



#### WE PUT PEOPLE FIRST

Developing transportation systems to promote broader community goals of mobility, equality, economic development, and healthy living.







CITIES AND STREETS



ACTIVE TRANSPORTATION AND SAFETY



MOBILITY MANAGEMENT



PARKING AND DEMAND MANAGEMENT



ON-DEMAND SERVICES



ENGINEERING DESIGN AND DEVELOPMENT



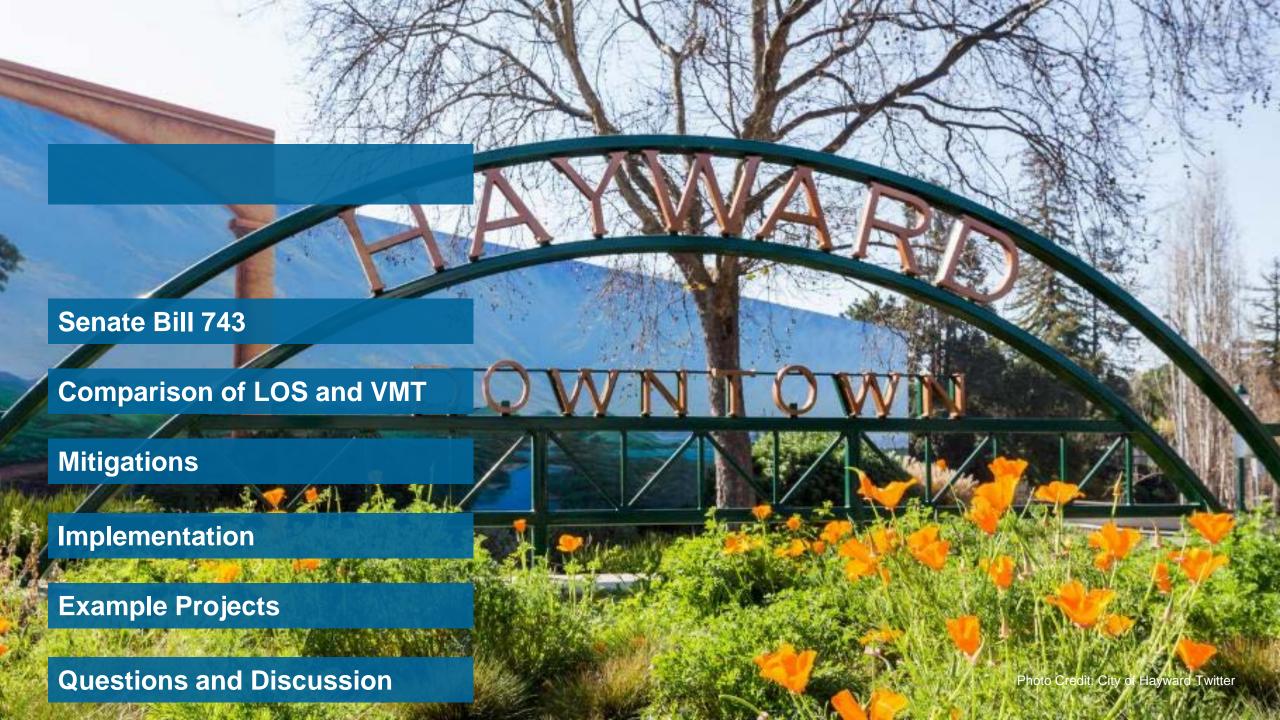
PARATRANSIT AND COMMUNITY TRANSPORTATION



CAMPUS MOBILITY



TRANSIT CORRIDORS



## SENATE BILL 743

# SB 743 CHANGES THE REQUIREMENTS FOR HOW TO MEASURE TRANSPORTATION IMPACTS IN CEQA

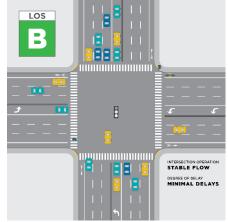
- CEQA requires analysis of a project's environmental impacts, including transportation.
- Cities have until July 1, 2020 to comply with SB 743.
- SB 743 requires Level of Service (LOS), the current metric, can no longer be used to measure transportation impacts under CEQA.
- Governor's Office of Planning and Research (OPR) has recommended that lead CEQA agencies replace LOS with Vehicle Miles Traveled (VMT) per capita.
- Other cities have adopted this such as: Pasadena, San Francisco, Oakland, San Jose, and Los Angeles.

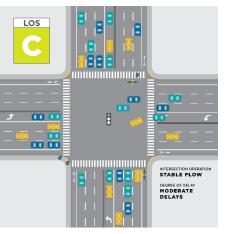
## LOS AND VMT

### MEASURING TRANSPORTATION: LEVEL OF SERVICE

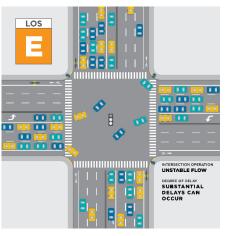
- Level of service (LOS): measures the convenience of traveling in an automobile
- Measurement of the number of seconds vehicles are delayed at intersections, as well as the reductions in free-flow speed that may occur as the result of other vehicles
- Current CEQA threshold is LOS D













# MEASURING TRANSPORTATION: VEHICLE MILES TRAVELED

- Vehicle miles traveled (VMT): measures the total amount of driving over a given area
- Based on geographic travel patterns, which reflect transportation infrastructure, transit service, and land use
- Better connects environmental impact measurement to State greenhouse gas emissions reduction goals
- Recommended OPR threshold (residential): 15% below existing average per capita VMT

#### **Calculating Household VMT per Capita**



#### **Calculating Employment VMT per Capita**



#### **Calculating Vehicle Miles Traveled (VMT)**



#### WHY ADOPT VMT?

- Removes barriers to infill development, supports local development goals in the General Plan and Community Plans
- VMT sees the big picture and measures regional impacts, not just local
- VMT can be easier to model than LOS
- Already used in project analysis (e.g. for GHG emissions assessments)
- Provides a more accurate measure of transportation impacts
- Mitigation reduces road maintenance costs and does not induce more vehicle travel

#### CITIES CAN STILL USE LOS OUTSIDE OF CEQA

- LOS can be included in the City's development review process outside of CEQA.
- LOS can still be used to ensure site access and optimize traffic operations.

#### **Example**

San José requires a "Local Transportation Analysis" for developments that includes LOS analysis of nearby intersections to ensure traffic signal operations are functional

#### **Example**

Haywards's Bicycle & Pedestrian Master Plan Update is exempt from CEQA but a transportation study could be done to evaluate the effects on vehicle traffic

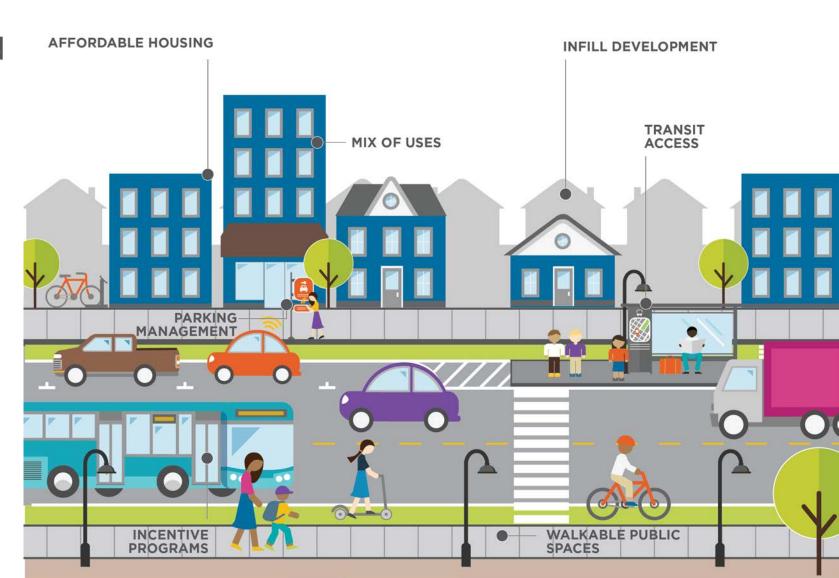
## MITIGATIONS

#### VMT MITIGATIONS

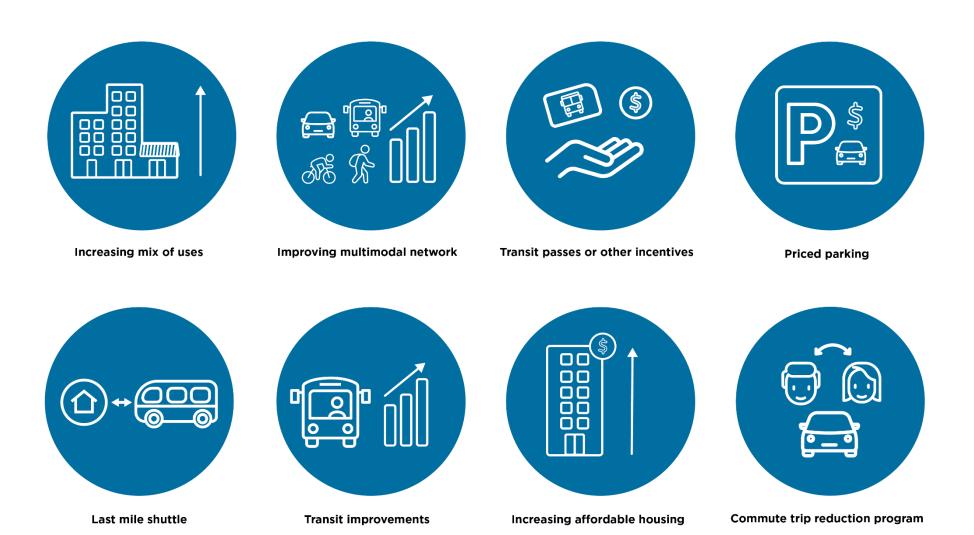
- Transportation Demand Management (TDM)
- Land Use Changes
- Parking Management

Mitigations must be backed by research.

Long term management of VMT leads to Smart Growth



### TDM MITIGATIONS



## IMPLEMENTATION

#### HOW MUST THE CITY COMPLY WITH SB 743?

# In CEQA, the City will need to:

- Select new metrics to analyze impacts
- Establish screening processes and thresholds of significance
- o Identify mitigation measures

# Outside of CEQA, the City will need to:

- Revise the process for analyzing mobility conditions
- Determine what metrics to maintain for non-CEQA local analysis purposes
- Consider complementary policy changes to parking and TDM ordinances

#### SB 743 IMPLEMENTATION PROCESS

Reviewed existing legal framework, policies, and goals. Coordinated across City departments

Learned from other jurisdiction's approach to implementing SB 743

Define new transportation analysis approach, including metrics and thresholds of significance

We are here

Develop Policy Revisions and Guidelines

Consider complementary policy changes around parking and transportation demand management

## EXAMPLE PROJECTS

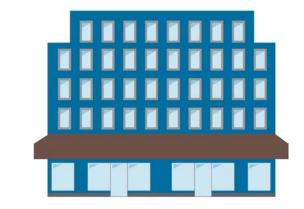
# OPR RECOMMENDATIONS FOR TRANSPORTATION ANALYSIS

- OPR recommends establishing screens to streamline analysis for projects that are:
  - Below a determined size
  - With affordable housing
  - In low VMT zones
  - Near high frequency transit
- OPR recommends a significance threshold of 15% below existing average daily VMT per capita for most land uses.
  - o This level is based on models of GHG reductions needed to achieve state goals.
  - VMT is typically determined by a travel demand model

#### EXAMPLE RESIDENTIAL PROJECTS

Three Project Scenarios of a hypothetical project of 100 residential units in different contexts.

- 1. Lowest VMT area near a BART station
- 2. Commercial corridor not near BART
- 3. Highest VMT area in Hayward's Hills



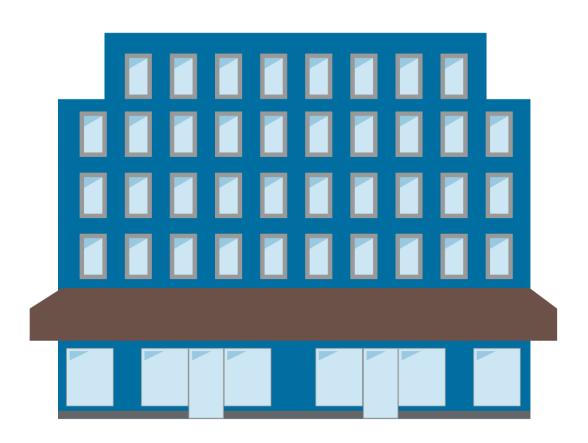




#### PROJECT 1 - LOWEST VMT AREA NEAR BART

#### **Below OPR Threshold**

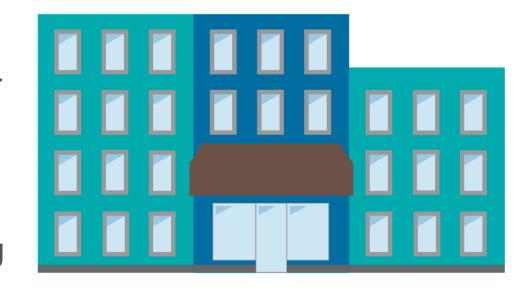
- Location: Transit Oriented District within a half mile of a BART Station
- Context: Higher density residential or mixed use
- Estimated daily VMT = 25% below existing average per capita VMT
- Outcome: project is below the threshold and has no significant transportation impact. The project moves on to other steps of development review.



#### PROJECT 2 - COMMERCIAL CORRIDOR

## **Mitigated VMT**

- Location: Commercial corridor not near BART
- Context: Historic quality, mixed use, medium density
- Estimated Daily VMT = 2% above existing average per capita VMT
- Outcome: project is above the threshold but can mitigate impacts by reducing VMT below the threshold.



#### **VMT Mitigation Options**

- Increase mix of uses
- Reduce parking supply/Unbundle
- Include affordable housing
- Connect to multimodal transportation network
- On-site carshare
- Transit improvements/subsidy

#### PROJECT 3 - HIGH VMT PROJECT

### Significant and Unavoidable Impacts

- Location: Hillside areas
- Context: lowest density, residential and open space
- Estimated Daily VMT = 10% above existing per capita VMT
- Outcome: project can reduce its size below the CEQA analysis size screen, invest in significant transportation and TDM mitigations, or the City could adopt VMT offsets. Additionally, project could go through process of obtaining a statement of overriding considerations.



# DRAFT RESIDENTIAL VMT PER CAPITA

#### Alameda CTC's Travel Model

Applies to residential land use projects

VMT measures relative to citywide average

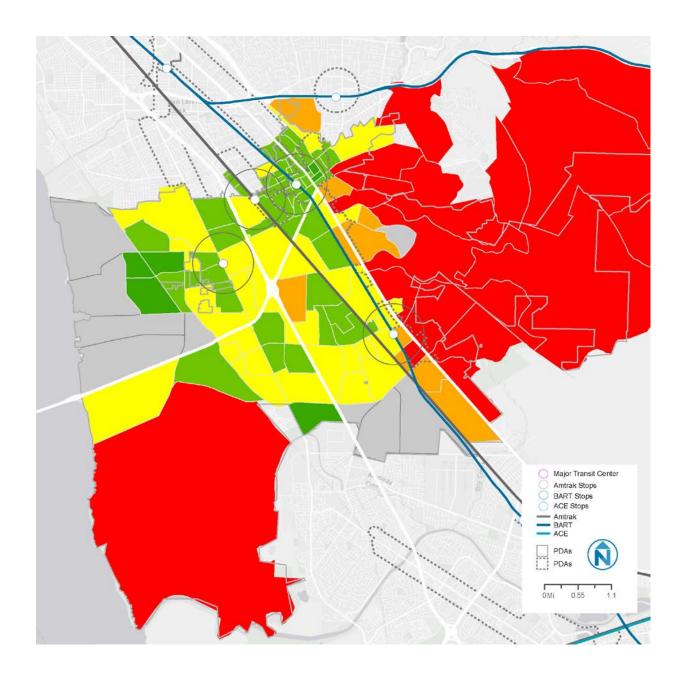
More than 15% below average

0- 15% below average

0-15% above average

More than 15% above average





# DRAFT EMPLOYMENT VMT PER WORKER

#### Alameda CTC's Travel Model

Applies to employment land use projects

VMT measures relative to regional average

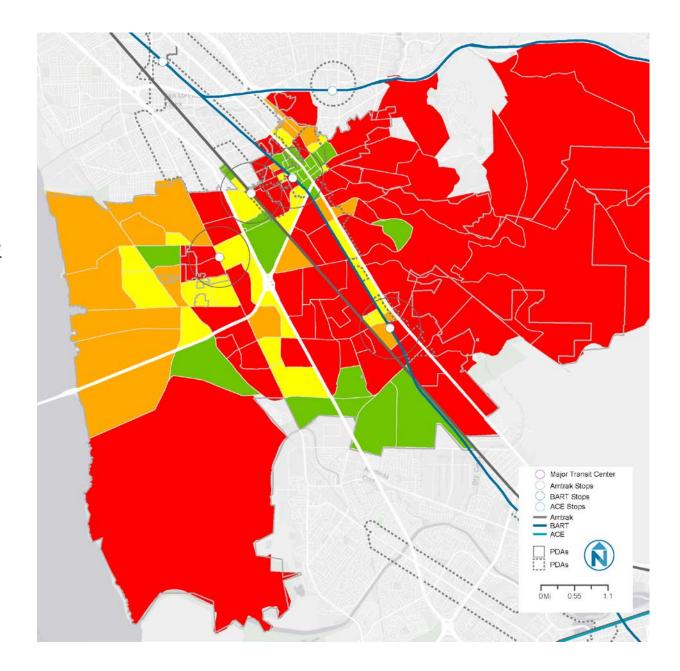
More than 15% below average

0- 15% below average

0-15% above average

More than 15% above average

No Data

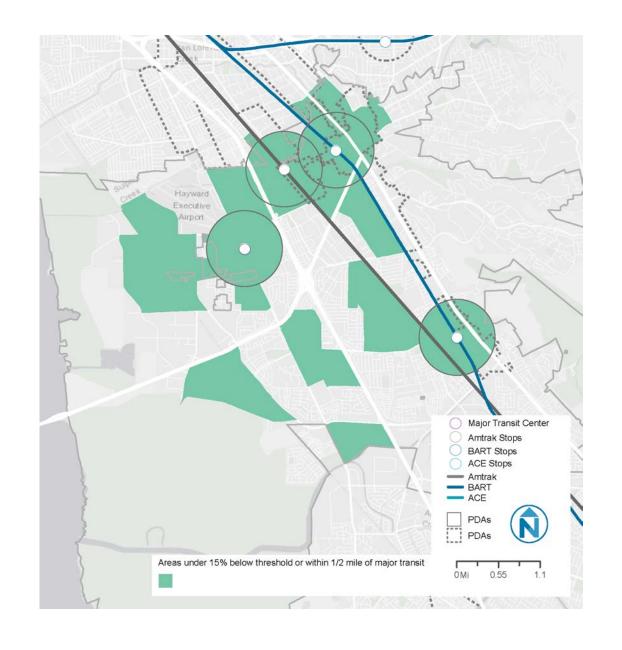


### RECOMMENDED RESIDENTIAL PROJECT SCREENING THRESHOLDS

#### **Location Based Screens**

Low VMT Areas: Projects located in areas with low VMT that incorporate similar features will tend to exhibit similar low VMT per capita.

Transit Oriented Development:
Residential, retail, and employment projects within half a mile of an existing major transit stop or transit corridor will have a less-thansignificant impact on VMT.



RECOMMENDED EMPLOYMENT PROJECT SCREENING THRESHOLDS

#### **Location Based Screens:**

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## RECOMMENDED PROJECT SCREENING THRESHOLDS

### **Project Type Screens**

### Project Size:

Small projects can be considered to have a less than a significant impact. The recommended size is 15 single family units, 25 multifamily units, or 10,000 square feet of employment land use.

 Applies to Residential, Employment and Retail land use projects.

Land Use	OPR Recommendation	Recommended Screening Criteria
Residential	Detached housing: 12-13 units Attached housing: 20-23 units	Detached housing: 15 units Attached housing: 25 units
Employment	Office: 10,000 - 12,000 SF	Office: 10,000 SF
Local Serving Retail	Less than 50,000 SF	Less than 50,000 SF

## QUESTIONS?

## WHY STOP USING LOS?





## WHAT'S IMPORTANT DEPENDS UPON PERSPECTIVE





Traffic engineer:

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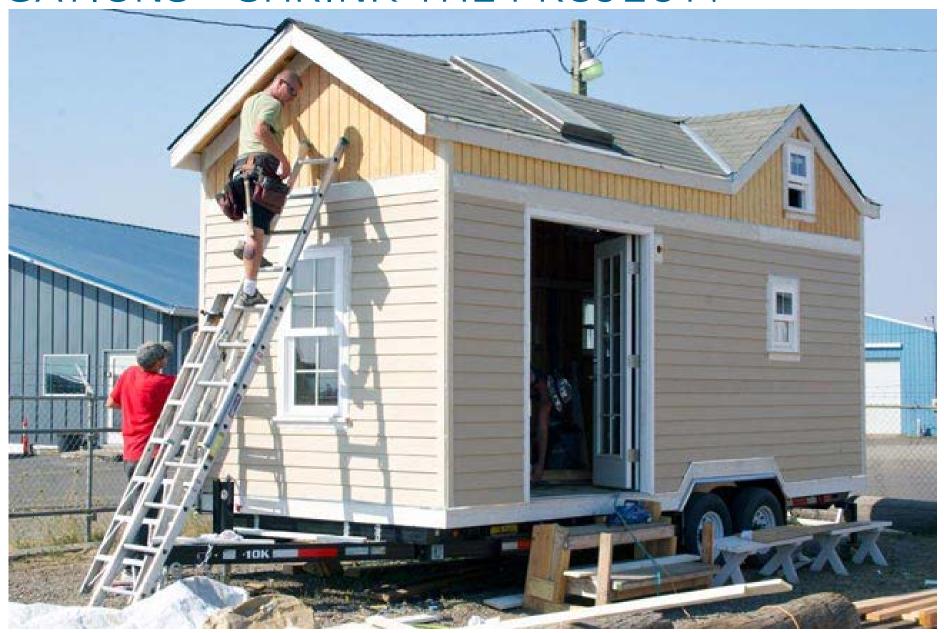
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**Economist:** 

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## MITIGATIONS - SHRINK THE PROJECT?



### MITIGATIONS - MOVE THE PROJECT?

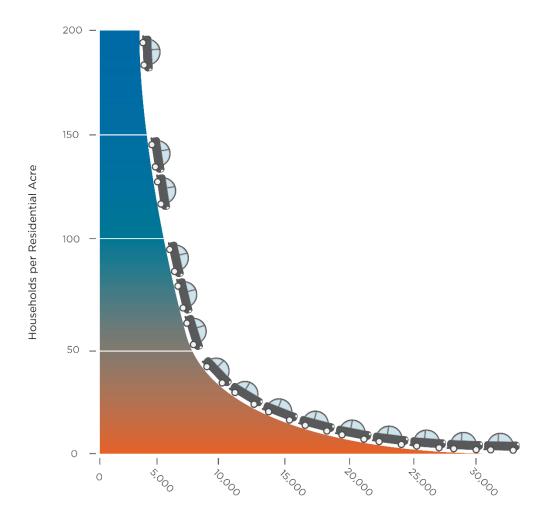


## MITIGATIONS - WIDEN THE ROAD



## HOW DOES TDM REDUCE VMT?

#### RELATIONSHIP BETWEEN LAND USE AND VMT



Annual Average Vehicle Miles Traveled

 As density increases, the average VMT decreases since destinations are closer together making trips shorter on average. Fewer trips are taken by car.

## TRANSPORTATION DEMAND MANAGEMENT (TDM)

## TDM programs support a range of travel options to reduce VMT

Subsidize nonauto travel options



Provide new transportation options



Incentivize alternative travel behavior



## TRANSPORTATION DEMAND MANAGEMENT (TDM)

## TDM success depends on good management





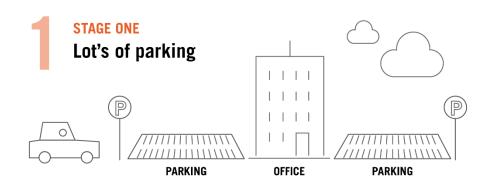


Success is iterative, and flexibility is an asset

TDM should prioritize the whole over the parts

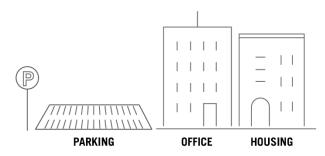
Research quantifying VMT reductions is ongoing

### STAGES OF TDM AND LAND USE STRATEGIES





STAGE THREE
Less parking, more housing







## MANAGING PARKING

#### WHY SHARED PARKING?

## Shared parking strategies can help:

- Reduce the expense of parking and maximize available space for activated uses
- Create a more desirable transportation environment and support walking/biking
- Centralize parking supply and management
- Avoid oversupply of parking
- Increase development density while providing necessary parking amenities



#### KEY SHARED PARKING STRATEGIES

## Planning and designing for shared parking:



Leverage shared parking to avoid underutilized spaces



Design the street network to support a "park once" approach

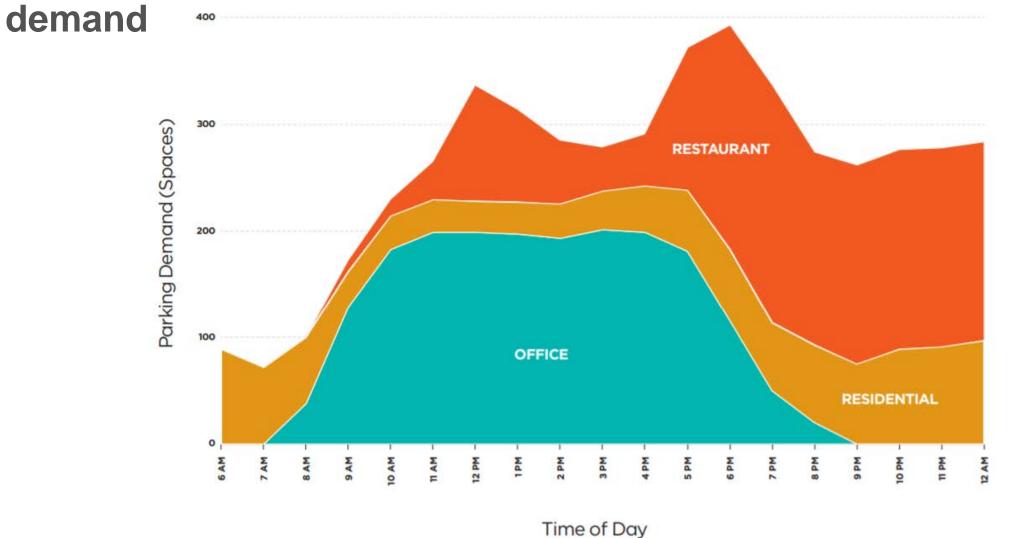
#### DEMAND FOR PARKING

## Traditional parking approach: one vehicle, one space



#### DEMAND FOR PARKING

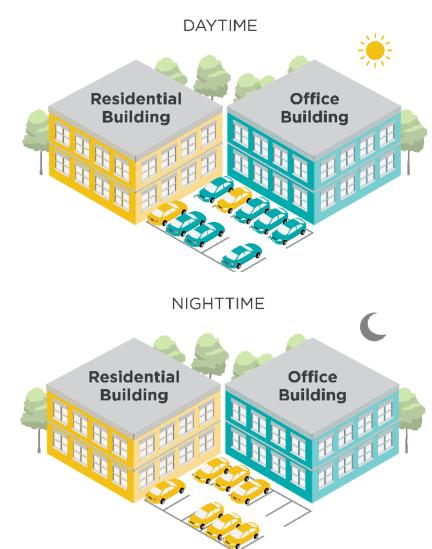
Shared parking approach: allocate parking based on real



#### PARKING STRATEGIES ARE PART OF TDM

## **Shared Parking – Creating Better Land Use Mixes**

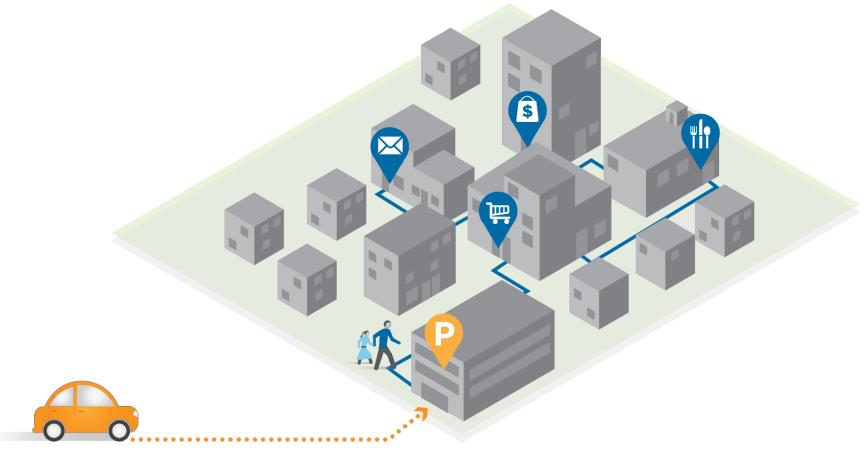
 Sharing parking by use enables a lower parking ratio, saving that space for parks, more houses, or other uses.



#### SUPPORTING MIXED USE DEVELOPMENT

Shared parking enables "park once" strategies that allow people to access multiple destinations without driving to each

one.



#### SHARED PARKING TOOLS

## Options for managing and implementing shared parking arrangements Information

Supply Management

Enforcement



#### THE FUTURE OF PARKING

# Responding to mobility trends and planning for autonomous vehicles

- Younger generations desire a range of mobility options
- Non-automobile design supports livework-play approach
- Shared mobility services make it easier to reduce car ownership
- Thinking ahead to impacts of autonomous vehicles

