



DISTRICT 4 **PEDESTRIAN PLAN** *FOR THE BAY AREA*

2021



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Several pedestrians use an overcrossing above US Highway 101 near Ralston Avenue. Photo by the California Department of Transportation. All rights reserved.

Cover photo: SR 35 (Sloat Boulevard) in San Francisco. Photo by the California Department of Transportation. All rights reserved.



KEY TERMS

The list below defines key terms used throughout this Plan document. While the definitions below apply to the Caltrans District 4 Pedestrian Plan, other jurisdictions and government agencies may use different terms or definitions.

ROADWAY NETWORK

State Highway System (SHS): Legislatively designated highway network that supports the movement of people and goods across California. The SHS includes a variety of highway infrastructure assets, including but not limited to pavement lane miles, bridges, tunnels, and culverts. This document uses the terms highways, state highways, and Caltrans highways interchangeably to refer to the State Highway System.

State Transportation Network (STN): Refers to the State Highway System (SHS) and all other multimodal facilities owned and operated by Caltrans, including parallel paths, frontage roads, and other facilities not directly on a SHS mainline.

Highway: Roads, streets, arterials, parkways, and connected infrastructure elements such as on- and off-ramps, bridges, and tunnels. Freeways are divided highways with full access-control elements and grade separation at intersections. Highways that are not freeways are conventional highways.

Main Street: A community street on the State Highway System that typically has speeds of less than 40 mph and serves pedestrians, bicyclists, transit riders and drivers. Examples in District 4 include El Camino Real and San Pablo Avenue.

Pedestrian: In this document, the terms pedestrian and walk are applied broadly to travel by all users of sidewalks, including people walking or rolling using a mobility assistance device such as a walker, stroller, or wheelchair.

ANALYSIS

Gap: A specific location where pedestrian facilities such as sidewalks and crossing treatments are missing, narrow, or incomplete.

Barrier: A physical element (typically a freeway) which restricts the movements of pedestrians between elements of the pedestrian network.

Location-based need: A specific location on the State Highway System where infrastructure changes would most benefit people walking and best achieve the State's active transportation goals from [Toward an Active California](#). Need types include those for people walking along or across the highway.

Communities of Concern: Census tracts that have a concentration of both minority and low-income households, or that have a concentration of other disadvantage factors. This term is used as defined by the Metropolitan Transportation Commission (MTC) as part of the Equity Framework for [Plan Bay Area](#).



District 4 Director,
Dina A. El-Tawansy

MESSAGE FROM THE DISTRICT 4 DIRECTOR

I am pleased to present the Caltrans District 4 Pedestrian Plan for the San Francisco Bay Area. This Plan furthers the 2017 State Bicycle and Pedestrian Plan, *Toward an Active California*, which established statewide policies, strategies and actions to advance active transportation and transit safety, mobility, preservation, and equity. It also builds on the success and ongoing implementation of the 2018 District 4 Bike Plan.

The Caltrans Bay Area team is already working to incorporate pedestrian elements into our projects, and embracing a complete streets approach to our planning, project development, operation, and maintenance activities. This plan provides valuable guidance by identifying and prioritizing needs informed by our department and our public agency and community partners.

The Pedestrian Plan will guide Caltrans Bay Area investments to support walking and connect people with opportunities, while seeking to reconnect previously divided communities. Collaboratively working with our partners from local and regional agencies, community organizations, and advocacy groups is central to the development of this plan, and will be central to its implementation. I would like to acknowledge and thank all who participated in this process, with a special recognition of the important role and contribution of the Pedestrian Plan Working Group in guiding the development of the plan.

We look forward to working with our local and regional partners and communities on implementing the Pedestrian Plan.

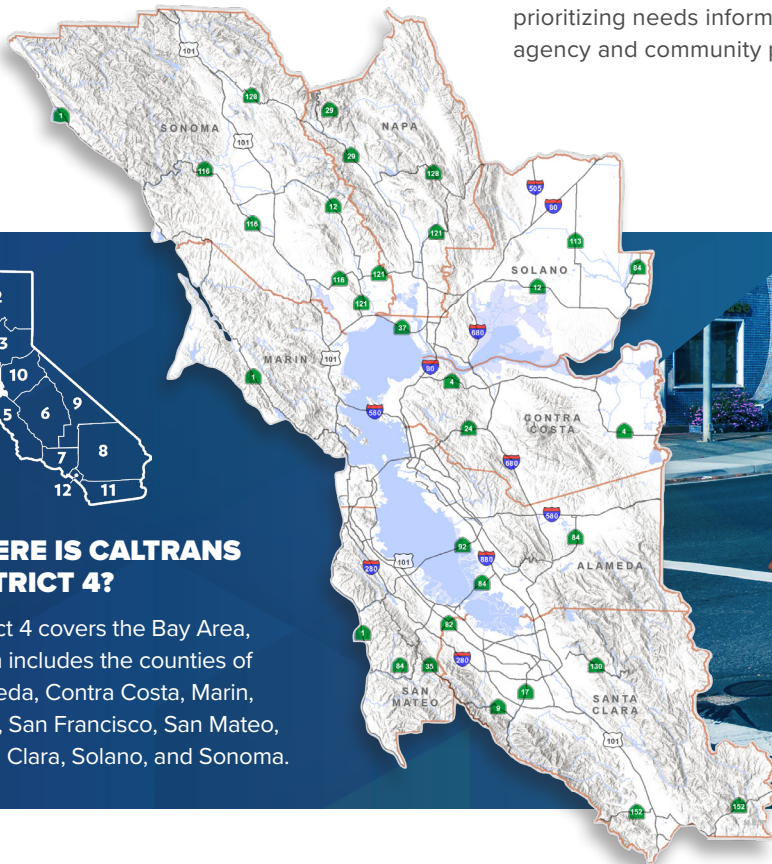
Dina A. El-Tawansy

District Director
District 4 – Bay Area



WHERE IS CALTRANS DISTRICT 4?

District 4 covers the Bay Area, which includes the counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma.



SR 1 at Tam Junction. Photo by Sergio Ruiz.

PURPOSE AND OVERVIEW OF PLAN

This Plan implements the Vision Statement and Goals in [Toward an Active California](#), the statewide bicycle and pedestrian plan, and is part of a comprehensive planning process to identify locations with bicycle and pedestrian needs in each Caltrans district across California. The Plan will be used by Caltrans staff, as well as regional and local agency partners, to address high priority needs along and across the State Transportation Network (STN), which includes the State Highway System (SHS) and all other multimodal facilities owned and operated by Caltrans, including parallel paths, frontage roads, and other facilities not directly on a SHS mainline. Needs identified in this Plan will inform future investments on the SHS by Caltrans and local partners. This Plan complements the District 4 Bike Plan, which was completed in 2018; for more information, visit this webpage: [Caltrans District 4 Bike Plan](#).

State highways play a critical role in towns and cities across California. They serve as main streets, provide access to destinations people visit every day, and are often the primary routes connecting communities. This Plan identifies challenges and needs related to walking along and across Caltrans roadways. It recognizes that many people rely on Caltrans roadways to walk and connect to transit. It also acknowledges that people of color, people with lower incomes, people with disabilities, and younger and older people experience disproportionately higher crash risks than other groups do. This Plan seeks to make it safer, more comfortable, and more convenient for everyone to walk

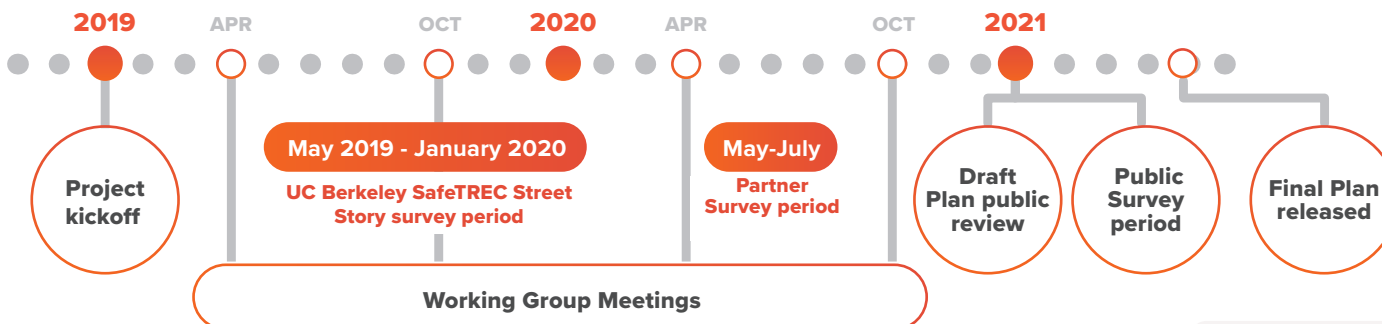
more often by identifying needs and priorities for future investments. When more people are able and encouraged to walk for short trips and to access transit, our communities experience improved air quality, health benefits, social equity, quality of life, and economic vitality.

The District 4 Pedestrian Plan is comprised of two elements:

- ▶ This **Summary Report** provides an overview of conditions for people walking on Caltrans roadways today, a look at locations in the district where significant needs exist for people walking, and includes a description of next steps in the implementation process. A description of the methodology for the planning analysis is currently in revision and will be made available on the District 4 page of the [Caltrans Active Transportation Plan website](#) upon completion.
- ▶ A companion online **Story Map** provides an opportunity to view and interact with a series of District 4 maps that highlight the pedestrian issues and opportunities described in this report. The Story Map is available at the [Story Map website](#).

A supplementary Pedestrian Toolkit that outlines strategies and measures to address pedestrian needs is currently in development and will be published on the District 4 page of the Caltrans Active Transportation Plans website upon completion.

District 4 Pedestrian Plan Process Timeline



WHAT'S INSIDE THE PLAN?

This Plan identifies and prioritizes pedestrian needs along and across the State Highway System to inform future investments. The Plan's main output is a prioritized list and map of location-based pedestrian needs and a toolkit with strategies to address these needs.

The following sections present key information about the planning process and identify next steps to support implementation:

STATEWIDE CONTEXT

This section describes how the goals of the statewide active transportation plan, **Toward an Active California**, guided the development of this Plan, and how this Plan fulfills the next step in the process of addressing active transportation needs along the State Highway System.

PUBLIC ENGAGEMENT

This section details stakeholder and public engagement efforts to learn directly from people who walk along and across the District 4 STN.

WALKING IN DISTRICT 4 TODAY

Maps, text, and charts in this section describe what it is like to walk or connect to transit along the SHS in District 4 today, and where there are opportunity areas to replace driving with walking trips.

NEEDS FOR PEOPLE WALKING ON THE STATE HIGHWAY SYSTEM

The process for identifying and prioritizing location-based needs to address barriers and gaps for pedestrians on the District 4 State Highway System is described here.

NEXT STEPS FOR IMPLEMENTATION

The final section describes coordination, facilitation, and project development steps for Caltrans, local partners, and the public to implement this Plan's recommendations.

STATEWIDE CONTEXT

In alignment with the vision in the statewide plan, *Toward an Active California*, this Plan establishes methods for identifying and evaluating pedestrian needs on and across the State Highway System. It focuses on increasing social equity throughout the planning process, strengthening community partnerships, and improving connections between the State and local networks.

Toward an Active California outlines four goals, which guided the development of the District 4 Pedestrian Plan:

- **MOBILITY:** Reduce dependency on motor vehicle travel through mode shift to bicycling, walking, and transit.
- **SAFETY:** Facilitate safe travel for all users (modes) and abilities, as expressed through Toward Zero Deaths (Caltrans) and Vision Zero (local agencies) initiatives.
- **EQUITY:** Promote active transportation solutions that serve the communities within the district by improving accessibility and healthy transportation options for disadvantaged communities.
- **PRESERVATION:** Ensure district active transportation strategies and actions adequately discuss the long-term maintenance needs and resources required to maintain a state of good repair for state highways.

The District 4 Pedestrian Plan is the second in a series of steps that will support the delivery of active transportation infrastructure in California, as shown in the graphic on the next page. The work will continue with Caltrans collaborating with local partners to identify, fund, construct, and maintain pedestrian projects.

BUILDING A MORE EQUITABLE FUTURE

Caltrans has an important role to play in advancing equity in California so that everyone can thrive, starting with the most vulnerable and regardless of race, socioeconomic status, identity, physical ability, or where and how they travel. Although the goal of a modern transportation network should be to connect

TOWARD AN ACTIVE CALIFORNIA VISION STATEMENT

By 2040, people in California of all ages, abilities, and incomes can safely, conveniently, and comfortably walk and bicycle for their transportation needs.

communities to jobs and other destinations, historically, the SHS has often done the opposite. Freeways, expressways, and high-speed arterials act as barriers, often disconnecting people from the services and locations they need to access, and dividing previously-established communities.

The historical impacts of this have been intensified by land use and housing policy decisions, particularly those made between the 1930s and 1960s. The practice of redlining during this era allowed white families to purchase homes in environmentally-advantaged areas through use of government-backed home loans. These loans were denied to people of color, particularly Black families, who then had to find housing in places with higher levels of exposure to hazardous waste and other pollutants. Because these areas had the lowest land values and the least political power, new high-speed routes in the SHS were often built through these communities, dividing, disconnecting, and displacing the people who lived there.

Due to this history, Caltrans has an obligation not just to seek equal treatment in its projects and other works, but to actively pursue equity to correct the division in these communities caused by the construction of the SHS. The District 4 Pedestrian Plan, alongside *Toward an Active California* and all of the Caltrans Active Transportation Plans, includes equity as one of its main goals, and is intended to be a step toward meeting the agency's equity obligations.

As part of that goal, the prioritization metrics of this Plan include the [*CalEnviroScreen*¹](#) and Communities of Concern scores, median household income, rate of free or reduced price school meals, and household access to a vehicle as key factors in determining the prioritization level the location-based need receives. Additionally, the in-person public engagement activities were focused on locations near the SHS and within or adjacent to Communities of Concern as designated by the Metropolitan Transportation Commission (MTC).

Meeting the needs of people with disabilities is also central to ensuring pedestrian networks work for everyone. All Caltrans pedestrian improvements will meet the standards of the Americans with Disabilities Act (ADA). Refer to the [*Caltrans ADA Infrastructure Program*](#) for more information about ADA-specific planning efforts.

¹ CalEnviroScreen is a mapping tool developed by the California Office of Environmental Health Hazard Assessment that helps planners and policy-makers identify California communities that are most affected by many sources and effects of pollution. A location with a high CalEnviroScreen score experiences much higher such pollution burdens than one with a low score.

HOW CALTRANS MEETS ACTIVE TRANSPORTATION NEEDS

While Caltrans has addressed active transportation needs throughout the state in the past, this Pedestrian Plan and the D4 Bike Plan that preceded it are part of an updated process that aims to better meet those needs in the future. The six steps are described below.



A group of four people walk together along a well-maintained sidewalk.

VISION ZERO INITIATIVES AND THE CALTRANS TOWARD ZERO DEATHS GOAL

Vision Zero is an organizing framework for eliminating fatalities and serious injuries caused by traffic crashes. Agencies and jurisdictions around the world have adopted Vision Zero goals to reduce the loss of life on local roadways and work towards safer roadways through engineering and programming changes. A defining feature of Vision Zero Action Plans is their ability to coordinate and focus the ongoing work of agency departments and partner jurisdictions towards this singular goal.

Caltrans developed its Toward Zero Deaths goal as its expression of the Vision Zero approach. The need for the initiative is critical: 407 people died, and 880 were severely injured, in the more than 5,000 crashes that involved pedestrians on Bay Area roadways of all kinds between 2015 and 2019. Visit the [Caltrans Safety Programs web page](#) for more information about Toward Zero Deaths.

PUBLIC ENGAGEMENT

The public has a nuanced understanding of the transportation systems they use every day and their input is critical to meeting the objectives of this plan. Engagement efforts for this Plan focused on the following objectives:

- ▶ Seek input from the public (with a special focus on hearing from disadvantaged communities through targeted outreach efforts).
- ▶ Establish new relationships and strengthen existing relationships between Caltrans and local community groups.
- ▶ Deepen understanding within Caltrans of local contexts and needs.



Participants complete a Street Story survey. Photo by Sergio Ruiz.

DISADVANTAGED COMMUNITIES AND COMMUNITIES OF CONCERN

What are disadvantaged communities?

Disadvantaged communities are places that are most likely to experience disproportionately negative impacts of poor air quality and underinvestment in transportation infrastructure. Disadvantaged communities are often also low-income communities. Investment of targeted funds into these communities can help support improved health outcomes. This plan uses a composite disadvantaged community definition that takes into account a census tract's median income, enrollment in free and reduced priced school meal programs, and score on CalEnviroScreen (a tool for evaluating pollution burdens in California).

What are Communities of Concern?

Communities of Concern, as designated by the MTC, include a diverse cross-section of populations and communities that could be considered disadvantaged or vulnerable now and in the future. Communities of Concern can have high levels of households with minority or low-income status, seniors, people who have limited English proficiency, people who have disabilities, and more.

This Plan's needs prioritization framework emphasizes locations in disadvantaged communities and Communities of Concern. Refer to page 20 for more information about the prioritization process.

HOW DISTRICT 4 CONNECTED WITH STAKEHOLDERS

COORDINATION WITH LOCAL AGENCIES AND ADVOCATES

District 4 created a Pedestrian Plan Working Group, composed of County Transportation Agency and MTC staff, advocates, and key Caltrans District 4 staff. The Working Group guided development of the Plan and provided input and support for public engagement. District staff also presented to standing active transportation committees at the regional, county, and local levels throughout the Bay Area to provide updates and receive input from local agency partners and advocates, including California Coastal Commission staff.

PARTNERSHIP WITH UNIVERSITY OF CALIFORNIA, BERKELEY

District staff partnered with staff and students from the University of California, Berkeley, on innovative outreach strategies. The Plan uses data that District staff collected from Street Story, an interactive online map developed by University of California, Berkeley SafeTREC. District staff also worked with a team of students to conduct targeted outreach in East Palo Alto, a historically underserved community in San Mateo County. The students tabled at a farmer's market and the Community Revitalization Fair to solicit input on the planning process.

TARGETED IN-PERSON OUTREACH

In-person outreach focused on several locations near the SHS:

- ▶ Areas in or near disadvantaged communities or other Communities of Concern
- ▶ Areas around major transit hubs and other popular pedestrian destinations
- ▶ Areas that did not receive many online map comments

District staff distributed fliers during commute and lunch hours to promote the Plan. As a part of this process, approximately 200 fliers were distributed.

PUBLIC ENGAGEMENT SUMMARY



- ▶ Coordination with local agencies and advocates



- ▶ In-person activities



- ▶ Interactive webmap input



- ▶ Public review of Pedestrian Plan



A walk audit along Interstate 880 at Tennyson Road in Hayward. Photo by Sergio Ruiz.

HOW PUBLIC ENGAGEMENT INFORMED THIS PLAN

WHAT WE HEARD

Stakeholders and members of the public referred to specific locations and project needs.

They mentioned these challenges:

- Places where sidewalks were missing
- Intersections without marked crosswalks on all legs
- Uncontrolled intersections that are uncomfortable to cross.

They shared their desire for:

- More shade and landscaping in places where people walk
- Pedestrian-scale lighting
- Continued opportunities for public engagement during the project development phase.

HOW WE BROUGHT THOSE INSIGHTS INTO THE PLAN

The project team used early community engagement findings to confirm assumptions made about the potential needs. Caltrans has received over one thousand responses to the project survey, where participants added pins to an interactive webmap input indicating pedestrian needs at nearly 1,600 locations. These pins are spread across the region and include responses on nearly every freeway, expressway, and conventional route, and in urban, suburban, and rural areas.

To see these crowd-sourced locations, visit the project [Story Map](#). Public input also influenced the components included in the Pedestrian Toolkit, which will be made available upon its completion as an appendix to this Plan. Caltrans will continue to collect additional survey data beyond the publication of this Plan, since needs and priorities will shift over time.

NEXT STEPS FOR PUBLIC ENGAGEMENT

CONTINUING CONVERSATIONS

The level of committed engagement that contributed to this Plan's development doesn't end with its publication. District 4 will continue these conversations as the Plan's recommendations are implemented and projects are developed to ensure they reflect local needs and priorities.

COORDINATION WITH ACTIVE AND ONGOING LOCAL AND REGIONAL PLANS

Starting in early 2019, local and regional public agencies provided active transportation infrastructure and planning data from completed and ongoing plans, as well as other input that was used to identify the location-based needs that are included in this Plan. The information included in the Plan represents a snapshot of conditions at the time the Plan was written.

Caltrans continues to collect information from stakeholders and the public about local needs through its online surveys and other efforts. Survey input that was available at the time this report was published is shown on the [Story Map](#) that accompanies this report and is described on page 21. This Plan helps to coordinate District-level planning work with ongoing, region-wide planning efforts such as the California Coastal Trail, the San Francisco Bay Trail, the MTC's Active Transportation Plan, and other regional initiatives.



Highway 101 (Lombard Street) in San Francisco. Photo by Sergio Ruiz.

WALKING IN DISTRICT 4 TODAY

No matter where they are in the Bay Area, walking is a daily activity for most people. To better understand the walking conditions and experience along the SHS, a detailed analysis was performed and captured in the full Existing Conditions Report, which is available on the District 4 page of the [Caltrans Active Transportation Plans website](#). This section summarizes the key highlights from that report.



WHO USES THE STATE TRANSPORTATION NETWORK?

People walk to work, to school, to the grocery store, or to get to the next trailhead.

The diversity in land use context along the STN within District means that needs and recommendations to serve pedestrians might vary based on the relationship between the highway and its surrounding land use. For example, people walking along or across the STN in more urban areas may be more likely to be taking commuter related trips to work or school, or making short distance errands. In contrast, people walking along or across the STN in rural areas may be more likely to be taking recreational walks. These differences should be confirmed with local partners and stakeholders and can be used to inform appropriate design treatments during the project development stage.

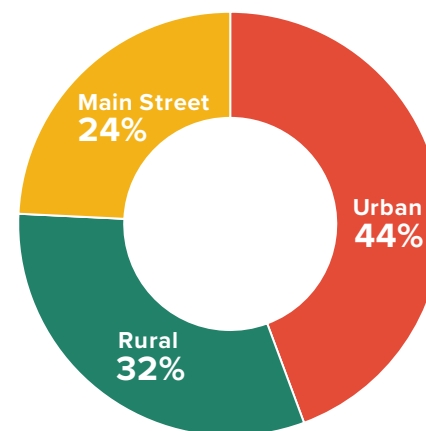
Top photo: A person crosses a multi-lane roadway in an urban setting.

Bottom photo: US 101 at 2nd Street, San Rafael. Photo by Sergio Ruiz.



SURROUNDING LAND USE CONTEXT

The SHS in District 4 includes 1,408 miles of roadway. The diversity in land uses surrounding the SHS means that pedestrian facilities also vary widely, depending on the context. The pedestrian needs identified in this Plan reflect these different contexts, emphasizing locations where the frequency and quality of crossing opportunities are low for urban areas, and where walking along roadways is impeded in rural ones.



Percentage of District 4 State Highway System by land use (centerline miles)

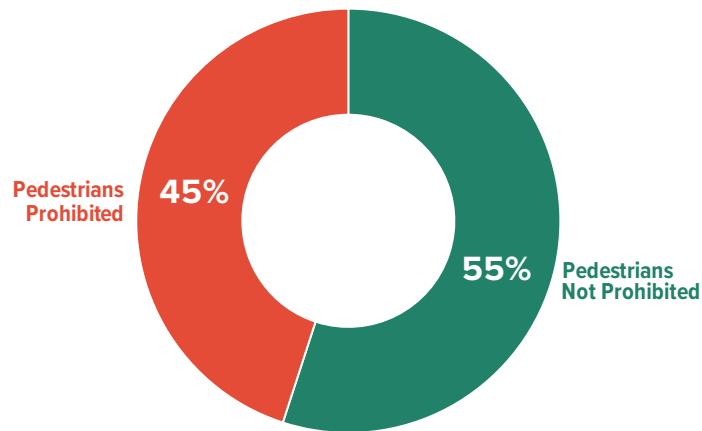
Source: Caltrans Transportation System Network, SB127 Main Streets layer

WALKING ON THE STATE HIGHWAY SYSTEM

Historically, many Caltrans roadways were built specifically to serve motor vehicle trips. As a result, walking is prohibited on about half of the highway miles in District 4. Areas where walking is not prohibited vary widely depending on the context: while only 10% of urban highway miles are available for walking, 82% of rural highway miles and all Main Street miles are. This leaves many opportunities available to adapt roadways to be safer and more inviting to people walking.

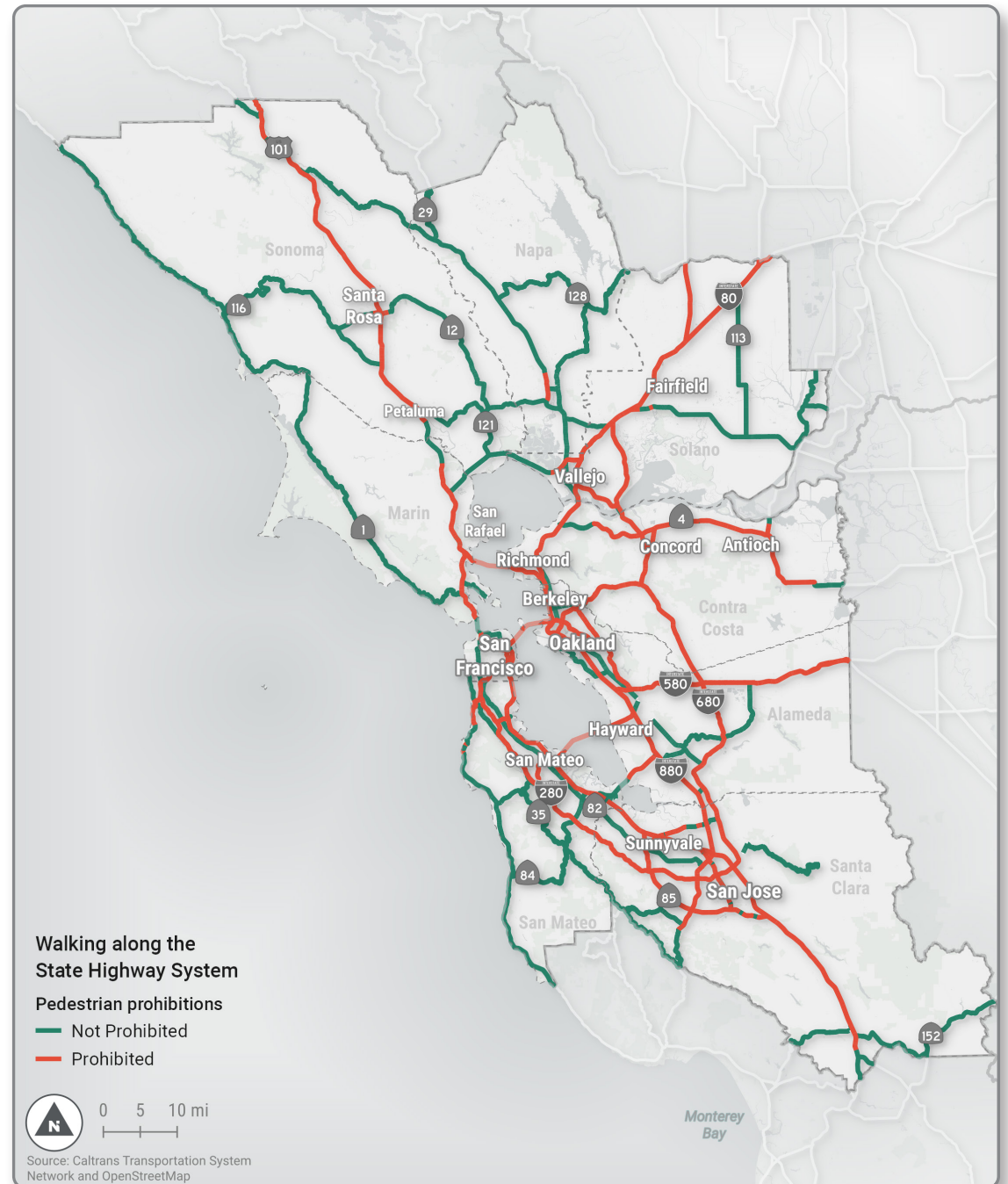
While areas where people can walk may need sidewalks and crossing enhancements for them to do so comfortably, areas where pedestrians are prohibited will require different kinds of design treatments, such as overcrossings, to provide continuity in the pedestrian network.

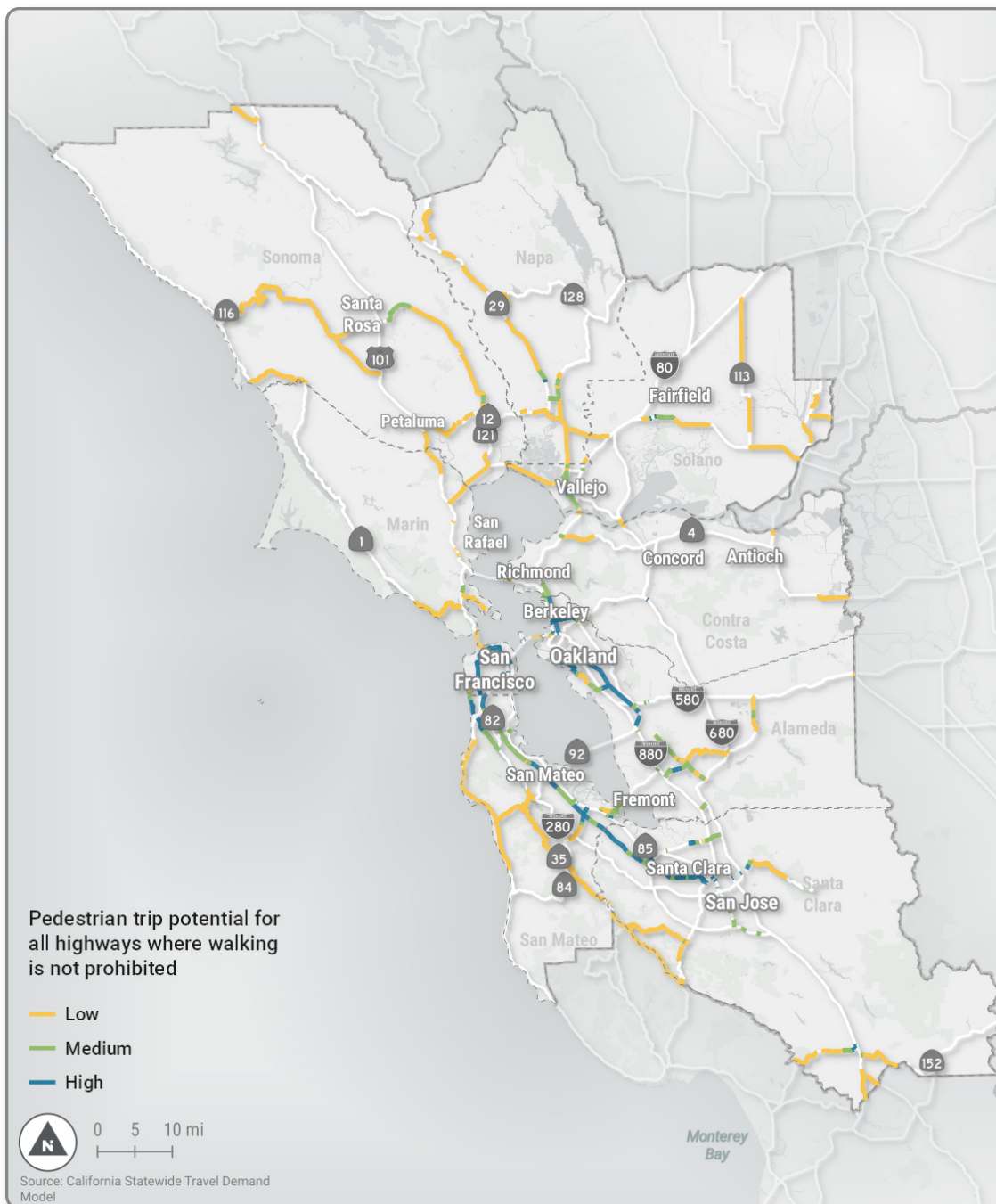
For locations where walking is currently prohibited, Caltrans will weigh several considerations to determine whether to adjust access in the future. These include whether the location has been identified as a major priority for improvement in this Plan, whether more favorable local alternatives exist, and whether local plans have prioritized improvements to alternative routes.



Pedestrian access along the State Highway System in District 4 (centerline miles)

Source: California Transportation System Network, OpenStreetMap. Pedestrians are assumed to be prohibited from freeways except when a multi-use path parallels the freeway.



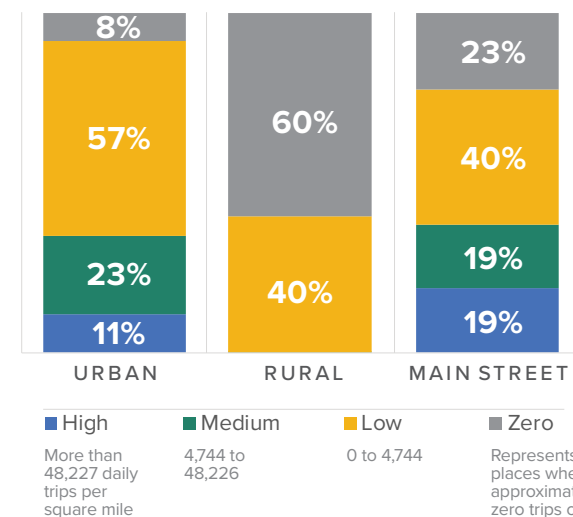


PEDESTRIAN TRIP POTENTIAL

Land use patterns, demographics, and characteristics of the built environment influence the extent to which a person can or will choose to walk for daily needs or recreation. A number of factors can help determine the likelihood that people will take future trips on foot at a particular location.

Distance is one of the simplest determinants of walking trips. Most adults can comfortably make trips of less than one mile on foot or with the aid of a mobility device. Focusing infrastructure investments in places where short trips are frequently taken by car is an effective way to encourage travel by walking instead.

Short trip opportunities tend to be concentrated in the urban and suburban parts of the District, with major arterial roadways emerging as clear centers of activity. Not surprisingly, relatively fewer short trips are made in more rural areas in the District, suggesting limited opportunity to convert vehicle trips to walking in those areas unless convenient connections to transit are available. While infrastructure that supports walking will continue to be needed everywhere, investments in more urban areas where more short trips are concentrated can help meet the State's goal of increasing walking.



Density of short driving trips along the D4 SHS by land use context (lane miles)

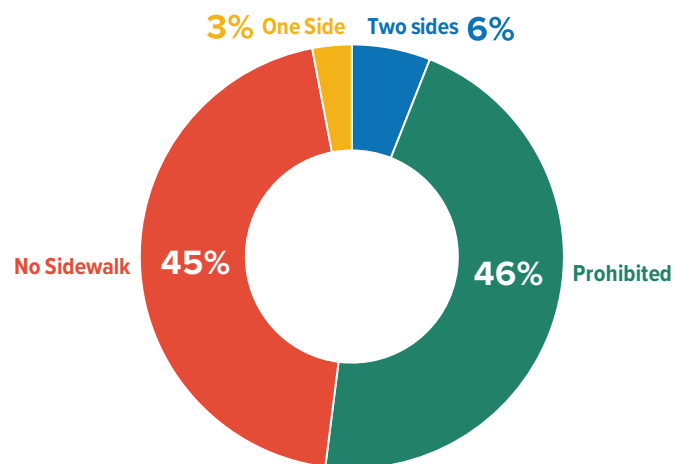
Source: California Statewide Travel Demand Model (CSTDm)

SIDEWALK COVERAGE

Sidewalks are the foundation of most pedestrian networks. Along the SHS, they may be present on one or both sides of a highway, or not present at all. The presence of sidewalks is closely correlated with land use context: 25% of Main Streets have sidewalks on both sides, whereas rural highways rarely have sidewalks at all. Urban highways are often freeways that prohibit pedestrian access and therefore also do not have sidewalks.

As a general practice, Caltrans will consider installing sidewalks in highway locations where:

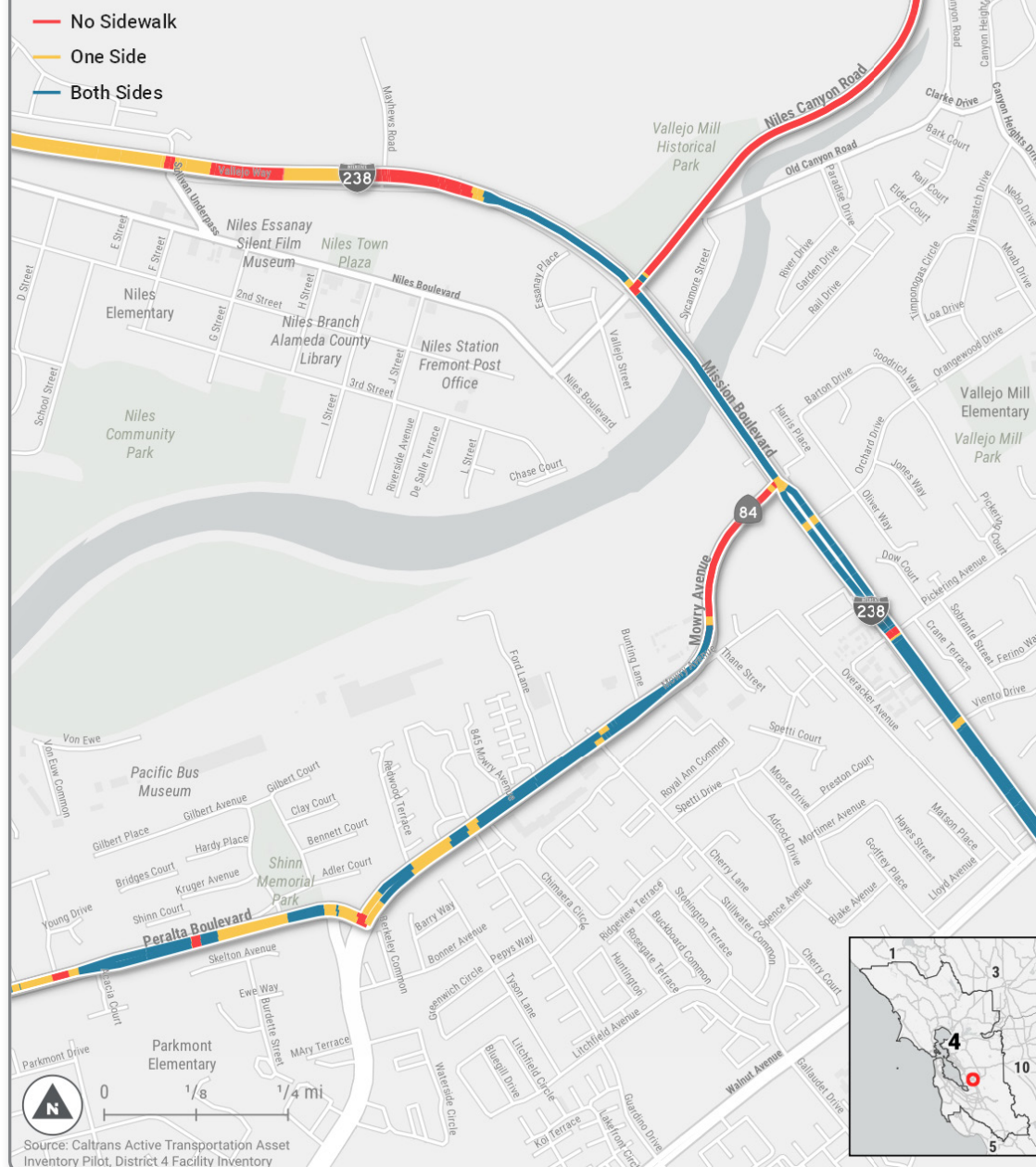
- ▶ many people walk;
- ▶ land use patterns, or a concentration of destinations along the highway, suggest many people could walk;
- ▶ past vehicle crashes have involved pedestrians;
- ▶ sidewalks can help connect to the local pedestrian network

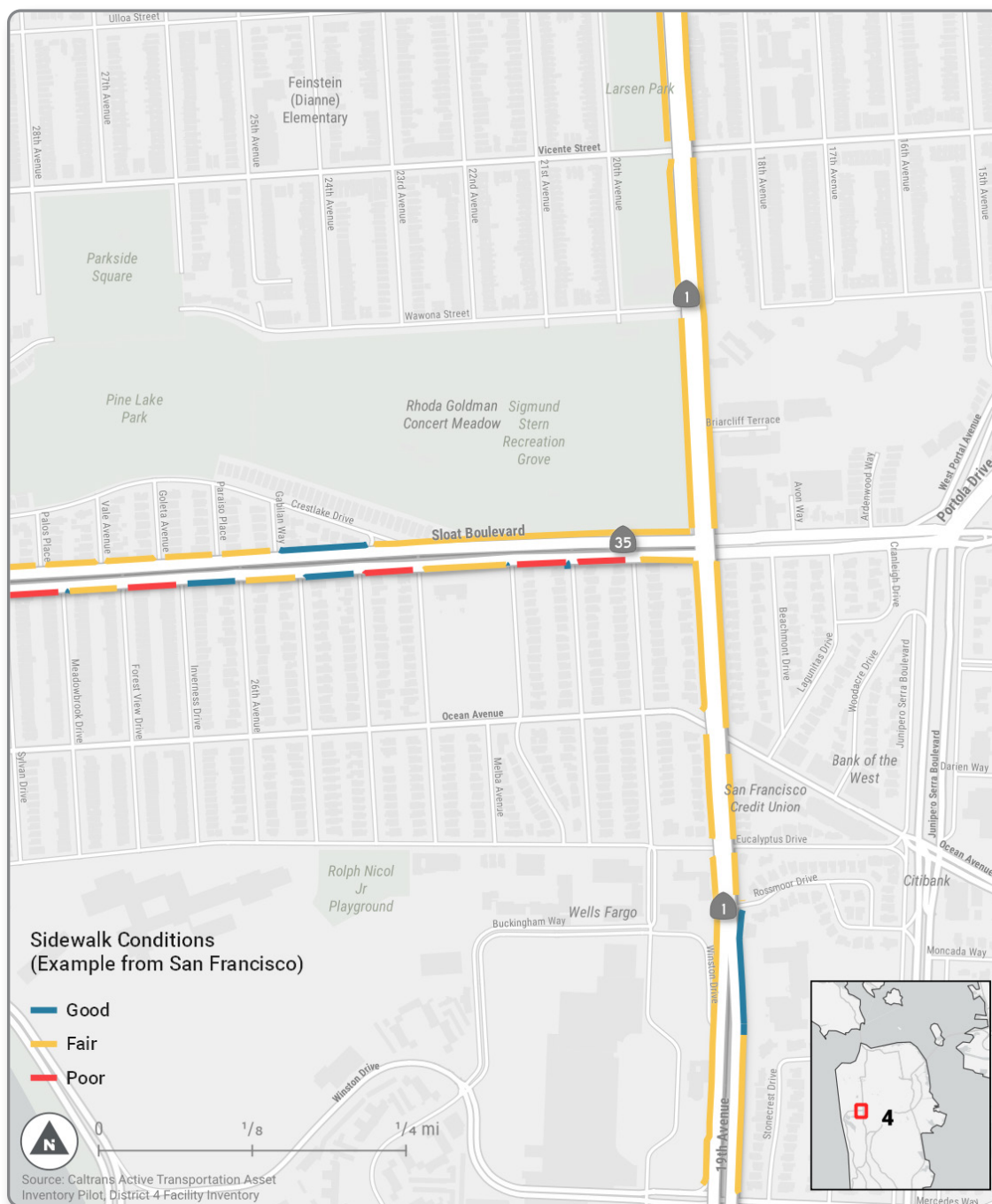


Sidewalk coverage along the State Highway System in District 4 (lane miles)

Source: Active Transportation Data Pilot Project Data, District Staff

Sidewalk Coverage (Example from Fremont)



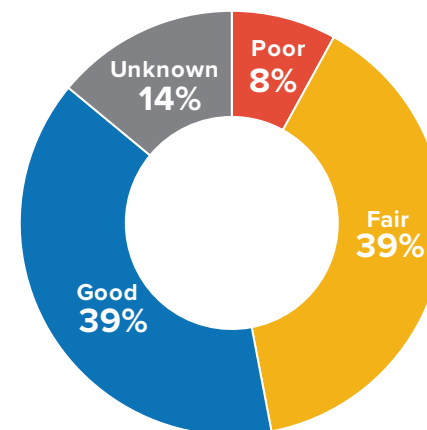


SIDEWALK CONDITIONS

Sidewalks that are connected, accessible, and in good condition can support increased walking along state highways. For this Plan, sidewalk conditions were evaluated using data from the Active Transportation Asset Inventory,¹ and supplemented by research using Google Streetview images captured in 2018 and 2019. This data is not comprehensive and may not reflect current conditions since sidewalks degrade and are repaired over time.

Sidewalks where the state of repair is known (86%) are largely in good or fair condition. There are no major differences between the condition of sidewalks in different land use contexts. This Plan prioritizes needs for the 47% of sidewalk miles where conditions are fair or poor.

¹ The Active Transportation Asset Inventory is a pilot program to catalogue and evaluate the presence and physical conditions of the facilities on the State Highway System that people use for walking and biking. Data from this program are used in analysis throughout this Plan.



Sidewalk conditions along the State Highway System in District 4 (sidewalk miles)

Source: Active Transportation Asset Inventory, District Facility Inventory

NEEDS FOR PEOPLE WALKING ON THE STATE HIGHWAY SYSTEM

The primary purpose of this planning effort was to establish a prioritized list of “location-based needs,” or specific locations along the SHS where infrastructure investments would most benefit people walking and bicycling and best achieve the goals identified in *Toward an Active California*. To identify these needs, Caltrans conducted an assessment of gaps and barriers along the SHS that affect walking. Now that the needs have been identified, a set of design solutions will be developed to address them. This information is available for review on the online [Story Map](#).



State Route (SR) 4 near Slatten Ranch. Photo by Sergio Ruiz.



An example of a place with pedestrian needs is along the highway segment shown here, which lacks a sidewalk.

IDENTIFYING NEEDS

The need for pedestrian infrastructure along the SHS has been inventoried and documented by multiple sources over time. Needs included in this Plan reflect analysis of data collected in 2019 from local agency plans, public engagement efforts, Caltrans highway data, and other sources.

As a starting point, planned pedestrian facilities along or across the SHS that are identified in plans adopted by cities, counties, or the MTC were analyzed as potential needs. Since these needs have been vetted through a completed planning process, they therefore qualify for continued Caltrans planning and implementation support. In some cases, local plans identify the need for pedestrian facilities that would cross a Caltrans roadway. In those instances, crossing needs at those locations are included in this Plan to support local networks. The local plans referred to in this planning process are available on the District 4 page on the [Caltrans Active Transportation Plans website](#).

In addition, Caltrans collected data to identify needs through partner and public surveys and other engagement efforts. The feedback was used to confirm assumptions made about the potential needs identified from the local plans, and will be used to inform the project development process in the future. Moving forward, Caltrans will continue to collect additional survey data beyond the publication of this Plan, since needs and priorities will shift over time.

As the list of pedestrian needs was compiled, Caltrans also conducted a detailed automated and manual analysis of SHS data to identify needs in the following categories:



MAIN STREET SIDEWALK GAPS

Main street locations lacking sidewalks on one or both sides of the road.



SIDEWALKS IN FAIR OR POOR CONDITION

SHS segments with sidewalks in fair or poor condition, as determined by Caltrans staff.



SIDEWALKS ALONG HIGHER-SPEED HIGHWAYS

SHS segments with sidewalks along roadways with a posted speed limit of 35 mph or higher.



STRESSFUL PEDESTRIAN CROSSINGS

Intersections on conventional highways (that is, those that aren't freeways or expressways) that are stressful for people walking to cross. This analysis accounts for characteristics like the presence or absence of median islands and marked crossings, posted speed limits, and other factors.



INFREQUENT CROSSINGS

Freeway sections where pedestrian crossings (like bridges or undercrossings) are infrequent. This analysis does consider the local land use (e.g. the presence of destinations on both sides of the road), but it does not take into account the quality of the surrounding pedestrian network.



FREEWAY INTERCHANGE NEEDS

These needs are at locations that meet various gap criteria, including the presence of a narrow sidewalk, a lack of sidewalks, an uncontrolled highway on- or off-ramp crossing, unmarked highway ramp crosswalks, or poor crosswalk visibility. A freeway ramp intersection meeting at least one of these criteria is included as a need in this Plan.

The result of this analysis is a map and list of individual location-based needs at specific locations where gaps and barriers may exist for people walking along or across the highway. An example of one such location-based need is across Sloat Boulevard (State Route (SR) 35) at Forest View Drive in San Francisco.

PRIORITIZING NEEDS

Locations with needs on the SHS were evaluated and prioritized according to the goals of *Toward an Active California*. The purpose of this is to assess which location-based needs may be best suited to move into Caltrans project development phases over time. Prioritization may be used as a factor to inform future Caltrans efforts in seeking competitive funds to implement the Pedestrian Plan.

The first step in the prioritization process was to break the SHS in the district into smaller segments, such as areas around freeway crossings or 1- to 3-mile segments between major intersections. These segments are scaled to roughly align with segments Caltrans uses to develop improvement projects on the SHS, which is helpful so that individual needs can be grouped with other projects on the system.

As a second step, each highway segment and freeway crossing was then scored based on factors like those described in the Walking in District 4 Today section of this report. These include the potential to shift short trips from driving to walking, the history of pedestrian crashes nearby, the presence of a disadvantaged community nearby, and the condition of sidewalks and crosswalks along the facility.

The scoring calculations incorporated input from District 4 staff on weights and measures assigned to each goal from *Toward an Active California*, reflecting the localized vision and priorities of stakeholders and the public across the district, as summarized in the table on this page. These weights refer only to the data-driven prioritization in this plan, and do not intend to suggest that Caltrans District 4 assigns these weights to Safety, Mobility, Equity, and Preservation in all of its work. Safety remains the highest priority for Caltrans. In the context of the District 4 Pedestrian Plan, it was given a slightly lower weighting because funding for safety-based (and preservation-based) pedestrian projects already exist, while methodically funding pedestrian equity or mobility projects does not yet occur at Caltrans.

GOAL	WEIGHT	MEASURE(S)
Mobility	30%	Short-distance travel demand; access to transit; existing walk trips
Safety	25%	Reported crash density; public/stakeholder input on safety; severity-weighted crash density
Equity	30%	CalEnviroScreen score; median income; subsidized school meals; locally identified disadvantaged community; household vehicle access
Preservation	15%	Improvement to existing crosswalk or sidewalk

Finally, scored segments and freeway crossings were ranked and sorted into three tiers based on their relative intensity of need, with Tier 1 representing the highest intensity. The maps following this section show prioritized highway segments and freeway crossings in the District. All of the location-based needs on each highway segment and freeway crossing are assigned the same score and tier as the segment or freeway crossing itself.

This process provides a comparative indication of need. Needs at a given location should always be considered for incorporation into nearby projects on the SHS, regardless of their assigned tier. Caltrans has access to datasets with additional details describing the specific infrastructure conditions that resulted in individual needs being identified at specific locations. These details are intended to be used to support the project development process. The needs in this plan will also be used to build Complete Streets performance targets used in the Caltrans project development process. The performance targets use safety data from other sources, so the Safety goal is weighted slightly lower than Mobility and Equity in this Plan.

This plan identifies 994 needs for people walking **across** highways.

The plan identifies 2,753 needs for people walking **along** highways.

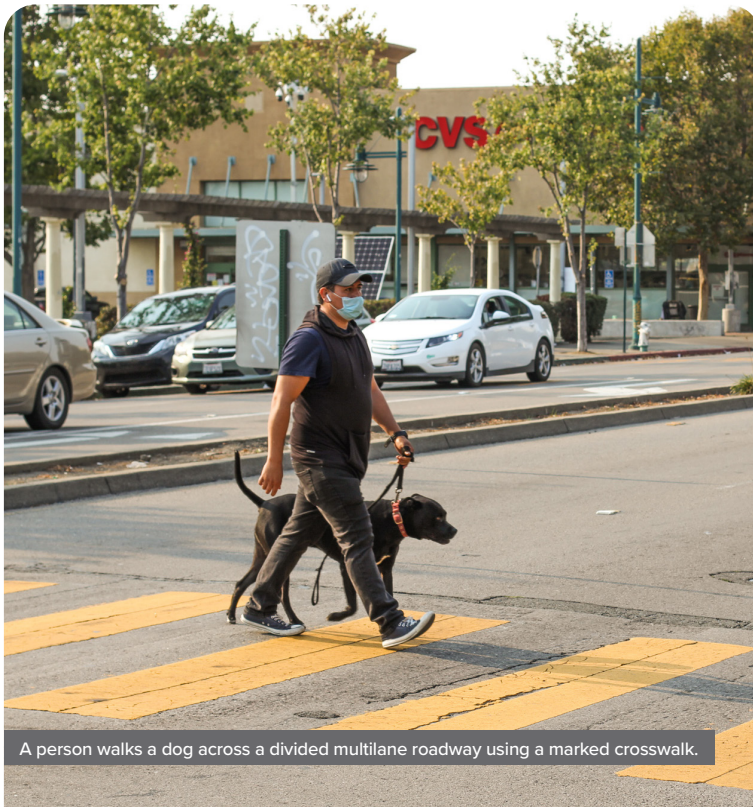


STORY MAP AND PEDESTRIAN TOOLKIT

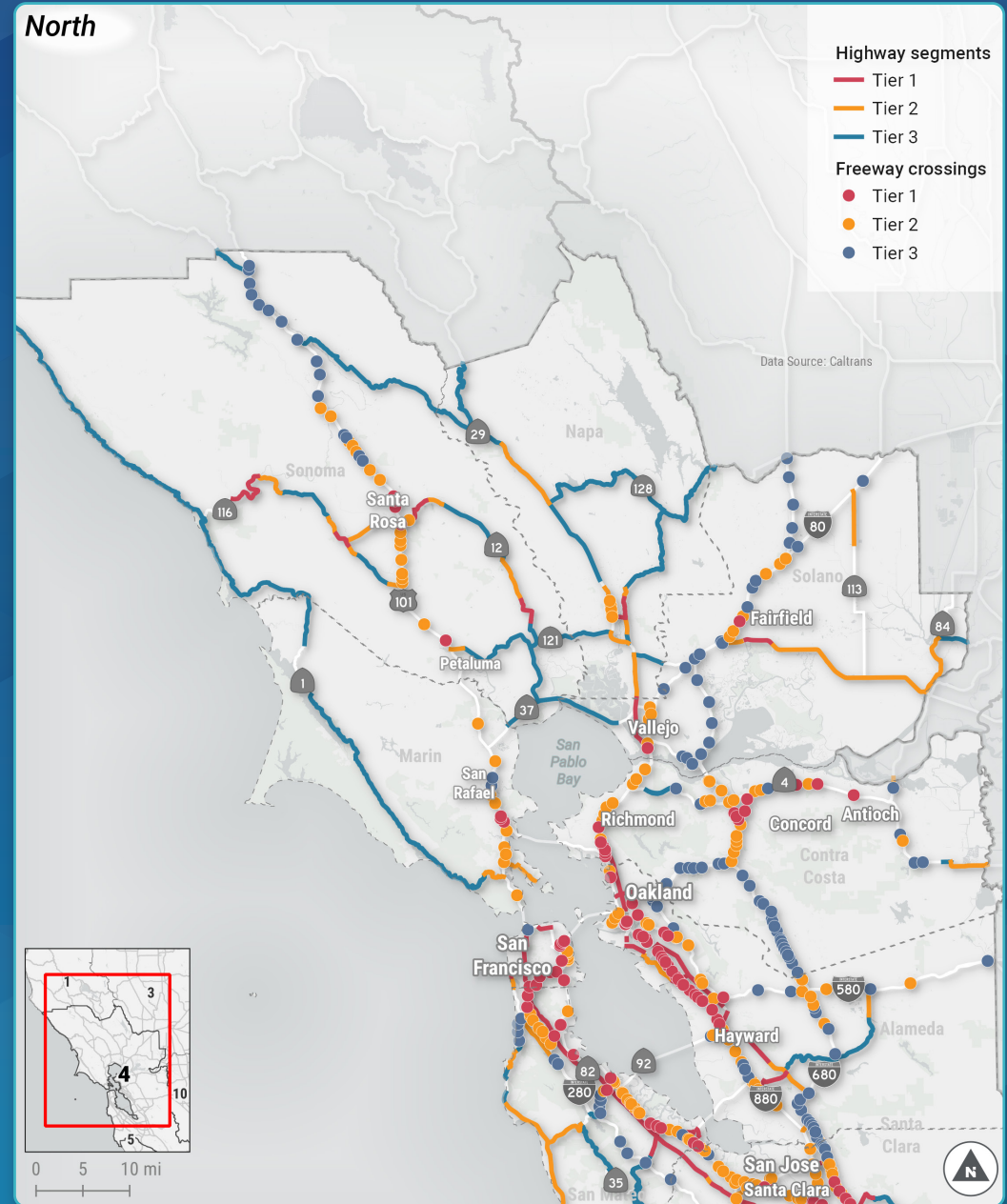
This Summary Report has a companion [Story Map](#). This interactive mapping tool provides greater detail on a full range of existing conditions measures and illustrates the individual and prioritized location-based needs. The map also provides the following information about each need:

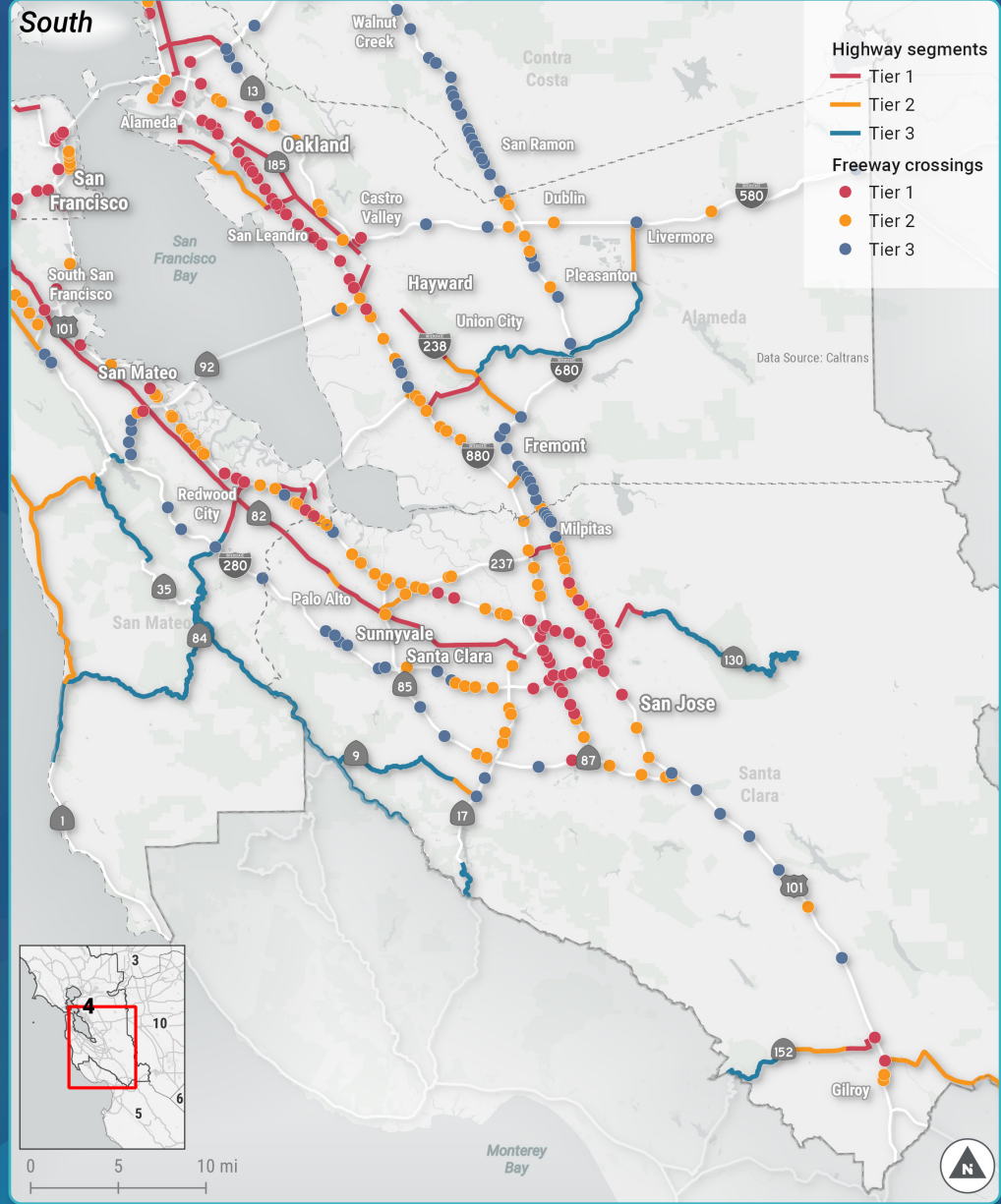
- ▶ Whether the location of a need is along or across the highway
- ▶ Relative priority (Tier 1, Tier 2, or Tier 3)
- ▶ Prioritization goal scores

This information can help stakeholders and the public understand where needs and opportunities exist in their local community, the nature of those needs, and how those needs relate to the full picture of active transportation initiatives across the district. A Pedestrian Toolkit contains an array of potential treatments to address location-based needs, and will be available on the District 4 page of the [Caltrans Active Transportation Plans website](#).



A person walks a dog across a divided multilane roadway using a marked crosswalk.





NEXT STEPS FOR IMPLEMENTATION

The District 4 Pedestrian Plan (and Bike Plan) are critical steps in implementing the Caltrans statewide vision for improving the walking and bicycling experience along the STN in the Bay Area. Caltrans and partners at local agencies and community-based organizations all have important roles to play in supporting highway improvement projects that meet the needs of people walking, including those needs identified in this Plan. Next steps for project implementation are described below.

NEXT STEPS FOR CALTRANS

LEVERAGE LOCAL PARTNERSHIPS

This Plan will be used to help identify subsequent planning efforts and specific projects located on or near the STN. Caltrans and local agency staff will meet early in the project planning and development process to coordinate on project objectives, design, and execution. This coordination can occur during meetings of the District 4 Pedestrian Advisory Committee, a body of local agency representatives, advocates, and residents who meet regularly and advise Caltrans on the planning and implementation of pedestrian policies and projects. Coordination can also occur as part of other stakeholder engagement efforts. Site visits with local partners will provide further understanding of the local context, and connectivity needs between the local pedestrian network and the STN.

IDENTIFY AND INITIATE PROJECTS

The pedestrian needs in this Plan provide baseline information that Caltrans will use to further understand issues at specific locations and identify potential improvements. Caltrans has further detail on the needs identified in this Plan, which the public can view on the project [Story Map](#).

Crossing needs

- ▶ Stressful pedestrian crossings
- ▶ Infrequent crossings
- ▶ Freeway interchange needs
- ▶ Other crossing needs identified through local input or by partner agencies

Corridor needs

- ▶ Main street sidewalk gaps
- ▶ Sidewalks in fair or poor condition
- ▶ Sidewalks along higher-speed highways
- ▶ Other corridor needs identified through local input or by partner agencies

HOW WILL THIS PLAN IMPROVE OUTCOMES FOR PEDESTRIANS?

The data analysis and findings from this study process will:

- Inform and serve as an input to the Caltrans project identification and development processes.
- Foster coordination and alignment between state, regional, and local planning and project development.
- Elevate the profile of pedestrians in asset management and other data-driven decision-making processes.
- Support competitive funding applications.
- Help to integrate active transportation needs as part of other project types.
- Inform planning and project development activities at the District and statewide levels.

Active transportation elements are often integrated into other highway projects. This can be a strategy to leverage existing project resources and funding to implement active transportation improvements. Caltrans is developing interim Complete Streets performance targets, which will inform District-led efforts to measure progress toward addressing the active transportation needs identified in this Plan. These performance measures will become part of an asset management strategy to invest in both existing facilities and gaps in the active transportation network.

Maintenance needs should be considered when planning and developing new facilities on the STN. Caltrans will continue to work with local partners to ensure maintenance needs are addressed with locally-sponsored projects. The need to maintain new facilities, including pedestrian facilities, is a continued challenge that will need to be addressed at the district and statewide level.

FUND PROJECTS

Caltrans views all transportation projects as opportunities to accommodate the needs of people walking on its highways, and many funding programs similarly require consideration of Complete Streets elements as part of projects. Funding is always the most challenging part of implementing any kind of project on the highway. These are three primary funding mechanisms for projects to meet the needs outlined in this Plan:

- ▶ The State Highway Operation and Protection Program (SHOPP) is Caltrans “fix-it-first” program that funds the repair and preservation, emergency repairs, safety improvements, and some highway operational improvements on the STN. The needs identified in this Plan can be incorporated into the SHOPP and provide co-benefits to the primary purpose of the project. The baseline needs from this Plan will directly contribute to establishing interim performance targets that will set aside funds specifically for active transportation.
- ▶ The Active Transportation Program (ATP) directs funds to local and regional agencies through a competitive selection process. This Plan helps identify and prioritize improvements that might be most competitive for these funds.
- ▶ Senate Bill 1 (SB 1) establishes local and State transportation programs and funding to repair and enhance roads, bridges, transit, and other transportation assets. SB 1 provides opportunities to address active transportation needs while also infusing the ATP with an additional \$100 million annually.
- ▶ Local and regional jurisdictions may also contribute project funds to meet the capital needs of projects in this Plan. Funds generated by local sales tax measures, for example, can be used for matching grants or to provide additional financial leverage for projects.



Vine Trail along SR 29 in Oak Knoll. Photo by the California Department of Transportation. All rights reserved.

TAKE DISTRICT-LEVEL ACTION

Each District plays a key role in achieving the goals and objectives of *Toward an Active California*. District 4 staff can take the following actions to track progress and implement strategies that further those goals and objectives:

- ▶ Track implementation of pedestrian improvements along and across the STN in District 4.
- ▶ Provide guidance to local agency partners on the Caltrans approval process for Complete Streets improvements on the STN.
- ▶ Identify and promote best practices from District 4 and local jurisdictions developing pedestrian facilities on and along State Highway corridors in the Bay Area.
- ▶ Develop recommendations based on Bay Area best practices for future updates to Caltrans statewide guidance and policies.
- ▶ Explore opportunities to partner with local agencies and organizations on short-term pilot projects and events to promote walking.
- ▶ Strengthen engagement with communities of color and low-income, rural, and tribal communities during planning and project development to understand their mobility and safety needs on the STN.
- ▶ Collect additional data about the STN and local networks, including more detailed data in places where potential for improvements is high.

NEXT STEPS FOR LOCAL AND REGIONAL JURISDICTIONS AND STAKEHOLDERS

COORDINATE AT THE LOCAL LEVEL

Local knowledge and expertise are critical for Caltrans and local agency leaders to understand the needs of people walking at specific locations and to identify, fund, and implement projects to address those needs. Communities throughout the Bay Area can help coordinate the gathering and sharing of knowledge to advance projects. For example, members of the public can advocate for their local or regional leadership to undertake a study of local needs. Local and regional agencies can likewise lead planning studies to identify relevant funding sources. This step should include community engagement to understand the public's experiences and priorities. Funding is available from Caltrans to support this planning work through its Active Transportation Program, Sustainable Transportation Planning Grant Program, Urban Greening Program, Transformative Climate Communities Program, and other initiatives.

Project needs may also be incorporated into local general plans, specific plans, or other planning documents to address the gaps identified in the District 4 Pedestrian Plan; consistency across plans is a key factor in making projects attractive for funding.

PARTNER WITH CALTRANS TO DEVELOP PROJECTS

Local agency representatives are key partners with Caltrans in providing information about local needs and priorities related to the STN. Coordination can strengthen projects that are led by local agencies and those led by Caltrans to better address needs for people walking on State Highways and the streets and roads that connect to them. Local partners can provide critical input about how incorporating active transportation elements into projects will provide improved connections to the local road network.

SEEK FUNDING TO BUILD PROJECTS

Projects or plans on the STN frequently include funds provided directly from Caltrans, such as through its Active Transportation Program or Sustainable Transportation Planning Grant Program. In addition to grant funding, Caltrans is also seeking opportunities to fund active transportation needs by incorporating them into projects funded by the State Highway Operation and Protection Program, which is described on the preceding page. Project funding packages sometimes include additional sources, such as local or regional sales tax measures, grants from the Greenhouse Gas/Air Resource Board (e.g. Sustainable Transportation Equity Projects), funds from the State Coastal Conservancy, funds from regional partners (e.g. MTC), funds from the Transportation Demand Act, other gas tax revenue, or general funds.

REGIONAL PLAN COORDINATION

There are several large, regional efforts to advance active transportation networks within the Bay Area. These include the San Francisco Bay Trail, the Bay Area Ridge Trail, the California Coastal Trail, the Bay Area Trails Collaborative, and others. The District 4 Pedestrian Plan incorporated data from these initiatives, and seeks to be in agreement with these plans, and to also improve connections to these facilities where the existing SHS acts as a barrier. The forthcoming MTC Active Transportation Plan will be another important opportunity to elevate regional coordination across the Bay Area.

To learn more about these ongoing initiatives, visit:

- San Francisco Bay Trail: <https://baytrail.org/>
- Bay Area Ridge Trail: <https://ridgetrail.org/>
- California Coastal Trail: <https://scc.ca.gov/projects/california-coastal-trail/>
- Bay Area Trails Collaborative: <https://www.railstotrails.org/our-work/trailnation/bay-area-trails-collaborative/>



A walk audit crosses SR 1 in Point Reyes Station. Photo by Sergio Ruiz.

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This Plan was developed through the combined commitment, energy, and guidance of current and past District 4 and Caltrans Headquarters team members, the District 4 Pedestrian Plan Working Group, partner organization representatives, advocacy group members, and community members. The following organizations and individuals, in particular, contributed significantly to the Plan's development and were instrumental in its completion.

DISTRICT 4 PEDESTRIAN WORKING GROUP

- ▶ Colin Clarke, Contra Costa Transportation Authority
- ▶ Triana Crighton, Solano Transportation Authority
- ▶ Colin Dentel-Post, San Francisco County Transportation Authority
- ▶ Kathrina Gregana, Solano Transportation Authority
- ▶ Mikaela Hiatt, City/County Association of Governments of San Mateo County
- ▶ James Hinkamp, Contra Costa Transportation Authority
- ▶ Josephine Hsai, Caltrans District 4 Office of System and Regional Planning
- ▶ Lee Huo, MTC/Bay Trail Project
- ▶ Lauren Ledbetter, Santa Clara Valley Transportation Authority
- ▶ Chris Marks, Alameda County Transportation Commission
- ▶ Marty Martinez, Safe Routes to School National Partnership
- ▶ Scott McDonald, Transportation Authority of Marin
- ▶ Diana Meehan, Napa Valley Transportation Authority
- ▶ Mike Pickford, San Francisco County Transportation Authority
- ▶ Phillip Rodriguez, Caltrans District 4 Sustainability Manager
- ▶ Hung Tran, Caltrans District 4 Office of Traffic Safety
- ▶ Dana Turr  y, Sonoma County Transportation Authority

CALTRANS PROJECT TEAM

- ▶ Greg Currey, Project Manager
- ▶ Sergio Ruiz, Complete Streets Coordinator
- ▶ Erik Alm, Chief, Office of Transit and Community Planning
- ▶ Jacob Buffenbarger, Pedestrian and Bicycle Branch
- ▶ Jake Freedman, Pedestrian and Bicycle Branch
- ▶ Elliot Goodrich, Pedestrian and Bicycle Branch
- ▶ Michelle Matranga, Pedestrian and Bicycle Branch
- ▶ Amie Mohai, Pedestrian and Bicycle Branch
- ▶ Kimberly Overton, Pedestrian and Bicycle Branch
- ▶ Dianne Yee, Pedestrian and Bicycle Branch
- ▶ Jessica Downing, Smart Mobility and Active Transportation Branch, Caltrans HQ

COMMUNITY PARTNERS

- ▶ Kate Beck, University of California, Berkeley, SafeTREC
- ▶ Garrett Forntin, University of California, Berkeley, SafeTREC
- ▶ Trista Hu, University of California, Berkeley
- ▶ Ian Martin, University of California Berkeley
- ▶ Andrew Tate, University of California, Berkeley

CONSULTANT TEAM

- ▶ Toole Design
- ▶ WSP
- ▶ Cambridge Systematics

A woman with long brown hair, wearing a pink t-shirt and white pants, is walking on a concrete pedestrian bridge. She is holding a black smartphone in her right hand. The bridge is flanked by tall chain-link fences. In the background, a highway with multiple lanes is visible, with a large concrete overpass structure. The sky is overcast.

CONTACTING CALTRANS

Additional information about this planning effort can be found on the District 4 page on the [Caltrans Active Transportation Plans website](#). The Caltrans District 4 Complete Streets Coordinator can provide additional information about upcoming projects in your community, provide input, and coordinate on project identification, development, and implementation:

Caltrans District 4 Complete Streets Coordinator:

Sergio Ruiz – sergio.ruiz@dot.ca.gov

Caltrans District 4 Pedestrian Plan Project Manager:

Greg Currey – gregory.currey@dot.ca.gov

Caltrans District 4 Public Information Officer:

Jeffrey Weiss – jeffrey.weiss@dot.ca.gov

Caltrans District 4 Public Information Office:

caltrans_d4@dot.ca.gov



DISTRICT 4 PEDESTRIAN PLAN FOR THE BAY AREA

2021

SUMMARY REPORT

