 Logos for Metropolitan Transportation Commission and Association of Bay Area Governments

SB743 Policy Adoption Technical Assistance Program

Module 2 Memo Templates and Exercises

# How to Use This Document

This document is a complement to the Module 2 – Advanced SB 743 of MTC’s SB 743 Policy Adoption Technical Assistance program. This document includes three components:

1. **Memo Template** – The template is intended to serve as a staff report for jurisdictions to make staff recommendations for adoption of a VMT policy. This memorandum includes a summary of key policies from the Module 1 memo template – “Overview of SB 743, Review of Existing Policies and Engagement Needs” and steps staff through the decisions that each City must make with respect to VMT metrics, thresholds, screening, and calculation approaches. The final step for SB 743 adoption is VMT mitigation, will be covered in the Module 3 memo template. Other topics that decision makers may request to be included while adopting SB 743 policies, such as LOS or parking policies, will be addressed in future modules memo templates.
2. **Module 2 Recap – Case Study Exercise** – A table is provided for jurisdiction staff to use in internal conversations to document the typical types of projects that may occur within a jurisdiction to ensure that the jurisdiction adopts locally appropriate VMT policies.
3. **Module 3 Prep – VMT Mitigation Assessment** – This table is intended to spark staff-level conversations about the types of VMT mitigation that are appropriate for your jurisdiction in preparation for Module 3, which will focus on VMT mitigation.

We recommend that you use the case study exercise and the Module 2 workshop presentation to draft initial recommendations based on your jurisdiction’s needs. The template provides text and instructions for jurisdiction specific information that you will need to fill in are provided in italicized text that should be removed from the final memo. The template is intentionally brief to streamline the process for staff reports, but provides room for additional text to clarify any local concerns. Note that the template includes the phrase "Our jurisdiction" that has been used universally and could be replaced globally with your jurisdiction’s name (e.g., The City of San Mateo can replace Our jurisdiction).

# Abbreviations and Glossary

* **CEQA** – California Environmental Quality Act requires proposed discretionary projects to disclose to the public the significant environmental effects caused by the project, through the preparation of an initial study, negative declaration, mitigated negative declaration, or environmental impact report
* **LOS** – level of service
* **Mitigation –** feasible measures required as part of the approval process to reduce impacts below the threshold of significance
* **OPR** – Governor’s Office of Planning and Research
* **Thresholds of Significance** – used to determine whether an impact is significant or not
* **Screening Thresholds** – also knowns as screens, are used to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a details study.
* **Significant Impact –** an impact greater than the threshold of significance, requires mitigation
* **VMT** – Vehicle miles traveled

<<Insert City logo(s) here>>

MEMORANDUM

**To:**

**From:**

**Date:** [Pick the date]

**Subject:** **Senate Bill 743 Implementation - VMT Metrics, Thresholds, Screening Criteria, and Calculation Methods for Adoption**

# Purpose

The purpose of this memorandum is to provide information about the VMT policy options available to JURISDICTION. This memorandum provides background about SB 743 and why local jurisdictions need to adopt SB 743 policies and outlines the options available to establish locally appropriate metrics, thresholds, screening criteria, and calculation methods for common land use types. This memorandum does not cover VMT mitigation in detail, which is the final step in the SB 743 policy adoption process and will be covered in a subsequent memorandum. Other topics that will be covered in subsequent memorandums include related topics that are not required by SB 743 to be covered, such as LOS or parking policies.

*Section instructions: Update the purpose if VMT mitigation or other considerations are combined into one memorandum after Module 3 and beyond.*

# Senate Bill 743 Overview

The California Environmental Quality Act (CEQA) requires land use development and transportation projects to identify, disclose, and mitigate environmental impacts. Transportation is one of 18 environmental resources studies in CEQA analysis. Historically, many lead agencies chose to use Level of Service (LOS), a measure of vehicle delay, to define transportation impacts under CEQA. Mitigations of LOS impacts compelled communities to widen roads and incentivized spread out land use patterns resulting over time in more driving, congestion, and pollution.

Senate Bill 743 (Steinberg, 2013), codified in [Public Resources Code section 21099](https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=PRC&division=13.&title=&part=&chapter=2.7.&article=), requires lead agencies to replace LOS to better align transportation impact criteria with State environmental, economic, and public health goals. The criteria for determining the significance of transportation impacts and setting new thresholds must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.”

The Governor’s Office of Planning and Research (OPR) supports the implementation of SB 743 by providing resources including the [Technical Advisory on Evaluating Transportation Impacts in CEQA](https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf) (2018). OPR recommends that jurisdictions replace LOS with Vehicle Miles Traveled (VMT) based metrics and provides guidance on how to accomplish this. This shift will better align transportation impact analysis and mitigation outcomes to reduce greenhouse gas emissions, encourage infill development, and improve public health. Jurisdictions in California are now required to use VMT based metrics to evaluate environmental impacts related to transportation. Cities can still use LOS within the local development review process to inform site access and traffic operations decisions, but LOS cannot be used to evaluate CEQA impacts or mitigations.

VMT measures the amount of driving produced by a project and provides a measure of travel efficiency of a land use project. For most types of projects, VMT-based analysis offers a streamlined analysis that saves jurisdiction staff time and provides clarity for the public and land developers. The shift to VMT policies is intended to help achieve climate commitments, preserve the environment, improve health and safety, create sustainable communities, encourage more efficient use of the transportation network, and provide more travel choices for each jurisdiction, as well as for the region and state.

**As a lead agency, our jurisdiction must make several key policy decisions to comply with SB 743.**

Because reporting the VMT associated with a given project or plan requires a different method than traditional traffic analysis, our jurisdiction will need to set clear guidelines and expectations for how a VMT analysis should be conducted. Our jurisdiction is participating in an MTC/ABAG technical assistance to assist jurisdictions in the Bay Area with adopting VMT thresholds and other policies. To comply with SB 743, jurisdictions need to select new metrics, establish thresholds, and develop mitigations by answer key implementation questions such as those listed below:

* What will be the preferred methodology for estimating and forecasting VMT for transportation impact analysis in CEQA?
* How does our jurisdiction want to use screening criteria to simplify the CEQA transportation review for low-VMT projects?
* What mitigation does our jurisdiction consider to be feasible for VMT impacts?

This memorandum discusses staff’s review of our jurisdiction’s internal policies, as well as preliminary recommendations for methodologies, thresholds, and screening criteria for assessing VMT under CEQA. OPR’s recommendations are presented first, followed by any deviations that staff have recommended.

## Review of Existing Policies

*Section instructions: Copy over information from the Module 1 memo template to fill these tables out. If the memo template from Module 1 is being submitted to decision makers separately, then this section could be replaced with a citation to that memorandum.*

Staff conducted a review of existing policies and plans in our jurisdictions that interface with SB743 and VMT analysis. **Table 1** below summarizes those findings.

Table 1: Existing Policies in [Jurisdiction]

|  |  |  |
| --- | --- | --- |
| **Area of Research** | **Relevant Policies, Programs, and Initiatives** | **Implications for VMT Analysis and Thresholds** |
| CEQA transportation thresholds or LOS goals |  |  |
| Transportation Plans |  |  |
| Transportation Demand Management (TDM) |  |  |
| Parking requirements |  |  |
| Housing Element |  |  |
| Impact fees |  |  |
| *Add other policies, if any* |  |  |

## Internal Stakeholder Outreach

Staff conducted outreach to internal stakeholders, elected officials, and the general public to identify needs, barriers, and concerns around transitioning to using VMT as the metric for assessing transportation impacts under CEQA. **Table 2** below summarizes the findings of that outreach.

Table 2: Stakeholder Outreach Summary

|  |  |  |  |
| --- | --- | --- | --- |
| **Stakeholder** | **Engagement Activities** | **Key Concerns** | **Goals for This Effort** |
| Internal stakeholders, including other departments |  |  |  |
| The public, particularly residents, business owners, and landowners/developers |  |  |  |
| Planning Commission |  |  |  |
| City Council/Board of Supervisors |  |  |  |
| *Add other stakeholders, if any* |  |  |  |

# VMT Metrics

*Section instructions: Fill in tables and add text in the table or in-line under the “Staff Recommendation” sub-header to support staff’s recommendations. If a VMT estimation tool is available in the county, this should be described in this section as the jurisdiction may decide to rely on the metrics presented in the tool.*

*OPR guidance should be the primary resource to define VMT metrics for land uses identified in the OPR technical guidance, and jurisdictions may choose to define local recommendations to fill gaps as necessary. If the VMT metrics differ from OPR recommendations, the rationale for deviating from OPR guidance should include substantial evidence on the relationship to this threshold and the goals of SB 743 and each jurisdiction’s policies. Alternate options are not described in detail in this memo template for brevity purposes but will be covered in workshop module and can be reviewed in office hours when support is needed to develop this rationale.*

Our jurisdiction has discretion on how to measure VMT.

The first decision facing our jurisdiction is which VMT *metrics* to use to express a project’s transportation effects under CEQA. VMT metrics fall into two general categories: total (or absolute) VMT and per capita VMT. As described below, OPR recommends the use of **per capita** metrics for office and residential land use, and the **project’s effect on total VMT** for retail land use.

### Per Capita VMT

Per capita VMT is also referred to as an efficiency metric, as it does not vary directly with project size but rather measures the efficiency of the project’s location. For example, if a project generates 100 daily trips at an average of five miles per trip, the *absolute* project generated VMT is 500 vehicle miles per day. If that project is a small office employing 25 people, the per capita VMT is 20 VMT per employee (a per capita or VMT efficiency metric). An office in the same location with twice as many workers would generate twice the absolute project generated VMT (200 daily trips X 5 vehicles per trip = 1,000 vehicle miles per day) but the same amount of per capita VMT per day (1,000 vehicle miles traveled / 50 people = 20 VMT per employee). OPR notes that the per capita metric better addresses the intent of SB 743 than total VMT for office and residential land uses by prioritizing efficient locations.

### Total Overall Effect on VMT

Rather than focusing solely on VMT to and from the project, a project’s total overall effect on VMT takes into consideration how travel patterns within a given area (typically the project’s sphere of influence) may change once it is completed. An often-cited example of how a project can affect VMT is the addition of a grocery store in a food desert. Residents of a neighborhood without a grocery store must travel a great distance to an existing grocery store. Adding the grocery store to that neighborhood will shorten many of the grocery shopping trips and reduce the VMT to/from the neighborhood. While the new store itself will “generate” many daily trips, in that there will be many cars coming in and out of the store’s driveway, it will generally attract those trips *away* from other grocery stores located farther away. If the VMT within a city or region served by all the local grocery stores were to be assessed, it is likely that the total amount of driving in that area will have decreased rather than increased.

Regardless of the metric used for the CEQA Transportation impact analysis, total project-generated VMT and total VMT on local roadways is typically used in the Greenhouse Gas and Air Quality CEQA topic areas.

## Staff Recommendations

OPR recommends the use of **per capita** metrics for office and residential land use, and the **project’s effect on total VMT** for retail land use but does not provide guidance on other land uses. **Table 3** below summarizes staff’s initial recommendations where they differ from OPR guidance.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 3: Summary of Common VMT Metrics   |  |  |  |  | | --- | --- | --- | --- | | **Project Type** | **OPR Recommended Metric** | **Staff Recommended Metric** | **Rationale** | | Office, R&D, Light Industrial | Home-based Work VMT per Employee |  |  | | Residential | Home-based VMT per Resident |  |  | | Retail | Project Effect on Total Regional VMT |  |  | | [Other land uses] | Project Effect on Total Regional VMT *or* Appropriate per Capita Metric |  |  | |

# VMT Impact Significance Thresholds

*Section instructions: Same as VMT Metrics: Fill in tables and add text in the table or in-line under the “Staff Recommendation” sub-header to support staff’s recommendations if they differ from OPR recommendations. The column “Alternatives to OPR used by Other Jurisdictions” can be deleted if no deviation from OPR is selected.*

Our jurisdiction has discretion to decide what constitutes a significant impact to the environment.

SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. Our jurisdiction as a lead agency has the discretion to set its significance threshold for VMT impacts, provided that the basis for that threshold is grounded in substantial. OPR has produced technical guidance for lead agencies that proposes thresholds for typical land use projects and transportation projects, as well as several screening criteria. These recommended thresholds of significance are as follows:

A land use project will be considered to have a significant impact on the environment if:

* **Residential.** The home-based VMT per resident generated by the project is more than 15 percent below the nine-county Bay Area regional average or citywide average[[1]](#footnote-2) home-based VMT per resident.
* **Office/Employment.** The home-based-work VMT per worker generated by the project is more than 15 percent below the nine-county Bay Area regional[[2]](#footnote-3) average home-based-work VMT per worker.
* **Retail and Other Land Uses.** The project results in a net increase in VMT within its sphere of influence.

## Staff Recommendations

Our jurisdiction may adopt this guidance as written, or modify it if we have substantial evidence for making that change. **Table 4** summarizes OPR guidance, other approaches in use by other California jurisdictions, and the staff recommendation for a number of decision areas.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Table 4: Criteria for Significant Impacts   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Element of Impact Criteria** | **OPR Recommendation** | **Alternatives to OPR used by Other Jurisdictions** | **Staff Recommended Metric** | **Rationale (if recommendation differs from OPR)** | | Threshold: VMT Reduction from Baseline | 15% Below Baseline VMT per Capita (2015) | Consistent with Region and State GHG Goals  16.8% Below Baseline VMT per Capita (*2017 ARB Scoping Plan Update*)  22% Below Baseline VMT per Capita (*2022 ARB Scoping Plan Update*) |  |  | | Threshold: Project Effect on VMT | No increase in Regional VMT | No net new Citywide VMT  No net new Countywide VMT  No net new VMT in sphere of influence |  |  | | Baseline | 2015 Regional Average (Region: MTC 9-County Region) or citywide average for residential | 2015 County Average  2015 City Average |  |  | | Thresholds to Apply to Individual Land Use Types (*unless screened out per following section*) | | | | | | Residential | Per Capita VMT Reduction from Baseline |  |  |  | | Office / R&D / Light Industrial | Per Capita VMT Reduction from Baseline |  |  |  | | Retail | Project Effect on regional VMT | Project Effect on citywide VMT  No net new VMT at site |  |  | | Hotels | n/a | Project Effect on VMT (qualitative)  Total VMT per room |  |  | | Schools | n/a | Project Effect on VMT (qualitative)  Home-based work VMT per employee  Home-Based School VMT per Student  Project Effect on citywide VMT |  |  | | Entertainment / Tourism | n/a | Project Effect on VMT (qualitative)  Total Daily VMT per visitor  Home-based work VMT per employee |  |  | | Open Space / Trailheads | n/a | Project Effect on VMT (qualitative)  Total Daily VMT per visitor  Project Effect on regional VMT |  |  | | [*Other*] | n/a |  |  |  | | [*Other*] | n/a |  |  |  | |

# VMT Impact Screening Criteria

*Section instructions: Same as VMT Metrics: Fill in tables and add text in the table or in-line under the “Staff Recommendation” sub-header to support staff’s recommendations if they differ from OPR recommendations.*

Our jurisdiction has discretion to decide what types of projects can be streamlined by screening them out from having to complete a VMT analysis.

OPR recommends a number of screening criteria, designed to help jurisdictions determine types of projects for which a VMT impact is unlikely, even if it may otherwise not meet the criteria set forth in **Table 4** above.

The OPR guidance recommends that projects be presumed to have a less than significant impact on VMT if any of the following are true:

* The project is located within ½ mile of high quality transit (either a rail station, or a bus stop with service at least every 15 minutes during the AM and PM peak periods)
* The project is located in an area where existing VMT per capita meets the VMT thresholds (e.g., 15% below existing rates of VMT if that threshold is selected)
* The project is local-serving retail / public facilities (grocery store, neighborhood school, library, drug store, dry cleaners, gym, etc.) not exceeding 50,000 square feet in size
* The project is small, and generates fewer than 110 daily vehicle trips
* The project consists of 100% affordable housing

However, projects are not eligible for location-based screening (based on transit proximity or location in a low VMT area) if **any** of the following are true:

* Project is low density (<0.75 FAR)
* Project provides more parking than is required by code
* Project replaces existing affordable housing units with a smaller number of market rate units
* Project is inconsistent with Plan Bay Area

## Staff Recommendations

**Table 5** presents these OPR-recommended screening criteria and lists customizations made by other jurisdictions alongside staff’s recommendations.

Table 5: Summary of VMT Screening Recommendations

|  |  |  |  |
| --- | --- | --- | --- |
| **OPR Screening Recommendation** | **Customizations to OPR used by Other Jurisdictions** | **Staff Recommended Metric** | **Rationale (if recommendation differs from OPR)** |
| Project is located within ½ mile of high-quality transit service (defined as a rail station *or* a bus stop with a line providing service at least every 15 minutes during peak hours) | **Differing standards for rail and bus:**  ½ mile of a rail station *or* ¼ mile of high-quality bus service  **Clarifying High Quality bus service:** High quality bus service refers to combined headways of all routes serving the stop  **Defining distance:** Clarifying whether location is as-the-crow-flies or walking distance from transit facility |  |  |
| Project is located in a TAZ for which existing VMT per capita (for the appropriate metric) is at least 15 percent below the regional average. | **Aligning with Local Threshold:** If jurisdiction uses county or city average, applying that to this threshold. |  |  |
| Project consists of 100% affordable housing | **Allowing inclusionary housing to be screened:** Setting threshold equivalent to 50% of units rather than 100% in alignment with SB 35 |  |  |
| Project consists of local-serving retail (grocery store, drug store, gym, etc) not exceeding 50,000 square feet | **Reducing square footage.** Requiring additional analysis for any retail over 30,000 square feet to exclude larger big box type stores. |  |  |
| Projects are not eligible for screening based on transit proximity or location in a low VMT area if:   * They provide more parking than required by code * They are less than 0.75 FAR * They are inconsistent with Plan Bay Area * They replace affordable units with a smaller number of market rate units | **Adjustment for cities with parking maximums rather than minimums:** Projects are ineligible for screening if they provide more parking **than indicated by current rates of demand** *or***than indicated by ITE Parking Generation Manual.**  **Adjustment for high-density areas:** Projects are ineligible if they are **less dense than the existing area** |  |  |

# VMT Calculation Methods

Our jurisdiction has discretion on how to calculate VMT.

The most common method of calculating the VMT metrics listed in **Table 3** is through a travel forecasting model. A travel forecasting model uses specialized software and is designed to reflect the interactions between different land use and roadway elements in a large area. The two travel models most commonly used to assess projects in our jurisdiction are [*list county and local models available*] and Travel Model 1.5 (“MTC Travel Model”), which is maintained by the Metropolitan Transportation Commission (MTC) and used for large-scale regional planning efforts. [Further, if your county has a VMT estimating tool, this should be mentioned here*.*] There is also a statewide model developed by Caltrans, though the level of analysis is at such a large scale that it is typically used to evaluate interregional travel and freight movements rather than localized land use changes.

In some cases where a travel model is not available or not appropriate, VMT can be estimated using sketch models or spreadsheet tools. VMT may also be estimated directly by multiplying the number of trips by an average trip length. Trips can be estimated using the results of local trip generation surveys or trip generation rate data published by the Institute of Transportation Engineers (ITE). Trip lengths can be extracted from models or from standardized averages or travel pattern data from the regional or sub-regional planning organization. Using trip length averages does not consider changes to the roadway network or to traffic congestion, or the project’s potential effects on overall travel patterns. These non-model methods can be used to estimate project generated VMT for small projects that would “get lost in a model.”

## Staff Recommendations

Practically speaking, the use of a travel model is preferable for projects large enough to be accurately represented in that model. Small and medium projects that are unlikely to have a large effect on jurisdiction-wide travel patterns are unlikely to require use of a model; but large projects that may cause other shifts should perform a new model run. In our jurisdiction, use of the [*CTA model*] is most appropriate for this analysis.

Some limitations of these methods include the following:

* Statewide and regional models have limited sensitivity and accuracy for local scale applications off the shelf.
* Regional and local models often truncate trips at model boundaries.
* Sketch and spreadsheet tools do not capture the “project effect on VMT.”

For smaller projects, use of a non-model “accounting method” is more appropriate due to their scale and ease of use. One potential planning tool that may be appropriate for most small- to medium-sized projects is the [CTA VMT Estimation Tool, if applicable]. Regardless of the approach used, a model run may still be appropriate to calculate total VMT and VMT on local roadways for use in the Greenhouse Gas and Air Quality CEQA topic areas.

In our jurisdiction, we recommend that projects: [Select one, and modify as you would like]

|  |
| --- |
| Use countywide VMT estimating tool [if available] |
| Perform a new model run for any project that does not pass the appropriate screening guidelines. *[Or for projects that are regionally significant, and thus the VMT screening tool may not be appropriate]* |
| Use a sketch-planning or spreadsheet approach to calculate VMT for most projects. This involves extrapolating project VMT from the existing per capita or total VMT rates in the project TAZ. However, a new model run may be requested at the discretion of the Planning Department, including in the following circumstances:   * The project is large enough to affect regional trip-making; generally creating more than 2000 daily trips / 300 peak hour trips * The project is very different from the existing land use in the TAZ (i.e., new residential in a TAZ without much existing residential) * The project more than doubles the amount of a given land use in the TAZ, even if it would not generally be considered a regionally significant project |

# VMT Mitigation

*Section instructions: If this memorandum is submitted prior to completing the Module 3 memo template, then staff can attach the Model 3 - VMT Mitigation Assessment (see below) to inform decision makers on the types of VMT mitigation that the City may consider in this phase of policy adoption. Otherwise, this section can be replaced with that memorandum.*

Subsequent memorandums will delve into the topic of mitigation, which is the final step of SB 743 guidance. This includes the following questions:

* What mitigation does our jurisdiction consider to be feasible for VMT impacts?
* If transportation demand management (TDM) is used, how will the lead agency verify its effectiveness over time (since many TDM programs depend on implementation by individual tenants that may change over time)?
* If on-site VMT mitigation measures are infeasible or cannot reduce VMT to less-than-significant levels, what off-site VMT mitigation measures could off-set these impacts? What administrative programs will be required to manage these off-site measures?

# Conclusion

*Section instructions: Staff to summarize where they are recommending adoption or deviating from OPR’s guidance on metrics, significance thresholds, screening criteria, and calculations methods.*

# Module 2 Case Study

*Section instructions: This and the following sections are intended to be separate from memo template but could be included as appendices as supplemental information if desired.*

This case study involves applying OPR guidance to sample representative projects for your jurisdiction.Thistable is provided for jurisdiction staff to use in internal conversations to document the typical types of projects that may occur within a jurisdiction to ensure that the jurisdiction adopts locally appropriate VMT policies.

**Instructions**

1. **Identify two to three case study projects.** These are for use in exploring how your agency may want to approach setting its SB743 thresholds, screening criteria, and analysis methods. A good case study should reflect one or more of the following criteria:
   1. It is a project type that your jurisdiction expects to see regularly.
   2. It is similar to an upcoming or existing project that has been contentious in your community.
   3. It is located in a part of your jurisdiction that is anticipated to see a fair amount of growth
   4. The project type is not expressly addressed by OPR’s guidance (i.e., hotel, school, etc).
2. **For each case study project, determine the approach your jurisdiction would want to take for metrics, thresholds, and any screening decisions.**
3. **Compare your case study answers to OPR guidance and to the information you gathered in your Module 1 memo**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Case Study #1 | Case Study #2 | Case Study #3 |
| 1. Describe the project’s land use and location. |  |  |  |
| 1. Do screening standards apply to the project?   Within ½ mile of high quality transit (<15 minute headways)  100% affordable housing  Local-serving retail  Low-VMT area (see questions D and E)  Something else |  |  |  |
| 1. Which VMT metrics are appropriate for this project?   Home based VMT per resident  Home-based work VMT per employee  Project effect on total VMT  Total VMT per service population  Something else |  |  |  |
| 1. Identify baseline VMT using county tool, maps, or tables. What geography will be used for baseline?   9-County Regional Average  County average  City/Jurisdiction Average |  |  |  |
| 1. Calculate Numeric VMT threshold   *D \* (100% – 15%)* |  |  |  |
| 1. Identify project VMT using county tool, maps, or tables. |  |  |  |
| 1. Determine whether there is a VMT impact. A project impact occurs if:    1. F > E; and    2. Project does not meet any criteria listed in B. |  |  |  |
| 1. (If Project has VMT impact) Calculate percent reduction to achieve less than significant impact. *(F – E) / E* |  |  |  |

# Module 3 Preparation – VMT Mitigation Assessment

This table is intended to spark staff-level conversations about the types of VMT mitigation that are appropriate for your jurisdiction in preparation for Module 3, which will focus on VMT mitigation.

The CAPCOA handbook (<https://www.caleemod.com/handbook/full_handbook.html>) is a resource for California communities and developers to leverage in quantifying GHG emissions and VMT reductions. Using the latest research, handbook authors outline different GHG mitigating measures and how to estimate their predicted effectiveness in one’s own jurisdiction.

**Review of VMT Mitigation Strategies**

| **CAPCOA 2021 ID** | **VMT Reduction Measure** | **Type of VMT Affected** | **Score** 1 - most applicable  2 - somewhat applicable  3 - least applicable  N/A | **Notes** (Related policies/plans/programs, opportunities for coordination, considerations for implementation, etc.) |
| --- | --- | --- | --- | --- |
| **Land Use – Higher Effectiveness** | | | | |
| T-1 | Increase Residential Density | Project-generated trips |  |  |
| T-2 | Increase Job Density | Project-generated trips |  |  |
| T-3 | Provide Transit-Oriented Development | Project-generated trips |  |  |
| T-4 | Integrate Aﬀordable and Below Market Rate Housing | Project-generated trips |  |  |
| T-17 | Improve Street Connectivity | All neighborhood/city trips |  |  |
| **Trip Reduction Programs – Medium Effectiveness** | | | | |
| T-5, T-6, T-7, | Implement Commute Trip Reduction Program | Employee commute trips |  |  |
| T-8, T-11 | Providing Rideshare and Vanpool Programs | Employee commute trips |  |  |
| T-9 | Implement Subsidized or Discounted Transit Program | Employee commute trips |  |  |
| T-10 | Provide End-of-Trip Bicycle Facilities | Employee commute trips |  |  |
| T-12 | Price Workplace Parking | Employee commute trips |  |  |
| T-13 | Implement Employee Parking Cash-Out | Employee commute trips |  |  |
| T-23 | Community-Based Travel Planning | Household trips |  |  |
| **Parking or Road Pricing/Management – Medium Effectiveness** | | | | |
| T-15 | Limit Residential Parking Supply | Project-generated trips |  |  |
| T-16 | Unbundle Residential Parking Costs from Property Cost | Project-generated trips |  |  |
| T-24 | Implement Market Price Public Parking (On-Street) | All neighborhood/city trips |  |  |
| **Neighborhood Design – Lower Effectiveness** | | | | |
| T-18 | Provide Pedestrian Network Improvements | Household trips |  |  |
| T-19-A, T-19-B, T-20 | Construct or Improve Bike Facilities | All neighborhood/city trips, Employee commute trips |  |  |
| T-21-A | Implement Carshare Program | All neighborhood/city trips |  |  |
| T-22-A, T-22-B, T-22-C | Implement Bikeshare or Scootershare Program | All neighborhood/city trips |  |  |
| **Transit – Lower Effectiveness** | | | | |
| T-25, T-26 | Extend Transit Network Coverage, Hours, or Frequency | All neighborhood/city trips |  |  |
| T-27 | Implement Transit-Supportive Roadway Treatments | All neighborhood/city trips |  |  |
| T-28 | Provide Bus Rapid Transit | All neighborhood/city trips |  |  |
| T-29 | Reduce Transit Fares | All neighborhood/city trips |  |  |

1. OPR’s guidance notes that City’s may select the citywide average baseline value applies until such time that a City exceeds the housing allocation for the City as identified in the Sustainable Communities Strategy (SCS) for the Bay Area region, which is Plan Bay Area 2050; if a City exceeds the SCS housing allocation, the nine-county Bay Area regional average should apply. [↑](#footnote-ref-2)
2. OPR Guidance notes that, “In cases where the region is substantially larger than the geography over which most workers would be expected to live, it might be appropriate to refer to a smaller geography, such as the county, that includes the area over which nearly all workers would be expected to live.” If this approach is selected, substantial evidence, such as market or other travel studies, would be required to substantiate this. [↑](#footnote-ref-3)