# DRAFT MISSION SOUTH OF CHAVEZ

# NEIGHBORHOOD TRANSPORTATION PLAN

DRAFT—SEPTEMBER 28, 2007

# ACKNOWLEDGEMENTS

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# EXECUTIVE SUMMARY

Mission Street is one of the most important streets in San Francisco, connecting Downtown with some of the most vibrant centers of activity in the City. It also has a number of transportation issues that result in unreliable transit service, traffic congestion, an unfriendly pedestrian environment, and challenging bicycle access.

The Mission South of Chavez Neighborhood Transportation Plan is sponsored by the San Francisco County Transportation Authority (Authority) and identifies improvements for the section of Mission Street between Cesar Chavez Street and Randall Street. As a community-based transportation plan, a key objective was to engage the community and assist them in developing solutions. Solutions were evaluated according to a detailed set of technical criteria to identify which ones were feasible, cost effective, and supported by the community.

This Neighborhood Transportation Plan builds on the *Mission Street Community Vision* (September 2005), a community plan for land use, transportation, and streetscape improvements for this stretch of Mission Street. The *Vision* was led by Bernal Heights Neighborhood Center (BHNC) with funding from the Surdna Foundation and the Evelyn & Walter Haas, Jr. Fund. The current Study, begun in March 2006, refined improvements proposed in the *Vision* and identified other methods to address needs or desires of the community.

This Plan was developed in collaboration with the San Francisco Municipal Transportation Agency's Muni and Department of Parking and Traffic, Department of Public Works, and the San Francisco Planning Department to increase coordination with city projects, build agency support for proposed neighborhood improvements, and improve community members' understanding of transportation planning processes.

Transportation improvements and enhancements presented in this Plan focus on solutions that can be implemented relatively quickly (within 1 to 5 years). Recommended improvements are divided into corridor-wide and location-specific.



## CORRIDOR IMPROVEMENTS

Corridor-wide improvements focus on community desires to improve pedestrian safety and amenities, to enhance the streetscape, and to support improvements in transit amenities. Top priorities for corridor-wide improvements include the following:

- Pedestrian safety improvements and amenities such as curb extensions to shorten crossing distances, pedestrian-scale lighting, and high-visibility crosswalks;
- Streetscape enhancements such as infill tree planting (particularly at curb extensions), additional greenery and buffers to narrow the street (particularly at parking lots); consolidated signage and wayfinding; and
- Transit improvements such as real-time information, bus bulbs, and bus shelters with lighting and greenery.

## INTERSECTION IMPROVEMENTS

Location-specific improvements leverage the objectives and character of corridor-wide improvements, while also targeting key issues or concerns at a particular intersection. Key locations were chosen for the character or severity of conditions and/or opportunities to improve conditions with solutions that could be implemented within the timeframe of this Plan. Top priorities for intersection improvements include:

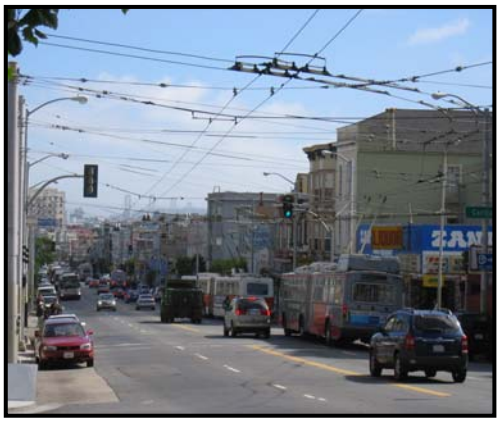
- Mission & 30th streets: shortening the crossing distance across Valencia through a lane reduction and curb extensions; more visible crosswalk striping and signage; improved connections between transit services on Mission Street and San Jose Avenue.
- Mission & Valencia streets: shortening the crossing distance across Valencia through a lane reduction and curb extensions; improved bicycle connections and safety on Valencia; left-turn treatment for northbound traffic and transit on Mission Street.

# 1. STUDY OVERVIEW AND OBJECTIVES

## 1.1 STUDY OVERVIEW

The Mission South of Chavez Neighborhood Transportation Plan explores the pedestrian, bicycle, transit and auto needs along Mission Street between Cesar Chavez and Randall Streets. It is a community-based transportation plan, sponsored by the San Francisco County Transportation Authority (Transportation Authority), to identify a set of transportation improvements that can be implemented in the near- to mid-term to address key neighborhood transportation-related concerns.

The Transportation Authority retained a technical consulting team, led by San Francisco-based Nelson\Nygaard Consulting Associates, to assist in developing and refining community-based transportation plans throughout several neighborhoods in San Francisco. This particular study of the Mission south of Chavez neighborhood was led by Fehr & Peers, a San Francisco-based team member for the overall citywide community-based transportation planning efforts.



High-intensity use creates a lively but chaotic environment on Mission Street

This Neighborhood Transportation Plan emerged from the *Mission Street Community Vision* process, a community-based effort to identify transportation, land use, and streetscape needs and improvements along Mission Street in the Bernal Heights neighborhood. The *Vision*, finalized in September 2005, identified a range of needed improvements from pedestrian crosswalks to parking management within the transportation realm, but focused on an overall concept for land use and urban design improvements within the commercial corridor.



The Study process outlined in this report is:

- Identify the top transit, auto, and pedestrian needs
- Develop improvements that address the top needs within a short time frame (1 to 5 years)
- Prioritize projects in order to advance potential early improvements to conceptual design immediately
- Create a funding and implementation plan for feasible projects with continued community stewardship

Input from residents, merchants, and community groups is a critical component of this Study and shapes the Study outcomes. Outreach efforts were led by the Bernal Heights Neighborhood Center (BHNC), which also led efforts to develop the *Mission Street Community Vision* in partnership with several other community organizations.

A Technical Advisory Committee (TAC) provided important contributions to this Study. The TAC is comprised of representatives from City agencies including the Municipal Transportation Agency (Muni and the Department of Parking and Traffic), Department of Public Works, Planning Department, and Department of Public Health, along with community representation. The purpose of the TAC is to:

- identify fatal flaws
- review the benefits and impacts of particular solutions
- build support for solutions among implementing agencies and community members

- leverage previous or ongoing work to minimize redundancy with other studies

This chapter provides relevant background to the Neighborhood Transportation Plan process, describes the study area, presents the findings of previous studies of the area, and details the outreach efforts used to engage a diverse range of community interests.

***Study Funding***

Funding for this Study comes from the Proposition K sales tax and from the Department of Public Health's Pedestrian Safety Planning Program. The *Mission Street Community Vision* process was supported primarily by the Surdna Foundation and the Evelyn & Walter Haas Jr. Fund.

## 1.2 STUDY AREA

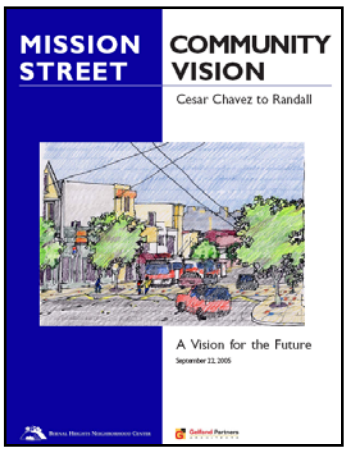
The Mission South of Chavez Study Area, shown in Figure 1.1, is comprised of a three-quarter mile section of Mission Street bounded to the North by Cesar Chavez Street and on the South by Randall Street. This area of Mission Street runs through the Bernal Heights community, and provides critical services to four diverse neighborhoods: Bernal Heights, Glen Park, Noe Valley and the southern Mission District. Mission Street is an important commercial and transportation corridor for pedestrians, bicyclists, automobiles, and especially transit users. Mission Street is a designated Transit Preferential Street in the City's *General Plan*, and this portion is served by seven transit lines.

Although Mission Street is the focus of this study, adjacent intersections that presented great opportunities or great challenges were given special consideration. These include the southern section of Valencia Street near the intersection with Mission Street; 30th Street where it intersects Mission Street; and the intersection of San Jose Avenue and Randall Street. The remaining streets in the Study Area are generally residential streets.



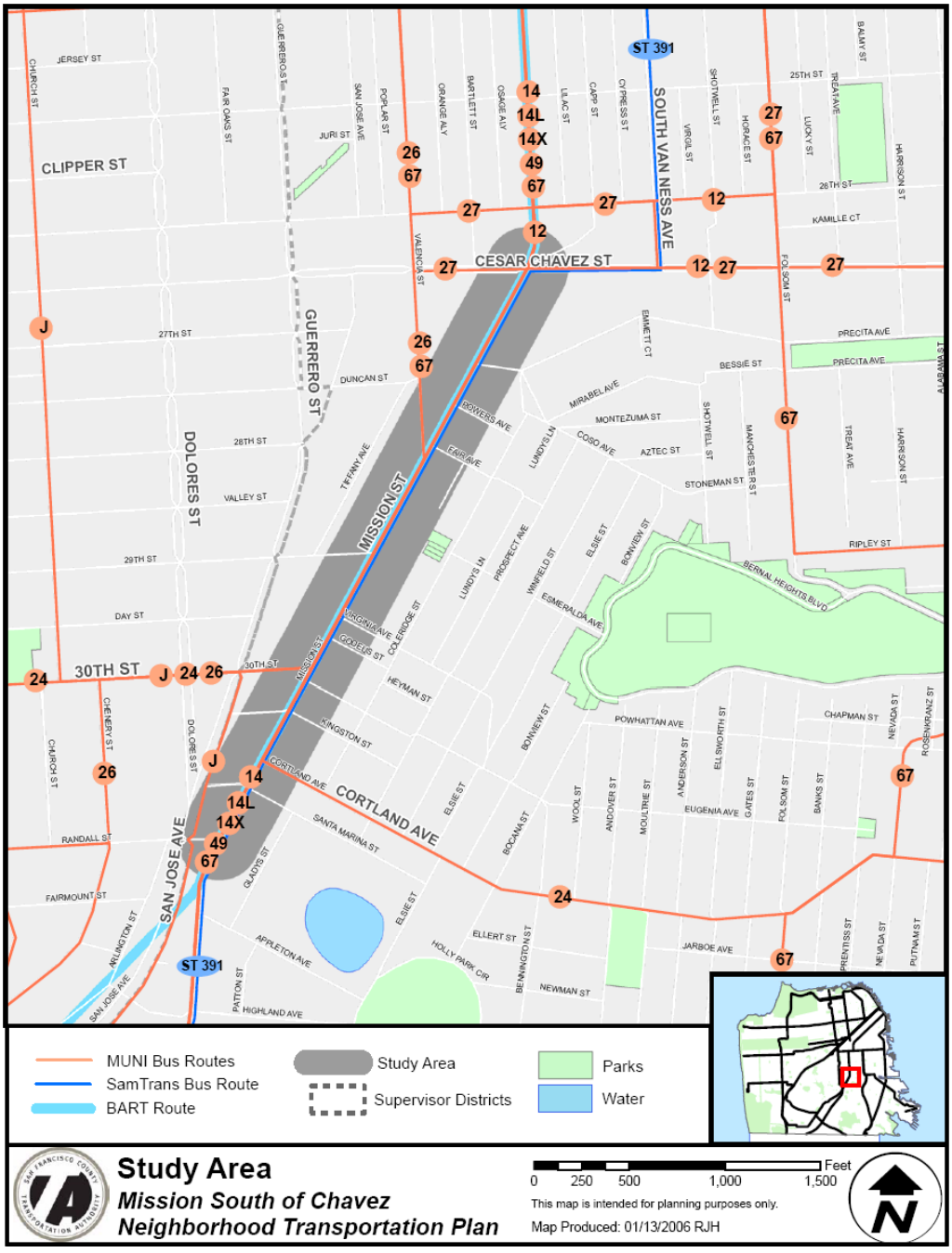
## 1.3 COORDINATION WITH OTHER STUDIES

There are several recent transportation and planning studies in the vicinity of the Study Area that are either ongoing or have been recently completed. In conducting this study, it was important to coordinate planning efforts such that recommendations from this study were consistent and/or compatible with recommendations from previous studies. The most important related studies are the Transportation Authority's' *Outer Mission Strategic Analysis Report* (2002), *San Francisco PedSafe* (2003), and the *Mission Street Community Vision: Cesar Chavez to Randall* (2005), along with several community-led efforts to improve transportation and streetscape conditions in the neighborhood. These include the San Jose/Guerrero Coalition to Save our Streets and CC Puede, an organization focused on improvements to Cesar Chavez Street.




Many recommendations from previous and ongoing studies, or variations of previous recommendations, are currently programmed to be constructed in the Study Area.

## FIGURE 1.1: MISSION SOUTH OF CHAVEZ STUDY AREA




*Source: San Francisco County Transportation Authority, 2006*

## 1.4 OUTREACH

The goal of this study is to develop a community-based transportation plan that builds on previous work performed by the community and establish a framework for continued stewardship of neighborhood transportation improvements. The aim of the community outreach component is to ensure broad and inclusive community participation to identify problems and to prioritize and support transportation improvements in the area.

Many community members gave input into the Neighborhood Plan at public workshops

The outreach effort for this study took place in two stages, both led by the Bernal Heights Neighborhood Center. The first outreach effort was conducted as part of the *Mission Street Community Vision* process, and included a mail-in survey, small group meetings, and 14 public workshops held between August 2003 and July 2005 that were attended by over 200 participants. The second outreach effort, undertaken in order to evaluate the transportation improvements suggested in the *Vision*, included a major public workshop held in July 2006 and direct outreach to a wide range of community residents.

## 1.5 SCHEDULE

The study process and timeline was as follows:



| | |
|---|---|
| Study Kickoff | April 2006 |
| Document Existing Conditions | Spring 2006 |
| Develop Transportation Solutions / Project Designs | Summer 2006 |
| Prioritize Solutions / Project Designs | Fall 2006 |
| Develop Implementation and Funding Plans | Winter 2006 |

# 2. DESIGN DEVELOPMENT AND STAKEHOLDER INVOLVEMENT PROCESS

The goal of the Mission south of Chavez Neighborhood Transportation Plan is to refine the key transportation, land use, and streetscape needs presented in the *Mission Street Community Vision* into a set of implementable strategies that can be achieved in the near- to mid-term. The Study Team developed an approach that identified priority improvements, continued engaging the community, and assessed strategies for technical feasibility.

## 2.1 APPROACH

The Study approach consisted of the following steps:

1. **Build on the Mission Street Community Vision:** Evaluate and advance work completed as part of the *Vision* and other related studies.

2. **Perform Technical Review of Solutions:** Review project issues and opportunities with community members and the Technical Advisory Committee and identify the most feasible, cost-effective and promising projects.

3. **Continue Community Outreach:** Seek feedback from community members to determine what strategies are most important and should be implemented first.

The goal of the process was to implement highest priority changes soon (1 to 5 years) and identify longer-term improvements that could be pursued later as warranted.



## 2.2 MISSION STREET COMMUNITY VISION

The *Mission Street Community Vision* was prepared in 2005 and included an extensive outreach process to engage community members. Fourteen workshops were conducted between 2003 and 2005. The recommendations in the *Vision* are the product of this outreach effort.

The *Vision* contains streetscape, planning and zoning, and neighborhood improvement recommendations. Recommended streetscape improvements are divided into the following categories:

- Pedestrian, streetscape, and intersection improvements
- Transit improvements
- Bicycle improvements
- Roadway and parking improvements

This list of improvements served as an important framework for the Mission south of Chavez transportation study. The extensive outreach and detailed process demonstrate the strong community support for improvements in the corridor and a need

*The Mission Street Community Vision (2005) was the product of an extensive community outreach process.*

to analyze key projects to determine how best to refine and achieve the intended goals.

As a next step, the Mission South of Chavez study conducted an extensive data collection effort to evaluate the projects developed by the *Vision* and identify the most promising project(s) that could be implemented in a short to medium timeframe. The technical evaluation process is described below.

## 2.3 TECHNICAL WORK

Technical work for the project consisted of a walking tour with the technical team and the TAC, as well as a sketch-level analysis of potential projects.

### *Technical Team and TAC Walking Audit*

As a first step, the Technical Team and TAC conducted a walking tour and audit of the Mission Street corridor. The purpose of this walking tour was to get feedback from the community regarding existing deficiencies of the transportation network including safety concerns, causes of congestion and delay to transit, pedestrian and bicycle amenities, and general transportation facility conditions.

The walking audit observations are listed in the table below:

**TABLE 2.1: WALKING TOUR NOTES**

| Intersection | Configuration & Control | Vision Proposals/Concerns | Observations/Notes | Follow-up |
|---|---|---|---|---|
| **Chavez** | 4-way signal | ▪ Add pedestrian refuge on west leg<br>▪ New westbound left-turn pocket/phase improved conditions | ▪ Skewed intersection causes long crossing distances<br>▪ Some new trees added<br>▪ Off-set curb ramp on northeast corner<br>▪ Potential for additional curb cuts from new development | ▪ Widen raised median on Chavez western leg<br>▪ Shift northeast curb ramp to crosswalk<br>▪ Obtain details on development |
| **Precita** | Tee intersection with 3-way signal | ▪ Awkward pedestrian crossing | ▪ Bus bulb ends before intersection<br>▪ On-street parking occurs on T-leg of intersection<br>▪ Signal timing for Precita unknown | ▪ Restrict parking in intersection and/or<br>▪ Extend bulb into intersection<br>▪ Check signal timing for Precita |
| **Valencia (with Fair)** | Skewed intersection with 4-way signal | ▪ Reduce lanes, add mini-plaza at southwest corner<br>▪ Add diagonal parking on Valencia to replace parking loss throughout corridor | ▪ Curb cuts on southwest side of Valencia complicate diagonal parking, other possible solutions should also be explored.<br>▪ Refuge island ("porkchop") inadequate and in poor location<br>▪ West leg of intersection has long, awkward crossing distance<br>▪ Many pedestrians do not cross in crosswalk<br>▪ 1 approach lane upstream on Valencia becomes 4 at Mission; right-turners often roll through intersection<br>▪ Odd traffic movements withFair Street<br>▪ Investigate if left-turners (northbound Mission to Valencia) are backing up traffic. | ▪ Refine proposal for intersection:<br>- Evaluate diagonal parking especially on southbound side<br>- Corner bulb needs turning radius to accommodate Muni or re-route 26-Valencia<br>- Determine possible treatments for mini-plaza<br>- Assess signal phase change<br>▪ Determine if left turns impact through movements; devise possible solutions |
| **29th** | Tee intersection with 3-way Signal | ▪ Resolve jaywalking between 29th and Valencia | ▪ Near J-Church line (but no stop)<br>▪ Longest distance between crossing opportunities on Mission Street – suggests need for mid-block crosswalk | ▪ Facilitate or prevent mid-block crossing |
| **Virginia** | Tee intersection with 3-way Signal | ▪ Improve "face" of Safeway<br>▪ Street feels much wider at this location<br>▪ Difficult pedestrian crossings | ▪ Northern Safeway exit/entry acts as fourth leg<br>▪ Safeway used as cut-through to San Jose Avenue | ▪ Suggest edge/buffer for Safeway lot (work with private owner) |

**TABLE 2.1: WALKING TOUR NOTES**

| Intersection | Configuration & Control | Vision Proposals/Concerns | Observations/Notes | Follow-up |
|---|---|---|---|---|
| **30th (with Eugenia)** | 4-way off-set Signal | ▪ Transit-hub improvements | ▪ Transfer point to J-Church and 24-Divisidero outbound<br>▪ High activity on weekends due to clubs<br>▪ Southern crosswalk unmarked but not restricted<br>▪ Transit shelter blocked by trash bin<br>▪ Corner planting edge angled, prevents sitting while waiting for bus | ▪ Improve transfer/waiting conditions<br>▪ Assess southern pedestrian crossing (improve/mark/restrict)<br>▪ Strong candidate for NextBus |
| **Cortland** | Tee intersection with 3-way Signal | ▪ Many passengers waiting for bus/transfer<br>▪ Impacts of upcoming Home Depot | ▪ Transfer point to J-Church and 24-Divisidero inbound<br>▪ Pavement damaged at bus stop<br>▪ West side bus stop is one of few locations with bench (but no shelter) | ▪ Large(r) corner bulb<br>▪ Strong candidate for NextBus<br>▪ Details on development at end of Cortland |
| **Brook and Santa Marina** | Side-street Stop-sign | ▪ Brook is crowded, especially with auto-body parking | ▪ Muni overhead lines run on Brook for potential layovers/short-turning | ▪ Determine cause of crowding on street |
| **Randall** | 3-way Stop-sign | ▪ Stop signs make it hard for pedestrian crossings<br>▪ Stop signs mean queuing on southbound Mission<br>▪ School @ Chenery attracts significant pededstrian activity | ▪ Northbound traffic may have difficulty seeing stop around bend/hill<br>▪ North to westbound turners queued<br>▪ South to westbound turners often block pedestrian crossing<br>▪ Muni buses short-turns at Randall | ▪ Evaluate signal timing, determine if signal possible |

### *Technical Evaluation*

The purpose of the technical evaluation was to finalize performance evaluation methods for transportation options presented in the *Mission Street Community Vision*. As a first step, an initial review of the *Vision* was completed to identify feasible improvements and discuss additional solutions that could be considered. Some improvements described in the *Vision* were not feasible and were rejected at this stage. This included some options considered early in the *Vision* process but ultimately excluded from the final *Vision* document due to their impact on transit service or safety, such as raised bus lanes, raised intersections on Mission Street, and street tree peninsulas extending into the parking zone.

*Several options developed as part of the Vision were determined to be infeasible. For example, the dedicated bus lanes shown above were rejected by MUNI due to the high potential for right-turn conflicts and inability of buses to pass one another.*

Based on the results of the initial technical evaluation, the Study Team developed a subset of projects to be carried forward for a more focused sketch planning analysis. Detailed transportation data, such as vehicle, bicycle, and pedestrian volumes, was also collected to expand the foundation of information presented in the community vision planning process.

The measures used in the technical evaluation process are described in Section 3. Summary results of the technical evaluation are described in Sections 4 and 5, while detailed results are presented in Appendix C.

## 2.4 OUTREACH APPROACH

The Study outreach team conducted an extensive process to engage the community and actively seek feedback. A key part of this effort was to solicit feedback from neighborhood residents, merchants and individuals who use

Mission Street. Another was to involve the community in the study effort by engaging them in data collection and in prioritizing projects at the July 2006 workshop.

The Bernal Heights Neighborhood Center hired community outreach workers to do the outreach and engagement. By engaging people who are familiar with the neighborhood and able to communicate with Spanish and Chinese speaking merchants and residents, the workers encouraged participation from a broad range of the community.

In all, team members contacted over 1,100 people by conducting outreach activities at 34 notification sites and delivering door-to-door announcements. Additional mailing notification, e-mail notification, and phone banking was conducted to more than 3,000 individuals. Outreach workers visited neighborhood groups, giving more than nine presentations about the project (189 people received presentations). Over 200 surveys were collected identifying community concerns regarding safety, including pedestrian safety and transportation.

Three articles were published in the New Bernal Journal (circulation 8,000) promoting the workshop, providing information about issues and the effort, and reporting on the workshop; and an article featuring the workshop was published in El Tecolote Newspaper (circulation 10,000). Other workshop announcements appeared in the Mission Dispatch Newspaper; organizational newsletters including St. Kevin's Church, the Bike Coalition listserv, and the Walk SF listserv. More than 20 pedestrian safety posters were distributed to educate merchants and neighbors about child pedestrian safety, including posters created by neighborhood children. More than 20 people attended the Mission Corridor break out group during the annual Bernal Heights Congress, and about 40 community people attended the Transportation and Pedestrian Safety workshop in July 2006.

Since the public workshop, the Study Team also launched a web-based survey and has continued updates and meetings with various neighborhood groups and technical advisory committee members. Following the workshop, key leaders of several neighborhood organizations convened a community working group to continue stewardship of the transportation plan. Members of this group represent the Northwest Bernal Alliance, Dolores Triangle Association, San Jose Guerrero Coalition to Save Our Streets, CC Puede, and several individuals directly interested in refinement and implementation of this plan.



*The July 2006 Community Workshop presented refined transportation improvement options and allowed community members to prioritize potential projects.*

# 3. TECHNICAL EVALUATION METHODOLOGY

## 3.1 PURPOSE OF TECHNICAL EVALUATION

To present a meaningful comparison of proposed transportation improvements to the community, the consultant team prepared a technical evaluation of potential improvements. The purpose of this evaluation was to provide an objective evaluation of the various proposed changes in the study area, documenting the positive and/or negative impacts of each change to various transportation modes. This evaluation included the following general characteristics:

- transit performance and rider experience
- pedestrian and bicycle safety and access
- streetscape environment (neighborhood character)
- traffic and parking
- construction cost
- construction impacts

The results of this analysis were provided to the community along with the proposed improvements at the Public Workshop in July 2006. This ensured that when weighing all of the options and prioritizing projects, community members understood the potential costs and benefits of each change.

## 3.2 EVALUATION FRAMEWORK AND METHODOLOGY



The evaluation of each characteristic described above was based on a pre-defined methodology developed by the Authority for use on a number of ongoing community-based transportation plans, and reviewed by community representatives. The evaluation framework was developed to determine an appropriate, objective set of metrics for evaluation of proposed projects. Typically, each general characteristic was evaluated based on several criteria, each of which was informed by a detailed set of sub-criteria. This evaluation framework provided the opportunity for a reasonably objective, rigorous, and consistent evaluation of a number of proposed projects. A discussion of the technical analysis methodology used to evaluate each of the general characteristics is provided below.

***Transit Performance and Rider Experience***

Information about transit performance and rider experience came from a number of sources. Information about on-time performance and crowding on bus routes came from performance data collected by Muni for their quarterly performance reports. Information about stop activity came from Muni's "busgraph" profiles. Information gathered from these reports show key indicators impacting the rider experience including:

- On-time performance measured both as schedule adherence and headway adherence. Headway adherence is most commonly used for routes with relatively frequent service, as it measures the number of minutes between buses, rather than the ability of any one bus to adhere to a printed schedule.

- Crowding, as measured by the percent of bus capacity filled. Bus capacity includes both seated and standing passengers.
- Bus stop activity, which identifies the key locations where passengers board and alight from buses.

In addition, the Study Team completed an inventory of the bus stops on the corridor, noting the condition of the stop, the level of amenities present and how well the stop was marked. This information, combined with the amount of activity at the stop, created a hierarchy of improvements at bus stops.

***Pedestrian and Bicycle Safety and Access***

The evaluation of pedestrian and bicycle safety and access considered three criteria: crossing experience, sidewalk conditions, and bicycle access.

Improving the ability of pedestrians to safely cross the street was a key goal of this plan. The pedestrian crossing experience was evaluated based on the following sub-criteria:

- Average distance to cross the street (this distance would be lower with curb extensions and/or bus bulbs)
- Number of unmarked unsignalized crossings (this number would be lower for improvements that would allow more marked crosswalks)
- Longest gap between marked crossing opportunities
- Volume and speed of traffic on the adjacent street
- Average number of lanes between refuges (this would be lower for improvements that provided center pedestrian refuges).



Another key informant to general pedestrian conditions was the technical evaluation of sidewalk conditions. Sidewalk conditions were evaluated based on the following sub-criteria:

- Average sidewalk width (improvements that accommodated wider sidewalks would fare better in this category)
- Speed of traffic on the adjacent street
- Pedestrian security (this was a qualitative assessment to predict the sense of personal security that pedestrians are likely to feel)
- Adequacy of pedestrian buffer from traffic (on-street parking, street trees, and street furniture provide a buffer between pedestrians and vehicular traffic)

Bicycle conditions were also evaluated according to the following sub-criteria:

- Width of shared/dedicated bike lane
- Volume and speed of traffic on the street
- Network connectivity

- Degree of "pinching" (projects that call for corner curb extensions, for example, would improve pedestrian crossing distances, but would not fare well in this category as they may "pinch" the available roadway width for bicycles)

***Streetscape Environment (Neighborhood Character)***


The first category in which the streetscape environment was evaluated was the "presence of a distinct street identity." This was measured in terms of:

- Recognizable theme or street element
- Condition and quality of pedestrian amenities

The second category in which streetscape was evaluated was "land use integration." To evaluate the integration of the streetscape with adjacent land uses, the study considered:

- The quality of access between bus stops and adjacent land uses
- The overall benefit/impact of the streetscape conditions to adjacent businesses
- The presence of a flexible sidewalk space, usable for store displays, outdoor seating, etc.

A third category by which streetscape conditions were evaluated was the overall landscaping conditions. This was measured in terms of:

- The consistency of the landscape footprint
- The degree to which an improvement or alternative would contribute to "placemaking"



The final category by which the streetscape was evaluated was the degree to which various improvements or alternatives would improve sustainable storm water management, specifically in terms of:

- The permeability of surfaces
- The number and type of new vegetation

***Traffic and Parking***

Although most of this Plan's recommendations call for improvements to pedestrian and transit circulation, they often come at some cost to vehicular traffic and/or parking. Understanding the magnitude of the potential impacts to vehicular circulation and parking conditions is important in evaluating alternatives.

Impacts to vehicular circulation were evaluated based on two sub-criteria:

- Intersection level of service (based on average peak hour vehicular delay)
- Change in turn restrictions

Impacts to parking were evaluated based solely on the change to overall parking supply in the area.

### *Costs*

Another important improvement characteristic is cost. If an improvement performs moderately well in all of the other evaluation criteria, but has a disproportionately high cost, it may not offer the best value. The cost evaluation was performed both in terms of capital (construction) costs and maintenance costs.

Capital costs were evaluated based on unit cost estimates used by the San Francisco DPW on other recent projects. While detailed in nature, the capital cost estimates used for this project should only be considered planning-level estimates at this point due to the large number of unknown factors (e.g., location of existing utilities) that will be identified as part of the detailed design phase. Despite the "planning-level" nature of the cost estimates, they are detailed enough for a relative comparison of improvement costs and an understanding of the "order of magnitude" costs of various improvements.

Operation and maintenance cost estimates were developed in a more qualitative way. For example, an improvement that calls for more street trees would likely have increased costs in terms of maintenance (e.g., pruning, replacement, etc.). Improvements were evaluated according to the magnitude and direction (i.e., increase or decrease) in expected maintenance costs.

### *Construction Impacts*

Many of the truly transformative improvements would require some level of construction. Because construction has the potential to disrupt transportation circulation for all modes, it is important to understand potential construction impacts. Construction impacts were evaluated with respect to likely duration (length of construction), potential intensity of disruption, the potential implementation timing (including design, approvals, and construction), and whether there would be potential for construction phasing to reduce the intensity of construction impacts.

The detailed results of the technical evaluation are provided in the Appendix, along with a summary matrix with arrows indicating the relative magnitude and whether the improvement would offer a benefit or negative impact to each of the general characteristics described above.

# 4. MISSION STREET CORRIDOR IMPROVEMENTS

Mission Street serves as a key transit corridor, connecting the Excelsior, Bernal Heights, and Mission Districts with Downtown and the South of Market area. Because of its length, the connections it provides, and the activity centers it runs through, it is one of the most important streets in the City. Within the study area, Mission Street has a relatively chaotic feel, which contributes to unreliable transit, a poor sense of pedestrian safety, and a general lack of quality streetscape amenities.

The proposed improvements for the Mission Street corridor include improvements that can be implemented as a consistent theme for the entire study area. They include improved pedestrian accessibility, better transit reliability, and overall streetscape enhancements.

While some of these improvements involve substantial streetscape changes, they do not preclude the installation of more extensive corridor improvements along the entire length of Mission Street in the future, such as the options being considered as part of the Mission-Geneva Neighborhood Transportation Plan. Other improvements, such as the removal of travel lanes or addition of a center median, could still be installed as part of a long-term, unified corridor concept for all of Mission Street.

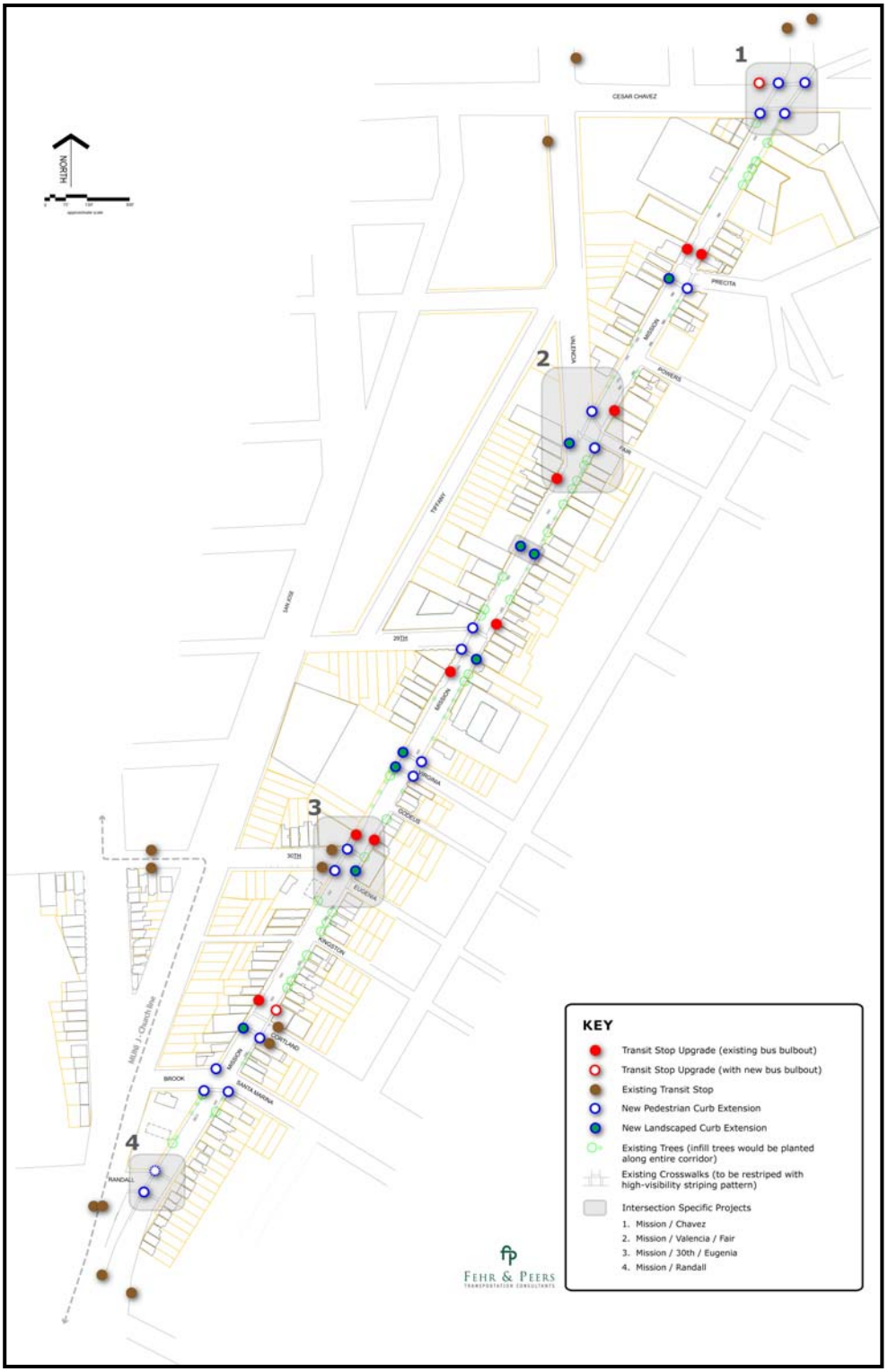
**TABLE 4.1 CORRIDOR IMPROVEMENTS**

| Category | Description |
|---|---|
| **Highest Ranked Improvements** | |
| Pedestrian Safety / Traffic Calming | Pedestrian Lighting |
| | Pedestrian Curb Extensions |
| Transit | Bus Stop Improvements |
| Streetscape | Benefits District (Parking or Community) |
| **Lower Priority / Longer Term Improvements** | |
| Pedestrian Safety/Traffic Calming | Restripe Crosswalks for High Visibility |
| | Automobile Turn Restrictions |
| Transit | New Bus Bulbs |
| | Transit Signal Priority / Far Side Stops |
| Streetscape | Infill Tree Planting |
| | Consolidation of signage |
| *Note: Improvements are not listed by rank* | |



This section provides a summary of the results of the technical evaluation conducted for the alternatives. Solutions focus on short-/near-term projects with a summary of other projects that can be developed in the mid- or long-term with additional study as funding becomes available. A more detailed discussion of the evaluation results is presented in Appendix D.

# FIGURE 4.1: CORRIDOR PLAN



## 4.1 PEDESTRIAN SAFETY / TRAFFIC CALMING IMPROVEMENTS

High priority pedestrian safety enhancements include pedestrian lighting and curb extensions. These enhancements seek to increase the perception of safety and activity on-street and improve pedestrian crossing conditions.

### *Pedestrian Lighting*

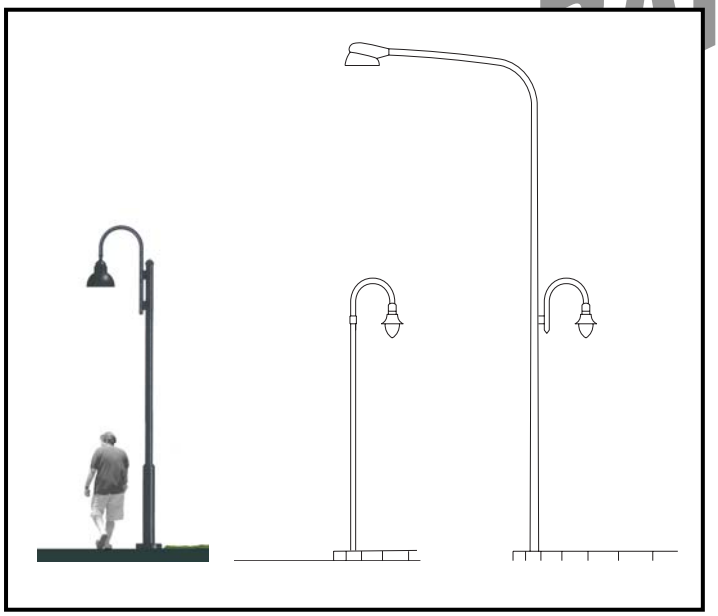
One of the top ranked corridor improvements identified by the Bernal Heights community and local stakeholders is improved pedestrian-scale lighting along Mission Street. Improved performance of the existing fixtures and the addition of pedestrian-scale light fixtures along the street could significantly improve the safety and comfort of the pedestrian experience. It would also introduce a civic streetscape element that improves the visual character of the street and furthers the development of neighborhood identity.

Current lighting consists of "cobra-head" lights that are high above the street and do not illuminate the sidewalk well. These "cobra-head" light fixtures are fitted with high-pressure sodium lamps. The fixtures are spaced 80 to 100 feet apart, depending on driveway locations and other conditions. This type of fixture is designed primarily to provide light for vehicular traffic and only to a lesser degree to light sidewalks.

In the short term, lighting conditions can be improved by replacing the high pressure sodium lamps of the existing cobra-head fixtures with metal halide or similar lamps and conversion kit parts. Metal halide lamps have a significantly better color rendition than high pressure sodium because they give off a white light that is more similar to daylight. This requires further discussion with technical staff to select the most effective retrofit product available in order to ensure the feasibility of a successful conversion of existing fixtures.

To further improve the quality of lighting for pedestrians in the corridor and to meet the safety needs identified by area residents and business owners in a cost effective way, the following approach is recommended:





*New pedestrian-scale fixtures (left) and retrofitted existing fixtures (right).*

- *Re-fit existing light fixtures:* The first step would involve the retrofit of all existing light fixtures with pedestrian-scale (12 to 14 feet tall) light fixtures, that are oriented toward the sidewalk and whose light source is located about 12 to 14 feet above the sidewalk surface. A modern-looking pendant type fixture, compatible with the look of the existing cobra-heads, should be used. This type of fixture is most suitable to be attached to the existing cobra-head posts and will result in a visually coherent look of the combined fixtures (see right example).

- *Add new pedestrian scale light fixtures:* Because retrofitting the cobra-heads along the corridor will not fully raise lighting levels on sidewalks to desirable levels, the Plan proposes adding pedestrian-scale fixtures of the same design (left example) between the retrofitted cobra-heads. The overall spacing of retrofitted cobra-heads and additional pedestrian scale fixtures should be roughly 30 to 40 feet. It is likely that two to three pedestrian scale light fixtures will be needed between each modified cobra-head fixture. Painting new signal posts and mast arms in the same color as the new

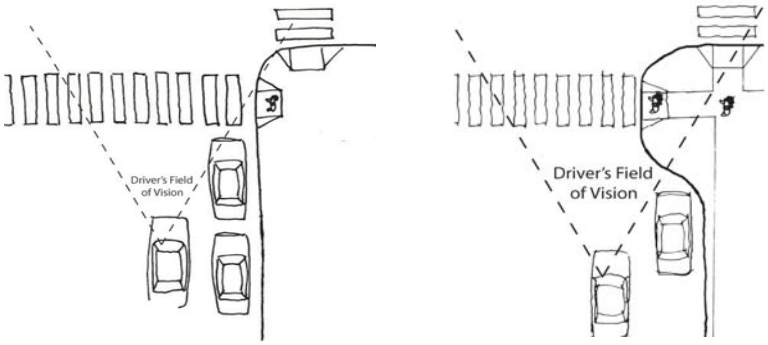
light fixtures will further unify the visual appearance of the corridor's vertical elements.

The community also voiced a desire for less street "clutter." Because the City is also developing a Streetscape Master Plan as part of the Better Streets Plan, pedestrian lighting and streetscape improvements should be incorporated with Streetscape Master Plan recommendations.

It may also be possible to secure some funding for pedestrian lighting improvements through the San Francisco Public Utilities Commission.

***Pedestrian Curb Extensions***

Another high priority pedestrian improvement is pedestrian curb extensions. Curb extensions consist of extending the curb line at crosswalks into the parking lane in order to improve pedestrian visibility and provide additional space for pedestrians as they wait for a walk signal. Curb extensions can be installed at signalized intersections and unsignalized intersections. Suggested curb-extension locations are shown on the corridor map (Figure 4.1).




*This sketch demonstrates the improved ability of drivers and pedestrians to see each other at corners with curb extensions (Source: Valley Transportation Agency Pedestrian Technical Guidelines)*

Proposals to add curb extensions where they do not currently exist are strongly supported by community members. Curb extensions would shorten pedestrian crossing distances and improve the ability of drivers to see pedestrians (see figure at right).



At the community workshop, pedestrian curb extensions were prioritized first of all pedestrian safety improvements, with participants "voting" for this option twice as much as the second choice, pedestrian scale lighting. The community would like to see landscaping and greenery be integrated with curb extensions where feasible. While there is little to no room for many more trees in the existing public right of way due to potential conflicts with underground utilities, based on review by the Department of Public Works, planter boxes with bushes, vines, or grasses were also supported by participants.

## 4.2 TRANSIT SERVICE

***Bus Stop Improvements***

Improved bus stops are another highly-ranked corridor treatment. Bus stop improvements that were generally supported include seating, lighting and more greenery at stop locations, the addition of NextMuni real-time information displays at stops, and enhanced 14-Limited service.

Real-Time Transit Information

There is strong community support for installation of NextMuni (the new name of NextBus) information along transit routes on Mission Street, with the 14-Limited bus stops among their highest priority locations. These stops are naturally the highest usage stops and merit a higher level of amenity that will reinforce their utility.

*Example of enhanced bus stop with shelter as presented in the Mission Street Community Vision.*

Shelter Improvements

Because most bus stops on Mission Street lack shelters, the addition of NextMuni displays would require the installation of new bus shelters at many locations. An example of an enhanced bus stop with new shelter is shown in the figure from the *Mission Street Community Vision* at right.

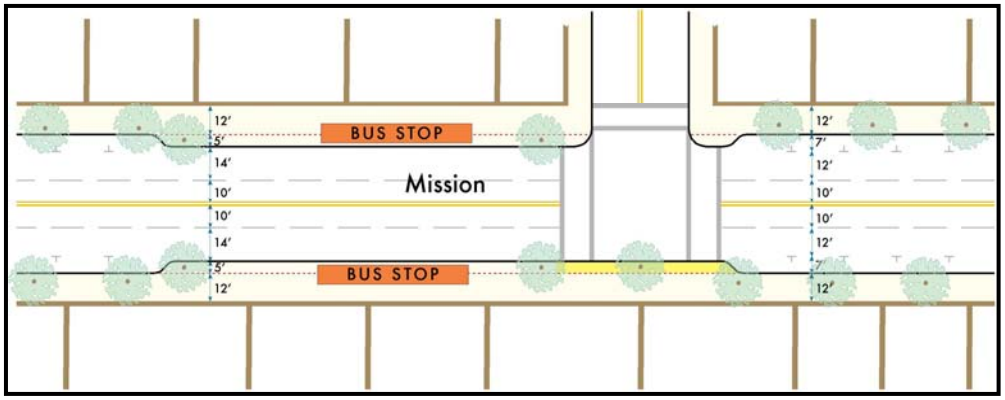
Specific improvements for shelters include enhanced lighting to improve security for waiting passengers and additional seating opportunities.



Bus Bulb Extensions

Existing bus "bulbs" could also be extended through some tee-intersections, as shown in the figure below. This would provide additional passenger waiting space and provide a location for street trees and planter boxes away from the center of the bus stop. Longer bus bulbs would also lessen the frequency of multiple buses arriving at stops where the rear bus is forces to stop in a crosswalk or intersection while waiting for the forward bus to depart.

Lengthening bus bulbs would require removal of 1-2 of parking spaces at some intersections. However, to improve safety and pedestrian visibility, parking spaced at intersections should be removed even if bus bulbs are not installed.




*Example of lengthened bus bulb at an intersection (shown in dark yellow). This provides additional space for street trees and planter boxes to be located.*

Enhanced 14-Limited Service

More and/or better service for the 14L – Limited was supported by community members. The 14L makes fewer stops along the corridor and therefore has faster average travel speeds than the regular 14-Mission line. However it operates for fewer hours in the day, and is plagued by the same unreliability of the other Mission Street lines. Enhancements to Muni service are being studied on a system-wide basis as part of the Transit Efficiency Project (TEP). As a Transit Preferential Street (TPS), Mission Street has been recognized as a high-ridership, high-priority route in the city's rapid transit network and called out for improvements that will improve transit operations and reliability. Potential improvements to the 14-L will be considered as part of both the TEP effort and a Mission Street TPS study.

Landscaping / Greenery

Opportunities to "green" Mission Street were strongly supported by the Bernal Heights community. Additional landscaping and greenery was especially favored at bus stop locations to improve the waiting environment for transit passengers. Because bus stops generate high levels of pedestrian activity and are typically adjacent to crosswalks, landscaping strategies should be integrated with the installation of pedestrian curb extensions described above. As with pedestrian curb extensions, planter boxes are a recommended strategy for providing greenery without interfering with underground utilities. The Department of Public Works has expressed interest in incorporating greenery into any new bus shelter designs and will work with SFMTA to determine the feasibility and character as part of the Better Streets Plan.

Other Transit Improvements

While community members strongly support investments in a new BART station at 30th / Mission Streets, such improvements is beyond the scope and timeframe of this Plan. As BART studies potential new station locations, a 30th/Mission station should continue to be considered. A BART station at this location is also being considered as part of the Bay Area's Regional Rail Study. Community recommendations for the station include entrances without a plaza-type entry and potential integration with future development at the Safeway store located just north of 30th / Mission.



Better connections to existing BART stations (for example, via shuttles), especially to 24th Street, are also supported. Community members also felt that more enforcement of double parking would benefit transit performance.

## 4.3 STREETSCAPE ENVIRONMENT

*One proposal from the Vision was to add greenery to Mission Street in the form of landscaping and street trees.*

Benefits districts are another high-priority improvement. Benefits districts include parking benefits districts and community benefits districts where revenue from parking increases and/or neighborhood merchants contribute to enhancing the neighborhood in ways defined by a board.

Additional opportunities for the creation of benefits districts are being explored as part of the On-Street Parking Management and Pricing Study being conducted by the Authority.

## 4.4 TECHNICAL ANALYSIS RESULTS

Technical analysis of the street corridor improvements is summarized below. More detailed information is provided in Appendix C.

| Improvements | Evaluation Criteria | | | | |
|---|---|---|---|---|---|
| | Benefits | | | Impacts | |
| | Transit Performance & Rider Experience | Bicycle and Pedestrian Safety and Access | Streetscape Environment | Traffic and Parking | Construction Impacts |
| **Pedestrian Safety / Traffic Calming** | | | | | |
| Street Lighting | No change | ↑ | ↑↑ | No change | 🛠🛠🛠 |
| Curb Extensions | ↑↑ | ↑↑↑ | ↑↑↑ | ↓ | 🛠🛠🛠 |
| **Transit** | | | | | |
| Stop Upgrades | ↑↑ | ↑ | ↑↑↑ | No change | 🛠🛠 |
| **Streetscape Environment** | | | | | |
| Benefits Districts | No change | ↑ | ↑ | No change | No change |
| | | | | | |

***Benefits***

Overall, pedestrian curb extensions and transit stop upgrades would have substantial benefits to transit performance, bicycle/pedestrian safety, and the streetscape environment. Pedestrian street lighting would have benefits to the streetscape environment and pedestrian safety, but is not expected to significantly affect transit performance. The creation of parking or community benefits districts will have lesser immediate effects on bicycle/pedestrian safety and the streetscape environment.



***Impacts***

Pedestrian curb extensions are the only improvement expected to have substantial impacts to parking. The impact will primarily be due to the loss of several parking stalls at intersections. Overall, there are nearly 150 parking stalls along Mission Street in the study area. Installation of curb extensions along the entire corridor would results in the loss of about 10 parking stalls. Other corridor improvements are not expected to affect traffic and parking conditions along the corridor.

Street lighting, curb extensions, and transit stop upgrades would have some construction impacts, due to the duration, intensity, and timing/staging of construction activities.

## 4.5 COSTS

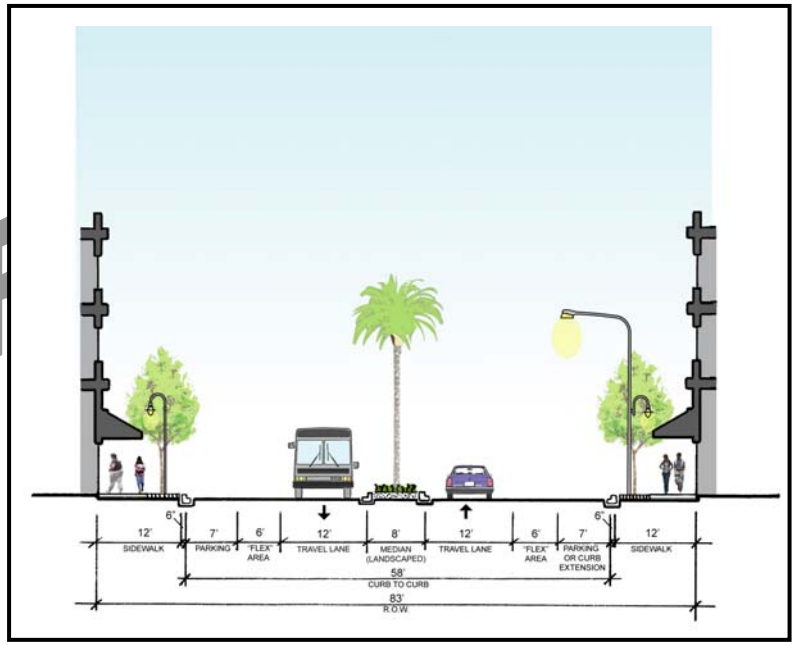
Of the corridor improvements options, pedestrian safety enhancements are expected to be the most costly due to the need for construction in order to implement the types of changes. Transit stop upgrades will cost somewhat less, and the creation of benefits districts will be the least expensive option. However, all contribute to the overall enhancement of Mission Street in this neighborhood.

| Improvements | Relative Cost |
|---|---|
| **Pedestrian Safety / Traffic Calming** | |
| Street Lighting | $$$ |
| Curb Extensions | $$$ |
| **Transit** | |
| Stop Upgrades | $$ |
| **Streetscape Environment** | |
| Benefits Districts | $ |

## 4.6 LONG TERM CORRIDOR IMPROVEMENTS

Long term corridor improvements are beyond the scope of this Plan, but are described here to ensure a unified streetscape theme is eventually implemented for the corridor. The Mission - Geneva Neighborhood Transportation Plan, developed concurrently with this Plan, proposes an ultimate corridor configuration for Mission Street in the Excelsior District that reduces the number of travel lanes from four without left-turn pockets to two with turn pockets.

This roadway narrowing concept was justified for the Excelsior District because average daily traffic volumes on Mission Street are approximately 5-20% lower than in Bernal Heights. Because Bernal Heights has higher volumes, a two-lane corridor concept would require additional study before it could be recommended between Cesar Chavez and Randall.




*Recommended Mission Street cross-section for Excelsior neighborhood (Source: San Francisco County Transportation Authority, Mission-Geneva Neighborhood Transportation Plan, 2007)*

# 5. PRIORITY INTERSECTIONS

This chapter discusses some of the opportunities for near-term improvements at key intersections in the study area.

## 5.1 MISSION / VALENCIA INTERSECTION

One of the two high-priority projects is located at the intersection of Mission / Valencia. It would transform the southbound Valencia approach into a pedestrian mini-plaza and introduce back-in angled parking on Valencia between Mission and Tiffany/Duncan. Other elements would work together to create a vastly improved walking and streetscape environment.

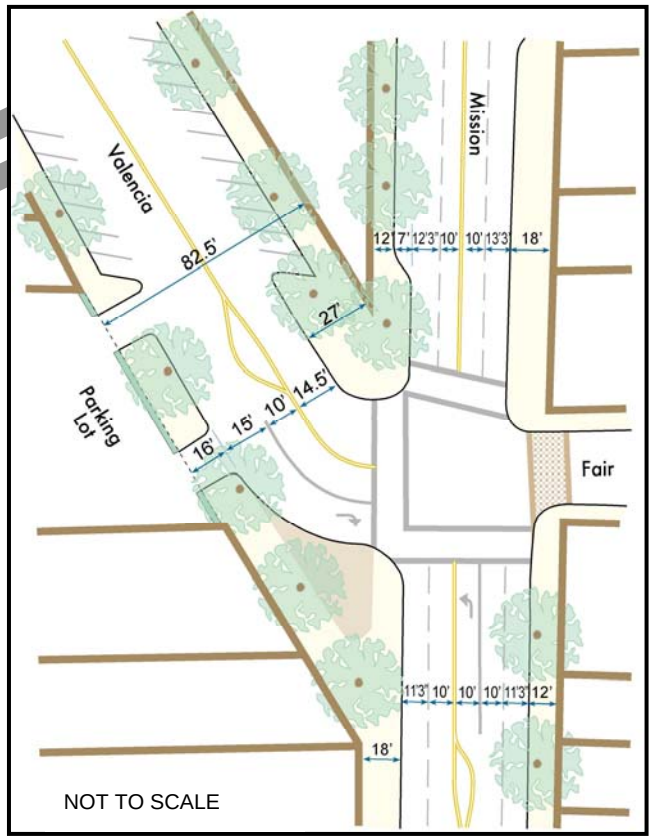
Improvements to this intersection were originally identified as part of the *Mission Street Community Vision*. The design presented in the *Vision* was refined and enhanced as part of this Plan.

In addition to performing well in the technical evaluation, improvements to the Mission/Valencia intersection garnered substantial community support at the July 2006 Workshop and other neighborhood outreach meetings. Many community members support improvements to this intersection because of its central location and opportunities to use it to establish a community identity.

Key elements of the project include:

- "Mini-plaza" on the southwest corner of Mission/Valencia
- Back-in angled parking on Valencia for more convenient and safer bicycling
- Pedestrian safety improvements including curb extensions and enhanced crosswalks
- Transit and bus stop improvements for the 14, 49, 26, and 67 Muni lines
- Northbound left turn treatment from Mission to Valencia through dedicated left turn lane or separate northbound and southbound signal phases on Mission Street
- Landscaping, lighting, and other streetscape improvements






*This conceptual design for Mission / Valencia creates a safer and more attractive streetscape environment.*

***Description of Improvements***

Mini-Plaza

Currently, Valencia Street southbound widens from one lane at Tiffany/Duncan to a four lanes at the approach to Mission Street one block away. The refined intersection concept includes a reduction to two lanes at the intersection approach, with curb extensions significantly

reducing crossing distances for pedestrians. This transformation would create newfound sidewalk space to be dedicated to a mini-plaza with landscaping.

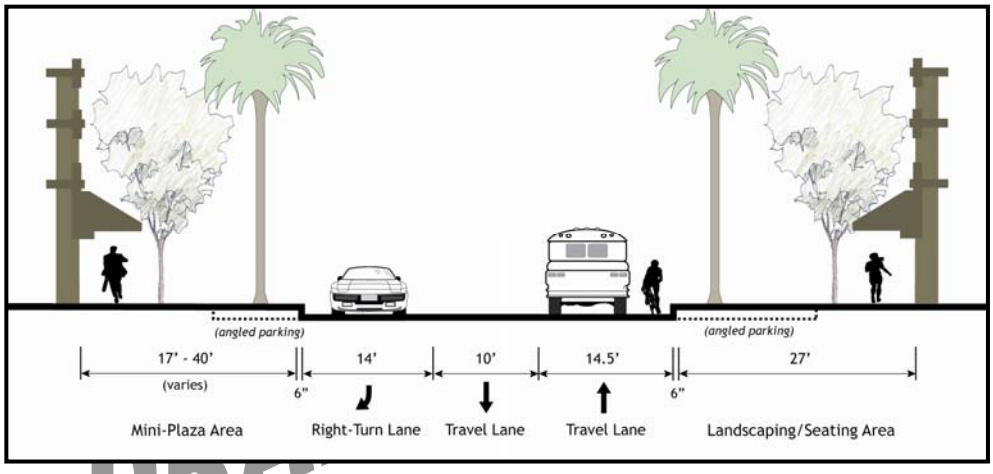
Back-In Angled Parking

The Project seeks to improve parking conditions and bicycle safety with plans to convert existing parallel parking spaces on Valencia Street between Mission and Tiffany/Duncan to back-in angled parking. Besides increasing the number of on-street spaces, back-in angled parking also increases bicyclist visibility and reduces conflicts between vehicles pulling out of parking spaces and bicycles traveling along the street.

Back-in parking also permits curbside loading and unloading of items from the rear of vehicles, and it is generally seen as an easier parking maneuver than parallel parking. Back-in parking is used in several dozen cities in the United States, including Seattle and Portland on the West Coast.

Pedestrian Improvements

The Project includes several pedestrian safety improvements that also enhance and ease the pedestrian walking experience through curb bulb extensions, not only at the Valencia crosswalk, but at crosswalks on Mission Street. The southerly crosswalk on Mission Street would be simplified into one shorter crossing that would eliminate the current need to cross, not only Mission, but also the southerly portion of the long Valencia crosswalk in order to reach the existing southwest corner. The short pedestrian crossing of Fair Avenue could be changed to a raised crosswalk, encouraging slower traffic at this crossing. More analysis of the raised crosswalk may be needed to ensure adequate turning radii for vehicles from Fair Street entering Mission Street.




*The potential cross section for Valencia Street includes back-in angled parking, a reduction in the number of travel lanes approaching Mission Street, and more space for pedestrians.*

Transit Improvements

The Project includes transit improvements for five Muni lines – 14, 14L, 49, 26, and 67. Access to both bus stops on Mission is improved by the pedestrian safety improvements. The creation of the mini-plaza with landscaping not only upgrades the stop for four Muni lines – 14, 49, 26 and 67 - by lengthening the southbound bus bulb, it also enhances the transit access experience for waiting patrons with landscaping and seating amenities.

Vehicular Traffic Flow Improvements

The Project includes a northbound left turn treatment (pocket and/or phase) that would improve transit and traffic flow. Addition of a northbound left turn lane was supported by community members at the July 2006 Workshop, even though it would mean the loss of 2-3 parking stalls along the west side of Mission Street approaching the intersection. Changing the signal phasing to allow a protected northbound left turn phase from Mission to Valencia

is an alternative strategy to a dedicated turn lane, though this option would not improve overall intersection delay over current conditions.

Landscaping and Urban Design Amenities

Finally, the landscaping, lighting and other streetscape amenities at the newly created mini-park are integral parts of the overall project. This creates a functional and livable neighborhood with a safe pedestrian environment and efficient links for pedestrians, transit and vehicles, connecting with nearby St. Luke's Hospital and the Mission Street commercial corridor. This project also mirrors pedestrian and streetscape improvements in the northern portion of Valencia Street, part of a larger, corridor-wide effort to provide pedestrian and streetscape improvements on Valencia.

***Interim Measures***

Agency staff and members of the community working group worked to devise interim measures in order to improve conditions at Mission and Valencia in a shorter timeframe. Interim measures include:

- Painted striping and flexible delineators on the southwest corner of Valencia
- Painted striping and flexible delineators on the northern side of the pedestrian refuge on Valencia
- Phased signal timing for auto traffic exiting Fair Street

These measures aim to slow auto traffic approaching Mission Street from Valencia, create better visibility for vehicles approaching southbound Mission Street, shorten pedestrian crossing distances, and reduce conflicts between auto traffic exiting Fair and Valencia Streets. In addition, these measures offer an opportunity to evaluate potential benefits and impacts of a lane reduction on Valencia. Because the proposed improvements represent a considerable change from existing conditions, some community members look to these interim measures to offer guidance on refining the proposed design as warranted.



## 5.2 MISSION / 30TH INTERSECTION

A second high-priority location-specific project is at the intersection of Mission/30th Street. This intersection has extremely high levels of pedestrian activity, as it serves as a transfer point between the Mission Street Muni lines and the 24-Divisadero line. Additionally, there is a J-Church stop just over one block to the west.

***Description of Improvements***

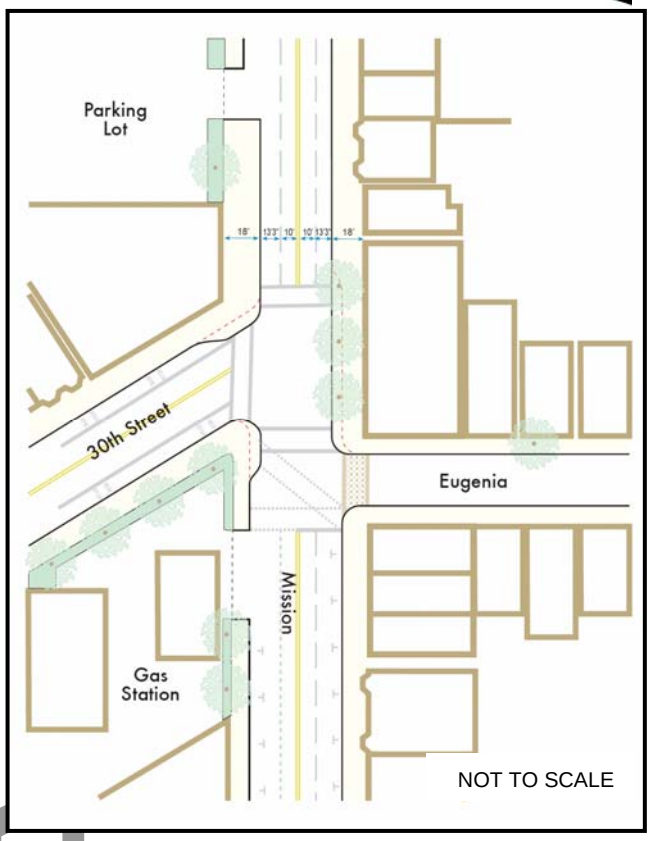
While improvements are not as well-defined as at Mission / Valencia, several conceptual design options focusing on pedestrian safety have been developed.

Pedestrian / Streetscape Improvements

Pedestrian and streetscape improvements include:

- Pedestrian crossing improvements
  - New crosswalk striping at south approach to intersection, with stop bar at Eugenia
  - Raised crosswalk across Eugenia[1]
  - Modifications to signal timing to support pedestrian crossings, such as a pedestrian "head-start" (leading pedestrian interval) for the new south crosswalk leg
- Pedestrian curb extensions, with landscaping treatments where feasible
- Bus stop improvements, to be coordinated with overall corridor concept for bus stop improvements
- Landscaping, lighting, and other streetscape improvements

The new crosswalk at the south leg of the Mission / 30th intersection would enhance connectivity in an area with high pedestrian activity. The figure on the previous page shows three options for crosswalk striping, to be finalized based on consultation with the TAC. The solid-line indicates the preferred option, as it will allow pedestrians crossing Mission Street to be the most visible to right-turning vehicles coming from 30th Street. The crosswalk could be supplements with a pedestrian "head-start" signal phase, which would give pedestrians a walk signal and allow them to proceed into the crosswalk before vehicles get a green light.




*The preliminary conceptual design for Mission/30th would add a new crosswalk to the south leg of the intersection at the north edge of Eugenia. Pedestrian curb extensions, enhanced bus stops, and landscaping/greening treatments are also included as part of the conceptual design.*



A pedestrian "scramble" signal phase, which would stop all traffic movements for a period and allow pedestrians to move through the intersection diagonally was also evaluated. Though a scramble phase would be beneficial for walking, it would also create additional transit delay at this intersection and is therefore not recommended.

*Enhanced bus stop at the northwest corner of Mission / 30th*

30th / Mission Street Transit Hub Analysis

In additionally to short term pedestrian improvement, there is strong community support for a new BART station at

[1] As with Fair Street at the Mission/Valencia intersection, more analysis of the raised crosswalk may be needed to ensure adequate turning radii for vehicles from Eugenia Street entering Mission Street.

Mission/30th. While a new BART station is a long-term improvement, an initial transit hub study funding could be pursued as a short term option. This would identify local transit improvement needs / changes that could be implemented to support construction of a potential BART station/stop.

Since this Plan focuses on near-term solutions, a transit hub study of this location should be done as part of a separate effort with input from BART staff. While such evaluation is not part of this study, the Metropolitan Transportation Commission and BART are currently evaluating the feasibility of six BART infill stations, including a station at Mission/30th, as part of the Bay Area Regional Rail Plan. A draft of the Regional Rail Plan is due to be released in late 2007.

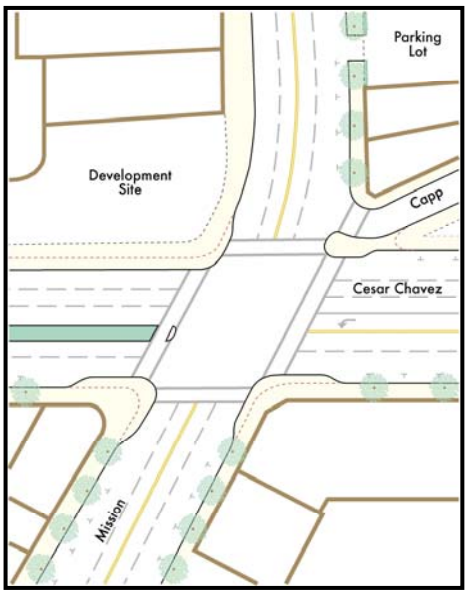
***Interim Measures***

Agency staff and members of the community working group also worked to devise interim measures in order to improve conditions at Mission and 30th Street in a shorter timeframe. Interim measures include:

- Restriping the existing crosswalks at 30th Street and stop bar at Eugenia Street
- Installing pedestrian countdown signals across Mission Street

These measures aim to create more visibility of pedestrian spaces at this off-set intersection. In addition, agency staff have begin more detailed evaluation of placement for a pedestrian crosswalk on the southern leg of the intersection, taking into account eastbound traffic movement from 30th to Eugenia.

## 5.3 OTHER INTERSECTIONS




*Improvements to Mission / Cesar Chavez could include pedestrian curb extensions, enhanced medians, and an extended bus bulb on the northwest corner of the intersection.*

### *Mission / Chavez*

Improvements to the intersection of Mission / Chavez received support from the community. Improvements could include the following:

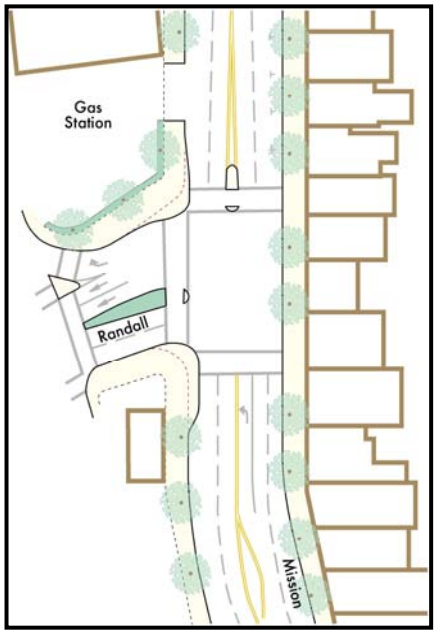
- Pedestrian curb extensions
- Landscaped median on west intersection approach
- Removal of AM peak hour eastbound tow-away zone
- Street trees and other urban design enhancements
- Addition of bus bulb on Cesar Chavez in westbound direction

Improvements to the Mission / Cesar Chavez intersection are not included as part of this Plan due to potential overlap with the larger effort to introduce traffic calming treatments and traffic management strategies along Cesar Chavez Street. Improvements to this intersection will be addressed by the CC Puede community working group and potential subsequent studies on Cesar Chavez improvements by city agencies.



### *Mission / Randall*

Mission / Randall is an unsignalized intersection (stop-controlled) that experiences high levels of traffic congestion. As part of the technical analysis, several options were evaluated to determine if intersection signalization would reduce traffic congestion and provide pedestrians an opportunity for a signal-controlled crossing of Mission Street. While numerous options were tested, it is unlikely that signalization will provide any traffic benefit due to its close proximity to San Jose / Randall. Additional study would be needed to determine if there are feasible options to coordinate and potentially reconstruct the two intersections.




*While signalization may not be feasible at this time, potential improvements to Mission / Randall would include pedestrian curb extensions and enhanced medians.*

Potential improvements that could be implemented at this intersection would focus on pedestrian accessibility, while maintaining the existing stop-controlled configuration. They include:

- Pedestrian curb extensions at northwest and southwest corners
- Landscaped median on west intersection approach
- Enlarged median on north intersection approach (with landscaping if possible)

At the Workshop, improvements to this intersection did not score highly as compared with potential improvements to other intersections. Identification and recommendation of traffic calming improvements to

this intersection should be evaluated separately as part of community-based efforts on San José and Guerrero Streets.

## 5.4 TECHNICAL ANALYSIS RESULTS

The improvements for specific high-priority intersections along Mission Street are consistent with the corridor recommendations for Mission Street. However, they were reviewed separately to provide a better picture of the benefits and impacts of improvements to specific intersections.

The discussion below is a qualitative assessment of the potential benefits and impacts of the recommended intersection improvements.

| Improvements | Evaluation Criteria | | | | |
|---|---|---|---|---|---|
| | Benefits | | | Impacts | |
| | Transit Performance & Rider Experience | Bicycle and Pedestrian Safety and Access | Streetscape Environment | Traffic and Parking | Construction Impacts |
| **High Priority Improvements** | | | | | |
| Mission / Valencia | ⬆ | ⬆⬆ | ⬆⬆⬆ | No change | 🛠🛠 |
| Mission / 30th | ⬆⬆ | ⬆⬆ | ⬆⬆ | ⬇ | 🛠 |



***Benefits***

Improvements to the Mission / Valencia and Mission / 30th intersections would generate substantial benefits for transit riders, bicyclists, and pedestrians.

Transit Performance and Rider Experience

The recommended bus stop improvements include significant improvements in stop amenities, which will provide a sheltered waiting area, and real-time information; both critical to an enhanced transit experience.

Pedestrian and Bicycle Safety and Access

The implementation of corner curb extensions shortens pedestrian crossing distances, makes pedestrians more visible to drivers, and generally slows traffic speeds, particularly for turning vehicles. Of particular benefit will be the back-in angled parking to bicyclists on Valencia and the additional crosswalk leg to pedestrians at Mission / 30th.

Streetscape Environment (Neighborhood Character)

The major streetscape element at the described key intersections is the introduction of landscaping at crosswalks and transit stops on Mission Street. If consistently applied and successfully combined with other measures recommended in this Plan, this concept will further enhance pedestrian safety in the corridor while simultaneously strengthening the neighborhood character through a stronger sense of identity. The mini-plaza treatment at Mission / Valencia will serve as the centerpiece to this unified streetscape concept.

Sequencing the tree planting pattern along Mission Street with “special” trees (such as palms) at the key intersections would also serve to further enhance community identity.

***Impacts***

Improvements to the Mission / Valencia intersection would either improve traffic conditions or result in no change from existing conditions. A small number of parking spaces would be lost at Mission / 30th with the installation of curb extensions and a new crosswalk, but traffic and transit delays would be minimally affected.

Construction of bus bulbs, corner curb extensions, and wider sidewalks at key intersections would not likely contribute to substantial disruption to traffic flow on Mission Street. Pedestrians and transit patrons may be inconvenienced as these improvements are proposed to take place at locations where pedestrians cross and bus passengers load and unload. However, the long-term benefits to pedestrians outweigh the short-term construction impacts.

## 5.5 COSTS

Cost estimates for the two key intersections discussed above are as follows:

- Mission Street / Valencia Street - $900,000-$1,100,000
- Mission Street / 30th Street - $300,000-$500,000

Note: These costs are planning-level cost estimates and are subject to change pending detailed design and further field investigation. More detail is available in Appendix 7.6.

# 6. IMPLEMENTATION, FUNDING, AND NEXT STEPS

In order to realize the benefits that could be achieved under this Plan, the Authority will continue to support the implementing City departments to gain project approval, secure funding, and begin construction. A common and extremely important component of all of the next steps is broad community support and stewardship.

## 6.1 IMPLEMENTATION AND FUNDING PLAN

This Chapter describes the next steps for funding and implementing the top priority projects discussed in Chapter 5. The detailed Funding and Implementation Plan is shown in Table 6.1.

Typically transportation improvements go through the following steps:

- Seek funding for conceptual study; conduct conceptual study
- Seek funding for engineering and design; develop engineering and design
- Seek construction funding; construct project

The funding and implementation plan identifies the stage of each improvement and next steps. For many projects, the next step is to be prioritized for design and construction funding. For others, further study is needed before the improvements are ready for design and construction funding.

***High Priority Project Implementation***

There are two key strategies for funding and implementing the other near-term recommendations of the Mission South of Chavez Neighborhood Transportation Plan:



- Developing specific design guidance for a number of improvements through the Better Streets Plan, currently underway
- Establishing a path for project implementation by prioritizing them in the Proposition K Five Year Prioritization Plans (FYPPs), which prioritize the categories of Proposition K funding for five-year periods

Many of the near term projects need either design / construction funding (such as curb extensions), or additional conceptual study (such as to establish a preferred pedestrian scale lighting scheme or fixture). The design and construction of the majority of the near term improvements will come from Proposition K or other grants, and the majority of the conceptual study is already underway through the Better Streets Plan (which includes the Streetscape Master Plan and Pedestrian Master Plan).

<u>Better Streets Plan</u>

The City's Better Streets Planning effort will provide the tools necessary to implement many of the community priorities for improving the streetscape. First, the Better Streets Plan will provide the roadmap and funding sources for pedestrian scale lighting on the sidewalks. This will include identifying the responsible agency (DPW or PUC), preferred fixture types, and criteria for prioritizing areas around the City to receive pedestrian scale lighting. The Better Streets Plan will also develop a visible crosswalk design and standards for its implementation, and evaluate the efficacy of a low-cost pedestrian curb extension design.

These types of pedestrian / streetscape projects can begin to be implemented upon completion of the Better Streets Plan, or after initial recommendations are identified. The community could also request to serve as a trial location for testing concepts such as the low cost curb extensions.

Five Year Prioritization Programs

The Five Year Prioritization Programs (FYPPs) for all Proposition K categories will be updated during the summer and fall of 2007. Several recommendations could be prioritized in these categories:

- Pedestrian safety / traffic calming
- Streetscape improvements / lighting
- Transit Preferential Streets

*Pedestrian Safety / Traffic Calming*

MTA manages a traffic calming program for neighborhoods citywide. The next set of neighborhoods to undertake a traffic calming study will be prioritized through the Proposition K Prioritization Program for the traffic calming funding category. This Prioritization Plan will be developed in the Fall of 2007. The Cesar Chavez corridor can be included as a priority for Traffic Calming funds in the Proposition K FYPP, or potentially other streets in the corridor.

*Streetscape and Lighting*

The Better Streets Plan / Streetscape Master Plan will set forth pedestrian scale lighting designs and identify funding sources and agency responsibilities. The guidelines from the Better Streets Master Plan will direct how pedestrian scale lighting is implemented in the Bernal Heights area. The Mission Street corridor could be included as a priority for streetscape funds in the Proposition K FYPP funds, pending the finalization of the Better Streets Plan / Streetscape Master Plan.



***Implementation Matrix***

Table 6.1 below summarizes high priority projects and potential funding sources for project implementation. Where appropriate, a staff contact has also been designated for these projects. Longer term projects are also listed with potential funding sources, though costs and project specifics are not included.

| Potential Project | Potential Sub-Project | Description | Status / Next Steps | Potential Funding Sources |
|---|---|---|---|---|
| Mission / Valencia Intersection Improvements | - | Pedestrian improvements (Mission Street corner bulbs; Raised crosswalk at Fair Street; Southbound lane reduction)<br>Valencia traffic calming (Back-in diagonal parking pilot; Left-turn treatment)<br>Mini plaza (SW corner) (Bus stop amenities, including seating, etc.; Pedestrian scale sidewalk lighting) | Conceptual work completed | County MTC TLC |
| Mission & 30th Transit Hub | Pedestrian safety | Pedestrian improvements:<br>New/enhanced crosswalks<br>Pedestrian head-start<br>Advanced stop line. | Conceptual study, cost estimates | |
| Mission & 30th Transit Hub | BART at 30th Street | Determine local and regional transit improvements to support BART station | Transit hub analysis planning study | MTC TLC Planning Grant |
| Pedestrian-Scale Lighting | Study | Identify methods of lighting at pedestrian scale as part of street lighting infrastructure | Better Streets Plan working with PUC to develop standard lighting design, policies for implementation, and funding sources | PUC Capital<br>MTC TLC<br>Safe Routes to School (Randall)<br>Safe Routes to Transit (corridor) |
| Pedestrian-Scale Lighting | Construction | Install pedestrian scale lighting with a consistent theme along Mission Street | Based on outcome of lighting study | - |
| Pedestrian Curb Extensions | | Additional corner bulbs corridor-wide | Work with BSP, pursue funding | Safe Routes to Transit |
| Pedestrian Curb Extensions | Landscaped curb extensions | Curb extensions with prominent plantings at strategic locations | Work with BSP, pursue funding | RBPP |
| Bus Stop Improvements | | Bus shelters and/or seating<br>Lighting<br>Real-time information (eg. NextBus)<br>Street furniture and landscaping: refurbish trash receptacles as needed, add greenery to stop areas | Work with TEP and BSP | Safe Routes to Transit |
| Benefit District | Community | Study and determine methods of organizing a community benefit district | - | - |
| Benefit District | Parking | Study and determine methods of organizing a parking benefit district | Track Parking Management Study underway | - |
| Mission/Chavez intersection improvements | | Identify and recommend traffic calming techniques through existing community-based efforts on Chavez | CC Puede | Caltrans planning grant<br>Mission public realm study |
| Green buffers along sidewalk | | Install landscaping at strategic locations (eg. Safeway, Bank of America, gas stations) | - | Community Challenge Grant<br>Mayor's Office of Greening |
| High-visibility crosswalks | | New/enhanced paving/striping at strategic locations | Work with BSP, pursue funding and design | Safe Routes to Transit |
| Study of Mission Street transit service | | Determine methods of improving transit service and reliability corridor-wide | TEP | Caltrans planning grant<br>Transit Preferential Street Study |
| Street furniture | | build on Challenge grant already received, implemented through Northwest Bernal Alliance | BSP | Community Challenge Grant<br>Mayor's Office of Greening |

| Potential Project | Potential Sub-Project | Description | Status / Next Steps | Potential Funding Sources |
|---|---|---|---|---|
| Support car-sharing | | Determine best methods of supporting car-sharing in the neighborhood<br>Determine whether car-sharing locations possible on city streets | Track Parking Management Study underway | - |
| Mid-block crossing between 29th and Fair | | Install curb extensions and actuated pedestrian signal for mid-block crossing | BSP | - |
| Mission/Randall intersection improvements | | Identify and recommend traffic calming techniques through existing community-based efforts on San José/Guerrero | San Jose/Guerrero Coalition to Save our Streets | - |

## 6.2 COMMUNITY ROLES

Potential community roles in project implementation will include:

- Continue to follow related projects, such as the Transit Effectiveness Project, Better Streets Plan (which includes the Streetscape Master Plan and Pedestrian Master Plan), and Authority Parking Management Study.
- Coordinate with the Authority to provide annual project status updates at the Bernal Heights Community Congress or other events
- Lobby to for Mission Street corridor projects be prioritized in the Proposition K FYPP

## 6.3 NEXT STEPS

Potential next steps are as follows:

**Summer 2007**

- The Authority/Technical Consultant Team will prepare a Final Plan
- The Authority will present the Final Plan to the Authority Board for approval

**Fall/Winter 2007**

- The Authority will engage with concurrent studies, such as the Transit Effectiveness Project and the Better Streets Plan, to ensure that recommendations from this community-based plan are incorporated into other ongoing plans
- The Authority and the City will work together to apply for capital grant funding



**Spring 2008**

- The Authority and the City will continue to apply for project planning and capital funding

**Ongoing Monitoring**

- The community working group will meet regularly to track the status of this Plan, with periodic public meetings
- The Plan's Technical Advisory Committee will continue to have ongoing meetings to coordinate grant proposals and project development
- The Authority will conduct regular check-ins with the District Supervisor and other policymakers

# 7. APPENDICES

**7.1 EXISTING CONDITIONS REPORT**

**7.2 OUTREACH REPORT**

**7.3 EVALUATION MATRIX**

**7.4 LEVEL OF SERVICE CALCULATIONS**

**7.5 OTHER ANALYSIS AND TECHNICAL MATERIALS**

**7.6 DETAILED IMPLEMENTATION PLAN**