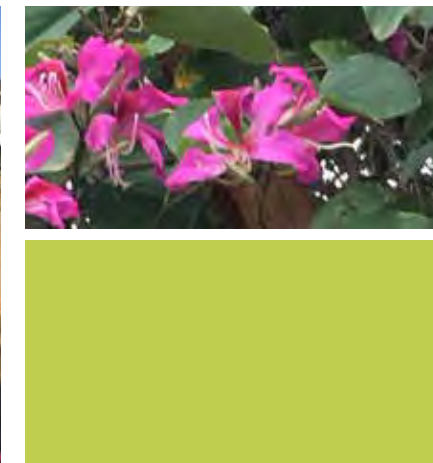




F STREET PROMENADE STREETSCAPE MASTER PLAN

APPROVED MARCH 13, 2018



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APPROVED MARCH 13, 2018
RESOLUTION NO. 2018-045

PREPARED FOR:



276 FOURTH AVENUE
CHULA VISTA, CA 91910

PREPARED BY:

MIG, INC.
CHEN RYAN ASSOCIATES
FUSCOE ENGINEERING
SELBERT PERKINS DESIGN

F STREET PROMENADE EXECUTIVE SUMMARY

The transformation of the 1.25-mile F Street corridor is a great opportunity to create a stronger walking and bicycling connection between downtown Chula Vista and the San Diego Bay waterfront.

The goal of the project is to develop a Streetscape Master Plan for a Complete Street: A balanced, connected, safe, and convenient transportation network designed to serve all users, regardless of their age or ability, that will also provide multi-modal access (via walking, biking, and transit) to downtown Chula Vista and Third Avenue, the Chula Vista Civic Center, which includes the Library, Police Station, Fire Station, and City Hall, the E Street Transit Center (one block north of project area), Bay Boulevard Park and the Chula Vista Bayfront. The project is funded by the San Diego Association of Governments (SANDAG).

PROJECT LOCATION

The 1.25-mile project is in the northwest portion of Chula Vista. The F Street Promenade project area extends from the west side of the Third Avenue intersection with F Street to the west side of the Bay Boulevard intersection with F Street. The project width is 80 feet, which is the F Street right-of-way width. Key north-south streets that intersect with F Street include (from west to east) Bay Boulevard, Woodlawn Avenue, Broadway, Beech Avenue, 5th Avenue, Fourth Avenue, Garrett Avenue, Landis Avenue, and Third Avenue.

In addition to the commercial uses west of Third Avenue, and the Civic

Center Area, the areas immediately adjacent to the F Street Promenade project area includes single family homes, apartments, mobile home parks, commercial uses clustered at the Broadway and Woodlawn Avenue intersections, the former City Yard at Woodlawn Avenue, the Blue Line trolley, the abandoned railroad bridge over Interstate 5, and Bay Boulevard Park.

EXISTING CONDITIONS

F Street is one of the few east-west streets that cross Interstate 5 without an interchange. As a result, it has lighter traffic volumes but also provides a direct connection between the Third Avenue downtown central business district and the Chula Vista Mid Bayfront. Views of San Diego Bay from the Civic Center are possible, and there is a near constant prevailing breeze onto F Street off the Bay.

F Street between Third Avenue and Bay Boulevard varies between a two-lane road and four lane road with turn pockets at some intersections. The entire 1.25-mile corridor is curbed and only a small portion of the corridor is without sidewalks. The right-of-way width is a consistent 80 feet generally from back of sidewalk to back of sidewalk although in some cases there are private improvements within the right-of-way behind the sidewalk. Curb-to-curb width varies between 40 feet and 80 feet.

Sidewalks are generally five to eight feet wide, which presents challenges for both pedestrians and bicyclists who often share the narrow sidewalk.

The situation is exacerbated between Garrett Avenue and Third Avenue where a higher volume of pedestrians is present due to residential densities, the library and Third Avenue commercial uses. On the west end, within the railroad parcel there is no sidewalk on the north side of F Street for approximately 260 feet beginning 200 feet west of Woodlawn Avenue.

Street trees are infrequent, and there are no street trees planted within the right-of-way west of Broadway. Between Broadway and Fire Station 1, there are approximately 41 street trees, the majority of which are Pepper Trees (*Schinus molle*). These street trees are in declining health due to conflicts with overhead utility lines, lack of water, and poor growing conditions.

There is a total of 136 parallel parking spaces on F Street (72 on the north side and 64 on the south side). F Street is designated as a Class III Bike Route (bicycles share the travel lanes with vehicles). Specific information regarding the number of collisions within the corridor was collected. Over a five-year period (2011 to 2015) a total of five pedestrian-involved collisions were noted as well as a total of four bicycle-involved collisions. During the same period, a total of 35 vehicle-vehicle collisions were reported within the F Street project areas.

In addition, there are two bridges over Interstate 5; the F Street bridge and the adjacent abandoned railroad bridge 20 feet north. North-south MTS trolley tracks are immediately east of Interstate 5 and include crossing arms.

THE STREETScape MASTER PLAN

City Staff and MIG initiated work on the Project by conducting a community workshop to gather input from the area's stakeholders. The first workshop (Workshop #1) was conducted December 15, 2016 at the weekly Farmer's Market on Third Avenue adjacent to the project area. A second community workshop (Workshop #2) to collect input on the initial concepts was held on Saturday March 11, 2017. Initial concepts were

developed and presented based on public input at Workshop #1.

A third workshop (Workshop #3) that presented the preferred plan was held on June 8, 2017 at the City Council Chambers. The preferred plan was based on public input from the second workshop. Key desires that the community expressed include:

- Multi-use bike and pedestrian paths
- Street trees and seating areas
- Improved crosswalks and mid-block crossings
- Directional signage and street signs
- Celebrate Chula Vista history and connections to nature

PEDESTRIAN IMPROVEMENTS

Existing pedestrian facilities consist of relatively narrow (five to eight feet wide) sidewalks that are often shared by pedestrians and bicyclists. In addition to painted crosswalks at the signalized intersections, there are painted crosswalks at the intersections of Bay Boulevard and Garrett Avenue, which are both four-way stops. In addition, there is a painted mid-block crossing at City Hall. There are no painted crosswalks between Bay Boulevard and Broadway, a distance of approximately 2,200 feet. With the exception of the City Hall mid-block crossing, there are also no painted crosswalks between Broadway and Fourth Avenue, a distance of approximately 2,500 feet. New pedestrian-scaled lighting, street trees and understory planting will be included in the parkway planting areas adjacent to the multi-use path. The new and improved continuous parkway planting area provides a safer separation between bicycles and pedestrians, and vehicular traffic. The plan also includes recommendations for eventual undergrounding of overhead utilities.

All new and replacement crosswalks in the plan would be high-visibility, zebra-striped, continental crosswalks. This reflects the community desires for improved and new crosswalks, which can provide a safer crossing for pedestrians as well as a traffic calming effect. The Master Plan proposes



Bicyclists often use sidewalks

new painted crosswalks on all legs at some uncontrolled intersections. The Master Plan also proposes two new painted mid-block crosswalks.

In accordance with community desires, the existing sidewalk is proposed to be widened to 12 feet and would be identified as a multi-use path on the north and south sides of F Street that can accommodate casual bicycle riders, pedestrians, and potentially other users as well, such as neighborhood electric vehicles (NEV) in the future. Bulb-outs, which offer a refuge area and shorten the crossing distance for pedestrians, are proposed at Woodlawn Avenue, Broadway, and 5th Avenue.

BIKEWAY IMPROVEMENTS

As indicated above, the proposed improvements for the entire F Street corridor between Third Avenue and Bay Boulevard include a 12-foot wide multi-use path, with designated areas for pedestrians and bicyclists. Due to the constrained width of the F Street bridge over Interstate 5, this short portion of F Street (250 feet) would include a standard bike lane (Class II). However, the F Street Streetscape Master Plan includes a proposal to utilize the 30-foot wide abandoned railroad bridge as a multi-use path that features signage and placemaking elements.

The City's current Bicycle Master Plan (2011) does not include any recommendations for changes to the existing F Street Class III bikeway designation. The Urban Core Specific Plan (2007 and amended in 2015), which includes most of the F Street Streetscape Master Plan project area, identifies a multiuse path (11 feet wide) from Fourth Avenue to Interstate 5, and a small portion as a Class II bikeway (five feet wide) between Garrett Avenue and Third Avenue. The Bikeway Master Plan is being updated now and will also combine with the Pedestrian Master Plan to become a Multi-Modal Master Plan. Completion is anticipated in fiscal year 2018-2019 and will incorporate these recommendations for F Street.

TRAVEL LANE IMPROVEMENTS

Between East Park Lane (the alley just east of Broadway) and the trolley tracks to the west, the Master Plan proposes to reduce the two lanes in each direction to one lane in each direction with a center turn lane. The reduction from four lanes to three lanes allows for the expanded multi-use path and parkway improvements on the north and south sides between East Park Lane and the Interstate 5 bridge. In addition, a roundabout is proposed at the intersection of F Street and Bay Boulevard.

There are no proposed reductions in the number of travel lanes between East Park Lane and Fourth Avenue. Between Fourth Avenue and Garrett Avenue, the two lanes in each direction would be reduced to one lane in each direction, which will allow the creation of the 12-foot wide multi-use path and parkway.

WAYFINDING PROGRAM

The F Street Streetscape Master Plan includes a program for three types of gateway elements that corresponds to the relative importance and visibility of the intersecting streets. These are envisioned as vertical columns that include lighting and public art. In addition, banners on poles are proposed at the east end of the F Street corridor. The banners will employ both seasonal and special event themes as well as reflecting the two main project branding themes of Chula Vista History and Chula Vista Nature. The Master Plan also includes examples and location of interpretive signage and art, as well as directional signage.

CONCLUSION

The F Street Promenade Streetscape Master Plan includes distinct recommendations for improvements that will enhance the street as a safer corridor for pedestrians and bicyclists without sacrificing levels of service and vehicle operations. These key proposed new improvements include:

- Protected 12-foot wide multi-use path from Third Avenue to Bay Boulevard on both sides of F Street
- Difference in multi-use path pavement color and texture to distinguish bicycling and walking areas
- High-visibility crosswalks and mid-block crossings
- Pedestrian lighting, street trees and parkway planting areas from Third Avenue to Bay Boulevard
- Gateway, interpretive and wayfinding signage with public art
- Plazas with seating, shade trees and bike racks
- Transformation of the former railroad bridge over Interstate 5 into a pedestrian plaza and multi-use path
- Bulb-outs at Woodlawn Avenue, Broadway, and 5th Avenue
- Stormwater planters
- Overhead utility undergrounding

Overall, the proposed streetscape improvements meet the expressed desires of the community and will be an important foundation for future detailed design, leading towards eventual implementation of the F Street Promenade Streetscape Master Plan.

ACKNOWLEDGEMENTS

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F STREET PROMENADE STREETSCAPE MASTER PLAN

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CHULA VISTA



1 introduction

The F Street Corridor is a timeline of the history of Chula Vista. From its maritime, rail and agricultural beginnings to a city of great prosperity with unlimited potential, the F Street Promenade Streetscape Master Plan is an occasion to celebrate this history and the City's rich cultural diversity. The cooling prevailing breezes off San Diego Bay, beautiful views for which the city is named, lower vehicular volumes, the diversity of land uses, adjacent homes, proximity to transit and the connections to the Bayshore Bikeway and to existing and proposed parks provide excellent opportunities for creating a truly bike and pedestrian friendly promenade.

PROJECT BACKGROUND AND PURPOSE

On May 23, 2014 the San Diego Association of Governments (SANDAG) issued a call for projects from local jurisdictions in San Diego wishing to apply for the Active Transportation Program (ATP) for use on planning projects meeting certain criteria. The City of Chula successfully applied for AT Funding for the preparation of the F Street Promenade Streetscape Master Plan and received a notice to proceed on August 14, 2015.



View of F Street looking west from Civic Center

The goal of the project is to develop a Streetscape Master Plan for a Complete Street: A balanced, connected, safe, and convenient transportation network designed to serve all users, regardless of their age or ability, that will also provide multi-modal access (via walking, biking, and transit) to downtown Chula Vista on Third Avenue, the Chula Vista Civic Center, which includes the Library, Police Station, Fire Station, and City Hall, the E Street Trolley Station (one block north of project area), Bay Boulevard Park and the Chula Vista Bayfront.

The Streetscape Master Plan will provide the design framework for revitalization of the F Street corridor, serving as a vital link between the Downtown Village District (Third Avenue) to the Bayfront. In addition to providing a complete street, additional goals of the master plan aim to:

- Provide more trees and pedestrian plazas
- Integrate water conservation design features
- Incorporate historical and nature design elements

F Street improvements will provide opportunities to safely stroll, bicycle, or take local transit, improving local accessibility and enhancing neighborhood connections for local residents, visitors, and school children.

PREVIOUS PLANNING EFFORTS

The F Street Promenade Streetscape Master Plan builds upon previous planning efforts. The inception of the F Street Promenade Streetscape Master Plan began several years ago during the City's General Plan Update. At that time, F Street was identified and planned as a multi-modal pedestrian promenade.

The F Street Promenade Streetscape Master Plan supports the vision and core values outlined in the Chula Vista General Plan in several ways. Key themes supported by the Streetscape Master Plan include:

- Theme 1: Strong Community Character and Image

The Streetscape Master Plan will connect two notable elements that help define Chula Vista's identity, the downtown area and the Bayfront.

Recommendations in the Streetscape Master Plan also include comprehensive branding and placemaking, which includes gateway elements, and examples and locations for interpretive signage, art, and wayfinding signage.

- Theme 3: Strong and Safe Neighborhoods

The Plan will enhance the neighborhood, creating a safe and accessible street with convenient transportation options.

- Theme 4: Improved Mobility

The Plan will contribute to a safe and accessible city-wide multi-modal circulation system.

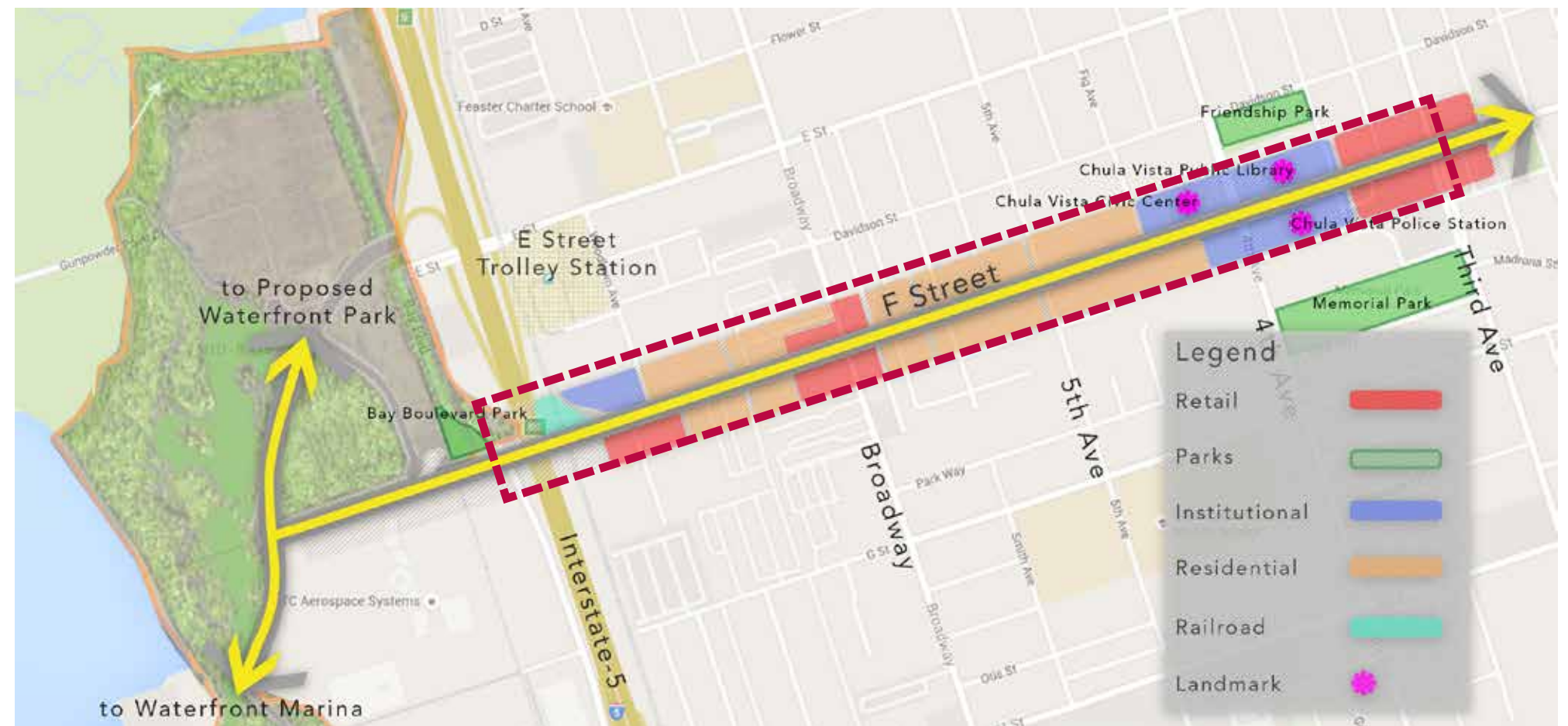
- Theme 5: Healthy and Sustainable Community

The Streetscape Master Plan will provide access to transit and make the neighborhood more pedestrian and bicycle friendly. The Plan will also encourage physical activity and support active modes of transportation. In an effort to improve water quality and conservation, stormwater planters will capture and treat stormwater runoff, where feasible.

- Theme 8: Shaping the Future Through the Present and Past

The Plan aims to preserve local history and culture by proposing to reuse the abandoned railroad bridge over Interstate 5, preserving remnants of rail tracks in the street where possible, and celebrating local history through art and interpretive signage elements.

The Streetscape Master Plan is also developed within the guiding frame-



The project area extends from the west side of Third Avenue intersection with F Street to the west side of the Bay Boulevard intersection with F Street

work of the Urban Core Specific Plan (UCSP), adopted in 2007 (and amended 2015), as an implementing plan of the General Plan. The UCSP includes public realm design guidelines, focused on creating attractive and pedestrian-friendly environments. The UCSP identifies the F Street Promenade as an urban amenity improvement, and designates F Street as the primary pedestrian promenade and bike corridor linking the urban core from Third Avenue to the Bayfront.

The City of Chula Vista Pedestrian Master Plan (2010) ranks F Street within an area of High Pedestrian Project Need.

PROJECT STUDY AREA

The 1.25-mile project is in the northwest portion of the City of Chula Vista. The F Street project area extends from the west side of the Third Avenue intersection with F Street to the west side of the Bay Boulevard intersection with F Street. The project width is 80 feet, which is the F Street right-of-way width. Key north-south streets which intersect with F Street include (from west to east) Bay Boulevard, Woodlawn Avenue, Broadway, Beech Avenue, 5th Avenue, Fourth Avenue, Garrett Avenue, Landis Avenue, and Third Avenue.

In addition to the commercial uses west of Third Avenue, and the Civic Center Area, the areas immediately adjacent to the F Street corridor project area includes single family homes, apartments, mobile home parks, commercial uses clustered at the Broadway and Woodlawn Avenue intersections, the City Yard at Woodlawn Avenue, the abandoned railroad bridge over Interstate 5, and the Bay Boulevard Park.

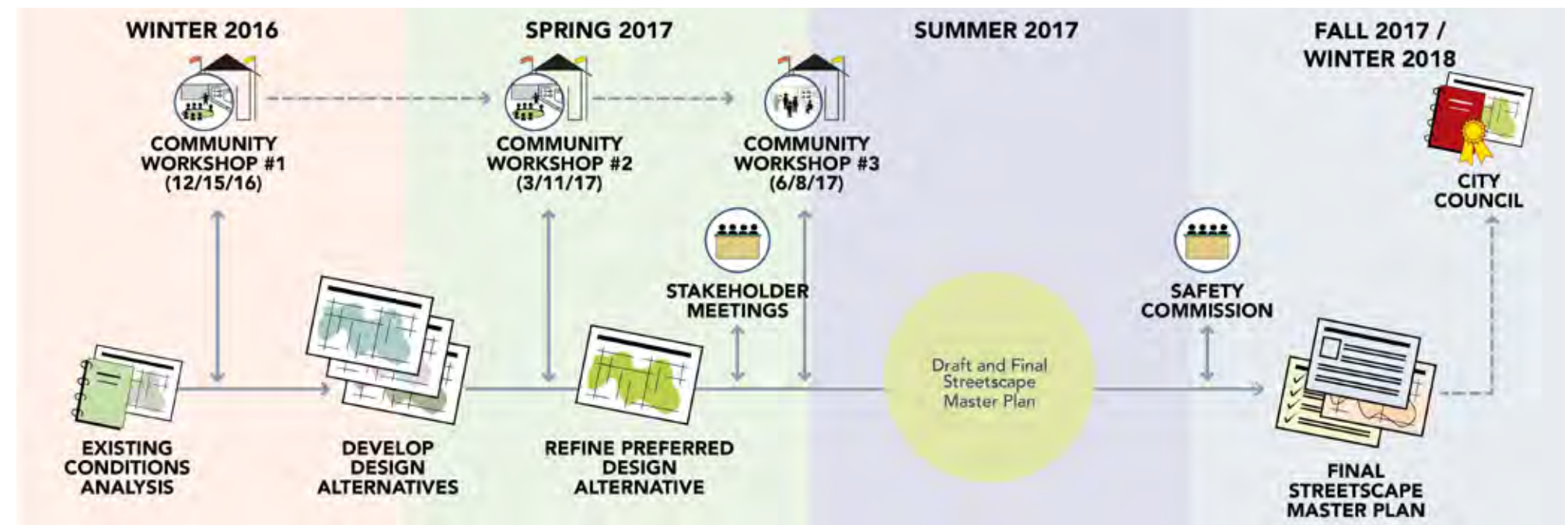
Additional uses near the F Street corridor include Memorial Park, Friendship Park, three schools at the G Street and Fourth Avenue intersection (Chula Vista Middle School, Vista Square Elementary School, and Davila Day School), Scripps Mercy Hospital, and the Chula Vista Bayfront, which includes Bayside Park, Chula Vista Marina, and planned parks and open space totaling over 130 acres (source: Chula Vista Bayfront Master Plan Fact Sheet).

PLANNING PROCESS

City Staff and MIG initiated work on the Project by conducting a community workshop to gather input from the area’s stakeholders. The first workshop (Workshop #1) was conducted December 15, 2016 at the weekly Farmer’s Market on Third Avenue adjacent to the project area. This workshop also included a questionnaire (also posted on the city’s website) and a visual preference survey that requested participants to select images that reflected their vision for the street. A second workshop (Workshop #2) to collect input on the initial concepts was held on Saturday March 11, 2017. Initial concepts were developed and presented based on public input at the first workshop. It was conducted as a “pop-up workshop” and was held on the closed west-bound lanes of F Street between Fourth Avenue and the Fire Station. In addition to comment cards, participants were able to view over 15 display boards depicting various proposed improvements. A third workshop (Workshop #3) that presented the preferred plan was held on June 8, 2017 at City Council Chambers. The preferred plan was based on public input from the second workshop.

DOCUMENT OVERVIEW

- Chapter 1: Introduction explains the project’s background and purpose
- Chapter 2: Existing Conditions synthesizes the existing conditions in the project area and identifies opportunities and constraints facing the corridor’s revitalization
- Chapter 3: Conceptual Design details the design process through the context of the project’s schedule and major milestones
- Chapter 4: Final Streetscape Plan presents the final plan and design recommendations, as well as a discussion on implementation of the plan



Process graphic and project schedule



2 existing conditions

The F Street Promenade Streetscape Master Plan (Master Plan) will identify a future vision and provide guidance for streetscape improvements in the northwest area of the City of Chula Vista. The Master Plan is intended to create a plan for a Promenade that will link the City's downtown Third Avenue Village, the Civic Center, the unused railroad bridge over Interstate 5, the regional Bayshore Bikeway, the Bayside Park, and the City's planned Bayfront development.

Understanding existing conditions in terms of the physical environment, operations, and safety of all travel modes is critical to planning for the

future. This chapter will examine existing conditions as they relate to pedestrian, bicycle, vehicular, and transit mobility, as well as existing utilities along the F Street corridor, between Bay Boulevard and Third Avenue. This chapter will also identify opportunities and constraints presented along the corridor.

The project area is an approximately 1.25-mile long segment of F Street, from Bay Boulevard to Third Avenue.



View looking west down F Street, at the Broadway intersection

EXISTING LAND USES

There are a variety of land uses along the corridor, ranging from open space and recreation, to commercial and civic uses, single-family and multi-family residential. According to the General Plan, the western terminus of the corridor around Bay Boulevard includes recreation (Bay Boulevard Park), surrounded by commercial and industrial uses. Generally, between Bay Boulevard and Broadway, there is a combination of low-medium and medium density residential, in the form of apartment buildings and mobile home parks. This area of the corridor is designated in the General Plan as Transit Focus Area, because of the proximity to the E Street Transit Center, and Urban Core, which is intended for high density, multi-family dwelling units in an urban environment.

The Broadway corridor is designated as Mixed Use Residential in the General Plan, which allows a variety of compatible land uses in order to create a dynamic urban environment. Existing uses around the Broadway intersection include low density commercial, including a restaurant, gas station, car wash, and small commercial shopping center with a convenience store.

East of Broadway along F Street transitions to single family residences. This area is designated medium density residential in the General Plan. Public and Quasi-Public lands define the land uses around the Fourth Avenue intersection. These land uses include Fire Station No. 1, the Civic Center, the public library, and police department. Finally, the area between Garrett Avenue and Third Avenue makes up part of the downtown central business district. This area is designated in the General Plan as Mixed Use Residential, and includes commercial uses.

Due to the diversity of land uses along the F Street corridor, the F Street Promenade will serve a large population and a variety of users. Promenade users will be users of different modes of transportation, including bicyclists, pedestrians, transit riders, and vehicles. The promenade is also intended to serve a recreation purpose, providing a direct link from surrounding areas to the Bayfront. It will serve residents along F Street and

in surrounding areas by providing convenient access to adjacent commercial areas, downtown, and popular civic center areas, like the Civic Center and the public library.

ROADWAY

This section of the report describes the existing roadway conditions as related to the physical roadway environment. F Street is designated as a Downtown Promenade in the General Plan, which is a road that provides access to retail establishments in the heart of the Urban Core, with multi-modal features and amenities that accommodate the surrounding urban context.

RIGHT OF WAY AND ROADWAY CROSS SECTIONS

This 1.25 mile segment of F Street has varying widths from two – four lanes. The project area includes three typical cross-sections, which characterize the different segments of the promenade: west, central, and east. From west to east, the three cross-sections include:

- 4-Lanes Undivided – From Bay Boulevard to Ash Avenue
- 2-Lanes Undivided – From Ash Avenue to approximately 580' west of Fourth Avenue
- 3 to 4-Lanes with Raised Median – From approximately 580' west of Fourth Avenue to Third Avenue

The undivided segments require drivers to make mid-block left-turns from the travel lane, potentially obstructing the movement of other vehicles. The presence of a raised median limits the ability to modify travel lane widths.

Curb to curb widths vary along the corridor from 40 to 64 feet, resulting in four segments that change in width. From west to east, the segments include:

- 52 feet – From Bay Boulevard to east of the railroad tracks (550' east of Bay Boulevard)
- 64 feet – From east of the railroad tracks (550' east of Bay Boulevard) to 200' east of Broadway
- 40 feet – From Ash Avenue to 540' west of Fourth Avenue (Chula Vista Fire Station 1)
- 64 feet – From 540' west of Fourth Avenue to Third Avenue

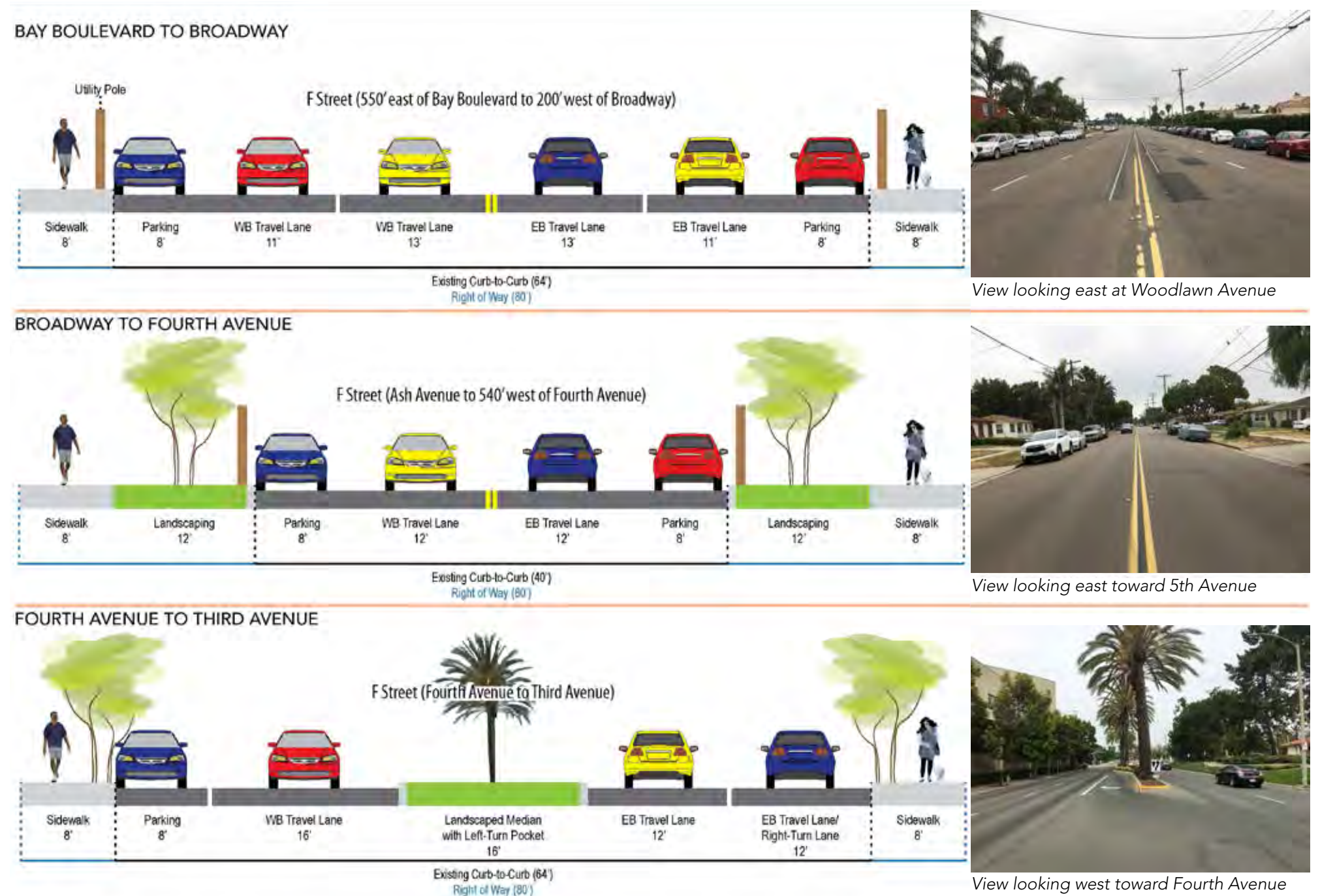
Unique conditions along the corridor not generally represented by the above typical cross sections include the block on the north side of F Street between Ash Avenue and Beech Avenue and the area directly in front of the Central Library.

The north side of F Street between Ash Avenue and Beech Avenue currently has a private parking lot that encroaches into the public right of way approximately 13 feet, which ultimately can create a challenge in providing a consistent multi-use path without reclaiming right of way.

The Central Library, located on the northeast corner of Fourth Avenue and F Street, is significantly set back from the street. The site also features extensive landscape area with mature street trees along the street frontage, outside of the right of way. The landscape area slopes toward the street. There is also a meandering path provided.

INTERSECTION CONTROL AND GEOMETRY

Four intersections along the F Street study corridor are currently signalized, including Broadway, 5th Avenue, Fourth Avenue, and Third Avenue. Additionally, intersections at Bay Boulevard and Garrett Avenue are all-way stop controlled. Minor intersecting side street approaches are also stop controlled, including Woodlawn Avenue, East Park Lane, Ash



Typical existing cross sections in the corridor include 4-lane undivided, 2-lane undivided, and 3-4 lanes with a raised median

BICYCLE FACILITIES



The corridor is used by many bicyclists

Avenue, Beech Avenue, and Landis Avenue.

Intersection geometry information was collected to prepare the intersection analysis and help in the recommendation development stage. The number of turn lanes and through lanes at intersections must be taken into consideration when planning along a corridor, as the required right-of-way for vehicles may be greater at the intersection than it is along the segment.

POSTED SPEEDS

The posted speed limit along F Street is 35 miles per hour west of Broadway. East of Broadway the speed limit drops to 30 miles per hour, corresponding with the decreased curb-to-curb width. Posted speed limits are frequent along the corridor, reminding drivers to be cognizant of their speed.

RAILROAD TRACK REMNANTS

Currently, there are old railroad track remnants embedded in the road pavement along the corridor. Existing visible remnants are primarily concentrated west of Broadway, however, track remnants have been detected beneath the pavement from the west side of Broadway to the west side of Fire Station 1.

Rail operations along F Street were discontinued in the 1960s. As a result, the portion of tracks between the west side of Broadway and the east side of Fourth Avenue has been retired and relinquished to the City. Subsequently, this portion of tracks has been paved over.

The remnants that exist today serve as a reminder of local history, but may pose a safety concern for cyclists and vehicles during storm events.

BICYCLE FACILITIES

F Street is currently designated as a Class III Bike Route throughout the project area. Vertical “Bike Route” signage is frequent along the study corridor, west of 5th Avenue in both directions. However, between 5th Avenue and Third Avenue, the only sign is in the eastbound direction, immediately east of the 5th Avenue and F Street intersection. West of Bay Boulevard, Class II Bike Lanes are present along F Street. Streets intersecting F Street with bicycle facilities include Bay Boulevard, 5th Avenue, Fourth Avenue and Third Avenue. Class II Bike Lanes are present in each direction along Bay Boulevard, to the north and south of F Street. 5th Avenue, Fourth Avenue, and Third Avenue are all designated as Class III Bike Routes, north and south of F Street.

Similar to F Street, the Bike Routes along 5th Avenue and Fourth Avenue are identifiable by vertical signage. The vertical “Bike Route” signage and shared-lane arrow markings or “sharrows” are utilized along Third Avenue. Sharrows may be more visible to drivers by being located on the roadway, helping to alert drivers to anticipate cyclists. Additionally, sharrows can be used to advise cyclists of appropriate lateral positioning within the lane.

PEDESTRIAN FACILITIES

Existing pedestrian facilities consist of sidewalks, ADA and non-ADA curb ramps, marked crosswalks, and missing sidewalks. For the purposes of this report, the distinction between ADA and non-ADA curb ramps is dependent on the presence of truncated dome surfaces. However, the City of Chula Vista is currently conducting a citywide analysis of every curb ramp to determine ADA compliance by examining the curb ramp slope, sidewalk quality, and presence of truncated domes, which should be completed in 2017.

Three varieties of crosswalk marking patterns are present along F Street. Standard crosswalks, distinguishable by two parallel lines extending across intersection legs, are present at Bay Boulevard and Broadway. A ladder crosswalk, which includes the two parallel lines as well as perpendicular lines, is utilized to facilitate mid-block crossings just west of Fourth Avenue. Differentiated pavement types are used to delineate crosswalks at F Street intersections of Fourth Avenue, Garrett Avenue, and Third Avenue.

Additional features benefitting pedestrians along the study corridor include curb bulbouts (curb extensions), pedestrian warning signage, and a wayfinding sign. An example of existing curb bulbouts or curb extensions are located at the F Street and Third Avenue intersection. Bulbouts reduce the crossing distance for pedestrians while also serving as a traffic calming mechanism. For example, the distance across the west leg of the Third Avenue and F Street intersection, which includes a curb extension on the north side of the street only, is approximately 54 feet,

compared to the 64-foot distance across the east leg of the Garrett Avenue and F Street intersection.

Signage alerting drivers of the presence of the mid-block crossing at the Civic Center are located 200 feet in advance of the crossing in each direction, as well as at the crosswalk location. Mid-block crossings are generally uncontrolled. A pedestrian wayfinding sign is located on the south side of F Street at the mid-block crossing location, providing direction to the Downtown area and the Civic Center.

Sidewalks are typically five to eight feet wide along the length of the corridor, with the exception of an area in the western segment, between Woodlawn Avenue and the trolley tracks to the west. The lack of sidewalks in this stretch can force pedestrians to walk in the roadway.

As mentioned previously in the Roadway section on pages 6-8, unique conditions directly related to the existing sidewalk area are the block on the north side of F Street between Ash Avenue and Beech Avenue, and the area directly in front of the Central Library.

The block on the north side of the street between Ash Avenue and Beech Avenue currently has a parking lot that substantially encroaches into the right of way. Directly adjacent to the parking lot is a 5-foot wide sidewalk and on-street parking.

The pedestrian sidewalk in front of the Central Library consists of a meandering path along a large planting area with several existing, mature trees. The path is located behind a planting area that slopes toward the street.

PEDESTRIAN FACILITIES



Sidewalks five feet in width are located along nearly the entire length of the corridor



Lack of sidewalks and crosswalks can be an impediment to pedestrians

TRANSIT



The study is located in close proximity to various transit options

TRANSIT

There are a number of transit bus routes with stops on F Street, including Route 932 and Route 701. Bus Route 929 and 704 and the Blue Line Trolley intersect F Street with stops to the north and south of the corridor. Bus Route 705 runs just north of F Street. A description of each of these routes is provided in this section along with the amenities for each stop along F Street.

A total of six transit stops are present along the F Street study corridor. The transit stop with the greatest amenities serves westbound Route 701, located in front of the Chula Vista Public Library. A shelter is provided at this station, including a bench, covering, and trash receptacles.

A trash receptacle and bench are located at the eastbound Route 701 stop in front of the Chula Vista Police Department. A trash receptacle is located at the eastbound Route 701 stop, just north of Garrett Avenue, and eastbound Route 701 just west of Third Avenue. Benches are located at both Route 932 stops along F Street.

BUS ROUTE 701

Route 701 provides service between the H Street Transit Center and Palomar Street Transit Center via Main Street, Hilltop Drive, and F Street. Route 701 stops on F Street east of Fourth Avenue. This route operates with 15-minute headways Monday through Friday during peak hours, and one-hour headways on Saturday. Route 701 does not operate on Sunday.

BUS ROUTE 704

Route 704 provides service between the E Street Transit Center and Palomar Street Transit Center via Fourth Avenue, Sharp Medical Center and Orange Avenue. Route 704 traverses the F Street corridor at Fourth Avenue. This route operates with 30-minute headways Monday through Friday during peak hours, and 60-minute headways on Saturday. Route 704 does not operate on Sunday.

BUS ROUTE 705

Route 705 provides service between the E Street Transit Center and Southwestern College via Plaza Bonita and Otay Lakes Road. Route 705 runs parallel to the F Street corridor, along E Street. This route operates with 30-minute headways Monday through Saturday during peak hours. Route 705 does not operate on Sunday.

BUS ROUTE 929

Route 929 provides service between Downtown San Diego and the Iris Avenue Trolley Station via Highland Avenue and Third Avenue. Route 929 traverses the F Street corridor at Third Avenue. This route operates with 15-minute headways Monday through Friday during peak hours, and 20-30 minute headways on Saturday and Sunday.

BUS ROUTE 932

Route 932 provides service between the 8th Street Transit Center and Iris Avenue Transit Center via National City Boulevard and Broadway. Route 932 stops on F Street between Woodlawn Avenue and Broadway. This route operates with 15-minute headways Monday through Friday during peak hours, and 20-minute headways on Saturday. Route 932 operates with 30-60 minute headways on Sunday. Sunday service is only provided between the E Street Transit Center and Iris Avenue Transit Center.

BLUE LINE TROLLEY

The Blue Line Trolley provides service between America Plaza in Downtown San Diego and the San Ysidro Transit Center, running parallel to Interstate 5. The Blue Line Trolley stops at the E Street Transit Center, just north of the F Street corridor, as well as the H Street Transit Center south of F Street. This route operates with 7-15 minute headways Monday through Friday during peak hours, and 15-minute headways on Saturday and Sunday.

PARKING

On-street parking along the corridor is intermittent. Parking restrictions are frequent to allow emergency access and ensure sight distances at driveway and intersection approaches. Approximately 136 parallel on-street parking spaces are available along F Street, between Bay Boulevard and Third Avenue. In locations where on-street parking spaces are not individually marked, a measurement of 20' was assumed to equal one parking space.

An on-street parking inventory is summarized by street segment below:

- Bay Boulevard to Broadway: Approximately 70 spaces
- Broadway to 5th Avenue: Approximately 37 spaces
- 5th Avenue to Fourth Avenue: Approximately 16 spaces
- Fourth Avenue to Third Avenue: 13 spaces

Based on the on-street parking inventory, the highest concentration of on-street parking spaces is along the western segment of the corridor, between Bay Boulevard and Broadway.

In the residential area between Broadway and Fourth Avenue, there are several curb segments that are painted red and indicate that no parking is allowed. The red curb segments vary in length and are located near intersections and also mid-block.

LANDSCAPE

The general character of the existing landscape consists of trees and plant resources located in the public right-of-way in the project area. There is a great discrepancy in the character of existing landscape features in different portions of the corridor.

There are approximately 97 existing street trees in the right-of-way. Generally, the landscape medians in the eastern segment of the project area, between Fourth and Third Avenues, appear to be in good condition and are well-maintained. The Date Palms (*Phoenix dactylifera*) in the medians

serve as a bold focal point that make a statement in the center of the right-of-way and help define the character of the adjacent Civic Center and urban core at the eastern terminus of the corridor. Additionally, the medians also contain a variety of healthy understory planting.

However, generally between Fourth Avenue and Third Avenue, there is a lack of a consistent parkway—a landscape area between the sidewalk and curb—provided in the right-of-way. There are existing trees that are accommodated in tree grates, such as the Brisbane Box (*Lophostemon confertus*) trees in front of the Police Department on the south side of the street, and Sweet Gum (*Liquidambar styraciflua*) trees east of Garrett Avenue, on the north and south sides of the street. Healthy, mature, existing trees should be preserved in the master plan where feasible.

Further west, the residential area between Fire Station 1 and Broadway contains a high density of existing trees in the right-of-way. Typical tree species in this neighborhood include the California Pepper Tree (*Schinus molle*), and a variety of palms. This area also features a wide existing parkway, typically 12 feet in width. The parkway, however, ranges in maintenance and appearance, from no maintenance with a lack of plant material and/or trees, to well-maintained with trees or understory planting. Some parkway areas currently are planted with turf, which tends to have a high irrigation demand, and also contributes very little to biodiversity in the parkway.

The area west of Broadway typically lacks a dedicated parkway area within the right-of-way. Trees and landscape areas in this stretch of the corridor are generally located in private property behind the sidewalk. Because of the lack of parkway, private land uses that contain paving directly to the back of sidewalk feature a prevalence of hardscape with little respite.

Some of the existing trees in the parkway may have the potential to be preserved in the Streetscape Master Plan, however, further study may be required to determine the health and longevity of each tree on an individual basis.

PARKING



On street parking is located throughout the corridor

LANDSCAPE



The medians and some parkway areas contain thriving plant material



The parkways in some areas contain poor soils, poorly maintained planting, or a lack of planting altogether

UTILITIES

Existing utilities along F Street include sewer, storm drain, water, gas, and dry utilities. For reference, the following descriptions are provided west to east along the corridor.

SEWER

Generally, the sewer main is 8" vitrified clay pipe (VCP) and flows west. The sewer main begins east of the San Diego & Arizona Eastern Railway. The 8" sewer is capped east of Woodlawn Avenue. The F Street sewer that ties into the west Broadway sewer, continues east. At the Ash Avenue centerline, the sewer splits and runs down both sides of F street until the south line turns right/south down Beech Avenue and the north sewer main ends west of 5th Avenue. The VCP sewer runs north and south at the 5th Avenue intersection and then on both sides of F Street, with the north line continuing to the Fourth Avenue intersection. Sewer runs south down Landis Avenue to the centerline of F Street and east to beyond the Third Avenue intersection.

STORM DRAIN

The storm drain through the project varies significantly in size and material, and generally flows west and/or south. At the San Diego & Arizona East Railway (SD&AE) the storm drain directs flow from the north side of the road to a drainage channel which runs south parallel to the SD&AE railway. This is done through 18" reinforced concrete pipe (RCP), curb inlets, headwalls and rip rap. The next storm drain system is located east near APN 567-032-47. Various improvements to the road through the years created a complex system. Flow is directed west and south to a 10' drainage easement, from various sizes of corrugated metal pipe and inlets. Corrugated metal pipe (CMP) storm drain runs under the sidewalk on the north side of F street until the Broadway intersection. This storm drain ends at an inlet on the north side of the street just east of Broadway. East of Fig Avenue by the Civic Center, curb inlets on the

north side of the street direct flow in 15" RCP under the curb and gutter east toward Fourth Avenue. It ties into a 36" asbestos cement (AC) pipe which flows south. An older abandoned 15" RCP storm drain runs across Fourth Avenue on the north side of F Street which connects to an in-use cleanout. 5' type B inlet directs flow to the cleanout which drains south in a 33" RCP which ties into the line that continues west down F Street. The connection point flows south west into the Fourth Avenue 36" AC line. The 33" RCP continues east until Garrett Avenue, the storm drain splits with one extending to the north side of the street and ends with a 15' type B inlet. An 18" RCP extends from the other and heads south on Garrett Avenue approximately 90'. The final storm drain line is present in Third Avenue and flows south. Two inlets on the north east and south east of F Street pick up water.

WATER

For the length of the project site, a water line runs along the north side of F Street approximately 15' off centerline. From Bay Boulevard to Fig Avenue the line is 6" cast iron at 36"-38" depth from original grade. At Fig Avenue/Civic Center, it increases to 8" diameter until east of Fourth Avenue where it reduces down to 4" pipe and the line shifts south. After Garrett Avenue the water line increases again to 8". Sweetwater Authority is the purveyor of water service. The proposed F Street improvements retain the water line beneath the roadway.

Sweetwater Authority is in the process of planning and constructing a new water main segment beginning at Woodlawn Avenue and extending approximately 522' east of Woodlawn Avenue. The proposed water main is a 16" Class 235 PVC pipe, located 16' north of centerline. The proposed water main is 8' away from the proposed face of curb.

GAS

San Diego Gas & Electric (SDG&E) is the purveyor of natural gas service. A 1 1/2" high pressure natural gas line runs along the south side of



Overhead utilities are located along the majority of the corridor, west of Civic Center to Bay Boulevard

F Street 16' off the centerline. At the intersection of Broadway, the gas shifts north to roughly 9' off the centerline, then shifts back after Broadway. The primary Gas line shifts south after Fourth Avenue and crosses the 33" RCP storm drain. It shifts north toward the centerline after Garrett Avenue then shifts back to 16' off the centerline and remains 2" diameter.

DRY UTILITIES

Starting at Bay Boulevard, overhead utilities run along the south side of F Street. The overhead utilities continue east on the south side of the road until 200' west of Woodlawn Avenue at which point the overhead utilities cross to the north side of F Street and continues to run on both sides of the street. The north side overhead lines cross to the south side 650' west of Broadway and continues on the south side until just before Broadway, at which points it transitions to underground. The Broadway intersection has a large amount of underground conduit. After Broadway the lines resurface, and there are two crossings near East Park Lane and then one near Ash Avenue. After an underground crossing at Ash Avenue both north and south side overhead lines continue to run east. At 5th Avenue there is an overhead electric and utility crossings at all corners. There are four additional overhead crossings before both the north and south side lines transition to underground just west of Fire Station 1. This analysis of existing conditions helps with planning efforts to ultimately underground overhead utilities along F Street.

OPPORTUNITIES AND CONSTRAINTS

Several key findings, opportunities, and constraints have been identified that helped formulate the recommendations in the Streetscape Master Plan. These opportunities and constraints are described below and also depicted on the map on page 15.

OPPORTUNITIES

One of the greatest roadway opportunities is west of Broadway, where very low traffic volume and oversized capacity of the existing roadway present an opportunity to reduce the classification of this segment, allowing right-of-way width to be dedicated to other uses, such as wider pedestrian and bicycle facilities, landscape features, and plazas. Similarly, an additional opportunity exists along the Fourth Avenue to Third Avenue segment to reduce the existing 3 and 4-lane classification to 2-lane, due to very low volumes and a higher capacity threshold.

The Bay Boulevard and F Street intersection currently experiences a very low level of service during peak times. The intersection fails during peak times as a result of high volumes for a single movement, which provides opportunity for a roundabout to facilitate the flow of vehicular, bicycle, and pedestrian traffic through the intersection.

There is an opportunity for the F Street corridor to provide a viable connection to transit facilities and encourage transit use due to the close proximity of the E Street Transit Center, as well as the existing and proposed bus routes that traverse the corridor.

Additional opportunities for the F Street corridor include:

- Vistas toward the Bay: Currently, vistas are clear along F Street to the waterfront, which can even be seen from the eastern segment of the corridor. Scenic views should be preserved and enhanced throughout the entire corridor.
- The central segment of the corridor (generally between Ash Avenue and Fire Station 1) has existing sidewalk and parkway areas that are 20' wide. This width provides an opportunity to maintain the existing curb in the same location, while also dedicating extensive area to the multi-use path for bicycles and pedestrians in a cost-effective manner.
- Relief from Interstate 5 vehicular traffic: F Street is the only major east-west arterial in the City that does not have direct Interstate 5

access, which helps keep traffic volume low, and provides an ideal opportunity for traffic calming enhancements and the accommodation of multiple modes of transportation.

- City-owned properties along the F Street corridor provide an opportunity to expand the public realm with integrated plazas along the corridor, which would help create a sense of place.
- The proposed Bayfront development will connect a large number of users directly to the central business district.
- The north side of F Street, between the trolley tracks and Woodlawn Avenue, contains the abandoned City Yard property. The City Yard, in addition to the adjacent triangular railroad parcel, could serve as a viable future location for a relocated Blue Line railroad station, when the trolley tracks are separated in grade from the adjacent roadway. The grade separation of the tracks is discussed in the 2050 Regional Transportation Plan.

CONSTRAINTS

There are existing underground and overhead utilities throughout F Street. Overhead utilities serve as a constraint in providing complete, uninterrupted access for bicycle and pedestrian facilities. The City should consider the strategic phasing of undergrounding utilities to support F Street improvements.

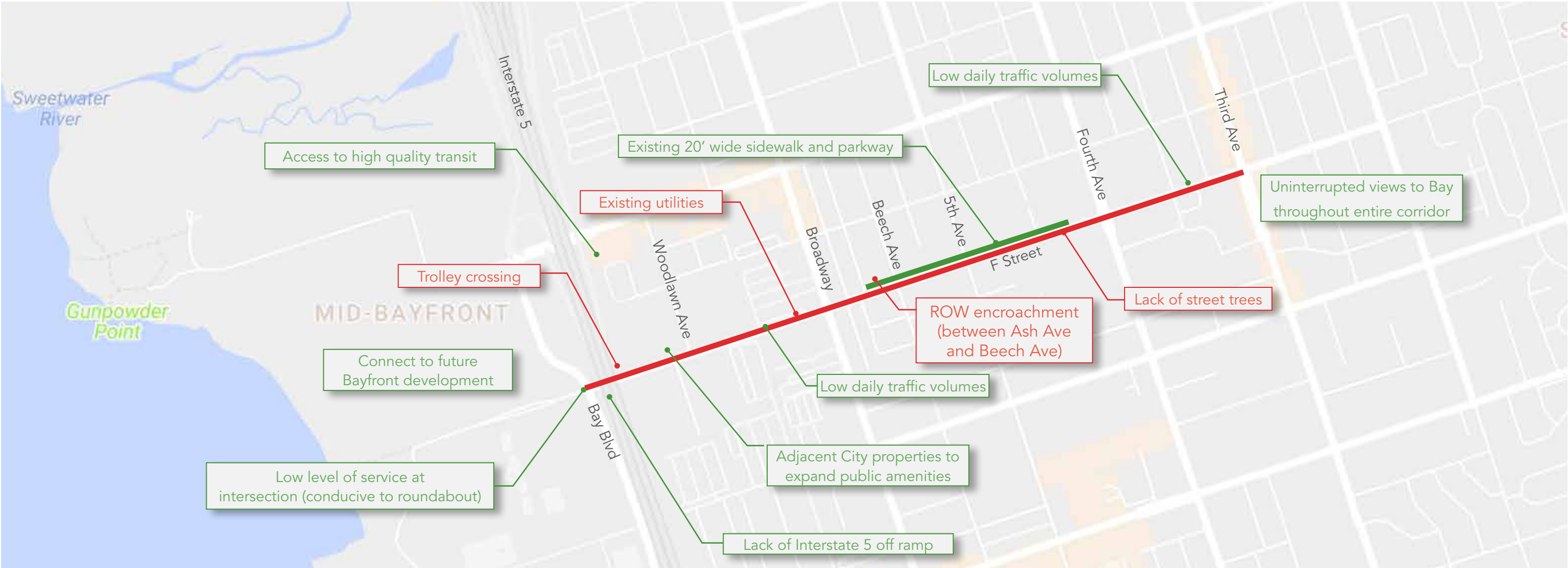
Additionally, underground utilities are located throughout the corridor, near the proposed curb location in some areas. If complete avoidance or a setback is required to existing utilities, sustainable design features such as stormwater planters may need to be further evaluated.

Another constraint relates to the relationship of the right-of-way boundary to the back of existing sidewalk. In several areas throughout the corridor, the right-of-way extends past the back of sidewalk approximately two feet. Many fences and other development features on private property may technically be located within the right-of-way. If the entire right-

of-way is intended to be used to accommodate the proposed multi-use path, these features on private property may require relocation. Additional constraints include the following:

- The block on the north side of F Street between Ash Avenue and Beech Avenue currently has a private parking lot that encroaches into the right of way. This condition may limit the opportunity to provide a complete, uninterrupted bicycle and pedestrian promenade.

- The existing trolley crossing limits the direct, unobstructed connectivity of the F Street corridor. The 2050 Regional Transportation Plan proposes a future grade separation of the light rail Blue Line and freight rail corridor by lowering the railroad tracks below street grade. The proposed grade separation would run from just south of the Sweetwater River through south of the H Street crossing. This would allow for F Street to ultimately become a direct, unobstructed link to the Bayfront.



Identified Opportunities and Constraints



3 conceptual design

This chapter describes the streetscape plan design process through the context of the project's major community input milestones. Community input on the F Street Promenade Streetscape Master Plan consisted of an initial questionnaire, three community workshops, participation in a local community event, CiclaVista, and a presentation to the Safety Commission, in order to maximize feedback opportunities and gain a variety of feedback perspectives. The community was engaged throughout project initiation and the conceptual design process in order to ensure that the project met the established goals, which include:

- Develop a Complete Street: A balanced, connected, safe, and convenient transportation network designed to serve all users, regardless of their age or ability, that will also provide multi-modal access (via walking, biking, and transit)
- Provide more street trees and pedestrian plazas
- Integrate water conservation design features
- Incorporate historical and nature design elements.



Workshop #1 was held on December 15, 2016

INITIAL FEEDBACK (NOVEMBER – DECEMBER 2016)

Community outreach for the project began with a questionnaire that was distributed to residents, businesses, and property owners on and around F Street. The questionnaire invited participants to “Re-Imagine F Street.” It was distributed by mail and also hosted on the City’s website, in English and Spanish. A total of 198 completed questionnaires were received.

The questionnaire included 18 questions related to street elements, traffic and parking, pedestrian and bike facilities, and design concepts for F Street Promenade. Specific topics that were included in the questionnaire include:

- Wider sidewalks
- Shaded sidewalks
- Pedestrian lighting
- Seating along the corridor
- Mid-block crosswalks
- Dedicated bicycle ways
- Availability of bicycle racks along the street
- Maintaining or relocating existing on-street parking
- New signage or wayfinding
- Creation of a specific identity for F Street
- Distinction of different sections of the corridor
- Design concepts
- Elimination of one lane of traffic in each direction from Broadway to Woodlawn
- Relocation of existing overhead utilities underground

Based on 12 questions regarding street elements, the top three elements, by priority, include pedestrian lighting, relocating existing over-

head utilities underground and dedicated bicycle ways. Respondents also indicated a preference for the relocation of on-street parking and the elimination of one lane of traffic in each direction (from Broadway to Woodlawn) to create a center median.

If improved bike lanes are provided, the top three destinations respondents indicated traveling to include the Bayfront area, the Bayshore Bikeway, and Third Avenue. Finally, the top three design concepts that respondents support, by preference, are Bay to City Link, Nature, and Chula Vista History.

WORKSHOP #1 (DECEMBER 15, 2016)

Workshop #1 took place at the Chula Vista Farmer’s Market on December 15, 2016. The intent of the workshop was to introduce the project and gather additional public input on the re-imagining of F Street. Approximately 30 people attended the workshop.

The workshop included different stations for participants to visit. One station requested general feedback where participants were asked to list



Workshop #1 featured several stations for residents to provide feedback



the locations along or near F Street where they live, work, or play. Another station included an aerial image of F Street, where participants were asked to write comments related to specific locations along the corridor.

The other stations consisted of a visual preference survey, which included five specific topics related to participants' preference of design elements for F Street Promenade.

The visual preference survey topics included: wayfinding, branding/placemaking, urban design amenities, walkability and safety, and bike facilities. The following list indicates the top three preferences for each topic:

Wayfinding

- Street signs
- Directional signage
- Information

Branding/Placemaking

- Celebrate History
- Connections to nature
- Bike commute corridor

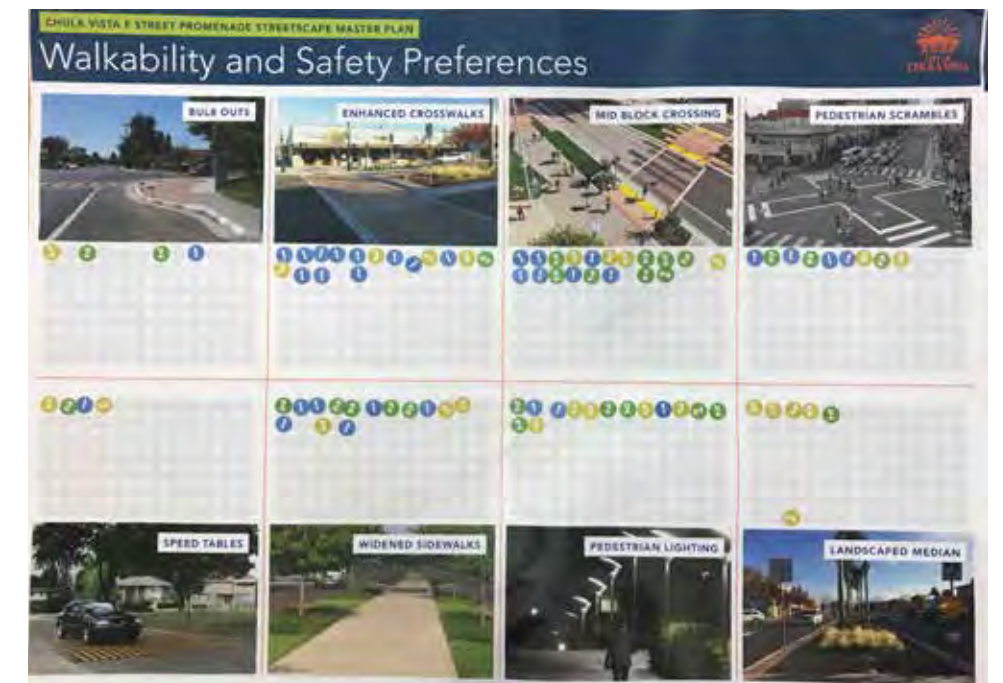
Urban Design Amenities

- Street trees
- Plazas/parklets
- On-street parking

Walkability and safety

- Mid-block crossing

VISUAL PREFERENCE SURVEY



- Enhanced crosswalks
- Widened sidewalks

Bike Facilities

- Class I - Multi-use
- Class IV - Cycle track
- Class II - Standard bike lane

CONCEPT DEVELOPMENT (JANUARY – FEBRUARY 2017)

Following Workshop #1, the MIG team and City staff explored a variety of alternatives that applied the community desires to the existing conditions. The team looked at a variety of possible solutions that included some combination of the following typical bicycle facilities depending on the unique geometric sections of each section of the street:

- Class I: Multi-purpose path (minimum 8-foot wide)
- Class II: Standard bike lane (minimum 8-foot wide with buffer)
- Class III: Bicycles share road with vehicles
- Class IV: Cycle track

In addition, the MIG team recognized that the 1.25-mile corridor had three typical street sections, each with a generally consistent appearance:

West Section (west of Broadway and East Park Lane): two lanes of travel each way with parallel parking on both sides and narrow sidewalks. Overhead utilities occur on the south side of the street only.

Central Section (between East Park Lane and Fire Station 1): one lane of travel each way with parallel parking on both sides, and wide parkways (20 feet wide), including a 5-foot wide sidewalk. Overhead utilities occur on the north and south sides of the street.

An exception to the typical section in the Central portion of the project

area occurs on the north side of the street, between Ash Avenue and Beech Avenue. An existing private parking lot encroaches approximately 13 feet into the right of way. There is a six-foot wide sidewalk immediately adjacent to the parking lot.

East Section (between Fire Station 1 and Third Avenue): one to two travel lanes each direction with turn lanes, and five planted medians. There are generally no planted parkways here, except a short segment in front of the Civic Center at the corner of Fourth Avenue, and in front of the Central Library. Sidewalk width ranges from five to eight feet. There are only 13 total on-street parking spaces in this area, and no overhead utilities.

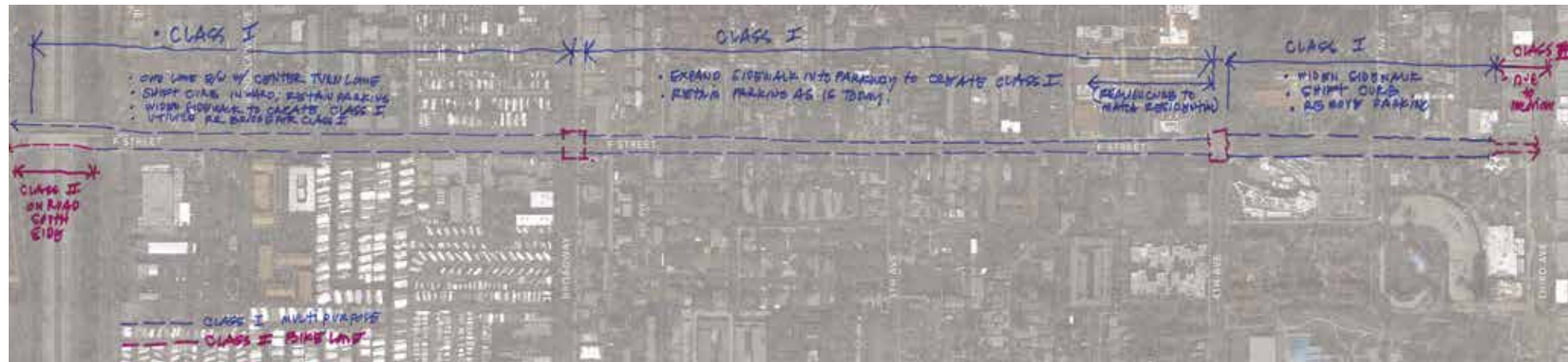
The MIG team initially explored a number of bicycle, pedestrian and roadway reconfiguration alternatives that included landscape medians west of Broadway, widening the sidewalk on one side of the street west of Broadway to create a broad promenade, reducing the 20-foot parkway and sidewalk width between East Park Lane and the Fire Station, removal of the five planted medians between the Fire Station and Third Avenue, and several others.

As alternatives were explored, the following objectives were established:

- Retain on-street parking as much as possible
- Minimize impacts to traffic operations
- Maintain vehicular turn lanes where necessary
- Allow for future undergrounding of overhead utilities
- Minimize impacts to safety and maintenance operations on the street (fire trucks and trash collection)
- Create a safe alternative for bicycling and walking
- Create pedestrian amenities including new street trees and plazas with seating areas
- Create a consistent bicycle and pedestrian circulation system through the entire corridor

At this point in the conceptual design process, the MIG team coalesced

the alternatives and options into three schemes, as depicted on the following page. The schemes looked at reducing the width and/or number of travel lanes in the west and east sections of the project area, and relocating curbs inward to create a Class I path on both sides (Scheme 1), incorporating a protected two-way Class IV bike facility in the middle of the street west of Broadway and Class I east of Broadway (Scheme 2) and create a Class IV and Class II buffered bike lane the entire length (Scheme 3).



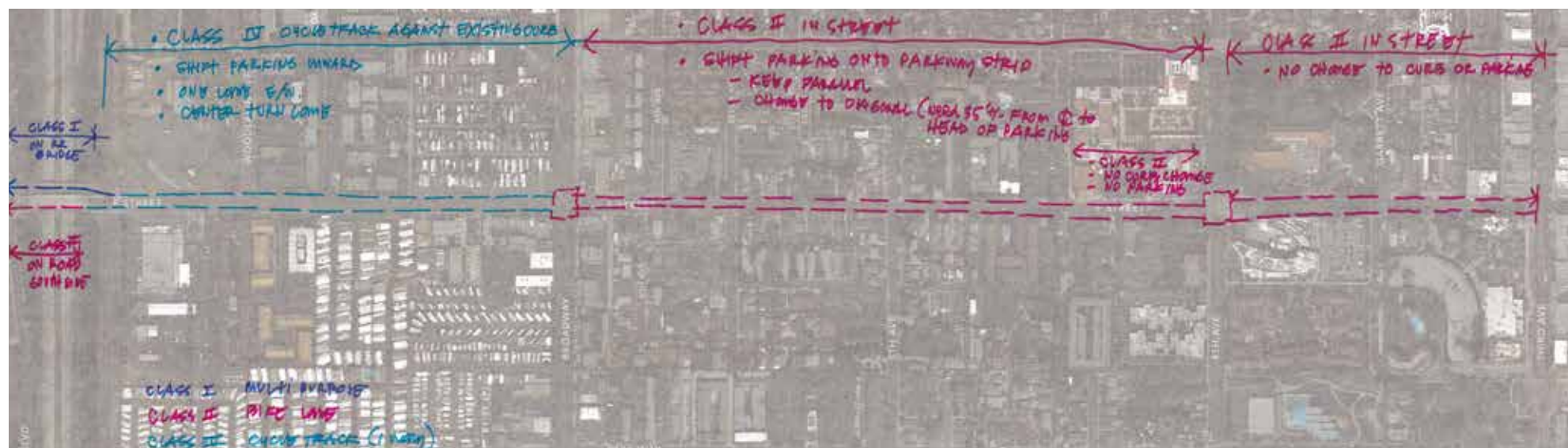
SCHEME 1

- Shift curb west of East Park Lane and east of Fire station inward to create an enhanced bicycle and pedestrian zone
- Create Class I share multi-purpose path entire length by widening the sidewalk
- Add landscape parkways to pedestrian zone where they currently do not exist



SCHEME 2

- Create new two-way protected Class IV cycle track in the middle of street west of Broadway by removing one travel lane
- Create Class I shared multi-purpose path east of Broadway
- Shift curb east of Fire station inward to create multi-purpose path



SCHEME 3

- Create a new Class II one-way 8-foot wide bicycle facility on both sides of the street east of Broadway, and a Class IV buffered cycle track west of Broadway
- Relocate curb between East Park Lane and Fire Station toward homes
- Shift on-street parallel parking onto parkway between East Park Lane and Fire Station 1

In conjunction with development of the three schemes, the MIG team discussed the high-level pros and cons of each scheme.

Scheme 1

Pros:

- Creates a consistent circulation system for bicyclists and pedestrians
- Does not require immediate undergrounding of the overhead utilities

Cons:

- Requires curb relocation west of East Park Lane and east of Fire Station 1

Scheme 2

Pros:

- Requires curb relocation only east of Fire Station 1
- Does not require immediate undergrounding of the overhead utilities

Cons:

- Results in two different bicycle circulation systems (Class IV west of Broadway and Class I east of Broadway), making transitions challenging
- No changes to existing narrow sidewalk west of Broadway
- Challenges with adding street trees into existing sidewalk west of Broadway

Scheme 3

Pros:

- Consistent curb-adjacent bicycle circulation system through entire corridor (Class IV cycle track west of Broadway and Class II bike lane east of Broadway)

Cons:

- Requires curb relocation closer to homes between East Park Lane and Fire Station 1
- Requires undergrounding of the overhead utilities east of East Park Lane prior to implementation of improvements
- No changes to existing narrow sidewalk west of Broadway
- Challenges with adding street trees into existing sidewalk west of Broadway
- Impacts to parking

Consistent improvements provided by all three schemes include a reduction in lanes to accommodate bicycle and pedestrian facilities, landscape parkways with additional planting and new street trees, and public realm amenities including plazas with seating areas.

Following discussion of the different alternatives and schemes generated subsequent to Workshop #1, the MIG design team created two refined concepts for review at Workshop #2.

- Concept A: Shared multi-use path (Class I) over entire length of corridor separated from parking and vehicular travel by a landscaped parkway with new street trees
- Concept B: Buffered bike lanes (Class IV) in the street between the parking and curbs

WORKSHOP #2 (MARCH 11, 2017)

Workshop #2 was held on Saturday, March 11, 2017 on the closed west-bound lanes of F Street, in front of the Civic Center, between Fourth Avenue and Fire Station 1. Approximately 65 people attended. The purpose of the workshop was to provide an update on the F Street Promenade project and gather input on the two design alternatives, Concept A and Concept B.

The workshop was set up as a “pop up style” workshop, which is a temporary onsite installation that gives residents and stakeholders an opportunity to experience and evaluate public realm improvements. A demonstration of proposed roadway reconfiguration with protected bike lane was implemented on F Street using reflector tape and traffic cones. Bikes were available for participants to try out the demonstration facility.

There were over 15 boards with graphics displayed. City staff and MIG project team members were on-hand to discuss the graphics and present Concepts A and B to attendees. Graphics that were presented include: project overview, existing conditions, design elements determined by the initial community input questionnaire and Workshop #1, Concept A and B site plans, rendered character sketches, roadway cross-sections and enlargement plans for both concepts.

For comparison, the fundamental way that Concepts A and B are distinct from each other is the bike lane configuration. Concept A presents a Class I shared multi-use path for all users, separated from vehicular traffic by a parkway (and in some areas, on-street parallel parking). Concept B, on the other hand, presents a Class IV cycle-track (bike lane with buffer) between the curb and on-street parking.

The primary format of community feedback was a comment card distributed to each participant. A total of 59 comment cards were received. The comment card requested that each participant list their preferred concept, why they chose that concept and the plan elements they preferred of their chosen concept.

Based on the feedback received, Concept A was the preferred plan for the majority of participants. The plan amenities that were the top three preferences include bike lanes, crosswalks, and plaza locations.

WORKSHOP #2



Workshop #2 featured a demonstration bike lane

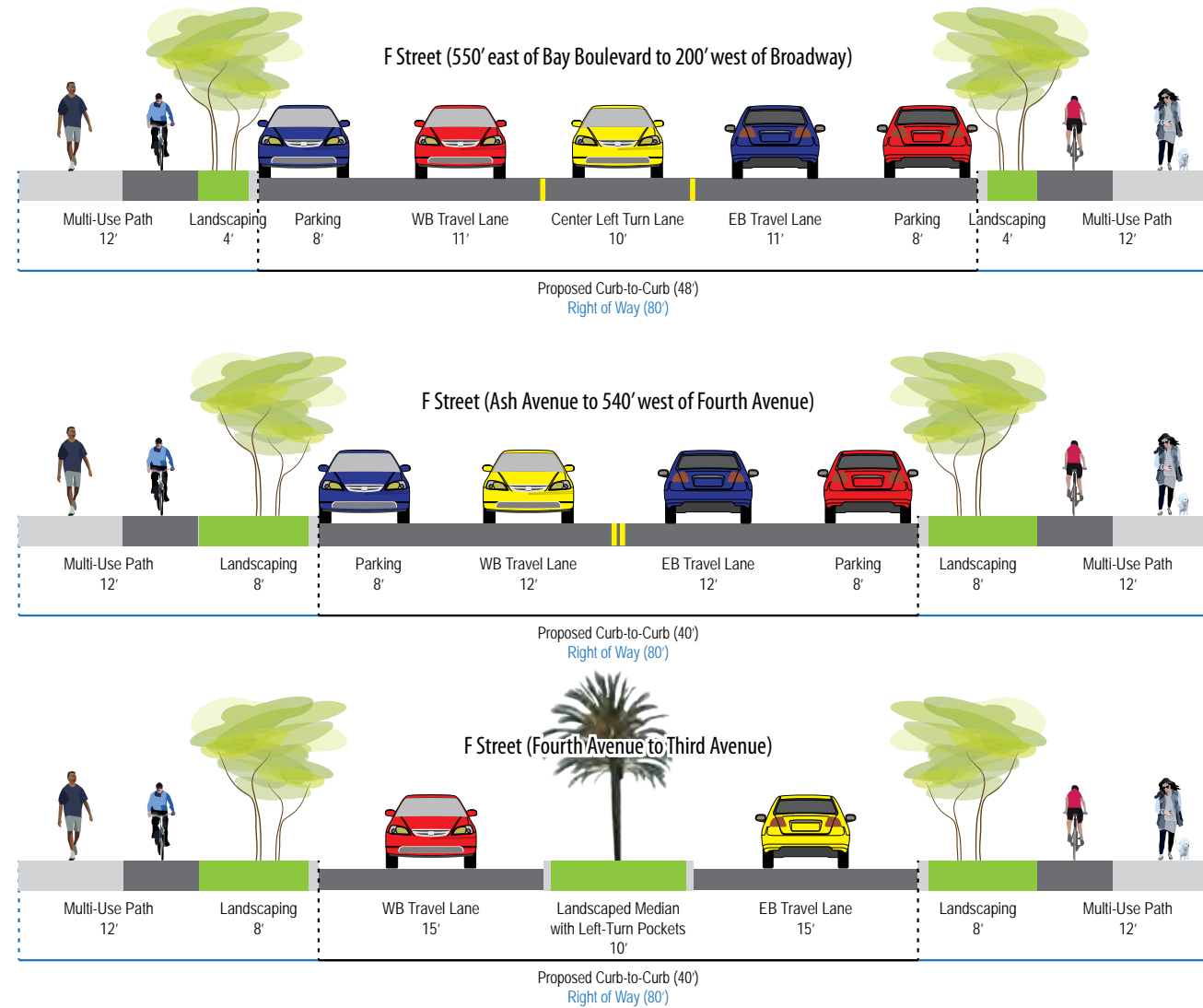


Participants were asked to provide feedback after learning about Concepts A and B

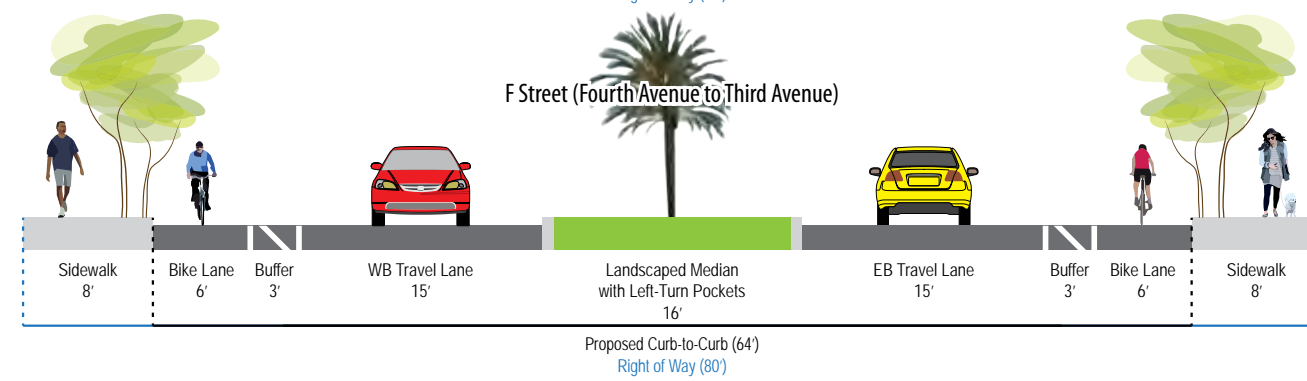
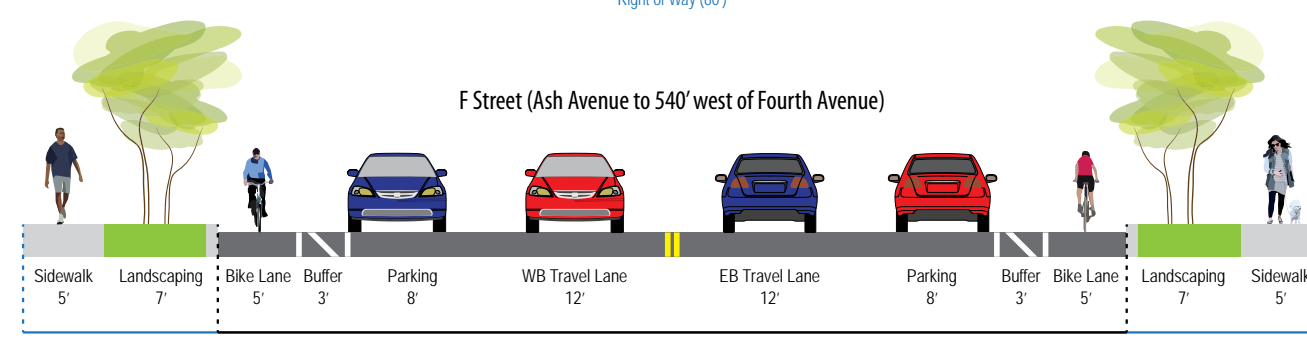
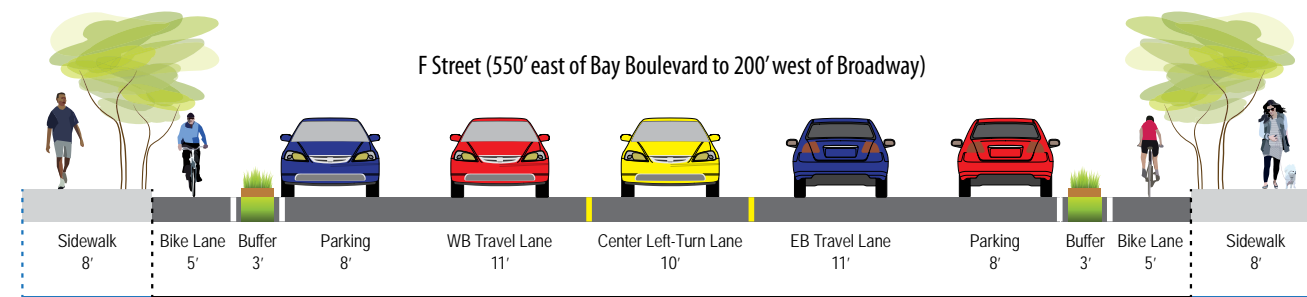
CONCEPT A HIGHLIGHTS:

- Multi-use path includes continuous bike lane and sidewalk
- The promenade is wider east of Fourth Avenue and west of Broadway than existing conditions
- Overhead utilities can remain or be undergrounded
- One travel lane in each direction
- No net reduction in parking or automobile travel time
- New street trees, lighting, and signage
- New parkway landscape and plazas with interpretive elements
- New and improved pedestrian crosswalks
- Mid-block F Street crossings at key locations
- Reuse of former railroad bridge across the Interstate 5 freeway

CONCEPT A



CONCEPT B

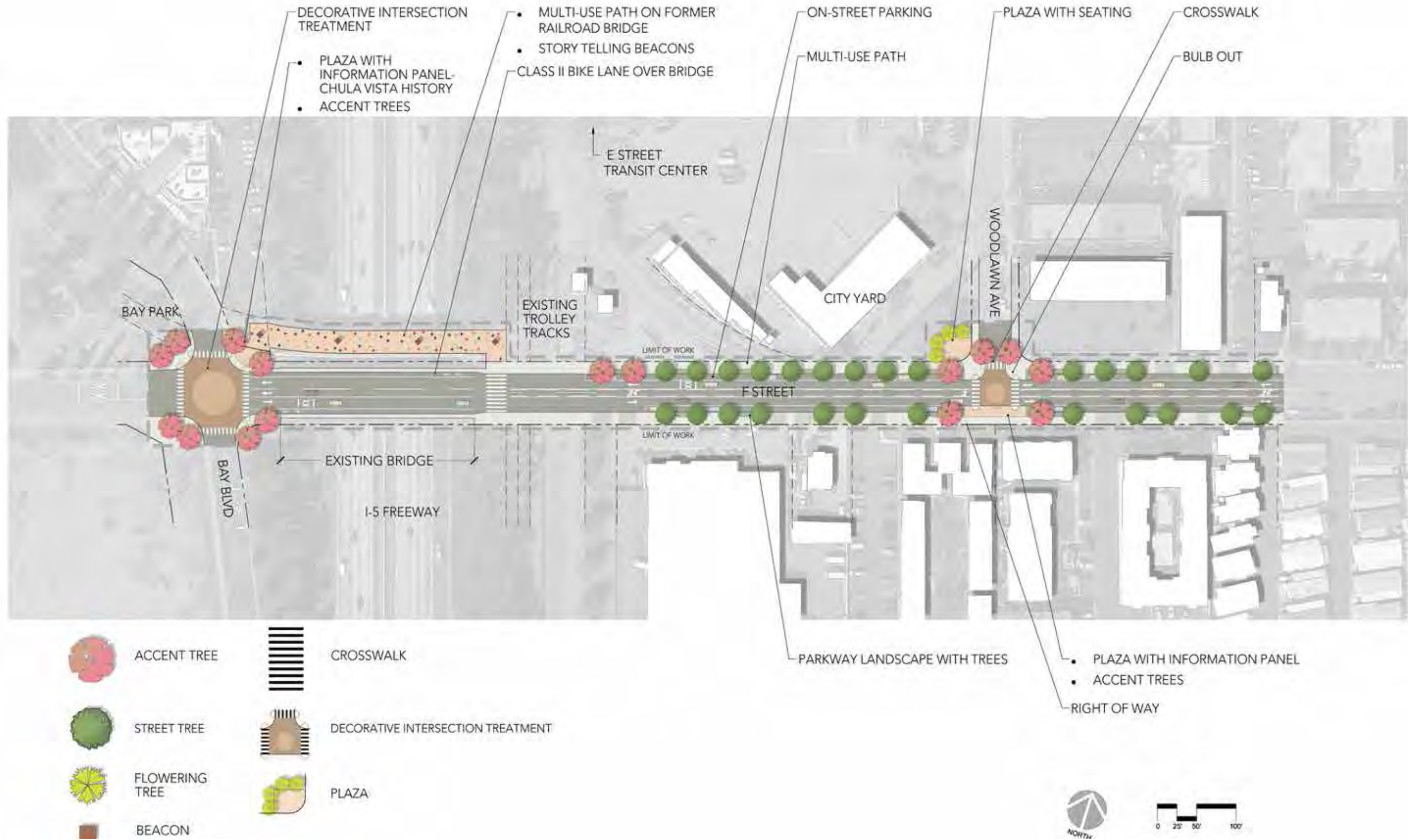


CONCEPT B HIGHLIGHTS:

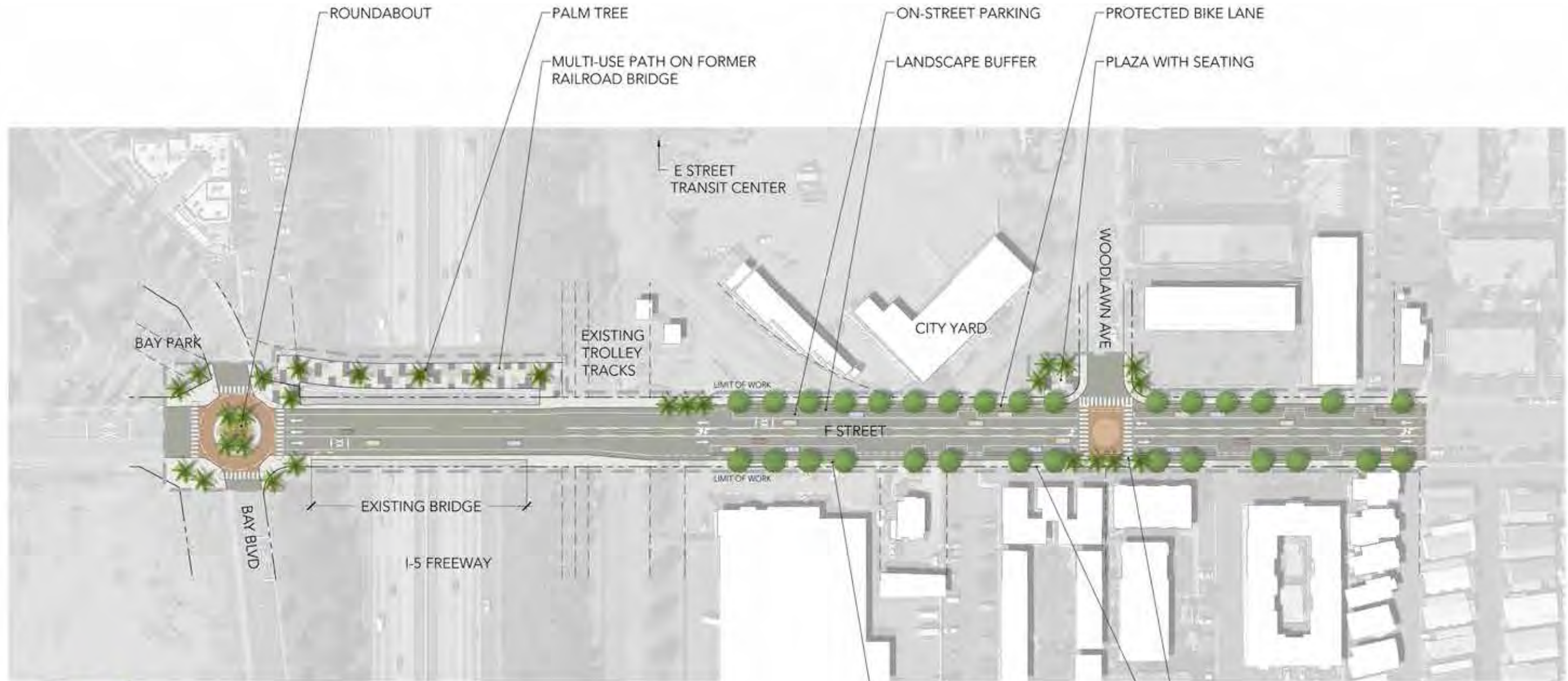
- Bike lane and buffer adjacent to F Street curb
- Promenade is the same width as existing conditions, between Fourth Ave and Broadway
- Requires overhead utilities to be relocated or undergrounded
- One travel lane in each direction
- No net reduction in on-street parking or automobile travel time
- New street trees, lighting, and signage
- New parkway landscape and plazas with interpretive elements
- New and improved pedestrian crossings
- Mid-block F Street crossings at key locations
- Reuse of former railroad bridge across the Interstate 5 freeway



CONCEPT A ENLARGEMENT PLAN



CONCEPT B ENLARGEMENT PLAN





The Chula Vista CiclaVista event provided information on the F Street Promenade project



Attendees at Workshop #3 provided feedback on the preferred plan
Credit: Steve Wood

CICLAVISTA (APRIL 30, 2017)

The F Street project team participated in the inaugural CiclaVista event on April 30, 2017. CiclaVista was held on Third Avenue, between E Street and H Street, where the street was closed to vehicular traffic and opened up to pedestrians, bike riders, and the general community. As part of the information booths that were set up by local organizations, the F Street project team came out to display information boards and advertise the upcoming workshop #3.

WORKSHOP #3 (JUNE 8, 2017)

The F Street Promenade Streetscape Master Plan Workshop #3 was held on June 8, 2017 in the City Council Chambers to present the preferred alternative plan. The format of the workshop was a Power Point presentation, followed by facilitated community input, and a summary and overview of the next steps in the project process. The preferred alternative plan was on display, along with supporting graphics, for attendees to review and provide input on.

The presentation began with an introduction to the project, reviewing project goals and community input so far. The presentation then reviewed existing conditions, followed by the community input and conceptual design process. The preferred alternative plan was then presented, with a review of several plan details including character sketches, updated roadway cross sections, focus area plans, and additional design features. Proposed enhancements related to circulation, safety, landscape character, and branding and placemaking were also presented.

FACILITATED COMMUNITY INPUT

The facilitated community input consisted of discussion of major topics that are part of the preferred plan, which include bike facilities, placemaking, construction of the project, safety, landscape features, transit, land uses, and next steps in the project. Initial comments from attendees

revealed that there were several concerns with the multi-use path having one color of paving, as shown in the preferred plan. Instead, attendees indicated preference for a clear distinction in paving color and material to separate bicycle use from pedestrian use. Placemaking comments received include preserving views to the Bayfront, gateway signage that does not compete with Third Avenue placemaking, potentially collaborating with local artists for the proposed signage, and preserving the old rail tracks as much as possible.

Additional comments related to the aforementioned topics include:

- With additional controls at Woodlawn Avenue, avoid reduced visibility and maintain plant material
- Do not obscure views west toward the Bayfront
- Include low maintenance vegetation with seasonal color in plant palette
- Explore incorporating local veterans and recognition of military service into the Chula Vista history theme
- Reuse former railroad bridge (as shown on the plan)
- Explore the potential to use the existing rail tracks on F Street for a trolley or streetcar, with connection to the blue line
- Concern for the intensity of heavy traffic along the corridor, including the bus, freight trucks, and fire apparatus, which make it difficult to exit residential driveways
- Desire for crosswalk between Broadway and 5th Avenue (the Beech intersection is shown as having a crosswalk on the preferred plan)
- Underground utilities
- Development of a retail corridor, and reinvestment in storefronts

Based on community input heard at Workshop #3, the preferred alternative plan was revised in order to develop the final streetscape plan, as shown in Chapter 4.

PREFERRED PLAN



PREFERRED PLAN





4 final streetscape plan

The final streetscape plan reflects community desires and input expressed at the three community workshops and on the questionnaire, as well as input from the Safety Commission, two bicyclist advocacy groups (San Diego Bike Coalition and Bike Walk Chula Vista), the Chula Vista Fire Department, Metropolitan Transit System (MTS), SANDAG, and the City of Chula Vista Departments of Development Services and Public Works.

The final streetscape plan, when implemented, will result in a safer and more attractive F Street corridor that improves the bicycling and walking experience between downtown Chula Vista and the Chula Vista water-

front without sacrificing vehicular operations.

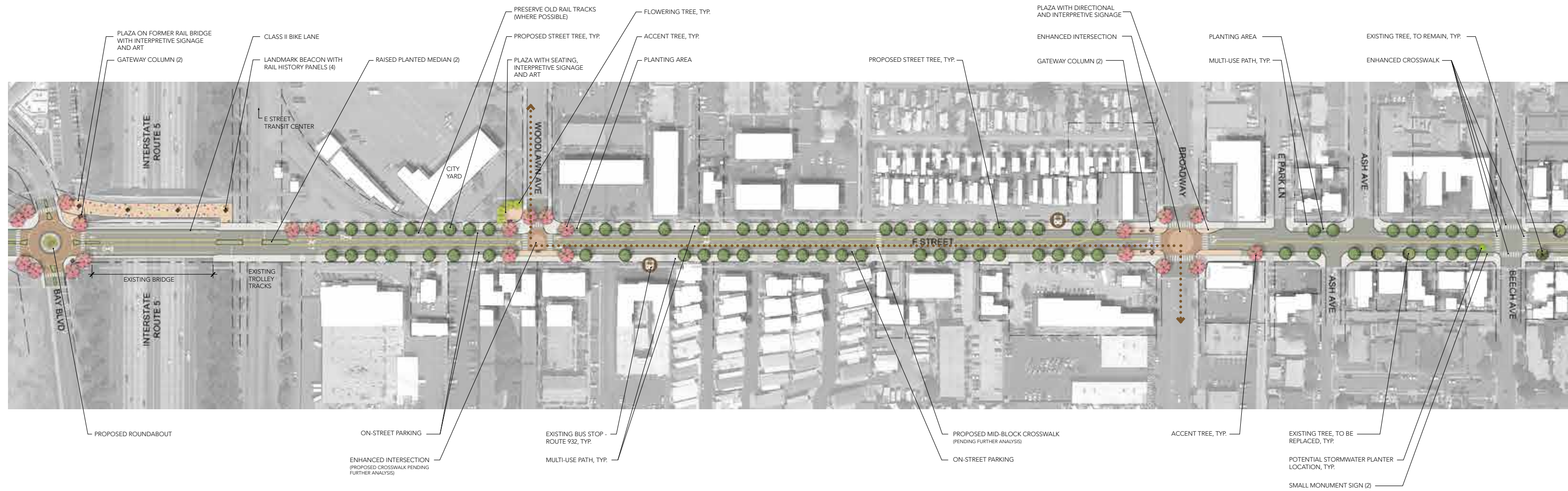
The Master Plan includes the following specific recommendations:

- Protected 12-foot wide multi-use path from Third Avenue to Bay Boulevard
- Difference in multi-use path pavement color and texture to distinguish bicycling and walking areas
- High-visibility crosswalks and mid-block crossings
- Pedestrian lighting, street trees and parkway planting areas from












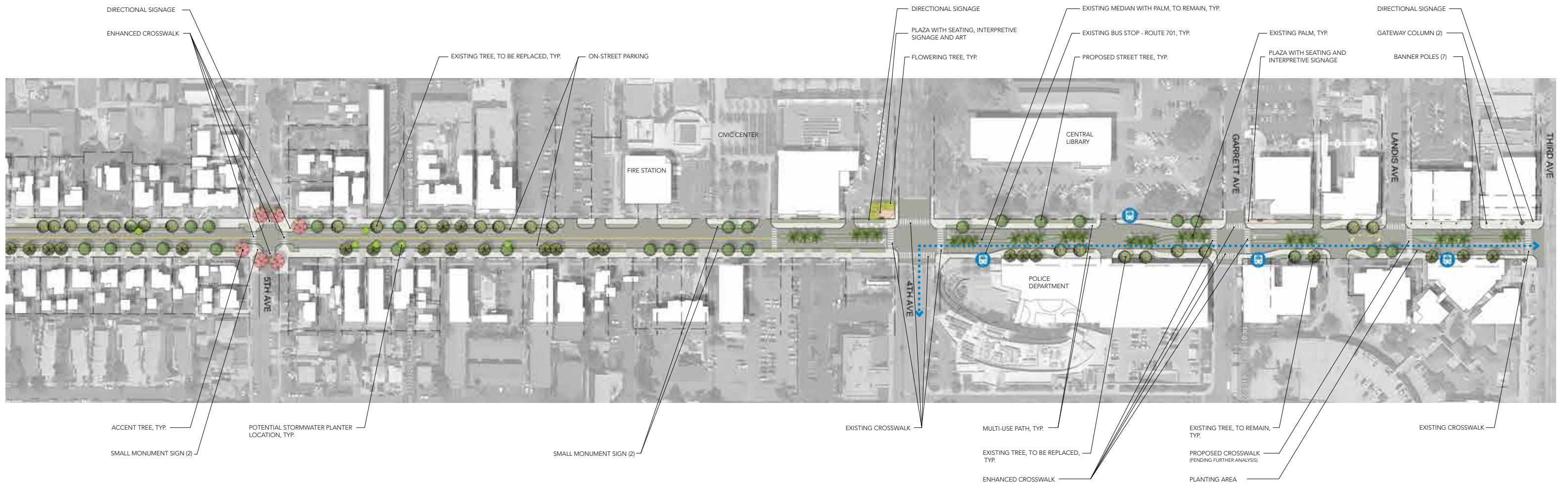
Birdseye rendering of proposed F Street improvements, looking east over Interstate 5

FINAL STREETSCAPE PLAN



LEGEND

-  ACCENT TREE
-  STREET TREE
-  FLOWERING TREE
-  EXISTING TREE, TO REMAIN
-  EXISTING TREE, TO BE REPLACED
-  EXISTING PALM, TO REMAIN
-  STORMWATER PLANTER
-  CROSSWALK
-  GATEWAY COLUMN



LANDMARK BEACON

BANNER POLE



BUS STOP



ENHANCED INTERSECTION



PLAZA



BUS ROUTE

EXAMPLES OF IMPROVEMENTS



Example of an enhanced crosswalk



Example of a shared multi-use path



Example of a mid-block crossing

Third Avenue to Bay Boulevard

- Gateway, interpretive and wayfinding signage with public art
- Plazas including shade trees, benches and bike racks
- Transformation of the former railroad bridge over Interstate 5 into a pedestrian plaza
- Bulb-outs at Woodlawn Avenue, Broadway, and 5th Avenue
- Stormwater planters
- Overhead utility undergrounding
- Reduce travel lanes from four to three lanes west of Broadway

Overall, the proposed streetscape improvements meet the desires of the community and will be an important foundation for future detailed design work, leading towards eventual implementation of the F Street Streetscape Master Plan.

It is the intent of this plan that as the Port of San Diego, in conjunction with the City of Chula Vista, continue their Bayfront planning efforts, the bicycle and pedestrian connections proposed in this document are integrated into Bayfront improvements, strengthening the linkage between the Bayfront and Downtown's Village District at Third Avenue. Specifically, it will be critical to integrate the F Street Promenade into the regional bikeway network by linking it to the future Sweetwater Bicycle Path and Pedestrian Promenade and future Sweetwater Park, via the Lagoon Drive alignment. The City and Port District should work together to begin design work on this important segment in the near future.

The final streetscape plan on pages 30 - 31 illustrates the extent, location, and types of overall improvements.

PEDESTRIAN IMPROVEMENTS

In accordance with community desires, the existing sidewalk will be widened from five feet to 12 feet to create a multi-use path on the north and south sides of F Street that accommodates bicycles and pedestrians.

Bulb-outs, which offer a refuge area and shorten the crossing distance for pedestrians are proposed at Woodlawn Avenue, Broadway, and 5th Avenue.

New pedestrian-scaled lighting, street trees and understory planting will be included in the parkway planting areas adjacent to the multi-use path. The new and improved continuous parkway planting area provides a safer separation between bicycles and pedestrians, and vehicular traffic.

Integral to the plan are small plaza areas within the public right-of-way that provide seating, shade, and opportunities for interpretive elements. These are proposed on the former railroad bridge over Interstate 5, and at intersections with Woodlawn Avenue, Broadway, Fourth Avenue, and Garrett Avenue.

All proposed crosswalks would be high-visibility, zebra-striped, continental crosswalks. This reflects the community's desire for improved and new crosswalks, which can provide a safer crossing for pedestrians as well as a traffic calming effect. The Master Plan proposes new painted crosswalks on all legs at the following controlled intersections:

- Bay Boulevard (replace existing crosswalks)
- Broadway (replace existing crosswalks)
- 5th Avenue (install new crosswalks)
- Fourth Avenue (replace existing crosswalks)
- Garrett Avenue (replace existing crosswalks)

The Master Plan proposes new painted crosswalks on all legs at the following uncontrolled intersections:

- Woodlawn Avenue
- Beech Avenue

The Master Plan also proposes two new painted mid-block crosswalks at the following locations:

- Between Broadway and Woodlawn Avenue (approximately 560 feet west of Broadway)

- Landis Avenue (east side)

A warrant analysis would be required in the future to confirm the need for the two proposed mid-block crosswalks and the proposed new crosswalks at Woodlawn Avenue and Beech Avenue.

The north side of F Street between Ash Avenue and Beech Avenue currently has a private parking lot that encroaches into the public right of way, which ultimately creates a challenge in providing a consistent multi-use path without reclaiming right of way. As a short term or interim solution to the buildout of the final streetscape plan as shown, the existing sidewalk could be maintained in this block. In order to accommodate bicycle facilities, on-street parking on the north side of the street could be replaced with a Class II bike lane on this block. The multi-use path could then continue west of Ash Avenue and east of Beech Avenue. As a future long term solution, the City should consider exploring opportunities to create a consistent and connected promenade.

BIKEWAY IMPROVEMENTS

As indicated previously, the proposed improvements for the entire F Street corridor between Third Avenue and Bay Boulevard include a 12-foot wide multi-use path, with designated areas for pedestrians and bicyclists. Due to the constrained width of the F Street bridge over Interstate 5, this short portion of F Street (250 feet) would be designated as a Class II bikeway. However, the F Street Streetscape Master Plan includes a proposal to utilize the 30-foot wide abandoned railroad bridge as a multi-use path that features signage and placemaking elements. This would serve as a key link to the San Diego Bayshore Bikeway.

TRAVEL LANE IMPROVEMENTS

Between East Park Lane (the alley just east of Broadway) and the trolley tracks, the Master Plan proposes to reduce the two vehicular travel lanes in each direction to one lane in each direction with a center turn lane.

The reduction from four lanes to three lanes allows for the expanded multi-use path and parkway improvements on the north and south sides between East Park Lane and the Interstate 5 bridge. In addition, a roundabout is proposed at the intersection of F Street and Bay Boulevard.

There are no proposed reductions in the number of lanes between East Park Lane and Fourth Avenue. Between Fourth Avenue and Garrett Avenue, the two travel lanes in each direction would be reduced to one lane in each direction, which will allow the creation of the 12-foot wide multi-purpose path and parkway. In addition, there are two eastbound lanes between Garrett Avenue and Third Avenue that will be reduced to one lane between Garrett Avenue and Landis Avenue to allow for the creation of the 12-foot wide multi-purpose path and parkway. East of Landis Avenue, the right-turn lane onto Third Avenue will be maintained.

Designated left turn lanes are maintained at:

- Woodlawn Avenue
- Broadway
- Fourth Avenue
- Garrett Avenue
- Landis Avenue
- Third Avenue

WAYFINDING PROGRAM

The F Street Streetscape Master Plan includes a program for three types of gateway elements that corresponds to the relative importance and visibility of the intersecting streets. These are envisioned as vertical columns that include lighting and public art. In addition, banners on poles are proposed at the east end of the F Street corridor. The banners will be used to signify the terminus point of the corridor. Banners will employ both seasonal and special event themes as well as reflecting the two main branding themes of Chula Vista History and Chula Vista Nature. This section also includes examples and location of interpretive signage

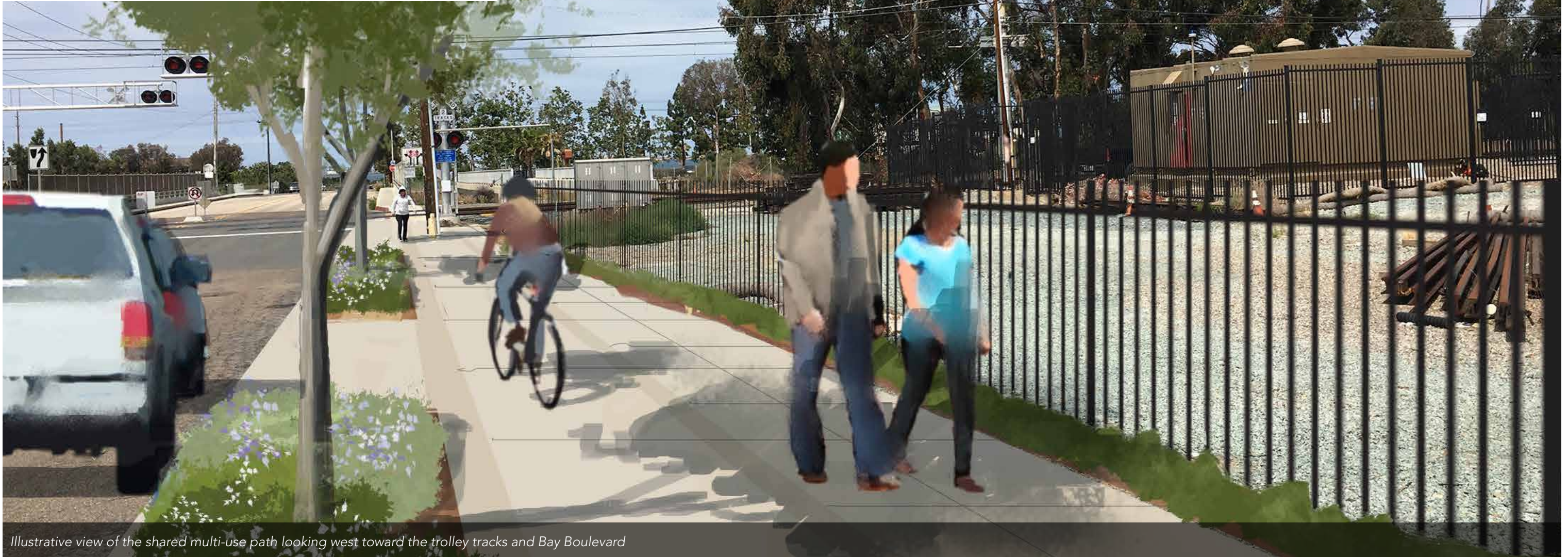
and art, as well as directional signage.

The photographs on these pages (32 - 33) illustrate examples of the types of improvements envisioned for F Street.

The plan enlargements and sketches on the following six pages illustrates the extent, location, and types of overall improvements at the each of the following areas:

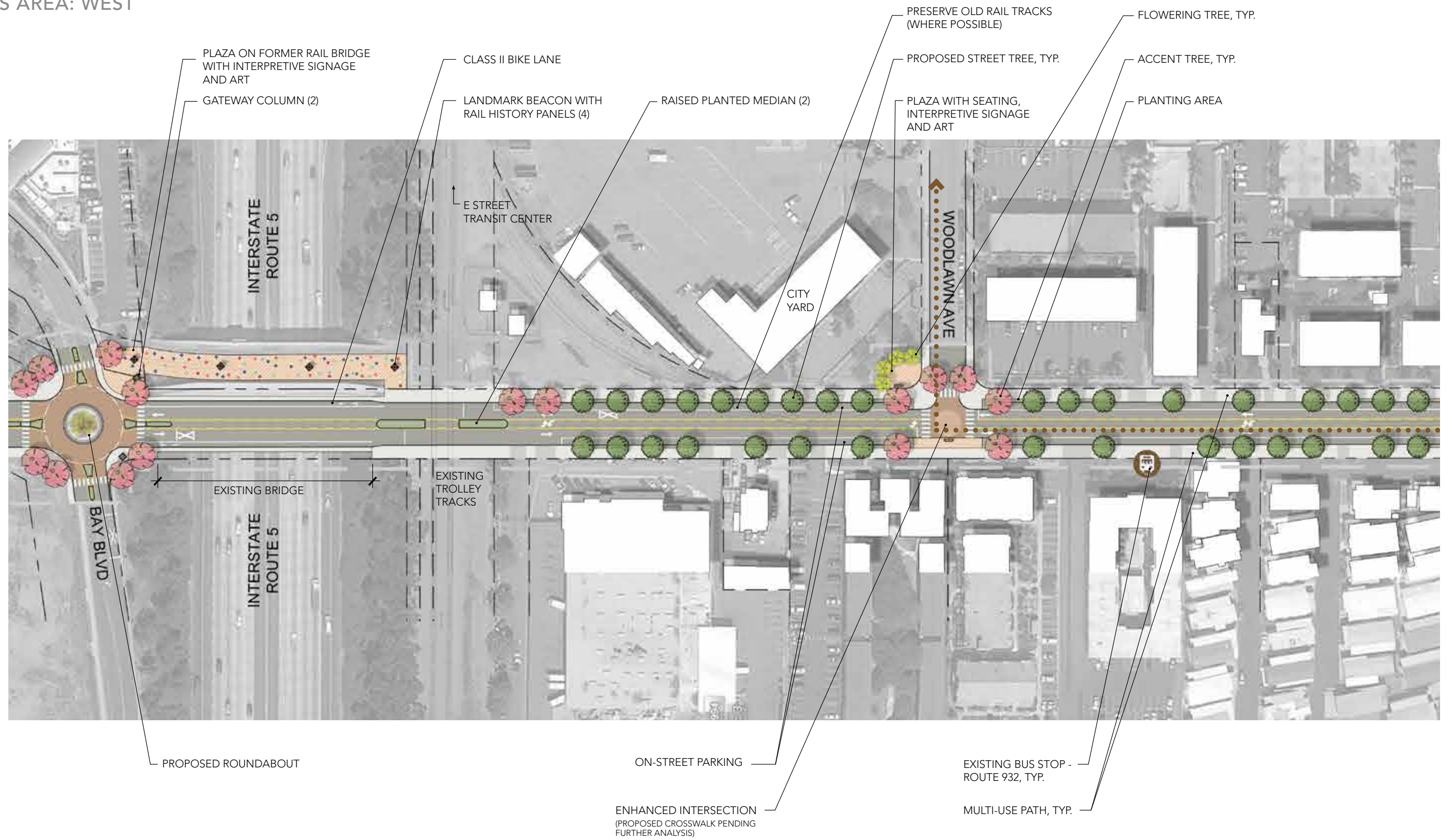
- West – from Bay Boulevard to Woodlawn Ave
- Central – from 600 feet west of Broadway to Beech Avenue
- East – from City Hall to Third Avenue

CHARACTER SKETCHES: WEST



Illustrative view of the shared multi-use path looking west toward the trolley tracks and Bay Boulevard

FOCUS AREA: WEST



LEGEND

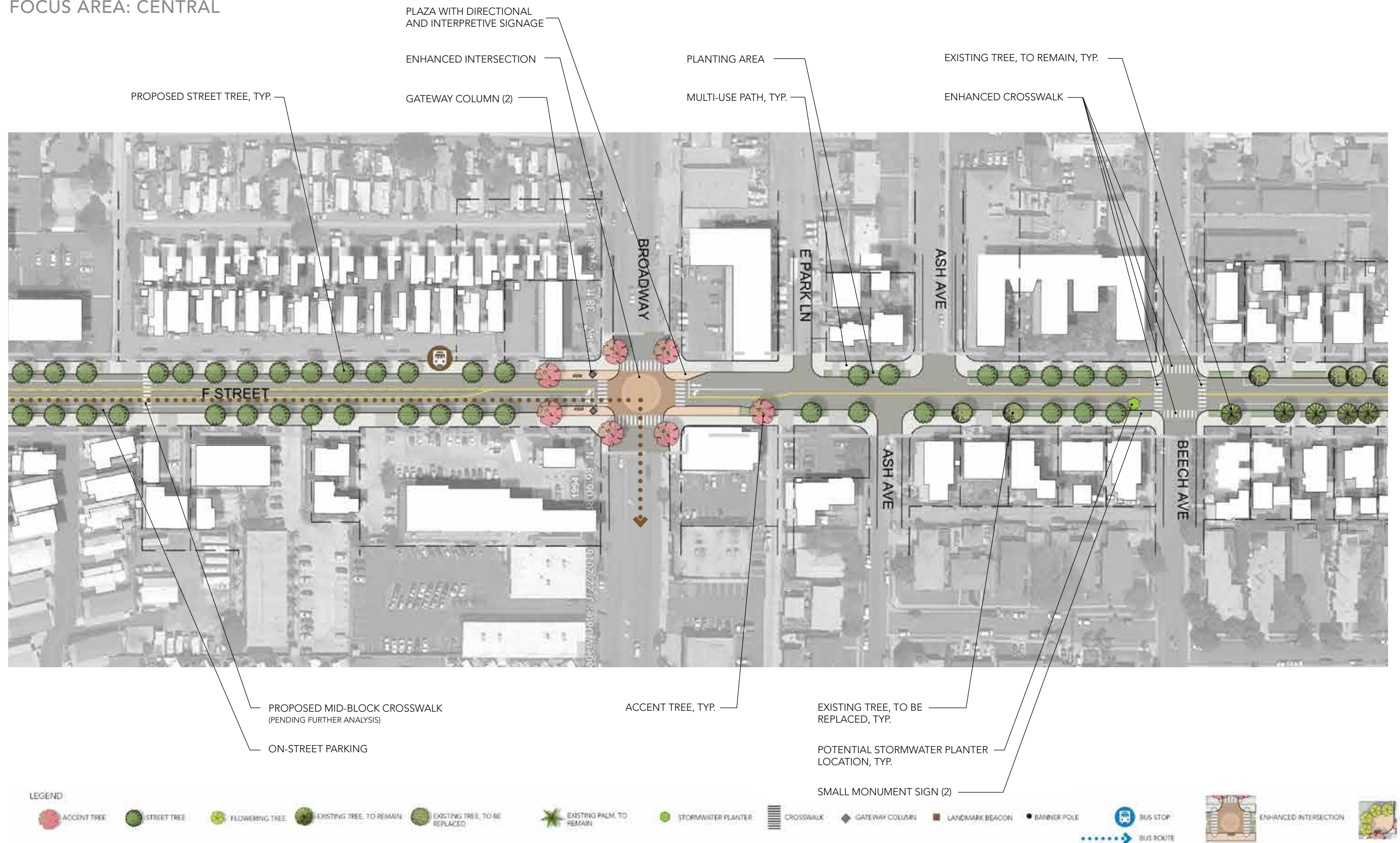
- ACCENT TREE
- STREET TREE
- FLOWERING TREE
- EXISTING TREE, TO REMAIN
- EXISTING TREE, TO BE REPLACED
- EXISTING PALM, TO REMAIN
- STORMWATER PLANTER
- CROSSWALK
- GATEWAY COLUMN
- LANDMARK BEACON
- BANNER POLE
- BUS STOP
- BUS ROUTE
- ENHANCED INTERSECTION
- PLAZA

CHARACTER SKETCHES: CENTRAL



Illustrative view of the shared multi-use path looking west toward Beech Avenue

FOCUS AREA: CENTRAL

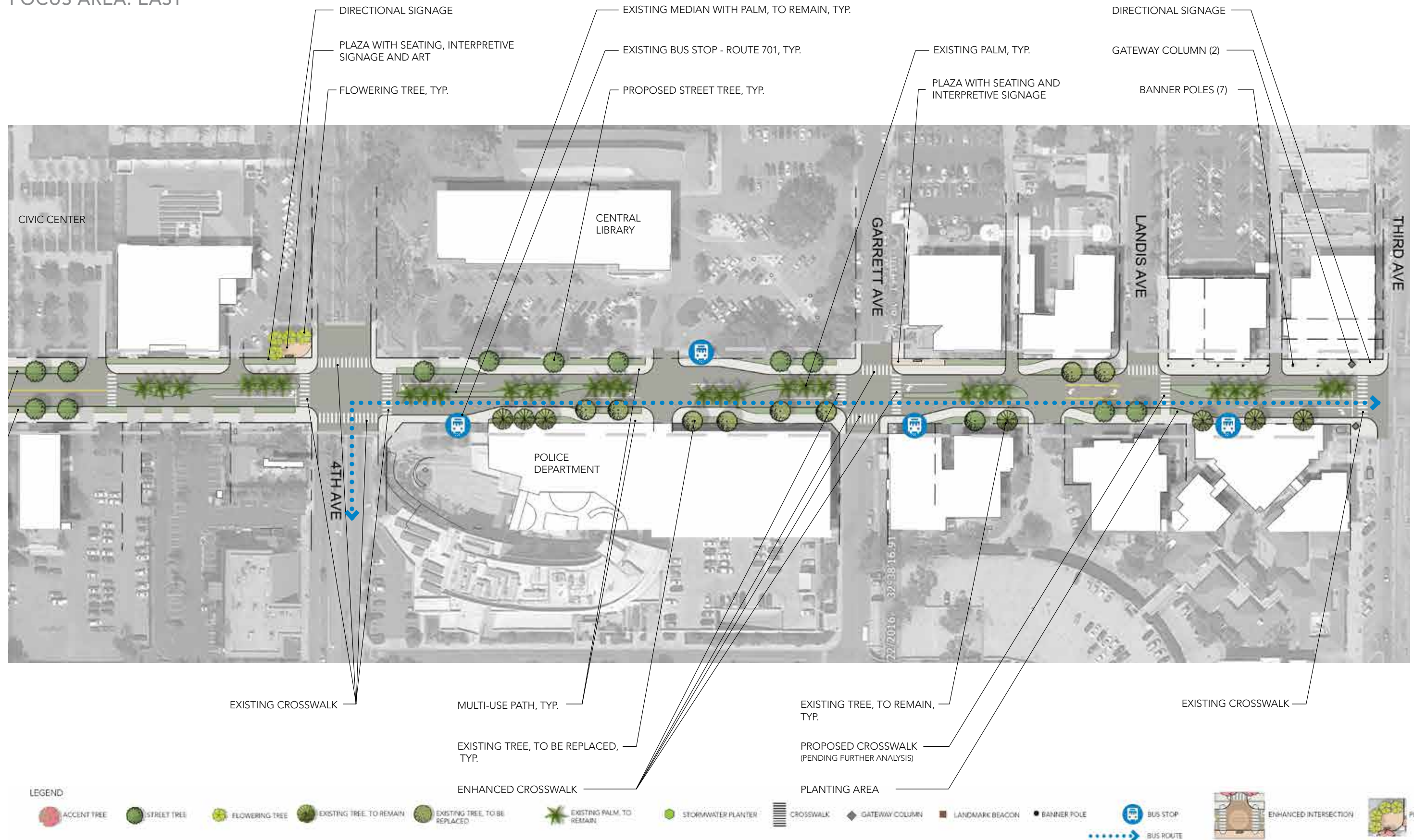


CHARACTER SKETCHES: EAST



Illustrative view of the shared multi-use path looking east toward Landis Avenue

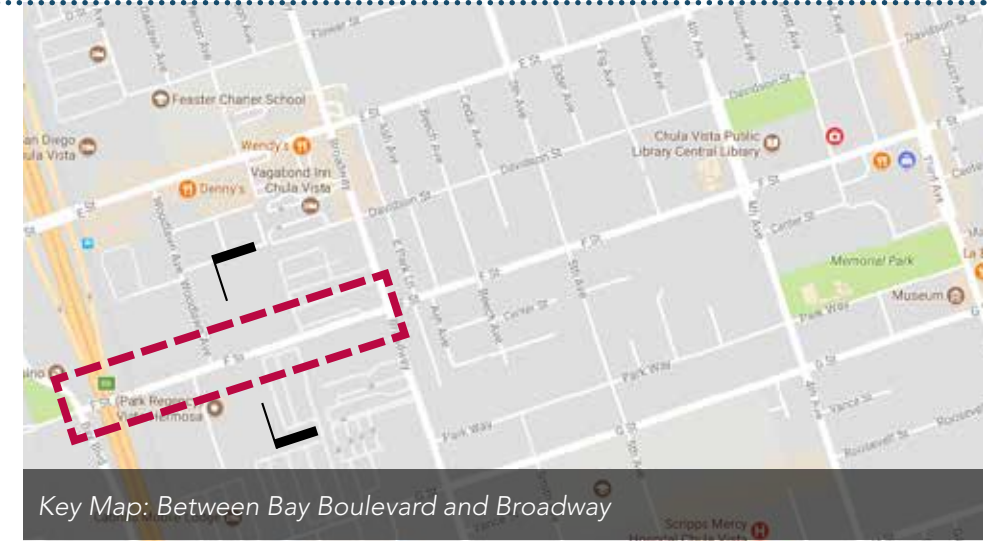
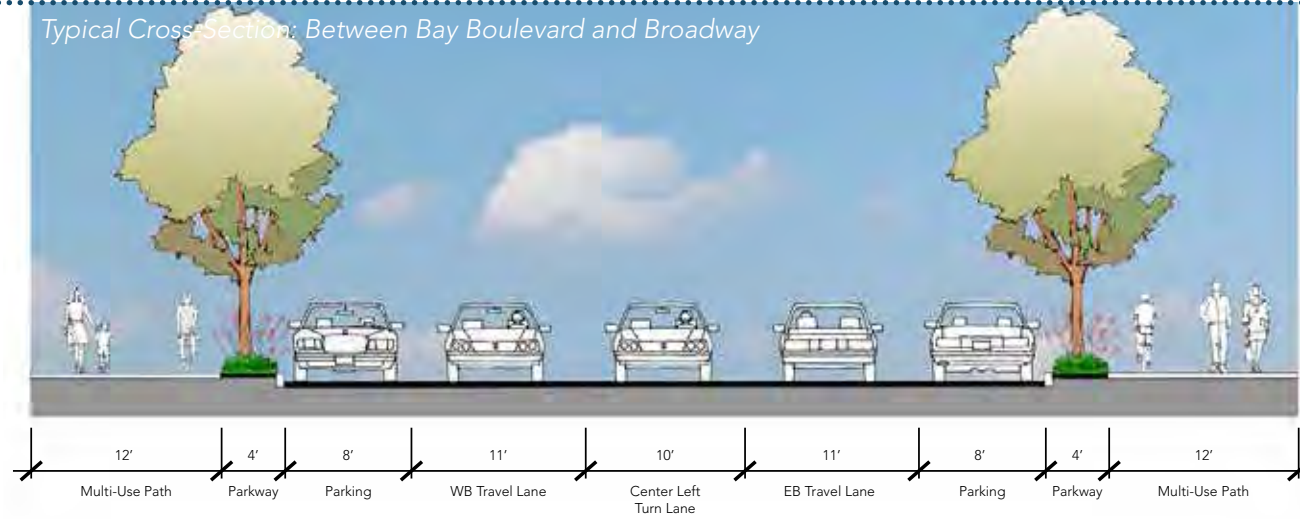
FOCUS AREA: EAST



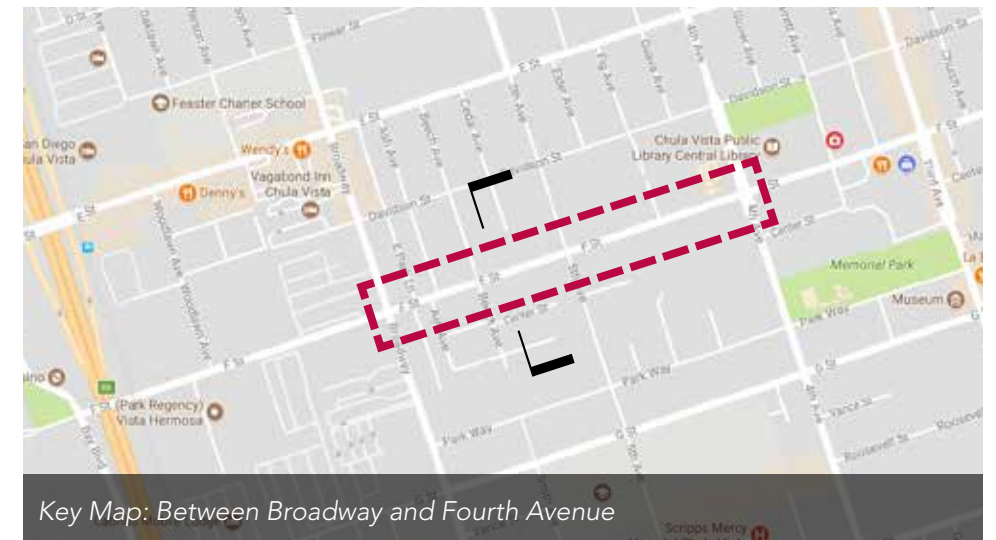
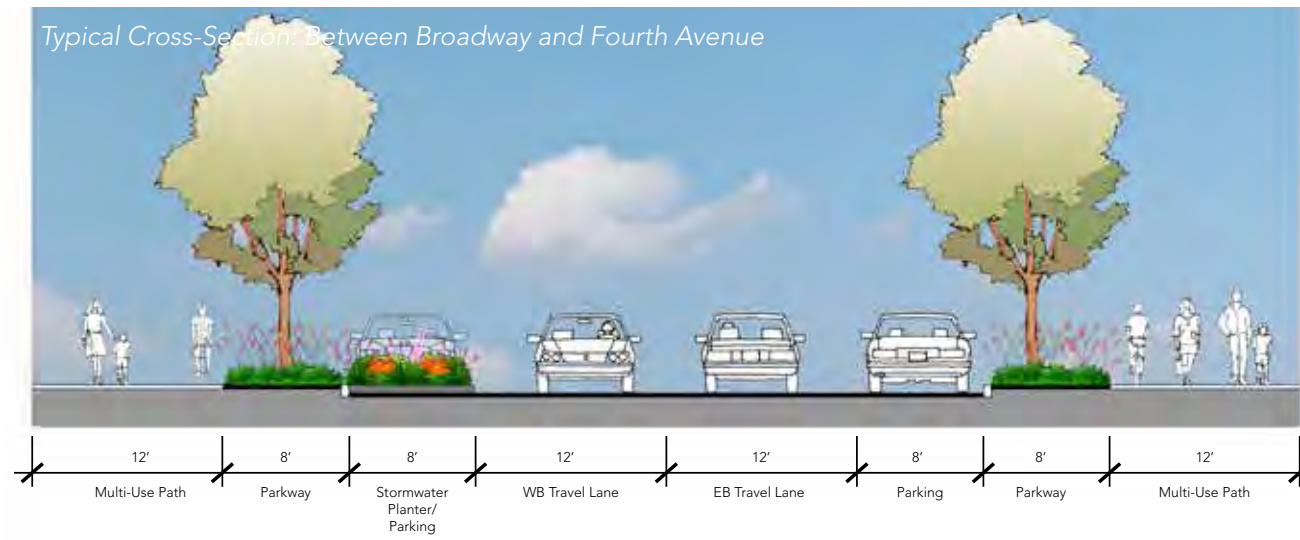
LEGEND

- ACCENT TREE
- STREET TREE
- FLOWERING TREE
- EXISTING TREE, TO REMAIN
- EXISTING TREE, TO BE REPLACED
- EXISTING PALM, TO REMAIN
- STORMWATER PLANTER
- CROSSWALK
- GATEWAY COLUMN
- LANDMARK BEACON
- BANNER POLE
- BUS STOP
- ENHANCED INTERSECTION
- PLAZA
- BUS ROUTE

Typical Cross-Section: Between Bay Boulevard and Broadway



Typical Cross-Section: Between Broadway and Fourth Avenue



Typical Cross-Section: Between Fourth Avenue and Third Avenue





Birdseye view looking east over the Bay Boulevard Intersection



Birdseye view looking west over the 5th Avenue Intersection



Birdseye view looking west over the Landis Avenue Intersection

CHULA VISTA HISTORY



Chula Vista has a rich and extensive history
Credit: www.chulavistaca.gov/

Examples of local history interpretive displays

CORRIDOR THEMES

CHULA VISTA HISTORY

The F Street Promenade will include numerous elements for storytelling and interpretation of Chula Vista's rich history. The story telling of this history will be conveyed in gateway monuments, street banners, interpretive signage and art, as described further in the Branding and Placemaking section (Chapter 4). The following is a brief history of this area of Chula Vista that will be used in the story telling opportunities.

Chula Vista has a rich history that can be traced back millions of years as evidenced by land and sea fossils. In approximately 3000 B.C. Yuman-speaking people began moving into the area. The majority of the Native American Indians in San Diego today are descendants of the Kumeyaay tribe who have lived in the area for hundreds of years.

Between 1542 when Juan Rodriquez Cabrillo first sailed into San Diego Harbor, and 1847 when the United States claimed California following the Mexican-American war, the area of Chula Vista was largely known for ranching and grazing for cattle and horses.

Beginning in the early 1880s, Chula Vista experienced rapid settlement and growth, largely as the result of railroad expansion from San Diego and the creation of land settlement with five acre lots and broad 80-foot wide corridors (the width of F Street). Railroad tracks—as evidenced in the middle of F Street west of Broadway today—ran east on F Street, then turned south near Memorial Park, and ended at the

fruit packing plant located at the southeast corner of K Street. The railroad track remnants on F Street are a reminder of the rail connection between the downtown central business district and the waterfront.

A resident, James D. Schulyer, suggested the name Chula Vista for the town and the San Diego Land and Town Company adopted it. Chula Vista can be loosely translated in Spanish as “beautiful view.”

In 1888 Sweetwater Dam was constructed, which brought much needed water to Chula Vista and resulted in an agricultural boom that lasted for many decades. For a period, Chula Vista was known as the lemon capital of the world but also was a significant source of celery.

Beginning in World War I, Chula Vista and its waterfront was an important source of kelp, which was used in making explosives. The kelp processing plant was located on what is now known as Gunpowder Point currently the home of the Living Coast Discovery Center, less than a half-mile northwest of the western end of the F Street Promenade. A major provider of aircraft during World War II is the Rohr Aircraft Corporation, which relocated to Chula Vista in early 1941. By 1945, the company employed nearly 10,000 people on the Chula Vista waterfront, just a half-mile southwest of the F Street Promenade. Today the Chula Vista's waterfront is staged to become a major regional and local attraction through new waterfront parks and development.

CONNECTION TO NATURE

The F Street Promenade when fully constructed will result in a significant increase in the number of trees, shrubs and ground cover. Approximately 150 new trees and over 40,000 square feet of new and restored planting areas are proposed. In addition, stormwater will also be directed to existing and proposed planting areas adjacent to the street. These planting and stormwater improvements are great opportunities to emphasize the importance of nature, which the community felt was a strong component to the identity of the F Street Promenade (along with the history of Chula Vista).

The physical design of the stormwater and landscape planters creates the setting for interpretation and storytelling of nature.

Specific plants will be chosen that can sustain periodic water inundation, but also periods of drought and low water. The story telling component of the storm water planters includes interpretive plaques and signs that educates the F Street Promenade visitor about the importance of treating stormwater before it enters San Diego Bay. The stormwater planters will tell the story of urban runoff and water treatment, and the importance of water quality and the health of the Chula Vista Bayfront and San Diego Bay. The objective is to convey a direct understanding and appreciation of stormwater and its impact on the health of the Chula Vista waterfront and San Diego Bay.

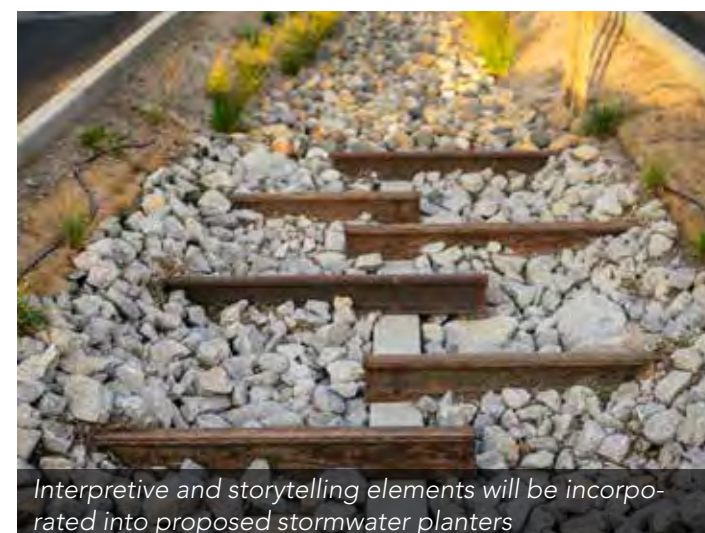
In addition to the unique planting and health attributes of the stormwater planters, many of the proposed plants for the F Street Promenade are

plants that specifically attract insects and improve the amount of pollination.

Much of the pollinator habitat in the San Diego area has been lost to agriculture, resource extraction, and urban and suburban development. Pollinators are needed for the reproduction of 90% of flowering plants and one third of human food crops. Pollinators include bees, butterflies, moths, beetles, flies, birds, and bats. Each of us depends on pollinators in a practical way to provide us with the wide range of foods we eat.

The planting of pollinator plants, which attracts butterflies and other plants in the F Street Promenade parkways is an excellent way to both increase the amount of pollination, contribute to the balance of natural ecosystems and tell the story about the importance of pollination. Cities throughout California and the United States are celebrating the importance of pollination through local programs for children and adults as well as national programs such as the National Pollinator Week, which occurs every June <http://pollinator.org/pollinatorweek/>.

The story telling component of the pollinator plants includes interpretive plaques and signs that educates the F Street Promenade visitor about the importance of pollinator plants.



Interpretive and storytelling elements will be incorporated into proposed stormwater planters



Pollinator habitat is a significant component of the landscape

CONNECTION TO NATURE

MOBILITY



MOBILITY

The F Street Promenade, when fully constructed, will result in a safer and more enjoyable experience for pedestrians and bicyclists, without sacrificing vehicular operations. As presented in the existing conditions section, F Street today carries a relatively low volume of vehicles, which is not expected to increase significantly under the current Urban Core Specific Plan.

To create the multi-use path for pedestrians and bicyclists, the existing narrow five to eight-foot wide sidewalk will be widened. West of East Park Lane this will be achieved by reducing the two travel lanes in each direction to one lane in each direction with a continuous center turn lane. Travel lanes will also be reduced to 11 feet in width (from the existing 13-foot wide lanes). The center turn lane will be 10 feet wide. This will free up a total of 16 feet that will be allocated to the north and south sides, eight feet per side. This results in a 16-foot wide promenade west of Broadway that includes a four-foot wide planting area and 12-foot wide multi-purpose path.

Shifting the north and south side curbs eight feet toward the centerline west of East Park Lane may require relocation of the underground utilities, but also provides an opportunity to underground the overhead lines either in the parking lane or travel lane. There is an underground water line approximately 16 feet south of the existing north curb and an underground gas line approximately 16 feet north of the existing south curb.

Between East Park Lane and Fire Station 1, there are

no changes to the travel lanes and no relocation of the existing parking or curbs. The existing five-foot wide sidewalk will be widened to 12 feet by expanding into the existing parkway planting area. The parkway planter will be eight feet in width.

Between Fire Station 1 and Third Avenue, the final configuration will be one lane in each direction plus turn lanes. Currently, the dimension from the curb line to property line is eight feet. In order to create the 12-foot wide multi-use path, the existing curb will be relocated towards the centerline through either a lane reduction and/or reduction in lane width (similar to the proposed improvements west of Broadway).

Shifting the north and south side curbs towards the centerline may require relocation of the underground utilities. This includes underground electrical on the south side, approximately three feet from the existing curb, and a CATV line approximately five feet south of the north curb beginning 150 feet west of Landis Avenue and continuing to Landis Avenue.

As part of establishing multi-modal connectivity throughout the corridor and as contemplated in the Urban Core Specific Plan, the City should explore the potential to provide shuttle service between Third Avenue and the Bayfront along F Street. Low traffic volumes and the future Mid-Bayfront Development provide an opportunity to establish a shuttle service as a convenient and direct connection to existing and future businesses and other land uses.

There are two bus lines operating on F Street. MTS bus line #932 travels on F Street between Woodlawn Avenue and Broadway (one bus stop each side), and MTS bus line #701 travels on F Street between

Fourth Avenue and Third Avenue (one bus stop on the north side, and three bus stops on the south side of the street).

SAFETY ELEMENTS

The F Street Promenade when fully constructed will result in a safer environment for pedestrians and bicyclists with the following improvements:

Multi-use path: The expanded multi-use path is a widening of the existing sidewalk from five to eight-foot wide to 12 feet wide. It provides a safe route for bicyclists, the majority of whom prefer not to ride in the street with vehicles. Zones for pedestrians and bicyclists will be designated through changes in paving color and texture, as well as signage. Bicyclists and pedestrians will share the 12-foot wide multi-use path.

Landscape parkway buffer: Between the multi-use path and the street will be a continuous landscaped parkway buffer ranging from four feet to eight feet wide. This provides added protection between bicyclists and moving vehicles. West of Broadway, where there is currently no landscape parkway, the expanded sidewalk and new four-foot wide landscape buffer will provide added safety and buffer between vehicles entering and exiting the existing driveways between Broadway and the trolley tracks.

Crosswalks: All proposed crosswalks would be high-visibility, zebra-striped, continental crosswalks. This reflects the community’s desire for improved and new crosswalks, which can provide a safer crossing for pedestrians as well as a traffic calming effect.

Bulbouts: Bulbouts provide a reduced crossing distance between corners, provide opportunities for stormwater collection and planting areas, and assist in traffic calming. Bulbouts are proposed at key intersections, including Woodlawn Avenue, Broadway and Fifth Avenue. Bulbouts are also proposed at the mid-block crossing just west of Broadway.

Lighting: New pedestrian lighting is proposed along the entire corridor on both sides of F Street to augment the existing high illumination lighting located at the intersections and on the overhead utility poles. All lighting will follow the recommendations outlined in the Urban Core Specific Plan and will utilize current City of Chula Vista lighting standards. All new lighting will utilize a consistent pole and luminaire to minimize added maintenance and operations costs.

Connection to E Street Transit Center: The E Street Transit Center is located a block north of the project area. The proximity of the transit center to F Street Promenade provides an opportunity to establish safe, direct, and multi-modal access to transit. As part of future implementation, the City should explore potential direct connections from F Street Promenade to the E Street Transit Center for bicyclists and pedestrians. The City may, for instance, collaborate with MTS and other transit agencies in the future potential development of the current vacant City yard lot, between the trolley tracks and Woodlawn Avenue.

Former Rail Bridge: The proposed improvements would include the adaptive reuse of the former rail bridge as the main pedestrian crossing over Interstate 5. Due primarily to the proximity of the former rail bridge to the trolley tracks, substantial close co-

SAFETY ELEMENTS



Example of a multi-use path with bicycle and pedestrian traffic separation



Bulb-outs and continental crosswalks will make it safer for pedestrians to cross the street

ordination with stakeholder agencies, including MTA, the California Public Utilities Commission, and CalTrans, will be necessary to ensure the safety of users.

As part of the development of the master plan recommendations, preliminary coordination with related agencies has resulted in two viable alternatives for the pedestrian and bicycle trolley crossing.

The first alternative is shown on the final streetscape plan on pages 30-31. This crossing consists of utilizing the existing footprint of the bridge, with a perpendicular connection to the promenade directly west of the trolley tracks. Additional requirements for this crossing would include:

- Adequate overhead illumination on each side of the trolley tracks
- The consideration of a fully gated and channelized pedestrian design on both the north and south sides of F Street
- Gate-type warning devices, and additional pedestrian warning devices
- Additional supplemental flashing light signals
- Potential alterations to the existing warning devices

The second alternative trolley crossing provides a direct path across the trolley tracks, essentially extending the former rail bridge path straight across the tracks and creating a separate crossing from the proposed multi-use path. This alternative would require the relocation of existing utilities, in addition to the following requirements:

- Adequate overhead illumination on each side of

the trolley tracks

- The consideration of a fully gated and channelized pedestrian design on both the north and south sides of F Street
- Gate-type warning devices
- Channelize all users to the separate crossing from the former rail bridge, and consider closing the sidewalk area at the track crossing
- Encourage pedestrian traffic to use the track crossing on the north side of the street as opposed to the south side of the street
- Any proposed vertical improvements, such as fencing or planting, may warrant a hazard analysis to prevent unintended consequences associated with visibility for rail traffic, pedestrians, bicycles, and vehicles interfacing in this area

Additionally, for both alternatives, MTS has provided the following specifications:

- Landscaping must not block train operators view of pedestrians
- No landscaping within the MTS right of way
- Any grade crossing modifications must be engineered by an MTS approved firm
- Any modification of the grade crossing warning system must meet the most current design standards

As the Master Plan is implemented, the City will continue to work with stakeholder agencies to determine the best and safest trolley track crossing solution.

STREETSCAPE TREATMENT

A number of enhanced streetscape treatments are proposed for F Street Promenade. Streetscape treatments, specifically a variety of paving material textures and finishes, help distinguish the different use zones that make up the multi-modal corridor. Different streetscape treatments are provided for the multi-use path, plazas, crosswalks, and intersections.

MULTI-USE PATH

The 12-foot wide multi-use path is intended for pedestrians and bicycle users. The purpose of the paving treatment for the multi-use path is to safely accommodate different users by providing visual cues to bring awareness to the shared space, such as color and texture.

The multi-use path paving will incorporate two separate 1-foot wide bands that distinguish the bicycle zone from the pedestrian zone. The 1-foot wide bands will be integral colored concrete or stone unit pavers, to provide the visual cue necessary to safely accommodate bicycle users and pedestrians. The paving of the bicycle and pedestrian zones of the multi-use path will both be a concrete material. The bicycle zone will have a light sandblast finish, in order to provide a smooth, comfortable ride. The pedestrian zone, however, will feature a lightly-exposed aggregate finish.

PLAZAS

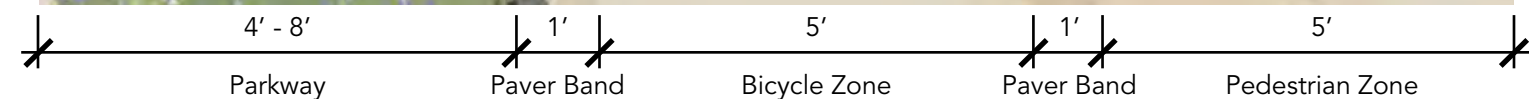
The proposed plazas are special areas off the multi-use path that provide opportunity for place-making. Plazas are located on the former railroad bridge over Interstate 5, and at intersections with Woodlawn Avenue, Broadway, Fourth Avenue, and Garrett Avenue, and will feature enhanced paving, interpretive signage, seating, pedestrian-scale lighting, and art. The paving will consist of stone unit pavers.

CROSSWALKS

Crosswalks will feature zebra-striped continental crosswalks for safety and high visibility.

INTERSECTION TREATMENTS

Special paving, such as vehicular-rated unit pavers or colored paving, are proposed for selected intersections, including Bay Boulevard, Woodlawn Avenue, and Broadway.



Typical Promenade paving treatment

SUSTAINABILITY



Stormwater planter examples

Existing red curb areas are identified as potential locations for stormwater planters

SUSTAINABILITY

Several sustainable design features are included in the Streetscape Master Plan, as part re-imagining F Street as a Complete Street.

Stormwater planters: West of East Park Lane and east of the Fire Station, where existing curbs are being relocated closer towards the centerline to create the multi-use path, stormwater runoff will be directed to the new landscape parkways with narrow curb cuts.

Between East Park Lane and the Fire Station there are a number of areas where there is no parking, typically adjacent to a driveway. The F Street Promenade Streetscape Master Plan proposes to remove these extra areas of asphalt and convert them to planted bioswales (see before and after images this page). Stormwater will flow directly into these surface planters via curb cuts.

Porous paving: The F Street project will utilize porous paving such as decomposed granite paving at all seating areas and mini-parks. This will allow stormwater to flow directly into the subsurface soils. In addition, porous concrete can be used in specific locations where stability and structural integrity is required but stormwater infiltration is desired, possibly for portions of the multi-use path.

Structural soil: For the four-foot wide landscape parkways west of Broadway, the F Street promenade will utilize structural soil or some other system that will allow the tree roots to extend below the multi-purpose path without disrupting the paving with surface roots. This will allow the larger trees for the parkway that are typically associated with six-foot-wide parkways.

Lighting: All new lighting will feature current Chula Vista lighting standards and glare cutoffs, which will minimize energy consumption and light pollution onto neighboring property.

Landscape maintenance and irrigation: The health and longevity of the proposed parkway street trees and plant material will be an imperative component to the recommended F Street improvements.

The landscape parkway will allow for the installation of highly efficient and moisture responsive irrigation systems that ultimately will be a cost-effective solution for the homeowners and the City, and provide a healthier growing condition for the trees and understory planting. New irrigation systems will also virtually eliminate water spillage onto adjacent hardscape areas because of irrigation technology.

A viable mechanism for the City to consider for parkway landscape maintenance is the establishment of a landscape maintenance district. Per section 5610 of the CA Streets and Highways Code, adjacent property owners are responsible for maintenance of the parkways in front of their property. However, in order to maintain a consistent and uniform appearance throughout the corridor, the City may consider the formation of a landscape maintenance district for F Street, or give further consideration of a landscaping and lighting maintenance district for the western portions of the City.

All plant material will be selected for low-water usage and low-maintenance requirements. This will save homeowners and the City money, and minimize the use of gasoline and gas-powered leaf blowers, which individually can add more pollution to the air than

over two dozen cars (source: City of Del Mar, CA)

Construction practices: As the F Street Promenade project moves into detailed design and construction, recommendations will be included for incorporating sustainable practices into construction. This will include the use of high recycled content furnishings and equipment such as concrete paving, light poles, bike racks and benches.

LANDSCAPE FEATURES

The F Street Promenade will include a variety of plant material that meets important planting design objectives:

- Provide shade and overhead canopy (trees)
- Reinforce key intersections and gateways (trees)
- Material selection appropriate to the size of the planting area (all plants)
- Utilize a combination of deciduous and evergreen trees
- Maintain sight lines at intersections (all plants)
- Provide year-round flowering and seasonal interest (all plants)
- Attract pollinator insects such as butterflies and moths (shrubs)
- Utilize drought-tolerant and low-maintenance plants (all plants)
- Preserve existing trees where possible
- Utilize stormwater plants that can sustain water inundation and assist in cleansing stormwater

The following two pages (50 - 51) are images of the specific plant materials that are recommended for use in the planting areas.

The final streetscape plan, the enlargement plans, and sketches (pages 30 – 39), illustrate how plant material will contribute to the overall beautification of the F Street Promenade.

Planting design highlights:

- Utilize accent trees at several F Street intersections, including Bay Boulevard, Woodlawn Avenue, Broadway, 5th Avenue
- Utilize small flowering trees at plaza locations
- Utilize planting in the Bay Boulevard roundabout to soften the surrounding hardscape and frame views towards San Diego Bay
- Plant street trees at approximately 35 feet to 45 feet on center other than at driveways and curb cuts
- Preserve the five existing landscape medians with palm trees between City Hall and Third Avenue



Create a tree-lined boulevard



Install low-maintenance, adaptable plant types with seasonal color

LANDSCAPE FEATURES

TREE PALETTE

Street trees



Brachychiton populneus (Bottle Tree)



Geijera parviflora (Australian Willow)



Lophostemon confertus (Brisbane Box)



Tabebuia impetiginosa (Pink Trumpet Tree)

Accent trees



Albizia julibrissin (Silk Tree)



Jacaranda mimosifolia (Jacaranda Tree)



Butia capitata (Pindo Palm)



Phoenix dactylifera (Date Palm)

Flowering trees



Brachychiton populneus (Bottle Tree)



Cassia leptophylla (Gold Medallion Tree)



Bauhinia blakeana (Hong Kong Orchid Tree)



x *Chitalpa tashkentensis* (Chitalpa)

PLANT PALETTE

Understory plants



Calandrinia spectabilis (Rock Purslane)



Mulenbergia capillaris (Pink Muhly)



Hesperaloe parvifolia (Red Yucca)



Rosmarinus officinalis 'Tuscan Blue' (Upright Rosemary)

Pollinator plants



Achillea x 'Moonshine' (Moonshine Yarrow)



Buddleja 'Pink Micro Chip' (Lo & Behold Pink Micro Chip Summer Lilac)



Guara lindheimeri (Lindheimer's Beeblossom)



Asclepias sp. (Milkweed)

Stormwater plants



Carex tumulicola (Foothill Sedge)



Chondropetalum tectorum (Cape Rush)



Juncus patens (California Gray Rush)



Leymus condensatus 'Canyon Prince' (Canyon Prince Wild Rye)

BRANDING AND PLACEMAKING

The F Street Promenade includes several recommendations for branding and placemaking. Branding and placemaking is an important component to the streetscape plan that will provide an important sense of identity and recognition to the F Street Promenade. The branding and placemaking elements will incorporate the themes of Chula Vista history and nature as expressed by the community.

Key design objectives of the branding and placemaking elements include:

- Provide visual interest that works in conjunction with the design of the landscape, paving, and seating areas
- Create a family of related branding and placemaking elements throughout the corridor that provide an overall identity to the F Street Promenade
- Complement the existing gateway columns at the Fourth Street intersection
- Celebrate local history and nature in gateway and neighborhood monuments, street banners, and interpretive panels
- Engage local artists in the design of art integrated into the branding and placemaking elements
- Provide specific directional wayfinding information to landmarks such as the E Street Trolley Station and Third Avenue
- Utilize a special pavement treatment such as paint or paving materials at the Bay Boulevard, Woodlawn Avenue, and Broadway intersections in

recognition of these streets as major north-south street along the F Street corridor

Specific branding and placemaking element examples are illustrated on pages 52 - 55, and include the following:

- A. Large monument gateway columns (15 feet to 18 feet high) that utilize internal lighting with artist design mosaic bases located at Bay Boulevard and Third Avenue, the west and east entrances to the corridor
- B. Medium monument neighborhood columns (8 feet to 12 feet high) with artist design mosaic bases located on the Railroad bridge over Interstate 5
- C. Small monument neighborhood columns (4 feet to 6 feet high) located at Beech Avenue, 5th Avenue and near Fire Station 1.
- D. Pole-Mounted Street Banners located on the north side of F Street between Landis Avenue and Third Avenue, near the east entrance of the corridor
- E. Interpretive signage and art elements located at Bay Boulevard, Railroad bridge over Interstate 5, Woodlawn Avenue, Broadway, Fourth Avenue, and Garrett Avenue
- F. Directional signage located at Broadway, 5th Avenue, near Fourth Avenue and Third Avenue

Additionally, conceptual street furnishing examples are shown on page 57. Provisions for street furnishings shall be consistent with the recommendations in the Urban Core Specific Plan.

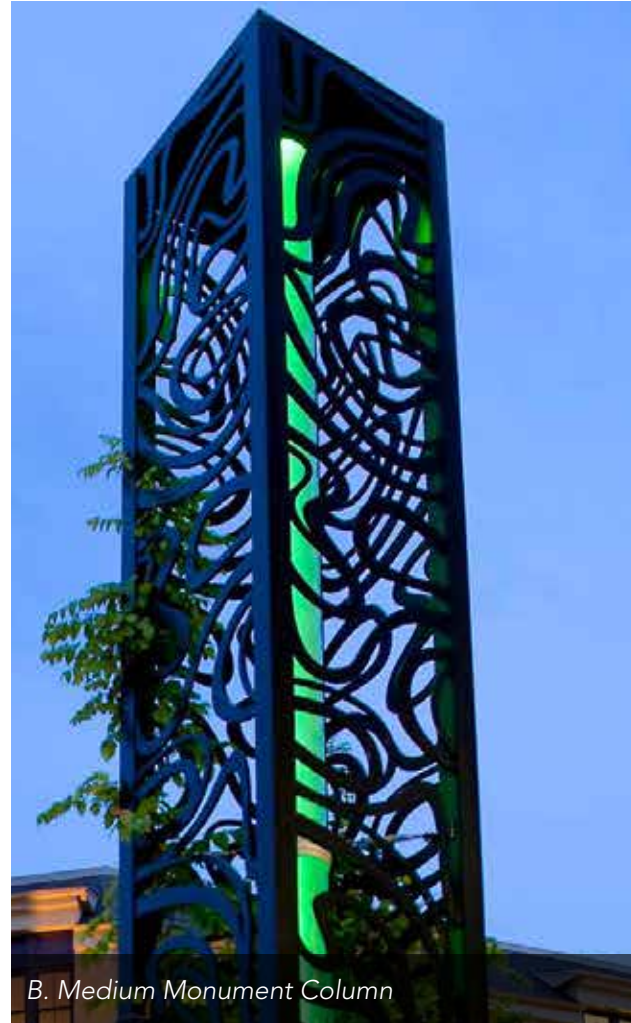


A comprehensive branding program helps define areas

A variety of signage types can enhance visitor experience



A. Gateway Column



B. Medium Monument Column



C. Small Monument Column



D. Pole-Mounted Banners



E. Interpretive Signage



E. Interpretive Signage









D. Pole-Mounted Banners



F. Directional Signage

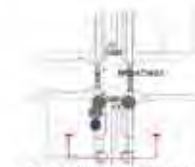
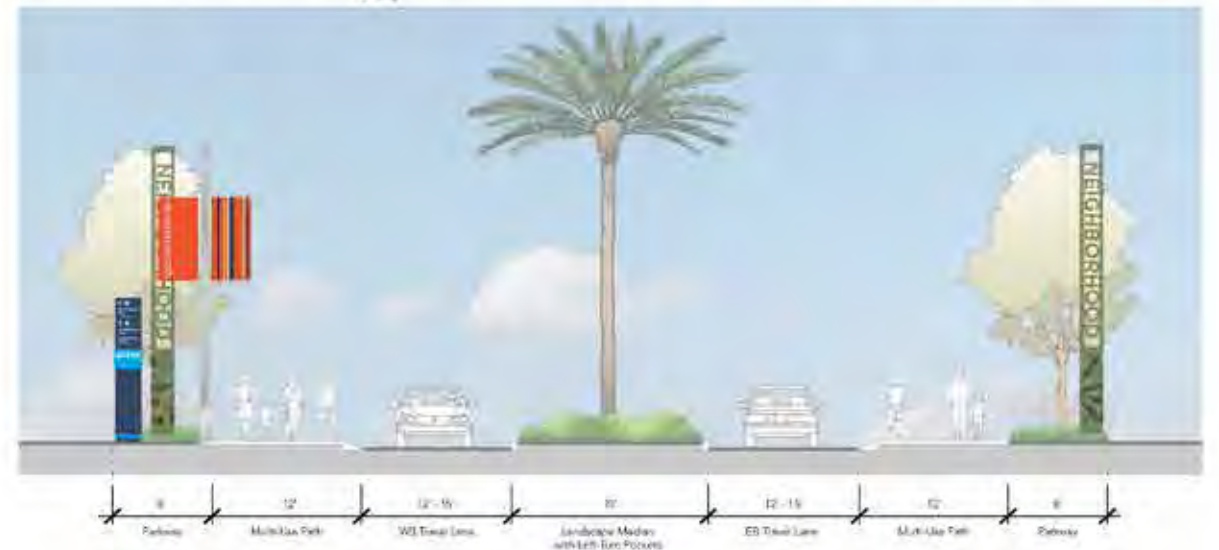
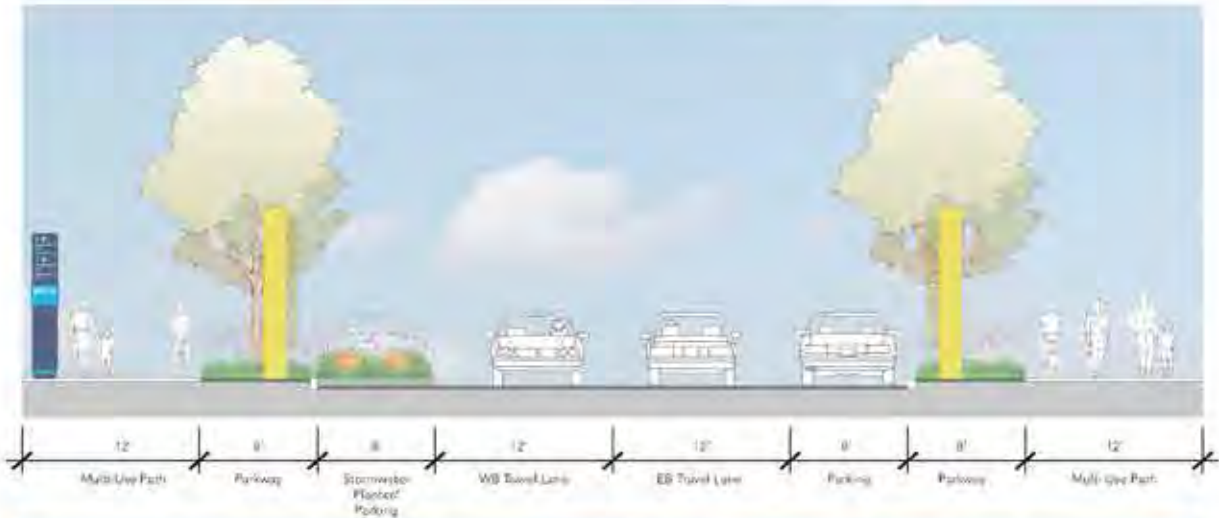
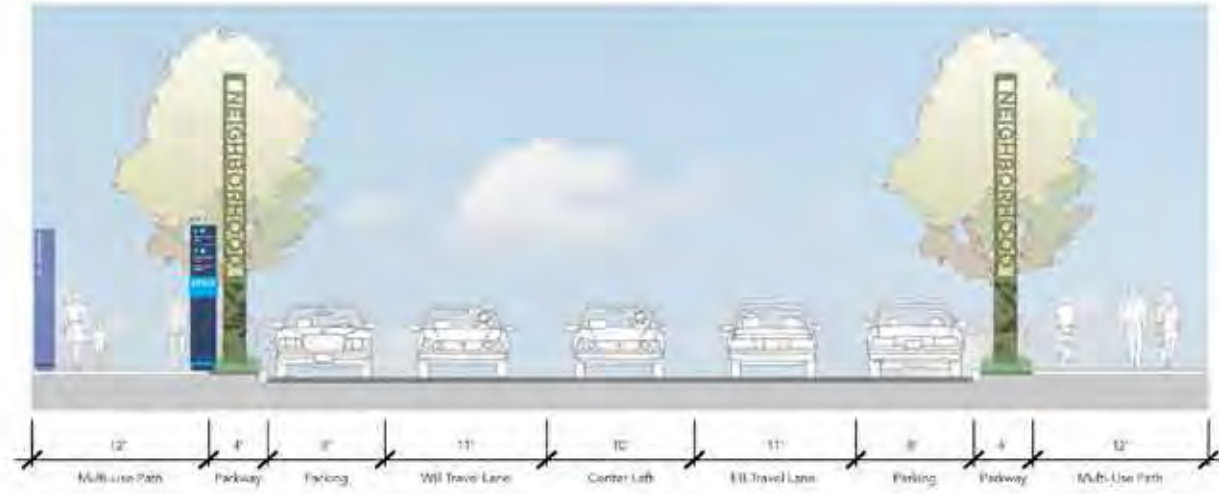
PROPOSED BRANDING AND PLACEMAKING



- A.  **MONUMENT - LARGE WITH LIGHT AND ART** (Bay Boulevard, Broadway, and Third Avenue)
- B.  **MONUMENT - MEDIUM WITH ART** (Former Rail Bridge)
- C.  **MONUMENT - SMALL** (Beech Avenue, Fifth Avenue, and Civic Center)
- D.  **BANNER PROGRESSION FOLIES** (Between Landis Avenue and Third Avenue)
- E.  **INTERPRETIVE SIGNAGE AND ART** (Former Rail Bridge, Woodlawn Avenue, Broadway, Fourth Avenue, and Garrett Avenue)
- F.  **DIRECTIONAL SIGNAGE** (Broadway, 5th Avenue, Fourth Avenue, Third Avenue)



PROPOSED BRANDING AND PLACEMAKING - TYPICAL CROSS SECTIONS



BAY BOULEVARD TO BROADWAY
F Street (550' east of Bay Boulevard to 200' west of Broadway)



BROADWAY TO FOURTH AVENUE
F Street (Ash Avenue to 540' west of Fourth Avenue)



FOURTH AVENUE TO THIRD AVENUE
F Street (Fourth Avenue to Third Avenue)

- A. MONUMENT - LARGE WITH LIGHT AND ART
- B. MONUMENT - MEDIUM WITH ART
- C. MONUMENT - SMALL
- D. BANNER PROGRESSION FOLIES
- E. INTERPRETIVE SIGNAGE AND ART
- F. DIRECTIONAL SIGNAGE

CONCEPTUAL STREET FURNISHING EXAMPLES



Bench



Bench



Bike rack



Trash and recycling receptacles



Light fixture



Tree grate

IMPLEMENTATION

Following adoption of the F Street Promenade Streetscape Master Plan by Chula Vista City Council in January 2018, the MIG team will proceed directly into preliminary design documents. This stage will advance the master plan to approximately 30% complete construction documents.

Completion of the preliminary design documents following City Council approval of the Master Plan will provide a greater sense of the extent and costs and phasing of improvements. During preparation of the preliminary design documents, the City of Chula Vista can make additional arrangements for funding of the final design, engineering and construction of the streetscape improvements.

During the preliminary design phase, the MIG team will review and determine recommendations for the following items:

- Specific areas of curb and underground utility relocation required to implement the Master Plan
- Extent and phasing of the undergrounding of overhead utilities
- Multi-use path pedestrian and bicycle pavement materials, textures, and finishes
- Relocation of small surface appurtenances within the right-of-way (generally between back of existing sidewalks and property line) including irrigation heads and valve boxes, electrical, water, and communication utility boxes, backflow preventers, fire hydrants, fences, signs, low walls, etc.
- Extent of existing trees within the right-of-way to be removed, replaced and /or transplanted
- Alternatives for phasing of construction improvements
- Recommended location of new street trees including size and species
- Recommended location of parkway planting areas and identification of understory planting mix
- Specific areas and sizes of stormwater planters within the parkway

planting areas and new in-street storm water planters

- Specific locations and quantities of new pedestrian light poles
- Specific locations and quantities of gateway monuments, banner poles, interpretive signage, and directional signage
- Specific locations and quantities of benches, bike racks and trash receptacles

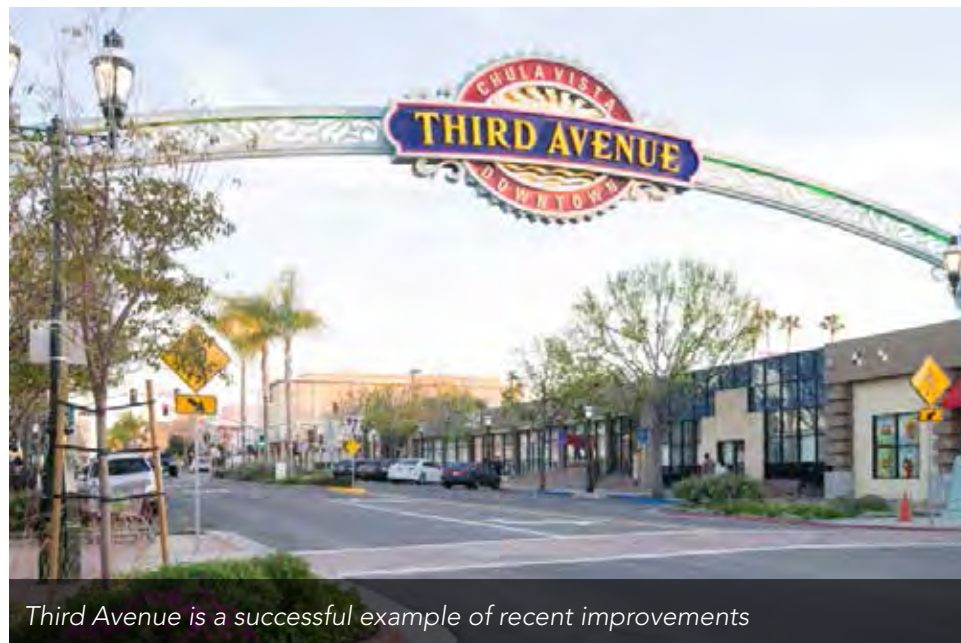
Improvements will be noted on four base sheets at a scale of 1" = 40'. All proposed improvements will be noted on a single set of four base sheets and will include improvement notes directly on the plans. Preliminary construction details for paving and planting improvements, furnishings matrix including identification of specific products and quantity, and plant list will also be provided as part of preliminary design. An estimated probable cost of construction will also be included based on the preliminary design drawings.

The F Street Promenade Streetscape Master Plan builds on the previous planning efforts provided by the Urban Core Specific Plan. The master plan serves as the first step in creating an implementation mechanism of improvements. Additional implementation mechanisms for the City to consider include funding and phasing.

FUNDING

The funding for the F Street master plan and preliminary construction documents has been provided by the SANDAG Active Transportation Grant Program. The City should continue to explore a variety of federal, state, and local agency grant programs for the implementation of the F Street improvements.

A key consideration for implementation of improvements is long term maintenance. The City should consider establishing a landscape maintenance district in order to provide for the general upkeep and maintenance of the proposed parkway areas and design features.



Third Avenue is a successful example of recent improvements

Another funding mechanism is coordinating the construction of streetscape improvements with future private infill development along F Street. This would allow incremental implementation of the plan as new development is proposed.

PHASING

Through the development and completion of preliminary construction documents for F Street, the City should identify viable phasing of construction of the project. For example, the phasing of construction can coincide with capital improvement projects related to F Street, such as the undergrounding of overhead utilities. The preliminary design phase will provide further opportunity to determine pertinent phasing of construction.

