

December 2012



# Citywide Transportation and Parking Study

# Monterey Citywide Transportation and Parking Study

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# Introduction



## Purpose, Goals and Objectives of Study

The Monterey Citywide Transportation and Parking Study (or CTPS) builds on the strong foundation established by the General Plan and further refines the City's vision of being a transportation first City. This comprehensive study evaluates a range of opportunities and improvements that the City could undertake over the next several years to improve how residents and visitors get to and from various locations in the City, as well as how they can safely and efficiently travel in the City.

The City is using the Specific Plan as a tool for several districts and travel corridors to guide and support future development. The CTPS supports and integrates with these on-going planning efforts for growth areas and key transportation corridors within the City.

### City of Monterey General Plan Vision

*Monterey will be a City where alternative forms of transportation are so attractive that the use of an automobile is a choice, not a necessity. The transportation system will be safe for all users, and support the local economy while maintaining the historic character of the City.*

The transportation and parking changes presented in the CTPS were developed in conjunction with City staff and through reviewing existing planning studies to meet the City's goals to:

- Improve mobility and reduce the need for auto trips,
- Improve access to downtown businesses,
- Reduce out-of-way travel created by existing one-way streets, and
- Provide an appropriate amount of parking.

To match these goals with the transportation and parking changes, a study process was defined to document all available travel and parking data, establish future travel and parking demand, and through a "data-driven" process analyze alternative circulation systems, bicycle and pedestrian improvements, transit system access, and parking management programs. An extensive public participation effort was

undertaken to obtain public input and consensus throughout the CTPS.

The CTPS results will be used to refine transportation and parking policy, provide multimodal performance measures for environmental impact analyses, support capital improvement planning and support appropriate transportation impact fees.

## Summary of Planning Areas

The CTPS focused on several planning areas within the City that have the greatest need for improved transportation. Each planning area has different transportation needs and proposed improvements:

- ***Downtown Monterey and the Waterfront:*** In Downtown Monterey there is a critical need to make the circulation system more user friendly and increase the mobility for all modes of travel – pedestrian, bicycles, autos and transit. As a result of the ongoing Downtown Specific Plan and Waterfront Master Plan efforts, there are a number of key issues and opportunities that have already been identified, and a primary focus of the CTPS has been to further develop and refine these transportation opportunities.
- ***Lighthouse Avenue:*** The Lighthouse Avenue neighborhood, also known as New Monterey, is located west of Downtown and adjacent to Cannery Row. It is also a primary tourist destination due to its proximity to the Monterey Bay Aquarium and hotels and restaurants along Cannery Row. As a result, there is a need to balance effective regional access for visitors with opportunities to support the adjacent residential neighborhood with a well-connected and attractive walking and bicycling environment.
- ***North Fremont Street:*** North Fremont Street is located between Highway 1 and Highway 218, east of Downtown. Because it provides alternative east-west connection to Highway 1, North Fremont Street is currently a highly traveled, mostly automobile-oriented corridor. In order to transition the area from its current function to a more multimodal street that accommodates all modes of travel, there is a need to create improvements that promote the unique aspects of the corridor and support land use changes that would occur upon implementation of the North Fremont Specific Plan.



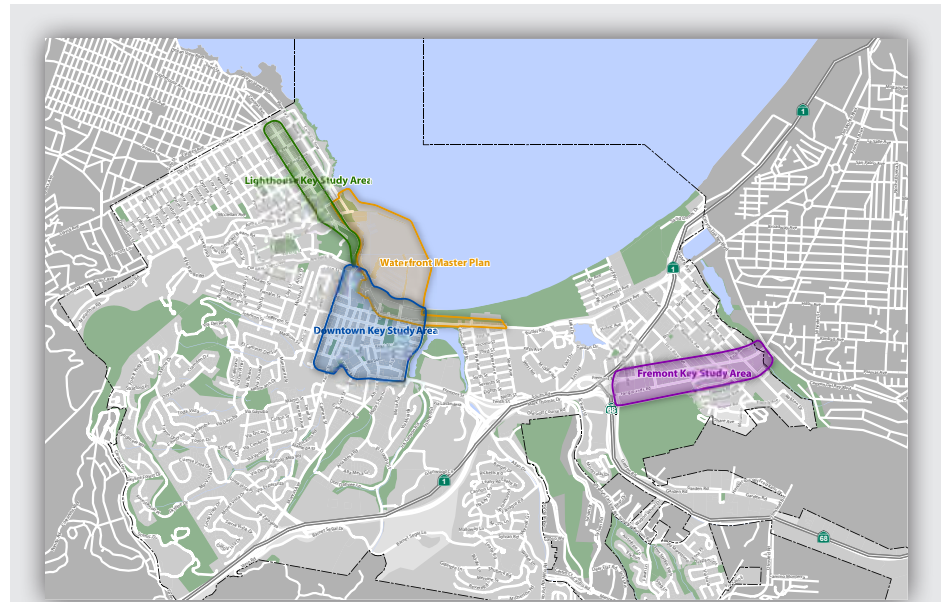
## Relationship to Other Studies

The City of Monterey has undertaken several comprehensive planning efforts since the adoption of its General Plan in 2005. The CTPS integrates with, and in some cases to serve as implementation tools for the circulation and parking policy envisioned as part of those planning efforts. Relevant studies to the CTPS are:

- Monterey General Plan (2005)
- Monterey Downtown Specific Plan (ongoing)
- Monterey Waterfront Master Plan (ongoing)
- Monterey Downtown Streetscape, Plazas and Urban Design Plan (2012)
- Monterey Lighthouse Area Specific Plan (ongoing)
- North Fremont Specific Plan (ongoing)
- City of Monterey Bicycle Transportation Plan (2009)
- Monterey Downtown Transit Center Conceptual Design (project initiated in April 2012)
- Multimodal Mobility Plan (to replace Bicycle Transportation Plan)

Several transportation planning studies served as a background for the CTPS including:

- Monterey Bay Sanctuary Scenic Trail Master Plan (2008)
- Association of Monterey Bay Area Governments (AMBAG) Monterey Bay Area Mobility 2035 Metropolitan Transportation Plan (2010)
- Transportation Authority of Monterey County (TAMC) Monterey Branch Line Project
- Monterey-Salinas Transit Fremont / Lighthouse Corridor Bus Rapid Transit (BRT) Project



Monterey Study Areas



The City's Bicycle Transportation Plan and recently completed Streetscape, Plazas and Urban Design Plan were key background reports to the Citywide Transportation and Parking Study

# Existing & Future Conditions

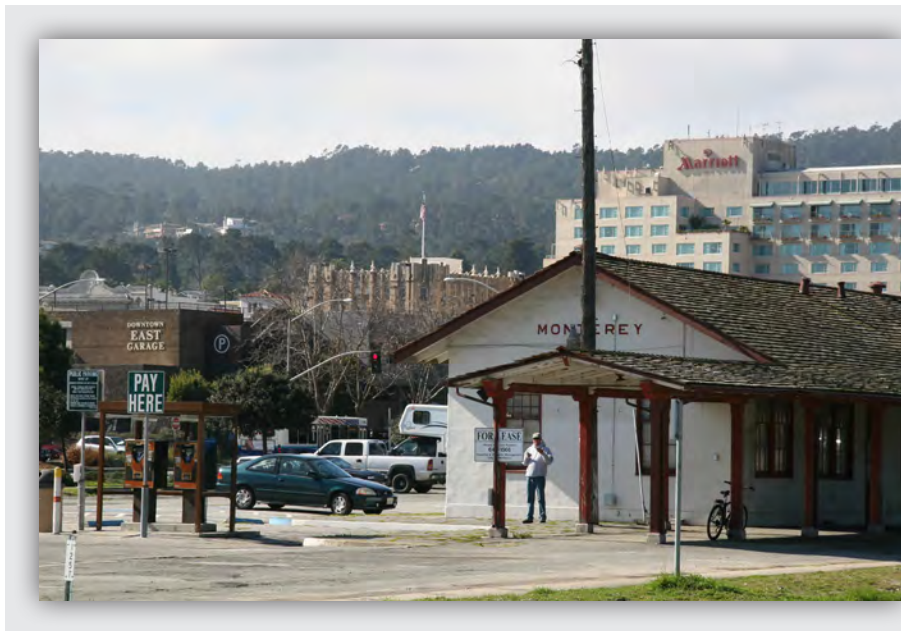




## Existing Setting

The City of Monterey is a coastal community located about 100 miles south of San Francisco in Monterey County, California. It is an historic city of about 8.6 square miles with approximately 30,000 residents and a typical employment base of 14,800. In addition to the City's residential population, visitors nearly double the population during the peak tourist season (State of California Employment Development Department, 2011). The City's historic roots are based in its thriving fishing industry, which continues to be an important part of Monterey's culturally diverse and unique character. The Monterey community is an ideal place to both live and visit because of its rich history and beautiful natural environment.

The tightly knit urban fabric and supporting "gridded" street network in Monterey is naturally built to support diverse transportation modes. The City has many natural amenities, including its attractive waterfront, recreational trails, the wharf, historic



Downtown Monterey serves a diversity of uses, including Waterfront access, the historic Passenger Depot (featured above), tourist amenities, government buildings and retail development.



Cannery Row is a major attraction in New Monterey, serving tourist amenities such as restaurants, hotels, and museums.

sites, and neighborhood parks. A multimodal transportation network, including bicycling and walking modes and integrated transit services, is a key ingredient to Monterey's active lifestyle. Maintaining a well-balanced transportation network is an essential ingredient to this active lifestyle.

### **Transportation Planning Areas**

The CTPS focuses on three main planning areas: Downtown / Waterfront, Lighthouse Avenue and North Fremont Street.

Downtown Monterey has historically been the core of the City due to its proximity to businesses, visitor amenities, government services, and waterfront access. The Downtown is supported by a street grid of one-way and two-way streets and is interlaced with attractions such as Fisherman's Wharf, the Maritime Museum, Colton Hall, Larkin House, the Adobe Buildings and the Golden State Theater. Alvarado Street, Del Monte Avenue, Franklin Street, Fremont Street, Munras Avenue and Abrego Streets are principal streets within the Downtown, serving both local and regional traffic.



Alvarado Street, nestled within the Downtown core, contains many amenities that can support pedestrian activity, including wide sidewalks, numerous street trees and pedestrian-scaled lighting features.

The Lighthouse Avenue neighborhood, also known as New Monterey, is located west of Downtown near Cannery Row. Lighthouse Avenue primarily serves commercial uses for the adjacent residential community and is an important tourist destination due to its proximity to the Monterey Bay Aquarium and hotels and restaurants along Cannery Row. Foam Street which parallels Lighthouse Avenue is another primary route through New Monterey, serving one-way travel towards Pacific Grove. These two transportation corridors, Lighthouse Avenue and Foam Street, connect Downtown, and Pacific Grove.

North Fremont Street is located between Highway 1 and Highway 218, east of Downtown. North Fremont Street is a largely automobile-oriented corridor providing regional connections between Downtown, Highway 1, and Highway 218. The area is largely commercial; comprised of restaurants, retail outlets, and various hotels and motels. Residential land uses to the north and south border the corridor, as does the Monterey Airport and County Fairgrounds which are located south of North Fremont Street. North Fremont Street is currently designated as a four-lane minor arterial roadway with left turn pockets and a raised median.

### Regional Conditions

Monterey County is located between Santa Cruz County to the north and San Luis Obispo County to the south, two prominent coastal regions. Monterey County's diverse land uses include agricultural production, military facilities, and educational institutions. The Monterey Peninsula and coast are popular visitor attractions, supporting a strong hospitality industry.

According to Association of Monterey Bay Area Governments (AMBAG) forecasts, the County's population is anticipated to grow from about 446,000 residents in 2010 to 530,000 residents in 2035 (a 20 percent increase). The City of Monterey is currently the second most populated City in the County behind Salinas, which has approximately 150,000 residents. Monterey's population (28,000) represents about seven percent of the County's total population.

The Transportation Agency for Monterey County (TAMC), the state-designated Regional Transportation Planning Agency (RTPA), provides population and





North Fremont Street is a heavily traveled corridor that connects Monterey to northeastern communities within the County.

employment forecasts in their Regional Transportation Plan (2010). The majority of the County population growth is forecasted to occur within the cities of Marina, Seaside, Del Rey Oaks, and unincorporated lands. Countywide employment on the other hand is forecast increase from 193,000 jobs to 235,000 jobs by 2035; with the majority of that growth occurring within the cities of Monterey, Salinas, and Seaside.

The Countywide roadway network is comprised of state highways, county roads, and city streets. Through the Monterey Peninsula, Highway 1 is the primary north/south travel corridor that also connects south to the San Luis Obispo County line and north to the Santa Cruz County line. This highly traveled coastal corridor is used by locals and tourists, making the Monterey region a key destination. Additionally, Amtrak provides passenger rail service and Greyhound provides regional bus services which travel through the County.

An effective land use and transportation planning strategy is fundamental to accommodating future population and job growth in Monterey County while preserving the unique local character and natural environment of the region. The growing cities surrounding the City of Monterey will influence its economic environment as new land use development increases the demand for roadway capacity. Against this backdrop, the City of Monterey's future transportation system must remain well-connected to the surrounding region in order to maintain its prominence as the primary City along the Highway 1 corridor.

### Planned Land Use

In order to estimate how future growth will affect travel conditions within the City of Monterey, the City developed detailed "water constrained" land use forecasts based on existing and planned development in Monterey and surrounding jurisdictions. [Table 1](#) (following page) demonstrates the expected development within Monterey and outside the City in other parts of the County. Forecasts are based on "water constrained" development estimates provided by the City of Monterey and surrounding jurisdictions. Because of the limited water supply available to support new land use development, future growth in Monterey and in certain areas nearby is expected to be limited. The "water constrained" land use

forecasts within Monterey are expected to include office, industrial, and retail uses while residential uses within the City is expected to be multi-family.

Regional growth within Monterey County is likely to occur east of Monterey, including in Marina, Sand City, Seaside, and Del Rey Oaks. Forecast assumptions include nearly 10,000 dwelling units of both single family and multi-family development. Supporting retail, office, and light industrial uses are also expected to comprise land use development within these cities. Some new hotel development is also likely to occur as these communities develop.

There are limited residential and hotel development opportunities in the communities south and west of Monterey, including Pacific Grove and Carmel-by-the-Sea. Similar levels of development are also expected within the County lands south of Monterey and east of Highway 1 with some supporting retail development.

**Table 1: Projected Land Use Growth**

	Residential (Dwelling Units)	Non-Residential (Sq. Feet)
Within City of Monterey	373	85,000
Outside City of Monterey	10,600	2,941,300

**Source:**

City of Monterey, 2012

**Notes:**

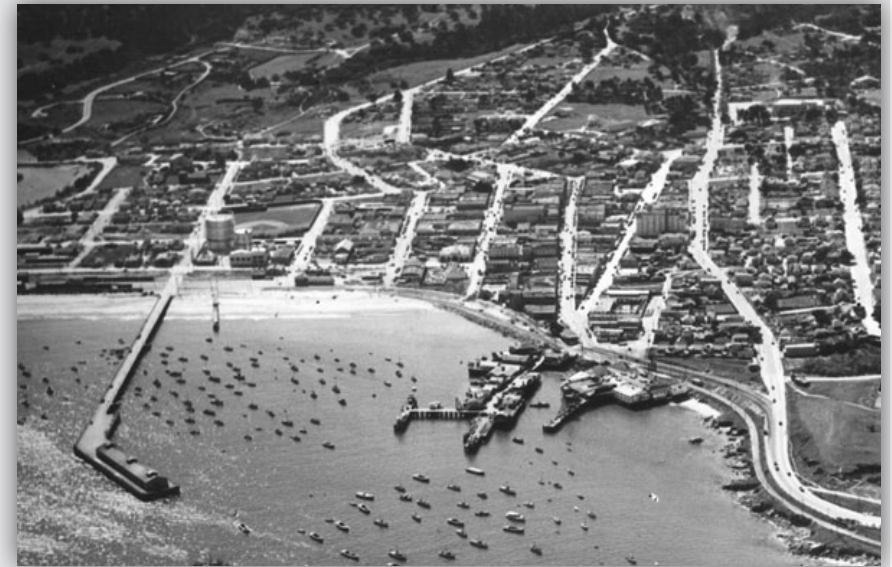
Forecasts are based on “water constrained” development estimates provided by the City of Monterey and surrounding jurisdictions. Because of the limited water supply available to support new land use development, future growth in Monterey and in certain areas nearby is expected to be limited in the future.

## Focused Planning Areas – Issues And Opportunities

This section summarizes the three primary study areas and the associated issues and opportunities. The existing traffic, pedestrian, bicycle, and transit circulation within each area provides the foundation for the transportation evaluation in the following sections.

### **Downtown / Waterfront**


A major transportation obstacle in Downtown Monterey is its confusing one-way street network which results in difficult wayfinding. Downtown Monterey is not easy to get to because its street network is difficult to navigate, preventing the Downtown core and the Waterfront from becoming more vibrant and central destinations in the City. [Table 2](#) (on following pages) summarizes existing transportation issues and opportunities to better integrate all transportation modes and improve access to the Downtown commercial district and Waterfront area.





Aerial of downtown Monterey and waterfront from the 1950s.



**Table 2: Transportation Issues & Opportunities: Downtown Monterey**

	Topic	Issue & Opportunity	Image
1	Economic Development	<p><b>Issue:</b> Existing one-way transportation network and challenging wayfinding directs people out of town rather than to their desired destination.</p> <p><b>Opportunity:</b> Downtown has the potential to be a thriving commercial district.</p>	
2	Driver Confusion	<p><b>Issue:</b> One-way streets discourage vehicles from infiltrating the Downtown.</p> <p><b>Opportunity:</b> Streets should provide more direct access and circulation to downtown businesses and parking.</p>	
<p><b>Source:</b> Fehr &amp; Peers, April 2012</p>		<p><b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.</p>	

**Table 2: Transportation Issues & Opportunities: Downtown Monterey**



	Topic	Issue & Opportunity	Image
3	Multi-modal Accessibility	<p><b>Issue:</b> One way streets create difficult transit and bicycle navigation.</p> <p><b>Opportunity:</b> Streets can be reconfigured to provide more direct, effective access through the Downtown.</p>	
4	Downtown Gateway	<p><b>Issue:</b> The existing entry points to Downtown (from Del Monte Boulevard and Fremont Street) do not provide a unique identity to Downtown.</p> <p><b>Opportunity:</b> A distinctive gateway feature can support a downtown identity that will encourage visitors to enter and spend time in Downtown.</p>	
<p><b>Source:</b> Fehr &amp; Peers, April 2012</p>		<p><b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.</p>	



**Table 2: Transportation Issues & Opportunities: Downtown Monterey**

	Topic	Issue & Opportunity	Image
5	Del Monte/Washington Intersection	<p><b>Issue:</b> Traffic demand between the Lighthouse Corridor and Downtown Monterey is controlled through this intersection. It acts as a barrier to vehicles and pedestrians traveling between the downtown and the waterfront.</p> <p><b>Opportunity:</b> The intersection can serve as a unique entry feature into the Downtown while improving pedestrian and bicycle connectivity to the waterfront.</p>	
6	Bicycle Facilities	<p><b>Issue:</b> One-way street are barriers to bike circulation throughout the Downtown. Lack of bicycle facilities in Downtown are also a detractor.</p> <p><b>Opportunity:</b> Streets should provide dedicated bicycle facilities, including bicycle lanes and parking, to encourage more bicycle travel.</p>	
<p><b>Source:</b> Fehr &amp; Peers, April 2012</p>		<p><b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.</p>	

**Table 2: Transportation Issues & Opportunities: Downtown Monterey**

	Topic	Issue & Opportunity	Image
7	Long Pedestrian Crossings at Intersections	<p><b>Issue:</b> Wide intersections with large traffic volumes impede pedestrian activity.</p> <p><b>Opportunity:</b> Reducing crossing distances or provide median islands will decrease pedestrian exposure to vehicles.</p>	
8	Parking	<p><b>Issue:</b> Parking can be difficult to find in Downtown as the parking garages are uninviting and access to Alvarado Street is confusing. The current parking strategy creates areas which are both under and over supplied.</p> <p><b>Opportunity:</b> A new parking management program can establish the appropriate amount of parking to serve future development while maximizing efficiency of that supply.</p>	
<b>Source:</b> Fehr & Peers, April 2012		<b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.	

### ***Traffic Circulation***

Traffic circulation within and through Downtown Monterey is confusing because of the combination of one-way and two-way streets, making it difficult to directly access businesses and parking structures. The economic vitality of the commercial district has suffered as a result of the circulation system that discourages drivers from accessing downtown. Efficient vehicle circulation will be increasingly important as travel demand on roadways grows in the future.

### ***Pedestrian Circulation***

Monterey has the potential to have a thriving and walkable downtown because of its flat terrain, ideal climate, and proximity to exciting destinations. These Pedestrian destinations such as the waterfront, Custom House Plaza, commercial businesses on Alvarado Street, historic buildings on Polk Street, and Simoneau Plaza provide the foundation for a thriving walking experience. However, pedestrian activity is discouraged because of the poor visual pedestrian connections and wayfinding between the waterfront and the downtown as well as the confusing street network which discourages pedestrian activity from infiltrating into the Downtown core. Providing dedicated pedestrian spaces and clear wayfinding signage within Downtown will expose these amenities to more people who might otherwise drive from one destination to another within the downtown.

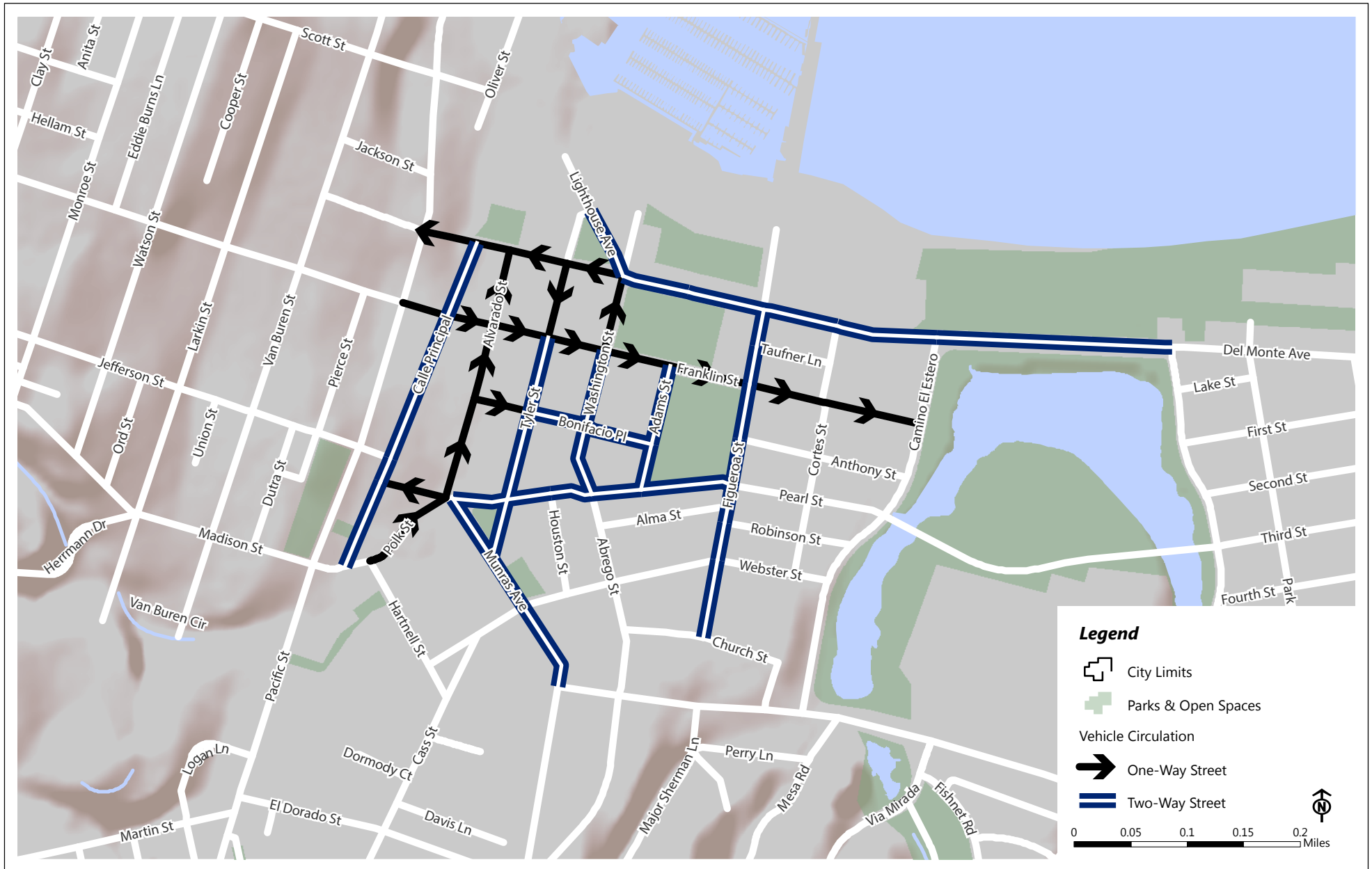
### ***Bicycle Circulation***

Its flat terrain, ideal climate, and gridded street network are all bicycle-friendly characteristics that could make Monterey's Downtown a thriving and interconnected bicycle network. However, the confusing street network with a combination of one-way and two-way streets and the lack of dedicated bicycle facilities discourages bicycle activity in the Downtown core. Bicycling is further discouraged by the lack of connections through downtown for east/west bicycle travel and between the waterfront and downtown.

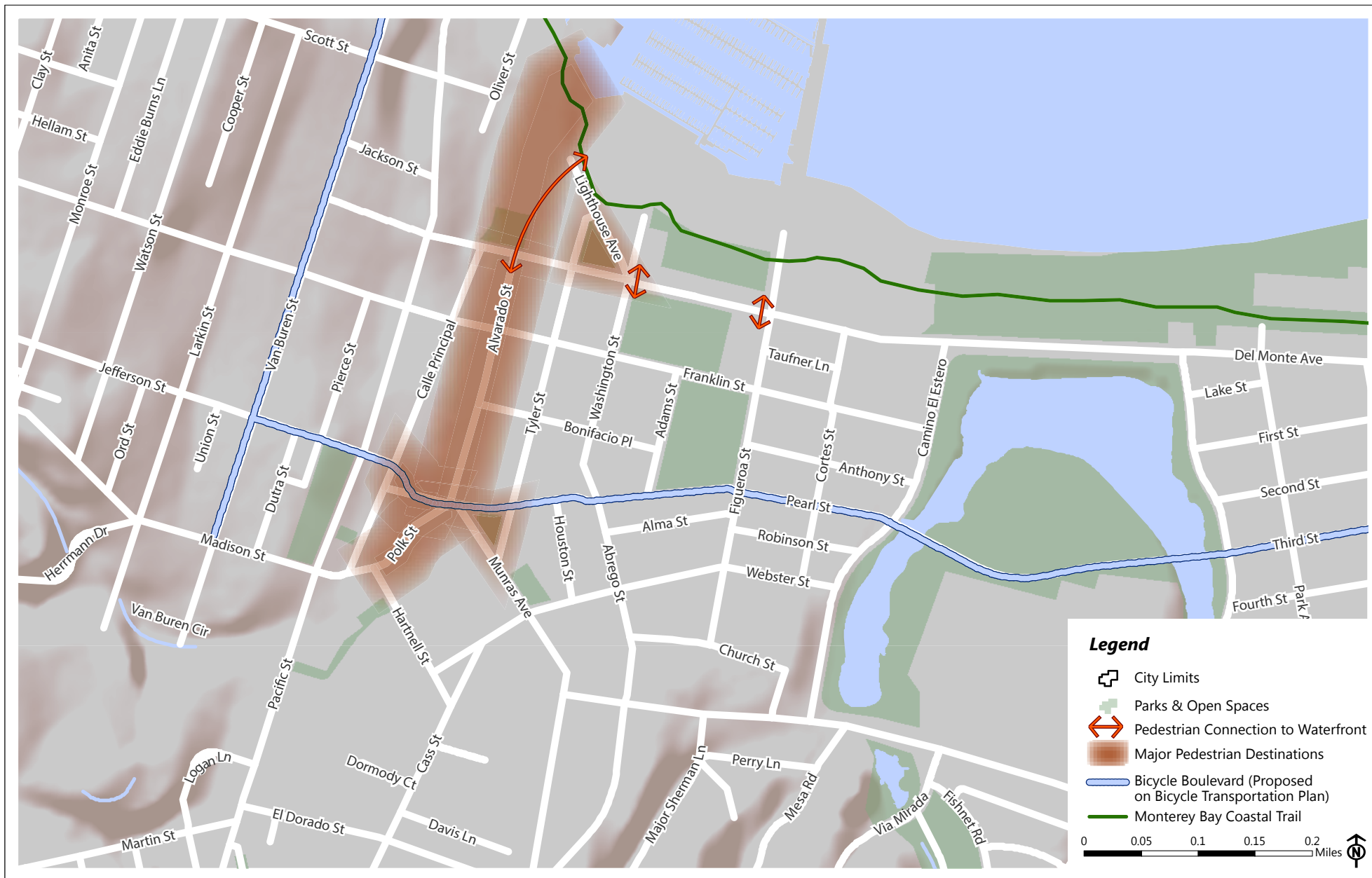
### ***Transit Conditions***

The main transit operator serving Downtown Monterey is Monterey-Salinas Transit (MST). Transit service is threaded through Downtown Monterey, circulating through Del Monte Avenue, Calle Principal, and Pacific Avenue to connect with the Transit Center located in Simoneau Plaza at the corner of Alvarado Street and Pearl Street. The combination of one-way and two-way street network creates indirect routes for transit circulation. Relocating the Transit Center in combination with street network changes can make transit more accessible to parking and the major downtown and waterfront destinations. Relocating the Transit Center creates the opportunity to re-develop Simoneau Plaza into a thriving pedestrian space at the southern edge of the downtown core.





**Figure 1: Downtown Vehicle Circulation**



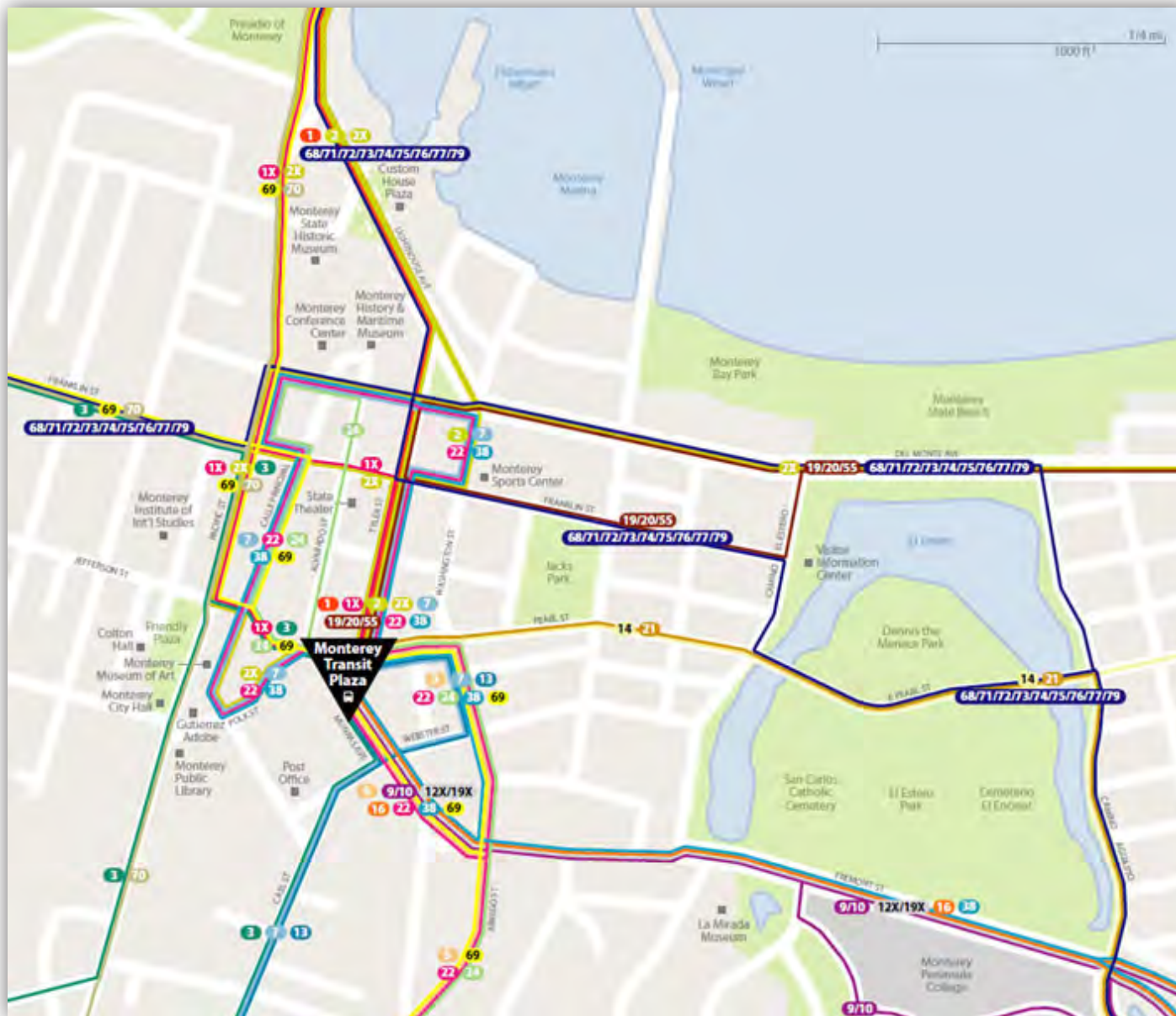
**Figure 2: Downtown Pedestrian & Bicycle Circulation**



Source: Nelson\Nygaard

**Figure 3: Transit Circulation Graphic**






Source: Nelson\Nygaard and MST

**Figure 4: Existing MST Bus Routes**

# Lighthouse Avenue Neighborhood



The major transportation challenges in the Lighthouse Avenue neighborhood relate to its vehicle congestion and poor connectivity to other locations in Monterey. [Table 3](#) (below and on following pages) summarizes the issues and the opportunities in the Lighthouse Avenue neighborhood to enhance the accessibility of all transportation modes while improving connections to the Lighthouse commercial district.

Table 3: Transportation Issues & Opportunities: Lighthouse / New Monterey

Topic		Issue & Opportunity	Image
1	Economic Development	<p><b>Issue:</b> Existing businesses rely on vehicle access. Congestion and parking constraints limit access.</p> <p><b>Opportunity:</b> Better circulation on Lighthouse Avenue will make it easier for customers to access businesses while streetscape enhancements can encourage better pedestrian access.</p>	
<b>Source:</b> Fehr & Peers, April 2012		<b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.	



**Table 3: Transportation Issues & Opportunities: Lighthouse / New Monterey**

	Topic	Issue & Opportunity	Image
4	Vehicle Congestion	<p><b>Issue:</b> Peak period congestion on Lighthouse Avenue causes automobile queues that “spill back” into the surrounding neighborhood and reduces the quality of the street environment.</p> <p><b>Opportunity:</b> Reducing vehicle congestion on Lighthouse Avenue improves circulation for vehicles and transit and creates opportunities to better serve bicyclists and pedestrians.</p>	
5	Bicycle Facilities	<p><b>Issue:</b> The existing bicycle network does not provide direct access to businesses on Lighthouse Avenue and the neighborhood.</p> <p><b>Opportunity:</b> Direct bicycle facilities can encourage more bicycling and potentially reduce traffic demand.</p>	
Source: Fehr & Peers, April 2012		<b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.	



**Table 3: Transportation Issues & Opportunities: Lighthouse / New Monterey**

	Topic	Issue & Opportunity	Image
6	Pedestrian Activity	<p><b>Issue:</b> The Lighthouse Avenue corridor has a lack of streetscape amenities and wayfinding.</p> <p><b>Opportunity:</b> Improve the streetscape to encourage more pedestrian activity to businesses and Cannery Row.</p>	
7	Parking	<p><b>Issue:</b> Lighthouse Avenue's large summertime influx of visitor's and parking subsequently strains the area's commercial and residential streets. Uneven pricing incentives discourages long-term parking in the most appropriate locations. The narrow parking lanes along Lighthouse Avenue are unsafe for drivers and vehicle passengers.</p> <p><b>Opportunity:</b> A parking management plan can help provide the optimal amount of parking to meet parking needs, while reducing traffic congestion and accommodating new development and a variety of land uses.</p>	
<b>Source:</b> Fehr & Peers, April 2012		<b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.	

### ***Traffic Circulation***

Lighthouse Avenue serves a wide range of users and purposes, including tourist traffic to Cannery Row and the Monterey Bay Aquarium, the Lighthouse Business District, the New Monterey neighborhood, and traffic between Pacific Grove and Downtown Monterey. Its current configuration as a four-lane street with a narrow parallel parking lane and prohibited left turns, does not optimize multi-modal travel along the corridor. The narrow travel and parking lanes increase conflicts along the corridor and make travel conditions difficult for bicyclists. Additionally, long signal cycle lengths and prohibited pedestrian crossings in some locations make walking along the corridor difficult. Although traffic congestion has improved along the corridor when the City eliminated left turns on Lighthouse Avenue in 2004, it still continues to be a problem during peak periods.

### ***Pedestrian Circulation***

Pedestrian activity along the Lighthouse Avenue corridor is limited. A lack of streetscape amenities and wayfinding limits the walking activity.

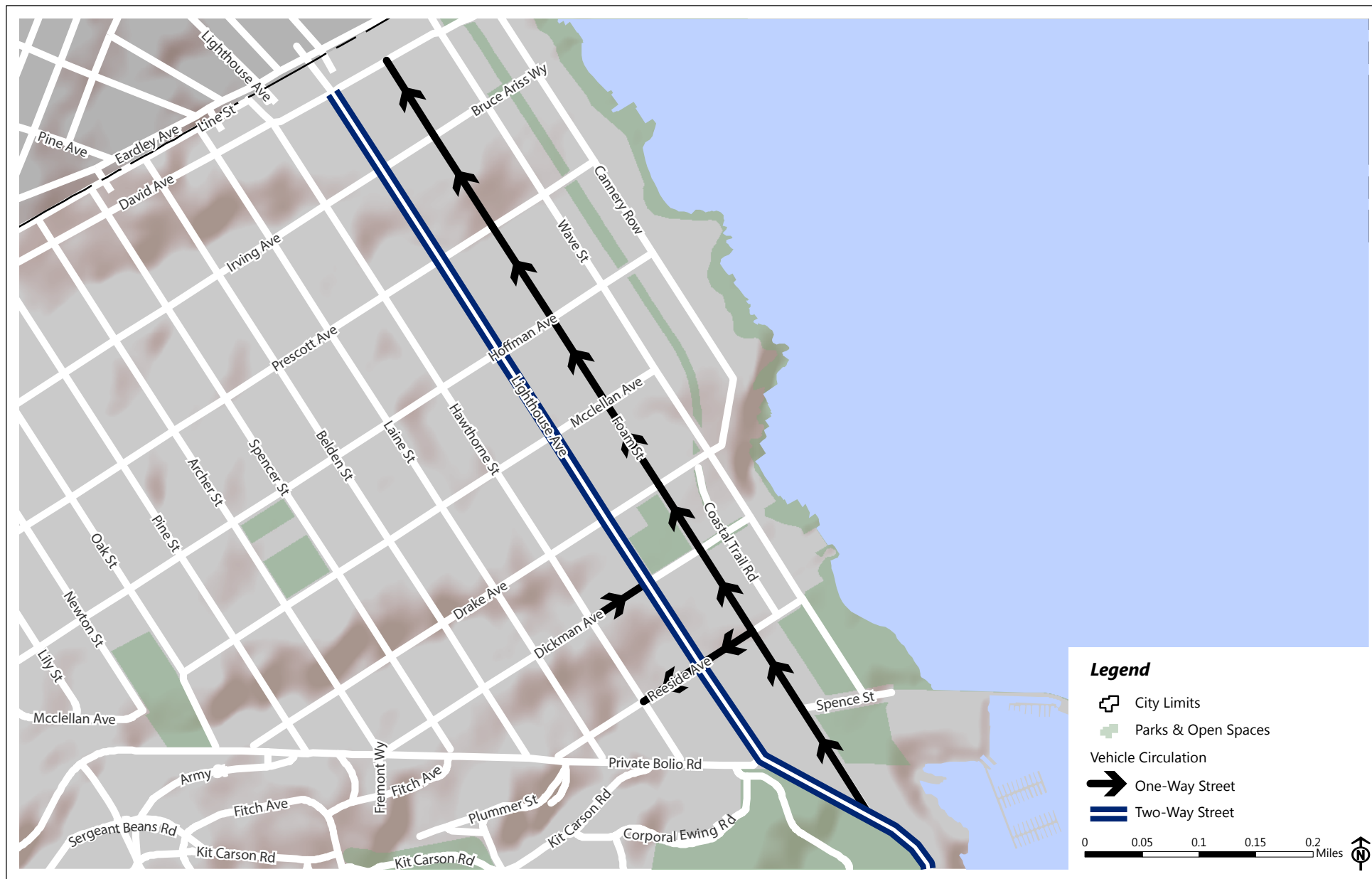
### ***Bicycle Circulation***

Similar to the pedestrian activity within the Lighthouse neighborhood, bicycle activity is limited to the Cannery Row area. The Monterey Bay Coastal Trail is a key bicycle route and amenity to this area. However, the lack of wayfinding and bicycle amenities connecting to the Lighthouse neighborhood discourages bicycle activity along residential streets in the area as well as on the Lighthouse Avenue corridor itself.

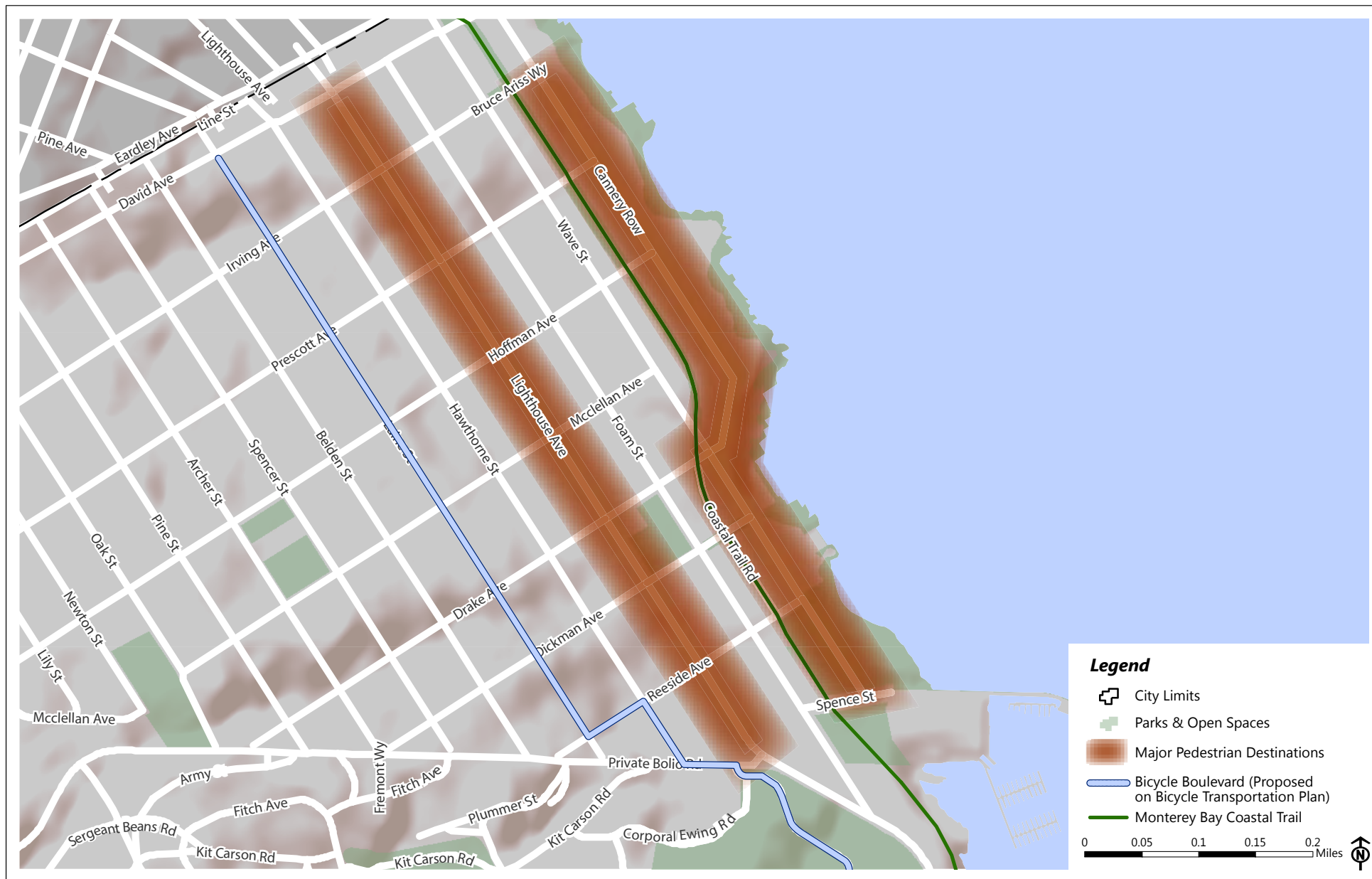
### ***Transit Conditions***

The MST routes serving the Lighthouse neighborhood include 1, 1x, 2, 2x, 69, and 70. These bus routes provide access to Pacific Grove, the Presidio, and Downtown Monterey. The bus stops are mainly located on Lighthouse Avenue, Foam Street and Wave Street. MST will be installing bus “bulbs” along Lighthouse Avenue will facilitate efficient bus passenger boardings and alightings.





**Figure 5: Lighthouse Vehicle Circulation**



**Figure 6: Lighthouse Bicycle and Pedestrian Circulation**

## North Fremont Neighborhood

The major transportation challenge in the North Fremont Street neighborhood is its automobile-oriented nature. The high traffic speeds and lack of neighborhood character allow the corridor to function as a transportation link rather than a destination. The City's goal is to nurture mixed-use and vibrant neighborhoods within Monterey. This is particularly challenging for North Fremont Street as it currently serves as a major thoroughfare. *Table 4* (following pages) summarizes the issues with the street network and the opportunities it presents to improve the streetscape environment for all transportation modes.

### *Traffic Circulation*

North Fremont Street has two travel lanes in each direction and left turn pockets at the intersections and side streets. The main challenge for North Fremont Street is managing the high vehicle speeds that result from the Highway 1 on-ramp and off-ramp. The off-ramp is the gateway through the corridor and creates a lack of neighborhood identity and unsafe speeds for bicyclists and pedestrians. Vehicles tend to speed through the corridor rather than treat it as a neighborhood destination.

### *Pedestrian Circulation*

The automobile-oriented nature of the North Fremont Street corridor discourages pedestrian activity. Narrow sidewalks, high traffic speeds and long intersection crossing distances make walking along Fremont Street uncomfortable. Street crossing opportunities are limited due to long distances between each signalized intersection. In addition to businesses along the street itself, the nearby County Fairground and adjacent residential neighborhoods are other pedestrian generators along this corridor.

### *Bicycle Circulation*

Bicycle activity along North Fremont Street today is limited due to the lack of dedicated bicycle facilities and high traffic speeds along the corridor. The automobile-oriented nature of the street creates wide intersections and separations between land uses. The proximity to residential neighborhoods and bus routes makes this area an ideal location to provide bicycle amenities.

### *Transit Conditions*



The bus stops along Fremont Street serve MST routes 9, 10, 11, 37, and 77. The bus facilities at each of these stops generally consist of a bus bench and sign.

**Table 4: Transportation Issues & Opportunities: North Fremont Street**

	Topic	Issues & Opportunities	Image
1	Gateway Feature	<p><b>Issue:</b> The existing transition from freeway to local street does not encourage a change in travel speed when entering the local neighborhood.</p> <p><b>Opportunity:</b> A gateway feature can help to slow traffic and change the character of the Fremont Street corridor by generating a better sense of neighborhood.</p>	
2	Traffic Speeds	<p><b>Issue:</b> High traffic speeds make the street feel like a highway and creates a challenging environment for bicyclists and pedestrians.</p> <p><b>Opportunity:</b> Reducing traffic speeds will encourage bicycle and pedestrian activity by making it easier to cross the street and facilitate a neighborhood identity.</p>	
<p><b>Source:</b> Fehr &amp; Peers, April 2012</p>		<p><b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.</p>	



**Table 4: Transportation Issues & Opportunities: North Fremont Street**

	Topic	Issues & Opportunities	Image
3	Neighborhood Identity	<p><b>Issue:</b> The street functions as a thoroughfare, which prevents it from having a neighborhood character.</p> <p><b>Opportunity:</b> Reducing vehicle speeds and adding pedestrian amenities can enhance the streetscape environment.</p>	
4	Economic Development	<p><b>Issue:</b> The corridor's primary function is to move automobile traffic, making businesses visually unwelcoming to pedestrian or bicycle traffic.</p> <p><b>Opportunity:</b> A vibrant streetscape can provide opportunities for a more stimulating economic environment.</p>	
<p><b>Source:</b> Fehr &amp; Peers, April 2012</p>		<p><b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.</p>	

**Table 4: Transportation Issues & Opportunities: North Fremont Street**

	Topic	Issues & Opportunities	Image
5	Parking	<p><b>Issue:</b> Parking is underutilized in North Fremont Street with high levels of occupancy evening during busiest period. The County Fairgrounds can cause spillover parking when there are large events. Most on-street parking is free and unregulated in the North Fremont Street area, allowing many fairgoers to park in the neighborhood during special events.</p> <p><b>Opportunity:</b> New parking management policies and programs could enable more efficient utilization of existing supply, while alleviating parking congestion.</p>	
<b>Source:</b> Fehr & Peers, April 2012		<b>Notes:</b> 1. Key transportation issues and opportunities were identified through coordination with City staff, other agencies and input from members of the public.	



**Figure 7: Fremont Vehicle, Bicycle and Pedestrian Circulation**



# Outreach Process



The in-depth public outreach process gathered community input and refined the transportation alternatives throughout the course of the project. Through a series of City Council, Planning Commission, and public meetings, the project alternatives discussed in the following section were distilled to represent the culmination of a collaborative outreach effort between a diverse set of stakeholders.

## **Walking Audits**

City staff, stakeholders, interested members of the public, and the consultant team conducted a series of “walking and bicycling audits” over two days in early 2011 to discuss the primary issues and opportunities within Downtown Monterey, Lighthouse Avenue corridor, and North Fremont Street. Visits to each of these neighborhoods enabled the consultant team to create an inventory of existing conditions and begin generating alternative solutions. The team discussed circulation and connectivity barriers, such as challenges in traffic flow and congestion, accessibility for pedestrians and bicyclists, parking supply, and bus operations. Since each study area faces unique challenges, the walking audits facilitated an effective discussion with community members who have an intimate knowledge of each neighborhood.

## **Community Charrette**

Following the preliminary walking audit, the consultant team began identifying potential transportation alternatives that would address the key issues facing each neighborhood in the City. Meetings with City staff enabled the team to brainstorm and refine the alternatives before the summer workshop.

The City of Monterey facilitated a three-day community “charrette” at the Monterey Conference Center on June 28-30, 2011. A charrette refers to a collaborative session in which a group of designers develop a solution to a design problem. Charrettes serve as a way of quickly generating and refining design solutions while integrating the capabilities and interests of a diverse group of people.

The charrette was a key component of the public outreach process. The main purpose of the charrette was to generate, refine and develop preferred transportation and parking solutions for the Downtown, Lighthouse and North Fremont neighborhoods. Since each of the focus areas faces unique challenges, public input was a primary goal of the workshop.

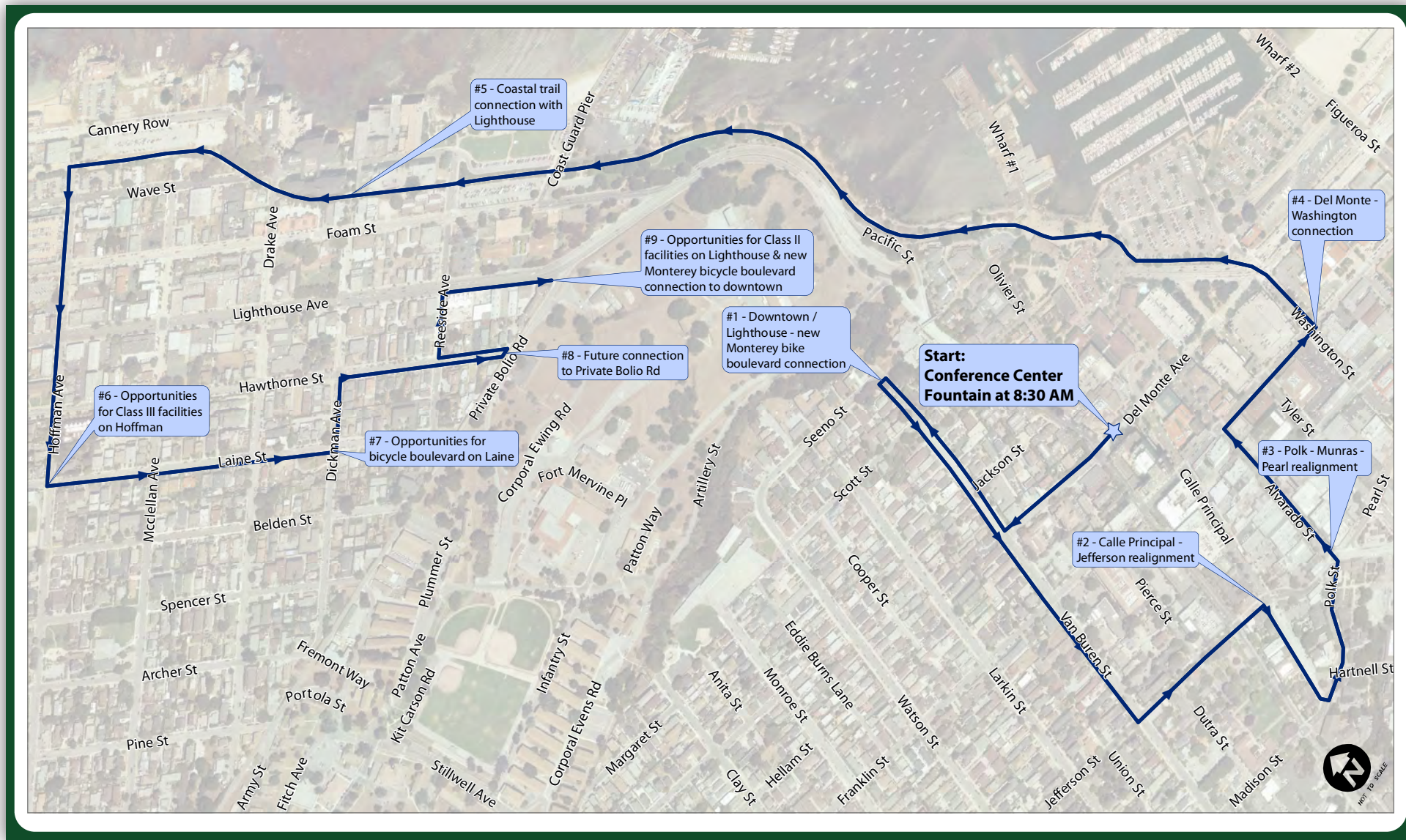
The charrette schedule included many opportunities to engage with the community, including site visits, walking/ bicycling audits, brainstorming sessions, and numerous public presentations.

The first day of the charrette included a presentation of the alternative solutions to the Downtown, Del Monte/ Washington and Lighthouse stakeholder groups. The second day of the charrette presented alternative solutions to the North Fremont Street stakeholder group and then focused the afternoon on site visits and team brainstorming. The second day culminated in the first of two Planning Commission meetings. The feedback from the first Planning Commission meeting helped refine the alternative solutions to further develop on the third day of the charrette.



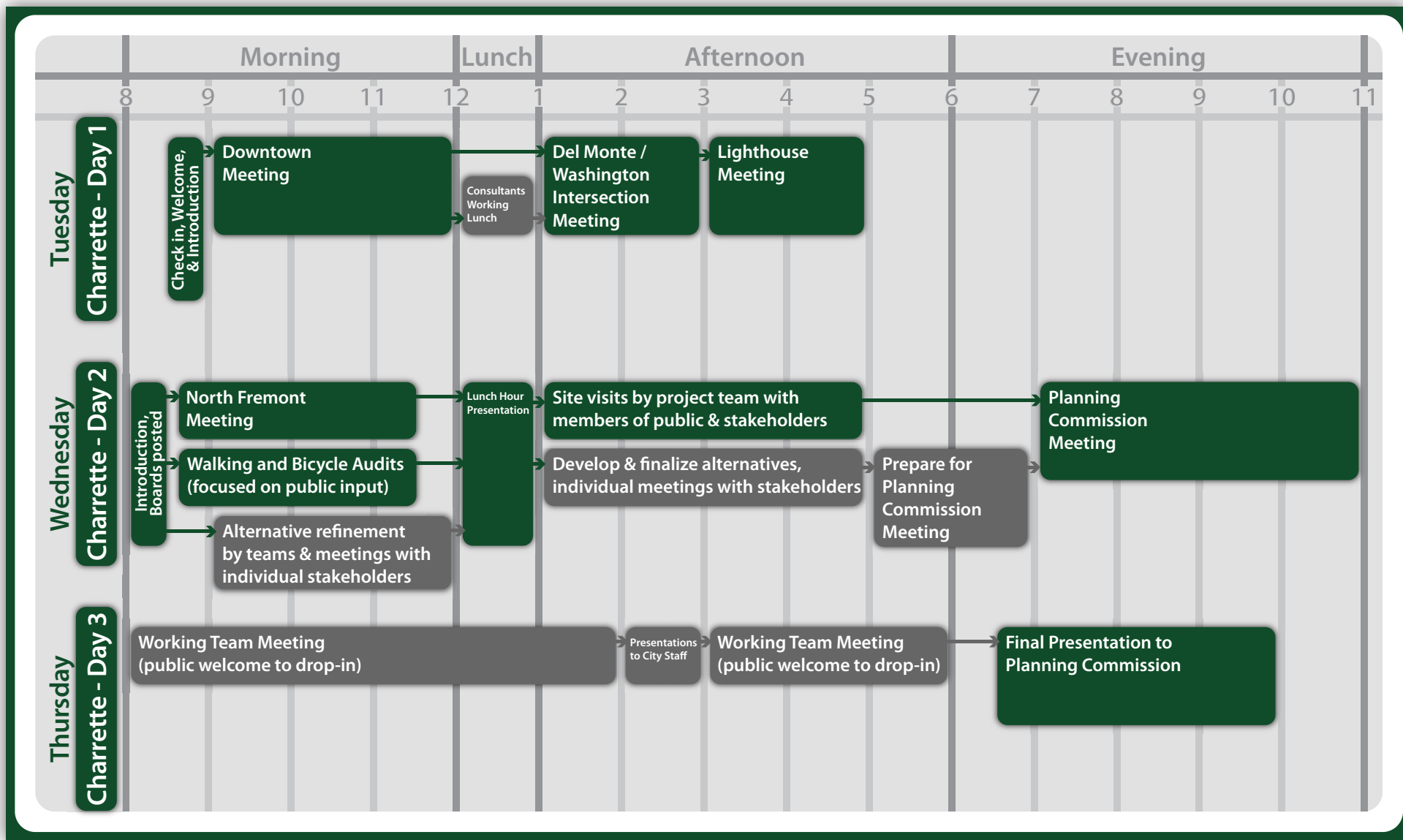
Walking Audit - The project team conducted walking audits in Downtown, Lighthouse, and North Fremont (featured here) neighborhoods.





**Figure 8: Bicycle Audit Map**





**Figure 9: June 2011 Transportation Charrette Schedule**

City staff and the project team spent the final day refining the alternative solutions and incorporating comments received from the public and Planning Commission over the first two days. During the final meeting, the Planning Commission voted on the preferred transportation and parking alternative solutions to recommend to City Council and the City Council accepted it in September 2011.

The Monterey transportation charrette was successful in generating community support, stimulating awareness, and providing direction to staff on which transportation alternatives to further evaluate. The meetings were effective in communicating issues and ideas which culminated in alternatives that reflect the needs of the community.



Fehr & Peers lead a discussion with a group of interested community members and stakeholders during the bicycle audit on the second day of the charrette. The group bicycled through the Downtown and Lighthouse neighborhoods to discuss existing conditions and opportunities for bicycle improvements.



Community members directly engaged with the project team through brainstorming sessions and meetings during the charrette. Posters and aerial images allowed for participants to view the project analysis completed to date and provide valuable input on recommendations.

### **Planning Commission and City Council Engagement**

Once the technical analysis of the alternative solutions was completed, the results were presented to the Planning Commission and City Council in February 2012 during a series of public meetings. As a result, staff received the final direction on the preferred alternative solutions for Downtown, Lighthouse, and North Fremont, with the exception of the Del Monte/ Washington intersection, which will be further evaluated within the context of the Del Monte Avenue Bus Rapid Transit (BRT) project.

## Interactive Outreach

The Monterey CTPS website and Facebook page helped to generate awareness of the evaluation process and disclose the opportunities for public input. Prior to the charrette, these resources were used to inform the public on the schedule and opportunities for collaboration, including brainstorming workshops and bicycle/walking audits. During the workshop, updates on the Planning Commission meetings and recommendations were posted to keep the public informed on the decisions.



A project Facebook page was set up to provide regular updates on the charrette activities and overall project progress.



# Technical Evaluation



In order to evaluate the performance of the City's transportation system with the transportation alternative solutions developed as part of the CTPS, an evaluation process was identified to allow project stakeholders, decision makers and members of the public to understand the relative tradeoffs between project benefits and costs. The evaluation of different improvements was rooted in the Citywide transportation goals and policies established in the General Plan and further articulated in the draft Specific Plans and other documents relating to each transportation focus area. In each area, a unique set of solution criteria was developed and refined.

## **Solution Criteria**

---

### ***Downtown Criteria***

The solution criteria for downtown are based on the goals for the Downtown Specific Plan and public workshop comments, which were vetted through the Planning Commission in November 2010. Specifically they considered whether a transportation improvement:

- Improves street network
- Improves wayfinding
- Improves parking access
- Increases bicycle and pedestrian access/safety
- Improves transit access

### ***Lighthouse Avenue Criteria***

Solution criteria for the Lighthouse Avenue corridor were based on the substantial feedback received from local business owners, residents and other stakeholders. As a result, the set of solution criteria for Lighthouse considered a variety of objectives, including whether a transportation improvement:

- Increases pedestrian safety
- Accommodates safe bicycle travel
- Decreases traffic speeds through business district
- Supports economic vitality of Lighthouse Avenue businesses

- Accommodates delivery vehicles
- Increases parking lane width
- Provides access to Cannery Row parking garages
- Supports economic vitality of Cannery Row businesses
- Preserves residential character of Hawthorne Street
- Maximizes automobile access, including left turns and two-way travel on Lighthouse Avenue
- Accommodates transit service, including WAVE and future BRT

### ***North Fremont Street Criteria***

Solution criteria for North Fremont Street corridor were based on the Draft North Fremont Specific Plan and feedback received from local business owners, residents and other stakeholders. The set of solution criteria for North Fremont Street considered whether a transportation improvement:

- Provides for smooth operation of North Fremont Street as a multi-modal corridor
- Addresses safety and security
- Improves pedestrian experience
- Improves connections to the neighborhoods
- Improves bicycle and bus transportation
- Improves economic vitality

### ***Traffic Operations Analysis***

In addition to evaluating the transportation improvements against the City's General Plan and other planning documents, the evaluation process for the CTPS also serves as the technical basis for determining the project's consistency with the California Environmental Quality Act (CEQA). As a result, a detailed traffic operations analysis

was undertaken. This operational evaluation was performed using the Synchro traffic analysis software program, which allows for detailed intersection configurations and signal timing plans to be evaluated.

The Synchro program was used to develop the existing and proposed alternative transportation networks in each study area. Friday evening peak hour traffic counts were collected and added to the network in order to estimate the peak summertime traffic conditions at key intersections in each study area. Because Friday summertime volumes represent some of the highest levels of traffic experiences in the City in a given year, this analysis period was used in order to replicate “worst case” conditions.

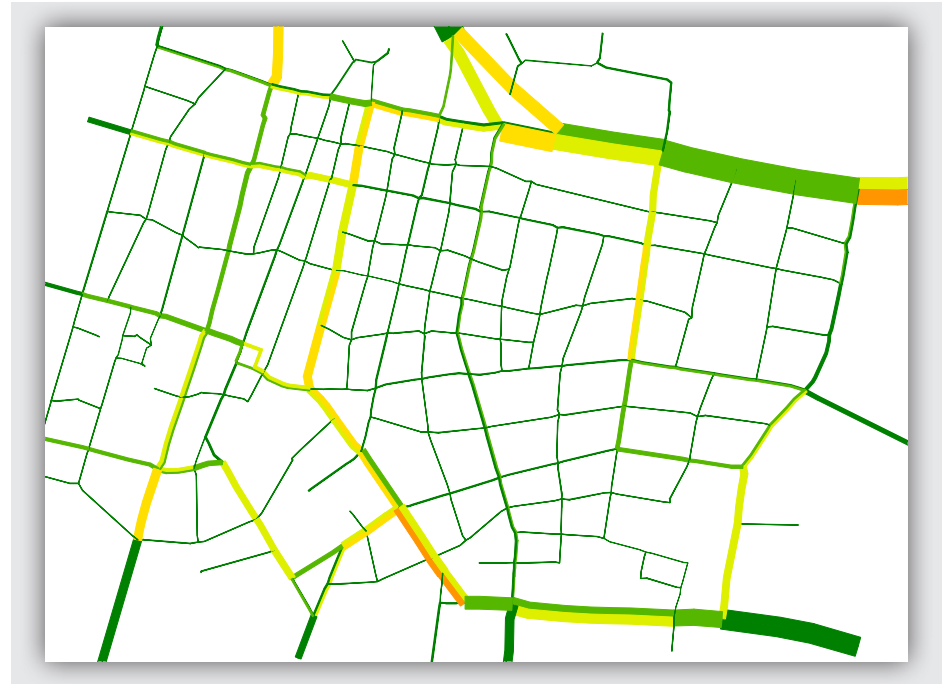
A companion program to Synchro, known as SimTraffic, was utilized to simulate traffic conditions for the alternative solutions and assess potential impacts. Because the Downtown is comprised of an integrated grid network, the intersections depend on the coordination of its signals to accommodate traffic flow during peak conditions. Testing the alternative Downtown configurations in SimTraffic enabled a better understanding of intersection operations and automobile queuing.

#### ***Future Transportation Forecasts***

The existing traffic volumes were adjusted based on growth estimates to account for future conditions in Monterey that would result from a “water constrained” land use forecast. The trip generation from the regional land use assumptions provided by City staff and local jurisdictions, summarized within the “Planned Land Uses” section above, was estimated using Institute of Transportation Engineers (ITE) Trip Generation, 8th Edition. Appropriate reductions to traffic estimates were applied to account for the mixed use, transit supportive development planned within the City of Monterey as well as in select other corridors and downtown areas within Monterey County.

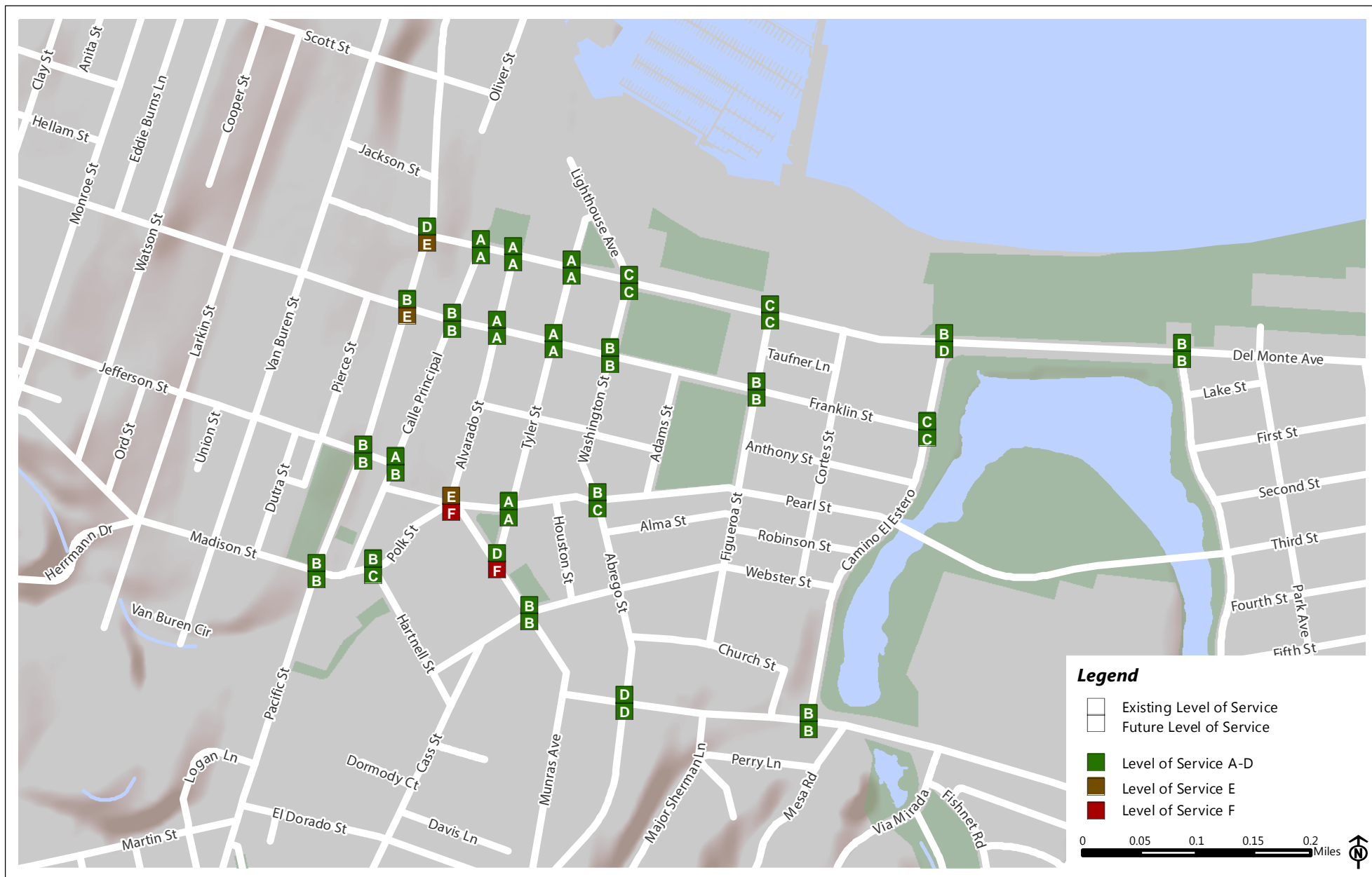
The resulting trip generation growth estimates were added to the existing volumes for the key transportation corridors through Downtown, including intersections along Del Monte Avenue, Franklin Street, Calle Principal, Munras, Avenue, Fremont Street, Pacific Street, Alvarado Street, and Washington Street.

The results of this analysis are summarized in Appendix C.

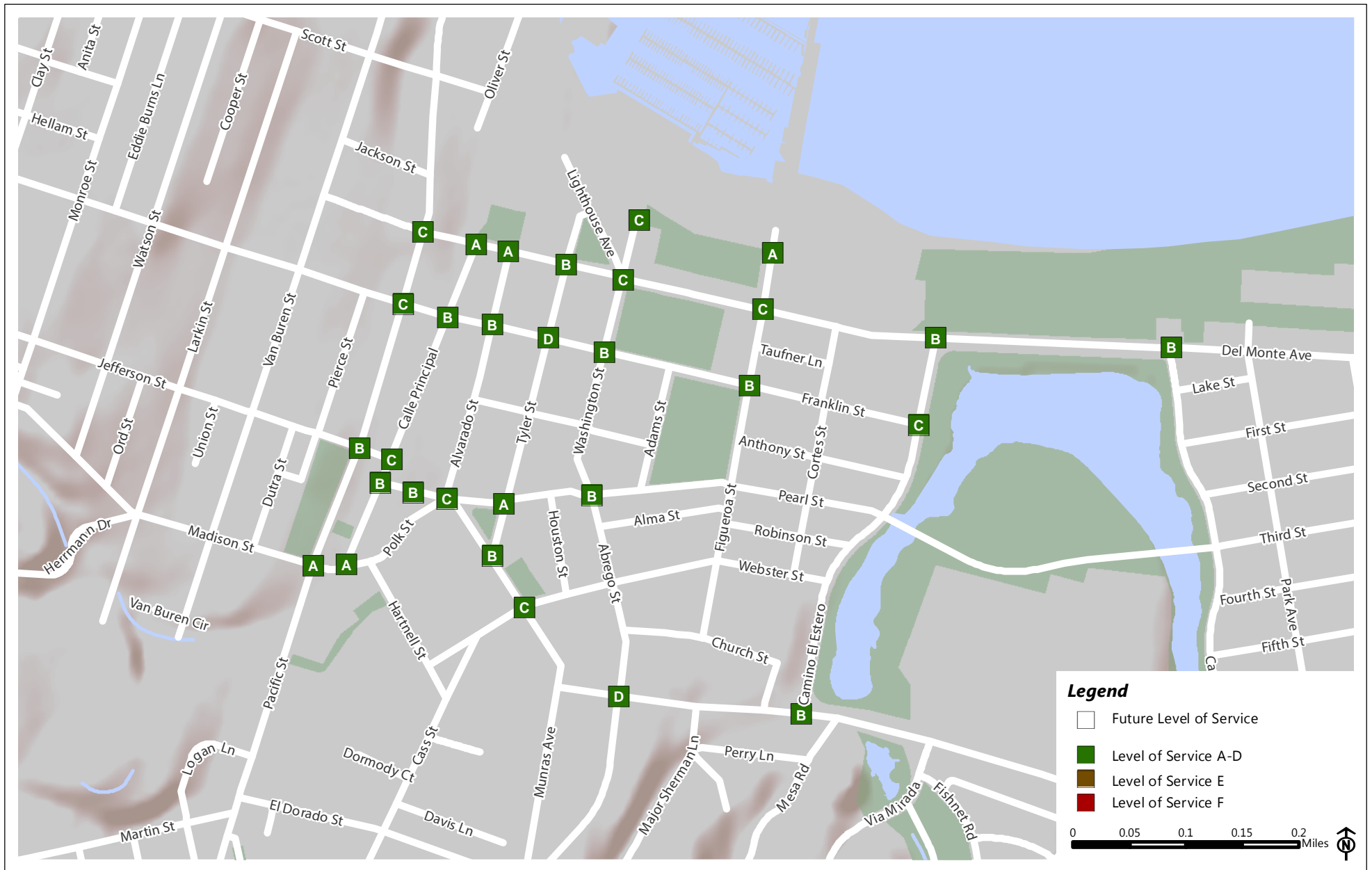


Several travel demand forecasting and traffic analysis tools were used in order to evaluate future transportation conditions in the city.

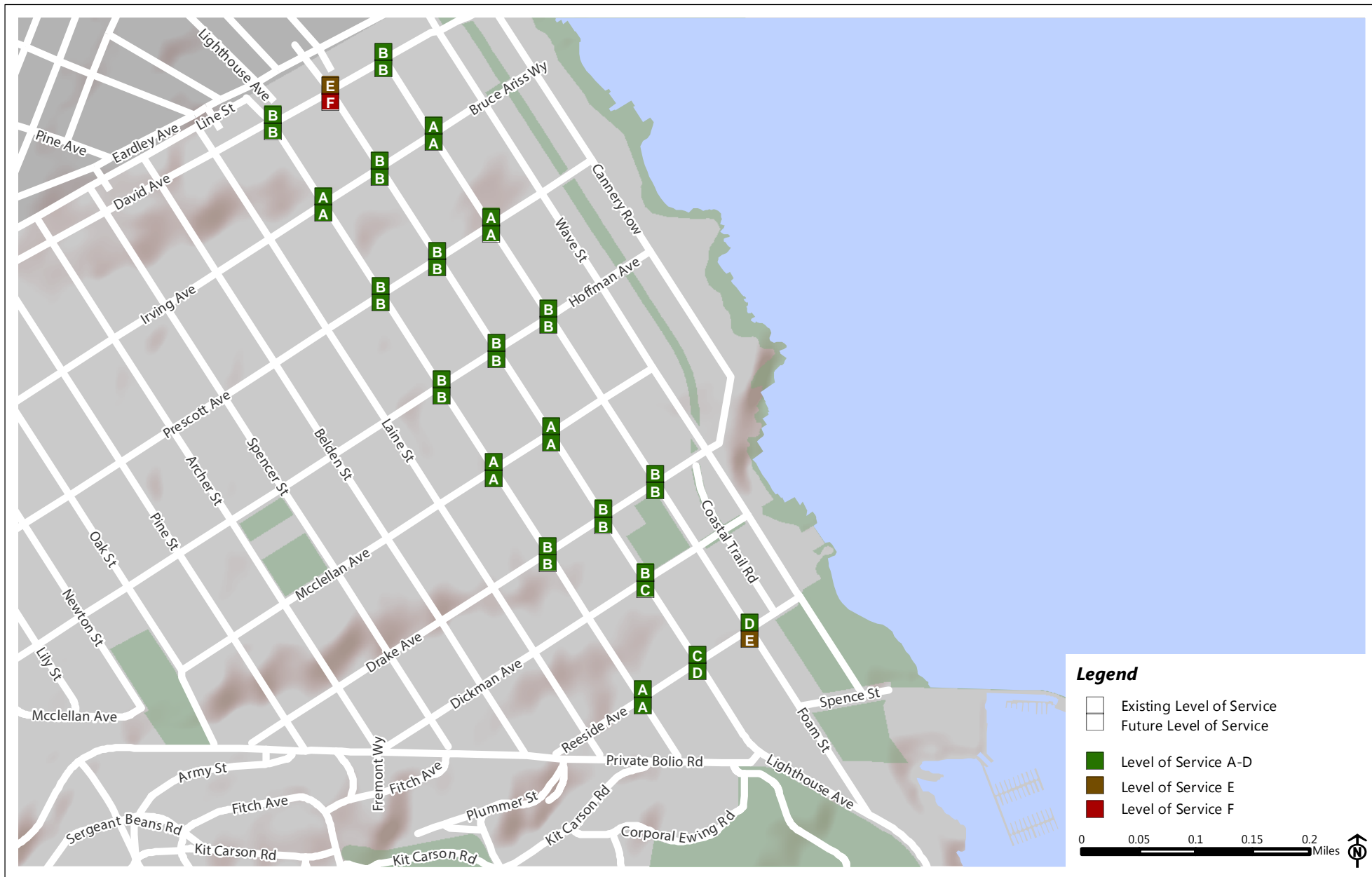




**Figure 10: Level of Service - Existing Geometry - Downtown**



**Figure 11: Level of Service - Proposed Geometry - Downtown**



**Figure 12: Level of Service - Existing & Proposed Geometry - Lighthouse**





**Figure 13: Level of Service - Existing & Proposed Proposed Geometry - Fremont**

# Downtown Monterey Recommendations



The following chapter summarizes the recommended transportation alternatives for Downtown Monterey. These solutions will facilitate improved traffic flow, promote a friendly bicycle and pedestrian environment, and help stimulate a thriving commercial district.

## Summary Of Recommendations - Downtown Monterey

**Table 5: Downtown Recommendations**

	<b>Recommendations</b>	<b>Description</b>
1	Street Renaming	Rename the primary entry streets to downtown in order to promote clear wayfinding and access to Downtown Monterey. Fremont Street and Munras Avenue between Abrego and Alvarado will change to Alvarado Street, and Munras Avenue between Abrego and Highway 1 and Washington Street will change to one name.
2	Two Way Circulation	Convert all major streets in Downtown from one-way to two-way in order to facilitate multi-modal transportation circulation. The streets include converting portions of Del Monte Avenue, Franklin Street, Tyler Street, Washington Street, Jefferson Street and Alvarado Street.
3	Del Monte & Washington	Continue to explore and develop options to reconfigure the Del Monte/ Washington intersection.
4	Transit Center	Relocate the transit center from Simoneau plaza to Washington Street adjacent to the Sports Center to provide better bus route integration. The transit center will be more centrally located and provide the opportunity for Simoneau plaza to be redesigned into a unique pedestrian space.

**Table 5: Downtown Recommendations**

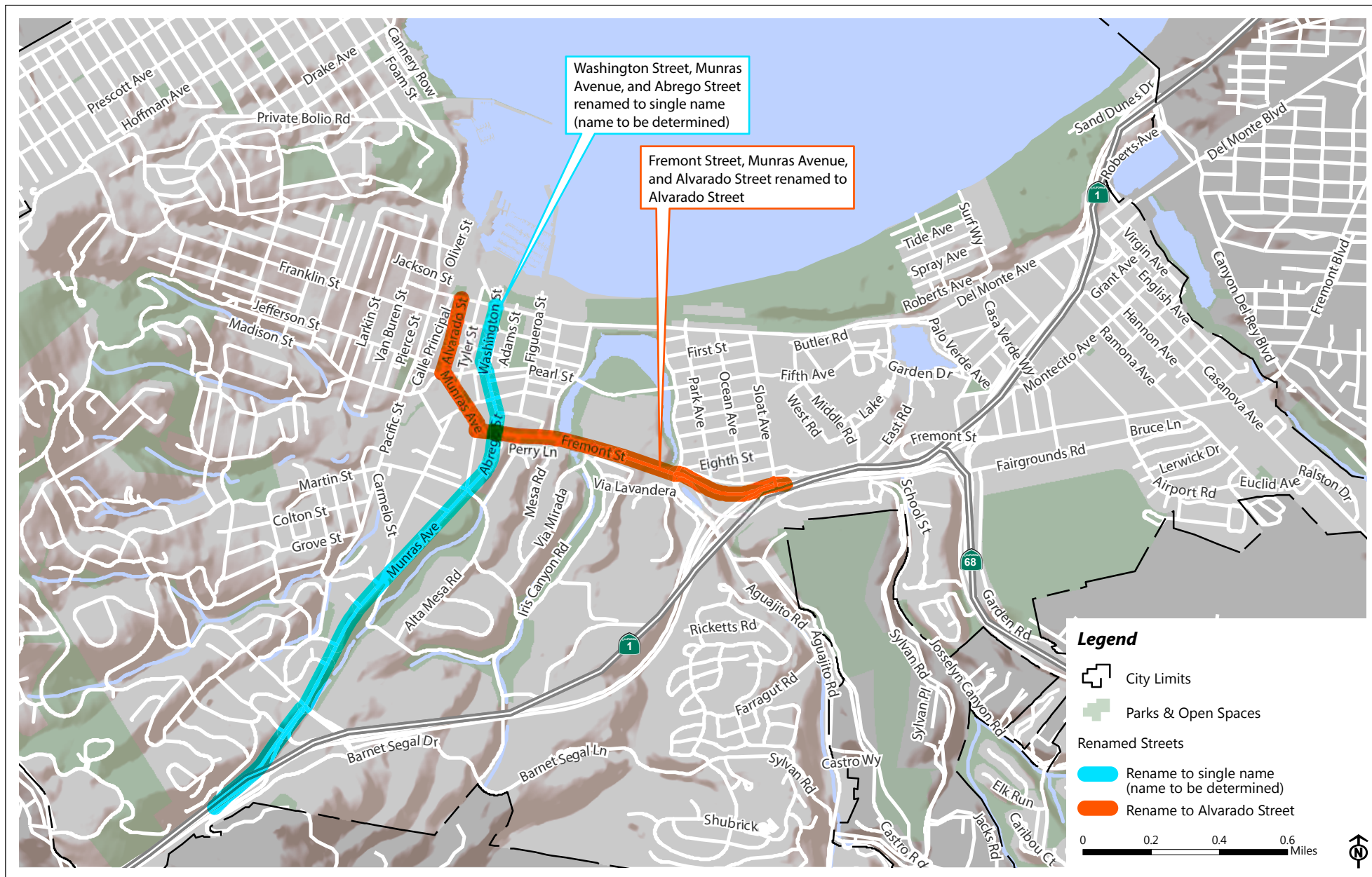
	<b>Recommendations</b>	<b>Description</b>
5	Alvarado extension	Extend vehicle access on Alvarado north to Custom House Plaza in order to help stimulate activity along this segment and provide a multimodal connection.
6	Pearl Street and Polk Street	Reconfigure the southern entry to downtown by closing Pearl Street between Tyler Street and Alvarado Street to vehicular traffic to facilitate bicycle and pedestrian activity. Convert Polk Street to a "historic street" and close to vehicular traffic with only emergency vehicle, pedestrian, and bicycle access allowed.
7	Roundabouts	Construct roundabouts at 1) Calle Principal/ Jefferson and 2) Madison/ Calle Principal/ Hartnell/ Polk to reduce vehicle conflicts while serving as a gateway feature into the historic Adobes.
8	Parking Management and Zoning	Implement parking management and zoning strategies to enable an efficient use of existing parking and reduce the demand for additional parking.

## Description of Recommendations

### 1. Street Renaming

Several street names in Monterey change as they travel through the City; this system makes it confusing for drivers to navigate into and out of Downtown. For example, there is minimal signage on southbound Highway 1 directing visitors to





**Figure 14: Downtown Street Renaming**

the appropriate highway exit to Downtown. While the Fremont Street exit is a main route to downtown, there is currently no indication to visitors that Fremont Street changes its name to Munras Avenue and then to Alvarado Street as one approaches Downtown Monterey. Similarly, the Munras Avenue exit from northbound Highway 1 makes it challenging for visitors to understand the correct way to downtown, as Munras Avenue changes to Abrego Street and then to Washington Street before it intersects with Del Monte Avenue.

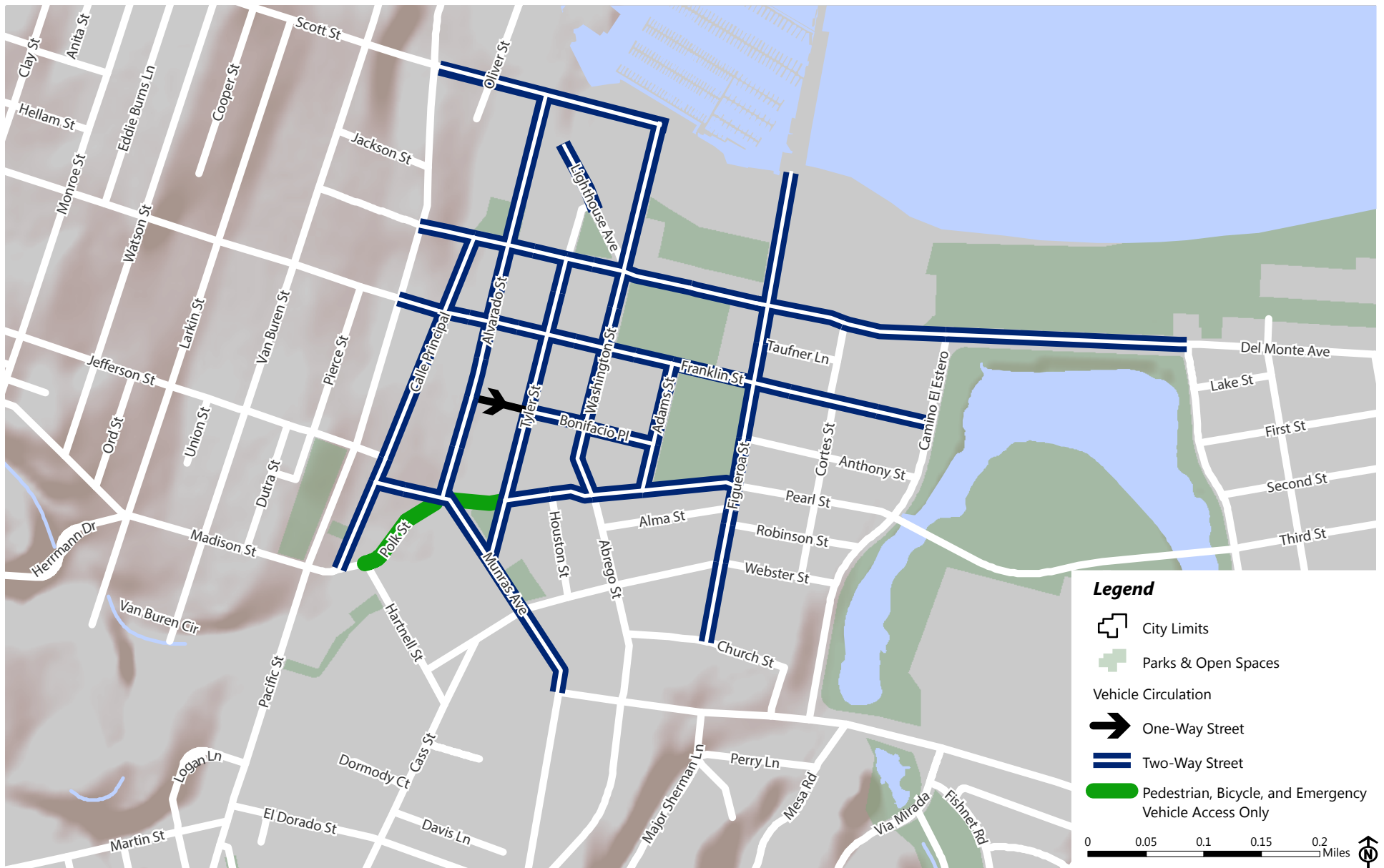
While several other options for renaming streets were considered, the recommended alternative will change Fremont Street and Munras Avenue to Alvarado Street, such that Highway 1 will have an exit to Downtown Monterey signed “Alvarado Street”.

Also, Munras Avenue, Abrego Street, and Washington Street should be a single name. The renaming will ensure consistent naming of the primary downtown access routes as they connect to Highway 1, making it clearer to drivers exiting the freeway. This improvement will create a more intuitive path into the Downtown area. A continuous and consistent street naming approach will benefit both visitors and residents (see Figure 14). A proposal to change Del Monte Avenue to Lighthouse Avenue was also presented to the Planning Commission during the charrette, though this suggestion was not carried forward.

## 2. Two-Way Street Circulation

In order to create a street network that embraces all travel modes, including automobile, bus, pedestrian and bicycle travel, a two-way circulation street plan is recommended for Downtown Monterey. This concept converts the following existing one-way street segments to accommodate two-way traffic:





**Figure 15: Proposed Alternative Downtown Vehicle Circulation**



- Alvarado Street from Pearl Street to Del Monte Avenue
- Del Monte Avenue from Washington Street to Pacific Street
- Franklin Street from Pacific Street to Camino El Estero
- Tyler Street from Del Monte Avenue to Franklin Street
- Washington Street from Del Monte Avenue to Franklin Street
- Jefferson Street from Alvarado Street to Calle Principal

While two-way streets are generally less efficient for automobile circulation, two-way streets have many advantages over one-way streets. Advantages of two-way streets include more direct access to destinations and easier wayfinding for travelers unfamiliar with Downtown Monterey. The conversion from one-way streets to two-way will also result in more direct vehicle routing to parking garages, more efficient bus routing through Downtown and improved accessibility to local shopping and businesses, resulting in less congestion from vehicles circling to find parking and shops.



The quality of the pedestrian realm Alvarado Street would be enhanced by using select parking spaces as sidewalk seating areas.

Source: Downtown Streetscape, Plazas and Urban Design Plan (2012)



Two-way traffic circulation, sidewalk seating areas, and other urban design treatments on Alvarado Street would create a street environment that supports all modes of travel.

Source: Downtown Streetscape, Plazas and Urban Design Plan (2012)

To better understand the transportation and traffic implications of converting one-way streets to two-way circulation, a detailed traffic forecasting and micro-simulation model was developed as part of the CTPS. This allowed the City to determine that the conversion of streets for two-way circulation is feasible not only for existing traffic volumes but also when accounting for future growth in Monterey and surrounding communities. Because two-way circulation would result in a substantial change to downtown traffic patterns, some ancillary improvements are also needed to ensure that traffic in Downtown Monterey still moves efficiently, including improvements to the Pearl Street / Alvarado Street intersection (see Recommendation #6 below); this includes some removal of parking spaces on Franklin Street (approximately 24 spaces), Polk Street (approximately 27 spaces), and Pearl Street (3 spaces). The detailed results of the technical evaluation of this project are included in Appendix C.

### Downtown Visualization

In order to better portray the function of Alvarado Street and intersecting streets with two-way traffic circulation, a visualization animation of the street was developed as a component to this study. The static image from the visualization is shown below, and the full animation can be viewed on the City's website at <http://www.monterey.org/en-us/departments/planspublicworks/planning/planningprojects/citywidetransportationparkingstudy.aspx>.



Images of visualization

### **3. Downtown Grid and Del Monte / Washington Intersection**

During the course of developing the CTPS, several alternatives were identified for the Del Monte / Washington intersection and the street network immediately surrounding it. The recommended alternative developed during the charrette, known as the “Expanded Grid” concept, extends a segment of Del Monte Avenue between Figueroa Street and Tyler Street one block north, resulting in a one- way couplet. The new street, North Del Monte Avenue, extends the street grid closer to the Waterfront, increasing development opportunities to showcase the waterfront and the historic Southern Pacific Passenger Depot. It also creates an opportunity to redesign the Del Monte gateway into Downtown Monterey. North and South Del Monte Avenue would each have fewer travel lanes, narrower street widths and reduced crossing distances for bicyclists and pedestrians. Traffic flow to and from the Lighthouse Tunnel would not be compromised.

#### **Expanded Grid Variations**

Several variations to the Expanded Grid concept have also been proposed since the charrette. They include:

- **Figueroa Approach:** this variation would separate westbound traffic from Del Monte Avenue east of the Figueroa Street intersection, which would reduce lane transition conflicts on Figueroa Street between North Del Monte Avenue and Del Monte Avenue. However, it would require additional right-of-way east of Figueroa in order to be implemented.
- **One-Way South Del Monte:** this variation would restrict Del Monte Avenue between Washington Street and Figueroa Street to one-way eastbound circulation. This configuration requires all Downtown-bound traffic to make a right turn on Figueroa, left on North Del Monte, and left on Washington to reconnect with westbound Del Monte Avenue.
- **Full Access at Del Monte Avenue / Tyler Street:** in order to avoid causing additional traffic queues in the Lighthouse Tunnel, the Expanded Grid concept would restrict eastbound Del Monte traffic exiting downtown from continuing east on Del Monte Avenue past Tyler Street. The results of the traffic microsimulation modeling showed that this would allow

more signal time to eastbound traffic exiting the tunnel and allow for the intersection to operate without high levels of congestion. A variation to this configuration would be to allow full vehicle access at the Del Monte Avenue / Tyler Street intersection. While this would result in lengthy traffic queues in the Lighthouse Tunnel and degrade LOS during PM peak hours, it would allow all traffic movements to be accommodated at this intersection.

While these variations create opportunities to enhance the circulation in Downtown, there are several tradeoffs with each variation that have not been fully studied. The City also recently began a design effort for the New Downtown Multi-Modal Transit Center (Recommendation #4 below) which may also influence the Del Monte/Washington intersection. As a result, City Staff, within the context of the Downtown Multi-Modal Transit Center, will continue to study solutions to the Del Monte/Washington intersection

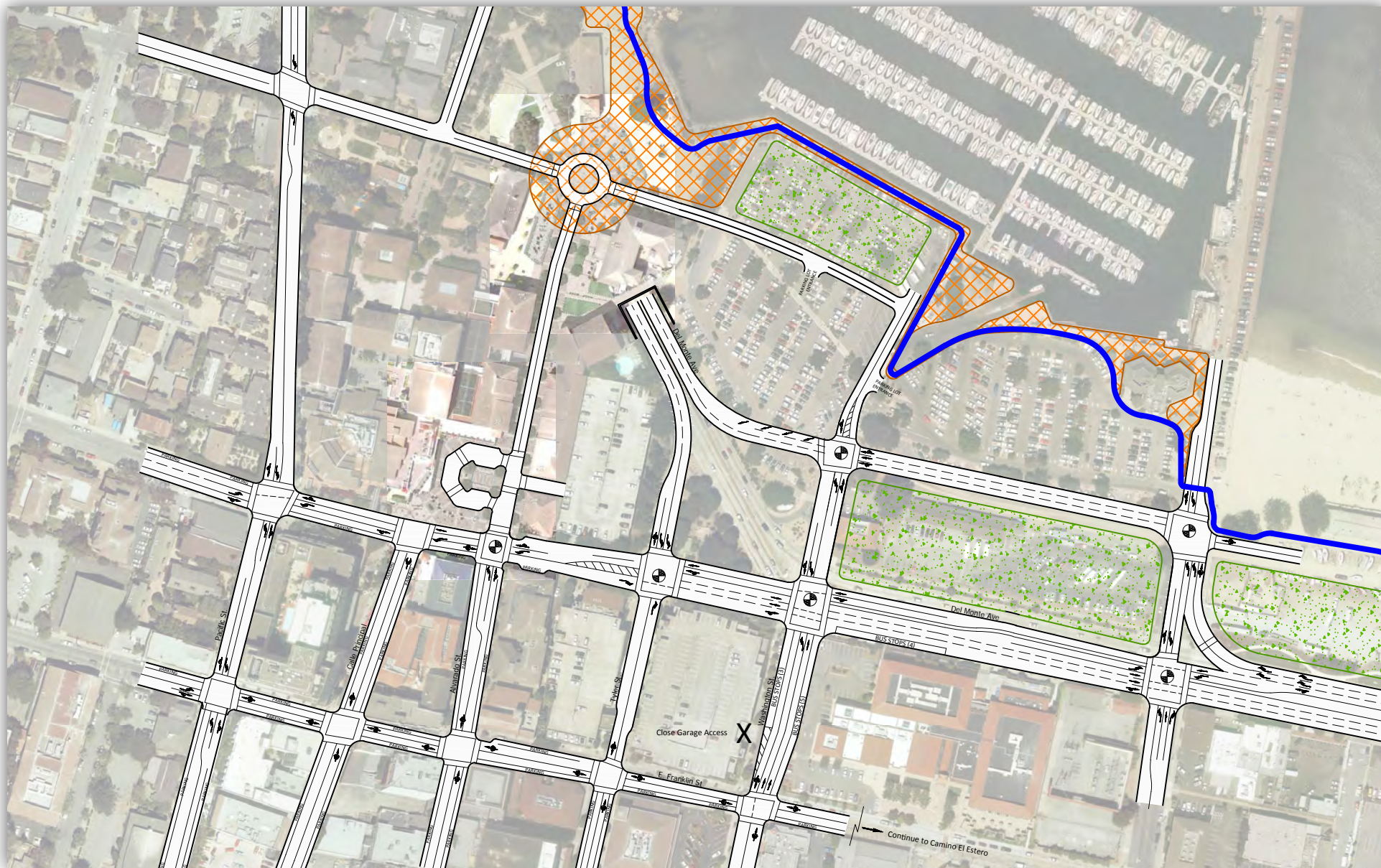
The CTPS evaluates the two-way street conversion without changing the Del Monte/ Washington intersection. Eastbound traffic on Del Monte Avenue would occur with the two-way street conversion through the Del Monte Avenue / Washington intersection. While compared to existing conditions, this introduces additional traffic and pedestrian delay (i.e. pedestrians would need to cross the intersection in two stages, resulting in an additional 60 second wait time for pedestrians accessing the Waterfront from Downtown) at the intersection, it would permit all traffic movements at the intersection to occur.

Technical results are presented in Appendix D.

### **4. New Downtown Transit Center**

The charrette process evaluated several locations for the Downtown Multi-Modal Transit Center. The best performing option is on Washington Street just East of the East Garage. This location allows for efficient bus transfers, provides adequate waiting space, and ensures a location close to the center of Downtown. Relocating the MST Transit Center from Simoneau Plaza to Washington Street will provide





**Figure 16: Downtown “Expanded Grid” Conceptual Layout**



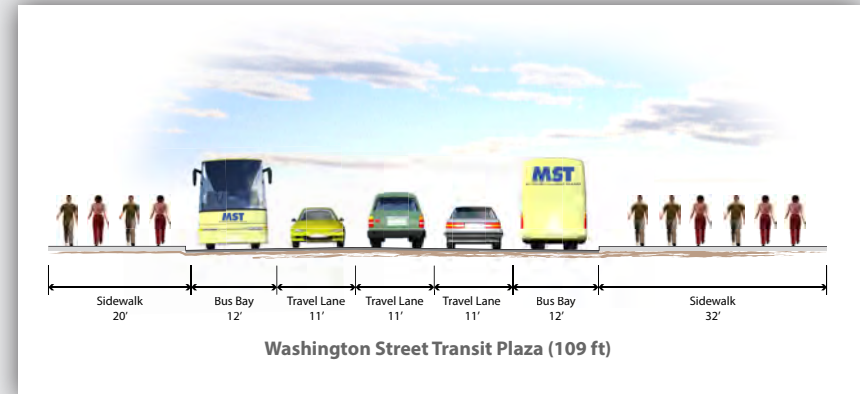


The existing Monterey Transit Center at Simoneau Plaza provides connections to several MST bus routes and taxi services.

better integration with the bus routes by providing direct connections to parking garages, increasing the proximity to the Waterfront, streamlining bus connections to the North Fremont / Lighthouse BRT corridor and providing a convenient connection to the Del Monte Interim BRT and future planned Light Rail Transit (LRT) corridor.

Based on bus service needs identified by MST, the Downtown Multi-Modal Transit Center will have 12 bus bays. A portion of the Monterey Sports Center parking lot adjacent to this location may be utilized for the transit center. Relocating the Downtown Multi-Modal Transit Center will make Simoneau Plaza available for other uses envisioned as part of the Downtown Streetscape, Plaza and Urban Design Plan. The future vision for Simoneau Plaza is to make it a more functional space to hold more civic functions and entertain residents.

As noted above, the City is continuing a design effort for the new Downtown Multi-Modal Transit Center that considers its programmatic needs, including bus layouts, facility design and urban design treatments for the shelter/waiting areas.



Cross Section of Potential Washington Street Concept for the New Downtown Multi-Modal Transit Center



Potential Washington Street Concept for the New Downtown Multi-Modal Transit Center



## Del Monte Interim BRT Evaluation

As a parallel evaluation to the new Downtown Transit Center, the project team also evaluated potential BRT improvements on Del Monte Avenue that would provide dedicated bus lanes from Camino Aguajito east to Sloat Avenue or further east. The results of this evaluation are presented in Appendix B.

## 5. Custom House Plaza / Alvarado Street Extension

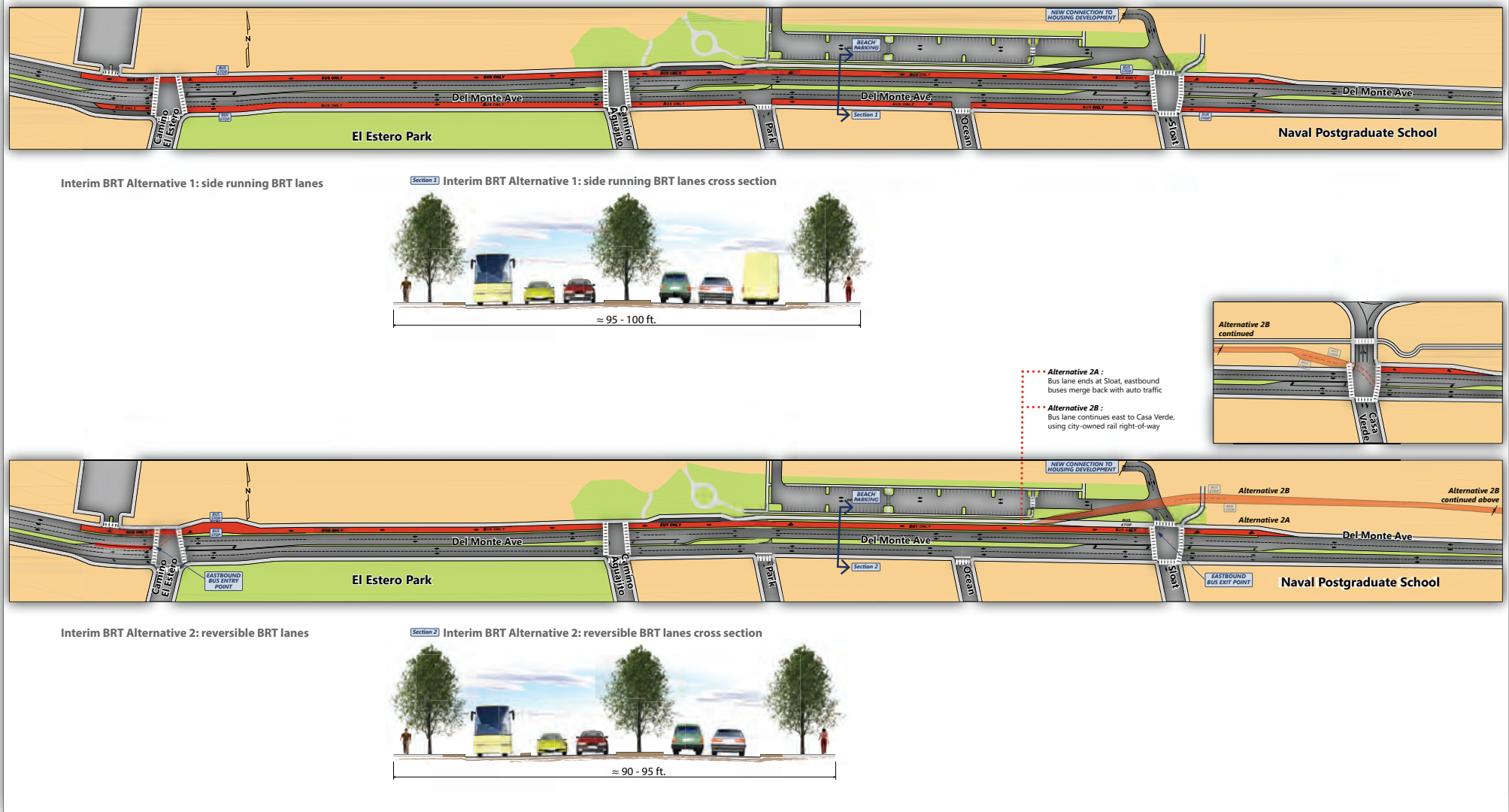
Custom House Plaza is a primary gathering area in Downtown but is visually disconnected from businesses and Fisherman's Wharf, resulting in limited pedestrian activity. The recommended solution, developed in coordination with the Downtown Streetscape, Plaza and Urban Design Plan, extends multi-modal access north on Alvarado Street and east on Scott Street to Custom House Plaza to make each street more inviting and encourage pedestrian activity.

The extent of vehicle access on the Alvarado and Scott extension will be defined at a later time but the street will be designed to limited vehicle speeds of less than 10 miles per hour. The street extensions could limit vehicle access through the placement of bollards and primarily allow access for transit vehicles, bicycles and pedestrians. The restoration of automobile, bicycle, and transit access will promote Custom House Plaza as a more visible location and a more connected part of the City's street network.

## 6. Pearl and Polk Streets Redesign

The conversion of Alvarado Street to two-way requires the simplification of the five-legged intersection at Pearl Street, Polk Street, Munras Avenue, and Alvarado Street. The Polk and Pearl Street redesign limits access along Polk Street between Alvarado Street, Pearl Street, and Hartnell Street to bicycle, pedestrian and emergency access only. This will allow Polk Street to be redesigned in a way that complements the historic buildings in the area and emphasize the street as the main historic area in the south part of Downtown Monterey.





**Figure 17: Del Monte Interim BRT Evaluation**



As shown in the Downtown Streetscape, Plazas and Urban Design Plan (2012), a redesigned Custom House Plaza would serve as the connection between the Scott Street and Alvarado Street extensions.



Alvarado Street extension concept from Downtown Streetscape, Plazas and Urban Design Plan (2012)



Restricting automobile traffic will improve the intersection operations at Alvarado Street and create a vital bicycle link along the Pearl Bicycle Boulevard as envisioned in the City's Bikeways Master Plan (2009). A total of 30 on-street parking spaces would need to be removed as a result of the Pearl and Polk Streets redesign; however, the parking evaluation concluded that ample parking is available at nearby City-owned spaces. Relocating the Downtown Transit Center to Washington Street will allow for the redevelopment of Simoneau Plaza into a more functional pedestrian space. The configuration of Pearl Street helps facilitate the enhanced pedestrian plaza; in particular, the northwest portion of the plaza can be extended further toward the Alvarado Street / Pearl Street intersection to create a well-defined pedestrian space adjacent to the intersection (shown below) and better connects the area to the Historic Polk Street and shopping on Alvarado Street.

Another variation could retain on-street parking for loading activities during off-peak hours or for overnight parking.

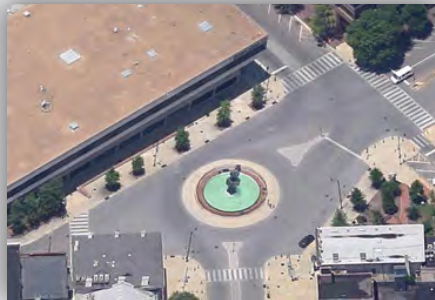
### 7. Calle Principal Roundabouts

The roundabouts along Calle Principal at Jefferson Street and Madison Street provide a visual queue for travelers entering the South Historic District. The roundabout at Calle Principal and Jefferson Street would solve the queuing issues that result from the conversion of Jefferson Street to two-way circulation. This new three-legged intersection also provides a gateway feature for the historic Larkin House.



A redesign of Polk Street as a historic street provides a better connection to destinations along Alvarado Street and the North Historic District.

Source: Downtown Streetscape, Plazas and Urban Design Plan (2012)



Court Square in Montgomery, Alabama was recently redesigned as an historic traffic circle which is one option for how the Calle Principal roundabouts could be designed.





**Figure 18: Roundabouts along Calle Principal at Jefferson Street and Madison Street**





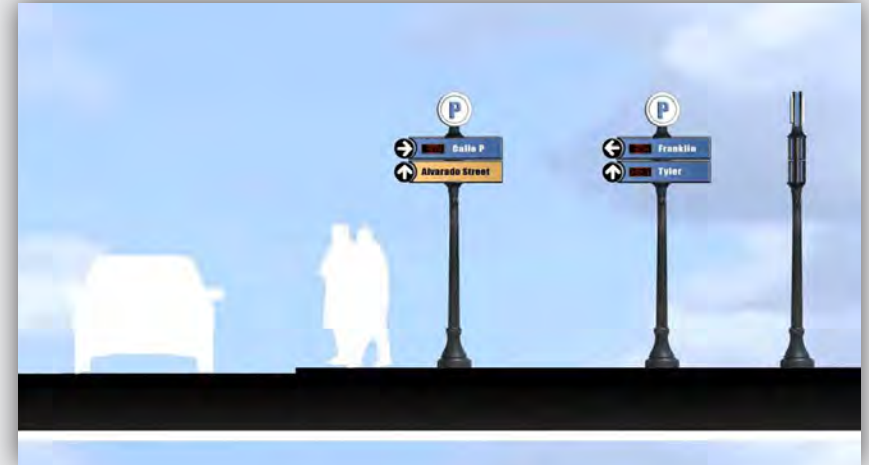
Polk Street, lined with historic Adobe Buildings, will become a major pedestrian destination within the heart of Downtown.



Photo credit flicker: cacaye

Rue de Prince Arthur is an example of an historic street that allows bicycle, pedestrian, and emergency vehicle access.

A second roundabout at Madison / Calle Principal / Hartnell reduces vehicular conflicts while also serving as a gateway feature into the new pedestrian-oriented Historic Polk Street. The roundabouts will improve traffic flow at these two locations while creating new unique streetscape features that promote these intersections as the southern entry to downtown.





Potential concept for parking wayfinding signage.

Source: Downtown Streetscape, Plazas and Urban Design Plan (2012)

## 8. Parking Management



As part of the CTPS, a comprehensive parking evaluation of Downtown was undertaken. As part of the evaluation, several parking management solutions were developed to effectively manage parking supply and demand in the Downtown area. Eight primary parking strategies comprise the Downtown Parking Management Plan and are summarized in [Table 6](#) on page 59. Refer to Appendix A for more details on these recommendations.

**Table 6: Downtown Parking Management Plan**



	Recommendation	Description	Image
P-1	Install Real-Time Availability and Wayfinding Signs	Real-time availability signs in the Downtown parking garages and the Waterfront lots provide digital displays of real-time available parking supply information, increasing parking utilization, maximizing efficiency, and reducing “cruising” for available spaces. Wayfinding signs direct visitors to the available parking supplies.	
P-2	Implement Valet and Tandem Parking	Valet and tandem parking in the Downtown parking garages and Waterfront lots during peak summer weekends and special events maximizes off-street parking utilization for long-term parkers which makes available the convenient curb spaces for visitors.	
Source: Waterfront and Downtown Parking Study, Nelson\Nygaard, 2012			



**Table 6: Downtown Parking Management Plan**



	Recommendation	Description	Image
P-3	Install Parking Meters where necessary and adjust off-street prices accordingly	On-street parking meters in the Downtown areas operated to maintain 85% on-street occupancy rate ensures visitors an available parking space within one block of their destination.	
P-4	Create a residential parking benefit district	Residential Parking Benefit Districts in downtown adjacent residential areas complement the on-street parking meters. Benefit districts allow some commuter parking by paying for surplus on-street parking spaces. In return, the resulting revenues go to the neighborhood to fund public improvements.	
Source: Waterfront and Downtown Parking Study, Nelson\Nygaard, 2012			

**Table 6: Downtown Parking Management Plan**

	Recommendation	Description	Image
P-5	Allow Shared Parking Among Different Land Uses by Right	Allowing different land uses to share parking will make the process of securing approval for shared parking less onerous for new development and adaptive reuse projects.	 <p>The diagram shows a street scene with a purple car parked in a designated space. Two signs are visible: 'CUSTOMER PARKING Mon-Sat 9:00am- 5:00pm' and 'VISITOR PARKING Mon-Sat 5:00pm- 9:00am Sun- all day'.</p>
P-6	Eliminate/Reduce parking minimums, implement parking maximums, and establish an in-lieu fee	Reform parking requirements by a) eliminating non-residential minimum requirements, b) reducing residential minimum requirements to one-half space per unit, c) instituting maximum requirements, and d) establishing an in-lieu fee. Set maximum parking requirement for commercial (at 4 spaces per thousand square feet) and residential (at 2 spaces per unit) uses to allow development flexibility while meeting the City's goals of creating a vibrant, walkable downtown.	 <p>The top photograph shows a street with a red and white striped curb and a building with a sign that reads 'MONTEREY'. The bottom photograph shows a street intersection with cars and pedestrians.</p>

Source: Waterfront and Downtown Parking Study, Nelson\Nygaard, 2012

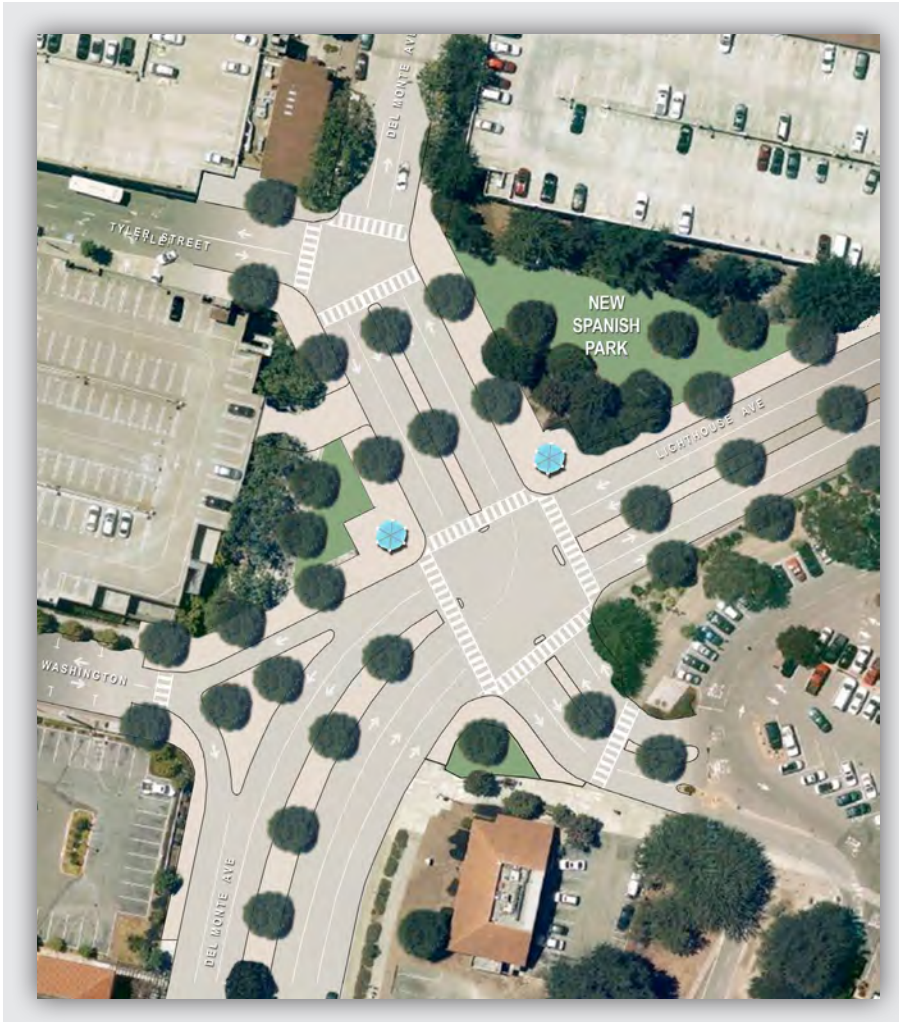
**Table 6: Downtown Parking Management Plan**

	Recommendation	Description	Image
P-7	Unbundle Parking Pricing	Require all new residential development to “unbundle” the full cost of parking from the cost of the housing itself, by creating a separate parking charge. Charging separately for parking is a very effective strategy to encourage households to own fewer cars and rely more on walking, cycling, and transit.	
P-8	Implement Transportation Demand Management policies and programs	Transportation Demand Management (TDM) programs might include a parking cash-out program, universal transit passes, and mandating that employees receive benefits in exchange for giving up their parking space.	
Source: Waterfront and Downtown Parking Study, Nelson\Nygaard, 2012			



## Additional Alternatives Evaluated

In addition to the recommendations described above, several additional alternatives were evaluated through the CTPS. The intent of this section is to briefly describe each of the alternatives in order to provide context to the recommendations that were selected.



Del Monte/ Washington T-Intersection Concept



Del Monte/ Washington Reverse Couplet Concept

## Two-Way Street Circulation Alternatives

To evaluate the concept of converting the City's downtown street system to two-way circulation, a traffic assignment model was developed. This model allowed the City to understand the implications of converting all streets to two-way circulation compared to simply converting a portion of streets to two-way circulation.

Though not ultimately selected as the preferred alternative, an option to maintain some streets as one-way streets was also evaluated. This alternative would have maintained one-way traffic on Franklin Street and Del Monte Avenue in downtown. Advantages of this option are that it would maintain all on-street parking on Franklin and reduce traffic congestion levels slightly compared to converting all streets to two-way circulation. However, drawbacks are that it would not entirely eliminate some of the confusing wayfinding and access that occurs today, particularly for accessing downtown parking garages from Alvarado Street.

## Expanded Grid And Del Monte / Washington Circulation Alternatives

In addition to evaluating the Expanded Grid and its configuration for the Del Monte / Washington intersection, the project team studied other alternatives that were not ultimately carried forward. Other concepts for the Del Monte/ Washington intersection are described below.

### *T-Intersection Alternative*

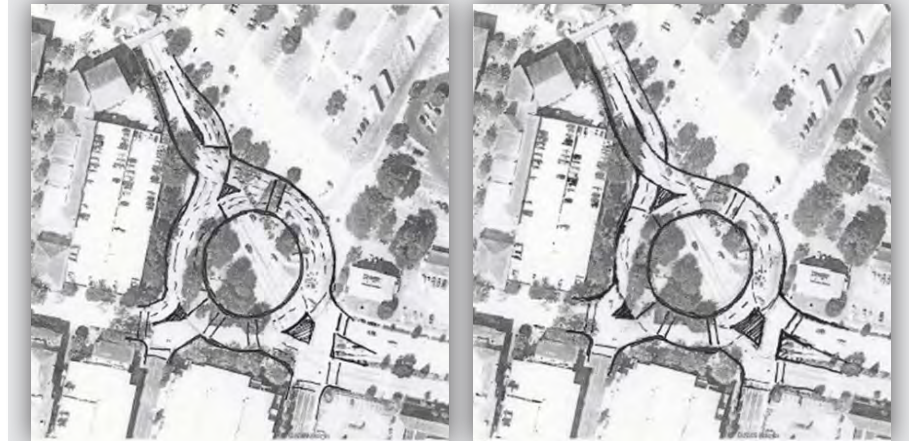
One alternative, the "T-Intersection" concept, was considered during the charrette in the summer of 2011. Featured above, this configuration involved realigning Del Monte Avenue so vehicle have to make a left turn in order to continue to Downtown. The main benefits of this alternative include a more defined gateway feature into the Downtown. Additionally it improved traffic flow and made Washington Street more bicycle-oriented. Because this alternative eliminated left-turns from Washington Street onto Del Monte Avenue, the Planning Commission ultimately decided not to further pursue this alternative.

### *Reverse Traffic Flow Alternative*

Also illustrated above, another alternative included reversing the traffic traveling out of the Lighthouse Tunnel so that traffic would enter the tunnel on Tyler Street. This alternative supported the "reverse one-way couplet" configuration in Lighthouse Avenue which is discussed in more detail in the following section. This design did not move forward due to limited support for reversing traffic flow within the Lighthouse Avenue corridor.

### *Roundabout Alternatives*

Several roundabout or large traffic circle designs were also considered at the Del Monte/ Washington intersection, both with and without reversing traffic flow in the Lighthouse Tunnel. These configurations create a dramatic entry feature into Downtown and provide opportunities for plaza space or other landscaping in the center of the roundabout. However, due to concerns in accommodating the high level of traffic demand within the tunnel and the topographical concerns with the area, these alternatives were not pursued further. Additionally, a large multi-lane roundabout design does little to facilitate effective pedestrian and bicycle connections between Downtown and the Waterfront.



Lighthouse Tunnel Roundabout Concepts



# Lighthouse Avenue Recommendations





The following section summarizes the recommended transportation alternatives for the Lighthouse / New Monterey neighborhood. The objectives of these solutions were to improve crossings for pedestrians, the streetscape environment, bus stop amenities, and parking unloading. Like Downtown, the primary goal for the Lighthouse Avenue corridor is to stimulate the economic vitality by improving the multi-modal access of the neighborhood.



Lighthouse Vehicle Congestion

## Summary Of Preferred Alternative - Lighthouse

**Table 7: Lighthouse Area Recommendations**

	<b>Recommendation</b>	<b>Description</b>
1	Pedestrian Corner Bulbs	Pedestrian corner bulbs, also known as “bulb outs” or curb extensions, along Lighthouse Avenue intersections will create shorter crossing distances for pedestrians, minimizing their exposure to vehicular traffic and reducing signal time for pedestrian crossings.
2	Streetscape Improvements	Combined with corner bulbs, streetscape improvements such as additional street trees facilitate a more welcoming pedestrian environment.
3	Bicycle Improvements	Adding bicycle connections in the Lighthouse neighborhood, including completing the Bicycle Boulevard routes identified in the City's Bicycle Transportation Plan will encourage bicycle travel.
4	Parking Management and Zoning	Parking management and zoning strategies will enable an efficient use of existing parking and reduce the demand for additional parking.

## Description of Preferred Alternative

### 1. Streetscape Enhancements

#### Bus Bulbs and Corner Bulbs

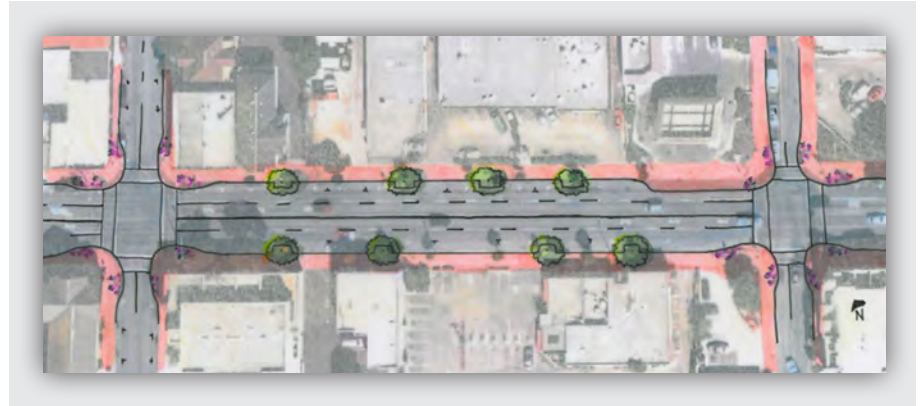
The City's preferred alternative for Lighthouse Avenue involves utilizing streetscape enhancements so the street serves vehicles, transit, and walking transportation modes. The bus bulbs on Lighthouse Avenue will facilitate more efficient passenger boarding and alighting for buses. Bus bulbs extend the sidewalk curb so buses can more quickly stop to drop-off passengers without needing to pull in and out of traffic.

Similarly, bulbs can be used at intersection corners, extending the sidewalk which reduces crossing distances and the pedestrian exposure to vehicles; and bulbs at intersection reduce vehicle speeds at turns. Other streetscape improvements along Lighthouse Avenue include the addition of more street trees to enhance the comfort of the walking environment.

#### Street Trees

In addition to the bus and pedestrian bulb-outs described above, other streetscape treatments for the Lighthouse Avenue corridor include the installation of street trees and other features to promote a more walkable environment. During the charrette process, an example block of Lighthouse Avenue was evaluated to determine that a series of street trees could be installed in the parking lane, which would not have the effect of reducing sidewalk widths, and would not result in the loss of existing parking spaces. This type of street tree positioning is similar to what currently exists on Alvarado Street in downtown.

Other streetscape features, such as street furniture and benches, landscaping at pedestrian bulbouts and enhanced sidewalks, would also benefit the pedestrian environment on the corridor.



In addition to MST's bulb-outs, streetscape enhancements for Lighthouse Avenue could include pedestrian bulb-outs, new street trees, and other streetscape features.

### 3. Bicycle Improvements

The City's Bicycle Transportation Plan (BTP) identifies a new Bike Boulevard on Laine Street, Reeside Street, and Hawthorne Street and a new connection to the bike boulevard from Coastal Trail via Hoffman. The BTP planning process determined that Lighthouse Avenue was not an appropriate bike route. These improvements increase bicycle access and connectivity in the Lighthouse / New Monterey neighborhood. Additionally, a new bicycle connection is planned from the Laine / Hawthorne Bike Boulevard to Downtown Monterey via Corporal Ewing Road in the Presidio of Monterey. This connection will provide an alternate route for cyclists to access downtown that will avoid the changes in elevation and crossing Lighthouse Avenue associated with using the Coastal Trail.

### 4. Parking Management

As part of the CTPS, a comprehensive parking evaluation of the Lighthouse / Cannery Row area was undertaken. Several parking management solutions were developed to effectively manage parking supply and demand in the area. The primary parking strategies that comprise the Lighthouse Parking Management Plan are summarized in the [Table 11](#) on following page. Refer to Appendix A for more details on these recommendations.

Table 8: Lighthouse Parking Management Plan			
	Recommendation	Description	Image
P-1	Install Real-Time Availability and Wayfinding Signs	Provide real-time parking supply availability signs in the Cannery Row garage that is also accessible online. These digital displays increase parking utilization, maximize efficiency, and reducing “cruising” for available spaces. Enlarge and expand wayfinding signs on Foam Street and on Lighthouse Avenue prior to the Foam Street merge directing motorists to the available parking.	
P-2	Implement Valet and Tandem Parking	Implement valet and tandem parking in the Cannery Row garage during summer weekends to maximize off-street parking utilization for long-term parkers. Tandem parking increases the parking supply at peak times.	
Source: Cannery Row and Lighthouse Parking Study, Nelson\Nygaard, 2012			





Table 8: Lighthouse Parking Management Plan			
	Recommendation	Description	Image
P-3	Manage Parking Pricing	On Cannery Row and Wave Street area, manage the pricing for the existing meters in the Lighthouse area to ensure they are effectively managing parking pricing to encourage that 85% of the spaces are occupied. This will mean that visitors needing to park within one block of their destination will be able to find an available parking space.	
P-4	Create a residential parking benefit district	Implement Residential Parking Benefit Districts in adjacent residential areas. These districts allow a limited number of commuters to pay to use surplus on-street parking spaces in residential areas and return the resulting revenues to the neighborhood to fund public improvements.	
Source: Cannery Row and Lighthouse Parking Study, Nelson\Nygaard, 2012			





Table 8: Lighthouse Parking Management Plan			
	Recommendation	Description	Image
P-5	Allow Shared Parking Among Different Land Uses by Right	Incorporate shared parking policies into development reviews to make the process of securing approval for shared parking less onerous for new development and adaptive reuse projects.	
P-6	Eliminate/Reduce parking minimums, implement parking maximums, and establish an in-lieu fee	Adopt zoning changes that eliminate minimum parking rates for non-residential uses and sets residential requirements at one-half space per unit in the Lighthouse area. Establish an in-lieu fee to both stimulate new development and allow existing businesses to “turnover” to new uses without being constrained by parking requirements.	
Source: Cannery Row and Lighthouse Parking Study, Nelson\Nygaard, 2012			

Table 8: Lighthouse Parking Management Plan			
	Recommendation	Description	Image
P-7	Unbundle Parking Pricing	Require all new residential development to “unbundle” the full cost of parking from the cost of the housing itself, by creating a separate parking charge. Charging separately for parking is a very effective strategy to encourage households to own fewer cars and rely more on walking, cycling, and transit.	
P-8	Implement Transportation Demand Management policies and programs	Transportation Demand Management (TDM) programs include such items as a parking cash-out program, universal transit passes, and mandating that employees receive benefits in exchange for giving up their parking space.	
Source: Cannery Row and Lighthouse Parking Study, Nelson\Nygaard, 2012			



## **Additional Alternatives Evaluated**

### **Lighthouse Area Street Reconfiguration Alternatives**

Several alternatives were evaluated for New Monterey to reduce vehicle congestion and improve circulation along the corridor. The alternatives evaluated opportunities for one-way couplets and left-turn access along Lighthouse Avenue. Ultimately, these options were not carried forward by the Planning Commission and City Council because of the perception that a one-way couplet would adversely affect the economic vitality of the corridor.

#### ***One Way Clockwise ("Reverse") Couplet Alternative***

This alternative transforms Lighthouse Avenue from a two-way street to a one-way street from Downtown towards Pacific Grove. Foam Street would travel one-way towards Downtown instead of towards Pacific Grove. The couplet scenario provides efficient vehicle circulation through requiring right turn maneuvers between Lighthouse Avenue and Foam Street, thus optimizing turning opportunities. A main challenge to this configuration is the perceived impacts that the one-way traffic may have on Lighthouse Avenue, such as reducing the driver exposure to businesses on Lighthouse Avenue.

Additionally, this configuration requires vehicles to switch directions through the tunnel in order to be placed appropriately to travel towards Pacific Grove on Lighthouse Avenue and towards Downtown on Foam Street. Switching the direction of travel on these two streets requires a major street reconfiguration on either the Downtown side of the tunnel at the Del Monte Avenue intersection or on the New Monterey side. Alternative options were evaluated to reverse the traffic on Foam Street and Lighthouse Avenue. However, the complexities with this alternative include the archeological sensitivity of the Lower Presidio and the acquisition of US Coast Guard property. Ultimately, the City decided that the complexities of this alternative did not provide proportional benefits to the traffic circulation on the Lighthouse Avenue corridor to justify the reconfiguration.

#### ***One- Way Counter-Clockwise Couplet Alternative***

This alternative assumes Foam Street traffic continues as one-way towards Pacific Grove and Lighthouse Avenue converts from a two-way street to a one-way street from Pacific Grove towards Downtown. The vehicle circulation between Foam Street and Lighthouse for this alternative requires left turn maneuvers, compared to right turns in the one-way clockwise couplet alternative. While the one-way couplet could improve traffic circulation, there were concerns about the potential negative economic impacts that reducing driver exposure could have on businesses along Lighthouse Avenue.

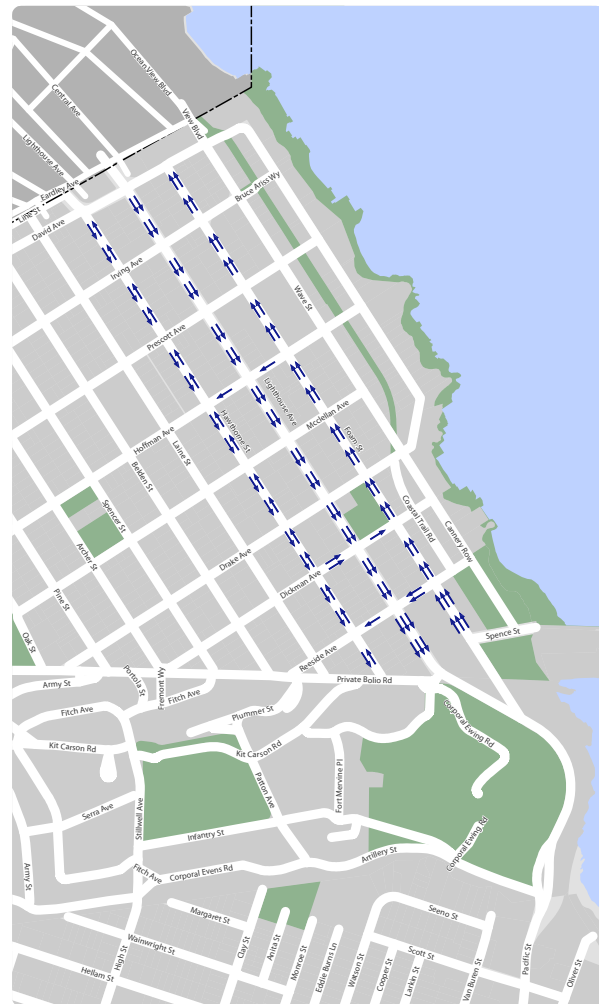
#### ***4-3 Conversion Alternative***

This alternative reduces a segment of Lighthouse Avenue from four lanes to three lanes. The configuration would allow two travel lanes and a center left turn lane, opening access for left turns along Lighthouse. The segment of Lighthouse Avenue closest to the tunnel would stay as four lanes because of the high demand needed to serve the vehicles accessing the tunnel. One major challenge with this alternative is the potential displacement of traffic from Lighthouse Avenue to Hawthorne Street due to congestion on Lighthouse Avenue.

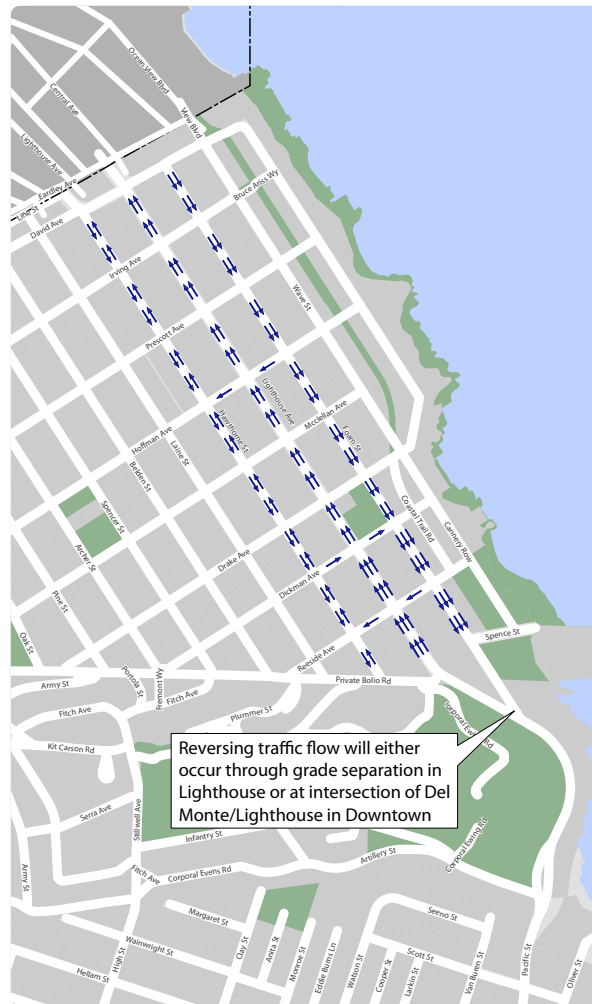
### **Additional Street Reconfiguration Variations**

#### ***Lighthouse Left Turn Access***

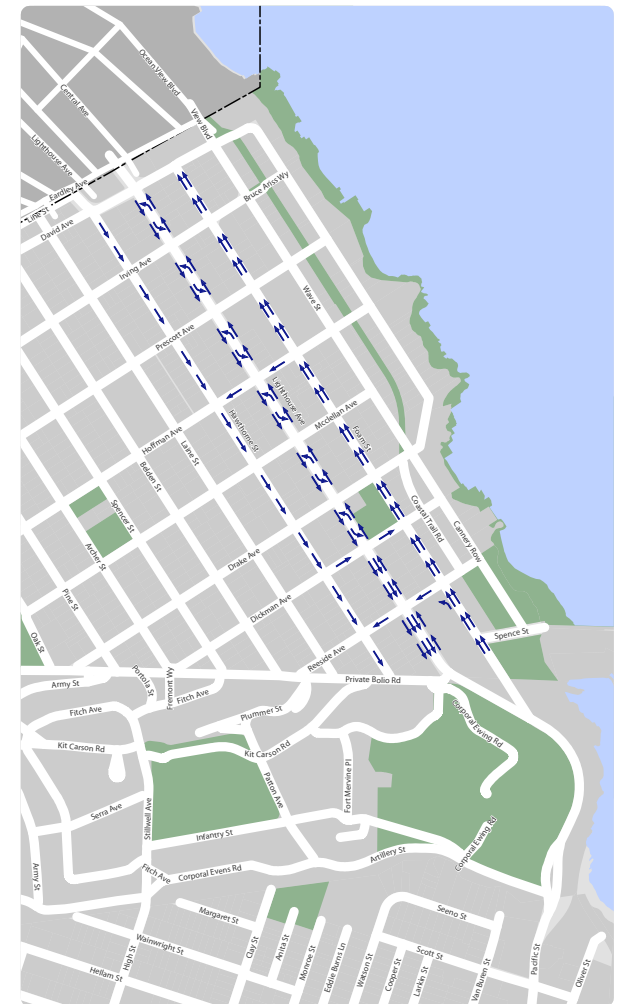
The project team evaluated the addition of left turn access at Prescott Avenue, Drake Avenue, and Irving Avenue. Left turns at these select locations benefits circulation on Lighthouse Avenue while containing the two lane street configuration. Parking removal along Lighthouse Avenue would need to occur in some locations in order to accommodate the right-of-way space for the left turn lanes. This conflicts with the business desire to have store front parking for their customers.



**One Way Couplet Alternative**



**Reverse Couplet Alternative**



**4-3 Conversion Alternative**

**Figure 19: Circulation Options for Lighthouse Avenue Corridor**

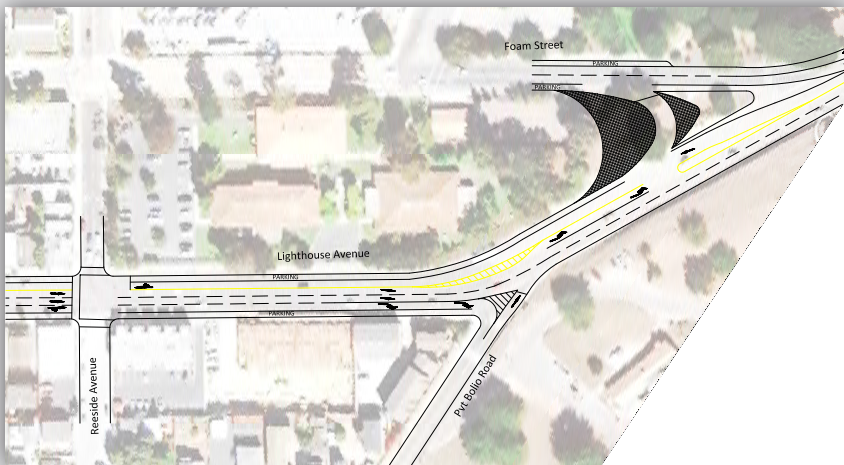


**Figure 20: Lighthouse 3:1 Lane Configuration Option**





Rendering of the 4-3 Conversion alternative



The possibility of adding a "Return Loop" for eastbound traffic to circulate back to Foam was considered in conjunction with other configurations for the Lighthouse Avenue corridor.

### ***Parking Lane Striping***

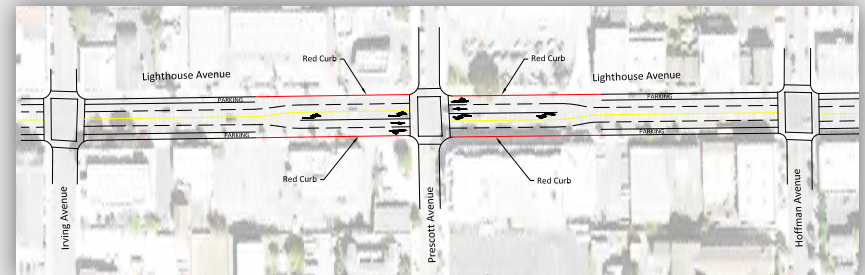
The narrow seven foot parking lane on Lighthouse Avenue makes it challenging for drivers to unload their vehicles when parking on street. Narrowing each travel lane a few inches means that the parking lane width can be increased which helps drivers to more safely exit and enter their parked vehicle. Additionally, a wider parking lane will minimize the conflicts drivers experience when passing parked vehicles on Lighthouse Avenue.

### ***Lighthouse 3:1 Lane Configuration***

In order to alleviate vehicular congestion along Lighthouse Avenue near the tunnel, a "3:1" lane imbalance was evaluated from Dickman Avenue to Private Bolio Road. The configuration consisted of 3 eastbound lanes toward the tunnel and 1 westbound lane along this segment, thus reducing vehicular exposure to Lighthouse Avenue along this segment. The City did not proceed with this alternative due to the desire to maintain the existing street configuration on Lighthouse Avenue.

### ***Return Loop from Lighthouse to Foam***

The "return loop" concept would improve the circulation pattern within New Monterey by providing an eastbound connection on Lighthouse Avenue past Private Bolio Road to merge with westbound Foam Street. While this improvement enhances vehicular circulation between Lighthouse Avenue and Foam Street, the City Council did not move forward with this improvement because it was considered in conjunction with the other alternative lane configurations. Additionally, allowing the left turn movement could cause potential queuing towards the tunnel for westbound traffic.



Opportunities to introduce left turns at some intersections on Lighthouse Avenue were evaluated as part of the study.



# North Fremont Recommendations



The following section summarizes the recommended transportation alternatives for North Fremont Street. Consistent with the objectives of the draft North Fremont Specific Plan, these solutions will reduce vehicular speeds along the corridor, enhance the streetscape environment, improve crossing safety for pedestrians, and ultimately provide opportunities to vitalize the economic vitality of the corridor.

## Summary Of Recommendations - Fremont

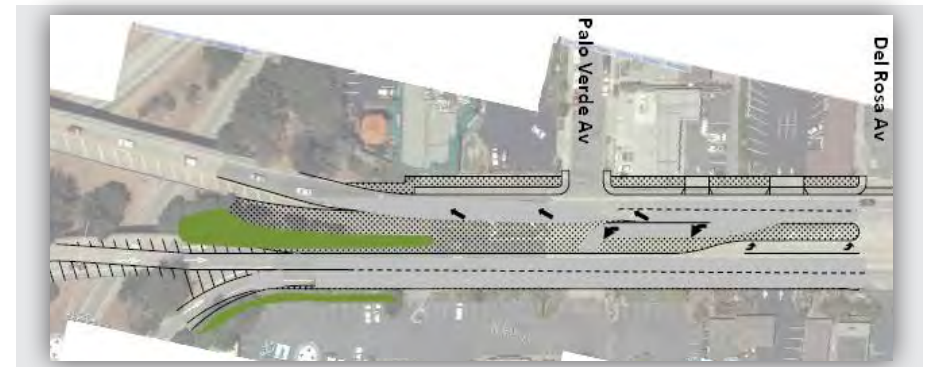
**Table 9: North Fremont Street Corridor Recommendations**

	Recommendation	Description
1	Modified Gateway	The off-ramp lane drop and traffic calming features at Highway 1 will foster a gateway for Fremont Street and reduce vehicular speeds exiting and entering the highway.
2	Streetscape Enhancements	Median and sidewalk improvements, including the addition of more street trees, will give the community more character while facilitating pedestrian activity.
3	Bus Stop Improvements	Bus stop enhancements at stops along North Fremont Street will include shelters, better signage, and route maps to enhance transit use.
4	Signal coordination	Synchronizing signals along the Fremont Corridor with Canyon del Rey (SR 218) and City of Seaside signals will improve traffic flow and efficiency of bus circulation.
5	Parking and zoning strategies	Parking management and zoning strategies will enable an efficient use of existing parking and reduce the demand for additional parking.

## Description of Recommendations

### 1. Gateway Entry Feature

The implementation of a gateway traffic calming feature on the Highway 1 on-ramp and off-ramp will help create a better environment for pedestrian and bicycle activity within the North Fremont business district. These improvements will reduce vehicular travel speeds as they are exiting and entering North Fremont Street. Reducing the off-ramp from two lanes to one lane as it approaches Fremont Street will reduce merge conflicts and make drivers aware of the environment change from the highway to the local roadway. The speed calming on the on-ramp will reduce vehicular speed on North Fremont near the Highway 1 entrance and maintain an inviting pedestrian environment. As a result, pedestrians and bicyclists will be more visible to drivers. Traffic calming measures are effective in reducing vehicular speeds and improving the streetscape environment for pedestrians and bicyclists.



Proposed Fremont Street Gateway Entry Feature



## **2. Streetscape Enhancements and Bike Lanes**

Consistent with the North Fremont Draft Specific Plan, other streetscape treatments for the corridor will help promote a more walkable environment. In addition to the bike lanes currently planned for the corridor east of Casa Verde Drive, other streetscape features that have been identified include improved median landscaping, new street furniture and benches, pedestrian bulbouts and enhanced sidewalks. These improvements will substantially benefit bicycling and walking conditions on the corridor.

## **3. Bus Stop Improvements**

The existing bus stops along North Fremont Street consist of bus benches and signs. Improving the amenities at the stops creates a more comfortable waiting environment for bus passengers thus encouraging transit ridership. Potential amenities include shelters to provide coverage and bus maps to illustrate local routes and connections. MST will be upgrading over 25 bus shelters as part of the "Jazz" BRT line that runs from Sand City Station to Fremont Boulevard and Lighthouse Avenue. The plans are approved and under construction to construct custom-designed shelters that feature the history of the Monterey jazz festival with museum-like displays.

## **4. Signal Coordination**

Coordinated traffic signals on the corridor will benefit all modes of travel by improving traffic flow and maintaining more consistent travel speeds. By timing signals in a way that they provide adequate time for pedestrians and bicyclists to cross streets, other modes are also benefited. Because MST is currently designing a BRT project for the corridor, well-timed and coordinated signals will offer a substantial savings for bus travel, improving the ability for travelers to reach the corridor on modes other than via automobile.

Specifically, the intersection of Fremont Street / Canyon Del Rey is currently not coordinated with other signals on the corridor. This results in high levels of peak hour traffic congestion, which also delays buses. Connecting this signal with others




on the corridor will result in improved traffic and bus conditions on the corridor. MST plans to adjust the signal timings with Canyon Del Rey and Fremont Street in Seaside.

## **5. Parking Management Strategies**

The parking management plan includes the following six recommendations summarized in [Table 10](#) on next page.

Refer to Appendix A for more details on these recommendations.

**Table 10: North Fremont Parking Management Plan**

	<b>Recommendation</b>	<b>Description</b>	<b>Image</b>
P-1	Encourage Valet, Tandem, and Special Event Parking	Implementing valet and tandem parking in various off-street lots during special events improves parking utilization and special event parking management can minimize spillover problems associated with events at the Fairgrounds.	
P-2	Create a residential parking benefit district	Residential Parking Benefit Districts in the “commercial-adjacent” residential areas allows a limited number of commuters to pay to use surplus on-street parking spaces in residential areas and return the resulting revenues to the neighborhood to fund public improvements.	
P-3	Allow Shared Parking Among Different Land Uses by Right	Incorporating shared parking policies into the development review process encourages share parking and makes the process of securing approval for shared parking less onerous for new development and adaptive reuse projects.	



Source: North Fremont Parking Study, Nelson\Nygaard, 2012

**Table 10: North Fremont Parking Management Plan**

	Recommendation	Description	Image
P-4	Eliminate/Reduce parking minimums and establish an in-lieu fee	<p>Reform minimum parking requirements by creating a single, blended, non-residential requirement of two spaces per 1,000 GSF, which will facilitate development and allow for easy “turnover” of businesses.</p> <p>Reduce residential requirements so that one space per unit is required for studios and one bedroom units to better meet actual levels of vehicle ownership.</p> <p>Set parking in-lieu fees at a reasonable level to both make it financially feasible for developers in special cases to exceed the maximum requirement and to provide an income stream to either increase the public parking supply or introduce alternative mode programs or improvements.</p>	
Source: North Fremont Parking Study, Nelson\Nygaard, 2012			



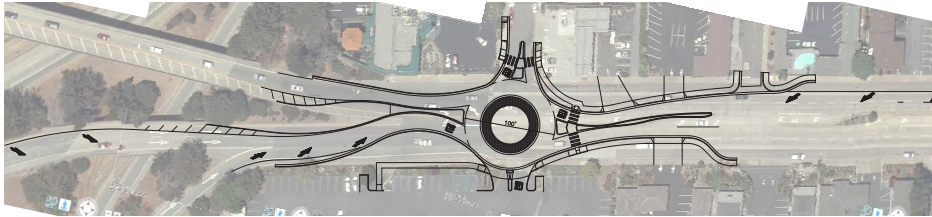
**Table 10: North Fremont Parking Management Plan**

	<b>Recommendation</b>	<b>Description</b>	<b>Image</b>
P-5	Unbundle Parking Pricing	Require all new residential development to “unbundle” the full cost of parking from the cost of the housing itself, by creating a separate parking charge. Charging separately for parking is a very effective strategy to encourage households to own fewer cars and rely more on walking, cycling, and transit.	
P-6	Implement Transportation Demand Management policies and programs	Transportation Demand Management (TDM) programs include a parking cash-out program, universal transit passes, and mandating that employees receive benefits in exchange for giving up their parking space.	
Source: Cannery Row and Lighthouse Parking Study, Nelson\Nygaard, 2012			

## Additional Alternatives Evaluated

### North Fremont Street Road Diet

In addition to the streetscape improvements summarized in [Table 10](#) above, the City considered the potential for a “road diet” alternative and roundabouts along North Fremont Street. The “road diet” alternatives would remove one vehicular travel lane in each direction so that North Fremont Street consists of one lane in each direction plus left turn pockets. While this configuration may help reduce



Roundabout Gateway Concept

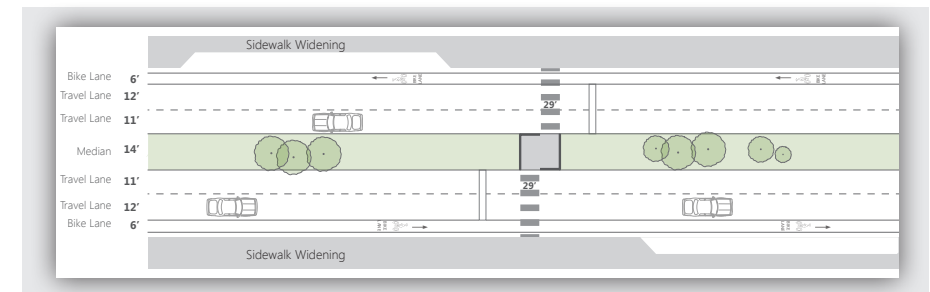


The high vehicle travel speeds entering and exiting Highway 1 is a barrier to pedestrian and bicycle activity along the North Fremont corridor.

traffic speeds along the corridor and create a more comfortable environment for bicycles and pedestrians, there were capacity constraints with accommodating the traffic volumes along the thoroughfare. The roundabout option, illustrated below, includes the placement of a single lane roundabout at the intersection of Palo Verde Avenue and Fremont Street. Although this configuration provided opportunities to slow Highway 1 traffic accessing the freeway and create a gateway feature for the corridor, there were similar capacity constraints that could impede the traffic flow. Ultimately, these two options were not evaluated further.

### Mid-Block Crossing Between Casa Verde and De La Vina

A main challenge for the North Fremont Street corridor is the lack of pedestrian crossing opportunities. The spacing between intersections is between 800 and 1,000 feet, which generally discourages pedestrian activity and encourages jaywalking. A mid-block pedestrian crossing between Casa Verde Way and Dela Vina Avenue with a pedestrian refuge will enable pedestrians to cross between intersections and provide an area to wait in the middle of the street before completing the full street crossing. While further study is needed to determine the appropriate crossing treatment (such as a pedestrian signal, rapid rectangular flashing beacon, or other treatment), based on the level of traffic and average speeds, the crossing may require a pedestrian signal to be installed.



Potential Fremont Street Mid-Block Pedestrian Crossing



# Next Steps & Implementation





## Next Steps and Implementation

The City of Monterey has accomplished a great deal for improving citywide transportation circulation and accessibility. The City has completed several planning efforts which identify opportunities to enhance the New Monterey, North Fremont, and Downtown streetscapes. These studies provide the foundation to make educated decisions about the direction of the City's future transportation system.

### Measures of System Effectiveness

The purpose of measuring the effectiveness of the transportation system is to understand how well it functions and how new land use development or other project would affect it. The City's General Plan Circulation Element Goal J supports the use of transportation evaluation measures that recognize travel by all modes. The CTPS expands on the General Plan by presenting a more robust set of measures that should be used for evaluating travel patterns in the City as well as the performance of the transportation system.

Transportation measures include those at a citywide level as well as those for individual intersections in the city.

### Citywide Measures of System Performance

#### Mode Split Goal

The City should adopt overall goals for the proportion of transportation trips made by various modes, to support a goal of 35% of all trips by the year 2020 to be taken by non-automobile modes. Approximately 15% of all trips in the City today are taken by non-auto modes, so achieving this goal would mean increasing the amount of travel by just over two percentage points annually. Goals for the year 2015 and 2020 are presented below. In order to successfully achieve this goal, the City should also develop a transportation monitoring program to evaluate progress each year. For example, the City of Boulder, Colorado has implemented a regular monitoring program and has seen its automobile transportation mode share decrease from over 70% to 60% of all trips.

**Table 11: Citywide Transportation Mode Split Goals**

Mode	Year: 2012 (Current)	Year: 2015	Year: 2020
Walking	7-10%	12%	20%
Bicycling	1-2%	5%	10%
Transit	1-2%	3%	5%

Notes: 2012 mode split data is estimated for Monterey and derived based on 2001 regional travel survey data summarized by AMBAG

### Parking Management

The monitoring of parking demand is also important for the City. In order to evaluate how parking demand is being utilized and managed, the City should monitor parking conditions at least every two years to ensure parking is effectively managed on a citywide level and to assess if policies need to be revised or modified.

### Bicycle Network Connectivity

The completeness of the bicycle network is an important measure of the ability to conveniently bicycle to locations within Monterey. As part of its performance monitoring, the City should report the level of completion of the planning bicycle network, including total mileage of Class I, II and III bikeways.

## Local Measures of Performance

The CTPS recommends local measures of performance include the evaluation of intersection operations for all travel modes, rather than only measuring the delay experienced by automobiles. Specific measures include:

- Automobile Level of Service
  - Consistent with the General Plan, intersections along transit corridors should permit increased automobile delay. A peak hour automobile LOS of E should be permitted for all bicycle and transit corridors, and an automobile LOS of F should be permitted for all multimodal corridors (defined as corridors with a Class I or II bicycle facility and minimum transit frequencies of buses every 20 minutes during peak hours).
  - Consistent with the General Plan, all CEQA analysis in the City should evaluate traffic operations for typical weekday, non-summertime conditions.
- Multimodal Quality of Service (QOS)
  - When conducted, downtown signalized intersection operations analysis should measure walking, bicycling and transit delay, in addition to automobile delay, with a goal of balancing the delay experienced by all modes. Projects should not increase delay for non-motorized modes.
  - In addition to non-automobile delay, multimodal level and quality of service metrics, (such as those contained in the 2010 version of the Highway Capacity Manual) may be appropriate at some locations as determined by the City. Projects should not significantly reduce quality of service for non-automobile modes.
- Bicycle, Pedestrian and Transit Conditions
  - New land use development should consider potential impacts to existing and planned bicycle, pedestrian and transit facilities.

The goal of the CTPS is to introduce a mechanism so that projects that have local transportation impacts – as identified by the above measures and others consistent with the California Environmental Quality Act (CEQA) – should contribute to a new multimodal transportation fee program that will fund improvements that mitigate transportation impacts in the City. For example, if a project is found to result in or contribute to unacceptable levels of performance for any travel mode, payment of a transportation fee will be necessary to mitigate the negative effect on overall transportation system performance.

**Table 12: Improvement Measures of Effectiveness:**

Improvement	General Solution Criteria from CTPS Process				Citywide System Effectiveness Measures			Relative Priority of Improvement
	Improves Overall Street Network, Promotes Direct Wayfinding and High Quality Urban Design	Improves Pedestrian and Bicycle Safety and Access	Increases Opportunities for Riding Transit	Improves the Ease and Efficiency of Parking, Provides Access to City Garages	Supports Citywide Mode Split Goals	Supports Citywide Parking Management and Access Goals	Increases Citywide Bicycle Network Connectivity	
Downtown								
Street Renaming	●	◐	○	◐	◐	◐	◐	High
Two Way Downtown Circulation	●	●	◐	●	◐	●	◐	High
Del Monte / Washington Intersection	TBD – design options continuing to be studied							
Relocated Transit Center	◐	◐	●	◐	●	◐	◐	High
Alvarado Street Extension	●	◐	○	◐	◐	◐	◐	Medium/High
Pearl St / Polk St Reconfiguration	●	●	◐	◐	◐	◐	●	High
New Roundabouts	●	◐	○	◐	◐	◐	◐	Medium/High
Parking Management Strategies	◐	◐	◐	●	◐	●	○	High
Lighthouse								
Pedestrian Corner Bulbouts	◐	●	◐	◐	◐	◐	○	Medium/High
Streetscape Improvements	●	◐	◐	◐	◐	◐	◐	High
Bicycle Improvements	◐	●	○	○	◐	◐	●	High
Parking Management Strategies	◐	◐	◐	●	◐	●	○	High
North Fremont								
Modified Gateway	●	◐	○	○	◐	○	○	Medium
Streetscape Improvements	●	◐	◐	◐	◐	◐	◐	High
Bus Stop Enhancements	●	◐	●	◐	◐	◐	◐	High
Signal Coordination	◐	◐	◐	◐	◐	○	○	Medium
Parking Management Strategies	◐	◐	◐	●	◐	●	○	High
Notes:								
Ratings based on the following scale:      ○ : Little to no benefit / neutral 								



## Taking Action: Next Steps

The key short term action items for the City are to adopt the Citywide Transportation and Parking study and complete environmental clearance and design for high-priority improvements. In the medium to long term, future City policy adjustments will need to occur in order to implement the recommended improvements within this study, such as altering to the City's parking ordinance, developing a multimodal fee program to fund improvements, and establishing a formal prioritization system. Furthermore, the City should continue to develop partnerships with local stakeholders and monitor traffic circulation within the City.

**Table 13: Next Steps "To-Do" List Accomplishments:**

Task	Status
Adopt a Citywide transportation vision in General Plan	Completed
Develop Bicycle Transportation Plan	Completed
Evaluate Citywide circulation for all travel modes	Completed
Engage community members and stakeholders	Completed
Develop preferred transportation alternatives and preliminary street design concepts for each study area	Completed
Achieve support from Planning Commission and City Council for circulation improvements (preferred alternatives)	Completed
Develop North Fremont Streetscape Plan	Completed
Develop Downtown Streetscape, Plaza and Urban Design Study	Completed
Develop Downtown Specific Plan	Under Public Review
Develop Waterfront Master Plan	Mostly Complete
Develop Lighthouse Area Specific Plan	Under Public Review
Develop North Fremont Street Specific Plan	Under Public Review
Develop Citywide Pedestrian Master Plan	Underway
Update City Parking Ordinance	Underway

## Short Term Actions:

Task	Status
Adopt Citywide Transportation and Parking Study	Underway
Complete Del Monte Interim BRT Evaluation	Underway
Complete CEQA clearance for CTPS improvements	Underway
Work closely with MST and TAMC to complete design of regional transit improvements, including the Downtown Transit Center, the Del Monte Interim BRT and Monterey Branch Line project	Underway
Continue to study alternatives and Del Monte/ Washington	Underway
Continue to form partnerships with key stakeholder groups	Underway
Evaluate changes to the City's Parking Ordinance	Beyond 2012
Develop conceptual design plans for CTPS improvements	Beyond 2012

## Mid & Long Term Actions:

Task	Status
Develop a comprehensive, multimodal transportation fee program to fund improvements	Beyond 2012
Complete design and implement all high-priority CTPS projects	Beyond 2012
Update Citywide Bicycle Plan and implement key projects	Beyond 2012
Monitor Citywide growth and traffic conditions through performance measures contained in this report	Beyond 2012