City of Torrance

Traffic Impact Assessment Guidelines for Land Use Projects

January 2021

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1.0 Introduction

1.1 Purpose

This Guideline provides Vehicle Miles Traveled (VMT) screening criteria, analysis methodology, significance thresholds, and potential mitigation strategies for Land Use Projects (i.e. development projects) within the City of Torrance that require environmental review in compliance with the California Environmental Quality Act (CEQA).

1.2 Background

Senate Bill 743 (Steinberg, 2013) was codified in Public Resources Code Section 21099 and required changes to the guidelines implementing CEQA regarding the analysis of transportation impacts.

Section 21099 states that the criteria for determining the significance of transportation impacts must promote:

- reduction of greenhouse gas (GHG) emissions;
- development of multimodal transportation networks; and
- a diversity of land uses.

Section 21099 also directed the Governor's Office of Planning and Research (OPR) to prepare and develop criteria for determining significance. The OPR concluded that the use of VMT, with thresholds linked to GHG reduction targets, would adequately analyze a project's transportation impacts while supporting all three statutory goals.

In December 2018, the OPR published an advisory [1] that provides recommendations on how to assess VMT as part of a Transportation Impact Analysis (TIA) under CEQA. This Guideline is consistent with the said advisory.

1.3 Technical Resources

The following resources referenced in this Guideline provide supplemental information for VMT-Based TIA preparation:

- OPR Technical Advisory [1]
- Los Angeles County TIA Guidelines [2]
- California Air Pollution Control Officers Association (CAPCOA) Report [3]

A complete list of references is provided in Section 8.0.

2.0 Transportation Setting

2.1 Local Vicinity and Major Roads

The City of Torrance covers roughly 21 square miles (12,312 acres) and is situated in the South Bay area of south western Los Angeles County.

Figure 1 presents a map of the South Bay Cities Council of Governments (SBCOG), depicting Torrance and adjacent cities.

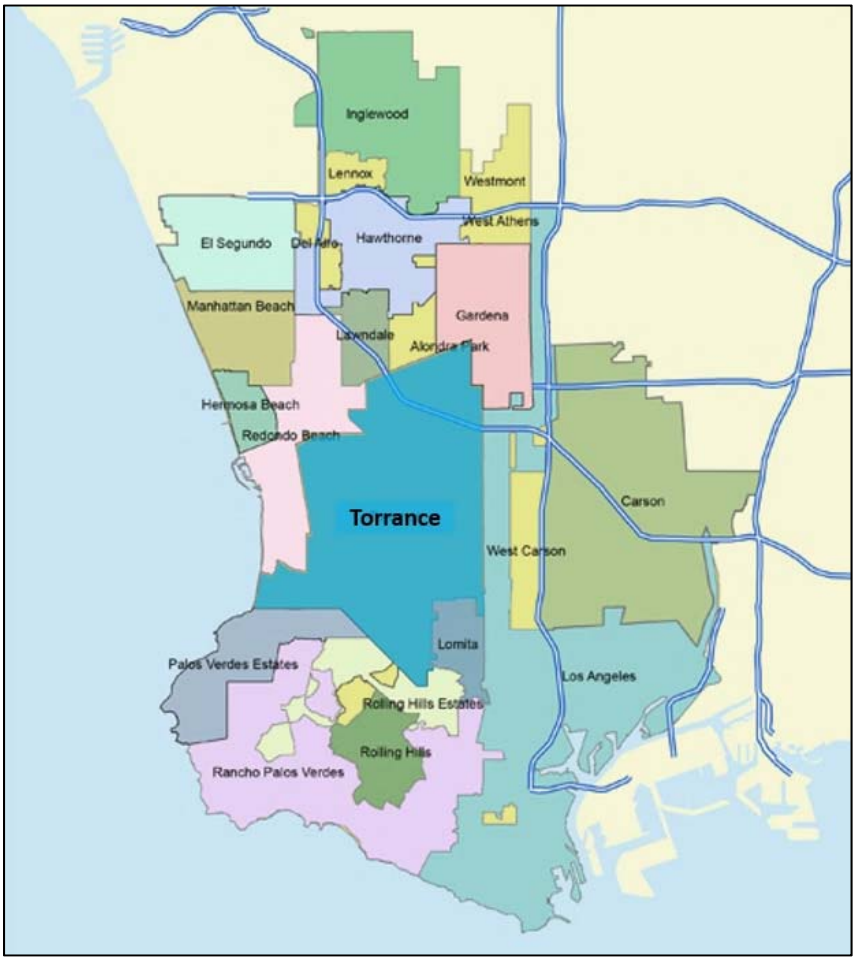


Figure 1 - Torrance and Vicinity
Source: SBCCOG

I-405 passes through the northern portion of Torrance and has five access points within the City at Artesia Boulevard, Crenshaw Boulevard, 182nd Street, and 190th Street.

Three State Routes pass through Torrance: Hawthorne Boulevard (SR 107) goes through the center of the City from north to south, Western Avenue (SR 213) borders the City to the east, and Pacific Coast Highway (SR 1) runs from northwest to southeast just north of the south City limits.

2.2 Regional Area

2.2.1 Southern California Association of Governments (SCAG)

Torrance is a member of SCAG, an association of local governments and agencies in six counties (shown in *Figure 2*) that voluntarily convene as a forum to address regional issues.

Figure 2 - SCAG Member Counties
Source: SCAG

SCAG is designated as a Metropolitan Planning Organization (MPO) under federal law and as a Regional Transportation Planning Agency and a Council of Governments under state law.

2.2.2 SCAG RTP/SCS

As an MPO, SCAG is mandated by federal law to research and develop a Regional Transportation Plan (RTP), which incorporates a Sustainable Communities Strategy (SCS) per California state law.

Every four years, SCAG prepares an RTP/SCS that outlines how the region can better integrate land use and transportation planning. In September 2020, SCAG formally adopted the 2020–2045 RTP/SCS [4] - a long-range visioning plan that

balances future mobility and housing needs with economic, environmental and public health goals.

2.2.3 SCAG RTDM

SCAG develops and maintains transportation models to support its planning program. The SCAG Regional Travel Demand Model (RTDM) is a trip-based model that provides travel forecasting capabilities for the analysis of SCAG's plans and programs.

The 2012 SCAG RTDM contains 2012 base year travel data and has been validated for use in preparing travel forecasts for the SCAG 2016-2040 RTP/SCS [5] [6, p. 2]. Thus, it has a "base year" of 2012 and forecast year of 2040 [6, p. 1_5].

2.3 Transportation Analysis Zones (TAZs)

A TAZ is the unit of geography most commonly used in transportation planning models. TAZs are typically bounded by arterial roadways and streets.

The SCAG RTDM uses a dataset of Tier-2 TAZs that highly resembles the U.S. Census Bureau's Block Groups.

Torrance is comprised of 97 Tier-2 TAZs under the SCAG RTDM. *Figure 3* illustrates the TAZs within and adjacent to the City of Torrance.

2.4 Transit and Active Transportation System

Torrance Transit operates eleven bus lines within the City. *Figure 4* shows the public transit bus service provided by Torrance Transit within the City. Metro, City of Los Angeles Department of Transportation, and Gardena Transit also operate bus service in portions of the City.

Torrance has various bikeways and 550 miles of sidewalks throughout the City. *Figure 5* presents the Class II bike lanes[1] and Class III bike routes[2] within the City.

[1] On-street facilities exclusively designated for bicyclists using stripes and stencils.
[2] Streets designated for bicycle travel and shared with motor vehicles.

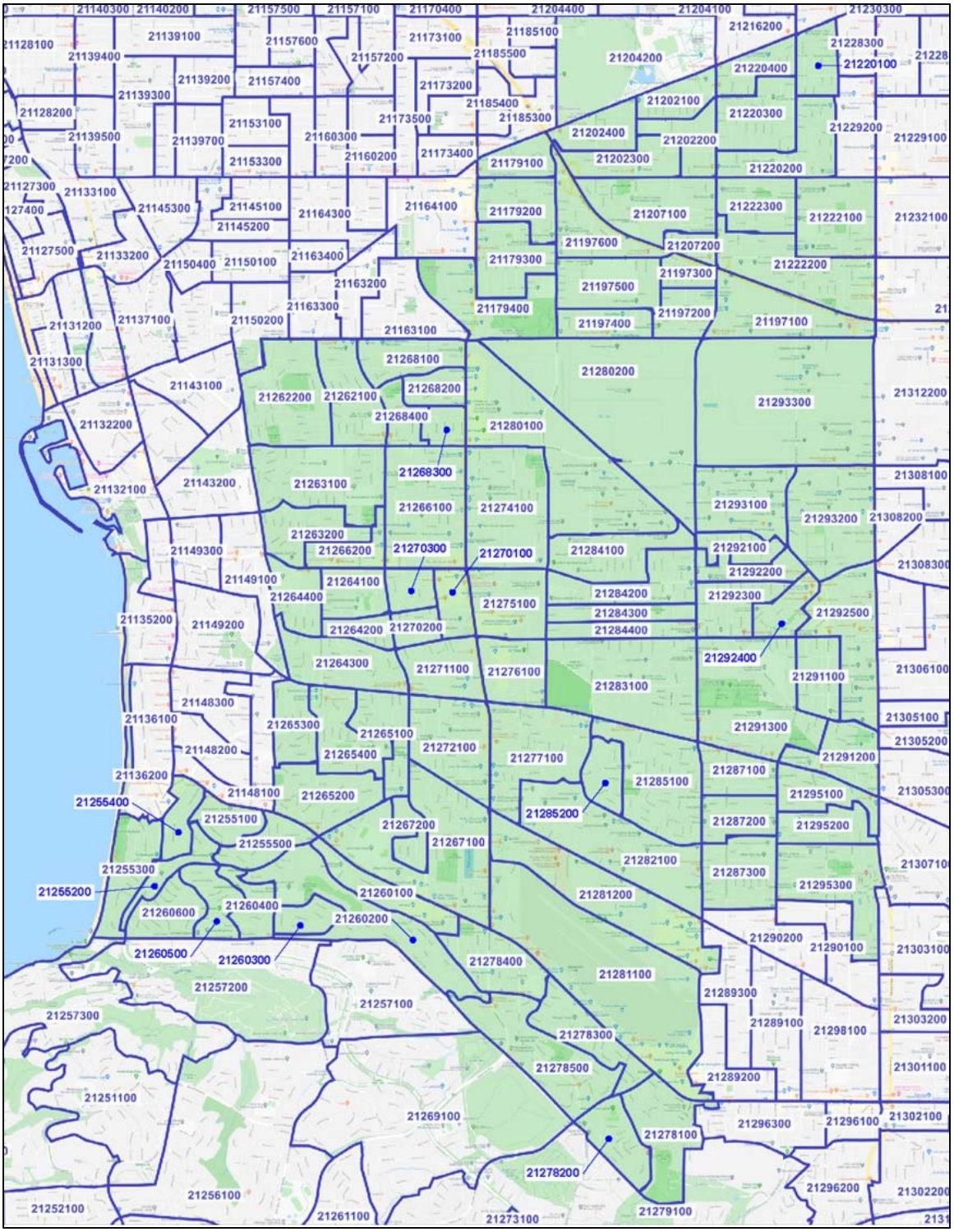


Figure 3 - SCAG RTDM Tier-2 TAZs
Source: SCAG RTDM

Figure 4 - Existing Transit
Source: Torrance Transit

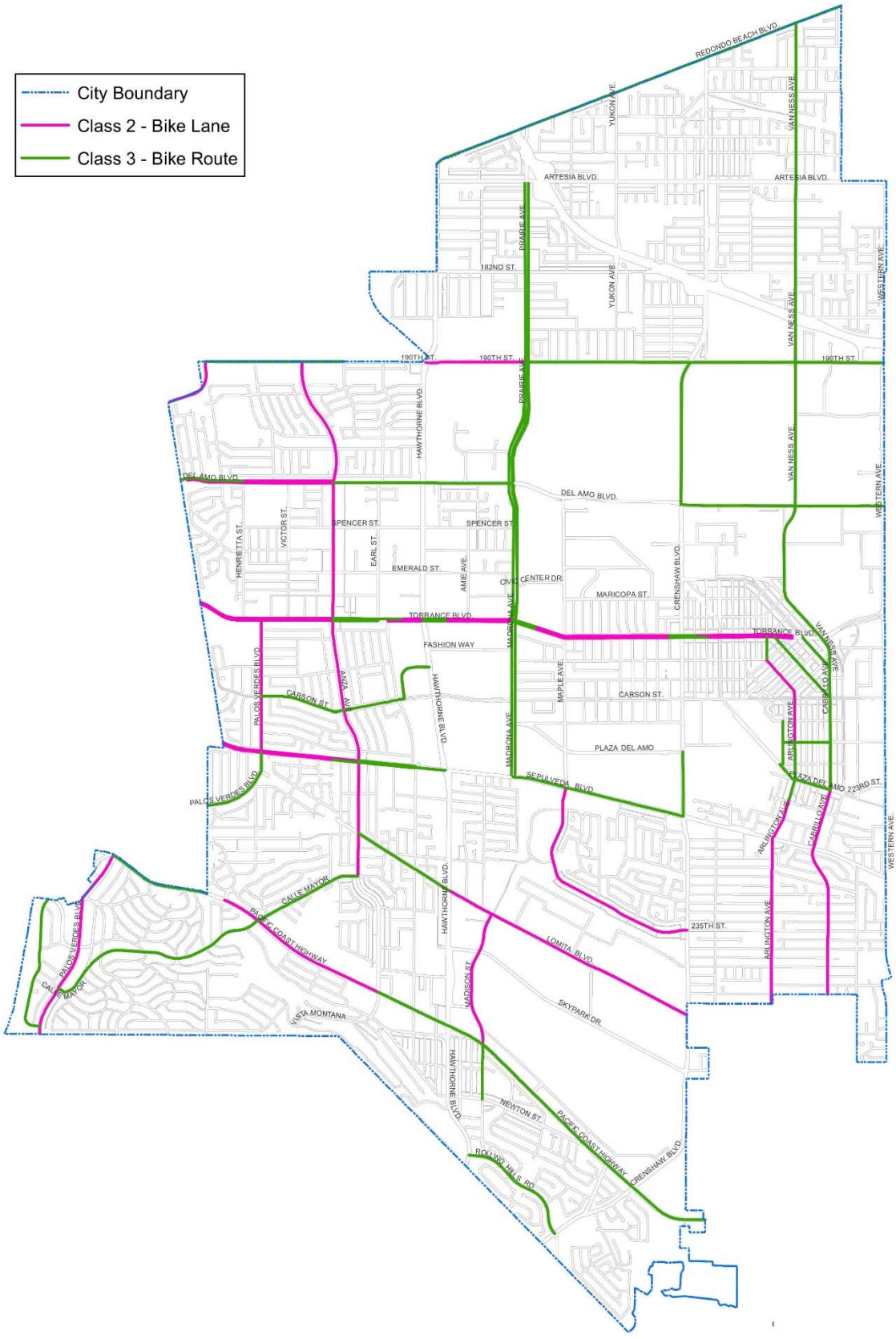


Figure 5 - Existing Bicycle Facilities

3.0 Transportation Analysis Requirements

3.1 Required Transportation Reports

All proposed development projects within the City of Torrance, except when screened per Sections 3.2 and/or 3.3, must provide the following reports:

3.1.1 VMT-Based TIA

This report will be the basis for answering the following question under *XVII. Transportation* of the amended CEQA Guidelines, Appendix G (Environmental Checklist Form) [7, p. 320]:

> b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

A TIA will not be required for projects that are exempt from CEQA review.

The recommended methodology for this report is discussed in Section 4.0.

3.1.2 Level-of-Service (LOS)-Based Traffic Circulation Analysis (TCA)

The guideline for this report is posted at www.TorranceCA.Gov/tca-guidelines .

3.1.3 Exemption Screening Flowcharts

A flowchart for screening for exemption from TIA or TCA preparation is presented in *Figure 6*. Sections 3.2 and 3.3 provide further discussion on TIA and TCA screening criteria.

Figure 7 is the sub-process that will determine whether a project has the potential to be TIA exempt, i.e., whether it satisfies at least one TIA Exemption Screening criteria (A) or not (B). If a project has the potential for TIA exemption, further steps outlined in *Figure 6* have to be completed in order to confirm exemption from TIA preparation.

The City Traffic Engineer has the final discretion to require a TIA or TCA for a proposed development, and exemption from report submittal for any project that passes screening has to be confirmed by the City Traffic Engineer.

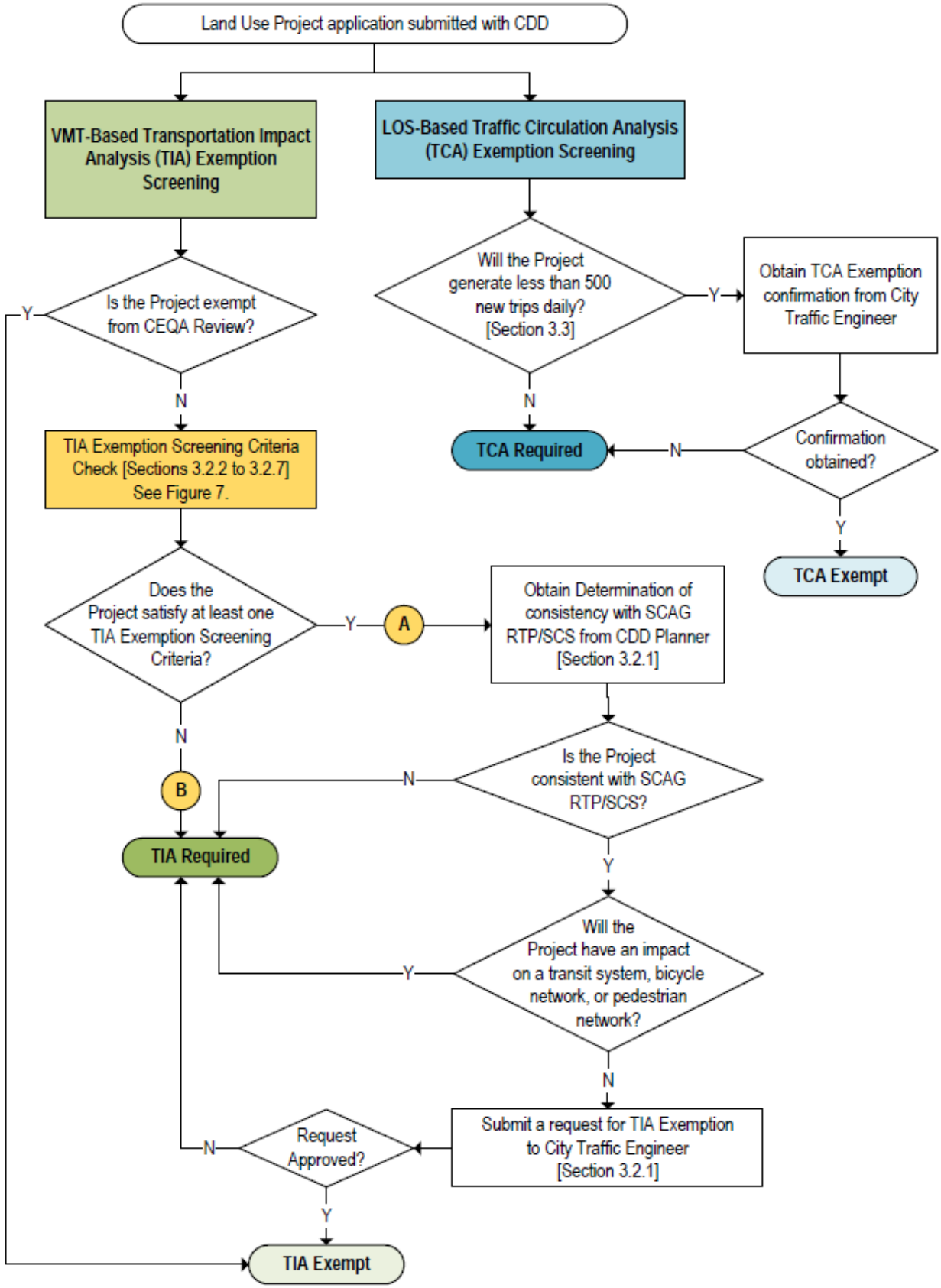


Figure 6 - Exemption Screening Flowchart for Transportation Analysis Reports

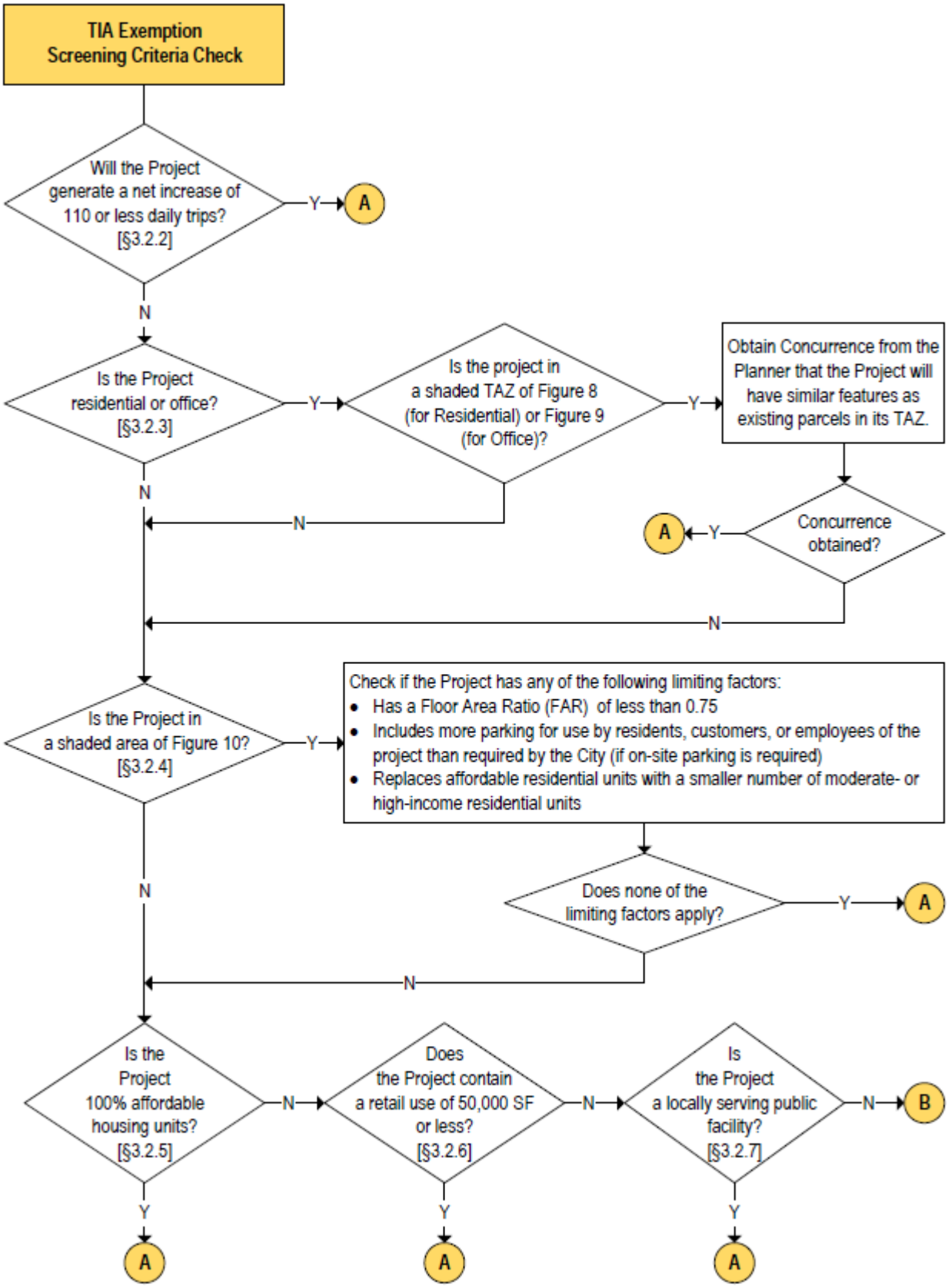


Figure 7 - Flowchart for TIA Exemption Screening Potential

3.2 Screening Criteria for VMT-Based TIA Exemption

3.2.1 Applicability

A TIA is only required for projects that are subject to CEQA review.

Projects that pass at least one Screening Criteria from Sections 3.2.2 through 3.2.7 are generally expected to cause a less-than-significant impact without conducting a detailed VMT analysis [1].

However, any project that is inconsistent with the 2020-2045 SCAG RTP/SCS has to be evaluated to determine whether that inconsistency indicates a significant impact on transportation [1].

In addition, any project that impacts transit systems and bicycle and pedestrian networks will require further evaluation [1].

If a project has the potential for TIA exemption because it passes at least one Screening Criteria, the applicant has to contact the Planner assigned to the project to obtain a Determination on whether the project is consistent with the 2020-2045 SCAG RTP/SCS. If the project is deemed inconsistent, a TIA will be required.

If the project is deemed consistent with the 2020-2045 SCAG RTP/SCS, the applicant shall submit a request for TIA exemption to the City Traffic Engineer for approval. The request has to include the following:

- Screening Criteria applicable to the project
- supporting documentation on how the Screening Criteria will be satisfied (e.g., for Screening Criteria 3.2.2, a Trip Generation Memo prepared by a California-registered Civil or Traffic Engineer showing a net increase of 110 or less daily trips)
- site plan, with access points clearly indicated
- conceptual plan for any anticipated modification to the public right-of-way (whether required or voluntary)
- copy of the Determination (per this Section), and if applicable, Concurrence (per Section 3.2.3) from the Planner

3.2.2 Small Projects

CRITERIA: Will the Project generate a net increase of 110 or less daily trips?

“Daily trips” shall be the unadjusted driveway, i.e., gross weekday trips calculated for the proposed project, based on the most current ITE Trip Generation Manual.

3.2.3 Map-Based Screening for Residential and Office Projects

CRITERIA: Is the Project a residential project in a low VMT per capita area or an office project in a low VMT per employee area?

Residential and office projects that are located in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT [1].

Using VMT data obtained from the 2012 SCAG RTDM, *Figure 8* and *Figure 9* were created to show TAZs with VMTs below the significance thresholds discussed in Section 5.0 (i.e., 85% or less than the average VMTs for Los Angeles County for 2021).

The following projects have the potential to pass this screening criteria:

- Residential projects within a yellow TAZ in *Figure 8*, and
- Office projects within a yellow TAZ in *Figure 9*

The TAZ associated with a project can be confirmed or clarified by contacting the Planner assigned to the project. *Appendix 1* also presents a list of TAZs with low VMTs that are highlighted in yellow in *Figure 8* and *Figure 9*.

To satisfy this screening criteria, the applicant has to get Concurrence from the Planner that the Project will have similar features as existing parcels within the TAZ.

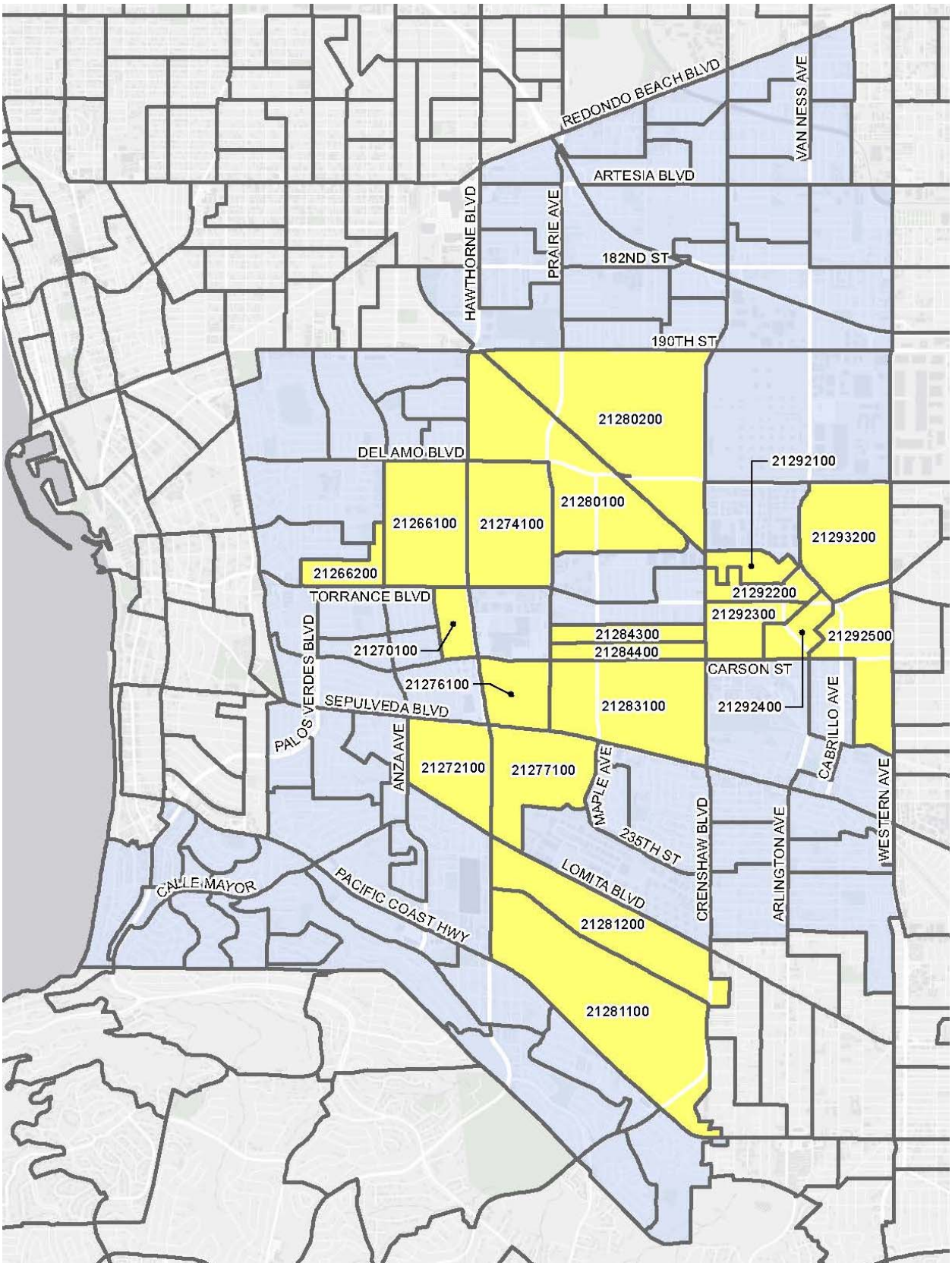


Figure 8 - TAZs with Low (85% or less than 2021 LA County Average) VMT per Capita

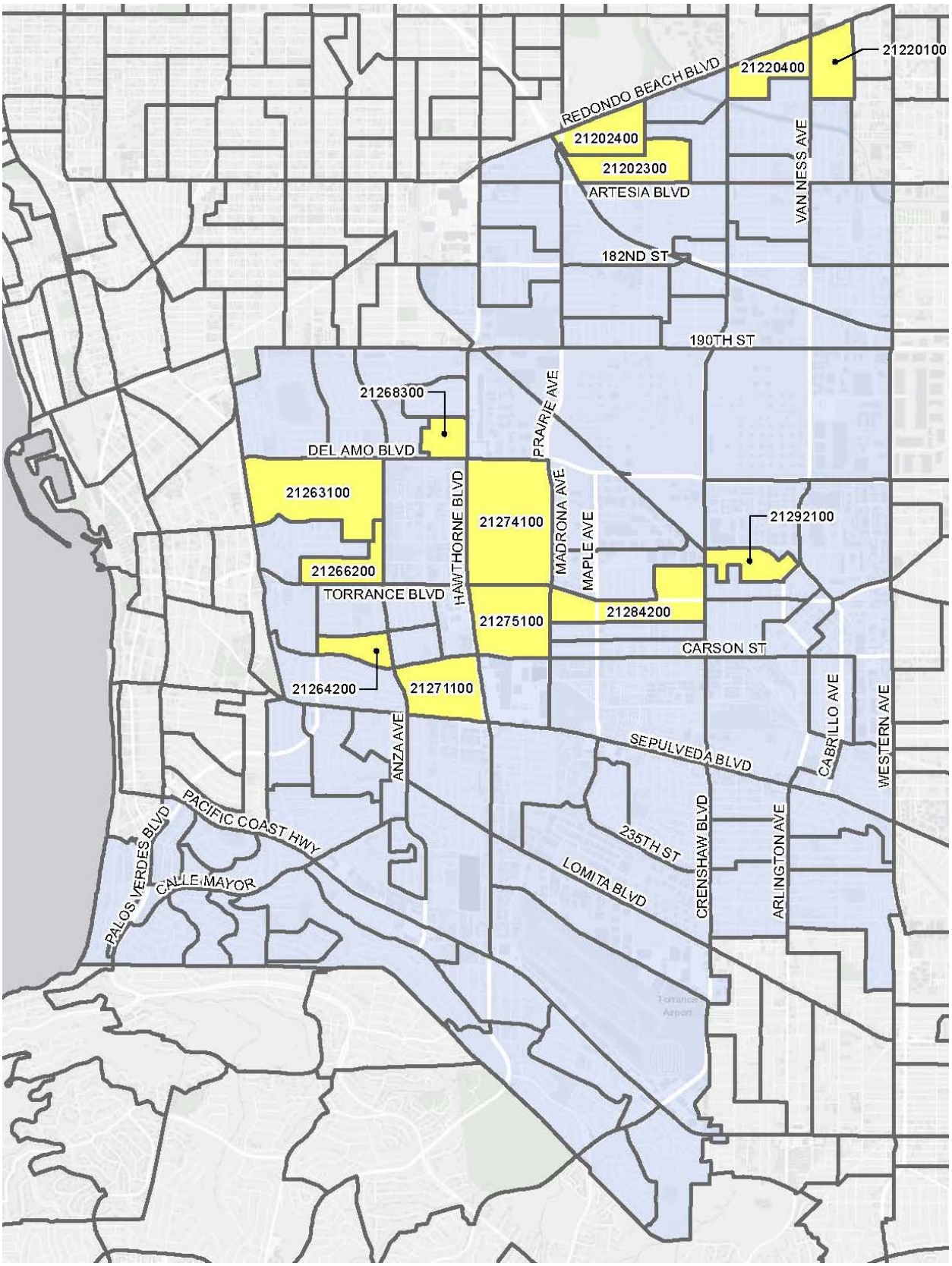


Figure 9 - TAZs with Low VMT (85% or less than 2021 LA County Average) per Employee

3.2.4 Proximity to Transit

CRITERIA: Is the Project located within one-half mile of either an existing major transit stop or an existing stop along an existing high quality transit corridor?

'Major transit stop' means a site containing an existing rail or bus rapid transit station; a ferry terminal served by either a bus or rail transit service; or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods [8] .

A high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours [9] .

Figure 10 presents a Transit Priority Area (TPA) map illustrating a one-half mile radius from existing major transit stops and stops along high quality transit corridors.

Major transit stops that are included in the applicable regional transportation plan are also considered in the identification of a transit priority project under Section 21155 of the Public Resources Code [9]. The Green Line Extension to Torrance is identified as a Transit Capital Project in the 2020-2045 SCAG RTP/SCS. Accordingly, the Torrance Transit Park and Ride Regional Terminal, which will be the final stop of the Green Line extension, will be identified as a major traffic stop in *Figure 10* upon its completion.

Any development project located within the shaded areas of *Figure 10* has the potential to pass screening.

A project shall be considered to be within one-half mile of a major transit stop or a stop along a high-quality transit corridor if all parcels within the project have no more than 25 percent of their area farther than one-half mile from the stop [9].

This transit-based screening criteria cannot be utilized if a project has at least one of the following limiting factors [1]:

- Has a Floor Area Ratio (FAR)[3] of less than 0.75
- Includes more parking for use by residents, customers, or employees of the project than required by the City (if on-site parking is required)
- Is inconsistent with the 2020-2045 SCAG RTP/SCS
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units, i.e., the total number of existing lower income housing units is greater than the total number of lower income and market-rate residential units proposed by the project

[3] As defined in the City of Torrance Municipal Code Section 91.2.82, and confirmed by the Planning Department.

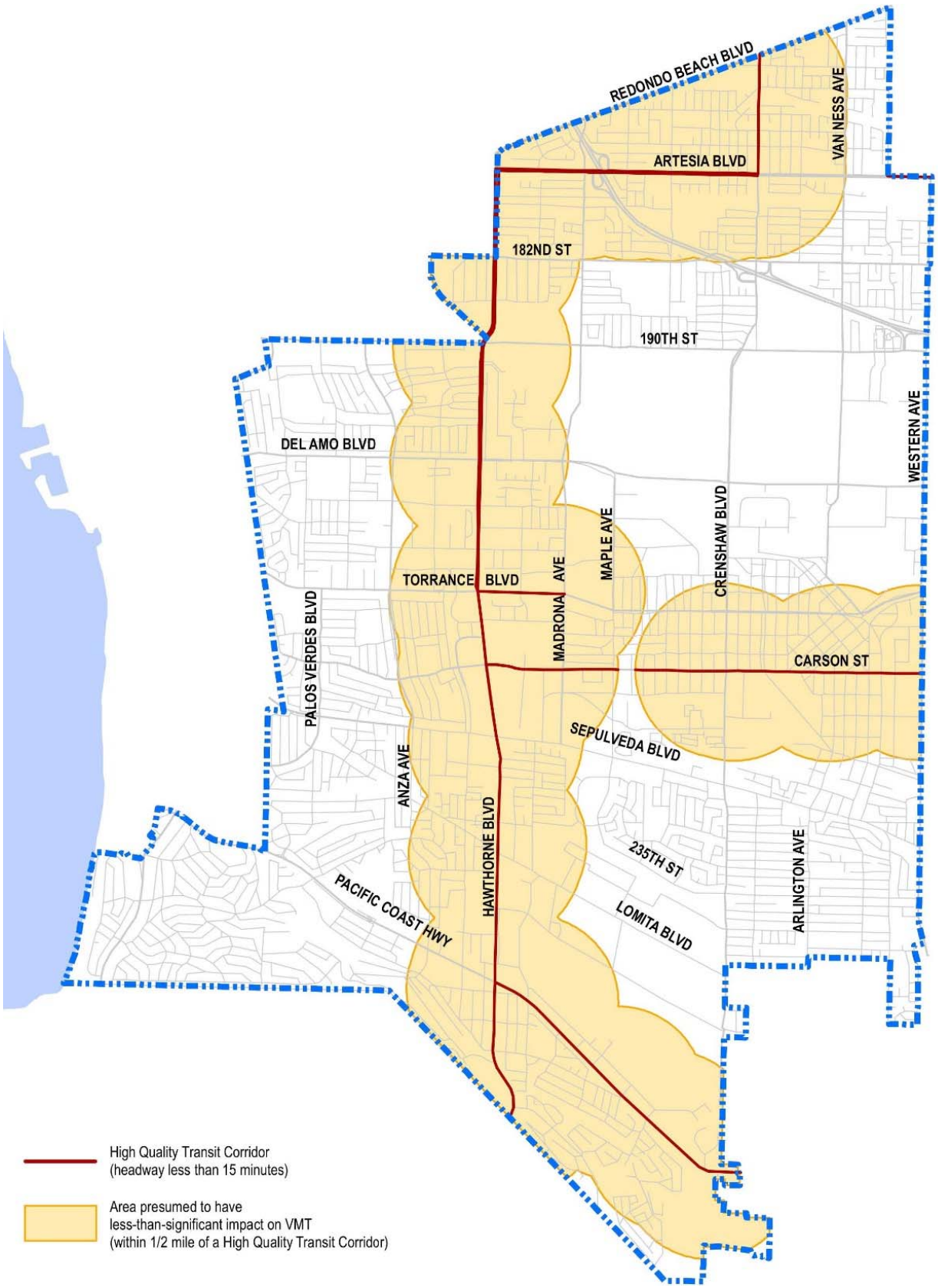


Figure 10 - Transit Priority Area Map

3.2.5 Affordable Residential Development

CRITERIA: Is the Project 100%[4] affordable housing units[5]?

If the residential component of a mixed-use project is 100% affordable housing, a less than significant determination can be made for the residential component, and the remaining portion of the project shall be subject to further VMT analysis.

3.2.6 Local-Serving Retail

CRITERIA: Does the Project contain a retail use of 50,000 SF or less?

For the purpose of this screening criteria, retail land uses refer to those listed under categories 800's (Retail) or 900's (Services) within the most current ITE Trip Generation Manual [10].

For mixed-use projects containing retail:

- If the retail component of a mixed-use project is 50,000 SF or less, a less than significant determination can be made for the portion of the project that contains retail use, and the remaining portion of the project may be subject to further VMT analysis
- If the retail component of a mixed-use project is greater than 50,000 SF, the entirety of the project shall be subject to VMT analysis.

3.2.7 Local-Serving Public Facility

CRITERIA: Is the project a locally serving public facility?

Local-serving public facilities such as transit centers, public schools, libraries, parks, post offices, park-and-ride lots, police and fire facilities, and government offices are presumed to have less than significant impact on VMT [10]. Private schools are not considered locally serving public facilities.

3.3 Screening Criteria for LOS-Based TCA Exemption

A TCA is generally not required for projects that will generate less than 500 new trips per weekday, based on the most current ITE Trip Generation Manual.

Exemption from TCA preparation has to be confirmed by the City Traffic Engineer. The applicant may be required to submit a Trip Generation Memo for to facilitate exemption review.

[4] Excluding Manager's units

[5] As confirmed by the Planning Department

4.0 VMT Analysis Methodology

4.1 Overview

A project that does not meet any of the screening criteria under Section 3.2 must complete a full VMT[6] analysis.

The VMT metric for a project shall be estimated per this section and evaluated against the significance thresholds presented in Section 5.0.

A project shall initially be analyzed for Project-Level VMT impact significance. Cumulative VMT impact evaluation, if required, shall be performed per Section 4.6.

If a project will incorporate a transportation demand management (TDM) strategy per Section 6.0, VMT analysis shall be presented for both "without TDM" and "with TDM" scenarios.

4.2 Estimating Tool

The 2012 SCAG RTDM shall be utilized to estimate the VMT values to be analyzed.

4.3 VMT Metric

4.3.1 VMT Metrics

The SCAG RTDM reports the following VMT metrics:

- Residential VMT per capita
  Total length of daily home-based trip[7] production within the area being analyzed divided by the population within that area.
- Employment VMT per employee
  Total length of daily home-based work trip[8] attraction within the area being analyzed divided by the number of employees within that area.
- Total VMT per Service Population
  Total length of all daily trips to and from the area being analyzed divided by the service population[9] within that area.
- Total VMT
  Total daily VMT for all TAZs within the study area.

[6] Under the CEQA Guidelines, VMT is specified as the amount and distance of automobile travel attributable to a project. The term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks.
[7] Home-based trips are those that either start or end at the residence of the trip maker.
[8] Home-based work trips are those that start from home and end at work, and vice versa.
[9] Service population is the sum of the number of residents and number of employees.

4.3.2 Typical Land Uses

The VMT metric to be analyzed will depend on the type of project, per *Table 1*.

Land Use Category	**VMT Metric**
Residential *(e.g., single-family and multi-family housing)*	VMT per capita
Office *(e.g., general office, medical office)*	VMT per employee
Industrial *(e.g., light industrial, manufacturing, warehousing, self-storage)*	VMT per employee
Regional-Serving Retail *(e.g., general retail, furniture store, pharmacy/ drugstore, supermarket bank, health club, restaurant, auto repair, home improvement superstore, discount store, movie theater)*	Total City VMT
Private School/ University *(K-12, college, university)*	Total City VMT
Lodging *(e.g., hotel, motel, inn)*	Total City VMT

Table 1 - VMT Metrics by Land Use Category

The appropriate land use and VMT metric for a proposed project shall be confirmed with the City Traffic Engineer prior to running the SCAG RTDM.

4.3.3 Unique Land Uses

For projects that do not fit into any of the categories in Section 4.3.2 *(e.g. fulfillment centers, conference centers, sports venues)*, the VMT metric shall be determined on a project-by-project basis and approved by the City Traffic Engineer.

4.3.4 Mixed-Use Projects

Each component of a mixed-use project has to be analyzed individually per Section 4.3.2 or Section 4.3.3.

4.4 Analysis Year

4.4.1 Project-Level VMT Analysis Year

The VMT values to be analyzed shall correspond to the opening year of the Project.

The Baseline[10] VMT values for the Project's opening year shall be estimated by linear interpolation between the values obtained from the 2012 SCAG RTDM for base year 2012 and forecast year 2040.

4.4.2 Cumulative Impact VMT Analysis Year

Cumulative impact VMT evaluation per Section 4.6 shall correspond to Buildout Year 2040[11].

4.5 Methodology

4.5.1 Using Efficiency-Based Metric

Projects that use an efficiency-based VMT metric such as VMT per capita, VMT per employee, or VMT per service population shall be analyzed by comparing the VMT metric for the proposed project to the County Average of the same VMT metric.

4.5.2 Using Absolute Metric

Projects that use an absolute VMT metric such as Total City VMT shall be analyzed by comparing the "with project" Total VMT to the "without project" Total VMT.

The steps outlined in the LA County TIA Guidelines for regional-serving retail projects [2, pp. 12-13] may be used as a guide.

4.6 Cumulative Impact

For projects that are analyzed using efficiency-based metrics, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa [1, p. 6].

Thus, evaluation of a project's cumulative impacts is not required for projects that are analyzed using VMT per capita, VMT per employee, or VMT per service population, unless the project is inconsistent with the 2020-2045 SCAG RTP/SCS.

Projects that are inconsistent with the 2020-2045 SCAG RTP/SCS or that are analyzed using Total VMT have to be evaluated for cumulative impacts per Sections 4.5.2 and 5.2.

The steps outlined in the LA County TIA Guidelines for cumulative analysis of regional-serving retail projects [2, pp. 14-15] may be used as a guide.

[10] Business-as-usual/ "Do Nothing" Scenario

[11] Full plan buildout Scenario based on the SCAG 2016-2040 RTP/SCS, which corresponds to the 2012 RTDM.

5.0 VMT Significance Thresholds

5.1 Project-Level VMT Significance Thresholds

A project that triggers the applicable threshold in *Table 2* will have a significant Project-Level VMT impact.

Land Use Category	Threshold
Residential	Project VMT per capita exceeds 85% of County Average VMT per capita
Office	Project VMT per employee exceeds 85% of County Average VMT per employee
Industrial	Project VMT per employee exceeds 85% of County Average VMT per employee
Regional-Serving Retail	Generates a net increase[12] in Total City VMT[13]
Private School/ University	Generates a net increase in Total City VMT
Lodging	Generates a net increase in Total City VMT

Table 2 - Project VMT Thresholds for Typical Land Use Categories

A project that does not fit into any of the categories in *Table 2* will have a significant Project-Level VMT impact if it triggers the applicable threshold in *Table 3*.

Type of VMT Metric	Threshold
Efficiency-based	Project VMT exceeds 85% of County Average VMT
Absolute	Generates a net increase in Total VMT[14]

Table 3 - Project VMT Thresholds for Unique Land Uses

Each component of a mixed-use project has to be individually analyzed for significance per *Table 2* or *Table 3*. Credit for internal capture may be applied, with the approval of the City Traffic Engineer.

5.2 Cumulative (Buildout) VMT Significance Threshold

Projects that will generate a net increase in Total VMT for Buildout Year 2040 will have a significant Cumulative VMT impact.

[12] "With Project" Total VMT is greater than "Without Project" Total VMT
[13] Total VMT for all TAZs within the City
[14] Total VMT for all TAZs within the study area, as determined or approved by the City Traffic Engineer

6.0 VMT Mitigation Strategies

6.1 Overview

If a project is found to introduce a significant VMT impact, mitigation can be achieved by changing the proposed land uses, modifying project design features, or by implementing Transportation Demand Management (TDM) strategies.

Modifications to project land use will be reflected in the VMT analysis methodology in Section 4.0. This section will cover further VMT reductions that will be introduced by additional project design features and TDM implementation.

6.2 Resource

The reduction in VMT associated with transportation-related mitigation measures shall be estimated based on the CAPCOA Report [3].

6.3 Estimation of VMT Reduction Using the CAPCOA Report

6.3.1 Applicability

To prevent “double counting” of VMT reduction strategies, the following shall not apply towards Project VMT mitigation:

- Any project design feature originally required by the Planning Department for Plan or Code compliance
- All existing infrastructure already accounted for in the 2012 SCAG RTDM (e.g., proximity to existing transit)

6.3.2 Transportation Strategies

Transportation-related strategies for reducing greenhouse gas (GHG) are categorized into transportation measures, road pricing/ management, and strategies to improve the fuel efficiency of vehicles.

Transportation measures are sub-categorized into:

(1) Land Use / Location
(2) Neighborhood / Site Enhancement
(3) Parking Policy / Pricing
(4) Transit System Improvements
(5) Commute Trip Reduction

A chart showing the organization of transportation strategies is presented in *Appendix 2.*

6.3.3 Maximum Reductions

Appendix 2 indicates the maximum reduction allowed to be attributed to each transportation strategy.

All GHG reductions from transportation measures and road pricing strategies are quantified through VMT reductions, while traffic flow and vehicle efficiency improvements directly correlate to GHG emissions, and do not correspond to VMT reductions.

For the purpose of VMT-Based TIA preparation, only VMT reductions will be applied to mitigations for land use project.

Rules for combining the VMT reduction effects of multiple mitigation strategies are laid out in Chapter 6 of the CAPCOA Report [3, pp. 57-63].

Maximum VMT reduction values for suburban areas shall apply to proposed land use projects within the City:

- 5% Land Use/ Location Maximum Reduction
- 10% Transportation Measures[15] Cross-Category Maximum Reduction
- 15% Transportation Measures[16] Global Maximum Reduction

6.3.4 Strategies for Land Use Projects

Table 4 presents transportation mitigation strategies that are applicable to land use projects within the City. The first column indicates the CAPCOA Report section that discusses the methodology for quantifying the VMT reduction associated with the corresponding measure.

All TDM strategies recommended to reduce a project's VMT impact shall get approval/concurrence from City staff.

Mitigation measures shall be applied to the appropriate user group (e.g., residents, employees, or guests/patrons). If a certain measure applies to multiple user groups, the weighted average must be considered, as the effect of the mitigation measure will vary based on the user group [10].

[15] Four Categories: (1) to (4) under Section 6.3.2
[16] Five Subcategories: (1) to (5) under Section 6.3.2

Ref.[17]	Transportation Measure	Meas. #	Range of Effectiveness
3.2	**Neighborhood/Site Enhancements**		
3.2.1	Provide Pedestrian Network Improvements	SDT-1	0% - 2%
3.2.2	Provide Traffic Calming Measures	SDT-2	0.25% - 1%
3.2.3	Implement a Neighborhood Electric Vehicle (NEV) Network	SDT-3	0.5% - 12.7%
3.2.4	Create Urban Non-Motorized Zones	SDT-4	N/A[18]
3.2.5	Incorporate Bike Lane Street Design (on-site)	SDT-5	N/A
3.2.6	Provide Bike Parking in Non-Residential Projects	SDT-6	N/A
3.2.7	Provide Bike Parking with Multi-Unit Residential Projects	SDT-7	N/A
3.2.8	Provide Electric Vehicle Parking	SDT-8	N/A
3.2.9	Dedicate Land for Bike Trails	SDT-9	N/A
3.3	**Parking Policy/Pricing**		
3.3.2	Unbundle Parking Costs from Property Cost	PDT-2	2.6% - 13%
3.4	**Commute Trip Reduction Programs**		
3.4.1	Implement Commute Trip Reduction Program - Voluntary	TRT-1	1% - 6.2%
3.4.2	Implement Commute Trip Reduction Program - Required	TRT-2	4.2% - 21%
3.4.3	Provide Ride-Sharing Programs	TRT-3	1% - 15%
3.4.4	Implement Subsidized or Discounted Transit Program	TRT-4	0.3% - 20%
3.4.5	Provide End of Trip Facilities	TRT-5	N/A
3.4.6	Encourage Telecommuting and Alternative Work Schedules	TRT-6	0.07% - 5.5%
3.4.7	Implement Commute Trip Reduction Marketing	TRT-7	0.8% - 4%
3.4.8	Implement Preferential Parking Permit Program	TRT-8	N/A
3.4.9	Implement Car-Sharing Program	TRT-9	0.4% - 0.7%
3.4.10	Implement a School Pool Program	TRT-10	7.2% - 15.8%
3.4.11	Provide Employer-Sponsored Vanpool/Shuttle	TRT-11	0.3% - 13.4%
3.4.12	Implement Bike-Sharing Programs	TRT-12	N/A
3.4.13	Implement School Bus Program	TRT-13	38% - 63%
3.4.14	Price Workplace Parking	TRT-14	0.1% - 19.7%
3.4.15	Implement Employee Parking “Cash -Out”	TRT-15	0.6% - 7.7%
3.5	**Transit System Improvements**		
3.5.1	Provide a Bus Rapid Transit System	TST-1	0.02% - 3.2%
3.5.2	Implement Transit Access Improvements	TST-2	N/A
3.5.3	Expand Transit Network	TST-3	0.1% - 8.2%
3.5.4	Increase Transit Service Frequency/Speed	TST-4	0.02% - 2.5%
3.5.5	Provide Bike Parking Near Transit	TST-5	N/A
3.5.6	Provide Local Shuttles	TST-6	N/A
3.6	**Road Pricing/Management**		
3.6.4	Install Park-and-Ride Lots	RPT-4	N/A

Table 4 - Applicable CAPCOA Mitigation Measures

[17] CAPCOA Report [3] Section Number

[18] See discussion under Section 6.3.5. of this Guideline

6.3.5 Quantification of VMT Reduction

A measure's range of effectiveness in VMT reduction is indicated in the last column of *Table 4*. Measures that show a numerical range are primary strategies that can be implemented as a stand-alone strategy, while measures that indicate "N/A" are grouped or support strategies that must be paired with other strategies within the category.

When grouped strategies are implemented together, the combination will result in either an enhancement to the primary strategy by improving its effectiveness, or a non-negligible reduction in effectiveness that would not occur without the combination [3, p. 56].

6.4 Implementation and Monitoring

The City will not consider in lieu fees for project VMT mitigation.

In the future, a program for implementation and monitoring the effectiveness of approved mitigation measures will be established.

7.0 Submittal and Review Process

7.1 VMT-Based TIA

7.1.1 Scope of Work

If a Project requires a TIA per *Figure 6*, the applicant shall initiate the review process by sending a TIA Scope of Work to the City Traffic Engineer for approval.

The TIA Scope of Work must include the following information:

- Short description of the project
- Site Plan showing proposed uses and corresponding square footage, number of floors, total building square footage, and site access points
- Typical land use category (or categories) per Section 4.3.2 applicable to the project, and corresponding square footage
- Unique land use category (or categories) per Section 4.3.3 (if any), corresponding square footage, and VMT metric proposed

The VMT modeling shall not be initiated until the TIA Scope of Work has been approved by the City Traffic Engineer in writing.

7.1.2 VMT Modeling Peer Review

VMT Modeling review shall be undertaken by an independent third-party Reviewer to be proposed by the applicant and approved by the City.

The VMT Modeling Reviewer must:

- be a California-licensed Professional Engineer or Traffic Engineer
- be different from and independent of the consultant preparing the TIA and/or TCA for the Project, or any sub-consultant hired by the Project's TIA Consultant to undertake VMT modeling for the Project
- have the capability to run the 2012 SCAG RTDM

The applicant shall provide the City with the contact information and qualifications of their proposed VMT Modeling Reviewer for approval.

Upon the City's approval of the TIA Scope of Work and the VMT Modeling Reviewer, the Project Consultant shall coordinate with the VMT Modeling Reviewer to facilitate the review of the VMT modeling results, and address any comments to the satisfaction of the VMT Modeling Reviewer.

Upon completion of the VMT Modeling Peer Review, the VMT Modeling Reviewer will endorse the VMT modeling results to City staff, and the applicant shall submit the complete TIA report (hard copy and PDF) to the City for further review.

7.2 LOS-Based TCA

7.2.1 Scope of Work

If a Projects requires a TCA per *Figure 6*, the applicant shall initiate the review process by sending a TCA Scope of Work to the City Traffic Engineer for approval.

The TCA Scope of Work must include the following information:

- Get the Short description of the project
- Project opening year
- Site Plan showing proposed uses and corresponding square footage, number of floors, total building square footage, and site access points
- Trip Generation Table per ITE Trip Generation Manual
- Pass-by trip calculation, if any
- Internal capture calculation, if any
- Proposed study intersections
- Proposed Trip Distribution
- Proposed Traffic Counts (driveways and intersections, day/s of the week, and time)

TCA Report preparation, including traffic counts, shall not be initiated until the TCA Scope of Work has been approved by the City Traffic Engineer in writing.

7.2.2 Guideline

The guideline for TCA preparation is posted online at www.TorranceCA.Gov/tca-guidelines .

7.2.3 Submittal

The TCA shall be submitted to the City for review in both PDF (with Appendix) and hard copy (without Appendix).

8.0 References

[1] Governor's Office of Planning and Research (OPR), "Technical Advisory on Evaluating Transportation Impacts in CEQA," December 2018. [Online]. Available: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf .

[2] Los Angeles County Public Works, "Transportation Impact Analysis Guidelines," 23 July 2020. [Online]. Available: https://pw.lacounty.gov/traffic/docs/Transportation-Impact-Analysis-Guidelines-July-2020-v1.1.pdf .

[3] California Air Pollution Control Officers Association (CAPCOA), "Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emmission Reductions from Greenhouse Gas Mitigation Measures," August 2010. [Online]. Available: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf .

[4] Southern California Association of Governments (SCAG), "2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy of the SCAG," 3 September 2020. [Online]. Available: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176.

[5] Southern California Association of Governments (SCAG), "The 2016-2040 Rregional Transportation Plan/ Sustainable Communities Strategy," April 2016. [Online]. Available: https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs.pdf?1606005557.

[6] Southern California Association of Governments (SCAG), "SCAG Regional Travel Demand Model and 2012 Model Validation," March 2016. [Online]. Available: https://scag.ca.gov/sites/main/files/file-attachments/scag_rtdm_2012modelvalidation.pdf?1605571641 .

[7] Association of Environmental Professionals, "California Environmental Quality Act (CEQA) Statute & Guidelines," 2020. [Online]. Available: https://www.califaep.org/docs/2020_ceqa_book.pdf .

[8] *Public Resources Code Section 21064.3.*

[9] *Public Resources Code Section 21155.*

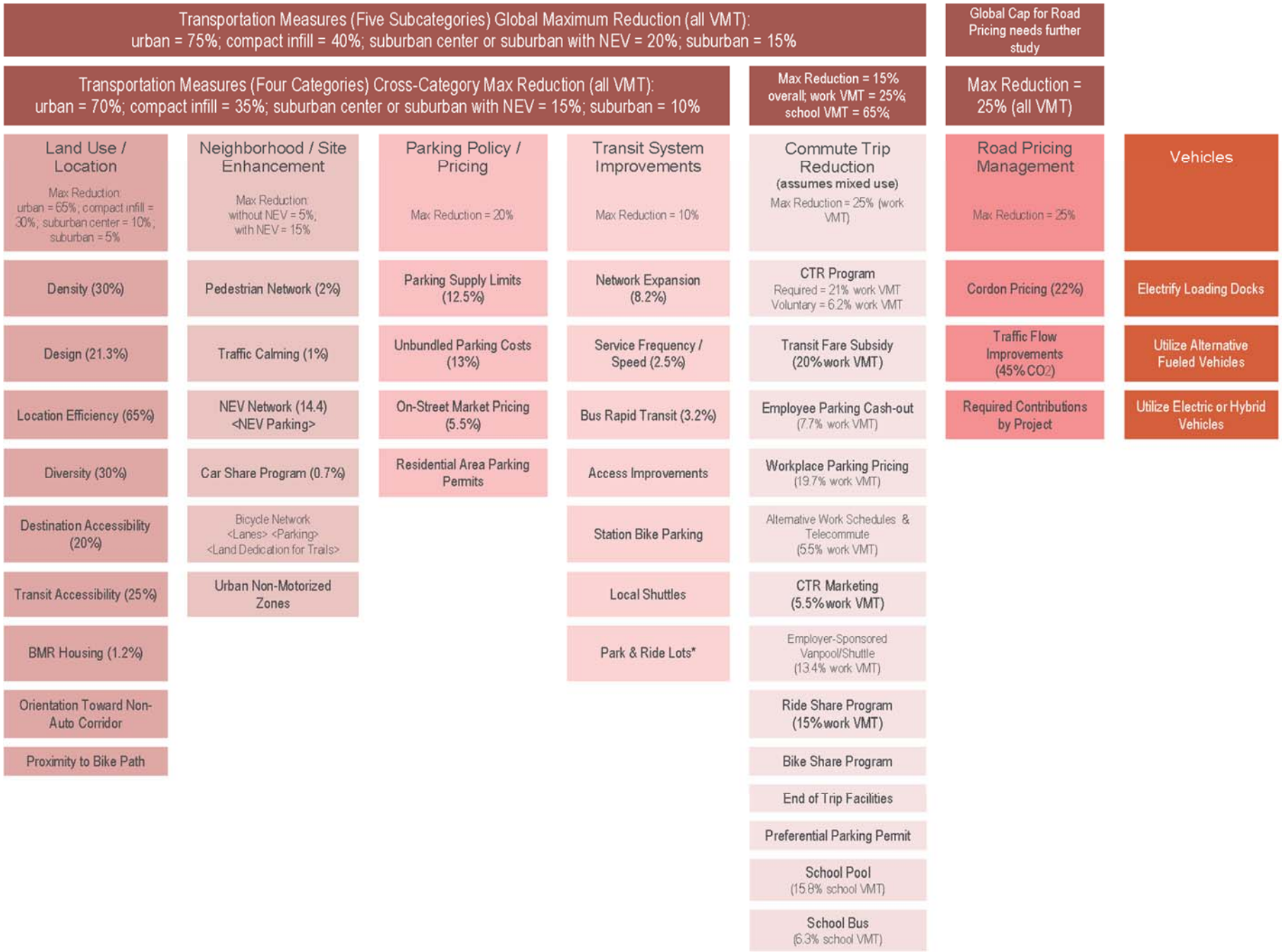
[10] Linscott, Law & Greenspan, Engineers, "City of Torrance Vehicle Miles Traveled (VMT) Guidelines and Thresholds Technical Memorandum," 2021.

APPENDIX

TAZs with Low VMT per Capita (85% or less than LA County Average* of 13.11) *TAZs Highlighted in Figure 8*
21266100
21266200
21270100
21272100
21274100
21276100
21277100
21280100
21280200
21281100
21281200
21283100
21284300
21284400
21292100
21292200
21292300
21292400
21292500
21293200

TAZs with Low VMT per Employee (85% or less than LA County Average* of 17.09) *TAZs Highlighted in Figure 9*
21202300
21202400
21220100
21220400
21263100
21264200
21266200
21268300
21271100
21274100
21275100
21284200
21292100

* VMT values for 2021


Transportation Measures (Five Subcategories) Global Maximum Reduction (all VMT):
urban = 75%; compact infill = 40%; suburban center or suburban with NEV = 20%; suburban = 15%
Global Cap for Road Pricing needs further study
Transportation Measures (Four Categories) Cross-Category Max Reduction (all VMT):
urban = 70%; compact infill = 35%; suburban center or suburban with NEV = 15%; suburban = 10%
Max Reduction = 15% overall; work VMT = 25%; school VMT = 65%;
Max Reduction = 25% (all VMT)
Land Use / Location
Max Reduction: urban = 65%; compact infill = 30%; suburban center = 10%; suburban = 5%
Density (30%)
Design (21.3%)
Location Efficiency (65%)
Diversity (30%)
Destination Accessibility (20%)
Transit Accessibility (25%)
BMR Housing (1.2%)
Orientation Toward Non-Auto Corridor
Proximity to Bike Path
Neighborhood / Site Enhancement
Max Reduction: without NEV = 5%, with NEV = 15%
Pedestrian Network (2%)
Traffic Calming (1%)
NEV Network (14.4) <NEV Parking>
Car Share Program (0.7%)
Bicycle Network <Lanes> <Parking> <Land Dedication for Trails>
Urban Non-Motorized Zones
Parking Policy / Pricing
Max Reduction = 20%
Parking Supply Limits (12.5%)
Unbundled Parking Costs (13%)
On-Street Market Pricing (5.5%)
Residential Area Parking Permits
Transit System Improvements
Max Reduction = 10%
Network Expansion (8.2%)
Service Frequency / Speed (2.5%)
Bus Rapid Transit (3.2%)
Access Improvements
Station Bike Parking
Local Shuttles
Park & Ride Lots*
Commute Trip Reduction
(assumes mixed use)
Max Reduction = 25% (work VMT)
CTR Program
Required = 21% work VMT
Voluntary = 6.2% work VMT
Transit Fare Subsidy (20% work VMT)
Employee Parking Cash-out (7.7% work VMT)
Workplace Parking Pricing (19.7% work VMT)
Alternative Work Schedules & Telecommute (5.5% work VMT)
CTR Marketing (5.5% work VMT)
Employer-Sponsored Vanpool/Shuttle (13.4% work VMT)
Ride Share Program (15% work VMT)
Bike Share Program
End of Trip Facilities
Preferential Parking Permit
School Pool (15.8% school VMT)
School Bus (6.3% school VMT)
Road Pricing Management
Max Reduction = 25%
Cordon Pricing (22%)
Traffic Flow Improvements (45% CO2)
Required Contributions by Project
Vehicles
Electrify Loading Docks
Utilize Alternative Fueled Vehicles
Utilize Electric or Hybrid Vehicles