

# San Leandro Crosstown Corridors Study

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#### November 2022

The City of San Leandro led the development of the Crosstown Corridors Study. The Study was made possible through a Caltrans Sustainable Transportation Planning Grant with a Vehicle Registration Fee local match. Caltrans Sustainable Transportation Planning Grants plan for multimodal transportation systems and seek to improve public health, social equity, environmental justice, and provide other important community benefits.

#### **Acknowledgements**





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## 1. Introduction

The Crosstown Corridors Study (the Study) is the culmination of a communitybased planning process to improve safety, school access, and multimodal connections along both Bancroft Avenue and Williams Street in San Leandro. This was accomplished through extensive community and technical stakeholder engagement to understand existing issues and opportunities, discuss potential improvements, and ultimately arrive at a preferred set of recommendations that reflect the long-term priorities and vision for both corridors.

### 1.1 Study Purpose

Running parallel to major commercial streets, Bancroft Avenue and Williams Street have long been key corridors for biking and walking in San Leandro. Each corridor is home to multiple schools including San Leandro High School, Bancroft Middle, and John Muir Middle, and both streets serve students biking and walking as well as families picking up and dropping off their children.

Because of their importance for accessing schools, businesses, transit, and recreation, these corridors were a major focus in the 2018 Bicycle and Pedestrian Master Plan (BPMP). During the BPMP's community engagement, residents and Bike & Pedestrian Advisory Committee (BPAC) members emphasized the importance of Bancroft Avenue and Williams Street not only as crucial routes to essential services, but also as "cross-town" spines serving many San Leandro neighborhoods with the potential to bridge neighborhood barriers and bring people together.

The Study builds off the City of San Leandro's commitment to eliminating traffic deaths and severe injuries by developing transformative safety improvements that address driver safety and enhance mobility and safety for the most vulnerable travelers—namely, pedestrians, bicyclists and people using scooters and skateboards. This chapter highlights the process, approach, and planning background that informed the Study outcomes.

#### What is Vision Zero and Safe Systems?

Vision Zero is not a slogan, not a tagline, not even just a program. It is a fundamentally different way to approach traffic safety.

-Vision Zero Network

The Vision Zero approach views transportation-related fatalities and injuries as preventable, rather than inevitable, and relies on data-driven, multi-disciplinary collaboration to eliminate fatalities and severe injuries to ensure safe, healthy, and equitable mobility for all.

The "Safe System" approach is the set of strategies to achieve Vision Zero. This approach focuses on influencing system-wide practices, policies, and designs to lessen the severity of collisions. Encouraging safer, more context-appropriate travel speeds and building "safety nets" into the design of streets and crossings supports the goal of downgrading a fatal collision to a survivable collision, and a severe injury collision into a minor injury collision.

### Study Goals

The Study process led to the following specific objectives for the corridor:

- **Safety**: Develop street designs that provide separated bike lanes and improvements for walking that help people feel safer and more comfortable on Bancroft Avenue and Williams Street.
- **School Access:** Improve access for students and families walking and biking to school on Bancroft Avenue and Williams Street.
- **Multimodal Connections:** Bancroft Avenue and Williams Street will support access to BART, businesses, parks, and other community destinations for all modes, prioritizing sustainable and active transportation.

The recommendations culminate in conceptual design plans, a preliminary cost estimate, and an implementation plan that the City of San Leandro can use to secure funding for implementation.



### 1 INTRODUCTION

### 1.2 Community Engagement and Study Process

Community engagement was divided into three phases, illustrated in Figure 1-1.

Phase 1, in the summer of 2021, focused on learning about mobility needs, travel behaviors, and overall visions for each corridor. This phase corresponded with the technical analysis and field observations of existing conditions.

Phase 2, during winter of 2022, focused on collecting feedback on a preliminary concept design through surveys and open houses. This second outreach phase corresponded with the technical analysis of two design alternatives, including parking, landscaping, and transit benefits and trade-offs.

Phase 3 focused on additional outreach to confirm the vision and refine the plans, culminating in a tactical urbanism demonstration at three locations in August 2022 where portions of the roadway were temporarily modified to preview potential bikeway enhancements for the day. During this phase, the project team took a deep dive into specific comments on the concept plan, tweaking and refining the final concept presented here.

The Crosstown Corridors community engagement process included a unique partnership with Bike East Bay and PilotCity, who together facilitated the leadership of 10 high school ambassadors over two summers in both 2021 and 2022. These high school ambassadors played a central role in successful distribution of outreach materials, conversations with residents, and preparation for the final pop-up outreach event in August 2022.

Ensuring that the community engagement process is accessible, all materials in print and online were available in English, Spanish, and Chinese. Live interpretation in Spanish and Chinese was available at all pop-ups, meetings, and open houses.

#### Phase 1: Listen & Learn

#### JUL 2021 → OCT 2021

During Phase 1, we heard about your mobility needs, how you travel on the corridors, and your vision for each corridor. Data collection and a detailed existing conditions analysis was also conducted during this phase.



Figure 1-1 Community Engagement and Study Process



### **1 INTRODUCTION**

### 1.3 Study Area Overview

Together, Bancroft Avenue and Williams Street form key north-south and east-west connections in San Leandro, accessing schools, BART stations, local businesses, parks, and community destinations. The Crosstown Corridors Study Area is shown in Figure 1-2: Crosstown **Corridors Study Area** 

### **Bancroft Avenue**

As a north-south connector running parallel to East 14th Street, Bancroft Avenue is significant both for local and regional access. Between Durant Avenue and Blossom Way, Bancroft Avenue has one travel lane in each direction with a center-turn lane, bike lanes, sidewalks, and parking on both sides. Between Blossom Way and East 14th Street, Bancroft Avenue has one travel lane in each direction and sidewalks and parking on both sides. In this southern portion, the width changes frequently, with variable bike lane and sidewalk widths.

### Williams Street

Williams Street is an east-west arterial connecting Downtown San Leandro and the BART station to neighborhoods, industrial warehouses, and the waterfront, Between San Leandro Boulevard and I-880, Williams Street has one travel lane in each direction with bike lanes and parking on both sides. Between I-880 and north of Menlo Street, Williams Street has one travel lane in each direction with a center-turn lane and bike lanes, but no parking. South of Doolittle drive, Williams Street has one travel lane in each direction with bike lanes, with parking only on the southern side between Aurora Drive and Neptune Drive. Sidewalks are generally continuous along both sides of the corridor, with some gaps in key areas, especially near railroad tracks and in the industrial areas.

## Bancroft Avenue

7,446 🖚 34 MPH 671

Average Daily Traffic Prevailing Speed

Schools

68,000

Residents within half-mile

## Williams Street

9.822 🖚 31 MPH 671 Average Daily Traffic

Prevailing Speed

Schools

37,000

Residents within half-mile





Figure 1-2 Crosstown Corridors Study Area

Crosstown Corridor 📀 Public School 🙂 BART Station

### 1 INTRODUCTION

### 1.4 Planning Context

Bancroft Avenue and Williams Street are San Leandro's highest priority bikeway corridors and have significant need for pedestrian and transit access improvements, particularly for Safe Routes to School.

## San Leandro Bicycle and Pedestrian Master Plan (2018)

Because of their importance for accessing schools, businesses, transit, and recreation, Bancroft Avenue and Williams Street were a major focus in the 2018 Bicycle and Pedestrian Master Plan (BPMP).

- **Bancroft Avenue Recommendations:** separated bike lanes corridor study and pedestrian improvement area from Victoria Park to 136<sup>th</sup> Avenue.
- Williams Street Recommendation: separated bike lanes from Neptune Drive to San Leandro Boulevard and pedestrian improvement area in school zone.
- **BART Access Recommendations:** San Leandro BART via bicycle boulevard on Juana Avenue, Class IV separated bike lanes study on Estudillo Avenue. Bay Fair BART via Class IV corridor study on Hesperian Boulevard. Pedestrian improvement areas at both BART stations.
- Separated Bike Lane Network: Separated bike lanes or studies are recommended for Estudillo Avenue, Doolittle Drive, E. 14<sup>th</sup> Street, and San Leandro Boulevard, key intersections to the low-stress bike network for Bancroft Avenue and Williams Street.

### San Leandro 2035 General Plan

The San Leandro 2035 General Plan supports the development of a comprehensive bicycle and pedestrian transportation system as an alternative to vehicle trips—improving safety, connectivity, and awareness. The Bancroft corridor is identified as a high priority area for bicycle and pedestrian improvements.



BPAC members at City Council for BPMP approval, 2018

### CPBST San Leandro Workshop Summary and Recommendations (2020)

The San Leandro Community Pedestrian and Bicycle Safety Training (CPBST) was a collaboratively planned virtual event co-hosted by the City of San Leandro, Cal Walks, and SafeTREC to improve walking and biking conditions on Williams Street and gather community input on plans for a Class IV separated bike lanes. Recommendations from the CPBST included: a pop-up demonstration of Class IV separated bike lanes on Williams Street, pedestrian crossing improvements, especially near schools, and advocacy for use of railroad right of way for a path (East Bay Greenway).



### 1 INTRODUCTION

### Bay Fair TOD Specific Plan (2018)

The Bay Fair Transit Oriented Development (TOD) Specific Plan presents a vision, policies, standards, and implementation strategies for the future of the area surrounding the Bay Fair BART station. The plan includes circulation recommendations for the streets accessing Bay Fair BART, including the Bancroft Avenue/E. 14<sup>th</sup> Street intersection. Recommendations include new pedestrian and bicycle connections in a new grid internal to the development site, improved wayfinding and visual connection from Hesperian Boulevard to BART, and class IV separated bike lanes on Hesperian Boulevard, 150<sup>th</sup> Avenue, and Fairmont Drive

### East Bay Greenway (2020)

The Alameda County Transportation Commission's East Bay Greenway (2020) provides recommendations for E. 14<sup>th</sup> Street, Mission Boulevard, and Fremont Boulevard with a focus on meeting mobility needs through connections to BART, bus rapid transit, and continuous bicycle and pedestrian facilities in central and southern Alameda County. In San Leandro, the Class IV separated bike lanes alignment is recommended on Bancroft Avenue from Callan Avenue to E. 14<sup>th</sup> Street and the bus rapid transit alignment is on San Leandro Boulevard from Davis Street to E. 14<sup>th</sup> Street. Both come together along E. 14<sup>th</sup> Street near the border with Ashland and Bay Fair BART.

Currently, the Alameda CTC is implementing the East Bay Greenway Multimodal Corridor (Phase 1), which will include bikeway components on E. 14<sup>th</sup> Street and San Leandro Boulevard in partnership with Caltrans.

## Alameda CTC Rail Safety Enhancement Program (2020)

The Alameda CTC has developed a list of 56 Tier 1 at-grade railroad crossings for improvements to safety, vehicle delay, emissions, and noise impact. This list includes multiple rail crossings in San Leandro, including both the UPRR Niles and Coast Subdivision crossings on Williams Street. Improvements are planned to begin construction in 2022 and will include upgraded sidewalks, ADA improvements, medians, and new pedestrian swing gates.

#### What Is the East Bay Greenway?

Led by the Alameda CTC, the East Bay Greenway Multimodal Corridor Project will construct 16 miles of north-south bicycle, pedestrian, and transit corridor on local streets in Oakland, San Leandro, Ashland, Cherryland, and Hayward. The long-standing East Bay Greenway project, which would construct a trail on the railroad tracks, has now been split into a near-term phase to construct facilities on local streets. In San Leandro, the project will include separated bike laness and pedestrian improvements on San Leandro Boulevard and E. 14<sup>th</sup> Street, intersecting with both Bancroft Avenue and Williams Street Crosstown Corridors and providing key connections to BART.



Map of the Crosstown Corridors project area (yellow) showing the intersections with the East Bay Greenway Multimodal Corridor Project along San Leandro Boulevard and E 14<sup>th</sup> Street (blue).



## 2. Existing Conditions

This Study began with existing conditions analysis and community engagement to determine needs, issues, and opportunities. The existing conditions findings along with community visioning were then used as the basis for developing design alternatives for the corridors. This chapter summarizes demographics, land use, Phase 1 community outreach, and the existing vehicle, pedestrian, bicycle, and transit facilities along the corridor. The existing conditions chapter is a summary of the full existing conditions report, provided in **Appendix B**.

### 2.1 Demographics

The populations of residents living in the vicinity of Williams Street and Bancroft Avenue are generally diverse in race/ethnicity and age.

### Bancroft Avenue

Approximately 68,000 people live within a half-mile on either side of Bancroft Avenue—note that some of the residents captured in this analysis are residents of Oakland. More than half (63 percent) of residents identify as a minority, including 31 percent Hispanic, 21 percent Black, and 20 percent Asian. About 5 percent of corridor residents speak Spanish and 4 percent speak an Asian language, both with limited English proficiency. Approximately 20 percent of residents along Bancroft are 17 years old or younger, and about 10 percent of residents are 70 years or older.

Of the seven census tracts bordering Bancroft Avenue, five are Equity Priority Communities as defined by the Metropolitan Transportation Commission (MTC). Within all seven tracts, key population highlights from MTC's Equity Priority Communities data include:

- 70% are people of color
- 11% are people with disabilities
- 10% of households have limited English proficiency
- 8% of households are zero-vehicle households
- 29% of people are low-income

### Williams Street

Approximately 37,000 people live within a half-mile on either side of Williams Street. Like Bancroft Avenue, 63 percent of residents identify as a minority, including 32 percent Asian, 29 percent Hispanic, and 12 percent Black. About 5 percent of corridor residents speak Spanish and 6 percent speak an Asian language, both with limited English proficiency. Approximately 20 percent of residents along Williams are 17 years old or younger, and about 9 percent of residents are 70 years or older.

Of the three census tracts bordering **Williams Street**, all three are Equity Priority Communities. Within those three tracts, key population highlights from MTC's Equity Priority Communities data include:

- 79% are people of color
- 11% are people with disabilities
- 15% of households have limited English proficiency
- 9% of households are zero-vehicle households
- 31% of people are low-income



### 2.2 Land Use Context and Key Destinations

Land use and key destinations along the corridor provide important context when looking at travel patterns and travel mode choice for people traveling on the corridors. This Study analyzed the land use along the corridor to understand that context.

### Bancroft Avenue

The land use on Bancroft Avenue primarily consists of both single- and multifamily residential, interspersed with commercial and institutional uses along the corridor. The Broadmoor Business District, clustered around Dutton Avenue and extending north to Durant Avenue, is primarily small businesses, including popular restaurants and cafes along with a large Safeway store that serves the broader community.

Seven schools are located along or near Bancroft Avenue. Bancroft Middle School and San Leandro High School are both located directly on the corridor, with long frontages and large campuses that serve students and families from throughout San Leandro. The corridor also serves four neighborhood elementary schools (McKinley Elementary and Jefferson Elementary), parks, and faith-based institutions. The corridor is a key connector to destinations just beyond Bancroft Avenue, including Bay Fair BART station, San Leandro's downtown, and the Bayfair shopping center. A map of land uses and key destinations is shown in **Figure 2-1: Bancroft Avenue Land Use and Key Destinations**.

#### Key Destinations

- Schools: San Leandro High, Bancroft Middle, Jefferson Elementary, and McKinley Elementary Schools are located on the corridor. Washington and Roosevelt Elementary Schools are nearby.
- **Businesses:** The Broadmoor Business District near Dutton Avenue, including Safeway, is a major destination. The intersection of Bancroft Avenue and East 14th Street is also a hub for retail and dining. Other small businesses including small healthcare facilities are interspersed along the corridor.
- **Parks:** Victoria Park, Memorial Park, and Toyon Park are directly on the corridor, with Farrelly Pool and McCartney Park nearby.
- **Faith-Based Institutions:** Several large faith-based institutions are located along Bancroft Avenue, including the San Leandro Church of Latter-Day Saints, Temple Beth Sholom, First United Methodist Church, and Praises of Zion Missionary Baptist Church.
- **Transit Connections:** AC Transit Line 40 runs on Bancroft Avenue and Bay Fair BART is located approximately 0.8 miles south of the corridor.



Bancroft Avenue facing Dutton Avenue in the Broadmoor Business District



### Williams Street

The land use context of Williams Street primarily consists of both single-family residential, schools, and small commercial uses between San Leandro Boulevard and I-880. West of I-880, land uses are primarily industrial, with single-family neighborhoods on streets nearby but not fronting Williams Street except on one block near Neptune Drive.

Williams Street is home to four schools, all in the same area between I-880 and Wayne Avenue. The corridor also serves as a key connection between San Leandro's downtown and the San Francisco Bay Trail at Neptune Drive. A map of land uses and key destinations is shown on **Figure 2-2 Williams Street Land Use and Key Destinations**.

#### Key Destinations

- Schools: Wilson Elementary, John Muir Middle, and the San Leandro Adult Schools all share a long frontage on the north side of Williams Street and serve large numbers of students from throughout San Leandro.
- Businesses: The West Gate shopping center, Walmart, Drake's and 21<sup>st</sup> Amendment Breweries, and several small businesses near Orchard Avenue.
- **Bay Trail and Marina:** Marina Park and Oyster Bay are major natural destinations in San Leandro, accessible by bike via Williams Street and Neptune Drive.
- **Transit Connections:** AC Transit Line 35 and the North Loop of the City-operated LINKS Shuttle run on the western end of Williams Street. San Leandro BART is located approximately 0.3 miles north of the corridor.



The Williams Street bike lane provides access to businesses, including several popular breweries along the corridor.



Schools are a major destination along Williams Street.





### Figure 2-1 Bancroft Ave Land Use and Key Destinations





### Figure 2-2 Williams Street Land Use and Key Destinations



### 2.3 Phase 1 Community Outreach: Listen and Learn

### Pop-Up Workshops

Fehr & Peers, Bike East Bay, and Student Ambassadors collaborated with the City of San Leandro to host pop-up workshops early in the study process to gather feedback on existing conditions as well as needs and desires of residents and stakeholders along the corridors.

#### Schedule and Venues

Pop-up locations:

- August 7, 2021: Farrelly Pool
- August 21, 2021: Bay Fair Market
- August 25, 2021: Downtown Market

Additionally, Student Ambassadors conducted outreach walks and encouraged online responses throughout the month of August 2021. In total, the workshops and outreach efforts heard input from 225 people in the community.

### Online Map and Survey

A project website on Social Pinpoint hosted up-to-date project information on project goals, scope, existing conditions, streetscape designs, and house community engagement updates, such as outcomes and feedback at meetings, and forthcoming meetings and opportunities for engagement.

During Phase 1, an interactive web map allowed participants to drop pins on the map to identify issues, ideas, and opportunities on each corridor as well as

the key destinations and issues that are important to access. The website also included an "ideas wall" where respondents could share ideas without adding pins on the map. Each respondent was prompted with a survey on their values, priorities, relationship to the corridor, and basic demographic information. They were also invited to submit their email address to stay updated on the project.

### Student Ambassador Program

Recruited in partnership with PilotCity and supervised by Bike East Bay, Student Ambassadors joined the outreach team in Phases 1 and 2 to support engagement during their summer internship. In both phases, students learned about the transportation planning process, active transportation treatments

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Advisory Group Meeting

People Provided



Website Visitors



for safer streets, and community engagement. They also helped co-create engagement activities and materials and get out the word.

Each Student Ambassador came to the project with their own strengths and skills. During Phase 1, student ambassadors began their work on June 21, 2021 and supported the creation of content for the pop-up mobile workshops, assisted in spreading the word about the online outreach resources, and had the opportunity to co-lead stakeholder interviews with our team. Additionally, Ambassadors created and managed social media accounts for the project, creating videos and other ideas that the students brought to the project.

### What We Heard

In general, respondents expressed enthusiasm for walking and biking along both corridors, but with major concerns about comfort and safety. Just over 30% of respondents for both corridors indicated they do feel comfortable and safe, with the remainder somewhat comfortable or not comfortable at all. Respondents shared a variety of concerns, with some themes standing out.

Issues along Bancroft Avenue highlighted by stakeholders include:

- Unsafe speeds
- Drivers misusing the center turn lane as a passing lane
- Student safety concerns
- Bikeway connectivity
- Business access
- Bus stop quality and accessibility

Issues along Williams Street highlighted by stakeholders include:

- Goods movement and business access
- Safe access to Halkin Elementary and Muir Middle Schools
- Connections to San Leandro BART and the Bay Trail
- Rail crossing safety and accessibility





Student Ambassadors conducted outreach and engaged with the communities along Bancroft Avenue and Williams Street throughout summer 2021.



Do you feel safe and comfortable walking and biking on the corridor?



Source: online and in-person survey responses from Phase 1 outreach.



### 2.4 Walking

Sidewalks provide space for pedestrian travel and access to corridor-adjacent uses, as well as for potential activities such as outdoor café or restaurant seating, window shopping, or waiting for transit. Key characteristics that contribute to the pedestrian environment and affect pedestrian safety and comfort are sidewalk width, sidewalk continuity, buffers between pedestrian travel areas and vehicle traffic, and the presence of landscaping, street trees, and pedestrian-scale and roadway light fixtures. Additional characteristics include sidewalk obstructions and driveways that may have implications for compliance with the Americans with Disabilities Act (ADA) and the lack of pedestrian connections between sidewalks and adjacent land uses. The following section provides an overview of the walking environment conditions along Bancroft Avenue and Williams Street.

### Bancroft Avenue

Bancroft Avenue provides basic accommodations for pedestrians up and down the corridor. In general, community members note that high vehicle speeds make it difficult to cross the street, especially in the wider section. Many community comments also noted the need for more high-visibility and enhanced crosswalks. Key observations, confirmed through community engagement, include:

• Near schools, the sidewalks are generally too narrow to accommodate large numbers of students, particularly during pickup and drop-off. There is very high pedestrian demand near San Leandro High School in particular, as students walk between classes or wait to be picked-up or take the bus. Students were observed walking in the street or waiting in the street due to the substantial number of students walking.

- The pedestrian scramble phase at the 136th Avenue signalized intersection helps students cross between the High School's main campus and the Korematsu campus on the west side of the street. This strategy could be used at other locations on the corridor to prioritize pedestrian safety and manage high pedestrian volumes.
- Narrow sidewalks with rolled curbs in the southern section of Bancroft Avenue are frequently blocked by trash cans, parked cars, and other obstacles, particularly challenging for people with disabilities. They can also feel narrow when passing another pedestrian or walking side-by-side, particularly near utility poles or other obstacles.
- The sidewalks can be hot in the summer with limited shade trees along the corridor. Lack of shade trees is a climate resiliency issue that could worsen conditions over time. Additionally, there are almost no bus shelters at AC Transit stops.
- Sidewalk at the southern segment of the corridor sometimes is blocked due to parked cars utilizing the rolled curb to park further from the travel lane or due to obstacles like trash cans.
- It can be very difficult to cross the street, especially at busy intersections like Dutton Avenue, Callan Avenue, and Estudillo Avenue. Some side street crossings have no marked crosswalks even where there is pedestrian demand.

Pedestrian activity is mostly attributed to the large number of schools located just off the corridor, seniors who frequently use the corridor, and people accessing bus service along the corridor. Approximately 35 percent of students at San Leandro High School walk, bike, or skateboard to school, compared an average of 39 percent at other schools along Bancroft and



districtwide.<sup>1</sup> Bancroft Avenue is also served by Line 40, a major trunk line within the AC Transit system. The following section analyzes collision data to understand pedestrian safety, as well as analyzing the existing pedestrian facilities and walking environment along Bancroft Avenue.

#### Pedestrian Safety

Ten years of injury collision data from the Statewide Integrated Traffic Records System (accessed via UC Berkeley Transportation Injury Mapping System) was analyzed along Bancroft Avenue. Between 2009 and 2019, twenty-two pedestrian and eighteen bicyclist injury collisions occurred on Bancroft Avenue. Three of those collisions were severe injury collisions, and none were fatal. About a third of those collisions (13 collisions) involved a school-aged child. Bicycle and pedestrian injury collision locations are shown on **Figure 2-3**.

#### Pedestrian Collision Types

64% of pedestrian collisions were caused by a driver violating the pedestrian right of way. These types of collisions primarily occurred when a driver failed to yield to a pedestrian that was:

- Crossing in an uncontrolled crosswalk
- Crossing at a signalized intersection with permitted left turns(without a dedicated left-turn vehicle phase)

The other third of pedestrian collisions typically had unsafe speeds, unsafe starting or backing, or other factors as the primary collisions factors.

### Crossing Opportunities

Frequent crossing opportunities and safe crosswalks are important for creating thriving pedestrian environments. Today, crossing opportunities vary on the corridor; while signalized and uncontrolled crossing locations do exist, many are unenhanced and community feedback generally notes that more frequent and enhanced crossing opportunities are needed.

#### Uncontrolled Crosswalks

Given the 7,446 ADT and 34 MPH prevailing speed, high-visibility crosswalks, advance yield markings, curb extensions, and rectangular rapid flashing beacons (RRFBs) are important safety countermeasures on the corridor. The City has invested in these enhancements at some uncontrolled crosswalks, such as Blossom Way which has RRFBs that increase pedestrian visibility when activated. However, even at these intersections, community concerns about drivers yielding to pedestrians remain and in at least one case, a crash still occurred. As a result, there is need to look to additional enhancement to encourage driver yielding.

Many of these crosswalks are high demand, particularly near San Leandro High School, where the campus is dispersed, and students must walk along and cross Bancroft Avenue to switch classes throughout the day. Other uncontrolled marked crosswalks, such as at the Bancroft Avenue/Broadmoor Avenue intersection, are marked with a standard crosswalk but not enhanced for increased visibility. Adding high-visibility crosswalks, advance yield markings, and possibly RRFBs at locations like this can improve safety.

The other intersections on the corridor generally have unmarked crosswalks. These are legal crosswalks that do not have any striping. Three collisions occurred at unmarked crosswalks at Bancroft Avenue and Joaquin Avenue, 139<sup>th</sup> Avenue, and Peters Street. This suggests that there may be crossing

<sup>20</sup>\_AlamedaCounty\_SR2S\_SchoolSiteSnapshot\_Final.pdf



<sup>&</sup>lt;sup>1</sup> Alameda County Safe Routes to School: https://alamedacountysr2s.org/wpcontent/uploads/2020/11/2019-

demands at these locations and may be candidate locations for a marked crosswalk.

#### Signalized Crosswalks

There are eight signalized intersections on the corridor, all of which have marked crosswalks. Some intersections have legs where pedestrian crossing is prohibited, like the south leg of the Callan Avenue/ Bancroft Avenue intersection. As noted above, many pedestrian collisions occur as conflict with left-turning vehicles. All of the signals have a protected turn phase for at least one leg of the intersection and for some part of the signal phase. 14<sup>th</sup> Street intersection has fully protected left turn phases on all legs. Key intersections like Dutton Avenue, Callan Avenue, and Estudillo Avenue have protected and permitted left turn phases. Permitted left turns at many signals mean that left turning vehicles must yield to both oncoming traffic and pedestrians in the crosswalk. This creates potential conflicts between pedestrians and drivers whose attention was focused on oncoming vehicles.

Some signalized intersections have pedestrian safety enhancements, such as a pedestrian scramble at 136<sup>th</sup> Avenue and the new protected left-turn phase at Sybil Avenue. These types of improvements could be considered at other locations to enhance pedestrian safety.

#### Traffic Stress Analysis

Like bicycle comfort, pedestrian comfort is based on a variety of factors on both roadway segments and at intersections. Multiple variables ranging from the quality and presence of sidewalk to the conditions of the adjacent roadway (speed, number of travel lanes, and frequency of trucks) influence the pedestrian StreetScore+ methodology.<sup>2</sup> Each variable is scored 1 through 4, with the highest stress (lowest comfort) condition resulting in the composite score. Bancroft Avenue generally receives a StreetScore+ rating of 2 in wider areas and 3 in areas with rolled curbs.

#### What is a Crosswalk?

A crosswalk is a location where crossing the street is legal per the California Vehicle Code. Unless otherwise prohibited, at intersections with sidewalk on each side of the street and where two streets generally meet at right angles, crosswalks are considered legal at each leg of the intersection, whether they are "marked" or "unmarked," as described below. Crosswalks are primarily classified by three characteristics: whether they are marked or unmarked; controlled or uncontrolled; and at an intersection or mid-block.

<u>Marked Crosswalks</u> are demarcated with striping on the street, typically two white stripes that define an area in which pedestrians may cross the street. To increase a crosswalk's visibility by drivers, these are sometimes marked to look like a ladder. In school zones, these markings are yellow. The *City of San José Complete Streets Design Guidelines* include a flowchart indicating when to mark crosswalks based on pedestrian demand, frequency, land use factors, and engineering considerations. If those conditions are not met, leaving the crosswalk as an unmarked crosswalk may be appropriate.

**Unmarked Crosswalks** have no striping, but provide legal protection for pedestrians to cross the street at these locations. Marked crosswalks reinforce the location and legitimacy of a pedestrian crossing, but engineering factors, such as roadway characteristics and safety considerations, guide whether or not a crosswalk should be marked. Drivers are still required to yield to pedestrians at unmarked crosswalks.

<u>Controlled Crosswalks</u> have a traffic signal or stop-sign that require vehicles to come to a complete stop in order to give pedestrians an opportunity to cross. The installation of traffic signals and stop-signs are regulated by the state and certain engineering warrants must be met before they can be installed.

**Uncontrolled Crosswalks** have no traffic control. Controlled crosswalks typically provide maximum safety benefit in requiring vehicles to stop for pedestrians; however, these treatments are not appropriate on all roadways. On some roadways, uncontrolled crosswalks can be safe and the most appropriate treatment.

In addition, crosswalks may be located at an **intersection** where two streets meet; or **mid-block**, between intersections. Mid-block crosswalks typically require additional considerations, as drivers may not expect to see pedestrians crossing in the middle of the block.



<sup>&</sup>lt;sup>2</sup> Fehr & Peers: <u>https://www.fehrandpeers.com/streetscore/</u>

### Williams Street

Williams Street provides basic accommodations for pedestrians up and down the corridor, with an almost complete, if narrow, sidewalk network. In general, community members note that the exposed and industrial character of the corridor is not welcoming to pedestrians. Many comments also note the need for enhanced pedestrian safety in the school zone. Key observations, confirmed through community engagement, are described in **Appendix B** and include the following:

- Pick-up and drop-off in school zones create a high-stress situation, with crosswalks frequently blocked despite lots of students walking to and from school.
- Missing curb ramps and sidewalk gaps, including near railroad crossings, limit accessibility.
- The sidewalks can be hot in the summer with limited shade trees and are too narrow if passing another pedestrian on the sidewalk or walking side-by-side, particularly near utility poles and other obstructions.

### Pedestrian Safety

Ten years of injury collision data from SWITRS (accessed via TIMS) was analyzed along Williams Street. Between 2009 and 2019, seven pedestrian and five bicyclist injury collisions occurred on Williams Street. Two of those collisions were severe injury collisions, and none were fatal. A quarter of those collisions (3 collisions) involved a school-aged child. Bicycle and pedestrian injury collision locations with severity are shown in **Figure 2-4**. Speed is also an issue on the corridor, with speed as a primary collision factor in 21% of all injury collisions.

#### Pedestrian Collision Types

43% of pedestrian collisions (3 collisions) were caused by a driver violating the pedestrian right of way. These types of collisions primarily occurred when a driver failed to yield to a pedestrian that was:

- Crossing in an uncontrolled crosswalk
- Crossing at a signalized intersection with permitted left-turns across the crosswalk

The other half of pedestrian collisions typically had pedestrians at fault where the person walking was under 18 and traffic signal or sign violations by drivers.

### Crossing Opportunities

#### Uncontrolled Crosswalks

Given the 9,822 ADT and 31 MPH prevailing speed, high-visibility crosswalks, advance yield markings, curb extensions, and rapid rectangular flashing beacons (RRFBs) are potential safety countermeasures for the corridor.<sup>3</sup> The City has invested in these enhancements at some uncontrolled crosswalks, such as at both Joyce Avenue and Dolly Avenue which have RRFBs that increase pedestrian visibility when activated.

However, even at these intersections, community concerns about drivers yielding to crossing pedestrians remain, and near bell times drivers picking up students were observed sometimes blocking sight lines at crosswalks while waiting in their vehicles. As a result, there is need to look to additional enhancements to encourage driver yielding and maintain sight lines at crosswalks. Further enhancements to the existing improvements at Joyce and Dolly Avenues through permanent, more robust curb extensions and traffic calming in the vicinity can help improve these crossing locations.

<sup>&</sup>lt;sup>3</sup> Uncontrolled crosswalk recommendations are based on guidance from the FHWA Guide for Improving Safety at Uncontrolled Crossing Locations.



The other intersections on the corridor generally have unmarked crosswalks. These are legal crosswalks that do not have any striping. Two collisions occurred outside of marked crosswalks at Wayne Avenue and Orchard Avenue. Orchard Avenue is stop-controlled and recommended for high-visibility crosswalks. Wayne Avenue has high pedestrian demand due to its proximity to schools and is recommended for high-visibility uncontrolled crosswalks with enhancements.

#### Signalized Crosswalks

There are five signalized intersections along the corridor. At the four-way intersections, all crosswalks are marked. At the two three-way intersections in the industrial area of Williams, one crosswalk is not marked where a conflicting permitted vehicular left-turn is allowed. As noted above, some pedestrian collisions occur when left-turning vehicles do not yielding to pedestrians that have a walk signal.

Each signal has a protected turn phase for at least one leg of the intersection and for some part of the signal phase with permitted left turns at the end of the phase. Permitted left turns at many signals mean that left turning vehicles must yield to both oncoming traffic and pedestrians in the crosswalk. This creates potential conflicts between pedestrians and drivers. One of the severe injury collisions on Williams Street, for example, took place as a driver struck a pedestrian in the crosswalk while turning left onto San Leandro Boulevard during a permitted left turn phase.

#### Traffic Stress Analysis+

Williams Street receives a StreetScore+ rating of 3 throughout. Walking is uncomfortable due to exposure and narrow sidewalk widths, but possible.



Sidewalk gaps, particularly along industrial driveways (above) or at railroad crossings (below) on Williams Street, can create accessibility challenges for pedestrians and wheelchair users







### Figure 2-3 Bancroft Avenue Pedestrian and Bicycle Collisions





### Figure 2-4 Williams Street Pedestrian and Bicycle Collisions



### 2.5 Transit

### Bancroft Avenue

AC Transit runs Line 40 on Bancroft Avenue, which runs between Emeryville, Oakland, San Leandro, and into Ashland/Cherryland. The corridor is also very close to the East 14<sup>th</sup> Street transit priority corridor, which has Line 1T (Tempo) Bus Rapid Transit service to Downtown Oakland and AC Transit Route 10 which serves points south. The Bay Fair BART station is also close to the southern end of the corridor, about one mile south off Hesperian Boulevard. The San Leandro BART Station is also relatively close to the corridor, just under one mile away, with bicycle and pedestrian connections via Juana Avenue and Estudillo Avenue.

#### Bus Service

AC Transit Line 40 runs from Downtown Oakland to Bay Fair BART via Foothill Boulevard in Oakland and Bancroft Avenue in East Oakland and San Leandro, then along E. 14<sup>th</sup> Street in Ashland. Running the entire length of Bancroft Avenue in San Leandro, Line 40 provides critical access to schools, job centers, and BART. **Appendix B** provides an inventory of bus stop length, position, and amenities. Key takeaways about Line 40:

- Line 40 runs at 20-minute frequencies in San Leandro Monday through Friday, 30-minute frequencies on weekends and holidays.
- AC Transit runs 60-foot articulated buses. Most of the bus stops on Bancroft Avenue provide insufficient length for the full vehicle.
- Line 40 sees high ridership at the school locations, especially Bancroft Middle School and San Leandro High School. At both locations, the bus stop is frequently blocked by school pickup vehicles. At Bancroft and Callan Avenues, this results in blockage of the crosswalk.

- In residential areas of Bancroft, many of the bus stops have no or short red zone, resulting in parked cars in the bus stop and poor accessibility for people who may need ramp deployment. Articulated buses also frequently hang into the intersection.
- The bus stops are inconsistently located on the near and far sides of intersections, as well as mid-block at some key destinations like schools and Safeway.
- Bus stops generally offer limited passenger waiting facilities, with a bench without a shelter as the primary amenity. On hot or rainy days, this makes it uncomfortable to wait for the bus.



Bancroft Middle School students wait to cross Bancroft Avenue with Line 40 in the intersection of Callan Avenue.

#### Access to BART

Bancroft Avenue is a critical access point to Bay Fair BART. The final connection to Bay Fair BART is along Hesperian Boulevard. The City of San Leandro is currently implementing one-way separated bike lanes on



Hesperian Boulevard between Springlake Drive and Fairmont Drive. The last 0.3 mile connection between Bancroft Avenue and Fairmont Drive will complete the bicycle route between BART and Bancroft Avenue.

On foot, walking from Bancroft Avenue to Bay Fair BART is one mile, either on the busy Hesperian Boulevard or through the Bayfair Shopping Center. Future transit-oriented development is expected to create an internal walking network through the Bayfair property, breaking up existing parking lots and providing more direct desire line access to the BART station.

Line 40 serves Bay Fair BART via E. 14<sup>th</sup> Street, connecting from Bancroft Avenue.

### Williams Street

AC Transit Line 35 and the San Leandro LINKS North Loop both operate on the western portion of Williams Street. The San Leandro BART Station close to the corridor, .3 miles away, with bicycle and pedestrian connections via Alvarado Street or San Leandro Boulevard.

#### Bus Service

AC Transit Line 35 runs in a U-shaped route from Bay Fair BART to Foothill Square via Estudillo Avenue, Davis Street, Williams Street, Wicks Boulevard, Lewelling Boulevard, and Hesperian Boulevard. Line 35 provides access to job centers, San Leandro's commercial districts, and BART. **Appendix B** provides an inventory of bus stop length, position, and amenities. Key takeaways about Line 35:

- Line 35 runs at one-hour frequencies.
- The bus stops are generally located at the far sides of intersections or in mid-block locations.
- Bus stops generally offer limited passenger waiting facilities, with no bench or shelter in most locations. On hot or rainy days, this makes it uncomfortable to wait for the bus.

• The bus stops are generally co-located with bike lanes because there is no parking.

The San Leandro LINKS is a locally funded, fare-free shuttle that operates two single-direction loops (North Loop and South Loop) from San Leandro BART. The North Loop runs on Marina Boulevard, Merced Street, Williams Street, Doolittle Drive, and Davis Street, connecting shopping locations, job centers, and residential neighborhoods. The North Loop duplicates Line 35 between Westgate Parkway and Doolittle Drive, sharing westbound stops at Westgate Parkway, 2020 Williams Street, and Doolittle Drive. Key takeaways about the LINKS Shuttle:

- Both loops run weekdays, commute-hours only at 30-minute frequencies
- Both loops generally fill in gaps left by AC Transit service

#### Access to BART

Williams Street is a critical access point to San Leandro BART. The final connection to BART is along San Leandro Boulevard. It is also possible to access BART from Alvarado Street; however, due to the railroad tracks it is not the preferred route and the connection point is less direct. Because the bicycle connection to BART requires two challenging left turns from Williams Street onto San Leandro Boulevard and from San Leandro Boulevard into BART, the final design for Williams Street should include improvements to facilitate fewer or easier turning movements.

The planned access route to BART will be via the East Bay Greenway, which may be either on San Leandro Boulevard or along the unused UPRR right of way. On foot, walking from Williams Street to San Leandro BART is most direct via San Leandro Boulevard. Wayfinding and accessibility improvements will help make the walk feel safer and more pleasant.



### 2.6 Biking

Both Bancroft Avenue and Williams Street are useful connectors for bicyclists in the City of San Leandro due to their existing bike lanes, connections to destinations, and relatively moderate traffic in comparison to parallel routes like E. 14<sup>th</sup> Street or Marina Boulevard and Davis Street. While the corridors offer bicycle facilities and serve many local bicycle trips, biking is difficult and uncomfortable on most parts of the corridors due to a lack of separation between bicycle facilities and vehicle right of way and inconsistent treatments. This section discusses bicycle safety along the corridor, existing bicycle facilities, and major issues and opportunities.





Clockwise from top right: (1) Shared lane markings and signage on Bancroft Avenue where the bike lane ends. (2) Wayfinding signage for the Bay Trail near Williams Street and Neptune Drive (3) San Leandro High School Students biking alongside traffic on Bancroft Avenue without a dedicated bicycle facility



### Bancroft Avenue

Today, Bancroft Avenue is a key corridor for bicycling as the primary northsouth route through San Leandro. An existing bike lane in the northern section provides access to businesses and schools, but its design is most appropriate for experienced bicyclists rather than children, families, and older adults.

Bike lanes are an existing safety features on Bancroft Avenue. However, tools such as separated bike lanes provide additional safety benefit and also increase comfort for bicyclists.

#### Bicycle Safety

Ten years of injury collision data from the Statewide Integrated Traffic Records System (accessed via UC Berkeley Transportation Injury Mapping System) was analyzed along Bancroft Avenue. Between 2009 and 2019, eighteen bicyclist injury collisions occurred on Bancroft Avenue. Bicycle collisions are varied in the main causes of crashes, with three primary trends:

- *Right of Way Violations:* 22% of bicycle collisions on Bancroft Avenue were right of way violations, many of which occurred at left turns at all intersection types, including signalized intersections with permitted lefts.
- *Improper Turning:* 28% of bicycle collisions involved improper turning by either the driver or bicyclist.
- *Wrong-Way Riding:* 28% had wrong-way bicycle riding as the primary factor, a common issue in areas where bicycle facilities feel unsafe or unintuitive.

Anecdotally, many people do not feel safe riding in the street and choose to use the sidewalk instead. **Figure 2-3** maps the pedestrian and bicycle collisions on the corridor. **Appendix B** includes summary statistics and maps of bicycle and pedestrian collisions with potential countermeasures for common types of collisions on the corridor.



A child rides their bike to Bancroft Middle School in the existing bike lane on Bancroft Avenue, situated between parked cars and moving traffic.



People bike and walk through the busy intersection of Estudillo Avenue, which lacks bicycle crossing or turning facilities.



### **Bicyclist Comfort**

Bicyclist comfort is a primary driver of how many people are likely to be biking on the corridor. Extensive research shows that making bicycling more comfortable, with less stress from vehicle traffic, can significantly increase bicycle mode share and contribute to many City goals, including those related to public health and climate change. In bicycle planning, this is measured using level of traffic stress (LTS), a four-point system indicating how comfortable a given block is.<sup>4</sup> A score of 1 indicates that the street is comfortable for the widest section of the population – people with little experience biking and even children. A score of 4 indicates a hostile environment for biking that only the most skilled or tolerant riders (or people who may not have another option) would ride on. A score of 2 is still consider lower stress but can only be tolerated in short segments and may require more skilled riding. A score of 3 is high stress and generally appropriate for more skilled and confident riders, who represent a much smaller portion of the San Leandro community.

Bancroft Avenue is LTS 3, indicating that relatively few people in the general population are comfortable riding on it. Typical riders on the corridor are likely more skilled or people who may not have another option for transportation. These riders may be the segment of the population that is that are more familiar with biking and will therefore accept a higher level of traffic stress.<sup>5</sup>

With the separated bike lanes proposed in the San Leandro Bicycle and Pedestrian Master Plan, Bancroft Avenue will ideally achieve LTS 1. This level of traffic stress would allow children trained in traffic safety to bicycle to school by themselves as well as people that are "interested but concerned" about bicycling.

#### LEVEL OF TRAFFIC STRESS Level of traffic stress (LTS) is a way to evaluate the stress a bike rider will experience while riding on the road. It is used to categorize roads by the types of riders above who will be willing to use them based on: Sneed of Traffic Presence of Bike Lanes Width of Bike Lanes Number of Vahicles Most children can feel safe riding on these streets. LTS The mainstream "interested but concerned" LTS 2 adult population will feel safe riding on these streets Streets that are acceptable to "enthused and confident" LTS 3 riders who still prefer having their own dedicated space. High-stress streets with high speed limits, multiple travel lanes, LTS 4 limited or non-existent bikeways, and long intersection crossing distances.

Level of Traffic Stress (LTS) is a comfort metric that describes how comfortable a roadway is based on the roadway and bikeway characteristics shown above.

### Summary of Bicycling Issues and Opportunities

Community feedback has been focused on describing the high-stress bicycling condition, the need for bicycle access to schools, and the difficulty of navigating a corridor with discontinuous bike lanes. Key observations, supported through community engagement, include the following:



<sup>&</sup>lt;sup>4</sup> Methodology from Mekuria, Furth, and Nixon, 2012: <u>https://transweb.sjsu.edu/research/Low-Stress-Bicycling-and-Network-Connectivity</u>

<sup>&</sup>lt;sup>5</sup> Drawn from Roger Geller's Four Types of Cyclists: <u>https://www.portlandoregon.gov/transportation/44597?a=237507</u>

- High vehicle speeds and volumes on the corridor create an uncomfortable and stressful bicycling environment. With 7,446 ADT and 34 MPH prevailing speed, the FHWA guidelines for bicycle facility selection recommend separated bike laness for the corridor.
- Bike lanes provide access but are not appropriate for all bicyclists and could be enhanced further with physical separation for bicyclist safety and comfort.
- Bike lanes are frequently blocked, especially near businesses and schools during pick-up and drop-off, which poses safety challenges for bicyclists who must merge out of the bike lane into the travel lane.
- Bike lanes generally end just north of San Leandro High School, resulting in a shared lane condition south to E 14th Street. Bike lanes reappear at 136th Avenue but drop again at 138th Avenue going south.
- Busy intersections lack conflict markings or support for bicyclist turn movements. Additional markings can increase drivers' awareness of bicyclists in the intersection and tell bicyclists how to turn safely through the intersection.
- The busy intersection at E. 14th Street and Hesperian Boulevard makes a challenging connection to Bay Fair BART. Improvements and coordination with projects on Hesperian Boulevard and E. 14th Street will support access to BART.



An example of vehicles double parking in the bike lane along Bancroft Avenue in the Broadmoor Business District near Dutton Avenue.

### Williams Street

Today, Williams Street is a key corridor for bicycling as the primary east-west route through San Leandro. An existing bike lane provides access to the waterfront, businesses, and schools, but its design is most appropriate for experienced bicyclists rather than children and older adults.

### Bicycle Safety

Ten years of injury collision data from SWITRS (accessed via TIMS) was analyzed along Williams Street. Between 2009 and 2019, five bicyclist injury collisions occurred on Williams Street. Bicycle collisions are varied in the main causes of crashes, with some trends:

• *Improper Turning:* 2 collisions involved improper turning by both drivers and bicyclists.



- *Wrong-Way Riding:* 1 collision had wrong-way bicycle riding as a primary factor, a common issue in areas where bicycle facilities feel unsafe or unintuitive.
- Other bicycle injury collisions were caused by vehicle right of way violation and other hazardous violations (unspecified).

#### **Bicyclist Comfort**

Because of the 35 MPH speed limit, Williams Street is LTS 3, indicating that relatively few people in the general population are comfortable riding on it. Instead, typical riders are likely more skilled or people who may not have another option for transportation. These riders may be "enthused and confident": People who are excited and more familiar with biking and will accept a higher level of traffic stress.<sup>6</sup> With the Class IV separated bike lanes proposed in the San Leandro Bicycle and Pedestrian Master Plan, Williams Street will ideally achieve LTS 1. This level of traffic stress would allow children trained in traffic safety to bicycle to school by themselves as well as people "interested but concerned" about bicycling.

#### Summary of Bicycling Issues and Opportunities

Community feedback has been focused on describing the high-stress bicycling condition, the need for bicycle access to schools, and the difficulty of navigating tricky intersections and railroad tracks. Key observations, supported through community engagement, are shown in **Appendix B** and include:

• Bike lanes provide access but are not appropriate for all bicyclists and could be enhanced further with protection for bicyclist safety and comfort.

- Bike lanes are frequently blocked, especially near schools during pick-up and drop-off, which poses safety challenges for bicyclists.
- Bike lanes disappear at Alvarado Street, a high-stress intersection.
- Busy intersections lack conflict markings or support for bicyclist turn movements, which can highlight that drivers should expect bicyclists in the intersection and tell bicyclists how to turn safely through the intersection,
- Railroad tracks and industrial truck traffic makes bicycling less comfortable.
- Williams Street sees a mixture of uses by people bicycling, including groups of recreational riders accessing the Bay Trail, utilitarian bicyclists shopping or running errands, and children riding to school.



Halkin Elementary, Muir Middle, and the San Leandro Adult Schools are all co-located on one site and are major destinations for students cycling to school.

<sup>6</sup> Drawn from Roger Geller's Four Types of Cyclists: https://www.portlandoregon.gov/transportation/44597?a=237507



### 2.7 Driving

Bancroft Avenue and Williams Street are both minor arterials that serve local destinations but do not have freeway ramps or significant demand for regional vehicle traffic. Posted speed limit is generally high, 30-35 MPH. This section describes average daily traffic, safety, traffic operations, truck routes, and parking along the corridor. A full summary of vehicle operations and parking is provided in **Appendix B**.

### Bancroft Avenue

Between Durant Avenue and Blossom Way, Bancroft Avenue has one travel lane in each direction with a center-turn lane, bike lanes, and parking on both sides. Between Blossom Way and East 14<sup>th</sup> Street, Bancroft Avenue has one travel lane in each direction and parking on both sides.

#### Safety

Between 2009 and 2019, there were 100 vehicle-only injury collisions on Bancroft Avenue. Speed is a known issue and most common collision factor on Bancroft Avenue, with unsafe speed as a primary collision factor in 27% of all injury collisions.

Community members note that along the northern portion of Bancroft Avenue, it is common to see drivers aggressively passing and sometimes using the twoway center turn lane to pass illegally.

#### Traffic Volume and Operations

The average daily traffic between Lee Avenue and Sybil Avenue is 7,446 (2020) and the 85<sup>th</sup> percentile speed is 34 MPH (2020). The average daily traffic between Dutton Avenue and Estudillo Avenue in 2016 was 10,573.

Five intersections were studied, including traffic counts and operational analysis: Bancroft Avenue at Dutton Avenue, Callan Avenue, Estudillo Avenue, and E. 14<sup>th</sup>Street/Hesperian Boulevard. Each of the five study intersections

along Bancroft Avenue are currently operating at a Level of Service rating B or C. The highest delay occurs at Estudillo Avenue, at 30 seconds in both the AM and PM peak hours. Queue lengths exceed the existing storage lengths only at Estudillo Avenue in the southbound left-turn lane.

#### Parking and Loading

Parking is generally present along both sides of Bancroft Avenue, with parking meters in the Broadmoor Business District and time of day restrictions near schools. Parking occupancy varies from low to moderate (less than 80% occupancy), with a few pockets of high parking occupancy (over 80% occupancy) near denser housing. Full parking occupancy maps are provided as an attachment in **Appendix B**, the existing conditions report.

While curb demand is not high throughout the day, school zones see very high demand during pick-up times with frequently blocked bus stops, crosswalks, and driveways.

### Williams Street

As an east-west minor arterial running parallel to Davis Street, Williams Street is significant both for local and regional access for industrial traffic.

Williams Street has one lane in each direction for its entirety, with bike lanes in all sections except near Alvarado Street and San Leandro Boulevard. There is parking on some of the corridor, primarily in the residential and commercial areas east of I-880.

#### Safety

Between 2009 and 2019, there were 36 vehicle-only injury collisions on Williams Street. Speed is also an issue on the corridor, with speed as a primary collision factor in 21% of all injury collisions.



#### Traffic Volume and Operations

The average daily traffic between I-880 and San Leandro Boulevard is 9,822 (2016) and the  $85^{th}$  percentile speed is 31 MPH (2016).

Traffic operations at six intersections were studied, including traffic count collection and operational analysis: Williams Street at Doolittle Drive, Westgate Parkway, Merced Street, Orchard Avenue, Alvarado Street, and San Leandro Boulevard. Each of the six study intersections along Williams Street are currently operating at a Level of Service rating C or above in the PM peak hour. During the AM peak hour, the intersections at Merced Street and San Leandro Boulevard are operating at Level of Service D and E, respectively.

The highest delay occurs at San Leandro Boulevard in the AM peak hour. Queue lengths exceed the existing storage lengths at Doolittle Drive and San Leandro Boulevard in both the AM and PM peak hours.

#### Parking and Loading

Parking is permitted on almost all blocks east of I-880 with a few exceptions. There is no parking on many segments in the industrial area west of I-800. Parking occupancy varies significantly depending on adjacent land use. Few to no vehicles are parked in all industrial areas and school zones at night (less than 20% occupancy). Curb occupancy is higher in residential areas, particularly between Alvarado Street and Orchard Avenue (70-84% occupancy). School zones are over capacity during bell times with frequently blocked red curbs, bus stops, or bike lanes. Full parking occupancy maps are provided as an attachment in **Appendix B**, the existing conditions report.

#### Truck Routes

Williams Street is a designated truck route west of I-880 and intersects with other truck routes at Merced Street and Doolittle Drive. The prevalence of industrial truck traffic makes walking and biking less comfortable.



Vehicles at the intersection of Williams Street and San Leandro Boulevard


# 3. Crosstown Corridors Design Vision

The study process led to the creation of a long-term vision that balances the needs of pedestrians, bicyclists, transit users, and motorists, and builds on existing strengths of the Bancroft Avenue and Williams Street corridors. Both corridors will include a core set of safety and connectivity elements based on community feedback and existing conditions analysis. These are:

- Speed Management
- Bus Stop Enhancements
- Separated Bike Lanes
- New Crosswalks and Crosswalk Enhancements
- School Access Improvements
- BART Connections

The core design elements of each corridor are defined below along with a summary of key segments and intersections along each corridor.

**Appendix D** and **Appendix E** present the concept plans and **Appendix G** provides cost estimates for each corridor. 10% design drawings are not intended for construction. While they demonstrate a corridor design concept, they would require more detailed surveying and engineering to confirm design details as part of future project phases. Additional design alternatives that were considered but not recommended are included in **Appendix C**.



Bancroft Avenue Typical Proposed Improvements shown at Oakes Boulevard



Williams Street Typical Proposed Improvements shown at Halkin Elementary School



## 3.1 Core Design Elements





#### Speed Management

Speed is an issue and plays a significant role in injury collisions on both corridors. The 85<sup>th</sup> percentile speed is 34 MPH on Bancroft Avenue and 31 MPH on Williams Street, compared to a speed limit of 30 MPH for both. Recommended speed management strategies include lane width reduction and the elimination of the center turn lane on Bancroft—frequently misused as a passing lane—along with the reduction of corner radii and closure of slip-lanes to reduce turning speeds at intersections. Installation of curb extensions and bikeways narrows the street and reduces vehicle speed and unsafe maneuvering.

#### Safe Access to Schools

A key goal of the concept plan is to provide comfortable and safer facilities for students walking, biking, taking the bus, and getting dropped off at school. Drop-off zones on both sides of the street along with separated bike lanes, crosswalk enhancements, and improved bus stops are recommended. A critical next step is for the City to continue working with the San Leandro Unified School District to identify opportunities to use school frontage to provide bicycle and pedestrian space while maintaining pick-up and drop-off space for parents who need to drive students to school.



# The Components of the Componen

Students walking and biking on Bancroft Avenue just after bell time at San Leandro High School

## Two-Way Separated Bike Lanes

Two-way separated bike lanes are recommended for both corridors, on the east side of Bancroft Avenue and on the north side of Williams Street. The bikeway is recommended to be at street grade with concrete or landscaped barriers except in key locations at bus stops, school zones, constrained sections, and near industrial driveways where the bikeway should be raised to sidewalk grade to improve safety and comfort.

Two-way separated bike lanes have been shown to reduce traffic collisions by up to 45% and provide the lowest Level of Traffic Stress (LTS 1), making them ideal for users of all ages—but especially for children riding to and from school. Separated bike lanes reduce conflicts with parked cars opening doors and entering spaces.

## Bus Stop Enhancements

Existing bus stops along both corridors will be upgraded to ADA accessible bus boarding islands on the bikeway side and bus bulbouts opposite the bikeway. All near side stops will be relocated to the far side of the intersection to enhance pedestrian visibility and improve bus operations. Bikeways will be raised to sidewalk level behind the crosswalk to facilitate boarding island accessibility. In narrower locations along Bancroft Avenue, bus stops will be designed as shared-use pathways with signage and pavement markings to alert bicyclists to yield to people exiting the bus.

## Crosswalk Enhancements

Crosswalk enhancements will be included on both corridors at uncontrolled, stop controlled, and signalized locations. Uncontrolled crosswalks are enhanced with advance yield markings, rectangular rapid flashing beacons (RRFB), bulbouts, and high-visibility crosswalk markings. At signalized intersections, improvements include advance stop bars and high-visibility crosswalks.

#### How Did We Get Here?

During Phase 2 engagement, the six core design elements were presented in two alternatives with a major difference: Option 1 featured two-way separated bike lanes (the preferred option), while Option 2 had one-way separated bike lanes on both sides of the street. Key differences and tradeoffs were evaluated during Phase 3 with a focus on bicyclist experience, right-of-way constraint and its impact on the facility design, and relative parking impact. During this phase, the project team hosted two outdoor open houses and an online survey to evaluate priorities and preferences among people who use Bancroft Avenue and Williams Street.

The outreach and analysis from the alternatives evaluation during Phase 3 culminated in the recommendation and vision for two-way separated bike lanes on both corridors. This design preserves more parking, allows for more buffer space including landscape opportunity, and is more intuitive for young children riding to school who can use the two-way bike lanes like a path or trail. The final alternatives presentation summarizing the two options, community feedback and recommendation is presented in **Appendix C**.





1. Two-Way Bikeway on North Side

- 🖉 Flows Like a Trail
- Less Parking Removal
- More Landscape Opportunity



2. Directional Bikeways on Both Sides



Flows Like Traffic







## 3.2 Bancroft Avenue

The design vision on Bancroft Avenue focuses on providing access to local businesses and schools for people walking, biking, and taking transit by providing two-way separated bike lanes on the east side of the street. This leaves parking for local residents and businesses in place on the west side while providing a comfortable separated bicycle facility for children riding to school, people commuting to BART, and local residents riding to businesses.

New crosswalks support pedestrian safety along and across Bancroft Avenue, while traffic signal and bus stop improvements at intersections support multimodal safety and access. Changes in parking are described with each segment cross section and provided in detail in **Appendix F**.



## **Speed Management**

#### **Crosswalk Enhancements**

#### **Two-Way Separated Bike Lanes**

Figure 3-1 Bancroft Avenue Design Vision



## Segment Design

Bancroft Avenue varies in its width but is generally characterized by a wider section north of San Leandro High School and a narrower section between San Leandro High School and East 14<sup>th</sup> Street. A two-way separated bike lanes is recommended throughout, with varying buffer widths, parking configurations, and bikeway design (raised or street-grade) depending on the context. The full concept design with detailed callouts for these characteristics is provided in **Appendix D**.

#### Durant Avenue/Oakland Border to San Leandro High School

From the Oakland border, Bancroft Avenue is primarily residential with some businesses at major intersections, including the Broadmoor Business District at Dutton Avenue. The concept design in this section includes a two-way bikeway on the east side with parking on most blocks. To ensure visibility of the bikeway, parking supply is reduced near intersections and driveways. On blocks with denser spacing of driveways, parking reduction is more significant. The bikeway is raised in front of Bancroft Middle School and the on-street passenger loading is removed with the construction of a campus drop-off loop.

Bikeway buffers and bulb-outs at crosswalks provide ample opportunity areas for landscaping and green infrastructure.



Segment concept plan of Bancroft Avenue between Glen Drive and Begier Avenue (56' curb to curb) with two-way separated bike lanes and some parking on the east side, parking maintained on the west side, and the center turn lane removed to reduce unsafe passing.





#### San Leandro High School to East 14th Street

Near Blossom Way and San Leandro High School, Bancroft Avenue curves and narrows in width. From San Leandro High School to Toyon Park, the bikeway is raised along Bancroft and at side street intersections due to multiple schools and parks. Because street segments are narrower, the sidewalk and bikeway are occasionally combined into a shared-use path behind bus boarding islands.

In front of San Leandro High School and Jefferson Elementary, further coordination with San Leandro Unified School District is recommended to explore opportunities for easement and use of school property to provide sufficient space for the separated bike lanes and dedicated passenger loading zones in both directions for school drop-off by vehicle.



Typical segment concept design near a side street in the section south of San Leandro High School, showing raised two-way separated bike lanes, a raised side street crosswalk, and parking on the west side opposite the bike lanes.

#### Intersection Design

Intersection improvements along Bancroft Avenue focus on pedestrian safety, connections to intersecting bike routes, high-quality bus stop design, and safe vehicle operations. Where vehicle turn volumes are higher, dedicated turn lanes and signal phasing is recommended to improve safety for all modes. Intersections with bus stops include bus stop improvements, and all

intersections include crosswalk and bikeway crossing updates. Key intersections and their characteristics are described in more detail below.

#### Bancroft Avenue/E. 14th Street: Protected Intersection

The intersection of Bancroft Avenue at E. 14<sup>th</sup> Street and Hesperian Boulevard is a critical connection to the future East Bay Greenway bike lanes on E. 14<sup>th</sup> Street, as well as along Hesperian Boulevard to access Bay Fair BART. The intersection design will be led by the Alameda CTC as part of the East Bay Greenway Multimodal Corridor project and include:

- **Protected Intersection Transition from Two-Way to One-Way Bike Lanes:** With the future separated bike lanes on both E. 14<sup>th</sup> Street and Hesperian Boulevard, a protected intersection will provide dedicated space for people biking to transition between these bikeways in an obvious way that reduces conflicts with vehicles.
- *High-Visibility Ladder Striped Crosswalks,* advanced stop bars, and pedestrian signal enhancements will be provided to enhance motorist awareness of the approaching crosswalk and the safety of crossing pedestrians. Signal improvements should include leading pedestrian interval to give people walking a head start.

#### Bancroft Avenue/Maud Avenue: Minor Signalized Intersection

Left-turn lanes will not be provided at minor intersections with few drivers turning onto side streets. This results in sufficient space to provide enhanced bus stops and pedestrian safety features. These include:

• **Bus Boarding Islands and Bus Bulbs:** On the east side of Bancroft Avenue, bus stops will be designed as bus boarding islands to reduce conflicts between people biking and passengers off-boarding the bus. The separated bike lanes are maintained throughout the bus stop area, and crosswalks across the bikeway will be marked. On the west side, bus bulbs will allow the bus to stop in lane, which improves service timing. Expanded sidewalk space at intersections



will provide opportunities for bus shelters, benches, and other stop amenities.

• **Bulb-Outs and High-Visibility Crosswalks** shorten crossing distance for people crossing the street and help increase visibility to enhance motorist awareness.



Concept plan at the intersection of Bancroft Avenue and Maud Avenue, a typical minor signalized intersection with bus stops at the far side and pedestrian crossing enhancements

#### Bancroft Avenue/Estudillo Avenue: Pedestrian Priority

Using a similar design to the existing all-way pedestrian scramble at 136<sup>th</sup> Avenue, the recommended intersection design at Estudillo Avenue will prioritize students and families walking to Bancroft Middle School.

• **Pedestrian and Bicycle All-Way Scramble:** With signage for bicycle riders to yield to people walking and follow the pedestrian signal, the all-way scramble will give pedestrian priority for students walking to school and allow bicyclists to transition from the two-way bike lanes to the one-way separated bike lanes on Estudillo Avenue.

- *Left Turn Lanes:* Similar to other more major intersections, parking removal is proposed at Estudillo Avenue to allow for left turn lanes. This will ensure that traffic moves smoothly, especially during school pick-up and drop-off times.
- *Separated Bike Lanes on Estudillo Avenue:* Separated bike lanes are proposed on Estudillo Avenue to provide downtown and BART access. These will be implemented separately, and intersection design should allow for phased implementation.



Proposed intersection concept at Bancroft Avenue and Estudillo Avenue with an allway pedestrian and bicycle scramble and intersecting bike lanes on Estudillo Avenue.

#### Bancroft Avenue/Dutton Avenue: Business District

With high demand from all modes and an active business community in the Broadmoor District, Bancroft Avenue at Dutton Avenue is a key intersection in the concept design.



- **Relocated Bus Stop:** Bus stops on the far side of signalized intersections improve bus operations and pedestrian safety. A bus boarding island is recommended on the northeast corner at Dutton Avenue.
- **Dedicated Northbound Right with Bike Signal:** Because many vehicles turn right onto Dutton Avenue from Bancroft Avenue, a dedicated signal phases for vehicles and bikes are recommended to reduce conflicts. Bicycles and pedestrians will cross Dutton Avenue while drivers have a red right arrow.



Proposed intersection concept at Bancroft Avenue and Dutton Avenue showing a far side northbound bus stop, dedicated right turn lane, crosswalk enhancements, and expanded pedestrian bulbouts at corners.

#### Streetscape Improvements

Bancroft Avenue has existing sidewalks, lighting, and street trees along the study corridor. The long-term vision for streetscape improvements along Bancroft Avenue is to address any gaps in lighting and landscaping to create a cohesive streetscape and comfortable pedestrian environment along the entire length of the segment. Enhancements like pedestrian-scale lighting, landscaping, and street furniture should be implemented in partnership with

businesses, schools, and the parks and recreation department. Recommendations include the following:

- *Additional Street Trees* can be planted where they are missing or are too infrequent to provide a cohesive look and consistent shading on the street. Trees would be planted in new and existing tree wells and should be the same species as the predominant species among existing trees on the given block.
- *Pedestrian-Scale Lighting Fixtures* are recommended along Bancroft Avenue in the Broadmoor Business District and near schools. The new fixtures should match the existing fixtures in style, color, and finish to create visual continuity. Pedestrian-scale lighting aids in pedestrian safety and accessibility and helps create a cohesive district identity. It is recommended that the new light fixtures are fitted with hardware that allows for the installation of additional decorative banners like those that already exist, which can be used to promote the businesses district and special events.
- *Landscaping and/or Green Infrastructure* is recommended for the proposed bulb outs and larger bikeway buffers along Bancroft Avenue. Landscaping should be low at intersections and driveways to ensure clear sight lines. Final design should evaluate the grading, drainage, and other local conditions to determine which of these areas are suited for the installation of green infrastructure elements, such as rain gardens.
- *Sidewalk Furniture Opportunities*: New bulb outs create opportunities for accommodating street furniture, such as seating, bicycle parking, or trash receptacles. Providing seating can further activate the sidewalk and enhance the overall pedestrian experience and should be considered especially near businesses and bus stops.



## 3.3 Williams Street

The design vision on Williams Street focuses on connecting San Leandro neighborhoods to the Bay Trail as well as improving access to schools for people walking, biking, and taking transit by providing two-way separated bike lanes on the north side of the street. Unlike Bancroft Avenue, the proposed bikeway will not have parking protected segments—instead, parking will be located on the opposite (southern) side of Williams Street and the bikeway is protected by concrete buffers and landscaping where there is sufficient width.

New crosswalks support pedestrian safety along and across Williams Street, while signal and bus stop improvements at intersections support multimodal safety and access. Changes in parking are described with each segment cross section and provided in detail in **Appendix F**.



Figure 3-2 Williams Street Design Vision



## Segment Design

Williams Street varies in character significantly. West of I-880, the corridor is industrial, with significant truck traffic. East of I-880, it is residential with large school zones and some local businesses. Because of these different contexts, the concept design varies by segment.

#### San Leandro Boulevard to Wayne Avenue

This section of Williams Street is generally a mix of business and residential. Parking is removed from the north side of the street to allow the concrete buffer to enhance bicyclist and pedestrian safety. However, parking is maintained opposite the two-way separated bike lanes. Nearest to San Leandro Boulevard, the bike lanes transition to one-way on both sides with no parking to allow a safe transition to other bicycle facilities including on San Leandro Boulevard.



Segment concept plan on Williams Street between Alvarado and Orchard Streets showing two-way separated bike lanes on the north side and street parking maintained on the south side.

#### Wayne Avenue to I-880

Between Wayne Avenue and I-880, the bikeway is raised in front of the school zone. Here, the Williams Street design may use space on school property to retain on-street pick-up and drop-off for students.







Segment concept plan at Halkin Elementary, showing the potential widening with a school district easement to provide drop-off on both sides of the street with the two-way separated bike lanes.

#### I-880 to Neptune Drive

South of I-880, Williams Street is largely industrial, except for the few blocks south of Doolittle Drive. The two-way bikeway will be raised in front of industrial driveways to fully separate bicyclists from vehicular traffic. Generally, existing parking south of Westgate Parkway will be retained. The bikeway will transition to the Bay Trail at Neptune Drive. Parking is already not present on most industrial sections, and will be retained where there are single-family homes near Neptune Drive.

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Segment concept plan at in the industrial area where a center turn lane exists today. Driveway openings at industrial properties will be marked with green conflict striping to reduce conflicts between bikes and truck traffic.

#### Intersection Design

Intersection improvements along Williams Street focus on pedestrian safety, connections to intersecting bike routes, truck turning where needed, and safe vehicle operations.

#### Williams Street/San Leandro Boulevard

The intersection of Williams Street and San Leandro Boulevard is a highly complex intersection with multiple free right-turn slip lanes, aerial BART track structures, and an inactive railroad line owned by Union Pacific Railroad. Because of this complexity, one-way separated bike lanes are recommended until Alvarado Street, where they will transition to two-way separated bike lanes on the north side. The intersection of San Leandro Boulevard will be designed and led by the East Bay Greenway Multimodal Corridor Project (Alameda CTC) and will include:

- **Bike Lane Intersection:** One-way separated bike lanes are proposed on San Leandro Boulevard for the East Bay Greenway Project. Intersection crossing markings with two-stage turn boxes provides space for bicyclists to make the transition between these two important corridors, including to access BART.
- *Signal-Controlled Slip Lane:* The existing free right slip lane on the northwest corner of the intersection creates a stressful and hazardous condition for people bicycling and walking. Unfortunately, this slip lane cannot be removed due to the BART column located on the island. A raised crosswalk with is recommended to mitigate this situation and provide a safer crossing of the slip lane.
- *High-Visibility Ladder Striped Crosswalks,* advanced stop bars, and pedestrian signal enhancements will be provided to enhance motorist awareness of the approaching crosswalk and the safety of crossing pedestrians. Signal improvements should include leading pedestrian interval to give people walking a head start.





Intersection concept at Williams Street and San Leandro Boulevard, showing a new signal at the right-turn slip lane and dedicated bicycle crossings to the East Bay Greenway separated bike lanes on San Leandro Boulevard.

#### Williams Street/Alvarado Street

Because of the complex intersection at San Leandro Boulevard, the transition from one-way to two-way separated bike lanes is recommended at the intersection of Alvarado Street.

- **Transition from One-Way to Two-Way Bike Lanes:** Because the intersection of Alvarado and Williams Streets is too constrained for a full protected intersection, the transition is designed with one protected corner and two-stage turn boxes.
- *High-Visibility Crosswalks and Advance Stop Bars* help increase visibility to enhance motorist awareness.

• *Left Turn Lanes* are removed to maintain parking on the south side. Vehicle volumes at Alvarado are sufficiently low to remove turn lanes.



The intersection design concept at Alvarado Street showing bus stops and the transition from two-way to one way bike lanes. With low vehicle turn volumes, the left turn lanes are removed to allow for parking on the south side of Williams Street between Alvarado and Orchard Streets.

#### Williams Street/Merced Street

Merced Street is a key bikeway corridor and also sees relatively high volumes of industrial truck traffic and people traveling to Kaiser hospital. The intersection design focuses on the transitions between bike lanes and signal coordination for multimodal safety.



- **Dedicated Signal Timing:** Because of high right turn volumes from Merced Street onto Williams Street, a dedicated bike signal phase with a red right arrow is needed. This dedicated signal phase could be installed with actuation so that the bike signal only goes on when someone is biking north on Merced Street to enter the two-way separated bike lanes on Williams Street. Signal modifications are also recommended to ensure safe and separate vehicle movement at industrial driveways.
- **Bike Lanes on Merced Street:** Existing bike lanes on Merced Street should be upgraded to buffered and separated from traffic near the intersection.



The intersection design concept at Merced Street includes separate signal phasing for bicycle transitions while allowing for larger truck turning radii.

#### Williams Street/Doolittle Drive

Doolittle Drive is a corridor for industrial traffic and is also an important regional bike route with recommended separated bike lanes in the 2018 BPMP. A road diet on Doolittle Drive with a protected intersection at Williams



- **Protected Intersection:** A protected intersection with partially mountable corner islands will provide comfortable access between recommended separated bike lanes on Doolittle Drive and Williams Street.
- *Truck Access:* Corners are designed to allow for truck turning while also separating trucks from people biking and walking.



Intersection design concept at Doolittle Drive showing a full protected intersection with both two-way and one-way bike lane crossings and mountable corners.



#### Streetscape Improvements

Because of the industrial context and generally exposed character, streetscape improvement recommendations center on potential for urban greening and improved shade cover on Williams Street.

- *Additional Street Trees* are recommended to supplement existing trees and expand the tree canopy along Williams Street.
- Landscaping and/or Green Infrastructure are recommended at new bulb outs and in the proposed buffer between the travel lane and the bicycle lane. Future design phases should evaluate the grading, drainage, and other local conditions to determine which of these areas are suited for the installation of green infrastructure elements, such as rain gardens or linear stormwater planters.



While there are some mature trees in front of Halkin and John Muir Schools, Williams Street generally lacks tree cover, resulting in exposed and hot conditions especially during warmer months.



Example photo of a green stormwater bioswale in a pedestrian bulb-out. Plantings are low to ensure visibility of the crosswalk while greening the environment and providing stormwater recapture.



## 3.4 Phase 3 Community Outreach: Testing the Vision

During Phase 3 outreach, the project team—along with partners at Bike East Bay and with San Leandro high school student ambassadors—took the full design concept to the community to evaluate the vision and refine design details.

#### Online Concept Design & Survey

During Phase 3, the project website was updated with an interactive concept plan for both full corridors. The concept was hosted on Social Pinpoint and Remix with explanatory callouts for project features translated into English, Chinese, and Spanish. Participants could pan through the length of both corridors and click each segment to view the cross section details.



An example of a comment from the online interactive concept plan, focused here on the pedestrian recommendations for Estudillo Avenue and Bancroft Middle School.

#### Tactical Urbanism Demonstration

In-person demonstrations of the Crosstown Corridors concepts were deployed in three locations on Saturday, August 13, 2022, in collaboration with Bike East Bay and the City of San Leandro. Two demonstration pop-ups were located on Bancroft Avenue (Victoria Park and Toyon Park) and the other on Williams Street (Halkin Elementary School).

Aluminum tape and temporary bollards were installed to simulate two-way separated bike lanes for about one block in length at all locations. The installation also included temporary high-visibility crosswalks and advance yield markings.

Tables set up at each demonstration site allowed staff to directly interact with community members and passersby to receive feedback about their experiences using the temporary infrastructure. Public engagement was enthusiastic and energetic, and community comments are provided in **Appendix H.** 



A cyclist at Halkin Elementary School along Williams Street testing out the two-way separated bike lane concept on Saturday, August 13, 2022





Children on scooters try out the separated bike lanes on Bancroft Avenue at Toyon Park. One child exclaimed: "This is the best day of my life!"



A small child biked up and down the Bancroft Avenue pop-up location at Victoria Circle.



*Community members gathered around the concept plans at all three locations, providing detailed feedback on the design.* 

#### What We Heard

Feedback during Phase 3 was robust, with strong input heard both in favor of the concept and with concerns. The discourse throughout Phase 3 was strong, with many letters to the *San Leandro Times*, online comments, and email letters to the project team. Key themes include the following:



- *Enthusiasm for pedestrian and bicycle infrastructure:* Many respondents and participants simply expressed appreciation and support for the concept design, emphasizing the importance of pedestrian and bicycle safety and access.
- **Positive view of the concept for livability:** Multiple respondents, along with their support, expressed that they think the project will improve livability in San Leandro through greening, investment in modern infrastructure, and safe facilities for students walking and biking to school.
- **Support for traffic calming and speed management:** Consistent with the first two phases of outreach, San Leandro residents who participated in Phase 3 outreach broadly agree that speeding is a primary concern, showing support for traffic calming measures.
- Concern about parking removal: Some residents are very concerned about the reduction in parking recommend to provide multimodal connections along Bancroft Avenue in particular. As a result, an important next step will be for the City to evaluate parking management strategies in the blocks with the most parking demand. A full inventory of proposed changes to parking is provided in Appendix F and maps of parking occupancy in the existing condition are included in Appendix B.
- School loading zone needs: Some residents and school staff have expressed concerns about the pick-up and drop-off plans for schools on both corridors, given the overall reduction in curb space for parking and loading. The City will continue to work with the school district in identifying right of way and programming opportunities to encourage mode shift to shared and active modes while providing sufficient drop-off space for families who need to drive.
- *Location-Specific Suggestions:* Some commenters had specific ideas about crosswalk locations, bike network connections, and

parking conditions. The project team used these inputs to refine the final concept.

# Total Project Outreach207378

Map and Concept Plan Comments

Youth Ambassadors

**People Engaged** 

In Person





Advisory Group Meetings



At the culmination of all three project phases in September 2022, thousands of San Leandro residents had learned about the project with hundreds providing their input online and in person.



# 4. BART Access

While both corridors are critical for access to Bay Fair and San Leandro BART stations, neither reaches the fare gates. Additional projects drawn from the San Leandro Pedestrian and Bicycle Master Plan, the BART Bicycle and Pedestrian Gap Study, the Bay Fair Specific Plan, and the East Bay Greenway Multimodal Corridor are summarized here, shown in **Figure 4-1** Map of BART Access Projects and listed in **Table 4-1**: BART Access Projects

### Bay Fair BART Access Projects

The key connections to BART at Bay Fair are via Hesperian Boulevard, East 14<sup>th</sup> Street, and Fairmont Avenue, which has existing separated bike lanes. Hesperian Boulevard is recommended to have one-way separated bike lanes, which will begin phased implementation led by the City in 2024.

While the vast parking lots of the Bayfair shopping center still pose a barrier to access to BART, planned development outlined in the Bay Fair Specific Plan will create an internal grid within the Bay Fair area, helping connect the bike facilities recommended here on arterial corridors with the BART station.

#### San Leandro BART Access Projects

San Leandro Boulevard is the key connection to San Leandro BART. The East Bay Greenway Multimodal Corridor Project will install one-way separated bike lanes and intersection improvements to facilitate turns from Williams Street and into the BART station.

Additional projects on Estudillo Avenue and Juana Avenue will support access between Bancroft Avenue, Downtown, and San Leandro BART station.



San Leandro BART Station





## 4-1 Map of BART Access Projects





Intersection Improvement

BART Station

## 4 BART ACCESS

#### Table 4-1: BART Access Projects

| Project Name   | Lead Agency                           | Plan Document                           | Details   |
|--|---------------------------------------|---|---|
| Alvarado Street,<br>Fremont Avenue, and<br>Halcyon Drive Bike<br>Lanes | City of San Leandro                   | ВРМР                                    | Alvarado Street, Fremont Avenue, and Halcyon Drive have existing bike lanes, which are recommended for upgrades in the BPMP. These can be implemented through repaving to include conflict markings at intersections and buffers where right of way allows.   |
| East Bay Greenway<br>Multimodal Corridor                               | Alameda CTC                           | East Bay<br>Multimodal<br>Corridor Plan | Led by the Alameda CTC, the East Bay Greenway Multimodal Corridor will add one-way separated bike lanes on E. 14 <sup>th</sup> Street and San Leandro Boulevard, providing key connections to BART. The project will also include dedicated bus lanes.  |
| Hesperian Boulevard<br>Complete Streets                                | City of San Leandro                   | San Leandro<br>LRSP and BPMP            | Hesperian Boulevard is recommended for a road diet with separated bike lanes and crosswalk<br>enhancements to improve access to BART. The City is pursuing funding through HSIP to construct an<br>enhanced crosswalk at Colby Street with a pedestrian Hybrid Beacon.  |
| Bay Fair TOD Street<br>Projects  | City of San Leandro and<br>Developers | Bay Fair TOD<br>Master Plan             | The Bay Fair TOD Master Plan calls for a network of local streets within the current Bayfair mall properties, which are slated for redevelopment. The street grid constructed with new development will improve pedestrian and bicycle permeability and access.   |
| Juana Avenue Bike<br>Boulevard   | City of San Leandro                   | BPMP                                    | Designated and a bicycle route in the BPMP, Juana has the opportunity for more robust traffic calming and wayfinding to upgrade to a bicycle boulevard, a low-stress shared street condition supportive of bicycle and pedestrian access. This will provide a key connection between Bancroft Avenue, Downtown San Leandro, and San Leandro BART.                     |
| Estudillo Avenue<br>Bikeway  | City of San Leandro                   | ВРМР                                    | Estudillo Avenue is recommended for a separated bike lanes study in the BPMP, and also has pedestrian access through the downtown shopping center to a low-traffic neighborhood segment between BART and downtown. Separated bike laness between Bancroft Avenue and East 14 <sup>th</sup> coupled with improved wayfinding, will promote access to the BART station. |
| San Leandro BART<br>Pedestrian<br>Improvements                         | BART                                  | BART Access<br>Project                  | The San Leandro BART Pedestrian Improvement Project will improve the BART sidewalk connection from the BART station to Estudillo Ave west of the station.   |



# 5. Implementation and Next Steps

This chapter discusses potential next steps that the City of San Leandro may undertake to implement the proposed vision for the Bancroft Avenue and Williams Street Crosstown Corridors. This chapter includes planning level cost ranges, funding strategies and an implementation action plan.

## 5.1 Total Cost Estimate

Planning level costs were developed as part of the conceptual design process. While more detailed cost estimating would need to be undertaken as part of future project phases, the long-term corridor of improvements for the full corridor is estimated to cost approximately \$43,000,000-49,000,000. This accounts for approximately:

- \$27,000,000-30,000,000 for Bancroft Avenue
- \$16,000,000-19,000,000 for Williams Street

More information on the preliminary cost estimates is provided in **Appendix G**.

## 5.2 Potential Funding Sources

Implementing the vision for the corridor will require securing many different funding sources. Based on the City's recent experiences with competitive grants and grant scoring criteria, the following funding sources are anticipated to be the best fits for the projects:

• **Caltrans Active Transportation Program (ATP)**: While ATP is one of the most competitive statewide and regional grant funding sources, the San Leandro Crosstown Corridors is likely a strong contender for grant funding. One of the primary scoring criteria is benefit to disadvantaged communities, which is applicable to most of the corridor. With the safety benefits for active modes and the significant walking and biking comfort improvements, the project would likely rank high. This grant would likely only be applicable to the walking

and biking related improvements, and it is anticipated that some of the landscape and transit improvements would not be eligible.

- **Caltrans Highway Safety Improve Program (HSIP):** HSIP intends to address areas with serious documented safety records. The primary metric for this a cost benefit ratio that heavily weighs fatal and severe injuries. This grant is primarily used to fund specific safety countermeasures, so project definition requires documented safety benefits for collision type. HSIP could be a good funding source to support signal and crosswalk improvements at key intersections.
- One Bay Area Grants (OBAG): As the local congestion management agency, the Alameda CTC has a call for OBAG grant applications every two years. Priority is given to projects either fully or partially within a Metropolitan Transportation Commission (MTC)-designated Priority Development Area (PDA) or providing access to/from within 0.5 mile of a PDA. PDAs are designated locations where the region strategically wants to grow. The last OBAG grant cycle was in 2022.
- Affordable Housing and Sustainable Communities (AHSC) program: Funded through statewide Cap and Trade funds, the AHSC grants help fund affordable housing but can include substantial transportation improvements within one mile of the affordable housing site. Recent cycles have placed greater emphasis on transportation improvements. Given the need for affordable housing in the area, this could be an important grant funding source. However, it is reliant upon opportunities to coordinate with housing developers. The City should flag and pursue the grant as interest in affordable housing development arises on parcels along or near the corridor.
- Alameda County Transportation Commission (CTC) Comprehensive Investment Plan (CIP): The Comprehensive Investment Plan (CIP) is Alameda CTC's near-term strategic planning



## **5 IMPLEMENTATION AND NEXT STEPS**

and programming document through which fund sources administered by Alameda CTC are programmed through a consolidated process to maximize investments towards critical transportation infrastructure and program operations needs that are essential for developing and maintaining the county's transportation system. Crosstown Corridors are on the Alameda CTC Countywide Bikeways Network, making it an excellent candidate for funding.

- Clean California: The Clean California Local Grant Program (CCLGP), operated by Caltrans, was created by AB 149 in 2021 to beautify and clean up local streets and roads, tribal lands, parks, pathways, transit centers, and other public spaces. The program will allocate \$296 million in state funds, in grants not to exceed \$5 million, to local and regional public agencies that install beautification measures and art in public spaces and remove litter and debris to enhance communities and improve spaces for walking and recreation.
- SGC Affordable Housing and Sustainable Communities (AHSC) Program: The Affordable Housing and Sustainable Communities (AHSC) Program makes it easier for Californians to drive less by making sure housing, jobs, and key destinations are accessible by walking, biking, and transit.
- Safe Streets For All (SS4A): The purpose of SS4A grant program is to improve roadway safety by significantly reducing or eliminating roadway fatalities and serious injuries through safety action plan development and implementation focused on all users, including pedestrians, bicyclists, public transportation users, motorists, personal conveyance and micromobility users, and commercial vehicle operators. The program provides funding to develop the tools to strengthen a community's approach to safety and save lives.
- Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Discretionary Grant Program: This program supports projects

that are "road or bridge projects eligible under title 23, United States Code;" and "intermodal projects." Previously the BUILD grant, this program replaces the TIGER program.

## 5.3 Implementation Actions

**Table 5-1** presents the five-year implementation action plan. This table is intended to spell out the steps needed to secure funding for the project, develop near-term actions, prepare final design and environmental documents for the long-term vision, and engage in ongoing stakeholder outreach as the designs are further developed and ultimately implemented.



## 5 IMPLEMENTATION AND NEXT STEPS

#### **Table 5-1 Implementation Action Plan**

| Year      | Action  | Lead Agency                         | Details   | Relative Cost |
|-----------|---|-------------------------------------|---|---------------|
| 2022-2023 | Develop Two-Year Funding<br>Strategy  | City of SL                          | -Confirm preferred funding sources, upcoming grant cycles, and project competitiveness for<br>funding sources (Alameda CTC CIP, ATP, HSIP)<br>-Allocate staff time to developing project application<br>-Consider project phasing strategy, focusing on transition points | \$            |
| 2022-2023 | School District Coordination  | City of SL,<br>SLUSD                | - Continue school district coordination and negotiations for potential easements  | \$\$          |
| 2022-2024 | Finalize Intersection and<br>Railroad Crossing Designs                      | City of SL,<br>Alameda CTC,<br>CPUC | -Final coordination meetings with Alameda CTC on intersection and railroad safety designs<br>-Ensure Crosstown Corridor concept is included in upcoming projects  | \$            |
| 2024-2025 | Secure Funding and Develop<br>for 35% Design and<br>Environmental Clearance | City of SL, AC<br>Transit           | -Secure funding for design and environmental<br>-Confirm design details, including with AC Transit<br>-Confirm phasing plan   | \$\$\$        |
| 2024-2025 | Final Design Outreach   | City of SL                          | -Continue engaging communities along the corridor in developing final design  | \$            |
| 2026-2027 | Implement the Project   | City of SL                          | -Within five years and beyond, implement long-term improvements on the corridors  | \$\$\$\$\$    |



## 5 IMPLEMENTATION AND NEXT STEPS

## 5.4 Project Phasing

Because Bancroft Avenue and Williams Street are long corridors with high costs associated with full build out, construction may need to be phased. Given that much of the project includes two-way separated bikeway, any segmentation should begin and end at intersections with existing signal or stop controls to facilitate safe access in and out of the new bicycle facility. Opportunities for segmentation should focus on connections with the bikeway network and include the following segments, which could also be combined:

#### Bancroft Avenue

- Durant Avenue (stop control) to Dutton Avenue (signal)
- Dutton Avenue (signal) to Estudillo Avenue (signal with scramble)
- Estudillo Avenue (signal with scramble) to 136<sup>th</sup> Avenue (signal with scramble)
- 136<sup>th</sup> Avenue (signal with scramble) to E. 14<sup>th</sup> Street (signal)

#### Williams Street

- San Leandro Boulevard (signal) to Merced Street (signal)
- Merced Street (signal) to Doolittle Drive (signal)
- Doolittle Drive (signal) to Neptune Drive (signal)

## 5.5 Immediate Next Steps

With the finalization of this Study, there are six immediate next steps that the City of San Leandro can take to leverage the momentum of this current planning effort.

- 1. Continue coordination and project development with San Leandro Unified School District for project components requiring an easement on school property.
- 2. Continue coordination and final project design confirmation for the East Bay Greenway Multimodal Corridor Project and the Alameda CTC Rail Safety Enhancement Project.
- 3. Identify grants with deadlines in 2023 that the projects are best suited to, the corresponding application deadlines, and the staff resources necessary to complete them.
- 4. Coordinate internally with roadway repaving projects and other local projects underway to identify additional potential funding sources for the improvements.
- 5. Develop 35% design drawings for the vision plan lines and prepare environmental documents to provide a clear path forward for implementation.
- 6. Engage communities along the corridor on an ongoing basis to provide regular updates on the Study's implementation.



# Appendix A. Glossary of Terms

The following are some of the terms and acronyms are used to describe existing and proposed conditions in this Study:

- *ADA:* American with Disabilities Act, typically used to refer to accessible pedestrian facilities, such as curb ramps and pedestrian push buttons at signalized intersections.
- **ADT:** Average Daily Traffic, which is the average total number of vehicles that use a roadway throughout the day.
- **Bicycle Boulevard:** These are typically residential or low ADT streets that are designated to give bicyclists priority. They are usually demarcated through pavement markings such as sharrows and signage.
- **BPAC:** San Leandro's Bicycle and Pedestrian Advisory Committee, an appointed group of San Leandro residents who provide input on City bicycle and pedestrian projects
- **Buffer**: Striped area between a travel lane and a bicycle lane and/or a bicycle lane and on-street parking. It typically has chevron arrows or diagonal hatching to denote the buffer. It is used to provide separation and additional comfort between bicyclists and/or moving vehicles or parked cars. Some bike lane buffers for separated bike lanes are made of concrete or landscaping.
- **Bulb Out**: Extensions of the sidewalk environment at intersections, typically shadowing parking. They improve driver-pedestrian visibility at crossings and shorten crossing distances.
- **Bus Bulb:** Similar to bulb outs, they are extensions of the sidewalk environment that typically shadow parking, but are located at transit stops and are designed to accommodate the full length of a transit vehicle. They typically allow for in-lane stopping.
- **Bus Island**: A dedicated area for transit users to wait and board transit vehicles. They are typically concrete and separated from the sidewalk by a separated bike lanes to mitigate bicycle-bus conflicts at transit stops. Bus islands typically allow for in-lane stopping.
- **Conflict Zone**: Portions of bicycle lanes where drivers frequently merge across, such as the portion of a bicycle lane that right-turning automobiles merge into before the intersection.
- Cross Section: The configuration of a roadway, including the amount of right-of-way dedicated to pedestrians, transit, bicyclists, and vehicles.
- *In-Lane Stopping:* occurs when a bus bulb or bus island allows a transit vehicle to stop in the travel lane to on- and off-board at a transit stop. In-lane stopping mitigates the need for transit vehicles to merge into and out of traffic at transit stops.

- *Mode Shift*: Changing the mode split over time, often in reference to increasing the percentage of trips made by walking, biking, and/or transit.
- *Multimodal*: The consideration of all modes of transportation in the planning, design, and use of a roadway or transportation facility. Multimodal typically refers to four primary modes of travel: bicycles, pedestrians, transit, and autos.
- *Peak Hour*: The busiest hour(s) of the day for all modes, but typically used to refer to autos.
- *Pedestrian-Scale Lighting*: light fixtures that are scaled to illuminate the sidewalk or a trail.
- **Policies:** The underlying principles that explain and justify how the City deals with transportation issues, typically established through adopted planning documents, directives form City officials, or similar means.
- *Prevailing speed:* The speed at which 85 percent of motorists are traveling at or below.
- Rectangular Rapid Flashing Beacon: Signs with square flashing yellow lights to alert drivers of pedestrians using uncontrolled crosswalks.
- *Right-Of-Way:* Amount of space dedicated to a certain mode of transportation.
- Separated Bike Lane: An exclusive bike facility that is located within or next to the roadway, but is made distinct from both the sidewalk and the general purpose roadway by markings, barriers, or elevation differences.
- Signalized Intersections: Where two roadways meet at a traffic signal.
- *Slip Lane:* A right-turn lane at an intersection that allows drivers to make a turn without actually entering the intersection and that is often not controlled by a traffic signal. Typically separated by a triangular "pork-chop" island.
- Stakeholders: Community members, organizations, or agencies that have a heightened interest or concern in the project.
- Uncontrolled Crosswalks: A crosswalk with no stop sign or traffic signal
- *Wayfinding:* Guidance either on signs or striped on the ground to indicate locations and/or directions to destinations.

# Appendix B. Existing Conditions Report



# Appendix C. Alternatives Analysis Presentations



## Appendix D. Bancroft Avenue Concept Plan



# Appendix E. Williams Street Concept Plan



# Appendix F.Summary of Parking Impact



# Appendix G. Cost Estimate

# Appendix H. Community Feedback