	5.0		

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	542	20	182	9	16	51	109	498	42	84	952	621
Future Volume (veh/h)	542	20	182	9	16	51	109	498	42	84	952	621
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845	1845	1827	1827	1827	1834	1900
Adj Flow Rate, veh/h	542	20	182	9	16	51	109	498	42	84	952	621
Adj No. of Lanes	2	2	1	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	4
Cap, veh/h	604	621	278	31	55	74	136	1847	826	138	1027	643
Arrive On Green	0.18	0.18	0.18	0.05	0.05	0.05	0.08	0.53	0.53	0.04	0.50	0.50
Sat Flow, veh/h	3408	3505	1568	652	1160	1568	1757	3471	1553	3375	2059	1289
Grp Volume(v), veh/h	542	20	182	25	0	51	109	498	42	84	799	774
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1812	0	1568	1757	1736	1553	1688	1742	1606
Q Serve(g_s), s	14.8	0.5	10.3	1.3	0.0	3.1	5.8	7.5	1.2	2.3	40.5	44.4
Cycle Q Clear(g_c), s	14.8	0.5	10.3	1.3	0.0	3.1	5.8	7.5	1.2	2.3	40.5	44.4
Prop In Lane	1.00		1.00	0.36		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	604	621	278	86	0	74	136	1847	826	138	869	801
V/C Ratio(X)	0.90	0.03	0.65	0.29	0.00	0.69	0.80	0.27	0.05	0.61	0.92	0.97
Avail Cap(c_a), veh/h	607	625	279	342	0	296	144	1847	826	237	880	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	32.5	36.5	43.9	0.0	44.8	43.3	12.2	10.7	45.0	22.1	23.1
Incr Delay (d2), s/veh	16.0	0.0	5.4	1.9	0.0	10.8	25.8	0.1	0.0	4.2	14.5	23.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.2	4.9	0.7	0.0	1.6	3.8	3.6	0.5	1.2	22.8	24.7
LnGrp Delay(d),s/veh	54.4	32.5	41.9	45.8	0.0	55.6	69.0	12.3	10.8	49.2	36.6	46.3
LnGrp LOS	D	C	D	D		E	E	B	B	D	D	D
Approach Vol, veh/h		744			76			649			1657	
Approach Delay, s/veh		50.8			52.3			21.7			41.8	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	52.6		9.9	8.8	55.8		20.9
Change Period (Y+Rc), s	* 4.6	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	* 7.8	48.2		* 18	* 6.7	49.0		17.0
Max Q Clear Time (g_c+I1), s	7.8	46.4		5.1	4.3	9.5		16.8
Green Ext Time (p_c), s	0.0	1.2		0.1	0.1	16.7		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	40.0
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	747	88	46	404	119	41	323	61	134	795	209
Future Volume (veh/h)	217	747	88	46	404	119	41	323	61	134	795	209
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1792	1845	1845	1900	1827	1845	1845
Adj Flow Rate, veh/h	217	747	88	46	404	119	41	323	61	134	795	209
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	6	3	3	3	4	3	3
Cap, veh/h	241	724	616	52	526	573	39	511	97	158	752	854
Arrive On Green	0.14	0.39	0.39	0.03	0.28	0.28	0.02	0.34	0.34	0.09	0.41	0.41
Sat Flow, veh/h	1757	1845	1568	1757	1845	1524	1757	1509	285	1740	1845	1568
Grp Volume(v), veh/h	217	747	88	46	404	119	41	0	384	134	795	209
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1524	1757	0	1794	1740	1845	1568
Q Serve(g_s), s	16.4	53.0	4.9	3.5	27.1	7.1	3.0	0.0	24.3	10.2	55.0	9.5
Cycle Q Clear(g_c), s	16.4	53.0	4.9	3.5	27.1	7.1	3.0	0.0	24.3	10.2	55.0	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	241	724	616	52	526	573	39	0	608	158	752	854
V/C Ratio(X)	0.90	1.03	0.14	0.88	0.77	0.21	1.05	0.00	0.63	0.85	1.06	0.24
Avail Cap(c_a), veh/h	260	724	616	52	526	573	39	0	608	232	752	854
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	41.0	26.4	65.3	44.2	28.5	66.0	0.0	37.6	60.4	40.0	16.1
Incr Delay (d2), s/veh	29.8	41.8	0.1	83.0	6.8	0.2	159.3	0.0	2.1	11.9	49.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	35.4	2.1	2.9	14.8	3.0	3.2	0.0	12.4	5.4	38.2	4.1
LnGrp Delay(d),s/veh	87.1	82.8	26.5	148.3	51.0	28.7	226.6	0.0	39.7	72.4	89.2	16.3
LnGrp LOS	F	F	C	F	D	C	F		D	E	F	B
Approach Vol, veh/h		1052			569			425			1138	
Approach Delay, s/veh		79.0			54.2			57.7			73.8	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	59.0	7.0	61.0	22.5	44.5	16.3	51.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	4.0	53.0	3.0	55.0	20.0	37.0	18.0	40.0
Max Q Clear Time (g_c+I1), s	5.5	55.0	5.0	57.0	18.4	29.1	12.2	26.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	4.0	0.1	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	69.9
HCM 2010 LOS	E

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	139	16	14	278	730	204
Future Volume (veh/h)	139	16	14	278	730	204
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	139	16	14	278	730	204
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	173	20	18	1252	775	217
Arrive On Green	0.12	0.12	0.01	0.69	0.56	0.56
Sat Flow, veh/h	1448	167	1740	1827	1375	384
Grp Volume(v), veh/h	156	0	14	278	0	934
Grp Sat Flow(s),veh/h/ln	1625	0	1740	1827	0	1759
Q Serve(g_s), s	4.6	0.0	0.4	2.8	0.0	24.5
Cycle Q Clear(g_c), s	4.6	0.0	0.4	2.8	0.0	24.5
Prop In Lane	0.89	0.10	1.00			0.22
Lane Grp Cap(c), veh/h	194	0	18	1252	0	992
V/C Ratio(X)	0.80	0.00	0.76	0.22	0.00	0.94
Avail Cap(c_a), veh/h	262	0	214	2124	0	1620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	24.5	2.9	0.0	10.1
Incr Delay (d2), s/veh	12.2	0.0	20.6	0.0	0.0	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.3	1.4	0.0	13.2
LnGrp Delay(d),s/veh	33.4	0.0	45.1	2.9	0.0	15.5
LnGrp LOS	C		D	A		B
Approach Vol, veh/h	156			292	934	
Approach Delay, s/veh	33.4			5.0	15.5	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	6.0	33.7		9.9		39.7		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.1	* 46		8.0		* 58		
Max Q Clear Time (g_c+I1), s	2.4	26.5		6.6		4.8		
Green Ext Time (p_c), s	0.0	1.5		0.1		1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	15.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	759	708	1	2	269	458	16	205	7	54	3	189
Future Volume (veh/h)	759	708	1	2	269	458	16	205	7	54	3	189
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1792	1792	1900	1792	1792	1792
Adj Flow Rate, veh/h	759	708	1	2	269	458	16	205	7	36	49	189
Adj No. of Lanes	2	2	0	1	1	1	1	1	0	1	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	6	6	6	6	6	6
Cap, veh/h	823	1966	3	3	560	476	236	238	8	143	150	255
Arrive On Green	0.24	0.55	0.55	0.00	0.30	0.30	0.14	0.14	0.14	0.08	0.08	0.08
Sat Flow, veh/h	3408	3591	5	1757	1845	1568	1707	1723	59	1707	1792	3047
Grp Volume(v), veh/h	759	345	364	2	269	458	16	0	212	36	49	189
Grp Sat Flow(s),veh/h/ln	1704	1752	1844	1757	1845	1568	1707	0	1782	1707	1792	1524
Q Serve(g_s), s	20.9	10.7	10.7	0.1	11.4	27.6	0.8	0.0	11.2	1.9	2.5	5.8
Cycle Q Clear(g_c), s	20.9	10.7	10.7	0.1	11.4	27.6	0.8	0.0	11.2	1.9	2.5	5.8
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	823	960	1010	3	560	476	236	0	246	143	150	255
V/C Ratio(X)	0.92	0.36	0.36	0.70	0.48	0.96	0.07	0.00	0.86	0.25	0.33	0.74
Avail Cap(c_a), veh/h	868	960	1010	55	560	476	373	0	389	426	447	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	12.3	12.3	48.0	27.3	33.0	36.0	0.0	40.5	41.2	41.5	43.0
Incr Delay (d2), s/veh	14.2	0.1	0.1	75.8	0.2	31.4	0.0	0.0	6.6	0.3	0.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	5.2	5.5	0.1	5.9	16.1	0.4	0.0	5.9	0.9	1.2	2.5
LnGrp Delay(d),s/veh	49.8	12.3	12.3	123.8	27.5	64.4	36.1	0.0	47.1	41.6	42.0	44.6
LnGrp LOS	D	B	B	F	C	E	D		D	D	D	D
Approach Vol, veh/h		1468			729			228			274	
Approach Delay, s/veh		31.7			51.0			46.4			43.7	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	28.7	35.1		13.6	5.3	58.6		18.8
Change Period (Y+Rc), s	5.5	* 5.9		5.5	* 5.1	* 5.9		5.5
Max Green Setting (Gmax), s	24.5	* 29		24.0	* 3	* 50		21.0
Max Q Clear Time (g_c+I1), s	22.9	29.6		7.8	2.1	12.7		13.2
Green Ext Time (p_c), s	0.3	0.0		0.2	0.0	1.3		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	39.4
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	153	194	14	318	377	121
Future Volume (veh/h)	153	194	14	318	377	121
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1759	1792	1792	1810	1810
Adj Flow Rate, veh/h	153	194	14	318	377	121
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	6	6	5	5
Cap, veh/h	328	292	25	876	572	487
Arrive On Green	0.20	0.20	0.01	0.49	0.32	0.32
Sat Flow, veh/h	1675	1495	1707	1792	1810	1538
Grp Volume(v), veh/h	153	194	14	318	377	121
Grp Sat Flow(s),veh/h/ln	1675	1495	1707	1792	1810	1538
Q Serve(g_s), s	2.8	4.2	0.3	3.8	6.3	2.0
Cycle Q Clear(g_c), s	2.8	4.2	0.3	3.8	6.3	2.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	328	292	25	876	572	487
V/C Ratio(X)	0.47	0.66	0.56	0.36	0.66	0.25
Avail Cap(c_a), veh/h	721	644	196	1492	1013	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	13.0	17.1	5.5	10.3	8.8
Incr Delay (d2), s/veh	1.0	2.6	18.5	0.3	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.6	0.3	1.9	3.2	0.9
LnGrp Delay(d),s/veh	13.4	15.5	35.6	5.8	11.6	9.1
LnGrp LOS	B	B	D	A	B	A
Approach Vol, veh/h	347			332	498	
Approach Delay, s/veh	14.6			7.0	11.0	
Approach LOS	B			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		22.5		12.3	6.0	16.5		
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		
Max Green Setting (Gmax), s		29.0		15.0	4.0	19.5		
Max Q Clear Time (g_c+I1), s		5.8		6.2	2.3	8.3		
Green Ext Time (p_c), s		3.5		0.9	0.0	2.8		

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	710	4	46	352	13	4	142	48	42	165	179
Future Volume (veh/h)	176	710	4	46	352	13	4	142	48	42	165	179
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1900	1810	1900	1900	1810	1900
Adj Flow Rate, veh/h	176	710	4	46	352	13	4	142	48	42	165	179
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	204	748	4	58	575	21	5	166	56	40	158	171
Arrive On Green	0.12	0.42	0.42	0.03	0.33	0.33	0.13	0.13	0.13	0.22	0.22	0.22
Sat Flow, veh/h	1707	1781	10	1707	1718	63	36	1268	429	181	711	772
Grp Volume(v), veh/h	176	0	714	46	0	365	194	0	0	386	0	0
Grp Sat Flow(s),veh/h/ln	1707	0	1791	1707	0	1781	1732	0	0	1664	0	0
Q Serve(g_s), s	11.9	0.0	45.0	3.1	0.0	20.1	12.8	0.0	0.0	26.0	0.0	0.0
Cycle Q Clear(g_c), s	11.9	0.0	45.0	3.1	0.0	20.1	12.8	0.0	0.0	26.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.04	0.02		0.25	0.11		0.46
Lane Grp Cap(c), veh/h	204	0	752	58	0	596	227	0	0	369	0	0
V/C Ratio(X)	0.86	0.00	0.95	0.79	0.00	0.61	0.85	0.00	0.00	1.04	0.00	0.00
Avail Cap(c_a), veh/h	259	0	780	64	0	596	385	0	0	369	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	50.6	0.0	32.8	56.2	0.0	32.6	49.8	0.0	0.0	45.6	0.0	0.0
Incr Delay (d2), s/veh	17.7	0.0	21.2	39.8	0.0	2.7	9.1	0.0	0.0	59.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	26.6	2.1	0.0	10.3	6.7	0.0	0.0	18.0	0.0	0.0
LnGrp Delay(d),s/veh	68.3	0.0	53.9	95.9	0.0	35.4	58.9	0.0	0.0	104.5	0.0	0.0
LnGrp LOS	E		D	F		D	E			F		
Approach Vol, veh/h		890			411			194			386	
Approach Delay, s/veh		56.8			42.1			58.9			104.5	
Approach LOS		E			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.6	45.2		32.0	8.6	55.2		21.3
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0
Max Green Setting (Gmax), s	17.8	37.6		26.0	4.4	51.0		26.0
Max Q Clear Time (g_c+I1), s	13.9	22.1		28.0	5.1	47.0		14.8
Green Ext Time (p_c), s	0.1	8.8		0.0	0.0	2.1		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	63.6
HCM 2010 LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	673	70	175	857	244	84	334	97	257	837	198
Future Volume (veh/h)	119	673	70	175	857	244	84	334	97	257	837	198
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	119	673	70	175	857	244	84	334	97	257	837	198
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	144	819	85	202	1011	452	107	710	318	288	1073	480
Arrive On Green	0.08	0.26	0.26	0.11	0.29	0.29	0.06	0.20	0.20	0.16	0.31	0.31
Sat Flow, veh/h	1757	3205	333	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	119	368	375	175	857	244	84	334	97	257	837	198
Grp Sat Flow(s),veh/h/ln	1757	1752	1786	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	4.1	12.0	12.1	6.0	14.0	8.0	2.9	5.1	3.2	8.7	13.3	6.1
Cycle Q Clear(g_c), s	4.1	12.0	12.1	6.0	14.0	8.0	2.9	5.1	3.2	8.7	13.3	6.1
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	448	456	202	1011	452	107	710	318	288	1073	480
V/C Ratio(X)	0.83	0.82	0.82	0.87	0.85	0.54	0.79	0.47	0.31	0.89	0.78	0.41
Avail Cap(c_a), veh/h	144	460	469	202	1036	463	144	921	412	288	1209	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	21.4	21.4	26.5	20.4	18.3	28.2	21.4	20.6	24.9	19.3	16.8
Incr Delay (d2), s/veh	30.7	11.1	11.0	30.4	6.6	1.2	18.1	0.5	0.5	27.2	3.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	7.2	7.3	4.6	7.7	3.6	1.9	2.5	1.4	6.4	6.8	2.7
LnGrp Delay(d),s/veh	58.2	32.4	32.4	56.9	27.0	19.5	46.4	21.9	21.2	52.1	22.3	17.4
LnGrp LOS	E	C	C	E	C	B	D	C	C	D	C	B
Approach Vol, veh/h		862			1276			515			1292	
Approach Delay, s/veh		36.0			29.7			25.7			27.4	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	16.3	11.0	19.6	7.7	22.6	9.0	21.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	16.0	7.0	16.0	5.0	21.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	10.7	7.1	8.0	14.1	4.9	15.3	6.1	16.0
Green Ext Time (p_c), s	0.0	4.7	0.0	1.5	0.0	3.4	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	534	142	126	642	123	102	558	69	109	1172	204
Future Volume (veh/h)	31	534	142	126	642	123	102	558	69	109	1172	204
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	31	534	142	126	642	123	102	558	69	109	1172	204
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	44	667	299	158	749	143	114	1335	165	139	1312	227
Arrive On Green	0.03	0.19	0.19	0.09	0.26	0.26	0.07	0.43	0.43	0.08	0.44	0.44
Sat Flow, veh/h	1757	3505	1568	1757	2936	562	1740	3111	384	1740	2959	513
Grp Volume(v), veh/h	31	534	142	126	383	382	102	311	316	109	685	691
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1746	1740	1736	1759	1740	1736	1736
Q Serve(g_s), s	1.3	11.1	6.1	5.3	15.8	15.9	4.4	9.5	9.5	4.7	27.6	28.0
Cycle Q Clear(g_c), s	1.3	11.1	6.1	5.3	15.8	15.9	4.4	9.5	9.5	4.7	27.6	28.0
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.22	1.00		0.30
Lane Grp Cap(c), veh/h	44	667	299	158	447	445	114	745	755	139	770	770
V/C Ratio(X)	0.70	0.80	0.48	0.80	0.86	0.86	0.89	0.42	0.42	0.78	0.89	0.90
Avail Cap(c_a), veh/h	92	738	330	162	447	445	114	745	755	229	822	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	29.4	27.4	33.9	27.0	27.0	35.2	15.1	15.1	34.3	19.4	19.6
Incr Delay (d2), s/veh	17.9	5.8	1.2	23.4	15.1	15.4	51.9	0.4	0.4	9.2	11.4	12.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.9	2.8	3.6	9.5	9.5	3.8	4.6	4.6	2.6	15.6	15.8
LnGrp Delay(d),s/veh	54.7	35.1	28.6	57.3	42.1	42.4	87.2	15.5	15.5	43.5	30.8	31.7
LnGrp LOS	D	D	C	E	D	D	F	B	B	D	C	C
Approach Vol, veh/h		707			891			729			1485	
Approach Delay, s/veh		34.7			44.4			25.5			32.1	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	36.6	10.8	18.5	9.0	37.7	5.9	23.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	31.0	7.0	16.0	5.0	36.0	4.0	19.0
Max Q Clear Time (g_c+I1), s	6.7	11.5	7.3	13.1	6.4	30.0	3.3	17.9
Green Ext Time (p_c), s	0.1	10.3	0.0	1.4	0.0	3.7	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	34.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	819	182	337	1168	140	169	541	195	161	1214	165
Future Volume (veh/h)	145	819	182	337	1168	140	169	541	195	161	1214	165
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	145	819	182	337	1168	140	169	541	195	161	1214	165
Adj No. of Lanes	1	3	0	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	855	189	348	1136	508	174	842	302	190	1199	536
Arrive On Green	0.08	0.21	0.21	0.20	0.33	0.33	0.10	0.34	0.34	0.11	0.35	0.35
Sat Flow, veh/h	1740	4090	903	1740	3471	1553	1740	2504	899	1740	3471	1553
Grp Volume(v), veh/h	145	665	336	337	1168	140	169	374	362	161	1214	165
Grp Sat Flow(s),veh/h/ln	1740	1663	1668	1740	1736	1553	1740	1736	1668	1740	1736	1553
Q Serve(g_s), s	9.0	21.7	22.0	21.1	36.0	7.3	10.7	20.1	20.2	10.0	38.0	8.6
Cycle Q Clear(g_c), s	9.0	21.7	22.0	21.1	36.0	7.3	10.7	20.1	20.2	10.0	38.0	8.6
Prop In Lane	1.00		0.54	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	142	695	349	348	1136	508	174	584	561	190	1199	536
V/C Ratio(X)	1.02	0.96	0.96	0.97	1.03	0.28	0.97	0.64	0.64	0.85	1.01	0.31
Avail Cap(c_a), veh/h	142	695	349	348	1136	508	174	584	561	221	1199	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	43.0	43.1	43.7	37.0	27.4	49.3	30.9	30.9	48.1	36.0	26.4
Incr Delay (d2), s/veh	80.4	23.8	38.7	39.7	34.1	0.3	59.6	2.4	2.5	22.7	29.1	0.3
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	12.3	13.8	14.0	22.6	3.2	8.0	10.0	9.7	6.0	23.0	3.7
LnGrp Delay(d),s/veh	131.1	66.8	81.8	83.4	71.1	27.6	108.9	33.3	33.5	70.8	65.1	26.7
LnGrp LOS	F	E	F	F	F	C	F	C	C	E	F	C
Approach Vol, veh/h		1146			1645			905			1540	
Approach Delay, s/veh		79.3			69.9			47.5			61.6	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	41.0	26.0	27.0	15.0	42.0	13.0	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	35.0	22.0	23.0	11.0	38.0	9.0	36.0
Max Q Clear Time (g_c+I1), s	12.0	22.2	23.1	24.0	12.7	40.0	11.0	38.0
Green Ext Time (p_c), s	0.1	8.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	65.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	801	148	210	1020	6	174	141	79	111	764	338
Future Volume (veh/h)	141	801	148	210	1020	6	174	141	79	111	764	338
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	141	801	148	210	1020	6	174	141	79	111	764	338
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	174	855	158	243	1174	7	201	997	446	142	879	393
Arrive On Green	0.10	0.29	0.29	0.14	0.33	0.33	0.11	0.28	0.28	0.08	0.25	0.25
Sat Flow, veh/h	1740	2926	541	1740	3538	21	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	141	475	474	210	500	526	174	141	79	111	764	338
Grp Sat Flow(s),veh/h/ln	1740	1736	1732	1740	1736	1823	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	6.3	21.0	21.0	9.3	21.3	21.3	7.7	2.4	3.0	4.9	16.4	16.2
Cycle Q Clear(g_c), s	6.3	21.0	21.0	9.3	21.3	21.3	7.7	2.4	3.0	4.9	16.4	16.2
Prop In Lane	1.00		0.31	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	507	506	243	576	605	201	997	446	142	879	393
V/C Ratio(X)	0.81	0.94	0.94	0.86	0.87	0.87	0.87	0.14	0.18	0.78	0.87	0.86
Avail Cap(c_a), veh/h	177	507	506	243	576	605	201	997	446	223	935	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	27.2	27.2	33.1	24.7	24.7	34.3	21.0	21.2	35.5	28.3	28.2
Incr Delay (d2), s/veh	23.7	25.2	25.3	26.0	13.4	12.9	30.6	0.1	0.2	9.0	8.5	15.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	13.6	13.6	6.2	12.3	12.8	5.4	1.1	1.3	2.7	9.0	8.7
LnGrp Delay(d),s/veh	58.4	52.4	52.5	59.2	38.1	37.6	64.8	21.1	21.4	44.6	36.7	43.8
LnGrp LOS	E	D	D	E	D	D	E	C	C	D	D	D
Approach Vol, veh/h		1090			1236			394			1213	
Approach Delay, s/veh		53.2			41.5			40.5			39.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	26.4	15.0	27.0	13.0	23.8	11.9	30.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	20.0	11.0	23.0	9.0	21.0	8.0	26.0
Max Q Clear Time (g_c+I1), s	6.9	5.0	11.3	23.0	9.7	18.4	8.3	23.3
Green Ext Time (p_c), s	0.1	5.6	0.0	0.0	0.0	1.3	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	456	19	63	560	70	41	334	78	159	634	823
Future Volume (veh/h)	280	456	19	63	560	70	41	334	78	159	634	823
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	280	456	19	63	560	70	41	334	78	159	634	823
Adj No. of Lanes	2	2	1	2	2	0	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	326	925	414	134	651	81	105	1124	259	242	1534	686
Arrive On Green	0.10	0.27	0.27	0.04	0.21	0.21	0.03	0.40	0.40	0.07	0.44	0.44
Sat Flow, veh/h	3375	3471	1553	3375	3107	387	3375	2802	646	3375	3471	1553
Grp Volume(v), veh/h	280	456	19	63	312	318	41	205	207	159	634	823
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1688	1736	1759	1688	1736	1713	1688	1736	1553
Q Serve(g_s), s	5.9	8.0	0.7	1.3	12.6	12.6	0.9	5.8	6.0	3.3	9.0	32.0
Cycle Q Clear(g_c), s	5.9	8.0	0.7	1.3	12.6	12.6	0.9	5.8	6.0	3.3	9.0	32.0
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	326	925	414	134	364	369	105	696	687	242	1534	686
V/C Ratio(X)	0.86	0.49	0.05	0.47	0.86	0.86	0.39	0.29	0.30	0.66	0.41	1.20
Avail Cap(c_a), veh/h	326	925	414	186	383	389	186	696	687	326	1534	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	22.4	19.7	34.0	27.6	27.6	34.4	14.7	14.8	32.7	13.8	20.2
Incr Delay (d2), s/veh	19.8	0.4	0.0	2.6	16.8	17.1	2.4	0.2	0.2	3.0	0.2	103.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.9	0.3	0.7	7.7	7.8	0.4	2.8	2.9	1.6	4.4	33.3
LnGrp Delay(d),s/veh	52.0	22.8	19.8	36.6	44.4	44.8	36.8	15.0	15.0	35.7	14.0	123.7
LnGrp LOS	D	C	B	D	D	D	D	B	B	D	B	F
Approach Vol, veh/h		755			693			453			1616	
Approach Delay, s/veh		33.6			43.9			17.0			72.0	
Approach LOS		C			D			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	33.0	6.9	23.3	6.2	36.0	11.0	19.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	4.0	19.0	4.0	32.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	5.3	8.0	3.3	10.0	2.9	34.0	7.9	14.6
Green Ext Time (p_c), s	0.1	9.6	0.0	3.5	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	51.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	6	241	50	9	1	104	510	55	1	978	9
Future Volume (veh/h)	1	6	241	50	9	1	104	510	55	1	978	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	1	6	241	50	9	1	104	510	55	1	978	9
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	1	6	226	70	65	7	129	568	482	571	1021	9
Arrive On Green	0.15	0.15	0.15	0.04	0.04	0.04	0.08	0.32	0.32	0.33	0.58	0.58
Sat Flow, veh/h	6	36	1459	1757	1631	181	1707	1792	1524	1707	1773	16
Grp Volume(v), veh/h	248	0	0	50	0	10	104	510	55	1	0	987
Grp Sat Flow(s),veh/h/ln	1501	0	0	1757	0	1813	1707	1792	1524	1707	0	1790
Q Serve(g_s), s	16.0	0.0	0.0	2.9	0.0	0.6	6.2	28.1	2.6	0.0	0.0	54.0
Cycle Q Clear(g_c), s	16.0	0.0	0.0	2.9	0.0	0.6	6.2	28.1	2.6	0.0	0.0	54.0
Prop In Lane	0.00		0.97	1.00		0.10	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	232	0	0	70	0	72	129	568	482	571	0	1030
V/C Ratio(X)	1.07	0.00	0.00	0.72	0.00	0.14	0.81	0.90	0.11	0.00	0.00	0.96
Avail Cap(c_a), veh/h	232	0	0	272	0	280	132	1178	1001	571	0	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.7	0.0	0.0	49.1	0.0	48.0	47.1	33.8	25.1	22.9	0.0	20.8
Incr Delay (d2), s/veh	78.2	0.0	0.0	12.7	0.0	0.9	29.4	5.4	0.1	0.0	0.0	17.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	0.0	0.0	1.7	0.0	0.3	4.0	14.7	1.1	0.0	0.0	31.3
LnGrp Delay(d),s/veh	121.9	0.0	0.0	61.8	0.0	48.8	76.5	39.2	25.2	22.9	0.0	38.1
LnGrp LOS	F			E		D	E	D	C	C		D
Approach Vol, veh/h		248			60			669			988	
Approach Delay, s/veh		121.9			59.6			43.8			38.1	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	38.6	36.8		20.0	11.8	63.5		8.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	68.0		16.0	8.0	64.0		16.0
Max Q Clear Time (g_c+I1), s	2.0	30.1		18.0	8.2	56.0		4.9
Green Ext Time (p_c), s	1.1	2.6		0.0	0.0	3.5		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	51.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	13	21	168	3	165	4	636	219	545	697	1
Future Volume (veh/h)	7	13	21	168	3	165	4	636	219	545	697	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	7	13	21	168	3	165	4	636	219	545	697	1
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	12	28	45	150	3	189	7	609	210	514	1385	2
Arrive On Green	0.01	0.04	0.04	0.09	0.12	0.12	0.00	0.46	0.46	0.29	0.75	0.75
Sat Flow, veh/h	1757	636	1027	1757	28	1544	1757	1313	452	1757	1842	3
Grp Volume(v), veh/h	7	0	34	168	0	168	4	0	855	545	0	698
Grp Sat Flow(s),veh/h/ln	1757	0	1663	1757	0	1572	1757	0	1765	1757	0	1844
Q Serve(g_s), s	0.6	0.0	2.8	12.0	0.0	14.7	0.3	0.0	65.0	41.0	0.0	21.1
Cycle Q Clear(g_c), s	0.6	0.0	2.8	12.0	0.0	14.7	0.3	0.0	65.0	41.0	0.0	21.1
Prop In Lane	1.00		0.62	1.00		0.98	1.00		0.26	1.00		0.00
Lane Grp Cap(c), veh/h	12	0	73	150	0	193	7	0	819	514	0	1387
V/C Ratio(X)	0.59	0.00	0.47	1.12	0.00	0.87	0.55	0.00	1.04	1.06	0.00	0.50
Avail Cap(c_a), veh/h	50	0	190	150	0	269	50	0	819	514	0	1387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.4	0.0	65.4	64.1	0.0	60.4	69.6	0.0	37.6	49.6	0.0	6.9
Incr Delay (d2), s/veh	38.1	0.0	4.6	108.1	0.0	19.5	52.8	0.0	43.6	56.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.4	10.3	0.0	7.4	0.3	0.0	41.5	27.9	0.0	10.8
LnGrp Delay(d),s/veh	107.5	0.0	70.0	172.2	0.0	79.9	122.4	0.0	81.2	106.2	0.0	7.2
LnGrp LOS	F		E	F		E	F		F	F		A
Approach Vol, veh/h		41			336			859			1243	
Approach Delay, s/veh		76.4			126.0			81.4			50.6	
Approach LOS		E			F			F			D	

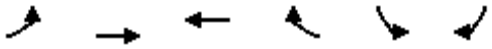
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	45.0	69.0	16.0	10.1	4.6	109.4	5.0	21.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	41.0	65.0	12.0	16.0	4.0	102.0	4.0	24.0
Max Q Clear Time (g_c+I1), s	43.0	67.0	14.0	4.8	2.3	23.1	2.6	16.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	11.6	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	71.9
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	12	14	1	6	4	10	503	0	3	645	305
Future Volume (veh/h)	279	12	14	1	6	4	10	503	0	3	645	305
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	279	12	14	1	6	4	10	503	0	3	645	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	353	15	328	2	11	7	18	817	0	6	803	683
Arrive On Green	0.21	0.21	0.21	0.01	0.01	0.01	0.01	0.44	0.00	0.00	0.44	0.00
Sat Flow, veh/h	1688	73	1568	157	941	628	1757	1845	0	1757	1845	1568
Grp Volume(v), veh/h	291	0	14	11	0	0	10	503	0	3	645	0
Grp Sat Flow(s),veh/h/ln	1760	0	1568	1726	0	0	1757	1845	0	1757	1845	1568
Q Serve(g_s), s	7.5	0.0	0.3	0.3	0.0	0.0	0.3	10.0	0.0	0.1	14.5	0.0
Cycle Q Clear(g_c), s	7.5	0.0	0.3	0.3	0.0	0.0	0.3	10.0	0.0	0.1	14.5	0.0
Prop In Lane	0.96		1.00	0.09		0.36	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	368	0	328	20	0	0	18	817	0	6	803	683
V/C Ratio(X)	0.79	0.00	0.04	0.56	0.00	0.00	0.55	0.62	0.00	0.52	0.80	0.00
Avail Cap(c_a), veh/h	587	0	523	576	0	0	147	1077	0	147	1077	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.0	0.0	15.1	23.6	0.0	0.0	23.6	10.2	0.0	23.9	11.7	0.0
Incr Delay (d2), s/veh	3.9	0.0	0.1	22.7	0.0	0.0	23.1	0.8	0.0	58.3	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.2	0.3	0.0	0.0	0.2	5.2	0.0	0.1	8.1	0.0
LnGrp Delay(d),s/veh	21.8	0.0	15.2	46.3	0.0	0.0	46.7	11.0	0.0	82.2	15.0	0.0
LnGrp LOS	C		B	D			D	B		F	B	
Approach Vol, veh/h		305			11			513			648	
Approach Delay, s/veh		21.5			46.3			11.7			15.3	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.2	25.2		14.0	4.5	24.9		4.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	28.0		16.0	4.0	28.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	12.0		9.5	2.3	16.5		2.3
Green Ext Time (p_c), s	0.0	5.1		0.7	0.0	4.3		0.0

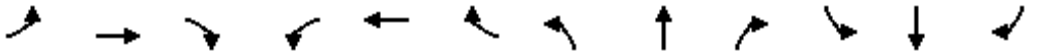
Intersection Summary		
HCM 2010 Ctrl Delay		15.6
HCM 2010 LOS		B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	6	91	528	522	0
Future Volume (veh/h)	0	6	91	528	522	0
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	0	6	91	528	522	0
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	5	1395	698	624	644	575
Arrive On Green	0.00	0.40	0.40	0.40	0.37	0.00
Sat Flow, veh/h	1757	3597	1845	1568	1757	1568
Grp Volume(v), veh/h	0	6	91	528	522	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1752	1568	1757	1568
Q Serve(g_s), s	0.0	0.0	1.1	10.4	9.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.1	10.4	9.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	5	1395	698	624	644	575
V/C Ratio(X)	0.00	0.00	0.13	0.85	0.81	0.00
Avail Cap(c_a), veh/h	207	2475	825	738	930	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	6.2	6.5	9.3	9.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	7.9	3.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	5.8	5.0	0.0
LnGrp Delay(d),s/veh	0.0	6.2	6.6	17.1	13.3	0.0
LnGrp LOS		A	A	B	B	
Approach Vol, veh/h		6	619		522	
Approach Delay, s/veh		6.2	15.6		13.3	
Approach LOS		A	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				17.5		16.5	0.0	17.5
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				24.0		18.0	4.0	16.0
Max Q Clear Time (g_c+I1), s				2.0		11.1	0.0	12.4
Green Ext Time (p_c), s				3.2		1.4	0.0	1.1

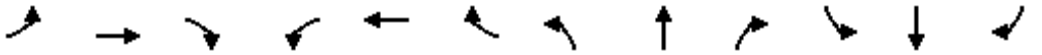
Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	2118	0	64	2112	0	4	3	73	106	4	0
Future Volume (veh/h)	134	2118	0	64	2112	0	4	3	73	106	4	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	134	2118	0	64	2112	0	4	3	73	106	4	0
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	165	2760	0	80	2516	0	6	145	123	135	280	238
Arrive On Green	0.09	0.55	0.00	0.05	0.50	0.00	0.00	0.08	0.08	0.08	0.15	0.00
Sat Flow, veh/h	1757	5202	0	1757	5202	0	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	134	2118	0	64	2112	0	4	3	73	106	4	0
Grp Sat Flow(s),veh/h/ln	1757	1679	0	1757	1679	0	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	4.8	20.9	0.0	2.3	23.0	0.0	0.1	0.1	2.9	3.8	0.1	0.0
Cycle Q Clear(g_c), s	4.8	20.9	0.0	2.3	23.0	0.0	0.1	0.1	2.9	3.8	0.1	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	2760	0	80	2516	0	6	145	123	135	280	238
V/C Ratio(X)	0.81	0.77	0.00	0.80	0.84	0.00	0.71	0.02	0.59	0.79	0.01	0.00
Avail Cap(c_a), veh/h	165	2765	0	83	2528	0	83	463	394	138	521	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.3	11.2	0.0	30.1	13.7	0.0	31.7	27.1	28.4	28.9	23.0	0.0
Incr Delay (d2), s/veh	25.2	1.3	0.0	39.6	2.7	0.0	96.2	0.1	4.5	24.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	10.0	0.0	2.0	11.2	0.0	0.2	0.1	1.4	2.8	0.1	0.0
LnGrp Delay(d),s/veh	53.5	12.6	0.0	69.7	16.4	0.0	127.9	27.2	32.9	53.8	23.0	0.0
LnGrp LOS	D	B		E	B		F	C	C	D	C	
Approach Vol, veh/h		2252			2176			80			110	
Approach Delay, s/veh		15.0			18.0			37.4			52.6	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	9.0	6.9	38.9	4.2	13.7	10.0	35.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	16.0	3.0	35.0	3.0	18.0	6.0	32.0
Max Q Clear Time (g_c+I1), s	5.8	4.9	4.3	22.9	2.1	2.1	6.8	25.0
Green Ext Time (p_c), s	0.0	0.1	0.0	11.7	0.0	0.2	0.0	6.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	1331	682	141	982	0	635	158	155	85	267	357
Future Volume (veh/h)	295	1331	682	141	982	0	635	158	155	85	267	357
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	295	1331	682	141	982	0	635	158	155	85	267	357
Adj No. of Lanes	1	3	1	2	3	1	2	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	329	1637	510	213	1007	314	682	646	549	109	392	333
Arrive On Green	0.19	0.32	0.32	0.06	0.20	0.00	0.20	0.35	0.35	0.06	0.21	0.21
Sat Flow, veh/h	1757	5036	1568	3408	5036	1568	3408	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	295	1331	682	141	982	0	635	158	155	85	267	357
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1704	1679	1568	1704	1845	1568	1757	1845	1568
Q Serve(g_s), s	13.1	19.4	26.0	3.2	15.5	0.0	14.7	4.9	5.7	3.8	10.7	17.0
Cycle Q Clear(g_c), s	13.1	19.4	26.0	3.2	15.5	0.0	14.7	4.9	5.7	3.8	10.7	17.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	329	1637	510	213	1007	314	682	646	549	109	392	333
V/C Ratio(X)	0.90	0.81	1.34	0.66	0.97	0.00	0.93	0.24	0.28	0.78	0.68	1.07
Avail Cap(c_a), veh/h	329	1637	510	213	1007	314	682	646	549	198	392	333
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	24.8	27.0	36.7	31.8	0.0	31.5	18.5	18.7	37.0	29.0	31.5
Incr Delay (d2), s/veh	25.4	3.3	165.1	7.4	22.4	0.0	19.6	0.2	0.3	11.1	4.7	69.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	9.5	34.6	1.7	9.3	0.0	8.7	2.5	2.5	2.2	5.9	13.8
LnGrp Delay(d),s/veh	57.2	28.0	192.1	44.1	54.2	0.0	51.1	18.7	19.0	48.1	33.8	101.1
LnGrp LOS	E	C	F	D	D		D	B	B	D	C	F
Approach Vol, veh/h		2308			1123			948			709	
Approach Delay, s/veh		80.2			52.9			40.4			69.4	
Approach LOS		F			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	32.0	9.0	30.0	20.0	21.0	19.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	24.0	5.0	26.0	16.0	17.0	15.0	16.0
Max Q Clear Time (g_c+I1), s	5.8	7.7	5.2	28.0	16.7	19.0	15.1	17.5
Green Ext Time (p_c), s	0.1	3.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	65.3
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1434	59	33	940	3	184	0	0	4	0	23
Future Volume (veh/h)	44	1434	59	33	940	3	184	0	0	4	0	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	44	1434	59	33	940	3	184	0	0	4	0	23
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	51	1932	79	40	1985	6	233	371	316	6	133	113
Arrive On Green	0.03	0.39	0.39	0.02	0.38	0.38	0.13	0.00	0.00	0.00	0.00	0.07
Sat Flow, veh/h	1757	4962	204	1757	5182	17	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	44	970	523	33	609	334	184	0	0	4	0	23
Grp Sat Flow(s),veh/h/ln	1757	1679	1809	1757	1679	1842	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.0	10.4	10.4	0.8	5.7	5.7	4.2	0.0	0.0	0.1	0.0	0.6
Cycle Q Clear(g_c), s	1.0	10.4	10.4	0.8	5.7	5.7	4.2	0.0	0.0	0.1	0.0	0.6
Prop In Lane	1.00		0.11	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	51	1307	704	40	1286	705	233	371	316	6	133	113
V/C Ratio(X)	0.86	0.74	0.74	0.82	0.47	0.47	0.79	0.00	0.00	0.70	0.00	0.20
Avail Cap(c_a), veh/h	168	1367	736	126	1286	706	294	928	789	126	751	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.2	10.9	10.9	20.3	9.7	9.7	17.5	0.0	0.0	20.8	0.0	18.3
Incr Delay (d2), s/veh	31.0	2.1	3.9	32.0	0.3	0.5	10.7	0.0	0.0	93.4	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.1	5.8	0.7	2.7	3.0	2.7	0.0	0.0	0.2	0.0	0.3
LnGrp Delay(d),s/veh	51.1	13.1	14.8	52.3	10.0	10.2	28.2	0.0	0.0	114.2	0.0	19.1
LnGrp LOS	D	B	B	D	A	B	C			F		B
Approach Vol, veh/h		1537			976			184			27	
Approach Delay, s/veh		14.8			11.5			28.2			33.2	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.1	12.4	5.0	20.3	9.5	7.0	5.2	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	21.0	3.0	17.0	7.0	17.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	2.1	0.0	2.8	12.4	6.2	2.6	3.0	7.7
Green Ext Time (p_c), s	0.0	0.0	0.0	3.9	0.1	0.0	0.0	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	1269	92	64	876	19	50	8	82	92	6	49
Future Volume (veh/h)	75	1269	92	64	876	19	50	8	82	92	6	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	75	1269	92	64	876	19	50	8	82	92	6	49
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	93	1902	138	77	1968	43	59	195	165	116	254	216
Arrive On Green	0.05	0.40	0.40	0.04	0.39	0.39	0.03	0.11	0.11	0.07	0.14	0.14
Sat Flow, veh/h	1757	4793	347	1757	5073	110	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	75	889	472	64	579	316	50	8	82	92	6	49
Grp Sat Flow(s),veh/h/ln	1757	1679	1783	1757	1679	1825	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.7	9.0	9.0	1.5	5.3	5.3	1.2	0.2	2.0	2.1	0.1	1.1
Cycle Q Clear(g_c), s	1.7	9.0	9.0	1.5	5.3	5.3	1.2	0.2	2.0	2.1	0.1	1.1
Prop In Lane	1.00		0.19	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	1332	708	77	1303	708	59	195	165	116	254	216
V/C Ratio(X)	0.81	0.67	0.67	0.83	0.44	0.45	0.84	0.04	0.50	0.79	0.02	0.23
Avail Cap(c_a), veh/h	255	1465	778	170	1303	708	255	715	608	255	715	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	10.2	10.2	19.6	9.3	9.3	19.8	16.6	17.4	19.0	15.4	15.8
Incr Delay (d2), s/veh	15.1	1.0	1.9	19.2	0.2	0.4	25.9	0.1	2.3	11.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.3	4.7	1.1	2.5	2.7	1.0	0.1	1.0	1.4	0.1	0.5
LnGrp Delay(d),s/veh	34.4	11.2	12.1	38.8	9.6	9.8	45.7	16.7	19.7	30.6	15.4	16.4
LnGrp LOS	C	B	B	D	A	A	D	B	B	C	B	B
Approach Vol, veh/h		1436			959			140			147	
Approach Delay, s/veh		12.7			11.6			28.8			25.2	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	8.4	5.8	20.4	5.4	9.7	6.2	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	16.0	4.0	18.0	6.0	16.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	4.1	4.0	3.5	11.0	3.2	3.1	3.7	7.3
Green Ext Time (p_c), s	0.0	0.3	0.0	5.4	0.0	0.3	0.0	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	62	25	58	989	1441	104
Future Volume (veh/h)	62	25	58	989	1441	104
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	62	25	58	989	1441	104
Adj No. of Lanes	1	1	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	96	86	71	1433	2163	155
Arrive On Green	0.05	0.05	0.04	0.78	0.65	0.65
Sat Flow, veh/h	1757	1568	1757	1845	3409	238
Grp Volume(v), veh/h	62	25	58	989	759	786
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1845	1752	1803
Q Serve(g_s), s	1.6	0.7	1.6	12.3	12.6	12.8
Cycle Q Clear(g_c), s	1.6	0.7	1.6	12.3	12.6	12.8
Prop In Lane	1.00	1.00	1.00			0.13
Lane Grp Cap(c), veh/h	96	86	71	1433	1143	1176
V/C Ratio(X)	0.64	0.29	0.81	0.69	0.66	0.67
Avail Cap(c_a), veh/h	554	495	333	2018	1438	1479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	21.6	22.6	2.5	5.1	5.1
Incr Delay (d2), s/veh	7.0	1.8	19.2	0.6	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.7	1.1	6.0	6.2	6.4
LnGrp Delay(d),s/veh	29.0	23.4	41.8	3.2	5.9	5.9
LnGrp LOS	C	C	D	A	A	A
Approach Vol, veh/h	87			1047	1545	
Approach Delay, s/veh	27.4			5.3	5.9	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		40.9		6.6	5.9	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		52.0		15.0	9.0	39.0		
Max Q Clear Time (g_c+I1), s		14.3		3.6	3.6	14.8		
Green Ext Time (p_c), s		21.3		0.2	0.1	16.2		

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	134	225	1167	2150	39
Future Volume (veh/h)	36	134	225	1167	2150	39
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	36	134	225	1167	2150	39
Adj No. of Lanes	1	1	1	3	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	200	179	271	3793	2711	49
Arrive On Green	0.11	0.11	0.15	0.75	0.53	0.53
Sat Flow, veh/h	1757	1568	1757	5202	5259	92
Grp Volume(v), veh/h	36	134	225	1167	1416	773
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1679	1679	1828
Q Serve(g_s), s	1.1	5.0	7.5	4.5	20.6	20.6
Cycle Q Clear(g_c), s	1.1	5.0	7.5	4.5	20.6	20.6
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	200	179	271	3793	1787	973
V/C Ratio(X)	0.18	0.75	0.83	0.31	0.79	0.79
Avail Cap(c_a), veh/h	437	390	292	3928	1839	1001
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	25.9	24.7	2.4	11.4	11.4
Incr Delay (d2), s/veh	0.4	6.1	16.9	0.0	2.4	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.5	4.9	2.1	10.0	11.5
LnGrp Delay(d),s/veh	24.6	32.0	41.6	2.4	13.8	15.8
LnGrp LOS	C	C	D	A	B	B
Approach Vol, veh/h	170			1392	2189	
Approach Delay, s/veh	30.4			8.8	14.5	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		49.4		10.9	13.3	36.1		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		47.0		15.0	10.0	33.0		
Max Q Clear Time (g_c+I1), s		6.5		7.0	9.5	22.6		
Green Ext Time (p_c), s		30.2		0.3	0.0	9.4		

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	170	47	52	717	988	125
Future Volume (veh/h)	170	47	52	717	988	125
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	170	47	52	717	988	125
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	239	214	61	2176	1455	184
Arrive On Green	0.14	0.14	0.03	0.62	0.46	0.46
Sat Flow, veh/h	1757	1568	1757	3597	3223	396
Grp Volume(v), veh/h	170	47	52	717	553	560
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1775
Q Serve(g_s), s	3.0	0.9	1.0	3.2	8.1	8.1
Cycle Q Clear(g_c), s	3.0	0.9	1.0	3.2	8.1	8.1
Prop In Lane	1.00	1.00	1.00			0.22
Lane Grp Cap(c), veh/h	239	214	61	2176	814	825
V/C Ratio(X)	0.71	0.22	0.86	0.33	0.68	0.68
Avail Cap(c_a), veh/h	374	333	160	2662	958	970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	12.7	15.8	3.0	6.9	6.9
Incr Delay (d2), s/veh	3.9	0.5	27.2	0.1	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.8	0.9	1.5	4.2	4.2
LnGrp Delay(d),s/veh	17.5	13.2	43.0	3.1	8.4	8.4
LnGrp LOS	B	B	D	A	A	A
Approach Vol, veh/h	217			769	1113	
Approach Delay, s/veh	16.5			5.8	8.4	
Approach LOS	B			A	A	

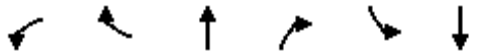
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		24.4		8.5	5.1	19.3		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		25.0		7.0	3.0	18.0		
Max Q Clear Time (g_c+I1), s		5.2		5.0	3.0	10.1		
Green Ext Time (p_c), s		9.4		0.2	0.0	5.2		

Intersection Summary	
HCM 2010 Ctrl Delay	8.3
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	248	28	118	873	1106	155
Future Volume (veh/h)	248	28	118	873	1106	155
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	248	28	118	873	1106	155
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	321	287	151	2288	1498	209
Arrive On Green	0.18	0.18	0.09	0.65	0.48	0.48
Sat Flow, veh/h	1757	1568	1757	3597	3181	432
Grp Volume(v), veh/h	248	28	118	873	626	635
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1768
Q Serve(g_s), s	6.5	0.7	3.2	5.6	14.0	14.0
Cycle Q Clear(g_c), s	6.5	0.7	3.2	5.6	14.0	14.0
Prop In Lane	1.00	1.00	1.00			0.24
Lane Grp Cap(c), veh/h	321	287	151	2288	850	857
V/C Ratio(X)	0.77	0.10	0.78	0.38	0.74	0.74
Avail Cap(c_a), veh/h	541	483	217	2664	972	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	16.5	21.8	3.9	10.1	10.1
Incr Delay (d2), s/veh	3.9	0.1	11.1	0.1	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.7	2.0	2.7	7.2	7.3
LnGrp Delay(d),s/veh	22.9	16.7	33.0	4.0	12.6	12.7
LnGrp LOS	C	B	C	A	B	B
Approach Vol, veh/h	276			991	1261	
Approach Delay, s/veh	22.2			7.5	12.7	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		35.8		12.9	8.2	27.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		37.0		15.0	6.0	27.0		
Max Q Clear Time (g_c+I1), s		7.6		8.5	5.2	16.0		
Green Ext Time (p_c), s		14.0		0.6	0.0	7.6		

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	105	1579	0	138	2206
Future Volume (veh/h)	0	105	1579	0	138	2206
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	0	105	1579	0	138	2206
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	148	132	3271	0	179	2826
Arrive On Green	0.00	0.08	0.65	0.00	0.10	0.81
Sat Flow, veh/h	1757	1568	5368	0	1757	3597
Grp Volume(v), veh/h	0	105	1579	0	138	2206
Grp Sat Flow(s),veh/h/ln	1757	1568	1679	0	1757	1752
Q Serve(g_s), s	0.0	4.8	11.7	0.0	5.6	24.0
Cycle Q Clear(g_c), s	0.0	4.8	11.7	0.0	5.6	24.0
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	148	132	3271	0	179	2826
V/C Ratio(X)	0.00	0.80	0.48	0.00	0.77	0.78
Avail Cap(c_a), veh/h	386	344	3271	0	434	3173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	32.8	6.5	0.0	31.9	3.7
Incr Delay (d2), s/veh	0.0	10.4	0.1	0.0	6.9	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	5.3	0.0	3.0	11.5
LnGrp Delay(d),s/veh	0.0	43.1	6.6	0.0	38.8	4.9
LnGrp LOS		D	A		D	A
Approach Vol, veh/h	105		1579			2344
Approach Delay, s/veh	43.1		6.6			6.9
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		62.8			11.4	51.4		10.1
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		66.0			18.0	44.0		16.0
Max Q Clear Time (g_c+I1), s		26.0			7.6	13.7		6.8
Green Ext Time (p_c), s		32.8			0.3	27.3		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	665	519	76	706	547	0	156	839	591	51	1606	514
Future Volume (veh/h)	665	519	76	706	547	0	156	839	591	51	1606	514
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	665	519	76	706	547	0	156	839	591	51	1606	514
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	731	645	289	731	645	289	172	1876	584	92	1757	547
Arrive On Green	0.21	0.18	0.18	0.21	0.18	0.00	0.05	0.37	0.37	0.03	0.35	0.35
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	665	519	76	706	547	0	156	839	591	51	1606	514
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	15.1	11.2	3.3	16.3	12.0	0.0	3.6	9.9	29.5	1.2	24.2	25.2
Cycle Q Clear(g_c), s	15.1	11.2	3.3	16.3	12.0	0.0	3.6	9.9	29.5	1.2	24.2	25.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	731	645	289	731	645	289	172	1876	584	92	1757	547
V/C Ratio(X)	0.91	0.80	0.26	0.97	0.85	0.00	0.91	0.45	1.01	0.55	0.91	0.94
Avail Cap(c_a), veh/h	731	664	297	731	664	297	172	1876	584	129	1780	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	31.0	27.7	30.8	31.3	0.0	37.4	18.7	24.9	38.1	24.7	25.0
Incr Delay (d2), s/veh	15.4	7.0	0.5	25.0	9.9	0.0	42.9	0.2	40.3	5.1	7.7	24.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	6.0	1.5	10.2	6.7	0.0	2.7	4.6	19.1	0.6	12.4	14.4
LnGrp Delay(d),s/veh	45.7	38.0	28.2	55.8	41.1	0.0	80.3	18.9	65.1	43.2	32.3	49.0
LnGrp LOS	D	D	C	E	D		F	B	F	D	C	D
Approach Vol, veh/h		1260			1253			1586			2171	
Approach Delay, s/veh		41.5			49.4			42.2			36.5	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	33.5	21.0	18.6	8.0	31.6	21.0	18.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	29.0	17.0	15.0	4.0	28.0	17.0	15.0
Max Q Clear Time (g_c+I1), s	3.2	31.5	18.3	13.2	5.6	27.2	17.1	14.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	0.5	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	41.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	608	102	54	705	24	42	3	30	20	2	81
Future Volume (veh/h)	74	608	102	54	705	24	42	3	30	20	2	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	74	608	102	54	705	24	42	3	30	20	2	81
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	89	1062	178	63	1171	40	51	236	200	27	210	179
Arrive On Green	0.05	0.35	0.35	0.04	0.34	0.34	0.03	0.13	0.13	0.02	0.11	0.11
Sat Flow, veh/h	1757	3005	503	1757	3459	118	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	74	354	356	54	357	372	42	3	30	20	2	81
Grp Sat Flow(s),veh/h/ln	1757	1752	1756	1757	1752	1824	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.4	5.6	5.6	1.0	5.8	5.8	0.8	0.0	0.6	0.4	0.0	1.7
Cycle Q Clear(g_c), s	1.4	5.6	5.6	1.0	5.8	5.8	0.8	0.0	0.6	0.4	0.0	1.7
Prop In Lane	1.00		0.29	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	619	621	63	593	617	51	236	200	27	210	179
V/C Ratio(X)	0.83	0.57	0.57	0.86	0.60	0.60	0.83	0.01	0.15	0.75	0.01	0.45
Avail Cap(c_a), veh/h	205	769	770	205	769	800	154	917	779	154	917	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	9.0	9.0	16.4	9.4	9.4	16.5	13.0	13.3	16.8	13.4	14.2
Incr Delay (d2), s/veh	17.4	0.8	0.8	26.3	1.0	0.9	27.3	0.0	0.3	33.7	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.8	2.8	1.0	2.9	3.1	0.8	0.0	0.3	0.4	0.0	0.8
LnGrp Delay(d),s/veh	33.5	9.8	9.8	42.7	10.4	10.3	43.9	13.1	13.6	50.4	13.5	15.9
LnGrp LOS	C	A	A	D	B	B	D	B	B	D	B	B
Approach Vol, veh/h		784			783			75			103	
Approach Delay, s/veh		12.0			12.6			30.5			22.6	
Approach LOS		B			B			C			C	

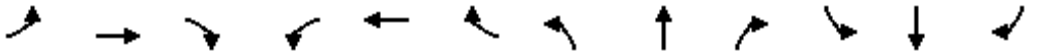
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	8.4	5.2	16.1	5.0	7.9	5.7	15.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	17.0	4.0	15.0	3.0	17.0	4.0	15.0
Max Q Clear Time (g_c+I1), s	2.4	2.6	3.0	7.6	2.8	3.7	3.4	7.8
Green Ext Time (p_c), s	0.0	0.3	0.0	3.8	0.0	0.2	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	1796	72	45	1577	67	149	8	0	94	10	80
Future Volume (veh/h)	84	1796	72	45	1577	67	149	8	0	94	10	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	84	1796	72	45	1577	67	149	8	0	94	10	80
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	106	2316	93	54	2162	92	188	190	0	158	158	134
Arrive On Green	0.06	0.47	0.47	0.03	0.44	0.44	0.11	0.10	0.00	0.09	0.09	0.09
Sat Flow, veh/h	1757	4968	199	1757	4954	210	1757	1845	0	1757	1845	1568
Grp Volume(v), veh/h	84	1213	655	45	1069	575	149	8	0	94	10	80
Grp Sat Flow(s),veh/h/ln	1757	1679	1810	1757	1679	1808	1757	1845	0	1757	1845	1568
Q Serve(g_s), s	2.4	15.6	15.6	1.3	13.6	13.6	4.3	0.2	0.0	2.7	0.3	2.5
Cycle Q Clear(g_c), s	2.4	15.6	15.6	1.3	13.6	13.6	4.3	0.2	0.0	2.7	0.3	2.5
Prop In Lane	1.00		0.11	1.00		0.12	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	1565	843	54	1465	789	188	190	0	158	158	134
V/C Ratio(X)	0.79	0.78	0.78	0.84	0.73	0.73	0.79	0.04	0.00	0.60	0.06	0.60
Avail Cap(c_a), veh/h	136	1565	843	102	1499	807	205	609	0	171	573	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	11.5	11.5	24.8	12.0	12.0	22.4	20.8	0.0	22.6	21.7	22.7
Incr Delay (d2), s/veh	21.3	2.5	4.6	27.4	1.8	3.3	17.6	0.1	0.0	4.9	0.2	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	7.6	8.7	1.0	6.6	7.4	3.0	0.1	0.0	1.5	0.1	1.2
LnGrp Delay(d),s/veh	45.2	14.0	16.1	52.2	13.8	15.3	40.0	20.9	0.0	27.4	21.8	26.9
LnGrp LOS	D	B	B	D	B	B	D	C		C	C	C
Approach Vol, veh/h		1952			1689			157			184	
Approach Delay, s/veh		16.1			15.3			39.0			26.9	
Approach LOS		B			B			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	9.3	5.6	28.0	9.5	8.4	7.1	26.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	17.0	3.0	24.0	6.0	16.0	4.0	23.0
Max Q Clear Time (g_c+I1), s	4.7	2.2	3.3	17.6	6.3	4.5	4.4	15.6
Green Ext Time (p_c), s	0.0	0.2	0.0	6.0	0.0	0.2	0.0	6.9

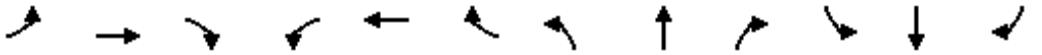
Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	1209	1135	30	816	20	977	75	75	40	97	206
Future Volume (veh/h)	132	1209	1135	30	816	20	977	75	75	40	97	206
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	132	1209	1135	30	816	20	977	75	75	40	97	206
Adj No. of Lanes	1	3	1	2	2	1	2	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	162	1945	606	58	1090	488	970	748	636	50	276	234
Arrive On Green	0.09	0.39	0.39	0.02	0.31	0.31	0.28	0.41	0.41	0.03	0.15	0.15
Sat Flow, veh/h	1757	5036	1568	3408	3505	1568	3408	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	132	1209	1135	30	816	20	977	75	75	40	97	206
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1704	1752	1568	1704	1845	1568	1757	1845	1568
Q Serve(g_s), s	7.3	19.1	38.0	0.9	20.6	0.9	28.0	2.5	2.9	2.2	4.6	12.7
Cycle Q Clear(g_c), s	7.3	19.1	38.0	0.9	20.6	0.9	28.0	2.5	2.9	2.2	4.6	12.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	1945	606	58	1090	488	970	748	636	50	276	234
V/C Ratio(X)	0.81	0.62	1.87	0.52	0.75	0.04	1.01	0.10	0.12	0.80	0.35	0.88
Avail Cap(c_a), veh/h	196	1945	606	104	1090	488	970	748	636	107	281	239
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	24.4	30.2	47.9	30.4	23.6	35.2	18.1	18.3	47.5	37.6	41.0
Incr Delay (d2), s/veh	19.3	0.6	399.6	6.9	2.9	0.0	30.7	0.1	0.1	23.9	0.8	28.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	9.0	83.6	0.5	10.4	0.4	17.2	1.3	1.3	1.4	2.4	7.3
LnGrp Delay(d),s/veh	63.1	25.0	429.8	54.9	33.3	23.7	65.9	18.2	18.3	71.4	38.3	69.6
LnGrp LOS	E	C	F	D	C	C	F	B	B	E	D	E
Approach Vol, veh/h		2476			866			1127			343	
Approach Delay, s/veh		212.6			33.9			59.5			61.0	
Approach LOS		F			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	43.9	5.7	42.0	32.0	18.7	13.1	34.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	37.0	3.0	38.0	28.0	15.0	11.0	30.0
Max Q Clear Time (g_c+I1), s	4.2	4.9	2.9	40.0	30.0	14.7	9.3	22.6
Green Ext Time (p_c), s	0.0	1.7	0.0	0.0	0.0	0.0	0.1	6.8

Intersection Summary		
HCM 2010 Ctrl Delay		133.8
HCM 2010 LOS		F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	540	96	69	394	190	63	232	24	262	453	215
Future Volume (veh/h)	241	540	96	69	394	190	63	232	24	262	453	215
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	241	540	96	69	394	190	63	232	24	262	453	215
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	373	1067	477	132	819	367	124	625	280	403	912	408
Arrive On Green	0.11	0.30	0.30	0.04	0.23	0.23	0.04	0.18	0.18	0.12	0.26	0.26
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	241	540	96	69	394	190	63	232	24	262	453	215
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	3.0	5.6	2.0	0.9	4.3	4.7	0.8	2.6	0.6	3.3	4.9	5.2
Cycle Q Clear(g_c), s	3.0	5.6	2.0	0.9	4.3	4.7	0.8	2.6	0.6	3.3	4.9	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	373	1067	477	132	819	367	124	625	280	403	912	408
V/C Ratio(X)	0.65	0.51	0.20	0.52	0.48	0.52	0.51	0.37	0.09	0.65	0.50	0.53
Avail Cap(c_a), veh/h	460	1421	635	230	1184	530	230	1263	565	537	1578	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	12.7	11.4	20.9	14.7	14.8	21.0	16.1	15.2	18.7	14.0	14.1
Incr Delay (d2), s/veh	2.2	0.4	0.2	3.2	0.4	1.1	3.2	0.4	0.1	1.8	0.4	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.8	0.9	0.5	2.1	2.1	0.4	1.3	0.3	1.6	2.4	2.4
LnGrp Delay(d),s/veh	21.2	13.1	11.6	24.1	15.1	16.0	24.2	16.4	15.4	20.5	14.4	15.1
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		877			653			319			930	
Approach Delay, s/veh		15.1			16.3			17.9			16.3	
Approach LOS		B			B			B			B	

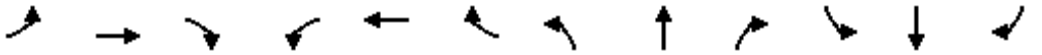
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	11.9	5.7	17.5	5.6	15.6	8.9	14.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	16.0	3.0	18.0	3.0	20.0	6.0	15.0
Max Q Clear Time (g_c+I1), s	5.3	4.6	2.9	7.6	2.8	7.2	5.0	6.7
Green Ext Time (p_c), s	0.2	3.3	0.0	4.2	0.0	3.5	0.1	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	1690	85	144	1471	5	25	962	166	10	949	190
Future Volume (veh/h)	192	1690	85	144	1471	5	25	962	166	10	949	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	192	1690	85	144	1471	5	25	962	166	10	949	190
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	255	1808	563	204	1732	539	76	1162	520	35	1120	501
Arrive On Green	0.07	0.36	0.36	0.06	0.34	0.34	0.02	0.33	0.33	0.01	0.32	0.32
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	192	1690	85	144	1471	5	25	962	166	10	949	190
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	3.7	21.6	2.5	2.8	18.1	0.1	0.5	16.9	5.3	0.2	16.9	6.3
Cycle Q Clear(g_c), s	3.7	21.6	2.5	2.8	18.1	0.1	0.5	16.9	5.3	0.2	16.9	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	1808	563	204	1732	539	76	1162	520	35	1120	501
V/C Ratio(X)	0.75	0.93	0.15	0.71	0.85	0.01	0.33	0.83	0.32	0.29	0.85	0.38
Avail Cap(c_a), veh/h	255	1809	563	204	1733	540	204	1162	520	204	1154	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	20.7	14.5	30.8	20.3	14.4	32.2	20.6	16.7	32.8	21.2	17.6
Incr Delay (d2), s/veh	11.9	9.6	0.1	10.6	4.2	0.0	2.5	5.1	0.4	4.5	5.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	11.6	1.1	1.6	9.0	0.1	0.3	9.0	2.3	0.1	9.1	2.8
LnGrp Delay(d),s/veh	42.2	30.3	14.6	41.4	24.5	14.4	34.7	25.7	17.0	37.4	27.2	18.1
LnGrp LOS	D	C	B	D	C	B	C	C	B	D	C	B
Approach Vol, veh/h		1967			1620			1153			1149	
Approach Delay, s/veh		30.8			26.0			24.6			25.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	26.2	8.0	28.0	5.5	25.4	9.0	27.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	22.0	4.0	24.0	4.0	22.0	5.0	23.0
Max Q Clear Time (g_c+I1), s	2.2	18.9	4.8	23.6	2.5	18.9	5.7	20.1
Green Ext Time (p_c), s	0.0	2.6	0.0	0.4	0.0	2.5	0.0	2.8

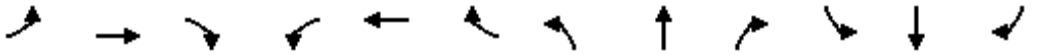
Intersection Summary	
HCM 2010 Ctrl Delay	27.3
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	1077	0	613	981	0	0	155	558	0	166	206
Future Volume (veh/h)	158	1077	0	613	981	0	0	155	558	0	166	206
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	158	1077	0	613	981	0	0	155	558	0	166	206
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	249	1224	0	708	1696	0	3	910	407	3	910	407
Arrive On Green	0.07	0.35	0.00	0.21	0.48	0.00	0.00	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	3408	3597	0	3408	3597	0	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	158	1077	0	613	981	0	0	155	558	0	166	206
Grp Sat Flow(s),veh/h/ln	1704	1752	0	1704	1752	0	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	2.9	18.9	0.0	11.4	13.1	0.0	0.0	2.2	17.0	0.0	2.4	7.3
Cycle Q Clear(g_c), s	2.9	18.9	0.0	11.4	13.1	0.0	0.0	2.2	17.0	0.0	2.4	7.3
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	1224	0	708	1696	0	3	910	407	3	910	407
V/C Ratio(X)	0.63	0.88	0.00	0.87	0.58	0.00	0.00	0.17	1.37	0.00	0.18	0.51
Avail Cap(c_a), veh/h	365	1285	0	729	1696	0	107	910	407	107	910	407
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	20.0	0.0	25.0	12.1	0.0	0.0	18.8	24.2	0.0	18.8	20.6
Incr Delay (d2), s/veh	2.7	7.1	0.0	10.5	0.5	0.0	0.0	0.1	181.5	0.0	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	10.3	0.0	6.4	6.4	0.0	0.0	1.1	27.8	0.0	1.2	3.3
LnGrp Delay(d),s/veh	32.2	27.1	0.0	35.5	12.6	0.0	0.0	18.8	205.8	0.0	18.9	21.7
LnGrp LOS	C	C		D	B			B	F		B	C
Approach Vol, veh/h		1235			1594			713			372	
Approach Delay, s/veh		27.8			21.4			165.1			20.4	
Approach LOS		C			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	21.0	17.6	26.8	0.0	21.0	8.8	35.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	17.0	14.0	24.0	4.0	17.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	0.0	19.0	13.4	20.9	0.0	9.3	4.9	15.1
Green Ext Time (p_c), s	0.0	0.0	0.2	2.0	0.0	2.9	0.1	9.9

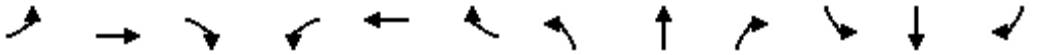
Intersection Summary	
HCM 2010 Ctrl Delay	49.5
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	240	0	1216	162	186	0	565	1167	121	425	36
Future Volume (veh/h)	99	240	0	1216	162	186	0	565	1167	121	425	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	99	240	0	1216	162	186	0	565	1167	121	425	36
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	63	211	179	1217	804	683	1	1302	582	146	1552	694
Arrive On Green	0.04	0.11	0.00	0.36	0.44	0.44	0.00	0.37	0.37	0.04	0.44	0.44
Sat Flow, veh/h	1757	1845	1568	3408	1845	1568	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	99	240	0	1216	162	186	0	565	1167	121	425	36
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1704	1845	1568	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	5.0	16.0	0.0	49.9	7.6	10.6	0.0	16.9	52.0	4.9	10.8	1.8
Cycle Q Clear(g_c), s	5.0	16.0	0.0	49.9	7.6	10.6	0.0	16.9	52.0	4.9	10.8	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	63	211	179	1217	804	683	1	1302	582	146	1552	694
V/C Ratio(X)	1.58	1.14	0.00	1.00	0.20	0.27	0.00	0.43	2.00	0.83	0.27	0.05
Avail Cap(c_a), veh/h	63	211	179	1217	804	683	50	1302	582	146	1552	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.5	62.0	0.0	45.0	24.4	25.3	0.0	33.0	44.0	66.5	24.7	22.2
Incr Delay (d2), s/veh	323.1	104.2	0.0	25.5	0.1	0.2	0.0	0.2	457.8	31.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	14.2	0.0	27.8	3.9	4.6	0.0	8.2	96.5	2.9	5.2	0.8
LnGrp Delay(d),s/veh	390.6	166.2	0.0	70.5	24.6	25.5	0.0	33.2	501.8	97.5	24.8	22.3
LnGrp LOS	F	F		E	C	C		C	F	F	C	C
Approach Vol, veh/h		339			1564			1732			582	
Approach Delay, s/veh		231.8			60.4			348.9			39.8	
Approach LOS		F			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	56.0	54.0	20.0	0.0	66.0	9.0	65.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	52.0	50.0	16.0	4.0	54.0	5.0	61.0
Max Q Clear Time (g_c+I1), s	6.9	54.0	51.9	18.0	0.0	12.8	7.0	12.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	17.8	0.0	2.4

Intersection Summary		
HCM 2010 Ctrl Delay		189.8
HCM 2010 LOS		F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	1	6	4	1	15	7	197	7	38	249	73
Future Volume (veh/h)	99	1	6	4	1	15	7	197	7	38	249	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	99	1	6	4	1	15	7	197	7	38	249	73
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	119	157	134	7	38	32	10	814	29	49	694	199
Arrive On Green	0.07	0.09	0.09	0.00	0.02	0.02	0.01	0.24	0.24	0.03	0.26	0.26
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3453	122	1757	2689	771
Grp Volume(v), veh/h	99	1	6	4	1	15	7	100	104	38	160	162
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1823	1757	1752	1709
Q Serve(g_s), s	1.4	0.0	0.1	0.1	0.0	0.2	0.1	1.1	1.1	0.5	1.8	1.9
Cycle Q Clear(g_c), s	1.4	0.0	0.1	0.1	0.0	0.2	0.1	1.1	1.1	0.5	1.8	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.45
Lane Grp Cap(c), veh/h	119	157	134	7	38	32	10	413	430	49	452	441
V/C Ratio(X)	0.83	0.01	0.04	0.56	0.03	0.47	0.70	0.24	0.24	0.78	0.35	0.37
Avail Cap(c_a), veh/h	356	1270	1079	213	1120	952	213	1135	1181	213	1135	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	10.3	10.4	12.3	11.9	12.0	12.3	7.6	7.7	11.9	7.5	7.5
Incr Delay (d2), s/veh	13.5	0.0	0.1	54.9	0.3	10.1	62.0	0.3	0.3	22.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.1	0.0	0.2	0.2	0.6	0.6	0.5	1.0	1.0
LnGrp Delay(d),s/veh	24.8	10.4	10.5	67.2	12.1	22.1	74.3	7.9	7.9	34.4	8.0	8.0
LnGrp LOS	C	B	B	E	B	C	E	A	A	C	A	A
Approach Vol, veh/h		106			20			211			360	
Approach Delay, s/veh		23.9			30.6			10.1			10.8	
Approach LOS		C			C			B			B	

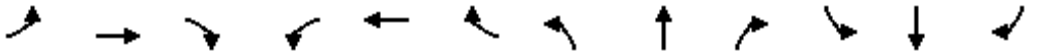
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	9.8	4.1	6.1	4.1	10.4	5.7	4.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	16.0	3.0	17.0	3.0	16.0	5.0	15.0
Max Q Clear Time (g_c+I1), s	2.5	3.1	2.1	2.1	2.1	3.9	3.4	2.2
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	7	0	0	0	8	372	0	0	525	17
Future Volume (veh/h)	5	0	7	0	0	0	8	372	0	0	525	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	5	0	7	0	0	0	8	372	0	0	525	17
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	8	18	15	8	9	7	11	2139	0	8	1434	46
Arrive On Green	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.61	0.00	0.00	0.41	0.41
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3597	0	1757	3465	112
Grp Volume(v), veh/h	5	0	7	0	0	0	8	372	0	0	265	277
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	0	1757	1752	1825
Q Serve(g_s), s	0.1	0.0	0.1	0.0	0.0	0.0	0.1	1.0	0.0	0.0	2.2	2.2
Cycle Q Clear(g_c), s	0.1	0.0	0.1	0.0	0.0	0.0	0.1	1.0	0.0	0.0	2.2	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.06
Lane Grp Cap(c), veh/h	8	18	15	8	9	7	11	2139	0	8	725	755
V/C Ratio(X)	0.60	0.00	0.46	0.00	0.00	0.00	0.70	0.17	0.00	0.00	0.37	0.37
Avail Cap(c_a), veh/h	417	1490	1266	250	1314	1117	250	2664	0	250	1332	1387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	10.4	0.0	0.0	0.0	10.4	1.8	0.0	0.0	4.3	4.3
Incr Delay (d2), s/veh	53.7	0.0	20.4	0.0	0.0	0.0	55.9	0.0	0.0	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.0	0.0	0.0	0.2	0.5	0.0	0.0	1.1	1.1
LnGrp Delay(d),s/veh	64.1	0.0	30.7	0.0	0.0	0.0	66.3	1.8	0.0	0.0	4.6	4.6
LnGrp LOS	E		C				E	A			A	A
Approach Vol, veh/h		12			0			380			542	
Approach Delay, s/veh		44.7			0.0			3.2			4.6	
Approach LOS		D						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	16.8	0.0	4.2	4.1	12.7	4.1	0.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	16.0	3.0	17.0	3.0	16.0	5.0	15.0
Max Q Clear Time (g_c+I1), s	0.0	3.0	0.0	2.1	2.1	4.2	2.1	0.0
Green Ext Time (p_c), s	0.0	4.8	0.0	0.0	0.0	4.5	0.0	0.0

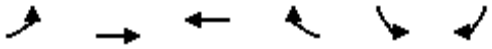
Intersection Summary	
HCM 2010 Ctrl Delay	4.5
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	11	28	102	25	117	15	299	63	62	412	45
Future Volume (veh/h)	25	11	28	102	25	117	15	299	63	62	412	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	25	11	28	102	25	117	15	299	63	62	412	45
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	157	133	126	254	216	21	786	163	72	961	104
Arrive On Green	0.02	0.08	0.08	0.07	0.14	0.14	0.01	0.27	0.27	0.04	0.30	0.30
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	2890	601	1757	3189	347
Grp Volume(v), veh/h	25	11	28	102	25	117	15	180	182	62	225	232
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1739	1757	1752	1784
Q Serve(g_s), s	0.4	0.2	0.5	1.7	0.4	2.1	0.3	2.5	2.6	1.1	3.1	3.1
Cycle Q Clear(g_c), s	0.4	0.2	0.5	1.7	0.4	2.1	0.3	2.5	2.6	1.1	3.1	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		0.19
Lane Grp Cap(c), veh/h	33	157	133	126	254	216	21	477	473	72	528	538
V/C Ratio(X)	0.76	0.07	0.21	0.81	0.10	0.54	0.73	0.38	0.39	0.86	0.43	0.43
Avail Cap(c_a), veh/h	175	917	780	291	1040	884	175	872	865	233	930	946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	12.7	12.9	13.8	11.4	12.1	14.9	8.9	8.9	14.4	8.4	8.5
Incr Delay (d2), s/veh	29.0	0.2	0.8	11.8	0.2	2.1	38.2	0.5	0.5	23.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.1	0.2	1.2	0.2	1.0	0.3	1.3	1.3	1.0	1.6	1.6
LnGrp Delay(d),s/veh	43.7	12.9	13.6	25.6	11.5	14.2	53.1	9.4	9.4	37.9	9.0	9.0
LnGrp LOS	D	B	B	C	B	B	D	A	A	D	A	A
Approach Vol, veh/h		64			244			377			519	
Approach Delay, s/veh		25.3			18.7			11.2			12.5	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	12.2	6.2	6.6	4.4	13.1	4.6	8.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	15.0	5.0	15.0	3.0	16.0	3.0	17.0
Max Q Clear Time (g_c+I1), s	3.1	4.6	3.7	2.5	2.3	5.1	2.4	4.1
Green Ext Time (p_c), s	0.0	3.6	0.0	0.5	0.0	3.7	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	160	918	518	53	27	138
Future Volume (veh/h)	160	918	518	53	27	138
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	160	918	518	53	27	138
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	204	2147	1170	119	215	192
Arrive On Green	0.12	0.61	0.36	0.36	0.12	0.12
Sat Flow, veh/h	1757	3597	3304	328	1757	1568
Grp Volume(v), veh/h	160	918	282	289	27	138
Grp Sat Flow(s),veh/h/ln	1757	1752	1752	1787	1757	1568
Q Serve(g_s), s	2.7	4.2	3.7	3.7	0.4	2.6
Cycle Q Clear(g_c), s	2.7	4.2	3.7	3.7	0.4	2.6
Prop In Lane	1.00			0.18	1.00	1.00
Lane Grp Cap(c), veh/h	204	2147	638	651	215	192
V/C Ratio(X)	0.78	0.43	0.44	0.44	0.13	0.72
Avail Cap(c_a), veh/h	349	3017	928	947	931	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	3.1	7.3	7.3	11.8	12.8
Incr Delay (d2), s/veh	6.5	0.1	0.5	0.5	0.3	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.0	1.8	1.9	0.2	2.4
LnGrp Delay(d),s/veh	19.5	3.2	7.8	7.8	12.1	17.7
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		1078	571		165	
Approach Delay, s/veh		5.6	7.8		16.8	
Approach LOS		A	A		B	

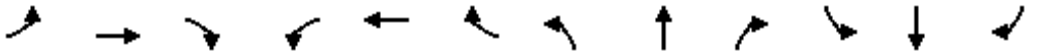
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				22.5		7.7	7.5	15.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				26.0		16.0	6.0	16.0
Max Q Clear Time (g_c+I1), s				6.2		4.6	4.7	5.7
Green Ext Time (p_c), s				7.5		0.4	0.1	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	10	308	32	20	550
Future Volume (veh/h)	21	10	308	32	20	550
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	21	10	308	32	20	550
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	56	50	1127	116	37	2002
Arrive On Green	0.03	0.03	0.35	0.35	0.02	0.57
Sat Flow, veh/h	1757	1568	3300	331	1757	3597
Grp Volume(v), veh/h	21	10	167	173	20	550
Grp Sat Flow(s),veh/h/ln	1757	1568	1752	1786	1757	1752
Q Serve(g_s), s	0.2	0.1	1.4	1.4	0.2	1.6
Cycle Q Clear(g_c), s	0.2	0.1	1.4	1.4	0.2	1.6
Prop In Lane	1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	56	50	616	628	37	2002
V/C Ratio(X)	0.38	0.20	0.27	0.28	0.54	0.27
Avail Cap(c_a), veh/h	1396	1246	1566	1597	349	4525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	9.5	4.7	4.7	9.8	2.2
Incr Delay (d2), s/veh	4.2	2.0	0.2	0.2	11.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.7	0.7	0.2	0.8
LnGrp Delay(d),s/veh	13.7	11.5	4.9	4.9	21.5	2.3
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	31		340			570
Approach Delay, s/veh	13.0		4.9			2.9
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.4	11.1				15.5		4.6
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	18.0				26.0		16.0
Max Q Clear Time (g_c+I1), s	2.2	3.4				3.6		2.2
Green Ext Time (p_c), s	0.0	3.7				4.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	4.0
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	14	65	57	12	32	52	193	96	55	389	127
Future Volume (veh/h)	115	14	65	57	12	32	52	193	96	55	389	127
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	115	14	65	57	12	32	52	193	96	55	389	127
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	245	208	87	183	156	81	630	301	85	719	232
Arrive On Green	0.08	0.13	0.13	0.05	0.10	0.10	0.05	0.27	0.27	0.05	0.28	0.28
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	2303	1100	1757	2608	841
Grp Volume(v), veh/h	115	14	65	57	12	32	52	145	144	55	260	256
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1651	1757	1752	1696
Q Serve(g_s), s	2.1	0.2	1.2	1.0	0.2	0.6	0.9	2.1	2.2	1.0	4.1	4.2
Cycle Q Clear(g_c), s	2.1	0.2	1.2	1.0	0.2	0.6	0.9	2.1	2.2	1.0	4.1	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		0.50
Lane Grp Cap(c), veh/h	146	245	208	87	183	156	81	479	451	85	483	467
V/C Ratio(X)	0.79	0.06	0.31	0.65	0.07	0.21	0.64	0.30	0.32	0.65	0.54	0.55
Avail Cap(c_a), veh/h	381	972	826	327	915	778	218	923	870	218	923	894
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	12.2	12.7	15.1	13.2	13.4	15.1	9.3	9.3	15.1	9.9	10.0
Incr Delay (d2), s/veh	9.1	0.1	0.8	8.0	0.1	0.6	8.1	0.4	0.4	8.1	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.1	0.6	0.7	0.1	0.3	0.6	1.1	1.1	0.7	2.1	2.1
LnGrp Delay(d),s/veh	23.6	12.3	13.5	23.1	13.3	14.0	23.3	9.6	9.7	23.2	10.9	11.0
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	B	B
Approach Vol, veh/h		194			101			341			571	
Approach Delay, s/veh		19.4			19.1			11.8			12.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	12.8	5.6	8.3	5.5	12.9	6.7	7.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	17.0	6.0	17.0	4.0	17.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	3.0	4.2	3.0	3.2	2.9	6.2	4.1	2.6
Green Ext Time (p_c), s	0.0	2.9	0.0	0.3	0.0	2.7	0.1	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	6.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	307	65	310
Demand Flow Rate, veh/h	0	316	67	319
Vehicles Circulating, veh/h	333	67	0	70
Vehicles Exiting, veh/h	56	0	333	313
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	6.5	3.8	6.5
Approach LOS	-	A	A	A

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	316	67	319
Cap Entry Lane, veh/h	1057	1130	1054
Entry HV Adj Factor	0.971	0.973	0.972
Flow Entry, veh/h	307	65	310
Cap Entry, veh/h	1026	1099	1024
V/C Ratio	0.299	0.059	0.303
Control Delay, s/veh	6.5	3.8	6.5
LOS	A	A	A
95th %tile Queue, veh	1	0	1

Intersection	
Intersection Delay, s/veh	6.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	0	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	156	0	77	322
Demand Flow Rate, veh/h	160	0	80	332
Vehicles Circulating, veh/h	332	69	370	0
Vehicles Exiting, veh/h	0	381	122	69
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.7	0.0	5.8	6.1
Approach LOS	A	-	A	A

Lane	Left	Left	Left
Designated Moves	LTR	TR	LT
Assumed Moves	LTR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	160	80	332
Cap Entry Lane, veh/h	811	780	1130
Entry HV Adj Factor	0.975	0.965	0.969
Flow Entry, veh/h	156	77	322
Cap Entry, veh/h	790	753	1095
V/C Ratio	0.197	0.102	0.294
Control Delay, s/veh	6.7	5.8	6.1
LOS	A	A	A
95th %tile Queue, veh	1	0	1

Intersection	
Intersection Delay, s/veh	24.2
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	0	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	201	1586	1486
Demand Flow Rate, veh/h	0	207	1634	1531
Vehicles Circulating, veh/h	1464	1634	0	376
Vehicles Exiting, veh/h	443	0	1464	1465
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	26.2	15.3	33.5
Approach LOS	-	D	C	D

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	207	768	866	720	811
Cap Entry Lane, veh/h	360	1130	1130	852	868
Entry HV Adj Factor	0.971	0.971	0.971	0.970	0.971
Flow Entry, veh/h	201	746	841	699	788
Cap Entry, veh/h	349	1097	1097	827	844
V/C Ratio	0.575	0.680	0.766	0.845	0.934
Control Delay, s/veh	26.2	13.3	17.0	27.3	38.9
LOS	D	B	C	D	E
95th %tile Queue, veh	3	6	8	10	14

Intersection	
Intersection Delay, s/veh	18.2
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	0	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	352	0	1503	1422
Demand Flow Rate, veh/h	363	0	1548	1465
Vehicles Circulating, veh/h	1465	1633	238	0
Vehicles Exiting, veh/h	0	153	1590	1633
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	19.8	0.0	23.1	12.5
Approach LOS	C	-	C	B

Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR
RT Channelized						
Lane Util	0.471	0.529	0.470	0.530	0.470	0.530
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	171	192	728	820	689	776
Cap Entry Lane, veh/h	377	405	945	957	1130	1130
Entry HV Adj Factor	0.968	0.972	0.971	0.972	0.970	0.971
Flow Entry, veh/h	165	187	707	797	668	754
Cap Entry, veh/h	364	394	917	929	1096	1098
V/C Ratio	0.454	0.474	0.770	0.857	0.610	0.687
Control Delay, s/veh	20.1	19.5	19.6	26.3	11.3	13.6
LOS	C	C	C	D	B	B
95th %tile Queue, veh	2	2	8	11	4	6

Intersection	
Intersection Delay, s/veh	21.8
Intersection LOS	C

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	290	634	825
Demand Flow Rate, veh/h	299	653	850
Vehicles Circulating, veh/h	569	338	94
Vehicles Exiting, veh/h	422	606	774
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	13.1	25.1	22.2
Approach LOS	B	D	C

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	299	653	850
Cap Entry Lane, veh/h	640	806	1029
Entry HV Adj Factor	0.970	0.972	0.971
Flow Entry, veh/h	290	634	825
Cap Entry, veh/h	620	783	998
V/C Ratio	0.467	0.810	0.826
Control Delay, s/veh	13.1	25.1	22.2
LOS	B	D	C
95th %tile Queue, veh	2	9	10

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	335	596	588
Demand Flow Rate, veh/h	345	614	605
Vehicles Circulating, veh/h	501	155	193
Vehicles Exiting, veh/h	268	644	653
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	13.3	13.4	14.3
Approach LOS	B	B	B

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	345	614	605
Cap Entry Lane, veh/h	685	968	932
Entry HV Adj Factor	0.971	0.971	0.972
Flow Entry, veh/h	335	596	588
Cap Entry, veh/h	665	940	905
V/C Ratio	0.504	0.634	0.649
Control Delay, s/veh	13.3	13.4	14.3
LOS	B	B	B
95th %tile Queue, veh	3	5	5

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	252	652	625
Demand Flow Rate, veh/h	260	672	643
Vehicles Circulating, veh/h	481	112	127
Vehicles Exiting, veh/h	303	658	614
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	10.3	14.0	13.5
Approach LOS	B	B	B

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	260	672	643
Cap Entry Lane, veh/h	698	1010	995
Entry HV Adj Factor	0.969	0.970	0.971
Flow Entry, veh/h	252	652	625
Cap Entry, veh/h	677	980	967
V/C Ratio	0.372	0.665	0.646
Control Delay, s/veh	10.3	14.0	13.5
LOS	B	B	B
95th %tile Queue, veh	2	5	5

Intersection	
Intersection Delay, s/veh	68.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	356	17	2	621	4	10	8	2	61	11	402
Future Vol, veh/h	62	356	17	2	621	4	10	8	2	61	11	402
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	3	3	3	3	3	3
Mvmt Flow	62	356	17	2	621	4	10	8	2	61	11	402
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	34.8	118.7	12.9	36.4
HCM LOS	D	F	B	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	14%	0%	13%
Vol Thru, %	40%	82%	99%	2%
Vol Right, %	10%	4%	1%	85%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	435	627	474
LT Vol	10	62	2	61
Through Vol	8	356	621	11
RT Vol	2	17	4	402
Lane Flow Rate	20	435	627	474
Geometry Grp	1	1	1	1
Degree of Util (X)	0.049	0.817	1.17	0.843
Departure Headway (Hd)	9.433	7.172	6.715	6.817
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	382	509	545	536
Service Time	7.433	5.172	4.718	4.817
HCM Lane V/C Ratio	0.052	0.855	1.15	0.884
HCM Control Delay	12.9	34.8	118.7	36.4
HCM Lane LOS	B	D	F	E
HCM 95th-tile Q	0.2	7.9	22.1	8.7

Intersection	
Intersection Delay, s/veh	108
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	97	3	22	0	1	1	14	285	1	1	680	325
Future Vol, veh/h	97	3	22	0	1	1	14	285	1	1	680	325
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	97	3	22	0	1	1	14	285	1	1	680	325
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.9	10.1	12.8	148.2
HCM LOS	B	B	B	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	80%	0%	0%
Vol Thru, %	95%	2%	50%	68%
Vol Right, %	0%	18%	50%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	122	2	1006
LT Vol	14	97	0	1
Through Vol	285	3	1	680
RT Vol	1	22	1	325
Lane Flow Rate	300	122	2	1006
Geometry Grp	1	1	1	1
Degree of Util (X)	0.437	0.217	0.004	1.271
Departure Headway (Hd)	5.574	6.978	7.065	4.55
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	651	517	510	795
Service Time	3.574	4.978	5.065	2.595
HCM Lane V/C Ratio	0.461	0.236	0.004	1.265
HCM Control Delay	12.8	11.9	10.1	148.2
HCM Lane LOS	B	B	B	F
HCM 95th-tile Q	2.2	0.8	0	36.7

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	288	0	103	0	19	77	195	136	0
Future Vol, veh/h	0	0	0	288	0	103	0	19	77	195	136	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	288	0	103	0	19	77	195	136	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	0	14	9	11.2
HCM LOS	-	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	74%	100%	0%
Vol Thru, %	20%	100%	0%	0%	100%
Vol Right, %	80%	0%	26%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	0	391	195	136
LT Vol	0	0	288	195	0
Through Vol	19	0	0	0	136
RT Vol	77	0	103	0	0
Lane Flow Rate	96	0	391	195	136
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.137	0	0.544	0.339	0.217
Departure Headway (Hd)	5.151	5.73	5.012	6.262	5.756
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	700	0	712	577	627
Service Time	3.157	3.749	3.093	3.965	3.459
HCM Lane V/C Ratio	0.137	0	0.549	0.338	0.217
HCM Control Delay	9	8.7	14	12.1	10
HCM Lane LOS	A	N	B	B	A
HCM 95th-tile Q	0.5	0	3.3	1.5	0.8

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	25	0	12	1	333	6	190	355	0
Future Vol, veh/h	0	0	0	25	0	12	1	333	6	190	355	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	20	20	20	5	5	5	6	6	6
Mvmt Flow	0	0	0	25	0	12	1	333	6	190	355	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	0	9.6	11.3	17
HCM LOS	-	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	68%	35%
Vol Thru, %	98%	100%	0%	65%
Vol Right, %	2%	0%	32%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	340	0	37	545
LT Vol	1	0	25	190
Through Vol	333	0	0	355
RT Vol	6	0	12	0
Lane Flow Rate	340	0	37	545
Geometry Grp	1	1	1	1
Degree of Util (X)	0.44	0	0.063	0.688
Departure Headway (Hd)	4.66	5.977	6.113	4.547
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	772	0	583	796
Service Time	2.691	4.056	4.182	2.575
HCM Lane V/C Ratio	0.44	0	0.063	0.685
HCM Control Delay	11.3	9.1	9.6	17
HCM Lane LOS	B	N	A	C
HCM 95th-tile Q	2.3	0	0.2	5.6

Intersection	
Intersection Delay, s/veh	82.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	151	52	19	288	3	68	214	9	18	512	135
Future Vol, veh/h	36	151	52	19	288	3	68	214	9	18	512	135
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	3	3	3
Mvmt Flow	36	151	52	19	288	3	68	214	9	18	512	135
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	20.4	26	23.2	156.5
HCM LOS	C	D	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	15%	6%	3%
Vol Thru, %	74%	63%	93%	77%
Vol Right, %	3%	22%	1%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	291	239	310	665
LT Vol	68	36	19	18
Through Vol	214	151	288	512
RT Vol	9	52	3	135
Lane Flow Rate	291	239	310	665
Geometry Grp	1	1	1	1
Degree of Util (X)	0.611	0.518	0.657	1.266
Departure Headway (Hd)	8.184	8.583	8.361	6.853
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	445	423	434	532
Service Time	6.184	6.583	6.361	4.922
HCM Lane V/C Ratio	0.654	0.565	0.714	1.25
HCM Control Delay	23.2	20.4	26	156.5
HCM Lane LOS	C	C	D	F
HCM 95th-tile Q	4	2.9	4.6	26.6

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	66	93	859	95	255	102
Future Vol, veh/h	66	93	859	95	255	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	66	93	859	95	255	102

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1468	477	0	0	954	0
Stage 1	907	-	-	-	-	-
Stage 2	561	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	116	529	-	-	710	-
Stage 1	349	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	74	529	-	-	710	-
Mov Cap-2 Maneuver	191	-	-	-	-	-
Stage 1	349	-	-	-	-	-
Stage 2	339	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.7	0	9.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	191	529	710	-
HCM Lane V/C Ratio	-	-	0.346	0.176	0.359	-
HCM Control Delay (s)	-	-	33.5	13.3	12.9	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	1.4	0.6	1.6	-

Intersection	
Int Delay, s/veh	10.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	299	32	317	158	22	179
Future Vol, veh/h	299	32	317	158	22	179
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	299	32	317	158	22	179

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	619	396	0	0	475	0
Stage 1	396	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	451	651	-	-	1077	-
Stage 1	678	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	441	651	-	-	1077	-
Mov Cap-2 Maneuver	441	-	-	-	-	-
Stage 1	678	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.3	0	0.9
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	455	1077	-
HCM Lane V/C Ratio	-	-	0.727	0.02	-
HCM Control Delay (s)	-	-	31.3	8.4	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	5.8	0.1	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	2302	2106	25	14	30
Future Vol, veh/h	83	2302	2106	25	14	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	190	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	3	3
Mvmt Flow	83	2302	2106	25	14	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2131	0	-	0	3436	1066
Stage 1	-	-	-	-	2119	-
Stage 2	-	-	-	-	1317	-
Critical Hdwy	4.22	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.26	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	238	-	-	-	~ 5	217
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	213	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	238	-	-	-	~ 3	217
Mov Cap-2 Maneuver	-	-	-	-	46	-
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	139	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	67.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	238	-	-	-	99
HCM Lane V/C Ratio	0.349	-	-	-	0.444
HCM Control Delay (s)	28	-	-	-	67.7
HCM Lane LOS	D	-	-	-	F
HCM 95th %tile Q(veh)	1.5	-	-	-	1.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	1	2	0	2	0	69	6	1	466	4
Future Vol, veh/h	2	0	1	2	0	2	0	69	6	1	466	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	0	1	2	0	2	0	69	6	1	466	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	543	545	468	543	544	72	470	0	0	75	0	0
Stage 1	470	470	-	72	72	-	-	-	-	-	-	-
Stage 2	73	75	-	471	472	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	449	444	593	449	445	987	1086	-	-	1518	-	-
Stage 1	572	558	-	935	833	-	-	-	-	-	-	-
Stage 2	934	831	-	571	557	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	448	444	593	448	445	987	1086	-	-	1518	-	-
Mov Cap-2 Maneuver	448	444	-	448	445	-	-	-	-	-	-	-
Stage 1	572	557	-	935	833	-	-	-	-	-	-	-
Stage 2	932	831	-	569	556	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	10.9	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1086	-	-	488	616	1518	-	-
HCM Lane V/C Ratio	-	-	-	0.006	0.006	0.001	-	-
HCM Control Delay (s)	0	-	-	12.4	10.9	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	67	34	33	707	789	132
Future Vol, veh/h	67	34	33	707	789	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	67	34	33	707	789	132

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1628	855	921	0	-	0
Stage 1	855	-	-	-	-	-
Stage 2	773	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	112	356	737	-	-	-
Stage 1	415	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	107	356	737	-	-	-
Mov Cap-2 Maneuver	107	-	-	-	-	-
Stage 1	415	-	-	-	-	-
Stage 2	434	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	78.8	0.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	737	-	140	-	-
HCM Lane V/C Ratio	0.045	-	0.721	-	-
HCM Control Delay (s)	10.1	-	78.8	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.1	-	4.2	-	-

Intersection	
Int Delay, s/veh	41.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	322	119	381	288	168	303
Future Vol, veh/h	322	119	381	288	168	303
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	250	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	322	119	381	288	168	303

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	322	0	1372	322
Stage 1	-	-	-	-	322	-
Stage 2	-	-	-	-	1050	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1232	-	~ 160	717
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	335	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1232	-	~ 111	717
Mov Cap-2 Maneuver	-	-	-	-	~ 111	-
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	231	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.3	130.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	111	717	-	-	1232	-
HCM Lane V/C Ratio	1.514	0.423	-	-	0.309	-
HCM Control Delay (s)	$ 341.2	13.6	-	-	9.2	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	12.3	2.1	-	-	1.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	35.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	125	140	7	0	216	1	8	98	0	1	262	216
Future Vol, veh/h	125	140	7	0	216	1	8	98	0	1	262	216
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	125	140	7	0	216	1	8	98	0	1	262	216

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	147	0	0	850	611	144	660	614	217
Stage 1	-	-	-	-	-	-	394	394	-	217	217	-
Stage 2	-	-	-	-	-	-	456	217	-	443	397	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1318	-	-	1387	-	-	274	401	888	368	399	808
Stage 1	-	-	-	-	-	-	619	595	-	772	712	-
Stage 2	-	-	-	-	-	-	573	712	-	582	593	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1318	-	-	1387	-	-	76	360	888	269	358	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	76	360	-	269	358	-
Stage 1	-	-	-	-	-	-	555	534	-	692	712	-
Stage 2	-	-	-	-	-	-	265	712	-	426	532	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.7	0	25.4	71.3
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	281	1318	-	-	1387	-	-	478
HCM Lane V/C Ratio	0.377	0.095	-	-	-	-	-	1.002
HCM Control Delay (s)	25.4	8	0	-	0	-	-	71.3
HCM Lane LOS	D	A	A	-	A	-	-	F
HCM 95th %tile Q(veh)	1.7	0.3	-	-	0	-	-	13.5

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	84	47	41	110	55	24
Future Vol, veh/h	84	47	41	110	55	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	84	47	41	110	55	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	259	67	79	0	-	0
Stage 1	67	-	-	-	-	-
Stage 2	192	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	728	994	1513	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	707	994	1513	-	-	-
Mov Cap-2 Maneuver	707	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	814	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1513	-	789	-	-
HCM Lane V/C Ratio	0.027	-	0.166	-	-
HCM Control Delay (s)	7.4	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	15	8	142	92	4
Future Vol, veh/h	8	15	8	142	92	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	8	15	8	142	92	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	252	94	96	0	-	0
Stage 1	94	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	734	960	1491	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	730	960	1491	-	-	-
Mov Cap-2 Maneuver	730	-	-	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	863	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1491	-	865	-	-
HCM Lane V/C Ratio	0.005	-	0.027	-	-
HCM Control Delay (s)	7.4	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	187	92	129	130	79	119
Future Vol, veh/h	187	92	129	130	79	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	187	92	129	130	79	119

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	527	139	198	0	-	0
Stage 1	139	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	510	907	1369	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	458	907	1369	-	-	-
Mov Cap-2 Maneuver	458	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	613	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	3.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1369	-	547	-	-
HCM Lane V/C Ratio	0.094	-	0.51	-	-
HCM Control Delay (s)	7.9	0	18.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	2.9	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	57	2	5	106	98	40
Future Vol, veh/h	57	2	5	106	98	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	57	2	5	106	98	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	214	98	98	0	-	0
Stage 1	98	-	-	-	-	-
Stage 2	116	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	772	955	1489	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	769	955	1489	-	-	-
Mov Cap-2 Maneuver	769	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	903	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.3	0
HCM LOS	B		

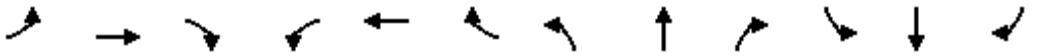
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1489	-	769	955	-	-
HCM Lane V/C Ratio	0.003	-	0.074	0.002	-	-
HCM Control Delay (s)	7.4	-	10.1	8.8	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0	-	-

Appendix B

Cumulative Synchro Reports

Cumulative No Project

AM

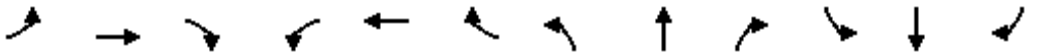


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	0	313	213	485	1251	0	1831	600	0	1693	485
Future Volume (vph)	161	0	313	213	485	1251	0	1831	600	0	1693	485
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00		0.88	0.86	0.81	0.91		0.91	1.00		0.86	1.00
Frt	1.00		0.85	1.00	0.92	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1752		2760	2985	2712	1413		4988	1553		6285	1553
Flt Permitted	0.95		1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	1752		2760	2985	2712	1413		4988	1553		6285	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	161	0	313	213	485	1251	0	1831	600	0	1693	485
RTOR Reduction (vph)	0	0	275	0	36	36	0	0	0	0	0	176
Lane Group Flow (vph)	161	0	38	192	1096	589	0	1831	600	0	1693	309
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm	Split	NA	Perm		NA	Free		NA	Perm
Protected Phases	4			8	8			2			6	
Permitted Phases			4			8			Free			6
Actuated Green, G (s)	14.4		14.4	47.0	47.0	47.0		45.0	118.4		45.0	45.0
Effective Green, g (s)	14.4		14.4	47.0	47.0	47.0		45.0	118.4		45.0	45.0
Actuated g/C Ratio	0.12		0.12	0.40	0.40	0.40		0.38	1.00		0.38	0.38
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	213		335	1184	1076	560		1895	1553		2388	590
v/s Ratio Prot	c0.09			0.06	0.40			c0.37			0.27	
v/s Ratio Perm			0.01			c0.42			0.39			0.20
v/c Ratio	0.76		0.11	0.16	1.11dr	1.05		0.97	0.39		0.71	0.52
Uniform Delay, d1	50.3		46.3	23.0	35.7	35.7		36.0	0.0		31.1	28.4
Progression Factor	1.00		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	14.1		0.2	0.1	32.1	52.3		13.5	0.7		1.0	0.8
Delay (s)	64.4		46.5	23.1	67.8	88.0		49.4	0.7		32.1	29.2
Level of Service	E		D	C	E	F		D	A		C	C
Approach Delay (s)		52.6			69.9			37.4			31.5	
Approach LOS		D			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	45.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	118.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	105.9%	ICU Level of Service	G
Analysis Period (min)	15		

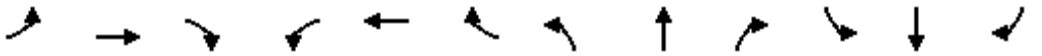
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group



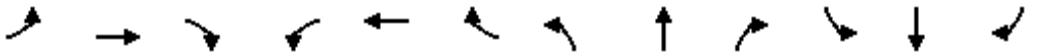
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	613	0	1630	0	0	0	0	1772	785	0	1090	656
Future Volume (vph)	613	0	1630	0	0	0	0	1772	785	0	1090	656
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	613	0	1630	0	0	0	0	1772	785	0	1090	656
RTOR Reduction (vph)	0	0	14	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	613	0	1616	0	0	0	0	1772	785	0	1090	656
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	56.0		56.0					36.0	100.0		36.0	100.0
Effective Green, g (s)	56.0		56.0					36.0	100.0		36.0	100.0
Actuated g/C Ratio	0.56		0.56					0.36	1.00		0.36	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1885		1530					1795	1553		1795	1553
v/s Ratio Prot								c0.36			0.22	
v/s Ratio Perm	0.18		c0.59						0.51			0.42
v/c Ratio	0.33		1.06					0.99	0.51		0.61	0.42
Uniform Delay, d1	11.8		22.0					31.8	0.0		26.2	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1		39.5					18.1	1.2		0.6	0.8
Delay (s)	11.9		61.5					49.9	1.2		26.8	0.8
Level of Service	B		E					D	A		C	A
Approach Delay (s)		48.0			0.0			34.9			17.0	
Approach LOS		D			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	34.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



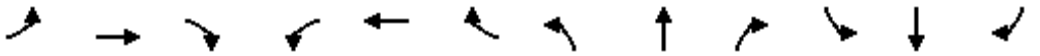
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	152	470	100	104	1046	722	489	1681	87	1131	1601	95
Future Volume (vph)	152	470	100	104	1046	722	489	1681	87	1131	1601	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3380		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3380		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	152	470	100	104	1046	722	489	1681	87	1131	1601	95
RTOR Reduction (vph)	0	16	0	0	0	542	0	0	60	0	0	56
Lane Group Flow (vph)	152	554	0	104	1046	181	489	1681	27	1131	1601	39
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	4.0	24.7		9.3	30.0	30.0	20.3	37.0	37.0	33.0	49.7	49.7
Effective Green, g (s)	4.0	24.7		9.3	30.0	30.0	20.3	37.0	37.0	33.0	49.7	49.7
Actuated g/C Ratio	0.03	0.21		0.08	0.25	0.25	0.17	0.31	0.31	0.28	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	112	695		260	867	683	569	1537	478	925	2065	643
v/s Ratio Prot	c0.05	0.16		0.03	c0.30		0.15	c0.34		c0.34	0.32	
v/s Ratio Perm						0.07			0.02			0.03
v/c Ratio	1.36	0.80		0.40	1.21	0.26	0.86	1.09	0.06	1.22	0.78	0.06
Uniform Delay, d1	58.0	45.3		52.7	45.0	36.1	48.5	41.5	29.2	43.5	30.3	21.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	207.9	6.3		1.0	103.8	0.2	12.3	53.0	0.0	110.0	1.9	0.0
Delay (s)	265.9	51.6		53.7	148.8	36.3	60.8	94.5	29.3	153.5	32.2	21.2
Level of Service	F	D		D	F	D	E	F	C	F	C	C
Approach Delay (s)		96.7			100.1			84.7			80.3	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	88.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	111.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	230	1093	5	499	27	1053	12	2	20	14	210
Future Volume (vph)	142	230	1093	5	499	27	1053	12	2	20	14	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1624	1524		1792	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1624	1524		1792	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	142	230	1093	5	499	27	1053	12	2	20	14	210
RTOR Reduction (vph)	0	0	315	0	0	21	0	0	1	0	0	140
Lane Group Flow (vph)	142	230	778	5	499	6	537	528	1	0	34	70
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.0	24.5	54.6	0.7	18.2	18.2	30.1	30.1	30.1		9.0	9.0
Effective Green, g (s)	7.0	24.5	54.6	0.7	18.2	18.2	30.1	30.1	30.1		9.0	9.0
Actuated g/C Ratio	0.09	0.31	0.68	0.01	0.23	0.23	0.37	0.37	0.37		0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	151	1059	1133	15	786	351	606	608	571		200	175
v/s Ratio Prot	c0.08	0.07	c0.26	0.00	0.14		c0.33	0.33			0.02	
v/s Ratio Perm			0.24			0.00			0.00			c0.04
v/c Ratio	0.94	0.22	0.69	0.33	0.63	0.02	0.89	0.87	0.00		0.17	0.40
Uniform Delay, d1	36.4	20.8	7.7	39.6	28.0	24.1	23.5	23.3	15.7		32.3	33.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	55.4	0.1	1.7	12.7	1.7	0.0	14.5	12.5	0.0		0.4	1.5
Delay (s)	91.9	20.9	9.5	52.2	29.7	24.1	38.0	35.8	15.7		32.7	34.6
Level of Service	F	C	A	D	C	C	D	D	B		C	C
Approach Delay (s)		19.2			29.7			36.9			34.4	
Approach LOS		B			C			D			C	

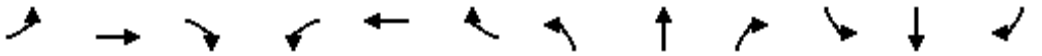
Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	80.3	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	196	32	192	353	66	208	105	368	110	127	34
Future Volume (vph)	26	196	32	192	353	66	208	105	368	110	127	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.98	
Satd. Flow (prot)	1752	3505	1568	1752	3422		1665	1723	1568		3370	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.98	
Satd. Flow (perm)	1752	3505	1568	1752	3422		1665	1723	1568		3370	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	196	32	192	353	66	208	105	368	110	127	34
RTOR Reduction (vph)	0	0	26	0	17	0	0	0	295	0	15	0
Lane Group Flow (vph)	26	196	6	192	402	0	154	159	73	0	256	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	1.7	11.4	11.4	10.5	20.2		11.9	11.9	11.9		9.8	
Effective Green, g (s)	1.7	11.4	11.4	10.5	20.2		11.9	11.9	11.9		9.8	
Actuated g/C Ratio	0.03	0.19	0.19	0.18	0.34		0.20	0.20	0.20		0.16	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	49	670	299	308	1159		332	344	313		554	
v/s Ratio Prot	0.01	0.06		c0.11	c0.12		c0.09	0.09			c0.08	
v/s Ratio Perm			0.00						0.05			
v/c Ratio	0.53	0.29	0.02	0.62	0.35		0.46	0.46	0.23		0.46	
Uniform Delay, d1	28.6	20.6	19.6	22.7	14.8		21.0	21.0	20.0		22.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	10.6	0.2	0.0	3.9	0.2		1.0	1.0	0.4		0.6	
Delay (s)	39.2	20.9	19.6	26.6	14.9		22.1	22.0	20.4		23.1	
Level of Service	D	C	B	C	B		C	C	C		C	
Approach Delay (s)		22.6			18.6			21.2			23.1	
Approach LOS		C			B			C			C	

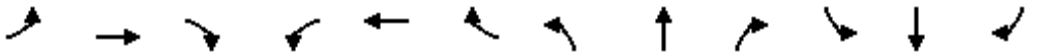
Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



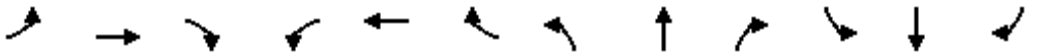
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	718	314	468	773	19	698	48	329	28	144	39
Future Volume (vph)	21	718	314	468	773	19	698	48	329	28	144	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3017		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3017		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	718	314	468	773	19	698	48	329	28	144	39
RTOR Reduction (vph)	0	0	218	0	0	10	0	245	0	0	0	36
Lane Group Flow (vph)	21	718	96	468	773	9	698	132	0	28	144	3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	2.1	28.7	28.7	16.1	42.6	42.6	24.2	24.2		7.2	7.2	7.2
Effective Green, g (s)	2.1	28.7	28.7	16.1	42.6	42.6	24.2	24.2		7.2	7.2	7.2
Actuated g/C Ratio	0.02	0.30	0.30	0.17	0.45	0.45	0.25	0.25		0.08	0.08	0.08
Clearance Time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Vehicle Extension (s)	1.0	4.9	4.9	1.0	4.1	4.1	2.0	2.0		1.0	1.0	1.0
Lane Grp Cap (vph)	38	1058	473	576	1571	703	857	768		132	265	118
v/s Ratio Prot	0.01	c0.20		c0.14	0.22		c0.21	0.04		0.02	c0.04	
v/s Ratio Perm			0.06			0.01						0.00
v/c Ratio	0.55	0.68	0.20	0.81	0.49	0.01	0.81	0.17		0.21	0.54	0.03
Uniform Delay, d1	46.0	29.1	24.6	38.0	18.5	14.5	33.3	27.6		41.2	42.3	40.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	9.5	2.2	0.4	8.1	0.4	0.0	5.7	0.0		0.3	1.2	0.0
Delay (s)	55.5	31.3	25.1	46.1	18.9	14.5	39.0	27.6		41.5	43.5	40.7
Level of Service	E	C	C	D	B	B	D	C		D	D	D
Approach Delay (s)		29.9			28.9			35.0			42.7	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	31.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	22.9
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



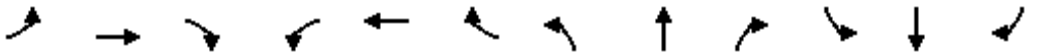
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	956	0	642	0	1270	970	0	604	389
Future Volume (vph)	0	0	0	956	0	642	0	1270	970	0	604	389
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.6		4.6		3.5	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3367		2733		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3367		2733		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	956	0	642	0	1270	970	0	604	389
RTOR Reduction (vph)	0	0	0	0	0	29	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	956	0	613	0	1270	970	0	604	389
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				4				6			2	
Permitted Phases						4			Free			Free
Actuated Green, G (s)				14.7		14.7		15.7	38.5		14.1	38.5
Effective Green, g (s)				14.7		14.7		15.7	38.5		14.1	38.5
Actuated g/C Ratio				0.38		0.38		0.41	1.00		0.37	1.00
Clearance Time (s)				4.6		4.6		3.5			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1285		1043		2034	1553		1826	1553
v/s Ratio Prot				0.28				0.25			0.12	
v/s Ratio Perm						0.22			c0.62			0.25
v/c Ratio				0.74		0.59		0.62	0.62		0.33	0.25
Uniform Delay, d1				10.3		9.5		9.1	0.0		8.8	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				2.1		0.5		0.4	1.9		0.0	0.4
Delay (s)				12.4		10.0		9.5	1.9		8.8	0.4
Level of Service				B		B		A	A		A	A
Approach Delay (s)		0.0			11.4			6.2			5.5	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	38.5	Sum of lost time (s)	9.7
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	756	0	1447	0	0	0	0	1484	1387	0	1309	247
Future Volume (vph)	756	0	1447	0	0	0	0	1484	1387	0	1309	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	756	0	1447	0	0	0	0	1484	1387	0	1309	247
RTOR Reduction (vph)	0	0	14	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	756	0	1433	0	0	0	0	1484	1387	0	1309	247
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	42.3		42.3					25.5	79.3		26.0	79.3
Effective Green, g (s)	42.3		42.3					25.5	79.3		26.0	79.3
Actuated g/C Ratio	0.53		0.53					0.32	1.00		0.33	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1796		1457					1603	1553		1635	1553
v/s Ratio Prot								0.30			0.26	
v/s Ratio Perm	0.22		0.52						c0.89			0.16
v/c Ratio	0.42		0.98					0.93	0.89		0.80	0.16
Uniform Delay, d1	11.1		18.2					26.0	0.0		24.3	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1		19.6					9.4	8.3		2.7	0.2
Delay (s)	11.2		37.8					35.3	8.3		27.0	0.2
Level of Service	B		D					D	A		C	A
Approach Delay (s)		28.7			0.0			22.3			22.8	
Approach LOS		C			A			C			C	

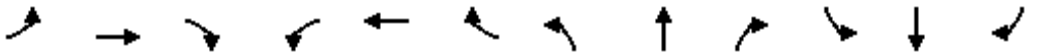
Intersection Summary			
HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	79.3	Sum of lost time (s)	11.5
Intersection Capacity Utilization	85.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	457	2	16	8	1	1	118	151	2	0	41	217
Future Volume (vph)	457	2	16	8	1	1	118	151	2	0	41	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.95			0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1665	1670	1568	1752	1706		1752	3498			3505	1568
Flt Permitted	0.95	0.95	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1665	1670	1568	1752	1706		1752	3498			3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	457	2	16	8	1	1	118	151	2	0	41	217
RTOR Reduction (vph)	0	0	12	0	1	0	0	1	0	0	0	174
Lane Group Flow (vph)	228	231	4	8	1	0	118	152	0	0	41	43
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	10.9	10.9	10.9	0.9	0.9		4.6	16.7			8.1	8.1
Effective Green, g (s)	10.9	10.9	10.9	0.9	0.9		4.6	16.7			8.1	8.1
Actuated g/C Ratio	0.27	0.27	0.27	0.02	0.02		0.11	0.41			0.20	0.20
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	448	449	422	38	37		198	1442			701	313
v/s Ratio Prot	0.14	c0.14		c0.00	0.00		c0.07	0.04			0.01	
v/s Ratio Perm			0.00									c0.03
v/c Ratio	0.51	0.51	0.01	0.21	0.03		0.60	0.11			0.06	0.14
Uniform Delay, d1	12.5	12.6	10.8	19.5	19.4		17.1	7.3			13.1	13.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.9	1.0	0.0	2.8	0.3		4.8	0.0			0.0	0.2
Delay (s)	13.4	13.6	10.9	22.2	19.7		21.8	7.3			13.1	13.5
Level of Service	B	B	B	C	B		C	A			B	B
Approach Delay (s)		13.4			21.7			13.6			13.5	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	40.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

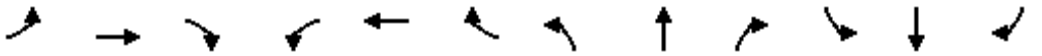


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	928	0	379	0	1283	639	0	1108	218
Future Volume (vph)	0	0	0	928	0	379	0	1283	639	0	1108	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.91			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1548			4988	1553		4988	1553
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1548			4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	928	0	379	0	1283	639	0	1108	218
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	677	609	0	0	1283	639	0	1108	218
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA			NA	Free		NA	Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				21.5	21.5			14.9	46.1		14.9	46.1
Effective Green, g (s)				21.5	21.5			14.9	46.1		14.9	46.1
Actuated g/C Ratio				0.47	0.47			0.32	1.00		0.32	1.00
Clearance Time (s)				4.9	4.9			4.8			4.8	
Vehicle Extension (s)				1.0	1.0			1.0			1.0	
Lane Grp Cap (vph)				769	721			1612	1553		1612	1553
v/s Ratio Prot								c0.26			0.22	
v/s Ratio Perm				c0.41	0.39				0.41			0.14
v/c Ratio				0.88	0.84			0.80	0.41		0.69	0.14
Uniform Delay, d1				11.1	10.8			14.2	0.0		13.6	0.0
Progression Factor				1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2				11.2	8.6			2.6	0.8		1.0	0.2
Delay (s)				22.3	19.5			16.8	0.8		14.6	0.2
Level of Service				C	B			B	A		B	A
Approach Delay (s)		0.0			20.9			11.5			12.2	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	46.1	Sum of lost time (s)	9.7
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

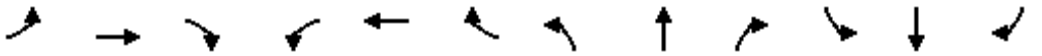
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	339	0	1162	0	0	0	0	1636	427	0	1643	345
Future Volume (vph)	339	0	1162	0	0	0	0	1636	427	0	1643	345
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.86	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1423	1475					4988	1553		4988	1553
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1423	1475					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	339	0	1162	0	0	0	0	1636	427	0	1643	345
RTOR Reduction (vph)	0	19	19	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	305	584	574	0	0	0	0	1636	427	0	1643	345
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm					NA	Free		NA	Free
Protected Phases		4						2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	25.3	25.3	25.3					21.8	57.1		21.9	57.1
Effective Green, g (s)	25.3	25.3	25.3					21.8	57.1		21.9	57.1
Actuated g/C Ratio	0.44	0.44	0.44					0.38	1.00		0.38	1.00
Clearance Time (s)	5.1	5.1	5.1					4.9			4.8	
Vehicle Extension (s)	1.0	1.0	1.0					1.0			1.0	
Lane Grp Cap (vph)	730	630	653					1904	1553		1913	1553
v/s Ratio Prot								0.33			c0.33	
v/s Ratio Perm	0.18	0.41	0.39						0.27			0.22
v/c Ratio	0.42	0.93	0.88					0.86	0.27		0.86	0.22
Uniform Delay, d1	10.9	15.0	14.5					16.2	0.0		16.2	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	19.4	12.4					4.0	0.4		3.9	0.3
Delay (s)	11.0	34.4	26.9					20.2	0.4		20.1	0.3
Level of Service	B	C	C					C	A		C	A
Approach Delay (s)		26.7			0.0			16.1			16.7	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	57.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



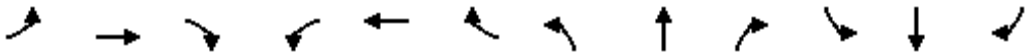
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1277	0	230	0	720	1105	0	897	1590
Future Volume (vph)	0	0	0	1277	0	230	0	720	1105	0	897	1590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		5036	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	1277	0	230	0	720	1105	0	897	1590
RTOR Reduction (vph)	0	0	0	0	0	25	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1277	0	205	0	720	1105	0	897	1590
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				20.6		20.6		12.5	44.5		12.5	44.5
Effective Green, g (s)				20.6		20.6		12.5	44.5		12.5	44.5
Actuated g/C Ratio				0.46		0.46		0.28	1.00		0.28	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1573		725		1414	1568		1414	1568
v/s Ratio Prot								0.14			0.18	
v/s Ratio Perm				0.38		0.13			0.70			c1.01
v/c Ratio				0.81		0.28		0.51	0.70		0.63	1.01
Uniform Delay, d1				10.3		7.4		13.4	0.0		14.0	22.2
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				3.1		0.1		0.1	2.7		0.7	26.3
Delay (s)				13.4		7.5		13.5	2.7		14.7	48.5
Level of Service				B		A		B	A		B	D
Approach Delay (s)		0.0			12.5			7.0			36.3	
Approach LOS		A			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	44.5	Sum of lost time (s)	11.4
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



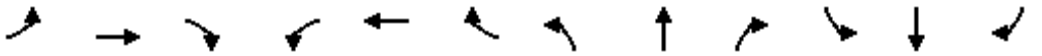
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	917	1602	0	0	134	0	3409	9	0	2003	182
Future Volume (vph)	182	917	1602	0	0	134	0	3409	9	0	2003	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		0.86			0.91	1.00
Frt	1.00	0.93	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	2952	1427			2733		6343			5036	1568
Flt Permitted	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (perm)	1595	2952	1427			2733		6343			5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	182	917	1602	0	0	134	0	3409	9	0	2003	182
RTOR Reduction (vph)	0	2	20	0	0	130	0	0	0	0	0	48
Lane Group Flow (vph)	164	1734	781	0	0	4	0	3418	0	0	2003	134
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA			NA	custom
Protected Phases	4	4				1		2			6	
Permitted Phases			4									2
Actuated Green, G (s)	68.0	68.0	68.0			4.0		66.0			74.0	66.0
Effective Green, g (s)	68.0	68.0	68.0			4.0		66.0			74.0	66.0
Actuated g/C Ratio	0.45	0.45	0.45			0.03		0.44			0.49	0.44
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	723	1338	646			72		2790			2484	689
v/s Ratio Prot	0.10	c0.59				0.00		c0.54			c0.40	
v/s Ratio Perm			0.55									0.09
v/c Ratio	0.23	1.30	1.21			0.05		1.23			0.81	0.20
Uniform Delay, d1	25.0	41.0	41.0			71.1		42.0			32.0	25.7
Progression Factor	1.00	1.00	1.00			1.00		1.00			1.00	1.00
Incremental Delay, d2	0.2	138.8	108.3			0.3		104.7			2.0	0.1
Delay (s)	25.1	179.8	149.3			71.4		146.7			34.0	25.9
Level of Service	C	F	F			E		F			C	C
Approach Delay (s)		161.3			71.4			146.7			33.3	
Approach LOS		F			E			F			C	

Intersection Summary			
HCM 2000 Control Delay	120.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



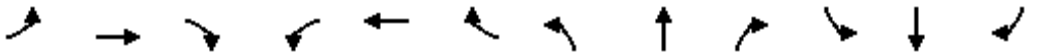
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	664	0	9	914	0	6	316	19	24	98	126
Future Volume (vph)	23	664	0	9	914	0	6	316	19	24	98	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			0.99			0.93	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1703	1792		1703	1792			1744			1631	
Flt Permitted	0.95	1.00		0.95	1.00			0.99			0.92	
Satd. Flow (perm)	1703	1792		1703	1792			1736			1514	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	23	664	0	9	914	0	6	316	19	24	98	126
RTOR Reduction (vph)	0	0	0	0	0	0	0	3	0	0	49	0
Lane Group Flow (vph)	23	664	0	9	914	0	0	338	0	0	199	0
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	8%	8%	8%	8%	8%	8%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)	1.4	39.2		0.7	38.5			16.4			16.4	
Effective Green, g (s)	1.4	39.2		0.7	38.5			16.4			16.4	
Actuated g/C Ratio	0.02	0.57		0.01	0.56			0.24			0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	34	1028		17	1010			416			363	
v/s Ratio Prot	c0.01	0.37		0.01	c0.51							
v/s Ratio Perm								c0.19			0.13	
v/c Ratio	0.68	0.65		0.53	0.90			0.81			0.55	
Uniform Delay, d1	33.2	9.9		33.6	13.3			24.5			22.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	42.2	1.4		26.7	11.3			11.5			1.7	
Delay (s)	75.4	11.3		60.3	24.5			36.0			24.4	
Level of Service	E	B		E	C			D			C	
Approach Delay (s)		13.4			24.9			36.0			24.4	
Approach LOS		B			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	68.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	169	0	516	0	2866	251	0	1928	2178
Future Volume (vph)	0	0	0	169	0	516	0	2866	251	0	1928	2178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	169	0	516	0	2866	251	0	1928	2178
RTOR Reduction (vph)	0	0	0	0	0	28	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	169	0	488	0	2866	251	0	1928	2178
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				12.8		12.8		41.2	62.3		40.9	62.3
Effective Green, g (s)				12.8		12.8		41.2	62.3		40.9	62.3
Actuated g/C Ratio				0.21		0.21		0.66	1.00		0.66	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				678		551		3298	1553		3274	1553
v/s Ratio Prot								0.57			0.39	
v/s Ratio Perm				0.05		0.18			0.16			c1.40
v/c Ratio				0.25		0.89		0.87	0.16		0.59	1.40
Uniform Delay, d1				20.7		24.0		8.4	0.0		6.0	31.1
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.1		15.3		2.6	0.2		0.2	185.1
Delay (s)				20.8		39.4		11.0	0.2		6.2	216.2
Level of Service				C		D		B	A		A	F
Approach Delay (s)		0.0			34.8			10.1			117.6	
Approach LOS		A			C			B			F	

Intersection Summary			
HCM 2000 Control Delay	68.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.63		
Actuated Cycle Length (s)	62.3	Sum of lost time (s)	8.6
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

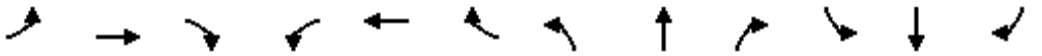


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	890	0	748	0	0	0	0	2234	421	0	1698	397
Future Volume (vph)	890	0	748	0	0	0	0	2234	421	0	1698	397
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	890	0	748	0	0	0	0	2234	421	0	1698	397
RTOR Reduction (vph)	0	0	32	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	890	0	716	0	0	0	0	2234	421	0	1698	397
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	14.1		14.1					23.1	45.5		22.8	45.5
Effective Green, g (s)	14.1		14.1					23.1	45.5		22.8	45.5
Actuated g/C Ratio	0.31		0.31					0.51	1.00		0.50	1.00
Clearance Time (s)	3.5		3.5					4.8			5.1	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1516		846					3190	1553		2499	1553
v/s Ratio Prot								c0.36			0.34	
v/s Ratio Perm	0.18		c0.26						0.27			0.26
v/c Ratio	0.59		0.85					0.70	0.27		0.68	0.26
Uniform Delay, d1	13.2		14.7					8.6	0.0		8.6	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.4		7.5					0.6	0.4		0.6	0.4
Delay (s)	13.6		22.2					9.1	0.4		9.2	0.4
Level of Service	B		C					A	A		A	A
Approach Delay (s)		17.6			0.0			7.8			7.5	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	45.5	Sum of lost time (s)	8.6
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

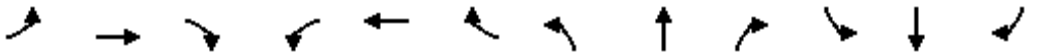
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	156	575	2158	119	98	634
Future Volume (vph)	156	575	2158	119	98	634
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	4988	1553	3367	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	4988	1553	3367	3471
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	156	575	2158	119	98	634
RTOR Reduction (vph)	0	282	0	39	0	0
Lane Group Flow (vph)	156	293	2158	80	98	634
Heavy Vehicles (%)	3%	3%	4%	4%	4%	4%
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases				6		
Actuated Green, G (s)	16.6	16.6	38.6	38.6	4.8	48.9
Effective Green, g (s)	16.6	16.6	38.6	38.6	4.8	48.9
Actuated g/C Ratio	0.22	0.22	0.51	0.51	0.06	0.64
Clearance Time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	742	342	2533	788	212	2233
v/s Ratio Prot	0.05	c0.19	c0.43		0.03	c0.18
v/s Ratio Perm				0.05		
v/c Ratio	0.21	0.86	0.85	0.10	0.46	0.28
Uniform Delay, d1	24.3	28.6	16.2	9.7	34.4	5.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	17.9	2.9	0.0	0.6	0.0
Delay (s)	24.4	46.5	19.1	9.7	34.9	5.9
Level of Service	C	D	B	A	C	A
Approach Delay (s)	41.8		18.6			9.8
Approach LOS	D		B			A

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



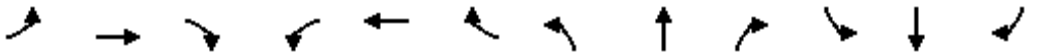
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1015	779	7	0	1192	15	8	30	5	7	6	572
Future Volume (vph)	1015	779	7	0	1192	15	8	30	5	7	6	572
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Lane Util. Factor	1.00	0.95	1.00		0.95			1.00			1.00	1.00
Frt	1.00	1.00	0.85		1.00			0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (prot)	1703	3406	1524		3432			1799			1779	1553
Flt Permitted	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (perm)	1703	3406	1524		3432			1799			1779	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1015	779	7	0	1192	15	8	30	5	7	6	572
RTOR Reduction (vph)	0	0	1	0	1	0	0	3	0	0	0	215
Lane Group Flow (vph)	1015	779	6	0	1206	0	0	40	0	0	13	357
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	Over
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									
Actuated Green, G (s)	58.6	106.0	106.0		42.8			3.0			2.1	58.6
Effective Green, g (s)	58.6	106.0	106.0		42.8			3.0			2.1	58.6
Actuated g/C Ratio	0.45	0.81	0.81		0.33			0.02			0.02	0.45
Clearance Time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0		1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	765	2770	1239		1127			41			28	698
v/s Ratio Prot	c0.60	0.23			c0.35			c0.02			c0.01	0.23
v/s Ratio Perm			0.00									
v/c Ratio	1.33	0.28	0.00		1.07			0.98			0.46	0.51
Uniform Delay, d1	35.9	2.9	2.3		43.8			63.6			63.5	25.6
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	156.1	0.0	0.0		47.8			130.1			4.4	0.3
Delay (s)	191.9	3.0	2.3		91.5			193.8			67.9	25.9
Level of Service	F	A	A		F			F			E	C
Approach Delay (s)		109.4			91.5			193.8			26.8	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM 2000 Control Delay	91.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	130.3	Sum of lost time (s)	24.7
Intersection Capacity Utilization	113.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	296	55	176	932	426	3321	0	0	4734	133
Future Volume (vph)	0	0	296	55	176	932	426	3321	0	0	4734	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1771	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1771	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	296	55	176	932	426	3321	0	0	4734	133
RTOR Reduction (vph)	0	0	190	0	0	39	0	0	0	0	0	26
Lane Group Flow (vph)	0	0	106	0	231	893	426	3321	0	0	4734	107
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			20.0		31.8	31.8	20.0	107.0			82.1	82.1
Effective Green, g (s)			20.0		31.8	31.8	20.0	107.0			82.1	82.1
Actuated g/C Ratio			0.13		0.21	0.21	0.13	0.71			0.55	0.55
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Vehicle Extension (s)			3.0		3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)			212		375	568	440	3490			3374	834
v/s Ratio Prot			0.07		0.13		0.13	c0.68			c0.77	
v/s Ratio Perm						c0.33						0.07
v/c Ratio			0.50		0.62	1.57	0.97	0.95			1.40	0.13
Uniform Delay, d1			60.4		53.6	59.1	64.7	19.2			34.0	16.5
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			1.9		3.0	265.6	34.3	7.0			183.2	0.1
Delay (s)			62.2		56.6	324.7	99.0	26.2			217.2	16.6
Level of Service			E		E	F	F	C			F	B
Approach Delay (s)		62.2			271.4			34.5			211.7	
Approach LOS		E			F			C			F	

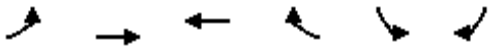
Intersection Summary			
HCM 2000 Control Delay	148.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	112.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1960	0	117	0	0	0	0	1893	39	0	1521	1198
Future Volume (vph)	1960	0	117	0	0	0	0	1893	39	0	1521	1198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0			4.0	4.0
Lane Util. Factor	0.94		0.88					0.91			0.91	1.00
Frt	1.00		0.85					1.00			1.00	0.85
Flt Protected	0.95		1.00					1.00			1.00	1.00
Satd. Flow (prot)	4942		2760					5021			5036	1568
Flt Permitted	0.95		1.00					1.00			1.00	1.00
Satd. Flow (perm)	4942		2760					5021			5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1960	0	117	0	0	0	0	1893	39	0	1521	1198
RTOR Reduction (vph)	0	0	11	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	1960	0	106	0	0	0	0	1928	0	0	1521	1198
Turn Type	Prot		Perm					NA			NA	Free
Protected Phases	4							2			6	
Permitted Phases			4									Free
Actuated Green, G (s)	24.0		24.0					23.0			23.0	55.0
Effective Green, g (s)	24.0		24.0					23.0			23.0	55.0
Actuated g/C Ratio	0.44		0.44					0.42			0.42	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	2156		1204					2099			2105	1568
v/s Ratio Prot	c0.40							c0.38			0.30	
v/s Ratio Perm			0.04									0.76
v/c Ratio	0.91		0.09					0.92			0.72	0.76
Uniform Delay, d1	14.5		9.1					15.1			13.3	0.0
Progression Factor	1.00		1.00					1.00			1.00	1.00
Incremental Delay, d2	6.1		0.0					7.0			1.3	3.6
Delay (s)	20.6		9.1					22.1			14.6	3.6
Level of Service	C		A					C			B	A
Approach Delay (s)		19.9			0.0			22.1			9.7	
Approach LOS		B			A			C			A	

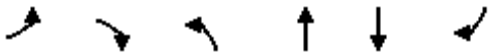
Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1103	1565	1451	230	20	762
Future Volume (vph)	1103	1565	1451	230	20	762
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3242	3343	3343	1495	3400	2760
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3242	3343	3343	1495	3400	2760
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1103	1565	1451	230	20	762
RTOR Reduction (vph)	0	0	0	48	0	703
Lane Group Flow (vph)	1103	1565	1451	182	20	59
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	43.1	102.2	55.1	55.1	9.3	9.3
Effective Green, g (s)	43.1	102.2	55.1	55.1	9.3	9.3
Actuated g/C Ratio	0.36	0.86	0.46	0.46	0.08	0.08
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1169	2859	1541	689	264	214
v/s Ratio Prot	c0.34	0.47	c0.43		0.01	
v/s Ratio Perm				0.12		c0.02
v/c Ratio	0.94	0.55	0.94	0.26	0.08	0.28
Uniform Delay, d1	37.0	2.4	30.7	19.8	51.1	51.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.7	0.2	11.8	0.2	0.1	0.7
Delay (s)	51.7	2.6	42.4	20.0	51.2	52.6
Level of Service	D	A	D	B	D	D
Approach Delay (s)		22.9	39.4		52.6	
Approach LOS		C	D		D	

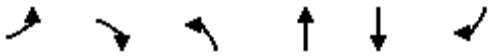
Intersection Summary			
HCM 2000 Control Delay	32.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	119.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	598	11	67	2116	1249	953
Future Volume (vph)	598	11	67	2116	1249	953
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3400	1568	1752	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3400	1568	1752	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	598	11	67	2116	1249	953
RTOR Reduction (vph)	0	11	0	0	0	618
Lane Group Flow (vph)	598	0	67	2116	1249	335
Turn Type	Prot	Over	Prot	NA	NA	Over
Protected Phases	4	5	5	2	6	4
Permitted Phases						
Actuated Green, G (s)	15.7	2.4	2.4	37.6	31.2	15.7
Effective Green, g (s)	15.7	2.4	2.4	37.6	31.2	15.7
Actuated g/C Ratio	0.26	0.04	0.04	0.61	0.51	0.26
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	870	61	68	2149	1783	401
v/s Ratio Prot	0.18	0.00	0.04	c0.60	0.36	c0.21
v/s Ratio Perm						
v/c Ratio	0.69	0.01	0.99	0.98	0.70	0.83
Uniform Delay, d1	20.6	28.3	29.4	11.6	11.5	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.3	0.0	103.3	15.8	1.3	13.9
Delay (s)	22.9	28.4	132.8	27.4	12.7	35.5
Level of Service	C	C	F	C	B	D
Approach Delay (s)	23.0			30.6	22.6	
Approach LOS	C			C	C	

Intersection Summary			
HCM 2000 Control Delay	26.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	61.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		

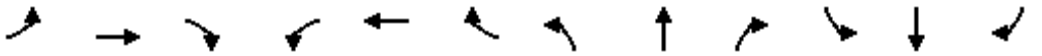
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	432	633	1071	1743	1168	92
Future Volume (vph)	432	633	1071	1743	1168	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.97	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1568	3400	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1568	3400	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	432	633	1071	1743	1168	92
RTOR Reduction (vph)	0	392	0	0	0	61
Lane Group Flow (vph)	432	241	1071	1743	1168	31
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	24.0	24.0	30.0	68.0	34.0	34.0
Effective Green, g (s)	24.0	24.0	30.0	68.0	34.0	34.0
Actuated g/C Ratio	0.24	0.24	0.30	0.68	0.34	0.34
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	420	376	1020	2383	1191	533
v/s Ratio Prot	c0.25		c0.32	0.50	c0.33	
v/s Ratio Perm		0.15				0.02
v/c Ratio	1.03	0.64	1.05	0.73	0.98	0.06
Uniform Delay, d1	38.0	34.1	35.0	10.2	32.7	22.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	51.4	3.7	42.2	1.2	21.4	0.0
Delay (s)	89.4	37.8	77.2	11.4	54.1	22.3
Level of Service	F	D	E	B	D	C
Approach Delay (s)	58.8			36.4	51.8	
Approach LOS	E			D	D	

Intersection Summary			
HCM 2000 Control Delay	44.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.8%	ICU Level of Service	F
Analysis Period (min)	15		

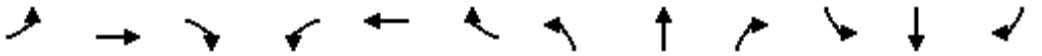
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	696	0	909	0	0	0	0	3557	710	0	1790	1584
Future Volume (vph)	696	0	909	0	0	0	0	3557	710	0	1790	1584
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.95	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4540	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4540	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	696	0	909	0	0	0	0	3557	710	0	1790	1584
RTOR Reduction (vph)	0	0	21	0	0	0	0	0	0	0	99	0
Lane Group Flow (vph)	696	0	888	0	0	0	0	3557	710	0	2483	792
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	25.0		25.0					47.0	80.0		47.0	80.0
Effective Green, g (s)	25.0		25.0					47.0	80.0		47.0	80.0
Actuated g/C Ratio	0.31		0.31					0.59	1.00		0.59	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1062		862					3728	1568		2667	1348
v/s Ratio Prot	0.20							c0.56			0.55	
v/s Ratio Perm			c0.32						0.45			0.59
v/c Ratio	0.66		1.03					0.95	0.45		0.93	0.59
Uniform Delay, d1	23.8		27.5					15.5	0.0		15.0	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	1.5		38.8					6.9	0.9		6.6	1.9
Delay (s)	25.2		66.3					22.4	0.9		21.7	1.9
Level of Service	C		E					C	A		C	A
Approach Delay (s)		48.5			0.0			18.8			17.0	
Approach LOS		D			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	513	0	1449	0	2059	2190	0	3836	1304
Future Volume (vph)	0	0	0	513	0	1449	0	2059	2190	0	3836	1304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		0.95	0.85		0.99	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4511	1348		5894	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4511	1348		5894	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	513	0	1449	0	2059	2190	0	3836	1304
RTOR Reduction (vph)	0	0	0	0	0	17	0	74	0	0	12	0
Lane Group Flow (vph)	0	0	0	513	0	1432	0	3080	1095	0	4215	913
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				42.0		42.0		80.0	130.0		80.0	130.0
Effective Green, g (s)				42.0		42.0		80.0	130.0		80.0	130.0
Actuated g/C Ratio				0.32		0.32		0.62	1.00		0.62	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1098		1155		2776	1348		3627	1270
v/s Ratio Prot				0.15				0.68			c0.72	
v/s Ratio Perm						c0.40			0.81			0.72
v/c Ratio				0.47		1.24		1.11	0.81		1.16	0.72
Uniform Delay, d1				35.1		44.0		25.0	0.0		25.0	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.3		115.5		55.2	5.4		76.4	3.5
Delay (s)				35.4		159.5		80.2	5.4		101.4	3.5
Level of Service				D		F		F	A		F	A
Approach Delay (s)		0.0			127.0			60.9			84.0	
Approach LOS		A			F			E			F	

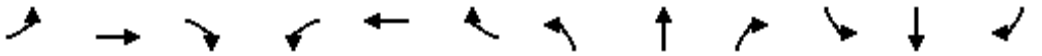
Intersection Summary			
HCM 2000 Control Delay	82.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	812	276	255	1155	234	243
Future Volume (vph)	812	276	255	1155	234	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	812	276	255	1155	234	243
RTOR Reduction (vph)	0	151	0	0	0	199
Lane Group Flow (vph)	812	125	255	1155	234	44
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	18.3	18.3	12.3	34.6	9.5	9.5
Effective Green, g (s)	18.3	18.3	12.3	34.6	9.5	9.5
Actuated g/C Ratio	0.35	0.35	0.24	0.66	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1107	495	372	2094	557	257
v/s Ratio Prot	c0.26		c0.16	0.37	c0.08	
v/s Ratio Perm		0.09				0.03
v/c Ratio	0.73	0.25	0.69	0.55	0.42	0.17
Uniform Delay, d1	14.8	12.0	18.1	4.6	18.9	18.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.3	5.2	0.3	0.5	0.3
Delay (s)	17.3	12.3	23.3	5.0	19.4	18.3
Level of Service	B	B	C	A	B	B
Approach Delay (s)	16.0			8.3	18.8	
Approach LOS	B			A	B	

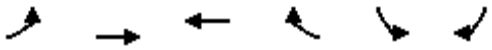
Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	52.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	407	0	1	467	57	1	1	0	56	2	455
Future Volume (vph)	219	407	0	1	467	57	1	1	0	56	2	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00		0.95	0.95	1.00
Frt	1.00	1.00		1.00	0.98			1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (prot)	1736	3471		1736	3415			1800		1665	1674	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (perm)	1736	3471		1736	3415			1800		1665	1674	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	407	0	1	467	57	1	1	0	56	2	455
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	0	387
Lane Group Flow (vph)	219	407	0	1	513	0	0	2	0	29	29	68
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	10.8	26.7		0.7	16.6			5.7		8.7	8.7	8.7
Effective Green, g (s)	10.8	26.7		0.7	16.6			5.7		8.7	8.7	8.7
Actuated g/C Ratio	0.19	0.46		0.01	0.29			0.10		0.15	0.15	0.15
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	324	1603		21	980			177		250	251	236
v/s Ratio Prot	c0.13	0.12		0.00	c0.15			c0.00		0.02	0.02	
v/s Ratio Perm												c0.04
v/c Ratio	0.68	0.25		0.05	0.52			0.01		0.12	0.12	0.29
Uniform Delay, d1	21.9	9.5		28.2	17.3			23.5		21.2	21.2	21.8
Progression Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	5.5	0.1		0.9	0.5			0.0		0.2	0.2	0.7
Delay (s)	27.4	9.6		29.2	17.8			23.5		21.4	21.4	22.5
Level of Service	C	A		C	B			C		C	C	C
Approach Delay (s)		15.8			17.8			23.5			22.4	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	57.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	268	706	1874	1043	0
Future Volume (vph)	0	268	706	1874	1043	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95	0.95	1.00	0.97	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3505	3505	1568	3400	
Flt Permitted		1.00	1.00	1.00	0.95	
Satd. Flow (perm)		3505	3505	1568	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	268	706	1874	1043	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	268	706	1874	1043	0
Turn Type	Prot	NA	NA	custom	Prot	
Protected Phases	4	5	5	2	6	
Permitted Phases						
Actuated Green, G (s)		33.4	33.4	130.0	88.6	
Effective Green, g (s)		33.4	33.4	130.0	88.6	
Actuated g/C Ratio		0.26	0.26	1.00	0.68	
Clearance Time (s)		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		900	900	1568	2317	
v/s Ratio Prot		0.08	0.20	c1.20	0.31	
v/s Ratio Perm						
v/c Ratio		0.30	0.78	1.20	0.45	
Uniform Delay, d1		38.9	44.9	65.0	9.5	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	4.5	94.4	0.1	
Delay (s)		39.1	49.5	159.4	9.6	
Level of Service		D	D	F	A	
Approach Delay (s)		39.1	129.3		9.6	
Approach LOS		D	F		A	

Intersection Summary			
HCM 2000 Control Delay	91.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	119.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0
Turn Type			Prot		Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)						
Effective Green, g (s)						
Actuated g/C Ratio						
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)						
v/s Ratio Prot						
v/s Ratio Perm						
v/c Ratio						
Uniform Delay, d1						
Progression Factor						
Incremental Delay, d2						
Delay (s)						
Level of Service						
Approach Delay (s)	0.0			0.0	0.0	
Approach LOS	A			A	A	

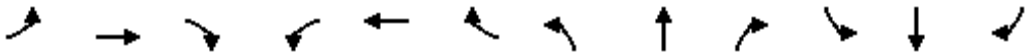
Intersection Summary			
HCM 2000 Control Delay	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.00		
Actuated Cycle Length (s)	24.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	0.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	2164	0	1718	0
Future Volume (vph)	0	0	2164	0	1718	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0	
Lane Util. Factor			0.95	0.95	0.97	
Frt			1.00	1.00	1.00	
Flt Protected			0.95	0.95	0.95	
Satd. Flow (prot)			1665	1665	3400	
Flt Permitted			0.95	0.95	0.95	
Satd. Flow (perm)			1665	1665	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	2164	0	1718	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	1082	1082	1718	0
Turn Type			Split	NA	Prot	
Protected Phases			4	4	2	
Permitted Phases						
Actuated Green, G (s)			79.0	79.0	63.0	
Effective Green, g (s)			79.0	79.0	63.0	
Actuated g/C Ratio			0.53	0.53	0.42	
Clearance Time (s)			4.0	4.0	4.0	
Vehicle Extension (s)			3.0	3.0	3.0	
Lane Grp Cap (vph)			876	876	1428	
v/s Ratio Prot			c0.65	0.65	c0.51	
v/s Ratio Perm						
v/c Ratio			1.24	1.24	1.20	
Uniform Delay, d1			35.5	35.5	43.5	
Progression Factor			1.00	1.00	1.00	
Incremental Delay, d2			115.7	115.7	98.3	
Delay (s)			151.2	151.2	141.8	
Level of Service			F	F	F	
Approach Delay (s)	0.0			151.2	141.8	
Approach LOS	A			F	F	

Intersection Summary			
HCM 2000 Control Delay	147.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	115.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	461	0	0	0	0	1718	2145	0	2164	0
Future Volume (vph)	0	0	461	0	0	0	0	1718	2145	0	2164	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0	4.0		4.0	
Lane Util. Factor		0.95	0.95					0.91	0.91		0.95	
Frt		0.85	0.85					0.95	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		1490	1490					3179	1427		3505	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		1490	1490					3179	1427		3505	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	461	0	0	0	0	1718	2145	0	2164	0
RTOR Reduction (vph)	0	34	0	0	0	0	0	37	204	0	0	0
Lane Group Flow (vph)	0	197	230	0	0	0	0	2625	997	0	2164	0
Turn Type		NA	Free					NA	Perm	Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			Free						2			
Actuated Green, G (s)		17.0	133.6					108.6	108.6		108.6	
Effective Green, g (s)		17.0	133.6					108.6	108.6		108.6	
Actuated g/C Ratio		0.13	1.00					0.81	0.81		0.81	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		189	1490					2584	1159		2849	
v/s Ratio Prot		c0.13						c0.83			0.62	
v/s Ratio Perm			0.15						0.70			
v/c Ratio		1.04	0.15					1.02	0.86		0.76	
Uniform Delay, d1		58.3	0.0					12.5	7.8		6.1	
Progression Factor		1.00	1.00					1.00	1.00		1.00	
Incremental Delay, d2		77.0	0.2					21.8	6.7		1.2	
Delay (s)		135.3	0.2					34.3	14.5		7.3	
Level of Service		F	A					C	B		A	
Approach Delay (s)		67.9			0.0			28.1			7.3	
Approach LOS		E			A			C			A	

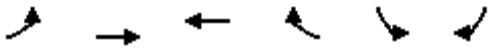
Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	133.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	115.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	266	259	3832	128	11	2639
Future Volume (vph)	266	259	3832	128	11	2639
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	5036	1568	3400	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	5036	1568	3400	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	266	259	3832	128	11	2639
RTOR Reduction (vph)	0	42	0	22	0	0
Lane Group Flow (vph)	266	217	3832	106	11	2639
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Actuated Green, G (s)	16.0	16.0	91.7	91.7	0.8	96.5
Effective Green, g (s)	16.0	16.0	91.7	91.7	0.8	96.5
Actuated g/C Ratio	0.13	0.13	0.76	0.76	0.01	0.80
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	451	208	3832	1193	22	4032
v/s Ratio Prot	0.08		c0.76		0.00	c0.52
v/s Ratio Perm		c0.14		0.07		
v/c Ratio	0.59	1.05	1.00	0.09	0.50	0.65
Uniform Delay, d1	49.2	52.2	14.4	3.7	59.7	5.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0	74.7	14.5	0.0	16.8	0.4
Delay (s)	51.1	127.0	28.9	3.7	76.4	5.4
Level of Service	D	F	C	A	E	A
Approach Delay (s)	88.6		28.1			5.7
Approach LOS	F		C			A

Intersection Summary			
HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	120.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	364	1243	1822	138	197	705
Future Volume (vph)	364	1243	1822	138	197	705
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	3505	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	364	1243	1822	138	197	705
RTOR Reduction (vph)	0	0	0	36	0	242
Lane Group Flow (vph)	364	1243	1822	102	197	463
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	25.0	90.0	61.0	61.0	32.0	32.0
Effective Green, g (s)	25.0	90.0	61.0	61.0	32.0	32.0
Actuated g/C Ratio	0.19	0.69	0.47	0.47	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	336	2426	1644	735	431	385
v/s Ratio Prot	c0.21	0.35	c0.52		0.11	
v/s Ratio Perm				0.06		c0.30
v/c Ratio	1.08	0.51	1.11	0.14	0.46	1.20
Uniform Delay, d1	52.5	9.5	34.5	19.6	41.6	49.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	73.2	0.2	58.1	0.1	0.8	113.5
Delay (s)	125.7	9.7	92.6	19.7	42.4	162.5
Level of Service	F	A	F	B	D	F
Approach Delay (s)		36.0	87.5		136.3	
Approach LOS		D	F		F	

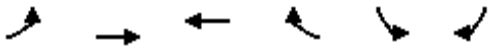
Intersection Summary			
HCM 2000 Control Delay	78.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	592	87	273	1290	161	54
Future Volume (vph)	592	87	273	1290	161	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1568	3400	3505	1752	1568
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1568	3400	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	592	87	273	1290	161	54
RTOR Reduction (vph)	0	59	0	0	0	42
Lane Group Flow (vph)	592	28	273	1290	161	12
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	13.1	13.1	6.1	23.2	9.1	9.1
Effective Green, g (s)	13.1	13.1	6.1	23.2	9.1	9.1
Actuated g/C Ratio	0.33	0.33	0.15	0.58	0.23	0.23
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1139	509	514	2017	395	354
v/s Ratio Prot	0.17		0.08	c0.37	c0.09	
v/s Ratio Perm		0.02				0.01
v/c Ratio	0.52	0.06	0.53	0.64	0.41	0.03
Uniform Delay, d1	11.0	9.3	15.8	5.7	13.3	12.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	1.1	0.7	0.7	0.0
Delay (s)	11.4	9.4	16.8	6.4	14.0	12.2
Level of Service	B	A	B	A	B	B
Approach Delay (s)	11.2			8.2	13.5	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	40.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	85	90	133	31	42	249
Future Volume (vph)	85	90	133	31	42	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00		1.00	
Frt		1.00	0.97		0.88	
Flt Protected		0.98	1.00		0.99	
Satd. Flow (prot)		1801	1798		1620	
Flt Permitted		0.76	1.00		0.99	
Satd. Flow (perm)		1409	1798		1620	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	85	90	133	31	42	249
RTOR Reduction (vph)	0	0	25	0	132	0
Lane Group Flow (vph)	0	175	139	0	159	0
Turn Type	Perm	NA	NA		Prot	
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)		5.2	5.2		11.7	
Effective Green, g (s)		5.2	5.2		11.7	
Actuated g/C Ratio		0.21	0.21		0.47	
Clearance Time (s)		4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		294	375		761	
v/s Ratio Prot			0.08		c0.10	
v/s Ratio Perm		c0.12				
v/c Ratio		0.60	0.37		0.21	
Uniform Delay, d1		8.9	8.4		3.9	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		3.2	0.6		0.1	
Delay (s)		12.1	9.1		4.0	
Level of Service		B	A		A	
Approach Delay (s)		12.1	9.1		4.0	
Approach LOS		B	A		A	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	24.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	320	136	89	642	483	182	1918	79	138	968	82
Future Volume (veh/h)	99	320	136	89	642	483	182	1918	79	138	968	82
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	99	320	136	89	642	483	182	1918	79	138	968	82
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	125	808	337	115	602	512	208	1951	80	143	1794	558
Arrive On Green	0.07	0.33	0.33	0.07	0.33	0.33	0.12	0.40	0.40	0.08	0.36	0.36
Sat Flow, veh/h	1757	2414	1006	1740	1827	1553	1740	4914	202	1740	4988	1553
Grp Volume(v), veh/h	99	231	225	89	642	483	182	1297	700	138	968	82
Grp Sat Flow(s),veh/h/ln	1757	1752	1667	1740	1827	1553	1740	1663	1791	1740	1663	1553
Q Serve(g_s), s	7.4	13.5	13.9	6.7	44.0	40.4	13.7	51.5	51.7	10.6	20.6	4.8
Cycle Q Clear(g_c), s	7.4	13.5	13.9	6.7	44.0	40.4	13.7	51.5	51.7	10.6	20.6	4.8
Prop In Lane	1.00		0.60	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	125	586	558	115	602	512	208	1320	711	143	1794	558
V/C Ratio(X)	0.79	0.39	0.40	0.77	1.07	0.94	0.87	0.98	0.98	0.96	0.54	0.15
Avail Cap(c_a), veh/h	211	586	558	235	602	512	300	1320	711	143	1794	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	34.0	34.2	61.3	44.8	43.6	57.8	39.8	39.9	61.1	34.0	28.9
Incr Delay (d2), s/veh	10.6	0.4	0.5	10.4	55.6	26.4	17.5	20.6	29.9	63.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	6.6	6.5	3.6	31.4	21.1	7.6	27.4	31.4	7.6	9.5	2.1
LnGrp Delay(d),s/veh	71.6	34.5	34.7	71.8	100.4	69.9	75.3	60.4	69.7	124.7	34.3	29.0
LnGrp LOS	E	C	C	E	F	E	E	E	E	F	C	C
Approach Vol, veh/h		555			1214			2179			1188	
Approach Delay, s/veh		41.2			86.2			64.6			44.4	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	57.0	12.8	48.7	20.0	52.0	13.5	48.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	53.0	18.0	42.0	23.0	41.0	16.0	44.0
Max Q Clear Time (g_c+I1), s	12.6	53.7	8.7	15.9	15.7	22.6	9.4	46.0
Green Ext Time (p_c), s	0.0	0.0	0.1	10.8	0.3	7.4	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.5
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	440	502	24	40	398	427	69	1477	47	373	466	190
Future Volume (veh/h)	440	502	24	40	398	427	69	1477	47	373	466	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	440	502	24	40	398	427	69	1477	47	373	466	190
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	383	1140	54	51	510	228	114	1374	44	307	1587	710
Arrive On Green	0.22	0.33	0.33	0.03	0.15	0.15	0.03	0.40	0.40	0.09	0.46	0.46
Sat Flow, veh/h	1757	3406	163	1757	3505	1568	3375	3434	109	3375	3471	1553
Grp Volume(v), veh/h	440	258	268	40	398	427	69	745	779	373	466	190
Grp Sat Flow(s),veh/h/ln	1757	1752	1816	1757	1752	1568	1688	1736	1808	1688	1736	1553
Q Serve(g_s), s	24.0	12.6	12.7	2.5	12.0	16.0	2.2	44.0	44.0	10.0	9.3	8.3
Cycle Q Clear(g_c), s	24.0	12.6	12.7	2.5	12.0	16.0	2.2	44.0	44.0	10.0	9.3	8.3
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	383	587	608	51	510	228	114	694	723	307	1587	710
V/C Ratio(X)	1.15	0.44	0.44	0.79	0.78	1.87	0.61	1.07	1.08	1.22	0.29	0.27
Avail Cap(c_a), veh/h	383	587	608	96	510	228	153	694	723	307	1587	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	28.5	28.6	53.1	45.3	47.0	52.4	33.0	33.0	50.0	18.7	18.5
Incr Delay (d2), s/veh	92.7	0.5	0.5	23.2	7.7	408.8	5.1	55.6	56.2	123.1	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.5	6.2	6.4	1.5	6.3	32.8	1.1	31.7	33.2	9.9	4.4	3.6
LnGrp Delay(d),s/veh	135.7	29.1	29.1	76.3	53.0	455.8	57.5	88.6	89.2	173.1	18.8	18.7
LnGrp LOS	F	C	C	E	D	F	E	F	F	F	B	B
Approach Vol, veh/h		966			865			1593			1029	
Approach Delay, s/veh		77.6			252.9			87.5			74.7	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	48.0	7.2	40.8	7.7	54.3	28.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	44.0	6.0	34.0	5.0	49.0	24.0	16.0
Max Q Clear Time (g_c+I1), s	12.0	46.0	4.5	14.7	4.2	11.3	26.0	18.0
Green Ext Time (p_c), s	0.0	0.0	0.0	7.6	0.0	22.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	114.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	851	284	270	1426	126	11	562	185	25	314	7
Future Volume (veh/h)	12	851	284	270	1426	126	11	562	185	25	314	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	12	851	284	270	1426	126	11	562	185	25	314	7
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	20	1175	525	315	1640	144	19	742	332	39	782	17
Arrive On Green	0.01	0.34	0.34	0.18	0.52	0.52	0.01	0.21	0.21	0.02	0.22	0.22
Sat Flow, veh/h	1707	3406	1524	1707	3168	278	1757	3505	1568	1757	3505	78
Grp Volume(v), veh/h	12	851	284	270	763	789	11	562	185	25	157	164
Grp Sat Flow(s),veh/h/ln	1707	1703	1524	1707	1703	1743	1757	1752	1568	1757	1752	1831
Q Serve(g_s), s	0.5	14.8	10.2	10.4	26.5	27.0	0.4	10.2	7.1	1.0	5.2	5.2
Cycle Q Clear(g_c), s	0.5	14.8	10.2	10.4	26.5	27.0	0.4	10.2	7.1	1.0	5.2	5.2
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	20	1175	525	315	882	903	19	742	332	39	391	408
V/C Ratio(X)	0.59	0.72	0.54	0.86	0.87	0.87	0.57	0.76	0.56	0.64	0.40	0.40
Avail Cap(c_a), veh/h	101	1207	540	378	882	903	104	828	371	104	414	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	19.4	17.9	26.7	14.3	14.4	33.3	25.0	23.8	32.8	22.4	22.5
Incr Delay (d2), s/veh	24.2	2.1	1.0	15.2	9.0	9.5	23.4	3.6	1.5	16.3	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	7.2	4.4	6.2	14.5	15.1	0.3	5.3	3.2	0.6	2.6	2.7
LnGrp Delay(d),s/veh	57.5	21.5	18.9	41.9	23.3	23.9	56.8	28.7	25.3	49.1	23.1	23.1
LnGrp LOS	E	C	B	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		1147			1822			758			346	
Approach Delay, s/veh		21.2			26.3			28.3			25.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	18.3	16.5	27.3	4.7	19.1	4.8	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	15.0	24.0	4.0	16.0	4.0	35.0
Max Q Clear Time (g_c+I1), s	3.0	12.2	12.4	16.8	2.4	7.2	2.5	29.0
Green Ext Time (p_c), s	0.0	2.2	0.2	6.6	0.0	4.1	0.0	5.6

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	262	361	89	317	81	433	550	122	7	209	59
Future Volume (veh/h)	43	262	361	89	317	81	433	550	122	7	209	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	43	262	361	89	317	81	433	550	122	7	209	59
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	59	883	395	113	785	198	487	1487	665	13	542	243
Arrive On Green	0.03	0.25	0.25	0.06	0.28	0.28	0.28	0.42	0.42	0.01	0.15	0.15
Sat Flow, veh/h	1757	3505	1568	1757	2775	699	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	43	262	361	89	198	200	433	550	122	7	209	59
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1721	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	1.5	3.8	14.2	3.2	5.8	6.0	15.0	6.8	3.1	0.3	3.4	2.1
Cycle Q Clear(g_c), s	1.5	3.8	14.2	3.2	5.8	6.0	15.0	6.8	3.1	0.3	3.4	2.1
Prop In Lane	1.00		1.00	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	883	395	113	496	487	487	1487	665	13	542	243
V/C Ratio(X)	0.73	0.30	0.91	0.79	0.40	0.41	0.89	0.37	0.18	0.54	0.39	0.24
Avail Cap(c_a), veh/h	138	883	395	138	496	487	581	1876	839	111	938	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	19.2	23.1	29.3	18.4	18.5	22.0	12.5	11.4	31.4	24.1	23.6
Incr Delay (d2), s/veh	15.9	0.2	25.3	21.1	0.5	0.6	14.0	0.2	0.1	31.4	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.9	8.8	2.2	2.9	2.9	9.1	3.3	1.4	0.2	1.7	0.9
LnGrp Delay(d),s/veh	46.3	19.4	48.4	50.4	18.9	19.0	36.0	12.6	11.5	62.8	24.6	24.1
LnGrp LOS	D	B	D	D	B	B	D	B	B	E	C	C
Approach Vol, veh/h		666			487			1105			275	
Approach Delay, s/veh		36.9			24.7			21.7			25.4	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	31.0	8.1	20.0	21.6	13.8	6.1	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	34.0	5.0	16.0	21.0	17.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	2.3	8.8	5.2	16.2	17.0	5.4	3.5	8.0
Green Ext Time (p_c), s	0.0	6.2	0.0	0.0	0.6	4.4	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	481	113	75	700	352	66	828	168	200	345	35
Future Volume (veh/h)	167	481	113	75	700	352	66	828	168	200	345	35
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	167	481	113	75	700	352	66	828	168	200	345	35
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	191	1062	475	96	871	390	83	945	423	218	1214	543
Arrive On Green	0.11	0.30	0.30	0.05	0.25	0.25	0.05	0.27	0.27	0.12	0.35	0.35
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	167	481	113	75	700	352	66	828	168	200	345	35
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	6.0	7.1	3.5	2.7	12.1	14.0	2.4	14.5	5.6	7.2	4.6	1.0
Cycle Q Clear(g_c), s	6.0	7.1	3.5	2.7	12.1	14.0	2.4	14.5	5.6	7.2	4.6	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	1062	475	96	871	390	83	945	423	218	1214	543
V/C Ratio(X)	0.87	0.45	0.24	0.78	0.80	0.90	0.79	0.88	0.40	0.92	0.28	0.06
Avail Cap(c_a), veh/h	191	1062	475	191	872	390	164	981	439	218	1214	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	18.1	16.8	30.0	22.7	23.4	30.3	22.5	19.2	27.8	15.2	14.1
Incr Delay (d2), s/veh	33.0	0.3	0.3	13.1	5.5	23.6	15.3	8.8	0.6	38.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.5	1.5	1.7	6.5	8.6	1.5	8.2	2.5	5.8	2.2	0.4
LnGrp Delay(d),s/veh	61.3	18.4	17.1	43.1	28.2	47.0	45.6	31.3	19.8	66.3	15.4	14.1
LnGrp LOS	E	B	B	D	C	D	D	C	B	E	B	B
Approach Vol, veh/h		761			1127			1062			580	
Approach Delay, s/veh		27.6			35.1			30.4			32.9	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	21.3	7.5	23.5	7.1	26.3	11.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	18.0	7.0	16.0	6.0	20.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	9.2	16.5	4.7	9.1	4.4	6.6	8.0	16.0
Green Ext Time (p_c), s	0.0	0.8	0.0	4.8	0.0	7.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	380	450	99	356	432	664	42	3223	447	620	2418	552
Future Volume (veh/h)	380	450	99	356	432	664	42	3223	447	620	2418	552
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	380	450	99	356	432	664	42	3223	447	620	2418	552
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	215	885	396	215	885	557	67	2224	692	348	2638	821
Arrive On Green	0.06	0.25	0.25	0.06	0.25	0.25	0.02	0.45	0.45	0.10	0.53	0.53
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	380	450	99	356	432	664	42	3223	447	620	2418	552
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	9.5	16.6	7.6	9.5	15.8	38.0	1.9	67.1	33.7	15.5	66.7	39.1
Cycle Q Clear(g_c), s	9.5	16.6	7.6	9.5	15.8	38.0	1.9	67.1	33.7	15.5	66.7	39.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	885	396	215	885	557	67	2224	692	348	2638	821
V/C Ratio(X)	1.77	0.51	0.25	1.65	0.49	1.19	0.62	1.45	0.65	1.78	0.92	0.67
Avail Cap(c_a), veh/h	215	885	396	215	885	557	67	2224	692	348	2638	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	48.2	44.9	70.5	48.0	48.5	73.2	41.7	32.4	67.5	32.4	25.9
Incr Delay (d2), s/veh	363.2	0.2	0.1	314.5	0.2	102.9	12.7	204.8	1.6	364.0	5.5	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.3	8.0	3.3	13.8	7.7	39.0	1.0	72.8	14.8	24.8	31.8	17.1
LnGrp Delay(d),s/veh	433.7	48.4	45.0	385.0	48.1	151.4	85.9	246.5	34.1	431.5	38.0	27.7
LnGrp LOS	F	D	D	F	D	F	F	F	C	F	D	C
Approach Vol, veh/h		929			1452			3712			3590	
Approach Delay, s/veh		205.6			177.9			219.1			104.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	84.4	15.0	42.6	21.0	71.9	15.0	42.6
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	3.0	79.4	9.5	* 38	15.5	* 67	9.5	37.7
Max Q Clear Time (g_c+I1), s	3.9	68.7	11.5	40.0	17.5	69.1	11.5	18.6
Green Ext Time (p_c), s	0.0	10.5	0.0	0.0	0.0	0.0	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	169.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	2	10	0	114	0	3123	87	76	2270	6
Future Volume (veh/h)	10	0	2	10	0	114	0	3123	87	76	2270	6
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	10	0	2	10	0	114	0	3123	87	76	2270	6
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	12	0	2	96	0	171	2	3353	1044	87	3975	11
Arrive On Green	0.01	0.00	0.01	0.05	0.00	0.05	0.00	0.67	0.67	0.05	0.77	0.77
Sat Flow, veh/h	1435	0	287	1757	0	3136	1740	4988	1553	1740	5136	14
Grp Volume(v), veh/h	12	0	0	10	0	114	0	3123	87	76	1469	807
Grp Sat Flow(s),veh/h/ln	1722	0	0	1757	0	1568	1740	1663	1553	1740	1663	1825
Q Serve(g_s), s	0.7	0.0	0.0	0.5	0.0	3.5	0.0	53.9	1.9	4.3	17.6	17.6
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.5	0.0	3.5	0.0	53.9	1.9	4.3	17.6	17.6
Prop In Lane	0.83		0.17	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	15	0	0	96	0	171	2	3353	1044	87	2574	1412
V/C Ratio(X)	0.82	0.00	0.00	0.10	0.00	0.67	0.00	0.93	0.08	0.88	0.57	0.57
Avail Cap(c_a), veh/h	53	0	0	215	0	383	53	3512	1093	87	2574	1412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	0.0	0.0	44.2	0.0	45.6	0.0	14.1	5.6	46.4	4.5	4.5
Incr Delay (d2), s/veh	31.6	0.0	0.0	0.2	0.0	1.7	0.0	5.7	0.1	56.3	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.3	0.0	1.6	0.0	26.1	0.9	3.4	8.2	9.2
LnGrp Delay(d),s/veh	80.3	0.0	0.0	44.3	0.0	47.2	0.0	19.9	5.7	102.7	5.2	5.8
LnGrp LOS	F			D		D		B	A	F	A	A
Approach Vol, veh/h		12			124			3210			2352	
Approach Delay, s/veh		80.3			47.0			19.5			8.5	
Approach LOS		F			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	81.1		6.3	10.0	71.1		10.9
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 3	71.4		3.0	* 4.9	* 69		12.0
Max Q Clear Time (g_c+I1), s	0.0	19.6		2.7	6.3	55.9		5.5
Green Ext Time (p_c), s	0.0	51.6		0.0	0.0	10.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	161	23	219	256	484	34	2872	286	181	2207	0
Future Volume (veh/h)	0	161	23	219	256	484	34	2872	286	181	2207	0
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	0	161	23	219	256	484	34	2872	286	181	2207	0
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	2	508	227	208	864	492	60	2627	253	227	3079	0
Arrive On Green	0.00	0.15	0.15	0.06	0.25	0.25	0.02	0.57	0.57	0.07	0.62	0.00
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4627	446	3375	5152	0
Grp Volume(v), veh/h	0	161	23	219	256	484	34	2038	1120	181	2207	0
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1748	1688	1663	0
Q Serve(g_s), s	0.0	5.8	1.8	8.5	8.3	34.4	1.4	79.2	79.2	7.4	42.4	0.0
Cycle Q Clear(g_c), s	0.0	5.8	1.8	8.5	8.3	34.4	1.4	79.2	79.2	7.4	42.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.00
Lane Grp Cap(c), veh/h	2	508	227	208	864	492	60	1888	993	227	3079	0
V/C Ratio(X)	0.00	0.32	0.10	1.05	0.30	0.98	0.57	1.08	1.13	0.80	0.72	0.00
Avail Cap(c_a), veh/h	73	722	323	208	864	492	102	1888	993	278	3089	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	53.3	51.6	65.5	42.7	47.5	68.0	30.1	30.1	64.1	18.3	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	77.6	0.1	36.0	3.1	45.9	70.7	10.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	0.8	6.2	4.0	23.4	0.7	48.2	57.6	3.8	19.4	0.0
LnGrp Delay(d),s/veh	0.0	53.4	51.7	143.1	42.8	83.5	71.0	76.1	100.9	74.1	19.0	0.0
LnGrp LOS		D	D	F	D	F	E	F	F	E	B	
Approach Vol, veh/h		184			959			3192			2388	
Approach Delay, s/veh		53.2			86.2			84.7			23.2	
Approach LOS		D			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	91.4	0.0	40.1	14.9	84.5	14.0	26.1
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	4.2	86.4	3.0	* 34	11.5	* 79	8.5	* 29
Max Q Clear Time (g_c+I1), s	3.4	44.4	0.0	36.4	9.4	81.2	10.5	7.8
Green Ext Time (p_c), s	0.0	35.6	0.0	0.0	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	62.2
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	46	103	3020	24	61	2438
Future Volume (veh/h)	46	103	3020	24	61	2438
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	46	103	3020	24	61	2438
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	103	92	3583	28	77	2802
Arrive On Green	0.06	0.06	0.70	0.70	0.04	0.81
Sat Flow, veh/h	1757	1568	5269	40	1740	3563
Grp Volume(v), veh/h	46	103	1965	1079	61	2438
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1820	1740	1736
Q Serve(g_s), s	1.9	4.5	33.1	33.4	2.7	34.9
Cycle Q Clear(g_c), s	1.9	4.5	33.1	33.4	2.7	34.9
Prop In Lane	1.00	1.00		0.02	1.00	
Lane Grp Cap(c), veh/h	103	92	2334	1277	77	2802
V/C Ratio(X)	0.45	1.12	0.84	0.85	0.79	0.87
Avail Cap(c_a), veh/h	103	92	2334	1277	161	2946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	36.2	8.3	8.4	36.4	4.8
Incr Delay (d2), s/veh	1.1	130.4	2.8	5.1	6.6	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.2	15.6	18.0	1.4	17.0
LnGrp Delay(d),s/veh	36.1	166.6	11.1	13.5	43.0	7.6
LnGrp LOS	D	F	B	B	D	A
Approach Vol, veh/h	149		3044			2499
Approach Delay, s/veh	126.3		12.0			8.5
Approach LOS	F		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		66.8			8.1	58.7		10.0
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		65.2			* 7.1	53.4		4.5
Max Q Clear Time (g_c+I1), s		36.9			4.7	35.4		6.5
Green Ext Time (p_c), s		25.1			0.0	16.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	636	391	83	1099	844	511	2223	86	531	2041	205
Future Volume (veh/h)	77	636	391	83	1099	844	511	2223	86	531	2041	205
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	77	636	391	83	1099	844	511	2223	86	531	2041	205
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	69	1167	522	123	1235	553	403	1796	559	407	1796	559
Arrive On Green	0.02	0.34	0.34	0.04	0.36	0.36	0.12	0.36	0.36	0.12	0.36	0.36
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	77	636	391	83	1099	844	511	2223	86	531	2041	205
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	3.0	21.9	32.9	3.6	44.0	52.6	17.3	52.2	5.4	17.5	52.2	14.1
Cycle Q Clear(g_c), s	3.0	21.9	32.9	3.6	44.0	52.6	17.3	52.2	5.4	17.5	52.2	14.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	1167	522	123	1235	553	403	1796	559	407	1796	559
V/C Ratio(X)	1.12	0.54	0.75	0.67	0.89	1.53	1.27	1.24	0.15	1.30	1.14	0.37
Avail Cap(c_a), veh/h	69	1167	522	174	1235	553	403	1796	559	407	1796	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.0	38.5	42.1	68.9	43.5	46.2	63.8	46.4	31.4	63.8	46.4	34.2
Incr Delay (d2), s/veh	146.4	0.3	5.3	2.4	8.0	246.3	139.3	112.1	0.0	153.4	69.0	0.1
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	10.3	14.6	1.7	22.0	60.0	15.8	42.6	2.3	16.8	35.4	6.0
LnGrp Delay(d),s/veh	217.6	38.8	47.4	71.3	51.5	292.5	203.2	158.5	31.5	217.2	115.4	34.4
LnGrp LOS	F	D	D	E	D	F	F	F	C	F	F	C
Approach Vol, veh/h		1104			2026			2820			2777	
Approach Delay, s/veh		54.3			152.7			162.7			128.9	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	58.0	22.0	57.0	10.9	55.1	22.0	57.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.5	4.8
Max Green Setting (Gmax), s	3.0	* 53	* 17	52.2	7.6	* 48	17.5	52.2
Max Q Clear Time (g_c+I1), s	5.0	54.6	19.3	54.2	5.6	34.9	19.5	54.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	135.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	119	64	94	37	244	257	2717	201	18	2135	416
Future Volume (veh/h)	128	119	64	94	37	244	257	2717	201	18	2135	416
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	128	119	64	94	37	244	257	2717	201	18	2135	416
Adj No. of Lanes	1	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	139	288	245	118	30	196	266	2878	896	21	2207	687
Arrive On Green	0.08	0.16	0.16	0.07	0.14	0.14	0.15	0.58	0.58	0.01	0.44	0.44
Sat Flow, veh/h	1757	1845	1568	1757	211	1389	1740	4988	1553	1740	4988	1553
Grp Volume(v), veh/h	128	119	64	94	0	281	257	2717	201	18	2135	416
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1600	1740	1663	1553	1740	1663	1553
Q Serve(g_s), s	7.9	6.4	3.9	5.8	0.0	15.5	16.1	55.6	6.9	1.1	45.8	22.4
Cycle Q Clear(g_c), s	7.9	6.4	3.9	5.8	0.0	15.5	16.1	55.6	6.9	1.1	45.8	22.4
Prop In Lane	1.00		1.00	1.00		0.87	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	288	245	118	0	226	266	2878	896	21	2207	687
V/C Ratio(X)	0.92	0.41	0.26	0.80	0.00	1.24	0.97	0.94	0.22	0.86	0.97	0.61
Avail Cap(c_a), veh/h	139	288	245	144	0	226	266	2878	896	48	2249	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	41.8	40.7	50.5	0.0	47.1	46.2	21.6	11.3	54.1	29.8	23.3
Incr Delay (d2), s/veh	51.7	0.4	0.2	18.3	0.0	141.4	45.1	7.3	0.0	28.6	12.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	3.3	1.7	3.4	0.0	15.6	11.0	27.1	2.9	0.7	23.4	9.8
LnGrp Delay(d),s/veh	101.9	42.1	40.9	68.7	0.0	188.5	91.3	28.9	11.3	82.8	41.9	24.3
LnGrp LOS	F	D	D	E		F	F	C	B	F	D	C
Approach Vol, veh/h		311			375			3175			2569	
Approach Delay, s/veh		66.5			158.5			32.8			39.3	
Approach LOS		E			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	53.4	14.2	20.8	6.6	68.1	12.6	22.4
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 17	49.5	8.7	* 16	* 3	62.6	* 9	* 15
Max Q Clear Time (g_c+I1), s	18.1	47.8	9.9	17.5	3.1	57.6	7.8	8.4
Green Ext Time (p_c), s	0.0	0.8	0.0	0.0	0.0	4.9	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	44.4
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	552	82	3	972	790	294	2416	28	835	882	558
Future Volume (veh/h)	181	552	82	3	972	790	294	2416	28	835	882	558
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	181	552	82	3	972	790	294	2416	28	835	882	558
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	237	601	511	43	984	440	346	1753	546	324	1746	544
Arrive On Green	0.07	0.33	0.33	0.02	0.28	0.28	0.10	0.35	0.35	0.10	0.35	0.35
Sat Flow, veh/h	3408	1845	1568	1757	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	181	552	82	3	972	790	294	2416	28	835	882	558
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1757	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	6.4	35.1	4.5	0.2	33.6	34.2	10.4	42.8	1.5	11.7	17.0	42.6
Cycle Q Clear(g_c), s	6.4	35.1	4.5	0.2	33.6	34.2	10.4	42.8	1.5	11.7	17.0	42.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	601	511	43	984	440	346	1753	546	324	1746	544
V/C Ratio(X)	0.76	0.92	0.16	0.07	0.99	1.79	0.85	1.38	0.05	2.57	0.51	1.03
Avail Cap(c_a), veh/h	896	601	511	462	984	440	385	1753	546	324	1746	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	39.5	29.2	58.0	43.6	43.8	53.7	39.5	26.1	55.0	31.2	39.6
Incr Delay (d2), s/veh	1.9	18.9	0.1	0.2	25.5	366.3	13.8	173.9	0.0	717.6	0.1	45.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	20.9	2.0	0.1	19.7	59.6	5.5	47.7	0.6	37.7	7.9	25.2
LnGrp Delay(d),s/veh	57.6	58.4	29.3	58.3	69.1	410.1	67.6	213.4	26.1	772.6	31.3	85.1
LnGrp LOS	E	E	C	E	E	F	E	F	C	F	C	F
Approach Vol, veh/h		815			1765			2738			2275	
Approach Delay, s/veh		55.3			221.7			195.8			316.6	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	47.7	15.6	41.3	17.0	47.9	10.1	46.8
Change Period (Y+Rc), s	* 4.7	5.1	7.1	* 7.1	* 5.3	5.1	7.1	7.1
Max Green Setting (Gmax), s	* 14	41.2	32.0	* 34	* 12	42.8	32.0	33.9
Max Q Clear Time (g_c+I1), s	12.4	44.6	8.4	36.2	13.7	44.8	2.2	37.1
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		222.9
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	942	280	138	13	452	10	896	2252	129	9	810	643
Future Volume (veh/h)	942	280	138	13	452	10	896	2252	129	9	810	643
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	942	280	138	13	452	10	896	2252	129	9	810	643
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	636	1633	730	15	391	175	609	1873	583	21	1023	319
Arrive On Green	0.37	0.47	0.47	0.01	0.11	0.11	0.18	0.38	0.38	0.01	0.21	0.21
Sat Flow, veh/h	1740	3471	1553	1740	3471	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	942	280	138	13	452	10	896	2252	129	9	810	643
Grp Sat Flow(s),veh/h/ln	1740	1736	1553	1740	1736	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	54.9	7.0	7.8	1.1	16.9	0.9	27.1	56.4	8.5	0.4	23.1	30.8
Cycle Q Clear(g_c), s	54.9	7.0	7.8	1.1	16.9	0.9	27.1	56.4	8.5	0.4	23.1	30.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	636	1633	730	15	391	175	609	1873	583	21	1023	319
V/C Ratio(X)	1.48	0.17	0.19	0.86	1.16	0.06	1.47	1.20	0.22	0.43	0.79	2.02
Avail Cap(c_a), veh/h	636	1633	730	58	391	175	609	1873	583	67	1023	319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	22.9	23.1	74.3	66.6	59.5	61.5	46.9	31.9	74.3	56.6	59.7
Incr Delay (d2), s/veh	224.5	0.2	0.6	36.8	95.5	0.6	220.5	96.5	0.9	5.0	6.3	469.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	66.0	3.4	3.4	0.7	13.3	0.4	31.3	42.6	3.8	0.2	11.2	54.7
LnGrp Delay(d),s/veh	272.1	23.1	23.7	111.1	162.1	60.1	282.0	143.4	32.8	79.3	62.9	528.6
LnGrp LOS	F	C	C	F	F	E	F	F	C	E	E	F
Approach Vol, veh/h		1360			475			3277			1462	
Approach Delay, s/veh		195.6			158.6			176.9			267.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	36.0	60.0	22.1	6.4	61.6	6.3	75.8
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 27	* 31	* 55	* 17	3.0	* 55	5.0	* 67
Max Q Clear Time (g_c+I1), s	29.1	32.8	56.9	18.9	2.4	58.4	3.1	9.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4

Intersection Summary	
HCM 2010 Ctrl Delay	199.7
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	470	369	116	884	333	513	2624	203	76	965	88
Future Volume (veh/h)	95	470	369	116	884	333	513	2624	203	76	965	88
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	95	470	369	116	884	333	513	2624	203	76	965	88
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	109	811	363	163	867	388	562	2642	822	93	1948	606
Arrive On Green	0.03	0.23	0.23	0.05	0.25	0.25	0.17	0.53	0.53	0.03	0.39	0.39
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	95	470	369	116	884	333	513	2624	203	76	965	88
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	3.7	16.1	31.2	4.5	33.4	27.4	20.2	70.5	9.5	3.0	19.7	4.9
Cycle Q Clear(g_c), s	3.7	16.1	31.2	4.5	33.4	27.4	20.2	70.5	9.5	3.0	19.7	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	811	363	163	867	388	562	2642	822	93	1948	606
V/C Ratio(X)	0.88	0.58	1.02	0.71	1.02	0.86	0.91	0.99	0.25	0.82	0.50	0.15
Avail Cap(c_a), veh/h	109	811	363	227	867	388	758	2642	822	93	1948	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.1	46.1	51.9	63.3	50.8	48.5	55.3	31.5	17.2	65.3	31.1	26.6
Incr Delay (d2), s/veh	48.2	3.0	51.6	2.6	35.5	19.7	10.7	16.0	0.5	40.1	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	8.1	18.7	2.2	20.4	14.0	10.2	36.0	4.2	1.9	9.1	2.2
LnGrp Delay(d),s/veh	113.3	49.1	103.6	66.0	86.3	68.2	66.0	47.5	17.7	105.4	31.7	26.9
LnGrp LOS	F	D	F	E	F	E	E	D	B	F	C	C
Approach Vol, veh/h		934			1333			3340			1129	
Approach Delay, s/veh		77.1			80.0			48.5			36.3	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	58.2	9.8	39.0	9.2	77.0	12.0	36.8
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	30.3	* 45	4.3	33.4	3.7	* 72	9.0	* 29
Max Q Clear Time (g_c+I1), s	22.2	21.7	5.7	35.4	5.0	72.5	6.5	33.2
Green Ext Time (p_c), s	0.3	23.2	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	56.7
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	943	33	15	1389	8	466	42	186	7	16	55
Future Volume (veh/h)	14	943	33	15	1389	8	466	42	186	7	16	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	14	943	33	15	1389	8	466	42	186	7	16	55
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	22	1581	707	23	1583	708	494	106	468	12	27	92
Arrive On Green	0.01	0.46	0.46	0.01	0.46	0.46	0.28	0.36	0.36	0.01	0.07	0.07
Sat Flow, veh/h	1707	3406	1524	1707	3406	1524	1757	297	1315	1757	366	1257
Grp Volume(v), veh/h	14	943	33	15	1389	8	466	0	228	7	0	71
Grp Sat Flow(s),veh/h/ln	1707	1703	1524	1707	1703	1524	1757	0	1613	1757	0	1623
Q Serve(g_s), s	0.9	22.9	1.3	1.0	41.1	0.3	28.9	0.0	11.8	0.4	0.0	4.7
Cycle Q Clear(g_c), s	0.9	22.9	1.3	1.0	41.1	0.3	28.9	0.0	11.8	0.4	0.0	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.82	1.00		0.77
Lane Grp Cap(c), veh/h	22	1581	707	23	1583	708	494	0	574	12	0	119
V/C Ratio(X)	0.65	0.60	0.05	0.66	0.88	0.01	0.94	0.00	0.40	0.57	0.00	0.60
Avail Cap(c_a), veh/h	61	1581	707	84	1608	719	546	0	747	63	0	306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.8	22.1	16.4	54.7	26.9	16.0	39.2	0.0	26.9	55.2	0.0	50.0
Incr Delay (d2), s/veh	20.1	0.8	0.0	19.9	6.1	0.0	23.5	0.0	0.4	25.2	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.9	0.6	0.6	20.6	0.1	17.2	0.0	5.3	0.3	0.0	2.3
LnGrp Delay(d),s/veh	74.9	22.9	16.4	74.6	33.0	16.0	62.7	0.0	27.3	80.3	0.0	54.3
LnGrp LOS	E	C	B	E	C	B	E		C	F		D
Approach Vol, veh/h		990			1412			694			78	
Approach Delay, s/veh		23.5			33.4			51.1			56.6	
Approach LOS		C			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	58.1	35.7	12.6	4.9	58.2	4.3	44.0
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	5.5	51.1	34.6	* 21	4.0	52.6	4.0	51.6
Max Q Clear Time (g_c+I1), s	3.0	24.9	30.9	6.7	2.9	43.1	2.4	13.8
Green Ext Time (p_c), s	0.0	23.9	0.4	1.4	0.0	8.7	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	778	662	5	1191	560	640	485	25	176	236	1
Future Volume (veh/h)	1	778	662	5	1191	560	640	485	25	176	236	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1	778	662	5	1191	560	640	485	25	176	236	1
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1	799	658	7	1038	465	541	627	533	192	261	222
Arrive On Green	0.00	0.44	0.44	0.00	0.44	0.44	0.31	0.34	0.34	0.11	0.14	0.14
Sat Flow, veh/h	1757	1827	1505	1757	2356	1055	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	1	745	695	5	870	881	640	485	25	176	236	1
Grp Sat Flow(s),veh/h/ln	1757	1752	1579	1757	1752	1659	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	0.1	60.9	64.0	0.4	64.4	64.4	45.0	34.4	1.6	14.5	18.4	0.1
Cycle Q Clear(g_c), s	0.1	60.9	64.0	0.4	64.4	64.4	45.0	34.4	1.6	14.5	18.4	0.1
Prop In Lane	1.00		0.95	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1	767	691	7	772	731	541	627	533	192	261	222
V/C Ratio(X)	0.70	0.97	1.01	0.75	1.13	1.21	1.18	0.77	0.05	0.92	0.90	0.00
Avail Cap(c_a), veh/h	48	767	691	48	772	731	541	631	536	192	265	225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.1	40.3	41.1	72.8	40.9	40.9	50.6	43.2	32.4	64.5	61.8	53.9
Incr Delay (d2), s/veh	231.3	25.7	35.5	96.4	73.5	105.1	100.5	5.9	0.0	41.9	31.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	34.9	34.7	0.4	46.8	50.8	36.9	18.5	0.7	9.3	11.6	0.0
LnGrp Delay(d),s/veh	304.3	65.9	76.7	169.2	114.4	146.0	151.1	49.2	32.4	106.4	93.0	53.9
LnGrp LOS	F	E	F	F	F	F	F	D	C	F	F	D
Approach Vol, veh/h		1441			1756			1150			413	
Approach Delay, s/veh		71.3			130.4			105.5			98.6	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	53.7	4.6	68.0	49.0	24.7	4.1	68.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	50.0	4.0	64.0	45.0	21.0	4.0	64.0
Max Q Clear Time (g_c+I1), s	16.5	36.4	2.4	66.0	47.0	20.4	2.1	66.4
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	103.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	238	5	36	435	6	10	54	48	11	30	30
Future Volume (veh/h)	176	238	5	36	435	6	10	54	48	11	30	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	176	238	5	36	435	6	10	54	48	11	30	30
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	222	1176	25	58	855	12	19	105	93	15	41	41
Arrive On Green	0.13	0.34	0.34	0.03	0.24	0.24	0.13	0.13	0.13	0.06	0.06	0.06
Sat Flow, veh/h	1740	3477	73	1740	3506	48	152	823	732	264	720	720
Grp Volume(v), veh/h	176	119	124	36	215	226	112	0	0	71	0	0
Grp Sat Flow(s),veh/h/ln	1740	1736	1814	1740	1736	1818	1708	0	0	1704	0	0
Q Serve(g_s), s	3.5	1.7	1.8	0.7	3.9	3.9	2.2	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	3.5	1.7	1.8	0.7	3.9	3.9	2.2	0.0	0.0	1.5	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.03	0.09		0.43	0.15		0.42
Lane Grp Cap(c), veh/h	222	587	614	58	423	444	217	0	0	96	0	0
V/C Ratio(X)	0.79	0.20	0.20	0.62	0.51	0.51	0.51	0.00	0.00	0.74	0.00	0.00
Avail Cap(c_a), veh/h	290	819	857	242	771	808	759	0	0	757	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.2	8.5	8.5	17.2	11.7	11.7	14.7	0.0	0.0	16.7	0.0	0.0
Incr Delay (d2), s/veh	10.6	0.2	0.2	10.1	0.9	0.9	1.9	0.0	0.0	10.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.9	0.9	0.5	2.0	2.1	1.1	0.0	0.0	1.0	0.0	0.0
LnGrp Delay(d),s/veh	25.8	8.6	8.6	27.3	12.7	12.7	16.6	0.0	0.0	27.2	0.0	0.0
LnGrp LOS	C	A	A	C	B	B	B			C		
Approach Vol, veh/h		419			477			112			71	
Approach Delay, s/veh		15.9			13.8			16.6			27.2	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		8.6	5.2	16.2		6.0	8.6	12.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		16.0	5.0	17.0		16.0	6.0	16.0
Max Q Clear Time (g_c+I1), s		4.2	2.7	3.8		3.5	5.5	5.9
Green Ext Time (p_c), s		0.4	0.0	3.4		0.2	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	288	101	114	136	134	110	656	119	77	275	293
Future Volume (veh/h)	96	288	101	114	136	134	110	656	119	77	275	293
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	96	288	101	114	136	134	110	656	119	77	275	293
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	122	421	145	114	274	245	140	731	622	97	687	584
Arrive On Green	0.07	0.16	0.16	0.06	0.16	0.16	0.08	0.40	0.40	0.06	0.37	0.37
Sat Flow, veh/h	1757	2562	880	1757	1752	1568	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	96	195	194	114	136	134	110	656	119	77	275	293
Grp Sat Flow(s),veh/h/ln	1757	1752	1689	1757	1752	1568	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	3.3	6.5	6.7	4.0	4.4	4.9	3.8	20.6	3.1	2.7	6.8	8.9
Cycle Q Clear(g_c), s	3.3	6.5	6.7	4.0	4.4	4.9	3.8	20.6	3.1	2.7	6.8	8.9
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	288	278	114	274	245	140	731	622	97	687	584
V/C Ratio(X)	0.78	0.68	0.70	1.00	0.50	0.55	0.78	0.90	0.19	0.79	0.40	0.50
Avail Cap(c_a), veh/h	191	880	848	114	792	708	250	926	787	128	800	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	24.3	24.4	28.9	23.8	24.0	27.9	17.5	12.2	28.8	14.3	15.0
Incr Delay (d2), s/veh	4.5	1.0	1.2	84.9	0.5	0.7	3.6	8.4	0.1	15.9	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.2	3.2	4.6	2.2	2.1	2.0	12.1	1.3	1.7	3.5	3.8
LnGrp Delay(d),s/veh	32.7	25.3	25.6	113.8	24.4	24.8	31.5	25.9	12.2	44.7	14.4	15.2
LnGrp LOS	C	C	C	F	C	C	C	C	B	D	B	B
Approach Vol, veh/h		485			384			885			645	
Approach Delay, s/veh		26.9			51.0			24.7			18.4	
Approach LOS		C			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	14.4	10.4	27.4	9.0	14.9	8.9	28.9
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 6.7	27.9	8.8	* 27	4.0	* 31	4.5	* 31
Max Q Clear Time (g_c+I1), s	5.3	6.9	5.8	10.9	6.0	8.7	4.7	22.6
Green Ext Time (p_c), s	0.0	1.4	0.0	2.3	0.0	1.5	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	27.7
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	771	6	1	1093	0	4	0	1	0	0	5
Future Volume (veh/h)	1	771	6	1	1093	0	4	0	1	0	0	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	1	771	6	1	1093	0	4	0	1	0	0	5
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	1877	15	4	1846	0	102	0	25	0	0	6
Arrive On Green	0.00	0.53	0.53	0.00	0.53	0.00	0.07	0.00	0.07	0.00	0.00	0.00
Sat Flow, veh/h	1757	3564	28	1757	3597	0	1372	0	343	0	0	1568
Grp Volume(v), veh/h	1	379	398	1	1093	0	5	0	0	0	0	5
Grp Sat Flow(s),veh/h/ln	1757	1752	1840	1757	1752	0	1715	0	0	0	0	1568
Q Serve(g_s), s	0.0	5.3	5.3	0.0	8.7	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.0	5.3	5.3	0.0	8.7	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Prop In Lane	1.00		0.02	1.00		0.00	0.80		0.20	0.00		1.00
Lane Grp Cap(c), veh/h	4	923	969	4	1846	0	127	0	0	0	0	6
V/C Ratio(X)	0.23	0.41	0.41	0.23	0.59	0.00	0.04	0.00	0.00	0.00	0.00	0.79
Avail Cap(c_a), veh/h	173	1123	1179	173	2247	0	677	0	0	0	0	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	20.2	5.8	5.8	20.2	6.6	0.0	17.4	0.0	0.0	0.0	0.0	20.2
Incr Delay (d2), s/veh	25.1	0.3	0.3	25.1	0.3	0.0	0.1	0.0	0.0	0.0	0.0	106.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.6	2.7	0.0	4.2	0.0	0.1	0.0	0.0	0.0	0.0	0.2
LnGrp Delay(d),s/veh	45.4	6.1	6.1	45.4	6.9	0.0	17.6	0.0	0.0	0.0	0.0	127.1
LnGrp LOS	D	A	A	D	A		B					F
Approach Vol, veh/h		778			1094			5			5	
Approach Delay, s/veh		6.1			6.9			17.6			127.1	
Approach LOS		A			A			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		7.0	4.0	25.4		4.2	4.0	25.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		16.0	4.0	26.0		18.0	4.0	26.0
Max Q Clear Time (g_c+I1), s		2.1	2.0	7.3		2.1	2.0	10.7
Green Ext Time (p_c), s		0.0	0.0	12.3		0.0	0.0	10.7

Intersection Summary	
HCM 2010 Ctrl Delay	7.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	40	32	686	30	296	57	2041	983	480	1138	59
Future Volume (veh/h)	76	40	32	686	30	296	57	2041	983	480	1138	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	76	40	32	686	30	296	57	2041	983	480	1138	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	82	45	36	653	353	300	73	2283	711	462	2700	140
Arrive On Green	0.05	0.05	0.05	0.19	0.19	0.19	0.04	0.46	0.46	0.14	0.56	0.56
Sat Flow, veh/h	1757	950	760	3408	1845	1568	1740	4988	1553	3375	4856	252
Grp Volume(v), veh/h	76	0	72	686	30	296	57	2041	983	480	779	418
Grp Sat Flow(s),veh/h/ln	1757	0	1711	1704	1845	1568	1740	1663	1553	1688	1663	1783
Q Serve(g_s), s	5.6	0.0	5.4	24.9	1.7	24.5	4.2	48.8	59.5	17.8	17.7	17.7
Cycle Q Clear(g_c), s	5.6	0.0	5.4	24.9	1.7	24.5	4.2	48.8	59.5	17.8	17.7	17.7
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	82	0	80	653	353	300	73	2283	711	462	1848	991
V/C Ratio(X)	0.92	0.00	0.90	1.05	0.08	0.99	0.78	0.89	1.38	1.04	0.42	0.42
Avail Cap(c_a), veh/h	82	0	80	653	353	300	133	2283	711	462	1848	991
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.7	0.0	61.6	52.5	43.2	52.4	61.7	32.4	35.3	56.1	16.7	16.7
Incr Delay (d2), s/veh	72.2	0.0	65.6	49.3	0.0	47.7	6.7	4.9	181.1	52.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	4.0	16.2	0.9	14.6	2.2	23.3	61.2	11.6	8.1	8.7
LnGrp Delay(d),s/veh	134.0	0.0	127.2	101.9	43.2	100.1	68.4	37.2	216.3	108.3	16.8	16.9
LnGrp LOS	F		F	F	D	F	E	D	F	F	B	B
Approach Vol, veh/h		148			1012			3081			1677	
Approach Delay, s/veh		130.7			99.6			94.9			43.0	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.5	77.5		11.6	23.3	64.7		30.4
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 9.9	* 68		6.1	17.8	* 60		24.9
Max Q Clear Time (g_c+I1), s	6.2	19.7		7.6	19.8	61.5		26.9
Green Ext Time (p_c), s	0.0	20.7		0.0	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		81.9
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	180	195	110	111	9	283	2552	228	50	917	169
Future Volume (veh/h)	215	180	195	110	111	9	283	2552	228	50	917	169
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	215	180	195	110	111	9	283	2552	228	50	917	169
Adj No. of Lanes	2	2	1	2	2	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	275	515	230	166	378	30	345	2835	883	87	2453	764
Arrive On Green	0.08	0.15	0.15	0.05	0.11	0.11	0.10	0.57	0.57	0.03	0.49	0.49
Sat Flow, veh/h	3408	3505	1568	3408	3287	264	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	215	180	195	110	59	61	283	2552	228	50	917	169
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1798	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	6.6	4.9	12.9	3.4	3.3	3.3	8.7	48.0	7.9	1.6	12.1	6.6
Cycle Q Clear(g_c), s	6.6	4.9	12.9	3.4	3.3	3.3	8.7	48.0	7.9	1.6	12.1	6.6
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	515	230	166	201	207	345	2835	883	87	2453	764
V/C Ratio(X)	0.78	0.35	0.85	0.66	0.29	0.30	0.82	0.90	0.26	0.57	0.37	0.22
Avail Cap(c_a), veh/h	283	1051	470	276	529	542	554	3023	941	95	2453	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	40.7	44.1	49.6	43.0	43.0	46.7	20.2	11.6	51.1	16.8	15.4
Incr Delay (d2), s/veh	11.7	0.2	3.3	1.7	0.3	0.3	2.3	3.8	0.1	3.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.4	5.8	1.6	1.6	1.7	4.2	22.7	3.4	0.8	5.5	2.8
LnGrp Delay(d),s/veh	59.6	40.8	47.4	51.3	43.3	43.3	49.0	24.0	11.6	54.5	16.8	15.4
LnGrp LOS	E	D	D	D	D	D	D	C	B	D	B	B
Approach Vol, veh/h		590			230			3063			1136	
Approach Delay, s/veh		49.8			47.1			25.4			18.3	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	57.8	14.1	17.9	8.2	65.9	10.7	21.3
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	17.4	* 50	8.8	* 32	3.0	* 64	8.6	* 32
Max Q Clear Time (g_c+I1), s	10.7	14.1	8.6	5.3	3.6	50.0	5.4	14.9
Green Ext Time (p_c), s	0.1	20.6	0.0	0.7	0.0	10.3	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	296	508	320	8	785	191	575	2774	28	137	968	226
Future Volume (veh/h)	296	508	320	8	785	191	575	2774	28	137	968	226
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	296	508	320	8	785	191	575	2774	28	137	968	0
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	190	700	595	34	543	461	343	2067	21	81	1260	392
Arrive On Green	0.11	0.39	0.39	0.02	0.30	0.30	0.20	0.41	0.41	0.05	0.25	0.00
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1740	5092	51	1740	4988	1553
Grp Volume(v), veh/h	296	508	320	8	785	191	575	1809	993	137	968	0
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1740	1663	1818	1740	1663	1553
Q Serve(g_s), s	16.7	36.1	24.3	0.7	45.4	15.0	29.6	60.9	60.9	7.0	27.0	0.0
Cycle Q Clear(g_c), s	16.7	36.1	24.3	0.7	45.4	15.0	29.6	60.9	60.9	7.0	27.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	190	700	595	34	543	461	343	1350	738	81	1260	392
V/C Ratio(X)	1.56	0.73	0.54	0.23	1.45	0.41	1.67	1.34	1.35	1.69	0.77	0.00
Avail Cap(c_a), veh/h	190	701	596	39	543	461	343	1350	738	81	1260	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.51	0.51	0.51	0.09	0.09	0.09	0.92	0.92	0.00
Uniform Delay (d), s/veh	66.7	38.9	35.3	72.4	52.3	41.7	60.2	44.5	44.6	71.5	52.0	0.0
Incr Delay (d2), s/veh	275.0	3.3	0.5	0.7	206.5	0.1	304.8	153.5	156.4	353.0	4.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.4	18.6	10.3	0.3	53.6	6.3	43.3	56.7	62.6	11.3	12.9	0.0
LnGrp Delay(d),s/veh	341.6	42.1	35.8	73.0	258.8	41.8	365.0	198.0	200.9	424.5	56.1	0.0
LnGrp LOS	F	D	D	E	F	D	F	F	F	F	E	
Approach Vol, veh/h		1124			984			3377			1105	
Approach Delay, s/veh		119.2			215.2			227.3			101.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	43.0	21.0	51.0	12.0	66.0	7.8	64.2
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 30	37.9	* 17	45.4	7.0	60.9	* 3.4	* 59
Max Q Clear Time (g_c+I1), s	31.6	29.0	18.7	47.4	9.0	62.9	2.7	38.1
Green Ext Time (p_c), s	0.0	7.4	0.0	0.0	0.0	0.0	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	186.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	433	249	86	10	573	68	154	2888	110	7	957	353
Future Volume (veh/h)	433	249	86	10	573	68	154	2888	110	7	957	353
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	433	249	86	10	573	68	154	2888	110	7	957	353
Adj No. of Lanes	2	1	0	2	1	0	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	311	464	160	23	436	52	176	2421	91	9	1419	523
Arrive On Green	0.09	0.35	0.35	0.01	0.27	0.27	0.10	0.49	0.49	0.01	0.39	0.39
Sat Flow, veh/h	3408	1312	453	3408	1619	192	1740	4934	186	1740	3594	1324
Grp Volume(v), veh/h	433	0	335	10	0	641	154	1935	1063	7	885	425
Grp Sat Flow(s),veh/h/ln	1704	0	1765	1704	0	1811	1740	1663	1794	1740	1663	1593
Q Serve(g_s), s	13.5	0.0	22.4	0.4	0.0	39.8	12.9	72.5	72.5	0.6	32.4	32.5
Cycle Q Clear(g_c), s	13.5	0.0	22.4	0.4	0.0	39.8	12.9	72.5	72.5	0.6	32.4	32.5
Prop In Lane	1.00		0.26	1.00		0.11	1.00		0.10	1.00		0.83
Lane Grp Cap(c), veh/h	311	0	625	23	0	488	176	1632	880	9	1313	629
V/C Ratio(X)	1.39	0.00	0.54	0.43	0.00	1.31	0.88	1.19	1.21	0.79	0.67	0.68
Avail Cap(c_a), veh/h	311	0	625	136	0	488	279	1632	880	35	1313	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.1	0.0	38.1	73.1	0.0	54.0	65.5	37.6	37.6	73.4	36.9	36.9
Incr Delay (d2), s/veh	194.3	0.0	0.5	4.6	0.0	155.4	10.7	90.2	104.1	42.9	1.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.7	0.0	11.0	0.2	0.0	40.8	6.7	53.5	61.2	0.4	15.1	14.7
LnGrp Delay(d),s/veh	261.4	0.0	38.6	77.7	0.0	209.4	76.2	127.8	141.7	116.3	38.0	39.2
LnGrp LOS	F		D	E		F	E	F	F	F	D	D
Approach Vol, veh/h		768			651			3152			1317	
Approach Delay, s/veh		164.2			207.4			130.0			38.8	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	63.3	19.0	45.0	6.2	77.5	6.5	57.5
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	23.7	51.8	13.5	* 40	3.0	72.5	5.9	* 47
Max Q Clear Time (g_c+I1), s	14.9	34.5	15.5	41.8	2.6	74.5	2.4	24.4
Green Ext Time (p_c), s	0.0	14.1	0.0	0.0	0.0	0.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	122.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	572	293	184	17	884	460	432	2227	69	103	577	83
Future Volume (veh/h)	572	293	184	17	884	460	432	2227	69	103	577	83
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1792	1792	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	572	293	184	17	884	460	432	2227	69	103	577	83
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	6	6	6	4	4	4	4	4	4
Cap, veh/h	439	898	549	34	683	351	475	1925	599	101	1372	427
Arrive On Green	0.13	0.43	0.43	0.01	0.31	0.31	0.14	0.39	0.39	0.03	0.28	0.28
Sat Flow, veh/h	3375	2072	1267	3312	2178	1119	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	572	244	233	17	689	655	432	2227	69	103	577	83
Grp Sat Flow(s),veh/h/ln	1688	1736	1603	1656	1703	1595	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	19.5	13.9	14.4	0.8	47.0	47.0	18.9	57.9	4.3	4.5	14.2	6.1
Cycle Q Clear(g_c), s	19.5	13.9	14.4	0.8	47.0	47.0	18.9	57.9	4.3	4.5	14.2	6.1
Prop In Lane	1.00		0.79	1.00		0.70	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	439	752	695	34	534	500	475	1925	599	101	1372	427
V/C Ratio(X)	1.30	0.32	0.34	0.51	1.29	1.31	0.91	1.16	0.12	1.02	0.42	0.19
Avail Cap(c_a), veh/h	439	752	695	77	534	500	596	1925	599	101	1372	427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	28.0	28.2	73.9	51.5	51.5	63.5	46.0	29.6	72.8	44.6	41.6
Incr Delay (d2), s/veh	152.4	0.1	0.1	4.3	144.3	154.0	13.9	76.9	0.0	94.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.4	6.7	6.4	0.4	43.5	42.1	9.7	40.3	1.8	3.4	6.5	2.7
LnGrp Delay(d),s/veh	217.6	28.1	28.3	78.2	195.8	205.5	77.4	122.9	29.6	167.0	44.6	41.7
LnGrp LOS	F	C	C	E	F	F	E	F	C	F	D	D
Approach Vol, veh/h		1049			1361			2728			763	
Approach Delay, s/veh		131.5			199.0			113.4			60.8	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.6	46.4	25.0	52.0	10.0	63.0	7.0	70.0
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	26.5	* 36	19.5	* 47	4.5	* 58	3.5	* 63
Max Q Clear Time (g_c+I1), s	20.9	16.2	21.5	49.0	6.5	59.9	2.8	16.4
Green Ext Time (p_c), s	0.2	10.9	0.0	0.0	0.0	0.0	0.0	5.6

Intersection Summary	
HCM 2010 Ctrl Delay	129.5
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	246	174	84	445	636	143	2030	106	261	632	236
Future Volume (veh/h)	293	246	174	84	445	636	143	2030	106	261	632	236
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	293	246	174	84	445	636	143	2030	106	261	632	236
Adj No. of Lanes	2	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	289	1127	504	104	1037	464	188	1974	615	260	2088	650
Arrive On Green	0.08	0.32	0.32	0.06	0.30	0.30	0.06	0.40	0.40	0.08	0.42	0.42
Sat Flow, veh/h	3408	3505	1568	1757	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	293	246	174	84	445	636	143	2030	106	261	632	236
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	12.3	7.4	12.3	6.9	14.9	43.0	6.1	57.5	6.4	11.2	12.3	15.1
Cycle Q Clear(g_c), s	12.3	7.4	12.3	6.9	14.9	43.0	6.1	57.5	6.4	11.2	12.3	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	289	1127	504	104	1037	464	188	1974	615	260	2088	650
V/C Ratio(X)	1.02	0.22	0.35	0.81	0.43	1.37	0.76	1.03	0.17	1.00	0.30	0.36
Avail Cap(c_a), veh/h	289	1127	504	164	1037	464	260	1974	615	260	2088	650
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	36.0	37.6	67.6	41.3	51.1	67.7	43.9	28.5	67.0	28.1	29.0
Incr Delay (d2), s/veh	57.0	0.0	0.2	6.8	0.1	180.1	5.0	27.9	0.0	56.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	3.6	5.4	3.5	7.2	41.8	3.0	31.4	2.8	7.2	5.6	6.5
LnGrp Delay(d),s/veh	123.6	36.0	37.8	74.4	41.4	231.2	72.7	71.8	28.5	123.6	28.1	29.1
LnGrp LOS	F	D	D	E	D	F	E	F	C	F	C	C
Approach Vol, veh/h		713			1165			2279			1129	
Approach Delay, s/veh		72.4			147.4			69.9			50.4	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	65.9	17.8	48.4	16.5	62.6	14.1	52.1
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 11	57.7	12.3	* 43	* 11	57.5	13.6	* 41
Max Q Clear Time (g_c+I1), s	8.1	17.1	14.3	45.0	13.2	59.5	8.9	14.3
Green Ext Time (p_c), s	0.0	13.4	0.0	0.0	0.0	0.0	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	83.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

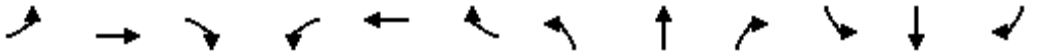
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	552	3	88	950	4	2	803	148	8	530	187
Future Volume (veh/h)	64	552	3	88	950	4	2	803	148	8	530	187
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	64	552	3	88	950	4	2	803	148	8	530	187
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	72	958	5	109	1034	4	2	747	138	9	910	774
Arrive On Green	0.04	0.28	0.28	0.06	0.30	0.30	0.00	0.49	0.49	0.00	0.49	0.49
Sat Flow, veh/h	1707	3473	19	1707	3478	15	1757	1516	279	1757	1845	1568
Grp Volume(v), veh/h	64	271	284	88	465	489	2	0	951	8	530	187
Grp Sat Flow(s),veh/h/ln	1707	1703	1789	1707	1703	1790	1757	0	1795	1757	1845	1568
Q Serve(g_s), s	4.8	17.5	17.5	6.5	33.8	33.8	0.1	0.0	63.0	0.6	26.1	8.8
Cycle Q Clear(g_c), s	4.8	17.5	17.5	6.5	33.8	33.8	0.1	0.0	63.0	0.6	26.1	8.8
Prop In Lane	1.00		0.01	1.00		0.01	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	72	470	494	109	506	532	2	0	885	9	910	774
V/C Ratio(X)	0.89	0.58	0.58	0.81	0.92	0.92	0.99	0.00	1.07	0.91	0.58	0.24
Avail Cap(c_a), veh/h	72	470	494	127	517	543	41	0	885	27	910	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.9	39.9	39.9	59.1	43.4	43.4	63.8	0.0	32.4	63.6	23.0	18.6
Incr Delay (d2), s/veh	67.2	2.1	2.0	24.0	21.7	21.0	175.7	0.0	52.5	64.6	2.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	8.5	8.9	3.8	18.9	19.8	0.2	0.0	43.9	0.4	13.9	3.9
LnGrp Delay(d),s/veh	128.1	42.0	41.9	83.1	65.2	64.4	239.6	0.0	84.9	128.1	25.7	19.4
LnGrp LOS	F	D	D	F	E	E	F		F	F	C	B
Approach Vol, veh/h		619			1042			953			725	
Approach Delay, s/veh		50.8			66.3			85.2			25.2	
Approach LOS		D			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	41.7	4.5	69.1	9.8	44.4	4.6	69.0
Change Period (Y+Rc), s	4.4	6.4	4.4	6.0	4.4	6.4	* 4	6.0
Max Green Setting (Gmax), s	9.5	34.7	3.0	61.6	5.4	38.8	* 2	63.0
Max Q Clear Time (g_c+I1), s	8.5	19.5	2.1	28.1	6.8	35.8	2.6	65.0
Green Ext Time (p_c), s	0.0	10.5	0.0	32.0	0.0	2.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.9
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



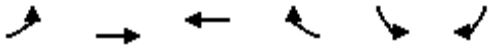
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	47	584	25	63	161	644	1462	13	105	1841	868
Future Volume (veh/h)	348	47	584	25	63	161	644	1462	13	105	1841	868
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	382	0	584	25	63	161	644	1462	13	105	1841	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	626	0	280	22	56	68	537	2912	26	126	1659	517
Arrive On Green	0.18	0.00	0.18	0.04	0.04	0.04	0.31	0.57	0.57	0.07	0.33	0.00
Sat Flow, veh/h	3480	0	1553	517	1302	1568	1740	5099	45	1740	4988	1553
Grp Volume(v), veh/h	382	0	584	88	0	161	644	953	522	105	1841	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1819	0	1568	1740	1663	1819	1740	1663	1553
Q Serve(g_s), s	15.2	0.0	27.0	6.5	0.0	6.5	46.3	25.9	25.9	8.9	49.9	0.0
Cycle Q Clear(g_c), s	15.2	0.0	27.0	6.5	0.0	6.5	46.3	25.9	25.9	8.9	49.9	0.0
Prop In Lane	1.00		1.00	0.28		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	626	0	280	79	0	68	537	1899	1039	126	1659	517
V/C Ratio(X)	0.61	0.00	2.09	1.12	0.00	2.37	1.20	0.50	0.50	0.84	1.11	0.00
Avail Cap(c_a), veh/h	626	0	280	79	0	68	537	1899	1039	194	1659	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.6	0.0	61.5	71.8	0.0	71.8	51.9	19.3	19.3	68.7	50.1	0.0
Incr Delay (d2), s/veh	1.3	0.0	502.2	136.5	0.0	659.2	106.6	0.1	0.1	10.2	58.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.0	50.6	6.3	0.0	15.3	38.1	11.8	12.9	4.7	31.9	0.0
LnGrp Delay(d),s/veh	57.9	0.0	563.7	208.3	0.0	730.9	158.4	19.4	19.5	78.9	108.6	0.0
LnGrp LOS	E		F	F		F	F	B	B	E	F	
Approach Vol, veh/h		966			249			2119			1946	
Approach Delay, s/veh		363.7			546.2			61.7			107.0	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	51.0	54.7		12.0	15.2	90.5		32.3
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 46	49.9		6.5	* 17	* 80		27.0
Max Q Clear Time (g_c+I1), s	48.3	51.9		8.5	10.9	27.9		29.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	18.2		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		156.5
HCM 2010 LOS		F

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	402	769	664	838	142	46
Future Volume (veh/h)	402	769	664	838	142	46
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	402	769	664	838	142	46
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	453	2646	751	672	189	169
Arrive On Green	0.26	0.76	0.43	0.43	0.11	0.11
Sat Flow, veh/h	1757	3597	1845	1568	1757	1568
Grp Volume(v), veh/h	402	769	664	838	142	46
Grp Sat Flow(s),veh/h/ln	1757	1752	1752	1568	1757	1568
Q Serve(g_s), s	12.8	4.0	20.3	25.0	4.6	1.6
Cycle Q Clear(g_c), s	12.8	4.0	20.3	25.0	4.6	1.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	453	2646	751	672	189	169
V/C Ratio(X)	0.89	0.29	0.88	1.25	0.75	0.27
Avail Cap(c_a), veh/h	482	2705	751	672	211	188
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	2.2	15.3	16.7	25.2	23.9
Incr Delay (d2), s/veh	17.3	0.1	12.1	123.1	12.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	1.9	12.3	33.6	2.9	1.4
LnGrp Delay(d),s/veh	38.2	2.3	27.4	139.8	37.8	24.8
LnGrp LOS	D	A	C	F	D	C
Approach Vol, veh/h		1171	1502		188	
Approach Delay, s/veh		14.6	90.1		34.6	
Approach LOS		B	F		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		48.0		10.3	19.0	29.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		45.0		7.0	16.0	25.0		
Max Q Clear Time (g_c+I1), s		6.0		6.6	14.8	27.0		
Green Ext Time (p_c), s		26.1		0.0	0.2	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	55.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	372	218	35	34	279	804	37	2251	47	606	2109	891
Future Volume (veh/h)	372	218	35	34	279	804	37	2251	47	606	2109	891
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	372	218	35	34	279	804	37	2251	47	606	2109	891
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	306	1195	185	61	368	1094	65	2098	44	510	2739	853
Arrive On Green	0.09	0.27	0.27	0.02	0.20	0.20	0.02	0.41	0.41	0.15	0.54	0.54
Sat Flow, veh/h	3408	4399	682	3514	1845	3136	3408	5077	106	3408	5036	1568
Grp Volume(v), veh/h	372	165	88	34	279	804	37	1487	811	606	2109	891
Grp Sat Flow(s),veh/h/ln	1704	1679	1724	1757	1845	1568	1704	1679	1826	1704	1679	1568
Q Serve(g_s), s	13.5	5.6	5.9	1.4	21.5	30.0	1.6	62.2	62.2	22.5	49.5	81.9
Cycle Q Clear(g_c), s	13.5	5.6	5.9	1.4	21.5	30.0	1.6	62.2	62.2	22.5	49.5	81.9
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	306	912	468	61	368	1094	65	1388	755	510	2739	853
V/C Ratio(X)	1.22	0.18	0.19	0.56	0.76	0.73	0.57	1.07	1.08	1.19	0.77	1.04
Avail Cap(c_a), veh/h	306	912	468	126	368	1094	72	1388	755	510	2739	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.5	42.0	42.1	73.4	56.8	42.9	73.2	44.1	44.2	64.0	26.9	34.3
Incr Delay (d2), s/veh	123.6	0.0	0.1	2.9	8.0	2.3	3.7	45.8	54.8	103.5	1.3	43.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	2.6	2.8	0.7	11.7	15.0	0.8	37.5	42.7	17.9	23.2	45.4
LnGrp Delay(d),s/veh	192.1	42.0	42.1	76.3	64.8	45.2	76.9	90.0	99.0	167.5	28.2	77.5
LnGrp LOS	F	D	D	E	E	D	E	F	F	F	C	F
Approach Vol, veh/h		625			1117			2335			3606	
Approach Delay, s/veh		131.4			51.0			92.9			63.8	
Approach LOS		F			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	87.5	19.0	35.7	28.0	67.8	8.1	46.6
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	3.2	81.2	13.5	* 30	22.5	* 62	5.4	* 38
Max Q Clear Time (g_c+I1), s	3.6	83.9	15.5	32.0	24.5	64.2	3.4	7.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	76.3
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	64	13	38	46	66	37	2199	63	133	1497	215
Future Volume (veh/h)	105	64	13	38	46	66	37	2199	63	133	1497	215
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	91	84	13	38	46	66	37	2199	63	133	1497	215
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	132	117	18	109	115	98	46	2784	80	167	2760	396
Arrive On Green	0.08	0.08	0.08	0.06	0.06	0.06	0.03	0.55	0.55	0.10	0.62	0.62
Sat Flow, veh/h	1757	1561	242	1757	1845	1568	1757	5033	144	1757	4451	638
Grp Volume(v), veh/h	91	0	97	38	46	66	37	1465	797	133	1129	583
Grp Sat Flow(s),veh/h/ln	1757	0	1802	1757	1845	1568	1757	1679	1819	1757	1679	1732
Q Serve(g_s), s	4.8	0.0	5.0	2.0	2.3	3.9	2.0	32.9	33.2	7.1	18.3	18.4
Cycle Q Clear(g_c), s	4.8	0.0	5.0	2.0	2.3	3.9	2.0	32.9	33.2	7.1	18.3	18.4
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.08	1.00		0.37
Lane Grp Cap(c), veh/h	132	0	135	109	115	98	46	1857	1006	167	2082	1074
V/C Ratio(X)	0.69	0.00	0.72	0.35	0.40	0.68	0.80	0.79	0.79	0.79	0.54	0.54
Avail Cap(c_a), veh/h	519	0	532	500	525	446	164	2204	1194	220	2303	1188
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	0.0	43.0	42.8	42.9	43.7	46.1	16.9	16.9	42.2	10.4	10.4
Incr Delay (d2), s/veh	2.4	0.0	2.6	0.7	0.8	3.0	11.3	1.4	2.6	10.3	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	2.6	1.0	1.2	1.8	1.1	15.4	17.3	3.9	8.5	8.8
LnGrp Delay(d),s/veh	45.3	0.0	45.7	43.5	43.8	46.7	57.5	18.2	19.5	52.4	10.4	10.5
LnGrp LOS	D		D	D	D	D	E	B	B	D	B	B
Approach Vol, veh/h		188			150			2299			1845	
Approach Delay, s/veh		45.5			45.0			19.3			13.5	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	63.8		11.4	13.7	57.5		12.7
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 8.9	65.3		27.1	* 12	62.5		28.1
Max Q Clear Time (g_c+I1), s	4.0	20.4		5.9	9.1	35.2		7.0
Green Ext Time (p_c), s	0.0	22.9		0.1	0.0	17.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	748	564	103	1278	848	700	1392	149	175	994	115
Future Volume (veh/h)	47	748	564	103	1278	848	700	1392	149	175	994	115
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	47	748	564	103	1278	848	700	1392	149	175	994	115
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	79	1226	573	151	1945	606	643	1774	552	225	1052	121
Arrive On Green	0.02	0.37	0.37	0.04	0.39	0.39	0.19	0.35	0.35	0.07	0.23	0.23
Sat Flow, veh/h	3408	3357	1568	3408	5036	1568	3408	5036	1568	3408	4580	529
Grp Volume(v), veh/h	47	748	564	103	1278	848	700	1392	149	175	728	381
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1751
Q Serve(g_s), s	1.8	23.6	46.3	3.9	27.1	50.2	24.5	32.2	8.8	6.6	27.7	27.8
Cycle Q Clear(g_c), s	1.8	23.6	46.3	3.9	27.1	50.2	24.5	32.2	8.8	6.6	27.7	27.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	79	1226	573	151	1945	606	643	1774	552	225	771	402
V/C Ratio(X)	0.60	0.61	0.98	0.68	0.66	1.40	1.09	0.78	0.27	0.78	0.94	0.95
Avail Cap(c_a), veh/h	79	1226	573	220	1945	606	643	1774	552	254	772	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.9	33.7	40.9	61.2	32.8	39.9	52.7	37.7	30.1	59.8	49.2	49.3
Incr Delay (d2), s/veh	8.4	0.6	33.6	2.0	0.7	189.9	62.3	2.2	0.1	10.8	19.7	31.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	11.0	25.4	1.9	12.7	53.6	17.1	15.2	3.8	3.4	15.0	16.9
LnGrp Delay(d),s/veh	71.3	34.3	74.5	63.2	33.4	229.7	115.0	39.9	30.2	70.6	69.0	80.4
LnGrp LOS	E	C	E	E	C	F	F	D	C	E	E	F
Approach Vol, veh/h		1359			2229			2241			1284	
Approach Delay, s/veh		52.3			109.5			62.7			72.6	
Approach LOS		D			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	35.5	8.5	56.0	14.1	51.4	11.2	53.3
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	24.5	* 30	3.0	50.2	9.7	* 45	8.4	44.8
Max Q Clear Time (g_c+I1), s	26.5	29.8	3.8	52.2	8.6	34.2	5.9	48.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	77.2
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	659	48	45	1212	872	243	684	66	485	228	47
Future Volume (veh/h)	205	659	48	45	1212	872	243	684	66	485	228	47
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	205	659	48	45	1212	872	243	684	66	485	228	47
Adj No. of Lanes	1	2	0	2	2	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	139	1387	101	79	1234	552	267	538	52	340	521	443
Arrive On Green	0.08	0.42	0.42	0.02	0.35	0.35	0.15	0.32	0.32	0.10	0.28	0.28
Sat Flow, veh/h	1757	3313	241	3408	3505	1568	1757	1657	160	3408	1845	1568
Grp Volume(v), veh/h	205	348	359	45	1212	872	243	0	750	485	228	47
Grp Sat Flow(s),veh/h/ln	1757	1752	1802	1704	1752	1568	1757	0	1816	1704	1845	1568
Q Serve(g_s), s	11.5	21.0	21.0	1.9	49.8	51.2	19.8	0.0	47.2	14.5	14.7	3.2
Cycle Q Clear(g_c), s	11.5	21.0	21.0	1.9	49.8	51.2	19.8	0.0	47.2	14.5	14.7	3.2
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	139	733	754	79	1234	552	267	0	590	340	521	443
V/C Ratio(X)	1.48	0.47	0.48	0.57	0.98	1.58	0.91	0.00	1.27	1.43	0.44	0.11
Avail Cap(c_a), veh/h	139	733	754	117	1234	552	326	0	590	340	521	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.0	30.7	30.7	70.3	46.6	47.1	60.7	0.0	49.1	65.5	42.7	38.6
Incr Delay (d2), s/veh	248.5	0.2	0.2	6.4	21.2	269.3	25.1	0.0	135.3	208.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	10.2	10.5	1.0	27.7	63.4	11.5	0.0	45.7	16.6	7.5	1.4
LnGrp Delay(d),s/veh	315.5	30.9	30.9	76.7	67.9	316.4	85.8	0.0	184.4	273.9	42.9	38.6
LnGrp LOS	F	C	C	E	E	F	F		F	F	D	D
Approach Vol, veh/h		912			2129			993			760	
Approach Delay, s/veh		94.8			169.9			160.3			190.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	56.1	26.1	46.2	7.4	65.7	20.0	52.3
Change Period (Y+Rc), s	5.5	* 4.9	4.0	* 5.1	4.0	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	11.5	* 51	27.0	* 36	5.0	* 59	14.5	* 47
Max Q Clear Time (g_c+I1), s	13.5	53.2	21.8	16.7	3.9	23.0	16.5	49.2
Green Ext Time (p_c), s	0.0	0.0	0.3	2.4	0.0	7.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	156.8
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	210	196	103	397	181	376	2097	155	224	1972	299
Future Volume (veh/h)	318	210	196	103	397	181	376	2097	155	224	1972	299
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	318	210	196	103	397	181	376	2097	155	224	1972	299
Adj No. of Lanes	2	2	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	352	842	377	152	665	409	411	2928	724	273	2120	660
Arrive On Green	0.10	0.24	0.24	0.04	0.18	0.18	0.12	0.47	0.47	0.08	0.43	0.43
Sat Flow, veh/h	3408	3505	1568	3514	3689	1568	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	318	210	196	103	397	181	376	2097	155	224	1972	299
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	12.1	6.3	14.2	3.8	12.9	12.6	14.4	35.0	7.7	8.5	49.1	17.9
Cycle Q Clear(g_c), s	12.1	6.3	14.2	3.8	12.9	12.6	14.4	35.0	7.7	8.5	49.1	17.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	842	377	152	665	409	411	2928	724	273	2120	660
V/C Ratio(X)	0.90	0.25	0.52	0.68	0.60	0.44	0.92	0.72	0.21	0.82	0.93	0.45
Avail Cap(c_a), veh/h	352	992	444	231	903	511	411	2928	724	315	2152	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	40.1	43.1	61.6	49.2	40.4	56.8	28.0	20.7	59.1	35.7	26.7
Incr Delay (d2), s/veh	25.0	0.2	1.6	2.0	2.4	2.1	24.5	0.7	0.1	12.3	8.5	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	3.1	6.3	1.9	6.8	5.7	8.1	15.3	3.3	4.4	24.1	8.0
LnGrp Delay(d),s/veh	83.0	40.4	44.8	63.6	51.6	42.4	81.2	28.7	20.8	71.4	44.2	28.4
LnGrp LOS	F	D	D	E	D	D	F	C	C	E	D	C
Approach Vol, veh/h		724			681			2628			2495	
Approach Delay, s/veh		60.3			51.0			35.8			44.8	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	61.0	19.0	29.3	16.1	66.3	11.2	37.2
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	15.9	* 56	13.5	32.0	12.2	* 60	8.6	* 37
Max Q Clear Time (g_c+I1), s	16.4	51.1	14.1	14.9	10.5	37.0	5.8	16.2
Green Ext Time (p_c), s	0.0	4.4	0.0	8.6	0.0	22.9	0.0	9.7

Intersection Summary	
HCM 2010 Ctrl Delay	43.5
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	495	306	572	1276	41	891	2154	192	121	626	334
Future Volume (veh/h)	179	495	306	572	1276	41	891	2154	192	121	626	334
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	179	495	306	572	1276	41	891	2154	192	121	626	334
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	222	700	313	596	1551	483	910	2148	669	139	1009	314
Arrive On Green	0.07	0.20	0.20	0.18	0.31	0.31	0.27	0.43	0.43	0.04	0.20	0.20
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	179	495	306	572	1276	41	891	2154	192	121	626	334
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	7.8	19.8	29.1	25.2	35.6	2.8	39.3	64.7	12.1	5.4	17.2	30.4
Cycle Q Clear(g_c), s	7.8	19.8	29.1	25.2	35.6	2.8	39.3	64.7	12.1	5.4	17.2	30.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	700	313	596	1551	483	910	2148	669	139	1009	314
V/C Ratio(X)	0.80	0.71	0.98	0.96	0.82	0.08	0.98	1.00	0.29	0.87	0.62	1.06
Avail Cap(c_a), veh/h	259	700	313	596	1551	483	910	2148	669	139	1009	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	56.0	59.8	61.3	47.9	36.6	54.4	42.7	27.8	71.6	54.6	59.9
Incr Delay (d2), s/veh	12.6	4.1	44.7	27.0	4.6	0.3	24.6	20.0	0.5	39.0	1.7	68.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	10.0	16.5	14.0	17.0	1.2	21.4	33.6	5.2	3.3	8.0	19.0
LnGrp Delay(d),s/veh	81.9	60.1	104.5	88.4	52.6	36.9	79.0	62.8	28.2	110.6	56.3	128.2
LnGrp LOS	F	E	F	F	D	D	E	F	C	F	E	F
Approach Vol, veh/h		980			1889			3237			1081	
Approach Delay, s/veh		77.9			63.1			65.2			84.6	
Approach LOS		E			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	46.0	36.2	15.3	52.7	11.7	70.5	32.0	36.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	40.5	* 30	11.4	* 45	6.2	* 65	26.5	30.0
Max Q Clear Time (g_c+I1), s	41.3	32.4	9.8	37.6	7.4	66.7	27.2	31.1
Green Ext Time (p_c), s	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	69.3
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	570	216	48	1928	830	435	2189	22	84	683	536
Future Volume (veh/h)	204	570	216	48	1928	830	435	2189	22	84	683	536
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	204	570	216	48	1928	830	435	2189	22	84	683	536
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	181	2018	628	81	1870	582	347	1930	601	84	1541	480
Arrive On Green	0.05	0.40	0.40	0.02	0.37	0.37	0.10	0.39	0.39	0.02	0.31	0.31
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	204	570	216	48	1928	830	435	2189	22	84	683	536
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	7.5	10.8	13.5	2.0	52.4	52.4	14.5	54.6	1.2	3.5	15.5	43.6
Cycle Q Clear(g_c), s	7.5	10.8	13.5	2.0	52.4	52.4	14.5	54.6	1.2	3.5	15.5	43.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	2018	628	81	1870	582	347	1930	601	84	1541	480
V/C Ratio(X)	1.13	0.28	0.34	0.59	1.03	1.43	1.25	1.13	0.04	1.00	0.44	1.12
Avail Cap(c_a), veh/h	181	2018	628	130	1870	582	347	1930	601	84	1541	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.8	28.6	29.4	68.2	44.4	44.4	63.3	43.3	26.9	68.8	39.0	48.8
Incr Delay (d2), s/veh	104.8	0.0	0.1	2.5	29.2	201.3	135.9	67.5	0.0	99.2	0.1	77.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	5.0	5.9	1.0	29.3	55.2	13.3	37.1	0.5	2.8	7.1	29.0
LnGrp Delay(d),s/veh	171.6	28.6	29.5	70.7	73.6	245.6	199.2	110.7	26.9	168.1	39.1	125.9
LnGrp LOS	F	C	C	E	F	F	F	F	C	F	D	F
Approach Vol, veh/h		990			2806			2646			1303	
Approach Delay, s/veh		58.3			124.4			124.6			83.1	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	49.6	13.0	58.5	9.0	60.6	8.9	62.6
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	14.5	43.0	7.5	* 52	3.5	* 55	5.4	* 54
Max Q Clear Time (g_c+I1), s	16.5	45.6	9.5	54.4	5.5	56.6	4.0	15.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4

Intersection Summary	
HCM 2010 Ctrl Delay	109.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	447	616	117	69	1277	916	671	2214	98	185	609	268
Future Volume (veh/h)	447	616	117	69	1277	916	671	2214	98	185	609	268
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	447	616	117	69	1277	916	671	2214	98	185	609	268
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	304	1717	321	107	1664	518	710	1835	571	133	982	306
Arrive On Green	0.09	0.40	0.40	0.03	0.35	0.35	0.21	0.37	0.37	0.04	0.20	0.20
Sat Flow, veh/h	3408	4263	798	3250	4803	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	447	483	250	69	1277	916	671	2214	98	185	609	268
Grp Sat Flow(s),veh/h/ln	1704	1679	1704	1625	1601	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	12.5	14.1	14.4	2.9	33.1	48.5	27.4	51.5	6.0	5.5	15.6	23.5
Cycle Q Clear(g_c), s	12.5	14.1	14.4	2.9	33.1	48.5	27.4	51.5	6.0	5.5	15.6	23.5
Prop In Lane	1.00		0.47	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	304	1352	686	107	1664	518	710	1835	571	133	982	306
V/C Ratio(X)	1.47	0.36	0.36	0.65	0.77	1.77	0.95	1.21	0.17	1.40	0.62	0.88
Avail Cap(c_a), veh/h	304	1352	686	144	1664	518	711	1835	571	133	982	306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.7	29.2	29.3	66.9	40.7	45.7	54.5	44.3	29.9	67.3	51.4	54.6
Incr Delay (d2), s/veh	228.1	0.1	0.1	2.4	2.0	353.5	21.1	98.4	0.1	217.1	0.9	22.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	6.5	6.8	1.4	15.0	70.8	14.9	40.3	2.6	6.6	7.3	12.0
LnGrp Delay(d),s/veh	291.9	29.2	29.4	69.3	42.7	399.3	75.6	142.7	29.9	284.3	52.3	77.5
LnGrp LOS	F	C	C	E	D	F	E	F	C	F	D	E
Approach Vol, veh/h		1180			2262			2983			1062	
Approach Delay, s/veh		128.8			187.9			123.9			99.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.9	33.1	18.0	54.0	11.0	57.0	10.1	61.9
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	29.5	27.5	12.5	48.5	5.5	51.5	6.2	54.8
Max Q Clear Time (g_c+I1), s	29.4	25.5	14.5	50.5	7.5	53.5	4.9	16.4
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.0	0.0	0.0	8.6

Intersection Summary	
HCM 2010 Ctrl Delay	140.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	109	17	315	650	639	126	1463	215	131	665	6
Future Volume (veh/h)	62	109	17	315	650	639	126	1463	215	131	665	6
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1900	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	62	109	17	315	650	639	126	1463	215	131	665	6
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	4	4	4	4	4	4
Cap, veh/h	67	119	18	220	453	581	148	1169	523	115	1014	9
Arrive On Green	0.12	0.12	0.12	0.37	0.37	0.37	0.09	0.34	0.34	0.03	0.29	0.29
Sat Flow, veh/h	562	988	154	592	1223	1568	1740	3471	1553	3375	3525	32
Grp Volume(v), veh/h	188	0	0	965	0	639	126	1463	215	131	327	344
Grp Sat Flow(s),veh/h/ln	1704	0	0	1815	0	1568	1740	1736	1553	1688	1736	1821
Q Serve(g_s), s	16.4	0.0	0.0	55.6	0.0	55.6	10.7	50.5	16.0	5.1	24.8	24.9
Cycle Q Clear(g_c), s	16.4	0.0	0.0	55.6	0.0	55.6	10.7	50.5	16.0	5.1	24.8	24.9
Prop In Lane	0.33		0.09	0.33		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	204	0	0	673	0	581	148	1169	523	115	499	524
V/C Ratio(X)	0.92	0.00	0.00	1.43	0.00	1.10	0.85	1.25	0.41	1.14	0.66	0.66
Avail Cap(c_a), veh/h	204	0	0	673	0	581	206	1169	523	115	499	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	0.0	0.0	47.2	0.0	47.2	67.7	49.7	38.3	72.4	46.9	46.9
Incr Delay (d2), s/veh	41.1	0.0	0.0	203.9	0.0	67.5	20.6	120.6	0.5	127.1	3.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	0.0	0.0	66.0	0.0	35.0	6.0	43.8	6.9	4.4	12.3	12.9
LnGrp Delay(d),s/veh	106.4	0.0	0.0	251.1	0.0	114.7	88.3	170.3	38.8	199.5	50.0	49.9
LnGrp LOS	F			F		F	F	F	D	F	D	D
Approach Vol, veh/h		188			1604			1804			802	
Approach Delay, s/veh		106.4			196.8			148.9			74.4	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.4	48.1		61.0	10.0	55.5		23.5
Change Period (Y+Rc), s	* 4.6	5.0		* 5.4	* 4.9	5.0		5.5
Max Green Setting (Gmax), s	* 18	38.1		* 56	* 5.1	50.5		18.0
Max Q Clear Time (g_c+I1), s	12.7	26.9		57.6	7.1	52.5		18.4
Green Ext Time (p_c), s	0.1	9.5		0.0	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		151.0
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	514	3	562	878	357	4	1182	242	132	814	90
Future Volume (veh/h)	185	514	3	562	878	357	4	1182	242	132	814	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	185	514	3	562	878	357	4	1182	242	132	814	90
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	247	728	326	596	1087	562	11	1237	553	169	1400	742
Arrive On Green	0.07	0.21	0.21	0.18	0.32	0.32	0.00	0.36	0.36	0.05	0.40	0.40
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3375	3471	1553	3375	3471	1553
Grp Volume(v), veh/h	185	514	3	562	878	357	4	1182	242	132	814	90
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1688	1736	1553	1688	1736	1553
Q Serve(g_s), s	5.5	14.0	0.2	16.8	23.7	19.3	0.1	33.2	11.9	3.9	18.3	3.2
Cycle Q Clear(g_c), s	5.5	14.0	0.2	16.8	23.7	19.3	0.1	33.2	11.9	3.9	18.3	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	247	728	326	596	1087	562	11	1237	553	169	1400	742
V/C Ratio(X)	0.75	0.71	0.01	0.94	0.81	0.63	0.38	0.96	0.44	0.78	0.58	0.12
Avail Cap(c_a), veh/h	265	885	396	596	1226	624	101	1249	559	169	1400	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	36.4	31.0	40.5	31.2	26.0	49.8	31.4	24.5	47.0	23.3	14.5
Incr Delay (d2), s/veh	9.0	1.3	0.0	23.4	3.2	1.2	7.9	15.7	0.2	19.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	6.7	0.1	9.6	11.6	8.3	0.1	18.6	5.1	2.2	8.8	1.4
LnGrp Delay(d),s/veh	54.4	37.8	31.0	63.9	34.4	27.2	57.7	47.2	24.7	66.2	23.7	14.5
LnGrp LOS	D	D	C	E	C	C	E	D	C	E	C	B
Approach Vol, veh/h		702			1797			1428			1036	
Approach Delay, s/veh		42.1			42.2			43.4			28.3	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	27.4	4.3	46.3	11.5	37.9	9.0	41.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	18.0	26.0	3.0	38.0	8.0	36.0	5.0	36.0
Max Q Clear Time (g_c+I1), s	18.8	16.0	2.1	20.3	7.5	25.7	5.9	35.2
Green Ext Time (p_c), s	0.0	5.4	0.0	10.6	0.0	5.5	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.6
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

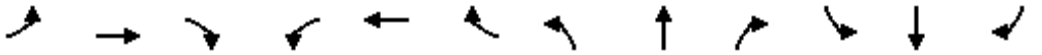
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	382	15	19	1027	566	818
Future Volume (veh/h)	382	15	19	1027	566	818
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	382	15	19	1027	566	818
Adj No. of Lanes	0	0	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	431	17	24	1886	740	662
Arrive On Green	0.27	0.27	0.01	0.54	0.43	0.43
Sat Flow, veh/h	1572	62	1740	3563	1827	1553
Grp Volume(v), veh/h	398	0	19	1027	566	818
Grp Sat Flow(s),veh/h/ln	1638	0	1740	1736	1736	1553
Q Serve(g_s), s	12.4	0.0	0.6	10.2	14.8	22.7
Cycle Q Clear(g_c), s	12.4	0.0	0.6	10.2	14.8	22.7
Prop In Lane	0.96	0.04	1.00			1.00
Lane Grp Cap(c), veh/h	449	0	24	1886	740	662
V/C Ratio(X)	0.89	0.00	0.79	0.54	0.76	1.24
Avail Cap(c_a), veh/h	492	0	199	2262	740	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	26.2	7.9	13.0	15.3
Incr Delay (d2), s/veh	16.5	0.0	18.9	0.1	4.3	118.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	0.0	0.4	4.9	7.8	31.4
LnGrp Delay(d),s/veh	35.0	0.0	45.1	8.0	17.3	134.0
LnGrp LOS	C		D	A	B	F
Approach Vol, veh/h	398			1046	1384	
Approach Delay, s/veh	35.0			8.6	86.3	
Approach LOS	C			A	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	6.2	28.4		18.6		34.6		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.1	* 23		16.0		* 35		
Max Q Clear Time (g_c+I1), s	2.6	24.7		14.4		12.2		
Green Ext Time (p_c), s	0.0	0.0		0.2		8.6		

Intersection Summary	
HCM 2010 Ctrl Delay	50.3
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	24	37	4	27	3	17	1185	32	32	1663	106
Future Volume (veh/h)	183	24	37	4	27	3	17	1185	32	32	1663	106
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1583	1845	1845	1845	1845	1810	1845	1845	1845
Adj Flow Rate, veh/h	183	24	37	4	27	3	17	1185	32	32	1663	106
Adj No. of Lanes	2	1	1	1	1	1	2	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	20	3	3	3	3	5	3	3	3
Cap, veh/h	269	233	198	6	95	80	56	2066	907	48	2104	941
Arrive On Green	0.08	0.13	0.13	0.00	0.05	0.05	0.02	0.59	0.59	0.03	0.60	0.60
Sat Flow, veh/h	3408	1845	1568	1508	1845	1568	3408	3505	1538	1757	3505	1568
Grp Volume(v), veh/h	183	24	37	4	27	3	17	1185	32	32	1663	106
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1508	1845	1568	1704	1752	1538	1757	1752	1568
Q Serve(g_s), s	3.3	0.7	1.3	0.2	0.9	0.1	0.3	13.3	0.6	1.1	22.8	1.8
Cycle Q Clear(g_c), s	3.3	0.7	1.3	0.2	0.9	0.1	0.3	13.3	0.6	1.1	22.8	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	233	198	6	95	80	56	2066	907	48	2104	941
V/C Ratio(X)	0.68	0.10	0.19	0.62	0.29	0.04	0.31	0.57	0.04	0.67	0.79	0.11
Avail Cap(c_a), veh/h	269	496	421	95	467	397	216	2105	924	139	2161	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	24.5	24.7	31.4	28.9	28.5	30.8	8.1	5.4	30.5	9.6	5.4
Incr Delay (d2), s/veh	6.7	0.2	0.5	69.3	1.6	0.2	3.0	0.4	0.0	15.0	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.4	0.6	0.2	0.5	0.1	0.2	6.4	0.2	0.8	11.4	0.8
LnGrp Delay(d),s/veh	35.1	24.7	25.2	100.7	30.5	28.7	33.8	8.4	5.5	45.5	11.6	5.5
LnGrp LOS	D	C	C	F	C	C	C	A	A	D	B	A
Approach Vol, veh/h		244			34			1234			1801	
Approach Delay, s/veh		32.6			38.6			8.7			11.9	
Approach LOS		C			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	41.3	4.3	12.0	5.0	42.0	9.0	7.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	38.0	4.0	17.0	4.0	39.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	3.1	15.3	2.2	3.3	2.3	24.8	5.3	2.9
Green Ext Time (p_c), s	0.0	20.4	0.0	0.2	0.0	13.2	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	516	344	5	70	676	85	2	718	46	110	1129	1041
Future Volume (veh/h)	516	344	5	70	676	85	2	718	46	110	1129	1041
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	516	344	5	70	676	85	2	718	46	110	1129	1041
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	526	1123	503	110	695	311	5	1461	654	159	1654	740
Arrive On Green	0.16	0.33	0.33	0.03	0.20	0.20	0.00	0.42	0.42	0.05	0.48	0.48
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3343	3438	1538	3343	3438	1538
Grp Volume(v), veh/h	516	344	5	70	676	85	2	718	46	110	1129	1041
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1672	1719	1538	1672	1719	1538
Q Serve(g_s), s	21.3	10.3	0.3	2.9	27.0	6.5	0.1	20.8	2.4	4.4	34.8	66.0
Cycle Q Clear(g_c), s	21.3	10.3	0.3	2.9	27.0	6.5	0.1	20.8	2.4	4.4	34.8	66.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	526	1123	503	110	695	311	5	1461	654	159	1654	740
V/C Ratio(X)	0.98	0.31	0.01	0.64	0.97	0.27	0.37	0.49	0.07	0.69	0.68	1.41
Avail Cap(c_a), veh/h	526	1123	503	164	695	311	73	1468	657	219	1654	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	34.3	30.9	65.5	54.2	46.0	68.4	28.7	23.4	64.4	27.5	35.6
Incr Delay (d2), s/veh	34.1	0.3	0.0	2.3	27.6	1.0	15.2	0.3	0.0	5.4	1.2	191.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	4.9	0.1	1.3	15.4	2.8	0.0	9.9	1.0	2.2	16.7	67.3
LnGrp Delay(d),s/veh	91.6	34.6	30.9	67.8	81.8	47.0	83.6	28.9	23.4	69.8	28.7	226.9
LnGrp LOS	F	C	C	E	F	D	F	C	C	E	C	F
Approach Vol, veh/h		865			831			766			2280	
Approach Delay, s/veh		68.6			77.1			28.7			121.2	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.4	34.0	4.8	72.0	9.1	51.3	12.5	64.3
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	6.0	6.0
Max Green Setting (Gmax), s	21.8	28.0	3.0	66.0	6.8	43.0	9.0	58.6
Max Q Clear Time (g_c+I1), s	23.3	29.0	2.1	68.0	4.9	12.3	6.4	22.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	15.6	0.1	27.4

Intersection Summary	
HCM 2010 Ctrl Delay	88.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	675	92	350	505	138	75	1095	374	63	730	137
Future Volume (veh/h)	185	675	92	350	505	138	75	1095	374	63	730	137
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	185	675	92	350	505	138	75	1095	374	63	730	137
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	225	662	90	375	1047	469	96	1144	512	80	1113	498
Arrive On Green	0.13	0.21	0.21	0.21	0.30	0.30	0.05	0.33	0.33	0.05	0.32	0.32
Sat Flow, veh/h	1757	3100	422	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	185	381	386	350	505	138	75	1095	374	63	730	137
Grp Sat Flow(s),veh/h/ln	1757	1752	1770	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	8.2	17.0	17.0	15.6	9.4	5.4	3.4	24.4	16.8	2.8	14.3	5.2
Cycle Q Clear(g_c), s	8.2	17.0	17.0	15.6	9.4	5.4	3.4	24.4	16.8	2.8	14.3	5.2
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	374	378	375	1047	469	96	1144	512	80	1113	498
V/C Ratio(X)	0.82	1.02	1.02	0.93	0.48	0.29	0.78	0.96	0.73	0.79	0.66	0.28
Avail Cap(c_a), veh/h	331	374	378	375	1047	469	132	1144	512	88	1113	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	31.3	31.3	30.8	22.9	21.5	37.2	26.3	23.7	37.6	23.4	20.3
Incr Delay (d2), s/veh	10.1	51.4	51.7	30.0	0.3	0.3	18.3	17.2	5.3	33.8	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	13.5	13.6	10.7	4.6	2.4	2.1	14.4	8.0	2.1	7.1	2.3
LnGrp Delay(d),s/veh	43.9	82.8	83.0	60.8	23.2	21.8	55.4	43.5	29.0	71.5	24.8	20.6
LnGrp LOS	D	F	F	E	C	C	E	D	C	E	C	C
Approach Vol, veh/h		952			993			1544			930	
Approach Delay, s/veh		75.3			36.3			40.6			27.4	
Approach LOS		E			D			D			C	

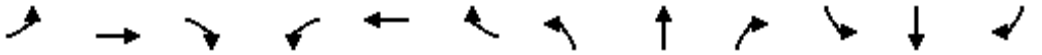
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	30.0	21.0	21.0	8.3	29.3	14.2	27.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	26.0	17.0	17.0	6.0	24.0	15.0	19.0
Max Q Clear Time (g_c+I1), s	4.8	26.4	17.6	19.0	5.4	16.3	10.2	11.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	6.6	0.2	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	44.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	511	234	30	689	110	172	1724	167	137	456	25
Future Volume (veh/h)	75	511	234	30	689	110	172	1724	167	137	456	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	75	511	234	30	689	110	172	1724	167	137	456	25
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	81	841	376	38	652	104	199	1725	165	134	1678	92
Arrive On Green	0.05	0.24	0.24	0.02	0.22	0.22	0.11	0.54	0.54	0.08	0.50	0.50
Sat Flow, veh/h	1757	3505	1568	1757	3029	483	1740	3203	306	1740	3347	183
Grp Volume(v), veh/h	75	511	234	30	398	401	172	923	968	137	236	245
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1759	1740	1736	1773	1740	1736	1795
Q Serve(g_s), s	5.5	16.9	17.3	2.2	28.0	28.0	12.6	68.1	70.0	10.0	10.2	10.3
Cycle Q Clear(g_c), s	5.5	16.9	17.3	2.2	28.0	28.0	12.6	68.1	70.0	10.0	10.2	10.3
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.17	1.00		0.10
Lane Grp Cap(c), veh/h	81	841	376	38	377	379	199	935	955	134	870	900
V/C Ratio(X)	0.92	0.61	0.62	0.80	1.06	1.06	0.87	0.99	1.01	1.02	0.27	0.27
Avail Cap(c_a), veh/h	81	841	376	81	377	379	281	935	955	134	870	900
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	43.9	44.1	63.3	51.0	51.0	56.6	29.6	30.0	60.0	18.7	18.7
Incr Delay (d2), s/veh	75.0	1.3	3.1	30.3	61.7	62.1	17.8	26.3	32.7	84.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	8.3	7.9	1.4	20.0	20.1	7.0	39.1	42.6	7.9	4.9	5.1
LnGrp Delay(d),s/veh	136.8	45.2	47.3	93.6	112.7	113.1	74.4	55.9	62.7	144.5	18.9	18.9
LnGrp LOS	F	D	D	F	F	F	E	E	F	F	B	B
Approach Vol, veh/h		820			829			2063			618	
Approach Delay, s/veh		54.2			112.2			60.6			46.7	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	74.0	6.8	35.2	18.8	69.2	10.0	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	70.0	6.0	28.0	21.0	59.0	6.0	28.0
Max Q Clear Time (g_c+I1), s	12.0	72.0	4.2	19.3	14.6	12.3	7.5	30.0
Green Ext Time (p_c), s	0.0	0.0	0.0	5.6	0.2	31.4	0.0	0.0

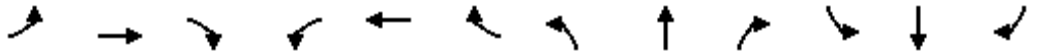
Intersection Summary	
HCM 2010 Ctrl Delay	67.3
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	331	955	174	231	1335	134	171	1645	66	104	386	132
Future Volume (veh/h)	331	955	174	231	1335	134	171	1645	66	104	386	132
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	331	955	174	231	1335	134	171	1645	66	104	386	132
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	273	1061	193	249	1176	366	195	1531	61	75	1321	591
Arrive On Green	0.16	0.25	0.25	0.14	0.24	0.24	0.11	0.45	0.45	0.04	0.38	0.38
Sat Flow, veh/h	1740	4245	771	1740	4988	1553	1740	3403	136	1740	3471	1553
Grp Volume(v), veh/h	331	747	382	231	1335	134	171	836	875	104	386	132
Grp Sat Flow(s),veh/h/ln	1740	1663	1691	1740	1663	1553	1740	1736	1803	1740	1736	1553
Q Serve(g_s), s	22.0	30.4	30.6	18.4	33.0	10.1	13.5	63.0	63.0	6.0	10.9	8.1
Cycle Q Clear(g_c), s	22.0	30.4	30.6	18.4	33.0	10.1	13.5	63.0	63.0	6.0	10.9	8.1
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	273	831	423	249	1176	366	195	781	811	75	1321	591
V/C Ratio(X)	1.21	0.90	0.90	0.93	1.14	0.37	0.87	1.07	1.08	1.39	0.29	0.22
Avail Cap(c_a), veh/h	273	831	423	249	1176	366	261	781	811	75	1321	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.0	50.8	50.8	59.3	53.5	44.8	61.2	38.5	38.5	67.0	30.2	29.4
Incr Delay (d2), s/veh	123.8	12.7	22.2	38.4	71.9	0.6	21.4	52.7	54.9	240.6	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.0	15.5	16.9	11.5	23.0	4.4	7.7	41.6	43.7	7.9	5.2	3.5
LnGrp Delay(d),s/veh	182.8	63.5	73.0	97.7	125.4	45.4	82.6	91.2	93.4	307.6	30.3	29.5
LnGrp LOS	F	E	E	F	F	D	F	F	F	F	C	C
Approach Vol, veh/h		1460			1700			1882			622	
Approach Delay, s/veh		93.0			115.3			91.5			76.5	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	67.0	24.0	39.0	19.7	57.3	26.0	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	63.0	20.0	35.0	21.0	48.0	22.0	33.0
Max Q Clear Time (g_c+I1), s	8.0	65.0	20.4	32.6	15.5	12.9	24.0	35.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.2	23.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	97.4
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	805	168	42	1625	403	125	1007	296	33	258	227
Future Volume (veh/h)	85	805	168	42	1625	403	125	1007	296	33	258	227
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	85	805	168	42	1625	403	125	1007	296	33	258	227
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	99	1373	287	52	1574	704	155	993	444	44	771	345
Arrive On Green	0.06	0.48	0.48	0.03	0.45	0.45	0.09	0.28	0.28	0.03	0.22	0.22
Sat Flow, veh/h	1740	2860	597	1740	3471	1553	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	85	488	485	42	1625	403	125	1007	296	33	258	227
Grp Sat Flow(s),veh/h/ln	1740	1736	1722	1740	1736	1553	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	4.3	18.0	18.0	2.1	40.0	16.9	6.2	25.0	14.7	1.6	5.5	11.6
Cycle Q Clear(g_c), s	4.3	18.0	18.0	2.1	40.0	16.9	6.2	25.0	14.7	1.6	5.5	11.6
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	833	826	52	1574	704	155	993	444	44	771	345
V/C Ratio(X)	0.86	0.59	0.59	0.80	1.03	0.57	0.80	1.01	0.67	0.75	0.33	0.66
Avail Cap(c_a), veh/h	99	833	826	118	1574	704	179	993	444	80	795	355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	16.6	16.6	42.5	24.1	17.8	39.5	31.6	27.9	42.7	29.0	31.4
Incr Delay (d2), s/veh	49.6	1.1	1.1	23.9	31.5	1.1	20.4	32.0	3.8	21.8	0.3	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	8.8	8.7	1.4	25.9	7.4	3.9	16.4	6.8	1.1	2.7	5.4
LnGrp Delay(d),s/veh	90.9	17.7	17.7	66.4	55.6	18.9	59.8	63.7	31.7	64.5	29.2	35.6
LnGrp LOS	F	B	B	E	F	B	E	F	C	E	C	D
Approach Vol, veh/h		1058			2070			1428			518	
Approach Delay, s/veh		23.6			48.7			56.7			34.3	
Approach LOS		C			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	29.0	6.7	46.3	11.8	23.4	9.0	44.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	25.0	6.0	39.0	9.0	20.0	5.0	40.0
Max Q Clear Time (g_c+I1), s	3.6	27.0	4.1	20.0	8.2	13.6	6.3	42.0
Green Ext Time (p_c), s	0.0	0.0	0.0	16.9	0.0	4.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	438	33	85	696	264	55	1464	62	92	776	22
Future Volume (veh/h)	63	438	33	85	696	264	55	1464	62	92	776	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	63	438	33	85	696	264	55	1464	62	92	776	22
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	134	1035	322	153	1063	331	125	1624	69	158	1695	758
Arrive On Green	0.04	0.21	0.21	0.05	0.21	0.21	0.04	0.48	0.48	0.05	0.49	0.49
Sat Flow, veh/h	3375	4988	1553	3375	4988	1553	3375	3394	143	3375	3471	1553
Grp Volume(v), veh/h	63	438	33	85	696	264	55	747	779	92	776	22
Grp Sat Flow(s),veh/h/ln	1688	1663	1553	1688	1663	1553	1688	1736	1802	1688	1736	1553
Q Serve(g_s), s	1.3	5.5	1.2	1.8	9.2	11.6	1.2	28.4	28.6	1.9	10.6	0.5
Cycle Q Clear(g_c), s	1.3	5.5	1.2	1.8	9.2	11.6	1.2	28.4	28.6	1.9	10.6	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	134	1035	322	153	1063	331	125	831	862	158	1695	758
V/C Ratio(X)	0.47	0.42	0.10	0.56	0.65	0.80	0.44	0.90	0.90	0.58	0.46	0.03
Avail Cap(c_a), veh/h	187	1106	344	187	1106	344	187	842	874	187	1695	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	24.8	23.1	33.7	25.9	26.9	34.0	17.2	17.3	33.7	12.2	9.6
Incr Delay (d2), s/veh	2.5	0.3	0.1	3.1	1.3	12.0	2.4	12.5	12.6	3.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.5	0.5	0.9	4.3	6.1	0.6	16.4	17.1	1.0	5.1	0.2
LnGrp Delay(d),s/veh	36.4	25.1	23.3	36.8	27.3	38.9	36.4	29.7	29.8	37.1	12.4	9.6
LnGrp LOS	D	C	C	D	C	D	D	C	C	D	B	A
Approach Vol, veh/h		534			1045			1581			890	
Approach Delay, s/veh		26.3			31.0			30.0			14.8	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	38.5	7.3	19.0	6.7	39.2	6.9	19.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	35.0	4.0	16.0	4.0	35.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	3.9	30.6	3.8	7.5	3.2	12.6	3.3	13.6
Green Ext Time (p_c), s	0.0	3.9	0.0	5.3	0.0	17.2	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	348	64	7	464	23	13	148	43	8	25	28
Future Volume (veh/h)	142	348	64	7	464	23	13	148	43	8	25	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1827	1827	1827	1845	1845	1845
Adj Flow Rate, veh/h	142	348	64	7	464	23	13	148	43	8	25	28
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	3	3	3
Cap, veh/h	182	1108	202	13	945	47	24	283	240	15	276	235
Arrive On Green	0.10	0.38	0.38	0.01	0.28	0.28	0.01	0.15	0.15	0.01	0.15	0.15
Sat Flow, veh/h	1740	2934	534	1740	3367	167	1740	1827	1553	1757	1845	1568
Grp Volume(v), veh/h	142	204	208	7	239	248	13	148	43	8	25	28
Grp Sat Flow(s),veh/h/ln	1740	1736	1733	1740	1736	1798	1740	1827	1553	1757	1845	1568
Q Serve(g_s), s	2.8	2.9	3.0	0.1	4.1	4.1	0.3	2.6	0.9	0.2	0.4	0.5
Cycle Q Clear(g_c), s	2.8	2.9	3.0	0.1	4.1	4.1	0.3	2.6	0.9	0.2	0.4	0.5
Prop In Lane	1.00		0.31	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	655	654	13	487	504	24	283	240	15	276	235
V/C Ratio(X)	0.78	0.31	0.32	0.54	0.49	0.49	0.55	0.52	0.18	0.53	0.09	0.12
Avail Cap(c_a), veh/h	393	980	978	196	784	812	196	825	701	198	833	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	7.8	7.8	17.5	10.6	10.6	17.4	13.8	13.0	17.5	13.0	13.0
Incr Delay (d2), s/veh	7.1	0.3	0.3	30.0	0.8	0.7	18.5	1.5	0.4	26.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.4	1.4	0.2	2.0	2.1	0.2	1.4	0.4	0.2	0.2	0.2
LnGrp Delay(d),s/veh	22.6	8.0	8.1	47.5	11.4	11.4	35.9	15.3	13.4	43.7	13.1	13.3
LnGrp LOS	C	A	A	D	B	B	D	B	B	D	B	B
Approach Vol, veh/h		554			494			204			61	
Approach Delay, s/veh		11.8			11.9			16.2			17.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.3	9.5	4.3	17.4	4.5	9.3	7.7	13.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	4.0	20.0	4.0	16.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	2.2	4.6	2.1	5.0	2.3	2.5	4.8	6.1
Green Ext Time (p_c), s	0.0	0.8	0.0	4.9	0.0	0.9	0.1	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	12.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	90	110	3	1	258	1861	37	0	1720	26
Future Volume (veh/h)	0	1	90	110	3	1	258	1861	37	0	1720	26
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	0	1	90	110	3	1	258	1861	37	0	1720	26
Adj No. of Lanes	0	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	0	1	115	138	104	35	282	2137	956	148	1884	28
Arrive On Green	0.00	0.08	0.08	0.08	0.08	0.08	0.17	0.63	0.63	0.00	0.55	0.55
Sat Flow, veh/h	0	16	1481	1757	1325	442	1707	3406	1524	1707	3434	52
Grp Volume(v), veh/h	0	0	91	110	0	4	258	1861	37	0	851	895
Grp Sat Flow(s),veh/h/ln	0	0	1498	1757	0	1767	1707	1703	1524	1707	1703	1783
Q Serve(g_s), s	0.0	0.0	7.4	7.6	0.0	0.3	18.3	55.3	1.1	0.0	55.6	56.0
Cycle Q Clear(g_c), s	0.0	0.0	7.4	7.6	0.0	0.3	18.3	55.3	1.1	0.0	55.6	56.0
Prop In Lane	0.00		0.99	1.00		0.25	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	0	0	116	138	0	139	282	2137	956	148	934	978
V/C Ratio(X)	0.00	0.00	0.78	0.79	0.00	0.03	0.91	0.87	0.04	0.00	0.91	0.91
Avail Cap(c_a), veh/h	0	0	194	228	0	229	291	2432	1088	148	981	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	55.8	55.8	0.0	52.4	50.6	18.9	8.8	0.0	25.1	25.2
Incr Delay (d2), s/veh	0.0	0.0	10.9	9.8	0.0	0.1	31.0	3.4	0.0	0.0	12.1	12.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.4	4.1	0.0	0.1	11.1	26.9	0.5	0.0	29.1	30.6
LnGrp Delay(d),s/veh	0.0	0.0	66.8	65.6	0.0	52.5	81.6	22.3	8.8	0.0	37.2	37.2
LnGrp LOS			E	E		D	F	C	A		D	D
Approach Vol, veh/h		91			114			2156			1746	
Approach Delay, s/veh		66.8			65.1			29.1			37.2	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.7	81.3		13.5	24.4	71.6		13.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	88.0		16.0	21.0	71.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	57.3		9.4	20.3	58.0		9.6
Green Ext Time (p_c), s	0.0	20.0		0.2	0.1	9.6		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		34.4
HCM 2010 LOS		C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	430	27	21	1784	1660	416
Future Volume (veh/h)	430	27	21	1784	1660	416
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	430	27	21	1784	1660	416
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	429	383	31	2364	1727	415
Arrive On Green	0.24	0.24	0.02	0.67	0.62	0.62
Sat Flow, veh/h	1757	1568	1757	3597	2896	674
Grp Volume(v), veh/h	430	27	21	1784	1011	1065
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1726
Q Serve(g_s), s	24.0	1.3	1.2	33.2	51.5	60.5
Cycle Q Clear(g_c), s	24.0	1.3	1.2	33.2	51.5	60.5
Prop In Lane	1.00	1.00	1.00			0.39
Lane Grp Cap(c), veh/h	429	383	31	2364	1079	1063
V/C Ratio(X)	1.00	0.07	0.67	0.75	0.94	1.00
Avail Cap(c_a), veh/h	429	383	72	2425	1079	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	28.6	48.0	10.6	17.1	18.9
Incr Delay (d2), s/veh	44.0	0.1	22.3	1.4	14.7	28.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.8	1.3	0.8	16.3	29.1	36.6
LnGrp Delay(d),s/veh	81.1	28.6	70.3	12.0	31.9	46.9
LnGrp LOS	F	C	E	B	C	F
Approach Vol, veh/h	457			1805	2076	
Approach Delay, s/veh	78.0			12.6	39.6	
Approach LOS	E			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		70.3		28.0	5.7	64.5		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		68.0		24.0	4.0	60.0		
Max Q Clear Time (g_c+I1), s		35.2		26.0	3.2	62.5		
Green Ext Time (p_c), s		31.1		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1	42	201	0	569	16	1590	115	212	1461	0
Future Volume (veh/h)	21	1	42	201	0	569	16	1590	115	212	1461	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	21	1	42	201	0	569	16	1590	115	212	1461	0
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	28	5	197	226	0	377	23	1643	118	231	2149	0
Arrive On Green	0.02	0.13	0.13	0.13	0.00	0.24	0.01	0.50	0.50	0.13	0.61	0.00
Sat Flow, veh/h	1757	37	1537	1757	0	1568	1757	3317	238	1757	3597	0
Grp Volume(v), veh/h	21	0	43	201	0	569	16	835	870	212	1461	0
Grp Sat Flow(s),veh/h/ln	1757	0	1573	1757	0	1568	1757	1752	1803	1757	1752	0
Q Serve(g_s), s	1.6	0.0	3.4	15.4	0.0	33.0	1.2	63.0	64.6	16.3	37.9	0.0
Cycle Q Clear(g_c), s	1.6	0.0	3.4	15.4	0.0	33.0	1.2	63.0	64.6	16.3	37.9	0.0
Prop In Lane	1.00		0.98	1.00		1.00	1.00		0.13	1.00		0.00
Lane Grp Cap(c), veh/h	28	0	202	226	0	377	23	868	893	231	2149	0
V/C Ratio(X)	0.74	0.00	0.21	0.89	0.00	1.51	0.68	0.96	0.97	0.92	0.68	0.00
Avail Cap(c_a), veh/h	51	0	202	269	0	377	77	882	907	231	2149	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.2	0.0	53.6	58.8	0.0	52.1	67.4	33.4	33.8	58.8	17.6	0.0
Incr Delay (d2), s/veh	31.5	0.0	0.5	25.7	0.0	241.9	29.8	21.4	23.6	37.9	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.5	9.1	0.0	39.6	0.8	35.5	38.0	10.4	18.5	0.0
LnGrp Delay(d),s/veh	98.7	0.0	54.1	84.5	0.0	294.0	97.1	54.7	57.4	96.8	18.5	0.0
LnGrp LOS	F		D	F		F	F	D	E	F	B	
Approach Vol, veh/h		64			770			1721			1673	
Approach Delay, s/veh		68.7			239.3			56.4			28.4	
Approach LOS		E			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	71.9	21.6	21.6	5.8	88.1	6.2	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	69.0	21.0	16.0	6.0	81.0	4.0	33.0
Max Q Clear Time (g_c+I1), s	18.3	66.6	17.4	5.4	3.2	39.9	3.6	35.0
Green Ext Time (p_c), s	0.0	1.3	0.2	3.3	0.0	35.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	6	4	1	5	7	3	1213	1	0	1342	349
Future Volume (veh/h)	325	6	4	1	5	7	3	1213	1	0	1342	349
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	325	6	4	1	5	7	3	1213	1	0	1342	0
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	380	7	345	2	8	12	6	2095	2	3	1817	813
Arrive On Green	0.22	0.22	0.22	0.01	0.01	0.01	0.00	0.58	0.58	0.00	0.52	0.00
Sat Flow, veh/h	1726	32	1568	129	646	904	1757	3594	3	1757	3505	1568
Grp Volume(v), veh/h	331	0	4	13	0	0	3	592	622	0	1342	0
Grp Sat Flow(s),veh/h/ln	1758	0	1568	1679	0	0	1757	1752	1844	1757	1752	1568
Q Serve(g_s), s	11.8	0.0	0.1	0.5	0.0	0.0	0.1	13.9	13.9	0.0	19.5	0.0
Cycle Q Clear(g_c), s	11.8	0.0	0.1	0.5	0.0	0.0	0.1	13.9	13.9	0.0	19.5	0.0
Prop In Lane	0.98		1.00	0.08		0.54	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	0	345	22	0	0	6	1022	1075	3	1817	813
V/C Ratio(X)	0.85	0.00	0.01	0.60	0.00	0.00	0.53	0.58	0.58	0.00	0.74	0.00
Avail Cap(c_a), veh/h	458	0	408	412	0	0	108	1022	1075	108	1987	889
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	24.4	0.0	19.9	32.0	0.0	0.0	32.5	8.6	8.6	0.0	12.3	0.0
Incr Delay (d2), s/veh	12.9	0.0	0.0	24.0	0.0	0.0	59.3	0.8	0.8	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	0.1	0.4	0.0	0.0	0.1	6.8	7.1	0.0	9.7	0.0
LnGrp Delay(d),s/veh	37.4	0.0	19.9	56.0	0.0	0.0	91.8	9.4	9.3	0.0	13.6	0.0
LnGrp LOS	D		B	E			F	A	A		B	
Approach Vol, veh/h		335			13			1217			1342	
Approach Delay, s/veh		37.2			56.0			9.6			13.6	
Approach LOS		D			E			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	42.1		18.4	4.2	37.8		4.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	37.0		17.0	4.0	37.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	15.9		13.8	2.1	21.5		2.5
Green Ext Time (p_c), s	0.0	17.4		0.6	0.0	12.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	214	137	119	585	2	391	987	53	1	1696	248
Future Volume (veh/h)	181	214	137	119	585	2	391	987	53	1	1696	248
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	181	214	137	119	585	2	391	987	53	1	1696	248
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	189	630	282	183	623	279	379	2060	922	4	1675	749
Arrive On Green	0.06	0.18	0.18	0.05	0.18	0.18	0.11	0.59	0.59	0.00	0.48	0.48
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	181	214	137	119	585	2	391	987	53	1	1696	248
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	4.8	4.8	7.1	3.1	14.8	0.1	10.0	14.5	1.3	0.0	43.0	8.8
Cycle Q Clear(g_c), s	4.8	4.8	7.1	3.1	14.8	0.1	10.0	14.5	1.3	0.0	43.0	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	630	282	183	623	279	379	2060	922	4	1675	749
V/C Ratio(X)	0.96	0.34	0.49	0.65	0.94	0.01	1.03	0.48	0.06	0.26	1.01	0.33
Avail Cap(c_a), veh/h	189	630	282	189	623	279	379	2060	922	151	1675	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	32.2	33.2	41.8	36.5	30.5	40.0	10.6	7.9	44.9	23.5	14.6
Incr Delay (d2), s/veh	52.6	0.3	1.3	7.4	22.2	0.0	54.9	0.2	0.0	33.5	25.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.3	3.1	1.6	9.1	0.0	7.6	7.0	0.6	0.0	26.6	3.8
LnGrp Delay(d),s/veh	95.0	32.6	34.5	49.1	58.7	30.5	94.9	10.8	7.9	78.4	48.7	14.8
LnGrp LOS	F	C	C	D	E	C	F	B	A	E	F	B
Approach Vol, veh/h		532			706			1431			1945	
Approach Delay, s/veh		54.3			57.0			33.7			44.4	
Approach LOS		D			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.1	56.9	8.8	20.2	14.0	47.0	9.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	49.0	5.0	16.0	10.0	43.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	2.0	16.5	5.1	9.1	12.0	45.0	6.8	16.8
Green Ext Time (p_c), s	0.0	27.5	0.0	3.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1161	56	13	1897	47	399	191	20	57	71	284
Future Volume (veh/h)	93	1161	56	13	1897	47	399	191	20	57	71	284
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	93	1161	56	13	1897	47	399	191	20	57	71	284
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	95	1820	88	20	1721	42	365	533	453	73	227	193
Arrive On Green	0.05	0.53	0.53	0.01	0.49	0.49	0.21	0.29	0.29	0.04	0.12	0.12
Sat Flow, veh/h	1757	3404	164	1757	3496	86	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	93	597	620	13	947	997	399	191	20	57	71	284
Grp Sat Flow(s),veh/h/ln	1757	1752	1816	1757	1752	1829	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	6.9	31.3	31.3	1.0	64.0	64.0	27.0	10.7	1.2	4.2	4.6	16.0
Cycle Q Clear(g_c), s	6.9	31.3	31.3	1.0	64.0	64.0	27.0	10.7	1.2	4.2	4.6	16.0
Prop In Lane	1.00		0.09	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	937	971	20	863	901	365	533	453	73	227	193
V/C Ratio(X)	0.98	0.64	0.64	0.64	1.10	1.11	1.09	0.36	0.04	0.78	0.31	1.47
Avail Cap(c_a), veh/h	95	937	971	54	863	901	365	533	453	122	227	193
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.4	21.4	21.4	64.0	33.0	33.0	51.5	36.6	33.3	61.7	52.0	57.0
Incr Delay (d2), s/veh	86.8	1.4	1.4	29.2	60.9	63.7	74.6	0.4	0.0	16.2	0.8	238.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	15.5	16.0	0.6	45.5	48.2	20.6	5.5	0.5	2.4	2.4	19.7
LnGrp Delay(d),s/veh	148.2	22.8	22.8	93.1	93.9	96.7	126.1	37.0	33.3	77.9	52.8	295.2
LnGrp LOS	F	C	C	F	F	F	F	D	C	E	D	F
Approach Vol, veh/h		1310			1957			610			412	
Approach Delay, s/veh		31.7			95.3			95.2			223.3	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	41.6	5.5	73.5	31.0	20.0	11.0	68.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	34.0	4.0	67.0	27.0	16.0	7.0	64.0
Max Q Clear Time (g_c+I1), s	6.2	12.7	3.0	33.3	29.0	18.0	8.9	66.0
Green Ext Time (p_c), s	0.0	2.5	0.0	30.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	88.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	477	617	530	10	1311	426	714	1833	5	274	906	1420
Future Volume (veh/h)	477	617	530	10	1311	426	714	1833	5	274	906	1420
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	477	617	530	10	1311	426	714	1833	5	274	906	1420
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	273	1066	477	31	818	366	409	2445	761	322	2317	721
Arrive On Green	0.08	0.30	0.30	0.01	0.23	0.23	0.12	0.49	0.49	0.09	0.46	0.46
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	477	617	530	10	1311	426	714	1833	5	274	906	1420
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	12.0	22.3	45.6	0.4	35.0	35.0	18.0	44.2	0.2	11.9	17.8	69.0
Cycle Q Clear(g_c), s	12.0	22.3	45.6	0.4	35.0	35.0	18.0	44.2	0.2	11.9	17.8	69.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	1066	477	31	818	366	409	2445	761	322	2317	721
V/C Ratio(X)	1.75	0.58	1.11	0.32	1.60	1.16	1.75	0.75	0.01	0.85	0.39	1.97
Avail Cap(c_a), veh/h	273	1066	477	91	818	366	409	2445	761	386	2317	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.0	44.1	52.2	73.9	57.5	57.5	66.0	31.2	19.9	66.9	26.7	40.5
Incr Delay (d2), s/veh	352.0	0.8	75.1	5.9	277.1	99.8	345.6	1.3	0.0	14.4	0.1	441.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.0	10.9	29.7	0.2	48.4	25.3	28.1	20.7	0.1	6.2	8.2	118.2
LnGrp Delay(d),s/veh	421.0	44.8	127.3	79.7	334.6	157.3	411.6	32.5	19.9	81.2	26.8	481.5
LnGrp LOS	F	D	F	E	F	F	F	C	B	F	C	F
Approach Vol, veh/h		1624			1747			2552			2600	
Approach Delay, s/veh		182.2			289.9			138.6			280.8	
Approach LOS		F			F			F			F	

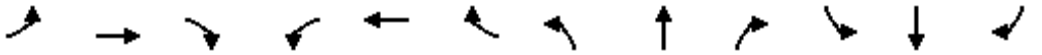
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	76.8	5.4	49.6	22.0	73.0	16.0	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	70.0	4.0	43.0	18.0	69.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	13.9	46.2	2.4	47.6	20.0	71.0	14.0	37.0
Green Ext Time (p_c), s	0.3	23.2	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	221.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	544	304	172	1226	865	524	1226	234	375	387	0
Future Volume (veh/h)	0	544	304	172	1226	865	524	1226	234	375	387	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	544	304	172	1226	865	524	1226	234	375	387	0
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	1233	384	249	1842	574	634	1296	580	410	1065	477
Arrive On Green	0.00	0.24	0.24	0.07	0.37	0.37	0.19	0.37	0.37	0.12	0.30	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	0	544	304	172	1226	865	524	1226	234	375	387	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.0	7.6	15.1	4.1	17.0	30.4	12.3	28.2	9.2	9.1	7.2	0.0
Cycle Q Clear(g_c), s	0.0	7.6	15.1	4.1	17.0	30.4	12.3	28.2	9.2	9.1	7.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	4	1233	384	249	1842	574	634	1296	580	410	1065	477
V/C Ratio(X)	0.00	0.44	0.79	0.69	0.67	1.51	0.83	0.95	0.40	0.92	0.36	0.00
Avail Cap(c_a), veh/h	164	1513	471	328	1842	574	860	1306	584	410	1065	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.6	29.4	37.7	22.1	26.4	32.6	25.4	19.4	36.2	22.7	0.0
Incr Delay (d2), s/veh	0.0	0.2	7.4	4.0	0.9	237.5	4.9	14.0	0.5	25.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.6	7.3	2.1	8.0	50.9	6.2	16.1	4.1	5.7	3.5	0.0
LnGrp Delay(d),s/veh	0.0	26.9	36.8	41.7	23.0	263.9	37.5	39.4	19.9	61.2	22.9	0.0
LnGrp LOS		C	D	D	C	F	D	D	B	E	C	
Approach Vol, veh/h		848			2263			1984			762	
Approach Delay, s/veh		30.4			116.5			36.6			41.7	
Approach LOS		C			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	34.8	10.1	24.4	19.5	29.3	0.0	34.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	31.0	8.0	25.0	21.0	20.0	4.0	29.0
Max Q Clear Time (g_c+I1), s	11.1	30.2	6.1	17.1	14.3	9.2	0.0	32.4
Green Ext Time (p_c), s	0.0	0.6	0.1	3.3	1.2	8.0	0.0	0.0

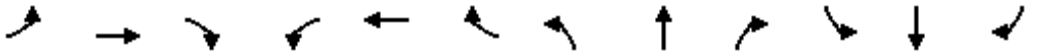
Intersection Summary	
HCM 2010 Ctrl Delay	67.2
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	58	20	101	339	1067	89	914	93	378	467	37
Future Volume (veh/h)	18	58	20	101	339	1067	89	914	93	378	467	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	18	58	20	101	339	1067	89	914	93	378	467	37
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	48	1723	771	144	1822	815	131	876	392	368	1119	501
Arrive On Green	0.01	0.49	0.49	0.04	0.52	0.52	0.04	0.25	0.25	0.11	0.32	0.32
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	18	58	20	101	339	1067	89	914	93	378	467	37
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.8	1.3	1.0	4.3	7.6	77.0	3.8	37.0	7.0	16.0	15.5	2.4
Cycle Q Clear(g_c), s	0.8	1.3	1.0	4.3	7.6	77.0	3.8	37.0	7.0	16.0	15.5	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	1723	771	144	1822	815	131	876	392	368	1119	501
V/C Ratio(X)	0.37	0.03	0.03	0.70	0.19	1.31	0.68	1.04	0.24	1.03	0.42	0.07
Avail Cap(c_a), veh/h	92	1728	773	184	1822	815	184	876	392	368	1119	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.4	19.4	19.4	70.0	18.9	35.5	70.3	55.5	44.3	66.0	39.6	35.1
Incr Delay (d2), s/veh	4.7	0.0	0.0	8.0	0.0	147.8	6.0	42.4	0.3	53.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.6	0.4	2.2	3.7	66.5	1.9	23.0	3.1	10.3	7.6	1.1
LnGrp Delay(d),s/veh	77.1	19.5	19.4	78.0	18.9	183.3	76.3	98.0	44.6	119.9	39.8	35.2
LnGrp LOS	E	B	B	E	B	F	E	F	D	F	D	D
Approach Vol, veh/h		96			1507			1096			882	
Approach Delay, s/veh		30.2			139.3			91.7			74.0	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	41.0	10.3	76.8	9.7	51.3	6.1	81.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	37.0	8.0	73.0	8.0	45.0	4.0	77.0
Max Q Clear Time (g_c+I1), s	18.0	39.0	6.3	3.3	5.8	17.5	2.8	79.0
Green Ext Time (p_c), s	0.0	0.0	0.0	11.5	0.0	12.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	105.7
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	141	81	65	418	199	464	456	32	95	322	98
Future Volume (veh/h)	68	141	81	65	418	199	464	456	32	95	322	98
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	68	141	81	65	418	199	464	456	32	95	322	98
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	171	786	352	167	781	349	587	1127	504	207	737	330
Arrive On Green	0.05	0.22	0.22	0.05	0.22	0.22	0.17	0.32	0.32	0.06	0.21	0.21
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	68	141	81	65	418	199	464	456	32	95	322	98
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.9	1.5	2.0	0.9	4.9	5.2	6.1	4.7	0.7	1.3	3.7	2.4
Cycle Q Clear(g_c), s	0.9	1.5	2.0	0.9	4.9	5.2	6.1	4.7	0.7	1.3	3.7	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	786	352	167	781	349	587	1127	504	207	737	330
V/C Ratio(X)	0.40	0.18	0.23	0.39	0.54	0.57	0.79	0.40	0.06	0.46	0.44	0.30
Avail Cap(c_a), veh/h	294	1207	540	294	1207	540	587	1434	641	367	1207	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	14.6	14.7	21.4	15.9	16.1	18.4	12.3	10.9	21.1	16.0	15.5
Incr Delay (d2), s/veh	1.5	0.1	0.3	1.5	0.6	1.5	7.2	0.2	0.1	1.6	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.7	0.9	0.4	2.4	2.4	3.4	2.3	0.3	0.6	1.8	1.1
LnGrp Delay(d),s/veh	22.9	14.7	15.1	22.9	16.5	17.5	25.6	12.5	11.0	22.6	16.4	16.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		290			682			952			515	
Approach Delay, s/veh		16.7			17.4			18.9			17.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	18.9	6.3	14.4	12.0	13.8	6.3	14.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	19.0	4.0	16.0	8.0	16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	3.3	6.7	2.9	4.0	8.1	5.7	2.9	7.2
Green Ext Time (p_c), s	0.0	4.5	0.0	3.7	0.0	4.0	0.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	771	125	31	1209	237	551	248	59	109	55	60
Future Volume (veh/h)	52	771	125	31	1209	237	551	248	59	109	55	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	52	771	125	31	1209	237	551	248	59	109	55	60
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	66	1338	599	43	1292	578	583	612	520	139	145	124
Arrive On Green	0.04	0.38	0.38	0.02	0.37	0.37	0.33	0.33	0.33	0.08	0.08	0.08
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	52	771	125	31	1209	237	551	248	59	109	55	60
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	2.6	15.2	4.7	1.5	29.0	9.8	26.6	9.1	2.3	5.3	2.5	3.2
Cycle Q Clear(g_c), s	2.6	15.2	4.7	1.5	29.0	9.8	26.6	9.1	2.3	5.3	2.5	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	1338	599	43	1292	578	583	612	520	139	145	124
V/C Ratio(X)	0.79	0.58	0.21	0.73	0.94	0.41	0.94	0.41	0.11	0.79	0.38	0.49
Avail Cap(c_a), veh/h	81	1338	599	121	1325	593	604	740	629	242	359	305
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	21.4	18.1	42.3	26.6	20.5	28.4	22.5	20.2	39.5	38.2	38.5
Incr Delay (d2), s/veh	33.8	0.6	0.2	21.0	12.3	0.5	23.5	0.4	0.1	9.4	1.6	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	7.4	2.0	1.0	16.1	4.3	16.7	4.7	1.0	2.9	1.3	1.5
LnGrp Delay(d),s/veh	75.4	22.0	18.3	63.3	38.9	21.0	51.9	22.9	20.3	48.9	39.8	41.4
LnGrp LOS	E	C	B	E	D	C	D	C	C	D	D	D
Approach Vol, veh/h		948			1477			858			224	
Approach Delay, s/veh		24.4			36.5			41.3			44.7	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	33.0	6.1	37.3	33.0	10.9	7.3	36.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	35.0	6.0	31.0	30.0	17.0	4.0	33.0
Max Q Clear Time (g_c+I1), s	7.3	11.1	3.5	17.2	28.6	5.2	4.6	31.0
Green Ext Time (p_c), s	0.1	2.2	0.0	11.1	0.3	1.7	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	34.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	218	208	33	461	215	218	206	90	44	81	43
Future Volume (veh/h)	25	218	208	33	461	215	218	206	90	44	81	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	25	218	208	33	461	215	218	206	90	44	81	43
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	39	813	691	49	531	248	264	298	130	60	146	77
Arrive On Green	0.02	0.44	0.44	0.03	0.45	0.45	0.15	0.24	0.24	0.03	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1191	556	1757	1218	532	1757	1135	603
Grp Volume(v), veh/h	25	218	208	33	0	676	218	0	296	44	0	124
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1747	1757	0	1751	1757	0	1738
Q Serve(g_s), s	0.9	4.7	5.4	1.2	0.0	22.1	7.6	0.0	9.7	1.6	0.0	4.2
Cycle Q Clear(g_c), s	0.9	4.7	5.4	1.2	0.0	22.1	7.6	0.0	9.7	1.6	0.0	4.2
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.30	1.00		0.35
Lane Grp Cap(c), veh/h	39	813	691	49	0	779	264	0	428	60	0	223
V/C Ratio(X)	0.63	0.27	0.30	0.68	0.00	0.87	0.83	0.00	0.69	0.74	0.00	0.56
Avail Cap(c_a), veh/h	111	904	769	139	0	884	306	0	637	139	0	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.6	11.2	11.4	30.5	0.0	15.8	26.1	0.0	21.7	30.3	0.0	25.9
Incr Delay (d2), s/veh	15.5	0.2	0.2	15.0	0.0	8.4	15.0	0.0	2.0	15.9	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.5	2.4	0.8	0.0	12.3	4.8	0.0	4.9	1.0	0.0	2.2
LnGrp Delay(d),s/veh	46.2	11.4	11.6	45.4	0.0	24.2	41.1	0.0	23.7	46.2	0.0	28.0
LnGrp LOS	D	B	B	D		C	D		C	D		C
Approach Vol, veh/h		451			709			514			168	
Approach Delay, s/veh		13.4			25.2			31.1			32.8	
Approach LOS		B			C			C			C	

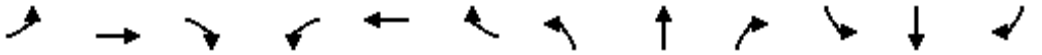
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	19.5	5.8	31.9	13.5	12.1	5.4	32.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	23.0	5.0	31.0	11.0	17.0	4.0	32.0
Max Q Clear Time (g_c+I1), s	3.6	11.7	3.2	7.4	9.6	6.2	2.9	24.1
Green Ext Time (p_c), s	0.0	1.9	0.0	7.5	0.1	1.9	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	68	244	64	96	102	677	1630	155	268	1588	273
Future Volume (veh/h)	381	68	244	64	96	102	677	1630	155	268	1588	273
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	381	68	244	64	96	102	677	1630	155	268	1588	273
Adj No. of Lanes	1	1	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	348	466	396	102	295	132	629	1811	810	312	1485	664
Arrive On Green	0.20	0.25	0.25	0.03	0.08	0.08	0.18	0.52	0.52	0.09	0.42	0.42
Sat Flow, veh/h	1757	1845	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	381	68	244	64	96	102	677	1630	155	268	1588	273
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	29.0	4.2	20.2	2.7	3.8	9.3	27.0	61.5	7.8	11.3	62.0	17.8
Cycle Q Clear(g_c), s	29.0	4.2	20.2	2.7	3.8	9.3	27.0	61.5	7.8	11.3	62.0	17.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	348	466	396	102	295	132	629	1811	810	312	1485	664
V/C Ratio(X)	1.09	0.15	0.62	0.63	0.33	0.77	1.08	0.90	0.19	0.86	1.07	0.41
Avail Cap(c_a), veh/h	348	492	418	140	383	171	629	1811	810	326	1485	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.7	42.5	48.4	70.2	63.1	65.6	59.7	31.9	19.0	65.5	42.2	29.4
Incr Delay (d2), s/veh	75.9	0.1	2.5	6.2	0.6	14.8	58.2	6.6	0.1	19.3	44.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.4	2.2	9.0	1.4	1.9	4.6	17.8	31.3	3.4	6.2	39.0	7.8
LnGrp Delay(d),s/veh	134.5	42.6	50.9	76.3	63.7	80.5	117.8	38.5	19.1	84.8	86.5	29.8
LnGrp LOS	F	D	D	E	E	F	F	D	B	F	F	C
Approach Vol, veh/h		693			262			2462			2129	
Approach Delay, s/veh		96.1			73.3			59.1			79.0	
Approach LOS		F			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	79.6	8.4	40.9	31.0	66.0	33.0	16.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	75.0	6.0	39.0	27.0	62.0	29.0	16.0
Max Q Clear Time (g_c+I1), s	13.3	63.5	4.7	22.2	29.0	64.0	31.0	11.3
Green Ext Time (p_c), s	0.1	11.2	0.0	2.0	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	72.0
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	73	0	0	502	789	0	0	0	295	0	0
Future Volume (veh/h)	0	73	0	0	502	789	0	0	0	295	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	73	0	0	502	789	0	0	0	295	0	0
Adj No. of Lanes	2	2	1	1	2	1	1	1	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	12	2002	896	6	2002	896	6	6	5	541	293	249
Arrive On Green	0.00	0.57	0.00	0.00	0.57	0.57	0.00	0.00	0.00	0.16	0.00	0.00
Sat Flow, veh/h	3408	3505	1568	1757	3505	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	0	73	0	0	502	789	0	0	0	295	0	0
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1752	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	0.0	0.3	0.0	0.0	2.1	12.9	0.0	0.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.3	0.0	0.0	2.1	12.9	0.0	0.0	0.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	12	2002	896	6	2002	896	6	6	5	541	293	249
V/C Ratio(X)	0.00	0.04	0.00	0.00	0.25	0.88	0.00	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	460	2130	953	237	2130	953	237	996	847	1841	1744	1482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	2.8	0.0	0.0	3.2	5.5	0.0	0.0	0.0	11.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	9.2	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	1.0	7.5	0.0	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d),s/veh	0.0	2.8	0.0	0.0	3.2	14.7	0.0	0.0	0.0	12.3	0.0	0.0
LnGrp LOS		A			A	B				B		
Approach Vol, veh/h		73			1291			0			295	
Approach Delay, s/veh		2.8			10.3			0.0			12.3	
Approach LOS		A			B						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	0.0	0.0	20.9	0.0	8.7	0.0	20.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	16.0	4.0	18.0	4.0	28.0	4.0	18.0
Max Q Clear Time (g_c+I1), s	4.4	0.0	0.0	2.3	0.0	0.0	0.0	14.9
Green Ext Time (p_c), s	0.8	0.0	0.0	6.8	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	403	4	0	554	331	0
Future Volume (veh/h)	403	4	0	554	331	0
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	403	4	0	554	331	0
Adj No. of Lanes	1	1	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	940	799	6	940	662	305
Arrive On Green	0.51	0.51	0.00	0.51	0.19	0.00
Sat Flow, veh/h	1845	1568	1757	1845	3408	1568
Grp Volume(v), veh/h	403	4	0	554	331	0
Grp Sat Flow(s),veh/h/ln	1845	1568	1757	1845	1704	1568
Q Serve(g_s), s	3.7	0.0	0.0	5.7	2.3	0.0
Cycle Q Clear(g_c), s	3.7	0.0	0.0	5.7	2.3	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	940	799	6	940	662	305
V/C Ratio(X)	0.43	0.01	0.00	0.59	0.50	0.00
Avail Cap(c_a), veh/h	1228	1044	260	1774	2017	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	4.2	3.3	0.0	4.6	9.7	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.6	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	2.9	1.2	0.0
LnGrp Delay(d),s/veh	4.5	3.3	0.0	5.2	10.3	0.0
LnGrp LOS	A	A		A	B	
Approach Vol, veh/h	407			554	331	
Approach Delay, s/veh	4.5			5.2	10.3	
Approach LOS	A			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		9.3	0.0	17.8				17.8
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		16.0	4.0	18.0				26.0
Max Q Clear Time (g_c+I1), s		4.3	0.0	5.7				7.7
Green Ext Time (p_c), s		0.9	0.0	5.0				6.1

Intersection Summary	
HCM 2010 Ctrl Delay	6.3
HCM 2010 LOS	A

Intersection	
Intersection Delay, s/veh	209.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	137	190	11	70	119	13	315	536	134	4	142	11
Future Vol, veh/h	137	190	11	70	119	13	315	536	134	4	142	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	137	190	11	70	119	13	315	536	134	4	142	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	25.9	18.1	342.5	15.2
HCM LOS	D	C	F	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	41%	35%	3%
Vol Thru, %	54%	56%	59%	90%
Vol Right, %	14%	3%	6%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	985	338	202	157
LT Vol	315	137	70	4
Through Vol	536	190	119	142
RT Vol	134	11	13	11
Lane Flow Rate	985	338	202	157
Geometry Grp	1	1	1	1
Degree of Util (X)	1.708	0.649	0.408	0.313
Departure Headway (Hd)	6.243	8.518	9.023	8.447
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	581	429	402	429
Service Time	4.307	6.518	7.023	6.447
HCM Lane V/C Ratio	1.695	0.788	0.502	0.366
HCM Control Delay	342.5	25.9	18.1	15.2
HCM Lane LOS	F	D	C	C
HCM 95th-tile Q	56.9	4.5	1.9	1.3

Intersection	
Intersection Delay, s/veh	239.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	305	7	160	561	129	1	416	190	0	121	26
Future Vol, veh/h	92	305	7	160	561	129	1	416	190	0	121	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	6	6	6	8	8	8	3	3	3	3	3	3
Mvmt Flow	92	305	7	160	561	129	1	416	190	0	121	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	61.6	409.3	171.7	23.2
HCM LOS	F	F	F	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	23%	19%	0%
Vol Thru, %	69%	75%	66%	82%
Vol Right, %	31%	2%	15%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	607	404	850	147
LT Vol	1	92	160	0
Through Vol	416	305	561	121
RT Vol	190	7	129	26
Lane Flow Rate	607	404	850	147
Geometry Grp	1	1	1	1
Degree of Util (X)	1.279	0.905	1.843	0.377
Departure Headway (Hd)	9.359	10.676	8.725	12.714
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	395	343	425	285
Service Time	7.359	8.676	6.725	10.714
HCM Lane V/C Ratio	1.537	1.178	2	0.516
HCM Control Delay	171.7	61.6	409.3	23.2
HCM Lane LOS	F	F	F	C
HCM 95th-tile Q	21.9	8.9	49.3	1.7

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	47	31	650	44	56	251
Future Vol, veh/h	47	31	650	44	56	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	47	31	650	44	56	251

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	910	347	0	0	694	0
Stage 1	672	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	270	643	-	-	891	-
Stage 1	464	-	-	-	-	-
Stage 2	773	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	253	643	-	-	891	-
Mov Cap-2 Maneuver	364	-	-	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	724	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	364	643	891	-
HCM Lane V/C Ratio	-	-	0.129	0.048	0.063	-
HCM Control Delay (s)	-	-	16.4	10.9	9.3	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.2	0.2	-

Intersection	
Int Delay, s/veh	171.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	165	148	1845	289	343	504
Future Vol, veh/h	165	148	1845	289	343	504
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	165	148	1845	289	343	504

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2878	1067	0	0	2134	0
Stage 1	1990	-	-	-	-	-
Stage 2	888	-	-	-	-	-
Critical Hdwy	5.76	7.16	-	-	5.38	-
Critical Hdwy Stg 1	6.66	-	-	-	-	-
Critical Hdwy Stg 2	6.06	-	-	-	-	-
Follow-up Hdwy	3.83	3.93	-	-	3.14	-
Pot Cap-1 Maneuver	~ 30	186	-	-	~ 104	-
Stage 1	~ 57	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	186	-	-	~ 104	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	~ 57	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 373.6	0	$ 527.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	186	~ 104	-
HCM Lane V/C Ratio	-	-	1.683	3.298	-
HCM Control Delay (s)	-	-	$ 373.6	$ 1121.2	122.9
HCM Lane LOS	-	-	F	F	F
HCM 95th %tile Q(veh)	-	-	21.4	33.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	967	1891	34	10	93
Future Vol, veh/h	27	967	1891	34	10	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	190	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	3	3
Mvmt Flow	27	967	1891	34	10	93

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1925	0	-	0	2446	963
Stage 1	-	-	-	-	1908	-
Stage 2	-	-	-	-	538	-
Critical Hdwy	4.22	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.26	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	287	-	-	-	25	254
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	547	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	287	-	-	-	23	254
Mov Cap-2 Maneuver	-	-	-	-	23	-
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	496	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	97.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	287	-	-	-	129
HCM Lane V/C Ratio	0.094	-	-	-	0.798
HCM Control Delay (s)	18.8	-	-	-	97.5
HCM Lane LOS	C	-	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	-	4.8

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	1	0	3	1	6	0	1140	1	1	897	1
Future Vol, veh/h	3	1	0	3	1	6	0	1140	1	1	897	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	3	1	0	3	1	6	0	1140	1	1	897	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2044	2041	898	2041	2041	1141	898	0	0	1141	0	0
Stage 1	900	900	-	1141	1141	-	-	-	-	-	-	-
Stage 2	1144	1141	-	900	900	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	41	56	337	41	56	243	752	-	-	609	-	-
Stage 1	332	356	-	243	274	-	-	-	-	-	-	-
Stage 2	242	274	-	332	356	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	39	56	337	40	56	243	752	-	-	609	-	-
Mov Cap-2 Maneuver	39	56	-	40	56	-	-	-	-	-	-	-
Stage 1	332	355	-	243	274	-	-	-	-	-	-	-
Stage 2	235	274	-	330	355	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	99.5	52.9	0	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	752	-	-	42	85	609	-	-
HCM Lane V/C Ratio	-	-	-	0.095	0.118	0.002	-	-
HCM Control Delay (s)	0	-	-	99.5	52.9	10.9	0	-
HCM Lane LOS	A	-	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	969	0	99	1463	3	1	0	203	2	0	5
Future Vol, veh/h	11	969	0	99	1463	3	1	0	203	2	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	90	200	-	-	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	6	6	3	3	3	3	3	3
Mvmt Flow	11	969	0	99	1463	3	1	0	203	2	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1466	0	0	969	0	0	1921	2655	485	2170	2654	733
Stage 1	-	-	-	-	-	-	991	991	-	1663	1663	-
Stage 2	-	-	-	-	-	-	930	1664	-	507	991	-
Critical Hdwy	4.22	-	-	4.22	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.26	-	-	2.26	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	437	-	-	683	-	-	40	22	525	26	22	361
Stage 1	-	-	-	-	-	-	262	320	-	100	151	-
Stage 2	-	-	-	-	-	-	286	151	-	514	320	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	437	-	-	683	-	-	34	18	525	14	18	361
Mov Cap-2 Maneuver	-	-	-	-	-	-	34	18	-	14	18	-
Stage 1	-	-	-	-	-	-	255	312	-	97	129	-
Stage 2	-	-	-	-	-	-	241	129	-	307	312	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	16.6	99.2
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	34	525	437	-	-	683	-	-	45
HCM Lane V/C Ratio	0.029	0.387	0.025	-	-	0.145	-	-	0.156
HCM Control Delay (s)	114.1	16.1	13.5	-	-	11.2	-	-	99.2
HCM Lane LOS	F	C	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.1	1.8	0.1	-	-	0.5	-	-	0.5

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	201	1	0	2	3	92
Future Vol, veh/h	201	1	0	2	3	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	201	1	0	2	3	92

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	51	49	95	0	-	0
Stage 1	49	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	955	1017	1493	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	955	1017	1493	-	-	-
Mov Cap-2 Maneuver	955	-	-	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	1019	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1493	-	955	-	-
HCM Lane V/C Ratio	-	-	0.212	-	-
HCM Control Delay (s)	0	-	9.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	101	14	23	893	242	79
Future Vol, veh/h	101	14	23	893	242	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	101	14	23	893	242	79

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	775	161	321	0	-	0
Stage 1	282	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	332	852	1228	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	326	852	1228	-	-	-
Mov Cap-2 Maneuver	326	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	565	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.1	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1228	-	352	-	-
HCM Lane V/C Ratio	0.019	-	0.327	-	-
HCM Control Delay (s)	8	-	20.1	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.4	-	-

Intersection	
Int Delay, s/veh	9.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1235	39	210	1093	24	337
Future Vol, veh/h	1235	39	210	1093	24	337
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1235	39	210	1093	24	337

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1274	0	2222	637
Stage 1	-	-	-	-	1255	-
Stage 2	-	-	-	-	967	-
Critical Hdwy	-	-	4.16	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.23	-	3.53	3.33
Pot Cap-1 Maneuver	-	-	536	-	36	418
Stage 1	-	-	-	-	230	-
Stage 2	-	-	-	-	327	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	536	-	~ 22	418
Mov Cap-2 Maneuver	-	-	-	-	~ 22	-
Stage 1	-	-	-	-	230	-
Stage 2	-	-	-	-	199	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	69.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	22	418	-	-	536	-
HCM Lane V/C Ratio	1.091	0.806	-	-	0.392	-
HCM Control Delay (s)	$ 473.3	40.9	-	-	16	-
HCM Lane LOS	F	E	-	-	C	-
HCM 95th %tile Q(veh)	3.1	7.3	-	-	1.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	415	0	0	159
Future Vol, veh/h	0	0	415	0	0	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	415	0	0	159

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	574	415	0	0	415	0
Stage 1	415	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	479	635	-	-	1139	-
Stage 1	664	-	-	-	-	-
Stage 2	867	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	479	635	-	-	1139	-
Mov Cap-2 Maneuver	479	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	867	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1139	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	113.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	389	7	173	465	141	489
Future Vol, veh/h	389	7	173	465	141	489
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	389	7	173	465	141	489

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	952	141	141	0	-	0
Stage 1	141	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	~ 287	904	1436	-	-	0
Stage 1	883	-	-	-	-	0
Stage 2	435	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	~ 241	904	1436	-	-	-
Mov Cap-2 Maneuver	~ 241	-	-	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	~ 365	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 334.3	2.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	1436	-	244	-
HCM Lane V/C Ratio	0.12	-	1.623	-
HCM Control Delay (s)	7.9	0	$ 334.3	-
HCM Lane LOS	A	A	F	-
HCM 95th %tile Q(veh)	0.4	-	25	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	62.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	121	654	263	74	127	132
Future Vol, veh/h	121	654	263	74	127	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	150	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	121	654	263	74	127	132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	649	263	0	0	263	0
Stage 1	263	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	433	773	-	-	1295	-
Stage 1	779	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	391	773	-	-	1295	-
Mov Cap-2 Maneuver	391	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	618	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	108.5	0	4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	671	1295	-
HCM Lane V/C Ratio	-	-	1.155	0.098	-
HCM Control Delay (s)	-	-	108.5	8.1	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	24.7	0.3	-

Intersection	
Int Delay, s/veh	184.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	81	403	0	0	831	7	33	257	1	0	93	15
Future Vol, veh/h	81	403	0	0	831	7	33	257	1	0	93	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	81	403	0	0	831	7	33	257	1	0	93	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	838	0	0	403	0	0	1454	1403	403	1529	1400	835
Stage 1	-	-	-	-	-	-	565	565	-	835	835	-
Stage 2	-	-	-	-	-	-	889	838	-	694	565	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	771	-	-	1114	-	-	105	~ 136	635	93	136	359
Stage 1	-	-	-	-	-	-	499	498	-	354	375	-
Stage 2	-	-	-	-	-	-	330	373	-	424	498	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	771	-	-	1114	-	-	~ 32	~ 118	635	-	118	359
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 32	~ 118	-	-	118	-
Stage 1	-	-	-	-	-	-	432	431	-	306	375	-
Stage 2	-	-	-	-	-	-	238	373	-	148	431	-

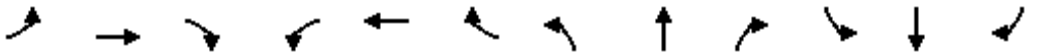
Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0	$ 1088.1	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	91	771	-	-	1114	-	-	-
HCM Lane V/C Ratio	3.198	0.105	-	-	-	-	-	-
HCM Control Delay (s)	$ 1088.1	10.2	0	-	0	-	-	-
HCM Lane LOS	F	B	A	-	A	-	-	-
HCM 95th %tile Q(veh)	28.8	0.4	-	-	0	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Cumulative No Project

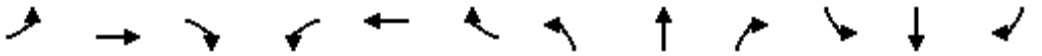
PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	447	0	551	449	293	994	7	1910	555	0	2830	505
Future Volume (vph)	447	0	551	449	293	994	7	1910	555	0	2830	505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00		0.88	0.86	0.81	0.91		0.91	1.00		0.86	1.00
Frt	1.00		0.85	1.00	0.91	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1752		2760	2985	2688	1413		4987	1553		6285	1553
Flt Permitted	0.95		1.00	0.95	1.00	1.00		0.83	1.00		1.00	1.00
Satd. Flow (perm)	1752		2760	2985	2688	1413		4129	1553		6285	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	447	0	551	449	293	994	7	1910	555	0	2830	505
RTOR Reduction (vph)	0	0	54	0	14	37	0	0	0	0	0	121
Lane Group Flow (vph)	447	0	497	404	821	460	0	1917	555	0	2830	384
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm	Split	NA	Perm	Perm	NA	Free		NA	Perm
Protected Phases	4			8	8			2			6	
Permitted Phases			4			8	2		Free			6
Actuated Green, G (s)	22.0		22.0	28.0	28.0	28.0		48.0	110.0		48.0	48.0
Effective Green, g (s)	22.0		22.0	28.0	28.0	28.0		48.0	110.0		48.0	48.0
Actuated g/C Ratio	0.20		0.20	0.25	0.25	0.25		0.44	1.00		0.44	0.44
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	350		552	759	684	359		1801	1553		2742	677
v/s Ratio Prot	c0.26			0.14	0.31						0.45	
v/s Ratio Perm			0.18			c0.33		c0.46	0.36			0.25
v/c Ratio	1.28		0.90	0.53	1.41dr	1.28		1.06	0.36		1.03	0.57
Uniform Delay, d1	44.0		42.9	35.4	41.0	41.0		31.0	0.0		31.0	23.2
Progression Factor	1.00		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	145.1		17.4	0.7	103.7	146.0		40.7	0.6		26.1	1.1
Delay (s)	189.1		60.3	36.1	144.7	187.0		71.7	0.6		57.1	24.3
Level of Service	F		E	D	F	F		E	A		E	C
Approach Delay (s)		118.0			131.6			55.8			52.2	
Approach LOS		F			F			E			D	

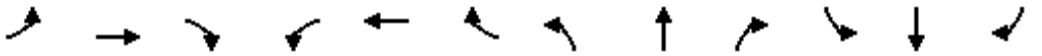
Intersection Summary			
HCM 2000 Control Delay	77.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



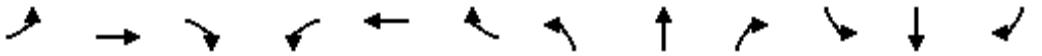
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	796	0	1165	0	0	0	0	1677	633	0	1875	1318
Future Volume (vph)	796	0	1165	0	0	0	0	1677	633	0	1875	1318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	796	0	1165	0	0	0	0	1677	633	0	1875	1318
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	796	0	1154	0	0	0	0	1677	633	0	1875	1318
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	24.0		24.0					23.0	55.0		23.0	55.0
Effective Green, g (s)	24.0		24.0					23.0	55.0		23.0	55.0
Actuated g/C Ratio	0.44		0.44					0.42	1.00		0.42	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1469		1192					2085	1553		2085	1553
v/s Ratio Prot								0.34			0.38	
v/s Ratio Perm	0.24		0.42						0.41			c0.85
v/c Ratio	0.54		0.97					0.80	0.41		0.90	0.85
Uniform Delay, d1	11.4		15.1					14.0	0.0		14.9	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.4		18.6					2.4	0.8		5.6	6.0
Delay (s)	11.9		33.7					16.4	0.8		20.6	6.0
Level of Service	B		C					B	A		C	A
Approach Delay (s)		24.9			0.0			12.1			14.5	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



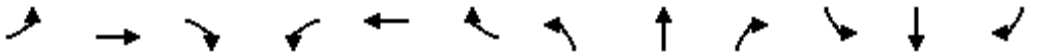
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	618	251	148	868	864	419	1181	36	1168	1837	150
Future Volume (vph)	264	618	251	148	868	864	419	1181	36	1168	1837	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3321		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3321		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	264	618	251	148	868	864	419	1181	36	1168	1837	150
RTOR Reduction (vph)	0	36	0	0	0	662	0	0	28	0	0	69
Lane Group Flow (vph)	264	833	0	148	868	202	419	1181	8	1168	1837	81
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	9.0	31.0		6.0	28.0	28.0	17.5	28.0	28.0	39.0	49.5	49.5
Effective Green, g (s)	9.0	31.0		6.0	28.0	28.0	17.5	28.0	28.0	39.0	49.5	49.5
Actuated g/C Ratio	0.08	0.26		0.05	0.23	0.23	0.15	0.23	0.23	0.32	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	252	857		168	809	637	491	1163	362	1094	2057	640
v/s Ratio Prot	0.08	c0.25		0.04	c0.25		0.12	c0.24		c0.35	0.37	
v/s Ratio Perm						0.07			0.01			0.05
v/c Ratio	1.05	0.97		0.88	1.07	0.32	0.85	1.02	0.02	1.07	0.89	0.13
Uniform Delay, d1	55.5	44.1		56.6	46.0	38.1	50.0	46.0	35.5	40.5	32.8	21.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	69.7	23.9		37.6	53.1	0.3	13.5	30.3	0.0	47.2	5.4	0.1
Delay (s)	125.2	67.9		94.3	99.1	38.4	63.5	76.3	35.5	87.7	38.2	21.9
Level of Service	F	E		F	F	D	E	E	D	F	D	C
Approach Delay (s)		81.3			70.8			72.1			55.7	
Approach LOS		F			E			E			E	

Intersection Summary			
HCM 2000 Control Delay	66.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	325	1374	12	585	19	1008	4	3	14	14	83
Future Volume (vph)	47	325	1374	12	585	19	1008	4	3	14	14	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.98	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1622	1524		1800	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.98	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1622	1524		1800	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	47	325	1374	12	585	19	1008	4	3	14	14	83
RTOR Reduction (vph)	0	0	287	0	0	15	0	0	2	0	0	77
Lane Group Flow (vph)	47	325	1087	12	585	4	504	508	1	0	28	6
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.8	20.2	51.0	0.7	17.1	17.1	30.8	30.8	30.8		5.3	5.3
Effective Green, g (s)	3.8	20.2	51.0	0.7	17.1	17.1	30.8	30.8	30.8		5.3	5.3
Actuated g/C Ratio	0.05	0.28	0.70	0.01	0.23	0.23	0.42	0.42	0.42		0.07	0.07
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	90	960	1170	16	813	363	682	684	643		130	113
v/s Ratio Prot	c0.03	0.09	c0.39	0.01	0.17		0.31	0.31			c0.02	
v/s Ratio Perm			0.31			0.00			0.00			0.00
v/c Ratio	0.52	0.34	0.93	0.75	0.72	0.01	0.74	0.74	0.00		0.22	0.05
Uniform Delay, d1	33.7	21.1	9.5	36.1	25.7	21.5	17.7	17.8	12.2		31.9	31.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.4	0.2	12.6	106.0	3.1	0.0	4.2	4.4	0.0		0.8	0.2
Delay (s)	39.1	21.3	22.1	142.1	28.8	21.5	21.9	22.1	12.2		32.7	31.7
Level of Service	D	C	C	F	C	C	C	C	B		C	C
Approach Delay (s)		22.4			30.8			22.0			32.0	
Approach LOS		C			C			C			C	

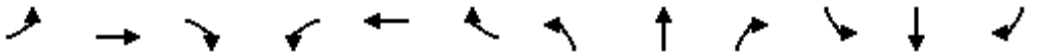
Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	73.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	346	58	339	429	105	149	220	217	133	224	37
Future Volume (vph)	38	346	58	339	429	105	149	220	217	133	224	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1752	3505	1568	1752	3401		1665	1747	1568		3398	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		0.98	
Satd. Flow (perm)	1752	3505	1568	1752	3401		1665	1747	1568		3398	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	346	58	339	429	105	149	220	217	133	224	37
RTOR Reduction (vph)	0	0	45	0	24	0	0	0	174	0	10	0
Lane Group Flow (vph)	38	346	13	339	510	0	134	235	43	0	384	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	1.8	14.7	14.7	11.2	24.1		13.4	13.4	13.4		12.5	
Effective Green, g (s)	1.8	14.7	14.7	11.2	24.1		13.4	13.4	13.4		12.5	
Actuated g/C Ratio	0.03	0.22	0.22	0.17	0.36		0.20	0.20	0.20		0.18	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	46	759	339	289	1208		329	345	309		626	
v/s Ratio Prot	0.02	0.10		c0.19	c0.15		0.08	c0.13			c0.11	
v/s Ratio Perm			0.01						0.03			
v/c Ratio	0.83	0.46	0.04	1.17	0.42		0.41	0.68	0.14		0.61	
Uniform Delay, d1	32.8	23.1	21.0	28.3	16.6		23.7	25.2	22.4		25.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	69.9	0.4	0.0	108.2	0.2		0.8	5.5	0.2		1.8	
Delay (s)	102.7	23.5	21.0	136.5	16.8		24.6	30.7	22.6		27.2	
Level of Service	F	C	C	F	B		C	C	C		C	
Approach Delay (s)		30.0			63.3			26.3			27.2	
Approach LOS		C			E			C			C	

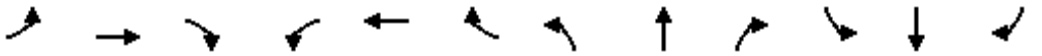
Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	67.8	Sum of lost time (s)	20.0
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



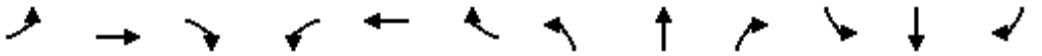
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	860	785	328	958	40	448	160	496	36	80	31
Future Volume (vph)	34	860	785	328	958	40	448	160	496	36	80	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3077		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3077		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	860	785	328	958	40	448	160	496	36	80	31
RTOR Reduction (vph)	0	0	413	0	0	21	0	391	0	0	0	29
Lane Group Flow (vph)	34	860	372	328	958	19	448	265	0	36	80	2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	3.0	30.3	30.3	11.3	38.5	38.5	17.5	17.5		4.4	4.4	4.4
Effective Green, g (s)	3.0	30.3	30.3	11.3	38.5	38.5	17.5	17.5		4.4	4.4	4.4
Actuated g/C Ratio	0.04	0.37	0.37	0.14	0.47	0.47	0.21	0.21		0.05	0.05	0.05
Clearance Time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Vehicle Extension (s)	1.0	4.9	4.9	1.0	4.1	4.1	2.0	2.0		1.0	1.0	1.0
Lane Grp Cap (vph)	63	1290	577	466	1639	733	715	654		93	187	83
v/s Ratio Prot	0.02	c0.25		c0.10	0.27		c0.13	0.09		0.02	c0.02	
v/s Ratio Perm			0.24			0.01						0.00
v/c Ratio	0.54	0.67	0.64	0.70	0.58	0.03	0.63	0.41		0.39	0.43	0.02
Uniform Delay, d1	39.0	21.8	21.5	33.9	16.0	11.8	29.4	27.9		37.6	37.7	36.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.4	1.7	3.3	3.9	0.7	0.0	1.2	0.2		1.0	0.6	0.0
Delay (s)	43.4	23.5	24.8	37.8	16.7	11.8	30.7	28.1		38.6	38.3	36.9
Level of Service	D	C	C	D	B	B	C	C		D	D	D
Approach Delay (s)		24.5			21.8			29.1			38.1	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	82.3	Sum of lost time (s)	22.9
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



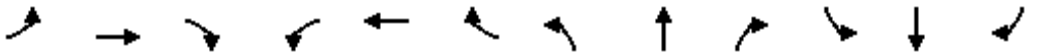
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1263	0	367	0	1031	888	0	1085	850
Future Volume (vph)	0	0	0	1263	0	367	0	1031	888	0	1085	850
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.6		4.6		3.5	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3367		2733		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3367		2733		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	1263	0	367	0	1031	888	0	1085	850
RTOR Reduction (vph)	0	0	0	0	0	52	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1263	0	315	0	1031	888	0	1085	850
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				4				6			2	
Permitted Phases						4			Free			Free
Actuated Green, G (s)				19.9		19.9		14.4	42.4		12.8	42.4
Effective Green, g (s)				19.9		19.9		14.4	42.4		12.8	42.4
Actuated g/C Ratio				0.47		0.47		0.34	1.00		0.30	1.00
Clearance Time (s)				4.6		4.6		3.5			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1580		1282		1694	1553		1505	1553
v/s Ratio Prot				c0.38				0.21			0.22	
v/s Ratio Perm						0.12			c0.57			0.55
v/c Ratio				0.80		0.25		0.61	0.57		0.72	0.55
Uniform Delay, d1				9.6		6.7		11.7	0.0		13.2	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				2.7		0.0		0.4	1.5		1.5	1.4
Delay (s)				12.3		6.8		12.1	1.5		14.7	1.4
Level of Service				B		A		B	A		B	A
Approach Delay (s)		0.0			11.0			7.2			8.8	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	42.4	Sum of lost time (s)	9.7
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	713	0	950	0	0	0	0	1205	934	0	1919	426
Future Volume (vph)	713	0	950	0	0	0	0	1205	934	0	1919	426
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	713	0	950	0	0	0	0	1205	934	0	1919	426
RTOR Reduction (vph)	0	0	22	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	713	0	928	0	0	0	0	1205	934	0	1919	426
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	22.7		22.7					27.0	61.2		27.5	61.2
Effective Green, g (s)	22.7		22.7					27.0	61.2		27.5	61.2
Actuated g/C Ratio	0.37		0.37					0.44	1.00		0.45	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1248		1013					2200	1553		2241	1553
v/s Ratio Prot								0.24			c0.38	
v/s Ratio Perm	0.21		c0.34						0.60			0.27
v/c Ratio	0.57		0.92					0.55	0.60		0.86	0.27
Uniform Delay, d1	15.4		18.3					12.6	0.0		15.1	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.4		12.3					0.2	1.7		3.3	0.4
Delay (s)	15.8		30.6					12.8	1.7		18.4	0.4
Level of Service	B		C					B	A		B	A
Approach Delay (s)		24.2			0.0			7.9			15.1	
Approach LOS		C			A			A			B	

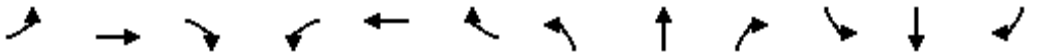
Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	61.2	Sum of lost time (s)	11.5
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	168	3	103	0	1	1	21	22	1	1	61	330
Future Volume (vph)	168	3	103	0	1	1	21	22	1	1	61	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.93		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1665	1672	1568		1706		1752	3482		1752	3505	1568
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1665	1672	1568		1706		1752	3482		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	168	3	103	0	1	1	21	22	1	1	61	330
RTOR Reduction (vph)	0	0	85	0	1	0	0	1	0	0	0	216
Lane Group Flow (vph)	86	85	18	0	1	0	21	22	0	1	61	114
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	6.4	6.4	6.4		0.7		0.5	12.5		0.5	12.5	12.5
Effective Green, g (s)	6.4	6.4	6.4		0.7		0.5	12.5		0.5	12.5	12.5
Actuated g/C Ratio	0.18	0.18	0.18		0.02		0.01	0.35		0.01	0.35	0.35
Clearance Time (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	295	296	277		33		24	1205		24	1213	542
v/s Ratio Prot	c0.05	0.05			c0.00		c0.01	0.01		0.00	0.02	
v/s Ratio Perm			0.01									c0.07
v/c Ratio	0.29	0.29	0.07		0.03		0.88	0.02		0.04	0.05	0.21
Uniform Delay, d1	12.9	12.9	12.4		17.4		17.8	7.8		17.6	7.9	8.3
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6	0.5	0.1		0.4		127.4	0.0		0.7	0.0	0.2
Delay (s)	13.4	13.4	12.5		17.7		145.1	7.8		18.3	7.9	8.5
Level of Service	B	B	B		B		F	A		B	A	A
Approach Delay (s)		13.1			17.7			73.3			8.4	
Approach LOS		B			B			E			A	

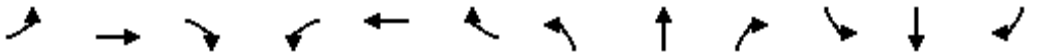
Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	36.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



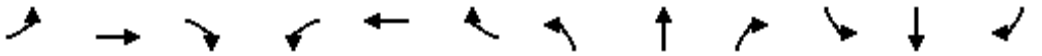
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	432	0	356	0	1210	1381	0	1146	586
Future Volume (vph)	0	0	0	432	0	356	0	1210	1381	0	1146	586
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.87			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.99			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1495			4988	1553		4988	1553
Flt Permitted				0.95	0.99			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1495			4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	432	0	356	0	1210	1381	0	1146	586
RTOR Reduction (vph)	0	0	0	0	33	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	389	366	0	0	1210	1381	0	1146	586
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA			NA	Free		NA	Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				11.1	11.1			12.8	33.6		12.8	33.6
Effective Green, g (s)				11.1	11.1			12.8	33.6		12.8	33.6
Actuated g/C Ratio				0.33	0.33			0.38	1.00		0.38	1.00
Clearance Time (s)				4.9	4.9			4.8			4.8	
Vehicle Extension (s)				1.0	1.0			1.0			1.0	
Lane Grp Cap (vph)				544	493			1900	1553		1900	1553
v/s Ratio Prot								0.24			0.23	
v/s Ratio Perm				0.24	0.24				c0.89			0.38
v/c Ratio				0.72	0.74			0.64	0.89		0.60	0.38
Uniform Delay, d1				9.9	10.0			8.5	0.0		8.4	0.0
Progression Factor				1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2				3.7	5.2			0.5	8.0		0.4	0.7
Delay (s)				13.6	15.2			9.0	8.0		8.7	0.7
Level of Service				B	B			A	A		A	A
Approach Delay (s)		0.0			14.4			8.5			6.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	33.6	Sum of lost time (s)	9.7
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



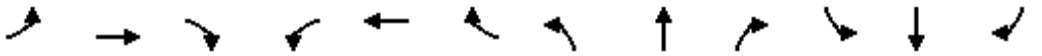
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	393	0	1009	0	0	0	0	2339	936	0	1220	360
Future Volume (vph)	393	0	1009	0	0	0	0	2339	936	0	1220	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.86	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1426	1475					4988	1553		4988	1553
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1426	1475					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	393	0	1009	0	0	0	0	2339	936	0	1220	360
RTOR Reduction (vph)	0	29	29	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	354	494	496	0	0	0	0	2339	936	0	1220	360
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm					NA	Free		NA	Free
Protected Phases		4						2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	28.2	28.2	28.2					39.9	78.1		40.0	78.1
Effective Green, g (s)	28.2	28.2	28.2					39.9	78.1		40.0	78.1
Actuated g/C Ratio	0.36	0.36	0.36					0.51	1.00		0.51	1.00
Clearance Time (s)	5.1	5.1	5.1					4.9			4.8	
Vehicle Extension (s)	1.0	1.0	1.0					1.0			1.0	
Lane Grp Cap (vph)	595	514	532					2548	1553		2554	1553
v/s Ratio Prot								c0.47			0.24	
v/s Ratio Perm	0.21	0.35	0.34						0.60			0.23
v/c Ratio	0.59	0.96	0.93					0.92	0.60		0.48	0.23
Uniform Delay, d1	20.3	24.4	24.0					17.6	0.0		12.3	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	1.1	29.8	23.2					5.7	1.7		0.1	0.3
Delay (s)	21.4	54.3	47.3					23.3	1.7		12.4	0.3
Level of Service	C	D	D					C	A		B	A
Approach Delay (s)		43.3			0.0			17.2			9.6	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	21.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	78.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	826	0	407	0	1469	2122	0	1283	656
Future Volume (vph)	0	0	0	826	0	407	0	1469	2122	0	1283	656
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		5036	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	826	0	407	0	1469	2122	0	1283	656
RTOR Reduction (vph)	0	0	0	0	0	27	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	826	0	380	0	1469	2122	0	1283	656
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				12.6		12.6		15.8	39.8		15.8	39.8
Effective Green, g (s)				12.6		12.6		15.8	39.8		15.8	39.8
Actuated g/C Ratio				0.32		0.32		0.40	1.00		0.40	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1076		496		1999	1568		1999	1568
v/s Ratio Prot								0.29			0.25	
v/s Ratio Perm				0.24		0.24			c1.35			0.42
v/c Ratio				0.77		0.77		0.73	1.35		0.64	0.42
Uniform Delay, d1				12.3		12.3		10.2	19.9		9.7	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				3.0		6.3		1.2	163.3		0.5	0.8
Delay (s)				15.3		18.6		11.5	183.2		10.2	0.8
Level of Service				B		B		B	F		B	A
Approach Delay (s)		0.0			16.4			112.9			7.1	
Approach LOS		A			B			F			A	

Intersection Summary			
HCM 2000 Control Delay	65.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.90		
Actuated Cycle Length (s)	39.8	Sum of lost time (s)	11.4
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	375	20	1197	0	0	641	0	3364	8	50	1868	190
Future Volume (vph)	375	20	1197	0	0	641	0	3364	8	50	1868	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		0.86			0.91	1.00
Frt	1.00	0.86	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	2731	1427			2733		6343			5029	1568
Flt Permitted	0.95	1.00	1.00			1.00		1.00			0.68	1.00
Satd. Flow (perm)	1595	2731	1427			2733		6343			3410	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	375	20	1197	0	0	641	0	3364	8	50	1868	190
RTOR Reduction (vph)	0	13	29	0	0	134	0	0	0	0	0	60
Lane Group Flow (vph)	337	644	569	0	0	507	0	3372	0	0	1918	130
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA		Perm	NA	custom
Protected Phases	4	4				1		2			6	
Permitted Phases			4							6		2
Actuated Green, G (s)	40.0	40.0	40.0			19.0		59.0			82.0	59.0
Effective Green, g (s)	40.0	40.0	40.0			19.0		59.0			82.0	59.0
Actuated g/C Ratio	0.31	0.31	0.31			0.15		0.45			0.63	0.45
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	490	840	439			399		2878			2150	711
v/s Ratio Prot	0.21	0.24				c0.19		c0.53				
v/s Ratio Perm			c0.40								0.56	0.08
v/c Ratio	0.69	1.33dr	1.30			1.27		1.17			0.89	0.18
Uniform Delay, d1	39.5	40.8	45.0			55.5		35.5			20.3	21.1
Progression Factor	1.00	1.00	1.00			1.00		1.00			1.00	1.00
Incremental Delay, d2	4.0	4.2	149.2			140.1		81.3			5.2	0.1
Delay (s)	43.5	45.0	194.2			195.6		116.8			25.4	21.3
Level of Service	D	D	F			F		F			C	C
Approach Delay (s)		100.7			195.6			116.8			25.0	
Approach LOS		F			F			F			C	

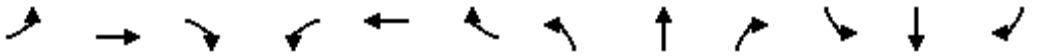
Intersection Summary			
HCM 2000 Control Delay	95.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.5%	ICU Level of Service	F
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

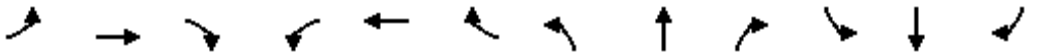
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	873	0	16	708	3	1	119	0	1	348	84
Future Volume (vph)	118	873	0	16	708	3	1	119	0	1	348	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			1.00			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1703	1792		1703	1791			1759			1713	
Flt Permitted	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (perm)	1703	1792		1703	1791			1755			1713	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	118	873	0	16	708	3	1	119	0	1	348	84
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	118	873	0	16	711	0	0	120	0	0	423	0
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	8%	8%	8%	8%	8%	8%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)	8.7	46.4		1.4	39.1			23.2			23.2	
Effective Green, g (s)	8.7	46.4		1.4	39.1			23.2			23.2	
Actuated g/C Ratio	0.10	0.56		0.02	0.47			0.28			0.28	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	178	1001		28	843			490			478	
v/s Ratio Prot	c0.07	c0.49		0.01	0.40							
v/s Ratio Perm								0.07			0.25	
v/c Ratio	0.66	0.87		0.57	0.84			0.24			0.88	
Uniform Delay, d1	35.7	15.7		40.5	19.3			23.1			28.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	8.9	8.5		25.2	7.7			0.3			17.5	
Delay (s)	44.7	24.2		65.7	27.0			23.4			46.1	
Level of Service	D	C		E	C			C			D	
Approach Delay (s)		26.7			27.8			23.4			46.1	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	30.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	83.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	36	0	733	0	3233	737	0	2062	1021
Future Volume (vph)	0	0	0	36	0	733	0	3233	737	0	2062	1021
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	36	0	733	0	3233	737	0	2062	1021
RTOR Reduction (vph)	0	0	0	0	0	16	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	36	0	717	0	3233	737	0	2062	1021
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				28.5		28.5		73.2	110.0		72.9	110.0
Effective Green, g (s)				28.5		28.5		73.2	110.0		72.9	110.0
Actuated g/C Ratio				0.26		0.26		0.67	1.00		0.66	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				855		694		3319	1553		3305	1553
v/s Ratio Prot								c0.65			0.41	
v/s Ratio Perm				0.01		c0.27			0.47			0.66
v/c Ratio				0.04		1.03		0.97	0.47		0.62	0.66
Uniform Delay, d1				30.5		40.8		17.5	0.0		10.7	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.0		43.2		10.3	1.0		0.3	2.2
Delay (s)				30.5		83.9		27.8	1.0		10.9	2.2
Level of Service				C		F		C	A		B	A
Approach Delay (s)		0.0			81.4			22.8			8.0	
Approach LOS		A			F			C			A	

Intersection Summary			
HCM 2000 Control Delay	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.6
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

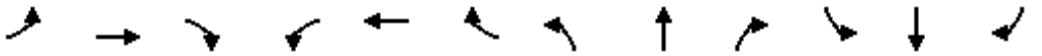


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1468	0	554	0	0	0	0	2502	216	0	1603	494
Future Volume (vph)	1468	0	554	0	0	0	0	2502	216	0	1603	494
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1468	0	554	0	0	0	0	2502	216	0	1603	494
RTOR Reduction (vph)	0	0	27	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1468	0	527	0	0	0	0	2502	216	0	1603	494
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	18.5		18.5					25.4	52.2		25.1	52.2
Effective Green, g (s)	18.5		18.5					25.4	52.2		25.1	52.2
Actuated g/C Ratio	0.35		0.35					0.49	1.00		0.48	1.00
Clearance Time (s)	3.5		3.5					4.8			5.1	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1734		968					3058	1553		2398	1553
v/s Ratio Prot								c0.40			0.32	
v/s Ratio Perm	c0.30		0.19						0.14			0.32
v/c Ratio	0.85		0.54					0.82	0.14		0.67	0.32
Uniform Delay, d1	15.5		13.5					11.4	0.0		10.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	3.9		0.3					1.7	0.2		0.6	0.5
Delay (s)	19.4		13.8					13.1	0.2		10.9	0.5
Level of Service	B		B					B	A		B	A
Approach Delay (s)		17.9			0.0			12.1			8.5	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	52.2	Sum of lost time (s)	8.6
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

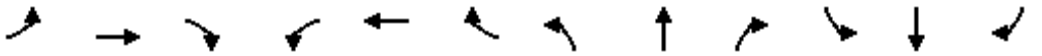
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	100	181	761	152	359	1811
Future Volume (vph)	100	181	761	152	359	1811
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	4988	1553	3367	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	4988	1553	3367	3471
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	100	181	761	152	359	1811
RTOR Reduction (vph)	0	167	0	97	0	0
Lane Group Flow (vph)	100	14	761	55	359	1811
Heavy Vehicles (%)	3%	3%	4%	4%	4%	4%
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases				6		
Actuated Green, G (s)	3.4	3.4	15.7	15.7	8.4	29.6
Effective Green, g (s)	3.4	3.4	15.7	15.7	8.4	29.6
Actuated g/C Ratio	0.08	0.08	0.36	0.36	0.19	0.68
Clearance Time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	265	122	1800	560	650	2361
v/s Ratio Prot	c0.03	0.01	0.15		0.11	c0.52
v/s Ratio Perm				0.04		
v/c Ratio	0.38	0.12	0.42	0.10	0.55	0.77
Uniform Delay, d1	19.0	18.7	10.5	9.2	15.9	4.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.2	0.1	0.0	0.6	1.4
Delay (s)	19.4	18.8	10.5	9.2	16.4	6.0
Level of Service	B	B	B	A	B	A
Approach Delay (s)	19.0		10.3			7.8
Approach LOS	B		B			A

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	43.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



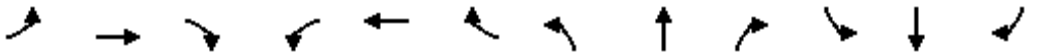
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	502	1065	9	2	925	6	7	15	2	5	21	864
Future Volume (vph)	502	1065	9	2	925	6	7	15	2	5	21	864
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1703	3406	1524	1719	3435			1798			1810	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (perm)	1703	3406	1524	1719	3435			1798			1810	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	502	1065	9	2	925	6	7	15	2	5	21	864
RTOR Reduction (vph)	0	0	2	0	0	0	0	2	0	0	0	217
Lane Group Flow (vph)	502	1065	7	2	931	0	0	22	0	0	26	647
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	Over
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									
Actuated Green, G (s)	59.8	100.3	100.3	0.5	41.9			1.7			3.5	59.8
Effective Green, g (s)	59.8	100.3	100.3	0.5	41.9			1.7			3.5	59.8
Actuated g/C Ratio	0.46	0.77	0.77	0.00	0.32			0.01			0.03	0.46
Clearance Time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	779	2613	1169	6	1101			23			48	710
v/s Ratio Prot	0.29	0.31		0.00	c0.27			c0.01			c0.01	c0.42
v/s Ratio Perm			0.00									
v/c Ratio	0.64	0.41	0.01	0.33	0.85			0.96			0.54	0.91
Uniform Delay, d1	27.3	5.1	3.6	64.9	41.4			64.5			62.8	33.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	1.4	0.0	0.0	11.6	5.9			165.9			6.5	15.7
Delay (s)	28.6	5.2	3.6	76.5	47.3			230.4			69.3	48.7
Level of Service	C	A	A	E	D			F			E	D
Approach Delay (s)		12.6			47.3			230.4			49.3	
Approach LOS		B			D			F			D	

Intersection Summary			
HCM 2000 Control Delay	33.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	130.7	Sum of lost time (s)	24.7
Intersection Capacity Utilization	97.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	413	39	187	760	255	3666	0	0	4216	79
Future Volume (vph)	0	0	413	39	187	760	255	3666	0	0	4216	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1777	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1777	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	413	39	187	760	255	3666	0	0	4216	79
RTOR Reduction (vph)	0	0	192	0	0	40	0	0	0	0	0	25
Lane Group Flow (vph)	0	0	221	0	226	720	255	3666	0	0	4216	54
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			20.0		29.8	29.8	20.0	109.0			84.1	84.1
Effective Green, g (s)			20.0		29.8	29.8	20.0	109.0			84.1	84.1
Actuated g/C Ratio			0.13		0.20	0.20	0.13	0.73			0.56	0.56
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Vehicle Extension (s)			3.0		3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)			212		353	532	440	3555			3457	854
v/s Ratio Prot			0.14		0.13		0.08	c0.75			c0.68	
v/s Ratio Perm						c0.27						0.04
v/c Ratio			1.04		0.64	1.35	0.58	1.03			1.22	0.06
Uniform Delay, d1			65.0		55.2	60.1	61.1	20.5			33.0	15.0
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			72.8		3.9	171.0	1.9	23.9			101.6	0.0
Delay (s)			137.8		59.1	231.1	62.9	44.4			134.6	15.0
Level of Service			F		E	F	E	D			F	B
Approach Delay (s)		137.8			191.7			45.6			132.4	
Approach LOS		F			F			D			F	

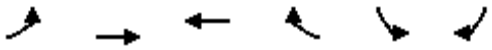
Intersection Summary			
HCM 2000 Control Delay	103.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2622	0	160	0	0	0	0	1700	267	0	332	2016
Future Volume (vph)	2622	0	160	0	0	0	0	1700	267	0	332	2016
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0			4.0	4.0
Lane Util. Factor	0.94		0.88					0.91			0.91	1.00
Frt	1.00		0.85					0.98			1.00	0.85
Flt Protected	0.95		1.00					1.00			1.00	1.00
Satd. Flow (prot)	4942		2760					4933			5036	1568
Flt Permitted	0.95		1.00					1.00			1.00	1.00
Satd. Flow (perm)	4942		2760					4933			5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2622	0	160	0	0	0	0	1700	267	0	332	2016
RTOR Reduction (vph)	0	0	68	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	2622	0	92	0	0	0	0	1946	0	0	332	2016
Turn Type	Prot		Perm					NA			NA	Free
Protected Phases	4							2			6	
Permitted Phases			4									Free
Actuated Green, G (s)	53.0		53.0					39.0			39.0	100.0
Effective Green, g (s)	53.0		53.0					39.0			39.0	100.0
Actuated g/C Ratio	0.53		0.53					0.39			0.39	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	2619		1462					1923			1964	1568
v/s Ratio Prot	0.53							0.39			0.07	
v/s Ratio Perm			0.03									c1.29
v/c Ratio	1.00		0.06					1.01			0.17	1.29
Uniform Delay, d1	23.5		11.4					30.5			19.9	50.0
Progression Factor	1.00		1.00					1.00			1.00	1.00
Incremental Delay, d2	17.9		0.0					23.5			0.0	133.5
Delay (s)	41.4		11.4					54.0			20.0	183.5
Level of Service	D		B					D			B	F
Approach Delay (s)		39.6			0.0			54.0			160.4	
Approach LOS		D			A			D			F	

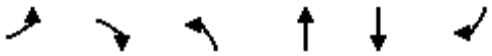
Intersection Summary			
HCM 2000 Control Delay	83.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	805	1291	1314	45	56	1076
Future Volume (vph)	805	1291	1314	45	56	1076
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3242	3343	3343	1495	3400	2760
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3242	3343	3343	1495	3400	2760
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	805	1291	1314	45	56	1076
RTOR Reduction (vph)	0	0	0	10	0	712
Lane Group Flow (vph)	805	1291	1314	35	56	364
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	35.3	94.2	54.9	54.9	20.3	20.3
Effective Green, g (s)	35.3	94.2	54.9	54.9	20.3	20.3
Actuated g/C Ratio	0.29	0.77	0.45	0.45	0.17	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	934	2570	1498	670	563	457
v/s Ratio Prot	c0.25	0.39	c0.39		0.02	
v/s Ratio Perm				0.02		c0.13
v/c Ratio	0.86	0.50	0.88	0.05	0.10	0.80
Uniform Delay, d1	41.3	5.3	30.7	19.1	43.3	49.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.2	0.2	6.1	0.0	0.1	9.4
Delay (s)	49.5	5.5	36.9	19.1	43.4	58.5
Level of Service	D	A	D	B	D	E
Approach Delay (s)		22.4	36.3		57.7	
Approach LOS		C	D		E	

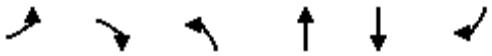
Intersection Summary			
HCM 2000 Control Delay	35.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	122.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	823	136	14	1295	1792	581
Future Volume (vph)	823	136	14	1295	1792	581
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3400	1568	1752	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3400	1568	1752	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	823	136	14	1295	1792	581
RTOR Reduction (vph)	0	129	0	0	0	194
Lane Group Flow (vph)	823	7	14	1295	1792	387
Turn Type	Prot	Over	Prot	NA	NA	Over
Protected Phases	4	5	5	2	6	4
Permitted Phases						
Actuated Green, G (s)	21.0	4.0	4.0	51.0	43.0	21.0
Effective Green, g (s)	21.0	4.0	4.0	51.0	43.0	21.0
Actuated g/C Ratio	0.26	0.05	0.05	0.64	0.54	0.26
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	892	78	87	2234	1883	411
v/s Ratio Prot	0.24	0.00	0.01	c0.37	c0.51	c0.25
v/s Ratio Perm						
v/c Ratio	0.92	0.09	0.16	0.58	0.95	0.94
Uniform Delay, d1	28.7	36.3	36.4	8.3	17.5	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.7	0.5	0.9	0.4	11.4	29.9
Delay (s)	43.5	36.7	37.3	8.7	28.9	58.8
Level of Service	D	D	D	A	C	E
Approach Delay (s)	42.5			9.0	36.2	
Approach LOS	D			A	D	

Intersection Summary			
HCM 2000 Control Delay	29.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

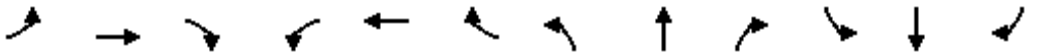
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	157	908	881	1157	1583	298
Future Volume (vph)	157	908	881	1157	1583	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.97	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1568	3400	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1568	3400	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	157	908	881	1157	1583	298
RTOR Reduction (vph)	0	387	0	0	0	166
Lane Group Flow (vph)	157	521	881	1157	1583	132
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	24.0	24.0	28.5	66.5	34.0	34.0
Effective Green, g (s)	24.0	24.0	28.5	66.5	34.0	34.0
Actuated g/C Ratio	0.24	0.24	0.29	0.68	0.35	0.35
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	426	382	983	2366	1209	541
v/s Ratio Prot	0.09		c0.26	0.33	c0.45	
v/s Ratio Perm		c0.33				0.08
v/c Ratio	0.37	1.36	0.90	0.49	1.31	0.24
Uniform Delay, d1	31.0	37.2	33.6	7.8	32.2	23.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	179.5	10.6	0.2	145.2	0.2
Delay (s)	31.5	216.8	44.2	7.9	177.5	23.3
Level of Service	C	F	D	A	F	C
Approach Delay (s)	189.5			23.6	153.1	
Approach LOS	F			C	F	

Intersection Summary			
HCM 2000 Control Delay	107.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	98.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.6%	ICU Level of Service	G
Analysis Period (min)	15		

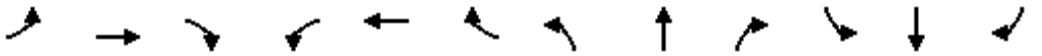
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	923	0	779	0	0	0	0	3108	616	0	1888	1108
Future Volume (vph)	923	0	779	0	0	0	0	3108	616	0	1888	1108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.97	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4626	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4626	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	923	0	779	0	0	0	0	3108	616	0	1888	1108
RTOR Reduction (vph)	0	0	14	0	0	0	0	0	0	0	60	0
Lane Group Flow (vph)	923	0	765	0	0	0	0	3108	616	0	2260	676
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	17.0		17.0					30.0	55.0		30.0	55.0
Effective Green, g (s)	17.0		17.0					30.0	55.0		30.0	55.0
Actuated g/C Ratio	0.31		0.31					0.55	1.00		0.55	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1050		853					3461	1568		2523	1348
v/s Ratio Prot	0.27							c0.49			0.49	
v/s Ratio Perm			c0.28						0.39			0.50
v/c Ratio	0.88		0.90					0.90	0.39		0.90	0.50
Uniform Delay, d1	18.0		18.2					11.1	0.0		11.1	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	8.5		12.0					3.5	0.7		4.6	1.3
Delay (s)	26.6		30.2					14.6	0.7		15.7	1.3
Level of Service	C		C					B	A		B	A
Approach Delay (s)		28.2			0.0			12.3			12.5	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	382	0	1180	0	2709	1326	0	4058	468
Future Volume (vph)	0	0	0	382	0	1180	0	2709	1326	0	4058	468
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		0.98	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4663	1348		5966	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4663	1348		5966	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	382	0	1180	0	2709	1326	0	4058	468
RTOR Reduction (vph)	0	0	0	0	0	6	0	16	0	0	1	0
Lane Group Flow (vph)	0	0	0	382	0	1174	0	3117	902	0	4104	421
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				36.0		36.0		76.0	120.0		76.0	120.0
Effective Green, g (s)				36.0		36.0		76.0	120.0		76.0	120.0
Actuated g/C Ratio				0.30		0.30		0.63	1.00		0.63	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1020		1072		2953	1348		3778	1270
v/s Ratio Prot				0.11				0.67			c0.69	
v/s Ratio Perm						c0.33			0.67			0.33
v/c Ratio				0.37		1.09		1.06	0.67		1.09	0.33
Uniform Delay, d1				33.1		42.0		22.0	0.0		22.0	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.2		57.2		33.6	2.7		44.1	0.7
Delay (s)				33.4		99.2		55.6	2.7		66.1	0.7
Level of Service				C		F		E	A		E	A
Approach Delay (s)		0.0			83.1			43.8			60.0	
Approach LOS		A			F			D			E	

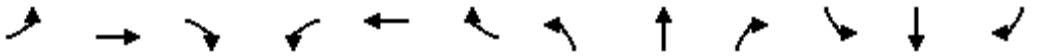
Intersection Summary			
HCM 2000 Control Delay	57.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	880	150	285	1159	346	304
Future Volume (vph)	880	150	285	1159	346	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	880	150	285	1159	346	304
RTOR Reduction (vph)	0	71	0	0	0	241
Lane Group Flow (vph)	880	79	285	1159	346	63
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	20.7	20.7	14.2	38.9	12.2	12.2
Effective Green, g (s)	20.7	20.7	14.2	38.9	12.2	12.2
Actuated g/C Ratio	0.35	0.35	0.24	0.66	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1104	494	378	2075	631	291
v/s Ratio Prot	c0.28		c0.18	0.37	c0.11	
v/s Ratio Perm		0.06				0.04
v/c Ratio	0.80	0.16	0.75	0.56	0.55	0.22
Uniform Delay, d1	17.3	13.2	20.8	5.5	21.0	19.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.1	0.2	8.3	0.3	1.0	0.4
Delay (s)	21.4	13.4	29.1	5.8	22.0	19.8
Level of Service	C	B	C	A	C	B
Approach Delay (s)	20.2			10.4	21.0	
Approach LOS	C			B	C	

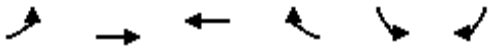
Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	59.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	406	1	0	437	40	0	0	0	43	0	247
Future Volume (vph)	309	406	1	0	437	40	0	0	0	43	0	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95					0.95	0.95	1.00
Frt	1.00	1.00			0.99					1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (prot)	1736	3470			3427					1665	1665	1568
Flt Permitted	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (perm)	1736	3470			3427					1665	1665	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	309	406	1	0	437	40	0	0	0	43	0	247
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	0	215
Lane Group Flow (vph)	309	407	0	0	469	0	0	0	0	21	22	32
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA					Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	15.1	32.3			13.2					7.4	7.4	7.4
Effective Green, g (s)	15.1	32.3			13.2					7.4	7.4	7.4
Actuated g/C Ratio	0.26	0.56			0.23					0.13	0.13	0.13
Clearance Time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)	457	1956			789					215	215	202
v/s Ratio Prot	c0.18	0.12			c0.14					0.01	0.01	
v/s Ratio Perm												c0.02
v/c Ratio	0.68	0.21			0.59					0.10	0.10	0.16
Uniform Delay, d1	18.9	6.2			19.7					22.0	22.0	22.2
Progression Factor	1.00	1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2	3.9	0.1			1.2					0.2	0.2	0.4
Delay (s)	22.8	6.2			20.9					22.2	22.2	22.5
Level of Service	C	A			C					C	C	C
Approach Delay (s)		13.4			20.9			0.0			22.5	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	57.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	590	478	1169	1688	0
Future Volume (vph)	2	590	478	1169	1688	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	
Frt	1.00	1.00	1.00	0.85	1.00	
Flt Protected	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (prot)	1752	3505	3505	1568	3400	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (perm)	1752	3505	3505	1568	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	590	478	1169	1688	0
RTOR Reduction (vph)	0	0	0	137	0	0
Lane Group Flow (vph)	2	590	478	1032	1688	0
Turn Type	Prot	NA	NA	custom	Prot	
Protected Phases	4	5	5	2	6	
Permitted Phases						
Actuated Green, G (s)	1.0	16.2	16.2	61.8	41.6	
Effective Green, g (s)	1.0	16.2	16.2	61.8	41.6	
Actuated g/C Ratio	0.01	0.23	0.23	0.87	0.59	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	24	801	801	1368	1997	
v/s Ratio Prot	c0.00	0.17	0.14	c0.66	c0.50	
v/s Ratio Perm						
v/c Ratio	0.08	0.74	0.60	0.75	0.85	
Uniform Delay, d1	34.4	25.3	24.4	1.7	12.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.5	3.6	1.2	2.4	3.5	
Delay (s)	35.9	28.9	25.6	4.1	15.5	
Level of Service	D	C	C	A	B	
Approach Delay (s)		28.9	10.3		15.5	
Approach LOS		C	B		B	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	70.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1642	116	0	1343	129	0
Future Volume (vph)	1642	116	0	1343	129	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	1.00	
Frt	0.99			1.00	1.00	
Flt Protected	1.00			1.00	0.95	
Satd. Flow (prot)	3470			3505	1752	
Flt Permitted	1.00			1.00	0.95	
Satd. Flow (perm)	3470			3505	1752	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1642	116	0	1343	129	0
RTOR Reduction (vph)	5	0	0	0	0	0
Lane Group Flow (vph)	1753	0	0	1343	129	0
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)	37.5			37.5	9.5	
Effective Green, g (s)	37.5			37.5	9.5	
Actuated g/C Ratio	0.68			0.68	0.17	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2365			2389	302	
v/s Ratio Prot	c0.51			0.38	c0.07	
v/s Ratio Perm						
v/c Ratio	0.74			0.56	0.43	
Uniform Delay, d1	5.6			4.5	20.3	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	1.3			0.3	1.0	
Delay (s)	6.9			4.8	21.3	
Level of Service	A			A	C	
Approach Delay (s)	6.9			4.8	21.3	
Approach LOS	A			A	C	

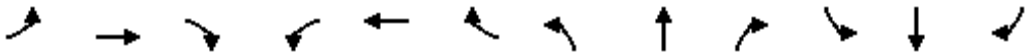
Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	2384	0	1285	0
Future Volume (vph)	0	0	2384	0	1285	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0	
Lane Util. Factor			0.95	0.95	0.97	
Frt			1.00	1.00	1.00	
Flt Protected			0.95	0.95	0.95	
Satd. Flow (prot)			1665	1665	3400	
Flt Permitted			0.95	0.95	0.95	
Satd. Flow (perm)			1665	1665	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	2384	0	1285	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	1192	1192	1285	0
Turn Type			Split	NA	Prot	
Protected Phases			4	4	2	
Permitted Phases						
Actuated Green, G (s)			91.0	91.0	51.0	
Effective Green, g (s)			91.0	91.0	51.0	
Actuated g/C Ratio			0.61	0.61	0.34	
Clearance Time (s)			4.0	4.0	4.0	
Vehicle Extension (s)			3.0	3.0	3.0	
Lane Grp Cap (vph)			1010	1010	1156	
v/s Ratio Prot			c0.72	0.72	c0.38	
v/s Ratio Perm						
v/c Ratio			1.18	1.18	1.11	
Uniform Delay, d1			29.5	29.5	49.5	
Progression Factor			1.00	1.00	1.00	
Incremental Delay, d2			91.4	91.4	62.6	
Delay (s)			120.9	120.9	112.1	
Level of Service			F	F	F	
Approach Delay (s)	0.0			120.9	112.1	
Approach LOS	A			F	F	

Intersection Summary			
HCM 2000 Control Delay	117.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	192.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	829	0	0	0	0	1285	1837	0	2384	0
Future Volume (vph)	0	0	829	0	0	0	0	1285	1837	0	2384	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0	4.0		4.0	
Lane Util. Factor		0.95	0.95					0.91	0.91		0.95	
Frt		0.85	0.85					0.94	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		1490	1490					3155	1427		3505	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		1490	1490					3155	1427		3505	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	829	0	0	0	0	1285	1837	0	2384	0
RTOR Reduction (vph)	0	39	0	0	0	0	0	72	292	0	0	0
Lane Group Flow (vph)	0	376	414	0	0	0	0	2076	682	0	2384	0
Turn Type		NA	Free					NA	Perm	Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			Free						2			
Actuated Green, G (s)		25.0	110.0					77.0	77.0		77.0	
Effective Green, g (s)		25.0	110.0					77.0	77.0		77.0	
Actuated g/C Ratio		0.23	1.00					0.70	0.70		0.70	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		338	1490					2208	998		2453	
v/s Ratio Prot		c0.25						0.66			c0.68	
v/s Ratio Perm			0.28						0.48			
v/c Ratio		1.11	0.28					0.94	0.68		0.97	
Uniform Delay, d1		42.5	0.0					14.5	9.5		15.5	
Progression Factor		1.00	1.00					1.00	1.00		1.00	
Incremental Delay, d2		83.2	0.5					8.8	1.9		12.3	
Delay (s)		125.7	0.5					23.2	11.4		27.7	
Level of Service		F	A					C	B		C	
Approach Delay (s)		63.1			0.0			19.6			27.7	
Approach LOS		E			A			B			C	

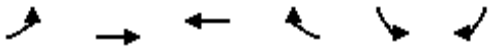
Intersection Summary			
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	148.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	274	144	2826	152	49	3300
Future Volume (vph)	274	144	2826	152	49	3300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	5036	1568	3400	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	5036	1568	3400	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	274	144	2826	152	49	3300
RTOR Reduction (vph)	0	46	0	37	0	0
Lane Group Flow (vph)	274	98	2826	115	49	3300
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Actuated Green, G (s)	14.1	14.1	90.2	90.2	3.2	97.4
Effective Green, g (s)	14.1	14.1	90.2	90.2	3.2	97.4
Actuated g/C Ratio	0.12	0.12	0.75	0.75	0.03	0.82
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	401	185	3801	1183	91	4104
v/s Ratio Prot	c0.08		0.56		0.01	c0.66
v/s Ratio Perm		0.06		0.07		
v/c Ratio	0.68	0.53	0.74	0.10	0.54	0.80
Uniform Delay, d1	50.6	49.6	8.2	3.9	57.4	5.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.8	2.9	0.8	0.0	6.0	1.2
Delay (s)	55.3	52.5	9.0	3.9	63.4	7.1
Level of Service	E	D	A	A	E	A
Approach Delay (s)	54.3		8.7			8.0
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	119.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	626	1472	1190	156	137	454
Future Volume (vph)	626	1472	1190	156	137	454
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	3505	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	626	1472	1190	156	137	454
RTOR Reduction (vph)	0	0	0	88	0	392
Lane Group Flow (vph)	626	1472	1190	68	137	62
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	32.0	66.1	30.1	30.1	11.7	11.7
Effective Green, g (s)	32.0	66.1	30.1	30.1	11.7	11.7
Actuated g/C Ratio	0.37	0.77	0.35	0.35	0.14	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	653	2700	1229	550	238	213
v/s Ratio Prot	c0.36	0.42	c0.34		c0.08	
v/s Ratio Perm				0.04		0.04
v/c Ratio	0.96	0.55	0.97	0.12	0.58	0.29
Uniform Delay, d1	26.3	3.9	27.4	18.9	34.7	33.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	25.1	0.2	18.3	0.1	3.3	0.8
Delay (s)	51.3	4.1	45.7	19.0	38.1	34.1
Level of Service	D	A	D	B	D	C
Approach Delay (s)		18.2	42.6		35.0	
Approach LOS		B	D		D	

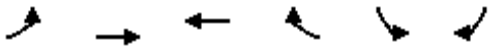
Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	85.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1197	128	83	693	104	166
Future Volume (vph)	1197	128	83	693	104	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1568	3400	3505	1752	1568
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1568	3400	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1197	128	83	693	104	166
RTOR Reduction (vph)	0	66	0	0	0	135
Lane Group Flow (vph)	1197	62	83	693	104	31
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	20.7	20.7	2.0	26.7	8.1	8.1
Effective Green, g (s)	20.7	20.7	2.0	26.7	8.1	8.1
Actuated g/C Ratio	0.48	0.48	0.05	0.62	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1695	758	158	2186	331	296
v/s Ratio Prot	c0.34		0.02	c0.20	c0.06	
v/s Ratio Perm		0.04				0.02
v/c Ratio	0.71	0.08	0.53	0.32	0.31	0.11
Uniform Delay, d1	8.7	5.9	19.9	3.8	15.0	14.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.0	3.1	0.1	0.5	0.2
Delay (s)	10.0	6.0	23.1	3.9	15.5	14.5
Level of Service	B	A	C	A	B	B
Approach Delay (s)	9.6			5.9	14.9	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	42.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

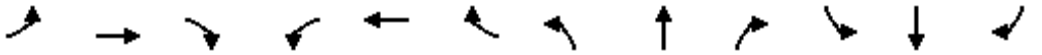
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	199	109	78	31	37	114
Future Volume (vph)	199	109	78	31	37	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00		1.00	
Frt		1.00	0.96		0.90	
Flt Protected		0.97	1.00		0.99	
Satd. Flow (prot)		1787	1774		1637	
Flt Permitted		0.74	1.00		0.99	
Satd. Flow (perm)		1365	1774		1637	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	109	78	31	37	114
RTOR Reduction (vph)	0	0	19	0	77	0
Lane Group Flow (vph)	0	308	90	0	74	0
Turn Type	Perm	NA	NA		Prot	
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)		11.3	11.3		9.2	
Effective Green, g (s)		11.3	11.3		9.2	
Actuated g/C Ratio		0.40	0.40		0.32	
Clearance Time (s)		4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		541	703		528	
v/s Ratio Prot			0.05		c0.05	
v/s Ratio Perm		c0.23				
v/c Ratio		0.57	0.13		0.14	
Uniform Delay, d1		6.7	5.5		6.8	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		1.4	0.1		0.1	
Delay (s)		8.1	5.6		7.0	
Level of Service		A	A		A	
Approach Delay (s)		8.1	5.6		7.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	28.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	506	188	249	506	253	169	1041	182	546	1696	129
Future Volume (veh/h)	86	506	188	249	506	253	169	1041	182	546	1696	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	86	506	188	249	506	253	169	1041	182	546	1696	129
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	109	535	198	255	544	462	190	1054	184	499	2115	659
Arrive On Green	0.06	0.21	0.21	0.15	0.30	0.30	0.11	0.25	0.25	0.29	0.42	0.42
Sat Flow, veh/h	1757	2507	927	1740	1827	1553	1740	4274	746	1740	4988	1553
Grp Volume(v), veh/h	86	353	341	249	506	253	169	809	414	546	1696	129
Grp Sat Flow(s),veh/h/ln	1757	1752	1681	1740	1827	1553	1740	1663	1695	1740	1663	1553
Q Serve(g_s), s	7.2	29.8	30.0	21.4	40.3	20.5	14.4	36.4	36.5	43.0	44.5	7.8
Cycle Q Clear(g_c), s	7.2	29.8	30.0	21.4	40.3	20.5	14.4	36.4	36.5	43.0	44.5	7.8
Prop In Lane	1.00		0.55	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	109	374	359	255	544	462	190	820	418	499	2115	659
V/C Ratio(X)	0.79	0.94	0.95	0.98	0.93	0.55	0.89	0.99	0.99	1.09	0.80	0.20
Avail Cap(c_a), veh/h	187	374	359	255	544	462	197	820	418	499	2115	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.4	58.1	58.2	63.7	51.1	44.2	65.9	56.3	56.3	53.5	37.7	27.1
Incr Delay (d2), s/veh	11.7	32.4	34.8	49.4	22.7	1.4	34.7	28.1	40.9	68.5	2.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	17.8	17.4	13.8	23.8	9.0	8.7	20.0	21.9	30.1	20.9	3.4
LnGrp Delay(d),s/veh	81.1	90.5	93.1	113.1	73.9	45.5	100.6	84.4	97.2	122.0	40.0	27.3
LnGrp LOS	F	F	F	F	E	D	F	F	F	F	D	C
Approach Vol, veh/h		780			1008			1392			2371	
Approach Delay, s/veh		90.6			76.5			90.2			58.2	
Approach LOS		F			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	47.0	41.0	26.0	36.0	20.4	67.6	13.3	48.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	43.0	37.0	22.0	32.0	17.0	63.0	16.0	38.0
Max Q Clear Time (g_c+I1), s	45.0	38.5	23.4	32.0	16.4	46.5	9.2	42.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	12.7	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.1
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	332	385	92	177	633	197	91	876	3	480	1227	521
Future Volume (veh/h)	332	385	92	177	633	197	91	876	3	480	1227	521
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	332	385	92	177	633	197	91	876	3	480	1227	521
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	365	777	184	214	666	298	148	987	3	490	1318	590
Arrive On Green	0.21	0.28	0.28	0.12	0.19	0.19	0.04	0.28	0.28	0.15	0.38	0.38
Sat Flow, veh/h	1757	2814	666	1757	3505	1568	3375	3548	12	3375	3471	1553
Grp Volume(v), veh/h	332	238	239	177	633	197	91	428	451	480	1227	521
Grp Sat Flow(s),veh/h/ln	1757	1752	1727	1757	1752	1568	1688	1736	1825	1688	1736	1553
Q Serve(g_s), s	16.5	10.2	10.4	8.8	16.0	10.4	2.4	21.2	21.2	12.7	30.3	28.0
Cycle Q Clear(g_c), s	16.5	10.2	10.4	8.8	16.0	10.4	2.4	21.2	21.2	12.7	30.3	28.0
Prop In Lane	1.00		0.39	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	365	484	477	214	666	298	148	483	508	490	1318	590
V/C Ratio(X)	0.91	0.49	0.50	0.83	0.95	0.66	0.62	0.89	0.89	0.98	0.93	0.88
Avail Cap(c_a), veh/h	373	484	477	314	666	298	151	485	510	490	1319	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	27.1	27.2	38.4	35.8	33.6	42.0	30.9	30.9	38.1	26.6	25.9
Incr Delay (d2), s/veh	25.4	0.8	0.8	11.2	23.4	5.3	7.1	17.8	17.1	35.0	11.8	14.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	5.0	5.1	4.9	9.9	4.9	1.2	12.5	13.0	8.3	16.7	14.4
LnGrp Delay(d),s/veh	60.1	27.9	28.0	49.6	59.2	38.9	49.1	48.7	48.0	73.1	38.5	40.6
LnGrp LOS	E	C	C	D	E	D	D	D	D	E	D	D
Approach Vol, veh/h		809			1007			970			2228	
Approach Delay, s/veh		41.1			53.5			48.4			46.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	28.9	14.9	28.7	7.9	38.0	22.6	21.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	25.0	16.0	20.0	4.0	34.0	19.0	17.0
Max Q Clear Time (g_c+I1), s	14.7	23.2	10.8	12.4	4.4	32.3	18.5	18.0
Green Ext Time (p_c), s	0.0	1.7	0.2	4.5	0.0	1.6	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1485	59	232	864	91	136	605	263	22	329	1
Future Volume (veh/h)	23	1485	59	232	864	91	136	605	263	22	329	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	23	1485	59	232	864	91	136	605	263	22	329	1
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	33	1525	682	235	1760	185	141	742	332	33	539	2
Arrive On Green	0.02	0.45	0.45	0.14	0.57	0.57	0.08	0.21	0.21	0.02	0.15	0.15
Sat Flow, veh/h	1707	3406	1524	1707	3110	328	1757	3505	1568	1757	3584	11
Grp Volume(v), veh/h	23	1485	59	232	473	482	136	605	263	22	161	169
Grp Sat Flow(s),veh/h/ln	1707	1703	1524	1707	1703	1735	1757	1752	1568	1757	1752	1843
Q Serve(g_s), s	1.2	37.2	1.9	11.8	14.5	14.5	6.7	14.3	13.8	1.1	7.5	7.5
Cycle Q Clear(g_c), s	1.2	37.2	1.9	11.8	14.5	14.5	6.7	14.3	13.8	1.1	7.5	7.5
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	33	1525	682	235	964	982	141	742	332	33	263	277
V/C Ratio(X)	0.69	0.97	0.09	0.99	0.49	0.49	0.96	0.82	0.79	0.66	0.61	0.61
Avail Cap(c_a), veh/h	98	1525	682	235	964	982	141	765	342	81	322	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	23.5	13.8	37.5	11.4	11.4	39.9	32.7	32.5	42.4	34.6	34.6
Incr Delay (d2), s/veh	22.1	17.1	0.1	54.7	0.4	0.4	64.3	6.7	11.7	20.1	2.3	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	21.0	0.8	9.1	6.8	6.9	5.8	7.6	7.0	0.7	3.8	4.0
LnGrp Delay(d),s/veh	64.5	40.7	13.9	92.1	11.7	11.7	104.2	39.4	44.2	62.5	36.9	36.8
LnGrp LOS	E	D	B	F	B	B	F	D	D	E	D	D
Approach Vol, veh/h		1567			1187			1004			352	
Approach Delay, s/veh		40.0			27.5			49.4			38.5	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	22.4	16.0	43.0	11.0	17.1	5.7	53.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	12.0	39.0	7.0	16.0	5.0	46.0
Max Q Clear Time (g_c+I1), s	3.1	16.3	13.8	39.2	8.7	9.5	3.2	16.5
Green Ext Time (p_c), s	0.0	1.7	0.0	0.0	0.0	3.6	0.0	22.5

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	243	561	83	310	101	197	561	166	15	613	96
Future Volume (veh/h)	46	243	561	83	310	101	197	561	166	15	613	96
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	46	243	561	83	310	101	197	561	166	15	613	96
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	63	948	424	105	770	246	252	1347	603	26	897	401
Arrive On Green	0.04	0.27	0.27	0.06	0.29	0.29	0.14	0.38	0.38	0.01	0.26	0.26
Sat Flow, veh/h	1757	3505	1568	1757	2613	836	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	46	243	561	83	206	205	197	561	166	15	613	96
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1697	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	1.5	3.2	16.0	2.8	5.6	5.7	6.4	6.9	4.3	0.5	9.3	2.9
Cycle Q Clear(g_c), s	1.5	3.2	16.0	2.8	5.6	5.7	6.4	6.9	4.3	0.5	9.3	2.9
Prop In Lane	1.00		1.00	1.00		0.49	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	63	948	424	105	516	500	252	1347	603	26	897	401
V/C Ratio(X)	0.73	0.26	1.32	0.79	0.40	0.41	0.78	0.42	0.28	0.58	0.68	0.24
Avail Cap(c_a), veh/h	148	948	424	148	516	500	624	2014	901	119	1007	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	16.9	21.6	27.4	16.7	16.7	24.5	13.3	12.5	29.0	19.9	17.4
Incr Delay (d2), s/veh	14.9	0.1	161.1	16.7	0.5	0.5	5.3	0.2	0.2	18.7	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.6	25.8	1.8	2.8	2.8	3.4	3.4	1.9	0.4	4.7	1.3
LnGrp Delay(d),s/veh	43.1	17.1	182.6	44.2	17.2	17.3	29.7	13.6	12.8	47.7	21.5	17.8
LnGrp LOS	D	B	F	D	B	B	C	B	B	D	C	B
Approach Vol, veh/h		850			494			924			724	
Approach Delay, s/veh		127.7			21.8			16.9			21.6	
Approach LOS		F			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	26.7	7.5	20.0	12.5	19.1	6.1	21.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	34.0	5.0	16.0	21.0	17.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	2.5	8.9	4.8	18.0	8.4	11.3	3.5	7.7
Green Ext Time (p_c), s	0.0	10.2	0.0	0.0	0.4	3.8	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	50.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	679	97	159	727	282	109	303	105	338	987	60
Future Volume (veh/h)	79	679	97	159	727	282	109	303	105	338	987	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	79	679	97	159	727	282	109	303	105	338	987	60
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	100	806	361	186	978	437	139	733	328	373	1199	536
Arrive On Green	0.06	0.23	0.23	0.11	0.28	0.28	0.08	0.21	0.21	0.21	0.34	0.34
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	79	679	97	159	727	282	109	303	105	338	987	60
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	2.9	12.2	3.3	5.9	12.4	10.4	4.0	4.9	3.7	12.4	17.0	1.7
Cycle Q Clear(g_c), s	2.9	12.2	3.3	5.9	12.4	10.4	4.0	4.9	3.7	12.4	17.0	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	806	361	186	978	437	139	733	328	373	1199	536
V/C Ratio(X)	0.79	0.84	0.27	0.85	0.74	0.64	0.78	0.41	0.32	0.91	0.82	0.11
Avail Cap(c_a), veh/h	133	850	380	186	978	437	186	903	404	373	1275	570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	24.3	20.8	29.0	21.6	20.9	29.8	22.6	22.1	25.3	19.9	14.8
Incr Delay (d2), s/veh	19.9	7.4	0.4	29.7	3.1	3.2	14.3	0.4	0.6	25.0	4.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	6.7	1.5	4.4	6.4	4.9	2.5	2.4	1.7	8.6	8.9	0.8
LnGrp Delay(d),s/veh	50.6	31.6	21.2	58.7	24.7	24.1	44.1	23.0	22.7	50.4	24.1	14.9
LnGrp LOS	D	C	C	E	C	C	D	C	C	D	C	B
Approach Vol, veh/h		855			1168			517			1385	
Approach Delay, s/veh		32.2			29.2			27.4			30.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	17.8	11.0	19.2	9.2	26.6	7.8	22.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	17.0	7.0	16.0	7.0	24.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	14.4	6.9	7.9	14.2	6.0	19.0	4.9	14.4
Green Ext Time (p_c), s	0.0	6.3	0.0	1.0	0.0	3.6	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	445	121	427	506	788	97	2693	294	505	2883	426
Future Volume (veh/h)	241	445	121	427	506	788	97	2693	294	505	2883	426
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	241	445	121	427	506	788	97	2693	294	505	2883	426
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	260	869	389	283	892	561	78	2147	669	348	2545	792
Arrive On Green	0.08	0.25	0.25	0.08	0.25	0.25	0.02	0.43	0.43	0.10	0.51	0.51
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	241	445	121	427	506	788	97	2693	294	505	2883	426
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	10.6	16.5	9.5	12.5	18.9	38.3	3.5	64.8	20.0	15.5	76.8	27.9
Cycle Q Clear(g_c), s	10.6	16.5	9.5	12.5	18.9	38.3	3.5	64.8	20.0	15.5	76.8	27.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	869	389	283	892	561	78	2147	669	348	2545	792
V/C Ratio(X)	0.93	0.51	0.31	1.51	0.57	1.41	1.24	1.25	0.44	1.45	1.13	0.54
Avail Cap(c_a), veh/h	260	869	389	283	892	561	78	2147	669	348	2545	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.1	48.8	46.1	69.0	48.9	48.4	73.5	42.8	30.1	67.5	36.8	24.9
Incr Delay (d2), s/veh	35.8	0.2	0.2	246.3	0.5	193.2	177.8	118.3	0.2	219.1	65.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	8.0	4.1	15.5	9.3	53.4	3.6	53.2	8.6	17.8	50.5	12.0
LnGrp Delay(d),s/veh	104.9	49.0	46.3	315.3	49.4	241.5	251.3	161.2	30.3	286.6	102.1	25.3
LnGrp LOS	F	D	D	F	D	F	F	F	C	F	F	C
Approach Vol, veh/h		807			1721			3084			3814	
Approach Delay, s/veh		65.3			203.3			151.5			118.0	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	81.6	17.0	42.9	21.0	69.6	18.0	41.9
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	3.5	76.6	11.5	* 38	15.5	* 65	12.5	37.0
Max Q Clear Time (g_c+I1), s	5.5	78.8	12.6	40.3	17.5	66.8	14.5	18.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	140.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	1	29	0	109	0	2383	7	44	2903	4
Future Volume (veh/h)	1	0	1	29	0	109	0	2383	7	44	2903	4
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	1	0	1	29	0	109	0	2383	7	44	2903	4
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	1	0	1	95	0	170	2	3446	1073	55	3992	5
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.69	0.69	0.03	0.78	0.78
Sat Flow, veh/h	828	0	828	1757	0	3136	1740	4988	1553	1740	5144	7
Grp Volume(v), veh/h	2	0	0	29	0	109	0	2383	7	44	1876	1031
Grp Sat Flow(s),veh/h/ln	1657	0	0	1757	0	1568	1740	1663	1553	1740	1663	1826
Q Serve(g_s), s	0.1	0.0	0.0	1.5	0.0	3.2	0.0	26.9	0.1	2.4	27.6	27.6
Cycle Q Clear(g_c), s	0.1	0.0	0.0	1.5	0.0	3.2	0.0	26.9	0.1	2.4	27.6	27.6
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	3	0	0	95	0	170	2	3446	1073	55	2581	1417
V/C Ratio(X)	0.74	0.00	0.00	0.30	0.00	0.64	0.00	0.69	0.01	0.80	0.73	0.73
Avail Cap(c_a), veh/h	52	0	0	221	0	395	55	3625	1129	90	2581	1417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	0.0	0.0	43.3	0.0	44.1	0.0	8.7	4.6	45.8	5.5	5.5
Incr Delay (d2), s/veh	88.0	0.0	0.0	0.7	0.0	1.5	0.0	0.9	0.0	9.3	1.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.8	0.0	1.4	0.0	12.4	0.1	1.3	12.8	14.6
LnGrp Delay(d),s/veh	135.5	0.0	0.0	44.0	0.0	45.6	0.0	9.6	4.6	55.1	7.0	8.3
LnGrp LOS	F			D		D		A	A	E	A	A
Approach Vol, veh/h		2			138			2390			2951	
Approach Delay, s/veh		135.5			45.3			9.6			8.2	
Approach LOS		F			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	78.9		5.7	8.1	70.8		10.7
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 3	71.4		3.0	* 4.9	* 69		12.0
Max Q Clear Time (g_c+I1), s	0.0	29.6		2.1	4.4	28.9		5.2
Green Ext Time (p_c), s	0.0	41.6		0.0	0.0	36.8		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.8
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	404	23	209	47	440	9	2129	189	463	2541	0
Future Volume (veh/h)	0	404	23	209	47	440	9	2129	189	463	2541	0
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	0	404	23	209	47	440	9	2129	189	463	2541	0
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	2	486	217	242	878	628	21	2247	198	506	3115	0
Arrive On Green	0.00	0.14	0.14	0.07	0.25	0.25	0.01	0.48	0.48	0.15	0.62	0.00
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4669	410	3375	5152	0
Grp Volume(v), veh/h	0	404	23	209	47	440	9	1510	808	463	2541	0
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1754	1688	1663	0
Q Serve(g_s), s	0.0	15.8	1.8	8.4	1.4	32.6	0.4	60.1	61.6	18.8	54.3	0.0
Cycle Q Clear(g_c), s	0.0	15.8	1.8	8.4	1.4	32.6	0.4	60.1	61.6	18.8	54.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		0.00
Lane Grp Cap(c), veh/h	2	486	217	242	878	628	21	1600	844	506	3115	0
V/C Ratio(X)	0.00	0.83	0.11	0.86	0.05	0.70	0.42	0.94	0.96	0.92	0.82	0.00
Avail Cap(c_a), veh/h	73	723	323	242	901	638	73	1624	857	516	3115	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	58.3	52.3	64.0	39.6	34.8	68.9	34.3	34.7	58.3	20.0	0.0
Incr Delay (d2), s/veh	0.0	3.3	0.1	24.8	0.0	2.8	4.8	11.4	20.6	20.4	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.8	0.8	4.8	0.7	14.6	0.2	30.0	34.7	10.2	25.2	0.0
LnGrp Delay(d),s/veh	0.0	61.6	52.3	88.8	39.6	37.6	73.7	45.7	55.3	78.7	21.7	0.0
LnGrp LOS		E	D	F	D	D	E	D	E	E	C	
Approach Vol, veh/h		427			696			2327			3004	
Approach Delay, s/veh		61.1			53.1			49.1			30.4	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	92.3	0.0	40.6	26.4	72.3	15.4	25.2
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	3.0	86.2	3.0	* 36	21.3	* 68	9.9	* 29
Max Q Clear Time (g_c+I1), s	2.4	56.3	0.0	34.6	20.8	63.6	10.4	17.8
Green Ext Time (p_c), s	0.0	24.5	0.0	0.3	0.0	3.3	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	41.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	34	2276	23	79	2692
Future Volume (veh/h)	13	34	2276	23	79	2692
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	13	34	2276	23	79	2692
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	53	47	3638	37	101	2896
Arrive On Green	0.03	0.03	0.71	0.71	0.06	0.83
Sat Flow, veh/h	1757	1568	5256	51	1740	3563
Grp Volume(v), veh/h	13	34	1486	813	79	2692
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1818	1740	1736
Q Serve(g_s), s	0.5	1.6	17.5	17.6	3.4	43.5
Cycle Q Clear(g_c), s	0.5	1.6	17.5	17.6	3.4	43.5
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	53	47	2376	1299	101	2896
V/C Ratio(X)	0.25	0.72	0.63	0.63	0.79	0.93
Avail Cap(c_a), veh/h	69	62	2376	1299	213	3049
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	36.5	5.6	5.6	35.3	4.6
Incr Delay (d2), s/veh	0.9	14.9	0.4	0.7	5.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.9	8.0	8.8	1.8	21.6
LnGrp Delay(d),s/veh	36.9	51.5	6.0	6.3	40.3	10.1
LnGrp LOS	D	D	A	A	D	B
Approach Vol, veh/h	47		2299			2771
Approach Delay, s/veh	47.4		6.1			11.0
Approach LOS	D		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		68.1			9.1	59.1		7.8
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		66.7			* 9.3	52.7		3.0
Max Q Clear Time (g_c+I1), s		45.5			5.4	19.6		3.6
Green Ext Time (p_c), s		17.9			0.0	28.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	1019	516	57	772	533	401	1959	100	776	1846	147
Future Volume (veh/h)	169	1019	516	57	772	533	401	1959	100	776	1846	147
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	169	1019	516	57	772	533	401	1959	100	776	1846	147
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	182	970	434	68	865	387	444	1757	547	685	2107	656
Arrive On Green	0.06	0.28	0.28	0.02	0.25	0.25	0.13	0.35	0.35	0.20	0.42	0.42
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	169	1019	516	57	772	533	401	1959	100	776	1846	147
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	7.4	41.4	41.4	2.5	31.8	36.9	17.0	51.2	6.5	29.5	49.3	8.8
Cycle Q Clear(g_c), s	7.4	41.4	41.4	2.5	31.8	36.9	17.0	51.2	6.5	29.5	49.3	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	970	434	68	865	387	444	1757	547	685	2107	656
V/C Ratio(X)	0.93	1.05	1.19	0.83	0.89	1.38	0.90	1.11	0.18	1.13	0.88	0.22
Avail Cap(c_a), veh/h	182	970	434	68	865	387	486	1757	547	685	2107	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.4	51.9	52.0	70.9	52.3	54.2	62.2	47.1	32.6	57.9	38.5	26.8
Incr Delay (d2), s/veh	45.5	43.0	105.8	53.4	11.3	185.4	18.2	60.1	0.1	76.9	4.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	25.2	30.2	1.6	16.3	35.5	9.1	33.2	2.8	21.0	23.4	3.8
LnGrp Delay(d),s/veh	113.8	94.9	157.8	124.3	63.5	239.6	80.4	107.2	32.6	134.8	42.8	26.8
LnGrp LOS	F	F	F	F	E	F	F	F	C	F	D	C
Approach Vol, veh/h		1704			1362			2460			2769	
Approach Delay, s/veh		115.8			135.0			99.8			67.7	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	42.3	23.8	66.2	8.5	46.8	34.0	56.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.5	4.8
Max Green Setting (Gmax), s	8.0	* 37	* 21	59.6	3.0	* 41	29.5	51.2
Max Q Clear Time (g_c+I1), s	9.4	38.9	19.0	51.3	4.5	43.4	31.5	53.2
Green Ext Time (p_c), s	0.0	0.0	0.1	7.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	98.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	466	78	224	143	122	18	116	2066	105	236	2408	180
Future Volume (veh/h)	466	78	224	143	122	18	116	2066	105	236	2408	180
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	466	78	224	143	122	18	116	2066	105	236	2408	180
Adj No. of Lanes	1	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	437	449	382	164	136	20	115	1972	614	227	2317	721
Arrive On Green	0.25	0.24	0.24	0.09	0.09	0.09	0.07	0.40	0.40	0.13	0.46	0.46
Sat Flow, veh/h	1757	1845	1568	1757	1572	232	1740	4988	1553	1740	4988	1553
Grp Volume(v), veh/h	466	78	224	143	0	140	116	2066	105	236	2408	180
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1804	1740	1663	1553	1740	1663	1553
Q Serve(g_s), s	37.5	5.0	19.0	12.1	0.0	11.6	10.0	59.6	6.6	19.7	70.0	10.6
Cycle Q Clear(g_c), s	37.5	5.0	19.0	12.1	0.0	11.6	10.0	59.6	6.6	19.7	70.0	10.6
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	437	449	382	164	0	156	115	1972	614	227	2317	721
V/C Ratio(X)	1.07	0.17	0.59	0.87	0.00	0.90	1.00	1.05	0.17	1.04	1.04	0.25
Avail Cap(c_a), veh/h	437	449	382	246	0	156	115	1972	614	227	2317	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.6	45.0	50.3	67.4	0.0	68.2	70.3	45.5	29.5	65.5	40.4	24.4
Incr Delay (d2), s/veh	61.7	0.1	1.6	13.6	0.0	43.2	85.0	34.0	0.0	69.8	29.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.6	2.6	8.4	6.5	0.0	7.7	7.5	33.4	2.8	13.8	38.4	4.5
LnGrp Delay(d),s/veh	118.3	45.1	51.9	81.0	0.0	111.4	155.4	79.5	29.6	135.4	70.2	24.5
LnGrp LOS	F	D	D	F		F	F	F	C	F	F	C
Approach Vol, veh/h		768			283			2287			2824	
Approach Delay, s/veh		91.5			96.1			81.1			72.8	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	74.8	43.0	18.3	25.0	64.4	19.3	42.0
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 10	70.0	37.5	* 13	* 20	59.6	* 21	* 29
Max Q Clear Time (g_c+I1), s	12.0	72.0	39.5	13.6	21.7	61.6	14.1	21.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	79.3
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	484	847	339	30	776	726	144	1081	5	728	2072	190
Future Volume (veh/h)	484	847	339	30	776	726	144	1081	5	728	2072	190
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	484	847	339	30	776	726	144	1081	5	728	2072	190
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	534	824	700	56	1127	504	108	1217	379	319	1551	483
Arrive On Green	0.16	0.45	0.45	0.03	0.32	0.32	0.03	0.24	0.24	0.09	0.31	0.31
Sat Flow, veh/h	3408	1845	1568	1757	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	484	847	339	30	776	726	144	1081	5	728	2072	190
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1757	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	18.8	60.0	20.5	2.3	25.9	43.2	4.3	28.1	0.3	12.7	41.8	12.9
Cycle Q Clear(g_c), s	18.8	60.0	20.5	2.3	25.9	43.2	4.3	28.1	0.3	12.7	41.8	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	534	824	700	56	1127	504	108	1217	379	319	1551	483
V/C Ratio(X)	0.91	1.03	0.48	0.54	0.69	1.44	1.33	0.89	0.01	2.28	1.34	0.39
Avail Cap(c_a), veh/h	812	824	700	418	1127	504	108	1217	379	319	1551	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	37.2	26.3	64.1	39.7	45.6	65.0	49.0	38.5	60.8	46.3	36.3
Incr Delay (d2), s/veh	7.1	38.8	0.2	3.0	1.5	209.2	199.9	8.0	0.0	586.8	155.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	39.3	8.9	1.1	12.7	47.9	5.0	13.8	0.1	31.9	41.4	5.5
LnGrp Delay(d),s/veh	62.8	76.0	26.4	67.0	41.2	254.8	265.0	57.0	38.5	647.6	201.7	36.5
LnGrp LOS	E	F	C	E	D	F	F	E	D	F	F	D
Approach Vol, veh/h		1670			1532			1230			2990	
Approach Delay, s/veh		62.1			142.9			81.3			299.8	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	46.9	28.2	50.3	18.0	37.9	11.4	67.1
Change Period (Y+Rc), s	* 4.7	5.1	7.1	* 7.1	* 5.3	5.1	7.1	7.1
Max Green Setting (Gmax), s	* 4.3	41.8	32.0	* 43	* 13	32.8	32.0	42.9
Max Q Clear Time (g_c+I1), s	6.3	43.8	20.8	45.2	14.7	30.1	4.3	62.0
Green Ext Time (p_c), s	0.0	0.0	0.3	0.0	0.0	2.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	177.7
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	746	311	705	91	347	9	220	1029	11	20	2075	900
Future Volume (veh/h)	746	311	705	91	347	9	220	1029	11	20	2075	900
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	746	311	705	91	347	9	220	1029	11	20	2075	900
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	602	1341	600	93	324	145	182	2044	636	38	1851	576
Arrive On Green	0.35	0.39	0.39	0.05	0.09	0.09	0.05	0.41	0.41	0.01	0.37	0.37
Sat Flow, veh/h	1740	3471	1553	1740	3471	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	746	311	705	91	347	9	220	1029	11	20	2075	900
Grp Sat Flow(s),veh/h/ln	1740	1736	1553	1740	1736	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	51.9	9.1	58.0	7.8	14.0	0.8	8.1	23.0	0.6	0.9	55.7	55.7
Cycle Q Clear(g_c), s	51.9	9.1	58.0	7.8	14.0	0.8	8.1	23.0	0.6	0.9	55.7	55.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	602	1341	600	93	324	145	182	2044	636	38	1851	576
V/C Ratio(X)	1.24	0.23	1.17	0.98	1.07	0.06	1.21	0.50	0.02	0.52	1.12	1.56
Avail Cap(c_a), veh/h	602	1341	600	93	324	145	182	2044	636	81	1851	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	31.0	46.1	71.0	68.1	62.1	71.0	32.9	26.3	73.8	47.2	47.2
Incr Delay (d2), s/veh	121.7	0.4	95.3	86.9	70.4	0.8	133.7	0.9	0.0	4.1	62.4	261.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	45.2	4.4	40.7	6.0	9.9	0.4	7.2	10.7	0.3	0.4	36.2	65.7
LnGrp Delay(d),s/veh	170.8	31.4	141.4	157.8	138.4	62.9	204.7	33.8	26.4	77.9	109.6	308.4
LnGrp LOS	F	C	F	F	F	E	F	C	C	E	F	F
Approach Vol, veh/h		1762			447			1260			2995	
Approach Delay, s/veh		134.4			140.9			63.6			169.1	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	60.9	57.0	19.2	7.2	66.7	13.0	63.2
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 8.1	* 56	* 52	* 14	3.6	* 60	8.0	* 58
Max Q Clear Time (g_c+I1), s	10.1	57.7	53.9	16.0	2.9	25.0	9.8	60.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	137.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	679	542	149	616	90	341	1170	106	358	2285	112
Future Volume (veh/h)	109	679	542	149	616	90	341	1170	106	358	2285	112
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	109	679	542	149	616	90	341	1170	106	358	2285	112
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	125	808	362	160	845	378	337	2117	659	410	2225	693
Arrive On Green	0.04	0.23	0.23	0.05	0.24	0.24	0.10	0.42	0.42	0.12	0.45	0.45
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	109	679	542	149	616	90	341	1170	106	358	2285	112
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	4.0	23.2	28.9	5.5	20.3	5.8	12.5	22.1	5.3	13.1	55.9	5.4
Cycle Q Clear(g_c), s	4.0	23.2	28.9	5.5	20.3	5.8	12.5	22.1	5.3	13.1	55.9	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	808	362	160	845	378	337	2117	659	410	2225	693
V/C Ratio(X)	0.87	0.84	1.50	0.93	0.73	0.24	1.01	0.55	0.16	0.87	1.03	0.16
Avail Cap(c_a), veh/h	125	808	362	160	845	378	337	2117	659	547	2225	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	46.0	48.2	59.5	43.8	38.3	56.4	27.1	22.3	54.1	34.7	20.7
Incr Delay (d2), s/veh	42.7	10.2	238.5	49.7	4.6	1.0	52.3	0.8	0.4	9.4	26.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	12.4	36.5	3.7	10.4	2.6	8.2	10.3	2.3	6.7	31.0	2.4
LnGrp Delay(d),s/veh	102.8	56.2	286.7	109.2	48.4	39.3	108.8	27.9	22.6	63.5	61.0	21.1
LnGrp LOS	F	E	F	F	D	D	F	C	C	E	F	C
Approach Vol, veh/h		1330			855			1617			2755	
Approach Delay, s/veh		154.0			58.1			44.6			59.7	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	61.4	10.1	35.8	20.7	58.7	11.4	34.5
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	12.5	* 56	4.6	30.0	20.3	* 48	5.9	* 29
Max Q Clear Time (g_c+I1), s	14.5	57.9	6.0	22.3	15.1	24.1	7.5	30.9
Green Ext Time (p_c), s	0.0	0.0	0.0	7.4	0.2	23.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.9
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1374	322	121	1083	5	85	30	75	4	32	23
Future Volume (veh/h)	14	1374	322	121	1083	5	85	30	75	4	32	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	14	1374	322	121	1083	5	85	30	75	4	32	23
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	23	1774	794	152	2031	908	108	64	159	8	66	48
Arrive On Green	0.01	0.52	0.52	0.09	0.60	0.60	0.06	0.14	0.14	0.00	0.07	0.07
Sat Flow, veh/h	1707	3406	1524	1707	3406	1524	1757	468	1170	1757	999	718
Grp Volume(v), veh/h	14	1374	322	121	1083	5	85	0	105	4	0	55
Grp Sat Flow(s),veh/h/ln	1707	1703	1524	1707	1703	1524	1757	0	1638	1757	0	1718
Q Serve(g_s), s	0.6	23.1	9.2	5.0	13.4	0.1	3.4	0.0	4.2	0.2	0.0	2.2
Cycle Q Clear(g_c), s	0.6	23.1	9.2	5.0	13.4	0.1	3.4	0.0	4.2	0.2	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		0.42
Lane Grp Cap(c), veh/h	23	1774	794	152	2031	908	108	0	223	8	0	114
V/C Ratio(X)	0.60	0.77	0.41	0.80	0.53	0.01	0.78	0.00	0.47	0.53	0.00	0.48
Avail Cap(c_a), veh/h	96	1820	814	180	2031	908	138	0	519	99	0	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	13.7	10.4	31.9	8.5	5.8	33.0	0.0	28.4	35.4	0.0	32.1
Incr Delay (d2), s/veh	15.9	2.4	0.6	17.4	0.4	0.0	17.6	0.0	1.4	34.5	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	11.3	3.9	3.1	6.3	0.0	2.2	0.0	2.0	0.1	0.0	1.1
LnGrp Delay(d),s/veh	50.9	16.1	10.9	49.3	8.9	5.8	50.6	0.0	29.8	69.9	0.0	35.0
LnGrp LOS	D	B	B	D	A	A	D		C	E		C
Approach Vol, veh/h		1710			1209			190			59	
Approach Delay, s/veh		15.4			13.0			39.1			37.4	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	43.5	8.8	9.1	4.5	48.9	3.8	14.1
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	7.5	38.1	5.6	* 21	4.0	41.6	4.0	22.6
Max Q Clear Time (g_c+I1), s	7.0	25.1	5.4	4.2	2.6	15.4	2.2	6.2
Green Ext Time (p_c), s	0.0	12.1	0.0	0.7	0.0	24.8	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1043	577	26	1028	179	536	229	8	400	395	1
Future Volume (veh/h)	1	1043	577	26	1028	179	536	229	8	400	395	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1	1043	577	26	1028	179	536	229	8	400	395	1
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1	893	474	33	1257	219	472	423	360	424	372	316
Arrive On Green	0.00	0.40	0.40	0.02	0.42	0.42	0.27	0.23	0.23	0.24	0.20	0.20
Sat Flow, veh/h	1757	2213	1176	1757	2986	519	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	1	817	803	26	603	604	536	229	8	400	395	1
Grp Sat Flow(s),veh/h/ln	1757	1752	1637	1757	1752	1753	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	0.1	60.0	60.0	2.2	45.1	45.3	40.0	16.2	0.6	33.3	30.0	0.1
Cycle Q Clear(g_c), s	0.1	60.0	60.0	2.2	45.1	45.3	40.0	16.2	0.6	33.3	30.0	0.1
Prop In Lane	1.00		0.72	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1	707	660	33	738	738	472	423	360	424	372	316
V/C Ratio(X)	0.70	1.16	1.22	0.80	0.82	0.82	1.13	0.54	0.02	0.94	1.06	0.00
Avail Cap(c_a), veh/h	47	707	660	47	738	738	472	423	360	472	372	316
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.3	44.4	44.4	72.7	38.0	38.0	54.4	50.4	44.4	55.5	59.4	47.4
Incr Delay (d2), s/veh	231.4	85.6	110.8	43.4	7.1	7.2	83.8	1.4	0.0	26.5	64.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	45.7	47.3	1.5	23.2	23.5	30.3	8.4	0.3	19.2	21.8	0.0
LnGrp Delay(d),s/veh	305.7	130.0	155.2	116.1	45.1	45.3	138.2	51.8	44.4	82.0	123.3	47.4
LnGrp LOS	F	F	F	F	D	D	F	D	D	F	F	D
Approach Vol, veh/h		1621			1233			773			796	
Approach Delay, s/veh		142.6			46.7			111.6			102.5	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.9	38.1	6.8	64.0	44.0	34.0	4.1	66.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	40.0	30.0	4.0	60.0	40.0	30.0	4.0	60.0
Max Q Clear Time (g_c+I1), s	35.3	18.2	4.2	62.0	42.0	32.0	2.1	47.3
Green Ext Time (p_c), s	0.6	3.0	0.0	0.0	0.0	0.0	0.0	11.6

Intersection Summary			
HCM 2010 Ctrl Delay		103.2	
HCM 2010 LOS		F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	359	9	61	371	3	10	39	37	56	56	66
Future Volume (veh/h)	0	359	9	61	371	3	10	39	37	56	56	66
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	0	359	9	61	371	3	10	39	37	56	56	66
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	5	837	21	89	1431	12	22	87	83	78	78	91
Arrive On Green	0.00	0.24	0.24	0.05	0.41	0.41	0.11	0.11	0.11	0.14	0.14	0.14
Sat Flow, veh/h	1740	3461	87	1740	3529	29	198	773	734	537	537	633
Grp Volume(v), veh/h	0	180	188	61	182	192	86	0	0	178	0	0
Grp Sat Flow(s),veh/h/ln	1740	1736	1812	1740	1736	1822	1705	0	0	1706	0	0
Q Serve(g_s), s	0.0	3.1	3.1	1.2	2.5	2.5	1.7	0.0	0.0	3.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.1	3.1	1.2	2.5	2.5	1.7	0.0	0.0	3.5	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.02	0.12		0.43	0.31		0.37
Lane Grp Cap(c), veh/h	5	420	438	89	704	739	192	0	0	246	0	0
V/C Ratio(X)	0.00	0.43	0.43	0.69	0.26	0.26	0.45	0.00	0.00	0.72	0.00	0.00
Avail Cap(c_a), veh/h	294	830	867	245	781	820	768	0	0	768	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	11.4	11.4	16.6	7.0	7.0	14.7	0.0	0.0	14.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.7	9.1	0.2	0.2	1.6	0.0	0.0	4.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.6	1.6	0.8	1.2	1.3	0.9	0.0	0.0	1.9	0.0	0.0
LnGrp Delay(d),s/veh	0.0	12.1	12.1	25.7	7.2	7.2	16.4	0.0	0.0	18.5	0.0	0.0
LnGrp LOS		B	B	C	A	A	B			B		
Approach Vol, veh/h		368			435			86			178	
Approach Delay, s/veh		12.1			9.8			16.4			18.5	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		8.0	5.8	12.6		9.1	0.0	18.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		16.0	5.0	17.0		16.0	6.0	16.0
Max Q Clear Time (g_c+I1), s		3.7	3.2	5.1		5.5	0.0	4.5
Green Ext Time (p_c), s		0.3	0.0	3.5		0.7	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	120	161	129	251	141	131	371	50	109	529	46
Future Volume (veh/h)	203	120	161	129	251	141	131	371	50	109	529	46
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	203	120	161	129	251	141	131	371	50	109	529	46
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	185	372	333	109	364	198	165	648	551	122	603	513
Arrive On Green	0.11	0.21	0.21	0.06	0.17	0.17	0.09	0.35	0.35	0.07	0.33	0.33
Sat Flow, veh/h	1757	1752	1568	1757	2194	1193	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	203	120	161	129	199	193	131	371	50	109	529	46
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1634	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	6.8	3.7	5.8	4.0	6.9	7.2	4.7	10.6	1.4	4.0	17.5	1.3
Cycle Q Clear(g_c), s	6.8	3.7	5.8	4.0	6.9	7.2	4.7	10.6	1.4	4.0	17.5	1.3
Prop In Lane	1.00		1.00	1.00		0.73	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	372	333	109	291	271	165	648	551	122	603	513
V/C Ratio(X)	1.10	0.32	0.48	1.19	0.68	0.71	0.79	0.57	0.09	0.89	0.88	0.09
Avail Cap(c_a), veh/h	185	841	752	109	754	703	209	885	752	122	796	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	21.5	22.3	30.3	25.4	25.5	28.7	17.0	14.0	29.8	20.5	15.1
Incr Delay (d2), s/veh	94.9	0.2	0.4	144.8	1.1	1.3	11.5	0.3	0.0	48.4	7.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	1.8	2.5	6.3	3.4	3.4	2.8	5.4	0.6	3.6	10.0	0.6
LnGrp Delay(d),s/veh	123.8	21.7	22.7	175.1	26.4	26.8	40.2	17.3	14.1	78.2	27.7	15.1
LnGrp LOS	F	C	C	F	C	C	D	B	B	E	C	B
Approach Vol, veh/h		484			521			552			684	
Approach Delay, s/veh		64.9			63.4			22.4			34.9	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	15.5	11.6	25.5	9.0	18.5	10.0	27.1
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 6.8	27.8	7.7	* 28	4.0	* 31	4.5	* 31
Max Q Clear Time (g_c+I1), s	8.8	9.2	6.7	19.5	6.0	7.8	6.0	12.6
Green Ext Time (p_c), s	0.0	1.5	0.0	1.6	0.0	1.5	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	800	0	0	739	1	6	0	1	1	0	2
Future Volume (veh/h)	2	800	0	0	739	1	6	0	1	1	0	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	2	800	0	0	739	1	6	0	1	1	0	2
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	5	1973	0	5	1599	2	129	0	21	2	0	3
Arrive On Green	0.00	0.56	0.00	0.00	0.45	0.45	0.09	0.00	0.09	0.00	0.00	0.00
Sat Flow, veh/h	1757	3597	0	1757	3591	5	1480	0	247	542	0	1084
Grp Volume(v), veh/h	2	800	0	0	361	379	7	0	0	3	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	0	1757	1752	1844	1727	0	0	1626	0	0
Q Serve(g_s), s	0.0	4.5	0.0	0.0	5.0	5.0	0.1	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.5	0.0	0.0	5.0	5.0	0.1	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.86		0.14	0.33		0.67
Lane Grp Cap(c), veh/h	5	1973	0	5	780	821	150	0	0	5	0	0
V/C Ratio(X)	0.39	0.41	0.00	0.00	0.46	0.46	0.05	0.00	0.00	0.64	0.00	0.00
Avail Cap(c_a), veh/h	204	2133	0	204	1066	1122	801	0	0	848	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.2	4.3	0.0	0.0	6.7	6.7	14.4	0.0	0.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	42.7	0.1	0.0	0.0	0.4	0.4	0.1	0.0	0.0	92.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.1	0.0	0.0	2.4	2.5	0.1	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	59.9	4.4	0.0	0.0	7.1	7.1	14.6	0.0	0.0	109.6	0.0	0.0
LnGrp LOS	E	A			A	A	B			F		
Approach Vol, veh/h		802			740			7			3	
Approach Delay, s/veh		4.5			7.1			14.6			109.6	
Approach LOS		A			A			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		7.0	0.0	23.4		4.1	4.1	19.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		16.0	4.0	21.0		18.0	4.0	21.0
Max Q Clear Time (g_c+I1), s		2.1	0.0	6.5		2.1	2.0	7.0
Green Ext Time (p_c), s		0.0	0.0	8.6		0.0	0.0	8.4

Intersection Summary	
HCM 2010 Ctrl Delay	6.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	31	17	943	44	385	48	1271	687	387	1873	59
Future Volume (veh/h)	73	31	17	943	44	385	48	1271	687	387	1873	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	73	31	17	943	44	385	48	1271	687	387	1873	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	90	57	31	935	506	430	60	1563	487	405	2003	63
Arrive On Green	0.05	0.05	0.05	0.27	0.27	0.27	0.03	0.31	0.31	0.12	0.40	0.40
Sat Flow, veh/h	1757	1121	615	3408	1845	1568	1740	4988	1553	3375	4968	156
Grp Volume(v), veh/h	73	0	48	943	44	385	48	1271	687	387	1253	679
Grp Sat Flow(s),veh/h/ln	1757	0	1736	1704	1845	1568	1740	1663	1553	1688	1663	1799
Q Serve(g_s), s	3.7	0.0	2.4	24.7	1.6	21.3	2.5	21.1	28.2	10.3	32.5	32.6
Cycle Q Clear(g_c), s	3.7	0.0	2.4	24.7	1.6	21.3	2.5	21.1	28.2	10.3	32.5	32.6
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	90	0	89	935	506	430	60	1563	487	405	1340	725
V/C Ratio(X)	0.81	0.00	0.54	1.01	0.09	0.89	0.80	0.81	1.41	0.96	0.93	0.94
Avail Cap(c_a), veh/h	90	0	89	935	506	430	72	1563	487	405	1340	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	0.0	41.7	32.6	24.3	31.4	43.1	28.5	30.9	39.4	25.7	25.8
Incr Delay (d2), s/veh	39.0	0.0	3.6	31.4	0.0	20.1	33.6	3.2	197.3	33.0	12.0	19.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	1.2	15.6	0.8	11.5	1.7	10.1	38.7	6.6	17.0	19.9
LnGrp Delay(d),s/veh	81.3	0.0	45.3	64.1	24.3	51.5	76.7	31.6	228.2	72.4	37.7	45.0
LnGrp LOS	F		D	F	C	D	E	C	F	E	D	D
Approach Vol, veh/h		121			1372			2006			2319	
Approach Delay, s/veh		67.0			59.3			100.0			45.7	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	41.5		10.1	16.3	33.4		30.2
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 3.7	* 36		4.6	10.8	* 28		24.7
Max Q Clear Time (g_c+I1), s	4.5	34.6		5.7	12.3	30.2		26.7
Green Ext Time (p_c), s	0.0	1.1		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.1
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	110	373	286	128	24	191	1153	121	8	2359	286
Future Volume (veh/h)	161	110	373	286	128	24	191	1153	121	8	2359	286
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	161	110	373	286	128	24	191	1153	121	8	2359	286
Adj No. of Lanes	2	2	1	2	2	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	207	750	336	304	717	132	205	2654	826	19	2380	741
Arrive On Green	0.06	0.21	0.21	0.09	0.24	0.24	0.06	0.53	0.53	0.01	0.48	0.48
Sat Flow, veh/h	3408	3505	1568	3408	2959	543	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	161	110	373	286	75	77	191	1153	121	8	2359	286
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1749	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	6.5	3.6	30.0	11.7	4.7	4.9	7.9	19.7	5.5	0.3	65.8	16.5
Cycle Q Clear(g_c), s	6.5	3.6	30.0	11.7	4.7	4.9	7.9	19.7	5.5	0.3	65.8	16.5
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	750	336	304	425	424	205	2654	826	19	2380	741
V/C Ratio(X)	0.78	0.15	1.11	0.94	0.18	0.18	0.93	0.43	0.15	0.41	0.99	0.39
Avail Cap(c_a), veh/h	224	750	336	304	425	424	205	2654	826	72	2380	741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	44.7	55.1	63.5	42.0	42.1	65.6	20.0	16.6	69.5	36.4	23.5
Incr Delay (d2), s/veh	13.0	0.0	82.7	35.9	0.1	0.1	43.9	0.0	0.0	5.2	16.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	1.7	20.7	7.0	2.3	2.4	4.9	9.1	2.4	0.2	33.7	7.1
LnGrp Delay(d),s/veh	77.9	44.7	137.8	99.4	42.1	42.2	109.4	20.0	16.7	74.6	52.7	23.6
LnGrp LOS	E	D	F	F	D	D	F	C	B	E	D	C
Approach Vol, veh/h		644			438			1465			2653	
Approach Delay, s/veh		106.9			79.5			31.4			49.6	
Approach LOS		F			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	72.5	14.0	39.7	6.3	80.2	18.0	35.7
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	8.5	* 67	9.2	* 34	3.0	* 72	12.5	* 30
Max Q Clear Time (g_c+I1), s	9.9	67.8	8.5	6.9	2.3	21.7	13.7	32.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	23.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	818	562	31	587	136	382	1141	39	148	2593	282
Future Volume (veh/h)	199	818	562	31	587	136	382	1141	39	148	2593	282
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	199	818	562	31	587	136	382	1141	39	148	2593	0
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	133	596	507	36	501	426	239	2601	89	170	2407	750
Arrive On Green	0.08	0.33	0.33	0.02	0.28	0.28	0.14	0.53	0.53	0.10	0.48	0.00
Sat Flow, veh/h	1707	1792	1524	1707	1792	1524	1740	4953	169	1740	4988	1553
Grp Volume(v), veh/h	199	818	562	31	587	136	382	766	414	148	2593	0
Grp Sat Flow(s),veh/h/ln	1707	1792	1524	1707	1792	1524	1740	1663	1797	1740	1663	1553
Q Serve(g_s), s	11.7	49.9	49.9	2.7	41.9	10.6	20.6	21.3	21.3	12.6	72.4	0.0
Cycle Q Clear(g_c), s	11.7	49.9	49.9	2.7	41.9	10.6	20.6	21.3	21.3	12.6	72.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	133	596	507	36	501	426	239	1746	944	170	2407	750
V/C Ratio(X)	1.49	1.37	1.11	0.85	1.17	0.32	1.60	0.44	0.44	0.87	1.08	0.00
Avail Cap(c_a), veh/h	133	596	507	36	501	426	239	1746	944	244	2407	750
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	0.73	0.73	0.73	0.18	0.18	0.00
Uniform Delay (d), s/veh	69.2	50.1	50.1	73.2	54.0	42.8	64.7	22.0	22.0	66.8	38.8	0.0
Incr Delay (d2), s/veh	257.8	177.8	73.2	81.1	95.0	0.1	283.4	0.6	1.1	3.5	36.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	54.1	31.3	2.1	33.9	4.5	28.7	9.9	10.9	6.2	41.4	0.0
LnGrp Delay(d),s/veh	326.9	227.8	123.2	154.3	149.1	42.9	348.1	22.6	23.1	70.2	75.3	0.0
LnGrp LOS	F	F	F	F	F	D	F	C	C	E	F	
Approach Vol, veh/h		1579			754			1562			2741	
Approach Delay, s/veh		203.1			130.1			102.3			75.0	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	78.0	16.0	47.5	19.6	84.4	8.0	55.5
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 21	55.9	* 12	41.4	21.0	55.9	* 3.2	* 50
Max Q Clear Time (g_c+I1), s	22.6	74.4	13.7	43.9	14.6	23.3	4.7	51.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	20.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	118.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	394	420	30	93	256	5	53	1178	23	50	2727	424
Future Volume (veh/h)	394	420	30	93	256	5	53	1178	23	50	2727	424
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	394	420	30	93	256	5	53	1178	23	50	2727	424
Adj No. of Lanes	2	1	0	2	1	0	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	333	442	32	122	356	7	53	2645	52	64	2332	345
Arrive On Green	0.10	0.26	0.26	0.04	0.20	0.20	0.03	0.53	0.53	0.04	0.53	0.53
Sat Flow, veh/h	3408	1702	122	3408	1803	35	1740	5036	98	1740	4388	650
Grp Volume(v), veh/h	394	0	450	93	0	261	53	778	423	50	2034	1117
Grp Sat Flow(s),veh/h/ln	1704	0	1823	1704	0	1838	1740	1663	1810	1740	1663	1712
Q Serve(g_s), s	14.5	0.0	36.0	4.0	0.0	19.7	4.5	21.5	21.5	4.2	78.8	78.8
Cycle Q Clear(g_c), s	14.5	0.0	36.0	4.0	0.0	19.7	4.5	21.5	21.5	4.2	78.8	78.8
Prop In Lane	1.00		0.07	1.00		0.02	1.00		0.05	1.00		0.38
Lane Grp Cap(c), veh/h	333	0	473	122	0	363	53	1746	950	64	1767	910
V/C Ratio(X)	1.18	0.00	0.95	0.76	0.00	0.72	1.00	0.45	0.45	0.78	1.15	1.23
Avail Cap(c_a), veh/h	333	0	494	122	0	384	53	1746	950	119	1767	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	0.0	54.0	70.9	0.0	55.7	71.9	21.8	21.8	70.8	34.7	34.7
Incr Delay (d2), s/veh	108.5	0.0	27.5	22.3	0.0	5.0	124.9	0.1	0.1	7.6	74.9	112.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	0.0	21.7	2.3	0.0	10.5	4.0	9.8	10.7	2.2	54.5	65.5
LnGrp Delay(d),s/veh	175.4	0.0	81.5	93.1	0.0	60.6	196.8	21.9	21.9	78.4	109.7	147.1
LnGrp LOS	F		F	F		E	F	C	C	E	F	F
Approach Vol, veh/h		844			354			1254			3201	
Approach Delay, s/veh		125.3			69.2			29.3			122.2	
Approach LOS		F			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	83.8	20.0	34.5	10.9	82.9	10.8	43.7
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	4.5	78.8	14.5	* 31	10.1	73.2	5.3	* 40
Max Q Clear Time (g_c+I1), s	6.5	80.8	16.5	21.7	6.2	23.5	6.0	38.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	31.1	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	98.8
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	773	426	50	443	156	214	727	14	356	1886	565
Future Volume (veh/h)	120	773	426	50	443	156	214	727	14	356	1886	565
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1792	1792	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	120	773	426	50	443	156	214	727	14	356	1886	565
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	6	6	6	4	4	4	4	4	4
Cap, veh/h	175	692	379	86	727	254	237	1694	527	413	1954	608
Arrive On Green	0.05	0.32	0.32	0.03	0.29	0.29	0.07	0.34	0.34	0.12	0.39	0.39
Sat Flow, veh/h	3375	2165	1187	3312	2478	865	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	120	619	580	50	303	296	214	727	14	356	1886	565
Grp Sat Flow(s),veh/h/ln	1688	1736	1617	1656	1703	1640	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	3.8	35.0	35.0	1.6	16.8	17.0	6.9	12.3	0.7	11.3	40.5	38.1
Cycle Q Clear(g_c), s	3.8	35.0	35.0	1.6	16.8	17.0	6.9	12.3	0.7	11.3	40.5	38.1
Prop In Lane	1.00		0.73	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	554	517	86	500	481	237	1694	527	413	1954	608
V/C Ratio(X)	0.69	1.12	1.12	0.58	0.61	0.61	0.90	0.43	0.03	0.86	0.97	0.93
Avail Cap(c_a), veh/h	194	554	517	94	500	481	237	1694	527	465	1962	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	37.3	37.3	52.8	33.3	33.4	50.6	28.0	24.1	47.2	32.6	31.9
Incr Delay (d2), s/veh	6.4	74.2	77.9	4.1	1.5	1.7	32.8	0.1	0.0	12.8	13.0	20.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	28.1	26.7	0.8	8.1	8.0	4.3	5.7	0.3	6.0	20.9	19.7
LnGrp Delay(d),s/veh	57.4	111.5	115.2	56.8	34.8	35.1	83.4	28.0	24.1	60.0	45.6	52.2
LnGrp LOS	E	F	F	E	C	D	F	C	C	E	D	D
Approach Vol, veh/h		1319			649			955			2807	
Approach Delay, s/veh		108.2			36.6			40.4			48.7	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	48.0	11.2	37.2	18.9	42.3	8.3	40.0
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	7.7	* 43	6.3	* 32	15.1	* 36	3.1	* 35
Max Q Clear Time (g_c+I1), s	8.9	42.5	5.8	19.0	13.3	14.3	3.6	37.0
Green Ext Time (p_c), s	0.0	0.4	0.0	4.3	0.1	10.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.7
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	335	145	66	257	338	91	745	56	519	1872	159
Future Volume (veh/h)	171	335	145	66	257	338	91	745	56	519	1872	159
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	171	335	145	66	257	338	91	745	56	519	1872	159
Adj No. of Lanes	2	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	243	963	431	70	853	382	127	1536	478	452	2026	631
Arrive On Green	0.07	0.27	0.27	0.04	0.24	0.24	0.04	0.31	0.31	0.13	0.41	0.41
Sat Flow, veh/h	3408	3505	1568	1757	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	171	335	145	66	257	338	91	745	56	519	1872	159
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	4.3	6.7	6.5	3.3	5.2	18.2	2.3	10.6	2.3	11.7	31.2	5.9
Cycle Q Clear(g_c), s	4.3	6.7	6.5	3.3	5.2	18.2	2.3	10.6	2.3	11.7	31.2	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	963	431	70	853	382	127	1536	478	452	2026	631
V/C Ratio(X)	0.70	0.35	0.34	0.94	0.30	0.89	0.71	0.49	0.12	1.15	0.92	0.25
Avail Cap(c_a), veh/h	370	1242	556	70	1014	454	127	1568	488	452	2059	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	25.4	25.3	41.9	27.0	31.9	41.6	24.6	21.7	37.9	24.7	17.2
Incr Delay (d2), s/veh	1.4	0.1	0.2	85.1	0.1	15.0	15.0	0.1	0.0	90.1	7.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.3	2.8	3.2	2.5	9.4	1.4	4.9	1.0	11.0	15.6	2.5
LnGrp Delay(d),s/veh	41.1	25.5	25.5	127.0	27.1	46.9	56.6	24.7	21.8	128.0	32.1	17.2
LnGrp LOS	D	C	C	F	C	D	E	C	C	F	C	B
Approach Vol, veh/h		651			661			892			2550	
Approach Delay, s/veh		29.6			47.2			27.8			50.7	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	40.6	11.7	26.7	17.0	32.0	9.0	29.4
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 3.3	36.1	9.5	* 25	* 12	27.5	3.5	* 31
Max Q Clear Time (g_c+I1), s	4.3	33.2	6.3	20.2	13.7	12.6	5.3	8.7
Green Ext Time (p_c), s	0.0	2.3	0.0	1.1	0.0	8.4	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	43.0
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

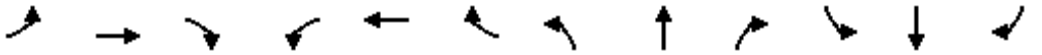
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	936	2	126	638	5	12	400	38	3	599	87
Future Volume (veh/h)	104	936	2	126	638	5	12	400	38	3	599	87
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	104	936	2	126	638	5	12	400	38	3	599	87
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	130	1107	2	151	1142	9	13	586	56	3	632	537
Arrive On Green	0.08	0.32	0.32	0.09	0.33	0.33	0.01	0.35	0.35	0.00	0.34	0.34
Sat Flow, veh/h	1707	3487	7	1707	3463	27	1757	1659	158	1757	1845	1568
Grp Volume(v), veh/h	104	457	481	126	314	329	12	0	438	3	599	87
Grp Sat Flow(s),veh/h/ln	1707	1703	1791	1707	1703	1788	1757	0	1817	1757	1845	1568
Q Serve(g_s), s	5.2	21.8	21.8	6.3	13.2	13.2	0.6	0.0	17.9	0.1	27.5	3.4
Cycle Q Clear(g_c), s	5.2	21.8	21.8	6.3	13.2	13.2	0.6	0.0	17.9	0.1	27.5	3.4
Prop In Lane	1.00		0.00	1.00		0.02	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	130	541	569	151	561	589	13	0	641	3	632	537
V/C Ratio(X)	0.80	0.85	0.85	0.83	0.56	0.56	0.91	0.00	0.68	0.99	0.95	0.16
Avail Cap(c_a), veh/h	177	570	599	151	561	589	40	0	641	40	636	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	27.7	27.7	39.0	23.9	23.9	43.1	0.0	24.0	43.4	27.8	19.9
Incr Delay (d2), s/veh	11.7	11.4	10.9	29.6	1.6	1.5	49.6	0.0	5.8	142.8	25.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	11.9	12.4	4.2	6.4	6.7	0.5	0.0	9.9	0.2	18.4	1.6
LnGrp Delay(d),s/veh	51.2	39.1	38.6	68.6	25.5	25.4	92.8	0.0	29.8	186.2	52.8	20.5
LnGrp LOS	D	D	D	E	C	C	F		C	F	D	C
Approach Vol, veh/h		1042			769			450			689	
Approach Delay, s/veh		40.0			32.5			31.5			49.3	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	34.0	5.1	35.8	11.0	35.1	4.2	36.7
Change Period (Y+Rc), s	4.4	6.4	4.4	6.0	4.4	6.4	* 4	6.0
Max Green Setting (Gmax), s	7.7	29.1	2.0	30.0	9.0	27.8	* 2	30.4
Max Q Clear Time (g_c+I1), s	8.3	23.8	2.6	29.5	7.2	15.2	2.1	19.9
Green Ext Time (p_c), s	0.0	3.8	0.0	0.3	0.0	9.4	0.0	9.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



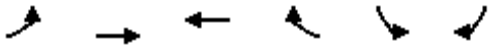
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1008	44	729	27	77	110	535	2141	17	146	1251	837
Future Volume (veh/h)	1008	44	729	27	77	110	535	2141	17	146	1251	837
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	1039	0	729	27	77	110	535	2141	17	146	1251	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	981	0	438	24	67	78	445	2184	17	151	1279	398
Arrive On Green	0.28	0.00	0.28	0.05	0.05	0.05	0.26	0.43	0.43	0.09	0.26	0.00
Sat Flow, veh/h	3480	0	1553	473	1348	1568	1740	5104	41	1740	4988	1553
Grp Volume(v), veh/h	1039	0	729	104	0	110	535	1394	764	146	1251	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1821	0	1568	1740	1663	1820	1740	1663	1553
Q Serve(g_s), s	36.7	0.0	36.7	6.5	0.0	6.5	33.3	53.8	53.9	10.9	32.4	0.0
Cycle Q Clear(g_c), s	36.7	0.0	36.7	6.5	0.0	6.5	33.3	53.8	53.9	10.9	32.4	0.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	981	0	438	91	0	78	445	1422	779	151	1279	398
V/C Ratio(X)	1.06	0.00	1.67	1.14	0.00	1.41	1.20	0.98	0.98	0.97	0.98	0.00
Avail Cap(c_a), veh/h	981	0	438	91	0	78	445	1422	779	151	1279	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.8	0.0	46.8	61.9	0.0	61.9	48.4	36.7	36.7	59.3	48.0	0.0
Incr Delay (d2), s/veh	45.8	0.0	309.4	138.4	0.0	242.4	110.8	19.2	27.4	62.7	19.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.8	0.0	53.4	6.8	0.0	8.1	29.6	28.4	32.9	7.9	17.2	0.0
LnGrp Delay(d),s/veh	92.5	0.0	356.2	200.3	0.0	304.2	159.2	55.9	64.1	122.0	67.9	0.0
LnGrp LOS	F		F	F		F	F	E	E	F	E	
Approach Vol, veh/h		1768			214			2693			1397	
Approach Delay, s/veh		201.2			253.7			78.7			73.6	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	38.0	38.2		12.0	15.7	60.5		42.0
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 33	33.2		6.5	* 11	* 56		36.7
Max Q Clear Time (g_c+I1), s	35.3	34.4		8.5	12.9	55.9		38.7
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		119.4
HCM 2010 LOS		F

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	86	620	811	277	638	348
Future Volume (veh/h)	86	620	811	277	638	348
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	86	620	811	277	638	348
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	133	1748	950	324	694	620
Arrive On Green	0.08	0.50	0.37	0.37	0.40	0.40
Sat Flow, veh/h	1757	3597	2659	876	1757	1568
Grp Volume(v), veh/h	86	620	554	534	638	348
Grp Sat Flow(s),veh/h/ln	1757	1752	1752	1690	1757	1568
Q Serve(g_s), s	3.6	8.1	22.0	22.0	26.0	13.0
Cycle Q Clear(g_c), s	3.6	8.1	22.0	22.0	26.0	13.0
Prop In Lane	1.00			0.52	1.00	1.00
Lane Grp Cap(c), veh/h	133	1748	649	626	694	620
V/C Ratio(X)	0.65	0.35	0.85	0.85	0.92	0.56
Avail Cap(c_a), veh/h	372	2274	673	649	768	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	11.5	21.9	21.9	21.7	17.7
Incr Delay (d2), s/veh	5.2	0.1	10.1	10.5	15.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	3.9	12.4	12.1	15.5	11.8
LnGrp Delay(d),s/veh	39.1	11.6	32.0	32.4	36.9	18.6
LnGrp LOS	D	B	C	C	D	B
Approach Vol, veh/h		706	1088		986	
Approach Delay, s/veh		15.0	32.2		30.4	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		41.7		33.9	9.7	32.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		49.0		33.0	16.0	29.0		
Max Q Clear Time (g_c+I1), s		10.1		28.0	5.6	24.0		
Green Ext Time (p_c), s		16.9		1.8	0.1	4.0		

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

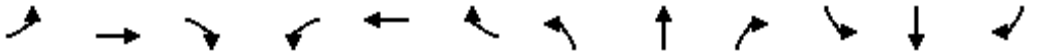
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	533	370	31	66	260	723	56	2124	10	996	1659	411
Future Volume (veh/h)	533	370	31	66	260	723	56	2124	10	996	1659	411
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	533	370	31	66	260	723	56	2124	10	996	1659	411
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	375	1307	108	105	361	1251	91	1769	8	694	2612	813
Arrive On Green	0.11	0.28	0.28	0.03	0.20	0.20	0.03	0.34	0.34	0.20	0.52	0.52
Sat Flow, veh/h	3408	4741	392	3514	1845	3136	3408	5173	24	3408	5036	1568
Grp Volume(v), veh/h	533	260	141	66	260	723	56	1378	756	996	1659	411
Grp Sat Flow(s),veh/h/ln	1704	1679	1776	1757	1845	1568	1704	1679	1840	1704	1679	1568
Q Serve(g_s), s	16.5	9.1	9.3	2.8	19.8	27.0	2.4	51.2	51.2	30.5	35.4	25.6
Cycle Q Clear(g_c), s	16.5	9.1	9.3	2.8	19.8	27.0	2.4	51.2	51.2	30.5	35.4	25.6
Prop In Lane	1.00		0.22	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	375	926	490	105	361	1251	91	1148	629	694	2612	813
V/C Ratio(X)	1.42	0.28	0.29	0.63	0.72	0.58	0.61	1.20	1.20	1.44	0.64	0.51
Avail Cap(c_a), veh/h	375	926	490	160	369	1267	134	1148	629	694	2612	813
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.6	42.6	42.7	71.8	56.4	35.1	72.1	49.3	49.3	59.6	25.9	23.5
Incr Delay (d2), s/veh	203.8	0.1	0.1	2.3	5.6	0.4	2.5	98.9	105.3	204.0	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.3	4.2	4.6	1.4	10.7	11.7	1.2	39.4	44.3	33.9	16.5	11.1
LnGrp Delay(d),s/veh	270.4	42.7	42.8	74.1	62.0	35.6	74.6	148.2	154.6	263.6	26.3	23.7
LnGrp LOS	F	D	D	E	E	D	E	F	F	F	C	C
Approach Vol, veh/h		934			1049			2190			3066	
Approach Delay, s/veh		172.7			44.5			148.5			103.0	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	83.3	22.0	35.0	36.0	56.8	10.0	47.0
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	5.9	75.5	16.5	* 30	30.5	* 51	6.8	* 40
Max Q Clear Time (g_c+I1), s	4.4	37.4	18.5	29.0	32.5	53.2	4.8	11.3
Green Ext Time (p_c), s	0.0	21.4	0.0	0.3	0.0	0.0	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	117.3
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



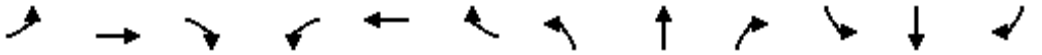
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	103	44	69	49	159	17	1577	31	71	1610	51
Future Volume (veh/h)	311	103	44	69	49	159	17	1577	31	71	1610	51
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	229	218	44	59	63	159	17	1577	31	71	1610	51
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	302	256	52	219	230	196	21	2024	40	111	2243	71
Arrive On Green	0.17	0.17	0.17	0.12	0.12	0.12	0.01	0.40	0.40	0.06	0.45	0.45
Sat Flow, veh/h	1757	1491	301	1757	1845	1568	1757	5084	100	1757	5015	159
Grp Volume(v), veh/h	229	0	262	59	63	159	17	1041	567	71	1078	583
Grp Sat Flow(s),veh/h/ln	1757	0	1792	1757	1845	1568	1757	1679	1827	1757	1679	1817
Q Serve(g_s), s	10.5	0.0	12.0	2.6	2.6	8.3	0.8	22.8	22.8	3.3	22.0	22.0
Cycle Q Clear(g_c), s	10.5	0.0	12.0	2.6	2.6	8.3	0.8	22.8	22.8	3.3	22.0	22.0
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.05	1.00		0.09
Lane Grp Cap(c), veh/h	302	0	308	219	230	196	21	1337	727	111	1501	812
V/C Ratio(X)	0.76	0.00	0.85	0.27	0.27	0.81	0.83	0.78	0.78	0.64	0.72	0.72
Avail Cap(c_a), veh/h	585	0	597	565	593	504	67	1529	832	125	1632	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	0.0	33.9	33.4	33.4	35.9	41.6	22.1	22.1	38.6	19.0	19.0
Incr Delay (d2), s/veh	1.5	0.0	2.6	0.2	0.2	3.1	25.4	1.9	3.5	5.7	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	6.1	1.3	1.3	3.8	0.5	10.9	12.2	1.8	10.4	11.5
LnGrp Delay(d),s/veh	34.7	0.0	36.4	33.7	33.7	39.0	67.0	24.1	25.6	44.3	20.1	21.1
LnGrp LOS	C		D	C	C	D	E	C	C	D	C	C
Approach Vol, veh/h		491			281			1625			1732	
Approach Delay, s/veh		35.6			36.7			25.1			21.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	42.5		16.0	9.9	38.4		20.0
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 3.2	41.0		27.1	* 6	38.4		28.1
Max Q Clear Time (g_c+I1), s	2.8	24.0		10.3	5.3	24.8		14.0
Green Ext Time (p_c), s	0.0	10.1		0.2	0.0	8.7		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1511	678	231	1030	288	665	1161	110	416	1228	60
Future Volume (veh/h)	66	1511	678	231	1030	288	665	1161	110	416	1228	60
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	66	1511	678	231	1030	288	665	1161	110	416	1228	60
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	1291	559	216	2052	639	557	1417	441	448	1227	60
Arrive On Green	0.03	0.37	0.37	0.06	0.41	0.41	0.16	0.28	0.28	0.13	0.25	0.25
Sat Flow, veh/h	3408	3446	1493	3408	5036	1568	3408	5036	1568	3408	4919	240
Grp Volume(v), veh/h	66	1471	718	231	1030	288	665	1161	110	416	838	450
Grp Sat Flow(s),veh/h/ln	1704	1679	1581	1704	1679	1568	1704	1679	1568	1704	1679	1802
Q Serve(g_s), s	2.9	56.2	56.2	9.5	22.8	20.0	24.5	32.3	8.1	18.1	37.4	37.4
Cycle Q Clear(g_c), s	2.9	56.2	56.2	9.5	22.8	20.0	24.5	32.3	8.1	18.1	37.4	37.4
Prop In Lane	1.00		0.94	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	104	1258	592	216	2052	639	557	1417	441	448	837	449
V/C Ratio(X)	0.64	1.17	1.21	1.07	0.50	0.45	1.19	0.82	0.25	0.93	1.00	1.00
Avail Cap(c_a), veh/h	155	1258	592	216	2052	639	557	1417	441	448	837	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	46.9	46.9	70.3	33.1	32.2	62.8	50.3	41.7	64.5	56.3	56.3
Incr Delay (d2), s/veh	2.4	85.0	110.6	81.1	0.1	0.2	104.2	3.7	0.1	25.5	31.4	42.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	40.9	42.7	6.9	10.6	8.7	19.6	15.4	3.6	10.1	21.0	23.9
LnGrp Delay(d),s/veh	74.3	131.9	157.5	151.3	33.2	32.4	167.0	54.0	41.8	90.0	87.7	99.1
LnGrp LOS	E	F	F	F	C	C	F	D	D	F	F	F
Approach Vol, veh/h		2255			1549			1936			1704	
Approach Delay, s/veh		138.4			50.7			92.1			91.3	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	43.0	10.1	66.9	25.2	47.8	15.0	62.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	24.5	* 37	6.8	58.9	19.7	* 42	9.5	56.2
Max Q Clear Time (g_c+I1), s	26.5	39.4	4.9	24.8	20.1	34.3	11.5	58.2
Green Ext Time (p_c), s	0.0	0.0	0.0	16.2	0.0	4.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	97.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	958	207	54	771	680	88	302	38	724	694	244
Future Volume (veh/h)	67	958	207	54	771	680	88	302	38	724	694	244
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	67	958	207	54	771	680	88	302	38	724	694	244
Adj No. of Lanes	1	2	0	2	2	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	85	1022	221	97	1133	507	106	353	44	772	736	625
Arrive On Green	0.05	0.36	0.36	0.03	0.32	0.32	0.06	0.22	0.22	0.23	0.40	0.40
Sat Flow, veh/h	1757	2869	619	3408	3505	1568	1757	1607	202	3408	1845	1568
Grp Volume(v), veh/h	67	585	580	54	771	680	88	0	340	724	694	244
Grp Sat Flow(s),veh/h/ln	1757	1752	1735	1704	1752	1568	1757	0	1809	1704	1845	1568
Q Serve(g_s), s	4.4	37.2	37.4	1.8	22.1	37.4	5.7	0.0	20.9	24.1	41.9	12.8
Cycle Q Clear(g_c), s	4.4	37.2	37.4	1.8	22.1	37.4	5.7	0.0	20.9	24.1	41.9	12.8
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	85	625	618	97	1133	507	106	0	398	772	736	625
V/C Ratio(X)	0.78	0.94	0.94	0.56	0.68	1.34	0.83	0.00	0.85	0.94	0.94	0.39
Avail Cap(c_a), veh/h	114	640	634	118	1133	507	106	0	516	784	859	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	35.9	36.0	55.4	33.9	39.1	53.7	0.0	43.3	43.9	33.5	24.7
Incr Delay (d2), s/veh	15.9	20.7	21.2	4.9	1.4	166.6	39.2	0.0	8.7	18.3	16.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	21.6	21.5	0.9	10.9	39.5	3.9	0.0	11.4	13.3	24.5	5.5
LnGrp Delay(d),s/veh	70.3	56.6	57.2	60.3	35.3	205.7	92.9	0.0	52.0	62.2	49.6	24.9
LnGrp LOS	E	E	E	E	D	F	F		D	E	D	C
Approach Vol, veh/h		1232			1505			428			1662	
Approach Delay, s/veh		57.6			113.2			60.4			51.5	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	42.3	11.0	51.2	7.3	46.1	31.7	30.5
Change Period (Y+Rc), s	5.5	* 4.9	4.0	* 5.1	4.0	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	7.5	* 37	7.0	* 54	4.0	* 42	26.6	* 33
Max Q Clear Time (g_c+I1), s	6.4	39.4	7.7	43.9	3.8	39.4	26.1	22.9
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	1.8	0.1	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	73.1
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	542	247	185	278	354	86	2122	93	341	1435	380
Future Volume (veh/h)	242	542	247	185	278	354	86	2122	93	341	1435	380
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	242	542	247	185	278	354	86	2122	93	341	1435	380
Adj No. of Lanes	2	2	1	2	1	2	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	260	915	409	249	471	1131	137	2205	545	355	2072	645
Arrive On Green	0.08	0.26	0.26	0.07	0.26	0.26	0.04	0.35	0.35	0.11	0.42	0.42
Sat Flow, veh/h	3408	3505	1568	3514	1845	3136	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	242	542	247	185	278	354	86	2122	93	341	1435	380
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	7.4	14.1	14.5	5.4	13.8	8.5	2.6	34.6	4.3	10.5	24.7	19.8
Cycle Q Clear(g_c), s	7.4	14.1	14.5	5.4	13.8	8.5	2.6	34.6	4.3	10.5	24.7	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	915	409	249	471	1131	137	2205	545	355	2072	645
V/C Ratio(X)	0.93	0.59	0.60	0.74	0.59	0.31	0.63	0.96	0.17	0.96	0.69	0.59
Avail Cap(c_a), veh/h	260	971	434	373	564	1288	158	2209	546	355	2072	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	33.8	33.9	47.7	34.2	24.1	49.4	33.3	23.5	46.6	25.1	23.7
Incr Delay (d2), s/veh	36.6	1.1	2.7	1.6	3.2	0.4	3.5	11.5	0.1	37.3	1.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	7.0	6.6	2.7	7.4	3.8	1.3	16.8	1.9	6.7	11.6	9.0
LnGrp Delay(d),s/veh	84.7	34.9	36.6	49.3	37.4	24.6	52.9	44.8	23.5	83.9	26.7	26.8
LnGrp LOS	F	C	D	D	D	C	D	D	C	F	C	C
Approach Vol, veh/h		1031			817			2301			2156	
Approach Delay, s/veh		47.0			34.5			44.2			35.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	48.9	13.5	32.5	16.5	42.1	12.9	33.1
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	4.9	* 43	8.0	32.0	11.0	* 37	11.1	* 29
Max Q Clear Time (g_c+I1), s	4.6	26.7	9.4	15.8	12.5	36.6	7.4	16.5
Green Ext Time (p_c), s	0.0	15.8	0.0	10.9	0.0	0.1	0.0	9.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.5
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	522	1197	887	404	703	121	522	1020	544	42	1727	167
Future Volume (veh/h)	522	1197	887	404	703	121	522	1020	544	42	1727	167
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	522	1197	887	404	703	121	522	1020	544	42	1727	167
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	566	1238	554	281	1349	420	371	1946	606	72	1503	468
Arrive On Green	0.17	0.35	0.35	0.08	0.27	0.27	0.11	0.39	0.39	0.02	0.30	0.30
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	522	1197	887	404	703	121	522	1020	544	42	1727	167
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	22.6	50.3	53.0	12.5	18.0	9.2	16.5	23.5	49.3	1.8	45.2	12.6
Cycle Q Clear(g_c), s	22.6	50.3	53.0	12.5	18.0	9.2	16.5	23.5	49.3	1.8	45.2	12.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	566	1238	554	281	1349	420	371	1946	606	72	1503	468
V/C Ratio(X)	0.92	0.97	1.60	1.44	0.52	0.29	1.41	0.52	0.90	0.59	1.15	0.36
Avail Cap(c_a), veh/h	720	1238	554	281	1349	420	371	1946	606	88	1503	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.6	47.6	48.5	68.8	46.5	43.3	66.8	35.1	42.9	72.8	52.4	41.0
Incr Delay (d2), s/veh	13.4	18.3	278.9	215.5	1.1	1.3	198.1	0.5	16.9	2.8	75.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	27.4	65.8	14.2	8.4	4.1	17.9	10.9	23.9	0.9	31.2	5.5
LnGrp Delay(d),s/veh	75.0	65.9	327.4	284.3	47.6	44.6	264.9	35.5	59.9	75.6	127.7	42.0
LnGrp LOS	E	E	F	F	D	D	F	D	E	E	F	D
Approach Vol, veh/h		2606			1228			2086			1936	
Approach Delay, s/veh		156.7			125.1			99.3			119.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	51.0	30.4	46.6	8.7	64.3	18.0	59.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	16.5	* 45	31.7	* 34	3.9	* 58	12.5	53.0
Max Q Clear Time (g_c+I1), s	18.5	47.2	24.6	20.0	3.8	51.3	14.5	55.0
Green Ext Time (p_c), s	0.0	0.0	0.3	13.8	0.0	6.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	127.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	598	1565	562	33	777	261	352	1270	47	815	1870	234
Future Volume (veh/h)	598	1565	562	33	777	261	352	1270	47	815	1870	234
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	598	1565	562	33	777	261	352	1270	47	815	1870	234
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	561	1849	576	58	1106	344	340	1183	368	758	1801	561
Arrive On Green	0.16	0.37	0.37	0.02	0.22	0.22	0.10	0.24	0.24	0.22	0.36	0.36
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	598	1565	562	33	777	261	352	1270	47	815	1870	234
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	24.7	42.8	53.1	1.4	21.4	23.4	15.1	35.6	3.6	33.7	54.2	17.0
Cycle Q Clear(g_c), s	24.7	42.8	53.1	1.4	21.4	23.4	15.1	35.6	3.6	33.7	54.2	17.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	561	1849	576	58	1106	344	340	1183	368	758	1801	561
V/C Ratio(X)	1.07	0.85	0.98	0.56	0.70	0.76	1.04	1.07	0.13	1.08	1.04	0.42
Avail Cap(c_a), veh/h	561	1849	576	70	1141	355	340	1183	368	758	1801	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.7	43.6	46.8	73.2	54.0	54.8	67.5	57.2	45.0	58.2	47.9	36.1
Incr Delay (d2), s/veh	56.8	3.7	31.3	3.1	1.6	7.8	58.6	48.3	0.1	54.8	31.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	20.5	27.9	0.7	10.1	10.9	9.8	21.6	1.5	21.5	30.2	7.3
LnGrp Delay(d),s/veh	119.5	47.3	78.1	76.3	55.6	62.6	126.1	105.5	45.1	113.0	79.8	36.2
LnGrp LOS	F	D	E	E	E	E	F	F	D	F	F	D
Approach Vol, veh/h		2725			1071			1669			2919	
Approach Delay, s/veh		69.5			57.9			108.1			85.5	
Approach LOS		E			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	60.2	30.2	39.1	39.2	41.6	8.1	61.2
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	15.1	53.6	24.7	* 34	33.7	* 36	3.1	* 55
Max Q Clear Time (g_c+I1), s	17.1	56.2	26.7	25.4	35.7	37.6	3.4	55.1
Green Ext Time (p_c), s	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	81.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	1105	333	79	816	520	202	836	78	960	1850	409
Future Volume (veh/h)	274	1105	333	79	816	520	202	836	78	960	1850	409
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	274	1105	333	79	816	520	202	836	78	960	1850	409
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	332	1071	323	110	1034	322	238	1016	316	954	2074	646
Arrive On Green	0.10	0.28	0.28	0.03	0.22	0.22	0.07	0.20	0.20	0.28	0.42	0.42
Sat Flow, veh/h	3408	3840	1157	3250	4803	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	274	966	472	79	816	520	202	836	78	960	1850	409
Grp Sat Flow(s),veh/h/ln	1704	1679	1640	1625	1601	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	8.6	30.5	30.5	2.6	17.6	23.5	6.5	17.5	4.6	30.9	37.7	22.8
Cycle Q Clear(g_c), s	8.6	30.5	30.5	2.6	17.6	23.5	6.5	17.5	4.6	30.9	37.7	22.8
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	936	457	110	1034	322	238	1016	316	954	2074	646
V/C Ratio(X)	0.83	1.03	1.03	0.72	0.79	1.62	0.85	0.82	0.25	1.01	0.89	0.63
Avail Cap(c_a), veh/h	358	936	457	110	1034	322	238	1044	325	954	2102	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	39.4	39.4	52.3	40.6	42.9	50.3	41.7	36.5	39.2	29.7	25.3
Incr Delay (d2), s/veh	12.5	37.9	50.5	17.7	3.8	290.9	23.2	4.9	0.1	30.8	5.1	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	19.0	20.1	1.5	8.1	35.7	3.8	8.5	2.0	18.4	18.1	10.0
LnGrp Delay(d),s/veh	61.0	77.3	90.0	70.0	44.4	333.8	73.4	46.6	36.7	70.0	34.7	26.8
LnGrp LOS	E	F	F	E	D	F	E	D	D	F	C	C
Approach Vol, veh/h		1712			1415			1116			3219	
Approach Delay, s/veh		78.2			152.2			50.7			44.3	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	51.0	16.2	29.0	36.4	27.8	9.2	36.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	7.7	46.1	11.5	22.7	30.9	22.9	3.7	30.5
Max Q Clear Time (g_c+I1), s	8.5	39.7	10.6	25.5	32.9	19.5	4.6	32.5
Green Ext Time (p_c), s	0.0	4.8	0.0	0.0	0.0	2.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	73.5
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	568	118	210	214	196	66	683	266	383	1356	62
Future Volume (veh/h)	0	568	118	210	214	196	66	683	266	383	1356	62
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1900	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	0	568	118	210	214	196	66	683	266	383	1356	62
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	4	4	4	4	4	4
Cap, veh/h	0	419	87	176	179	309	55	821	367	410	1111	51
Arrive On Green	0.00	0.30	0.30	0.20	0.20	0.20	0.03	0.24	0.24	0.12	0.33	0.33
Sat Flow, veh/h	0	1414	294	892	909	1568	1740	3471	1553	3375	3381	154
Grp Volume(v), veh/h	0	0	686	424	0	196	66	683	266	383	695	723
Grp Sat Flow(s),veh/h/ln	0	0	1707	1800	0	1568	1740	1736	1553	1688	1736	1800
Q Serve(g_s), s	0.0	0.0	41.5	27.6	0.0	16.1	4.4	26.2	22.1	15.7	46.0	46.0
Cycle Q Clear(g_c), s	0.0	0.0	41.5	27.6	0.0	16.1	4.4	26.2	22.1	15.7	46.0	46.0
Prop In Lane	0.00		0.17	0.50		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	0	0	506	355	0	309	55	821	367	410	570	591
V/C Ratio(X)	0.00	0.00	1.36	1.19	0.00	0.63	1.21	0.83	0.72	0.93	1.22	1.22
Avail Cap(c_a), veh/h	0	0	506	355	0	309	55	821	367	410	570	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	49.3	56.2	0.0	51.6	67.8	50.8	49.2	60.9	47.0	47.0
Incr Delay (d2), s/veh	0.0	0.0	172.5	112.0	0.0	4.2	188.1	7.3	6.9	28.5	113.7	114.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	43.8	24.7	0.0	7.3	5.0	13.4	10.2	9.0	40.0	41.7
LnGrp Delay(d),s/veh	0.0	0.0	221.7	168.2	0.0	55.8	256.0	58.1	56.2	89.5	160.7	161.8
LnGrp LOS			F	F		E	F	E	E	F	F	F
Approach Vol, veh/h		686			620			1015			1801	
Approach Delay, s/veh		221.7			132.7			70.5			146.0	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.0	51.0		33.0	21.9	38.1		47.0
Change Period (Y+Rc), s	* 4.6	5.0		* 5.4	* 4.9	5.0		5.5
Max Green Setting (Gmax), s	* 4.4	46.0		* 28	* 17	33.1		41.5
Max Q Clear Time (g_c+I1), s	6.4	48.0		29.6	17.7	28.2		43.5
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	4.4		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		138.0
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	826	6	259	563	173	1	747	493	343	1116	204
Future Volume (veh/h)	103	826	6	259	563	173	1	747	493	343	1116	204
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	103	826	6	259	563	173	1	747	493	343	1116	204
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	158	963	431	238	1044	595	4	1120	501	282	1408	704
Arrive On Green	0.05	0.28	0.28	0.07	0.31	0.31	0.00	0.32	0.32	0.08	0.41	0.41
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3375	3471	1553	3375	3471	1553
Grp Volume(v), veh/h	103	826	6	259	563	173	1	747	493	343	1116	204
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1688	1736	1553	1688	1736	1553
Q Serve(g_s), s	2.6	19.2	0.2	6.0	11.5	6.5	0.0	15.5	26.4	7.0	23.6	6.9
Cycle Q Clear(g_c), s	2.6	19.2	0.2	6.0	11.5	6.5	0.0	15.5	26.4	7.0	23.6	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	963	431	238	1044	595	4	1120	501	282	1408	704
V/C Ratio(X)	0.65	0.86	0.01	1.09	0.54	0.29	0.25	0.67	0.98	1.21	0.79	0.29
Avail Cap(c_a), veh/h	158	1018	455	238	1099	619	121	1120	501	282	1408	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	28.4	21.6	38.8	24.1	17.5	41.8	24.4	28.1	38.3	21.8	14.4
Incr Delay (d2), s/veh	7.2	6.7	0.0	84.6	0.2	0.1	11.4	1.2	35.7	124.4	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	9.8	0.1	5.5	5.4	2.8	0.0	7.6	16.2	8.1	11.7	2.9
LnGrp Delay(d),s/veh	46.4	35.1	21.6	123.4	24.3	17.6	53.2	25.7	63.9	162.8	24.7	14.5
LnGrp LOS	D	D	C	F	C	B	D	C	E	F	C	B
Approach Vol, veh/h		935			995			1241			1663	
Approach Delay, s/veh		36.2			48.9			40.9			51.9	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	29.7	4.1	39.9	8.0	31.7	11.0	33.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	25.0	3.0	31.0	4.0	27.0	7.0	27.0
Max Q Clear Time (g_c+I1), s	8.0	21.2	2.0	25.6	4.6	13.5	9.0	28.4
Green Ext Time (p_c), s	0.0	2.4	0.0	4.3	0.0	6.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.4
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	729	3	15	503	910	476
Future Volume (veh/h)	729	3	15	503	910	476
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	729	3	15	503	910	476
Adj No. of Lanes	0	0	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	745	3	18	1640	935	482
Arrive On Green	0.46	0.46	0.01	0.47	0.42	0.42
Sat Flow, veh/h	1635	7	1740	3563	2310	1142
Grp Volume(v), veh/h	733	0	15	503	709	677
Grp Sat Flow(s),veh/h/ln	1644	0	1740	1736	1736	1625
Q Serve(g_s), s	59.0	0.0	1.2	12.0	53.8	55.7
Cycle Q Clear(g_c), s	59.0	0.0	1.2	12.0	53.8	55.7
Prop In Lane	0.99	0.00	1.00			0.70
Lane Grp Cap(c), veh/h	749	0	18	1640	732	685
V/C Ratio(X)	0.98	0.00	0.86	0.31	0.97	0.99
Avail Cap(c_a), veh/h	757	0	77	1770	732	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	66.6	21.9	38.1	38.6
Incr Delay (d2), s/veh	27.3	0.0	32.5	0.0	25.5	31.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.4	0.0	0.7	5.7	31.0	31.0
LnGrp Delay(d),s/veh	63.3	0.0	99.0	22.0	63.6	69.9
LnGrp LOS	E		F	C	E	E
Approach Vol, veh/h	733			518	1386	
Approach Delay, s/veh	63.3			24.2	66.7	
Approach LOS	E			C	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	6.9	62.5		65.4		69.4		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.0	* 57		62.0		* 69		
Max Q Clear Time (g_c+I1), s	3.2	57.7		61.0		14.0		
Green Ext Time (p_c), s	0.0	0.0		0.4		6.3		

Intersection Summary	
HCM 2010 Ctrl Delay	57.4
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	30	26	23	24	28	30	1442	2	32	1162	128
Future Volume (veh/h)	92	30	26	23	24	28	30	1442	2	32	1162	128
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1583	1845	1845	1845	1845	1810	1845	1845	1845
Adj Flow Rate, veh/h	92	30	26	23	24	28	30	1442	2	32	1162	128
Adj No. of Lanes	2	1	1	1	1	1	2	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	20	3	3	3	3	5	3	3	3
Cap, veh/h	178	167	142	32	109	93	89	2081	913	48	2086	933
Arrive On Green	0.05	0.09	0.09	0.02	0.06	0.06	0.03	0.59	0.59	0.03	0.60	0.60
Sat Flow, veh/h	3408	1845	1568	1508	1845	1568	3408	3505	1538	1757	3505	1568
Grp Volume(v), veh/h	92	30	26	23	24	28	30	1442	2	32	1162	128
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1508	1845	1568	1704	1752	1538	1757	1752	1568
Q Serve(g_s), s	1.6	0.9	0.9	0.9	0.7	1.0	0.5	17.0	0.0	1.1	12.0	2.2
Cycle Q Clear(g_c), s	1.6	0.9	0.9	0.9	0.7	1.0	0.5	17.0	0.0	1.1	12.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	178	167	142	32	109	93	89	2081	913	48	2086	933
V/C Ratio(X)	0.52	0.18	0.18	0.72	0.22	0.30	0.34	0.69	0.00	0.66	0.56	0.14
Avail Cap(c_a), veh/h	285	524	445	101	493	419	228	2224	976	147	2282	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	25.2	25.2	29.1	26.9	27.0	28.6	8.4	4.9	28.8	7.3	5.3
Incr Delay (d2), s/veh	2.3	0.5	0.6	25.7	1.0	1.8	2.2	0.9	0.0	14.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.5	0.4	0.6	0.4	0.5	0.3	8.3	0.0	0.7	5.7	1.0
LnGrp Delay(d),s/veh	29.9	25.7	25.8	54.9	27.9	28.8	30.8	9.3	5.0	43.1	7.6	5.4
LnGrp LOS	C	C	C	D	C	C	C	A	A	D	A	A
Approach Vol, veh/h		148			75			1474			1322	
Approach Delay, s/veh		28.4			36.5			9.7			8.2	
Approach LOS		C			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	39.6	5.3	9.4	5.6	39.6	7.1	7.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	38.0	4.0	17.0	4.0	39.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	3.1	19.0	2.9	2.9	2.5	14.0	3.6	3.0
Green Ext Time (p_c), s	0.0	16.6	0.0	0.3	0.0	21.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	918	688	4	76	370	108	4	922	88	78	849	586
Future Volume (veh/h)	918	688	4	76	370	108	4	922	88	78	849	586
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	918	688	4	76	370	108	4	922	88	78	849	586
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	931	1566	701	123	736	329	11	888	397	96	1021	457
Arrive On Green	0.28	0.46	0.46	0.04	0.22	0.22	0.00	0.26	0.26	0.03	0.30	0.30
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3343	3438	1538	3343	3438	1538
Grp Volume(v), veh/h	918	688	4	76	370	108	4	922	88	78	849	586
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1672	1719	1538	1672	1719	1538
Q Serve(g_s), s	28.8	14.3	0.1	2.4	10.0	6.3	0.1	27.0	4.7	2.4	24.1	31.1
Cycle Q Clear(g_c), s	28.8	14.3	0.1	2.4	10.0	6.3	0.1	27.0	4.7	2.4	24.1	31.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	931	1566	701	123	736	329	11	888	397	96	1021	457
V/C Ratio(X)	0.99	0.44	0.01	0.62	0.50	0.33	0.38	1.04	0.22	0.81	0.83	1.28
Avail Cap(c_a), veh/h	931	1674	749	190	912	408	96	888	397	96	1021	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	19.1	15.3	49.6	36.1	34.6	52.0	38.8	30.5	50.5	34.3	36.8
Incr Delay (d2), s/veh	26.0	0.4	0.0	1.9	1.1	1.2	8.2	40.7	0.3	39.4	5.9	143.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	6.8	0.1	1.1	4.8	2.8	0.1	17.7	2.0	1.6	12.3	31.3
LnGrp Delay(d),s/veh	63.4	19.5	15.3	51.5	37.2	35.8	60.2	79.5	30.8	89.9	40.2	179.8
LnGrp LOS	E	B	B	D	D	D	E	F	C	F	D	F
Approach Vol, veh/h		1610			554			1014			1513	
Approach Delay, s/veh		44.5			38.9			75.2			96.8	
Approach LOS		D			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	28.6	4.9	37.1	8.5	54.1	9.0	33.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	6.0	6.0
Max Green Setting (Gmax), s	29.4	28.0	3.0	28.4	6.0	51.4	3.0	27.0
Max Q Clear Time (g_c+I1), s	30.8	12.0	2.1	33.1	4.4	16.3	4.4	29.0
Green Ext Time (p_c), s	0.0	10.6	0.0	0.0	0.0	17.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	560	41	467	760	92	89	543	273	123	905	217
Future Volume (veh/h)	134	560	41	467	760	92	89	543	273	123	905	217
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	134	560	41	467	760	92	89	543	273	123	905	217
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	167	601	44	499	1299	581	100	931	417	153	1038	464
Arrive On Green	0.10	0.18	0.18	0.28	0.37	0.37	0.06	0.27	0.27	0.09	0.30	0.30
Sat Flow, veh/h	1757	3312	242	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	134	296	305	467	760	92	89	543	273	123	905	217
Grp Sat Flow(s),veh/h/ln	1757	1752	1802	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	6.6	14.7	14.7	22.9	15.4	3.5	4.4	11.9	13.7	6.1	21.6	10.0
Cycle Q Clear(g_c), s	6.6	14.7	14.7	22.9	15.4	3.5	4.4	11.9	13.7	6.1	21.6	10.0
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	318	327	499	1299	581	100	931	417	153	1038	464
V/C Ratio(X)	0.80	0.93	0.93	0.93	0.59	0.16	0.89	0.58	0.66	0.80	0.87	0.47
Avail Cap(c_a), veh/h	259	318	327	518	1299	581	100	931	417	179	1073	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	35.6	35.6	30.8	22.3	18.6	41.3	28.1	28.8	39.5	29.4	25.4
Incr Delay (d2), s/veh	9.6	32.9	33.0	24.1	0.7	0.1	57.5	0.9	3.7	19.9	7.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	10.0	10.3	14.4	7.5	1.5	3.7	5.9	6.3	3.8	11.6	4.4
LnGrp Delay(d),s/veh	48.7	68.5	68.6	54.8	23.0	18.7	98.8	29.1	32.5	59.4	37.3	26.1
LnGrp LOS	D	E	E	D	C	B	F	C	C	E	D	C
Approach Vol, veh/h		735			1319			905			1245	
Approach Delay, s/veh		64.9			34.0			37.0			37.5	
Approach LOS		E			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	27.4	29.1	20.0	9.0	30.1	12.4	36.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	23.0	26.0	16.0	5.0	27.0	13.0	29.0
Max Q Clear Time (g_c+I1), s	8.1	15.7	24.9	16.7	6.4	23.6	8.6	17.4
Green Ext Time (p_c), s	0.0	5.7	0.2	0.0	0.0	2.5	0.1	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	41.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	578	173	105	572	143	243	821	82	157	1218	209
Future Volume (veh/h)	2	578	173	105	572	143	243	821	82	157	1218	209
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	2	578	173	105	572	143	243	821	82	157	1218	209
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	4	651	291	118	697	174	252	1462	146	192	1258	214
Arrive On Green	0.00	0.19	0.19	0.07	0.25	0.25	0.15	0.46	0.46	0.11	0.42	0.42
Sat Flow, veh/h	1757	3505	1568	1757	2781	693	1740	3188	318	1740	2967	506
Grp Volume(v), veh/h	2	578	173	105	360	355	243	447	456	157	709	718
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1722	1740	1736	1771	1740	1736	1738
Q Serve(g_s), s	0.1	14.4	9.1	5.3	17.4	17.5	12.4	16.8	16.8	7.9	35.7	36.3
Cycle Q Clear(g_c), s	0.1	14.4	9.1	5.3	17.4	17.5	12.4	16.8	16.8	7.9	35.7	36.3
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.18	1.00		0.29
Lane Grp Cap(c), veh/h	4	651	291	118	439	431	252	796	812	192	736	737
V/C Ratio(X)	0.53	0.89	0.59	0.89	0.82	0.82	0.96	0.56	0.56	0.82	0.96	0.97
Avail Cap(c_a), veh/h	78	665	297	118	439	431	252	796	812	291	736	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	35.6	33.4	41.5	31.7	31.7	38.1	17.7	17.7	39.0	25.2	25.3
Incr Delay (d2), s/veh	81.7	13.7	3.1	51.4	11.7	12.2	46.3	0.9	0.9	10.4	24.6	26.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.2	4.1	4.2	9.8	9.8	9.2	8.3	8.4	4.4	22.0	22.8
LnGrp Delay(d),s/veh	126.4	49.3	36.5	92.9	43.4	43.9	84.4	18.6	18.6	49.5	49.7	52.2
LnGrp LOS	F	D	D	F	D	D	F	B	B	D	D	D
Approach Vol, veh/h		753			820			1146			1584	
Approach Delay, s/veh		46.6			50.0			32.5			50.8	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	45.1	10.0	20.6	17.0	42.0	4.2	26.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	36.0	6.0	17.0	13.0	38.0	4.0	19.0
Max Q Clear Time (g_c+I1), s	9.9	18.8	7.3	16.4	14.4	38.3	2.1	19.5
Green Ext Time (p_c), s	0.2	13.6	0.0	0.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	1120	374	118	1287	152	183	784	74	63	1357	163
Future Volume (veh/h)	202	1120	374	118	1287	152	183	784	74	63	1357	163
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	202	1120	374	118	1287	152	183	784	74	63	1357	163
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	206	1110	371	127	1270	395	190	1396	132	81	1294	579
Arrive On Green	0.12	0.30	0.30	0.07	0.25	0.25	0.11	0.44	0.44	0.05	0.37	0.37
Sat Flow, veh/h	1740	3699	1235	1740	4988	1553	1740	3207	303	1740	3471	1553
Grp Volume(v), veh/h	202	1007	487	118	1287	152	183	424	434	63	1357	163
Grp Sat Flow(s),veh/h/ln	1740	1663	1609	1740	1663	1553	1740	1736	1774	1740	1736	1553
Q Serve(g_s), s	12.7	33.0	33.0	7.4	28.0	8.9	11.5	20.1	20.1	3.9	41.0	8.1
Cycle Q Clear(g_c), s	12.7	33.0	33.0	7.4	28.0	8.9	11.5	20.1	20.1	3.9	41.0	8.1
Prop In Lane	1.00		0.77	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	206	998	483	127	1270	395	190	756	772	81	1294	579
V/C Ratio(X)	0.98	1.01	1.01	0.93	1.01	0.38	0.96	0.56	0.56	0.78	1.05	0.28
Avail Cap(c_a), veh/h	206	998	483	127	1270	395	190	756	772	142	1294	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	38.5	38.5	50.7	41.0	33.9	48.8	23.2	23.2	51.9	34.5	24.2
Incr Delay (d2), s/veh	57.5	30.8	43.3	59.4	28.7	0.6	54.8	0.9	0.9	15.0	38.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	19.4	20.4	5.7	16.2	3.9	8.4	9.7	10.0	2.2	26.6	3.5
LnGrp Delay(d),s/veh	105.9	69.3	81.9	110.2	69.7	34.5	103.5	24.1	24.1	66.9	73.4	24.4
LnGrp LOS	F	F	F	F	F	C	F	C	C	E	F	C
Approach Vol, veh/h		1696			1557			1041			1583	
Approach Delay, s/veh		77.3			69.3			38.1			68.1	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	51.9	12.0	37.0	16.0	45.0	17.0	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	44.0	8.0	33.0	12.0	41.0	13.0	28.0
Max Q Clear Time (g_c+I1), s	5.9	22.1	9.4	35.0	13.5	43.0	14.7	30.0
Green Ext Time (p_c), s	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	65.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	1238	143	284	1064	19	285	275	101	262	1091	89
Future Volume (veh/h)	169	1238	143	284	1064	19	285	275	101	262	1091	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	169	1238	143	284	1064	19	285	275	101	262	1091	89
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	192	1031	119	236	1229	550	238	900	403	289	1001	448
Arrive On Green	0.11	0.33	0.33	0.14	0.35	0.35	0.14	0.26	0.26	0.16	0.29	0.29
Sat Flow, veh/h	1740	3138	361	1740	3471	1553	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	169	683	698	284	1064	19	285	275	101	262	1091	89
Grp Sat Flow(s),veh/h/ln	1740	1736	1763	1740	1736	1553	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	13.4	46.0	46.0	19.0	40.0	1.1	19.0	8.9	7.2	20.5	40.0	6.0
Cycle Q Clear(g_c), s	13.4	46.0	46.0	19.0	40.0	1.1	19.0	8.9	7.2	20.5	40.0	6.0
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	570	579	236	1229	550	238	900	403	289	1001	448
V/C Ratio(X)	0.88	1.20	1.20	1.20	0.87	0.03	1.20	0.31	0.25	0.91	1.09	0.20
Avail Cap(c_a), veh/h	211	570	579	236	1229	550	238	900	403	402	1001	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.4	47.0	47.0	60.5	42.1	29.6	60.5	41.9	41.3	57.4	50.0	37.9
Incr Delay (d2), s/veh	30.3	105.1	107.9	124.4	6.7	0.0	121.4	0.2	0.3	19.0	56.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	38.7	39.7	17.3	20.4	0.5	17.2	4.3	3.2	11.5	27.1	2.6
LnGrp Delay(d),s/veh	91.7	152.1	154.9	184.9	48.9	29.6	181.9	42.1	41.6	76.4	106.0	38.1
LnGrp LOS	F	F	F	F	D	C	F	D	D	E	F	D
Approach Vol, veh/h		1550			1367			661			1442	
Approach Delay, s/veh		146.7			76.9			102.3			96.4	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	40.0	23.0	50.0	23.0	44.0	19.4	53.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	32.0	27.0	19.0	46.0	19.0	40.0	17.0	48.0
Max Q Clear Time (g_c+I1), s	22.5	10.9	21.0	48.0	21.0	42.0	15.4	42.0
Green Ext Time (p_c), s	0.5	9.3	0.0	0.0	0.0	0.0	0.1	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	107.4
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	593	39	82	546	52	56	879	103	169	1385	340
Future Volume (veh/h)	42	593	39	82	546	52	56	879	103	169	1385	340
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	42	593	39	82	546	52	56	879	103	169	1385	340
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	111	1020	317	161	1094	341	133	1321	155	261	1596	714
Arrive On Green	0.03	0.20	0.20	0.05	0.22	0.22	0.04	0.42	0.42	0.08	0.46	0.46
Sat Flow, veh/h	3375	4988	1553	3375	4988	1553	3375	3131	367	3375	3471	1553
Grp Volume(v), veh/h	42	593	39	82	546	52	56	487	495	169	1385	340
Grp Sat Flow(s),veh/h/ln	1688	1663	1553	1688	1663	1553	1688	1736	1762	1688	1736	1553
Q Serve(g_s), s	0.8	6.9	1.3	1.5	6.2	1.7	1.0	14.5	14.5	3.1	23.1	9.7
Cycle Q Clear(g_c), s	0.8	6.9	1.3	1.5	6.2	1.7	1.0	14.5	14.5	3.1	23.1	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	111	1020	317	161	1094	341	133	732	743	261	1596	714
V/C Ratio(X)	0.38	0.58	0.12	0.51	0.50	0.15	0.42	0.67	0.67	0.65	0.87	0.48
Avail Cap(c_a), veh/h	210	1240	386	210	1240	386	210	732	743	367	1618	724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	23.1	20.9	29.9	22.0	20.3	30.2	14.9	14.9	28.8	15.6	12.0
Incr Delay (d2), s/veh	2.1	0.5	0.2	2.5	0.4	0.2	2.1	2.3	2.3	2.7	5.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.2	0.6	0.8	2.9	0.8	0.5	7.4	7.5	1.6	12.1	4.2
LnGrp Delay(d),s/veh	32.6	23.6	21.1	32.4	22.4	20.5	32.3	17.2	17.2	31.6	20.9	12.5
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	C	B
Approach Vol, veh/h		674			680			1038			1894	
Approach Delay, s/veh		24.0			23.4			18.0			20.3	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	31.1	7.1	17.2	6.5	33.6	6.1	18.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	27.0	4.0	16.0	4.0	30.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	5.1	16.5	3.5	8.9	3.0	25.1	2.8	8.2
Green Ext Time (p_c), s	0.1	9.4	0.0	4.2	0.0	4.5	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	392	56	35	373	3	72	12	14	20	119	87
Future Volume (veh/h)	36	392	56	35	373	3	72	12	14	20	119	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1827	1827	1827	1845	1845	1845
Adj Flow Rate, veh/h	36	392	56	35	373	3	72	12	14	20	119	87
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	3	3	3
Cap, veh/h	59	850	121	58	980	8	102	333	283	36	266	226
Arrive On Green	0.03	0.28	0.28	0.03	0.28	0.28	0.06	0.18	0.18	0.02	0.14	0.14
Sat Flow, veh/h	1740	3053	433	1740	3529	28	1740	1827	1553	1757	1845	1568
Grp Volume(v), veh/h	36	222	226	35	183	193	72	12	14	20	119	87
Grp Sat Flow(s),veh/h/ln	1740	1736	1750	1740	1736	1822	1740	1827	1553	1757	1845	1568
Q Serve(g_s), s	0.7	3.5	3.5	0.7	2.8	2.8	1.3	0.2	0.2	0.4	1.9	1.7
Cycle Q Clear(g_c), s	0.7	3.5	3.5	0.7	2.8	2.8	1.3	0.2	0.2	0.4	1.9	1.7
Prop In Lane	1.00		0.25	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	483	487	58	482	506	102	333	283	36	266	226
V/C Ratio(X)	0.61	0.46	0.46	0.60	0.38	0.38	0.71	0.04	0.05	0.56	0.45	0.39
Avail Cap(c_a), veh/h	264	843	850	264	843	885	317	1054	896	213	952	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	9.8	9.8	15.7	9.6	9.6	15.2	11.1	11.1	16.0	12.9	12.8
Incr Delay (d2), s/veh	9.6	0.7	0.7	9.7	0.5	0.5	8.6	0.0	0.1	13.0	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.8	1.8	0.5	1.4	1.5	0.9	0.1	0.1	0.3	1.1	0.8
LnGrp Delay(d),s/veh	25.3	10.5	10.5	25.4	10.1	10.1	23.8	11.1	11.2	29.0	14.1	13.9
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		484			411			98			226	
Approach Delay, s/veh		11.6			11.4			20.5			15.3	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	10.0	5.1	13.2	5.9	8.7	5.1	13.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	5.0	16.0	6.0	17.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	2.4	2.2	2.7	5.5	3.3	3.9	2.7	4.8
Green Ext Time (p_c), s	0.0	0.9	0.0	3.6	0.0	0.8	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	6	255	50	9	1	117	1552	55	1	1893	0
Future Volume (veh/h)	32	6	255	50	9	1	117	1552	55	1	1893	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	32	6	255	50	9	1	117	1552	55	1	1893	0
Adj No. of Lanes	0	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	24	5	195	83	77	9	126	1822	815	209	1989	0
Arrive On Green	0.15	0.15	0.15	0.05	0.05	0.05	0.07	0.54	0.54	0.12	0.58	0.00
Sat Flow, veh/h	166	31	1321	1757	1631	181	1707	3406	1524	1707	3495	0
Grp Volume(v), veh/h	293	0	0	50	0	10	117	1552	55	1	1893	0
Grp Sat Flow(s),veh/h/ln	1518	0	0	1757	0	1813	1707	1703	1524	1707	1703	0
Q Serve(g_s), s	16.0	0.0	0.0	3.0	0.0	0.6	7.4	42.2	1.9	0.1	56.5	0.0
Cycle Q Clear(g_c), s	16.0	0.0	0.0	3.0	0.0	0.6	7.4	42.2	1.9	0.1	56.5	0.0
Prop In Lane	0.11		0.87	1.00		0.10	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	224	0	0	83	0	85	126	1822	815	209	1989	0
V/C Ratio(X)	1.31	0.00	0.00	0.60	0.00	0.12	0.93	0.85	0.07	0.00	0.95	0.00
Avail Cap(c_a), veh/h	224	0	0	259	0	268	126	2136	956	209	2011	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.2	0.0	0.0	50.7	0.0	49.5	49.9	21.5	12.2	41.7	21.1	0.0
Incr Delay (d2), s/veh	166.9	0.0	0.0	6.9	0.0	0.6	58.5	3.1	0.0	0.0	10.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	0.0	0.0	1.6	0.0	0.3	5.5	20.4	0.8	0.0	29.3	0.0
LnGrp Delay(d),s/veh	213.1	0.0	0.0	57.6	0.0	50.1	108.5	24.6	12.2	41.8	32.0	0.0
LnGrp LOS	F			E		D	F	C	B	D	C	
Approach Vol, veh/h		293			60			1724			1894	
Approach Delay, s/veh		213.1			56.3			29.9			32.0	
Approach LOS		F			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.3	62.0		20.0	12.0	67.3		9.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	68.0		16.0	8.0	64.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	44.2		18.0	9.4	58.5		5.0
Green Ext Time (p_c), s	1.8	13.8		0.0	0.0	4.8		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		44.8
HCM 2010 LOS		D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	358	47	22	1294	1774	432
Future Volume (veh/h)	358	47	22	1294	1774	432
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	358	47	22	1294	1774	432
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	361	322	33	2465	1802	422
Arrive On Green	0.21	0.21	0.02	0.70	0.64	0.64
Sat Flow, veh/h	1757	1568	1757	3597	2913	660
Grp Volume(v), veh/h	358	47	22	1294	1075	1131
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1728
Q Serve(g_s), s	17.8	2.2	1.1	15.2	50.2	56.0
Cycle Q Clear(g_c), s	17.8	2.2	1.1	15.2	50.2	56.0
Prop In Lane	1.00	1.00	1.00			0.38
Lane Grp Cap(c), veh/h	361	322	33	2465	1120	1104
V/C Ratio(X)	0.99	0.15	0.66	0.52	0.96	1.02
Avail Cap(c_a), veh/h	361	322	80	2559	1120	1104
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	28.5	42.7	6.1	14.8	15.8
Incr Delay (d2), s/veh	45.2	0.2	20.2	0.2	18.1	33.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	2.1	0.7	7.3	29.5	36.7
LnGrp Delay(d),s/veh	80.0	28.7	62.9	6.3	32.8	49.4
LnGrp LOS	F	C	E	A	C	F
Approach Vol, veh/h	405			1316	2206	
Approach Delay, s/veh	74.1			7.2	41.3	
Approach LOS	E			A	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		65.7		22.0	5.7	60.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		64.0		18.0	4.0	56.0		
Max Q Clear Time (g_c+I1), s		17.2		19.8	3.1	58.0		
Green Ext Time (p_c), s		43.6		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	33.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	16	40	140	4	221	50	1256	191	641	1341	9
Future Volume (veh/h)	4	16	40	140	4	221	50	1256	191	641	1341	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	4	16	40	140	4	221	50	1256	191	641	1341	9
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	7	39	98	132	4	240	64	1190	180	600	2480	17
Arrive On Green	0.00	0.08	0.08	0.08	0.16	0.16	0.04	0.39	0.39	0.34	0.69	0.69
Sat Flow, veh/h	1757	468	1170	1757	28	1544	1757	3054	462	1757	3569	24
Grp Volume(v), veh/h	4	0	56	140	0	225	50	717	730	641	658	692
Grp Sat Flow(s),veh/h/ln	1757	0	1638	1757	0	1572	1757	1752	1763	1757	1752	1840
Q Serve(g_s), s	0.3	0.0	4.7	11.0	0.0	20.6	4.1	57.0	57.0	50.0	26.9	26.9
Cycle Q Clear(g_c), s	0.3	0.0	4.7	11.0	0.0	20.6	4.1	57.0	57.0	50.0	26.9	26.9
Prop In Lane	1.00		0.71	1.00		0.98	1.00		0.26	1.00		0.01
Lane Grp Cap(c), veh/h	7	0	138	132	0	244	64	683	687	600	1218	1279
V/C Ratio(X)	0.56	0.00	0.41	1.06	0.00	0.92	0.78	1.05	1.06	1.07	0.54	0.54
Avail Cap(c_a), veh/h	48	0	179	132	0	247	108	683	687	600	1218	1279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.7	0.0	63.5	67.7	0.0	60.9	69.9	44.7	44.7	48.2	10.9	10.9
Incr Delay (d2), s/veh	53.2	0.0	1.9	95.2	0.0	36.7	18.1	48.6	52.0	56.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.2	8.8	0.0	11.5	2.3	36.7	37.6	33.5	13.0	13.8
LnGrp Delay(d),s/veh	125.9	0.0	65.5	163.0	0.0	97.6	88.0	93.2	96.6	104.3	11.4	11.4
LnGrp LOS	F		E	F		F	F	F	F	F	B	B
Approach Vol, veh/h		60			365			1497			1991	
Approach Delay, s/veh		69.5			122.7			94.7			41.3	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	54.0	61.0	15.0	16.3	9.3	105.7	4.6	26.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	50.0	57.0	11.0	16.0	9.0	98.0	4.0	23.0
Max Q Clear Time (g_c+I1), s	52.0	59.0	13.0	6.7	6.1	28.9	2.3	22.6
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	45.8	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	69.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	12	14	1	6	4	10	1107	0	3	1239	346
Future Volume (veh/h)	314	12	14	1	6	4	10	1107	0	3	1239	346
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	314	12	14	1	6	4	10	1107	0	3	1239	0
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	369	14	341	2	10	7	18	1834	0	6	1809	809
Arrive On Green	0.22	0.22	0.22	0.01	0.01	0.01	0.01	0.52	0.00	0.00	0.52	0.00
Sat Flow, veh/h	1695	65	1568	157	941	628	1757	3597	0	1757	3505	1568
Grp Volume(v), veh/h	326	0	14	11	0	0	10	1107	0	3	1239	0
Grp Sat Flow(s),veh/h/ln	1760	0	1568	1726	0	0	1757	1752	0	1757	1752	1568
Q Serve(g_s), s	11.6	0.0	0.5	0.4	0.0	0.0	0.4	14.4	0.0	0.1	17.3	0.0
Cycle Q Clear(g_c), s	11.6	0.0	0.5	0.4	0.0	0.0	0.4	14.4	0.0	0.1	17.3	0.0
Prop In Lane	0.96		1.00	0.09		0.36	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	383	0	341	19	0	0	18	1834	0	6	1809	809
V/C Ratio(X)	0.85	0.00	0.04	0.58	0.00	0.00	0.56	0.60	0.00	0.53	0.68	0.00
Avail Cap(c_a), veh/h	458	0	408	423	0	0	108	1984	0	108	1984	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.5	0.0	20.2	32.2	0.0	0.0	32.2	10.9	0.0	32.5	11.8	0.0
Incr Delay (d2), s/veh	12.4	0.0	0.0	24.4	0.0	0.0	24.7	0.5	0.0	59.3	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	0.2	0.3	0.0	0.0	0.3	7.0	0.0	0.1	8.5	0.0
LnGrp Delay(d),s/veh	37.0	0.0	20.2	56.6	0.0	0.0	56.9	11.3	0.0	91.8	12.7	0.0
LnGrp LOS	D		C	E			E	B		F	B	
Approach Vol, veh/h		340			11			1117			1242	
Approach Delay, s/veh		36.3			56.6			11.7			12.9	
Approach LOS		D			E			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.2	38.2		18.2	4.7	37.7		4.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	37.0		17.0	4.0	37.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	16.4		13.6	2.4	19.3		2.4
Green Ext Time (p_c), s	0.0	16.4		0.6	0.0	14.5		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		15.5
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	504	422	76	400	3	315	1385	86	2	977	394
Future Volume (veh/h)	361	504	422	76	400	3	315	1385	86	2	977	394
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	361	504	422	76	400	3	315	1385	86	2	977	394
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	401	963	431	143	697	312	401	1654	740	7	1249	559
Arrive On Green	0.12	0.27	0.27	0.04	0.20	0.20	0.12	0.47	0.47	0.00	0.36	0.36
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	361	504	422	76	400	3	315	1385	86	2	977	394
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	8.0	9.3	20.4	1.7	7.9	0.1	6.9	26.4	2.3	0.0	19.0	16.5
Cycle Q Clear(g_c), s	8.0	9.3	20.4	1.7	7.9	0.1	6.9	26.4	2.3	0.0	19.0	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	401	963	431	143	697	312	401	1654	740	7	1249	559
V/C Ratio(X)	0.90	0.52	0.98	0.53	0.57	0.01	0.79	0.84	0.12	0.27	0.78	0.71
Avail Cap(c_a), veh/h	401	963	431	178	734	328	446	1654	740	178	1330	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	23.5	27.5	35.9	27.7	24.6	32.8	17.6	11.3	38.1	22.0	21.2
Incr Delay (d2), s/veh	22.6	0.5	37.9	3.1	1.0	0.0	8.2	4.0	0.1	18.3	2.9	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	4.5	13.4	0.8	3.9	0.1	3.7	13.6	1.0	0.0	9.6	7.7
LnGrp Delay(d),s/veh	55.8	24.0	65.4	38.9	28.7	24.6	40.9	21.6	11.3	56.4	24.9	24.7
LnGrp LOS	E	C	E	D	C	C	D	C	B	E	C	C
Approach Vol, veh/h		1287			479			1786			1373	
Approach Delay, s/veh		46.5			30.3			24.5			24.9	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.2	40.1	7.2	25.0	13.0	31.2	13.0	19.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	35.0	4.0	21.0	10.0	29.0	9.0	16.0
Max Q Clear Time (g_c+I1), s	2.0	28.4	3.7	22.4	8.9	21.0	10.0	9.9
Green Ext Time (p_c), s	0.0	6.2	0.0	0.0	0.1	6.2	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	1675	381	23	1389	59	95	69	14	68	149	164
Future Volume (veh/h)	222	1675	381	23	1389	59	95	69	14	68	149	164
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	222	1675	381	23	1389	59	95	69	14	68	149	164
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	256	1762	386	34	1677	71	112	268	227	87	241	205
Arrive On Green	0.15	0.62	0.62	0.02	0.49	0.49	0.06	0.15	0.15	0.05	0.13	0.13
Sat Flow, veh/h	1757	2860	627	1757	3426	145	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	222	1002	1054	23	709	739	95	69	14	68	149	164
Grp Sat Flow(s),veh/h/ln	1757	1752	1734	1757	1752	1819	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	11.6	48.2	56.0	1.2	32.7	32.9	5.0	3.1	0.7	3.6	7.2	9.6
Cycle Q Clear(g_c), s	11.6	48.2	56.0	1.2	32.7	32.9	5.0	3.1	0.7	3.6	7.2	9.6
Prop In Lane	1.00		0.36	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	1080	1069	34	858	890	112	268	227	87	241	205
V/C Ratio(X)	0.87	0.93	0.99	0.68	0.83	0.83	0.85	0.26	0.06	0.78	0.62	0.80
Avail Cap(c_a), veh/h	299	1080	1069	75	858	890	112	314	267	112	314	267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	16.2	17.7	45.9	20.6	20.6	43.6	35.7	34.7	44.2	38.7	39.7
Incr Delay (d2), s/veh	20.3	13.4	24.2	21.5	6.7	6.6	42.3	0.5	0.1	23.1	2.6	12.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	27.1	33.6	0.8	17.4	18.1	3.8	1.6	0.3	2.3	3.9	4.8
LnGrp Delay(d),s/veh	59.6	29.6	41.9	67.3	27.3	27.3	85.9	36.2	34.8	67.3	41.2	51.9
LnGrp LOS	E	C	D	E	C	C	F	D	C	E	D	D
Approach Vol, veh/h		2278			1471			178			381	
Approach Delay, s/veh		38.2			27.9			62.6			50.5	
Approach LOS		D			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	17.7	5.8	62.0	10.0	16.3	17.7	50.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	16.0	4.0	58.0	6.0	16.0	16.0	46.0
Max Q Clear Time (g_c+I1), s	5.6	5.1	3.2	58.0	7.0	11.6	13.6	34.9
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.8	0.1	10.9

Intersection Summary	
HCM 2010 Ctrl Delay	36.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1260	1178	667	8	719	277	576	994	10	390	1446	815
Future Volume (veh/h)	1260	1178	667	8	719	277	576	994	10	390	1446	815
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1260	1178	667	8	719	277	576	994	10	390	1446	815
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1022	1644	736	26	620	277	472	1362	424	442	1317	410
Arrive On Green	0.30	0.47	0.47	0.01	0.18	0.18	0.14	0.27	0.27	0.13	0.26	0.26
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	1260	1178	667	8	719	277	576	994	10	390	1446	815
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	39.0	34.9	51.1	0.3	23.0	23.0	18.0	23.3	0.6	14.6	34.0	34.0
Cycle Q Clear(g_c), s	39.0	34.9	51.1	0.3	23.0	23.0	18.0	23.3	0.6	14.6	34.0	34.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1022	1644	736	26	620	277	472	1362	424	442	1317	410
V/C Ratio(X)	1.23	0.72	0.91	0.30	1.16	1.00	1.22	0.73	0.02	0.88	1.10	1.99
Avail Cap(c_a), veh/h	1022	1644	736	105	620	277	472	1362	424	472	1317	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	27.6	31.9	64.2	53.5	53.5	56.0	43.1	34.8	55.6	48.0	48.0
Incr Delay (d2), s/veh	113.2	1.5	15.0	6.3	88.8	53.6	117.1	2.0	0.0	16.9	56.1	453.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	34.4	17.2	25.1	0.2	18.8	14.1	16.1	11.0	0.3	7.9	22.6	66.3
LnGrp Delay(d),s/veh	158.7	29.1	46.8	70.5	142.3	107.1	173.1	45.1	34.8	72.5	104.1	501.0
LnGrp LOS	F	C	D	E	F	F	F	D	C	E	F	F
Approach Vol, veh/h		3105			1004			1580			2651	
Approach Delay, s/veh		85.5			132.0			91.7			221.5	
Approach LOS		F			F			F			F	

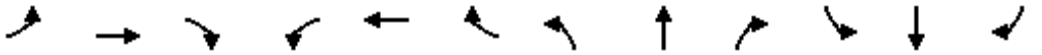
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	39.2	5.0	65.0	22.0	38.0	43.0	27.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	34.0	4.0	58.0	18.0	34.0	39.0	23.0
Max Q Clear Time (g_c+I1), s	16.6	25.3	2.3	53.1	20.0	36.0	41.0	25.0
Green Ext Time (p_c), s	0.2	8.2	0.0	4.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	135.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1080	596	213	855	522	428	501	185	807	1017	0
Future Volume (veh/h)	0	1080	596	213	855	522	428	501	185	807	1017	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	1080	596	213	855	522	428	501	185	807	1017	0
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	1269	395	258	1904	593	472	767	343	859	1164	521
Arrive On Green	0.00	0.25	0.25	0.08	0.38	0.38	0.14	0.22	0.22	0.25	0.33	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	0	1080	596	213	855	522	428	501	185	807	1017	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.0	16.2	20.0	4.9	10.1	24.6	9.8	10.3	8.3	18.4	21.7	0.0
Cycle Q Clear(g_c), s	0.0	16.2	20.0	4.9	10.1	24.6	9.8	10.3	8.3	18.4	21.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	4	1269	395	258	1904	593	472	767	343	859	1164	521
V/C Ratio(X)	0.00	0.85	1.51	0.83	0.45	0.88	0.91	0.65	0.54	0.94	0.87	0.00
Avail Cap(c_a), veh/h	172	1269	395	258	1904	593	472	795	356	859	1192	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	28.3	29.7	36.2	18.5	23.0	33.7	28.3	27.5	29.1	24.9	0.0
Incr Delay (d2), s/veh	0.0	5.7	241.6	19.4	0.2	14.4	21.0	1.8	1.5	17.8	7.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.2	35.1	3.0	4.7	13.0	6.0	5.2	3.7	10.8	11.6	0.0
LnGrp Delay(d),s/veh	0.0	34.0	271.3	55.6	18.7	37.4	54.6	30.1	29.0	46.9	32.2	0.0
LnGrp LOS		C	F	E	B	D	D	C	C	D	C	
Approach Vol, veh/h		1676			1590			1114			1824	
Approach Delay, s/veh		118.4			29.8			39.3			38.7	
Approach LOS		F			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	21.4	10.0	24.0	15.0	30.4	0.0	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	18.0	6.0	20.0	11.0	27.0	4.0	22.0
Max Q Clear Time (g_c+I1), s	20.4	12.3	6.9	22.0	11.8	23.7	0.0	26.6
Green Ext Time (p_c), s	0.0	4.4	0.0	0.0	0.0	2.7	0.0	0.0

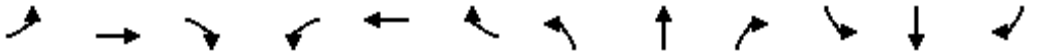
Intersection Summary	
HCM 2010 Ctrl Delay	58.0
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	178	46	117	68	515	22	578	96	920	903	7
Future Volume (veh/h)	31	178	46	117	68	515	22	578	96	920	903	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	31	178	46	117	68	515	22	578	96	920	903	7
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	746	334	192	852	381	69	750	336	932	1638	733
Arrive On Green	0.03	0.21	0.21	0.06	0.24	0.24	0.02	0.21	0.21	0.27	0.47	0.47
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	31	178	46	117	68	515	22	578	96	920	903	7
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.6	2.8	1.6	2.2	1.0	16.0	0.4	10.2	3.4	17.7	12.2	0.2
Cycle Q Clear(g_c), s	0.6	2.8	1.6	2.2	1.0	16.0	0.4	10.2	3.4	17.7	12.2	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	746	334	192	852	381	69	750	336	932	1638	733
V/C Ratio(X)	0.35	0.24	0.14	0.61	0.08	1.35	0.32	0.77	0.29	0.99	0.55	0.01
Avail Cap(c_a), veh/h	207	852	381	207	852	381	207	852	381	932	1638	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	21.5	21.0	30.3	19.2	24.9	31.8	24.3	21.7	23.8	12.6	9.4
Incr Delay (d2), s/veh	2.3	0.2	0.2	4.5	0.0	174.5	2.7	3.8	0.5	26.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.4	0.7	1.2	0.5	25.3	0.2	5.3	1.5	11.6	5.9	0.1
LnGrp Delay(d),s/veh	33.8	21.6	21.2	34.9	19.3	199.4	34.5	28.2	22.1	50.0	13.0	9.4
LnGrp LOS	C	C	C	C	B	F	C	C	C	D	B	A
Approach Vol, veh/h		255			700			696			1830	
Approach Delay, s/veh		23.0			154.4			27.6			31.6	
Approach LOS		C			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	18.1	7.7	18.0	5.3	34.8	5.7	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	16.0	4.0	16.0	4.0	30.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	19.7	12.2	4.2	4.8	2.4	14.2	2.6	18.0
Green Ext Time (p_c), s	0.0	1.9	0.0	3.0	0.0	9.4	0.0	0.0

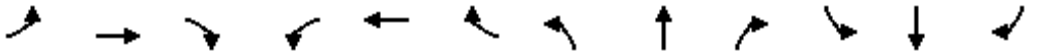
Intersection Summary	
HCM 2010 Ctrl Delay	54.9
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	315	322	28	175	116	144	334	48	190	481	69
Future Volume (veh/h)	85	315	322	28	175	116	144	334	48	190	481	69
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	85	315	322	28	175	116	144	334	48	190	481	69
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	198	990	443	89	879	393	253	857	383	313	919	411
Arrive On Green	0.06	0.28	0.28	0.03	0.25	0.25	0.07	0.24	0.24	0.09	0.26	0.26
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	85	315	322	28	175	116	144	334	48	190	481	69
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	1.1	3.2	8.4	0.4	1.8	2.7	1.8	3.6	1.1	2.4	5.3	1.5
Cycle Q Clear(g_c), s	1.1	3.2	8.4	0.4	1.8	2.7	1.8	3.6	1.1	2.4	5.3	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	198	990	443	89	879	393	253	857	383	313	919	411
V/C Ratio(X)	0.43	0.32	0.73	0.31	0.20	0.30	0.57	0.39	0.13	0.61	0.52	0.17
Avail Cap(c_a), veh/h	302	1244	556	302	1244	556	378	1322	591	529	1477	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	12.7	14.6	21.6	13.3	13.7	20.2	14.2	13.3	19.7	14.2	12.8
Incr Delay (d2), s/veh	1.5	0.2	3.6	2.0	0.1	0.4	2.0	0.3	0.1	1.9	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.6	4.0	0.2	0.9	1.2	0.9	1.8	0.5	1.2	2.6	0.7
LnGrp Delay(d),s/veh	22.0	12.9	18.2	23.5	13.4	14.1	22.2	14.5	13.4	21.6	14.7	13.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		722			319			526			740	
Approach Delay, s/veh		16.3			14.6			16.5			16.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	15.0	5.2	16.7	7.3	15.8	6.6	15.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	17.0	4.0	16.0	5.0	19.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	4.4	5.6	2.4	10.4	3.8	7.3	3.1	4.7
Green Ext Time (p_c), s	0.1	4.5	0.0	2.4	0.0	4.5	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1096	530	55	1041	85	196	47	31	202	181	51
Future Volume (veh/h)	52	1096	530	55	1041	85	196	47	31	202	181	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	52	1096	530	55	1041	85	196	47	31	202	181	51
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	1390	622	71	1395	624	242	263	223	249	271	230
Arrive On Green	0.04	0.40	0.40	0.04	0.40	0.40	0.14	0.14	0.14	0.14	0.15	0.15
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	52	1096	530	55	1041	85	196	47	31	202	181	51
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.7	15.8	17.7	1.8	14.6	2.0	6.2	1.3	1.0	6.4	5.3	1.6
Cycle Q Clear(g_c), s	1.7	15.8	17.7	1.8	14.6	2.0	6.2	1.3	1.0	6.4	5.3	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	1390	622	71	1395	624	242	263	223	249	271	230
V/C Ratio(X)	0.75	0.79	0.85	0.77	0.75	0.14	0.81	0.18	0.14	0.81	0.67	0.22
Avail Cap(c_a), veh/h	122	1402	627	122	1402	627	275	545	464	306	577	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	15.2	15.8	27.3	14.8	11.0	24.1	21.7	21.6	23.9	23.2	21.6
Incr Delay (d2), s/veh	15.2	3.1	10.9	15.8	2.2	0.1	15.0	0.3	0.3	12.6	2.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.2	9.5	1.2	7.4	0.9	4.0	0.7	0.4	4.0	2.9	0.7
LnGrp Delay(d),s/veh	42.6	18.3	26.7	43.1	17.0	11.1	39.0	22.0	21.9	36.5	26.0	22.1
LnGrp LOS	D	B	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		1678			1181			274			434	
Approach Delay, s/veh		21.7			17.8			34.2			30.4	
Approach LOS		C			B			C			C	

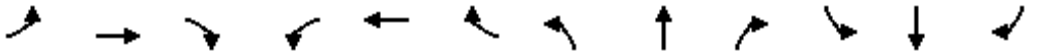
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	12.2	6.3	26.8	11.9	12.4	6.3	26.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	17.0	4.0	23.0	9.0	18.0	4.0	23.0
Max Q Clear Time (g_c+I1), s	8.4	3.3	3.8	19.7	8.2	7.3	3.7	16.6
Green Ext Time (p_c), s	0.1	1.3	0.0	3.1	0.0	1.1	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	348	185	69	242	37	227	72	37	212	196	20
Future Volume (veh/h)	35	348	185	69	242	37	227	72	37	212	196	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	35	348	185	69	242	37	227	72	37	212	196	20
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	55	488	415	89	444	68	280	217	112	264	296	30
Arrive On Green	0.03	0.26	0.26	0.05	0.28	0.28	0.16	0.19	0.19	0.15	0.18	0.18
Sat Flow, veh/h	1757	1845	1568	1757	1563	239	1757	1150	591	1757	1647	168
Grp Volume(v), veh/h	35	348	185	69	0	279	227	0	109	212	0	216
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1802	1757	0	1740	1757	0	1815
Q Serve(g_s), s	0.9	7.9	4.6	1.8	0.0	6.1	5.8	0.0	2.5	5.4	0.0	5.1
Cycle Q Clear(g_c), s	0.9	7.9	4.6	1.8	0.0	6.1	5.8	0.0	2.5	5.4	0.0	5.1
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.34	1.00		0.09
Lane Grp Cap(c), veh/h	55	488	415	89	0	512	280	0	329	264	0	327
V/C Ratio(X)	0.64	0.71	0.45	0.77	0.00	0.54	0.81	0.00	0.33	0.80	0.00	0.66
Avail Cap(c_a), veh/h	152	637	541	152	0	622	303	0	601	303	0	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	15.4	14.2	21.7	0.0	14.0	18.8	0.0	16.3	19.0	0.0	17.7
Incr Delay (d2), s/veh	11.6	2.6	0.8	13.2	0.0	0.9	14.4	0.0	0.6	12.9	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.3	2.0	1.2	0.0	3.2	3.9	0.0	1.3	3.5	0.0	2.8
LnGrp Delay(d),s/veh	33.7	18.0	15.0	34.9	0.0	14.9	33.2	0.0	16.8	31.9	0.0	20.0
LnGrp LOS	C	B	B	C		B	C		B	C		B
Approach Vol, veh/h		568			348			336			428	
Approach Delay, s/veh		18.0			18.9			27.9			25.9	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	12.8	6.4	16.3	11.4	12.3	5.5	17.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	16.0	4.0	16.0	8.0	16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	7.4	4.5	3.8	9.9	7.8	7.1	2.9	8.1
Green Ext Time (p_c), s	0.0	1.4	0.0	2.3	0.0	1.2	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	110	559	113	97	221	260	1473	61	98	1511	328
Future Volume (veh/h)	262	110	559	113	97	221	260	1473	61	98	1511	328
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	262	110	559	113	97	221	260	1473	61	98	1511	328
Adj No. of Lanes	1	1	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	291	553	470	124	598	267	279	1661	743	150	1529	684
Arrive On Green	0.17	0.30	0.30	0.04	0.17	0.17	0.08	0.47	0.47	0.04	0.44	0.44
Sat Flow, veh/h	1757	1845	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	262	110	559	113	97	221	260	1473	61	98	1511	328
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	16.1	4.9	33.0	3.6	2.6	15.0	8.3	41.9	2.3	3.1	47.0	16.4
Cycle Q Clear(g_c), s	16.1	4.9	33.0	3.6	2.6	15.0	8.3	41.9	2.3	3.1	47.0	16.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	291	553	470	124	598	267	279	1661	743	150	1529	684
V/C Ratio(X)	0.90	0.20	1.19	0.91	0.16	0.83	0.93	0.89	0.08	0.65	0.99	0.48
Avail Cap(c_a), veh/h	319	553	470	124	598	267	279	1661	743	155	1529	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	28.7	38.5	52.8	38.9	44.0	50.2	26.2	15.8	51.7	30.7	22.1
Incr Delay (d2), s/veh	25.4	0.2	104.4	54.5	0.1	18.8	36.3	6.2	0.0	9.0	20.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	2.5	27.9	2.6	1.3	7.9	5.3	21.7	1.0	1.7	26.9	7.2
LnGrp Delay(d),s/veh	70.4	28.8	142.9	107.3	39.0	62.8	86.5	32.5	15.9	60.7	50.8	22.6
LnGrp LOS	E	C	F	F	D	E	F	C	B	E	D	C
Approach Vol, veh/h		931			431			1794			1937	
Approach Delay, s/veh		109.0			69.2			39.7			46.5	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	56.1	8.0	37.0	13.0	52.0	22.2	22.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	52.0	4.0	33.0	9.0	48.0	20.0	17.0
Max Q Clear Time (g_c+I1), s	5.1	43.9	5.6	35.0	10.3	49.0	18.1	17.0
Green Ext Time (p_c), s	0.0	7.8	0.0	0.0	0.0	0.0	0.2	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.5
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	154	0	0	350	195	0	0	0	516	0	0
Future Volume (veh/h)	0	154	0	0	350	195	0	0	0	516	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	154	0	0	350	195	0	0	0	516	0	0
Adj No. of Lanes	2	2	1	1	2	1	1	1	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	16	1201	537	8	1201	537	8	9	7	956	517	440
Arrive On Green	0.00	0.34	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.28	0.00	0.00
Sat Flow, veh/h	3408	3505	1568	1757	3505	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	0	154	0	0	350	195	0	0	0	516	0	0
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1752	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	0.0	0.6	0.0	0.0	1.5	2.0	0.0	0.0	0.0	2.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.6	0.0	0.0	1.5	2.0	0.0	0.0	0.0	2.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	16	1201	537	8	1201	537	8	9	7	956	517	440
V/C Ratio(X)	0.00	0.13	0.00	0.00	0.29	0.36	0.00	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	642	2972	1329	331	2972	1329	331	1390	1182	2569	2433	2068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.8	0.0	0.0	5.1	5.2	0.0	0.0	0.0	6.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.0	0.0	0.8	0.9	0.0	0.0	0.0	1.3	0.0	0.0
LnGrp Delay(d),s/veh	0.0	4.8	0.0	0.0	5.2	5.6	0.0	0.0	0.0	7.0	0.0	0.0
LnGrp LOS		A			A	A				A		
Approach Vol, veh/h		154			545			0			516	
Approach Delay, s/veh		4.8			5.4			0.0			7.0	
Approach LOS		A			A						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	0.0	0.0	11.3	0.0	10.0	0.0	11.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	16.0	4.0	18.0	4.0	28.0	4.0	18.0
Max Q Clear Time (g_c+I1), s	4.7	0.0	0.0	2.6	0.0	0.0	0.0	4.0
Green Ext Time (p_c), s	1.5	0.0	0.0	3.6	0.0	0.0	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	6.0
HCM 2010 LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	449	264	0	434	11	0
Future Volume (veh/h)	449	264	0	434	11	0
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	449	264	0	434	11	0
Adj No. of Lanes	1	1	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	939	798	7	939	558	256
Arrive On Green	0.51	0.51	0.00	0.51	0.16	0.00
Sat Flow, veh/h	1845	1568	1757	1845	3408	1568
Grp Volume(v), veh/h	449	264	0	434	11	0
Grp Sat Flow(s),veh/h/ln	1845	1568	1757	1845	1704	1568
Q Serve(g_s), s	3.9	2.4	0.0	3.7	0.1	0.0
Cycle Q Clear(g_c), s	3.9	2.4	0.0	3.7	0.1	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	939	798	7	939	558	256
V/C Ratio(X)	0.48	0.33	0.00	0.46	0.02	0.00
Avail Cap(c_a), veh/h	1358	1154	287	1961	2230	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	3.9	3.5	0.0	3.9	8.6	0.0
Incr Delay (d2), s/veh	0.4	0.2	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.1	0.0	1.9	0.0	0.0
LnGrp Delay(d),s/veh	4.3	3.8	0.0	4.2	8.6	0.0
LnGrp LOS	A	A		A	A	
Approach Vol, veh/h	713			434	11	
Approach Delay, s/veh	4.1			4.2	8.6	
Approach LOS	A			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		8.0	0.0	16.5				16.5
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		16.0	4.0	18.0				26.0
Max Q Clear Time (g_c+I1), s		2.1	0.0	5.9				5.7
Green Ext Time (p_c), s		0.0	0.0	5.3				6.8

Intersection Summary	
HCM 2010 Ctrl Delay	4.2
HCM 2010 LOS	A

Intersection	
Intersection Delay, s/veh	30.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	94	292	36	136	2	17	211	10	8	390	107
Future Vol, veh/h	18	94	292	36	136	2	17	211	10	8	390	107
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	18	94	292	36	136	2	17	211	10	8	390	107
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	26.2	15.4	17.1	45.9
HCM LOS	D	C	C	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	4%	21%	2%
Vol Thru, %	89%	23%	78%	77%
Vol Right, %	4%	72%	1%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	238	404	174	505
LT Vol	17	18	36	8
Through Vol	211	94	136	390
RT Vol	10	292	2	107
Lane Flow Rate	238	404	174	505
Geometry Grp	1	1	1	1
Degree of Util (X)	0.483	0.74	0.373	0.915
Departure Headway (Hd)	7.31	6.59	7.727	6.525
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	490	549	465	556
Service Time	5.381	4.646	5.804	4.581
HCM Lane V/C Ratio	0.486	0.736	0.374	0.908
HCM Control Delay	17.1	26.2	15.4	45.9
HCM Lane LOS	C	D	C	E
HCM 95th-tile Q	2.6	6.3	1.7	11.1

Intersection	
Intersection Delay, s/veh	131.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	465	0	196	354	7	15	64	137	142	263	65
Future Vol, veh/h	21	465	0	196	354	7	15	64	137	142	263	65
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	6	6	6	8	8	8	3	3	3	3	3	3
Mvmt Flow	21	465	0	196	354	7	15	64	137	142	263	65
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	126.4	194.6	27.1	109.4
HCM LOS	F	F	D	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	4%	35%	30%
Vol Thru, %	30%	96%	64%	56%
Vol Right, %	63%	0%	1%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	216	486	557	470
LT Vol	15	21	196	142
Through Vol	64	465	354	263
RT Vol	137	0	7	65
Lane Flow Rate	216	486	557	470
Geometry Grp	1	1	1	1
Degree of Util (X)	0.554	1.154	1.336	1.105
Departure Headway (Hd)	11.132	9.707	9.409	9.626
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	326	379	390	381
Service Time	9.132	7.707	7.409	7.626
HCM Lane V/C Ratio	0.663	1.282	1.428	1.234
HCM Control Delay	27.1	126.4	194.6	109.4
HCM Lane LOS	D	F	F	F
HCM 95th-tile Q	3.2	16.7	24	15.1

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	42	684	59	186	194
Future Vol, veh/h	41	42	684	59	186	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	41	42	684	59	186	194

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1183	372	0	0	743	0
Stage 1	714	-	-	-	-	-
Stage 2	469	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	179	620	-	-	854	-
Stage 1	441	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	140	620	-	-	854	-
Mov Cap-2 Maneuver	270	-	-	-	-	-
Stage 1	441	-	-	-	-	-
Stage 2	461	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.9	0	5.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	270	620	854	-
HCM Lane V/C Ratio	-	-	0.152	0.068	0.218	-
HCM Control Delay (s)	-	-	20.7	11.2	10.4	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.5	0.2	0.8	-

Intersection	
Int Delay, s/veh	85.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	576	237	682	214	275	1521
Future Vol, veh/h	576	237	682	214	275	1521
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	576	237	682	214	275	1521

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1947	448	0	0	896	0
Stage 1	789	-	-	-	-	-
Stage 2	1158	-	-	-	-	-
Critical Hdwy	5.76	7.16	-	-	5.38	-
Critical Hdwy Stg 1	6.66	-	-	-	-	-
Critical Hdwy Stg 2	6.06	-	-	-	-	-
Follow-up Hdwy	3.83	3.93	-	-	3.14	-
Pot Cap-1 Maneuver	~ 99	475	-	-	433	-
Stage 1	~ 323	-	-	-	-	-
Stage 2	~ 233	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	475	-	-	433	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	~ 323	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 350.1	0	9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	475	433	-
HCM Lane V/C Ratio	-	-	1.712	0.635	-
HCM Control Delay (s)	-	-	$ 350.1	26.7	5.8
HCM Lane LOS	-	-	F	D	A
HCM 95th %tile Q(veh)	-	-	48.5	4.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	1732	1141	25	14	30
Future Vol, veh/h	83	1732	1141	25	14	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	190	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	3	3
Mvmt Flow	83	1732	1141	25	14	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1166	0	-	0	2186	583
Stage 1	-	-	-	-	1154	-
Stage 2	-	-	-	-	1032	-
Critical Hdwy	4.22	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.26	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	573	-	-	-	38	453
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	302	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	573	-	-	-	32	453
Mov Cap-2 Maneuver	-	-	-	-	32	-
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	258	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	82.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	573	-	-	-	87
HCM Lane V/C Ratio	0.145	-	-	-	0.506
HCM Control Delay (s)	12.3	-	-	-	82.8
HCM Lane LOS	B	-	-	-	F
HCM 95th %tile Q(veh)	0.5	-	-	-	2.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	1	2	0	2	0	769	6	1	990	4
Future Vol, veh/h	2	0	1	2	0	2	0	769	6	1	990	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	0	1	2	0	2	0	769	6	1	990	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1767	1769	992	1767	1768	772	994	0	0	775	0	0
Stage 1	994	994	-	772	772	-	-	-	-	-	-	-
Stage 2	773	775	-	995	996	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	65	83	297	65	83	398	692	-	-	836	-	-
Stage 1	294	322	-	391	408	-	-	-	-	-	-	-
Stage 2	390	406	-	294	321	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	65	83	297	65	83	398	692	-	-	836	-	-
Mov Cap-2 Maneuver	65	83	-	65	83	-	-	-	-	-	-	-
Stage 1	294	321	-	391	408	-	-	-	-	-	-	-
Stage 2	388	406	-	292	320	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	47.3	38.3	0	0
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	692	-	-	88	112	836	-	-
HCM Lane V/C Ratio	-	-	-	0.034	0.036	0.001	-	-
HCM Control Delay (s)	0	-	-	47.3	38.3	9.3	0	-
HCM Lane LOS	A	-	-	E	E	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1492	0	143	1107	1	2	0	88	2	4	4
Future Vol, veh/h	4	1492	0	143	1107	1	2	0	88	2	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	90	200	-	-	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	6	6	3	3	3	3	3	3
Mvmt Flow	4	1492	0	143	1107	1	2	0	88	2	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1108	0	0	1492	0	0	2342	2894	746	2148	2894	554
Stage 1	-	-	-	-	-	-	1500	1500	-	1394	1394	-
Stage 2	-	-	-	-	-	-	842	1394	-	754	1500	-
Critical Hdwy	4.22	-	-	4.22	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.26	-	-	2.26	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	603	-	-	427	-	-	19	15	354	27	15	473
Stage 1	-	-	-	-	-	-	127	182	-	148	205	-
Stage 2	-	-	-	-	-	-	323	205	-	365	182	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	603	-	-	427	-	-	10	10	354	15	10	473
Mov Cap-2 Maneuver	-	-	-	-	-	-	10	10	-	15	10	-
Stage 1	-	-	-	-	-	-	126	181	-	147	136	-
Stage 2	-	-	-	-	-	-	207	136	-	272	181	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2	27.9	$ 349.9
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	10	354	603	-	-	427	-	-	18
HCM Lane V/C Ratio	0.2	0.249	0.007	-	-	0.335	-	-	0.556
HCM Control Delay (s)	$ 439.6	18.5	11	-	-	17.6	-	-	$ 349.9
HCM Lane LOS	F	C	B	-	-	C	-	-	F
HCM 95th %tile Q(veh)	0.5	1	0	-	-	1.5	-	-	1.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	84	1	3	3	2	142
Future Vol, veh/h	84	1	3	3	2	142
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	84	1	3	3	2	142

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	82	73	144	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	918	986	1432	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	916	986	1432	-	-	-
Mov Cap-2 Maneuver	916	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	1009	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1432	-	917	-	-
HCM Lane V/C Ratio	0.002	-	0.093	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	0	0	0	0	100
Future Vol, veh/h	49	0	0	0	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	49	0	0	0	0	100

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	50	50	100	0	-	0
Stage 1	50	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	950	1004	1483	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	950	1004	1483	-	-	-
Mov Cap-2 Maneuver	950	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1483	-	950	-	-
HCM Lane V/C Ratio	-	-	0.052	-	-
HCM Control Delay (s)	0	-	9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1000	13	328	1096	8	208
Future Vol, veh/h	1000	13	328	1096	8	208
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1000	13	328	1096	8	208

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1013	0	2211	507
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	1204	-
Critical Hdwy	-	-	4.16	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.23	-	3.53	3.33
Pot Cap-1 Maneuver	-	-	674	-	37	508
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	245	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	674	-	19	508
Mov Cap-2 Maneuver	-	-	-	-	19	-
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	126	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.5	27.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	19	508	-	-	674	-
HCM Lane V/C Ratio	0.421	0.409	-	-	0.487	-
HCM Control Delay (s)	294.1	16.9	-	-	15.3	-
HCM Lane LOS	F	C	-	-	C	-
HCM 95th %tile Q(veh)	1.2	2	-	-	2.7	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	148
Future Vol, veh/h	0	0	0	0	0	148
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	148

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	148	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	842	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	877	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	842	-	-	-	-	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Intersection	
Int Delay, s/veh	17.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	338	174	14	80	298	340
Future Vol, veh/h	338	174	14	80	298	340
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	338	174	14	80	298	340

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	406	298	298	0	-	0
Stage 1	298	-	-	-	-	-
Stage 2	108	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	599	739	1258	-	-	0
Stage 1	751	-	-	-	-	0
Stage 2	914	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	592	739	1258	-	-	-
Mov Cap-2 Maneuver	592	-	-	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	903	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	30	1.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	1258	-	635	-
HCM Lane V/C Ratio	0.011	-	0.806	-
HCM Control Delay (s)	7.9	0	30	-
HCM Lane LOS	A	A	D	-
HCM 95th %tile Q(veh)	0	-	8.2	-

Intersection	
Int Delay, s/veh	129

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	119	257	128	107	587	273
Future Vol, veh/h	119	257	128	107	587	273
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	150	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	119	257	128	107	587	273

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1575	128	0	0	128	0
Stage 1	128	-	-	-	-	-
Stage 2	1447	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	120	919	-	-	1452	-
Stage 1	895	-	-	-	-	-
Stage 2	215	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 71	919	-	-	1452	-
Mov Cap-2 Maneuver	~ 71	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	128	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 490.4	0	6.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	192	1452	-
HCM Lane V/C Ratio	-	-	1.958	0.404	-
HCM Control Delay (s)	-	-	$ 490.4	9.2	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	28	2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	86.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	10	713	41	1	489	1	8	110	0	0	272	74
Future Vol, veh/h	10	713	41	1	489	1	8	110	0	0	272	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	10	713	41	1	489	1	8	110	0	0	272	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	754	0	0	1419	1246	734	1301	1266	490
Stage 1	-	-	-	-	-	-	754	754	-	492	492	-
Stage 2	-	-	-	-	-	-	665	492	-	809	774	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1043	-	-	821	-	-	111	169	410	134	~ 164	566
Stage 1	-	-	-	-	-	-	392	408	-	547	538	-
Stage 2	-	-	-	-	-	-	440	538	-	366	400	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1043	-	-	821	-	-	-	166	410	62	~ 161	566
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	166	-	62	~ 161	-
Stage 1	-	-	-	-	-	-	385	401	-	538	537	-
Stage 2	-	-	-	-	-	-	188	537	-	261	393	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0		$ 431.5
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1043	-	-	821	-	-	190
HCM Lane V/C Ratio	-	0.01	-	-	0.001	-	-	1.821
HCM Control Delay (s)	-	8.5	0	-	9.4	0	-	$ 431.5
HCM Lane LOS	-	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	24.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Cumulative Plus All Projects

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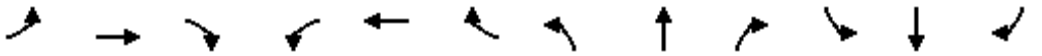
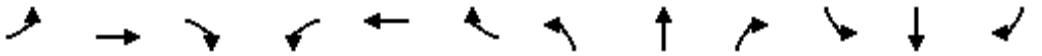


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	0	356	115	405	1264	0	1770	795	0	1906	488
Future Volume (vph)	170	0	356	115	405	1264	0	1770	795	0	1906	488
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00		0.88	0.86	0.81	0.91		0.91	1.00		0.86	1.00
Frt	1.00		0.85	1.00	0.91	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1752		2760	2985	2691	1413		4988	1553		6285	1553
Flt Permitted	0.95		1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	1752		2760	2985	2691	1413		4988	1553		6285	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	170	0	356	115	405	1264	0	1770	795	0	1906	488
RTOR Reduction (vph)	0	0	309	0	42	42	0	0	0	0	0	171
Lane Group Flow (vph)	170	0	47	103	1007	590	0	1770	795	0	1906	317
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm	Split	NA	Perm		NA	Free		NA	Perm
Protected Phases	4			8	8			2			6	
Permitted Phases			4			8			Free			6
Actuated Green, G (s)	14.2		14.2	43.0	43.0	43.0		39.0	108.2		39.0	39.0
Effective Green, g (s)	14.2		14.2	43.0	43.0	43.0		39.0	108.2		39.0	39.0
Actuated g/C Ratio	0.13		0.13	0.40	0.40	0.40		0.36	1.00		0.36	0.36
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	229		362	1186	1069	561		1797	1553		2265	559
v/s Ratio Prot	c0.10			0.03	0.37			c0.35			0.30	
v/s Ratio Perm			0.02			c0.42			0.51			0.20
v/c Ratio	0.74		0.13	0.09	1.11dr	1.05		0.98	0.51		0.84	0.57
Uniform Delay, d1	45.2		41.5	20.3	31.4	32.6		34.3	0.0		31.8	27.8
Progression Factor	1.00		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	12.2		0.2	0.0	15.6	52.5		17.6	1.2		3.0	1.3
Delay (s)	57.5		41.7	20.4	47.0	85.1		51.9	1.2		34.8	29.1
Level of Service	E		D	C	D	F		D	A		C	C
Approach Delay (s)		46.8			59.0			36.2			33.6	
Approach LOS		D			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	41.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	108.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	105.8%	ICU Level of Service	G
Analysis Period (min)	15		

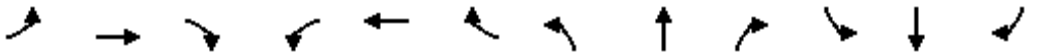
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group



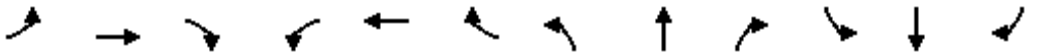
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	534	0	1711	0	0	0	0	1984	688	0	1221	682
Future Volume (vph)	534	0	1711	0	0	0	0	1984	688	0	1221	682
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	534	0	1711	0	0	0	0	1984	688	0	1221	682
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	534	0	1700	0	0	0	0	1984	688	0	1221	682
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	66.0		66.0					46.0	120.0		46.0	120.0
Effective Green, g (s)	66.0		66.0					46.0	120.0		46.0	120.0
Actuated g/C Ratio	0.55		0.55					0.38	1.00		0.38	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1851		1503					1912	1553		1912	1553
v/s Ratio Prot								c0.40			0.24	
v/s Ratio Perm	0.16		c0.62						0.44			0.44
v/c Ratio	0.29		1.13					1.04	0.44		0.64	0.44
Uniform Delay, d1	14.4		27.0					37.0	0.0		30.2	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1		67.9					31.1	0.9		0.7	0.9
Delay (s)	14.5		94.9					68.1	0.9		30.9	0.9
Level of Service	B		F					E	A		C	A
Approach Delay (s)		75.8			0.0			50.8			20.2	
Approach LOS		E			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	50.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



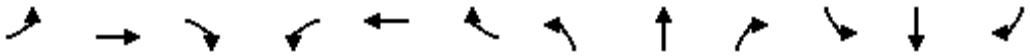
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	527	162	90	1149	805	577	1716	87	1265	1678	95
Future Volume (vph)	149	527	162	90	1149	805	577	1716	87	1265	1678	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3349		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3349		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	149	527	162	90	1149	805	577	1716	87	1265	1678	95
RTOR Reduction (vph)	0	22	0	0	0	479	0	0	60	0	0	56
Lane Group Flow (vph)	149	667	0	90	1149	326	577	1716	27	1265	1678	39
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	4.0	32.4		8.6	37.0	37.0	25.7	43.0	43.0	40.0	57.3	57.3
Effective Green, g (s)	4.0	32.4		8.6	37.0	37.0	25.7	43.0	43.0	40.0	57.3	57.3
Actuated g/C Ratio	0.03	0.23		0.06	0.26	0.26	0.18	0.31	0.31	0.29	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	96	775		206	917	722	618	1532	476	962	2041	635
v/s Ratio Prot	c0.04	0.20		0.03	c0.33		0.17	c0.34		c0.38	0.34	
v/s Ratio Perm						0.12			0.02			0.03
v/c Ratio	1.55	0.86		0.44	1.25	0.45	0.93	1.12	0.06	1.31	0.82	0.06
Uniform Delay, d1	68.0	51.6		63.4	51.5	43.0	56.3	48.5	34.2	50.0	36.8	25.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	293.1	9.7		1.5	122.9	0.5	21.3	63.4	0.0	149.2	2.8	0.0
Delay (s)	361.1	61.3		64.8	174.4	43.5	77.6	111.9	34.2	199.2	39.6	25.1
Level of Service	F	E		E	F	D	E	F	C	F	D	C
Approach Delay (s)		114.6			118.0			100.7			105.6	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	108.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	118.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	290	1284	5	548	27	1256	12	2	20	17	129
Future Volume (vph)	83	290	1284	5	548	27	1256	12	2	20	17	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1623	1524		1796	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1623	1524		1796	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	83	290	1284	5	548	27	1256	12	2	20	17	129
RTOR Reduction (vph)	0	0	258	0	0	21	0	0	1	0	0	118
Lane Group Flow (vph)	83	290	1026	5	548	6	628	640	1	0	37	11
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	4.0	22.5	65.5	0.8	19.3	19.3	43.0	43.0	43.0		7.4	7.4
Effective Green, g (s)	4.0	22.5	65.5	0.8	19.3	19.3	43.0	43.0	43.0		7.4	7.4
Actuated g/C Ratio	0.04	0.25	0.73	0.01	0.22	0.22	0.48	0.48	0.48		0.08	0.08
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	77	870	1203	15	746	334	775	778	730		148	129
v/s Ratio Prot	c0.05	0.08	c0.41	0.00	0.16		0.39	0.39			c0.02	
v/s Ratio Perm			0.25			0.00			0.00			0.01
v/c Ratio	1.08	0.33	0.85	0.33	0.73	0.02	0.81	0.82	0.00		0.25	0.08
Uniform Delay, d1	42.9	27.5	8.7	44.2	32.8	27.7	19.9	20.1	12.2		38.6	38.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	125.5	0.2	6.0	12.7	3.8	0.0	6.4	7.0	0.0		0.9	0.3
Delay (s)	168.3	27.7	14.7	56.9	36.6	27.8	26.3	27.1	12.2		39.4	38.3
Level of Service	F	C	B	E	D	C	C	C	B		D	D
Approach Delay (s)		24.7			36.3			26.7			38.5	
Approach LOS		C			D			C			D	

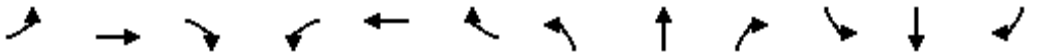
Intersection Summary			
HCM 2000 Control Delay	27.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	89.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	96.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	192	93	410	325	70	285	183	366	120	165	34
Future Volume (vph)	26	192	93	410	325	70	285	183	366	120	165	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		0.98	
Satd. Flow (prot)	1752	3505	1568	1752	3412		1665	1733	1568		3385	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		0.98	
Satd. Flow (perm)	1752	3505	1568	1752	3412		1665	1733	1568		3385	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	192	93	410	325	70	285	183	366	120	165	34
RTOR Reduction (vph)	0	0	78	0	18	0	0	0	295	0	10	0
Lane Group Flow (vph)	26	192	15	410	377	0	231	237	71	0	309	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	1.8	12.1	12.1	21.2	31.5		14.7	14.7	14.7		11.9	
Effective Green, g (s)	1.8	12.1	12.1	21.2	31.5		14.7	14.7	14.7		11.9	
Actuated g/C Ratio	0.02	0.16	0.16	0.28	0.42		0.19	0.19	0.19		0.16	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	41	558	249	489	1416		322	335	303		530	
v/s Ratio Prot	0.01	c0.05		c0.23	0.11		c0.14	0.14			c0.09	
v/s Ratio Perm			0.01						0.05			
v/c Ratio	0.63	0.34	0.06	0.84	0.27		0.72	0.71	0.23		0.58	
Uniform Delay, d1	36.7	28.4	27.1	25.7	14.6		28.7	28.6	25.8		29.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	27.9	0.4	0.1	11.9	0.1		7.4	6.7	0.4		1.6	
Delay (s)	64.6	28.7	27.2	37.7	14.7		36.1	35.3	26.2		31.3	
Level of Service	E	C	C	D	B		D	D	C		C	
Approach Delay (s)		31.3			26.4			31.5			31.3	
Approach LOS		C			C			C			C	

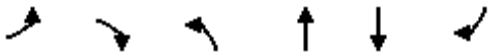
Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	75.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	2345	133	27	2398	8	517	42	211	7	16	55
Future Volume (vph)	14	2345	133	27	2398	8	517	42	211	7	16	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.4	6.4	3.5	6.4	6.4	4.4	4.4	4.4	3.5	3.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1703	3406	1524	1703	3406	1524	1752	1845	1568	1752	1630	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1703	3406	1524	1703	3406	1524	1752	1845	1568	1752	1630	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	14	2345	133	27	2398	8	517	42	211	7	16	55
RTOR Reduction (vph)	0	0	38	0	0	3	0	0	65	0	45	0
Lane Group Flow (vph)	14	2345	95	27	2398	5	517	42	146	7	26	0
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Actuated Green, G (s)	1.5	80.3	80.3	2.6	81.4	81.4	27.7	35.5	35.5	0.7	8.5	
Effective Green, g (s)	1.5	80.3	80.3	2.6	81.4	81.4	27.7	35.5	35.5	0.7	8.5	
Actuated g/C Ratio	0.01	0.59	0.59	0.02	0.59	0.59	0.20	0.26	0.26	0.01	0.06	
Clearance Time (s)	3.5	6.4	6.4	3.5	6.4	6.4	4.4	4.4	4.4	3.5	3.5	
Vehicle Extension (s)	2.4	4.5	4.5	2.4	4.5	4.5	2.4	2.8	2.8	2.4	2.8	
Lane Grp Cap (vph)	18	1997	893	32	2025	906	354	478	406	8	101	
v/s Ratio Prot	0.01	0.69		c0.02	c0.70		c0.30	0.02		0.00	0.02	
v/s Ratio Perm			0.06			0.00			c0.09			
v/c Ratio	0.78	1.17	0.11	0.84	1.18	0.01	1.46	0.09	0.36	0.88	0.26	
Uniform Delay, d1	67.5	28.3	12.5	66.9	27.8	11.3	54.6	38.4	41.4	68.1	61.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	103.9	84.1	0.1	94.4	88.3	0.0	222.2	0.1	0.5	236.6	1.2	
Delay (s)	171.5	112.4	12.6	161.3	116.0	11.3	276.8	38.5	41.9	304.6	62.4	
Level of Service	F	F	B	F	F	B	F	D	D	F	E	
Approach Delay (s)		107.4			116.2			199.5			84.1	
Approach LOS		F			F			F			F	

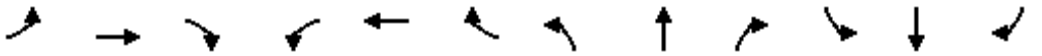
Intersection Summary			
HCM 2000 Control Delay	123.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	136.9	Sum of lost time (s)	17.8
Intersection Capacity Utilization	110.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1027	121	101	1379	997	1013
Future Volume (vph)	1027	121	101	1379	997	1013
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3400	1568	3400	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3400	1568	3400	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1027	121	101	1379	997	1013
RTOR Reduction (vph)	0	81	0	0	0	552
Lane Group Flow (vph)	1027	40	101	1379	997	461
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	19.5	19.5	3.1	31.0	23.9	23.9
Effective Green, g (s)	19.5	19.5	3.1	31.0	23.9	23.9
Actuated g/C Ratio	0.33	0.33	0.05	0.53	0.41	0.41
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1133	522	180	1857	1431	640
v/s Ratio Prot	c0.30		0.03	c0.39	0.28	
v/s Ratio Perm		0.03				0.29
v/c Ratio	0.91	0.08	0.56	0.74	0.70	0.72
Uniform Delay, d1	18.6	13.3	27.0	10.7	14.3	14.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.4	0.1	4.0	1.6	1.5	3.9
Delay (s)	29.0	13.4	31.0	12.3	15.8	18.4
Level of Service	C	B	C	B	B	B
Approach Delay (s)	27.4			13.6	17.1	
Approach LOS	C			B	B	

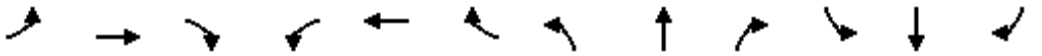
Intersection Summary			
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	58.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



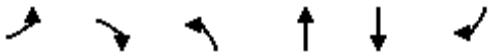
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	633	371	167	648	19	678	48	73	28	144	39
Future Volume (vph)	21	633	371	167	648	19	678	48	73	28	144	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3157		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3157		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	633	371	167	648	19	678	48	73	28	144	39
RTOR Reduction (vph)	0	0	243	0	0	11	0	54	0	0	0	36
Lane Group Flow (vph)	21	633	128	167	648	8	678	67	0	28	144	3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	1.3	27.8	27.8	6.3	32.7	32.7	21.0	21.0		6.7	6.7	6.7
Effective Green, g (s)	1.3	27.8	27.8	6.3	32.7	32.7	21.0	21.0		6.7	6.7	6.7
Actuated g/C Ratio	0.02	0.34	0.34	0.08	0.41	0.41	0.26	0.26		0.08	0.08	0.08
Clearance Time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Vehicle Extension (s)	1.0	4.9	4.9	1.0	4.1	4.1	2.0	2.0		1.0	1.0	1.0
Lane Grp Cap (vph)	28	1208	540	265	1422	636	877	822		145	291	130
v/s Ratio Prot	0.01	c0.18		c0.05	c0.18		c0.20	0.02		0.02	c0.04	
v/s Ratio Perm			0.08			0.00						0.00
v/c Ratio	0.75	0.52	0.24	0.63	0.46	0.01	0.77	0.08		0.19	0.49	0.02
Uniform Delay, d1	39.5	21.1	18.8	36.0	17.5	14.3	27.6	22.5		34.4	35.3	33.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	65.7	0.8	0.5	3.6	0.3	0.0	3.9	0.0		0.2	0.5	0.0
Delay (s)	105.2	21.9	19.3	39.6	17.8	14.3	31.5	22.5		34.7	35.8	34.0
Level of Service	F	C	B	D	B	B	C	C		C	D	C
Approach Delay (s)		22.6			22.1			30.1			35.3	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	25.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	80.6	Sum of lost time (s)	22.9
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	661	0	1768	0	0	0	0	1829	1424	0	1398	287
Future Volume (vph)	661	0	1768	0	0	0	0	1829	1424	0	1398	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	661	0	1768	0	0	0	0	1829	1424	0	1398	287
RTOR Reduction (vph)	0	0	8	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	661	0	1760	0	0	0	0	1829	1424	0	1398	287
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	72.6		72.6					45.9	130.0		46.4	130.0
Effective Green, g (s)	72.6		72.6					45.9	130.0		46.4	130.0
Actuated g/C Ratio	0.56		0.56					0.35	1.00		0.36	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1880		1526					1761	1553		1780	1553
v/s Ratio Prot								c0.37			0.28	
v/s Ratio Perm	0.20		c0.64						0.92			0.18
v/c Ratio	0.35		1.15					1.04	0.92		0.79	0.18
Uniform Delay, d1	15.8		28.7					42.0	0.0		37.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0		77.0					32.2	10.1		2.2	0.3
Delay (s)	15.8		105.7					74.3	10.1		39.5	0.3
Level of Service	B		F					E	B		D	A
Approach Delay (s)		81.2			0.0			46.2			32.8	
Approach LOS		F			A			D			C	

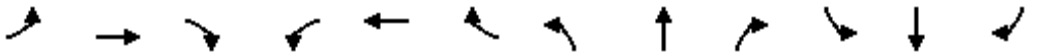
Intersection Summary			
HCM 2000 Control Delay	54.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	98.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	967	23	53	969	338	1003
Future Volume (vph)	967	23	53	969	338	1003
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1568	1752	1845	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1568	1752	1845	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	967	23	53	969	338	1003
RTOR Reduction (vph)	0	7	0	0	0	597
Lane Group Flow (vph)	967	16	53	969	338	406
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	61.0	61.0	4.8	61.8	53.0	53.0
Effective Green, g (s)	61.0	61.0	4.8	61.8	53.0	53.0
Actuated g/C Ratio	0.47	0.47	0.04	0.47	0.41	0.41
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	817	731	64	871	1420	635
v/s Ratio Prot	c0.55		0.03	c0.53	0.10	
v/s Ratio Perm		0.01				0.26
v/c Ratio	1.18	0.02	0.83	1.11	0.24	0.64
Uniform Delay, d1	34.9	18.8	62.6	34.5	25.6	31.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	95.0	0.0	56.0	66.2	0.1	2.2
Delay (s)	129.9	18.8	118.6	100.7	25.7	33.4
Level of Service	F	B	F	F	C	C
Approach Delay (s)	127.3			101.7	31.5	
Approach LOS	F			F	C	

Intersection Summary			
HCM 2000 Control Delay	81.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	130.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.2%	ICU Level of Service	H
Analysis Period (min)	15		

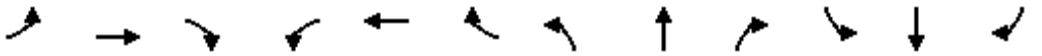
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	373	2	16	8	1	1	39	637	2	0	237	212
Future Volume (vph)	373	2	16	8	1	1	39	637	2	0	237	212
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.95			0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1665	1670	1568	1752	1706		1752	3503			3505	1568
Flt Permitted	0.95	0.95	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1665	1670	1568	1752	1706		1752	3503			3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	373	2	16	8	1	1	39	637	2	0	237	212
RTOR Reduction (vph)	0	0	12	0	1	0	0	0	0	0	0	143
Lane Group Flow (vph)	186	189	4	8	1	0	39	639	0	0	237	69
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	10.2	10.2	10.2	0.9	0.9		1.3	19.1			13.8	13.8
Effective Green, g (s)	10.2	10.2	10.2	0.9	0.9		1.3	19.1			13.8	13.8
Actuated g/C Ratio	0.24	0.24	0.24	0.02	0.02		0.03	0.45			0.33	0.33
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	402	403	378	37	36		53	1585			1146	512
v/s Ratio Prot	0.11	c0.11		c0.00	0.00		0.02	c0.18			0.07	
v/s Ratio Perm			0.00									0.04
v/c Ratio	0.46	0.47	0.01	0.22	0.03		0.74	0.40			0.21	0.14
Uniform Delay, d1	13.7	13.7	12.2	20.3	20.2		20.3	7.7			10.2	10.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.8	0.9	0.0	2.9	0.3		41.0	0.2			0.1	0.1
Delay (s)	14.5	14.5	12.2	23.2	20.5		61.2	7.9			10.3	10.1
Level of Service	B	B	B	C	C		E	A			B	B
Approach Delay (s)		14.4			22.7			11.0			10.2	
Approach LOS		B			C			B			B	

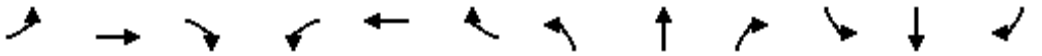
Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	42.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



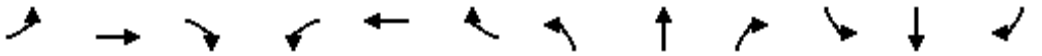
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1153	0	412	0	1196	481	0	1043	367
Future Volume (vph)	0	0	0	1153	0	412	0	1196	481	0	1043	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.92			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1559			4988	1553		4988	1553
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1559			4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	1153	0	412	0	1196	481	0	1043	367
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	807	743	0	0	1196	481	0	1043	367
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA			NA	Free		NA	Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				30.1	30.1			16.1	55.9		16.1	55.9
Effective Green, g (s)				30.1	30.1			16.1	55.9		16.1	55.9
Actuated g/C Ratio				0.54	0.54			0.29	1.00		0.29	1.00
Clearance Time (s)				4.9	4.9			4.8			4.8	
Vehicle Extension (s)				1.0	1.0			1.0			1.0	
Lane Grp Cap (vph)				887	839			1436	1553		1436	1553
v/s Ratio Prot								c0.24			0.21	
v/s Ratio Perm				c0.49	0.48				0.31			0.24
v/c Ratio				0.91	0.89			0.83	0.31		0.73	0.24
Uniform Delay, d1				11.7	11.4			18.6	0.0		17.9	0.0
Progression Factor				1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2				12.8	10.7			4.1	0.5		1.6	0.4
Delay (s)				24.4	22.1			22.8	0.5		19.5	0.4
Level of Service				C	C			C	A		B	A
Approach Delay (s)		0.0			23.3			16.4			14.5	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	55.9	Sum of lost time (s)	9.7
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



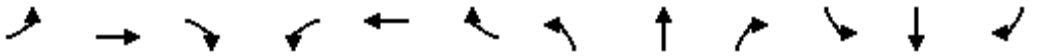
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	393	0	1105	0	0	0	0	1335	609	0	1804	344
Future Volume (vph)	393	0	1105	0	0	0	0	1335	609	0	1804	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.86	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1425	1475					4988	1553		4988	1553
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1425	1475					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	393	0	1105	0	0	0	0	1335	609	0	1804	344
RTOR Reduction (vph)	0	21	21	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	354	548	554	0	0	0	0	1335	609	0	1804	344
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm					NA	Free		NA	Free
Protected Phases		4						2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	23.7	23.7	23.7					23.9	57.6		24.0	57.6
Effective Green, g (s)	23.7	23.7	23.7					23.9	57.6		24.0	57.6
Actuated g/C Ratio	0.41	0.41	0.41					0.41	1.00		0.42	1.00
Clearance Time (s)	5.1	5.1	5.1					4.9			4.8	
Vehicle Extension (s)	1.0	1.0	1.0					1.0			1.0	
Lane Grp Cap (vph)	678	586	606					2069	1553		2078	1553
v/s Ratio Prot								0.27			c0.36	
v/s Ratio Perm	0.21	0.38	0.38						0.39			0.22
v/c Ratio	0.52	0.94	0.91					0.65	0.39		0.87	0.22
Uniform Delay, d1	12.7	16.2	16.0					13.5	0.0		15.4	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.3	22.2	18.1					0.5	0.7		4.0	0.3
Delay (s)	13.0	38.4	34.1					14.0	0.7		19.4	0.3
Level of Service	B	D	C					B	A		B	A
Approach Delay (s)		30.8			0.0			9.8			16.3	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	57.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



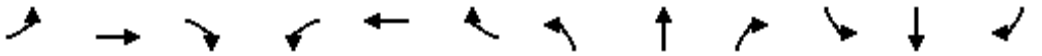
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1303	0	212	0	850	971	0	1029	1378
Future Volume (vph)	0	0	0	1303	0	212	0	850	971	0	1029	1378
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		5036	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	1303	0	212	0	850	971	0	1029	1378
RTOR Reduction (vph)	0	0	0	0	0	16	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1303	0	196	0	850	971	0	1029	1378
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				21.9		21.9		13.9	47.2		13.9	47.2
Effective Green, g (s)				21.9		21.9		13.9	47.2		13.9	47.2
Actuated g/C Ratio				0.46		0.46		0.29	1.00		0.29	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1577		727		1483	1568		1483	1568
v/s Ratio Prot								0.17			0.20	
v/s Ratio Perm				0.38		0.13			0.62			c0.88
v/c Ratio				0.83		0.27		0.57	0.62		0.69	0.88
Uniform Delay, d1				11.0		7.8		14.1	0.0		14.8	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				3.5		0.1		0.3	1.8		1.2	7.3
Delay (s)				14.5		7.8		14.5	1.8		15.9	7.3
Level of Service				B		A		B	A		B	A
Approach Delay (s)		0.0			13.6			7.7			11.0	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	47.2	Sum of lost time (s)	11.4
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



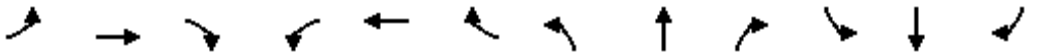
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	171	883	1656	0	0	87	0	3310	9	0	2159	184
Future Volume (vph)	171	883	1656	0	0	87	0	3310	9	0	2159	184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		0.86			0.91	1.00
Frt	1.00	0.93	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	2943	1427			2733		6343			5036	1568
Flt Permitted	0.95	1.00	1.00			1.00		1.00			1.00	1.00
Satd. Flow (perm)	1595	2943	1427			2733		6343			5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	171	883	1656	0	0	87	0	3310	9	0	2159	184
RTOR Reduction (vph)	0	1	19	0	0	85	0	0	0	0	0	45
Lane Group Flow (vph)	154	1727	809	0	0	2	0	3319	0	0	2159	139
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA			NA	custom
Protected Phases	4	4				1		2			6	
Permitted Phases			4									2
Actuated Green, G (s)	69.0	69.0	69.0			4.0		65.0			73.0	65.0
Effective Green, g (s)	69.0	69.0	69.0			4.0		65.0			73.0	65.0
Actuated g/C Ratio	0.46	0.46	0.46			0.03		0.43			0.49	0.43
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	733	1353	656			72		2748			2450	679
v/s Ratio Prot	0.10	c0.59				0.00		c0.52			c0.43	
v/s Ratio Perm			0.57									0.09
v/c Ratio	0.21	1.28	1.23			0.03		1.21			0.88	0.21
Uniform Delay, d1	24.2	40.5	40.5			71.1		42.5			34.6	26.4
Progression Factor	1.00	1.00	1.00			1.00		1.00			1.00	1.00
Incremental Delay, d2	0.1	130.2	117.6			0.2		97.2			4.1	0.2
Delay (s)	24.4	170.7	158.1			71.3		139.7			38.7	26.6
Level of Service	C	F	F			E		F			D	C
Approach Delay (s)		158.6			71.3			139.7			37.7	
Approach LOS		F			E			F			D	

Intersection Summary			
HCM 2000 Control Delay	116.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	204	0	515	0	2845	254	0	1938	2219
Future Volume (vph)	0	0	0	204	0	515	0	2845	254	0	1938	2219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	204	0	515	0	2845	254	0	1938	2219
RTOR Reduction (vph)	0	0	0	0	0	30	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	204	0	485	0	2845	254	0	1938	2219
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				11.9		11.9		37.8	58.0		37.5	58.0
Effective Green, g (s)				11.9		11.9		37.8	58.0		37.5	58.0
Actuated g/C Ratio				0.21		0.21		0.65	1.00		0.65	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				677		550		3250	1553		3225	1553
v/s Ratio Prot								0.57			0.39	
v/s Ratio Perm				0.06		0.18			0.16			c1.43
v/c Ratio				0.30		0.88		0.88	0.16		0.60	1.43
Uniform Delay, d1				19.5		22.4		8.2	0.0		5.9	29.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.1		14.9		2.8	0.2		0.2	196.8
Delay (s)				19.6		37.3		11.0	0.2		6.1	225.8
Level of Service				B		D		B	A		A	F
Approach Delay (s)		0.0			32.3			10.1			123.4	
Approach LOS		A			C			B			F	

Intersection Summary			
HCM 2000 Control Delay	71.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.68		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	8.6
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

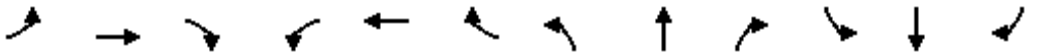


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	936	0	727	0	0	0	0	2171	401	0	1789	351
Future Volume (vph)	936	0	727	0	0	0	0	2171	401	0	1789	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	936	0	727	0	0	0	0	2171	401	0	1789	351
RTOR Reduction (vph)	0	0	32	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	936	0	695	0	0	0	0	2171	401	0	1789	351
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	13.9		13.9					22.2	44.4		21.9	44.4
Effective Green, g (s)	13.9		13.9					22.2	44.4		21.9	44.4
Actuated g/C Ratio	0.31		0.31					0.50	1.00		0.49	1.00
Clearance Time (s)	3.5		3.5					4.8			5.1	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1532		855					3142	1553		2460	1553
v/s Ratio Prot								0.35			c0.36	
v/s Ratio Perm	0.19		c0.25						0.26			0.23
v/c Ratio	0.61		0.81					0.69	0.26		0.73	0.23
Uniform Delay, d1	13.0		14.1					8.5	0.0		8.9	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.5		5.7					0.5	0.4		0.9	0.3
Delay (s)	13.5		19.7					9.0	0.4		9.8	0.3
Level of Service	B		B					A	A		A	A
Approach Delay (s)		16.2			0.0			7.7			8.3	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	44.4	Sum of lost time (s)	8.6
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

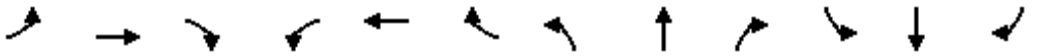
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	462	501	2340	141	77	1132
Future Volume (vph)	462	501	2340	141	77	1132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	4988	1553	3367	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	4988	1553	3367	3471
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	462	501	2340	141	77	1132
RTOR Reduction (vph)	0	284	0	41	0	0
Lane Group Flow (vph)	462	217	2340	100	77	1132
Heavy Vehicles (%)	3%	3%	4%	4%	4%	4%
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases				6		
Actuated Green, G (s)	12.8	12.8	41.8	41.8	4.3	51.6
Effective Green, g (s)	12.8	12.8	41.8	41.8	4.3	51.6
Actuated g/C Ratio	0.17	0.17	0.56	0.56	0.06	0.69
Clearance Time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	581	267	2783	866	193	2391
v/s Ratio Prot	0.14	c0.14	c0.47		0.02	c0.33
v/s Ratio Perm				0.06		
v/c Ratio	0.80	0.81	0.84	0.12	0.40	0.47
Uniform Delay, d1	29.8	29.9	13.8	7.8	34.1	5.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.9	16.0	2.4	0.0	0.5	0.1
Delay (s)	36.7	45.9	16.1	7.8	34.5	5.4
Level of Service	D	D	B	A	C	A
Approach Delay (s)	41.5		15.7			7.3
Approach LOS	D		B			A

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



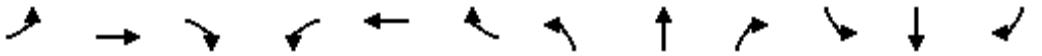
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1183	701	7	0	1122	15	8	30	5	7	6	541
Future Volume (vph)	1183	701	7	0	1122	15	8	30	5	7	6	541
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Lane Util. Factor	1.00	0.95	1.00		0.95			1.00			1.00	1.00
Frt	1.00	1.00	0.85		1.00			0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (prot)	1703	3406	1524		3431			1799			1779	1553
Flt Permitted	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (perm)	1703	3406	1524		3431			1799			1779	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1183	701	7	0	1122	15	8	30	5	7	6	541
RTOR Reduction (vph)	0	0	1	0	1	0	0	3	0	0	0	37
Lane Group Flow (vph)	1183	701	6	0	1136	0	0	40	0	0	13	504
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									4
Actuated Green, G (s)	62.6	106.0	106.0		38.8			3.0			2.1	64.7
Effective Green, g (s)	62.6	106.0	106.0		38.8			3.0			2.1	64.7
Actuated g/C Ratio	0.48	0.81	0.81		0.30			0.02			0.02	0.50
Clearance Time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0		1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	818	2770	1239		1021			41			28	771
v/s Ratio Prot	c0.69	0.21			c0.33			c0.02			0.01	c0.31
v/s Ratio Perm			0.00									0.01
v/c Ratio	1.45	0.25	0.00		1.11			0.98			0.46	0.65
Uniform Delay, d1	33.9	2.9	2.3		45.8			63.6			63.5	24.5
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	207.7	0.0	0.0		64.5			130.1			4.4	1.5
Delay (s)	241.5	2.9	2.3		110.3			193.8			67.9	26.0
Level of Service	F	A	A		F			F			E	C
Approach Delay (s)		152.2			110.3			193.8			27.0	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM 2000 Control Delay	120.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	130.3	Sum of lost time (s)	24.7
Intersection Capacity Utilization	120.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	293	55	183	865	426	3321	0	0	4898	104
Future Volume (vph)	0	0	293	55	183	865	426	3321	0	0	4898	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1772	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1772	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	293	55	183	865	426	3321	0	0	4898	104
RTOR Reduction (vph)	0	0	174	0	0	40	0	0	0	0	0	25
Lane Group Flow (vph)	0	0	119	0	238	825	426	3321	0	0	4898	79
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			20.0		29.8	29.8	20.0	109.0			84.1	84.1
Effective Green, g (s)			20.0		29.8	29.8	20.0	109.0			84.1	84.1
Actuated g/C Ratio			0.13		0.20	0.20	0.13	0.73			0.56	0.56
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Vehicle Extension (s)			3.0		3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)			212		352	532	440	3555			3457	854
v/s Ratio Prot			0.07		0.13		0.13	c0.68			c0.79	
v/s Ratio Perm						c0.31						0.05
v/c Ratio			0.56		0.68	1.55	0.97	0.93			1.42	0.09
Uniform Delay, d1			60.9		55.6	60.1	64.7	17.4			33.0	15.3
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			3.4		5.1	257.0	34.3	5.4			189.3	0.0
Delay (s)			64.2		60.7	317.1	99.0	22.8			222.3	15.3
Level of Service			E		E	F	F	C			F	B
Approach Delay (s)		64.2			261.8			31.5			218.0	
Approach LOS		E			F			C			F	

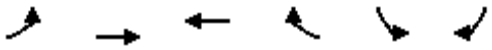
Intersection Summary			
HCM 2000 Control Delay	149.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	115.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1983	0	147	0	0	0	0	1896	43	0	1775	1032
Future Volume (vph)	1983	0	147	0	0	0	0	1896	43	0	1775	1032
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0			4.0	4.0
Lane Util. Factor	0.94		0.88					0.91			0.91	1.00
Frt	1.00		0.85					1.00			1.00	0.85
Flt Protected	0.95		1.00					1.00			1.00	1.00
Satd. Flow (prot)	4942		2760					5019			5036	1568
Flt Permitted	0.95		1.00					1.00			1.00	1.00
Satd. Flow (perm)	4942		2760					5019			5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1983	0	147	0	0	0	0	1896	43	0	1775	1032
RTOR Reduction (vph)	0	0	11	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	1983	0	136	0	0	0	0	1935	0	0	1775	1032
Turn Type	Prot		Perm					NA			NA	Free
Protected Phases	4							2			6	
Permitted Phases			4									Free
Actuated Green, G (s)	24.0		24.0					23.0			23.0	55.0
Effective Green, g (s)	24.0		24.0					23.0			23.0	55.0
Actuated g/C Ratio	0.44		0.44					0.42			0.42	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	2156		1204					2098			2105	1568
v/s Ratio Prot	c0.40							c0.39			0.35	
v/s Ratio Perm			0.05									0.66
v/c Ratio	0.92		0.11					0.92			0.84	0.66
Uniform Delay, d1	14.6		9.2					15.2			14.4	0.0
Progression Factor	1.00		1.00					1.00			1.00	1.00
Incremental Delay, d2	6.9		0.0					7.3			3.3	2.2
Delay (s)	21.5		9.2					22.5			17.7	2.2
Level of Service	C		A					C			B	A
Approach Delay (s)		20.6			0.0			22.5			12.0	
Approach LOS		C			A			C			B	

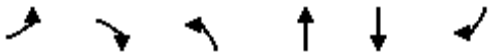
Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1098	1576	1586	200	22	764
Future Volume (vph)	1098	1576	1586	200	22	764
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3242	3343	3343	1495	3400	2760
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3242	3343	3343	1495	3400	2760
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1098	1576	1586	200	22	764
RTOR Reduction (vph)	0	0	0	41	0	710
Lane Group Flow (vph)	1098	1576	1586	159	22	54
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	46.0	115.1	65.1	65.1	9.3	9.3
Effective Green, g (s)	46.0	115.1	65.1	65.1	9.3	9.3
Actuated g/C Ratio	0.35	0.87	0.49	0.49	0.07	0.07
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1126	2906	1643	735	238	193
v/s Ratio Prot	c0.34	0.47	c0.47		0.01	
v/s Ratio Perm				0.11		c0.02
v/c Ratio	0.98	0.54	0.97	0.22	0.09	0.28
Uniform Delay, d1	42.6	2.1	32.6	19.1	57.6	58.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.8	0.2	14.7	0.1	0.2	0.8
Delay (s)	63.5	2.3	47.3	19.3	57.8	59.2
Level of Service	E	A	D	B	E	E
Approach Delay (s)		27.4	44.1		59.1	
Approach LOS		C	D		E	

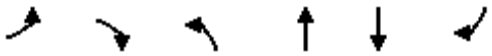
Intersection Summary			
HCM 2000 Control Delay	37.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	132.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	605	10	65	2093	1312	1018
Future Volume (vph)	605	10	65	2093	1312	1018
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3400	1568	1752	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3400	1568	1752	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	605	10	65	2093	1312	1018
RTOR Reduction (vph)	0	7	0	0	0	63
Lane Group Flow (vph)	605	3	65	2093	1312	955
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6
Actuated Green, G (s)	15.6	18.8	3.2	41.9	34.7	50.3
Effective Green, g (s)	15.6	18.8	3.2	41.9	34.7	50.3
Actuated g/C Ratio	0.24	0.29	0.05	0.64	0.53	0.77
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	809	545	85	2242	1856	1299
v/s Ratio Prot	0.18	0.00	0.04	c0.60	0.37	c0.17
v/s Ratio Perm		0.00				0.43
v/c Ratio	0.75	0.01	0.76	0.93	0.71	0.73
Uniform Delay, d1	23.1	16.7	30.8	10.6	11.6	4.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.8	0.0	32.8	7.9	1.3	2.2
Delay (s)	26.9	16.7	63.6	18.5	12.8	6.2
Level of Service	C	B	E	B	B	A
Approach Delay (s)	26.8			19.8	10.0	
Approach LOS	C			B	A	

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		

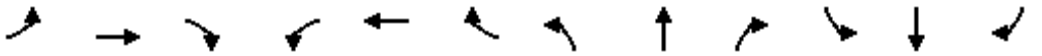
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	426	636	1023	1722	1118	203
Future Volume (vph)	426	636	1023	1722	1118	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.97	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1568	3400	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1568	3400	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	426	636	1023	1722	1118	203
RTOR Reduction (vph)	0	401	0	0	0	138
Lane Group Flow (vph)	426	235	1023	1722	1118	65
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	22.0	22.0	27.0	60.0	29.0	29.0
Effective Green, g (s)	22.0	22.0	27.0	60.0	29.0	29.0
Actuated g/C Ratio	0.24	0.24	0.30	0.67	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	428	383	1020	2336	1129	505
v/s Ratio Prot	c0.24		c0.30	0.49	c0.32	
v/s Ratio Perm		0.15				0.04
v/c Ratio	1.00	0.61	1.00	0.74	0.99	0.13
Uniform Delay, d1	33.9	30.2	31.5	9.8	30.4	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	42.0	2.9	28.9	1.2	24.3	0.1
Delay (s)	76.0	33.1	60.4	11.1	54.7	21.7
Level of Service	E	C	E	B	D	C
Approach Delay (s)	50.3			29.5	49.6	
Approach LOS	D			C	D	

Intersection Summary			
HCM 2000 Control Delay	39.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.7%	ICU Level of Service	F
Analysis Period (min)	15		

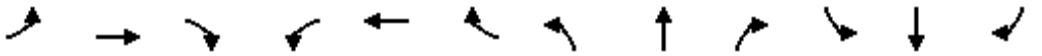
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	638	0	964	0	0	0	0	3883	609	0	1790	1584
Future Volume (vph)	638	0	964	0	0	0	0	3883	609	0	1790	1584
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.95	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4540	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4540	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	638	0	964	0	0	0	0	3883	609	0	1790	1584
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	0	0	66	0
Lane Group Flow (vph)	638	0	939	0	0	0	0	3883	609	0	2516	792
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	38.0		38.0					74.0	120.0		74.0	120.0
Effective Green, g (s)	38.0		38.0					74.0	120.0		74.0	120.0
Actuated g/C Ratio	0.32		0.32					0.62	1.00		0.62	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1076		874					3913	1568		2799	1348
v/s Ratio Prot	0.19							c0.61			0.55	
v/s Ratio Perm			c0.34						0.39			0.59
v/c Ratio	0.59		1.07					0.99	0.39		0.90	0.59
Uniform Delay, d1	34.5		41.0					22.7	0.0		19.8	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.9		52.3					12.6	0.7		4.3	1.9
Delay (s)	35.4		93.3					35.3	0.7		24.1	1.9
Level of Service	D		F					D	A		C	A
Approach Delay (s)		70.3			0.0			30.6			18.9	
Approach LOS		E			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	33.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	501	0	1185	0	1998	2519	0	4233	1038
Future Volume (vph)	0	0	0	501	0	1185	0	1998	2519	0	4233	1038
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		0.94	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4483	1348		5953	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4483	1348		5953	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	501	0	1185	0	1998	2519	0	4233	1038
RTOR Reduction (vph)	0	0	0	0	0	27	0	76	0	0	2	0
Lane Group Flow (vph)	0	0	0	501	0	1158	0	3182	1259	0	4345	924
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				44.0		44.0		98.0	150.0		98.0	150.0
Effective Green, g (s)				44.0		44.0		98.0	150.0		98.0	150.0
Actuated g/C Ratio				0.29		0.29		0.65	1.00		0.65	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				997		1048		2928	1348		3889	1270
v/s Ratio Prot				0.15				0.71			c0.73	
v/s Ratio Perm						c0.32			0.93			0.73
v/c Ratio				0.50		1.11		1.20dr	0.93		1.12	0.73
Uniform Delay, d1				43.9		53.0		26.0	0.0		26.0	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.4		61.2		45.6	13.1		56.8	3.7
Delay (s)				44.3		114.2		71.6	13.1		82.8	3.7
Level of Service				D		F		E	B		F	A
Approach Delay (s)		0.0			93.5			55.3			69.0	
Approach LOS		A			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	67.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

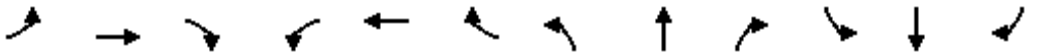
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	774	469	375	957	461	317
Future Volume (vph)	774	469	375	957	461	317
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	774	469	375	957	461	317
RTOR Reduction (vph)	0	242	0	0	0	246
Lane Group Flow (vph)	774	227	375	957	461	71
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	19.9	19.9	19.2	43.1	14.7	14.7
Effective Green, g (s)	19.9	19.9	19.2	43.1	14.7	14.7
Actuated g/C Ratio	0.30	0.30	0.29	0.66	0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	953	426	460	2065	683	315
v/s Ratio Prot	c0.25		c0.24	0.30	c0.15	
v/s Ratio Perm		0.16				0.05
v/c Ratio	0.81	0.53	0.82	0.46	0.67	0.22
Uniform Delay, d1	21.2	19.1	21.7	5.6	23.4	20.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.3	1.3	10.7	0.2	2.6	0.4
Delay (s)	26.6	20.4	32.3	5.8	26.0	21.3
Level of Service	C	C	C	A	C	C
Approach Delay (s)	24.2			13.3	24.1	
Approach LOS	C			B	C	

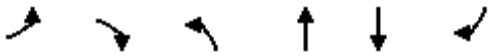
Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	65.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	492	0	1	450	207	1	1	0	54	2	455
Future Volume (vph)	219	492	0	1	450	207	1	1	0	54	2	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00		0.95	0.95	1.00
Frt	1.00	1.00		1.00	0.95			1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (prot)	1736	3471		1736	3307			1800		1665	1675	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.98		0.95	0.96	1.00
Satd. Flow (perm)	1736	3471		1736	3307			1800		1665	1675	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	492	0	1	450	207	1	1	0	54	2	455
RTOR Reduction (vph)	0	0	0	0	63	0	0	0	0	0	0	388
Lane Group Flow (vph)	219	492	0	1	594	0	0	2	0	28	28	67
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	10.8	28.1		0.7	18.0			5.7		8.7	8.7	8.7
Effective Green, g (s)	10.8	28.1		0.7	18.0			5.7		8.7	8.7	8.7
Actuated g/C Ratio	0.18	0.47		0.01	0.30			0.10		0.15	0.15	0.15
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	316	1647		20	1005			173		244	246	230
v/s Ratio Prot	c0.13	0.14		0.00	c0.18			c0.00		0.02	0.02	
v/s Ratio Perm												c0.04
v/c Ratio	0.69	0.30		0.05	0.59			0.01		0.11	0.11	0.29
Uniform Delay, d1	22.6	9.5		28.9	17.5			24.2		21.9	21.9	22.5
Progression Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	6.4	0.1		1.0	0.9			0.0		0.2	0.2	0.7
Delay (s)	29.1	9.6		30.0	18.4			24.2		22.1	22.1	23.2
Level of Service	C	A		C	B			C		C	C	C
Approach Delay (s)		15.6			18.4			24.2			23.1	
Approach LOS		B			B			C			C	

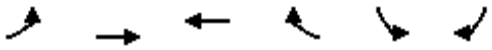
Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	59.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	507	27	21	1789	1648	392
Future Volume (vph)	507	27	21	1789	1648	392
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	3505	3404	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	3505	3404	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	507	27	21	1789	1648	392
RTOR Reduction (vph)	0	17	0	0	17	0
Lane Group Flow (vph)	507	10	21	1789	2023	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	33.0	33.0	1.5	76.6	71.1	
Effective Green, g (s)	33.0	33.0	1.5	76.6	71.1	
Actuated g/C Ratio	0.28	0.28	0.01	0.65	0.60	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	491	440	22	2283	2058	
v/s Ratio Prot	c0.29		0.01	c0.51	c0.59	
v/s Ratio Perm		0.01				
v/c Ratio	1.03	0.02	0.95	0.78	0.98	
Uniform Delay, d1	42.3	30.6	58.0	14.6	22.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	49.3	0.0	169.9	1.8	15.9	
Delay (s)	91.6	30.6	227.9	16.4	38.6	
Level of Service	F	C	F	B	D	
Approach Delay (s)	88.5			18.9	38.6	
Approach LOS	F			B	D	

Intersection Summary			
HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	117.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	583	1392	2113	1736	0
Future Volume (vph)	0	583	1392	2113	1736	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95	0.95	1.00	0.97	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3505	3505	1568	3400	
Flt Permitted		1.00	1.00	1.00	0.95	
Satd. Flow (perm)		3505	3505	1568	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	583	1392	2113	1736	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	583	1392	2113	1736	0
Turn Type	Prot	NA	NA	custom	Prot	
Protected Phases	4	5	5	2	6	
Permitted Phases						
Actuated Green, G (s)		46.0	46.0	130.0	76.0	
Effective Green, g (s)		46.0	46.0	130.0	76.0	
Actuated g/C Ratio		0.35	0.35	1.00	0.58	
Clearance Time (s)		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1240	1240	1568	1987	
v/s Ratio Prot		0.17	0.40	c1.35	0.51	
v/s Ratio Perm						
v/c Ratio		0.47	1.12	1.35	0.87	
Uniform Delay, d1		32.6	42.0	65.0	22.9	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3	66.2	160.7	4.6	
Delay (s)		32.8	108.2	225.7	27.5	
Level of Service		C	F	F	C	
Approach Delay (s)		32.8	179.1		27.5	
Approach LOS		C	F		C	

Intersection Summary			
HCM 2000 Control Delay	119.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.48		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	134.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0
Turn Type			Prot		Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)						
Effective Green, g (s)						
Actuated g/C Ratio						
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)						
v/s Ratio Prot						
v/s Ratio Perm						
v/c Ratio						
Uniform Delay, d1						
Progression Factor						
Incremental Delay, d2						
Delay (s)						
Level of Service						
Approach Delay (s)	0.0			0.0	0.0	
Approach LOS	A			A	A	

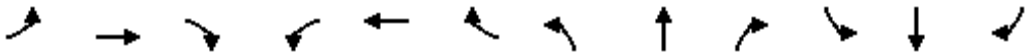
Intersection Summary			
HCM 2000 Control Delay	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.00		
Actuated Cycle Length (s)	24.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	0.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	2236	0	1651	0
Future Volume (vph)	0	0	2236	0	1651	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0	
Lane Util. Factor			0.95	0.95	0.97	
Frt			1.00	1.00	1.00	
Flt Protected			0.95	0.95	0.95	
Satd. Flow (prot)			1665	1665	3400	
Flt Permitted			0.95	0.95	0.95	
Satd. Flow (perm)			1665	1665	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	2236	0	1651	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	1118	1118	1651	0
Turn Type			Split	NA	Prot	
Protected Phases			4	4	2	
Permitted Phases						
Actuated Green, G (s)			81.0	81.0	61.0	
Effective Green, g (s)			81.0	81.0	61.0	
Actuated g/C Ratio			0.54	0.54	0.41	
Clearance Time (s)			4.0	4.0	4.0	
Vehicle Extension (s)			3.0	3.0	3.0	
Lane Grp Cap (vph)			899	899	1382	
v/s Ratio Prot			c0.67	0.67	c0.49	
v/s Ratio Perm						
v/c Ratio			1.24	1.24	1.19	
Uniform Delay, d1			34.5	34.5	44.5	
Progression Factor			1.00	1.00	1.00	
Incremental Delay, d2			119.0	119.0	95.0	
Delay (s)			153.5	153.5	139.5	
Level of Service			F	F	F	
Approach Delay (s)	0.0			153.5	139.5	
Approach LOS	A			F	F	

Intersection Summary			
HCM 2000 Control Delay	147.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	115.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	398	0	0	0	0	1651	2106	0	2236	0
Future Volume (vph)	0	0	398	0	0	0	0	1651	2106	0	2236	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0	4.0		4.0	
Lane Util. Factor		0.95	0.95					0.91	0.91		0.95	
Frt		0.85	0.85					0.95	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		1490	1490					3176	1427		3505	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		1490	1490					3176	1427		3505	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	398	0	0	0	0	1651	2106	0	2236	0
RTOR Reduction (vph)	0	32	0	0	0	0	0	36	182	0	0	0
Lane Group Flow (vph)	0	167	199	0	0	0	0	2542	997	0	2236	0
Turn Type		NA	Free					NA	Perm	Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			Free						2			
Actuated Green, G (s)		16.0	143.6					119.6	119.6		119.6	
Effective Green, g (s)		16.0	143.6					119.6	119.6		119.6	
Actuated g/C Ratio		0.11	1.00					0.83	0.83		0.83	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		166	1490					2645	1188		2919	
v/s Ratio Prot		c0.11						c0.80			0.64	
v/s Ratio Perm			0.13						0.70			
v/c Ratio		1.01	0.13					0.96	0.84		0.77	
Uniform Delay, d1		63.8	0.0					10.1	6.7		5.5	
Progression Factor		1.00	1.00					1.00	1.00		1.00	
Incremental Delay, d2		71.4	0.2					10.0	5.4		1.2	
Delay (s)		135.2	0.2					20.1	12.0		6.8	
Level of Service		F	A					C	B		A	
Approach Delay (s)		67.7			0.0			17.5			6.8	
Approach LOS		E			A			B			A	

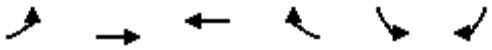
Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	143.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	115.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	361	298	3683	166	7	2757
Future Volume (vph)	361	298	3683	166	7	2757
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	5036	1568	3400	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	5036	1568	3400	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	361	298	3683	166	7	2757
RTOR Reduction (vph)	0	33	0	24	0	0
Lane Group Flow (vph)	361	265	3683	142	7	2757
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Actuated Green, G (s)	24.0	24.0	114.2	114.2	0.8	119.0
Effective Green, g (s)	24.0	24.0	114.2	114.2	0.8	119.0
Actuated g/C Ratio	0.16	0.16	0.76	0.76	0.01	0.79
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	540	249	3808	1185	18	3968
v/s Ratio Prot	0.11		c0.73		0.00	c0.55
v/s Ratio Perm		c0.17		0.09		
v/c Ratio	0.67	1.07	0.97	0.12	0.39	0.69
Uniform Delay, d1	59.8	63.5	16.7	4.9	74.9	7.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	75.3	8.3	0.0	13.4	0.5
Delay (s)	62.9	138.8	25.0	5.0	88.2	8.0
Level of Service	E	F	C	A	F	A
Approach Delay (s)	97.2		24.2			8.2
Approach LOS	F		C			A

Intersection Summary			
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	151.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	253	1393	2076	88	134	413
Future Volume (vph)	253	1393	2076	88	134	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	3505	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	253	1393	2076	88	134	413
RTOR Reduction (vph)	0	0	0	26	0	184
Lane Group Flow (vph)	253	1393	2076	62	134	229
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	14.0	76.0	58.0	58.0	15.6	15.6
Effective Green, g (s)	14.0	76.0	58.0	58.0	15.6	15.6
Actuated g/C Ratio	0.14	0.76	0.58	0.58	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	246	2674	2041	913	274	245
v/s Ratio Prot	c0.14	0.40	c0.59		0.08	
v/s Ratio Perm				0.04		c0.15
v/c Ratio	1.03	0.52	1.02	0.07	0.49	0.94
Uniform Delay, d1	42.8	4.6	20.8	9.0	38.4	41.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	64.9	0.2	24.3	0.0	1.4	39.8
Delay (s)	107.7	4.8	45.1	9.1	39.7	81.3
Level of Service	F	A	D	A	D	F
Approach Delay (s)		20.6	43.7		71.1	
Approach LOS		C	D		E	

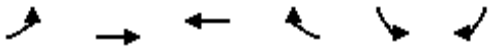
Intersection Summary			
HCM 2000 Control Delay	38.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	99.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	594	81	245	1177	132	45
Future Volume (vph)	594	81	245	1177	132	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1568	3400	3505	1752	1568
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1568	3400	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	594	81	245	1177	132	45
RTOR Reduction (vph)	0	52	0	0	0	35
Lane Group Flow (vph)	594	29	245	1177	132	10
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	14.2	14.2	4.5	22.7	8.4	8.4
Effective Green, g (s)	14.2	14.2	4.5	22.7	8.4	8.4
Actuated g/C Ratio	0.36	0.36	0.12	0.58	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1272	569	391	2034	376	336
v/s Ratio Prot	0.17		0.07	c0.34	c0.08	
v/s Ratio Perm		0.02				0.01
v/c Ratio	0.47	0.05	0.63	0.58	0.35	0.03
Uniform Delay, d1	9.5	8.1	16.5	5.2	13.0	12.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.0	3.1	0.4	0.6	0.0
Delay (s)	9.8	8.1	19.6	5.6	13.6	12.2
Level of Service	A	A	B	A	B	B
Approach Delay (s)	9.6			8.0	13.2	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	39.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

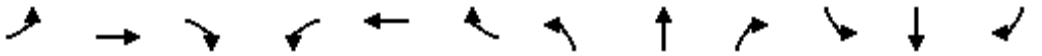
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	165	198	462	14	53	384
Future Volume (vph)	165	198	462	14	53	384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00		1.00	
Frt		1.00	1.00		0.88	
Flt Protected		0.98	1.00		0.99	
Satd. Flow (prot)		1804	1837		1616	
Flt Permitted		0.63	1.00		0.99	
Satd. Flow (perm)		1154	1837		1616	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	165	198	462	14	53	384
RTOR Reduction (vph)	0	0	3	0	250	0
Lane Group Flow (vph)	0	363	473	0	187	0
Turn Type	Perm	NA	NA		Prot	
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)		15.4	15.4		8.9	
Effective Green, g (s)		15.4	15.4		8.9	
Actuated g/C Ratio		0.48	0.48		0.28	
Clearance Time (s)		4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		550	875		445	
v/s Ratio Prot			0.26		c0.12	
v/s Ratio Perm		c0.31				
v/c Ratio		0.66	0.54		0.42	
Uniform Delay, d1		6.5	6.0		9.6	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		3.0	0.7		0.6	
Delay (s)		9.4	6.6		10.2	
Level of Service		A	A		B	
Approach Delay (s)		9.4	6.6		10.2	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	32.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		

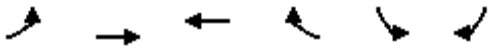
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	363	75	244	69	97	103	628	1616	188	264	1764	281
Future Volume (vph)	363	75	244	69	97	103	628	1616	188	264	1764	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	3400	3505	1568	3400	3505	1568	3400	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	3400	3505	1568	3400	3505	1568	3400	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	363	75	244	69	97	103	628	1616	188	264	1764	281
RTOR Reduction (vph)	0	0	189	0	0	96	0	0	45	0	0	66
Lane Group Flow (vph)	363	75	55	69	97	7	628	1616	143	264	1764	215
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	27.0	32.4	32.4	4.8	10.2	10.2	24.0	77.3	77.3	13.7	67.0	67.0
Effective Green, g (s)	27.0	32.4	32.4	4.8	10.2	10.2	24.0	77.3	77.3	13.7	67.0	67.0
Actuated g/C Ratio	0.19	0.22	0.22	0.03	0.07	0.07	0.17	0.54	0.54	0.10	0.46	0.46
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	328	414	352	113	247	110	565	1878	840	323	1628	728
v/s Ratio Prot	c0.21	0.04		0.02	c0.03		c0.18	0.46		0.08	c0.50	
v/s Ratio Perm			0.03			0.00			0.09			0.14
v/c Ratio	1.11	0.18	0.16	0.61	0.39	0.07	1.11	0.86	0.17	0.82	1.08	0.29
Uniform Delay, d1	58.6	45.2	44.9	68.8	64.0	62.6	60.1	28.8	17.1	64.0	38.6	23.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	81.5	0.2	0.2	9.4	1.0	0.3	72.2	4.3	0.1	14.7	48.7	0.2
Delay (s)	140.1	45.4	45.1	78.2	65.1	62.8	132.3	33.1	17.2	78.7	87.3	24.2
Level of Service	F	D	D	E	E	E	F	C	B	E	F	C
Approach Delay (s)		95.7			67.6			57.5			78.6	
Approach LOS		F			E			E			E	

Intersection Summary			
HCM 2000 Control Delay	71.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	144.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	103.5%	ICU Level of Service	G
Analysis Period (min)	15		

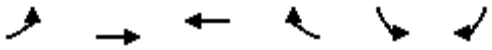
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	456	814	1307	358	21	155
Future Volume (vph)	456	814	1307	358	21	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.97		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3400	3505	3392		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3400	3505	3392		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	456	814	1307	358	21	155
RTOR Reduction (vph)	0	0	29	0	0	138
Lane Group Flow (vph)	456	814	1636	0	21	17
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	11.0	51.0	36.0		7.1	7.1
Effective Green, g (s)	11.0	51.0	36.0		7.1	7.1
Actuated g/C Ratio	0.17	0.77	0.54		0.11	0.11
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	565	2704	1847		188	168
v/s Ratio Prot	c0.13	0.23	c0.48		c0.01	
v/s Ratio Perm						0.01
v/c Ratio	0.81	0.30	0.89		0.11	0.10
Uniform Delay, d1	26.5	2.2	13.2		26.7	26.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	8.3	0.1	5.5		0.3	0.3
Delay (s)	34.8	2.3	18.8		26.9	26.9
Level of Service	C	A	B		C	C
Approach Delay (s)		14.0	18.8		26.9	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	66.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	169	886	1483	885	301	88
Future Volume (vph)	169	886	1483	885	301	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	3505	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	169	886	1483	885	301	88
RTOR Reduction (vph)	0	0	0	435	0	68
Lane Group Flow (vph)	169	886	1483	450	301	20
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	7.0	40.1	29.1	29.1	14.5	14.5
Effective Green, g (s)	7.0	40.1	29.1	29.1	14.5	14.5
Actuated g/C Ratio	0.11	0.64	0.46	0.46	0.23	0.23
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	195	2245	1629	728	405	363
v/s Ratio Prot	c0.10	0.25	c0.42		c0.17	
v/s Ratio Perm				0.29		0.01
v/c Ratio	0.87	0.39	0.91	0.62	0.74	0.06
Uniform Delay, d1	27.3	5.4	15.5	12.6	22.3	18.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	30.8	0.1	8.0	1.6	7.2	0.1
Delay (s)	58.1	5.5	23.6	14.1	29.5	18.8
Level of Service	E	A	C	B	C	B
Approach Delay (s)		14.0	20.0		27.1	
Approach LOS		B	C		C	

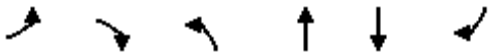
Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	62.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2605	18	20	2420	87	61
Future Volume (vph)	2605	18	20	2420	87	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3501		1752	3505	1752	1568
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3501		1752	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2605	18	20	2420	87	61
RTOR Reduction (vph)	0	0	0	0	0	56
Lane Group Flow (vph)	2623	0	20	2420	87	5
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)	112.8		3.4	120.2	12.1	12.1
Effective Green, g (s)	112.8		3.4	120.2	12.1	12.1
Actuated g/C Ratio	0.80		0.02	0.86	0.09	0.09
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2814		42	3002	151	135
v/s Ratio Prot	c0.75		0.01	c0.69	c0.05	
v/s Ratio Perm						0.00
v/c Ratio	0.93		0.48	0.81	0.58	0.04
Uniform Delay, d1	10.8		67.6	4.7	61.6	58.8
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	6.4		8.3	1.7	5.2	0.1
Delay (s)	17.2		75.9	6.3	66.9	58.9
Level of Service	B		E	A	E	E
Approach Delay (s)	17.2			6.9	63.6	
Approach LOS	B			A	E	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	27	38	75	1835	1569	96
Future Volume (vph)	27	38	75	1835	1569	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	1845	3475	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	1845	3475	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	27	38	75	1835	1569	96
RTOR Reduction (vph)	0	36	0	0	2	0
Lane Group Flow (vph)	27	2	75	1835	1663	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	6.5	6.5	10.7	127.2	112.5	
Effective Green, g (s)	6.5	6.5	10.7	127.2	112.5	
Actuated g/C Ratio	0.05	0.05	0.08	0.90	0.79	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	80	71	132	1656	2758	
v/s Ratio Prot	c0.02		0.04	c0.99	0.48	
v/s Ratio Perm		0.00				
v/c Ratio	0.34	0.02	0.57	1.11	0.60	
Uniform Delay, d1	65.5	64.6	63.3	7.2	5.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.5	0.1	5.5	58.0	0.4	
Delay (s)	68.0	64.7	68.8	65.2	6.1	
Level of Service	E	E	E	E	A	
Approach Delay (s)	66.1			65.4	6.1	
Approach LOS	E			E	A	

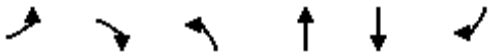
Intersection Summary			
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	141.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	144	458	2274	42	237	2067
Future Volume (vph)	144	458	2274	42	237	2067
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.91		0.97	0.91
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1568	5022		3400	5036
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1568	5022		3400	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	144	458	2274	42	237	2067
RTOR Reduction (vph)	0	203	2	0	0	0
Lane Group Flow (vph)	144	255	2314	0	237	2067
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	14.2	14.2	41.1		10.3	55.4
Effective Green, g (s)	14.2	14.2	41.1		10.3	55.4
Actuated g/C Ratio	0.18	0.18	0.53		0.13	0.71
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	320	286	2659		451	3595
v/s Ratio Prot	0.08		c0.46		0.07	c0.41
v/s Ratio Perm		c0.16				
v/c Ratio	0.45	0.89	0.87		0.53	0.57
Uniform Delay, d1	28.2	30.9	15.9		31.4	5.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.0	27.1	3.4		1.1	0.2
Delay (s)	29.2	58.1	19.3		32.5	5.6
Level of Service	C	E	B		C	A
Approach Delay (s)	51.2		19.3			8.4
Approach LOS	D		B			A

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	77.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	521	9	221	1449	823	611
Future Volume (vph)	521	9	221	1449	823	611
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.94	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	3505	3281	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	3505	3281	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	521	9	221	1449	823	611
RTOR Reduction (vph)	0	3	0	0	167	0
Lane Group Flow (vph)	521	6	221	1449	1267	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	24.0	24.0	11.0	48.0	33.0	
Effective Green, g (s)	24.0	24.0	11.0	48.0	33.0	
Actuated g/C Ratio	0.30	0.30	0.14	0.60	0.41	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	525	470	240	2103	1353	
v/s Ratio Prot	c0.30		c0.13	0.41	c0.39	
v/s Ratio Perm		0.00				
v/c Ratio	0.99	0.01	0.92	0.69	0.94	
Uniform Delay, d1	27.9	19.7	34.1	10.9	22.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	37.1	0.0	37.2	1.0	12.2	
Delay (s)	65.0	19.7	71.3	11.9	34.7	
Level of Service	E	B	E	B	C	
Approach Delay (s)	64.3			19.7	34.7	
Approach LOS	E			B	C	

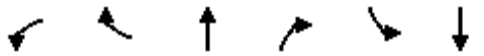
Intersection Summary			
HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	106	2975	16	170	1257
Future Volume (vph)	0	106	2975	16	170	1257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	0.91		1.00	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		1568	5032		1752	5036
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		1568	5032		1752	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	106	2975	16	170	1257
RTOR Reduction (vph)	0	100	0	0	0	0
Lane Group Flow (vph)	0	6	2991	0	170	1257
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		6		5	2
Permitted Phases		8				
Actuated Green, G (s)		4.8	55.9		9.0	68.9
Effective Green, g (s)		4.8	55.9		9.0	68.9
Actuated g/C Ratio		0.06	0.68		0.11	0.84
Clearance Time (s)		4.0	4.0		4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		92	3442		192	4247
v/s Ratio Prot			c0.59		c0.10	0.25
v/s Ratio Perm		c0.00				
v/c Ratio		0.07	0.87		0.89	0.30
Uniform Delay, d1		36.3	10.0		35.8	1.3
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3	2.6		34.9	0.0
Delay (s)		36.6	12.6		70.7	1.4
Level of Service		D	B		E	A
Approach Delay (s)	36.6		12.6			9.6
Approach LOS	D		B			A

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	81.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	57	0	2970	132	79	1547
Future Volume (vph)	57	0	2970	132	79	1547
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00		0.91		1.00	0.91
Frt	1.00		0.99		1.00	1.00
Flt Protected	0.95		1.00		0.95	1.00
Satd. Flow (prot)	1752		5004		1752	5036
Flt Permitted	0.95		1.00		0.95	1.00
Satd. Flow (perm)	1752		5004		1752	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	57	0	2970	132	79	1547
RTOR Reduction (vph)	0	0	4	0	0	0
Lane Group Flow (vph)	57	0	3098	0	79	1547
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	7.1		64.7		5.0	73.7
Effective Green, g (s)	7.1		64.7		5.0	73.7
Actuated g/C Ratio	0.08		0.73		0.06	0.83
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	140		3645		98	4179
v/s Ratio Prot	c0.03		c0.62		c0.05	0.31
v/s Ratio Perm						
v/c Ratio	0.41		0.85		0.81	0.37
Uniform Delay, d1	38.8		8.6		41.4	1.9
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	1.9		2.0		36.6	0.1
Delay (s)	40.8		10.6		78.0	1.9
Level of Service	D		B		E	A
Approach Delay (s)	40.8		10.6			5.6
Approach LOS	D		B			A

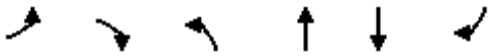
Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	88.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	365	408	2767	435	710	734
Future Volume (vph)	365	408	2767	435	710	734
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1568	4933		1752	5036
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1568	4933		1752	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	365	408	2767	435	710	734
RTOR Reduction (vph)	0	108	14	0	0	0
Lane Group Flow (vph)	365	300	3188	0	710	734
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	3		2		1	6
Permitted Phases		3				
Actuated Green, G (s)	23.0	23.0	72.0		43.0	119.0
Effective Green, g (s)	23.0	23.0	72.0		43.0	119.0
Actuated g/C Ratio	0.15	0.15	0.48		0.29	0.79
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	268	240	2367		502	3995
v/s Ratio Prot	c0.21		c0.65		c0.41	0.15
v/s Ratio Perm		0.19				
v/c Ratio	1.36	1.25	1.35		1.41	0.18
Uniform Delay, d1	63.5	63.5	39.0		53.5	3.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	185.1	142.9	159.0		198.0	0.0
Delay (s)	248.6	206.4	198.0		251.5	3.8
Level of Service	F	F	F		F	A
Approach Delay (s)	226.4		198.0			125.6
Approach LOS	F		F			F

Intersection Summary			
HCM 2000 Control Delay	182.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	132.7%	ICU Level of Service	H
Analysis Period (min)	15		

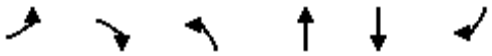
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	124	86	70	2871	920	82
Future Volume (vph)	124	86	70	2871	920	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	4974	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	4974	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	124	86	70	2871	920	82
RTOR Reduction (vph)	0	74	0	0	12	0
Lane Group Flow (vph)	124	12	70	2871	990	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	8.1	8.1	3.7	43.3	35.6	
Effective Green, g (s)	8.1	8.1	3.7	43.3	35.6	
Actuated g/C Ratio	0.14	0.14	0.06	0.73	0.60	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	238	213	109	3671	2981	
v/s Ratio Prot	c0.07		0.04	c0.57	0.20	
v/s Ratio Perm		0.01				
v/c Ratio	0.52	0.06	0.64	0.78	0.33	
Uniform Delay, d1	23.8	22.3	27.2	5.1	6.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.1	0.1	12.2	1.1	0.1	
Delay (s)	25.9	22.4	39.4	6.2	6.0	
Level of Service	C	C	D	A	A	
Approach Delay (s)	24.5			7.0	6.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

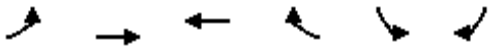
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	126	200	561	1398	789	348
Future Volume (vph)	126	200	561	1398	789	348
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.95	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	3505	3344	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	3505	3344	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	126	200	561	1398	789	348
RTOR Reduction (vph)	0	173	0	0	54	0
Lane Group Flow (vph)	126	27	561	1398	1083	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	11.1	11.1	29.6	64.4	30.8	
Effective Green, g (s)	11.1	11.1	29.6	64.4	30.8	
Actuated g/C Ratio	0.13	0.13	0.35	0.77	0.37	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	232	208	621	2703	1233	
v/s Ratio Prot	c0.07		c0.32	0.40	c0.32	
v/s Ratio Perm		0.02				
v/c Ratio	0.54	0.13	0.90	0.52	0.88	
Uniform Delay, d1	33.8	31.9	25.6	3.6	24.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.6	0.3	16.5	0.2	7.3	
Delay (s)	36.4	32.2	42.1	3.8	31.9	
Level of Service	D	C	D	A	C	
Approach Delay (s)	33.8			14.8	31.9	
Approach LOS	C			B	C	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	83.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		

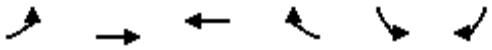
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	959	1243	2651	116	82	574
Future Volume (vph)	959	1243	2651	116	82	574
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.95	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3400	3505	5004		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3400	3505	5004		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	959	1243	2651	116	82	574
RTOR Reduction (vph)	0	0	3	0	0	314
Lane Group Flow (vph)	959	1243	2764	0	82	260
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	39.0	117.0	74.0		25.0	25.0
Effective Green, g (s)	39.0	117.0	74.0		25.0	25.0
Actuated g/C Ratio	0.26	0.78	0.49		0.17	0.17
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	884	2733	2468		292	261
v/s Ratio Prot	c0.28	0.35	c0.55		0.05	
v/s Ratio Perm						c0.17
v/c Ratio	1.08	0.45	1.12		0.28	1.00
Uniform Delay, d1	55.5	5.6	38.0		54.6	62.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	55.9	0.1	60.1		0.5	54.1
Delay (s)	111.4	5.7	98.1		55.2	116.6
Level of Service	F	A	F		E	F
Approach Delay (s)		51.8	98.1		108.9	
Approach LOS		D	F		F	

Intersection Summary			
HCM 2000 Control Delay	81.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.0%	ICU Level of Service	F
Analysis Period (min)	15		

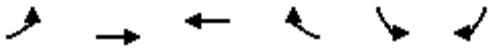
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	334	991	2604	39	153	175
Future Volume (vph)	334	991	2604	39	153	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	3505	3505	1568	3400	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	3505	3505	1568	3400	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	334	991	2604	39	153	175
RTOR Reduction (vph)	0	0	0	6	0	129
Lane Group Flow (vph)	334	991	2604	33	153	46
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	15.0	127.0	108.0	108.0	11.8	11.8
Effective Green, g (s)	15.0	127.0	108.0	108.0	11.8	11.8
Actuated g/C Ratio	0.10	0.87	0.74	0.74	0.08	0.08
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	347	3032	2578	1153	273	126
v/s Ratio Prot	c0.10	0.28	c0.74		c0.05	
v/s Ratio Perm				0.02		0.03
v/c Ratio	0.96	0.33	1.01	0.03	0.56	0.37
Uniform Delay, d1	65.6	1.9	19.4	5.2	65.0	64.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	38.2	0.1	20.2	0.0	2.6	1.8
Delay (s)	103.8	1.9	39.6	5.2	67.6	65.8
Level of Service	F	A	D	A	E	E
Approach Delay (s)		27.6	39.1		66.6	
Approach LOS		C	D		E	

Intersection Summary			
HCM 2000 Control Delay	37.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	146.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	107	1036	2332	9	39	222
Future Volume (vph)	107	1036	2332	9	39	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	3505	3503		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	3505	3503		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	107	1036	2332	9	39	222
RTOR Reduction (vph)	0	0	0	0	0	79
Lane Group Flow (vph)	107	1036	2341	0	39	143
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	6.0	86.1	76.1		13.3	13.3
Effective Green, g (s)	6.0	86.1	76.1		13.3	13.3
Actuated g/C Ratio	0.06	0.80	0.71		0.12	0.12
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	97	2809	2482		216	194
v/s Ratio Prot	c0.06	0.30	c0.67		0.02	
v/s Ratio Perm						c0.09
v/c Ratio	1.10	0.37	0.94		0.18	0.74
Uniform Delay, d1	50.7	3.0	13.7		42.2	45.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	121.9	0.1	8.2		0.4	13.6
Delay (s)	172.6	3.1	22.0		42.6	59.0
Level of Service	F	A	C		D	E
Approach Delay (s)		19.0	22.0		56.5	
Approach LOS		B	C		E	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	107.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	827	154	337	1274	159	380
Future Volume (vph)	827	154	337	1274	159	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1568	3400	3505	3400	1568
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1568	3400	3505	3400	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	827	154	337	1274	159	380
RTOR Reduction (vph)	0	98	0	0	0	291
Lane Group Flow (vph)	827	56	337	1274	159	89
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	16.3	16.3	7.9	28.2	8.7	8.7
Effective Green, g (s)	16.3	16.3	7.9	28.2	8.7	8.7
Actuated g/C Ratio	0.36	0.36	0.18	0.63	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1272	569	598	2201	658	303
v/s Ratio Prot	0.24		0.10	c0.36	0.05	
v/s Ratio Perm		0.04				c0.06
v/c Ratio	0.65	0.10	0.56	0.58	0.24	0.29
Uniform Delay, d1	11.9	9.4	16.9	4.9	15.3	15.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2	0.1	1.2	0.4	0.2	0.5
Delay (s)	13.1	9.5	18.1	5.3	15.5	16.0
Level of Service	B	A	B	A	B	B
Approach Delay (s)	12.6			7.9	15.9	
Approach LOS	B			A	B	

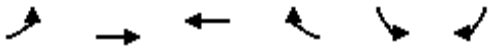
Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	44.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1207	0	293	1611	0	114
Future Volume (vph)	1207	0	293	1611	0	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	0.95		1.00	0.95		1.00
Frt	1.00		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	3505		1752	3505		1568
Flt Permitted	1.00		0.22	1.00		1.00
Satd. Flow (perm)	3505		408	3505		1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1207	0	293	1611	0	114
RTOR Reduction (vph)	0	0	0	0	0	106
Lane Group Flow (vph)	1207	0	293	1611	0	8
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases			8			2
Actuated Green, G (s)	76.0		76.0	76.0		6.4
Effective Green, g (s)	76.0		76.0	76.0		6.4
Actuated g/C Ratio	0.84		0.84	0.84		0.07
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	2946		343	2946		111
v/s Ratio Prot	0.34			0.46		
v/s Ratio Perm			c0.72			c0.01
v/c Ratio	0.41		0.85	0.55		0.07
Uniform Delay, d1	1.7		4.1	2.1		39.2
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.1		18.3	0.2		0.3
Delay (s)	1.8		22.3	2.3		39.5
Level of Service	A		C	A		D
Approach Delay (s)	1.8			5.4	39.5	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	176	881	2198	44	227	160
Future Volume (vph)	176	881	2198	44	227	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	3505	3495		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	3505	3495		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	176	881	2198	44	227	160
RTOR Reduction (vph)	0	0	1	0	0	122
Lane Group Flow (vph)	176	881	2241	0	227	38
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	10.0	86.0	72.0		15.8	15.8
Effective Green, g (s)	10.0	86.0	72.0		15.8	15.8
Actuated g/C Ratio	0.09	0.78	0.66		0.14	0.14
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	159	2745	2291		252	225
v/s Ratio Prot	c0.10	0.25	c0.64		c0.13	
v/s Ratio Perm						0.02
v/c Ratio	1.11	0.32	0.98		0.90	0.17
Uniform Delay, d1	49.9	3.4	18.1		46.2	41.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	102.9	0.1	13.9		31.8	0.4
Delay (s)	152.8	3.5	32.0		78.0	41.6
Level of Service	F	A	C		E	D
Approach Delay (s)		28.4	32.0		63.0	
Approach LOS		C	C		E	

Intersection Summary			
HCM 2000 Control Delay	34.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	109.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	659	221	182	829	840	199	1837	190	505	814	71
Future Volume (veh/h)	39	659	221	182	829	840	199	1837	190	505	814	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	39	659	221	182	829	840	199	1837	190	505	814	71
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	63	708	237	204	650	553	224	1397	144	337	1840	573
Arrive On Green	0.04	0.27	0.27	0.12	0.36	0.36	0.13	0.30	0.30	0.19	0.37	0.37
Sat Flow, veh/h	1757	2580	865	1740	1827	1553	1740	4596	473	1740	4988	1553
Grp Volume(v), veh/h	39	448	432	182	829	840	199	1327	700	505	814	71
Grp Sat Flow(s),veh/h/ln	1757	1752	1692	1740	1827	1553	1740	1663	1743	1740	1663	1553
Q Serve(g_s), s	3.2	36.0	36.0	14.9	51.5	31.6	16.3	44.0	44.0	28.0	17.8	4.4
Cycle Q Clear(g_c), s	3.2	36.0	36.0	14.9	51.5	31.6	16.3	44.0	44.0	28.0	17.8	4.4
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	63	481	465	204	650	553	224	1011	530	337	1840	573
V/C Ratio(X)	0.62	0.93	0.93	0.89	1.27	1.52	0.89	1.31	1.32	1.50	0.44	0.12
Avail Cap(c_a), veh/h	194	533	514	216	650	553	325	1011	530	337	1840	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.8	51.1	51.1	63.0	46.6	17.6	62.0	50.4	50.4	58.4	34.4	30.2
Incr Delay (d2), s/veh	9.4	22.0	22.6	32.6	135.5	243.1	18.4	147.6	157.4	240.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	20.3	19.7	9.0	50.3	50.9	9.0	40.8	44.2	35.8	8.2	1.9
LnGrp Delay(d),s/veh	78.2	73.1	73.8	95.6	182.1	260.7	80.4	197.9	207.7	298.4	34.6	30.3
LnGrp LOS	E	E	E	F	F	F	F	F	F	F	C	C
Approach Vol, veh/h		919			1851			2226			1390	
Approach Delay, s/veh		73.6			209.2			190.5			130.2	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	48.0	21.0	43.7	22.6	57.4	9.2	55.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	28.0	44.0	18.0	44.0	27.0	45.0	16.0	46.0
Max Q Clear Time (g_c+I1), s	30.0	46.0	16.9	38.0	18.3	19.8	5.2	53.5
Green Ext Time (p_c), s	0.0	0.0	0.1	1.7	0.3	8.6	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		166.0
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	727	21	30	613	561	68	1451	70	313	526	210
Future Volume (veh/h)	398	727	21	30	613	561	68	1451	70	313	526	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	398	727	21	30	613	561	68	1451	70	313	526	210
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	340	1409	41	38	818	366	106	1326	64	248	1511	676
Arrive On Green	0.19	0.41	0.41	0.02	0.23	0.23	0.03	0.39	0.39	0.07	0.44	0.44
Sat Flow, veh/h	1757	3479	100	1757	3505	1568	3375	3372	162	3375	3471	1553
Grp Volume(v), veh/h	398	366	382	30	613	561	68	745	776	313	526	210
Grp Sat Flow(s),veh/h/ln	1757	1752	1827	1757	1752	1568	1688	1736	1798	1688	1736	1553
Q Serve(g_s), s	29.0	23.6	23.6	2.5	24.4	35.0	3.0	59.0	59.0	11.0	15.1	13.2
Cycle Q Clear(g_c), s	29.0	23.6	23.6	2.5	24.4	35.0	3.0	59.0	59.0	11.0	15.1	13.2
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	340	710	740	38	818	366	106	683	707	248	1511	676
V/C Ratio(X)	1.17	0.52	0.52	0.79	0.75	1.53	0.64	1.09	1.10	1.26	0.35	0.31
Avail Cap(c_a), veh/h	340	710	740	70	818	366	135	683	707	248	1511	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.5	33.6	33.6	73.0	53.4	57.5	71.8	45.5	45.5	69.5	28.2	27.7
Incr Delay (d2), s/veh	104.1	0.6	0.6	29.2	3.9	253.4	6.5	62.0	63.4	147.1	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.9	11.5	12.0	1.5	12.3	40.9	1.5	40.0	41.7	10.2	7.3	5.7
LnGrp Delay(d),s/veh	164.6	34.2	34.2	102.2	57.3	310.9	78.3	107.5	108.9	216.6	28.3	27.9
LnGrp LOS	F	C	C	F	E	F	E	F	F	F	C	C
Approach Vol, veh/h		1146			1204			1589			1049	
Approach Delay, s/veh		79.5			176.6			107.0			84.4	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	63.0	7.2	64.8	8.7	69.3	33.0	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	59.0	6.0	58.0	6.0	64.0	29.0	35.0
Max Q Clear Time (g_c+I1), s	13.0	61.0	4.5	25.6	5.0	17.1	31.0	37.0
Green Ext Time (p_c), s	0.0	0.0	0.0	15.0	0.0	26.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	112.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1438	100	264	1569	132	72	633	190	73	515	2
Future Volume (veh/h)	11	1438	100	264	1569	132	72	633	190	73	515	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	11	1438	100	264	1569	132	72	633	190	73	515	2
Adj No. of Lanes	1	2	2	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	18	1367	1077	286	1776	148	92	700	313	93	717	3
Arrive On Green	0.01	0.40	0.40	0.17	0.56	0.56	0.05	0.20	0.20	0.05	0.20	0.20
Sat Flow, veh/h	1707	3406	2682	1707	3183	266	1757	3505	1568	1757	3581	14
Grp Volume(v), veh/h	11	1438	100	264	834	867	72	633	190	73	252	265
Grp Sat Flow(s),veh/h/ln	1707	1703	1341	1707	1703	1746	1757	1752	1568	1757	1752	1842
Q Serve(g_s), s	0.6	36.0	2.1	13.7	38.0	39.1	3.6	15.8	9.9	3.7	12.0	12.0
Cycle Q Clear(g_c), s	0.6	36.0	2.1	13.7	38.0	39.1	3.6	15.8	9.9	3.7	12.0	12.0
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	18	1367	1077	286	950	974	92	700	313	93	351	369
V/C Ratio(X)	0.60	1.05	0.09	0.92	0.88	0.89	0.78	0.90	0.61	0.78	0.72	0.72
Avail Cap(c_a), veh/h	76	1367	1077	286	950	974	118	704	315	98	351	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	26.8	16.7	36.8	17.1	17.4	42.0	35.0	32.7	41.9	33.5	33.5
Incr Delay (d2), s/veh	28.0	39.1	0.0	34.0	9.3	10.3	22.4	15.2	3.3	31.6	6.9	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	24.1	0.8	9.1	20.1	21.3	2.3	9.1	4.5	2.6	6.5	6.8
LnGrp Delay(d),s/veh	72.1	66.0	16.7	70.8	26.5	27.7	64.4	50.2	36.0	73.5	40.4	40.1
LnGrp LOS	E	F	B	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		1549			1965			895			590	
Approach Delay, s/veh		62.8			33.0			48.3			44.3	
Approach LOS		E			C			D			D	

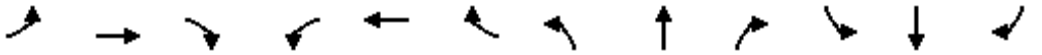
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	21.9	19.0	40.0	8.7	22.0	5.0	54.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	18.0	15.0	36.0	6.0	17.0	4.0	47.0
Max Q Clear Time (g_c+I1), s	5.7	17.8	15.7	38.0	5.6	14.0	2.6	41.1
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	2.0	0.0	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	46.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	658	269	146	988	125	451	432	135	37	511	33
Future Volume (veh/h)	36	658	269	146	988	125	451	432	135	37	511	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	36	658	269	146	988	125	451	432	135	37	511	33
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	919	411	179	1056	134	483	1479	662	48	612	274
Arrive On Green	0.03	0.26	0.26	0.10	0.34	0.34	0.27	0.42	0.42	0.03	0.17	0.17
Sat Flow, veh/h	1757	3505	1568	1757	3131	396	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	36	658	269	146	553	560	451	432	135	37	511	33
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1775	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	1.7	14.6	13.1	7.0	26.2	26.2	21.5	7.0	4.7	1.8	12.1	1.5
Cycle Q Clear(g_c), s	1.7	14.6	13.1	7.0	26.2	26.2	21.5	7.0	4.7	1.8	12.1	1.5
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	919	411	179	591	598	483	1479	662	48	612	274
V/C Ratio(X)	0.76	0.72	0.65	0.82	0.94	0.94	0.93	0.29	0.20	0.77	0.84	0.12
Avail Cap(c_a), veh/h	82	940	420	205	592	600	492	1479	662	123	695	311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	28.7	28.2	37.7	27.5	27.5	30.3	16.3	15.7	41.4	34.2	29.9
Incr Delay (d2), s/veh	22.0	2.6	3.5	19.7	22.3	22.3	24.9	0.1	0.2	22.4	7.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.4	6.0	4.3	16.3	16.5	13.7	3.4	2.0	1.2	6.5	0.7
LnGrp Delay(d),s/veh	63.5	31.3	31.7	57.5	49.8	49.8	55.3	16.4	15.8	63.8	42.1	30.0
LnGrp LOS	E	C	C	E	D	D	E	B	B	E	D	C
Approach Vol, veh/h		963			1259			1018			581	
Approach Delay, s/veh		32.6			50.7			33.6			42.8	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	40.2	12.7	26.5	27.6	19.0	6.3	32.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	35.0	10.0	23.0	24.0	17.0	4.0	29.0
Max Q Clear Time (g_c+I1), s	3.8	9.0	9.0	16.6	23.5	14.1	3.7	28.2
Green Ext Time (p_c), s	0.0	7.8	0.0	5.2	0.1	0.9	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	728	88	88	835	295	47	890	203	189	361	29
Future Volume (veh/h)	84	728	88	88	835	295	47	890	203	189	361	29
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	84	728	88	88	835	295	47	890	203	189	361	29
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	107	932	417	112	942	422	64	992	444	207	1278	572
Arrive On Green	0.06	0.27	0.27	0.06	0.27	0.27	0.04	0.28	0.28	0.12	0.36	0.36
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	84	728	88	88	835	295	47	890	203	189	361	29
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	2.8	11.4	2.6	2.9	13.6	10.1	1.6	14.5	6.3	6.3	4.3	0.7
Cycle Q Clear(g_c), s	2.8	11.4	2.6	2.9	13.6	10.1	1.6	14.5	6.3	6.3	4.3	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	932	417	112	942	422	64	992	444	207	1278	572
V/C Ratio(X)	0.79	0.78	0.21	0.79	0.89	0.70	0.74	0.90	0.46	0.91	0.28	0.05
Avail Cap(c_a), veh/h	118	945	423	118	945	423	148	1004	449	207	1278	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	20.2	16.9	27.4	20.8	19.5	28.3	20.4	17.5	25.9	13.4	12.2
Incr Delay (d2), s/veh	26.8	4.2	0.2	27.7	10.2	5.1	15.1	10.6	0.7	39.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	6.0	1.1	2.3	7.8	4.9	1.0	8.4	2.8	5.3	2.1	0.3
LnGrp Delay(d),s/veh	54.3	24.4	17.2	55.0	31.0	24.6	43.4	31.1	18.3	64.9	13.5	12.2
LnGrp LOS	D	C	B	E	C	C	D	C	B	E	B	B
Approach Vol, veh/h		900			1218			1140			579	
Approach Delay, s/veh		26.5			31.2			29.3			30.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	20.8	7.8	19.8	6.2	25.6	7.6	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	17.0	4.0	16.0	5.0	19.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	8.3	16.5	4.9	13.4	3.6	6.3	4.8	15.6
Green Ext Time (p_c), s	0.0	0.3	0.0	2.2	0.0	7.4	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	29.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	489	131	236	492	716	64	3446	456	591	2992	532
Future Volume (veh/h)	330	489	131	236	492	716	64	3446	456	591	2992	532
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	330	489	131	236	492	716	64	3446	456	591	2992	532
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	192	885	396	192	885	547	78	2290	713	325	2654	826
Arrive On Green	0.06	0.25	0.25	0.06	0.25	0.25	0.02	0.46	0.46	0.10	0.53	0.53
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	330	489	131	236	492	716	64	3446	456	591	2992	532
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	8.5	18.2	10.3	8.5	18.4	38.0	2.8	69.1	33.8	14.5	80.1	36.7
Cycle Q Clear(g_c), s	8.5	18.2	10.3	8.5	18.4	38.0	2.8	69.1	33.8	14.5	80.1	36.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	885	396	192	885	547	78	2290	713	325	2654	826
V/C Ratio(X)	1.71	0.55	0.33	1.23	0.56	1.31	0.82	1.50	0.64	1.82	1.13	0.64
Avail Cap(c_a), veh/h	192	885	396	192	885	547	78	2290	713	325	2654	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.0	48.9	45.9	71.0	48.9	49.0	73.2	40.7	31.2	68.0	35.2	25.0
Incr Delay (d2), s/veh	342.5	0.4	0.2	138.9	0.5	151.8	43.8	229.5	1.5	379.7	62.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	8.9	4.5	7.7	8.9	45.7	1.8	80.3	14.8	23.9	52.0	16.0
LnGrp Delay(d),s/veh	413.5	49.3	46.1	209.9	49.4	200.8	116.9	270.2	32.7	447.7	97.9	26.4
LnGrp LOS	F	D	D	F	D	F	F	F	C	F	F	C
Approach Vol, veh/h		950			1444			3966			4115	
Approach Delay, s/veh		175.4			150.7			240.4			138.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	84.9	14.0	42.6	20.0	73.9	14.0	42.6
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	3.5	79.9	8.5	* 38	14.5	* 69	8.5	37.7
Max Q Clear Time (g_c+I1), s	4.8	82.1	10.5	40.0	16.5	71.1	10.5	20.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	182.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	2	9	0	97	0	3365	150	31	2693	6
Future Volume (veh/h)	10	0	2	9	0	97	0	3365	150	31	2693	6
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	10	0	2	9	0	97	0	3365	150	31	2693	6
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	12	0	2	83	0	148	2	3621	1128	38	4087	9
Arrive On Green	0.01	0.00	0.01	0.05	0.00	0.05	0.00	0.73	0.73	0.02	0.80	0.80
Sat Flow, veh/h	1435	0	287	1757	0	3136	1740	4988	1553	1740	5138	11
Grp Volume(v), veh/h	12	0	0	9	0	97	0	3365	150	31	1742	957
Grp Sat Flow(s),veh/h/ln	1722	0	0	1757	0	1568	1740	1663	1553	1740	1663	1825
Q Serve(g_s), s	0.7	0.0	0.0	0.5	0.0	3.3	0.0	61.1	3.1	1.9	24.2	24.2
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.5	0.0	3.3	0.0	61.1	3.1	1.9	24.2	24.2
Prop In Lane	0.83		0.17	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	14	0	0	83	0	148	2	3621	1128	38	2645	1452
V/C Ratio(X)	0.83	0.00	0.00	0.11	0.00	0.65	0.00	0.93	0.13	0.81	0.66	0.66
Avail Cap(c_a), veh/h	48	0	0	196	0	350	49	3762	1171	49	2645	1452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	0.0	0.0	49.0	0.0	50.3	0.0	12.4	4.5	52.4	4.7	4.7
Incr Delay (d2), s/veh	33.6	0.0	0.0	0.2	0.0	1.8	0.0	5.3	0.2	44.6	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.3	0.0	1.5	0.0	29.2	1.4	1.4	11.3	12.7
LnGrp Delay(d),s/veh	86.8	0.0	0.0	49.2	0.0	52.2	0.0	17.6	4.6	97.0	5.8	6.6
LnGrp LOS	F			D		D		B	A	F	A	A
Approach Vol, veh/h		12			106			3515			2730	
Approach Delay, s/veh		86.8			51.9			17.1			7.1	
Approach LOS		F			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	90.5		6.4	7.5	83.1		10.6
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 3	81.4		3.0	* 3	* 81		12.0
Max Q Clear Time (g_c+I1), s	0.0	26.2		2.7	3.9	63.1		5.3
Green Ext Time (p_c), s	0.0	54.9		0.0	0.0	15.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	329	23	149	410	832	34	2829	206	422	2387	0
Future Volume (veh/h)	0	329	23	149	410	832	34	2829	206	422	2387	0
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	0	329	23	149	410	832	34	2829	206	422	2387	0
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	2	512	229	136	796	573	60	2448	174	468	3171	0
Arrive On Green	0.00	0.15	0.15	0.04	0.23	0.23	0.02	0.51	0.51	0.14	0.64	0.00
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4754	338	3375	5152	0
Grp Volume(v), veh/h	0	329	23	149	410	832	34	1959	1076	422	2387	0
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1767	1688	1663	0
Q Serve(g_s), s	0.0	12.3	1.8	5.5	14.2	31.4	1.4	71.2	71.2	17.0	46.2	0.0
Cycle Q Clear(g_c), s	0.0	12.3	1.8	5.5	14.2	31.4	1.4	71.2	71.2	17.0	46.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.00
Lane Grp Cap(c), veh/h	2	512	229	136	796	573	60	1712	910	468	3171	0
V/C Ratio(X)	0.00	0.64	0.10	1.10	0.52	1.45	0.56	1.14	1.18	0.90	0.75	0.00
Avail Cap(c_a), veh/h	73	728	326	136	796	573	103	1712	910	549	3225	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	55.5	51.0	66.4	46.8	43.9	67.4	33.5	33.5	58.6	17.6	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.1	106.3	0.3	212.5	3.1	72.3	93.5	15.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	0.8	4.6	6.9	55.6	0.7	49.8	58.3	9.0	21.3	0.0
LnGrp Delay(d),s/veh	0.0	56.0	51.1	172.7	47.0	256.3	70.4	105.8	127.0	73.7	18.5	0.0
LnGrp LOS		E	D	F	D	F	E	F	F	E	B	
Approach Vol, veh/h		352			1391			3069			2809	
Approach Delay, s/veh		55.7			185.7			112.9			26.8	
Approach LOS		E			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	93.2	0.0	37.1	24.7	76.5	11.0	26.1
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	4.2	89.4	3.0	* 31	22.5	* 71	5.5	* 29
Max Q Clear Time (g_c+I1), s	3.4	48.2	0.0	33.4	19.0	73.2	7.5	14.3
Green Ext Time (p_c), s	0.0	35.2	0.0	0.0	0.2	0.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	91.8
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	46	103	2896	24	61	2548
Future Volume (veh/h)	46	103	2896	24	61	2548
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	46	103	2896	24	61	2548
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	102	91	3589	30	77	2807
Arrive On Green	0.06	0.06	0.70	0.70	0.04	0.81
Sat Flow, veh/h	1757	1568	5267	42	1740	3563
Grp Volume(v), veh/h	46	103	1885	1035	61	2548
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1819	1740	1736
Q Serve(g_s), s	2.0	4.5	30.0	30.3	2.7	40.8
Cycle Q Clear(g_c), s	2.0	4.5	30.0	30.3	2.7	40.8
Prop In Lane	1.00	1.00		0.02	1.00	
Lane Grp Cap(c), veh/h	102	91	2339	1280	77	2807
V/C Ratio(X)	0.45	1.13	0.81	0.81	0.79	0.91
Avail Cap(c_a), veh/h	102	91	2339	1280	360	2928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	36.4	7.9	7.9	36.6	5.3
Incr Delay (d2), s/veh	1.1	133.0	2.0	3.7	6.6	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.3	14.0	16.3	1.4	20.1
LnGrp Delay(d),s/veh	36.3	169.4	9.9	11.6	43.1	9.7
LnGrp LOS	D	F	A	B	D	A
Approach Vol, veh/h	149		2920			2609
Approach Delay, s/veh	128.3		10.5			10.5
Approach LOS	F		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		67.3			8.1	59.2		10.0
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		65.2			* 16	53.4		4.5
Max Q Clear Time (g_c+I1), s		42.8			4.7	32.3		6.5
Green Ext Time (p_c), s		19.6			0.0	19.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	1488	677	98	1960	977	763	1984	74	1096	1563	188
Future Volume (veh/h)	85	1488	677	98	1960	977	763	1984	74	1096	1563	188
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	85	1488	677	98	1960	977	763	1984	74	1096	1563	188
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	68	1334	597	80	1357	607	402	1380	430	569	1620	504
Arrive On Green	0.02	0.39	0.39	0.02	0.40	0.40	0.12	0.28	0.28	0.17	0.32	0.32
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	85	1488	677	98	1960	977	763	1984	74	1096	1563	188
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	3.0	56.9	56.9	3.5	57.9	57.9	17.3	40.2	5.3	24.5	44.8	13.5
Cycle Q Clear(g_c), s	3.0	56.9	56.9	3.5	57.9	57.9	17.3	40.2	5.3	24.5	44.8	13.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	68	1334	597	80	1357	607	402	1380	430	569	1620	504
V/C Ratio(X)	1.24	1.12	1.13	1.23	1.44	1.61	1.90	1.44	0.17	1.93	0.96	0.37
Avail Cap(c_a), veh/h	68	1334	597	80	1357	607	402	1380	430	569	1620	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.2	44.2	44.2	70.9	43.7	43.7	64.0	52.5	39.9	60.4	48.2	37.7
Incr Delay (d2), s/veh	187.8	62.9	79.9	174.4	204.1	281.8	413.6	201.2	0.1	423.0	14.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	38.3	37.2	3.5	65.6	71.9	31.1	44.1	2.3	44.8	22.8	5.8
LnGrp Delay(d),s/veh	259.0	107.1	124.1	245.3	247.8	325.5	477.6	253.8	40.0	483.4	63.0	37.8
LnGrp LOS	F	F	F	F	F	F	F	F	D	F	E	D
Approach Vol, veh/h		2250			3035			2821			2847	
Approach Delay, s/veh		117.9			272.7			308.7			223.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	63.3	22.0	52.0	9.0	62.3	29.0	45.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.5	4.8
Max Green Setting (Gmax), s	3.0	* 58	* 17	47.2	3.5	* 57	24.5	40.2
Max Q Clear Time (g_c+I1), s	5.0	59.9	19.3	46.8	5.5	58.9	26.5	42.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	237.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	612	57	401	826	273	325	2116	555	131	1767	432
Future Volume (veh/h)	108	612	57	401	826	273	325	2116	555	131	1767	432
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	108	612	57	401	826	273	325	2116	555	131	1767	432
Adj No. of Lanes	1	1	1	2	2	1	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	130	523	445	336	1073	480	278	2038	641	109	1575	490
Arrive On Green	0.07	0.28	0.28	0.10	0.31	0.31	0.16	0.41	0.41	0.06	0.32	0.32
Sat Flow, veh/h	1757	1845	1568	3408	3505	1568	1740	4988	1568	1757	4988	1553
Grp Volume(v), veh/h	108	612	57	401	826	273	325	2116	555	131	1767	432
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1704	1752	1568	1740	1663	1568	1757	1663	1553
Q Serve(g_s), s	8.5	39.7	3.8	13.8	30.0	20.5	22.4	57.2	45.4	8.7	44.2	36.9
Cycle Q Clear(g_c), s	8.5	39.7	3.8	13.8	30.0	20.5	22.4	57.2	45.4	8.7	44.2	36.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	523	445	336	1073	480	278	2038	641	109	1575	490
V/C Ratio(X)	0.83	1.17	0.13	1.19	0.77	0.57	1.17	1.04	0.87	1.20	1.12	0.88
Avail Cap(c_a), veh/h	152	523	445	336	1073	480	278	2038	641	109	1575	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.0	50.1	37.3	63.1	44.1	40.8	58.8	41.4	37.9	65.7	47.9	45.4
Incr Delay (d2), s/veh	24.4	95.5	0.0	112.7	3.1	1.0	107.1	30.7	11.5	149.5	64.0	16.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	34.1	1.6	11.7	14.9	9.0	19.0	32.0	21.6	8.7	29.6	18.0
LnGrp Delay(d),s/veh	88.3	145.6	37.3	175.8	47.2	41.8	165.9	72.1	49.4	215.2	111.9	61.7
LnGrp LOS	F	F	D	F	D	D	F	F	D	F	F	E
Approach Vol, veh/h		777			1500			2996			2330	
Approach Delay, s/veh		129.7			80.6			78.1			108.4	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	49.0	15.8	48.2	14.0	62.0	19.0	45.0
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 22	44.2	12.1	* 42	* 8.7	57.2	* 14	* 40
Max Q Clear Time (g_c+I1), s	24.4	46.2	10.5	32.0	10.7	59.2	15.8	41.7
Green Ext Time (p_c), s	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	93.1
HCM 2010 LOS	F

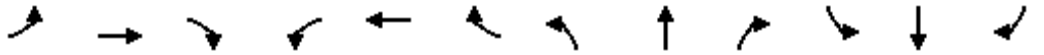
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	852	84	107	1081	816	274	2146	382	839	1016	376
Future Volume (veh/h)	268	852	84	107	1081	816	274	2146	382	839	1016	376
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	268	852	84	107	1081	816	274	2146	382	839	1016	376
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	204	627	533	82	1145	512	323	1662	523	591	2050	638
Arrive On Green	0.06	0.34	0.34	0.05	0.33	0.33	0.10	0.33	0.33	0.17	0.41	0.41
Sat Flow, veh/h	3408	1845	1568	1757	3505	1568	3375	4988	1568	3408	4988	1553
Grp Volume(v), veh/h	268	852	84	107	1081	816	274	2146	382	839	1016	376
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1757	1752	1568	1688	1663	1568	1704	1663	1553
Q Serve(g_s), s	9.0	51.0	5.6	7.0	45.0	49.0	12.0	50.0	32.2	26.0	22.6	28.2
Cycle Q Clear(g_c), s	9.0	51.0	5.6	7.0	45.0	49.0	12.0	50.0	32.2	26.0	22.6	28.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	204	627	533	82	1145	512	323	1663	523	591	2050	638
V/C Ratio(X)	1.31	1.36	0.16	1.31	0.94	1.59	0.85	1.29	0.73	1.42	0.50	0.59
Avail Cap(c_a), veh/h	204	627	533	82	1145	512	405	1663	523	591	2050	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	49.5	34.5	71.5	49.2	50.5	66.8	50.0	44.1	62.0	32.7	34.3
Incr Delay (d2), s/veh	170.2	171.5	0.1	201.3	15.1	276.0	13.0	135.5	5.2	198.9	0.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	55.8	2.4	8.0	24.2	60.5	6.2	43.8	14.7	28.5	10.4	12.3
LnGrp Delay(d),s/veh	240.7	221.0	34.7	272.8	64.3	326.5	79.7	185.5	49.3	260.9	32.9	35.8
LnGrp LOS	F	F	C	F	E	F	E	F	D	F	C	D
Approach Vol, veh/h		1204			2004			2802			2231	
Approach Delay, s/veh		212.4			182.2			156.6			119.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.3	65.7	13.0	53.0	30.0	54.0	11.0	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	58.0	9.0	49.0	26.0	50.0	7.0	51.0
Max Q Clear Time (g_c+I1), s	14.0	30.2	11.0	51.0	28.0	52.0	9.0	53.0
Green Ext Time (p_c), s	0.4	26.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	160.8
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1342	414	134	13	510	7	933	2195	129	9	816	800
Future Volume (veh/h)	1342	414	134	13	510	7	933	2195	129	9	816	800
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	1342	414	134	13	510	7	933	2195	129	9	816	800
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	694	1748	782	15	391	175	497	1707	531	21	1023	319
Arrive On Green	0.40	0.50	0.50	0.01	0.11	0.11	0.15	0.34	0.34	0.01	0.21	0.21
Sat Flow, veh/h	1740	3471	1553	1740	3471	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	1342	414	134	13	510	7	933	2195	129	9	816	800
Grp Sat Flow(s),veh/h/ln	1740	1736	1553	1740	1736	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	59.9	10.1	7.0	1.1	16.9	0.6	22.1	51.4	8.9	0.4	23.3	30.8
Cycle Q Clear(g_c), s	59.9	10.1	7.0	1.1	16.9	0.6	22.1	51.4	8.9	0.4	23.3	30.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	694	1748	782	15	391	175	497	1707	531	21	1023	319
V/C Ratio(X)	1.93	0.24	0.17	0.86	1.30	0.04	1.88	1.29	0.24	0.43	0.80	2.51
Avail Cap(c_a), veh/h	694	1748	782	58	391	175	497	1707	531	67	1023	319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	21.0	20.2	74.3	66.6	59.4	64.0	49.4	35.4	74.3	56.7	59.7
Incr Delay (d2), s/veh	425.0	0.3	0.5	36.8	154.7	0.4	402.4	133.4	1.1	5.0	6.5	689.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	110.7	4.9	3.1	0.7	16.5	0.3	38.1	44.6	4.0	0.2	11.3	74.2
LnGrp Delay(d),s/veh	470.1	21.3	20.7	111.1	221.3	59.8	466.4	182.7	36.5	79.3	63.1	748.7
LnGrp LOS	F	C	C	F	F	E	F	F	D	E	E	F
Approach Vol, veh/h		1890			530			3257			1625	
Approach Delay, s/veh		340.0			216.5			258.2			400.7	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	36.0	65.0	22.1	6.4	56.6	6.3	80.8
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 22	* 31	* 60	* 17	3.0	* 50	5.0	* 72
Max Q Clear Time (g_c+I1), s	24.1	32.8	61.9	18.9	2.4	53.4	3.1	12.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.5

Intersection Summary		
HCM 2010 Ctrl Delay		308.0
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	619	371	109	916	237	494	2754	201	31	1007	89
Future Volume (veh/h)	87	619	371	109	916	237	494	2754	201	31	1007	89
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	87	619	371	109	916	237	494	2754	201	31	1007	89
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	104	819	367	156	872	390	543	2691	838	56	1970	613
Arrive On Green	0.03	0.23	0.23	0.05	0.25	0.25	0.16	0.54	0.54	0.02	0.40	0.40
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	87	619	371	109	916	237	494	2754	201	31	1007	89
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	3.4	22.1	31.4	4.2	33.4	18.0	19.3	72.4	9.2	1.2	20.5	4.9
Cycle Q Clear(g_c), s	3.4	22.1	31.4	4.2	33.4	18.0	19.3	72.4	9.2	1.2	20.5	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	819	367	156	872	390	543	2691	838	56	1970	613
V/C Ratio(X)	0.84	0.76	1.01	0.70	1.05	0.61	0.91	1.02	0.24	0.56	0.51	0.15
Avail Cap(c_a), veh/h	104	819	367	168	872	390	712	2691	838	75	1970	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.7	47.8	51.4	63.1	50.4	44.6	55.4	30.9	16.3	65.5	30.8	26.1
Incr Delay (d2), s/veh	39.8	6.4	50.1	9.0	44.5	5.3	11.4	23.6	0.5	3.2	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	11.4	18.7	2.2	21.5	8.3	9.8	39.0	4.1	0.6	9.5	2.2
LnGrp Delay(d),s/veh	104.6	54.3	101.6	72.2	94.9	49.9	66.8	54.5	16.8	68.7	31.4	26.4
LnGrp LOS	F	D	F	E	F	D	E	F	B	E	C	C
Approach Vol, veh/h		1077			1262			3449			1127	
Approach Delay, s/veh		74.6			84.5			54.1			32.1	
Approach LOS		E			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.1	58.5	9.6	39.0	7.7	77.9	11.6	37.0
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	28.3	* 47	4.1	33.4	3.0	* 72	6.6	* 31
Max Q Clear Time (g_c+I1), s	21.3	22.5	5.4	35.4	3.2	74.4	6.2	33.4
Green Ext Time (p_c), s	0.3	24.6	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.3
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	1018	21	153	1269	80	238	394	208	28	148	6
Future Volume (veh/h)	115	1018	21	153	1269	80	238	394	208	28	148	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	115	1018	21	153	1269	80	238	394	208	28	148	6
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	145	1375	28	189	1395	88	276	516	439	33	261	222
Arrive On Green	0.08	0.39	0.39	0.11	0.42	0.42	0.16	0.28	0.28	0.02	0.14	0.14
Sat Flow, veh/h	1757	3512	72	1757	3349	211	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	115	508	531	153	663	686	238	394	208	28	148	6
Grp Sat Flow(s),veh/h/ln	1757	1752	1832	1757	1752	1807	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	5.1	19.7	19.7	6.7	28.1	28.2	10.5	15.5	8.7	1.3	5.9	0.3
Cycle Q Clear(g_c), s	5.1	19.7	19.7	6.7	28.1	28.2	10.5	15.5	8.7	1.3	5.9	0.3
Prop In Lane	1.00		0.04	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	686	717	189	730	753	276	516	439	33	261	222
V/C Ratio(X)	0.79	0.74	0.74	0.81	0.91	0.91	0.86	0.76	0.47	0.84	0.57	0.03
Avail Cap(c_a), veh/h	155	686	717	244	753	777	289	699	594	67	466	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	20.6	20.6	34.5	21.7	21.7	32.5	26.1	23.7	38.7	31.7	29.3
Incr Delay (d2), s/veh	22.8	4.3	4.1	14.4	14.6	14.6	21.9	3.4	0.8	40.0	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	10.3	10.7	4.0	16.4	17.0	6.7	8.4	3.9	1.0	3.1	0.1
LnGrp Delay(d),s/veh	58.5	24.9	24.7	48.9	36.3	36.3	54.4	29.5	24.5	78.7	33.6	29.3
LnGrp LOS	E	C	C	D	D	D	D	C	C	E	C	C
Approach Vol, veh/h		1154			1502			840			182	
Approach Delay, s/veh		28.2			37.6			35.3			40.4	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	26.1	12.5	35.0	16.4	15.2	10.5	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	30.0	11.0	30.0	13.0	20.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	3.3	17.5	8.7	21.7	12.5	7.9	7.1	30.2
Green Ext Time (p_c), s	0.0	3.3	0.1	7.3	0.0	3.3	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	1326	686	5	1390	461	608	422	107	253	235	76
Future Volume (veh/h)	69	1326	686	5	1390	461	608	422	107	253	235	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	69	1326	686	5	1390	461	608	422	107	253	235	76
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	1113	530	7	1205	382	480	480	408	258	246	209
Arrive On Green	0.03	0.48	0.48	0.00	0.46	0.46	0.27	0.26	0.26	0.15	0.13	0.13
Sat Flow, veh/h	1757	2306	1098	1757	2619	831	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	69	980	1032	5	909	942	608	422	107	253	235	76
Grp Sat Flow(s),veh/h/ln	1757	1752	1651	1757	1752	1698	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	4.0	72.4	72.4	0.4	69.0	69.0	41.0	32.9	8.1	21.5	19.0	6.6
Cycle Q Clear(g_c), s	4.0	72.4	72.4	0.4	69.0	69.0	41.0	32.9	8.1	21.5	19.0	6.6
Prop In Lane	1.00		0.66	1.00		0.49	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	846	797	7	806	781	480	480	408	258	246	209
V/C Ratio(X)	1.47	1.16	1.29	0.76	1.13	1.21	1.27	0.88	0.26	0.98	0.96	0.36
Avail Cap(c_a), veh/h	47	846	797	35	806	781	480	480	408	258	246	209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.0	38.8	38.8	74.6	40.5	40.5	54.5	53.3	44.1	63.8	64.6	59.2
Incr Delay (d2), s/veh	298.2	84.4	141.7	97.0	73.0	104.6	135.5	17.0	0.3	50.8	45.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	54.9	64.4	0.4	49.7	55.0	38.0	19.0	3.6	14.1	12.7	2.9
LnGrp Delay(d),s/veh	371.2	123.2	180.4	171.7	113.5	145.1	190.0	70.2	44.4	114.6	109.6	60.3
LnGrp LOS	F	F	F	F	F	F	F	E	D	F	F	E
Approach Vol, veh/h		2081			1856			1137			564	
Approach Delay, s/veh		159.8			129.7			131.9			105.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	43.0	4.6	76.4	45.0	24.0	8.0	73.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	39.0	3.0	70.0	41.0	20.0	4.0	69.0
Max Q Clear Time (g_c+I1), s	23.5	34.9	2.4	74.4	43.0	21.0	6.0	71.0
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	138.8
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	371	5	73	489	0	10	139	75	11	30	30
Future Volume (veh/h)	176	371	5	73	489	0	10	139	75	11	30	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	176	371	5	73	489	0	10	139	75	11	30	30
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	226	1964	26	520	1081	0	119	225	117	148	171	143
Arrive On Green	0.13	0.56	0.56	0.31	0.31	0.00	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1740	3507	47	983	3563	0	36	1114	579	120	843	704
Grp Volume(v), veh/h	176	183	193	73	489	0	224	0	0	71	0	0
Grp Sat Flow(s),veh/h/ln	1740	1736	1819	983	1736	0	1728	0	0	1666	0	0
Q Serve(g_s), s	3.3	1.8	1.8	1.9	3.8	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	1.8	1.8	1.9	3.8	0.0	4.0	0.0	0.0	1.2	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.00	0.04		0.33	0.15		0.42
Lane Grp Cap(c), veh/h	226	972	1019	520	1081	0	461	0	0	461	0	0
V/C Ratio(X)	0.78	0.19	0.19	0.14	0.45	0.00	0.49	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	413	1546	1620	739	1855	0	725	0	0	704	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.2	3.6	3.6	8.6	9.3	0.0	12.3	0.0	0.0	11.2	0.0	0.0
Incr Delay (d2), s/veh	5.7	0.1	0.1	0.1	0.3	0.0	0.8	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.8	0.9	0.5	1.8	0.0	2.0	0.0	0.0	0.6	0.0	0.0
LnGrp Delay(d),s/veh	19.9	3.7	3.7	8.7	9.6	0.0	13.1	0.0	0.0	11.3	0.0	0.0
LnGrp LOS	B	A	A	A	A		B			B		
Approach Vol, veh/h		552			562			224			71	
Approach Delay, s/veh		8.9			9.5			13.1			11.3	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6	7	8
Phs Duration (G+Y+Rc), s		10.8		22.9		10.8	8.4	14.5
Change Period (Y+Rc), s		4.0		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		12.0		30.0		12.0	8.0	18.0
Max Q Clear Time (g_c+I1), s		6.0		3.8		3.2	5.3	5.8
Green Ext Time (p_c), s		0.8		6.5		1.1	0.1	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	884	101	176	1036	384	110	614	197	293	400	80
Future Volume (veh/h)	58	884	101	176	1036	384	110	614	197	293	400	80
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	58	884	101	176	1036	384	110	614	197	293	400	80
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	56	1019	116	176	976	357	131	548	466	264	688	585
Arrive On Green	0.03	0.32	0.32	0.10	0.39	0.39	0.07	0.30	0.30	0.15	0.37	0.37
Sat Flow, veh/h	1757	3171	362	1757	2515	920	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	58	489	496	176	718	702	110	614	197	293	400	80
Grp Sat Flow(s),veh/h/ln	1757	1752	1781	1757	1752	1682	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	4.8	39.4	39.4	15.0	58.2	58.2	9.3	44.6	15.1	22.5	26.0	5.1
Cycle Q Clear(g_c), s	4.8	39.4	39.4	15.0	58.2	58.2	9.3	44.6	15.1	22.5	26.0	5.1
Prop In Lane	1.00		0.20	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	563	572	176	680	653	131	548	466	264	688	585
V/C Ratio(X)	1.03	0.87	0.87	1.00	1.06	1.08	0.84	1.12	0.42	1.11	0.58	0.14
Avail Cap(c_a), veh/h	56	565	575	176	680	653	206	548	466	264	688	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.6	47.9	47.9	67.5	45.9	45.9	68.5	52.7	42.4	63.8	37.7	31.1
Incr Delay (d2), s/veh	129.3	12.9	12.7	68.4	50.2	57.4	9.1	75.6	0.2	88.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	21.0	21.3	10.6	37.6	37.4	4.9	34.2	6.6	17.4	13.4	2.2
LnGrp Delay(d),s/veh	202.4	60.8	60.6	135.9	96.1	103.3	77.6	128.3	42.6	152.6	38.5	31.1
LnGrp LOS	F	E	E	F	F	F	E	F	D	F	D	C
Approach Vol, veh/h		1043			1596			921			773	
Approach Delay, s/veh		68.6			103.6			103.9			81.0	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	63.0	16.7	60.3	20.0	53.0	28.0	49.0
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 4.8	58.2	17.6	* 50	15.0	* 48	22.5	* 45
Max Q Clear Time (g_c+I1), s	6.8	60.2	11.3	28.0	17.0	41.4	24.5	46.6
Green Ext Time (p_c), s	0.0	0.0	0.0	2.5	0.0	4.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	91.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	1980	182	246	2151	3	109	1802	305	3	1650	155
Future Volume (veh/h)	373	1980	182	246	2151	3	109	1802	305	3	1650	155
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	373	1980	182	246	2151	3	109	1802	305	3	1650	155
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	295	1859	596	227	1762	564	91	1557	697	8	1472	659
Arrive On Green	0.09	0.38	0.38	0.07	0.36	0.36	0.03	0.44	0.44	0.00	0.42	0.42
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	373	1980	182	246	2151	3	109	1802	305	3	1650	155
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	13.0	57.0	12.2	10.0	54.0	0.2	4.0	66.6	20.1	0.1	63.0	9.5
Cycle Q Clear(g_c), s	13.0	57.0	12.2	10.0	54.0	0.2	4.0	66.6	20.1	0.1	63.0	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	1859	596	227	1762	564	91	1557	697	8	1472	659
V/C Ratio(X)	1.26	1.06	0.31	1.08	1.22	0.01	1.20	1.16	0.44	0.37	1.12	0.24
Avail Cap(c_a), veh/h	295	1859	596	227	1762	564	91	1557	697	91	1472	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.5	46.5	32.6	70.0	48.0	30.8	73.0	41.7	28.8	74.7	43.5	28.0
Incr Delay (d2), s/veh	142.5	40.6	0.3	83.5	104.8	0.0	157.5	78.4	0.4	26.6	64.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	32.6	5.4	7.3	41.4	0.1	3.9	49.2	8.8	0.1	43.6	4.2
LnGrp Delay(d),s/veh	211.0	87.1	32.9	153.5	152.8	30.8	230.5	120.1	29.2	101.3	107.5	28.2
LnGrp LOS	F	F	C	F	F	C	F	F	C	F	F	C
Approach Vol, veh/h		2535			2400			2216			1808	
Approach Delay, s/veh		101.4			152.7			113.0			100.7	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.4	70.6	14.0	61.0	8.0	67.0	17.0	58.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	63.0	10.0	57.0	4.0	63.0	13.0	54.0
Max Q Clear Time (g_c+I1), s	2.1	68.6	12.0	59.0	6.0	65.0	15.0	56.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	524	1035	93	731	1021	255	245	1568	441	115	1159	234
Future Volume (veh/h)	524	1035	93	731	1021	255	245	1568	441	115	1159	234
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	524	1035	93	731	1021	255	245	1568	441	115	1159	234
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	223	607	55	305	649	162	682	701	314	55	557	523
Arrive On Green	0.13	0.19	0.19	0.17	0.23	0.23	0.20	0.20	0.20	0.33	0.33	0.33
Sat Flow, veh/h	1757	3253	292	1757	2783	692	3408	3505	1568	166	1671	1568
Grp Volume(v), veh/h	524	557	571	731	641	635	245	1568	441	1274	0	234
Grp Sat Flow(s),veh/h/ln	1757	1752	1793	1757	1752	1723	1704	1752	1568	1836	0	1568
Q Serve(g_s), s	19.0	28.0	28.0	26.0	35.0	35.0	9.3	30.0	30.0	50.0	0.0	17.5
Cycle Q Clear(g_c), s	19.0	28.0	28.0	26.0	35.0	35.0	9.3	30.0	30.0	50.0	0.0	17.5
Prop In Lane	1.00		0.16	1.00		0.40	1.00		1.00	0.09		1.00
Lane Grp Cap(c), veh/h	223	327	335	305	409	402	682	701	314	612	0	523
V/C Ratio(X)	2.35	1.70	1.70	2.40	1.57	1.58	0.36	2.24	1.41	2.08	0.00	0.45
Avail Cap(c_a), veh/h	223	327	335	305	409	402	682	701	314	612	0	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	65.5	61.0	61.0	62.0	57.5	57.5	51.7	60.0	60.0	50.0	0.0	39.2
Incr Delay (d2), s/veh	623.4	329.5	329.7	640.2	267.5	272.2	0.3	561.2	200.9	492.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	47.7	43.5	44.5	66.8	47.3	47.0	4.4	69.1	30.5	109.0	0.0	7.7
LnGrp Delay(d),s/veh	688.9	390.5	390.7	702.2	325.0	329.7	52.0	621.2	260.9	542.2	0.0	39.8
LnGrp LOS	F	F	F	F	F	F	D	F	F	F		D
Approach Vol, veh/h		1652			2007			2254			1508	
Approach Delay, s/veh		485.2			463.9			488.8			464.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	30.0	32.0		54.0	23.0	39.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	26.0	28.0		50.0	19.0	35.0
Max Q Clear Time (g_c+I1), s		32.0	28.0	30.0		52.0	21.0	37.0
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	476.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1164	0	631	0	1168	1322	0	524	396
Future Volume (veh/h)	0	0	0	1164	0	631	0	1168	1322	0	524	396
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1827	0	1827	0	1827	1827	0	1827	1827
Adj Flow Rate, veh/h				1164	0	631	0	1168	0	0	524	0
Adj No. of Lanes				2	0	2	0	3	1	0	3	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				4	0	4	0	4	4	0	4	4
Cap, veh/h				1355	0	1097	0	1815	565	0	1815	565
Arrive On Green				0.40	0.00	0.40	0.00	0.36	0.00	0.00	0.36	0.00
Sat Flow, veh/h				3375	0	2733	0	5152	1553	0	5152	1553
Grp Volume(v), veh/h				1164	0	631	0	1168	0	0	524	0
Grp Sat Flow(s),veh/h/ln				1688	0	1367	0	1663	1553	0	1663	1553
Q Serve(g_s), s				13.0	0.0	7.4	0.0	8.0	0.0	0.0	3.1	0.0
Cycle Q Clear(g_c), s				13.0	0.0	7.4	0.0	8.0	0.0	0.0	3.1	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1355	0	1097	0	1815	565	0	1815	565
V/C Ratio(X)				0.86	0.00	0.58	0.00	0.64	0.00	0.00	0.29	0.00
Avail Cap(c_a), veh/h				2155	0	1745	0	3076	958	0	2883	898
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.3	0.0	9.6	0.0	10.9	0.0	0.0	9.3	0.0
Incr Delay (d2), s/veh				1.2	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.2	0.0	2.7	0.0	3.7	0.0	0.0	1.4	0.0
LnGrp Delay(d),s/veh				12.5	0.0	9.8	0.0	11.1	0.0	0.0	9.4	0.0
LnGrp LOS				B		A		B			A	
Approach Vol, veh/h					1795			1168			524	
Approach Delay, s/veh					11.6			11.1			9.4	
Approach LOS					B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		20.1		21.2		20.1		
Change Period (Y+Rc), s		5.1		4.6		* 5.1		
Max Green Setting (Gmax), s		23.9		26.4		* 26		
Max Q Clear Time (g_c+I1), s		5.1		15.0		10.0		
Green Ext Time (p_c), s		5.3		1.6		5.0		

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	40	32	307	30	388	57	2863	368	680	1890	59
Future Volume (veh/h)	76	40	32	307	30	388	57	2863	368	680	1890	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	76	40	32	307	30	388	57	2863	368	680	1890	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	64	35	28	545	295	251	72	2437	759	574	3080	96
Arrive On Green	0.04	0.04	0.04	0.16	0.16	0.16	0.04	0.49	0.49	0.17	0.62	0.62
Sat Flow, veh/h	1757	950	760	3408	1845	1568	1740	4988	1553	3375	4970	155
Grp Volume(v), veh/h	76	0	72	307	30	388	57	2863	368	680	1264	685
Grp Sat Flow(s),veh/h/ln	1757	0	1711	1704	1845	1568	1740	1663	1553	1688	1663	1800
Q Serve(g_s), s	5.5	0.0	5.5	12.5	2.1	24.0	4.9	73.3	23.8	25.5	35.0	35.1
Cycle Q Clear(g_c), s	5.5	0.0	5.5	12.5	2.1	24.0	4.9	73.3	23.8	25.5	35.0	35.1
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	64	0	63	545	295	251	72	2437	759	574	2061	1115
V/C Ratio(X)	1.18	0.00	1.15	0.56	0.10	1.55	0.79	1.17	0.48	1.19	0.61	0.61
Avail Cap(c_a), veh/h	64	0	63	545	295	251	123	2437	759	574	2061	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.3	0.0	72.3	58.2	53.8	63.0	71.2	38.3	25.7	62.3	17.5	17.5
Incr Delay (d2), s/veh	168.8	0.0	159.5	0.8	0.1	264.8	6.9	83.3	0.2	100.0	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	5.4	5.9	1.1	28.8	2.5	52.4	10.3	19.8	16.1	17.5
LnGrp Delay(d),s/veh	241.1	0.0	231.9	59.0	53.9	327.8	78.1	121.7	25.9	162.2	17.9	18.3
LnGrp LOS	F		F	E	D	F	E	F	C	F	B	B
Approach Vol, veh/h		148			725			3288			2629	
Approach Delay, s/veh		236.6			202.6			110.2			55.3	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.3	98.2		11.0	31.0	78.5		29.5
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 11	* 89		5.5	25.5	* 73		24.0
Max Q Clear Time (g_c+I1), s	6.9	37.1		7.5	27.5	75.3		26.0
Green Ext Time (p_c), s	0.0	38.5		0.0	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		101.6
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	1179	429	252	1471	826	359	2029	361	577	839	158
Future Volume (veh/h)	224	1179	429	252	1471	826	359	2029	361	577	839	158
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	224	1179	429	252	1471	826	359	2029	361	577	839	158
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	170	1100	492	249	1181	529	403	1705	531	415	1723	537
Arrive On Green	0.05	0.31	0.31	0.07	0.34	0.34	0.12	0.34	0.34	0.12	0.35	0.35
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	224	1179	429	252	1471	826	359	2029	361	577	839	158
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	7.5	47.2	38.9	11.0	50.7	50.7	15.8	51.4	30.0	18.5	19.9	11.2
Cycle Q Clear(g_c), s	7.5	47.2	38.9	11.0	50.7	50.7	15.8	51.4	30.0	18.5	19.9	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	1100	492	249	1181	529	403	1705	531	415	1723	537
V/C Ratio(X)	1.32	1.07	0.87	1.01	1.25	1.56	0.89	1.19	0.68	1.39	0.49	0.29
Avail Cap(c_a), veh/h	170	1100	492	249	1181	529	532	1705	531	415	1723	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.4	51.6	48.7	69.7	49.8	49.9	65.3	49.5	42.5	65.9	38.7	35.9
Incr Delay (d2), s/veh	178.3	48.6	15.1	59.8	117.5	262.4	11.9	91.8	2.9	189.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	30.2	18.9	7.2	43.7	60.5	8.0	38.0	13.3	19.5	9.2	4.8
LnGrp Delay(d),s/veh	249.8	100.2	63.8	129.6	167.4	312.2	77.2	141.3	45.4	255.6	38.8	36.0
LnGrp LOS	F	F	E	F	F	F	E	F	D	F	D	D
Approach Vol, veh/h		1832			2549			2749			1574	
Approach Delay, s/veh		110.0			210.6			120.3			118.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	57.6	13.0	56.4	24.0	57.0	16.5	52.9
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	23.7	* 46	7.5	* 51	18.5	* 51	11.0	* 47
Max Q Clear Time (g_c+I1), s	17.8	21.9	9.5	52.7	20.5	53.4	13.0	49.2
Green Ext Time (p_c), s	0.2	12.7	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	144.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	1491	494	163	2278	530	71	2559	158	521	865	90
Future Volume (veh/h)	350	1491	494	163	2278	530	71	2559	158	521	865	90
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	350	1491	494	163	2278	530	71	2559	158	521	865	0
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	258	1679	538	207	1612	502	110	1810	563	338	2137	659
Arrive On Green	0.08	0.34	0.34	0.06	0.33	0.33	0.03	0.36	0.36	0.10	0.42	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	1524	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	350	1491	494	163	2278	530	71	2559	158	521	865	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1524	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	11.7	43.2	45.3	7.1	49.4	49.4	3.1	53.9	10.8	15.0	17.9	0.0
Cycle Q Clear(g_c), s	11.7	43.2	45.3	7.1	49.4	49.4	3.1	53.9	10.8	15.0	17.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	1679	538	207	1612	502	110	1810	563	338	2137	659
V/C Ratio(X)	1.35	0.89	0.92	0.79	1.41	1.06	0.65	1.41	0.28	1.54	0.40	0.00
Avail Cap(c_a), veh/h	258	1679	538	232	1612	502	204	1810	563	338	2137	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	69.1	46.5	47.2	69.5	50.3	50.3	71.7	48.1	34.2	67.5	30.0	0.0
Incr Delay (d2), s/veh	182.9	6.0	20.5	14.8	189.8	55.9	2.4	189.7	0.3	258.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	20.4	22.6	3.8	50.6	28.5	1.5	56.8	4.7	19.1	8.3	0.0
LnGrp Delay(d),s/veh	252.1	52.5	67.7	84.3	240.1	106.2	74.1	237.8	34.5	326.4	30.0	0.0
LnGrp LOS	F	D	E	F	F	F	E	F	C	F	C	
Approach Vol, veh/h		2335			2971			2788			1386	
Approach Delay, s/veh		85.7			207.7			222.1			141.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	68.8	16.0	55.0	20.0	59.0	13.9	57.1
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 9	59.5	* 12	49.4	15.0	53.9	* 10	* 51
Max Q Clear Time (g_c+I1), s	5.1	19.9	13.7	51.4	17.0	55.9	9.1	47.3
Green Ext Time (p_c), s	0.0	35.1	0.0	0.0	0.0	0.0	0.1	3.3

Intersection Summary		
HCM 2010 Ctrl Delay		172.2
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	753	154	443	1112	52	424	2790	175	38	945	77
Future Volume (veh/h)	102	753	154	443	1112	52	424	2790	175	38	945	77
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	102	753	154	443	1112	52	424	2790	175	38	945	77
Adj No. of Lanes	2	1	0	2	2	1	1	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	147	488	100	286	1293	579	374	2066	127	66	1169	364
Arrive On Green	0.04	0.33	0.33	0.08	0.37	0.37	0.21	0.43	0.43	0.02	0.23	0.23
Sat Flow, veh/h	3408	1487	304	3408	3505	1568	1757	4851	298	3408	5036	1568
Grp Volume(v), veh/h	102	0	907	443	1112	52	424	1914	1051	38	945	77
Grp Sat Flow(s),veh/h/ln	1704	0	1791	1704	1752	1568	1757	1679	1792	1704	1679	1568
Q Serve(g_s), s	4.4	0.0	48.8	12.5	43.6	3.2	31.7	63.3	63.3	1.6	26.4	5.9
Cycle Q Clear(g_c), s	4.4	0.0	48.8	12.5	43.6	3.2	31.7	63.3	63.3	1.6	26.4	5.9
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	147	0	588	286	1293	579	374	1430	763	66	1169	364
V/C Ratio(X)	0.69	0.00	1.54	1.55	0.86	0.09	1.13	1.34	1.38	0.57	0.81	0.21
Avail Cap(c_a), veh/h	291	0	588	286	1293	579	374	1430	763	103	1212	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	0.0	50.0	68.1	43.4	30.6	58.5	42.7	42.7	72.3	54.0	46.1
Incr Delay (d2), s/veh	5.7	0.0	252.9	262.5	6.1	0.1	87.5	157.2	178.2	7.6	3.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	65.3	16.3	22.2	1.4	24.4	60.4	68.9	0.8	12.7	2.6
LnGrp Delay(d),s/veh	75.9	0.0	302.9	330.7	49.4	30.7	146.0	199.8	220.9	79.9	57.7	46.2
LnGrp LOS	E		F	F	D	C	F	F	F	E	E	D
Approach Vol, veh/h		1009			1607			3389			1060	
Approach Delay, s/veh		279.9			126.3			199.6			57.6	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.2	39.5	18.0	54.0	8.4	68.3	11.9	60.1
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	31.7	35.8	12.5	* 49	4.5	63.0	12.7	* 49
Max Q Clear Time (g_c+I1), s	33.7	28.4	14.5	50.8	3.6	65.3	6.4	45.6
Green Ext Time (p_c), s	0.0	6.1	0.0	0.0	0.0	0.0	0.1	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	173.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	665	799	268	156	941	220	392	2588	124	75	870	283
Future Volume (veh/h)	665	799	268	156	941	220	392	2588	124	75	870	283
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1831	1900	1845	1802	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	665	799	268	156	941	220	392	2588	124	75	870	283
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	6	3	3	3	3	3	3
Cap, veh/h	534	934	313	200	735	172	449	2095	652	68	1532	477
Arrive On Green	0.16	0.36	0.36	0.06	0.27	0.27	0.13	0.42	0.42	0.02	0.30	0.30
Sat Flow, veh/h	3408	2561	859	3408	2757	644	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	665	543	524	156	584	577	392	2588	124	75	870	283
Grp Sat Flow(s),veh/h/ln	1704	1740	1680	1704	1712	1689	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	23.5	43.2	43.3	6.8	40.0	40.0	16.9	62.4	7.5	3.0	21.8	23.0
Cycle Q Clear(g_c), s	23.5	43.2	43.3	6.8	40.0	40.0	16.9	62.4	7.5	3.0	21.8	23.0
Prop In Lane	1.00		0.51	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	534	634	612	200	457	450	449	2095	652	68	1532	477
V/C Ratio(X)	1.25	0.86	0.86	0.78	1.28	1.28	0.87	1.24	0.19	1.10	0.57	0.59
Avail Cap(c_a), veh/h	534	634	612	229	457	450	591	2095	652	68	1532	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	44.0	44.0	69.6	55.0	55.0	63.9	43.8	27.8	73.5	43.9	44.3
Incr Delay (d2), s/veh	125.5	10.6	11.0	13.8	141.5	143.0	10.9	110.2	0.1	139.1	0.5	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.4	22.7	22.0	3.6	36.8	36.5	8.7	50.3	3.3	2.7	10.1	10.2
LnGrp Delay(d),s/veh	188.7	54.6	55.0	83.4	196.5	198.0	74.8	154.0	27.9	213.5	44.4	46.3
LnGrp LOS	F	D	E	F	F	F	E	F	C	F	D	D
Approach Vol, veh/h		1732			1317			3104			1228	
Approach Delay, s/veh		106.2			183.7			139.0			55.2	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	67.5	29.0	45.0	25.3	50.7	14.3	59.7
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	3.0	* 62	23.5	* 40	26.0	* 39	10.1	* 53
Max Q Clear Time (g_c+I1), s	5.0	64.4	25.5	42.0	18.9	25.0	8.8	45.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.9	14.1	0.1	4.2

Intersection Summary		
HCM 2010 Ctrl Delay		125.3
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

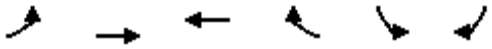
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	471	514	148	58	467	551	155	2263	462	194	1126	229
Future Volume (veh/h)	471	514	148	58	467	551	155	2263	462	194	1126	229
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1845	1827	1845	1845	1845
Adj Flow Rate, veh/h	471	514	148	58	467	551	155	2263	462	194	1126	229
Adj No. of Lanes	2	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	3	4	3	3	3
Cap, veh/h	399	1019	456	74	757	339	210	2179	672	174	2115	658
Arrive On Green	0.12	0.29	0.29	0.04	0.22	0.22	0.06	0.43	0.43	0.05	0.42	0.42
Sat Flow, veh/h	3408	3505	1568	1757	3505	1568	3375	5036	1553	3408	5036	1568
Grp Volume(v), veh/h	471	514	148	58	467	551	155	2263	462	194	1126	229
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1752	1568	1688	1679	1553	1704	1679	1568
Q Serve(g_s), s	13.5	14.1	8.5	3.8	13.9	24.9	5.2	49.9	27.7	5.9	19.3	11.4
Cycle Q Clear(g_c), s	13.5	14.1	8.5	3.8	13.9	24.9	5.2	49.9	27.7	5.9	19.3	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	1019	456	74	757	339	210	2179	672	174	2115	658
V/C Ratio(X)	1.18	0.50	0.32	0.78	0.62	1.63	0.74	1.04	0.69	1.11	0.53	0.35
Avail Cap(c_a), veh/h	399	1019	456	96	757	339	296	2179	672	174	2115	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	34.0	32.0	54.7	40.9	45.2	53.1	32.7	26.4	54.7	25.0	22.7
Incr Delay (d2), s/veh	104.1	0.2	0.2	19.7	1.1	295.4	2.9	30.1	2.9	101.5	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	6.8	3.7	2.2	6.9	38.5	2.5	29.1	12.4	5.2	8.9	5.0
LnGrp Delay(d),s/veh	155.0	34.1	32.2	74.3	42.0	340.6	56.0	62.8	29.3	156.2	25.2	23.0
LnGrp LOS	F	C	C	E	D	F	E	F	C	F	C	C
Approach Vol, veh/h		1133			1076			2880			1549	
Approach Delay, s/veh		84.1			196.7			57.1			41.3	
Approach LOS		F			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	55.0	19.0	30.3	12.5	53.5	10.4	38.9
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 5.9	49.9	13.5	* 25	* 10	45.5	6.3	* 32
Max Q Clear Time (g_c+I1), s	7.9	51.9	15.5	26.9	7.2	21.3	5.8	16.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	23.4	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	80.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	309	1368	2592	849	562	193
Future Volume (veh/h)	309	1368	2592	849	562	193
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	309	1368	2592	849	562	193
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	234	3458	2031	602	457	408
Arrive On Green	0.13	0.69	0.53	0.53	0.26	0.26
Sat Flow, veh/h	1757	5202	4023	1143	1757	1568
Grp Volume(v), veh/h	309	1368	2221	1220	562	193
Grp Sat Flow(s),veh/h/ln	1757	1679	1679	1643	1757	1568
Q Serve(g_s), s	20.0	17.5	79.0	79.0	39.0	15.6
Cycle Q Clear(g_c), s	20.0	17.5	79.0	79.0	39.0	15.6
Prop In Lane	1.00			0.70	1.00	1.00
Lane Grp Cap(c), veh/h	234	3458	1768	865	457	408
V/C Ratio(X)	1.32	0.40	1.26	1.41	1.23	0.47
Avail Cap(c_a), veh/h	234	3458	1768	865	457	408
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	10.1	35.5	35.5	55.5	46.8
Incr Delay (d2), s/veh	170.4	0.1	120.0	191.5	121.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.8	8.1	65.8	81.6	34.3	14.0
LnGrp Delay(d),s/veh	235.4	10.2	155.5	227.0	177.1	47.7
LnGrp LOS	F	B	F	F	F	D
Approach Vol, veh/h		1677	3441		755	
Approach Delay, s/veh		51.7	180.8		144.0	
Approach LOS		D	F		F	

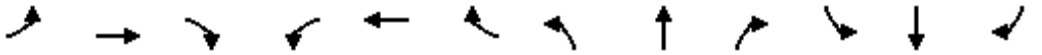
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				107.0		43.0	24.0	83.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				103.0		39.0	20.0	79.0
Max Q Clear Time (g_c+I1), s				19.5		41.0	22.0	81.0
Green Ext Time (p_c), s				82.1		0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	139.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	938	15	70	1408	0	5	294	42	0	0	0
Future Volume (veh/h)	0	938	15	70	1408	0	5	294	42	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	938	15	70	1408	0	5	294	42	0	0	0
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	1641	26	86	2122	0	7	391	332	4	215	183
Arrive On Green	0.00	0.46	0.46	0.05	0.61	0.00	0.00	0.21	0.21	0.00	0.00	0.00
Sat Flow, veh/h	1757	3531	56	1757	3597	0	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	0	466	487	70	1408	0	5	294	42	0	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1835	1757	1752	0	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	0.0	8.5	8.5	1.7	11.6	0.0	0.1	6.5	0.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	8.5	8.5	1.7	11.6	0.0	0.1	6.5	0.9	0.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	4	815	853	86	2122	0	7	391	332	4	215	183
V/C Ratio(X)	0.00	0.57	0.57	0.81	0.66	0.00	0.70	0.75	0.13	0.00	0.00	0.00
Avail Cap(c_a), veh/h	120	921	964	241	2122	0	120	548	466	80	506	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	8.5	8.5	20.6	5.7	0.0	21.8	16.2	14.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.6	16.3	0.8	0.0	81.0	3.7	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	4.3	1.2	5.7	0.0	0.2	3.7	0.4	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	9.2	9.2	36.9	6.5	0.0	102.8	19.9	14.1	0.0	0.0	0.0
LnGrp LOS		A	A	D	A		F	B	B			
Approach Vol, veh/h		953			1478			341			0	
Approach Delay, s/veh		9.2			7.9			20.4			0.0	
Approach LOS		A			A			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	13.3	6.1	24.3	4.2	9.1	0.0	30.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	2.0	13.0	6.0	23.0	3.0	12.0	3.0	26.0
Max Q Clear Time (g_c+I1), s	0.0	8.5	3.7	10.5	2.1	0.0	0.0	13.6
Green Ext Time (p_c), s	0.0	0.7	0.0	9.9	0.0	0.0	0.0	10.5

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	981	84	886	1977	331	160	953	869	352	534	132
Future Volume (veh/h)	171	981	84	886	1977	331	160	953	869	352	534	132
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	171	981	84	886	1977	331	160	953	869	352	534	132
Adj No. of Lanes	2	3	1	2	3	1	1	1	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	91	868	278	409	1324	424	184	469	427	182	1667	746
Arrive On Green	0.03	0.18	0.18	0.12	0.27	0.27	0.10	0.53	0.53	0.05	0.48	0.48
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	1757	890	812	3408	3505	1568
Grp Volume(v), veh/h	171	981	84	886	1977	331	160	0	1822	352	534	132
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1757	0	1701	1704	1752	1568
Q Serve(g_s), s	4.0	26.6	7.0	18.0	40.6	29.3	13.5	0.0	79.0	8.0	14.1	7.2
Cycle Q Clear(g_c), s	4.0	26.6	7.0	18.0	40.6	29.3	13.5	0.0	79.0	8.0	14.1	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	91	868	278	409	1324	424	184	0	896	182	1667	746
V/C Ratio(X)	1.88	1.13	0.30	2.17	1.49	0.78	0.87	0.00	2.03	1.94	0.32	0.18
Avail Cap(c_a), veh/h	91	868	278	409	1324	424	269	0	896	182	1667	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.0	61.7	53.6	66.0	54.7	50.6	66.2	0.0	35.5	71.0	24.3	22.5
Incr Delay (d2), s/veh	435.2	73.1	0.9	532.9	225.7	9.5	18.4	0.0	468.9	441.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	17.8	3.1	38.7	46.0	13.8	7.5	0.0	153.6	14.9	6.8	3.2
LnGrp Delay(d),s/veh	508.2	134.8	54.5	598.9	280.4	60.1	84.5	0.0	504.4	512.0	24.5	22.6
LnGrp LOS	F	F	D	F	F	E	F		F	F	C	C
Approach Vol, veh/h		1236			3194			1982			1018	
Approach Delay, s/veh		181.0			345.9			470.5			192.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	33.0	19.7	75.3	8.0	47.0	12.0	83.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	18.0	26.6	23.0	64.0	4.0	40.6	8.0	79.0
Max Q Clear Time (g_c+I1), s	20.0	28.6	15.5	16.1	6.0	42.6	10.0	81.0
Green Ext Time (p_c), s	0.0	0.0	0.2	46.7	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	330.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	594	29	179	626	12	29	828	162	5	286	13
Future Volume (veh/h)	104	594	29	179	626	12	29	828	162	5	286	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1759	1759	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	104	594	29	179	626	12	29	828	162	5	286	13
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	8	8	8	3	3	3	3	3	3
Cap, veh/h	126	533	26	172	590	11	37	691	135	9	779	35
Arrive On Green	0.07	0.31	0.31	0.10	0.34	0.34	0.02	0.46	0.46	0.01	0.45	0.45
Sat Flow, veh/h	1707	1695	83	1675	1720	33	1757	1500	293	1757	1751	80
Grp Volume(v), veh/h	104	0	623	179	0	638	29	0	990	5	0	299
Grp Sat Flow(s),veh/h/ln	1707	0	1778	1675	0	1753	1757	0	1793	1757	0	1831
Q Serve(g_s), s	8.2	0.0	43.0	14.0	0.0	46.9	2.2	0.0	63.0	0.4	0.0	14.8
Cycle Q Clear(g_c), s	8.2	0.0	43.0	14.0	0.0	46.9	2.2	0.0	63.0	0.4	0.0	14.8
Prop In Lane	1.00		0.05	1.00		0.02	1.00		0.16	1.00		0.04
Lane Grp Cap(c), veh/h	126	0	559	172	0	602	37	0	826	9	0	815
V/C Ratio(X)	0.83	0.00	1.11	1.04	0.00	1.06	0.79	0.00	1.20	0.56	0.00	0.37
Avail Cap(c_a), veh/h	175	0	559	172	0	602	180	0	826	180	0	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.4	0.0	46.8	61.3	0.0	44.9	66.6	0.0	36.8	67.8	0.0	25.2
Incr Delay (d2), s/veh	19.7	0.0	73.3	80.5	0.0	53.7	30.5	0.0	100.8	45.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	32.4	10.3	0.0	31.5	1.4	0.0	54.1	0.3	0.0	7.5
LnGrp Delay(d),s/veh	82.2	0.0	120.1	142.0	0.0	98.6	97.1	0.0	137.6	113.5	0.0	25.4
LnGrp LOS	F		F	F		F	F		F	F		C
Approach Vol, veh/h		727			817			1019			304	
Approach Delay, s/veh		114.7			108.1			136.5			26.9	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	67.0	18.0	47.0	6.8	64.8	14.1	50.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	63.0	14.0	43.0	14.0	63.0	14.0	43.0
Max Q Clear Time (g_c+I1), s	2.4	65.0	16.0	45.0	4.2	16.8	10.2	48.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	14.7	0.1	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		111.2
HCM 2010 LOS		F

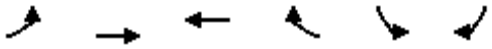
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	538	47	971	25	63	161	999	1153	13	105	1699	1114
Future Volume (veh/h)	538	47	971	25	63	161	999	1153	13	105	1699	1114
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	572	0	971	25	63	161	999	1153	13	105	1699	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	712	0	318	19	48	57	549	2813	32	126	1536	478
Arrive On Green	0.20	0.00	0.20	0.04	0.04	0.04	0.32	0.55	0.55	0.07	0.31	0.00
Sat Flow, veh/h	3480	0	1553	517	1302	1568	1740	5084	57	1740	4988	1553
Grp Volume(v), veh/h	572	0	971	88	0	161	999	754	412	105	1699	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1819	0	1568	1740	1663	1817	1740	1663	1553
Q Serve(g_s), s	23.5	0.0	30.7	5.5	0.0	5.5	47.3	19.7	19.7	8.9	46.2	0.0
Cycle Q Clear(g_c), s	23.5	0.0	30.7	5.5	0.0	5.5	47.3	19.7	19.7	8.9	46.2	0.0
Prop In Lane	1.00		1.00	0.28		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	712	0	318	67	0	57	549	1839	1005	126	1536	478
V/C Ratio(X)	0.80	0.00	3.06	1.32	0.00	2.80	1.82	0.41	0.41	0.84	1.11	0.00
Avail Cap(c_a), veh/h	712	0	318	67	0	57	549	1839	1005	194	1536	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	0.0	59.6	72.3	0.0	72.3	51.3	19.4	19.4	68.7	51.9	0.0
Incr Delay (d2), s/veh	6.1	0.0	933.2	217.5	0.0	856.3	376.5	0.1	0.1	10.2	57.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.0	95.6	6.8	0.0	16.1	80.1	9.0	9.9	4.7	29.4	0.0
LnGrp Delay(d),s/veh	62.9	0.0	992.8	289.7	0.0	928.5	427.9	19.4	19.5	78.9	109.7	0.0
LnGrp LOS	E		F	F		F	F	B	B	E	F	
Approach Vol, veh/h		1543			249			2165			1804	
Approach Delay, s/veh		648.1			702.8			207.9			107.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	52.0	51.0		11.0	15.2	87.8		36.0
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 47	46.2		5.5	* 17	* 77		30.7
Max Q Clear Time (g_c+I1), s	49.3	48.2		7.5	10.9	21.7		32.7
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	13.7		0.0

Intersection Summary			
HCM 2010 Ctrl Delay		315.9	
HCM 2010 LOS		F	

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	374	1027	1445	741	156	38
Future Volume (veh/h)	374	1027	1445	741	156	38
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	374	1027	1445	741	156	38
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	296	2950	1492	705	179	160
Arrive On Green	0.17	0.84	0.65	0.65	0.10	0.10
Sat Flow, veh/h	1757	3597	2405	1092	1757	1568
Grp Volume(v), veh/h	374	1027	1065	1121	156	38
Grp Sat Flow(s),veh/h/ln	1757	1752	1752	1652	1757	1568
Q Serve(g_s), s	24.0	9.3	78.3	92.0	12.5	3.2
Cycle Q Clear(g_c), s	24.0	9.3	78.3	92.0	12.5	3.2
Prop In Lane	1.00			0.66	1.00	1.00
Lane Grp Cap(c), veh/h	296	2950	1131	1066	179	160
V/C Ratio(X)	1.26	0.35	0.94	1.05	0.87	0.24
Avail Cap(c_a), veh/h	296	2950	1131	1066	197	176
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	2.5	22.8	25.3	63.1	58.9
Incr Delay (d2), s/veh	143.2	0.1	14.9	42.1	29.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.3	4.5	42.2	53.9	7.6	2.9
LnGrp Delay(d),s/veh	202.5	2.6	37.7	67.4	93.0	59.7
LnGrp LOS	F	A	D	F	F	E
Approach Vol, veh/h		1401	2186		194	
Approach Delay, s/veh		55.9	52.9		86.4	
Approach LOS		E	D		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		124.0		18.5	28.0	96.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		120.0		16.0	24.0	92.0		
Max Q Clear Time (g_c+I1), s		11.3		14.5	26.0	94.0		
Green Ext Time (p_c), s		86.7		0.1	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	55.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	329	237	35	83	311	791	37	2208	98	517	2410	889
Future Volume (veh/h)	329	237	35	83	311	791	37	2208	98	517	2410	889
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	329	237	35	83	311	791	37	2208	98	517	2410	889
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	306	1129	162	125	368	1052	65	2109	93	464	2739	853
Arrive On Green	0.09	0.25	0.25	0.04	0.20	0.20	0.02	0.43	0.43	0.14	0.54	0.54
Sat Flow, veh/h	3408	4452	637	3514	1845	3136	3408	4945	218	3408	5036	1568
Grp Volume(v), veh/h	329	177	95	83	311	791	37	1496	810	517	2410	889
Grp Sat Flow(s),veh/h/ln	1704	1679	1732	1757	1845	1568	1704	1679	1806	1704	1679	1568
Q Serve(g_s), s	13.5	6.2	6.5	3.5	24.4	30.0	1.6	64.2	64.2	20.5	63.0	81.9
Cycle Q Clear(g_c), s	13.5	6.2	6.5	3.5	24.4	30.0	1.6	64.2	64.2	20.5	63.0	81.9
Prop In Lane	1.00		0.37	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	306	851	439	125	368	1052	65	1432	770	464	2739	853
V/C Ratio(X)	1.08	0.21	0.22	0.66	0.85	0.75	0.57	1.04	1.05	1.11	0.88	1.04
Avail Cap(c_a), veh/h	306	851	439	175	368	1052	68	1432	770	464	2739	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.5	44.3	44.4	71.7	58.0	44.4	73.2	43.1	43.2	65.0	30.0	34.3
Incr Delay (d2), s/veh	73.2	0.0	0.1	2.3	15.7	2.7	5.9	36.3	46.9	76.5	3.5	42.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	2.9	3.1	1.7	14.0	15.0	0.8	36.8	41.9	14.5	29.9	45.3
LnGrp Delay(d),s/veh	141.7	44.3	44.5	73.9	73.7	47.2	79.1	79.4	90.0	141.5	33.5	76.8
LnGrp LOS	F	D	D	E	E	D	E	F	F	F	C	F
Approach Vol, veh/h		601			1185			2343			3816	
Approach Delay, s/veh		97.7			56.0			83.1			58.3	
Approach LOS		F			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	87.5	19.0	35.7	26.0	69.8	10.8	43.9
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	3.0	81.4	13.5	* 30	20.5	* 64	7.5	* 36
Max Q Clear Time (g_c+I1), s	3.6	83.9	15.5	32.0	22.5	66.2	5.5	8.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1

Intersection Summary		
HCM 2010 Ctrl Delay		68.2
HCM 2010 LOS		E

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	64	13	38	46	66	37	2207	63	133	1848	215
Future Volume (veh/h)	105	64	13	38	46	66	37	2207	63	133	1848	215
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	91	84	13	38	46	66	37	2207	63	133	1848	215
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	131	116	18	109	114	97	46	2821	80	166	2871	332
Arrive On Green	0.07	0.07	0.07	0.06	0.06	0.06	0.03	0.56	0.56	0.09	0.63	0.63
Sat Flow, veh/h	1757	1561	242	1757	1845	1568	1757	5033	143	1757	4579	529
Grp Volume(v), veh/h	91	0	97	38	46	66	37	1470	800	133	1352	711
Grp Sat Flow(s),veh/h/ln	1757	0	1802	1757	1845	1568	1757	1679	1819	1757	1679	1751
Q Serve(g_s), s	4.9	0.0	5.2	2.0	2.3	4.0	2.1	33.5	33.8	7.3	24.6	25.0
Cycle Q Clear(g_c), s	4.9	0.0	5.2	2.0	2.3	4.0	2.1	33.5	33.8	7.3	24.6	25.0
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.08	1.00		0.30
Lane Grp Cap(c), veh/h	131	0	134	109	114	97	46	1882	1020	166	2105	1098
V/C Ratio(X)	0.69	0.00	0.72	0.35	0.40	0.68	0.80	0.78	0.78	0.80	0.64	0.65
Avail Cap(c_a), veh/h	504	0	517	486	511	434	108	2144	1162	214	2339	1220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	0.0	44.3	44.0	44.2	45.0	47.4	16.8	16.9	43.4	11.4	11.5
Incr Delay (d2), s/veh	2.5	0.0	2.7	0.7	0.9	3.1	11.2	1.4	2.7	11.7	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	2.7	1.0	1.2	1.8	1.1	15.7	17.6	4.0	11.4	12.1
LnGrp Delay(d),s/veh	46.7	0.0	47.0	44.7	45.0	48.1	58.6	18.2	19.5	55.1	11.7	12.2
LnGrp LOS	D		D	D	D	D	E	B	B	E	B	B
Approach Vol, veh/h		188			150			2307			2196	
Approach Delay, s/veh		46.8			46.3			19.3			14.5	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	66.2		11.5	13.9	59.7		12.8
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 6	68.2		27.1	* 12	62.5		28.1
Max Q Clear Time (g_c+I1), s	4.1	27.0		6.0	9.3	35.8		7.2
Green Ext Time (p_c), s	0.0	25.3		0.1	0.0	19.1		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

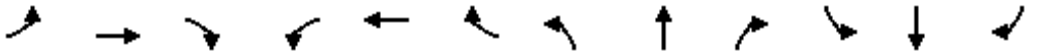
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	835	541	149	1322	838	544	1404	199	267	1188	180
Future Volume (veh/h)	53	835	541	149	1322	838	544	1404	199	267	1188	180
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	53	835	541	149	1322	838	544	1404	199	267	1188	180
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	79	1178	550	199	1945	605	511	1640	511	316	1185	180
Arrive On Green	0.02	0.35	0.35	0.06	0.39	0.39	0.15	0.33	0.33	0.09	0.27	0.27
Sat Flow, veh/h	3408	3357	1568	3408	5036	1568	3408	5036	1568	3408	4415	669
Grp Volume(v), veh/h	53	835	541	149	1322	838	544	1404	199	267	903	465
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1727
Q Serve(g_s), s	2.0	27.9	44.4	5.6	28.4	50.2	19.5	33.9	12.7	10.0	34.9	34.9
Cycle Q Clear(g_c), s	2.0	27.9	44.4	5.6	28.4	50.2	19.5	33.9	12.7	10.0	34.9	34.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	79	1178	550	199	1945	605	511	1640	511	316	901	464
V/C Ratio(X)	0.67	0.71	0.98	0.75	0.68	1.38	1.06	0.86	0.39	0.84	1.00	1.00
Avail Cap(c_a), veh/h	79	1178	550	236	1945	605	511	1640	511	354	901	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	36.4	41.8	60.3	33.2	39.9	55.3	41.0	33.9	58.0	47.5	47.6
Incr Delay (d2), s/veh	17.0	1.7	33.8	8.2	0.8	182.9	57.9	4.5	0.2	14.1	30.5	42.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	13.3	24.4	2.9	13.2	52.4	13.3	16.4	5.5	5.3	20.0	22.1
LnGrp Delay(d),s/veh	80.0	38.1	75.7	68.4	34.0	222.8	113.2	45.5	34.0	72.1	78.1	90.0
LnGrp LOS	E	D	E	E	C	F	F	D	C	E	F	F
Approach Vol, veh/h		1429			2309			2147			1635	
Approach Delay, s/veh		53.9			104.8			61.6			80.5	
Approach LOS		D			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	40.5	8.5	56.0	17.6	47.9	13.1	51.4
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	19.5	* 35	3.0	50.2	13.5	* 41	9.0	44.2
Max Q Clear Time (g_c+I1), s	21.5	36.9	4.0	52.2	12.0	35.9	7.6	46.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	77.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	900	52	486	1987	757	92	660	221	463	493	107
Future Volume (veh/h)	234	900	52	486	1987	757	92	660	221	463	493	107
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	234	900	52	486	1987	757	92	660	221	463	493	107
Adj No. of Lanes	1	2	0	2	2	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	127	1035	60	502	1331	595	112	439	147	246	627	533
Arrive On Green	0.07	0.31	0.31	0.15	0.38	0.38	0.06	0.33	0.33	0.07	0.34	0.34
Sat Flow, veh/h	1757	3368	195	3408	3505	1568	1757	1323	443	3408	1845	1568
Grp Volume(v), veh/h	234	468	484	486	1987	757	92	0	881	463	493	107
Grp Sat Flow(s),veh/h/ln	1757	1752	1810	1704	1752	1568	1757	0	1766	1704	1845	1568
Q Serve(g_s), s	10.5	36.7	36.7	20.6	55.2	55.2	7.5	0.0	48.2	10.5	35.0	7.0
Cycle Q Clear(g_c), s	10.5	36.7	36.7	20.6	55.2	55.2	7.5	0.0	48.2	10.5	35.0	7.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	127	539	557	502	1331	595	112	0	586	246	627	533
V/C Ratio(X)	1.84	0.87	0.87	0.97	1.49	1.27	0.82	0.00	1.50	1.88	0.79	0.20
Avail Cap(c_a), veh/h	127	539	557	502	1331	595	132	0	586	246	627	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.5	47.6	47.6	61.7	45.1	45.1	67.2	0.0	48.6	67.5	43.2	34.0
Incr Delay (d2), s/veh	408.8	13.7	13.3	32.0	226.0	135.1	24.8	0.0	235.8	411.6	6.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.5	19.9	20.5	12.0	68.4	46.2	4.4	0.0	61.8	19.0	18.9	3.0
LnGrp Delay(d),s/veh	476.3	61.3	60.9	93.7	271.1	180.2	92.0	0.0	284.4	479.0	49.3	34.1
LnGrp LOS	F	E	E	F	F	F	F		F	F	D	C
Approach Vol, veh/h		1186			3230			973			1063	
Approach Delay, s/veh		143.0			223.1			266.2			234.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	60.1	14.8	54.5	26.5	49.6	16.0	53.3
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	10.5	* 55	10.9	* 48	* 21	* 45	10.5	* 48
Max Q Clear Time (g_c+I1), s	12.5	57.2	9.5	37.0	22.6	38.7	12.5	50.2
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	4.7	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		216.8
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	307	978	35	74	1274	127	124	399	223	94	214	506
Future Volume (veh/h)	307	978	35	74	1274	127	124	399	223	94	214	506
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	307	978	35	74	1274	127	124	399	223	94	214	506
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	344	1540	689	155	1346	602	153	1020	457	153	1021	457
Arrive On Green	0.10	0.44	0.44	0.05	0.38	0.38	0.04	0.29	0.29	0.04	0.29	0.29
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	307	978	35	74	1274	127	124	399	223	94	214	506
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	7.9	19.4	1.1	1.9	31.4	4.8	3.2	8.1	10.5	2.4	4.1	26.0
Cycle Q Clear(g_c), s	7.9	19.4	1.1	1.9	31.4	4.8	3.2	8.1	10.5	2.4	4.1	26.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	1540	689	155	1346	602	153	1020	457	153	1021	457
V/C Ratio(X)	0.89	0.63	0.05	0.48	0.95	0.21	0.81	0.39	0.49	0.62	0.21	1.11
Avail Cap(c_a), veh/h	344	1540	689	573	1374	615	153	1020	457	191	1021	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	19.5	14.3	41.6	26.6	18.4	42.3	25.3	26.2	41.9	23.9	31.6
Incr Delay (d2), s/veh	24.3	0.9	0.0	2.3	13.5	0.2	27.2	0.2	0.8	4.0	0.1	74.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.6	0.5	0.9	17.6	2.1	2.1	4.0	4.6	1.2	2.0	20.7
LnGrp Delay(d),s/veh	64.0	20.3	14.4	43.9	40.1	18.6	69.5	25.6	27.0	45.9	24.0	106.6
LnGrp LOS	E	C	B	D	D	B	E	C	C	D	C	F
Approach Vol, veh/h		1320			1475			746			814	
Approach Delay, s/veh		30.3			38.4			33.3			77.9	
Approach LOS		C			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	30.0	8.1	43.2	8.0	30.0	13.0	38.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	25.0	15.0	29.0	4.0	26.0	9.0	35.0
Max Q Clear Time (g_c+I1), s	4.4	12.5	3.9	21.4	5.2	28.0	9.9	33.4
Green Ext Time (p_c), s	0.0	4.9	0.2	6.8	0.0	0.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	42.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	931	47	42	2147	153	28	545	61	64	267	167
Future Volume (veh/h)	75	931	47	42	2147	153	28	545	61	64	267	167
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1759	1845	1845	1759	1845
Adj Flow Rate, veh/h	75	931	47	42	2147	153	28	545	61	64	267	167
Adj No. of Lanes	2	2	0	1	2	1	1	1	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	8	3	3	8	3
Cap, veh/h	91	1888	95	54	1963	878	35	504	449	68	504	449
Arrive On Green	0.03	0.56	0.56	0.03	0.56	0.56	0.02	0.29	0.29	0.02	0.29	0.29
Sat Flow, veh/h	3408	3395	171	1757	3505	1568	1757	1759	1568	3408	1759	1568
Grp Volume(v), veh/h	75	481	497	42	2147	153	28	545	61	64	267	167
Grp Sat Flow(s),veh/h/ln	1704	1752	1814	1757	1752	1568	1757	1759	1568	1704	1759	1568
Q Serve(g_s), s	3.3	25.2	25.2	3.6	84.0	7.1	2.4	43.0	4.3	2.8	19.1	12.8
Cycle Q Clear(g_c), s	3.3	25.2	25.2	3.6	84.0	7.1	2.4	43.0	4.3	2.8	19.1	12.8
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	974	1009	54	1963	878	35	504	449	68	504	449
V/C Ratio(X)	0.83	0.49	0.49	0.78	1.09	0.17	0.79	1.08	0.14	0.94	0.53	0.37
Avail Cap(c_a), veh/h	91	974	1009	105	1963	878	70	504	449	68	504	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.7	20.4	20.4	72.2	33.0	16.1	73.2	53.5	39.7	73.4	45.0	42.7
Incr Delay (d2), s/veh	43.7	0.4	0.4	20.9	51.1	0.1	31.4	63.6	0.1	87.6	1.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	12.3	12.7	2.0	54.3	3.1	1.5	29.8	1.9	2.2	9.5	5.6
LnGrp Delay(d),s/veh	116.3	20.8	20.7	93.1	84.1	16.2	104.5	117.1	39.8	161.0	46.1	43.2
LnGrp LOS	F	C	C	F	F	B	F	F	D	F	D	D
Approach Vol, veh/h		1053			2342			634			498	
Approach Delay, s/veh		27.6			79.8			109.1			59.9	
Approach LOS		C			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	47.0	8.6	87.4	7.0	47.0	8.0	88.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	43.0	9.0	79.0	6.0	40.0	4.0	84.0
Max Q Clear Time (g_c+I1), s	4.8	45.0	5.6	27.2	4.4	21.1	5.3	86.0
Green Ext Time (p_c), s	0.0	0.0	0.0	44.9	0.0	6.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	69.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	190	191	95	458	183	380	2010	152	233	2065	268
Future Volume (veh/h)	320	190	191	95	458	183	380	2010	152	233	2065	268
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	320	190	191	95	458	183	380	2010	152	233	2065	268
Adj No. of Lanes	2	2	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	349	866	387	140	681	419	417	2977	736	279	2160	672
Arrive On Green	0.10	0.25	0.25	0.04	0.18	0.18	0.12	0.47	0.47	0.08	0.43	0.43
Sat Flow, veh/h	3408	3505	1568	3514	3689	1568	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	320	190	191	95	458	183	380	2010	152	233	2065	268
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	13.2	6.1	14.8	3.8	16.4	13.7	15.8	35.1	8.1	9.6	56.8	16.8
Cycle Q Clear(g_c), s	13.2	6.1	14.8	3.8	16.4	13.7	15.8	35.1	8.1	9.6	56.8	16.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	349	866	387	140	681	419	417	2977	736	279	2160	672
V/C Ratio(X)	0.92	0.22	0.49	0.68	0.67	0.44	0.91	0.68	0.21	0.83	0.96	0.40
Avail Cap(c_a), veh/h	349	939	420	213	833	484	417	2977	736	402	2245	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	42.5	45.8	67.2	53.8	43.1	61.4	28.9	21.8	64.1	38.9	27.5
Incr Delay (d2), s/veh	27.9	0.2	1.4	2.1	3.4	2.0	23.5	0.5	0.1	6.7	11.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	3.0	6.6	1.9	8.7	6.2	8.7	15.3	3.5	4.8	28.2	7.4
LnGrp Delay(d),s/veh	91.0	42.7	47.2	69.3	57.2	45.0	84.9	29.4	21.8	70.8	50.0	28.9
LnGrp LOS	F	D	D	E	E	D	F	C	C	E	D	C
Approach Vol, veh/h		701			736			2542			2566	
Approach Delay, s/veh		66.0			55.7			37.2			49.7	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	66.8	20.0	32.0	17.2	72.6	11.2	40.8
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	17.5	* 64	14.5	32.0	16.9	* 64	8.6	* 38
Max Q Clear Time (g_c+I1), s	17.8	58.8	15.2	18.4	11.6	37.1	5.8	16.8
Green Ext Time (p_c), s	0.0	2.6	0.0	7.8	0.1	27.1	0.0	10.4

Intersection Summary	
HCM 2010 Ctrl Delay	47.3
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	455	303	669	1285	28	860	2028	348	118	773	317
Future Volume (veh/h)	224	455	303	669	1285	28	860	2028	348	118	773	317
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	224	455	303	669	1285	28	860	2028	348	118	773	317
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	267	700	313	650	1566	488	848	2091	651	124	1021	318
Arrive On Green	0.08	0.20	0.20	0.19	0.31	0.31	0.25	0.42	0.42	0.04	0.20	0.20
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	224	455	303	669	1285	28	860	2028	348	118	773	317
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	9.7	17.9	28.8	28.9	35.7	1.9	37.7	59.8	25.2	5.2	21.9	30.6
Cycle Q Clear(g_c), s	9.7	17.9	28.8	28.9	35.7	1.9	37.7	59.8	25.2	5.2	21.9	30.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	267	700	313	650	1566	488	848	2091	651	124	1021	318
V/C Ratio(X)	0.84	0.65	0.97	1.03	0.82	0.06	1.01	0.97	0.53	0.95	0.76	1.00
Avail Cap(c_a), veh/h	288	700	313	650	1566	488	848	2093	652	124	1021	318
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.3	55.2	59.6	60.6	47.6	36.0	56.2	42.7	32.6	72.2	56.2	59.7
Incr Delay (d2), s/veh	16.9	2.8	42.2	43.1	4.5	0.2	34.6	13.5	1.5	66.1	3.9	49.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	8.9	16.1	17.3	17.1	0.8	21.6	30.0	11.0	3.6	10.5	17.5
LnGrp Delay(d),s/veh	85.1	58.1	101.8	103.7	52.1	36.1	90.8	56.1	34.1	138.3	60.0	109.3
LnGrp LOS	F	E	F	F	D	D	F	E	C	F	E	F
Approach Vol, veh/h		982			1982			3236			1208	
Approach Delay, s/veh		77.7			69.3			63.0			80.6	
Approach LOS		E			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	43.2	36.5	17.3	53.1	11.0	68.7	34.4	36.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	37.7	* 31	12.7	* 46	5.5	* 63	28.9	30.0
Max Q Clear Time (g_c+I1), s	39.7	32.6	11.7	37.7	7.2	61.8	30.9	30.8
Green Ext Time (p_c), s	0.0	0.0	0.0	8.3	0.0	1.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	69.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	341	560	175	40	1828	848	389	2034	20	78	834	632
Future Volume (veh/h)	341	560	175	40	1828	848	389	2034	20	78	834	632
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	341	560	175	40	1828	848	389	2034	20	78	834	632
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	278	2142	667	70	1834	571	299	1824	568	84	1506	469
Arrive On Green	0.08	0.43	0.43	0.02	0.36	0.36	0.09	0.37	0.37	0.02	0.30	0.30
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	341	560	175	40	1828	848	389	2034	20	78	834	632
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	11.5	10.1	10.2	1.6	51.1	51.4	12.5	51.6	1.2	3.3	19.8	42.6
Cycle Q Clear(g_c), s	11.5	10.1	10.2	1.6	51.1	51.4	12.5	51.6	1.2	3.3	19.8	42.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	2142	667	70	1834	571	299	1824	568	84	1506	469
V/C Ratio(X)	1.23	0.26	0.26	0.57	1.00	1.48	1.30	1.12	0.04	0.93	0.55	1.35
Avail Cap(c_a), veh/h	278	2142	667	121	1834	571	299	1824	568	84	1506	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.8	26.2	26.2	68.5	44.8	44.8	64.3	44.8	28.8	68.7	41.3	49.3
Incr Delay (d2), s/veh	130.0	0.0	0.1	2.7	20.1	227.4	157.7	60.1	0.0	74.7	0.3	170.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	4.7	4.4	0.8	27.1	58.2	12.4	33.8	0.5	2.4	9.1	40.5
LnGrp Delay(d),s/veh	194.8	26.2	26.3	71.2	64.9	272.2	222.0	104.8	28.8	143.4	41.5	219.5
LnGrp LOS	F	C	C	E	E	F	F	F	C	F	D	F
Approach Vol, veh/h		1076			2716			2443			1544	
Approach Delay, s/veh		79.7			129.7			122.9			119.5	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	48.6	17.0	57.5	9.0	57.6	8.4	66.1
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	12.5	42.0	11.5	* 51	3.5	* 52	5.0	* 57
Max Q Clear Time (g_c+I1), s	14.5	44.6	13.5	53.4	5.3	53.6	3.6	12.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6

Intersection Summary	
HCM 2010 Ctrl Delay	118.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	582	806	165	87	1809	926	786	2137	187	177	984	721
Future Volume (veh/h)	582	806	165	87	1809	926	786	2137	187	177	984	721
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	582	806	165	87	1809	926	786	2137	187	177	984	721
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	352	1684	342	126	1617	503	484	1879	585	124	1347	419
Arrive On Green	0.10	0.40	0.40	0.04	0.34	0.34	0.14	0.38	0.38	0.04	0.27	0.27
Sat Flow, veh/h	3408	4198	853	3250	4803	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	582	643	328	87	1809	926	786	2137	187	177	984	721
Grp Sat Flow(s),veh/h/ln	1704	1679	1694	1625	1601	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	15.5	21.3	21.5	4.0	50.5	50.5	21.5	56.5	12.8	5.5	26.9	40.5
Cycle Q Clear(g_c), s	15.5	21.3	21.5	4.0	50.5	50.5	21.5	56.5	12.8	5.5	26.9	40.5
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	1347	680	126	1617	503	484	1879	585	124	1347	419
V/C Ratio(X)	1.65	0.48	0.48	0.69	1.12	1.84	1.62	1.14	0.32	1.43	0.73	1.72
Avail Cap(c_a), veh/h	352	1347	680	186	1617	503	484	1879	585	124	1347	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3	33.3	33.3	71.2	49.8	49.7	64.3	46.7	33.1	72.3	49.8	54.8
Incr Delay (d2), s/veh	306.1	0.1	0.2	2.5	62.4	385.4	290.4	69.0	0.1	233.6	1.8	333.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.3	9.8	10.1	1.8	31.7	74.7	29.5	37.9	5.5	6.6	12.6	56.3
LnGrp Delay(d),s/veh	373.3	33.4	33.5	73.7	112.2	435.1	354.7	115.7	33.2	305.9	51.6	388.5
LnGrp LOS	F	C	C	E	F	F	F	F	C	F	D	F
Approach Vol, veh/h		1553			2822			3110			1882	
Approach Delay, s/veh		160.8			217.0			171.2			204.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	46.0	21.0	56.0	11.0	62.0	11.3	65.7
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	21.5	40.5	15.5	50.5	5.5	56.5	8.6	57.4
Max Q Clear Time (g_c+I1), s	23.5	42.5	17.5	52.5	7.5	58.5	6.0	23.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3

Intersection Summary	
HCM 2010 Ctrl Delay	190.0
HCM 2010 LOS	F

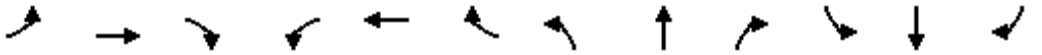
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	588	536	132	369	1386	329	178	1527	146	116	833	833
Future Volume (veh/h)	588	536	132	369	1386	329	178	1527	146	116	833	833
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845	1845	1827	1827	1827	1836	1900
Adj Flow Rate, veh/h	588	536	132	369	1386	329	178	1527	146	116	833	833
Adj No. of Lanes	2	2	1	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	4
Cap, veh/h	468	481	215	166	625	679	94	949	424	92	442	395
Arrive On Green	0.14	0.14	0.14	0.43	0.43	0.43	0.05	0.27	0.27	0.03	0.25	0.25
Sat Flow, veh/h	3408	3505	1568	384	1442	1568	1757	3471	1553	3375	1744	1560
Grp Volume(v), veh/h	588	536	132	1755	0	329	178	1527	146	116	833	833
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1825	0	1568	1757	1736	1553	1688	1744	1560
Q Serve(g_s), s	20.6	20.6	11.9	65.0	0.0	22.6	8.0	41.0	11.3	4.1	38.0	38.0
Cycle Q Clear(g_c), s	20.6	20.6	11.9	65.0	0.0	22.6	8.0	41.0	11.3	4.1	38.0	38.0
Prop In Lane	1.00		1.00	0.21		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	468	481	215	791	0	679	94	949	424	92	442	395
V/C Ratio(X)	1.26	1.11	0.61	2.22	0.00	0.48	1.90	1.61	0.34	1.26	1.89	2.11
Avail Cap(c_a), veh/h	468	481	215	791	0	679	94	949	424	92	442	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.7	64.7	60.9	42.5	0.0	30.5	71.0	54.5	43.7	72.9	56.0	56.0
Incr Delay (d2), s/veh	131.8	75.8	5.1	552.5	0.0	0.5	442.0	279.2	0.5	177.8	406.9	506.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.3	15.0	5.5	154.1	0.0	9.9	15.4	56.4	4.9	4.2	68.2	72.0
LnGrp Delay(d),s/veh	196.5	140.5	66.0	595.0	0.0	31.0	513.0	333.7	44.2	250.8	462.9	562.8
LnGrp LOS	F	F	E	F		C	F	F	D	F	F	F
Approach Vol, veh/h		1256			2084			1851			1782	
Approach Delay, s/veh		158.9			506.0			328.1			495.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	43.0		26.0	9.0	46.0		69.0
Change Period (Y+Rc), s	4.0	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	8.0	38.0		* 21	* 4.1	41.0		65.0
Max Q Clear Time (g_c+I1), s	10.0	40.0		22.6	6.1	43.0		67.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay		393.6	
HCM 2010 LOS		F	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	839	61	386	1867	370	83	1214	301	216	711	430
Future Volume (veh/h)	188	839	61	386	1867	370	83	1214	301	216	711	430
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1792	1845	1845	1845	1827	1845	1845
Adj Flow Rate, veh/h	188	839	61	386	1867	370	83	1214	301	216	711	430
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	6	3	3	3	4	3	3
Cap, veh/h	141	1357	607	443	1668	799	125	1039	465	163	1080	548
Arrive On Green	0.04	0.39	0.39	0.13	0.48	0.48	0.04	0.30	0.30	0.05	0.31	0.31
Sat Flow, veh/h	3408	3505	1568	3408	3505	1524	3408	3505	1568	3375	3505	1568
Grp Volume(v), veh/h	188	839	61	386	1867	370	83	1214	301	216	711	430
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1524	1704	1752	1568	1688	1752	1568
Q Serve(g_s), s	6.0	28.0	3.6	16.1	69.0	22.1	3.5	43.0	24.2	7.0	25.5	35.6
Cycle Q Clear(g_c), s	6.0	28.0	3.6	16.1	69.0	22.1	3.5	43.0	24.2	7.0	25.5	35.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	1357	607	443	1668	799	125	1039	465	163	1080	548
V/C Ratio(X)	1.33	0.62	0.10	0.87	1.12	0.46	0.66	1.17	0.65	1.33	0.66	0.78
Avail Cap(c_a), veh/h	141	1357	607	564	1668	799	165	1039	465	163	1080	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	35.8	28.3	61.9	38.0	21.7	69.0	51.0	44.4	69.0	43.5	42.3
Incr Delay (d2), s/veh	190.1	0.9	0.1	11.6	62.4	0.4	6.1	86.2	3.1	182.6	1.5	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	13.7	1.6	8.3	47.8	9.3	1.8	33.2	10.9	7.4	12.6	16.6
LnGrp Delay(d),s/veh	259.6	36.6	28.4	73.4	100.4	22.1	75.1	137.2	47.5	251.6	45.0	49.6
LnGrp LOS	F	D	C	E	F	C	E	F	D	F	D	D
Approach Vol, veh/h		1088			2623			1598			1357	
Approach Delay, s/veh		74.7			85.4			117.1			79.4	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.9	62.1	9.3	50.7	10.0	75.0	11.0	49.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	24.0	51.0	7.0	43.0	6.0	69.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	18.1	30.0	5.5	37.6	8.0	71.0	9.0	45.0
Green Ext Time (p_c), s	0.7	19.1	0.0	4.9	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	90.0
HCM 2010 LOS	F

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	396	11	31	1183	538	625
Future Volume (veh/h)	396	11	31	1183	538	625
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	396	11	31	1183	538	625
Adj No. of Lanes	0	0	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	449	12	36	1857	712	637
Arrive On Green	0.28	0.28	0.02	0.53	0.41	0.41
Sat Flow, veh/h	1592	44	1740	3563	1827	1553
Grp Volume(v), veh/h	408	0	31	1183	538	625
Grp Sat Flow(s),veh/h/ln	1640	0	1740	1736	1736	1553
Q Serve(g_s), s	12.6	0.0	0.9	12.7	14.0	21.0
Cycle Q Clear(g_c), s	12.6	0.0	0.9	12.7	14.0	21.0
Prop In Lane	0.97	0.03	1.00			1.00
Lane Grp Cap(c), veh/h	462	0	36	1857	712	637
V/C Ratio(X)	0.88	0.00	0.86	0.64	0.76	0.98
Avail Cap(c_a), veh/h	527	0	201	2211	712	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	25.8	8.7	13.3	15.4
Incr Delay (d2), s/veh	14.8	0.0	18.7	0.2	4.2	30.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	0.0	0.6	6.0	7.4	14.3
LnGrp Delay(d),s/veh	33.0	0.0	44.6	8.9	17.5	46.2
LnGrp LOS	C		D	A	B	D
Approach Vol, veh/h	408			1214	1163	
Approach Delay, s/veh	33.0			9.8	32.9	
Approach LOS	C			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	6.6	27.4		18.9		34.0		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.1	* 22		17.0		* 34		
Max Q Clear Time (g_c+I1), s	2.9	23.0		14.6		14.7		
Green Ext Time (p_c), s	0.0	0.0		0.4		7.6		

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	31	52	4	26	53	7	1279	29	21	1842	424
Future Volume (veh/h)	234	31	52	4	26	53	7	1279	29	21	1842	424
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1583	1845	1845	1845	1845	1810	1845	1845	1845
Adj Flow Rate, veh/h	234	31	52	4	26	53	7	1279	29	21	1842	424
Adj No. of Lanes	2	1	1	1	1	1	2	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	20	3	3	3	3	5	3	3	3
Cap, veh/h	274	257	218	6	116	99	25	2184	958	33	2225	995
Arrive On Green	0.08	0.14	0.14	0.00	0.06	0.06	0.01	0.62	0.62	0.02	0.63	0.63
Sat Flow, veh/h	3408	1845	1568	1508	1845	1568	3408	3505	1538	1757	3505	1568
Grp Volume(v), veh/h	234	31	52	4	26	53	7	1279	29	21	1842	424
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1508	1845	1568	1704	1752	1538	1757	1752	1568
Q Serve(g_s), s	5.1	1.1	2.2	0.2	1.0	2.4	0.2	16.2	0.5	0.9	30.2	10.1
Cycle Q Clear(g_c), s	5.1	1.1	2.2	0.2	1.0	2.4	0.2	16.2	0.5	0.9	30.2	10.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	274	257	218	6	116	99	25	2184	958	33	2225	995
V/C Ratio(X)	0.85	0.12	0.24	0.62	0.22	0.54	0.28	0.59	0.03	0.63	0.83	0.43
Avail Cap(c_a), veh/h	274	445	378	81	396	336	183	2208	969	118	2255	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	28.1	28.6	37.1	33.2	33.9	36.8	8.3	5.4	36.3	10.5	6.8
Incr Delay (d2), s/veh	22.1	0.2	0.6	70.4	1.0	4.4	6.1	0.4	0.0	18.1	2.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.6	1.0	0.2	0.5	1.2	0.1	7.8	0.2	0.6	15.2	4.3
LnGrp Delay(d),s/veh	56.0	28.3	29.1	107.5	34.2	38.3	43.0	8.7	5.4	54.4	13.2	7.1
LnGrp LOS	E	C	C	F	C	D	D	A	A	D	B	A
Approach Vol, veh/h		317			83			1315			2287	
Approach Delay, s/veh		48.9			40.4			8.8			12.4	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	50.5	4.3	14.4	4.5	51.4	10.0	8.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	47.0	4.0	18.0	4.0	48.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	2.9	18.2	2.2	4.2	2.2	32.2	7.1	4.4
Green Ext Time (p_c), s	0.0	26.9	0.0	0.5	0.0	15.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	609	393	58	58	770	103	2	646	40	94	1017	1130
Future Volume (veh/h)	609	393	58	58	770	103	2	646	40	94	1017	1130
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	609	393	58	58	770	103	2	646	40	94	1017	1130
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	549	1241	555	93	773	346	5	1451	649	139	1588	710
Arrive On Green	0.17	0.36	0.36	0.03	0.23	0.23	0.00	0.42	0.42	0.04	0.46	0.46
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3343	3438	1538	3343	3438	1538
Grp Volume(v), veh/h	609	393	58	58	770	103	2	646	40	94	1017	1130
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1672	1719	1538	1672	1719	1538
Q Serve(g_s), s	24.4	12.2	3.7	2.6	33.3	8.3	0.1	19.7	2.3	4.1	33.3	68.0
Cycle Q Clear(g_c), s	24.4	12.2	3.7	2.6	33.3	8.3	0.1	19.7	2.3	4.1	33.3	68.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	549	1241	555	93	773	346	5	1451	649	139	1588	710
V/C Ratio(X)	1.11	0.32	0.10	0.62	1.00	0.30	0.37	0.45	0.06	0.68	0.64	1.59
Avail Cap(c_a), veh/h	549	1241	555	137	773	346	68	1455	651	198	1588	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.4	33.6	30.9	70.8	56.9	47.2	73.4	30.3	25.3	69.6	30.3	39.6
Incr Delay (d2), s/veh	72.1	0.3	0.2	2.5	31.5	1.0	15.3	0.2	0.0	2.2	0.9	272.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.6	5.8	1.6	1.2	19.0	3.6	0.1	9.4	1.0	1.9	16.0	82.6
LnGrp Delay(d),s/veh	133.5	33.9	31.1	73.3	88.4	48.2	88.7	30.5	25.3	71.7	31.2	312.1
LnGrp LOS	F	C	C	E	F	D	F	C	C	E	C	F
Approach Vol, veh/h		1060			931			688			2241	
Approach Delay, s/veh		91.0			83.0			30.4			174.5	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	39.4	4.8	74.0	8.7	59.7	10.7	68.1
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	24.4	33.4	3.0	68.0	6.1	51.7	8.7	62.3
Max Q Clear Time (g_c+I1), s	26.4	35.3	2.1	70.0	4.6	14.2	6.1	21.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	20.8	0.0	29.2

Intersection Summary	
HCM 2010 Ctrl Delay	119.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	877	94	309	742	146	85	1116	294	52	748	133
Future Volume (veh/h)	155	877	94	309	742	146	85	1116	294	52	748	133
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	155	877	94	309	742	146	85	1116	294	52	748	133
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	189	934	100	259	1163	520	109	1199	536	66	1113	498
Arrive On Green	0.11	0.29	0.29	0.15	0.33	0.33	0.06	0.34	0.34	0.04	0.32	0.32
Sat Flow, veh/h	1757	3194	342	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	155	481	490	309	742	146	85	1116	294	52	748	133
Grp Sat Flow(s),veh/h/ln	1757	1752	1784	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	7.6	23.7	23.7	13.0	15.9	6.1	4.2	27.2	13.4	2.6	16.4	5.6
Cycle Q Clear(g_c), s	7.6	23.7	23.7	13.0	15.9	6.1	4.2	27.2	13.4	2.6	16.4	5.6
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	512	522	259	1163	520	109	1199	536	66	1113	498
V/C Ratio(X)	0.82	0.94	0.94	1.20	0.64	0.28	0.78	0.93	0.55	0.79	0.67	0.27
Avail Cap(c_a), veh/h	239	516	525	259	1163	520	159	1230	550	80	1113	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	30.5	30.5	37.7	25.0	21.7	40.9	28.1	23.5	42.2	26.2	22.5
Incr Delay (d2), s/veh	16.3	25.3	25.0	119.3	1.2	0.3	14.0	12.4	1.1	34.4	1.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	15.0	15.2	14.8	7.8	2.6	2.5	15.1	6.0	1.9	8.1	2.5
LnGrp Delay(d),s/veh	54.9	55.8	55.5	156.9	26.2	22.0	54.9	40.5	24.6	76.6	27.7	22.8
LnGrp LOS	D	E	E	F	C	C	D	D	C	E	C	C
Approach Vol, veh/h		1126			1197			1495			933	
Approach Delay, s/veh		55.5			59.4			38.2			29.8	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	34.2	17.0	29.8	9.5	32.1	13.5	33.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	31.0	13.0	26.0	8.0	27.0	12.0	27.0
Max Q Clear Time (g_c+I1), s	4.6	29.2	15.0	25.7	6.2	18.4	9.6	17.9
Green Ext Time (p_c), s	0.0	1.1	0.0	0.2	0.0	7.3	0.1	6.8

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	636	223	49	795	100	183	1649	188	131	461	58
Future Volume (veh/h)	147	636	223	49	795	100	183	1649	188	131	461	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	147	636	223	49	795	100	183	1649	188	131	461	58
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	135	953	426	63	723	91	210	1573	177	120	1393	174
Arrive On Green	0.08	0.27	0.27	0.04	0.23	0.23	0.12	0.50	0.50	0.07	0.45	0.45
Sat Flow, veh/h	1757	3505	1568	1757	3133	394	1740	3147	353	1740	3105	389
Grp Volume(v), veh/h	147	636	223	49	445	450	183	898	939	131	257	262
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1775	1740	1736	1765	1740	1736	1758
Q Serve(g_s), s	10.0	21.0	15.7	3.6	30.0	30.0	13.4	65.0	65.0	9.0	12.4	12.6
Cycle Q Clear(g_c), s	10.0	21.0	15.7	3.6	30.0	30.0	13.4	65.0	65.0	9.0	12.4	12.6
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.20	1.00		0.22
Lane Grp Cap(c), veh/h	135	953	426	63	404	410	210	868	882	120	778	789
V/C Ratio(X)	1.09	0.67	0.52	0.78	1.10	1.10	0.87	1.04	1.06	1.09	0.33	0.33
Avail Cap(c_a), veh/h	135	953	426	108	404	410	308	868	882	120	778	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	42.1	40.2	62.2	50.0	50.0	56.2	32.5	32.5	60.5	23.2	23.2
Incr Delay (d2), s/veh	102.9	1.8	1.2	18.4	74.3	74.1	16.4	40.0	48.8	107.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	10.4	6.9	2.1	22.8	23.1	7.4	40.5	43.3	7.9	6.0	6.2
LnGrp Delay(d),s/veh	162.9	43.9	41.3	80.6	124.3	124.1	72.6	72.5	81.3	168.0	23.4	23.5
LnGrp LOS	F	D	D	F	F	F	E	F	F	F	C	C
Approach Vol, veh/h		1006			944			2020			650	
Approach Delay, s/veh		60.7			122.0			76.6			52.6	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	69.0	8.7	39.3	19.7	62.3	14.0	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	65.0	8.0	32.0	23.0	51.0	10.0	30.0
Max Q Clear Time (g_c+I1), s	11.0	67.0	5.6	23.0	15.4	14.6	12.0	32.0
Green Ext Time (p_c), s	0.0	0.0	0.0	6.4	0.3	26.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	79.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	1303	168	229	1446	142	179	1559	217	127	367	127
Future Volume (veh/h)	319	1303	168	229	1446	142	179	1559	217	127	367	127
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	319	1303	168	229	1446	142	179	1559	217	127	367	127
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	255	1402	181	151	1264	393	201	1329	182	104	1311	587
Arrive On Green	0.15	0.31	0.31	0.09	0.25	0.25	0.12	0.43	0.43	0.06	0.38	0.38
Sat Flow, veh/h	1740	4473	577	1740	4988	1553	1740	3068	420	1740	3471	1553
Grp Volume(v), veh/h	319	969	502	229	1446	142	179	871	905	127	367	127
Grp Sat Flow(s),veh/h/ln	1740	1663	1725	1740	1663	1553	1740	1736	1753	1740	1736	1553
Q Serve(g_s), s	22.0	42.3	42.3	13.0	38.0	11.3	15.2	65.0	65.0	9.0	11.0	8.3
Cycle Q Clear(g_c), s	22.0	42.3	42.3	13.0	38.0	11.3	15.2	65.0	65.0	9.0	11.0	8.3
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	255	1042	541	151	1264	393	201	752	760	104	1311	587
V/C Ratio(X)	1.25	0.93	0.93	1.52	1.14	0.36	0.89	1.16	1.19	1.22	0.28	0.22
Avail Cap(c_a), veh/h	255	1042	541	151	1264	393	232	752	760	104	1311	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.0	49.9	49.9	68.5	56.0	46.0	65.4	42.5	42.5	70.5	32.5	31.6
Incr Delay (d2), s/veh	140.7	14.1	22.8	264.3	74.8	0.6	29.3	85.8	98.9	157.4	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.5	21.4	23.5	17.3	26.2	4.9	8.9	49.1	52.3	8.9	5.3	3.6
LnGrp Delay(d),s/veh	204.7	64.0	72.7	332.8	130.8	46.6	94.7	128.3	141.4	227.9	32.6	31.8
LnGrp LOS	F	E	E	F	F	D	F	F	F	F	C	C
Approach Vol, veh/h		1790			1817			1955			621	
Approach Delay, s/veh		91.5			149.7			131.3			72.4	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	69.0	17.0	51.0	21.3	60.7	26.0	42.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	65.0	13.0	47.0	20.0	54.0	22.0	38.0
Max Q Clear Time (g_c+I1), s	11.0	67.0	15.0	44.3	17.2	13.0	24.0	40.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.1	26.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	119.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	1202	179	121	1729	404	147	989	335	28	252	212
Future Volume (veh/h)	192	1202	179	121	1729	404	147	989	335	28	252	212
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	192	1202	179	121	1729	404	147	989	335	28	252	212
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	188	1542	229	144	1676	750	172	960	429	35	687	307
Arrive On Green	0.11	0.51	0.51	0.08	0.48	0.48	0.10	0.27	0.27	0.02	0.20	0.20
Sat Flow, veh/h	1740	3033	450	1740	3471	1553	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	192	685	696	121	1729	404	147	989	335	28	252	212
Grp Sat Flow(s),veh/h/ln	1740	1736	1748	1740	1736	1553	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	15.0	44.5	45.1	9.5	67.0	25.2	11.4	38.0	27.4	2.2	8.6	17.4
Cycle Q Clear(g_c), s	15.0	44.5	45.1	9.5	67.0	25.2	11.4	38.0	27.4	2.2	8.6	17.4
Prop In Lane	1.00		0.26	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	882	888	144	1676	750	172	960	429	35	687	307
V/C Ratio(X)	1.02	0.78	0.78	0.84	1.03	0.54	0.86	1.03	0.78	0.80	0.37	0.69
Avail Cap(c_a), veh/h	188	882	888	163	1676	750	253	960	429	51	687	307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.9	27.7	27.9	62.8	35.9	25.1	61.6	50.4	46.5	67.7	48.3	51.9
Incr Delay (d2), s/veh	71.2	4.4	4.6	28.6	30.6	0.8	16.9	37.1	8.9	41.4	0.3	6.4
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	22.4	22.8	5.7	39.0	10.9	6.4	23.2	13.0	1.5	4.2	8.1
LnGrp Delay(d),s/veh	133.3	32.1	32.5	91.4	66.5	25.9	78.5	87.5	55.5	109.1	48.7	58.3
LnGrp LOS	F	C	C	F	F	C	E	F	E	F	D	E
Approach Vol, veh/h		1573			2254			1471			492	
Approach Delay, s/veh		44.6			60.5			79.3			56.2	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	42.0	15.4	74.6	17.6	31.2	19.0	71.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	38.0	13.0	69.0	20.0	22.0	15.0	67.0
Max Q Clear Time (g_c+I1), s	4.2	40.0	11.5	47.1	13.4	19.4	17.0	69.0
Green Ext Time (p_c), s	0.0	0.0	0.0	20.6	0.2	2.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	60.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	404	520	33	72	681	273	65	1448	59	89	996	15
Future Volume (veh/h)	404	520	33	72	681	273	65	1448	59	89	996	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	404	520	33	72	681	273	65	1448	59	89	996	15
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	453	1376	428	126	892	278	121	1581	64	145	1639	733
Arrive On Green	0.13	0.28	0.28	0.04	0.18	0.18	0.04	0.46	0.46	0.04	0.47	0.47
Sat Flow, veh/h	3375	4988	1553	3375	4988	1553	3375	3400	138	3375	3471	1553
Grp Volume(v), veh/h	404	520	33	72	681	273	65	738	769	89	996	15
Grp Sat Flow(s),veh/h/ln	1688	1663	1553	1688	1663	1553	1688	1736	1803	1688	1736	1553
Q Serve(g_s), s	10.5	7.5	1.4	1.9	11.6	15.7	1.7	35.4	35.6	2.3	19.0	0.5
Cycle Q Clear(g_c), s	10.5	7.5	1.4	1.9	11.6	15.7	1.7	35.4	35.6	2.3	19.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	453	1376	428	126	892	278	121	807	838	145	1639	733
V/C Ratio(X)	0.89	0.38	0.08	0.57	0.76	0.98	0.54	0.91	0.92	0.61	0.61	0.02
Avail Cap(c_a), veh/h	453	1376	428	189	892	278	151	815	847	151	1639	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	26.2	24.0	42.3	34.9	36.6	42.4	22.3	22.3	42.1	17.5	12.6
Incr Delay (d2), s/veh	19.4	0.2	0.1	4.1	3.9	49.0	3.7	14.7	14.7	6.7	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	3.5	0.6	0.9	5.6	10.5	0.8	20.1	20.9	1.2	9.1	0.2
LnGrp Delay(d),s/veh	57.5	26.3	24.0	46.4	38.8	85.6	46.1	36.9	37.0	48.8	18.1	12.6
LnGrp LOS	E	C	C	D	D	F	D	D	D	D	B	B
Approach Vol, veh/h		957			1026			1572			1100	
Approach Delay, s/veh		39.4			51.8			37.4			20.5	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	45.6	7.3	28.7	7.2	46.2	16.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	42.0	5.0	23.0	4.0	42.0	12.0	16.0
Max Q Clear Time (g_c+I1), s	4.3	37.6	3.9	9.5	3.7	21.0	12.5	17.7
Green Ext Time (p_c), s	0.0	4.0	0.0	7.6	0.0	17.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	418	61	2	442	23	145	549	48	8	220	28
Future Volume (veh/h)	142	418	61	2	442	23	145	549	48	8	220	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1827	1827	1827	1845	1845	1845
Adj Flow Rate, veh/h	142	418	61	2	442	23	145	549	48	8	220	28
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	3	3	3
Cap, veh/h	179	980	142	4	743	39	184	665	565	15	492	418
Arrive On Green	0.10	0.32	0.32	0.00	0.22	0.22	0.11	0.36	0.36	0.01	0.27	0.27
Sat Flow, veh/h	1740	3043	441	1740	3357	174	1740	1827	1553	1757	1845	1568
Grp Volume(v), veh/h	142	237	242	2	228	237	145	549	48	8	220	28
Grp Sat Flow(s),veh/h/ln	1740	1736	1749	1740	1736	1796	1740	1827	1553	1757	1845	1568
Q Serve(g_s), s	4.2	5.7	5.7	0.1	6.2	6.2	4.3	14.4	1.1	0.2	5.2	0.7
Cycle Q Clear(g_c), s	4.2	5.7	5.7	0.1	6.2	6.2	4.3	14.4	1.1	0.2	5.2	0.7
Prop In Lane	1.00		0.25	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	559	563	4	384	398	184	665	565	15	492	418
V/C Ratio(X)	0.79	0.42	0.43	0.52	0.59	0.60	0.79	0.83	0.08	0.54	0.45	0.07
Avail Cap(c_a), veh/h	198	592	597	132	526	545	264	796	677	133	664	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	14.0	14.1	26.3	18.4	18.4	23.0	15.3	11.0	26.1	16.1	14.5
Incr Delay (d2), s/veh	18.0	0.5	0.5	81.6	1.5	1.4	9.6	6.1	0.1	27.6	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.8	2.8	0.1	3.1	3.3	2.5	8.3	0.5	0.2	2.7	0.3
LnGrp Delay(d),s/veh	41.1	14.6	14.6	107.9	19.9	19.9	32.6	21.3	11.1	53.7	16.8	14.5
LnGrp LOS	D	B	B	F	B	B	C	C	B	D	B	B
Approach Vol, veh/h		621			467			742			256	
Approach Delay, s/veh		20.6			20.2			22.9			17.7	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.4	23.2	4.1	21.0	9.6	18.1	9.4	15.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	23.0	4.0	18.0	8.0	19.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	2.2	16.4	2.1	7.7	6.3	7.2	6.2	8.2
Green Ext Time (p_c), s	0.0	2.8	0.0	4.1	0.1	4.1	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	163	110	3	1	301	1904	37	0	1609	0
Future Volume (veh/h)	0	1	163	110	3	1	301	1904	37	0	1609	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	0	1	163	110	3	1	301	1904	37	0	1609	0
Adj No. of Lanes	0	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	0	1	185	139	105	35	306	2075	928	97	1659	0
Arrive On Green	0.00	0.12	0.12	0.08	0.08	0.08	0.18	0.61	0.61	0.00	0.49	0.00
Sat Flow, veh/h	0	9	1488	1757	1325	442	1707	3406	1524	1707	3495	0
Grp Volume(v), veh/h	0	0	164	110	0	4	301	1904	37	0	1609	0
Grp Sat Flow(s),veh/h/ln	0	0	1497	1757	0	1767	1707	1703	1524	1707	1703	0
Q Serve(g_s), s	0.0	0.0	13.2	7.6	0.0	0.3	21.6	60.8	1.2	0.0	56.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	13.2	7.6	0.0	0.3	21.6	60.8	1.2	0.0	56.4	0.0
Prop In Lane	0.00		0.99	1.00		0.25	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	186	139	0	139	306	2075	928	97	1659	0
V/C Ratio(X)	0.00	0.00	0.88	0.79	0.00	0.03	0.98	0.92	0.04	0.00	0.97	0.00
Avail Cap(c_a), veh/h	0	0	195	229	0	230	306	2164	968	97	1665	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	52.8	55.6	0.0	52.2	50.2	21.2	9.6	0.0	30.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	32.9	9.8	0.0	0.1	46.9	6.6	0.0	0.0	15.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	7.2	4.0	0.0	0.1	14.1	30.2	0.5	0.0	29.9	0.0
LnGrp Delay(d),s/veh	0.0	0.0	85.8	65.3	0.0	52.3	97.1	27.9	9.6	0.0	46.1	0.0
LnGrp LOS			F	E		D	F	C	A		D	
Approach Vol, veh/h		164			114			2242			1609	
Approach Delay, s/veh		85.8			64.9			36.9			46.1	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	78.8		19.3	26.0	63.8		13.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	78.0		16.0	22.0	60.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	62.8		15.2	23.6	58.4		9.6
Green Ext Time (p_c), s	0.0	12.0		0.1	0.0	1.4		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		43.2
HCM 2010 LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	19	205	4	610	19	1807	107	224	1589	0
Future Volume (veh/h)	0	1	19	205	4	610	19	1807	107	224	1589	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	0	1	19	205	4	610	19	1807	107	224	1589	0
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1	7	142	230	3	395	26	1825	107	210	2268	0
Arrive On Green	0.00	0.09	0.09	0.13	0.25	0.25	0.01	0.54	0.54	0.12	0.65	0.00
Sat Flow, veh/h	1757	79	1501	1757	10	1559	1757	3365	197	1757	3597	0
Grp Volume(v), veh/h	0	0	20	205	0	614	19	933	981	224	1589	0
Grp Sat Flow(s),veh/h/ln	1757	0	1580	1757	0	1569	1757	1752	1810	1757	1752	0
Q Serve(g_s), s	0.0	0.0	1.6	16.3	0.0	36.0	1.5	74.0	76.9	17.0	41.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.6	16.3	0.0	36.0	1.5	74.0	76.9	17.0	41.6	0.0
Prop In Lane	1.00		0.95	1.00		0.99	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	1	0	149	230	0	398	26	950	981	210	2268	0
V/C Ratio(X)	0.00	0.00	0.13	0.89	0.00	1.54	0.73	0.98	1.00	1.07	0.70	0.00
Avail Cap(c_a), veh/h	49	0	178	297	0	398	62	950	981	210	2268	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	59.0	60.7	0.0	53.0	69.7	31.8	32.5	62.5	16.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.4	22.7	0.0	256.6	31.7	24.7	28.6	80.3	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	9.4	0.0	43.9	1.0	42.0	45.9	12.9	20.4	0.0
LnGrp Delay(d),s/veh	0.0	0.0	59.4	83.5	0.0	309.6	101.3	56.6	61.1	142.8	17.2	0.0
LnGrp LOS			E	F		F	F	E	E	F	B	
Approach Vol, veh/h		20			819			1933			1813	
Approach Delay, s/veh		59.4			253.0			59.3			32.7	
Approach LOS		E			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	81.0	22.6	17.4	6.1	95.9	0.0	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	77.0	24.0	16.0	5.0	89.0	4.0	36.0
Max Q Clear Time (g_c+I1), s	19.0	78.9	18.3	3.6	3.5	43.6	0.0	38.0
Green Ext Time (p_c), s	0.0	0.0	0.3	3.8	0.0	41.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	83.4
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	359	6	4	1	5	7	3	1391	1	0	1457	343
Future Volume (veh/h)	359	6	4	1	5	7	3	1391	1	0	1457	343
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	359	6	4	1	5	7	3	1391	1	0	1457	0
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	406	7	368	2	8	12	6	2063	1	3	1792	802
Arrive On Green	0.23	0.23	0.23	0.01	0.01	0.01	0.00	0.57	0.57	0.00	0.51	0.00
Sat Flow, veh/h	1729	29	1568	129	646	904	1757	3594	3	1757	3505	1568
Grp Volume(v), veh/h	365	0	4	13	0	0	3	678	714	0	1457	0
Grp Sat Flow(s),veh/h/ln	1758	0	1568	1679	0	0	1757	1752	1844	1757	1752	1568
Q Serve(g_s), s	13.5	0.0	0.1	0.5	0.0	0.0	0.1	18.1	18.1	0.0	23.4	0.0
Cycle Q Clear(g_c), s	13.5	0.0	0.1	0.5	0.0	0.0	0.1	18.1	18.1	0.0	23.4	0.0
Prop In Lane	0.98		1.00	0.08		0.54	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	413	0	368	22	0	0	6	1006	1059	3	1792	802
V/C Ratio(X)	0.88	0.00	0.01	0.60	0.00	0.00	0.53	0.67	0.67	0.00	0.81	0.00
Avail Cap(c_a), veh/h	444	0	396	399	0	0	104	1006	1059	104	1925	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	24.9	0.0	19.8	33.1	0.0	0.0	33.5	10.0	10.0	0.0	13.8	0.0
Incr Delay (d2), s/veh	17.8	0.0	0.0	24.3	0.0	0.0	59.4	1.8	1.7	0.0	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.0	0.1	0.4	0.0	0.0	0.1	9.2	9.6	0.0	11.8	0.0
LnGrp Delay(d),s/veh	42.7	0.0	19.8	57.3	0.0	0.0	93.0	11.8	11.7	0.0	16.4	0.0
LnGrp LOS	D		B	E			F	B	B		B	
Approach Vol, veh/h		369			13			1395			1457	
Approach Delay, s/veh		42.4			57.3			11.9			16.4	
Approach LOS		D			E			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	42.7		19.8	4.2	38.5		4.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	37.0		17.0	4.0	37.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	20.1		15.5	2.1	25.4		2.5
Green Ext Time (p_c), s	0.0	15.2		0.3	0.0	9.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		17.6
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	518	588	90	1297	6	242	1029	64	2	1412	336
Future Volume (veh/h)	278	518	588	90	1297	6	242	1029	64	2	1412	336
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	278	518	588	90	1297	6	242	1029	64	2	1412	336
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	262	1348	603	131	1213	543	236	1583	708	7	1348	603
Arrive On Green	0.08	0.38	0.38	0.04	0.35	0.35	0.07	0.45	0.45	0.00	0.38	0.38
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	278	518	588	90	1297	6	242	1029	64	2	1412	336
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	10.0	13.9	48.0	3.4	45.0	0.3	9.0	29.6	3.0	0.1	50.0	21.8
Cycle Q Clear(g_c), s	10.0	13.9	48.0	3.4	45.0	0.3	9.0	29.6	3.0	0.1	50.0	21.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	262	1348	603	131	1213	543	236	1583	708	7	1348	603
V/C Ratio(X)	1.06	0.38	0.98	0.69	1.07	0.01	1.03	0.65	0.09	0.27	1.05	0.56
Avail Cap(c_a), veh/h	262	1348	603	131	1213	543	236	1583	708	105	1348	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	28.9	39.4	61.7	42.5	27.9	60.5	27.7	20.4	64.8	40.0	31.3
Incr Delay (d2), s/veh	72.4	0.2	30.3	13.9	46.4	0.0	65.4	0.9	0.1	19.0	37.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	6.7	25.8	1.9	29.6	0.1	6.4	14.5	1.3	0.1	31.3	9.6
LnGrp Delay(d),s/veh	132.4	29.1	69.7	75.6	88.9	27.9	126.0	28.6	20.4	83.7	77.9	32.5
LnGrp LOS	F	C	E	E	F	C	F	C	C	F	F	C
Approach Vol, veh/h		1384			1393			1335			1750	
Approach Delay, s/veh		67.1			87.8			45.9			69.2	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.3	62.7	9.0	54.0	13.0	54.0	14.0	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	55.0	5.0	50.0	9.0	50.0	10.0	45.0
Max Q Clear Time (g_c+I1), s	2.1	31.6	5.4	50.0	11.0	52.0	12.0	47.0
Green Ext Time (p_c), s	0.0	19.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	2129	49	18	2851	171	387	257	36	213	64	266
Future Volume (veh/h)	140	2129	49	18	2851	171	387	257	36	213	64	266
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	140	2129	49	18	2851	171	387	257	36	213	64	266
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	94	2146	49	25	1928	114	258	295	251	187	221	188
Arrive On Green	0.05	0.61	0.61	0.01	0.57	0.57	0.15	0.16	0.16	0.11	0.12	0.12
Sat Flow, veh/h	1757	3503	80	1757	3362	200	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	140	1061	1117	18	1472	1550	387	257	36	213	64	266
Grp Sat Flow(s),veh/h/ln	1757	1752	1830	1757	1752	1809	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	8.0	89.2	91.0	1.5	86.0	86.0	22.0	20.4	3.0	16.0	4.7	18.0
Cycle Q Clear(g_c), s	8.0	89.2	91.0	1.5	86.0	86.0	22.0	20.4	3.0	16.0	4.7	18.0
Prop In Lane	1.00		0.04	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	94	1074	1121	25	1005	1037	258	295	251	187	221	188
V/C Ratio(X)	1.49	0.99	1.00	0.73	1.47	1.49	1.50	0.87	0.14	1.14	0.29	1.41
Avail Cap(c_a), veh/h	94	1074	1121	47	1005	1037	258	295	251	187	221	188
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.0	28.5	28.9	73.7	32.0	32.0	64.0	61.5	54.2	67.0	60.2	66.0
Incr Delay (d2), s/veh	270.2	24.6	25.9	33.2	214.9	227.4	245.1	23.4	0.3	107.3	0.7	214.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	50.1	53.7	1.0	101.3	108.2	28.2	12.3	1.3	13.3	2.5	19.0
LnGrp Delay(d),s/veh	341.2	53.1	54.7	106.8	246.9	259.4	309.1	84.9	54.4	174.3	60.9	280.5
LnGrp LOS	F	D	D	F	F	F	F	F	D	F	E	F
Approach Vol, veh/h		2318			3040			680			543	
Approach Delay, s/veh		71.3			252.4			210.9			213.0	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	28.0	6.1	95.9	26.0	22.0	12.0	90.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	24.0	4.0	90.0	22.0	18.0	8.0	86.0
Max Q Clear Time (g_c+I1), s	18.0	22.4	3.5	93.0	24.0	20.0	10.0	88.0
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	181.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	471	621	506	7	1179	414	643	1834	4	266	1276	1614
Future Volume (veh/h)	471	621	506	7	1179	414	643	1834	4	266	1276	1614
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	471	621	506	7	1179	414	643	1834	4	266	1276	1614
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	250	1410	439	23	1074	334	341	2591	807	314	2552	794
Arrive On Green	0.07	0.28	0.28	0.01	0.21	0.21	0.10	0.51	0.51	0.09	0.51	0.51
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	471	621	506	7	1179	414	643	1834	4	266	1276	1614
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	11.0	15.2	42.0	0.3	32.0	32.0	15.0	41.7	0.2	11.5	25.1	76.0
Cycle Q Clear(g_c), s	11.0	15.2	42.0	0.3	32.0	32.0	15.0	41.7	0.2	11.5	25.1	76.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	250	1410	439	23	1074	334	341	2591	807	314	2552	794
V/C Ratio(X)	1.88	0.44	1.15	0.30	1.10	1.24	1.89	0.71	0.00	0.85	0.50	2.03
Avail Cap(c_a), veh/h	250	1410	439	91	1074	334	341	2591	807	386	2552	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	44.4	54.0	74.1	59.0	59.0	67.5	27.8	17.7	67.0	24.4	37.0
Incr Delay (d2), s/veh	412.8	0.2	91.9	7.2	58.1	130.0	409.9	0.9	0.0	13.5	0.2	468.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.5	7.1	29.4	0.2	20.6	25.9	26.5	19.6	0.1	6.0	11.6	136.1
LnGrp Delay(d),s/veh	482.3	44.6	145.9	81.4	117.1	189.0	477.4	28.7	17.7	80.6	24.6	505.7
LnGrp LOS	F	D	F	F	F	F	F	C	B	F	C	F
Approach Vol, veh/h		1598			1600			2481			3156	
Approach Delay, s/veh		205.7			135.5			145.0			275.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	81.2	5.0	46.0	19.0	80.0	15.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	74.0	4.0	39.0	15.0	76.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	13.5	43.7	2.3	44.0	17.0	78.0	13.0	34.0
Green Ext Time (p_c), s	0.3	29.9	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	200.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	605	301	402	1256	856	661	1097	239	357	329	0
Future Volume (veh/h)	0	605	301	402	1256	856	661	1097	239	357	329	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	605	301	402	1256	856	661	1097	239	357	329	0
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	1076	335	494	2043	636	753	1177	527	400	814	364
Arrive On Green	0.00	0.21	0.21	0.15	0.41	0.41	0.22	0.34	0.34	0.12	0.23	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	0	605	301	402	1256	856	661	1097	239	357	329	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.0	9.1	15.9	9.7	16.8	34.6	16.0	25.8	10.2	8.8	6.8	0.0
Cycle Q Clear(g_c), s	0.0	9.1	15.9	9.7	16.8	34.6	16.0	25.8	10.2	8.8	6.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	4	1076	335	494	2043	636	753	1177	527	400	814	364
V/C Ratio(X)	0.00	0.56	0.90	0.81	0.61	1.35	0.88	0.93	0.45	0.89	0.40	0.00
Avail Cap(c_a), veh/h	160	1124	350	640	2043	636	840	1194	534	400	814	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	29.9	32.6	35.3	20.0	25.3	32.1	27.3	22.2	37.0	27.7	0.0
Incr Delay (d2), s/veh	0.0	0.6	24.2	6.2	0.6	165.8	9.7	12.9	0.6	21.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.3	9.1	5.0	7.9	44.1	8.5	14.4	4.4	5.3	3.3	0.0
LnGrp Delay(d),s/veh	0.0	30.5	56.8	41.4	20.6	191.1	41.7	40.2	22.8	58.5	28.0	0.0
LnGrp LOS		C	E	D	C	F	D	D	C	E	C	
Approach Vol, veh/h		906			2514			1997			686	
Approach Delay, s/veh		39.2			82.0			38.6			43.9	
Approach LOS		D			F			D			D	

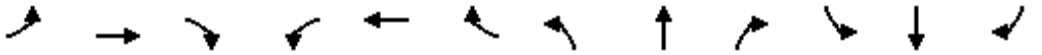
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	32.6	16.4	22.2	22.8	23.8	0.0	38.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	29.0	16.0	19.0	21.0	18.0	4.0	31.0
Max Q Clear Time (g_c+I1), s	10.8	27.8	11.7	17.9	18.0	8.8	0.0	36.6
Green Ext Time (p_c), s	0.0	0.8	0.6	0.3	0.9	6.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	74	18	155	408	995	134	985	89	357	461	244
Future Volume (veh/h)	28	74	18	155	408	995	134	985	89	357	461	244
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	28	74	18	155	408	995	134	985	89	357	461	244
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	1511	676	212	1658	742	189	947	424	345	1108	496
Arrive On Green	0.02	0.43	0.43	0.06	0.47	0.47	0.06	0.27	0.27	0.10	0.32	0.32
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	28	74	18	155	408	995	134	985	89	357	461	244
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	1.0	1.5	0.8	5.3	8.2	56.0	4.6	32.0	5.2	12.0	12.3	14.9
Cycle Q Clear(g_c), s	1.0	1.5	0.8	5.3	8.2	56.0	4.6	32.0	5.2	12.0	12.3	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	1511	676	212	1658	742	189	947	424	345	1108	496
V/C Ratio(X)	0.40	0.05	0.03	0.73	0.25	1.34	0.71	1.04	0.21	1.03	0.42	0.49
Avail Cap(c_a), veh/h	115	1511	676	288	1658	742	259	947	424	345	1108	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	19.6	19.4	54.6	18.6	31.2	55.0	43.2	33.4	53.2	31.9	32.8
Incr Delay (d2), s/veh	3.8	0.0	0.0	6.1	0.1	162.8	5.4	40.1	0.2	57.4	0.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.7	0.3	2.7	4.0	57.7	2.3	20.7	2.3	8.4	6.0	6.5
LnGrp Delay(d),s/veh	61.0	19.6	19.4	60.7	18.7	194.0	60.3	83.3	33.7	110.6	32.1	33.6
LnGrp LOS	E	B	B	E	B	F	E	F	C	F	C	C
Approach Vol, veh/h		120			1558			1208			1062	
Approach Delay, s/veh		29.2			134.8			77.1			58.8	
Approach LOS		C			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	36.0	11.4	55.0	10.6	41.4	6.4	60.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	32.0	10.0	50.0	9.0	35.0	4.0	56.0
Max Q Clear Time (g_c+I1), s	14.0	34.0	7.3	3.5	6.6	16.9	3.0	58.0
Green Ext Time (p_c), s	0.0	0.0	0.1	11.0	0.1	10.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	93.5
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	348	98	29	858	260	244	596	31	90	335	300
Future Volume (veh/h)	126	348	98	29	858	260	244	596	31	90	335	300
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	126	348	98	29	858	260	244	596	31	90	335	300
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	210	1172	524	88	1047	468	349	1063	475	182	891	399
Arrive On Green	0.06	0.33	0.33	0.03	0.30	0.30	0.10	0.30	0.30	0.05	0.25	0.25
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	126	348	98	29	858	260	244	596	31	90	335	300
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	2.0	4.1	2.5	0.5	12.9	7.9	3.9	8.1	0.8	1.5	4.5	10.0
Cycle Q Clear(g_c), s	2.0	4.1	2.5	0.5	12.9	7.9	3.9	8.1	0.8	1.5	4.5	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	1172	524	88	1047	468	349	1063	475	182	891	399
V/C Ratio(X)	0.60	0.30	0.19	0.33	0.82	0.56	0.70	0.56	0.07	0.49	0.38	0.75
Avail Cap(c_a), veh/h	241	1172	524	241	1116	499	362	1063	475	301	992	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	13.9	13.4	27.1	18.4	16.7	24.5	16.5	14.0	26.0	17.4	19.4
Incr Delay (d2), s/veh	3.2	0.1	0.2	2.1	4.7	1.2	5.6	0.7	0.1	2.1	0.3	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.0	1.1	0.2	6.9	3.5	2.1	4.0	0.3	0.7	2.2	5.0
LnGrp Delay(d),s/veh	29.0	14.0	13.5	29.2	23.1	17.9	30.1	17.2	14.1	28.1	17.6	25.8
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	C
Approach Vol, veh/h		572			1147			871			725	
Approach Delay, s/veh		17.3			22.1			20.7			22.3	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	21.1	5.5	22.9	9.8	18.4	7.5	20.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	17.0	4.0	18.0	6.0	16.0	4.0	18.0
Max Q Clear Time (g_c+I1), s	3.5	10.1	2.5	6.1	5.9	12.0	4.0	14.9
Green Ext Time (p_c), s	0.0	4.0	0.0	7.2	0.0	2.4	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	773	124	25	1279	244	578	221	54	104	54	143
Future Volume (veh/h)	51	773	124	25	1279	244	578	221	54	104	54	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	51	773	124	25	1279	244	578	221	54	104	54	143
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	65	1354	606	35	1293	578	581	680	578	131	206	175
Arrive On Green	0.04	0.39	0.39	0.02	0.37	0.37	0.33	0.37	0.37	0.07	0.11	0.11
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	51	773	124	25	1279	244	578	221	54	104	54	143
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	3.0	18.4	5.6	1.5	38.4	12.3	34.7	9.1	2.4	6.2	2.8	9.4
Cycle Q Clear(g_c), s	3.0	18.4	5.6	1.5	38.4	12.3	34.7	9.1	2.4	6.2	2.8	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	65	1354	606	35	1293	578	581	680	578	131	206	175
V/C Ratio(X)	0.78	0.57	0.20	0.72	0.99	0.42	0.99	0.33	0.09	0.80	0.26	0.82
Avail Cap(c_a), veh/h	66	1354	606	83	1293	578	581	680	578	216	279	237
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	25.6	21.6	51.5	33.2	24.9	35.3	24.0	21.8	48.2	43.0	45.9
Incr Delay (d2), s/veh	43.9	0.6	0.2	24.6	22.4	0.5	35.7	0.3	0.1	10.5	0.7	14.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	9.0	2.4	1.0	22.5	5.4	22.5	4.7	1.0	3.4	1.5	4.8
LnGrp Delay(d),s/veh	94.4	26.1	21.8	76.1	55.6	25.4	71.0	24.2	21.9	58.6	43.6	60.4
LnGrp LOS	F	C	C	E	E	C	E	C	C	E	D	E
Approach Vol, veh/h		948			1548			853			301	
Approach Delay, s/veh		29.2			51.2			55.8			56.8	
Approach LOS		C			D			E			E	

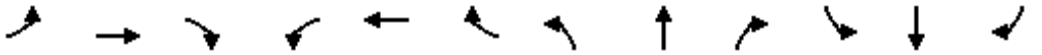
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	43.0	6.1	44.8	39.0	15.8	7.9	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	38.0	5.0	38.0	35.0	16.0	4.0	39.0
Max Q Clear Time (g_c+I1), s	8.2	11.1	3.5	20.4	36.7	11.4	5.0	40.4
Green Ext Time (p_c), s	0.1	2.3	0.0	14.0	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	210	167	26	448	223	180	192	88	43	86	41
Future Volume (veh/h)	20	210	167	26	448	223	180	192	88	43	86	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	20	210	167	26	448	223	180	192	88	43	86	41
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	831	706	41	529	263	224	270	124	60	156	74
Arrive On Green	0.02	0.45	0.45	0.02	0.45	0.45	0.13	0.23	0.23	0.03	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1163	579	1757	1198	549	1757	1182	563
Grp Volume(v), veh/h	20	210	167	26	0	671	180	0	280	43	0	127
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1742	1757	0	1748	1757	0	1745
Q Serve(g_s), s	0.7	4.2	3.9	0.9	0.0	20.5	6.0	0.0	8.9	1.5	0.0	4.1
Cycle Q Clear(g_c), s	0.7	4.2	3.9	0.9	0.0	20.5	6.0	0.0	8.9	1.5	0.0	4.1
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.31	1.00		0.32
Lane Grp Cap(c), veh/h	33	831	706	41	0	793	224	0	394	60	0	230
V/C Ratio(X)	0.60	0.25	0.24	0.63	0.00	0.85	0.80	0.00	0.71	0.72	0.00	0.55
Avail Cap(c_a), veh/h	117	983	836	146	0	958	293	0	641	146	0	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.2	10.2	10.1	29.1	0.0	14.5	25.4	0.0	21.4	28.7	0.0	24.4
Incr Delay (d2), s/veh	16.3	0.2	0.2	14.8	0.0	6.1	11.4	0.0	2.4	14.8	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.2	1.7	0.6	0.0	11.0	3.6	0.0	4.5	1.0	0.0	2.1
LnGrp Delay(d),s/veh	45.5	10.4	10.3	43.9	0.0	20.6	36.8	0.0	23.8	43.5	0.0	26.4
LnGrp LOS	D	B	B	D		C	D		C	D		C
Approach Vol, veh/h		397			697			460			170	
Approach Delay, s/veh		12.1			21.5			28.9			30.8	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	17.5	5.4	31.0	11.7	11.9	5.1	31.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	22.0	5.0	32.0	10.0	17.0	4.0	33.0
Max Q Clear Time (g_c+I1), s	3.5	10.9	2.9	6.2	8.0	6.1	2.7	22.5
Green Ext Time (p_c), s	0.0	1.8	0.0	7.5	0.1	1.8	0.0	4.8

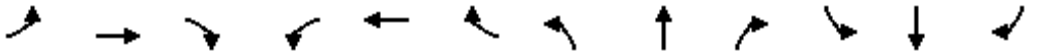
Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	78	0	0	607	805	0	0	0	280	0	0
Future Volume (veh/h)	0	78	0	0	607	805	0	0	0	280	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	78	0	0	607	805	0	0	0	280	0	0
Adj No. of Lanes	2	2	1	1	2	1	1	1	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	11	2029	908	6	2029	908	6	6	5	517	280	238
Arrive On Green	0.00	0.58	0.00	0.00	0.58	0.58	0.00	0.00	0.00	0.15	0.00	0.00
Sat Flow, veh/h	3408	3505	1568	1757	3505	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	0	78	0	0	607	805	0	0	0	280	0	0
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1752	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	0.0	0.3	0.0	0.0	2.6	13.2	0.0	0.0	0.0	2.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.3	0.0	0.0	2.6	13.2	0.0	0.0	0.0	2.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	11	2029	908	6	2029	908	6	6	5	517	280	238
V/C Ratio(X)	0.00	0.04	0.00	0.00	0.30	0.89	0.00	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	459	2125	950	237	2125	950	237	994	845	1836	1739	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	2.7	0.0	0.0	3.2	5.4	0.0	0.0	0.0	11.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	9.9	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	1.3	8.0	0.0	0.0	0.0	1.1	0.0	0.0
LnGrp Delay(d),s/veh	0.0	2.7	0.0	0.0	3.3	15.3	0.0	0.0	0.0	12.5	0.0	0.0
LnGrp LOS		A			A	B				B		
Approach Vol, veh/h		78			1412			0			280	
Approach Delay, s/veh		2.7			10.1			0.0			12.5	
Approach LOS		A			B						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	0.0	0.0	21.2	0.0	8.5	0.0	21.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	16.0	4.0	18.0	4.0	28.0	4.0	18.0
Max Q Clear Time (g_c+I1), s	4.3	0.0	0.0	2.3	0.0	0.0	0.0	15.2
Green Ext Time (p_c), s	0.7	0.0	0.0	7.6	0.0	0.0	0.0	2.0

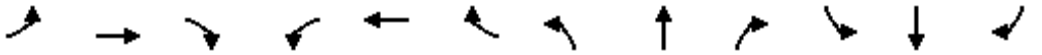
Intersection Summary	
HCM 2010 Ctrl Delay	10.2
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	17	66	189	10	77	22	1496	69	63	665	29
Future Volume (veh/h)	128	17	66	189	10	77	22	1496	69	63	665	29
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	128	17	66	189	10	77	22	1496	69	63	665	29
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	161	133	113	228	203	172	26	1848	85	80	1958	85
Arrive On Green	0.09	0.07	0.07	0.13	0.11	0.11	0.01	0.54	0.54	0.05	0.57	0.57
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3412	157	1757	3422	149
Grp Volume(v), veh/h	128	17	66	189	10	77	22	766	799	63	340	354
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1817	1757	1752	1818
Q Serve(g_s), s	5.4	0.7	3.1	7.9	0.4	3.5	0.9	27.0	27.2	2.7	7.8	7.8
Cycle Q Clear(g_c), s	5.4	0.7	3.1	7.9	0.4	3.5	0.9	27.0	27.2	2.7	7.8	7.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.08
Lane Grp Cap(c), veh/h	161	133	113	228	203	172	26	949	984	80	1003	1041
V/C Ratio(X)	0.79	0.13	0.59	0.83	0.05	0.45	0.85	0.81	0.81	0.79	0.34	0.34
Avail Cap(c_a), veh/h	209	366	311	255	414	352	116	1019	1056	93	1003	1041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	32.9	34.0	32.1	30.1	31.5	37.2	14.1	14.2	35.8	8.6	8.6
Incr Delay (d2), s/veh	14.6	0.4	4.7	18.4	0.1	1.8	49.9	4.6	4.6	31.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.3	1.5	5.0	0.2	1.6	0.8	14.0	14.8	2.0	3.7	3.9
LnGrp Delay(d),s/veh	48.3	33.3	38.8	50.6	30.2	33.3	87.1	18.7	18.8	67.1	8.8	8.8
LnGrp LOS	D	C	D	D	C	C	F	B	B	E	A	A
Approach Vol, veh/h		211			276			1587			757	
Approach Delay, s/veh		44.1			45.0			19.7			13.6	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	45.0	13.8	9.4	5.1	47.3	10.9	12.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	44.0	11.0	15.0	5.0	43.0	9.0	17.0
Max Q Clear Time (g_c+I1), s	4.7	29.2	9.9	5.1	2.9	9.8	7.4	5.5
Green Ext Time (p_c), s	0.0	11.8	0.1	0.4	0.0	22.1	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	3	59	67	2	47	13	1331	111	104	892	74
Future Volume (veh/h)	64	3	59	67	2	47	13	1331	111	104	892	74
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	64	3	59	67	2	47	13	1331	111	104	892	74
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	80	128	109	84	133	113	17	1762	146	132	1977	164
Arrive On Green	0.05	0.07	0.07	0.05	0.07	0.07	0.01	0.54	0.54	0.08	0.60	0.60
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3277	272	1757	3277	272
Grp Volume(v), veh/h	64	3	59	67	2	47	13	710	732	104	477	489
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1797	1757	1752	1797
Q Serve(g_s), s	2.1	0.1	2.2	2.2	0.1	1.7	0.4	18.7	18.9	3.5	8.8	8.8
Cycle Q Clear(g_c), s	2.1	0.1	2.2	2.2	0.1	1.7	0.4	18.7	18.9	3.5	8.8	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.15
Lane Grp Cap(c), veh/h	80	128	109	84	133	113	17	942	966	132	1057	1084
V/C Ratio(X)	0.80	0.02	0.54	0.80	0.02	0.42	0.76	0.75	0.76	0.79	0.45	0.45
Avail Cap(c_a), veh/h	118	497	423	118	497	423	89	1004	1029	148	1063	1090
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	25.7	26.7	28.0	25.6	26.4	29.3	10.7	10.7	27.0	6.4	6.4
Incr Delay (d2), s/veh	20.6	0.1	4.1	21.8	0.0	2.4	49.2	3.1	3.1	21.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.1	1.6	0.0	0.8	0.4	9.7	10.0	2.5	4.3	4.4
LnGrp Delay(d),s/veh	48.7	25.8	30.8	49.8	25.6	28.8	78.5	13.7	13.8	48.7	6.7	6.7
LnGrp LOS	D	C	C	D	C	C	E	B	B	D	A	A
Approach Vol, veh/h		126			116			1455			1070	
Approach Delay, s/veh		39.8			40.9			14.3			10.8	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	35.9	6.8	8.1	4.6	39.8	6.7	8.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	34.0	4.0	16.0	3.0	36.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	5.5	20.9	4.2	4.2	2.4	10.8	4.1	3.7
Green Ext Time (p_c), s	0.0	11.0	0.0	0.2	0.0	18.9	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	819	23	101	1596	73	226
Future Volume (veh/h)	819	23	101	1596	73	226
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	819	23	101	1596	73	226
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	2204	62	492	2219	338	302
Arrive On Green	0.63	0.63	0.63	0.63	0.19	0.19
Sat Flow, veh/h	3574	98	645	3597	1757	1568
Grp Volume(v), veh/h	412	430	101	1596	73	226
Grp Sat Flow(s),veh/h/ln	1752	1827	645	1752	1757	1568
Q Serve(g_s), s	5.2	5.2	4.1	14.1	1.6	6.2
Cycle Q Clear(g_c), s	5.2	5.2	9.3	14.1	1.6	6.2
Prop In Lane		0.05	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1109	1157	492	2219	338	302
V/C Ratio(X)	0.37	0.37	0.21	0.72	0.22	0.75
Avail Cap(c_a), veh/h	1184	1234	520	2368	613	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.0	4.0	6.3	5.7	15.6	17.5
Incr Delay (d2), s/veh	0.2	0.2	0.2	1.0	0.3	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	2.6	0.8	7.0	0.8	3.0
LnGrp Delay(d),s/veh	4.2	4.2	6.5	6.7	15.9	21.2
LnGrp LOS	A	A	A	A	B	C
Approach Vol, veh/h	842			1697	299	
Approach Delay, s/veh	4.2			6.7	19.9	
Approach LOS	A			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		12.8		33.1				33.1
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		16.0		31.0				31.0
Max Q Clear Time (g_c+I1), s		8.2		7.2				16.1
Green Ext Time (p_c), s		0.6		19.5				13.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	1915	0	75	2992	0	0	1	31	52	0	0
Future Volume (veh/h)	256	1915	0	75	2992	0	0	1	31	52	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	256	1915	0	75	2992	0	0	1	31	52	0	0
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	282	3707	0	96	3172	0	2	68	58	61	195	166
Arrive On Green	0.16	0.74	0.00	0.05	0.63	0.00	0.00	0.04	0.04	0.03	0.00	0.00
Sat Flow, veh/h	1757	5202	0	1757	5202	0	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	256	1915	0	75	2992	0	0	1	31	52	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	0	1757	1679	0	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	16.6	18.8	0.0	4.9	62.8	0.0	0.0	0.1	2.3	3.4	0.0	0.0
Cycle Q Clear(g_c), s	16.6	18.8	0.0	4.9	62.8	0.0	0.0	0.1	2.3	3.4	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	282	3707	0	96	3172	0	2	68	58	61	195	166
V/C Ratio(X)	0.91	0.52	0.00	0.78	0.94	0.00	0.00	0.01	0.53	0.86	0.00	0.00
Avail Cap(c_a), veh/h	288	3707	0	182	3257	0	45	255	216	61	270	230
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	47.8	6.5	0.0	54.1	19.6	0.0	0.0	53.8	54.9	55.7	0.0	0.0
Incr Delay (d2), s/veh	30.0	0.1	0.0	12.9	6.5	0.0	0.0	0.1	7.5	67.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	8.6	0.0	2.7	30.7	0.0	0.0	0.0	1.1	2.8	0.0	0.0
LnGrp Delay(d),s/veh	77.8	6.6	0.0	67.1	26.1	0.0	0.0	53.9	62.3	123.5	0.0	0.0
LnGrp LOS	E	A		E	C			D	E	F		
Approach Vol, veh/h		2171			3067			32			52	
Approach Delay, s/veh		15.0			27.1			62.1			123.5	
Approach LOS		B			C			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	8.3	10.3	89.4	0.0	16.3	22.6	77.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	12.0	82.0	3.0	17.0	19.0	75.0
Max Q Clear Time (g_c+I1), s	5.4	4.3	6.9	20.8	0.0	0.0	18.6	64.8
Green Ext Time (p_c), s	0.0	0.0	0.1	60.5	0.0	0.0	0.0	8.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	1103	492	231	2150	8	859	600	151	48	635	259
Future Volume (veh/h)	319	1103	492	231	2150	8	859	600	151	48	635	259
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	319	1103	492	231	2150	8	859	600	151	48	635	259
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	243	1640	511	278	1691	526	633	818	696	61	540	459
Arrive On Green	0.07	0.33	0.33	0.08	0.34	0.34	0.19	0.44	0.44	0.03	0.29	0.29
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	319	1103	492	231	2150	8	859	600	151	48	635	259
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1845	1568	1757	1845	1568
Q Serve(g_s), s	10.0	26.5	43.2	9.3	47.0	0.5	26.0	37.6	8.3	3.8	41.0	19.6
Cycle Q Clear(g_c), s	10.0	26.5	43.2	9.3	47.0	0.5	26.0	37.6	8.3	3.8	41.0	19.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	1640	511	278	1691	526	633	818	696	61	540	459
V/C Ratio(X)	1.31	0.67	0.96	0.83	1.27	0.02	1.36	0.73	0.22	0.78	1.18	0.56
Avail Cap(c_a), veh/h	243	1640	511	292	1691	526	633	818	696	75	540	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	40.8	46.4	63.4	46.5	31.0	57.0	32.1	24.0	67.0	49.5	41.9
Incr Delay (d2), s/veh	165.9	1.1	30.6	17.5	127.1	0.0	170.9	3.4	0.2	33.6	97.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	12.4	23.0	5.1	41.6	0.2	27.2	19.8	3.6	2.4	35.4	8.7
LnGrp Delay(d),s/veh	230.9	41.8	77.0	80.9	173.6	31.1	227.9	35.5	24.1	100.6	146.6	43.5
LnGrp LOS	F	D	E	F	F	C	F	D	C	F	F	D
Approach Vol, veh/h		1914			2389			1610			942	
Approach Delay, s/veh		82.4			164.1			137.1			115.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	66.1	15.4	49.6	30.0	45.0	14.0	51.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	61.0	12.0	45.0	26.0	41.0	10.0	47.0
Max Q Clear Time (g_c+I1), s	5.8	39.6	11.3	45.2	28.0	43.0	12.0	49.0
Green Ext Time (p_c), s	0.0	10.7	0.1	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	128.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1117	14	75	2036	1	118	0	0	5	1	58
Future Volume (veh/h)	10	1117	14	75	2036	1	118	0	0	5	1	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	10	1117	14	75	2036	1	118	0	0	5	1	58
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	13	2935	37	76	3163	2	151	274	233	7	122	104
Arrive On Green	0.01	0.57	0.57	0.04	0.61	0.61	0.09	0.00	0.00	0.00	0.07	0.07
Sat Flow, veh/h	1757	5126	64	1757	5199	3	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	10	731	400	75	1315	722	118	0	0	5	1	58
Grp Sat Flow(s),veh/h/ln	1757	1679	1833	1757	1679	1844	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	0.4	8.2	8.2	2.9	17.4	17.4	4.5	0.0	0.0	0.2	0.0	2.5
Cycle Q Clear(g_c), s	0.4	8.2	8.2	2.9	17.4	17.4	4.5	0.0	0.0	0.2	0.0	2.5
Prop In Lane	1.00		0.04	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	13	1922	1049	76	2042	1122	151	274	233	7	122	104
V/C Ratio(X)	0.75	0.38	0.38	0.98	0.64	0.64	0.78	0.00	0.00	0.72	0.01	0.56
Avail Cap(c_a), veh/h	76	2140	1169	76	2140	1176	280	454	386	255	428	363
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	8.1	8.1	33.0	8.7	8.7	30.9	0.0	0.0	34.3	30.1	31.3
Incr Delay (d2), s/veh	57.9	0.1	0.2	96.7	0.6	1.1	8.4	0.0	0.0	84.6	0.0	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.8	4.2	3.5	8.0	9.0	2.5	0.0	0.0	0.3	0.0	1.2
LnGrp Delay(d),s/veh	92.1	8.2	8.3	129.7	9.3	9.8	39.3	0.0	0.0	118.9	30.1	35.9
LnGrp LOS	F	A	A	F	A	A	D			F	C	D
Approach Vol, veh/h		1141			2112			118			64	
Approach Delay, s/veh		9.0			13.8			39.3			42.3	
Approach LOS		A			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.3	14.2	7.0	43.5	9.9	8.6	4.5	46.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	17.0	3.0	44.0	11.0	16.0	3.0	44.0
Max Q Clear Time (g_c+I1), s	2.2	0.0	4.9	10.2	6.5	4.5	2.4	19.4
Green Ext Time (p_c), s	0.0	0.0	0.0	29.3	0.1	0.1	0.0	22.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1040	30	107	1892	34	139	9	92	42	27	81
Future Volume (veh/h)	51	1040	30	107	1892	34	139	9	92	42	27	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	51	1040	30	107	1892	34	139	9	92	42	27	81
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	61	2050	59	137	2296	41	176	315	268	50	182	155
Arrive On Green	0.04	0.41	0.41	0.08	0.45	0.45	0.10	0.17	0.17	0.03	0.10	0.10
Sat Flow, veh/h	1757	5031	145	1757	5094	91	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	51	694	376	107	1246	680	139	9	92	42	27	81
Grp Sat Flow(s),veh/h/ln	1757	1679	1819	1757	1679	1829	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.5	7.8	7.8	3.0	16.5	16.5	3.9	0.2	2.6	1.2	0.7	2.5
Cycle Q Clear(g_c), s	1.5	7.8	7.8	3.0	16.5	16.5	3.9	0.2	2.6	1.2	0.7	2.5
Prop In Lane	1.00		0.08	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	1368	741	137	1513	824	176	315	268	50	182	155
V/C Ratio(X)	0.83	0.51	0.51	0.78	0.82	0.82	0.79	0.03	0.34	0.84	0.15	0.52
Avail Cap(c_a), veh/h	104	1368	741	277	1587	864	208	618	525	173	581	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	11.2	11.2	23.0	12.2	12.2	22.3	17.5	18.5	24.6	20.9	21.7
Incr Delay (d2), s/veh	23.5	0.3	0.6	9.2	3.5	6.3	15.8	0.0	0.8	29.8	0.4	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.6	4.0	1.8	8.2	9.6	2.7	0.1	1.2	1.0	0.4	1.2
LnGrp Delay(d),s/veh	47.9	11.5	11.8	32.1	15.7	18.5	38.1	17.6	19.3	54.3	21.3	24.4
LnGrp LOS	D	B	B	C	B	B	D	B	B	D	C	C
Approach Vol, veh/h		1121			2033			240			150	
Approach Delay, s/veh		13.3			17.5			30.1			32.2	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	12.7	8.0	24.7	9.1	9.0	5.8	26.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	17.0	8.0	19.0	6.0	16.0	3.0	24.0
Max Q Clear Time (g_c+I1), s	3.2	4.6	5.0	9.8	5.9	4.5	3.5	18.5
Green Ext Time (p_c), s	0.0	0.6	0.1	8.6	0.0	0.5	0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	46	149	387	2781	1273	35
Future Volume (veh/h)	46	149	387	2781	1273	35
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	46	149	387	2781	1273	35
Adj No. of Lanes	1	1	1	3	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	227	203	452	3586	1893	52
Arrive On Green	0.13	0.13	0.26	0.71	0.38	0.38
Sat Flow, veh/h	1757	1568	1757	5202	5205	139
Grp Volume(v), veh/h	46	149	387	2781	848	460
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1679	1679	1820
Q Serve(g_s), s	1.2	4.6	10.6	17.9	10.6	10.6
Cycle Q Clear(g_c), s	1.2	4.6	10.6	17.9	10.6	10.6
Prop In Lane	1.00	1.00	1.00			0.08
Lane Grp Cap(c), veh/h	227	203	452	3586	1261	684
V/C Ratio(X)	0.20	0.74	0.86	0.78	0.67	0.67
Avail Cap(c_a), veh/h	523	466	557	3695	1261	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	21.1	17.8	4.7	13.2	13.2
Incr Delay (d2), s/veh	0.4	5.1	10.6	1.1	1.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.2	6.4	8.3	5.1	5.7
LnGrp Delay(d),s/veh	20.1	26.2	28.5	5.7	14.6	15.7
LnGrp LOS	C	C	C	A	B	B
Approach Vol, veh/h	195			3168	1308	
Approach Delay, s/veh	24.8			8.5	15.0	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		39.9		10.5	17.0	22.9		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		37.0		15.0	16.0	17.0		
Max Q Clear Time (g_c+I1), s		19.9		6.6	12.6	12.6		
Green Ext Time (p_c), s		16.0		0.4	0.4	4.3		

Intersection Summary	
HCM 2010 Ctrl Delay	11.0
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	120	12	180	1488	832	518
Future Volume (veh/h)	120	12	180	1488	832	518
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	120	12	180	1488	832	518
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	158	141	228	2523	1034	634
Arrive On Green	0.09	0.09	0.13	0.72	0.49	0.49
Sat Flow, veh/h	1757	1568	1757	3597	2182	1281
Grp Volume(v), veh/h	120	12	180	1488	696	654
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1619
Q Serve(g_s), s	2.8	0.3	4.2	8.7	14.0	14.4
Cycle Q Clear(g_c), s	2.8	0.3	4.2	8.7	14.0	14.4
Prop In Lane	1.00	1.00	1.00			0.79
Lane Grp Cap(c), veh/h	158	141	228	2523	867	801
V/C Ratio(X)	0.76	0.09	0.79	0.59	0.80	0.82
Avail Cap(c_a), veh/h	209	186	292	2667	875	808
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	17.5	17.7	2.9	8.9	9.0
Incr Delay (d2), s/veh	10.9	0.3	10.6	0.3	5.4	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.3	2.7	4.0	7.9	7.8
LnGrp Delay(d),s/veh	29.6	17.8	28.3	3.2	14.3	15.5
LnGrp LOS	C	B	C	A	B	B
Approach Vol, veh/h	132			1668	1350	
Approach Delay, s/veh	28.5			5.9	14.9	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		34.3		7.8	9.5	24.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		32.0		5.0	7.0	21.0		
Max Q Clear Time (g_c+I1), s		10.7		4.8	6.2	16.4		
Green Ext Time (p_c), s		18.8		0.0	0.0	4.4		

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	984	950	35	791	895	0	133	2154	1044	54	691	791
Future Volume (veh/h)	984	950	35	791	895	0	133	2154	1044	54	691	791
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	984	950	35	791	895	0	133	2154	1044	54	691	791
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	828	876	392	730	776	347	146	2014	627	73	1906	594
Arrive On Green	0.24	0.25	0.25	0.21	0.22	0.00	0.04	0.40	0.40	0.02	0.38	0.38
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	984	950	35	791	895	0	133	2154	1044	54	691	791
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	34.0	35.0	2.4	30.0	31.0	0.0	5.4	56.0	56.0	2.2	13.8	53.0
Cycle Q Clear(g_c), s	34.0	35.0	2.4	30.0	31.0	0.0	5.4	56.0	56.0	2.2	13.8	53.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	828	876	392	730	776	347	146	2014	627	73	1906	594
V/C Ratio(X)	1.19	1.08	0.09	1.08	1.15	0.00	0.91	1.07	1.66	0.74	0.36	1.33
Avail Cap(c_a), veh/h	828	876	392	730	776	347	146	2014	627	73	1906	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	52.5	40.3	55.0	54.5	0.0	66.7	42.0	42.0	68.1	31.3	43.5
Incr Delay (d2), s/veh	97.0	55.8	0.1	58.1	83.4	0.0	48.8	41.5	306.1	32.4	0.1	161.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.1	23.7	1.1	20.0	24.0	0.0	3.6	33.7	77.5	1.4	6.4	49.5
LnGrp Delay(d),s/veh	150.0	108.3	40.4	113.1	137.9	0.0	115.5	83.5	348.1	100.5	31.4	204.5
LnGrp LOS	F	F	D	F	F		F	F	F	F	C	F
Approach Vol, veh/h		1969			1686			3331			1536	
Approach Delay, s/veh		127.9			126.2			167.7			123.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	60.0	34.0	39.0	10.0	57.0	38.0	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	56.0	30.0	35.0	6.0	53.0	34.0	31.0
Max Q Clear Time (g_c+I1), s	4.2	58.0	32.0	37.0	7.4	55.0	36.0	33.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	142.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	1029	29	23	1197	14	102	3	69	29	0	102
Future Volume (veh/h)	73	1029	29	23	1197	14	102	3	69	29	0	102
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	73	1029	29	23	1197	14	102	3	69	29	0	102
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	1595	45	29	1501	18	129	305	259	35	207	176
Arrive On Green	0.05	0.46	0.46	0.02	0.42	0.42	0.07	0.17	0.17	0.02	0.00	0.11
Sat Flow, veh/h	1757	3482	98	1757	3548	41	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	73	518	540	23	591	620	102	3	69	29	0	102
Grp Sat Flow(s),veh/h/ln	1757	1752	1827	1757	1752	1837	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.9	10.7	10.7	0.6	13.8	13.8	2.7	0.1	1.8	0.8	0.0	2.9
Cycle Q Clear(g_c), s	1.9	10.7	10.7	0.6	13.8	13.8	2.7	0.1	1.8	0.8	0.0	2.9
Prop In Lane	1.00		0.05	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	803	837	29	742	777	129	305	259	35	207	176
V/C Ratio(X)	0.81	0.65	0.65	0.79	0.80	0.80	0.79	0.01	0.27	0.82	0.00	0.58
Avail Cap(c_a), veh/h	112	803	837	112	782	819	149	666	566	112	627	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	9.8	9.8	23.1	11.8	11.8	21.5	16.4	17.1	23.0	0.0	19.8
Incr Delay (d2), s/veh	28.6	1.8	1.7	36.5	5.6	5.3	21.7	0.0	0.5	35.1	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.4	5.7	0.6	7.7	8.0	2.1	0.0	0.8	0.7	0.0	1.4
LnGrp Delay(d),s/veh	50.7	11.6	11.5	59.5	17.4	17.1	43.1	16.4	17.7	58.1	0.0	22.8
LnGrp LOS	D	B	B	E	B	B	D	B	B	E		C
Approach Vol, veh/h		1131			1234			174			131	
Approach Delay, s/veh		14.1			18.0			32.6			30.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	11.8	4.8	25.6	7.5	9.3	6.4	23.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	17.0	3.0	21.0	4.0	16.0	3.0	21.0
Max Q Clear Time (g_c+I1), s	2.8	3.8	2.6	12.7	4.7	4.9	3.9	15.8
Green Ext Time (p_c), s	0.0	0.4	0.0	7.1	0.0	0.4	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	289	1682	146	90	2285	94	100	3	0	63	3	83
Future Volume (veh/h)	289	1682	146	90	2285	94	100	3	0	63	3	83
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	289	1682	146	90	2285	94	100	3	0	63	3	83
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	313	2791	242	116	2378	97	112	147	125	106	140	119
Arrive On Green	0.18	0.59	0.59	0.07	0.48	0.48	0.06	0.08	0.00	0.06	0.08	0.08
Sat Flow, veh/h	1757	4721	409	1757	4963	203	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	289	1195	633	90	1542	837	100	3	0	63	3	83
Grp Sat Flow(s),veh/h/ln	1757	1679	1772	1757	1679	1809	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	12.7	17.8	17.9	4.0	34.8	35.3	4.4	0.1	0.0	2.8	0.1	4.1
Cycle Q Clear(g_c), s	12.7	17.8	17.9	4.0	34.8	35.3	4.4	0.1	0.0	2.8	0.1	4.1
Prop In Lane	1.00		0.23	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	1985	1048	116	1609	867	112	147	125	106	140	119
V/C Ratio(X)	0.92	0.60	0.60	0.78	0.96	0.97	0.90	0.02	0.00	0.60	0.02	0.70
Avail Cap(c_a), veh/h	313	1985	1048	223	1621	873	112	398	339	112	398	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	10.2	10.2	36.2	19.7	19.9	36.6	33.4	0.0	36.1	33.6	35.5
Incr Delay (d2), s/veh	32.1	0.5	1.0	10.6	13.7	22.4	54.0	0.1	0.0	7.7	0.1	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	8.3	8.9	2.3	18.9	22.8	3.8	0.1	0.0	1.6	0.1	2.0
LnGrp Delay(d),s/veh	63.9	10.7	11.2	46.8	33.5	42.3	90.6	33.5	0.0	43.7	33.7	42.5
LnGrp LOS	E	B	B	D	C	D	F	C		D	C	D
Approach Vol, veh/h		2117			2469			103			149	
Approach Delay, s/veh		18.1			36.9			88.9			42.9	
Approach LOS		B			D			F			D	

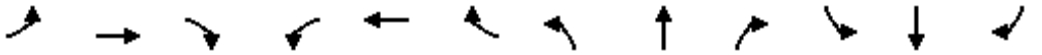
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	10.3	9.2	50.5	9.0	10.0	18.0	41.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	17.0	10.0	42.0	5.0	17.0	14.0	38.0
Max Q Clear Time (g_c+I1), s	4.8	2.1	6.0	19.9	6.4	6.1	14.7	37.3
Green Ext Time (p_c), s	0.0	0.2	0.1	21.7	0.0	0.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	347	996	631	20	1649	37	1225	741	22	50	782	585
Future Volume (veh/h)	347	996	631	20	1649	37	1225	741	22	50	782	585
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	347	996	631	20	1649	37	1225	741	22	50	782	585
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	243	2028	631	39	1202	538	828	1566	700	84	801	358
Arrive On Green	0.07	0.40	0.40	0.01	0.34	0.34	0.24	0.45	0.45	0.02	0.23	0.23
Sat Flow, veh/h	3408	5036	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	347	996	631	20	1649	37	1225	741	22	50	782	585
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	10.0	20.6	56.3	0.8	48.0	2.2	34.0	20.8	1.1	2.0	31.0	32.0
Cycle Q Clear(g_c), s	10.0	20.6	56.3	0.8	48.0	2.2	34.0	20.8	1.1	2.0	31.0	32.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	2028	631	39	1202	538	828	1566	700	84	801	358
V/C Ratio(X)	1.43	0.49	1.00	0.51	1.37	0.07	1.48	0.47	0.03	0.59	0.98	1.63
Avail Cap(c_a), veh/h	243	2028	631	73	1202	538	828	1566	700	122	801	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	31.1	41.8	68.8	46.0	31.0	53.0	27.2	21.7	67.6	53.6	54.0
Incr Delay (d2), s/veh	213.6	0.2	35.6	9.7	172.9	0.1	222.5	0.2	0.0	6.5	25.9	297.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	9.6	30.5	0.4	52.1	1.0	41.6	10.1	0.5	1.0	17.9	43.4
LnGrp Delay(d),s/veh	278.6	31.3	77.4	78.5	218.9	31.0	275.5	27.4	21.8	74.1	79.5	351.0
LnGrp LOS	F	C	E	E	F	C	F	C	C	E	E	F
Approach Vol, veh/h		1974			1706			1988			1417	
Approach Delay, s/veh		89.5			213.1			180.2			191.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	66.5	5.6	60.4	38.0	36.0	14.0	52.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	61.0	3.0	55.0	34.0	32.0	10.0	48.0
Max Q Clear Time (g_c+I1), s	4.0	22.8	2.8	58.3	36.0	34.0	12.0	50.0
Green Ext Time (p_c), s	0.0	19.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	165.1
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	595	27	33	1036	220	117	1075	199	122	316	453
Future Volume (veh/h)	292	595	27	33	1036	220	117	1075	199	122	316	453
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	292	595	27	33	1036	220	117	1075	199	122	316	453
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	342	1381	618	66	1098	491	171	1177	527	171	1177	527
Arrive On Green	0.10	0.39	0.39	0.02	0.31	0.31	0.05	0.34	0.34	0.05	0.34	0.34
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	292	595	27	33	1036	220	117	1075	199	122	316	453
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	6.7	9.9	0.8	0.8	23.0	8.9	2.7	23.4	7.7	2.8	5.3	21.5
Cycle Q Clear(g_c), s	6.7	9.9	0.8	0.8	23.0	8.9	2.7	23.4	7.7	2.8	5.3	21.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	342	1381	618	66	1098	491	171	1177	527	171	1177	527
V/C Ratio(X)	0.85	0.43	0.04	0.50	0.94	0.45	0.68	0.91	0.38	0.71	0.27	0.86
Avail Cap(c_a), veh/h	342	1381	618	128	1098	491	171	1186	530	171	1186	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	17.7	14.9	38.7	26.7	21.9	37.3	25.4	20.2	37.3	19.3	24.7
Incr Delay (d2), s/veh	18.6	0.2	0.0	5.6	15.5	0.6	10.8	10.8	0.4	13.2	0.1	13.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.8	0.4	0.4	13.4	3.9	1.5	13.1	3.4	1.6	2.6	11.3
LnGrp Delay(d),s/veh	54.0	17.9	14.9	44.4	42.2	22.5	48.1	36.1	20.6	50.5	19.5	38.1
LnGrp LOS	D	B	B	D	D	C	D	D	C	D	B	D
Approach Vol, veh/h		914			1289			1391			891	
Approach Delay, s/veh		29.3			38.9			34.9			33.2	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	30.8	5.6	35.4	8.0	30.8	12.0	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	27.0	3.0	30.0	4.0	27.0	8.0	25.0
Max Q Clear Time (g_c+I1), s	4.8	25.4	2.8	11.9	4.7	23.5	8.7	25.0
Green Ext Time (p_c), s	0.0	1.4	0.0	11.8	0.0	2.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	708	10	27	726	1	117	907	337	3	85	30
Future Volume (veh/h)	184	708	10	27	726	1	117	907	337	3	85	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	184	708	10	27	726	1	117	907	337	3	85	30
Adj No. of Lanes	2	1	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	272	778	661	78	1278	572	191	1048	469	137	993	444
Arrive On Green	0.08	0.42	0.42	0.02	0.36	0.36	0.06	0.30	0.30	0.04	0.28	0.28
Sat Flow, veh/h	3408	1845	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	184	708	10	27	726	1	117	907	337	3	85	30
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	3.9	26.7	0.3	0.6	12.3	0.0	2.5	18.1	14.2	0.1	1.3	1.0
Cycle Q Clear(g_c), s	3.9	26.7	0.3	0.6	12.3	0.0	2.5	18.1	14.2	0.1	1.3	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	778	661	78	1278	572	191	1048	469	137	993	444
V/C Ratio(X)	0.68	0.91	0.02	0.34	0.57	0.00	0.61	0.87	0.72	0.02	0.09	0.07
Avail Cap(c_a), veh/h	414	798	678	184	1279	572	322	1089	487	691	1468	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	20.1	12.5	35.6	18.8	14.9	34.2	24.5	23.2	34.1	19.5	19.4
Incr Delay (d2), s/veh	2.9	14.3	0.0	2.6	0.6	0.0	3.2	7.3	4.9	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	16.5	0.1	0.3	6.1	0.0	1.3	9.7	6.7	0.0	0.6	0.5
LnGrp Delay(d),s/veh	36.0	34.4	12.5	38.2	19.4	14.9	37.3	31.8	28.0	34.2	19.5	19.4
LnGrp LOS	D	C	B	D	B	B	D	C	C	C	B	B
Approach Vol, veh/h		902			754			1361			118	
Approach Delay, s/veh		34.5			20.1			31.3			19.9	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	26.1	5.7	35.2	8.1	25.0	9.9	31.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	23.0	4.0	32.0	7.0	31.0	9.0	27.0
Max Q Clear Time (g_c+I1), s	2.1	20.1	2.6	28.7	4.5	3.3	5.9	14.3
Green Ext Time (p_c), s	0.0	2.0	0.0	2.5	0.1	9.8	0.2	7.7

Intersection Summary	
HCM 2010 Ctrl Delay	29.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Future Volume (veh/h)	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	92	1669	520	369	2078	647	28	1541	689	42	1555	696
Arrive On Green	0.03	0.33	0.33	0.11	0.41	0.41	0.01	0.44	0.44	0.01	0.44	0.44
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	4.0	45.3	7.7	15.4	61.0	0.5	0.4	65.0	6.5	0.6	55.4	4.7
Cycle Q Clear(g_c), s	4.0	45.3	7.7	15.4	61.0	0.5	0.4	65.0	6.5	0.6	55.4	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	1669	520	369	2078	647	28	1541	689	42	1555	696
V/C Ratio(X)	1.11	0.95	0.22	0.97	1.16	0.01	0.32	1.12	0.17	0.35	0.91	0.12
Avail Cap(c_a), veh/h	92	1669	520	369	2078	647	92	1541	689	92	1555	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	48.2	35.6	65.6	43.4	25.7	72.9	41.4	25.0	72.4	38.3	24.2
Incr Delay (d2), s/veh	125.3	11.9	0.2	37.6	76.7	0.0	6.2	62.3	0.1	4.9	8.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	22.8	3.4	9.1	42.9	0.2	0.2	44.6	2.8	0.3	28.6	2.1
LnGrp Delay(d),s/veh	197.2	60.1	35.8	103.2	120.1	25.7	79.1	103.7	25.1	77.3	46.3	24.3
LnGrp LOS	F	E	D	F	F	C	E	F	C	E	D	C
Approach Vol, veh/h		1798			2770			1845			1510	
Approach Delay, s/veh		66.3			117.7			98.7			45.4	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	69.0	20.0	53.0	5.2	69.6	8.0	65.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	65.0	16.0	49.0	4.0	65.0	4.0	61.0
Max Q Clear Time (g_c+I1), s	2.6	67.0	17.4	47.3	2.4	57.4	6.0	63.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.7	0.0	7.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	87.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	1343	0	391	1352	0	0	325	517	0	187	262
Future Volume (veh/h)	475	1343	0	391	1352	0	0	325	517	0	187	262
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	475	1343	0	391	1352	0	0	325	517	0	187	262
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	500	1564	0	420	1403	0	2	363	309	2	363	309
Arrive On Green	0.28	0.45	0.00	0.24	0.40	0.00	0.00	0.20	0.20	0.00	0.20	0.20
Sat Flow, veh/h	1757	3597	0	1757	3597	0	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	475	1343	0	391	1352	0	0	325	517	0	187	262
Grp Sat Flow(s),veh/h/ln	1757	1752	0	1757	1752	0	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	26.9	35.0	0.0	22.1	38.3	0.0	0.0	17.5	20.0	0.0	9.2	16.4
Cycle Q Clear(g_c), s	26.9	35.0	0.0	22.1	38.3	0.0	0.0	17.5	20.0	0.0	9.2	16.4
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	500	1564	0	420	1403	0	2	363	309	2	363	309
V/C Ratio(X)	0.95	0.86	0.00	0.93	0.96	0.00	0.00	0.89	1.67	0.00	0.51	0.85
Avail Cap(c_a), veh/h	501	1564	0	432	1414	0	69	363	309	69	363	309
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	25.3	0.0	37.9	29.8	0.0	0.0	39.8	40.8	0.0	36.5	39.3
Incr Delay (d2), s/veh	27.8	5.1	0.0	26.6	16.1	0.0	0.0	23.6	317.6	0.0	1.3	19.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	17.9	0.0	13.9	21.5	0.0	0.0	11.2	35.9	0.0	4.8	8.8
LnGrp Delay(d),s/veh	63.4	30.3	0.0	64.5	45.8	0.0	0.0	63.3	358.4	0.0	37.7	58.8
LnGrp LOS	E	C		E	D			E	F		D	E
Approach Vol, veh/h		1818			1743			842			449	
Approach Delay, s/veh		39.0			50.0			244.5			50.0	
Approach LOS		D			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	24.0	28.3	49.3	0.0	24.0	32.9	44.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	20.0	25.0	45.0	4.0	20.0	29.0	41.0
Max Q Clear Time (g_c+I1), s	0.0	22.0	24.1	37.0	0.0	18.4	28.9	40.3
Green Ext Time (p_c), s	0.0	0.0	0.1	7.5	0.0	1.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	79.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	672	0	1035	708	68	0	699	1197	118	797	238
Future Volume (veh/h)	238	672	0	1035	708	68	0	699	1197	118	797	238
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	238	672	0	1035	708	68	0	699	1197	118	797	238
Adj No. of Lanes	1	2	1	2	1	1	1	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	199	631	282	863	590	502	1	1519	679	91	1706	763
Arrive On Green	0.11	0.18	0.00	0.25	0.32	0.32	0.00	0.43	0.43	0.03	0.49	0.49
Sat Flow, veh/h	1757	3505	1568	3408	1845	1568	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	238	672	0	1035	708	68	0	699	1197	118	797	238
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1704	1845	1568	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	17.0	27.0	0.0	38.0	48.0	4.6	0.0	21.2	65.0	4.0	22.7	13.8
Cycle Q Clear(g_c), s	17.0	27.0	0.0	38.0	48.0	4.6	0.0	21.2	65.0	4.0	22.7	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	631	282	863	590	502	1	1519	679	91	1706	763
V/C Ratio(X)	1.20	1.07	0.00	1.20	1.20	0.14	0.00	0.46	1.76	1.30	0.47	0.31
Avail Cap(c_a), veh/h	199	631	282	863	590	502	47	1519	679	91	1706	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	61.5	0.0	56.0	51.0	36.3	0.0	30.1	42.5	73.0	25.6	23.3
Incr Delay (d2), s/veh	126.4	54.5	0.0	100.6	105.4	0.1	0.0	0.2	348.8	193.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.2	17.8	0.0	29.9	41.7	2.0	0.0	10.2	94.0	4.3	11.0	6.0
LnGrp Delay(d),s/veh	192.9	116.0	0.0	156.6	156.4	36.4	0.0	30.3	391.3	266.9	25.8	23.5
LnGrp LOS	F	F		F	F	D		C	F	F	C	C
Approach Vol, veh/h		910			1811			1896			1153	
Approach Delay, s/veh		136.1			152.0			258.2			50.0	
Approach LOS		F			F			F			D	

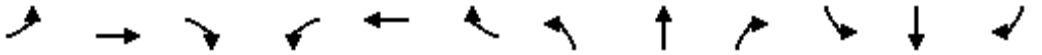
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	69.0	42.0	31.0	0.0	77.0	21.0	52.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	65.0	38.0	27.0	4.0	65.0	17.0	48.0
Max Q Clear Time (g_c+I1), s	6.0	67.0	40.0	29.0	0.0	24.7	19.0	50.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	29.3	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		164.0
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	2	34	31	11	76	16	283	24	11	252	88
Future Volume (veh/h)	40	2	34	31	11	76	16	283	24	11	252	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	40	2	34	31	11	76	16	283	24	11	252	88
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	51	175	149	41	164	140	22	897	76	15	694	237
Arrive On Green	0.03	0.09	0.09	0.02	0.09	0.09	0.01	0.27	0.27	0.01	0.27	0.27
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3273	276	1757	2568	875
Grp Volume(v), veh/h	40	2	34	31	11	76	16	151	156	11	170	170
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1796	1757	1752	1690
Q Serve(g_s), s	0.6	0.0	0.5	0.5	0.1	1.2	0.2	1.8	1.8	0.2	2.1	2.2
Cycle Q Clear(g_c), s	0.6	0.0	0.5	0.5	0.1	1.2	0.2	1.8	1.8	0.2	2.1	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.52
Lane Grp Cap(c), veh/h	51	175	149	41	164	140	22	481	492	15	474	457
V/C Ratio(X)	0.79	0.01	0.23	0.76	0.07	0.54	0.72	0.31	0.32	0.71	0.36	0.37
Avail Cap(c_a), veh/h	329	1174	998	197	1036	880	197	1050	1076	197	1050	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	11.0	11.2	13.0	11.1	11.6	13.1	7.7	7.7	13.2	7.9	7.9
Incr Delay (d2), s/veh	23.1	0.0	0.8	25.2	0.2	3.3	35.9	0.4	0.4	45.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.3	0.5	0.1	0.7	0.3	0.9	1.0	0.3	1.1	1.1
LnGrp Delay(d),s/veh	36.0	11.0	12.0	38.2	11.3	14.9	49.0	8.1	8.1	59.0	8.3	8.4
LnGrp LOS	D	B	B	D	B	B	D	A	A	E	A	A
Approach Vol, veh/h		76			118			323			351	
Approach Delay, s/veh		24.6			20.7			10.1			10.0	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.2	11.3	4.6	6.5	4.3	11.2	4.8	6.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	16.0	3.0	17.0	3.0	16.0	5.0	15.0
Max Q Clear Time (g_c+I1), s	2.2	3.8	2.5	2.5	2.2	4.2	2.6	3.2
Green Ext Time (p_c), s	0.0	3.1	0.0	0.3	0.0	3.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	9	5	5	5	3	586	5	5	364	22
Future Volume (veh/h)	21	5	9	5	5	5	3	586	5	5	364	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	21	5	9	5	5	5	3	586	5	5	364	22
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	50	96	81	10	53	45	6	1323	11	10	1258	76
Arrive On Green	0.03	0.05	0.05	0.01	0.03	0.03	0.00	0.37	0.37	0.01	0.37	0.37
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3561	30	1757	3359	202
Grp Volume(v), veh/h	21	5	9	5	5	5	3	288	303	5	189	197
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1839	1757	1752	1809
Q Serve(g_s), s	0.3	0.1	0.2	0.1	0.1	0.1	0.0	3.5	3.5	0.1	2.1	2.2
Cycle Q Clear(g_c), s	0.3	0.1	0.2	0.1	0.1	0.1	0.0	3.5	3.5	0.1	2.1	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.11
Lane Grp Cap(c), veh/h	50	96	81	10	53	45	6	651	683	10	656	677
V/C Ratio(X)	0.42	0.05	0.11	0.52	0.09	0.11	0.48	0.44	0.44	0.52	0.29	0.29
Avail Cap(c_a), veh/h	932	1761	1497	248	1044	887	186	1177	1236	248	1239	1279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	12.7	12.8	14.0	13.4	13.4	14.1	6.7	6.7	14.0	6.2	6.2
Incr Delay (d2), s/veh	5.4	0.2	0.6	37.8	0.8	1.1	48.4	0.5	0.5	37.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.1	0.0	0.1	0.1	1.8	1.9	0.1	1.0	1.1
LnGrp Delay(d),s/veh	18.9	13.0	13.4	51.8	14.1	14.4	62.5	7.2	7.1	51.8	6.4	6.4
LnGrp LOS	B	B	B	D	B	B	E	A	A	D	A	A
Approach Vol, veh/h		35			15			594			391	
Approach Delay, s/veh		16.7			26.8			7.4			7.0	
Approach LOS		B			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.2	14.5	4.2	5.5	4.1	14.6	4.8	4.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	4.0	27.0	3.0	20.0	15.0	16.0
Max Q Clear Time (g_c+I1), s	2.1	5.5	2.1	2.2	2.0	4.2	2.3	2.1
Green Ext Time (p_c), s	0.0	5.0	0.0	0.0	0.0	5.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	40	18	65	13	43	26	428	153	116	303	72
Future Volume (veh/h)	67	40	18	65	13	43	26	428	153	116	303	72
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	67	40	18	65	13	43	26	428	153	116	303	72
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	80	144	122	77	141	120	34	809	286	145	1077	252
Arrive On Green	0.05	0.08	0.08	0.04	0.08	0.08	0.02	0.32	0.32	0.08	0.38	0.38
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	2539	899	1757	2820	660
Grp Volume(v), veh/h	67	40	18	65	13	43	26	294	287	116	187	188
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1686	1757	1752	1728
Q Serve(g_s), s	1.3	0.7	0.4	1.2	0.2	0.9	0.5	4.6	4.7	2.2	2.5	2.5
Cycle Q Clear(g_c), s	1.3	0.7	0.4	1.2	0.2	0.9	0.5	4.6	4.7	2.2	2.5	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.53	1.00		0.38
Lane Grp Cap(c), veh/h	80	144	122	77	141	120	34	558	537	145	669	660
V/C Ratio(X)	0.84	0.28	0.15	0.85	0.09	0.36	0.77	0.53	0.53	0.80	0.28	0.29
Avail Cap(c_a), veh/h	157	825	701	157	825	701	157	836	804	262	941	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	14.6	14.4	15.9	14.4	14.7	16.4	9.4	9.4	15.1	7.2	7.2
Incr Delay (d2), s/veh	20.3	1.0	0.5	21.2	0.3	1.8	29.8	0.8	0.8	9.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.4	0.2	1.0	0.1	0.4	0.5	2.3	2.3	1.4	1.2	1.2
LnGrp Delay(d),s/veh	36.2	15.6	15.0	37.1	14.7	16.5	46.2	10.1	10.2	24.7	7.4	7.4
LnGrp LOS	D	B	B	D	B	B	D	B	B	C	A	A
Approach Vol, veh/h		125			121			607			491	
Approach Delay, s/veh		26.6			27.4			11.7			11.5	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	14.7	5.5	6.6	4.6	16.8	5.5	6.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	16.0	3.0	15.0	3.0	18.0	3.0	15.0
Max Q Clear Time (g_c+I1), s	4.2	6.7	3.2	2.7	2.5	4.5	3.3	2.9
Green Ext Time (p_c), s	0.0	4.0	0.0	0.3	0.0	5.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	43	27	717	25	10	314
Future Volume (veh/h)	43	27	717	25	10	314
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	43	27	717	25	10	314
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	114	102	1774	62	653	1799
Arrive On Green	0.07	0.07	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1757	1568	3548	120	708	3597
Grp Volume(v), veh/h	43	27	364	378	10	314
Grp Sat Flow(s),veh/h/ln	1757	1568	1752	1823	708	1752
Q Serve(g_s), s	0.4	0.3	2.4	2.4	0.2	0.9
Cycle Q Clear(g_c), s	0.4	0.3	2.4	2.4	2.6	0.9
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	114	102	900	936	653	1799
V/C Ratio(X)	0.38	0.26	0.40	0.40	0.02	0.17
Avail Cap(c_a), veh/h	1481	1322	1477	1537	886	2955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.5	8.4	2.8	2.8	3.6	2.5
Incr Delay (d2), s/veh	2.0	1.4	0.3	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	1.2	1.2	0.0	0.4
LnGrp Delay(d),s/veh	10.5	9.8	3.1	3.1	3.6	2.5
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	70		742			324
Approach Delay, s/veh	10.3		3.1			2.5
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		13.7				13.7		5.2
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		16.0				16.0		16.0
Max Q Clear Time (g_c+I1), s		4.4				4.6		2.4
Green Ext Time (p_c), s		5.2				5.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	3.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	51	70	212	13	83	132	550	80	30	219	108
Future Volume (veh/h)	109	51	70	212	13	83	132	550	80	30	219	108
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	109	51	70	212	13	83	132	550	80	30	219	108
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	352	264	224	266	717	609	167	1302	189	353	541	258
Arrive On Green	0.14	0.14	0.14	0.15	0.39	0.39	0.10	0.42	0.42	0.23	0.23	0.23
Sat Flow, veh/h	1282	1845	1568	1757	1845	1568	1757	3073	446	785	2306	1097
Grp Volume(v), veh/h	109	51	70	212	13	83	132	313	317	30	165	162
Grp Sat Flow(s),veh/h/ln	1282	1845	1568	1757	1845	1568	1757	1752	1766	785	1752	1651
Q Serve(g_s), s	3.4	1.0	1.7	5.0	0.2	1.5	3.1	5.3	5.4	1.3	3.4	3.6
Cycle Q Clear(g_c), s	3.4	1.0	1.7	5.0	0.2	1.5	3.1	5.3	5.4	1.3	3.4	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.66
Lane Grp Cap(c), veh/h	352	264	224	266	717	609	167	743	748	353	411	388
V/C Ratio(X)	0.31	0.19	0.31	0.80	0.02	0.14	0.79	0.42	0.42	0.08	0.40	0.42
Avail Cap(c_a), veh/h	620	649	552	330	1169	993	206	1028	1036	464	658	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	16.1	16.4	17.4	8.0	8.4	18.9	8.6	8.6	13.0	13.8	13.8
Incr Delay (d2), s/veh	0.5	0.4	0.8	10.5	0.0	0.1	15.2	0.4	0.4	0.1	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.6	0.8	3.2	0.1	0.6	2.2	2.6	2.6	0.3	1.7	1.7
LnGrp Delay(d),s/veh	17.6	16.4	17.2	27.9	8.0	8.5	34.0	9.0	9.0	13.1	14.4	14.6
LnGrp LOS	B	B	B	C	A	A	C	A	A	B	B	B
Approach Vol, veh/h		230			308			762			357	
Approach Delay, s/veh		17.2			21.8			13.3			14.4	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6		8
Phs Duration (G+Y+Rc), s		22.1	10.5	10.1	8.1	14.0		20.6
Change Period (Y+Rc), s		4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		25.0	8.0	15.0	5.0	16.0		27.0
Max Q Clear Time (g_c+I1), s		7.4	7.0	5.4	5.1	5.6		3.5
Green Ext Time (p_c), s		5.9	0.1	0.8	0.0	4.4		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	60.5
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	659	652	152
Demand Flow Rate, veh/h	0	679	671	156
Vehicles Circulating, veh/h	62	671	0	612
Vehicles Exiting, veh/h	706	0	62	738
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	121.3	10.9	9.4
Approach LOS	-	F	B	A

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	679	671	156
Cap Entry Lane, veh/h	578	1130	613
Entry HV Adj Factor	0.971	0.971	0.973
Flow Entry, veh/h	659	652	152
Cap Entry, veh/h	561	1098	596
V/C Ratio	1.176	0.594	0.255
Control Delay, s/veh	121.3	10.9	9.4
LOS	F	B	A
95th %tile Queue, veh	23	4	1

Intersection	
Intersection Delay, s/veh	24.0
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	0	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	292	0	669	210
Demand Flow Rate, veh/h	300	0	689	216
Vehicles Circulating, veh/h	216	670	393	0
Vehicles Exiting, veh/h	0	412	123	670
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.7	0.0	37.1	5.0
Approach LOS	A	-	E	A

Lane	Left	Left	Left
Designated Moves	LTR	TR	LT
Assumed Moves	LTR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	300	689	216
Cap Entry Lane, veh/h	910	763	1130
Entry HV Adj Factor	0.973	0.971	0.971
Flow Entry, veh/h	292	669	210
Cap Entry, veh/h	886	740	1097
V/C Ratio	0.330	0.903	0.191
Control Delay, s/veh	7.7	37.1	5.0
LOS	A	E	A
95th %tile Queue, veh	1	12	1

Intersection	
Intersection Delay, s/veh	181.2
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	0	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	314	2552	2097
Demand Flow Rate, veh/h	0	323	2629	2159
Vehicles Circulating, veh/h	2110	2629	0	598
Vehicles Exiting, veh/h	647	0	2110	2354
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	427.5	103.1	239.4
Approach LOS	-	F	F	F

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	323	1236	1393	1015	1144
Cap Entry Lane, veh/h	179	1130	1130	722	743
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.971
Flow Entry, veh/h	314	1200	1353	985	1111
Cap Entry, veh/h	174	1097	1097	701	722
V/C Ratio	1.800	1.094	1.233	1.407	1.539
Control Delay, s/veh	427.5	74.8	128.2	209.5	265.9
LOS	F	F	F	F	F
95th %tile Queue, veh	23	29	44	44	56

Intersection	
Intersection Delay, s/veh	171.2
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	0	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	535	0	2405	2049
Demand Flow Rate, veh/h	550	0	2477	2110
Vehicles Circulating, veh/h	2110	2628	331	0
Vehicles Exiting, veh/h	0	180	2329	2628
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	554.4	0.0	201.7	35.4
Approach LOS	F	-	F	E

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	550	1164	1313	992	1118
Cap Entry Lane, veh/h	258	882	896	1130	1130
Entry HV Adj Factor	0.972	0.971	0.971	0.971	0.971
Flow Entry, veh/h	535	1130	1274	963	1086
Cap Entry, veh/h	251	856	870	1097	1097
V/C Ratio	2.132	1.320	1.465	0.878	0.989
Control Delay, s/veh	554.4	169.0	230.7	25.5	44.1
LOS	F	F	F	D	E
95th %tile Queue, veh	40	44	59	12	19

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Approach	WB	NB	SB
Entry Lanes	1	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	449	729	1012
Demand Flow Rate, veh/h	462	751	1043
Vehicles Circulating, veh/h	622	269	140
Vehicles Exiting, veh/h	398	914	944
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	16.5	8.7	10.0
Approach LOS	C	A	A

Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	462	353	398	490	553
Cap Entry Lane, veh/h	731	924	936	1017	1024
Entry HV Adj Factor	0.972	0.970	0.971	0.971	0.970
Flow Entry, veh/h	449	343	386	476	537
Cap Entry, veh/h	711	896	909	988	994
V/C Ratio	0.632	0.382	0.425	0.482	0.540
Control Delay, s/veh	16.5	8.4	9.0	9.4	10.5
LOS	C	A	A	A	B
95th %tile Queue, veh	5	2	2	3	3

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	2	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	229	815	887
Demand Flow Rate, veh/h	236	839	914
Vehicles Circulating, veh/h	624	169	110
Vehicles Exiting, veh/h	384	855	750
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.0	8.5	8.5
Approach LOS	A	A	A

Lane	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	LT	TR	LT	TR
Assumed Moves	L	TR	LT	TR	LT	TR
RT Channelized						
Lane Util	0.466	0.534	0.470	0.530	0.470	0.530
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	110	126	394	445	430	484
Cap Entry Lane, veh/h	708	730	995	1004	1040	1046
Entry HV Adj Factor	0.973	0.968	0.972	0.970	0.970	0.972
Flow Entry, veh/h	107	122	383	432	417	470
Cap Entry, veh/h	688	707	968	974	1009	1017
V/C Ratio	0.155	0.173	0.396	0.443	0.413	0.463
Control Delay, s/veh	7.0	7.0	8.1	8.8	8.1	8.9
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	2	2	2	2

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	2	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	313	834	830
Demand Flow Rate, veh/h	323	859	855
Vehicles Circulating, veh/h	743	199	225
Vehicles Exiting, veh/h	315	881	841
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.5	8.9	9.2
Approach LOS	A	A	A

Lane	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	LT	TR	LT	TR
Assumed Moves	L	TR	LT	TR	LT	TR
RT Channelized						
Lane Util	0.697	0.303	0.470	0.530	0.470	0.530
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	225	98	404	455	402	453
Cap Entry Lane, veh/h	647	672	973	983	954	965
Entry HV Adj Factor	0.969	0.969	0.971	0.972	0.970	0.971
Flow Entry, veh/h	218	95	392	442	390	440
Cap Entry, veh/h	627	651	945	955	926	937
V/C Ratio	0.348	0.146	0.415	0.463	0.421	0.469
Control Delay, s/veh	10.5	7.2	8.6	9.3	8.8	9.5
LOS	B	A	A	A	A	A
95th %tile Queue, veh	2	1	2	2	2	3

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	108	725	44	131	495
Future Vol, veh/h	46	108	725	44	131	495
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	46	108	725	44	131	495

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1257	385	0	0	769	0
Stage 1	747	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	160	608	-	-	834	-
Stage 1	424	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	135	608	-	-	834	-
Mov Cap-2 Maneuver	266	-	-	-	-	-
Stage 1	424	-	-	-	-	-
Stage 2	474	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	266	608	834	-
HCM Lane V/C Ratio	-	-	0.173	0.178	0.157	-
HCM Control Delay (s)	-	-	21.3	12.2	10.1	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.6	0.6	0.6	-

Intersection	
Int Delay, s/veh	20.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	165	31	1910	289	80	744
Future Vol, veh/h	165	31	1910	289	80	744
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	165	31	1910	289	80	744

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2513	1100	0	0	2199	0
Stage 1	2055	-	-	-	-	-
Stage 2	458	-	-	-	-	-
Critical Hdwy	5.76	7.16	-	-	5.38	-
Critical Hdwy Stg 1	6.66	-	-	-	-	-
Critical Hdwy Stg 2	6.06	-	-	-	-	-
Follow-up Hdwy	3.83	3.93	-	-	3.14	-
Pot Cap-1 Maneuver	~ 48	176	-	-	96	-
Stage 1	~ 52	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	176	-	-	96	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	~ 52	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	155.4	0	42
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	176	96	-
HCM Lane V/C Ratio	-	-	1.114	0.833	-
HCM Control Delay (s)	-	-	155.4	129.4	32.6
HCM Lane LOS	-	-	F	F	D
HCM 95th %tile Q(veh)	-	-	9.9	4.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	90.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	2469	2951	34	10	93
Future Vol, veh/h	27	2469	2951	34	10	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	190	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	3	3
Mvmt Flow	27	2469	2951	34	10	93

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2985	0	-	0	4257	1493
Stage 1	-	-	-	-	2968	-
Stage 2	-	-	-	-	1289	-
Critical Hdwy	4.22	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.26	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	107	-	-	-	~ 1	111
Stage 1	-	-	-	-	25	-
Stage 2	-	-	-	-	220	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	107	-	-	-	~ 1	111
Mov Cap-2 Maneuver	-	-	-	-	~ 1	-
Stage 1	-	-	-	-	25	-
Stage 2	-	-	-	-	164	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	$ 4916.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	107	-	-	-	10
HCM Lane V/C Ratio	0.252	-	-	-	10.3
HCM Control Delay (s)	49.6	-	-	-	$ 4916.6
HCM Lane LOS	E	-	-	-	F
HCM 95th %tile Q(veh)	0.9	-	-	-	14.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	1	0	3	1	6	0	1128	1	1	921	1
Future Vol, veh/h	3	1	0	3	1	6	0	1128	1	1	921	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	3	1	0	3	1	6	0	1128	1	1	921	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2056	2053	922	2053	2053	1129	922	0	0	1129	0	0
Stage 1	924	924	-	1129	1129	-	-	-	-	-	-	-
Stage 2	1132	1129	-	924	924	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	40	55	326	41	55	247	737	-	-	615	-	-
Stage 1	322	347	-	247	278	-	-	-	-	-	-	-
Stage 2	246	278	-	322	347	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	38	55	326	40	55	247	737	-	-	615	-	-
Mov Cap-2 Maneuver	38	55	-	40	55	-	-	-	-	-	-	-
Stage 1	322	346	-	247	278	-	-	-	-	-	-	-
Stage 2	239	278	-	320	346	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	102.1	52.9	0	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	737	-	-	41	85	615	-	-
HCM Lane V/C Ratio	-	-	-	0.098	0.118	0.002	-	-
HCM Control Delay (s)	0	-	-	102.1	52.9	10.9	0	-
HCM Lane LOS	A	-	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0	-	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	77	55	24	893	957	76
Future Vol, veh/h	77	55	24	893	957	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	77	55	24	893	957	76

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1490	517	1033	0	-	0
Stage 1	995	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	113	501	662	-	-	-
Stage 1	316	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	109	501	662	-	-	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	316	-	-	-	-	-
Stage 2	554	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	85	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	662	-	162	-	-
HCM Lane V/C Ratio	0.036	-	0.815	-	-
HCM Control Delay (s)	10.6	-	85	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.1	-	5.4	-	-

Intersection	
Int Delay, s/veh	409.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	725	266	506	730	144	751
Future Vol, veh/h	725	266	506	730	144	751
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	725	266	506	730	144	751

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	991	0	2235	496
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	1377	-
Critical Hdwy	-	-	4.16	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.23	-	3.53	3.33
Pot Cap-1 Maneuver	-	-	687	-	~ 36	~ 517
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	198	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	687	-	~ 9	~ 517
Mov Cap-2 Maneuver	-	-	-	-	~ 9	-
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	~ 52	-

Approach	EB	WB	NB
HCM Control Delay, s	0	9.6	$ 1414
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	9	517	-	-	687	-
HCM Lane V/C Ratio	16	1.453	-	-	0.737	-
HCM Control Delay (s)	$ 7557.6	236	-	-	23.4	-
HCM Lane LOS	F	F	-	-	C	-
HCM 95th %tile Q(veh)	19.6	36.9	-	-	6.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	331	412	1	0	648	7	5	302	0	0	168	188
Future Vol, veh/h	331	412	1	0	648	7	5	302	0	0	168	188
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	331	412	1	0	648	7	5	302	0	0	168	188

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	655	0	0	413	0	0	1905	1730	413	1878	1727	652
Stage 1	-	-	-	-	-	-	1075	1075	-	652	652	-
Stage 2	-	-	-	-	-	-	830	655	-	1226	1075	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	904	-	-	1104	-	-	50	~ 85	626	53	~ 86	457
Stage 1	-	-	-	-	-	-	259	~ 289	-	447	455	-
Stage 2	-	-	-	-	-	-	356	453	-	212	289	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	904	-	-	1104	-	-	-	~ 45	626	-	~ 45	457
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 45	-	-	~ 45	-
Stage 1	-	-	-	-	-	-	136	~ 152	-	235	455	-
Stage 2	-	-	-	-	-	-	132	453	-	-	~ 152	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	904	-	-	1104	-	-	-
HCM Lane V/C Ratio	-	0.366	-	-	-	-	-	-
HCM Control Delay (s)	-	11.3	0	-	0	-	-	-
HCM Lane LOS	-	B	A	-	A	-	-	-
HCM 95th %tile Q(veh)	-	1.7	-	-	0	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	76	34	35	177	81
Future Vol, veh/h	15	76	34	35	177	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	15	76	34	35	177	81

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	321	218	258	0	-	0
Stage 1	218	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	671	819	1301	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	653	819	1301	-	-	-
Mov Cap-2 Maneuver	653	-	-	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	894	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	3.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1301	-	786	-	-
HCM Lane V/C Ratio	0.026	-	0.116	-	-
HCM Control Delay (s)	7.8	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	6	20	95	228	10
Future Vol, veh/h	2	6	20	95	228	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	6	20	95	228	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	368	233	238	0	-	0
Stage 1	233	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	630	804	1323	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	889	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	620	804	1323	-	-	-
Mov Cap-2 Maneuver	620	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	875	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1323	-	748	-	-
HCM Lane V/C Ratio	0.015	-	0.011	-	-
HCM Control Delay (s)	7.8	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	122	184	73	85	211	220
Future Vol, veh/h	122	184	73	85	211	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	122	184	73	85	211	220

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	552	321	431	0	-	0
Stage 1	321	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	493	718	1123	-	-	-
Stage 1	733	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	459	718	1123	-	-	-
Mov Cap-2 Maneuver	459	-	-	-	-	-
Stage 1	733	-	-	-	-	-
Stage 2	750	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.7	3.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1123	-	586	-	-
HCM Lane V/C Ratio	0.065	-	0.522	-	-
HCM Control Delay (s)	8.4	0	17.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	3	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	52	25	7	216	183	67
Future Vol, veh/h	52	25	7	216	183	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	52	25	7	216	183	67

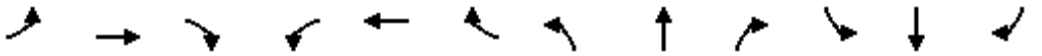
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	413	183	183	0	-	0
Stage 1	183	-	-	-	-	-
Stage 2	230	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	594	857	1386	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	591	857	1386	-	-	-
Mov Cap-2 Maneuver	591	-	-	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	802	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1386	-	591	857	-	-
HCM Lane V/C Ratio	0.005	-	0.088	0.029	-	-
HCM Control Delay (s)	7.6	-	11.7	9.3	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0.1	-	-

Cumulative Plus All Projects

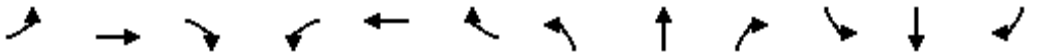
PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	375	0	514	376	294	1087	0	2004	627	0	2951	486
Future Volume (vph)	375	0	514	376	294	1087	0	2004	627	0	2951	486
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00		0.88	0.86	0.81	0.91		0.91	1.00		0.86	1.00
Frt	1.00		0.85	1.00	0.91	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1752		2760	2985	2678	1413		4988	1553		6285	1553
Flt Permitted	0.95		1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	1752		2760	2985	2678	1413		4988	1553		6285	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	375	0	514	376	294	1087	0	2004	627	0	2951	486
RTOR Reduction (vph)	0	0	118	0	16	32	0	0	0	0	0	102
Lane Group Flow (vph)	375	0	396	338	860	511	0	2004	627	0	2951	384
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot		Perm	Split	NA	Perm		NA	Free		NA	Perm
Protected Phases	4			8	8			2			6	
Permitted Phases			4			8			Free			6
Actuated Green, G (s)	22.0		22.0	35.0	35.0	35.0		51.0	120.0		51.0	51.0
Effective Green, g (s)	22.0		22.0	35.0	35.0	35.0		51.0	120.0		51.0	51.0
Actuated g/C Ratio	0.18		0.18	0.29	0.29	0.29		0.42	1.00		0.42	0.42
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	321		506	870	781	412		2119	1553		2671	660
v/s Ratio Prot	c0.21			0.11	0.32			0.40			c0.47	
v/s Ratio Perm			0.14			c0.36			0.40			0.25
v/c Ratio	1.17		0.78	0.39	1.35dr	1.24		0.95	0.40		1.10	0.58
Uniform Delay, d1	49.0		46.7	34.0	42.5	42.5		33.2	0.0		34.5	26.4
Progression Factor	1.00		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	104.0		7.7	0.3	63.7	127.4		9.6	0.8		53.4	1.3
Delay (s)	153.0		54.4	34.2	106.2	169.9		42.8	0.8		87.9	27.7
Level of Service	F		D	C	F	F		D	A		F	C
Approach Delay (s)		96.0			112.0			32.8			79.4	
Approach LOS		F			F			C			E	

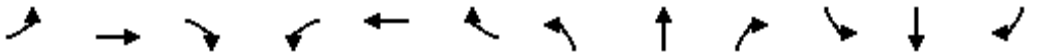
Intersection Summary			
HCM 2000 Control Delay	73.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.4%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



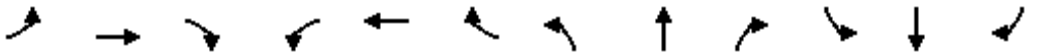
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	764	0	1334	0	0	0	0	1867	613	0	1890	1313
Future Volume (vph)	764	0	1334	0	0	0	0	1867	613	0	1890	1313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	764	0	1334	0	0	0	0	1867	613	0	1890	1313
RTOR Reduction (vph)	0	0	8	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	764	0	1326	0	0	0	0	1867	613	0	1890	1313
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	36.0		36.0					31.0	75.0		31.0	75.0
Effective Green, g (s)	36.0		36.0					31.0	75.0		31.0	75.0
Actuated g/C Ratio	0.48		0.48					0.41	1.00		0.41	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	1616		1311					2061	1553		2061	1553
v/s Ratio Prot								0.37			0.38	
v/s Ratio Perm	0.23		c0.49						0.39			c0.85
v/c Ratio	0.47		1.01					0.91	0.39		0.92	0.85
Uniform Delay, d1	13.1		19.5					20.6	0.0		20.8	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.2		27.7					6.2	0.8		7.0	5.8
Delay (s)	13.3		47.2					26.8	0.8		27.7	5.8
Level of Service	B		D					C	A		C	A
Approach Delay (s)		34.9			0.0			20.4			18.8	
Approach LOS		C			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



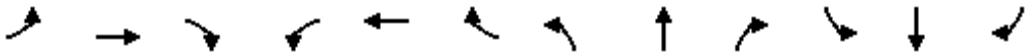
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	271	571	338	152	934	981	475	1225	49	1391	1798	150
Future Volume (vph)	271	571	338	152	934	981	475	1225	49	1391	1798	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3278		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3278		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	271	571	338	152	934	981	475	1225	49	1391	1798	150
RTOR Reduction (vph)	0	67	0	0	0	755	0	0	37	0	0	63
Lane Group Flow (vph)	271	842	0	152	934	226	475	1225	12	1391	1798	87
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	8.0	32.0		6.0	30.0	30.0	20.6	31.0	31.0	45.0	55.4	55.4
Effective Green, g (s)	8.0	32.0		6.0	30.0	30.0	20.6	31.0	31.0	45.0	55.4	55.4
Actuated g/C Ratio	0.06	0.25		0.05	0.23	0.23	0.16	0.24	0.24	0.35	0.43	0.43
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	806		155	801	630	533	1189	370	1165	2125	661
v/s Ratio Prot	c0.08	0.26		0.05	c0.27		0.14	c0.25		c0.41	0.36	
v/s Ratio Perm						0.08			0.01			0.06
v/c Ratio	1.31	1.04		0.98	1.17	0.36	0.89	1.03	0.03	1.19	0.85	0.13
Uniform Delay, d1	61.0	49.0		61.9	50.0	41.9	53.6	49.5	38.0	42.5	33.5	22.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	169.4	43.9		66.2	88.1	0.4	16.9	34.2	0.0	95.9	3.3	0.1
Delay (s)	230.4	92.9		128.2	138.1	42.3	70.5	83.7	38.0	138.4	36.8	22.8
Level of Service	F	F		F	F	D	E	F	D	F	D	C
Approach Delay (s)		124.5			91.9			78.8			78.5	
Approach LOS		F			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	88.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	110.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	437	1543	12	653	19	1172	5	3	14	13	39
Future Volume (vph)	38	437	1543	12	653	19	1172	5	3	14	13	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (prot)	1736	3471	1553	1736	3471	1553	1618	1622	1524		1798	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00		0.97	1.00
Satd. Flow (perm)	1736	3471	1553	1736	3471	1553	1618	1622	1524		1798	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	437	1543	12	653	19	1172	5	3	14	13	39
RTOR Reduction (vph)	0	0	234	0	0	15	0	0	1	0	0	37
Lane Group Flow (vph)	38	437	1309	12	653	4	586	591	2	0	27	2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	6%	6%	6%	3%	3%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	2.2	19.2	62.9	0.7	17.7	17.7	43.7	43.7	43.7		4.1	4.1
Effective Green, g (s)	2.2	19.2	62.9	0.7	17.7	17.7	43.7	43.7	43.7		4.1	4.1
Actuated g/C Ratio	0.03	0.23	0.75	0.01	0.21	0.21	0.52	0.52	0.52		0.05	0.05
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	45	796	1241	14	734	328	844	846	795		88	76
v/s Ratio Prot	c0.02	0.13	c0.55	0.01	0.19		0.36	0.36			c0.02	
v/s Ratio Perm			0.29			0.00			0.00			0.00
v/c Ratio	0.84	0.55	1.05	0.86	0.89	0.01	0.69	0.70	0.00		0.31	0.03
Uniform Delay, d1	40.6	28.4	10.4	41.5	32.1	26.1	15.0	15.0	9.6		38.4	37.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	77.0	0.8	41.2	164.6	12.7	0.0	2.5	2.5	0.0		2.0	0.1
Delay (s)	117.5	29.2	51.6	206.1	44.8	26.1	17.5	17.6	9.6		40.4	38.0
Level of Service	F	C	D	F	D	C	B	B	A		D	D
Approach Delay (s)		48.0			47.1			17.5			39.0	
Approach LOS		D			D			B			D	

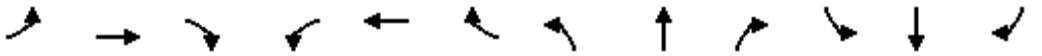
Intersection Summary			
HCM 2000 Control Delay	38.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	83.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	112.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	352	164	358	432	110	214	253	388	139	228	37
Future Volume (vph)	38	352	164	358	432	110	214	253	388	139	228	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1752	3505	1568	1752	3398		1665	1746	1568		3398	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		0.98	
Satd. Flow (perm)	1752	3505	1568	1752	3398		1665	1746	1568		3398	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	352	164	358	432	110	214	253	388	139	228	37
RTOR Reduction (vph)	0	0	133	0	23	0	0	0	313	0	8	0
Lane Group Flow (vph)	38	352	31	358	519	0	193	274	75	0	396	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	2.8	15.1	15.1	19.6	31.9		15.4	15.4	15.4		13.8	
Effective Green, g (s)	2.8	15.1	15.1	19.6	31.9		15.4	15.4	15.4		13.8	
Actuated g/C Ratio	0.04	0.19	0.19	0.25	0.40		0.19	0.19	0.19		0.17	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	61	662	296	429	1356		320	336	302		586	
v/s Ratio Prot	0.02	c0.10		c0.20	0.15		0.12	c0.16			c0.12	
v/s Ratio Perm			0.02						0.05			
v/c Ratio	0.62	0.53	0.10	0.83	0.38		0.60	0.82	0.25		0.68	
Uniform Delay, d1	38.0	29.2	26.8	28.6	17.0		29.5	30.9	27.3		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	18.1	0.8	0.2	13.1	0.2		3.2	14.1	0.4		3.1	
Delay (s)	56.2	30.0	27.0	41.7	17.2		32.6	45.0	27.8		34.0	
Level of Service	E	C	C	D	B		C	D	C		C	
Approach Delay (s)		30.9			26.9			34.4			34.0	
Approach LOS		C			C			C			C	

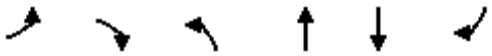
Intersection Summary			
HCM 2000 Control Delay	31.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	79.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	2296	387	153	2224	5	138	30	79	4	32	23
Future Volume (vph)	14	2296	387	153	2224	5	138	30	79	4	32	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.4	6.4	3.5	6.4	6.4	4.4	4.4	4.4	3.5	3.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1703	3406	1524	1703	3406	1524	1752	1845	1568	1752	1729	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1703	3406	1524	1703	3406	1524	1752	1845	1568	1752	1729	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	14	2296	387	153	2224	5	138	30	79	4	32	23
RTOR Reduction (vph)	0	0	64	0	0	1	0	0	69	0	19	0
Lane Group Flow (vph)	14	2296	323	153	2224	4	138	30	10	4	36	0
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Actuated Green, G (s)	1.6	93.5	93.5	10.5	102.4	102.4	9.6	18.0	18.0	0.8	9.2	
Effective Green, g (s)	1.6	93.5	93.5	10.5	102.4	102.4	9.6	18.0	18.0	0.8	9.2	
Actuated g/C Ratio	0.01	0.67	0.67	0.07	0.73	0.73	0.07	0.13	0.13	0.01	0.07	
Clearance Time (s)	3.5	6.4	6.4	3.5	6.4	6.4	4.4	4.4	4.4	3.5	3.5	
Vehicle Extension (s)	2.4	4.5	4.5	2.4	4.5	4.5	2.4	2.8	2.8	2.4	2.8	
Lane Grp Cap (vph)	19	2265	1013	127	2480	1109	119	236	200	9	113	
v/s Ratio Prot	0.01	c0.67		c0.09	0.65		c0.08	0.02		0.00	c0.02	
v/s Ratio Perm			0.21			0.00			0.01			
v/c Ratio	0.74	1.01	0.32	1.20	0.90	0.00	1.16	0.13	0.05	0.44	0.32	
Uniform Delay, d1	69.3	23.5	10.0	65.0	15.0	5.2	65.5	54.3	53.8	69.7	62.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	83.7	22.4	0.3	145.1	4.9	0.0	131.8	0.2	0.1	21.2	1.5	
Delay (s)	153.0	45.9	10.3	210.1	19.9	5.2	197.3	54.6	53.9	90.9	64.2	
Level of Service	F	D	B	F	B	A	F	D	D	F	E	
Approach Delay (s)		41.4			32.1			134.1			66.0	
Approach LOS		D			C			F			E	

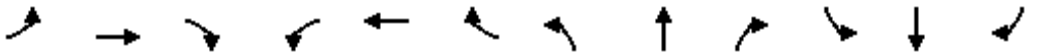
Intersection Summary			
HCM 2000 Control Delay	41.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	140.6	Sum of lost time (s)	17.8
Intersection Capacity Utilization	98.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1010	165	126	965	1184	961
Future Volume (vph)	1010	165	126	965	1184	961
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3400	1568	3400	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3400	1568	3400	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1010	165	126	965	1184	961
RTOR Reduction (vph)	0	110	0	0	0	543
Lane Group Flow (vph)	1010	55	126	965	1184	418
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	19.4	19.4	3.1	31.3	24.2	24.2
Effective Green, g (s)	19.4	19.4	3.1	31.3	24.2	24.2
Actuated g/C Ratio	0.33	0.33	0.05	0.53	0.41	0.41
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1123	518	179	1868	1444	646
v/s Ratio Prot	c0.30		0.04	c0.28	c0.34	
v/s Ratio Perm		0.03				0.27
v/c Ratio	0.90	0.11	0.70	0.52	0.82	0.65
Uniform Delay, d1	18.7	13.6	27.3	8.8	15.3	13.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.7	0.1	11.9	0.2	3.8	2.2
Delay (s)	28.4	13.7	39.2	9.1	19.1	16.1
Level of Service	C	B	D	A	B	B
Approach Delay (s)	26.4			12.5	17.7	
Approach LOS	C			B	B	

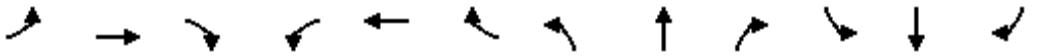
Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	58.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



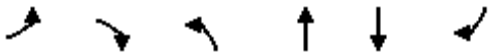
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	732	833	184	809	40	540	160	82	36	80	31
Future Volume (vph)	34	732	833	184	809	40	540	160	82	36	80	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3367	3295		1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	3400	3505	1568	3367	3295		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	732	833	184	809	40	540	160	82	36	80	31
RTOR Reduction (vph)	0	0	517	0	0	22	0	64	0	0	0	29
Lane Group Flow (vph)	34	732	316	184	809	18	540	178	0	36	80	2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						4
Actuated Green, G (s)	1.9	28.4	28.4	6.6	33.0	33.0	16.8	16.8		4.3	4.3	4.3
Effective Green, g (s)	1.9	28.4	28.4	6.6	33.0	33.0	16.8	16.8		4.3	4.3	4.3
Actuated g/C Ratio	0.03	0.38	0.38	0.09	0.44	0.44	0.22	0.22		0.06	0.06	0.06
Clearance Time (s)	5.5	3.9	3.9	5.5	4.0	4.0	4.3	4.3		5.1	5.1	5.1
Vehicle Extension (s)	1.0	4.9	4.9	1.0	4.1	4.1	2.0	2.0		1.0	1.0	1.0
Lane Grp Cap (vph)	44	1328	594	299	1544	690	755	739		100	201	90
v/s Ratio Prot	0.02	0.21		c0.05	c0.23		c0.16	0.05		0.02	c0.02	
v/s Ratio Perm			0.20			0.01						0.00
v/c Ratio	0.77	0.55	0.53	0.62	0.52	0.03	0.72	0.24		0.36	0.40	0.02
Uniform Delay, d1	36.3	18.2	18.1	32.9	15.2	11.9	26.8	23.8		34.0	34.1	33.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	53.1	0.8	1.6	2.6	0.4	0.0	2.7	0.1		0.8	0.5	0.0
Delay (s)	89.4	19.1	19.7	35.6	15.7	11.9	29.5	23.9		34.8	34.5	33.3
Level of Service	F	B	B	D	B	B	C	C		C	C	C
Approach Delay (s)		20.9			19.1			27.8			34.3	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	22.9
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	468	0	1458	0	0	0	0	1888	1021	0	1941	497
Future Volume (vph)	468	0	1458	0	0	0	0	1888	1021	0	1941	497
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.4		6.4					5.1	4.0		4.6	4.0
Lane Util. Factor	0.97		0.88					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3367		2733					4988	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3367		2733					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	468	0	1458	0	0	0	0	1888	1021	0	1941	497
RTOR Reduction (vph)	0	0	12	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	468	0	1446	0	0	0	0	1888	1021	0	1941	497
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	49.6		49.6					38.9	100.0		39.4	100.0
Effective Green, g (s)	49.6		49.6					38.9	100.0		39.4	100.0
Actuated g/C Ratio	0.50		0.50					0.39	1.00		0.39	1.00
Clearance Time (s)	6.4		6.4					5.1			4.6	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1670		1355					1940	1553		1965	1553
v/s Ratio Prot								0.38			c0.39	
v/s Ratio Perm	0.14		c0.53						0.66			0.32
v/c Ratio	0.28		1.07					0.97	0.66		0.99	0.32
Uniform Delay, d1	14.8		25.2					30.0	0.0		30.1	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0		44.6					14.5	2.2		17.3	0.5
Delay (s)	14.8		69.8					44.5	2.2		47.3	0.5
Level of Service	B		E					D	A		D	A
Approach Delay (s)		56.5			0.0			29.7			37.8	
Approach LOS		E			A			C			D	

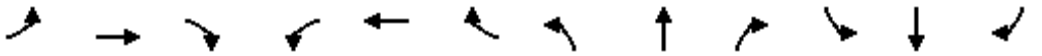
Intersection Summary			
HCM 2000 Control Delay	39.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	97.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1155	28	33	361	838	779
Future Volume (vph)	1155	28	33	361	838	779
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1568	1752	1845	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1568	1752	1845	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1155	28	33	361	838	779
RTOR Reduction (vph)	0	11	0	0	0	492
Lane Group Flow (vph)	1155	17	33	361	838	287
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	54.1	54.1	1.7	26.7	21.0	21.0
Effective Green, g (s)	54.1	54.1	1.7	26.7	21.0	21.0
Actuated g/C Ratio	0.61	0.61	0.02	0.30	0.24	0.24
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1067	955	33	554	828	370
v/s Ratio Prot	c0.66		0.02	c0.20	c0.24	
v/s Ratio Perm		0.01				0.18
v/c Ratio	1.08	0.02	1.00	0.65	1.01	0.77
Uniform Delay, d1	17.3	6.9	43.5	27.0	33.9	31.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	52.7	0.0	156.7	2.7	34.3	9.7
Delay (s)	70.1	6.9	200.2	29.8	68.2	41.4
Level of Service	E	A	F	C	E	D
Approach Delay (s)	68.6			44.0	55.3	
Approach LOS	E			D	E	

Intersection Summary			
HCM 2000 Control Delay	58.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	88.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		

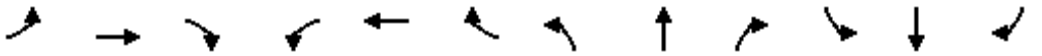
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	214	3	39	0	1	1	19	237	1	1	460	307
Future Volume (vph)	214	3	39	0	1	1	19	237	1	1	460	307
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.93		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1665	1671	1568		1706		1752	3503		1752	3505	1568
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1665	1671	1568		1706		1752	3503		1752	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	214	3	39	0	1	1	19	237	1	1	460	307
RTOR Reduction (vph)	0	0	33	0	1	0	0	1	0	0	0	180
Lane Group Flow (vph)	109	108	6	0	1	0	19	237	0	1	460	127
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	6.8	6.8	6.8		0.7		0.5	16.9		0.5	16.9	16.9
Effective Green, g (s)	6.8	6.8	6.8		0.7		0.5	16.9		0.5	16.9	16.9
Actuated g/C Ratio	0.17	0.17	0.17		0.02		0.01	0.41		0.01	0.41	0.41
Clearance Time (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	276	277	260		29		21	1447		21	1448	647
v/s Ratio Prot	c0.07	0.06			c0.00		c0.01	0.07		0.00	c0.13	
v/s Ratio Perm			0.00									0.08
v/c Ratio	0.39	0.39	0.02		0.04		0.90	0.16		0.05	0.32	0.20
Uniform Delay, d1	15.2	15.2	14.3		19.8		20.2	7.6		20.0	8.1	7.7
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	0.9	0.0		0.5		151.1	0.1		0.9	0.1	0.1
Delay (s)	16.1	16.1	14.3		20.3		171.3	7.6		20.9	8.2	7.8
Level of Service	B	B	B		C		F	A		C	A	A
Approach Delay (s)		15.9			20.3			19.7			8.1	
Approach LOS		B			C			B			A	

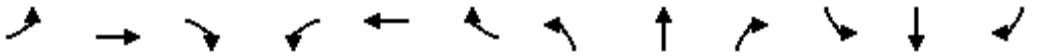
Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	40.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



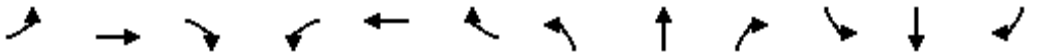
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	634	0	355	0	1176	1392	0	1028	468
Future Volume (vph)	0	0	0	634	0	355	0	1176	1392	0	1028	468
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.89			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.99			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1522			4988	1553		4988	1553
Flt Permitted				0.95	0.99			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1522			4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	634	0	355	0	1176	1392	0	1028	468
RTOR Reduction (vph)	0	0	0	0	27	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	514	448	0	0	1176	1392	0	1028	468
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA			NA	Free		NA	Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				15.1	15.1			13.3	38.1		13.3	38.1
Effective Green, g (s)				15.1	15.1			13.3	38.1		13.3	38.1
Actuated g/C Ratio				0.40	0.40			0.35	1.00		0.35	1.00
Clearance Time (s)				4.9	4.9			4.8			4.8	
Vehicle Extension (s)				1.0	1.0			1.0			1.0	
Lane Grp Cap (vph)				653	603			1741	1553		1741	1553
v/s Ratio Prot								0.24			0.21	
v/s Ratio Perm				0.31	0.29				c0.90			0.30
v/c Ratio				0.79	0.74			0.68	0.90		0.59	0.30
Uniform Delay, d1				10.1	9.8			10.6	0.0		10.2	0.0
Progression Factor				1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2				5.8	4.3			0.8	8.5		0.4	0.5
Delay (s)				15.9	14.2			11.4	8.5		10.5	0.5
Level of Service				B	B			B	A		B	A
Approach Delay (s)		0.0			15.1			9.8			7.4	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	38.1	Sum of lost time (s)	9.7
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



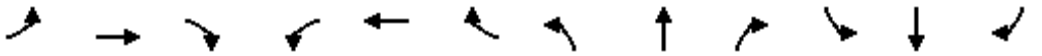
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	537	0	806	0	0	0	0	2105	1191	0	1354	309
Future Volume (vph)	537	0	806	0	0	0	0	2105	1191	0	1354	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1					4.9	4.0		4.8	4.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.87	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1649	1441	1475					4988	1553		4988	1553
Flt Permitted	0.95	0.99	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1649	1441	1475					4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	537	0	806	0	0	0	0	2105	1191	0	1354	309
RTOR Reduction (vph)	0	23	23	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	467	418	412	0	0	0	0	2105	1191	0	1354	309
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm					NA	Free		NA	Free
Protected Phases		4						2			6	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	18.7	18.7	18.7					27.3	56.0		27.4	56.0
Effective Green, g (s)	18.7	18.7	18.7					27.3	56.0		27.4	56.0
Actuated g/C Ratio	0.33	0.33	0.33					0.49	1.00		0.49	1.00
Clearance Time (s)	5.1	5.1	5.1					4.9			4.8	
Vehicle Extension (s)	1.0	1.0	1.0					1.0			1.0	
Lane Grp Cap (vph)	550	481	492					2431	1553		2440	1553
v/s Ratio Prot								0.42			0.27	
v/s Ratio Perm	0.28	0.29	0.28						c0.77			0.20
v/c Ratio	0.85	0.87	0.84					0.87	0.77		0.55	0.20
Uniform Delay, d1	17.3	17.5	17.2					12.7	0.0		10.0	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	11.2	14.8	11.3					3.4	3.7		0.2	0.3
Delay (s)	28.6	32.3	28.5					16.1	3.7		10.2	0.3
Level of Service	C	C	C					B	A		B	A
Approach Delay (s)		29.8			0.0			11.6			8.3	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	56.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	908	0	384	0	1661	1961	0	1251	649
Future Volume (vph)	0	0	0	908	0	384	0	1661	1961	0	1251	649
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.8		6.8		4.6	4.0		4.6	4.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		1568		5036	1568		5036	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		1568		5036	1568		5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	908	0	384	0	1661	1961	0	1251	649
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	908	0	360	0	1661	1961	0	1251	649
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								2			6	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				14.7		14.7		19.0	45.1		19.0	45.1
Effective Green, g (s)				14.7		14.7		19.0	45.1		19.0	45.1
Actuated g/C Ratio				0.33		0.33		0.42	1.00		0.42	1.00
Clearance Time (s)				6.8		6.8		4.6			4.6	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				1108		511		2121	1568		2121	1568
v/s Ratio Prot								0.33			0.25	
v/s Ratio Perm				0.27		0.23			c1.25			0.41
v/c Ratio				0.82		0.71		0.78	1.25		0.59	0.41
Uniform Delay, d1				14.0		13.3		11.3	22.6		10.0	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				4.6		3.6		1.8	118.3		0.3	0.8
Delay (s)				18.6		16.9		13.1	140.8		10.3	0.8
Level of Service				B		B		B	F		B	A
Approach Delay (s)		0.0			18.1			82.2			7.1	
Approach LOS		A			B			F			A	

Intersection Summary			
HCM 2000 Control Delay	49.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.67		
Actuated Cycle Length (s)	45.1	Sum of lost time (s)	11.4
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

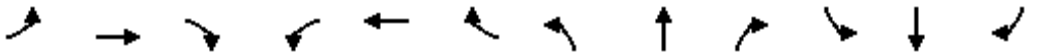


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	529	19	1006	0	0	547	0	3442	8	0	2010	147
Future Volume (vph)	529	19	1006	0	0	547	0	3442	8	0	2010	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Lane Util. Factor	0.91	0.86	0.91			0.88		0.86			0.91	1.00
Frt	1.00	0.89	0.85			0.85		1.00			1.00	0.85
Flt Protected	0.95	0.99	1.00			1.00		1.00			1.00	1.00
Satd. Flow (prot)	1595	2789	1427			2733		6343			5036	1568
Flt Permitted	0.95	0.99	1.00			1.00		1.00			1.00	1.00
Satd. Flow (perm)	1595	2789	1427			2733		6343			5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	529	19	1006	0	0	547	0	3442	8	0	2010	147
RTOR Reduction (vph)	0	11	36	0	0	51	0	0	0	0	0	52
Lane Group Flow (vph)	370	670	467	0	0	496	0	3450	0	0	2010	95
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA	Perm			Prot		NA			NA	custom
Protected Phases	4	4				1		2			6	
Permitted Phases			4									2
Actuated Green, G (s)	31.0	31.0	31.0			15.0		52.0			71.0	52.0
Effective Green, g (s)	31.0	31.0	31.0			15.0		52.0			71.0	52.0
Actuated g/C Ratio	0.28	0.28	0.28			0.14		0.47			0.65	0.47
Clearance Time (s)	4.0	4.0	4.0			4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	449	785	402			372		2998			3250	741
v/s Ratio Prot	0.23	0.24				c0.18		c0.54			0.40	
v/s Ratio Perm			c0.33									0.06
v/c Ratio	0.82	1.22dr	1.16			1.33		1.15			0.62	0.13
Uniform Delay, d1	36.9	37.4	39.5			47.5		29.0			11.5	16.3
Progression Factor	1.00	1.00	1.00			1.00		1.00			1.00	1.00
Incremental Delay, d2	11.7	9.0	97.0			167.4		72.2			0.4	0.1
Delay (s)	48.6	46.3	136.5			214.9		101.2			11.9	16.4
Level of Service	D	D	F			F		F			B	B
Approach Delay (s)		76.0			214.9			101.2			12.2	
Approach LOS		E			F			F			B	

Intersection Summary			
HCM 2000 Control Delay	79.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		

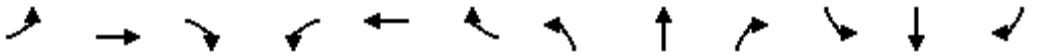
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	67	0	667	0	3345	681	0	1999	1121
Future Volume (vph)	0	0	0	67	0	667	0	3345	681	0	1999	1121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5		3.5		4.8	4.0		5.1	4.0
Lane Util. Factor				0.97		0.88		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3303		2682		4988	1553		4988	1553
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3303		2682		4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	67	0	667	0	3345	681	0	1999	1121
RTOR Reduction (vph)	0	0	0	0	0	16	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	67	0	651	0	3345	681	0	1999	1121
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	4%	4%	4%
Turn Type				Perm		Perm		NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases				8		8			Free			Free
Actuated Green, G (s)				25.9		25.9		75.8	110.0		75.5	110.0
Effective Green, g (s)				25.9		25.9		75.8	110.0		75.5	110.0
Actuated g/C Ratio				0.24		0.24		0.69	1.00		0.69	1.00
Clearance Time (s)				3.5		3.5		4.8			5.1	
Vehicle Extension (s)				1.0		1.0		1.0			1.0	
Lane Grp Cap (vph)				777		631		3437	1553		3423	1553
v/s Ratio Prot								c0.67			0.40	
v/s Ratio Perm				0.02		c0.24			0.44			0.72
v/c Ratio				0.09		1.03		0.97	0.44		0.58	0.72
Uniform Delay, d1				32.8		42.0		16.1	0.0		9.0	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.0		44.2		9.9	0.9		0.2	2.9
Delay (s)				32.8		86.2		26.0	0.9		9.2	2.9
Level of Service				C		F		C	A		A	A
Approach Delay (s)		0.0			81.4			21.8			6.9	
Approach LOS		A			F			C			A	

Intersection Summary			
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.6
Intersection Capacity Utilization	95.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

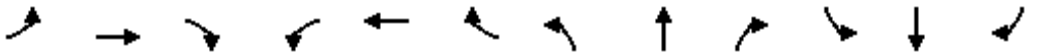


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1575	0	492	0	0	0	0	2449	240	0	1567	498
Future Volume (vph)	1575	0	492	0	0	0	0	2449	240	0	1567	498
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1575	0	492	0	0	0	0	2449	240	0	1567	498
RTOR Reduction (vph)	0	0	27	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1575	0	465	0	0	0	0	2449	240	0	1567	498
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	19.3		19.3					24.9	52.5		24.6	52.5
Effective Green, g (s)	19.3		19.3					24.9	52.5		24.6	52.5
Actuated g/C Ratio	0.37		0.37					0.47	1.00		0.47	1.00
Clearance Time (s)	3.5		3.5					4.8			5.1	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1799		1004					2980	1553		2337	1553
v/s Ratio Prot								c0.39			0.31	
v/s Ratio Perm	c0.32		0.17						0.15			0.32
v/c Ratio	0.88		0.46					0.82	0.15		0.67	0.32
Uniform Delay, d1	15.5		12.7					11.9	0.0		10.8	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	5.0		0.1					1.8	0.2		0.6	0.5
Delay (s)	20.4		12.8					13.7	0.2		11.4	0.5
Level of Service	C		B					B	A		B	A
Approach Delay (s)		18.6			0.0			12.5			8.8	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	52.5	Sum of lost time (s)	8.6
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

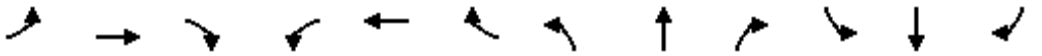
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	151	169	1224	448	228	2026
Future Volume (vph)	151	169	1224	448	228	2026
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	4988	1553	3367	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	4988	1553	3367	3471
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	151	169	1224	448	228	2026
RTOR Reduction (vph)	0	154	0	243	0	0
Lane Group Flow (vph)	151	15	1224	205	228	2026
Heavy Vehicles (%)	3%	3%	4%	4%	4%	4%
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases				6		
Actuated Green, G (s)	4.5	4.5	23.1	23.1	7.0	35.6
Effective Green, g (s)	4.5	4.5	23.1	23.1	7.0	35.6
Actuated g/C Ratio	0.09	0.09	0.46	0.46	0.14	0.70
Clearance Time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	302	139	2277	708	465	2442
v/s Ratio Prot	c0.04	0.01	0.25		0.07	c0.58
v/s Ratio Perm				0.13		
v/c Ratio	0.50	0.11	0.54	0.29	0.49	0.83
Uniform Delay, d1	22.0	21.2	9.9	8.6	20.2	5.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.1	0.1	0.1	0.3	2.4
Delay (s)	22.5	21.3	10.0	8.7	20.4	7.7
Level of Service	C	C	B	A	C	A
Approach Delay (s)	21.9		9.7			9.0
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	50.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



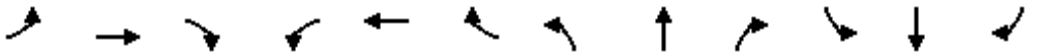
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	549	1024	9	2	750	6	7	15	2	5	21	1108
Future Volume (vph)	549	1024	9	2	750	6	7	15	2	5	21	1108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95			1.00			1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	3303	3406	1524	1719	3434			1798			1810	2733
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (perm)	3303	3406	1524	1719	3434			1798			1810	2733
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	549	1024	9	2	750	6	7	15	2	5	21	1108
RTOR Reduction (vph)	0	0	3	0	0	0	0	2	0	0	0	73
Lane Group Flow (vph)	549	1024	6	2	756	0	0	22	0	0	26	1035
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									4
Actuated Green, G (s)	35.4	66.0	66.0	0.5	32.0			1.6			1.9	37.3
Effective Green, g (s)	35.4	66.0	66.0	0.5	32.0			1.6			1.9	37.3
Actuated g/C Ratio	0.37	0.70	0.70	0.01	0.34			0.02			0.02	0.39
Clearance Time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	1234	2373	1062	9	1160			30			36	1076
v/s Ratio Prot	0.17	0.30		0.00	c0.22			c0.01			0.01	c0.36
v/s Ratio Perm			0.00									0.02
v/c Ratio	0.44	0.43	0.01	0.22	0.65			0.73			0.72	0.96
Uniform Delay, d1	22.3	6.2	4.4	46.9	26.6			46.3			46.1	28.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.1	0.0	0.0	4.5	1.0			56.4			45.7	18.7
Delay (s)	22.4	6.3	4.4	51.4	27.6			102.7			91.8	46.7
Level of Service	C	A	A	D	C			F			F	D
Approach Delay (s)		11.8			27.7			102.7			47.7	
Approach LOS		B			C			F			D	

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	94.7	Sum of lost time (s)	24.7
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	406	39	200	749	255	3789	0	0	4201	70
Future Volume (vph)	0	0	406	39	200	749	255	3789	0	0	4201	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Lane Util. Factor			1.00		1.00	0.88	0.97	0.91			0.86	1.00
Frt			0.86		1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1596		1778	2682	3303	4893			6166	1524
Flt Permitted			1.00		0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1596		1778	2682	3303	4893			6166	1524
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	406	39	200	749	255	3789	0	0	4201	70
RTOR Reduction (vph)	0	0	193	0	0	40	0	0	0	0	0	25
Lane Group Flow (vph)	0	0	213	0	239	709	255	3789	0	0	4201	45
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type			Over	Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1	4	4		1	6			2	
Permitted Phases						4						2
Actuated Green, G (s)			20.0		29.8	29.8	20.0	109.0			84.1	84.1
Effective Green, g (s)			20.0		29.8	29.8	20.0	109.0			84.1	84.1
Actuated g/C Ratio			0.13		0.20	0.20	0.13	0.73			0.56	0.56
Clearance Time (s)			4.6		6.2	6.2	4.6	5.0			5.3	5.3
Vehicle Extension (s)			3.0		3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)			212		353	532	440	3555			3457	854
v/s Ratio Prot			0.13		0.13		0.08	c0.77			c0.68	
v/s Ratio Perm						c0.26						0.03
v/c Ratio			1.00		0.68	1.33	0.58	1.07			1.22	0.05
Uniform Delay, d1			65.0		55.6	60.1	61.1	20.5			33.0	14.9
Progression Factor			1.00		1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2			62.7		5.1	162.2	1.9	36.3			99.7	0.0
Delay (s)			127.7		60.7	222.3	62.9	56.8			132.7	14.9
Level of Service			F		E	F	E	E			F	B
Approach Delay (s)		127.7			183.2			57.2			130.7	
Approach LOS		F			F			E			F	

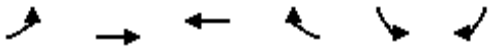
Intersection Summary			
HCM 2000 Control Delay	105.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2776	0	134	0	0	0	0	1670	217	0	328	1965
Future Volume (vph)	2776	0	134	0	0	0	0	1670	217	0	328	1965
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0			4.0	4.0
Lane Util. Factor	0.94		0.88					0.91			0.91	1.00
Frt	1.00		0.85					0.98			1.00	0.85
Flt Protected	0.95		1.00					1.00			1.00	1.00
Satd. Flow (prot)	4942		2760					4949			5036	1568
Flt Permitted	0.95		1.00					1.00			1.00	1.00
Satd. Flow (perm)	4942		2760					4949			5036	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2776	0	134	0	0	0	0	1670	217	0	328	1965
RTOR Reduction (vph)	0	0	54	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	2776	0	80	0	0	0	0	1871	0	0	328	1965
Turn Type	Prot		Perm					NA			NA	Free
Protected Phases	4							2			6	
Permitted Phases			4									Free
Actuated Green, G (s)	55.0		55.0					37.0			37.0	100.0
Effective Green, g (s)	55.0		55.0					37.0			37.0	100.0
Actuated g/C Ratio	0.55		0.55					0.37			0.37	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	2718		1518					1831			1863	1568
v/s Ratio Prot	0.56							0.38			0.07	
v/s Ratio Perm			0.03									c1.25
v/c Ratio	1.02		0.05					1.02			0.18	1.25
Uniform Delay, d1	22.5		10.4					31.5			21.2	50.0
Progression Factor	1.00		1.00					1.00			1.00	1.00
Incremental Delay, d2	22.9		0.0					26.7			0.0	119.4
Delay (s)	45.4		10.4					58.2			21.3	169.4
Level of Service	D		B					E			C	F
Approach Delay (s)		43.8			0.0			58.2			148.2	
Approach LOS		D			A			E			F	

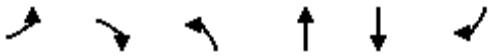
Intersection Summary			
HCM 2000 Control Delay	81.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	808	1438	1327	34	32	1098
Future Volume (vph)	808	1438	1327	34	32	1098
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3242	3343	3343	1495	3400	2760
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3242	3343	3343	1495	3400	2760
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	808	1438	1327	34	32	1098
RTOR Reduction (vph)	0	0	0	14	0	610
Lane Group Flow (vph)	808	1438	1327	20	32	488
Heavy Vehicles (%)	8%	8%	8%	8%	3%	3%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	23.0	63.1	36.1	36.1	17.6	17.6
Effective Green, g (s)	23.0	63.1	36.1	36.1	17.6	17.6
Actuated g/C Ratio	0.26	0.71	0.41	0.41	0.20	0.20
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	840	2378	1360	608	674	547
v/s Ratio Prot	c0.25	0.43	c0.40		0.01	
v/s Ratio Perm				0.01		c0.18
v/c Ratio	0.96	0.60	0.98	0.03	0.05	0.89
Uniform Delay, d1	32.4	6.5	25.9	15.8	28.8	34.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.1	0.4	18.7	0.0	0.0	16.7
Delay (s)	54.5	6.9	44.6	15.8	28.8	51.3
Level of Service	D	A	D	B	C	D
Approach Delay (s)		24.1	43.8		50.7	
Approach LOS		C	D		D	

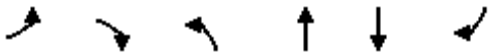
Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	88.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	878	147	9	1393	1808	614
Future Volume (vph)	878	147	9	1393	1808	614
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3400	1568	1752	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3400	1568	1752	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	878	147	9	1393	1808	614
RTOR Reduction (vph)	0	7	0	0	0	109
Lane Group Flow (vph)	878	140	9	1393	1808	505
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6
Actuated Green, G (s)	25.0	29.0	4.0	57.0	49.0	74.0
Effective Green, g (s)	25.0	29.0	4.0	57.0	49.0	74.0
Actuated g/C Ratio	0.28	0.32	0.04	0.63	0.54	0.82
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	944	574	77	2219	1908	1358
v/s Ratio Prot	c0.26	0.01	0.01	c0.40	c0.52	0.10
v/s Ratio Perm		0.08				0.22
v/c Ratio	0.93	0.24	0.12	0.63	0.95	0.37
Uniform Delay, d1	31.6	22.4	41.3	10.0	19.3	2.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.2	0.2	0.7	0.6	10.6	0.2
Delay (s)	46.8	22.7	42.0	10.6	29.9	2.2
Level of Service	D	C	D	B	C	A
Approach Delay (s)	43.4			10.8	22.9	
Approach LOS	D			B	C	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		

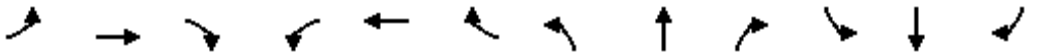
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	238	818	858	1153	1625	273
Future Volume (vph)	238	818	858	1153	1625	273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.97	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1568	3400	3505	3505	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1568	3400	3505	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	238	818	858	1153	1625	273
RTOR Reduction (vph)	0	281	0	0	0	136
Lane Group Flow (vph)	238	537	858	1153	1625	137
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	28.0	28.0	24.0	74.0	46.0	46.0
Effective Green, g (s)	28.0	28.0	24.0	74.0	46.0	46.0
Actuated g/C Ratio	0.25	0.25	0.22	0.67	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	445	399	741	2357	1465	655
v/s Ratio Prot	0.14		c0.25	0.33	c0.46	
v/s Ratio Perm		c0.34				0.09
v/c Ratio	0.53	1.35	1.16	0.49	1.11	0.21
Uniform Delay, d1	35.4	41.0	43.0	8.8	32.0	20.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2	171.5	85.8	0.2	59.5	0.2
Delay (s)	36.6	212.5	128.8	8.9	91.5	20.6
Level of Service	D	F	F	A	F	C
Approach Delay (s)	172.9			60.1	81.3	
Approach LOS	F			E	F	

Intersection Summary			
HCM 2000 Control Delay	92.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.2%	ICU Level of Service	G
Analysis Period (min)	15		

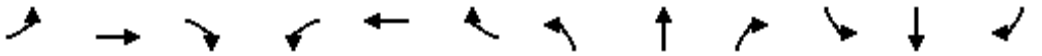
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	773	0	816	0	0	0	0	3544	625	0	1888	1108
Future Volume (vph)	773	0	816	0	0	0	0	3544	625	0	1888	1108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0	4.0		4.0	4.0
Lane Util. Factor	0.97		0.88					0.86	1.00		0.86	0.86
Frt	1.00		0.85					1.00	0.85		0.97	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3400		2760					6346	1568		4626	1348
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3400		2760					6346	1568		4626	1348
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	773	0	816	0	0	0	0	3544	625	0	1888	1108
RTOR Reduction (vph)	0	0	19	0	0	0	0	0	0	0	48	0
Lane Group Flow (vph)	773	0	797	0	0	0	0	3544	625	0	2272	676
Turn Type	Prot		Perm					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	20.0		20.0					42.0	70.0		42.0	70.0
Effective Green, g (s)	20.0		20.0					42.0	70.0		42.0	70.0
Actuated g/C Ratio	0.29		0.29					0.60	1.00		0.60	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	971		788					3807	1568		2775	1348
v/s Ratio Prot	0.23							c0.56			0.49	
v/s Ratio Perm			c0.29						0.40			0.50
v/c Ratio	0.80		1.01					0.93	0.40		0.82	0.50
Uniform Delay, d1	23.1		25.0					12.7	0.0		11.0	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	4.6		35.1					4.9	0.8		2.0	1.3
Delay (s)	27.7		60.1					17.6	0.8		13.0	1.3
Level of Service	C		E					B	A		B	A
Approach Delay (s)		44.3			0.0			15.1			10.4	
Approach LOS		D			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	342	0	1095	0	2693	1629	0	4241	402
Future Volume (vph)	0	0	0	342	0	1095	0	2693	1629	0	4241	402
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.0	4.0		4.0	4.0
Lane Util. Factor				0.97		0.76		0.86	0.86		0.81	0.81
Frt				1.00		0.85		0.97	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3400		3575		4620	1348		5968	1270
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3400		3575		4620	1348		5968	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	342	0	1095	0	2693	1629	0	4241	402
RTOR Reduction (vph)	0	0	0	0	0	6	0	26	0	0	1	0
Lane Group Flow (vph)	0	0	0	342	0	1089	0	3319	977	0	4280	362
Turn Type				Prot		Perm		NA	Free		NA	Free
Protected Phases				8				2			6	
Permitted Phases						8			Free			Free
Actuated Green, G (s)				39.0		39.0		93.0	140.0		93.0	140.0
Effective Green, g (s)				39.0		39.0		93.0	140.0		93.0	140.0
Actuated g/C Ratio				0.28		0.28		0.66	1.00		0.66	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				947		995		3069	1348		3964	1270
v/s Ratio Prot				0.10				c0.72			0.72	
v/s Ratio Perm						c0.30			0.72			0.29
v/c Ratio				0.36		1.09		1.08	0.72		1.08	0.29
Uniform Delay, d1				40.5		50.5		23.5	0.0		23.5	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				0.2		57.7		43.3	3.4		41.3	0.6
Delay (s)				40.7		108.2		66.8	3.4		64.8	0.6
Level of Service				D		F		E	A		E	A
Approach Delay (s)		0.0			92.2			52.5			59.8	
Approach LOS		A			F			D			E	

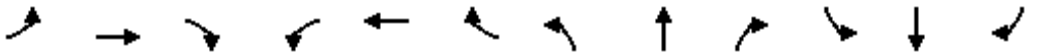
Intersection Summary			
HCM 2000 Control Delay	61.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	818	337	358	1144	538	432
Future Volume (vph)	818	337	358	1144	538	432
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3154	1411	1577	3154	3060	1411
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3154	1411	1577	3154	3060	1411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	818	337	358	1144	538	432
RTOR Reduction (vph)	0	178	0	0	0	326
Lane Group Flow (vph)	818	159	358	1144	538	106
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	19.0	19.0	16.8	39.8	15.5	15.5
Effective Green, g (s)	19.0	19.0	16.8	39.8	15.5	15.5
Actuated g/C Ratio	0.30	0.30	0.27	0.63	0.24	0.24
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	946	423	418	1983	749	345
v/s Ratio Prot	c0.26		c0.23	0.36	c0.18	
v/s Ratio Perm		0.11				0.07
v/c Ratio	0.86	0.38	0.86	0.58	0.72	0.31
Uniform Delay, d1	20.9	17.5	22.1	6.8	21.9	19.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.3	0.6	15.7	0.4	3.3	0.5
Delay (s)	29.2	18.0	37.8	7.3	25.2	20.0
Level of Service	C	B	D	A	C	C
Approach Delay (s)	26.0			14.5	22.9	
Approach LOS	C			B	C	

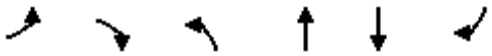
Intersection Summary			
HCM 2000 Control Delay	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	400	1	0	489	53	0	0	0	179	0	248
Future Volume (vph)	309	400	1	0	489	53	0	0	0	179	0	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95					0.95	0.95	1.00
Frt	1.00	1.00			0.99					1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (prot)	1736	3470			3420					1665	1665	1568
Flt Permitted	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (perm)	1736	3470			3420					1665	1665	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	309	400	1	0	489	53	0	0	0	179	0	248
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	0	0	0	211
Lane Group Flow (vph)	309	401	0	0	532	0	0	0	0	89	90	37
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA					Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Actuated Green, G (s)	15.3	33.5			14.2					9.1	9.1	9.1
Effective Green, g (s)	15.3	33.5			14.2					9.1	9.1	9.1
Actuated g/C Ratio	0.25	0.56			0.24					0.15	0.15	0.15
Clearance Time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)	441	1930			806					251	251	237
v/s Ratio Prot	c0.18	0.12			c0.16					0.05	c0.05	
v/s Ratio Perm												0.02
v/c Ratio	0.70	0.21			0.66					0.35	0.36	0.16
Uniform Delay, d1	20.4	6.7			20.8					22.9	22.9	22.2
Progression Factor	1.00	1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2	5.0	0.1			2.0					0.9	0.9	0.3
Delay (s)	25.3	6.7			22.9					23.8	23.8	22.5
Level of Service	C	A			C					C	C	C
Approach Delay (s)		14.8			22.9			0.0			23.1	
Approach LOS		B			C			A			C	

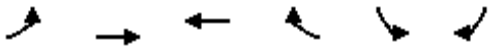
Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	361	47	22	1333	1729	487
Future Volume (vph)	361	47	22	1333	1729	487
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	3505	3389	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	3505	3389	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	361	47	22	1333	1729	487
RTOR Reduction (vph)	0	37	0	0	27	0
Lane Group Flow (vph)	361	10	22	1333	2189	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	18.0	18.0	1.5	62.3	56.8	
Effective Green, g (s)	18.0	18.0	1.5	62.3	56.8	
Actuated g/C Ratio	0.20	0.20	0.02	0.71	0.64	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	357	319	29	2472	2180	
v/s Ratio Prot	c0.21		0.01	c0.38	c0.65	
v/s Ratio Perm		0.01				
v/c Ratio	1.01	0.03	0.76	0.54	1.00	
Uniform Delay, d1	35.1	28.2	43.2	6.2	15.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	50.5	0.0	71.7	0.2	20.3	
Delay (s)	85.6	28.2	114.9	6.4	36.0	
Level of Service	F	C	F	A	D	
Approach Delay (s)	79.0			8.2	36.0	
Approach LOS	E			A	D	

Intersection Summary			
HCM 2000 Control Delay	30.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	88.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	1215	804	1686	1898	0
Future Volume (vph)	2	1215	804	1686	1898	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	
Frt	1.00	1.00	1.00	0.85	1.00	
Flt Protected	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (prot)	3400	3505	3505	1568	3400	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (perm)	3400	3505	3505	1568	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	1215	804	1686	1898	0
RTOR Reduction (vph)	0	0	0	72	0	0
Lane Group Flow (vph)	2	1215	804	1614	1898	0
Turn Type	Prot	NA	NA	custom	Prot	
Protected Phases	4	5	5	2	6	
Permitted Phases						
Actuated Green, G (s)	1.1	46.0	46.0	126.1	76.1	
Effective Green, g (s)	1.1	46.0	46.0	126.1	76.1	
Actuated g/C Ratio	0.01	0.34	0.34	0.93	0.56	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	27	1192	1192	1462	1913	
v/s Ratio Prot	c0.00	0.35	0.23	c1.03	0.56	
v/s Ratio Perm						
v/c Ratio	0.07	1.02	0.67	1.10	0.99	
Uniform Delay, d1	66.5	44.6	38.2	4.5	29.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	31.0	1.5	57.5	18.6	
Delay (s)	67.7	75.6	39.7	62.1	47.9	
Level of Service	E	E	D	E	D	
Approach Delay (s)		75.6	54.9		47.9	
Approach LOS		E	D		D	

Intersection Summary			
HCM 2000 Control Delay	57.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	135.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0
Turn Type			Prot		Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)						
Effective Green, g (s)						
Actuated g/C Ratio						
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)						
v/s Ratio Prot						
v/s Ratio Perm						
v/c Ratio						
Uniform Delay, d1						
Progression Factor						
Incremental Delay, d2						
Delay (s)						
Level of Service						
Approach Delay (s)	0.0			0.0	0.0	
Approach LOS	A			A	A	

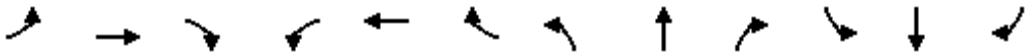
Intersection Summary			
HCM 2000 Control Delay	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.00		
Actuated Cycle Length (s)	24.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	0.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	2346	0	1217	0
Future Volume (vph)	0	0	2346	0	1217	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0	
Lane Util. Factor			0.95	0.95	0.97	
Frt			1.00	1.00	1.00	
Flt Protected			0.95	0.95	0.95	
Satd. Flow (prot)			1665	1665	3400	
Flt Permitted			0.95	0.95	0.95	
Satd. Flow (perm)			1665	1665	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	2346	0	1217	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	1173	1173	1217	0
Turn Type			Split	NA	Prot	
Protected Phases			4	4	2	
Permitted Phases						
Actuated Green, G (s)			93.0	93.0	49.0	
Effective Green, g (s)			93.0	93.0	49.0	
Actuated g/C Ratio			0.62	0.62	0.33	
Clearance Time (s)			4.0	4.0	4.0	
Vehicle Extension (s)			3.0	3.0	3.0	
Lane Grp Cap (vph)			1032	1032	1110	
v/s Ratio Prot			c0.70	0.70	c0.36	
v/s Ratio Perm						
v/c Ratio			1.14	1.14	1.10	
Uniform Delay, d1			28.5	28.5	50.5	
Progression Factor			1.00	1.00	1.00	
Incremental Delay, d2			73.6	73.6	57.3	
Delay (s)			102.1	102.1	107.8	
Level of Service			F	F	F	
Approach Delay (s)	0.0			102.1	107.8	
Approach LOS	A			F	F	

Intersection Summary			
HCM 2000 Control Delay	104.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	196.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	871	0	0	0	0	1217	1971	0	2346	0
Future Volume (vph)	0	0	871	0	0	0	0	1217	1971	0	2346	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0	4.0		4.0	
Lane Util. Factor		0.95	0.95					0.91	0.91		0.95	
Frt		0.85	0.85					0.93	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		1490	1490					3134	1427		3505	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		1490	1490					3134	1427		3505	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	871	0	0	0	0	1217	1971	0	2346	0
RTOR Reduction (vph)	0	38	0	0	0	0	0	105	311	0	0	0
Lane Group Flow (vph)	0	398	435	0	0	0	0	2078	694	0	2346	0
Turn Type		NA	Free					NA	Perm	Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			Free						2			
Actuated Green, G (s)		26.0	110.0					76.0	76.0		76.0	
Effective Green, g (s)		26.0	110.0					76.0	76.0		76.0	
Actuated g/C Ratio		0.24	1.00					0.69	0.69		0.69	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		352	1490					2165	985		2421	
v/s Ratio Prot		c0.27						0.66			c0.67	
v/s Ratio Perm			0.29						0.49			
v/c Ratio		1.13	0.29					0.96	0.70		0.97	
Uniform Delay, d1		42.0	0.0					15.6	10.2		15.9	
Progression Factor		1.00	1.00					1.00	1.00		1.00	
Incremental Delay, d2		88.1	0.5					11.2	2.3		11.8	
Delay (s)		130.1	0.5					26.8	12.6		27.7	
Level of Service		F	A					C	B		C	
Approach Delay (s)		65.4			0.0			22.3			27.7	
Approach LOS		E			A			C			C	

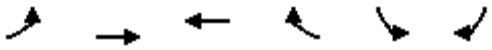
Intersection Summary			
HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	153.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	355	134	2874	223	105	3210
Future Volume (vph)	355	134	2874	223	105	3210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	5036	1568	3400	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	5036	1568	3400	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	355	134	2874	223	105	3210
RTOR Reduction (vph)	0	71	0	77	0	0
Lane Group Flow (vph)	355	63	2874	146	105	3210
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Actuated Green, G (s)	13.0	13.0	50.1	50.1	3.2	57.3
Effective Green, g (s)	13.0	13.0	50.1	50.1	3.2	57.3
Actuated g/C Ratio	0.17	0.17	0.64	0.64	0.04	0.73
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	564	260	3222	1003	138	3685
v/s Ratio Prot	c0.10		0.57		0.03	c0.64
v/s Ratio Perm		0.04		0.09		
v/c Ratio	0.63	0.24	0.89	0.15	0.76	0.87
Uniform Delay, d1	30.4	28.4	11.8	5.6	37.2	7.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.5	3.5	0.1	21.6	2.5
Delay (s)	32.6	28.9	15.4	5.7	58.7	10.3
Level of Service	C	C	B	A	E	B
Approach Delay (s)	31.6		14.7			11.8
Approach LOS	C		B			B

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	78.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	339	1713	1328	99	76	266
Future Volume (vph)	339	1713	1328	99	76	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	3505	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	339	1713	1328	99	76	266
RTOR Reduction (vph)	0	0	0	54	0	232
Lane Group Flow (vph)	339	1713	1328	45	76	34
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	15.6	49.3	29.7	29.7	8.5	8.5
Effective Green, g (s)	15.6	49.3	29.7	29.7	8.5	8.5
Actuated g/C Ratio	0.24	0.75	0.45	0.45	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	415	2626	1582	707	226	202
v/s Ratio Prot	c0.19	0.49	c0.38		c0.04	
v/s Ratio Perm				0.03		0.02
v/c Ratio	0.82	0.65	0.84	0.06	0.34	0.17
Uniform Delay, d1	23.7	4.0	15.9	10.2	26.1	25.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.8	0.6	4.1	0.0	0.9	0.4
Delay (s)	35.5	4.6	20.0	10.2	27.0	25.9
Level of Service	D	A	C	B	C	C
Approach Delay (s)		9.7	19.4		26.1	
Approach LOS		A	B		C	

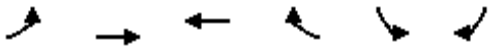
Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	65.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1140	111	72	702	86	139
Future Volume (vph)	1140	111	72	702	86	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1568	3400	3505	1752	1568
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1568	3400	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1140	111	72	702	86	139
RTOR Reduction (vph)	0	58	0	0	0	113
Lane Group Flow (vph)	1140	53	72	702	86	26
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	20.1	20.1	2.0	26.1	7.8	7.8
Effective Green, g (s)	20.1	20.1	2.0	26.1	7.8	7.8
Actuated g/C Ratio	0.48	0.48	0.05	0.62	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1681	752	162	2183	326	291
v/s Ratio Prot	c0.33		0.02	c0.20	c0.05	
v/s Ratio Perm		0.03				0.02
v/c Ratio	0.68	0.07	0.44	0.32	0.26	0.09
Uniform Delay, d1	8.4	5.9	19.4	3.7	14.6	14.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.0	1.9	0.1	0.4	0.1
Delay (s)	9.5	5.9	21.3	3.8	15.0	14.2
Level of Service	A	A	C	A	B	B
Approach Delay (s)	9.2			5.4	14.5	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	41.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		

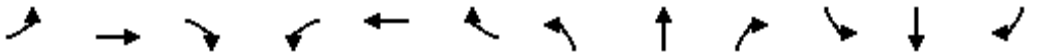
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	281	415	273	45	18	239
Future Volume (vph)	281	415	273	45	18	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00		1.00	
Frt		1.00	0.98		0.87	
Flt Protected		0.98	1.00		1.00	
Satd. Flow (prot)		1808	1809		1607	
Flt Permitted		0.73	1.00		1.00	
Satd. Flow (perm)		1354	1809		1607	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	281	415	273	45	18	239
RTOR Reduction (vph)	0	0	9	0	199	0
Lane Group Flow (vph)	0	696	309	0	58	0
Turn Type	Perm	NA	NA		Prot	
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)		29.3	29.3		7.5	
Effective Green, g (s)		29.3	29.3		7.5	
Actuated g/C Ratio		0.65	0.65		0.17	
Clearance Time (s)		4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		885	1183		269	
v/s Ratio Prot			0.17		c0.04	
v/s Ratio Perm		c0.51				
v/c Ratio		0.79	0.26		0.22	
Uniform Delay, d1		5.5	3.2		16.1	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		4.7	0.1		0.4	
Delay (s)		10.2	3.4		16.5	
Level of Service		B	A		B	
Approach Delay (s)		10.2	3.4		16.5	
Approach LOS		B	A		B	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	44.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

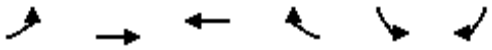
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	242	108	543	139	89	231	231	1656	80	96	1505	368
Future Volume (vph)	242	108	543	139	89	231	231	1656	80	96	1505	368
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	3400	3505	1568	3400	3505	1568	3400	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	3400	3505	1568	3400	3505	1568	3400	3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	242	108	543	139	89	231	231	1656	80	96	1505	368
RTOR Reduction (vph)	0	0	130	0	0	141	0	0	41	0	0	134
Lane Group Flow (vph)	242	108	413	139	89	90	231	1656	39	96	1505	234
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	17.4	28.1	28.1	7.8	18.5	18.5	11.8	54.0	54.0	4.0	46.2	46.2
Effective Green, g (s)	17.4	28.1	28.1	7.8	18.5	18.5	11.8	54.0	54.0	4.0	46.2	46.2
Actuated g/C Ratio	0.16	0.26	0.26	0.07	0.17	0.17	0.11	0.49	0.49	0.04	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	277	471	400	241	590	263	365	1722	770	123	1473	659
v/s Ratio Prot	c0.14	0.06		0.04	0.03		c0.07	c0.47		0.03	c0.43	
v/s Ratio Perm			c0.26			0.06			0.03			0.15
v/c Ratio	0.87	0.23	1.03	0.58	0.15	0.34	0.63	0.96	0.05	0.78	1.02	0.35
Uniform Delay, d1	45.2	32.3	40.9	49.5	39.0	40.3	47.0	27.0	14.6	52.5	31.9	21.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.8	0.2	54.0	3.3	0.1	0.8	3.6	13.7	0.0	26.7	29.1	0.3
Delay (s)	70.0	32.6	94.9	52.8	39.1	41.1	50.5	40.6	14.6	79.2	60.9	22.0
Level of Service	E	C	F	D	D	D	D	D	B	E	E	C
Approach Delay (s)		80.6			44.3			40.7			54.6	
Approach LOS		F			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	52.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	109.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	89.2%	ICU Level of Service	E
Analysis Period (min)	15		

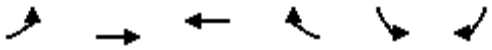
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	228	1222	811	119	255	364
Future Volume (vph)	228	1222	811	119	255	364
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3400	3505	3438		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3400	3505	3438		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	228	1222	811	119	255	364
RTOR Reduction (vph)	0	0	22	0	0	210
Lane Group Flow (vph)	228	1222	908	0	255	154
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	5.1	24.3	15.2		11.9	11.9
Effective Green, g (s)	5.1	24.3	15.2		11.9	11.9
Actuated g/C Ratio	0.12	0.55	0.34		0.27	0.27
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	392	1926	1182		471	422
v/s Ratio Prot	0.07	c0.35	c0.26		c0.15	
v/s Ratio Perm						0.10
v/c Ratio	0.58	0.63	0.77		0.54	0.37
Uniform Delay, d1	18.5	6.9	12.9		13.8	13.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	2.2	0.7	3.1		1.3	0.5
Delay (s)	20.7	7.6	16.0		15.1	13.6
Level of Service	C	A	B		B	B
Approach Delay (s)		9.6	16.0		14.2	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	44.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	158	1330	886	454	725	195
Future Volume (vph)	158	1330	886	454	725	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	3505	1568	1752	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	3505	3505	1568	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	158	1330	886	454	725	195
RTOR Reduction (vph)	0	0	0	332	0	111
Lane Group Flow (vph)	158	1330	886	122	725	84
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	6.0	26.0	16.0	16.0	25.7	25.7
Effective Green, g (s)	6.0	26.0	16.0	16.0	25.7	25.7
Actuated g/C Ratio	0.10	0.44	0.27	0.27	0.43	0.43
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	176	1526	939	420	754	675
v/s Ratio Prot	0.09	c0.38	0.25		c0.41	
v/s Ratio Perm				0.08		0.05
v/c Ratio	0.90	0.87	0.94	0.29	0.96	0.12
Uniform Delay, d1	26.5	15.3	21.4	17.3	16.5	10.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	39.7	5.8	17.3	0.4	23.6	0.1
Delay (s)	66.3	21.1	38.7	17.7	40.1	10.3
Level of Service	E	C	D	B	D	B
Approach Delay (s)		25.9	31.6		33.8	
Approach LOS		C	C		C	

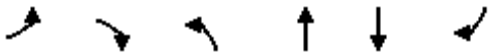
Intersection Summary			
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	59.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2381	67	45	2392	32	23
Future Volume (vph)	2381	67	45	2392	32	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3490		1752	3505	1752	1568
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3490		1752	3505	1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2381	67	45	2392	32	23
RTOR Reduction (vph)	1	0	0	0	0	22
Lane Group Flow (vph)	2447	0	45	2392	32	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Actuated Green, G (s)	104.0		4.4	112.4	8.1	8.1
Effective Green, g (s)	104.0		4.4	112.4	8.1	8.1
Actuated g/C Ratio	0.81		0.03	0.87	0.06	0.06
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2824		59	3065	110	98
v/s Ratio Prot	c0.70		0.03	c0.68	c0.02	
v/s Ratio Perm						0.00
v/c Ratio	0.87		0.76	0.78	0.29	0.01
Uniform Delay, d1	7.8		61.5	3.2	57.5	56.5
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1		43.5	1.3	1.5	0.1
Delay (s)	10.9		105.0	4.5	58.9	56.5
Level of Service	B		F	A	E	E
Approach Delay (s)	10.9			6.4	57.9	
Approach LOS	B			A	E	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	128.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	18	76	84	1566	1686	117
Future Volume (vph)	18	76	84	1566	1686	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	1845	3471	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	1845	3471	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	18	76	84	1566	1686	117
RTOR Reduction (vph)	0	72	0	0	3	0
Lane Group Flow (vph)	18	4	84	1566	1800	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	6.1	6.1	10.8	117.2	102.4	
Effective Green, g (s)	6.1	6.1	10.8	117.2	102.4	
Actuated g/C Ratio	0.05	0.05	0.08	0.89	0.78	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	81	72	144	1646	2707	
v/s Ratio Prot	c0.01		0.05	c0.85	0.52	
v/s Ratio Perm		0.00				
v/c Ratio	0.22	0.05	0.58	0.95	0.66	
Uniform Delay, d1	60.3	59.8	58.1	5.0	6.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.4	0.3	5.9	12.5	0.6	
Delay (s)	61.7	60.1	64.0	17.5	7.2	
Level of Service	E	E	E	B	A	
Approach Delay (s)	60.4			19.9	7.2	
Approach LOS	E			B	A	

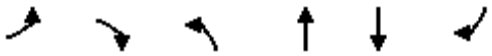
Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	131.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	182	216	2162	33	579	2011
Future Volume (vph)	182	216	2162	33	579	2011
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.91		0.97	0.91
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1568	5025		3400	5036
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1568	5025		3400	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	182	216	2162	33	579	2011
RTOR Reduction (vph)	0	181	2	0	0	0
Lane Group Flow (vph)	182	35	2193	0	579	2011
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	12.4	12.4	38.1		14.9	57.0
Effective Green, g (s)	12.4	12.4	38.1		14.9	57.0
Actuated g/C Ratio	0.16	0.16	0.49		0.19	0.74
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	280	251	2473		654	3708
v/s Ratio Prot	c0.10		c0.44		c0.17	0.40
v/s Ratio Perm		0.02				
v/c Ratio	0.65	0.14	0.89		0.89	0.54
Uniform Delay, d1	30.5	27.9	17.7		30.4	4.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.3	0.3	4.3		13.6	0.2
Delay (s)	35.8	28.2	22.0		44.0	4.6
Level of Service	D	C	C		D	A
Approach Delay (s)	31.6		22.0			13.4
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	77.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	628	30	124	983	1294	516
Future Volume (vph)	628	30	124	983	1294	516
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	3505	3355	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	3505	3355	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	628	30	124	983	1294	516
RTOR Reduction (vph)	0	6	0	0	36	0
Lane Group Flow (vph)	628	24	124	983	1775	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	40.0	40.0	8.0	72.0	60.0	
Effective Green, g (s)	40.0	40.0	8.0	72.0	60.0	
Actuated g/C Ratio	0.33	0.33	0.07	0.60	0.50	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	584	522	116	2103	1677	
v/s Ratio Prot	c0.36		c0.07	0.28	c0.53	
v/s Ratio Perm		0.02				
v/c Ratio	1.08	0.05	1.07	0.47	1.06	
Uniform Delay, d1	40.0	27.1	56.0	13.3	30.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	59.1	0.0	103.3	0.2	39.2	
Delay (s)	99.1	27.1	159.3	13.5	69.2	
Level of Service	F	C	F	B	E	
Approach Delay (s)	95.8			29.8	69.2	
Approach LOS	F			C	E	

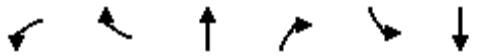
Intersection Summary			
HCM 2000 Control Delay	61.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	92	1695	50	160	2740
Future Volume (vph)	1	92	1695	50	160	2740
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1568	5014		1752	5036
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1568	5014		1752	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	92	1695	50	160	2740
RTOR Reduction (vph)	0	85	3	0	0	0
Lane Group Flow (vph)	1	7	1742	0	160	2740
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		6		5	2
Permitted Phases		8				
Actuated Green, G (s)	4.1	4.1	30.2		6.6	40.8
Effective Green, g (s)	4.1	4.1	30.2		6.6	40.8
Actuated g/C Ratio	0.08	0.08	0.57		0.12	0.77
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	135	121	2862		218	3884
v/s Ratio Prot	0.00		0.35		0.09	c0.54
v/s Ratio Perm		c0.00				
v/c Ratio	0.01	0.06	0.61		0.73	0.71
Uniform Delay, d1	22.5	22.6	7.5		22.3	3.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	0.2	0.4		12.0	0.6
Delay (s)	22.5	22.8	7.8		34.3	3.6
Level of Service	C	C	A		C	A
Approach Delay (s)	22.8		7.8			5.3
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	52.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	95	0	1659	52	42	2800
Future Volume (vph)	95	0	1659	52	42	2800
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00		0.91		1.00	0.91
Frt	1.00		1.00		1.00	1.00
Flt Protected	0.95		1.00		0.95	1.00
Satd. Flow (prot)	1752		5013		1752	5036
Flt Permitted	0.95		1.00		0.95	1.00
Satd. Flow (perm)	1752		5013		1752	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	95	0	1659	52	42	2800
RTOR Reduction (vph)	0	0	3	0	0	0
Lane Group Flow (vph)	95	0	1708	0	42	2800
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	8.7		66.6		3.0	73.6
Effective Green, g (s)	8.7		66.6		3.0	73.6
Actuated g/C Ratio	0.10		0.74		0.03	0.82
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	168		3697		58	4104
v/s Ratio Prot	c0.05		0.34		0.02	c0.56
v/s Ratio Perm						
v/c Ratio	0.57		0.46		0.72	0.68
Uniform Delay, d1	39.0		4.7		43.2	3.5
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	4.3		0.1		35.9	0.5
Delay (s)	43.3		4.8		79.1	4.0
Level of Service	D		A		E	A
Approach Delay (s)	43.3		4.8			5.1
Approach LOS	D		A			A

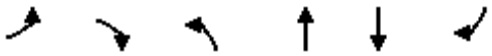
Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	390	690	1158	312	475	2678
Future Volume (vph)	390	690	1158	312	475	2678
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1568	4876		1752	5036
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	1568	4876		1752	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	690	1158	312	475	2678
RTOR Reduction (vph)	0	392	75	0	0	0
Lane Group Flow (vph)	390	298	1395	0	475	2678
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	3		2		1	6
Permitted Phases		3				
Actuated Green, G (s)	15.0	15.0	20.0		18.0	42.0
Effective Green, g (s)	15.0	15.0	20.0		18.0	42.0
Actuated g/C Ratio	0.23	0.23	0.31		0.28	0.65
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	404	361	1500		485	3254
v/s Ratio Prot	c0.22		c0.29		c0.27	0.53
v/s Ratio Perm		0.19				
v/c Ratio	0.97	0.82	0.93		0.98	0.82
Uniform Delay, d1	24.7	23.8	21.8		23.3	8.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	35.5	14.2	10.6		35.1	1.8
Delay (s)	60.2	37.9	32.4		58.4	10.5
Level of Service	E	D	C		E	B
Approach Delay (s)	46.0		32.4			17.7
Approach LOS	D		C			B

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		

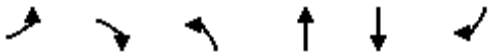
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	109	110	131	1180	2693	138
Future Volume (vph)	109	110	131	1180	2693	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	5036	4999	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	5036	4999	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	109	110	131	1180	2693	138
RTOR Reduction (vph)	0	96	0	0	6	0
Lane Group Flow (vph)	109	14	131	1180	2825	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	10.1	10.1	7.0	59.9	48.9	
Effective Green, g (s)	10.1	10.1	7.0	59.9	48.9	
Actuated g/C Ratio	0.13	0.13	0.09	0.77	0.63	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	226	203	157	3867	3133	
v/s Ratio Prot	c0.06		c0.07	0.23	c0.57	
v/s Ratio Perm		0.01				
v/c Ratio	0.48	0.07	0.83	0.31	0.90	
Uniform Delay, d1	31.5	29.8	34.9	2.7	12.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.6	0.1	30.0	0.0	4.1	
Delay (s)	33.1	30.0	64.9	2.8	16.5	
Level of Service	C	C	E	A	B	
Approach Delay (s)	31.6			9.0	16.5	
Approach LOS	C			A	B	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	78.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		

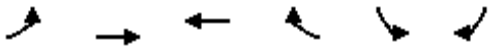
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	282	437	216	827	1228	155
Future Volume (vph)	282	437	216	827	1228	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	3505	3446	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	3505	3446	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	282	437	216	827	1228	155
RTOR Reduction (vph)	0	218	0	0	15	0
Lane Group Flow (vph)	282	219	216	827	1368	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	13.5	13.5	9.0	41.4	28.4	
Effective Green, g (s)	13.5	13.5	9.0	41.4	28.4	
Actuated g/C Ratio	0.21	0.21	0.14	0.66	0.45	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	376	336	250	2306	1555	
v/s Ratio Prot	c0.16		c0.12	0.24	c0.40	
v/s Ratio Perm		0.14				
v/c Ratio	0.75	0.65	0.86	0.36	0.88	
Uniform Delay, d1	23.1	22.5	26.4	4.8	15.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.2	4.5	25.2	0.1	6.0	
Delay (s)	31.3	27.0	51.5	4.9	21.7	
Level of Service	C	C	D	A	C	
Approach Delay (s)	28.7			14.6	21.7	
Approach LOS	C			B	C	

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	62.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

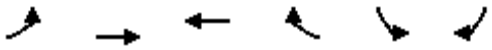
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	818	2167	1641	62	134	761
Future Volume (vph)	818	2167	1641	62	134	761
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.95	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3400	3505	5008		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3400	3505	5008		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	818	2167	1641	62	134	761
RTOR Reduction (vph)	0	0	5	0	0	335
Lane Group Flow (vph)	818	2167	1698	0	134	426
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	18.0	47.0	25.0		20.0	20.0
Effective Green, g (s)	18.0	47.0	25.0		20.0	20.0
Actuated g/C Ratio	0.24	0.63	0.33		0.27	0.27
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	816	2196	1669		467	418
v/s Ratio Prot	0.24	c0.62	0.34		0.08	
v/s Ratio Perm						c0.27
v/c Ratio	1.00	0.99	1.02		0.29	1.02
Uniform Delay, d1	28.5	13.7	25.0		21.8	27.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	32.1	16.0	26.4		0.3	48.9
Delay (s)	60.6	29.7	51.4		22.2	76.4
Level of Service	E	C	D		C	E
Approach Delay (s)		38.2	51.4		68.3	
Approach LOS		D	D		E	

Intersection Summary			
HCM 2000 Control Delay	47.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

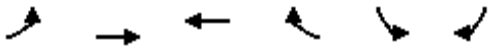
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	248	2054	1269	64	237	184
Future Volume (vph)	248	2054	1269	64	237	184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	3505	3505	1568	3400	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	3505	3505	1568	3400	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	248	2054	1269	64	237	184
RTOR Reduction (vph)	0	0	0	32	0	153
Lane Group Flow (vph)	248	2054	1269	32	237	31
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	6.0	37.0	27.0	27.0	9.0	9.0
Effective Green, g (s)	6.0	37.0	27.0	27.0	9.0	9.0
Actuated g/C Ratio	0.11	0.69	0.50	0.50	0.17	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	377	2401	1752	784	566	261
v/s Ratio Prot	0.07	c0.59	0.36		c0.07	
v/s Ratio Perm				0.02		0.02
v/c Ratio	0.66	0.86	0.72	0.04	0.42	0.12
Uniform Delay, d1	23.0	6.5	10.6	6.9	20.2	19.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.1	3.2	1.5	0.0	0.5	0.2
Delay (s)	27.1	9.7	12.1	6.9	20.7	19.3
Level of Service	C	A	B	A	C	B
Approach Delay (s)		11.6	11.8		20.1	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	54.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	173	2121	1189	25	20	154
Future Volume (vph)	173	2121	1189	25	20	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	3505	3494		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	3505	3494		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	173	2121	1189	25	20	154
RTOR Reduction (vph)	0	0	2	0	0	135
Lane Group Flow (vph)	173	2121	1212	0	20	19
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	8.7	41.7	29.0		6.9	6.9
Effective Green, g (s)	8.7	41.7	29.0		6.9	6.9
Actuated g/C Ratio	0.15	0.74	0.51		0.12	0.12
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	269	2582	1790		213	191
v/s Ratio Prot	0.10	c0.61	0.35		0.01	
v/s Ratio Perm						c0.01
v/c Ratio	0.64	0.82	0.68		0.09	0.10
Uniform Delay, d1	22.5	5.0	10.3		22.1	22.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.2	2.2	1.0		0.2	0.2
Delay (s)	27.7	7.2	11.3		22.3	22.3
Level of Service	C	A	B		C	C
Approach Delay (s)		8.7	11.3		22.3	
Approach LOS		A	B		C	

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	56.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1307	168	370	923	163	252
Future Volume (vph)	1307	168	370	923	163	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1568	3400	3505	3400	1568
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1568	3400	3505	3400	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1307	168	370	923	163	252
RTOR Reduction (vph)	0	90	0	0	0	213
Lane Group Flow (vph)	1307	78	370	923	163	39
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	24.4	24.4	8.0	36.4	8.2	8.2
Effective Green, g (s)	24.4	24.4	8.0	36.4	8.2	8.2
Actuated g/C Ratio	0.46	0.46	0.15	0.69	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1625	727	517	2425	530	244
v/s Ratio Prot	c0.37		c0.11	0.26	c0.05	
v/s Ratio Perm		0.05				0.03
v/c Ratio	0.80	0.11	0.72	0.38	0.31	0.16
Uniform Delay, d1	12.1	8.0	21.2	3.4	19.7	19.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	0.1	4.7	0.1	0.3	0.3
Delay (s)	15.1	8.0	25.9	3.5	20.0	19.5
Level of Service	B	A	C	A	C	B
Approach Delay (s)	14.3			9.9	19.7	
Approach LOS	B			A	B	

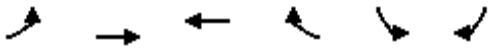
Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	52.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1560	0	127	1293	0	208
Future Volume (vph)	1560	0	127	1293	0	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	0.95		1.00	0.95		1.00
Frt	1.00		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	3505		1752	3505		1568
Flt Permitted	1.00		0.12	1.00		1.00
Satd. Flow (perm)	3505		225	3505		1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1560	0	127	1293	0	208
RTOR Reduction (vph)	0	0	0	0	0	59
Lane Group Flow (vph)	1560	0	127	1293	0	149
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases			8			2
Actuated Green, G (s)	50.6		50.6	50.6		11.9
Effective Green, g (s)	50.6		50.6	50.6		11.9
Actuated g/C Ratio	0.72		0.72	0.72		0.17
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	2515		161	2515		264
v/s Ratio Prot	0.45			0.37		
v/s Ratio Perm			c0.56			c0.10
v/c Ratio	0.62		0.79	0.51		0.56
Uniform Delay, d1	5.1		6.5	4.5		26.9
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.5		22.1	0.2		2.8
Delay (s)	5.5		28.6	4.6		29.7
Level of Service	A		C	A		C
Approach Delay (s)	5.5			6.8	29.7	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	70.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	221	1867	1089	85	271	173
Future Volume (vph)	221	1867	1089	85	271	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	3505	3467		1752	1568
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	3505	3467		1752	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	221	1867	1089	85	271	173
RTOR Reduction (vph)	0	0	7	0	0	137
Lane Group Flow (vph)	221	1867	1167	0	271	36
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	10.4	59.2	44.8		16.6	16.6
Effective Green, g (s)	10.4	59.2	44.8		16.6	16.6
Actuated g/C Ratio	0.12	0.71	0.53		0.20	0.20
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	217	2476	1853		347	310
v/s Ratio Prot	c0.13	c0.53	0.34		c0.15	
v/s Ratio Perm						0.02
v/c Ratio	1.02	0.75	0.63		0.78	0.12
Uniform Delay, d1	36.7	7.7	13.7		31.9	27.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	65.9	1.3	0.7		10.9	0.2
Delay (s)	102.6	9.1	14.4		42.7	27.7
Level of Service	F	A	B		D	C
Approach Delay (s)		19.0	14.4		36.9	
Approach LOS		B	B		D	

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	83.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	656	259	244	735	531	241	904	190	786	1656	91
Future Volume (veh/h)	74	656	259	244	735	531	241	904	190	786	1656	91
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	74	656	259	244	735	531	241	904	190	786	1656	91
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	97	639	252	255	642	546	232	744	156	534	1762	549
Arrive On Green	0.06	0.26	0.26	0.15	0.35	0.35	0.13	0.18	0.18	0.31	0.35	0.35
Sat Flow, veh/h	1757	2456	970	1740	1827	1553	1740	4134	865	1740	4988	1553
Grp Volume(v), veh/h	74	468	447	244	735	531	241	726	368	786	1656	91
Grp Sat Flow(s),veh/h/ln	1757	1752	1674	1740	1827	1553	1740	1663	1674	1740	1663	1553
Q Serve(g_s), s	6.2	39.0	39.0	20.9	52.7	22.5	20.0	27.0	27.0	46.0	48.2	6.0
Cycle Q Clear(g_c), s	6.2	39.0	39.0	20.9	52.7	22.5	20.0	27.0	27.0	46.0	48.2	6.0
Prop In Lane	1.00		0.58	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	97	456	435	255	642	546	232	599	301	534	1762	549
V/C Ratio(X)	0.76	1.03	1.03	0.96	1.15	0.97	1.04	1.21	1.22	1.47	0.94	0.17
Avail Cap(c_a), veh/h	187	456	435	255	642	546	232	599	301	534	1762	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.9	55.5	55.5	63.5	48.7	9.5	65.0	61.5	61.5	52.0	47.0	33.3
Incr Delay (d2), s/veh	11.5	49.2	50.3	44.2	82.8	31.7	69.6	110.9	125.2	222.9	10.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	25.1	24.1	13.2	41.3	14.3	14.1	21.6	23.0	55.1	23.8	2.6
LnGrp Delay(d),s/veh	81.3	104.7	105.8	107.7	131.5	41.2	134.6	172.4	186.7	274.9	57.4	33.5
LnGrp LOS	F	F	F	F	F	D	F	F	F	F	E	C
Approach Vol, veh/h		989			1510			1335			2533	
Approach Delay, s/veh		103.5			95.9			169.5			124.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	50.0	31.0	26.0	43.0	24.0	57.0	12.3	56.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	46.0	27.0	22.0	39.0	20.0	53.0	16.0	45.0
Max Q Clear Time (g_c+I1), s	48.0	29.0	22.9	41.0	22.0	50.2	8.2	54.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.6	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	123.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	644	101	184	868	221	108	827	22	508	1217	469
Future Volume (veh/h)	251	644	101	184	868	221	108	827	22	508	1217	469
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	251	644	101	184	868	221	108	827	22	508	1217	469
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	254	838	131	219	896	401	150	919	24	525	1310	586
Arrive On Green	0.14	0.28	0.28	0.12	0.26	0.26	0.04	0.27	0.27	0.16	0.38	0.38
Sat Flow, veh/h	1757	3037	476	1757	3505	1568	3375	3454	92	3375	3471	1553
Grp Volume(v), veh/h	251	371	374	184	868	221	108	415	434	508	1217	469
Grp Sat Flow(s),veh/h/ln	1757	1752	1761	1757	1752	1568	1688	1736	1811	1688	1736	1553
Q Serve(g_s), s	12.8	17.5	17.6	9.2	22.0	11.0	2.8	20.8	20.8	13.5	30.2	24.2
Cycle Q Clear(g_c), s	12.8	17.5	17.6	9.2	22.0	11.0	2.8	20.8	20.8	13.5	30.2	24.2
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	254	484	486	219	896	401	150	462	482	525	1310	586
V/C Ratio(X)	0.99	0.77	0.77	0.84	0.97	0.55	0.72	0.90	0.90	0.97	0.93	0.80
Avail Cap(c_a), veh/h	254	484	486	254	896	401	150	463	483	525	1312	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	29.9	29.9	38.5	33.1	29.0	42.4	31.8	31.8	37.7	26.8	25.0
Incr Delay (d2), s/veh	53.1	7.3	7.4	19.6	22.6	1.6	15.3	20.2	19.6	30.8	11.7	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	9.4	9.5	5.6	13.4	4.9	1.6	12.5	13.0	8.5	16.5	11.6
LnGrp Delay(d),s/veh	91.5	37.2	37.3	58.1	55.7	30.6	57.8	52.1	51.4	68.6	38.5	32.7
LnGrp LOS	F	D	D	E	E	C	E	D	D	E	D	C
Approach Vol, veh/h		996			1273			957			2194	
Approach Delay, s/veh		50.9			51.7			52.4			44.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	27.9	15.2	28.8	8.0	37.9	17.0	27.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	24.0	13.0	23.0	4.0	34.0	13.0	23.0
Max Q Clear Time (g_c+I1), s	15.5	22.8	11.2	19.6	4.8	32.2	14.8	24.0
Green Ext Time (p_c), s	0.0	1.2	0.1	2.8	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	48.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1593	122	228	1309	130	57	761	252	57	312	1
Future Volume (veh/h)	19	1593	122	228	1309	130	57	761	252	57	312	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	19	1593	122	228	1309	130	57	761	252	57	312	1
Adj No. of Lanes	1	2	2	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	28	1533	1207	222	1765	175	73	771	345	70	783	3
Arrive On Green	0.02	0.45	0.45	0.13	0.56	0.56	0.04	0.22	0.22	0.04	0.22	0.22
Sat Flow, veh/h	1707	3406	2682	1707	3131	310	1757	3505	1568	1757	3584	11
Grp Volume(v), veh/h	19	1593	122	228	710	729	57	761	252	57	153	160
Grp Sat Flow(s),veh/h/ln	1707	1703	1341	1707	1703	1738	1757	1752	1568	1757	1752	1843
Q Serve(g_s), s	1.1	45.0	2.6	13.0	31.2	31.6	3.2	21.6	14.9	3.2	7.5	7.5
Cycle Q Clear(g_c), s	1.1	45.0	2.6	13.0	31.2	31.6	3.2	21.6	14.9	3.2	7.5	7.5
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	28	1533	1207	222	960	979	73	771	345	70	383	402
V/C Ratio(X)	0.68	1.04	0.10	1.03	0.74	0.74	0.78	0.99	0.73	0.81	0.40	0.40
Avail Cap(c_a), veh/h	85	1533	1207	222	960	979	141	771	345	70	383	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	27.5	15.8	43.5	16.3	16.4	47.5	38.9	36.2	47.6	33.5	33.5
Incr Delay (d2), s/veh	25.0	33.9	0.0	67.7	3.1	3.1	16.2	29.1	7.7	49.1	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	28.3	1.0	10.3	15.4	15.8	1.9	13.6	7.2	2.5	3.7	3.9
LnGrp Delay(d),s/veh	73.9	61.4	15.9	111.3	19.4	19.5	63.7	67.9	43.9	96.7	34.1	34.1
LnGrp LOS	E	F	B	F	B	B	E	E	D	F	C	C
Approach Vol, veh/h		1734			1667			1070			370	
Approach Delay, s/veh		58.4			32.0			62.0			43.8	
Approach LOS		E			C			E			D	

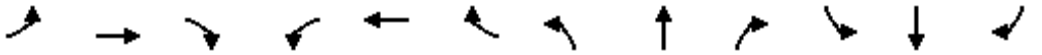
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	26.0	17.0	49.0	8.2	25.8	5.6	60.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	22.0	13.0	45.0	8.0	18.0	5.0	53.0
Max Q Clear Time (g_c+I1), s	5.2	23.6	15.0	47.0	5.2	9.5	3.1	33.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.9	0.0	17.9

Intersection Summary	
HCM 2010 Ctrl Delay	49.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	771	550	142	765	118	152	741	266	65	502	84
Future Volume (veh/h)	16	771	550	142	765	118	152	741	266	65	502	84
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	16	771	550	142	765	118	152	741	266	65	502	84
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	28	976	437	153	1065	164	183	1087	486	81	882	395
Arrive On Green	0.02	0.28	0.28	0.09	0.35	0.35	0.10	0.31	0.31	0.05	0.25	0.25
Sat Flow, veh/h	1757	3505	1568	1757	3045	470	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	16	771	550	142	440	443	152	741	266	65	502	84
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1762	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	0.5	11.7	16.0	4.6	12.5	12.5	4.9	10.6	8.1	2.1	7.2	2.4
Cycle Q Clear(g_c), s	0.5	11.7	16.0	4.6	12.5	12.5	4.9	10.6	8.1	2.1	7.2	2.4
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	28	976	437	153	613	616	183	1087	486	81	882	395
V/C Ratio(X)	0.58	0.79	1.26	0.93	0.72	0.72	0.83	0.68	0.55	0.80	0.57	0.21
Avail Cap(c_a), veh/h	122	976	437	153	613	616	183	1159	518	122	1037	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	19.2	20.7	26.1	16.2	16.2	25.2	17.3	16.5	27.1	18.8	17.0
Incr Delay (d2), s/veh	17.8	4.5	134.4	52.1	4.1	4.0	26.0	1.5	1.1	19.6	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	6.2	23.1	4.4	6.7	6.7	3.7	5.4	3.6	1.5	3.6	1.1
LnGrp Delay(d),s/veh	45.9	23.6	155.1	78.1	20.3	20.3	51.2	18.9	17.5	46.7	19.4	17.3
LnGrp LOS	D	C	F	E	C	C	D	B	B	D	B	B
Approach Vol, veh/h		1337			1025			1159			651	
Approach Delay, s/veh		78.0			28.3			22.8			21.8	
Approach LOS		E			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	21.8	9.0	20.0	10.0	18.5	4.9	24.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	5.0	16.0	6.0	17.0	4.0	17.0
Max Q Clear Time (g_c+I1), s	4.1	12.6	6.6	18.0	6.9	9.2	2.5	14.5
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.0	5.3	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	41.7
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	758	68	193	828	239	86	315	125	282	958	104
Future Volume (veh/h)	135	758	68	193	828	239	86	315	125	282	958	104
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	135	758	68	193	828	239	86	315	125	282	958	104
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	169	837	375	223	945	423	110	784	351	324	1213	542
Arrive On Green	0.10	0.24	0.24	0.13	0.27	0.27	0.06	0.22	0.22	0.18	0.35	0.35
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	135	758	68	193	828	239	86	315	125	282	958	104
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	5.3	14.9	2.4	7.6	16.0	9.3	3.4	5.4	4.8	11.1	17.4	3.3
Cycle Q Clear(g_c), s	5.3	14.9	2.4	7.6	16.0	9.3	3.4	5.4	4.8	11.1	17.4	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	837	375	223	945	423	110	784	351	324	1213	542
V/C Ratio(X)	0.80	0.91	0.18	0.87	0.88	0.57	0.78	0.40	0.36	0.87	0.79	0.19
Avail Cap(c_a), veh/h	173	840	376	223	945	423	149	939	420	347	1335	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	26.2	21.5	30.4	24.8	22.3	32.8	23.5	23.2	28.1	20.9	16.2
Incr Delay (d2), s/veh	22.2	13.3	0.2	28.0	9.3	1.7	17.1	0.3	0.6	19.6	3.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	8.7	1.1	5.4	8.9	4.2	2.2	2.7	2.1	7.1	8.9	1.5
LnGrp Delay(d),s/veh	53.5	39.5	21.7	58.3	34.1	24.1	49.8	23.8	23.8	47.6	23.9	16.4
LnGrp LOS	D	D	C	E	C	C	D	C	C	D	C	B
Approach Vol, veh/h		961			1260			526			1344	
Approach Delay, s/veh		40.2			35.9			28.1			28.3	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	19.9	13.0	20.9	8.4	28.5	10.8	23.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	19.0	9.0	17.0	6.0	27.0	7.0	19.0
Max Q Clear Time (g_c+I1), s	13.1	7.4	9.6	16.9	5.4	19.4	7.3	18.0
Green Ext Time (p_c), s	0.1	7.0	0.0	0.0	0.0	5.1	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	33.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	500	145	479	516	787	128	3116	288	670	3104	403
Future Volume (veh/h)	265	500	145	479	516	787	128	3116	288	670	3104	403
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	265	500	145	479	516	787	128	3116	288	670	3104	403
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	170	869	389	260	962	602	101	2147	669	370	2545	792
Arrive On Green	0.05	0.25	0.25	0.08	0.27	0.27	0.03	0.43	0.43	0.11	0.51	0.51
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	265	500	145	479	516	787	128	3116	288	670	3104	403
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	7.5	18.8	11.5	11.5	18.9	41.3	4.5	64.8	19.5	16.5	76.8	25.8
Cycle Q Clear(g_c), s	7.5	18.8	11.5	11.5	18.9	41.3	4.5	64.8	19.5	16.5	76.8	25.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	869	389	260	962	602	101	2147	669	370	2545	792
V/C Ratio(X)	1.56	0.58	0.37	1.84	0.54	1.31	1.27	1.45	0.43	1.81	1.22	0.51
Avail Cap(c_a), veh/h	170	869	389	260	962	602	101	2147	669	370	2545	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.5	49.7	46.9	69.5	46.5	46.4	73.0	42.8	30.0	67.0	36.8	24.4
Incr Delay (d2), s/veh	278.8	0.6	0.2	392.3	0.3	149.8	177.9	205.6	0.2	375.3	102.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	9.2	5.0	19.6	9.1	50.1	4.6	70.5	8.4	26.9	59.3	11.1
LnGrp Delay(d),s/veh	350.3	50.3	47.1	461.8	46.8	196.2	250.9	248.5	30.1	442.3	139.4	24.6
LnGrp LOS	F	D	D	F	D	F	F	F	C	F	F	C
Approach Vol, veh/h		910			1782			3532			4177	
Approach Delay, s/veh		137.1			224.3			230.8			176.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	81.6	13.0	45.9	22.0	69.6	17.0	41.9
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	4.5	76.6	7.5	* 41	16.5	* 65	11.5	37.0
Max Q Clear Time (g_c+I1), s	6.5	78.8	9.5	43.3	18.5	66.8	13.5	20.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	199.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	1	75	0	70	0	2753	28	25	3161	4
Future Volume (veh/h)	1	0	1	75	0	70	0	2753	28	25	3161	4
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	1	0	1	75	0	70	0	2753	28	25	3161	4
Adj No. of Lanes	0	1	0	1	0	2	1	3	1	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	1	0	1	106	0	189	2	3609	1124	30	4057	5
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.06	0.00	0.72	0.72	0.02	0.79	0.79
Sat Flow, veh/h	828	0	828	1757	0	3136	1740	4988	1553	1740	5144	7
Grp Volume(v), veh/h	2	0	0	75	0	70	0	2753	28	25	2043	1122
Grp Sat Flow(s),veh/h/ln	1657	0	0	1757	0	1568	1740	1663	1553	1740	1663	1826
Q Serve(g_s), s	0.1	0.0	0.0	4.5	0.0	2.3	0.0	36.4	0.5	1.5	36.0	36.1
Cycle Q Clear(g_c), s	0.1	0.0	0.0	4.5	0.0	2.3	0.0	36.4	0.5	1.5	36.0	36.1
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	3	0	0	106	0	189	2	3609	1124	30	2622	1440
V/C Ratio(X)	0.75	0.00	0.00	0.71	0.00	0.37	0.00	0.76	0.02	0.83	0.78	0.78
Avail Cap(c_a), veh/h	46	0	0	197	0	352	49	3783	1178	49	2622	1440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.4	0.0	0.0	49.3	0.0	48.3	0.0	9.1	4.2	52.4	6.2	6.2
Incr Delay (d2), s/veh	88.8	0.0	0.0	3.2	0.0	0.4	0.0	1.3	0.0	23.0	2.1	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	2.3	0.0	1.0	0.0	16.8	0.2	0.9	16.9	19.3
LnGrp Delay(d),s/veh	142.1	0.0	0.0	52.6	0.0	48.7	0.0	10.4	4.2	75.3	8.3	9.9
LnGrp LOS	F			D		D		B	A	E	A	A
Approach Vol, veh/h		2			145			2781			3190	
Approach Delay, s/veh		142.1			50.7			10.4			9.4	
Approach LOS		F			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	89.3		5.7	7.0	82.4		11.9
Change Period (Y+Rc), s	* 4.6	5.0		5.5	* 5.1	* 5		5.5
Max Green Setting (Gmax), s	* 3	81.4		3.0	* 3	* 81		12.0
Max Q Clear Time (g_c+I1), s	0.0	38.1		2.1	3.5	38.4		6.5
Green Ext Time (p_c), s	0.0	43.2		0.0	0.0	38.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	580	23	194	198	704	9	2256	129	749	2558	1
Future Volume (veh/h)	0	580	23	194	198	704	9	2256	129	749	2558	1
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	0	580	23	194	198	704	9	2256	129	749	2558	1
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	2	627	280	173	941	712	21	2096	119	628	3160	1
Arrive On Green	0.00	0.18	0.18	0.05	0.27	0.27	0.01	0.43	0.43	0.19	0.61	0.61
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4829	274	3375	5150	2
Grp Volume(v), veh/h	0	580	23	194	198	704	9	1548	837	749	1652	907
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1779	1688	1663	1827
Q Serve(g_s), s	0.0	24.3	1.8	7.5	6.5	39.7	0.4	64.2	64.2	27.5	56.4	56.4
Cycle Q Clear(g_c), s	0.0	24.3	1.8	7.5	6.5	39.7	0.4	64.2	64.2	27.5	56.4	56.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.00
Lane Grp Cap(c), veh/h	2	627	280	173	941	712	21	1443	772	628	2041	1121
V/C Ratio(X)	0.00	0.93	0.08	1.12	0.21	0.99	0.43	1.07	1.08	1.19	0.81	0.81
Avail Cap(c_a), veh/h	68	681	304	173	941	712	68	1443	772	628	2041	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	59.6	50.4	70.2	41.9	40.0	73.2	41.9	41.9	60.2	21.9	21.9
Incr Delay (d2), s/veh	0.0	17.2	0.0	105.2	0.0	30.6	4.9	45.8	57.6	102.1	2.4	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.2	0.8	6.0	3.1	34.4	0.2	38.4	43.7	21.6	26.4	29.5
LnGrp Delay(d),s/veh	0.0	76.8	50.5	175.4	42.0	70.6	78.2	87.7	99.5	162.3	24.3	26.1
LnGrp LOS		E	D	F	D	E	E	F	F	F	C	C
Approach Vol, veh/h		603			1096			2394			3308	
Approach Delay, s/veh		75.8			83.9			91.7			56.1	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	96.1	0.0	45.4	33.0	69.5	13.0	32.4
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	3.0	88.6	3.0	* 33	27.5	* 64	7.5	* 29
Max Q Clear Time (g_c+I1), s	2.4	58.4	0.0	41.7	29.5	66.2	9.5	26.3
Green Ext Time (p_c), s	0.0	24.1	0.0	0.0	0.0	0.0	0.0	0.4

Intersection Summary		
HCM 2010 Ctrl Delay		73.3
HCM 2010 LOS		E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	34	2343	23	79	2694
Future Volume (veh/h)	13	34	2343	23	79	2694
Number	3	18	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1827	1900	1827	1827
Adj Flow Rate, veh/h	13	34	2343	23	79	2694
Adj No. of Lanes	1	1	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	4	4
Cap, veh/h	53	47	3640	36	101	2896
Arrive On Green	0.03	0.03	0.71	0.71	0.06	0.83
Sat Flow, veh/h	1757	1568	5258	50	1740	3563
Grp Volume(v), veh/h	13	34	1529	837	79	2694
Grp Sat Flow(s),veh/h/ln	1757	1568	1663	1818	1740	1736
Q Serve(g_s), s	0.5	1.6	18.4	18.5	3.4	43.6
Cycle Q Clear(g_c), s	0.5	1.6	18.4	18.5	3.4	43.6
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	53	47	2376	1299	101	2896
V/C Ratio(X)	0.25	0.72	0.64	0.64	0.79	0.93
Avail Cap(c_a), veh/h	69	62	2376	1299	213	3047
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	36.5	5.7	5.7	35.3	4.7
Incr Delay (d2), s/veh	0.9	15.0	0.5	0.9	5.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.9	8.4	9.4	1.8	21.7
LnGrp Delay(d),s/veh	36.9	51.6	6.2	6.6	40.3	10.2
LnGrp LOS	D	D	A	A	D	B
Approach Vol, veh/h	47		2366			2773
Approach Delay, s/veh	47.5		6.3			11.1
Approach LOS	D		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		68.2			9.1	59.1		7.8
Change Period (Y+Rc), s		4.8			* 4.7	4.8		5.5
Max Green Setting (Gmax), s		66.7			* 9.3	52.7		3.0
Max Q Clear Time (g_c+I1), s		45.6			5.4	20.5		3.6
Green Ext Time (p_c), s		17.8			0.0	27.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	1828	773	61	1518	875	613	1675	106	935	1669	126
Future Volume (veh/h)	153	1828	773	61	1518	875	613	1675	106	935	1669	126
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	153	1828	773	61	1518	875	613	1675	106	935	1669	126
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	114	1392	623	68	1357	607	402	1311	408	569	1552	483
Arrive On Green	0.03	0.41	0.41	0.02	0.40	0.40	0.12	0.26	0.26	0.17	0.31	0.31
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	153	1828	773	61	1518	875	613	1675	106	935	1669	126
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	5.0	59.4	59.4	2.7	57.9	57.9	17.3	38.2	7.8	24.5	45.2	8.8
Cycle Q Clear(g_c), s	5.0	59.4	59.4	2.7	57.9	57.9	17.3	38.2	7.8	24.5	45.2	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	114	1392	623	68	1357	607	402	1311	408	569	1552	483
V/C Ratio(X)	1.34	1.31	1.24	0.89	1.12	1.44	1.53	1.28	0.26	1.64	1.08	0.26
Avail Cap(c_a), veh/h	114	1392	623	68	1357	607	402	1311	408	569	1552	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.1	43.0	43.0	71.0	43.7	43.7	64.0	53.6	42.4	60.4	50.0	37.5
Incr Delay (d2), s/veh	201.5	146.1	121.7	70.9	63.8	207.8	248.7	130.9	0.1	297.1	46.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	56.1	46.0	1.9	39.2	59.4	21.9	33.4	3.4	34.9	27.3	3.8
LnGrp Delay(d),s/veh	271.6	189.0	164.7	141.9	107.5	251.5	312.7	184.4	42.5	357.5	96.3	37.6
LnGrp LOS	F	F	F	F	F	F	F	F	D	F	F	D
Approach Vol, veh/h		2754			2454			2394			2730	
Approach Delay, s/veh		186.8			159.7			211.0			183.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	63.3	22.0	50.0	8.5	64.8	29.0	43.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.5	4.8
Max Green Setting (Gmax), s	5.0	* 58	* 17	45.2	3.0	* 59	24.5	38.2
Max Q Clear Time (g_c+I1), s	7.0	59.9	19.3	47.2	4.7	61.4	26.5	40.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		185.0
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	444	839	252	373	704	219	108	1704	446	182	2034	203
Future Volume (veh/h)	444	839	252	373	704	219	108	1704	446	182	2034	203
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	444	839	252	373	704	219	108	1704	446	182	2034	203
Adj No. of Lanes	1	1	1	2	2	1	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	433	674	573	310	727	325	92	1567	493	146	1744	543
Arrive On Green	0.25	0.37	0.37	0.09	0.21	0.21	0.05	0.31	0.31	0.08	0.35	0.35
Sat Flow, veh/h	1757	1845	1568	3408	3505	1568	1740	4988	1568	1757	4988	1553
Grp Volume(v), veh/h	444	839	252	373	704	219	108	1704	446	182	2034	203
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1704	1752	1568	1740	1663	1568	1757	1663	1553
Q Serve(g_s), s	34.7	51.4	17.1	12.8	28.0	18.1	7.4	44.2	38.4	11.7	49.2	13.8
Cycle Q Clear(g_c), s	34.7	51.4	17.1	12.8	28.0	18.1	7.4	44.2	38.4	11.7	49.2	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	433	674	573	310	727	325	92	1567	493	146	1744	543
V/C Ratio(X)	1.02	1.25	0.44	1.20	0.97	0.67	1.18	1.09	0.91	1.25	1.17	0.37
Avail Cap(c_a), veh/h	433	674	573	310	727	325	92	1567	493	146	1744	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	44.7	33.8	63.9	55.3	51.4	66.7	48.3	46.2	64.5	45.8	34.2
Incr Delay (d2), s/veh	49.7	122.5	0.2	118.0	25.4	4.4	150.5	50.5	19.7	155.1	81.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.7	48.9	7.4	11.1	16.2	8.2	7.4	27.5	19.2	11.9	35.6	5.9
LnGrp Delay(d),s/veh	102.7	167.1	34.0	181.9	80.7	55.8	217.2	98.8	66.0	219.6	127.2	34.4
LnGrp LOS	F	F	C	F	F	E	F	F	E	F	F	C
Approach Vol, veh/h		1535			1296			2258			2419	
Approach Delay, s/veh		126.6			105.6			98.0			126.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	54.0	40.2	34.5	17.0	49.0	18.0	56.7
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 7.4	49.2	34.7	* 29	* 12	44.2	* 13	* 51
Max Q Clear Time (g_c+I1), s	9.4	51.2	36.7	30.0	13.7	46.2	14.8	53.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	114.3
HCM 2010 LOS	F

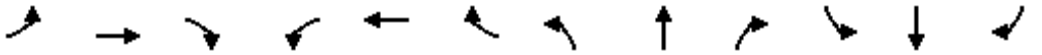
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	358	942	343	220	961	684	137	1213	18	844	1837	238
Future Volume (veh/h)	358	942	343	220	961	684	137	1213	18	844	1837	238
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	358	942	343	220	961	684	137	1213	18	844	1837	238
Adj No. of Lanes	2	1	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	403	726	617	164	1291	578	135	1097	345	636	1829	569
Arrive On Green	0.12	0.39	0.39	0.09	0.37	0.37	0.04	0.22	0.22	0.19	0.37	0.37
Sat Flow, veh/h	3408	1845	1568	1757	3505	1568	3375	4988	1568	3408	4988	1553
Grp Volume(v), veh/h	358	942	343	220	961	684	137	1213	18	844	1837	238
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1757	1752	1568	1688	1663	1568	1704	1663	1553
Q Serve(g_s), s	15.5	59.0	25.5	14.0	35.8	55.3	6.0	33.0	1.4	28.0	55.0	17.2
Cycle Q Clear(g_c), s	15.5	59.0	25.5	14.0	35.8	55.3	6.0	33.0	1.4	28.0	55.0	17.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	403	726	617	164	1291	578	135	1097	345	636	1829	569
V/C Ratio(X)	0.89	1.30	0.56	1.34	0.74	1.18	1.01	1.11	0.05	1.33	1.00	0.42
Avail Cap(c_a), veh/h	432	726	617	164	1291	578	135	1097	345	636	1829	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	45.5	35.3	68.0	41.2	47.4	72.0	58.5	46.2	61.0	47.5	35.5
Incr Delay (d2), s/veh	18.9	144.3	1.1	188.9	2.4	99.5	81.4	60.9	0.1	157.7	22.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	59.1	11.2	15.4	17.8	39.8	4.3	21.3	0.6	27.1	29.0	7.5
LnGrp Delay(d),s/veh	84.1	189.8	36.4	256.9	43.6	146.9	153.5	119.4	46.2	218.7	69.6	36.0
LnGrp LOS	F	F	D	F	D	F	F	F	D	F	F	D
Approach Vol, veh/h		1643			1865			1368			2919	
Approach Delay, s/veh		134.7			106.6			121.8			110.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	59.0	21.7	59.3	32.0	37.0	18.0	63.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	55.0	19.0	54.0	28.0	33.0	14.0	59.0
Max Q Clear Time (g_c+I1), s	8.0	57.0	17.5	57.3	30.0	35.0	16.0	61.0
Green Ext Time (p_c), s	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	116.5
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	821	455	804	91	557	9	188	1038	11	22	1978	1340
Future Volume (veh/h)	821	455	804	91	557	9	188	1038	11	22	1978	1340
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	821	455	804	91	557	9	188	1038	11	22	1978	1340
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	545	1410	631	87	493	221	171	1907	594	42	1737	541
Arrive On Green	0.31	0.41	0.41	0.05	0.14	0.14	0.05	0.38	0.38	0.01	0.35	0.35
Sat Flow, veh/h	1740	3471	1553	1740	3471	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	821	455	804	91	557	9	188	1038	11	22	1978	1340
Grp Sat Flow(s),veh/h/ln	1740	1736	1553	1740	1736	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	43.9	12.6	56.9	7.0	19.9	0.7	7.1	22.7	0.6	0.9	48.8	48.8
Cycle Q Clear(g_c), s	43.9	12.6	56.9	7.0	19.9	0.7	7.1	22.7	0.6	0.9	48.8	48.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	545	1410	631	87	493	221	171	1907	594	42	1737	541
V/C Ratio(X)	1.51	0.32	1.27	1.05	1.13	0.04	1.10	0.54	0.02	0.53	1.14	2.48
Avail Cap(c_a), veh/h	545	1410	631	87	493	221	171	1907	594	133	1737	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	28.4	41.6	66.6	60.1	51.9	66.5	33.7	26.9	68.8	45.7	45.7
Incr Delay (d2), s/veh	237.1	0.6	135.7	109.8	81.2	0.3	97.8	1.1	0.1	3.8	69.9	670.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	57.0	6.1	48.2	6.0	15.1	0.3	5.6	10.7	0.3	0.4	33.6	121.6
LnGrp Delay(d),s/veh	285.2	29.0	177.3	177.3	141.3	52.2	164.3	34.9	27.0	72.6	115.6	716.0
LnGrp LOS	F	C	F	F	F	D	F	C	C	E	F	F
Approach Vol, veh/h		2080			657			1237			3340	
Approach Delay, s/veh		187.5			145.1			54.5			356.2	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	54.0	49.0	25.1	7.2	58.8	12.0	62.1
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 7.1	* 49	* 44	* 20	5.5	* 50	7.0	* 57
Max Q Clear Time (g_c+I1), s	9.1	50.8	45.9	21.9	2.9	24.7	9.0	58.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	25.2	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		238.2
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	796	483	151	694	40	334	1197	103	240	2471	99
Future Volume (veh/h)	97	796	483	151	694	40	334	1197	103	240	2471	99
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	97	796	483	151	694	40	334	1197	103	240	2471	99
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	120	762	341	160	803	359	337	2490	775	285	2413	751
Arrive On Green	0.04	0.22	0.22	0.05	0.23	0.23	0.10	0.50	0.50	0.08	0.48	0.48
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	97	796	483	151	694	40	334	1197	103	240	2471	99
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	4.1	31.6	31.6	6.4	27.7	2.9	14.4	23.0	5.2	10.2	70.3	5.1
Cycle Q Clear(g_c), s	4.1	31.6	31.6	6.4	27.7	2.9	14.4	23.0	5.2	10.2	70.3	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	762	341	160	803	359	337	2490	775	285	2413	751
V/C Ratio(X)	0.81	1.04	1.42	0.95	0.86	0.11	0.99	0.48	0.13	0.84	1.02	0.13
Avail Cap(c_a), veh/h	120	762	341	160	803	359	337	2490	775	390	2413	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.6	56.9	56.9	69.1	53.8	44.3	65.3	24.0	19.5	65.6	37.5	20.7
Incr Delay (d2), s/veh	30.9	44.7	203.9	54.9	11.1	0.4	46.6	0.5	0.2	8.7	24.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	20.0	33.0	4.2	14.6	1.3	8.9	10.6	2.3	5.1	37.7	2.3
LnGrp Delay(d),s/veh	100.5	101.6	260.7	124.0	64.9	44.7	111.9	24.4	19.8	74.3	62.2	20.9
LnGrp LOS	F	F	F	F	E	D	F	C	B	E	F	C
Approach Vol, veh/h		1376			885			1634			2810	
Approach Delay, s/veh		157.4			74.1			42.0			61.8	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	75.8	10.6	38.9	17.8	78.0	12.3	37.2
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.6	5.5	* 5.5	5.5	* 5.6
Max Green Setting (Gmax), s	14.5	* 70	5.1	33.1	16.8	* 68	6.8	* 32
Max Q Clear Time (g_c+I1), s	16.4	72.3	6.1	29.7	12.2	25.0	8.4	33.6
Green Ext Time (p_c), s	0.0	0.0	0.0	3.4	0.1	42.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.2
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1202	100	124	1046	30	112	80	104	92	410	19
Future Volume (veh/h)	31	1202	100	124	1046	30	112	80	104	92	410	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	31	1202	100	124	1046	30	112	80	104	92	410	19
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	38	1295	108	145	1589	46	141	490	417	118	467	397
Arrive On Green	0.02	0.40	0.40	0.08	0.46	0.46	0.08	0.27	0.27	0.07	0.25	0.25
Sat Flow, veh/h	1757	3277	272	1757	3480	100	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	31	642	660	124	527	549	112	80	104	92	410	19
Grp Sat Flow(s),veh/h/ln	1757	1752	1797	1757	1752	1827	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.5	29.6	29.7	5.9	19.8	19.8	5.3	2.8	4.4	4.4	18.1	0.8
Cycle Q Clear(g_c), s	1.5	29.6	29.7	5.9	19.8	19.8	5.3	2.8	4.4	4.4	18.1	0.8
Prop In Lane	1.00		0.15	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	38	692	710	145	800	834	141	490	417	118	467	397
V/C Ratio(X)	0.83	0.93	0.93	0.85	0.66	0.66	0.80	0.16	0.25	0.78	0.88	0.05
Avail Cap(c_a), veh/h	104	725	743	145	800	834	145	490	417	208	545	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	24.4	24.5	38.3	17.9	17.9	38.2	23.8	24.4	38.9	30.4	23.9
Incr Delay (d2), s/veh	34.3	17.6	17.7	35.9	2.0	1.9	25.1	0.2	0.3	10.6	13.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	17.7	18.2	4.3	10.0	10.4	3.6	1.4	1.9	2.5	11.0	0.3
LnGrp Delay(d),s/veh	75.6	42.0	42.2	74.2	19.9	19.8	63.4	24.0	24.7	49.4	44.0	24.0
LnGrp LOS	E	D	D	E	B	B	E	C	C	D	D	C
Approach Vol, veh/h		1333			1200			296			521	
Approach Delay, s/veh		42.9			25.4			39.1			44.2	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	26.5	11.0	37.4	10.8	25.4	5.8	42.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	22.0	7.0	35.0	7.0	25.0	5.0	37.0
Max Q Clear Time (g_c+I1), s	6.4	6.4	7.9	31.7	7.3	20.1	3.5	21.8
Green Ext Time (p_c), s	0.1	3.1	0.0	1.7	0.0	1.3	0.0	12.4

Intersection Summary	
HCM 2010 Ctrl Delay	36.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1249	518	91	1235	265	575	191	8	318	374	87
Future Volume (veh/h)	77	1249	518	91	1235	265	575	191	8	318	374	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	77	1249	518	91	1235	265	575	191	8	318	374	87
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	1145	454	35	1324	281	480	480	408	258	246	209
Arrive On Green	0.03	0.47	0.47	0.02	0.46	0.46	0.27	0.26	0.26	0.15	0.13	0.13
Sat Flow, veh/h	1757	2453	972	1757	2878	611	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	77	876	891	91	747	753	575	191	8	318	374	87
Grp Sat Flow(s),veh/h/ln	1757	1752	1673	1757	1752	1737	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	4.0	70.0	70.0	3.0	60.2	62.0	41.0	12.8	0.6	22.0	20.0	7.6
Cycle Q Clear(g_c), s	4.0	70.0	70.0	3.0	60.2	62.0	41.0	12.8	0.6	22.0	20.0	7.6
Prop In Lane	1.00		0.58	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	818	781	35	806	799	480	480	408	258	246	209
V/C Ratio(X)	1.64	1.07	1.14	2.59	0.93	0.94	1.20	0.40	0.02	1.23	1.52	0.42
Avail Cap(c_a), veh/h	47	818	781	35	806	799	480	480	408	258	246	209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.0	40.0	40.0	73.5	38.1	38.6	54.5	45.8	41.3	64.0	65.0	59.6
Incr Delay (d2), s/veh	367.0	52.2	78.7	790.9	16.6	19.3	107.6	0.5	0.0	134.3	254.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	45.7	49.4	9.2	32.8	34.0	34.2	6.6	0.2	20.3	27.5	3.4
LnGrp Delay(d),s/veh	440.0	92.2	118.7	864.4	54.7	57.9	162.1	46.3	41.3	198.3	319.0	61.0
LnGrp LOS	F	F	F	F	D	E	F	D	D	F	F	E
Approach Vol, veh/h		1844			1591			774			779	
Approach Delay, s/veh		119.5			102.5			132.3			240.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	43.0	7.0	74.0	45.0	24.0	8.0	73.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	39.0	3.0	70.0	41.0	20.0	4.0	69.0
Max Q Clear Time (g_c+I1), s	24.0	14.8	5.0	72.0	43.0	22.0	6.0	64.0
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	0.0	0.0	4.9

Intersection Summary		
HCM 2010 Ctrl Delay		135.0
HCM 2010 LOS		F

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	506	9	68	580	3	10	46	63	56	132	66
Future Volume (veh/h)	0	506	9	68	580	3	10	46	63	56	132	66
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	0	506	9	68	580	3	10	46	63	56	132	66
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	6	1597	28	580	1621	8	158	179	218	222	244	107
Arrive On Green	0.00	0.46	0.46	0.46	0.46	0.46	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1740	3490	62	865	3541	18	61	717	876	244	982	431
Grp Volume(v), veh/h	0	251	264	68	284	299	119	0	0	254	0	0
Grp Sat Flow(s),veh/h/ln	1740	1736	1816	865	1736	1824	1655	0	0	1657	0	0
Q Serve(g_s), s	0.0	2.5	2.5	1.5	2.9	2.9	0.0	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.5	2.5	4.0	2.9	2.9	1.6	0.0	0.0	3.6	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.01	0.08		0.53	0.22		0.26
Lane Grp Cap(c), veh/h	6	794	831	580	794	835	555	0	0	573	0	0
V/C Ratio(X)	0.00	0.32	0.32	0.12	0.36	0.36	0.21	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	511	1910	1998	756	1146	1204	864	0	0	881	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.7	4.7	6.0	4.8	4.8	8.3	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.1	0.3	0.3	0.2	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.2	1.3	0.4	1.4	1.5	0.7	0.0	0.0	1.7	0.0	0.0
LnGrp Delay(d),s/veh	0.0	4.9	4.9	6.0	5.1	5.1	8.5	0.0	0.0	9.5	0.0	0.0
LnGrp LOS		A	A	A	A	A	A			A		
Approach Vol, veh/h		515			651			119			254	
Approach Delay, s/veh		4.9			5.2			8.5			9.5	
Approach LOS		A			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6	7	8
Phs Duration (G+Y+Rc), s		10.8		16.5		10.8	0.0	16.5
Change Period (Y+Rc), s		4.0		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		12.0		30.0		12.0	8.0	18.0
Max Q Clear Time (g_c+I1), s		3.6		4.5		5.6	0.0	6.0
Green Ext Time (p_c), s		1.4		8.0		1.2	0.0	5.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.1
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	853	161	196	828	364	131	430	116	356	520	22
Future Volume (veh/h)	65	853	161	196	828	364	131	430	116	356	520	22
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	65	853	161	196	828	364	131	430	116	356	520	22
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	897	169	201	881	386	153	433	368	361	650	553
Arrive On Green	0.05	0.30	0.30	0.11	0.37	0.37	0.09	0.23	0.23	0.21	0.35	0.35
Sat Flow, veh/h	1757	2944	556	1757	2374	1040	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	65	508	506	196	610	582	131	430	116	356	520	22
Grp Sat Flow(s),veh/h/ln	1757	1752	1747	1757	1752	1661	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	5.1	39.7	39.7	15.5	47.0	47.4	10.3	32.5	8.5	28.2	35.5	1.3
Cycle Q Clear(g_c), s	5.1	39.7	39.7	15.5	47.0	47.4	10.3	32.5	8.5	28.2	35.5	1.3
Prop In Lane	1.00		0.32	1.00		0.63	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	534	532	201	650	616	153	433	368	361	650	553
V/C Ratio(X)	0.79	0.95	0.95	0.97	0.94	0.94	0.85	0.99	0.32	0.99	0.80	0.04
Avail Cap(c_a), veh/h	83	539	537	201	652	618	178	433	368	361	650	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.0	47.6	47.6	61.7	42.4	42.6	62.9	53.4	44.2	55.4	40.8	29.7
Incr Delay (d2), s/veh	35.9	26.5	26.6	55.8	21.2	22.9	25.2	41.5	0.2	43.7	6.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	23.1	23.0	10.6	26.6	25.6	6.1	21.5	3.7	18.0	19.2	0.6
LnGrp Delay(d),s/veh	101.8	74.1	74.1	117.5	63.7	65.5	88.1	94.9	44.4	99.1	47.3	29.7
LnGrp LOS	F	E	E	F	E	E	F	F	D	F	D	C
Approach Vol, veh/h		1079			1388			677			898	
Approach Delay, s/veh		75.8			72.0			84.9			67.4	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	56.7	17.7	53.7	21.0	47.4	34.2	37.2
Change Period (Y+Rc), s	* 5.2	4.8	5.5	* 4.4	5.0	* 4.8	5.5	* 4.4
Max Green Setting (Gmax), s	* 6.6	52.0	14.2	* 47	16.0	* 43	28.7	* 33
Max Q Clear Time (g_c+I1), s	7.1	49.4	12.3	37.5	17.5	41.7	30.2	34.5
Green Ext Time (p_c), s	0.0	1.7	0.0	1.9	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.2
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	2049	114	324	1944	1	229	1489	258	30	1589	212
Future Volume (veh/h)	286	2049	114	324	1944	1	229	1489	258	30	1589	212
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	286	2049	114	324	1944	1	229	1489	258	30	1589	212
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	250	1729	554	273	1762	564	182	1557	697	54	1425	638
Arrive On Green	0.07	0.35	0.35	0.08	0.36	0.36	0.05	0.44	0.44	0.02	0.41	0.41
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	286	2049	114	324	1944	1	229	1489	258	30	1589	212
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	11.0	53.0	7.6	12.0	54.0	0.1	8.0	61.6	16.4	1.3	61.0	13.9
Cycle Q Clear(g_c), s	11.0	53.0	7.6	12.0	54.0	0.1	8.0	61.6	16.4	1.3	61.0	13.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	250	1729	554	273	1762	564	182	1557	697	54	1425	638
V/C Ratio(X)	1.14	1.19	0.21	1.19	1.10	0.00	1.26	0.96	0.37	0.56	1.11	0.33
Avail Cap(c_a), veh/h	250	1729	554	273	1762	564	182	1557	697	91	1425	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	48.5	33.8	69.0	48.0	30.7	71.0	40.3	27.7	73.3	44.5	30.5
Incr Delay (d2), s/veh	101.5	89.5	0.2	115.3	55.7	0.0	153.5	13.8	0.3	8.8	61.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	38.2	3.3	10.0	33.4	0.0	7.6	32.8	7.2	0.7	41.8	6.1
LnGrp Delay(d),s/veh	171.0	138.0	34.0	184.3	103.7	30.7	224.5	54.1	28.1	82.1	106.4	30.8
LnGrp LOS	F	F	C	F	F	C	F	D	C	F	F	C
Approach Vol, veh/h		2449			2269			1976			1831	
Approach Delay, s/veh		137.0			115.2			70.5			97.3	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	70.6	16.0	57.0	12.0	65.0	15.0	58.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	65.0	12.0	53.0	8.0	61.0	11.0	54.0
Max Q Clear Time (g_c+I1), s	3.3	63.6	14.0	55.0	10.0	63.0	13.0	56.0
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	107.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	805	124	512	971	135	71	1129	660	205	1386	442
Future Volume (veh/h)	240	805	124	512	971	135	71	1129	660	205	1386	442
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1845
Adj Flow Rate, veh/h	240	805	124	512	971	135	71	1129	660	205	1386	442
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	467	72	164	618	86	21	337	197	77	522	512
Arrive On Green	0.05	0.15	0.15	0.09	0.20	0.20	0.32	0.32	0.32	0.33	0.33	0.33
Sat Flow, veh/h	1757	3045	469	1757	3092	430	66	1052	615	236	1597	1568
Grp Volume(v), veh/h	240	463	466	512	550	556	1860	0	0	1591	0	442
Grp Sat Flow(s),veh/h/ln	1757	1752	1762	1757	1752	1769	1733	0	0	1833	0	1568
Q Serve(g_s), s	7.0	23.0	23.0	14.0	30.0	30.0	48.0	0.0	0.0	49.0	0.0	39.6
Cycle Q Clear(g_c), s	7.0	23.0	23.0	14.0	30.0	30.0	48.0	0.0	0.0	49.0	0.0	39.6
Prop In Lane	1.00		0.27	1.00		0.24	0.04		0.35	0.13		1.00
Lane Grp Cap(c), veh/h	82	269	270	164	350	354	555	0	0	599	0	512
V/C Ratio(X)	2.93	1.72	1.72	3.12	1.57	1.57	3.35	0.00	0.00	2.66	0.00	0.86
Avail Cap(c_a), veh/h	82	269	270	164	350	354	555	0	0	599	0	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.5	63.5	63.5	68.0	60.0	60.0	51.0	0.0	0.0	50.5	0.0	47.4
Incr Delay (d2), s/veh	899.5	341.0	341.0	971.0	269.9	270.3	1064.0	0.0	0.0	750.6	0.0	14.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.9	36.6	36.8	51.0	40.8	41.2	186.8	0.0	0.0	149.6	0.0	19.2
LnGrp Delay(d),s/veh	971.0	404.5	404.5	1039.0	329.9	330.3	1115.0	0.0	0.0	801.1	0.0	61.5
LnGrp LOS	F	F	F	F	F	F	F			F		E
Approach Vol, veh/h		1169			1618			1860			2033	
Approach Delay, s/veh		520.8			554.4			1115.0			640.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		52.0	18.0	27.0		53.0	11.0	34.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		48.0	14.0	23.0		49.0	7.0	30.0
Max Q Clear Time (g_c+I1), s		50.0	16.0	25.0		51.0	9.0	32.0
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	730.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1247	0	468	0	657	1700	0	1194	804
Future Volume (veh/h)	0	0	0	1247	0	468	0	657	1700	0	1194	804
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1827	0	1827	0	1827	1827	0	1827	1827
Adj Flow Rate, veh/h				1247	0	468	0	657	0	0	1194	0
Adj No. of Lanes				2	0	2	0	3	1	0	3	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				4	0	4	0	4	4	0	4	4
Cap, veh/h				1412	0	1143	0	1807	563	0	1807	563
Arrive On Green				0.42	0.00	0.42	0.00	0.36	0.00	0.00	0.36	0.00
Sat Flow, veh/h				3375	0	2733	0	5152	1553	0	5152	1553
Grp Volume(v), veh/h				1247	0	468	0	657	0	0	1194	0
Grp Sat Flow(s),veh/h/ln				1688	0	1367	0	1663	1553	0	1663	1553
Q Serve(g_s), s				15.1	0.0	5.3	0.0	4.3	0.0	0.0	8.9	0.0
Cycle Q Clear(g_c), s				15.1	0.0	5.3	0.0	4.3	0.0	0.0	8.9	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1412	0	1143	0	1807	563	0	1807	563
V/C Ratio(X)				0.88	0.00	0.41	0.00	0.36	0.00	0.00	0.66	0.00
Avail Cap(c_a), veh/h				2015	0	1632	0	2876	895	0	2696	839
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.9	0.0	9.0	0.0	10.4	0.0	0.0	11.8	0.0
Incr Delay (d2), s/veh				2.7	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.5	0.0	2.0	0.0	2.0	0.0	0.0	4.0	0.0
LnGrp Delay(d),s/veh				14.6	0.0	9.1	0.0	10.4	0.0	0.0	12.0	0.0
LnGrp LOS				B		A		B			B	
Approach Vol, veh/h					1715			657			1194	
Approach Delay, s/veh					13.1			10.4			12.0	
Approach LOS					B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		21.1		23.1		21.1		
Change Period (Y+Rc), s		5.1		4.6		* 5.1		
Max Green Setting (Gmax), s		23.9		26.4		* 26		
Max Q Clear Time (g_c+I1), s		10.9		17.1		6.3		
Green Ext Time (p_c), s		5.2		1.4		6.0		

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	31	17	472	44	537	48	2143	294	530	2550	59
Future Volume (veh/h)	73	31	17	472	44	537	48	2143	294	530	2550	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	73	31	17	472	44	537	48	2143	294	530	2550	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	66	42	23	560	303	258	61	2396	746	570	3095	71
Arrive On Green	0.04	0.04	0.04	0.16	0.16	0.16	0.04	0.48	0.48	0.17	0.62	0.62
Sat Flow, veh/h	1757	1121	615	3408	1845	1568	1740	4988	1553	3375	5016	116
Grp Volume(v), veh/h	73	0	48	472	44	537	48	2143	294	530	1686	923
Grp Sat Flow(s),veh/h/ln	1757	0	1736	1704	1845	1568	1740	1663	1553	1688	1663	1807
Q Serve(g_s), s	5.5	0.0	4.0	19.6	3.0	24.0	4.0	57.2	17.7	22.6	57.6	58.4
Cycle Q Clear(g_c), s	5.5	0.0	4.0	19.6	3.0	24.0	4.0	57.2	17.7	22.6	57.6	58.4
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	66	0	65	560	303	258	61	2396	746	570	2051	1115
V/C Ratio(X)	1.10	0.00	0.73	0.84	0.15	2.08	0.78	0.89	0.39	0.93	0.82	0.83
Avail Cap(c_a), veh/h	66	0	65	560	303	258	126	2503	779	589	2051	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	0.0	69.6	59.2	52.2	61.0	69.9	34.6	24.3	59.8	21.7	21.9
Incr Delay (d2), s/veh	141.8	0.0	30.9	10.6	0.1	501.0	7.8	4.3	0.1	20.5	2.6	5.0
Initial Q Delay(d3),s/veh	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	2.5	10.1	1.5	46.2	2.1	27.1	7.6	12.2	27.0	30.5
LnGrp Delay(d),s/veh	213.0	0.0	100.4	69.8	52.3	562.0	77.7	38.8	24.4	80.4	24.4	26.9
LnGrp LOS	F		F	E	D	F	E	D	C	F	C	C
Approach Vol, veh/h		121			1053			2485			3139	
Approach Delay, s/veh		168.4			320.1			37.9			34.6	
Approach LOS		F			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.2	95.3		11.0	30.2	75.4		29.5
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 11	* 89		5.5	25.5	* 73		24.0
Max Q Clear Time (g_c+I1), s	6.0	60.4		7.5	24.6	59.2		26.0
Green Ext Time (p_c), s	0.0	23.1		0.0	0.1	11.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	82.4
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Future Volume (veh/h)	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	208	1064	476	419	1280	573	370	1245	388	594	1576	491
Arrive On Green	0.06	0.30	0.30	0.12	0.37	0.37	0.11	0.25	0.25	0.18	0.32	0.32
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	8.1	45.7	44.1	18.5	42.5	55.0	16.5	31.2	12.4	26.5	47.6	13.6
Cycle Q Clear(g_c), s	8.1	45.7	44.1	18.5	42.5	55.0	16.5	31.2	12.4	26.5	47.6	13.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	1064	476	419	1280	573	370	1245	388	594	1576	491
V/C Ratio(X)	0.88	1.19	0.98	1.38	0.84	1.29	1.34	0.87	0.40	1.39	1.16	0.37
Avail Cap(c_a), veh/h	208	1064	476	419	1280	573	370	1245	388	594	1576	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	52.5	51.9	66.1	43.8	47.8	67.1	54.1	47.1	62.1	51.5	39.9
Incr Delay (d2), s/veh	32.0	93.2	34.6	184.6	5.0	144.2	169.6	6.4	0.2	185.3	78.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	35.8	23.6	19.4	21.4	46.7	16.4	15.1	5.4	27.6	33.2	5.9
LnGrp Delay(d),s/veh	102.2	145.7	86.5	250.7	48.9	192.0	236.7	60.5	47.3	247.3	129.8	40.0
LnGrp LOS	F	F	F	F	D	F	F	E	D	F	F	D
Approach Vol, veh/h		1909			2396			1728			2830	
Approach Delay, s/veh		127.1			141.7			109.8			158.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	53.2	14.7	60.7	32.0	43.2	24.0	51.4
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	16.5	* 48	9.2	* 55	26.5	* 37	18.5	* 45
Max Q Clear Time (g_c+I1), s	18.5	49.6	10.1	57.0	28.5	33.2	20.5	47.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	137.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	2208	58	290	1548	492	476	1059	118	521	2559	161
Future Volume (veh/h)	260	2208	58	290	1548	492	476	1059	118	521	2559	161
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	260	2208	58	290	1548	492	476	1059	118	521	2559	0
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	297	1655	530	231	1564	487	331	1466	456	563	1804	556
Arrive On Green	0.09	0.34	0.34	0.07	0.32	0.32	0.10	0.29	0.29	0.17	0.36	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	1524	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	260	2208	58	290	1548	492	476	1059	118	521	2559	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1524	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	11.7	50.9	3.8	10.2	47.4	48.1	14.6	28.4	8.7	22.9	53.9	0.0
Cycle Q Clear(g_c), s	11.7	50.9	3.8	10.2	47.4	48.1	14.6	28.4	8.7	22.9	53.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	297	1655	530	231	1564	487	331	1466	456	563	1804	556
V/C Ratio(X)	0.88	1.33	0.11	1.26	0.99	1.01	1.44	0.72	0.26	0.93	1.42	0.00
Avail Cap(c_a), veh/h	297	1655	530	231	1564	487	331	1466	456	628	1804	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.7	49.8	34.2	70.2	51.0	51.2	67.9	47.9	40.9	61.8	48.3	0.0
Incr Delay (d2), s/veh	23.2	154.6	0.0	145.3	20.3	43.4	214.3	1.8	0.3	17.9	191.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	46.5	1.7	9.4	24.3	26.1	16.7	13.4	3.8	12.1	56.9	0.0
LnGrp Delay(d),s/veh	90.8	204.4	34.3	215.4	71.2	94.6	282.3	49.7	41.2	79.7	240.1	0.0
LnGrp LOS	F	F	C	F	E	F	F	D	D	E	F	
Approach Vol, veh/h		2526			2330			1653			3080	
Approach Delay, s/veh		188.8			94.1			116.0			213.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	59.0	17.8	53.7	30.1	48.9	15.0	56.5
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 15	53.9	* 14	47.6	28.0	40.9	* 10	* 51
Max Q Clear Time (g_c+I1), s	16.6	55.9	13.7	50.1	24.9	30.4	12.2	52.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	9.5	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		161.0
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	990	322	121	782	54	118	1246	458	17	2647	150
Future Volume (veh/h)	46	990	322	121	782	54	118	1246	458	17	2647	150
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	46	990	322	121	782	54	118	1246	458	17	2647	150
Adj No. of Lanes	2	1	0	2	2	1	1	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	78	585	190	80	1539	689	76	1405	515	35	1779	554
Arrive On Green	0.02	0.44	0.44	0.02	0.44	0.44	0.04	0.39	0.39	0.01	0.35	0.35
Sat Flow, veh/h	3408	1334	434	3408	3505	1568	1757	3635	1332	3408	5036	1568
Grp Volume(v), veh/h	46	0	1312	121	782	54	118	1150	554	17	2647	150
Grp Sat Flow(s),veh/h/ln	1704	0	1768	1704	1752	1568	1757	1679	1610	1704	1679	1568
Q Serve(g_s), s	2.0	0.0	65.8	3.5	24.2	3.0	6.5	48.0	48.2	0.7	53.0	10.3
Cycle Q Clear(g_c), s	2.0	0.0	65.8	3.5	24.2	3.0	6.5	48.0	48.2	0.7	53.0	10.3
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	78	0	776	80	1539	689	76	1298	622	35	1779	554
V/C Ratio(X)	0.59	0.00	1.69	1.52	0.51	0.08	1.55	0.89	0.89	0.49	1.49	0.27
Avail Cap(c_a), veh/h	123	0	776	80	1539	689	76	1298	622	68	1779	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.6	0.0	42.1	73.2	30.4	24.4	71.8	42.9	43.0	73.9	48.5	34.7
Incr Delay (d2), s/veh	7.0	0.0	316.8	288.4	0.3	0.0	302.1	7.7	14.9	10.4	222.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	100.4	4.8	11.8	1.3	9.5	23.6	23.9	0.4	61.2	4.5
LnGrp Delay(d),s/veh	79.6	0.0	358.9	361.7	30.6	24.5	373.8	50.7	57.9	84.2	271.0	34.8
LnGrp LOS	E		F	F	C	C	F	D	E	F	F	C
Approach Vol, veh/h		1358			957			1822			2814	
Approach Delay, s/veh		349.4			72.1			73.8			257.3	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	58.0	9.0	71.0	7.0	63.0	8.9	71.1
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	6.5	53.0	3.5	* 66	3.0	56.5	5.4	* 64
Max Q Clear Time (g_c+I1), s	8.5	55.0	5.5	67.8	2.7	50.2	4.0	26.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	6.1	0.0	28.2

Intersection Summary		
HCM 2010 Ctrl Delay		201.7
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

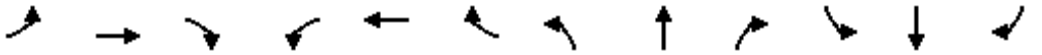
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	372	863	364	95	966	107	228	1076	100	201	2253	584
Future Volume (veh/h)	372	863	364	95	966	107	228	1076	100	201	2253	584
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1832	1900	1845	1798	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	372	863	364	95	966	107	228	1076	100	201	2253	584
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	6	3	3	3	3	3	3
Cap, veh/h	352	802	337	118	827	92	216	2097	653	249	2145	668
Arrive On Green	0.10	0.34	0.34	0.03	0.27	0.27	0.06	0.42	0.42	0.07	0.43	0.43
Sat Flow, veh/h	3408	2392	1004	3408	3101	343	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	372	627	600	95	532	541	228	1076	100	201	2253	584
Grp Sat Flow(s),veh/h/ln	1704	1741	1655	1704	1708	1737	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	15.5	50.3	50.3	4.2	40.0	40.0	9.5	23.8	6.0	8.7	63.9	51.1
Cycle Q Clear(g_c), s	15.5	50.3	50.3	4.2	40.0	40.0	9.5	23.8	6.0	8.7	63.9	51.1
Prop In Lane	1.00		0.61	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	584	555	118	455	463	216	2097	653	249	2145	668
V/C Ratio(X)	1.06	1.07	1.08	0.80	1.17	1.17	1.06	0.51	0.15	0.81	1.05	0.87
Avail Cap(c_a), veh/h	352	584	555	118	455	463	216	2097	653	332	2145	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3	49.8	49.9	71.9	55.0	55.0	70.3	32.5	27.3	68.5	43.1	39.4
Incr Delay (d2), s/veh	63.5	58.7	62.0	31.8	97.0	96.9	76.9	0.2	0.1	10.4	34.2	12.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	33.7	32.5	2.5	31.1	31.6	6.8	11.1	2.6	4.5	36.4	24.4
LnGrp Delay(d),s/veh	130.8	108.6	111.9	103.7	152.0	151.9	147.1	32.7	27.4	78.9	77.2	51.7
LnGrp LOS	F	F	F	F	F	F	F	C	C	E	F	D
Approach Vol, veh/h		1599			1168			1404			3038	
Approach Delay, s/veh		115.0			148.0			50.9			72.4	
Approach LOS		F			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	67.6	21.0	45.0	15.0	69.0	10.7	55.3
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	14.6	* 59	15.5	* 40	9.5	* 64	5.2	* 50
Max Q Clear Time (g_c+I1), s	10.7	25.8	17.5	42.0	11.5	65.9	6.2	52.3
Green Ext Time (p_c), s	0.2	31.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	89.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



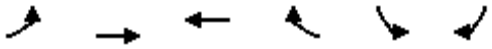
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	408	167	409	447	207	46	1147	112	437	2031	378
Future Volume (veh/h)	276	408	167	409	447	207	46	1147	112	437	2031	378
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1845	1827	1845	1845	1845
Adj Flow Rate, veh/h	276	408	167	409	447	207	46	1147	112	437	2031	378
Adj No. of Lanes	2	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	3	4	3	3	3
Cap, veh/h	334	507	227	429	1020	456	76	1564	482	483	2156	671
Arrive On Green	0.10	0.14	0.14	0.24	0.29	0.29	0.02	0.31	0.31	0.14	0.43	0.43
Sat Flow, veh/h	3408	3505	1568	1757	3505	1568	3375	5036	1553	3408	5036	1568
Grp Volume(v), veh/h	276	408	167	409	447	207	46	1147	112	437	2031	378
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1752	1568	1688	1679	1553	1704	1679	1568
Q Serve(g_s), s	10.6	15.0	13.6	30.5	13.8	14.3	1.8	27.0	7.1	16.8	51.4	24.1
Cycle Q Clear(g_c), s	10.6	15.0	13.6	30.5	13.8	14.3	1.8	27.0	7.1	16.8	51.4	24.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	507	227	429	1020	456	76	1564	482	483	2156	671
V/C Ratio(X)	0.83	0.80	0.74	0.95	0.44	0.45	0.60	0.73	0.23	0.91	0.94	0.56
Avail Cap(c_a), veh/h	472	817	366	430	1197	536	76	1564	482	503	2167	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	55.0	54.4	49.5	38.3	38.5	64.4	40.9	34.0	56.2	36.4	28.6
Incr Delay (d2), s/veh	8.1	1.2	1.7	31.2	0.1	0.3	9.3	1.8	0.2	18.8	9.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	7.3	6.0	18.5	6.7	6.3	0.9	12.8	3.1	9.1	25.5	10.6
LnGrp Delay(d),s/veh	66.9	56.2	56.2	80.7	38.4	38.8	73.6	42.7	34.3	74.9	45.5	29.7
LnGrp LOS	E	E	E	F	D	D	E	D	C	E	D	C
Approach Vol, veh/h		851			1063			1305			2846	
Approach Delay, s/veh		59.6			54.7			43.1			47.9	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.9	46.4	18.5	44.1	8.3	62.0	38.0	24.6
Change Period (Y+Rc), s	* 5.1	5.1	5.5	* 5.4	* 5.3	5.1	5.5	* 5.4
Max Green Setting (Gmax), s	* 20	40.8	18.4	* 45	* 3	57.2	32.5	* 31
Max Q Clear Time (g_c+I1), s	18.8	29.0	12.6	16.3	3.8	53.4	32.5	17.0
Green Ext Time (p_c), s	0.0	11.4	0.5	2.4	0.0	3.5	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	49.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	141	2274	1641	657	777	316
Future Volume (veh/h)	141	2274	1641	657	777	316
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	141	2274	1641	657	777	316
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	132	2644	1493	573	717	640
Arrive On Green	0.08	0.52	0.42	0.42	0.41	0.41
Sat Flow, veh/h	1757	5202	3749	1376	1757	1568
Grp Volume(v), veh/h	141	2274	1533	765	777	316
Grp Sat Flow(s),veh/h/ln	1757	1679	1679	1602	1757	1568
Q Serve(g_s), s	9.0	46.9	50.0	50.0	49.0	17.9
Cycle Q Clear(g_c), s	9.0	46.9	50.0	50.0	49.0	17.9
Prop In Lane	1.00			0.86	1.00	1.00
Lane Grp Cap(c), veh/h	132	2644	1399	667	717	640
V/C Ratio(X)	1.07	0.86	1.10	1.15	1.08	0.49
Avail Cap(c_a), veh/h	132	2644	1399	667	717	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	24.7	35.0	35.0	35.5	26.3
Incr Delay (d2), s/veh	98.4	3.1	54.8	82.5	58.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	22.4	33.8	37.4	35.3	16.8
LnGrp Delay(d),s/veh	153.9	27.8	89.8	117.5	93.9	26.9
LnGrp LOS	F	C	F	F	F	C
Approach Vol, veh/h		2415	2298		1093	
Approach Delay, s/veh		35.2	99.0		74.5	
Approach LOS		D	F		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				67.0		53.0	13.0	54.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				63.0		49.0	9.0	50.0
Max Q Clear Time (g_c+I1), s				48.9		51.0	11.0	52.0
Green Ext Time (p_c), s				14.0		0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1409	47	57	1016	0	19	0	135	0	148	0
Future Volume (veh/h)	0	1409	47	57	1016	0	19	0	135	0	148	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	1409	47	57	1016	0	19	0	135	0	148	0
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	1675	56	69	2125	0	25	420	357	4	241	205
Arrive On Green	0.00	0.48	0.48	0.04	0.61	0.00	0.01	0.00	0.23	0.00	0.13	0.00
Sat Flow, veh/h	1757	3461	115	1757	3597	0	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	0	712	744	57	1016	0	19	0	135	0	148	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1824	1757	1752	0	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	0.0	17.0	17.1	1.6	7.7	0.0	0.5	0.0	3.5	0.0	3.7	0.0
Cycle Q Clear(g_c), s	0.0	17.0	17.1	1.6	7.7	0.0	0.5	0.0	3.5	0.0	3.7	0.0
Prop In Lane	1.00		0.06	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	4	848	883	69	2125	0	25	420	357	4	241	205
V/C Ratio(X)	0.00	0.84	0.84	0.82	0.48	0.00	0.77	0.00	0.38	0.00	0.61	0.00
Avail Cap(c_a), veh/h	109	945	984	109	2125	0	109	498	423	73	459	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.8	10.8	23.0	5.3	0.0	23.7	0.0	15.7	0.0	19.8	0.0
Incr Delay (d2), s/veh	0.0	6.3	6.2	23.5	0.2	0.0	39.1	0.0	0.7	0.0	2.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.6	10.0	1.2	3.7	0.0	0.5	0.0	1.6	0.0	2.0	0.0
LnGrp Delay(d),s/veh	0.0	17.1	17.0	46.5	5.4	0.0	62.8	0.0	16.4	0.0	22.3	0.0
LnGrp LOS		B	B	D	A		E		B		C	
Approach Vol, veh/h		1456			1073			154			148	
Approach Delay, s/veh		17.0			7.6			22.1			22.3	
Approach LOS		B			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	15.0	5.9	27.3	4.7	10.3	0.0	33.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	2.0	13.0	3.0	26.0	3.0	12.0	3.0	26.0
Max Q Clear Time (g_c+I1), s	0.0	5.5	3.6	19.1	2.5	5.7	0.0	9.7
Green Ext Time (p_c), s	0.0	0.7	0.0	4.2	0.0	0.6	0.0	13.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	1805	98	956	1148	361	89	625	769	411	838	82
Future Volume (veh/h)	283	1805	98	956	1148	361	89	625	769	411	838	82
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	283	1805	98	956	1148	361	89	625	769	411	838	82
Adj No. of Lanes	2	3	1	2	3	1	1	1	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	326	1259	403	477	1476	473	109	317	389	204	1464	655
Arrive On Green	0.10	0.26	0.26	0.14	0.30	0.30	0.06	0.42	0.42	0.06	0.42	0.42
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	1757	754	927	3408	3505	1568
Grp Volume(v), veh/h	283	1805	98	956	1148	361	89	0	1394	411	838	82
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1757	0	1681	1704	1752	1568
Q Serve(g_s), s	12.3	38.6	7.4	21.0	32.1	31.3	7.5	0.0	63.0	9.0	27.4	4.8
Cycle Q Clear(g_c), s	12.3	38.6	7.4	21.0	32.1	31.3	7.5	0.0	63.0	9.0	27.4	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	326	1259	403	477	1476	473	109	0	706	204	1464	655
V/C Ratio(X)	0.87	1.43	0.24	2.00	0.78	0.76	0.81	0.00	1.97	2.01	0.57	0.13
Avail Cap(c_a), veh/h	341	1259	403	477	1476	473	164	0	706	204	1464	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	55.7	44.1	64.5	47.8	47.5	69.5	0.0	43.5	70.5	33.4	26.8
Incr Delay (d2), s/veh	19.9	199.7	0.4	459.0	2.9	7.7	17.0	0.0	443.6	471.3	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	40.7	3.3	40.3	14.8	14.6	4.2	0.0	116.2	17.6	13.4	2.1
LnGrp Delay(d),s/veh	86.7	255.4	44.6	523.5	50.7	55.2	86.4	0.0	487.1	541.8	34.0	26.9
LnGrp LOS	F	F	D	F	D	E	F		F	F	C	C
Approach Vol, veh/h		2186			2465			1483			1331	
Approach Delay, s/veh		224.1			234.7			463.1			190.3	
Approach LOS		F			F			F			F	

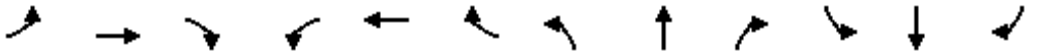
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	45.0	13.3	66.7	18.4	51.6	13.0	67.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	21.0	38.6	14.0	58.0	15.0	44.6	9.0	63.0
Max Q Clear Time (g_c+I1), s	23.0	40.6	9.5	29.4	14.3	34.1	11.0	65.0
Green Ext Time (p_c), s	0.0	0.0	0.1	24.5	0.1	10.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	269.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	577	37	168	638	12	39	299	157	2	657	123
Future Volume (veh/h)	9	577	37	168	638	12	39	299	157	2	657	123
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1759	1759	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	9	577	37	168	638	12	39	299	157	2	657	123
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	8	8	8	3	3	3	3	3	3
Cap, veh/h	48	579	37	166	720	14	64	470	247	50	611	114
Arrive On Green	0.03	0.35	0.35	0.10	0.42	0.42	0.04	0.41	0.41	0.03	0.40	0.40
Sat Flow, veh/h	1707	1667	107	1675	1721	32	1757	1140	599	1757	1512	283
Grp Volume(v), veh/h	9	0	614	168	0	650	39	0	456	2	0	780
Grp Sat Flow(s),veh/h/ln	1707	0	1774	1675	0	1754	1757	0	1739	1757	0	1795
Q Serve(g_s), s	0.7	0.0	48.8	14.0	0.0	48.4	3.1	0.0	29.5	0.2	0.0	57.0
Cycle Q Clear(g_c), s	0.7	0.0	48.8	14.0	0.0	48.4	3.1	0.0	29.5	0.2	0.0	57.0
Prop In Lane	1.00		0.06	1.00		0.02	1.00		0.34	1.00		0.16
Lane Grp Cap(c), veh/h	48	0	616	166	0	733	64	0	716	50	0	725
V/C Ratio(X)	0.19	0.00	1.00	1.01	0.00	0.89	0.61	0.00	0.64	0.04	0.00	1.08
Avail Cap(c_a), veh/h	169	0	616	166	0	733	174	0	716	174	0	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.0	0.0	46.0	63.6	0.0	38.0	67.0	0.0	33.1	66.7	0.0	42.1
Incr Delay (d2), s/veh	1.8	0.0	35.5	72.6	0.0	12.6	9.1	0.0	1.9	0.3	0.0	55.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	29.9	9.8	0.0	26.0	1.7	0.0	14.6	0.1	0.0	39.4
LnGrp Delay(d),s/veh	68.8	0.0	81.5	136.3	0.0	50.6	76.2	0.0	35.0	67.0	0.0	97.8
LnGrp LOS	E		F	F		D	E		C	E		F
Approach Vol, veh/h		623			818			495			782	
Approach Delay, s/veh		81.3			68.2			38.2			97.7	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	62.1	18.0	53.0	9.1	61.0	8.0	63.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	57.0	14.0	49.0	14.0	57.0	14.0	49.0
Max Q Clear Time (g_c+I1), s	2.2	31.5	16.0	50.8	5.1	59.0	2.7	50.4
Green Ext Time (p_c), s	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.2
HCM 2010 LOS	E



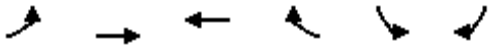
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1059	44	925	27	77	110	645	2110	17	146	1045	974
Future Volume (veh/h)	1059	44	925	27	77	110	645	2110	17	146	1045	974
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	1090	0	925	27	77	110	645	2110	17	146	1045	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	982	0	438	22	62	72	427	2249	18	111	1279	398
Arrive On Green	0.28	0.00	0.28	0.05	0.05	0.05	0.25	0.44	0.44	0.06	0.26	0.00
Sat Flow, veh/h	3480	0	1553	473	1348	1568	1740	5104	41	1740	4988	1553
Grp Volume(v), veh/h	1090	0	925	104	0	110	645	1374	753	146	1045	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1821	0	1568	1740	1663	1820	1740	1663	1553
Q Serve(g_s), s	33.7	0.0	33.7	5.5	0.0	5.5	29.3	47.1	47.1	7.6	23.5	0.0
Cycle Q Clear(g_c), s	33.7	0.0	33.7	5.5	0.0	5.5	29.3	47.1	47.1	7.6	23.5	0.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	982	0	438	84	0	72	427	1465	802	111	1279	398
V/C Ratio(X)	1.11	0.00	2.11	1.24	0.00	1.52	1.51	0.94	0.94	1.32	0.82	0.00
Avail Cap(c_a), veh/h	982	0	438	84	0	72	427	1487	814	111	1303	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.9	0.0	42.9	57.0	0.0	57.0	45.1	31.8	31.9	55.9	41.8	0.0
Incr Delay (d2), s/veh	63.9	0.0	507.6	176.1	0.0	293.7	241.8	11.4	18.0	193.3	3.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.8	0.0	76.2	6.9	0.0	8.3	42.7	23.9	27.6	9.6	11.3	0.0
LnGrp Delay(d),s/veh	106.7	0.0	550.5	233.0	0.0	350.7	286.9	43.2	49.8	249.2	45.6	0.0
LnGrp LOS	F		F	F		F	F	D	D	F	D	
Approach Vol, veh/h		2015			214			2772			1191	
Approach Delay, s/veh		310.4			293.5			101.7			70.5	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	35.4		11.0	12.0	57.4		39.0
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 29	31.2		5.5	* 7.6	* 53		33.7
Max Q Clear Time (g_c+I1), s	31.3	25.5		7.5	9.6	49.1		35.7
Green Ext Time (p_c), s	0.0	4.5		0.0	0.0	3.5		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		170.3
HCM 2010 LOS		F

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	28	1254	1204	269	661	254
Future Volume (veh/h)	28	1254	1204	269	661	254
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	28	1254	1204	269	661	254
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	56	1895	1360	301	694	620
Arrive On Green	0.03	0.54	0.48	0.48	0.40	0.40
Sat Flow, veh/h	1757	3597	2946	631	1757	1568
Grp Volume(v), veh/h	28	1254	735	738	661	254
Grp Sat Flow(s),veh/h/ln	1757	1752	1752	1733	1757	1568
Q Serve(g_s), s	2.0	31.9	47.1	48.5	45.5	14.6
Cycle Q Clear(g_c), s	2.0	31.9	47.1	48.5	45.5	14.6
Prop In Lane	1.00			0.36	1.00	1.00
Lane Grp Cap(c), veh/h	56	1895	835	826	694	620
V/C Ratio(X)	0.50	0.66	0.88	0.89	0.95	0.41
Avail Cap(c_a), veh/h	225	2220	835	826	747	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	20.5	29.4	29.8	36.6	27.2
Incr Delay (d2), s/veh	6.6	0.6	10.7	12.2	21.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	15.5	25.1	26.0	26.1	14.1
LnGrp Delay(d),s/veh	66.0	21.1	40.1	42.0	57.8	27.7
LnGrp LOS	E	C	D	D	E	C
Approach Vol, veh/h		1282	1473		915	
Approach Delay, s/veh		22.1	41.1		49.4	
Approach LOS		C	D		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		71.4		53.3	8.0	63.4		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		79.0		53.0	16.0	59.0		
Max Q Clear Time (g_c+I1), s		33.9		47.5	4.0	50.5		
Green Ext Time (p_c), s		33.5		1.8	0.0	7.9		

Intersection Summary	
HCM 2010 Ctrl Delay	36.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	521	376	31	107	300	760	56	2176	59	876	1674	466
Future Volume (veh/h)	521	376	31	107	300	760	56	2176	59	876	1674	466
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	521	376	31	107	300	760	56	2176	59	876	1674	466
Adj No. of Lanes	2	3	0	2	1	2	2	3	0	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	374	1263	103	151	368	1198	91	1816	49	623	2599	809
Arrive On Green	0.11	0.27	0.27	0.04	0.20	0.20	0.03	0.36	0.36	0.18	0.52	0.52
Sat Flow, veh/h	3408	4748	386	3514	1845	3136	3408	5042	136	3408	5036	1568
Grp Volume(v), veh/h	521	264	143	107	300	760	56	1447	788	876	1674	466
Grp Sat Flow(s),veh/h/ln	1704	1679	1777	1757	1845	1568	1704	1679	1821	1704	1679	1568
Q Serve(g_s), s	16.5	9.4	9.6	4.5	23.4	29.7	2.4	54.2	54.2	27.5	36.3	30.8
Cycle Q Clear(g_c), s	16.5	9.4	9.6	4.5	23.4	29.7	2.4	54.2	54.2	27.5	36.3	30.8
Prop In Lane	1.00		0.22	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	374	893	473	151	368	1198	91	1209	656	623	2599	809
V/C Ratio(X)	1.39	0.30	0.30	0.71	0.82	0.63	0.61	1.20	1.20	1.41	0.64	0.58
Avail Cap(c_a), veh/h	374	893	473	212	368	1198	134	1209	656	623	2599	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.0	44.0	44.1	71.1	57.6	37.9	72.5	48.2	48.2	61.5	26.4	25.1
Incr Delay (d2), s/veh	193.1	0.1	0.1	2.5	12.5	0.8	2.5	96.9	104.8	192.5	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.8	4.4	4.8	2.3	13.2	13.0	1.2	41.3	46.2	29.5	16.8	13.5
LnGrp Delay(d),s/veh	260.1	44.1	44.2	73.6	70.1	38.8	75.0	145.1	153.0	254.0	26.8	25.7
LnGrp LOS	F	D	D	E	E	D	E	F	F	F	C	C
Approach Vol, veh/h		928			1167			2291			3016	
Approach Delay, s/veh		165.4			50.0			146.1			92.6	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	83.3	22.0	35.7	33.0	59.8	12.0	45.7
Change Period (Y+Rc), s	5.5	5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	5.9	75.5	16.5	* 30	27.5	* 54	9.1	* 37
Max Q Clear Time (g_c+I1), s	4.4	38.3	18.5	31.7	29.5	56.2	6.5	11.6
Green Ext Time (p_c), s	0.0	22.3	0.0	0.0	0.0	0.0	0.0	2.4

Intersection Summary		
HCM 2010 Ctrl Delay		111.6
HCM 2010 LOS		F

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	103	44	69	49	159	17	1678	31	71	1666	51
Future Volume (veh/h)	311	103	44	69	49	159	17	1678	31	71	1666	51
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	229	218	44	59	63	159	17	1678	31	71	1666	51
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	301	255	52	218	229	195	20	2072	38	110	2288	70
Arrive On Green	0.17	0.17	0.17	0.12	0.12	0.12	0.01	0.41	0.41	0.06	0.46	0.46
Sat Flow, veh/h	1757	1491	301	1757	1845	1568	1757	5091	94	1757	5021	154
Grp Volume(v), veh/h	229	0	262	59	63	159	17	1106	603	71	1114	603
Grp Sat Flow(s),veh/h/ln	1757	0	1792	1757	1845	1568	1757	1679	1828	1757	1679	1818
Q Serve(g_s), s	10.8	0.0	12.3	2.6	2.7	8.6	0.8	25.3	25.3	3.4	23.5	23.5
Cycle Q Clear(g_c), s	10.8	0.0	12.3	2.6	2.7	8.6	0.8	25.3	25.3	3.4	23.5	23.5
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.05	1.00		0.08
Lane Grp Cap(c), veh/h	301	0	307	218	229	195	20	1366	744	110	1530	828
V/C Ratio(X)	0.76	0.00	0.85	0.27	0.28	0.82	0.83	0.81	0.81	0.65	0.73	0.73
Avail Cap(c_a), veh/h	569	0	580	549	576	490	65	1493	813	117	1586	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	0.0	34.9	34.4	34.5	37.0	42.8	22.8	22.8	39.7	19.2	19.2
Incr Delay (d2), s/veh	1.5	0.0	2.6	0.2	0.2	3.2	26.1	2.8	5.1	7.8	1.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	6.3	1.3	1.4	3.9	0.5	12.2	13.8	1.9	11.1	12.3
LnGrp Delay(d),s/veh	35.8	0.0	37.5	34.7	34.7	40.2	68.9	25.6	27.9	47.5	20.7	21.8
LnGrp LOS	D		D	C	C	D	E	C	C	D	C	C
Approach Vol, veh/h		491			281			1726			1788	
Approach Delay, s/veh		36.7			37.8			26.8			22.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	44.3		16.3	10.0	40.1		20.4
Change Period (Y+Rc), s	* 4.8	4.8		5.5	* 4.6	4.8		5.5
Max Green Setting (Gmax), s	* 3.2	41.0		27.1	* 5.8	38.6		28.1
Max Q Clear Time (g_c+I1), s	2.8	25.5		10.6	5.4	27.3		14.3
Green Ext Time (p_c), s	0.0	10.0		0.2	0.0	8.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	1491	529	262	1266	290	535	1243	144	487	1212	62
Future Volume (veh/h)	83	1491	529	262	1266	290	535	1243	144	487	1212	62
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	83	1491	529	262	1266	290	535	1243	144	487	1212	62
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	124	1357	474	266	2063	642	520	1309	408	493	1236	63
Arrive On Green	0.04	0.37	0.37	0.08	0.41	0.41	0.15	0.26	0.26	0.14	0.25	0.25
Sat Flow, veh/h	3408	3688	1287	3408	5036	1568	3408	5036	1568	3408	4907	251
Grp Volume(v), veh/h	83	1355	665	262	1266	290	535	1243	144	487	829	445
Grp Sat Flow(s),veh/h/ln	1704	1679	1618	1704	1679	1568	1704	1679	1568	1704	1679	1800
Q Serve(g_s), s	3.6	55.2	55.2	11.5	29.7	20.1	22.9	36.4	11.2	21.4	36.8	36.8
Cycle Q Clear(g_c), s	3.6	55.2	55.2	11.5	29.7	20.1	22.9	36.4	11.2	21.4	36.8	36.8
Prop In Lane	1.00		0.80	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	124	1235	595	266	2063	642	520	1309	408	493	846	454
V/C Ratio(X)	0.67	1.10	1.12	0.99	0.61	0.45	1.03	0.95	0.35	0.99	0.98	0.98
Avail Cap(c_a), veh/h	170	1235	595	266	2063	642	520	1309	408	493	846	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.4	47.4	47.4	69.1	34.9	32.1	63.5	54.5	45.2	64.0	55.7	55.7
Incr Delay (d2), s/veh	2.3	56.3	73.4	50.9	0.4	0.2	46.9	14.3	0.2	37.2	25.9	36.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	35.2	36.8	7.3	13.9	8.7	14.2	18.7	4.9	12.6	20.1	22.9
LnGrp Delay(d),s/veh	73.7	103.7	120.8	120.0	35.3	32.2	110.4	68.9	45.4	101.2	81.6	92.6
LnGrp LOS	E	F	F	F	D	C	F	E	D	F	F	F
Approach Vol, veh/h		2103			1818			1922			1761	
Approach Delay, s/veh		107.9			47.0			78.7			89.8	
Approach LOS		F			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.4	43.4	10.9	67.3	27.2	44.6	17.2	61.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	22.9	* 38	7.5	59.4	21.7	* 39	11.7	55.2
Max Q Clear Time (g_c+I1), s	24.9	38.8	5.6	31.7	23.4	38.4	13.5	57.2
Green Ext Time (p_c), s	0.0	0.0	0.0	14.9	0.0	0.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	81.8
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

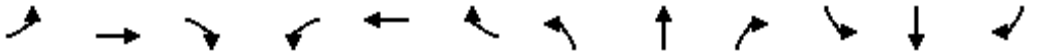
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	1594	135	456	1143	436	80	503	412	624	692	266
Future Volume (veh/h)	159	1594	135	456	1143	436	80	503	412	624	692	266
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	159	1594	135	456	1143	436	80	503	412	624	692	266
Adj No. of Lanes	1	2	0	2	2	1	1	1	0	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	156	1153	97	232	1152	515	92	324	266	316	712	605
Arrive On Green	0.09	0.35	0.35	0.07	0.33	0.33	0.05	0.35	0.35	0.09	0.39	0.39
Sat Flow, veh/h	1757	3274	275	3408	3505	1568	1757	939	769	3408	1845	1568
Grp Volume(v), veh/h	159	847	882	456	1143	436	80	0	915	624	692	266
Grp Sat Flow(s),veh/h/ln	1757	1752	1796	1704	1752	1568	1757	0	1709	1704	1845	1568
Q Serve(g_s), s	12.9	51.2	51.2	9.9	47.2	37.6	6.6	0.0	50.2	13.5	53.6	18.2
Cycle Q Clear(g_c), s	12.9	51.2	51.2	9.9	47.2	37.6	6.6	0.0	50.2	13.5	53.6	18.2
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	156	617	632	232	1152	515	92	0	590	316	712	605
V/C Ratio(X)	1.02	1.37	1.39	1.97	0.99	0.85	0.87	0.00	1.55	1.97	0.97	0.44
Avail Cap(c_a), veh/h	156	617	632	232	1152	515	92	0	590	316	712	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.3	47.1	47.1	67.8	48.6	45.4	68.4	0.0	47.6	66.0	43.9	33.0
Incr Delay (d2), s/veh	77.5	177.7	187.1	449.5	24.5	11.7	52.9	0.0	256.2	448.6	26.8	0.2
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	55.2	58.2	19.1	26.8	18.0	4.5	0.0	65.6	26.0	32.6	8.0
LnGrp Delay(d),s/veh	143.9	224.8	234.2	517.3	73.1	57.1	121.3	0.0	303.8	514.6	70.6	33.2
LnGrp LOS	F	F	F	F	E	E	F		F	F	E	C
Approach Vol, veh/h		1888			2035			995			1582	
Approach Delay, s/veh		222.4			169.2			289.1			239.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	52.7	13.1	61.2	15.0	56.1	19.0	55.3
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	12.9	* 48	7.6	* 56	* 9.9	* 51	13.5	* 50
Max Q Clear Time (g_c+I1), s	14.9	49.2	8.6	55.6	11.9	53.2	15.5	52.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	220.1
HCM 2010 LOS	F

Notes

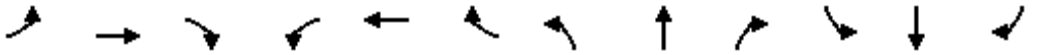
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	449	1253	66	173	928	83	74	236	81	143	458	418
Future Volume (veh/h)	449	1253	66	173	928	83	74	236	81	143	458	418
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	449	1253	66	173	928	83	74	236	81	143	458	418
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	564	1541	689	285	1253	561	147	690	309	191	735	329
Arrive On Green	0.17	0.44	0.44	0.08	0.36	0.36	0.04	0.20	0.20	0.06	0.21	0.21
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	449	1253	66	173	928	83	74	236	81	143	458	418
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	9.0	22.3	1.8	3.5	16.5	2.6	1.5	4.1	3.1	3.0	8.5	15.0
Cycle Q Clear(g_c), s	9.0	22.3	1.8	3.5	16.5	2.6	1.5	4.1	3.1	3.0	8.5	15.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	564	1541	689	285	1253	561	147	690	309	191	735	329
V/C Ratio(X)	0.80	0.81	0.10	0.61	0.74	0.15	0.50	0.34	0.26	0.75	0.62	1.27
Avail Cap(c_a), veh/h	763	1541	689	715	1422	636	191	735	329	191	735	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	17.5	11.7	31.6	20.1	15.6	33.5	24.7	24.3	33.2	25.7	28.2
Incr Delay (d2), s/veh	4.2	3.5	0.1	2.1	1.8	0.1	2.7	0.3	0.4	15.1	1.6	143.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	11.4	0.8	1.7	8.3	1.1	0.8	2.0	1.4	1.8	4.2	19.6
LnGrp Delay(d),s/veh	32.9	20.9	11.8	33.7	21.9	15.7	36.1	25.0	24.7	48.4	27.3	171.7
LnGrp LOS	C	C	B	C	C	B	D	C	C	D	C	F
Approach Vol, veh/h		1768			1184			391			1019	
Approach Delay, s/veh		23.6			23.2			27.1			89.5	
Approach LOS		C			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	18.1	10.0	35.4	7.1	19.0	15.8	29.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	15.0	15.0	30.0	4.0	15.0	16.0	29.0
Max Q Clear Time (g_c+I1), s	5.0	6.1	5.5	24.3	3.5	17.0	11.0	18.5
Green Ext Time (p_c), s	0.0	3.6	0.5	5.1	0.0	0.0	0.8	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.2
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	208	1912	35	60	1070	141	57	299	29	147	526	112
Future Volume (veh/h)	208	1912	35	60	1070	141	57	299	29	147	526	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1759	1845	1845	1759	1845
Adj Flow Rate, veh/h	208	1912	35	60	1070	141	57	299	29	147	526	112
Adj No. of Lanes	2	2	0	1	2	1	1	1	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	8	3	3	8	3
Cap, veh/h	257	1836	34	63	1688	755	63	478	426	193	515	459
Arrive On Green	0.08	0.52	0.52	0.04	0.48	0.48	0.04	0.27	0.27	0.06	0.29	0.29
Sat Flow, veh/h	3408	3521	64	1757	3505	1568	1757	1759	1568	3408	1759	1568
Grp Volume(v), veh/h	208	949	998	60	1070	141	57	299	29	147	526	112
Grp Sat Flow(s),veh/h/ln	1704	1752	1833	1757	1752	1568	1757	1759	1568	1704	1759	1568
Q Serve(g_s), s	8.4	73.0	73.0	4.8	31.9	7.2	4.5	20.9	1.9	6.0	41.0	7.6
Cycle Q Clear(g_c), s	8.4	73.0	73.0	4.8	31.9	7.2	4.5	20.9	1.9	6.0	41.0	7.6
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	914	956	63	1688	755	63	478	426	193	515	459
V/C Ratio(X)	0.81	1.04	1.04	0.96	0.63	0.19	0.91	0.62	0.07	0.76	1.02	0.24
Avail Cap(c_a), veh/h	316	914	956	63	1688	755	63	478	426	195	515	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.7	33.5	33.5	67.4	27.1	20.7	67.3	44.7	37.8	65.1	49.5	37.7
Incr Delay (d2), s/veh	11.9	40.1	41.4	97.8	0.8	0.1	81.7	2.5	0.1	16.0	45.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	45.2	47.6	4.0	15.6	3.1	3.6	10.5	0.8	3.2	26.3	3.3
LnGrp Delay(d),s/veh	75.7	73.6	74.9	165.2	27.9	20.8	149.0	47.2	37.9	81.1	94.6	38.0
LnGrp LOS	E	F	F	F	C	C	F	D	D	F	F	D
Approach Vol, veh/h		2155			1271			385			785	
Approach Delay, s/veh		74.4			33.6			61.6			84.0	
Approach LOS		E			C			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	42.1	9.0	77.0	9.0	45.0	14.6	71.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	38.0	5.0	73.0	5.0	41.0	13.0	65.0
Max Q Clear Time (g_c+I1), s	8.0	22.9	6.8	75.0	6.5	43.0	10.4	33.9
Green Ext Time (p_c), s	0.0	5.2	0.0	0.0	0.0	0.0	0.2	27.9

Intersection Summary	
HCM 2010 Ctrl Delay	63.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	272	559	267	206	270	335	137	2083	118	359	1373	326
Future Volume (veh/h)	272	559	267	206	270	335	137	2083	118	359	1373	326
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	272	559	267	206	268	336	137	2083	118	359	1373	326
Adj No. of Lanes	2	2	1	2	1	2	2	4	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	290	917	410	271	467	1143	196	2124	525	375	1950	607
Arrive On Green	0.09	0.26	0.26	0.08	0.25	0.25	0.06	0.34	0.34	0.11	0.39	0.39
Sat Flow, veh/h	3408	3505	1568	3514	1845	3136	3375	6285	1553	3375	4988	1553
Grp Volume(v), veh/h	272	559	267	206	268	336	137	2083	118	359	1373	326
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1845	1568	1688	1571	1553	1688	1663	1553
Q Serve(g_s), s	8.3	14.6	15.8	6.0	13.3	8.0	4.2	34.3	5.7	11.1	24.2	16.9
Cycle Q Clear(g_c), s	8.3	14.6	15.8	6.0	13.3	8.0	4.2	34.3	5.7	11.1	24.2	16.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	917	410	271	467	1143	196	2124	525	375	1950	607
V/C Ratio(X)	0.94	0.61	0.65	0.76	0.57	0.29	0.70	0.98	0.22	0.96	0.70	0.54
Avail Cap(c_a), veh/h	290	983	440	394	565	1309	217	2124	525	375	1950	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	33.9	34.3	47.3	34.1	23.6	48.3	34.2	24.8	46.2	26.7	24.5
Incr Delay (d2), s/veh	35.9	1.3	3.7	2.6	3.0	0.4	6.6	15.2	0.1	35.2	1.8	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	7.2	7.3	3.0	7.2	3.5	2.1	17.1	2.4	7.0	11.4	7.6
LnGrp Delay(d),s/veh	83.4	35.1	38.1	49.8	37.1	24.0	54.9	49.4	24.9	81.4	28.6	27.1
LnGrp LOS	F	D	D	D	D	C	D	D	C	F	C	C
Approach Vol, veh/h		1098			810			2338			2058	
Approach Delay, s/veh		47.8			34.9			48.5			37.6	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	46.2	14.4	32.3	17.1	40.7	13.5	33.1
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.8	5.5	* 5.4	5.5	* 5.8
Max Green Setting (Gmax), s	6.7	* 40	8.9	32.0	11.6	* 35	11.7	* 29
Max Q Clear Time (g_c+I1), s	6.2	26.2	10.3	15.3	13.1	36.3	8.0	17.8
Green Ext Time (p_c), s	0.0	13.7	0.0	11.2	0.0	0.0	0.1	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	43.1
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	514	1177	760	530	696	131	549	1039	666	70	1670	162
Future Volume (veh/h)	514	1177	760	530	696	131	549	1039	666	70	1670	162
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	514	1177	760	530	696	131	549	1039	666	70	1670	162
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	4	4	4
Cap, veh/h	558	1073	480	393	1292	402	416	1979	616	97	1508	469
Arrive On Green	0.16	0.31	0.31	0.12	0.26	0.26	0.12	0.40	0.40	0.03	0.30	0.30
Sat Flow, veh/h	3408	3505	1568	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	514	1177	760	530	696	131	549	1039	666	70	1670	162
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	22.3	46.0	46.0	17.5	18.1	10.3	18.5	23.8	59.6	3.1	45.4	12.2
Cycle Q Clear(g_c), s	22.3	46.0	46.0	17.5	18.1	10.3	18.5	23.8	59.6	3.1	45.4	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	558	1073	480	393	1292	402	416	1979	616	97	1508	469
V/C Ratio(X)	0.92	1.10	1.58	1.35	0.54	0.33	1.32	0.52	1.08	0.72	1.11	0.35
Avail Cap(c_a), veh/h	715	1073	480	393	1292	402	416	1979	616	97	1508	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	52.1	52.1	66.4	47.9	45.0	65.9	34.5	45.3	72.4	52.4	40.8
Incr Delay (d2), s/veh	13.2	57.8	272.0	172.5	1.2	1.6	160.3	0.5	60.0	20.7	58.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	30.8	56.2	17.6	8.5	4.6	17.9	11.1	35.7	1.7	29.0	5.4
LnGrp Delay(d),s/veh	75.0	109.9	324.1	238.9	49.2	46.6	226.1	35.0	105.3	93.0	111.0	41.7
LnGrp LOS	E	F	F	F	D	D	F	C	F	F	F	D
Approach Vol, veh/h		2451			1357			2254			1902	
Approach Delay, s/veh		169.0			123.0			102.3			104.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	51.2	30.1	44.9	9.8	65.4	23.0	52.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	18.5	* 45	31.5	* 32	4.3	* 60	17.5	46.0
Max Q Clear Time (g_c+I1), s	20.5	47.4	24.3	20.1	5.1	61.6	19.5	48.0
Green Ext Time (p_c), s	0.0	0.0	0.3	11.9	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		126.9
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	706	1569	392	42	860	300	283	1290	46	729	1761	372
Future Volume (veh/h)	706	1569	392	42	860	300	283	1290	46	729	1761	372
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	706	1569	392	42	860	300	283	1290	46	729	1761	372
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	625	1923	599	72	1106	344	277	1230	383	664	1801	561
Arrive On Green	0.18	0.38	0.38	0.02	0.22	0.22	0.08	0.25	0.25	0.20	0.36	0.36
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	706	1569	392	42	860	300	283	1290	46	729	1761	372
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	27.5	42.0	30.9	1.8	24.1	27.7	12.3	37.0	3.5	29.5	52.3	30.2
Cycle Q Clear(g_c), s	27.5	42.0	30.9	1.8	24.1	27.7	12.3	37.0	3.5	29.5	52.3	30.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	625	1923	599	72	1106	344	277	1230	383	664	1801	561
V/C Ratio(X)	1.13	0.82	0.65	0.58	0.78	0.87	1.02	1.05	0.12	1.10	0.98	0.66
Avail Cap(c_a), veh/h	625	1923	599	84	1141	355	277	1230	383	664	1801	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	41.7	38.2	72.8	55.1	56.5	68.9	56.5	43.9	60.3	47.3	40.3
Incr Delay (d2), s/veh	77.5	2.7	2.1	2.8	3.0	19.0	60.1	39.5	0.1	65.0	16.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.7	19.9	13.7	0.9	11.5	13.8	8.0	21.5	1.5	19.7	26.7	13.3
LnGrp Delay(d),s/veh	138.8	44.3	40.3	75.6	58.1	75.5	129.0	96.0	43.9	125.3	63.4	42.6
LnGrp LOS	F	D	D	E	E	E	F	F	D	F	E	D
Approach Vol, veh/h		2667			1202			1619			2862	
Approach Delay, s/veh		68.7			63.1			100.3			76.5	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	60.2	33.0	39.1	35.0	43.0	8.7	63.4
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	12.3	53.6	27.5	* 34	29.5	* 37	3.7	* 57
Max Q Clear Time (g_c+I1), s	14.3	54.3	29.5	29.7	31.5	39.0	3.8	44.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.2	0.0	0.0	0.0	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	76.7
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	677	1598	347	112	865	360	264	1249	102	701	1858	829
Future Volume (veh/h)	677	1598	347	112	865	360	264	1249	102	701	1858	829
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	677	1598	347	112	865	360	264	1249	102	701	1858	829
Adj No. of Lanes	2	3	0	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	701	1479	319	132	919	286	263	1243	387	663	1835	571
Arrive On Green	0.21	0.36	0.36	0.04	0.19	0.19	0.08	0.25	0.25	0.20	0.37	0.37
Sat Flow, veh/h	3408	4150	894	3250	4803	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	677	1290	655	112	865	360	264	1249	102	701	1858	829
Grp Sat Flow(s),veh/h/ln	1704	1679	1687	1625	1601	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	27.6	49.9	49.9	4.8	24.9	26.8	10.9	34.9	7.4	27.5	51.5	51.5
Cycle Q Clear(g_c), s	27.6	49.9	49.9	4.8	24.9	26.8	10.9	34.9	7.4	27.5	51.5	51.5
Prop In Lane	1.00		0.53	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	701	1197	601	132	919	286	263	1243	387	663	1835	571
V/C Ratio(X)	0.97	1.08	1.09	0.85	0.94	1.26	1.00	1.00	0.26	1.06	1.01	1.45
Avail Cap(c_a), veh/h	701	1197	601	132	919	286	263	1243	387	663	1835	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	45.0	45.1	66.7	55.8	56.6	64.6	52.5	42.2	56.3	44.3	44.3
Incr Delay (d2), s/veh	25.5	49.9	63.1	35.5	17.0	141.1	56.7	26.6	0.1	51.1	24.2	212.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	31.4	33.8	2.8	12.4	22.3	7.1	19.1	3.2	17.5	27.7	55.7
LnGrp Delay(d),s/veh	80.6	95.0	108.2	102.2	72.8	197.7	121.2	79.2	42.4	107.3	68.4	257.0
LnGrp LOS	F	F	F	F	E	F	F	F	D	F	F	F
Approach Vol, veh/h		2622			1337			1615			3388	
Approach Delay, s/veh		94.6			108.9			83.7			122.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	57.0	34.3	32.3	33.0	40.4	11.2	55.4
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	10.9	51.5	28.8	26.8	27.5	34.9	5.7	49.9
Max Q Clear Time (g_c+I1), s	12.9	53.5	29.6	28.8	29.5	36.9	6.8	51.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	105.4
HCM 2010 LOS	F

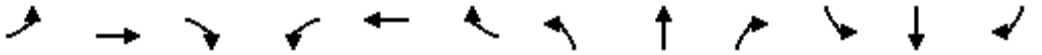
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	759	1164	161	178	787	163	130	885	308	239	1459	455
Future Volume (veh/h)	759	1164	161	178	787	163	130	885	308	239	1459	455
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845	1845	1827	1827	1827	1831	1900
Adj Flow Rate, veh/h	759	1164	161	178	787	163	130	885	308	239	1459	455
Adj No. of Lanes	2	2	1	0	1	1	1	2	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	4
Cap, veh/h	718	738	330	99	437	460	82	1009	451	259	864	257
Arrive On Green	0.21	0.21	0.21	0.29	0.29	0.29	0.05	0.29	0.29	0.08	0.33	0.33
Sat Flow, veh/h	3408	3505	1568	337	1491	1568	1757	3471	1553	3375	2645	787
Grp Volume(v), veh/h	759	1164	161	965	0	163	130	885	308	239	935	979
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1828	0	1568	1757	1736	1553	1688	1740	1692
Q Serve(g_s), s	31.6	31.6	13.5	44.0	0.0	12.3	7.0	36.4	26.3	10.6	49.0	49.0
Cycle Q Clear(g_c), s	31.6	31.6	13.5	44.0	0.0	12.3	7.0	36.4	26.3	10.6	49.0	49.0
Prop In Lane	1.00		1.00	0.18		1.00	1.00		1.00	1.00		0.46
Lane Grp Cap(c), veh/h	718	738	330	536	0	460	82	1009	451	259	568	553
V/C Ratio(X)	1.06	1.58	0.49	1.80	0.00	0.35	1.59	0.88	0.68	0.92	1.65	1.77
Avail Cap(c_a), veh/h	718	738	330	536	0	460	82	1009	451	259	568	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.2	59.2	52.1	53.0	0.0	41.8	71.5	50.7	47.1	68.8	50.5	50.5
Incr Delay (d2), s/veh	49.7	265.9	1.1	367.3	0.0	0.5	313.5	8.9	4.2	36.1	298.3	354.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.8	42.5	6.0	76.9	0.0	5.4	10.5	18.7	11.8	6.2	70.6	77.3
LnGrp Delay(d),s/veh	108.9	325.1	53.2	420.3	0.0	42.3	385.0	59.5	51.3	104.9	348.8	404.7
LnGrp LOS	F	F	D	F		D	F	E	D	F	F	F
Approach Vol, veh/h		2084			1128			1323			2153	
Approach Delay, s/veh		225.4			365.7			89.6			347.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	54.0		37.0	16.4	48.6		48.0
Change Period (Y+Rc), s	4.0	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	7.0	49.0		* 32	* 12	43.6		44.0
Max Q Clear Time (g_c+I1), s	9.0	51.0		33.6	12.6	38.4		46.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay		261.4	
HCM 2010 LOS		F	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	364	1698	102	333	951	262	66	704	336	307	1186	293
Future Volume (veh/h)	364	1698	102	333	951	262	66	704	336	307	1186	293
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1792	1845	1845	1845	1827	1845	1845
Adj Flow Rate, veh/h	364	1698	102	333	951	262	66	704	336	307	1186	293
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	6	3	3	3	4	3	3
Cap, veh/h	420	1547	692	306	1429	779	71	798	357	349	1088	680
Arrive On Green	0.12	0.44	0.44	0.09	0.41	0.41	0.02	0.23	0.23	0.10	0.31	0.31
Sat Flow, veh/h	3408	3505	1568	3408	3505	1524	3408	3505	1568	3375	3505	1568
Grp Volume(v), veh/h	364	1698	102	333	951	262	66	704	336	307	1186	293
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1524	1704	1752	1568	1688	1752	1568
Q Serve(g_s), s	15.2	64.0	5.6	13.0	32.0	14.7	2.8	28.2	30.5	13.0	45.0	18.9
Cycle Q Clear(g_c), s	15.2	64.0	5.6	13.0	32.0	14.7	2.8	28.2	30.5	13.0	45.0	18.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	420	1547	692	306	1429	779	71	798	357	349	1088	680
V/C Ratio(X)	0.87	1.10	0.15	1.09	0.67	0.34	0.94	0.88	0.94	0.88	1.09	0.43
Avail Cap(c_a), veh/h	541	1547	692	306	1429	779	71	798	357	349	1088	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.4	40.5	24.2	66.0	34.9	20.9	70.9	54.1	55.1	64.1	50.0	28.6
Incr Delay (d2), s/veh	11.4	54.5	0.1	77.6	1.2	0.3	85.0	11.4	32.8	21.0	55.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	42.6	2.5	9.4	15.7	6.2	2.2	14.9	16.5	7.1	30.1	8.2
LnGrp Delay(d),s/veh	73.8	95.0	24.3	143.6	36.1	21.2	155.9	65.5	87.9	85.1	105.3	29.0
LnGrp LOS	E	F	C	F	D	C	F	E	F	F	F	C
Approach Vol, veh/h		2164			1546			1106			1786	
Approach Delay, s/veh		88.1			56.7			77.7			89.3	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	70.0	7.0	51.0	21.9	65.1	19.0	39.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	13.0	64.0	3.0	45.0	23.0	54.0	15.0	33.0
Max Q Clear Time (g_c+I1), s	15.0	66.0	4.8	47.0	17.2	34.0	15.0	32.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.7	18.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	79.3
HCM 2010 LOS	E

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	554	16	20	545	1141	484
Future Volume (veh/h)	554	16	20	545	1141	484
Number	7	14	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1900	1827	1827	1827	1900
Adj Flow Rate, veh/h	554	16	20	545	1141	484
Adj No. of Lanes	0	0	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	4	4	4	4
Cap, veh/h	554	16	24	1969	1215	499
Arrive On Green	0.35	0.35	0.01	0.57	0.51	0.51
Sat Flow, veh/h	1591	46	1740	3563	2493	987
Grp Volume(v), veh/h	571	0	20	545	815	810
Grp Sat Flow(s),veh/h/ln	1640	0	1740	1736	1736	1653
Q Serve(g_s), s	40.0	0.0	1.3	9.3	50.2	54.6
Cycle Q Clear(g_c), s	40.0	0.0	1.3	9.3	50.2	54.6
Prop In Lane	0.97	0.03	1.00			0.60
Lane Grp Cap(c), veh/h	571	0	24	1969	878	836
V/C Ratio(X)	1.00	0.00	0.84	0.28	0.93	0.97
Avail Cap(c_a), veh/h	571	0	92	2137	887	845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	0.0	56.5	12.8	26.4	27.5
Incr Delay (d2), s/veh	37.7	0.0	24.3	0.0	15.3	23.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.9	0.0	0.8	4.4	27.7	30.2
LnGrp Delay(d),s/veh	75.1	0.0	80.9	12.8	41.7	50.9
LnGrp LOS	F		F	B	D	D
Approach Vol, veh/h	571			565	1625	
Approach Delay, s/veh	75.1			15.2	46.3	
Approach LOS	E			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	7.1	63.8		44.0		70.9		
Change Period (Y+Rc), s	5.5	* 5.7		4.0		* 5.7		
Max Green Setting (Gmax), s	6.1	* 59		40.0		* 71		
Max Q Clear Time (g_c+I1), s	3.3	56.6		42.0		11.3		
Green Ext Time (p_c), s	0.0	1.5		0.0		8.1		

Intersection Summary	
HCM 2010 Ctrl Delay	45.9
HCM 2010 LOS	D

Notes

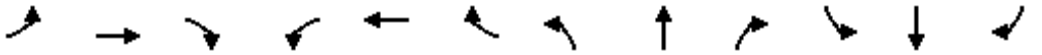
User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	51	11	20	27	12	45	1604	3	27	1260	291
Future Volume (veh/h)	369	51	11	20	27	12	45	1604	3	27	1260	291
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1583	1845	1845	1845	1845	1810	1845	1845	1845
Adj Flow Rate, veh/h	369	51	11	20	27	12	45	1604	3	27	1260	291
Adj No. of Lanes	2	1	1	1	1	1	2	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	20	3	3	3	3	5	3	3	3
Cap, veh/h	452	302	257	27	91	78	111	2029	891	40	1996	893
Arrive On Green	0.13	0.16	0.16	0.02	0.05	0.05	0.03	0.58	0.58	0.02	0.57	0.57
Sat Flow, veh/h	3408	1845	1568	1508	1845	1568	3408	3505	1538	1757	3505	1568
Grp Volume(v), veh/h	369	51	11	20	27	12	45	1604	3	27	1260	291
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1508	1845	1568	1704	1752	1538	1757	1752	1568
Q Serve(g_s), s	7.8	1.8	0.4	1.0	1.0	0.5	1.0	26.3	0.1	1.1	17.9	7.3
Cycle Q Clear(g_c), s	7.8	1.8	0.4	1.0	1.0	0.5	1.0	26.3	0.1	1.1	17.9	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	452	302	257	27	91	78	111	2029	891	40	1996	893
V/C Ratio(X)	0.82	0.17	0.04	0.73	0.30	0.15	0.41	0.79	0.00	0.67	0.63	0.33
Avail Cap(c_a), veh/h	460	498	423	122	398	338	184	2080	913	95	2080	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	26.6	26.1	36.2	34.0	33.7	35.2	12.1	6.6	35.9	10.7	8.4
Incr Delay (d2), s/veh	10.8	0.3	0.1	30.4	1.8	0.9	2.4	2.1	0.0	17.3	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.9	0.2	0.6	0.6	0.3	0.5	13.1	0.0	0.7	8.7	3.2
LnGrp Delay(d),s/veh	42.1	26.9	26.2	66.6	35.8	34.7	37.5	14.2	6.6	53.3	11.3	8.6
LnGrp LOS	D	C	C	E	D	C	D	B	A	D	B	A
Approach Vol, veh/h		431			59			1652			1578	
Approach Delay, s/veh		39.9			46.0			14.8			11.5	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	46.9	5.4	16.2	6.4	46.2	13.8	7.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	44.0	6.0	20.0	4.0	44.0	10.0	16.0
Max Q Clear Time (g_c+I1), s	3.1	28.3	3.0	3.8	3.0	19.9	9.8	3.0
Green Ext Time (p_c), s	0.0	14.6	0.0	0.3	0.0	21.8	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	976	768	4	64	442	80	54	847	73	86	686	690
Future Volume (veh/h)	976	768	4	64	442	80	54	847	73	86	686	690
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	976	768	4	64	442	80	54	847	73	86	686	690
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	989	1672	748	107	765	342	93	837	375	116	861	385
Arrive On Green	0.30	0.49	0.49	0.03	0.22	0.22	0.03	0.24	0.24	0.03	0.25	0.25
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3343	3438	1538	3343	3438	1538
Grp Volume(v), veh/h	976	768	4	64	442	80	54	847	73	86	686	690
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1672	1719	1538	1672	1719	1538
Q Serve(g_s), s	31.3	15.8	0.1	2.0	12.3	4.6	1.7	26.0	4.0	2.7	19.9	26.7
Cycle Q Clear(g_c), s	31.3	15.8	0.1	2.0	12.3	4.6	1.7	26.0	4.0	2.7	19.9	26.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	989	1672	748	107	765	342	93	837	375	116	861	385
V/C Ratio(X)	0.99	0.46	0.01	0.60	0.58	0.23	0.58	1.01	0.19	0.74	0.80	1.79
Avail Cap(c_a), veh/h	989	1706	763	174	868	388	94	837	375	116	861	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	17.9	13.9	51.0	36.9	33.9	51.3	40.4	32.1	51.1	37.5	40.0
Incr Delay (d2), s/veh	25.2	0.4	0.0	2.0	1.5	0.7	5.7	34.0	0.3	20.1	5.3	366.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.7	7.5	0.1	1.0	5.9	2.0	0.9	16.2	1.7	1.6	10.1	50.5
LnGrp Delay(d),s/veh	62.4	18.3	13.9	53.0	38.4	34.6	57.0	74.4	32.3	71.1	42.7	406.3
LnGrp LOS	E	B	B	D	D	C	E	F	C	E	D	F
Approach Vol, veh/h		1748			586			974			1462	
Approach Delay, s/veh		42.9			39.5			70.3			216.0	
Approach LOS		D			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.5	30.0	7.6	32.7	8.0	58.4	8.3	32.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	31.9	27.2	3.0	26.7	5.6	53.5	3.7	26.0
Max Q Clear Time (g_c+I1), s	33.3	14.3	3.7	28.7	4.0	17.8	4.7	28.0
Green Ext Time (p_c), s	0.0	9.6	0.0	0.0	0.0	20.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	101.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	812	25	409	961	99	90	558	169	125	918	186
Future Volume (veh/h)	126	812	25	409	961	99	90	558	169	125	918	186
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	126	812	25	409	961	99	90	558	169	125	918	186
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	158	824	25	395	1307	585	110	871	390	156	964	431
Arrive On Green	0.09	0.24	0.24	0.22	0.37	0.37	0.06	0.25	0.25	0.09	0.28	0.28
Sat Flow, veh/h	1757	3471	107	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	126	410	427	409	961	99	90	558	169	125	918	186
Grp Sat Flow(s),veh/h/ln	1757	1752	1826	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	5.6	18.6	18.6	18.0	19.0	3.4	4.0	11.4	7.3	5.6	20.6	7.8
Cycle Q Clear(g_c), s	5.6	18.6	18.6	18.0	19.0	3.4	4.0	11.4	7.3	5.6	20.6	7.8
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	416	434	395	1307	585	110	871	390	156	964	431
V/C Ratio(X)	0.80	0.98	0.98	1.03	0.74	0.17	0.82	0.64	0.43	0.80	0.95	0.43
Avail Cap(c_a), veh/h	176	416	434	395	1307	585	110	871	390	176	964	431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	30.4	30.4	31.0	21.7	16.8	37.1	26.9	25.3	35.7	28.5	23.9
Incr Delay (d2), s/veh	20.7	40.0	39.1	54.5	2.2	0.1	36.8	1.6	0.8	20.5	18.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	13.6	14.1	14.7	9.5	1.5	3.1	5.7	3.2	3.6	12.4	3.4
LnGrp Delay(d),s/veh	56.4	70.3	69.5	85.5	23.9	16.9	73.8	28.5	26.1	56.2	47.0	24.5
LnGrp LOS	E	E	E	F	C	B	E	C	C	E	D	C
Approach Vol, veh/h		963			1469			817			1229	
Approach Delay, s/veh		68.1			40.6			33.0			44.6	
Approach LOS		E			D			C			D	

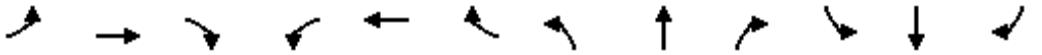
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	23.9	22.0	23.0	9.0	26.0	11.2	33.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	19.0	18.0	19.0	5.0	22.0	8.0	29.0
Max Q Clear Time (g_c+I1), s	7.6	13.4	20.0	20.6	6.0	22.6	7.6	21.0
Green Ext Time (p_c), s	0.0	4.4	0.0	0.0	0.0	0.0	0.0	6.3

Intersection Summary	
HCM 2010 Ctrl Delay	46.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	644	162	118	701	123	267	766	131	149	1232	190
Future Volume (veh/h)	70	644	162	118	701	123	267	766	131	149	1232	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	70	644	162	118	701	123	267	766	131	149	1232	190
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	78	701	314	137	696	122	271	1303	223	183	1174	180
Arrive On Green	0.04	0.20	0.20	0.08	0.23	0.23	0.16	0.44	0.44	0.11	0.39	0.39
Sat Flow, veh/h	1757	3505	1568	1757	2982	523	1740	2966	507	1740	3018	463
Grp Volume(v), veh/h	70	644	162	118	412	412	267	448	449	149	706	716
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1752	1740	1736	1737	1740	1736	1745
Q Serve(g_s), s	3.6	16.2	8.3	6.0	21.0	21.0	13.8	17.6	17.6	7.5	35.0	35.0
Cycle Q Clear(g_c), s	3.6	16.2	8.3	6.0	21.0	21.0	13.8	17.6	17.6	7.5	35.0	35.0
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.29	1.00		0.27
Lane Grp Cap(c), veh/h	78	701	314	137	409	409	271	762	763	183	675	679
V/C Ratio(X)	0.90	0.92	0.52	0.86	1.01	1.01	0.99	0.59	0.59	0.81	1.05	1.06
Avail Cap(c_a), veh/h	78	701	314	137	409	409	271	762	763	290	675	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	35.3	32.1	41.0	34.5	34.5	37.9	19.1	19.1	39.4	27.5	27.5
Incr Delay (d2), s/veh	68.0	17.2	1.5	39.8	46.3	46.6	50.8	1.2	1.2	9.2	47.1	50.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	9.5	3.7	4.4	15.4	15.4	10.4	8.6	8.6	4.1	25.5	26.2
LnGrp Delay(d),s/veh	110.8	52.5	33.6	80.8	80.8	81.1	88.7	20.3	20.3	48.6	74.6	77.6
LnGrp LOS	F	D	C	F	F	F	F	C	C	D	F	F
Approach Vol, veh/h		876			942			1164			1571	
Approach Delay, s/veh		53.7			80.9			36.0			73.5	
Approach LOS		D			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	43.5	11.0	22.0	18.0	39.0	8.0	25.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	34.0	7.0	18.0	14.0	35.0	4.0	21.0
Max Q Clear Time (g_c+I1), s	9.5	19.6	8.0	18.2	15.8	37.0	5.6	23.0
Green Ext Time (p_c), s	0.2	11.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	61.6
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	1214	465	44	1647	192	186	747	77	53	1388	148
Future Volume (veh/h)	185	1214	465	44	1647	192	186	747	77	53	1388	148
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	185	1214	465	44	1647	192	186	747	77	53	1388	148
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	1308	499	56	1496	466	174	1359	140	68	1273	569
Arrive On Green	0.10	0.37	0.37	0.03	0.30	0.30	0.10	0.43	0.43	0.04	0.37	0.37
Sat Flow, veh/h	1740	3555	1358	1740	4988	1553	1740	3177	327	1740	3471	1553
Grp Volume(v), veh/h	185	1135	544	44	1647	192	186	408	416	53	1388	148
Grp Sat Flow(s),veh/h/ln	1740	1663	1587	1740	1663	1553	1740	1736	1769	1740	1736	1553
Q Serve(g_s), s	12.0	39.3	39.5	3.0	36.0	11.9	12.0	21.1	21.1	3.6	44.0	8.0
Cycle Q Clear(g_c), s	12.0	39.3	39.5	3.0	36.0	11.9	12.0	21.1	21.1	3.6	44.0	8.0
Prop In Lane	1.00		0.86	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	174	1223	584	56	1496	466	174	742	757	68	1273	569
V/C Ratio(X)	1.06	0.93	0.93	0.79	1.10	0.41	1.07	0.55	0.55	0.78	1.09	0.26
Avail Cap(c_a), veh/h	174	1223	584	58	1496	466	174	742	757	130	1273	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	36.4	36.5	57.7	42.0	33.5	54.0	25.7	25.7	57.2	38.0	26.6
Incr Delay (d2), s/veh	86.0	12.2	21.8	48.9	56.0	0.6	87.8	0.9	0.9	17.4	53.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	20.1	20.8	2.2	24.2	5.1	10.0	10.3	10.5	2.1	30.5	3.5
LnGrp Delay(d),s/veh	140.0	48.7	58.3	106.6	98.0	34.1	141.8	26.6	26.6	74.5	91.7	26.8
LnGrp LOS	F	D	E	F	F	C	F	C	C	E	F	C
Approach Vol, veh/h		1864			1883			1010			1589	
Approach Delay, s/veh		60.5			91.7			47.8			85.1	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	55.3	7.9	48.1	16.0	48.0	16.0	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	47.0	4.0	44.0	12.0	44.0	12.0	36.0
Max Q Clear Time (g_c+I1), s	5.6	23.1	5.0	41.5	14.0	46.0	14.0	38.0
Green Ext Time (p_c), s	0.0	17.9	0.0	2.5	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	73.9
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	1425	143	276	1418	12	227	286	139	321	1114	150
Future Volume (veh/h)	154	1425	143	276	1418	12	227	286	139	321	1114	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	154	1425	143	276	1418	12	227	286	139	321	1114	150
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	3	3	3
Cap, veh/h	104	1233	123	209	1550	694	176	667	298	345	1005	449
Arrive On Green	0.06	0.39	0.39	0.12	0.45	0.45	0.10	0.19	0.19	0.20	0.29	0.29
Sat Flow, veh/h	1740	3188	318	1740	3471	1553	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	154	772	796	276	1418	12	227	286	139	321	1114	150
Grp Sat Flow(s),veh/h/ln	1740	1736	1771	1740	1736	1553	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	9.0	58.0	58.0	18.0	57.3	0.6	15.0	10.8	11.8	26.9	43.0	11.3
Cycle Q Clear(g_c), s	9.0	58.0	58.0	18.0	57.3	0.6	15.0	10.8	11.8	26.9	43.0	11.3
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	671	685	209	1550	694	176	667	298	345	1005	449
V/C Ratio(X)	1.48	1.15	1.16	1.32	0.91	0.02	1.29	0.43	0.47	0.93	1.11	0.33
Avail Cap(c_a), veh/h	104	671	685	209	1550	694	176	667	298	410	1005	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	46.0	46.0	66.0	38.8	23.1	67.5	53.6	54.0	59.2	53.5	42.2
Incr Delay (d2), s/veh	258.2	83.9	88.9	174.3	8.8	0.0	167.1	0.4	1.1	25.3	63.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	43.4	45.2	18.7	29.3	0.3	15.4	5.3	5.2	15.5	29.6	5.0
LnGrp Delay(d),s/veh	328.7	129.9	134.9	240.3	47.6	23.2	234.6	54.0	55.1	84.6	116.6	42.6
LnGrp LOS	F	F	F	F	D	C	F	D	E	F	F	D
Approach Vol, veh/h		1722			1706			652			1585	
Approach Delay, s/veh		150.0			78.6			117.1			103.1	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.5	32.5	22.0	62.0	19.0	47.0	13.0	71.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	35.0	23.0	18.0	58.0	15.0	43.0	9.0	67.0
Max Q Clear Time (g_c+I1), s	28.9	13.8	20.0	60.0	17.0	45.0	11.0	59.3
Green Ext Time (p_c), s	0.5	6.5	0.0	0.0	0.0	0.0	0.0	7.3

Intersection Summary	
HCM 2010 Ctrl Delay	111.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	592	40	80	605	50	59	939	85	182	1396	637
Future Volume (veh/h)	155	592	40	80	605	50	59	939	85	182	1396	637
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	155	592	40	80	605	50	59	939	85	182	1396	637
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	204	1088	339	157	1018	317	135	1329	120	271	1572	703
Arrive On Green	0.06	0.22	0.22	0.05	0.20	0.20	0.04	0.41	0.41	0.08	0.45	0.45
Sat Flow, veh/h	3375	4988	1553	3375	4988	1553	3375	3220	291	3375	3471	1553
Grp Volume(v), veh/h	155	592	40	80	605	50	59	506	518	182	1396	637
Grp Sat Flow(s),veh/h/ln	1688	1663	1553	1688	1663	1553	1688	1736	1775	1688	1736	1553
Q Serve(g_s), s	3.0	7.0	1.4	1.5	7.3	1.7	1.1	16.0	16.0	3.5	24.3	25.1
Cycle Q Clear(g_c), s	3.0	7.0	1.4	1.5	7.3	1.7	1.1	16.0	16.0	3.5	24.3	25.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	204	1088	339	157	1018	317	135	716	733	271	1572	703
V/C Ratio(X)	0.76	0.54	0.12	0.51	0.59	0.16	0.44	0.71	0.71	0.67	0.89	0.91
Avail Cap(c_a), veh/h	204	1208	376	204	1208	376	204	736	753	307	1577	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	22.9	20.7	30.7	23.8	21.6	31.0	16.1	16.1	29.5	16.5	16.8
Incr Delay (d2), s/veh	15.0	0.4	0.2	2.5	0.6	0.2	2.2	3.0	3.0	4.8	6.6	15.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.2	0.6	0.8	3.4	0.8	0.6	8.2	8.4	1.8	12.9	13.6
LnGrp Delay(d),s/veh	45.6	23.3	20.9	33.3	24.4	21.8	33.2	19.1	19.0	34.3	23.1	32.1
LnGrp LOS	D	C	C	C	C	C	C	B	B	C	C	C
Approach Vol, veh/h		787			735			1083			2215	
Approach Delay, s/veh		27.6			25.2			19.8			26.6	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	31.3	7.1	18.4	6.6	33.9	8.0	17.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	28.0	4.0	16.0	4.0	30.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	5.5	18.0	3.5	9.0	3.1	27.1	5.0	9.3
Green Ext Time (p_c), s	0.0	9.3	0.0	4.4	0.0	2.8	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	396	187	32	429	3	77	226	14	18	447	87
Future Volume (veh/h)	36	396	187	32	429	3	77	226	14	18	447	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1900	1827	1827	1827	1845	1845	1845
Adj Flow Rate, veh/h	36	396	187	32	429	3	77	226	14	18	447	87
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	3	3	3
Cap, veh/h	55	611	285	50	928	6	95	647	550	31	585	497
Arrive On Green	0.03	0.27	0.27	0.03	0.26	0.26	0.05	0.35	0.35	0.02	0.32	0.32
Sat Flow, veh/h	1740	2300	1073	1740	3533	25	1740	1827	1553	1757	1845	1568
Grp Volume(v), veh/h	36	298	285	32	211	221	77	226	14	18	447	87
Grp Sat Flow(s),veh/h/ln	1740	1736	1638	1740	1736	1823	1740	1827	1553	1757	1845	1568
Q Serve(g_s), s	1.0	7.3	7.4	0.9	4.9	4.9	2.1	4.4	0.3	0.5	10.5	1.9
Cycle Q Clear(g_c), s	1.0	7.3	7.4	0.9	4.9	4.9	2.1	4.4	0.3	0.5	10.5	1.9
Prop In Lane	1.00		0.66	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	55	461	435	50	456	479	95	647	550	31	585	497
V/C Ratio(X)	0.65	0.65	0.66	0.64	0.46	0.46	0.81	0.35	0.03	0.58	0.76	0.18
Avail Cap(c_a), veh/h	145	579	547	145	579	608	145	762	648	147	770	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	15.6	15.7	23.0	14.8	14.8	22.4	11.4	10.1	23.4	14.8	11.8
Incr Delay (d2), s/veh	12.2	1.7	2.0	12.5	0.7	0.7	17.4	0.3	0.0	15.6	3.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.7	3.6	0.6	2.4	2.6	1.5	2.3	0.1	0.4	5.8	0.8
LnGrp Delay(d),s/veh	35.1	17.3	17.6	35.5	15.6	15.5	39.8	11.7	10.1	39.0	18.1	12.0
LnGrp LOS	D	B	B	D	B	B	D	B	B	D	B	B
Approach Vol, veh/h		619			464			317			552	
Approach Delay, s/veh		18.5			16.9			18.5			17.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	21.0	5.4	16.7	6.6	19.2	5.5	16.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	20.0	4.0	16.0	4.0	20.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	2.5	6.4	2.9	9.4	4.1	12.5	3.0	6.9
Green Ext Time (p_c), s	0.0	3.9	0.0	3.3	0.0	2.7	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	6	262	50	9	1	194	1515	55	1	1895	0
Future Volume (veh/h)	1	6	262	50	9	1	194	1515	55	1	1895	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1759	1900	1845	1845	1900	1792	1792	1792	1792	1792	1900
Adj Flow Rate, veh/h	1	6	262	50	9	1	194	1515	55	1	1895	0
Adj No. of Lanes	0	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	1	4	182	78	72	8	212	1793	802	309	1986	0
Arrive On Green	0.12	0.12	0.12	0.04	0.04	0.04	0.12	0.53	0.53	0.18	0.58	0.00
Sat Flow, veh/h	6	33	1462	1757	1631	181	1707	3406	1524	1707	3495	0
Grp Volume(v), veh/h	269	0	0	50	0	10	194	1515	55	1	1895	0
Grp Sat Flow(s),veh/h/ln	1501	0	0	1757	0	1813	1707	1703	1524	1707	1703	0
Q Serve(g_s), s	16.0	0.0	0.0	3.6	0.0	0.7	14.5	48.9	2.3	0.1	67.3	0.0
Cycle Q Clear(g_c), s	16.0	0.0	0.0	3.6	0.0	0.7	14.5	48.9	2.3	0.1	67.3	0.0
Prop In Lane	0.00		0.97	1.00		0.10	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	187	0	0	78	0	80	212	1793	802	309	1986	0
V/C Ratio(X)	1.44	0.00	0.00	0.64	0.00	0.12	0.91	0.85	0.07	0.00	0.95	0.00
Avail Cap(c_a), veh/h	187	0	0	218	0	225	212	2327	1041	309	2010	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.4	0.0	0.0	60.5	0.0	59.2	55.7	26.0	15.0	43.2	25.2	0.0
Incr Delay (d2), s/veh	226.7	0.0	0.0	8.6	0.0	0.7	39.0	2.4	0.0	0.0	11.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.3	0.0	0.0	1.9	0.0	0.4	9.1	23.5	1.0	0.0	34.4	0.0
LnGrp Delay(d),s/veh	283.1	0.0	0.0	69.2	0.0	59.8	94.8	28.4	15.0	43.2	36.4	0.0
LnGrp LOS	F			E		E	F	C	B	D	D	
Approach Vol, veh/h		269			60			1764			1896	
Approach Delay, s/veh		283.1			67.6			35.3			36.4	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.3	71.8		20.0	20.0	79.1		9.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	88.0		16.0	16.0	76.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	50.9		18.0	16.5	69.3		5.6
Green Ext Time (p_c), s	1.8	16.9		0.0	0.0	5.7		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		53.0
HCM 2010 LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	13	43	148	6	202	38	1451	183	714	1482	1
Future Volume (veh/h)	12	13	43	148	6	202	38	1451	183	714	1482	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	12	13	43	148	6	202	38	1451	183	714	1482	1
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	19	32	107	120	7	219	49	1241	155	599	2549	2
Arrive On Green	0.01	0.09	0.09	0.07	0.14	0.14	0.03	0.40	0.40	0.34	0.71	0.71
Sat Flow, veh/h	1757	377	1247	1757	45	1529	1757	3136	392	1757	3594	2
Grp Volume(v), veh/h	12	0	56	148	0	208	38	805	829	714	723	760
Grp Sat Flow(s),veh/h/ln	1757	0	1625	1757	0	1575	1757	1752	1776	1757	1752	1844
Q Serve(g_s), s	1.0	0.0	4.8	10.0	0.0	19.1	3.2	58.0	58.0	50.0	29.9	29.9
Cycle Q Clear(g_c), s	1.0	0.0	4.8	10.0	0.0	19.1	3.2	58.0	58.0	50.0	29.9	29.9
Prop In Lane	1.00		0.77	1.00		0.97	1.00		0.22	1.00		0.00
Lane Grp Cap(c), veh/h	19	0	139	120	0	226	49	694	703	599	1243	1308
V/C Ratio(X)	0.65	0.00	0.40	1.23	0.00	0.92	0.78	1.16	1.18	1.19	0.58	0.58
Avail Cap(c_a), veh/h	60	0	177	120	0	226	96	694	703	599	1243	1308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.2	0.0	63.5	68.3	0.0	62.0	70.8	44.3	44.3	48.3	10.5	10.5
Incr Delay (d2), s/veh	32.1	0.0	1.9	158.3	0.0	39.1	23.0	87.5	95.4	101.8	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.2	10.1	0.0	10.8	1.8	44.8	46.9	41.1	14.5	15.2
LnGrp Delay(d),s/veh	104.3	0.0	65.3	226.5	0.0	101.0	93.8	131.7	139.7	150.1	11.2	11.2
LnGrp LOS	F		E	F		F	F	F	F	F	B	B
Approach Vol, veh/h		68			356			1672			2197	
Approach Delay, s/veh		72.2			153.2			134.8			56.4	
Approach LOS		E			F			F			E	

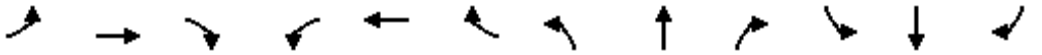
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	54.0	62.0	14.0	16.5	8.1	107.9	5.5	25.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	50.0	58.0	10.0	16.0	8.0	100.0	5.0	21.0
Max Q Clear Time (g_c+I1), s	52.0	60.0	12.0	6.8	5.2	31.9	3.0	21.1
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	52.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	95.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	332	12	14	1	6	4	10	1265	0	3	1356	381
Future Volume (veh/h)	332	12	14	1	6	4	10	1265	0	3	1356	381
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	332	12	14	1	6	4	10	1265	0	3	1356	0
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	381	14	352	2	10	7	18	1845	0	6	1821	815
Arrive On Green	0.22	0.22	0.22	0.01	0.01	0.01	0.01	0.53	0.00	0.00	0.52	0.00
Sat Flow, veh/h	1698	61	1568	157	941	628	1757	3597	0	1757	3505	1568
Grp Volume(v), veh/h	344	0	14	11	0	0	10	1265	0	3	1356	0
Grp Sat Flow(s),veh/h/ln	1760	0	1568	1726	0	0	1757	1752	0	1757	1752	1568
Q Serve(g_s), s	12.8	0.0	0.5	0.4	0.0	0.0	0.4	18.2	0.0	0.1	20.6	0.0
Cycle Q Clear(g_c), s	12.8	0.0	0.5	0.4	0.0	0.0	0.4	18.2	0.0	0.1	20.6	0.0
Prop In Lane	0.97		1.00	0.09		0.36	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	0	352	19	0	0	18	1845	0	6	1821	815
V/C Ratio(X)	0.87	0.00	0.04	0.58	0.00	0.00	0.56	0.69	0.00	0.53	0.74	0.00
Avail Cap(c_a), veh/h	439	0	391	405	0	0	103	1904	0	103	1904	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.5	0.0	20.7	33.5	0.0	0.0	33.6	11.9	0.0	33.9	12.8	0.0
Incr Delay (d2), s/veh	16.0	0.0	0.0	24.7	0.0	0.0	24.9	1.0	0.0	59.5	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	0.2	0.3	0.0	0.0	0.3	8.9	0.0	0.1	10.2	0.0
LnGrp Delay(d),s/veh	41.5	0.0	20.7	58.2	0.0	0.0	58.5	12.9	0.0	93.4	14.4	0.0
LnGrp LOS	D		C	E			E	B		F	B	
Approach Vol, veh/h		358			11			1275			1359	
Approach Delay, s/veh		40.7			58.2			13.3			14.6	
Approach LOS		D			E			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.2	39.9		19.3	4.7	39.4		4.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	37.0		17.0	4.0	37.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	20.2		14.8	2.4	22.6		2.4
Green Ext Time (p_c), s	0.0	14.7		0.5	0.0	12.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	17.3
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	1103	319	76	721	6	585	1248	78	36	1015	366
Future Volume (veh/h)	360	1103	319	76	721	6	585	1248	78	36	1015	366
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	360	1103	319	76	721	6	585	1248	78	36	1015	366
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	381	1101	493	129	842	377	571	1552	694	90	1057	473
Arrive On Green	0.11	0.31	0.31	0.04	0.24	0.24	0.17	0.44	0.44	0.03	0.30	0.30
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	360	1103	319	76	721	6	585	1248	78	36	1015	366
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	9.4	28.1	15.7	2.0	17.6	0.3	15.0	27.6	2.6	0.9	25.5	19.0
Cycle Q Clear(g_c), s	9.4	28.1	15.7	2.0	17.6	0.3	15.0	27.6	2.6	0.9	25.5	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	1101	493	129	842	377	571	1552	694	90	1057	473
V/C Ratio(X)	0.95	1.00	0.65	0.59	0.86	0.02	1.02	0.80	0.11	0.40	0.96	0.77
Avail Cap(c_a), veh/h	381	1101	493	152	861	385	571	1552	694	152	1057	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	30.7	26.4	42.4	32.5	25.9	37.3	21.6	14.6	42.9	30.7	28.5
Incr Delay (d2), s/veh	32.4	27.6	3.0	4.2	8.4	0.0	44.0	3.2	0.1	2.8	18.8	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	17.7	7.2	1.0	9.5	0.1	10.5	13.9	1.1	0.5	15.0	9.2
LnGrp Delay(d),s/veh	71.8	58.3	29.4	46.6	40.9	25.9	81.2	24.8	14.7	45.7	49.5	36.3
LnGrp LOS	E	F	C	D	D	C	F	C	B	D	D	D
Approach Vol, veh/h		1782			803			1911			1417	
Approach Delay, s/veh		55.8			41.3			41.6			46.0	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	43.6	7.4	32.1	19.0	31.0	14.0	25.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	38.0	4.0	28.0	15.0	27.0	10.0	22.0
Max Q Clear Time (g_c+I1), s	2.9	29.6	4.0	30.1	17.0	27.5	11.4	19.6
Green Ext Time (p_c), s	0.0	7.6	0.0	0.0	0.0	0.0	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	46.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	2455	461	29	2171	209	136	74	18	322	185	183
Future Volume (veh/h)	197	2455	461	29	2171	209	136	74	18	322	185	183
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	197	2455	461	29	2171	209	136	74	18	322	185	183
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	145	1913	348	37	1891	179	158	158	135	241	246	209
Arrive On Green	0.08	0.65	0.65	0.02	0.58	0.58	0.09	0.09	0.09	0.14	0.13	0.13
Sat Flow, veh/h	1757	2963	539	1757	3236	307	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	197	1421	1495	29	1159	1221	136	74	18	322	185	183
Grp Sat Flow(s),veh/h/ln	1757	1752	1749	1757	1752	1791	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	12.0	94.0	94.0	2.4	85.0	85.0	11.1	5.6	1.5	20.0	14.1	16.7
Cycle Q Clear(g_c), s	12.0	94.0	94.0	2.4	85.0	85.0	11.1	5.6	1.5	20.0	14.1	16.7
Prop In Lane	1.00		0.31	1.00		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	1132	1130	37	1024	1046	158	158	135	241	246	209
V/C Ratio(X)	1.36	1.26	1.32	0.79	1.13	1.17	0.86	0.47	0.13	1.33	0.75	0.88
Avail Cap(c_a), veh/h	145	1132	1130	48	1024	1046	181	216	183	241	279	237
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.8	25.8	25.8	70.9	30.3	30.3	65.3	63.3	61.5	62.8	60.7	61.9
Incr Delay (d2), s/veh	199.9	122.2	151.8	46.7	72.1	85.6	29.0	2.1	0.4	175.5	9.7	26.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	83.4	92.5	1.6	61.5	66.7	6.7	2.9	0.7	21.4	7.9	8.8
LnGrp Delay(d),s/veh	266.6	148.0	177.6	117.7	102.3	115.9	94.3	65.5	61.9	238.3	70.4	88.4
LnGrp LOS	F	F	F	F	F	F	F	E	E	F	E	F
Approach Vol, veh/h		3113			2409			228			690	
Approach Delay, s/veh		169.7			109.4			82.4			153.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	16.5	7.0	98.0	17.1	23.4	16.0	89.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	17.0	4.0	93.0	15.0	22.0	12.0	85.0
Max Q Clear Time (g_c+I1), s	22.0	7.6	4.4	96.0	13.1	18.7	14.0	87.0
Green Ext Time (p_c), s	0.0	1.5	0.0	0.0	0.1	0.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	142.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1359	1132	620	2	717	295	606	1236	5	376	1582	768
Future Volume (veh/h)	1359	1132	620	2	717	295	606	1236	5	376	1582	768
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1359	1132	620	2	717	295	606	1236	5	376	1582	768
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1101	2236	696	7	620	193	498	1540	479	426	1433	446
Arrive On Green	0.32	0.44	0.44	0.00	0.12	0.12	0.15	0.31	0.31	0.12	0.28	0.28
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	1359	1132	620	2	717	295	606	1236	5	376	1582	768
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	42.0	21.0	47.3	0.1	16.0	16.0	19.0	29.4	0.3	14.1	37.0	37.0
Cycle Q Clear(g_c), s	42.0	21.0	47.3	0.1	16.0	16.0	19.0	29.4	0.3	14.1	37.0	37.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1101	2236	696	7	620	193	498	1540	479	426	1433	446
V/C Ratio(X)	1.23	0.51	0.89	0.27	1.16	1.53	1.22	0.80	0.01	0.88	1.10	1.72
Avail Cap(c_a), veh/h	1101	2236	696	105	620	193	498	1540	479	446	1433	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	25.9	33.2	64.8	57.0	57.0	55.5	41.5	31.4	55.9	46.5	46.5
Incr Delay (d2), s/veh	113.4	0.2	13.6	19.0	87.8	262.4	114.7	3.2	0.0	17.9	57.5	333.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	37.1	9.7	23.0	0.1	12.4	21.0	16.9	14.1	0.1	7.7	24.8	57.4
LnGrp Delay(d),s/veh	157.4	26.1	46.9	83.7	144.8	319.4	170.2	44.7	31.4	73.8	104.0	380.3
LnGrp LOS	F	C	D	F	F	F	F	D	C	E	F	F
Approach Vol, veh/h		3111			1014			1847			2726	
Approach Delay, s/veh		87.6			195.5			85.8			177.7	
Approach LOS		F			F			F			F	

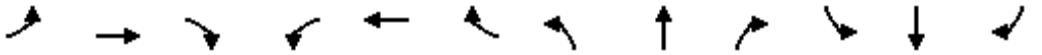
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	43.8	4.3	61.7	23.0	41.0	46.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	39.0	4.0	54.0	19.0	37.0	42.0	16.0
Max Q Clear Time (g_c+I1), s	16.1	31.4	2.1	49.3	21.0	39.0	44.0	18.0
Green Ext Time (p_c), s	0.1	7.4	0.0	4.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	128.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	986	643	205	657	673	338	490	391	785	976	0
Future Volume (veh/h)	0	986	643	205	657	673	338	490	391	785	976	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	986	643	205	657	673	338	490	391	785	976	0
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	5	1276	397	227	1880	585	409	794	355	818	1215	544
Arrive On Green	0.00	0.25	0.25	0.07	0.37	0.37	0.12	0.23	0.23	0.24	0.35	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	0	986	643	205	657	673	338	490	391	785	976	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.0	13.6	19.0	4.5	7.1	28.0	7.3	9.4	17.0	17.1	18.9	0.0
Cycle Q Clear(g_c), s	0.0	13.6	19.0	4.5	7.1	28.0	7.3	9.4	17.0	17.1	18.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1276	397	227	1880	585	409	794	355	818	1215	544
V/C Ratio(X)	0.00	0.77	1.62	0.90	0.35	1.15	0.83	0.62	1.10	0.96	0.80	0.00
Avail Cap(c_a), veh/h	182	1276	397	227	1880	585	409	794	355	818	1215	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.0	28.0	34.8	16.9	23.5	32.2	26.1	29.0	28.1	22.2	0.0
Incr Delay (d2), s/veh	0.0	3.0	289.8	34.6	0.1	85.9	13.1	1.4	77.4	22.1	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.7	40.1	3.2	3.2	26.0	4.2	4.7	15.0	10.5	9.8	0.0
LnGrp Delay(d),s/veh	0.0	29.0	317.8	69.4	17.0	109.4	45.3	27.5	106.4	50.3	26.2	0.0
LnGrp LOS		C	F	E	B	F	D	C	F	D	C	
Approach Vol, veh/h		1629			1535			1219			1761	
Approach Delay, s/veh		143.0			64.5			57.8			36.9	
Approach LOS		F			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	21.0	9.0	23.0	13.0	30.0	0.0	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	5.0	19.0	9.0	26.0	4.0	20.0
Max Q Clear Time (g_c+I1), s	19.1	19.0	6.5	21.0	9.3	20.9	0.0	30.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0

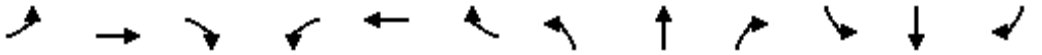
Intersection Summary	
HCM 2010 Ctrl Delay	76.1
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	197	25	100	88	481	17	537	147	885	912	32
Future Volume (veh/h)	211	197	25	100	88	481	17	537	147	885	912	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	211	197	25	100	88	481	17	537	147	885	912	32
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	234	840	376	167	771	345	54	729	326	966	1666	745
Arrive On Green	0.07	0.24	0.24	0.05	0.22	0.22	0.02	0.21	0.21	0.28	0.48	0.48
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	211	197	25	100	88	481	17	537	147	885	912	32
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	4.5	3.3	0.9	2.1	1.5	16.0	0.4	10.4	6.0	18.3	13.4	0.8
Cycle Q Clear(g_c), s	4.5	3.3	0.9	2.1	1.5	16.0	0.4	10.4	6.0	18.3	13.4	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	840	376	167	771	345	54	729	326	966	1666	745
V/C Ratio(X)	0.90	0.23	0.07	0.60	0.11	1.39	0.31	0.74	0.45	0.92	0.55	0.04
Avail Cap(c_a), veh/h	234	840	376	234	771	345	187	819	366	984	1666	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	22.3	21.4	33.9	22.7	28.4	35.4	26.9	25.2	25.2	13.5	10.2
Incr Delay (d2), s/veh	33.6	0.1	0.1	3.4	0.1	194.3	3.2	3.1	1.0	12.9	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.6	0.4	1.1	0.7	25.5	0.2	5.3	2.6	10.3	6.5	0.3
LnGrp Delay(d),s/veh	67.2	22.4	21.4	37.3	22.8	222.7	38.6	30.0	26.1	38.1	13.9	10.2
LnGrp LOS	E	C	C	D	C	F	D	C	C	D	B	B
Approach Vol, veh/h		433			669			701			1829	
Approach Delay, s/veh		44.2			168.7			29.4			25.5	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.6	19.1	7.6	21.4	5.2	38.6	9.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	17.0	5.0	16.0	4.0	34.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	20.3	12.4	4.1	5.3	2.4	15.4	6.5	18.0
Green Ext Time (p_c), s	0.3	2.7	0.0	2.9	0.0	10.5	0.0	0.0

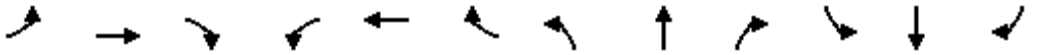
Intersection Summary	
HCM 2010 Ctrl Delay	54.9
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	687	200	27	513	115	134	352	24	228	497	147
Future Volume (veh/h)	242	687	200	27	513	115	134	352	24	228	497	147
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	242	687	200	27	513	115	134	352	24	228	497	147
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	366	1342	600	82	1051	470	223	781	349	347	909	407
Arrive On Green	0.11	0.38	0.38	0.02	0.30	0.30	0.07	0.22	0.22	0.10	0.26	0.26
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	242	687	200	27	513	115	134	352	24	228	497	147
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	4.1	9.0	5.4	0.5	7.2	3.3	2.3	5.2	0.7	3.8	7.3	4.6
Cycle Q Clear(g_c), s	4.1	9.0	5.4	0.5	7.2	3.3	2.3	5.2	0.7	3.8	7.3	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	366	1342	600	82	1051	470	223	781	349	347	909	407
V/C Ratio(X)	0.66	0.51	0.33	0.33	0.49	0.24	0.60	0.45	0.07	0.66	0.55	0.36
Avail Cap(c_a), veh/h	742	2056	920	228	1527	683	400	1351	604	685	1644	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	14.1	13.0	28.6	17.1	15.8	27.1	20.0	18.3	25.8	19.1	18.1
Incr Delay (d2), s/veh	2.1	0.3	0.3	2.3	0.4	0.3	2.6	0.4	0.1	2.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.4	2.4	0.2	3.5	1.5	1.2	2.5	0.3	1.9	3.6	2.0
LnGrp Delay(d),s/veh	27.6	14.4	13.3	30.9	17.5	16.1	29.7	20.4	18.4	27.9	19.6	18.6
LnGrp LOS	C	B	B	C	B	B	C	C	B	C	B	B
Approach Vol, veh/h		1129			655			510			872	
Approach Delay, s/veh		17.1			17.8			22.8			21.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	17.3	5.4	26.9	7.9	19.5	10.4	21.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	23.0	4.0	35.0	7.0	28.0	13.0	26.0
Max Q Clear Time (g_c+I1), s	5.8	7.2	2.5	11.0	4.3	9.3	6.1	9.2
Green Ext Time (p_c), s	0.4	5.7	0.0	10.5	0.1	6.2	0.5	8.7

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1083	499	43	994	98	169	48	31	202	212	51
Future Volume (veh/h)	117	1083	499	43	994	98	169	48	31	202	212	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	117	1083	499	43	994	98	169	48	31	202	212	51
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	149	1370	613	61	1196	535	212	265	225	248	302	257
Arrive On Green	0.08	0.39	0.39	0.03	0.34	0.34	0.12	0.14	0.14	0.14	0.16	0.16
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	117	1083	499	43	994	98	169	48	31	202	212	51
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	3.6	15.1	15.7	1.3	14.4	2.4	5.2	1.3	1.0	6.2	6.0	1.6
Cycle Q Clear(g_c), s	3.6	15.1	15.7	1.3	14.4	2.4	5.2	1.3	1.0	6.2	6.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1370	613	61	1196	535	212	265	225	248	302	257
V/C Ratio(X)	0.79	0.79	0.81	0.70	0.83	0.18	0.80	0.18	0.14	0.81	0.70	0.20
Avail Cap(c_a), veh/h	159	1370	613	127	1268	567	254	534	454	254	534	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	14.8	15.0	26.4	16.7	12.8	23.6	20.8	20.7	23.0	21.8	20.0
Incr Delay (d2), s/veh	21.4	3.2	8.3	13.4	4.6	0.2	13.7	0.3	0.3	17.8	2.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	7.8	8.2	0.9	7.7	1.1	3.3	0.7	0.4	4.2	3.3	0.7
LnGrp Delay(d),s/veh	46.2	18.1	23.3	39.8	21.4	13.0	37.4	21.1	21.0	40.9	24.8	20.3
LnGrp LOS	D	B	C	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h		1699			1135			248			465	
Approach Delay, s/veh		21.5			21.3			32.2			31.3	
Approach LOS		C			C			C			C	

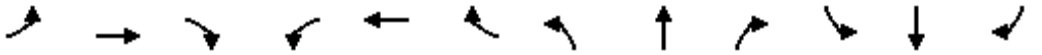
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	11.9	5.9	25.6	10.7	13.1	8.7	22.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	16.0	4.0	21.0	8.0	16.0	5.0	20.0
Max Q Clear Time (g_c+I1), s	8.2	3.3	3.3	17.7	7.2	8.0	5.6	16.4
Green Ext Time (p_c), s	0.0	1.4	0.0	3.1	0.0	1.1	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	23.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	308	164	132	173	31	207	71	30	230	206	18
Future Volume (veh/h)	46	308	164	132	173	31	207	71	30	230	206	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	46	308	164	132	173	31	207	71	30	230	206	18
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	68	444	377	151	439	79	258	209	88	283	306	27
Arrive On Green	0.04	0.24	0.24	0.09	0.29	0.29	0.15	0.17	0.17	0.16	0.18	0.18
Sat Flow, veh/h	1757	1845	1568	1757	1523	273	1757	1232	521	1757	1673	146
Grp Volume(v), veh/h	46	308	164	132	0	204	207	0	101	230	0	224
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1796	1757	0	1753	1757	0	1819
Q Serve(g_s), s	1.2	7.1	4.1	3.5	0.0	4.2	5.3	0.0	2.4	5.9	0.0	5.3
Cycle Q Clear(g_c), s	1.2	7.1	4.1	3.5	0.0	4.2	5.3	0.0	2.4	5.9	0.0	5.3
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.30	1.00		0.08
Lane Grp Cap(c), veh/h	68	444	377	151	0	517	258	0	297	283	0	333
V/C Ratio(X)	0.68	0.69	0.43	0.87	0.00	0.39	0.80	0.00	0.34	0.81	0.00	0.67
Avail Cap(c_a), veh/h	151	634	539	151	0	617	302	0	602	302	0	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	16.1	15.0	21.0	0.0	13.3	19.2	0.0	17.1	18.9	0.0	17.7
Incr Delay (d2), s/veh	11.3	2.0	0.8	39.4	0.0	0.5	12.6	0.0	0.7	14.8	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.8	1.9	3.3	0.0	2.2	3.4	0.0	1.2	4.0	0.0	2.9
LnGrp Delay(d),s/veh	33.4	18.1	15.8	60.5	0.0	13.8	31.8	0.0	17.7	33.7	0.0	20.1
LnGrp LOS	C	B	B	E		B	C		B	C		C
Approach Vol, veh/h		518			336			308			454	
Approach Delay, s/veh		18.7			32.2			27.2			27.0	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	11.9	8.0	15.2	10.8	12.5	5.8	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	16.0	4.0	16.0	8.0	16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	7.9	4.4	5.5	9.1	7.3	7.3	3.2	6.2
Green Ext Time (p_c), s	0.0	1.4	0.0	2.1	0.0	1.2	0.0	2.6

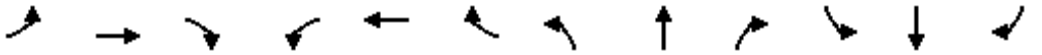
Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	258	0	0	386	193	0	0	0	547	0	0
Future Volume (veh/h)	0	258	0	0	386	193	0	0	0	547	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	258	0	0	386	193	0	0	0	547	0	0
Adj No. of Lanes	2	2	1	1	2	1	1	1	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	15	1236	553	8	1236	553	8	8	7	988	535	455
Arrive On Green	0.00	0.35	0.00	0.00	0.35	0.35	0.00	0.00	0.00	0.29	0.00	0.00
Sat Flow, veh/h	3408	3505	1568	1757	3505	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	0	258	0	0	386	193	0	0	0	547	0	0
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1757	1752	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	0.0	1.2	0.0	0.0	1.8	2.0	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.2	0.0	0.0	1.8	2.0	0.0	0.0	0.0	3.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	15	1236	553	8	1236	553	8	8	7	988	535	455
V/C Ratio(X)	0.00	0.21	0.00	0.00	0.31	0.35	0.00	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	609	2505	1120	314	2505	1120	314	1401	1190	2588	2472	2101
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	5.1	0.0	0.0	5.3	5.3	0.0	0.0	0.0	6.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.0	0.0	0.9	0.9	0.0	0.0	0.0	1.4	0.0	0.0
LnGrp Delay(d),s/veh	0.0	5.1	0.0	0.0	5.4	5.7	0.0	0.0	0.0	7.2	0.0	0.0
LnGrp LOS		A			A	A				A		
Approach Vol, veh/h		258			579			0			547	
Approach Delay, s/veh		5.1			5.5			0.0			7.2	
Approach LOS		A			A						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	0.0	0.0	11.9	0.0	10.5	0.0	11.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	17.0	4.0	16.0	4.0	30.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	5.0	0.0	0.0	3.2	0.0	0.0	0.0	4.0
Green Ext Time (p_c), s	1.7	0.0	0.0	4.1	0.0	0.0	0.0	3.9

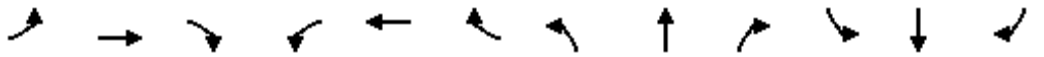
Intersection Summary		
HCM 2010 Ctrl Delay		6.1
HCM 2010 LOS		A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	5	34	162	21	69	55	1124	63	134	1213	107
Future Volume (veh/h)	48	5	34	162	21	69	55	1124	63	134	1213	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	48	5	34	162	21	69	55	1124	63	134	1213	107
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	58	106	90	203	258	219	67	1505	84	170	1643	145
Arrive On Green	0.03	0.06	0.06	0.12	0.14	0.14	0.04	0.45	0.45	0.10	0.50	0.50
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3375	189	1757	3259	287
Grp Volume(v), veh/h	48	5	34	162	21	69	55	583	604	134	651	669
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1811	1757	1752	1794
Q Serve(g_s), s	1.5	0.1	1.2	5.1	0.6	2.2	1.7	15.6	15.6	4.2	16.5	16.6
Cycle Q Clear(g_c), s	1.5	0.1	1.2	5.1	0.6	2.2	1.7	15.6	15.6	4.2	16.5	16.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.16
Lane Grp Cap(c), veh/h	58	106	90	203	258	219	67	781	808	170	883	904
V/C Ratio(X)	0.82	0.05	0.38	0.80	0.08	0.31	0.81	0.75	0.75	0.79	0.74	0.74
Avail Cap(c_a), veh/h	187	492	418	219	525	446	94	810	837	187	903	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	25.0	25.5	24.3	21.1	21.8	26.9	12.9	13.0	24.9	11.0	11.0
Incr Delay (d2), s/veh	23.8	0.2	2.6	17.5	0.1	0.8	30.4	3.7	3.6	18.5	3.1	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.1	0.6	3.4	0.3	1.0	1.4	8.3	8.5	2.9	8.5	9.0
LnGrp Delay(d),s/veh	50.8	25.2	28.1	41.8	21.2	22.6	57.2	16.6	16.5	43.3	14.1	14.2
LnGrp LOS	D	C	C	D	C	C	E	B	B	D	B	B
Approach Vol, veh/h		87			252			1242			1454	
Approach Delay, s/veh		40.5			34.8			18.4			16.8	
Approach LOS		D			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	29.1	10.5	7.2	6.2	32.4	5.9	11.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	26.0	7.0	15.0	3.0	29.0	6.0	16.0
Max Q Clear Time (g_c+I1), s	6.2	17.6	7.1	3.2	3.7	18.6	3.5	4.2
Green Ext Time (p_c), s	0.0	7.5	0.0	0.3	0.0	9.1	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	9	98	52	7	122	36	1123	108	62	1182	53
Future Volume (veh/h)	90	9	98	52	7	122	36	1123	108	62	1182	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	90	9	98	52	7	122	36	1123	108	62	1182	53
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	114	266	226	64	213	181	43	1656	159	78	1819	82
Arrive On Green	0.07	0.14	0.14	0.04	0.12	0.12	0.02	0.51	0.51	0.04	0.53	0.53
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3232	310	1757	3417	153
Grp Volume(v), veh/h	90	9	98	52	7	122	36	608	623	62	606	629
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1790	1757	1752	1818
Q Serve(g_s), s	3.1	0.3	3.5	1.8	0.2	4.5	1.2	15.8	15.8	2.1	15.0	15.1
Cycle Q Clear(g_c), s	3.1	0.3	3.5	1.8	0.2	4.5	1.2	15.8	15.8	2.1	15.0	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.08
Lane Grp Cap(c), veh/h	114	266	226	64	213	181	43	898	917	78	933	967
V/C Ratio(X)	0.79	0.03	0.43	0.81	0.03	0.68	0.84	0.68	0.68	0.80	0.65	0.65
Avail Cap(c_a), veh/h	116	485	412	116	485	412	87	980	1001	144	1037	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	22.4	23.8	29.1	23.9	25.8	29.6	11.1	11.1	28.8	10.2	10.2
Incr Delay (d2), s/veh	29.1	0.1	1.3	21.1	0.1	4.3	33.4	1.7	1.7	16.9	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.1	1.6	1.2	0.1	2.2	1.0	7.9	8.2	1.4	7.6	7.8
LnGrp Delay(d),s/veh	57.1	22.4	25.1	50.2	24.0	30.2	62.9	12.8	12.8	45.7	11.4	11.4
LnGrp LOS	E	C	C	D	C	C	E	B	B	D	B	B
Approach Vol, veh/h		197			181			1267			1297	
Approach Delay, s/veh		39.6			35.7			14.2			13.0	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	35.2	6.2	12.8	5.5	36.4	8.0	11.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	34.0	4.0	16.0	3.0	36.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	4.1	17.8	3.8	5.5	3.2	17.1	5.1	6.5
Green Ext Time (p_c), s	0.0	13.3	0.0	0.6	0.0	15.2	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1465	45	221	867	64	104
Future Volume (veh/h)	1465	45	221	867	64	104
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	1465	45	221	867	64	104
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	2922	90	314	2950	150	134
Arrive On Green	0.84	0.84	0.84	0.84	0.09	0.09
Sat Flow, veh/h	3564	106	342	3597	1757	1568
Grp Volume(v), veh/h	738	772	221	867	64	104
Grp Sat Flow(s),veh/h/ln	1752	1826	342	1752	1757	1568
Q Serve(g_s), s	12.7	12.7	55.1	5.7	3.8	7.1
Cycle Q Clear(g_c), s	12.7	12.7	67.8	5.7	3.8	7.1
Prop In Lane		0.06	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1475	1537	314	2950	150	134
V/C Ratio(X)	0.50	0.50	0.70	0.29	0.43	0.78
Avail Cap(c_a), veh/h	1533	1598	325	3067	256	229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	2.4	2.4	11.7	1.8	47.6	49.1
Incr Delay (d2), s/veh	0.3	0.3	6.5	0.1	1.9	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	6.3	5.7	2.7	1.9	3.4
LnGrp Delay(d),s/veh	2.6	2.6	18.2	1.9	49.5	58.4
LnGrp LOS	A	A	B	A	D	E
Approach Vol, veh/h	1510			1088	168	
Approach Delay, s/veh	2.6			5.2	55.0	
Approach LOS	A			A	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		13.4		96.3				96.3
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		16.0		96.0				96.0
Max Q Clear Time (g_c+I1), s		9.1		14.7				69.8
Green Ext Time (p_c), s		0.2		54.3				22.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.8
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	2701	0	68	2249	0	0	4	83	128	0	0
Future Volume (veh/h)	147	2701	0	68	2249	0	0	4	83	128	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	147	2701	0	68	2249	0	0	4	83	128	0	0
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	175	2950	0	87	2697	0	2	144	123	153	397	338
Arrive On Green	0.10	0.59	0.00	0.05	0.54	0.00	0.00	0.08	0.08	0.09	0.00	0.00
Sat Flow, veh/h	1757	5202	0	1757	5202	0	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	147	2701	0	68	2249	0	0	4	83	128	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	0	1757	1679	0	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	6.6	38.4	0.0	3.1	30.1	0.0	0.0	0.2	4.1	5.8	0.0	0.0
Cycle Q Clear(g_c), s	6.6	38.4	0.0	3.1	30.1	0.0	0.0	0.2	4.1	5.8	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	2950	0	87	2697	0	2	144	123	153	397	338
V/C Ratio(X)	0.84	0.92	0.00	0.78	0.83	0.00	0.00	0.03	0.68	0.84	0.00	0.00
Avail Cap(c_a), veh/h	175	2950	0	88	2699	0	66	368	313	153	460	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.5	14.8	0.0	37.7	15.6	0.0	0.0	34.2	36.0	36.0	0.0	0.0
Incr Delay (d2), s/veh	28.7	5.1	0.0	35.9	2.4	0.0	0.0	0.1	6.4	31.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	18.9	0.0	2.4	14.3	0.0	0.0	0.1	2.0	4.1	0.0	0.0
LnGrp Delay(d),s/veh	64.2	19.9	0.0	73.6	18.0	0.0	0.0	34.2	42.4	67.1	0.0	0.0
LnGrp LOS	E	B		E	B			C	D	E		
Approach Vol, veh/h		2848			2317			87			128	
Approach Delay, s/veh		22.2			19.7			42.0			67.1	
Approach LOS		C			B			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	10.3	8.0	51.0	0.0	21.3	12.0	47.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	16.0	4.0	47.0	3.0	20.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	7.8	6.1	5.1	40.4	0.0	0.0	8.6	32.1
Green Ext Time (p_c), s	0.0	0.1	0.0	6.6	0.0	0.0	0.0	10.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	1972	703	216	1299	0	621	518	228	86	613	276
Future Volume (veh/h)	314	1972	703	216	1299	0	621	518	228	86	613	276
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	314	1972	703	216	1299	0	621	518	228	86	613	276
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	365	1743	543	184	1475	459	551	767	652	107	582	495
Arrive On Green	0.11	0.35	0.35	0.05	0.29	0.00	0.16	0.42	0.42	0.06	0.32	0.32
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	314	1972	703	216	1299	0	621	518	228	86	613	276
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1845	1568	1757	1845	1568
Q Serve(g_s), s	11.8	45.0	45.0	7.0	32.0	0.0	21.0	29.6	12.9	6.3	41.0	19.0
Cycle Q Clear(g_c), s	11.8	45.0	45.0	7.0	32.0	0.0	21.0	29.6	12.9	6.3	41.0	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	365	1743	543	184	1475	459	551	767	652	107	582	495
V/C Ratio(X)	0.86	1.13	1.30	1.18	0.88	0.00	1.13	0.68	0.35	0.80	1.05	0.56
Avail Cap(c_a), veh/h	393	1743	543	184	1475	459	551	767	652	122	582	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	42.5	42.5	61.5	43.8	0.0	54.5	30.8	25.9	60.3	44.5	37.0
Incr Delay (d2), s/veh	16.4	66.9	146.1	122.2	6.5	0.0	78.7	2.4	0.3	28.2	52.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	31.6	41.5	6.4	15.7	0.0	15.9	15.6	5.6	3.9	29.3	8.4
LnGrp Delay(d),s/veh	73.5	109.4	188.6	183.7	50.3	0.0	133.2	33.2	26.3	88.4	96.7	38.4
LnGrp LOS	E	F	F	F	D		F	C	C	F	F	D
Approach Vol, veh/h		2989			1515			1367			975	
Approach Delay, s/veh		124.3			69.3			77.4			79.5	
Approach LOS		F			E			E			E	

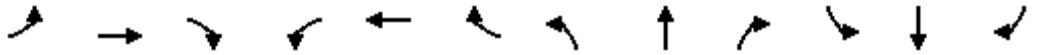
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	58.1	11.0	49.0	25.0	45.0	17.9	42.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	53.0	7.0	45.0	21.0	41.0	15.0	37.0
Max Q Clear Time (g_c+I1), s	8.3	31.6	9.0	47.0	23.0	43.0	13.8	34.0
Green Ext Time (p_c), s	0.0	10.1	0.0	0.0	0.0	0.0	0.2	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	96.4
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	2103	43	46	1213	3	159	0	0	3	1	21
Future Volume (veh/h)	50	2103	43	46	1213	3	159	0	0	3	1	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	50	2103	43	46	1213	3	159	0	0	3	1	21
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	61	2685	55	56	2725	7	199	299	255	4	95	81
Arrive On Green	0.03	0.53	0.53	0.03	0.53	0.53	0.11	0.00	0.00	0.00	0.05	0.05
Sat Flow, veh/h	1757	5080	104	1757	5187	13	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	50	1389	757	46	785	431	159	0	0	3	1	21
Grp Sat Flow(s),veh/h/ln	1757	1679	1826	1757	1679	1842	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.6	19.4	19.4	1.5	8.4	8.4	5.1	0.0	0.0	0.1	0.0	0.7
Cycle Q Clear(g_c), s	1.6	19.4	19.4	1.5	8.4	8.4	5.1	0.0	0.0	0.1	0.0	0.7
Prop In Lane	1.00		0.06	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	1774	965	56	1764	968	199	299	255	4	95	81
V/C Ratio(X)	0.82	0.78	0.78	0.83	0.45	0.45	0.80	0.00	0.00	0.70	0.01	0.26
Avail Cap(c_a), veh/h	181	1847	1005	91	1764	968	211	666	566	91	539	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	11.0	11.0	28.0	8.6	8.6	25.2	0.0	0.0	29.0	26.2	26.5
Incr Delay (d2), s/veh	22.3	2.2	4.0	26.3	0.2	0.3	18.3	0.0	0.0	114.4	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	9.4	10.7	1.1	3.9	4.3	3.5	0.0	0.0	0.2	0.0	0.4
LnGrp Delay(d),s/veh	50.1	13.2	15.0	54.3	8.7	8.9	43.5	0.0	0.0	143.4	26.2	28.2
LnGrp LOS	D	B	B	D	A	A	D			F	C	C
Approach Vol, veh/h		2196			1262			159			25	
Approach Delay, s/veh		14.7			10.4			43.5			42.0	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.1	13.4	5.8	34.7	10.6	7.0	6.0	34.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	21.0	3.0	32.0	7.0	17.0	6.0	29.0
Max Q Clear Time (g_c+I1), s	2.1	0.0	3.5	21.4	7.1	2.7	3.6	10.4
Green Ext Time (p_c), s	0.0	0.0	0.0	9.3	0.0	0.0	0.0	17.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	1945	77	99	1127	23	88	8	105	35	18	46
Future Volume (veh/h)	82	1945	77	99	1127	23	88	8	105	35	18	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	82	1945	77	99	1127	23	88	8	105	35	18	46
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	2452	97	126	2568	52	111	210	179	41	136	116
Arrive On Green	0.06	0.49	0.49	0.07	0.51	0.51	0.06	0.11	0.11	0.02	0.07	0.07
Sat Flow, veh/h	1757	4971	196	1757	5080	104	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	82	1312	710	99	745	405	88	8	105	35	18	46
Grp Sat Flow(s),veh/h/ln	1757	1679	1810	1757	1679	1826	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	2.5	17.5	17.5	3.0	7.6	7.6	2.7	0.2	3.4	1.1	0.5	1.5
Cycle Q Clear(g_c), s	2.5	17.5	17.5	3.0	7.6	7.6	2.7	0.2	3.4	1.1	0.5	1.5
Prop In Lane	1.00		0.11	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	1656	893	126	1697	923	111	210	179	41	136	116
V/C Ratio(X)	0.79	0.79	0.79	0.79	0.44	0.44	0.79	0.04	0.59	0.86	0.13	0.40
Avail Cap(c_a), veh/h	262	1751	944	164	1697	923	131	584	496	131	584	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	11.3	11.3	24.5	8.4	8.4	24.8	21.2	22.6	26.1	23.3	23.7
Incr Delay (d2), s/veh	12.2	2.5	4.5	17.2	0.2	0.3	23.8	0.1	3.1	36.4	0.4	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	8.6	9.8	2.0	3.5	3.8	2.0	0.1	1.6	0.9	0.3	0.7
LnGrp Delay(d),s/veh	37.1	13.8	15.9	41.7	8.6	8.8	48.6	21.2	25.6	62.6	23.7	25.9
LnGrp LOS	D	B	B	D	A	A	D	C	C	E	C	C
Approach Vol, veh/h		2104			1249			201			99	
Approach Delay, s/veh		15.4			11.3			35.5			38.5	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	10.1	7.8	30.5	7.4	8.0	7.2	31.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	17.0	5.0	28.0	4.0	17.0	8.0	25.0
Max Q Clear Time (g_c+I1), s	3.1	5.4	5.0	19.5	4.7	3.5	4.5	9.6
Green Ext Time (p_c), s	0.0	0.4	0.0	6.9	0.0	0.5	0.0	14.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	319	286	1541	2818	47
Future Volume (veh/h)	72	319	286	1541	2818	47
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	72	319	286	1541	2818	47
Adj No. of Lanes	1	1	1	3	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	293	261	293	3749	2721	45
Arrive On Green	0.17	0.17	0.17	0.74	0.53	0.53
Sat Flow, veh/h	1757	1568	1757	5202	5268	85
Grp Volume(v), veh/h	72	319	286	1541	1849	1016
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1679	1679	1830
Q Serve(g_s), s	3.2	15.0	14.6	10.1	48.0	48.0
Cycle Q Clear(g_c), s	3.2	15.0	14.6	10.1	48.0	48.0
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	293	261	293	3749	1791	976
V/C Ratio(X)	0.25	1.22	0.98	0.41	1.03	1.04
Avail Cap(c_a), veh/h	293	261	293	3749	1791	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	37.5	37.3	4.2	21.0	21.0
Incr Delay (d2), s/veh	0.4	128.7	46.1	0.1	30.2	39.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	21.2	10.8	4.6	29.4	34.7
LnGrp Delay(d),s/veh	33.0	166.2	83.4	4.3	51.2	60.9
LnGrp LOS	C	F	F	A	F	F
Approach Vol, veh/h	391			1827	2865	
Approach Delay, s/veh	141.7			16.7	54.7	
Approach LOS	F			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		71.0		19.0	19.0	52.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		67.0		15.0	15.0	48.0		
Max Q Clear Time (g_c+I1), s		12.1		17.0	16.6	50.0		
Green Ext Time (p_c), s		53.2		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	47.7
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	387	104	77	927	1355	198
Future Volume (veh/h)	387	104	77	927	1355	198
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	387	104	77	927	1355	198
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	436	389	97	2156	1511	219
Arrive On Green	0.25	0.25	0.06	0.62	0.49	0.49
Sat Flow, veh/h	1757	1568	1757	3597	3166	445
Grp Volume(v), veh/h	387	104	77	927	768	785
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1766
Q Serve(g_s), s	12.4	3.1	2.5	8.1	23.2	23.9
Cycle Q Clear(g_c), s	12.4	3.1	2.5	8.1	23.2	23.9
Prop In Lane	1.00	1.00	1.00			0.25
Lane Grp Cap(c), veh/h	436	389	97	2156	861	868
V/C Ratio(X)	0.89	0.27	0.79	0.43	0.89	0.90
Avail Cap(c_a), veh/h	450	401	120	2212	867	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	17.7	27.4	5.9	13.5	13.6
Incr Delay (d2), s/veh	18.5	0.4	24.6	0.1	11.4	12.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	3.0	1.9	3.9	13.8	14.6
LnGrp Delay(d),s/veh	39.8	18.1	51.9	6.0	24.9	26.4
LnGrp LOS	D	B	D	A	C	C
Approach Vol, veh/h	491			1004	1553	
Approach Delay, s/veh	35.2			9.6	25.6	
Approach LOS	D			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		40.1		18.6	7.2	32.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		37.0		15.0	4.0	29.0		
Max Q Clear Time (g_c+I1), s		10.1		14.4	4.5	25.9		
Green Ext Time (p_c), s		21.0		0.1	0.0	2.9		

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	851	822	72	1075	768	0	154	819	843	40	2036	759
Future Volume (veh/h)	851	822	72	1075	768	0	154	819	843	40	2036	759
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	851	822	72	1075	768	0	154	819	843	40	2036	759
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	839	701	314	918	782	350	105	1949	607	70	1898	591
Arrive On Green	0.25	0.20	0.20	0.27	0.22	0.00	0.03	0.39	0.39	0.02	0.38	0.38
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	851	822	72	1075	768	0	154	819	843	40	2036	759
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	32.0	26.0	5.0	35.0	28.3	0.0	4.0	15.5	50.3	1.5	49.0	49.0
Cycle Q Clear(g_c), s	32.0	26.0	5.0	35.0	28.3	0.0	4.0	15.5	50.3	1.5	49.0	49.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	839	701	314	918	782	350	105	1949	607	70	1898	591
V/C Ratio(X)	1.01	1.17	0.23	1.17	0.98	0.00	1.47	0.42	1.39	0.57	1.07	1.28
Avail Cap(c_a), veh/h	839	701	314	918	782	350	105	1949	607	79	1898	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	52.0	43.6	47.5	50.2	0.0	63.0	29.2	39.8	63.1	40.5	40.5
Incr Delay (d2), s/veh	34.7	92.4	0.4	88.8	27.7	0.0	255.3	0.1	185.1	7.5	43.3	140.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.1	21.6	2.2	27.8	16.8	0.0	5.6	7.2	52.9	0.8	30.3	44.2
LnGrp Delay(d),s/veh	83.7	144.4	44.0	136.3	78.0	0.0	318.3	29.3	224.9	70.5	83.8	181.0
LnGrp LOS	F	F	D	F	E		F	C	F	E	F	F
Approach Vol, veh/h		1745			1843			1816			2835	
Approach Delay, s/veh		110.6			112.0			144.6			109.6	
Approach LOS		F			F			F			F	

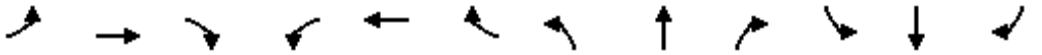
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	54.3	39.0	30.0	8.0	53.0	36.0	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	50.0	35.0	26.0	4.0	49.0	32.0	29.0
Max Q Clear Time (g_c+I1), s	3.5	52.3	37.0	28.0	6.0	51.0	34.0	30.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	118.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1183	77	61	1049	24	36	1	28	24	2	89
Future Volume (veh/h)	114	1183	77	61	1049	24	36	1	28	24	2	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	114	1183	77	61	1049	24	36	1	28	24	2	89
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	144	1606	104	74	1543	35	42	202	172	30	189	161
Arrive On Green	0.08	0.48	0.48	0.04	0.44	0.44	0.02	0.11	0.11	0.02	0.10	0.10
Sat Flow, veh/h	1757	3341	217	1757	3503	80	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	114	620	640	61	525	548	36	1	28	24	2	89
Grp Sat Flow(s),veh/h/ln	1757	1752	1806	1757	1752	1831	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	2.9	13.0	13.0	1.6	10.9	10.9	0.9	0.0	0.7	0.6	0.0	2.5
Cycle Q Clear(g_c), s	2.9	13.0	13.0	1.6	10.9	10.9	0.9	0.0	0.7	0.6	0.0	2.5
Prop In Lane	1.00		0.12	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	842	868	74	772	807	42	202	172	30	189	161
V/C Ratio(X)	0.79	0.74	0.74	0.82	0.68	0.68	0.85	0.00	0.16	0.79	0.01	0.55
Avail Cap(c_a), veh/h	192	883	910	115	806	842	115	606	515	115	606	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	9.5	9.5	21.7	10.2	10.2	22.2	18.1	18.4	22.4	18.4	19.5
Incr Delay (d2), s/veh	14.6	3.1	3.0	22.9	2.2	2.1	34.6	0.0	0.4	35.5	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	6.9	7.1	1.2	5.7	6.0	0.8	0.0	0.3	0.6	0.0	1.2
LnGrp Delay(d),s/veh	35.2	12.6	12.6	44.6	12.4	12.3	56.8	18.1	18.9	57.8	18.4	22.4
LnGrp LOS	D	B	B	D	B	B	E	B	B	E	B	C
Approach Vol, veh/h		1374			1134			65			115	
Approach Delay, s/veh		14.5			14.1			39.9			29.8	
Approach LOS		B			B			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	9.0	5.9	25.9	5.1	8.7	7.8	24.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	15.0	3.0	23.0	3.0	15.0	5.0	21.0
Max Q Clear Time (g_c+I1), s	2.6	2.7	3.6	15.0	2.9	4.5	4.9	12.9
Green Ext Time (p_c), s	0.0	0.2	0.0	6.9	0.0	0.2	0.0	7.0

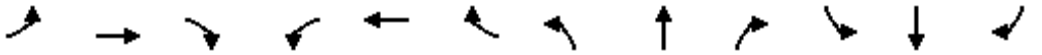
Intersection Summary	
HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	2098	75	56	1828	86	247	5	0	124	7	114
Future Volume (veh/h)	67	2098	75	56	1828	86	247	5	0	124	7	114
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	67	2098	75	56	1828	86	247	5	0	124	7	114
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	85	2480	88	71	2407	113	286	305	259	168	181	154
Arrive On Green	0.05	0.50	0.50	0.04	0.49	0.49	0.16	0.17	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1757	4993	178	1757	4930	232	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	67	1409	764	56	1244	670	247	5	0	124	7	114
Grp Sat Flow(s),veh/h/ln	1757	1679	1813	1757	1679	1804	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	3.0	28.8	29.0	2.5	23.8	23.9	10.8	0.2	0.0	5.4	0.3	5.6
Cycle Q Clear(g_c), s	3.0	28.8	29.0	2.5	23.8	23.9	10.8	0.2	0.0	5.4	0.3	5.6
Prop In Lane	1.00		0.10	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	1668	901	71	1639	881	286	305	259	168	181	154
V/C Ratio(X)	0.78	0.84	0.85	0.79	0.76	0.76	0.86	0.02	0.00	0.74	0.04	0.74
Avail Cap(c_a), veh/h	133	1696	916	89	1639	881	311	396	337	288	373	317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	17.3	17.3	37.7	16.5	16.5	32.3	27.6	0.0	34.8	32.3	34.7
Incr Delay (d2), s/veh	14.7	4.1	7.5	30.7	2.1	3.9	20.4	0.0	0.0	6.2	0.1	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	14.3	16.3	1.8	11.4	12.7	6.8	0.1	0.0	2.9	0.1	2.7
LnGrp Delay(d),s/veh	51.9	21.4	24.8	68.3	18.6	20.4	52.7	27.7	0.0	41.1	32.4	41.5
LnGrp LOS	D	C	C	E	B	C	D	C		D	C	D
Approach Vol, veh/h		2240			1970			252			245	
Approach Delay, s/veh		23.4			20.6			52.2			41.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	17.1	7.2	43.3	16.9	11.8	7.9	42.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	17.0	4.0	40.0	14.0	16.0	6.0	38.0
Max Q Clear Time (g_c+I1), s	7.4	2.2	4.5	31.0	12.8	7.6	5.0	25.9
Green Ext Time (p_c), s	0.1	0.3	0.0	8.3	0.1	0.2	0.0	11.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	553	1543	1044	34	1123	23	851	743	59	86	732	392
Future Volume (veh/h)	553	1543	1044	34	1123	23	851	743	59	86	732	392
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	553	1543	1044	34	1123	23	851	743	59	86	732	392
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	511	2134	664	61	1022	457	795	1352	605	134	672	301
Arrive On Green	0.15	0.42	0.42	0.02	0.29	0.29	0.23	0.39	0.39	0.04	0.19	0.19
Sat Flow, veh/h	3408	5036	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	553	1543	1044	34	1123	23	851	743	59	86	732	392
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	18.0	30.6	50.8	1.2	35.0	1.3	28.0	19.8	2.9	3.0	23.0	23.0
Cycle Q Clear(g_c), s	18.0	30.6	50.8	1.2	35.0	1.3	28.0	19.8	2.9	3.0	23.0	23.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	511	2134	664	61	1022	457	795	1352	605	134	672	301
V/C Ratio(X)	1.08	0.72	1.57	0.55	1.10	0.05	1.07	0.55	0.10	0.64	1.09	1.30
Avail Cap(c_a), veh/h	511	2134	664	85	1022	457	795	1352	605	170	672	301
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	28.7	34.6	58.4	42.5	30.6	46.0	28.7	23.5	56.8	48.5	48.5
Incr Delay (d2), s/veh	63.7	1.2	264.5	7.6	59.1	0.0	52.4	0.5	0.1	5.2	61.7	159.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	14.4	70.8	0.6	25.3	0.6	18.9	9.7	1.3	1.5	16.9	23.2
LnGrp Delay(d),s/veh	114.7	30.0	299.1	66.0	101.6	30.6	98.4	29.2	23.6	62.0	110.2	207.6
LnGrp LOS	F	C	F	E	F	C	F	C	C	E	F	F
Approach Vol, veh/h		3140			1180			1653			1210	
Approach Delay, s/veh		134.4			99.2			64.6			138.3	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	50.3	6.2	54.8	32.0	27.0	22.0	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	45.0	3.0	50.0	28.0	23.0	18.0	35.0
Max Q Clear Time (g_c+I1), s	5.0	21.8	3.2	52.8	30.0	25.0	20.0	37.0
Green Ext Time (p_c), s	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	431	974	91	119	569	169	47	376	36	223	960	311
Future Volume (veh/h)	431	974	91	119	569	169	47	376	36	223	960	311
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	431	974	91	119	569	169	47	376	36	223	960	311
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	471	1177	527	177	875	391	94	935	418	236	1081	484
Arrive On Green	0.14	0.34	0.34	0.05	0.25	0.25	0.03	0.27	0.27	0.07	0.31	0.31
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	431	974	91	119	569	169	47	376	36	223	960	311
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	7.2	14.8	2.4	2.0	8.4	5.2	0.8	5.1	1.0	3.8	15.1	9.9
Cycle Q Clear(g_c), s	7.2	14.8	2.4	2.0	8.4	5.2	0.8	5.1	1.0	3.8	15.1	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	471	1177	527	177	875	391	94	935	418	236	1081	484
V/C Ratio(X)	0.92	0.83	0.17	0.67	0.65	0.43	0.50	0.40	0.09	0.95	0.89	0.64
Avail Cap(c_a), veh/h	471	1211	542	177	908	406	177	1029	460	236	1090	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	17.7	13.6	27.0	19.5	18.3	27.8	17.4	15.9	26.8	19.1	17.3
Incr Delay (d2), s/veh	22.5	4.8	0.2	9.6	1.6	0.8	4.1	0.3	0.1	44.0	9.1	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	7.8	1.0	1.2	4.2	2.4	0.4	2.5	0.4	3.2	8.6	4.6
LnGrp Delay(d),s/veh	47.1	22.5	13.7	36.6	21.0	19.0	31.9	17.7	16.0	70.8	28.2	20.1
LnGrp LOS	D	C	B	D	C	B	C	B	B	E	C	C
Approach Vol, veh/h		1496			857			459			1494	
Approach Delay, s/veh		29.0			22.8			19.0			32.9	
Approach LOS		C			C			B			C	

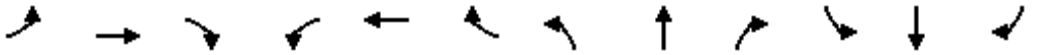
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	19.4	7.0	23.4	5.6	21.9	12.0	18.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	17.0	3.0	20.0	3.0	18.0	8.0	15.0
Max Q Clear Time (g_c+I1), s	5.8	7.1	4.0	16.8	2.8	17.1	9.2	10.4
Green Ext Time (p_c), s	0.0	6.7	0.0	2.6	0.0	0.8	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	661	100	354	764	3	44	148	118	3	711	189
Future Volume (veh/h)	45	661	100	354	764	3	44	148	118	3	711	189
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	45	661	100	354	764	3	44	148	118	3	711	189
Adj No. of Lanes	2	1	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	725	616	417	1722	770	105	884	396	125	905	405
Arrive On Green	0.02	0.39	0.39	0.12	0.49	0.49	0.03	0.25	0.25	0.04	0.26	0.26
Sat Flow, veh/h	3408	1845	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	45	661	100	354	764	3	44	148	118	3	711	189
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	1.1	27.7	3.4	8.3	11.6	0.1	1.0	2.7	5.0	0.1	15.4	8.3
Cycle Q Clear(g_c), s	1.1	27.7	3.4	8.3	11.6	0.1	1.0	2.7	5.0	0.1	15.4	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	725	616	417	1722	770	105	884	396	125	905	405
V/C Ratio(X)	0.55	0.91	0.16	0.85	0.44	0.00	0.42	0.17	0.30	0.02	0.79	0.47
Avail Cap(c_a), veh/h	125	745	633	417	1722	770	167	884	396	626	1158	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	23.5	16.1	35.1	13.5	10.6	38.9	23.9	24.7	38.0	28.2	25.6
Incr Delay (d2), s/veh	5.6	15.3	0.1	15.1	0.2	0.0	2.6	0.1	0.4	0.1	2.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	17.0	1.5	4.8	5.6	0.0	0.5	1.3	2.2	0.0	7.8	3.7
LnGrp Delay(d),s/veh	45.1	38.8	16.2	50.3	13.7	10.6	41.5	23.9	25.1	38.0	31.0	26.4
LnGrp LOS	D	D	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		806			1121			310			903	
Approach Delay, s/veh		36.3			25.2			26.9			30.1	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	24.6	14.0	36.1	6.5	25.1	6.0	44.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	16.0	10.0	33.0	4.0	27.0	3.0	40.0
Max Q Clear Time (g_c+I1), s	2.1	7.0	10.3	29.7	3.0	17.4	3.1	13.6
Green Ext Time (p_c), s	0.0	4.5	0.0	2.4	0.0	3.7	0.0	12.2

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	2168	47	170	1793	6	32	1488	251	14	1604	99
Future Volume (veh/h)	91	2168	47	170	1793	6	32	1488	251	14	1604	99
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	91	2168	47	170	1793	6	32	1488	251	14	1604	99
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	133	1995	621	160	2036	634	67	1534	686	40	1506	674
Arrive On Green	0.04	0.40	0.40	0.05	0.40	0.40	0.02	0.44	0.44	0.01	0.43	0.43
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	91	2168	47	170	1793	6	32	1488	251	14	1604	99
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	3.9	59.0	2.8	7.0	49.1	0.3	1.4	61.8	16.0	0.6	64.0	5.7
Cycle Q Clear(g_c), s	3.9	59.0	2.8	7.0	49.1	0.3	1.4	61.8	16.0	0.6	64.0	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	1995	621	160	2036	634	67	1534	686	40	1506	674
V/C Ratio(X)	0.69	1.09	0.08	1.06	0.88	0.01	0.48	0.97	0.37	0.35	1.07	0.15
Avail Cap(c_a), veh/h	137	1995	621	160	2036	634	92	1534	686	92	1506	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.7	45.0	28.0	71.0	41.0	26.5	72.2	40.9	28.0	73.0	42.5	25.9
Incr Delay (d2), s/veh	12.9	48.2	0.1	88.3	4.9	0.0	5.2	16.4	0.3	5.1	42.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	36.2	1.2	5.3	23.7	0.1	0.7	33.2	6.9	0.3	39.9	2.5
LnGrp Delay(d),s/veh	83.5	93.2	28.0	159.3	45.9	26.5	77.4	57.3	28.4	78.1	85.1	26.0
LnGrp LOS	F	F	C	F	D	C	E	E	C	E	F	C
Approach Vol, veh/h		2306			1969			1771			1717	
Approach Delay, s/veh		91.5			55.6			53.6			81.7	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	69.2	11.0	63.0	6.9	68.0	9.8	64.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	64.0	7.0	59.0	4.0	64.0	6.0	60.0
Max Q Clear Time (g_c+I1), s	2.6	63.8	9.0	61.0	3.4	66.0	5.9	51.1
Green Ext Time (p_c), s	0.0	0.2	0.0	0.0	0.0	0.0	0.0	8.8

Intersection Summary	
HCM 2010 Ctrl Delay	71.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	379	1270	0	451	1278	0	1	257	394	5	333	492
Future Volume (veh/h)	379	1270	0	451	1278	0	1	257	394	5	333	492
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	379	1270	0	451	1278	0	1	257	394	5	333	492
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	368	1285	0	423	1395	0	2	406	345	9	413	351
Arrive On Green	0.21	0.37	0.00	0.24	0.40	0.00	0.00	0.22	0.22	0.01	0.22	0.22
Sat Flow, veh/h	1757	3597	0	1757	3597	0	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	379	1270	0	451	1278	0	1	257	394	5	333	492
Grp Sat Flow(s),veh/h/ln	1757	1752	0	1757	1752	0	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	20.0	34.4	0.0	23.0	33.0	0.0	0.1	12.1	21.0	0.3	16.3	21.4
Cycle Q Clear(g_c), s	20.0	34.4	0.0	23.0	33.0	0.0	0.1	12.1	21.0	0.3	16.3	21.4
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	368	1285	0	423	1395	0	2	406	345	9	413	351
V/C Ratio(X)	1.03	0.99	0.00	1.07	0.92	0.00	0.52	0.63	1.14	0.55	0.81	1.40
Avail Cap(c_a), veh/h	368	1285	0	423	1395	0	74	406	345	74	413	351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	30.1	0.0	36.2	27.2	0.0	47.7	33.8	37.2	47.4	35.1	37.1
Incr Delay (d2), s/veh	54.9	22.3	0.0	62.4	9.8	0.0	134.4	3.2	93.1	42.5	11.2	196.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.2	20.6	0.0	18.4	17.7	0.0	0.1	6.5	18.0	0.2	9.6	28.5
LnGrp Delay(d),s/veh	92.6	52.4	0.0	98.6	37.0	0.0	182.1	37.0	130.3	89.9	46.2	233.8
LnGrp LOS	F	D		F	D		F	D	F	F	D	F
Approach Vol, veh/h		1649			1729			652			830	
Approach Delay, s/veh		61.6			53.1			93.6			157.7	
Approach LOS		E			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	25.0	27.0	39.0	4.1	25.4	24.0	42.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	21.0	23.0	35.0	4.0	21.0	20.0	38.0
Max Q Clear Time (g_c+I1), s	2.3	23.0	25.0	36.4	2.1	23.4	22.0	35.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	79.3
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	672	0	1044	749	123	3	799	947	98	732	304
Future Volume (veh/h)	301	672	0	1044	749	123	3	799	947	98	732	304
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	301	672	0	1044	749	123	3	799	947	98	732	304
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	333	666	298	1022	1053	471	6	1087	486	136	1215	544
Arrive On Green	0.19	0.19	0.00	0.30	0.30	0.30	0.00	0.31	0.31	0.04	0.35	0.35
Sat Flow, veh/h	1757	3505	1568	3408	3505	1568	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	301	672	0	1044	749	123	3	799	947	98	732	304
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1704	1752	1568	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	16.8	19.0	0.0	30.0	19.0	6.0	0.2	20.4	31.0	2.8	17.2	15.7
Cycle Q Clear(g_c), s	16.8	19.0	0.0	30.0	19.0	6.0	0.2	20.4	31.0	2.8	17.2	15.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	666	298	1022	1053	471	6	1087	486	136	1215	544
V/C Ratio(X)	0.90	1.01	0.00	1.02	0.71	0.26	0.53	0.74	1.95	0.72	0.60	0.56
Avail Cap(c_a), veh/h	369	666	298	1022	1053	471	70	1087	486	136	1215	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	40.5	0.0	35.0	31.1	26.6	49.8	30.8	34.5	47.4	27.0	26.5
Incr Delay (d2), s/veh	23.3	37.1	0.0	33.6	2.3	0.3	61.3	2.6	434.2	16.7	0.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	12.6	0.0	18.8	9.5	2.6	0.2	10.3	72.0	1.6	8.5	7.0
LnGrp Delay(d),s/veh	63.0	77.7	0.0	68.6	33.4	26.9	111.1	33.5	468.7	64.1	27.8	27.8
LnGrp LOS	E	F		F	C	C	F	C	F	E	C	C
Approach Vol, veh/h		973			1916			1749			1134	
Approach Delay, s/veh		73.1			52.1			269.3			30.9	
Approach LOS		E			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	35.0	34.0	23.0	4.3	38.7	23.0	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	31.0	30.0	19.0	4.0	31.0	21.0	28.0
Max Q Clear Time (g_c+I1), s	4.8	33.0	32.0	21.0	2.2	19.2	18.8	21.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	10.1	0.2	4.9

Intersection Summary		
HCM 2010 Ctrl Delay		117.3
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	12	100	10	2	28	8	174	78	28	327	84
Future Volume (veh/h)	122	12	100	10	2	28	8	174	78	28	327	84
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	122	12	100	10	2	28	8	174	78	28	327	84
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	153	281	239	14	136	116	11	613	264	37	752	190
Arrive On Green	0.09	0.15	0.15	0.01	0.07	0.07	0.01	0.26	0.26	0.02	0.27	0.27
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	2388	1028	1757	2771	702
Grp Volume(v), veh/h	122	12	100	10	2	28	8	126	126	28	205	206
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1663	1757	1752	1721
Q Serve(g_s), s	1.9	0.2	1.6	0.2	0.0	0.5	0.1	1.6	1.7	0.5	2.8	2.8
Cycle Q Clear(g_c), s	1.9	0.2	1.6	0.2	0.0	0.5	0.1	1.6	1.7	0.5	2.8	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.41
Lane Grp Cap(c), veh/h	153	281	239	14	136	116	11	450	427	37	475	467
V/C Ratio(X)	0.80	0.04	0.42	0.71	0.01	0.24	0.70	0.28	0.30	0.76	0.43	0.44
Avail Cap(c_a), veh/h	370	1166	991	185	972	826	185	923	876	185	923	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	10.3	10.9	14.1	12.2	12.4	14.1	8.5	8.5	13.9	8.6	8.6
Incr Delay (d2), s/veh	9.2	0.1	1.2	49.2	0.0	1.1	57.2	0.3	0.4	27.0	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.1	0.8	0.3	0.0	0.2	0.2	0.8	0.8	0.5	1.4	1.4
LnGrp Delay(d),s/veh	22.0	10.4	12.1	63.3	12.3	13.5	71.3	8.8	8.9	40.9	9.2	9.2
LnGrp LOS	C	B	B	E	B	B	E	A	A	D	A	A
Approach Vol, veh/h		234			40			260			439	
Approach Delay, s/veh		17.2			25.9			10.8			11.2	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.6	11.3	4.2	8.3	4.2	11.7	6.5	6.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	15.0	3.0	18.0	3.0	15.0	6.0	15.0
Max Q Clear Time (g_c+I1), s	2.5	3.7	2.2	3.6	2.1	4.8	3.9	2.5
Green Ext Time (p_c), s	0.0	3.1	0.0	0.3	0.0	2.9	0.1	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	5	9	5	5	5	12	377	5	5	567	14
Future Volume (veh/h)	10	5	9	5	5	5	12	377	5	5	567	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	10	5	9	5	5	5	12	377	5	5	567	14
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	38	83	71	10	53	45	17	1783	798	612	1231	30
Arrive On Green	0.02	0.05	0.05	0.01	0.03	0.03	0.01	0.51	0.51	0.35	0.35	0.35
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	3505	1568	987	3496	86
Grp Volume(v), veh/h	10	5	9	5	5	5	12	377	5	5	284	297
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1568	987	1752	1829
Q Serve(g_s), s	0.2	0.1	0.2	0.1	0.1	0.1	0.2	1.6	0.0	0.1	3.4	3.4
Cycle Q Clear(g_c), s	0.2	0.1	0.2	0.1	0.1	0.1	0.2	1.6	0.0	0.1	3.4	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	38	83	71	10	53	45	17	1783	798	612	617	644
V/C Ratio(X)	0.26	0.06	0.13	0.52	0.09	0.11	0.71	0.21	0.01	0.01	0.46	0.46
Avail Cap(c_a), veh/h	968	1829	1555	258	1084	921	194	2832	1267	808	965	1008
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	12.4	12.5	13.5	12.9	12.9	13.4	3.7	3.3	5.7	6.8	6.8
Incr Delay (d2), s/veh	3.6	0.3	0.8	37.7	0.8	1.1	43.3	0.1	0.0	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.1	0.0	0.0	0.3	0.7	0.0	0.0	1.7	1.7
LnGrp Delay(d),s/veh	16.7	12.7	13.3	51.2	13.6	13.9	56.8	3.7	3.3	5.7	7.4	7.3
LnGrp LOS	B	B	B	D	B	B	E	A	A	A	A	A
Approach Vol, veh/h		24			15			394			586	
Approach Delay, s/veh		14.6			26.3			5.4			7.3	
Approach LOS		B			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		17.9	4.1	5.2	4.3	13.6	4.6	4.8
Change Period (Y+Rc), s		4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s		22.0	4.0	27.0	3.0	15.0	15.0	16.0
Max Q Clear Time (g_c+I1), s		3.6	2.1	2.2	2.2	5.4	2.2	2.1
Green Ext Time (p_c), s		6.0	0.0	0.0	0.0	4.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	17	18	164	25	97	22	290	76	61	399	78
Future Volume (veh/h)	29	17	18	164	25	97	22	290	76	61	399	78
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	29	17	18	164	25	97	22	290	76	61	399	78
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	37	138	118	213	322	274	29	748	193	72	865	168
Arrive On Green	0.02	0.08	0.08	0.12	0.17	0.17	0.02	0.27	0.27	0.04	0.30	0.30
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	2760	711	1757	2929	568
Grp Volume(v), veh/h	29	17	18	164	25	97	22	182	184	61	237	240
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1752	1719	1757	1752	1744
Q Serve(g_s), s	0.5	0.3	0.3	2.9	0.4	1.8	0.4	2.8	2.8	1.1	3.6	3.6
Cycle Q Clear(g_c), s	0.5	0.3	0.3	2.9	0.4	1.8	0.4	2.8	2.8	1.1	3.6	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		0.33
Lane Grp Cap(c), veh/h	37	138	118	213	322	274	29	475	466	72	517	515
V/C Ratio(X)	0.78	0.12	0.15	0.77	0.08	0.35	0.75	0.38	0.39	0.85	0.46	0.47
Avail Cap(c_a), veh/h	162	851	723	486	1191	1013	162	862	846	216	916	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	14.0	14.1	13.9	11.2	11.8	15.9	9.6	9.7	15.5	9.3	9.4
Incr Delay (d2), s/veh	28.2	0.4	0.6	5.8	0.1	0.8	31.6	0.5	0.5	23.1	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.2	0.2	1.8	0.2	0.8	0.4	1.4	1.4	1.0	1.8	1.8
LnGrp Delay(d),s/veh	44.1	14.4	14.7	19.7	11.3	12.6	47.5	10.1	10.2	38.6	10.0	10.0
LnGrp LOS	D	B	B	B	B	B	D	B	B	D	A	B
Approach Vol, veh/h		64			286			388			538	
Approach Delay, s/veh		27.9			16.5			12.3			13.2	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	12.8	7.9	6.4	4.5	13.6	4.7	9.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	9.0	15.0	3.0	17.0	3.0	21.0
Max Q Clear Time (g_c+I1), s	3.1	4.8	4.9	2.3	2.4	5.6	2.5	3.8
Green Ext Time (p_c), s	0.0	3.9	0.2	0.4	0.0	4.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	43	10	380	45	24	671
Future Volume (veh/h)	43	10	380	45	24	671
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	43	10	380	45	24	671
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	90	81	1646	194	817	1826
Arrive On Green	0.05	0.05	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1757	1568	3252	372	949	3597
Grp Volume(v), veh/h	43	10	210	215	24	671
Grp Sat Flow(s),veh/h/ln	1757	1568	1752	1779	949	1752
Q Serve(g_s), s	0.4	0.1	1.2	1.2	0.3	2.1
Cycle Q Clear(g_c), s	0.4	0.1	1.2	1.2	1.5	2.1
Prop In Lane	1.00	1.00		0.21	1.00	
Lane Grp Cap(c), veh/h	90	81	913	927	817	1826
V/C Ratio(X)	0.48	0.12	0.23	0.23	0.03	0.37
Avail Cap(c_a), veh/h	1502	1340	1498	1521	1133	2996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	8.5	2.4	2.4	2.9	2.7
Incr Delay (d2), s/veh	3.8	0.7	0.1	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.6	0.6	0.1	1.0
LnGrp Delay(d),s/veh	12.5	9.2	2.6	2.6	2.9	2.8
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	53		425			695
Approach Delay, s/veh	11.8		2.6			2.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		13.8				13.8		5.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		16.0				16.0		16.0
Max Q Clear Time (g_c+I1), s		3.2				4.1		2.4
Green Ext Time (p_c), s		5.9				5.6		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	3.1
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	43	97	136	35	30	112	306	193	73	515	126
Future Volume (veh/h)	89	43	97	136	35	30	112	306	193	73	515	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	89	43	97	136	35	30	112	306	193	73	515	126
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	340	233	198	174	594	505	142	1012	623	447	861	210
Arrive On Green	0.13	0.13	0.13	0.10	0.32	0.32	0.08	0.49	0.49	0.31	0.31	0.31
Sat Flow, veh/h	1318	1845	1568	1757	1845	1568	1757	2087	1284	887	2796	681
Grp Volume(v), veh/h	89	43	97	136	35	30	112	256	243	73	322	319
Grp Sat Flow(s),veh/h/ln	1318	1845	1568	1757	1845	1568	1757	1752	1618	887	1752	1725
Q Serve(g_s), s	2.6	0.9	2.4	3.1	0.5	0.5	2.6	3.6	3.8	2.6	6.5	6.5
Cycle Q Clear(g_c), s	2.6	0.9	2.4	3.1	0.5	0.5	2.6	3.6	3.8	2.6	6.5	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.79	1.00		0.39
Lane Grp Cap(c), veh/h	340	233	198	174	594	505	142	850	785	447	539	531
V/C Ratio(X)	0.26	0.18	0.49	0.78	0.06	0.06	0.79	0.30	0.31	0.16	0.60	0.60
Avail Cap(c_a), veh/h	651	668	568	297	1157	984	254	1100	1015	516	677	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	16.2	16.9	18.2	9.7	9.7	18.7	6.4	6.5	10.8	12.2	12.2
Incr Delay (d2), s/veh	0.4	0.4	1.9	7.4	0.0	0.0	9.3	0.2	0.2	0.2	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.5	1.1	1.9	0.3	0.2	1.6	1.8	1.7	0.6	3.2	3.2
LnGrp Delay(d),s/veh	17.4	16.6	18.7	25.7	9.8	9.8	28.0	6.6	6.7	11.0	13.2	13.3
LnGrp LOS	B	B	B	C	A	A	C	A	A	B	B	B
Approach Vol, veh/h		229			201			611			714	
Approach Delay, s/veh		17.8			20.5			10.6			13.0	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6		8
Phs Duration (G+Y+Rc), s		24.1	8.1	9.2	7.4	16.8		17.3
Change Period (Y+Rc), s		4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		26.0	7.0	15.0	6.0	16.0		26.0
Max Q Clear Time (g_c+I1), s		5.8	5.1	4.6	4.6	8.5		2.5
Green Ext Time (p_c), s		7.9	0.1	0.8	0.0	4.2		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	414	76	520
Demand Flow Rate, veh/h	0	427	78	536
Vehicles Circulating, veh/h	429	78	0	289
Vehicles Exiting, veh/h	396	0	429	216
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	8.0	3.9	14.8
Approach LOS	-	A	A	B

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	427	78	536
Cap Entry Lane, veh/h	1045	1130	846
Entry HV Adj Factor	0.970	0.972	0.971
Flow Entry, veh/h	414	76	520
Cap Entry, veh/h	1014	1098	821
V/C Ratio	0.409	0.069	0.633
Control Delay, s/veh	8.0	3.9	14.8
LOS	A	A	B
95th %tile Queue, veh	2	0	5

Intersection	
Intersection Delay, s/veh	48.9
Intersection LOS	E

Approach	EB	WB	NB	SB
Entry Lanes	1	0	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	762	0	90	417
Demand Flow Rate, veh/h	785	0	93	429
Vehicles Circulating, veh/h	429	78	700	0
Vehicles Exiting, veh/h	0	715	514	78
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	76.5	0.0	8.8	7.2
Approach LOS	F	-	A	A

Lane	Left	Left	Left
Designated Moves	LTR	TR	LT
Assumed Moves	LTR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	785	93	429
Cap Entry Lane, veh/h	736	561	1130
Entry HV Adj Factor	0.971	0.968	0.972
Flow Entry, veh/h	762	90	417
Cap Entry, veh/h	714	543	1098
V/C Ratio	1.067	0.166	0.380
Control Delay, s/veh	76.5	8.8	7.2
LOS	F	A	A
95th %tile Queue, veh	20	1	2

Intersection	
Intersection Delay, s/veh	106.4
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	0	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	246	2192	2059
Demand Flow Rate, veh/h	0	254	2258	2121
Vehicles Circulating, veh/h	1978	2258	0	450
Vehicles Exiting, veh/h	593	0	1978	2062
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	132.6	49.5	163.8
Approach LOS	-	F	E	F

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	254	1061	1197	997	1124
Cap Entry Lane, veh/h	233	1130	1130	806	825
Entry HV Adj Factor	0.969	0.971	0.971	0.971	0.971
Flow Entry, veh/h	246	1030	1162	968	1091
Cap Entry, veh/h	225	1097	1097	783	801
V/C Ratio	1.092	0.939	1.059	1.237	1.363
Control Delay, s/veh	132.6	33.9	63.4	136.3	188.3
LOS	F	D	F	F	F
95th %tile Queue, veh	11	16	25	34	45

Intersection	
Intersection Delay, s/veh	215.2
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	0	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	749	0	2094	1920
Demand Flow Rate, veh/h	771	0	2157	1978
Vehicles Circulating, veh/h	1978	2257	452	0
Vehicles Exiting, veh/h	0	352	2297	2257
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	814.4	0.0	173.9	26.6
Approach LOS	F	-	F	D

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	771	1014	1143	930	1048
Cap Entry Lane, veh/h	283	805	823	1130	1130
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.971
Flow Entry, veh/h	749	984	1110	903	1018
Cap Entry, veh/h	275	781	800	1097	1097
V/C Ratio	2.725	1.260	1.388	0.823	0.927
Control Delay, s/veh	814.4	145.6	199.0	20.5	32.0
LOS	F	F	F	C	D
95th %tile Queue, veh	64	36	48	10	15

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Approach	WB	NB	SB
Entry Lanes	1	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	368	828	1168
Demand Flow Rate, veh/h	379	853	1203
Vehicles Circulating, veh/h	725	344	110
Vehicles Exiting, veh/h	472	969	994
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	14.9	10.6	11.2
Approach LOS	B	B	B

Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	379	401	452	565	638
Cap Entry Lane, veh/h	680	873	888	1040	1046
Entry HV Adj Factor	0.971	0.970	0.971	0.972	0.970
Flow Entry, veh/h	368	389	439	549	619
Cap Entry, veh/h	660	847	862	1011	1015
V/C Ratio	0.557	0.459	0.509	0.543	0.610
Control Delay, s/veh	14.9	10.1	11.0	10.4	12.0
LOS	B	B	B	B	B
95th %tile Queue, veh	3	2	3	3	4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	2	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	375	791	941
Demand Flow Rate, veh/h	386	815	969
Vehicles Circulating, veh/h	673	135	206
Vehicles Exiting, veh/h	277	1040	853
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.8	8.0	10.1
Approach LOS	A	A	B

Lane	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	LT	TR	LT	TR
Assumed Moves	L	TR	LT	TR	LT	TR
RT Channelized						
Lane Util	0.534	0.466	0.470	0.530	0.470	0.530
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	206	180	383	432	455	514
Cap Entry Lane, veh/h	682	705	1021	1028	968	978
Entry HV Adj Factor	0.971	0.972	0.971	0.971	0.972	0.970
Flow Entry, veh/h	200	175	372	419	442	499
Cap Entry, veh/h	662	686	992	998	941	949
V/C Ratio	0.302	0.255	0.375	0.420	0.470	0.525
Control Delay, s/veh	9.3	8.3	7.7	8.3	9.5	10.5
LOS	A	A	A	A	A	B
95th %tile Queue, veh	1	1	2	2	3	3

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	2	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	353	791	1009
Demand Flow Rate, veh/h	364	815	1039
Vehicles Circulating, veh/h	610	140	160
Vehicles Exiting, veh/h	345	1059	814
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.1	8.0	10.2
Approach LOS	A	A	B

Lane	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	LT	TR	LT	TR
Assumed Moves	L	TR	LT	TR	LT	TR
RT Channelized						
Lane Util	0.440	0.560	0.470	0.530	0.470	0.530
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	160	204	383	432	488	551
Cap Entry Lane, veh/h	715	737	1017	1024	1002	1010
Entry HV Adj Factor	0.969	0.971	0.971	0.971	0.972	0.970
Flow Entry, veh/h	155	198	372	419	474	535
Cap Entry, veh/h	693	716	988	994	974	980
V/C Ratio	0.224	0.277	0.376	0.422	0.487	0.545
Control Delay, s/veh	7.8	8.3	7.7	8.3	9.6	10.7
LOS	A	A	A	A	A	B
95th %tile Queue, veh	1	1	2	2	3	3

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	121	875	59	299	210
Future Vol, veh/h	42	121	875	59	299	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	70	0	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	3	3	3	3
Mvmt Flow	42	121	875	59	299	210

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1608	467	0	0	934	0
Stage 1	905	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.16	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.23	-
Pot Cap-1 Maneuver	94	537	-	-	723	-
Stage 1	350	-	-	-	-	-
Stage 2	447	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	55	537	-	-	723	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	350	-	-	-	-	-
Stage 2	262	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	7.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	161	537	723	-
HCM Lane V/C Ratio	-	-	0.261	0.225	0.414	-
HCM Control Delay (s)	-	-	35.1	13.6	13.4	-
HCM Lane LOS	-	-	E	B	B	-
HCM 95th %tile Q(veh)	-	-	1	0.9	2	-

Intersection	
Int Delay, s/veh	582.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	299	65	820	158	57	1480
Future Vol, veh/h	299	65	820	158	57	1480
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	4	4
Mvmt Flow	299	65	820	158	57	1480

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1605	489	0	0	978	0
Stage 1	899	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Critical Hdwy	5.76	7.16	-	-	5.38	-
Critical Hdwy Stg 1	6.66	-	-	-	-	-
Critical Hdwy Stg 2	6.06	-	-	-	-	-
Follow-up Hdwy	3.83	3.93	-	-	3.14	-
Pot Cap-1 Maneuver	~ 150	447	-	-	395	-
Stage 1	~ 277	-	-	-	-	-
Stage 2	407	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 28	447	-	-	395	-
Mov Cap-2 Maneuver	~ 28	-	-	-	-	-
Stage 1	~ 277	-	-	-	-	-
Stage 2	~ 77	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, $	4592.4	0	4.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	34	395	-
HCM Lane V/C Ratio	-	-	10.706	0.144	-
HCM Control Delay (s)	-	-	$ 4592.4	15.6	3.8
HCM Lane LOS	-	-	F	C	A
HCM 95th %tile Q(veh)	-	-	44.3	0.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	72

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	2720	2336	25	14	30
Future Vol, veh/h	83	2720	2336	25	14	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	190	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	6	6	6	6	3	3
Mvmt Flow	83	2720	2336	25	14	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2361	0	-	0	3875	1181
Stage 1	-	-	-	-	2349	-
Stage 2	-	-	-	-	1526	-
Critical Hdwy	4.22	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.26	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	192	-	-	-	~ 2	181
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	164	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	192	-	-	-	~ 1	181
Mov Cap-2 Maneuver	-	-	-	-	~ 1	-
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	93	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	$ 8448.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	192	-	-	-	3
HCM Lane V/C Ratio	0.432	-	-	-	14.667
HCM Control Delay (s)	37.3	-	-	-	$ 8448.4
HCM Lane LOS	E	-	-	-	F
HCM 95th %tile Q(veh)	2	-	-	-	7.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	1	2	0	2	0	770	6	1	976	4
Future Vol, veh/h	2	0	1	2	0	2	0	770	6	1	976	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	0	1	2	0	2	0	770	6	1	976	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1754	1756	978	1754	1755	773	980	0	0	776	0	0
Stage 1	980	980	-	773	773	-	-	-	-	-	-	-
Stage 2	774	776	-	981	982	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	66	84	303	66	85	397	700	-	-	836	-	-
Stage 1	299	327	-	390	407	-	-	-	-	-	-	-
Stage 2	390	406	-	299	326	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	66	84	303	66	85	397	700	-	-	836	-	-
Mov Cap-2 Maneuver	66	84	-	66	85	-	-	-	-	-	-	-
Stage 1	299	326	-	390	407	-	-	-	-	-	-	-
Stage 2	388	406	-	297	325	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46.9	38	0	0
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	700	-	-	89	113	836	-	-
HCM Lane V/C Ratio	-	-	-	0.034	0.035	0.001	-	-
HCM Control Delay (s)	0	-	-	46.9	38	9.3	0	-
HCM Lane LOS	A	-	-	E	E	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	74	36	45	920	1132	147
Future Vol, veh/h	74	36	45	920	1132	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	74	36	45	920	1132	147

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1756	640	1279	0	-	0
Stage 1	1206	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	75	416	533	-	-	-
Stage 1	244	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 69	416	533	-	-	-
Mov Cap-2 Maneuver	~ 69	-	-	-	-	-
Stage 1	244	-	-	-	-	-
Stage 2	493	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	223.4	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	95	-	-
HCM Lane V/C Ratio	0.084	-	1.158	-	-
HCM Control Delay (s)	12.4	-	223.4	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.3	-	7.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	11.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	689	182	755	773	777	316
Future Vol, veh/h	689	182	755	773	777	316
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	689	182	755	773	777	316

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	871	0	2677	436
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	1897	-
Critical Hdwy	-	-	4.16	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.23	-	3.53	3.33
Pot Cap-1 Maneuver	-	-	763	-	~ 18	565
Stage 1	-	-	-	-	~ 410	-
Stage 2	-	-	-	-	~ 102	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	763	-	0	565
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	~ 410	-
Stage 2	-	-	-	-	~ 1	-

Approach	EB	WB	NB
HCM Control Delay, s	0	26.3	
HCM LOS			-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	565	-	-	763	-
HCM Lane V/C Ratio	-	0.559	-	-	0.99	-
HCM Control Delay (s)	-	19.2	-	-	53.3	-
HCM Lane LOS	-	C	-	-	F	-
HCM 95th %tile Q(veh)	-	3.4	-	-	16.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	196	553	8	2	501	1	9	188	0	1	280	323
Future Vol, veh/h	196	553	8	2	501	1	9	188	0	1	280	323
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	10	10	10	8	8	8	8	8	8
Mvmt Flow	196	553	8	2	501	1	9	188	0	1	280	323

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	502	0	0	561	0	0	1756	1455	557	1549	1459	502
Stage 1	-	-	-	-	-	-	949	949	-	506	506	-
Stage 2	-	-	-	-	-	-	807	506	-	1043	953	-
Critical Hdwy	4.18	-	-	4.2	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.29	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1032	-	-	971	-	-	64	~ 126	519	90	~ 125	557
Stage 1	-	-	-	-	-	-	305	331	-	538	530	-
Stage 2	-	-	-	-	-	-	367	530	-	270	330	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1032	-	-	971	-	-	-	~ 91	519	-	~ 90	557
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 91	-	-	~ 90	-
Stage 1	-	-	-	-	-	-	221	240	-	390	528	-
Stage 2	-	-	-	-	-	-	72	528	-	42	~ 239	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1032	-	-	971	-	-	-
HCM Lane V/C Ratio	-	0.19	-	-	0.002	-	-	-
HCM Control Delay (s)	-	9.3	0	-	8.7	0	-	-
HCM Lane LOS	-	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-	0	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	75	47	65	121	56	30
Future Vol, veh/h	75	47	65	121	56	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	75	47	65	121	56	30

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	322	71	86	0	-	0
Stage 1	71	-	-	-	-	-
Stage 2	251	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	670	989	1504	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	639	989	1504	-	-	-
Mov Cap-2 Maneuver	639	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	752	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1504	-	740	-	-
HCM Lane V/C Ratio	0.043	-	0.165	-	-
HCM Control Delay (s)	7.5	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	13	8	181	119	8
Future Vol, veh/h	10	13	8	181	119	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	10	13	8	181	119	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	320	123	127	0	-	0
Stage 1	123	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	671	925	1453	-	-	-
Stage 1	900	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	667	925	1453	-	-	-
Mov Cap-2 Maneuver	667	-	-	-	-	-
Stage 1	900	-	-	-	-	-
Stage 2	829	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1453	-	792	-	-
HCM Lane V/C Ratio	0.006	-	0.029	-	-
HCM Control Delay (s)	7.5	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	12.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	198	120	185	165	99	164
Future Vol, veh/h	198	120	185	165	99	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	198	120	185	165	99	164

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	716	181	263	0	-	0
Stage 1	181	-	-	-	-	-
Stage 2	535	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	395	859	1295	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	333	859	1295	-	-	-
Mov Cap-2 Maneuver	333	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	493	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33	4.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1295	-	433	-	-
HCM Lane V/C Ratio	0.143	-	0.734	-	-
HCM Control Delay (s)	8.2	0	33	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.5	-	5.9	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	66	12	24	206	191	57
Future Vol, veh/h	66	12	24	206	191	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	66	12	24	206	191	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	445	191	191	0	-	0
Stage 1	191	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	569	848	1377	-	-	-
Stage 1	839	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	559	848	1377	-	-	-
Mov Cap-2 Maneuver	559	-	-	-	-	-
Stage 1	839	-	-	-	-	-
Stage 2	772	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0.8	0
HCM LOS	B		

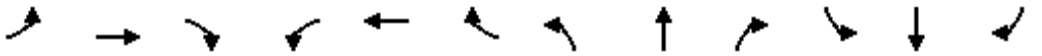
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1377	-	559	848	-	-
HCM Lane V/C Ratio	0.017	-	0.118	0.014	-	-
HCM Control Delay (s)	7.7	-	12.3	9.3	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	0	-	-

Appendix C

Mitigation Synchro Reports

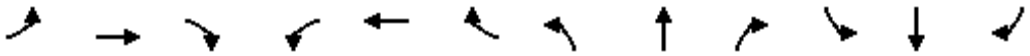
Existing Plus All Projects Mitigation

AM



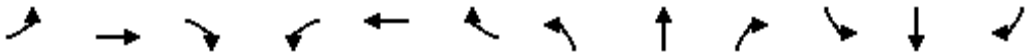
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	642	28	225	434	191	70	693	310	78	430	206
Future Volume (vph)	49	642	28	225	434	191	70	693	310	78	430	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1		6.8	6.8		4.7	5.1	5.1	5.3	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.99		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3483		1752	3344		1736	3471	1568	1752	3471	1553
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	3483		1752	3344		1736	3471	1568	1752	3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	49	642	28	225	434	191	70	693	310	78	430	206
RTOR Reduction (vph)	0	3	0	0	43	0	0	0	214	0	0	153
Lane Group Flow (vph)	49	667	0	225	582	0	70	693	96	78	430	53
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	3%	3%	4%	4%
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases									6			2
Actuated Green, G (s)	21.2	21.2		18.4	18.4		5.2	23.0	23.0	5.5	23.9	23.9
Effective Green, g (s)	21.2	21.2		18.4	18.4		5.2	23.0	23.0	5.5	23.9	23.9
Actuated g/C Ratio	0.23	0.23		0.20	0.20		0.06	0.25	0.25	0.06	0.26	0.26
Clearance Time (s)	7.1	7.1		6.8	6.8		4.7	5.1	5.1	5.3	5.1	5.1
Vehicle Extension (s)	1.0	1.0		3.0	3.0		1.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	401	799		348	665		97	863	390	104	897	401
v/s Ratio Prot	0.03	c0.19		0.13	c0.17		0.04	c0.20		c0.04	0.12	
v/s Ratio Perm									0.06			0.03
v/c Ratio	0.12	0.83		0.65	0.87		0.72	0.80	0.25	0.75	0.48	0.13
Uniform Delay, d1	28.2	33.9		34.0	35.9		42.9	32.6	27.8	42.8	29.0	26.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	7.2		4.1	12.3		19.9	5.1	0.1	25.8	0.1	0.1
Delay (s)	28.3	41.1		38.1	48.2		62.8	37.7	27.9	68.5	29.1	26.3
Level of Service	C	D		D	D		E	D	C	E	C	C
Approach Delay (s)		40.3			45.5			36.5			32.6	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	38.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	92.4	Sum of lost time (s)	24.3
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	586	599	5	1	317	6	20	5	3	14	8	70
Future Volume (vph)	586	599	5	1	317	6	20	5	3	14	8	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.99			0.90	
Flt Protected		0.98			1.00			0.97			0.99	
Satd. Flow (prot)		1782			1822			1755			1643	
Flt Permitted		0.69			1.00			0.40			0.95	
Satd. Flow (perm)		1253			1820			725			1575	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	586	599	5	1	317	6	20	5	3	14	8	70
RTOR Reduction (vph)	0	0	0	0	0	0	0	3	0	0	66	0
Lane Group Flow (vph)	0	1190	0	0	324	0	0	25	0	0	26	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		126.0			126.0			8.6			8.6	
Effective Green, g (s)		126.0			126.0			8.6			8.6	
Actuated g/C Ratio		0.88			0.88			0.06			0.06	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1107			1608			43			94	
v/s Ratio Prot												
v/s Ratio Perm		c0.95			0.18			c0.03			0.02	
v/c Ratio		1.07			0.20			0.59			0.28	
Uniform Delay, d1		8.3			1.2			65.3			64.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		49.6			0.1			18.7			1.6	
Delay (s)		57.9			1.2			84.0			65.7	
Level of Service		E			A			F			E	
Approach Delay (s)		57.9			1.2			84.0			65.7	
Approach LOS		E			A			F			E	

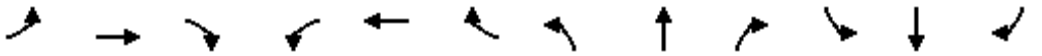
Intersection Summary			
HCM 2000 Control Delay	47.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	142.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	417	2	9	8	1	1	26	872	2	0	167	50
Future Volume (vph)	417	2	9	8	1	1	26	872	2	0	167	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			1.00			0.97	
Flt Protected		0.95			0.96			1.00			1.00	
Satd. Flow (prot)		1754			1750			1841			1787	
Flt Permitted		0.72			0.81			0.99			1.00	
Satd. Flow (perm)		1333			1475			1824			1787	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	417	2	9	8	1	1	26	872	2	0	167	50
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	427	0	0	9	0	0	900	0	0	202	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		24.8			24.8			37.8			37.8	
Effective Green, g (s)		24.8			24.8			37.8			37.8	
Actuated g/C Ratio		0.35			0.35			0.54			0.54	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		468			518			976			956	
v/s Ratio Prot											0.11	
v/s Ratio Perm		c0.32			0.01			c0.49				
v/c Ratio		0.91			0.02			0.92			0.21	
Uniform Delay, d1		21.9			15.0			15.0			8.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		21.9			0.0			13.7			0.1	
Delay (s)		43.8			15.0			28.7			8.7	
Level of Service		D			B			C			A	
Approach Delay (s)		43.8			15.0			28.7			8.7	
Approach LOS		D			B			C			A	

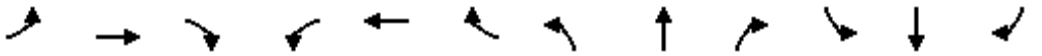
Intersection Summary			
HCM 2000 Control Delay	30.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	70.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



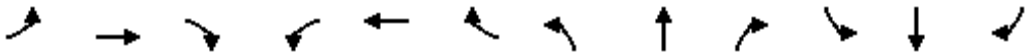
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	777	47	658	25	63	161	545	482	13	105	1229	1151
Future Volume (vph)	777	47	658	25	63	161	545	482	13	105	1229	1151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3	5.3		5.5	5.5	4.7	4.6		4.4	4.8	4.8
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1649	1662	1553		1819	1568	1736	4968		1736	4988	1553
Flt Permitted	0.95	0.96	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1649	1662	1553		1819	1568	1736	4968		1736	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	777	47	658	25	63	161	545	482	13	105	1229	1151
RTOR Reduction (vph)	0	0	274	0	0	155	0	2	0	0	0	459
Lane Group Flow (vph)	412	412	384	0	88	6	545	493	0	105	1229	692
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8			4						2
Actuated Green, G (s)	25.9	25.9	25.9		3.5	3.5	19.3	42.5		8.1	30.8	30.8
Effective Green, g (s)	25.9	25.9	25.9		3.5	3.5	19.3	42.5		8.1	30.8	30.8
Actuated g/C Ratio	0.26	0.26	0.26		0.04	0.04	0.19	0.43		0.08	0.31	0.31
Clearance Time (s)	5.3	5.3	5.3		5.5	5.5	4.7	4.6		4.4	4.8	4.8
Vehicle Extension (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lane Grp Cap (vph)	427	431	403		63	54	335	2115		140	1539	479
v/s Ratio Prot	c0.25	0.25			c0.05		c0.31	0.10		0.06	0.25	
v/s Ratio Perm			0.25			0.00						c0.45
v/c Ratio	0.96	0.96	0.95		1.40	0.10	1.63	0.23		0.75	0.80	1.44
Uniform Delay, d1	36.5	36.4	36.4		48.1	46.6	40.2	18.3		44.9	31.7	34.5
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	34.1	31.7	32.5		250.3	0.3	295.4	0.0		18.0	2.8	211.6
Delay (s)	70.6	68.1	68.8		298.5	46.9	335.7	18.3		62.8	34.4	246.1
Level of Service	E	E	E		F	D	F	B		E	C	F
Approach Delay (s)		69.1			135.8			184.6			133.7	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	125.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	20.3
Intersection Capacity Utilization	118.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	156	0	0	156	7	5	302	0	0	93	109
Future Volume (vph)	225	156	0	0	156	7	5	302	0	0	93	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	1.00			0.99			1.00			0.93	
Flt Protected	0.95	1.00			1.00			1.00			1.00	
Satd. Flow (prot)	1671	1759			1716			1758			1631	
Flt Permitted	0.95	1.00			1.00			1.00			1.00	
Satd. Flow (perm)	1671	1759			1716			1758			1631	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	225	156	0	0	156	7	5	302	0	0	93	109
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	55	0
Lane Group Flow (vph)	225	156	0	0	160	0	0	307	0	0	147	0
Heavy Vehicles (%)	8%	8%	8%	10%	10%	10%	8%	8%	8%	8%	8%	8%
Turn Type	Prot	NA		Prot	NA		Split	NA			NA	
Protected Phases	7	4		3	8		2	2			6	
Permitted Phases										6		
Actuated Green, G (s)	13.5	26.8			9.3			15.7			11.0	
Effective Green, g (s)	13.5	26.8			9.3			15.7			11.0	
Actuated g/C Ratio	0.21	0.41			0.14			0.24			0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	344	719			243			421			273	
v/s Ratio Prot	c0.13	0.09			c0.09			c0.17			c0.09	
v/s Ratio Perm												
v/c Ratio	0.65	0.22			0.66			0.73			0.54	
Uniform Delay, d1	23.9	12.5			26.6			22.9			24.9	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	4.4	0.2			6.6			6.2			2.0	
Delay (s)	28.3	12.7			33.2			29.2			27.0	
Level of Service	C	B			C			C			C	
Approach Delay (s)		21.9			33.2			29.2			27.0	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	189	310	40	3	155	23	32	620	26	20	129	28
Future Volume (vph)	189	310	40	3	155	23	32	620	26	20	129	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1796		1736	1792		1736	1816		1752	1795	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1736	1796		1736	1792		1736	1816		1752	1795	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	189	310	40	3	155	23	32	620	26	20	129	28
RTOR Reduction (vph)	0	6	0	0	7	0	0	2	0	0	10	0
Lane Group Flow (vph)	189	344	0	3	171	0	32	644	0	20	147	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	9.3	23.4		0.7	14.8		1.7	26.4		1.3	26.0	
Effective Green, g (s)	9.3	23.4		0.7	14.8		1.7	26.4		1.3	26.0	
Actuated g/C Ratio	0.14	0.35		0.01	0.22		0.03	0.39		0.02	0.38	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	238	619		17	391		43	707		33	688	
v/s Ratio Prot	c0.11	c0.19		0.00	0.10		c0.02	c0.35		0.01	0.08	
v/s Ratio Perm												
v/c Ratio	0.79	0.56		0.18	0.44		0.74	0.91		0.61	0.21	
Uniform Delay, d1	28.3	18.0		33.3	22.9		32.8	19.6		33.0	14.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.5	1.1		4.9	0.8		50.5	16.0		27.6	0.2	
Delay (s)	44.8	19.1		38.2	23.7		83.3	35.6		60.6	14.2	
Level of Service	D	B		D	C		F	D		E	B	
Approach Delay (s)		28.1			23.9			37.8			19.4	
Approach LOS		C			C			D			B	

Intersection Summary			
HCM 2000 Control Delay	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	67.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	186	342	1781	370	865	255
Future Volume (vph)	186	342	1781	370	865	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	2760	4906		3400	5036
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1752	2760	4906		3400	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	186	342	1781	370	865	255
RTOR Reduction (vph)	0	294	35	0	0	0
Lane Group Flow (vph)	186	48	2116	0	865	255
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	3		2		1	6
Permitted Phases		3				
Actuated Green, G (s)	11.0	11.0	42.0		24.7	70.7
Effective Green, g (s)	11.0	11.0	42.0		24.7	70.7
Actuated g/C Ratio	0.12	0.12	0.47		0.28	0.79
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	214	338	2297		936	3969
v/s Ratio Prot	c0.11		c0.43		c0.25	0.05
v/s Ratio Perm		0.02				
v/c Ratio	0.87	0.14	0.92		0.92	0.06
Uniform Delay, d1	38.6	35.1	22.3		31.6	2.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	29.0	0.2	6.7		14.4	0.0
Delay (s)	67.7	35.3	29.0		46.0	2.1
Level of Service	E	D	C		D	A
Approach Delay (s)	46.7		29.0			36.0
Approach LOS	D		C			D

Intersection Summary			
HCM 2000 Control Delay	33.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	89.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	726	37	67	632	425	100	1120	148	248	469	68
Future Volume (veh/h)	216	726	37	67	632	425	100	1120	148	248	469	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	216	726	37	67	632	425	100	1120	148	248	469	68
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	237	1057	473	85	755	338	166	1228	549	273	1338	599
Arrive On Green	0.13	0.30	0.30	0.05	0.22	0.22	0.05	0.35	0.35	0.08	0.39	0.39
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	3375	3471	1553	3375	3471	1553
Grp Volume(v), veh/h	216	726	37	67	632	425	100	1120	148	248	469	68
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1688	1736	1553	1688	1736	1553
Q Serve(g_s), s	9.0	13.6	1.3	2.8	12.8	16.0	2.2	22.9	5.1	5.4	7.1	2.1
Cycle Q Clear(g_c), s	9.0	13.6	1.3	2.8	12.8	16.0	2.2	22.9	5.1	5.4	7.1	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	1057	473	85	755	338	166	1228	549	273	1338	599
V/C Ratio(X)	0.91	0.69	0.08	0.79	0.84	1.26	0.60	0.91	0.27	0.91	0.35	0.11
Avail Cap(c_a), veh/h	237	1057	473	118	755	338	227	1262	564	273	1338	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	22.8	18.6	35.0	27.9	29.1	34.6	22.9	17.1	33.9	16.2	14.7
Incr Delay (d2), s/veh	36.0	1.9	0.1	20.6	8.2	138.1	3.5	10.0	0.3	31.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	6.8	0.6	1.8	7.0	19.8	1.1	12.6	2.2	3.7	3.4	0.9
LnGrp Delay(d),s/veh	67.7	24.7	18.6	55.6	36.1	167.2	38.1	32.9	17.4	65.8	16.4	14.8
LnGrp LOS	E	C	B	E	D	F	D	C	B	E	B	B
Approach Vol, veh/h		979			1124			1368			785	
Approach Delay, s/veh		34.0			86.8			31.6			31.8	
Approach LOS		C			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	30.3	7.6	26.4	7.7	32.6	14.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	27.0	5.0	21.0	5.0	28.0	10.0	16.0
Max Q Clear Time (g_c+I1), s	7.4	24.9	4.8	15.6	4.2	9.1	11.0	18.0
Green Ext Time (p_c), s	0.0	1.4	0.0	3.8	0.0	9.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1279	136	190	1628	88	14	536	111	58	474	2
Future Volume (veh/h)	10	1279	136	190	1628	88	14	536	111	58	474	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	10	1279	136	190	1628	88	14	536	111	58	474	2
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	17	1434	642	228	1790	96	24	667	298	73	782	3
Arrive On Green	0.01	0.42	0.42	0.13	0.54	0.54	0.01	0.19	0.19	0.04	0.22	0.22
Sat Flow, veh/h	1707	3406	1524	1707	3287	177	1757	3505	1568	1757	3579	15
Grp Volume(v), veh/h	10	1279	136	190	839	877	14	536	111	58	232	244
Grp Sat Flow(s),veh/h/ln	1707	1703	1524	1707	1703	1761	1757	1752	1568	1757	1752	1842
Q Serve(g_s), s	0.4	26.1	4.3	8.1	33.2	33.8	0.6	11.0	4.6	2.5	8.9	8.9
Cycle Q Clear(g_c), s	0.4	26.1	4.3	8.1	33.2	33.8	0.6	11.0	4.6	2.5	8.9	8.9
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	17	1434	642	228	927	959	24	667	298	73	383	402
V/C Ratio(X)	0.58	0.89	0.21	0.83	0.91	0.91	0.59	0.80	0.37	0.79	0.61	0.61
Avail Cap(c_a), veh/h	91	1500	671	251	927	959	94	748	335	94	383	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	20.1	13.8	31.7	15.3	15.5	36.8	29.0	26.4	35.6	26.4	26.4
Incr Delay (d2), s/veh	27.8	7.0	0.2	19.5	12.2	13.0	21.2	5.8	0.8	28.9	2.7	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	13.5	1.8	5.1	18.5	19.8	0.4	5.8	2.1	1.8	4.6	4.8
LnGrp Delay(d),s/veh	64.7	27.1	13.9	51.2	27.6	28.5	58.0	34.8	27.2	64.5	29.1	29.0
LnGrp LOS	E	C	B	D	C	C	E	C	C	E	C	C
Approach Vol, veh/h		1425			1906			661			534	
Approach Delay, s/veh		26.1			30.3			34.0			32.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	18.3	14.0	35.6	5.0	20.4	4.8	44.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	16.0	11.0	33.0	4.0	16.0	4.0	40.0
Max Q Clear Time (g_c+I1), s	4.5	13.0	10.1	28.1	2.6	10.9	2.4	35.8
Green Ext Time (p_c), s	0.0	1.3	0.1	3.5	0.0	2.4	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	29.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	142	23	148	179	777	34	2115	149	553	1610	65
Future Volume (veh/h)	37	142	23	148	179	777	34	2115	149	553	1610	65
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	37	142	23	148	179	777	34	2115	149	553	1610	65
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	65	674	301	153	771	625	60	2048	143	602	2906	117
Arrive On Green	0.02	0.19	0.19	0.04	0.22	0.22	0.02	0.43	0.43	0.18	0.59	0.59
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4760	333	3375	4918	199
Grp Volume(v), veh/h	37	142	23	148	179	777	34	1473	791	553	1088	587
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1768	1688	1663	1792
Q Serve(g_s), s	1.6	5.0	1.8	6.3	6.1	31.8	1.4	62.2	62.2	23.3	28.8	28.8
Cycle Q Clear(g_c), s	1.6	5.0	1.8	6.3	6.1	31.8	1.4	62.2	62.2	23.3	28.8	28.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.11
Lane Grp Cap(c), veh/h	65	674	301	153	771	625	60	1431	761	602	1965	1059
V/C Ratio(X)	0.57	0.21	0.08	0.97	0.23	1.24	0.57	1.03	1.04	0.92	0.55	0.55
Avail Cap(c_a), veh/h	84	696	312	153	771	625	98	1431	761	712	2034	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	48.9	47.6	68.9	46.3	43.5	70.4	41.2	41.2	58.4	18.0	18.0
Incr Delay (d2), s/veh	3.0	0.1	0.0	61.8	0.1	122.9	3.1	31.7	43.4	14.3	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.4	0.8	4.3	2.9	46.1	0.7	34.7	39.4	12.0	13.2	14.3
LnGrp Delay(d),s/veh	73.3	49.0	47.7	130.8	46.4	166.4	73.5	72.8	84.5	72.6	18.1	18.3
LnGrp LOS	E	D	D	F	D	F	E	F	F	E	B	B
Approach Vol, veh/h		202			1104			2298			2228	
Approach Delay, s/veh		53.3			142.2			76.9			31.7	
Approach LOS		D			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	90.7	8.3	37.5	31.3	67.5	12.0	33.8
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	4.2	88.4	3.6	* 32	30.5	* 62	6.5	* 29
Max Q Clear Time (g_c+I1), s	3.4	30.8	3.6	33.8	25.3	64.2	8.3	7.0
Green Ext Time (p_c), s	0.0	8.6	0.0	0.0	0.5	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	71.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1322	106	283	1410	1114	407	1062	55	938	766	111
Future Volume (veh/h)	60	1322	106	283	1410	1114	407	1062	55	938	766	111
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	60	1322	106	283	1410	0	407	1062	55	938	766	111
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	83	1306	407	289	1631	508	465	1119	349	870	1688	526
Arrive On Green	0.02	0.27	0.27	0.09	0.33	0.00	0.14	0.22	0.22	0.26	0.34	0.34
Sat Flow, veh/h	3312	4893	1524	3312	4893	1524	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	60	1322	106	283	1410	0	407	1062	55	938	766	111
Grp Sat Flow(s),veh/h/ln	1656	1631	1524	1656	1631	1524	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	2.2	32.1	6.6	10.3	32.5	0.0	14.2	25.2	3.4	31.0	14.4	6.1
Cycle Q Clear(g_c), s	2.2	32.1	6.6	10.3	32.5	0.0	14.2	25.2	3.4	31.0	14.4	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	1306	407	289	1631	508	465	1119	349	870	1688	526
V/C Ratio(X)	0.73	1.01	0.26	0.98	0.86	0.00	0.87	0.95	0.16	1.08	0.45	0.21
Avail Cap(c_a), veh/h	83	1306	407	289	1631	508	612	1119	349	870	1688	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.2	44.1	34.8	54.8	37.6	0.0	50.8	46.0	37.5	44.6	31.1	28.3
Incr Delay (d2), s/veh	24.1	28.0	0.1	46.9	4.9	0.0	9.0	15.9	0.1	53.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	17.8	2.8	6.6	15.4	0.0	7.2	13.3	1.5	20.9	6.6	2.6
LnGrp Delay(d),s/veh	82.3	72.1	34.9	101.6	42.4	0.0	59.8	61.9	37.6	98.6	31.2	28.4
LnGrp LOS	F	F	C	F	D		E	E	D	F	C	C
Approach Vol, veh/h		1488			1693			1524			1815	
Approach Delay, s/veh		69.9			52.3			60.5			65.8	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	45.5	21.3	45.5	16.0	37.5	35.0	31.8
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.0	4.8
Max Green Setting (Gmax), s	3.0	* 40	* 22	35.5	10.5	* 32	31.0	27.0
Max Q Clear Time (g_c+I1), s	4.2	34.5	16.2	16.4	12.3	34.1	33.0	27.2
Green Ext Time (p_c), s	0.0	3.0	0.4	3.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	738	43	60	439	249	134	803	52	160	688	247
Future Volume (veh/h)	161	738	43	60	439	249	134	803	52	160	688	247
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	161	738	43	60	439	249	134	803	52	160	688	247
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	201	989	58	75	470	265	169	1076	338	200	1216	379
Arrive On Green	0.11	0.29	0.29	0.04	0.22	0.22	0.10	0.22	0.22	0.11	0.24	0.24
Sat Flow, veh/h	1757	3366	196	1757	2164	1218	1740	4988	1568	1757	4988	1553
Grp Volume(v), veh/h	161	384	397	60	355	333	134	803	52	160	688	247
Grp Sat Flow(s),veh/h/ln	1757	1752	1810	1757	1752	1630	1740	1663	1568	1757	1663	1553
Q Serve(g_s), s	5.5	12.2	12.2	2.1	12.3	12.4	4.6	9.3	1.7	5.5	7.5	8.8
Cycle Q Clear(g_c), s	5.5	12.2	12.2	2.1	12.3	12.4	4.6	9.3	1.7	5.5	7.5	8.8
Prop In Lane	1.00		0.11	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	515	532	75	381	354	169	1076	338	200	1216	379
V/C Ratio(X)	0.80	0.75	0.75	0.80	0.93	0.94	0.79	0.75	0.15	0.80	0.57	0.65
Avail Cap(c_a), veh/h	242	515	532	108	381	354	209	1496	470	268	1714	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	19.7	19.7	29.3	23.7	23.8	27.2	22.6	19.6	26.6	20.5	21.0
Incr Delay (d2), s/veh	12.2	5.2	5.1	15.0	29.0	32.5	12.3	0.7	0.1	8.5	0.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	6.6	6.8	1.3	9.0	8.8	2.8	4.3	0.7	3.1	3.5	3.8
LnGrp Delay(d),s/veh	38.9	24.9	24.8	44.3	52.7	56.3	39.6	23.3	19.7	35.2	20.6	21.7
LnGrp LOS	D	C	C	D	D	E	D	C	B	D	C	C
Approach Vol, veh/h		942			748			989			1095	
Approach Delay, s/veh		27.2			53.6			25.3			23.0	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	19.8	12.6	18.7	12.3	18.1	7.8	23.4
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 7.4	21.2	8.5	* 13	* 9.4	18.5	* 3.8	* 18
Max Q Clear Time (g_c+I1), s	6.6	10.8	7.5	14.4	7.5	11.3	4.1	14.2
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	2.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	30.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	895	412	6	1	465	274	4	0	1	106	0	526
Future Volume (veh/h)	895	412	6	1	465	274	4	0	1	106	0	526
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	895	412	6	1	465	274	4	0	1	106	0	526
Adj No. of Lanes	2	1	0	1	2	0	0	1	0	1	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	981	893	13	77	530	310	5	0	1	397	417	624
Arrive On Green	0.29	0.49	0.49	0.04	0.25	0.25	0.00	0.00	0.00	0.23	0.00	0.23
Sat Flow, veh/h	3408	1814	26	1757	2129	1248	1372	0	343	1757	1845	2760
Grp Volume(v), veh/h	895	0	418	1	382	357	5	0	0	106	0	526
Grp Sat Flow(s),veh/h/ln	1704	0	1840	1757	1752	1624	1715	0	0	1757	1845	1380
Q Serve(g_s), s	17.4	0.0	10.2	0.0	14.4	14.5	0.2	0.0	0.0	3.4	0.0	12.5
Cycle Q Clear(g_c), s	17.4	0.0	10.2	0.0	14.4	14.5	0.2	0.0	0.0	3.4	0.0	12.5
Prop In Lane	1.00		0.01	1.00		0.77	0.80		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	981	0	906	77	436	404	7	0	0	397	417	624
V/C Ratio(X)	0.91	0.00	0.46	0.01	0.88	0.88	0.73	0.00	0.00	0.27	0.00	0.84
Avail Cap(c_a), veh/h	995	0	906	462	460	427	75	0	0	462	485	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	11.4	31.3	24.7	24.8	34.1	0.0	0.0	21.8	0.0	25.4
Incr Delay (d2), s/veh	12.3	0.0	0.4	0.1	16.6	18.5	89.7	0.0	0.0	0.4	0.0	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	0.0	5.2	0.0	8.9	8.5	0.3	0.0	0.0	1.7	0.0	5.4
LnGrp Delay(d),s/veh	35.9	0.0	11.8	31.4	41.3	43.2	123.8	0.0	0.0	22.2	0.0	33.3
LnGrp LOS	D		B	C	D	D	F			C		C
Approach Vol, veh/h		1313			740			5			632	
Approach Delay, s/veh		28.2			42.2			123.8			31.4	
Approach LOS		C			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		4.3	7.0	37.8		19.5	23.7	21.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		3.0	18.0	20.0		18.0	20.0	18.0
Max Q Clear Time (g_c+I1), s		2.2	2.0	12.2		14.5	19.4	16.5
Green Ext Time (p_c), s		0.0	0.0	3.4		1.0	0.3	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	40	32	9	30	234	57	2633	72	543	2091	59
Future Volume (veh/h)	76	40	32	9	30	234	57	2633	72	543	2091	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	76	40	32	9	30	234	57	2633	72	543	2091	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	81	44	35	545	295	251	72	2480	772	513	3044	86
Arrive On Green	0.05	0.05	0.05	0.16	0.16	0.16	0.04	0.50	0.50	0.15	0.61	0.61
Sat Flow, veh/h	1757	950	760	3408	1845	1568	1740	4988	1553	3375	4987	140
Grp Volume(v), veh/h	76	0	72	9	30	234	57	2633	72	543	1393	757
Grp Sat Flow(s),veh/h/ln	1757	0	1711	1704	1845	1568	1740	1663	1553	1688	1663	1802
Q Serve(g_s), s	6.5	0.0	6.3	0.3	2.1	22.1	4.9	74.6	3.7	22.8	42.1	42.3
Cycle Q Clear(g_c), s	6.5	0.0	6.3	0.3	2.1	22.1	4.9	74.6	3.7	22.8	42.1	42.3
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	81	0	79	545	295	251	72	2480	772	513	2030	1100
V/C Ratio(X)	0.94	0.00	0.92	0.02	0.10	0.93	0.79	1.06	0.09	1.06	0.69	0.69
Avail Cap(c_a), veh/h	81	0	79	545	295	251	123	2480	772	513	2030	1100
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.3	0.0	71.3	53.1	53.8	62.2	71.2	37.7	19.9	63.6	19.6	19.6
Incr Delay (d2), s/veh	79.2	0.0	72.1	0.0	0.1	38.4	6.9	37.0	0.0	56.1	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	4.6	0.2	1.1	12.2	2.5	42.7	1.6	14.6	19.4	21.5
LnGrp Delay(d),s/veh	150.5	0.0	143.3	53.1	53.9	100.6	78.1	74.7	19.9	119.7	20.4	21.2
LnGrp LOS	F		F	D	D	F	E	F	B	F	C	C
Approach Vol, veh/h		148			273			2762			2693	
Approach Delay, s/veh		147.0			93.9			73.4			40.6	
Approach LOS		F			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.3	96.8		12.4	28.3	79.8		29.5
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 11	* 87		6.9	22.8	* 75		24.0
Max Q Clear Time (g_c+I1), s	6.9	44.3		8.5	24.8	76.6		24.1
Green Ext Time (p_c), s	0.0	16.0		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	61.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	1166	473	188	1092	942	350	1491	300	484	873	139
Future Volume (veh/h)	204	1166	473	188	1092	942	350	1491	300	484	873	139
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	204	1166	473	188	1092	942	350	1491	300	484	873	139
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	182	1811	564	236	1890	589	398	1471	458	397	1469	457
Arrive On Green	0.05	0.36	0.36	0.07	0.38	0.38	0.12	0.29	0.29	0.12	0.29	0.29
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	204	1166	473	188	1092	942	350	1491	300	484	873	139
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	7.5	27.1	38.8	7.6	24.3	52.7	14.3	41.4	23.7	16.5	21.0	9.7
Cycle Q Clear(g_c), s	7.5	27.1	38.8	7.6	24.3	52.7	14.3	41.4	23.7	16.5	21.0	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	1811	564	236	1890	589	398	1471	458	397	1469	457
V/C Ratio(X)	1.12	0.64	0.84	0.80	0.58	1.60	0.88	1.01	0.66	1.22	0.59	0.30
Avail Cap(c_a), veh/h	182	1811	564	313	1890	589	478	1471	458	397	1469	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.4	37.5	41.2	64.4	35.0	43.8	61.0	49.5	43.3	61.9	42.3	38.4
Incr Delay (d2), s/veh	102.7	0.6	10.2	7.4	0.3	278.2	13.4	26.9	2.7	119.8	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	12.6	18.4	3.8	11.3	68.3	7.5	22.6	10.5	14.3	9.7	4.2
LnGrp Delay(d),s/veh	169.2	38.1	51.5	71.8	35.3	322.0	74.4	76.4	45.9	181.8	42.8	38.5
LnGrp LOS	F	D	D	E	D	F	E	F	D	F	D	D
Approach Vol, veh/h		1843			2222			2141			1496	
Approach Delay, s/veh		56.0			159.9			71.8			87.4	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	47.0	13.0	58.4	22.0	47.0	15.2	56.2
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	19.9	* 38	7.5	* 53	16.5	* 41	12.9	* 47
Max Q Clear Time (g_c+I1), s	16.3	23.0	9.5	54.7	18.5	43.4	9.6	40.8
Green Ext Time (p_c), s	0.2	4.5	0.0	0.0	0.0	0.0	0.1	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	96.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	335	1406	450	120	1570	664	370	1436	107	674	648	90
Future Volume (veh/h)	335	1406	450	120	1570	664	370	1436	107	674	648	90
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	335	1406	450	120	1570	664	370	1436	107	674	648	0
Adj No. of Lanes	2	3	1	2	3	2	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	329	1674	536	169	1449	794	424	1340	417	623	1628	502
Arrive On Green	0.10	0.34	0.34	0.05	0.30	0.30	0.12	0.27	0.27	0.18	0.32	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	2682	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	335	1406	450	120	1570	664	370	1436	107	674	648	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1341	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	12.9	34.5	34.4	4.5	38.5	30.1	13.9	34.6	7.0	24.0	13.0	0.0
Cycle Q Clear(g_c), s	12.9	34.5	34.4	4.5	38.5	30.1	13.9	34.6	7.0	24.0	13.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	329	1674	536	169	1449	794	424	1340	417	623	1628	502
V/C Ratio(X)	1.02	0.84	0.84	0.71	1.08	0.84	0.87	1.07	0.26	1.08	0.40	0.00
Avail Cap(c_a), veh/h	329	1675	537	181	1449	794	558	1340	417	623	1628	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.6	39.5	39.5	60.9	45.8	42.8	55.9	47.7	37.6	53.0	34.2	0.0
Incr Delay (d2), s/veh	54.7	3.8	10.7	11.4	49.7	7.3	9.5	46.1	0.3	60.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	16.1	16.5	2.4	24.0	11.9	7.1	21.7	3.1	16.4	6.0	0.0
LnGrp Delay(d),s/veh	113.3	43.3	50.2	72.2	95.4	50.1	65.4	93.8	37.9	113.1	34.2	0.0
LnGrp LOS	F	D	D	E	F	D	E	F	D	F	C	
Approach Vol, veh/h		2191			2354			1913			1322	
Approach Delay, s/veh		55.4			81.5			85.2			74.4	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.6	47.1	17.2	44.1	29.0	39.7	11.2	50.1
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 21	36.9	* 13	38.5	24.0	34.6	* 6.9	* 45
Max Q Clear Time (g_c+I1), s	15.9	15.0	14.9	40.5	26.0	36.6	6.5	36.5
Green Ext Time (p_c), s	0.3	10.2	0.0	0.0	0.0	0.0	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	73.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	410	96	287	560	123	231	1668	202	37	357	57
Future Volume (veh/h)	9	410	96	287	560	123	231	1668	202	37	357	57
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	9	410	96	287	560	123	231	1668	202	37	357	57
Adj No. of Lanes	2	1	1	2	2	1	1	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	22	456	387	294	1145	512	265	1635	732	66	1176	526
Arrive On Green	0.01	0.25	0.25	0.09	0.33	0.33	0.15	0.47	0.47	0.02	0.34	0.34
Sat Flow, veh/h	3408	1845	1568	3408	3505	1568	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	9	410	96	287	560	123	231	1668	202	37	357	57
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1704	1752	1568	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.3	25.2	5.8	9.9	15.0	6.7	15.1	54.7	9.2	1.3	8.8	2.9
Cycle Q Clear(g_c), s	0.3	25.2	5.8	9.9	15.0	6.7	15.1	54.7	9.2	1.3	8.8	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	456	387	294	1145	512	265	1635	732	66	1176	526
V/C Ratio(X)	0.41	0.90	0.25	0.98	0.49	0.24	0.87	1.02	0.28	0.56	0.30	0.11
Avail Cap(c_a), veh/h	87	488	415	294	1145	512	390	1635	732	87	1176	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	42.7	35.4	53.5	31.6	28.8	48.7	31.3	19.1	57.0	28.8	26.9
Incr Delay (d2), s/veh	11.5	18.8	0.3	46.2	0.3	0.2	13.7	27.4	0.2	7.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	15.2	2.5	6.5	7.3	2.9	8.3	32.6	4.1	0.7	4.3	1.3
LnGrp Delay(d),s/veh	69.5	61.5	35.7	99.6	32.0	29.1	62.4	58.7	19.4	64.1	28.9	26.9
LnGrp LOS	E	E	D	F	C	C	E	F	B	E	C	C
Approach Vol, veh/h		515			970			2101			451	
Approach Delay, s/veh		56.9			51.6			55.3			31.5	
Approach LOS		E			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	44.3	15.6	34.2	7.8	59.7	6.3	43.5
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	26.0	31.7	10.1	* 31	3.0	54.7	3.0	* 38
Max Q Clear Time (g_c+I1), s	17.1	10.8	11.9	27.2	3.3	56.7	2.3	17.0
Green Ext Time (p_c), s	0.6	11.8	0.0	1.7	0.0	0.0	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	427	34	96	247	19	9	1987	465	20	492	186
Future Volume (veh/h)	170	427	34	96	247	19	9	1987	465	20	492	186
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1828	1900	1845	1796	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	170	427	34	96	247	19	9	1987	465	20	492	186
Adj No. of Lanes	2	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	6	3	3	3	3	3	3
Cap, veh/h	194	409	33	120	368	28	11	1943	869	24	1401	527
Arrive On Green	0.06	0.24	0.24	0.04	0.22	0.22	0.01	0.55	0.55	0.01	0.56	0.56
Sat Flow, veh/h	3408	1672	133	3408	1647	127	1757	3505	1568	1757	2494	937
Grp Volume(v), veh/h	170	0	461	96	0	266	9	1987	465	20	345	333
Grp Sat Flow(s),veh/h/ln	1704	0	1805	1704	0	1774	1757	1752	1568	1757	1752	1679
Q Serve(g_s), s	6.9	0.0	34.0	3.9	0.0	19.0	0.7	77.0	26.1	1.6	14.9	15.1
Cycle Q Clear(g_c), s	6.9	0.0	34.0	3.9	0.0	19.0	0.7	77.0	26.1	1.6	14.9	15.1
Prop In Lane	1.00		0.07	1.00		0.07	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	194	0	442	120	0	396	11	1943	869	24	984	943
V/C Ratio(X)	0.88	0.00	1.04	0.80	0.00	0.67	0.81	1.02	0.54	0.82	0.35	0.35
Avail Cap(c_a), veh/h	194	0	442	120	0	396	43	1943	869	38	984	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	0.0	52.5	66.5	0.0	49.3	68.9	31.0	19.6	68.3	16.6	16.6
Incr Delay (d2), s/veh	33.4	0.0	54.7	30.4	0.0	3.6	77.6	26.4	0.6	53.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	23.6	2.3	0.0	9.7	0.6	44.1	11.4	1.1	7.2	7.0
LnGrp Delay(d),s/veh	98.4	0.0	107.1	96.9	0.0	52.9	146.5	57.4	20.3	121.5	16.8	16.9
LnGrp LOS	F		F	F		D	F	F	C	F	B	B
Approach Vol, veh/h		631			362			2461			698	
Approach Delay, s/veh		104.8			64.6			50.7			19.8	
Approach LOS		F			E			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	82.1	13.4	36.0	6.4	83.1	10.4	39.0
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	3.0	* 77	7.9	* 31	3.4	* 77	4.9	* 34
Max Q Clear Time (g_c+I1), s	3.6	79.0	8.9	21.0	2.7	17.1	5.9	36.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	36.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.9
HCM 2010 LOS	D

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	343	195	313	264	42	380
Future Volume (veh/h)	343	195	313	264	42	380
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	343	195	313	264	42	380
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	460	391	385	1017	498	444
Arrive On Green	0.25	0.25	0.22	0.55	0.28	0.28
Sat Flow, veh/h	1845	1568	1757	1845	1757	1568
Grp Volume(v), veh/h	343	195	313	264	42	380
Grp Sat Flow(s),veh/h/ln	1845	1568	1757	1845	1757	1568
Q Serve(g_s), s	8.3	5.2	8.2	3.6	0.8	11.1
Cycle Q Clear(g_c), s	8.3	5.2	8.2	3.6	0.8	11.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	460	391	385	1017	498	444
V/C Ratio(X)	0.75	0.50	0.81	0.26	0.08	0.86
Avail Cap(c_a), veh/h	610	518	545	1334	617	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	15.6	18.0	5.7	12.7	16.4
Incr Delay (d2), s/veh	3.5	1.0	6.3	0.1	0.1	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	2.3	4.6	1.9	0.4	6.0
LnGrp Delay(d),s/veh	20.2	16.6	24.3	5.8	12.8	27.0
LnGrp LOS	C	B	C	A	B	C
Approach Vol, veh/h	538			577	422	
Approach Delay, s/veh	18.9			15.8	25.6	
Approach LOS	B			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		17.7	14.6	16.1				30.7
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		17.0	15.0	16.0				35.0
Max Q Clear Time (g_c+I1), s		13.1	10.2	10.3				5.6
Green Ext Time (p_c), s		0.6	0.6	1.8				3.4

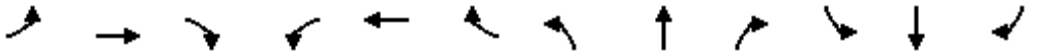
Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	833	133	562	1244	311	177	695	784	339	283	49
Future Volume (veh/h)	117	833	133	562	1244	311	177	695	784	339	283	49
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	117	833	133	562	1244	311	177	695	784	339	283	49
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	186	1280	410	684	1996	639	257	747	649	363	857	383
Arrive On Green	0.05	0.26	0.26	0.20	0.41	0.41	0.08	0.21	0.21	0.11	0.24	0.24
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	117	833	133	562	1244	311	177	695	784	339	283	49
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	2.8	12.8	5.8	13.3	17.0	12.4	4.3	16.4	18.0	8.3	5.6	2.1
Cycle Q Clear(g_c), s	2.8	12.8	5.8	13.3	17.0	12.4	4.3	16.4	18.0	8.3	5.6	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	1280	410	684	1996	639	257	747	649	363	857	383
V/C Ratio(X)	0.63	0.65	0.32	0.82	0.62	0.49	0.69	0.93	1.21	0.93	0.33	0.13
Avail Cap(c_a), veh/h	283	1310	420	888	2179	698	363	747	649	363	857	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	27.7	25.1	32.3	19.9	18.5	38.1	32.6	24.7	37.4	26.2	24.9
Incr Delay (d2), s/veh	3.5	1.3	0.6	4.9	0.6	0.8	3.3	18.1	107.7	30.7	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.9	2.6	6.7	7.7	5.5	2.1	9.8	34.5	5.5	2.7	0.9
LnGrp Delay(d),s/veh	42.6	29.0	25.8	37.2	20.5	19.3	41.4	50.7	132.4	68.1	26.4	25.0
LnGrp LOS	D	C	C	D	C	B	D	D	F	E	C	C
Approach Vol, veh/h		1083			2117			1656			671	
Approach Delay, s/veh		30.1			24.7			88.4			47.4	
Approach LOS		C			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	28.5	10.4	24.6	8.6	40.8	13.0	22.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	22.0	22.6	9.0	18.0	7.0	37.6	9.0	18.0
Max Q Clear Time (g_c+I1), s	15.3	14.8	6.3	7.6	4.8	19.0	10.3	20.0
Green Ext Time (p_c), s	1.6	7.1	0.2	6.2	0.1	15.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.6
HCM 2010 LOS	D

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	644	3	92	34	33	123	224	877	29	55	450	574
Future Volume (veh/h)	644	3	92	34	33	123	224	877	29	55	450	574
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1845
Adj Flow Rate, veh/h	644	3	92	34	33	123	224	877	29	55	450	574
Adj No. of Lanes	2	2	1	0	1	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	3
Cap, veh/h	751	772	345	99	96	170	313	1248	558	99	1046	472
Arrive On Green	0.22	0.22	0.22	0.11	0.11	0.11	0.09	0.36	0.36	0.03	0.30	0.30
Sat Flow, veh/h	3408	3505	1568	913	886	1568	3408	3471	1553	3375	3471	1568
Grp Volume(v), veh/h	644	3	92	67	0	123	224	877	29	55	450	574
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1799	0	1568	1704	1736	1553	1688	1736	1568
Q Serve(g_s), s	12.4	0.0	3.3	2.4	0.0	5.2	4.4	14.8	0.8	1.1	7.1	20.6
Cycle Q Clear(g_c), s	12.4	0.0	3.3	2.4	0.0	5.2	4.4	14.8	0.8	1.1	7.1	20.6
Prop In Lane	1.00		1.00	0.51		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	751	772	345	195	0	170	313	1248	558	99	1046	472
V/C Ratio(X)	0.86	0.00	0.27	0.34	0.00	0.72	0.72	0.70	0.05	0.55	0.43	1.21
Avail Cap(c_a), veh/h	798	820	367	474	0	413	319	1248	558	148	1046	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	20.8	22.1	28.2	0.0	29.5	30.2	18.8	14.3	32.7	19.2	23.9
Incr Delay (d2), s/veh	8.9	0.0	0.4	1.0	0.0	5.7	7.3	1.8	0.0	4.8	0.3	114.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	1.5	1.2	0.0	2.5	2.4	7.4	0.4	0.6	3.4	23.9
LnGrp Delay(d),s/veh	34.5	20.8	22.5	29.2	0.0	35.2	37.5	20.6	14.3	37.5	19.5	138.8
LnGrp LOS	C	C	C	C		D	D	C	B	D	B	F
Approach Vol, veh/h		739			190			1130			1079	
Approach Delay, s/veh		32.9			33.1			23.8			83.8	
Approach LOS		C			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.9	25.6		12.8	6.9	29.6		19.1
Change Period (Y+Rc), s	* 4.6	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	* 6.4	20.6		* 18	* 3	23.7		16.0
Max Q Clear Time (g_c+I1), s	6.4	22.6		7.2	3.1	16.8		14.4
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	4.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	47.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	386	38	45	870	120	88	753	31	106	298	214
Future Volume (veh/h)	193	386	38	45	870	120	88	753	31	106	298	214
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1838	1900	1845	1845	1900	1827	1845	1845
Adj Flow Rate, veh/h	193	386	38	45	870	120	88	753	31	106	298	214
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	4	3	3
Cap, veh/h	202	1384	136	57	1070	148	113	959	39	117	521	623
Arrive On Green	0.11	0.43	0.43	0.03	0.35	0.35	0.06	0.28	0.28	0.07	0.28	0.28
Sat Flow, veh/h	1757	3225	316	1757	3084	425	1757	3431	141	1740	1845	1568
Grp Volume(v), veh/h	193	209	215	45	493	497	88	385	399	106	298	214
Grp Sat Flow(s),veh/h/ln	1757	1752	1789	1757	1746	1763	1757	1752	1820	1740	1845	1568
Q Serve(g_s), s	11.4	8.1	8.1	2.7	26.8	26.8	5.2	21.1	21.2	6.3	14.4	9.9
Cycle Q Clear(g_c), s	11.4	8.1	8.1	2.7	26.8	26.8	5.2	21.1	21.2	6.3	14.4	9.9
Prop In Lane	1.00		0.18	1.00		0.24	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	202	752	768	57	606	612	113	490	509	117	521	623
V/C Ratio(X)	0.96	0.28	0.28	0.78	0.81	0.81	0.78	0.79	0.79	0.91	0.57	0.34
Avail Cap(c_a), veh/h	202	1024	1046	152	971	980	219	806	837	117	742	811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	19.3	19.3	50.1	31.0	31.0	48.1	34.7	34.7	48.4	32.0	21.9
Incr Delay (d2), s/veh	50.5	0.2	0.2	20.3	2.9	2.8	11.1	2.8	2.7	54.6	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	3.9	4.0	1.6	13.3	13.5	2.8	10.6	11.0	4.8	7.5	4.3
LnGrp Delay(d),s/veh	96.4	19.5	19.5	70.4	33.9	33.8	59.2	37.5	37.4	103.0	33.0	22.3
LnGrp LOS	F	B	B	E	C	C	E	D	D	F	C	C
Approach Vol, veh/h		617			1035			872			618	
Approach Delay, s/veh		43.6			35.4			39.7			41.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	50.8	10.7	35.5	16.0	42.2	11.0	35.2
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	9.0	61.0	13.0	42.0	12.0	58.0	7.0	48.0
Max Q Clear Time (g_c+I1), s	4.7	10.1	7.2	16.4	13.4	28.8	8.3	23.2
Green Ext Time (p_c), s	0.0	7.9	0.1	6.1	0.0	7.4	0.0	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	291	5	39	768	40	2	107	9	13	150	187
Future Volume (veh/h)	203	291	5	39	768	40	2	107	9	13	150	187
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1900	1810	1900	1900	1810	1900
Adj Flow Rate, veh/h	203	291	5	39	768	40	2	107	9	13	150	187
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	232	792	14	49	1130	59	3	136	11	14	159	198
Arrive On Green	0.14	0.45	0.45	0.03	0.34	0.34	0.08	0.08	0.08	0.22	0.22	0.22
Sat Flow, veh/h	1707	1757	30	1707	3294	171	30	1618	136	61	707	882
Grp Volume(v), veh/h	203	0	296	39	397	411	118	0	0	350	0	0
Grp Sat Flow(s),veh/h/ln	1707	0	1787	1707	1703	1762	1784	0	0	1651	0	0
Q Serve(g_s), s	12.4	0.0	11.6	2.4	21.3	21.3	6.9	0.0	0.0	22.3	0.0	0.0
Cycle Q Clear(g_c), s	12.4	0.0	11.6	2.4	21.3	21.3	6.9	0.0	0.0	22.3	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.10	0.02		0.08	0.04		0.53
Lane Grp Cap(c), veh/h	232	0	805	49	584	604	150	0	0	371	0	0
V/C Ratio(X)	0.87	0.00	0.37	0.80	0.68	0.68	0.79	0.00	0.00	0.94	0.00	0.00
Avail Cap(c_a), veh/h	262	0	1142	147	973	1007	435	0	0	371	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.2	0.0	19.3	51.5	30.0	30.0	47.9	0.0	0.0	40.7	0.0	0.0
Incr Delay (d2), s/veh	22.4	0.0	0.6	10.7	3.0	2.9	8.7	0.0	0.0	32.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	5.9	1.3	10.5	10.9	3.8	0.0	0.0	13.4	0.0	0.0
LnGrp Delay(d),s/veh	67.6	0.0	19.9	62.2	33.0	32.9	56.6	0.0	0.0	73.0	0.0	0.0
LnGrp LOS	E		B	E	C	C	E			E		
Approach Vol, veh/h		499			847			118			350	
Approach Delay, s/veh		39.3			34.3			56.6			73.0	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.1	42.6		30.0	7.6	54.1		15.0
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0
Max Green Setting (Gmax), s	16.4	61.0		24.0	9.2	68.2		26.0
Max Q Clear Time (g_c+I1), s	14.4	23.3		24.3	4.4	13.6		8.9
Green Ext Time (p_c), s	0.1	13.3		0.0	0.0	14.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	44.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1	1	260	0	432	2	882	131	181	568	5
Future Volume (veh/h)	5	1	1	260	0	432	2	882	131	181	568	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	5	1	1	260	0	432	2	882	131	181	568	5
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	9	117	117	305	0	480	4	1065	158	223	862	8
Arrive On Green	0.01	0.14	0.14	0.17	0.00	0.31	0.00	0.35	0.35	0.13	0.47	0.47
Sat Flow, veh/h	1757	848	848	1757	0	1568	1757	3062	455	1757	1826	16
Grp Volume(v), veh/h	5	0	2	260	0	432	2	505	508	181	0	573
Grp Sat Flow(s),veh/h/ln	1757	0	1695	1757	0	1568	1757	1752	1764	1757	0	1842
Q Serve(g_s), s	0.2	0.0	0.1	10.7	0.0	19.7	0.1	19.7	19.7	7.5	0.0	17.8
Cycle Q Clear(g_c), s	0.2	0.0	0.1	10.7	0.0	19.7	0.1	19.7	19.7	7.5	0.0	17.8
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.26	1.00		0.01
Lane Grp Cap(c), veh/h	9	0	233	305	0	480	4	610	614	223	0	870
V/C Ratio(X)	0.54	0.00	0.01	0.85	0.00	0.90	0.52	0.83	0.83	0.81	0.00	0.66
Avail Cap(c_a), veh/h	94	0	363	376	0	587	94	680	684	305	0	936
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	27.8	30.0	0.0	24.8	37.3	22.3	22.3	31.8	0.0	15.1
Incr Delay (d2), s/veh	41.0	0.0	0.0	14.4	0.0	14.8	81.0	7.7	7.7	11.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	6.4	0.0	10.5	0.1	10.8	10.9	4.3	0.0	9.3
LnGrp Delay(d),s/veh	78.1	0.0	27.9	44.3	0.0	39.7	118.2	30.1	30.0	43.0	0.0	16.7
LnGrp LOS	E		C	D		D	F	C	C	D		B
Approach Vol, veh/h		7			692			1015			754	
Approach Delay, s/veh		63.8			41.4			30.2			23.0	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	30.0	17.0	14.3	4.2	39.3	4.4	26.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	29.0	16.0	16.0	4.0	38.0	4.0	28.0
Max Q Clear Time (g_c+I1), s	9.5	21.7	12.7	2.1	2.1	19.8	2.2	21.7
Green Ext Time (p_c), s	0.2	4.3	0.3	1.9	0.0	7.5	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	263	752	772	20	1276	24	1484	124	38	18	45	96
Future Volume (veh/h)	263	752	772	20	1276	24	1484	124	38	18	45	96
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	263	752	772	20	1276	24	1484	124	38	18	45	96
Adj No. of Lanes	2	3	2	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	277	1659	909	41	1310	408	1521	1812	811	38	287	128
Arrive On Green	0.08	0.33	0.33	0.01	0.26	0.26	0.45	0.52	0.52	0.01	0.08	0.08
Sat Flow, veh/h	3408	5036	2760	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	263	752	772	20	1276	24	1484	124	38	18	45	96
Grp Sat Flow(s),veh/h/ln	1704	1679	1380	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	9.4	14.5	32.0	0.7	30.9	1.4	52.5	2.2	1.5	0.6	1.5	7.4
Cycle Q Clear(g_c), s	9.4	14.5	32.0	0.7	30.9	1.4	52.5	2.2	1.5	0.6	1.5	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	1659	909	41	1310	408	1521	1812	811	38	287	128
V/C Ratio(X)	0.95	0.45	0.85	0.49	0.97	0.06	0.98	0.07	0.05	0.47	0.16	0.75
Avail Cap(c_a), veh/h	277	1659	909	83	1310	408	1524	1967	880	83	485	217
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	32.5	38.4	60.4	45.1	34.2	33.4	14.9	14.7	60.4	52.5	55.2
Incr Delay (d2), s/veh	40.3	0.2	7.6	8.6	18.8	0.1	17.5	0.0	0.0	8.8	0.3	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	6.7	13.1	0.4	16.6	0.6	28.2	1.1	0.6	0.4	0.7	3.5
LnGrp Delay(d),s/veh	96.5	32.7	46.0	69.0	63.9	34.2	50.8	14.9	14.7	69.2	52.7	63.5
LnGrp LOS	F	C	D	E	E	C	D	B	B	E	D	E
Approach Vol, veh/h		1787			1320			1646			159	
Approach Delay, s/veh		47.8			63.4			47.3			61.1	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	67.6	5.5	44.5	58.9	14.1	14.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	69.0	3.0	39.0	55.0	17.0	10.0	32.0
Max Q Clear Time (g_c+I1), s	2.6	4.2	2.7	34.0	54.5	9.4	11.4	32.9
Green Ext Time (p_c), s	0.0	1.3	0.0	4.4	0.4	0.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	140	0	1326	199	125	0	305	1328	147	561	88
Future Volume (veh/h)	18	140	0	1326	199	125	0	305	1328	147	561	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	18	140	0	1326	199	125	0	305	1328	147	561	88
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	28	196	167	1592	1028	874	2	674	1034	216	1046	468
Arrive On Green	0.02	0.11	0.00	0.47	0.56	0.56	0.00	0.19	0.19	0.06	0.30	0.30
Sat Flow, veh/h	1757	1845	1568	3408	1845	1568	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	18	140	0	1326	199	125	0	305	1328	147	561	88
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1704	1845	1568	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	1.0	6.9	0.0	31.8	5.0	3.6	0.0	7.2	18.0	4.0	12.5	3.9
Cycle Q Clear(g_c), s	1.0	6.9	0.0	31.8	5.0	3.6	0.0	7.2	18.0	4.0	12.5	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	28	196	167	1592	1028	874	2	674	1034	216	1046	468
V/C Ratio(X)	0.64	0.71	0.00	0.83	0.19	0.14	0.00	0.45	1.28	0.68	0.54	0.19
Avail Cap(c_a), veh/h	94	315	268	2986	1833	1558	75	674	1034	291	1046	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	40.4	0.0	21.8	10.3	10.0	0.0	33.4	15.9	42.9	27.4	24.4
Incr Delay (d2), s/veh	21.8	4.7	0.0	1.2	0.1	0.1	0.0	0.5	135.5	3.9	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.8	0.0	15.2	2.6	1.6	0.0	3.5	65.0	2.0	6.2	1.7
LnGrp Delay(d),s/veh	67.6	45.2	0.0	23.0	10.4	10.0	0.0	33.9	151.4	46.8	28.0	24.6
LnGrp LOS	E	D		C	B	B		C	F	D	C	C
Approach Vol, veh/h		158			1650			1633			796	
Approach Delay, s/veh		47.7			20.5			129.5			31.1	
Approach LOS		D			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	22.0	47.7	14.0	0.0	31.9	5.5	56.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	18.0	82.0	16.0	4.0	22.0	5.0	93.0
Max Q Clear Time (g_c+I1), s	6.0	20.0	33.8	8.9	0.0	14.5	3.0	7.0
Green Ext Time (p_c), s	0.1	0.0	10.0	1.1	0.0	6.1	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	65.5
HCM 2010 LOS	E

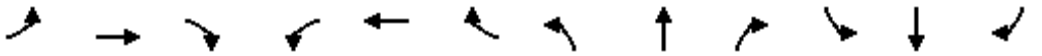
Intersection	
Intersection Delay, s/veh	18.0
Intersection LOS	C

Approach	EB	NB	SB
Entry Lanes	1	2	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	117	864	768
Demand Flow Rate, veh/h	120	890	791
Vehicles Circulating, veh/h	721	77	20
Vehicles Exiting, veh/h	90	764	947
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.7	22.0	14.8
Approach LOS	A	C	B

Lane	Left	Left	Right	Left
Designated Moves	LR	L	TR	TR
Assumed Moves	LR	L	TR	TR
RT Channelized				
Lane Util	1.000	0.022	0.978	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	120	20	870	791
Cap Entry Lane, veh/h	549	1046	1046	1108
Entry HV Adj Factor	0.975	0.950	0.971	0.971
Flow Entry, veh/h	117	19	845	768
Cap Entry, veh/h	536	994	1016	1075
V/C Ratio	0.218	0.019	0.832	0.714
Control Delay, s/veh	9.7	3.8	22.4	14.8
LOS	A	A	C	B
95th %tile Queue, veh	1	0	10	6

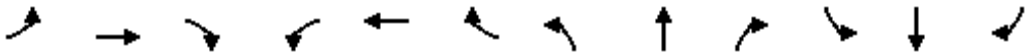
Existing Plus All Projects Mitigation

PM



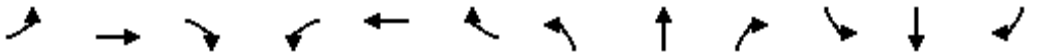
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	452	134	351	611	72	41	521	211	174	610	16
Future Volume (vph)	128	452	134	351	611	72	41	521	211	174	610	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1		6.8	6.8		4.7	5.1	5.1	5.3	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.97		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3385		1752	3449		1736	3471	1568	1752	3471	1553
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	3385		1752	3449		1736	3471	1568	1752	3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	128	452	134	351	611	72	41	521	211	174	610	16
RTOR Reduction (vph)	0	26	0	0	7	0	0	0	168	0	0	11
Lane Group Flow (vph)	128	560	0	351	676	0	41	521	43	174	610	5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	3%	3%	4%	4%
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases									6			2
Actuated Green, G (s)	19.7	19.7		23.4	23.4		3.8	20.4	20.4	11.8	29.0	29.0
Effective Green, g (s)	19.7	19.7		23.4	23.4		3.8	20.4	20.4	11.8	29.0	29.0
Actuated g/C Ratio	0.20	0.20		0.23	0.23		0.04	0.20	0.20	0.12	0.29	0.29
Clearance Time (s)	7.1	7.1		6.8	6.8		4.7	5.1	5.1	5.3	5.1	5.1
Vehicle Extension (s)	1.0	1.0		3.0	3.0		1.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	346	669		411	810		66	710	321	207	1010	452
v/s Ratio Prot	0.07	c0.17		c0.20	0.20		0.02	c0.15		c0.10	0.18	
v/s Ratio Perm									0.03			0.00
v/c Ratio	0.37	0.84		0.85	0.83		0.62	0.73	0.13	0.84	0.60	0.01
Uniform Delay, d1	34.6	38.4		36.5	36.3		47.2	37.1	32.4	43.0	30.4	25.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	8.6		15.7	7.4		12.3	3.4	0.1	25.2	0.7	0.0
Delay (s)	34.8	47.0		52.2	43.7		59.5	40.5	32.5	68.2	31.1	25.1
Level of Service	C	D		D	D		E	D	C	E	C	C
Approach Delay (s)		44.8			46.6			39.3			39.0	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	99.6	Sum of lost time (s)	24.3
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



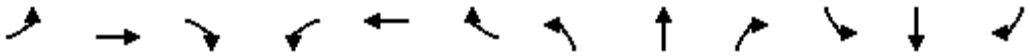
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	70	355	16	4	630	5	10	8	0	62	9	408
Future Volume (vph)	70	355	16	4	630	5	10	8	0	62	9	408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			1.00			0.89	
Flt Protected		0.99			1.00			0.97			0.99	
Satd. Flow (prot)		1804			1824			1795			1622	
Flt Permitted		0.87			1.00			0.85			0.96	
Satd. Flow (perm)		1582			1821			1569			1569	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	355	16	4	630	5	10	8	0	62	9	408
RTOR Reduction (vph)	0	3	0	0	1	0	0	0	0	0	140	0
Lane Group Flow (vph)	0	438	0	0	638	0	0	18	0	0	339	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		19.7			19.7			13.8			13.8	
Effective Green, g (s)		19.7			19.7			13.8			13.8	
Actuated g/C Ratio		0.47			0.47			0.33			0.33	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		750			864			521			521	
v/s Ratio Prot												
v/s Ratio Perm		0.28			c0.35			0.01			c0.22	
v/c Ratio		0.58			0.74			0.03			0.65	
Uniform Delay, d1		7.9			8.8			9.4			11.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.2			3.3			0.0			2.9	
Delay (s)		9.1			12.2			9.4			14.7	
Level of Service		A			B			A			B	
Approach Delay (s)		9.1			12.2			9.4			14.7	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	41.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



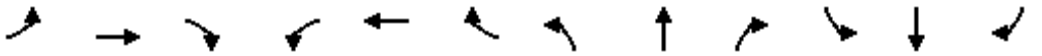
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1041	44	577	27	77	110	611	1420	17	146	334	595
Future Volume (vph)	1041	44	577	27	77	110	611	1420	17	146	334	595
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3	5.3		5.5	5.5	4.7	4.6		4.4	4.8	4.8
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1649	1659	1553		1821	1568	1736	4979		1736	4988	1553
Flt Permitted	0.95	0.96	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1649	1659	1553		1821	1568	1736	4979		1736	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1041	44	577	27	77	110	611	1420	17	146	334	595
RTOR Reduction (vph)	0	0	171	0	0	103	0	1	0	0	0	511
Lane Group Flow (vph)	541	544	406	0	104	7	611	1436	0	146	334	84
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8			4						2
Actuated Green, G (s)	44.5	44.5	44.5		8.5	8.5	46.7	47.4		13.7	13.9	13.9
Effective Green, g (s)	44.5	44.5	44.5		8.5	8.5	46.7	47.4		13.7	13.9	13.9
Actuated g/C Ratio	0.33	0.33	0.33		0.06	0.06	0.35	0.35		0.10	0.10	0.10
Clearance Time (s)	5.3	5.3	5.3		5.5	5.5	4.7	4.6		4.4	4.8	4.8
Vehicle Extension (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lane Grp Cap (vph)	548	551	516		115	99	605	1762		177	517	161
v/s Ratio Prot	c0.33	0.33			c0.06		c0.35	c0.29		0.08	0.07	
v/s Ratio Perm			0.26			0.00						0.05
v/c Ratio	0.99	0.99	0.79		0.90	0.07	1.01	0.82		0.82	0.65	0.52
Uniform Delay, d1	44.4	44.4	40.4		62.3	59.0	43.6	39.3		58.9	57.6	56.9
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	34.7	34.7	7.2		53.9	0.1	39.1	2.9		24.7	2.1	1.4
Delay (s)	79.2	79.1	47.6		116.2	59.1	82.7	42.1		83.6	59.7	58.3
Level of Service	E	E	D		F	E	F	D		F	E	E
Approach Delay (s)		68.2			86.8			54.2			62.2	
Approach LOS		E			F			D			E	

Intersection Summary			
HCM 2000 Control Delay	62.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	133.9	Sum of lost time (s)	20.3
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	149	7	1	214	1	8	100	0	0	278	213
Future Volume (vph)	115	149	7	1	214	1	8	100	0	0	278	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			1.00			0.94	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1671	1747		1641	1726			1753			1656	
Flt Permitted	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (perm)	1671	1747		1641	1726			1753			1656	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	115	149	7	1	214	1	8	100	0	0	278	213
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	0	0	29	0
Lane Group Flow (vph)	115	154	0	1	215	0	0	108	0	0	462	0
Heavy Vehicles (%)	8%	8%	8%	10%	10%	10%	8%	8%	8%	8%	8%	8%
Turn Type	Prot	NA		Prot	NA		Split	NA			NA	
Protected Phases	7	4		3	8		2	2			6	
Permitted Phases										6		
Actuated Green, G (s)	8.7	24.0		0.7	16.0			10.2			25.3	
Effective Green, g (s)	8.7	24.0		0.7	16.0			10.2			25.3	
Actuated g/C Ratio	0.11	0.31		0.01	0.21			0.13			0.33	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	190	550		15	362			234			549	
v/s Ratio Prot	c0.07	0.09		0.00	c0.12			c0.06			c0.28	
v/s Ratio Perm												
v/c Ratio	0.61	0.28		0.07	0.59			0.46			0.84	
Uniform Delay, d1	32.1	19.6		37.4	27.2			30.5			23.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	5.4	0.3		1.9	2.6			1.4			11.2	
Delay (s)	37.5	19.9		39.3	29.8			31.9			34.8	
Level of Service	D	B		D	C			C			C	
Approach Delay (s)		27.4			29.8			31.9			34.8	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	76.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	156	49	17	281	3	65	215	8	18	514	133
Future Volume (vph)	36	156	49	17	281	3	65	215	8	18	514	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	1.00		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1761		1736	1824		1736	1817		1752	1788	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1736	1761		1736	1824		1736	1817		1752	1788	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	36	156	49	17	281	3	65	215	8	18	514	133
RTOR Reduction (vph)	0	17	0	0	1	0	0	2	0	0	13	0
Lane Group Flow (vph)	36	188	0	17	283	0	65	221	0	18	634	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.3	14.2		0.6	13.5		2.1	27.1		0.6	25.6	
Effective Green, g (s)	1.3	14.2		0.6	13.5		2.1	27.1		0.6	25.6	
Actuated g/C Ratio	0.02	0.24		0.01	0.23		0.04	0.46		0.01	0.44	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	38	427		17	420		62	841		17	782	
v/s Ratio Prot	c0.02	0.11		0.01	c0.16		c0.04	0.12		0.01	c0.35	
v/s Ratio Perm												
v/c Ratio	0.95	0.44		1.00	0.67		1.05	0.26		1.06	0.81	
Uniform Delay, d1	28.6	18.8		28.9	20.5		28.2	9.6		28.9	14.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	123.8	0.7		218.3	4.2		128.4	0.2		238.2	6.4	
Delay (s)	152.4	19.5		247.2	24.7		156.6	9.8		267.2	20.7	
Level of Service	F	B		F	C		F	A		F	C	
Approach Delay (s)		39.3			37.3			42.9			27.4	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	34.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	58.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	653	129	140	882	202	149	631	2	230	1159	214
Future Volume (veh/h)	154	653	129	140	882	202	149	631	2	230	1159	214
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	154	653	129	140	882	202	149	631	2	230	1159	214
Adj No. of Lanes	1	2	0	1	2	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	179	790	156	174	938	420	172	1179	4	319	1304	583
Arrive On Green	0.10	0.27	0.27	0.10	0.27	0.27	0.05	0.33	0.33	0.09	0.38	0.38
Sat Flow, veh/h	1757	2919	576	1757	3505	1568	3375	3549	11	3375	3471	1553
Grp Volume(v), veh/h	154	392	390	140	882	202	149	309	324	230	1159	214
Grp Sat Flow(s),veh/h/ln	1757	1752	1743	1757	1752	1568	1688	1736	1825	1688	1736	1553
Q Serve(g_s), s	6.8	16.5	16.5	6.1	19.3	8.5	3.4	11.3	11.3	5.2	24.6	7.8
Cycle Q Clear(g_c), s	6.8	16.5	16.5	6.1	19.3	8.5	3.4	11.3	11.3	5.2	24.6	7.8
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	179	474	471	174	938	420	172	576	606	319	1304	583
V/C Ratio(X)	0.86	0.83	0.83	0.80	0.94	0.48	0.87	0.54	0.54	0.72	0.89	0.37
Avail Cap(c_a), veh/h	179	474	471	201	938	420	172	576	606	430	1371	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	26.9	26.9	34.6	28.1	24.2	37.0	21.3	21.3	34.5	23.0	17.7
Incr Delay (d2), s/veh	31.9	11.5	11.7	18.3	16.9	0.9	34.1	1.0	0.9	3.8	7.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.5	9.4	3.8	11.5	3.8	2.4	5.6	5.8	2.6	13.1	3.4
LnGrp Delay(d),s/veh	66.6	38.4	38.6	53.0	45.0	25.0	71.1	22.3	22.2	38.4	30.3	18.1
LnGrp LOS	E	D	D	D	D	C	E	C	C	D	C	B
Approach Vol, veh/h		936			1224			782			1603	
Approach Delay, s/veh		43.1			42.6			31.5			29.8	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	30.1	11.8	25.2	8.0	33.5	12.0	25.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	25.0	9.0	20.0	4.0	31.0	8.0	21.0
Max Q Clear Time (g_c+I1), s	7.2	13.3	8.1	18.5	5.4	26.6	8.8	21.3
Green Ext Time (p_c), s	0.3	7.4	0.0	1.2	0.0	2.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1647	59	155	1078	99	90	813	188	24	259	4
Future Volume (veh/h)	23	1647	59	155	1078	99	90	813	188	24	259	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	23	1647	59	155	1078	99	90	813	188	24	259	4
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	32	1635	731	157	1744	160	115	859	384	34	704	11
Arrive On Green	0.02	0.48	0.48	0.09	0.55	0.55	0.07	0.25	0.25	0.02	0.20	0.20
Sat Flow, veh/h	1707	3406	1524	1707	3155	290	1757	3505	1568	1757	3533	54
Grp Volume(v), veh/h	23	1647	59	155	582	595	90	813	188	24	128	135
Grp Sat Flow(s),veh/h/ln	1707	1703	1524	1707	1703	1741	1757	1752	1568	1757	1752	1835
Q Serve(g_s), s	1.3	47.0	2.1	8.9	22.7	22.7	4.9	22.3	10.1	1.3	6.2	6.2
Cycle Q Clear(g_c), s	1.3	47.0	2.1	8.9	22.7	22.7	4.9	22.3	10.1	1.3	6.2	6.2
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	32	1635	731	157	942	963	115	859	384	34	349	365
V/C Ratio(X)	0.71	1.01	0.08	0.99	0.62	0.62	0.78	0.95	0.49	0.70	0.37	0.37
Avail Cap(c_a), veh/h	87	1635	731	157	942	963	197	859	384	72	349	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	25.5	13.8	44.4	14.9	14.9	45.1	36.3	31.7	47.7	33.9	33.9
Incr Delay (d2), s/veh	24.6	24.1	0.0	68.0	1.2	1.2	10.9	19.0	1.0	22.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	27.5	0.9	7.1	10.8	11.2	2.7	13.1	4.4	0.9	3.1	3.2
LnGrp Delay(d),s/veh	72.4	49.6	13.8	112.5	16.1	16.1	56.0	55.3	32.7	70.1	34.5	34.5
LnGrp LOS	E	F	B	F	B	B	E	E	C	E	C	C
Approach Vol, veh/h		1729			1332			1091			287	
Approach Delay, s/veh		48.6			27.3			51.5			37.5	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	28.0	13.0	51.0	10.4	23.5	5.9	58.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	24.0	9.0	47.0	11.0	17.0	5.0	51.0
Max Q Clear Time (g_c+I1), s	3.3	24.3	10.9	49.0	6.9	8.2	3.3	24.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	4.0	0.0	19.1

Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	330	23	127	149	677	9	1870	123	802	1851	22
Future Volume (veh/h)	77	330	23	127	149	677	9	1870	123	802	1851	22
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	77	330	23	127	149	677	9	1870	123	802	1851	22
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	72	790	353	172	899	402	21	2022	133	499	2868	34
Arrive On Green	0.02	0.23	0.23	0.05	0.26	0.26	0.01	0.42	0.42	0.15	0.56	0.56
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4783	314	3375	5081	60
Grp Volume(v), veh/h	77	330	23	127	149	677	9	1298	695	802	1211	662
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1772	1688	1663	1816
Q Serve(g_s), s	3.1	11.8	1.7	5.3	4.8	37.3	0.4	53.8	54.1	21.5	36.3	36.3
Cycle Q Clear(g_c), s	3.1	11.8	1.7	5.3	4.8	37.3	0.4	53.8	54.1	21.5	36.3	36.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.03
Lane Grp Cap(c), veh/h	72	790	353	172	899	402	21	1406	749	499	1877	1025
V/C Ratio(X)	1.07	0.42	0.07	0.74	0.17	1.68	0.42	0.92	0.93	1.61	0.65	0.65
Avail Cap(c_a), veh/h	72	790	353	232	899	402	100	1514	807	499	1906	1041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.1	47.9	44.0	68.1	41.9	54.0	72.0	39.7	39.8	61.9	21.7	21.7
Incr Delay (d2), s/veh	126.5	0.1	0.0	4.7	0.0	317.8	4.9	9.0	15.5	282.0	0.6	1.0
Initial Q Delay(d3),s/veh	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	5.7	0.7	2.6	2.3	51.6	0.2	26.5	29.7	29.5	16.8	18.5
LnGrp Delay(d),s/veh	199.0	48.1	44.0	72.8	42.0	371.8	76.9	48.8	55.3	344.0	22.3	22.7
LnGrp LOS	F	D	D	E	D	F	E	D	E	F	C	C
Approach Vol, veh/h		430			953			2002			2675	
Approach Delay, s/veh		74.9			280.4			51.2			118.8	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	87.3	8.6	43.0	27.0	66.7	12.8	38.8
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	4.3	83.3	3.1	* 37	21.5	* 66	9.9	* 31
Max Q Clear Time (g_c+I1), s	2.4	38.3	5.1	39.3	23.5	56.1	7.3	13.8
Green Ext Time (p_c), s	0.0	8.0	0.0	0.0	0.0	5.3	0.0	1.1

Intersection Summary		
HCM 2010 Ctrl Delay		118.8
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	1413	296	167	1117	1045	139	1099	85	976	721	75
Future Volume (veh/h)	105	1413	296	167	1117	1045	139	1099	85	976	721	75
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	105	1413	296	167	1117	0	139	1099	85	976	721	75
Adj No. of Lanes	2	3	1	2	3	1	3	3	1	2	3	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	70	1572	490	212	1798	560	207	1066	332	884	2136	1171
Arrive On Green	0.02	0.32	0.32	0.06	0.37	0.00	0.04	0.21	0.21	0.26	0.43	0.43
Sat Flow, veh/h	3312	4893	1524	3312	4893	1524	4907	4988	1553	3375	4988	2733
Grp Volume(v), veh/h	105	1413	296	167	1117	0	139	1099	85	976	721	75
Grp Sat Flow(s),veh/h/ln	1656	1631	1524	1656	1631	1524	1636	1663	1553	1688	1663	1367
Q Serve(g_s), s	3.0	38.9	23.1	7.0	26.4	0.0	3.9	30.2	6.4	37.0	13.7	2.3
Cycle Q Clear(g_c), s	3.0	38.9	23.1	7.0	26.4	0.0	3.9	30.2	6.4	37.0	13.7	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	70	1572	490	212	1798	560	207	1066	332	884	2136	1171
V/C Ratio(X)	1.49	0.90	0.60	0.79	0.62	0.00	0.67	1.03	0.26	1.10	0.34	0.06
Avail Cap(c_a), veh/h	70	1852	577	232	2098	653	281	1066	332	884	2136	1171
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.2	45.8	40.4	65.2	36.6	0.0	66.7	55.6	46.2	52.2	27.0	23.8
Incr Delay (d2), s/veh	283.0	5.1	0.6	13.5	0.2	0.0	1.4	35.9	0.1	63.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	18.3	9.8	3.6	11.9	0.0	1.8	17.4	2.8	24.9	6.3	0.9
LnGrp Delay(d),s/veh	352.2	50.9	41.0	78.7	36.9	0.0	68.1	91.5	46.4	115.3	27.0	23.8
LnGrp LOS	F	D	D	E	D		E	F	D	F	C	C
Approach Vol, veh/h		1814			1284			1323			1772	
Approach Delay, s/veh		66.7			42.3			86.1			75.5	
Approach LOS		E			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	57.3	10.7	65.3	14.5	50.8	41.0	35.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.0	4.8
Max Green Setting (Gmax), s	3.0	* 61	* 8.1	58.4	9.9	* 54	37.0	30.2
Max Q Clear Time (g_c+I1), s	5.0	28.4	5.9	15.7	9.0	40.9	39.0	32.2
Green Ext Time (p_c), s	0.0	5.3	0.0	3.3	0.0	4.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	433	92	62	689	138	51	740	56	227	616	203
Future Volume (veh/h)	366	433	92	62	689	138	51	740	56	227	616	203
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	366	433	92	62	689	138	51	740	56	227	616	203
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	385	1192	251	79	687	138	64	855	269	243	1400	436
Arrive On Green	0.22	0.41	0.41	0.05	0.24	0.24	0.04	0.17	0.17	0.14	0.28	0.28
Sat Flow, veh/h	1757	2882	608	1757	2912	583	1740	4988	1568	1757	4988	1553
Grp Volume(v), veh/h	366	262	263	62	414	413	51	740	56	227	616	203
Grp Sat Flow(s),veh/h/ln	1757	1752	1737	1757	1752	1742	1740	1663	1568	1757	1663	1553
Q Serve(g_s), s	18.3	9.2	9.3	3.1	21.0	21.0	2.6	12.8	2.7	11.4	9.0	9.6
Cycle Q Clear(g_c), s	18.3	9.2	9.3	3.1	21.0	21.0	2.6	12.8	2.7	11.4	9.0	9.6
Prop In Lane	1.00		0.35	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	725	719	79	414	411	64	855	269	243	1400	436
V/C Ratio(X)	0.95	0.36	0.37	0.78	1.00	1.00	0.79	0.87	0.21	0.93	0.44	0.47
Avail Cap(c_a), veh/h	385	725	719	142	414	411	119	953	300	243	1400	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	18.0	18.0	42.0	34.0	34.0	42.5	35.8	31.7	37.9	26.3	26.5
Incr Delay (d2), s/veh	32.9	0.1	0.1	6.2	44.7	45.2	7.9	7.1	0.1	39.6	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	4.5	4.5	1.7	15.3	15.2	1.4	6.5	1.2	8.2	4.1	4.2
LnGrp Delay(d),s/veh	67.2	18.1	18.1	48.2	78.7	79.2	50.4	43.0	31.8	77.6	26.3	26.8
LnGrp LOS	E	B	B	D	F	F	D	D	C	E	C	C
Approach Vol, veh/h		891			889			847			1046	
Approach Delay, s/veh		38.3			76.8			42.7			37.5	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	29.8	25.0	26.3	17.6	20.1	9.2	42.1
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 6.1	23.9	19.5	* 21	* 12	17.0	* 7.2	* 33
Max Q Clear Time (g_c+I1), s	4.6	11.6	20.3	23.0	13.4	14.8	5.1	11.3
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.0	0.4	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	48.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	508	289	0	0	485	109	6	0	1	192	0	738
Future Volume (veh/h)	508	289	0	0	485	109	6	0	1	192	0	738
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	508	289	0	0	485	109	6	0	1	192	0	738
Adj No. of Lanes	2	1	0	1	2	0	0	1	0	1	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	685	910	0	3	639	143	8	0	1	523	549	822
Arrive On Green	0.20	0.49	0.00	0.00	0.22	0.22	0.01	0.00	0.01	0.30	0.00	0.30
Sat Flow, veh/h	3408	1845	0	1757	2848	636	1480	0	247	1757	1845	2760
Grp Volume(v), veh/h	508	289	0	0	297	297	7	0	0	192	0	738
Grp Sat Flow(s),veh/h/ln	1704	1845	0	1757	1752	1732	1727	0	0	1757	1845	1380
Q Serve(g_s), s	8.2	5.5	0.0	0.0	9.3	9.4	0.2	0.0	0.0	5.1	0.0	15.1
Cycle Q Clear(g_c), s	8.2	5.5	0.0	0.0	9.3	9.4	0.2	0.0	0.0	5.1	0.0	15.1
Prop In Lane	1.00		0.00	1.00		0.37	0.86		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	685	910	0	3	393	389	10	0	0	523	549	822
V/C Ratio(X)	0.74	0.32	0.00	0.00	0.76	0.76	0.74	0.00	0.00	0.37	0.00	0.90
Avail Cap(c_a), veh/h	1041	910	0	537	595	588	88	0	0	537	563	843
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	9.0	0.0	0.0	21.3	21.4	29.3	0.0	0.0	16.3	0.0	19.8
Incr Delay (d2), s/veh	1.6	0.2	0.0	0.0	3.0	3.2	71.1	0.0	0.0	0.4	0.0	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	2.9	0.0	0.0	4.8	4.9	0.3	0.0	0.0	2.5	0.0	7.1
LnGrp Delay(d),s/veh	23.7	9.2	0.0	0.0	24.3	24.6	100.4	0.0	0.0	16.7	0.0	32.1
LnGrp LOS	C	A			C	C	F			B		C
Approach Vol, veh/h		797			594			7			930	
Approach Delay, s/veh		18.5			24.5			100.4			28.9	
Approach LOS		B			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		4.3	0.0	33.1		21.5	15.8	17.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		3.0	18.0	20.0		18.0	18.0	20.0
Max Q Clear Time (g_c+I1), s		2.2	0.0	7.5		17.1	10.2	11.4
Green Ext Time (p_c), s		0.0	0.0	3.2		0.4	1.6	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	31	17	145	44	482	48	2151	29	412	2217	59
Future Volume (veh/h)	73	31	17	145	44	482	48	2151	29	412	2217	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	73	31	17	145	44	482	48	2151	29	412	2217	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	88	56	31	596	323	274	61	2392	745	462	2918	77
Arrive On Green	0.05	0.05	0.05	0.18	0.18	0.18	0.04	0.48	0.48	0.14	0.58	0.58
Sat Flow, veh/h	1757	1121	615	3408	1845	1568	1740	4988	1553	3375	4996	133
Grp Volume(v), veh/h	73	0	48	145	44	482	48	2151	29	412	1474	802
Grp Sat Flow(s),veh/h/ln	1757	0	1736	1704	1845	1568	1740	1663	1553	1688	1663	1804
Q Serve(g_s), s	5.6	0.0	3.7	5.0	2.8	24.0	3.8	54.1	1.4	16.5	45.4	45.7
Cycle Q Clear(g_c), s	5.6	0.0	3.7	5.0	2.8	24.0	3.8	54.1	1.4	16.5	45.4	45.7
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	88	0	87	596	323	274	61	2392	745	462	1942	1053
V/C Ratio(X)	0.83	0.00	0.55	0.24	0.14	1.76	0.78	0.90	0.04	0.89	0.76	0.76
Avail Cap(c_a), veh/h	88	0	87	596	323	274	134	2713	845	561	2117	1148
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.5	0.0	63.6	48.7	47.8	56.6	65.6	32.7	18.9	58.2	21.3	21.4
Incr Delay (d2), s/veh	42.5	0.0	4.2	0.1	0.1	355.0	7.8	3.8	0.0	13.0	1.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	1.9	2.4	1.4	37.4	1.9	25.5	0.6	8.5	21.0	23.4
LnGrp Delay(d),s/veh	107.1	0.0	67.8	48.8	47.9	411.6	73.4	36.5	18.9	71.2	22.6	23.8
LnGrp LOS	F		E	D	D	F	E	D	B	E	C	C
Approach Vol, veh/h		121			671			2228			2688	
Approach Delay, s/veh		91.5			309.4			37.1			30.4	
Approach LOS		F			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	85.3		12.4	24.3	71.0		29.5
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 11	* 87		6.9	22.8	* 75		24.0
Max Q Clear Time (g_c+I1), s	5.8	47.7		7.6	18.5	56.1		26.0
Green Ext Time (p_c), s	0.0	12.6		0.0	0.3	9.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	1065	473	398	982	628	477	1008	134	798	1339	161
Future Volume (veh/h)	180	1065	473	398	982	628	477	1008	134	798	1339	161
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	180	1065	473	398	982	628	477	1008	134	798	1339	161
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	211	1282	399	385	1539	479	526	1200	374	692	1446	450
Arrive On Green	0.06	0.25	0.25	0.11	0.31	0.31	0.16	0.24	0.24	0.21	0.29	0.29
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	180	1065	473	398	982	628	477	1008	134	798	1339	161
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	6.2	23.9	30.4	13.5	20.1	36.5	16.6	23.0	8.6	24.5	31.1	9.8
Cycle Q Clear(g_c), s	6.2	23.9	30.4	13.5	20.1	36.5	16.6	23.0	8.6	24.5	31.1	9.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	1282	399	385	1539	479	526	1200	374	692	1446	450
V/C Ratio(X)	0.85	0.83	1.19	1.03	0.64	1.31	0.91	0.84	0.36	1.15	0.93	0.36
Avail Cap(c_a), veh/h	211	1282	399	385	1539	479	531	1240	386	692	1486	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	42.1	44.5	53.0	35.8	41.5	49.6	43.2	37.7	47.5	41.2	33.6
Incr Delay (d2), s/veh	25.8	4.5	106.1	54.7	0.7	154.2	18.7	4.8	0.2	84.6	9.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	11.6	25.0	9.2	9.4	36.4	9.1	11.1	3.7	19.5	15.6	4.2
LnGrp Delay(d),s/veh	81.3	46.6	150.6	107.7	36.5	195.7	68.2	48.0	37.9	132.1	51.0	33.8
LnGrp LOS	F	D	F	F	D	F	E	D	D	F	D	C
Approach Vol, veh/h		1718			2008			1619			2298	
Approach Delay, s/veh		78.9			100.4			53.1			78.0	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.1	40.2	12.9	42.2	30.0	34.3	19.0	36.1
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	18.8	* 36	7.4	* 37	24.5	* 30	13.5	* 30
Max Q Clear Time (g_c+I1), s	18.6	33.1	8.2	38.5	26.5	25.0	15.5	32.4
Green Ext Time (p_c), s	0.0	1.5	0.0	0.0	0.0	2.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.8
HCM 2010 LOS	E

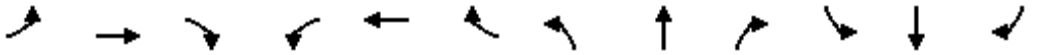
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	1604	349	251	1321	587	506	627	74	631	1626	161
Future Volume (veh/h)	261	1604	349	251	1321	587	506	627	74	631	1626	161
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	261	1604	349	251	1321	587	506	627	74	631	1626	0
Adj No. of Lanes	2	3	1	2	3	2	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	287	1496	479	251	1451	795	486	1308	407	688	1601	494
Arrive On Green	0.09	0.31	0.31	0.07	0.30	0.30	0.14	0.26	0.26	0.20	0.32	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	2682	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	261	1604	349	251	1321	587	506	627	74	631	1626	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1341	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	10.2	39.9	25.9	9.6	33.9	25.7	18.6	13.7	4.8	23.9	41.5	0.0
Cycle Q Clear(g_c), s	10.2	39.9	25.9	9.6	33.9	25.7	18.6	13.7	4.8	23.9	41.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	287	1496	479	251	1451	795	486	1308	407	688	1601	494
V/C Ratio(X)	0.91	1.07	0.73	1.00	0.91	0.74	1.04	0.48	0.18	0.92	1.02	0.00
Avail Cap(c_a), veh/h	287	1496	479	251	1451	795	486	1308	407	854	1601	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.1	45.3	40.5	60.5	44.2	41.3	56.0	40.8	37.5	50.9	44.5	0.0
Incr Delay (d2), s/veh	30.3	45.3	4.8	57.1	8.7	3.2	52.1	0.3	0.2	11.5	26.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	24.1	11.8	6.5	16.5	9.9	12.2	6.4	2.1	12.2	23.0	0.0
LnGrp Delay(d),s/veh	89.4	90.6	45.3	117.6	52.9	44.6	108.0	41.1	37.7	62.4	70.9	0.0
LnGrp LOS	F	F	D	F	D	D	F	D	D	E	F	
Approach Vol, veh/h		2214			2159			1207			2257	
Approach Delay, s/veh		83.3			58.1			69.0			68.5	
Approach LOS		F			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	46.6	15.6	44.3	31.6	39.0	14.4	45.5
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 19	41.5	* 11	38.2	33.0	27.5	* 9.6	* 40
Max Q Clear Time (g_c+I1), s	20.6	43.5	12.2	35.9	25.9	15.7	11.6	41.9
Green Ext Time (p_c), s	0.0	0.0	0.0	1.8	0.7	5.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	69.9
HCM 2010 LOS	E

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	535	40	183	486	57	62	589	325	91	1742	38
Future Volume (veh/h)	31	535	40	183	486	57	62	589	325	91	1742	38
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	31	535	40	183	486	57	62	589	325	91	1742	38
Adj No. of Lanes	2	1	1	2	2	1	1	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	56	511	435	192	1112	497	69	1665	745	136	1667	746
Arrive On Green	0.02	0.28	0.28	0.06	0.32	0.32	0.04	0.48	0.48	0.04	0.48	0.48
Sat Flow, veh/h	3408	1845	1568	3408	3505	1568	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	31	535	40	183	486	57	62	589	325	91	1742	38
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1704	1752	1568	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	1.3	38.8	2.6	7.5	15.4	3.6	4.9	14.8	19.2	3.7	66.6	1.8
Cycle Q Clear(g_c), s	1.3	38.8	2.6	7.5	15.4	3.6	4.9	14.8	19.2	3.7	66.6	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	511	435	192	1112	497	69	1665	745	136	1667	746
V/C Ratio(X)	0.56	1.05	0.09	0.95	0.44	0.11	0.90	0.35	0.44	0.67	1.04	0.05
Avail Cap(c_a), veh/h	97	511	435	192	1112	497	69	1665	745	197	1667	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.4	50.6	37.5	65.9	37.9	33.9	67.0	23.2	24.3	66.3	36.7	19.7
Incr Delay (d2), s/veh	8.4	52.5	0.1	50.9	0.3	0.1	74.0	0.1	0.4	5.6	34.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	27.2	1.2	4.9	7.5	1.6	3.8	7.2	8.3	1.8	40.2	0.8
LnGrp Delay(d),s/veh	76.8	103.1	37.6	116.8	38.2	34.0	141.0	23.3	24.7	71.9	71.5	19.7
LnGrp LOS	E	F	D	F	D	C	F	C	C	E	F	B
Approach Vol, veh/h		606			726			976			1871	
Approach Delay, s/veh		97.4			57.6			31.3			70.4	
Approach LOS		F			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	71.6	13.4	44.0	11.1	71.5	7.8	49.6
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	5.5	66.6	7.9	* 39	8.1	64.0	4.0	* 43
Max Q Clear Time (g_c+I1), s	6.9	68.6	9.5	40.8	5.7	21.2	3.3	17.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	9.6	0.0	5.6

Intersection Summary	
HCM 2010 Ctrl Delay	63.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	246	15	357	454	35	6	644	130	12	1756	199
Future Volume (veh/h)	226	246	15	357	454	35	6	644	130	12	1756	199
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1828	1900	1845	1796	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	226	246	15	357	454	35	6	644	130	12	1756	199
Adj No. of Lanes	2	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	6	3	3	3	3	3	3
Cap, veh/h	238	359	22	397	424	33	8	1829	818	14	1671	186
Arrive On Green	0.07	0.21	0.21	0.12	0.26	0.26	0.00	0.52	0.52	0.01	0.53	0.53
Sat Flow, veh/h	3408	1706	104	3408	1647	127	1757	3505	1568	1757	3181	354
Grp Volume(v), veh/h	226	0	261	357	0	489	6	644	130	12	952	1003
Grp Sat Flow(s),veh/h/ln	1704	0	1810	1704	0	1774	1757	1752	1568	1757	1752	1782
Q Serve(g_s), s	9.7	0.0	19.6	15.3	0.0	38.0	0.5	15.9	6.4	1.0	77.5	77.5
Cycle Q Clear(g_c), s	9.7	0.0	19.6	15.3	0.0	38.0	0.5	15.9	6.4	1.0	77.5	77.5
Prop In Lane	1.00		0.06	1.00		0.07	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	238	0	381	397	0	457	8	1829	818	14	920	936
V/C Ratio(X)	0.95	0.00	0.68	0.90	0.00	1.07	0.77	0.35	0.16	0.86	1.03	1.07
Avail Cap(c_a), veh/h	238	0	381	397	0	457	37	1829	818	65	920	936
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.4	0.0	53.7	64.3	0.0	54.8	73.4	20.7	18.4	73.1	35.0	35.0
Incr Delay (d2), s/veh	44.5	0.0	4.2	22.6	0.0	62.2	89.7	0.1	0.1	77.7	39.0	50.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	10.2	8.4	0.0	26.4	0.4	7.7	2.8	0.8	47.3	51.1
LnGrp Delay(d),s/veh	112.8	0.0	57.9	86.9	0.0	117.0	163.1	20.8	18.5	150.8	74.0	85.4
LnGrp LOS	F		E	F		F	F	C	B	F	F	F
Approach Vol, veh/h		487			846			780			1967	
Approach Delay, s/veh		83.4			104.3			21.5			80.3	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	82.1	15.8	43.0	6.2	82.6	22.7	36.1
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	5.5	* 75	10.3	* 38	3.1	* 78	17.2	* 31
Max Q Clear Time (g_c+I1), s	3.0	17.9	11.7	40.0	2.5	79.5	17.3	21.6
Green Ext Time (p_c), s	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	74.4
HCM 2010 LOS	E

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	321	127	384	292	174	302
Future Volume (veh/h)	321	127	384	292	174	302
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	321	127	384	292	174	302
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	443	377	460	1083	427	381
Arrive On Green	0.24	0.24	0.26	0.59	0.24	0.24
Sat Flow, veh/h	1845	1568	1757	1845	1757	1568
Grp Volume(v), veh/h	321	127	384	292	174	302
Grp Sat Flow(s),veh/h/ln	1845	1568	1757	1845	1757	1568
Q Serve(g_s), s	7.5	3.2	9.7	3.7	3.9	8.5
Cycle Q Clear(g_c), s	7.5	3.2	9.7	3.7	3.9	8.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	443	377	460	1083	427	381
V/C Ratio(X)	0.72	0.34	0.83	0.27	0.41	0.79
Avail Cap(c_a), veh/h	627	533	597	1410	597	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	14.8	16.4	4.8	15.0	16.7
Incr Delay (d2), s/veh	2.5	0.5	7.9	0.1	0.6	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	1.4	5.7	1.8	2.0	4.2
LnGrp Delay(d),s/veh	18.9	15.3	24.3	4.9	15.6	22.2
LnGrp LOS	B	B	C	A	B	C
Approach Vol, veh/h	448			676	476	
Approach Delay, s/veh	17.9			15.9	19.8	
Approach LOS	B			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		15.4	16.3	15.3				31.7
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		16.0	16.0	16.0				36.0
Max Q Clear Time (g_c+I1), s		10.5	11.7	9.5				5.7
Green Ext Time (p_c), s		0.9	0.7	1.8				3.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	1197	153	761	844	356	103	343	606	357	632	36
Future Volume (veh/h)	124	1197	153	761	844	356	103	343	606	357	632	36
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	124	1197	153	761	844	356	103	343	606	357	632	36
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	191	1310	420	802	2186	700	153	628	650	382	863	386
Arrive On Green	0.06	0.27	0.27	0.24	0.45	0.45	0.04	0.18	0.18	0.11	0.25	0.25
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	124	1197	153	761	844	356	103	343	606	357	632	36
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	3.2	21.2	7.1	19.6	10.3	14.5	2.7	8.0	16.0	9.3	14.8	1.6
Cycle Q Clear(g_c), s	3.2	21.2	7.1	19.6	10.3	14.5	2.7	8.0	16.0	9.3	14.8	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	1310	420	802	2186	700	153	628	650	382	863	386
V/C Ratio(X)	0.65	0.91	0.36	0.95	0.39	0.51	0.67	0.55	0.93	0.94	0.73	0.09
Avail Cap(c_a), veh/h	267	1348	432	802	2186	700	153	628	650	382	863	386
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	31.7	26.5	33.6	16.5	17.7	42.0	33.3	25.0	39.3	30.9	26.0
Incr Delay (d2), s/veh	3.7	9.8	0.8	20.5	0.2	0.8	11.1	1.0	20.5	30.1	3.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	10.7	3.1	11.5	4.6	6.4	1.5	3.9	17.9	6.0	7.5	0.7
LnGrp Delay(d),s/veh	44.9	41.5	27.3	54.1	16.7	18.5	53.1	34.3	45.5	69.5	34.2	26.1
LnGrp LOS	D	D	C	D	B	B	D	C	D	E	C	C
Approach Vol, veh/h		1474			1961			1052			1025	
Approach Delay, s/veh		40.4			31.5			42.6			46.2	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	30.3	8.0	26.0	9.0	46.3	14.0	20.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	21.0	24.6	4.0	22.0	7.0	38.6	10.0	16.0
Max Q Clear Time (g_c+I1), s	21.6	23.2	4.7	16.8	5.2	16.5	11.3	18.0
Green Ext Time (p_c), s	0.0	0.7	0.0	3.3	0.1	17.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.7
HCM 2010 LOS	D

Notes

HCM 2010 analysis cannot be performed without detectors for actuated controller type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	532	24	162	10	14	52	100	516	38	85	972	626
Future Volume (veh/h)	532	24	162	10	14	52	100	516	38	85	972	626
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1845
Adj Flow Rate, veh/h	532	24	162	10	14	52	100	516	38	85	972	626
Adj No. of Lanes	2	2	1	0	1	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	3
Cap, veh/h	701	721	322	37	52	77	171	1340	599	150	1337	604
Arrive On Green	0.21	0.21	0.21	0.05	0.05	0.05	0.05	0.39	0.39	0.04	0.39	0.39
Sat Flow, veh/h	3408	3505	1568	753	1054	1568	3408	3471	1553	3375	3471	1568
Grp Volume(v), veh/h	532	24	162	24	0	52	100	516	38	85	972	626
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1807	0	1568	1704	1736	1553	1688	1736	1568
Q Serve(g_s), s	9.0	0.3	5.6	0.8	0.0	2.0	1.8	6.6	0.9	1.5	14.7	23.6
Cycle Q Clear(g_c), s	9.0	0.3	5.6	0.8	0.0	2.0	1.8	6.6	0.9	1.5	14.7	23.6
Prop In Lane	1.00		1.00	0.42		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	701	721	322	89	0	77	171	1340	599	150	1337	604
V/C Ratio(X)	0.76	0.03	0.50	0.27	0.00	0.68	0.58	0.39	0.06	0.57	0.73	1.04
Avail Cap(c_a), veh/h	890	915	409	531	0	460	189	1340	599	297	1337	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	19.5	21.6	28.1	0.0	28.7	28.5	13.6	11.8	28.7	16.1	18.8
Incr Delay (d2), s/veh	2.9	0.0	1.2	1.6	0.0	9.8	3.8	0.2	0.0	3.4	2.0	46.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.2	2.5	0.4	0.0	1.1	0.9	3.2	0.4	0.8	7.3	17.9
LnGrp Delay(d),s/veh	25.8	19.5	22.8	29.7	0.0	38.5	32.3	13.8	11.9	32.1	18.1	65.3
LnGrp LOS	C	B	C	C		D	C	B	B	C	B	F
Approach Vol, veh/h		718			76			654			1683	
Approach Delay, s/veh		24.9			35.7			16.5			36.4	
Approach LOS		C			D			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	28.6		8.4	7.6	28.7		16.6
Change Period (Y+Rc), s	* 4.6	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	* 3.4	23.6		* 18	* 5.4	21.3		16.0
Max Q Clear Time (g_c+I1), s	3.8	25.6		4.0	3.5	8.6		11.0
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	8.3		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	770	95	38	449	125	45	314	66	132	791	210
Future Volume (veh/h)	226	770	95	38	449	125	45	314	66	132	791	210
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1833	1900	1845	1845	1900	1827	1845	1845
Adj Flow Rate, veh/h	226	770	95	38	449	125	45	314	66	132	791	210
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	4	3	3
Cap, veh/h	228	1020	126	48	599	165	53	1028	213	162	773	860
Arrive On Green	0.13	0.32	0.32	0.03	0.22	0.22	0.03	0.36	0.36	0.09	0.42	0.42
Sat Flow, veh/h	1757	3141	387	1757	2698	745	1757	2891	600	1740	1845	1568
Grp Volume(v), veh/h	226	429	436	38	289	285	45	189	191	132	791	210
Grp Sat Flow(s),veh/h/ln	1757	1752	1776	1757	1741	1702	1757	1752	1739	1740	1845	1568
Q Serve(g_s), s	12.9	22.0	22.0	2.2	15.5	15.7	2.6	7.8	8.0	7.5	42.0	7.0
Cycle Q Clear(g_c), s	12.9	22.0	22.0	2.2	15.5	15.7	2.6	7.8	8.0	7.5	42.0	7.0
Prop In Lane	1.00		0.22	1.00		0.44	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	228	569	577	48	387	378	53	623	618	162	773	860
V/C Ratio(X)	0.99	0.76	0.76	0.80	0.75	0.76	0.86	0.30	0.31	0.81	1.02	0.24
Avail Cap(c_a), veh/h	228	594	602	105	469	458	53	623	618	260	773	860
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	30.3	30.3	48.5	36.4	36.5	48.4	23.3	23.4	44.6	29.1	11.8
Incr Delay (d2), s/veh	57.3	5.3	5.2	25.1	5.2	5.7	73.7	0.3	0.3	4.3	38.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	11.4	11.6	1.4	8.0	8.0	2.3	3.8	3.9	3.8	29.5	3.0
LnGrp Delay(d),s/veh	100.9	35.6	35.5	73.6	41.6	42.2	122.1	23.6	23.7	48.9	67.6	11.9
LnGrp LOS	F	D	D	E	D	D	F	C	C	D	F	B
Approach Vol, veh/h		1091			612			425			1133	
Approach Delay, s/veh		49.1			43.8			34.1			55.1	
Approach LOS		D			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	38.5	7.0	48.0	17.0	28.3	13.3	41.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	34.0	3.0	42.0	13.0	27.0	15.0	30.0
Max Q Clear Time (g_c+I1), s	4.2	24.0	4.6	44.0	14.9	17.7	9.5	10.0
Green Ext Time (p_c), s	0.0	4.8	0.0	0.0	0.0	4.5	0.1	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	48.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	725	4	38	363	13	4	151	43	42	161	210
Future Volume (veh/h)	188	725	4	38	363	13	4	151	43	42	161	210
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1900	1810	1900	1900	1810	1900
Adj Flow Rate, veh/h	188	725	4	38	363	13	4	151	43	42	161	210
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	215	763	4	48	1108	40	5	174	50	40	152	198
Arrive On Green	0.13	0.43	0.43	0.03	0.33	0.33	0.13	0.13	0.13	0.24	0.24	0.24
Sat Flow, veh/h	1707	1781	10	1707	3354	120	35	1328	378	168	644	840
Grp Volume(v), veh/h	188	0	729	38	184	192	198	0	0	413	0	0
Grp Sat Flow(s),veh/h/ln	1707	0	1791	1707	1703	1771	1741	0	0	1653	0	0
Q Serve(g_s), s	13.8	0.0	50.0	2.8	10.3	10.4	14.2	0.0	0.0	30.0	0.0	0.0
Cycle Q Clear(g_c), s	13.8	0.0	50.0	2.8	10.3	10.4	14.2	0.0	0.0	30.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.07	0.02		0.22	0.10		0.51
Lane Grp Cap(c), veh/h	215	0	767	48	563	585	228	0	0	389	0	0
V/C Ratio(X)	0.87	0.00	0.95	0.80	0.33	0.33	0.87	0.00	0.00	1.06	0.00	0.00
Avail Cap(c_a), veh/h	339	0	805	55	563	585	355	0	0	389	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	54.7	0.0	35.1	61.6	32.0	32.1	54.3	0.0	0.0	48.8	0.0	0.0
Incr Delay (d2), s/veh	9.1	0.0	20.8	43.3	0.7	0.7	13.0	0.0	0.0	63.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	29.1	1.9	5.0	5.2	7.6	0.0	0.0	20.4	0.0	0.0
LnGrp Delay(d),s/veh	63.8	0.0	56.0	104.9	32.8	32.8	67.3	0.0	0.0	111.8	0.0	0.0
LnGrp LOS	E		E	F	C	C	E			F		
Approach Vol, veh/h		917			414			198			413	
Approach Delay, s/veh		57.6			39.4			67.3			111.8	
Approach LOS		E			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.7	48.1		36.0	8.2	60.6		22.7
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0
Max Green Setting (Gmax), s	25.3	36.1		30.0	4.1	57.3		26.0
Max Q Clear Time (g_c+I1), s	15.8	12.4		32.0	4.8	52.0		16.2
Green Ext Time (p_c), s	0.3	11.6		0.0	0.0	2.6		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	66.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	14	24	174	2	158	4	623	232	550	695	1
Future Volume (veh/h)	5	14	24	174	2	158	4	623	232	550	695	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	5	14	24	174	2	158	4	623	232	550	695	1
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	9	34	59	210	3	264	7	681	254	596	1119	2
Arrive On Green	0.01	0.06	0.06	0.12	0.17	0.17	0.00	0.27	0.27	0.34	0.61	0.61
Sat Flow, veh/h	1757	611	1048	1757	20	1551	1757	2502	931	1757	1842	3
Grp Volume(v), veh/h	5	0	38	174	0	160	4	436	419	550	0	696
Grp Sat Flow(s),veh/h/ln	1757	0	1660	1757	0	1571	1757	1752	1680	1757	0	1844
Q Serve(g_s), s	0.2	0.0	1.7	7.3	0.0	7.1	0.2	18.2	18.2	22.7	0.0	17.9
Cycle Q Clear(g_c), s	0.2	0.0	1.7	7.3	0.0	7.1	0.2	18.2	18.2	22.7	0.0	17.9
Prop In Lane	1.00		0.63	1.00		0.99	1.00		0.55	1.00		0.00
Lane Grp Cap(c), veh/h	9	0	93	210	0	268	7	477	458	596	0	1120
V/C Ratio(X)	0.54	0.00	0.41	0.83	0.00	0.60	0.53	0.91	0.92	0.92	0.00	0.62
Avail Cap(c_a), veh/h	93	0	353	210	0	438	93	489	469	653	0	1120
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.4	0.0	34.3	32.4	0.0	28.9	37.4	26.5	26.6	23.9	0.0	9.3
Incr Delay (d2), s/veh	41.0	0.0	2.8	23.3	0.0	2.1	48.4	21.4	22.3	17.8	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.8	4.9	0.0	3.2	0.2	11.6	11.2	14.0	0.0	9.2
LnGrp Delay(d),s/veh	78.4	0.0	37.2	55.7	0.0	31.0	85.8	48.0	48.9	41.7	0.0	10.4
LnGrp LOS	E		D	E		C	F	D	D	D		B
Approach Vol, veh/h		43			334			859			1246	
Approach Delay, s/veh		42.0			43.9			48.6			24.2	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.6	24.5	13.0	8.2	4.3	49.8	4.4	16.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	28.0	21.0	9.0	16.0	4.0	45.0	4.0	21.0
Max Q Clear Time (g_c+I1), s	24.7	20.2	9.3	3.7	2.2	19.9	2.2	9.1
Green Ext Time (p_c), s	0.9	0.3	0.0	0.6	0.0	8.5	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	35.6
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	318	744	604	165	399	1897
Future Volume (veh/h)	318	744	604	165	399	1897
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	318	744	604	165	399	1897
Adj No. of Lanes	1	2	3	0	1	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	444	697	901	241	469	2915
Arrive On Green	0.25	0.25	0.23	0.23	0.27	0.58
Sat Flow, veh/h	1757	2760	4121	1060	1757	5202
Grp Volume(v), veh/h	318	744	511	258	399	1897
Grp Sat Flow(s),veh/h/ln	1757	1380	1679	1658	1757	1679
Q Serve(g_s), s	7.8	12.0	6.6	6.8	10.2	12.1
Cycle Q Clear(g_c), s	7.8	12.0	6.6	6.8	10.2	12.1
Prop In Lane	1.00	1.00		0.64	1.00	
Lane Grp Cap(c), veh/h	444	697	765	378	469	2915
V/C Ratio(X)	0.72	1.07	0.67	0.68	0.85	0.65
Avail Cap(c_a), veh/h	444	697	778	384	555	3181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	17.7	16.7	16.8	16.5	6.8
Incr Delay (d2), s/veh	5.5	53.4	2.2	4.8	10.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	9.7	3.3	3.6	6.3	5.6
LnGrp Delay(d),s/veh	21.7	71.1	18.9	21.6	27.1	7.2
LnGrp LOS	C	F	B	C	C	A
Approach Vol, veh/h	1062		769			2296
Approach Delay, s/veh	56.3		19.8			10.6
Approach LOS	E		B			B

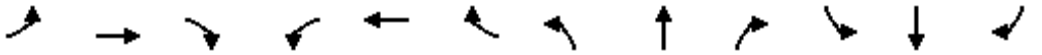
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.7	14.8				31.5		16.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	15.0	11.0				30.0		12.0
Max Q Clear Time (g_c+I1), s	12.2	8.8				14.1		14.0
Green Ext Time (p_c), s	0.5	2.1				12.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	1297	1149	31	815	12	992	72	84	29	100	225
Future Volume (veh/h)	132	1297	1149	31	815	12	992	72	84	29	100	225
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	132	1297	1149	31	815	12	992	72	84	29	100	225
Adj No. of Lanes	2	3	2	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	191	2036	1116	57	1838	572	971	1457	652	55	515	231
Arrive On Green	0.06	0.40	0.40	0.02	0.36	0.36	0.28	0.42	0.42	0.02	0.15	0.15
Sat Flow, veh/h	3408	5036	2760	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	132	1297	1149	31	815	12	992	72	84	29	100	225
Grp Sat Flow(s),veh/h/ln	1704	1679	1380	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	4.1	22.5	44.0	1.0	13.3	0.5	31.0	1.3	3.6	0.9	2.7	15.6
Cycle Q Clear(g_c), s	4.1	22.5	44.0	1.0	13.3	0.5	31.0	1.3	3.6	0.9	2.7	15.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	2036	1116	57	1838	572	971	1457	652	55	515	231
V/C Ratio(X)	0.69	0.64	1.03	0.54	0.44	0.02	1.02	0.05	0.13	0.53	0.19	0.98
Avail Cap(c_a), veh/h	251	2036	1116	94	1838	572	971	1457	652	94	515	231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	26.0	32.4	53.1	26.2	22.1	38.9	19.0	19.6	53.1	40.8	46.2
Incr Delay (d2), s/veh	5.2	0.7	34.9	7.8	0.2	0.0	34.5	0.0	0.1	7.7	0.2	52.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	10.6	22.1	0.5	6.2	0.2	19.1	0.6	1.6	0.5	1.3	10.1
LnGrp Delay(d),s/veh	55.7	26.7	67.3	60.9	26.3	22.1	73.4	19.0	19.7	60.8	40.9	98.5
LnGrp LOS	E	C	F	E	C	C	F	B	B	E	D	F
Approach Vol, veh/h		2578			858			1148			354	
Approach Delay, s/veh		46.2			27.5			66.1			79.2	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	49.2	5.8	48.0	35.0	20.0	10.1	43.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	44.0	3.0	44.0	31.0	16.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	2.9	5.6	3.0	46.0	33.0	17.6	6.1	15.3
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.0	0.0	0.1	18.8

Intersection Summary	
HCM 2010 Ctrl Delay	50.0
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	240	0	1234	169	162	0	559	1169	120	398	36
Future Volume (veh/h)	96	240	0	1234	169	162	0	559	1169	120	398	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	96	240	0	1234	169	162	0	559	1169	120	398	36
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	124	289	246	1444	941	800	2	676	966	155	994	445
Arrive On Green	0.07	0.16	0.00	0.42	0.51	0.51	0.00	0.19	0.19	0.05	0.28	0.28
Sat Flow, veh/h	1757	1845	1568	3408	1845	1568	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	96	240	0	1234	169	162	0	559	1169	120	398	36
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1704	1845	1568	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	4.7	11.1	0.0	28.9	4.4	5.0	0.0	13.5	17.0	3.1	8.1	1.5
Cycle Q Clear(g_c), s	4.7	11.1	0.0	28.9	4.4	5.0	0.0	13.5	17.0	3.1	8.1	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	124	289	246	1444	941	800	2	676	966	155	994	445
V/C Ratio(X)	0.78	0.83	0.00	0.85	0.18	0.20	0.00	0.83	1.21	0.78	0.40	0.08
Avail Cap(c_a), veh/h	239	335	284	1816	1067	907	80	676	966	155	994	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	36.0	0.0	23.0	11.6	11.8	0.0	34.2	16.9	41.7	25.5	23.2
Incr Delay (d2), s/veh	10.0	14.2	0.0	3.5	0.1	0.1	0.0	8.4	104.1	21.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.8	0.0	14.2	2.2	2.2	0.0	7.3	51.0	1.9	4.0	0.7
LnGrp Delay(d),s/veh	50.3	50.2	0.0	26.4	11.7	11.9	0.0	42.6	121.0	63.2	25.8	23.2
LnGrp LOS	D	D		C	B	B		D	F	E	C	C
Approach Vol, veh/h		336			1565			1728			554	
Approach Delay, s/veh		50.2			23.3			95.6			33.7	
Approach LOS		D			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	21.0	41.4	17.8	0.0	29.0	10.2	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	17.0	47.0	16.0	4.0	17.0	12.0	51.0
Max Q Clear Time (g_c+I1), s	5.1	19.0	30.9	13.1	0.0	10.1	6.7	7.0
Green Ext Time (p_c), s	0.0	0.0	6.5	0.7	0.0	5.4	0.1	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	56.8
HCM 2010 LOS	E

Intersection	
Intersection Delay, s/veh	19.5
Intersection LOS	C

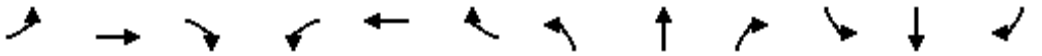
Approach	EB	NB	SB
Entry Lanes	1	2	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	99	761	913
Demand Flow Rate, veh/h	102	784	941
Vehicles Circulating, veh/h	809	67	36
Vehicles Exiting, veh/h	168	844	815
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	10.2	14.5	24.6
Approach LOS	B	B	C

Lane	Left	Left	Right	Left
Designated Moves	LR	L	TR	TR
Assumed Moves	LR	L	TR	TR
RT Channelized				
Lane Util	1.000	0.046	0.954	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	102	36	748	941
Cap Entry Lane, veh/h	503	1057	1057	1090
Entry HV Adj Factor	0.971	0.972	0.971	0.971
Flow Entry, veh/h	99	35	726	913
Cap Entry, veh/h	488	1027	1026	1058
V/C Ratio	0.203	0.034	0.708	0.863
Control Delay, s/veh	10.2	3.8	15.1	24.6
LOS	B	A	C	C
95th %tile Queue, veh	1	0	6	12

Cumulative Plus All Projects

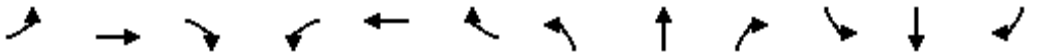
County Standard Mitigation

AM



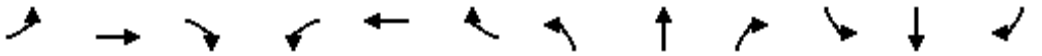
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	527	162	90	1149	805	577	1716	87	1265	1678	95
Future Volume (vph)	149	527	162	90	1149	805	577	1716	87	1265	1678	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3349		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3349		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	149	527	162	90	1149	805	577	1716	87	1265	1678	95
RTOR Reduction (vph)	0	22	0	0	0	479	0	0	60	0	0	56
Lane Group Flow (vph)	149	667	0	90	1149	326	577	1716	27	1265	1678	39
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	4.0	32.4		8.6	37.0	37.0	25.7	43.0	43.0	40.0	57.3	57.3
Effective Green, g (s)	4.0	32.4		8.6	37.0	37.0	25.7	43.0	43.0	40.0	57.3	57.3
Actuated g/C Ratio	0.03	0.23		0.06	0.26	0.26	0.18	0.31	0.31	0.29	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	96	775		206	917	722	618	1532	476	962	2041	635
v/s Ratio Prot	c0.04	0.20		0.03	c0.33		0.17	c0.34		c0.38	0.34	
v/s Ratio Perm						0.12			0.02			0.03
v/c Ratio	1.55	0.86		0.44	1.25	0.45	0.93	1.12	0.06	1.31	0.82	0.06
Uniform Delay, d1	68.0	51.6		63.4	51.5	43.0	56.3	48.5	34.2	50.0	36.8	25.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	293.1	9.7		1.5	122.9	0.5	21.3	63.4	0.0	149.2	2.8	0.0
Delay (s)	361.1	61.3		64.8	174.4	43.5	77.6	111.9	34.2	199.2	39.6	25.1
Level of Service	F	E		E	F	D	E	F	C	F	D	C
Approach Delay (s)		114.6			118.0			100.7			105.6	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	108.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	118.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	659	221	182	829	840	199	1837	190	505	814	71
Future Volume (vph)	39	659	221	182	829	840	199	1837	190	505	814	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91	0.91	1.00	0.91		1.00	0.91	1.00
Frt	1.00	0.96		1.00	0.96	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3373		1736	3184	1413	1736	4917		1736	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3373		1736	3184	1413	1736	4917		1736	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	39	659	221	182	829	840	199	1837	190	505	814	71
RTOR Reduction (vph)	0	22	0	0	24	335	0	8	0	0	0	42
Lane Group Flow (vph)	39	858	0	182	1133	177	199	2019	0	505	814	29
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	7.6	39.8		16.0	48.2	48.2	21.8	48.0		31.0	57.2	57.2
Effective Green, g (s)	7.6	39.8		16.0	48.2	48.2	21.8	48.0		31.0	57.2	57.2
Actuated g/C Ratio	0.05	0.26		0.11	0.32	0.32	0.14	0.32		0.21	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	88	890		184	1017	451	250	1565		356	1892	589
v/s Ratio Prot	0.02	0.25		c0.10	c0.36		0.11	c0.41		c0.29	0.16	
v/s Ratio Perm						0.13						0.02
v/c Ratio	0.44	0.96		0.99	1.11	0.39	0.80	1.29		1.42	0.43	0.05
Uniform Delay, d1	69.5	54.8		67.3	51.3	39.9	62.4	51.4		59.9	34.7	29.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.5	21.7		62.5	65.1	0.6	15.9	135.4		204.2	0.2	0.0
Delay (s)	73.1	76.5		129.8	116.4	40.5	78.3	186.8		264.1	34.9	29.6
Level of Service	E	E		F	F	D	E	F		F	C	C
Approach Delay (s)		76.3			96.7			177.1			117.9	
Approach LOS		E			F			F			F	

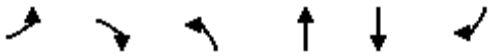
Intersection Summary			
HCM 2000 Control Delay	126.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	150.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	116.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	884	101	176	1036	384	110	614	197	293	400	80
Future Volume (vph)	58	884	101	176	1036	384	110	614	197	293	400	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.6		5.0	4.8	4.8	5.5	4.4	4.4	5.5	4.3	4.3
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3451		1752	3505	1568	1752	1845	1568	1752	1845	1568
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	3451		1752	3505	1568	1752	1845	1568	1752	1845	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	884	101	176	1036	384	110	614	197	293	400	80
RTOR Reduction (vph)	0	6	0	0	0	215	0	0	101	0	0	49
Lane Group Flow (vph)	58	979	0	176	1036	169	110	614	96	293	400	31
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases						2			8			4
Actuated Green, G (s)	5.2	37.2		12.0	43.6	43.6	11.4	40.6	40.6	20.7	50.0	50.0
Effective Green, g (s)	5.2	37.2		12.0	43.6	43.6	11.4	40.6	40.6	20.7	50.0	50.0
Actuated g/C Ratio	0.04	0.29		0.09	0.34	0.34	0.09	0.31	0.31	0.16	0.38	0.38
Clearance Time (s)	5.2	4.6		5.0	4.8	4.8	5.5	4.4	4.4	5.5	4.3	4.3
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	70	987		161	1175	525	153	576	489	278	709	603
v/s Ratio Prot	0.03	c0.28		c0.10	0.30		0.06	c0.33		c0.17	0.22	
v/s Ratio Perm						0.11			0.06			0.02
v/c Ratio	0.83	0.99		1.09	0.88	0.32	0.72	1.07	0.20	1.05	0.56	0.05
Uniform Delay, d1	62.0	46.2		59.0	40.8	32.2	57.7	44.7	32.7	54.6	31.4	25.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	50.7	26.4		98.0	7.8	0.1	12.6	56.3	0.1	68.9	0.6	0.0
Delay (s)	112.7	72.7		157.0	48.6	32.3	70.3	101.0	32.8	123.5	32.1	25.1
Level of Service	F	E		F	D	C	E	F	C	F	C	C
Approach Delay (s)		74.9			56.6			82.8			66.0	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM 2000 Control Delay	68.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	102.2%	ICU Level of Service	G
Analysis Period (min)	15		

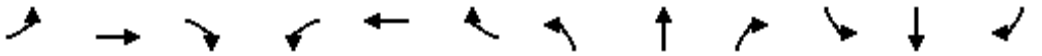
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	967	23	53	969	338	1003
Future Volume (vph)	967	23	53	969	338	1003
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.88
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3400	1568	1752	3505	3505	2760
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3400	1568	1752	3505	3505	2760
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	967	23	53	969	338	1003
RTOR Reduction (vph)	0	15	0	0	0	661
Lane Group Flow (vph)	967	8	53	969	338	342
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	16.6	16.6	1.6	21.2	15.6	15.6
Effective Green, g (s)	16.6	16.6	1.6	21.2	15.6	15.6
Actuated g/C Ratio	0.36	0.36	0.03	0.46	0.34	0.34
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1232	568	61	1622	1193	940
v/s Ratio Prot	c0.28		0.03	c0.28	0.10	
v/s Ratio Perm		0.01				0.12
v/c Ratio	0.78	0.01	0.87	0.60	0.28	0.36
Uniform Delay, d1	13.0	9.4	22.0	9.1	11.0	11.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.0	69.6	0.6	0.1	0.2
Delay (s)	16.4	9.4	91.6	9.7	11.2	11.6
Level of Service	B	A	F	A	B	B
Approach Delay (s)	16.2			14.0	11.5	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	45.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		

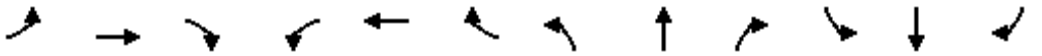
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	373	2	16	8	1	1	39	637	2	0	237	212
Future Volume (vph)	373	2	16	8	1	1	39	637	2	0	237	212
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.95			0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1665	1670	1568	1752	1706		1752	3503			3505	1568
Flt Permitted	0.95	0.95	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1665	1670	1568	1752	1706		1752	3503			3505	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	373	2	16	8	1	1	39	637	2	0	237	212
RTOR Reduction (vph)	0	0	12	0	1	0	0	0	0	0	0	144
Lane Group Flow (vph)	186	189	4	8	1	0	39	639	0	0	237	68
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	10.3	10.3	10.3	0.8	0.8		1.6	19.2			13.6	13.6
Effective Green, g (s)	10.3	10.3	10.3	0.8	0.8		1.6	19.2			13.6	13.6
Actuated g/C Ratio	0.24	0.24	0.24	0.02	0.02		0.04	0.45			0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	405	406	381	33	32		66	1590			1126	504
v/s Ratio Prot	0.11	c0.11		c0.00	0.00		0.02	c0.18			0.07	
v/s Ratio Perm			0.00									0.04
v/c Ratio	0.46	0.47	0.01	0.24	0.03		0.59	0.40			0.21	0.14
Uniform Delay, d1	13.6	13.7	12.1	20.5	20.4		20.0	7.7			10.4	10.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.8	0.8	0.0	3.8	0.4		13.4	0.2			0.1	0.1
Delay (s)	14.5	14.5	12.1	24.2	20.8		33.4	7.9			10.5	10.3
Level of Service	B	B	B	C	C		C	A			B	B
Approach Delay (s)		14.4			23.6			9.3			10.4	
Approach LOS		B			C			A			B	

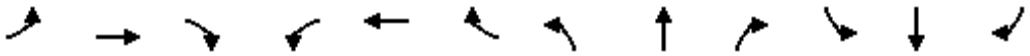
Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	42.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



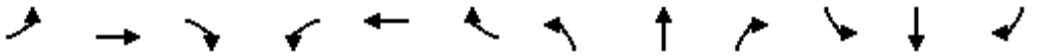
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1153	0	412	0	1196	481	0	1043	367
Future Volume (vph)	0	0	0	1153	0	412	0	1196	481	0	1043	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9			4.8	4.0		4.8	4.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.92			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1649	1559			4988	1553		4988	1553
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1649	1559			4988	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	1153	0	412	0	1196	481	0	1043	367
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	807	743	0	0	1196	481	0	1043	367
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA			NA	Free		NA	Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				30.1	30.1			16.1	55.9		16.1	55.9
Effective Green, g (s)				30.1	30.1			16.1	55.9		16.1	55.9
Actuated g/C Ratio				0.54	0.54			0.29	1.00		0.29	1.00
Clearance Time (s)				4.9	4.9			4.8			4.8	
Vehicle Extension (s)				1.0	1.0			1.0			1.0	
Lane Grp Cap (vph)				887	839			1436	1553		1436	1553
v/s Ratio Prot								c0.24			0.21	
v/s Ratio Perm				c0.49	0.48				0.31			0.24
v/c Ratio				0.91	0.89			0.83	0.31		0.73	0.24
Uniform Delay, d1				11.7	11.4			18.6	0.0		17.9	0.0
Progression Factor				1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2				12.8	10.7			4.1	0.5		1.6	0.4
Delay (s)				24.4	22.1			22.8	0.5		19.5	0.4
Level of Service				C	C			C	A		B	A
Approach Delay (s)		0.0			23.3			16.4			14.5	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	55.9	Sum of lost time (s)	9.7
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



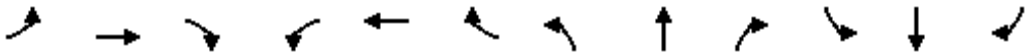
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	331	412	1	0	648	7	5	302	0	0	168	188
Future Volume (vph)	331	412	1	0	648	7	5	302	0	0	168	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			1.00			0.93	
Flt Protected		0.98			1.00			1.00			1.00	
Satd. Flow (prot)		1721			1725			1758			1634	
Flt Permitted		0.98			1.00			0.82			1.00	
Satd. Flow (perm)		1721			1725			1436			1634	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	331	412	1	0	648	7	5	302	0	0	168	188
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	33	0
Lane Group Flow (vph)	0	744	0	0	655	0	0	307	0	0	323	0
Heavy Vehicles (%)	8%	8%	8%	10%	10%	10%	8%	8%	8%	8%	8%	8%
Turn Type	Split	NA			NA		Perm	NA			NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		44.0			39.0			25.0			25.0	
Effective Green, g (s)		44.0			39.0			25.0			25.0	
Actuated g/C Ratio		0.37			0.32			0.21			0.21	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		631			560			299			340	
v/s Ratio Prot		c0.43			c0.38						0.20	
v/s Ratio Perm								c0.21				
v/c Ratio		1.18			1.17			1.03			0.95	
Uniform Delay, d1		38.0			40.5			47.5			46.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		96.3			94.3			59.1			35.2	
Delay (s)		134.3			134.8			106.6			82.1	
Level of Service		F			F			F			F	
Approach Delay (s)		134.3			134.8			106.6			82.1	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	121.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1183	701	7	0	1122	15	8	30	5	7	6	541
Future Volume (vph)	1183	701	7	0	1122	15	8	30	5	7	6	541
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Lane Util. Factor	0.97	0.95	1.00		0.95			1.00			1.00	1.00
Frt	1.00	1.00	0.85		1.00			0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (prot)	3303	3406	1524		3431			1799			1779	1553
Flt Permitted	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (perm)	3303	3406	1524		3431			1799			1779	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1183	701	7	0	1122	15	8	30	5	7	6	541
RTOR Reduction (vph)	0	0	1	0	1	0	0	3	0	0	0	42
Lane Group Flow (vph)	1183	701	6	0	1136	0	0	40	0	0	13	499
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									4
Actuated Green, G (s)	51.6	103.5	103.5		47.3			3.3			2.1	53.7
Effective Green, g (s)	51.6	103.5	103.5		47.3			3.3			2.1	53.7
Actuated g/C Ratio	0.40	0.81	0.81		0.37			0.03			0.02	0.42
Clearance Time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0		1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	1330	2751	1231		1266			46			29	651
v/s Ratio Prot	c0.36	0.21			c0.33			c0.02			0.01	c0.31
v/s Ratio Perm			0.00									0.01
v/c Ratio	0.89	0.25	0.00		0.90			0.87			0.45	0.77
Uniform Delay, d1	35.6	3.0	2.4		38.1			62.2			62.4	31.8
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	7.4	0.0	0.0		8.4			83.2			4.0	4.8
Delay (s)	43.0	3.0	2.4		46.6			145.4			66.4	36.7
Level of Service	D	A	A		D			F			E	D
Approach Delay (s)		28.0			46.6			145.4			37.4	
Approach LOS		C			D			F			D	

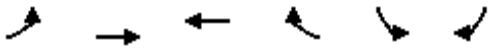
Intersection Summary			
HCM 2000 Control Delay	36.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	128.1	Sum of lost time (s)	24.7
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1	19	205	4	610	19	1807	107	224	1589	0
Future Volume (vph)	0	1	19	205	4	610	19	1807	107	224	1589	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt		0.86		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1582		1752	1845	1568	1752	3475		1752	3505	
Flt Permitted		1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1582		1752	1845	1568	1752	3475		1752	3505	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1	19	205	4	610	19	1807	107	224	1589	0
RTOR Reduction (vph)	0	18	0	0	0	159	0	3	0	0	0	0
Lane Group Flow (vph)	0	2	0	205	4	451	19	1911	0	224	1589	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		6.0		27.6	37.6	37.6	3.0	77.6		18.0	92.6	
Effective Green, g (s)		6.0		27.6	37.6	37.6	3.0	77.6		18.0	92.6	
Actuated g/C Ratio		0.04		0.19	0.26	0.26	0.02	0.53		0.12	0.64	
Clearance Time (s)		4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		65		333	477	406	36	1857		217	2235	
v/s Ratio Prot		0.00		0.12	0.00		0.01	c0.55		c0.13	0.45	
v/s Ratio Perm						c0.29						
v/c Ratio		0.03		0.62	0.01	1.11	0.53	1.03		1.03	0.71	
Uniform Delay, d1		66.8		53.9	40.0	53.8	70.4	33.8		63.6	17.4	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2		3.4	0.0	77.9	13.3	28.8		69.8	1.1	
Delay (s)		67.0		57.3	40.0	131.7	83.7	62.6		133.4	18.5	
Level of Service		E		E	D	F	F	E		F	B	
Approach Delay (s)		67.0			112.7			62.8			32.7	
Approach LOS		E			F			E			C	

Intersection Summary			
HCM 2000 Control Delay	59.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	145.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		

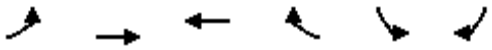
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	583	1392	2113	1736	0
Future Volume (vph)	0	583	1392	2113	1736	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95	0.95	1.00	0.97	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3505	3505	1568	3400	
Flt Permitted		1.00	1.00	1.00	0.95	
Satd. Flow (perm)		3505	3505	1568	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	583	1392	2113	1736	0
RTOR Reduction (vph)	0	0	0	518	0	0
Lane Group Flow (vph)	0	583	1392	1595	1736	0
Turn Type	Prot	NA	NA	Perm	Prot	
Protected Phases	4	5	5		6	
Permitted Phases				5		
Actuated Green, G (s)		63.0	63.0	63.0	49.0	
Effective Green, g (s)		63.0	63.0	63.0	49.0	
Actuated g/C Ratio		0.52	0.52	0.52	0.41	
Clearance Time (s)		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1840	1840	823	1388	
v/s Ratio Prot		0.17	0.40		c0.51	
v/s Ratio Perm				c1.02		
v/c Ratio		0.32	0.76	1.94	1.25	
Uniform Delay, d1		16.2	22.5	28.5	35.5	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	1.8	426.5	119.0	
Delay (s)		16.3	24.3	455.0	154.5	
Level of Service		B	C	F	F	
Approach Delay (s)		16.3	283.9		154.5	
Approach LOS		B	F		F	

Intersection Summary			
HCM 2000 Control Delay	218.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.70		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	134.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	959	1243	2651	116	82	574
Future Volume (vph)	959	1243	2651	116	82	574
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.91	0.91		1.00	0.88
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3400	5036	5004		1752	2760
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3400	5036	5004		1752	2760
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	959	1243	2651	116	82	574
RTOR Reduction (vph)	0	0	3	0	0	525
Lane Group Flow (vph)	959	1243	2764	0	82	49
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	42.0	125.1	79.1		12.3	12.3
Effective Green, g (s)	42.0	125.1	79.1		12.3	12.3
Actuated g/C Ratio	0.29	0.86	0.54		0.08	0.08
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	982	4332	2722		148	233
v/s Ratio Prot	c0.28	0.25	c0.55		c0.05	
v/s Ratio Perm						0.02
v/c Ratio	0.98	0.29	1.02		0.55	0.21
Uniform Delay, d1	51.2	1.9	33.2		63.9	62.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	22.9	0.0	21.2		4.4	0.4
Delay (s)	74.1	1.9	54.3		68.4	62.5
Level of Service	E	A	D		E	E
Approach Delay (s)		33.4	54.3		63.2	
Approach LOS		C	D		E	

Intersection Summary			
HCM 2000 Control Delay	47.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	145.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	489	131	236	492	716	64	3446	456	591	2992	532
Future Volume (veh/h)	330	489	131	236	492	716	64	3446	456	591	2992	532
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	330	489	131	236	492	716	64	3446	456	591	2992	532
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	192	932	417	147	885	547	67	2290	713	325	2671	832
Arrive On Green	0.06	0.27	0.27	0.04	0.25	0.25	0.02	0.46	0.46	0.10	0.54	0.54
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	330	489	131	236	492	716	64	3446	456	591	2992	532
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	8.5	17.9	10.1	6.5	18.4	38.0	2.9	69.1	33.8	14.5	80.6	36.4
Cycle Q Clear(g_c), s	8.5	17.9	10.1	6.5	18.4	38.0	2.9	69.1	33.8	14.5	80.6	36.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	932	417	147	885	547	67	2290	713	325	2671	832
V/C Ratio(X)	1.71	0.52	0.31	1.60	0.56	1.31	0.95	1.50	0.64	1.82	1.12	0.64
Avail Cap(c_a), veh/h	192	932	417	147	885	547	67	2290	713	325	2671	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.0	47.1	44.3	72.0	48.9	49.0	73.7	40.7	31.2	68.0	35.0	24.7
Incr Delay (d2), s/veh	342.5	0.3	0.2	300.8	0.5	151.8	91.7	229.5	1.5	379.7	59.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	8.7	4.4	9.2	8.9	45.7	2.2	80.3	14.8	23.9	51.6	15.8
LnGrp Delay(d),s/veh	413.5	47.4	44.4	372.8	49.4	200.8	165.4	270.2	32.7	447.7	94.7	26.0
LnGrp LOS	F	D	D	F	D	F	F	F	C	F	F	C
Approach Vol, veh/h		950			1444			3966			4115	
Approach Delay, s/veh		174.2			177.3			241.2			136.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	85.4	14.0	42.6	20.0	73.9	12.0	44.6
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	3.0	80.4	8.5	* 38	14.5	* 69	6.5	39.7
Max Q Clear Time (g_c+I1), s	4.9	82.6	10.5	40.0	16.5	71.1	8.5	19.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	185.2
HCM 2010 LOS	F

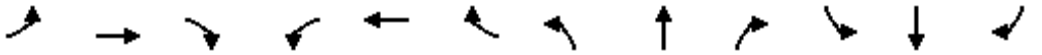
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	329	23	149	410	832	34	2829	206	422	2387	0
Future Volume (veh/h)	0	329	23	149	410	832	34	2829	206	422	2387	0
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	0	329	23	149	410	832	34	2829	206	422	2387	0
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	3	555	248	117	828	587	61	2492	776	467	3094	963
Arrive On Green	0.00	0.16	0.16	0.03	0.24	0.24	0.02	0.50	0.50	0.14	0.62	0.00
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	0	329	23	149	410	832	34	2829	206	422	2387	0
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	0.0	11.5	1.7	4.5	13.3	31.0	1.3	65.6	10.0	16.2	45.8	0.0
Cycle Q Clear(g_c), s	0.0	11.5	1.7	4.5	13.3	31.0	1.3	65.6	10.0	16.2	45.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	3	555	248	117	828	587	61	2492	776	467	3094	963
V/C Ratio(X)	0.00	0.59	0.09	1.28	0.50	1.42	0.56	1.14	0.27	0.90	0.77	0.00
Avail Cap(c_a), veh/h	77	783	350	117	828	587	77	2492	776	476	3094	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	51.2	47.0	63.4	43.4	41.1	64.0	32.8	18.9	55.7	18.2	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.1	174.6	0.2	197.3	3.0	66.4	0.1	19.6	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.6	0.7	4.9	6.5	53.4	0.6	45.3	4.3	8.8	21.1	0.0
LnGrp Delay(d),s/veh	0.0	51.5	47.1	238.0	43.5	238.3	67.0	99.2	19.0	75.3	19.3	0.0
LnGrp LOS		D	D	F	D	F	E	F	B	E	B	
Approach Vol, veh/h		352			1391			3069			2809	
Approach Delay, s/veh		51.3			180.9			93.5			27.7	
Approach LOS		D			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	86.7	0.0	36.7	23.7	70.9	10.0	26.7
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	3.0	81.0	3.0	* 31	18.5	* 66	4.5	* 30
Max Q Clear Time (g_c+I1), s	3.3	47.8	0.0	33.0	18.2	67.6	6.5	13.5
Green Ext Time (p_c), s	0.0	29.4	0.0	0.0	0.0	0.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	83.2
HCM 2010 LOS	F

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	1488	677	98	1960	977	763	1984	74	1096	1563	188
Future Volume (veh/h)	85	1488	677	98	1960	977	763	1984	74	1096	1563	188
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	85	1488	677	98	1960	0	763	1984	74	1096	1563	188
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	66	1537	478	115	1625	506	710	1533	477	719	1523	474
Arrive On Green	0.02	0.31	0.31	0.03	0.33	0.00	0.21	0.31	0.31	0.21	0.31	0.31
Sat Flow, veh/h	3312	4893	1524	3312	4893	1524	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	85	1488	677	98	1960	0	763	1984	74	1096	1563	188
Grp Sat Flow(s),veh/h/ln	1656	1631	1524	1656	1631	1524	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	3.0	45.0	47.2	4.4	49.9	0.0	31.6	46.2	5.2	32.0	45.9	14.4
Cycle Q Clear(g_c), s	3.0	45.0	47.2	4.4	49.9	0.0	31.6	46.2	5.2	32.0	45.9	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	1537	478	115	1625	506	710	1533	477	719	1523	474
V/C Ratio(X)	1.29	0.97	1.41	0.86	1.21	0.00	1.08	1.29	0.16	1.53	1.03	0.40
Avail Cap(c_a), veh/h	66	1537	478	115	1625	506	710	1533	477	719	1523	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.7	50.8	51.6	72.2	50.2	0.0	59.4	52.1	37.9	59.2	52.2	41.3
Incr Delay (d2), s/veh	205.4	15.9	198.8	41.6	99.0	0.0	55.8	137.3	0.1	243.3	30.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	22.5	46.2	2.7	37.3	0.0	20.2	40.6	2.2	39.2	25.2	6.2
LnGrp Delay(d),s/veh	279.0	66.7	250.3	113.8	149.2	0.0	115.2	189.4	37.9	302.5	82.2	41.5
LnGrp LOS	F	E	F	F	F		F	F	D	F	F	D
Approach Vol, veh/h		2250			2058			2821			2847	
Approach Delay, s/veh		130.0			147.5			165.3			164.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	55.3	36.3	50.7	10.7	52.6	36.0	51.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.0	4.8
Max Green Setting (Gmax), s	3.0	* 50	* 32	45.9	5.2	* 47	32.0	46.2
Max Q Clear Time (g_c+I1), s	5.0	51.9	33.6	47.9	6.4	49.2	34.0	48.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	153.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	612	57	401	826	273	325	2116	555	131	1767	432
Future Volume (veh/h)	108	612	57	401	826	273	325	2116	555	131	1767	432
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	108	612	57	401	826	273	325	2116	555	131	1767	432
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	143	625	280	416	895	400	351	2228	701	160	1979	616
Arrive On Green	0.04	0.18	0.18	0.12	0.26	0.26	0.10	0.45	0.45	0.05	0.40	0.40
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1568	3408	4988	1553
Grp Volume(v), veh/h	108	612	57	401	826	273	325	2116	555	131	1767	432
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1568	1704	1663	1553
Q Serve(g_s), s	3.1	17.4	3.1	11.7	23.0	15.7	9.6	40.8	30.3	3.8	33.1	23.3
Cycle Q Clear(g_c), s	3.1	17.4	3.1	11.7	23.0	15.7	9.6	40.8	30.3	3.8	33.1	23.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	625	280	416	895	400	351	2228	701	160	1979	616
V/C Ratio(X)	0.75	0.98	0.20	0.97	0.92	0.68	0.93	0.95	0.79	0.82	0.89	0.70
Avail Cap(c_a), veh/h	143	625	280	416	914	409	351	2233	702	160	1984	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	40.9	35.0	43.7	36.3	33.6	44.5	26.6	23.7	47.3	28.2	25.2
Incr Delay (d2), s/veh	18.3	30.4	0.1	34.8	14.1	3.6	29.5	9.6	5.7	25.7	5.4	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	11.1	1.4	7.5	12.9	7.2	5.9	20.6	14.1	2.4	16.0	10.4
LnGrp Delay(d),s/veh	65.7	71.3	35.2	78.5	50.4	37.2	74.0	36.2	29.4	72.9	33.6	28.2
LnGrp LOS	E	E	D	E	D	D	E	D	C	E	C	C
Approach Vol, veh/h		777			1500			2996			2330	
Approach Delay, s/veh		67.9			55.5			39.1			34.8	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	44.5	9.7	30.9	10.0	49.5	17.4	23.2
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 10	39.8	4.2	* 26	* 4.7	44.8	* 12	* 18
Max Q Clear Time (g_c+I1), s	11.6	35.1	5.1	25.0	5.8	42.8	13.7	19.4
Green Ext Time (p_c), s	0.0	4.3	0.0	0.6	0.0	1.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1342	414	134	13	510	7	933	2195	129	9	816	800
Future Volume (veh/h)	1342	414	134	13	510	7	933	2195	129	9	816	800
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	1342	414	134	13	510	7	933	2195	129	9	816	800
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	1055	1985	618	28	465	145	744	2235	696	21	1186	369
Arrive On Green	0.31	0.40	0.40	0.01	0.09	0.09	0.22	0.45	0.45	0.01	0.24	0.24
Sat Flow, veh/h	3375	4988	1553	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	1342	414	134	13	510	7	933	2195	129	9	816	800
Grp Sat Flow(s),veh/h/ln	1688	1663	1553	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	46.9	8.2	8.5	0.6	14.0	0.6	33.1	65.1	7.5	0.4	22.4	35.7
Cycle Q Clear(g_c), s	46.9	8.2	8.5	0.6	14.0	0.6	33.1	65.1	7.5	0.4	22.4	35.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1055	1985	618	28	465	145	744	2235	696	21	1186	369
V/C Ratio(X)	1.27	0.21	0.22	0.46	1.10	0.05	1.25	0.98	0.19	0.43	0.69	2.17
Avail Cap(c_a), veh/h	1055	1985	618	67	465	145	744	2235	696	67	1186	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	29.7	29.8	74.1	68.1	62.0	58.5	40.8	24.9	74.3	52.1	57.2
Incr Delay (d2), s/veh	130.1	0.2	0.8	4.3	70.4	0.6	125.0	15.3	0.6	5.0	3.3	533.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	40.9	3.8	3.8	0.3	9.5	0.3	28.3	33.0	3.3	0.2	10.6	70.1
LnGrp Delay(d),s/veh	181.7	29.9	30.6	78.4	138.5	62.6	183.5	56.1	25.5	79.3	55.4	590.8
LnGrp LOS	F	C	C	E	F	E	F	E	C	E	E	F
Approach Vol, veh/h		1890			530			3257			1625	
Approach Delay, s/veh		137.7			136.0			91.4			319.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.0	40.9	52.0	19.2	6.4	72.5	6.3	64.9
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 33	* 36	* 47	* 14	3.0	* 65	3.0	* 58
Max Q Clear Time (g_c+I1), s	35.1	37.7	48.9	16.0	2.4	67.1	2.6	10.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.1

Intersection Summary	
HCM 2010 Ctrl Delay	157.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	2345	133	27	2398	8	517	42	211	7	16	55
Future Volume (veh/h)	14	2345	133	27	2398	8	517	42	211	7	16	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	14	2345	133	27	2398	8	517	42	211	7	16	55
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	21	2389	134	33	2574	9	498	625	532	12	103	87
Arrive On Green	0.01	0.50	0.50	0.02	0.51	0.51	0.28	0.34	0.34	0.01	0.06	0.06
Sat Flow, veh/h	1707	4741	267	1707	5035	17	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	14	1607	871	27	1553	853	517	42	211	7	16	55
Grp Sat Flow(s),veh/h/ln	1707	1631	1745	1707	1631	1789	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.1	65.6	67.3	2.1	60.5	60.6	38.6	2.1	14.0	0.5	1.1	4.7
Cycle Q Clear(g_c), s	1.1	65.6	67.3	2.1	60.5	60.6	38.6	2.1	14.0	0.5	1.1	4.7
Prop In Lane	1.00		0.15	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	21	1644	879	33	1668	915	498	625	532	12	103	87
V/C Ratio(X)	0.68	0.98	0.99	0.81	0.93	0.93	1.04	0.07	0.40	0.58	0.16	0.63
Avail Cap(c_a), veh/h	50	1644	879	50	1668	915	498	753	640	52	285	242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.0	33.0	33.4	66.5	31.0	31.1	48.8	30.4	34.4	67.4	61.2	62.9
Incr Delay (d2), s/veh	23.3	17.2	27.9	35.0	10.1	16.1	50.5	0.0	0.4	26.9	0.6	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	33.4	39.0	1.3	29.5	33.9	25.7	1.1	6.1	0.4	0.6	2.2
LnGrp Delay(d),s/veh	90.3	50.2	61.4	101.5	41.1	47.2	99.3	30.5	34.8	94.3	61.9	69.5
LnGrp LOS	F	D	E	F	D	D	F	C	C	F	E	E
Approach Vol, veh/h		2492			2433			770			78	
Approach Delay, s/veh		54.3			43.9			77.9			70.1	
Approach LOS		D			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	75.0	43.0	12.0	5.1	76.0	4.4	50.6
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	4.0	68.6	38.6	* 21	4.0	68.6	4.0	55.6
Max Q Clear Time (g_c+I1), s	4.1	69.3	40.6	6.7	3.1	62.6	2.5	16.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	6.0	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	53.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	1326	686	5	1390	461	608	422	107	253	235	76
Future Volume (veh/h)	69	1326	686	5	1390	461	608	422	107	253	235	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	69	1326	686	5	1390	461	608	422	107	253	235	76
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	1113	530	7	1205	382	480	480	408	258	246	209
Arrive On Green	0.03	0.48	0.48	0.00	0.46	0.46	0.27	0.26	0.26	0.15	0.13	0.13
Sat Flow, veh/h	1757	2306	1098	1757	2619	831	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	69	980	1032	5	909	942	608	422	107	253	235	76
Grp Sat Flow(s),veh/h/ln	1757	1752	1651	1757	1752	1698	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	4.0	72.4	72.4	0.4	69.0	69.0	41.0	32.9	8.1	21.5	19.0	6.6
Cycle Q Clear(g_c), s	4.0	72.4	72.4	0.4	69.0	69.0	41.0	32.9	8.1	21.5	19.0	6.6
Prop In Lane	1.00		0.66	1.00		0.49	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	846	797	7	806	781	480	480	408	258	246	209
V/C Ratio(X)	1.47	1.16	1.29	0.76	1.13	1.21	1.27	0.88	0.26	0.98	0.96	0.36
Avail Cap(c_a), veh/h	47	846	797	35	806	781	480	480	408	258	246	209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.0	38.8	38.8	74.6	40.5	40.5	54.5	53.3	44.1	63.8	64.6	59.2
Incr Delay (d2), s/veh	298.2	84.4	141.7	97.0	73.0	104.6	135.5	17.0	0.3	50.8	45.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	54.9	64.4	0.4	49.7	55.0	38.0	19.0	3.6	14.1	12.7	2.9
LnGrp Delay(d),s/veh	371.2	123.2	180.4	171.7	113.5	145.1	190.0	70.2	44.4	114.6	109.6	60.3
LnGrp LOS	F	F	F	F	F	F	F	E	D	F	F	E
Approach Vol, veh/h		2081			1856			1137			564	
Approach Delay, s/veh		159.8			129.7			131.9			105.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	43.0	4.6	76.4	45.0	24.0	8.0	73.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	39.0	3.0	70.0	41.0	20.0	4.0	69.0
Max Q Clear Time (g_c+I1), s	23.5	34.9	2.4	74.4	43.0	21.0	6.0	71.0
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0

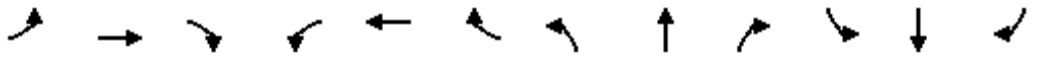
Intersection Summary	
HCM 2010 Ctrl Delay	138.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	1980	182	246	2151	3	109	1802	305	3	1650	155
Future Volume (veh/h)	373	1980	182	246	2151	3	109	1802	305	3	1650	155
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	373	1980	182	246	2151	3	109	1802	305	3	1650	155
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	341	2132	683	268	2027	650	122	1859	579	8	1691	526
Arrive On Green	0.10	0.44	0.44	0.08	0.41	0.41	0.04	0.37	0.37	0.00	0.34	0.34
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	373	1980	182	246	2151	3	109	1802	305	3	1650	155
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	14.0	53.7	10.4	10.0	58.0	0.2	4.5	49.2	21.3	0.1	45.3	10.2
Cycle Q Clear(g_c), s	14.0	53.7	10.4	10.0	58.0	0.2	4.5	49.2	21.3	0.1	45.3	10.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	341	2132	683	268	2027	650	122	1859	579	8	1691	526
V/C Ratio(X)	1.09	0.93	0.27	0.92	1.06	0.00	0.90	0.97	0.53	0.37	0.98	0.29
Avail Cap(c_a), veh/h	341	2132	683	268	2027	650	122	1859	579	97	1691	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	37.4	25.2	64.1	41.0	24.1	67.2	43.4	34.6	69.7	45.9	34.3
Incr Delay (d2), s/veh	76.5	7.8	0.2	34.2	38.5	0.0	50.9	14.3	0.9	26.3	16.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	25.7	4.5	6.0	33.3	0.1	3.0	25.3	9.4	0.1	23.5	4.5
LnGrp Delay(d),s/veh	139.5	45.3	25.4	98.3	79.5	24.1	118.1	57.7	35.5	96.0	62.4	34.6
LnGrp LOS	F	D	C	F	F	C	F	E	D	F	E	C
Approach Vol, veh/h		2535			2400			2216			1808	
Approach Delay, s/veh		57.7			81.3			57.6			60.1	
Approach LOS		E			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.3	55.7	15.0	65.0	9.0	51.0	18.0	62.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	48.0	11.0	61.0	5.0	47.0	14.0	58.0
Max Q Clear Time (g_c+I1), s	2.1	51.2	12.0	55.7	6.5	47.3	16.0	60.0
Green Ext Time (p_c), s	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	64.5
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	524	1035	93	731	1021	255	245	1568	441	115	1159	234
Future Volume (veh/h)	524	1035	93	731	1021	255	245	1568	441	115	1159	234
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	524	1035	93	731	1021	255	245	1568	441	115	1159	234
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	568	962	300	699	1156	360	297	1548	693	167	1415	633
Arrive On Green	0.17	0.19	0.19	0.21	0.23	0.23	0.09	0.44	0.44	0.05	0.40	0.40
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	524	1035	93	731	1021	255	245	1568	441	115	1159	234
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	21.4	27.0	7.2	29.0	27.7	21.2	10.0	62.4	30.9	4.7	41.6	14.8
Cycle Q Clear(g_c), s	21.4	27.0	7.2	29.0	27.7	21.2	10.0	62.4	30.9	4.7	41.6	14.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	568	962	300	699	1156	360	297	1548	693	167	1415	633
V/C Ratio(X)	0.92	1.08	0.31	1.05	0.88	0.71	0.83	1.01	0.64	0.69	0.82	0.37
Avail Cap(c_a), veh/h	579	962	300	699	1156	360	386	1548	693	434	1537	688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	57.2	49.2	56.2	52.6	50.1	63.5	39.5	30.7	66.2	37.6	29.5
Incr Delay (d2), s/veh	20.3	51.7	0.6	46.5	8.3	6.3	10.8	26.1	1.9	5.0	3.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	17.1	3.2	18.1	13.7	9.8	5.2	35.7	13.7	2.3	20.8	6.5
LnGrp Delay(d),s/veh	78.3	108.9	49.8	102.7	60.9	56.4	74.3	65.6	32.6	71.1	41.0	29.9
LnGrp LOS	E	F	D	F	E	E	E	F	C	E	D	C
Approach Vol, veh/h		1652			2007			2254			1508	
Approach Delay, s/veh		95.9			75.5			60.1			41.5	
Approach LOS		F			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	66.4	33.0	31.0	16.3	61.1	27.6	36.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	60.0	29.0	27.0	16.0	62.0	24.0	32.0
Max Q Clear Time (g_c+I1), s	6.7	64.4	31.0	29.0	12.0	43.6	23.4	29.7
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.3	13.4	0.1	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	68.5
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	40	32	307	30	388	57	2863	368	680	1890	59
Future Volume (veh/h)	76	40	32	307	30	388	57	2863	368	680	1890	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	76	40	32	307	30	388	57	2863	368	680	1890	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	64	222	177	503	295	251	72	2470	769	551	3080	96
Arrive On Green	0.04	0.23	0.23	0.16	0.16	0.16	0.04	0.50	0.50	0.16	0.62	0.62
Sat Flow, veh/h	1757	950	760	2541	1845	1568	1740	4988	1553	3375	4970	155
Grp Volume(v), veh/h	76	0	72	307	30	388	57	2863	368	680	1264	685
Grp Sat Flow(s),veh/h/ln	1757	0	1711	1271	1845	1568	1740	1663	1553	1688	1663	1800
Q Serve(g_s), s	5.5	0.0	5.1	17.3	2.1	24.0	4.9	74.3	23.5	24.5	35.0	35.1
Cycle Q Clear(g_c), s	5.5	0.0	5.1	17.3	2.1	24.0	4.9	74.3	23.5	24.5	35.0	35.1
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	64	0	399	503	295	251	72	2470	769	551	2061	1115
V/C Ratio(X)	1.18	0.00	0.18	0.61	0.10	1.55	0.79	1.16	0.48	1.23	0.61	0.61
Avail Cap(c_a), veh/h	64	0	399	503	295	251	123	2470	769	551	2061	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.3	0.0	46.0	60.2	53.8	63.0	71.2	37.8	25.0	62.8	17.5	17.5
Incr Delay (d2), s/veh	168.8	0.0	0.1	1.6	0.1	264.8	6.9	76.5	0.2	120.1	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	2.4	6.2	1.1	28.8	2.5	51.6	10.1	20.6	16.1	17.5
LnGrp Delay(d),s/veh	241.1	0.0	46.1	61.8	53.9	327.8	78.1	114.3	25.2	182.9	17.9	18.3
LnGrp LOS	F		D	E	D	F	E	F	C	F	B	B
Approach Vol, veh/h		148			725			3288			2629	
Approach Delay, s/veh		146.2			203.8			103.7			60.7	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	98.2		40.5	30.0	79.5	11.0	29.5
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2	5.5	5.5
Max Green Setting (Gmax), s	* 11	* 89		35.0	24.5	* 74	5.5	24.0
Max Q Clear Time (g_c+I1), s	6.9	37.1		7.1	26.5	76.3	7.5	26.0
Green Ext Time (p_c), s	0.0	38.5		0.7	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	98.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	1179	429	252	1471	826	359	2029	361	577	839	158
Future Volume (veh/h)	224	1179	429	252	1471	826	359	2029	361	577	839	158
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	224	1179	429	252	1471	826	359	2029	361	577	839	158
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	193	1413	440	294	1564	487	403	1771	551	438	1823	567
Arrive On Green	0.06	0.28	0.28	0.09	0.31	0.31	0.12	0.36	0.36	0.13	0.37	0.37
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	224	1179	429	252	1471	826	359	2029	361	577	839	158
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	8.5	33.1	40.8	11.0	42.8	46.7	15.8	53.4	29.4	19.5	19.3	10.8
Cycle Q Clear(g_c), s	8.5	33.1	40.8	11.0	42.8	46.7	15.8	53.4	29.4	19.5	19.3	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	1413	440	294	1564	487	403	1771	551	438	1823	567
V/C Ratio(X)	1.16	0.83	0.97	0.86	0.94	1.70	0.89	1.15	0.65	1.32	0.46	0.28
Avail Cap(c_a), veh/h	193	1413	440	315	1564	487	532	1771	551	438	1823	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.9	50.8	53.6	67.8	50.5	51.9	65.3	48.5	40.8	65.4	36.4	33.7
Incr Delay (d2), s/veh	115.6	4.2	36.1	18.0	11.4	322.2	11.9	72.8	2.2	158.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	15.8	22.1	5.9	21.5	63.8	8.0	36.4	13.0	18.7	8.9	4.6
LnGrp Delay(d),s/veh	186.6	55.0	89.7	85.7	61.9	374.1	77.2	121.3	43.0	224.1	36.5	33.8
LnGrp LOS	F	E	F	F	E	F	E	F	D	F	D	C
Approach Vol, veh/h		1832			2549			2749			1574	
Approach Delay, s/veh		79.2			165.4			105.3			105.0	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	60.6	14.0	52.4	25.0	59.0	18.5	47.9
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	23.7	* 49	8.5	* 47	19.5	* 53	13.9	* 41
Max Q Clear Time (g_c+I1), s	17.8	21.3	10.5	48.7	21.5	55.4	13.0	42.8
Green Ext Time (p_c), s	0.2	13.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	1491	494	163	2278	530	71	2559	158	521	865	90
Future Volume (veh/h)	350	1491	494	163	2278	530	71	2559	158	521	865	90
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	350	1491	494	163	2278	530	71	2559	158	521	865	0
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	258	1679	538	207	1612	502	110	1810	563	338	2137	659
Arrive On Green	0.08	0.34	0.34	0.06	0.33	0.33	0.03	0.36	0.36	0.10	0.42	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	1524	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	350	1491	494	163	2278	530	71	2559	158	521	865	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1524	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	11.7	43.2	45.3	7.1	49.4	49.4	3.1	53.9	10.8	15.0	17.9	0.0
Cycle Q Clear(g_c), s	11.7	43.2	45.3	7.1	49.4	49.4	3.1	53.9	10.8	15.0	17.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	1679	538	207	1612	502	110	1810	563	338	2137	659
V/C Ratio(X)	1.35	0.89	0.92	0.79	1.41	1.06	0.65	1.41	0.28	1.54	0.40	0.00
Avail Cap(c_a), veh/h	258	1679	538	232	1612	502	204	1810	563	338	2137	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	69.1	46.5	47.2	69.5	50.3	50.3	71.7	48.1	34.2	67.5	30.0	0.0
Incr Delay (d2), s/veh	182.9	6.0	20.5	14.8	189.8	55.9	2.4	189.7	0.3	258.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	20.4	22.6	3.8	50.6	28.5	1.5	56.8	4.7	19.1	8.3	0.0
LnGrp Delay(d),s/veh	252.1	52.5	67.7	84.3	240.1	106.2	74.1	237.8	34.5	326.4	30.0	0.0
LnGrp LOS	F	D	E	F	F	F	E	F	C	F	C	
Approach Vol, veh/h		2335			2971			2788			1386	
Approach Delay, s/veh		85.7			207.7			222.1			141.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	68.8	16.0	55.0	20.0	59.0	13.9	57.1
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 9	59.5	* 12	49.4	15.0	53.9	* 10	* 51
Max Q Clear Time (g_c+I1), s	5.1	19.9	13.7	51.4	17.0	55.9	9.1	47.3
Green Ext Time (p_c), s	0.0	35.1	0.0	0.0	0.0	0.0	0.1	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	172.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	753	154	443	1112	52	424	2790	175	38	945	77
Future Volume (veh/h)	102	753	154	443	1112	52	424	2790	175	38	945	77
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	102	753	154	443	1112	52	424	2790	175	38	945	77
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	145	1002	312	427	1419	442	482	2586	805	66	1971	614
Arrive On Green	0.04	0.20	0.20	0.13	0.28	0.28	0.14	0.51	0.51	0.02	0.39	0.39
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	102	753	154	443	1112	52	424	2790	175	38	945	77
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	4.4	20.9	12.9	18.6	30.2	3.7	18.1	76.2	9.1	1.6	20.9	4.7
Cycle Q Clear(g_c), s	4.4	20.9	12.9	18.6	30.2	3.7	18.1	76.2	9.1	1.6	20.9	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	1002	312	427	1419	442	482	2586	805	66	1971	614
V/C Ratio(X)	0.71	0.75	0.49	1.04	0.78	0.12	0.88	1.08	0.22	0.57	0.48	0.13
Avail Cap(c_a), veh/h	156	1052	328	427	1452	452	615	2586	805	69	1971	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.1	56.0	52.8	64.9	49.1	39.6	62.5	36.1	19.8	72.2	33.8	28.9
Incr Delay (d2), s/veh	12.4	2.9	1.2	53.5	2.8	0.1	11.5	43.3	0.1	10.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	10.0	5.7	11.9	14.4	1.6	9.3	45.6	3.9	0.9	9.7	2.0
LnGrp Delay(d),s/veh	82.5	58.9	54.0	118.4	51.9	39.7	73.9	79.4	19.9	82.5	33.9	28.9
LnGrp LOS	F	E	D	F	D	D	E	F	B	F	C	C
Approach Vol, veh/h		1009			1607			3389			1060	
Approach Delay, s/veh		60.6			69.9			75.7			35.3	
Approach LOS		E			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.5	63.1	24.1	34.7	8.4	81.2	11.8	47.0
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	26.8	52.4	18.6	* 31	3.0	76.2	6.8	* 43
Max Q Clear Time (g_c+I1), s	20.1	22.9	20.6	22.9	3.6	78.2	6.4	32.2
Green Ext Time (p_c), s	0.9	27.9	0.0	6.6	0.0	0.0	0.0	8.4

Intersection Summary	
HCM 2010 Ctrl Delay	66.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	665	799	268	156	941	220	392	2588	124	75	870	283
Future Volume (veh/h)	665	799	268	156	941	220	392	2588	124	75	870	283
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1831	1900	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	665	799	268	156	941	220	392	2588	124	75	870	283
Adj No. of Lanes	2	2	0	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	3	3	3	3	3	3	3
Cap, veh/h	580	824	276	186	1010	324	448	2314	720	80	1769	551
Arrive On Green	0.17	0.32	0.32	0.05	0.21	0.21	0.13	0.46	0.46	0.02	0.35	0.35
Sat Flow, veh/h	3408	2561	859	3408	4893	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	665	543	524	156	941	220	392	2588	124	75	870	283
Grp Sat Flow(s),veh/h/ln	1704	1740	1680	1704	1631	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	25.5	46.1	46.2	6.8	28.3	19.4	16.9	68.9	7.0	3.3	20.3	21.4
Cycle Q Clear(g_c), s	25.5	46.1	46.2	6.8	28.3	19.4	16.9	68.9	7.0	3.3	20.3	21.4
Prop In Lane	1.00		0.51	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	580	560	541	186	1010	324	448	2314	720	80	1769	551
V/C Ratio(X)	1.15	0.97	0.97	0.84	0.93	0.68	0.88	1.12	0.17	0.94	0.49	0.51
Avail Cap(c_a), veh/h	580	560	541	186	1012	324	570	2314	720	80	1769	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	50.1	50.1	70.2	58.5	54.9	63.9	40.5	23.8	73.1	38.1	38.5
Incr Delay (d2), s/veh	85.2	30.1	30.9	27.0	14.4	4.7	11.9	59.9	0.1	81.5	0.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.8	26.8	26.0	3.9	14.2	8.9	8.7	44.8	3.0	2.5	9.5	9.4
LnGrp Delay(d),s/veh	147.4	80.2	81.0	97.2	72.8	59.6	75.8	100.4	23.9	154.7	38.3	39.3
LnGrp LOS	F	F	F	F	E	E	E	F	C	F	D	D
Approach Vol, veh/h		1732			1317			3104			1228	
Approach Delay, s/veh		106.2			73.5			94.2			45.7	
Approach LOS		F			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	74.0	31.0	36.0	25.2	57.8	13.7	53.3
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	3.5	* 69	25.5	* 31	25.1	* 47	8.2	* 48
Max Q Clear Time (g_c+I1), s	5.3	70.9	27.5	30.3	18.9	23.4	8.8	48.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.8	23.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	85.3
HCM 2010 LOS	F

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	725	266	506	730	144	751
Future Volume (veh/h)	725	266	506	730	144	751
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	725	266	506	730	144	751
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	781	287	549	2367	388	836
Arrive On Green	0.31	0.31	0.31	0.68	0.22	0.22
Sat Flow, veh/h	2605	922	1757	3597	1757	1568
Grp Volume(v), veh/h	506	485	506	730	144	751
Grp Sat Flow(s),veh/h/ln	1752	1682	1757	1752	1757	1568
Q Serve(g_s), s	21.5	21.5	21.4	6.6	5.4	17.0
Cycle Q Clear(g_c), s	21.5	21.5	21.4	6.6	5.4	17.0
Prop In Lane		0.55	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	545	523	549	2367	388	836
V/C Ratio(X)	0.93	0.93	0.92	0.31	0.37	0.90
Avail Cap(c_a), veh/h	546	524	616	2503	388	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	25.7	25.6	5.1	25.5	16.1
Incr Delay (d2), s/veh	22.3	23.0	18.2	0.1	0.6	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	13.3	13.2	3.2	2.7	17.1
LnGrp Delay(d),s/veh	48.1	48.7	43.8	5.2	26.1	28.6
LnGrp LOS	D	D	D	A	C	C
Approach Vol, veh/h	991			1236	895	
Approach Delay, s/veh	48.4			21.0	28.2	
Approach LOS	D			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		21.0	28.1	27.9				56.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		17.0	27.0	24.0				55.0
Max Q Clear Time (g_c+I1), s		19.0	23.4	23.5				8.6
Green Ext Time (p_c), s		0.0	0.7	0.4				18.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	981	84	886	1977	331	160	953	869	352	534	132
Future Volume (veh/h)	171	981	84	886	1977	331	160	953	869	352	534	132
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	171	981	84	886	1977	331	160	953	869	352	534	132
Adj No. of Lanes	2	3	1	2	3	1	1	1	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	170	1044	334	824	1982	635	146	538	457	341	1081	483
Arrive On Green	0.05	0.21	0.21	0.24	0.41	0.41	0.08	0.29	0.29	0.10	0.31	0.31
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	1757	1845	1568	3408	3505	1568
Grp Volume(v), veh/h	171	981	84	886	1977	331	160	953	869	352	534	132
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1757	1845	1568	1704	1752	1568
Q Serve(g_s), s	6.0	23.7	5.3	29.0	48.4	19.1	10.0	35.0	35.0	12.0	14.9	7.6
Cycle Q Clear(g_c), s	6.0	23.7	5.3	29.0	48.4	19.1	10.0	35.0	35.0	12.0	14.9	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	1044	334	824	1982	635	146	538	457	341	1081	483
V/C Ratio(X)	1.00	0.94	0.25	1.08	1.00	0.52	1.09	1.77	1.90	1.03	0.49	0.27
Avail Cap(c_a), veh/h	170	1044	334	824	1982	635	146	538	457	341	1081	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.0	46.4	39.2	45.5	35.6	26.9	55.0	42.5	42.5	54.0	33.9	31.3
Incr Delay (d2), s/veh	69.8	15.6	0.6	53.7	19.6	1.0	101.4	354.6	413.2	57.5	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	12.1	2.4	19.8	25.4	8.4	9.0	70.8	67.6	8.4	7.2	3.3
LnGrp Delay(d),s/veh	126.8	62.1	39.8	99.2	55.3	28.0	156.4	397.1	455.7	111.5	34.2	31.6
LnGrp LOS	F	E	D	F	E	C	F	F	F	F	C	C
Approach Vol, veh/h		1236			3194			1982			1018	
Approach Delay, s/veh		69.5			64.6			403.4			60.6	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	32.0	14.0	41.0	10.0	55.0	16.0	39.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	29.0	25.6	10.0	37.0	6.0	48.6	12.0	35.0
Max Q Clear Time (g_c+I1), s	31.0	25.7	12.0	16.9	8.0	50.4	14.0	37.0
Green Ext Time (p_c), s	0.0	0.0	0.0	15.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	155.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	594	29	179	626	12	29	828	162	5	286	13
Future Volume (veh/h)	104	594	29	179	626	12	29	828	162	5	286	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1759	1759	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	104	594	29	179	626	12	29	828	162	5	286	13
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	8	8	8	3	3	3	3	3	3
Cap, veh/h	136	630	31	208	717	14	67	916	179	67	549	25
Arrive On Green	0.08	0.37	0.37	0.12	0.42	0.42	0.04	0.31	0.31	0.04	0.31	0.31
Sat Flow, veh/h	1707	1695	83	1675	1720	33	1757	2924	572	1757	1751	80
Grp Volume(v), veh/h	104	0	623	179	0	638	29	496	494	5	0	299
Grp Sat Flow(s),veh/h/ln	1707	0	1778	1675	0	1753	1757	1752	1744	1757	0	1831
Q Serve(g_s), s	6.3	0.0	35.6	11.0	0.0	35.0	1.7	28.5	28.5	0.3	0.0	14.1
Cycle Q Clear(g_c), s	6.3	0.0	35.6	11.0	0.0	35.0	1.7	28.5	28.5	0.3	0.0	14.1
Prop In Lane	1.00		0.05	1.00		0.02	1.00		0.33	1.00		0.04
Lane Grp Cap(c), veh/h	136	0	661	208	0	730	67	549	546	67	0	574
V/C Ratio(X)	0.76	0.00	0.94	0.86	0.00	0.87	0.43	0.90	0.90	0.07	0.00	0.52
Avail Cap(c_a), veh/h	228	0	711	223	0	730	234	568	565	234	0	593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.3	0.0	31.9	45.1	0.0	28.1	49.4	34.5	34.5	48.7	0.0	29.6
Incr Delay (d2), s/veh	8.6	0.0	20.1	25.9	0.0	11.4	4.4	17.6	17.7	0.5	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	21.2	6.6	0.0	19.1	0.9	16.5	16.4	0.1	0.0	7.2
LnGrp Delay(d),s/veh	55.9	0.0	52.0	70.9	0.0	39.5	53.8	52.1	52.2	49.2	0.0	30.3
LnGrp LOS	E		D	E		D	D	D	D	D		C
Approach Vol, veh/h		727			817			1019			304	
Approach Delay, s/veh		52.6			46.4			52.2			30.7	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	36.9	17.0	43.1	8.0	36.9	12.4	47.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	34.0	14.0	42.0	14.0	34.0	14.0	42.0
Max Q Clear Time (g_c+I1), s	2.3	30.5	13.0	37.6	3.7	16.1	8.3	37.0
Green Ext Time (p_c), s	0.0	2.4	0.0	1.5	0.0	8.2	0.1	3.3

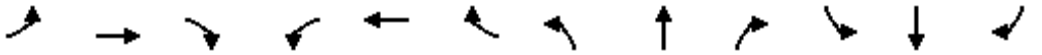
Intersection Summary	
HCM 2010 Ctrl Delay	48.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	538	47	971	25	63	161	999	1153	13	105	1699	1114
Future Volume (veh/h)	538	47	971	25	63	161	999	1153	13	105	1699	1114
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	572	0	971	25	63	161	999	1153	13	105	1699	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	712	0	318	19	48	57	549	2813	32	126	1536	478
Arrive On Green	0.20	0.00	0.20	0.04	0.04	0.04	0.32	0.55	0.55	0.07	0.31	0.00
Sat Flow, veh/h	3480	0	1553	517	1302	1568	1740	5084	57	1740	4988	1553
Grp Volume(v), veh/h	572	0	971	88	0	161	999	754	412	105	1699	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1819	0	1568	1740	1663	1817	1740	1663	1553
Q Serve(g_s), s	23.5	0.0	30.7	5.5	0.0	5.5	47.3	19.7	19.7	8.9	46.2	0.0
Cycle Q Clear(g_c), s	23.5	0.0	30.7	5.5	0.0	5.5	47.3	19.7	19.7	8.9	46.2	0.0
Prop In Lane	1.00		1.00	0.28		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	712	0	318	67	0	57	549	1839	1005	126	1536	478
V/C Ratio(X)	0.80	0.00	3.06	1.32	0.00	2.80	1.82	0.41	0.41	0.84	1.11	0.00
Avail Cap(c_a), veh/h	712	0	318	67	0	57	549	1839	1005	194	1536	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	0.0	59.6	72.3	0.0	72.3	51.3	19.4	19.4	68.7	51.9	0.0
Incr Delay (d2), s/veh	6.1	0.0	933.2	217.5	0.0	856.3	376.5	0.1	0.1	10.2	57.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.0	95.6	6.8	0.0	16.1	80.1	9.0	9.9	4.7	29.4	0.0
LnGrp Delay(d),s/veh	62.9	0.0	992.8	289.7	0.0	928.5	427.9	19.4	19.5	78.9	109.7	0.0
LnGrp LOS	E		F	F		F	F	B	B	E	F	
Approach Vol, veh/h		1543			249			2165			1804	
Approach Delay, s/veh		648.1			702.8			207.9			107.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	52.0	51.0		11.0	15.2	87.8		36.0
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 47	46.2		5.5	* 17	* 77		30.7
Max Q Clear Time (g_c+I1), s	49.3	48.2		7.5	10.9	21.7		32.7
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	13.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	315.9
HCM 2010 LOS	F

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	900	52	486	1987	757	92	660	221	463	493	107
Future Volume (veh/h)	234	900	52	486	1987	757	92	660	221	463	493	107
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	234	900	52	486	1987	757	92	660	221	463	493	107
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	261	1659	516	538	2052	639	139	725	324	493	1089	487
Arrive On Green	0.08	0.33	0.33	0.16	0.41	0.41	0.04	0.21	0.21	0.14	0.31	0.31
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	234	900	52	486	1987	757	92	660	221	463	493	107
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	8.7	18.7	2.9	17.9	49.4	52.1	3.4	23.5	16.6	17.2	14.4	6.5
Cycle Q Clear(g_c), s	8.7	18.7	2.9	17.9	49.4	52.1	3.4	23.5	16.6	17.2	14.4	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	261	1659	516	538	2052	639	139	725	324	493	1089	487
V/C Ratio(X)	0.90	0.54	0.10	0.90	0.97	1.18	0.66	0.91	0.68	0.94	0.45	0.22
Avail Cap(c_a), veh/h	261	1659	516	730	2052	639	365	932	417	493	1089	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	35.0	29.7	52.9	37.1	37.9	60.4	49.5	46.8	54.1	35.3	32.6
Incr Delay (d2), s/veh	29.4	0.2	0.0	9.8	13.1	98.4	2.0	9.4	1.6	25.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	8.7	1.3	9.2	25.3	40.0	1.6	12.3	7.3	9.9	7.0	2.8
LnGrp Delay(d),s/veh	87.9	35.2	29.8	62.6	50.2	136.3	62.4	59.0	48.4	79.8	35.5	32.7
LnGrp LOS	F	D	C	E	D	F	E	E	D	E	D	C
Approach Vol, veh/h		1186			3230			973			1063	
Approach Delay, s/veh		45.4			72.3			56.9			54.5	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	57.0	10.7	44.8	25.3	47.0	24.0	31.6
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	9.8	* 52	13.7	* 39	* 27	* 35	18.5	* 34
Max Q Clear Time (g_c+I1), s	10.7	54.1	5.4	16.4	19.9	20.7	19.2	25.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.8	0.3	9.5	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	62.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	341	560	175	40	1828	848	389	2034	20	78	834	632
Future Volume (veh/h)	341	560	175	40	1828	848	389	2034	20	78	834	632
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	341	560	175	40	1828	848	389	2034	20	78	834	632
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	278	2142	667	70	1834	571	299	1824	568	84	1506	469
Arrive On Green	0.08	0.43	0.43	0.02	0.36	0.36	0.09	0.37	0.37	0.02	0.30	0.30
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	341	560	175	40	1828	848	389	2034	20	78	834	632
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	11.5	10.1	10.2	1.6	51.1	51.4	12.5	51.6	1.2	3.3	19.8	42.6
Cycle Q Clear(g_c), s	11.5	10.1	10.2	1.6	51.1	51.4	12.5	51.6	1.2	3.3	19.8	42.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	2142	667	70	1834	571	299	1824	568	84	1506	469
V/C Ratio(X)	1.23	0.26	0.26	0.57	1.00	1.48	1.30	1.12	0.04	0.93	0.55	1.35
Avail Cap(c_a), veh/h	278	2142	667	121	1834	571	299	1824	568	84	1506	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.8	26.2	26.2	68.5	44.8	44.8	64.3	44.8	28.8	68.7	41.3	49.3
Incr Delay (d2), s/veh	130.0	0.0	0.1	2.7	20.1	227.4	157.7	60.1	0.0	74.7	0.3	170.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	4.7	4.4	0.8	27.1	58.2	12.4	33.8	0.5	2.4	9.1	40.5
LnGrp Delay(d),s/veh	194.8	26.2	26.3	71.2	64.9	272.2	222.0	104.8	28.8	143.4	41.5	219.5
LnGrp LOS	F	C	C	E	E	F	F	F	C	F	D	F
Approach Vol, veh/h		1076			2716			2443			1544	
Approach Delay, s/veh		79.7			129.7			122.9			119.5	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	48.6	17.0	57.5	9.0	57.6	8.4	66.1
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	12.5	42.0	11.5	* 51	3.5	* 52	5.0	* 57
Max Q Clear Time (g_c+I1), s	14.5	44.6	13.5	53.4	5.3	53.6	3.6	12.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6

Intersection Summary	
HCM 2010 Ctrl Delay	118.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	582	806	165	87	1809	926	786	2137	187	177	984	721
Future Volume (veh/h)	582	806	165	87	1809	926	786	2137	187	177	984	721
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	582	806	165	87	1809	926	786	2137	187	177	984	721
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	352	2020	629	126	1617	503	484	1879	585	124	1347	419
Arrive On Green	0.10	0.40	0.40	0.04	0.34	0.34	0.14	0.38	0.38	0.04	0.27	0.27
Sat Flow, veh/h	3408	5036	1568	3250	4803	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	582	806	165	87	1809	926	786	2137	187	177	984	721
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1625	1601	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	15.5	17.1	10.6	4.0	50.5	50.5	21.5	56.5	12.8	5.5	26.9	40.5
Cycle Q Clear(g_c), s	15.5	17.1	10.6	4.0	50.5	50.5	21.5	56.5	12.8	5.5	26.9	40.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	2020	629	126	1617	503	484	1879	585	124	1347	419
V/C Ratio(X)	1.65	0.40	0.26	0.69	1.12	1.84	1.62	1.14	0.32	1.43	0.73	1.72
Avail Cap(c_a), veh/h	352	2020	629	186	1617	503	484	1879	585	124	1347	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3	32.0	30.1	71.2	49.8	49.7	64.3	46.7	33.1	72.3	49.8	54.8
Incr Delay (d2), s/veh	306.1	0.0	0.1	2.5	62.4	385.4	290.4	69.0	0.1	233.6	1.8	333.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.3	7.9	4.6	1.8	31.7	74.7	29.5	37.9	5.5	6.6	12.6	56.3
LnGrp Delay(d),s/veh	373.3	32.1	30.1	73.7	112.2	435.1	354.7	115.7	33.2	305.9	51.6	388.5
LnGrp LOS	F	C	C	E	F	F	F	F	C	F	D	F
Approach Vol, veh/h		1553			2822			3110			1882	
Approach Delay, s/veh		159.7			217.0			171.2			204.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	46.0	21.0	56.0	11.0	62.0	11.3	65.7
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	21.5	40.5	15.5	50.5	5.5	56.5	8.6	57.4
Max Q Clear Time (g_c+I1), s	23.5	42.5	17.5	52.5	7.5	58.5	6.0	19.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4

Intersection Summary	
HCM 2010 Ctrl Delay	189.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	588	536	132	369	1386	329	178	1527	146	116	833	833
Future Volume (veh/h)	588	536	132	369	1386	329	178	1527	146	116	833	833
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1845
Adj Flow Rate, veh/h	588	536	132	369	1386	329	178	1527	146	116	833	833
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	3
Cap, veh/h	540	555	248	1127	1159	519	131	1611	502	132	1650	519
Arrive On Green	0.16	0.16	0.16	0.33	0.33	0.33	0.04	0.32	0.32	0.04	0.33	0.33
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	4988	1553	3375	4988	1568
Grp Volume(v), veh/h	588	536	132	369	1386	329	178	1527	146	116	833	833
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1663	1553	1688	1663	1568
Q Serve(g_s), s	20.6	19.8	10.1	10.6	43.0	23.1	5.0	38.8	9.1	4.4	17.4	43.0
Cycle Q Clear(g_c), s	20.6	19.8	10.1	10.6	43.0	23.1	5.0	38.8	9.1	4.4	17.4	43.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	540	555	248	1127	1159	519	131	1611	502	132	1650	519
V/C Ratio(X)	1.09	0.97	0.53	0.33	1.20	0.63	1.36	0.95	0.29	0.88	0.50	1.61
Avail Cap(c_a), veh/h	540	555	248	1127	1159	519	131	1611	502	132	1650	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	54.3	50.3	32.6	43.5	36.8	62.5	42.9	32.9	62.1	34.9	43.5
Incr Delay (d2), s/veh	65.0	29.5	2.2	0.2	96.6	2.5	202.5	12.2	0.3	43.5	0.2	281.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.6	11.8	4.5	5.0	36.3	10.3	6.0	19.6	4.0	2.9	8.1	59.2
LnGrp Delay(d),s/veh	119.7	83.8	52.4	32.8	140.1	39.4	265.0	55.1	33.2	105.6	35.2	325.2
LnGrp LOS	F	F	D	C	F	D	F	E	C	F	D	F
Approach Vol, veh/h		1256			2084			1851			1782	
Approach Delay, s/veh		97.3			105.2			73.6			175.3	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.0	48.0		26.0	10.0	47.0		47.0
Change Period (Y+Rc), s	4.0	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	5.0	43.0		* 21	* 5.1	42.0		43.0
Max Q Clear Time (g_c+I1), s	7.0	45.0		22.6	6.4	40.8		45.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	1.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.3
HCM 2010 LOS	F

Notes

HCM 2010 Signalized Intersection Summary
70: Jackson Road & Sunrise Boulevard

12/07/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	839	61	386	1867	370	83	1214	301	216	711	430
Future Volume (veh/h)	188	839	61	386	1867	370	83	1214	301	216	711	430
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1792	1845	1845	1845	1827	1845	1845
Adj Flow Rate, veh/h	188	839	61	386	1867	370	83	1214	301	216	711	430
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	6	3	3	3	4	3	3
Cap, veh/h	207	1471	458	457	1839	662	132	1158	518	235	1267	662
Arrive On Green	0.06	0.29	0.29	0.13	0.37	0.37	0.04	0.33	0.33	0.07	0.36	0.36
Sat Flow, veh/h	3408	5036	1568	3408	5036	1524	3408	3505	1568	3375	3505	1568
Grp Volume(v), veh/h	188	839	61	386	1867	370	83	1214	301	216	711	430
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1524	1704	1752	1568	1688	1752	1568
Q Serve(g_s), s	6.3	16.3	3.3	12.7	42.0	20.8	2.8	38.0	18.3	7.3	18.7	25.1
Cycle Q Clear(g_c), s	6.3	16.3	3.3	12.7	42.0	20.8	2.8	38.0	18.3	7.3	18.7	25.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	1471	458	457	1839	662	132	1158	518	235	1267	662
V/C Ratio(X)	0.91	0.57	0.13	0.85	1.02	0.56	0.63	1.05	0.58	0.92	0.56	0.65
Avail Cap(c_a), veh/h	207	1471	458	593	1839	662	178	1158	518	235	1267	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	34.6	30.0	48.6	36.5	24.3	54.5	38.5	31.9	53.2	29.4	26.4
Incr Delay (d2), s/veh	37.7	0.5	0.1	8.7	24.8	1.1	4.9	40.0	1.6	37.0	0.6	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	7.6	1.4	6.6	23.6	8.9	1.4	24.8	8.2	4.6	9.1	11.2
LnGrp Delay(d),s/veh	91.4	35.1	30.1	57.3	61.3	25.3	59.4	78.5	33.5	90.2	30.0	28.7
LnGrp LOS	F	D	C	E	F	C	E	F	C	F	C	C
Approach Vol, veh/h		1088			2623			1598			1357	
Approach Delay, s/veh		44.6			55.6			69.1			39.2	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.4	39.6	8.4	47.6	11.0	48.0	12.0	44.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	20.0	29.0	6.0	40.0	7.0	42.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	14.7	18.3	4.8	27.1	8.3	44.0	9.3	40.0
Green Ext Time (p_c), s	0.7	10.1	0.0	10.9	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	609	393	58	58	770	103	2	646	40	94	1017	1130
Future Volume (veh/h)	609	393	58	58	770	103	2	646	40	94	1017	1130
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	609	393	58	58	770	103	2	646	40	94	1017	1130
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	549	1241	555	93	773	346	5	1451	649	139	1588	710
Arrive On Green	0.17	0.36	0.36	0.03	0.23	0.23	0.00	0.42	0.42	0.04	0.46	0.46
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3343	3438	1538	3343	3438	1538
Grp Volume(v), veh/h	609	393	58	58	770	103	2	646	40	94	1017	1130
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1672	1719	1538	1672	1719	1538
Q Serve(g_s), s	24.4	12.2	3.7	2.6	33.3	8.3	0.1	19.7	2.3	4.1	33.3	68.0
Cycle Q Clear(g_c), s	24.4	12.2	3.7	2.6	33.3	8.3	0.1	19.7	2.3	4.1	33.3	68.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	549	1241	555	93	773	346	5	1451	649	139	1588	710
V/C Ratio(X)	1.11	0.32	0.10	0.62	1.00	0.30	0.37	0.45	0.06	0.68	0.64	1.59
Avail Cap(c_a), veh/h	549	1241	555	137	773	346	68	1455	651	198	1588	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.4	33.6	30.9	70.8	56.9	47.2	73.4	30.3	25.3	69.6	30.3	39.6
Incr Delay (d2), s/veh	72.1	0.3	0.2	2.5	31.5	1.0	15.3	0.2	0.0	2.2	0.9	272.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.6	5.8	1.6	1.2	19.0	3.6	0.1	9.4	1.0	1.9	16.0	82.6
LnGrp Delay(d),s/veh	133.5	33.9	31.1	73.3	88.4	48.2	88.7	30.5	25.3	71.7	31.2	312.1
LnGrp LOS	F	C	C	E	F	D	F	C	C	E	C	F
Approach Vol, veh/h		1060			931			688			2241	
Approach Delay, s/veh		91.0			83.0			30.4			174.5	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	39.4	4.8	74.0	8.7	59.7	10.7	68.1
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	24.4	33.4	3.0	68.0	6.1	51.7	8.7	62.3
Max Q Clear Time (g_c+I1), s	26.4	35.3	2.1	70.0	4.6	14.2	6.1	21.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	20.8	0.0	29.2

Intersection Summary	
HCM 2010 Ctrl Delay	119.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	1303	168	229	1446	142	179	1559	217	127	367	127
Future Volume (veh/h)	319	1303	168	229	1446	142	179	1559	217	127	367	127
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	319	1303	168	229	1446	142	179	1559	217	127	367	127
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	307	1451	452	276	1406	438	240	1546	692	123	1426	638
Arrive On Green	0.09	0.29	0.29	0.08	0.28	0.28	0.07	0.45	0.45	0.04	0.41	0.41
Sat Flow, veh/h	3375	4988	1553	3375	4988	1553	3375	3471	1553	3375	3471	1553
Grp Volume(v), veh/h	319	1303	168	229	1446	142	179	1559	217	127	367	127
Grp Sat Flow(s),veh/h/ln	1688	1663	1553	1688	1663	1553	1688	1736	1553	1688	1736	1553
Q Serve(g_s), s	10.0	27.6	9.5	7.4	31.0	8.0	5.7	49.0	9.9	4.0	7.7	5.8
Cycle Q Clear(g_c), s	10.0	27.6	9.5	7.4	31.0	8.0	5.7	49.0	9.9	4.0	7.7	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	1451	452	276	1406	438	240	1546	692	123	1426	638
V/C Ratio(X)	1.04	0.90	0.37	0.83	1.03	0.32	0.75	1.01	0.31	1.03	0.26	0.20
Avail Cap(c_a), veh/h	307	1451	452	276	1406	438	307	1546	692	123	1426	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	37.4	31.0	49.7	39.5	31.2	50.1	30.5	19.7	53.0	21.3	20.8
Incr Delay (d2), s/veh	62.0	7.8	0.5	18.6	31.7	0.4	7.2	24.9	0.3	90.8	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	13.7	4.1	4.2	18.3	3.4	2.9	28.8	4.3	3.4	3.7	2.5
LnGrp Delay(d),s/veh	112.0	45.3	31.5	68.4	71.2	31.6	57.4	55.4	19.9	144.3	21.4	20.9
LnGrp LOS	F	D	C	E	F	C	E	F	B	F	C	C
Approach Vol, veh/h		1790			1817			1955			621	
Approach Delay, s/veh		55.9			67.7			51.7			46.5	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	53.0	13.0	36.0	11.8	49.2	14.0	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	49.0	9.0	32.0	10.0	43.0	10.0	31.0
Max Q Clear Time (g_c+I1), s	6.0	51.0	9.4	29.6	7.7	9.7	12.0	33.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.1	22.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.1
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	163	110	3	1	301	1904	37	0	1609	0
Future Volume (veh/h)	0	1	163	110	3	1	301	1904	37	0	1609	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1759	1759	1845	1845	1845	1792	1792	1900	1792	1792	1900
Adj Flow Rate, veh/h	0	1	163	110	3	1	301	1904	37	0	1609	0
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	176	185	433	139	146	124	315	2111	41	108	1692	0
Arrive On Green	0.00	0.11	0.11	0.08	0.08	0.08	0.18	0.62	0.62	0.00	0.50	0.00
Sat Flow, veh/h	1675	1759	1495	1757	1845	1568	1707	3417	66	1707	3495	0
Grp Volume(v), veh/h	0	1	163	110	3	1	301	946	995	0	1609	0
Grp Sat Flow(s),veh/h/ln	1675	1759	1495	1757	1845	1568	1707	1703	1781	1707	1703	0
Q Serve(g_s), s	0.0	0.1	10.4	7.3	0.2	0.1	20.8	56.9	57.7	0.0	53.7	0.0
Cycle Q Clear(g_c), s	0.0	0.1	10.4	7.3	0.2	0.1	20.8	56.9	57.7	0.0	53.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	176	185	433	139	146	124	315	1052	1100	108	1692	0
V/C Ratio(X)	0.00	0.01	0.38	0.79	0.02	0.01	0.96	0.90	0.90	0.00	0.95	0.00
Avail Cap(c_a), veh/h	225	236	477	236	248	210	315	1114	1165	108	1714	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	47.8	33.8	53.9	50.6	50.6	48.1	19.6	19.7	0.0	28.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	9.5	0.1	0.0	38.8	9.6	9.8	0.0	12.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.4	3.9	0.1	0.0	13.2	29.3	31.2	0.0	27.9	0.0
LnGrp Delay(d),s/veh	0.0	47.8	34.3	63.4	50.7	50.6	86.9	29.2	29.5	0.0	40.6	0.0
LnGrp LOS		D	C	E	D	D	F	C	C		D	
Approach Vol, veh/h		164			114			2242			1609	
Approach Delay, s/veh		34.4			62.9			37.1			40.6	
Approach LOS		C			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.6	77.7		16.5	26.0	63.2		13.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	78.0		16.0	22.0	60.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	59.7		12.4	22.8	55.7		9.3
Green Ext Time (p_c), s	0.0	13.9		0.2	0.0	3.5		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	39.1
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	507	27	21	1789	1648	392
Future Volume (veh/h)	507	27	21	1789	1648	392
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	507	27	21	1789	1648	392
Adj No. of Lanes	2	1	2	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	659	303	67	2348	2039	912
Arrive On Green	0.19	0.19	0.02	0.67	0.58	0.58
Sat Flow, veh/h	3408	1568	3408	3597	3597	1568
Grp Volume(v), veh/h	507	27	21	1789	1648	392
Grp Sat Flow(s),veh/h/ln	1704	1568	1704	1752	1752	1568
Q Serve(g_s), s	8.3	0.8	0.4	20.2	21.7	8.2
Cycle Q Clear(g_c), s	8.3	0.8	0.4	20.2	21.7	8.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	659	303	67	2348	2039	912
V/C Ratio(X)	0.77	0.09	0.31	0.76	0.81	0.43
Avail Cap(c_a), veh/h	931	428	233	2454	2039	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	19.4	28.3	6.5	9.7	6.8
Incr Delay (d2), s/veh	2.5	0.1	2.6	1.4	2.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.8	0.2	9.9	11.0	3.6
LnGrp Delay(d),s/veh	24.9	19.5	30.9	7.9	12.2	7.1
LnGrp LOS	C	B	C	A	B	A
Approach Vol, veh/h	534			1810	2040	
Approach Delay, s/veh	24.6			8.2	11.2	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		43.2		15.3	5.2	38.1		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		41.0		16.0	4.0	33.0		
Max Q Clear Time (g_c+I1), s		22.2		10.3	2.4	23.7		
Green Ext Time (p_c), s		17.1		1.1	0.0	9.1		

Intersection Summary	
HCM 2010 Ctrl Delay	11.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	518	588	90	1297	6	242	1029	64	2	1412	336
Future Volume (veh/h)	278	518	588	90	1297	6	242	1029	64	2	1412	336
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	278	518	588	90	1297	6	242	1029	64	2	1412	336
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	262	1348	603	131	1213	543	236	1583	708	7	1348	603
Arrive On Green	0.08	0.38	0.38	0.04	0.35	0.35	0.07	0.45	0.45	0.00	0.38	0.38
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	278	518	588	90	1297	6	242	1029	64	2	1412	336
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	10.0	13.9	48.0	3.4	45.0	0.3	9.0	29.6	3.0	0.1	50.0	21.8
Cycle Q Clear(g_c), s	10.0	13.9	48.0	3.4	45.0	0.3	9.0	29.6	3.0	0.1	50.0	21.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	262	1348	603	131	1213	543	236	1583	708	7	1348	603
V/C Ratio(X)	1.06	0.38	0.98	0.69	1.07	0.01	1.03	0.65	0.09	0.27	1.05	0.56
Avail Cap(c_a), veh/h	262	1348	603	131	1213	543	236	1583	708	105	1348	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	28.9	39.4	61.7	42.5	27.9	60.5	27.7	20.4	64.8	40.0	31.3
Incr Delay (d2), s/veh	72.4	0.2	30.3	13.9	46.4	0.0	65.4	0.9	0.1	19.0	37.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	6.7	25.8	1.9	29.6	0.1	6.4	14.5	1.3	0.1	31.3	9.6
LnGrp Delay(d),s/veh	132.4	29.1	69.7	75.6	88.9	27.9	126.0	28.6	20.4	83.7	77.9	32.5
LnGrp LOS	F	C	E	E	F	C	F	C	C	F	F	C
Approach Vol, veh/h		1384			1393			1335			1750	
Approach Delay, s/veh		67.1			87.8			45.9			69.2	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.3	62.7	9.0	54.0	13.0	54.0	14.0	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	55.0	5.0	50.0	9.0	50.0	10.0	45.0
Max Q Clear Time (g_c+I1), s	2.1	31.6	5.4	50.0	11.0	52.0	12.0	47.0
Green Ext Time (p_c), s	0.0	19.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	605	301	402	1256	856	661	1097	239	357	329	0
Future Volume (veh/h)	0	605	301	402	1256	856	661	1097	239	357	329	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	605	301	402	1256	856	661	1097	239	357	329	0
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	1076	335	494	2043	636	753	1177	527	400	814	364
Arrive On Green	0.00	0.21	0.21	0.15	0.41	0.41	0.22	0.34	0.34	0.12	0.23	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	0	605	301	402	1256	856	661	1097	239	357	329	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.0	9.1	15.9	9.7	16.8	34.6	16.0	25.8	10.2	8.8	6.8	0.0
Cycle Q Clear(g_c), s	0.0	9.1	15.9	9.7	16.8	34.6	16.0	25.8	10.2	8.8	6.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	4	1076	335	494	2043	636	753	1177	527	400	814	364
V/C Ratio(X)	0.00	0.56	0.90	0.81	0.61	1.35	0.88	0.93	0.45	0.89	0.40	0.00
Avail Cap(c_a), veh/h	160	1124	350	640	2043	636	840	1194	534	400	814	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	29.9	32.6	35.3	20.0	25.3	32.1	27.3	22.2	37.0	27.7	0.0
Incr Delay (d2), s/veh	0.0	0.6	24.2	6.2	0.6	165.8	9.7	12.9	0.6	21.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.3	9.1	5.0	7.9	44.1	8.5	14.4	4.4	5.3	3.3	0.0
LnGrp Delay(d),s/veh	0.0	30.5	56.8	41.4	20.6	191.1	41.7	40.2	22.8	58.5	28.0	0.0
LnGrp LOS		C	E	D	C	F	D	D	C	E	C	
Approach Vol, veh/h		906			2514			1997			686	
Approach Delay, s/veh		39.2			82.0			38.6			43.9	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	32.6	16.4	22.2	22.8	23.8	0.0	38.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	29.0	16.0	19.0	21.0	18.0	4.0	31.0
Max Q Clear Time (g_c+I1), s	10.8	27.8	11.7	17.9	18.0	8.8	0.0	36.6
Green Ext Time (p_c), s	0.0	0.8	0.6	0.3	0.9	6.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	1103	492	231	2150	8	859	600	151	48	635	259
Future Volume (veh/h)	319	1103	492	231	2150	8	859	600	151	48	635	259
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	319	1103	492	231	2150	8	859	600	151	48	635	259
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	292	1993	621	282	1978	616	779	1343	601	81	626	280
Arrive On Green	0.09	0.40	0.40	0.08	0.39	0.39	0.23	0.38	0.38	0.02	0.18	0.18
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	319	1103	492	231	2150	8	859	600	151	48	635	259
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	12.0	23.7	38.7	9.3	55.0	0.4	32.0	17.8	9.2	2.0	25.0	22.8
Cycle Q Clear(g_c), s	12.0	23.7	38.7	9.3	55.0	0.4	32.0	17.8	9.2	2.0	25.0	22.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	292	1993	621	282	1978	616	779	1343	601	81	626	280
V/C Ratio(X)	1.09	0.55	0.79	0.82	1.09	0.01	1.10	0.45	0.25	0.59	1.01	0.93
Avail Cap(c_a), veh/h	292	1993	621	365	1978	616	779	1343	601	122	626	280
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.0	32.7	37.2	63.2	42.5	25.9	54.0	32.1	29.5	67.6	57.5	56.6
Incr Delay (d2), s/veh	79.5	0.3	7.0	10.8	48.3	0.0	64.1	0.2	0.2	6.6	39.7	34.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	11.1	18.0	4.8	34.3	0.2	22.0	8.7	4.0	1.0	15.5	12.5
LnGrp Delay(d),s/veh	143.5	33.1	44.2	73.9	90.8	25.9	118.1	32.4	29.7	74.3	97.2	91.1
LnGrp LOS	F	C	D	E	F	C	F	C	C	E	F	F
Approach Vol, veh/h		1914			2389			1610			942	
Approach Delay, s/veh		54.3			88.9			77.8			94.3	
Approach LOS		D			F			E			F	

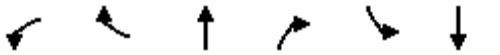
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	57.7	15.6	59.4	36.0	29.0	16.0	59.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	52.0	15.0	52.0	32.0	25.0	12.0	55.0
Max Q Clear Time (g_c+I1), s	4.0	19.8	11.3	40.7	34.0	27.0	14.0	57.0
Green Ext Time (p_c), s	0.0	12.8	0.3	11.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	77.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	984	950	35	791	895	0	133	2154	1044	54	691	791
Future Volume (veh/h)	984	950	35	791	895	0	133	2154	1044	54	691	791
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	984	950	35	791	895	0	133	2154	1044	54	691	791
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	909	1007	314	795	839	261	186	2056	640	85	1908	594
Arrive On Green	0.27	0.20	0.20	0.23	0.17	0.00	0.05	0.41	0.41	0.03	0.38	0.38
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	984	950	35	791	895	0	133	2154	1044	54	691	791
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	32.0	22.3	2.2	27.8	20.0	0.0	4.6	49.0	49.0	1.9	11.9	45.5
Cycle Q Clear(g_c), s	32.0	22.3	2.2	27.8	20.0	0.0	4.6	49.0	49.0	1.9	11.9	45.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	909	1007	314	795	839	261	186	2056	640	85	1908	594
V/C Ratio(X)	1.08	0.94	0.11	0.99	1.07	0.00	0.72	1.05	1.63	0.63	0.36	1.33
Avail Cap(c_a), veh/h	909	1007	314	795	839	261	199	2056	640	85	1908	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	47.3	39.3	45.9	50.0	0.0	55.8	35.5	35.5	58.0	26.8	37.3
Incr Delay (d2), s/veh	54.8	16.5	0.2	30.5	50.3	0.0	10.8	33.6	290.9	14.3	0.1	160.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.9	11.9	1.0	16.4	13.2	0.0	2.5	29.1	72.9	1.1	5.5	46.1
LnGrp Delay(d),s/veh	98.8	63.8	39.4	76.4	100.3	0.0	66.6	69.1	326.4	72.3	27.0	197.9
LnGrp LOS	F	E	D	E	F		E	F	F	E	C	F
Approach Vol, veh/h		1969			1686			3331			1536	
Approach Delay, s/veh		80.9			89.1			149.7			116.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	53.0	32.0	28.0	10.5	49.5	36.0	24.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	49.0	28.0	24.0	7.0	45.0	32.0	20.0
Max Q Clear Time (g_c+I1), s	3.9	51.0	29.8	24.3	6.6	47.5	34.0	22.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

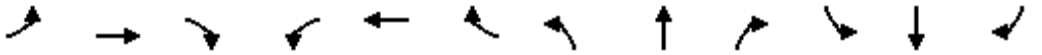
Intersection Summary	
HCM 2010 Ctrl Delay	115.8
HCM 2010 LOS	F



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	365	408	2767	435	710	734
Future Volume (veh/h)	365	408	2767	435	710	734
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	365	408	2767	435	710	734
Adj No. of Lanes	1	1	3	1	1	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	278	248	2224	693	527	3903
Arrive On Green	0.16	0.16	0.44	0.44	0.30	0.77
Sat Flow, veh/h	1757	1568	5202	1568	1757	5202
Grp Volume(v), veh/h	365	408	2767	435	710	734
Grp Sat Flow(s),veh/h/ln	1757	1568	1679	1568	1757	1679
Q Serve(g_s), s	19.0	19.0	53.0	25.7	36.0	4.6
Cycle Q Clear(g_c), s	19.0	19.0	53.0	25.7	36.0	4.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	278	248	2224	693	527	3903
V/C Ratio(X)	1.31	1.64	1.24	0.63	1.35	0.19
Avail Cap(c_a), veh/h	278	248	2224	693	527	3903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	50.5	33.5	25.9	42.0	3.6
Incr Delay (d2), s/veh	163.8	307.0	113.8	1.8	168.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.9	29.4	47.9	11.5	42.1	2.1
LnGrp Delay(d),s/veh	214.3	357.5	147.3	27.7	210.5	3.6
LnGrp LOS	F	F	F	C	F	A
Approach Vol, veh/h	773		3202			1444
Approach Delay, s/veh	289.9		131.1			105.3
Approach LOS	F		F			F

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	40.0	57.0				97.0		23.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	36.0	53.0				93.0		19.0
Max Q Clear Time (g_c+I1), s	38.0	55.0				6.6		21.0
Green Ext Time (p_c), s	0.0	0.0				78.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	146.9
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	347	996	631	20	1649	37	1225	741	22	50	782	585
Future Volume (veh/h)	347	996	631	20	1649	37	1225	741	22	50	782	585
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	347	996	631	20	1649	37	1225	741	22	50	782	585
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	288	1722	536	40	1356	422	944	1746	781	85	863	386
Arrive On Green	0.08	0.34	0.34	0.01	0.27	0.27	0.28	0.50	0.50	0.03	0.25	0.25
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	347	996	631	20	1649	37	1225	741	22	50	782	585
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	11.0	21.1	44.5	0.8	35.0	2.3	36.0	17.5	0.9	1.9	28.1	32.0
Cycle Q Clear(g_c), s	11.0	21.1	44.5	0.8	35.0	2.3	36.0	17.5	0.9	1.9	28.1	32.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	1722	536	40	1356	422	944	1746	781	85	863	386
V/C Ratio(X)	1.20	0.58	1.18	0.49	1.22	0.09	1.30	0.42	0.03	0.59	0.91	1.52
Avail Cap(c_a), veh/h	288	1722	536	79	1356	422	944	1746	781	131	863	386
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	35.1	42.8	63.8	47.5	35.6	47.0	20.8	16.6	62.7	47.5	49.0
Incr Delay (d2), s/veh	119.7	0.5	97.7	9.0	104.3	0.1	141.9	0.2	0.0	6.2	13.1	245.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	9.9	33.7	0.4	29.3	1.0	35.5	8.5	0.4	1.0	15.2	40.1
LnGrp Delay(d),s/veh	179.2	35.6	140.5	72.9	151.8	35.6	188.9	20.9	16.6	68.9	60.7	294.0
LnGrp LOS	F	D	F	E	F	D	F	C	B	E	E	F
Approach Vol, veh/h		1974			1706			1988			1417	
Approach Delay, s/veh		94.4			148.3			124.4			157.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	68.7	5.5	48.5	40.0	36.0	15.0	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	63.0	3.0	43.0	36.0	32.0	11.0	35.0
Max Q Clear Time (g_c+I1), s	3.9	19.5	2.8	46.5	38.0	34.0	13.0	37.0
Green Ext Time (p_c), s	0.0	20.7	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	128.4
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Future Volume (veh/h)	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	92	1669	520	369	2078	647	28	1541	689	42	1555	696
Arrive On Green	0.03	0.33	0.33	0.11	0.41	0.41	0.01	0.44	0.44	0.01	0.44	0.44
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	4.0	45.3	7.7	15.4	61.0	0.5	0.4	65.0	6.5	0.6	55.4	4.7
Cycle Q Clear(g_c), s	4.0	45.3	7.7	15.4	61.0	0.5	0.4	65.0	6.5	0.6	55.4	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	1669	520	369	2078	647	28	1541	689	42	1555	696
V/C Ratio(X)	1.11	0.95	0.22	0.97	1.16	0.01	0.32	1.12	0.17	0.35	0.91	0.12
Avail Cap(c_a), veh/h	92	1669	520	369	2078	647	92	1541	689	92	1555	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	48.2	35.6	65.6	43.4	25.7	72.9	41.4	25.0	72.4	38.3	24.2
Incr Delay (d2), s/veh	125.3	11.9	0.2	37.6	76.7	0.0	6.2	62.3	0.1	4.9	8.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	22.8	3.4	9.1	42.9	0.2	0.2	44.6	2.8	0.3	28.6	2.1
LnGrp Delay(d),s/veh	197.2	60.1	35.8	103.2	120.1	25.7	79.1	103.7	25.1	77.3	46.3	24.3
LnGrp LOS	F	E	D	F	F	C	E	F	C	E	D	C
Approach Vol, veh/h		1798			2770			1845			1510	
Approach Delay, s/veh		66.3			117.7			98.7			45.4	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	69.0	20.0	53.0	5.2	69.6	8.0	65.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	65.0	16.0	49.0	4.0	65.0	4.0	61.0
Max Q Clear Time (g_c+I1), s	2.6	67.0	17.4	47.3	2.4	57.4	6.0	63.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.7	0.0	7.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	87.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	672	0	1035	708	68	0	699	1197	118	797	238
Future Volume (veh/h)	238	672	0	1035	708	68	0	699	1197	118	797	238
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	238	672	0	1035	708	68	0	699	1197	118	797	238
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	294	620	193	944	1580	492	3	1537	687	131	1779	796
Arrive On Green	0.09	0.12	0.00	0.28	0.31	0.31	0.00	0.44	0.44	0.04	0.51	0.51
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	238	672	0	1035	708	68	0	699	1197	118	797	238
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	8.9	16.0	0.0	36.0	14.6	4.0	0.0	18.2	57.0	4.5	18.8	11.5
Cycle Q Clear(g_c), s	8.9	16.0	0.0	36.0	14.6	4.0	0.0	18.2	57.0	4.5	18.8	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	294	620	193	944	1580	492	3	1537	687	131	1779	796
V/C Ratio(X)	0.81	1.08	0.00	1.10	0.45	0.14	0.00	0.45	1.74	0.90	0.45	0.30
Avail Cap(c_a), veh/h	393	620	193	944	1580	492	105	1537	687	131	1779	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	57.0	0.0	47.0	35.6	32.0	0.0	25.6	36.5	62.3	20.4	18.6
Incr Delay (d2), s/veh	9.0	61.1	0.0	59.3	0.2	0.1	0.0	0.2	339.5	49.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	10.9	0.0	24.7	6.8	1.8	0.0	8.8	89.5	3.0	9.1	5.0
LnGrp Delay(d),s/veh	67.3	118.1	0.0	106.3	35.8	32.1	0.0	25.8	376.0	111.9	20.6	18.8
LnGrp LOS	E	F		F	D	C		C	F	F	C	B
Approach Vol, veh/h		910			1811			1896			1153	
Approach Delay, s/veh		104.8			76.0			246.9			29.5	
Approach LOS		F			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	61.0	40.0	20.0	0.0	70.0	15.2	44.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	57.0	36.0	16.0	4.0	58.0	15.0	37.0
Max Q Clear Time (g_c+I1), s	6.5	59.0	38.0	18.0	0.0	20.8	10.9	16.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	27.6	0.3	10.2

Intersection Summary	
HCM 2010 Ctrl Delay	127.4
HCM 2010 LOS	F

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	132	917	1033
Demand Flow Rate, veh/h	136	945	1064
Vehicles Circulating, veh/h	986	79	25
Vehicles Exiting, veh/h	103	1043	999
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.8	8.5	8.8
Approach LOS	A	A	A

Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	136	444	501	500	564
Cap Entry Lane, veh/h	567	1065	1069	1109	1110
Entry HV Adj Factor	0.971	0.971	0.970	0.971	0.971
Flow Entry, veh/h	132	431	486	486	548
Cap Entry, veh/h	550	1034	1037	1077	1078
V/C Ratio	0.240	0.417	0.469	0.451	0.508
Control Delay, s/veh	9.8	8.0	8.8	8.3	9.3
LOS	A	A	A	A	A
95th %tile Queue, veh	1	2	3	2	3

Intersection	
Intersection Delay, s/veh	15.5
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	0	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	659	652	152
Demand Flow Rate, veh/h	0	679	671	156
Vehicles Circulating, veh/h	62	671	0	612
Vehicles Exiting, veh/h	706	0	62	738
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	21.5	10.9	9.4
Approach LOS	-	C	B	A

Lane	Left	Right	Left	Left
Designated Moves	LT	R	LT	TR
Assumed Moves	LT	R	LT	TR
RT Channelized				
Lane Util	0.630	0.370	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	428	251	671	156
Cap Entry Lane, veh/h	578	578	1130	613
Entry HV Adj Factor	0.970	0.972	0.971	0.973
Flow Entry, veh/h	415	244	652	152
Cap Entry, veh/h	560	562	1098	596
V/C Ratio	0.741	0.435	0.594	0.255
Control Delay, s/veh	26.3	13.4	10.9	9.4
LOS	D	B	B	A
95th %tile Queue, veh	6	2	4	1

Intersection	
Intersection Delay, s/veh	181.2
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	0	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	314	2552	2097
Demand Flow Rate, veh/h	0	323	2629	2159
Vehicles Circulating, veh/h	2110	2629	0	598
Vehicles Exiting, veh/h	647	0	2110	2354
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	427.5	103.1	239.4
Approach LOS	-	F	F	F

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	323	1236	1393	1015	1144
Cap Entry Lane, veh/h	179	1130	1130	722	743
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.971
Flow Entry, veh/h	314	1200	1353	985	1111
Cap Entry, veh/h	174	1097	1097	701	722
V/C Ratio	1.800	1.094	1.233	1.407	1.539
Control Delay, s/veh	427.5	74.8	128.2	209.5	265.9
LOS	F	F	F	F	F
95th %tile Queue, veh	23	29	44	44	56

Intersection	
Intersection Delay, s/veh	171.2
Intersection LOS	F

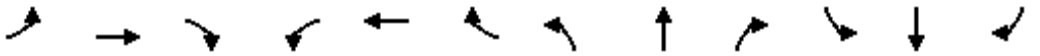
Approach	EB	WB	NB	SB
Entry Lanes	1	0	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	535	0	2405	2049
Demand Flow Rate, veh/h	550	0	2477	2110
Vehicles Circulating, veh/h	2110	2628	331	0
Vehicles Exiting, veh/h	0	180	2329	2628
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	554.4	0.0	201.7	35.4
Approach LOS	F	-	F	E

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	550	1164	1313	992	1118
Cap Entry Lane, veh/h	258	882	896	1130	1130
Entry HV Adj Factor	0.972	0.971	0.971	0.971	0.971
Flow Entry, veh/h	535	1130	1274	963	1086
Cap Entry, veh/h	251	856	870	1097	1097
V/C Ratio	2.132	1.320	1.465	0.878	0.989
Control Delay, s/veh	554.4	169.0	230.7	25.5	44.1
LOS	F	F	F	D	E
95th %tile Queue, veh	40	44	59	12	19

Cumulative Plus All Projects

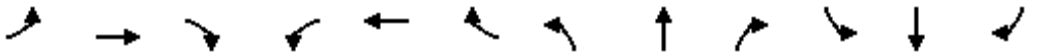
County Standard Mitigation

PM



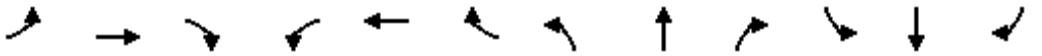
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	271	571	338	152	934	981	475	1225	49	1391	1798	150
Future Volume (vph)	271	571	338	152	934	981	475	1225	49	1391	1798	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3278		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3278		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	271	571	338	152	934	981	475	1225	49	1391	1798	150
RTOR Reduction (vph)	0	67	0	0	0	755	0	0	37	0	0	63
Lane Group Flow (vph)	271	842	0	152	934	226	475	1225	12	1391	1798	87
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	8.0	32.0		6.0	30.0	30.0	20.6	31.0	31.0	45.0	55.4	55.4
Effective Green, g (s)	8.0	32.0		6.0	30.0	30.0	20.6	31.0	31.0	45.0	55.4	55.4
Actuated g/C Ratio	0.06	0.25		0.05	0.23	0.23	0.16	0.24	0.24	0.35	0.43	0.43
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	806		155	801	630	533	1189	370	1165	2125	661
v/s Ratio Prot	c0.08	0.26		0.05	c0.27		0.14	c0.25		c0.41	0.36	
v/s Ratio Perm						0.08			0.01			0.06
v/c Ratio	1.31	1.04		0.98	1.17	0.36	0.89	1.03	0.03	1.19	0.85	0.13
Uniform Delay, d1	61.0	49.0		61.9	50.0	41.9	53.6	49.5	38.0	42.5	33.5	22.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	169.4	43.9		66.2	88.1	0.4	16.9	34.2	0.0	95.9	3.3	0.1
Delay (s)	230.4	92.9		128.2	138.1	42.3	70.5	83.7	38.0	138.4	36.8	22.8
Level of Service	F	F		F	F	D	E	F	D	F	D	C
Approach Delay (s)		124.5			91.9			78.8			78.5	
Approach LOS		F			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	88.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	110.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	656	259	244	735	531	241	904	190	786	1656	91
Future Volume (vph)	74	656	259	244	735	531	241	904	190	786	1656	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91	0.91	1.00	0.91		1.00	0.91	1.00
Frt	1.00	0.96		1.00	0.98	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3356		1736	3244	1413	1736	4858		1736	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3356		1736	3244	1413	1736	4858		1736	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	74	656	259	244	735	531	241	904	190	786	1656	91
RTOR Reduction (vph)	0	28	0	0	10	291	0	21	0	0	0	38
Lane Group Flow (vph)	74	887	0	244	868	97	241	1073	0	786	1656	53
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	11.6	31.0		18.0	37.4	37.4	23.5	31.0		54.0	61.5	61.5
Effective Green, g (s)	11.6	31.0		18.0	37.4	37.4	23.5	31.0		54.0	61.5	61.5
Actuated g/C Ratio	0.08	0.21		0.12	0.25	0.25	0.16	0.21		0.36	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	135	693		208	808	352	271	1003		624	2045	636
v/s Ratio Prot	0.04	c0.26		c0.14	0.27		0.14	c0.22		c0.45	0.33	
v/s Ratio Perm						0.07						0.03
v/c Ratio	0.55	1.28		1.17	1.07	0.28	0.89	1.07		1.26	0.81	0.08
Uniform Delay, d1	66.7	59.5		66.0	56.3	45.4	62.0	59.5		48.0	39.1	27.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.5	137.0		116.9	53.6	0.4	27.7	48.9		129.5	2.5	0.1
Delay (s)	71.2	196.5		182.9	109.9	45.8	89.7	108.4		177.5	41.6	27.1
Level of Service	E	F		F	F	D	F	F		F	D	C
Approach Delay (s)		187.2			105.3			105.0			83.2	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	109.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	118.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	853	161	196	828	364	131	430	116	356	520	22
Future Volume (vph)	65	853	161	196	828	364	131	430	116	356	520	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.6		5.0	4.8	4.8	5.5	4.4	4.4	5.5	4.3	4.3
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3421		1752	3505	1568	1752	1845	1568	1752	1845	1568
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	3421		1752	3505	1568	1752	1845	1568	1752	1845	1568
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	65	853	161	196	828	364	131	430	116	356	520	22
RTOR Reduction (vph)	0	12	0	0	0	233	0	0	89	0	0	14
Lane Group Flow (vph)	65	1002	0	196	828	131	131	430	27	356	520	8
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases						2			8			4
Actuated Green, G (s)	6.5	39.8		14.0	46.9	46.9	11.9	31.0	31.0	26.5	45.7	45.7
Effective Green, g (s)	6.5	39.8		14.0	46.9	46.9	11.9	31.0	31.0	26.5	45.7	45.7
Actuated g/C Ratio	0.05	0.30		0.11	0.36	0.36	0.09	0.24	0.24	0.20	0.35	0.35
Clearance Time (s)	5.2	4.6		5.0	4.8	4.8	5.5	4.4	4.4	5.5	4.3	4.3
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	87	1040		187	1256	562	159	437	371	354	644	547
v/s Ratio Prot	0.04	c0.29		c0.11	0.24		0.07	c0.23		c0.20	0.28	
v/s Ratio Perm						0.08			0.02			0.00
v/c Ratio	0.75	0.96		1.05	0.66	0.23	0.82	0.98	0.07	1.01	0.81	0.01
Uniform Delay, d1	61.3	44.8		58.4	35.2	29.4	58.4	49.7	38.8	52.2	38.6	27.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	25.9	19.4		79.1	1.0	0.1	26.8	38.5	0.0	49.3	6.9	0.0
Delay (s)	87.2	64.2		137.5	36.2	29.4	85.2	88.1	38.8	101.4	45.5	27.8
Level of Service	F	E		F	D	C	F	F	D	F	D	C
Approach Delay (s)		65.6			48.7			79.1			67.2	
Approach LOS		E			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	62.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	130.8	Sum of lost time (s)	19.9
Intersection Capacity Utilization	98.2%	ICU Level of Service	F
Analysis Period (min)	15		

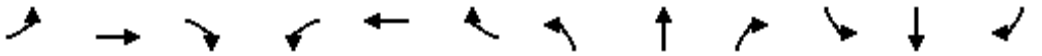
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	553	8	2	501	1	9	188	0	1	280	323
Future Volume (vph)	196	553	8	2	501	1	9	188	0	1	280	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			1.00			0.93	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		1734			1726			1755			1632	
Flt Permitted		0.99			1.00			0.94			1.00	
Satd. Flow (perm)		1734			1726			1650			1632	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	196	553	8	2	501	1	9	188	0	1	280	323
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	30	0
Lane Group Flow (vph)	0	757	0	0	504	0	0	197	0	0	574	0
Heavy Vehicles (%)	8%	8%	8%	10%	10%	10%	8%	8%	8%	8%	8%	8%
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		52.0			35.0			41.0			41.0	
Effective Green, g (s)		52.0			35.0			41.0			41.0	
Actuated g/C Ratio		0.37			0.25			0.29			0.29	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		644			431			483			477	
v/s Ratio Prot		c0.44			c0.29							
v/s Ratio Perm								0.12			0.35	
v/c Ratio		1.18			1.17			0.41			1.20	
Uniform Delay, d1		44.0			52.5			39.8			49.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		94.6			98.5			0.6			110.3	
Delay (s)		138.6			151.0			40.3			159.8	
Level of Service		F			F			D			F	
Approach Delay (s)		138.6			151.0			40.3			159.8	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM 2000 Control Delay	138.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
63: Sunrise Boulevard & US 50 Eastbound Ramps

12/07/2018

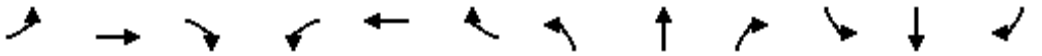


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1575	0	492	0	0	0	0	2449	240	0	1567	498
Future Volume (vph)	1575	0	492	0	0	0	0	2449	240	0	1567	498
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5					4.8	4.0		5.1	4.0
Lane Util. Factor	0.94		0.88					0.86	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	4894		2733					6285	1553		4988	1553
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	4894		2733					6285	1553		4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1575	0	492	0	0	0	0	2449	240	0	1567	498
RTOR Reduction (vph)	0	0	27	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1575	0	465	0	0	0	0	2449	240	0	1567	498
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm					NA	Free		NA	Free
Protected Phases								6			2	
Permitted Phases	4		4						Free			Free
Actuated Green, G (s)	19.3		19.3					24.9	52.5		24.6	52.5
Effective Green, g (s)	19.3		19.3					24.9	52.5		24.6	52.5
Actuated g/C Ratio	0.37		0.37					0.47	1.00		0.47	1.00
Clearance Time (s)	3.5		3.5					4.8			5.1	
Vehicle Extension (s)	1.0		1.0					1.0			1.0	
Lane Grp Cap (vph)	1799		1004					2980	1553		2337	1553
v/s Ratio Prot								c0.39			0.31	
v/s Ratio Perm	c0.32		0.17						0.15			0.32
v/c Ratio	0.88		0.46					0.82	0.15		0.67	0.32
Uniform Delay, d1	15.5		12.7					11.9	0.0		10.8	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.00	1.00
Incremental Delay, d2	5.0		0.1					1.8	0.2		0.6	0.5
Delay (s)	20.4		12.8					13.7	0.2		11.4	0.5
Level of Service	C		B					B	A		B	A
Approach Delay (s)		18.6			0.0			12.5			8.8	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	52.5	Sum of lost time (s)	8.6
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

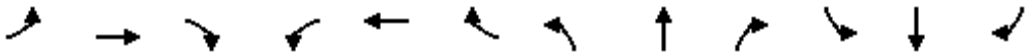
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	151	169	1224	448	228	2026
Future Volume (vph)	151	169	1224	448	228	2026
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	4988	1553	3367	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	4988	1553	3367	3471
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	151	169	1224	448	228	2026
RTOR Reduction (vph)	0	154	0	243	0	0
Lane Group Flow (vph)	151	15	1224	205	228	2026
Heavy Vehicles (%)	3%	3%	4%	4%	4%	4%
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases				6		
Actuated Green, G (s)	4.5	4.5	23.1	23.1	7.0	35.6
Effective Green, g (s)	4.5	4.5	23.1	23.1	7.0	35.6
Actuated g/C Ratio	0.09	0.09	0.46	0.46	0.14	0.70
Clearance Time (s)	5.5	5.5	5.0	5.0	5.5	5.0
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	302	139	2277	708	465	2442
v/s Ratio Prot	c0.04	0.01	0.25		0.07	c0.58
v/s Ratio Perm				0.13		
v/c Ratio	0.50	0.11	0.54	0.29	0.49	0.83
Uniform Delay, d1	22.0	21.2	9.9	8.6	20.2	5.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.1	0.1	0.1	0.3	2.4
Delay (s)	22.5	21.3	10.0	8.7	20.4	7.7
Level of Service	C	C	B	A	C	A
Approach Delay (s)	21.9		9.7			9.0
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	50.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	549	1024	9	2	750	6	7	15	2	5	21	1108
Future Volume (vph)	549	1024	9	2	750	6	7	15	2	5	21	1108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95			1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	3303	3406	1524	1719	3434			1798			1810	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (perm)	3303	3406	1524	1719	3434			1798			1810	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	549	1024	9	2	750	6	7	15	2	5	21	1108
RTOR Reduction (vph)	0	0	2	0	0	0	0	2	0	0	0	33
Lane Group Flow (vph)	549	1024	7	2	756	0	0	22	0	0	26	1075
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									4
Actuated Green, G (s)	70.0	105.0	105.0	0.6	36.5			1.7			3.6	73.6
Effective Green, g (s)	70.0	105.0	105.0	0.6	36.5			1.7			3.6	73.6
Actuated g/C Ratio	0.52	0.77	0.77	0.00	0.27			0.01			0.03	0.54
Clearance Time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	1705	2637	1180	7	924			22			48	842
v/s Ratio Prot	0.17	0.30		0.00	c0.22			c0.01			0.01	c0.66
v/s Ratio Perm			0.00									0.03
v/c Ratio	0.32	0.39	0.01	0.29	0.82			1.00			0.54	1.28
Uniform Delay, d1	19.0	4.9	3.5	67.3	46.4			67.0			65.2	31.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.0	0.0	0.0	8.0	5.4			192.2			6.5	133.5
Delay (s)	19.1	5.0	3.5	75.3	51.9			259.2			71.7	164.5
Level of Service	B	A	A	E	D			F			E	F
Approach Delay (s)		9.9			51.9			259.2			162.4	
Approach LOS		A			D			F			F	

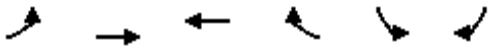
Intersection Summary			
HCM 2000 Control Delay	70.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	135.6	Sum of lost time (s)	24.7
Intersection Capacity Utilization	107.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	13	43	148	6	202	38	1451	183	714	1482	1
Future Volume (vph)	12	13	43	148	6	202	38	1451	183	714	1482	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.88		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1632		1752	1845	1568	1752	3446		1752	3504	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1632		1752	1845	1568	1752	3446		1752	3504	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	13	43	148	6	202	38	1451	183	714	1482	1
RTOR Reduction (vph)	0	41	0	0	0	180	0	6	0	0	0	0
Lane Group Flow (vph)	12	15	0	148	6	22	38	1628	0	714	1483	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	1.9	7.7		10.0	15.8	15.8	6.1	58.9		50.1	102.9	
Effective Green, g (s)	1.9	7.7		10.0	15.8	15.8	6.1	58.9		50.1	102.9	
Actuated g/C Ratio	0.01	0.05		0.07	0.11	0.11	0.04	0.41		0.35	0.72	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	23	88		122	204	173	74	1422		615	2526	
v/s Ratio Prot	0.01	c0.01		c0.08	0.00		0.02	c0.47		c0.41	0.42	
v/s Ratio Perm						0.01						
v/c Ratio	0.52	0.17		1.21	0.03	0.13	0.51	1.14		1.16	0.59	
Uniform Delay, d1	69.9	64.5		66.3	56.6	57.2	66.8	41.9		46.3	9.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	19.7	0.9		149.7	0.1	0.3	5.9	73.9		89.5	0.4	
Delay (s)	89.7	65.4		216.1	56.7	57.6	72.7	115.8		135.8	10.0	
Level of Service	F	E		F	E	E	E	F		F	A	
Approach Delay (s)		69.7			123.4			114.8			50.9	
Approach LOS		E			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	82.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	142.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	110.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	1215	804	1686	1898	0
Future Volume (vph)	2	1215	804	1686	1898	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	
Frt	1.00	1.00	1.00	0.85	1.00	
Flt Protected	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (prot)	3400	3505	3505	1568	3400	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (perm)	3400	3505	3505	1568	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	1215	804	1686	1898	0
RTOR Reduction (vph)	0	0	0	717	0	0
Lane Group Flow (vph)	2	1215	804	969	1898	0
Turn Type	Prot	NA	NA	Perm	Prot	
Protected Phases	4	5	5		6	
Permitted Phases				5		
Actuated Green, G (s)	1.1	46.0	46.0	46.0	76.1	
Effective Green, g (s)	1.1	46.0	46.0	46.0	76.1	
Actuated g/C Ratio	0.01	0.34	0.34	0.34	0.56	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	27	1192	1192	533	1913	
v/s Ratio Prot	c0.00	0.35	0.23		c0.56	
v/s Ratio Perm				c0.62		
v/c Ratio	0.07	1.02	0.67	1.82	0.99	
Uniform Delay, d1	66.5	44.6	38.2	44.6	29.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	31.0	1.5	375.9	18.6	
Delay (s)	67.7	75.6	39.7	420.5	47.9	
Level of Service	E	E	D	F	D	
Approach Delay (s)		75.6	297.5		47.9	
Approach LOS		E	F		D	

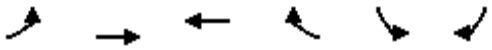
Intersection Summary			
HCM 2000 Control Delay	164.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	135.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	390	690	1158	312	475	2678
Future Volume (vph)	390	690	1158	312	475	2678
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	1568	5036	1568	1752	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1752	1568	5036	1568	1752	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	690	1158	312	475	2678
RTOR Reduction (vph)	0	393	0	227	0	0
Lane Group Flow (vph)	390	297	1158	85	475	2678
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	3		2		1	6
Permitted Phases		3		2		
Actuated Green, G (s)	15.8	15.8	17.6	17.6	19.4	41.0
Effective Green, g (s)	15.8	15.8	17.6	17.6	19.4	41.0
Actuated g/C Ratio	0.24	0.24	0.27	0.27	0.30	0.63
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	427	382	1367	425	524	3186
v/s Ratio Prot	c0.22		0.23		c0.27	c0.53
v/s Ratio Perm		0.19		0.05		
v/c Ratio	0.91	0.78	0.85	0.20	0.91	0.84
Uniform Delay, d1	23.8	22.9	22.3	18.2	21.8	9.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	23.7	9.6	5.1	0.2	19.2	2.2
Delay (s)	47.5	32.4	27.4	18.4	41.0	11.5
Level of Service	D	C	C	B	D	B
Approach Delay (s)	37.9		25.5			15.9
Approach LOS	D		C			B

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	64.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	818	2167	1641	62	134	761
Future Volume (vph)	818	2167	1641	62	134	761
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.91	0.91		1.00	0.88
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3400	5036	5008		1752	2760
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3400	5036	5008		1752	2760
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	818	2167	1641	62	134	761
RTOR Reduction (vph)	0	0	5	0	0	630
Lane Group Flow (vph)	818	2167	1698	0	134	131
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	18.1	47.2	25.1		11.5	11.5
Effective Green, g (s)	18.1	47.2	25.1		11.5	11.5
Actuated g/C Ratio	0.27	0.71	0.38		0.17	0.17
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	922	3563	1884		302	475
v/s Ratio Prot	c0.24	0.43	c0.34		c0.08	
v/s Ratio Perm						0.05
v/c Ratio	0.89	0.61	0.90		0.44	0.28
Uniform Delay, d1	23.3	5.0	19.6		24.7	24.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	10.3	0.3	6.4		1.0	0.3
Delay (s)	33.6	5.3	26.0		25.8	24.3
Level of Service	C	A	C		C	C
Approach Delay (s)		13.1	26.0		24.5	
Approach LOS		B	C		C	

Intersection Summary			
HCM 2000 Control Delay	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	66.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	500	145	479	516	787	128	0	288	670	0	403
Future Volume (veh/h)	265	500	145	479	516	787	128	0	288	670	0	403
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	265	500	145	479	516	787	128	0	288	670	0	403
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	319	1041	466	446	1171	835	182	1007	314	669	1727	538
Arrive On Green	0.09	0.30	0.30	0.13	0.33	0.33	0.05	0.00	0.20	0.20	0.00	0.35
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	265	500	145	479	516	787	128	0	288	670	0	403
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	9.1	13.9	8.5	15.5	13.6	39.6	4.4	0.0	21.5	23.5	0.0	27.2
Cycle Q Clear(g_c), s	9.1	13.9	8.5	15.5	13.6	39.6	4.4	0.0	21.5	23.5	0.0	27.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	319	1041	466	446	1171	835	182	1007	314	669	1727	538
V/C Ratio(X)	0.83	0.48	0.31	1.07	0.44	0.94	0.70	0.00	0.92	1.00	0.00	0.75
Avail Cap(c_a), veh/h	379	1094	489	446	1171	835	276	1422	443	669	1994	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.8	34.2	32.3	51.5	30.8	26.0	55.2	0.0	46.3	47.5	0.0	34.2
Incr Delay (d2), s/veh	10.7	0.1	0.1	64.2	0.1	18.6	1.9	0.0	16.0	35.1	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	6.8	3.7	11.2	6.6	28.2	2.1	0.0	10.6	14.1	0.0	12.1
LnGrp Delay(d),s/veh	63.5	34.3	32.4	115.7	30.9	44.6	57.0	0.0	62.4	82.7	0.0	37.6
LnGrp LOS	E	C	C	F	C	D	E		E	F		D
Approach Vol, veh/h		910			1782			416			1073	
Approach Delay, s/veh		42.5			59.8			60.7			65.8	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	45.9	16.6	44.2	29.0	28.7	21.0	39.8
Change Period (Y+Rc), s	5.5	4.8	5.5	* 4.6	5.5	* 4.8	5.5	4.6
Max Green Setting (Gmax), s	9.7	47.4	13.2	* 40	23.5	* 34	15.5	37.0
Max Q Clear Time (g_c+I1), s	6.4	29.2	11.1	41.6	25.5	23.5	17.5	15.9
Green Ext Time (p_c), s	0.1	0.4	0.1	0.0	0.0	0.4	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	57.6
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	580	23	194	198	704	9	2256	129	749	2558	1
Future Volume (veh/h)	0	580	23	194	198	704	9	2256	129	749	2558	1
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	0	580	23	194	198	704	9	2256	129	749	2558	1
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	2	627	280	173	941	734	21	2097	653	673	3061	953
Arrive On Green	0.00	0.18	0.18	0.05	0.27	0.27	0.01	0.42	0.42	0.20	0.61	0.61
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	0	580	23	194	198	704	9	2256	129	749	2558	1
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	0.0	24.3	1.8	7.5	6.5	39.7	0.4	62.2	7.8	29.5	60.2	0.0
Cycle Q Clear(g_c), s	0.0	24.3	1.8	7.5	6.5	39.7	0.4	62.2	7.8	29.5	60.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	627	280	173	941	734	21	2097	653	673	3061	953
V/C Ratio(X)	0.00	0.93	0.08	1.12	0.21	0.96	0.43	1.08	0.20	1.11	0.84	0.00
Avail Cap(c_a), veh/h	68	681	304	173	941	734	68	2097	653	673	3061	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	59.6	50.4	70.2	41.9	38.0	73.2	42.9	27.1	59.2	22.7	11.0
Incr Delay (d2), s/veh	0.0	17.2	0.0	105.2	0.0	23.5	4.9	43.5	0.1	69.8	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.2	0.8	6.0	3.1	32.5	0.2	36.8	3.3	20.2	28.1	0.0
LnGrp Delay(d),s/veh	0.0	76.8	50.5	175.4	42.0	61.5	78.2	86.4	27.1	129.0	24.7	11.0
LnGrp LOS		E	D	F	D	E	E	F	C	F	C	B
Approach Vol, veh/h		603			1096			2394			3308	
Approach Delay, s/veh		75.8			78.1			83.2			48.3	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	96.1	0.0	45.4	35.0	67.5	13.0	32.4
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	3.0	88.6	3.0	* 33	29.5	* 62	7.5	* 29
Max Q Clear Time (g_c+I1), s	2.4	62.2	0.0	41.7	31.5	64.2	9.5	26.3
Green Ext Time (p_c), s	0.0	22.6	0.0	0.0	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	66.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	1828	773	61	1518	875	613	1675	106	935	1669	126
Future Volume (veh/h)	153	1828	773	61	1518	875	613	1675	106	935	1669	126
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	153	1828	773	61	1518	0	613	1675	106	935	1669	126
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	154	1673	521	66	1560	486	591	1434	446	741	1633	508
Arrive On Green	0.05	0.34	0.34	0.02	0.32	0.00	0.17	0.29	0.29	0.22	0.33	0.33
Sat Flow, veh/h	3312	4893	1524	3312	4893	1524	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	153	1828	773	61	1518	0	613	1675	106	935	1669	126
Grp Sat Flow(s),veh/h/ln	1656	1631	1524	1656	1631	1524	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	6.9	51.4	51.4	2.8	46.1	0.0	26.3	43.2	7.8	33.0	49.2	8.9
Cycle Q Clear(g_c), s	6.9	51.4	51.4	2.8	46.1	0.0	26.3	43.2	7.8	33.0	49.2	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	1673	521	66	1560	486	591	1434	446	741	1633	508
V/C Ratio(X)	0.99	1.09	1.48	0.92	0.97	0.00	1.04	1.17	0.24	1.26	1.02	0.25
Avail Cap(c_a), veh/h	154	1673	521	66	1560	486	591	1434	446	741	1633	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	49.4	49.4	73.5	50.6	0.0	62.0	53.6	41.0	58.7	50.5	37.0
Incr Delay (d2), s/veh	69.9	51.8	227.7	82.6	16.7	0.0	47.2	83.7	0.1	128.5	28.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	31.1	54.5	2.0	23.2	0.0	16.1	30.9	3.4	28.6	26.8	3.8
LnGrp Delay(d),s/veh	141.5	101.2	277.2	156.2	67.3	0.0	109.2	137.2	41.1	187.1	78.6	37.1
LnGrp LOS	F	F	F	F	E		F	F	D	F	F	D
Approach Vol, veh/h		2754			1579			2394			2730	
Approach Delay, s/veh		152.8			70.7			125.8			113.9	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	53.3	31.0	54.0	8.5	56.8	37.0	48.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.0	4.8
Max Green Setting (Gmax), s	7.0	* 48	* 26	49.2	3.0	* 51	33.0	43.2
Max Q Clear Time (g_c+I1), s	8.9	48.1	28.3	51.2	4.8	53.4	35.0	45.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	121.0
HCM 2010 LOS	F

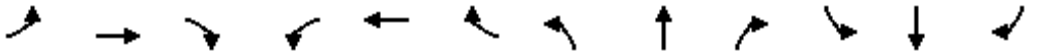
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	444	839	252	373	704	219	108	1704	446	182	2034	203
Future Volume (veh/h)	444	839	252	373	704	219	108	1704	446	182	2034	203
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1845	1845	1827	1827
Adj Flow Rate, veh/h	444	839	252	373	704	219	108	1704	446	182	2034	203
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	3	3	4	4
Cap, veh/h	476	855	383	396	763	341	135	1946	612	213	2091	651
Arrive On Green	0.14	0.24	0.24	0.12	0.22	0.22	0.04	0.39	0.39	0.06	0.42	0.42
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3375	4988	1568	3408	4988	1553
Grp Volume(v), veh/h	444	839	252	373	704	219	108	1704	446	182	2034	203
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1688	1663	1568	1704	1663	1553
Q Serve(g_s), s	14.2	26.2	16.0	12.0	21.7	14.0	3.5	34.9	26.7	5.8	44.1	9.6
Cycle Q Clear(g_c), s	14.2	26.2	16.0	12.0	21.7	14.0	3.5	34.9	26.7	5.8	44.1	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	476	855	383	396	763	341	135	1946	612	213	2091	651
V/C Ratio(X)	0.93	0.98	0.66	0.94	0.92	0.64	0.80	0.88	0.73	0.85	0.97	0.31
Avail Cap(c_a), veh/h	476	855	383	396	779	349	135	1946	612	213	2091	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	41.4	37.5	48.3	42.2	39.2	52.5	31.1	28.6	51.1	31.4	21.4
Incr Delay (d2), s/veh	25.0	25.9	3.3	30.5	15.9	2.9	26.4	4.6	3.8	25.7	13.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	15.8	7.2	7.3	12.1	6.3	2.1	16.8	12.2	3.5	22.8	4.1
LnGrp Delay(d),s/veh	71.8	67.3	40.8	78.8	58.1	42.1	78.8	35.8	32.5	76.8	45.1	21.5
LnGrp LOS	E	E	D	E	E	D	E	D	C	E	D	C
Approach Vol, veh/h		1535			1296			2258			2419	
Approach Delay, s/veh		64.3			61.3			37.2			45.5	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	51.0	20.9	29.3	12.2	47.8	18.0	32.2
Change Period (Y+Rc), s	* 4.6	4.8	5.5	* 5.3	* 5.3	4.8	* 5.2	* 5.3
Max Green Setting (Gmax), s	* 4.4	46.2	15.4	* 25	* 6.9	43.0	* 13	* 27
Max Q Clear Time (g_c+I1), s	5.5	46.1	16.2	23.7	7.8	36.9	14.0	28.2
Green Ext Time (p_c), s	0.0	0.1	0.0	0.3	0.0	5.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	49.6
HCM 2010 LOS	D

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	821	455	804	91	557	9	188	1038	11	22	1978	1340
Future Volume (veh/h)	821	455	804	91	557	9	188	1038	11	22	1978	1340
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	821	455	804	91	557	9	188	1038	11	22	1978	1340
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	817	1171	524	104	625	195	184	2287	712	43	2101	654
Arrive On Green	0.24	0.34	0.34	0.03	0.13	0.13	0.05	0.46	0.46	0.01	0.42	0.42
Sat Flow, veh/h	3375	3471	1553	3375	4988	1553	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	821	455	804	91	557	9	188	1038	11	22	1978	1340
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1688	1663	1553	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	31.5	13.0	43.9	3.5	14.3	0.7	7.1	18.5	0.5	0.8	49.5	54.8
Cycle Q Clear(g_c), s	31.5	13.0	43.9	3.5	14.3	0.7	7.1	18.5	0.5	0.8	49.5	54.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	817	1171	524	104	625	195	184	2287	712	43	2101	654
V/C Ratio(X)	1.00	0.39	1.53	0.88	0.89	0.05	1.02	0.45	0.02	0.52	0.94	2.05
Avail Cap(c_a), veh/h	817	1171	524	104	625	195	184	2287	712	140	2101	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	32.9	43.1	62.8	56.0	50.1	61.5	24.1	19.2	63.8	36.1	37.7
Incr Delay (d2), s/veh	32.6	1.0	250.0	50.1	17.4	0.4	71.8	0.7	0.0	3.5	10.0	477.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.3	6.4	55.2	2.4	7.6	0.3	5.1	8.6	0.2	0.4	24.7	110.2
LnGrp Delay(d),s/veh	81.9	33.8	293.1	112.9	73.5	50.5	133.5	24.7	19.2	67.4	46.1	514.8
LnGrp LOS	F	C	F	F	E	D	F	C	B	E	D	F
Approach Vol, veh/h		2080			657			1237			3340	
Approach Delay, s/veh		153.0			78.6			41.2			234.3	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	60.0	36.6	21.5	7.1	64.9	9.0	49.1
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 7.1	* 55	* 32	* 16	5.4	* 56	4.0	* 44
Max Q Clear Time (g_c+I1), s	9.1	56.8	33.5	16.3	2.8	20.5	5.5	45.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	35.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	164.5
HCM 2010 LOS	F

Notes

HCM 2010 Signalized Intersection Summary
23: Hedge Avenue & Jackson Road

12/07/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	2296	387	153	2224	5	138	30	79	4	32	23
Future Volume (veh/h)	14	2296	387	153	2224	5	138	30	79	4	32	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1792	1792	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	14	2296	387	153	2224	5	138	30	79	4	32	23
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	3	3	3	3	3	3
Cap, veh/h	21	2659	432	176	3618	8	162	241	205	7	66	56
Arrive On Green	0.01	0.63	0.63	0.10	0.72	0.72	0.09	0.13	0.13	0.00	0.04	0.04
Sat Flow, veh/h	1707	4244	689	1707	5041	11	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	14	1745	938	153	1439	790	138	30	79	4	32	23
Grp Sat Flow(s),veh/h/ln	1707	1631	1671	1707	1631	1790	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	1.1	56.5	62.9	11.6	29.3	29.3	10.2	1.9	6.1	0.3	2.2	1.9
Cycle Q Clear(g_c), s	1.1	56.5	62.9	11.6	29.3	29.3	10.2	1.9	6.1	0.3	2.2	1.9
Prop In Lane	1.00		0.41	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	21	2044	1047	176	2341	1285	162	241	205	7	66	56
V/C Ratio(X)	0.67	0.85	0.90	0.87	0.61	0.61	0.85	0.12	0.39	0.55	0.48	0.41
Avail Cap(c_a), veh/h	73	2078	1065	188	2341	1285	172	419	356	53	295	250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.7	19.7	20.9	58.1	9.4	9.4	58.8	50.5	52.3	65.4	62.2	62.1
Incr Delay (d2), s/veh	22.7	3.9	10.3	30.2	0.6	1.1	29.4	0.2	1.1	37.6	4.9	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	26.3	31.7	7.0	13.2	14.7	6.3	1.0	2.7	0.2	1.2	0.9
LnGrp Delay(d),s/veh	87.4	23.6	31.3	88.3	10.0	10.5	88.3	50.7	53.4	102.9	67.1	66.3
LnGrp LOS	F	C	C	F	B	B	F	D	D	F	E	E
Approach Vol, veh/h		2697			2382			247			59	
Approach Delay, s/veh		26.6			15.2			72.6			69.2	
Approach LOS		C			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	88.8	16.5	9.1	5.1	100.8	4.0	21.6
Change Period (Y+Rc), s	3.5	6.4	4.4	* 4.4	3.5	6.4	3.5	4.4
Max Green Setting (Gmax), s	14.5	83.8	12.9	* 21	5.6	92.7	4.0	29.9
Max Q Clear Time (g_c+I1), s	13.6	64.9	12.2	4.2	3.1	31.3	2.3	8.1
Green Ext Time (p_c), s	0.0	17.5	0.0	0.5	0.0	61.1	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1249	518	91	1235	265	575	191	8	318	374	87
Future Volume (veh/h)	77	1249	518	91	1235	265	575	191	8	318	374	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	77	1249	518	91	1235	265	575	191	8	318	374	87
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	981	389	70	1132	240	445	476	405	343	369	314
Arrive On Green	0.05	0.40	0.40	0.04	0.39	0.39	0.25	0.26	0.26	0.20	0.20	0.20
Sat Flow, veh/h	1757	2453	972	1757	2878	611	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	77	876	891	91	747	753	575	191	8	318	374	87
Grp Sat Flow(s),veh/h/ln	1757	1752	1673	1757	1752	1737	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	6.6	60.0	60.0	6.0	59.0	59.0	38.0	12.9	0.6	26.7	30.0	7.0
Cycle Q Clear(g_c), s	6.6	60.0	60.0	6.0	59.0	59.0	38.0	12.9	0.6	26.7	30.0	7.0
Prop In Lane	1.00		0.58	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	701	669	70	689	683	445	476	405	343	369	314
V/C Ratio(X)	0.94	1.25	1.33	1.29	1.08	1.10	1.29	0.40	0.02	0.93	1.01	0.28
Avail Cap(c_a), veh/h	82	701	669	70	689	683	445	476	405	422	369	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.3	45.0	45.0	72.0	45.5	45.5	56.0	46.0	41.5	59.3	60.0	50.8
Incr Delay (d2), s/veh	79.0	123.8	159.4	205.4	59.1	65.9	147.3	0.5	0.0	23.9	50.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
%ile BackOfQ(50%),veh/ln	5.0	53.1	57.3	6.9	39.8	40.8	36.6	6.7	0.2	15.3	20.4	3.1
LnGrp Delay(d),s/veh	150.2	168.8	204.4	277.4	104.6	111.4	203.3	46.6	41.5	83.2	110.4	51.3
LnGrp LOS	F	F	F	F	F	F	F	D	D	F	F	D
Approach Vol, veh/h		1844			1591			774			779	
Approach Delay, s/veh		185.3			117.7			163.0			92.7	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.3	42.7	10.0	64.0	42.0	34.0	11.0	63.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	36.0	32.0	6.0	60.0	38.0	30.0	7.0	59.0
Max Q Clear Time (g_c+I1), s	28.7	14.9	8.0	62.0	40.0	32.0	8.6	61.0
Green Ext Time (p_c), s	0.6	3.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	145.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	2049	114	324	1944	1	229	1489	258	30	1589	212
Future Volume (veh/h)	286	2049	114	324	1944	1	229	1489	258	30	1589	212
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	286	2049	114	324	1944	1	229	1489	258	30	1589	212
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	312	1957	627	312	1957	627	227	1808	563	55	1553	483
Arrive On Green	0.09	0.40	0.40	0.09	0.40	0.40	0.07	0.36	0.36	0.02	0.31	0.31
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	286	2049	114	324	1944	1	229	1489	258	30	1589	212
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	10.0	48.0	5.6	11.0	47.5	0.0	8.0	32.3	15.2	1.0	37.0	13.0
Cycle Q Clear(g_c), s	10.0	48.0	5.6	11.0	47.5	0.0	8.0	32.3	15.2	1.0	37.0	13.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	312	1957	627	312	1957	627	227	1808	563	55	1553	483
V/C Ratio(X)	0.92	1.05	0.18	1.04	0.99	0.00	1.01	0.82	0.46	0.55	1.02	0.44
Avail Cap(c_a), veh/h	312	1957	627	312	1957	627	227	1808	563	114	1553	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	36.0	23.3	54.5	35.8	21.6	56.0	35.0	29.5	58.6	41.5	33.2
Incr Delay (d2), s/veh	30.2	33.9	0.1	60.9	18.7	0.0	61.7	3.2	0.6	8.3	28.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	27.7	2.5	7.8	24.6	0.0	5.7	15.4	6.6	0.6	21.3	5.7
LnGrp Delay(d),s/veh	84.2	69.9	23.4	115.4	54.5	21.6	117.8	38.2	30.1	66.9	70.4	33.8
LnGrp LOS	F	F	C	F	D	C	F	D	C	E	F	C
Approach Vol, veh/h		2449			2269			1976			1831	
Approach Delay, s/veh		69.4			63.2			46.4			66.1	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	47.1	15.0	52.0	12.0	41.0	15.0	52.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	41.0	11.0	48.0	8.0	37.0	11.0	48.0
Max Q Clear Time (g_c+I1), s	3.0	34.3	13.0	50.0	10.0	39.0	12.0	49.5
Green Ext Time (p_c), s	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	61.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	805	124	512	971	135	71	1129	660	205	1386	442
Future Volume (veh/h)	240	805	124	512	971	135	71	1129	660	205	1386	442
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	240	805	124	512	971	135	71	1129	660	205	1386	442
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	313	1032	321	476	1273	396	119	1338	599	298	1522	681
Arrive On Green	0.09	0.21	0.21	0.14	0.25	0.25	0.03	0.38	0.38	0.09	0.43	0.43
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	240	805	124	512	971	135	71	1129	660	205	1386	442
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	5.9	13.0	5.9	12.0	15.3	6.0	1.8	25.2	32.8	5.0	31.8	19.1
Cycle Q Clear(g_c), s	5.9	13.0	5.9	12.0	15.3	6.0	1.8	25.2	32.8	5.0	31.8	19.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	1032	321	476	1273	396	119	1338	599	298	1522	681
V/C Ratio(X)	0.77	0.78	0.39	1.08	0.76	0.34	0.60	0.84	1.10	0.69	0.91	0.65
Avail Cap(c_a), veh/h	317	1055	328	476	1289	401	119	1338	599	714	1672	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	32.3	29.5	37.0	29.7	26.2	40.9	24.2	26.6	38.1	22.7	19.2
Incr Delay (d2), s/veh	10.6	3.7	0.8	63.1	2.7	0.5	7.9	5.1	68.0	2.8	7.4	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	6.4	2.6	9.8	7.4	2.7	1.0	13.2	25.5	2.5	16.8	8.5
LnGrp Delay(d),s/veh	48.7	36.1	30.2	100.0	32.4	26.8	48.8	29.3	94.6	40.9	30.2	20.9
LnGrp LOS	D	D	C	F	C	C	D	C	F	D	C	C
Approach Vol, veh/h		1169			1618			1860			2033	
Approach Delay, s/veh		38.0			53.4			53.2			29.3	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	36.8	16.0	21.6	7.0	41.3	11.9	25.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	26.0	12.0	18.0	3.0	41.0	8.0	22.0
Max Q Clear Time (g_c+I1), s	7.0	34.8	14.0	15.0	3.8	33.8	7.9	17.3
Green Ext Time (p_c), s	0.5	0.0	0.0	2.6	0.0	3.5	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	31	17	472	44	537	48	2143	294	530	2550	59
Future Volume (veh/h)	73	31	17	472	44	537	48	2143	294	530	2550	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	73	31	17	472	44	537	48	2143	294	530	2550	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	81	124	68	531	387	329	61	2207	687	529	2843	65
Arrive On Green	0.05	0.11	0.11	0.16	0.21	0.21	0.04	0.44	0.44	0.16	0.57	0.57
Sat Flow, veh/h	1757	1121	615	3408	1845	1568	1740	4988	1553	3375	5016	116
Grp Volume(v), veh/h	73	0	48	472	44	537	48	2143	294	530	1686	923
Grp Sat Flow(s),veh/h/ln	1757	0	1736	1704	1845	1568	1740	1663	1553	1688	1663	1807
Q Serve(g_s), s	6.2	0.0	3.8	20.3	2.9	31.5	4.1	63.0	19.5	23.5	66.9	67.8
Cycle Q Clear(g_c), s	6.2	0.0	3.8	20.3	2.9	31.5	4.1	63.0	19.5	23.5	66.9	67.8
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	81	0	191	531	387	329	61	2207	687	529	1884	1024
V/C Ratio(X)	0.90	0.00	0.25	0.89	0.11	1.63	0.78	0.97	0.43	1.00	0.89	0.90
Avail Cap(c_a), veh/h	81	0	191	659	387	329	63	2208	688	529	1885	1024
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.2	0.0	61.1	62.0	47.9	59.2	71.8	40.9	28.7	63.2	28.6	28.8
Incr Delay (d2), s/veh	67.1	0.0	0.3	12.1	0.0	297.2	42.3	12.9	0.2	39.6	5.8	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	1.8	10.5	1.5	40.9	2.7	31.6	8.4	13.9	32.0	36.6
LnGrp Delay(d),s/veh	138.3	0.0	61.3	74.1	48.0	356.4	114.1	53.8	28.9	102.9	34.4	39.4
LnGrp LOS	F		E	E	D	F	F	D	C	F	C	D
Approach Vol, veh/h		121			1053			2485			3139	
Approach Delay, s/veh		107.8			217.0			52.0			47.4	
Approach LOS		F			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	90.2	27.4	22.0	29.0	71.6	12.4	37.0
Change Period (Y+Rc), s	* 5.1	* 5.2	4.0	5.5	5.5	* 5.2	5.5	5.5
Max Green Setting (Gmax), s	* 5.4	* 85	29.0	10.9	23.5	* 66	6.9	31.5
Max Q Clear Time (g_c+I1), s	6.1	69.8	22.3	5.8	25.5	65.0	8.2	33.5
Green Ext Time (p_c), s	0.0	13.5	1.0	0.4	0.0	1.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	76.4
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Future Volume (veh/h)	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	208	1160	361	509	1605	500	437	1166	363	805	1709	532
Arrive On Green	0.06	0.23	0.23	0.15	0.32	0.32	0.13	0.23	0.23	0.24	0.34	0.34
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	8.1	34.7	34.7	22.5	28.0	48.0	19.5	31.9	12.7	35.9	51.6	13.1
Cycle Q Clear(g_c), s	8.1	34.7	34.7	22.5	28.0	48.0	19.5	31.9	12.7	35.9	51.6	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	1160	361	509	1605	500	437	1166	363	805	1709	532
V/C Ratio(X)	0.88	1.09	1.28	1.13	0.67	1.48	1.13	0.93	0.42	1.03	1.07	0.34
Avail Cap(c_a), veh/h	208	1160	361	509	1605	500	437	1166	363	805	1709	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	58.0	58.0	64.1	44.5	51.3	65.6	56.4	49.1	57.4	49.5	36.8
Incr Delay (d2), s/veh	32.0	53.3	147.5	81.9	0.9	226.9	84.5	12.2	0.3	38.3	42.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	21.7	29.8	16.3	13.1	52.3	14.2	16.0	5.5	20.9	30.3	5.6
LnGrp Delay(d),s/veh	102.2	111.2	205.4	146.0	45.4	278.2	150.0	68.6	49.4	95.7	91.8	37.0
LnGrp LOS	F	F	F	F	D	F	F	E	D	F	F	D
Approach Vol, veh/h		1909			2396			1728			2830	
Approach Delay, s/veh		133.3			141.5			90.2			89.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	57.2	14.7	53.7	41.4	40.8	28.0	40.4
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	19.5	* 52	9.2	* 48	35.9	* 35	22.5	* 34
Max Q Clear Time (g_c+I1), s	21.5	53.6	10.1	50.0	37.9	33.9	24.5	36.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	2208	58	290	1548	492	476	1059	118	521	2559	161
Future Volume (veh/h)	260	2208	58	290	1548	492	476	1059	118	521	2559	161
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	260	2208	58	290	1548	492	476	1059	118	521	2559	0
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	297	1655	530	231	1564	487	331	1466	456	563	1804	556
Arrive On Green	0.09	0.34	0.34	0.07	0.32	0.32	0.10	0.29	0.29	0.17	0.36	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	1524	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	260	2208	58	290	1548	492	476	1059	118	521	2559	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1524	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	11.7	50.9	3.8	10.2	47.4	48.1	14.6	28.4	8.7	22.9	53.9	0.0
Cycle Q Clear(g_c), s	11.7	50.9	3.8	10.2	47.4	48.1	14.6	28.4	8.7	22.9	53.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	297	1655	530	231	1564	487	331	1466	456	563	1804	556
V/C Ratio(X)	0.88	1.33	0.11	1.26	0.99	1.01	1.44	0.72	0.26	0.93	1.42	0.00
Avail Cap(c_a), veh/h	297	1655	530	231	1564	487	331	1466	456	628	1804	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.7	49.8	34.2	70.2	51.0	51.2	67.9	47.9	40.9	61.8	48.3	0.0
Incr Delay (d2), s/veh	23.2	154.6	0.0	145.3	20.3	43.4	214.3	1.8	0.3	17.9	191.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	46.5	1.7	9.4	24.3	26.1	16.7	13.4	3.8	12.1	56.9	0.0
LnGrp Delay(d),s/veh	90.8	204.4	34.3	215.4	71.2	94.6	282.3	49.7	41.2	79.7	240.1	0.0
LnGrp LOS	F	F	C	F	E	F	F	D	D	E	F	
Approach Vol, veh/h		2526			2330			1653			3080	
Approach Delay, s/veh		188.8			94.1			116.0			213.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	59.0	17.8	53.7	30.1	48.9	15.0	56.5
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 15	53.9	* 14	47.6	28.0	40.9	* 10	* 51
Max Q Clear Time (g_c+I1), s	16.6	55.9	13.7	50.1	24.9	30.4	12.2	52.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	9.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	161.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	990	322	121	782	54	118	1246	458	17	2647	150
Future Volume (veh/h)	46	990	322	121	782	54	118	1246	458	17	2647	150
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	46	990	322	121	782	54	118	1246	458	17	2647	150
Adj No. of Lanes	2	3	1	2	3	1	1	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	79	1108	345	139	1197	373	126	2907	905	35	2598	809
Arrive On Green	0.02	0.22	0.22	0.04	0.24	0.24	0.07	0.58	0.58	0.01	0.52	0.52
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	1757	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	46	990	322	121	782	54	118	1246	458	17	2647	150
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1757	1679	1568	1704	1679	1568
Q Serve(g_s), s	1.9	26.7	28.2	4.9	19.6	3.8	9.3	19.4	24.4	0.7	72.1	7.2
Cycle Q Clear(g_c), s	1.9	26.7	28.2	4.9	19.6	3.8	9.3	19.4	24.4	0.7	72.1	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	1108	345	139	1197	373	126	2907	905	35	2598	809
V/C Ratio(X)	0.59	0.89	0.93	0.87	0.65	0.14	0.94	0.43	0.51	0.48	1.02	0.19
Avail Cap(c_a), veh/h	93	1117	348	139	1197	373	126	2907	905	83	2598	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.6	52.9	53.5	66.6	48.1	42.0	64.6	16.6	17.6	68.8	33.8	18.1
Incr Delay (d2), s/veh	6.8	9.4	31.6	40.8	1.3	0.2	61.4	0.1	0.5	9.8	22.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	13.3	15.2	3.1	9.3	1.7	6.7	9.0	10.6	0.4	38.6	3.1
LnGrp Delay(d),s/veh	74.4	62.3	85.1	107.4	49.3	42.2	125.9	16.7	18.1	78.6	56.3	18.1
LnGrp LOS	E	E	F	F	D	D	F	B	B	E	F	B
Approach Vol, veh/h		1358			957			1822			2814	
Approach Delay, s/veh		68.1			56.3			24.1			54.4	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	77.1	11.2	35.9	6.9	85.7	8.7	38.4
Change Period (Y+Rc), s	5.5	5.0	5.5	* 5.2	5.5	5.0	5.5	* 5.2
Max Green Setting (Gmax), s	10.0	72.1	5.7	* 31	3.4	78.7	3.8	* 33
Max Q Clear Time (g_c+I1), s	11.3	74.1	6.9	30.2	2.7	26.4	3.9	21.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	42.5	0.0	8.8

Intersection Summary	
HCM 2010 Ctrl Delay	49.4
HCM 2010 LOS	D

Notes

HCM 2010 Signalized Intersection Summary
40: Bradshaw Road & Florin Road

12/07/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	372	863	364	95	966	107	228	1076	100	201	2253	584
Future Volume (veh/h)	372	863	364	95	966	107	228	1076	100	201	2253	584
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1832	1900	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	372	863	364	95	966	107	228	1076	100	201	2253	584
Adj No. of Lanes	2	2	0	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	4	4	3	6	3	3	3	3	3	3	3
Cap, veh/h	420	769	323	114	1134	363	231	2117	659	252	2147	669
Arrive On Green	0.12	0.32	0.32	0.03	0.23	0.23	0.07	0.42	0.42	0.07	0.43	0.43
Sat Flow, veh/h	3408	2392	1004	3408	4893	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	372	627	600	95	966	107	228	1076	100	201	2253	584
Grp Sat Flow(s),veh/h/ln	1704	1741	1655	1704	1631	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	15.0	45.0	45.0	3.9	26.5	7.9	9.4	22.0	5.5	8.1	59.7	47.7
Cycle Q Clear(g_c), s	15.0	45.0	45.0	3.9	26.5	7.9	9.4	22.0	5.5	8.1	59.7	47.7
Prop In Lane	1.00		0.61	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	420	559	532	114	1134	363	231	2117	659	252	2147	669
V/C Ratio(X)	0.89	1.12	1.13	0.83	0.85	0.29	0.99	0.51	0.15	0.80	1.05	0.87
Avail Cap(c_a), veh/h	450	559	532	114	1134	363	231	2117	659	341	2147	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.4	47.5	47.5	67.3	51.5	44.3	65.2	29.9	25.1	63.8	40.2	36.7
Incr Delay (d2), s/veh	17.9	75.7	79.3	37.8	6.1	0.2	55.0	0.2	0.1	9.2	33.8	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	33.4	32.3	2.4	12.5	3.4	6.2	10.2	2.4	4.1	34.4	22.9
LnGrp Delay(d),s/veh	78.2	123.2	126.8	105.0	57.6	44.5	120.2	30.1	25.2	73.0	74.0	49.0
LnGrp LOS	E	F	F	F	E	D	F	C	C	E	F	D
Approach Vol, veh/h		1599			1168			1404			3038	
Approach Delay, s/veh		114.1			60.2			44.4			69.1	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	64.0	22.8	37.4	15.0	64.8	10.2	50.0
Change Period (Y+Rc), s	5.5	* 5.1	5.5	* 5	5.5	* 5.1	5.5	* 5
Max Green Setting (Gmax), s	14.0	* 55	18.5	* 31	9.5	* 60	4.7	* 45
Max Q Clear Time (g_c+I1), s	10.1	24.0	17.0	28.5	11.4	61.7	5.9	47.0
Green Ext Time (p_c), s	0.2	29.6	0.2	1.9	0.0	0.0	0.0	0.0

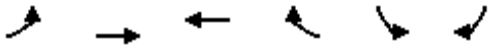
Intersection Summary	
HCM 2010 Ctrl Delay	72.8
HCM 2010 LOS	E

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	689	182	775	773	232	570
Future Volume (veh/h)	689	182	775	773	232	570
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	689	182	775	773	232	570
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	671	177	781	2570	312	976
Arrive On Green	0.24	0.24	0.44	0.73	0.18	0.18
Sat Flow, veh/h	2837	725	1757	3597	1757	1568
Grp Volume(v), veh/h	440	431	775	773	232	570
Grp Sat Flow(s),veh/h/ln	1752	1717	1757	1752	1757	1568
Q Serve(g_s), s	22.0	22.0	39.5	6.8	11.3	16.0
Cycle Q Clear(g_c), s	22.0	22.0	39.5	6.8	11.3	16.0
Prop In Lane		0.42	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	428	420	781	2570	312	976
V/C Ratio(X)	1.03	1.03	0.99	0.30	0.74	0.58
Avail Cap(c_a), veh/h	428	420	781	2570	312	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.0	34.0	24.9	4.1	35.1	10.1
Incr Delay (d2), s/veh	50.5	51.1	30.3	0.1	9.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.6	16.3	25.5	3.2	6.3	8.5
LnGrp Delay(d),s/veh	84.5	85.1	55.1	4.2	44.3	11.0
LnGrp LOS	F	F	E	A	D	B
Approach Vol, veh/h	871			1548	802	
Approach Delay, s/veh	84.8			29.7	20.6	
Approach LOS	F			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		20.0	44.0	26.0				70.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		16.0	40.0	22.0				66.0
Max Q Clear Time (g_c+I1), s		18.0	41.5	24.0				8.8
Green Ext Time (p_c), s		0.0	0.0	0.0				17.7

Intersection Summary	
HCM 2010 Ctrl Delay	42.3
HCM 2010 LOS	D



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	141	2274	1641	657	777	316
Future Volume (veh/h)	141	2274	1641	657	777	316
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	141	2274	1641	657	777	316
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	132	2644	1493	573	717	640
Arrive On Green	0.08	0.52	0.42	0.42	0.41	0.41
Sat Flow, veh/h	1757	5202	3749	1376	1757	1568
Grp Volume(v), veh/h	141	2274	1533	765	777	316
Grp Sat Flow(s),veh/h/ln	1757	1679	1679	1602	1757	1568
Q Serve(g_s), s	9.0	46.9	50.0	50.0	49.0	17.9
Cycle Q Clear(g_c), s	9.0	46.9	50.0	50.0	49.0	17.9
Prop In Lane	1.00			0.86	1.00	1.00
Lane Grp Cap(c), veh/h	132	2644	1399	667	717	640
V/C Ratio(X)	1.07	0.86	1.10	1.15	1.08	0.49
Avail Cap(c_a), veh/h	132	2644	1399	667	717	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	24.7	35.0	35.0	35.5	26.3
Incr Delay (d2), s/veh	98.4	3.1	54.8	82.5	58.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	22.4	33.8	37.4	35.3	16.8
LnGrp Delay(d),s/veh	153.9	27.8	89.8	117.5	93.9	26.9
LnGrp LOS	F	C	F	F	F	C
Approach Vol, veh/h		2415	2298		1093	
Approach Delay, s/veh		35.2	99.0		74.5	
Approach LOS		D	F		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				67.0		53.0	13.0	54.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				63.0		49.0	9.0	50.0
Max Q Clear Time (g_c+I1), s				48.9		51.0	11.0	52.0
Green Ext Time (p_c), s				14.0		0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	1805	98	956	1148	361	89	625	769	411	838	82
Future Volume (veh/h)	283	1805	98	956	1148	361	89	625	769	411	838	82
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	283	1805	98	956	1148	361	89	625	769	411	838	82
Adj No. of Lanes	2	3	1	2	3	1	1	1	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	333	1553	498	704	2085	668	109	492	418	295	1021	457
Arrive On Green	0.10	0.32	0.32	0.21	0.43	0.43	0.06	0.27	0.27	0.09	0.29	0.29
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	1757	1845	1568	3408	3505	1568
Grp Volume(v), veh/h	283	1805	98	956	1148	361	89	625	769	411	838	82
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1757	1845	1568	1704	1752	1568
Q Serve(g_s), s	12.3	47.6	6.8	31.0	26.4	25.7	7.5	40.0	40.0	13.0	33.4	5.9
Cycle Q Clear(g_c), s	12.3	47.6	6.8	31.0	26.4	25.7	7.5	40.0	40.0	13.0	33.4	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	1553	498	704	2085	668	109	492	418	295	1021	457
V/C Ratio(X)	0.85	1.16	0.20	1.36	0.55	0.54	0.82	1.27	1.84	1.39	0.82	0.18
Avail Cap(c_a), veh/h	432	1553	498	704	2085	668	129	492	418	295	1021	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.6	51.2	37.3	59.5	32.3	32.1	69.5	55.0	55.0	68.5	49.5	39.7
Incr Delay (d2), s/veh	11.9	80.6	0.3	169.9	0.4	1.1	28.3	137.0	386.8	195.6	5.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	33.0	3.0	31.2	12.0	11.4	4.5	39.1	62.2	14.1	16.9	2.6
LnGrp Delay(d),s/veh	78.4	131.8	37.6	229.4	32.7	33.2	97.8	192.0	441.8	264.1	54.9	39.9
LnGrp LOS	E	F	D	F	C	C	F	F	F	F	D	D
Approach Vol, veh/h		2186			2465			1483			1331	
Approach Delay, s/veh		120.7			109.1			315.9			118.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	54.0	13.3	47.7	18.7	70.3	17.0	44.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	31.0	47.6	11.0	42.0	19.0	59.6	13.0	40.0
Max Q Clear Time (g_c+I1), s	33.0	49.6	9.5	35.4	14.3	28.4	15.0	42.0
Green Ext Time (p_c), s	0.0	0.0	0.0	5.6	0.4	30.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	155.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	577	37	168	638	12	39	299	157	2	657	123
Future Volume (veh/h)	9	577	37	168	638	12	39	299	157	2	657	123
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1759	1759	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	9	577	37	168	638	12	39	299	157	2	657	123
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	8	8	8	3	3	3	3	3	3
Cap, veh/h	48	579	37	166	720	14	64	924	474	50	611	114
Arrive On Green	0.03	0.35	0.35	0.10	0.42	0.42	0.04	0.41	0.41	0.03	0.40	0.40
Sat Flow, veh/h	1707	1667	107	1675	1721	32	1757	2244	1150	1757	1512	283
Grp Volume(v), veh/h	9	0	614	168	0	650	39	232	224	2	0	780
Grp Sat Flow(s),veh/h/ln	1707	0	1774	1675	0	1754	1757	1752	1642	1757	0	1795
Q Serve(g_s), s	0.7	0.0	48.8	14.0	0.0	48.4	3.1	12.7	13.1	0.2	0.0	57.0
Cycle Q Clear(g_c), s	0.7	0.0	48.8	14.0	0.0	48.4	3.1	12.7	13.1	0.2	0.0	57.0
Prop In Lane	1.00		0.06	1.00		0.02	1.00		0.70	1.00		0.16
Lane Grp Cap(c), veh/h	48	0	616	166	0	733	64	722	676	50	0	725
V/C Ratio(X)	0.19	0.00	1.00	1.01	0.00	0.89	0.61	0.32	0.33	0.04	0.00	1.08
Avail Cap(c_a), veh/h	169	0	616	166	0	733	174	722	676	174	0	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.0	0.0	46.0	63.6	0.0	38.0	67.0	28.1	28.3	66.7	0.0	42.1
Incr Delay (d2), s/veh	1.8	0.0	35.5	72.6	0.0	12.6	9.1	0.3	0.3	0.3	0.0	55.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	29.9	9.8	0.0	26.0	1.7	6.2	6.0	0.1	0.0	39.4
LnGrp Delay(d),s/veh	68.8	0.0	81.5	136.3	0.0	50.6	76.2	28.4	28.6	67.0	0.0	97.8
LnGrp LOS	E		F	F		D	E	C	C	E		F
Approach Vol, veh/h		623			818			495			782	
Approach Delay, s/veh		81.3			68.2			32.2			97.7	
Approach LOS		F			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	62.1	18.0	53.0	9.1	61.0	8.0	63.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	57.0	14.0	49.0	14.0	57.0	14.0	49.0
Max Q Clear Time (g_c+I1), s	2.2	15.1	16.0	50.8	5.1	59.0	2.7	50.4
Green Ext Time (p_c), s	0.0	11.7	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	73.1
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1059	44	925	27	77	110	645	2110	17	146	1045	974
Future Volume (veh/h)	1059	44	925	27	77	110	645	2110	17	146	1045	974
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	1090	0	925	27	77	110	645	2110	17	146	1045	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	982	0	438	22	62	72	427	2249	18	111	1279	398
Arrive On Green	0.28	0.00	0.28	0.05	0.05	0.05	0.25	0.44	0.44	0.06	0.26	0.00
Sat Flow, veh/h	3480	0	1553	473	1348	1568	1740	5104	41	1740	4988	1553
Grp Volume(v), veh/h	1090	0	925	104	0	110	645	1374	753	146	1045	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1821	0	1568	1740	1663	1820	1740	1663	1553
Q Serve(g_s), s	33.7	0.0	33.7	5.5	0.0	5.5	29.3	47.1	47.1	7.6	23.5	0.0
Cycle Q Clear(g_c), s	33.7	0.0	33.7	5.5	0.0	5.5	29.3	47.1	47.1	7.6	23.5	0.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	982	0	438	84	0	72	427	1465	802	111	1279	398
V/C Ratio(X)	1.11	0.00	2.11	1.24	0.00	1.52	1.51	0.94	0.94	1.32	0.82	0.00
Avail Cap(c_a), veh/h	982	0	438	84	0	72	427	1487	814	111	1303	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.9	0.0	42.9	57.0	0.0	57.0	45.1	31.8	31.9	55.9	41.8	0.0
Incr Delay (d2), s/veh	63.9	0.0	507.6	176.1	0.0	293.7	241.8	11.4	18.0	193.3	3.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.8	0.0	76.2	6.9	0.0	8.3	42.7	23.9	27.6	9.6	11.3	0.0
LnGrp Delay(d),s/veh	106.7	0.0	550.5	233.0	0.0	350.7	286.9	43.2	49.8	249.2	45.6	0.0
LnGrp LOS	F		F	F		F	F	D	D	F	D	
Approach Vol, veh/h		2015			214			2772			1191	
Approach Delay, s/veh		310.4			293.5			101.7			70.5	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	35.4		11.0	12.0	57.4		39.0
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 29	31.2		5.5	* 7.6	* 53		33.7
Max Q Clear Time (g_c+I1), s	31.3	25.5		7.5	9.6	49.1		35.7
Green Ext Time (p_c), s	0.0	4.5		0.0	0.0	3.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	170.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	1594	135	456	1143	436	80	503	412	624	692	266
Future Volume (veh/h)	159	1594	135	456	1143	436	80	503	412	624	692	266
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	159	1594	135	456	1143	436	80	503	412	624	692	266
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	204	1556	485	457	1916	597	121	820	367	617	1330	595
Arrive On Green	0.06	0.31	0.31	0.13	0.38	0.38	0.04	0.23	0.23	0.18	0.38	0.38
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	159	1594	135	456	1143	436	80	503	412	624	692	266
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	6.7	44.9	9.5	19.4	26.4	34.7	3.4	18.6	34.0	26.3	22.2	18.4
Cycle Q Clear(g_c), s	6.7	44.9	9.5	19.4	26.4	34.7	3.4	18.6	34.0	26.3	22.2	18.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	204	1556	485	457	1916	597	121	820	367	617	1330	595
V/C Ratio(X)	0.78	1.02	0.28	1.00	0.60	0.73	0.66	0.61	1.12	1.01	0.52	0.45
Avail Cap(c_a), veh/h	277	1556	485	457	1916	597	171	820	367	617	1330	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3	50.2	38.0	62.9	36.1	38.6	69.2	49.8	55.7	59.5	34.9	33.7
Incr Delay (d2), s/veh	6.3	29.2	0.1	41.2	0.4	4.0	2.3	1.0	84.6	39.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	25.0	4.1	11.7	12.3	15.7	1.6	9.1	23.3	15.7	10.8	8.0
LnGrp Delay(d),s/veh	73.7	79.4	38.1	104.1	36.4	42.6	71.5	50.8	140.3	98.6	35.0	33.9
LnGrp LOS	E	F	D	F	D	D	E	D	F	F	D	C
Approach Vol, veh/h		1888			2035			995			1582	
Approach Delay, s/veh		76.0			52.9			89.5			59.9	
Approach LOS		E			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	60.2	10.7	60.2	24.6	49.8	31.8	39.1
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	11.8	* 52	7.3	* 53	* 20	* 45	26.3	* 34
Max Q Clear Time (g_c+I1), s	8.7	36.7	5.4	24.2	21.4	46.9	28.3	36.0
Green Ext Time (p_c), s	0.0	9.2	0.0	2.5	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	66.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	706	1569	392	42	860	300	283	1290	46	729	1761	372
Future Volume (veh/h)	706	1569	392	42	860	300	283	1290	46	729	1761	372
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	706	1569	392	42	860	300	283	1290	46	729	1761	372
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	625	1923	599	72	1106	344	277	1230	383	664	1801	561
Arrive On Green	0.18	0.38	0.38	0.02	0.22	0.22	0.08	0.25	0.25	0.20	0.36	0.36
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	706	1569	392	42	860	300	283	1290	46	729	1761	372
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	27.5	42.0	30.9	1.8	24.1	27.7	12.3	37.0	3.5	29.5	52.3	30.2
Cycle Q Clear(g_c), s	27.5	42.0	30.9	1.8	24.1	27.7	12.3	37.0	3.5	29.5	52.3	30.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	625	1923	599	72	1106	344	277	1230	383	664	1801	561
V/C Ratio(X)	1.13	0.82	0.65	0.58	0.78	0.87	1.02	1.05	0.12	1.10	0.98	0.66
Avail Cap(c_a), veh/h	625	1923	599	84	1141	355	277	1230	383	664	1801	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	41.7	38.2	72.8	55.1	56.5	68.9	56.5	43.9	60.3	47.3	40.3
Incr Delay (d2), s/veh	77.5	2.7	2.1	2.8	3.0	19.0	60.1	39.5	0.1	65.0	16.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.7	19.9	13.7	0.9	11.5	13.8	8.0	21.5	1.5	19.7	26.7	13.3
LnGrp Delay(d),s/veh	138.8	44.3	40.3	75.6	58.1	75.5	129.0	96.0	43.9	125.3	63.4	42.6
LnGrp LOS	F	D	D	E	E	E	F	F	D	F	E	D
Approach Vol, veh/h		2667			1202			1619			2862	
Approach Delay, s/veh		68.7			63.1			100.3			76.5	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	60.2	33.0	39.1	35.0	43.0	8.7	63.4
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	12.3	53.6	27.5	* 34	29.5	* 37	3.7	* 57
Max Q Clear Time (g_c+I1), s	14.3	54.3	29.5	29.7	31.5	39.0	3.8	44.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.2	0.0	0.0	0.0	7.5

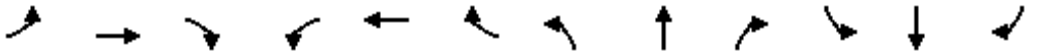
Intersection Summary	
HCM 2010 Ctrl Delay	76.7
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	677	1598	347	112	865	360	264	1249	102	701	1858	829
Future Volume (veh/h)	677	1598	347	112	865	360	264	1249	102	701	1858	829
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	677	1598	347	112	865	360	264	1249	102	701	1858	829
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	669	1698	529	135	875	272	277	1293	403	692	1906	593
Arrive On Green	0.20	0.34	0.34	0.04	0.18	0.18	0.08	0.26	0.26	0.20	0.38	0.38
Sat Flow, veh/h	3408	5036	1568	3250	4803	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	677	1598	347	112	865	360	264	1249	102	701	1858	829
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1625	1601	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	27.5	43.1	26.4	4.8	25.2	25.5	10.9	34.6	7.3	28.7	51.4	53.5
Cycle Q Clear(g_c), s	27.5	43.1	26.4	4.8	25.2	25.5	10.9	34.6	7.3	28.7	51.4	53.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	669	1698	529	135	875	272	277	1293	403	692	1906	593
V/C Ratio(X)	1.01	0.94	0.66	0.83	0.99	1.32	0.95	0.97	0.25	1.01	0.97	1.40
Avail Cap(c_a), veh/h	669	1698	529	135	875	272	277	1293	403	692	1906	593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	45.1	39.5	66.6	57.1	57.3	64.0	51.2	41.1	55.7	42.6	43.3
Incr Delay (d2), s/veh	37.6	10.8	2.4	32.0	27.5	168.2	40.7	17.3	0.1	37.5	15.0	188.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	21.7	11.8	2.7	13.4	23.3	6.7	18.0	3.2	17.0	26.2	53.9
LnGrp Delay(d),s/veh	93.9	55.8	41.9	98.7	84.6	225.4	104.7	68.6	41.2	93.1	57.6	232.0
LnGrp LOS	F	E	D	F	F	F	F	E	D	F	E	F
Approach Vol, veh/h		2622			1337			1615			3388	
Approach Delay, s/veh		63.8			123.7			72.8			107.6	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	59.0	33.0	31.0	34.2	41.8	11.3	52.7
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	11.5	53.5	27.5	25.5	28.7	36.3	5.8	47.2
Max Q Clear Time (g_c+I1), s	12.9	55.5	29.5	27.5	30.7	36.6	6.8	45.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	90.9
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	759	1164	161	178	787	163	130	885	308	239	1459	455
Future Volume (veh/h)	759	1164	161	178	787	163	130	885	308	239	1459	455
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1845
Adj Flow Rate, veh/h	759	1164	161	178	787	163	130	885	308	239	1459	455
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	3
Cap, veh/h	1068	1098	491	710	730	327	142	1150	358	293	1413	444
Arrive On Green	0.31	0.31	0.31	0.21	0.21	0.21	0.04	0.23	0.23	0.09	0.28	0.28
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	4988	1553	3375	4988	1568
Grp Volume(v), veh/h	759	1164	161	178	787	163	130	885	308	239	1459	455
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1663	1553	1688	1663	1568
Q Serve(g_s), s	23.6	37.6	9.4	5.2	25.0	11.0	4.6	19.9	22.8	8.3	34.0	34.0
Cycle Q Clear(g_c), s	23.6	37.6	9.4	5.2	25.0	11.0	4.6	19.9	22.8	8.3	34.0	34.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1068	1098	491	710	730	327	142	1150	358	293	1413	444
V/C Ratio(X)	0.71	1.06	0.33	0.25	1.08	0.50	0.92	0.77	0.86	0.81	1.03	1.02
Avail Cap(c_a), veh/h	1068	1098	491	710	730	327	142	1150	358	318	1413	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	41.2	31.5	39.7	47.5	42.0	57.3	43.2	44.3	53.8	43.0	43.0
Incr Delay (d2), s/veh	2.2	44.5	0.4	0.2	56.3	1.2	50.9	3.2	18.6	14.1	32.7	49.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	24.9	4.1	2.5	17.8	4.9	3.2	9.5	11.7	4.5	19.8	20.7
LnGrp Delay(d),s/veh	38.6	85.7	31.9	39.9	103.8	43.1	108.2	46.4	62.9	68.0	75.7	92.0
LnGrp LOS	D	F	C	D	F	D	F	D	E	E	F	F
Approach Vol, veh/h		2084			1128			1323			2153	
Approach Delay, s/veh		64.4			84.9			56.3			78.3	
Approach LOS		E			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.0	39.0		43.0	15.3	32.7		29.0
Change Period (Y+Rc), s	4.0	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	5.0	34.0		* 38	* 11	26.8		25.0
Max Q Clear Time (g_c+I1), s	6.6	36.0		39.6	10.3	24.8		27.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	1.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	70.7
HCM 2010 LOS	E

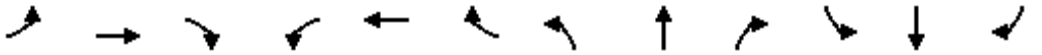
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	364	1698	102	333	951	262	66	704	336	307	1186	293
Future Volume (veh/h)	364	1698	102	333	951	262	66	704	336	307	1186	293
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1792	1845	1845	1845	1827	1845	1845
Adj Flow Rate, veh/h	364	1698	102	333	951	262	66	704	336	307	1186	293
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	6	3	3	3	4	3	3
Cap, veh/h	428	1643	512	323	1487	578	108	996	446	284	1181	725
Arrive On Green	0.13	0.33	0.33	0.09	0.30	0.30	0.03	0.28	0.28	0.08	0.34	0.34
Sat Flow, veh/h	3408	5036	1568	3408	5036	1524	3408	3505	1568	3375	3505	1568
Grp Volume(v), veh/h	364	1698	102	333	951	262	66	704	336	307	1186	293
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1524	1704	1752	1568	1688	1752	1568
Q Serve(g_s), s	9.9	31.0	4.5	9.0	15.6	12.2	1.8	17.1	18.5	8.0	32.0	11.7
Cycle Q Clear(g_c), s	9.9	31.0	4.5	9.0	15.6	12.2	1.8	17.1	18.5	8.0	32.0	11.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	428	1643	512	323	1487	578	108	996	446	284	1181	725
V/C Ratio(X)	0.85	1.03	0.20	1.03	0.64	0.45	0.61	0.71	0.75	1.08	1.00	0.40
Avail Cap(c_a), veh/h	431	1643	512	323	1487	578	108	996	446	284	1181	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	32.0	23.1	43.0	29.1	22.1	45.4	30.5	31.0	43.5	31.5	16.9
Incr Delay (d2), s/veh	14.8	31.3	0.2	58.4	0.9	0.6	9.9	2.3	7.1	76.3	27.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	19.1	2.0	6.8	7.3	5.3	1.0	8.5	8.9	6.7	19.9	5.1
LnGrp Delay(d),s/veh	55.4	63.3	23.2	101.4	30.0	22.6	55.3	32.8	38.1	119.8	58.8	17.2
LnGrp LOS	E	F	C	F	C	C	E	C	D	F	F	B
Approach Vol, veh/h		2164			1546			1106			1786	
Approach Delay, s/veh		60.1			44.1			35.7			62.5	
Approach LOS		E			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	37.0	7.0	38.0	15.9	34.1	12.0	33.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	9.0	31.0	3.0	32.0	12.0	28.0	8.0	27.0
Max Q Clear Time (g_c+I1), s	11.0	33.0	3.8	34.0	11.9	17.6	10.0	20.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	9.7	0.0	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	52.9
HCM 2010 LOS	D

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	976	768	4	64	442	80	54	847	73	86	686	690
Future Volume (veh/h)	976	768	4	64	442	80	54	847	73	86	686	690
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	976	768	4	64	442	80	54	847	73	86	686	690
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	989	1672	748	107	765	342	93	837	375	116	861	385
Arrive On Green	0.30	0.49	0.49	0.03	0.22	0.22	0.03	0.24	0.24	0.03	0.25	0.25
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3343	3438	1538	3343	3438	1538
Grp Volume(v), veh/h	976	768	4	64	442	80	54	847	73	86	686	690
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1672	1719	1538	1672	1719	1538
Q Serve(g_s), s	31.3	15.8	0.1	2.0	12.3	4.6	1.7	26.0	4.0	2.7	19.9	26.7
Cycle Q Clear(g_c), s	31.3	15.8	0.1	2.0	12.3	4.6	1.7	26.0	4.0	2.7	19.9	26.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	989	1672	748	107	765	342	93	837	375	116	861	385
V/C Ratio(X)	0.99	0.46	0.01	0.60	0.58	0.23	0.58	1.01	0.19	0.74	0.80	1.79
Avail Cap(c_a), veh/h	989	1706	763	174	868	388	94	837	375	116	861	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	17.9	13.9	51.0	36.9	33.9	51.3	40.4	32.1	51.1	37.5	40.0
Incr Delay (d2), s/veh	25.2	0.4	0.0	2.0	1.5	0.7	5.7	34.0	0.3	20.1	5.3	366.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.7	7.5	0.1	1.0	5.9	2.0	0.9	16.2	1.7	1.6	10.1	50.5
LnGrp Delay(d),s/veh	62.4	18.3	13.9	53.0	38.4	34.6	57.0	74.4	32.3	71.1	42.7	406.3
LnGrp LOS	E	B	B	D	D	C	E	F	C	E	D	F
Approach Vol, veh/h		1748			586			974			1462	
Approach Delay, s/veh		42.9			39.5			70.3			216.0	
Approach LOS		D			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.5	30.0	7.6	32.7	8.0	58.4	8.3	32.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	31.9	27.2	3.0	26.7	5.6	53.5	3.7	26.0
Max Q Clear Time (g_c+I1), s	33.3	14.3	3.7	28.7	4.0	17.8	4.7	28.0
Green Ext Time (p_c), s	0.0	9.6	0.0	0.0	0.0	20.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	101.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	1214	465	44	1647	192	186	747	77	53	1388	148
Future Volume (veh/h)	185	1214	465	44	1647	192	186	747	77	53	1388	148
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	185	1214	465	44	1647	192	186	747	77	53	1388	148
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	188	1736	541	100	1607	500	188	1429	639	110	1350	604
Arrive On Green	0.06	0.35	0.35	0.03	0.32	0.32	0.06	0.41	0.41	0.03	0.39	0.39
Sat Flow, veh/h	3375	4988	1553	3375	4988	1553	3375	3471	1553	3375	3471	1553
Grp Volume(v), veh/h	185	1214	465	44	1647	192	186	747	77	53	1388	148
Grp Sat Flow(s),veh/h/ln	1688	1663	1553	1688	1663	1553	1688	1736	1553	1688	1736	1553
Q Serve(g_s), s	4.9	18.9	25.1	1.2	29.0	8.6	5.0	14.5	2.8	1.4	35.0	5.8
Cycle Q Clear(g_c), s	4.9	18.9	25.1	1.2	29.0	8.6	5.0	14.5	2.8	1.4	35.0	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	1736	541	100	1607	500	188	1429	639	110	1350	604
V/C Ratio(X)	0.99	0.70	0.86	0.44	1.02	0.38	0.99	0.52	0.12	0.48	1.03	0.25
Avail Cap(c_a), veh/h	188	1736	541	150	1607	500	188	1429	639	150	1350	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	25.3	27.3	42.9	30.5	23.6	42.5	19.8	16.4	42.8	27.5	18.6
Incr Delay (d2), s/veh	61.6	1.3	13.2	3.0	29.0	0.5	63.2	0.3	0.1	3.2	32.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	8.9	12.7	0.6	17.6	3.7	3.9	7.0	1.2	0.7	22.7	2.5
LnGrp Delay(d),s/veh	104.1	26.5	40.5	45.9	59.5	24.1	105.7	20.2	16.5	46.0	59.5	18.8
LnGrp LOS	F	C	D	D	F	C	F	C	B	D	F	B
Approach Vol, veh/h		1864			1883			1010			1589	
Approach Delay, s/veh		37.7			55.6			35.7			55.2	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	41.1	6.7	35.3	9.0	39.0	9.0	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	36.0	4.0	30.0	5.0	35.0	5.0	29.0
Max Q Clear Time (g_c+I1), s	3.4	16.5	3.2	27.1	7.0	37.0	6.9	31.0
Green Ext Time (p_c), s	0.0	15.3	0.0	2.9	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	6	262	50	9	1	194	1515	55	1	1895	0
Future Volume (veh/h)	1	6	262	50	9	1	194	1515	55	1	1895	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1759	1759	1845	1845	1845	1792	1792	1900	1792	1792	1900
Adj Flow Rate, veh/h	1	6	262	50	9	1	194	1515	55	1	1895	0
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	3	3	3	6	6	6	6	6	6
Cap, veh/h	208	219	372	78	81	69	212	1777	64	302	1986	0
Arrive On Green	0.12	0.12	0.12	0.04	0.04	0.04	0.12	0.53	0.53	0.18	0.58	0.00
Sat Flow, veh/h	1675	1759	1495	1757	1845	1568	1707	3352	121	1707	3495	0
Grp Volume(v), veh/h	1	6	262	50	9	1	194	768	802	1	1895	0
Grp Sat Flow(s),veh/h/ln	1675	1759	1495	1757	1845	1568	1707	1703	1771	1707	1703	0
Q Serve(g_s), s	0.1	0.4	16.0	3.6	0.6	0.1	14.5	49.7	50.1	0.1	67.3	0.0
Cycle Q Clear(g_c), s	0.1	0.4	16.0	3.6	0.6	0.1	14.5	49.7	50.1	0.1	67.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	208	219	372	78	81	69	212	903	939	302	1986	0
V/C Ratio(X)	0.00	0.03	0.71	0.64	0.11	0.01	0.91	0.85	0.85	0.00	0.95	0.00
Avail Cap(c_a), veh/h	208	219	372	218	229	195	212	1164	1210	302	2010	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.4	49.5	44.1	60.5	59.1	58.9	55.7	25.9	26.0	43.6	25.2	0.0
Incr Delay (d2), s/veh	0.0	0.1	6.0	8.6	0.6	0.1	39.0	4.9	4.9	0.0	11.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	9.1	1.9	0.3	0.0	9.1	24.5	25.6	0.0	34.4	0.0
LnGrp Delay(d),s/veh	49.4	49.6	50.0	69.2	59.7	58.9	94.8	30.8	30.9	43.6	36.4	0.0
LnGrp LOS	D	D	D	E	E	E	F	C	C	D	D	
Approach Vol, veh/h		269			60			1764			1896	
Approach Delay, s/veh		50.0			67.6			37.9			36.4	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.8	72.3		20.0	20.0	79.1		9.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	88.0		16.0	16.0	76.0		16.0
Max Q Clear Time (g_c+I1), s	2.1	52.1		18.0	16.5	69.3		5.6
Green Ext Time (p_c), s	1.8	16.2		0.0	0.0	5.7		0.1

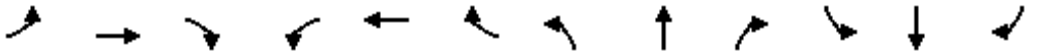
Intersection Summary	
HCM 2010 Ctrl Delay	38.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	361	47	22	1333	1729	487
Future Volume (veh/h)	361	47	22	1333	1729	487
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	361	47	22	1333	1729	487
Adj No. of Lanes	2	1	2	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	526	242	71	2454	2125	951
Arrive On Green	0.15	0.15	0.02	0.70	0.61	0.61
Sat Flow, veh/h	3408	1568	3408	3597	3597	1568
Grp Volume(v), veh/h	361	47	22	1333	1729	487
Grp Sat Flow(s),veh/h/ln	1704	1568	1704	1752	1752	1568
Q Serve(g_s), s	5.5	1.4	0.3	10.1	21.0	9.7
Cycle Q Clear(g_c), s	5.5	1.4	0.3	10.1	21.0	9.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	526	242	71	2454	2125	951
V/C Ratio(X)	0.69	0.19	0.31	0.54	0.81	0.51
Avail Cap(c_a), veh/h	993	457	248	2618	2125	951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	20.2	26.5	4.0	8.4	6.2
Incr Delay (d2), s/veh	1.6	0.4	2.5	0.2	2.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	1.3	0.2	4.9	10.6	4.3
LnGrp Delay(d),s/veh	23.6	20.6	28.9	4.2	10.9	6.6
LnGrp LOS	C	C	C	A	B	A
Approach Vol, veh/h	408			1355	2216	
Approach Delay, s/veh	23.2			4.6	10.0	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.4		12.5	5.1	37.3		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		41.0		16.0	4.0	33.0		
Max Q Clear Time (g_c+I1), s		12.1		7.5	2.3	23.0		
Green Ext Time (p_c), s		26.3		1.0	0.0	9.7		

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	1103	319	76	721	6	585	1248	78	36	1015	366
Future Volume (veh/h)	360	1103	319	76	721	6	585	1248	78	36	1015	366
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	360	1103	319	76	721	6	585	1248	78	36	1015	366
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	381	1101	493	129	842	377	571	1552	694	90	1057	473
Arrive On Green	0.11	0.31	0.31	0.04	0.24	0.24	0.17	0.44	0.44	0.03	0.30	0.30
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	360	1103	319	76	721	6	585	1248	78	36	1015	366
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	9.4	28.1	15.7	2.0	17.6	0.3	15.0	27.6	2.6	0.9	25.5	19.0
Cycle Q Clear(g_c), s	9.4	28.1	15.7	2.0	17.6	0.3	15.0	27.6	2.6	0.9	25.5	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	1101	493	129	842	377	571	1552	694	90	1057	473
V/C Ratio(X)	0.95	1.00	0.65	0.59	0.86	0.02	1.02	0.80	0.11	0.40	0.96	0.77
Avail Cap(c_a), veh/h	381	1101	493	152	861	385	571	1552	694	152	1057	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	30.7	26.4	42.4	32.5	25.9	37.3	21.6	14.6	42.9	30.7	28.5
Incr Delay (d2), s/veh	32.4	27.6	3.0	4.2	8.4	0.0	44.0	3.2	0.1	2.8	18.8	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	17.7	7.2	1.0	9.5	0.1	10.5	13.9	1.1	0.5	15.0	9.2
LnGrp Delay(d),s/veh	71.8	58.3	29.4	46.6	40.9	25.9	81.2	24.8	14.7	45.7	49.5	36.3
LnGrp LOS	E	F	C	D	D	C	F	C	B	D	D	D
Approach Vol, veh/h		1782			803			1911			1417	
Approach Delay, s/veh		55.8			41.3			41.6			46.0	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	43.6	7.4	32.1	19.0	31.0	14.0	25.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	38.0	4.0	28.0	15.0	27.0	10.0	22.0
Max Q Clear Time (g_c+I1), s	2.9	29.6	4.0	30.1	17.0	27.5	11.4	19.6
Green Ext Time (p_c), s	0.0	7.6	0.0	0.0	0.0	0.0	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	46.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	986	643	205	657	673	338	490	391	785	976	0
Future Volume (veh/h)	0	986	643	205	657	673	338	490	391	785	976	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	986	643	205	657	673	338	490	391	785	976	0
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	5	1276	397	227	1880	585	409	794	355	818	1215	544
Arrive On Green	0.00	0.25	0.25	0.07	0.37	0.37	0.12	0.23	0.23	0.24	0.35	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	0	986	643	205	657	673	338	490	391	785	976	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.0	13.6	19.0	4.5	7.1	28.0	7.3	9.4	17.0	17.1	18.9	0.0
Cycle Q Clear(g_c), s	0.0	13.6	19.0	4.5	7.1	28.0	7.3	9.4	17.0	17.1	18.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1276	397	227	1880	585	409	794	355	818	1215	544
V/C Ratio(X)	0.00	0.77	1.62	0.90	0.35	1.15	0.83	0.62	1.10	0.96	0.80	0.00
Avail Cap(c_a), veh/h	182	1276	397	227	1880	585	409	794	355	818	1215	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.0	28.0	34.8	16.9	23.5	32.2	26.1	29.0	28.1	22.2	0.0
Incr Delay (d2), s/veh	0.0	3.0	289.8	34.6	0.1	85.9	13.1	1.4	77.4	22.1	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.7	40.1	3.2	3.2	26.0	4.2	4.7	15.0	10.5	9.8	0.0
LnGrp Delay(d),s/veh	0.0	29.0	317.8	69.4	17.0	109.4	45.3	27.5	106.4	50.3	26.2	0.0
LnGrp LOS		C	F	E	B	F	D	C	F	D	C	
Approach Vol, veh/h		1629			1535			1219			1761	
Approach Delay, s/veh		143.0			64.5			57.8			36.9	
Approach LOS		F			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	21.0	9.0	23.0	13.0	30.0	0.0	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	5.0	19.0	9.0	26.0	4.0	20.0
Max Q Clear Time (g_c+I1), s	19.1	19.0	6.5	21.0	9.3	20.9	0.0	30.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	76.1
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	1972	703	216	1299	0	621	518	228	86	613	276
Future Volume (veh/h)	314	1972	703	216	1299	0	621	518	228	86	613	276
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	314	1972	703	216	1299	0	621	518	228	86	613	276
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	387	1958	610	227	1723	536	606	1139	510	142	662	296
Arrive On Green	0.11	0.39	0.39	0.07	0.34	0.00	0.18	0.32	0.32	0.04	0.19	0.19
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	314	1972	703	216	1299	0	621	518	228	86	613	276
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	8.1	35.0	35.0	5.7	20.6	0.0	16.0	10.5	10.3	2.2	15.5	15.6
Cycle Q Clear(g_c), s	8.1	35.0	35.0	5.7	20.6	0.0	16.0	10.5	10.3	2.2	15.5	15.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	1958	610	227	1723	536	606	1139	510	142	662	296
V/C Ratio(X)	0.81	1.01	1.15	0.95	0.75	0.00	1.02	0.45	0.45	0.61	0.93	0.93
Avail Cap(c_a), veh/h	417	1958	610	227	1723	536	606	1139	510	189	662	296
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	27.5	27.5	41.9	26.2	0.0	37.0	24.1	24.0	42.4	35.9	35.9
Incr Delay (d2), s/veh	11.0	22.0	86.5	45.9	1.9	0.0	43.0	0.3	0.6	4.1	19.1	34.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	20.1	29.7	4.1	9.8	0.0	11.1	5.2	4.6	1.1	9.2	9.6
LnGrp Delay(d),s/veh	49.9	49.5	114.0	87.8	28.2	0.0	80.0	24.3	24.6	46.5	55.0	70.7
LnGrp LOS	D	F	F	F	C		F	C	C	D	D	E
Approach Vol, veh/h		2989			1515			1367			975	
Approach Delay, s/veh		64.7			36.7			49.7			58.7	
Approach LOS		E			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	33.2	10.0	39.0	20.0	21.0	14.2	34.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	28.0	6.0	35.0	16.0	17.0	11.0	30.0
Max Q Clear Time (g_c+I1), s	4.2	12.5	7.7	37.0	18.0	17.6	10.1	22.6
Green Ext Time (p_c), s	0.0	8.5	0.0	0.0	0.0	0.0	0.1	7.3

Intersection Summary	
HCM 2010 Ctrl Delay	54.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	851	822	72	1075	768	0	154	819	843	40	2036	759
Future Volume (veh/h)	851	822	72	1075	768	0	154	819	843	40	2036	759
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	851	822	72	1075	768	0	154	819	843	40	2036	759
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	880	755	235	994	923	287	142	2035	634	71	1930	601
Arrive On Green	0.26	0.15	0.15	0.29	0.18	0.00	0.04	0.40	0.40	0.02	0.38	0.38
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	851	822	72	1075	768	0	154	819	843	40	2036	759
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	29.6	18.0	4.9	35.0	17.6	0.0	5.0	13.9	48.5	1.4	46.0	46.0
Cycle Q Clear(g_c), s	29.6	18.0	4.9	35.0	17.6	0.0	5.0	13.9	48.5	1.4	46.0	46.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	880	755	235	994	923	287	142	2035	634	71	1930	601
V/C Ratio(X)	0.97	1.09	0.31	1.08	0.83	0.00	1.08	0.40	1.33	0.56	1.05	1.26
Avail Cap(c_a), veh/h	880	755	235	994	923	287	142	2035	634	85	1930	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	51.0	45.4	42.5	47.2	0.0	57.5	25.4	35.8	58.2	37.0	37.0
Incr Delay (d2), s/veh	22.5	59.3	0.7	53.2	6.5	0.0	99.9	0.1	159.3	6.8	36.7	131.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.7	12.5	2.2	23.8	8.7	0.0	4.3	6.5	48.9	0.7	27.8	41.8
LnGrp Delay(d),s/veh	66.4	110.3	46.2	95.7	53.8	0.0	157.4	25.6	195.0	65.0	73.7	168.2
LnGrp LOS	E	F	D	F	D		F	C	F	E	F	F
Approach Vol, veh/h		1745			1843			1816			2835	
Approach Delay, s/veh		86.3			78.2			115.4			98.9	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	52.5	39.0	22.0	9.0	50.0	35.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	48.0	35.0	18.0	5.0	46.0	31.0	22.0
Max Q Clear Time (g_c+I1), s	3.4	50.5	37.0	20.0	7.0	48.0	31.6	19.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	95.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	553	1543	1044	34	1123	23	851	743	59	86	732	392
Future Volume (veh/h)	553	1543	1044	34	1123	23	851	743	59	86	732	392
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	553	1543	1044	34	1123	23	851	743	59	86	732	392
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	611	2015	627	63	1204	375	786	1333	596	139	668	299
Arrive On Green	0.18	0.40	0.40	0.02	0.24	0.24	0.23	0.38	0.38	0.04	0.19	0.19
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	553	1543	1044	34	1123	23	851	743	59	86	732	392
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	15.9	26.4	39.9	1.0	21.8	1.1	23.0	16.6	2.4	2.5	19.0	19.0
Cycle Q Clear(g_c), s	15.9	26.4	39.9	1.0	21.8	1.1	23.0	16.6	2.4	2.5	19.0	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	611	2015	627	63	1204	375	786	1333	596	139	668	299
V/C Ratio(X)	0.90	0.77	1.66	0.54	0.93	0.06	1.08	0.56	0.10	0.62	1.10	1.31
Avail Cap(c_a), veh/h	615	2015	627	103	1212	377	786	1333	596	171	668	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	25.9	29.9	48.5	37.2	29.3	38.4	24.3	19.9	47.1	40.4	40.4
Incr Delay (d2), s/veh	16.8	1.8	305.9	7.2	12.9	0.1	56.8	0.5	0.1	4.5	64.1	162.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	12.5	70.5	0.5	11.5	0.5	16.9	8.1	1.1	1.3	15.0	21.7
LnGrp Delay(d),s/veh	56.9	27.7	335.8	55.7	50.0	29.4	95.2	24.8	20.0	51.6	104.5	202.8
LnGrp LOS	E	C	F	E	D	C	F	C	B	D	F	F
Approach Vol, veh/h		3140			1180			1653			1210	
Approach Delay, s/veh		135.3			49.8			60.9			132.6	
Approach LOS		F			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	41.9	5.8	43.9	27.0	23.0	21.9	27.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	37.0	3.0	39.0	23.0	19.0	18.0	24.0
Max Q Clear Time (g_c+I1), s	4.5	18.6	3.0	41.9	25.0	21.0	17.9	23.8
Green Ext Time (p_c), s	0.0	11.6	0.0	0.0	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	103.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	2168	47	170	1793	6	32	1488	251	14	1604	99
Future Volume (veh/h)	91	2168	47	170	1793	6	32	1488	251	14	1604	99
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	91	2168	47	170	1793	6	32	1488	251	14	1604	99
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	133	1995	621	160	2036	634	67	1534	686	40	1506	674
Arrive On Green	0.04	0.40	0.40	0.05	0.40	0.40	0.02	0.44	0.44	0.01	0.43	0.43
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	91	2168	47	170	1793	6	32	1488	251	14	1604	99
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	3.9	59.0	2.8	7.0	49.1	0.3	1.4	61.8	16.0	0.6	64.0	5.7
Cycle Q Clear(g_c), s	3.9	59.0	2.8	7.0	49.1	0.3	1.4	61.8	16.0	0.6	64.0	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	1995	621	160	2036	634	67	1534	686	40	1506	674
V/C Ratio(X)	0.69	1.09	0.08	1.06	0.88	0.01	0.48	0.97	0.37	0.35	1.07	0.15
Avail Cap(c_a), veh/h	137	1995	621	160	2036	634	92	1534	686	92	1506	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.7	45.0	28.0	71.0	41.0	26.5	72.2	40.9	28.0	73.0	42.5	25.9
Incr Delay (d2), s/veh	12.9	48.2	0.1	88.3	4.9	0.0	5.2	16.4	0.3	5.1	42.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	36.2	1.2	5.3	23.7	0.1	0.7	33.2	6.9	0.3	39.9	2.5
LnGrp Delay(d),s/veh	83.5	93.2	28.0	159.3	45.9	26.5	77.4	57.3	28.4	78.1	85.1	26.0
LnGrp LOS	F	F	C	F	D	C	E	E	C	E	F	C
Approach Vol, veh/h		2306			1969			1771			1717	
Approach Delay, s/veh		91.5			55.6			53.6			81.7	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	69.2	11.0	63.0	6.9	68.0	9.8	64.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	64.0	7.0	59.0	4.0	64.0	6.0	60.0
Max Q Clear Time (g_c+I1), s	2.6	63.8	9.0	61.0	3.4	66.0	5.9	51.1
Green Ext Time (p_c), s	0.0	0.2	0.0	0.0	0.0	0.0	0.0	8.8

Intersection Summary	
HCM 2010 Ctrl Delay	71.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	672	0	1044	749	123	3	799	947	98	732	304
Future Volume (veh/h)	301	672	0	1044	749	123	3	799	947	98	732	304
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	301	672	0	1044	749	123	3	799	947	98	732	304
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	384	815	254	1042	1788	557	11	1072	480	154	1219	546
Arrive On Green	0.11	0.16	0.00	0.31	0.36	0.36	0.00	0.31	0.31	0.05	0.35	0.35
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	301	672	0	1044	749	123	3	799	947	98	732	304
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	7.6	11.4	0.0	27.0	9.9	4.8	0.1	18.1	27.0	2.5	15.2	13.8
Cycle Q Clear(g_c), s	7.6	11.4	0.0	27.0	9.9	4.8	0.1	18.1	27.0	2.5	15.2	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	384	815	254	1042	1788	557	11	1072	480	154	1219	546
V/C Ratio(X)	0.78	0.82	0.00	1.00	0.42	0.22	0.27	0.75	1.97	0.63	0.60	0.56
Avail Cap(c_a), veh/h	502	913	284	1042	1788	557	154	1072	480	154	1219	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	35.8	0.0	30.6	21.6	19.9	43.9	27.6	30.6	41.4	23.7	23.3
Incr Delay (d2), s/veh	6.0	5.7	0.0	28.3	0.2	0.2	12.9	2.9	446.2	8.2	0.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	5.7	0.0	16.7	4.6	2.1	0.1	9.2	71.1	1.3	7.5	6.2
LnGrp Delay(d),s/veh	44.1	41.5	0.0	58.9	21.7	20.1	56.8	30.4	476.8	49.7	24.5	24.5
LnGrp LOS	D	D		F	C	C	E	C	F	D	C	C
Approach Vol, veh/h		973			1916			1749			1134	
Approach Delay, s/veh		42.3			41.9			272.2			26.7	
Approach LOS		D			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	31.0	31.0	18.3	4.3	34.7	13.9	35.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	27.0	27.0	16.0	4.0	27.0	13.0	30.0
Max Q Clear Time (g_c+I1), s	4.5	29.0	29.0	13.4	2.1	17.2	9.6	11.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	8.6	0.4	9.9

Intersection Summary	
HCM 2010 Ctrl Delay	108.8
HCM 2010 LOS	F

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	110	965	1279
Demand Flow Rate, veh/h	113	994	1317
Vehicles Circulating, veh/h	1166	76	46
Vehicles Exiting, veh/h	197	1203	1024
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	10.7	8.8	11.5
Approach LOS	B	A	B

Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	113	467	527	619	698
Cap Entry Lane, veh/h	500	1067	1071	1092	1094
Entry HV Adj Factor	0.973	0.972	0.971	0.971	0.971
Flow Entry, veh/h	110	454	512	601	678
Cap Entry, veh/h	486	1037	1040	1060	1063
V/C Ratio	0.226	0.438	0.492	0.567	0.638
Control Delay, s/veh	10.7	8.3	9.2	10.6	12.3
LOS	B	A	A	B	B
95th %tile Queue, veh	1	2	3	4	5

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	0	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	414	76	520
Demand Flow Rate, veh/h	0	427	78	536
Vehicles Circulating, veh/h	429	78	0	289
Vehicles Exiting, veh/h	396	0	429	216
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	5.6	3.9	14.8
Approach LOS	-	A	A	B

Lane	Left	Right	Left	Left
Designated Moves	LT	R	LT	TR
Assumed Moves	LT	R	LT	TR
RT Channelized				
Lane Util	0.590	0.410	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	252	175	78	536
Cap Entry Lane, veh/h	1045	1045	1130	846
Entry HV Adj Factor	0.970	0.971	0.972	0.971
Flow Entry, veh/h	244	170	76	520
Cap Entry, veh/h	1013	1015	1098	821
V/C Ratio	0.241	0.167	0.069	0.633
Control Delay, s/veh	5.9	5.1	3.9	14.8
LOS	A	A	A	B
95th %tile Queue, veh	1	1	0	5

Intersection	
Intersection Delay, s/veh	106.4
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	0	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	246	2192	2059
Demand Flow Rate, veh/h	0	254	2258	2121
Vehicles Circulating, veh/h	1978	2258	0	450
Vehicles Exiting, veh/h	593	0	1978	2062
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	132.6	49.5	163.8
Approach LOS	-	F	E	F

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	254	1061	1197	997	1124
Cap Entry Lane, veh/h	233	1130	1130	806	825
Entry HV Adj Factor	0.969	0.971	0.971	0.971	0.971
Flow Entry, veh/h	246	1030	1162	968	1091
Cap Entry, veh/h	225	1097	1097	783	801
V/C Ratio	1.092	0.939	1.059	1.237	1.363
Control Delay, s/veh	132.6	33.9	63.4	136.3	188.3
LOS	F	D	F	F	F
95th %tile Queue, veh	11	16	25	34	45

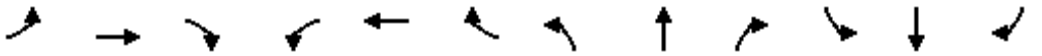
Intersection	
Intersection Delay, s/veh	215.2
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	0	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	749	0	2094	1920
Demand Flow Rate, veh/h	771	0	2157	1978
Vehicles Circulating, veh/h	1978	2257	452	0
Vehicles Exiting, veh/h	0	352	2297	2257
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	814.4	0.0	173.9	26.6
Approach LOS	F	-	F	D

Lane	Left	Left	Right	Left	Right
Designated Moves	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	771	1014	1143	930	1048
Cap Entry Lane, veh/h	283	805	823	1130	1130
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.971
Flow Entry, veh/h	749	984	1110	903	1018
Cap Entry, veh/h	275	781	800	1097	1097
V/C Ratio	2.725	1.260	1.388	0.823	0.927
Control Delay, s/veh	814.4	145.6	199.0	20.5	32.0
LOS	F	F	F	C	D
95th %tile Queue, veh	64	36	48	10	15

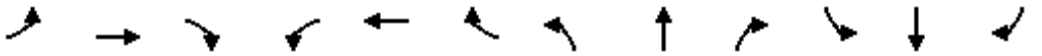
Cumulative Plus All Projects

Ultimate Mitigation AM



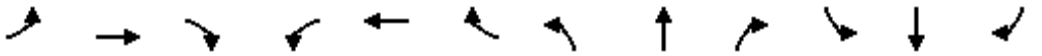
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	527	162	90	1149	805	577	1716	87	1265	1678	95
Future Volume (vph)	149	527	162	90	1149	805	577	1716	87	1265	1678	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3349		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3349		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	149	527	162	90	1149	805	577	1716	87	1265	1678	95
RTOR Reduction (vph)	0	22	0	0	0	479	0	0	60	0	0	56
Lane Group Flow (vph)	149	667	0	90	1149	326	577	1716	27	1265	1678	39
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	4.0	32.4		8.6	37.0	37.0	25.7	43.0	43.0	40.0	57.3	57.3
Effective Green, g (s)	4.0	32.4		8.6	37.0	37.0	25.7	43.0	43.0	40.0	57.3	57.3
Actuated g/C Ratio	0.03	0.23		0.06	0.26	0.26	0.18	0.31	0.31	0.29	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	96	775		206	917	722	618	1532	476	962	2041	635
v/s Ratio Prot	c0.04	0.20		0.03	c0.33		0.17	c0.34		c0.38	0.34	
v/s Ratio Perm						0.12			0.02			0.03
v/c Ratio	1.55	0.86		0.44	1.25	0.45	0.93	1.12	0.06	1.31	0.82	0.06
Uniform Delay, d1	68.0	51.6		63.4	51.5	43.0	56.3	48.5	34.2	50.0	36.8	25.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	293.1	9.7		1.5	122.9	0.5	21.3	63.4	0.0	149.2	2.8	0.0
Delay (s)	361.1	61.3		64.8	174.4	43.5	77.6	111.9	34.2	199.2	39.6	25.1
Level of Service	F	E		E	F	D	E	F	C	F	D	C
Approach Delay (s)		114.6			118.0			100.7			105.6	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	108.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	118.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



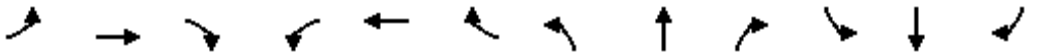
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	659	221	182	829	840	199	1837	190	505	814	71
Future Volume (vph)	39	659	221	182	829	840	199	1837	190	505	814	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91	0.91	1.00	0.91		1.00	0.91	1.00
Frt	1.00	0.96		1.00	0.96	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3373		1736	3184	1413	1736	4917		1736	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3373		1736	3184	1413	1736	4917		1736	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	39	659	221	182	829	840	199	1837	190	505	814	71
RTOR Reduction (vph)	0	22	0	0	24	335	0	8	0	0	0	42
Lane Group Flow (vph)	39	858	0	182	1133	177	199	2019	0	505	814	29
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	7.6	39.8		16.0	48.2	48.2	21.8	48.0		31.0	57.2	57.2
Effective Green, g (s)	7.6	39.8		16.0	48.2	48.2	21.8	48.0		31.0	57.2	57.2
Actuated g/C Ratio	0.05	0.26		0.11	0.32	0.32	0.14	0.32		0.21	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	88	890		184	1017	451	250	1565		356	1892	589
v/s Ratio Prot	0.02	0.25		c0.10	c0.36		0.11	c0.41		c0.29	0.16	
v/s Ratio Perm						0.13						0.02
v/c Ratio	0.44	0.96		0.99	1.11	0.39	0.80	1.29		1.42	0.43	0.05
Uniform Delay, d1	69.5	54.8		67.3	51.3	39.9	62.4	51.4		59.9	34.7	29.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.5	21.7		62.5	65.1	0.6	15.9	135.4		204.2	0.2	0.0
Delay (s)	73.1	76.5		129.8	116.4	40.5	78.3	186.8		264.1	34.9	29.6
Level of Service	E	E		F	F	D	E	F		F	C	C
Approach Delay (s)		76.3			96.7			177.1			117.9	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	126.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	150.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	116.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



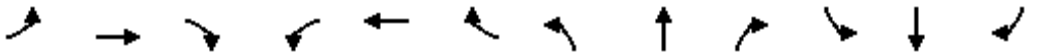
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	489	131	236	492	716	64	0	456	591	0	532
Future Volume (vph)	330	489	131	236	492	716	64	0	456	591	0	532
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	4.6	4.6	5.5	4.3	5.5		4.6	4.6	5.5	4.8	4.8
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00		0.95	0.95	0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.89	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00	0.95	0.95	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568		1520	1475	1649	1649	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.85	1.00	0.95	0.40	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568		1306	1475	1649	688	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	330	489	131	236	492	716	64	0	456	591	0	532
RTOR Reduction (vph)	0	0	108	0	0	457	0	104	167	0	0	131
Lane Group Flow (vph)	330	489	23	236	492	259	0	161	88	295	296	401
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases			8			4			6			2
Actuated Green, G (s)	9.5	17.6	17.6	9.1	17.5	36.0		34.2	34.2	18.5	58.0	58.0
Effective Green, g (s)	9.5	17.6	17.6	9.1	17.5	36.0		34.2	34.2	18.5	58.0	58.0
Actuated g/C Ratio	0.10	0.18	0.18	0.09	0.18	0.36		0.34	0.34	0.19	0.58	0.58
Clearance Time (s)	5.5	4.6	4.6	5.5	4.3	5.5		4.6	4.6	5.5	4.8	4.8
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	2.0		1.0	1.0	2.0	1.0	1.0
Lane Grp Cap (vph)	324	619	277	310	615	566		448	506	306	579	904
v/s Ratio Prot	c0.10	0.14		0.07	c0.14	0.08				c0.18	0.09	
v/s Ratio Perm			0.01			0.08		0.12	0.06		c0.20	0.26
v/c Ratio	1.02	0.79	0.08	0.76	0.80	0.46		0.36	0.17	0.96	0.51	0.44
Uniform Delay, d1	45.0	39.2	34.3	44.2	39.4	24.3		24.5	22.8	40.2	12.4	11.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	54.8	6.2	0.0	9.5	7.0	0.2		0.2	0.1	41.2	0.3	0.1
Delay (s)	99.8	45.4	34.3	53.7	46.3	24.5		24.7	22.9	81.5	12.7	11.8
Level of Service	F	D	C	D	D	C		C	C	F	B	B
Approach Delay (s)		62.8			36.7			23.8			30.4	
Approach LOS		E			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	39.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	99.6	Sum of lost time (s)	20.4
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



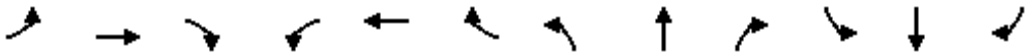
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	331	412	1	0	648	7	5	302	0	0	168	188
Future Volume (vph)	331	412	1	0	648	7	5	302	0	0	168	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00			1.00	
Frt	1.00	1.00			1.00		1.00	1.00			0.92	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1671	1759			1725		1671	1759			1620	
Flt Permitted	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1671	1759			1725		1671	1759			1620	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	331	412	1	0	648	7	5	302	0	0	168	188
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	44	0
Lane Group Flow (vph)	331	413	0	0	654	0	5	302	0	0	312	0
Heavy Vehicles (%)	8%	8%	8%	10%	10%	10%	8%	8%	8%	8%	8%	8%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	18.0	56.1			34.1		0.7	22.7			18.0	
Effective Green, g (s)	18.0	56.1			34.1		0.7	22.7			18.0	
Actuated g/C Ratio	0.21	0.65			0.39		0.01	0.26			0.21	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	346	1136			677		13	460			335	
v/s Ratio Prot	c0.20	0.23			c0.38		0.00	c0.17			c0.19	
v/s Ratio Perm												
v/c Ratio	0.96	0.36			0.97		0.38	0.66			0.93	
Uniform Delay, d1	34.0	7.1			25.8		42.8	28.6			33.8	
Progression Factor	1.00	1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2	36.7	0.2			26.2		17.9	3.4			31.7	
Delay (s)	70.7	7.3			52.0		60.7	31.9			65.4	
Level of Service	E	A			D		E	C			E	
Approach Delay (s)		35.5			52.0			32.4			65.4	
Approach LOS		D			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	45.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	86.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1183	701	7	0	1122	15	8	30	5	7	6	541
Future Volume (vph)	1183	701	7	0	1122	15	8	30	5	7	6	541
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Lane Util. Factor	0.97	0.95	1.00		0.95			1.00			1.00	0.88
Frt	1.00	1.00	0.85		1.00			0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (prot)	3303	3406	1524		3431			1799			1779	2733
Flt Permitted	0.95	1.00	1.00		1.00			0.99			0.97	1.00
Satd. Flow (perm)	3303	3406	1524		3431			1799			1779	2733
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1183	701	7	0	1122	15	8	30	5	7	6	541
RTOR Reduction (vph)	0	0	1	0	1	0	0	3	0	0	0	74
Lane Group Flow (vph)	1183	701	6	0	1136	0	0	40	0	0	13	467
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		8	8		4	4	1
Permitted Phases			6									4
Actuated Green, G (s)	51.6	103.5	103.5		47.3			3.3			2.1	53.7
Effective Green, g (s)	51.6	103.5	103.5		47.3			3.3			2.1	53.7
Actuated g/C Ratio	0.40	0.81	0.81		0.37			0.03			0.02	0.42
Clearance Time (s)	5.5	6.9	6.9		6.0			6.1			6.2	5.5
Vehicle Extension (s)	1.0	1.0	1.0		1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	1330	2751	1231		1266			46			29	1145
v/s Ratio Prot	c0.36	0.21			c0.33			c0.02			c0.01	0.16
v/s Ratio Perm			0.00									0.01
v/c Ratio	0.89	0.25	0.00		0.90			0.87			0.45	0.41
Uniform Delay, d1	35.6	3.0	2.4		38.1			62.2			62.4	26.1
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	7.4	0.0	0.0		8.4			83.2			4.0	0.1
Delay (s)	43.0	3.0	2.4		46.6			145.4			66.4	26.2
Level of Service	D	A	A		D			F			E	C
Approach Delay (s)		28.0			46.6			145.4			27.1	
Approach LOS		C			D			F			C	

Intersection Summary			
HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	128.1	Sum of lost time (s)	24.7
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1	19	205	4	610	19	1807	107	224	1589	0
Future Volume (vph)	0	1	19	205	4	610	19	1807	107	224	1589	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.86		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1582		1752	1845	1568	1752	3505	1568	1752	3505	
Flt Permitted		1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1582		1752	1845	1568	1752	3505	1568	1752	3505	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1	19	205	4	610	19	1807	107	224	1589	0
RTOR Reduction (vph)	0	18	0	0	0	167	0	0	51	0	0	0
Lane Group Flow (vph)	0	2	0	205	4	443	19	1807	56	224	1589	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			
Actuated Green, G (s)		5.8		28.8	38.6	38.6	3.0	75.6	75.6	19.0	91.6	
Effective Green, g (s)		5.8		28.8	38.6	38.6	3.0	75.6	75.6	19.0	91.6	
Actuated g/C Ratio		0.04		0.20	0.27	0.27	0.02	0.52	0.52	0.13	0.63	
Clearance Time (s)		4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		63		347	490	416	36	1824	816	229	2211	
v/s Ratio Prot		0.00		0.12	0.00		0.01	c0.52		c0.13	0.45	
v/s Ratio Perm						c0.28			0.04			
v/c Ratio		0.03		0.59	0.01	1.06	0.53	0.99	0.07	0.98	0.72	
Uniform Delay, d1		67.0		52.8	39.2	53.3	70.4	34.5	17.3	62.9	18.1	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2		2.7	0.0	62.1	13.3	18.8	0.0	52.7	1.1	
Delay (s)		67.2		55.5	39.2	115.4	83.7	53.3	17.3	115.6	19.2	
Level of Service		E		E	D	F	F	D	B	F	B	
Approach Delay (s)		67.2			100.1			51.6			31.1	
Approach LOS		E			F			D			C	

Intersection Summary			
HCM 2000 Control Delay	52.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	145.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	365	408	2767	435	710	734
Future Volume (vph)	365	408	2767	435	710	734
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	5036	1568	3400	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	5036	1568	3400	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	365	408	2767	435	710	734
RTOR Reduction (vph)	0	258	0	189	0	0
Lane Group Flow (vph)	365	150	2767	246	710	734
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	3		2		1	6
Permitted Phases		3		2		
Actuated Green, G (s)	11.0	11.0	49.0	49.0	18.0	71.0
Effective Green, g (s)	11.0	11.0	49.0	49.0	18.0	71.0
Actuated g/C Ratio	0.12	0.12	0.54	0.54	0.20	0.79
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	415	191	2741	853	680	3972
v/s Ratio Prot	c0.11		c0.55		c0.21	0.15
v/s Ratio Perm		0.10		0.16		
v/c Ratio	0.88	0.78	1.01	0.29	1.04	0.18
Uniform Delay, d1	38.8	38.4	20.5	11.1	36.0	2.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	18.7	18.8	19.5	0.2	46.6	0.0
Delay (s)	57.5	57.1	40.0	11.3	82.6	2.4
Level of Service	E	E	D	B	F	A
Approach Delay (s)	57.3		36.1			41.8
Approach LOS	E		D			D

Intersection Summary			
HCM 2000 Control Delay	40.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	329	23	149	410	832	34	2829	206	422	2387	0
Future Volume (veh/h)	0	329	23	149	410	832	34	2829	206	422	2387	0
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	0	329	23	149	410	832	34	2829	206	422	2387	0
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	2	512	229	136	796	573	60	2448	174	468	3171	0
Arrive On Green	0.00	0.15	0.15	0.04	0.23	0.23	0.02	0.51	0.51	0.14	0.64	0.00
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4754	338	3375	5152	0
Grp Volume(v), veh/h	0	329	23	149	410	832	34	1959	1076	422	2387	0
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1767	1688	1663	0
Q Serve(g_s), s	0.0	12.3	1.8	5.5	14.2	31.4	1.4	71.2	71.2	17.0	46.2	0.0
Cycle Q Clear(g_c), s	0.0	12.3	1.8	5.5	14.2	31.4	1.4	71.2	71.2	17.0	46.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.00
Lane Grp Cap(c), veh/h	2	512	229	136	796	573	60	1712	910	468	3171	0
V/C Ratio(X)	0.00	0.64	0.10	1.10	0.52	1.45	0.56	1.14	1.18	0.90	0.75	0.00
Avail Cap(c_a), veh/h	73	728	326	136	796	573	103	1712	910	549	3225	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	55.5	51.0	66.4	46.8	43.9	67.4	33.5	33.5	58.6	17.6	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.1	106.3	0.3	212.5	3.1	72.3	93.5	15.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	0.8	4.6	6.9	55.6	0.7	49.8	58.3	9.0	21.3	0.0
LnGrp Delay(d),s/veh	0.0	56.0	51.1	172.7	47.0	256.3	70.4	105.8	127.0	73.7	18.5	0.0
LnGrp LOS		E	D	F	D	F	E	F	F	E	B	
Approach Vol, veh/h		352			1391			3069			2809	
Approach Delay, s/veh		55.7			185.7			112.9			26.8	
Approach LOS		E			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	93.2	0.0	37.1	24.7	76.5	11.0	26.1
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	4.2	89.4	3.0	* 31	22.5	* 71	5.5	* 29
Max Q Clear Time (g_c+I1), s	3.4	48.2	0.0	33.4	19.0	73.2	7.5	14.3
Green Ext Time (p_c), s	0.0	35.2	0.0	0.0	0.2	0.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	91.8
HCM 2010 LOS	F

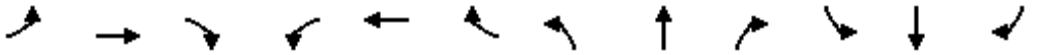
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	1488	677	98	1960	977	763	1984	74	1096	1563	188
Future Volume (veh/h)	85	1488	677	98	1960	977	763	1984	74	1096	1563	188
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	85	1488	677	98	1960	0	763	1984	74	1096	1563	188
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	3	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	66	1664	518	117	1755	546	591	1633	508	816	1566	488
Arrive On Green	0.02	0.34	0.34	0.04	0.36	0.00	0.17	0.33	0.33	0.17	0.31	0.31
Sat Flow, veh/h	3312	4893	1524	3312	4893	1524	3375	4988	1553	4907	4988	1553
Grp Volume(v), veh/h	85	1488	677	98	1960	0	763	1984	74	1096	1563	188
Grp Sat Flow(s),veh/h/ln	1656	1631	1524	1656	1631	1524	1688	1663	1553	1636	1663	1553
Q Serve(g_s), s	3.0	43.3	51.1	4.4	53.9	0.0	26.3	49.2	5.1	25.0	47.1	14.2
Cycle Q Clear(g_c), s	3.0	43.3	51.1	4.4	53.9	0.0	26.3	49.2	5.1	25.0	47.1	14.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	1664	518	117	1755	546	591	1633	508	816	1566	488
V/C Ratio(X)	1.29	0.89	1.31	0.84	1.12	0.00	1.29	1.22	0.15	1.34	1.00	0.39
Avail Cap(c_a), veh/h	66	1664	518	117	1755	546	591	1633	508	816	1566	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.7	47.0	49.6	72.1	48.2	0.0	62.0	50.5	35.7	62.7	51.5	40.2
Incr Delay (d2), s/veh	205.4	6.5	151.6	37.3	61.1	0.0	143.6	102.7	0.0	162.5	22.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	20.6	43.3	2.6	34.1	0.0	24.0	38.1	2.2	23.5	24.8	6.1
LnGrp Delay(d),s/veh	279.0	53.5	201.2	109.4	109.3	0.0	205.6	153.3	35.8	225.2	73.7	40.4
LnGrp LOS	F	D	F	F	F		F	F	D	F	E	D
Approach Vol, veh/h		2250			2058			2821			2847	
Approach Delay, s/veh		106.5			109.3			164.3			129.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	59.3	31.0	52.0	10.8	56.5	29.0	54.0
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.0	4.8
Max Green Setting (Gmax), s	3.0	* 54	* 26	47.2	5.3	* 51	25.0	49.2
Max Q Clear Time (g_c+I1), s	5.0	55.9	28.3	49.1	6.4	53.1	27.0	51.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		130.1
HCM 2010 LOS		F

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1342	414	134	13	510	7	933	2195	129	9	816	800
Future Volume (veh/h)	1342	414	134	13	510	7	933	2195	129	9	816	800
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	1342	414	134	13	510	7	933	2195	129	9	816	800
Adj No. of Lanes	3	2	1	2	2	0	2	3	1	2	3	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	1303	1388	621	29	498	7	903	2176	677	21	894	490
Arrive On Green	0.27	0.40	0.40	0.01	0.14	0.14	0.27	0.44	0.44	0.01	0.18	0.18
Sat Flow, veh/h	4907	3471	1553	3375	3506	48	3375	4988	1553	3375	4988	2733
Grp Volume(v), veh/h	1342	414	134	13	252	265	933	2195	129	9	816	800
Grp Sat Flow(s),veh/h/ln	1636	1736	1553	1688	1736	1818	1688	1663	1553	1688	1663	1367
Q Serve(g_s), s	37.2	11.4	7.9	0.5	19.9	19.9	37.5	61.1	7.2	0.4	22.5	25.1
Cycle Q Clear(g_c), s	37.2	11.4	7.9	0.5	19.9	19.9	37.5	61.1	7.2	0.4	22.5	25.1
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1303	1388	621	29	247	258	903	2176	677	21	894	490
V/C Ratio(X)	1.03	0.30	0.22	0.45	1.02	1.02	1.03	1.01	0.19	0.42	0.91	1.63
Avail Cap(c_a), veh/h	1303	1388	621	72	247	258	903	2176	677	72	894	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	28.7	27.6	69.1	60.1	60.1	51.3	39.5	24.3	69.4	56.4	57.5
Incr Delay (d2), s/veh	33.0	0.6	0.8	4.1	63.5	62.5	38.6	21.5	0.6	4.8	15.2	294.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.7	5.6	3.5	0.3	13.9	14.5	22.3	32.3	3.2	0.2	11.6	29.5
LnGrp Delay(d),s/veh	84.4	29.2	28.4	73.2	123.8	122.7	89.9	61.0	24.9	74.2	71.7	351.9
LnGrp LOS	F	C	C	E	F	F	F	F	C	E	E	F
Approach Vol, veh/h		1890			530			3257			1625	
Approach Delay, s/veh		68.3			122.0			67.9			209.6	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	42.4	30.3	42.3	25.1	6.4	66.3	6.2	61.2
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 38	* 25	* 37	* 20	3.0	* 59	3.0	* 54
Max Q Clear Time (g_c+I1), s	39.5	27.1	39.2	21.9	2.4	63.1	2.5	13.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.4

Intersection Summary	
HCM 2010 Ctrl Delay	103.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	1326	686	5	1390	461	608	422	107	253	235	76
Future Volume (veh/h)	69	1326	686	5	1390	461	608	422	107	253	235	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	69	1326	686	5	1390	461	608	422	107	253	235	76
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	76	1358	634	7	1370	451	591	589	501	277	259	220
Arrive On Green	0.04	0.40	0.40	0.00	0.37	0.37	0.34	0.32	0.32	0.16	0.14	0.14
Sat Flow, veh/h	1757	3357	1568	1757	3750	1234	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	69	1326	686	5	1243	608	608	422	107	253	235	76
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1627	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	5.5	54.3	56.5	0.4	51.0	51.0	47.0	28.2	7.0	19.8	17.5	6.1
Cycle Q Clear(g_c), s	5.5	54.3	56.5	0.4	51.0	51.0	47.0	28.2	7.0	19.8	17.5	6.1
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	1358	634	7	1226	594	591	589	501	277	259	220
V/C Ratio(X)	0.91	0.98	1.08	0.75	1.01	1.02	1.03	0.72	0.21	0.91	0.91	0.35
Avail Cap(c_a), veh/h	76	1358	634	38	1226	594	591	589	501	315	264	225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	40.9	41.6	69.5	44.3	44.3	46.3	41.9	34.7	57.9	59.1	54.2
Incr Delay (d2), s/veh	74.7	19.0	59.8	95.4	29.2	42.7	44.3	4.1	0.2	27.7	31.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	28.6	34.9	0.4	28.5	29.8	30.0	15.1	3.0	11.8	11.2	2.7
LnGrp Delay(d),s/veh	141.3	59.9	101.4	164.8	73.5	87.0	90.7	46.1	34.9	85.6	90.9	55.1
LnGrp LOS	F	E	F	F	F	F	F	D	C	F	F	E
Approach Vol, veh/h		2081			1856			1137			564	
Approach Delay, s/veh		76.3			78.2			68.9			83.7	
Approach LOS		E			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	48.6	4.5	60.5	51.0	23.6	10.0	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	25.0	42.0	3.0	54.0	47.0	20.0	6.0	51.0
Max Q Clear Time (g_c+I1), s	21.8	30.2	2.4	58.5	49.0	19.5	7.5	53.0
Green Ext Time (p_c), s	0.2	3.7	0.0	0.0	0.0	0.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	76.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	40	32	307	30	388	57	2863	368	680	1890	59
Future Volume (veh/h)	76	40	32	307	30	388	57	2863	368	680	1890	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	76	40	32	307	30	388	57	2863	368	680	1890	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	64	35	28	545	295	251	72	2470	769	551	3080	96
Arrive On Green	0.04	0.04	0.04	0.16	0.16	0.16	0.04	0.50	0.50	0.16	0.62	0.62
Sat Flow, veh/h	1757	950	760	3408	1845	1568	1740	4988	1553	3375	4970	155
Grp Volume(v), veh/h	76	0	72	307	30	388	57	2863	368	680	1264	685
Grp Sat Flow(s),veh/h/ln	1757	0	1711	1704	1845	1568	1740	1663	1553	1688	1663	1800
Q Serve(g_s), s	5.5	0.0	5.5	12.5	2.1	24.0	4.9	74.3	23.5	24.5	35.0	35.1
Cycle Q Clear(g_c), s	5.5	0.0	5.5	12.5	2.1	24.0	4.9	74.3	23.5	24.5	35.0	35.1
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	64	0	63	545	295	251	72	2470	769	551	2061	1115
V/C Ratio(X)	1.18	0.00	1.15	0.56	0.10	1.55	0.79	1.16	0.48	1.23	0.61	0.61
Avail Cap(c_a), veh/h	64	0	63	545	295	251	123	2470	769	551	2061	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.3	0.0	72.3	58.2	53.8	63.0	71.2	37.8	25.0	62.8	17.5	17.5
Incr Delay (d2), s/veh	168.8	0.0	159.5	0.8	0.1	264.8	6.9	76.5	0.2	120.1	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	5.4	5.9	1.1	28.8	2.5	51.6	10.1	20.6	16.1	17.5
LnGrp Delay(d),s/veh	241.1	0.0	231.9	59.0	53.9	327.8	78.1	114.3	25.2	182.9	17.9	18.3
LnGrp LOS	F		F	E	D	F	E	F	C	F	B	B
Approach Vol, veh/h		148			725			3288			2629	
Approach Delay, s/veh		236.6			202.6			103.7			60.7	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.3	98.2		11.0	30.0	79.5		29.5
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 11	* 89		5.5	24.5	* 74		24.0
Max Q Clear Time (g_c+I1), s	6.9	37.1		7.5	26.5	76.3		26.0
Green Ext Time (p_c), s	0.0	38.5		0.0	0.0	0.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay		100.5	
HCM 2010 LOS		F	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	1179	429	252	1471	826	359	2029	361	577	839	158
Future Volume (veh/h)	224	1179	429	252	1471	826	359	2029	361	577	839	158
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	224	1179	429	252	1471	826	359	2029	361	577	839	158
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	193	1413	440	294	1564	487	403	1771	551	438	1823	567
Arrive On Green	0.06	0.28	0.28	0.09	0.31	0.31	0.12	0.36	0.36	0.13	0.37	0.37
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	224	1179	429	252	1471	826	359	2029	361	577	839	158
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	8.5	33.1	40.8	11.0	42.8	46.7	15.8	53.4	29.4	19.5	19.3	10.8
Cycle Q Clear(g_c), s	8.5	33.1	40.8	11.0	42.8	46.7	15.8	53.4	29.4	19.5	19.3	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	1413	440	294	1564	487	403	1771	551	438	1823	567
V/C Ratio(X)	1.16	0.83	0.97	0.86	0.94	1.70	0.89	1.15	0.65	1.32	0.46	0.28
Avail Cap(c_a), veh/h	193	1413	440	315	1564	487	532	1771	551	438	1823	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.9	50.8	53.6	67.8	50.5	51.9	65.3	48.5	40.8	65.4	36.4	33.7
Incr Delay (d2), s/veh	115.6	4.2	36.1	18.0	11.4	322.2	11.9	72.8	2.2	158.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	15.8	22.1	5.9	21.5	63.8	8.0	36.4	13.0	18.7	8.9	4.6
LnGrp Delay(d),s/veh	186.6	55.0	89.7	85.7	61.9	374.1	77.2	121.3	43.0	224.1	36.5	33.8
LnGrp LOS	F	E	F	F	E	F	E	F	D	F	D	C
Approach Vol, veh/h		1832			2549			2749			1574	
Approach Delay, s/veh		79.2			165.4			105.3			105.0	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	60.6	14.0	52.4	25.0	59.0	18.5	47.9
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	23.7	* 49	8.5	* 47	19.5	* 53	13.9	* 41
Max Q Clear Time (g_c+I1), s	17.8	21.3	10.5	48.7	21.5	55.4	13.0	42.8
Green Ext Time (p_c), s	0.2	13.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	1491	494	163	2278	530	71	2559	158	521	865	90
Future Volume (veh/h)	350	1491	494	163	2278	530	71	2559	158	521	865	90
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	350	1491	494	163	2278	530	71	2559	158	521	865	0
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	258	1679	538	207	1612	502	110	1810	563	338	2137	659
Arrive On Green	0.08	0.34	0.34	0.06	0.33	0.33	0.03	0.36	0.36	0.10	0.42	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	1524	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	350	1491	494	163	2278	530	71	2559	158	521	865	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1524	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	11.7	43.2	45.3	7.1	49.4	49.4	3.1	53.9	10.8	15.0	17.9	0.0
Cycle Q Clear(g_c), s	11.7	43.2	45.3	7.1	49.4	49.4	3.1	53.9	10.8	15.0	17.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	1679	538	207	1612	502	110	1810	563	338	2137	659
V/C Ratio(X)	1.35	0.89	0.92	0.79	1.41	1.06	0.65	1.41	0.28	1.54	0.40	0.00
Avail Cap(c_a), veh/h	258	1679	538	232	1612	502	204	1810	563	338	2137	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	69.1	46.5	47.2	69.5	50.3	50.3	71.7	48.1	34.2	67.5	30.0	0.0
Incr Delay (d2), s/veh	182.9	6.0	20.5	14.8	189.8	55.9	2.4	189.7	0.3	258.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	20.4	22.6	3.8	50.6	28.5	1.5	56.8	4.7	19.1	8.3	0.0
LnGrp Delay(d),s/veh	252.1	52.5	67.7	84.3	240.1	106.2	74.1	237.8	34.5	326.4	30.0	0.0
LnGrp LOS	F	D	E	F	F	F	E	F	C	F	C	
Approach Vol, veh/h		2335			2971			2788			1386	
Approach Delay, s/veh		85.7			207.7			222.1			141.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	68.8	16.0	55.0	20.0	59.0	13.9	57.1
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 9	59.5	* 12	49.4	15.0	53.9	* 10	* 51
Max Q Clear Time (g_c+I1), s	5.1	19.9	13.7	51.4	17.0	55.9	9.1	47.3
Green Ext Time (p_c), s	0.0	35.1	0.0	0.0	0.0	0.0	0.1	3.3

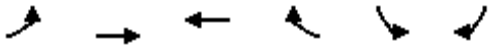
Intersection Summary	
HCM 2010 Ctrl Delay	172.2
HCM 2010 LOS	F

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	725	266	506	730	144	751
Future Volume (veh/h)	725	266	506	730	144	751
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	725	266	506	730	144	751
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	738	271	545	2296	426	867
Arrive On Green	0.29	0.29	0.31	0.66	0.24	0.24
Sat Flow, veh/h	2605	922	1757	3597	1757	1568
Grp Volume(v), veh/h	506	485	506	730	144	751
Grp Sat Flow(s),veh/h/ln	1752	1682	1757	1752	1757	1568
Q Serve(g_s), s	22.4	22.4	21.8	7.1	5.3	19.0
Cycle Q Clear(g_c), s	22.4	22.4	21.8	7.1	5.3	19.0
Prop In Lane		0.55	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	515	494	545	2296	426	867
V/C Ratio(X)	0.98	0.98	0.93	0.32	0.34	0.87
Avail Cap(c_a), veh/h	515	494	584	2373	426	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	27.4	26.2	5.9	24.4	15.0
Incr Delay (d2), s/veh	34.9	35.7	20.7	0.1	0.5	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	15.3	13.7	3.4	2.6	16.0
LnGrp Delay(d),s/veh	62.4	63.2	46.9	6.0	24.9	24.2
LnGrp LOS	E	E	D	A	C	C
Approach Vol, veh/h	991			1236	895	
Approach Delay, s/veh	62.7			22.7	24.3	
Approach LOS	E			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		23.0	28.3	27.0				55.3
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		19.0	26.0	23.0				53.0
Max Q Clear Time (g_c+I1), s		21.0	23.8	24.4				9.1
Green Ext Time (p_c), s		0.0	0.4	0.0				17.8

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	309	1368	2592	849	562	193
Future Volume (veh/h)	309	1368	2592	849	562	193
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	309	1368	2592	849	562	193
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	234	3458	2031	602	457	408
Arrive On Green	0.13	0.69	0.53	0.53	0.26	0.26
Sat Flow, veh/h	1757	5202	4023	1143	1757	1568
Grp Volume(v), veh/h	309	1368	2221	1220	562	193
Grp Sat Flow(s),veh/h/ln	1757	1679	1679	1643	1757	1568
Q Serve(g_s), s	20.0	17.5	79.0	79.0	39.0	15.6
Cycle Q Clear(g_c), s	20.0	17.5	79.0	79.0	39.0	15.6
Prop In Lane	1.00			0.70	1.00	1.00
Lane Grp Cap(c), veh/h	234	3458	1768	865	457	408
V/C Ratio(X)	1.32	0.40	1.26	1.41	1.23	0.47
Avail Cap(c_a), veh/h	234	3458	1768	865	457	408
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	10.1	35.5	35.5	55.5	46.8
Incr Delay (d2), s/veh	170.4	0.1	120.0	191.5	121.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.8	8.1	65.8	81.6	34.3	14.0
LnGrp Delay(d),s/veh	235.4	10.2	155.5	227.0	177.1	47.7
LnGrp LOS	F	B	F	F	F	D
Approach Vol, veh/h		1677	3441		755	
Approach Delay, s/veh		51.7	180.8		144.0	
Approach LOS		D	F		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				107.0		43.0	24.0	83.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				103.0		39.0	20.0	79.0
Max Q Clear Time (g_c+I1), s				19.5		41.0	22.0	81.0
Green Ext Time (p_c), s				82.1		0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	139.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	981	84	886	1977	331	160	953	869	352	534	132
Future Volume (veh/h)	171	981	84	886	1977	331	160	953	869	352	534	132
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	171	981	84	886	1977	331	160	953	869	352	534	132
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	186	1050	336	868	2029	650	220	924	812	341	1048	469
Arrive On Green	0.05	0.21	0.21	0.25	0.41	0.41	0.06	0.26	0.26	0.10	0.30	0.30
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	171	981	84	886	1977	331	160	953	869	352	534	132
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	5.5	21.7	4.9	28.0	43.7	17.2	5.1	29.0	29.0	11.0	13.9	7.1
Cycle Q Clear(g_c), s	5.5	21.7	4.9	28.0	43.7	17.2	5.1	29.0	29.0	11.0	13.9	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	1050	336	868	2029	650	220	924	812	341	1048	469
V/C Ratio(X)	0.92	0.93	0.25	1.02	0.97	0.51	0.73	1.03	1.07	1.03	0.51	0.28
Avail Cap(c_a), veh/h	186	1050	336	868	2029	650	279	924	812	341	1048	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	42.4	35.9	41.0	31.6	23.9	50.5	40.5	26.5	49.5	31.9	29.5
Incr Delay (d2), s/veh	43.8	14.8	0.5	36.0	14.5	0.9	6.8	37.9	51.9	57.5	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	11.2	2.2	17.5	22.3	7.6	2.6	18.9	36.1	7.9	6.7	3.1
LnGrp Delay(d),s/veh	95.6	57.2	36.4	77.0	46.1	24.8	57.3	78.4	78.4	107.0	32.3	29.8
LnGrp LOS	F	E	D	F	D	C	E	F	F	F	C	C
Approach Vol, veh/h		1236			3194			1982			1018	
Approach Delay, s/veh		61.1			52.5			76.7			57.8	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	30.0	11.1	36.9	10.0	52.0	15.0	33.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	28.0	23.6	9.0	31.0	6.0	45.6	11.0	29.0
Max Q Clear Time (g_c+I1), s	30.0	23.7	7.1	15.9	7.5	45.7	13.0	31.0
Green Ext Time (p_c), s	0.0	0.0	0.1	11.9	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	61.1
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	538	47	971	25	63	161	999	1153	13	105	1699	1114
Future Volume (veh/h)	538	47	971	25	63	161	999	1153	13	105	1699	1114
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	572	0	971	25	63	161	999	1153	13	105	1699	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	712	0	318	19	48	57	549	2813	32	126	1536	478
Arrive On Green	0.20	0.00	0.20	0.04	0.04	0.04	0.32	0.55	0.55	0.07	0.31	0.00
Sat Flow, veh/h	3480	0	1553	517	1302	1568	1740	5084	57	1740	4988	1553
Grp Volume(v), veh/h	572	0	971	88	0	161	999	754	412	105	1699	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1819	0	1568	1740	1663	1817	1740	1663	1553
Q Serve(g_s), s	23.5	0.0	30.7	5.5	0.0	5.5	47.3	19.7	19.7	8.9	46.2	0.0
Cycle Q Clear(g_c), s	23.5	0.0	30.7	5.5	0.0	5.5	47.3	19.7	19.7	8.9	46.2	0.0
Prop In Lane	1.00		1.00	0.28		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	712	0	318	67	0	57	549	1839	1005	126	1536	478
V/C Ratio(X)	0.80	0.00	3.06	1.32	0.00	2.80	1.82	0.41	0.41	0.84	1.11	0.00
Avail Cap(c_a), veh/h	712	0	318	67	0	57	549	1839	1005	194	1536	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	0.0	59.6	72.3	0.0	72.3	51.3	19.4	19.4	68.7	51.9	0.0
Incr Delay (d2), s/veh	6.1	0.0	933.2	217.5	0.0	856.3	376.5	0.1	0.1	10.2	57.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.0	95.6	6.8	0.0	16.1	80.1	9.0	9.9	4.7	29.4	0.0
LnGrp Delay(d),s/veh	62.9	0.0	992.8	289.7	0.0	928.5	427.9	19.4	19.5	78.9	109.7	0.0
LnGrp LOS	E		F	F		F	F	B	B	E	F	
Approach Vol, veh/h		1543			249			2165			1804	
Approach Delay, s/veh		648.1			702.8			207.9			107.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	52.0	51.0		11.0	15.2	87.8		36.0
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 47	46.2		5.5	* 17	* 77		30.7
Max Q Clear Time (g_c+I1), s	49.3	48.2		7.5	10.9	21.7		32.7
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	13.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	315.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	341	560	175	40	1828	848	389	2034	20	78	834	632
Future Volume (veh/h)	341	560	175	40	1828	848	389	2034	20	78	834	632
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	341	560	175	40	1828	848	389	2034	20	78	834	632
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	278	2142	667	70	1834	571	299	1824	568	84	1506	469
Arrive On Green	0.08	0.43	0.43	0.02	0.36	0.36	0.09	0.37	0.37	0.02	0.30	0.30
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	341	560	175	40	1828	848	389	2034	20	78	834	632
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	11.5	10.1	10.2	1.6	51.1	51.4	12.5	51.6	1.2	3.3	19.8	42.6
Cycle Q Clear(g_c), s	11.5	10.1	10.2	1.6	51.1	51.4	12.5	51.6	1.2	3.3	19.8	42.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	2142	667	70	1834	571	299	1824	568	84	1506	469
V/C Ratio(X)	1.23	0.26	0.26	0.57	1.00	1.48	1.30	1.12	0.04	0.93	0.55	1.35
Avail Cap(c_a), veh/h	278	2142	667	121	1834	571	299	1824	568	84	1506	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.8	26.2	26.2	68.5	44.8	44.8	64.3	44.8	28.8	68.7	41.3	49.3
Incr Delay (d2), s/veh	130.0	0.0	0.1	2.7	20.1	227.4	157.7	60.1	0.0	74.7	0.3	170.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	4.7	4.4	0.8	27.1	58.2	12.4	33.8	0.5	2.4	9.1	40.5
LnGrp Delay(d),s/veh	194.8	26.2	26.3	71.2	64.9	272.2	222.0	104.8	28.8	143.4	41.5	219.5
LnGrp LOS	F	C	C	E	E	F	F	F	C	F	D	F
Approach Vol, veh/h		1076			2716			2443			1544	
Approach Delay, s/veh		79.7			129.7			122.9			119.5	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	48.6	17.0	57.5	9.0	57.6	8.4	66.1
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	12.5	42.0	11.5	* 51	3.5	* 52	5.0	* 57
Max Q Clear Time (g_c+I1), s	14.5	44.6	13.5	53.4	5.3	53.6	3.6	12.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6

Intersection Summary	
HCM 2010 Ctrl Delay	118.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	582	806	165	87	1809	926	786	2137	187	177	984	721
Future Volume (veh/h)	582	806	165	87	1809	926	786	2137	187	177	984	721
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	582	806	165	87	1809	926	786	2137	187	177	984	721
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	352	2020	629	126	1617	503	484	1879	585	124	1347	419
Arrive On Green	0.10	0.40	0.40	0.04	0.34	0.34	0.14	0.38	0.38	0.04	0.27	0.27
Sat Flow, veh/h	3408	5036	1568	3250	4803	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	582	806	165	87	1809	926	786	2137	187	177	984	721
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1625	1601	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	15.5	17.1	10.6	4.0	50.5	50.5	21.5	56.5	12.8	5.5	26.9	40.5
Cycle Q Clear(g_c), s	15.5	17.1	10.6	4.0	50.5	50.5	21.5	56.5	12.8	5.5	26.9	40.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	2020	629	126	1617	503	484	1879	585	124	1347	419
V/C Ratio(X)	1.65	0.40	0.26	0.69	1.12	1.84	1.62	1.14	0.32	1.43	0.73	1.72
Avail Cap(c_a), veh/h	352	2020	629	186	1617	503	484	1879	585	124	1347	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3	32.0	30.1	71.2	49.8	49.7	64.3	46.7	33.1	72.3	49.8	54.8
Incr Delay (d2), s/veh	306.1	0.0	0.1	2.5	62.4	385.4	290.4	69.0	0.1	233.6	1.8	333.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.3	7.9	4.6	1.8	31.7	74.7	29.5	37.9	5.5	6.6	12.6	56.3
LnGrp Delay(d),s/veh	373.3	32.1	30.1	73.7	112.2	435.1	354.7	115.7	33.2	305.9	51.6	388.5
LnGrp LOS	F	C	C	E	F	F	F	F	C	F	D	F
Approach Vol, veh/h		1553			2822			3110			1882	
Approach Delay, s/veh		159.7			217.0			171.2			204.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	46.0	21.0	56.0	11.0	62.0	11.3	65.7
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	21.5	40.5	15.5	50.5	5.5	56.5	8.6	57.4
Max Q Clear Time (g_c+I1), s	23.5	42.5	17.5	52.5	7.5	58.5	6.0	19.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4

Intersection Summary	
HCM 2010 Ctrl Delay	189.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	609	393	58	58	770	103	2	646	40	94	1017	1130
Future Volume (veh/h)	609	393	58	58	770	103	2	646	40	94	1017	1130
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	609	393	58	58	770	103	2	646	40	94	1017	1130
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	477	1396	625	101	1009	451	5	941	421	132	1072	844
Arrive On Green	0.14	0.41	0.41	0.03	0.30	0.30	0.00	0.27	0.27	0.04	0.31	0.31
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3343	3438	1538	3343	3438	2707
Grp Volume(v), veh/h	609	393	58	58	770	103	2	646	40	94	1017	1130
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1672	1719	1538	1672	1719	1354
Q Serve(g_s), s	12.4	6.6	2.0	1.5	17.7	4.4	0.1	14.5	1.7	2.4	24.9	26.8
Cycle Q Clear(g_c), s	12.4	6.6	2.0	1.5	17.7	4.4	0.1	14.5	1.7	2.4	24.9	26.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	477	1396	625	101	1009	451	5	941	421	132	1072	844
V/C Ratio(X)	1.28	0.28	0.09	0.58	0.76	0.23	0.37	0.69	0.09	0.71	0.95	1.34
Avail Cap(c_a), veh/h	477	1396	625	165	1068	478	117	1039	465	132	1072	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	16.9	15.6	41.2	27.5	22.9	42.9	27.9	23.3	40.9	29.0	29.6
Incr Delay (d2), s/veh	139.9	0.2	0.1	1.9	3.9	0.5	14.7	1.7	0.1	14.2	16.7	160.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	3.2	0.9	0.7	8.9	1.9	0.0	7.0	0.7	1.4	14.2	28.8
LnGrp Delay(d),s/veh	176.7	17.2	15.7	43.1	31.4	23.4	57.6	29.6	23.4	55.1	45.6	190.3
LnGrp LOS	F	B	B	D	C	C	E	C	C	E	D	F
Approach Vol, veh/h		1060			931			688			2241	
Approach Delay, s/veh		108.7			31.3			29.3			119.0	
Approach LOS		F			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	31.5	4.7	32.8	7.2	41.3	8.0	29.6
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	12.4	27.0	3.0	26.4	4.3	35.1	3.4	26.0
Max Q Clear Time (g_c+I1), s	14.4	19.7	2.1	28.8	3.5	8.6	4.4	16.5
Green Ext Time (p_c), s	0.0	5.8	0.0	0.0	0.0	16.7	0.0	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	87.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	518	588	90	1297	6	242	1029	64	2	1412	336
Future Volume (veh/h)	278	518	588	90	1297	6	242	1029	64	2	1412	336
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	278	518	588	90	1297	6	242	1029	64	2	1412	336
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	262	1348	603	131	1213	543	236	1583	708	7	1348	603
Arrive On Green	0.08	0.38	0.38	0.04	0.35	0.35	0.07	0.45	0.45	0.00	0.38	0.38
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	278	518	588	90	1297	6	242	1029	64	2	1412	336
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	10.0	13.9	48.0	3.4	45.0	0.3	9.0	29.6	3.0	0.1	50.0	21.8
Cycle Q Clear(g_c), s	10.0	13.9	48.0	3.4	45.0	0.3	9.0	29.6	3.0	0.1	50.0	21.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	262	1348	603	131	1213	543	236	1583	708	7	1348	603
V/C Ratio(X)	1.06	0.38	0.98	0.69	1.07	0.01	1.03	0.65	0.09	0.27	1.05	0.56
Avail Cap(c_a), veh/h	262	1348	603	131	1213	543	236	1583	708	105	1348	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	28.9	39.4	61.7	42.5	27.9	60.5	27.7	20.4	64.8	40.0	31.3
Incr Delay (d2), s/veh	72.4	0.2	30.3	13.9	46.4	0.0	65.4	0.9	0.1	19.0	37.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	6.7	25.8	1.9	29.6	0.1	6.4	14.5	1.3	0.1	31.3	9.6
LnGrp Delay(d),s/veh	132.4	29.1	69.7	75.6	88.9	27.9	126.0	28.6	20.4	83.7	77.9	32.5
LnGrp LOS	F	C	E	E	F	C	F	C	C	F	F	C
Approach Vol, veh/h		1384			1393			1335			1750	
Approach Delay, s/veh		67.1			87.8			45.9			69.2	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.3	62.7	9.0	54.0	13.0	54.0	14.0	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	55.0	5.0	50.0	9.0	50.0	10.0	45.0
Max Q Clear Time (g_c+I1), s	2.1	31.6	5.4	50.0	11.0	52.0	12.0	47.0
Green Ext Time (p_c), s	0.0	19.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	605	301	402	1256	856	661	1097	239	357	329	0
Future Volume (veh/h)	0	605	301	402	1256	856	661	1097	239	357	329	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	605	301	402	1256	856	661	1097	239	357	329	0
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	5	1071	333	408	1941	818	787	1118	500	463	786	351
Arrive On Green	0.00	0.21	0.21	0.12	0.39	0.39	0.23	0.32	0.32	0.14	0.22	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	0	605	301	402	1256	856	661	1097	239	357	329	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.0	8.1	14.1	8.9	15.4	29.0	13.9	23.3	9.2	7.6	6.0	0.0
Cycle Q Clear(g_c), s	0.0	8.1	14.1	8.9	15.4	29.0	13.9	23.3	9.2	7.6	6.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1071	333	408	1941	818	787	1118	500	463	786	351
V/C Ratio(X)	0.00	0.56	0.90	0.99	0.65	1.05	0.84	0.98	0.48	0.77	0.42	0.00
Avail Cap(c_a), veh/h	181	1071	333	408	1941	818	997	1118	500	680	792	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.5	28.9	33.1	18.9	18.0	27.6	25.4	20.6	31.4	25.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	26.4	40.7	0.8	44.5	5.3	22.3	0.7	3.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	8.5	6.4	7.2	26.9	7.1	14.7	4.1	3.8	3.0	0.0
LnGrp Delay(d),s/veh	0.0	27.2	55.3	73.8	19.7	62.5	32.9	47.7	21.3	34.6	25.3	0.0
LnGrp LOS		C	E	E	B	F	C	D	C	C	C	
Approach Vol, veh/h		906			2514			1997			686	
Approach Delay, s/veh		36.5			42.9			39.7			30.2	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	28.0	13.0	20.0	21.4	20.9	0.0	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	24.0	9.0	16.0	22.0	17.0	4.0	21.0
Max Q Clear Time (g_c+I1), s	9.6	25.3	10.9	16.1	15.9	8.0	0.0	31.0
Green Ext Time (p_c), s	0.6	0.0	0.0	0.0	1.4	6.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	984	950	35	791	895	0	133	2154	1044	54	691	791
Future Volume (veh/h)	984	950	35	791	895	0	133	2154	1044	54	691	791
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	984	950	35	791	895	0	133	2154	1044	54	691	791
Adj No. of Lanes	3	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1032	923	287	767	1007	314	188	2182	679	85	2031	1113
Arrive On Green	0.21	0.18	0.18	0.22	0.20	0.00	0.06	0.43	0.43	0.03	0.40	0.40
Sat Flow, veh/h	4954	5036	1568	3408	5036	1568	3408	5036	1568	3408	5036	2760
Grp Volume(v), veh/h	984	950	35	791	895	0	133	2154	1044	54	691	791
Grp Sat Flow(s),veh/h/ln	1651	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1380
Q Serve(g_s), s	23.5	22.0	2.2	27.0	20.7	0.0	4.6	50.8	52.0	1.9	11.4	28.8
Cycle Q Clear(g_c), s	23.5	22.0	2.2	27.0	20.7	0.0	4.6	50.8	52.0	1.9	11.4	28.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1032	923	287	767	1007	314	188	2182	679	85	2031	1113
V/C Ratio(X)	0.95	1.03	0.12	1.03	0.89	0.00	0.71	0.99	1.54	0.63	0.34	0.71
Avail Cap(c_a), veh/h	1032	923	287	767	1007	314	256	2182	679	85	2031	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	49.0	40.9	46.5	46.7	0.0	55.8	33.7	34.0	58.0	24.8	29.9
Incr Delay (d2), s/veh	17.9	37.3	0.2	40.8	9.8	0.0	5.6	16.3	248.8	14.3	0.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	13.4	1.0	17.0	10.5	0.0	2.3	26.8	69.4	1.1	5.3	11.3
LnGrp Delay(d),s/veh	64.8	86.3	41.1	87.3	56.5	0.0	61.3	49.9	282.8	72.3	24.9	32.1
LnGrp LOS	E	F	D	F	E		E	D	F	E	C	C
Approach Vol, veh/h		1969			1686			3331			1536	
Approach Delay, s/veh		74.7			71.0			123.4			30.2	
Approach LOS		E			E			F			C	

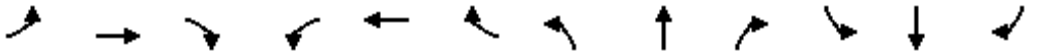
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	56.0	31.0	26.0	10.6	52.4	29.0	28.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	52.0	27.0	22.0	9.0	46.0	25.0	24.0
Max Q Clear Time (g_c+I1), s	3.9	54.0	29.0	24.0	6.6	30.8	25.5	22.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	15.0	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	85.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	347	996	631	20	1649	37	1225	741	22	50	782	585
Future Volume (veh/h)	347	996	631	20	1649	37	1225	741	22	50	782	585
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	347	996	631	20	1649	37	1225	741	22	50	782	585
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	288	1722	536	40	1356	422	944	1746	781	85	863	386
Arrive On Green	0.08	0.34	0.34	0.01	0.27	0.27	0.28	0.50	0.50	0.03	0.25	0.25
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	347	996	631	20	1649	37	1225	741	22	50	782	585
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	11.0	21.1	44.5	0.8	35.0	2.3	36.0	17.5	0.9	1.9	28.1	32.0
Cycle Q Clear(g_c), s	11.0	21.1	44.5	0.8	35.0	2.3	36.0	17.5	0.9	1.9	28.1	32.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	1722	536	40	1356	422	944	1746	781	85	863	386
V/C Ratio(X)	1.20	0.58	1.18	0.49	1.22	0.09	1.30	0.42	0.03	0.59	0.91	1.52
Avail Cap(c_a), veh/h	288	1722	536	79	1356	422	944	1746	781	131	863	386
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	35.1	42.8	63.8	47.5	35.6	47.0	20.8	16.6	62.7	47.5	49.0
Incr Delay (d2), s/veh	119.7	0.5	97.7	9.0	104.3	0.1	141.9	0.2	0.0	6.2	13.1	245.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	9.9	33.7	0.4	29.3	1.0	35.5	8.5	0.4	1.0	15.2	40.1
LnGrp Delay(d),s/veh	179.2	35.6	140.5	72.9	151.8	35.6	188.9	20.9	16.6	68.9	60.7	294.0
LnGrp LOS	F	D	F	E	F	D	F	C	B	E	E	F
Approach Vol, veh/h		1974			1706			1988			1417	
Approach Delay, s/veh		94.4			148.3			124.4			157.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	68.7	5.5	48.5	40.0	36.0	15.0	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	63.0	3.0	43.0	36.0	32.0	11.0	35.0
Max Q Clear Time (g_c+I1), s	3.9	19.5	2.8	46.5	38.0	34.0	13.0	37.0
Green Ext Time (p_c), s	0.0	20.7	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	128.4
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	595	27	33	1036	220	117	1075	199	122	316	453
Future Volume (veh/h)	292	595	27	33	1036	220	117	1075	199	122	316	453
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	292	595	27	33	1036	220	117	1075	199	122	316	453
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	342	1381	618	66	1098	491	171	1177	527	171	1177	527
Arrive On Green	0.10	0.39	0.39	0.02	0.31	0.31	0.05	0.34	0.34	0.05	0.34	0.34
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	292	595	27	33	1036	220	117	1075	199	122	316	453
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	6.7	9.9	0.8	0.8	23.0	8.9	2.7	23.4	7.7	2.8	5.3	21.5
Cycle Q Clear(g_c), s	6.7	9.9	0.8	0.8	23.0	8.9	2.7	23.4	7.7	2.8	5.3	21.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	342	1381	618	66	1098	491	171	1177	527	171	1177	527
V/C Ratio(X)	0.85	0.43	0.04	0.50	0.94	0.45	0.68	0.91	0.38	0.71	0.27	0.86
Avail Cap(c_a), veh/h	342	1381	618	128	1098	491	171	1186	530	171	1186	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	17.7	14.9	38.7	26.7	21.9	37.3	25.4	20.2	37.3	19.3	24.7
Incr Delay (d2), s/veh	18.6	0.2	0.0	5.6	15.5	0.6	10.8	10.8	0.4	13.2	0.1	13.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.8	0.4	0.4	13.4	3.9	1.5	13.1	3.4	1.6	2.6	11.3
LnGrp Delay(d),s/veh	54.0	17.9	14.9	44.4	42.2	22.5	48.1	36.1	20.6	50.5	19.5	38.1
LnGrp LOS	D	B	B	D	D	C	D	D	C	D	B	D
Approach Vol, veh/h		914			1289			1391			891	
Approach Delay, s/veh		29.3			38.9			34.9			33.2	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	30.8	5.6	35.4	8.0	30.8	12.0	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	27.0	3.0	30.0	4.0	27.0	8.0	25.0
Max Q Clear Time (g_c+I1), s	4.8	25.4	2.8	11.9	4.7	23.5	8.7	25.0
Green Ext Time (p_c), s	0.0	1.4	0.0	11.8	0.0	2.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	708	10	27	726	1	117	907	337	3	85	30
Future Volume (veh/h)	184	708	10	27	726	1	117	907	337	3	85	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	184	708	10	27	726	1	117	907	337	3	85	30
Adj No. of Lanes	2	1	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	272	778	661	78	1278	572	191	1048	469	137	993	444
Arrive On Green	0.08	0.42	0.42	0.02	0.36	0.36	0.06	0.30	0.30	0.04	0.28	0.28
Sat Flow, veh/h	3408	1845	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	184	708	10	27	726	1	117	907	337	3	85	30
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	3.9	26.7	0.3	0.6	12.3	0.0	2.5	18.1	14.2	0.1	1.3	1.0
Cycle Q Clear(g_c), s	3.9	26.7	0.3	0.6	12.3	0.0	2.5	18.1	14.2	0.1	1.3	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	778	661	78	1278	572	191	1048	469	137	993	444
V/C Ratio(X)	0.68	0.91	0.02	0.34	0.57	0.00	0.61	0.87	0.72	0.02	0.09	0.07
Avail Cap(c_a), veh/h	414	798	678	184	1279	572	322	1089	487	691	1468	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	20.1	12.5	35.6	18.8	14.9	34.2	24.5	23.2	34.1	19.5	19.4
Incr Delay (d2), s/veh	2.9	14.3	0.0	2.6	0.6	0.0	3.2	7.3	4.9	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	16.5	0.1	0.3	6.1	0.0	1.3	9.7	6.7	0.0	0.6	0.5
LnGrp Delay(d),s/veh	36.0	34.4	12.5	38.2	19.4	14.9	37.3	31.8	28.0	34.2	19.5	19.4
LnGrp LOS	D	C	B	D	B	B	D	C	C	C	B	B
Approach Vol, veh/h		902			754			1361			118	
Approach Delay, s/veh		34.5			20.1			31.3			19.9	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	26.1	5.7	35.2	8.1	25.0	9.9	31.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	23.0	4.0	32.0	7.0	31.0	9.0	27.0
Max Q Clear Time (g_c+I1), s	2.1	20.1	2.6	28.7	4.5	3.3	5.9	14.3
Green Ext Time (p_c), s	0.0	2.0	0.0	2.5	0.1	9.8	0.2	7.7

Intersection Summary	
HCM 2010 Ctrl Delay	29.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Future Volume (veh/h)	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	107	1963	611	407	2407	749	29	1775	553	44	1797	559
Arrive On Green	0.03	0.39	0.39	0.12	0.48	0.48	0.01	0.35	0.35	0.01	0.36	0.36
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	102	1582	114	356	2405	9	9	1722	114	15	1410	85
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	3.8	35.7	6.1	13.1	60.9	0.4	0.3	42.9	6.5	0.6	31.9	4.7
Cycle Q Clear(g_c), s	3.8	35.7	6.1	13.1	60.9	0.4	0.3	42.9	6.5	0.6	31.9	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	1963	611	407	2407	749	29	1775	553	44	1797	559
V/C Ratio(X)	0.95	0.81	0.19	0.87	1.00	0.01	0.31	0.97	0.21	0.34	0.78	0.15
Avail Cap(c_a), veh/h	107	1963	611	427	2407	749	107	1776	553	107	1797	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.7	34.6	25.6	55.3	33.3	17.5	62.9	40.7	28.9	62.4	36.7	27.9
Incr Delay (d2), s/veh	72.5	2.6	0.1	17.4	18.1	0.0	5.8	14.9	0.2	4.5	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	17.0	2.7	7.2	32.1	0.2	0.2	22.4	2.8	0.3	15.1	2.1
LnGrp Delay(d),s/veh	134.2	37.2	25.8	72.7	51.4	17.5	68.7	55.6	29.0	66.9	39.0	28.0
LnGrp LOS	F	D	C	E	D	B	E	E	C	E	D	C
Approach Vol, veh/h		1798			2770			1845			1510	
Approach Delay, s/veh		42.0			54.0			54.0			38.7	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	49.0	19.2	53.8	5.1	49.5	8.0	65.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	45.0	16.0	49.0	4.0	45.0	4.0	61.0
Max Q Clear Time (g_c+I1), s	2.6	44.9	15.1	37.7	2.3	33.9	5.8	62.9
Green Ext Time (p_c), s	0.0	0.0	0.1	11.2	0.0	10.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	48.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	672	0	1035	708	68	0	699	1197	118	797	238
Future Volume (veh/h)	238	672	0	1035	708	68	0	699	1197	118	797	238
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	238	672	0	1035	708	68	0	699	1197	118	797	238
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	315	830	258	1190	2123	661	4	963	978	144	1259	563
Arrive On Green	0.09	0.16	0.00	0.35	0.42	0.42	0.00	0.27	0.27	0.04	0.36	0.36
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	238	672	0	1035	708	68	0	699	1197	118	797	238
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	6.4	12.2	0.0	26.9	9.0	2.5	0.0	17.1	26.0	3.3	17.9	10.9
Cycle Q Clear(g_c), s	6.4	12.2	0.0	26.9	9.0	2.5	0.0	17.1	26.0	3.3	17.9	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	315	830	258	1190	2123	661	4	963	978	144	1259	563
V/C Ratio(X)	0.75	0.81	0.00	0.87	0.33	0.10	0.00	0.73	1.22	0.82	0.63	0.42
Avail Cap(c_a), veh/h	468	851	265	1728	2713	845	144	963	978	144	1259	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	38.1	0.0	28.8	18.4	16.6	0.0	31.1	17.8	45.0	25.2	22.9
Incr Delay (d2), s/veh	3.9	5.8	0.0	3.5	0.1	0.1	0.0	2.8	109.8	29.7	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	6.1	0.0	13.2	4.1	1.1	0.0	8.6	55.0	2.1	8.8	4.8
LnGrp Delay(d),s/veh	45.8	43.9	0.0	32.3	18.5	16.6	0.0	33.9	127.6	74.7	26.2	23.4
LnGrp LOS	D	D		C	B	B		C	F	E	C	C
Approach Vol, veh/h		910			1811			1896			1153	
Approach Delay, s/veh		44.4			26.3			93.1			30.6	
Approach LOS		D			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	30.0	37.1	19.6	0.0	38.0	12.8	43.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	26.0	48.0	16.0	4.0	26.0	13.0	51.0
Max Q Clear Time (g_c+I1), s	5.3	28.0	28.9	14.2	0.0	19.9	8.4	11.0
Green Ext Time (p_c), s	0.0	0.0	4.2	1.4	0.0	5.7	0.3	13.5

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

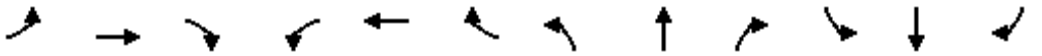
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	80	213	0	213	101	267	2043	95	10	1948	149
Future Volume (veh/h)	242	80	213	0	213	101	267	2043	95	10	1948	149
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	242	80	213	0	213	101	267	2043	95	10	1948	149
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	250	614	521	2	264	224	83	2542	118	17	2282	174
Arrive On Green	0.14	0.33	0.33	0.00	0.14	0.14	0.05	0.52	0.52	0.01	0.48	0.48
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	4933	229	1757	4774	363
Grp Volume(v), veh/h	242	80	213	0	213	101	267	1388	750	10	1367	730
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1679	1804	1757	1679	1781
Q Serve(g_s), s	11.6	2.6	8.9	0.0	9.4	5.0	4.0	28.9	29.1	0.5	30.3	30.6
Cycle Q Clear(g_c), s	11.6	2.6	8.9	0.0	9.4	5.0	4.0	28.9	29.1	0.5	30.3	30.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.20
Lane Grp Cap(c), veh/h	250	614	521	2	264	224	83	1730	930	17	1604	851
V/C Ratio(X)	0.97	0.13	0.41	0.00	0.81	0.45	3.21	0.80	0.81	0.57	0.85	0.86
Avail Cap(c_a), veh/h	250	614	521	83	350	297	83	1730	930	83	1670	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	19.7	21.8	0.0	35.0	33.1	40.2	16.9	17.0	41.6	19.4	19.5
Incr Delay (d2), s/veh	48.2	0.1	0.5	0.0	9.9	1.4	1024.1	2.8	5.3	26.5	4.3	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	1.3	3.9	0.0	5.5	2.2	25.6	14.0	15.7	0.4	14.8	16.9
LnGrp Delay(d),s/veh	84.2	19.8	22.3	0.0	45.0	34.5	1064.3	19.7	22.2	68.1	23.8	27.7
LnGrp LOS	F	B	C		D	C	F	B	C	E	C	C
Approach Vol, veh/h		535			314			2405			2107	
Approach Delay, s/veh		49.9			41.6			136.5			25.3	
Approach LOS		D			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	47.5	0.0	32.1	8.0	44.4	16.0	16.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	42.0	4.0	24.0	4.0	42.0	12.0	16.0
Max Q Clear Time (g_c+I1), s	2.5	31.1	0.0	10.9	6.0	32.6	13.6	11.4
Green Ext Time (p_c), s	0.0	10.8	0.0	2.3	0.0	7.7	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	78.6
HCM 2010 LOS	E

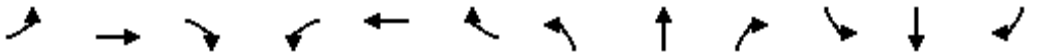
Cumulative Plus All Projects

Ultimate Mitigation PM



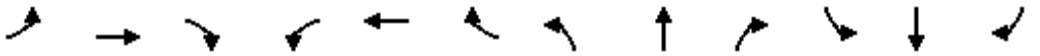
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	271	571	338	152	934	981	475	1225	49	1391	1798	150
Future Volume (vph)	271	571	338	152	934	981	475	1225	49	1391	1798	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	3278		3367	3471	2733	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	3278		3367	3471	2733	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	271	571	338	152	934	981	475	1225	49	1391	1798	150
RTOR Reduction (vph)	0	67	0	0	0	755	0	0	37	0	0	63
Lane Group Flow (vph)	271	842	0	152	934	226	475	1225	12	1391	1798	87
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	8.0	32.0		6.0	30.0	30.0	20.6	31.0	31.0	45.0	55.4	55.4
Effective Green, g (s)	8.0	32.0		6.0	30.0	30.0	20.6	31.0	31.0	45.0	55.4	55.4
Actuated g/C Ratio	0.06	0.25		0.05	0.23	0.23	0.16	0.24	0.24	0.35	0.43	0.43
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	806		155	801	630	533	1189	370	1165	2125	661
v/s Ratio Prot	c0.08	0.26		0.05	c0.27		0.14	c0.25		c0.41	0.36	
v/s Ratio Perm						0.08			0.01			0.06
v/c Ratio	1.31	1.04		0.98	1.17	0.36	0.89	1.03	0.03	1.19	0.85	0.13
Uniform Delay, d1	61.0	49.0		61.9	50.0	41.9	53.6	49.5	38.0	42.5	33.5	22.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	169.4	43.9		66.2	88.1	0.4	16.9	34.2	0.0	95.9	3.3	0.1
Delay (s)	230.4	92.9		128.2	138.1	42.3	70.5	83.7	38.0	138.4	36.8	22.8
Level of Service	F	F		F	F	D	E	F	D	F	D	C
Approach Delay (s)		124.5			91.9			78.8			78.5	
Approach LOS		F			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	88.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	110.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



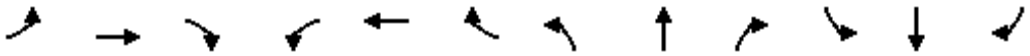
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	656	259	244	735	531	241	904	190	786	1656	91
Future Volume (vph)	74	656	259	244	735	531	241	904	190	786	1656	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91	0.91	1.00	0.91		1.00	0.91	1.00
Frt	1.00	0.96		1.00	0.98	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3356		1736	3244	1413	1736	4858		1736	4988	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1752	3356		1736	3244	1413	1736	4858		1736	4988	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	74	656	259	244	735	531	241	904	190	786	1656	91
RTOR Reduction (vph)	0	28	0	0	10	291	0	21	0	0	0	38
Lane Group Flow (vph)	74	887	0	244	868	97	241	1073	0	786	1656	53
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	11.6	31.0		18.0	37.4	37.4	23.5	31.0		54.0	61.5	61.5
Effective Green, g (s)	11.6	31.0		18.0	37.4	37.4	23.5	31.0		54.0	61.5	61.5
Actuated g/C Ratio	0.08	0.21		0.12	0.25	0.25	0.16	0.21		0.36	0.41	0.41
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	135	693		208	808	352	271	1003		624	2045	636
v/s Ratio Prot	0.04	c0.26		c0.14	0.27		0.14	c0.22		c0.45	0.33	
v/s Ratio Perm						0.07						0.03
v/c Ratio	0.55	1.28		1.17	1.07	0.28	0.89	1.07		1.26	0.81	0.08
Uniform Delay, d1	66.7	59.5		66.0	56.3	45.4	62.0	59.5		48.0	39.1	27.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.5	137.0		116.9	53.6	0.4	27.7	48.9		129.5	2.5	0.1
Delay (s)	71.2	196.5		182.9	109.9	45.8	89.7	108.4		177.5	41.6	27.1
Level of Service	E	F		F	F	D	F	F		F	D	C
Approach Delay (s)		187.2			105.3			105.0			83.2	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	109.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	118.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



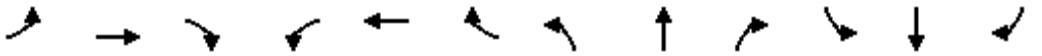
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	265	500	145	479	516	787	128	0	288	670	0	403
Future Volume (vph)	265	500	145	479	516	787	128	0	288	670	0	403
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	4.6	4.6	5.5	4.3	5.5		4.6	4.6	4.8	4.8	4.8
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00		0.95	0.95	0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.94	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.97	1.00	0.95	0.95	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568		1584	1475	1649	1649	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.97	1.00	0.95	0.95	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568		1584	1475	1649	1649	1553
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	265	500	145	479	516	787	128	0	288	670	0	403
RTOR Reduction (vph)	0	0	116	0	0	556	0	115	183	0	0	289
Lane Group Flow (vph)	265	500	29	479	516	231	0	99	19	335	335	114
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA	custom	Split	NA	Perm	Split	NA	Perm
Protected Phases	3	8		7	4	5	6	6		2	2	
Permitted Phases			8			4			6			2
Actuated Green, G (s)	12.0	19.3	19.3	18.9	26.5	31.9		10.2	10.2	29.9	29.9	29.9
Effective Green, g (s)	12.0	19.3	19.3	18.9	26.5	31.9		10.2	10.2	29.9	29.9	29.9
Actuated g/C Ratio	0.11	0.18	0.18	0.17	0.24	0.29		0.09	0.09	0.28	0.28	0.28
Clearance Time (s)	5.5	4.6	4.6	5.5	4.3	5.5		4.6	4.6	4.8	4.8	4.8
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	2.0		1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	375	622	278	591	854	460		148	138	453	453	427
v/s Ratio Prot	0.08	c0.14		c0.14	0.15	c0.02		c0.06		c0.20	0.20	
v/s Ratio Perm			0.02			0.12			0.01			0.07
v/c Ratio	0.71	0.80	0.10	0.81	0.60	0.50		0.67	0.14	0.74	0.74	0.27
Uniform Delay, d1	46.7	42.9	37.5	43.2	36.4	31.8		47.6	45.2	35.9	35.9	30.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.9	7.0	0.1	7.8	0.8	0.3		8.5	0.2	5.4	5.4	0.1
Delay (s)	51.6	49.9	37.5	51.0	37.3	32.1		56.1	45.4	41.2	41.2	31.0
Level of Service	D	D	D	D	D	C		E	D	D	D	C
Approach Delay (s)		48.4			38.7			50.9			37.4	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	108.7	Sum of lost time (s)	25.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



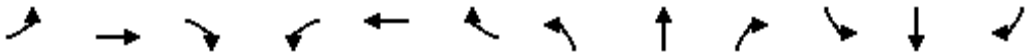
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	553	8	2	501	1	9	188	0	1	280	323
Future Volume (vph)	196	553	8	2	501	1	9	188	0	1	280	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	1.00		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1671	1755		1641	1727		1671	1759		1671	1618	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1671	1755		1641	1727		1671	1759		1671	1618	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	196	553	8	2	501	1	9	188	0	1	280	323
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	47	0
Lane Group Flow (vph)	196	560	0	2	502	0	9	188	0	1	556	0
Heavy Vehicles (%)	8%	8%	8%	10%	10%	10%	8%	8%	8%	8%	8%	8%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	11.0	40.4		0.7	30.1		0.7	31.4		0.7	31.4	
Effective Green, g (s)	11.0	40.4		0.7	30.1		0.7	31.4		0.7	31.4	
Actuated g/C Ratio	0.12	0.45		0.01	0.34		0.01	0.35		0.01	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	206	794		12	582		13	619		13	569	
v/s Ratio Prot	c0.12	0.32		0.00	c0.29		c0.01	0.11		0.00	c0.34	
v/s Ratio Perm												
v/c Ratio	0.95	0.71		0.17	0.86		0.69	0.30		0.08	0.98	
Uniform Delay, d1	38.8	19.6		44.0	27.6		44.1	21.0		43.9	28.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	48.8	2.9		6.5	12.5		96.3	0.3		2.5	31.7	
Delay (s)	87.6	22.5		50.4	40.1		140.4	21.2		46.5	60.3	
Level of Service	F	C		D	D		F	C		D	E	
Approach Delay (s)		39.4			40.2			26.7			60.3	
Approach LOS		D			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	44.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	89.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	549	1024	9	2	750	6	7	15	2	5	21	1108
Future Volume (vph)	549	1024	9	2	750	6	7	15	2	5	21	1108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	6.2
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95			1.00			1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	3303	3406	1524	1719	3434			1798			1810	2733
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.99			0.99	1.00
Satd. Flow (perm)	3303	3406	1524	1719	3434			1798			1810	2733
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	549	1024	9	2	750	6	7	15	2	5	21	1108
RTOR Reduction (vph)	0	0	4	0	0	0	0	2	0	0	0	997
Lane Group Flow (vph)	549	1024	5	2	756	0	0	22	0	0	26	111
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	3%	3%	3%	4%	4%	4%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6									4
Actuated Green, G (s)	17.6	49.5	49.5	0.5	33.3			1.6			8.5	8.5
Effective Green, g (s)	17.6	49.5	49.5	0.5	33.3			1.6			8.5	8.5
Actuated g/C Ratio	0.21	0.58	0.58	0.01	0.39			0.02			0.10	0.10
Clearance Time (s)	5.5	6.9	6.9	5.5	6.0			6.1			6.2	6.2
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0			1.0			1.0	1.0
Lane Grp Cap (vph)	685	1988	889	10	1348			33			181	273
v/s Ratio Prot	c0.17	0.30		0.00	c0.22			c0.01			0.01	
v/s Ratio Perm			0.00									c0.04
v/c Ratio	0.80	0.52	0.01	0.20	0.56			0.67			0.14	0.41
Uniform Delay, d1	31.9	10.5	7.4	42.0	20.1			41.3			34.8	35.8
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	6.3	0.1	0.0	3.6	0.3			33.0			0.1	0.4
Delay (s)	38.3	10.6	7.4	45.5	20.4			74.4			35.0	36.1
Level of Service	D	B	A	D	C			E			C	D
Approach Delay (s)		20.2			20.4			74.4			36.1	
Approach LOS		C			C			E			D	

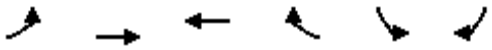
Intersection Summary			
HCM 2000 Control Delay	25.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	84.8	Sum of lost time (s)	24.7
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	13	43	148	6	202	38	1451	183	714	1482	1
Future Volume (vph)	12	13	43	148	6	202	38	1451	183	714	1482	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.88		1.00	0.85		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1632		1752	1576		1752	3505	1568	1752	3504	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1632		1752	1576		1752	3505	1568	1752	3504	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	13	43	148	6	202	38	1451	183	714	1482	1
RTOR Reduction (vph)	0	41	0	0	180	0	0	0	75	0	0	0
Lane Group Flow (vph)	12	15	0	148	28	0	38	1451	108	714	1483	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	1.9	7.7		10.0	15.8		6.1	56.9	56.9	52.1	102.9	
Effective Green, g (s)	1.9	7.7		10.0	15.8		6.1	56.9	56.9	52.1	102.9	
Actuated g/C Ratio	0.01	0.05		0.07	0.11		0.04	0.40	0.40	0.37	0.72	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	23	88		122	174		74	1397	625	639	2526	
v/s Ratio Prot	0.01	0.01		c0.08	c0.02		0.02	c0.41		c0.41	0.42	
v/s Ratio Perm									0.07			
v/c Ratio	0.52	0.17		1.21	0.16		0.51	1.04	0.17	1.12	0.59	
Uniform Delay, d1	69.9	64.5		66.3	57.5		66.8	42.9	27.7	45.3	9.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	19.7	0.9		149.7	0.4		5.9	34.7	0.1	72.4	0.4	
Delay (s)	89.7	65.4		216.1	57.9		72.7	77.6	27.8	117.7	10.0	
Level of Service	F	E		F	E		E	E	C	F	A	
Approach Delay (s)		69.7			123.7			72.1			45.0	
Approach LOS		E			F			E			D	

Intersection Summary			
HCM 2000 Control Delay	62.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	142.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	104.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	1215	804	1686	1898	0
Future Volume (vph)	2	1215	804	1686	1898	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	
Frt	1.00	1.00	1.00	0.85	1.00	
Flt Protected	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (prot)	3400	3505	3505	1568	3400	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	
Satd. Flow (perm)	3400	3505	3505	1568	3400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	1215	804	1686	1898	0
RTOR Reduction (vph)	0	0	0	717	0	0
Lane Group Flow (vph)	2	1215	804	969	1898	0
Turn Type	Prot	NA	NA	Perm	Prot	
Protected Phases	4	5	5		6	
Permitted Phases				5		
Actuated Green, G (s)	1.1	46.0	46.0	46.0	76.1	
Effective Green, g (s)	1.1	46.0	46.0	46.0	76.1	
Actuated g/C Ratio	0.01	0.34	0.34	0.34	0.56	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	27	1192	1192	533	1913	
v/s Ratio Prot	c0.00	0.35	0.23		c0.56	
v/s Ratio Perm				c0.62		
v/c Ratio	0.07	1.02	0.67	1.82	0.99	
Uniform Delay, d1	66.5	44.6	38.2	44.6	29.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	31.0	1.5	375.9	18.6	
Delay (s)	67.7	75.6	39.7	420.5	47.9	
Level of Service	E	E	D	F	D	
Approach Delay (s)		75.6	297.5		47.9	
Approach LOS		E	F		D	

Intersection Summary			
HCM 2000 Control Delay	164.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	135.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	390	690	1158	312	475	2678
Future Volume (vph)	390	690	1158	312	475	2678
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	5036	1568	3400	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	5036	1568	3400	5036
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	690	1158	312	475	2678
RTOR Reduction (vph)	0	408	0	194	0	0
Lane Group Flow (vph)	390	282	1158	118	475	2678
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	3		2		1	6
Permitted Phases		3		2		
Actuated Green, G (s)	13.8	13.8	24.1	24.1	14.0	42.1
Effective Green, g (s)	13.8	13.8	24.1	24.1	14.0	42.1
Actuated g/C Ratio	0.22	0.22	0.38	0.38	0.22	0.66
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	734	338	1899	591	744	3317
v/s Ratio Prot	0.11		0.23		0.14	c0.53
v/s Ratio Perm		c0.18		0.08		
v/c Ratio	0.53	0.84	0.61	0.20	0.64	0.81
Uniform Delay, d1	22.2	24.0	16.1	13.4	22.7	7.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	16.1	0.6	0.2	1.8	1.5
Delay (s)	22.9	40.1	16.7	13.6	24.5	9.5
Level of Service	C	D	B	B	C	A
Approach Delay (s)	33.9		16.0			11.7
Approach LOS	C		B			B

Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	580	23	194	198	704	9	2256	129	749	2558	1
Future Volume (veh/h)	0	580	23	194	198	704	9	2256	129	749	2558	1
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1827	1827	1900	1827	1827	1900
Adj Flow Rate, veh/h	0	580	23	194	198	704	9	2256	129	749	2558	1
Adj No. of Lanes	2	2	1	2	2	1	2	3	0	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	2	627	280	173	941	712	21	2096	119	628	3160	1
Arrive On Green	0.00	0.18	0.18	0.05	0.27	0.27	0.01	0.43	0.43	0.19	0.61	0.61
Sat Flow, veh/h	3375	3471	1553	3408	3505	1568	3375	4829	274	3375	5150	2
Grp Volume(v), veh/h	0	580	23	194	198	704	9	1548	837	749	1652	907
Grp Sat Flow(s),veh/h/ln	1688	1736	1553	1704	1752	1568	1688	1663	1779	1688	1663	1827
Q Serve(g_s), s	0.0	24.3	1.8	7.5	6.5	39.7	0.4	64.2	64.2	27.5	56.4	56.4
Cycle Q Clear(g_c), s	0.0	24.3	1.8	7.5	6.5	39.7	0.4	64.2	64.2	27.5	56.4	56.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.00
Lane Grp Cap(c), veh/h	2	627	280	173	941	712	21	1443	772	628	2041	1121
V/C Ratio(X)	0.00	0.93	0.08	1.12	0.21	0.99	0.43	1.07	1.08	1.19	0.81	0.81
Avail Cap(c_a), veh/h	68	681	304	173	941	712	68	1443	772	628	2041	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	59.6	50.4	70.2	41.9	40.0	73.2	41.9	41.9	60.2	21.9	21.9
Incr Delay (d2), s/veh	0.0	17.2	0.0	105.2	0.0	30.6	4.9	45.8	57.6	102.1	2.4	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.2	0.8	6.0	3.1	34.4	0.2	38.4	43.7	21.6	26.4	29.5
LnGrp Delay(d),s/veh	0.0	76.8	50.5	175.4	42.0	70.6	78.2	87.7	99.5	162.3	24.3	26.1
LnGrp LOS		E	D	F	D	E	E	F	F	F	C	C
Approach Vol, veh/h		603			1096			2394			3308	
Approach Delay, s/veh		75.8			83.9			91.7			56.1	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	96.1	0.0	45.4	33.0	69.5	13.0	32.4
Change Period (Y+Rc), s	5.5	5.3	5.5	* 5.7	5.5	* 5.3	5.5	* 5.7
Max Green Setting (Gmax), s	3.0	88.6	3.0	* 33	27.5	* 64	7.5	* 29
Max Q Clear Time (g_c+I1), s	2.4	58.4	0.0	41.7	29.5	66.2	9.5	26.3
Green Ext Time (p_c), s	0.0	24.1	0.0	0.0	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	73.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	1828	773	61	1518	875	613	1675	106	935	1669	126
Future Volume (veh/h)	153	1828	773	61	1518	875	613	1675	106	935	1669	126
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	153	1828	773	61	1518	0	613	1675	106	935	1669	126
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	3	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	4	4	4
Cap, veh/h	154	1745	543	77	1647	513	575	1576	491	849	1566	488
Arrive On Green	0.05	0.36	0.36	0.02	0.34	0.00	0.17	0.32	0.32	0.17	0.31	0.31
Sat Flow, veh/h	3312	4893	1524	3312	4893	1524	3375	4988	1553	4907	4988	1553
Grp Volume(v), veh/h	153	1828	773	61	1518	0	613	1675	106	935	1669	126
Grp Sat Flow(s),veh/h/ln	1656	1631	1524	1656	1631	1524	1688	1663	1553	1636	1663	1553
Q Serve(g_s), s	6.9	53.6	53.6	2.8	44.8	0.0	25.6	47.5	7.5	26.0	47.2	9.1
Cycle Q Clear(g_c), s	6.9	53.6	53.6	2.8	44.8	0.0	25.6	47.5	7.5	26.0	47.2	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	1745	543	77	1647	513	575	1576	491	849	1566	488
V/C Ratio(X)	0.99	1.05	1.42	0.79	0.92	0.00	1.07	1.06	0.22	1.10	1.07	0.26
Avail Cap(c_a), veh/h	154	1745	543	77	1647	513	575	1576	491	849	1566	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	48.4	48.4	73.0	47.9	0.0	62.3	51.4	37.7	62.2	51.6	38.5
Incr Delay (d2), s/veh	69.9	35.2	200.8	38.6	8.8	0.0	56.4	41.4	0.1	62.5	42.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	29.8	52.9	1.7	21.6	0.0	16.4	27.8	3.2	16.6	27.8	3.9
LnGrp Delay(d),s/veh	141.5	83.5	249.1	111.6	56.7	0.0	118.8	92.8	37.8	124.7	94.0	38.6
LnGrp LOS	F	F	F	F	E		F	F	D	F	F	D
Approach Vol, veh/h		2754			1579			2394			2730	
Approach Delay, s/veh		133.2			58.8			97.0			102.0	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	56.0	30.3	52.0	9.0	59.0	30.0	52.3
Change Period (Y+Rc), s	5.0	* 5.4	* 4.7	4.8	5.5	* 5.4	4.0	4.8
Max Green Setting (Gmax), s	7.0	* 50	* 26	47.2	3.5	* 54	26.0	47.5
Max Q Clear Time (g_c+I1), s	8.9	46.8	27.6	49.2	4.8	55.6	28.0	49.5
Green Ext Time (p_c), s	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	102.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	821	455	804	91	557	9	188	1038	11	22	1978	1340
Future Volume (veh/h)	821	455	804	91	557	9	188	1038	11	22	1978	1340
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	821	455	804	91	557	9	188	1038	11	22	1978	1340
Adj No. of Lanes	3	2	1	2	2	0	2	3	1	2	3	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	903	1287	576	92	745	12	156	1987	619	45	1850	1014
Arrive On Green	0.18	0.37	0.37	0.03	0.21	0.21	0.05	0.40	0.40	0.01	0.37	0.37
Sat Flow, veh/h	4907	3471	1553	3375	3496	56	3375	4988	1553	3375	4988	2733
Grp Volume(v), veh/h	821	455	804	91	276	290	188	1038	11	22	1978	1340
Grp Sat Flow(s),veh/h/ln	1636	1736	1553	1688	1736	1817	1688	1663	1553	1688	1663	1367
Q Serve(g_s), s	18.0	10.4	40.8	3.0	16.4	16.4	5.1	17.4	0.5	0.7	40.8	40.8
Cycle Q Clear(g_c), s	18.0	10.4	40.8	3.0	16.4	16.4	5.1	17.4	0.5	0.7	40.8	40.8
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	903	1287	576	92	370	387	156	1987	619	45	1850	1014
V/C Ratio(X)	0.91	0.35	1.40	0.99	0.75	0.75	1.20	0.52	0.02	0.49	1.07	1.32
Avail Cap(c_a), veh/h	959	1287	576	92	370	387	156	1987	619	104	1850	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	25.1	34.6	53.5	40.5	40.5	52.5	25.1	20.0	53.9	34.6	34.6
Incr Delay (d2), s/veh	11.4	0.8	188.6	89.7	12.9	12.4	136.2	1.0	0.1	3.0	42.2	151.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	5.1	47.6	2.5	9.2	9.5	5.3	8.2	0.2	0.4	25.9	36.7
LnGrp Delay(d),s/veh	55.4	25.8	223.2	143.2	53.4	52.9	188.7	26.1	20.1	56.9	76.8	186.4
LnGrp LOS	E	C	F	F	D	D	F	C	C	E	F	F
Approach Vol, veh/h		2080			657			1237			3340	
Approach Delay, s/veh		113.8			65.6			50.8			120.7	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	46.0	25.4	28.6	7.0	49.0	8.0	46.0
Change Period (Y+Rc), s	* 4.9	* 5.2	* 5.1	* 5.2	5.5	* 5.2	5.0	* 5.2
Max Green Setting (Gmax), s	* 5.1	* 41	* 22	* 22	3.4	* 42	3.0	* 41
Max Q Clear Time (g_c+I1), s	7.1	42.8	20.0	18.4	2.7	19.4	5.0	42.8
Green Ext Time (p_c), s	0.0	0.0	0.2	3.8	0.0	22.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	101.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1249	518	91	1235	265	575	191	8	318	374	87
Future Volume (veh/h)	77	1249	518	91	1235	265	575	191	8	318	374	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	77	1249	518	91	1235	265	575	191	8	318	374	87
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	94	1157	477	94	1372	294	518	231	196	612	329	280
Arrive On Green	0.05	0.33	0.33	0.05	0.33	0.33	0.29	0.12	0.12	0.35	0.18	0.18
Sat Flow, veh/h	1757	3503	1444	1757	4153	891	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	77	1197	570	91	998	502	575	191	8	318	374	87
Grp Sat Flow(s),veh/h/ln	1757	1679	1590	1757	1679	1687	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	4.9	37.0	37.0	5.8	31.7	31.7	33.0	11.3	0.4	16.1	20.0	5.4
Cycle Q Clear(g_c), s	4.9	37.0	37.0	5.8	31.7	31.7	33.0	11.3	0.4	16.1	20.0	5.4
Prop In Lane	1.00		0.91	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	94	1109	525	94	1109	557	518	231	196	612	329	280
V/C Ratio(X)	0.82	1.08	1.09	0.97	0.90	0.90	1.11	0.83	0.04	0.52	1.14	0.31
Avail Cap(c_a), veh/h	94	1109	525	94	1109	557	518	379	322	612	329	280
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	37.5	37.5	52.9	35.7	35.7	39.5	47.8	31.7	29.0	46.0	40.0
Incr Delay (d2), s/veh	41.0	51.0	64.5	81.7	10.1	17.6	73.5	7.6	0.1	0.8	91.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	25.0	25.6	4.9	16.2	17.5	26.5	6.3	0.2	7.9	18.5	2.4
LnGrp Delay(d),s/veh	93.4	88.5	102.0	134.6	45.8	53.4	113.0	55.5	31.7	29.8	137.5	40.6
LnGrp LOS	F	F	F	F	D	D	F	E	C	C	F	D
Approach Vol, veh/h		1844			1591			774			779	
Approach Delay, s/veh		92.9			53.3			98.0			82.7	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	43.0	18.0	10.0	41.0	37.0	24.0	10.0	41.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	30.0	23.0	6.0	37.0	33.0	20.0	6.0	37.0
Max Q Clear Time (g_c+I1), s	18.1	13.3	7.8	39.0	35.0	22.0	6.9	33.7
Green Ext Time (p_c), s	2.9	0.7	0.0	0.0	0.0	0.0	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	79.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	31	17	472	44	537	48	2143	294	530	2550	59
Future Volume (veh/h)	73	31	17	472	44	537	48	2143	294	530	2550	59
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1827	1827	1827	1827	1827	1900
Adj Flow Rate, veh/h	73	31	17	472	44	537	48	2143	294	530	2550	59
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	66	42	23	560	303	258	61	2396	746	570	3095	71
Arrive On Green	0.04	0.04	0.04	0.16	0.16	0.16	0.04	0.48	0.48	0.17	0.62	0.62
Sat Flow, veh/h	1757	1121	615	3408	1845	1568	1740	4988	1553	3375	5016	116
Grp Volume(v), veh/h	73	0	48	472	44	537	48	2143	294	530	1686	923
Grp Sat Flow(s),veh/h/ln	1757	0	1736	1704	1845	1568	1740	1663	1553	1688	1663	1807
Q Serve(g_s), s	5.5	0.0	4.0	19.6	3.0	24.0	4.0	57.2	17.7	22.6	57.6	58.4
Cycle Q Clear(g_c), s	5.5	0.0	4.0	19.6	3.0	24.0	4.0	57.2	17.7	22.6	57.6	58.4
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	66	0	65	560	303	258	61	2396	746	570	2051	1115
V/C Ratio(X)	1.10	0.00	0.73	0.84	0.15	2.08	0.78	0.89	0.39	0.93	0.82	0.83
Avail Cap(c_a), veh/h	66	0	65	560	303	258	126	2503	779	589	2051	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	0.0	69.6	59.2	52.2	61.0	69.9	34.6	24.3	59.8	21.7	21.9
Incr Delay (d2), s/veh	141.8	0.0	30.9	10.6	0.1	501.0	7.8	4.3	0.1	20.5	2.6	5.0
Initial Q Delay(d3),s/veh	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	2.5	10.1	1.5	46.2	2.1	27.1	7.6	12.2	27.0	30.5
LnGrp Delay(d),s/veh	213.0	0.0	100.4	69.8	52.3	562.0	77.7	38.8	24.4	80.4	24.4	26.9
LnGrp LOS	F		F	E	D	F	E	D	C	F	C	C
Approach Vol, veh/h		121			1053			2485			3139	
Approach Delay, s/veh		168.4			320.1			37.9			34.6	
Approach LOS		F			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.2	95.3		11.0	30.2	75.4		29.5
Change Period (Y+Rc), s	* 5.1	* 5.2		5.5	5.5	* 5.2		5.5
Max Green Setting (Gmax), s	* 11	* 89		5.5	25.5	* 73		24.0
Max Q Clear Time (g_c+I1), s	6.0	60.4		7.5	24.6	59.2		26.0
Green Ext Time (p_c), s	0.0	23.1		0.0	0.1	11.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	82.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Future Volume (veh/h)	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	208	1160	361	509	1605	500	437	1166	363	805	1709	532
Arrive On Green	0.06	0.23	0.23	0.15	0.32	0.32	0.13	0.23	0.23	0.24	0.34	0.34
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	184	1261	464	577	1079	740	495	1079	154	825	1824	181
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	8.1	34.7	34.7	22.5	28.0	48.0	19.5	31.9	12.7	35.9	51.6	13.1
Cycle Q Clear(g_c), s	8.1	34.7	34.7	22.5	28.0	48.0	19.5	31.9	12.7	35.9	51.6	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	1160	361	509	1605	500	437	1166	363	805	1709	532
V/C Ratio(X)	0.88	1.09	1.28	1.13	0.67	1.48	1.13	0.93	0.42	1.03	1.07	0.34
Avail Cap(c_a), veh/h	208	1160	361	509	1605	500	437	1166	363	805	1709	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	58.0	58.0	64.1	44.5	51.3	65.6	56.4	49.1	57.4	49.5	36.8
Incr Delay (d2), s/veh	32.0	53.3	147.5	81.9	0.9	226.9	84.5	12.2	0.3	38.3	42.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	21.7	29.8	16.3	13.1	52.3	14.2	16.0	5.5	20.9	30.3	5.6
LnGrp Delay(d),s/veh	102.2	111.2	205.4	146.0	45.4	278.2	150.0	68.6	49.4	95.7	91.8	37.0
LnGrp LOS	F	F	F	F	D	F	F	E	D	F	F	D
Approach Vol, veh/h		1909			2396			1728			2830	
Approach Delay, s/veh		133.3			141.5			90.2			89.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	57.2	14.7	53.7	41.4	40.8	28.0	40.4
Change Period (Y+Rc), s	5.5	* 5.6	5.5	* 5.7	5.5	* 5.6	5.5	* 5.7
Max Green Setting (Gmax), s	19.5	* 52	9.2	* 48	35.9	* 35	22.5	* 34
Max Q Clear Time (g_c+I1), s	21.5	53.6	10.1	50.0	37.9	33.9	24.5	36.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	2208	58	290	1548	492	476	1059	118	521	2559	161
Future Volume (veh/h)	260	2208	58	290	1548	492	476	1059	118	521	2559	161
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1845	1845	1792	1792	1845	1845	1845	1827	1845	1827
Adj Flow Rate, veh/h	260	2208	58	290	1548	492	476	1059	118	521	2559	0
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	3	3	6	6	3	3	3	4	3	4
Cap, veh/h	297	1655	530	231	1564	487	331	1466	456	563	1804	556
Arrive On Green	0.09	0.34	0.34	0.07	0.32	0.32	0.10	0.29	0.29	0.17	0.36	0.00
Sat Flow, veh/h	3312	4893	1568	3408	4893	1524	3408	5036	1568	3375	5036	1553
Grp Volume(v), veh/h	260	2208	58	290	1548	492	476	1059	118	521	2559	0
Grp Sat Flow(s),veh/h/ln	1656	1631	1568	1704	1631	1524	1704	1679	1568	1688	1679	1553
Q Serve(g_s), s	11.7	50.9	3.8	10.2	47.4	48.1	14.6	28.4	8.7	22.9	53.9	0.0
Cycle Q Clear(g_c), s	11.7	50.9	3.8	10.2	47.4	48.1	14.6	28.4	8.7	22.9	53.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	297	1655	530	231	1564	487	331	1466	456	563	1804	556
V/C Ratio(X)	0.88	1.33	0.11	1.26	0.99	1.01	1.44	0.72	0.26	0.93	1.42	0.00
Avail Cap(c_a), veh/h	297	1655	530	231	1564	487	331	1466	456	628	1804	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.7	49.8	34.2	70.2	51.0	51.2	67.9	47.9	40.9	61.8	48.3	0.0
Incr Delay (d2), s/veh	23.2	154.6	0.0	145.3	20.3	43.4	214.3	1.8	0.3	17.9	191.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	46.5	1.7	9.4	24.3	26.1	16.7	13.4	3.8	12.1	56.9	0.0
LnGrp Delay(d),s/veh	90.8	204.4	34.3	215.4	71.2	94.6	282.3	49.7	41.2	79.7	240.1	0.0
LnGrp LOS	F	F	C	F	E	F	F	D	D	E	F	
Approach Vol, veh/h		2526			2330			1653			3080	
Approach Delay, s/veh		188.8			94.1			116.0			213.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	59.0	17.8	53.7	30.1	48.9	15.0	56.5
Change Period (Y+Rc), s	* 5.4	5.1	* 4.3	5.6	5.0	5.1	* 4.8	* 5.6
Max Green Setting (Gmax), s	* 15	53.9	* 14	47.6	28.0	40.9	* 10	* 51
Max Q Clear Time (g_c+I1), s	16.6	55.9	13.7	50.1	24.9	30.4	12.2	52.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	9.5	0.0	0.0

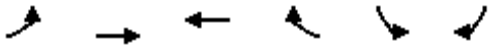
Intersection Summary	
HCM 2010 Ctrl Delay	161.0
HCM 2010 LOS	F

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	689	182	755	773	232	570
Future Volume (veh/h)	689	182	755	773	232	570
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	689	182	755	773	232	570
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	671	177	761	2531	332	976
Arrive On Green	0.24	0.24	0.43	0.72	0.19	0.19
Sat Flow, veh/h	2837	725	1757	3597	1757	1568
Grp Volume(v), veh/h	440	431	755	773	232	570
Grp Sat Flow(s),veh/h/ln	1752	1717	1757	1752	1757	1568
Q Serve(g_s), s	22.0	22.0	38.4	7.1	11.1	17.0
Cycle Q Clear(g_c), s	22.0	22.0	38.4	7.1	11.1	17.0
Prop In Lane		0.42	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	428	420	761	2531	332	976
V/C Ratio(X)	1.03	1.03	0.99	0.31	0.70	0.58
Avail Cap(c_a), veh/h	428	420	761	2531	332	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.0	34.0	25.3	4.5	34.1	10.1
Incr Delay (d2), s/veh	50.5	51.1	30.5	0.1	6.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.6	16.3	24.9	3.4	5.9	8.5
LnGrp Delay(d),s/veh	84.5	85.1	55.8	4.5	40.5	11.0
LnGrp LOS	F	F	E	A	D	B
Approach Vol, veh/h	871			1528	802	
Approach Delay, s/veh	84.8			29.9	19.5	
Approach LOS	F			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		21.0	43.0	26.0				69.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		17.0	39.0	22.0				65.0
Max Q Clear Time (g_c+I1), s		19.0	40.4	24.0				9.1
Green Ext Time (p_c), s		0.0	0.0	0.0				17.6

Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	141	2274	1641	657	777	316
Future Volume (veh/h)	141	2274	1641	657	777	316
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845
Adj Flow Rate, veh/h	141	2274	1641	657	777	316
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	132	2644	1493	573	717	640
Arrive On Green	0.08	0.52	0.42	0.42	0.41	0.41
Sat Flow, veh/h	1757	5202	3749	1376	1757	1568
Grp Volume(v), veh/h	141	2274	1533	765	777	316
Grp Sat Flow(s),veh/h/ln	1757	1679	1679	1602	1757	1568
Q Serve(g_s), s	9.0	46.9	50.0	50.0	49.0	17.9
Cycle Q Clear(g_c), s	9.0	46.9	50.0	50.0	49.0	17.9
Prop In Lane	1.00			0.86	1.00	1.00
Lane Grp Cap(c), veh/h	132	2644	1399	667	717	640
V/C Ratio(X)	1.07	0.86	1.10	1.15	1.08	0.49
Avail Cap(c_a), veh/h	132	2644	1399	667	717	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	24.7	35.0	35.0	35.5	26.3
Incr Delay (d2), s/veh	98.4	3.1	54.8	82.5	58.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	22.4	33.8	37.4	35.3	16.8
LnGrp Delay(d),s/veh	153.9	27.8	89.8	117.5	93.9	26.9
LnGrp LOS	F	C	F	F	F	C
Approach Vol, veh/h		2415	2298		1093	
Approach Delay, s/veh		35.2	99.0		74.5	
Approach LOS		D	F		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				67.0		53.0	13.0	54.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				63.0		49.0	9.0	50.0
Max Q Clear Time (g_c+I1), s				48.9		51.0	11.0	52.0
Green Ext Time (p_c), s				14.0		0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	1805	98	956	1148	361	89	625	769	411	838	82
Future Volume (veh/h)	283	1805	98	956	1148	361	89	625	769	411	838	82
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1792	1845	1845	1792	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	283	1805	98	956	1148	361	89	625	769	411	838	82
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	6	3	3	6	3	3	3	3	3	3	3
Cap, veh/h	341	1754	562	839	2470	791	131	539	627	341	755	338
Arrive On Green	0.10	0.36	0.36	0.25	0.50	0.50	0.04	0.15	0.15	0.10	0.22	0.22
Sat Flow, veh/h	3408	4893	1568	3408	4893	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	283	1805	98	956	1148	361	89	625	769	411	838	82
Grp Sat Flow(s),veh/h/ln	1704	1631	1568	1704	1631	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	10.6	46.6	5.6	32.0	19.7	19.3	3.4	20.0	20.0	13.0	28.0	5.6
Cycle Q Clear(g_c), s	10.6	46.6	5.6	32.0	19.7	19.3	3.4	20.0	20.0	13.0	28.0	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	341	1754	562	839	2470	791	131	539	627	341	755	338
V/C Ratio(X)	0.83	1.03	0.17	1.14	0.46	0.46	0.68	1.16	1.23	1.21	1.11	0.24
Avail Cap(c_a), veh/h	446	1754	562	839	2470	791	131	539	627	341	755	338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	41.7	28.5	49.0	20.8	20.7	61.7	55.0	39.0	58.5	51.0	42.2
Incr Delay (d2), s/veh	9.8	29.3	0.2	77.1	0.2	0.6	13.2	90.8	115.5	117.1	67.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	25.7	2.4	24.0	8.9	8.4	1.8	16.5	42.6	11.7	20.6	2.5
LnGrp Delay(d),s/veh	67.2	71.0	28.7	126.1	21.0	21.3	74.9	145.8	154.5	175.6	118.3	42.6
LnGrp LOS	E	F	C	F	C	C	E	F	F	F	F	D
Approach Vol, veh/h		2186			2465			1483			1331	
Approach Delay, s/veh		68.6			61.8			146.0			131.3	
Approach LOS		E			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.0	53.0	9.0	32.0	17.0	72.0	17.0	24.0
Change Period (Y+Rc), s	4.0	6.4	4.0	4.0	4.0	6.4	4.0	4.0
Max Green Setting (Gmax), s	32.0	46.6	5.0	28.0	17.0	61.6	13.0	20.0
Max Q Clear Time (g_c+I1), s	34.0	48.6	5.4	30.0	12.6	21.7	15.0	22.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.4	37.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	92.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1059	44	925	27	77	110	645	2110	17	146	1045	974
Future Volume (veh/h)	1059	44	925	27	77	110	645	2110	17	146	1045	974
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1900	1845	1845	1827	1827	1900	1827	1827	1827
Adj Flow Rate, veh/h	1090	0	925	27	77	110	645	2110	17	146	1045	0
Adj No. of Lanes	2	0	1	0	1	1	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	982	0	438	22	62	72	427	2249	18	111	1279	398
Arrive On Green	0.28	0.00	0.28	0.05	0.05	0.05	0.25	0.44	0.44	0.06	0.26	0.00
Sat Flow, veh/h	3480	0	1553	473	1348	1568	1740	5104	41	1740	4988	1553
Grp Volume(v), veh/h	1090	0	925	104	0	110	645	1374	753	146	1045	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553	1821	0	1568	1740	1663	1820	1740	1663	1553
Q Serve(g_s), s	33.7	0.0	33.7	5.5	0.0	5.5	29.3	47.1	47.1	7.6	23.5	0.0
Cycle Q Clear(g_c), s	33.7	0.0	33.7	5.5	0.0	5.5	29.3	47.1	47.1	7.6	23.5	0.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	982	0	438	84	0	72	427	1465	802	111	1279	398
V/C Ratio(X)	1.11	0.00	2.11	1.24	0.00	1.52	1.51	0.94	0.94	1.32	0.82	0.00
Avail Cap(c_a), veh/h	982	0	438	84	0	72	427	1487	814	111	1303	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.9	0.0	42.9	57.0	0.0	57.0	45.1	31.8	31.9	55.9	41.8	0.0
Incr Delay (d2), s/veh	63.9	0.0	507.6	176.1	0.0	293.7	241.8	11.4	18.0	193.3	3.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.8	0.0	76.2	6.9	0.0	8.3	42.7	23.9	27.6	9.6	11.3	0.0
LnGrp Delay(d),s/veh	106.7	0.0	550.5	233.0	0.0	350.7	286.9	43.2	49.8	249.2	45.6	0.0
LnGrp LOS	F		F	F		F	F	D	D	F	D	
Approach Vol, veh/h		2015			214			2772			1191	
Approach Delay, s/veh		310.4			293.5			101.7			70.5	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	35.4		11.0	12.0	57.4		39.0
Change Period (Y+Rc), s	* 4.7	4.8		5.5	* 4.4	* 4.8		5.3
Max Green Setting (Gmax), s	* 29	31.2		5.5	* 7.6	* 53		33.7
Max Q Clear Time (g_c+I1), s	31.3	25.5		7.5	9.6	49.1		35.7
Green Ext Time (p_c), s	0.0	4.5		0.0	0.0	3.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	170.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	706	1569	392	42	860	300	283	1290	46	729	1761	372
Future Volume (veh/h)	706	1569	392	42	860	300	283	1290	46	729	1761	372
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	706	1569	392	42	860	300	283	1290	46	729	1761	372
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	4	4	4
Cap, veh/h	625	1923	599	72	1106	344	277	1230	383	664	1801	561
Arrive On Green	0.18	0.38	0.38	0.02	0.22	0.22	0.08	0.25	0.25	0.20	0.36	0.36
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	706	1569	392	42	860	300	283	1290	46	729	1761	372
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	27.5	42.0	30.9	1.8	24.1	27.7	12.3	37.0	3.5	29.5	52.3	30.2
Cycle Q Clear(g_c), s	27.5	42.0	30.9	1.8	24.1	27.7	12.3	37.0	3.5	29.5	52.3	30.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	625	1923	599	72	1106	344	277	1230	383	664	1801	561
V/C Ratio(X)	1.13	0.82	0.65	0.58	0.78	0.87	1.02	1.05	0.12	1.10	0.98	0.66
Avail Cap(c_a), veh/h	625	1923	599	84	1141	355	277	1230	383	664	1801	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	41.7	38.2	72.8	55.1	56.5	68.9	56.5	43.9	60.3	47.3	40.3
Incr Delay (d2), s/veh	77.5	2.7	2.1	2.8	3.0	19.0	60.1	39.5	0.1	65.0	16.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.7	19.9	13.7	0.9	11.5	13.8	8.0	21.5	1.5	19.7	26.7	13.3
LnGrp Delay(d),s/veh	138.8	44.3	40.3	75.6	58.1	75.5	129.0	96.0	43.9	125.3	63.4	42.6
LnGrp LOS	F	D	D	E	E	E	F	F	D	F	E	D
Approach Vol, veh/h		2667			1202			1619			2862	
Approach Delay, s/veh		68.7			63.1			100.3			76.5	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	60.2	33.0	39.1	35.0	43.0	8.7	63.4
Change Period (Y+Rc), s	5.5	6.0	5.5	* 6.1	5.5	* 6	5.5	* 6.1
Max Green Setting (Gmax), s	12.3	53.6	27.5	* 34	29.5	* 37	3.7	* 57
Max Q Clear Time (g_c+I1), s	14.3	54.3	29.5	29.7	31.5	39.0	3.8	44.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.2	0.0	0.0	0.0	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	76.7
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	677	1598	347	112	865	360	264	1249	102	701	1858	829
Future Volume (veh/h)	677	1598	347	112	865	360	264	1249	102	701	1858	829
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1759	1759	1759	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	677	1598	347	112	865	360	264	1249	102	701	1858	829
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	8	8	4	4	4	4	4	4
Cap, veh/h	669	1698	529	135	875	272	277	1293	403	692	1906	593
Arrive On Green	0.20	0.34	0.34	0.04	0.18	0.18	0.08	0.26	0.26	0.20	0.38	0.38
Sat Flow, veh/h	3408	5036	1568	3250	4803	1495	3375	4988	1553	3375	4988	1553
Grp Volume(v), veh/h	677	1598	347	112	865	360	264	1249	102	701	1858	829
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1625	1601	1495	1688	1663	1553	1688	1663	1553
Q Serve(g_s), s	27.5	43.1	26.4	4.8	25.2	25.5	10.9	34.6	7.3	28.7	51.4	53.5
Cycle Q Clear(g_c), s	27.5	43.1	26.4	4.8	25.2	25.5	10.9	34.6	7.3	28.7	51.4	53.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	669	1698	529	135	875	272	277	1293	403	692	1906	593
V/C Ratio(X)	1.01	0.94	0.66	0.83	0.99	1.32	0.95	0.97	0.25	1.01	0.97	1.40
Avail Cap(c_a), veh/h	669	1698	529	135	875	272	277	1293	403	692	1906	593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	45.1	39.5	66.6	57.1	57.3	64.0	51.2	41.1	55.7	42.6	43.3
Incr Delay (d2), s/veh	37.6	10.8	2.4	32.0	27.5	168.2	40.7	17.3	0.1	37.5	15.0	188.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	21.7	11.8	2.7	13.4	23.3	6.7	18.0	3.2	17.0	26.2	53.9
LnGrp Delay(d),s/veh	93.9	55.8	41.9	98.7	84.6	225.4	104.7	68.6	41.2	93.1	57.6	232.0
LnGrp LOS	F	E	D	F	F	F	F	E	D	F	E	F
Approach Vol, veh/h		2622			1337			1615			3388	
Approach Delay, s/veh		63.8			123.7			72.8			107.6	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	59.0	33.0	31.0	34.2	41.8	11.3	52.7
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	11.5	53.5	27.5	25.5	28.7	36.3	5.8	47.2
Max Q Clear Time (g_c+I1), s	12.9	55.5	29.5	27.5	30.7	36.6	6.8	45.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	90.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	759	1164	161	178	787	163	130	885	308	239	1459	455
Future Volume (veh/h)	759	1164	161	178	787	163	130	885	308	239	1459	455
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1827	1827	1827	1827	1845
Adj Flow Rate, veh/h	759	1164	161	178	787	163	130	885	308	239	1459	455
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	4	4	4	4	3
Cap, veh/h	1068	1098	491	710	730	327	142	1150	358	293	1413	444
Arrive On Green	0.31	0.31	0.31	0.21	0.21	0.21	0.04	0.23	0.23	0.09	0.28	0.28
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	4988	1553	3375	4988	1568
Grp Volume(v), veh/h	759	1164	161	178	787	163	130	885	308	239	1459	455
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1663	1553	1688	1663	1568
Q Serve(g_s), s	23.6	37.6	9.4	5.2	25.0	11.0	4.6	19.9	22.8	8.3	34.0	34.0
Cycle Q Clear(g_c), s	23.6	37.6	9.4	5.2	25.0	11.0	4.6	19.9	22.8	8.3	34.0	34.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1068	1098	491	710	730	327	142	1150	358	293	1413	444
V/C Ratio(X)	0.71	1.06	0.33	0.25	1.08	0.50	0.92	0.77	0.86	0.81	1.03	1.02
Avail Cap(c_a), veh/h	1068	1098	491	710	730	327	142	1150	358	318	1413	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	41.2	31.5	39.7	47.5	42.0	57.3	43.2	44.3	53.8	43.0	43.0
Incr Delay (d2), s/veh	2.2	44.5	0.4	0.2	56.3	1.2	50.9	3.2	18.6	14.1	32.7	49.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	24.9	4.1	2.5	17.8	4.9	3.2	9.5	11.7	4.5	19.8	20.7
LnGrp Delay(d),s/veh	38.6	85.7	31.9	39.9	103.8	43.1	108.2	46.4	62.9	68.0	75.7	92.0
LnGrp LOS	D	F	C	D	F	D	F	D	E	E	F	F
Approach Vol, veh/h		2084			1128			1323			2153	
Approach Delay, s/veh		64.4			84.9			56.3			78.3	
Approach LOS		E			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.0	39.0		43.0	15.3	32.7		29.0
Change Period (Y+Rc), s	4.0	5.0		* 5.4	* 4.9	5.0		4.0
Max Green Setting (Gmax), s	5.0	34.0		* 38	* 11	26.8		25.0
Max Q Clear Time (g_c+I1), s	6.6	36.0		39.6	10.3	24.8		27.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	1.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	70.7
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	976	768	4	64	442	80	54	847	73	86	686	690
Future Volume (veh/h)	976	768	4	64	442	80	54	847	73	86	686	690
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1792	1792	1792	1792	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	976	768	4	64	442	80	54	847	73	86	686	690
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	3	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	6	6	6	5	5	5	5	5	5
Cap, veh/h	989	1672	748	107	765	342	93	837	375	116	1237	678
Arrive On Green	0.30	0.49	0.49	0.03	0.22	0.22	0.03	0.24	0.24	0.03	0.25	0.25
Sat Flow, veh/h	3312	3406	1524	3312	3406	1524	3343	3438	1538	3343	4940	2707
Grp Volume(v), veh/h	976	768	4	64	442	80	54	847	73	86	686	690
Grp Sat Flow(s),veh/h/ln	1656	1703	1524	1656	1703	1524	1672	1719	1538	1672	1647	1354
Q Serve(g_s), s	31.3	15.8	0.1	2.0	12.3	4.6	1.7	26.0	4.0	2.7	12.9	26.7
Cycle Q Clear(g_c), s	31.3	15.8	0.1	2.0	12.3	4.6	1.7	26.0	4.0	2.7	12.9	26.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	989	1672	748	107	765	342	93	837	375	116	1237	678
V/C Ratio(X)	0.99	0.46	0.01	0.60	0.58	0.23	0.58	1.01	0.19	0.74	0.55	1.02
Avail Cap(c_a), veh/h	989	1706	763	174	868	388	94	837	375	116	1237	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	17.9	13.9	51.0	36.9	33.9	51.3	40.4	32.1	51.1	34.8	40.0
Incr Delay (d2), s/veh	25.2	0.4	0.0	2.0	1.5	0.7	5.7	34.0	0.3	20.1	0.5	39.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.7	7.5	0.1	1.0	5.9	2.0	0.9	16.2	1.7	1.6	5.9	13.7
LnGrp Delay(d),s/veh	62.4	18.3	13.9	53.0	38.4	34.6	57.0	74.4	32.3	71.1	35.4	79.1
LnGrp LOS	E	B	B	D	D	C	E	F	C	E	D	F
Approach Vol, veh/h		1748			586			974			1462	
Approach Delay, s/veh		42.9			39.5			70.3			58.1	
Approach LOS		D			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.5	30.0	7.6	32.7	8.0	58.4	8.3	32.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	31.9	27.2	3.0	26.7	5.6	53.5	3.7	26.0
Max Q Clear Time (g_c+I1), s	33.3	14.3	3.7	28.7	4.0	17.8	4.7	28.0
Green Ext Time (p_c), s	0.0	9.6	0.0	0.0	0.0	20.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	1103	319	76	721	6	585	1248	78	36	1015	366
Future Volume (veh/h)	360	1103	319	76	721	6	585	1248	78	36	1015	366
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	360	1103	319	76	721	6	585	1248	78	36	1015	366
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	381	1101	493	129	842	377	571	1552	694	90	1057	473
Arrive On Green	0.11	0.31	0.31	0.04	0.24	0.24	0.17	0.44	0.44	0.03	0.30	0.30
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	360	1103	319	76	721	6	585	1248	78	36	1015	366
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	9.4	28.1	15.7	2.0	17.6	0.3	15.0	27.6	2.6	0.9	25.5	19.0
Cycle Q Clear(g_c), s	9.4	28.1	15.7	2.0	17.6	0.3	15.0	27.6	2.6	0.9	25.5	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	1101	493	129	842	377	571	1552	694	90	1057	473
V/C Ratio(X)	0.95	1.00	0.65	0.59	0.86	0.02	1.02	0.80	0.11	0.40	0.96	0.77
Avail Cap(c_a), veh/h	381	1101	493	152	861	385	571	1552	694	152	1057	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	30.7	26.4	42.4	32.5	25.9	37.3	21.6	14.6	42.9	30.7	28.5
Incr Delay (d2), s/veh	32.4	27.6	3.0	4.2	8.4	0.0	44.0	3.2	0.1	2.8	18.8	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	17.7	7.2	1.0	9.5	0.1	10.5	13.9	1.1	0.5	15.0	9.2
LnGrp Delay(d),s/veh	71.8	58.3	29.4	46.6	40.9	25.9	81.2	24.8	14.7	45.7	49.5	36.3
LnGrp LOS	E	F	C	D	D	C	F	C	B	D	D	D
Approach Vol, veh/h		1782			803			1911			1417	
Approach Delay, s/veh		55.8			41.3			41.6			46.0	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	43.6	7.4	32.1	19.0	31.0	14.0	25.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	38.0	4.0	28.0	15.0	27.0	10.0	22.0
Max Q Clear Time (g_c+I1), s	2.9	29.6	4.0	30.1	17.0	27.5	11.4	19.6
Green Ext Time (p_c), s	0.0	7.6	0.0	0.0	0.0	0.0	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	46.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	986	643	205	657	673	338	490	391	785	976	0
Future Volume (veh/h)	0	986	643	205	657	673	338	490	391	785	976	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	0	986	643	205	657	673	338	490	391	785	976	0
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	5	1223	381	243	1870	941	427	801	358	779	1163	520
Arrive On Green	0.00	0.24	0.24	0.07	0.37	0.37	0.13	0.23	0.23	0.23	0.33	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	0	986	643	205	657	673	338	490	391	785	976	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	0.0	12.9	17.0	4.2	6.6	21.1	6.7	8.8	16.0	16.0	18.0	0.0
Cycle Q Clear(g_c), s	0.0	12.9	17.0	4.2	6.6	21.1	6.7	8.8	16.0	16.0	18.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1223	381	243	1870	941	427	801	358	779	1163	520
V/C Ratio(X)	0.00	0.81	1.69	0.84	0.35	0.72	0.79	0.61	1.09	1.01	0.84	0.00
Avail Cap(c_a), veh/h	195	1223	381	243	1870	941	438	801	358	779	1163	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	24.9	26.5	32.1	15.9	9.8	29.7	24.2	27.0	27.0	21.7	0.0
Incr Delay (d2), s/veh	0.0	4.1	321.1	22.5	0.1	2.6	9.4	1.4	74.2	34.1	5.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.4	41.3	2.7	3.1	9.7	3.7	4.4	14.3	11.2	9.6	0.0
LnGrp Delay(d),s/veh	0.0	29.0	347.6	54.6	16.0	12.4	39.1	25.6	101.2	61.2	27.2	0.0
LnGrp LOS		C	F	D	B	B	D	C	F	F	C	
Approach Vol, veh/h		1629			1535			1219			1761	
Approach Delay, s/veh		154.8			19.6			53.6			42.4	
Approach LOS		F			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	20.0	9.0	21.0	12.8	27.2	0.0	30.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	16.0	5.0	17.0	9.0	23.0	4.0	18.0
Max Q Clear Time (g_c+I1), s	18.0	18.0	6.2	19.0	8.7	20.0	0.0	23.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	851	822	72	1075	768	0	154	819	843	40	2036	759
Future Volume (veh/h)	851	822	72	1075	768	0	154	819	843	40	2036	759
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	851	822	72	1075	768	0	154	819	843	40	2036	759
Adj No. of Lanes	3	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	977	755	235	994	1231	383	142	2035	634	71	1930	1058
Arrive On Green	0.20	0.15	0.15	0.29	0.24	0.00	0.04	0.40	0.40	0.02	0.38	0.38
Sat Flow, veh/h	4954	5036	1568	3408	5036	1568	3408	5036	1568	3408	5036	2760
Grp Volume(v), veh/h	851	822	72	1075	768	0	154	819	843	40	2036	759
Grp Sat Flow(s),veh/h/ln	1651	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1380
Q Serve(g_s), s	20.0	18.0	4.9	35.0	16.3	0.0	5.0	13.9	48.5	1.4	46.0	28.1
Cycle Q Clear(g_c), s	20.0	18.0	4.9	35.0	16.3	0.0	5.0	13.9	48.5	1.4	46.0	28.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	977	755	235	994	1231	383	142	2035	634	71	1930	1058
V/C Ratio(X)	0.87	1.09	0.31	1.08	0.62	0.00	1.08	0.40	1.33	0.56	1.05	0.72
Avail Cap(c_a), veh/h	1115	755	235	994	1231	383	142	2035	634	85	1930	1058
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	51.0	45.4	42.5	40.4	0.0	57.5	25.4	35.8	58.2	37.0	31.5
Incr Delay (d2), s/veh	7.0	59.3	0.7	53.2	1.0	0.0	99.9	0.1	159.3	6.8	36.7	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	12.5	2.2	23.8	7.7	0.0	4.3	6.5	48.9	0.7	27.8	11.0
LnGrp Delay(d),s/veh	53.6	110.3	46.2	95.7	41.4	0.0	157.4	25.6	195.0	65.0	73.7	33.8
LnGrp LOS	D	F	D	F	D		F	C	F	E	F	C
Approach Vol, veh/h		1745			1843			1816			2835	
Approach Delay, s/veh		80.0			73.1			115.4			62.9	
Approach LOS		F			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	52.5	39.0	22.0	9.0	50.0	27.7	33.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	3.0	48.0	35.0	18.0	5.0	46.0	27.0	26.0
Max Q Clear Time (g_c+I1), s	3.4	50.5	37.0	20.0	7.0	48.0	22.0	18.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	1.7	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	80.4
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	553	1543	1044	34	1123	23	851	743	59	86	732	392
Future Volume (veh/h)	553	1543	1044	34	1123	23	851	743	59	86	732	392
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	553	1543	1044	34	1123	23	851	743	59	86	732	392
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	611	2015	627	63	1204	375	786	1333	596	139	668	299
Arrive On Green	0.18	0.40	0.40	0.02	0.24	0.24	0.23	0.38	0.38	0.04	0.19	0.19
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	553	1543	1044	34	1123	23	851	743	59	86	732	392
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	15.9	26.4	39.9	1.0	21.8	1.1	23.0	16.6	2.4	2.5	19.0	19.0
Cycle Q Clear(g_c), s	15.9	26.4	39.9	1.0	21.8	1.1	23.0	16.6	2.4	2.5	19.0	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	611	2015	627	63	1204	375	786	1333	596	139	668	299
V/C Ratio(X)	0.90	0.77	1.66	0.54	0.93	0.06	1.08	0.56	0.10	0.62	1.10	1.31
Avail Cap(c_a), veh/h	615	2015	627	103	1212	377	786	1333	596	171	668	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	25.9	29.9	48.5	37.2	29.3	38.4	24.3	19.9	47.1	40.4	40.4
Incr Delay (d2), s/veh	16.8	1.8	305.9	7.2	12.9	0.1	56.8	0.5	0.1	4.5	64.1	162.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	12.5	70.5	0.5	11.5	0.5	16.9	8.1	1.1	1.3	15.0	21.7
LnGrp Delay(d),s/veh	56.9	27.7	335.8	55.7	50.0	29.4	95.2	24.8	20.0	51.6	104.5	202.8
LnGrp LOS	E	C	F	E	D	C	F	C	B	D	F	F
Approach Vol, veh/h		3140			1180			1653			1210	
Approach Delay, s/veh		135.3			49.8			60.9			132.6	
Approach LOS		F			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	41.9	5.8	43.9	27.0	23.0	21.9	27.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	37.0	3.0	39.0	23.0	19.0	18.0	24.0
Max Q Clear Time (g_c+I1), s	4.5	18.6	3.0	41.9	25.0	21.0	17.9	23.8
Green Ext Time (p_c), s	0.0	11.6	0.0	0.0	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	103.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	268	47	170	1793	6	32	1488	251	14	1604	99
Future Volume (veh/h)	91	268	47	170	1793	6	32	1488	251	14	1604	99
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	91	268	47	170	1793	6	32	1488	251	14	1604	99
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	149	1805	562	244	1944	605	84	1879	585	45	1820	567
Arrive On Green	0.04	0.36	0.36	0.07	0.39	0.39	0.02	0.37	0.37	0.01	0.36	0.36
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	5036	1568	3408	5036	1568
Grp Volume(v), veh/h	91	268	47	170	1793	6	32	1488	251	14	1604	99
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1679	1568	1704	1679	1568
Q Serve(g_s), s	2.3	3.1	1.7	4.2	29.5	0.2	0.8	22.9	10.4	0.4	26.0	3.7
Cycle Q Clear(g_c), s	2.3	3.1	1.7	4.2	29.5	0.2	0.8	22.9	10.4	0.4	26.0	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1805	562	244	1944	605	84	1879	585	45	1820	567
V/C Ratio(X)	0.61	0.15	0.08	0.70	0.92	0.01	0.38	0.79	0.43	0.31	0.88	0.17
Avail Cap(c_a), veh/h	157	1805	562	313	1968	613	157	1879	585	157	1852	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	18.9	18.5	39.5	25.5	16.5	41.8	24.3	20.4	42.5	26.0	18.9
Incr Delay (d2), s/veh	6.2	0.0	0.1	4.6	7.7	0.0	2.8	2.4	0.5	3.9	5.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.4	0.8	2.1	15.0	0.1	0.4	11.0	4.6	0.2	12.9	1.6
LnGrp Delay(d),s/veh	47.1	19.0	18.5	44.1	33.2	16.5	44.6	26.7	20.9	46.4	31.3	19.1
LnGrp LOS	D	B	B	D	C	B	D	C	C	D	C	B
Approach Vol, veh/h		406			1969			1771			1717	
Approach Delay, s/veh		25.2			34.1			26.2			30.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	36.5	10.2	35.2	6.2	35.5	7.8	37.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	32.0	8.0	30.0	4.0	32.0	4.0	34.0
Max Q Clear Time (g_c+I1), s	2.4	24.9	6.2	5.1	2.8	28.0	4.3	31.5
Green Ext Time (p_c), s	0.0	6.9	0.1	17.6	0.0	3.5	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	30.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	672	0	1044	749	123	3	799	947	98	732	304
Future Volume (veh/h)	301	672	0	1044	749	123	3	799	947	98	732	304
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	301	672	0	1044	749	123	3	799	947	98	732	304
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	385	866	270	1140	1982	617	11	925	938	156	1075	481
Arrive On Green	0.11	0.17	0.00	0.33	0.39	0.39	0.00	0.26	0.26	0.05	0.31	0.31
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	301	672	0	1044	749	123	3	799	947	98	732	304
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1568
Q Serve(g_s), s	7.5	11.1	0.0	25.6	9.2	4.5	0.1	18.9	23.0	2.5	15.9	14.5
Cycle Q Clear(g_c), s	7.5	11.1	0.0	25.6	9.2	4.5	0.1	18.9	23.0	2.5	15.9	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	866	270	1140	1982	617	11	925	938	156	1075	481
V/C Ratio(X)	0.78	0.78	0.00	0.92	0.38	0.20	0.27	0.86	1.01	0.63	0.68	0.63
Avail Cap(c_a), veh/h	509	925	288	1213	1982	617	156	925	938	156	1075	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	34.5	0.0	27.8	18.8	17.4	43.3	30.6	17.5	40.8	26.5	26.0
Incr Delay (d2), s/veh	5.7	4.0	0.0	10.5	0.1	0.2	12.9	8.5	31.7	7.6	1.8	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	5.5	0.0	13.7	4.3	2.0	0.1	10.2	30.4	1.3	8.0	6.6
LnGrp Delay(d),s/veh	43.3	38.4	0.0	38.3	18.9	17.5	56.2	39.1	49.1	48.5	28.2	28.7
LnGrp LOS	D	D		D	B	B	E	D	F	D	C	C
Approach Vol, veh/h		973			1916			1749			1134	
Approach Delay, s/veh		39.9			29.4			44.6			30.1	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	27.0	33.1	19.0	4.3	30.7	13.8	38.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	23.0	31.0	16.0	4.0	23.0	13.0	34.0
Max Q Clear Time (g_c+I1), s	4.5	25.0	27.6	13.1	2.1	17.9	9.5	11.2
Green Ext Time (p_c), s	0.0	0.0	1.5	1.9	0.0	4.6	0.4	11.3

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	249	310	120	126	10	190	1811	93	10	1800	259
Future Volume (veh/h)	190	249	310	120	126	10	190	1811	93	10	1800	259
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	190	249	310	120	126	10	190	1811	93	10	1800	259
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	195	348	296	150	300	255	195	2472	127	78	1947	278
Arrive On Green	0.11	0.19	0.19	0.09	0.16	0.16	0.11	0.50	0.50	0.04	0.44	0.44
Sat Flow, veh/h	1757	1845	1568	1757	1845	1568	1757	4906	252	1757	4454	636
Grp Volume(v), veh/h	190	249	310	120	126	10	190	1238	666	10	1353	706
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	1845	1568	1757	1679	1800	1757	1679	1732
Q Serve(g_s), s	9.7	11.4	17.0	6.0	5.5	0.5	9.7	26.1	26.2	0.5	34.2	34.8
Cycle Q Clear(g_c), s	9.7	11.4	17.0	6.0	5.5	0.5	9.7	26.1	26.2	0.5	34.2	34.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.37
Lane Grp Cap(c), veh/h	195	348	296	150	300	255	195	1691	907	78	1467	757
V/C Ratio(X)	0.97	0.71	1.05	0.80	0.42	0.04	0.97	0.73	0.73	0.13	0.92	0.93
Avail Cap(c_a), veh/h	195	348	296	176	328	279	195	1691	907	78	1467	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	34.2	36.5	40.4	33.8	31.7	39.9	17.6	17.6	41.3	23.9	24.1
Incr Delay (d2), s/veh	56.5	6.8	65.0	20.1	0.9	0.1	56.5	2.8	5.2	0.7	11.1	19.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	6.5	12.7	3.8	2.9	0.2	7.8	12.7	14.3	0.3	18.0	20.6
LnGrp Delay(d),s/veh	96.4	41.0	101.5	60.5	34.8	31.8	96.4	20.4	22.8	42.1	34.9	43.8
LnGrp LOS	F	D	F	E	C	C	F	C	C	D	C	D
Approach Vol, veh/h		749			256			2094			2069	
Approach Delay, s/veh		80.1			46.7			28.1			38.0	
Approach LOS		F			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	49.3	11.7	21.0	14.0	43.3	14.0	18.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	44.0	9.0	17.0	10.0	38.0	10.0	16.0
Max Q Clear Time (g_c+I1), s	2.5	28.2	8.0	19.0	11.7	36.8	11.7	7.5
Green Ext Time (p_c), s	0.0	15.4	0.0	0.0	0.0	1.2	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	40.5
HCM 2010 LOS	D

Appendix D

Freeway Analysis

US-50 Freeway System

Mainline Analysis – Summary Tables

Table D-1
Draft Existing Peak Hour Freeway Mainline Operations

Direction	US 50 Segment	Number of Lanes		Volume		Peak Hour Factor		Heavy Vehicles		Lowest 15-minute Average Speed		Density (pcplph)		LOS	
		Mixed-Flow	HOV	Mixed-Flow	HOV	Mixed-Flow	HOV	Mixed-Flow	HOV	Mixed-Flow	HOV	Mixed-Flow	HOV	Mixed-Flow	HOV
AM Peak Hour															
Eastbound	SR 99 / SR 51 to Stockton Boulevard	5		7,068		0.96		4%		61		23.46		C	
	Stockton Boulevard to 59th Street	5		7,470		0.96		4%		44		35.05		F	
	59th Street to 65th Street	4		6,767		0.97		4%		62		27.40		D	
	65th Street to Howe Avenue	5		7,962		0.98		4%		57		28.05		D	
	Howe Avenue to Watt Avenue	4		7,405		0.96		4%		60		31.77		D	
	Watt Avenue to Bradshaw Road	4	1	7,935	297	0.95	0.83	4%	0%	75	75	27.22	4.78	D	A
	Bradshaw Road to Mather Field Road	4	1	7,725	370	0.96	0.81	4%	0%	44	73	45.10	6.23	F	A
	Mather Field Road to Zinfandel Drive	5	1	7,275	291	0.94	0.87	4%	0%	79	73	19.18	4.56	C	A
	Zinfandel Drive to Sunrise Boulevard	4	1	5,121	279	0.96	0.87	4%	0%	65	58	20.08	5.52	C	A
	Sunrise Boulevard to Hazel Avenue	3	1	4,985	278	0.94	0.85	6%	0%	62	61	27.67	5.34	D	A
Westbound	Hazel Avenue to Sunrise Boulevard	3	1	6,068	1,109	0.95	0.93	6%	0%	63	61	32.91	19.38	D	C
	Sunrise Boulevard to Zinfandel Drive	4	1	7,502	891	0.96	0.84	4%	0%	58	54	33.31	19.60	D	C
	Zinfandel Drive to Mather Field Road	5	1	7,548	1,028	0.96	0.78	4%	0%	70	66	21.96	20.04	C	C
	Mather Field Road to Bradshaw Road	4	1	7,859	1,121	0.95	0.79	4%	0%	46	62	44.40	23.04	F	C
	Bradshaw Road to Watt Avenue	4	1	7,550	1,235	0.90	0.80	4%	0%	38	38	54.37	40.40	F	F
	Watt Avenue to Howe Avenue	5		7,376		0.93		4%		29		53.44		F	
	Howe Avenue to 65th Street	5		8,157		0.96		4%		47		35.68		F	
	65th Street to 59th Street	4		8,278		0.98		4%		46		44.85		F	
	59th Street to Stockton Boulevard	5		9,115		0.99		4%		61		29.39		D	
	Stockton Boulevard to SR 99 / SR 51	5		8,546		0.95		4%		55		31.89		D	
PM Peak Hour															
Eastbound	SR 99 / SR 51 to Stockton Boulevard	5		6,415		0.98		4%		55		23.33		C	
	Stockton Boulevard to 59th Street	5		7,228		0.99		4%		35		41.46		F	
	59th Street to 65th Street	4		6,641		0.95		4%		60		28.36		D	
	65th Street to Howe Avenue	5		7,562		0.99		4%		50		29.71		D	
	Howe Avenue to Watt Avenue	4		7,602		0.98		4%		57		33.01		D	
	Watt Avenue to Bradshaw Road	4	1	7,176	568	0.98	0.98	4%	0%	72	71	24.80	8.20	C	A
	Bradshaw Road to Mather Field Road	4	1	7,366	749	1.00	0.99	4%	0%	71	75	25.50	10.13	C	A
	Mather Field Road to Zinfandel Drive	5	1	7,224	779	0.97	0.93	4%	0%	72	68	20.13	12.30	C	B
	Zinfandel Drive to Sunrise Boulevard	4	1	6,649	865	0.95	0.95	4%	0%	41	46	42.12	19.76	F	F
	Sunrise Boulevard to Hazel Avenue	3	1	5,323	961	0.94	0.95	6%	0%	49	60	37.30	16.96	F	B
Westbound	Hazel Avenue to Sunrise Boulevard	3	1	4,370	1,321	0.97	0.98	6%	0%	63	60	23.17	22.59	C	C
	Sunrise Boulevard to Zinfandel Drive	4	1	4,762	422	0.93	0.88	4%	0%	65	61	19.30	7.90	C	A
	Zinfandel Drive to Mather Field Road	5	1	5,765	487	0.95	0.84	4%	0%	80	74	14.85	7.82	B	A
	Mather Field Road to Bradshaw Road	4	1	6,939	591	0.99	0.82	4%	0%	60	49	28.66	14.66	D	F
	Bradshaw Road to Watt Avenue	4	1	6,466	773	0.96	0.82	4%	0%	50	61	32.91	15.58	D	B
	Watt Avenue to Howe Avenue	5		5,106		0.98		4%		44		22.96		F	
	Howe Avenue to 65th Street	5		7,407		0.99		4%		35		41.55		F	
	65th Street to 59th Street	4		7,358		0.99		4%		35		51.56		F	
	59th Street to Stockton Boulevard	5		7,945		0.99		4%		49		32.31		F	
	Stockton Boulevard to SR 99 / SR 51	5		8,136		0.96		4%		50		33.25		F	

Source: DKS Associates, 2013. Revised December 10, 2018.

Table D-2
Draft Peak Hour Freeway Mainline Operations - Existing Scenarios

Direction	US 50 Segment	Number of Lanes		AM Peak Hour					
				Existing		Existing Plus Mather South		Existing Plus FOUR PROJECTS	
		Mixed-Flow	HOV	Mixed-Flow Volume	Level of Service	Mixed-Flow Volume	Level of Service	Mixed-Flow Volume	Level of Service
Eastbound	SR 99 / SR 51 to Stockton Boulevard	5		7,068	C	7,095	C	7,705	C
	Stockton Boulevard to 59th Street	5		7,470	**F**	7,508	**F**	8,136	**F**
	59th Street to 65th Street	4		6,767	D	6,798	D	7,439	D
	65th Street to Howe Avenue	5		7,962	D	7,996	D	8,668	D
	Howe Avenue to Watt Avenue	4		7,405	D	7,434	D	7,609	D
	Watt Avenue to Bradshaw Road	4	1	7,935	D	7,956	D	8,145	D
	Bradshaw Road to Mather Field Road	4	1	7,725	**F**	7,724	**F**	7,761	**F**
	Mather Field Road to Zinfandel Drive	5	1	7,275	C	7,298	C	7,713	C
	Zinfandel Drive to Sunrise Boulevard	4	1	5,121	C	5,267	C	5,726	C
	Sunrise Boulevard to Hazel Avenue	3	1	4,985	C	5,057	C	5,461	C
Westbound	Hazel Avenue to Sunrise Boulevard	3	1	6,068	D	6,095	D	6,334	E
	Sunrise Boulevard to Zinfandel Drive	4	1	7,502	D	7,544	D	7,846	E
	Zinfandel Drive to Mather Field Road	5	1	7,548	C	7,642	C	7,829	C
	Mather Field Road to Bradshaw Road	4	1	7,859	**F**	7,919	**F**	7,810	**F**
	Bradshaw Road to Watt Avenue	4	1	7,550	**F**	7,673	**F**	7,424	**F**
	Watt Avenue to Howe Avenue	5		7,376	**F**	7,470	**F**	7,192	**F**
	Howe Avenue to 65th Street	5		8,157	**F**	8,205	**F**	8,489	**F**
	65th Street to 59th Street	4		8,278	**F**	8,304	**F**	8,605	**F**
	59th Street to Stockton Boulevard	5		9,115	D	9,140	D	9,448	D
	Stockton Boulevard to SR 99 / SR 51	5		8,546	D	8,557	D	8,836	D

Direction	US 50 Segment	Number of Lanes		PM Peak Hour					
				Existing		Existing Plus Mather South		Existing Plus FOUR PROJECTS	
		Mixed-Flow	HOV	Mixed-Flow Volume	Level of Service	Mixed-Flow Volume	Level of Service	Mixed-Flow Volume	Level of Service
Eastbound	SR 99 / SR 51 to Stockton Boulevard	5		6,415	C	6,453	C	6,711	C
	Stockton Boulevard to 59th Street	5		7,228	**F**	7,275	**F**	7,546	**F**
	59th Street to 65th Street	4		6,641	D	6,679	D	6,931	D
	65th Street to Howe Avenue	5		7,562	D	7,624	D	7,854	D
	Howe Avenue to Watt Avenue	4		7,602	D	7,687	D	7,700	D
	Watt Avenue to Bradshaw Road	4	1	7,176	C	7,288	C	7,310	C
	Bradshaw Road to Mather Field Road	4	1	7,366	C	7,403	C	7,248	C
	Mather Field Road to Zinfandel Drive	5	1	7,224	C	7,269	C	7,560	C
	Zinfandel Drive to Sunrise Boulevard	4	1	6,649	**F**	6,693	**F**	7,083	**F**
	Sunrise Boulevard to Hazel Avenue	3	1	5,323	**F**	5,357	**F**	5,611	**F**
Westbound	Hazel Avenue to Sunrise Boulevard	3	1	4,370	C	4,461	C	4,707	C
	Sunrise Boulevard to Zinfandel Drive	4	1	4,762	C	4,901	C	5,134	C
	Zinfandel Drive to Mather Field Road	5	1	5,765	B	5,727	B	5,928	B
	Mather Field Road to Bradshaw Road	4	1	6,939	D	6,909	D	6,892	D
	Bradshaw Road to Watt Avenue	4	1	6,466	D	6,520	D	6,913	E
	Watt Avenue to Howe Avenue	5		5,106	**F**	5,148	**F**	5,395	**F**
	Howe Avenue to 65th Street	5		7,407	**F**	7,441	**F**	8,031	**F**
	65th Street to 59th Street	4		7,358	**F**	7,385	**F**	7,953	**F**
	59th Street to Stockton Boulevard	5		7,945	**F**	7,974	**F**	8,537	**F**
	Stockton Boulevard to SR 99 / SR 51	5		8,136	**F**	8,156	**F**	8,635	**F**

Source: DKS Associates, 2014. Revised December 10, 2018.

Table D-3
Draft Peak Hour Freeway Mainline Operations - Cumulative Scenarios

Direction	US 50 Segment	Number of Lanes		MTP Cumulative		MTP Cumulative Plus FOUR PROJECTS		CEQA Cumulative		CEQA Cumulative Plus FOUR PROJECTS	
		Mixed-Flow	HOV	Mixed-Flow Volume	Level of Service	Mixed-Flow Volume	Level of Service	Mixed-Flow Volume	Level of Service	Mixed-Flow Volume	Level of Service
AM Peak Hour											
Eastbound	SR 99 / SR 51 to Stockton Boulevard	5	1	8,582	D	9,245	D	8,751	D	9,295	D
	Stockton Boulevard to 59th Street	5	1	8,024	F	8,627	F	8,168	F	8,642	F
	59th Street to 65th Street	4	1	7,506	D	8,094	E	7,637	D	8,099	E
	65th Street to Howe Avenue	5	1	7,971	D	8,166	D	8,019	D	8,272	D
	Howe Avenue to Watt Avenue	5	1	7,147	C	7,149	C	7,213	C	7,366	C
	Watt Avenue to Bradshaw Road	4	1	9,583	F	9,596	F	9,633	F	9,825	F
	Bradshaw Road to Mather Field Road	5	1	9,362	F	8,922	F	9,467	F	9,483	F
	Mather Field Road to Zinfandel Drive	5	1	8,935	D	8,490	C	9,072	D	9,211	D
	Zinfandel Drive to Sunrise Boulevard	5	1	6,237	C	5,990	C	6,313	C	6,400	C
	Sunrise Boulevard to Rancho Cordova Pkwy	4	1	5,335	C	4,943	C	5,835	C	5,892	C
	Rancho Cordova Pkwy to Hazel Avenue	4	1	6,571	D	6,074	C	7,170	D	7,249	D
Westbound	Hazel Avenue to Rancho Cordova Pkwy	4	1	5,240	B	5,695	B	5,376	B	5,643	B
	Rancho Cordova Pkwy to Sunrise Boulevard	4	1	6,587	C	7,048	C	6,906	C	7,103	C
	Sunrise Boulevard to Zinfandel Drive	5	1	8,392	D	8,891	D	8,587	D	8,801	D
	Zinfandel Drive to Mather Field Road	5	1	8,942	D	9,330	D	9,480	D	9,493	D
	Mather Field Road to Bradshaw Road	5	1	8,996	F	9,065	F	9,560	F	9,406	F
	Bradshaw Road to Watt Avenue	4	1	8,662	F	8,415	E	9,001	F	8,854	F
	Watt Avenue to Howe Avenue	5	1	7,604	F	7,111	F	7,880	F	7,679	F
	Howe Avenue to 65th Street	5	1	8,577	F	8,539	F	8,761	F	8,972	F
	65th Street to 59th Street	4	1	8,621	F	8,601	F	8,809	F	9,012	F
	59th Street to Stockton Boulevard	5	1	9,516	D	9,426	D	9,692	D	9,890	D
	Stockton Boulevard to SR 99 / SR 51	5	1	10,023	E	9,930	E	10,187	E	10,300	E
PM Peak Hour											
Eastbound	SR 99 / SR 51 to Stockton Boulevard	5	1	8,297	D	8,246	D	8,621	D	8,855	D
	Stockton Boulevard to 59th Street	5	1	7,539	F	7,473	F	7,811	F	8,051	F
	59th Street to 65th Street	4	1	7,088	D	7,033	D	7,341	D	7,521	D
	65th Street to Howe Avenue	5	1	7,455	D	7,302	D	7,658	D	7,812	D
	Howe Avenue to Watt Avenue	5	1	6,393	C	6,150	C	6,680	C	6,679	C
	Watt Avenue to Bradshaw Road	4	1	8,662	E	8,437	D	8,976	E	9,056	E
	Bradshaw Road to Mather Field Road	5	1	8,502	C	8,510	C	9,033	C	9,015	C
	Mather Field Road to Zinfandel Drive	5	1	8,234	C	8,548	C	8,765	D	8,916	D
	Zinfandel Drive to Sunrise Boulevard	5	1	6,181	F	6,487	F	6,367	F	6,551	F
	Sunrise Boulevard to Rancho Cordova Pkwy	4	1	5,450	F	5,894	F	5,875	F	6,121	F
	Rancho Cordova Pkwy to Hazel Avenue	4	1	6,395	F	6,887	F	6,651	F	6,929	F
Westbound	Hazel Avenue to Rancho Cordova Pkwy	4	1	4,367	B	3,934	B	5,168	C	5,218	C
	Rancho Cordova Pkwy to Sunrise Boulevard	4	1	3,883	B	3,515	B	4,367	B	4,461	B
	Sunrise Boulevard to Zinfandel Drive	5	1	4,914	B	4,555	B	5,211	B	5,378	B
	Zinfandel Drive to Mather Field Road	5	1	7,154	C	6,703	B	7,384	C	7,454	C
	Mather Field Road to Bradshaw Road	5	1	8,442	D	7,995	C	8,696	D	8,544	D
	Bradshaw Road to Watt Avenue	4	1	7,703	D	7,847	D	7,871	D	8,099	E
	Watt Avenue to Howe Avenue	5	1	5,740	F	5,836	F	5,864	F	6,132	F
	Howe Avenue to 65th Street	5	1	7,896	F	8,148	F	8,080	F	8,384	F
	65th Street to 59th Street	4	1	7,827	F	8,270	F	7,970	F	8,296	F
	59th Street to Stockton Boulevard	5	1	8,137	F	8,631	F	8,290	F	8,656	F
	Stockton Boulevard to SR 99 / SR 51	5	1	9,566	F	9,855	F	9,660	F	9,916	F

Source: DKS Associates, 2014. Revised December 10, 2018.

US-50 Freeway System

Mainline Analysis – Calculation Sheets

US 50 Eastbound - SR 51 / SR 99 to Stockton Boulevard						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	5	5	5	5	5	5
Volume (Vehicles)	7,068	7,095	7,705	6,415	6,453	6,711
Peak Hour Factor	0.96	0.96	0.96	0.98	0.98	0.98
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	16	16	16	16	16	16
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.67	2.67	2.67	2.67	2.67	2.67
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,497	1,502	1,632	1,341	1,349	1,402
Speed (S) (mph)	69	69	68	70	70	70
Calculated Density	21.70	21.79	24.05	19.21	19.34	20.17
Observed Existing Density	23.46	23.46	23.46	23.33	23.33	23.33
Estimated Density	23.46	23.56	25.81	23.33	23.46	24.29
Observed Existing LOS	C	C	C	C	C	C
LOS	C	C	C	C	C	C

US 50 Eastbound - SR 51 / SR 99 to Stockton Boulevard								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	8,582	9,245	8,751	9,295	8,297	8,246	8,621	8,855
Peak Hour Factor	0.96	0.96	0.96	0.96	0.98	0.98	0.98	0.98
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	16	16	16	16	16	16	16	16
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,817	1,958	1,853	1,968	1,734	1,723	1,802	1,851
Speed (S) (mph)	66	63	65	63	67	67	66	65
Calculated Density	27.71	30.91	28.49	31.17	26.00	25.79	27.38	28.43
Density Adjustment	1.76	1.76	1.76	1.76	4.12	4.12	4.12	4.12
Estimated Density	29.48	32.67	30.25	32.93	30.12	29.91	31.50	32.55
Observed Existing LOS	C	C	C	C	C	C	C	C
LOS	D	D	D	D	D	D	D	D

US 50 Eastbound - Stockton Boulevard to 59th Street						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	5	5	5	5	5	5
Volume (Vehicles)	7,470	7,508	8,136	7,228	7,275	7,546
Peak Hour Factor	0.96	0.96	0.96	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	16	16	16	16	16	16
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.67	2.67	2.67	2.67	2.67	2.67
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,594	1,602	1,736	1,491	1,501	1,556
Speed (S) (mph)	68	68	67	69	69	69
Calculated Density	23.37	23.52	26.04	21.60	21.76	22.71
Observed Existing Density	35.05	35.05	35.05	41.46	41.46	41.46
Estimated Density	35.05	35.19	37.72	41.46	41.62	42.57
Observed Existing LOS	F	F	F	F	F	F
LOS	F	F	**F**	F	F	F

US 50 Eastbound - Stockton Boulevard to 59th Street								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	8,024	8,627	8,168	8,642	7,539	7,473	7,811	8,051
Peak Hour Factor	0.96	0.96	0.96	0.96	0.99	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	16	16	16	16	16	16	16	16
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,712	1,841	1,743	1,844	1,555	1,541	1,611	1,661
Speed (S) (mph)	67	65	67	65	69	69	68	68
Calculated Density	25.57	28.22	26.18	28.29	22.69	22.45	23.68	24.59
Density Adjustment	11.68	11.68	11.68	11.68	19.86	19.86	19.86	19.86
Estimated Density	37.25	39.90	37.86	39.97	42.54	42.31	43.54	44.44
Observed Existing LOS	F	F	F	F	F	F	F	F
LOS	F	**F**	F	**F**	F	F	F	F

US 50 Eastbound - 59th Street to 65th Street						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	4	4	4	4	4	4
Volume (Vehicles)	6,767	6,798	7,439	6,641	6,679	6,931
Peak Hour Factor	0.97	0.97	0.97	0.95	0.95	0.95
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	14	14	14	14	14	14
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.33	2.33	2.33	2.33	2.33	2.33
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,778	1,786	1,954	1,778	1,789	1,856
Speed (S) (mph)	66	66	63	66	66	65
Calculated Density	26.88	27.05	30.82	26.89	27.11	28.55
Observed Existing Density	27.40	27.40	27.40	28.36	28.36	28.36
Estimated Density	27.40	27.57	31.34	28.36	28.57	30.02
Observed Existing LOS	D	D	D	D	D	D
LOS	D	D	D	D	D	D

US 50 Eastbound - 59th Street to 65th Street								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	4	4	4	4	4	4	4	4
Volume (Vehicles)	7,506	8,094	7,637	8,099	7,088	7,033	7,341	7,521
Peak Hour Factor	0.97	0.97	0.97	0.97	0.95	0.95	0.95	0.95
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	14	14	14	14	14	14	14	14
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,972	2,126	2,006	2,128	1,898	1,883	1,966	2,014
Speed (S) (mph)	63	60	62	60	64	65	63	62
Calculated Density	31.25	35.41	32.12	35.45	29.50	29.16	31.11	32.33
Density Adjustment	0.52	0.52	0.52	0.52	1.46	1.46	1.46	1.46
Estimated Density	31.77	35.93	32.64	35.96	30.96	30.63	32.57	33.79
Observed Existing LOS	D	D	D	D	D	D	D	D
LOS	D	E	D	E	D	D	D	D

US 50 Eastbound - 65th Street to Howe Avenue						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	5	5	5	5	5	5
Volume (Vehicles)	7,962	7,996	8,668	7,562	7,624	7,854
Peak Hour Factor	0.98	0.98	0.98	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	12	12	12	12	12	12
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.00	2.00	2.00	2.00	2.00	2.00
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,657	1,664	1,803	1,554	1,567	1,614
Speed (S) (mph)	68	68	66	69	68	68
Calculated Density	24.51	24.65	27.42	22.67	22.89	23.73
Observed Existing Density	28.05	28.05	28.05	29.71	29.71	29.71
Estimated Density	28.05	28.18	30.96	29.71	29.93	30.77
Observed Existing LOS	D	D	D	D	D	D
LOS	D	D	D	D	D	D

US 50 Eastbound - 65th Street to Howe Avenue								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	7,971	8,166	8,019	8,272	7,455	7,302	7,658	7,812
Peak Hour Factor	0.98	0.98	0.98	0.98	0.99	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	12	12	12	12	12	12	12	12
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,658	1,699	1,668	1,721	1,532	1,501	1,574	1,605
Speed (S) (mph)	68	67	67	67	69	69	68	68
Calculated Density	24.55	25.32	24.73	25.74	22.29	21.76	23.02	23.58
Density Adjustment	3.54	3.54	3.54	3.54	7.04	7.04	7.04	7.04
Estimated Density	28.08	28.85	28.27	29.28	29.33	28.80	30.05	30.61
Observed Existing LOS	D	D	D	D	D	D	D	D
LOS	D	D	D	D	D	D	D	D

US 50 Eastbound - Howe Avenue to Watt Avenue						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	4	4	4	4	4	4
Volume (Vehicles)	7,405	7,434	7,609	7,602	7,687	7,700
Peak Hour Factor	0.96	0.96	0.96	0.98	0.98	0.98
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,974	1,981	2,028	1,971	1,993	1,996
Speed (S) (mph)	63	63	62	63	63	63
Calculated Density	31.30	31.49	32.68	31.22	31.77	31.86
Observed Existing Density	31.77	31.77	31.77	33.01	33.01	33.01
Estimated Density	31.77	31.96	33.15	33.01	33.56	33.65
Observed Existing LOS	D	D	D	D	D	D
LOS	D	D	D	D	D	D

US 50 Eastbound - Howe Avenue to Watt Avenue								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	7,147	7,149	7,213	7,366	6,393	6,150	6,680	6,679
Peak Hour Factor	0.96	0.96	0.96	0.96	0.98	0.98	0.98	0.98
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,524	1,524	1,538	1,571	1,326	1,275	1,385	1,385
Speed (S) (mph)	69	69	69	68	70	70	70	70
Calculated Density	22.15	22.16	22.40	22.96	18.99	18.24	19.90	19.90
Density Adjustment	0.47	0.47	0.47	0.47	1.79	1.79	1.79	1.79
Estimated Density	22.62	22.63	22.87	23.43	20.78	20.03	21.69	21.69
Observed Existing LOS	D	D	D	D	D	D	D	D
LOS	C	C	C	C	C	C	C	C

US 50 Eastbound - Watt Avenue to Bradshaw Road						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	4	4	4	4	4	4
Volume (Vehicles)	7,935	7,956	8,145	7,176	7,288	7,310
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	9	9	9	9	9	9
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.50	1.50	1.50	1.50	1.50	1.50
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	2,132	2,137	2,188	1,865	1,894	1,900
Speed (S) (mph)	60	60	59	65	64	64
Calculated Density	35.57	35.74	37.29	28.75	29.41	29.54
Observed Existing Density	27.22	27.22	27.22	24.80	24.80	24.80
Estimated Density	27.22	27.39	28.95	24.80	25.45	25.59
Observed Existing LOS	D	D	D	C	C	C
LOS	D	D	D	C	C	C

US 50 Eastbound - Watt Avenue to Bradshaw Road								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	4	4	4	4	4	4	4	4
Volume (Vehicles)	9,583	9,596	9,633	9,825	8,662	8,437	8,976	9,056
Peak Hour Factor	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.98
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	9	9	9	9	9	9	9	9
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	2,574	2,578	2,588	2,640	2,252	2,193	2,333	2,354
Speed (S) (mph)	48	48	48	46	57	59	55	55
Calculated Density	53.54	53.74	54.31	57.43	39.38	37.45	42.34	43.14
Density Adjustment	-8.35	-8.35	-8.35	-8.35	-3.96	-3.96	-3.96	-3.96
Estimated Density	45.19	45.40	45.97	49.08	35.42	33.49	38.38	39.18
Observed Existing LOS	D	D	D	D	C	C	C	C
LOS	F	F	F	F	E	D	E	E

US 50 Eastbound - Bradshaw Road to Mather Field Road						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	4	4	4	4	4	4
Volume (Vehicles)	7,725	7,724	7,761	7,366	7,403	7,248
Peak Hour Factor	0.96	0.96	0.96	1.00	1.00	1.00
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	2,062	2,062	2,072	1,883	1,892	1,852
Speed (S) (mph)	61	61	61	65	64	65
Calculated Density	33.60	33.59	33.86	29.14	29.36	28.47
Observed Existing Density	45.10	45.10	45.10	25.50	25.50	25.50
Estimated Density	45.10	45.09	45.36	25.50	25.72	24.83
Observed Existing LOS	F	F	F	C	C	C
LOS	F	F	F	C	C	C

US 50 Eastbound - Bradshaw Road to Mather Field Road								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	9,362	8,922	9,467	9,483	8,502	8,510	9,033	9,015
Peak Hour Factor	0.96	0.96	0.96	0.96	1.00	1.00	1.00	1.00
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,999	1,906	2,022	2,025	1,738	1,740	1,847	1,843
Speed (S) (mph)	63	64	62	62	67	67	65	65
Calculated Density	31.94	29.67	32.52	32.61	26.09	26.12	28.35	28.27
Density Adjustment	11.49	11.49	11.49	11.49	-3.64	-3.64	-3.64	-3.64
Estimated Density	43.44	41.16	44.02	44.11	22.45	22.48	24.71	24.63
Observed Existing LOS	F	F	F	F	C	C	C	C
LOS	F	F	F	F	C	C	C	C

US 50 Eastbound - Mather Field Road to Zinfandel Drive						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	5	5	5	5	5	5
Volume (Vehicles)	7,275	7,298	7,713	7,224	7,269	7,560
Peak Hour Factor	0.94	0.94	0.94	0.97	0.97	0.97
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	11	11	11	11	11	11
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.83	1.83	1.83	1.83	1.83	1.83
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,570	1,575	1,665	1,512	1,521	1,582
Speed (S) (mph)	68	68	67	69	69	68
Calculated Density	22.96	23.05	24.67	21.95	22.11	23.16
Observed Existing Density	19.18	19.18	19.18	20.13	20.13	20.13
Estimated Density	19.18	19.27	20.89	20.13	20.29	21.34
Observed Existing LOS	C	C	C	C	C	C
LOS	C	C	C	C	C	C

US 50 Eastbound - Mather Field Road to Zinfandel Drive								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	8,935	8,490	9,072	9,211	8,234	8,548	8,765	8,916
Peak Hour Factor	0.94	0.94	0.94	0.94	0.97	0.97	0.97	0.97
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	11	11	11	11	11	11	11	11
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,929	1,833	1,959	1,988	1,723	1,789	1,834	1,866
Speed (S) (mph)	64	65	63	63	67	66	65	65
Calculated Density	30.21	28.05	30.93	31.67	25.79	27.12	28.08	28.77
Density Adjustment	-3.78	-3.78	-3.78	-3.78	-1.82	-1.82	-1.82	-1.82
Estimated Density	26.43	24.27	27.15	27.89	23.96	25.29	26.25	26.95
Observed Existing LOS	C	C	C	C	C	C	C	C
LOS	D	C	D	D	C	C	D	D

US 50 Eastbound - Zinfandel Drive to Sunrise Boulevard						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	4	4	4	4	4	4
Volume (Vehicles)	5,121	5,267	5,726	6,649	6,693	7,083
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	8	8	8	8	8	8
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.33	1.33	1.33	1.33	1.33	1.33
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,365	1,404	1,526	1,786	1,798	1,902
Speed (S) (mph)	70	70	69	66	66	64
Calculated Density	19.59	20.19	22.19	27.05	27.30	29.60
Observed Existing Density	20.08	20.08	20.08	42.12	42.12	42.12
Estimated Density	20.08	20.68	22.68	42.12	42.37	44.66
Observed Existing LOS	C	C	C	F	F	F
LOS	C	C	C	F	F	**F**

US 50 Eastbound - Zinfandel Drive to Sunrise Boulevard								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	6,237	5,990	6,313	6,400	6,181	6,487	6,367	6,551
Peak Hour Factor	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	13	13	13	13	13	13	13	13
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,330	1,277	1,346	1,365	1,328	1,394	1,368	1,408
Speed (S) (mph)	70	70	70	70	70	70	70	70
Calculated Density	19.05	18.26	19.30	19.58	19.03	20.04	19.64	20.25
Density Adjustment	0.49	0.49	0.49	0.49	15.07	15.07	15.07	15.07
Estimated Density	19.54	18.75	19.79	20.07	34.09	35.10	34.70	35.32
Observed Existing LOS	C	C	C	C	F	F	F	F
LOS	C	C	C	C	F	F	F	F

US 50 Eastbound - Sunrise Boulevard to Hazel Avenue						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	3	3	3	3	3	3
Volume (Vehicles)	4,985	5,057	5,461	5,323	5,357	5,611
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	7	7	7	7	7	7
Truck Percentage	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.17	1.17	1.17	1.17	1.17	1.17
FFS	70	70	70	70	70	70
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97
Demand Flow Rate per Lane (v_p)	1,811	1,837	1,984	1,938	1,950	2,043
Speed (S) (mph)	66	65	63	64	63	62
Calculated Density	27.58	28.14	31.56	30.43	30.73	33.08
Observed Existing Density	27.67	27.67	27.67	37.30	37.30	37.30
Estimated Density	27.67	28.24	31.66	37.30	37.59	39.94
Observed Existing LOS	D	D	D	F	F	F
LOS	D	D	D	F	F	**F**

US 50 Eastbound - Sunrise Boulevard to Rancho Cordova Parkway								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	4	4	4	4	4	4	4	4
Volume (Vehicles)	5,335	4,943	5,835	5,892	5,450	5,894	5,875	6,121
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10	10	10
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Demand Flow Rate per Lane (v_p)	1,454	1,347	1,590	1,605	1,488	1,609	1,604	1,671
Speed (S) (mph)	69	70	68	68	69	68	68	67
Calculated Density	20.99	19.31	23.30	23.58	21.55	23.65	23.55	24.79
Density Adjustment	0.09	0.09	0.09	0.09	6.87	6.87	6.87	6.87
Estimated Density	21.09	19.41	23.39	23.67	28.42	30.51	30.42	31.65
Observed Existing LOS	D	D	D	D	F	F	F	F
LOS	C	C	C	C	F	**F**	F	F

US 50 Eastbound - Rancho Cordova Parkway to Hazel Avenue								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	4	4	4	4	4	4	4	4
Volume (Vehicles)	6,571	6,074	7,170	7,249	6,395	6,887	6,651	6,929
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	9	9	9	9	9	9	9	9
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Demand Flow Rate per Lane (v_p)	1,791	1,655	1,954	1,975	1,746	1,880	1,816	1,892
Speed (S) (mph)	66	68	63	63	67	65	66	64
Calculated Density	27.15	24.49	30.81	31.34	26.24	29.10	27.69	29.36
Density Adjustment	0.09	0.09	0.09	0.09	6.87	6.87	6.87	6.87
Estimated Density	27.24	24.58	30.91	31.43	33.11	35.96	34.55	36.22
Observed Existing LOS	D	D	D	D	F	F	F	F
LOS	D	C	D	D	F	**F**	F	F

US 50 Westbound - Hazel Avenue to Sunrise Boulevard						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	3	3	3	3	3	3
Volume (Vehicles)	6,068	6,095	6,334	4,370	4,461	4,707
Peak Hour Factor	0.95	0.95	0.95	0.97	0.97	0.97
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	8	8	8	8	8	8
Truck Percentage	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.33	1.33	1.33	1.33	1.33	1.33
FFS	70	70	70	70	70	70
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97
Demand Flow Rate per Lane (v_p)	2,199	2,208	2,295	1,545	1,577	1,664
Speed (S) (mph)	58	58	56	69	68	67
Calculated Density	37.62	37.93	40.92	22.52	23.08	24.66
Observed Existing Density	32.91	32.91	32.91	23.17	23.17	23.17
Estimated Density	32.91	33.22	36.21	23.17	23.72	25.30
Observed Existing LOS	D	D	D	C	C	C
LOS	D	D	E	C	C	C

US 50 Westbound - Hazel Avenue to Rancho Cordova Parkway								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	4	4	4	4	4	4	4	4
Volume (Vehicles)	5,240	5,695	5,376	5,643	4,367	3,934	5,168	5,218
Peak Hour Factor	0.95	0.95	0.95	0.95	0.97	0.97	0.97	0.97
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	9	9	9	9	9	9	9	9
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Demand Flow Rate per Lane (v_p)	1,424	1,548	1,461	1,533	1,158	1,043	1,371	1,384
Speed (S) (mph)	69	69	69	69	70	70	70	70
Calculated Density	20.51	22.56	21.11	22.32	16.54	14.91	19.67	19.88
Density Adjustment	-4.71	-4.71	-4.71	-4.71	0.65	0.65	0.65	0.65
Estimated Density	15.80	17.85	16.40	17.61	17.19	15.55	20.32	20.53
Observed Existing LOS	D	D	D	D	C	C	C	C
LOS	B	B	B	B	B	B	C	C

US 50 Westbound - Rancho Cordova Parkway to Sunrise Boulevard								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	4	4	4	4	4	4	4	4
Volume (Vehicles)	6,587	7,048	6,906	7,103	3,883	3,515	4,367	4,461
Peak Hour Factor	0.95	0.95	0.95	0.95	0.97	0.97	0.97	0.97
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10	10	10
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Demand Flow Rate per Lane (v_p)	1,790	1,915	1,877	1,930	1,030	932	1,158	1,183
Speed (S) (mph)	66	64	65	64	70	70	70	70
Calculated Density	27.14	29.90	29.01	30.25	14.71	13.32	16.54	16.90
Density Adjustment	-4.71	-4.71	-4.71	-4.71	0.65	0.65	0.65	0.65
Estimated Density	22.43	25.19	24.30	25.54	15.36	13.96	17.19	17.55
Observed Existing LOS	D	D	D	D	C	C	C	C
LOS	C	C	C	C	B	B	B	B

US 50 Westbound - Sunrise Boulevard to Zinfandel Drive						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	4	4	4	4	4	4
Volume (Vehicles)	7,502	7,544	7,846	4,762	4,901	5,134
Peak Hour Factor	0.96	0.96	0.96	0.93	0.93	0.93
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	8	8	8	8	8	8
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.33	1.33	1.33	1.33	1.33	1.33
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,994	2,005	2,085	1,306	1,344	1,408
Speed (S) (mph)	63	62	61	70	70	69
Calculated Density	31.81	32.09	34.24	18.69	19.27	20.26
Observed Existing Density	33.31	33.31	33.31	19.30	19.30	19.30
Estimated Density	33.31	33.60	35.75	19.30	19.88	20.87
Observed Existing LOS	D	D	D	C	C	C
LOS	D	D	E	C	C	C

US 50 Westbound - Sunrise Boulevard to Zinfandel Drive								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	8,392	8,891	8,587	8,801	4,914	4,555	5,211	5,378
Peak Hour Factor	0.96	0.96	0.96	0.96	0.93	0.93	0.93	0.93
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,784	1,891	1,826	1,871	1,078	999	1,143	1,180
Speed (S) (mph)	66	64	65	65	70	70	70	70
Calculated Density	27.02	29.32	27.89	28.89	15.40	14.28	16.33	16.86
Density Adjustment	1.51	1.51	1.51	1.51	0.61	0.61	0.61	0.61
Estimated Density	28.53	30.83	29.40	30.40	16.01	14.89	16.94	17.47
Observed Existing LOS	D	D	D	D	C	C	C	C
LOS	D	D	D	D	B	B	B	B

US 50 Westbound - Zinfandel Drive to Mather Field Road						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	5	5	5	5	5	5
Volume (Vehicles)	7,548	7,642	7,829	5,765	5,727	5,928
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	11	11	11	11	11	11
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.83	1.83	1.83	1.83	1.83	1.83
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,601	1,621	1,660	1,239	1,231	1,274
Speed (S) (mph)	68	68	68	70	70	70
Calculated Density	23.49	23.85	24.58	17.70	17.59	18.22
Observed Existing Density	21.96	21.96	21.96	14.85	14.85	14.85
Estimated Density	21.96	22.32	23.05	14.85	14.73	15.36
Observed Existing LOS	C	C	C	B	B	B
LOS	C	C	C	B	B	B

US 50 Westbound - Zinfandel Drive to Mather Field Road								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	8,942	9,330	9,480	9,493	7,154	6,703	7,384	7,454
Peak Hour Factor	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	11	11	11	11	11	11	11	11
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,896	1,979	2,011	2,013	1,538	1,440	1,587	1,602
Speed (S) (mph)	64	63	62	62	69	69	68	68
Calculated Density	29.46	31.43	32.23	32.31	22.39	20.78	23.25	23.52
Density Adjustment	-1.54	-1.54	-1.54	-1.54	-2.86	-2.86	-2.86	-2.86
Estimated Density	27.92	29.89	30.70	30.77	19.53	17.92	20.39	20.66
Observed Existing LOS	C	C	C	C	B	B	B	B
LOS	D	D	D	D	C	B	C	C

US 50 Westbound - Mather Field Road to Bradshaw Road						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	4	4	4	4	4	4
Volume (Vehicles)	7,859	7,919	7,810	6,939	6,909	6,892
Peak Hour Factor	0.95	0.95	0.95	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	2,102	2,118	2,089	1,787	1,779	1,775
Speed (S) (mph)	61	60	61	66	66	66
Calculated Density	34.70	35.16	34.33	27.07	26.91	26.82
Observed Existing Density	44.40	44.40	44.40	28.66	28.66	28.66
Estimated Density	44.40	44.86	44.03	28.66	28.51	28.42
Observed Existing LOS	F	F	F	D	D	D
LOS	F	F	F	D	D	D

US 50 Westbound - Mather Field Road to Bradshaw Road								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	8,996	9,065	9,560	9,406	8,442	7,995	8,696	8,544
Peak Hour Factor	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,925	1,940	2,046	2,013	1,739	1,647	1,791	1,760
Speed (S) (mph)	64	64	62	62	67	68	66	66
Calculated Density	30.12	30.47	33.15	32.28	26.09	24.33	27.16	26.52
Density Adjustment	9.70	9.70	9.70	9.70	1.60	1.60	1.60	1.60
Estimated Density	39.81	40.17	42.85	41.98	27.69	25.93	28.76	28.12
Observed Existing LOS	F	F	F	F	D	D	D	D
LOS	F	F	F	F	D	C	D	D

US 50 Westbound - Bradshaw Road to Watt Avenue						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	4	4	4	4	4	4
Volume (Vehicles)	7,550	7,673	7,424	6,466	6,520	6,913
Peak Hour Factor	0.90	0.90	0.90	0.96	0.96	0.96
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	2,134	2,169	2,099	1,721	1,735	1,840
Speed (S) (mph)	60	59	61	67	67	65
Calculated Density	35.64	36.69	34.61	25.74	26.03	28.20
Observed Existing Density	54.37	54.37	54.37	32.91	32.91	32.91
Estimated Density	54.37	55.42	53.34	32.91	33.19	35.36
Observed Existing LOS	F	F	F	D	D	D
LOS	F	F	F	D	D	E

US 50 Westbound - Bradshaw Road to Watt Avenue								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	4	4	4	4	4	4	4	4
Volume (Vehicles)	8,662	8,415	9,001	8,854	7,703	7,847	7,871	8,099
Peak Hour Factor	0.90	0.90	0.90	0.90	0.96	0.96	0.96	0.96
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	2,448	2,379	2,544	2,503	2,050	2,089	2,095	2,156
Speed (S) (mph)	52	54	49	50	62	61	61	59
Calculated Density	47.16	44.15	51.89	49.74	33.27	34.33	34.50	36.28
Observed Existing Density	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Estimated Density	47.16	44.15	51.89	49.74	33.27	34.33	34.50	36.28
Observed Existing LOS	F	F	F	F	D	D	D	D
LOS	F	F	F	F	D	D	D	E

US 50 Westbound - Watt Avenue to Howe Avenue						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	5	5	5	5	5	5
Volume (Vehicles)	7,376	7,470	7,192	5,106	5,148	5,395
Peak Hour Factor	0.93	0.93	0.93	0.98	0.98	0.98
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,617	1,637	1,576	1,059	1,068	1,119
Speed (S) (mph)	68	68	68	70	70	70
Calculated Density	23.78	24.15	23.06	15.13	15.25	15.98
Observed Existing Density	53.44	53.44	53.44	22.96	22.96	22.96
Estimated Density	53.44	53.82	52.73	22.96	23.09	23.82
Observed Existing LOS	F	F	F	F	F	F
LOS	F	F	F	F	F	**F**

US 50 Westbound - Watt Avenue to Howe Avenue								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	7,604	7,111	7,880	7,679	5,740	5,836	5,864	6,132
Peak Hour Factor	0.93	0.93	0.93	0.93	0.98	0.98	0.98	0.98
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	10	10	10	10	10	10	10	10
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,666	1,558	1,727	1,683	1,190	1,210	1,216	1,272
Speed (S) (mph)	67	69	67	67	70	70	70	70
Calculated Density	24.70	22.75	25.86	25.01	17.01	17.29	17.37	18.18
Density Adjustment	29.67	29.67	29.67	29.67	7.84	7.84	7.84	7.84
Estimated Density	54.36	52.41	55.53	54.68	24.84	25.12	25.21	26.02
Observed Existing LOS	F	F	F	F	F	F	F	F
LOS	F	F	F	F	F	F	F	F

US 50 Westbound - Howe Avenue to 65th Street						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	5	5	5	5	5	5
Volume (Vehicles)	8,157	8,205	8,489	7,407	7,441	8,031
Peak Hour Factor	0.96	0.96	0.96	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	15	15	15	15	15	15
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.50	2.50	2.50	2.50	2.50	2.50
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,739	1,750	1,810	1,527	1,534	1,656
Speed (S) (mph)	67	66	66	69	69	68
Calculated Density	26.11	26.31	27.56	22.21	22.33	24.49
Observed Existing Density	35.68	35.68	35.68	41.55	41.55	41.55
Estimated Density	35.68	35.89	37.14	41.55	41.67	43.83
Observed Existing LOS	F	F	F	F	F	F
LOS	F	F	F	F	F	**F**

US 50 Westbound - Howe Avenue to 65th Street								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	8,577	8,539	8,761	8,972	7,896	8,148	8,080	8,384
Peak Hour Factor	0.96	0.96	0.96	0.96	0.99	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	15	15	15	15	15	15	15	15
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,829	1,821	1,868	1,913	1,628	1,680	1,666	1,728
Speed (S) (mph)	65	66	65	64	68	67	67	67
Calculated Density	27.96	27.79	28.82	29.85	23.98	24.95	24.68	25.89
Density Adjustment	9.58	9.58	9.58	9.58	19.34	19.34	19.34	19.34
Estimated Density	37.54	37.36	38.40	39.43	43.32	44.29	44.02	45.23
Observed Existing LOS	F	F	F	F	F	F	F	F
LOS	F	F	F	F	F	F	F	F

US 50 Westbound - 65th Street to 59th Street						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	4	4	4	4	4	4
Volume (Vehicles)	8,278	8,304	8,605	7,358	7,385	7,953
Peak Hour Factor	0.98	0.98	0.98	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	16	16	16	16	16	16
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.67	2.67	2.67	2.67	2.67	2.67
FFS	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	2,157	2,163	2,242	1,904	1,911	2,058
Speed (S) (mph)	59	59	57	64	64	61
Calculated Density	36.32	36.52	39.05	29.63	29.79	33.48
Observed Existing Density	44.85	44.85	44.85	51.56	51.56	51.56
Estimated Density	44.85	45.06	47.59	51.56	51.72	55.41
Observed Existing LOS	F	F	F	F	F	F
LOS	F	F	F	F	F	**F**

US 50 Westbound - 65th Street to 59th Street								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 70 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	4	4	4	4	4	4	4	4
Volume (Vehicles)	8,621	8,601	8,809	9,012	7,827	8,270	7,970	8,296
Peak Hour Factor	0.98	0.98	0.98	0.98	0.99	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	16	16	16	16	16	16	16	16
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67
FFS	70	70	70	70	70	70	70	70
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	2,246	2,241	2,295	2,348	2,025	2,140	2,062	2,147
Speed (S) (mph)	57	57	56	55	62	60	61	60
Calculated Density	39.19	39.02	40.91	42.91	32.61	35.81	33.60	36.01
Density Adjustment	8.53	8.53	8.53	8.53	21.92	21.92	21.92	21.92
Estimated Density	47.73	47.55	49.45	51.44	54.53	57.74	55.52	57.94
Observed Existing LOS	F	F	F	F	F	F	F	F
LOS	F	F	F	F	F	**F**	F	F

US 50 Westbound - 59th Street to Stockton Boulevard						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 65 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	5	5	5	5	5	5
Volume (Vehicles)	9,115	9,140	9,448	7,945	7,974	8,537
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	18	18	18	18	18	18
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	3.00	3.00	3.00	3.00	3.00	3.00
FFS	65	65	65	65	65	65
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,880	1,885	1,949	1,643	1,649	1,766
Speed (S) (mph)	62	62	61	64	64	63
Calculated Density	30.45	30.57	32.09	25.61	25.72	27.98
Observed Existing Density	29.39	29.39	29.39	32.31	32.31	32.31
Estimated Density	29.39	29.50	31.02	32.31	32.42	34.68
Observed Existing LOS	D	D	D	F	F	F
LOS	D	D	D	F	F	**F**

US 50 Westbound - 59th Street to Stockton Boulevard								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 65 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	9,516	9,426	9,692	9,890	8,137	8,631	8,290	8,656
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	18	18	18	18	18	18	18	18
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
FFS	65	65	65	65	65	65	65	65
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,963	1,944	1,999	2,040	1,683	1,785	1,715	1,790
Speed (S) (mph)	61	61	60	59	64	63	64	63
Calculated Density	32.43	31.98	33.36	34.46	26.35	28.38	26.96	28.49
Density Adjustment	-1.07	-1.07	-1.07	-1.07	6.70	6.70	6.70	6.70
Estimated Density	31.37	30.91	32.30	33.39	33.05	35.08	33.66	35.19
Observed Existing LOS	D	D	D	D	F	F	F	F
LOS	D	D	D	D	F	**F**	F	F

US 50 Westbound - Stockton Boulevard to SR 51 / SR 99						
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 65 MPH Free Flow Speed**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Mixed Flow Frwy Lanes	5	5	5	5	5	5
Volume (Vehicles)	8,546	8,557	8,836	8,136	8,156	8,635
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96
Average Lane Width (ft)	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12
Ramps within three miles	19	19	19	19	19	19
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000
Calculations						
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0
TRD	3.17	3.17	3.17	3.17	3.17	3.17
FFS	65	65	65	65	65	65
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	1,830	1,832	1,892	1,723	1,728	1,829
Speed (S) (mph)	62	62	62	64	63	62
Calculated Density	29.33	29.38	30.73	27.13	27.22	29.32
Observed Existing Density	31.89	31.89	31.89	33.25	33.25	33.25
Estimated Density	31.89	31.94	33.29	33.25	33.33	35.43
Observed Existing LOS	D	D	D	F	F	F
LOS	D	D	D	F	F	**F**

US 50 Westbound - Stockton Boulevard to SR 51 / SR 99								
Highway Capacity Manual 2010 Edition **Basic Freeway Segment Analysis - Level Terrain - 65 MPH Free Flow Speed**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Mixed Flow Frwy Lanes	5	5	5	5	5	5	5	5
Volume (Vehicles)	10,023	9,930	10,187	10,300	9,566	9,855	9,660	9,916
Peak Hour Factor	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96
Average Lane Width (ft)	12	12	12	12	12	12	12	12
Right side lateral clearance (ft)	12	12	12	12	12	12	12	12
Ramps within three miles	19	19	19	19	19	19	19	19
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor (f_P)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Calculations								
f_{LW}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_{LC}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRD	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17
FFS	65	65	65	65	65	65	65	65
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Demand Flow Rate per Lane (v_p)	2,146	2,126	2,181	2,205	2,026	2,087	2,046	2,101
Speed (S) (mph)	57	58	56	56	59	58	59	58
Calculated Density	37.58	36.97	38.72	39.52	34.09	35.81	34.63	36.19
Density Adjustment	2.56	2.56	2.56	2.56	6.12	6.12	6.12	6.12
Estimated Density	40.14	39.53	41.27	42.08	40.21	41.92	40.75	42.31
Observed Existing LOS	D	D	D	D	F	F	F	F
LOS	E	E	E	E	F	F	F	F

US-50 Freeway System

Merge/Diverge Analysis – Summary Tables

Table D-4

Draft Peak Hour Freeway Ramp Operations - Existing Scenarios - AM Peak Hour

Direction	US 50 Ramp	Junction Type	Existing		Existing Plus Mather South		Existing Plus FOUR PROJECTS	
			Ramp Volume	Level of Service	Ramp Volume	Level of Service	Ramp Volume	Level of Service
Eastbound	Northbound 65th Street Slip Entrance	Weave	765	D	749	D	730	**F**
	Howe Avenue / Hornet Drive Exit		1,631		1,646		2,175	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	484	C	510	C	556	C
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	419	C	421	C	390	C
	Watt Avenue Exit	Two-Lane Diverge	1,317	B	1,315	B	1,149	B
	Watt Avenue Entrance	One-Lane Merge	2,134	**F**	2,122	**F**	1,951	E
	Bradshaw Road Exit	Two-Lane Diverge	1,520	B	1,555	B	1,891	C
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	220	C	237	C	151	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	971	C	971	C	1,280	D
	Mather Field Road Exit	Two-Lane Diverge	1,266	B	1,268	B	1,188	B
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	125	C	138	C	121	C
	Northbound Mather Field Road Slip Entrance	Weave	317	**F**	323	**F**	634	**F**
	Zinfandel Drive Exit		2,932		2,941		2,918	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	182	B	178	B	177	B
	Northbound Zinfandel Drive Slip Entrance	One-Lane Merge	348	B	498	B	522	C
	Sunrise Boulevard Exit	Major Diverge	1,773	C	1,859	C	1,953	C
	Sunrise Boulevard Entrance	One-Lane Merge	992	C	1,002	C	1,028	C
	Hazel Avenue Exit	Two-Lane Diverge	933	B	950	B	1,094	C
	Hazel Avenue Entrance	Weave	804	C	799	C	704	C
	Aerojet Road Exit		241		240		241	
Westbound	Hazel Avenue Exit	Two-Lane Diverge	631	A	692	A	622	A
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	160	B	165	B	174	B
	Southbound Hazel Avenue Slip Entrance	One-Lane Merge	1,550	B	1,568	B	1,748	C
	Sunrise Boulevard Exit	One-Lane Diverge	749	E	706	E	655	E
	Sunrise Boulevard Entrance	Lane Addition	2,183	**F**	2,191	**F**	2,192	**F**
	Zinfandel Drive Exit	One-Lane Diverge	1,034	E	1,034	E	1,088	E
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	585	B	654	B	532	B
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	442	C	460	C	410	C
	Mather Field Road Exit	One-Lane Drop	1,093	C	1,126	C	1,496	C
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	515	B	538	B	385	B
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	387	B	367	B	519	B
	Bradshaw Road Exit	Two-Lane Diverge	1,236	B	1,241	B	1,583	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	914	D	931	D	1,236	D
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	338	D	346	D	365	D
	Watt Avenue Exit	Major Diverge	1,373	D	1,412	D	1,257	D
	Northbound Watt Avenue Entrance	One-Lane Merge	820	D	815	D	788	D
	Southbound Watt Avenue Slip Entrance	Lane Addition / Weave	1,232	C	1,247	C	1,091	C
	Howe Avenue Exit	Major Diverge / Weave	1,531	D	1,567	D	1,349	D
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	654	D	651	D	689	D
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	574	C	564	C	688	C

Source: DKS Associates, 2018.

Table D-5

Draft Peak Hour Freeway Ramp Operations - Existing Scenarios - PM Peak Hour

Direction	US 50 Ramp	Junction Type	Existing		Existing Plus Mather South		Existing Plus FOUR PROJECTS	
			Ramp Volume	Level of Service	Ramp Volume	Level of Service	Ramp Volume	Level of Service
Eastbound	Northbound 65th Street Slip Entrance	Weave	653	C	663	C	576	C
	Howe Avenue / Hornet Drive Exit		1,417		1,400		1,627	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	881	C	884	D	927	D
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	431	C	419	C	401	C
	Watt Avenue Exit	Two-Lane Diverge	1,634	B	1,605	B	1,470	B
	Watt Avenue Entrance	One-Lane Merge	1,724	D	1,737	D	1,553	D
	Bradshaw Road Exit	Two-Lane Diverge	1,228	B	1,297	B	1,574	B
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	422	C	423	C	423	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	918	C	915	C	1,105	C
	Mather Field Road Exit	Two-Lane Diverge	1,062	A	1,100	A	987	A
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	101	B	100	B	107	B
	Northbound Mather Field Road Slip Entrance	Weave	816	C	842	C	1,187	D
	Zinfandel Drive Exit		1,452		1,481		1,419	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	129	C	129	C	116	C
	Northbound Zinfandel Drive Slip Entrance	One-Lane Merge	540	C	588	C	627	C
	Sunrise Boulevard Exit	Major Diverge	1,959	D	1,976	D	2,073	D
	Sunrise Boulevard Entrance	One-Lane Merge	889	D	893	D	834	D
	Hazel Avenue Exit	Two-Lane Diverge	1,541	C	1,552	C	1,673	C
	Hazel Avenue Entrance	Weave	945	C	950	C	945	C
	Aerojet Road Exit		55		52		52	
Westbound	Hazel Avenue Exit	Two-Lane Diverge	869	A	864	B	849	B
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	600	B	592	B	593	B
	Southbound Hazel Avenue Slip Entrance	One-Lane Merge	800	B	831	B	962	B
	Sunrise Boulevard Exit	One-Lane Diverge	758	D	773	D	763	D
	Sunrise Boulevard Entrance	Lane Addition	1,656	D	1,712	D	1,686	D
	Zinfandel Drive Exit	One-Lane Diverge	608	C	737	C	759	C
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	1,197	B	1,200	B	1,118	B
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	561	B	535	B	550	B
	Mather Field Road Exit	One-Lane Drop	556	A	587	A	740	A
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	861	B	911	B	843	B
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	380	B	360	B	363	B
	Bradshaw Road Exit	Two-Lane Diverge	1,327	B	1,300	B	1,510	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	910	C	925	C	1,523	D
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	590	C	613	C	669	D
	Watt Avenue Exit	Major Diverge	1,188	C	1,199	C	1,181	C
	Northbound Watt Avenue Entrance	One-Lane Merge	943	C	938	C	900	C
	Southbound Watt Avenue Slip Entrance	Lane Addition / Weave	1,317	D	1,321	**F**	1,196	B
	Howe Avenue Exit	Major Diverge / Weave	1,419		1,441		1,313	D
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	602	C	624	C	647	C
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	574	C	572	C	484	C

Source: DKS Associates, 2018.

Table D-6
Draft Peak Hour Freeway Ramp Operations - Cumulative Scenarios

			Ramp Volume				Level of Service			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Direction	US 50 Ramp	Junction Type	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus PROJECT	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS
Eastbound	Northbound 65th Street Slip Entrance	Weave	956	902	799	665	**F**	**F**	**F**	**F**
	Howe Avenue / Hornet Drive Exit		2,070	2,322	2,201	2,237				
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	731	808	1,291	1,152	D	D	D	D
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	591	463	582	555	D	D	D	C
	Watt Avenue Exit	Two-Lane Diverge	1,553	1,518	1,762	1,609	B	B	B	A
	Southbound Watt Avenue Entrance	One-Lane Merge	1,644	1,582	1,306	1,101	D	D	C	C
	Northbound Watt Avenue Entrance	One-Lane Merge	733	667	684	773	D	D	C	C
	Bradshaw Road Exit	Two-Lane Diverge	2,035	2,366	1,608	1,789	**F**	**F**	B	B
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	253	216	399	564	D	C	C	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	1,409	1,340	843	1,173	D	C	C	C
	Mather Field Road Exit	Two-Lane Diverge	1,492	1,464	1,462	1,400	B	B	B	B
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	236	206	197	167	C	C	C	C
	Northbound Mather Field Road Slip Entrance	Weave	432	447	920	1,210	**F**	**F**	D	**F**
	Zinfandel Drive Exit		3,097	3,052	1,759	1,708				
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	187	183	170	161	C	C	C	C
	Northbound Zinfandel Drive Slip Entrance	Lane Addition	644	661	819	938	A	A	B	B
	Sunrise Boulevard Exit	Major Diverge	2,135	2,085	2,353	2,421	C	C	C	C
	Sunrise Boulevard Entrance	Lane Addition / Weave	1,152	1,101	1,145	1,182	B	A	C	C
	Rancho Cordova Parkway Exit	Two-Lane Diverge / Weave	78	25	448	535	C	C		
	Rancho Cordova Parkway Entrance	Weave	1,342	1,202	1,499	1,651	**F**	**F**	**F**	**F**
	Hazel Avenue Exit		1,869	1,710	2,657	2,826				
	Hazel Avenue Entrance	Weave	1,088	1,048	2,320	2,087	D	D	**F**	D
	Aerojet Road Exit		674	736	122	130				
Westbound	Hazel Avenue Exit	Two-Lane Diverge	1,077	905	959	951	B	B	B	B
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	52	124	434	434	B	C	C	B
	Southbound Hazel Avenue Slip Entrance	Weave	2,283	2,376	1,814	1,725	**F**	**F**	**F**	**F**
	Rancho Cordova Parkway Exit		1,512	1,644	1,595	1,479				
	Rancho Cordova Parkway Entrance	Lane Addition / Weave	875	897	791	747	A	A	A	A
	Sunrise Boulevard Exit	Two-Lane Diverge / Weave	623	611	627	580	C	C	C	C
	Northbound Sunrise Boulevard Entrance	Lane Addition	167	169	197	106	A	A	A	A
	Southbound Sunrise Boulevard Entrance	Lane Addition	2,334	2,345	1,673	1,746	**F**	**F**	C	D
	Zinfandel Drive Exit	One-Lane Diverge	1,478	1,488	1,124	1,097	E	E	D	C
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	780	689	1,314	1,178	B	C	C	B
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	1,349	1,219	723	708	D	D	B	B
	Mather Field Road Exit	One-Lane Drop	1,372	1,768	809	848	D	E	C	B
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	578	439	1,189	1,185	B	B	C	B
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	343	481	474	467	C	C	B	B
	Bradshaw Road Exit	Two-Lane Diverge	1,376	1,788	1,733	1,724	C	C	B	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	1,091	1,313	1,023	1,667	D	D	D	D
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	385	387	836	894	**F**	**F**	D	D
	Watt Avenue Exit	Major Diverge	1,577	1,381	1,167	1,054	D	D	D	D
	Northbound Watt Avenue Entrance	One-Lane Merge	806	738	1,104	1,050	D	D	D	D
	Southbound Watt Avenue Slip Entrance	Lane Addition	1,224	845	1,201	1,098	D	D	C	C
	Howe Avenue Exit	Major Diverge	1,806	1,520	1,677	1,694	E	D	D	D
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	582	668	503	519	D	D	C	D
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	732	781	763	689	**F**	**F**	C	C

Source: DKS Associates, 2018.

Table D-7
Draft Peak Hour Freeway Ramp Operations - Cumulative Scenarios

			Ramp Volume				Level of Service			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Direction	US 50 Ramp	Junction Type	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Eastbound	Northbound 65th Street Slip Entrance	Weave	945	918	777	724	**F**	**F**	**F**	**F**
	Howe Avenue / Hornet Drive Exit		2,088	2,120	2,140	2,267				
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	729	750	1,342	1,332	D	D	D	D
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	609	528	532	524	D	D	D	D
	Watt Avenue Exit	Two-Lane Diverge	1,538	1,532	1,705	1,604	B	B	B	A
	Southbound Watt Avenue Entrance	One-Lane Merge	1,615	1,551	1,368	1,213	D	D	C	C
	Northbound Watt Avenue Entrance	One-Lane Merge	682	608	588	597	D	D	C	C
	Bradshaw Road Exit	Two-Lane Diverge	2,068	2,264	1,631	1,835	**F**	**F**	B	C
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	268	274	422	505	D	D	D	D
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	1,486	1,511	1,029	1,102	D	D	C	C
	Mather Field Road Exit	Two-Lane Diverge	1,490	1,481	1,530	1,489	B	B	B	B
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	252	252	222	169	C	C	C	C
	Northbound Mather Field Road Slip Entrance	Weave	431	571	894	1,123	**F**	**F**	**F**	**F**
	Zinfandel Drive Exit		3,083	3,082	1,861	1,797				
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	183	185	173	151	C	C	C	C
	Northbound Zinfandel Drive Slip Entrance	Lane Addition	665	656	714	784	A	B	B	B
	Sunrise Boulevard Exit	Major Diverge	1,878	1,899	2,308	2,364	C	C	C	C
	Sunrise Boulevard Entrance	Lane Addition / Weave	1,233	1,174	1,122	1,162	D	B	C	C
	Rancho Cordova Parkway Exit	Two-Lane Diverge / Weave	374	327	763	816		C		
	Rancho Cordova Parkway Entrance	Weave	1,787	1,748	1,748	1,823	**F**	**F**	**F**	**F**
	Hazel Avenue Exit		1,904	1,950	2,611	2,718				
	Hazel Avenue Entrance	Weave	1,174	1,072	2,148	2,091	E	D	**F**	D
	Aerojet Road Exit		584	613	203	171				
Westbound	Hazel Avenue Exit	Two-Lane Diverge	1,098	1,057	1,031	1,032	B	B	C	C
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	69	93	434	434	B	B	C	C
	Southbound Hazel Avenue Slip Entrance	Weave	2,306	2,369	2,263	2,302	**F**	**F**	**F**	**F**
	Rancho Cordova Parkway Exit		1,800	1,867	2,225	2,173				
	Rancho Cordova Parkway Entrance	Lane Addition / Weave	1,428	1,389	1,165	1,138	C	C	B	B
	Sunrise Boulevard Exit	Two-Lane Diverge / Weave	729	760	751	729			C	C
	Northbound Sunrise Boulevard Entrance	Lane Addition	169	170	259	234	A	A	A	A
	Southbound Sunrise Boulevard Entrance	Lane Addition	2,323	2,354	1,524	1,613	**F**	**F**	C	C
	Zinfandel Drive Exit	One-Lane Diverge	1,384	1,393	1,183	1,200	E	E	D	D
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	909	803	1,443	1,295	C	C	D	C
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	1,544	1,349	663	663	D	D	B	B
	Mather Field Road Exit	One-Lane Drop	1,350	1,581	826	1,025	D	D	C	C
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	626	499	1,192	1,193	C	C	C	C
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	303	427	504	428	C	C	C	B
	Bradshaw Road Exit	Two-Lane Diverge	1,533	1,692	1,756	1,809	C	C	B	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	999	1,318	927	1,593	**F**	**F**	D	D
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	385	391	851	816	**F**	**F**	D	D
	Watt Avenue Exit	Major Diverge	1,568	1,364	1,112	991	E	E	D	D
	Northbound Watt Avenue Entrance	One-Lane Merge	774	726	1,125	1,100	D	D	D	D
	Southbound Watt Avenue Slip Entrance	Lane Addition	1,134	919	1,062	1,006	D	D	C	D
	Howe Avenue Exit	Major Diverge	1,879	1,709	1,687	1,695	E	E	D	D
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	613	607	572	563	D	D	D	D
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	668	807	699	646	**F**	**F**	C	C

Source: DKS Associates, 2018.

US-50 Freeway System

Merge/Diverge Analysis – Calculation Sheets

US 50 Eastbound Weave - 65th Street to Howe Avenue

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain

Existing Conditions

Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Upstream Ramp Lanes	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2
N - Number of Lanes	5	5	5	5	5	5
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,197	7,247	7,938	6,909	6,961	7,278
PHF	0.98	0.98	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	765	749	730	653	663	576
Exiting Ramp Volume (vehicles)	1,631	1,646	2,175	1,417	1,400	1,627
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	2,480	2,480	2,480	2,480	2,480	2,480
ID (Interchange Density within 3 miles)	1.0	1.0	1.0	1.0	1.0	1.0
Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,331	6,350	6,493	6,145	6,224	6,227
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Upstream Freeway Volume (pc/h)	7,487	7,539	8,258	7,191	7,246	7,575
Entering Ramp Volume (pc/h)	796	779	759	680	690	600
Exiting Ramp Volume (pc/h))	1,697	1,712	2,263	1,475	1,457	1,694
Downstream Freeway Volume (pc/h)	6,586	6,606	6,754	6,396	6,478	6,481
v_{FF}	5,953	5,988	6,186	5,844	5,915	6,005
v_{RF}	633	619	569	552	563	475
v_{FR}	1,534	1,552	2,073	1,347	1,330	1,569
v_{RR}	163	160	191	127	127	124
v_W	2,167	2,171	2,641	1,900	1,894	2,045
v_{NW}	6,116	6,148	6,376	5,971	6,042	6,130
v	8,283	8,319	9,017	7,871	7,935	8,174
VR	0.262	0.261	0.293	0.241	0.239	0.250
LC_{RF}	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0
LC_{MIN}	633	619	569	552	563	475
L_{MAX}	5,175	5,169	5,508	4,964	4,935	5,055
Weaving Operations?	YES	YES	YES	YES	YES	YES
Capacity Controlled by Density (pc/h)	10,969	10,972	10,842	11,050	11,061	11,015
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)	9,176	9,198	8,194	9,943	10,057	9,594
Capacity (pc/h)	9,176	9,198	8,194	9,943	10,057	9,594
Volume-to-Capacity Ratio	0.90	0.90	1.10	0.79	0.79	0.85
LC_W	1,425	1,411	1,361	1,345	1,356	1,268
I_{NW}	1,517	1,525	1,581	1,481	1,498	1,520
LC_{NW1}	1,641	1,648	1,695	1,611	1,626	1,644
LC_{NW2}	3,053	3,060	3,111	3,021	3,036	3,056
LC_{NW3}	2,112	2,136	2,307	2,003	2,056	2,122
LC_{NW}	2,112	2,136	2,307	2,003	2,056	2,122
LC_{ALL}	3,538	3,547	3,669	3,348	3,412	3,390
W - Weaving Intensity	0.299	0.300	0.308	0.286	0.291	0.289
S_W	57.3	57.3	57.1	57.8	57.6	57.7
S_{NW}	57.5	57.6	57.2	58.5	58.3	58.7
S	57.5	57.5	57.2	58.3	58.2	58.5
D	28.8	28.9	31.5	27.0	27.3	28.0
LOS	D	D	F	C	C	C

US 50 Eastbound Weave - 65th Street to Howe Avenue

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain
Cumulative Conditions
Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Upstream Ramp Lanes	1	1	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2	2	2
N - Number of Lanes	5	5	5	5	5	5	5	5
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,971	8,166	8,019	8,272	7,455	7,302	7,658	7,812
PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	956	902	945	918	799	665	777	724
Exiting Ramp Volume (vehicles)	2,070	2,322	2,088	2,120	2,201	2,237	2,140	2,267
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	2,480	2,480	2,480	2,480	2,480	2,480	2,480	2,480
ID (Interchange Density within 3 miles)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	6,857	6,746	6,877	7,069	6,053	5,730	6,295	6,270
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Upstream Freeway Volume (pc/h)	8,292	8,495	8,342	8,605	7,759	7,600	7,971	8,131
Entering Ramp Volume (pc/h)	995	938	984	954	832	693	809	754
Exiting Ramp Volume (pc/h))	2,154	2,415	2,172	2,205	2,291	2,329	2,227	2,359
Downstream Freeway Volume (pc/h)	7,133	7,018	7,154	7,354	6,300	5,964	6,552	6,526
v_{FF}	6,369	6,320	6,399	6,620	5,690	5,466	5,949	5,972
v_{RF}	764	698	754	734	610	498	603	554
v_{FR}	1,923	2,175	1,943	1,985	2,069	2,134	2,022	2,159
v_{RR}	231	240	229	220	222	194	205	200
v_W	2,687	2,873	2,697	2,719	2,679	2,632	2,626	2,713
v_{NW}	6,600	6,560	6,628	6,840	5,912	5,660	6,154	6,172
v	9,287	9,433	9,326	9,559	8,591	8,293	8,779	8,885
VR	0.289	0.305	0.289	0.284	0.312	0.317	0.299	0.305
LC_{RF}	1	1	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0	0	0
LC_{MIN}	764	698	754	734	610	498	603	554
L_{MAX}	5,470	5,633	5,469	5,418	5,711	5,772	5,574	5,641
Weaving Operations?	YES	YES	YES	YES	YES	YES	YES	YES
Capacity Controlled by Density (pc/h)	10,856	10,794	10,857	10,876	10,764	10,741	10,816	10,791
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)	8,294	7,880	8,298	8,437	7,697	7,561	8,024	7,861
Capacity (pc/h)	8,294	7,880	8,298	8,437	7,697	7,561	8,024	7,861
Volume-to-Capacity Ratio	1.12	1.20	1.12	1.13	1.12	1.10	1.09	1.13
LC_W	1,557	1,491	1,547	1,527	1,403	1,291	1,396	1,346
I_{NW}	1,637	1,627	1,644	1,696	1,466	1,404	1,526	1,531
LC_{NW1}	1,741	1,733	1,747	1,790	1,599	1,547	1,649	1,653
LC_{NW2}	3,161	3,152	3,167	3,214	3,007	2,951	3,061	3,065
LC_{NW3}	2,476	2,446	2,498	2,659	1,959	1,771	2,140	2,154
LC_{NW}	2,476	2,446	2,498	2,659	1,959	1,771	2,140	2,154
LC_{ALL}	4,033	3,937	4,045	4,186	3,362	3,062	3,536	3,500
W - Weaving Intensity	0.332	0.325	0.332	0.342	0.287	0.267	0.299	0.297
S_W	56.3	56.5	56.3	56.0	57.7	58.4	57.3	57.4
S_{NW}	55.6	55.9	55.6	55.5	57.4	58.5	57.2	57.5
S	55.8	56.1	55.8	55.7	57.5	58.4	57.3	57.5
D	33.3	33.6	33.4	34.3	29.9	28.4	30.7	30.9
LOS	F	F	F	F	F	F	F	F

US 50 Eastbound Merge - Howe Avenue Loop Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,331	6,350	6,493	6,145	6,224	6,227
PHF	0.98	0.98	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	484	510	556	881	884	927
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	700	700	700	700	700	700
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,815	6,860	7,049	7,026	7,109	7,154
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,586	6,606	6,754	6,396	6,478	6,481
v_R - Entering Ramp Volume (pc/h)	504	530	579	917	920	965
Downstream Freeway Volume (pc/h)	7,090	7,136	7,333	7,313	7,399	7,446
v_F / S_{FR}	263	264	270	256	259	259
P_{FM}	0.155	0.152	0.145	0.103	0.103	0.097
v_{12}	1,020	1,001	982	660	666	630
v_{av34}	2,783	2,803	2,886	2,868	2,906	2,925
v_{12a}	1,186	1,206	1,354	996	1,078	1,081
v_{12a}	2,634	2,643	2,702	2,558	2,591	2,592
v_{R12}	3,138	3,173	3,281	3,475	3,512	3,557
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.74	0.74	0.76	0.76	0.77	0.78
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.27	0.28	0.30	0.48	0.48	0.51
D_R	25.3	25.6	26.4	27.8	28.1	28.4
LOS	C	C	C	C	D	D

US 50 Eastbound Merge - Howe Avenue Loop Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,857	6,746	6,877	7,069	6,053	5,730	6,295	6,270
PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	731	808	729	750	1,291	1,152	1,342	1,332
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	700	700	700	700	700	700	700	700
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,588	7,554	7,605	7,820	7,344	6,882	7,637	7,602
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,133	7,018	7,154	7,354	6,300	5,964	6,552	6,526
v_R - Entering Ramp Volume (pc/h)	761	841	758	781	1,344	1,199	1,396	1,387
Downstream Freeway Volume (pc/h)	7,894	7,859	7,912	8,135	7,644	7,162	7,948	7,912
v_F / S_{FR}	285	281	286	294	252	239	262	261
P_{FM}	0.123	0.113	0.123	0.120	0.050	0.068	0.043	0.044
v_{12}	875	791	880	884	314	405	283	290
v_{av34}	3,129	3,113	3,137	3,235	2,993	2,779	3,134	3,118
v_{12a}	1,733	1,618	1,754	1,954	900	564	1,152	1,126
v_{12a}	2,853	2,807	2,862	2,942	2,520	2,386	2,621	2,610
v_{R12}	3,614	3,648	3,619	3,722	3,864	3,584	4,017	3,997
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.82	0.82	0.82	0.85	0.80	0.75	0.83	0.82
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.40	0.44	0.40	0.41	0.71	0.63	0.73	0.73
D_R	28.9	29.2	29.0	29.8	30.6	28.5	31.8	31.6
LOS	D	D	D	D	D	D	D	D

US 50 Eastbound Merge - Howe Avenue Slip Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,815	6,860	7,049	7,026	7,109	7,154
PHF	0.98	0.98	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	419	421	390	431	419	401
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	775	775	775	775	775	775
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,234	7,281	7,439	7,457	7,527	7,555
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,090	7,136	7,333	7,313	7,399	7,446
v_R - Entering Ramp Volume (pc/h)	436	438	406	449	436	418
Downstream Freeway Volume (pc/h)	7,526	7,575	7,739	7,761	7,835	7,863
v_F / S_{FR}	177	178	183	183	185	186
P_{FM}	0.163	0.163	0.167	0.162	0.163	0.166
v_{12}	1,158	1,163	1,225	1,183	1,208	1,233
v_{av34}	2,966	2,987	3,054	3,065	3,095	3,106
v_{12a}	1,690	1,736	1,933	1,913	1,999	2,046
v_{12a}	2,836	2,855	2,933	2,925	2,960	2,978
v_{R12}	3,272	3,293	3,339	3,374	3,395	3,396
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.78	0.79	0.81	0.81	0.82	0.82
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.22	0.22	0.20	0.22	0.22	0.21
D_R	25.9	26.1	26.5	26.7	26.9	26.9
LOS	C	C	C	C	C	C

US 50 Eastbound Merge - Howe Avenue Slip Ramp

Highway Capacity Manual
2010 Edition

One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,588	7,554	7,605	7,820	7,344	6,882	7,637	7,602
PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	591	463	609	528	582	555	532	524
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	775	775	775	775	775	775	775	775
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	8,179	8,018	8,214	8,348	7,926	7,437	8,169	8,126
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,894	7,859	7,912	8,135	7,644	7,162	7,948	7,912
v_R - Entering Ramp Volume (pc/h)	615	482	633	549	606	578	554	545
Downstream Freeway Volume (pc/h)	8,509	8,341	8,545	8,685	8,250	7,740	8,502	8,458
v_F / S_{FR}	197	196	198	203	191	179	199	198
P_{FM}	0.141	0.158	0.139	0.149	0.142	0.146	0.149	0.150
v_{12}	1,113	1,238	1,097	1,213	1,086	1,043	1,181	1,184
v_{av34}	3,391	3,310	3,407	3,461	3,279	3,060	3,384	3,364
v_{12a}	2,494	2,459	2,512	2,735	2,244	1,762	2,548	2,512
v_{12a}	3,157	3,143	3,165	3,254	3,058	2,865	3,179	3,165
v_{R12}	3,772	3,626	3,798	3,803	3,663	3,443	3,733	3,710
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.89	0.87	0.89	0.90	0.86	0.81	0.89	0.88
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.31	0.24	0.32	0.27	0.30	0.29	0.28	0.27
D_R	29.8	28.7	29.9	30.0	28.9	27.2	29.5	29.3
LOS	D	D	D	D	D	C	D	D

US 50 Eastbound Diverge - Watt Avenue						
Highway Capacity Manual 2010 Edition **Two-Lane Diverge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,405	7,434	7,609	7,602	7,687	7,700
PHF	0.96	0.96	0.96	0.98	0.98	0.98
Exiting Ramp Volume (vehicles)	1,317	1,315	1,149	1,634	1,605	1,470
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_D - Deceleration Lane Length (ft)	2,290	2,290	2,290	2,290	2,290	2,290
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,088	6,119	6,460	5,968	6,082	6,230
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,895	7,926	8,112	7,882	7,970	7,984
v_R - Exiting Ramp Volume (pc/h)	1,404	1,402	1,225	1,694	1,664	1,524
Downstream Freeway Volume (pc/h)	6,491	6,523	6,887	6,188	6,306	6,460
P_{FD}	0.260	0.260	0.260	0.260	0.260	0.260
v_{12}	3,092	3,099	3,016	3,303	3,304	3,203
v_{av34}	2,402	2,414	2,548	2,290	2,333	2,390
v_{12a}	3,092	3,099	3,016	3,303	3,304	3,203
v_{12a}	3,158	3,170	3,245	3,303	3,304	3,203
Upstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Upstream Volume-to-Capacity Ratio	0.82	0.83	0.84	0.82	0.83	0.83
Ramp Capacity (pc/h)	4,400	4,400	4,400	4,400	4,400	4,400
Ramp Volume-to-Capacity Ratio	0.32	0.32	0.28	0.39	0.38	0.35
D_R	10.8	10.9	11.5	12.0	12.1	11.2
LOS	B	B	B	B	B	B

US 50 Eastbound Diverge - Watt Avenue

Highway Capacity Manual
2010 Edition
Two-Lane Diverge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	5	5	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,147	7,149	7,213	7,366	6,393	6,150	6,680	6,679
PHF	0.96	0.96	0.96	0.96	0.98	0.98	0.98	0.98
Exiting Ramp Volume (vehicles)	1,553	1,518	1,538	1,532	1,762	1,609	1,705	1,604
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_D - Deceleration Lane Length (ft)	2,290	2,290	2,290	2,290	2,290	2,290	2,290	2,290
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	5,594	5,631	5,675	5,834	4,630	4,541	4,976	5,075
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,619	7,621	7,690	7,853	6,628	6,376	6,927	6,925
v_R - Exiting Ramp Volume (pc/h)	1,656	1,618	1,640	1,633	1,827	1,668	1,767	1,663
Downstream Freeway Volume (pc/h)	5,964	6,003	6,050	6,219	4,801	4,708	5,159	5,262
P_{FD}	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260
v_{12}	3,206	3,179	3,213	3,250	3,075	2,892	3,109	3,031
v_{av34}	2,207	2,221	2,239	2,301	1,776	1,742	1,909	1,947
v_{12a}	3,206	3,179	3,213	3,250	3,075	2,892	3,109	3,031
v_{12a}	3,206	3,179	3,213	3,250	3,075	2,892	3,109	3,031
Upstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Volume-to-Capacity Ratio	0.63	0.64	0.64	0.65	0.55	0.53	0.58	0.58
Ramp Capacity (pc/h)	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400
Ramp Volume-to-Capacity Ratio	0.38	0.37	0.37	0.37	0.42	0.38	0.40	0.38
D_R	11.2	11.0	11.3	11.6	10.1	8.5	10.4	9.7
LOS	B	B	B	B	B	A	B	A

US 50 Eastbound Merge - Watt Avenue						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,088	6,119	6,460	5,968	6,082	6,230
PHF	0.96	0.96	0.96	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	2,134	2,122	1,951	1,724	1,737	1,553
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	775	775	775	775	775	775
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	8,222	8,241	8,411	7,692	7,819	7,783
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,491	6,523	6,887	6,188	6,306	6,460
v_R - Entering Ramp Volume (pc/h)	2,275	2,263	2,080	1,788	1,801	1,610
Downstream Freeway Volume (pc/h)	8,766	8,786	8,967	7,975	8,107	8,070
v_F / S_{FR}	118	119	125	113	115	117
P_{FM}	-0.067	-0.065	-0.042	-0.006	-0.007	0.017
v_{12}	-432	-424	-291	-35	-46	107
v_{av34}	3,461	3,474	3,589	3,111	3,176	3,176
v_{12a}	1,091	1,123	1,487	788	906	1,060
v_{12a}	2,596	2,609	2,755	2,475	2,522	2,584
v_{R12}	4,871	4,872	4,835	4,263	4,324	4,194
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.91	0.92	0.93	0.83	0.84	0.84
Ramp Capacity (pc/h)	2,200	2,200	2,200	2,200	2,200	2,200
Ramp Volume-to-Capacity Ratio	1.03	1.03	0.95	0.81	0.82	0.73
D_R	37.6	37.6	37.4	33.0	33.5	32.6
LOS	F	F	E	D	D	D

US 50 Eastbound Merge - Watt Avenue Loop Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	5,594	5,631	5,675	5,834	4,630	4,541	4,976	5,075
PHF	0.96	0.96	0.96	0.96	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	1,644	1,582	1,615	1,551	1,306	1,101	1,368	1,213
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	775	775	775	775	775	775	775	775
S_{FR} - Ramp Free-flow Speed (mph)	30	30	30	30	30	30	30	30
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,238	7,213	7,291	7,384	5,936	5,642	6,344	6,288
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	5,964	6,003	6,050	6,219	4,801	4,708	5,159	5,262
v_R - Entering Ramp Volume (pc/h)	1,753	1,687	1,722	1,653	1,354	1,142	1,419	1,257
Downstream Freeway Volume (pc/h)	7,716	7,690	7,773	7,873	6,155	5,850	6,578	6,520
v_F / S_{FR}	199	200	202	207	160	157	172	175
P_{FM}	-0.001	0.007	0.003	0.011	0.049	0.075	0.040	0.061
v_{12}	-8	42	15	69	233	353	209	319
v_{av34}	2,986	2,981	3,018	3,075	2,284	2,177	2,475	2,472
v_{12a}	564	603	650	819	233	353	209	319
v_{12a}	2,385	2,401	2,420	2,488	1,920	1,883	2,064	2,105
v_{R12}	4,138	4,088	4,142	4,141	3,275	3,025	3,482	3,362
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.80	0.80	0.81	0.82	0.64	0.61	0.69	0.68
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.92	0.89	0.91	0.87	0.71	0.60	0.75	0.66
D_R	32.1	31.7	32.1	32.2	25.5	23.7	27.1	26.3
LOS	D	D	D	D	C	C	C	C

US 50 Eastbound Merge - Watt Avenue Slip Ramp

Highway Capacity Manual
2010 Edition

One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,238	7,213	7,291	7,384	5,936	5,642	6,344	6,288
PHF	0.96	0.96	0.96	0.96	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	733	667	682	608	684	773	588	597
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	775	775	775	775	775	775	775	775
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,971	7,880	7,973	7,992	6,620	6,415	6,932	6,885
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,716	7,690	7,773	7,873	6,155	5,850	6,578	6,520
v_R - Entering Ramp Volume (pc/h)	782	711	727	648	709	801	610	619
Downstream Freeway Volume (pc/h)	8,498	8,402	8,500	8,521	6,864	6,651	7,188	7,139
v_F / S_{FR}	193	192	194	197	154	146	164	163
P_{FM}	0.120	0.129	0.127	0.137	0.129	0.118	0.142	0.140
v_{12}	927	991	986	1,077	795	688	931	915
v_{av34}	3,395	3,350	3,393	3,398	2,680	2,581	2,823	2,802
v_{12a}	2,316	2,290	2,373	2,473	795	688	1,178	1,120
v_{12a}	3,086	3,076	3,109	3,149	2,462	2,340	2,631	2,608
v_{R12}	3,868	3,787	3,836	3,797	3,171	3,141	3,241	3,227
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.89	0.88	0.89	0.89	0.72	0.69	0.75	0.74
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.39	0.36	0.36	0.32	0.35	0.40	0.30	0.31
D_R	30.4	29.8	30.2	29.9	25.0	24.7	25.6	25.5
LOS	D	D	D	D	C	C	C	C

US 50 Eastbound Diverge - Watt Avenue						
Highway Capacity Manual 2010 Edition **Two-Lane Diverge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,935	7,956	8,145	7,176	7,288	7,310
PHF	0.95	0.95	0.95	0.98	0.98	0.98
Exiting Ramp Volume (vehicles)	1,520	1,555	1,891	1,228	1,297	1,574
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_D - Deceleration Lane Length (ft)	1,830	1,830	1,830	1,830	1,830	1,830
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,415	6,401	6,254	5,948	5,991	5,736
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,527	8,550	8,752	7,461	7,577	7,600
v_R - Exiting Ramp Volume (pc/h)	1,633	1,672	2,032	1,277	1,348	1,636
Downstream Freeway Volume (pc/h)	6,894	6,878	6,720	6,184	6,229	5,964
P_{FD}	0.260	0.260	0.260	0.260	0.260	0.260
v_{12}	3,426	3,460	3,779	2,885	2,968	3,187
v_{av34}	2,551	2,545	2,487	2,288	2,305	2,207
v_{12a}	3,426	3,460	3,779	2,885	2,968	3,187
v_{12a}	3,426	3,460	3,779	2,984	3,031	3,187
Upstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Upstream Volume-to-Capacity Ratio	0.89	0.89	0.91	0.78	0.79	0.79
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.41	0.42	0.51	0.32	0.34	0.41
D_R	17.2	17.5	20.3	13.4	13.8	15.2
LOS	B	B	C	B	B	B

US 50 Eastbound Diverge - Bradshaw Road								
Highway Capacity Manual 2010 Edition **Two-Lane Diverge - 8-Lane Freeway - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	9,583	9,596	9,633	9,825	8,662	8,437	8,976	9,056
PHF	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.98
Exiting Ramp Volume (vehicles)	2,035	2,366	2,068	2,264	1,608	1,789	1,631	1,835
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_D - Deceleration Lane Length (ft)	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,547	7,230	7,566	7,561	7,054	6,648	7,345	7,221
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	10,298	10,312	10,352	10,558	9,006	8,772	9,332	9,415
v_R - Exiting Ramp Volume (pc/h)	2,187	2,543	2,222	2,433	1,672	1,861	1,696	1,907
Downstream Freeway Volume (pc/h)	8,110	7,769	8,130	8,125	7,334	6,912	7,637	7,508
P_{FD}	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260
v_{12}	4,296	4,563	4,336	4,546	3,579	3,658	3,681	3,859
v_{av34}	3,001	2,875	3,008	3,006	2,714	2,557	2,826	2,778
v_{12a}	4,898	4,912	4,952	5,158	3,606	3,658	3,932	4,015
v_{12a}	4,898	4,912	4,952	5,158	3,603	3,658	3,733	4,015
Upstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Upstream Volume-to-Capacity Ratio	1.07	1.07	1.08	1.10	0.94	0.91	0.97	0.98
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.55	0.64	0.56	0.61	0.42	0.47	0.42	0.48
D_R	29.9	30.0	30.4	32.1	18.8	19.2	19.9	22.3
LOS	F	**F**	F	F	B	B	B	C

US 50 Eastbound Merge - Bradshaw Road Loop Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,415	6,401	6,254	5,948	5,991	5,736
PHF	0.95	0.95	0.95	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	220	237	151	422	423	423
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	615	615	615	615	615	615
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,635	6,638	6,405	6,370	6,414	6,159
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,894	6,878	6,720	6,184	6,229	5,964
v_R - Entering Ramp Volume (pc/h)	236	255	163	439	439	440
Downstream Freeway Volume (pc/h)	7,130	7,133	6,883	6,623	6,668	6,404
v_F / S_{FR}	276	275	269	247	249	239
P_{FM}	0.188	0.186	0.197	0.163	0.163	0.163
v_{12}	1,298	1,279	1,327	1,008	1,015	971
v_{av34}	2,798	2,800	2,697	2,588	2,607	2,496
v_{12a}	1,494	1,478	1,327	1,008	1,015	971
v_{12a}	2,757	2,751	2,688	2,474	2,492	2,386
v_{R12}	2,994	3,006	2,851	2,912	2,931	2,825
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.74	0.74	0.72	0.69	0.69	0.67
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.12	0.13	0.09	0.23	0.23	0.23
D_R	24.9	24.9	23.8	24.1	24.3	23.5
LOS	C	C	C	C	C	C

US 50 Eastbound Weave - Bradshaw Road to Mather Field Road

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain
Cumulative Conditions
Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus PROJECT	CEQA Cumulative	CEQA Cumulative Plus PROJECT	MTP Cumulative	MTP Cumulative Plus PROJECT	CEQA Cumulative	CEQA Cumulative Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Upstream Ramp Lanes	1	1	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2	2	2
N - Number of Lanes	5	5	5	5	5	5	5	5
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,547	7,230	7,566	7,561	7,054	6,648	7,345	7,221
PHF	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	1,409	1,340	1,486	1,511	843	1,173	1,029	1,102
Exiting Ramp Volume (vehicles)	1,492	1,464	1,490	1,481	1,462	1,400	1,530	1,489
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020
ID (Interchange Density within 3 miles)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,464	7,106	7,562	7,591	6,436	6,421	6,844	6,835
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Upstream Freeway Volume (pc/h)	8,110	7,769	8,130	8,125	7,334	6,912	7,637	7,508
Entering Ramp Volume (pc/h)	1,514	1,440	1,597	1,624	876	1,220	1,070	1,146
Exiting Ramp Volume (pc/h))	1,603	1,574	1,601	1,592	1,520	1,456	1,591	1,548
Downstream Freeway Volume (pc/h)	8,021	7,636	8,126	8,157	6,691	6,676	7,116	7,106
v_{FF}	6,759	6,442	6,792	6,799	5,977	5,674	6,241	6,165
v_{RF}	1,262	1,194	1,334	1,359	714	1,002	874	941
v_{FR}	1,351	1,327	1,338	1,326	1,357	1,237	1,395	1,343
v_{RR}	252	246	263	265	162	218	195	205
v_W	2,613	2,522	2,672	2,685	2,072	2,239	2,270	2,284
v_{NW}	7,012	6,688	7,055	7,064	6,139	5,893	6,437	6,370
v	9,624	9,210	9,727	9,749	8,211	8,132	8,707	8,654
VR	0.271	0.274	0.275	0.275	0.252	0.275	0.261	0.264
LC_{RF}	1	1	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0	0	0
LC_{MIN}	1,262	1,194	1,334	1,359	714	1,002	874	941
L_{MAX}	5,280	5,305	5,315	5,322	5,078	5,321	5,166	5,200
Weaving Operations?	NO	NO	NO	NO	NO	NO	NO	NO
Capacity Controlled by Density (pc/h)	12,666	12,656	12,652	12,649	12,743	12,650	12,709	12,696
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)	8,841	8,765	8,736	8,713	9,512	8,716	9,206	9,094
Capacity (pc/h)	8,841	8,765	8,736	8,713	9,512	8,716	9,206	9,094
Volume-to-Capacity Ratio	1.09	1.05	1.11	1.12	0.86	0.93	0.95	0.95
LC_W	2,653	2,586	2,726	2,750	2,106	2,393	2,266	2,333
I_{NW}	4,922	4,695	4,952	4,959	4,310	4,137	4,519	4,472
LC_{NW1}	4,286	4,220	4,295	4,297	4,107	4,056	4,168	4,154
LC_{NW2}	3,253	3,180	3,262	3,264	3,058	3,003	3,124	3,109
LC_{NW3}	-1,474	-1,208	-1,509	-1,516	-748	-538	-999	-943
LC_{NW}	3,253	3,180	3,262	3,264	3,058	3,003	3,124	3,109
LC_{ALL}	5,906	5,766	5,988	6,015	5,164	5,396	5,390	5,442
W - Weaving Intensity	0.197	0.194	0.199	0.200	0.177	0.184	0.183	0.185
S_W	60.9	61.1	60.9	60.8	61.7	61.5	61.5	61.4
S_{NW}	51.7	52.6	51.1	50.9	57.0	55.0	55.3	54.9
S	53.9	54.6	53.4	53.3	58.1	56.6	56.8	56.5
D	35.7	33.7	36.4	36.6	28.3	28.7	30.6	30.6
LOS	F	F	F	F	D	D	D	D

US 50 Eastbound Merge - Bradshaw Road Loop Ramp

Highway Capacity Manual
2010 Edition

One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,547	7,230	7,566	7,561	7,054	6,648	7,345	7,221
PHF	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	253	216	268	274	399	564	422	505
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	615	615	615	615	615	615	615	615
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,800	7,446	7,834	7,835	7,453	7,212	7,768	7,726
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,110	7,769	8,130	8,125	7,334	6,912	7,637	7,508
v_R - Entering Ramp Volume (pc/h)	272	232	288	294	415	587	439	525
Downstream Freeway Volume (pc/h)	8,382	8,002	8,418	8,419	7,749	7,498	8,076	8,033
v_F / S_{FR}	324	311	325	325	293	276	305	300
P_{FM}	0.184	0.189	0.182	0.181	0.166	0.144	0.163	0.152
v_{12}	1,491	1,467	1,478	1,471	1,217	999	1,244	1,143
v_{av34}	3,310	3,151	3,326	3,327	3,059	2,957	3,196	3,183
v_{12a}	2,710	2,369	2,730	2,725	1,934	1,512	2,237	2,108
v_{12a}	3,244	3,108	3,252	3,250	2,934	2,765	3,055	3,003
v_{R12}	3,516	3,340	3,540	3,544	3,349	3,351	3,494	3,528
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.87	0.83	0.88	0.88	0.81	0.78	0.84	0.84
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.14	0.12	0.15	0.15	0.22	0.31	0.23	0.28
D_R	28.9	27.6	29.1	29.1	27.5	27.5	28.7	28.9
LOS	D	C	D	D	C	C	D	D

US 50 Eastbound Merge - Bradshaw Road Slip Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,635	6,638	6,405	6,370	6,414	6,159
PHF	0.95	0.95	0.95	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	971	971	1,280	918	915	1,105
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	1,400	1,400	1,400	1,400	1,400	1,400
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,606	7,608	7,686	7,288	7,328	7,264
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,130	7,133	6,883	6,623	6,668	6,404
v_R - Entering Ramp Volume (pc/h)	1,043	1,043	1,376	954	951	1,149
Downstream Freeway Volume (pc/h)	8,173	8,176	8,259	7,577	7,619	7,553
v_F / S_{FR}	178	178	172	166	167	160
P_{FM}	0.087	0.087	0.046	0.098	0.099	0.074
v_{12}	623	623	315	652	660	475
v_{av34}	3,254	3,255	3,284	2,985	3,004	2,964
v_{12a}	1,730	1,733	1,483	1,223	1,268	1,004
v_{12a}	2,852	2,853	2,753	2,649	2,667	2,561
v_{R12}	3,895	3,896	4,129	3,604	3,618	3,711
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.85	0.85	0.86	0.79	0.79	0.79
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.52	0.52	0.69	0.48	0.48	0.57
D_R	26.6	26.6	28.3	24.4	24.5	25.1
LOS	C	C	D	C	C	C

US 50 Eastbound Ramp Addition - Northbound Bradshaw Road								
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,800	7,446	7,834	7,835	7,453	7,212	7,768	7,726
PHF	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	1,409	1,340	1,486	1,511	843	1,173	1,029	1,102
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	9,209	8,787	9,320	9,346	8,296	8,386	8,797	8,828
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,382	8,002	8,418	8,419	7,749	7,498	8,076	8,033
v_R - Entering Ramp Volume (pc/h)	1,514	1,440	1,597	1,624	876	1,220	1,070	1,146
Downstream Freeway Volume (pc/h)	9,896	9,442	10,015	10,043	8,626	8,718	9,146	9,179
Downstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Volume-to-Capacity Ratio	0.82	0.79	0.83	0.84	0.72	0.73	0.76	0.76
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.76	0.72	0.80	0.81	0.44	0.61	0.53	0.57
V/C_{MAX}	0.82	0.79	0.83	0.84	0.72	0.73	0.76	0.76
LOS	D	C	D	D	C	C	C	C

US 50 Eastbound Diverge - Mather Field Road

Highway Capacity Manual
2010 Edition
Two-Lane Diverge - 8-Lane Freeway - Level Terrain

Existing Conditions

Input Data

Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,725	7,724	7,761	7,366	7,403	7,248
PHF	0.96	0.96	0.96	1.00	1.00	1.00
Exiting Ramp Volume (vehicles)	1,266	1,268	1,188	1,062	1,100	987
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_D - Deceleration Lane Length (ft)	2,400	2,400	2,400	2,400	2,400	2,400
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,459	6,456	6,572	6,304	6,303	6,261
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,249	8,248	8,287	7,530	7,569	7,410
v_R - Exiting Ramp Volume (pc/h)	1,352	1,354	1,269	1,086	1,124	1,009
Downstream Freeway Volume (pc/h)	6,897	6,894	7,018	6,445	6,444	6,401
P_{FD}	0.260	0.260	0.260	0.260	0.260	0.260
v_{12}	3,145	3,147	3,094	2,761	2,800	2,673
v_{av34}	2,552	2,551	2,597	2,385	2,384	2,368
v_{12a}	3,145	3,147	3,094	2,761	2,800	2,673
v_{12a}	3,300	3,299	3,315	3,012	3,027	2,964
Upstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Upstream Volume-to-Capacity Ratio	0.86	0.86	0.86	0.78	0.79	0.77
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.34	0.34	0.32	0.27	0.28	0.25
D_R	11.0	11.0	11.2	8.6	8.7	8.1
LOS	B	B	B	A	A	A

US 50 Eastbound Diverge - Mather Field Road

Highway Capacity Manual
2010 Edition
Two-Lane Diverge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	5	5	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	9,362	8,922	9,467	9,483	8,502	8,510	9,033	9,015
PHF	0.96	0.96	0.96	0.96	1.00	1.00	1.00	1.00
Exiting Ramp Volume (vehicles)	1,492	1,464	1,490	1,481	1,462	1,400	1,530	1,489
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_D - Deceleration Lane Length (ft)	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,870	7,458	7,977	8,002	7,040	7,110	7,503	7,526
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	9,997	9,528	10,109	10,126	8,692	8,700	9,234	9,216
v_R - Exiting Ramp Volume (pc/h)	1,593	1,564	1,591	1,582	1,494	1,432	1,564	1,522
Downstream Freeway Volume (pc/h)	8,404	7,964	8,518	8,544	7,197	7,269	7,670	7,694
P_{FD}	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260
v_{12}	3,778	3,634	3,806	3,803	3,366	3,321	3,559	3,522
v_{av34}	3,109	2,947	3,152	3,161	2,663	2,689	2,838	2,847
v_{12a}	4,597	4,128	4,709	4,726	3,366	3,321	3,834	3,816
v_{12a}	3,999	3,811	4,044	4,050	3,477	3,480	3,694	3,687
Upstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Volume-to-Capacity Ratio	0.83	0.79	0.84	0.84	0.72	0.73	0.77	0.77
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.40	0.39	0.40	0.40	0.37	0.36	0.39	0.38
D_R	17.0	15.4	17.4	17.5	12.6	12.6	14.4	14.4
LOS	B	B	B	B	B	B	B	B

US 50 Eastbound Merge - Mather Field Road Loop Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,459	6,456	6,572	6,304	6,303	6,261
PHF	0.96	0.96	0.96	1.00	1.00	1.00
Entering Ramp Volume (vehicles)	125	138	121	101	100	107
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	1,100	1,100	1,100	1,100	1,100	1,100
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,584	6,594	6,694	6,405	6,404	6,369
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,897	6,894	7,018	6,445	6,444	6,401
v_R - Entering Ramp Volume (pc/h)	133	148	130	103	103	110
Downstream Freeway Volume (pc/h)	7,031	7,041	7,148	6,548	6,547	6,511
v_F / S_{FR}	276	276	281	258	258	256
P_{FM}	0.201	0.199	0.202	0.205	0.205	0.204
v_{12}	1,387	1,374	1,415	1,320	1,321	1,306
v_{av34}	2,755	2,760	2,802	2,562	2,562	2,547
v_{12a}	1,497	1,494	1,618	1,320	1,321	1,306
v_{12a}	2,759	2,758	2,807	2,578	2,578	2,560
v_{R12}	2,892	2,905	2,937	2,681	2,680	2,670
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.73	0.73	0.74	0.68	0.68	0.68
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.07	0.08	0.07	0.05	0.05	0.06
D_R	21.1	21.2	21.4	19.4	19.4	19.4
LOS	C	C	C	B	B	B

US 50 Eastbound Merge - Mather Field Road Loop Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,870	7,458	7,977	8,002	7,040	7,110	7,503	7,526
PHF	0.96	0.96	0.96	0.96	1.00	1.00	1.00	1.00
Entering Ramp Volume (vehicles)	236	206	252	252	197	167	222	169
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	8,106	7,664	8,229	8,254	7,238	7,277	7,725	7,695
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,404	7,964	8,518	8,544	7,197	7,269	7,670	7,694
v_R - Entering Ramp Volume (pc/h)	252	220	269	269	202	171	227	172
Downstream Freeway Volume (pc/h)	8,656	8,184	8,787	8,814	7,399	7,440	7,898	7,867
v_F / S_{FR}	336	319	341	342	288	291	307	308
P_{FM}	0.186	0.190	0.184	0.184	0.193	0.196	0.189	0.196
v_{12}	1,565	1,515	1,568	1,574	1,386	1,428	1,453	1,510
v_{av34}	3,419	3,224	3,475	3,485	2,906	2,920	3,109	3,092
v_{12a}	3,004	2,564	3,118	3,144	1,797	1,869	2,270	2,294
v_{12a}	3,361	3,186	3,407	3,418	2,879	2,907	3,068	3,078
v_{R12}	3,614	3,406	3,677	3,687	3,081	3,078	3,295	3,250
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.90	0.85	0.92	0.92	0.77	0.77	0.82	0.82
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.13	0.12	0.14	0.14	0.11	0.09	0.12	0.09
D_R	26.6	25.0	27.1	27.2	22.5	22.5	24.2	23.8
LOS	C	C	C	C	C	C	C	C

US 50 Eastbound Weave - Mather Field Road to Zinfandel Drive

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain

Existing Conditions

Input Data

Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Upstream Ramp Lanes	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2
N - Number of Lanes	5	5	5	5	5	5
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	6,958	6,975	7,079	6,408	6,426	6,373
PHF	0.94	0.94	0.94	0.97	0.97	0.97
Entering Ramp Volume (vehicles)	317	323	634	816	842	1,187
Exiting Ramp Volume (vehicles)	2,932	2,941	2,918	1,452	1,481	1,419
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	4,955	4,955	4,955	4,955	4,955	4,955
ID (Interchange Density within 3 miles)	0.5	0.5	0.5	0.5	0.5	0.5
Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	4,343	4,357	4,795	5,772	5,788	6,141
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Upstream Freeway Volume (pc/h)	7,510	7,529	7,641	6,706	6,725	6,669
Entering Ramp Volume (pc/h)	342	348	684	854	881	1,242
Exiting Ramp Volume (pc/h))	3,165	3,175	3,150	1,519	1,549	1,485
Downstream Freeway Volume (pc/h)	4,688	4,703	5,176	6,040	6,057	6,426
v_{FF}	4,483	4,495	4,750	5,358	5,355	5,417
v_{RF}	204	208	425	682	702	1,009
v_{FR}	3,027	3,034	2,891	1,348	1,370	1,252
v_{RR}	138	140	259	172	180	233
v_W	3,231	3,242	3,317	2,030	2,072	2,261
v_{NW}	4,621	4,635	5,009	5,529	5,535	5,650
v	7,852	7,877	8,326	7,559	7,606	7,911
VR	0.411	0.412	0.398	0.269	0.272	0.286
LC_{RF}	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0
LC_{MIN}	204	208	425	682	702	1,009
L_{MAX}	6,810	6,812	6,663	5,249	5,289	5,432
Weaving Operations?	YES	YES	YES	YES	YES	YES
Capacity Controlled by Density (pc/h)	11,290	11,290	11,347	11,888	11,872	11,817
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)	5,833	5,831	6,025	8,937	8,812	8,398
Capacity (pc/h)	5,833	5,831	6,025	8,937	8,812	8,398
Volume-to-Capacity Ratio	1.35	1.35	1.38	0.85	0.86	0.94
LC_W	1,124	1,128	1,345	1,602	1,622	1,929
I_{NW}	1,145	1,148	1,241	1,370	1,371	1,400
LC_{NW1}	2,675	2,677	2,754	2,862	2,863	2,886
LC_{NW2}	2,720	2,723	2,806	2,922	2,923	2,949
LC_{NW3}	2,664	2,667	2,750	2,868	2,869	2,896
LC_{NW}	2,675	2,677	2,754	2,868	2,869	2,896
LC_{ALL}	3,799	3,806	4,100	4,471	4,491	4,825
W - Weaving Intensity	0.183	0.184	0.195	0.208	0.209	0.221
S_W	61.5	61.5	61.0	60.5	60.5	60.0
S_{NW}	61.0	60.9	58.9	57.8	57.6	55.1
S	61.2	61.2	59.8	58.5	58.4	56.5
D	25.7	25.8	27.9	25.8	26.1	28.0
LOS	F	F	F	C	C	D

US 50 Eastbound Weave - Mather Field Road to Zinfandel Drive

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain
Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Upstream Ramp Lanes	1	1	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2	2	2
N - Number of Lanes	5	5	5	5	5	5	5	5
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	8,503	8,043	8,641	8,640	7,314	7,339	7,871	7,793
PHF	0.94	0.94	0.94	0.94	0.97	0.97	0.97	0.97
Entering Ramp Volume (vehicles)	432	447	431	571	920	1,210	894	1,123
Exiting Ramp Volume (vehicles)	3,097	3,052	3,083	3,082	1,759	1,708	1,861	1,797
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955
ID (Interchange Density within 3 miles)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	5,838	5,438	5,990	6,128	6,475	6,840	6,903	7,120
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Upstream Freeway Volume (pc/h)	9,178	8,682	9,327	9,326	7,654	7,679	8,236	8,155
Entering Ramp Volume (pc/h)	466	483	465	616	962	1,266	935	1,175
Exiting Ramp Volume (pc/h))	3,343	3,295	3,327	3,327	1,840	1,788	1,948	1,880
Downstream Freeway Volume (pc/h)	6,301	5,870	6,465	6,615	6,776	7,158	7,224	7,450
v_{FF}	5,996	5,561	6,158	6,205	6,019	6,145	6,487	6,512
v_{RF}	305	309	307	410	757	1,013	737	939
v_{FR}	3,181	3,121	3,169	3,121	1,635	1,535	1,749	1,643
v_{RR}	162	173	158	206	206	253	199	237
v_W	3,486	3,430	3,476	3,531	2,391	2,548	2,486	2,582
v_{NW}	6,158	5,734	6,316	6,411	6,224	6,398	6,686	6,749
v	9,644	9,164	9,793	9,942	8,616	8,945	9,172	9,330
VR	0.361	0.374	0.355	0.355	0.278	0.285	0.271	0.277
LC_{RF}	1	1	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0	0	0
LC_{MIN}	305	309	307	410	757	1,013	737	939
L_{MAX}	6,252	6,395	6,181	6,183	5,344	5,421	5,275	5,335
Weaving Operations?	YES	YES	YES	YES	YES	YES	YES	YES
Capacity Controlled by Density (pc/h)	11,504	11,449	11,531	11,530	11,851	11,822	11,878	11,854
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)	6,640	6,412	6,761	6,758	8,647	8,427	8,856	8,674
Capacity (pc/h)	6,640	6,412	6,761	6,758	8,647	8,427	8,856	8,674
Volume-to-Capacity Ratio	1.45	1.43	1.45	1.47	1.00	1.06	1.04	1.08
LC_W	1,225	1,229	1,227	1,330	1,677	1,933	1,657	1,859
I_{NW}	1,526	1,421	1,565	1,588	1,542	1,585	1,656	1,672
LC_{NW1}	2,991	2,904	3,024	3,043	3,005	3,041	3,100	3,113
LC_{NW2}	3,062	2,968	3,098	3,119	3,077	3,116	3,180	3,194
LC_{NW3}	3,016	2,916	3,054	3,077	3,032	3,073	3,144	3,159
LC_{NW}	3,016	2,916	3,054	3,077	3,032	3,073	3,144	3,159
LC_{ALL}	4,240	4,145	4,281	4,407	4,709	5,007	4,800	5,018
W - Weaving Intensity	0.200	0.196	0.201	0.206	0.217	0.228	0.220	0.228
S_W	60.8	61.0	60.8	60.6	60.2	59.8	60.1	59.8
S_{NW}	58.5	59.0	58.4	57.5	56.3	54.1	55.9	54.3
S	59.4	59.7	59.2	58.6	57.3	55.6	57.0	55.7
D	32.5	30.7	33.1	33.9	30.1	32.2	32.2	33.5
LOS	F	F	F	F	D	F	F	F

US 50 Eastbound Merge - Zinfandel Drive Loop Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	4,343	4,357	4,795	5,772	5,788	6,141
PHF	0.94	0.94	0.94	0.97	0.97	0.97
Entering Ramp Volume (vehicles)	182	178	177	129	129	116
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	520	520	520	520	520	520
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	4,525	4,534	4,971	5,901	5,917	6,257
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	4,688	4,703	5,176	6,040	6,057	6,426
v_R - Entering Ramp Volume (pc/h)	196	192	191	135	135	122
Downstream Freeway Volume (pc/h)	4,884	4,894	5,366	6,175	6,191	6,547
v_F / S_{FR}	188	188	207	242	242	257
P_{FM}	0.193	0.194	0.194	0.201	0.201	0.203
v_{12}	906	912	1,004	1,214	1,217	1,302
v_{av34}	1,891	1,896	2,086	2,413	2,420	2,562
v_{12a}	906	912	1,004	1,214	1,217	1,302
v_{12a}	1,875	1,881	2,070	2,416	2,423	2,570
v_{R12}	2,072	2,073	2,261	2,551	2,557	2,692
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.51	0.51	0.56	0.64	0.64	0.68
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.10	0.10	0.10	0.07	0.07	0.06
D_R	18.3	18.3	19.8	22.1	22.1	23.2
LOS	B	B	B	C	C	C

US 50 Eastbound Merge - Zinfandel Drive Loop Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	5,838	5,438	5,990	6,128	6,475	6,840	6,903	7,120
PHF	0.94	0.94	0.94	0.94	0.97	0.97	0.97	0.97
Entering Ramp Volume (vehicles)	187	183	183	185	170	161	173	151
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	520	520	520	520	520	520	520	520
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	6,025	5,621	6,173	6,314	6,645	7,001	7,076	7,271
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,301	5,870	6,465	6,615	6,776	7,158	7,224	7,450
v_R - Entering Ramp Volume (pc/h)	202	198	198	200	177	168	181	158
Downstream Freeway Volume (pc/h)	6,503	6,068	6,663	6,815	6,953	7,326	7,405	7,608
v_F / S_{FR}	252	235	259	265	271	286	289	298
P_{FM}	0.193	0.193	0.193	0.193	0.196	0.197	0.195	0.198
v_{12}	1,213	1,133	1,248	1,275	1,325	1,408	1,410	1,476
v_{av34}	2,544	2,368	2,609	2,670	2,725	2,875	2,907	2,987
v_{12a}	1,213	1,133	1,248	1,275	1,376	1,758	1,824	2,050
v_{12a}	2,520	2,348	2,586	2,646	2,710	2,863	2,890	2,980
v_{R12}	2,723	2,546	2,784	2,846	2,888	3,031	3,070	3,138
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.68	0.63	0.69	0.71	0.72	0.76	0.77	0.79
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.11	0.10	0.10	0.11	0.09	0.09	0.10	0.08
D_R	23.4	22.0	23.8	24.3	24.7	25.8	26.1	26.6
LOS	C	C	C	C	C	C	C	C

US 50 Eastbound Merge - Zinfandel Drive Slip Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	4,525	4,534	4,971	5,901	5,917	6,257
PHF	0.94	0.94	0.94	0.97	0.97	0.97
Entering Ramp Volume (vehicles)	348	498	522	540	588	627
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	840	840	840	840	840	840
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	4,873	5,032	5,494	6,441	6,505	6,884
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	4,884	4,894	5,366	6,175	6,191	6,547
v_R - Entering Ramp Volume (pc/h)	376	537	564	565	615	656
Downstream Freeway Volume (pc/h)	5,260	5,431	5,930	6,740	6,807	7,204
v_F / S_{FR}	122	122	134	154	155	164
P_{FM}	0.171	0.151	0.147	0.147	0.141	0.136
v_{12}	834	737	791	909	872	889
v_{av34}	2,025	2,078	2,288	2,633	2,660	2,829
v_{12a}	834	737	791	909	872	1,147
v_{12a}	1,954	1,958	2,146	2,470	2,477	2,619
v_{R12}	2,329	2,495	2,710	3,035	3,092	3,275
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.55	0.57	0.62	0.70	0.71	0.75
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.19	0.27	0.28	0.28	0.31	0.33
D_R	18.2	19.4	21.1	23.6	24.0	25.5
LOS	B	B	C	C	C	C

US 50 Eastbound Ramp Addition - Northbound Zinfandel Drive								
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,025	5,621	6,173	6,314	6,645	7,001	7,076	7,271
PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	644	661	665	656	819	938	714	784
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	6,669	6,282	6,838	6,970	7,464	7,939	7,790	8,054
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,269	5,848	6,423	6,569	6,913	7,284	7,362	7,564
v_R - Entering Ramp Volume (pc/h)	670	688	692	682	852	976	743	815
Downstream Freeway Volume (pc/h)	6,938	6,536	7,115	7,251	7,765	8,259	8,105	8,380
Downstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Volume-to-Capacity Ratio	0.58	0.54	0.59	0.60	0.65	0.69	0.68	0.70
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.33	0.34	0.35	0.34	0.43	0.49	0.37	0.41
V/C_{MAX}	0.58	0.54	0.59	0.60	0.65	0.69	0.68	0.70
LOS	A	A	A	B	B	B	B	B

US 50 Eastbound Diverge - Sunrise Boulevard						
Highway Capacity Manual 2010 Edition **Major Diverge - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3
Ramp Lanes	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	5,121	5,267	5,726	6,649	6,693	7,083
PHF	0.96	0.96	0.96	0.95	0.95	0.95
Exiting Ramp Volume (vehicles)	1,773	1,859	1,953	1,959	1,976	2,073
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	3,348	3,408	3,773	4,690	4,718	5,010
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	5,459	5,615	6,104	7,144	7,191	7,610
v_R - Exiting Ramp Volume (pc/h)	1,890	1,982	2,082	2,105	2,123	2,227
Downstream Freeway Volume (pc/h)	3,569	3,633	4,022	5,039	5,069	5,383
Upstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Upstream Volume-to-Capacity Ratio	0.57	0.58	0.64	0.74	0.75	0.79
Downstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200
Downstream Volume-to-Capacity Ratio	0.50	0.50	0.56	0.70	0.70	0.75
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.47	0.50	0.52	0.53	0.53	0.56
D_R	23.9	24.6	26.7	31.3	31.5	33.3
LOS	C	C	C	D	D	D

US 50 Eastbound Diverge - Sunrise Boulevard

Highway Capacity Manual
2010 Edition
Major Diverge - Level Terrain
Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	5	5	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3	3	3
Ramp Lanes	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	6,237	5,990	6,313	6,400	6,181	6,487	6,367	6,551
PHF	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Exiting Ramp Volume (vehicles)	2,135	2,085	1,878	1,899	2,353	2,421	2,308	2,364
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	4,103	3,905	4,435	4,501	3,828	4,066	4,059	4,187
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,649	6,386	6,730	6,823	6,641	6,969	6,840	7,038
v_R - Exiting Ramp Volume (pc/h)	2,276	2,223	2,002	2,024	2,528	2,601	2,480	2,540
Downstream Freeway Volume (pc/h)	4,373	4,163	4,728	4,798	4,113	4,368	4,361	4,498
Upstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Volume-to-Capacity Ratio	0.55	0.53	0.56	0.57	0.55	0.58	0.57	0.59
Downstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200
Downstream Volume-to-Capacity Ratio	0.61	0.58	0.66	0.67	0.57	0.61	0.61	0.62
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.57	0.56	0.50	0.51	0.63	0.65	0.62	0.63
D_R	23.3	22.4	23.6	23.9	23.2	24.4	23.9	24.6
LOS	C	C	C	C	C	C	C	C

US 50 Eastbound Merge - Sunrise Boulevard

Highway Capacity Manual
2010 Edition
One-Lane Merge - 6-Lane Freeway - Level Terrain

Existing Conditions

Input Data

Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	3,348	3,408	3,773	4,690	4,718	5,010
PHF	0.96	0.96	0.96	0.95	0.95	0.95
Entering Ramp Volume (vehicles)	992	1,002	1,028	889	893	834
Truck Percentage	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_{UP} - Distance to Upstream Exit Ramp (ft)	3,895	3,895	3,895	3,895	3,895	3,895
L_A - Acceleration Lane Length (ft)	1,475	1,475	1,475	1,475	1,475	1,475
S_{FR} - Ramp Free-flow Speed (mph)	50	50	50	50	50	50
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	4,340	4,411	4,800	5,579	5,611	5,844
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	3,604	3,669	4,061	5,088	5,118	5,436
v_R - Entering Ramp Volume (pc/h)	1,068	1,079	1,106	964	969	905
Downstream Freeway Volume (pc/h)	4,672	4,748	5,168	6,053	6,087	6,341
v_F / S_{FR}	72	73	81	102	102	109
P_{FM} (13-3)	0.619	0.619	0.619	0.619	0.619	0.619
P_{FM} (13-4)	0.746	0.745	0.740	0.728	0.727	0.724
P_{FM}	0.746	0.745	0.740	0.728	0.727	0.724
v_{12}	2,690	2,735	3,004	3,703	3,723	3,935
v_{av34}	457	467	529	693	698	750
v_{12a}	2,690	2,735	3,004	3,703	3,723	3,935
v_{12a}	2,690	2,735	3,004	3,703	3,723	3,935
v_{R12}	3,758	3,814	4,110	4,668	4,692	4,840
Downstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200
Downstream Volume-to-Capacity Ratio	0.65	0.66	0.72	0.84	0.85	0.88
Ramp Capacity (pc/h)	2,100	2,100	2,100	2,100	2,100	2,100
Ramp Volume-to-Capacity Ratio	0.51	0.51	0.53	0.46	0.46	0.43
D_R	25.0	25.5	27.8	32.2	32.4	33.6
LOS	C	C	C	D	D	D

US 50 Eastbound Weave - Sunrise Boulevard to Rancho Cordova Parkway

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain
Cumulative Conditions

Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	3	3	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3	3	3
Upstream Ramp Lanes	1	1	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2	2	2
N - Number of Lanes	4	4	4	4	4	4	4	4
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	4,103	3,905	4,435	4,501	3,828	4,066	4,059	4,187
PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Entering Ramp Volume (vehicles)	1,152	1,101	1,233	1,174	1,145	1,182	1,122	1,162
Exiting Ramp Volume (vehicles)	78	25	374	327	448	535	763	816
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	5,052	5,052	5,052	5,052	5,052	5,052	5,052	5,052
ID (Interchange Density within 3 miles)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	5,176	4,981	5,294	5,347	4,525	4,712	4,418	4,532
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Upstream Freeway Volume (pc/h)	4,472	4,256	4,834	4,906	4,181	4,440	4,433	4,573
Entering Ramp Volume (pc/h)	1,255	1,200	1,344	1,279	1,250	1,291	1,225	1,269
Exiting Ramp Volume (pc/h))	85	27	408	356	489	585	833	891
Downstream Freeway Volume (pc/h)	5,642	5,429	5,770	5,828	4,943	5,147	4,825	4,950
v_{FF}	4,405	4,235	4,515	4,623	3,805	3,987	3,780	3,875
v_{RF}	1,237	1,194	1,255	1,205	1,138	1,159	1,045	1,075
v_{FR}	67	21	319	283	377	453	653	698
v_{RR}	19	6	89	74	113	132	180	194
v_W	1,303	1,215	1,574	1,488	1,514	1,612	1,697	1,773
v_{NW}	4,424	4,241	4,604	4,697	3,917	4,119	3,961	4,068
v	5,727	5,456	6,178	6,185	5,432	5,731	5,658	5,841
VR	0.228	0.223	0.255	0.241	0.279	0.281	0.300	0.303
LC_{RF}	1	1	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0	0	0
LC_{MIN}	1,237	1,194	1,255	1,205	1,138	1,159	1,045	1,075
L_{MAX}	4,820	4,770	5,104	4,956	5,358	5,384	5,584	5,621
Weaving Operations?	NO	NO	YES	NO	YES	YES	YES	YES
Capacity Controlled by Density (pc/h)			9,584		9,506	9,498	9,437	9,426
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)			9,418		8,608	8,532	8,000	7,908
Capacity (pc/h)			9,418		8,608	8,532	8,000	7,908
Volume-to-Capacity Ratio			0.66		0.63	0.67	0.71	0.74
LC_W			1,850		1,733	1,754	1,640	1,670
I_{NW}			1,163		990	1,041	1,000	1,028
LC_{NW1}			2,916		2,775	2,816	2,784	2,806
LC_{NW2}			2,716		2,563	2,608	2,572	2,596
LC_{NW3}			2,958		2,876	2,900	2,881	2,894
LC_{NW}			2,916		2,775	2,816	2,784	2,806
LC_{ALL}			4,766		4,508	4,571	4,424	4,476
W - Weaving Intensity			0.216		0.207	0.209	0.204	0.205
S_W			60.2		60.6	60.5	60.7	60.6
S_{NW}			53.5		55.3	54.8	55.7	55.2
S			55.1		56.7	56.3	57.1	56.8
D			28.0		24.0	25.5	24.8	25.7
LOS			D		C	C	C	C

US 50 Eastbound Ramp Addition - Sunrise Boulevard

Highway Capacity Manual
2010 Edition
Lane Addition - Level Terrain
Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	3	3		3				
Existing Dnstrm Frwy Lanes	4	4		4				
Ramp Lanes	1	1		1				
Upstream Freeway Volume (vehicles)	4,103	3,905		4,501				
PHF	0.98	0.98		0.98				
Entering Ramp Volume (vehicles)	1,152	1,101		1,174				
Truck Percentage	6%	6%		6%				
RV Percentage	0%	0%		0%				
Driver Population Factor	1.000	1.000		1.000				
S_{FR} - Ramp Free-flow Speed (mph)	40	40		40				
Freeway Free-flow Speed (mph)	70	70		70				
Calculations								
Downstream Freeway Volume (vehicles)	5,254	5,006		5,674				
f_{HV}	0.97	0.97		0.97				
v_F - Upstream Freeway Volume (pc/h)	4,310	4,103		4,729				
v_R - Entering Ramp Volume (pc/h)	1,210	1,157		1,233				
Downstream Freeway Volume (pc/h)	5,520	5,259		5,961				
Downstream Capacity (pc/h)	9,600	9,600		9,600				
Downstream Volume-to-Capacity Ratio	0.58	0.55		0.62				
Ramp Capacity (pc/h)	2,000	2,000		2,000				
Ramp Volume-to-Capacity Ratio	0.60	0.58		0.62				
V/C_{MAX}	0.60	0.58		0.62				
LOS	B	A		B				

US 50 Eastbound Diverge - Rancho Cordova Parkway								
Highway Capacity Manual 2010 Edition **Major Diverge - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4		4				
Existing Dnstrm Frwy Lanes	3	3		3				
Ramp Lanes	2	2		2				
Upstream Freeway Volume (vehicles)	5,254	5,006		5,674				
PHF	0.97	0.97		0.97				
Exiting Ramp Volume (vehicles)	78	25		327				
Truck Percentage	6%	6%		6%				
RV Percentage	0%	0%		0%				
Driver Population Factor	1.000	1.000		1.000				
S_{FR} - Ramp Free-flow Speed (mph)	40	40		40				
Freeway Free-flow Speed (mph)	70	70		70				
Calculations								
Downstream Freeway Volume (vehicles)	5,176	4,981		5,347				
f_{HV}	0.97	0.97		0.97				
v_F - Upstream Freeway Volume (pc/h)	5,574	5,311		6,020				
v_R - Exiting Ramp Volume (pc/h)	83	27		347				
Downstream Freeway Volume (pc/h)	5,491	5,284		5,673				
Upstream Capacity (pc/h)	9,600	9,600		9,600				
Upstream Volume-to-Capacity Ratio	0.58	0.55		0.63				
Downstream Capacity (pc/h)	7,200	7,200		7,200				
Downstream Volume-to-Capacity Ratio	0.76	0.73		0.79				
Ramp Capacity (pc/h)	4,000	4,000		4,000				
Ramp Volume-to-Capacity Ratio	0.02	0.01		0.09				
D_R	24.4	23.2		26.3				
LOS	C	C		C				

US 50 Eastbound Weave - Rancho Cordova Parkway to Hazel Avenue

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain
Cumulative Conditions
Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	3	3	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3	3	3
Upstream Ramp Lanes	1	1	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2	2	2
N - Number of Lanes	4	4	4	4	4	4	4	4
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	5,176	4,981	5,294	5,347	4,525	4,712	4,418	4,532
PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Entering Ramp Volume (vehicles)	1,342	1,202	1,787	1,748	1,499	1,651	1,748	1,823
Exiting Ramp Volume (vehicles)	1,869	1,710	1,904	1,950	2,657	2,826	2,611	2,718
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	4,780	4,780	4,780	4,780	4,780	4,780	4,780	4,780
ID (Interchange Density within 3 miles)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	4,649	4,473	5,177	5,146	3,368	3,538	3,555	3,637
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Upstream Freeway Volume (pc/h)	5,642	5,429	5,770	5,828	4,943	5,147	4,825	4,950
Entering Ramp Volume (pc/h)	1,462	1,310	1,948	1,906	1,637	1,803	1,909	1,991
Exiting Ramp Volume (pc/h))	2,037	1,864	2,075	2,125	2,902	3,086	2,852	2,969
Downstream Freeway Volume (pc/h)	5,067	4,876	5,643	5,609	3,678	3,864	3,882	3,973
v_{FF}	4,024	3,928	4,219	4,227	2,763	2,861	2,782	2,833
v_{RF}	1,043	948	1,424	1,382	915	1,003	1,100	1,140
v_{FR}	1,618	1,501	1,551	1,601	2,180	2,286	2,043	2,117
v_{RR}	419	362	524	524	722	801	808	852
v_W	2,661	2,449	2,976	2,983	3,095	3,288	3,144	3,257
v_{NW}	4,443	4,290	4,742	4,751	3,485	3,662	3,590	3,685
v	7,104	6,739	7,718	7,734	6,580	6,950	6,734	6,941
VR	0.375	0.363	0.386	0.386	0.470	0.473	0.467	0.469
LC_{RF}	1	1	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0	0	0
LC_{MIN}	1,043	948	1,424	1,382	915	1,003	1,100	1,140
L_{MAX}	6,397	6,274	6,520	6,522	7,482	7,514	7,442	7,468
Weaving Operations?	YES	YES	YES	YES	YES	YES	YES	YES
Capacity Controlled by Density (pc/h)	9,105	9,143	9,068	9,067	8,773	8,763	8,786	8,777
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)	6,408	6,604	6,225	6,222	5,102	5,073	5,141	5,115
Capacity (pc/h)	6,408	6,604	6,225	6,222	5,102	5,073	5,141	5,115
Volume-to-Capacity Ratio	1.11	1.02	1.24	1.24	1.29	1.37	1.31	1.36
LC_W	1,621	1,526	2,002	1,960	1,493	1,580	1,678	1,717
I_{NW}	1,062	1,025	1,133	1,135	833	875	858	881
LC_{NW1}	2,736	2,704	2,797	2,799	2,538	2,575	2,560	2,579
LC_{NW2}	2,680	2,646	2,747	2,748	2,466	2,506	2,490	2,511
LC_{NW3}	2,756	2,729	2,810	2,812	2,590	2,620	2,608	2,624
LC_{NW}	2,736	2,704	2,797	2,799	2,538	2,575	2,560	2,579
LC_{ALL}	4,356	4,230	4,799	4,759	4,031	4,155	4,238	4,297
W - Weaving Intensity	0.210	0.205	0.227	0.225	0.198	0.202	0.206	0.208
S_W	60.5	60.6	59.8	59.9	60.9	60.7	60.6	60.5
S_{NW}	54.0	55.1	50.5	50.8	55.5	54.4	54.0	53.5
S	56.2	57.0	53.7	53.9	57.9	57.3	56.9	56.6
D	31.6	29.6	35.9	35.8	28.4	30.3	29.6	30.7
LOS	F	F	F	F	F	F	F	F

US 50 Eastbound Diverge - Hazel Avenue						
Highway Capacity Manual 2010 Edition **Two-Lane Diverge - 6-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3
Ramp Lanes	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	4,985	5,057	5,461	5,323	5,357	5,611
PHF	0.94	0.94	0.94	0.94	0.94	0.94
Exiting Ramp Volume (vehicles)	933	950	1,094	1,541	1,552	1,673
Truck Percentage	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_{UP} - Distance to Upstream Entrance Ramp (ft)	14,015	14,015	14,015	14,015	14,015	14,015
L_{UP} - Distance to Downstream Entrance Ramp (ft)	2,305	2,305	2,305	2,305	2,305	2,305
L_D - Deceleration Lane Length (ft)	1,800	1,800	1,800	1,800	1,800	1,800
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	4,052	4,107	4,367	3,782	3,805	3,938
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	5,434	5,512	5,953	5,814	5,851	6,129
v_R - Exiting Ramp Volume (pc/h)	1,017	1,035	1,192	1,683	1,695	1,828
v_U - Upstream Ramp Volume (pc/h)	1,068	1,079	1,106	964	969	905
Downstream Freeway Volume (pc/h)	4,417	4,477	4,760	4,131	4,156	4,301
P_{FD} (13-9)	0.577	0.575	0.556	0.537	0.536	0.523
P_{FD} (13-10)	0.549	0.547	0.536	0.563	0.562	0.557
P_{FD}	0.577	0.575	0.556	0.563	0.562	0.557
v_{12}	3,567	3,608	3,841	4,008	4,030	4,222
v_{av34}	933	952	1,056	903	910	953
v_{12a}	3,567	3,608	3,841	4,008	4,030	4,222
v_{12a}	3,567	3,608	3,841	4,008	4,030	4,222
Upstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200
Upstream Volume-to-Capacity Ratio	0.75	0.77	0.83	0.81	0.81	0.85
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.25	0.26	0.30	0.42	0.42	0.46
D_R	18.7	19.1	21.1	22.5	22.7	24.4
LOS	B	B	C	C	C	C

US 50 Eastbound Weave - Hazel Avenue to Aerojet Road

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain

Existing Conditions

Input Data

Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3
Upstream Ramp Lanes	1	1	1	1	1	1
Downstream Ramp Lanes	3	3	3	3	3	3
N - Number of Lanes	4	4	4	4	4	4
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	4,052	4,107	4,367	3,782	3,805	3,938
PHF	0.94	0.94	0.94	0.94	0.94	0.94
Entering Ramp Volume (vehicles)	804	799	704	945	950	945
Exiting Ramp Volume (vehicles)	241	240	241	55	52	52
Truck Percentage	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	615	615	615	615	615	615
ID (Interchange Density within 3 miles)	0.5	0.5	0.5	0.5	0.5	0.5
Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	4,615	4,666	4,831	4,672	4,703	4,831
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97
Upstream Freeway Volume (pc/h)	4,417	4,477	4,760	4,131	4,156	4,301
Entering Ramp Volume (pc/h)	876	870	767	1,032	1,038	1,032
Exiting Ramp Volume (pc/h))	263	262	262	60	57	57
Downstream Freeway Volume (pc/h)	5,030	5,086	5,265	5,103	5,136	5,276
v_{FF}	4,197	4,258	4,534	4,083	4,110	4,255
v_{RF}	833	828	731	1,020	1,026	1,021
v_{FR}	219	219	226	48	46	46
v_{RR}	43	43	36	12	11	11
v_W	1,052	1,047	957	1,068	1,072	1,067
v_{NW}	4,241	4,301	4,571	4,095	4,122	4,266
v	5,293	5,347	5,527	5,163	5,194	5,333
VR	0.199	0.196	0.173	0.207	0.206	0.200
LC_{RF}	1	1	1	1	1	1
LC_{FR}	1	1	1	1	1	1
LC_{MIN}	1,052	1,047	957	1,068	1,072	1,067
L_{MAX}	4,524	4,493	4,263	4,607	4,601	4,537
Weaving Operations?	YES	YES	YES	YES	YES	YES
Capacity Controlled by Density (pc/h)	8,404	8,413	8,484	8,378	8,380	8,400
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)	12,075	12,259	13,867	11,600	11,629	11,998
Capacity (pc/h)	8,404	8,413	8,484	8,378	8,380	8,400
Volume-to-Capacity Ratio	0.63	0.64	0.65	0.62	0.62	0.63
LC_W	1,205	1,200	1,110	1,221	1,225	1,220
I_{NW}	130	132	141	126	127	131
LC_{NW1}	437	449	505	406	412	442
LC_{NW2}	2,635	2,648	2,708	2,602	2,608	2,640
LC_{NW3}	-3,519	-3,502	-3,426	-3,560	-3,552	-3,512
LC_{NW}	437	449	505	406	412	442
LC_{ALL}	1,642	1,649	1,614	1,628	1,637	1,662
W - Weaving Intensity	0.490	0.492	0.484	0.487	0.489	0.495
S_W	51.9	51.9	52.1	52.0	51.9	51.8
S_{NW}	56.1	56.0	56.5	56.1	56.1	55.9
S	55.2	55.2	55.7	55.2	55.1	55.0
D	24.0	24.2	24.8	23.4	23.5	24.2
LOS	C	C	**C**	C	C	C

US 50 Eastbound Weave - Hazel Avenue to Aerojet Road

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain
Cumulative Conditions
Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	3	3	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Upstream Ramp Lanes	1	1	1	1	1	1	1	1
Downstream Ramp Lanes	3	3	3	3	3	3	3	3
N - Number of Lanes	4	4	4	4	4	4	4	4
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	4,649	4,473	5,177	5,146	3,368	3,538	3,555	3,637
PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Entering Ramp Volume (vehicles)	1,088	1,048	1,174	1,072	2,320	2,087	2,148	2,091
Exiting Ramp Volume (vehicles)	674	736	584	613	122	130	203	171
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	615	615	615	615	615	615	615	615
ID (Interchange Density within 3 miles)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	5,063	4,786	5,767	5,605	5,565	5,495	5,499	5,557
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Upstream Freeway Volume (pc/h)	5,067	4,876	5,643	5,609	3,678	3,864	3,882	3,973
Entering Ramp Volume (pc/h)	1,186	1,143	1,279	1,168	2,533	2,279	2,346	2,284
Exiting Ramp Volume (pc/h))	734	802	636	668	133	142	222	187
Downstream Freeway Volume (pc/h)	5,519	5,217	6,286	6,109	6,078	6,001	6,006	6,070
v_{FF}	4,472	4,226	5,124	5,056	3,599	3,775	3,744	3,854
v_{RF}	1,047	990	1,162	1,053	2,479	2,226	2,262	2,216
v_{FR}	595	649	519	553	79	89	138	119
v_{RR}	139	152	118	115	54	53	84	68
v_W	1,642	1,640	1,680	1,606	2,558	2,316	2,400	2,335
v_{NW}	4,611	4,378	5,242	5,171	3,654	3,827	3,828	3,922
v	6,253	6,018	6,922	6,777	6,211	6,143	6,228	6,257
VR	0.263	0.272	0.243	0.237	0.412	0.377	0.385	0.373
LC_{RF}	1	1	1	1	1	1	1	1
LC_{FR}	1	1	1	1	1	1	1	1
LC_{MIN}	1,642	1,640	1,680	1,606	2,558	2,316	2,400	2,335
L_{MAX}	5,186	5,291	4,978	4,918	6,814	6,424	6,518	6,382
Weaving Operations?	YES	YES	YES	YES	YES	YES	YES	YES
Capacity Controlled by Density (pc/h)	8,201	8,169	8,265	8,283	7,703	7,822	7,794	7,835
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)	9,140	8,808	9,887	10,128	5,828	6,367	6,227	6,432
Capacity (pc/h)	8,201	8,169	8,265	8,283	5,828	6,367	6,227	6,432
Volume-to-Capacity Ratio	0.76	0.74	0.84	0.82	1.07	0.96	1.00	0.97
LC_W	1,795	1,793	1,834	1,759	2,711	2,469	2,554	2,488
I_{NW}	142	135	161	159	112	118	118	121
LC_{NW1}	513	465	643	628	316	351	351	371
LC_{NW2}	2,717	2,665	2,858	2,842	2,504	2,542	2,543	2,564
LC_{NW3}	-3,415	-3,480	-3,238	-3,258	-3,683	-3,634	-3,634	-3,608
LC_{NW}	513	465	643	628	316	351	351	371
LC_{ALL}	2,308	2,258	2,476	2,387	3,027	2,820	2,905	2,859
W - Weaving Intensity	0.642	0.631	0.678	0.659	0.795	0.752	0.769	0.760
S_W	48.5	48.7	47.8	48.2	45.6	46.4	46.1	46.3
S_{NW}	50.7	51.0	49.6	50.3	44.1	46.0	45.2	45.7
S	50.1	50.3	49.1	49.8	44.7	46.1	45.6	45.9
D	31.2	29.9	35.2	34.0	34.7	33.3	34.2	34.1
LOS	D	D	E	D	F	D	F	D

US 50 Westbound Diverge - Hazel Avenue						
Highway Capacity Manual 2010 Edition **Two-Lane Diverge - 6-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3
Ramp Lanes	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	3,108	3,128	3,173	2,803	2,862	2,981
PHF	0.96	0.96	0.96	0.93	0.93	0.93
Exiting Ramp Volume (vehicles)	631	692	622	869	864	849
Upstream Ramp Volume (vehicles)	1,588	1,611	1,619	1,340	1,368	1,420
Truck Percentage	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_{UP} - Distance to Upstream Entrance Ramp (ft)	3,420	3,420	3,420	3,420	3,420	3,420
L_{UP} - Distance to Downstream Entrance Ramp (ft)	1,745	1,745	1,745	1,745	1,745	1,745
L_D - Deceleration Lane Length (ft)	1,880	1,880	1,880	1,880	1,880	1,880
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	2,477	2,437	2,552	1,934	1,998	2,132
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	3,348	3,369	3,418	3,112	3,177	3,309
v_R - Exiting Ramp Volume (pc/h)	680	745	670	965	959	942
v_U - Upstream Ramp Volume (pc/h)	1,710	1,735	1,744	1,488	1,519	1,576
Downstream Freeway Volume (pc/h)	2,668	2,625	2,748	2,147	2,218	2,367
P_{FD} (13-9)	0.645	0.642	0.644	0.638	0.636	0.634
P_{FD} (13-10)	0.706	0.717	0.702	0.766	0.762	0.754
P_{FD}	0.706	0.717	0.702	0.766	0.762	0.754
v_{12}	2,564	2,627	2,599	2,609	2,650	2,728
v_{av34}	392	371	410	251	263	291
v_{12a}	2,564	2,627	2,599	2,609	2,650	2,728
v_{12a}	2,564	2,627	2,599	2,609	2,650	2,728
Upstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200
Upstream Volume-to-Capacity Ratio	0.46	0.47	0.47	0.43	0.44	0.46
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.17	0.19	0.17	0.24	0.24	0.24
D_R	9.4	9.9	9.7	9.8	10.1	10.8
LOS	A	A	A	A	B	B

US 50 Westbound Diverge - Hazel Avenue

Highway Capacity Manual
2010 Edition
Two-Lane Diverge - 6-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3	3	3
Ramp Lanes	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	4,198	4,352	4,242	4,408	4,100	3,767	4,420	4,458
PHF	0.96	0.96	0.96	0.96	0.93	0.93	0.93	0.93
Exiting Ramp Volume (vehicles)	1,077	905	1,098	1,057	959	951	1,031	1,032
Upstream Ramp Volume (vehicles)	1,708	1,749	1,725	1,778	1,671	1,613	1,729	1,784
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_{UP} - Distance to Upstream Entrance Ramp (ft)	3,420	3,420	3,420	3,420	3,420	3,420	3,420	3,420
L_{UP} - Distance to Downstream Entrance Ramp (ft)	1,745	1,745	1,745	1,745	1,745	1,745	1,745	1,745
L_D - Deceleration Lane Length (ft)	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	3,121	3,447	3,144	3,352	3,141	2,816	3,389	3,426
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	4,521	4,687	4,569	4,748	4,551	4,181	4,907	4,949
v_R - Exiting Ramp Volume (pc/h)	1,160	975	1,182	1,138	1,065	1,056	1,144	1,146
v_U - Upstream Ramp Volume (pc/h)	1,840	1,884	1,858	1,915	1,855	1,791	1,920	1,981
Downstream Freeway Volume (pc/h)	3,361	3,713	3,387	3,610	3,487	3,125	3,763	3,803
P_{FD} (13-9)	0.594	0.598	0.591	0.589	0.597	0.607	0.585	0.584
P_{FD} (13-10)	0.746	0.706	0.748	0.733	0.728	0.740	0.728	0.726
P_{FD}	0.746	0.706	0.748	0.733	0.728	0.740	0.728	0.726
v_{12}	3,666	3,597	3,714	3,784	3,601	3,370	3,882	3,908
v_{av34}	428	545	427	482	475	406	512	520
v_{12a}	3,666	3,597	3,714	3,784	3,601	3,370	3,882	3,908
v_{12a}	3,666	3,597	3,714	3,784	3,601	3,370	3,882	3,908
Upstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200
Upstream Volume-to-Capacity Ratio	0.63	0.65	0.63	0.66	0.63	0.58	0.68	0.69
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.29	0.24	0.30	0.28	0.27	0.26	0.29	0.29
D_R	18.9	18.3	19.3	19.9	18.3	16.3	20.7	20.9
LOS	B	B	B	B	B	B	C	C

US 50 Westbound Merge - Hazel Avenue Loop Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 6-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	2,477	2,437	2,552	1,934	1,998	2,132
PHF	0.96	0.96	0.96	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	160	165	174	600	592	593
Truck Percentage	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_{UP} - Distance to Upstream Exit Ramp (ft)	1,745	1,745	1,745	1,745	1,745	1,745
L_A - Acceleration Lane Length (ft)	1,040	1,040	1,040	1,040	1,040	1,040
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	2,637	2,602	2,726	2,534	2,590	2,725
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	2,668	2,625	2,748	2,147	2,218	2,367
v_R - Entering Ramp Volume (pc/h)	172	178	188	666	657	658
Downstream Freeway Volume (pc/h)	2,840	2,803	2,936	2,813	2,876	3,025
v_F / S_{FR}	107	105	110	86	89	95
P_{FM} (13-3)	0.607	0.607	0.607	0.607	0.607	0.607
P_{FM} (13-4)	0.718	0.719	0.717	0.718	0.718	0.716
P_{FM}	0.718	0.719	0.717	0.718	0.718	0.716
v_{12}	1,916	1,886	1,970	1,542	1,592	1,694
v_{av34}	376	369	389	302	313	337
v_{12a}	1,916	1,886	1,970	1,542	1,592	1,694
v_{12a}	1,916	1,886	1,970	1,542	1,592	1,694
v_{R12}	2,088	2,064	2,158	2,209	2,249	2,352
Downstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200
Downstream Volume-to-Capacity Ratio	0.39	0.39	0.41	0.39	0.40	0.42
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.09	0.09	0.10	0.35	0.35	0.35
D_R	15.2	15.0	15.7	15.9	16.2	17.0
LOS	B	B	B	B	B	B

US 50 Westbound Merge - Hazel Avenue Loop Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 6-Lane Freeway - Level Terrain
Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	3	3	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3	3	3
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	3,121	3,447	3,144	3,352	3,141	2,816	3,389	3,426
PHF	0.96	0.96	0.96	0.96	0.93	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	52	124	69	93	434	434	434	434
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_{UP} - Distance to Upstream Exit Ramp (ft)	1,745	1,745	1,745	1,745	1,745	1,745	1,745	1,745
L_A - Acceleration Lane Length (ft)	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	3,173	3,571	3,213	3,445	3,575	3,249	3,823	3,860
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	3,361	3,713	3,387	3,610	3,487	3,125	3,763	3,803
v_R - Entering Ramp Volume (pc/h)	56	134	74	100	481	481	481	481
Downstream Freeway Volume (pc/h)	3,417	3,846	3,461	3,710	3,968	3,607	4,244	4,285
v_F / S_{FR}	134	149	135	144	139	125	151	152
P_{FM} (13-3)	0.607	0.607	0.607	0.607	0.607	0.607	0.607	0.607
P_{FM} (13-4)	0.710	0.705	0.710	0.706	0.703	0.708	0.699	0.699
P_{FM}	0.710	0.705	0.710	0.706	0.703	0.708	0.699	0.699
v_{12}	2,387	2,616	2,404	2,550	2,451	2,212	2,631	2,657
v_{av34}	487	549	492	530	518	457	566	573
v_{12a}	2,387	2,616	2,404	2,550	2,451	2,212	2,631	2,657
v_{12a}	2,387	2,616	2,404	2,550	2,451	2,212	2,631	2,657
v_{R12}	2,444	2,749	2,478	2,650	2,932	2,693	3,112	3,139
Downstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200
Downstream Volume-to-Capacity Ratio	0.47	0.53	0.48	0.52	0.55	0.50	0.59	0.60
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.03	0.07	0.04	0.05	0.25	0.25	0.25	0.25
D_R	18.0	20.3	18.2	19.6	21.6	19.7	23.0	23.2
LOS	B	C	B	B	C	B	C	C

US 50 Westbound Merge - Hazel Avenue Slip Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 6-Lane Freeway - Level Terrain

Existing Conditions

Input Data

Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	2,637	2,602	2,726	2,534	2,590	2,725
PHF	0.96	0.96	0.96	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	1,550	1,568	1,748	800	831	962
Truck Percentage	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_{UP} - Distance to Upstream Ramp (ft)	1,900	1,900	1,900	1,900	1,900	1,900
L_{DOWN} - Distance to Downstream Ramp (ft)	13,410	13,410	13,410	13,410	13,410	13,410
L_A - Acceleration Lane Length (ft)	2,010	2,010	2,010	2,010	2,010	2,010
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	4,187	4,170	4,474	3,334	3,421	3,687
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	2,840	2,803	2,936	2,813	2,876	3,025
v_R - Entering Ramp Volume (pc/h)	1,669	1,689	1,883	888	922	1,068
v_D - Downstream Ramp Volume (pc/h)	805	759	704	841	857	847
Downstream Freeway Volume (pc/h)	4,510	4,492	4,819	3,701	3,798	4,093
v_F / S_{FR}	71	70	73	70	72	76
P_{FM} (13-3)	0.634	0.634	0.634	0.634	0.634	0.634
P_{FM} (13-5)	0.564	0.564	0.563	0.565	0.565	0.565
P_{FM}	0.634	0.634	0.634	0.634	0.634	0.634
v_{12}	1,800	1,776	1,861	1,783	1,823	1,917
v_{av34}	520	513	538	515	527	554
v_{12a}	1,800	1,776	1,861	1,783	1,823	1,917
v_{12a}	1,800	1,776	1,861	1,783	1,823	1,917
v_{R12}	3,470	3,465	3,744	2,671	2,745	2,985
Downstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200
Downstream Volume-to-Capacity Ratio	0.63	0.62	0.67	0.51	0.53	0.57
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.83	0.84	0.94	0.44	0.46	0.53
D_R	19.2	19.1	21.2	13.3	13.9	15.7
LOS	B	B	C	B	B	B

US 50 Westbound Weave - Hazel Avenue to Rancho Cordova Parkway

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain
Cumulative Conditions
Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	3	3	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3	3	3
Upstream Ramp Lanes	1	1	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2	2	2
N - Number of Lanes	4	4	4	4	4	4	4	4
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	3,173	3,571	3,213	3,445	3,575	3,249	3,823	3,860
PHF	0.96	0.96	0.96	0.96	0.93	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	2,283	2,376	2,306	2,369	1,814	1,725	2,263	2,302
Exiting Ramp Volume (vehicles)	1,512	1,644	1,800	1,867	1,595	1,479	2,225	2,173
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	5,823	5,823	5,823	5,823	5,823	5,823	5,823	5,823
ID (Interchange Density within 3 miles)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	3,944	4,304	3,719	3,947	3,794	3,496	3,861	3,990
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Upstream Freeway Volume (pc/h)	3,417	3,846	3,461	3,710	3,968	3,607	4,244	4,285
Entering Ramp Volume (pc/h)	2,459	2,559	2,483	2,551	2,013	1,915	2,512	2,555
Exiting Ramp Volume (pc/h))	1,628	1,770	1,938	2,010	1,770	1,642	2,470	2,412
Downstream Freeway Volume (pc/h)	4,248	4,635	4,006	4,251	4,211	3,880	4,286	4,429
v_{FF}	2,471	2,783	2,332	2,519	2,794	2,535	2,692	2,774
v_{RF}	1,778	1,852	1,674	1,732	1,418	1,346	1,594	1,654
v_{FR}	947	1,063	1,129	1,191	1,174	1,072	1,552	1,511
v_{RR}	681	707	810	819	596	569	919	901
v_W	2,725	2,915	2,802	2,923	2,592	2,418	3,146	3,165
v_{NW}	3,152	3,491	3,142	3,338	3,390	3,104	3,611	3,675
v	5,877	6,406	5,944	6,262	5,982	5,522	6,757	6,840
VR	0.464	0.455	0.471	0.467	0.433	0.438	0.466	0.463
LC_{RF}	1	1	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0	0	0
LC_{MIN}	1,778	1,852	1,674	1,732	1,418	1,346	1,594	1,654
L_{MAX}	7,405	7,306	7,494	7,442	7,057	7,109	7,427	7,394
Weaving Operations?	YES	YES	YES	YES	YES	YES	YES	YES
Capacity Controlled by Density (pc/h)	9,116	9,146	9,089	9,105	9,222	9,206	9,109	9,119
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)	5,176	5,274	5,091	5,140	5,539	5,481	5,155	5,187
Capacity (pc/h)	5,176	5,274	5,091	5,140	5,539	5,481	5,155	5,187
Volume-to-Capacity Ratio	1.14	1.21	1.17	1.22	1.08	1.01	1.31	1.32
LC_W	2,419	2,493	2,315	2,374	2,059	1,987	2,235	2,296
I_{NW}	918	1,016	915	972	987	904	1,051	1,070
LC_{NW1}	3,035	3,105	3,033	3,073	3,084	3,025	3,130	3,143
LC_{NW2}	2,392	2,467	2,390	2,433	2,445	2,381	2,494	2,509
LC_{NW3}	3,413	3,383	3,414	3,396	3,392	3,418	3,373	3,367
LC_{NW}	3,035	3,105	3,033	3,073	3,084	3,025	3,130	3,143
LC_{ALL}	5,454	5,598	5,348	5,447	5,143	5,012	5,365	5,439
W - Weaving Intensity	0.215	0.219	0.211	0.214	0.205	0.201	0.212	0.214
S_W	60.3	60.1	60.4	60.3	60.6	60.8	60.4	60.3
S_{NW}	50.1	49.0	50.8	50.0	52.6	53.7	50.4	49.9
S	54.4	53.5	54.9	54.3	55.8	56.6	54.6	54.2
D	27.0	29.9	27.1	28.8	26.8	24.4	30.9	31.5
LOS	F	F	F	F	F	F	F	F

US 50 Westbound Weave - Rancho Cordova Parkway to Sunrise Boulevard

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain
Cumulative Conditions

Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	3	3	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3	3	3
Upstream Ramp Lanes	1	1	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2	2	2
N - Number of Lanes	4	4	4	4	4	4	4	4
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	3,944	4,304	3,719	3,947	3,794	3,496	3,861	3,990
PHF	0.96	0.96	0.96	0.96	0.93	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	875	897	1,428	1,389	791	747	1,165	1,138
Exiting Ramp Volume (vehicles)	623	611	729	760	627	580	751	729
Truck Percentage	6%	6%	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	5,850	5,850	5,850	5,850	5,850	5,850	5,850	5,850
ID (Interchange Density within 3 miles)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	4,197	4,590	4,418	4,576	3,957	3,663	4,275	4,399
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Upstream Freeway Volume (pc/h)	4,248	4,635	4,006	4,251	4,211	3,880	4,286	4,429
Entering Ramp Volume (pc/h)	942	966	1,538	1,496	878	830	1,293	1,264
Exiting Ramp Volume (pc/h))	671	658	786	818	696	644	834	809
Downstream Freeway Volume (pc/h)	4,520	4,943	4,758	4,929	4,393	4,066	4,746	4,883
v_{FF}	3,699	4,091	3,438	3,646	3,635	3,350	3,646	3,799
v_{RF}	821	853	1,320	1,283	758	716	1,100	1,084
v_{FR}	549	545	568	605	576	531	641	630
v_{RR}	122	114	218	213	120	113	193	180
v_W	1,369	1,398	1,888	1,888	1,334	1,247	1,740	1,714
v_{NW}	3,821	4,204	3,656	3,859	3,755	3,463	3,839	3,979
v	5,191	5,602	5,544	5,747	5,089	4,710	5,579	5,692
VR	0.264	0.249	0.340	0.329	0.262	0.265	0.312	0.301
LC_{RF}	1	1	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0	0	0
LC_{MIN}	821	853	1,320	1,283	758	716	1,100	1,084
L_{MAX}	5,199	5,048	6,022	5,892	5,181	5,209	5,712	5,595
Weaving Operations?	NO	NO	YES	YES	NO	NO	NO	NO
Capacity Controlled by Density (pc/h)			9,547	9,587				
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)			7,049	7,305				
Capacity (pc/h)			7,049	7,305				
Volume-to-Capacity Ratio			0.79	0.79				
LC_W			1,963	1,926				
I_{NW}			1,069	1,129				
LC_{NW1}			3,153	3,195				
LC_{NW2}			2,504	2,550				
LC_{NW3}			3,384	3,365				
LC_{NW}			3,153	3,195				
LC_{ALL}			5,116	5,121				
W - Weaving Intensity			0.203	0.203				
S_W			60.7	60.7				
S_{NW}			53.8	53.9				
S			56.0	55.9				
D			24.7	25.7				
LOS			C	C				

US 50 Westbound Ramp Addition - Rancho Cordova Parkway

Highway Capacity Manual
2010 Edition
Lane Addition - Level Terrain
Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	3	3			3	3	3	3
Existing Dnstrm Frwy Lanes	4	4			4	4	4	4
Ramp Lanes	1	1			1	1	1	1
Upstream Freeway Volume (vehicles)	3,944	4,304			3,794	3,496	3,861	3,990
PHF	0.96	0.96			0.93	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	875	897			791	747	1,165	1,138
Truck Percentage	6%	6%			6%	6%	6%	6%
RV Percentage	0%	0%			0%	0%	0%	0%
Driver Population Factor	1.000	1.000			1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40			40	40	40	40
Freeway Free-flow Speed (mph)	70	70			70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	4,819	5,201			4,585	4,243	5,026	5,128
f_{HV}	0.97	0.97			0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	4,248	4,635			4,211	3,880	4,286	4,429
v_R - Entering Ramp Volume (pc/h)	942	966			878	830	1,293	1,264
Downstream Freeway Volume (pc/h)	5,191	5,602			5,089	4,710	5,579	5,692
Downstream Capacity (pc/h)	9,600	9,600			9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.54	0.58			0.53	0.49	0.58	0.59
Ramp Capacity (pc/h)	2,000	2,000			2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.47	0.48			0.44	0.41	0.65	0.63
V/C_{MAX}	0.54	0.58			0.53	0.49	0.65	0.63
LOS	A	A			A	A	B	B

US 50 Westbound Diverge - Sunrise Boulevard								
Highway Capacity Manual 2010 Edition **Major Diverge - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4			4	4	4	4
Existing Dnstrm Frwy Lanes	3	3			3	3	3	3
Ramp Lanes	2	2			2	2	2	2
Upstream Freeway Volume (vehicles)	4,819	5,201			4,585	4,243	5,026	5,128
PHF	0.96	0.96			0.93	0.93	0.93	0.93
Exiting Ramp Volume (vehicles)	623	611			627	580	751	729
Truck Percentage	6%	6%			6%	6%	6%	6%
RV Percentage	0%	0%			0%	0%	0%	0%
Driver Population Factor	1.000	1.000			1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40			40	40	40	40
Freeway Free-flow Speed (mph)	70	70			70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	4,197	4,590			3,957	3,663	4,275	4,399
f_{HV}	0.97	0.97			0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	5,191	5,602			5,089	4,710	5,579	5,692
v_R - Exiting Ramp Volume (pc/h)	671	658			696	644	834	809
Downstream Freeway Volume (pc/h)	4,520	4,943			4,393	4,066	4,746	4,883
Upstream Capacity (pc/h)	9,600	9,600			9,600	9,600	9,600	9,600
Upstream Volume-to-Capacity Ratio	0.54	0.58			0.53	0.49	0.58	0.59
Downstream Capacity (pc/h)	7,200	7,200			7,200	7,200	7,200	7,200
Downstream Volume-to-Capacity Ratio	0.63	0.69			0.61	0.56	0.66	0.68
Ramp Capacity (pc/h)	4,000	4,000			4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.17	0.16			0.17	0.16	0.21	0.20
D_R	22.7	24.5			22.3	20.6	24.4	24.9
LOS	C	C			C	C	C	C

US 50 Westbound Diverge - Sunrise Boulevard						
Highway Capacity Manual 2010 Edition **One-Lane Diverge - 6-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	3	3	3	3	3	3
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,068	6,095	6,334	4,370	4,461	4,707
PHF	0.96	0.96	0.96	0.93	0.93	0.93
Exiting Ramp Volume (vehicles)	749	706	655	758	773	763
Upstream Ramp Volume (vehicles)	1,550	1,568	1,748	800	831	962
Truck Percentage	6%	6%	6%	6%	6%	6%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_{UP} - Distance to Upstream Entrance Ramp (ft)	13,410	13,410	13,410	13,410	13,410	13,410
L_{UP} - Distance to Downstream Entrance Ramp (ft)	3,620	3,620	3,620	3,620	3,620	3,620
L_D - Deceleration Lane Length (ft)	150	150	150	150	150	150
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	5,319	5,389	5,679	3,612	3,688	3,943
f_{HV}	0.97	0.97	0.97	0.97	0.97	0.97
v_F - Upstream Freeway Volume (pc/h)	6,525	6,553	6,811	4,846	4,946	5,219
v_R - Exiting Ramp Volume (pc/h)	805	759	704	841	857	847
v_U - Upstream Ramp Volume (pc/h)	1,667	1,686	1,880	887	921	1,067
Downstream Freeway Volume (pc/h)	5,719	5,795	6,107	4,005	4,090	4,373
P_{FD} (13-9)	0.560	0.561	0.557	0.600	0.597	0.591
P_{FD} (13-10)	0.499	0.496	0.483	0.566	0.563	0.552
P_{FD}	0.560	0.561	0.557	0.600	0.597	0.591
v_{12}	4,007	4,011	4,108	3,245	3,298	3,429
v_{av34}	1,259	1,271	1,352	801	824	895
v_{12a}	4,007	4,011	4,108	3,245	3,298	3,429
v_{12a}	4,007	4,011	4,108	3,245	3,298	3,429
Upstream Capacity (pc/h)	7,200	7,200	7,200	7,200	7,200	7,200
Upstream Volume-to-Capacity Ratio	0.91	0.91	0.95	0.67	0.69	0.72
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.40	0.38	0.35	0.42	0.43	0.42
D_R	37.4	37.4	38.2	30.8	31.3	32.4
LOS	E	E	E	D	D	D

US 50 Westbound Ramp Addition - Sunrise Boulevard						
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	5,319	5,389	5,679	3,612	3,688	3,943
PHF	0.96	0.96	0.96	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	2,183	2,191	2,192	1,656	1,712	1,686
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,502	7,580	7,871	5,268	5,400	5,630
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	5,664	5,738	6,048	3,967	4,050	4,330
v_R - Entering Ramp Volume (pc/h)	2,325	2,333	2,334	1,819	1,881	1,852
Downstream Freeway Volume (pc/h)	7,989	8,072	8,382	5,785	5,930	6,182
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.83	0.84	0.87	0.60	0.62	0.64
Ramp Capacity (pc/h)	2,200	2,200	2,200	2,200	2,200	2,200
Ramp Volume-to-Capacity Ratio	1.06	1.06	1.06	0.83	0.85	0.84
V/C_{MAX}	1.06	1.06	1.06	0.83	0.85	0.84
LOS	F	F	F	D	D	D

US 50 Westbound Ramp Addition - Sunrise Boulevard Loop Ramp								
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	3	3	3	3	3	3	3	3
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	4,197	4,590	4,418	4,576	3,957	3,663	4,275	4,399
PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Entering Ramp Volume (vehicles)	167	169	169	170	197	106	259	234
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	4,364	4,759	4,586	4,746	4,154	3,769	4,534	4,633
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	4,409	4,822	4,641	4,808	4,158	3,848	4,491	4,622
v_R - Entering Ramp Volume (pc/h)	175	177	177	179	207	111	272	246
Downstream Freeway Volume (pc/h)	4,584	4,999	4,819	4,986	4,365	3,959	4,763	4,867
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.48	0.52	0.50	0.52	0.45	0.41	0.50	0.51
Ramp Capacity (pc/h)	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200
Ramp Volume-to-Capacity Ratio	0.08	0.08	0.08	0.08	0.09	0.05	0.12	0.11
V/C_{MAX}	0.48	0.52	0.50	0.52	0.45	0.41	0.50	0.51
LOS	A	A	A	A	A	A	A	A

US 50 Westbound Ramp Addition - Sunrise Boulevard Slip Ramp								
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	4,364	4,759	4,586	4,746	4,154	3,769	4,534	4,633
PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Entering Ramp Volume (vehicles)	2,334	2,345	2,323	2,354	1,673	1,746	1,524	1,613
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	6,697	7,103	6,909	7,100	5,828	5,515	6,058	6,245
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	4,584	4,999	4,819	4,986	4,365	3,959	4,763	4,867
v_R - Entering Ramp Volume (pc/h)	2,452	2,463	2,441	2,473	1,758	1,835	1,601	1,694
Downstream Freeway Volume (pc/h)	7,036	7,463	7,259	7,459	6,122	5,794	6,364	6,561
Downstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Volume-to-Capacity Ratio	0.59	0.62	0.60	0.62	0.51	0.48	0.53	0.55
Ramp Capacity (pc/h)	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200
Ramp Volume-to-Capacity Ratio	1.11	1.12	1.11	1.12	0.80	0.83	0.73	0.77
V/C_{MAX}	1.11	1.12	1.11	1.12	0.80	0.83	0.73	0.77
LOS	F	F	F	F	C	D	C	C

US 50 Westbound Diverge - Zinfandel Drive						
Highway Capacity Manual 2010 Edition **One-Lane Diverge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,502	7,544	7,846	4,762	4,901	5,134
PHF	0.96	0.96	0.96	0.93	0.93	0.93
Exiting Ramp Volume (vehicles)	1,034	1,034	1,088	608	737	759
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
L_D - Deceleration Lane Length (ft)	175	175	175	175	175	175
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,468	6,510	6,758	4,154	4,164	4,375
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,975	8,020	8,341	5,224	5,376	5,632
v_R - Exiting Ramp Volume (pc/h)	1,099	1,099	1,157	667	808	833
Downstream Freeway Volume (pc/h)	6,876	6,921	7,185	4,557	4,568	4,800
P_{FD}	0.436	0.436	0.436	0.436	0.436	0.436
v_{12}	4,097	4,117	4,289	2,654	2,800	2,925
v_{av34}	1,939	1,952	2,026	1,285	1,288	1,353
v_{12a}	4,097	4,117	4,289	2,654	2,800	2,925
v_{12a}	4,097	4,117	4,289	2,654	2,800	2,925
Upstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Upstream Volume-to-Capacity Ratio	0.83	0.84	0.87	0.54	0.56	0.59
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.55	0.55	0.58	0.33	0.40	0.42
D_R	37.9	38.1	39.6	25.5	26.8	27.8
LOS	E	E	E	C	C	C

US 50 Westbound Diverge - Zinfandel Drive

Highway Capacity Manual
2010 Edition
One-Lane Diverge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	5	5	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	8,392	8,891	8,587	8,801	4,914	4,555	5,211	5,378
PHF	0.96	0.96	0.96	0.96	0.93	0.93	0.93	0.93
Exiting Ramp Volume (vehicles)	1,478	1,488	1,384	1,393	1,124	1,097	1,183	1,200
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
L_D - Deceleration Lane Length (ft)	175	175	175	175	175	175	175	175
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	6,914	7,404	7,203	7,408	3,790	3,457	4,028	4,178
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,922	9,453	9,128	9,356	5,391	4,997	5,716	5,900
v_R - Exiting Ramp Volume (pc/h)	1,571	1,582	1,471	1,481	1,233	1,204	1,297	1,317
Downstream Freeway Volume (pc/h)	7,351	7,871	7,657	7,876	4,158	3,793	4,419	4,583
P_{FD}	0.436	0.436	0.436	0.436	0.436	0.436	0.436	0.436
v_{12}	4,776	5,013	4,810	4,914	3,046	2,858	3,224	3,315
v_{av34}	2,073	2,220	2,159	2,221	1,173	1,070	1,246	1,293
v_{12a}	4,776	5,013	4,810	4,914	3,046	2,858	3,224	3,315
v_{12a}	4,776	5,013	4,810	4,914	3,046	2,858	3,224	3,315
Upstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Volume-to-Capacity Ratio	0.74	0.79	0.76	0.78	0.45	0.42	0.48	0.49
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.79	0.79	0.74	0.74	0.62	0.60	0.65	0.66
D_R	43.7	45.8	44.0	44.9	28.9	27.3	30.4	31.2
LOS	E	E	E	E	D	C	D	D

US 50 Westbound Ramp Addition - Zinfandel Boulevard Loop Ramp						
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,468	6,510	6,758	4,154	4,164	4,375
PHF	0.96	0.96	0.96	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	585	654	532	1,197	1,200	1,118
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,053	7,164	7,291	5,351	5,364	5,493
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,876	6,921	7,185	4,557	4,568	4,800
v_R - Entering Ramp Volume (pc/h)	622	695	566	1,313	1,317	1,227
Downstream Freeway Volume (pc/h)	7,498	7,616	7,751	5,870	5,885	6,026
Downstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Volume-to-Capacity Ratio	0.62	0.63	0.65	0.49	0.49	0.50
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.33	0.37	0.30	0.69	0.69	0.65
V/C_{MAX}	0.62	0.63	0.65	0.69	0.69	0.65
LOS	B	B	B	B	B	B

US 50 Westbound Ramp Addition - Zinfandel Boulevard Loop Ramp								
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,914	7,404	7,203	7,408	3,790	3,457	4,028	4,178
PHF	0.96	0.96	0.96	0.96	0.93	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	780	689	909	803	1,314	1,178	1,443	1,295
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,694	8,092	8,111	8,211	5,104	4,636	5,471	5,473
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,351	7,871	7,657	7,876	4,158	3,793	4,419	4,583
v_R - Entering Ramp Volume (pc/h)	829	732	966	854	1,442	1,292	1,583	1,420
Downstream Freeway Volume (pc/h)	8,180	8,603	8,623	8,730	5,600	5,085	6,002	6,004
Downstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Volume-to-Capacity Ratio	0.68	0.72	0.72	0.73	0.47	0.42	0.50	0.50
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.44	0.39	0.51	0.45	0.76	0.68	0.83	0.75
V/C_{MAX}	0.68	0.72	0.72	0.73	0.76	0.68	0.83	0.75
LOS	B	C	C	C	C	B	D	C

US 50 Westbound Merge - Zinfandel Drive Slip Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 10-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,053	7,164	7,291	5,351	5,364	5,493
PHF	0.96	0.96	0.96	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	442	460	410	561	535	550
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	850	850	850	850	850	850
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,495	7,625	7,701	5,912	5,899	6,044
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,498	7,616	7,751	5,870	5,885	6,026
v_5 - Upstream Freeway Lane 5 Volume (pc/h)	2,024	2,171	2,209	1,409	1,412	1,446
v_R - Entering Ramp Volume (pc/h)	470	489	436	615	587	604
Downstream Freeway Volume (pc/h)	7,968	8,106	8,187	6,486	6,471	6,630
v_F / S_{FR}	137	136	139	112	112	114
P_{FM}	0.159	0.157	0.163	0.141	0.144	0.142
v_{12}	871	853	905	628	646	652
v_{av34}	2,301	2,296	2,319	1,916	1,913	1,964
v_{12a}	871	853	905	628	646	652
v_{12a}	2,189	2,178	2,217	1,785	1,789	1,832
v_{R12}	2,659	2,668	2,653	2,400	2,376	2,436
Downstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Volume-to-Capacity Ratio	0.66	0.68	0.68	0.54	0.54	0.55
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.23	0.24	0.22	0.31	0.29	0.30
D_R	20.7	20.7	20.6	18.6	18.4	18.9
LOS	C	C	C	B	B	B

US 50 Westbound Merge - Zinfandel Drive Slip Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 10-Lane Freeway - Level Terrain
Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	5	5	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,694	8,092	8,111	8,211	5,104	4,636	5,471	5,473
PHF	0.96	0.96	0.96	0.96	0.93	0.93	0.93	0.93
Entering Ramp Volume (vehicles)	1,349	1,219	1,544	1,349	723	708	663	663
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	850	850	850	850	850	850	850	850
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	9,044	9,312	9,655	9,561	5,828	5,343	6,135	6,136
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,180	8,603	8,623	8,730	5,600	5,085	6,002	6,004
v_5 - Upstream Freeway Lane 5 Volume (pc/h)	2,331	2,500	2,500	2,500	1,344	1,119	1,441	1,441
v_R - Entering Ramp Volume (pc/h)	1,434	1,296	1,641	1,434	794	777	727	727
Downstream Freeway Volume (pc/h)	9,614	9,899	10,264	10,164	6,393	5,862	6,730	6,731
v_F / S_{FR}	146	153	153	156	106	99	114	114
P_{FM}	0.038	0.056	0.013	0.039	0.119	0.121	0.127	0.127
v_{12}	225	340	78	240	505	479	579	579
v_{av34}	2,812	2,881	3,023	2,995	1,875	1,744	1,992	1,992
v_{12a}	449	703	723	830	505	479	579	579
v_{12a}	2,339	2,441	2,449	2,492	1,702	1,587	1,825	1,825
v_{R12}	3,774	3,737	4,090	3,926	2,496	2,363	2,552	2,553
Downstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Volume-to-Capacity Ratio	0.80	0.82	0.86	0.85	0.53	0.49	0.56	0.56
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.72	0.65	0.82	0.72	0.40	0.39	0.36	0.36
D_R	28.9	28.7	31.3	30.1	19.2	18.2	19.7	19.7
LOS	D	D	D	D	B	B	B	B

US 50 Westbound Ramp Drop - Mather Field Road						
Highway Capacity Manual 2010 Edition **Lane drop - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,548	7,642	7,829	5,765	5,727	5,928
PHF	0.96	0.96	0.96	0.95	0.95	0.95
Exiting Ramp Volume (vehicles)	1,093	1,126	1,496	556	587	740
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,455	6,516	6,333	5,209	5,140	5,188
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,004	8,104	8,302	6,195	6,155	6,370
v_R - Exiting Ramp Volume (pc/h)	1,159	1,194	1,586	597	631	795
Downstream Freeway Volume (pc/h)	6,845	6,910	6,716	5,598	5,524	5,575
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.71	0.72	0.70	0.58	0.58	0.58
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.58	0.60	0.79	0.30	0.32	0.40
V/C_{MAX}	0.71	0.72	0.79	0.58	0.58	0.58
LOS	C	C	C	A	A	A

US 50 Westbound Ramp Drop - Mather Field Road								
Highway Capacity Manual 2010 Edition **Lane drop - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	5	5	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	8,942	9,330	9,480	9,493	7,154	6,703	7,384	7,454
PHF	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Exiting Ramp Volume (vehicles)	1,372	1,768	1,350	1,581	809	848	826	1,025
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,570	7,561	8,131	7,912	6,345	5,855	6,558	6,430
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	9,482	9,894	10,053	10,067	7,688	7,202	7,935	8,010
v_R - Exiting Ramp Volume (pc/h)	1,455	1,875	1,431	1,677	870	911	887	1,101
Downstream Freeway Volume (pc/h)	8,027	8,018	8,622	8,390	6,818	6,291	7,047	6,909
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.84	0.84	0.90	0.87	0.71	0.66	0.73	0.72
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.73	0.94	0.72	0.84	0.43	0.46	0.44	0.55
V/C_{MAX}	0.84	0.94	0.90	0.87	0.71	0.66	0.73	0.72
LOS	D	E	D	D	C	B	C	C

US 50 Westbound Merge - Mather Field Road Loop Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,455	6,516	6,333	5,209	5,140	5,188
PHF	0.96	0.96	0.96	0.95	0.95	0.95
Entering Ramp Volume (vehicles)	515	538	385	861	911	843
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	2,450	2,450	2,450	2,450	2,450	2,450
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,970	7,054	6,718	6,070	6,052	6,031
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,845	6,910	6,716	5,598	5,524	5,575
v_R - Entering Ramp Volume (pc/h)	546	571	408	925	979	906
Downstream Freeway Volume (pc/h)	7,391	7,480	7,124	6,523	6,503	6,481
v_F / S_{FR}	274	276	269	224	221	223
P_{FM}	0.150	0.146	0.167	0.102	0.095	0.105
v_{12}	1,024	1,012	1,120	572	527	583
v_{av34}	2,911	2,949	2,798	2,513	2,498	2,496
v_{12a}	1,445	1,510	1,316	572	527	583
v_{12a}	2,738	2,764	2,686	2,239	2,210	2,230
v_{R12}	3,284	3,335	3,095	3,164	3,189	3,136
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.77	0.78	0.74	0.68	0.68	0.68
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.29	0.30	0.21	0.49	0.52	0.48
D_R	15.5	15.9	14.1	14.4	14.5	14.2
LOS	B	B	B	B	B	B

US 50 Westbound Merge - Mather Field Road Loop Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,570	7,561	8,131	7,912	6,345	5,855	6,558	6,430
PHF	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Entering Ramp Volume (vehicles)	578	439	626	499	1,189	1,185	1,192	1,193
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	8,148	8,001	8,757	8,411	7,533	7,040	7,750	7,622
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,027	8,018	8,622	8,390	6,818	6,291	7,047	6,909
v_R - Entering Ramp Volume (pc/h)	613	466	664	529	1,277	1,273	1,281	1,282
Downstream Freeway Volume (pc/h)	8,640	8,484	9,286	8,920	8,095	7,565	8,328	8,191
v_F / S_{FR}	321	321	345	336	273	252	282	276
P_{FM}	0.141	0.160	0.135	0.152	0.058	0.059	0.058	0.058
v_{12}	1,133	1,280	1,162	1,272	396	369	407	398
v_{av34}	3,447	3,369	3,730	3,559	3,211	2,961	3,320	3,256
v_{12a}	2,627	2,618	3,222	2,990	1,418	891	1,647	1,509
v_{12a}	3,211	3,207	3,449	3,356	2,727	2,517	2,819	2,764
v_{R12}	3,824	3,673	4,113	3,885	4,005	3,790	4,100	4,045
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.90	0.88	0.97	0.93	0.84	0.79	0.87	0.85
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.32	0.25	0.35	0.28	0.67	0.67	0.67	0.67
D_R	19.7	18.5	21.9	20.2	20.8	19.1	21.5	21.1
LOS	B	B	C	C	C	B	C	C

US 50 Westbound Merge - Mather Field Road Slip Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,970	7,054	6,718	6,070	6,052	6,031
PHF	0.96	0.96	0.96	0.95	0.95	0.95
Entering Ramp Volume (vehicles)	387	367	519	380	360	363
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	2,500	2,500	2,500	2,500	2,500	2,500
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,357	7,421	7,237	6,450	6,412	6,394
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,391	7,480	7,124	6,523	6,503	6,481
v_R - Entering Ramp Volume (pc/h)	410	389	550	408	387	391
Downstream Freeway Volume (pc/h)	7,802	7,869	7,674	6,931	6,890	6,871
v_F / S_{FR}	185	187	178	163	163	162
P_{FM}	0.167	0.169	0.149	0.167	0.169	0.169
v_{12}	1,231	1,266	1,062	1,088	1,102	1,095
v_{av34}	3,080	3,107	3,031	2,718	2,701	2,693
v_{12a}	1,991	2,080	1,724	1,123	1,103	1,095
v_{12a}	2,956	2,992	2,850	2,609	2,601	2,592
v_{R12}	3,367	3,381	3,400	3,017	2,988	2,983
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.81	0.82	0.80	0.72	0.72	0.72
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.21	0.19	0.28	0.20	0.19	0.20
D_R	15.9	16.0	16.1	13.1	12.9	12.9
LOS	B	B	B	B	B	B

US 50 Westbound Ramp Addition - Mather Field Road Slip Ramp								
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	8,148	8,001	8,757	8,411	7,533	7,040	7,750	7,622
PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entering Ramp Volume (vehicles)	343	481	303	427	474	467	504	428
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	8,490	8,481	9,060	8,839	8,008	7,507	8,255	8,050
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,477	8,324	9,111	8,751	7,838	7,324	8,063	7,930
v_R - Entering Ramp Volume (pc/h)	356	500	315	445	494	486	525	445
Downstream Freeway Volume (pc/h)	8,833	8,824	9,426	9,196	8,331	7,810	8,588	8,375
Downstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Volume-to-Capacity Ratio	0.74	0.74	0.79	0.77	0.69	0.65	0.72	0.70
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.18	0.25	0.16	0.22	0.25	0.24	0.26	0.22
V/C_{MAX}	0.74	0.74	0.79	0.77	0.69	0.65	0.72	0.70
LOS	C	C	C	C	B	B	C	B

US 50 Westbound Diverge - Bradshaw Road						
Highway Capacity Manual 2010 Edition **Two-Lane Diverge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,859	7,919	7,810	6,939	6,909	6,892
PHF	0.95	0.95	0.95	0.99	0.99	0.99
Exiting Ramp Volume (vehicles)	1,236	1,241	1,583	1,327	1,300	1,510
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_D - Deceleration Lane Length (ft)	1,765	1,765	1,765	1,765	1,765	1,765
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,623	6,678	6,227	5,612	5,609	5,383
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,407	8,471	8,355	7,146	7,115	7,098
v_R - Exiting Ramp Volume (pc/h)	1,322	1,328	1,694	1,367	1,338	1,555
Downstream Freeway Volume (pc/h)	7,085	7,144	6,661	5,780	5,777	5,544
P_{FD}	0.260	0.260	0.260	0.260	0.260	0.260
v_{12}	3,164	3,185	3,426	2,869	2,840	2,996
v_{av34}	2,622	2,643	2,465	2,138	2,137	2,051
v_{12a}	3,164	3,185	3,426	2,869	2,840	2,996
v_{12a}	3,363	3,389	3,426	2,869	2,846	2,996
Upstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Upstream Volume-to-Capacity Ratio	0.88	0.88	0.87	0.74	0.74	0.74
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.33	0.33	0.42	0.34	0.33	0.39
D_R	17.3	17.5	17.8	13.0	12.8	14.1
LOS	B	B	B	B	B	B

US 50 Westbound Diverge - Bradshaw Road

Highway Capacity Manual
2010 Edition
Two-Lane Diverge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	5	5	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	8,996	9,065	9,560	9,406	8,442	7,995	8,696	8,544
PHF	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.99
Exiting Ramp Volume (vehicles)	1,376	1,788	1,533	1,692	1,733	1,724	1,756	1,809
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_D - Deceleration Lane Length (ft)	1,765	1,765	1,765	1,765	1,765	1,765	1,765	1,765
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,620	7,277	8,027	7,714	6,709	6,271	6,940	6,735
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	9,624	9,698	10,228	10,063	8,694	8,234	8,956	8,800
v_R - Exiting Ramp Volume (pc/h)	1,472	1,913	1,640	1,810	1,784	1,776	1,808	1,863
Downstream Freeway Volume (pc/h)	8,152	7,785	8,587	8,252	6,909	6,458	7,147	6,936
P_{FD}	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260
v_{12}	3,591	3,937	3,873	3,956	3,581	3,455	3,667	3,667
v_{av34}	3,016	2,880	3,177	3,053	2,556	2,389	2,644	2,566
v_{12a}	4,224	4,298	4,828	4,663	3,581	3,455	3,667	3,667
v_{12a}	3,849	4,298	4,091	4,025	3,581	3,455	3,667	3,667
Upstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Volume-to-Capacity Ratio	0.80	0.81	0.85	0.84	0.72	0.69	0.75	0.73
Ramp Capacity (pc/h)	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Ramp Volume-to-Capacity Ratio	0.37	0.48	0.41	0.45	0.45	0.44	0.45	0.47
D_R	21.5	25.3	23.5	23.0	19.2	18.1	19.9	19.9
LOS	C	C	C	C	B	B	B	B

US 50 Westbound Merge - Bradshaw Road Loop Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,623	6,678	6,227	5,612	5,609	5,383
PHF	0.95	0.95	0.95	0.99	0.99	0.99
Entering Ramp Volume (vehicles)	914	931	1,236	910	925	1,523
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	815	815	815	815	815	815
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,537	7,609	7,463	6,522	6,535	6,906
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,085	7,144	6,661	5,780	5,777	5,544
v_R - Entering Ramp Volume (pc/h)	978	996	1,322	937	953	1,569
Downstream Freeway Volume (pc/h)	8,063	8,140	7,983	6,717	6,730	7,112
v_F / S_{FR}	283	286	266	231	231	222
P_{FM}	0.096	0.093	0.053	0.101	0.099	0.022
v_{12}	677	666	350	582	570	120
v_{av34}	3,204	3,239	3,156	2,599	2,603	2,712
v_{12a}	1,685	1,744	1,261	582	570	144
v_{12a}	2,834	2,857	2,665	2,312	2,311	2,217
v_{R12}	3,812	3,854	3,987	3,249	3,264	3,786
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.84	0.85	0.83	0.70	0.70	0.74
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.51	0.52	0.70	0.49	0.50	0.83
D_R	29.6	30.0	30.9	25.3	25.4	29.2
LOS	D	D	D	C	C	D

US 50 Westbound Merge - Bradshaw Road Loop Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,620	7,277	8,027	7,714	6,709	6,271	6,940	6,735
PHF	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.99
Entering Ramp Volume (vehicles)	1,091	1,313	999	1,318	1,023	1,667	927	1,593
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	815	815	815	815	815	815	815	815
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	8,711	8,590	9,027	9,032	7,732	7,937	7,867	8,328
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,152	7,785	8,587	8,252	6,909	6,458	7,147	6,936
v_R - Entering Ramp Volume (pc/h)	1,167	1,404	1,069	1,410	1,053	1,717	955	1,641
Downstream Freeway Volume (pc/h)	9,318	9,189	9,657	9,662	7,963	8,175	8,102	8,577
v_F / S_{FR}	326	311	343	330	276	258	286	277
P_{FM}	0.072	0.042	0.084	0.042	0.086	0.003	0.098	0.013
v_{12}	587	329	723	343	595	21	704	88
v_{av34}	3,783	3,728	3,932	3,955	3,157	3,219	3,222	3,424
v_{12a}	2,752	2,385	3,187	2,852	1,509	1,058	1,747	1,536
v_{12a}	3,261	3,114	3,435	3,301	2,764	2,583	2,859	2,775
v_{R12}	4,427	4,518	4,504	4,711	3,817	4,300	3,813	4,415
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.97	0.96	1.01	1.01	0.83	0.85	0.84	0.89
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.61	0.74	0.56	0.74	0.55	0.90	0.50	0.86
D_R	34.4	35.0	35.0	36.5	29.7	33.1	29.7	34.0
LOS	D	D	F	**F**	D	D	D	D

US 50 Westbound Merge - Bradshaw Road Slip Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,537	7,609	7,463	6,522	6,535	6,906
PHF	0.95	0.95	0.95	0.99	0.99	0.99
Entering Ramp Volume (vehicles)	338	346	365	590	613	669
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	705	705	705	705	705	705
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,875	7,955	7,828	7,112	7,148	7,575
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,063	8,140	7,983	6,717	6,730	7,112
v_R - Entering Ramp Volume (pc/h)	362	370	390	608	632	689
Downstream Freeway Volume (pc/h)	8,425	8,511	8,374	7,324	7,361	7,801
v_F / S_{FR}	202	204	200	168	168	178
P_{FM}	0.173	0.171	0.169	0.142	0.139	0.132
v_{12}	1,392	1,396	1,349	953	935	937
v_{av34}	3,336	3,372	3,317	2,882	2,898	3,088
v_{12a}	2,663	2,740	2,583	1,317	1,330	1,712
v_{12a}	3,225	3,256	3,193	2,687	2,692	2,845
v_{R12}	3,587	3,626	3,584	3,294	3,324	3,534
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.88	0.89	0.87	0.76	0.77	0.81
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.18	0.19	0.20	0.30	0.32	0.34
D_R	28.9	29.2	28.8	26.5	26.7	28.3
LOS	D	D	D	C	C	D

US 50 Westbound Merge - Bradshaw Road Slip Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	8,711	8,590	9,027	9,032	7,732	7,937	7,867	8,328
PHF	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.99
Entering Ramp Volume (vehicles)	385	387	385	391	836	894	851	816
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	705	705	705	705	705	705	705	705
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	9,096	8,977	9,412	9,423	8,568	8,831	8,718	9,144
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	9,318	9,189	9,657	9,662	7,963	8,175	8,102	8,577
v_R - Entering Ramp Volume (pc/h)	412	414	412	418	861	921	876	840
Downstream Freeway Volume (pc/h)	9,731	9,603	10,069	10,081	8,824	9,095	8,978	9,417
v_F / S_{FR}	233	230	241	242	199	204	203	214
P_{FM}	0.166	0.166	0.166	0.165	0.110	0.103	0.108	0.113
v_{12}	1,550	1,526	1,606	1,599	877	840	877	967
v_{av34}	3,884	3,832	4,025	4,032	3,543	3,667	3,612	3,805
v_{12a}	3,918	3,789	4,257	4,262	2,563	2,775	2,702	3,177
v_{12a}	3,727	3,676	3,863	3,865	3,185	3,270	3,241	3,431
v_{R12}	4,139	4,090	4,275	4,283	4,046	4,190	4,117	4,271
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	1.01	1.00	1.05	1.05	0.92	0.95	0.94	0.98
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.21	0.21	0.21	0.21	0.43	0.46	0.44	0.42
D_R	33.2	32.8	34.2	34.3	32.2	33.3	32.8	34.0
LOS	F	F	F	F	D	D	D	D

US 50 Westbound Diverge - Watt Avenue						
Highway Capacity Manual 2010 Edition **Major Diverge - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,550	7,673	7,424	6,466	6,520	6,913
PHF	0.90	0.90	0.90	0.96	0.96	0.96
Exiting Ramp Volume (vehicles)	1,373	1,412	1,257	1,188	1,199	1,181
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,177	6,261	6,167	5,278	5,321	5,732
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,537	8,676	8,394	6,884	6,941	7,359
v_R - Exiting Ramp Volume (pc/h)	1,552	1,597	1,421	1,265	1,277	1,257
Downstream Freeway Volume (pc/h)	6,984	7,079	6,973	5,619	5,665	6,102
Upstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Volume-to-Capacity Ratio	0.71	0.72	0.70	0.57	0.58	0.61
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.73	0.74	0.73	0.59	0.59	0.64
Ramp Capacity (pc/h)	4,400	4,400	4,400	4,400	4,400	4,400
Ramp Volume-to-Capacity Ratio	0.35	0.36	0.32	0.29	0.29	0.29
D_R	29.9	30.4	29.4	24.1	24.3	25.8
LOS	D	D	D	C	C	C

US 50 Westbound Diverge - Watt Avenue								
Highway Capacity Manual 2010 Edition **Major Diverge - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	5	5	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	8,662	8,415	9,001	8,854	7,703	7,847	7,871	8,099
PHF	0.90	0.90	0.90	0.90	0.96	0.96	0.96	0.96
Exiting Ramp Volume (vehicles)	1,577	1,381	1,568	1,364	1,167	1,054	1,112	991
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,085	7,034	7,433	7,490	6,537	6,794	6,758	7,108
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	9,794	9,515	10,178	10,011	8,201	8,354	8,379	8,622
v_R - Exiting Ramp Volume (pc/h)	1,783	1,562	1,773	1,542	1,242	1,122	1,184	1,055
Downstream Freeway Volume (pc/h)	8,011	7,953	8,404	8,469	6,959	7,232	7,195	7,568
Upstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Volume-to-Capacity Ratio	0.82	0.79	0.85	0.83	0.68	0.70	0.70	0.72
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.83	0.83	0.88	0.88	0.72	0.75	0.75	0.79
Ramp Capacity (pc/h)	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400
Ramp Volume-to-Capacity Ratio	0.41	0.35	0.40	0.35	0.28	0.25	0.27	0.24
D_R	34.3	33.3	35.6	35.0	28.7	29.2	29.3	30.2
LOS	D	D	E	E	D	D	D	D

US 50 Westbound Merge - Northbound Watt Avenue						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,177	6,261	6,167	5,278	5,321	5,732
PHF	0.90	0.90	0.90	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	820	815	788	943	938	900
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	865	865	865	865	865	865
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,997	7,076	6,955	6,221	6,259	6,632
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	6,984	7,079	6,973	5,619	5,665	6,102
v_R - Entering Ramp Volume (pc/h)	927	921	891	1,004	999	958
Downstream Freeway Volume (pc/h)	7,911	8,001	7,864	6,623	6,664	7,060
v_F / S_{FR}	127	129	127	102	103	111
P_{FM}	0.102	0.103	0.106	0.092	0.093	0.098
v_{12}	712	726	742	519	526	598
v_{av34}	3,136	3,176	3,116	2,550	2,569	2,752
v_{12a}	1,584	1,679	1,573	519	526	702
v_{12a}	2,794	2,832	2,789	2,248	2,266	2,441
v_{R12}	3,721	3,753	3,680	3,251	3,265	3,399
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.82	0.83	0.82	0.69	0.69	0.74
Ramp Capacity (pc/h)	2,200	2,200	2,200	2,200	2,200	2,200
Ramp Volume-to-Capacity Ratio	0.42	0.42	0.41	0.46	0.45	0.44
D_R	28.6	28.9	28.3	25.0	25.1	26.1
LOS	D	D	D	C	C	C

US 50 Westbound Merge - Northbound Watt Avenue

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,085	7,034	7,433	7,490	6,537	6,794	6,758	7,108
PHF	0.90	0.90	0.90	0.90	0.96	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	806	738	774	726	1,104	1,050	1,125	1,100
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	865	865	865	865	865	865	865	865
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,891	7,772	8,207	8,217	7,641	7,844	7,883	8,208
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,011	7,953	8,404	8,469	6,959	7,232	7,195	7,568
v_R - Entering Ramp Volume (pc/h)	912	834	875	821	1,176	1,118	1,197	1,171
Downstream Freeway Volume (pc/h)	8,923	8,787	9,279	9,290	8,134	8,351	8,392	8,738
v_F / S_{FR}	146	145	153	154	127	131	131	138
P_{FM}	0.104	0.114	0.108	0.115	0.071	0.078	0.068	0.071
v_{12}	832	903	911	976	493	564	490	541
v_{av34}	3,590	3,525	3,747	3,747	3,233	3,334	3,352	3,513
v_{12a}	2,611	2,553	3,004	3,069	1,559	1,832	1,795	2,168
v_{12a}	3,204	3,181	3,362	3,388	2,783	2,893	2,878	3,027
v_{R12}	4,116	4,015	4,237	4,209	3,959	4,011	4,075	4,198
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.93	0.92	0.97	0.97	0.85	0.87	0.87	0.91
Ramp Capacity (pc/h)	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200
Ramp Volume-to-Capacity Ratio	0.41	0.38	0.40	0.37	0.53	0.51	0.54	0.53
D_R	31.7	31.0	32.7	32.5	30.4	30.8	31.3	32.3
LOS	D	D	D	D	D	D	D	D

US 50 Westbound Weave - Watt Avenue to Howe Avenue

Highway Capacity Manual
2010 Edition
One-Sided Weave - Level Terrain
Existing Conditions

Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Upstream Ramp Lanes	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2
N - Number of Lanes	5	5	5	5	5	5
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	6,997	7,076	6,955	6,221	6,259	6,632
PHF	0.90	0.90	0.90	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	1,232	1,247	1,091	1,317	1,321	1,196
Exiting Ramp Volume (vehicles)	1,531	1,567	1,349	1,419	1,441	1,313
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	5,485	5,485	5,485	5,485	5,485	5,485
ID (Interchange Density within 3 miles)	0.67	0.67	0.67	0.67	0.67	0.67
Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,698	6,756	6,697	6,119	6,139	6,514
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
Upstream Freeway Volume (pc/h)	7,911	8,001	7,864	6,623	6,664	7,060
Entering Ramp Volume (pc/h)	1,393	1,410	1,234	1,402	1,406	1,273
Exiting Ramp Volume (pc/h))	1,731	1,772	1,526	1,511	1,534	1,398
Downstream Freeway Volume (pc/h)	7,573	7,638	7,572	6,514	6,536	6,935
v_{FF}	6,439	6,494	6,545	5,376	5,397	5,876
v_{RF}	1,134	1,144	1,027	1,138	1,139	1,059
v_{FR}	1,472	1,506	1,319	1,247	1,266	1,184
v_{RR}	259	265	207	264	267	214
v_W	2,606	2,651	2,346	2,385	2,405	2,244
v_{NW}	6,699	6,760	6,752	5,640	5,665	6,089
v	9,304	9,410	9,098	8,025	8,070	8,333
VR	0.280	0.282	0.258	0.297	0.298	0.269
LC_{RF}	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0
LC_{MIN}	1,134	1,144	1,027	1,138	1,139	1,059
L_{MAX}	5,371	5,388	5,136	5,554	5,563	5,257
Weaving Operations?	NO	NO	NO	YES	YES	NO
Capacity Controlled by Density (pc/h)				11,974	11,970	
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)				8,076	8,052	
Capacity (pc/h)				8,076	8,052	
Volume-to-Capacity Ratio				0.99	1.00	
LC_W				2,195	2,195	
I_{NW}				2,062	2,071	
LC_{NW1}				3,172	3,177	
LC_{NW2}				2,947	2,952	
LC_{NW3}				2,908	2,910	
LC_{NW}				2,947	2,952	
LC_{ALL}				5,141	5,147	
W - Weaving Intensity				0.215	0.215	
S_W				60.3	60.3	
S_{NW}				54.1	54.1	
S				55.8	55.8	
D				28.8	28.9	
LOS				D	F	

US 50 Westbound Weave - Watt Avenue to Howe Avenue								
Highway Capacity Manual 2010 Edition **One-Sided Weave - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus PROJECT	CEQA Cumulative	CEQA Cumulative Plus PROJECT	MTP Cumulative	MTP Cumulative Plus PROJECT	CEQA Cumulative	CEQA Cumulative Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Upstream Ramp Lanes	1	1	1	1	1	1	1	1
Downstream Ramp Lanes	2	2	2	2	2	2	2	2
N - Number of Lanes	5	5	5	5	5	5	5	5
N_{WL} - Number of Lanes in Weaving Section	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	7,891	7,772	8,207	8,217	7,641	7,844	7,883	8,208
PHF	0.90	0.90	0.90	0.90	0.96	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	1,224	845	1,134	919	1,201	1,098	1,062	1,006
Exiting Ramp Volume (vehicles)	1,806	1,520	1,879	1,709	1,677	1,694	1,687	1,695
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_S - Weaving Length (ft)	5,485	5,485	5,485	5,485	5,485	5,485	5,485	5,485
ID (Interchange Density within 3 miles)	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,310	7,097	7,462	7,426	7,166	7,247	7,258	7,520
c_{IFL}	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Upstream Freeway Volume (pc/h)	8,923	8,787	9,279	9,290	8,134	8,351	8,392	8,738
Entering Ramp Volume (pc/h)	1,384	956	1,282	1,039	1,279	1,169	1,131	1,071
Exiting Ramp Volume (pc/h))	2,042	1,718	2,125	1,933	1,785	1,804	1,796	1,804
Downstream Freeway Volume (pc/h)	8,265	8,025	8,437	8,397	7,628	7,716	7,727	8,005
v_{FF}	7,155	7,237	7,413	7,552	6,592	6,768	6,809	7,131
v_{RF}	1,110	787	1,024	845	1,036	947	918	874
v_{FR}	1,767	1,550	1,867	1,738	1,542	1,582	1,583	1,607
v_{RR}	274	169	258	194	243	222	213	197
v_W	2,877	2,337	2,891	2,583	2,579	2,530	2,501	2,481
v_{NW}	7,429	7,406	7,671	7,746	6,835	6,990	7,023	7,328
v	10,307	9,743	10,561	10,329	9,413	9,519	9,523	9,810
VR	0.279	0.240	0.274	0.250	0.274	0.266	0.263	0.253
LC_{RF}	1	1	1	1	1	1	1	1
LC_{FR}	0	0	0	0	0	0	0	0
LC_{MIN}	1,110	787	1,024	845	1,036	947	918	874
L_{MAX}	5,362	4,948	5,303	5,054	5,306	5,219	5,186	5,085
Weaving Operations?	NO	NO	NO	NO	NO	NO	NO	NO
Capacity Controlled by Density (pc/h)								
Capacity Controllled by Maximum Weaving Flow Rate (pc/h)								
Capacity (pc/h)								
Volume-to-Capacity Ratio								
LC_W								
I_{NW}								
LC_{NW1}								
LC_{NW2}								
LC_{NW3}								
LC_{NW}								
LC_{ALL}								
W - Weaving Intensity								
S_W								
S_{NW}								
S								
D								
LOS								

US 50 Westbound Ramp Addition - Southbound Watt Avenue						
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,997	7,076	6,955	6,221	6,259	6,632
PHF	0.90	0.90	0.90	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	1,232	1,247	1,091	1,317	1,321	1,196
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	8,229	8,323	8,047			7,827
f_{HV}	0.98	0.98	0.98			0.98
v_F - Upstream Freeway Volume (pc/h)	7,911	8,001	7,864			7,060
v_R - Entering Ramp Volume (pc/h)	1,393	1,410	1,234			1,273
Downstream Freeway Volume (pc/h)	9,304	9,410	9,098			8,333
Downstream Capacity (pc/h)	12,000	12,000	12,000			12,000
Downstream Volume-to-Capacity Ratio	0.78	0.78	0.76			0.69
Ramp Capacity (pc/h)	1,900	1,900	1,900			1,900
Ramp Volume-to-Capacity Ratio	0.73	0.74	0.65			0.67
V/C_{MAX}	0.78	0.78	0.76			0.69
LOS	C	C	C			B

US 50 Westbound Ramp Addition - Southbound Watt Avenue								
Highway Capacity Manual 2010 Edition **Lane Addition - Level Terrain**								
Cumulative Conditions								
Input Data								
Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	5	5	5	5	5	5	5	5
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,891	7,772	8,207	8,217	7,641	7,844	7,883	8,208
PHF	0.90	0.90	0.90	0.90	0.96	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	1,224	845	1,134	919	1,201	1,098	1,062	1,006
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	9,116	8,617	9,341	9,136	8,842	8,942	8,946	9,214
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,923	8,787	9,279	9,290	8,134	8,351	8,392	8,738
v_R - Entering Ramp Volume (pc/h)	1,384	956	1,282	1,039	1,279	1,169	1,131	1,071
Downstream Freeway Volume (pc/h)	10,307	9,743	10,561	10,329	9,413	9,519	9,523	9,810
Downstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Volume-to-Capacity Ratio	0.86	0.81	0.88	0.86	0.78	0.79	0.79	0.82
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.73	0.50	0.67	0.55	0.67	0.62	0.60	0.56
V/C_{MAX}	0.86	0.81	0.88	0.86	0.78	0.79	0.79	0.82
LOS	D	D	D	D	C	C	C	D

US 50 Westbound Diverge - Howe Avenue						
Highway Capacity Manual 2010 Edition **Major Diverge - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	8,229	8,323	8,047	7,538	7,580	7,827
PHF	0.90	0.90	0.90	0.96	0.96	0.96
Exiting Ramp Volume (vehicles)	1,531	1,567	1,349	1,419	1,441	1,313
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	6,698	6,756	6,697			6,514
f_{HV}	0.98	0.98	0.98			0.98
v_F - Upstream Freeway Volume (pc/h)	9,304	9,410	9,098			8,333
v_R - Exiting Ramp Volume (pc/h)	1,731	1,772	1,526			1,398
Downstream Freeway Volume (pc/h)	7,573	7,638	7,572			6,935
Upstream Capacity (pc/h)	12,000	12,000	12,000			12,000
Upstream Volume-to-Capacity Ratio	0.78	0.78	0.76			0.69
Downstream Capacity (pc/h)	9,600	9,600	9,600			9,600
Downstream Volume-to-Capacity Ratio	0.79	0.80	0.79			0.72
Ramp Capacity (pc/h)	4,400	4,400	4,400			4,400
Ramp Volume-to-Capacity Ratio	0.39	0.40	0.35			0.32
D_R	32.6	32.9	31.8			29.2
LOS	D	D	D			D

US 50 Westbound Diverge - Howe Avenue

Highway Capacity Manual
2010 Edition
Major Diverge - Level Terrain
Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	5	5	5	5	5	5	5	5
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	2	2	2	2	2	2	2	2
Upstream Freeway Volume (vehicles)	9,116	8,617	9,341	9,136	8,842	8,942	8,946	9,214
PHF	0.90	0.90	0.90	0.90	0.96	0.96	0.96	0.96
Exiting Ramp Volume (vehicles)	1,806	1,520	1,879	1,709	1,677	1,694	1,687	1,695
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S_{FR} - Ramp Free-flow Speed (mph)	55	55	55	55	55	55	55	55
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,310	7,097	7,462	7,426	7,166	7,247	7,258	7,520
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	10,307	9,743	10,561	10,329	9,413	9,519	9,523	9,810
v_R - Exiting Ramp Volume (pc/h)	2,042	1,718	2,125	1,933	1,785	1,804	1,796	1,804
Downstream Freeway Volume (pc/h)	8,265	8,025	8,437	8,397	7,628	7,716	7,727	8,005
Upstream Capacity (pc/h)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Volume-to-Capacity Ratio	0.86	0.81	0.88	0.86	0.78	0.79	0.79	0.82
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.86	0.84	0.88	0.87	0.79	0.80	0.80	0.83
Ramp Capacity (pc/h)	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400
Ramp Volume-to-Capacity Ratio	0.46	0.39	0.48	0.44	0.41	0.41	0.41	0.41
D_R	36.1	34.1	37.0	36.2	32.9	33.3	33.3	34.3
LOS	E	D	E	E	D	D	D	D

US 50 Westbound Merge - Howe Avenue Loop Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	6,698	6,756	6,697	6,119	6,139	6,514
PHF	0.90	0.90	0.90	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	654	651	689	602	624	647
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	850	850	850	850	850	850
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,352	7,407	7,386	6,721	6,763	7,161
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	7,573	7,638	7,572	6,514	6,536	6,935
v_R - Entering Ramp Volume (pc/h)	739	736	779	641	664	689
Downstream Freeway Volume (pc/h)	8,313	8,375	8,351	7,155	7,200	7,624
v_F / S_{FR}	303	306	303	261	261	277
P_{FM}	0.125	0.126	0.120	0.138	0.135	0.132
v_{12}	949	961	912	897	881	913
v_{av34}	3,312	3,339	3,330	2,809	2,827	3,011
v_{12a}	2,173	2,238	2,172	1,114	1,136	1,535
v_{12a}	3,029	3,055	3,029	2,606	2,614	2,774
v_{R12}	3,769	3,792	3,808	3,247	3,278	3,463
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.87	0.87	0.87	0.75	0.75	0.79
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.39	0.39	0.41	0.34	0.35	0.36
D_R	29.2	29.4	29.5	25.2	25.4	26.8
LOS	D	D	D	C	C	C

US 50 Westbound Merge - Howe Avenue Loop Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,310	7,097	7,462	7,426	7,166	7,247	7,258	7,520
PHF	0.90	0.90	0.90	0.90	0.96	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	582	668	613	607	503	519	572	563
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	850	850	850	850	850	850	850	850
S_{FR} - Ramp Free-flow Speed (mph)	25	25	25	25	25	25	25	25
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	7,892	7,765	8,074	8,033	7,669	7,767	7,830	8,082
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,265	8,025	8,437	8,397	7,628	7,716	7,727	8,005
v_R - Entering Ramp Volume (pc/h)	658	755	693	686	535	553	609	599
Downstream Freeway Volume (pc/h)	8,923	8,780	9,129	9,083	8,164	8,268	8,336	8,604
v_F / S_{FR}	331	321	337	336	305	309	309	320
P_{FM}	0.136	0.123	0.131	0.132	0.151	0.149	0.142	0.143
v_{12}	1,121	990	1,107	1,109	1,151	1,148	1,095	1,144
v_{av34}	3,572	3,517	3,665	3,644	3,239	3,284	3,316	3,431
v_{12a}	2,865	2,625	3,037	2,997	2,228	2,316	2,327	2,605
v_{12a}	3,306	3,210	3,375	3,359	3,051	3,086	3,091	3,202
v_{R12}	3,964	3,965	4,067	4,045	3,587	3,639	3,700	3,801
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.93	0.91	0.95	0.95	0.85	0.86	0.87	0.90
Ramp Capacity (pc/h)	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Ramp Volume-to-Capacity Ratio	0.35	0.40	0.36	0.36	0.28	0.29	0.32	0.32
D_R	30.8	30.7	31.6	31.4	27.9	28.3	28.7	29.5
LOS	D	D	D	D	C	D	D	D

US 50 Westbound Merge - Howe Avenue Loop Ramp						
Highway Capacity Manual 2010 Edition **One-Lane Merge - 8-Lane Freeway - Level Terrain**						
Existing Conditions						
Input Data						
Peak Hour:	A.M. Peak Hour			P.M. Peak Hour		
Alternative:	Existing	Existing Plus Mather South	Existing Plus PROJECT	Existing	Existing Plus Mather South	Existing Plus PROJECT
Existing Upstrm Frwy Lanes	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,352	7,407	7,386	6,721	6,763	7,161
PHF	0.90	0.90	0.90	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	574	564	688	574	572	484
Truck Percentage	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	1,850	1,850	1,850	1,850	1,850	1,850
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70
Calculations						
Downstream Freeway Volume (vehicles)	7,926	7,971	8,074	7,295	7,335	7,645
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,313	8,375	8,351	7,155	7,200	7,624
v_R - Entering Ramp Volume (pc/h)	649	638	778	611	609	515
Downstream Freeway Volume (pc/h)	8,962	9,013	9,129	7,766	7,809	8,139
v_F / S_{FR}	208	209	209	179	180	191
P_{FM}	0.137	0.138	0.121	0.141	0.142	0.153
v_{12}	1,136	1,156	1,007	1,012	1,020	1,170
v_{av34}	3,588	3,609	3,672	3,072	3,090	3,227
v_{12a}	2,913	2,975	2,951	1,755	1,800	2,224
v_{12a}	3,325	3,350	3,340	2,862	2,880	3,049
v_{R12}	3,974	3,988	4,119	3,473	3,489	3,565
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	0.93	0.94	0.95	0.81	0.81	0.85
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.32	0.32	0.39	0.31	0.30	0.26
D_R	24.6	24.7	25.6	20.7	20.8	21.4
LOS	C	C	C	C	C	C

US 50 Westbound Merge - Howe Avenue Loop Ramp

Highway Capacity Manual
2010 Edition
One-Lane Merge - 8-Lane Freeway - Level Terrain

Cumulative Conditions

Input Data

Peak Hour:	A.M. Peak Hour				P.M. Peak Hour			
Alternative:	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS
Existing Upstrm Frwy Lanes	4	4	4	4	4	4	4	4
Existing Dnstrm Frwy Lanes	4	4	4	4	4	4	4	4
Ramp Lanes	1	1	1	1	1	1	1	1
Upstream Freeway Volume (vehicles)	7,892	7,765	8,074	8,033	7,669	7,767	7,830	8,082
PHF	0.90	0.90	0.90	0.90	0.96	0.96	0.96	0.96
Entering Ramp Volume (vehicles)	732	781	668	807	763	689	699	646
Truck Percentage	4%	4%	4%	4%	4%	4%	4%	4%
RV Percentage	0%	0%	0%	0%	0%	0%	0%	0%
Driver Population Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
L_A - Acceleration Lane Length (ft)	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850
S_{FR} - Ramp Free-flow Speed (mph)	40	40	40	40	40	40	40	40
Freeway Free-flow Speed (mph)	70	70	70	70	70	70	70	70
Calculations								
Downstream Freeway Volume (vehicles)	8,623	8,546	8,742	8,839	8,431	8,456	8,529	8,729
f_{HV}	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
v_F - Upstream Freeway Volume (pc/h)	8,923	8,780	9,129	9,083	8,164	8,268	8,336	8,604
v_R - Entering Ramp Volume (pc/h)	827	883	755	912	812	734	744	688
Downstream Freeway Volume (pc/h)	9,750	9,663	9,884	9,995	8,976	9,002	9,080	9,293
v_F / S_{FR}	223	220	228	227	204	207	208	215
P_{FM}	0.114	0.107	0.123	0.104	0.116	0.126	0.125	0.132
v_{12}	1,021	944	1,127	943	950	1,042	1,041	1,134
v_{av34}	3,951	3,918	4,001	4,070	3,607	3,613	3,648	3,735
v_{12a}	3,523	3,380	3,729	3,683	2,764	2,868	2,936	3,204
v_{12a}	3,569	3,512	3,652	3,633	3,266	3,307	3,334	3,442
v_{R12}	4,396	4,395	4,407	4,545	4,077	4,041	4,078	4,130
Downstream Capacity (pc/h)	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Volume-to-Capacity Ratio	1.02	1.01	1.03	1.04	0.93	0.94	0.95	0.97
Ramp Capacity (pc/h)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ramp Volume-to-Capacity Ratio	0.41	0.44	0.38	0.46	0.41	0.37	0.37	0.34
D_R	27.8	27.7	27.9	28.9	25.3	25.1	25.3	25.8
LOS	F	F	F	**F**	C	C	C	C