

Balboa Area Transportation Demand Management

**San Francisco
Planning**



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NYGAARD

What Are We Aiming For?

- Transportation is not an end in itself.
- It is merely a means by which we support the community.



Flickr: Don Barrett

WHAT WE'VE HEARD RE: TRANSPORTATION

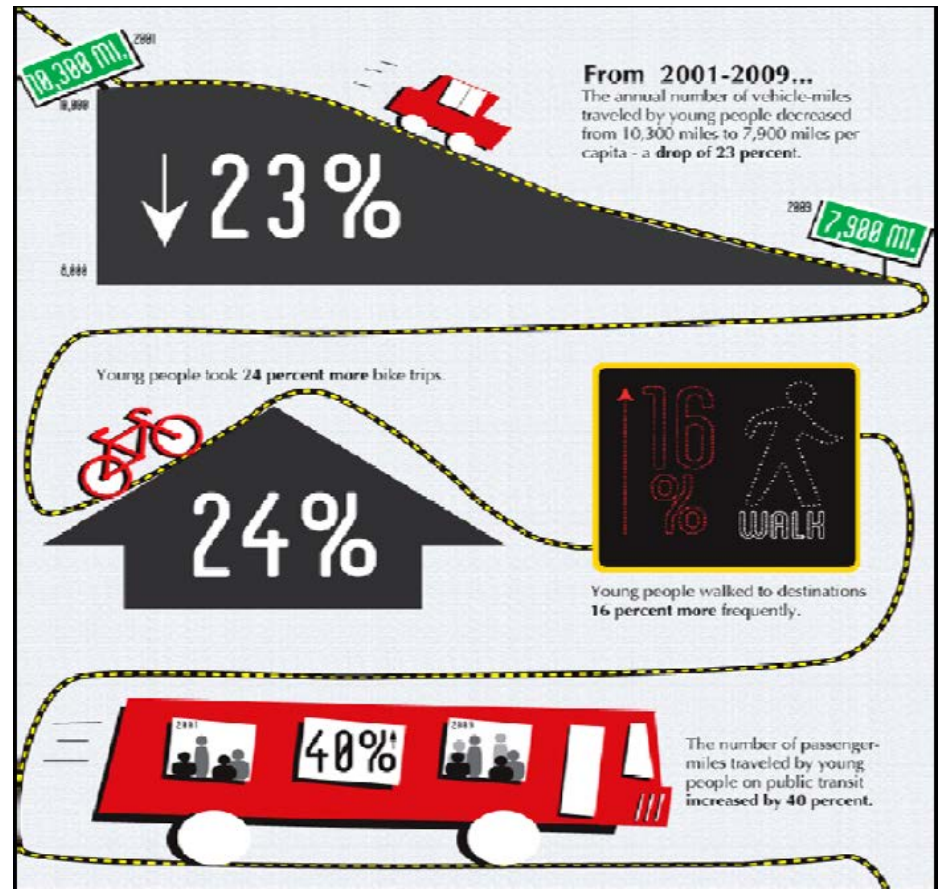
- Traffic is bad now. How could you add more development?
- Students are parking in our neighborhoods and blocking our driveways
- Transit isn't good enough
- Ocean Avenue isn't good for walking, especially to BART
- Bike network incomplete
- How much is the right amount of new parking?

TDM Plan Scope

- Balboa Area TDM to identify measures to minimize transportation demand impacts of current and future development
- Assessment of public opinion
- Evaluate current area parking conditions
- Determine current and future traffic conditions
- Prepare conceptual infrastructure/circulation improvements
- Identify short- and long-term recommendations

Preferences are Changing (Boomers)

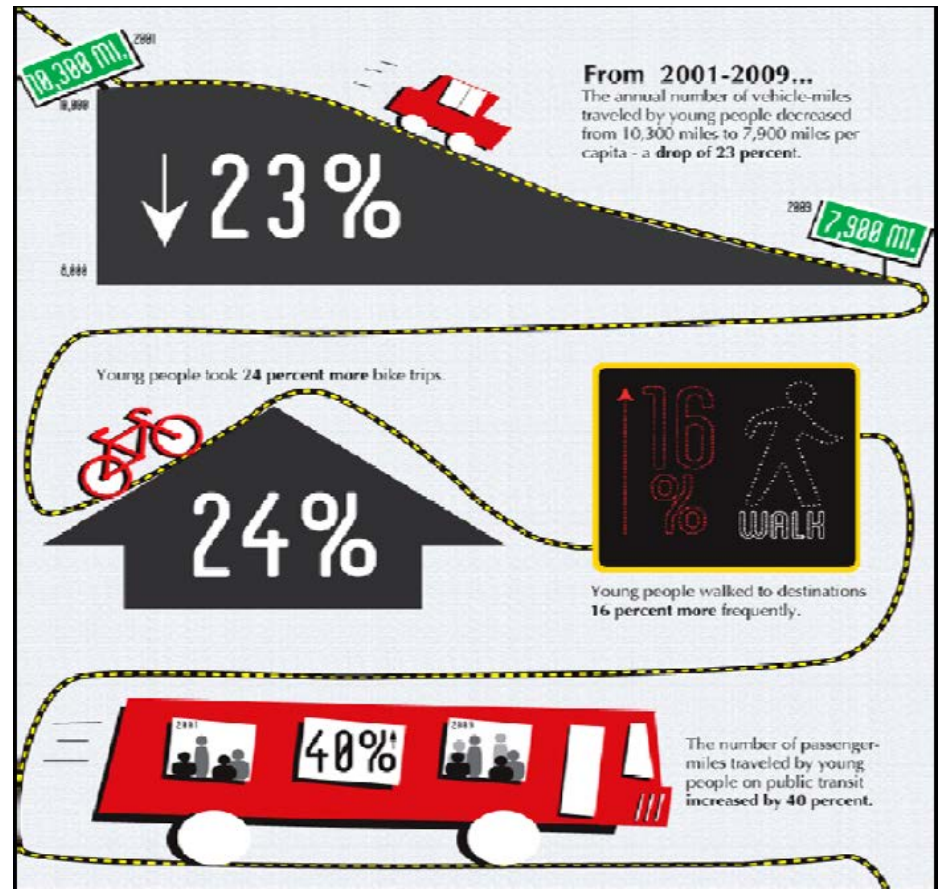
- Increasingly choosing “access by proximity” over “access by mobility”
- Decreasing auto ownership
- Fewer overall commuting miles



Source: “A New Direction in Driving Trends” (May 2013) and “Transportation and The New Generation”, Frontier Group & U.S. PIRG, April 2012 and <http://visual.ly/transportation-newgeneration>

Preferences are changing (Millennials)

- 53% would participate in car-sharing
- Increasing use of
 - Transit by 100%
 - Biking by 122%
 - Walking by 37%
- Over ¼ do not have a driver's license
- Top living priorities:
 - 79% commute time
 - 75% sidewalks & places to walk



Source: "A New Direction in Driving Trends" (May 2013) and "Transportation and The New Generation", Frontier Group & U.S. PIRG, April 2012 and <http://visual.ly/transportation-newgeneration>



If you build it . . .
... they will come

WHAT IS TRANSPORTATION DEMAND MANAGEMENT?

- › Making the most of limited roadway space and existing transportation services
- › Expanding transportation options
- › Minimizing traffic congestion and reduce parking demand
- › Creating safer, more livable streets
- › Supporting neighborhood economic growth
- › Reducing environmental impacts

Meaningful TDM Strategies

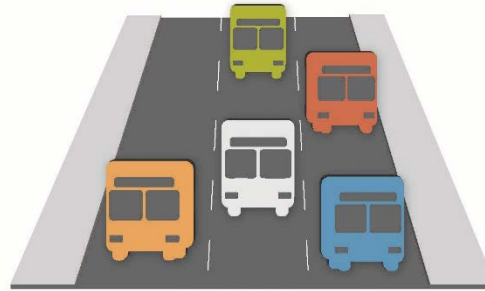
- Walkable and bikeable communities – creating places where people want to be and enjoy
- Providing on-site amenities: bike share, bike parking, safe routes and easy connections to transit services (BART, Muni)
- Providing programs and incentives for CCSF students and residents to rely less on cars and more other modes
- Expanded Transit Pass Subsidy Programs

MOVING CARS



28.4 PEOPLE
PER BLOCK

MOVING TRANSIT



225 PEOPLE
PER BLOCK

MOVING PEOPLE



1,000 PEOPLE
PER BLOCK

Making the most of limited roadway space

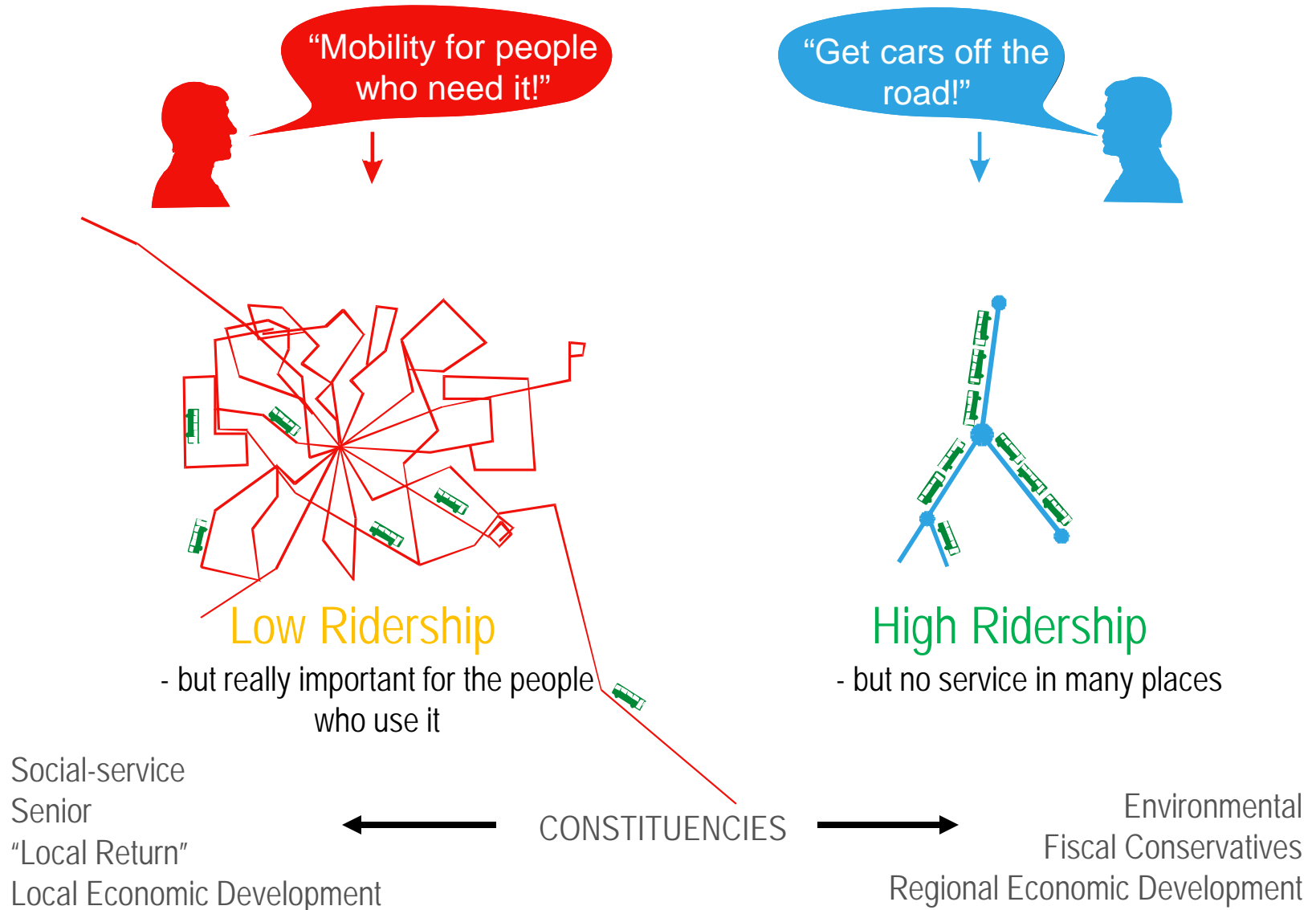
Enhancing Transportation Options

- Maximize existing transit services
- Improve pedestrian access and environment
- Enhance bicycle infrastructure and access



...Keep it site-specific and human-scale

Transit Coverage vs. Productivity



Travel Planning Apps and Real Time Information

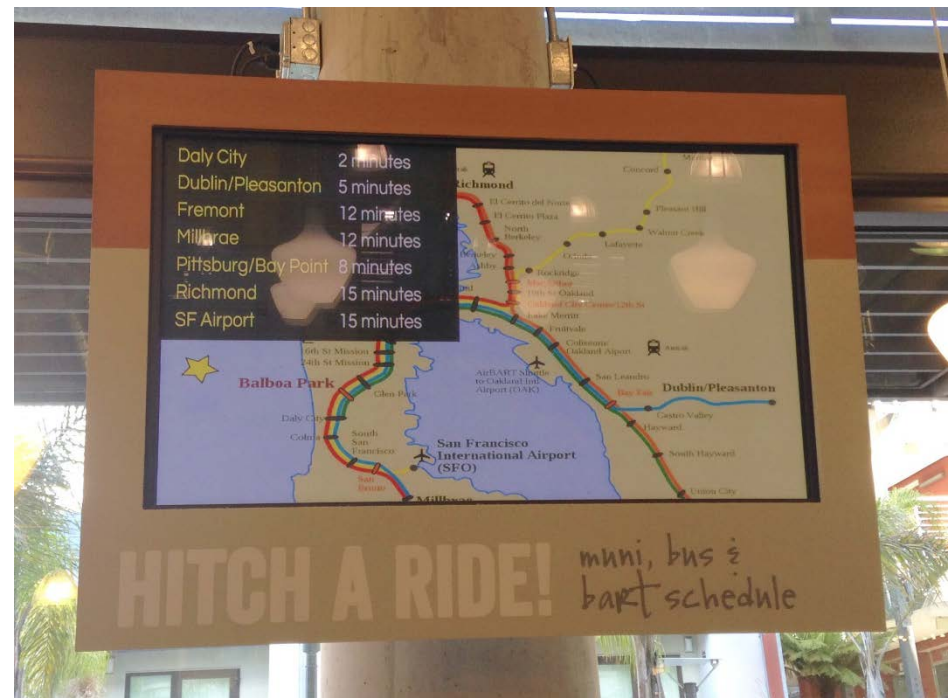
Multimodal trip planning

Could also include include:

- Trip time estimation
- Cost comparison estimation
- Calorie count estimation
- Carbon calculator
- Weather forecast

Needs to be:

- Accurate and reliable
- Easy to use
- Mobile
- Dynamic



Car Sharing

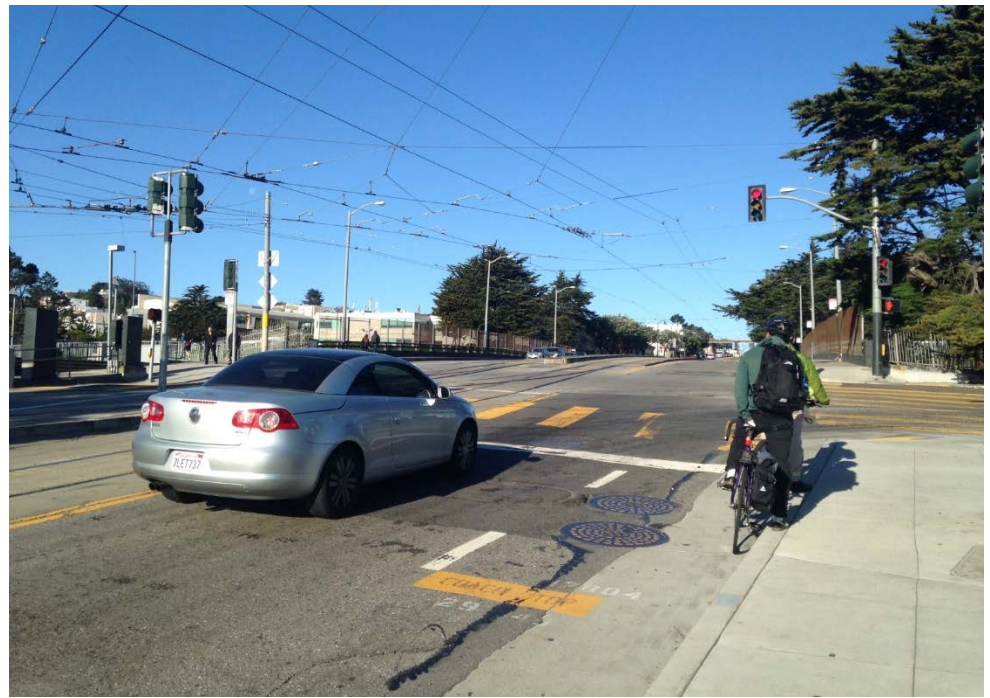
- Can take the place of fleet vehicles
- Available vehicle for when employees, residents, or students want or need a car
- Each car share vehicle eliminates demand for 11-25 private vehicles and each car share member reduces their driving by an average of 50%



Source: WikiMedia Commons

Bicycle Access and Use

Bicycle facilities (*quality*
and sufficient *quantity* of
racks, lockers, showers
....even bicycle benefits)





Pedestrian Safety and Security



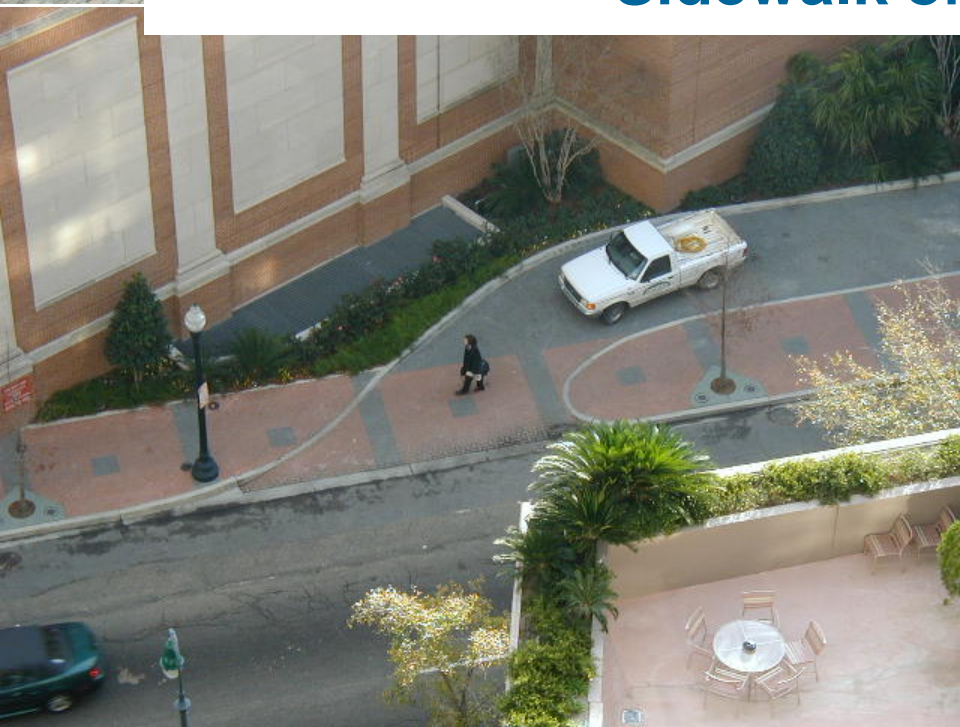
Comfort and Ease of Access

- Quality and quantity of connections for pedestrians, transit riders, bicyclists
- Protection from inclement weather
- Accommodation for people with disabilities





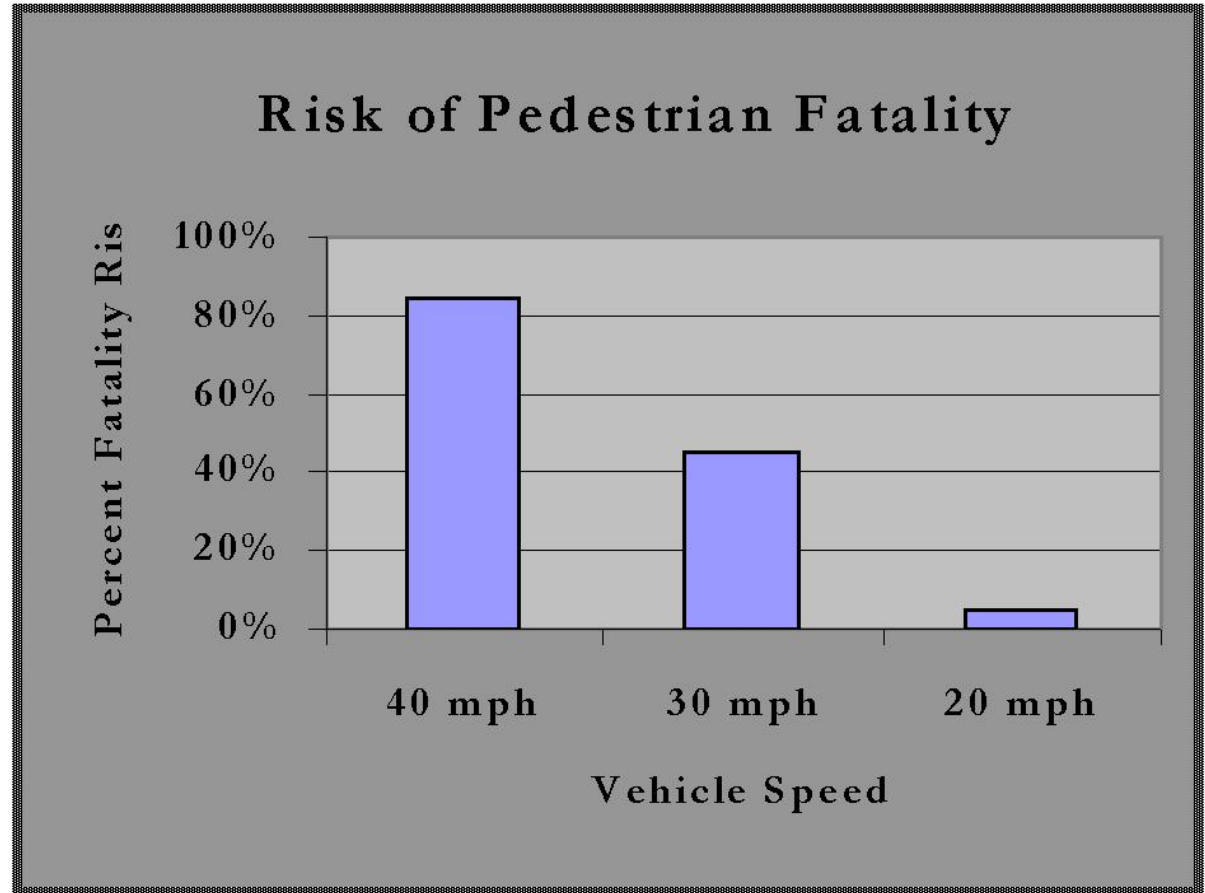
Sidewalk or Driveway?



Planning for Pedestrian Safety

- Vehicle speed
- Ped/bike exposure risk

5 km/h slower =
-10% fewer
pedestrian fatalities
-20% less severe
pedestrian injuries

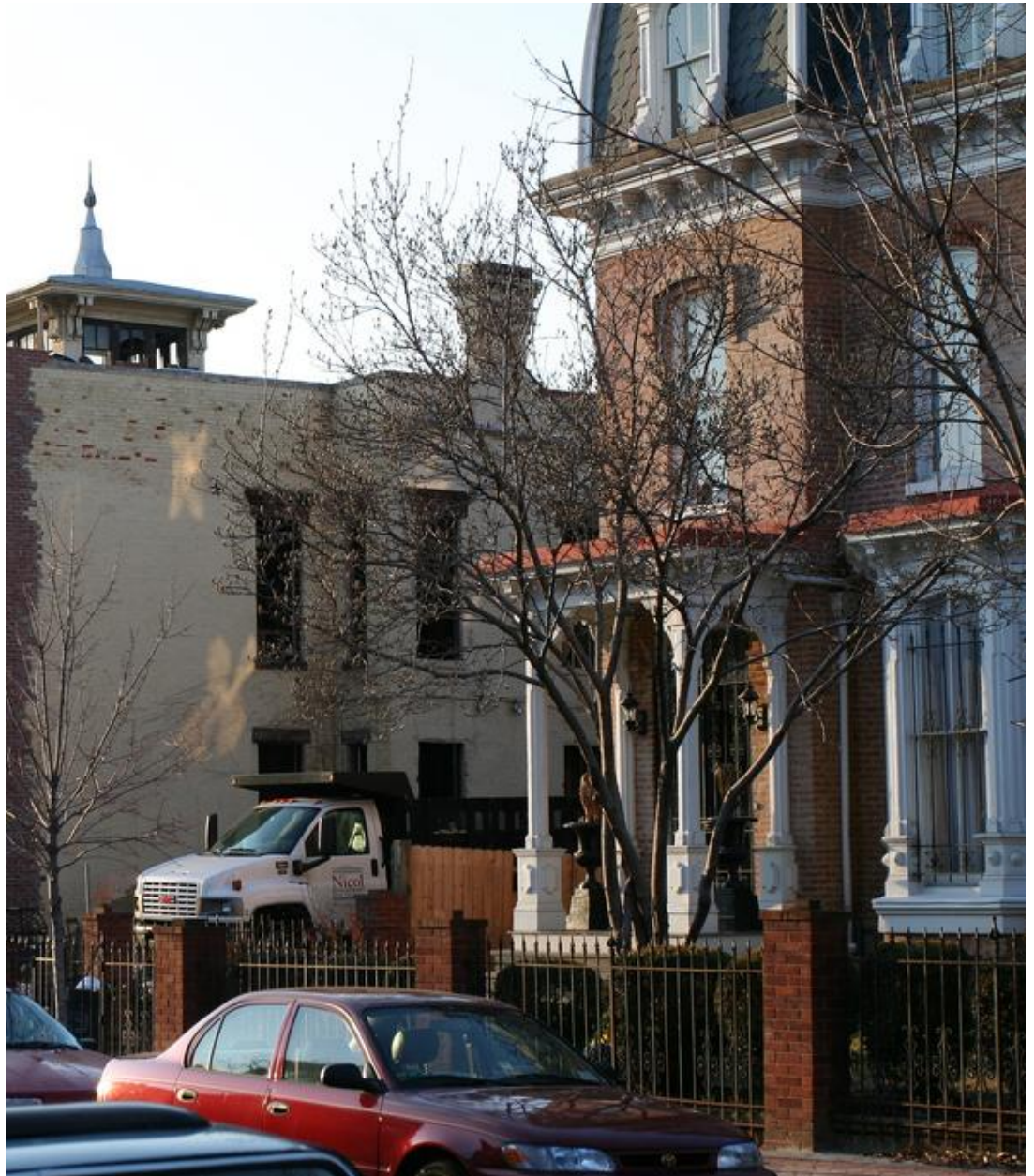


McLean, A. et al., "Vehicle Travel Speeds and the Incidence of Fatal Pedestrian Collisions," *Accident Analysis and Prevention*, Vol. 29, No. 5, 1997.

Leaf, W. and Preusser, D. *Literature Review on Vehicle Travel Speeds and Pedestrian Injuries Among Selected Racial/Ethnic Groups*, NHTSA (USA), 1999.

Housing Programs

- Live near work
 - Promotion
 - Real estate matching
- Employer assisted housing
- Employer provided housing



Flickr User Mkuhnert

Why is Parking so Important?





The True Value of Parking



ON-STREET PARKING



OFF-STREET PARKING



=



Bike Share for 10

1 parking space can
be used as...



Bicycle Parking for 12



Parklet/Seating for 8+

Restaurant Table 25ft²



Office Cubicle 72ft²



Studio Unit 325ft²



Parking Space + Circulation
200ft² + 150ft²

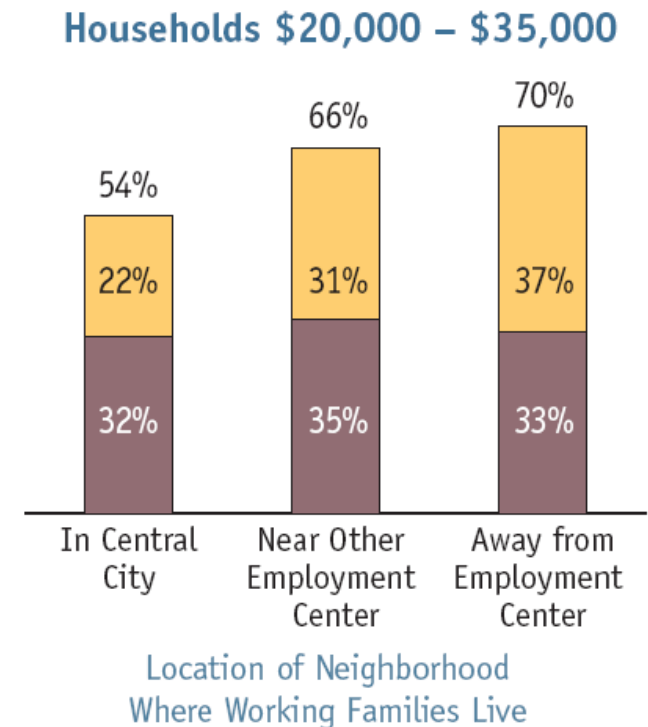


1 Bedroom Unit 575ft²



Parking Worsens Housing Affordability

- For each parking space required in a residential unit:
 - Price of unit increases 15-30%
 - Number of units that can be built on typical parcel decreases 15-25%
- Working families spend more on transportation than housing in auto-oriented suburbs.
- No accommodation for car-free households: Getting rid of a car = extra \$100,000 in mortgage
- At >300 sq ft, each parking space consumes more space than an efficiency apartment



Source: Center for Neighborhood Technology calculations.

Sources: "A Heavy Load: The Combined Housing and Transportation Burdens of Working Families," Center for Neighborhood Technology, 2006. "The Affordability Index: A New Tool for Measuring the True Affordability of a Housing Choice," Center for Neighborhood Technology, 2008. Sedway Cook studies of parking and housing costs in San Francisco and Oakland.

Parking Produces Traffic Congestion

- Every parking space is a magnet for cars. Why provide more parking than you have traffic capacity to access that parking?
- Poorly managed parking results in motorists circling for a parking space, from 8 to 74% of traffic in many downtowns.
- Eliminating just 10% of vehicles from any congested location makes traffic free flowing.

Parking is Key to Climate Change Prevention

- Growth in VMT greatly exceeding growth in population
- Aggressive improvements in fuel economy put us 40% above 1990 CO₂ levels by 2030. For climate stabilization, we must be 15-30% *below* by 2020.
- We have no choice but to reduce VMT

Figure 0-1 Growth of VMT, Vehicle Registrations, and Population in the United States relative to 1980 Values

Source: FHWA 2005.

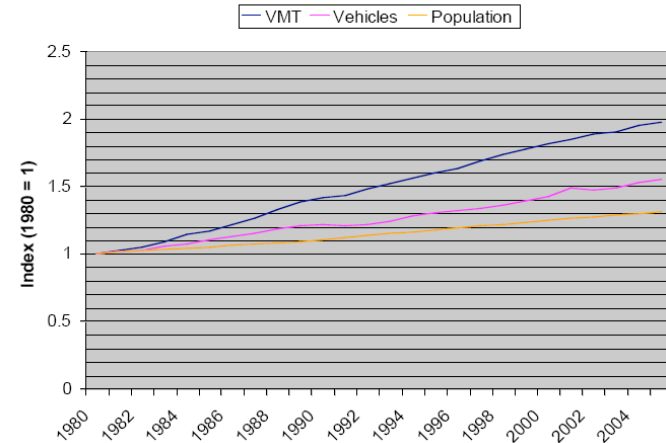
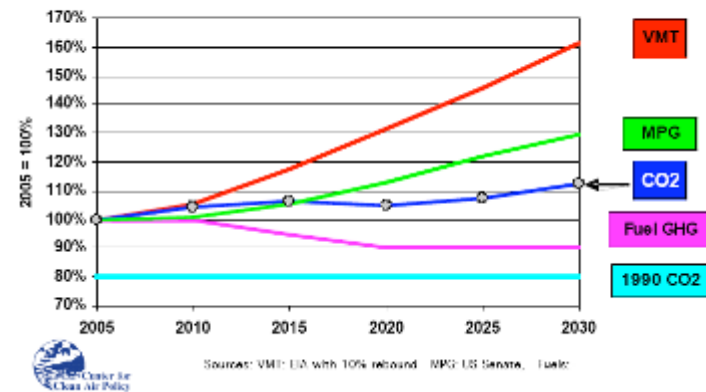


Figure 0-3 Projected Growth in CO₂ Emissions from Cars and Light Trucks Assuming Stringent Nationwide Vehicle and Fuel Standards*

Source: EIA 2007



Source: "Growing Cooler: The Evidence on Urban Development and Climate Change," Reid Ewing, et al, ULI Press.

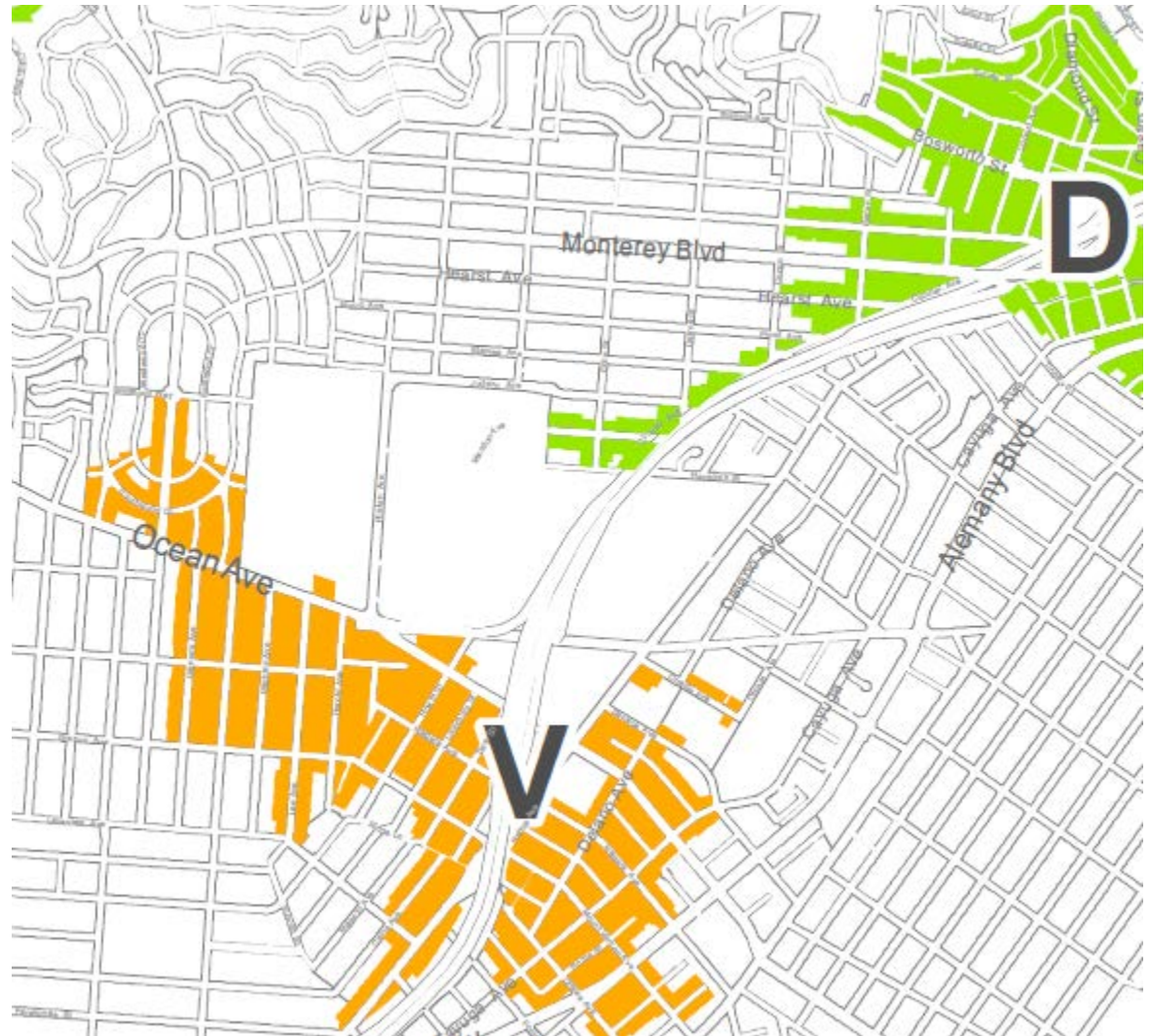
Manage On-Street Parking

- Meters for Commercial Spaces
 - Create turnover
 - Ensure availability
 - Prioritize shoppers



Residential Parking Management

- To control spillover from City College
 - Expand Residential Permit Districts
 - Consider number of free hours
 - Consider hours of enforcement



The Flip Side of RPP: Parking Controls within Reservoir

- Deed Restrictions on where Reservoir Residents can park (i.e. NOT in neighboring RPP)
- Market rate pricing within Reservoir

Manage Off-Street Parking

- Unbundling parking from leases, contracts or units
- Parking cash-out programs
- Parking permit reform (buy only what you need)
- Demand-based pricing and variable pricing
- Tailor parking requirements



➤ Credit: Joel Dinda

BALBOA AREA TRANSPORTATION DEMAND MANAGEMENT

- › Responding to community concerns and planning for the future
- › Making the most of limited roadway space and existing services
- › Expanding transportation options to reduce need to drive/park in neighborhood
- › Minimizing traffic congestion through engineered solutions
- › Creating safer, more livable streets that connect to businesses and transit
- › Supporting neighborhood economic growth
- › Reducing environmental impacts

HOW DOES THIS GET IMPLEMENTED?

- Base data
- Trip generation and traffic analysis
- Identifying key issues and meaningful solutions
- Memorandum of Understanding with City College?
- Developer Agreements on Reservoir Site?

HOW CAN YOU HELP?

- Sign in Today
- Stay actively involved throughout the process
- Participate in travel surveys



BALBOA AREA TDM

- sf-planning.org/balboaTDM
- pcosta@nelsonnygaard.com

ONGOING TRANSPORTATION PLANNING

BALBOA RESERVOIR

sf-planning.org/brcac

brcac@sfgov.org

BALBOA PARK STATION CAC

sfmta.com/about-sfmta/organization/committees/balboa-park-station-community-advisory-committee

TRANSPORTATION DEMAND MANAGEMENT

sfmta.com/projects-planning/projects/transportation-demand-management

Thank You!



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