



# Recommendations, Funding and Implementation

What's Recommended for the Streets of the Western Addition?

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# A blend of community expertise and technical expertise

Community input from outreach process led to final recommendations.





## WHAT'S RECOMMENDED FOR THE STREETS OF THE WESTERN ADDITION?

# Recommendations, Funding and Implementation

This chapter presents recommendations of community-supported transportation improvements and potential funding options, if they are pursued. The recommendations within this section are drawn from community input generated during the ten-month community outreach process. The types of improvements were identified based on those most desired by the community, their ability to address major transportation concerns, and technical feasibility. An improvement's suitability was evaluated on the basis of benefits and impacts to each mode - pedestrian, bicycle, transit and vehicles. The transportation priorities and locations from the first and second phases of community outreach contributed significantly to identifying the recommended set of projects to consider. All recommended improvements aim to enhance pedestrian safety and security, transportation connections and community space.

## Funding

Improvements could be partially funded through the SFMTA's Five-Year Capital Improvement Program, which was adopted in June 2016. The Capital Improvement Program (CIP) is a fiscally constrained 5-year program of SFMTA's capital projects. The CIP operates as an implementation plan for regional, citywide, and agency-wide strategies and policy goals. Projects include transportation infrastructure

investments, various vehicle and equipment procurements, and other one-time initiatives such as plans, evaluations, and educational campaigns.

## FUNDING SOURCES

Funds available for implementation of plan recommendations include the Proposition B Streets Bond and the General Obligation (GO) Bond. The Proposition B Streets Bond, approved by San Francisco voters in 2014, increased the base contribution from the General Fund to the SFMTA by a percentage equal to the City's annual population increase. It also requires that 75% of the population-based increase will be directed at projects that improve Muni's reliability, and the remaining 25% be directed towards capital expenditures to improve street safety. The GO Bond was approved by voters in 2014, and provides funding for critical capital investments to upgrade the transit system, improve service, enhance safety and accessibility, and support the long-term renovation of Muni's maintenance and storage facilities.

Other potential funding sources include Prop AA funding and District 5 Supervisor's allocation of Neighborhood Transportation Improvement Program (NTIP) Capital Funds. San Francisco voters approved Proposition AA (Prop AA) in November 2010, which uses revenues collected from an additional \$10 vehicle registration fee on motor vehicles in San Francisco. Prop AA funds are intended for local road repairs, pedestrian

safety improvements, and transit reliability and mobility improvements throughout the city. Prop AA is a unique transportation funding source because pedestrian lighting is an eligible pedestrian safety project.

Prop K is the source for NTIP Capital Funds, which are intended to help advance capital projects identified in NTIP Planning project and improve competitiveness for other funds by serving as a funding match. These two funding sources alone have the potential to double the plan's existing funding committed by the CIP.

#### WHAT'S RECOMMENDED FOR THE WESTERN ADDITION?

## Recommendations and Implementation

This plan identifies recommendations for improvements that could serve to address the issues raised in the community outreach process. The recommendations do not constitute physical projects proposed for approval; rather they are strategies identified by the planning team that could achieve plan goals and therefore warrant further consideration of their effectiveness and impacts in specific locations. Recommendations are divided into three categories according to scale and intensity: Near-Term; Mid-Term; and Long-Term Improvements.

### NEAR-TERM IMPROVEMENTS

Near-term improvements proposed for the Western Addition community could improve street safety

through low-cost, effective interventions, while simultaneously planning for more comprehensive, longer-term improvements. There are opportunities for near-term improvements at 41 different intersections throughout the project boundary, see Figure 5-1. These locations were identified based on community input from the Phase II Design Game and intersections identified for the Intersection Spot Improvement Package in Phase III. Additional locations were identified using Vision Zero pedestrian and cyclist injury data and collision analysis based on police reports. The recommended improvements that could benefit these intersections are detailed in the table on the following page and include engineer cost estimates for design and construction.

#### VISION ZERO

These near-term improvements align with the engineering approach of the City's Vision Zero policy commitment to eliminate all traffic-related fatalities by 2024. Vision Zero is a policy that prioritizes the value of human life and the importance of creating a transportation system that is safe by focusing on five focus areas: engineering, education, enforcement, evaluation and policy.

#### WALK FIRST

Phase I near-term improvements align with the WalkFirst quick and effective treatments. WalkFirst is a first-of-its-kind initiative in the United States to improve pedestrian safety in San Francisco.

A PRESENTATION  
OF POTENTIAL  
SOLUTIONS  
THAT COULD  
SERVE TO  
ADDRESS  
THE ISSUES  
RAISED IN THE  
COMMUNITY  
ENGAGEMENT  
PROCESS.

SUMMARY OF RECOMMENDED NEAR-TERM IMPROVEMENTS		
MEASURE	LOCATION	DESIGN + CONSTRUCTION ESTIMATED TOTAL COST
Leading Pedestrian Intervals (LPI)	14 intersections	\$88,200
Continental Crosswalks	20 intersections	\$321,300
Daylighting	20 intersections	\$40,500
Advanced Limit Lines/ Stop Bars	15 intersections	\$13,000
TOTAL:		\$463,000

*NOTE: DESIGN AND CONSTRUCTION ESTIMATES ARE BASED ON 2016 COSTS AND SUBJECT TO CHANGE PENDING DESIGN*

WalkFirst combines public engagement with technical and statistical analysis of where and why pedestrian collisions occur on city streets. Some Western Addition streets, like Turk Street, were identified by WalkFirst as an urgently needing pedestrian safety improvements.

### CONTINENTAL CROSSWALKS

Sixteen intersection crossings throughout the project boundary where community members identified pedestrian safety concerns, could be upgraded to continental crossings. The treatments would primarily be focused on Webster, Turk, Laguna, Steiner and Pierce Streets. Continental crosswalks are a striped zebra pattern at pedestrian crossings. The design helps to distinguish pedestrian crosswalks at intersections, thereby allowing for higher visibility of pedestrians by drivers.

### DAYLIGHTING

Daylighting could be effective at 18 intersections throughout the project area where pedestrian visibility was identified as an issue.

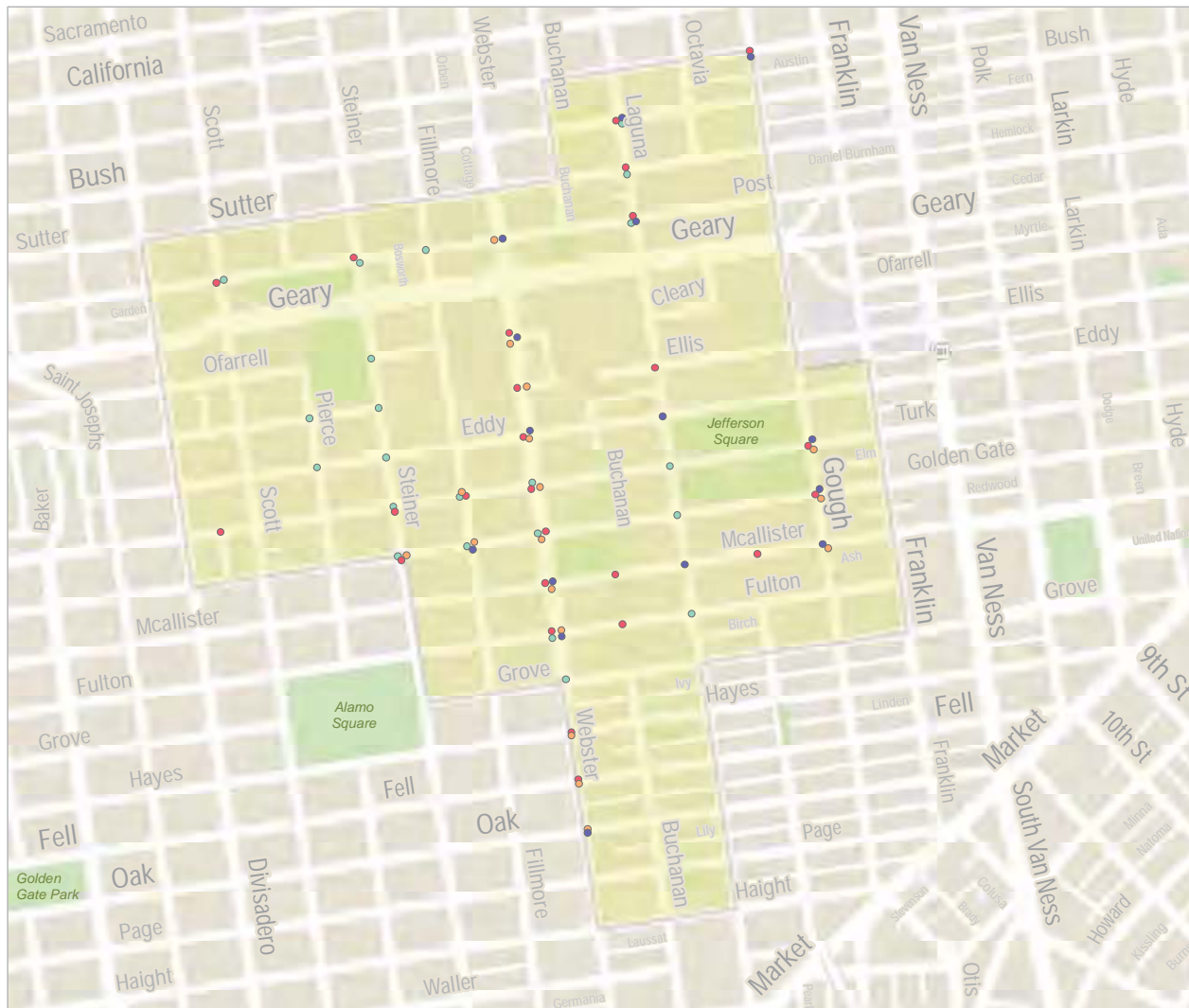
Daylighting is a pedestrian safety measure achieved by painting red curbs immediately adjacent to the crosswalk, increasing drivers' ability to see pedestrians as they approach the intersection and minimizing conflicts. The red curbs adjacent to the crosswalk also increase the pedestrians' ability to see oncoming cars therefore pedestrians do not have to wade into the street to see vehicles entering the intersection. Simultaneously, drivers do not have to roll into the crosswalk to see if pedestrians are waiting to cross. Daylighting is especially helpful to children, who often cannot see, or be seen by, oncoming traffic, due to their height.

### ADVANCED LIMIT LINES (STOP BARS)

Throughout the outreach process community members discussed their discomfort when drivers enter the crosswalks while they are in the crosswalk. Fourteen intersection crossings throughout the neighborhood were identified where stop bar relocations could reduce this discomfort. Stop bars (or advanced limit lines) are solid white lines extending across all approach lanes to indicate where vehicles must stop in compliance with a stop sign or signal. This treatment will increase pedestrians' comfort at crossings.

### LEADING PEDESTRIAN INTERVALS

Leading pedestrian intervals (LPI) should be considered at 12 intersections. LPI locations would be focused on Webster and Gough Street corridors. Community members shared difficulty crossing at these intersections due to vehicle right turns not yielding to pedestrians. LPIs provide pedestrians a 3–5 second head start when entering an intersection crossing which is then followed by a green signal for cars. LPIs enhance the visibility of pedestrians in the intersection and reinforce their right-of-way over turning vehicles. The identified LPI locations would require assessment by engineers for suitability accounting for transit priority and additional signal timing.



### Western Addition Community-Based Transportation Plan Recommendation Phase 1 Intersection Spot Improvement Locations

- Intersection Spot Improvement Treatments**
- Advance Limit Lines
  - Continental Crosswalk
  - Daylighting
  - Leading Pedestrian Interval
- Parks
- Western Addition CBTP Study Area

0.15 miles

Scale 1:8,292  
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User Name: dharris1

Figure 5-1: Map of Intersection Spot Improvement Treatment Locations, Western Addition CBTP Near-Term Recommendations

The Near-Term recommendations in conjunction with existing Agency efforts will serve to enhance pedestrian safety throughout the Western Addition and ideally reduce the number of injuries throughout the neighborhood. These improvements are currently fully funded and could be implemented within the next two years.

### MID-TERM IMPROVEMENTS

Potential mid-term improvements include a three- to two- lane road conversion, eastbound bike lane, edge lines and rectangular rapid flashing beacons. These measures could serve to create a safer and more connected transportation network within the Western Addition. Recommended mid-term improvements along with a summary table included below.

### GOLDEN GATE AVENUE ROAD DIET

Community members identified Golden Gate Avenue as a major concern because of drivers' speeds and difficulty crossing. These concerns could be addressed by reducing the street from three to two eastbound travel lanes from Divisadero to Gough Street. The lane reduction could provide the opportunity for a buffered right-side running eastbound bike lane to be added to the south side of the street adjacent to the parking lane. This bike facility could contribute significantly to the City's Bike Network providing a new safe eastbound downtown connector. The narrowing of the street would reduce the street's freeway-like character, reducing vehicle speeds and creating a more residential feel to the street. Additional enhancements could include exploration of a protected bike facility, which would be explored during the design process.

### TURK STREET SAFETY PROJECT

Consistent with the Vision Zero and WalkFirst initiatives, the Turk Street Safety Project targets this High-Injury corridor, which is one of 12% of



Figure 5-2: Plan View of Conceptual Golden Gate Avenue Road Diet Recommendation.



Figure 5-3: Cross-section of Recommended Turk Street Edge Lines.





Figure 5-4: Plan View of Conceptual Fillmore Community Connections Recommendation.

streets that account for 70% of traffic collisions. The project aims to design a safer and more comfortable walking and biking environment on the stretch of Turk Street from Market to Divisadero. The Western Addition portion of the project will have a separate outreach process to engage community members in a future design for the corridor, which may include a westbound bike facility pending community support.

### TURK STREET EDGE LINES

Turk Street is a major east-west connector for cross-city travel and a Vision Zero High-Injury Corridor. During the outreach process, community members expressed concerns regarding the vehicle speeds and pedestrian safety along the street. To reduce vehicle speeds, painted edge lines separating the parking lanes from the travel lanes are recommended as an initial, low-cost, quick and effective improvement. This visual separation created by the edge lines could narrow drivers' perception of the street width and thus reduce vehicle speeds. Further enhancements will be explored as part of the Turk Street Safety Project.

### FILLMORE COMMUNITY CONNECTIONS

Another recommendation is the Fillmore Community Connections project. The proposed project could increase safety and enhance connections to substantial community assets along the Fillmore corridor like the Fillmore Center, Raymond Kimbell Playground, Historic Fillmore Jazz Preservation District and Fillmore Farmer's Markets. Enhancements would be focused on O'Farrell Street between Steiner and Fillmore Streets. At the O'Farrell and Fillmore Street intersection improvements could include stamped pavement and continental crossings. Due to the eight reported pedestrian injuries and one severe injury at this location, a traffic signal and ramp upgrades are scheduled as part of an existing SFMTA signals project. At the Steiner and O'Farrell entrance of Raymond Kimbell Playground the recommendations could include ramps to providing ADA access to the playground, upgrades to existing ramps and crossings, and two new continental crosswalks with a daylighting treatment.

### PEDESTRIAN COUNTDOWN SIGNALS

Pedestrian countdown signals are a safety treatment that inform pedestrians and cyclists the amount of time they have to cross and indirectly inform drivers as well. Pedestrian countdown signals help to ensure adequate time for safe crossing at intersections.

In order to facilitate safer access to transit, three pedestrian countdown signals are recommended at three bus stops served by the 22-Fillmore, 2-Clement, 3-Jackson and 21-Hayes routes. Served by the 22-Fillmore, the Fillmore Street and Golden Gate Avenue stop, both on Vision Zero High-Injury Corridors, there were six known pedestrian and cyclist injuries and one severe injury within a four year period. At the 21-Hayes Webster Street stop there were two known injuries. This stop is also regularly used by families with children attending John Muir Elementary School and Hayes Valley Playground and Clubhouse located 2 blocks away. The third location recommended is at Sutter and



Laguna Street bus stop, which is served by both the 2-Clement and 3-Jackson.

Three additional pedestrian countdown signals are recommended in the northern project area, where there are high pedestrian injuries. The three countdown signals are located along Post Street, a commercial corridor within Japantown, at Steiner, Fillmore and Scott Streets. At these three intersections there are a total of eight reported pedestrian injuries and six reported cyclist injuries between 2008 and 2012.

In addition to the pedestrian countdown signals, leading pedestrian intervals (LPI) should be considered and provided where feasible, when installing these signals.

### **RECTANGULAR RAPID FLASHING BEACONS**

As major east-west city connectors, Turk Street and Golden Gate Avenue experience high vehicle speeds and are part of the Vision Zero High Injury Network. Community members identified McAllister as their most used east-west corridor, heavily used by all modes with issues such as commute congestion and unsafe pedestrian conditions due to cyclists and motorists failure to yield to pedestrians. McAllister Street also hosts a Muni Rapid route, the 5R-Fulton Rapid and a heavily used westbound bike route during the evening commute. Rectangular Rapid Flashing Beacons (RRFB) are solar-powered lights at the side of a roadway that flash when activated by push button. These signals help increase pedestrian visibility by notifying drivers and cyclists to yield to crossing pedestrians. RRFBs should be considered for installation on Turk Street, Golden Gate Avenue and McAllister Street at the Octavia Street mid-block crossings.



Turk Street Sign

#### TURK AND GOLDEN GATE TRAFFIC SIGNAL UPGRADE PROJECT

Signal upgrades in the form of pedestrian countdown signals and improved signal visibility are being pursued within the Western Addition as part of the Turk and Golden Gate Signal Upgrade Project. Signal enhancements would be considered on these two Vision Zero high-injury corridors at Divisadero, Pierce, Steiner, Fillmore and Laguna Streets. The pedestrian countdown signals at these locations would align with community input from community outreach phase II, where community members identified these intersection as pedestrian safety concerns.

#### FUTURE McALLISTER ENHANCEMENTS

McAllister Street is an increasing popular bike route connecting the western side of the city to the Market Street, Financial District and SoMa. During all three phases of outreach, community members expressed frustration and safety concerns around the incidence of perceived unpredictable behavior by cyclists and their failure to yield to traffic controls and pedestrians. No recommendations are included for the segment of McAllister between Van Ness and Fillmore Street. However the project team has initiated design review to analyze and address conditions. Agency staff is reviewing low-cost striping options to alleviate congestion and modal conflicts, especially bike-bus conflicts.

#### MUNI EQUITY STRATEGY

Western Addition is a transit rich neighborhood served by 12 Muni routes, three of which are part of the rapid network, with 4 minute peak frequencies and three operate with 24 hour service as part of the late night owl service. The highest ridership route in the neighborhood is the 22 Fillmore, which carries over 15,000 customers per day. The 5/5R and 24 are also high ridership routes. The community identified



McAllister Street Sign

transit as a top priority but, the plan does not include direct transit recommendations, rather it focuses on increasing safety and access to transit routes.

However, the Western Addition is one of the neighborhoods targeted in the Muni Equity Strategy. The strategy notes on-time performance is as good or better in the Western Addition, than it is on comparable routes citywide. The 7R Haight-Noriega Rapid and the 5 Fulton are identified as needing improvement. The Strategy focuses on improvements to be completed within the next two year. The the 5 Fulton local improvements focus on service during the PM peak period and address community requests from Phase I and II outreach responses. Travel time and reliability improvements to the 5 Fulton included replacing stop signs with signals or traffic signals, like at Laguna. Bus bulbs were also implemented at Divisadero, Fillmore and soon Van Ness Avenue.

During the recommendations development process, additional transit travel time and reliability improvements were explored on McAllister at Laguna and Gough Streets, however no recommendations are included in the plan. Therefore in conjunction with the design review for the low-cost striping bike design on McAllister, transit islands should be considered at the Gough and Laguna outbound stops. Transit islands could reduce the time bus drivers need to exit and re-enter traffic, improving overall transit travel time. These islands could also reduce the prevalent weaving pattern between buses, cars and bikes, potentially preventing future conflicts.

Mid-Term recommendations serve to address the community's pedestrian safety concerns along priority streets and enhance overall the safety throughout the neighborhood. These efforts in combination with existing transit efforts will address the community's transportation priorities established in Phase I outreach.

SUMMARY OF RECOMMENDED MID-TERM IMPROVEMENTS		
MEASURE	LOCATION	DESIGN + CONSTRUCTION ESTIMATED TOTAL COST
Golden Gate Avenue Road Diet	Golden Gate Avenue from Gough Street to Divisadero	\$144,000
Turk Street Edge Lines	Turk Street from Gough Street to Divisadero	\$57,000
Fillmore Community Connections	O'Farrell between Steiner and Fillmore	\$270,000
Pedestrian Countdown Signals (6)	Golden Gate at Fillmore Webster at Hayes Post at Steiner Post at Fillmore Post at Scott Sutter at Laguna	\$1,026,000
Rectangular Rapid Flashing Beacons (6)	Turk, Golden Gate and McAllister at Octavia mid-block crossings	\$162,000
<b>TOTAL:</b>		<b>\$1,659,000</b>

*NOTE: DESIGN AND CONSTRUCTION ESTIMATES ARE BASED ON 2016 COSTS AND SUBJECT TO CHANGE PENDING DESIGN*

## LONG-TERM IMPROVEMENTS

Long-term improvements are more capital intensive projects that would further enhance transportation safety and strengthen connections to parks and playgrounds within the Western Addition. The three efforts proposed for these long-term improvements are Laguna Street and Buchanan Mall Community Connections and a pedestrian lighting network, Walkable Western Addition.



## LAGUNA STREET COMMUNITY CONNECTIONS

The Laguna Street Community Connections project would address pedestrian safety issues along Laguna Street between Eddy and McAllister Street and strengthen the community's connection to the Jefferson Square Park and Margaret Hayward Playground. This project would be designed to reduce pedestrian crossing distances, improve pedestrian visibility and reduce vehicle speeds adjacent to these community spaces.

### MARGARET HAYWARD PLAYGROUND IMPROVEMENT PROJECT

In addition to responding to community input, the Laguna Street Community Connection project is intended to support the San Francisco Recreation and Parks Department's Margaret Hayward Playground Improvement Project. The San Francisco Recreation and Parks Department's project aims to revitalize the entire park by expanding and improving the multi-use field, creating a central plaza, replacing the playground, basketball courts, and clubhouse, and improving the baseball and softball fields. The project will also establish new, safe ADA-compliant entrances in three locations: mid-block on Golden Gate, Turk and Laguna. Finally, the park project will improve the edge of the park to make it more safe and pedestrian friendly. The improvements proposed in the Laguna Street Community Connection project are intended to support these endeavors.

The Laguna Street Community Connections includes the recommendation of the following potential improvements:

### PEDESTRIAN BULBS (SIDEWALK EXTENSIONS)

At the Turk Street and Golden Gate Avenue intersections along Laguna Street, pedestrian bulbs (or sidewalk extensions) should be considered on the eastern corners adjacent to Jefferson Square Park and Margaret Hayward Park. Community members shared that crossing at these intersections is difficult and have concerns with children using these recreational facilities due to vehicle traffic and speeding. These pedestrian bulbs would visually and physically narrow the roadway, creating safer and shorter crossings for pedestrians. These bulbs could also provide space for benches, green plantings and street trees, creating a more inviting entrance to these community recreational spaces. To install the proposed pedestrian bulbs, relocation and upgrades to the existing sewer and water infrastructure would be included to ensure these facilities are in a state of good repair.

### LANDSCAPING

The large pedestrian bulbs on the east side of Laguna Street, adjacent to these recreational facilities could be outfitted with new green plantings to enhance the aesthetics of this pedestrian space. The specific landscaping would be determined by the Department of Public Works (DPW) landscape



Figure 5-5: Plan View of Conceptual Fillmore Community Connections Recommendation

architects in the detail design phase of implementation. A maintenance agreement with Recreation and Parks Department or a local maintenance steward may be necessary for greening to be included in the project.

**ANGLED PARKING**

On the east side of Laguna Street between Eddy Street and Golden Gate Avenue, adjacent to the park and playground, parallel parking could be changed to angled street parking. Angled parking would physically and visually narrow the roadway, reducing vehicle speeds and improving traffic safety. This reconfiguration of parking provides more efficient usage of on-street parking space. The angled parking could also allow drivers to park with greater ease and speed addressing community congestion concerns. Angled parking should be pursued in future design phases.

**LEADING PEDESTRIAN INTERVALS**

An existing SFMTA project includes plans to implement pedestrian countdown signals at Turk Street and Golden Gate Avenue to improve pedestrian safety. Including a leading pedestrian interval (LPI) for these signals could further enhance pedestrian safety and therefore should be considered. LPis give pedestrians a three to five second head start when entering an intersection, in advance of the green signal for vehicles. By allowing pedestrians to enter the intersection first, LPis enhance the visibility of pedestrians in the crosswalk and reinforce their right-of-way over turning vehicles.

**PEDESTRIAN LIGHTING**

Throughout the life of the project, there have been lighting requests from both District Supervisor Breed and community

SUMMARY OF RECOMMENDED LONG-TERM IMPROVEMENTS: LAGUNA STREET COMMUNITY CONNECTION		
MEASURE	LOCATION	DESIGN + CONSTRUCTION ESTIMATED TOTAL COST
Bulb-outs	Turk Street and Golden Gate Avenue	\$985,000
Striping	Between Eddy and Golden Gate	\$101,300
Angled Parking	Between Eddy and Golden Gate	\$2,300
Leading Pedestrian Interval (LPI)	Turk Street and Golden Gate Avenue	\$37,800
Landscaping	Turk Street and Golden Gate Avenue	\$180,000
Pedestrian Lighting	Between Eddy and McAllister	\$864,000
Sewer and Water Upgrades	Turk Street and Golden Gate Avenue	\$143,000
TOTAL:		\$2,313,400

*NOTE: DESIGN AND CONSTRUCTION ESTIMATES ARE BASED ON 2016 COSTS AND SUBJECT TO CHANGE PENDING DESIGN*

members, as a means to address pedestrian safety and security concerns. Lighting could help to make pedestrians more visible at night for drivers and promote walking by improving pedestrians' perception of security. Crime Prevention through Environmental Design (CPTED) is an urban design approach to deterring criminal behavior through the built environment and pedestrian lighting is an effective CPTED treatment. In addition to the existing street lights, new pedestrian lighting fixtures should be considered on both sides of Laguna Street between Eddy and McAllister. Additional lighting on the corridor could enhance the community's route to the 5- Fulton stop at McAllister and Laguna streets and the future grocery store at 555 Fulton, while discouraging crime along and within the adjacent residential and recreational space at Margaret Hayward Playground and Jefferson Square. This lighting would also contribute to the night walking network created by Walkable Western Addition mentioned later in the chapter.

### **BUCHANAN MALL COMMUNITY CONNECTIONS**

The Buchanan Mall runs north-south between Grove and Eddy Streets and consist of five consecutive blocks of green space, three playgrounds, a half basketball court and pedestrian paths. The Buchanan Mall is primarily a pedestrian space and does not provide vehicle access. This Community Connection project would serve to enhance the connectivity of the mall from Eddy to Fulton Streets by reducing pedestrian crossing distances, improving pedestrian visibility and reducing vehicle speeds along these corridors. The project would propose a suite of improvements to the Buchanan Mall from Eddy to Fulton Streets.



Figure 5-6: Plan View of Conceptual Buchanan Mall Community Connections Recommendation.



**BUCHANAN STREET MALL PARK ACTIVATION PROJECT + VISION PLAN**

In 2015 the San Francisco Recreation and Parks Department (RPD) embarked on a collaborative effort with community stakeholders to revitalize the Buchanan Mall, an underutilized stretch of parkland in the center of the Western Addition. The Buchanan Street Mall Park Activation Project was a successful community-based design process that mobilized neighbors around activating the mall in a positive way through story-telling, community gardens, and events hosted in the context of temporary installations of benches, planters and art. To follow up on the Activation Project, RPD is in the process of developing the Buchanan Mall Vision Plan with the community. The Vision Plan will define the community goals and guide the physical improvements. RPD anticipates completing the Vision Plan in early 2017 and will then raise funds for major capital improvements. One of the community’s primary goals of both the Activation Project and Visioning Plan is improved safety throughout the mall and, in particular, at the street crossings. The Buchanan Mall Community Connections project would support this effort by improving the connectivity and safety of the mall.

**PEDESTRIAN BULBS (SIDEWALK EXTENSIONS)**

Due to speeding and pedestrian visibility concern, mid-block pedestrian bulbs are recommended at the north and south sides of Turk Street, Golden Gate Avenue, McAllister and Fulton Streets. By physically narrowing the street widths, sidewalk extensions would reduce vehicle speeds, reduce pedestrian crossings distances and increase pedestrian visibility at the curb, creating a safer and more comfortable crossing. Pedestrian bulbs at these major corridors would also provide an opportunity for additional greening and other beautification, further enhancing the Buchanan Mall. Relocation and upgrades to the existing sewer and water infrastructure would be included to ensure these facilities are in a state of good repair.

**PEDESTRIAN LIGHTING**

In an effort to address their walking safety and security, community members have communicated a strong need for pedestrian lighting throughout all three phases of community outreach. Consistent with this request, crime data reflects a high number of violent crime incidents throughout the length of the Buchanan Street Mall. The proposed lighting would discourage crime along the mall and promote Recreation and Parks Department’s efforts to reactivate and program the space for the community. This lighting would also contribute to the night walk network created by Walkable Western Addition providing a north-south route.

SUMMARY OF RECOMMENDED LONG-TERM IMPROVEMENTS: BUCHANAN MALL COMMUNITY CONNECTION		
MEASURE	LOCATION	DESIGN + CONSTRUCTION ESTIMATED TOTAL
Bulb-outs	Turk Street, Golden Gate Avenue, Mc Allister and Fulton	\$592,000
Striping	Between Eddy and Fulton	\$33,800
Rectangular Rapid Flashing Beacon (RRFB)	Turk Street, Golden Gate Avenue, Mc Allister and Fulton	\$1,296,000
Landscaping	Turk Street, Golden Gate Avenue, Mc Allister and Fulton	\$180,000
Stamped Pavement and Curb Ramp Upgrades	Eddy, Turk Street, Golden Gate Avenue, McAllister and Fulton	\$43,200
Pedestrian Lighting	Between Eddy and Fulton	\$864,000
Sewer and Water Upgrades	Turk Street, Golden Gate Avenue, Mc Allister and Fulton	\$410,000
<b>TOTAL:</b>		<b>\$3,419,000</b>

*NOTE: DESIGN AND CONSTRUCTION ESTIMATES ARE BASED ON 2016 COSTS AND SUBJECT TO CHANGE PENDING DESIGN*

### RECTANGULAR RAPID FLASHING BEACONS

Seniors at Rosa Parks Senior Center located at Buchanan and Golden Gate Avenue highlighted their difficulty using the crosswalk at Golden Gate Avenue due to speeding and lack of visibility. After school teachers at Ella Hill Hutch Community Center had similar concerns at the McAllister intersection, adjacent to the center. In addition, students of Rosa Parks Elementary School use the Buchanan Mall to walk to school and are challenged by the existing street crossings. To improve the crossing safety by notifying drivers of pedestrians and encouraging reduced driving speed, rectangular rapid flashing beacons (RRFBs) could be installed at Turk Street, Golden Gate Avenue, McAllister and Fulton Streets where they intersect the Buchanan Mall. RRFBs are solar-powered lights at the side of a roadway that flash when activated by push-button.

### STAMPED PAVEMENT

At the northern edge of the mall near Eddy Street, stamped pavement or other similar decorative paving treatments could help to reinforce this community space, reinforcing a sense of place and addressing pedestrian collisions.

## WALKABLE WESTERN ADDITION - PEDESTRIAN LIGHTING NETWORK

Street lighting is a key element in designing street environments by defining the visual nighttime environment in urban settings. Quality street lighting helps define a inviting and safe urban character and supports nighttime activities. Street lighting includes roadway and pedestrian lighting in the public right-of-way. Lighting that is designed for pedestrians is important in areas where people walk after dark. Pedestrian lighting is important to address actual safety concerns,

both personal security and traffic safety, as well as to increase the perception of safety and encourage use of the area after dark.

Pedestrian-scale lighting differs from standard road lighting in a variety of ways. First, pedestrian lighting is closer to the ground with lights typically 12 to 15 feet high, while street lights are 20 to 30 feet high. In addition, pedestrian lighting is spaced closely together to create an even lighting of the sidewalk instead of alternating bright and dark spaces typical of street lights. As a further benefit, the human-scale of pedestrian lighting alerts drivers to the presence of pedestrians in an area, creating enhanced traffic safety. Therefore lighting should be designed not only for vehicular traffic on the roadways, but also for pedestrians on sidewalks and pedestrian paths.

In an effort to address both, District Supervisor Breed and community members' strong request for pedestrian lighting, the project team worked closely with Public Utilities Commission (PUC), who provides water, wastewater, and electric power services, including street lighting. In working with the PUC, they shared their on-going efforts to improve street lighting citywide. Started in early 2016, the PUC's LED Conversion effort will be replacing 18,500 City-owned street light fixtures with LED fixtures, which will improve street lighting conditions.

Specific to the Western Addition CBTP effort, PUC staff conducted a lighting analysis specific to project area to help the project team target dim corridors for future pedestrian lighting recommendations. The PUC's analysis consisted of a photometric evaluation of the area's existing High Pressure Sodium (HPS) Vapor Fixtures, the common street lights that emit yellow-like light. PUC conducted a similar lighting analysis of the Light Emitting Diodes (LEDs), the white light emitted by newer energy-efficient street lights. They also conducted a virtual evaluation of the area using Google Street View.

Based on their evaluation, the PUC found that with the existing older HPS street lights certain portions of the streets are not sufficiently lit. Furthermore if these older lights are converted to the newer energy-efficient LED street lights, these specific street segments would continue to remain under lit. In addition to these findings, there are issues with street trees shading the existing street lighting. If the Western Addition’s streets are to be a key civic corridor, then sidewalks should be lit to an average of .5 foot candles; there are areas in which this criteria is not met. Replacing the existing yellow-like HPS lights with its LED equivalent may not be sufficient for improving the area.

Although using LED lighting will give the impression of the lighting being better due to better color rendering, for streets where the existing lighting is not sufficient, the PUC recommends using the next higher class of LEDs. The PUC also recommends key civic corridors where there are not .5 foot candles average maintained illumination on the sidewalk, the PUC recommends that either pedestrian lighting or additional roadway lighting, which will incidentally improve the pedestrian areas.

Based on the PUC’s analysis and community input, the project team identified a network of east-west and north-south night walking corridors throughout the heart of the Western Addition. These corridors within the neighborhood area overwhelmed by high pedestrian injuries and night crime, specifically violent crimes. Pedestrian lighting would help to make pedestrians more visible to drivers at night, enhance pedestrians’ discernibility of the sidewalk and promote walking by improving pedestrians’ perception of security. Pedestrian lighting is a common tool used in Crime Prevention through Environmental Design (CPTED). Pedestrian lighting would help to address the community’s pedestrian safety and security concern. This lighting could also provide a decorative, human-scale element in the streetscape, fostering

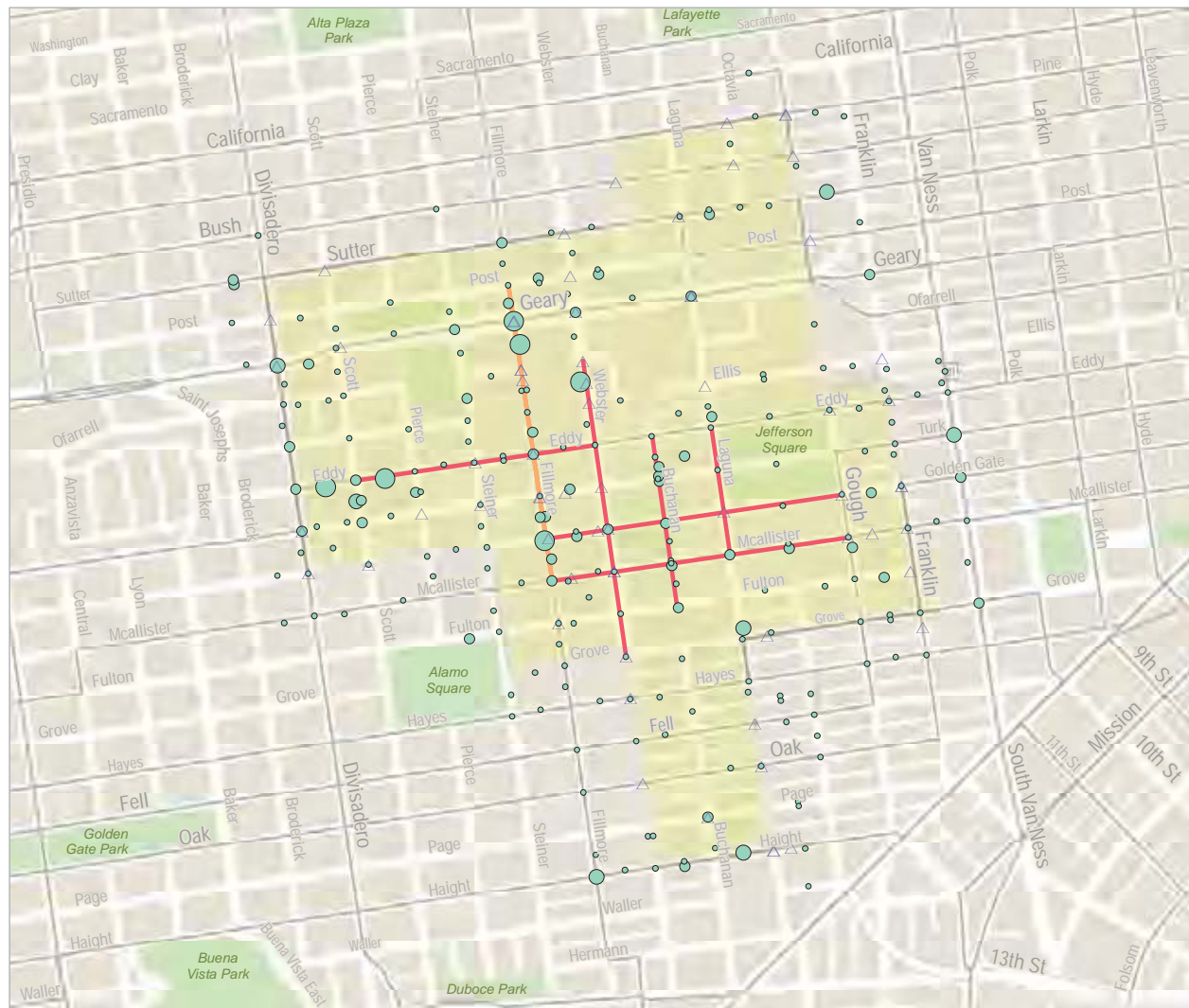
SUMMARY OF RECOMMENDED LONG-TERM IMPROVEMENTS: WALKABLE WESTERN ADDITION		
MEASURE	LOCATION	DESIGN + CONSTRUCTION ESTIMATED TOTAL COST
Webster between O’Farrell and Grove	North-south; 7 blocks	\$1,512,000
McAllister between Fillmore and Gough	East-west; 5 blocks	\$1,080,000
Eddy Street between Scott and Webster Street	East-west; 4 blocks	\$864,000
Golden Gate Avenue between Fillmore and Gough	East-west; 5 blocks	\$1,080,000
TOTAL:		\$4,536,000

*NOTE: DESIGN AND CONSTRUCTION ESTIMATES ARE BASED ON 2016 COSTS AND SUBJECT TO CHANGE PENDING DESIGN*

neighborhood identity and improving street aesthetics. Pedestrian lighting could promote greater walking and biking throughout the Western Addition.

The Walkable Western Addition pedestrian lighting network (see Figure 5-7) would be intended to provide community members safe and secure paths across the neighborhood core. The network was identified using pedestrian path of travel results from Phase I outreach, pedestrian lighting requests from the Phase II Design Game, pedestrian collision data, crime data and Muni bus routes. This pedestrian lighting network would safely connect community members to major destinations like Safeway, Ella Hill Hutch Community Center and the Fillmore Street commercial district. The network would also safely connect residents to and from Muni bus routes, specifically Muni’s late night Owl service. These routes include





## Western Addition Community-Based Transportation Plan

### Recommendation Phase 3

#### Walkable Western Addition

#### Reported Night Collisions

- △ Ped and Bike Collisions at Night

#### Reported Incidents of Violent Night Crime

- 1 - 2
- 3 - 5
- 6 - 8
- 9 - 11

#### Pedestrian Lighting Corridors

- Existing Pedestrian Lighting
- Proposed Pedestrian Lighting
- Muni Transit Network
- Parks
- Western Addition CBTP Study Area

0.15 miles

Scale 1:9,677

Date Saved: 12/22/2016

For reference contact: Danielle.Harris@sfmta.com

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User Name: dharis1

Figure 5-7: Map of Walkable Western Addition Pedestrian Lighting Corridors and Reported Violent Night Crime Incidents, SFMTA Planning

5/5R-Fulton/Rapid, 22-Fillmore, 24-Divisadero, 31-Balboa, 38/38R-Geary Rapid, 47-Van Ness and 49-Mission. The Walkable Western Addition pedestrian lighting network is defined by the corridors here:

- Webster Street between O'Farrell and Grove
- McAllister Street between Fillmore and Gough
- Eddy Street between Scott and Webster Street
- Golden Gate Avenue between Fillmore and Gough Buchanan Mall between Eddy and Fulton (provided by Buchanan Mall Community Connections)
- Laguna Street between Eddy and McAllister(provided by Laguna Street Community Connections)

Currently, pedestrian scale lighting is allocated \$50,000 as part of the Laguna and Buchanan Mall Community Connections projects. Prop AA serves as a rare and unique transportation funding source that can fund pedestrian lighting as a standalone pedestrian safety project. Prop AA funding could be pursued to fund the Walkable Western Addition Network, however additional funding may be available pending future allocations.

The proposed Long-Term recommendations are intended to address the community's more substantial asks, like pedestrian security and community gathering spaces. The Walkable Western Addition pedestrian lighting network could provide lighting on six of the community-identified priority corridors, which totals nearly 30 blocks of pedestrian lighting. The long-term improvements would also address the community's interest in communal spaces by helping the rehabilitation of two major recreational lands, the Buchanan Street



Pedestrians walking

Mall and Margaret Hayward Playground. With the implementation of these long-term improvements, the Western Addition neighborhood will ideally become a more livable and safe space for the residents.

The implementation of plan recommendations will require further analysis and various approvals from the SFMTA. These approvals may include multi-agency design approvals, environmental clearance and potentially legislative approvals for the SFMTA Board.







# Conclusion

Western Addition Community-Based Transportation Plan

# A start to a safer and more livable Western Addition.

An effort to realize the Western Addition community's vision for the future.



## WESTERN ADDITION COMMUNITY-BASED TRANSPORTATION PLAN

# Conclusion

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The Western Addition Community-Based Transportation Plan is one of many recent planning efforts that has been initiated within the neighborhood. The plan was intended to be a tool to compete for funding to improve mobility options for low-income communities, however it has succeeded in much more. The plan's community engagement process worked to renew the community's trust with the City and revealed the depth of resiliency, unity and energy that defines the Western Addition community.

The community's continued support and advocacy, partnered with the MTC, SFCTA and SFMTA efforts to pursue funding and overcome implementation hurdles will be essential toward the implementation of plan recommendations. These recommendations will help to realize the community's vision for a safer, more accessible and livable Western Addition.

