





California Complete
Streets Act



California
Senate Bill 743



LA County Measure M



LA Vision Zero
Action Plan



LA Mobility Plan 2035



Sustainable City pLAn

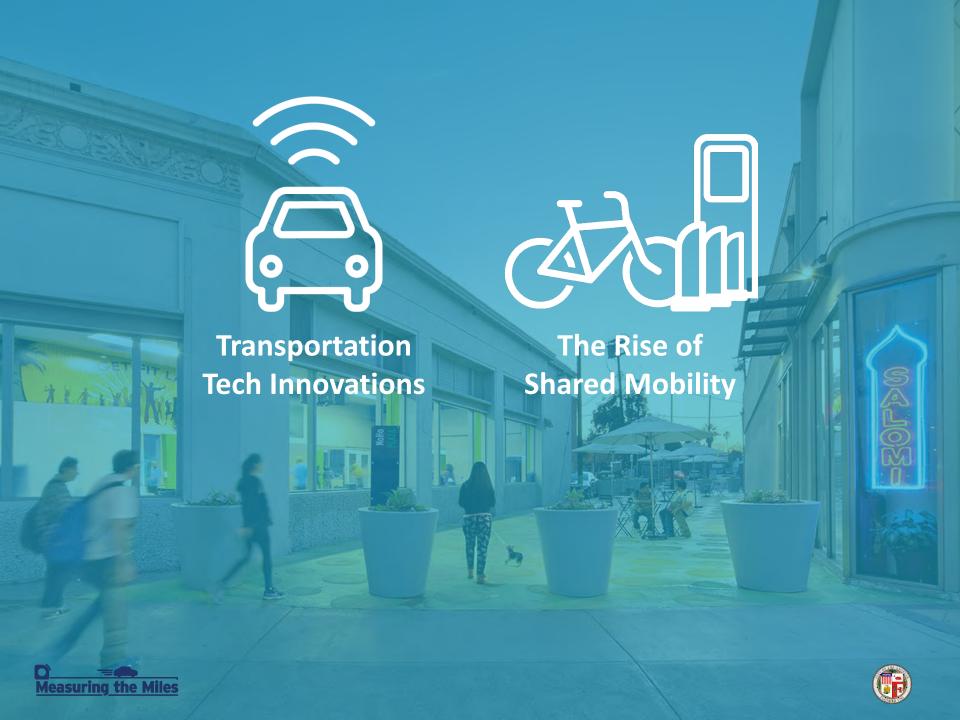


LA Mayor ED 1
Great Streets









## From LOS to VMT

## LOS

measures vehicle capacity,

or how many can be moved through our roadways.

## **VMT**

measures vehicle miles traveled,

or how a project impacts overall travel to our destinations.

By moving from LOS to VMT, we can

evaluate the impact of all modes, encourage infill development, and promote mode shift.



Can I get there?

**Accessibility** 

How can I get there?

**Mode Share** 

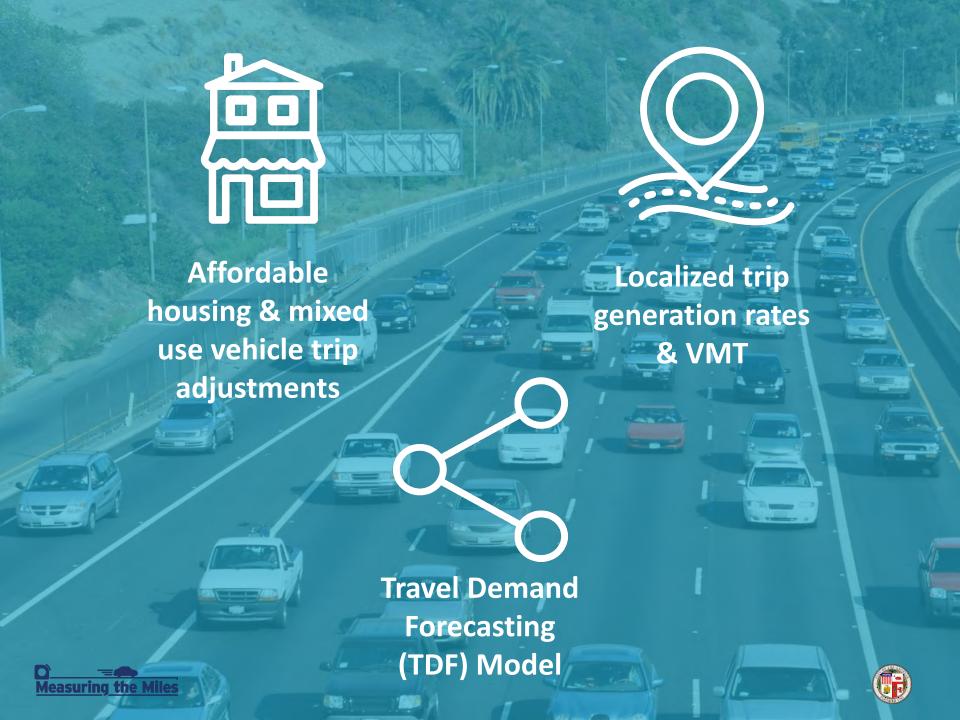
How far do I have to go?

**Vehicle Miles Traveled (VMT)** 

**New Metrics to Gauge Progress** 

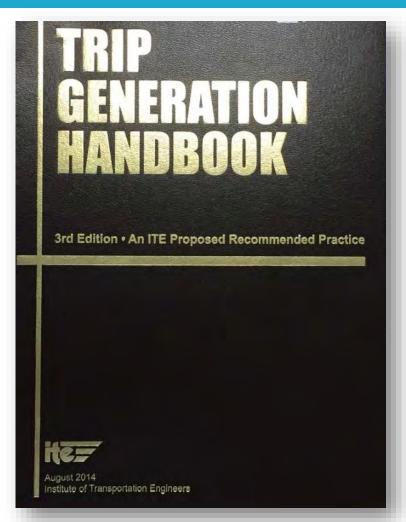






## **Trip Generation**





## Single-Family Detached Housing (210)Average Vehicle Trip Ends vs: Dwelling Units On a: Weekday Number of Studies: 350 Avg. Number of Dwelling Units: 197 Directional Distribution: 50% entering, 50% exiting Trip Generation per Dwelling Unit Average Rate Range of Rates Standard Deviation 4.31 - 21.85 **Data Plot and Equation** X = Number of Dwelling Units Fitted Curve ----- Average Rate Fitted Curve Equation: Ln(T) = 0.92 Ln(X) + 2.71 $R^2 = 0.96$





## **Accounting for Development Context**

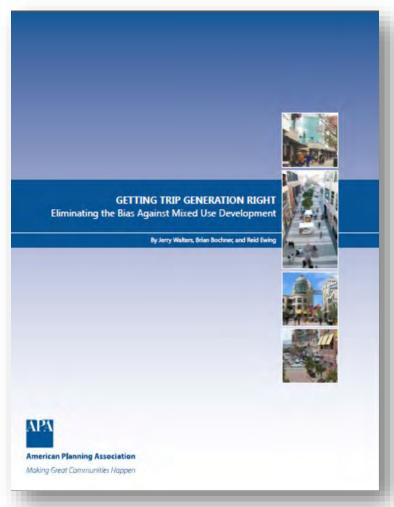
THE 7 D'S THAT INFLUENCE VMT

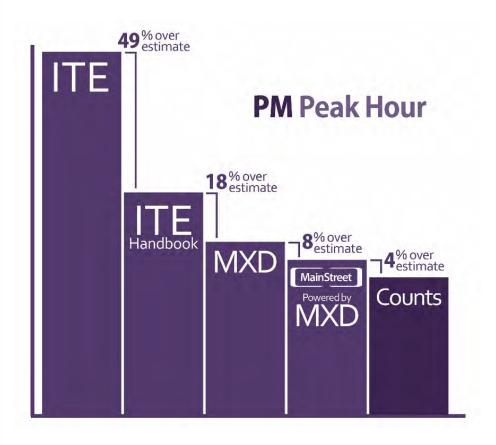




## **Accounting for Trends**





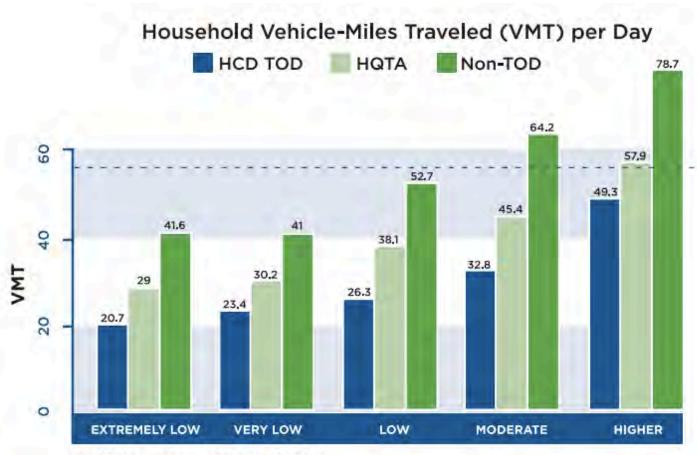






## **Evidence of Affordable Housing's Low VMT**





Source: 2013 California Household Travel Survey (CHTS)

**HUD Income Threshold** 





## Affordable Housing Data Collection TRIPS AND PARKING

## **Data Collection Factors**

- Transit Proximity
- Retail jobs proximity

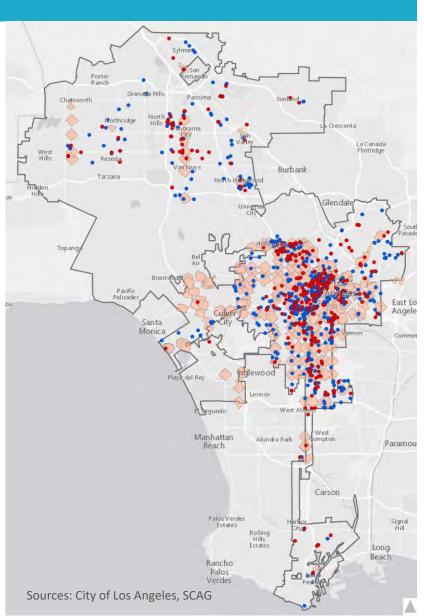
- HCIDLA Projects 2003 to Present
- Comprehensive List



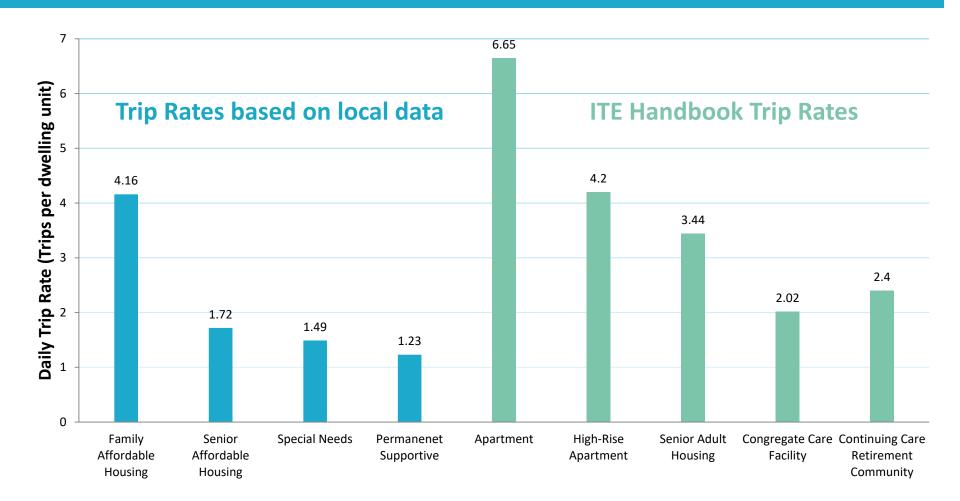
Transit Priority Area = area within ½ mile of a major transit stop;

Major Transit Stop = rail transit station or intersection of 2 or more major bus routes with peak service frequency of 15 minute or less





## Los Angeles affordable housing trip generation







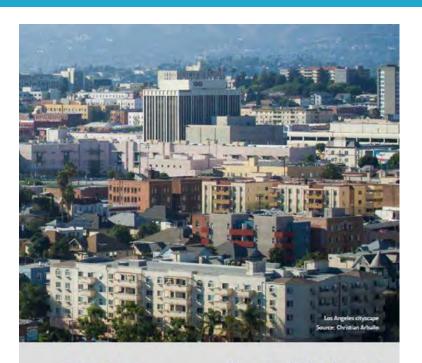
## **New Transportation Review Process**

**Step 1:** Project Screening

**Step 2:** VMT Impact Analysis

- Project Evaluation Model
- Full model run for large scale projects

Step 3: Apply TDM project mitigation





Transportation Impact Study Guidelines December 2016

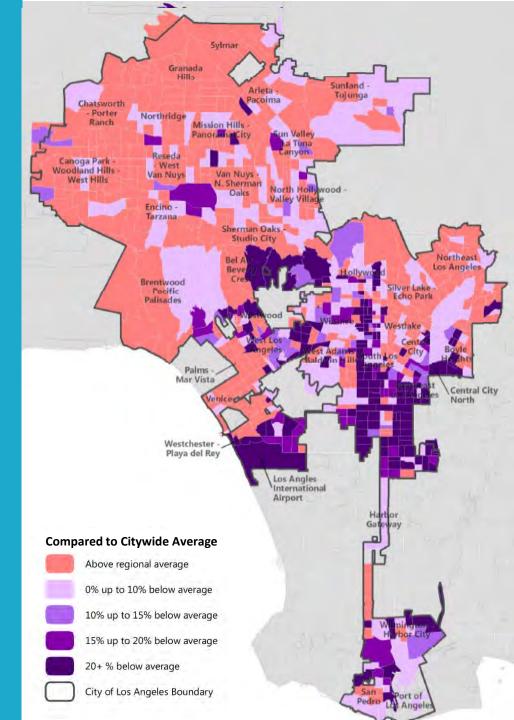




# impact criteria Household VMT Citywide compared to Regional

	VMT per person	VMT per employee
City of LA	9.3	12.9
SCAG region	17.2	21.3

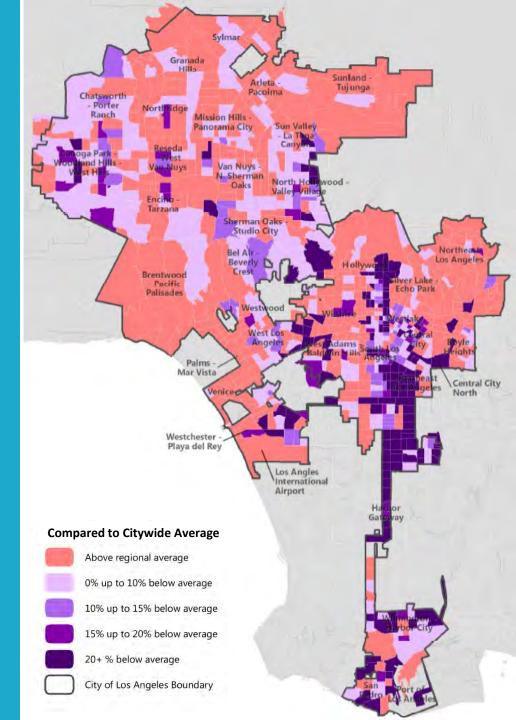




# VMT impact criteria Employment VMT Citywide compared to Regional

	VMT per person	VMT per employee
City of LA	9.3	12.9
SCAG region	17.2	21.3

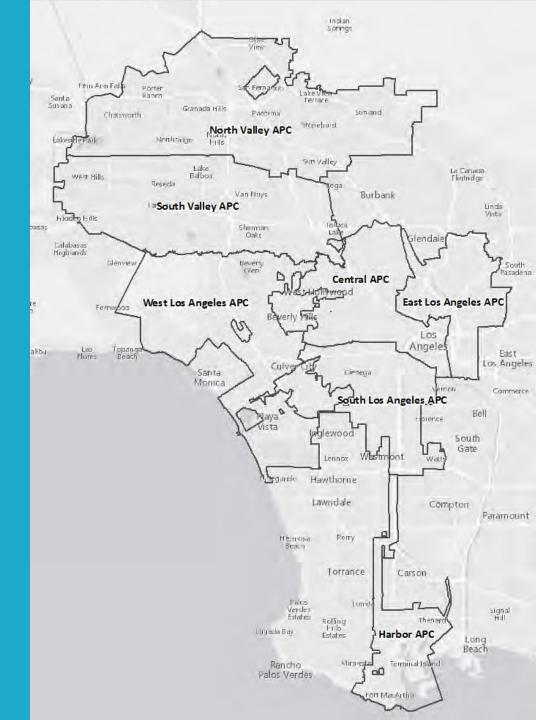




## VMT impact criteria set by APC

Area Planning Commission	VMT per person	VMT per employee
Central	7.3	9.2
East LA	8.8	15.2
Harbor	11.0	14.7
North Valley	11.0	17.5
South LA	7.3	13.9
South Valley	11.3	13.6
West LA	9.0	13.0





## **Develop a Tool to Review Land Use Projects**

## **Objective**

 Develop a spreadsheet based tool that can calculate project-level VMT and apply VMT reduction measures based on a variety of land use and TDM programs

## **Desired sensitivity**

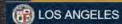
 Transit proximity, mixed use, urban design, affordable housing, and TDM measures



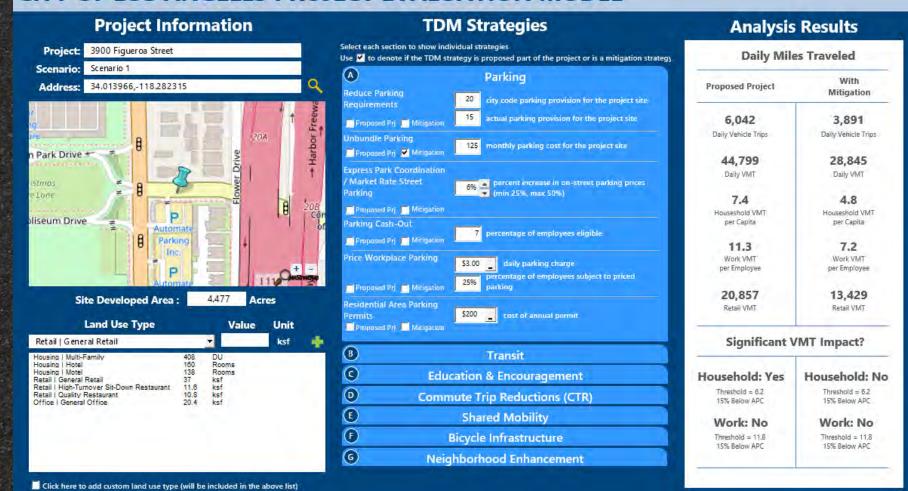


## **Select a Sketch Model Tool**

Sketch Tool	Technical & L Defensibility		Parameter Sensitivity	Administrat Utility	tive
CalEEMod					
Sketch 7					
VMT Impact Tool/Salon		<ul> <li>Evaluation Categories:         <ul> <li>Technical and Legal</li></ul></li></ul>			
CNT/Green Trip Connect					
Urban Footprint					
Envision Tomorrow					
CA Smart Growth Tool					
URBEMIS 2007		Rating Scale Three levels: +, ++, +++			
TRIMMS					
MXD+/Mainstreet				,	
VMT+					
TDM+					



## CITY OF LOS ANGELES PROJECT EVALUATION MODEL



## **LA VMT Model Example**





### **TDM Strategies**

Select each section to show individual strategies Use **V** to denote if the TDM strategy is proposed part of the project or is a mitigation strategy Parking B Transit Reduce Transit Headways percentage reduction in headways (increase percent existing transit mode share (as a % of total daily trips) lines within project site improved Proposed Pri Mitigation Implement Neighborhood Shuttle high degree of implementation percentage of employees and residents eligible Proposed Prj Mitigation Transit Subsidies percentage of employees and residents eligible amount of transit subsidy per passenger Proposed Prj Mitigation **(**C) **Education & Encouragement** (D) Commute Trip Reductions (CTR) E **Shared Mobility** (F) **Bicycle Infrastructure** 

**Neighborhood Enhancement** 

G





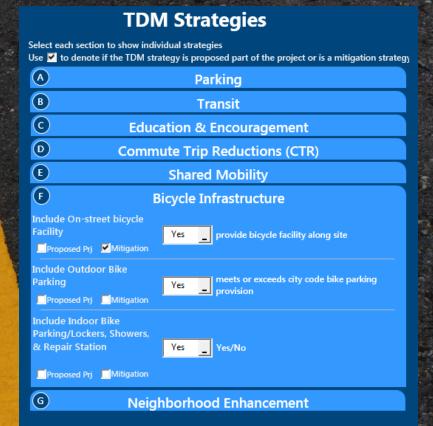






















New Transportation Study Procedures

**Updated Tools for Evaluation** 

Affordable Housing & Mixed Use Vehicle Trip Adjustments

Credit System & Monitoring for TDM

Localized Trip
Generation Rates
& VMT

Area-Specific VMT
Impact Criteria

## **Practical Changes**



















