

Appendix TR-3

**Jackson Township Specific Plan
Revised VMT Analysis**



MEMORANDUM

DATE: July 1, 2022

TO: Todd Smith and Cameron Shew | County of Sacramento

FROM: David Tokarski and Jim Damkowitch | DKS Associates

SUBJECT: SB 743/ VMT Analysis – Jackson Township

Project #13049

Pursuant to Senate Bill (SB) 743, transportation impacts under CEQA may no longer be measured with automobile delay and level of service (LOS) post July 1, 2020. CEQA guidelines (Section 15064.3) state that vehicle miles traveled (VMT) is generally the most appropriate metric for determining transportation related impacts under CEQA. While VMT was previously calculated for the proposed Jackson Township development traffic impact analysis, the applied methodologies were not consistent with recently adopted guidance from Sacramento County. The purpose of this technical memorandum is to document revised VMT calculations that are consistent with the County's Transportation Analysis Guidelines published July 1, 2020. Additionally, the proposed project has been re-analyzed using the updated travel demand model based on SACOG's SACSIM19 Activity Based Travel Demand Model.

VMT metrics associated with the residential components (VMT per capita) and commercial (office) components (VMT per employee) of the project are summarized herein. Retail components are not subject to efficiency metrics (VMT per employee), but rather net change in VMT. This memorandum also summarizes the County's thresholds, which are based on regional averages calculated from the SACSIM19 Activity Based Travel Demand Model. The project's VMT-reducing features (i.e. included as part of the project and VMT calculations before mitigation) are documented in **Appendix A**.

The Governor's Office of Planning and Research (OPR) VMT Guidelines do not require VMT analysis as a measure of significance for Draft EIR documents published prior to July 1, 2020. As the Jackson Township Draft EIR was published in advance of this date, the analysis presented in this Memorandum is intended to be informational.

VMT ANALYSIS

Following the County's Transportation Analysis Guidelines (TAG), the applicable metrics are VMT per capita for residential land uses and VMT per employee for commercial (office) and industrial uses. Local retail is screened from further VMT analysis, while for regional retail the OPR recommended efficiency metric is total net change in VMT. Based on the square footage of each of the retail parcels within Jackson Township, it has been determined that all of the proposed retail uses in Jackson Township can be considered to be local serving and therefore screened from further VMT analysis.

For land uses that cannot be screened and are subject to further VMT analysis, the project's VMT per capita and/or VMT per employee are compared to a threshold of 85 percent of the regional average for each metric as applicable. Regional averages are calculated in this memorandum to be consistent with SACOG's SACSIM19 travel demand model.

County guidelines require that each land use be analyzed separately when identifying impacts. The residential, employment, and retail land uses of the project are discussed below.

SIGNIFICANCE THRESHOLDS

Table 3-3 of the County's Transportation Analysis Guidelines lists significance thresholds for various types of development, as follows:

- Project VMT per capita exceeds 85 percent of the regional average VMT per capita.
- Project VMT per employee exceeds 85 percent of the regional average VMT per employee.
- The project's regional retail land uses causes a net increase in regional VMT.
- The project's proposed widening of "regional roadways" is expected to result in an increase in regional VMT.

While each of these project components must be analyzed and documented individually based on their respective threshold of significance, it is important to also consider the project's overall VMT efficiency. Thus, if a project only slightly exceeds the threshold of significance for one project component but falls substantially below the threshold for another, or vice versa, total project impacts can be presented by way of a holistic "VMT Budget" that accounts for the various components of the project.

RESIDENTIAL COMPONENTS (VMT PER CAPITA)

For residential land uses, VMT per capita is the operative metric for CEQA impact analysis. It includes all vehicle tours (both work/commute vehicle tours and non-work vehicle tours) that start and end at a residence. Home-based tours reflect travel for work, school, recreation, and shopping, but exclude travel that begins and ends away from the home location.

An example of a work/commute vehicle tour that is captured in the VMT per capita calculation may start at a residence, include a stop to drop a child off at school before proceeding to the work site, and a return to the residence with a stop to pick up dinner. A midday sub-tour beginning and ending at the work site to eat lunch at a restaurant would not be included. A non-work vehicle tour starts that begins and ends at home may also include intermediate stops. VMT from these tours must include full mileage of the entire tour, including all stops.

VMT per capita is calculated by first combining VMT from home-based tours generated throughout the day at a residential unit. The home-based VMT for all residential units in the project area is summed and divided by the total resident population of the project, resulting in the project's VMT per capita.

Table 3-3 of the County's Transportation Analysis Guidelines identifies the threshold of significance as 85 percent of the baseline (no project) regional average VMT per capita. If the regional VMT per capita from the residential component of the "with-project" model runs exceeds this threshold, the project is determined to require VMT reduction.

In order to calculate the appropriate VMT per Capita metric for the proposed project, all project residential units (and their associated households and population) were incorporated into a modified Existing Plus Project version of the SASIM19 model. Additionally, the residential units were isolated into their own traffic analysis zones (TAZs) so their daily travel "tours" per person could be isolated from other land uses. Consistent with the methodology describe above for what does or does not count in the calculated VMT per Capita, the results of the project's share of the Existing Plus Project model were compared to the results regionwide for the Existing No Project model. The results are as follows:

- Existing (No Project) Regional VMT per Capita: 20.20
 - County Threshold of Significance (85%): 17.17
- Project Specific VMT per Capita: 17.46
 - As Percentage of Regional Average: 86.4%
 - **Exceeds 85% Threshold: Yes**

OFFICE COMPONENTS (VMT PER EMPLOYEE)

For non-residential land uses, VMT per employee is used to evaluate commercial (office) and industrial VMT. It includes all commute vehicle tours that begin and end at an employment location. A commute tour may include intermediate stops. An example commute tour begins at a residence, includes a stop to drop a child off at school, includes a stop for breakfast, and ends at a place of work.

VMT for commute tours are summed to the employment location of each tour. The commute VMT for all employment locations in the project area is summed and divided by the total employment of the plan area.

All office land uses in Jackson Township are included in a single transportation analysis zone (TAZ). As such, office VMT per employee is calculated based on results from that TAZ. There are no screening criteria applicable to the office land uses in Jackson Township.

Results from the “with-project” model runs were compared to the baseline (no project) results to determine if the project’s office component exceeds 85 percent of the regional average VMT per Employee, per Table 3-3 of the County’s Transportation Analysis Guidelines.

- Existing (No Project) Regional VMT per Employee: 16.04
 - County Threshold of Significance (85%): 13.64
- Project Specific VMT per Employee: 16.48
 - As Percentage of Regional Average: 102.7%
 - **Exceeds 85% Threshold: Yes**

WIDENING OF “REGIONAL ROADWAYS” VMT ASSESSMENT

The proposed project would widen existing roadways and construct new roadways. These roadway capacity enhancements could induce more VMT due to changes in background travel demand and/or route or mode choice. Per the TAG, all transportation projects that are regionally significant for potential air quality impacts must also be included in the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). The MTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and greenhouse gas reduction targets. As such, roadway projects that are consistent with this plan are part of the regional solution for meeting air pollution and greenhouse gas goals. Roadway projects that are deemed to be consistent with the MTP/SCS would have a less than significant cumulative impact on VMT. Conversely, roadway projects that are not included in the MTP/SCS must be evaluated to determine potential transportation impacts.

Consistent with the guidance in the TAG, to determine the net VMT impact of capacity enhancing improvements, existing or future roadways roadway widenings not already identified in SACOG’s MTP/SCS were modeled, with and without project added roadway capacity, to yield the net change

in regional VMT. Roadways within and adjacent to Jackson Township that are not reflected in the MTP/SCS are as follows:

- Jackson Highway (from Excelsior Road to 0.35 miles east of Township Drive): 1.75 Miles
 - MTP/SCS: 2 Lanes
 - With Jackson Township: 6 Lanes
- Kiefer Boulevard (from Excelsior Road to 0.50 miles east of Grenville Drive): 1.25 Miles
 - MTP/SCS: 0 Lanes
 - With Jackson Township: 4 Lanes

The above widenings represent an addition of 12.0 lane-miles of roadway to the County’s roadway system in excess of the roadway widenings identified in the MTP/SCS. According to the TAG, secondary roadways within the project are normally not expected to induce more travel due to their local-serving nature and are therefore not considered in the induced VMT analysis.

The SACSIM model was run without and with the regional roadway widenings listed above (but with all other components of the Jackson Township project included). Regional VMT was calculated both without and with the roadway widenings and are summarized as follows:

- Region wide VMT: Existing Conditions Plus Jackson Township
 - Without Roadway Widenings: 58,751,247
 - With Roadway Widenings: 58,770,048
 - Difference: +18,801
 - **Increases Total Regionwide VMT: Yes**

RETAIL VMT ASSESSMENT

The County distinguishes between local and regional serving retail land uses. Local serving retail is defined as generally having up to 200,000 square feet of total gross floor area in growth areas, or with a market area of 3 miles or less. Some retail land use designations within Jackson Township were determined to fit within the local serving retail definition and could be screened from further VMT analysis. County staff were consulted and confirmed that two parcels in retail designated TAZs in Jackson Township might potentially be considered regional serving. As such, the likely net VMT change resulting from the remaining two retail parcels were qualitatively assessed. This qualitative assessment is described below.

PROXIMITY TO COMPETING REGIONAL RETAIL SITES

The applicant team identified all regional serving name brand retail stores within a ten-mile radius of the Jackson Township specific plan site. The two regional retail sites (planned to be a hardware store and a discount superstore) are located midway between competing name brand sites, providing intervening opportunities for potential customers. All but one competing retail site is

located further than five linear miles (as the crow flies) from the project. Competing name brand site locations within 10-miles of the project site are provided in **Appendix B**.

As the Jackson Township regional retail sites would effectively fill the gap of like retail purposes in the area, it is expected that vehicle trip-tours produced from currently underserved areas, such as the Rancho Murieta and Independence at Mather communities, would be significantly shortened. Trip lengths from these sites would be further reduced with the completion of the neighboring Mather South Community Master Plan, NewBridge Specific Plan, and West Jackson Highway Master Plan.

Based on this qualitative assessment, the Jackson Township regional retail sites are considered at minimum to be VMT neutral. Given that these sites represent intervening opportunities that will serve to shift travel demand from more distant locations suggests that a net decrease in VMT can be presumed.

PROJECT OVERALL EFFECT ON VMT

The prior sections quantified individual impacts on VMT based on project housing, project employment, project roadway widenings, and project retail. To allow for the project’s overall impact on VMT to be evaluated, each of the separate VMT metrics were translated into absolute VMT over or under that allowed by County thresholds and guidelines. In order to translate VMT per Capita and VMT per Employee into absolute VMT, the number of anticipated residents and the number of anticipated office employees have been multiplied by the amount the VMT exceeds or falls below the appropriate threshold. **Table 1** shows the calculations of absolute VMT in excess of thresholds for population and employment within the project. In the case of VMT per Capita, the project’s VMT per Capita exceeds the 85% threshold by 0.29, for a total of 4,765 excess VMT based on a population of 16,487. Similarly, for office employment, the project’s VMT per employee exceeds the 85% threshold by 2.84, for a total of 16,574 excess VMT based on 5,836 office employees. These, combined with an additional 17,985 VMT due to widened roadways and net zero VMT based on regional retail based on the qualitative analysis above, results in a total of 39,323 VMT beyond County thresholds.

TABLE 1: PROJECT OVERALL EFFECT ON VMT (VMT BUDGET)

MEASURE	NO PROJECT	PLUS JACKSON TOWNSHIP	POPULATION	EMPLOYMENT	VMT OVER THRESHOLD
VMT PER CAPITA	20.20	17.46	16,487		+4,765
% OF REGIONAL AVERAGE		86.4%			
VMT PER OFFICE EMPLOYEE	16.04	16.48		5,836	+16,574
% OF REGIONAL AVERAGE		102.7%			
PROJECT ROADWAYS					+18,801
REGIONAL RETAIL					+0
TOTAL PROJECT VMT OVER THRESHOLDS					+40,140

Source: DKS Associates, 2022.

Therefore, before mitigations are assumed, the proposed project represents a **significant impact** based on project related VMT. This memorandum does not document recommended or proposed mitigations; those are documented separately in **Appendix C**.

VMT REDUCTIONS ASSUMED AS PART OF THE PROJECT

Residential VMT per capita and office VMT per employee associated with the Jackson Township development exceed the County's VMT thresholds, which are defined as 85 percent of the respective regional averages. Exceedance of either of these metrics indicates a transportation impact for projects subject to CEQA after July 1, 2020. The project has identified feasible VMT reduction measures that substantially reduce the project's impact. The VMT mitigation strategies described below have been defined as part of the project and include strategies identified in the County's Transportation Analysis Guidelines and the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures report.

MODELED VMT REDUCTION MEASURES

The Jackson Township project has several VMT reduction measures that have been incorporated into the project design or are required by Jackson Township's Air Quality Mitigation Plan, GHG Reduction Plan, or the project's Development Agreement. These VMT reducing features are already reflected in the "with-project" scenario as part of the project baseline and will not be double-counted when determining the effectiveness of additional VMT mitigation strategies.

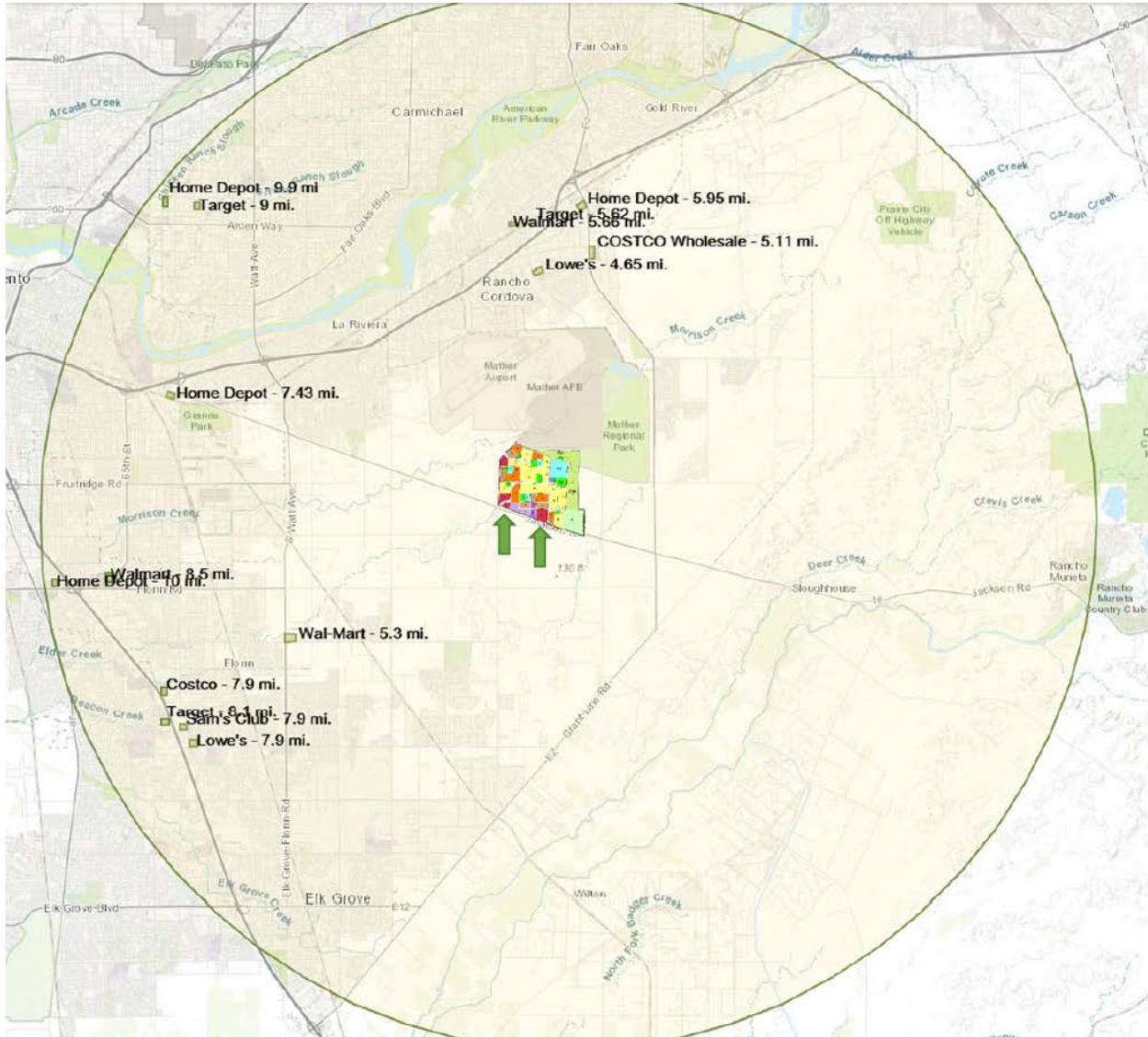
The following project VMT reductions from the CAPCOA *Quantifying Greenhouse Gas Mitigation Measures* report are assumed as part of the project description and are included in the model (numbering is presented for informational purposes):

- Project is located in a suburban center within approximately 10 miles of the Sacramento downtown central business district and less than 5 miles from other existing high-density commercial/job center areas (LUT-2 and LUT-3).
- Project is located adjacent to other planned developments such that single-use trips are minimized, i.e., there are more pass-by and diverted trips (LUT-3 and LUT-4).
- Project provides a compact mix of land uses in close proximity to each other with a highly connected street and trail network (LUT-3).
- Project design is for high and medium density housing for over half of the total project dwelling units (LUT-1).
- Housing density is better than 9.5 dwelling units per acre (LUT-1).
- Approximately 15 percent of the total commercial square footage is dedicated to a mixed-use facility that combines residences and commercial/retail uses (LUT-3).
- Most residential units are within 1,320 feet (one-quarter mile) of a neighborhood park, open space, school, and/or bicycle/pedestrian trail (LUT-3).
- Most residential units are less than one-half mile from shopping and services (LUT-4).
- Project design includes locating at least four schools within the project boundaries such that most students can walk to a local school (LUT-3 and LUT-4).
- Project design includes at least eight parks within the project boundaries such that residents can walk/bike to enjoy the parks (LUT -3 and LUT-4).

- Project design is based on a network of streets in a grid pattern (LUT-8).
- Project design includes access to high frequency bus service that connects to the Watt/Manlove light rail station (LUT-5).
- Bus routes are signalized in order to avoid traffic delays (TST-4).
- Project includes an on-site transit center and park and ride facilities along the designated transit route of Jackson Highway (LUT-5, TST-1, TST-2, TST-3, and RPT-4).
- Project funding and design will result in bus headways of 15 minutes or better (TST-1, TST-4, RPT-2, and RPT-3).

Project includes assessments for regional transportation improvements (RPT-3).

COMPETING RETAIL LOCATIONS



JACKSON TOWNSHIP

Retail Market Area Study

- Home Depot
 - 2756 Sunrise Blvd, Rancho Cordova, CA 95742
 - 8000 Folsom Blvd, Sacramento, CA 95826
 - 4641 Florin Rd, Sacramento, CA 95823
 - 2000 Howe Ave, Sacramento, CA 95825
- Target
 - 10881 Olson Dr, Rancho Cordova, CA 95670
 - 1919 Fulton Ave, Sacramento, CA 95825
 - 6507 4th Ave, Sacramento, CA 95817
- Walmart
 - 10655 Folsom Blvd, Rancho Cordova, CA 95670
 - 6051 Florin Rd, Sacramento, CA 95823
 - 8915 Gerber Rd, Sacramento, CA 95829
- Costco
 - 11260 White Rock Rd, Rancho Cordova, CA 95742
 - 7981 E Stockton Blvd, Sacramento, CA 95823
- Lowe's
 - 3251 Zinfandel Dr, Rancho Cordova, CA 95670
 - 8369 Power Inn Rd, Elk Grove, CA 95624
- Sam's Club
 - 8250 Power Inn Rd, Sacramento, CA 95828

JACKSON TOWNSHIP VMT MITIGATION ANALYSIS

To: Jim Wiley, Taylor & Wiley

From: Chris Gregerson, PE, TE, PTOE, PTP
Matt Weir, PE, TE, PTOE, RSP₁

Re: *Jackson Township*
VMT Mitigation Analysis

Date: June 21, 2022

As requested, we have completed a Vehicle Miles Traveled (VMT) mitigation analysis for Jackson Township based on DKS Associates' (DKS) VMT analysis provided on March 24, 2022. The following is a summary of our findings.

Legislative Context

SB 743 is part of a long-standing policy effort by the California legislature to improve California's sustainability and reduce greenhouse gas emissions through denser infill development, a reduction in single occupancy vehicles, improved mass transit, and other actions. Recognizing that the current environmental analysis techniques are, at times, encouraging development that is inconsistent with this vision, the legislature has taken the extraordinary step to change the basis of environmental analysis for transportation impacts from Level of Service (LOS) to Vehicle Miles Travelled (VMT). VMT is understood to be a good proxy for evaluating Greenhouse Gas (GHG) and other transportation related impacts that the State is actively trying to address. While the use of VMT to determine significant transportation impacts has only been considered recently, it is by no means a new performance metric and has long been used as a basis for transportation system evaluations and as an important metric for evaluating the performance of Travel Demand Models.

In January 2019, the Natural Resources Agency finalized updates to the CEQA Guidelines including the incorporation of SB 743 modifications. The Guidelines' changes were approved by the Office of Administrative Law and are now in effect. Specific to SB 743, Section 15064.3(c) states, "A lead agency may elect to be governed by the provisions of this section immediately. The provisions apply statewide as of July 1, 2020."

To aid lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced the Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) that provides guidance about the variety of implementation questions they face with respect to shifting to a VMT metric. Key guidance from this document includes:

- VMT is the most appropriate metric to evaluate a project's transportation impact.
- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- OPR recommends measuring VMT for residential and office projects on a "per rate" basis.
- OPR recommends that a per capita or per employee VMT that is fifteen percent below that of existing development average may be a reasonable threshold. In other words, an office project that generates VMT per employee that is more than 15 percent less than the regional average VMT per employee could result in a significant impact. OPR notes that this threshold is supported by evidence that connects this level of reduction to the State's GHG reduction goals.
- Lead agencies have the discretion to set or apply their own significance thresholds.

Sacramento County released their updated Transportation Analysis Guidelines on September 10, 2020¹. These updated guidelines include analysis methodology for both VMT and LOS. The VMT methodology outlines both the manner in which practitioners should conduct VMT studies, as well as examples of VMT mitigations and how to analyze their associated VMT reductions. This analysis described in this memorandum is consistent with Sacramento County guidance.

Analysis

DKS provided a summary of the VMT performance for the region’s residential and office uses, as well as the associated thresholds, set 15-percent below the regional average. In addition, DKS provided Jackson Township’s VMT per capita and VMT per employee metrics for Existing plus Project and Super Cumulative plus Project conditions. **Table 1** provides a summary of the region and project’s performance, as well as the thresholds and the percentage by which the project would have to reduce its relative VMT per capita or VMT per employee to equal the regional threshold.

Table 1 – Jackson Township Vehicle Miles Traveled (VMT) Summary

Scenario	Average VMT/Capita	Average VMT/Employee (Office)	VMT/Capita Threshold (15% Below Regional Average)	VMT/Employee Threshold (15% Below Regional Average, Office)	% to Reduce to Achieve VMT/Capita Threshold	% to Reduce to Achieve VMT/Employee Threshold
Existing No Project	20.20	16.04	17.17	13.64	-	-
Existing Plus Project	17.46	16.48	-	-	1.7%	17.2%
Super Cumulative No Project	18.40	13.31	15.64	11.31	-	-
Super Cumulative Plus Project	13.97	12.68	-	-	-12.0%	10.8%

As shown in **Table 1**, Jackson Township would need to reduce its VMT per capita by 1.7-percent to achieve the regional threshold for residential uses for Existing plus Project conditions. In addition, Jackson Township would need to reduce its VMT per employee by 17.2-percent to achieve the regional threshold for office uses for Existing plus Project conditions.

Consistent with Sacramento County guidance, new thresholds were developed for Super Cumulative Conditions. As shown in **Table 1**, for Super Cumulative No Project Conditions, the regional VMT per capita average is 18.4 and the regional VMT per employee average for office land uses is 13.31. This results in regional thresholds, set 15-percent below the regional averages, of 15.64 VMT per capita and 11.31 VMT per employee.

As shown in **Table 1**, for Super Cumulative plus Project Conditions, Jackson Township’s VMT per capita is 12.0-percent below the regional threshold for residential uses, but its VMT per employee would need to be reduced by 10.8-percent below the regional threshold for office land uses. Therefore, a finding of significant impact is reached for Jackson Township’s residential and office land uses for Existing plus Project conditions, a finding of less than significant impact is reached for Jackson Township’s residential land uses for Super Cumulative plus Project conditions, and a finding of significant impact is found for office land uses for Super Cumulative plus Project conditions. It should be noted that if the analysis compared Jackson Township’s VMT per capita and VMT per employee to the thresholds established for Existing No Project Conditions, consistent with state guidelines, both residential and office uses would result in a less than significant impact for Super Cumulative plus Project Conditions.

¹ *Transportation Analysis Guidelines*. County of Sacramento. September 10, 2020.

As a significant impact was found for each land use for Existing plus Project Conditions, and for the office land use for Super Cumulative plus Project Conditions, it was necessary to analyze potential mitigation measures which, when implemented, could reduce the project’s impact to less than significant. **Table 2** below summarizes the effectiveness of each mitigation measure.

Table 2 – Jackson Township VMT Mitigation Summary

Mitigation	VMT/Capita Reduction (%)	VMT/Employee Reduction (%)
TMA Participation	2.08%	8.3%
Electric Bikeshare	-0.05%	-
Electric Scootershare	-0.06%	-
Adding Sidewalks	1.0%	-
Carpooling/Rideshare	-	4.0%
Total	3.0%	12.3%

As shown in **Table 2**, when implemented, the mitigation measures will result in reducing the project’s VMT per capita by 3.0-percent and the VMT per employee by 12.3-percent. Application of these measures would exceed the 1.7-percent reduction required to reduce the project’s impact to less than significant for the residential uses. However, application of these measures would not exceed the 17.2-percent reduction required to reduce the project’s impact to less than significant for the office uses. Therefore, because the VMT/employee could not be reduced beyond the required 17.2-percent reduction, the impact for the office uses remains significant and unavoidable.

Note that the VMT per employee reductions apply to both Existing plus Project and Super Cumulative plus Project Conditions. Therefore, application of these measures for the project’s office land uses for Super Cumulative plus Project Conditions would reduce the project’s impact to less than significant. This is due to the fact that the 12.3-percent reduction exceeds the required 10.8-percent reduction for Super Cumulative plus Project Conditions.

The calculations to determine the effectiveness of each mitigation measure are based on two separate methodologies: Sacramento County Transportation Management Association (TMA) participation and calculations provided in CAPCOA’s most recent version of its VMT mitigation handbook, *Handbook for analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*². The methodology and calculations for each mitigation measure are outlined below.

TMA Participation

TMA Selection

As shown in **Table 3**, there are 13 Sacramento area TMAs, of which nine have formal MOUs established with SACOG³ and 7.2-percent of eligible employees participate. However, all TMAs are not equal in relevance and with concurrence from Sacramento County⁴, a subset of TMAs were taken that are more representative of the one to be set up for Jackson Township. The five TMAs chosen to better represent the Jackson Township TMA include the 50 Corridor TMA, the Placer county Transportation Planning Agency (PCTPA) TMA, the Power Inn Alliance TMA, the Sacramento TMA, and the South Natomas TMA.

² *Handbook for analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. California Air Pollution Control Officers Association (CAPCOA). January 2022.

³ SACOG *Federal Congestion Management Process*. SACOG. June 30, 2017.

⁴ *Email with Cameron Shew at Sacramento County*. April 12, 2022.

Table 3 – TMA Participation in the SACOG Region

TMA-TMO ID	TMA NAME	Employers 2012	Employees 2012	TMA Area sq miles	Number of TMA Employers	Number of TMA Employees	Number of TMA Participants	% of Participants in Participating Employers	% Employers in TMA	% of Employees in TMA	% of TMA Participants
1	50 Corridor TMA	6,927	88,024	89	56	24,436	1,875	7.7%	0.8%	27.8%	2.1%
2	City of Elk Grove	7,246	53,070	1,790	1	6	2	33.3%	0.0%	0.0%	0.0%
3	City of Roseville	2,292	21,035	36	61	6,772	149	2.2%	2.7%	32.2%	0.7%
4	El Dorado County Transportation Commission	138	2,134	4	193	2,560	275	10.7%	139.9%	120.0%	12.9%
5	McClellan Park TMA	1,030	8,645	11	42	1,909	63	3.3%	4.1%	22.1%	0.7%
6	North Natomas TMA	8,525	70,196	1,457	2	15,007	18	0.1%	0.0%	21.4%	0.0%
7	Placer County Transportation Planning Agency	4,514	45,572	20	12	2,824	244	8.6%	0.3%	6.2%	0.5%
8	Point West Area TMA	2,698	32,820	16	99	8,357	158	1.9%	3.7%	25.5%	0.5%
9	Power Inn Alliance	4,358	56,558	42	117	37,212	1,160	3.1%	2.7%	65.8%	2.1%
10	Sacramento TMA	11,447	113,192	68	224	103,579	10,327	10.0%	2.0%	91.5%	9.1%
11	South Natomas TMA	785	8,248	6	195	6,869	829	12.1%	24.8%	83.3%	10.1%
12	Yolo TMA	5,833	85,899	1,023	26	19,048	1,361	7.1%	0.4%	22.2%	1.6%
13	Yuba-Sutter TMA	4,276	41,116	1,252	5	2,589	88	3.4%	0.1%	6.3%	0.2%
	TOTAL TMA areas	60,069	626,509	5,814	1,033	231,168	16,549	7.2%	1.7%	36.9%	2.6%
	Non TMA areas	13,571	273,660								
	Regional Totals	73,640	900,169						1.4%	25.7%	1.8%

Sources: SACOG Employment Inventory 2012; Commuter Club registration June 2016

1 - McClellan park has grown significantly in number of employers and employees between 2012 and 2016.

VMT per Capita and VMT per Employee Reduction Calculations

Using the five TMAs chosen to better represent the Jackson Township, the calculated percent of participants in participating employers is 8.3-percent. Thus, one can infer that if all employees of the employers within the Jackson Township TMA, an 8.3-percent VMT per employee reduction can be taken. Additionally, 56.1-percent of employees work for a participating employer within these five TMAs and based on how Jackson Township’s population is represented in SACSIM, 45-percent are workers. Therefore, a 2.1-percent reduction could be applied to VMT per capita based on the calculation of $56.1\% \times 8.3\% \times 45\% = 2.1\%$.

Programs/Projects within TMA and Associated Reductions

To determine which types of programs and projects could be considered for inclusion within the Jackson Township TMA, a review was taken of the programs and projects included within the five existing TMAs chosen to be representative of the Jackson Township TMA. SACOG’s *Congestion Management Process* report contains a table on page 87 that summarizes the programs and projects within each TMA. After review of the five representative TMAs, three programs and projects were chosen for inclusion that combined, would equal or exceed the calculated 8.3-percent reduction. These programs are outlined below:

- Commuter Trip Reduction Marketing:** CAPCOA’s VMT Mitigation Handbook’s mitigation measure T-7 indicates that implementing a commute trip reduction marketing program at eligible employers can reduce VMT by up to 4-percent. As stated in the Handbook, “Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.” The reduction calculation is based on the percentage of employees that are eligible to get involved with the program. As it is assumed that 100-percent of employees will be eligible to be involved with a ridesharing program, the full 4-percent reduction can be taken. The requirements associated with this mitigation measure include an onsite or online commuter information services, employee transportation coordinators, and a guaranteed ride home service as described below. These features of the trip reduction marketing program are generally consistent with how other TMAs operate in the County. For example, the 50 Corridor

TMA has an employer-based marketing where staff time and materials are spent on promoting alternative modes of travel, promoting regional trip reduction programs, encouraging employers to offer incentives to reducing trips, and promoting local trip reduction programs. In addition, training and education is provided for employee transportation coordinators as part of the 50 Corridor TMA.

- **Guaranteed Ride Home:** While not a standalone measure, the guaranteed ride home program is an essential component of several of the mitigations included both within the TMA and additional measures implemented in addition to the TMA. To ensure that employees have the flexibility to adapt to the challenges and circumstances they are presented with day-to-day, they must be sure that if they are without a personal vehicle, they are always able to return home. For example, if an employee is required to work later than when the last available carpool leaves or transit options are no longer available, the only remaining option would be the guaranteed ride home program. If this is not provided, employees may think they need their personal vehicle for flexibility purposes, even if the situation is rare where no other options exist. Thus, to bolster the effectiveness of the mitigations implemented, a guaranteed ride home program must be included.
- **Provide Employer-Sponsored Vanpool:** CAPCOA's VMT Mitigation Handbook's mitigation measure T-11 indicates that implementing an employer-sponsored vanpool service can reduce VMT by up to 20.4-percent. This is based on a calculation that uses the percent of employees that participate in the vanpool program, the average length of a one-way vehicle commute trip, and various constants to calculate the VMT reduction. Based on data from the CAPCOA Handbook, the average one-way vehicle commute trip length for the Sacramento-Roseville-Arden Arcade region is 14.23 miles. In addition, CAPCOA indicates that the average percentage of employees that participate in a vanpool program is 2.7-percent. This results in a VMT reduction of 4.6-percent. As the CAPCOA Handbook states that this mitigation measure is more appropriately implemented by the employer rather than the developer, each employer will be required to participate in the Jackson Township TMA and as such, will be required to have an individual monitoring program. This Transportation System Monitoring (TSM) plan that is developed and implemented with each employer will enable the vanpool mitigation measure to be implemented with each employer.

When adding the 4-percent reduction for the commute trip reduction marketing program with the 4.6-percent reduction for the employer-sponsored vanpool, a total TMA reduction of 8.6-percent is obtained. However, the previously calculated 8.3-percent total reduction which is based on existing TMAs in the Sacramento region representative of the Jackson Township TMA was used for this analysis as it is based on local data.

Electric Bikeshare: CAPCOA's VMT Mitigation Handbook's mitigation measure T-22-B indicates that implementing an electric bike share program results in a maximum VMT mitigation of 0.05-percent. This reduction is based on a calculation that uses the percent of the residences that have access to a bike share system with and without the implementation of the program to calculate the reduction. The reduction is also based on the average vehicle trip length within the Sacramento-Roseville-Arden Arcade area. Using this trip distance and the equation to calculate the reduction within the CAPCOA Handbook, a reduction of 0.05-percent was calculated.

Electric Scootershare: CAPCOA's VMT Mitigation Handbook's mitigation measure T-22-C indicates that implementing an electric bike share program results in a maximum VMT mitigation of 0.06-percent. This reduction is based on a calculation that uses the percent of the residences that have access to a scooter share system with and without the implementation of the program to calculate the reduction. The reduction is also based on the average vehicle trip length within the Sacramento-Roseville-Arden Arcade area. Using this trip distance and the equation to calculate the reduction within the CAPCOA Handbook, a reduction of 0.06-percent was calculated.

Provide Pedestrian Network Improvement: CAPCOA’s VMT Mitigation Handbook’s mitigation measure T-18 indicates that constructing sidewalks to improve pedestrian access within differing land uses can reduce VMT by up to 6.4-percent. This is based on a calculation that uses the existing sidewalk length in the study area and the sidewalk length in the study area with the measure to calculate the reduction. As there are no existing sidewalks within the project area, but it is expected that sidewalks will be constructed to connect the residential and non-residential land uses within the project, it was conservatively assumed that a 1-percent reduction in VMT per capita could be taken with implementation of this measure.

Provide Ridesharing Program: CAPCOA’s VMT Mitigation Handbook’s mitigation measure T-8 indicates that implementing a ridesharing (carpooling) program can reduce VMT by up to 8-percent. However, according to Table T-8.1, this 8-percent maximum is only applicable in urban contexts while a 4-percent maximum is applicable to suburban contexts. Therefore, the 4-percent maximum rather than the 8-percent maximum was used for this mitigation measure. The VMT maximum reduction is based on the percentage of employees that are eligible to get involved with the program. As it is assumed that 100-percent of employees will be eligible to be involved with a ridesharing program, the full 4-percent reduction can be taken.

Findings

Based on the results of this analysis, the following findings are made:

- As shown in **Table 1**, Jackson Township’s VMT per capita will need to be reduced by 1.7-percent to achieve the regional threshold for residential uses and its VMT per employee will need to be reduced by 17.2-percent to achieve the regional threshold for office uses for Existing plus Project conditions. These results indicate that Jackson Township has a finding of a **significant impact** for residential and office land uses for Existing plus Project conditions.
- As shown in **Table 1**, Jackson Township’s VMT per capita is 12.0-percent below the regional threshold for residential uses, but its VMT per employee will need to be reduced by 10.8-percent to achieve the regional threshold for office uses for Super Cumulative plus Project conditions. These results indicate that Jackson Township has a finding of a **less than significant impact** for residential land uses, but a finding of a **significant impact** for office land uses for Super Cumulative plus Project conditions.
- As shown in **Table 2**, when implemented, the mitigation measures outlined herein will result in reducing the project’s VMT per capita by 3.0-percent and the VMT per employee for office land uses by 12.3-percent. These results exceed the required 1.7-percent and 10.8-percent reductions, respectively, required to mitigate the project’s VMT impact for residential uses for Existing plus Project Conditions and the office land uses for Cumulative plus Project Conditions. Therefore, these impacts can be reduced to **less than significant**. However, these results do not exceed the required 17.2-percent reduction required to mitigate the project’s VMT impact for office uses for Existing plus Project Conditions. Therefore, this impact remains **significant and unavoidable**.