



**Guidelines for  
TRANSPORTATION DEMAND MANAGEMENT STRATEGIES  
including a brief on  
TRANSPORTATION MANAGEMENT ASSOCIATIONS**

***. Transportation Demand Management (TDM) is a set of policies and practices  
to reduce single occupancy vehicle trips***

Common features of TDM programs include shuttles, transit pass discounts, carpool programs, and emergency ride home services. In addition to specific benefits, an important aspect of TDM programs is marketing: information and coaching about the transportation options that would work best for their individual and family needs. In several cities, Transportation Management Associations are being formed to facilitate coordinated action.

TDM programs have a wide range of effectiveness, ranging from minimal to dramatic. Stanford is a well-known success story in the region. Since 2002, Stanford has reduced its drive-alone mode share from 72% to 42% for employees living off campus.

TDM features and practices which are especially effective and important for successful results:

- 1. Surveys.** Successful programs such as Stanford, Facebook and Google regularly survey participants to determine where they travel, what their choices are, and what factors would influence those choices. This process is used to design programs based on where people travel, and the reasons that people have for driving. Surveys are used to continuously improve the programs over time, and to assess changes in mode choice. Successful programs conduct surveys and publish results on an ongoing basis (not only for the first few years).
- 2. Goals** A highly valuable success factor for a TDM program is to have quantitative goals. Stanford is under a strict “no net new trips” goal. It is common for developments to have a “peak hour trip goal.” It is especially healthy to have a mode share goal, since this accounts for 100% of users, unlike a peak hour vehicle trip goal which accounts only for car users. Another useful metric is parking utilization. This can be used to protect against parking overflow into neighborhoods.
- 3. Reporting.** Based on qualitative assessment of case studies of successful programs, regular, ongoing transparent reporting seems more important than penalties in assuring results. In cases where penalties are created to incent compliance, a good practice is to require increased investment, in the case of initial noncompliance, and to

assess penalties only after repeated noncompliance.

#### **4. Transit pass discounts**

This is a very effective technique to increase the use of transit<sup>1</sup>. Successful users include Stanford (nearly 25% Caltrain mode share)<sup>2</sup>, SRI in Menlo Park (15% Caltrain mode share)<sup>3</sup>, and SurveyMonkey in Palo Alto (50% Caltrain mode share plus 17% Clipper other transit)<sup>4</sup>. Transit pass bulk discounts are now available for both business and residential use. In Loma Prieta Chapter area, Caltrain GoPass, SamTrans R Pass, and VTA EcoPass are available (Caltrain Residential Go Pass is planned for review and approval in December/January).

#### **5. Carpool matching**

A common TDM feature is carpool matching, helping people find others with similar origins, destinations, and commute times. 511.org provides a rideshare matching tool (<https://rideshare.511.org/carpool/>). There are also a variety of other tools that help to create matches for carpool and vanpool in an area

#### **6. Parking cashout**

This is a benefit whereby an employee who chooses not to use a parking spot receives a cash benefit up to the value of the parking spot. Studies over decades show that parking cashout can reduce single occupancy driving by 10 - 30%<sup>5</sup>. Parking cashout is required, by state law<sup>6</sup>, for employers with over 50 employees that have leased parking. Cities are allowed to implement the state's parking cashout, and may require parking cashout for smaller employers. Note that in order to implement parking cashout, commercial parking needs to be unbundled in the lease. This is not yet common in the Loma Prieta Chapter area, and should be strongly encouraged.

#### **7. Paid parking**

One of the most helpful disincentives to drive is paid parking. This is implemented as employee permit parking in the downtowns of a number of Loma Prieta Chapter cities, including Palo Alto, Menlo Park, Redwood City and San Mateo. Some large employers also charge for parking. This is less common in locations outside downtowns. For jurisdictions and developments reluctant to implement paid parking, it is valuable to list it as a tool that can be used in a later phase to achieve a goal (see Goals, above). One powerful tool to fund TDM programs can be the use of parking revenues to fund trip reduction programs that reduce the need for new parking supply - this is a key feature in successful city TDM programs in Boulder

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<sup>1</sup> <http://bettercities.net/images/17530/mode-shifts-achieved-free-transit-passes>

<sup>2</sup> <http://peninsulatransportation.org/stanford-has-avoided-100000000-in-parking-structures-over-the-last-decade/>

<sup>3</sup> <http://peninsulatransportation.org/new-study-shows-sri-in-menlo-generates-less-than-50-of-standard-peak-traffic/>

<sup>4</sup> <http://peninsulatransportation.org/less-than-third-of-surveymonkeys-palo-alto-employees-drive-to-work/>

<sup>5</sup> Seven case studies parking cashout showing an average mode shift from driving alone to an alternative (e.g. bus, carpool or bicycle) of 11%. <http://reconnectingamerica.org/assets/Uploads/bestpractice209.pdf>

<sup>6</sup> [http://www.arb.ca.gov/planning/tsaq/cashout/cashout\\_guide\\_0809.pdf](http://www.arb.ca.gov/planning/tsaq/cashout/cashout_guide_0809.pdf)

and the Lloyd District in Portland.

**8) Rightsized parking**

. In order to increase the use of sustainable transportation, it is highly effective to providing appropriate levels of parking when developments are planned and built. This Sierra Club Loma Prieta Chapter paper looks at techniques to rightsize and manage parking (link goes here).

**9) First/last mile connections**

. For many locations that are beyond easy walking distance to transit, shuttles help make the first/last mile connection. The most successful shuttle program in the Loma Prieta Chapter area is Stanford's Marguerite. Two key characteristics of the system: it is open to the public, and the shuttle schedules are available online via 511.org and Google Transit. These practices should be encouraged in new shuttles. Bike share programs are emerging to serve a first/last mile role as well for users who ride bicycles.

**10) Mid-day transportation**

For employees commute without a car, TDM services provide flexible transportation options so the user is not stranded. Services include circulator shuttles, carshare and bikeshare, and emergency ride home programs.

**11) Flexible work hours**

A powerful technique to reduce peak hour vehicle trips is for employers allow employees to shift their workday off the peak, and to work part of the time at home.

**12) Bicycle convenience**

Bicycle support is often listed as component of TDM programs, including secure bicycle parking and showers.

In California, TDM benefits are helped by a new law, SB1339, which has enabled the Metropolitan Transportation Commission to provide commute benefit programs to employers with 50 or more employees.

Transportation Demand Management programs are most commonly used for work commuters, but is growing for residential developments. SamTrans and Caltrain provide discount transit passes that are available for residential developments. Some communities are pushing past these strategies - Boulder, Colorado also offers a program to provide discount transit passes for entire residential neighborhoods.

**Transportation Management Associations - TDM beyond large employers**

*Transportation Management Associations are increasingly being used in the Loma Prieta Chapter region to pool funds and provide TDM services for geographical areas with similar needs.*

The best known TDM programs in the Loma Prieta Chapter region are implemented by major employers: Stanford, Google, Facebook, Genentech. TDM programs have also been required for major

developments. However, performance of these programs has occasionally been below expectations. Developments lack the resources to enable strong programs for multiple smaller tenants. Smaller developments lack the service population needed for an effective shuttle or carpool program.

**Transportation Management Associations (TMA)** are increasingly being used in the Loma Prieta Chapter region to pool funds and provide TDM services for geographical areas with similar needs. The TMA can serve multi-tenant developments with shuttles, carpool programs, carshare services, etc. with a larger user pool than any one development or employer. In addition, the TMA's professional staff can provide more focused attention than a Human Resource generalist at a small company. TMAs can serve residential developments, not only office complexes. Common services include transit passes, circulating shuttles, and carshare services for carfree and carlite households.

TMAs are often set up as nonprofits, with participating organizations, including the sponsoring city on the board. Where the TMA is run by a nonprofit, the city can have responsibility for setting reporting and ensuring adherence to goals (in the case of San Mateo and Boulder). Some larger TMAs in other parts of the country are run by jurisdictions (Arlington, Cambridge Massachusetts, Bellevue WA). However this is not a common model in the Bay Area.

In areas with relatively large amounts of new infill development, the new developments can be required to participate, while membership can be optional for existing businesses and properties. This allows a program to proceed without objection from existing businesses, with "carrots" to bring them along as they see the benefits available to organizations in new buildings. In cities such as Mountain View and Palo Alto, with a larger population of existing buildings, a TMA can be funded by membership fees, or a parcel assessment as, we believe, is instituted in Contra Costa and Emeryville. As noted above, one of the most powerful techniques to fund a TMA can be the use of parking revenues and parking in-lieu fees to fund trip reduction instead of the creation of new parking supply.

TMAs work best where constituents have shared goals and constraints. For example, in Mountain View, there is a goal to reduce driving to 45%. In Palo Alto there is a major constraint in that the city faces the need to construct tens of millions of dollars in parking. In San Mateo, the city wanted major new developments without the ability to expand road capacity for all of the new workers and residents. Goal setting is a critical exercise. With the help of an expert multi-modal planning organization, the City assesses an achievable goal, given the land use characteristics, transit resources, and levels of investment. Then investments and developments are designed to meet the goal.

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