



Lake Merced Pedestrian Safety Project Community-Based Transportation Plan

October 2021

[SFMTA.com/LakeMercedWalk](https://sfmta.com/LakeMercedWalk)



Acknowledgments

This project is funded through the Metropolitan Transportation Commission's (MTC) Community-Based Transportation Planning (CBTP) Grant Program and authorized by the San Francisco County Transportation Authority (SFCTA). Launched in 2002, the CBTP Grant Program brings local residents, community organizations and transportation agencies together to identify a neighborhoods' most important transportation challenges and develop strategies to overcome them.

The San Francisco Municipal Transportation Agency (SFMTA) would like to thank District 7 Supervisor Myrna Melgar's office and past Board President Norman Yee for their support and participation on this project. We would also like to thank the Lake Merced Pedestrian Safety Project Steering Committee for their input and collaboration throughout the planning process and the community surrounding Lake Merced for their participation during the community outreach period.

SFMTA Project Team

Thalia Leng, Project Manager
Jeffrey Banks, Transportation Planner
Adrienne Heim, Transportation Planner
Alan Uy, Transportation Engineer
Jonathan Kupfer, Student Intern
Vanya Srivastava, Student Intern

Lake Merced Pedestrian Safety Project Steering Committee

Brian Haagsman, Walk SF
Marc Christensen, Merced Extension Triangle Neighborhood Association
Jessie Hardwick, Lakeshore Elementary
Cindy Blackstone, Pomeroy Recreation & Rehabilitation Center
David Walton, Sunset resident and daily visitor to Lake Merced area
Kathie Studwell, Lake Merced Hills resident
Nick Kordesch, SFSU Sustainability and Transportation Projects Manager
Jackson Hurst, Transportation Enthusiast and Student at Kennesaw State University
Hans Wu, Summit 800 Owners Association and California Dragon Boat Association
Megan Imperial, Aide to District 7 Supervisor Myrna Melgar

Table of Contents

Introduction	7
Project Purpose	7
Project Process	7
Project Background	9
Coordination with Other Planning Efforts	10
Existing Conditions	11
Demographic Analysis	13
Transportation Network	15
Land Use Conditions	22
Vision Zero and Lake Merced Boulevard	25
Vehicle Speeds	26
Additional Safety Issues	26
Pedestrian Safety Needs Assessment	27
Community Outreach and Engagement	33
Survey Instrument	33
Survey Data Analysis and Key Findings	33
Recommendations	36
Recommendation Definitions	41
Funding and Implementation	44
Funding and Implementation of High Priority Recommendations	44
Funding and Implementation of Medium/Low Priority Recommendations	44
Timeline	45
Monitoring and Evaluation	45
Conclusion	45

Figures

Figure 1. Overview of the Lake Merced Pedestrian Safety Project Area.....	8
Figure 2. MTC Equity Priority Communities (2018) for San Francisco with ACS 2016 Data	12
Figure 3. Racial Percentage Comparison for Lake Merced Project Area and San Francisco Populations.....	13
Figure 4. Age Percentage Comparison for Lake Merced Project Area and San Francisco Populations	14
Figure 5. Household Income Percentage Comparison for Lake Merced Project Area and San Francisco Populations	14
Figure 6. Roadway Network around the Lake Merced Project Area.....	16
Figure 7. Public Transit around the Lake Merced Project Area.....	18
Figure 8. SFSU Campus Loop Shuttle Map.....	19
Figure 10. Bike Facilities around the Lake Merced Project Area.....	21
Figure 11. Commute Trend Percentage Comparison for Lake Merced Project Area and San Francisco Populations.....	21
Figure 12. Land Use Conditions around the Lake Merced Project Area	24
Figure 13. Vehicle, Bike, and Pedestrian Collisions on Lake Merced Blvd. from Skyline Blvd. to John Muir Dr.	25
Figure 14. Examples of Safety Tools	28
Figure 15. Steering Committee Pedestrian Safety Needs Assessment Activity – Include your walking patterns.....	29
Figure 16. Steering Committee Pedestrian Safety Needs Assessment Activity – Identify the major gaps in the pedestrian network	30
Figure 17. Steering Committee Pedestrian Safety Needs Assessment Activity – Identify major barriers in the pedestrian network	31
Figure 18. Lake Merced Pedestrian Safety Project Survey, Page 1.....	33
Figure 20. Pedestrian Safety Improvements that Should be Implemented on Lake Merced Project Area.....	34
Figure 19. Respondent Relationship to Lake Merced Boulevard	34
Figure 21. Lake Merced Project Area Corridor Recommendations.....	37
Figure 22. Lake Merced Project Area Intersection Recommendations.....	38

Tables

Table 1. Vehicles Speeds on Lake Merced Boulevard b/w Skyline and Sunset and Higuera Avenue and Font Boulevard.....	25
Table 2. Sample of Steering Committee Needs Assessment Comments.....	32
Table 3. Summary of Common Responses Around Additional Safety Issues	35
Table 4. High Priority/Near-Term Improvements.....	39
Table 5. Medium and Low Priority/Long-Term Improvements.....	40
Table 6. Lake Merced Project Area Recommendation Descriptions.....	41



Lake Merced at Sunset Boulevard

Introduction

Project Purpose

The Lake Merced Pedestrian Safety Project CBTP was funded and initiated through the 2017-2021 Metropolitan Transportation Commission's (MTC) Community-Based Transportation Planning Grant Program and is authorized by the San Francisco Transportation Authority (SFCTA).

The program maintains the following goals:

- Improve access and mobility for low-income communities, for commute as well as non-commute trips; and
- Engage residents and community organizations in conducting the analysis and shaping the recommendations.

Beyond these goals, the community and the San Francisco District 7 Supervisor's office have requested that this plan not only consider access to transportation, but also important safety considerations.



Lake Merced at Font Boulevard

Lake Merced Boulevard between Font and Sunset boulevards is part of San Francisco's Vision Zero High Injury Network (HIN), where 75% of the city's traffic injuries and fatalities occur on just 13% of San Francisco streets. This plan not only aims to increase access and mobility for nearby communities, but also to make these trips safer.

The Lake Merced Pedestrian Safety CBTP brought community groups and other stakeholders together to discuss and identify pedestrian challenges and solutions to create a strategy that improves safety and access, especially to transit stops, on Lake Merced Boulevard between Skyline Boulevard and John Muir Drive. This CBTP provides guidance for transportation safety investments on Lake Merced for the next five to ten years.

Project Process

The SFMTA worked with several community members to develop the recommendations and strategies outlined in this report. The project was initiated in early 2020, prior to the emergence of the COVID-19 pandemic, with a review of past plans and a site survey of the existing conditions, including pedestrian safety/access issues and needs along Lake Merced Boulevard between Sunset Boulevard and John Muir Drive. The project was delayed for a few months due to the COVID-19 pandemic. During San Francisco's shelter-in-place order, access to destinations by public transit became limited and social distancing requirements resulted in the cancelation of any in-person meetings. The project team had to pivot to a virtual outreach system that still allowed a high level of collaboration.

In late 2020, a Steering Committee was formed. This committee included ten members representing diverse interests and organizations such as Walk SF, Merced Extension Triangle Neighborhood Association, Lakeshore Elementary, San Francisco State University, Pomeroy Recreation and Rehabilitation Center, District 7 staff, residents, and regular commuters. The committee met monthly from January to June 2021 to establish baseline

conditions, perform a community safety needs assessment, and develop a prioritized list of pedestrian safety improvements for Lake Merced Boulevard. In addition, community outreach was conducted, from June 6 to 22, 2021, in the form of a virtual open house that included an online overview or “Story Map” of the project. In coordination with the open house, online and hard copy surveys were administered to the community and promoted in partnership with Steering Committee members.

As of August 2021, public transit service has increased incrementally in the Project Area, and the SFMTA is developing a strategy to respond to the changing travel patterns as we emerge from the pandemic. The Lake Merced Pedestrian Safety CBTP is consistent with post-COVID demand as it's assumed that the community will continue to rely on pedestrian and transit infrastructure around the Project Area. In addition, this document has been developed to be flexible and amenable to revision based on return to normal conditions.



View of Lake Merced

Lake Merced Pedestrian Safety Study



- Bike Network
- Muni route
- VZ High Injury Network
- Parks
- Schools

0.25 miles
Scale 1:10,949

By downloading this map, you are agreeing to the following disclaimer: "The City and County of San Francisco ("City") provides the following data as a public report and no rights of any kind are granted to any person by the City's provision of this data. The City and County of San Francisco ("City") makes no representation regarding and does not guarantee or otherwise warrant the accuracy or completeness of this data. Anyone who uses this data for any purpose whatsoever does so entirely at their own risk. The City shall not be liable or otherwise responsible for any loss, harm, claim or action of any kind from any person arising from the use of this data. By accessing this data, the person accessing it acknowledges that she or he has read and does so under the condition that she or he agrees to the contents and terms of this disclaimer."

Document Path: T:\T_Files\hwb\k\Streets\4.0 Team: Thinks\Projects\Lake Merced\egislation\Maps & Aerials\Lake Merced map.mxd
User Name: JBanks

Figure 1. Overview of the Lake Merced Pedestrian Safety Project Area

Project Background

The Lake Merced Pedestrian Safety Project area (Project Area) is located in the Lakeshore District and encompasses Lake Merced Boulevard between Skyline Boulevard and John Muir Drive.¹ Lake Merced Boulevard is a north-south arterial extending between Skyline Boulevard in San Francisco and John Daly Boulevard in Daly City. The street has two to three travel lanes in each direction. A multi-use path, where pedestrians and bicyclists share the same space, encircles Lake Merced. On the opposite side of the lake, a combination of neighborhood, formal and informal sidewalks exist. Lake Merced Boulevard is an official city bicycle route where cyclists can either use the bike path around Lake Merced or share the roadway with drivers on the north side of the street. Bike routes 85, 86, 90, and 91 are adjacent to Lake Merced Boulevard.

A number of activity centers surround the Project Area including Lake Merced Park, Ocean Beach, Stonestown Galleria, Lakeshore Plaza, Westlake Shopping Center and Daly City BART Station. Nearby schools include San Francisco State University, Lowell High School, and Lakeshore Elementary. Lake Merced Boulevard is one of three major roadways that provide access to the park, residential neighborhoods, and connections to local and regional public transit service (e.g. Muni 29 Sunset, 57 Parkmerced, 58 Lake Merced and SamTrans 122 lines). Over half of neighborhood residents identify as Hispanic, Asian, or Black/African American and 41% of households in the census tract make less than \$50K annually. These characteristics in combination with San Francisco's high cost of living led a portion of the Lake Merced area to be classified as an Equity Priority Community by the Metropolitan Transportation Commission (MTC) and San Francisco County Transportation Authority (SFCTA).

¹ The Lakeshore District is bounded by Junipero Serra Boulevard on the east, the San Francisco county line to the south, the Pacific Ocean on the west, and Wawona Street to the north. The area includes the Parkmerced, Stonestown, Merced Manor, Lake Merced, SFSU, the San Francisco Zoo, Stonestown Galleria, Pine Lake Park, and Stern Grove neighborhoods..

Coordination with Other Planning Efforts

The Lake Merced Pedestrian Safety CBTP included coordination and review of the correlating improvement efforts listed below. The outlined recommendations within this CBTP consider these planning efforts in order to leverage safety improvements.

[Lake Merced Bikeway Feasibility Study](#) is a Neighborhood Transportation Improvement Program (NTIP) study that was requested under former San Francisco Board of Supervisors President, Norman Yee (District 7), through the Transportation Authority's Neighborhood Transportation Improvement Program (NTIP).

District 7 Signal Improvements were recently completed across District 7 by the SFMTA and includes pedestrian head starts with more walk/crossing time.

[Lake Merced 2012 Bond Project \(Lake Merced Improvement Project\)](#), managed by the San Francisco Recreation and Parks Department, includes improvements around the entire lake that consist of: pedestrian and bicycle signage and stencils and tree maintenance. Also, improvements around the north and east side of the lake that consist of trail surface repair, new and replaced retaining walls, replacement and addition of furnishing and parcourse equipment, new restroom to replace the port-a-potty and a new drinking fountain. In addition, improvements around the south lake include new fitness court installation near the parking lot and causeway. They are currently approaching the project in two phases where they are scheduled to break ground in late fall or early 2022. Phase 1 will be from Harding Road (along Skyline and the westernmost segment of Lake Merced Boulevard) to Sunset Boulevard. Phase 2 would be the eastern half from Sunset Boulevard to Winston Drive.

[Great Highway Pilot Project](#), managed by the San Francisco Recreation and Parks Department, began in April 2020, as part of the city's COVID-19 response efforts, San Francisco temporarily re-

purposed the Upper Great Highway (from Sloat Blvd to Lincoln Way) to be a car-free street that prioritizes families, people on bicycles and pedestrians. The change in use of the roadway has created an unrivaled and scenic public space and coastal promenade for thousands of people of every age, race and gender to have expanded opportunities for physically distanced recreation and essential trips during the COVID-19 pandemic. While this coastal promenade is in place, the SFMTA is taking actions to improve the safety conditions for those affected by the changes. In 2020, the SFMTA installed signs, traffic delineators, speed tables and other measures at over 20 locations in the Outer Sunset to manage traffic on local streets and redirect traffic to routes such as 19th Avenue and Sunset Boulevard. In Summer 2020, Commissioner Gordon Mar requested that the SFCTA conduct an evaluation of the long-term future of the Upper Great Highway. The SFCTA adopted a staff report in June 2021 that reviews options for the long-term future of the Upper Great Highway after 2023. Starting August 16 2021, the Great Highway will be open to vehicular traffic between Monday, 6 a.m. through Friday at 12 p.m. Starting Friday at 12 p.m. until Monday at 6 a.m., Great Highway will be open to pedestrians and bicyclists. On holidays, the Great Highway will be closed to vehicular traffic. This modification phase to the emergency response will be in place until the Board of Supervisors considers legislation on the future of the Great Highway beyond the pandemic emergency closure. For more information about traffic management on the Great Highway visit [Great Highway and Outer Sunset Traffic Management Project](#).

[Ocean Beach Climate Change Adaptation Project](#), managed by the San Francisco Public Utilities Commission (PUC), the project's goal is to protect the integrity of wastewater assets built in response to the Clean Water Act to protect public health and the environment, including the Lake Merced Tunnel, the Westside Pump Station, and the Oceanside Treatment Plant. The project was developed through

concepts from the [Ocean Beach Master Plan](#) and includes elements such as managed retreat², structural protection, access and recreation improvements, and beach nourishment through the placement of sand. Further, the project will remove existing shoreline armoring placed during large storms in the late 1990's into the early 2000's by the city to protect the Great Highway. Construction is scheduled to

² Managed retreat is "the purposeful, coordinated movement of people and assets out of harm's way."



Lake Merced Boulevard at Winston Drive

begin in early 2023 and will include permanently closing the Great Highway between Sloat and Skyline approximately 6 months after construction starts. The permanent closure is necessary to provide the space needed for managed retreat and the inclusion of open space amenities (e.g., coastal access trail, parking lot and public restroom). The permanent closure will take place after intersection improvements are made during the first 6 months of the project.

[Parkmerced Development](#) is a multifamily development project initiated in 2015 to create a pedestrian-friendly community with approximately 10,000 apartments, a retail corridor and parks. The first phase of construction is scheduled to begin in 2021 and will add traffic signals and pedestrian improvements to Lake Merced Boulevard at Vidal Drive, Acevedo Avenue, Higuera Avenue and Gonzalez Drive.

Existing Conditions

The Project Area consists of a diverse range of residents, visitors and employees who use a variety of modes to travel on or move through Lake Merced Boulevard to access important destinations within the area and throughout the Bay Area.

Methodology

Data was drawn from the U.S. Census and the American Community Survey (ACS) 2019 data to assess the Project Area's demographic profile and then compared this with San Francisco's demographic profile. The Project Area includes five Census Tract geographies: 331, 332.01, 332.03, 332.04, and 604. The MTC 2018 Equity Priority Communities (EPC) includes Census Tract 604.

The EPC, formerly referred to as Communities of Concern, is based on eight American Community Survey 2012-2016 tract-level variables:

- Minority residents
- Low-income households (less than 200% of Federal poverty level)
- Residents who do not speak English well or at all
- Seniors age 75+
- Households with a vehicle
- Single-parent households
- Persons with disabilities
- Rent-burdened households

Figure 2 represents San Francisco's EPC where the Project Area is indicated as a high equity priority community.

SFCTA Equity Priority Communities Map for San Francisco (2017)



Figure 2. SFCTA Equity Priority Communities Map for San Francisco (2017)

Demographic Analysis

Race

The Project Area includes 37% of residents who identify as Non-Hispanic Asian or Non-Hispanic Black, while the remaining 55% of the population identifies as Non-Hispanic White and Hispanic. These percentages are similar to San Francisco's overall racial profile, where 39% of residents identify as Non-Hispanic Asian or Black and 56% identify as Non-Hispanic White or Hispanic.

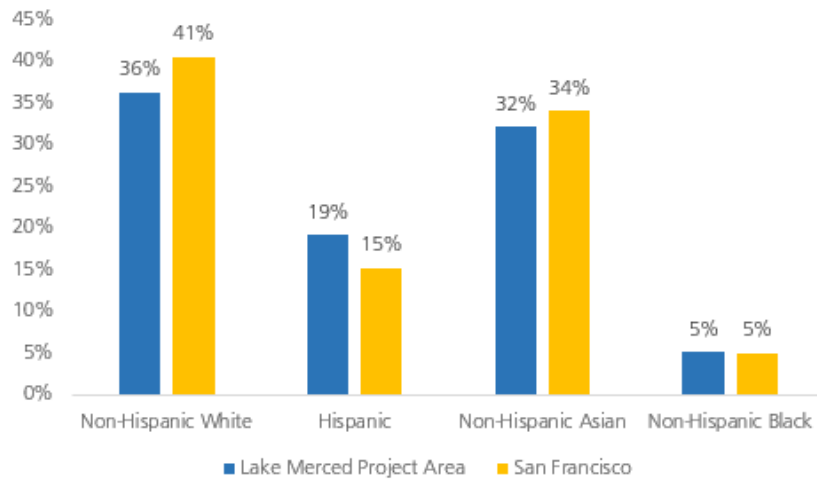


Figure 3. Racial Percentage Comparison for Lake Merced Project Area and San Francisco Populations

Age

A relatively small percentage (9%) of residents under 18 years old reside in the Project Area compared to the city's minor population of 13%. In contrast, residents between the ages of 18 and 44 years old make up over half (61%) of the Project Area population and represent a higher percentage than the citywide distribution (46%). The remaining 30% of residents in the Project Area are 45 years and older, which is smaller than 40% of San Franciscans with the same age range.

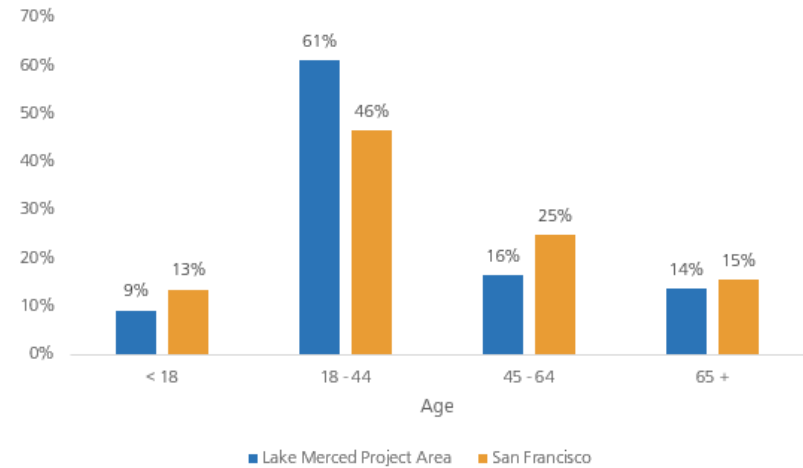


Figure 4. Age Percentage Comparison for Lake Merced Project Area and San Francisco Populations

Household Income

41% of project area residents have an income less than \$50k, which is higher than the citywide percentage of 27% and residents making \$50k or more is smaller (59%) than the city's overall population percentage of 73%.

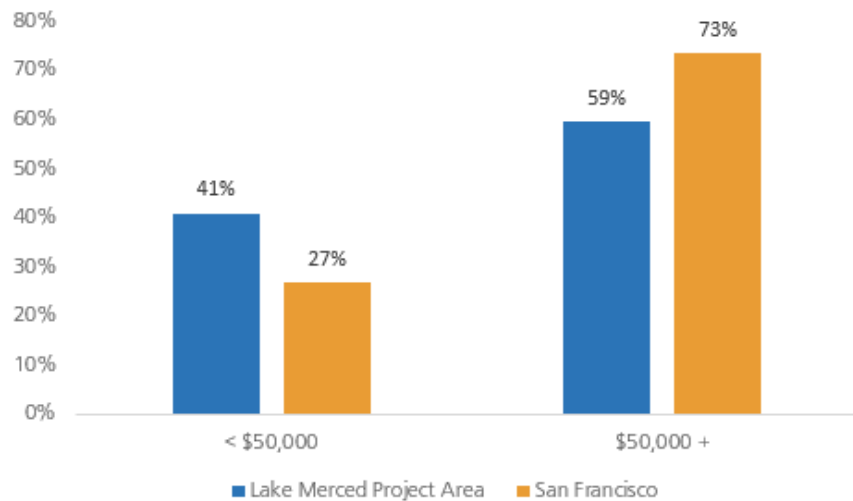


Figure 5. Household Income Percentage Comparison for Lake Merced Project Area and San Francisco Populations

Recreational Vehicle (RV) Households

Homelessness has existed in San Francisco for decades, but has been exacerbated due to the rising cost of housing combined with the ever-increasing cost of living. As of July 2021, the median price of homes in San Francisco is \$1.88 million³ and the median rent is \$2,795 for a one-bedroom apartment.⁴ A city tally from June 2021 found 1,010 vehicles being lived in by unhoused people. The highest number of vehicles exist in Districts 7 and 10. Within the Project Area, there are approximately 111 vehicles and RV households that reside along Lake Merced Boulevard between Winston Drive and Higuera Avenue and along Winston Drive between Lake Merced Boulevard and Buckingham Way.⁵

³ Bay Area Market Reports, San Francisco July 2021 Report: Sales, Prices, Trends, <https://www.bayareamarketreports.com/trend/san-francisco-home-prices-market-trends-news>.

⁴ Zumper Market Summary for San Francisco, CA <https://www.zumper.com/rent-research/san-francisco-ca>.

⁵ Healthy Streets Operations Center (HSOC), Tent, Structure, and Vehicle Count, shorturl.at/fvEFP.

Transportation Network

The following section outlines the street, transit and parking networks, bike and pedestrian infrastructure, and vehicle commute trends that exist within the Lake Merced Project Area.

Roadway Network - Regional Access

Regional travel to and from the Project Area involves the use of regional transportation facilities, highways and transit services.

- ▶ Interstate 280 (I-280) consists of a six to eight lane freeway that connects between Santa Clara and San Mateo counties and terminates in San Francisco’s Mission Bay neighborhood.
- ▶ State Route 1 (SR-1) is a major north-south route that runs parallel to the California coast. SR-1 connects to the Golden Gate Bridge, I-280 through Junipero Serra Boulevard, 29th Avenue, and Park Presidio Drive. Eastbound of the Project Area, SR-1 is comprised of a six-lane arterial on 19th Avenue.
- ▶ State Route 35 or Skyline Boulevard is a two-lane highway that runs north-south along the west side of Lake Merced and connects San Francisco to San Mateo County.

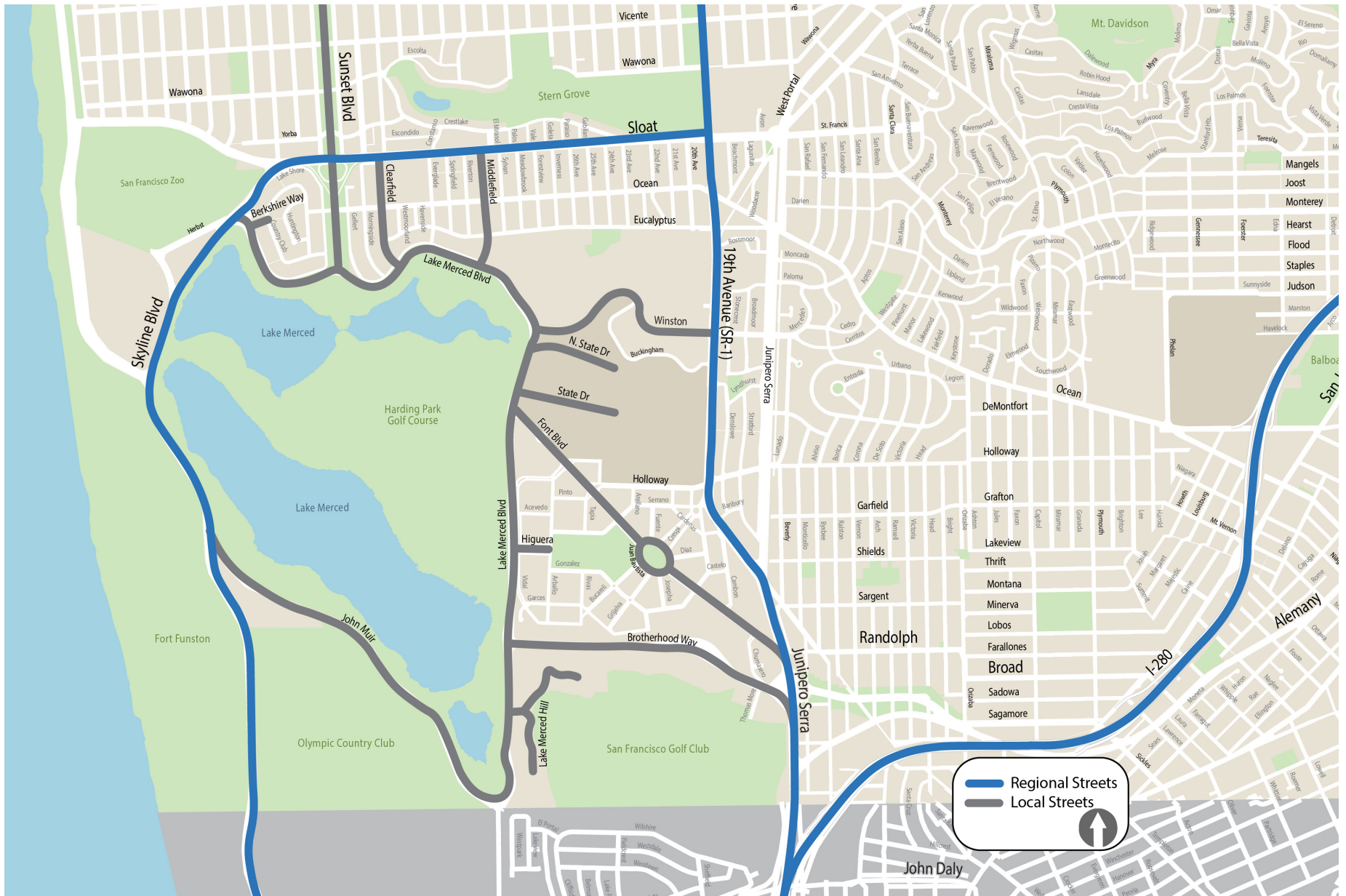


Figure 6. Roadway Network around the Lake Merced Project Area

Roadway Network - Local Access

Local travel within the Project Area involves local and state roads and transit services.

- ▶ Berkshire Way is a north-south local road with one travel lane in each direction between Lake Merced Boulevard and Country Club Drive.
- ▶ Sunset Boulevard is predominately a north-south three lane arterial road in both directions that provides a direct connection between Golden Gate Park at Lincoln Way and Lake Merced at Lake Merced Boulevard.
- ▶ Clearfield Drive is a north-south local road with one travel lane in each direction between Lake Merced and Sloat boulevards. The street connects to Lakeshore Plaza and includes a Class III bike route.
- ▶ Middlefield Drive is a north-south local road with one travel lane in each direction between Lake Merced and Sloat boulevards.
- ▶ Winston Drive is an east-west local road with generally two travel lanes in each direction between Lake Merced Boulevard to Stonestown Galleria mall and connects to Buckingham Way.
- ▶ North State and State drives are east-west local roads with one travel lane in each direction between Lake Merced Boulevard and SFSU campus.
- ▶ Font Boulevard is a diagonal road that runs southeast from Lake Merced to Junipero Serra boulevards. There is one travel lane in each direction and on-street parking is permitted on both sides of the street, with time restrictions for non-permit holders.
- ▶ Higuera Avenue is an east-west local road with one travel lane in each direction between Lake Merced Boulevard to the Parkmerced residences.
- ▶ Brotherhood Way is an east-west arterial with two-travel lanes in each direction extending from Lake Merced Boulevard to the intersection of Alemany Boulevard and Sagamore Street. The street connects east from the Project Area to Junipero Serra, SR-1 and I-280. On-street parking is not permitted.
- ▶ Lake Merced Hill is an east-west local road with one travel lane in each direction that connects the Lake Merced Hills townhouse and condominium community to Lake Merced Boulevard.
- ▶ John Muir Drive is an east-west local road that is located on the south end of Lake Merced. The street has one travel lane in each direction that connects with Skyline and Lake Merced boulevards.

Transit Access

The following Muni lines are located on or adjacent to Lake Merced Boulevard with varying service levels.



29 Sunset Muni bus traveling east towards Middlefield Road

- ▶ M Ocean View provides service between Embarcadero Muni Metro Station to Balboa Park BART Station, runs through 19th Avenue, approximately every 10 to 12 minutes.
- ▶ 18 46th Avenue provides service between the Legion of Honor (Legion of Honor Drive) and Stonestown Galleria (Buckingham Way) approximately every 20 minutes.
- ▶ 28 19th Avenue provides service from Daly City BART Station to Van Ness Avenue and North Point Street, runs through 19th Avenue, approximately every 12 minutes on the weekdays and every 15 minutes on the weekends.
- ▶ 28R 19th Avenue (currently suspended) provided weekday daytime rapid service between California and 7th Avenue to Balboa Park Muni Metro Station.
- ▶ 29 Sunset provides service from Bayview to the Presidio, runs through Winston Drive, Lake Merced Boulevard, 19th Avenue and Holloway Avenue. The bus frequency is approximately every 12 minutes.
- ▶ 57 Parkmerced provides service between Eucalyptus Drive and Junipero Serra Boulevard and Daly City BART Station, connecting Stonestown Galleria and Parkmerced. The bus frequency is approximately every 20 minutes.
- ▶ 58 Lake Merced provides services between 19th Avenue and Buckingham Way and Mission and Flornoy streets. The route serves the John Muir Drive portion of the former 57 Parkmerced route and the Sloat section of the 23 Monterey route. The bus

frequency is approximately every 20 minutes.

- ▶ 91 3rd Street/19th Avenue Owl provides service from West Portal Muni Metro Station to San Francisco State University (19th Avenue and Holloway) from 12 a.m. to 5 a.m. and runs approximately every 30 minutes.
- ▶ SamTrans Route 122 provides service between Stonestown Galleria and South San Francisco BART Station with stops along Lake Merced and John Daly boulevards and Colma BART Station.
- ▶ Beginning in March 2021, the SFMTA unveiled a new pilot program that provides Lake Merced residents with free access to SamTrans Route 122 between Lake Merced Boulevard and Lake Merced Hill while Muni service is limited.
- ▶ SFSU Campus Loop Shuttle is managed by the San Francisco State Transportation Department and provides free shuttle service during the fall and spring semesters. There is no shuttle service on weekends, during the summer, or on campus holidays. The Daly City/19th Avenue Shuttle schedule is Monday through Thursday, 7 a.m. to 10 p.m. and Monday through Friday, 7 a.m. to 7 p.m. For most of the day, the SFSU Shuttle has a route between Daly City BART Station and 19th/Holloway avenues without the campus loop.⁶

Transit Access during COVID

During the COVID-19 pandemic, the SFMTA initially reduced Muni service, creating a Muni Core Service Network that accommodated public health measures to reduce the risk of COVID-19 and best service essential workers and trips. Since April 2020, the SFMTA has restored some pre-pandemic Muni service, added service in busy corridors, created new Muni lines and focused Muni improvements in neighborhoods identified by the Muni Service Equity Strategy. As the city recovers from the pandemic, the SFMTA is developing a proposal for how Muni service will be restored in 2022.

⁶ San Francisco State University Shuttle Service <https://parking.sfsu.edu/transit/shuttle-service>.

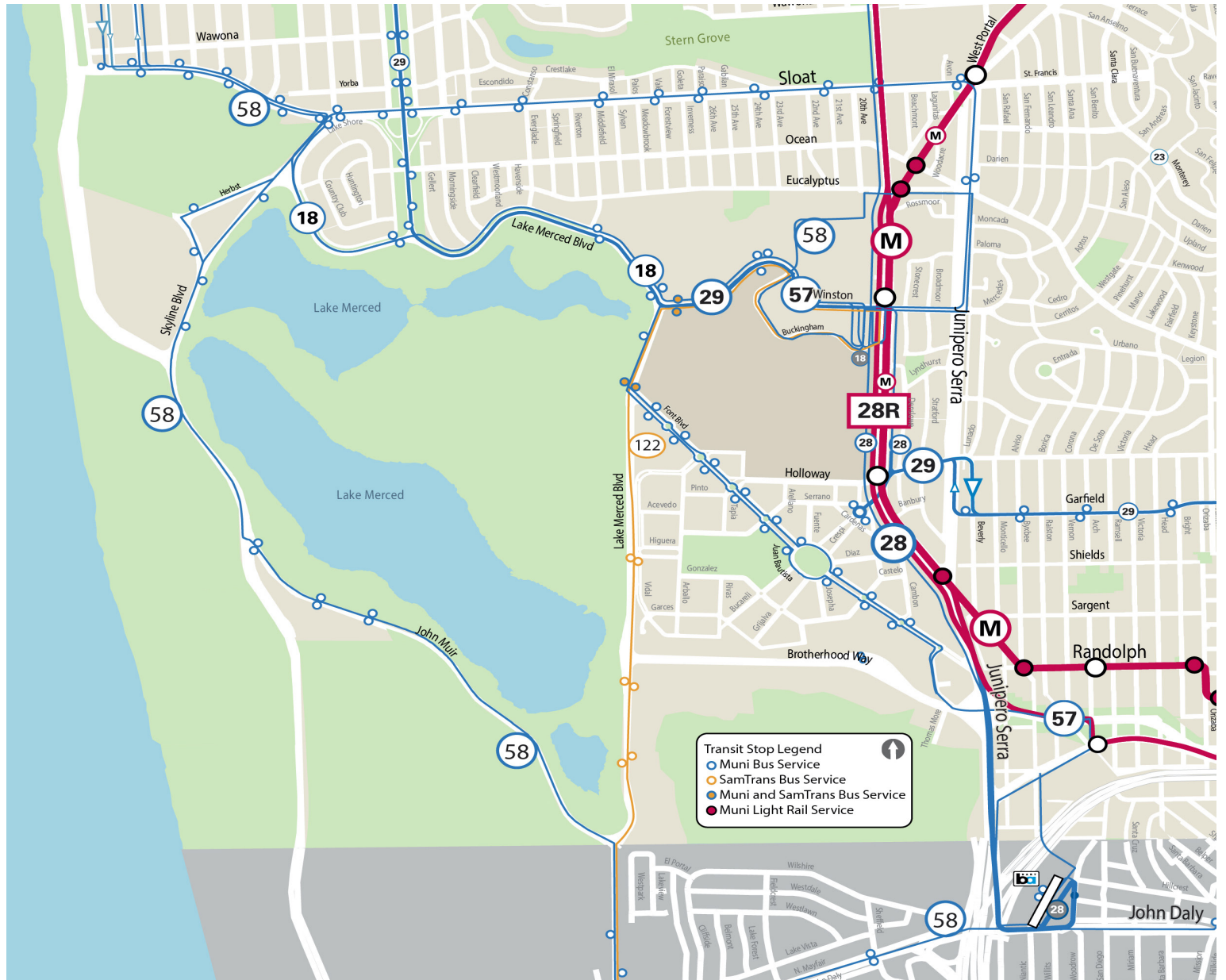


Figure 7. Public Transit around the Lake Merced Project Area



Figure 8. SFSU Campus Loop Shuttle Map

Parking Network

There are two public parking lots (Sunset Circle and Lake Merced Park) between Lake Merced and Sunset boulevards and Lake Merced Boulevard and Lake Merced Hill.

Residential Parking Permit Zone E borders the Parkmerced residence and allows residents with permits or guests with temporary permits to legally park beyond the time restriction. On-street parking is allowed on Lake Merced Boulevard (on both sides of the street) just south of Winston Drive to just south of Font Boulevard with street sweeping restrictions. Parking is then restricted on the west side of Lake Merced Boulevard just south of Font Boulevard and just north of the entrance sign to Parkmerced. A number of nearby residential streets accommodate on-street parking with several wider streets such as Crespi Drive, Font Boulevard, and Serrano Drive accommodating perpendicular/angled parking.⁷

Access to SFSU campus on and off-street parking areas (review Figure 9) can be found along:

- Lake Merced Boulevard and Winston Drive
- Lake Merced Boulevard and North State Drive
- Lake Merced Boulevard and State Drive
- Lake Merced and Font boulevards

Car Share

SFSU has Zipcar car share located on campus at Lot 20 garage (State Drive at University Park North). There's also an on-street Zipcar located at 125 Cambon Drive.

⁷ Parkmerced Draft Environmental Impact Report V1-01, May 12, 2010 https://sfgov.org/sfplanningarchive/ftp/files/MEA/2008.0021E_Parkmerced_DEIR_V1-01.pdf, p. 255.



Figure 9. San Francisco State University Parking Locations Map

Bike and Pedestrian Infrastructure

A multi-use path (pedestrians and bicyclists share the same space) exists around the entire lake on the lake side of Lake Merced Boulevard, John Muir Drive, and Skyline Boulevard. Bike routes 85, 86, 90 and 91 are adjacent to Lake Merced Boulevard.

There is a sidewalk on the west side of Lake Merced Boulevard between Skyline Boulevard and John Muir Drive. A combination of neighborhood, formal, and informal sidewalks exist on the opposite side of the lake along Lake Merced Boulevard.

Connections to nearby activity centers can be made by foot, bike or transit. However, there are a number of obstacles that present unsafe and unreliable conditions:

- Long pedestrian crossing distances on Lake Merced Boulevard between Skyline Boulevard and Middlefield Drive and Lake Merced Boulevard between Higuera Avenue and Brotherhood Way.
- Uncontrolled intersections along Lake Merced Boulevard that increase vehicle speeds and conflicts.
- Street corners with no curb ramps that create challenges for people using wheelchairs, strollers, and other mobility devices.
- Areas with unfinished or no sidewalks.
- Areas with limited lighting and/or no signage.
- Locations where there are limited places to wait between the crosswalks.
- Locations where the amount of time needed to cross the street may be insufficient for vulnerable populations.

Bike Share & Emerging Mobility

Transportation options in San Francisco are significantly different today than they were few years ago. New mobility services and technologies have emerged and include using mobile applications that connect



Figure 10. Bike Facilities around the Lake Merced Project Area

passengers with on demand service, shared ride van services, shared scooter and bicycle services and potentially automated vehicles that are currently being tested on San Francisco streets. The SFMTA’s goals for Emerging Mobility Services and Technologies (EMST) carry [guiding principles](#) built on safety, supporting transit service, sustainability, collaboration and equitable access just to name a few. These principles outline a framework for the consistent application of EMST policies and programs by the SFMTA and SFCTA.

In the project area, bike share is the predominately available EMST. Bay Wheels manages bike share stations in the following locations:

- Eucalyptus Drive at 20th Avenue – 16 docks
- Font Boulevard at Arballo Drive – 10 docks
- Holloway Avenue at Arellano Avenue – 31 dock

Vehicle Access and Commute Trends

According to the ACS 2019, a slightly higher percentage (89%) of Project Area residents own a vehicle while 79% of San Francisco residents are vehicle owners.

According to data taken from the 2019 ACS and shown in Figure 11, only 1% of residents commute by bicycle compared to 4% in San Francisco. Although a small number (12%) of residents walk to work, the result aligns with San Francisco’s percentage. Residents commuting by public transit is slightly lower (31%) than the citywide percentage of 35%. Commuters who opted to drive to work represented 49% in the Project Area, while the citywide percentage is 39%.

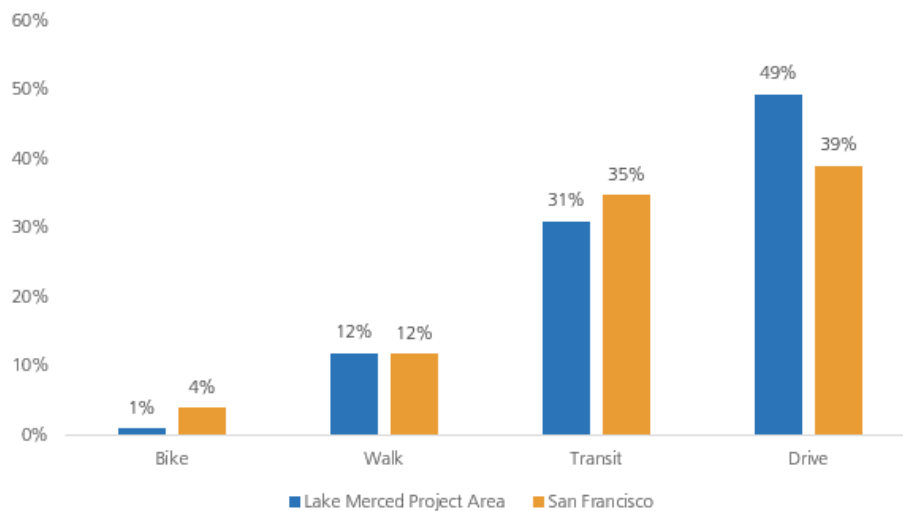


Figure 11. Commute Trend Percentage Comparison for Lake Merced Project Area and San Francisco Populations

Land Use Conditions

The Project Area is in San Francisco near San Mateo County. The area consists of low-density residences located on the opposite side of Lake Merced between Skyline Boulevard and Middlefield Drive and high-density housing along Lake Merced Boulevard between Font Boulevard and John Muir Drive. Faith-Based and educational institutions, commercial, public/private open space and recreation facilities also encompass the area. Major land uses and destinations include the following:

- ▶ The San Francisco Zoo located northwest of Lake Merced is a 100-acre facility bounded by Sloat Boulevard to the north, the Great Highway to the west and the south, and State Route 35/Skyline Boulevard to the east. The Pomeroy Recreation & Rehabilitation Center sits just south of the zoo on Skyline Boulevard and Herbst Road. The center was built in 1952 and provides recreation, vocational and educational opportunities for people with developmental disabilities.
- ▶ Lowell High School is located northeast of Lake Merced on Eucalyptus Drive. The campus includes two- and three-story buildings, and other school related facilities. Lakeshore Elementary, St. Stephen Catholic Parish, St. Stephen School, Stonestown Family YMCA and Rolph Nicol Playground are just east of Lowell.
- ▶ Lake Merced Park is a 614-acre park within Lake Merced that offers diverse recreation activities. Jack Fleming Golf Course and TPC Harding Park occupy the eastern portion of the park.⁸
- ▶ The San Francisco Public Utilities Commission operates the 2.3-acre Lake Merced Pump Station site, located just below the southeast corner of the Harding Park Golf Course, and accessed by a long driveway on Lake Merced Boulevard, just north of Brotherhood Way. The pump station supplies water to the Sunset and Sutro reservoirs, which supply water to other areas

⁸ San Francisco Public Utilities Commission website, http://sfwater.org/msc_main.cfm/MC_ID/20/MSC_ID/179, accessed September 15, 2009.

of San Francisco.⁹

- ▶ Stonestown Galleria, built in 1952, is a regional shopping center that includes 18.45 acres of retail space with a parking capacity of approximately 3,700 vehicles. The mall is located east of the Project Area (bordered between Eucalyptus Drive and Winston Drive and Buckingham Way and 19th Avenue). The site is undergoing major renovations to improve the visitor experience. There's also plans to construct more than 2,400 residential units on the site upon approval.¹⁰ Just north of Lake Merced and Sunset boulevards is Lakeshore Plaza (built in 1993) bordered by Sloat Boulevard and Ocean Avenue and Clearfield and Everglade drives. The plaza sits on a 6.78-acre lot and has approximately 450 parking spaces.
- ▶ San Francisco State University, located on the east side of Lake Merced Boulevard, opened its Lake Merced campus in the early 1950s. The campus size is approximately 142 acres. Student enrollment has increased over the decades and construction has been steady to accommodate this growth.
- ▶ The Parkmerced property sits on a 152-acre site that contains 3,221 housing units with a combination of high-rise towers and two-story townhomes. The development was constructed between 1941 and 1951 and became the first all-rental housing community in San Francisco. The goal was to invest in middle-class housing demand that was seen during World War II.¹¹ Commercial activity was placed at the edge of the development and close to 19th Avenue.¹² The Parkmerced circulation plan's objective was to provide safety and quiet for residents by minimizing through-traffic from neighboring areas. Parkmerced's street plan does not align with the more regular grid of residential neighborhoods west of 19th Avenue and access to the complex is limited.¹³ In 2011, the San Francisco

Board of Supervisors approved the Parkmerced project, which will implement improvements and a redesign of the property over the course of three decades.

- ▶ On the south side of Brotherhood Way, there are several facilities involving faith-based, senior housing and educational institutions including St. Thomas More Catholic Church, St. Thomas More School, the Alma Via assisted living community, Brandeis School, Congregation Beth Israel-Judea, the Jewish Community Center of San Francisco, Brotherhood Way Preschool, the Calvary Armenian Congregation Church, the Lake Merced Church of Christ, Brotherhood Masonic Temple, the KZV Armenian School, and Holy Trinity Greek Orthodox Church.¹⁴
- ▶ San Francisco Golf Club, Camp Ida Smith (8-acre site) and Broderick-Terry Duel Site are located just south of these institutions. Nestled between all of this activity are the Lake Merced Hills 200-unit townhouse and condominium community located on North and South Lake Merced Hills.
- ▶ The Olympic Country Club and Fort Funston, which is part of the Golden Gate National Recreation Area, is located on the southwest side of Lake Merced. Additionally, the 721-unit Lakewood Apartments complex is positioned near the John Muir Drive and Skyline Boulevard intersection. The Pacific Rod & Gun Club and San Francisco Police Department Pistol Range is located on John Muir Drive just east of the intersection at Skyline Boulevard and spans 14-acres with 11-acres of usable space. The site is the Lake Merced Watershed's largest area of flat land outside the Harding Park Golf Course. Since 1934, the area has been leased to the Pacific Rod & Gun Club for use as a skeet and trap shooting facility.¹⁵
- ▶ Located just south of the Project Area, in Daly City, the 26-acre Westlake Shopping Center (built in 1948) was the first community shopping center in the Bay Area. The site contains 2,145 parking spaces and has undergone multiple renovations over the years. There are plans to develop residential housing on the site.¹⁶

⁹ San Francisco Public Utilities Commission Lake Merced Watershed Report, January 2011 p. 15.

¹⁰ Retail Insight Network, Stonestown Galleria Redevelopment, San Francisco, <https://www.retail-insight-network.com/projects/stonestown-galleria-redevelopment>.

¹¹ Parkmerced Draft Environmental Impact Report V1-01, May 12, 2010, https://sfgov.org/sfplanningarchive/ftp/files/MEA/2008.0021E_Parkmerced_DEIR_VI-01.pdf, p. 187.

¹² IBID, p. 188.

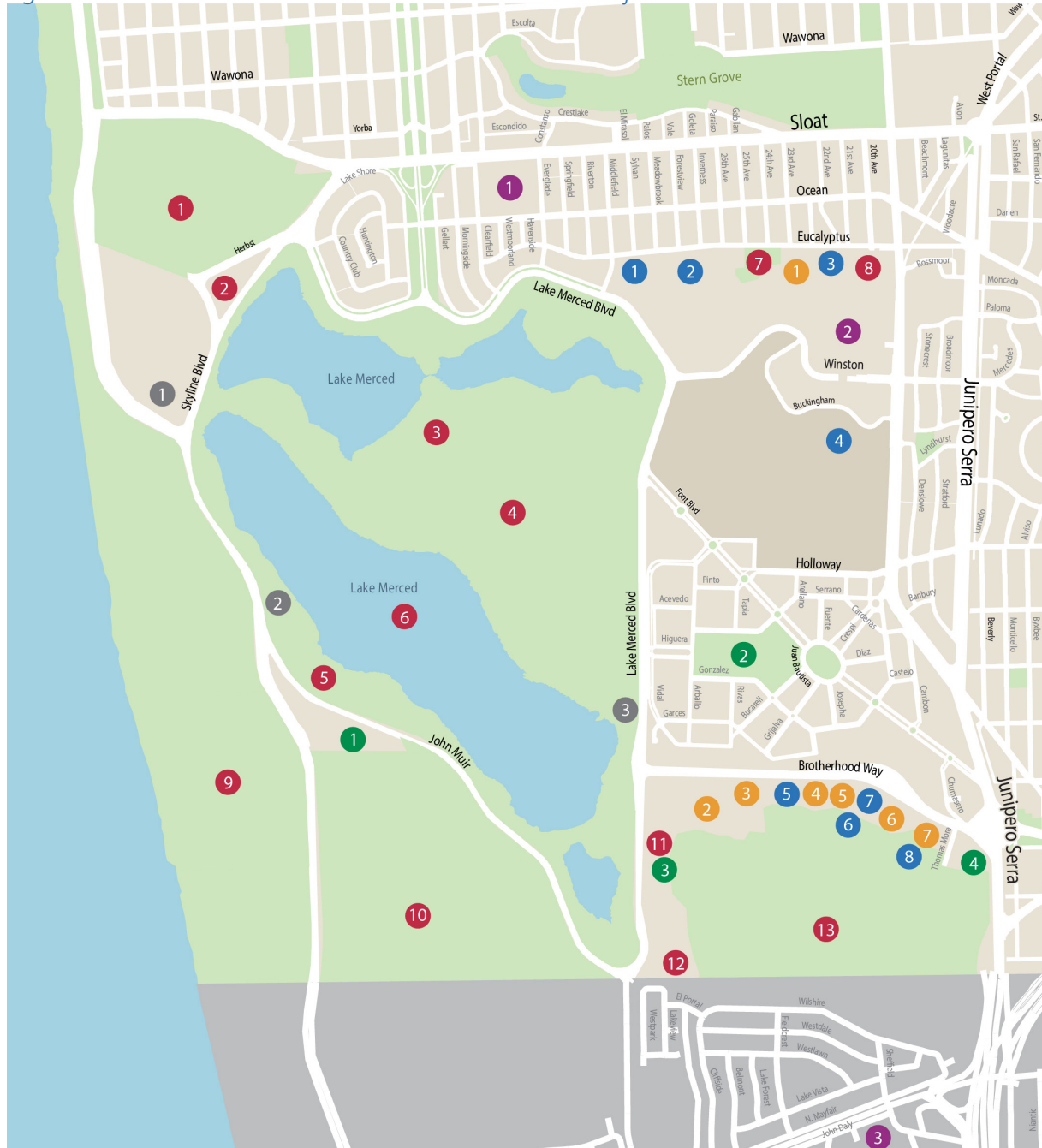
¹³ IBID, p. 194.

¹⁴ IBID, p. 124.

¹⁵ San Francisco Public Utilities Commission Lake Merced Watershed Report, January 2011, p. 14.

¹⁶ KIMCO Realty, Westlake Shopping Center, <https://properties.kimcorealty.com/p/commercial-real-estate-listings/Daly+City-CA-94015/101860>.

Figure 12. Land Use Conditions around the Lake Merced Project Area



Legend

Community Spaces and Recreation

1. San Francisco Zoo
2. Pomeroy Recreation & Rehabilitation Center
3. Jack Fleming Golf Course
4. TPC Harding Park
5. Pacific Rod & Gun Club
6. Lake Merced
7. Rolph Nicol Jr. Playground
8. Stonestown Family YMCA
9. Fort Funston
10. The Olympic Club
11. Camp Ida Smith Girl Scout Camp
12. Broderick-Terry Duel Site
13. San Francisco Golf Club

Schools

1. Lakeshore Elementary
2. Lowell High School
3. St Stephen's Catholic School
4. San Francisco State University
5. KZV Armenian School
6. Brandeis School of San Francisco
7. Brotherhood Way Preschool
8. St Thomas More Catholic School

Religious Centers

1. St. Stephen Catholic Parish
2. Holy Trinity Greek Orthodox Church
3. Brotherhood Masonic Center
4. Lake Merced Church of Christ
5. Calvary Armenian Congregational Church
6. Congregation Beth Israel Judea
7. St Thomas More Church

Commercial

1. Lakeshore Plaza
2. Stonestown Galleria Mall
3. Westlake Shopping Center

Residential

1. Lakewood Apartments
2. Parkmerced
3. Lake Merced Hills
4. AlmaVia Assisted Living

Government Entities

1. PUC Oceanside Treatment Plant East Gate
2. San Francisco Police Department Pistol Range
3. PUC Lake Merced Pump Station

Vision Zero and Lake Merced Boulevard

As part of the city’s long-term commitment to eliminate traffic fatalities by 2024, San Francisco adopted Vision Zero as a policy in 2014 that prioritizes traffic safety and saving lives by building better and safer streets, educating the public on traffic safety, enforcing traffic laws and adopting policy changes. The SFMTA responded to the commitment of Vision Zero by identifying a [high-injury network](#) made up of 13% of city streets, which accounts for nearly 75% of the city’s traffic injuries and fatalities.

There is a history of collisions around Lake Merced Boulevard including many vehicle-pedestrian and vehicle-bicycle collisions. Lake Merced Boulevard between Font and Sunset boulevards is part of San Francisco's Vision Zero High Injury Network.

Collision data over a 5-year period, between 2015 to 2020, includes a total of 106 reported collisions on Lake Merced Boulevard between Skyline Boulevard and John Muir Drive. Of those 106 collisions, nine involved a bicyclist and a vehicle and four involved a pedestrian and a vehicle. There was one pedestrian fatality on Lake Merced at Font Boulevard in 2017. Three years later, one fatality took place on Lake Merced Boulevard and Higuera Avenue involving a pedestrian and vehicle. The heat map shown in Figure 13 showcases the level of collisions that take place within the Project Area.

The intersections that saw the most collisions were:

- Lake Merced Blvd./Skyline Blvd. – 15
- Lake Merced Blvd./Sunset Blvd. – 11
- Lake Merced Blvd./Clearfield Dr. – 10
- Lake Merced Blvd./Middlefield Dr. – 7
- Lake Merced Blvd./Winston Dr. – 4
- Lake Merced Blvd./Font Blvd. – 8
- Lake Merced Blvd./Higuera Ave. – 13
- Lake Merced Blvd./Brotherhood Way – 22
- Lake Merced Blvd./John Muir Dr. – 8

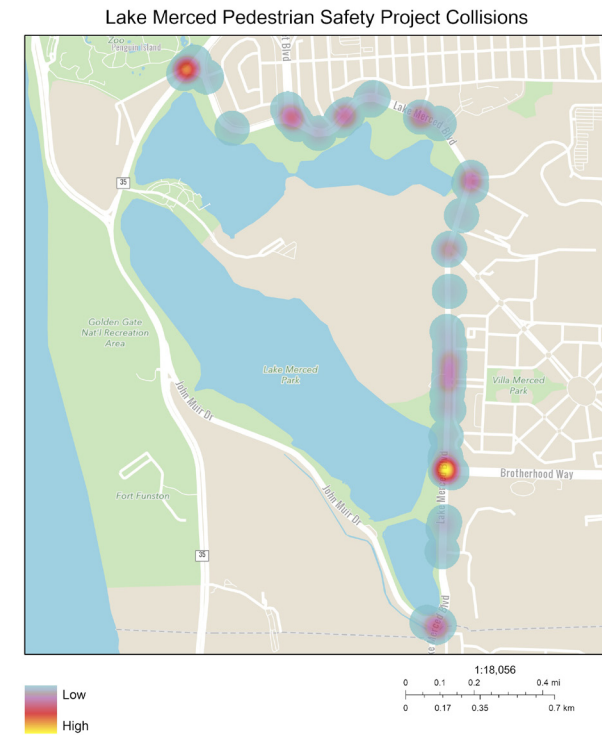


Figure 13. Vehicle, Bike, and Pedestrian Collisions on Lake Merced Blvd. from Skyline Blvd. to John Muir Dr. b/w 2015 and 2020

Table 1. Vehicles Speeds on Lake Merced Blvd. b/w Skyline and Sunset and Higuera Ave. and Font Blvd.

Location	Year	Speed Limit	Northbound/ Eastbound Speeds (mph)	Southbound/ Westbound Speeds (mph)
Lake Merced Blvd. b/w Skyline and Sunset Blvd.	2020	35	39	41
Lake Merced Blvd. b/w Higuera Ave. and Font Blvd.	2019	40	44	45

Pedestrian collisions occurred at the following locations and the main cause of pedestrian-related collisions consist of left turn conflicts:

- Lake Merced Blvd./John Muir Dr.
- Lake Merced Blvd./Font Blvd.
- Skyline Blvd./Lake Merced Blvd.

Vehicle Speeds

The existing speed limit on Lake Merced Boulevard between Skyline Boulevard and Winston Drive is 35 mph. The speed limit on Lake Merced Boulevard between Winston Drive and John Muir Drive is 40 mph.

A key issue on Lake Merced Boulevard is high vehicle speeds, with 85th percentile speeds between 41 to 45 mph. The 85th percentile speed means the speed at or below where 85% of all vehicles are observed to travel under free-flowing conditions (i.e. good weather and traffic) past a monitored point. These high vehicle speeds can cause conflicts with other drivers and people walking or bicycling. This also results in an uncomfortable environment for people walking or bicycling along certain segments of the lake.

Additional Safety Issues

In addition to collisions and high vehicle speeds occurring within the area, there are other major safety issues around the lake. These issues include long pedestrian crossings, long distances between pedestrian crossings, gaps in signage, a lack of pedestrian lighting and signage, and narrow and/or missing sidewalks.



Unsafe pedestrian crossings on Lake Merced at Winston Blvd.



Long distances b/w crossings and gaps in signage on Lake Merced Blvd. heading eastbound towards Middlefield Dr.

Pedestrian Safety Needs Assessment

The project team established and convened a ten-person community Steering Committee that met monthly from January to June 2021. The objective of the committee was to provide feedback on pedestrian safety goals and priorities within the Project Area and to identify pedestrian assets and challenges within the transportation network.

During the first two Steering Committee meetings, the project team went over the project purpose, coordination with other projects, existing conditions and reviewed a toolbox of safety measures that can improve pedestrian safety in the Project Area.

Pedestrian safety tools that were presented to the group included:

Access around the neighborhood

- New bike lanes
- Bike signage and striping

Access to the Lake Merced Trail

- Dedicated bicycle signals
- Green pavement markings

Reduced pedestrian crossing distances

- Pedestrian Refuge Islands
- Close travel slip lanes that allow unsignalized right turns for vehicles

Improve pedestrian visibility

- Rapid Rectangular Flashing Beacons (RRFB)
- Traffic signal phase separation
- Traffic signal timing improvements (e.g. Leading Pedestrian Interval – including additional walk time)
- Upgraded crosswalks
- Repainted road striping

- Retroflected warning signage
- Upgraded traffic signal heads (larger sizes)
- New or upgraded streetlights
- Tree trimming

Reduced vehicle speeds

- Speed humps
- Chicanes, sidewalk widening or bulb-outs
- Road lane reduction or narrowing excessively wide vehicle travel lanes
- Roundabout

During the second Steering Committee session, the group participated in a needs assessment activity using a [Google Jamboard template](#) where three slides displayed a map of the Project Area and three questions (below) were presented to the group. Members were asked to respond through virtual post-its and/or “thumbs up” to the three assessment questions:

What are your walking patterns?

- How do you access transit stops?
- What other major destinations do you visit?
- How do children get to school or other activities?

Identify the major gaps in the pedestrian network

- Missing pedestrian crossings and/or long blocks
- Missing or damaged curb ramps
- Gaps in transit such as the lack of bus stops and/or infrastructure
- Identify additional gaps

Identify major barriers in the pedestrian network

- Vehicle traffic conflicts
- Difficult places to cross
- Lighting issues
- Narrow, damaged or no sidewalks
- Missing or damaged signage or roadway striping
- Identify additional barriers

The following pages include imagery of the safety toolbox (Figure 14), the final Google Jamboards (Figure 15 - 17) and a sample of comments from the Steering Committee (Table 2).



Figure 14. Examples of Safety Tools

What are your walking patterns? 1. How do you access transit stops? 2. What other major destinations do you visit? 3. How do children get to school or other activities?

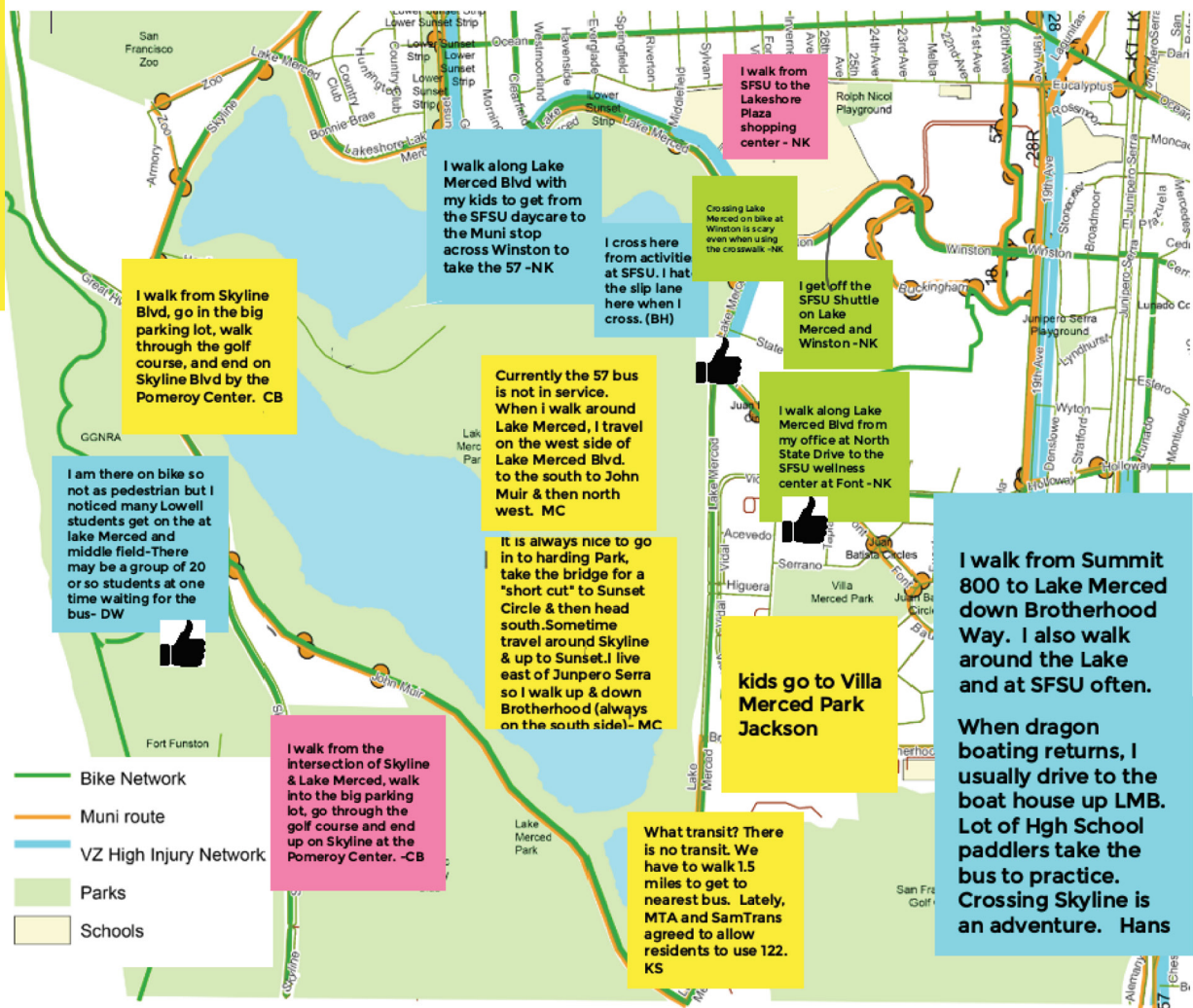


Figure 15. Steering Committee Pedestrian Safety Needs Assessment Activity – Include your walking patterns

Identify the major gaps in the pedestrian network? 1. Missing crossings and/or long blocks; 2. Missing or damaged curb ramps; 3. Gaps in transit (e.g. lack of bus stops or infrastructure); 4. Anything else?

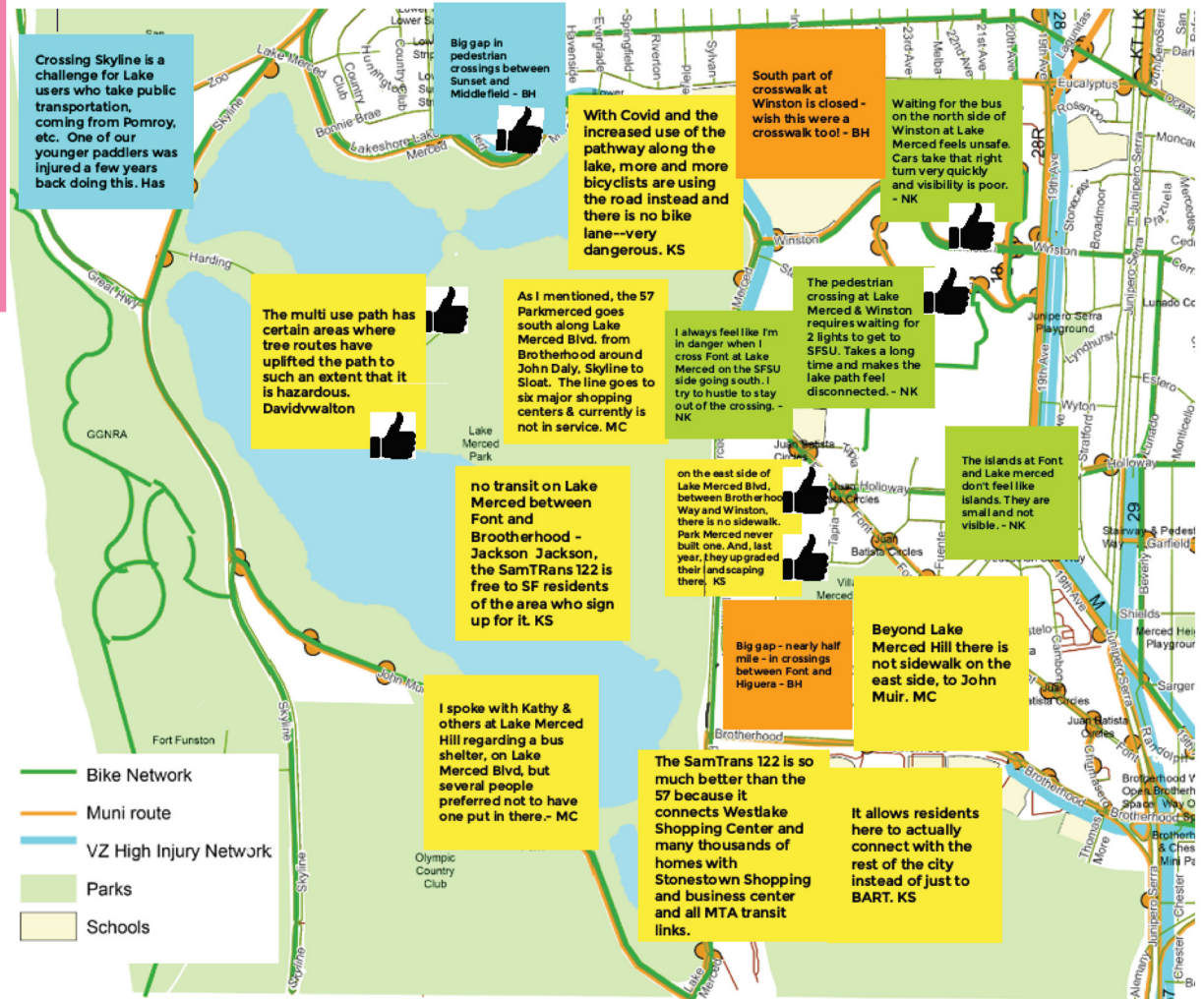


Figure 16. Steering Committee Pedestrian Safety Needs Assessment Activity – Identify the major gaps in the pedestrian network

Identify major barriers in the pedestrian network? 1. Vehicle traffic conflicts; 2. Difficult places to cross; 3. Lighting issues; 4. Narrow/damaged/no sidewalks; 5. Missing/damaged signage or roadway striping; and 6. Anything else?



Figure 17. Steering Committee Pedestrian Safety Needs Assessment Activity – Identify major barriers in the pedestrian network

Table 2. Sample of Steering Committee Needs Assessment Comments

Major Gaps in Pedestrian Network	Major Barriers in Pedestrian Network	Additional Barriers
Crossing Skyline is a challenge for Lake Merced users who take public transportation, coming from Pomeroy.	The path gets very dark near the Sunset Circle parking lot going south.	No detailed bike path on portions of LM Blvd.
Gap in pedestrian crossings b/w Skyline and Middlefield and Font and Higuera.	Northbound cars speed turning right onto Font from LM Blvd.	LM Blvd. and Sunset is a dead end for bikers trying to get to the Outer Sunset.
Missing a crosswalk at Middlefield and also Higuera.	Fix the Sunset/Lake Merced intersection by deleting the slip lane and squaring it off.	Reinstate the 57 Muni bus.
South part of the crosswalk at Winston is closed.	High speed traffic on the lake path b/w Everglade and Clearfield.	No transit service on LM Blvd. b/w Font and Brotherhood Way.
The pedestrian refuge islands at Font and LM Blvd. don't feel like islands.	Cars making right turns onto Middlefield Dr. do not come to a full stop at the red light.	No detailed bike signs on portions of LM Blvd.
No sidewalk on east side of LM Blvd. b/w Vidal Dr. and Brotherhood.	Waiting for the bus on the north side of Winston at Lake Merced feels unsafe.	No curve warning signage on LM Blvd. b/w Winston and lower Sunset area.
No sidewalk on east side of LM Blvd. south of Lake Merced Hill.	Slip lane at Winston crossing is unsafe.	Missing sign for Broderick Terry Duel site.
No crossings b/w Font and Higuera.	Path at LM Blvd. and Winston is too narrow for all users.	Trees need trimming and uprooting make the path dangerous.
Lighting needed along LM Blvd.		

Community Outreach and Engagement

Following the Pedestrian Needs Assessment exercise, project staff collaborated with the Steering Committee and solicited input from community stakeholders to create and prioritize a set of recommendations. Outreach methods are detailed below and recommendations are described in the following section.

Outreach and Engagement Methods

The project’s Steering Committee was consulted prior to outreach methods being deployed. As a result, the following tactics were executed:

- ▶ Virtual open house was held from June 8 to 22, 2021 and consisted of an online project overview or “Story Map”. The Story Map linked to an online survey.
- ▶ Multilingual surveys (English, Chinese, and Spanish languages) were mailed to residents, organizations and businesses within 900-feet of the Project Area. A total of 201 survey responses were received.
- ▶ Online multilingual survey was advertised through posters on Lake Merced Boulevard from Skyline Boulevard to John Muir Drive, the Steering Committee members’ networks, SFSU social media, Parkmerced social media, SFMTA social media and emails to project subscribers and District 7 social media. A total of 449 survey responses were received.
- ▶ Individual stakeholder meetings with residents, city family (e.g. Rec and Park) and community groups (e.g. Parkmerced development team and Lakeshore Acres Improvement Association Board members) took place during the month of June.

Survey Instrument

The survey served to develop community goals and priorities for pedestrian safety around the Project Area.

The two-page survey was essentially broken into three sections:

- (1) The survey respondents’ relationship to the Project Area, including the frequency and mode of travel used to get around;
- (2) Whether survey respondents agree safety improvements are needed in the area and if so what type of treatments are needed based on the safety tools presented to the Steering Committee and
- (3) Demographic profile questions. The final two survey questions asked respondents if they wanted to stay updated about the project and how did they hear about the survey to help inform future outreach efforts in the area.¹⁷

Survey Data Analysis and Key Findings

As shown in Figure 19, an overwhelming percentage of survey respondents (75%) live on or near Lake Merced Boulevard, while over half either commute or make trips or work on or near Lake Merced Boulevard. Approximately 52% of the survey respondents (282 out of 546 survey respondents) live in the EPC or Census Tract 604.

¹⁷ The top locations of where survey respondents learned about the project and subsequent survey was from the mailer, SFMTA social media and/or email and posters.

SFMTA Lake Merced Pedestrian Safety Project Survey

1. What is your relationship to the project area (i.e. Lake Merced Boulevard between Skyline and John Muir Drive)? (select all that apply)

- I live on or near Lake Merced Boulevard
- I work on or near Lake Merced Boulevard
- I commute or make trips on and/or adjacent to Lake Merced Boulevard
- I do not live, work, or travel on or adjacent to Lake Merced Boulevard
- Other Comment _____
- Don't know/Not Sure

2. How do you travel through Lake Merced Boulevard? (select all that apply)

- Walk or use a wheelchair or other mobility aid (e.g. cane, scooter, guide dog, or walker)
- Drive a car or motorcycle
- Use rideshare (e.g., Lyft/Uber)
- Ride a bicycle or scooter
- Ride Muni
- Paratransit
- Taxi
- Other Comment _____
- Don't know/Not Sure

3. How often do you typically travel on Lake Merced Boulevard? (select all that apply)

- Every day
- Every week
- Every month
- Sometimes
- Never
- Other Comment _____
- Don't know/Not Sure

4. Do you agree with the following statement? Safety improvements are needed for people who walk on Lake Merced Boulevard between Skyline Blvd. and John Muir Drive.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

5. Please check up to 5 improvements that you would like to see on Lake Merced Boulevard that could be implemented on Lake Merced Boulevard between Skyline Boulevard and John Muir Drive:

- Upgraded crosswalks (repainting for high visibility)
- New/additional signals and pedestrian crossings
- Narrowing vehicle travel lanes
- Close right-turn slip lanes that allow unsignalized right turns for vehicles
- Additional Signage
- Additional Lighting (Pedestrian or Street Level)
- Pedestrian Refuge Islands
- Additional Walk Time at Signals
- Upgrading Traffic Signal Head Sizes for better visibility
- New protected bike lanes on Lake Merced (with connections to existing bike network around the lake)
- Transit improvements/restored service
- Traffic calming features such as traffic circles or speed humps
- Sidewalk widening or bulb-outs at key locations or crossings

6. Based on your answers in Question #5, tell us the top 3 safety improvements that you would like to see implemented on Lake Merced Boulevard.

1. _____
2. _____
3. _____

7. What other safety issues need to be addressed on Lake Merced Blvd. between Skyline and John Muir Drive?

Figure 18. Lake Merced Pedestrian Safety Project Survey, Page 1

The top three modes that respondents use to access the Project Area is comprised of 79% who drive or use a motorcycle, 68% who walk or use a wheelchair or other mobility device, and 37% who use a bicycle or scooter.

Over half (61%) of the survey of respondents travel on Lake Merced Boulevard daily, while 26% of survey respondents travel every week. It tapers off to 9% of respondents accessing Lake Merced Boulevard every month and sometimes.

Survey respondents overwhelming (71%) agree or strongly agree that safety improvements are needed for people who walk on Lake Merced Boulevard between Skyline Boulevard and John Muir Drive.

Based on Figure 20, the five safety treatments below are shown to resonate with survey respondents:

1. Upgraded crosswalks (repainting for high visibility) (60%)
2. New protected bike lanes on Lake Merced (with connections to existing bike network around the lake) (49%)
3. Additional lighting (Pedestrian or Street Level) (48%)
4. New/additional signals and pedestrian crossings (47%)
5. Sidewalk widening or bulb-outs at key locations or crossings (32%)

When survey respondents were asked for the top three safety improvements that they would like to see implemented on Lake Merced Boulevard, the results showed that new protected bike lanes ranked both first and second and lighting was ranked third.

When asked what additional safety issues need to be addressed within the Project Area, Table 3 outlines the top common responses.

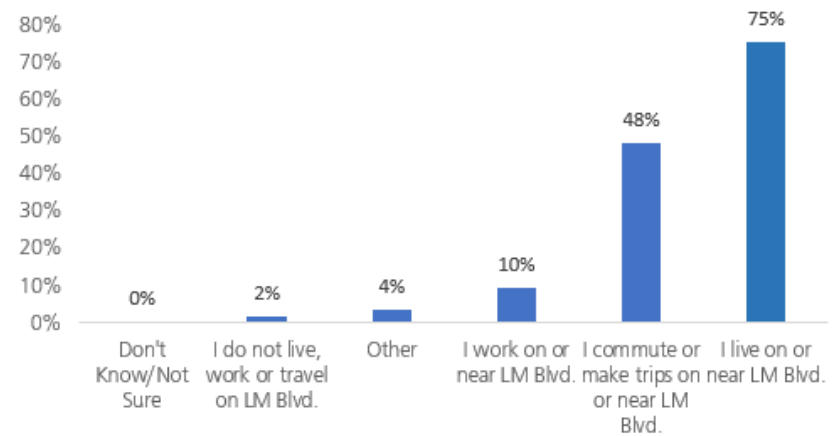


Figure 19. Respondent Relationship to Lake Merced Blvd.

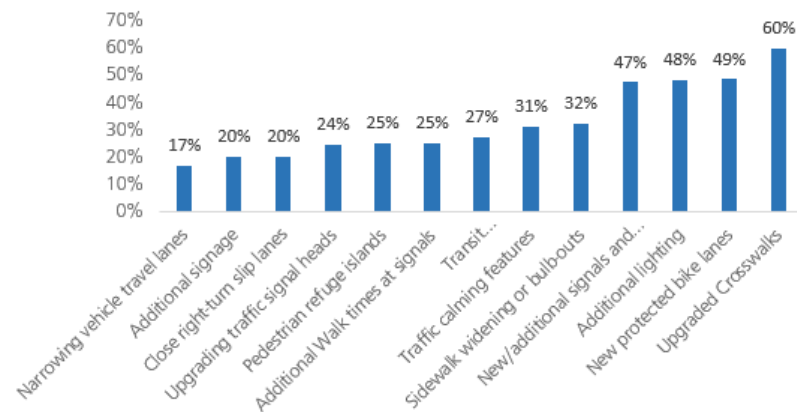


Figure 20. Pedestrian Safety Improvements that Should be Implemented on Lake Merced Project Area

Table 3. Summary of Common Responses Around Additional Safety Issues

Key Themes	Summary of Common Responses
RV households (46)	Implement parking restrictions and/or remove RVs.
Police or camera enforcement (26)	Implement citations, increase police enforcement, or monitor speed.
Sidewalk upgrades (25)	Improve sidewalk condition and/or widen sidewalk.
Great Highway (22)	Open Great Highway and/or provide better walking, biking and vehicle connections to Great Highway.
Barrier between multi-use path and Lake Merced Boulevard (11)	Install a barrier such as bollards or guardrail to protect cyclists and pedestrians from traffic.
Separate bike and pedestrian lanes (9)	Install lane separation markings on the pathway.

Recommendations

Based on site visits, coordination with other planning efforts, and feedback from the community and Steering Committee, recommendations were developed to address the pedestrian safety and connection challenges that are found in the Project Area. Corridor recommendations are shown in Figure 21 and intersection recommendations are shown in Figure 22.

The recommendations are then divided into two categories, determined by Steering Committee and survey input: High Priority/Near-Term Improvements; and Medium and Low Priority/Long-Term Improvements. The recommendations are detailed in Tables 4 and 5.

Through subsequent projects that will include further community outreach, the recommendations and priorities detailed in this CBTP can guide future implementation of safety improvements on Lake Merced Boulevard.

Any subsequent projects will require additional review with SFMTA Street Operations and Transit Service Planning to understand impacts and feasibility.

Further, the SFMTA's goals and principles for Emerging Mobility Services and Technologies will support current and future strategies as defined in this CBTP.

Figure 21. Lake Merced Project Area Corridor Recommendations



Lake Merced Project Area Recommendations LEGEND

CORRIDOR IMPROVEMENTS

High Priority

- Improve transit*

* Service for the 57 and 58 bus routes will resume August 14, 2021

Medium Priority

- Install signage
- Narrow travel lanes; Install bike facilities
- Install new pedestrian crossing
- Install lighting

Figure 22. Lake Merced Project Area Intersection Recommendations



Lake Merced Project Area Recommendations LEGEND

INTERSECTION IMPROVEMENTS

Priority Level

- ▽ High Priority/Near-Term Improvements
- Medium Priority/Long-Term Improvements
- Low Priority/Long-Term Improvements

Recommendation

- Close slip lanes
- Install/improve pedestrian refuge islands
- Widen or add sidewalks
- Install lighting (pedestrian or street level)
- Upgrade traffic signal heads
- Additional walk time
- Install signage
- Upgrade crosswalks

Table 4. High Priority/Near-Term Improvements

Recommendation	Location	Potential Implementing Party	Potential Construction Timeline
Close slip lane/reconfigure intersection	Brotherhood Way at Lake Merced Blvd.	Parkmerced development	Spring/Summer 2022
Install signage	Multiple locations - Curve Warning/Bike Signage	SFMTA Streets Division – Lake Merced Quick-Build	Spring 2022
Install or improve pedestrian refuge island	Lake Merced Blvd at Winston Dr.		
Review potential for additional walk time/ Leading Pedestrian Intervals (LPIs) <i>(contingent on coordination with Transit Service Planning to understand impacts and feasibility)</i>	Lake Merced Blvd. at Middlefield Dr.		
	Lake Merced Blvd at Winston Dr.		
	Lake Merced Blvd at Brotherhood Way		
	Lake Merced Blvd. at Skyline Blvd.		
Improve transit	Reinstitute 57	SFMTA Transit Division	August 14, 2021
Upgrade crosswalks	Lake Merced Blvd. at Font Blvd.	SFMTA Streets Division – Lake Merced Quick-Build	Spring 2022
	Lake Merced Blvd. at Middlefield Dr.		
	Lake Merced Blvd. at Winston/N. State Dr.		
	Lake Merced Blvd. at Brotherhood Way		
	Lake Merced Blvd. at Higuera Ave*		
	Lake Merced Blvd. at John Muir Dr.		
Review vehicle travel lane widths and striping to optimize safe speeds <i>(contingent on coordination with Transit Service Planning to understand impacts and feasibility)</i>	Lake Merced Blvd. between John Muir Dr. and Skyline Blvd. where feasible	SFMTA Streets Division – Lake Merced Quick-Build	Spring 2022
Widen or add sidewalk	Add sidewalk on east side of Lake Merced Blvd., between Brotherhood Way and Winston Dr.	To Be Determined- Based on future funding opportunities	

*Higuera Avenue may be upgraded by the Parkmerced development. This is dependent on the Parkmerced construction timeline and coordination with the Lake Merced Quick-Build Project.

Table 5. Medium and Low Priority/Long-Term Improvements

Recommendation	Location	Implementing Party	Construction Timeline
Close slip lane* (medium priority)	Lake Merced at Winston Dr.	To Be Determined- Based on future funding opportunities	
	Lake Merced Blvd. at Sunset Blvd.		
	Lake Merced Blvd. at Font Blvd.		
Install or improve pedestrian refuge island (medium priority)	Lake Merced Blvd. at Higuera Ave.		
Install bike facilities (medium priority)	Lake Merced Blvd. between John Muir Dr. and Skyline Blvd.		
Install lighting at pedestrian or street level* (medium priority)	Lake Merced Blvd. between Sunset Blvd./Winston Dr.		
	Lake Merced Blvd. at Lake Merced Hill		
	Lake Merced Blvd. at John Muir Dr.		
Install new pedestrian crossing (low priority)	Lake Merced Blvd. between Sunset Blvd./Middlefield Dr.		
	Lake Merced Blvd. between Font Blvd./Higuera Ave.		
	Lake Merced Blvd. at Lake Merced Hill		
Install or improve pedestrian refuge island (low priority)	Lake Merced Blvd. at Middlefield Dr.		
Widen or add sidewalk (low priority)	Bulb or widening on Lake Merced Blvd. & Winston Dr. at path		
	Add sidewalk on east side after Lake Merced Hill to John Muir Dr.		
	Bulb-outs at intersection of Lake Merced and Skyline Blvd.		

*Install lighting is under the confines of the SF Public Utilities Commission (SFPUC) and requires coordination and additional funding.




*Slip lane closures are not supported unanimously by the Steering Committee. Further discussion and analysis regarding any slip lane closure can be included in the Lake Merced Quick-Build Project outreach process.




Recommendation Definitions

The recommendations listed in the map and table in the previous section are detailed below (Table 6), along with visual examples of each type of improvement.

Table 6. Lake Merced Project Area Recommendation Descriptions

Recommendation Type	Visual Example	Description
Close slip lane or reconfigure intersection		<p>A slip lane is a short one-way traffic lane at an intersection to allow vehicles to turn at the intersection without actually entering it and interfering with through traffic. Closing or reconfiguring a slip lane not only reduces vehicles speed, but increases pedestrian visibility.</p>
Install signage		<p>Installing signage that indicates approaching curves, landmarks, speed miles per hour improves vehicle behavior.</p>
Install pedestrian refuge island		<p>While pedestrians are crossing through a long crosswalk, a pedestrian refuge island ensures pedestrians can safely wait in a designated median area before beginning the next stage of crossing.</p>

Recommendation Type	Visual Example	Description
<p>Review potential for additional walk time/Leading Pedestrian Intervals (LPIs)</p> <p><i>(contingent on coordination with Transit Service Planning to understand impacts and feasibility)</i></p>		<p>Leading Pedestrian Intervals (LPIs) give pedestrians a three to five second head start when entering an intersection in advance of the green signal for vehicles. They also increase pedestrian visibility while they are in the crosswalk and highlight pedestrian right-of-way over turning vehicles.</p>
<p>Improve transit</p>		<p>Restoring transit service and/or improving amenities (e.g. lighting) near bus stops increases safe and frequent travel by bus to local and regional destinations.</p>
<p>Upgrade crosswalks</p>		<p>Installing high-visibility crosswalks indicates the appropriate place for pedestrians to cross the street. The style is typically continental or "ladder" style pavement markings, which are visible to approaching traffic.</p>

Recommendation Type	Visual Example	Description
<p>Review vehicle travel lane widths and striping to optimize safe speeds</p> <p><i>(contingent on coordination with Transit Service Planning to understand impacts and feasibility)</i></p>		<p>Reviewing the width of excessively wide vehicle travels may help to reduce vehicle speeds, improve visibility.</p>
<p>Widen or add sidewalk</p>		<p>Improving the sidewalk conditions ensure pedestrians are able to travel comfortably and connect to nearby destinations.</p>
<p>Install bike facilities</p>		<p>Bike facilities consist of bike lanes, sharrows, buffered or protected bike lanes and include the use of paint, traffic delineators and measures to improve bike safety and connectivity.</p>

Recommendation Type	Visual Example	Description
Install new pedestrian crossing		<p>Marked crosswalks improve the pedestrian street network with additional pedestrian crossings at locations that better serve community amenities.</p>
Install lighting (pedestrian or street level)		<p>Improves the visual environment and safety with quality street lighting that includes roadway and pedestrian lighting in the public right-of-way. Pedestrian-scale lighting is closer to the ground with lights typically 12-15 feet high. Street lighting is between 20-30 feet high.</p>

Funding and Implementation

Funding and Implementation of High Priority Recommendations

Implementation of the Lake Merced Pedestrian Plan High Priority Recommendations that consist of striping changes, signs, and signal timing upgrades will occur through three primary funding sources and/or coordinated projects and are detailed below:

- ▶ **Lake Merced Quick-Build Project:** In coordination, the SFMTA, SFCTA, and the District 7 Supervisor's office worked to initiate the Lake Merced Quick-Build Project which proposes improvements on Lake Merced Boulevard from Skyline Boulevard to John Muir Drive. Quick-build projects expedite delivery of pedestrian and bicycle safety projects with traffic controls such as roadway and curb paint, signs, traffic signal timing updates and post- or parking-protected bikeways. Typical quick-build improvements include narrowing excessively wide vehicle travel lanes, paint delineators and street signs, parking and loading adjustments and traffic signal timing where feasible. Unlike major capital projects that may take years to plan, design, bid, and construct, quick-build projects are buildable within months and are intended to be evaluated and reviewed within the initial 24 months of construction. The Quick-Build will take the recommendations proposed in the Lake Merced Pedestrian Safety CBTP and conduct further outreach and feasibility planning. Designs will be vetted during fall 2021, approved in winter 2021-2022, and implemented in spring 2022. The planning and outreach of the Quick-Build project is funded through the SFCTA's Neighborhood Transportation Improvement Program (NTIP). The construction of the Quick-Build project will be funded through Prop K half-cent sales tax funds, which are expected to be allocated in fall 2021.
- ▶ **Proposition K Transportation Sales Tax:** There is approximately \$80,000 of funding in FY 19/20 for design and \$400,000 of funding in FY21/22 for construction under the Pedestrian Circulation/Safety funding category (EP 40). This funding can be allocated to help implement recommendations from this plan and can either be used independently on discrete improvements or be combined with the Lake Merced Quick-Build construction funds. Proposition K is a half cent sales tax administered by the SFCTA.
- ▶ **Parkmerced Development:** There are a series of improvements that will be installed through the Parkmerced development project that includes new residential and commercial land uses. Transportation improvements under the Parkmerced development consist of new or upgraded pedestrian crossings and traffic signals at Lake Merced Boulevard at Vidal Drive, Acevedo Avenue, Higuera Avenue and Gonzalez Drive. In addition to these signals, there will be new pedestrian improvements at each of these intersections that include:
 - Narrowing roadway travel lanes to reduce travel speeds and shorten the crossing distances for pedestrians;
 - Tightening corners at the intersection to provide additional space for pedestrians and to reduce excessive speeds of vehicles making turns;
 - Installing bulb-outs at corners to improve pedestrian visibility and shorten walk distances;
 - Realigning crosswalks to allow for more direct crossings;
 - Extending medians to provide refuge areas for pedestrians crossing the street;
 - Establishing new crosswalks at locations where new traffic signals are provided; and,
 - Including automatic pedestrian signals as part of the overall traffic signal schemes and sufficient pedestrian crossing times would be provided to allow for safe crossings.

Funding and Implementation of Medium/Low Priority Recommendations

Implementation of the CBTP's Medium/Low Priority recommendations such as new bulb-outs, new signals/crossings and sidewalk addition or widening require additional community outreach, design, and funding sources before they can be implemented. Potential funding sources may include Proposition B General Funds, Proposition K Transportation Sales Tax, and local and federal grant sources, each of which are described below. Some of the Medium/Low Priority recommendations will require coordination with other city agencies such as Rec and Park and PUC.

- ▶ **Proposition K Transportation Sales Tax:** Many of the recommended improvements would be eligible under Proposition K funding categories. These include New Signals and Signs, Traffic Calming, Pedestrian Circulation and Safety, Curb Ramps, and Transportation Demand/Parking Management. Proposition K is a half cent sales tax administered by the SFCTA funding transit, paratransit, streets and traffic safety, and transportation systems management/strategic initiatives. This funding is divided into 44 expenditure plan categories.
- ▶ In coordination with the District Supervisor, **Neighborhood Transportation Improvement Program (NTIP)** capital funds can be allocated to fund improvements as recommended through NTIP planning studies. As part of the Proposition K sales tax program, the Transportation Authority's NTIP allows each member of the Board of Supervisors to set priorities for \$100,000 per five years of planning funding and \$600,000 per five years of capital funding for transportation projects within their districts.
- ▶ SFMTA administered funds, including **Proposition B General Fund and SFMTA operating funds**, may be able to fund some recommendations, especially if there are opportunities to incorporate recommendations into other proposed projects.
- ▶ **Regional and Federal Funds:** Federal, state, and regional

funding sources may be available to support specific project goals. Grants that prioritize safety and modernization should be prioritized to best align with this project. The California Active Transportation Program competitive grant maybe a good source to apply for select items. The next call for projects is expected in 2022 with funds available in FY 2023-2024 to FY 2026-2027.

Environmental Clearance

The Lake Merced Pedestrian Safety CBTP is meant to be a living document and the recommendations included in the Plan are a cumulation of Steering Committee input, stakeholder survey responses and comments.

The investments recommended by the CBTP would not commit the City to a definite course of action in carrying out any individual proposal; these actions may be considered, evaluated as appropriate under the California Environmental Quality Act (CEQA), and finally approved or disapproved individually by the applicable decision making body at a future time.

Timeline

The High Priority Recommendations resulting from the Lake Merced Pedestrian Safety CBTP will largely be implemented through the Lake Merced Quick-Build. The project is currently in the planning phase and will be working towards initiating construction in spring 2022. High Priority Recommendations occurring through the Parkmerced development would have a comparable timeline, as this mega-project is slated to start construction in spring/summer 2022.

The timeline for Medium Priority/Low Priority recommendations is less certain, as these improvements will require additional planning, design, and funding beyond the scope of the Lake Merced Quick-Build project. However, this CBTP has recorded the desired improvements so that funding sources can be identified in the future.

Monitoring and Evaluation

As required by MTC's CBTP program, the SFMTA will provide updates to SFCTA as they continue to track implementation of all CBTP recommendations in San Francisco.

In addition, project staff for the Lake Merced Pedestrian Safety Project will work with the Lake Merced Quick-Build and Parkmerced project managers to ensure that the recommended solutions are incorporated into the scopes of present and upcoming efforts. Construction for the Lake Merced Quick-Build is likely to be funded through Prop K, and the funding status of many improvements described in this CBTP will be publicly available on [MyStreetSF](#).

Lastly, the SFMTA Streets Division will evaluate the Lake Merced Quick-Build through the [Safe Streets Evaluation Program](#), which measures project performance before and after improvements are implemented.

Conclusion

The Lake Merced Pedestrian Safety CBTP provides an overall view of the challenges and needs for pedestrians accessing the Project Area. This document provides a vision and roadmap for a safer and more livable Lake Merced Boulevard and can be used as an important tool to compete for future funding opportunities.