MST
MONTEREY-SALINAS TRANSIT
Designing for Transit
A Manual for Integrating Public Transit and Land Use in Monterey County
November 2006
Designing For Transit

A Manual for Integrating
Public Transit and Land Use
in Monterey County

November 2006

Prepared by

MST
MONTEREY-SALINAS TRANSIT

One Ryan Ranch Road
Monterey, California 93940

Perteet Inc.
2707 Colby Avenue, Suite 900
Everett, Washington 98201
The preparation of this report has been financed, in part, through a grant from the U.S. Department of Transportation (U.S. DOT), Federal Transit Administration, under the Transportation Equity Act for the 21st Century and the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: Legacy for Users, as provided to Monterey-Salinas Transit (MST) by the Association of Monterey Bay Area Governments (AMBAG). The contents of this report reflect the views of MST, which is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or the policy of the U.S. DOT. Acceptance of this report by the U.S. DOT, or by AMBAG, does not in any way constitute a commitment on the part of the funding and oversight agencies.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>I. Vision for Monterey County</td>
<td>3</td>
</tr>
<tr>
<td>II. Land Use Roles of Local Governments</td>
<td>7</td>
</tr>
<tr>
<td>General Plan</td>
<td>8</td>
</tr>
<tr>
<td>Circulation Element</td>
<td>8</td>
</tr>
<tr>
<td>Specific Plans, Master Plans and Corridor Plans</td>
<td>9</td>
</tr>
<tr>
<td>Partnerships: Public / Private</td>
<td>9</td>
</tr>
<tr>
<td>Partnerships: Public / Public</td>
<td>10</td>
</tr>
<tr>
<td>Possible Funding Sources for TOD</td>
<td>10</td>
</tr>
<tr>
<td>Local Government TOD Practices</td>
<td>11</td>
</tr>
<tr>
<td>III. Land Use Roles of the Private Sector</td>
<td>15</td>
</tr>
<tr>
<td>Private Sector Transportation Choices Incentives</td>
<td>15</td>
</tr>
<tr>
<td>Site Planning and Building Design</td>
<td>18</td>
</tr>
<tr>
<td>IV. The Role of Monterey-Salinas Transit</td>
<td>21</td>
</tr>
<tr>
<td>Transit Planning</td>
<td>21</td>
</tr>
<tr>
<td>Transit-Compatible Built Environments</td>
<td>23</td>
</tr>
<tr>
<td>Transit Services and Facilities</td>
<td>24</td>
</tr>
<tr>
<td>Intelligent Transportation Systems</td>
<td>26</td>
</tr>
<tr>
<td>Planning for Bus Rapid Transit</td>
<td>28</td>
</tr>
<tr>
<td>V. TOD Checklist for New Projects</td>
<td>29</td>
</tr>
<tr>
<td>VI. Project Development Process</td>
<td>31</td>
</tr>
<tr>
<td>VII. Design Specifications</td>
<td>32</td>
</tr>
<tr>
<td>Appendix I: TAMC Transportation-Related Principles for Community</td>
<td>55</td>
</tr>
<tr>
<td>Development</td>
<td></td>
</tr>
<tr>
<td>TAMC Mission</td>
<td>55</td>
</tr>
<tr>
<td>1. Land Use</td>
<td>55</td>
</tr>
<tr>
<td>2. Street Network Design</td>
<td>56</td>
</tr>
<tr>
<td>3. Site Design</td>
<td>57</td>
</tr>
<tr>
<td>4. Transportation Demand Management</td>
<td>57</td>
</tr>
<tr>
<td>Appendix II: TAMC Transit-Oriented Development Incentives Program Overview and Guidelines</td>
<td>58</td>
</tr>
<tr>
<td>What is TOD?</td>
<td>58</td>
</tr>
<tr>
<td>Guidelines</td>
<td>59</td>
</tr>
<tr>
<td>Application and Grant Process</td>
<td>62</td>
</tr>
<tr>
<td>References &amp; Acknowledgements</td>
<td>63</td>
</tr>
<tr>
<td>Questions, Comments and Suggestions</td>
<td>64</td>
</tr>
<tr>
<td>Transit-Oriented Development Concepts</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td></td>
</tr>
<tr>
<td>• Convenient pedestrian and bicycle access to transit facilities</td>
<td></td>
</tr>
<tr>
<td>• Mixed residential and commercial land uses near transit facilities</td>
<td></td>
</tr>
<tr>
<td>• Pedestrian-friendly building and street design</td>
<td></td>
</tr>
<tr>
<td>• Balanced parking supply/demand</td>
<td></td>
</tr>
<tr>
<td>• Priority for non-motorized modes and transit vehicles in circulation plans</td>
<td></td>
</tr>
<tr>
<td>• New opportunities for compact housing, retail development, and community designs</td>
<td></td>
</tr>
<tr>
<td>• Advanced mass transit services and facilities</td>
<td></td>
</tr>
<tr>
<td>• Community development public and private partnerships</td>
<td></td>
</tr>
</tbody>
</table>
**Introduction**

Why is the integration of public transportation with land use important? The coordination of land use developments with public transportation planning enables safe, efficient, and effective transit operations. The benefits are apparent at the regional and individual experience.

*Designing for Transit* gives decision-makers, developers, planners, engineers, and community members the ability to plan for safety and efficiency of transit on our streets and highways. When public agencies and private interest groups fail to include safety and efficiency standards for bus operations, fewer people will ride the bus and the region will carry the burden of more congestion and more pollution.

It cannot be overstated that public transportation is an important component of the regional multi-modal transportation network. Status quo planning typically focuses on the movement of goods and people in trucks and automobiles. However, many people get to and from work by walking, biking, taking the bus, or taking the train. Accessibility by public transportation can therefore serve as an economic viability test for the region; businesses will suffer if they are inaccessible to workers, shoppers, and tourists who take public transportation.

In order to avoid gridlocks and polluted air, land use plans should focus on accessibility for pedestrians boarding and off-boarding transit vehicles. *Designing for Transit* provides specific examples of flawed and preferred land use configurations that discourage or encourage accessibility by alternative modes. Developments that prioritize automobile access do a disfavor to the people who walk, bike, or take transit.

At the individual level, *Designing for Transit* is instrumental in increasing opportunities for daily exercise by encouraging the planning of safe sidewalks and bike paths near bus stops. It is a national concern to address the rising trend in obesity, which is linked to a reduction in physical activities. Prioritizing safe conditions to walk and bike could result in fewer cases of diabetes and overall better health records for communities. With renewed focus on the safety of our neighborhoods and accessibility to bus stops, the ability to have more active lifestyles will result in a higher quality of life in Monterey County.

Planning for reduced automobile usage not only has potential health benefits through increased physical activities, but also provides an annual savings opportunity of thousands of dollars per person. In 2005, the annual average cost
to drive was as much as $7,824 per year, or 52.2 cents per mile (as calculated by the American Automobile Association). MST patrons, however, spent up to $1,464 per year, or $122 per month, for all-zone, unlimited rides, bus passes. The difference in transportation costs result in savings that could be applied to offset the greatest household cost: housing. In other words, public transportation investments make housing more affordable.

With Monterey County's population forecasted to grow by half a million within a decade, it becomes increasingly important to plan our streets, highways, bike lanes, bike paths, sidewalks, crosswalks, and public transportation facilities to be integrated with the surrounding land uses. This manual illustrates the standards of public transportation operation which, when followed, can help to alleviate traffic snarls and air pollution and improve quality of life in Monterey County.
I. Vision for Monterey County

There was a time when public transportation was an integral part of both the Monterey Peninsula and Salinas. Streetcar and bus lines developed along with the communities. As a result, transit provided convenient access to most of the activities our communities had to offer. This began to change after World War II. The popularity of the automobile diverted attention away from public transportation; Americans became preoccupied with developing auto-oriented suburbs, shopping centers, and office complexes. Many of the developments were poorly laid out for walking and public transportation, which left no choice for many but to use their cars.

Even today, Monterey County is still struggling with limited mobility choices. The estimated number of elderly and disabled people is expected to surpass the carrying capacity of the existing mass transit system by 2020. For people able-bodied to walk, land uses that discourage walking work against the quality of life at the individual, community, and regional levels. National studies link health issues, including obesity, to fewer trips by foot, connecting increased traffic with air pollution and the tendency to drive for every trip.

Projected Population in Monterey County

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-64</td>
<td>362,839</td>
<td>406,790</td>
<td>439,696</td>
<td>471,047</td>
<td>508,102</td>
<td>549,722</td>
</tr>
<tr>
<td>65+</td>
<td>40,797</td>
<td>46,502</td>
<td>65,663</td>
<td>85,915</td>
<td>97,861</td>
<td>105,125</td>
</tr>
<tr>
<td>Total Population</td>
<td>403,636</td>
<td>453,292</td>
<td>505,359</td>
<td>556,962</td>
<td>605,963</td>
<td>654,847</td>
</tr>
</tbody>
</table>

Source: AMBAG Population Forecast, 2004

The U.S. Census Bureau predicts a 236% growth in Monterey County population for people age 65+ between the decades 2000-2010 and 2010-2020.

As recently as the early 1960s, when the U.S. was already turning to the automobile for a greater share of all transportation trips, yet still had more compact communities and higher levels of public transit use and walking, families spent about one out of every ten dollars for transportation, as compared to nearly one out of every five dollars in 2003.

— Driven to Spend

Our built environment is predominately auto-oriented. On the left, the wall prevents pedestrian access to the sidewalk and bus stop. On the right, the lack of sidewalk endangers pedestrians approaching/leaving the bus stop (note: School Crossing sign).
“Livable” Communities

Worldwide recent trends in the field of community and economic development planning show renewed interest in preserving, promoting, and creating “livable communities.” The term “livable communities” has obvious subjective interpretations. In general, however, it is characterized as pedestrian-friendly, residential neighborhoods near to a “Main Street” featuring basic needs, goods, services, and transit facilities. The essentials of “Main Street” could be: a corner grocery, a drug store, a post office, small shops, a theater, restaurants, bookshops, a library, schools, cafes, farmers markets, and/or outdoor social gathering areas. The “livable communities” vision involves a mix of residential and commercial land uses that fulfill daily livelihood needs – such as taking transit. “Livable communities” that emphasize accessibility by mass transit are also called transit-oriented developments (TODs).

Why Encourage Transit-Oriented Development?

TOD focuses on a mix of compatible and compact land uses that enable convenient access to/from bus routes, designed to provide effective connections to residential, employment, educational, and commercial areas. Everyone can share the benefits of TOD because increased walking and transit ridership reduces traffic congestion and promotes exercise and healthy activities, when walking and biking facilities are safe and convenient to use. In other words, TOD is not just about transit but also about improving the well-being of individuals and communities.

Transit-Oriented Development Concepts

- Convenient pedestrian and bicycle access to transit facilities
- Mixed residential and commercial land uses near transit facilities
- Pedestrian-friendly building and street design
- Balanced parking supply/demand
- Priority for non-motorized modes and transit vehicles in circulation plans
- New opportunities for compact housing, retail development, and community designs
- Advanced mass transit services and facilities
- Community development public and private partnerships

Pedestrian-friendly areas in Gonzales, Monterey, and Salinas serve as models for best TOD practices in Monterey County.

TOD Concept: Convenient pedestrian and bicycle access to transit facilities make taking transit safer for youths, older adults, and disabled individuals.
Future Growth in Monterey County

Monterey County has much to preserve in terms of history, agricultural land, and beautiful landscapes along the ocean and in the valley. However, the predominant existing land use development practices spawn suburban sprawl and “big box” strip malls with fields of parking lots – the antitheses of the qualities of “livable communities.” Through conscientious effort to incorporate the transportation and land use guidelines presented in this manual, public transportation can boost the local economy by improving transportation choices in the Monterey County transportation network without requiring expansion into farm land and open space.

Future growth goals that balance the transportation and housing needs of Monterey County have been established by the Association of Monterey Bay Area Governments (AMBAG) and the Transportation Agency for Monterey County (TAMC). Transportation is typically the second highest household expense after housing. AMBAG and TAMC are both comprised of local officials who conduct comprehensive regional analyses and plans regarding the County’s transportation system needs. Available on the agency websites, the regional transportation plans aim to develop and maintain a multi-modal transportation system that enhances the mobility, safety, access, environmental quality, and

**TOD Concept:** New opportunities for compact housing, retail development, and community designs will help to preserve agricultural and habitat lands.

The ability to modify transportation costs through the use of transit and lower vehicle ownership can make the combined costs of housing and transportation lower in even the most expensive markets.

– Driven to Spend
economic activities in Monterey County. As part of their missions, AMBAG and TAMC have established a set of similar goals and objectives to improve Monterey County’s ability to meet its regional transportation needs.

In June 1995, AMBAG adopted five policies as part of the Livable Community Initiative for the Monterey Bay Region. The five policies are:

1. Promote mixed, complementary land uses;
2. Promote transit-supportive density and zoning for new development where scheduled transit service exists and transit funds are available to support that density and zoning in the future;
3. Provide pedestrian / bike circulation and access;
4. Provide transit access; and
5. Promote pedestrian-friendly design.

TAMC recommends that new land use development in the county adhere to a set of principles, which emphasize land use patterns that support reductions in single-occupancy vehicle (SOV) use. The over-arching future goal of the region is to maximize the carrying capacity of Monterey County’s regional transportation infrastructure and minimize the number of SOVs. The TAMC principles and information on the Transportation for Livable Communities (TLC) grant is provided in Appendix I (page 55).
II. Land Use Roles of Local Governments

Local governments play a key role in implementing the goals and objectives that are laid out in AMBAG and TAMC’s regional plans. Because local governments have authority over land use decisions and development regulations, it is important to establish a strong commitment to land use practices that do not reinforce dependency on automobile ownership. The TOD policies provided by TAMC should be comprehensively woven into the local government land development process and zoning criteria. From the general plan to the final development permit, land use decisions and the expenditure of public funds should be predicated on the realization that sustained economic development requires a new development pattern that provides more than one mobility choice. By building and designing for transit access, the cost-saving benefits of TOD will translate to higher local spending as well as reduced congestion.

In addition to the economic benefits, elected representatives should advocate for TOD because it helps people of all demographic backgrounds and mobility abilities. TOD considers the mobility needs of everyone:

- People dependent on public transit due to a temporary or permanent disability;
- Youths, young adults, and older adults;
- Homeowners with high mortgages and renters with few assets;
- Native residents struggling to afford the high cost of living in Monterey County and seasonal visitors seeking traffic-free vacations; and
- Other stakeholders in the transportation system.

*TOD Concept: Mixed residential and commercial land uses near transit facilities make taking transit safer and more convenient.*
The following policy statements can be used in General Plans to achieve a balanced multi-modal transportation network:

- Integrate land use and circulation plans to create an urban environment that supports a multi-modal transportation system;
- Prioritize future development and redevelopment projects that are accessible using the existing multi-modal transportation network;
- Direct development to areas with a confluence of transportation facilities (sidewalks, bike paths, park & rides, and transit centers); and
- Limit development in areas accessible by only a single transportation mode.

Transportation network facilities present seemingly irreversible impacts to our built environment. A measure of transportation accessibility by public transportation and other modes reflects how well local governments are planning for the future as part of the General Plan vision.

**Circulation Element**

Within the circulation element of the general plan, more specific objectives and policies related to a multi-modal transportation system should be provided. These policies should reinforce the economic, physical and social benefits of integrating land use and multiple transportation modes. Specifically, public transportation and/or special downtown trolleys, such as the MST Trolley in Monterey, serve to reduce traffic. Therefore, transit facilities that enable improved transit services should have priority in planning projects. Examples of uses of transit funding that improve traffic circulation through the use of transit-priority policies are as follows:

- Bus stops located at the far side of the intersection to minimize conflicts with vehicles and crossing pedestrians (see page 41);
- Transit queue jump signals or Transit Signal Priority (TSP) to improve the speed of transit travel and service by giving priority to transit vehicles where conflicts with auto traffic cause significant delay (see page 53);
- Exclusive transit lanes on freeways and city streets where significant transit service demand exists for Bus Rapid Transit (BRT);

**TOD Concept:** Priority for non-motorized modes and transit vehicles in circulation plans will reduce congestion by making non-motorized modes and transit appealing to more drivers.
Use *Chapter 7: Design Specifications* to incorporate the above transit facilities examples of land use improvements that aid in transit operation. Planning projects that reduce the need to drive everywhere for every trip would make the benefits of taking transit transparent to everyone.

**Specific Plans, Master Plans and Corridor Plans**

Specific plans, master plans and corridor plans are more detailed than general plans. These documents implement general plan policies on a project – or area–specific basis. Development proposals should be evaluated for consistency with the General Plan before the proposal undergoes the public review process. This broad perspective is necessary if area and specific plans are to be interconnected and complementary to the surrounding community and to the region at large. This is a particularly appropriate level of planning at which to create a pedestrian- and transit-based environment. *Designing for Transit* provides guidance on the specific transit facilities needed for the project plan.

**Partnerships: Public / Private**

Local governments and private sector businesses can form partnerships, often referred to as joint ventures, to guide development to be pedestrian and transit-friendly. An example of a successful joint venture project that benefits the local economy and communities of Monterey County is MST’s Carmel Valley Grapevine Express. This project was born out of team efforts among the local economic “Competitive Cluster” groups, the Monterey County Office of Economic Development, the Monterey County Business Council, and MST. After recognizing the market for access to vineyards along Carmel Valley Road, MST adjusted an existing route to provide stops on an hourly basis convenient to several downtown hotels.

_TOD Concept:_ Community development public and private partnerships are mutually beneficial to businesses and MST – and, of course, the community too.
After coordinating with the local tasting-room establishments, the MST Grapevine Express was able to provide a service that not only caters to the tourism industry but also keeps the road safe from impaired drivers. As a result of the success of the two-month pilot project, partially funded by the Monterey County Business Council, permanent federal money was secured due to the demand for the service. Projects such as the Grapevine Express provide mobility choices that also serve to reduce congestion, make the roads safer, and support the local businesses. There are many more project opportunities through joint planning projects near transit facilities.

**Partnerships: Public / Public**

Multi-jurisdictional projects among local government agencies typically score well on grant applications for funding. Projects that incorporate multiple transportation modes serve broad communities, promoting walking, biking and taking the bus. For example, high schools, colleges and universities can attract more students by offering affordable student bus fare programs. Students are frequent users of public transportation with little personal income of their own to spend on transportation. MST seeks to work closely with the campus coordinators at Hartnell College, Monterey Peninsula College, California State University Monterey Bay (CSUMB), and others. For example, MST is actively working with CSUMB to improve access to the campus in order to increase enrollment. By helping MST identify student transportation needs, institutes of higher education can help MST help students lessen the financial burden of daily transportation costs.

**Possible Funding Sources for TOD**

Transit planning should be included in the financial plan for community infrastructure needs, similar to water, school, utility and sewer facilities. Support for transit facilities is critical in the design and development process. The cost to design and build for transit can vary considerably so funding sources should be identified well in advance.

The following agencies provide funding for transportation projects and / or plans:

- The Transportation Agency for Monterey County (TAMC)
  - Transportation for Livable Communities (TLC) grant
  - Regional Surface Transportation Program (RSTP) grant
- The Association of Monterey Bay Area Governments (AMBAG)
• Monterey Bay Unified Air Pollution Control District (MBUAPCD)
• Local jurisdictions and Monterey County
• California Department of Transportation (Caltrans)
• Federal Transit Administration (FTA) and the Federal Highway Administration (FHA)

The TAMC TLC grant is awarded to projects that meet TAMC’s TOD specifications, described in more detail in Appendix 2 (page 58). Long-term sources of funding for TOD involve new agreements between public agencies, private sector groups, lending institutions, and community members.

The following funding mechanisms are additional ways to obtain funds for TOD in California and other areas of the USA.

• **Benefit assessment districts** – the creation of a special district in which fees are levied and devoted to a particular benefit, i.e., capital improvements, transit services, etc.

• **Development agreements** – agreements between developers and local governments as part of the approval for a particular project.

• **Air quality and traffic congestion mitigation fees** – fees that are assessed to help mitigate the impacts of air quality and traffic.

• **Congestion Impact Fees** – fees, also called development fees, levied on the developer of a project by a city, county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce.

• **Location Efficient Mortgage (LEM)** – mortgage payment assistance for people buying homes in TOD locations.

• **“Parking Benefit Districts”** – districts determined to have a shortage of parking gain revenue to pay to improve sidewalks, pavement conditions, transit services, and other needs of the district area by pricing the limited supply of parking at a rate that maintains a 15 percent turnover.

### Local Government TOD Practices

Local decision makers are positioned to approve TOD practices that support efforts to balance the transportation network system with multi-modal choices. Of primary concern is how to shift drivers of single-occupancy vehicles (SOVs) to alternative modes, namely transit. The major advantage of the shift would be more efficient use of road space and reduced parking demands. Parking lots may reach capacity constraints yet, during non-business hours of the day, become stark and empty and, in some cases, invite crime.

---

Charging fair market prices for curb parking will bring parking [costs] into the economy, like housing, food, gasoline and just about everything else we buy. Most markets depend on prices to allocate resources, so much so that it’s hard to imagine they could operate in any other way. Nevertheless, cities have tried to manage parking almost entirely without prices.

— Donald Shoup, author of *The High Cost of Parking*

Off-street parking requirements encourage us to drive wherever we go because we know we can usually park free when we get there. Eighty-seven percent of all trips in the U.S. are now made by car, and only 1.5 percent by public transit.

— Donald Shoup, author of *The High Cost of Parking*
There is a wide range of strategies that can help reduce the need for large parking lots and instead support the mixed-use residential and commercial vision of “livable communities” described earlier. The local government strategies focus on regulatory and city planning design measures in parking management, street design, and developing a pedestrian and bicycle network. The most effective programs, however, offer commuters meaningful financial incentives to use alternative transportation modes. Chapter 3: The Land Use Role of the Private Sector, provides a list of TOD financial incentives that, if practiced by government officials, will help foster multi-modal transportation choices.

**Local Government Parking Management**

- Implement parking fees.
- Reduce minimum parking requirements and establish city-wide parking caps.
- Discourage large surface parking lots and encourage structured parking, underground parking and on-street parking.
- Attract commuters to Park & Ride lots at strategic locations to control congestion on local streets.
- Encourage shared-parking for complimentary uses whose customers will alternate throughout the day, such as a library and a movie theatre.
- Where parking structures are part of the project, the structure should include ground floor uses such as retail, services, and small offices.
- In new projects, locate any surface parking to the rear of buildings and place the buildings next to the sidewalk as much as possible.
- Where retail developers must have parking in front, provide a minimum number of stalls in front, but make the pedestrian connection between the transit stops and the building entrance as direct as possible.
- When retail developments undergo renovation, require pedestrian-friendly upgrades along the street and the creation of pedestrian connections if parking lots present barriers to the building from the sidewalk.

**Street Network**

- Develop an interconnected street network around grid blocks that are 200-400 feet long. This provides more route options for cars, alleviates congestion, decreases distances for pedestrian patterns, and facilitates narrower streets.
- Within the area around downtown transit centers, design streets to be multi-modal; consider priority for pedestrians, bicycles, and neighborhood buses/shuttles.

**TOD Concept:** Balanced parking supply / demand reduces construction costs and enhances access to buildings by non-motorized modes.
• Provide adequate street-calming measures to decrease auto-speeds on key pedestrian routes to transit.
• Discourage cul-de-sac street networks; dead-end streets limit navigation options for residents, limit transit accessibility, and force traffic congestion at key intersections.
• Create highly demarcated, signalized pedestrian crossings with "turtles" or differing materials at crosswalks at street corners and mid-block as needed.

Pedestrian and Bicycle System
• Integrating a pedestrian system that makes walking an efficient, comfortable and safe way of getting around. Identify and encourage the use of existing connections to trail systems and other pedestrian corridors within the community.
• Providing the required Americans with Disabilities Act (ADA) clearance of 8-ft. by 5-ft. on sidewalks to accommodate the boarding and exiting of wheelchair transit riders
• Provide wide enough sidewalks along "Main Streets" to allow outdoor seating for eateries, coffee shops, etc.
• Putting sidewalks on both sides of every neighborhood and arterial street.
• Using planting strips, street trees, public art and on-street parking to create a buffer between cars and pedestrians but maintain an obstacle-free pedestrian path.
• Providing adequate signage and way-finding elements to orient pedestrians and bicyclists.
• Including bike facilities and storage lockers at the station, as well as bike racks throughout the project.

Delivering more travel options and strategies that help families and regions save on energy costs will rely on state and local officials making wiser use of the more flexible federal transportation dollars. It is noteworthy that the average state is already losing more revenue each year to higher gas prices than the new federal transportation bill will provide.

– Driven to Spend

**TOD Concept:** Pedestrian-friendly building and street design make access to transit facilities more convenient.
<table>
<thead>
<tr>
<th>Transit-Oriented Development Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Convenient pedestrian and bicycle access to transit facilities</td>
</tr>
<tr>
<td>- Mixed residential and commercial land uses near transit facilities</td>
</tr>
<tr>
<td>- Pedestrian-friendly building and street design</td>
</tr>
<tr>
<td>- Balanced parking supply/demand</td>
</tr>
<tr>
<td>- Priority for non-motorized modes and transit vehicles in circulation plans</td>
</tr>
<tr>
<td>- New opportunities for compact housing, retail development, and community designs</td>
</tr>
<tr>
<td>- Advanced mass transit services and facilities</td>
</tr>
<tr>
<td>- Community development public and private partnerships</td>
</tr>
</tbody>
</table>
III. Land Use Roles of the Private Sector

Business practices impact our “Built Environment” and the ability of public transportation operators to provide quality service. Private sector businesses and developments result in impacts to road conditions, pavement quality, road congestion, and air quality. For any new project undertaking, mitigation measures and sometimes mitigation fees may be required as part of an environmental document.

For early mitigation against negative impacts to the environment, developers are encouraged to review in advance guidelines such as the California Environmental Quality Act (CEQA) Air Quality Guidelines, published and updated frequently by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). The MBUAPCD guideline for 2005 provides two types of mitigation measures for commercial, industrial, and institutional projects: “Employer-Based Measures” and “Facility Improvement Measures.”

Private Sector Transportation Choices Incentives

Businesses play a major role in affecting transportation choices. Below are examples of how businesses can help MST improve public transportation services (and thereby achieve an overall balanced transportation network) in Monterey County.

Direct Charges for Parking

The cost to create a parking lot is usually transferred to the users of the buildings fronting the parking lot. For example, a store will increase the cost of their merchandise in order to off-set the cost of the parking. Also, an employer will determine salaries and wages based in part on the cost to provide employee parking. Charging employees directly for parking allows them to see the “true” cost of driving, and gives them the option to forgo that cost by finding an alternative way to get to work. Upon realizing the true cost of parking, parking spaces will free up in existing parking lots and building owners can avoid costly expansions of their parking facilities.

Preferentially Located Carpool and Carshare Parking

Carpools provide many benefits if more than two or three co-workers or neighbors can coordinate their schedules to commute together. By providing preferential carpool parking places, employers help save parking spaces and carpool members save on fuel costs.
Emergency Guaranteed Ride Home

The Emergency Guaranteed Ride Home (EGRH) program provides an assurance policy to commuters who regularly carpool, walk, bike or take transit to / from work. EGRH participants are qualified to receive reimbursement up to $60 per month towards an emergency taxi or rental car ride home. To be eligible for this service, employees must register with AMBAG’s Commute Alternatives program and commute to work some way other than driving alone at least one day per week. Providing this incentive for employees is an effective strategy to promote alternative transportation modes as well as reducing congestion, promoting health, preserving the environment, and complementing TOD.

Bicycle Facilities

Employees wishing to make the switch from driving to biking require support facilities. Such facilities include bicycle storage (lockers and racks), showers and clothing lockers. These bicycle facilities should be included in plans for new or expanding employment sites.

Parking Cash-Out

Many worksites in Monterey County experience parking shortages, yet there is rarely a charge to use the parking facility. Only commuters who bring their cars to work can take advantage of this benefit. Cash-out programs offer employees the option of foregoing a free parking space in favor of cash payment. For employees, the cash-out programs can serve two purposes: 1) to be more equitable to commuters who already arrive at work by alternative mode and 2) to financially encourage more commuters to choose an alternative mode.

Carshare Programs

National and international carshare programs provide temporary use of cars by the hour or day from strategically located drop-off and pick-up locations scattered through the area. These programs typically pay for gas, parking, insurance, and maintenance for a reasonable annual or monthly membership fee. Car sharing is ideal for people who need to make short trips occasionally by car, but otherwise rely on other modes, such as transit.
Model Program:

Residential Eco Pass Program
of the Valley Transportation Authority (VTA) in Santa Clara Valley

First Community Housing (FCH) is a non-profit affordable housing developer that strategically locates its developments near public transit. FCH is the largest purchaser of Eco Passes and the first to offer free annual Eco Passes to residents to encourage a reduction in dependence upon private vehicles. Access to free transportation leaves more discretionary income available for tenants and decreases parking needs at our developments.

FCH's Eco Pass Program Influences Car Ownership

A recent survey conducted by PMZ³ Research to study the effectiveness of FCH’s Eco Pass Program has shown that Eco Pass usage has reduced car ownership at senior developments and family developments. Seventy-two percent of senior respondents and 14 percent of family property respondents indicated their use of the Eco Pass Program. Of the seniors, 33 percent reported that they use it four or more times a week. Families reported a decrease in the number of cars they use.

Additionally, 47 percent of the senior citizens said that they use the pass three or more times a week demonstrating this is for many, their primary mode of transportation. FCH has found through experience that with Eco Passes, a ratio of .55 – .65 parking spaces per unit is adequate for Senior developments and .85 – .90 parking spaces per unit is adequate for family developments outside of a downtown, transit intensive area. In addition, FCH gives preference to tenants who do not own vehicles.

First Community Housing

- Adjacent to transit and shopping: free mass transit passes for all residents
- Low-flow water fixtures
- Double-glazed windows and sliding doors
- "Cool Roof" (white finish topping on built-up roof)
- All fluorescent light fixtures
- Natural linoleum and recycled content carpet
- Engineered structural lumber
- Recycled-content metal siding and balcony slats
- Sustainably harvested maple beds
- Sustainably harvested teak courtyard furniture
- Wheat composed office furniture
- 99% recyclable office chairs
- No VOC and formaldehyde-free cabinets with water-based varnish
- Formaldehyde-free counter substrates
- Formaldehyde-free batt insulation
- Low VOC paint

For more information about FCH, contact

Jeff Oberdorfer, AIA, LEED AP
Executive Director
First Community Housing
2 North Second Street, Suite 1250
San Jose, CA  95113
408-291-8650
www.firsthousing.org
Site Planning and Building Design

In addition to providing financial incentives for TOD, the private sector can improve transit access through conscientious building design and site planning. In fact, accessibility to transit facilities and bicycle storage provide “Green Building” credits on the checklist for Leaders in Environmental and Engineering Design (LEED) of the United States Green Building Council. LEED principles are available at www.usgbc.org.

Architectural and urban design details affect the street experience; buildings bordering the sidewalks provide a much more welcoming and interesting atmosphere than a sea of parking lots on street corners. Private development can influence TOD through site planning processes. Site planning processes cover issues of land use, placement and orientation of buildings, open space, parking, and the arrangement of pedestrian and vehicular access to and from a site or building. The degree to which private development can contribute to promoting “livable communities” depends on how well transportation choices, namely pedestrian access to transit facilities, is incorporated into the site planning process.
Site Design and Building Orientation

- For most of the building’s façade, reduce or eliminate building setbacks so they front the streets and public spaces, with windows and doors at street level rather than expansive blank walls.

- Where buildings are adjacent to the transit stops, incorporate weather protection such as awnings and canopies to shelter shoppers and waiting transit riders.

- Incorporate less desirable elements such as dumpsters, loading docks, service entrances, and outdoor storage in a way that is hidden from public view.

- Use thoughtful design that considers security and public safety. Principles of STED, or “Security Through Environmental Design” are particularly pertinent to TOD projects.

Streetscape

- Create human-scaled, pedestrian-friendly, streets that are bordered by ground floor retail and services.

- Use trees, street lamps, benches, planters, statues, and sculptures to create "outdoor rooms" along the streets. People are more likely to walk in pleasant and lively corridors.

- Define a “buffer zone” of street furniture between the curb and the pedestrian way.

- Provide pedestrian-scaled lighting near transit stops.

- Create a “way finding” system of environmental graphics and other visual cues to identify streets where transit routes are located.
- Design the area of the street where transit stops occur to be transit rider friendly – wider sidewalks, no boarding obstructions, and away from driveways.

**Community Spaces**

- Establish open space (parks, greenbelts) and public spaces (plazas, courts) near the transit centers.
- Encourage 24-hour residential or commercial uses on all edges of open and public spaces to maintain visibility and safety.
- Use these sites as community centers that can showcase the local culture and create a focal point for public art, festivals and gatherings, farmers' markets, etc.

*Pedestrian-friendly streetscape in City of Carmel-By-The-Sea*
IV. The Role of Monterey-Salinas Transit

MST plays a key role in the shaping of Monterey County. As described earlier, MST’s vision for Monterey County is one of “livable communities,” which emphasize pedestrian-friendly development. MST has ongoing projects to improve transit service in Monterey County. These projects are described and updated biannually in the Short Range Transit Plan (SRTP) and Business Plan which is available on the MST website (www.mst.org). In addition to seeking partnerships with local public and private agencies, MST actively plans how better to increase the transit market by improving products and services, maintaining bus stop standards, providing enhanced transit facilities, and planning for improved bus operating technologies such as Transit Signal Priority (TSP) and Bus Rapid Transit (BRT).

Transit Planning

At MST, one measure of success is an increased number of riders we transport. We analyze the “ridership production” by route and the connectivity of the overall system. Some riders are dependent on our services if they have age, income and physical disability driving restrictions. Others, however, are “choice riders;” they will take transit if it suits their schedule and lifestyle. Therefore, MST is focusing on opportunities to reduce costs and improve overall operating efficiencies. Our goal is to not only maintain services for transit-dependent customers but also attract new riders.

MST keeps track of performance indicators (operating costs, capital costs, and the number of satisfied passengers) to determine how to reduce costs and improve performance. We use a systematic approach to track milestones and monitor results. Performance measures include the following:

- The total fuel and labor cost to transport each passenger per mile and per hour
- The number of passengers per vehicle during the vehicle hours of operation
- The farebox revenue return of passengers as a percent of the total cost to transport each passenger (farebox-recovery ratio)
- The number of passengers transported per mile of operation
- The number of passengers transported per hour of operation
- The farebox-recovery ratio per mile of operation
- The farebox-recovery ratio per hour of operation
- Vehicle efficiency (miles between breakdowns)
Operating efficiency (accidents / 100,000 miles)

Customer compliments / 100,000 passengers

Customer complaints / 100,000 passengers

Few if any public transportation agencies make a monetary profit. Like road construction projects, public transportation is heavily subsidized. However, reduced operating costs have been achieved through implementation of TOD and advanced transit operation infrastructure and investments. Bus Rapid Transit (BRT) investments in cities across the world, such as Brisbane, Australia, is an example of how TOD has resulted in reduced costs for riders and a growing ridership.

With increasing numbers of older and disabled individuals dependent on public transportation, there will likely be greater demand for services in the near future. If current auto-oriented development trends continue without the necessary pedestrian and transit improvements needed, transit services will need to be even more heavily subsidized, or eliminated, leaving transit-dependents stranded. The higher subsidy translates to a higher cost paid by every community member paid in higher taxes and a higher bus fare. The need to offset the transit costs which compensate for auto-oriented development is essentially a misuse of public funds. “Choice riders” will balk at the higher fare and insufficient services and not use public transportation. The transportation network will still not provide sufficient multi-modal choices.

Therefore, the most efficient use of funding sources would be to implement land uses that reduce the need for subsidized transit funding. TOD benefits transit users and all other road users, including pedestrians and bicyclists.

Time, comfort, flexibility, and the sense of safety are other important considerations that are weighed by consumers choosing between one mode and another. Designing for Transit provides strategies for how public and private sector companies can impact land uses to improve the consumer’s experience of public transportation. At MST, we emphasize the need for improved public transportation as a viable choice for all people, not just for those who rely on MST because they are too old or too young to drive or they are unable to drive due to economic or physical disability reasons. To make public transportation a viable choice, the public sector can help by providing transportation choice incentives, described in Chapter 3.
Transit-Compatible Built Environments

The term “built environment” refers to human-constructed infrastructure and facilities. Street grids and land uses (dictated by zoning codes) often impact the design of transit ways. On the other hand, transit ways can guide future changes and spur economic development if designed using TOD concepts. **Transit ways depend on the built environment providing access to/from areas of popular demand.**

**MST Encourages Compatible TOD Land Uses**

- Mixed commercial, employment, and residential zones with high numbers of pedestrians
- School zones (25 mph)
- Compact and mid- to high-density residential areas (>18 units/acre)
- Corner developments with high pedestrian activities near bus stops

**MST Discourages Incompatible TOD Land Uses**

- Corner development with high vehicular activity such as drive-through food facilities and gas stations
- Low-density developments (< 17 units / acre)
- Cul-de-sacs with inconvenient bus stops
Transit Services and Facilities

Transit riders access service within Monterey County at any of the bus stops located throughout the County. Not only does the bus stop convey the sense of importance and security for bus patrons, it also projects an image of transit service to non-bus riders. Ultimately, bus stops are one of the primary marketing mechanisms for transit systems. Passenger amenities, both at transit stops and on vehicles, play an integral role in building transit ridership. To attract more bus riders, the bus stop environment must be accessible and attractive. Further, the locations of bus stops should balance operational requirements as well as passenger access needs. Passenger comfort and convenience are essential to the success of a transit stop.

MST Group Discount Program

The MST Group Discount Program provides monthly transit passes at reduced costs. Based on the number of passes one organization orders, participants can enjoy substantially reduced costs – making riding the bus an outstanding benefit. Group discount rates are available on the MST website (www.mst.org).

Commuter Check Program

Passengers who use special transit vouchers to pay for their monthly passes can save up to $500 per year in federal taxes if their employer enrolls in an independently administrated program called "Commuter Checks." The savings vary according to the amount of taxes taken out of the user’s paycheck. Participants receive the vouchers with their paycheck and then take the vouchers to a ticket outlet to buy their monthly tickets and passes. (Customers cannot redeem the Commuter Check vouchers on-board the transit vehicle.) Participating vendors are transit ticket outlets, including some grocery stores, the MST administrative offices, and the customer service window at MST’s Salinas Transit Center. To sign up, a customer must notify their employer of the Commuter Check program and then have their employer contact the Commuter Check organization directly.

Customer Outreach

MST provides customer outreach for annual and special events. Typical customer service outreach is held at college and university events, job fairs, special events for seniors, safety awareness events, and the annual special events: KidsFest, Sustainable Living Expo, and college fairs. To find out more
Example from the Metropolitan Transit System in the City of San Diego. Used with permission.

MST’s Trip Planning page is currently under construction.
Intelligent Transportation Systems

The transit environment can be improved by implementing intelligent transportation systems. ITS, or Intelligent Transportation Systems, refers to technologies that are designed to move transit more effectively, improve the operations of transportation systems and convey information to the traveling public.

Examples of ITS include real-time bus arrival information and traffic intersections with transit priority signals and queue jump.

Installation of ITS features would provide the following benefits:

- Improved marketing of transit.
- Improved access to information for existing and potential customers.
- Increased relative attractiveness of transit to choice riders.
- Potential for more up-to-date, accurate, and complete information. Information could be updated using advanced vehicle location technology as well as through centralized distribution of information.

Real-Time Schedule Information

A constant challenge to taking the bus is feeling confident that the bus will arrive according to the published bus schedule. Road construction and traffic jams can cause delays, and the bus will arrive behind schedule. Real-time information is extremely valuable to transit riders and will give more people the confidence to take transit to work and school. Such information requires the deployment of an automatic vehicle location (AVL) system to track bus locations. All MST buses are equipped with AVL. The AVL data can be converted into bus arrival times, which can then be displayed at bus stops, on kiosks, or transmitted over information networks.

Studies have shown that perceived waiting time for transit is twice as long as actual waiting time. Real-time arrival information has the ability to reduce this factor significantly. Real-time “next bus” displays are appropriate for high ridership and high transfer locations, transit centers and park-and-ride lots.

In the example pictured, the real-time bus information is powered by a solar panel at the bus stop.
Transit Signal Priority

To effectively compete with single occupant vehicle options, transit services need to maintain a predictable schedule and perform at an overall operating speed that compares favorably with general traffic. Extended travel times and schedule delays can become a deterrent for attracting new riders to transit as well as discourage some existing riders away from transit. With regard to supporting speed and reliability goals for transit service, Transit Signal Priority (TSP) can provide a relatively low-cost capital improvement option in some service corridors. The goal of TSP is to provide transit vehicles with an advantage when crossing traffic signal controlled intersections. It achieves this by providing a system that detects transit vehicles in traffic (by receiving a “call” from the vehicle) and communicates with traffic signals to conditionally provide more green light time for these vehicles.

Other ITS improvements

Other ITS elements include enhanced communication systems and electronic fare payment systems. With computerized tracking of buses, the MST operations personnel know exactly where each bus is located at a given time, including situations when a driver may be unable to use the radio. MST also uses automated voice announcements, which ensure the delivery of ADA-required announcements of all major stops along a route. The use of electronic fare boxes reduce delay caused by previous fare collection procedures and are more convenient for customer use as well. Future ITS improvements for MST include off-board electronic fare machines, automatic counting of passengers, wireless internet connections on buses, and online trip planning assistance for customers on the MST website (www.mst.org).
Planning for Bus Rapid Transit

MST and local governments are working together to assess the feasibility of Bus Rapid Transit (BRT) in the Monterey Bay Region. An innovation in transit service, BRT offers both the virtues of rail transit and the flexibility of buses. New technologies and vehicle design can give BRT systems the same type of look, experience and performance as rail systems for a far lower cost of construction. BRT systems combine signal and roadway design priority treatments for transit. BRT vehicles can operate on dedicated rights-of-way (structures or bus-only lanes), HOV lanes, or ordinary streets, and move in and out of these facilities as needed.

BRT systems can be designed to suit community needs; there is no "cookie cutter" formula. However, examples from other cities show the most benefits from the incorporation of the following elements:

- Exclusive rights-of-way or transit priority treatments such as queue-jump, bus by-pass lanes on highways, signal prioritization, and signal timing;
- Uniquely designed and prominently located stops with curbside and pedestrian-oriented amenities;
- Long distances between stations;
- Off-vehicle fare payment technology to speed boarding; and
- Real-time customer information technology.

For long BRT corridors or corridors that serve several jurisdictions, a "Corridor Planning" approach is recommended so that the corridor and its adjacent land uses are viewed as an integrated special planning district. Cities considering BRT for the future should consult with MST early on in the planning stages to identify BRT-supportive policies and funding efforts opportunities.
## V. TOD Checklist for New Projects

**Transit-Oriented Development Concepts**

### Convenient pedestrian and bicycle access to transit facilities

<table>
<thead>
<tr>
<th>Question</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the bus stops accessible to persons with disabilities? (Required 5’ x 8’ clearance area for wheelchair users.) Is there a wheelchair ramp to access the street at crosswalks or mid-blocks?</td>
<td>Chapter II</td>
</tr>
<tr>
<td>Are these stops accessible by sidewalk or pedestrian paths?</td>
<td>Chapter II</td>
</tr>
<tr>
<td>Has space been provided for bus stop shelters and/or benches?</td>
<td>Pages 38</td>
</tr>
<tr>
<td>Is there sufficient lighting?</td>
<td>Chapter II</td>
</tr>
</tbody>
</table>

### Mixed residential and commercial land uses near transit facilities

<table>
<thead>
<tr>
<th>Question</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a mix of residential and commercial land uses near transit?</td>
<td>Chapter II</td>
</tr>
<tr>
<td>Is parking at a minimum and are mixed land uses at a maximum near the transit service facility?</td>
<td>Chapter II</td>
</tr>
</tbody>
</table>

### Pedestrian-friendly building and street design

<table>
<thead>
<tr>
<th>Question</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the buildings front the streets, sidewalks, and public spaces?</td>
<td>Chapter II</td>
</tr>
<tr>
<td>Does the building provide pleasant walking facilities and connect to a pedestrian system?</td>
<td>Chapter II</td>
</tr>
</tbody>
</table>

### Balanced parking supply/demand

<table>
<thead>
<tr>
<th>Question</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the development provide preferred parking for wheelchair users, carpoolers, and service vehicles?</td>
<td>Chapter II</td>
</tr>
<tr>
<td>If there is surface parking, is it located in the rear of buildings?</td>
<td>Chapter III</td>
</tr>
<tr>
<td>Does the development consider the use of garage parking to avoid large surface parking lots?</td>
<td>Chapter II</td>
</tr>
<tr>
<td>Does the project encourage shared-parking for complementary uses?</td>
<td>Chapter II</td>
</tr>
</tbody>
</table>

### Priority for non-motorized modes and transit vehicles in circulation plans

<table>
<thead>
<tr>
<th>Question</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the streets designed to connect the development to adjacent areas via more than one road and to carry multiple modes of transportation?</td>
<td>Chapter II</td>
</tr>
<tr>
<td>Is there adequate signage and way-finding for the development?</td>
<td>Chapter II</td>
</tr>
<tr>
<td>Are bicycle parking and access facilities provided with the building project?</td>
<td>Chapter III</td>
</tr>
<tr>
<td>Are transit facilities located near the entrances to buildings and project facilities?</td>
<td>Chapter II</td>
</tr>
</tbody>
</table>

### New opportunities for compact housing, retail development and design

<table>
<thead>
<tr>
<th>Question</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the project seek out ways to provide short walking distances between housing, shopping and transit facilities?</td>
<td>Chapter III</td>
</tr>
<tr>
<td>Are trees, street lamps, benches, planters, statues, and sculptures used to enhance the street and make it more pedestrian-friendly?</td>
<td>Chapter III</td>
</tr>
<tr>
<td>Does the development hide less desirable elements, i.e. dumpsters, loading docks, service entrances, etc. from public view?</td>
<td>Chapter III</td>
</tr>
<tr>
<td>Is there pedestrian-scaled lighting at the nearest transit stops?</td>
<td>Chapter III</td>
</tr>
</tbody>
</table>

### Advanced mass transit services and facilities

<table>
<thead>
<tr>
<th>Question</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>If existing transit services are not accessible, could transit access be made available to the project site with the rerouting of an existing transit line?</td>
<td>Consult MST</td>
</tr>
<tr>
<td>Are the road dimensions adequate to accommodate transit vehicles?</td>
<td>Pages 36, 45, 44</td>
</tr>
<tr>
<td>Does the bus stop layout environment meet MST standards?</td>
<td>Page 41</td>
</tr>
</tbody>
</table>

### Community development public and private partnerships

<table>
<thead>
<tr>
<th>Question</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the project development process involve MST staff at the early design stages?</td>
<td>Consult MST</td>
</tr>
<tr>
<td>Are there opportunities for partnerships and additional funding?</td>
<td>Chapter II</td>
</tr>
</tbody>
</table>
Transit-Oriented Development Concepts

- Convenient pedestrian and bicycle access to transit facilities
- Mixed residential and commercial land uses near transit facilities
- Pedestrian-friendly building and street design
- Balanced parking supply/demand
- Priority for non-motorized modes and transit vehicles in circulation plans
- New opportunities for compact housing, retail development, and community designs
- Advanced mass transit services and facilities
- Community development public and private partnerships
### Transit-Oriented Development Concepts

- Convenient pedestrian and bicycle access to transit facilities
- Mixed residential and commercial land uses near transit facilities
- Pedestrian-friendly building and street design
- Balanced parking supply/demand
- Priority for non-motorized modes and transit vehicles in circulation plans
- New opportunities for compact housing, retail development, and community designs
- Advanced mass transit services and facilities
- Community development public and private partnerships
“Designing for Transit” means creating suitable facilities in which buses can operate and passengers can wait. In most cases, these facilities are the streets and sidewalks controlled by the jurisdictions in which they are located. These streets and sidewalks utilize a wide range of standards. The pages that follow explain the ranges needed to allow bus transit to function properly.

Those in the private sector proposing new development should be familiar with these standards to assure that their projects will accommodate buses. Likewise, public agency staff must understand bus transit needs in order to properly review the development proposals submitted to them. Agency staff can also utilize these standards when designing street and sidewalk improvements in older neighborhoods.

The design of our communities should recognize possibilities that may exist several years in the future. Thus, even when a proposed project is not served by buses at the present time, designing for buses is still desirable. This will allow future extensions of service to be accommodated economically.

Many of the “standards” provided here are simple guidelines that can be flexibly interpreted in certain situations. It is important for those contemplating new development to contact MST as early as possible in the planning process. Incorporation of transit-friendly designs from the start will be less expensive than adding them later.

Although this building does not front the corner sidewalks, the property owner improved access from the sidewalk by adding a pedestrian path.

This bus stop provides the necessary clearance for wheelchair users and the (non-obstructive) landscaping makes the bus stop pleasant.
## Typical Bus Vehicle Dimensions, Weights, and Capacities

<table>
<thead>
<tr>
<th></th>
<th>30' Coach</th>
<th>35' Coach</th>
<th>40' Coach (low floor)</th>
<th>40' Coach (Suburban)</th>
<th>60' Articulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVERALL LENGTH (with bicycle rack)</td>
<td>32'8&quot;</td>
<td>36'6&quot;</td>
<td>41'8&quot;</td>
<td>41'8&quot;</td>
<td>62'</td>
</tr>
<tr>
<td>WIDTH (with mirrors)</td>
<td>10'7&quot;</td>
<td>10'7&quot;</td>
<td>10'7&quot;</td>
<td>10'7&quot;</td>
<td>10'6&quot;</td>
</tr>
<tr>
<td>OVERALL HEIGHT (with radio antenna)</td>
<td>10'5&quot;</td>
<td>10'5&quot;</td>
<td>10'5&quot;</td>
<td>10'5&quot;</td>
<td>11'9&quot;</td>
</tr>
<tr>
<td>WHEELBASE LENGTH</td>
<td>14'2&quot;</td>
<td>18'4&quot;</td>
<td>23'8&quot;</td>
<td>23'8&quot;</td>
<td>19'11&quot;+23'3&quot;</td>
</tr>
<tr>
<td>FRONT OVERHANG</td>
<td>4'9&quot;</td>
<td>6'1&quot;</td>
<td>5'9&quot;</td>
<td>6'4&quot;</td>
<td>7'4&quot;</td>
</tr>
<tr>
<td>REAR OVERHANG</td>
<td>7'5&quot;</td>
<td>7'0&quot;</td>
<td>7'8&quot;'</td>
<td>8'0&quot;</td>
<td>10'3&quot;</td>
</tr>
<tr>
<td>FRONT BUMPER (Distance to ground)</td>
<td>1'6&quot;</td>
<td>11&quot;</td>
<td>1'1&quot;</td>
<td>1'2&quot;</td>
<td>14'4&quot;</td>
</tr>
<tr>
<td>REAR BUMPER (Distance to ground)</td>
<td>1'4&quot;</td>
<td>1'6&quot;</td>
<td>1'6&quot;</td>
<td>1'8&quot;</td>
<td>19'5&quot;</td>
</tr>
<tr>
<td>FIRST STEP (Distance to ground)</td>
<td>1'3&quot;</td>
<td>1'3&quot;</td>
<td>1'3&quot;</td>
<td>1'2&quot;</td>
<td>1'3&quot;</td>
</tr>
<tr>
<td>UNDERBODY (Distance to ground)</td>
<td>1' 1/2&quot;</td>
<td>1' 1/2&quot;</td>
<td>1' 1/2&quot;</td>
<td>1'2&quot;</td>
<td>10'4&quot;</td>
</tr>
<tr>
<td>CENTERLINE (Front door to rear door)</td>
<td>13'5&quot;</td>
<td>17'3&quot;</td>
<td>20'1&quot;</td>
<td>22'5&quot;</td>
<td>39&quot;</td>
</tr>
<tr>
<td>GROSS VEHICLE WEIGHT (lbs)</td>
<td>34,850</td>
<td>39,400</td>
<td>39,600</td>
<td>39,400</td>
<td>69,320</td>
</tr>
<tr>
<td>Front Axle Capacity</td>
<td>11,680</td>
<td>14,400</td>
<td>14,600</td>
<td>14,400</td>
<td>15,660</td>
</tr>
<tr>
<td>Rear Axle Capacity</td>
<td>23,170</td>
<td>25,000</td>
<td>25,000</td>
<td>25,000</td>
<td>28,660</td>
</tr>
<tr>
<td>Seating Capacity</td>
<td>32</td>
<td>35</td>
<td>36</td>
<td>39</td>
<td>60 max</td>
</tr>
</tbody>
</table>

### Turning Radius
48’ minimum outside radius (with overhang), 50’ desirable
27’ minimum inside radius, 30’ desirable

### Approach angle
9 degrees

### Departure angle
9 degrees

### Turn radius (outside)
44’
## Summary of Bus Stop Features

<table>
<thead>
<tr>
<th>Requirements</th>
<th>MST</th>
<th>ADA</th>
<th>BRT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign and Pole</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Roadway</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Route Designations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum Red Curbs / No Parking (see pages 41&amp; 37)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8’ x 5’ Wheelchair Clearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheelchair Sidewalk Ramp</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seating (when # of passengers exceeds 10 per day)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shelter (when # of passengers exceeds 25 per day)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Recommended</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12’ Sidewalk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seating (17”–19” above ground; 20–24” depth; 42” height)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger Shelter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timetable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Route Map</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-Time Information Infrastructure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Park-and-Ride Facility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Bus Bays</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managed Parking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trash Receptacle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Map</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscaping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newspaper Stands</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

Bus Rapid Transit (BRT) station features should complement BRT operational requirements (see pages 28 and 50).
### Sidewalk Width
**Total width at bus stops**
- 10’ minimum
- 15’ preferred—commercial areas

**ADA required Widths (5’ x 8’)**
- 5’ minimum
- 8’ preferred

### Curbside Lane Width
**With no parking**
- 12’ minimum
- 14’ preferred

**With parking**
- 18’ minimum
- 20’ preferred

### Non-Curbside Lane Width
- 11’ minimum*
- 12’ preferred

* Lane widths narrower than 11’ will result in encroachment in adjacent lanes.

**Note:**
Americans with Disabilities Act (ADA) requires 5’ x 8’ wheelchair clearance.
**Bus Stop Environment (Wheelchair Accessible)**

*Note:*

Customized shelters that blend into surrounding environments are encouraged. Please consult with MST.
Bus Passenger Shelter Standards – Advertising and Non-Advertising

Note:
Customized and decorative shelters are strongly encouraged to be designed with the community in mind. Contact MST for more information.
Bus Stop Environment without Shelters for Two-Seat Poles

Pictured: Simme Seat Pole
www.simmeseat.com

Note:
Please contact MST or Simme Seat for more information on two-seat poles.
Intersection Design for Bus Turns (with no encroachment in adjacent lanes)

1. Turn into two lanes with parking
   Radius = 30' desirable

2. Turn into a single lane
   Radius = 50' minimum

3. Turn into two lanes
   Radius = 30' minimum

4. Turn into two lanes from street with parking
   Radius = 30' desirable

Approximate Scale: ½” = 20’

Not to scale

ADA-compliant ramp
Bus Stop Dimensions

Minimum requirements for 40' bus in a 25 mph to 45 mph zone

Far-Side Stop = 100'
Articulated buses require Far Side stops.

Near-Side Stop = 120'

Far Side Stop after bus turn = 150'
Allow 60' from the rear of a bus at the stop to the curbline of the intersecting street as a maneuvering area for turning buses.
Articulated buses require Far Side stops.

Allow an additional 50' for each additional standard size bus expected to use the stop at the same time.

ADA-compliant crosswalks

Scale: ½" =30'

Bus stop sign
Red Painted curb
Bus Turnouts on Neighborhood and Arterial Streets: 40' Bus

1. Far-Side Turnout
   - Total Length: 100' (minimum), 120' (preferred)

2. Mid-Block Turnout
   - Total Length: 150' (minimum), 190' (preferred)

3. Near-Side Turnout
   - Total Length: 120' (minimum), 130' (preferred)

Dimensions of taper assume that buses will decelerate primarily in the approaching travel lane. Add 50' for each additional standard (40') bus expected to use the turnout at the same time. Dimensions of taper assume that buses will accelerate primarily in the departing travel lane.

Traffic Speeds | Turnout
--- | ---
10 - 25 mph | 10' minimum, 12' preferred
25 - 45 mph | 12' minimum, 14' preferred
45 - 55 mph | 14' minimum, 16' preferred
56 mph + | 16' preferred for 55 mph or more

Note:
Bus turnouts are widened sections of roadway designed for buses to pull out of the main traffic stream. While advantageous to general traffic, turnouts make it difficult for buses to re-enter the flow of traffic. They should be used only under special circumstances. Consult with MST staff on a case-by-case basis.
Bus Turnout on Highways: 40’ Bus in 55+ mph Zone (Preferred Dimensions)

Note:
**Bus Turnarounds**

**Case 1**
Jug Handle Case

**Case 2**
Symmetrical Cul-de-Sac

**Case 3**
Asymmetrical Cul-de-Sac

Scale 1/4" = 30'

$x = 25$ radius (maximum)

$i = island preferred
Roundabout Design for Bus Turns

Note: Speed for simulation is 15 mph. Roundabout should accommodate a 60' BRT low-floor bus without use of the truck apron.

Scale ½“ = 20’
Bus Turn Template: 40’ Bus

Note:
Trajectory paths include the path of the bus overhang, front wheels, and rear wheels.
Bus Turn Template: 60' Articulated Bus

Note:
Trajectory paths include the path of the bus overhang, front wheels, and rear wheels.
Pavement Composition for Streets

Case 1
Asphalt Roadway

- Slope 2% (typical)
- Asphallic concrete (minimum 6")*
- Concrete-treated base material*
- Native soil compacted to 95% of modified proctor

Type H Curb **

Scale: \(\frac{1}{2}'' = 2'\)

Case 2
Concrete Roadway

- Slope 2% (typical)
- Portland cement concrete (minimum 8" with dowel bars and tie bars)*
- Concrete-treated base material*
- Native soil compacted to 95% of modified proctor

Type H Curb **

Scale: \(\frac{1}{2}'' = 2'\)

Case 3
Concrete Bus Pad for Curbside Lane at Bus Stop

- Slope 2% (typical)
- Portland cement concrete (minimum 8" with dowel bars and tie bars)*
- Concrete-treated base material*
- Native soil compacted to 95% of modified proctor

Type H Curb **

Scale: \(\frac{1}{2}'' = 2'\)

Note:
* Thickness of layers depends on average daily traffic volume and resistance value of native soil. Pavement design must be conducted using Caltrans or AASHTO design methodologies to determine appropriate layer thickness.

** Type G curb is acceptable on collector streets.
Off-Street Bus Stations

[Diagram showing off-street bus station design specifications with labeled dimensions and accessibility features.]
Bus Rapid Transit (BRT) Transitway Layout Concepts

BRT Separated Transitway (with optional Bike Lane)

![Diagram of BRT Separated Transitway](image)

Note: Traffic Signal Priority (TSP) enhances auto and BRT vehicle movements. See page 28 to learn more.

**Auto / Trucks and Bicyclists BRT Shared Lane Mixed Traffic**

![Diagram of Auto / Trucks and Bicyclists BRT Shared Lane Mixed Traffic](image)

Note: Please contact MST for more information on BRT design plans and operations

Reference / Additional Resources:
Transit Cooperative Research Program (TCRP) Report 90 Volume 1 (Case Studies) and Volume 2
BRT Station Layout Concepts

At-Level Boarding: Curb height matches step into bus

Not to scale
Intersection Improvements for Transit Operations

Transit Signal Priority (TSP) and Queue Jump Lanes are two types of intersection enhancements to keep transit operations on schedule. The result is improved transit service and higher ridership, which would help address congestion problems.

Transit Signal Priority (TSP)

How does it work?

Signal Priority typically results in either an extended green light or a reduced red light (early green). There can also be special phases for transit.

The designated (50%) green signal time for primary street is not changed by priority assignment.

Note: Priority assignment is not the same thing as pre-emption, which is often used by emergency vehicles. Emergency vehicle pre-emption and railroad crossing signals over-ride TSP.

What are the components and who are the players?

1) Bus and Schedule information: Transit Agency Planning Department
2) Automatic Vehicle Location (AVL) and optical emitter equipment: Transit Agency Operations Department
3) Signal operations equipment, optical detector, and priority granting: City, Region and State Traffic Signal Engineers
Queue-Jump Lanes (Q-Jumps)

*How does it work?*

Unlike TSP, Q-Jumps involve a designated traffic light that allows the transit vehicle priority to cross an intersection and “jump ahead” of queued traffic. Activation is programmed to occur by the controller. An example of a good use of queue-jumps is near school facilities, when heavy boardings and traffic congestion occur where school lets out. Delays such as these cause the bus to get off schedule. With queue jumps, transit operations are able to remain on schedule.

*What components do you need?*

Similar to TSP, planning for Q-Jumps requires the coordination of the transit agency planning and operation staff with the city, region, and state engineers and planners. Unlike TSP, Q-Jumps require a separate traffic light and lane (100 feet or sufficient length for up to two standard buses) at the intersection.

*Note:*

The Q-jump lane is located at the approach side of the intersection only.
Appendices
Appendix I: TAMC Transportation-Related Principles for Community Development

TAMC Mission

The Transportation Agency for Monterey County (TAMC) aims to develop and maintain a multi-modal transportation system that enhances the mobility, safety, access, environmental quality, and economic activities in Monterey County.

The purpose of the following set of principles is to reduce future impacts to Monterey County’s regional transportation system, reduce the cost of transportation infrastructure, and improve TAMC’s ability to meet Monterey County’s regional transportation needs. TAMC recommends that new land use development in the county adhere to the following set of principles, which emphasize developing a land use pattern that is supportive of non-single occupant auto modes of transportation so as to maximize the carrying-capacity of Monterey County’s existing regional transportation infrastructure.

1. Land Use

1.a Encourage mixed use developments to accommodate short trips by non-auto modes

1.b Encourage growth in areas where transportation infrastructure exists or is most cost-effective to extend

1.c Encourage a balance of employment and housing to reduce regional commute demands

1.d Encourage higher residential densities in core areas or around transit stops to support regular transit service throughout the region

1.e Encourage land use jurisdictions to utilize the Caltrans Traffic Impact Studies Guide or develop traffic impact study guidelines of their own when analyzing the impacts of growth on the regional transportation system

1.f Require new development to pay for its proportional impact to the transportation system, preferably via regional and local fee programs, or on-street project construction
2. Street Network Design

2.a Provide an interconnected street system for new development to facilitate short trips by non-auto modes of transportation using the following features:
   
   2.a.1 Provide a grid-based street network
   
   2.a.2 Encourage short block lengths in new development
   
   2.a.3 Discourage cul-de-sac streets in new development unless they incorporate pedestrian and bike easements that reduce trip lengths

2.b Incorporate traffic-calming features into the street network to slow the flow of traffic and enhance the pedestrian environment:
   
   2.b.1 Provide curb bulb-outs at intersections to reduce the length of pedestrian crossings
   
   2.b.2 Allow on street parking to slow the flow of cars and create pedestrian/auto buffer
   
   2.b.3 Provide landscaped buffers between pedestrians and motorized traffic and provide pedestrian-scale street lighting no more than 15 feet high

2.c Design streets to accommodate all modes of transportation:
   
   2.c.1 Incorporate sidewalks and bicycle lanes into new street construction
   
   2.c.2 Accommodate safe bicycle travel by providing on-street bicycle lanes and routes instead of separated bicycle paths
   
   2.c.3 Incorporate bus pullouts, transit stops, transit shelters and other transit amenities to serve new development according to the MST Designing for Transit Handbook
3. Site Design

3.a Orient buildings to face the street in new development to improve access for pedestrians from sidewalks

3.b Incorporate residential uses over commercial uses in commercial areas to encourage trips by foot, bike, or transit and improve access by each of these modes

3.b Incorporate reduced building setbacks, especially in commercial areas, to reduce the length of pedestrian trips and facilitate easy access

3.c Locate on-site parking to the rear of structures or underground

3.d Provide pedestrian facilities connecting building entrances with the street where parking is not provided to the rear of structures to enhance pedestrian access and safety

3.e Incorporate bicycle storage facilities into site plans to accommodate access by bicyclists

4. Transportation Demand Management

4.a Encourage telecommuting in non-residential development as a traffic mitigation measure

4.b Encourage flexible work schedules for employees as a traffic mitigation measure

4.c Encourage employers to utilize available rideshare programs or create their own

4.d Encourage employers to offer transit incentives to employees to mitigate traffic impacts

4.e Provide preferential carpool or vanpool parking in non-residential developments

4.e Encourage large employers to offer child care facilities as resources allow and encourage all employers to provide information on nearby child care resources

4.f Locate child care facilities near employment centers
Appendix II:  
TAMC Transit-Oriented Development Incentives Program  
Overview and Guidelines

What is TOD?

_Transit-Oriented Development_, or “TOD,” is characterized by compact, pedestrian- and bicycle-friendly development built within easy walking distance of transit hubs. TOD should include a mix of different land uses that are oriented to the pedestrian realm. This type of development promotes pedestrian activity and enables people to get around without a car. TOD incorporates the livable communities concept: neighborhoods that integrate a range of housing options with jobs, commercial services, and recreational opportunities all proximate to transit services.

Why is TAMC funding TLC?

The population of Monterey County is projected to grow by 30 percent in the next 20 years. The form that growth takes will have a critical impact on how well our transportation system functions and the quality of life in our communities. Developing transit-oriented town centers and neighborhoods will help Monterey County accommodate this growth, while maintaining our rural heritage. Increasing the supply of affordable housing in existing communities close to jobs, services, and transit reduces the demand on regional road and freeway networks and increases transit ridership and transit service to bring Monterey County residents closer to the places they want to be. Therefore, the Transportation Agency for Monterey County (TAMC) has created the Transportation for Livable Communities (TLC) Transit-Oriented Development Incentive Program to encourage land use decisions that support TOD.

What does TLC do?

TLC rewards jurisdictions that approve new housing and other development in urban locations near transit hubs. The goal of the program is to promote walkable, relatively high-density development near transit options, thereby increasing living and transportation choices while reducing reliance on automobiles. This program will capitalize on public investments in transportation infrastructure, help rebuild and revitalize town centers and main streets, promote infill development, create more walkable communities, encourage transit use, and address regional housing needs.

How can a jurisdiction get a TLC grant award?

TAMC collaborated with the Surface Transportation Policy Project (STPP) in San Francisco and local jurisdictions to define the specific set of criteria that determine eligibility for a TLC award.
When funding is available, TAMC will send out a “Call for Projects” with a deadline for applications. An application review panel will analyze the applications using a three-tiered evaluation process that includes: basic eligibility requirements, a point system to rank projects for funding, and a determination of award amounts. The Technical Advisory Committee (TAC) will make a recommendation and the Board of Directors will approve and announce grant awards.

More questions?

For more information, visit the website at www.tamcmonterey.org, or contact TAMC at 831-775-0903 or via email at info@tamcmonterey.org.

Guidelines

Introduction

In an effort to encourage land use decisions that support transit and reduce regional traffic congestion, the Transportation Agency for Monterey County (TAMC) has created the Transportation for Livable Communities (TLC) Transit-Oriented Development Incentive Program, which rewards jurisdictions that approve new housing and mixed-use development in urban locations near transit hubs. The goal of the program is to promote infill development in walkable areas thereby increasing living and transportation choices while reducing reliance on automobiles.

This program awards funds for transportation projects to local jurisdictions that approve building permits for compact housing and mixed-use development near transit. Eligible transportation projects must meet Regional Surface Transportation Program (RSTP) criteria.

Funds may be used to build transportation-related improvement projects that are eligible for the RSTP funds including but not limited to road improvements, traffic calming, transit centers, traffic signal enhancements, bicycle and pedestrian facilities. The transportation project may be located anywhere within the local jurisdiction, but the applicant will be awarded bonus points if the transportation project is closely linked to the development project. Project sponsors may be a city, the county, or a partnership between a local jurisdiction and the county. Project sponsors are strongly encouraged to coordinate with Monterey-Salinas Transit and other transit operators regarding transit design specifications.

This program aims to capitalize on public investments in transportation infrastructure, help rebuild and revitalize town centers and main streets, promote infill development, create more walkable communities, encourage transit use, and address regional housing needs by:

1. Promoting housing and mixed-use development in core areas where transportation infrastructure already exists.

2. Supporting transportation improvements to build livable communities in which walking, bicycling and public transit are viable choices.
(3) Encouraging transit ridership by locating housing and mixed-use development at transit stops throughout the region.

(4) Forging partnerships between transportation and land use decision-makers through incentives to encourage transit-oriented and downtown housing.

(5) Promoting interconnectedness in neighborhoods and narrow street standards.

Eligibility Requirements and Evaluation Criteria

To be eligible to receive transportation funds via the TLC program, development projects must meet the criteria in the basic eligibility section below. Eligible projects will be evaluated using the point system in the application. Award amounts will be based on this information.

TAMC reserves the right to scale up or down individual awards based on the total number of applicants, availability of funds, merits of the individual project, and the extent to which the project meets and reflects the goals of the TLC program. TAMC may set conditions on grant awards, including requirements for recipients to implement recommended design revisions or expand community outreach.

TLC grant awards will be made based on the development project, its proximity to transit and incorporation of livable communities characteristics. The purpose of the grant is not to build these characteristics. TLC award applicants will be required to provide proof of the characteristics described in the next three sections by submitting:

- A site plan that identifies transit stops and routes and indicates the location of the ADA-compliant pedestrian path from residential project to a transit stop.

- Schedules for transit routes serving the project.

- A one-page project description and explanation of how this housing or mixed-use project meets the goals of the TLC grant program.

- Brief description of the transportation project on which grant funds would be spent if awarded, showing its link, if any, to the housing or mixed-use project.

- Letters of support and other documentation of community involvement.

Award size

The recommended cap on funding awards is $400,000.

Who may apply

Project sponsors may be a city, the county, or a partnership between a local jurisdiction and the county or regional agency.
Eligible Project Characteristics

- **Under Review**: A project sponsor may submit an application for TLC funds when a proposed housing or mixed-use project is under review. Projects are eligible if they are in the process of obtaining planning commission approval for the housing development. Projects that are fully permitted, where the local planning commission has already approved the size, density and number of units, are not eligible.

- **Transit Oriented**: The development site must be within 1/3 of a mile walk (1,800 feet) from a transit hub defined as a train station, transit center, or bus stops that serve two or more routes with no greater than 30-minute headways at peak times, or a planned transit center that is part of the Short Range Transit Plan for Monterey-Salinas Transit, or a train station that has been included in the TAMC Rail Plan. Planned stations or transit centers must be under environmental review. Exceptions to this requirement are cities currently not served by high-frequency transit service that are:
  - Creating the conditions that would allow for increased transit service,
  - Encouraging livable communities design principles in mixed-use and housing developments, and
  - Supporting infill and redevelopment of downtown areas.

- **Infill or Redevelopment**: The development must be built on an infill or redevelopment site that is within an incorporated city, or that is within a Redevelopment Area located in the unincorporated portion of Monterey County. Infill sites must have development on at least three sides covering no less than 80 percent of adjacent land. These sites must not be zoned for agriculture, forestry or open space uses. A redevelopment site is any site that has been previously developed or is within a Redevelopment Area.

- **Density**: Housing projects must have a minimum density of 15 units per acre. Bonus points will be awarded for higher densities. Mixed-use developments must have an average of 15 units per acre and be at least 50 percent housing.

- **Livable Community**: The project must promote walkability. Main residential and customer entrances should open directly onto a street with a sidewalk. The site plan and project maps should demonstrate pedestrian paths of travel including, but not limited to, a path from the center of the project to nearby destinations and one to the transit stop. These paths must comply with the Americans with Disabilities Act.

- **Community Support**: Project sponsor must undertake extensive community outreach on the development project and incorporate public input into the project design prior to submitting the TLC application.
Application and Grant Process

(1) TAMC issues a call for projects.

(2) Project sponsors submit initial applications to TAMC.

(3) TAMC staff previews applications, gives feedback to project sponsors and asks for clarification if needed.

(4) Project sponsors submit final applications.

(5) Application Review Panel reviews applications based on the criteria outlined above.

(6) Technical Advisory Committee receives panel's analysis and makes recommendation to TAMC Board.

(7) TAMC Board announces grant awards.

(8) Project sponsor submits letters demonstrating that development project has received a building permit within two years of grant award.

(9) Project sponsor submits letters demonstrating development project has broken ground and is under construction with one year of receiving the building permit.

(10) Project sponsor submits brief report to TAMC after the development project has broken ground responding to any requests or conditions from the TAMC Board.

(11) Project sponsor submits a description of the RSTP-eligible transportation project, towards which sponsor will obligate award money.

(12) TAMC allocates funds to project sponsor and project sponsor has one year to obligate funds within the funding award limit.

For more information
Contact TAMC at 831-775-4406 or via email at info@tamcmonterey.org
References & Acknowledgements


IBI Group, *Escondido Rapid Bus Transit Priority Concept Study*, San Jose, CA, June 2006


Tri-County Metropolitan Transportation District, *Bus Stop Guidelines*, Portland, OR, October 2002


Quotes


American Planning Association News Conference with UC Los Angeles Urban Planning Professor, Donald Shoup, March 21, 2005

Websites

Center for Neighborhood Technology: Strategies for Livable Communities

Livable Places

Surface Transportation Policy Project

Victoria Transport Policy Institute

Special thanks for information provided by the following vendors:

Siemens VDO Automotive Corporation — www.siemensvdo.com

Simme LLC — www.simmeseat.com

North American Bus Industries (NABI) — www.nabiusa.com
Questions, Comments and Suggestions

We would like to hear from you.

Please contact:

- Monterey-Salinas Transit
  One Ryan Ranch Road, Monterey, California 93940
  1-888-MST-BUS1
  (1-888-678-2871)
  FAX: (831) 899-3954
  E-mail: customerservice@mst.org