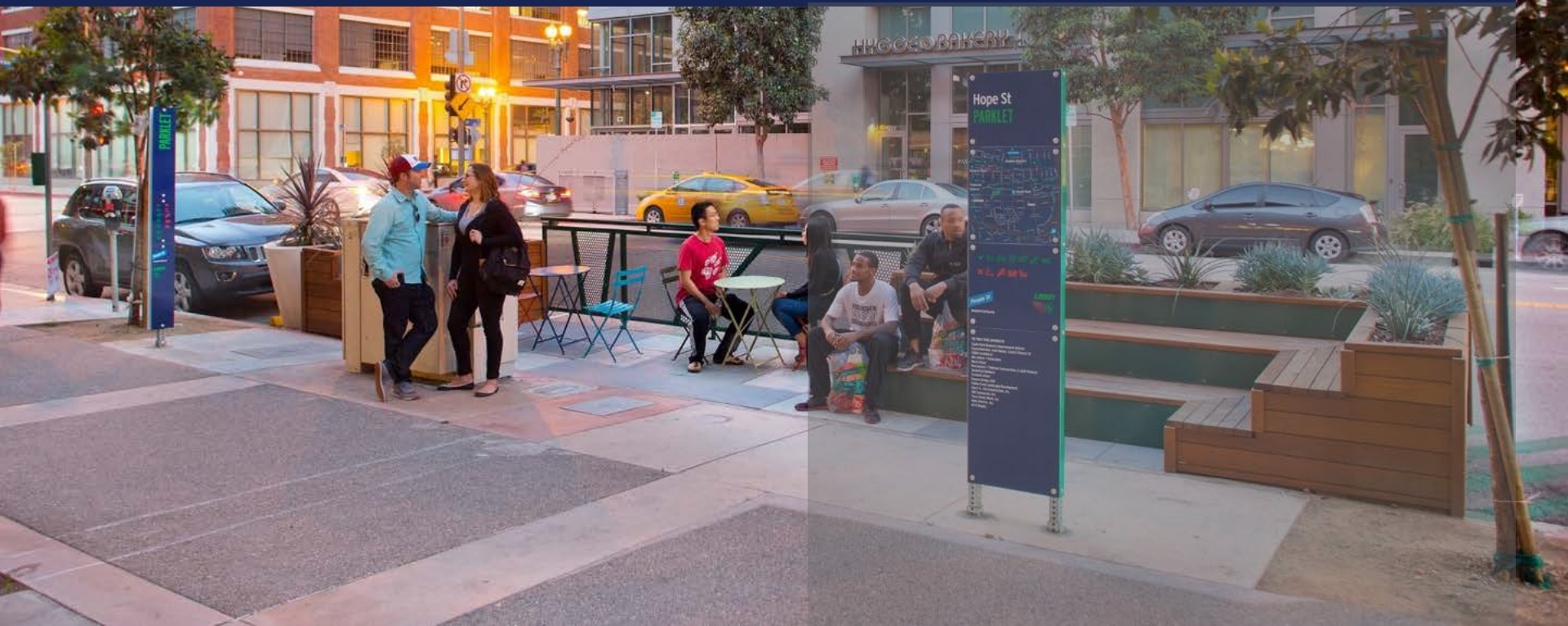


UPDATING LOS ANGELES' TRANSPORTATION ANALYSIS APPROACH

Building Industry Association: Los Angeles - Ventura County Chapter
August 6, 2020



CALIFORNIA SENATE BILL (SB) 743

- Los Angeles City Council adopted VMT July 30, 2019
- New projects must analyze transportation impacts with [VMT](#) and reference the updated [LADOT Transportation Assessment Guidelines](#)
- State deadline to comply was [July 1, 2020](#)



VMT IS ALIGNED WITH STATE AND LOCAL GOALS



Reduction in GHGs



Multimodal mobility networks

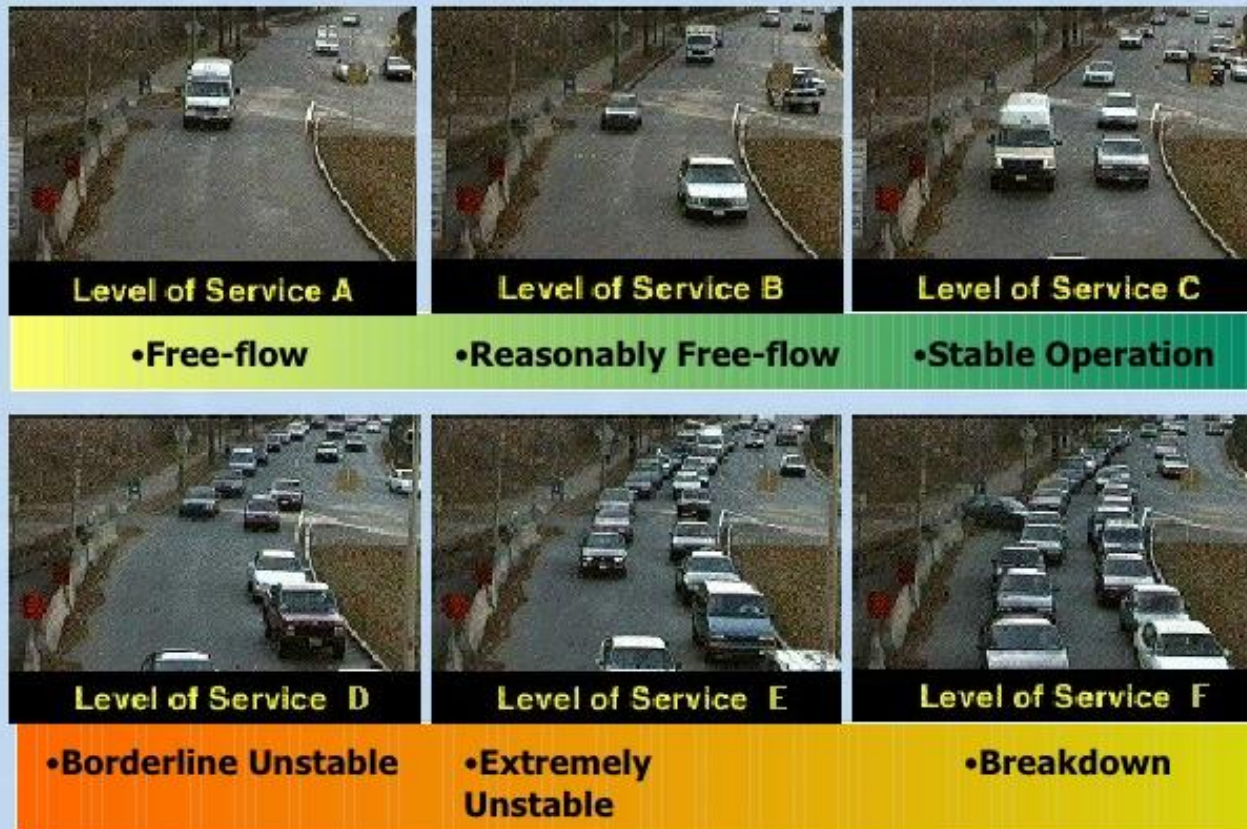


Diversity of land uses



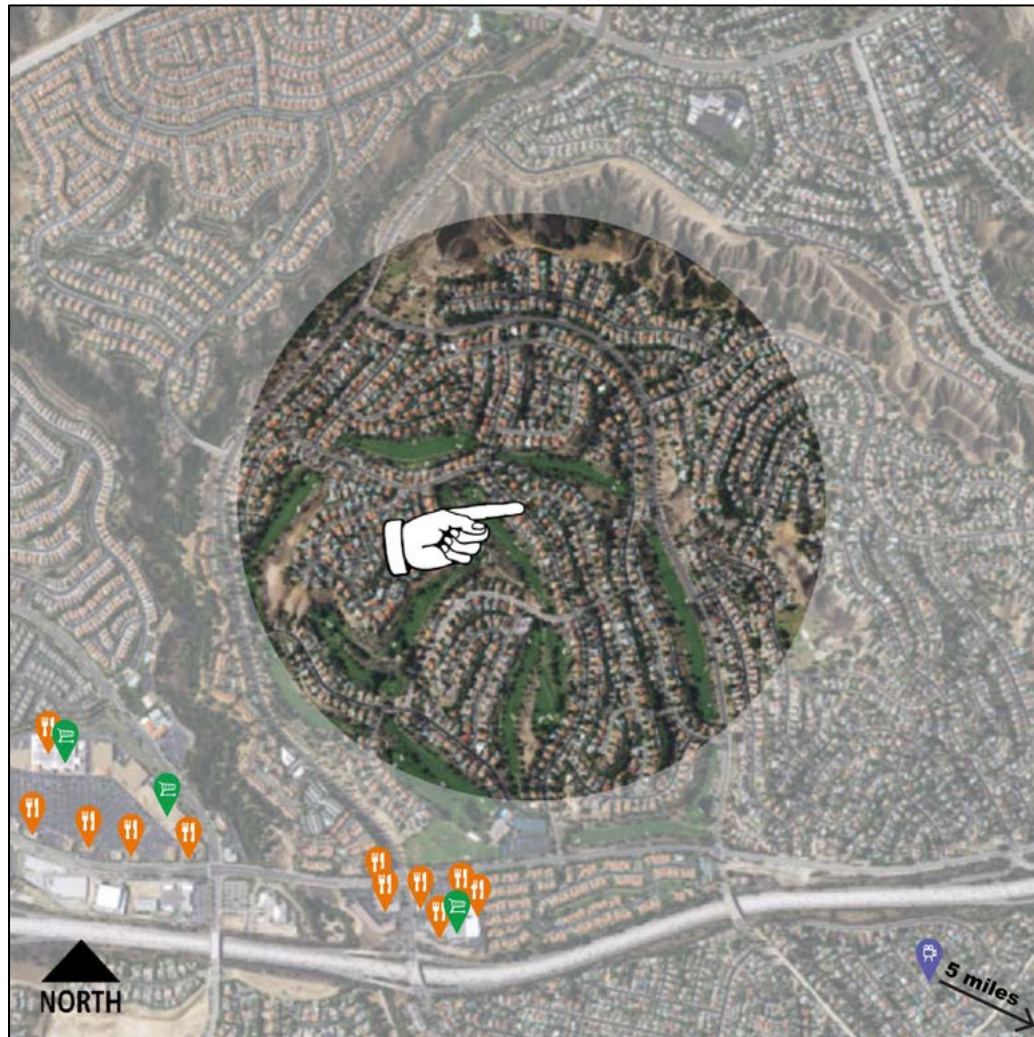
Mobility Plan 2035 and LA's Green New Deal goals

Former Metric: What is LOS?



*Prepared for the US DOT Bureau of Transportation Statistics by the MIT Department of Urban Studies and Planning

Former Metric: Relied on Vehicle Delay



New development in outerlying area

Development Review Metric

Outcome

Level of Service (LOS)

Free Flow

LOS Score

A

68.5%

of all Angelenos drive alone to work

Source: U.S. Census Bureau

New Metric: What is VMT?



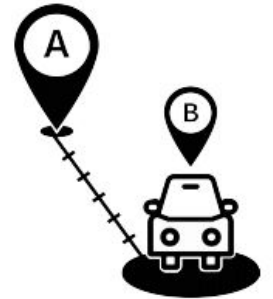
Number of
automobile trips

X



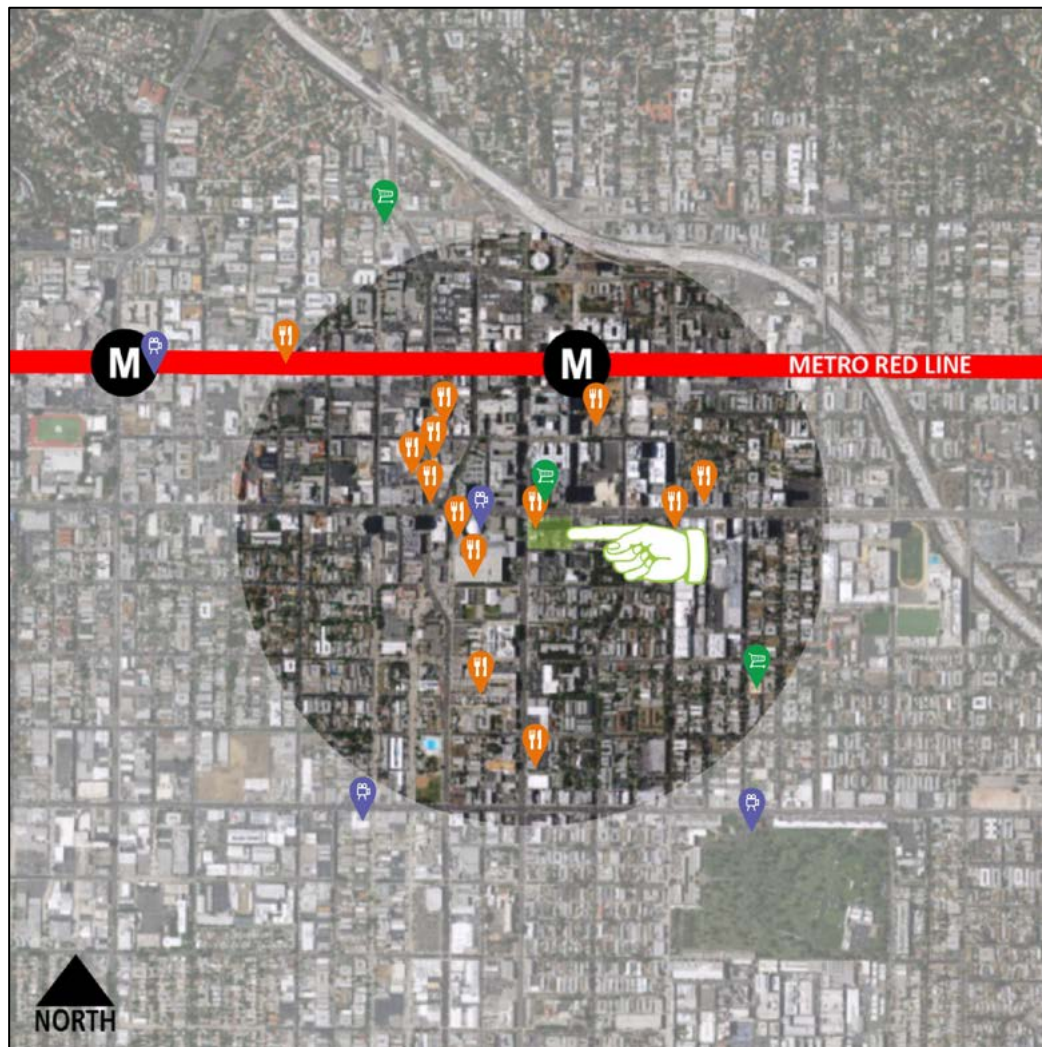
Number of
miles driven

=



Vehicles Miles
Traveled

New Metric: VMT supports location efficiency



Development Review Metric	Outcome
Level of Service (LOS)	Delay (F)
Vehicle Miles Traveled (VMT)	Low

New development in area with land-use diversity

Level of Service (LOS) Metric



Examples:

- Signal improvements
- Widenings
- Offset & narrow sidewalks

Leads to:

- Faster turning movements
- Longer crossings at intersections
- Less safe streets

New guidance for measuring transportation impacts under CEQA



Governor's Office of
Planning and Research

Would the **project**:

- **Conflict with the City's Mobility Plan** or a related sustainable mobility policy?
- **Increase vehicle miles traveled?**
- **Increase hazards** due to geometric design feature or incompatible use?

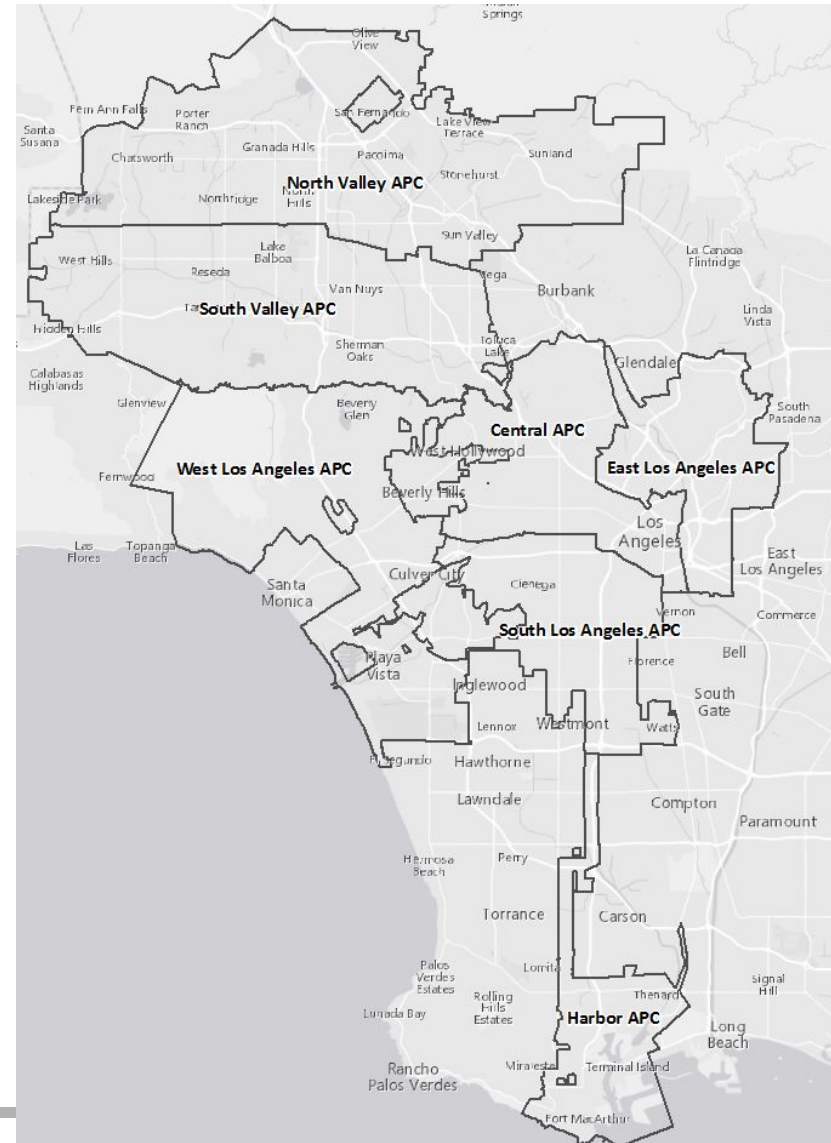


LOS ANGELES' APPROACH

Developed local VMT threshold

A threshold lower than the region's ensures that more projects comply with CEQA

Area Planning Commission	VMT per capita	VMT per employee
Central	6.0	7.6
East LA	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South LA	6.0	11.6
South Valley	9.4	11.6
West LA	7.4	11.1

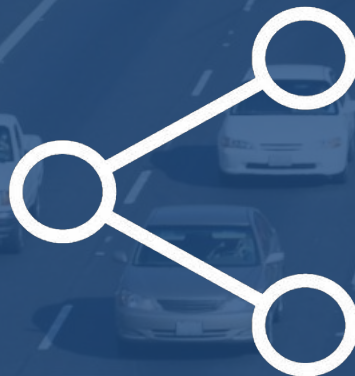




**Affordable
housing & mixed
use vehicle trip
adjustments**



**Localized trip
generation rates
& VMT**



**Travel Demand
Forecasting
(TDF) Model**

Preparation for Adoption

- ✓ Collected vehicle trip data at local affordable housing & mixed-use sites

- Affordable Housing Projects

Residential or mixed-use developments that include Affordable Housing Units [as defined in LAMC 12.22-A.25 (b)] are eligible to use the trip generation rates presented in **Table 5**, which are based on the total number and type of dwelling units reserved as affordable. These trip generation rates are based on vehicle trip count data collected at affordable housing sites in the City of Los Angeles in 2016. These trip generation rates for Affordable Housing units are not subject to any of the aforementioned adjustments in this Section.

Table 5: Trip Generation Rates for Affordable Housing Projects

Affordable Housing Type	Daily Rate (Trips per DU)	Average AM Peak Hr Rate (Trips per DU)	% AM Trips In	% AM Trips Out	Average PM Peak Hr Rate (Trips per DU)	% PM Trips In	% PM Trips Out
Family	4.08	0.50	40%	60%	0.34	55%	45%
Seniors	1.72	0.12	38%	62%	0.15	52%	48%
Permanent Supportive Housing / Special Needs	1.27	0.12	44%	56%	0.12	59%	41%

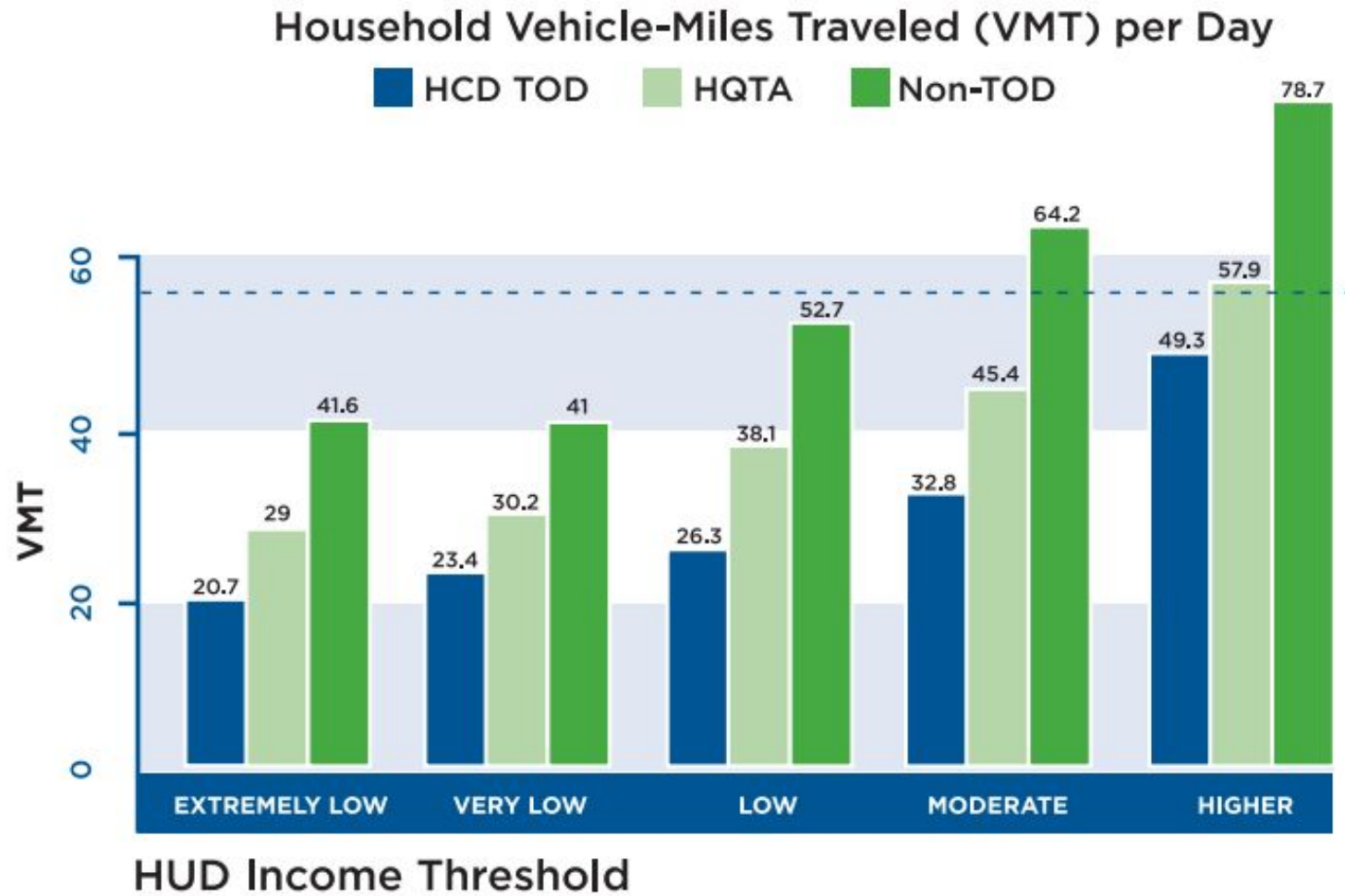


LADOT

**Transportation Impact
Study Guidelines**

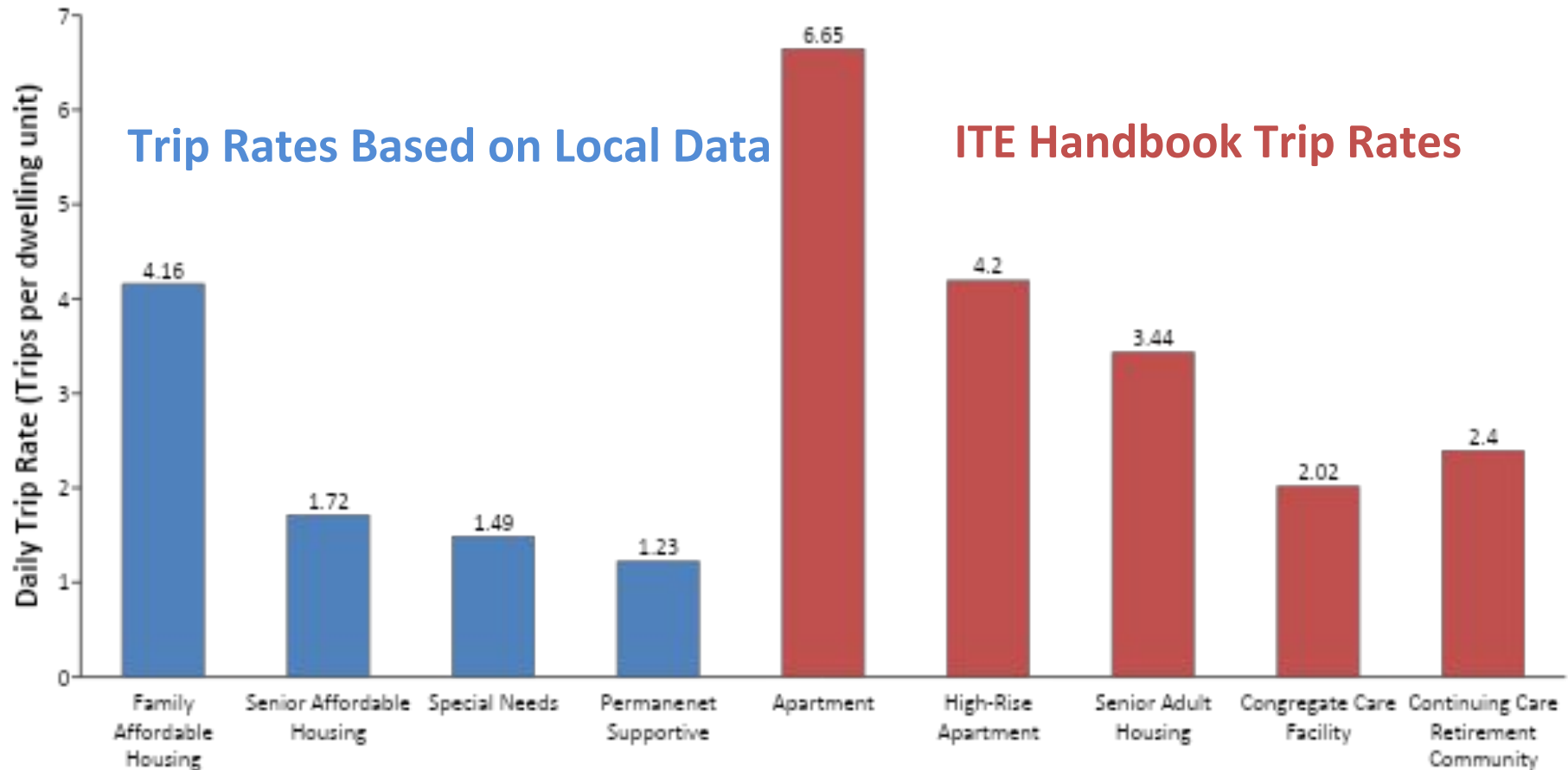
December 2016

EVIDENCE OF AFFORDABLE HOUSING'S LOW VMT



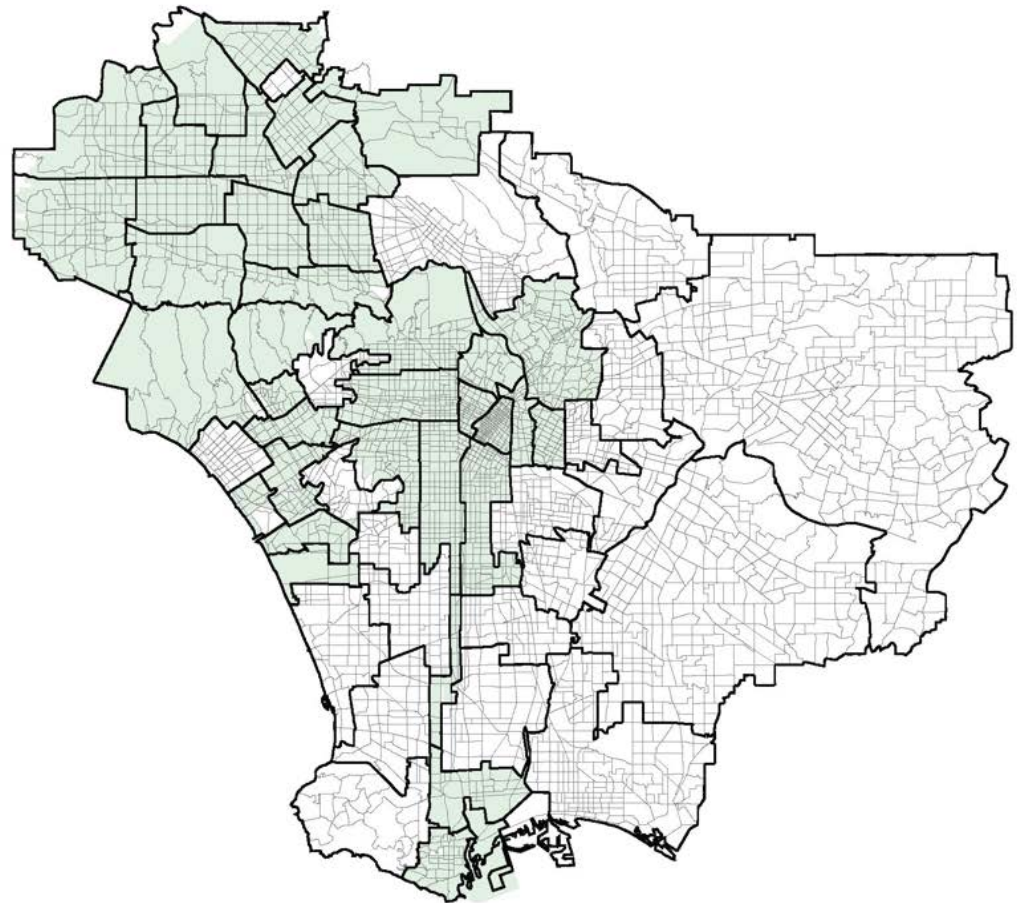
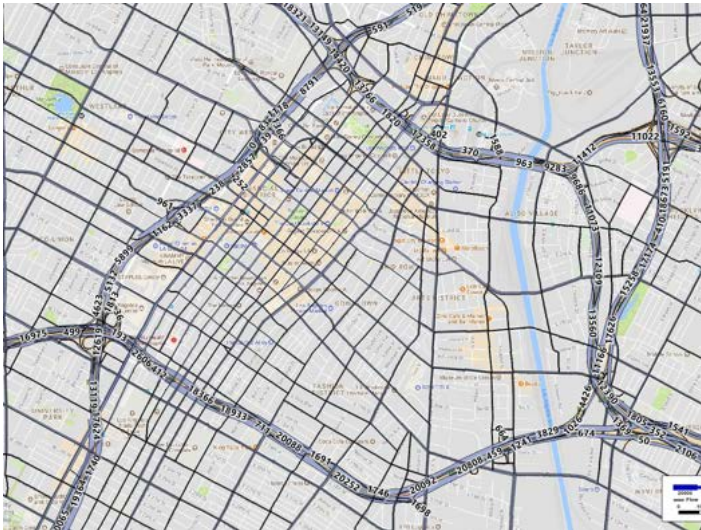
Source: 2013 California Household Travel Survey (CHTS)

LOS ANGELES AFFORDABLE HOUSING TRIP GENERATION

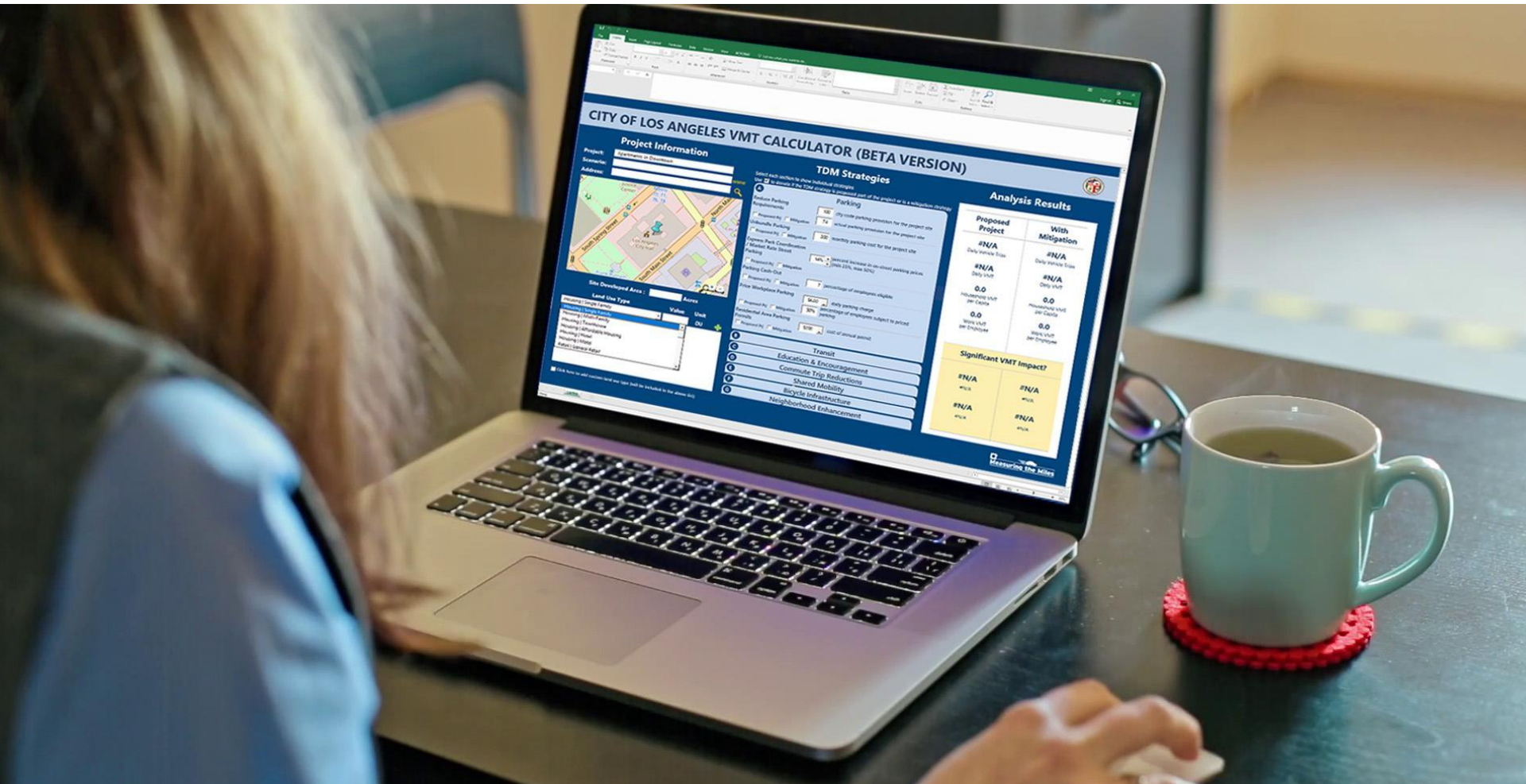


Preparation for Adoption

- ✓ Collected vehicle trip data at local affordable housing & mixed use sites
- ✓ **Updated the City travel demand forecasting model**



Developed the VMT Calculator



Preparation for Adoption

- ✓ Collected vehicle trip data at local affordable housing & mixed-use sites
- ✓ Updated the City travel demand forecasting model
- ✓ **Developed VMT Calculator**

CITY OF LOS ANGELES VMT CALCULATOR (BETA VERSION)

Project Information

Project: 3900 Figueroa Street v2
 Scenario: Scenario 12
 Address: 34.092794, -118.301990

Site Developed Area: 6.477 Acres

Land Use Type:
 Single-Family
 Multi-Family
 Hotel
 Motel
 General Retail
 High-Turnover Sit Down Restaurant
 Quality Restaurant
 Office/General Office

TDM Strategies

Select existing TDM strategies to show individual strategies. Use to determine if a TDM strategy is proposed part of the project or a mitigation strategy.

Parking

Reduce Parking Requirements: 30% (reduces parking provision for the project site)
 Proposed By: Mitigation

Unbundle Parking: 300 (reduces parking provision for the project site)
 Proposed By: Mitigation

Express Park Coordination / Market Rate Street Parking: 14% (percentage decrease in on-street parking spaces 25%, max 50%)
 Proposed By: Mitigation

Parking Cash-Out: 1 (percentage of employees eligible)
 Proposed By: Mitigation

Prior Workplace Parking: \$150 (daily parking charge)
 Proposed By: Mitigation

Residential Area Parking Permits: 50% (percentage of employees subject to priced parking)
 Proposed By: Mitigation

Residential Area Parking Permits: \$200 (cost of annual permit)
 Proposed By: Mitigation

Analysis Results

Proposed Project	With Mitigation
6,042 Daily Vehicle Trips	3,891 Daily Vehicle Trips
44,799 Daily VMT	28,845 Daily VMT
7.4 Household VMT per Capita	4.8 Household VMT per Capita
7.2 Work VMT per Employee	7.2 Work VMT per Employee

Significant VMT Impact

Project Information

Project: 3900 Figueroa Street v2
 Scenario: Scenario 12
 Address: 34.092794, -118.301990

Site Developed Area: 6.477 Acres

Screening Criteria

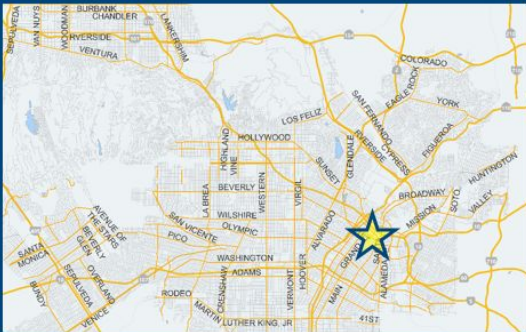
CITY OF LOS ANGELES VMT CALCULATOR Version 1.2



Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project:
 Scenario: [WWW](#)
 Address: [Q](#)



If the project is replacing an existing number of residential units with a smaller number of residential units, is the proposed project located within one-half mile of a fixed-rail or fixed-guideway transit station?

☐ Yes ☐ No

Existing Land Use

Land Use Type	Value	Unit
Housing Single Family		DU

[Click here to add a single custom land use type \(will be included in the above list\)](#)

Proposed Project Land Use

Land Use Type	Value	Unit
Housing Single Family		DU

[Click here to add a single custom land use type \(will be included in the above list\)](#)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	0 Daily Vehicle Trips
0 Daily VMT	0 Daily VMT
Tier 1 Screening Criteria	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
Tier 2 Screening Criteria	
The net increase in daily trips < 250 trips	0 Net Daily Trips
The net increase in daily VMT ≤ 0	0 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	0.000 ksf
Please enter all user inputs.	

Project Example - Screening


Entering project information requires simple inputs

Project Information

Project:

Scenario:

Address:



Existing Land Use

Land Use Type	Value	Unit
Retail General Retail	10	ksf
Retail General Retail	10	ksf

Proposed Project Land Use

Land Use Type	Value	Unit
Retail General Retail	2	ksf
Housing Multi-Family	50	DU
Housing Affordable Housing - Family	8	DU
Retail High-Turnover Sit-Down Restaurant	6	ksf
Retail General Retail	2	ksf

Project Screening Summary

Existing Land Use	Proposed Project
318 Daily Vehicle Trips	676 Daily Vehicle Trips
2,169 Daily VMT	4,298 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips **358**
Net Daily Trips

The net increase in daily VMT ≤ 0 **2,129**
Net Daily VMT

The proposed project consists of only retail land uses $\leq 50,000$ square feet total. **8,000**
ksf

The proposed project is required to perform VMT analysis.

Preparation for Adoption

- ✓ Collected vehicle trip data at local affordable housing & mixed use sites
- ✓ Updated the City travel demand forecasting model
- ✓ **Developed VMT Calculator**

CITY OF LOS ANGELES VMT CALCULATOR (BETA VERSION)

Project Information
 Project: 3950 Figueroa Street v2
 Scenario: Scenario 12
 Address: 34.092794 -118.301990

TDM Strategies
 Select each section to show individual strategies
 Use ☒ to denote if the TDM strategy is proposed part of the project or is a mitigation strategy

Analysis Results

Proposed Project	With Mitigation
6,000 Daily Vehicle Trips	3,891 Daily Vehicle Trips
44,799 Daily VMT	28,845 Daily VMT
	4.8 Household VMT per Capita
	7.2 Work VMT per Employee

TDM Strategies
 Select each section to show individual strategies
 Use ☒ to denote if the TDM strategy is proposed part of the project or is a mitigation strategy

A Parking
☒ Proposed Prj ☐ Mitigation
 Reduce Parking Requirements: 40 city code parking provision for the project site
 Unbundle Parking: 30 actual parking provision for the project site
 300 monthly parking cost for the project site

B Transit

C Education & Encouragement

D Commute Trip Reductions
 Required Commute Trip Reduction Program: 100% percentage of employees eligible
☐ Proposed Prj ☐ Mitigation
 Alternative Work Schedules and Telecommute Program: 25% percentage of employees participating
 1.5 days of telecommuting type of program
☐ Proposed Prj ☐ Mitigation
 Employer Sponsored Vanpool or Shuttle: high degree of implementation small employer size
☐ Proposed Prj ☐ Mitigation 100% percentage of employees eligible
 Ride-Share Program: 50% percentage of employees eligible
☐ Proposed Prj ☐ Mitigation

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

VMT Mitigation Measures

Parking Management

- Reduce Parking Supply
- Unbundle Parking
- Parking Cash-Out
- Price Workplace Parking
- Residential Area Parking Permits

Transit Incentives

- Reduce transit headways
- Implement Neighborhood Shuttle
- Transit Subsidies

Education & Marketing

- Voluntary Travel Behavior Change Program
- Promotions & Marketing

Commute Trip Reductions

- Required Commute Trip Reduction Program
- Vanpool or Shuttle
- Rideshare Program

Shared Mobility

- Car-share
- Bike-share
- School Carpool Program

Bicycle Infrastructure

- Improve Bicycle Facility
- Bike Parking
- Bike Parking and Showers

Neighborhood Enhancement

- Traffic Calming Improvements
- Pedestrian Improvements

Los Angeles' Approach

Quantifying TDM

Classified the City in four Travel Behavior Zones (TBZ) informed by four factors that inform travel in the built environment.

Aligned with Place Types from CAPCOA's Quantifying GHG Mitigation Measures Report

Map Legend



Metro Fixed Guideway Station

Travel Behavior Zones



Suburban (15% VMT Reduction Cap)



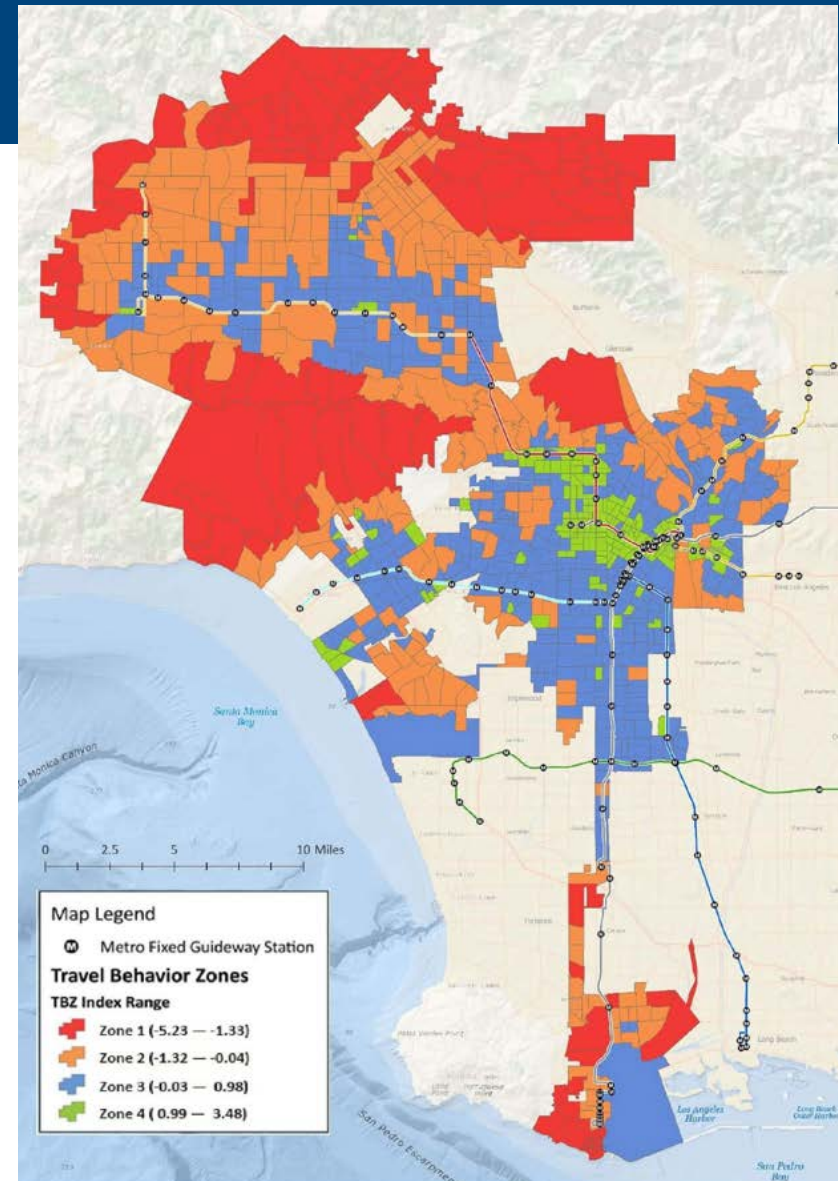
Suburban Center (20% VMT Reduction Cap)



Compact Infill (40% VMT Reduction Cap)

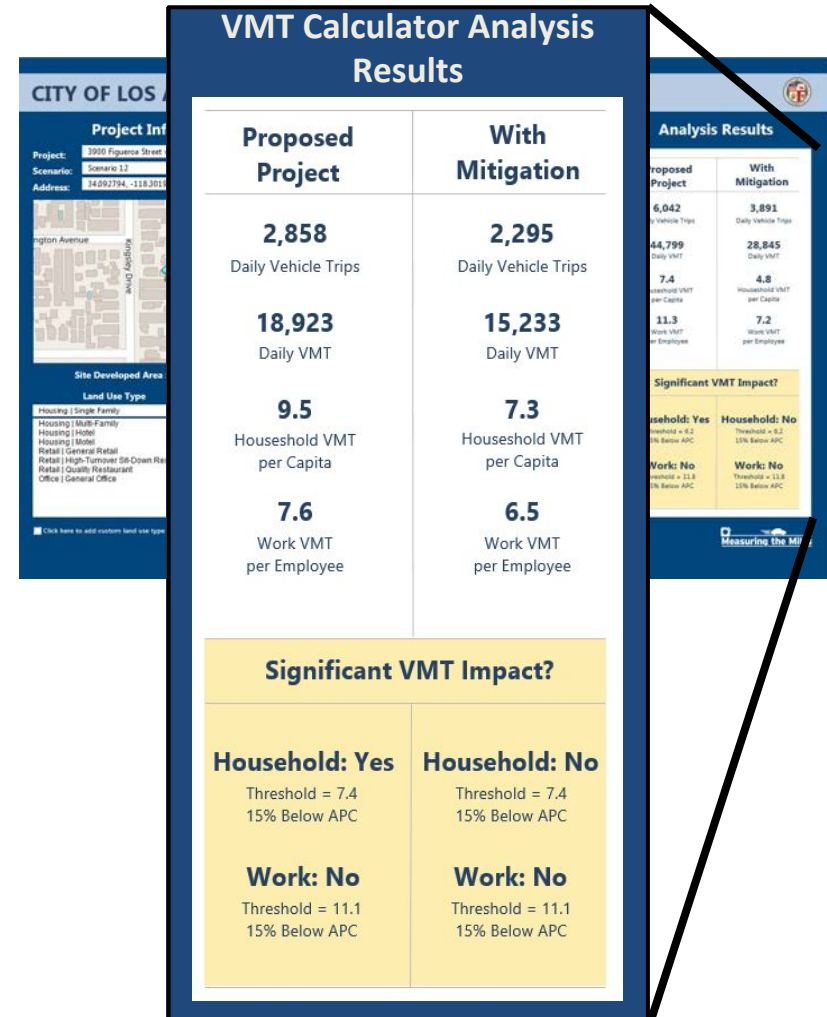


Urban (75% VMT Reduction Cap)



Preparation for Adoption

- ✓ Collected vehicle trip data at local affordable housing & mixed use sites
- ✓ Updated the City travel demand forecasting model
- ✓ **Developed VMT Calculator**



Preparation for Adoption

- ✓ Collected vehicle trip data at local affordable housing & mixed use sites
- ✓ Updated the City travel demand forecasting model
- ✓ Developed VMT Calculator
- ✓ **Updated TAG with localized project access, circulation, and safety review criteria**

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- 1.1. BACKGROUND & CONTEXT
- 1.2. PURPOSE
- 1.3. INITIAL STEPS
- 1.4. PROCESS
- 1.5. STUDY HIATUS AND INTERRUPTIONS
- 1.6. MINISTERIAL PROJECTS NOT REQUIRING CEQA REVIEW

2. CEQA TRANSPORTATION IMPACTS

- 2.1. CONFLICTING WITH PLANS, PROGRAMS, ORDINANCES, OR POLICIES (THRESHOLD T-1)
- 2.2. CAUSING SUBSTANTIAL VEHICLE MILES TRAVELED (THRESHOLD T-2.1)
- 2.3. SUBSTANTIALLY INDUCING ADDITIONAL AUTOMOBILE TRAVEL (THRESHOLD T-2.2)
- 2.4. SUBSTANTIALLY INCREASING HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE OR INCOMPATIBLE USE (THRESHOLD T-3)

3. NON-CEQA TRANSPORTATION ANALYSIS

- 3.1. AUTHORITY FOR REQUIRING NON-CEQA TRANSPORTATION ANALYSIS
- 3.2. PEDESTRIAN, BICYCLE, AND TRANSIT ACCESS ASSESSMENT
- 3.3. PROJECT ACCESS, SAFETY AND CIRCULATION EVALUATION
- 3.4. PROJECT CONSTRUCTION
- 3.5. RESIDENTIAL STREET CUT-THROUGH ANALYSIS

4. STUDY PREPARATION

- 4.1. PROJECT DESCRIPTION
- 4.2. PROJECT CONTEXT
- 4.3. ANALYSIS, DISCUSSION, AND RESULTS
- 4.4. TRANSPORTATION MITIGATION MEASURES AND CORRECTIVE CONDITIONS

5. BUREAU CONTACT INFORMATION

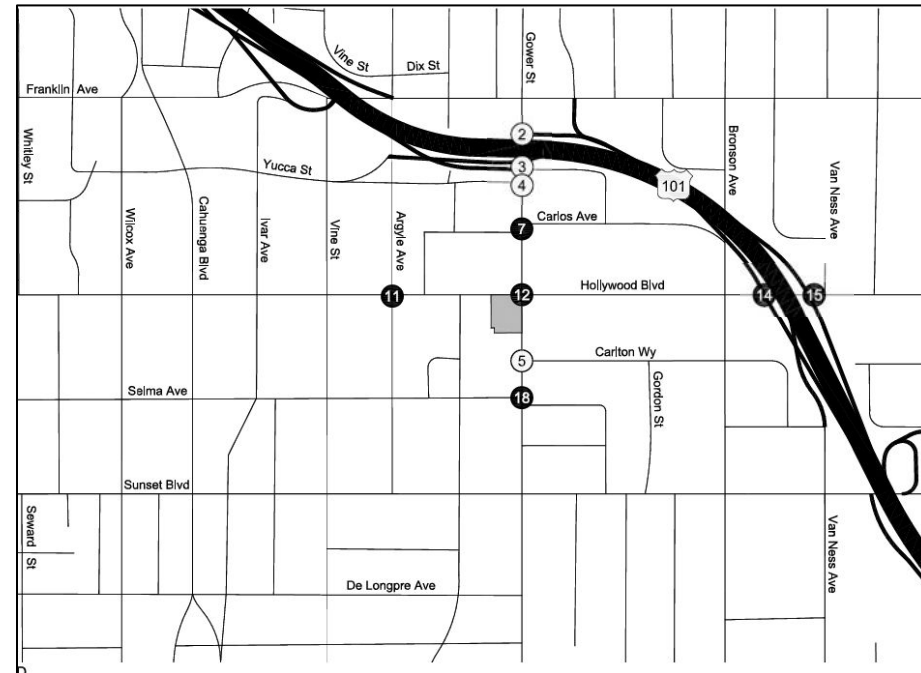
Addressing Access and Circulation

The number of study intersections would be limited to those located immediately adjacent to the project site

LOS Analysis

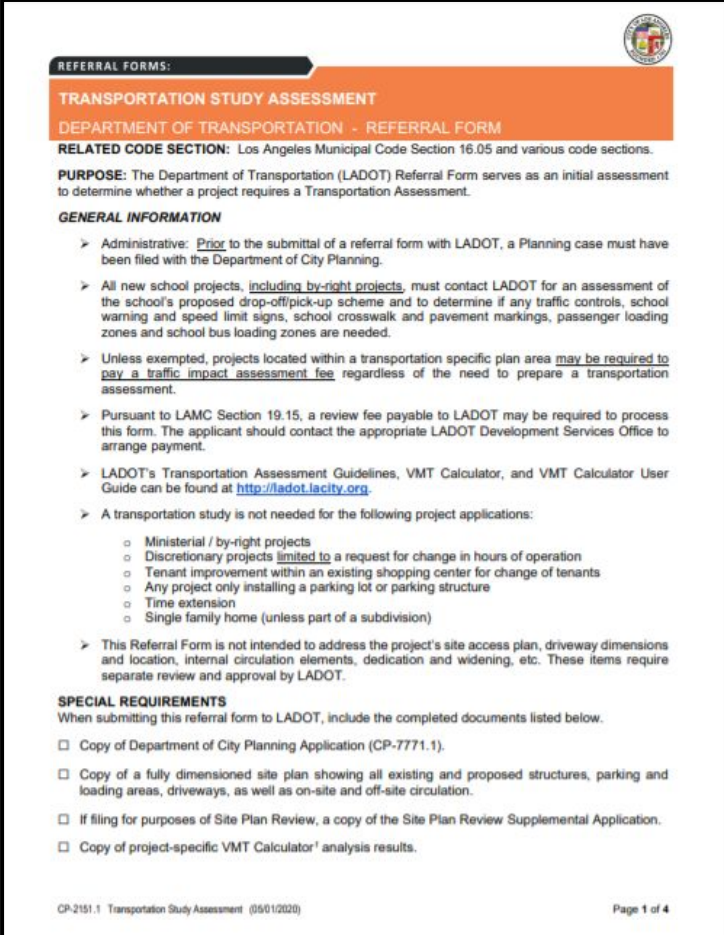


Access Analysis



Preparation for Adoption

- ✓ Collected vehicle trip data at local affordable housing & mixed use sites
- ✓ Updated the City travel demand forecasting model
- ✓ Developed VMT Calculator
- ✓ Updated TAG with localized project access and safety review criteria
- ✓ **Adopted new CEQA transportation thresholds 7/30/2019**



REFERRAL FORMS:

TRANSPORTATION STUDY ASSESSMENT

DEPARTMENT OF TRANSPORTATION - REFERRAL FORM

RELATED CODE SECTION: Los Angeles Municipal Code Section 16.05 and various code sections.

PURPOSE: The Department of Transportation (LADOT) Referral Form serves as an initial assessment to determine whether a project requires a Transportation Assessment.

GENERAL INFORMATION

- Administrative: Prior to the submittal of a referral form with LADOT, a Planning case must have been filed with the Department of City Planning.
- All new school projects, including by-right projects, must contact LADOT for an assessment of the school's proposed drop-off/pick-up scheme and to determine if any traffic controls, school warning and speed limit signs, school crosswalk and pavement markings, passenger loading zones and school bus loading zones are needed.
- Unless exempted, projects located within a transportation specific plan area may be required to pay a traffic impact assessment fee regardless of the need to prepare a transportation assessment.
- Pursuant to LAMC Section 19.15, a review fee payable to LADOT may be required to process this form. The applicant should contact the appropriate LADOT Development Services Office to arrange payment.
- LADOT's Transportation Assessment Guidelines, VMT Calculator, and VMT Calculator User Guide can be found at <http://ladot.lacity.org>.
- A transportation study is not needed for the following project applications:
 - Ministerial / by-right projects
 - Discretionary projects limited to a request for change in hours of operation
 - Tenant improvement within an existing shopping center for change of tenants
 - Any project only installing a parking lot or parking structure
 - Time extension
 - Single family home (unless part of a subdivision)
- This Referral Form is not intended to address the project's site access plan, driveway dimensions and location, internal circulation elements, dedication and widening, etc. These items require separate review and approval by LADOT.

SPECIAL REQUIREMENTS

When submitting this referral form to LADOT, include the completed documents listed below.

- ☐ Copy of Department of City Planning Application (CP-7771.1).
- ☐ Copy of a fully dimensioned site plan showing all existing and proposed structures, parking and loading areas, driveways, as well as on-site and off-site circulation.
- ☐ If filing for purposes of Site Plan Review, a copy of the Site Plan Review Supplemental Application.
- ☐ Copy of project-specific VMT Calculator¹ analysis results.

CP-2151.1 Transportation Study Assessment (05/01/2020) Page 1 of 4

Project Example - Analysis

500+ Units
5 ksf Retail
10 ksf High-Turnover Restaurant

Project Outcome: LOS

- 15 impacted intersections
- Lane restriping at two intersections
- TDM Plan required
- Full EIR

Project Outcome: VMT

- Work VMT not significant
- Household VMT above the APC threshold
- Household VMT can be fully mitigated through TDM
- VMT impact does not trigger an EIR

VMT Calculator Analysis Results

Proposed Project	With Mitigation
2,858 Daily Vehicle Trips	2,295 Daily Vehicle Trips
18,923 Daily VMT	15,233 Daily VMT
9.5 Household VMT per Capita	7.3 Household VMT per Capita
7.6 Work VMT per Employee	6.5 Work VMT per Employee
Significant VMT Impact?	
Household: Yes Threshold = 7.4 15% Below APC	Household: No Threshold = 7.4 15% Below APC
Work: No Threshold = 11.1 15% Below APC	Work: No Threshold = 11.1 15% Below APC

Project Example - Results

Analysis Results			
Total Employees: 900			
Total Population: 1,127			
Proposed Project		With Mitigation	
6,019	Daily Vehicle Trips	5,274	Daily Vehicle Trips
49,697	Daily VMT	42,979	Daily VMT
10.5	Household VMT per Capita	8.6	Household VMT per Capita
17.6	Work VMT per Employee	14.1	Work VMT per Employee
Significant VMT Impact?			
APC: North Valley			
Impact Threshold: 15% Below APC Average			
Household = 9.2			
Work = 15.0			
Proposed Project		With Mitigation	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 9.2	Yes	Household > 9.2	No
Work > 15.0	Yes	Work > 15.0	No

VMT Calculator Iteration

- Quantifying TDM
- Refining VMT Calculation

Map Legend



Metro Fixed Guideway Station

Travel Behavior Zones



Suburban (15% VMT Reduction Cap)



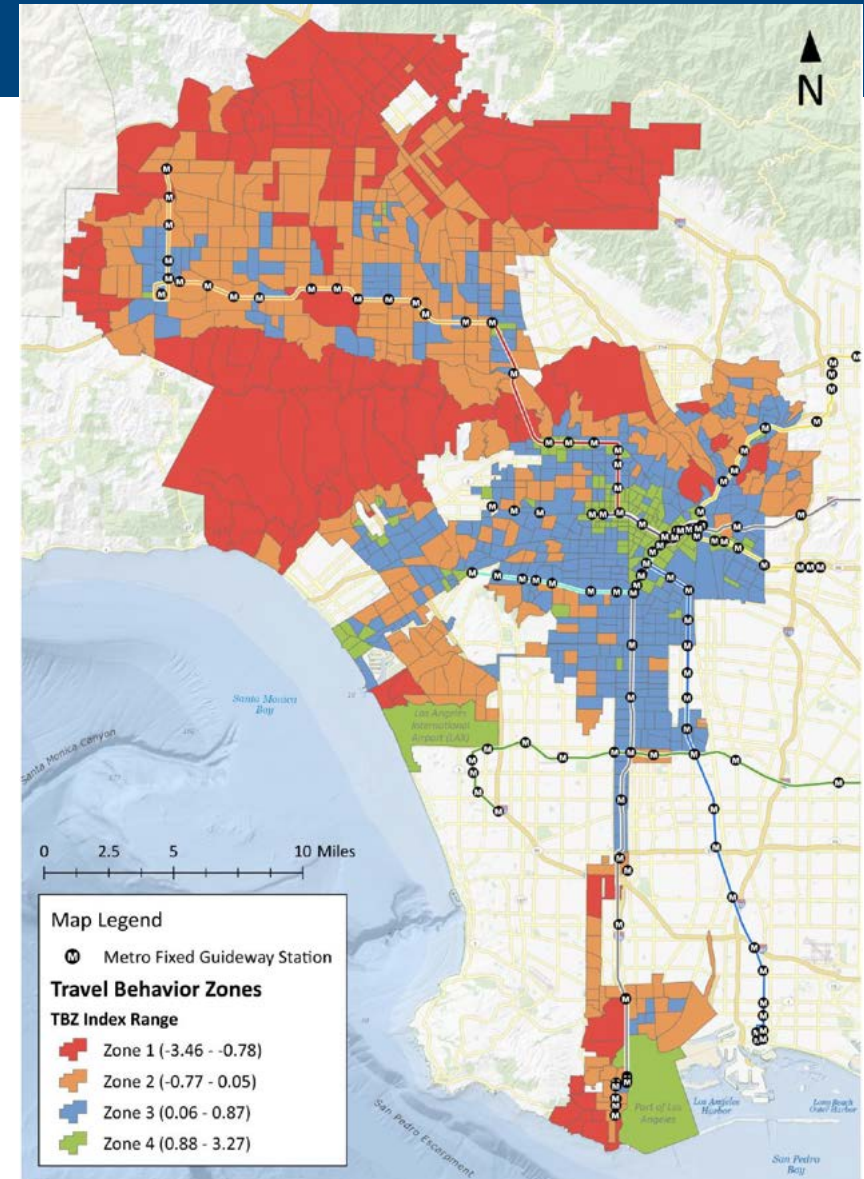
Suburban Center (20% VMT Reduction Cap)



Compact Infill (40% VMT Reduction Cap)



Urban (75% VMT Reduction Cap)



VMT Calculator Iteration





- Quantifying TDM
- Refining VMT Calculation

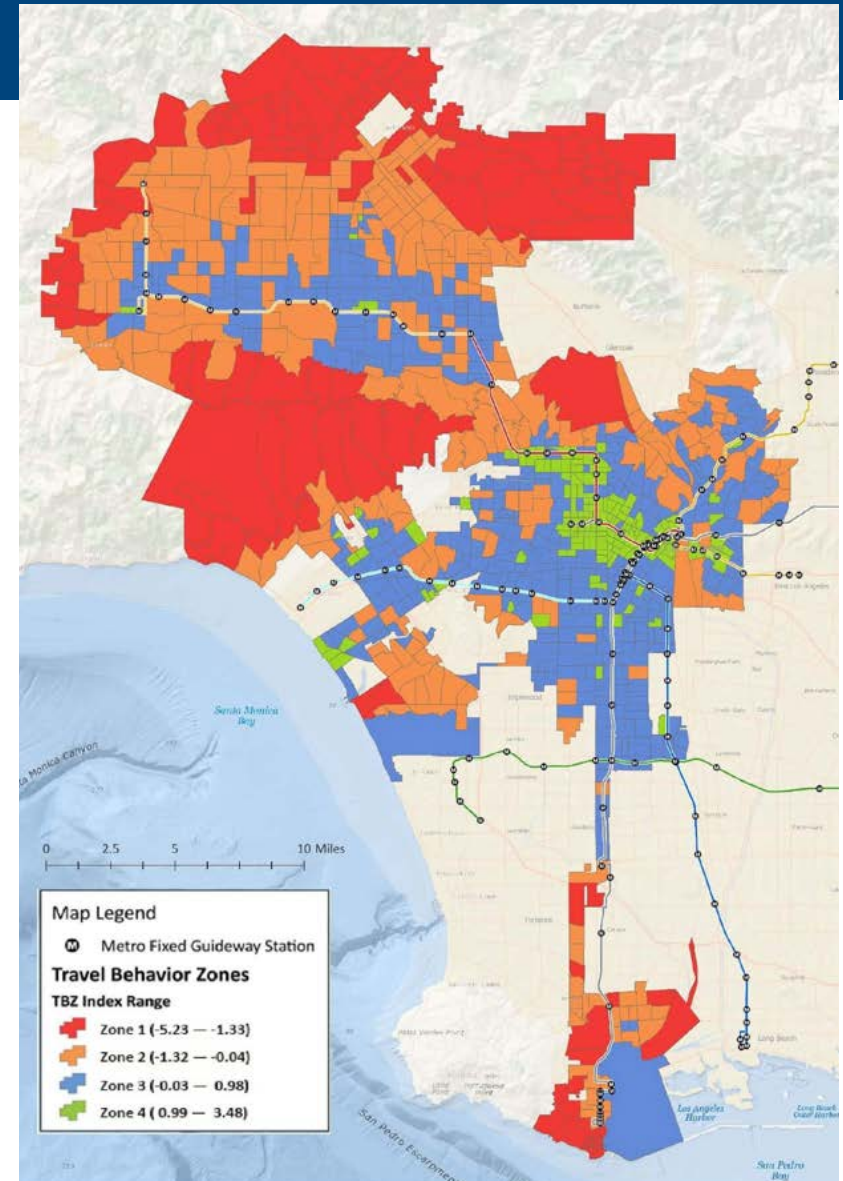
Map Legend



Metro Fixed Guideway Station

Travel Behavior Zones

	Suburban (15% VMT Reduction Cap)
	Suburban Center (20% VMT Reduction Cap)
	Compact Infill (40% VMT Reduction Cap)
	Urban (75% VMT Reduction Cap)



Next Steps for Los Angeles

1. VMT Research



Parking



Infrastructure



Mobility Services

2. VMT-Based Fee Programs

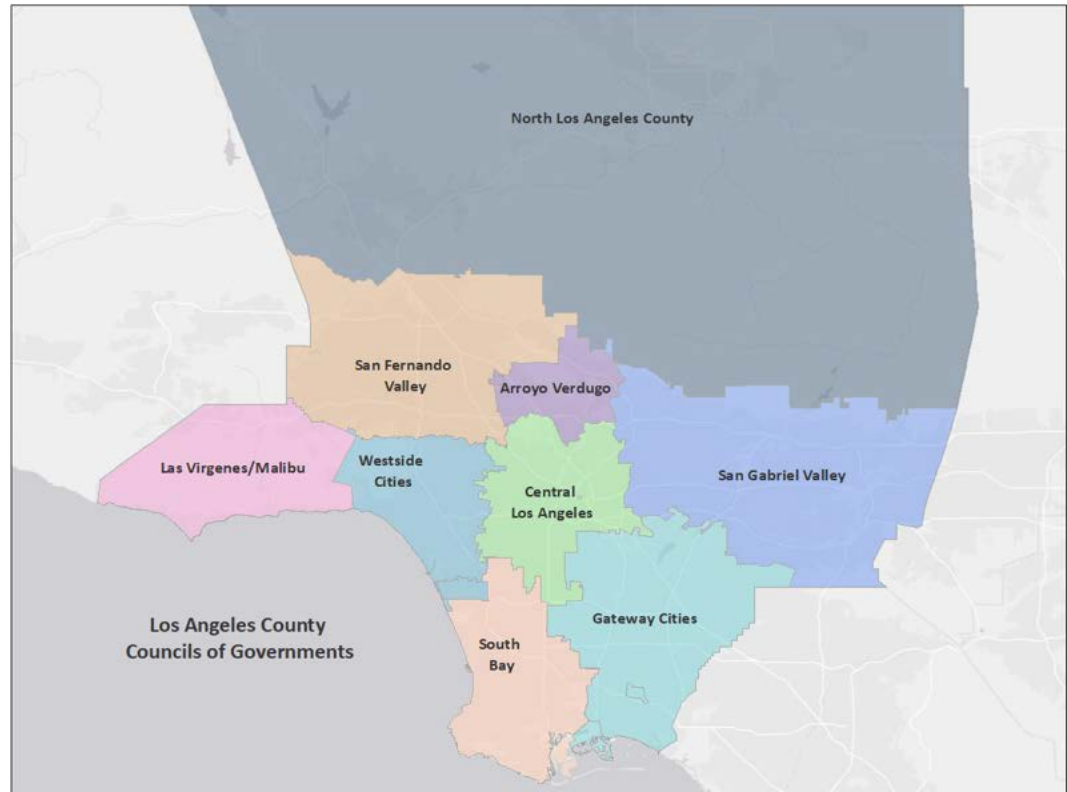
- VMT Exchange/Bank
- Transportation Specific Plans

3. TDM Ordinance Update

Next Steps for Statewide Transition to VMT

Look to MPOs and Council of Governments (COGs)

- Validate COG-level TDF Models
- Establish COG-level thresholds
- Rely on statewide mitigation methods



Questions

David Somers

Department of Transportation

Transportation Planning & Policy

david.somers@lacity.org

Go to:

ladot.lacity.org/businesses/development-review#transportation-assessment

Scroll to 'Transportation Assessment'



Number of
automobile trips

x



Number of
miles driven

=



Vehicles Miles
Traveled

