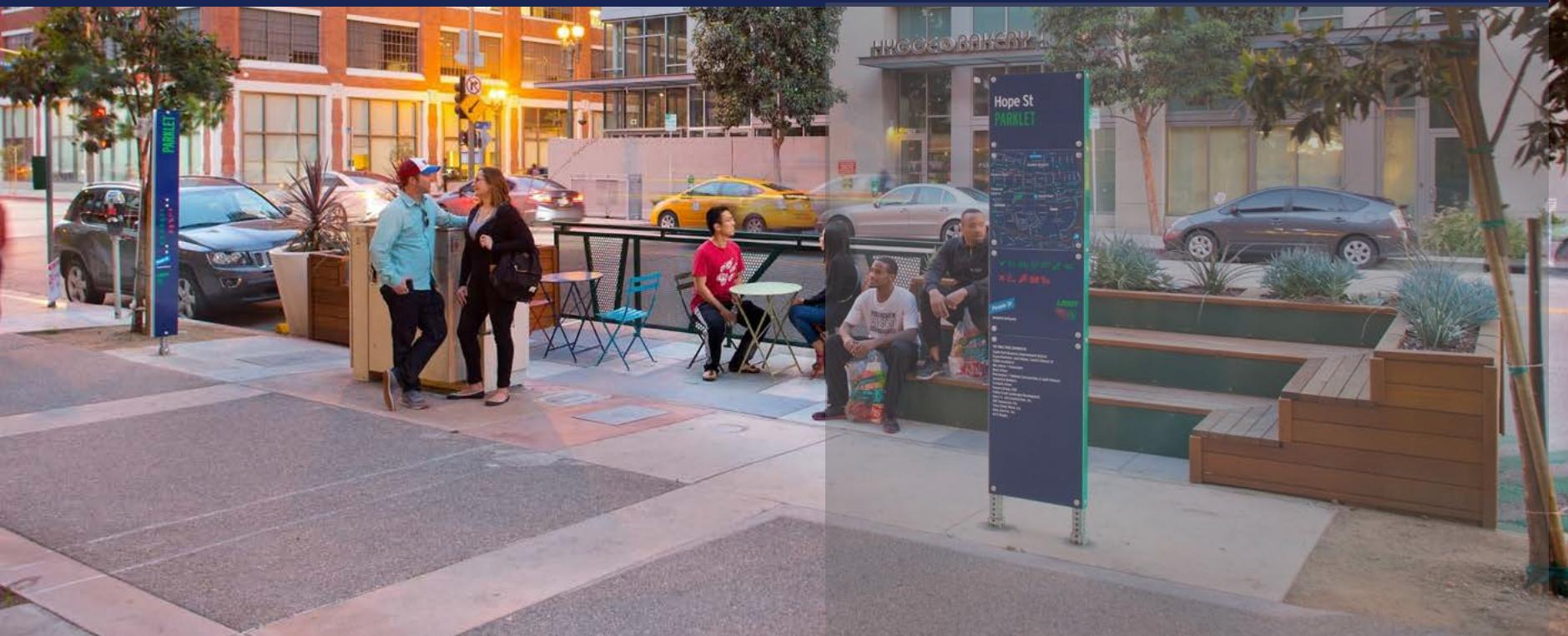


UPDATING LOS ANGELES' TRANSPORTATION ANALYSIS APPROACH

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

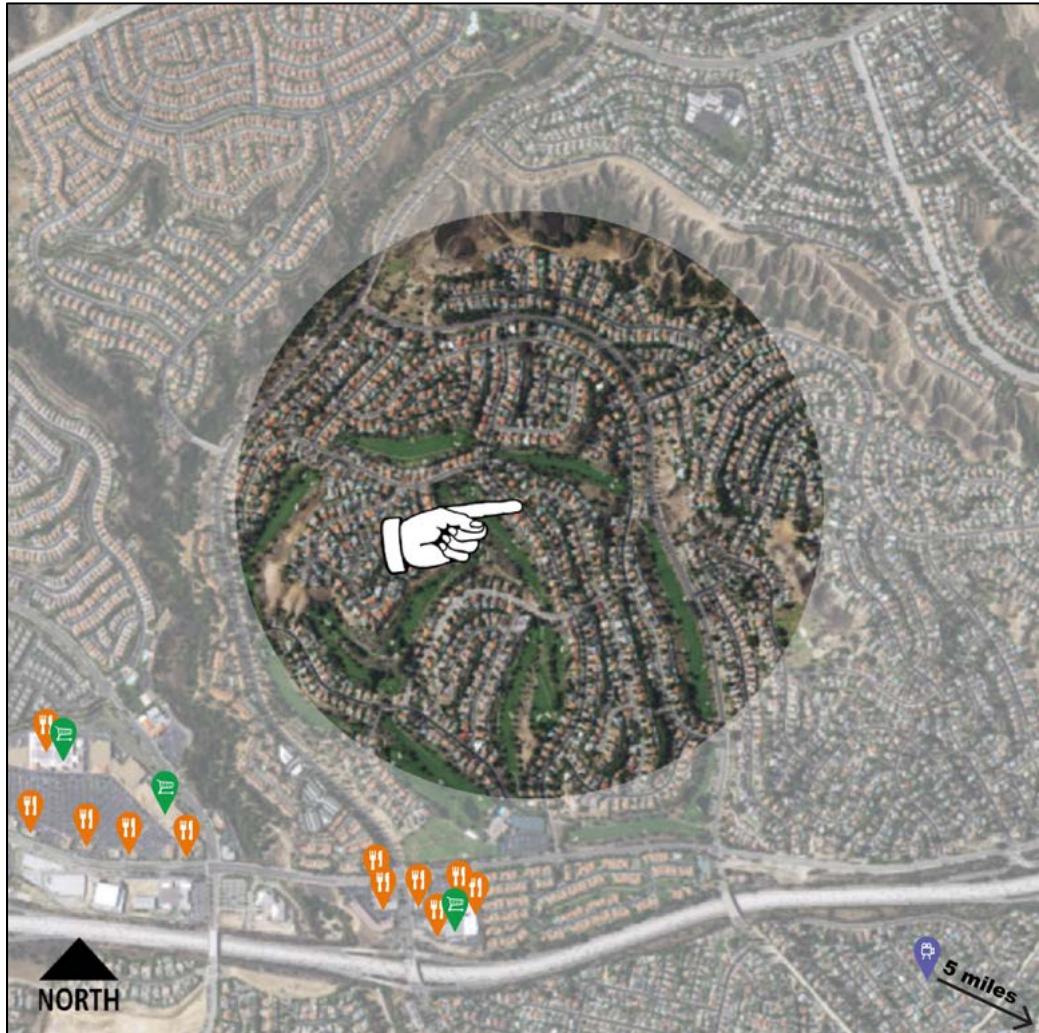


-  **Reduction in GHGs**
-  **Multimodal mobility networks**
-  **Diversity of land uses**
-  **Mobility Plan 2035 and LA's Green New Deal goals**

Former Metric: What is LOS?



Former Metric: Relied on Vehicle Delay



Development Review Metric

Level of Service (LOS)

Outcome

Free Flow

LOS Score

A

68.5%

of all Angelenos drive alone to work

Source: U.S. Census Bureau

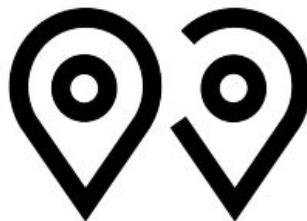
New development in outerlying area

New Metric: What is VMT?



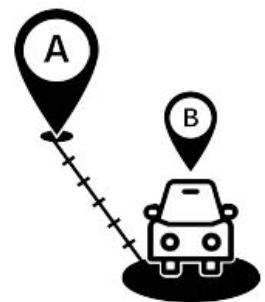
Number of
automobile trips

\times



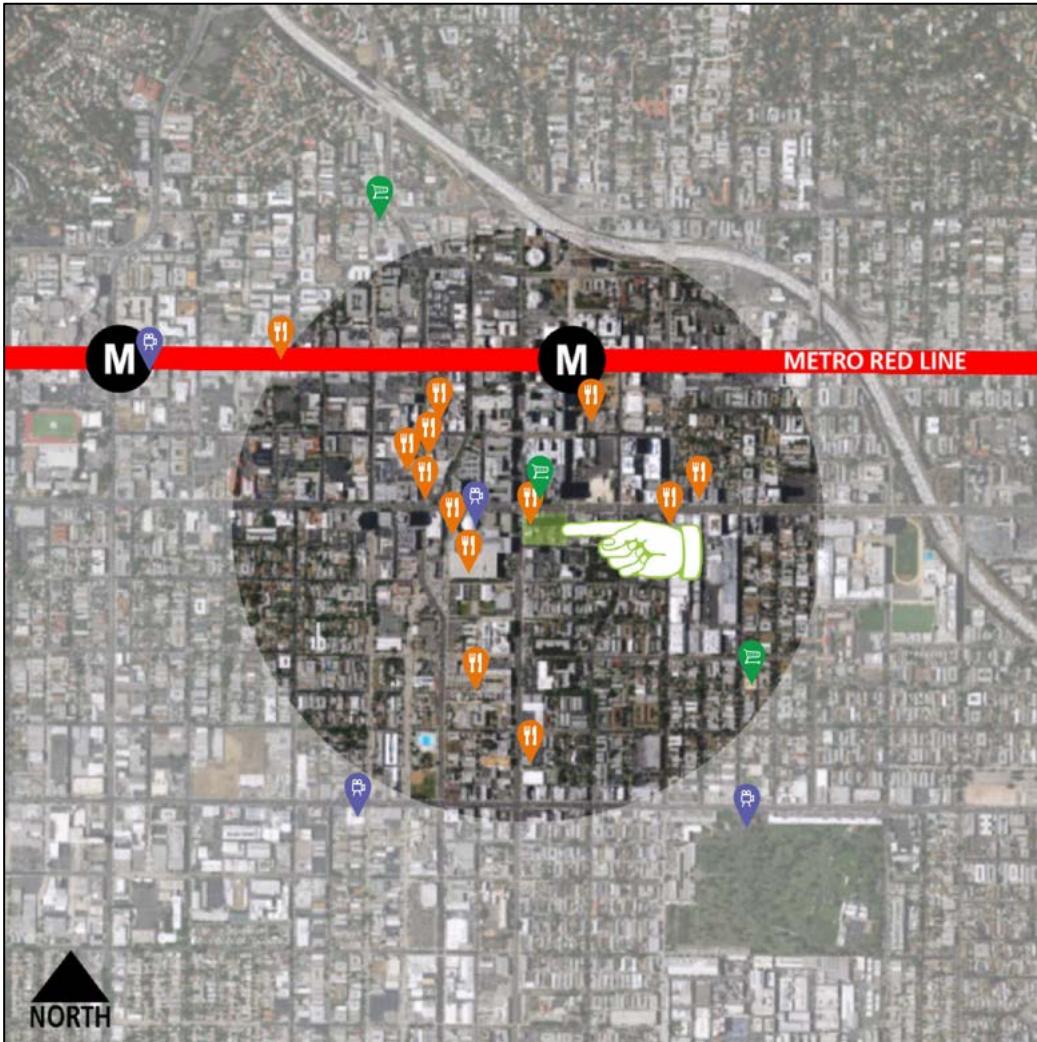
Number of
miles driven

$=$



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:

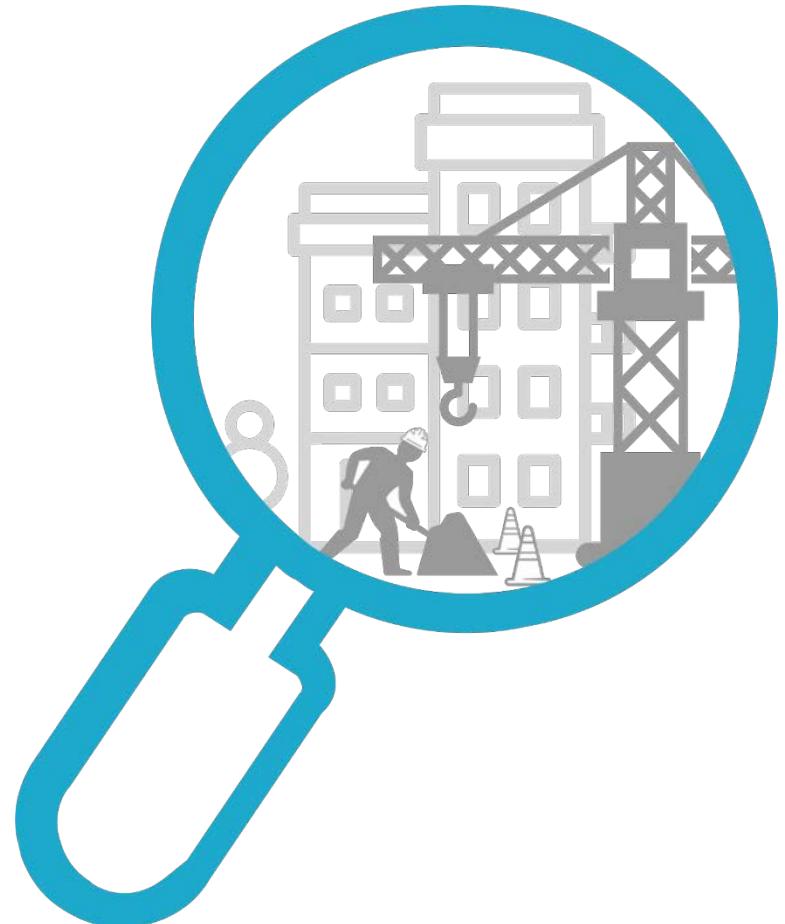
- Faster turning movements
- Longer crossings at intersections
- Less safe streets

New guidance for measuring transportation impacts under CEQA



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?

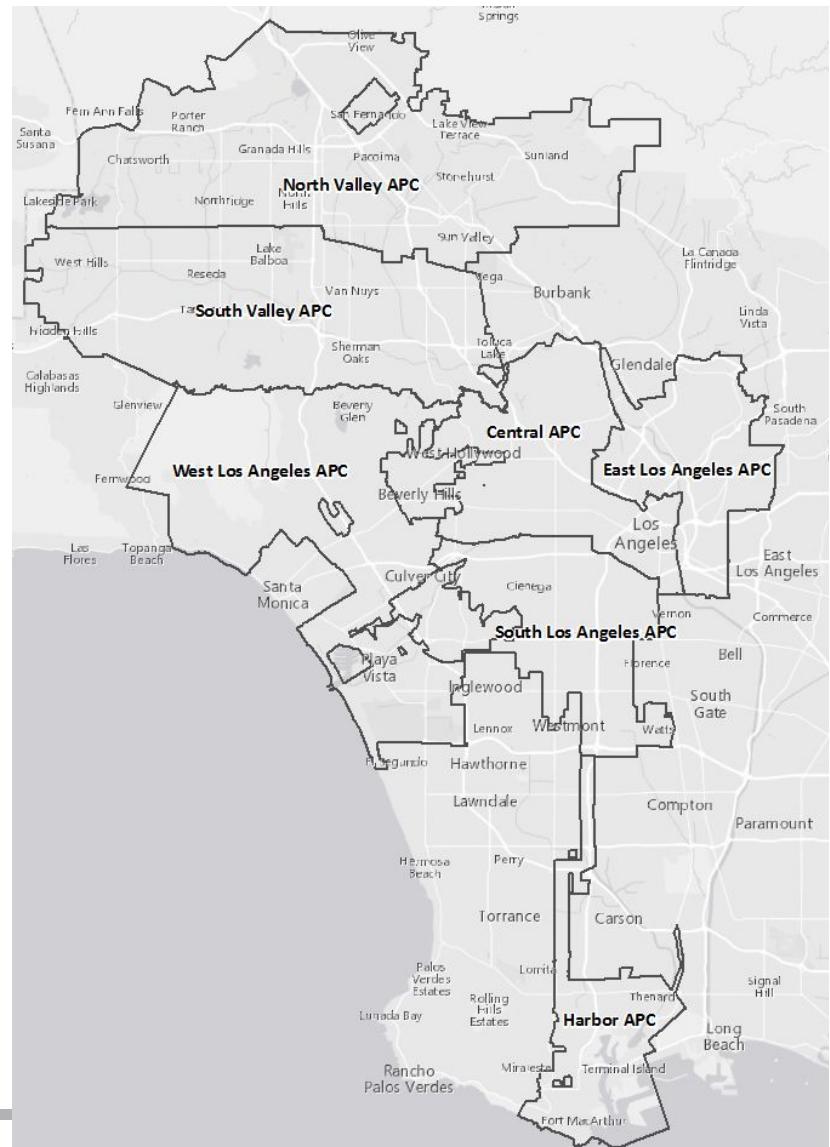


LOS ANGELES' APPROACH

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 |

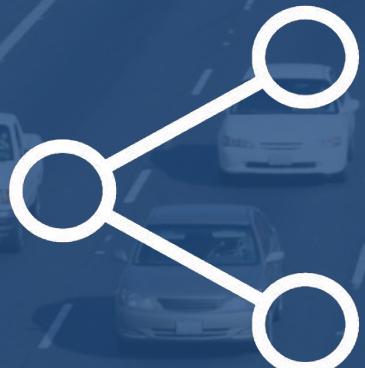




Affordable
housing & mixed
use vehicle trip
adjustments



Localized trip
generation rates
& VMT



Travel Demand
Forecasting
(TDF) Model

Preparation for Adoption

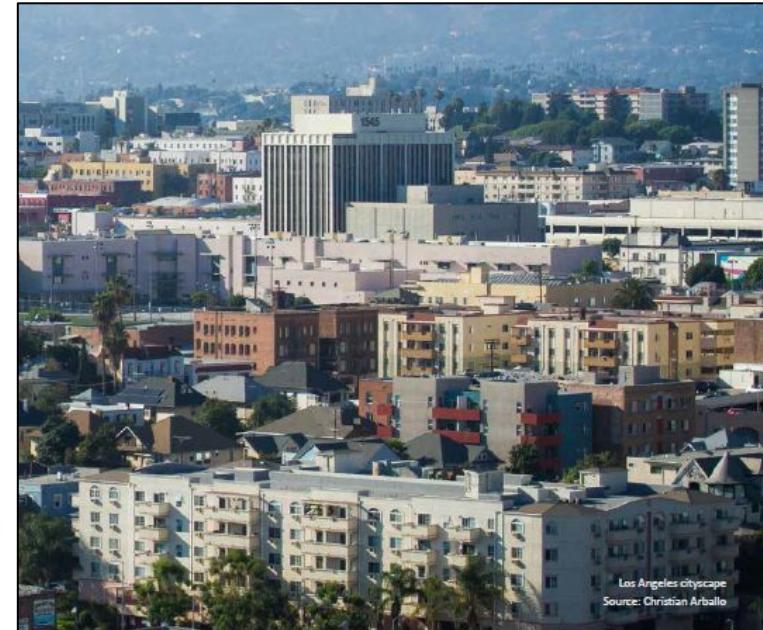
- ✓ Collected vehicle trip data at local affordable housing & mixed-use sites

- 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.

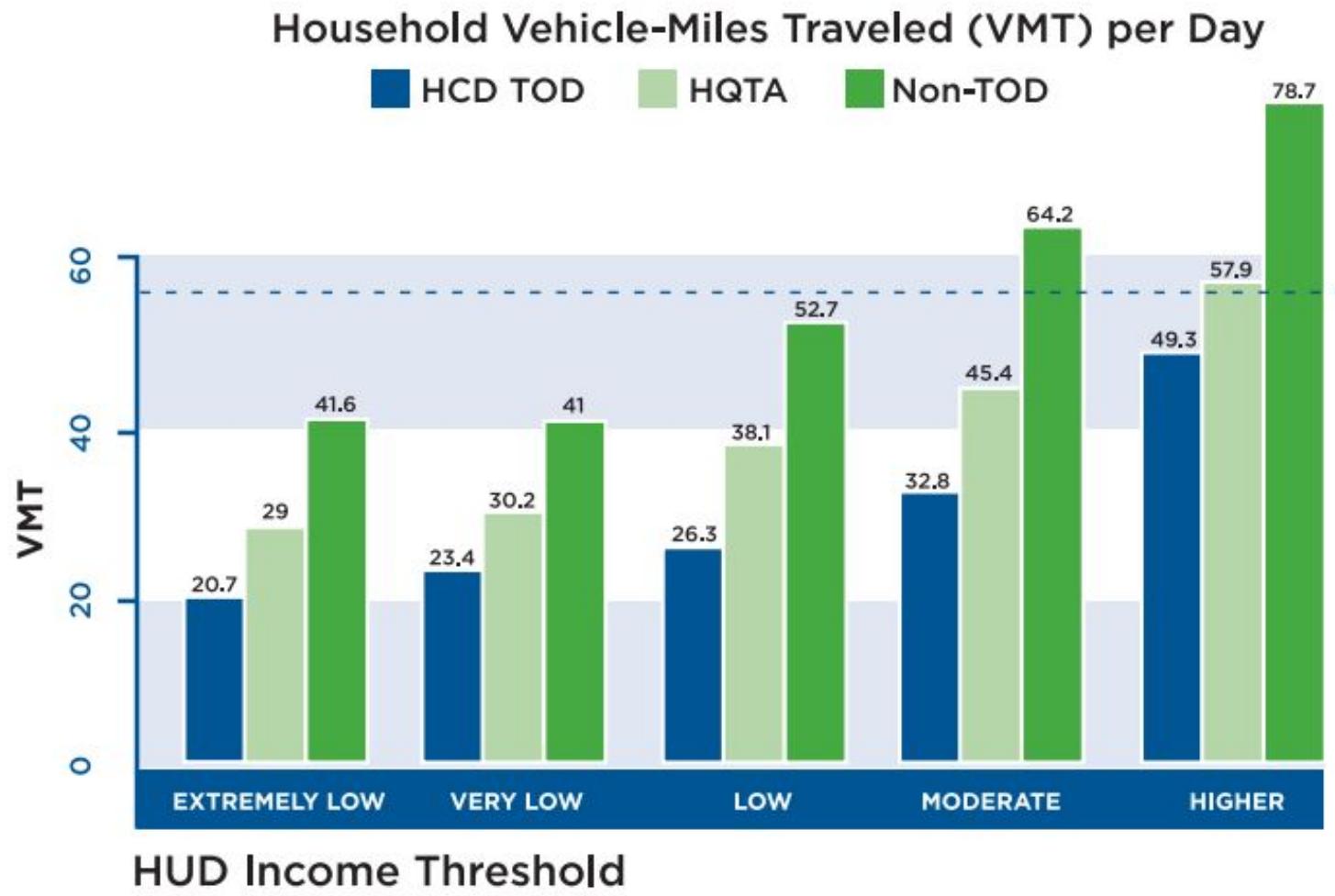
Table 5: Trip Generation Rates for Affordable Housing Projects

| 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% |



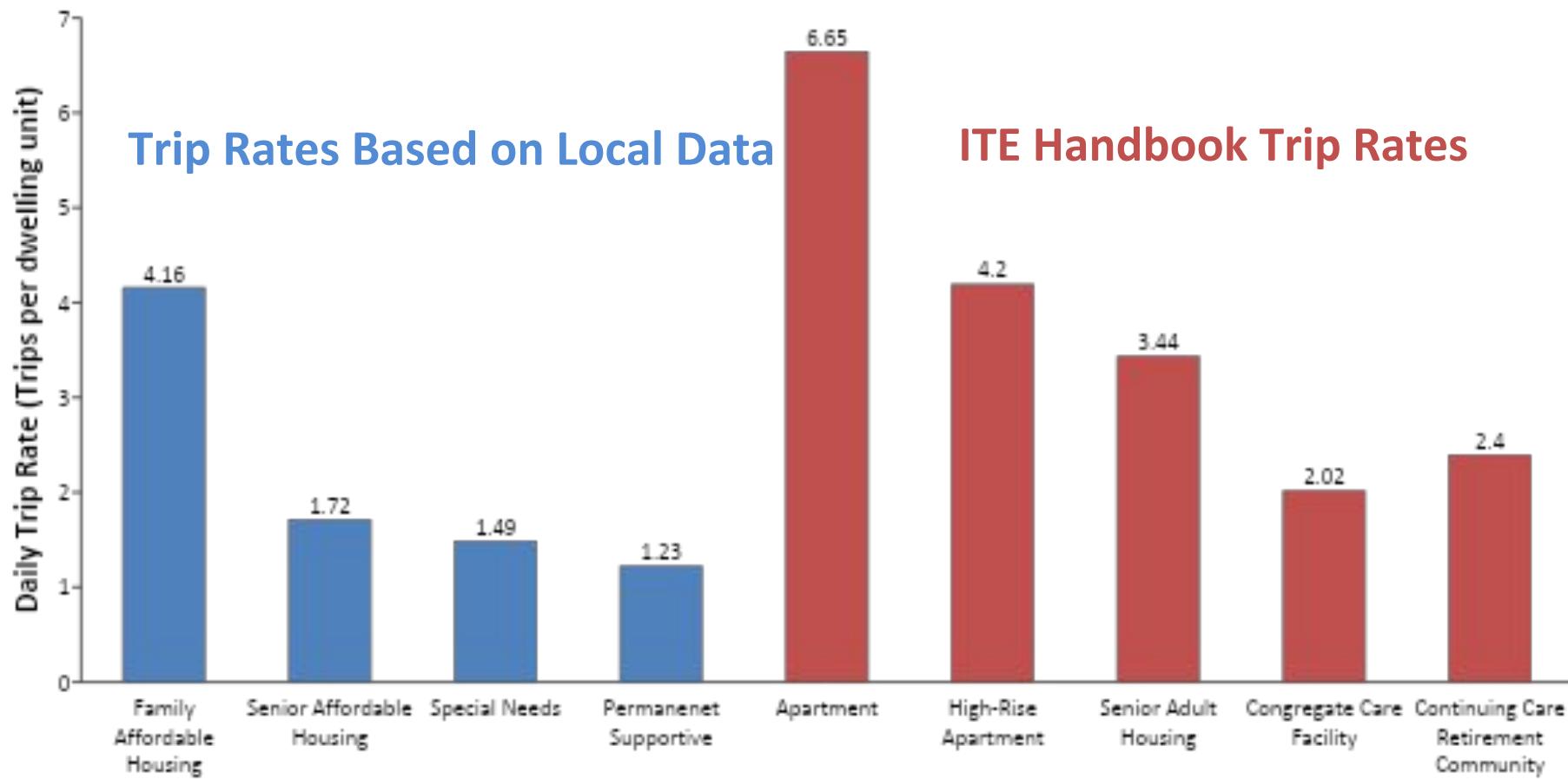
Transportation Impact
Study Guidelines
December 2016

EVIDENCE OF AFFORDABLE HOUSING'S LOW VMT



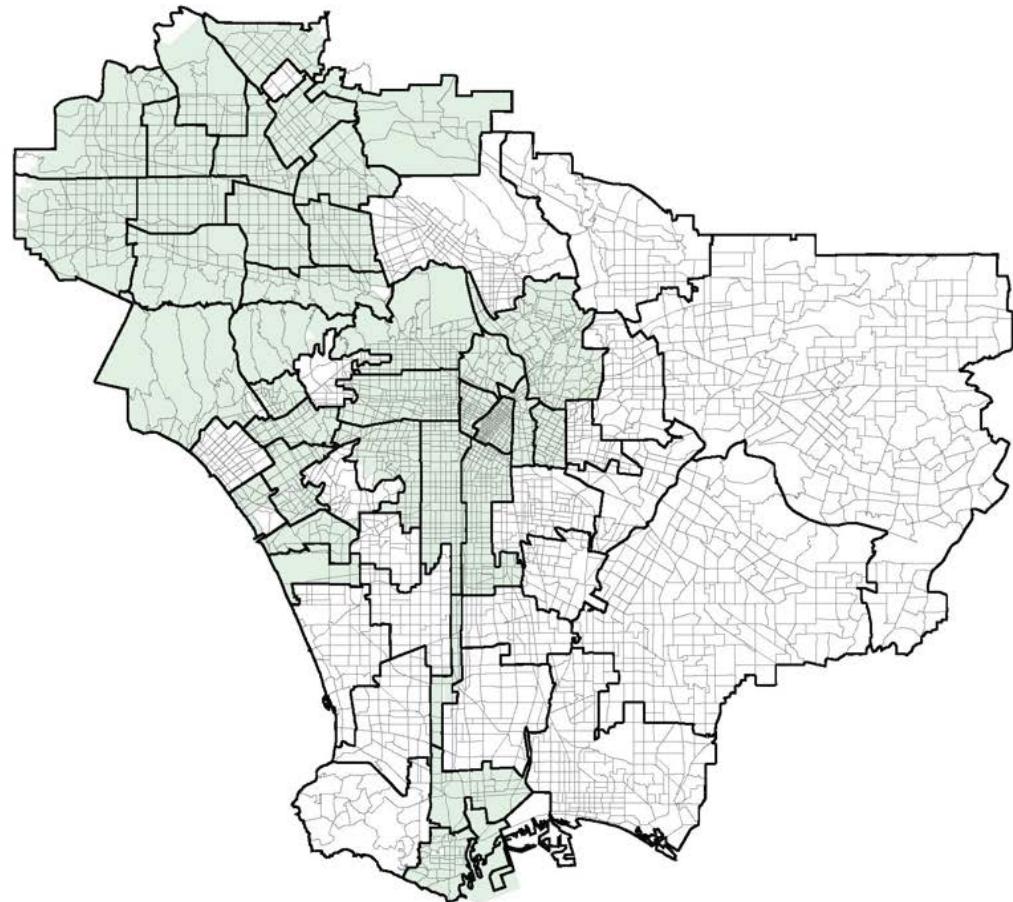
Source: 2013 California Household Travel Survey (CHTS)

LOS ANGELES AFFORDABLE HOUSING TRIP GENERATION

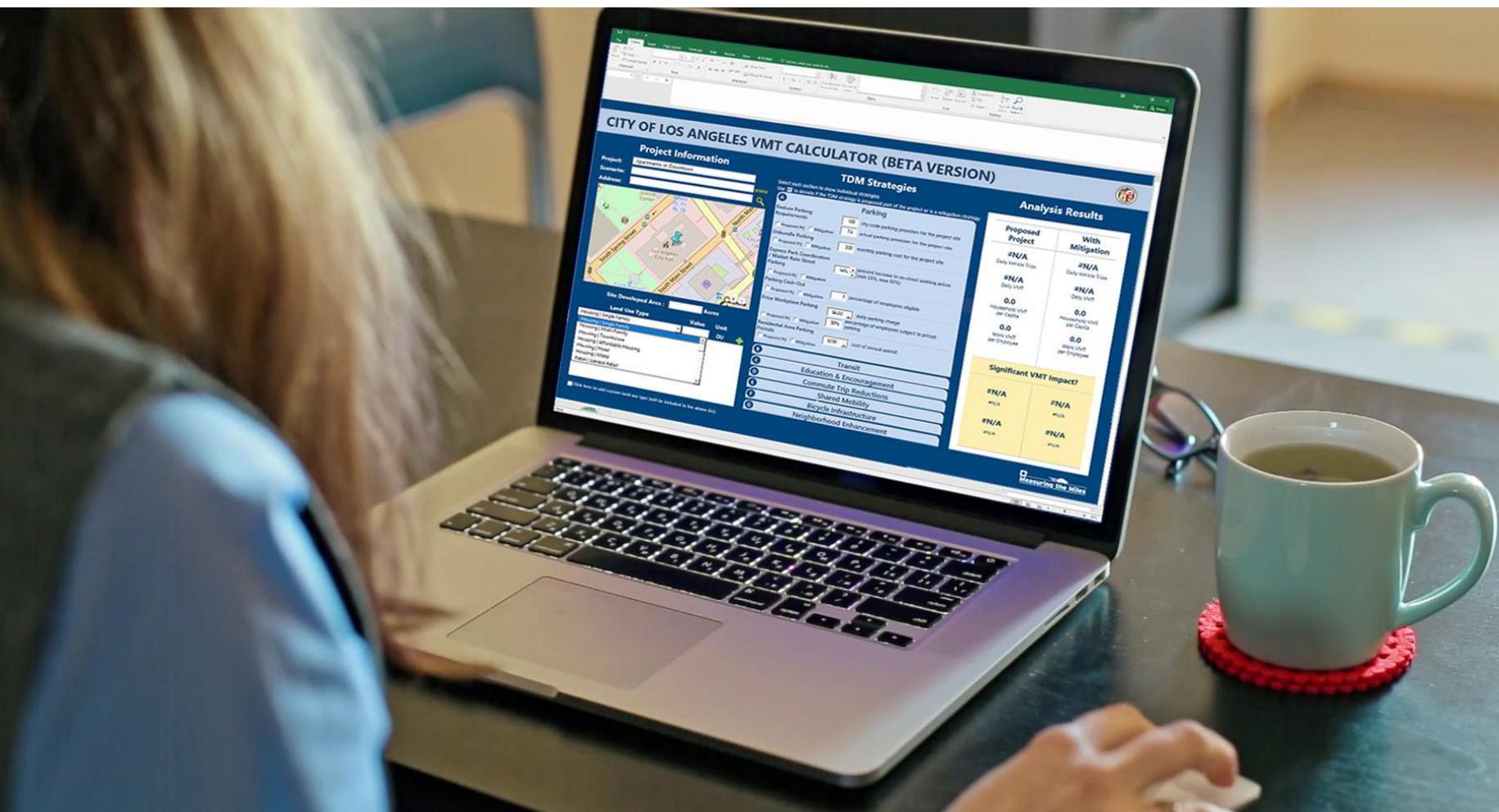


Preparation for Adoption

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

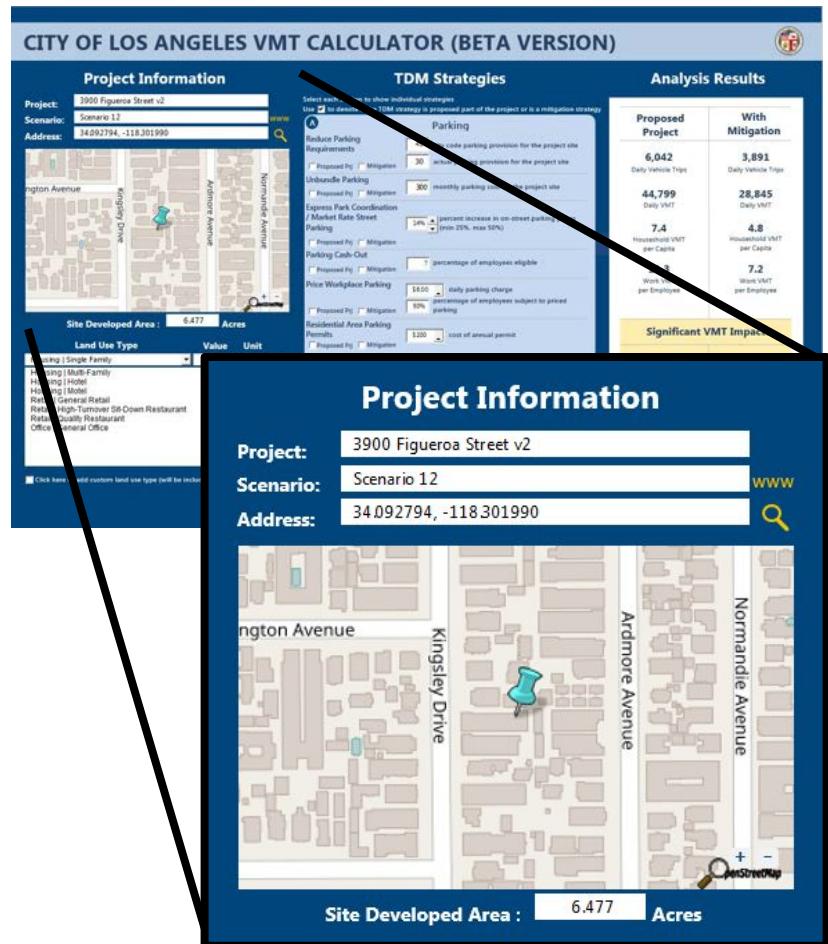


Developed the VMT Calculator



Preparation for Adoption

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



Screening Criteria

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

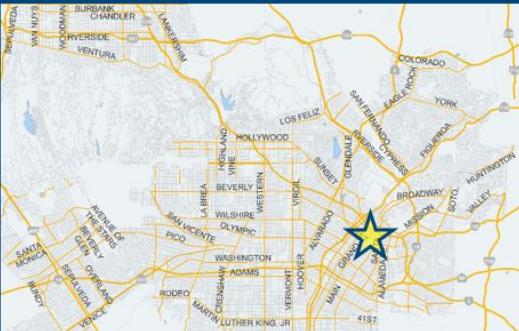
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project:

Scenario: [www](#)

Address: 200 N SPRING ST, 90012 [Search](#)



Existing Land Use

| Land Use Type | Value | Unit |
|-------------------------|----------------------|----------------------|
| Housing Single Family | <input type="text"/> | 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 | <input type="text"/> | 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.

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 $\leq 50,000$ square feet total. 0.000
ksf

Please enter all user inputs.

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

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

Project Example - Screening

Entering project information requires simple inputs

Project Information

Project: Sample

Scenario: Scenario 1

Address: 8000 W AVE BLVD 



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 | 676 | Daily Vehicle Trips |
| 2,169 | 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. | | <input type="checkbox"/> |
| 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 ≤ 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: 3990 Figueroa Street v2
Scenario: Scenario 12
Address: 34092794, -118.301990

Map: Washington Avenue, Figueroa Street

Click here to view the map

TDM Strategies

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

A **Parking**
 Proposed Prj Mitigation
 40 city code parking provision for the project site
 30 actual parking provision for the project site
 300 monthly parking cost for the project site

B **Transit**
 Proposed Prj Mitigation

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
 Proposed Prj Mitigation
 15 days of telecommuting type of program

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**

Analysis Results

| Proposed Project | With Mitigation |
|---|---------------------------|
| 0.2 Daily Vehicles | 3,891 Daily Vehicle Trips |
| 44,799 | 28,845 Daily VMT |
| 4.8 Household VMT per Capita | |
| 7.2 Work VMT per Employee | |
| VMT Impact? | |
| Household: No Threshold = 6.2 10% Below APC | |
| Work: No Threshold = 11.8 10% Below APC | |
| Measuring the Miles | |

VMT Mitigation Measures

| Parking Management | Transit Incentives | Education & Marketing | Commute Trip Reductions |
|--|--|--|--|
| <ul style="list-style-type: none"> • Reduce Parking Supply • Unbundle Parking • Parking Cash-Out • Price Workplace Parking • Residential Area Parking Permits | <ul style="list-style-type: none"> • Reduce transit headways • Implement Neighborhood Shuttle • Transit Subsidies | <ul style="list-style-type: none"> • Voluntary Travel Behavior Change Program • Promotions & Marketing | <ul style="list-style-type: none"> • Required Commute Trip Reduction Program • Vanpool or Shuttle • Rideshare Program |

| Shared Mobility | Bicycle Infrastructure | Neighborhood Enhancement |
|---|--|---|
| <ul style="list-style-type: none"> • Car-share • Bike-share • School Carpool Program | <ul style="list-style-type: none"> • Improve Bicycle Facility • Bike Parking • Bike Parking and Showers | <ul style="list-style-type: none"> • 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.

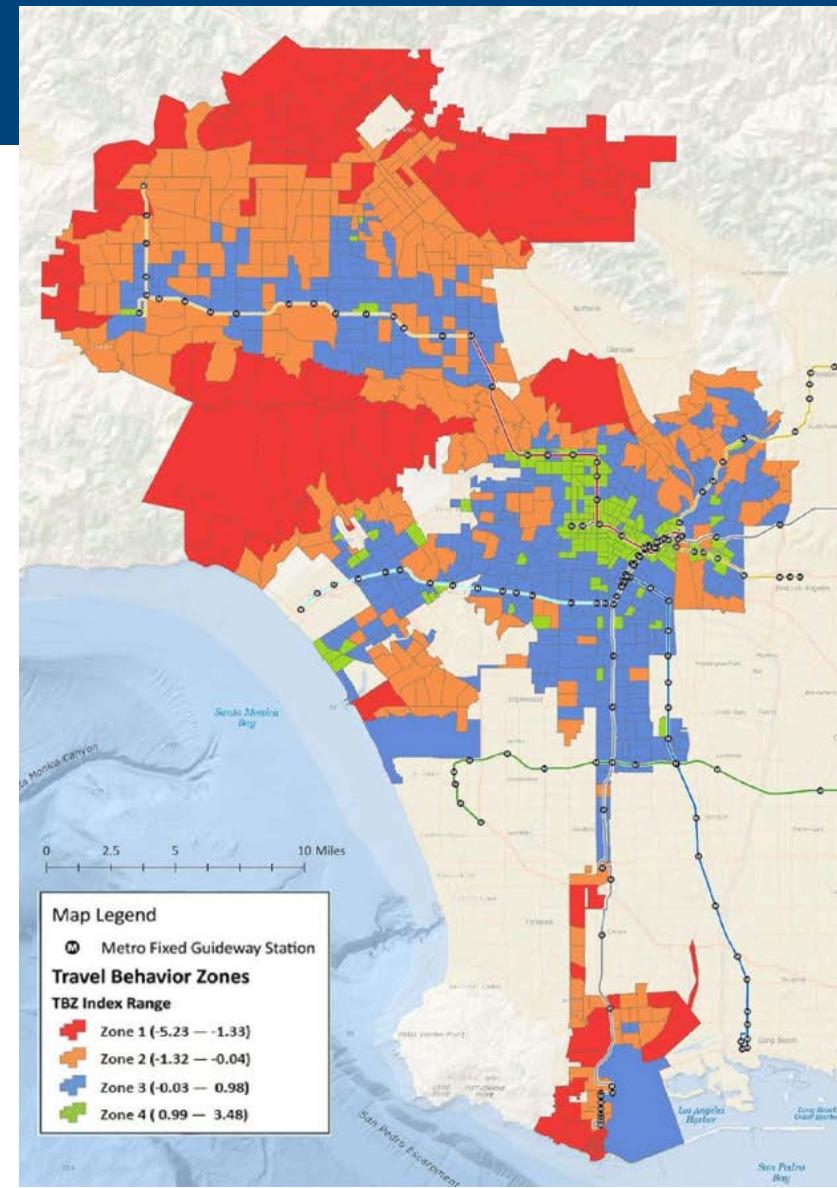
Aligned with Place Types from CAPCOA's Quantifying GHG Mitigation Measures Report

Map Legend

Metro Fixed Guideway Station

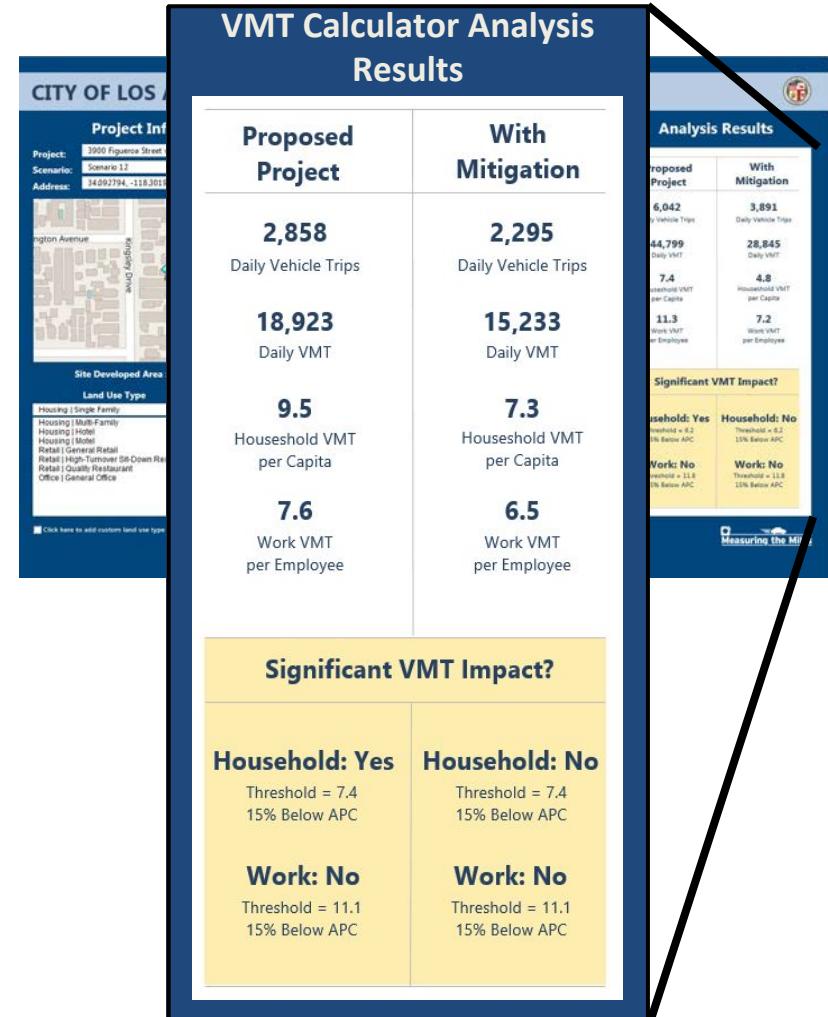
Travel Behavior Zones

- 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**

TABLE OF CONTENTS

1. OVERVIEW OF PROCESS & PROCEDURES
 - 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

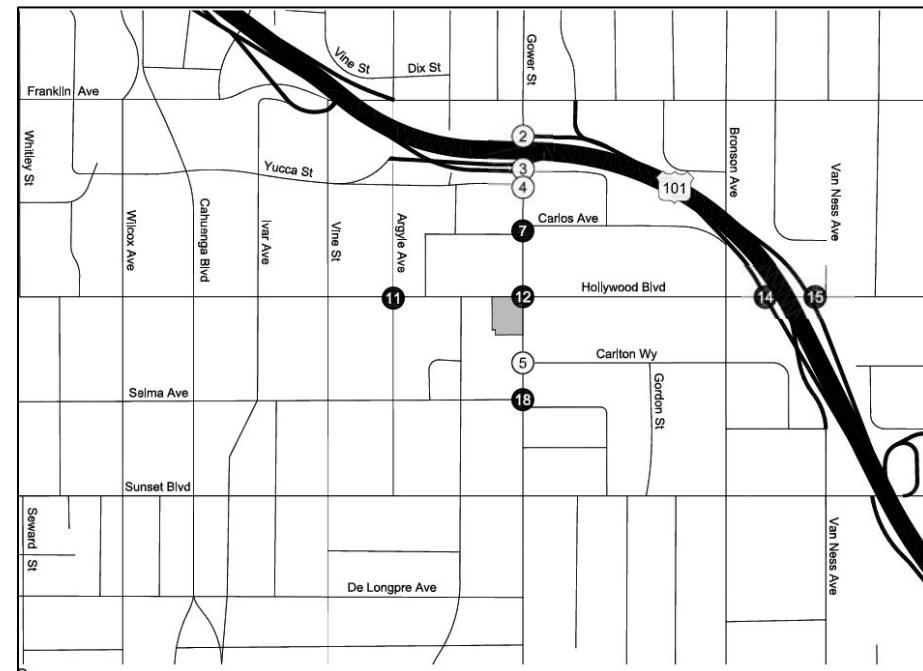
Addressing Access and Circulation

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 | Household: No |
|-----------------------------------|-----------------------------------|
| Threshold = 7.4 15% Below APC | Threshold = 7.4 15% Below APC |
| Work: No | Work: No |
| Threshold = 11.1 15% Below APC | Threshold = 11.1 15% Below APC |

Project Example - Results

| Analysis Results | | | |
|---|-----------------------------|-----------------|-----------------------------|
| <i>Total Employees: 900</i> | | | |
| <i>Total Population: 1,127</i> | | | |
| 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

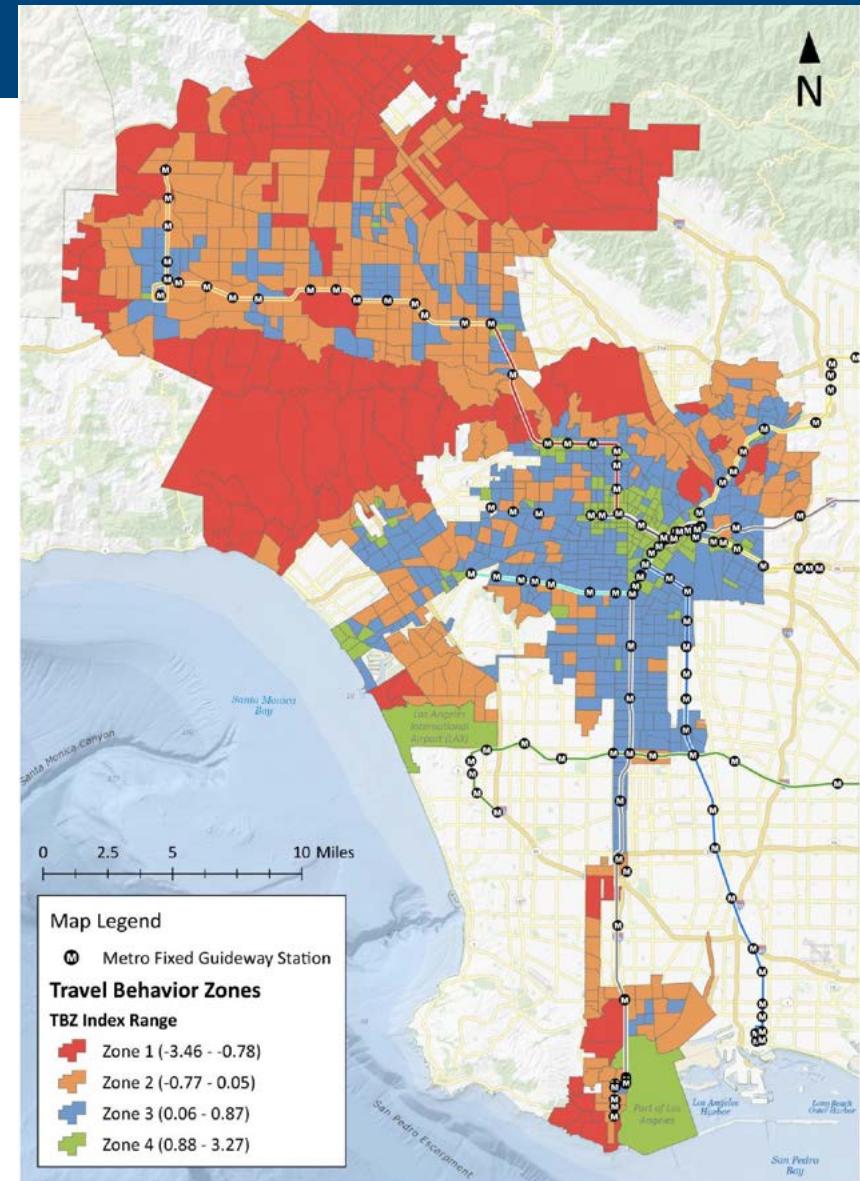
- Quantifying TDM
- Refining VMT Calculation

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

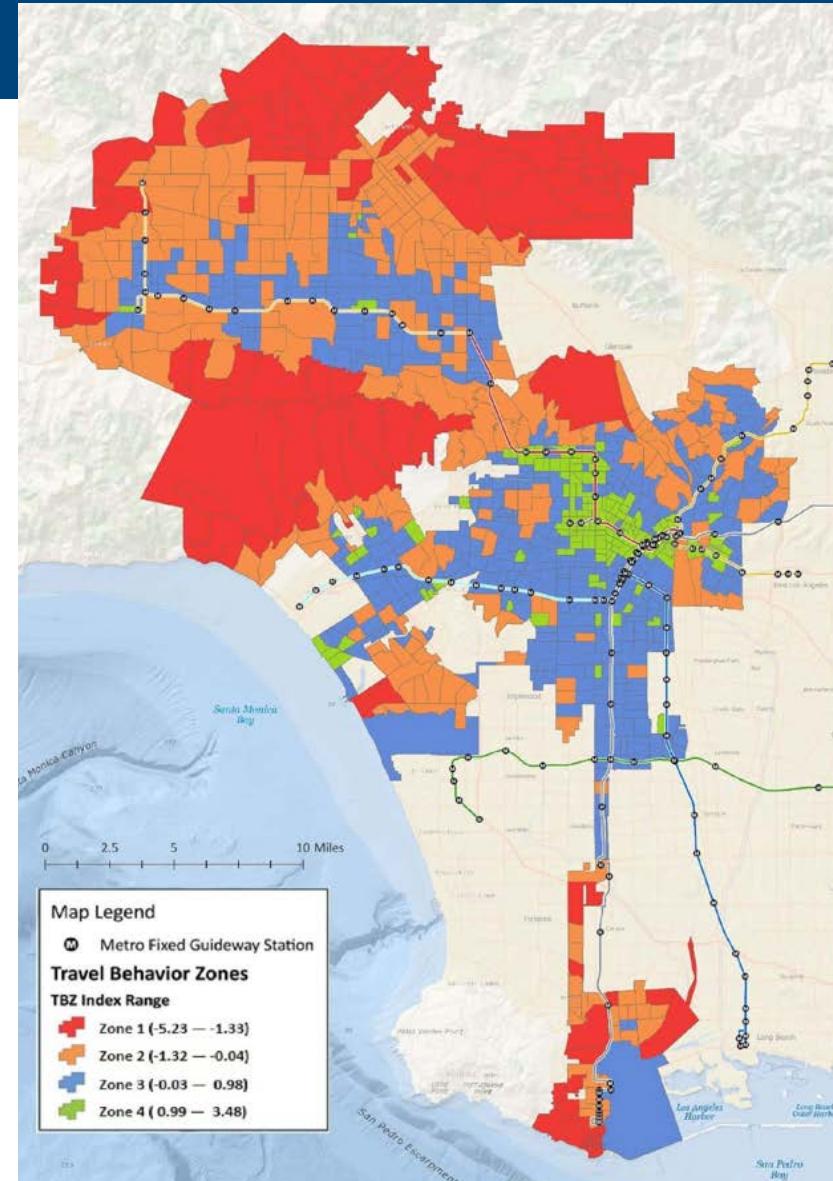
- Quantifying TDM
- Refining VMT Calculation

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](http://ladot.lacity.org/businesses/development-review#transportation-assessment)

Scroll to 'Transportation Assessment'

$$\text{Car icon} \times \text{Location icons} = \text{Map icon with path A-B} \text{ with text: Vehicles Miles Traveled}$$

Number of automobile trips

Number of miles driven

Vehicles Miles Traveled

