

MEMORANDUM

July 2, 2014

TO: MEMBERS, PORT COMMISSION
Hon. Leslie Katz, President
Hon. Willie Adams, Vice President
Hon. Kimberly Brandon
Hon. Mel Murphy
Hon. Doreen Woo Ho

FROM: Monique Moyer
Executive Director

SUBJECT: San Francisco Municipal Transportation Agency informational presentation on The Embarcadero Enhancement Project to improve bicycle access on The Embarcadero, from Fisherman's Wharf to AT&T Ballpark

DIRECTOR'S RECOMMENDATION: Informational, No Action Required

Executive Summary

The San Francisco Municipal Transportation Agency (SFMTA) will be leading a public process for The Embarcadero Enhancement Project, to develop a conceptual bikeway design along The Embarcadero. Port staff is working with MTA on this city project, which also includes assistance and participation by staff of the San Francisco Planning Department (Planning Department), and Department of Public Works (DPW).

The purpose of the project is to produce a bikeway conceptual design to meet growing bicycle access demand, which also improves the comfort and quality of waterfront pedestrian access, and provides more separation and safety from vehicle traffic. SFMTA's public process will include a public open house, public workshops and technical analysis to ultimately produce a concept design for a recommended bikeway, including funding and implementation requirements. If successful, the recommended design would require CEQA environmental review, funding and detailed construction planning prior to implementing improvements. Funding for this project comes from a \$250,000 Metropolitan Transportation Commission Priority Development Area grant, \$200,000 from SFMTA (\$200,000), and \$50,000 in operating budget funding from the Port.

There is no bikeway design concept at this time. SFMTA currently is collecting site and user data. On Thursday, July 24, 2014 (at Pier 1, 6-8 pm), SFMTA will hold a public open house to provide information about the planning process, schedule, and scope for the Embarcadero Enhancement Project. They also will receive questions and ideas to understand the issues and opportunities that should be addressed.

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This briefing is an informational presentation and there is no action required at this time. Future Port Commission presentations will be scheduled to provide project updates, including any preliminary designs, to solicit public comment and direction. Any recommended design would include funding and implementation requirements that also require Port Commission review and direction.

Project Scope and Study

The San Francisco Municipal Transportation Agency (SFMTA) will be leading a public process to develop a conceptual bikeway design along The Embarcadero, from AT&T Ballpark to Fisherman's Wharf (see project area map in Attachment A). The intent of the project is to increase the safety and comfort of travel along The Embarcadero, and improve access options for people and goods to businesses and attractions at the Port as well as adjacent neighborhoods. Port staff is working with MTA on this city project, which also includes assistance and participation by staff of the San Francisco Planning Department (Planning Department), and Department of Public Works (DPW).

The Embarcadero Promenade (Promenade) is an approximately three-mile long shared public space currently used by bicyclists, pedestrians and pedicabs. The Promenade is not a designated city sidewalk; this is a reflection of The Embarcadero's historic function as a transportation corridor to serve cargo shipping, maritime and industrial uses in the piers. Historically, The Embarcadero supported many modes simultaneously whether on the roadway or work areas adjacent to piers, from horse-drawn wagons, to Belt Railroad freight trains, trucks, cars and workers on foot. The Promenade was built as part of the Waterfront Transportation Projects after the Embarcadero Freeway was demolished, and its width (generally 25 feet) easily allowed shared pedestrian and bike use when it was completed in 2000. In recent years, the volume of people attracted to the waterfront, whether walking or on bikes, has increased substantially. Recent counts indicate that The Embarcadero is the fourth most traveled cycling corridor in San Francisco. Most of this travel volume occurs on the east side of The Embarcadero, where people seek to be closest to the water. While The Embarcadero includes Class Two bike lanes, many cyclists (especially recreational riders) elect to ride on the Promenade rather than alongside vehicle traffic out of concern for personal safety. Compared to The Promenade, pedestrian and bicycle use along the southbound, west side of The Embarcadero is underutilized.

With the waterfront's popularity comes increased concerns about public safety, as conflicts between people walking, cycling and driving have grown, diminishing the pedestrian experience of The Embarcadero. Added to this are concerns for a lack of cyclist compliance with road rules, which further compromise public safety. Pedestrian and bicycle demand on The Embarcadero is expected to continue to grow, given that a substantial amount of the city's growth is projected to occur on the east side of San Francisco, including Port development projects. For these reasons, the focus of the Embarcadero Enhancement Project is to produce a preliminary design for a bicycle facility that is physically separated from moving or parked vehicles, and pedestrians. To accomplish this, the project analysis will evaluate the opportunities within the entire right-of-way. It is expected that improved bikeway access would improve the safety and comfort of everyone traveling along The Embarcadero by minimizing potential conflicts between the different users of the roadway, and by adding predictability to roadway operations.

There is a clear recognition that any changes must consider the transportation and operational needs of Port tenants and businesses, particularly where The Embarcadero provides their only point of access. SFMTA will devote special focus to reach out to these businesses, as well as meet with Port maritime staff to coordinate with cruise

terminal operational needs. SFMTA will evaluate the different bikeway options holistically, balanced with needs for vehicle access, on-street loading and parking, and pedestrian access.

Accordingly, the primary goals of The Embarcadero Enhancement project are to:

- Make The Embarcadero safe and comfortable for all roadway users, including people who walk, cycle, drive, and ride transit;
- Support economic development and accommodate expected population and employment growth;
- Increase and improve access along the waterfront for residents, workers and visitors;
- Manage curbside parking and loading to improve the efficiency of The Embarcadero;
- Maintain and enhance the high quality urban design of The Embarcadero; and
- Integrate transportation improvements on The Embarcadero with those planned for public transit, pedestrian safety and other related projects

There is no proposed bikeway design at this time. SFMTA staff engineers currently are reviewing existing conditions such as physical dimensions, curb lines, turn pockets to define constraints and opportunities. While adjustments ultimately will be needed to accommodate a bikeway, Muni light rail tracks will not be modified. Some of the concepts that may be considered include:

- Two-way bikeway on the water side of The Embarcadero (either within the roadway or on the Promenade)
- Two one-way bikeways, curbside, on either side of The Embarcadero
- Two one-way bikeways, in the center of the roadway, adjacent to the Muni right-of-way
- Two-way bikeway in the center of the roadway, adjacent to the Muni right-of-way

SFMTA has produced a report describing The Embarcadero Enhancement Project, included in Attachment B. Patrick Golier, SFMTA Project Manager, will provide an informational presentation of The Embarcadero Enhancement Project at the July 8, 2014 Port Commission meeting. The Planning Commission also will receive a briefing on this project on July 17th, followed by the SFMTA Policy and Governance Committee on July 18th.

Strategic Objective

The Embarcadero defines the San Francisco waterfront as a valuable public resource. As the City's front door to the Ferry Building and Embarcadero Historic District, The Embarcadero possesses a pedestrian-oriented, public character that welcomes San Franciscans, workers and visitors for work, play and entertainment, while also supporting maritime industry needs. It is therefore important to manage and protect public safety and enjoyment in a manner that allows and balances access by all transportation modes. The Embarcadero Enhancement project supports this objective.

Project Schedule & Funding

The following is a summary of the project schedule, which will be discussed further at the July 8, 2014 Port Commission meeting:

1. Public Open House, Thursday, July 24, 2014 at Pier 1, 6-8 pm Provide project information, and solicit initial questions, concerns and ideas for new bikeway improvements. In addition, over the summer and fall, SFMTA staff will meet with local and city stakeholders, neighborhood organizations, and Port tenants.
2. Develop Design Alternatives (Winter 2014/15 – Spring 2015) This phase will include public workshops and other meetings during which stakeholders will explore and discuss various conceptual designs that respond to Project goals.
3. Determine Recommended Design (Spring 2015 – Fall 2015) This phase will produce a recommended design including funding and implementation requirements. If successful, the project would undertake the CEQA environmental review and public approvals process.

The Embarcadero Enhancement project is a \$500,000 public planning effort, funded by a \$250,000 Priority Development Area grant from the Metropolitan Transportation Commission, \$200,000 from SFMTA, and \$50,000 from the Port. The work will be conducted by city staff.

Climate Action

The Embarcadero Enhancement project is an important transportation initiative, and is one of the improvement strategies set forth in SFMTA's Waterfront Transportation Assessment.ⁱ In addition to relieving pedestrian, bicycle and public safety needs of the Promenade, this project also enhances alternative transportation modes to reduce automobile traffic and greenhouse gas emissions.

Next Steps

This briefing is an informational presentation and there is no action required at this time. Future Port Commission presentations will be scheduled to provide project updates and any preliminary designs, to solicit public comment and direction. Any recommended design would include funding and implementation requirements that also require Port Commission review and direction.

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Attachments:

A: Project Map

B: SFMTA Report – The Embarcadero Enhancement Project

ⁱ Informational presentations on the SFMTA Waterfront Transportation Assessment have been provided previously to the Port Commission on January 24, 2013 and July 9, 2013. Links to the staff reports: <http://www.sfport.org/modules/showdocument.aspx?documentid=5296>;

<http://sfport.com/modules/showdocument.aspx?documentid=6448>

More information also is available on SFMTA website: <http://www.sfmta.com/projects-planning/projects/waterfront-transportation-assessment-0>

Attachment A – SFMTA Embarcadero Enhancement Project Area Map



The Embarcadero Enhancement Project

SFMTA.COM

Livable Streets
Sustainable Streets Division



SFMTA
Municipal
Transportation
Agency

June 27, 2014

Executive Summary

Project Description



The San Francisco Municipal Transportation Agency (SFM-TA), the Port of San Francisco (Port), SF Planning, and the Department of Public Works (DPW) are collaborating on the Embarcadero Enhancement Project (Project) to increase the safety and comfort of travel along The Embarcadero and improve options for people and goods accessing attractions and businesses along the waterfront and adjacent neighborhoods. The Project will result in a program concept, conceptual design and cost estimate for a bikeway along The Embarcadero from Third Street in South

Crowded Conditions on the Embarcadero indicate the level of popularity of the roadway

Beach to Powell and Jefferson Streets in the Fisherman’s Wharf area. It will include stakeholder participation and a public process to review and comment on alternative concepts, costs and tradeoffs, with the objective of arriving at a recommended Project that is physically and financially viable, reflects public values, and enhances safety and the experience of travelers and visitors on foot, on cycle or in a vehicle along the Project route.

Problem Statement

Recent counts of pedestrians and cyclists collected along The Embarcadero found high pedestrian volumes and showed The Embarcadero to be the fourth most traveled cycling corridor in San Francisco. However, this popularity comes with ongoing concern about public safety, as conflicts between people walking, cycling and driving have increased and, in some cases, compromised the shared public space on the Promenade. Portions of The Embarcadero appear on the WalkFirst “High Injury Network,” a collection of streets that represent just 6 percent of all city streets but account for 60 percent of severe and fatal pedestrian injuries. The street has a high rate of bicycle collisions as well.

The overarching goal is improved safety and comfort for all travel modes, including pedestrians, bicyclists, drivers, and freight. The objectives of the Embarcadero Enhancement project are to:

- Make The Embarcadero safe and comfortable for all roadway users, including people who walk, cycle, drive, and ride transit;
- Support economic development and accommodate expected population and employment growth;
- Increase and improve access along the waterfront for residents, workers and visitors;
- Manage curbside parking and loading to improve the efficiency of The Embarcadero;
- Maintain and enhance the high quality urban design of the Embarcadero; and
- Integrate transportation improvements on The Embarcadero with those planned for public transit, pedestrian safety and other related projects.

Bikeways

A bikeway is a bicycle facility that is physically separated from moving or parked vehicles and pedestrians. It is expected to improve safety and comfort of travel for everyone on The Embarcadero by creating clearly defined areas for pedestrians, cyclists and drivers. Bikeways can be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level.

Public Process

There is no preferred bikeway concept or design at this time. This will be developed as part of a robust outreach process over the course of the planning effort which will involve a series of one-on-one meetings with some stakeholders, presentations, public open houses and workshops. The trade-offs associated with any design option will be fully understood and communicated to stakeholders, including the public at large. Given the relatively long distance of the project limits (3-miles in length), and varying characteristics of the roadway (for example presence of on-street parking, number of travel lanes, demand for curbside activities), a range of design options may be needed at different points along the roadway.

This endeavor is one of the key transportation projects identified in the Waterfront Transportation Assessment, an inventory of transportation and land use programs, strategies and solutions meant to address anticipated development along the waterfront over the next five to twenty-five years. Project goals are consistent with and supported by several City and regional policies and initiatives that guide the strategic direction of the SFMTA and partner agencies.

Introduction



The Embarcadero waterfront is one of San Francisco's most popular regional and international destinations. With numerous port attractions, shops, restaurants and the waterfront to enjoy, and the characteristics of flat terrain, wide sidewalks, smooth pavement and a lack of cross streets on the east side of the street, The Embarcadero has become an important public and recreational gathering place enjoyed by scores of visitors and locals alike. While the roadway serves its traditional role as the primary access for the Port-related and other businesses lining The Embarcadero, its design has become

iconic and distinctly San Francisco; historic piers, a broad Promenade, and palm tree-lined street-car tracks all contribute towards making this one of the city's most beloved streets.

Accordingly, the public demand for walking and biking along the waterfront has grown rapidly, particularly on the east side of The Embarcadero on the Embarcadero Promenade (Promenade), also known as Herb Caen Way. This trend is expected to continue with the predicted growth in jobs, residents and numbers of attractions both citywide and along the Waterfront.

By 2040 it is estimated that San Francisco will grow to nearly one million residents, a 35 percent increase, and 759,000 jobs, a 34 percent increase. San Francisco has also been hosting a record number of visitors in recent years, recording 16.9 million visitors in 2013 alone.

With this success, however, comes concern about public safety on The Embarcadero, as conflicts between people walking and biking as well as vehicles accessing The Embarcadero piers have also grown, and in some cases compromised the shared public space on the Promenade. Added to



this are concerns for a lack of cyclist compliance with road rules which can be exacerbated with the general lack of guidance for cyclists and pedestrians on the multi-use Promenade.

To address these concerns, the San Francisco Municipal Transportation Agency (SFMTA), the Port of San Francisco (the Port), SF Planning and the Department of Public Works (DPW) are working together to develop a preliminary design for a “bikeway” from AT&T Park to Powell Street. A

bikeway is a bicycle facility that is physically separated from moving or parked vehicles and pedestrians. It is expected to improve the safety and comfort of everyone traveling along The Embarcadero by creating clearly defined areas for people walking, cycling, taking transit, and driving.

The project is being primarily funded by an MTC Priority Development Area (PDA) grant with supplemental funding from the SFMTA and the Port of San Francisco.



Two-Way Bikeway in Vancouver, BC

Project Description

The Embarcadero Street Enhancement Project is a planning exercise to develop a conceptual design for a bikeway along The Embarcadero, from AT&T Park to Powell Street.

What are the goals of the project?

The overarching goal is improved safety and comfort for all travel modes, including pedestrians, bicyclists, drivers, and freight. The objectives of the Embarcadero Enhancement project are to:

- Make The Embarcadero safe and comfortable for all roadway users, including people who walk, cycle, drive, and ride transit;
- Support economic development and accommodate expected population and employment growth;
- Increase and improve access along the waterfront for residents, workers and visitors;
- Manage curbside parking and loading to improve the efficiency of The Embarcadero;
- Maintain and enhance the high quality urban design of the Embarcadero; and
- integrate transportation improvements on The Embarcadero with those planned for public transit, pedestrian safety and other related projects.



Warning sign on multi-use path, New York City

What is a bikeway?

A bikeway, also known as a cycle track, is a physically separated bicycle facility that is distinct from both the roadway and the sidewalk. By separating cyclists from other road users, bikeways can offer a higher level of security than traditional bike lanes and attract a broader spectrum of the public, including tourists, children and less confident people on bicycles. These facilities can also increase safety and comfort for all road users by minimizing potential conflicts between those on foot, bicycle or in a vehicle, and by adding predictability to roadway operations.



Multi-Use Path Sign, Boston, MA



Two-Way Bikeway, New York City

Bikeways can be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level. If at sidewalk level, a curb or median separates people biking from motor traffic, while different pavement colors and textures may separate the bikeway from the sidewalk. If at street level, bikeways can be separated from motor traffic by raised medians, on-street parking, bollards, planters, or bicycle parking.



One-Way Bikeway, 8th Avenue, New York City



Two-Way Bikeway, Vancouver, BC

What could a bikeway on The Embarcadero look like?

The location and design of the bikeway on The Embarcadero are unknown at this time. The constraints of the roadway, which includes the Muni right-of-way, narrow sidewalks on the west side, and the widths of the existing travel lanes, will dictate what design elements are technically feasible. Trade-offs between parking, Promenade width and travel lane width will be defined as part of the design process and the public will help to weigh-in on what they prefer.

As an initial step, City staff will analyze basic, broad design concepts to determine if they can physically fit into the roadway. For example, it is unlikely that a two-way bikeway would be able to fit into the west side of The Embarcadero given the limited right-of-way on that side of the street. Design options will be tested for 'fatal flaws' to give the project team and the public direction on which elements of the enhancement can be technically considered.



Two-Way Bikeway, Seattle, WA

Other design concepts may arise during the planning process.

Because of the relatively long distance of The Embarcadero, which is over 3-miles in length, and the varying characteristics of the roadway from location to location (the presence of on-street parking, number of travel lanes, width of sidewalks, and demand for curbside activities, for example), consideration of a variety of design options may be needed at different points along the roadway. Thus, an 'one-size-fits-all' approach to the process will likely not be possible, and the final design may include different design approaches and/or different sets of trade-offs required to achieve a final recommended design depending on the exact location along The Embarcadero.



Raised Bikeway, Cambridge, MA

Some of the broad design concepts that will be considered include:

- Two-way bikeway on the water side (either within the roadway or on the Promenade)
- Two one-way bikeways, curbside, on either side of The Embarcadero
- Two one-way bikeways, in the center of the roadway adjacent to the Muni right-of-way
- Two-way bikeway in the center of the roadway adjacent to the Muni right-of-way

This project is quite different than the interim bikeway that was temporarily installed to accommodate visitors to the America's Cup events in 2012 and 2013. That bikeway was in place for only a short time and for a short distance. It used temporary barricades and fencing to provide separation between vehicles and cyclists.



Improvements on Prospect Park West, New York NY

The intent of the Embarcadero Streets Enhancement project is that it would result in a facility that is permanent and an attractive part of the infrastructure on The Embarcadero, enhancing the streetscape.

How might a bikeway impact The Embarcadero?

Recent studies of similar bicycle facilities from other American cities indicate that protected bike lanes result in large increases in people riding bicycles, (particularly for two-way bikeways), increases

in cyclist compliance with road rules, (specifically at intersections with separate bicycle signals), increases in perceived safety for all road users, even among people in motor vehicles, and overall support among residents for an increase in installation of bikeways in other locations. Importantly, residents largely felt that the protected bike lanes led to an increase in the desirability of their neighborhood and that had a positive impact in economic activity in their community. Perceptions among people driving on the street was generally positive as well, with over half of residents who had driven a motor vehicle on the street stated that predictability of people on bikes and in cars had increased. Parking was the key issue with the reallocation of road space, with the impact to parking being the most negative perception.

Data to track changes in collisions over time were not available given the recent installation dates of the sample projects, but study authors suggest that notable safety problems were not observed. However, other studies indicate that implementation of separated bikeways do make roadways safer for all road users.

For example, the New York City Department of Transportation installed a two-way bicycle path and other traffic calming measures adjacent to Prospect Park in 2010. The department found that the numbers of people on bikes tripled after the implementation; while numbers of cyclists riding on the sidewalks significantly dropped to 3% from 46%, and crashes for all road users decreased by 16% and injuries to all road users dropped by 21%.

What is 'conceptual design'?

The scope of this project is the development of a conceptual design for the bikeway on the Embarcadero. Conceptual design is the very first phase of design. This preliminary design will bridge the gap between a design concept and the detailed design phase when the project can be designed fully for construction. In the conceptual design task, the overall project is defined, and schematics, diagrams, and layouts of the project are developed to provide early project configuration, including indications of what the project should do and look like. While the conceptual design phase focuses on creating the general framework from which the project will build on, the detailed design phase will fulfill the vision of this framework even if the parameters of the part being created can change. Thus, a broad indication of the trade-offs associated with the project, including potential on-street parking loss, and reduction in width of Promenade for example, will be indicated but not made fully firm until the detailed design phase.

The final product of this project will be a planning report with conceptual drawings that illustrate, broadly, the type of facility that will be provided with typical cross-sections of The Embarcadero with project included. A recommended design is expected to be completed in the Fall of 2015.

Subsequent phases would include environmental review, detailed design, and construction. Currently these phases are unfunded.

How will the public be involved in the Project's development?

The Project includes a stakeholder participation and public process to review and comment on alternative concepts, trade-offs, and costs, with the objective of arriving at a recommended Project that is physically and financially viable, and enhances the public values, pedestrian safety and experiences along The Embarcadero waterfront.

The outreach process will consist of 'formal' meetings and workshops, available to all interested members of the public and the business community, as well as 'informal' discussions with members of the project team, as requested.

The formal outreach process will consist of the following meetings:

- Public Open House #1
The Project Team will provide open house attendees with a broad introduction to the project, including project intent and goals. Conversations with the public about design considerations and transportation desires for the roadway will be initiated.
- Design Workshops (3)
Three location-based workshops (i.e., The Embarcadero from Broadway to Harrison) will allow attendees to discuss location-specific issues and opportunities with the Project Team. A facilitated exercise at each of the three workshops will help participants to identify the trade-offs associated with specific design treatments in each block of The Embarcadero and have discussions about those potential trade-offs. These potential trade-offs will start to be identified at the workshops, which will help to guide subsequent discussions with the public and stakeholder groups, as design alternatives are further developed.
- Public Open House #2
Attendees can provide feedback on two or three design alternatives and cost estimates at the open house and via an online survey. The purpose of this meeting will be to confirm the design goals and identify design alternatives and/or elements that have strong support. At this stage stakeholders should understand the transportation related trade-offs associated with the design elements.
- "Meet Us on The Embarcadero"
Members of the Project Team will schedule regular office hours on The Embarcadero for casual one-on-one or small group discussions to discuss ideas, address concerns or answer questions about the Project.
- Individual Conversations and Presentations
As requested, members of the Project Team will have individual meetings or will give presentations about the project at neighborhood or other scheduled group meetings with sufficient advanced notice.

A second set of Workshops and a third Public Open House may be scheduled, as required.



How will this project benefit San Francisco?

Ultimately, this project aims to create a safer and more comfortable Embarcadero by more clearly defining areas for each of the different user groups. This should help to bring a sense of order to what may now sometimes feel chaotic and should help to attract more users on foot and bicycle of all ages and abilities.

The addition of a safe and comfortable bicycle facility on The Embarcadero can provide a vital link between the growing number of attractors on The Embarcadero and other neighborhoods, including employment, commercial, cultural, educational, entertainment-related, recreational and transportation hubs such as BART. Attracting more visitors by foot and bicycle will relieve some of the existing pressures on Muni and on- and off-street parking facilities, while increasing access to these attractions.

This project would not reinvent The Embarcadero. The intent is to build upon its phenomenal success. Certain core aspects, such as the Muni rail tracks, will remain as they are. Other elements of the roadway however, such as curbs, on-street parking, and loading activities may be re-examined to look for opportunities for improvement.

It is important to note that this project will take into account the needs of all roadway

users and will strive to achieve a balanced solution. The Embarcadero provides primary or exclusive access to many Port waterfront businesses, so any design must respond to those operational needs as well as to improve access, public safety, and enjoyment of the waterfront.

How will this project benefit San Francisco?

Safety

- Minimize opportunities for conflict and collisions among all people on The Embarcadero, with the goal of eliminating serious and fatal injuries;
- Create an Embarcadero that is welcoming and comfortable to people of all ages and abilities;
- Encourage all road users to comply with the rules of the road;
- Reduce the feeling of chaos among all users of The Embarcadero.

Access

- Make it easier for people to access the waterfront, and also provide better access for employees and the movement of goods;
- Improve transportation connections between the various attractions along The Embarcadero and beyond;
- Relieve some of the burden off of the crowded Muni F-Line;
- Encourage more visitors to leave their cars at home

Support Business

- Shift more visitors to transportation by foot, bike and transit to free up roadway and parking space for critical goods access and port industry needs

Existing Conditions

Current Design



Conditions on The Embarcadero, February 2014

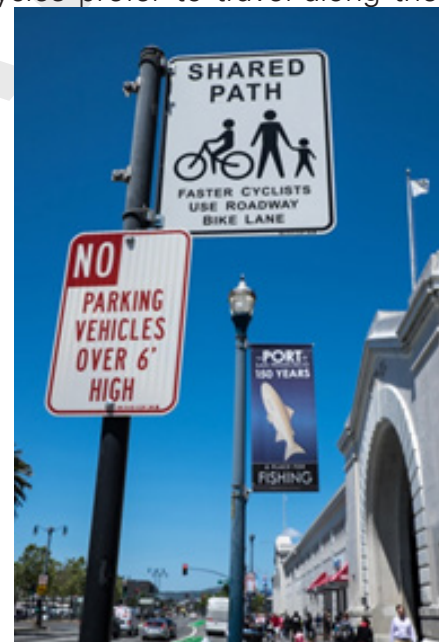
Five-foot wide bicycle lanes are generally available alongside northbound and southbound moving vehicle lanes on The Embarcadero roadway, though the bicycle lanes are not continuous. While these bicycle lanes are generally used by faster, more experienced cyclists, users must still compete with many other curbside activities that encroach into the cycle lanes which generally discourage all but the most confident of bicyclists. This includes parking, goods delivery, taxi, and shuttle bus and para-transit operations, among other activities.

It is therefore not surprising that most people on foot and on bicycles prefer to travel along the Promenade. The Promenade is unusual in San Francisco in that it is not designated as a pedestrian-only sidewalk. This designation is a reflection of Port waterfront historic character where trucks, trains and vehicles intermingled with pedestrian and worker access, pedestrians, bicycles and pedicabs currently have shared access on the Promenade.

However, the popular Promenade can look and feel like an obstacle course for its many users. Cyclists and pedestrians must compete with vehicles, street furniture, wide pedicabs and other people on foot or bicycle traveling in the opposite direction. Furthermore, the width of the Promenade varies throughout the corridor, creating a number of pinch points which further compromises user comfort. These conditions have led to some collisions, many



Conditions on The Embarcadero, May 2014



Shared Use Path Sign, The Embarcadero

close calls, and detract from the comfort of all users.

The popularity of the waterfront (east) side of The Embarcadero comes at the expense of the west side of the roadway, which is underutilized as a walking and biking route. Narrow sidewalks, a large number of wide and multi-legged intersections, as well as a general lack of attractions discourage people on foot and bicycle from using the west side. Nonetheless, this project may seek

to address the imbalance in safety, comfort and utilization of the two sides of The Embarcadero to help distribute some of the road users from the oversubscribed waterfront side.

Travel Data

Travel data collected on The Embarcadero illustrate the high level of demand for walking and cycling. Data collected by Gehl Architects who helped to develop pedestrian-oriented improvement plans for Jefferson Street in Fisherman's Wharf, found that portions of The Embarcadero at Pier 39 have higher pedestrian volumes than some of the busiest pedestrian corridors in the world, including Broadway in New York, George Street in Sydney, Australia, and Regent Street in London, England. While these pedestrian counts indicate the popularity of the Fisherman's Wharf attractions and are not consistent along the entirety of The Embarcadero, the numerous attractions along the route, including the Ferry Building, AT&T Park, the Exploratorium, among others, help to regularly attract large volumes of people on foot to the street.

As part of the City's annual data collection on bicycling, the SFMTA observed the number of people on bikes at several different locations on The Embarcadero on a typical evening commute in September 2013, from 4:30-6:30pm. At each location, the numbers of people on bicycles on The Embarcadero ranged from 800 to over 1,000 during this two-hour period. These numbers indicate an approximate 25 percent growth in cycling on The Embarcadero between 2011 and 2013 in the same locations, ranking the corridor as the fourth most travelled street in San Francisco for people riding bikes.

By contrast, one-way peak hour vehicle counts range from approximately 1,000 to 2,000 vehicles per hour, depending on the specific location along the corridor.

On a typical non-event day in the central portion of the roadway, trips made on foot, bicycle and transit make up approximately 50% of all people traveling along The Embarcadero. Special events such as Giants games draw many more people on foot and bicycle to the area.

Additionally, significant growth in jobs and housing envisioned by several major development projects along the waterfront, SOMA, South Beach, Mission Bay and Central Waterfront, are expected to lead to even more demand for walking and bicycling on The Embarcadero.

With so much activity, conflicts between users are a regular occurrence. As identified by the City's WalkFirst initiative, which analyzed locations across San Francisco where vehicle collisions with pedestrians are happening and why, over one-third of The Embarcadero falls onto on the City's "High Injury Network," a collection of streets that represent just 6 percent of all city streets but account for 60 percent of severe and fatal pedestrian injuries.

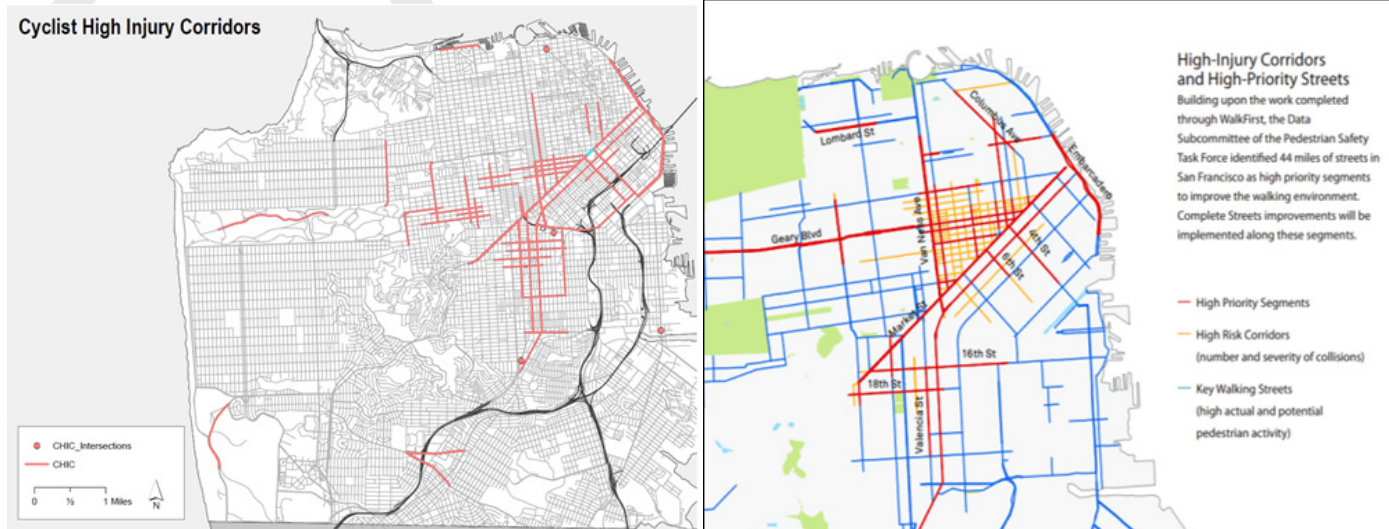
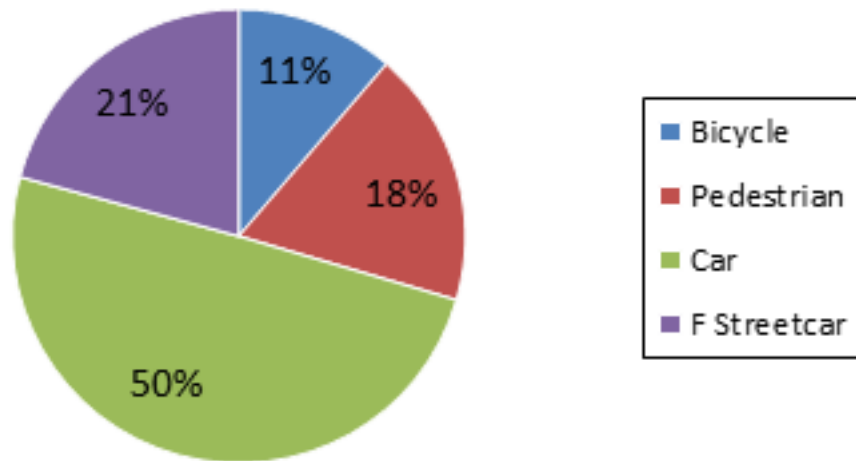
Additionally, approximately 75% of the roadway is categorized as a Cycling High Injury Corridor indicating the need to address both cycling and pedestrian safety along the corridor.

Between 2006 and 2011, data from the San Francisco Police Department indicate that 84 people were injured on The Embarcadero while walking or riding a bike; including two pedestrians that were fatally injured, four pedestrians that were severely injured, and three cyclists that were severely injured.

While this project may not address all causes of collisions on The Embarcadero, its future design through this planning process can accommodate measures to address some of the collision trends along the corridor.



Estimated Mode Split at The Embarcadero and Broadway



Policy Support

The intent of this project is consistent with and supported by several City and regional policies and initiatives that guide the strategic direction of the SFMTA and partner agencies.

This project is under the purview of the Waterfront Transportation Assessment (WTA), which provides a strategic focus on coordinated transportation improvements and investments to serve current and future growth planned along the waterfront and eastern side of the City. This project is one strategy that has been identified as part of the WTA assessment which, collectively with the other identified strategies, are intended to address transportation conditions over the next 25 years along the San Francisco waterfront in anticipation of proposed major developments, including the Warriors, Mission Rock and Pier 70 projects.



Pedestrian and Bicycle Safety

- Vision Zero – Adopted by the SFMTA Board and the San Francisco Board of Supervisors in early 2014, and recently adopted by the SF Planning Board, Vision Zero provides a framework for reducing traffic deaths to zero by 2024 through a combination of engineering measures, education, and enforcement practices. (www.sfmta.com/sites/default/files/agendaitems/2-4-14%20Item%2010%20Vision%20Zero%20Resolution.pdf) The intent of this project supports Vision Zero by reducing conflicts on the Promenade while addressing some of the primary collision trends along the corridor.
- Mayor's Pedestrian Safety Executive Directive/WalkFirst initiative – The Mayor's Directive focuses on actionable recommendations to reduce serious or fatal pedestrian injuries by 25 percent by 2016 and by 50 percent by 2021. The WalkFirst initiative uses a data driven approach to identify where and why collisions with pedestrians are occurring, as well as make recommendations for pedestrian safety projects and programs to reduce serious pedestrian injuries and fatalities. Over one third of the project area is on the list of High Injury Corridors identified as part of this directive. High Injury Corridors represent 6 percent of San Francisco's street miles (70 miles), but 60 percent of severe and fatal pedestrian injuries. (<http://walkfirst.sfplanning.org>) This project supports the Mayor's Directive by aiming to reduce conflicts between modes, particularly between pedestrians and cyclists on the Promenade.

Transportation Choices

- Transit First Policy – Initially adopted in 1973, and voted into the City Charter in 1999, the Transit First Policy states that the City should prioritize street improvements that enhance travel by public transit, by bicycle and on foot as an attractive alternative to travel by private

automobile. This policy also appears in the Transportation Element of the General Plan in Section 1.3 and the SFMTA Strategic Plan

- o (www.sf-planning.org/ftp/general_plan/l4_Transportation.htm),
- o (www.sfmta.com/sites/default/files/FY%202013%20-%20FY%202018%20SFMTA%20Strategic%20Plan.pdf).

This project clearly promotes walking and biking as viable forms of transportation and as attractive alternatives to travel by private automobile.

- SFMTA Strategic Plan – The SFMTA’s vision is “San Francisco: great city, excellent transportation choices.” Identified strategic goals include creating a safer transportation experience for everyone; making transit, walking, bicycling, taxi, ridesharing, and car sharing the preferred means of travel; and improving the environment and quality of life in San Francisco. Included in the Strategic Plan is the objective that half of trips made in the City in 2018 are via non-private automobile. (www.sfmta.com/about-sfmta/reports/sfmta-strategic-plan-fy-2013-fy-2018) The SFMTA’s core values include a commitment to prioritize the most affordable and accessible modes of transportation. The Embarcadero Enhancement project provides better transportation choices and promotes cycling and walking as preferred, as well as safe, forms of transportation.

Quality Urban Design and Enhancing the Bay

- Better Streets Plan – Adopted by the City in December 2010, these policies guide infrastructure investment in the public right-of-way to consider and design for the needs of all users as well as environmental quality. The Plan seeks to balance the needs of all street users, with a particular focus on the pedestrian environment and how streets can be used as public space. (www.sfbetterstreets.org) This project addresses some of the key issues of congestion on the Promenade and balances walking and biking with transit and other modes.
- Waterfront Design & Access Element – Approved by the Port Commission as part of the Port of San Francisco Waterfront Land Use Plan in 1997, as amended, these policies establish the framework for waterfront open space and public access, to promote walking, riding and transportation access, and recreational pursuits along the Port’s 7-1/2 mile waterfront. The Port’s policies provide site-specific direction in support of the San Francisco Bay Trail.



- The San Francisco Bay Trail – Passed into State law in 1989, the intent of the San Francisco Bay Trail is the creation of a 500 mile recreational Shoreline “ring around the Bay.” The Bay Trail, which encompasses the entire Embarcadero project area, provides easily accessible recreational opportunities for outdoor enthusiasts, including hikers, joggers, bicyclists and skaters. It offers a setting for wildlife viewing and environmental education, and it increases public respect and appreciation for the Bay. It also has important transportation benefits, providing a commute alternative for cyclists, and connecting to numerous public transportation facilities (including ferry terminals, light-rail lines, bus stops and Caltrain, Amtrak, and BART stations). (www.baytrail.org) This project provides a strengthening of the key San Francisco link in the Bay Trail and achieves multiple Bay Trail objectives.

Next Steps and Timeline

The general scope of work and timeline for this project is as follows:

- Phase 1: Project Kick-Off
Define City Team staffing, tasks and roles, and project scope
Fall 2013 – Winter 2013/14
- Phase 2: Data collection
Existing conditions, land use survey, initial feasibility analysis
Winter 2013/14 – Fall 2014
Phase 2 will involve various data collection exercises in order to provide the project team with an accurate understanding of existing and projected conditions along the Embarcadero.
- Phase 3: Initial Stakeholder Engagement
Public Open House #1, one-on-one meetings, Workshops (round #1)
Summer 2014 – Winter 2014/15
Phase 3 represents the initial engagement with project stakeholders and the general public about the project. The purpose is to introduce the stakeholders to the project, obtain input on issues related to travel along The Embarcadero, and work together towards direction of the initial design treatments.
- Phase 4: Develop Design Alternatives
Detailed feasibility analysis, Workshops (round #2 – if needed), cost estimates, trade-off identification
Winter 2014/15 – Spring 2015
Interested stakeholder groups representing diverse points-of-view will work collaboratively in Phase 4 to develop conceptual designs that meet the goals of the project. Each alternative will be screened for fatal flaws and vetted with technical staff at the Port and SFMTA.
- Phase 5: Final Design Selection
Public Open House #2, Public Open House #3 (if needed), final recommended design
Spring 2015 – Fall 2015
Phase 5 will result in further input from project stakeholders and the public about the two design alternatives. The end product of Phase 5 will be a final recommended design.