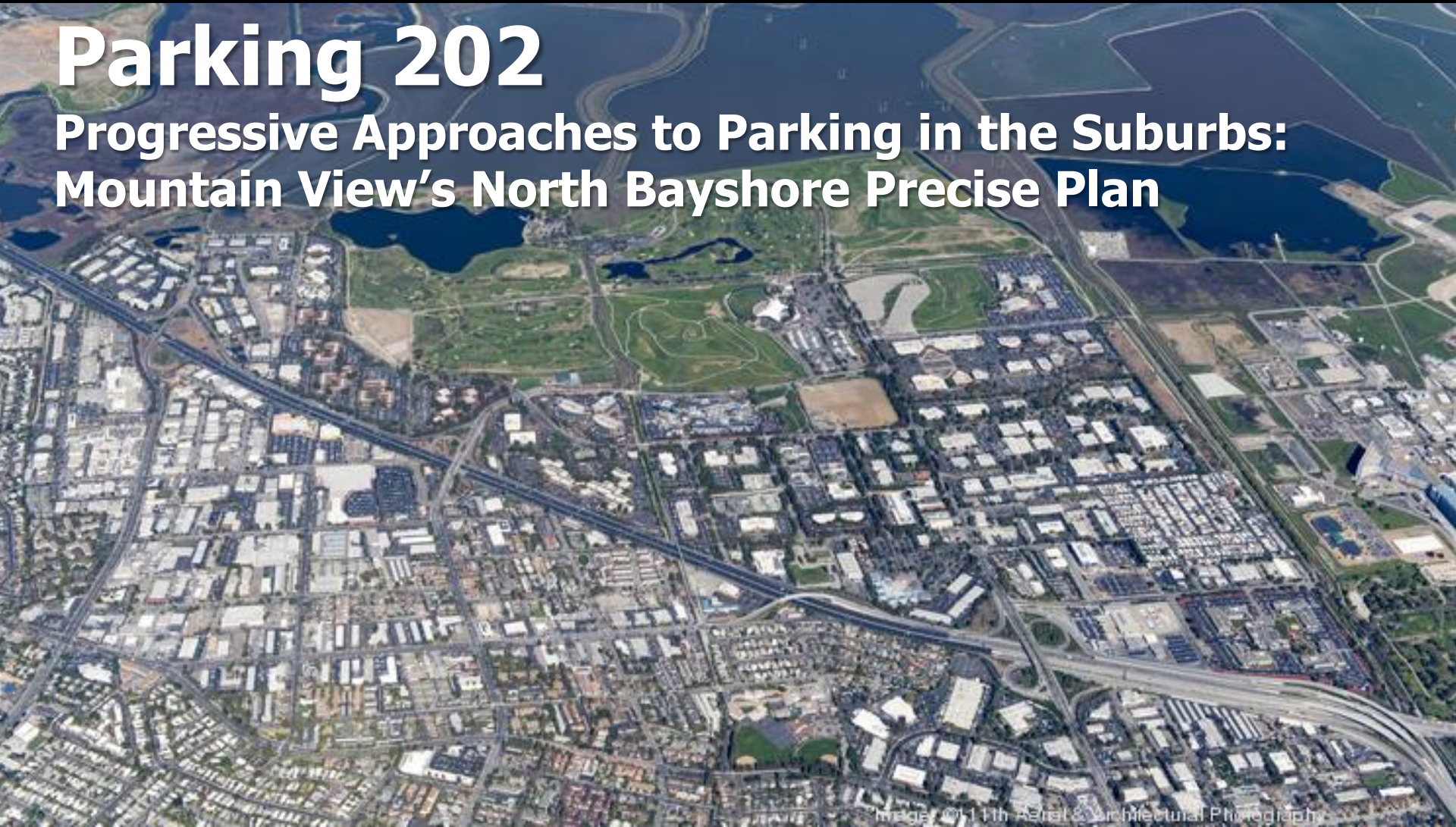


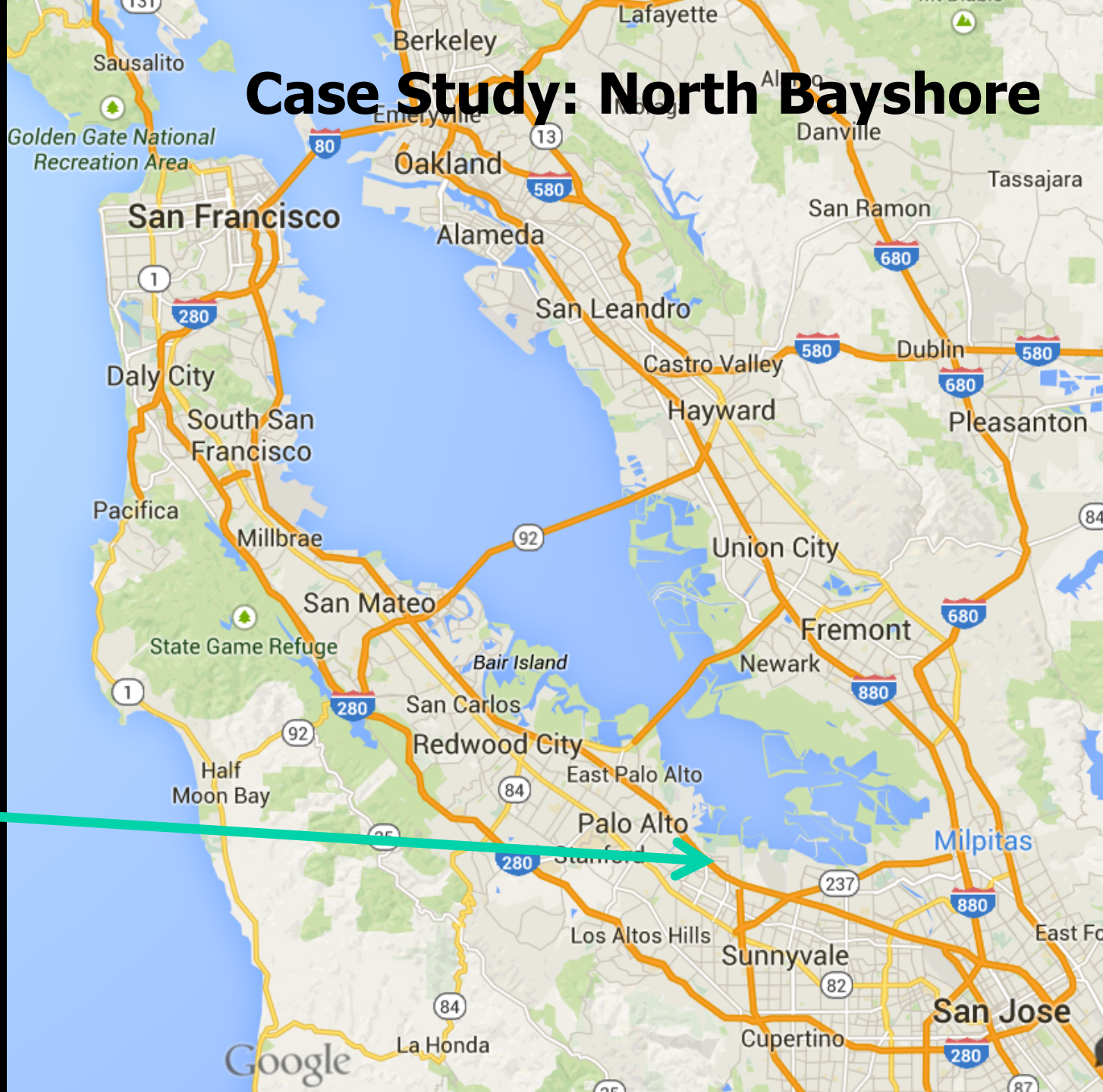
# Parking 202

## Progressive Approaches to Parking in the Suburbs: Mountain View's North Bayshore Precise Plan



**Jeffrey Tumlin**

# Case Study: North Bayshore



Mountain  
View



Image © 11th Street & Architectural Photography

- 1. Parking is your primary traffic management tool**
- 2. Stop using FAR and density control as traffic management proxy.**
- 3. Use parking to create business case for TDM.**
- 4. Share.**
- 5. Future-proof.**

# Mode Share Targets

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Goal: Achieve the mode share targets established in the Shoreline Transportation Study

Travel Mode	2030 General Plan Growth Scenario
Ridesharing (Carpools and Vanpools)	10%
Transit (Public and Private) <sup>6</sup>	35%
Active Transportation	10%
Single-Occupant Vehicle	45%

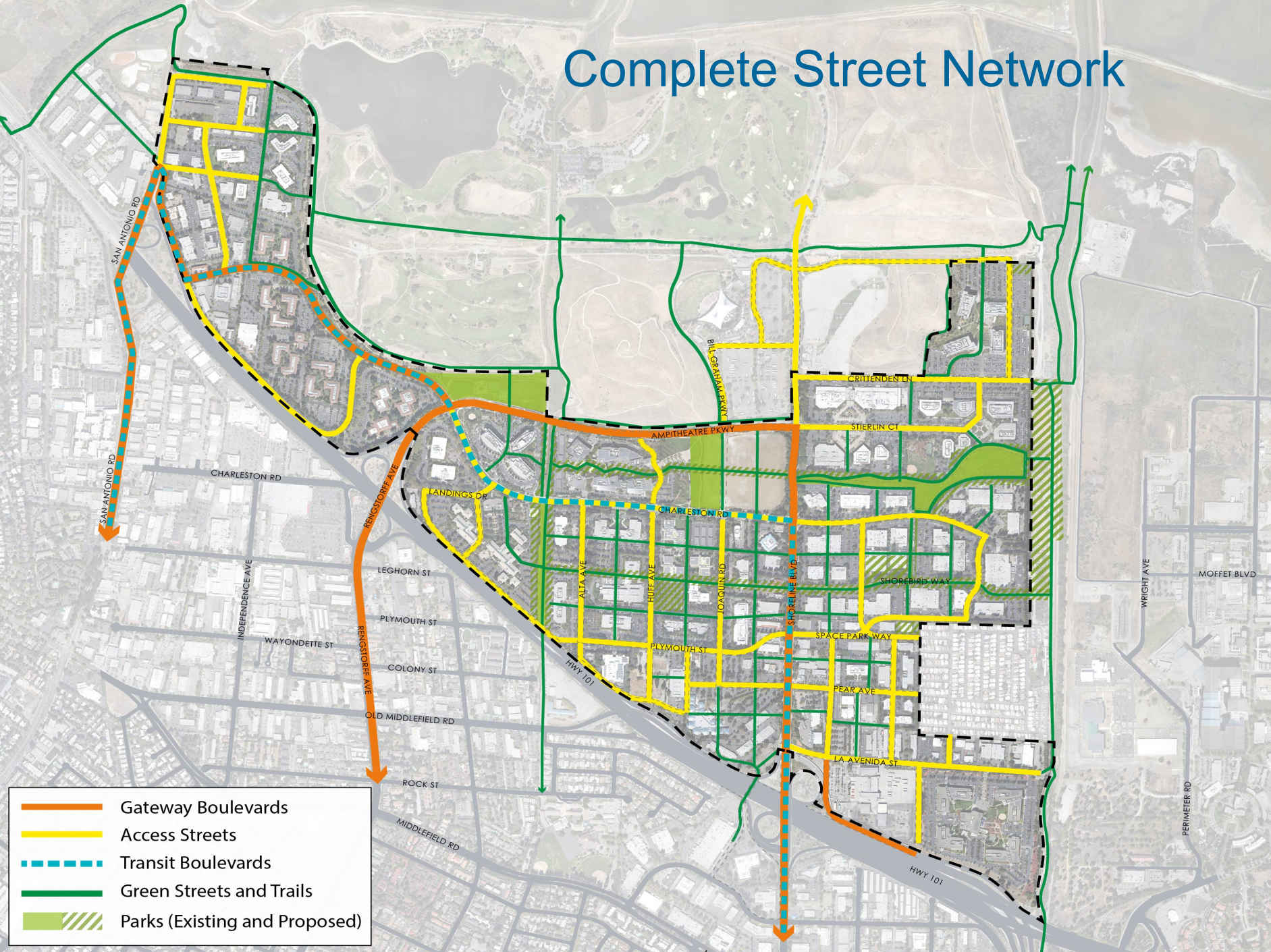
- Create a comprehensive bicycle network
- Make walking pleasant and convenient
- Provide a range of transportation options
- Establish a strong TMA and implement TDM programs

# TDM Approach

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- 1) Require all employers or property owners seeking development entitlements to:
  - Implement a TDM program designed to achieve a 45% SOV mode share
  - Join the TMA
  - Establish a property/employer specific vehicle trip cap based on a 45% SOV mode share
  - Monitor and report annually vehicle trips generated to ensure they are below their trip cap
- 2) Institute a district wide vehicle trip cap:
  - Based on the vehicle capacity of the 3 entry points to North Bayshore during the peak period
  - Monitor vehicle trips at entry points biannually to determine when vehicle trips may be nearing the cap
- 3) Implement **congestion pricing** if goal not met

# Complete Street Network



- Gateway Boulevards
- Access Streets
- - - Transit Boulevards
- Green Streets and Trails
- ▨ Parks (Existing and Proposed)

# Case Study: North Bayshore

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- Regulate building character:
  - Height, setback, stepback
  - Materials and design
  - Form Based Code
- Manage traffic directly:
  - Cap vehicle trips
  - Require TDM
  - Limit parking
- Monetize Trip Reduction
- Design for pedestrians and transit first
- Change performance metrics and analysis guidelines



# Parking Approach

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- No minimums
- 2.7 spaces per 1,000 maximum for office/R&D
- No reserved parking
- Specific requirements for carshare, carpool, and clean vehicles
- Parking supply must match trip reduction commitment

# Current Update

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- No minimums for residential
- Required unbundling
- Debate about maximums

## Future Proofing:

- Retrofittable: Floor-to-ceiling, level floors, removable ramps
- No requirement for parking areas to accommodate humans

# **Mountain View North Bayshore Results**

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## Google Project:

- 4 office buildings, 3.4 million sq. ft.
- 31,004 employees, 13,500 at 4 buildings
- 2,759 parking spaces (net zero)
- 0.82 – 1.2 parking ratio
- <45% drive alone rate for existing and new buildings

# Google Dome



# Google TDM Programs

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- Currently offers
  - Bike sharing
  - TMA member
  - Community shuttle
  - Commuter bus service
  - Subsidized vanpools
  - Inter campus shuttle service
  - Car sharing
- Additional Programs
  - Parking management
  - Subsidized or free transit
  - Bike financial incentives
  - Expanded commuter bus service
  - Bike buddy program
  - Bike give away program
  - Expanded carpool matching
  - Vanpool/carpool financial incentives

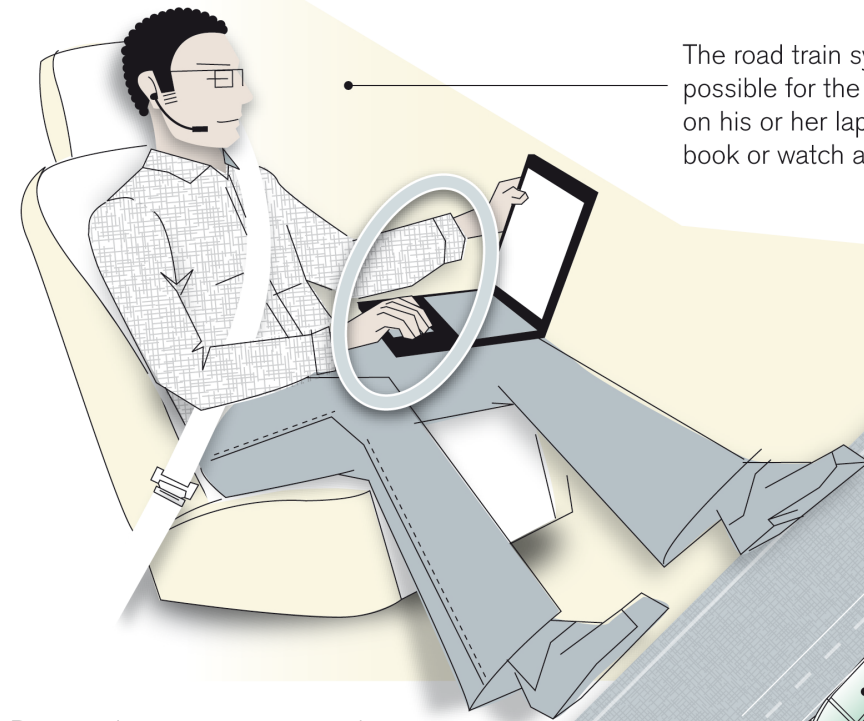
# Personal Mobility: Most Inefficient Sector

- Cars used only  
5% of useful life
- Only 25% of  
capacity used



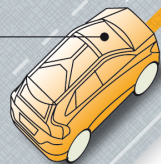
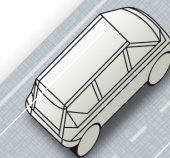
# Join a road train

A safe and energy-efficient way to travel



The road train system makes it possible for the driver to work on his or her laptop, read a book or watch a film.

Drivers who want to join a road train state their destination and are guided by their on-board navigation system to the nearest road train. The car joins the rear of the queue and the system takes over control of the car.



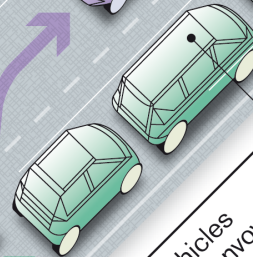
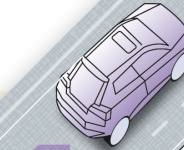
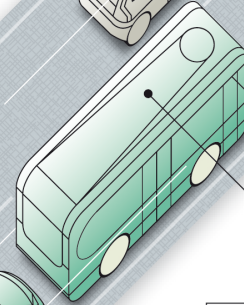
The other vehicles in the queue close the gap and continue together on their journey to the location where the road train separates once again into its individual vehicles.

As they approach their destination, drivers take over control of their own vehicles, leave the road train by pulling out to the side and then continue on their own to their destination.

The system is built into the cars and does not require any extended infrastructure along the existing road network.

6-8 vehicles in each convoy

The lead vehicle, for instance a bus, is driven by a professional driver. In this system, the lead vehicle takes over all the following vehicles via wireless radio communication.



# WALL-E





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# For More Information

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