Executive Summary

Rendering by Allan B. Jacobs

INTRODUCTION

The Better Streets Plan provides a blueprint for the future of San Francisco's pedestrian environment. It describes a vision, creates design guidelines, and identifies next steps to create a truly great pedestrian realm.

The Plan seeks to balance the needs of all street users, and reflects the understanding that the pedestrian environment is about much more than just transportation – that streets serve a multitude of social, recreational and ecological needs that must be considered when deciding on the most appropriate design. The Plan follows from the 'Better Streets Policy,' adopted by the Board of Supervisors and the Mayor in February 2006, which describes the varied roles that the City's streets should play.

The Better Streets Plan provides guidelines for the pedestrian environment, defined as the areas of the street where people walk, shop, sit, play, or interact – outside of moving vehicles. Generally speaking, this refers to sidewalks and crosswalks; however, in some cases, this may be expanded to include certain areas of the roadway. The Plan does not generally focus on roadway or vehicle travel characteristics.

If fully realized, the Better Streets Plan will bring a number of benefits to San Francisco. It will help retain families in San Francisco, support Muni and a transit-first city, help promote public safety, help to minimize sewer/stormwater overflows into the Bay, decrease the likelihood of pedestrian injuries and fatalities, increase accessibility for all street users, and enhance the everyday quality of life for San Francisco's residents.

This plan follows from a long public and technical process. City staff attended over 100 community meetings relating to the Better Streets Plan, held monthly meetings with a Community Advisory Committee, and received over 1,000 responses to the two Better Streets Plan surveys. As well, the Better Streets team has met with technical agency staff to gather comments regarding technical feasibility of initial concepts and proposals.

PLAN HIGHLIGHTS

The Better Streets Plan contains a wide range of guidelines relating to streetscape and pedestrian facilities. Major themes and ideas include:

- **Distinctive, unified streetscape design:** Street trees as defining the streetscape rhythm; integrated site furnishings; regular pedestrian-oriented lighting; minimizing cluttering elements.
- **Space for public life:** Safe, useable public seating for neighborhood gathering; generous curb extensions for seating and landscaping; reclaiming of excess street space for public use; space for outdoor café and restaurant seating and merchant displays.
- **Enhanced pedestrian safety:** Safe, convenient pedestrian crossings; curb radii and curb extensions that slow traffic, shorten crossing distance, and enhance visibility; pedestrian countdown signals and other pedestrian priority signals (head-start, pedestrian scramble).
- **Improved street ecology:** On-site stormwater management to reduce combined sewer overflows; resource-efficient elements and materials; streets as green corridors and habitat connectors.
- **Universal design and accessibility:** Generous, unobstructed sidewalks, curb ramps for all users, accessible pedestrian signals.
- **Integrating pedestrians with transit:** Transit rider amenities at key stops; safe, convenient pedestrian routes to transit; mutual features that benefit pedestrian safety and comfort and transit operations, such as bus bulb-outs and boarding islands.
- **Creative use of parking lanes:** Permanent curb extensions with seating and landscaping; landscape planters in the parking lane; flexible, temporary use of the parking lane for restaurant seating or other uses.
- **Traffic calming to reduce speeding and enhance pedestrian safety:** Raised crossings and speed tables; landscaped traffic circles; chicanes.

- **Pedestrian-priority designs:** Shared public ways; temporary or permanent street closures to vehicles; sidewalk and median pocket parks.
- **Extensive greening:** Healthy, well-maintained urban forest; expanded sidewalk plantings; efficient utility location to provide more potential planting locations.

NEXT STEPS

The Better Streets Plan is a vision for the future of the City's pedestrian environment. These suggested improvements are not extravagant or uncommon—they are in use in many cities across the state and nation. However, even typical street improvements cost money to build and maintain. To build out the Plan's recommendations on the City's streets, the City must have capital and maintenance funding in place—funding the City does not currently have. The City must continue to seek funding to realize the vision of the Better Streets Plan.

Better streets rely on successful implementation—ongoing capital funding, efficient maintenance, and effective education and enforcement. This plan describes a vision for ideal streets, and recognizes the need to have detailed implementation strategies. The plan identifies high-level implementation measures. Other recommendations have been developed in an accompanying report by the Controller's Office.

The Better Streets Plan is merely the first step to realizing an improved pedestrian environment and public realm in San Francisco. It sets high-level guidelines that should be used in the City's on-going streetscape and pedestrian design. It does not seek to prioritize or create a project list of Better Streets projects. Nor does it give specific engineering guidance on a number of technical topics—those standards may be found in other existing or planned documents.

In order to implement the vision of the plan, the City must take a variety of next steps, including the following:

- Improve the coordination and delivery of street improvements.
- Create an easy to use Better Streets guide and website.
- Develop a framework for implementation and prioritization of street improvement projects.
- Develop additional technical guidance on a number of topics, including: urban forest, stormwater, street and pedestrian lighting, street furnishing, and roadway design guidelines.

CHAPTERS

The Better Streets Plan consists of the following chapters:

1. Introduction
2. Context
3. Goals and Policies: The Path to Better Streets
4. Approach: Designing Great Streetscapes
5. Guide: Street Designs
6. Guide: Streetscape Elements
7. Implementation

1.0 INTRODUCTION

Chapter 1 gives background on the plan, describes the plan development, and identifies next steps, and is summarized above.

2.0 CONTEXT

Chapter 2 describes existing conditions and policies relating to streets and the pedestrian environment in San Francisco today.

2.1 Existing conditions

Walking accounts for 20% of all trips made in San Francisco[1]. Major activity generators include transit hubs, schools, hospitals and shopping centers. Pedestrian volumes are highest in the northeast quadrant of the city, and along major transit corridors. Pedestrian collisions and fatalities have been generally declining over time, though still remain significant. Many pedestrian collisions are concentrated in a few areas of the city.

Streetscape and pedestrian infrastructure includes signs and signals, sidewalks, curb ramps, street trees, street lighting, site furnishings, and stormwater infrastructure. San Francisco's street and sidewalk infrastructure varies greatly, as does data on the condition of these features. The City is engaged in collecting on-going data on a number of features.

2.2 Existing policies

Street design in San Francisco is subject to federal, state, and local policies, standards, and guidelines. Key federal and state policies and standards include the Americans with Disabilities Act (ADA) and related documents, the California Manual on Uniform Traffic Control Devices (MUTCD), the California Vehicle Code (CVC), American Association of State Highway and Transportation Officials (AASHTO) standards, the California Environmental Quality Act (CEQA), and the Clean Water Act and National Pollutant Discharge Elimination System (NPDES) permit, which regulates stormwater runoff into receiving waters.

Locally, San Francisco has passed the 'Transit-First Policy' (City Charter Section 16.102) and the 'Better Streets Policy' (Administrative Code Chapter 98), which prioritize street improvements that enhance transit trips over other transportation modes, and require the City to coordinate to create streets that are pedestrian-oriented and multi-functional, respectively. Additional City policies can be found in the San Francisco General Plan and its constituent elements. The Countywide Transportation Plan also

1 San Francisco County Transportation Authority

guides street improvements. City standards and guidelines relating to street design can be found in the Administrative Code, Building Code, Fire Code, Planning Code, Public Works Code, Transportation Code, and in departmental orders, design guidelines, and standard plans.

2.3 Existing City efforts

The City has a number of on-going projects and programs relating to street improvement. Responsibility for street planning, design, funding, regulation, maintenance, education, and enforcement is spread over several departments. Though there are many good projects, there is often inconsistency in the results, and the process can be expensive, time-consuming, and confusing.

3.0 GOALS AND POLICIES: THE PATH TO BETTER STREETS

Chapter 3 describes an overall vision for better streets. It describes goals, objectives, policies, guidelines, and next steps to achieve a great pedestrian environment, based on the following "10 Elements of Better Streets."

Streets should (be):

1. **Memorable:** San Francisco's streets should be designed to give the city and its neighborhoods a recognizable image and provide a means of orientation and understanding of the city.
2. **Support diverse public life:** San Francisco's streets should provide opportunities for diverse experiences and encourage people to spend time engaging in social and recreational activities.
3. **Vibrant places for commerce:** San Francisco's streets should be designed and managed as attractive and exciting destinations that encourage residents and visitors to walk to and use local shopping areas, rather than to drive to regional shopping centers.
4. **Promote human use and comfort:** San Francisco streets should be designed to prioritize the everyday needs of people and to support human comfort and enjoyment.
5. **Promote healthy lifestyles:** San Francisco's streets should promote healthy lifestyles by encouraging walking to daily and occasional destinations, minimizing pedestrian injuries and helping to decrease major chronic diseases related to air quality and pedestrian activity.
6. **Safe:** San Francisco's streets should be designed to create a street environment that supports a high level of pedestrian safety and security.
7. **Create convenient connections:** San Francisco's streets should be designed to facilitate safe, accessible, and convenient connections among major nodes, hubs, destinations, transit centers, and major land use and activity centers.
8. **Ecologically sustainable:** San Francisco's streets should be designed as a green network, enhancing the City's long-term ecological functioning.
9. **Accessible:** San Francisco streets should be designed for ease of use and access to destinations for all populations, particularly those with visual or mobility impairments.
10. **Attractive, inviting, and well-cared for:** San Francisco's streets should be beautiful, create an engaging visual impression, appeal to senses of sight, smell, and sound, and encourage a sense of ownership and civic pride that is reflected in streets' physical appearance and level of activity.

4.0 APPROACH: DESIGNING GREAT STREETSCAPES

Chapter 4 sets a framework for overall streetscape design. It is divided into two sections: 4.1 Street Types; and 4.2 Overall Streetscape Guidelines.

4.1 Street Types

Different streets play different roles, so this chapter begins by categorizing streets into different street types for the purposes of streetscape design. Street classifications are based on land use characteristics (residential, commercial, industrial, mixed-use) and transportation roles (downtown, throughway, neighborhood). Special streets (parkways, park edge streets, boulevards and ceremonial (civic) streets), and small streets (alleys, shared public ways, and pedestrian-only streets) are called out separately. These classifications are not intended to replace technical transportation classifications, but to help make decisions about streetscape design.

Section 4.1 shows a typical site plan and section for each street type, using recommended sidewalk widths, pedestrian facilities, and streetscape amenities. For each street type, the Plan lists standard improvements (such as street trees, curb ramps, marked crossings, and site furnishings) and case-by-case additions (such as mid-block crosswalks, landscaped center medians, perpendicular or angled parking with corner plazas, and extended bulb-outs with landscaping and seating). Standard additions should generally be included in any streetscape design project on a particular street type. Case-by-case additions should be considered as budgets, physical conditions, and neighborhood preferences allow.

4.2 Overall Streetscape Guidelines

Section 4.2 provides overall guidelines for the streetscape environment. Streetscapes should be designed to encompass a variety of features and amenities, and reflect a unified design sensibility. Streetscape projects should be combined wherever possible to provide 'completeness' in streetscape design. For example, curb ramp projects may be combined with building curb extensions, which could house seating, landscaping, and stormwater treatment measures.

Section 4.2 describes appropriate elements and treatments for intersection design, including marked crosswalks, curb ramps, parking restrictions at corners, tight turn radii, curb extensions, pedestrian refuge islands, street trees, street and pedestrian lighting, and site furnishings. These elements should be combined to create a safe, convenient, inviting intersection for pedestrians.

Next, Section 4.2 discusses sidewalk widths and zones. Sidewalks are divided into five zones: frontage, throughway, furnishings, edge, and 'extension.' These terms are used throughout the document. Minimum and recommended sidewalk widths are given for each street type. Sidewalks below minimum width should be considered deficient, and should be widened as opportunities and funding allow. Recommended widths are wide enough to allow for desired streetscape amenities. Sidewalks on new streets should meet or exceed recommended widths.

Finally, this section describes guidelines for overall layout of streetscape elements. Streetscapes should wisely allocate limited space, strive for 'wholeness', and accommodate pedestrian needs. Street trees should define the rhythm of the streetscape, and be the primary organizing element. Conflicts with ideal street tree locations should be minimized to achieve this rhythm. Street and pedestrian lighting may be placed in an off-setting rhythm. Other site furnishings should be placed in relation to these elements, per appropriate clearances, discussed in Chapter 6.

5.0 GUIDE: STREET DESIGNS

Chapter 5 describes guidelines for street designs such as curb geometries, crosswalks, parking lanes, and special street conditions. It is divided into eight sections: 5.1 Crosswalks and Pedestrian Signals; 5.2 Corner curb radii; 5.3 Curb extensions; 5.4 Medians and Islands; 5.5 Transit-Supportive Streetscape Design; 5.6 Parking lane treatments; 5.7 Traffic calming and roundabouts; and 5.8 Pedestrian-priority designs.

5.1 Crosswalks and Pedestrian Signals

Crosswalks are an essential part of a safe, convenient pedestrian realm, and may also be an urban design treatment. This section describes guidelines for location and design of marked crosswalks at intersections and mid-block locations, special treatments such as raised crossings, special paving treatments, and special signals, pedestrian signals, and vehicle movements at intersections, including right turns on red and multiple turn lanes.

5.2 Corner curb radii

Corner curb radii (turn radii) have a major impact on pedestrian safety and quality. Tight turn radii slow turning vehicles, shorten crossing distances and enhance visibility. Turn radii should be as tight as possible to enhance pedestrian comfort; however, they should be designed to accommodate turning vehicles as well per the guidelines. This section also presents alternative strategies for dealing with intersections with frequent large turning vehicles.

5.3 Curb extensions

Similar to curb radii, curb extensions slow turning vehicles, shorten crossing distances and enhance visibility by extending the sidewalk into parking lanes. Corner curb extensions should be a standard treatment on most street types. They should be designed to maximize pedestrian space. Generous curb extensions may allow opportunities for landscaping, seating, and stormwater management. They may also be placed at mid-block locations to create a small plaza.

5.4 Medians and islands

Medians are continuous raised areas within the roadway that control traffic, and may have a traffic calming, greening, and ecological benefit. They may also provide pedestrian refuges at crossings. Medians should include trees and other landscaping as appropriate. Islands are smaller raised areas within the roadway. They may provide a pedestrian refuge, traffic calming, or design feature.

5.5 Transit-Supportive Streetscape Design

Most transit rides begin or end on foot. People waiting at transit stops are some of the most frequent users of the pedestrian realm. Transit waiting areas should be designed with amenities for waiting riders. They must also be accessible to all users and provide clear paths to and from the transit shelter and vehicle. Bus bulbs and transit boarding islands may be used to improve transit operations and also provide greater sidewalk space.

5.6 Parking lane treatments

In many cases, the pedestrian environment may be extended into the parking lane, either permanently or temporarily. Curb extensions are one way of achieving this. Providing perpendicular or angled parking where roadway width allows can also allow for the creation of significant corner plazas. Alternative uses for the parking lane are also considered, including landscaped planters, bicycle parking, and flexible (temporary) use of the parking lane for outdoor seating.

5.7 Traffic calming and roundabouts

Traffic calming enhances pedestrian safety and neighborhood character by slowing traffic. Traffic calming measures discussed in this plan include traffic circles and chicanes. These should be designed to slow traffic by visually narrowing the street and forcing cars to shift laterally. They may also present opportunities for landscaping, stormwater treatment, and community stewardship. Roundabouts are traffic control devices with limited applicability in San Francisco. Where they are used, consideration should be given to pedestrian safety, accessibility, and wayfinding.

5.8 Pedestrian-priority designs

Pedestrian-priority designs are special cases that provide more than the standard sidewalk space for pedestrians. These include: sidewalk and median pocket parks, shared public ways, local lanes and medians on multi-way boulevards, pedestrian-only streets, and public stairs. In all cases, the pedestrian area or shared pedestrian/vehicle area should be designed to slow traffic and indicate areas of pedestrian priority. They may also be opportunities to create significant public spaces.

6.0 GUIDE: STREETSCAPE ELEMENTS

Chapter 6 describes guidelines for streetscape elements typically found in sidewalks or curb extensions, including: street trees and plantings, stormwater control measures, street and pedestrian lighting, paving, site furnishings, utilities, and driveways.

6.1 Urban forest

The urban forest consists of street trees, understory plantings (ground landscaping), and above-ground plantings (planter boxes or hanging planters). Urban forest elements should be appropriate to soil and microclimate zones. Drought-tolerant and climate-adapted species should be used. Native plantings should be used when it is possible to maintain healthy plantings.

Street trees should be the primary organizing element of the streetscape; restrictions and conflicts with other elements should be minimized to ensure consistent plantings. Tree basins should be optimized to ensure tree health and minimize root interference with sidewalks. Tree furnishings such as grates, guards or railings may be used for a design treatment; however, they may be difficult to maintain or inhibit tree health.

Understory plantings should be used in furnishings zones on most street types, with sufficient area for healthy plantings. They may have a formal or more naturalistic treatment, depending on the context. Sidewalk landscaping may be present and still allow access to parked cars and utilities if designed properly. Above-ground landscaping is appropriate in limited circumstances such as in special design areas, or where in-ground landscaping is not possible due to utilities or other constraints.

6.2 Stormwater control measures

Stormwater control measures are on-street stormwater facilities that capture stormwater before it enters the City's combined or separate stormwater systems. This treatment can result in fewer combined sewer overflows into the bay or ocean. Stormwater control measures can be designed to infiltrate, retain, detain, convey, and treat stormwater. Infiltration may not be possible in all locations. For more technical details, refer to the San Francisco Stormwater Design Guidelines.

Stormwater management tools include permeable paving, bioretention facilities, swales, channels and runnels, infiltration trenches, infiltration boardwalks, vegetated gutters, and vegetated buffer strips. All of these features may be designed to be integral, aesthetic parts of the streetscape in addition to their stormwater management role.

6.3 Lighting

Street lighting is a key organizing element that defines the daytime and nighttime environment and enhances personal safety and security. Street lights should light the entire right-of-way; specific pedestrian-oriented lighting is appropriate in downtown, civic, and commercial areas with high numbers of pedestrians. Lighting should be spaced to optimize light distribution and not interfere with other streetscape elements, particularly street trees. Street lights should use energy efficient technologies, and minimize light loss to the night sky. Lighting guidelines should be further developed through a street lighting master plan.

6.4 Paving

Paving materials in the pedestrian realm can be either standard concrete or non-standard materials, such as brick, stone, or unit pavers. Paving should be functional—stable, firm, slip-resistant, and relatively easy to maintain. It may also provide a unique design treatment, particularly on special streets or in areas of the street environment meant for pausing rather than walking through. Special paving may be considered at transit stops, crosswalks, pedestrian refuges, shared public ways, local lanes of boulevards, transit malls, pedestrian-only streets, flexibly used parking lanes, curb extensions, or in the furnishings zone of the sidewalk.

6.5 Site furnishings

Site furnishings consist of all streetscape amenities in the sidewalk, including: benches and seating, bicycle racks, bollards, flowerstands, kiosks, newsracks, parking meters, public art, sidewalk restrooms, traffic and parking signs, trash receptacles, and signage and gateways. Generally, site furnishings should be located in the furnishings zone. Site furnishings should be considered design elements, and use consistent, aesthetic design along a particular street or corridor. They should meet basic clearances and requirements for accessibility, maintenance, and safety.

6.6 Utilities and driveways

Utilities and driveways are functional elements that provide necessary access and facilities. Utilities may be poles, overhead wires, surface-mounted boxes, underground vaults, mains and laterals. They are a necessary and ubiquitous element of streetscape environments; however, they often conflict with other streetscape elements, and vice versa.

Utilities should be efficiently located to minimize impacts on other existing or potential streetscape elements, maintain basic access and maintenance requirements, and be consolidated into shared vaults, boxes, or trenches wherever possible. Likewise, driveways should be minimized and located to avoid impacts to existing or potential streetscape elements.

7.0 IMPLEMENTATION

Chapter 7 describes implementation measures necessary to carry out the vision of the Better Streets Plan, including funding, maintenance, and enforcement strategies. The Controller's Office report: "Better Streets Plan: Recommendations for Improved Streetscape Project Planning, Design, Review and Approval" contains additional implementation recommentations.