

3.5 Pedestrian and Bicycle Transportation

3.5.1 | Regulatory Setting

Several policies and plans guide the development of non-motorized transportation environments on and around the Geary corridor.

3.5.1.1 | THE SAN FRANCISCO GENERAL PLAN

The San Francisco *General Plan (General Plan)* is discussed in Section 3.3.1.1. Key policies relating to pedestrian and bicycle circulation include:

- **Policy 1.2:** Ensure the safety and comfort of pedestrians throughout the City.
- **Policy 14.2:** Ensure that traffic signals are timed and phased to emphasize transit, pedestrian, and bicycle traffic as part of a balanced multi-modal transportation system.
- **Policy 21.9:** Improve pedestrian and bicycle access to transit facilities.
- **Policy 23.1:** Provide sufficient pedestrian movement space with a minimum of pedestrian congestion in accordance with a pedestrian street classification system.
- **Policy 23.6:** Ensure convenient and safe pedestrian crossings by minimizing the distance pedestrians must walk to cross a street.
- **Policy 25.5:** Where intersections are controlled with a left-turn only traffic signal phase for automobile traffic, encourage more efficient use of the phase for pedestrians where safety permits.
- **Policy 27.6:** Accommodate bicycles on local and regional transit facilities and important regional transportation links wherever and whenever feasible.
- **Policy 29.1:** Consider the needs of bicycling and the improvement of bicycle accommodations in all city decisions.

3.5.1.2 | SFGO

SFgo is a package of technology-based transportation management system tools being developed by San Francisco Municipal Transportation Agency (SFMTA). This package is comprised of several projects citywide that will affect non-motorized transportation infrastructure citywide including, but not limited to, the following:

- Installation of pedestrian countdown signals on all crosswalk legs at signalized intersections along the corridor.

Pedestrian countdown signals increase pedestrian safety by giving clear and accurate information about crossing time so that pedestrians can complete their crossing before cross traffic receives the green light

- In accordance with SFMTA’s policy on accessible pedestrian signals (APS), evaluate APS needs at existing and proposed upgraded signalized intersections and install APS at highly ranked locations. APS uses audio technologies to assist people with visual impairments in safely crossing a street.
- Upgrade of curb ramps to meet current City standards and Americans with Disabilities Act (ADA) requirements to provide access to people in wheelchairs and overall improved pedestrian travel.

3.5.1.3 | EXECUTIVE DIRECTIVE 10-03 (2010) AND VISION ZERO RESOLUTION (2014)

Executive Directive 10-03 requires San Francisco agencies to reduce serious and fatal pedestrian collisions by 25 percent by 2016 and by 50 percent by 2020 relative to 2010 conditions. The Directive states that decreasing pedestrian collisions should align with the goal of increasing walking trips citywide. In March 2014, the Board of Supervisors adopted Resolution 140047, calling for an even more aggressive goal of zero traffic fatalities by all modes, including people walking and people bicycling, in ten years by 2024.

3.5.1.4 | MAYOR’S PEDESTRIAN STRATEGY AND WALKFIRST INVESTMENT PLAN

In response to Executive Directive 10-03, San Francisco agencies developed the Mayor’s Pedestrian Strategy in 2013, which identifies the city’s highest pedestrian injury corridors and describes solutions. The 2014 WalkFirst Investment Plan follows from this Strategy. The WalkFirst plan involves developing specific infrastructure-focused recommendations for improving the high-injury corridors. The plan identifies the Geary corridor as both a key walking street and a pedestrian high-injury corridor, especially for collision types involving left turns at signalized intersections, high speeds, and pedestrians crossing in areas without crosswalks.

3.5.1.5 | SAN FRANCISCO BETTER STREETS PLAN

The *Better Streets Plan* (2010) provides the vision to create an improved pedestrian environment. It sets broad guidelines around creating streets that are balanced and accessible to all users. It encourages streets to be responsive to the needs of all users while also addressing the City’s ecological and infrastructure systems.

3.5.1.6 | SAN FRANCISCO BICYCLE PLAN AND MASONIC AVENUE STREETScape IMPROVEMENT PROJECT

The *San Francisco Bicycle Plan* (2009) outlines bicycle related planning and policies for the future. Plans include the addition of 34 miles of bike lanes, marking of 75 miles of on-street bike routes with shared lane markings, and educational programs for cyclists and motorists. The plan does not include any projects within the Geary corridor; however the Geary BRT project would construct a Class II bicycle path between Masonic Avenue and Presidio Avenue consistent with the recommendations from SFMTA’s Masonic Avenue Streetscape Improvement Project plan (2010).

3.5.2 | Affected Environment

This section describes existing pedestrian and bicycling conditions in the Geary corridor. Pedestrian trips make up about 26 percent of daily trips including trips to, from, and within the neighborhoods in the study area. This figure does not include walking trips to transit, which is the primary mode of access for all bus transit trips along the Geary corridor. Because transit trips account for about 32 percent of all daily trips in the study area, it can be approximated that up to 58 percent of all trips in the study area include a walking component.

3.5.2.1 | PEDESTRIAN CONDITIONS

3.5.2.1.1 EXISTING VOLUMES AND TRAVEL CHARACTERISTICS

The Geary corridor overall has frequent transit service, gentle grades, and short distances between destinations. These factors result in high pedestrian volumes on the entire corridor especially during peak commute hours. Though high pedestrian levels are observed throughout the corridor, pedestrian volumes are highest east of Van Ness Avenue. Based on existing counts and travel assumptions from the San Francisco Chained Activity Modeling Process (SF-CHAMP) model, there are over 38,000 walking trips along the Geary corridor during the evening peak hour.

The study area is also home to a significant population of seniors, as about 40 senior centers are located within one-quarter mile of the Geary corridor. The corridor is also heavily used by people with disabilities, including people who use wheelchairs, and people who are hearing-impaired or visually impaired. Infrastructure features integral to the mobility of these groups are included in Section 3.5.2.1.6.

On some segments of the corridor, such as the blocks between Masonic Avenue and Gough Street, long block lengths combined with long crossing distances restrict pedestrian connectivity. The build alternatives include pedestrian countdown signals, pedestrian crossing bulbs, and median nose cones (providing refuge from passing vehicles) to better accommodate pedestrians accessing transit, as further discussed in this section.

3.5.2.1.2 SIDEWALK CONDITIONS AND LIGHTING

Sidewalks exist on all blocks along the Geary corridor, with widths varying from as low as six feet to up to 25 feet along some blocks. Table 3.5-1 lists the ranges of sidewalk widths along various segments of the Geary corridor.

Streetlights illuminate the entire Geary corridor from 48th Avenue to Market Street. East of Gough Street, streetlights are located along sidewalks as standard-height luminaires that light the main roadway but generally do not provide direct pedestrian-scale sidewalk illumination. West of Gough Street, streetlights are located in center median areas.

Table 3.5-1 Existing Sidewalk Widths

SEGMENT	SIDEWALK WIDTH RANGE (FEET)
48th Avenue - 25th Avenue	6 - 25
25th Avenue - Arguello Boulevard	13 - 16
Arguello Boulevard - Divisadero Street	10 - 16
Divisadero Street - Gough Street	8 - 12
Gough Street - Market Street	8 - 16

Source: Fehr & Peers, 2014

3.5.2.1.3 PEDESTRIAN CROSSINGS***Crossing Distances***

Pedestrian crossing distances, or the length across the roadway between curb ramps, vary along the Geary corridor. Eastbound from 48th Avenue to 40th Avenue, Geary Boulevard has parallel parking and some angled parking along both sides. Crossing distances gradually increase from about 50 feet near 48th Avenue to 100 feet east of 40th Avenue.

Between 40th Avenue and Divisadero Street, Geary Boulevard expands to between four and six lanes with center medians and on-street parking. Crossing distances in this area are typically between 80 and 100 feet.

From Divisadero Street to Gough Street, Geary Boulevard widens further to eight lanes, maintaining a center median and parallel parking. Crossing distances are about 125 feet between Divisadero Street and Gough Street. East of Gough Street, the Geary corridor splits into the one-way couplet of Geary and O'Farrell streets. Each has two mixed-flow travel lanes and one bus-only lane. Crossing distances on each street narrow from 45 feet to about 30 feet as they approach Market Street.

Crossing distances of side streets along the Geary corridor (i.e., the north and south legs of the intersections) also vary. The shortest crossing of 15 feet exists where Shannon Street meets Geary Street (located between Jones Street and Taylor Street) and O'Farrell Street near Union Square, while the longest crosswalk of about 97 feet spans the Webster Street intersection. More than 140 of the 202 (or 69 percent) side-street crossings along the corridor are between 30 feet and 45 feet long, a distance considered comfortable to cross by most pedestrians.

Most medians along the Geary corridor do not have nose cones. Median nose cones, or thumbnail islands, are occasionally placed on the intersection side of medians and provide a buffer between pedestrians in the median and automobile traffic. They provide refuge and increase visibility of crossing pedestrians. Although these treatments are beneficial for pedestrians, they may conflict with the turning movements of large vehicles.

Pedestrian crossing bulbs help reduce curb-to-curb crossing widths and the time needed to cross a roadway, especially for slower-moving pedestrians, through an extension of the sidewalk into the intersection. Additional benefits include increased pedestrian visibility, a larger pedestrian queuing area, traffic calming impacts by visually and physically narrowing the roadway, and extra space for curb ramps. A handful of such bulbs currently exist along the Geary corridor, such as those on Van Ness Avenue and Gough Street, ranging from an extension of between 7 feet and 10 feet into the street.

Pedestrian Overcrossings

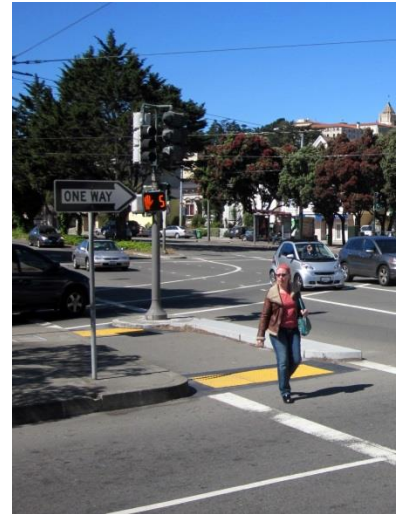
Two pedestrian bridges span Geary Boulevard at the Webster Street and Steiner Street intersections. The grade-separated walkways allow pedestrians to cross over Geary Boulevard. However, these overcrossings are several decades old and are inconvenient for many users due to the long and indirect ramps, change in elevation required, and some users’ sense of insecurity. Additionally, the pedestrian overcrossings are not compliant with the ADA due to their average inclines exceeding the ADA standard of a 5 percent maximum grade (i.e. a slope increasing in elevation by 5 feet for every 100 feet in length), which makes wheelchair crossings difficult.

At Steiner Street, an at-grade, marked crosswalk has been installed across the Geary corridor, reducing the need for all pedestrians to use the pedestrian bridge.

3.5.2.1.4 CORRIDOR PERFORMANCE: SIGNAL TIMINGS

Pedestrian crossing times at signalized intersections are determined and influenced by several guidelines. Traffic signals are most commonly timed so that most pedestrians can cross the entire street before the green signal for opposing traffic begins. This time is referred to as the “walk split” and includes the “walk” signal, the “flashing don’t walk” signal, yellow, and any all-red time before the opposing green. As recommended by the Federal Highway Administration’s *Manual on Uniform Traffic Control Devices* (MUTCD), a pedestrian or wheelchair user starting 6 feet back from the curb face should be able to complete the intersection crossing at three feet per second within the given pedestrian crossing time. San Francisco strives for a longer crossing time wherever possible.

Additionally, pedestrian crossing times also need to consider allowing any pedestrian who begins crossing at any point during the “walk” signal to be able to complete their crossing before the opposing green signal begins. This is referred to as the “pedestrian clearance time.” The MUTCD recommendation for the minimum pedestrian clearance time assumes a 3.5 feet per second with the pedestrian leaving the curb at the end of the “walk” signal. The MUTCD recommendation for elderly persons or locations where there exists a known concentration of people with disabilities is 2.5 feet per second.



Pedestrian countdown signals have been installed at many intersections along the Geary corridor

Pedestrian Delay

Pedestrian delay reflects the average amount of time an approaching pedestrian must wait before crossing the street. The higher the amount of pedestrian delay, the more likely pedestrians are to disregard a traffic signal. Furthermore, a greater pedestrian delay reduces the efficiency of walking as a travel mode. The VISSIM micro simulation model was used to simulate systemwide pedestrian delay along the core Geary corridor, which includes the delay experienced by pedestrians when waiting at intersections between Van Ness and 25th avenues. The total existing pedestrian delay for all intersections on the Geary corridor is about 690 hours during the afternoon peak hour. Dividing total delay by the number of persons walking along the corridor allows one to summarize delay on a per-person basis. Therefore, the average pedestrian delay during the afternoon peak hour is about 50-60 seconds per person traversing the corridor.

Pedestrian Countdown Signals

Pedestrian countdown signals, which display the remaining seconds available for a pedestrian to traverse an intersection, can increase safety for pedestrians crossing the street. Most signalized intersections in the corridor have pedestrian countdown signals, with the exception of seven locations (Geary at Baker, Divisadero, Scott, Fillmore, and Laguna streets, and O'Farrell Street at Franklin and Leavenworth streets). All intersections on the Geary corridor are expected to have pedestrian countdown signals by 2020.

Besides countdown signals, some intersections on the Geary corridor also have APS pushbuttons that communicate non-visually when it is permissible to cross an intersection. Such media includes audible tones, speech messages, and vibrating surfaces. According to SFMTA's APS inventory, the following six study area intersections are equipped with APS on some or all crossing legs: Geary Boulevard at Sixth Avenue, 25th Avenue, Arguello Boulevard, and Divisadero Street; Geary Street at Kearny Street; and at the Grant Street/O'Farrell Street/Market Street intersection.

3.5.2.1.5 CORRIDOR PERFORMANCE: PEDESTRIAN COLLISION LOCATIONS

The Mayor's Pedestrian Strategy and WalkFirst Study identified the Geary corridor as a high pedestrian-injury corridor, especially for collision types involving a left-turning vehicle, high speeds, and pedestrians crossing without a crosswalk. Appendix D-8 (Pedestrian Safety Analysis and Recommendations) describes pedestrian collision characteristics and recommends countermeasures, including those recommended through the WalkFirst Investment Strategy.

Figure 3.5-1 displays pedestrian-automobile collisions along the Geary corridor from 2007-2011 (Statewide Integrated Traffic Records System, 2014). The figure illustrates that the majority of collisions occurred east of Divisadero Street, although some portions to the west also experienced high concentrations of pedestrian collisions. In particular, some intersections between Arguello Boulevard and 25th Avenue have higher than average numbers of pedestrian collisions.¹ The Geary Corridor Pedestrian Safety Analysis confirms that segments east of Divisadero Street

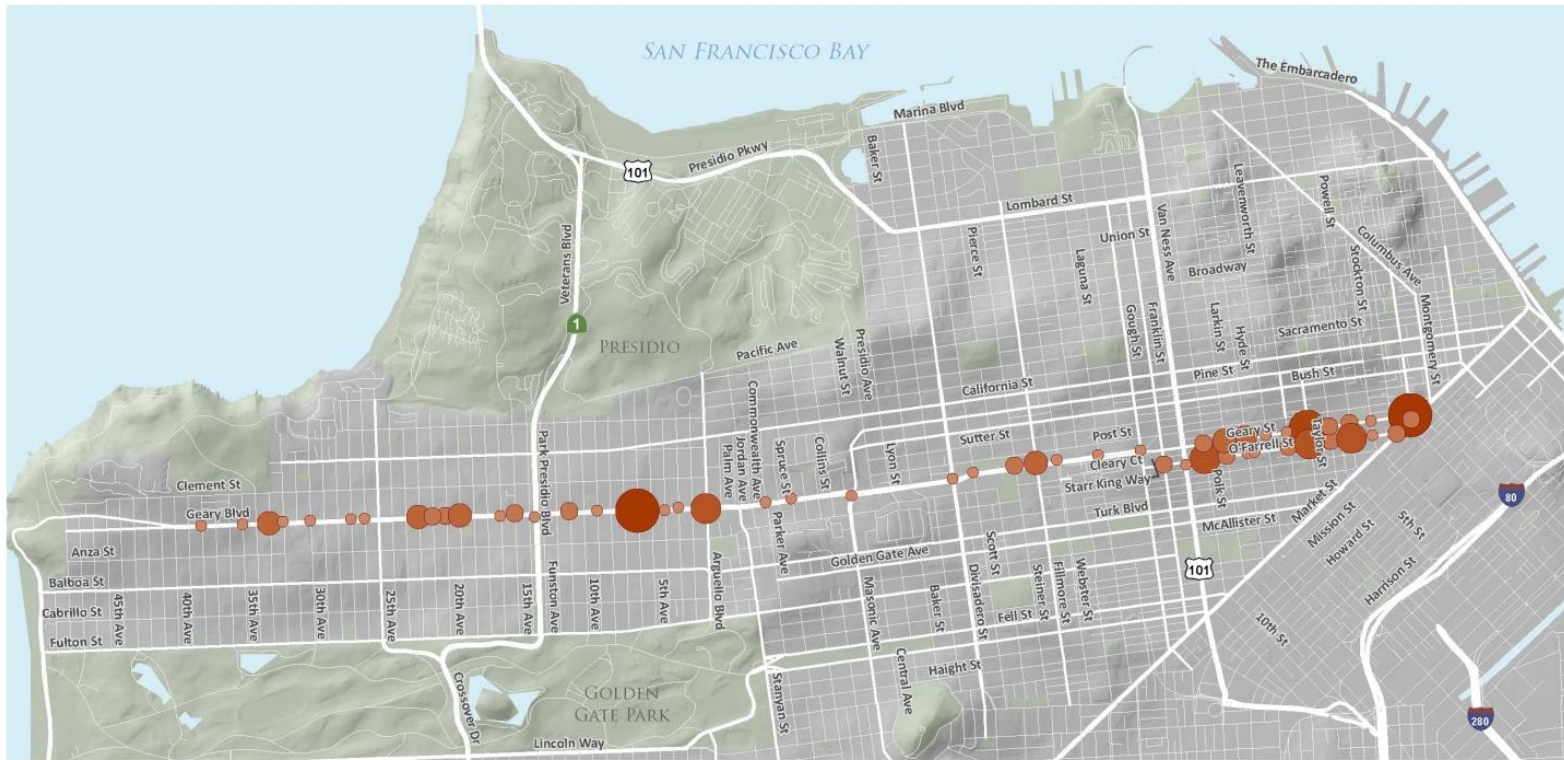
¹ Appendix D-8 provides more detail on the corridor collision history by breaking down the corridor into seven segments and comparing their collision history.

experienced the highest number of severity-weighted pedestrian injuries per mile along the Geary corridor, followed by the segment from Cook Street to 22nd Avenue. The latter segment also experienced overrepresented shares of collisions involving left-turning vehicles (about 40 percent versus 25 percent citywide) and involving seniors (about 30 percent compared with 14 percent citywide).

Left turns on the Geary corridor currently have permissive signal phasing, which allows vehicles to turn when there is no oncoming through traffic and when pedestrians are not crossing. In this situation, pedestrians may not be fully visible to turning vehicles because drivers may be distracted by other factors on the roadway, such as oncoming traffic and queuing vehicles behind them. As a result, drivers may be less aware of pedestrians in the crosswalk while executing a left turn.

Also, pedestrian crossing signals may not be timed appropriately for people with disabilities or those traversing crosswalks at slower speeds, meaning they spend a disproportionately longer time in a crosswalk than able-bodied pedestrians.

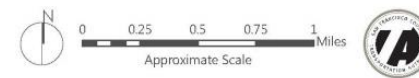
Figure 3.5-1 Pedestrian-Automobile Collisions on the Geary Corridor (2007-2011)



Pedestrian Collisions Along Geary Corridor

- 1 Collision
- 2 Collisions
- 3 Collisions
- 4 Collisions
- 5 Collisions
- 6 Collisions

Source:
Berkeley TIMS (Transportation Injury Mapping System), SWITERS (Statewide Integrated Traffic Records System) 2007-2011



3.5.2.1.6 CORRIDOR PERFORMANCE: ACCESS FOR SENIORS AND PEOPLE WITH DISABILITIES

The Geary corridor is home to a large senior population; about 20 percent of pedestrians injured along the corridor are seniors (see Appendix D-8). Figure 3.5-2 shows existing senior centers and stop locations along the Geary corridor.

Infrastructure features integral to the mobility of these groups include pedestrian crossing bulbs and curb ramps. Currently all curb corners at intersections have ramps that permit crossing for wheelchair users. Ramps exist in two forms: diagonal and perpendicular. The diagonal design consists of a single curb ramp located at the apex of the curb corner, while the perpendicular one can have up to two ramps perpendicular to the curb usually in line with the crosswalk. The diagonal design is more compact and less costly, but the perpendicular design, when feasible, can provide alignment with the proper crossing direction, eliminating some difficulty for people with disabilities. Furthermore, diagonal ramps can direct people with visual impairments into the middle of intersections. Additionally, depending on when they were repaved, curb ramps may or may not have strips of detectable warnings, which are recognized by their truncated domes, or colored, bumpy surfaces. Recently repaved curbs all have these newer designs with detectable warning features. Ramps without detectable warning tiles are not ADA-compliant.

Pedestrian crossing bulbs reduce crossing distances and can provide additional space for access and maneuvering for seniors and people with disabilities. Audible pedestrian signals would also assist many seniors and people with disabilities in crossing the Geary corridor and its side-streets.

Finally, many of the infrastructure measures discussed previously can affect the mobility of seniors and people with disabilities. In particular, shorter crossing distances enabled by new pedestrian crossing bulbs and longer crossing “walk” times at signals benefit slower-moving pedestrians. Additionally, pedestrian crossing bulbs can improve visibility for seniors and people with disabilities, and they provide additional curb space for wheelchair maneuvering. These and the following guiding principles in pedestrian infrastructure enable the creation of an accessible pedestrian environment.

“Universal Design Principles” guide the design of facilities and environments that are broadly and easily accessible to all people, and they do not require separated or specialized facilities. The Universal Design Principles were reviewed in the design and analysis of the project build alternatives.² The Universal Design Principles include:

- **Equitable Use:** This principle refers to a design that is useful and marketable to people with diverse abilities.
- **Flexibility in Use:** This principle refers to a design that accommodates a wide range of individual preferences and abilities.
- **Simple and Intuitive Use:** This principle describes a design that is easy to understand, regardless of the user’s experience, knowledge, language skills, or current concentration level.

² The Center for Universal Design, 1997.

- **Perceptible Information:** This principle refers to a design that communicates necessary information effectively to the user, regardless of ambient conditions or the user’s sensory abilities.
- **Tolerance for Error:** This principle refers to design that minimizes hazards and the adverse consequences of accidental or unintended actions.
- **Low Physical Effort:** This principle refers to design that can be used efficiently and comfortably with a minimum of fatigue.
- **Size and Space for Approach and Use:** This principle refers to provision of appropriate size and space in design for approach, reach, manipulation, and use regardless of a user’s body size, posture, or mobility.

3.5.2.2 | BICYCLE CONDITIONS

3.5.2.2.1 EXISTING BICYCLE ROUTES

Bicycle facilities are classified based on a standard typology:

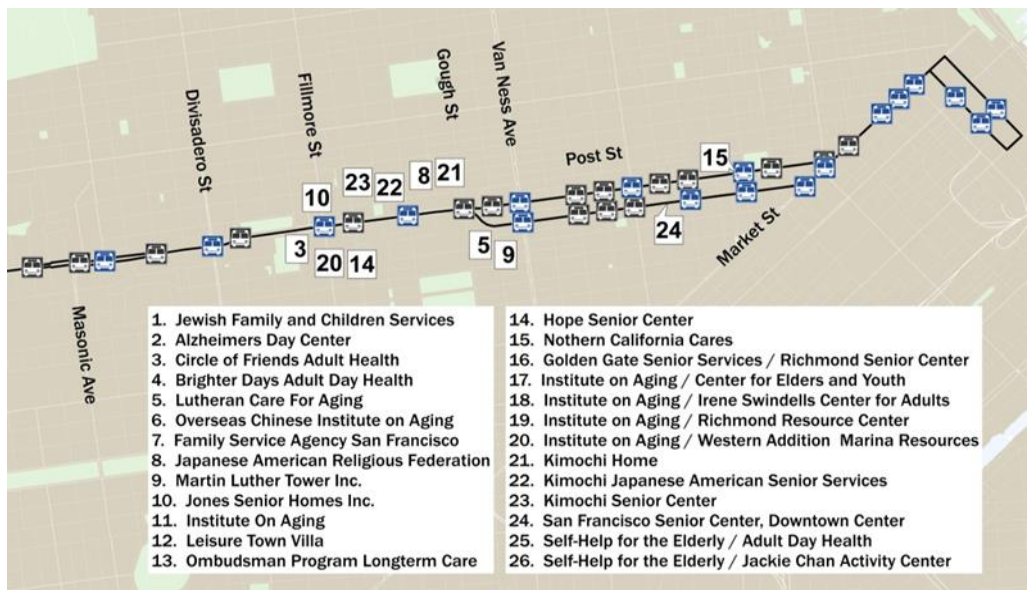
- **Class I Bikeway (Bike Path):** A separate right-of-way designated for the exclusive use of bicycles and pedestrians, with vehicle and pedestrian cross-flows minimized.
- **Class II Bikeway (Bike Lane):** A restricted right-of-way designated for the use of bicycles, with a striped lane on a street or highway. Bicycle lanes are generally 5 feet wide. Vehicle parking and vehicle and pedestrian cross-flows are permitted.
- **Class III Bikeway (Bike Route):** A right-of-way designated by signs or pavement markings for shared use with pedestrians or motor vehicles.
- **Class IV Bikeway (Protected Bike Lane):** Sometimes referred to as a “cycle track,” an on-street bicycle lane (one way or two ways) that is physically separated from the vehicle travel lane. Separation methods can include permanent barriers, flexible bollards, and/or grade separation.³

Geary Boulevard currently has no designated bicycle facilities, except for one block between Presidio Avenue and Masonic Avenue (Class III). Cyclists must therefore share travel lanes with all other traffic. The San Francisco Bicycle Plan discusses future access within the Geary corridor, but does not recommend any specific bikeway alignment along the Geary corridor. Subsequent to the Bicycle Plan, SFCTA conducted the Geary Boulevard Bicycle Demand Study (2008) to identify a future bicycle route alignment parallel to the Geary corridor. The preferred alignment from that study included the addition of a Class II bikeway largely along Anza Street. The route would cross Geary Boulevard at Masonic Avenue to connect to existing bicycle lanes on Post Street.

Existing bicycle routes parallel to and crossing the Geary corridor are listed below. Figure 3.5-3 illustrates Class I, Class II, and Class III bicycle facilities in the northern part of San Francisco.

³ California State Assembly Bill 1193 (signed into law September 2014) created this new class of bikeway facilities.

Figure 3.5-2 Senior Centers and Stop Locations along the Geary Corridor



Parallel routes with Class II bikeways include:

- Lake Street: 28th Avenue to Arguello Boulevard
- Post Street: Presidio Avenue to Steiner Street
- Turk Street: Arguello Boulevard to Masonic Avenue
- Golden Gate Avenue: Parker Avenue to Divisadero Street
- Cabrillo Street: La Playa Street to Arguello Boulevard
- Fulton Street: Baker Street to Octavia Street
- Grove Street: Baker Street to Scott Street and Van Ness Avenue to Hyde Street

Routes crossing the Geary corridor with Class II bikeways include:

- Arguello Boulevard: Fulton Street to Jackson Street.
- Webster Street: Hayes Street to Sutter Street
- Polk Street: Market Street to Post Street
- Stockton Street: Sacramento Street to Bush Street

The Masonic Avenue Streetscape Improvement Program, when complete in 2018, will extend a Class IV bikeway to meet the Geary corridor at Masonic Avenue.

3.5.2.2.2 EXISTING BICYCLE VOLUMES

The Geary corridor does not have a dedicated bicycle facility, and few bicyclists currently travel along the corridor – the Geary corridor carries the fewest bicyclists of all nearby parallel east-west streets, with less than five bicyclists per hour in the morning and afternoon peak periods.⁴ However, many cyclists cross Geary Boulevard at various locations. Bicycle volumes on the Geary corridor are over 200 percent heavier east of Masonic Avenue than west of Masonic Avenue. See Appendix D-8 for additional information on existing bicycle volumes along the Geary corridor.

3.5.2.2.3 CORRIDOR PERFORMANCE: BICYCLE COLLISIONS

During a five-year period (2006-2010) there were 69 reported bicycle collisions in the Geary corridor, or about 14 per year. Bicycle collisions are more common east of Van Ness Avenue and on streets parallel to or crossing the Geary corridor rather than along the Geary corridor itself.

Figure 3.5-5 displays bicycle-automobile collisions for the most recently available five-year period: 2007-2011.⁵

⁴ SFCTA & SFMTA. 2008. Bicycle Demand Study.

⁵ Statewide Integrated Traffic Records System. 2014.

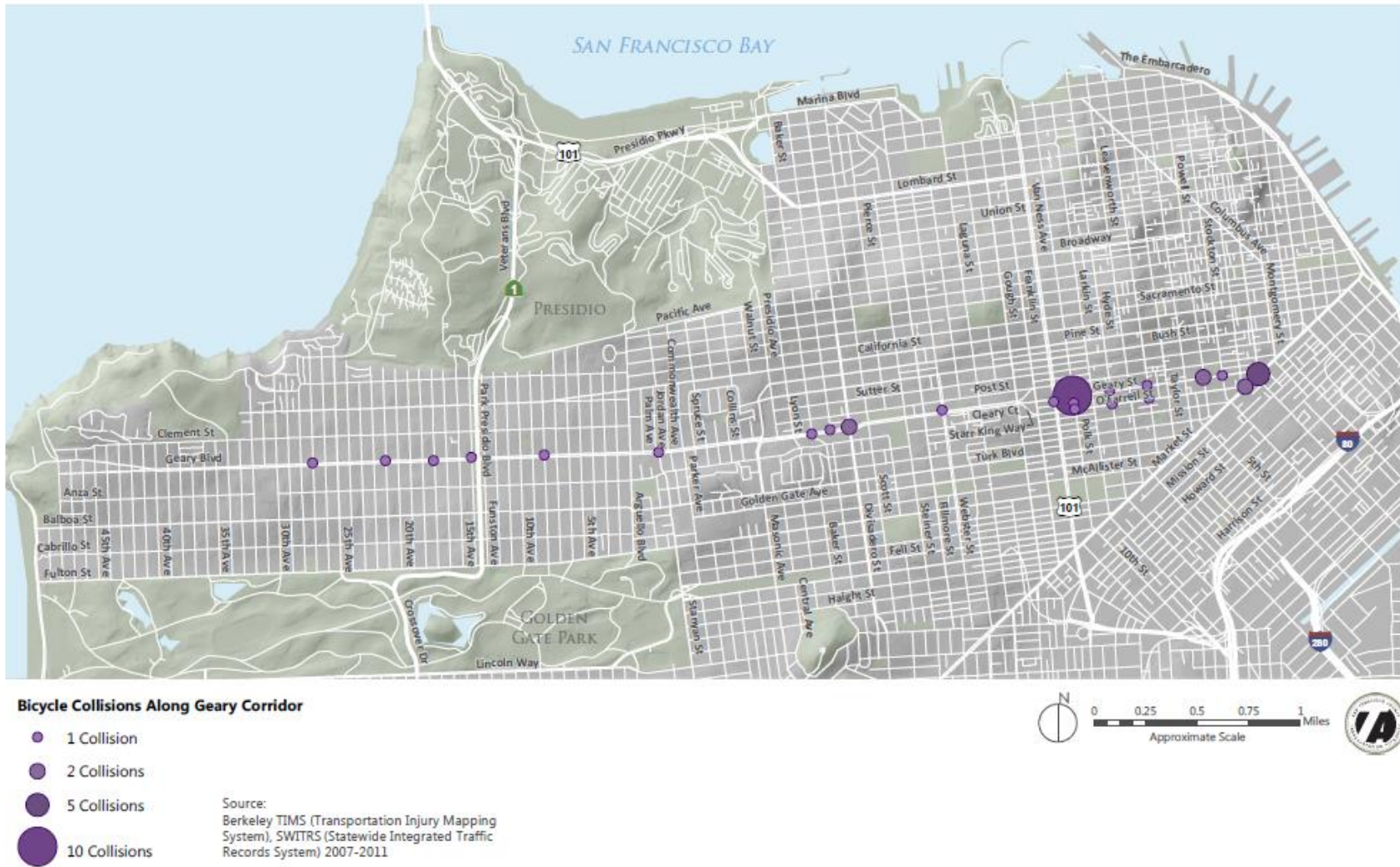
Figure 3.5-3 Existing Study Area Bicycle Network



Note: Figure has been updated since publication of the Draft EIS/EIR.

Source: Adapted from SFMTA, 2017

Figure 3.5-4 Bicycle-Automobile Collisions on Geary Corridor (2007-2011)



3.5.3 | Methodology

In order to assess potential pedestrian and bicycle transportation effects in the study area, this analysis considers future changes to pedestrian and cyclist circulation and activity along the Geary corridor. Anticipated growth in pedestrian activity and future bicycle volumes were modeled using SF-CHAMP. Pedestrian safety, including access for seniors and people with disabilities, was assessed by comparing the provision of safety features, such as pedestrian crossing bulbs, median nose cones, and new signalized intersections, across the No Build and build alternatives. Future pedestrian and bicycling delay were modeled in year 2020 for the No Build Alternative as the environmental baseline to compare all build alternatives.

3.5.4 | Environmental Consequences

This section describes potential impacts and benefits for pedestrian and bicycle transportation. The analysis compares each build alternative relative to the No Build Alternative.

The build alternatives are evaluated against applicable standards and, where no quantifiable standards apply, against the guidance and policies presented in this chapter. As set forth in Section 3.5.4.1, the modifications to the Hybrid Alternative/LPA since publication of the Draft EIS/EIR do not change the conclusions regarding pedestrian and bicycle impacts in the Draft EIS/EIR.

3.5.4.1 | HYBRID ALTERNATIVE/LPA MODIFICATIONS: SUMMARY OF POTENTIAL ADDITIVE EFFECTS SINCE PUBLICATION OF THE DRAFT EIS/EIR

As discussed in Section 2.2.7.6, the Hybrid Alternative/LPA now includes the following six minor modifications added since the publication of the Draft EIS/EIR:

- 1) Retention of the Webster Street pedestrian bridge;
- 2) Removal of proposed BRT stops between Spruce and Cook streets (existing stops would remain and provide local and express services);
- 3) Addition of more pedestrian crossing and safety improvements;
- 4) Addition of BRT stops at Laguna Street;
- 5) Retention of existing local and express stops at Collins Street; and
- 6) Relocation of the westbound center- to side-running bus lane transition to the block between 27th and 28th avenues.

This section presents analysis of whether these six modifications could result in any new or more severe effects to pedestrian and bicycle conditions during construction or operation. As documented below, the Hybrid Alternative/LPA as modified would not result in any new or more severe effects to pedestrian and bicycle conditions relative to what was disclosed in the Draft EIS/EIR.

SFMTA conducted supplemental transportation analyses of the modifications, documented in separate memoranda,^{6,7,8} the results of which are discussed below.

⁶ San Francisco Municipal Transportation Agency. *Geary Boulevard Bus Rapid Transit: Pedestrian Bulbout Parking Effects Analysis*. November 15, 2016. This memorandum is available for review at

Retention of the Webster Street Pedestrian Bridge

Construction: The proposed modification would eliminate demolition and excavation activities at this location. This would result in a reduced number of disruptions to pedestrians and bicyclists in the immediate area. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during construction.

Operation: Retention of the Webster Street bridge would enhance conditions for pedestrians by maintaining the existing overcrossing of Geary in addition to providing street-level pedestrian crossings on both sides of the Webster Street intersection with high-visibility crosswalks. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during operation.

Removal of Proposed BRT Stops between Spruce and Cook Streets

Construction: Given that a new BRT stop would not be built between Spruce and Cook streets, construction (and associated disruptions to pedestrians and bicyclists) would be reduced in this area. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during construction.

Operation: Removal of proposed BRT stops between Spruce and Cook streets would increase walking distance between BRT stops at this location; however, transit-riders would still have access to local service. This modification would not result in additional adverse effects on pedestrian delay, sidewalk conditions, pedestrian safety, access for seniors and persons with disabilities, or bicycle delay. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during operation.

Addition of More Pedestrian Crossing and Safety Improvements

Construction: All pedestrian improvements would be constructed within existing transportation right-of-way and would not permanently change any lane configurations or turning movements. Construction-period disruptions, such as temporary lane closures around work areas, would be short in duration and similar to that which would occur for other previously proposed pedestrian improvements throughout the corridor. Because the pedestrian improvements are spread across the entire 6.5-mile Geary corridor and would be constructed over time, this modification would not result in any new or more severe pedestrian and bicycle impacts during construction.

the San Francisco County Transportation Authority, 1455 Market Street, 22nd Floor, San Francisco, CA 94103.

⁷ San Francisco Municipal Transportation Agency. *Geary Corridor Bus Rapid Transit Project – Possible Modifications to Staff Recommended Alternative Bus Stops at Laguna and Collins Streets – Supplemental Transportation Analysis Technical Memorandum*. January 4, 2017. This memorandum is available for review at the San Francisco County Transportation Authority, 1455 Market Street, 22nd Floor, San Francisco, CA 94103.

⁸ San Francisco Municipal Transportation Agency. *Geary Boulevard Bus Rapid Transit: 27th Avenue Transition – Transportation Analysis Technical Memorandum*. April 18, 2017. This memorandum is available for review at the San Francisco County Transportation Authority, 1455 Market Street, 22nd Floor, San Francisco, CA 94103.

Operation: Additional pedestrian crossing improvements would further enhance conditions for pedestrians. This modification would not result in additional adverse effects on pedestrian delay, sidewalk conditions, pedestrian safety, access for seniors and persons with disabilities, or bicycle delay. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during operation.

Addition of BRT Stops at Laguna Street

Construction: Construction of transit islands and reconfiguration of existing curbside bus lanes to accommodate a right-turn lane for vehicles adjacent to the curb at Laguna Street would increase construction-period disruptions to pedestrians and bicyclists. However, temporary disruptions to pedestrians and bicyclists would be short in duration and similar to that which would occur for other previously proposed BRT stops throughout the corridor. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during construction.

Operation: Addition of BRT stops at Laguna Street would decrease walking distance between BRT stops in this area. This modification would not result in additional adverse effects on pedestrian delay, sidewalk conditions, pedestrian safety, access for seniors and persons with disabilities, or bicycle delay. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during operation.

Retention of Existing Local and Express Stops at Collins Street

Construction: Given that existing bus stops would no longer be removed at Collins Street, construction (and associated disruptions to pedestrians and bicyclists) would be reduced in this area. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during construction.

Operation: Retention of local and express stops at Collins Street would decrease walking distance between local and express stops in this area. This modification would not result in additional adverse effects on pedestrian delay, sidewalk conditions, pedestrian safety, access for seniors and persons with disabilities, or bicycle delay. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during operation.

Relocation of the Westbound Center- to Side-Running Bus Lane Transition

Construction: Given that this modification would not alter the total level of construction activities but would simply shift about half of it one block to the west, the nature of construction activities would remain the same – their location would remain in the center of the right-of-way. Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during construction.

Operation: The 27th Avenue center-to-side-running transition-point relocation would not change conditions for pedestrians as no change to pedestrian facilities or pedestrian crossing signals would be included. Bicyclists along the corridor would experience the bus moving from the center- to the side-running lane one block farther west when traveling in the westbound direction. This change would not result in any new hazardous conditions for bicyclists. This modification would not result in additional adverse effects on pedestrian delay, sidewalk conditions, pedestrian safety, access for seniors and persons with disabilities, or bicycle delay.

Therefore, this modification would not result in any new or more severe pedestrian and bicycle impacts during operation.

3.5.4.2 | PEDESTRIAN DELAY

Growth in pedestrian activity is anticipated throughout the Geary corridor under both short- and long-term future scenarios. Increases in walking trips would result from new land uses in the corridor as well as higher bus ridership since riders are likely to access transit by walking. The anticipated growth in pedestrian activity shown below (Table 3.5-2) is from the SF-CHAMP model. Compared with existing volumes, overall pedestrian activity is expected to increase by between 9 percent and 30 percent by 2035. Due to variations in land use, density and transit ridership, pedestrian volumes are expected to increase at a higher rate in the eastern section of the corridor than in the west.

Table 3.5-2 Future Pedestrian Volumes

	YEAR	25TH TO BRODERICK	BRODERICK TO LAGUNA	LAGUNA TO VAN NESS
Forecast Volume Growth	2008-2020	2%	4%	20%
	2008-2035	9%	16%	30%

Source: SFCTA, 2013

Table 3.5-3 shows estimated future pedestrian delay by alternative for 2020 and 2035 conditions. Pedestrian delay is derived from the results of the microsimulation modeling analysis, and it includes the delay experienced by pedestrians when waiting at intersections along the Geary corridor between Van Ness and 25th avenues. Overall pedestrian delay is not expected to substantially change under Alternative 2 and the Hybrid Alternative/LPA relative to No Build Alternative conditions, as signal phasing would largely remain similar to existing conditions.

Dividing total delay by the number of persons walking along the corridor allows one to summarize delay on a per-person basis. For Alternative 2 and the Hybrid Alternative/LPA, the average amount of pedestrian delay per person during the p.m. peak hour would be roughly 25-30 seconds per person traversing the corridor. Alternatives 3 and 3-Consolidated would have slightly higher total pedestrian delay, which would be caused by differences in signal phasing for corridor intersections under these alternatives.

With Alternatives 3 and 3-Consolidated, intersections with left turns would function with protected left-turn signal phasing to eliminate conflicts with buses running in center lanes. While protected left turns are generally beneficial for pedestrian safety, they also can result in slight increases in average pedestrian delay at intersections with a protected left-turn signal phase. As a result, some pedestrians must wait a few seconds longer to cross side streets while the left-turn phase is active. Additionally, Alternatives 3 and 3-Consolidated have some “two-stage” pedestrian crossings where dedicated pedestrian signals are installed, which would result in some minor increases in pedestrian delay compared with Alternative 2 and the Hybrid Alternative/LPA. Two-stage pedestrian crossings are crossings where pedestrians cross to the median in one signal phase but then must wait until a walk signal is provided for crossing from the median to the far side of the street. Locations with

two-stage pedestrian crossings assumed include Wood Street, Lyon Street, Broderick Street, and Buchanan Street.

In total, average peak pedestrian delay per person would be about 35-40 seconds for Alternatives 3 and 3-Consolidated, or roughly 10-15 seconds greater per person than the No Build, Alternative 2, and the Hybrid Alternative/LPA.

Table 3.5-3 Future Pedestrian Delay during P.M. Peak Hour (2020 and 2035)

	YEAR	NO BUILD	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 3-C	HYBRID ALTERNATIVE/LPA
Total Peak-Hour Delay (hours of delay)	2020	280	280	470	480	290
	2035	320	300	510	510	320

Source: Fehr & Peers, 2014

3.5.4.3 | SIDEWALK CONDITIONS

The No Build and build alternatives include sidewalk improvements on various segments along the Geary corridor. Sidewalk widening, as well as streetscape elements that create a safer and more pleasant pedestrian experience would be implemented. Specific improvements would include new bus shelters, bus bulbs (curb extensions that provide additional space for bus stops and allow buses to stop without pulling out of traffic), pedestrian crossing bulbs (curb extensions at intersections that shorten crossing distances for pedestrians), upgraded curb ramps, increased pedestrian-scale lighting, and other urban design features. Many sidewalk improvements such as upgraded curb ramps would be completed along the entire Geary corridor. Other improvements, such as new pedestrian crossing bulbs, would be placed at specific locations based on various factors including proximity to high-ridership stops, proximity to senior centers, and feasibility. For more information on these improvements please refer to Chapter 2 (Descriptions of Project Alternatives).

3.5.4.4 | PEDESTRIAN SAFETY

3.5.4.4.1 PEDESTRIAN CROSSING DISTANCES

Pedestrian crossing bulbs and median nose cones reduce roadway crossing distances and provide refuge and improve visibility of the pedestrian to vehicle traffic, therefore reducing their exposure to traffic. As described in Chapter 2, the build alternatives include a provision of bus bulbs to enhance transit access. The build alternatives also include a provision for additional pedestrian crossing bulbs to improve pedestrian safety at high-priority locations (Appendix D-8 provides detail on the process for selecting high-priority locations for bulbouts). These bulbouts would add to the 14 pedestrian crossing bulbs already in process of implementation along the Geary corridor as part of the No Build Alternative, providing 51 more bulbs than the No Build for a total of 65 new bulbouts. The Hybrid Alternative/LPA as revised since the Draft EIS/EIR would provide 77 more bulbs than the No Build, which is 26 more than the other build alternatives and would result in a total of 91 bulbs.

Because of these treatments, the build alternatives would reduce crossing distances at several locations along the Geary corridor. Additional detail is listed below and described in Table 3.5-4.

3.5.4.4.2 NO BUILD ALTERNATIVE

In the No Build Alternative, the crossing distances at most intersections would be similar to those in existing conditions. Exceptions include slight reductions in crossing distance in instances in which a pedestrian crossing bulb is planned. The No Build Alternative would do the least to improve pedestrian safety relative to all of the build alternatives.

3.5.4.4.3 BUILD ALTERNATIVES

Curb-to-curb crossing distance would vary between the No Build and build alternatives. The addition of pedestrian crossing bulbs would reduce curb-to-curb crossing distances for the build alternatives relative to the No Build Alternative. This reduction would be greatest for the Hybrid Alternative/LPA, with 91 pedestrian crossing bulbs at select locations along the Geary corridor (relative to 65 bulbs under Alternatives 2, 3, and 3-Consolidated; see Chapter 2 for further details). In Alternatives 3, 3-Consolidated, and center-running segments of the Hybrid Alternative/LPA, curb-to-curb crossing distances would be divided by a center median and signal. Therefore the total crossing distance would not increase, and the center median would provide refuge for pedestrians not able cross both segments in one signal length.

Under all build alternatives, some segments would have reduced crossing distances due to reductions in the number of lanes, which would result in increased sidewalk widths, reduced pedestrian exposure to vehicle traffic, and opportunities for pedestrian crossing bulbs.

Reductions in the number of lanes would also contribute to reduced traffic speeds, providing some additional benefit to pedestrian safety.

Table 3.5-4 Number of Additional Pedestrian Crossing Bulbs by Alternative

	NO BUILD ALTERNATIVE	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 3-C	HYBRID ALTERNATIVE /LPA
Number of Pedestrian Crossing Bulbs Provided to Improve Pedestrian Safety (compared with existing conditions)	14	65	65	65	91
Pedestrian Refuges Added to Medians	No	Yes	Yes	Yes	Yes

Source: Fehr & Peers, 2014, SFCTA/SFMTA 2016

NEW PEDESTRIAN CROSSINGS AND COUNTDOWN SIGNALS

The build alternatives would provide new crosswalks at four locations on the Geary corridor, as listed in Table 3.5-5.

Table 3.5-5 Crosswalk Locations - All Build Alternatives

LOCATION	DESCRIPTION
Buchanan	New signalized crossing for pedestrians
Webster	New crosswalk across Geary Boulevard on eastern and western legs of existing signalized intersection
Steiner	New crosswalk across Geary Boulevard on eastern leg of existing signalized intersection
Broderick	New signalized crossing for pedestrians

Source: Fehr & Peers, 2014

Pedestrian countdown signals reduce the likelihood of pedestrian presence in the crosswalk after the walk phase has ended. New traffic signals installed under the build alternatives would include pedestrian countdown capabilities, which can be an effective pedestrian safety measure. Additionally, all new pedestrian signals described in Table 3.5-5 above would be required to have pedestrian countdown capabilities.

All of the build alternatives would help address the major pedestrian collision types identified in the WalkFirst analysis, including speeding, crossing outside the crosswalk, and left-turn conflicts at signalized intersections. Speeding will be addressed in part by reducing crossing distances (Table 3.5-4); research indicates narrower roadways and fewer travel lanes reduce driver speeding behavior. Fewer travel lanes will also reduce the amount of time pedestrians are exposed to automobile traffic when crossing the Geary corridor, thereby providing additional safety benefits. High contrast colors would be used to denote where the transit islands are located.

Pedestrians crossing outside the crosswalk will be addressed through provision of new signalized crosswalks at locations where none existed previously (Table 3.5-5). The build alternatives would also result in some changes to the location of on-street parking at intersections. Where existing parking spaces decrease pedestrian visibility approaching intersections, removal or “daylighting” of parking has been shown to have resulting benefits to pedestrian safety.⁹ Specific locations of parking changes are discussed in greater detail in Section 3.6.

3.5.4.4.4 LEFT- AND RIGHT-TURN CONFLICTS

Left-Turn Conflicts

In addition to the measures listed above, some types of pedestrian collisions could be reduced through the restriction of non-protected or permissive left-turns. A permissive left-turn does not accommodate left-turning vehicles through a left-turn arrow, therefore permitting vehicles to turn as traffic allows and yield to pedestrians. As described above, pedestrians at permitted left-turn locations may not be fully visible to turning vehicles because drivers may be distracted by other factors on the roadway. Therefore, reducing the number of permitted left turns would contribute to improved pedestrian safety on the Geary corridor.

⁹ “Daylighting” means improving visibility of and by pedestrians attempting to cross a street, typically by reducing visual obstructions, such as on-street parking, immediately adjacent to intersections.

Also, where left-turns remain, pedestrian access across side streets would be improved for alternatives that would provide a dedicated left-turn signal phase for automobiles. This would mean that pedestrians could cross side streets without potential conflicts from left-turning vehicles. Table 3.5-6 shows the number of protected and permissive left turns by alternative.

All build alternatives include multiple left-turn restrictions. In general, the presence of protected left-turn signal phasing would help reduce the likelihood of pedestrian conflicts with turning vehicles. Collisions involving left turns occur disproportionately along the Geary corridor relative to the citywide average. Protected left-turn signal phasing would be present in Alternatives 3 and 3-Consolidated between Webster and 33rd Avenues, and in the Hybrid Alternative/LPA from Palm Avenue to 33rd Avenue.

Table 3.5-6 Number of Protected and Permissive Left Turns by Alternative

LEFT-TURN TYPE ON GEARY BOULEVARD	NO BUILD ALTERNATIVE	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 3-C	HYBRID ALTERNATIVE/LPA
Protected Left Turns (between Polk Street and 25th Avenue)	3	5	15	16	18
Permissive Left Turns (between Polk Street and 25th Avenue)	37*	31	5	5	10

*Note: After preparation of the traffic study for the Draft EIS/EIR, SFMTA removed left turns at Third and Seventh avenues. See Section 3.4.2.1 for further detail.
Source: Fehr & Peers, 2014

Right-Turn Conflicts

Adequate space for right-turning vehicles can ensure motorists do not encroach into crosswalks while waiting to turn right. Under the build alternatives, several locations with heavy expected right-turn volumes would be designed to include right-turn lanes for automobiles. Due to comparatively increased visibility of pedestrians to drivers, right turns generally result in fewer pedestrian collisions than left turns.

As described in Chapter 2, the locations of right-turn lanes are based on where there are expected to be the heaviest right-turning volumes in the future. In the study area, there would be about nine dedicated right-turn lanes in Alternative 2, eight in Alternative 3, nine in Alternative 3-Consolidated, and seven in the Hybrid Alternative/LPA.

3.5.4.5 | ACCESS FOR SENIORS AND PEOPLE WITH DISABILITIES

The build alternatives would provide improved access for seniors and people with disabilities in several ways. All build alternatives would add new crosswalks at intersections where crossings are restricted today, which would benefit seniors and pedestrians with disabilities by providing more frequent crossing opportunities. Several new landscaping and urban design features, such as new ADA-compliant curb ramps, improved bus waiting areas, and new pedestrian crossing bulbs, nose cones, and pedestrian-scale lighting, would all improve comfort and have potential safety benefits for seniors and people with disabilities. Proximity to senior high-injury-density corridors was considered in the selection of proposed pedestrian crossing bulb locations (see Appendix D-8).

Alternatives 3 and 3-Consolidated, and the section of the Hybrid Alternative/LPA west of Palm Avenue would have center-running transit operations. In these locations, protected left-turn signal phasing for automobiles would be provided, thus reducing potential vehicle-pedestrian conflicts at intersections with left turns from Geary Boulevard to side streets. People with visual impairments may have difficulty identifying locations of bus stops in sections of the corridor with center-running transit operations, but design features such as tactile cues on signal posts would provide wayfinding information to people with visual impairments.

Seniors and people with disabilities would be affected by changes in walking distances to transit stops. Some of the existing bus stops along the Geary corridor would be relocated or removed with the project. Where this occurs, such removal or relocation would make accessing a stop more challenging for some seniors and people with disabilities. Corridorwide, the average distance between bus stops with each alternative is presented above in Section 3.3.3.4 (Future Geary Corridor Ridership). Between any two stops, the maximum distance a passenger would need to walk to reach the closest stop would be half the distance between the stops, while the average passenger would need to walk only one-quarter the distance. In general, average walking distances to the nearest bus stop would increase corridorwide, but not substantially.

According to SFCTA's estimates, the maximum projected increase in average walking distance in any alternative would be about 360 feet with Alternative 3-Consolidated in two locations: between Fillmore Street and Divisadero Street due to the elimination of the local stop at Scott Street; and between Van Ness Avenue and Laguna Street due to the elimination of the local stops at Franklin Street and Gough Street. This equates to an increase of less than one-tenth of a mile and would not result in an adverse effect. The maximum estimated increase in average walking distance would be less for the other build alternatives; the Hybrid Alternative/LPA would have the second-largest increase of about 280 feet between 12th Avenue and 17th Avenue due to the relocation of the Park Presidio stop.

In specific locations where stop changes would occur, walking distances would increase measurably. For example, Alternatives 3 and 3-Consolidated, and the Hybrid Alternative/LPA include the proposed elimination of the local stop at Third Avenue and the retention of the adjacent stops at Arguello Boulevard and Sixth Avenue. The distances between local stops in this area are about 640 feet between Arguello and Third Avenue, and 930 feet between Third Avenue and Sixth Avenue, resulting in average walk distances of 160 feet and 230 feet, respectively. With elimination of the Third Avenue stop, the distance between the remaining stops would increase to 1,560 feet, resulting in an average walk distance for passengers between the stops of about 390 feet.

Proposed stop locations for the build alternatives have been evaluated relative to the locations of senior centers along the Geary corridor. Most senior-living facilities would be located closer or about the same distance away from a stop with the build alternatives. The project team has also conducted outreach to senior centers along the Geary corridor to identify any access issues and refine stop locations as needed.

Although access to stops would be more challenging for some seniors and people with disabilities, the project would include significant improvements to pedestrian conditions and safety. As a result, the project is expected to have an overall neutral to positive effect on access for seniors and people with disabilities.

3.5.4.6 | BICYCLE DELAY

3.5.4.6.1 FUTURE BICYCLE ROUTES

Currently, most planned additions to the San Francisco bicycle network in the Geary corridor from the most recent Bicycle Plan (2009) have been completed. The current bicycle network is shown in Figure 3.5-4.

The Geary Boulevard Bicycle Demand Study (2008) was conducted by SFCTA to identify a bicycle route alignment parallel to the Geary corridor. The preferred alignment that emerged from that study included the addition of a Class II (designated bike lanes) bicycle facility on Anza Street from 23rd Avenue to Masonic Avenue that crossed Geary Boulevard and connected to existing bicycle lanes on Post Street. Existing bicycle lanes on Post Street extend east to Steiner Street. The connection between Anza Street and Post Street would be comprised of Class II accommodations on Masonic Boulevard from Anza Street to Geary Boulevard. Additionally, Class II block-long connector lanes would be installed on Geary Boulevard from Masonic Boulevard to Presidio Avenue and from Presidio Avenue to Post Street.

While the planned bicycle lanes on Anza Boulevard are not included in the build alternatives, the bicycle connection from Anza Street to Post Street across Geary Boulevard would be an element of the build alternatives. It is recommended that a Class II bike lane on Anza Street from 23rd Avenue to Masonic Avenue be included in the next update to the San Francisco Bicycle Strategy (currently underway).

3.5.4.6.2 FUTURE BICYCLE VOLUMES

Bicycle volumes on the Geary corridor are expected to increase from existing conditions in all future scenarios. Table 3.5-7 shows the anticipated growth in bicycling activity, based on SF-CHAMP model results. Compared with existing volumes, overall bicycling activity is expected to increase by about 20 percent by 2020 and by 30 percent by 2035.

In all build alternatives enhanced bicycle accommodations would be added on Geary Boulevard on the one block between Presidio Avenue and Masonic Avenue. This includes designated bicycle lanes in both directions as well as enhanced treatments to promote cyclist visibility.

Table 3.5-7 Future Geary Corridor Bicycle Volumes

	YEAR	25TH TO BRODERICK	BRODERICK TO LAGUNA	LAGUNA TO VAN NESS
Volume Estimated Growth	2008-2020	20%	20%	20%
	2008-2035	30%	30%	30%

Source: SFCTA, 2013

Table 3.5-8 displays bicycling delay in the p.m. peak hour. Bicycle delay is the total amount of time cyclists on the corridor spend slowing down for and speeding up at stop signs or lights as well as time spent idling. Bicycle delay is derived from the results of the VISSIM microsimulation modeling analysis, and it includes the delay experienced by bicyclists when waiting at intersections along the Geary corridor between Van Ness and 25th avenues. Total bicycling delay would be relatively small compared with the delay experienced by pedestrians crossing intersection or buses traveling along the Geary corridor and would not substantially vary among alternatives.

Dividing total delay by the number of persons bicycling along the corridor allows one to summarize delay on a per-person basis. For all build alternatives, the average bicycle delay per person during the p.m. peak hour would be roughly 60-80 seconds per person bicycling along the corridor. As a result, the proposed project is not expected to adversely affect bicycling delays in the corridor.

Table 3.5-8 Future Bicycling Delay during P.M. Peak Hour (2020 and 2035)

	YEAR	NO BUILD ALTERNATIVE	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 3-C	HYBRID ALTERNATIVE/LPA
Total Peak-Hour Delay (hours of delay)	2020	16	13	18	18	16
	2035	22	19	21	21	19

Source: Fehr & Peers, 2014

3.5.4.6.3 BAY AREA BIKE SHARE (FORD GOBIKE)

The Bay Area Bike Share is a regional bike sharing program with current locations in San Francisco, Redwood City, Palo Alto, Mountain View and San Jose. Bay Area bikes can be rented from and returned to any station within the same city. Bike sharing stations in San Francisco allow for multiple combinations of start and end points, enhancing the existing transportation network. As of winter 2017, the program has been retitled “Ford GoBike.” As of winter 2017, numerous “GoBike” stations have been installed within one block of the Geary corridor, including at Raymond Kimbell Playground (Geary Boulevard at Steiner Street) and Webster Street and O’Farrell Street.

3.5.4.7 | COMPARATIVE EFFECTS OF ALTERNATIVES

As demonstrated in the preceding subsections, the Hybrid Alternative/LPA would implement the greatest number of pedestrian safety improvements, followed by the other three build alternatives, which would be equal to one another. The No Build Alternative would have the fewest pedestrian and bicycle safety improvements.

3.5.5 | Avoidance, Minimization, and Mitigation Measures

There would be no adverse effects to pedestrian and bicycle circulation along the Geary corridor as a result of the project. The following improvement measures would be useful strategies to allow pedestrian and bicycle travel and access to and from BRT stops and would enhance overall project performance:

- **I-PED-1.** Include WalkFirst pedestrian safety recommendations where possible as part of project design (WalkFirst recommendations described in detail in Appendix D-8).
- **I-PED-2.** Use Universal Design Principles to inform detailed engineering design of pedestrian and station facilities to enhance access for disabled persons.
- **I-PED-3.** Include state of the practice bicycle safety and design treatments for the Masonic-to-Presidio bicycle connection, including current design guidance from the City's Bicycle Plan and other state and national sources.
- **I-PED-4.** Monitor pedestrian safety on parallel streets to assess if and how changes in traffic volumes affect pedestrian safety, and identify improvements to address safety issues if necessary.