



APPENDICES

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NORTH
FAIR OAKS

BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY

Appendix A - Existing Conditions Memorandum



NORTH
FAIR OAKS

BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY

Existing Conditions Memorandum

September 2022



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Overview

The County of San Mateo is preparing the North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study (Study) to assess the potential for a grade-separated pedestrian and bicycle rail crossing of the Caltrain tracks and additional improvements on local roads to support walking and bicycling in North Fair Oaks. The County and project team seek to develop a community-guided transportation plan that reflects the priorities of this culturally diverse neighborhood and defines a path forward for implementing mobility improvements.

Located along the San Francisco Peninsula, between San Francisco and San José, North Fair Oaks is an unincorporated community of San Mateo County. North Fair Oaks borders Redwood City to the north and west and Atherton to the south and east. The community of approximately 14,000 residents is densely populated and is one of the most culturally diverse areas in the county, with 70 percent of the population identifying as Hispanic. According to the Unincorporated San Mateo County Active Transportation Plan (ATP), North Fair Oaks has both the highest potential demand for walking and bicycling – due to its high population density, mix of land uses, and relatively small blocks – as well as the highest concentration of bicycle and pedestrian collisions per square mile of all San Mateo County unincorporated communities.

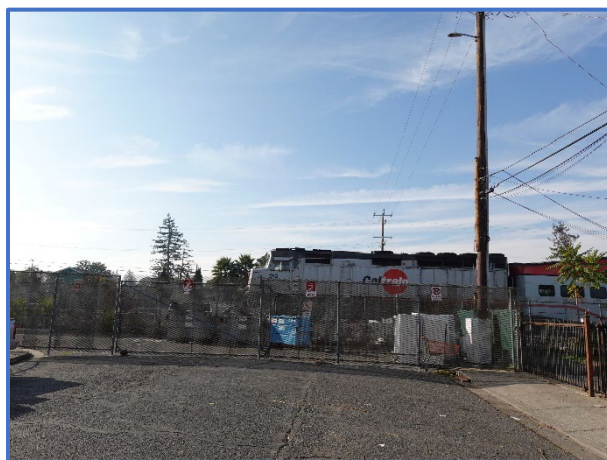
The North Fair Oaks community is bisected by a four-track railroad corridor, owned by the Peninsula Corridor Joint Powers Board (PCJPB) and utilized for the Caltrain commuter rail service. Fifth Avenue is the only existing crossing of this rail corridor in North Fair Oaks, which results in limited connectivity for pedestrians and bicyclists across it for over a nearly 1.2-mile-long span between Fifth Avenue and the northwestern community limits. The railroad tracks separate residents from services and students from local schools, after-school programs, health services, and commercial corridors.

The Study will develop alternatives and other transportation improvements that promote safety, facilitate access, and enhance the mobility of residents throughout the North Fair Oaks community. The Study's limits, as shown in

Figure 1, extend between Middlefield Road, State Route 82 (El Camino Real), Fifth Avenue, and the County's jurisdictional border with Redwood City.



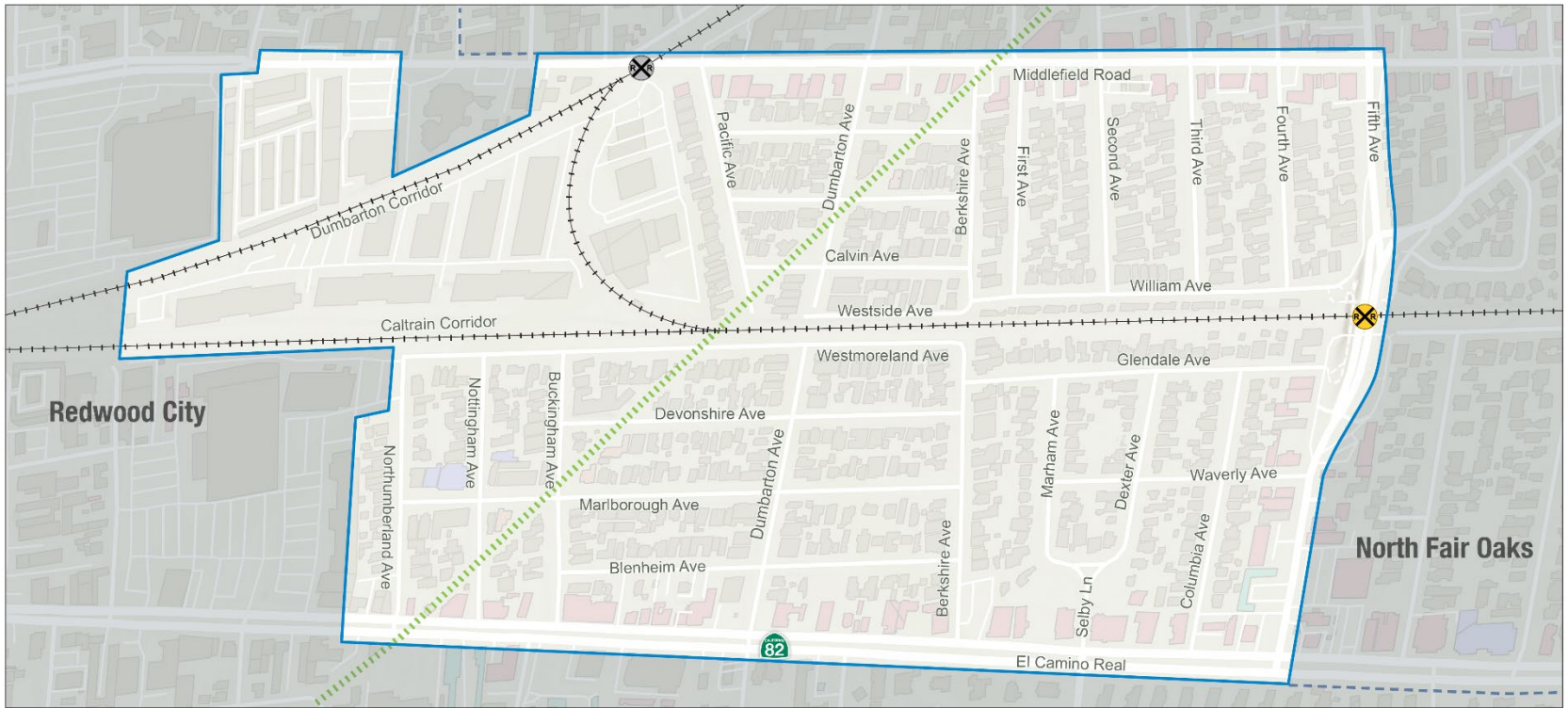
South-facing view of sidewalk along Northumberland Avenue.



View of the Caltrain corridor from Dumbarton Avenue north of the tracks.



Figure 1: Study Area



PROJECT STUDY AREA

LEGEND

- Study Area
- Rail Corridor
- Railroad Crossing At-Grade
- Railroad Crossing Grade-Separated
- SFPUC Hetch Hetchy Corridor
- North Fair Oaks Border



Study Area

The Study area encompasses the portion of the North Fair Oaks community between Middlefield Road and El Camino Real. **Figure 2** shows the Study area limits, as well as the surrounding areas, roadway network, and points of interest in the area.

Local Destinations

Fair Oaks Community Center

Located along Middlefield Road, the Fair Oaks Community Center serves the community with a variety of services, including childcare, crisis intervention, and food programs. The Community Center is located less than 800 feet northeast of the Caltrain corridor, and many of the community members walk or bike to access it. The Community Center is a key community facility that supports vulnerable populations in North Fair Oaks.

North Fair Oaks Library

Directly north of the Fair Oaks Community Center, the North Fair Oaks Library serves as another community anchor within North Fair Oaks. The library hosts frequent outreach events for community residents such as computer literacy classes, free meals, and English conversational practice, among others.

Fair Oaks Health Center

The Fair Oaks Health Center, located south of the Fair Oaks Community Center, offers a variety of medical and dental services to residents of North Fair Oaks. Notably, the driveway to the medical center is aligned adjacent to the Middlefield Road and Dumbarton at-grade rail crossing and is the subject of improvement recommendations as part of the Middlefield Road Improvement Project. The Middlefield Road Improvement Project is currently under construction, and improvements to the driveway are detailed in the following section.

Friendship Park

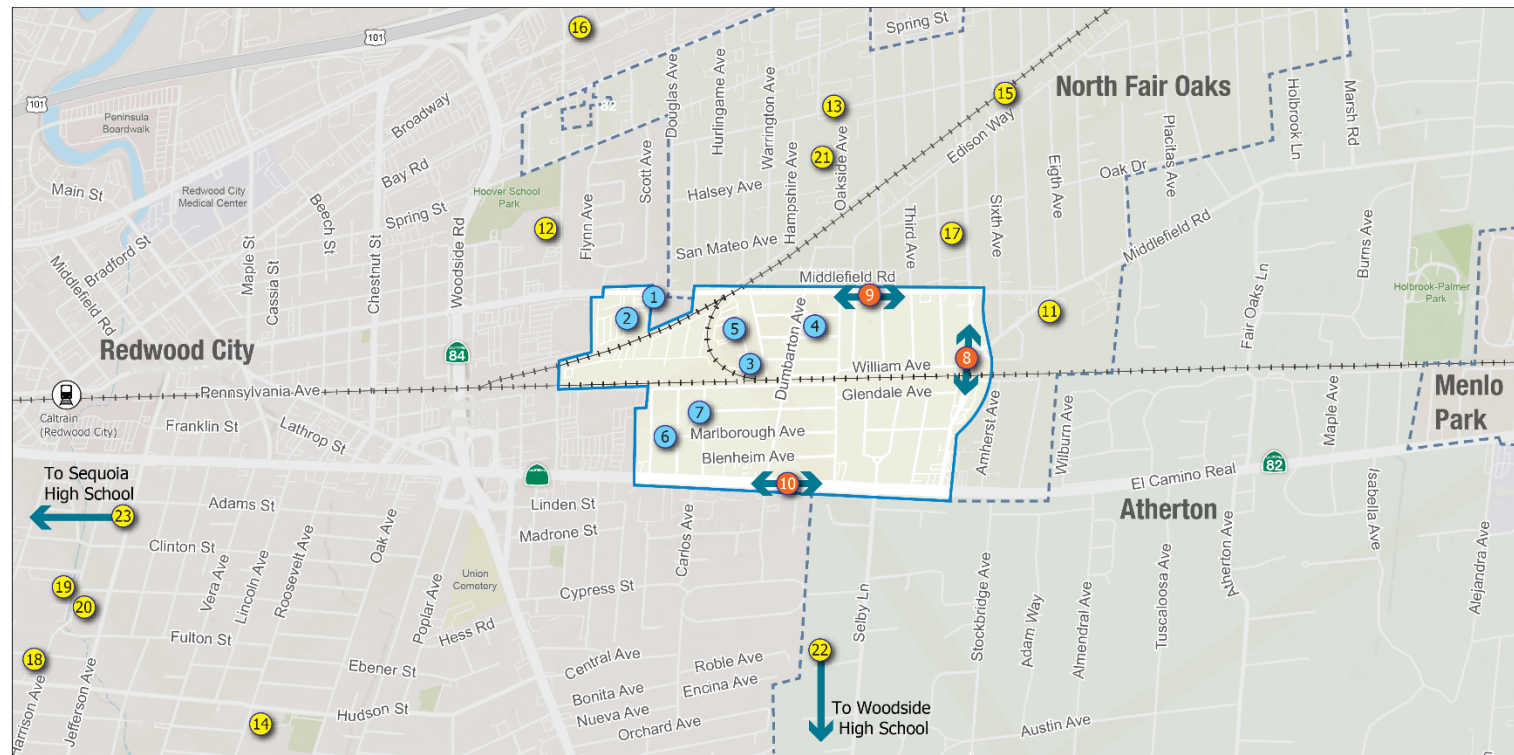
Located southeast of Dumbarton Avenue, between Huntington Avenue and Curtis Avenue, Friendship Park is an approximately 15,000 square-foot public park in the heart of North Fair Oaks. The park features a playground, picnic benches, a community garden, and bicycle racks. This park is located along the San Francisco Public Utilities Commission Hetch Hetchy Reservoir Corridor, which extends through the North Fair Oaks community.

Commercial Corridors on Arterials Surrounding the Study Area

Middlefield Road is the central business district containing numerous businesses that serve the North Fair Oaks Community. Fifth Avenue contains numerous businesses that also cater to the local community. El Camino Real contains a mix of local and regional serving commercial businesses, including the Target Shopping Center. Located south of Woodside Road (SR-84), between the Caltrain rail corridor and El Camino Real, the Target Shopping Center is a large commercial center with large and smaller retailers and restaurants. The shopping center features a large surface parking lot and generates a notable amount of traffic demand. SamTrans fixed-route bus service runs along all of these arterials surrounding the Study area with many bus stops. Trunkline bus service is provided along both Middlefield Road and El Camino Real, which provide access to numerous points beyond, especially for those that are transit dependent. These bus stops serve as destinations within the Study area. Further detailed information regarding transit is provided in a separate section of this report.



Figure 2: Key Destinations within and around the Study Area



KEY DESTINATIONS

LEGEND

- Study Area
- Rail Corridor
- Caltrain Station
- City Boundary

KEY DESTINATIONS

- 1 Fair Oaks Community Center
- 2 North Fair Oaks Library
- 3 Middlefield Junction
- 4 Friendship Park
- 5 Fair Oaks Health Center
- 6 Siena Youth Center
- 7 St. Francis Center
- 8 5th Ave Corridor Commercial Area
- 9 Middlefield Rd Commercial Area
- 10 El Camino Real Commercial Area

SCHOOLS

- 11 Garfield Community School
- 12 Hoover Elementary School
- 13 Kipp Excelencia Community Prep
- 14 Rocketship Redwood City Prep
- 15 Synapse School
- 16 Summit Preparatory Charter High School
- 17 Summit Everest Public High School
- 18 Redeemer Lutheran School
- 19 North Star Academy/McKinley Inst. of Technology
- 20 Montessori Community and Family School
- 21 Connect Community Charter School
- 22 Woodside High School
- 23 Sequoia High School



St. Francis/Siena Youth Center

The St Francis and Siena Youth Centers, located in separate facilities in close proximity to each other between the Caltrain rail corridor and El Camino Real, are non-profit programs. The St. Francis Center provides low-income families with essential services including a food pantry, clothing, adult and youth classes at the Holy Family School, and housing with the management of eight apartment complexes. Stemming from the St. Francis Center, the focus of the Siena Youth Center is to offer youth ages 10 through 17, a positive, safe, happy place to become and stay healthy. The youth can interact with others in the community, receive mentorship, and are given opportunities to provide leadership. Currently, the Siena Youth Center offers only on-street parking to vehicles but has bicycle parking facilities on site.

Schools

There are many different schools, both public and private schools that surround the Study area. Garfield Elementary School, located on Middlefield Road to the east of the Study area, is a public school (grades K-8) in the Redwood City School District (RCSd) with a neighborhood attendance area that serves the Study area. Woodside High School, south of El Camino Real, is a public high school in the Sequoia Union High School District with an attendance area that serves the majority of the Study area. Students, north of the Caltrain tracks, in the western portion of the Study area have the option of attending Sequoia High School, located along El Camino Real to the northwest in Redwood City. Summit Everest High School is a public charter high school on Fifth Avenue, just north of the Study area. Some schools in the RCSd do not have neighborhood boundaries and are open to residents districtwide. Residents within the RCSd have the option of applying to attend other schools beyond their neighborhood school by application.

Physical Conditions

The transportation network within North Fair Oaks consists of roadways, sidewalks, bicycle facilities, and transit facilities. The geometry, classifications, and infrastructure of each of these roadways are described in further detail below.

Roadway Network

Of the collection of roadways within North Fair Oaks, there are three major roadways that service the community: SR 82 (El Camino Real), SR 84 (Woodside Road), and Middlefield Road.

SR 82 (El Camino Real): El Camino Real is the southwestern border of North Fair Oaks and runs northwest to southeast, parallel to the Caltrain rail corridor. The roadway is classified by Caltrans as a Principal Arterial and features a six-lane cross-section throughout the North Fair Oaks community. Within the Study area, either side of the roadway includes at least five-foot sidewalks throughout the Study area, except for the western shoulder between Renato Court and Fifth Avenue. Pedestrian crosswalks and signal heads are provided at major intersections. The existing roadway does not have dedicated bicycle facilities.

SR 84 (Woodside Road): Woodside Road is located north of North Fair Oaks and runs northeast to southwest. The roadway is classified by Caltrans as a Principal Arterial west of El Camino Real and as a Freeway or Expressway east of El Camino Real. Woodside Road is the closest grade-separated rail crossing north of the study area, but it does not have a continuous sidewalk path for pedestrians. However, there is a narrow, five foot wide, overcrossing for pedestrians and cyclists across the Caltrain tracks located parallel to Woodside Road along its northern side. It should be noted that ramps and curb ramps accessing this crossing are not consistent with current Americans with Disability Act (ADA) standards.



Middlefield Road: Middlefield Road travels through the middle of the North Fair Oaks community and runs northwest to southeast. It is currently being improved as a part of the Middlefield Improvement Project. Improvements to the roadway extend from Douglas Avenue to 6th Avenue and include reducing the four-lane road into a two-lane road with a center two-way left-turn lane. Parallel parking, Class II bicycle lanes, 12-foot sidewalks, and bus stop improvements will also be included.

Planned Circulation Network

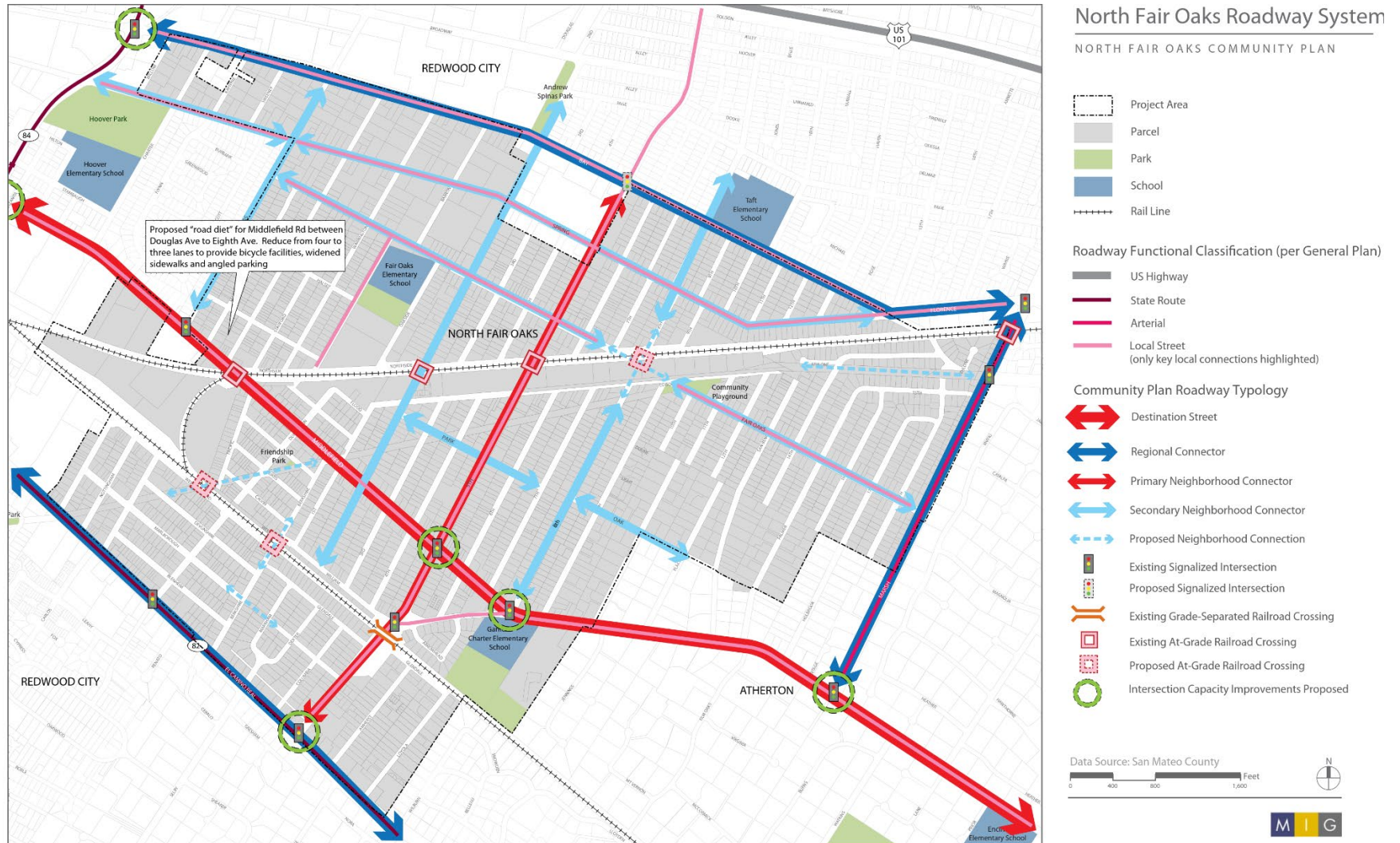
The North Fair Oaks Community Plan, adopted in 2011, recommends supporting the Grand Boulevard Initiative, which would transform the El Camino Real corridor from an auto-oriented corridor to a multi-modal boulevard. The plan supports and reinforces recommendations from the Middlefield Road Improvement Project while also recommending improvements at a number of intersections within the Study area, such as at El Camino Real/Fifth Avenue and Middlefield Road/Fifth Avenue. While some of the roadway improvements, like those from the Middlefield Road Improvement Project, have been implemented or are currently being implemented, others are in the design phase or have not advanced out of planning phases. Overall, the Community Plan supports and encourages changes that improve pedestrian and bicycle activity within North Fair Oaks. **Figure 3** shows the existing roadway network along with proposed and potential transportation projects as outlined in the North Fair Oaks Community Plan.



West-facing view of the sidewalk and parking along Westmoreland Avenue.



Figure 3: North Fair Oaks Roadway System



Source: North Fair Oaks Community Plan, 2011



Transit Network

The community of North Fair Oaks is served with SamTrans bus and Redi-Wheels paratransit service (provided by the San Mateo County Transit District). Although the Caltrain Corridor runs through the Study area, there is no station in North Fair Oaks.

Existing Transit Service

Bus Routes

The San Mateo County Transit District (SamTrans) operates bus routes throughout the County of San Mateo and the County of San Francisco. Within North Fair Oaks, SamTrans provides a range of transit routes, including local, express bus, overnight, and school routes.

Table 1 provides an overview of the five existing bus routes within the Study area.

Table 1: SamTrans Bus Routes Summary

Route Number	Starting and Ending Destinations	Route Description	Location within Study Area	Peak Frequency
72	Marlborough/Dumbarton to Selby Lane School	School-day Only	Northumberland Avenue, Marlborough Avenue, Dumbarton Avenue, El Camino Real	AM – One trip PM – Two trips Mon-Wed and Fri, one trip Thurs
79	Florence/17 th to Kennedy Middle School	School-day Only	Middlefield Road, Woodside Road	AM – Two trips PM – Two trips
296	Redwood City Transit Center to Bayshore/Donohoe	South County Route	Middlefield Road	20 minutes
397	San Francisco to Palo Alto Transit Center	Express Bus Route with Limited Overnight Service	Middlefield Road	60 minutes
ECR	Daly City BART to Palo Alto Transit Center	Express Bus Route	El Camino Real	15 minutes

Source: SamTrans, 2022

Rail Lines

Caltrain, a regional commuter rail system, operates along the north-south corridor from San Francisco to San José, providing rail connectivity along the west side of the San Francisco Bay. While the rail corridor travels through North Fair Oaks, as noted above, there are no Caltrain stops in the community. The Caltrain stations closest to North Fair Oaks are the Redwood City Station approximately 1.8 miles northwest of the Fifth Avenue Caltrain crossing and the Menlo Park Station approximately 1.7 miles southeast of the Fifth Avenue Caltrain crossing.

Transit Facilities

Generally, existing bus stops are denoted by signage along the sidewalk. Some stops have other stop amenities, including shelters, seating areas, and rider information. At intersections, stops vary between the nearside and far side of the intersection, and are generally spaced between 500 and 1,000 feet apart.



The Redwood City Caltrain Station is located within Redwood City's Transit District. The Transit District is a transit center for trains and buses in Downtown Redwood City. Passengers can connect between Caltrain passenger rail and SamTrans buses at this center.

The Menlo Park Caltrain Station is located just north of Downtown Menlo Park, between Ravenswood Avenue and Oak Grove Avenue. This station is located within walking distance of multiple SamTrans bus stops.

Planned Transit Service

In 2019, SamTrans began *Reimagine SamTrans*, a comprehensive operational analysis aimed at redesigning the entire SamTrans bus system. In March 2022, the SamTrans Board of Directors adopted the recommendations that came from the study. The proposed recommendations and changes to the current bus system will begin to be implemented in the summer of 2022. The effects that the recommended changes will have on the bus routes serving North Fair Oaks are provided in **Table 2**. A map of the Reimagine routes and stops is shown in **Figure 4**.

Table 2: Reimagine SamTrans Route Updates

Route Number	Overview of Changes
72	No change
79	No change
296	Improved frequency (15 minutes)
397	No change
ECR	Bus stop consolidation; Improved peak hour frequency (15 minutes)

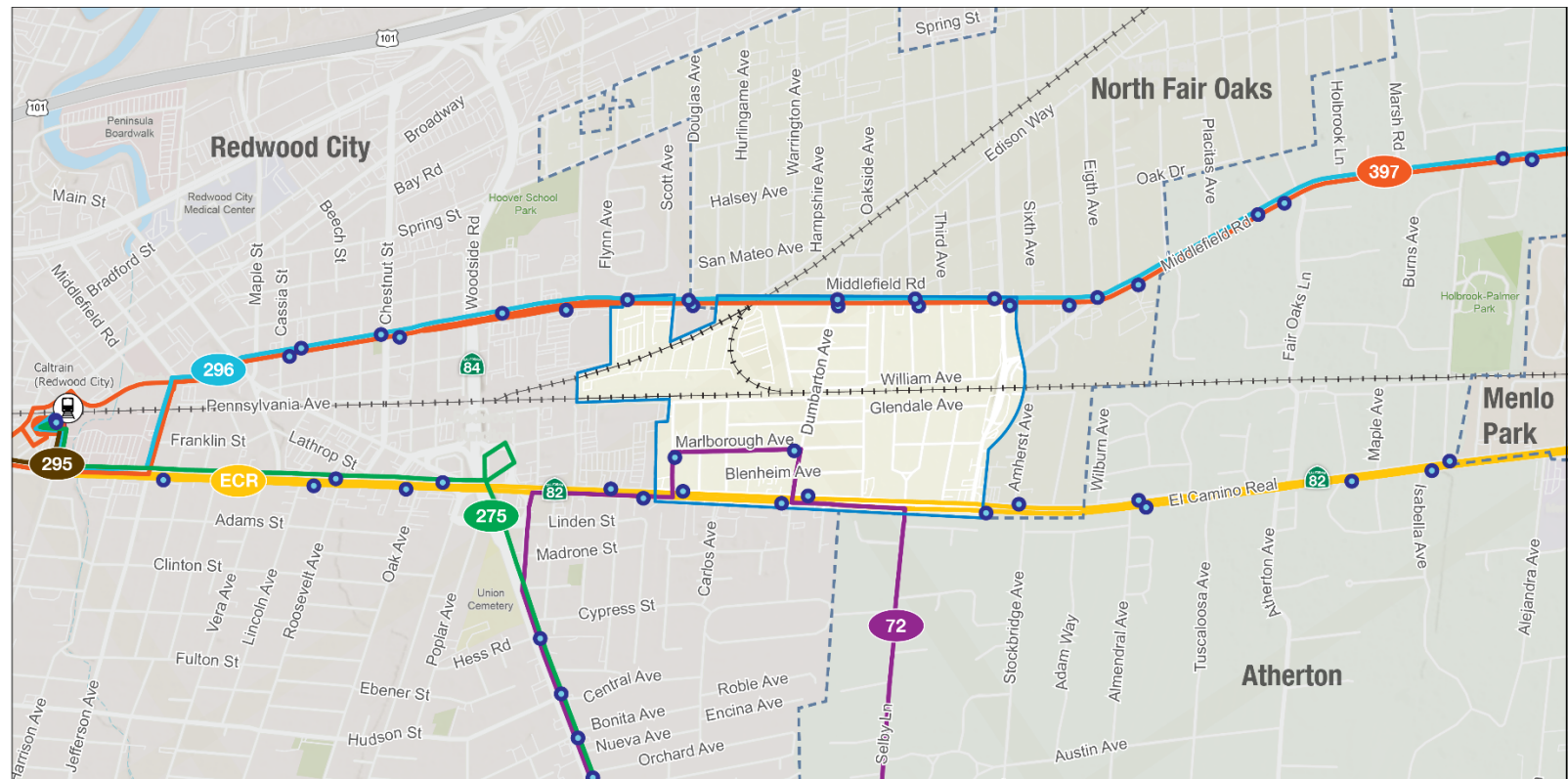
Source: *Reimagine SamTrans*, 2022

The El Camino Real Bus Speed and Reliability Study, which examines the impact of service slowdowns to identify potential changes and achieve faster, more reliable bus service, is currently underway to analyze one of the heaviest-travelled routes within the SamTrans system. The study will remove the existing northbound bus stop at El Camino Real & Northumberland Avenue. No other changes are currently anticipated.

Additionally, the North Fair Oaks Community Plan highlights a few more potential changes to the community's transit network as well as a few recommendations to improve operations. The Caltrain Electrification Plan, for example, will electrify the Caltrain corridor and improve overall operations for the system. Projects like the Dumbarton Rail Corridor, California High-Speed Rail, and the Redwood City Streetcar could present additional transit options to North Fair Oaks residents. The Community Plan also recommends support for future transit projects, like a multi-modal hub within the area with access to new passenger rail service, Bus Rapid Transit on El Camino Real, and a streetcar along Middlefield Road. The future transit network with existing transit and proposed improvements is shown in **Figure 5**. Note that the plan proposed several potential locations for grade separated crossings as well as a new bus/shuttle service along Fifth Avenue.



Figure 4: Reimagine SamTrans Transit Network



TRANSIT NETWORK

LEGEND

- | | | |
|------------------|-----------|-----------|
| Study Area | Route 72 | Route 397 |
| Rail Corridor | Route 275 | Route ECR |
| Caltrain Station | Route 295 | Route 296 |
| City Boundary | Bus Stops | |

0 0.3 0.7 1 Miles

Source: SamTrans, 2022.

Note: The route alignment for 79 was not provided by SamTrans.



Figure 5: Future Transit System



Source: North Fair Oaks Community Plan, 2011



Bicycle and Pedestrian Network

North Fair Oaks has the highest rate of car-free households, at 3.4 percent, of all Census-designated places in San Mateo County. Sufficient pedestrian and bicycling infrastructure is necessary for the community to have safe transportation options.

Existing and Planned Bicycle Facilities

The North Fair Oaks community has limited bicycle infrastructure but has plans for new facilities throughout the community. New Class II bicycle lanes are currently under construction on Middlefield Road, south of Hurlingame Avenue, to provide north-south bicycle access. They will connect with a Class III bicycle route with sharrows north of Hurlingame Avenue. Fifth Avenue serves as the key east-west bicycle connector within the community and has Class II buffered bike lanes east of Waverly Avenue and has a Class III bicycle route with sharrows west of Waverly Avenue to El Camino Real.

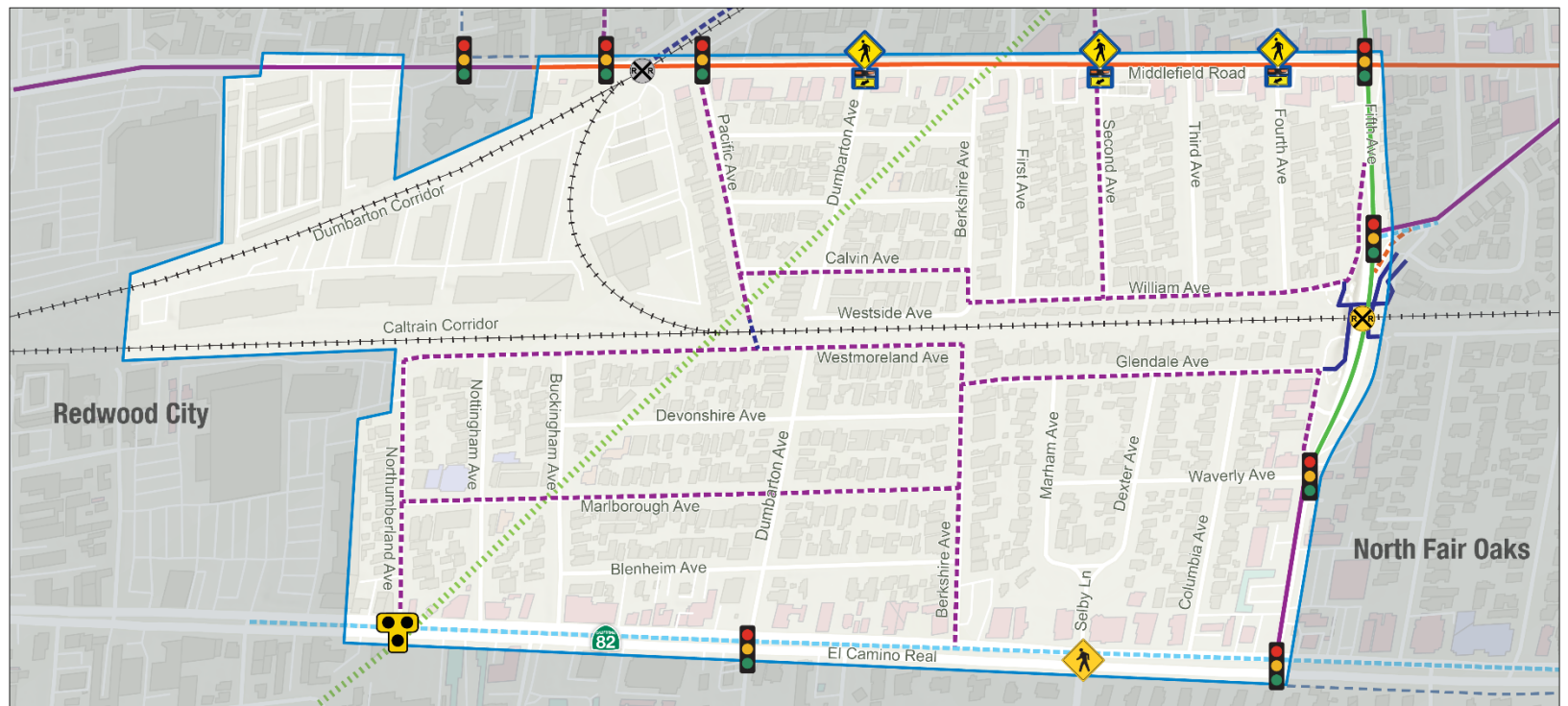
While bicycle infrastructure implementation is in its early stages in the North Fair Oaks community, the North Fair Oaks Community Plan and the unincorporated San Mateo County Active Transportation Plan offer a long-term vision for bicycle travel in the area. Class III bicycle boulevards are proposed on many of the residential streets within the adjacent neighborhoods on both sides of the Caltrain tracks. The collection of existing and planned bicycle facilities is shown in **Figure 6**. Notably, the Plan proposes Class III bicycle boulevards for Pacific Avenue, Calvin Avenue, William Avenue, Second Avenue, Berkshire Avenue, Westmoreland Avenue, Marlborough Avenue, and Northumberland Avenue, as well as a Class IV separated bicycle lane on El Camino Real.



A cyclist on Berkshire Avenue looking northeast toward Westmoreland Avenue.



Figure 6: Existing and Planned Bicycle and Pedestrian Facilities



EXISTING AND PLANNED BICYCLE AND PEDESTRIAN FACILITIES

LEGEND

- | | |
|-----------------------------------|--|
| Study Area | North Fair Oaks Border |
| Rail Corridor | Traffic Signal |
| Railroad Crossing At-Grade | Pedestrian Crossing |
| Railroad Crossing Grade-Separated | Pedestrian Hybrid Beacon Crossing |
| SFPUC Hetch Hetchy Corridor | Rectangular Rapid Flashing Beacon Crossing |

PROPOSED BIKEWAYS

- Class I Shared Use Path
- Class II Bicycle Lane
- Class III Bicycle Boulevard
- Class IV Separated Bicycle Lane

EXISTING BIKEWAYS

- Class I Shared Use Path
- Class II Bicycle Lane
- Class II Buffered Bicycle Lane
- Class III Bicycle Boulevard

Sources: County of San Mateo, Department of Public Works;
Unincorporated San Mateo County, Active Transportation Plan (2021);
County of San Mateo, Middlefield Road Improvement Plans



Existing and Planned Pedestrian Facilities

As a densely-populated area, North Fair Oaks features sidewalks on nearly all of its streets. Generally, smaller residential streets have four- to five-foot-wide sidewalks on both sides of the road in the Study area. Major streets also typically have sidewalks on both sides, except for one segment of El Camino Real between Renato Court and Fifth Avenue, which does not have a sidewalk along its western shoulder. Sidewalk width on Middlefield Road, El Camino Real, and Fifth Avenue range from four feet to 10 feet.

Generally, major arterials, such as El Camino Real and Middlefield Road, feature street lighting focused on the roadway. Fifth Avenue has decorative lighting along the roadway. However, some segments on those streets are not lit, and with few exceptions, lighting, where it exists, is not oriented towards pedestrians. Collector and residential roadways within the Study area have minimal to no street lighting. Street-adjacent trees on private property are common throughout the Study area. Most sidewalks in the Study area are not buffered from the traffic lanes and do not include street trees.

There are a few planned or proposed pedestrian improvements adjacent to or near the study area. One is the Middlefield Road Improvement Project, which is currently under construction. This project will widen sidewalks to 12 feet and underground all utilities, removing them from sidewalks and improving pedestrian conditions along the corridor. Another is a proposed shared-use path along the Dumbarton rail line through the community, is under consideration by SamTrans, the owner of this corridor. A shared-use path is designated along it in the County's Unincorporated San Mateo County Active Transportation Plan. This Plan also lists Fifth Avenue as a priority destination area and a series of pedestrian crossing improvements are proposed along it north of Middlefield Road. Some of which have recently received grant funding. Both the 2011 North Fair Oaks Community Plan and the County's Unincorporated San Mateo County Active Transportation Plan identify the need for a new crossing of the Caltrain Corridor, which this Study aims to identify.

Sidewalks

Sidewalks within the Study area are largely continuous, and most streets within the community feature at least four- to five-foot wide sidewalks on both sides of the roadway. Obstructions, such as utility poles and signs, narrow the effective sidewalk width to less than ADA standards in many locations. In limited locations, sidewalks have landscape strips separating the sidewalk from the roadway; however, in most locations there is no landscaping or trees in the public right-of-way.

Street and Rail Crossings

Generally, within North Fair Oaks, street crossings are short and occur primarily at unsignalized intersections. These crossings are typically the width of the average roadway, which is about 40 feet in North Fair Oaks. Longer crossings exist across the community's major thoroughfares like Middlefield Road and El Camino Real. Typical crossing length is different for each roadway, ranging from 50 to 80 feet on Middlefield Road and 80 to 110 feet on El Camino Real. Notably, shorter crossing distances along Middlefield Road are associated with the pedestrian bulb-outs that will be constructed as part of the Middlefield Road Improvement Project.

The two closest Caltrain rail corridor crossings occur at Woodside Road and Fifth Avenue. The Woodside Road overcrossing features two narrow pedestrian ramps and sidewalk that travel adjacent to the right-of-way. Cyclists need to dismount from their bicycle to make this crossing. The Fifth Avenue undercrossing has dedicated bike lanes with four-foot striped buffers, four-foot sidewalks, and a shared use path on either side of Fifth Avenue. The Caltrain Corridor spans one mile between these two crossings, creating a large gap in connectivity between the north and south portions of the North Fair Oaks community. The width of the rail corridor right-of-way is a consistent 75 feet.



to 80 feet, although the number of tracks expands from two to four tracks just northwest of Fifth Avenue. Two additional siding tracks are added for freight storage and service northwest of the Dumbarton Corridor rail spur. Per Caltrain track charts, the sidings are classified as “UPRR Designated Freight Trackage Located on JPB Right-of-Way”. There is an elevated pedestrian crossing of Fifth Avenue just to the northeast of the Caltrain rail corridor, accessible via William Avenue on the west side and Semicircular Road on the east side.

The Dumbarton rail corridor crosses through the Study area at Middlefield Road. The corridor, which features two parallel tracks, is approximately 100 feet wide throughout North Fair Oaks. The Middlefield Road Improvement Project will convert the adjacent unsignalized intersections at both Hurlingame Avenue and Pacifica Avenue into signalized intersections

Intersections

Signalized intersections exist along El Camino Real, Middlefield Road, and Fifth Avenue. Each of the intersections provides at least one crosswalk and pedestrian signal heads; however, crosswalks are not provided for all legs at several locations, including at El Camino Real and Fifth Avenue intersection. Crosswalks at signalized intersections along the major arterials are detailed further below:

- El Camino Real: most of the crosswalks at signalized intersections do not feature any visibility enhancements, aside from one with ladder striping at Dumbarton Avenue.
- Middlefield Road: most crosswalks currently feature ladder striping, and some currently feature bright yellow striping. Notably, the Middlefield Road Improvement project, which is currently under construction, will implement new crosswalks and improve existing crosswalks. Each new or improved crosswalk will have ladder striping, and bulb-outs will be constructed along Middlefield Road to shorten the effective walking distance at the north/south crosswalks. Some of the crosswalks will feature new advanced stop bars.
- Fifth Avenue: all of the crosswalks along Fifth Avenue feature ladder striping, except for those at the intersection with El Camino Real. The crosswalks at the Fifth Avenue and Middlefield Road intersection have advanced stop bars.

The unsignalized intersections throughout the Study area are primarily two-way or all-way stop-controlled. Most do not have marked crosswalks. Along El Camino Real, there is an unsignalized pedestrian crossing at Selby Lane. The pedestrian crossing at Northumberland Avenue was recently converted into a Pedestrian Hybrid Beacon (PHB), with ladder striping, to provide protection to pedestrians via signalization. Along Middlefield Road, Rapid Rectangular Flashing Beacons (RRFBs) will be installed at Dumbarton Avenue, Second Avenue, and Fourth Avenue as a part of the Middlefield Road Improvement Project. Along Fifth Avenue, there is a grade separated pedestrian and bicycle crossing between Glendale Avenue and William Avenue/Semicircular Road.

Figure 7 shows the existing and planned bikeways, as well as the existing and in-construction signalized intersections and pedestrian crossings.

Other Data Collected

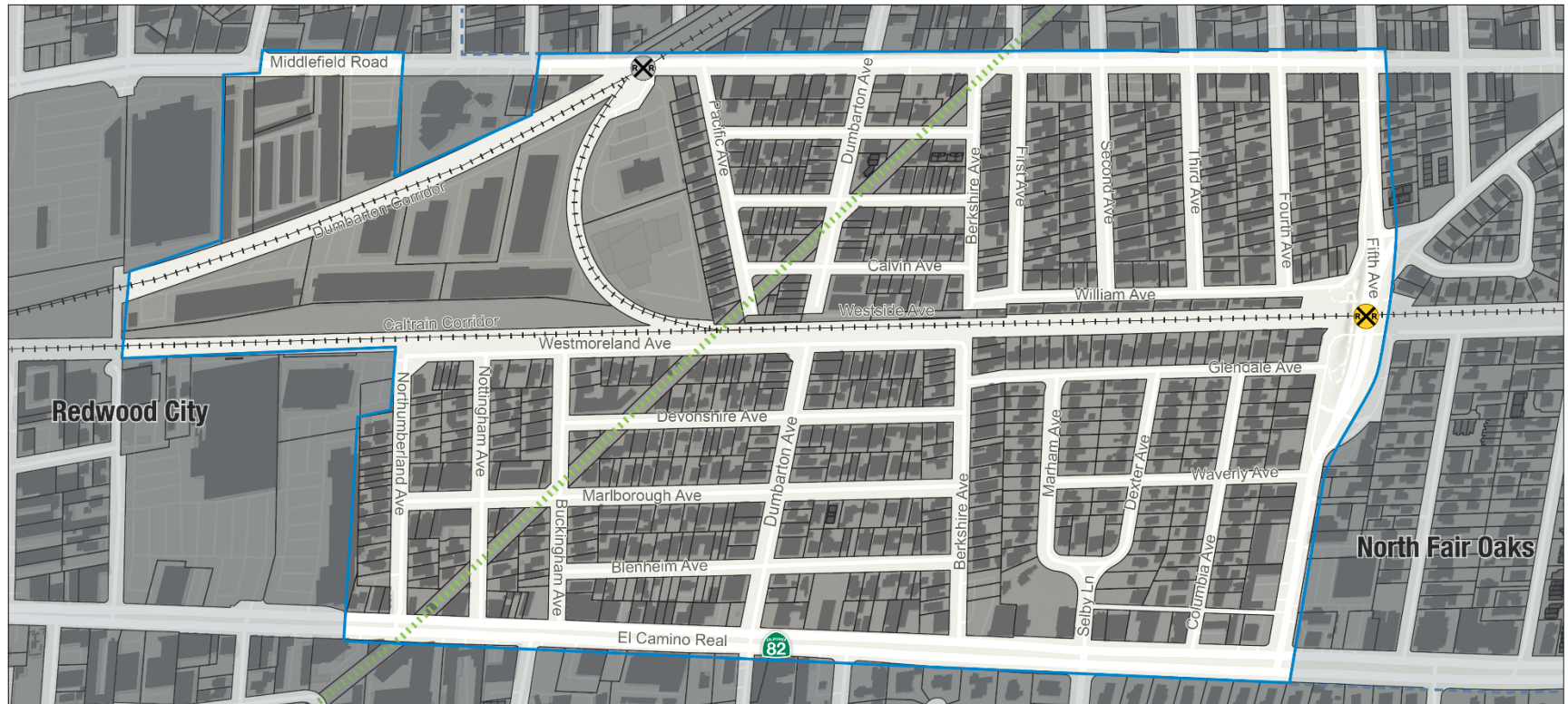
To establish a deeper understanding of potential constraints to a new grade-separated crossing of the Caltrain corridor, other relevant data was collected during the initial Study phases. Existing utility data has been collected and mapped to inform improvement feasibility and costs in later phases of the Study. In addition to utility data, parcel boundary and building footprint data was collected and mapped to provide insight on ownership and location of the land parcels and buildings that may be associated with the different alternatives. Building footprint and parcel



information is shown in **Figure 7**. As shown in the figure, there is no County-owned land abutting the Caltrain corridor west of Fifth Avenue in the Study area.



Figure 7: Building Footprints and Parcel Boundaries



BUILDING FOOTPRINTS AND PARCEL BOUNDARIES



0 0.1 0.2 0.3 Miles

Source: County of San Mateo GIS Data

LEGEND

- | | |
|-----------------------------------|--------------------|
| Study Area | Building Footprint |
| Rail Corridor | Assessed Parcel |
| Railroad Crossing At-Grade | |
| Railroad Crossing Grade-Separated | |
| SFPUC Hetch Hetchy Corridor | |
| North Fair Oaks Border | |



Collision History and Trends

The collision data in the Study area was evaluated to understand if there were collision trends or locations with multiple collisions. Data was obtained through the Statewide Integrated Traffic Records System (SWITRS) database available online and maintained by the California Highway Patrol. The collisions analyzed occurred between January 1, 2015 and December 31, 2021 (note that all 2021 data is provisional at the time of this analysis). Injuries suffered by involved parties are categorized into five categories: fatal injury, severe injury, other visible injury, complaints of pain, and Property Damage Only (PDO). Collisions along Middlefield Road, El Camino Real, and 5th Avenue were not included as there are other improvement projects that are either recently implemented, under construction, or being planned for these streets that will address safety concerns. This Study is focusing on the improvement of the local neighborhood streets within the Study area between these arterials. Overall, clear trends and patterns within the obtained collision data are difficult to identify. Crashes have generally occurred sporadically across the Study area, with few to no clusters of collisions that would point to specific roadway, lighting, or other issues.

Pedestrian-and Bicyclist Involved Collisions

Between 2015 and 2021, there were five (5) collisions in which a pedestrian was struck by an automobile. Each of these collisions resulted in minor injuries, and none were severe injuries or fatalities. Also during this period, there were six (6) collisions in which a bicyclist was struck by an automobile. None of these collisions resulted in a severe injury or a fatality.

The most common cause of the pedestrian- and bicycle-involved collisions was due to unsafe speeds, followed by improper passing. **Figure 8** shows a summary of the primary collision factor.

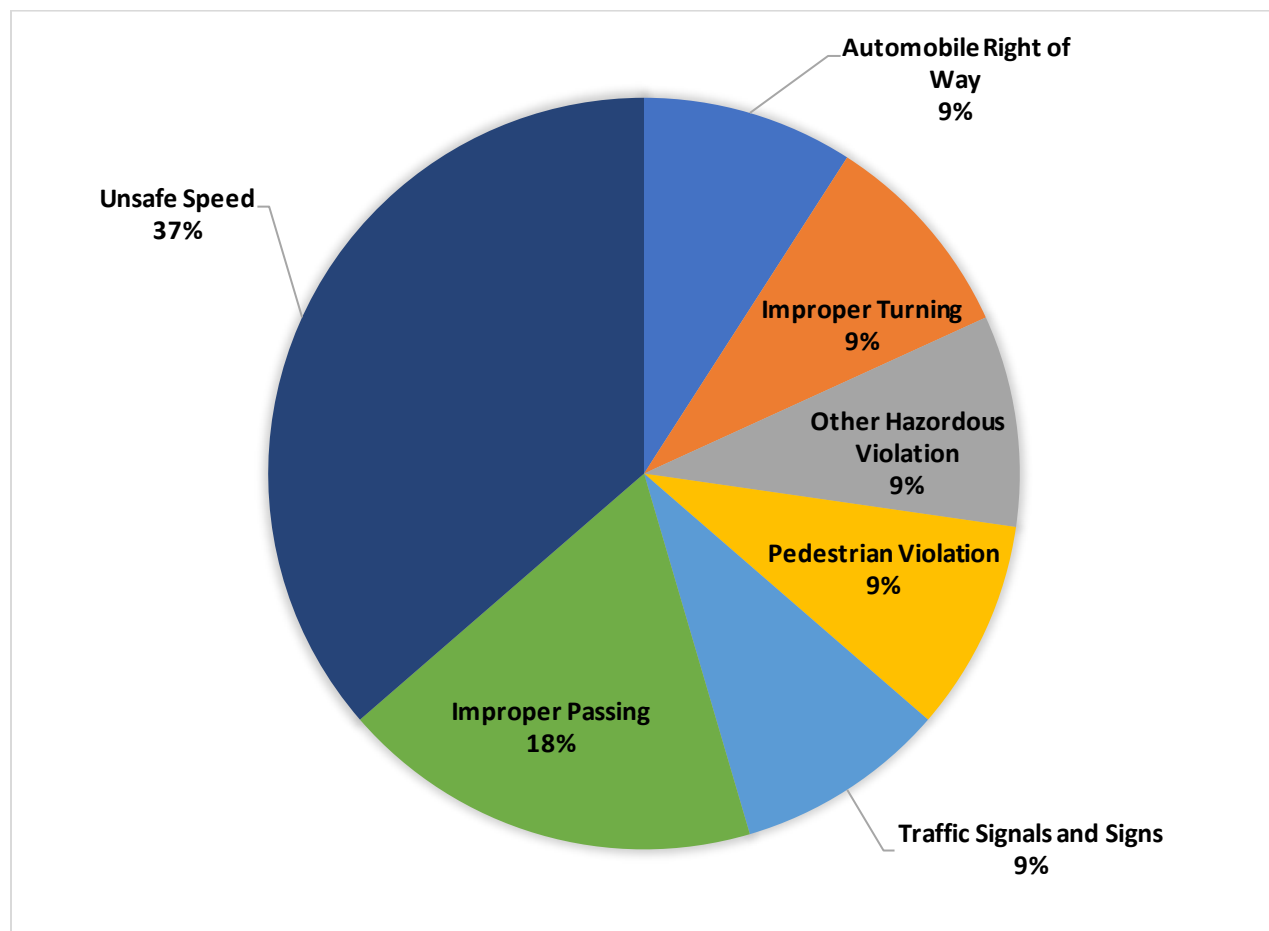
Figure 9 shows the location of all reported pedestrian-and bicycle-involved automobile collisions that occurred within the Study area.



A pedestrian crossing Middlefield Road at Pacific Avenue looking north toward northside Avenue.



Figure 8: Pedestrian and Bicycle Collision Summary



Source: CHP SWITRS Database, 2015-2021

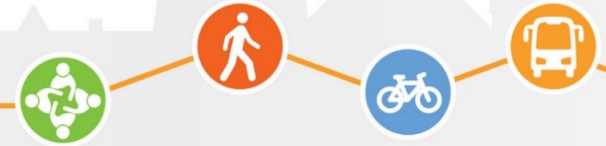
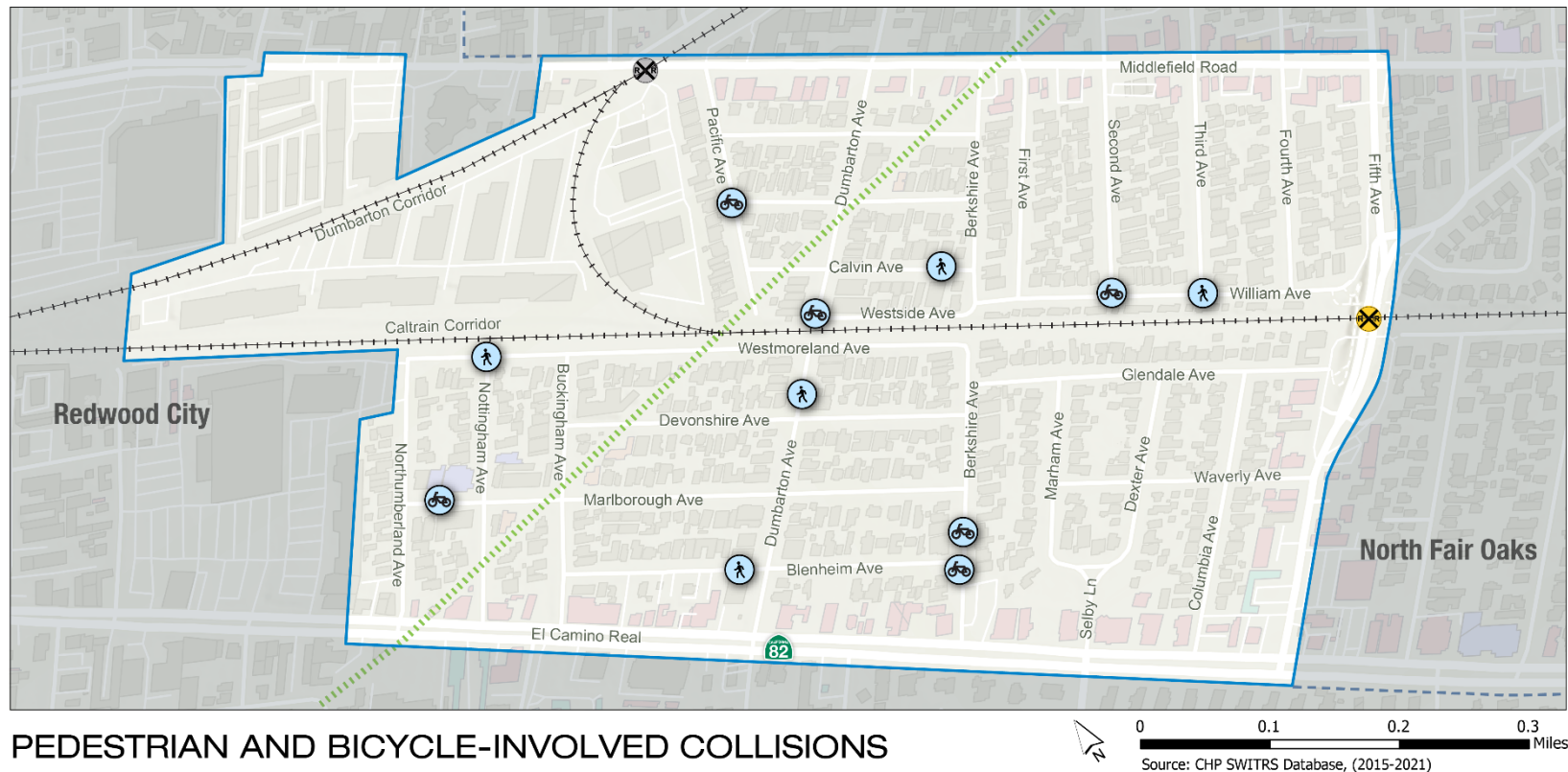


Figure 9: Pedestrian and Bicycle-Involved Collisions



LEGEND

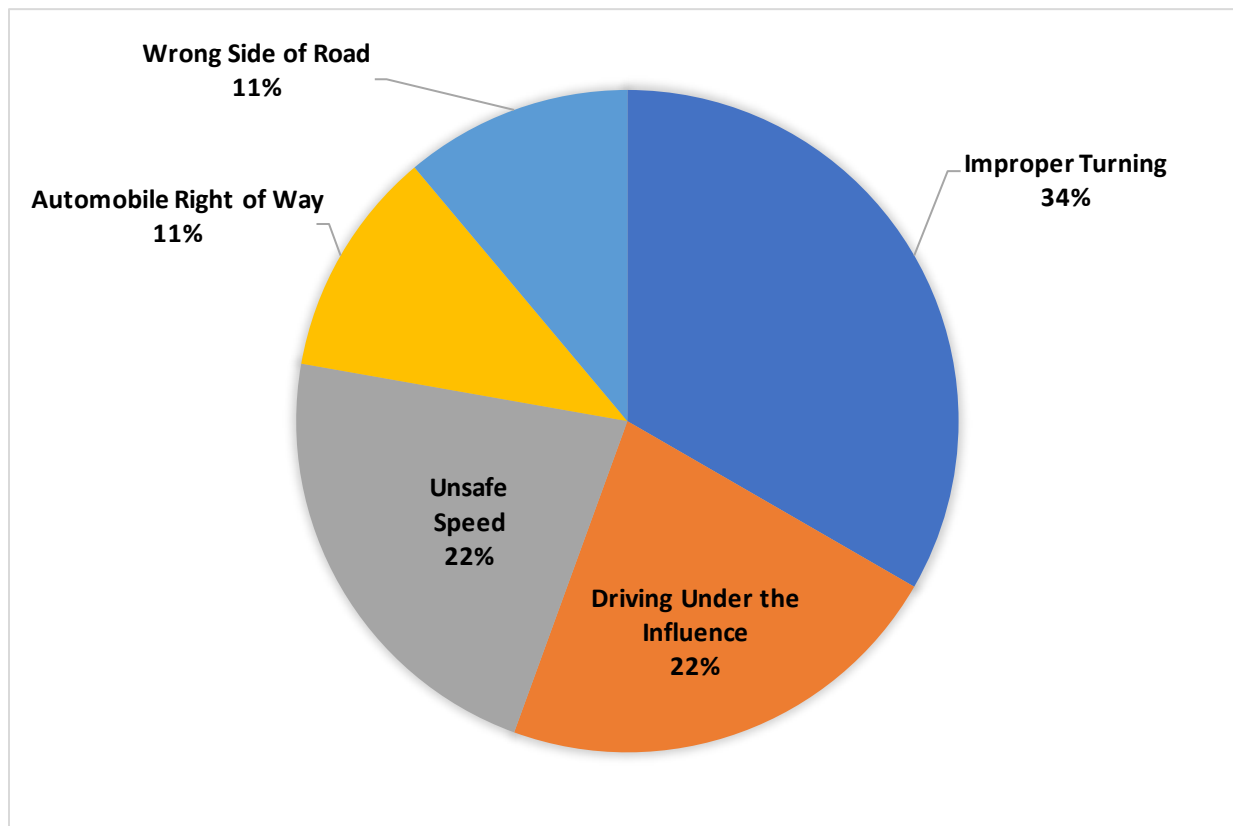
- Study Area
- North Fair Oaks Border
- Rail Corridor
- Railroad Crossing At-Grade
- Minor Bicycle Injury Collisions
- Railroad Crossing Grade-Separated
- Minor Pedestrian Injury Collisions
- SFPUC Hetch Hetchy Corridor



Auto-only or Motorcycle-Involved Collisions

Between 2015 and 2021, there were nine (9) recorded auto-only or motorcycle-involved collisions resulting in injuries in the Study area. There were no fatalities resulting from auto-only or motorcycle-involved collisions. The most common cause of the collisions was related to improper turning, followed by unsafe speed and driving under the influence. **Figure 10** shows a summary of the primary collision factor. **Figure 11** shows the location of all reported auto-only or motorcycle involved collisions that occurred within the Study area.

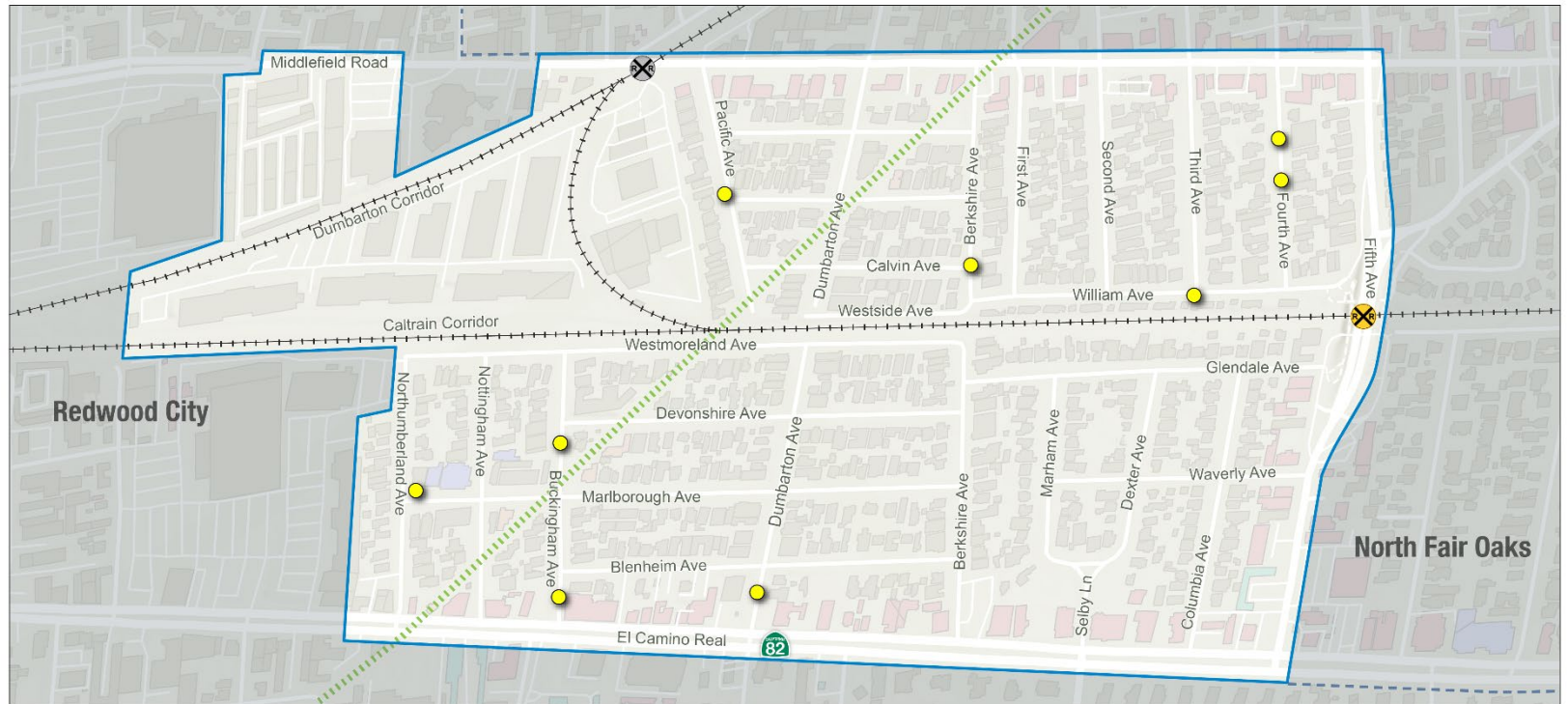
Figure 10: Auto-only or Motorcycle-Involved Collision Summary



Source: CHP SWITRS Database, 2015-2021



Figure 11: Auto-Only or Motorcycle-Involved Collisions



AUTO-ONLY OR MOTORCYCLE-INVOLVED COLLISIONS

0 0.1 0.2 0.3 Miles
Source: CHP SWITRS Database, (2015-2021)

LEGEND

- Study Area
- North Fair Oaks Border
- Rail Corridor
- Injury Collisions
- Railroad Crossing At-Grade
- Railroad Crossing Grade-Separated
- SFPUC Hetch Hetchy Corridor



Relevant Plans/Studies, Projects, and Policies

The North Fair Oaks community has been the subject of multiple planning studies conducted by various agencies over the past decade, with each successive document building on the previous studies and plans. The findings of relevant plans, existing policies and proposed projects are summarized below and will be referred to throughout the Study.

North Fair Oaks Community Plan

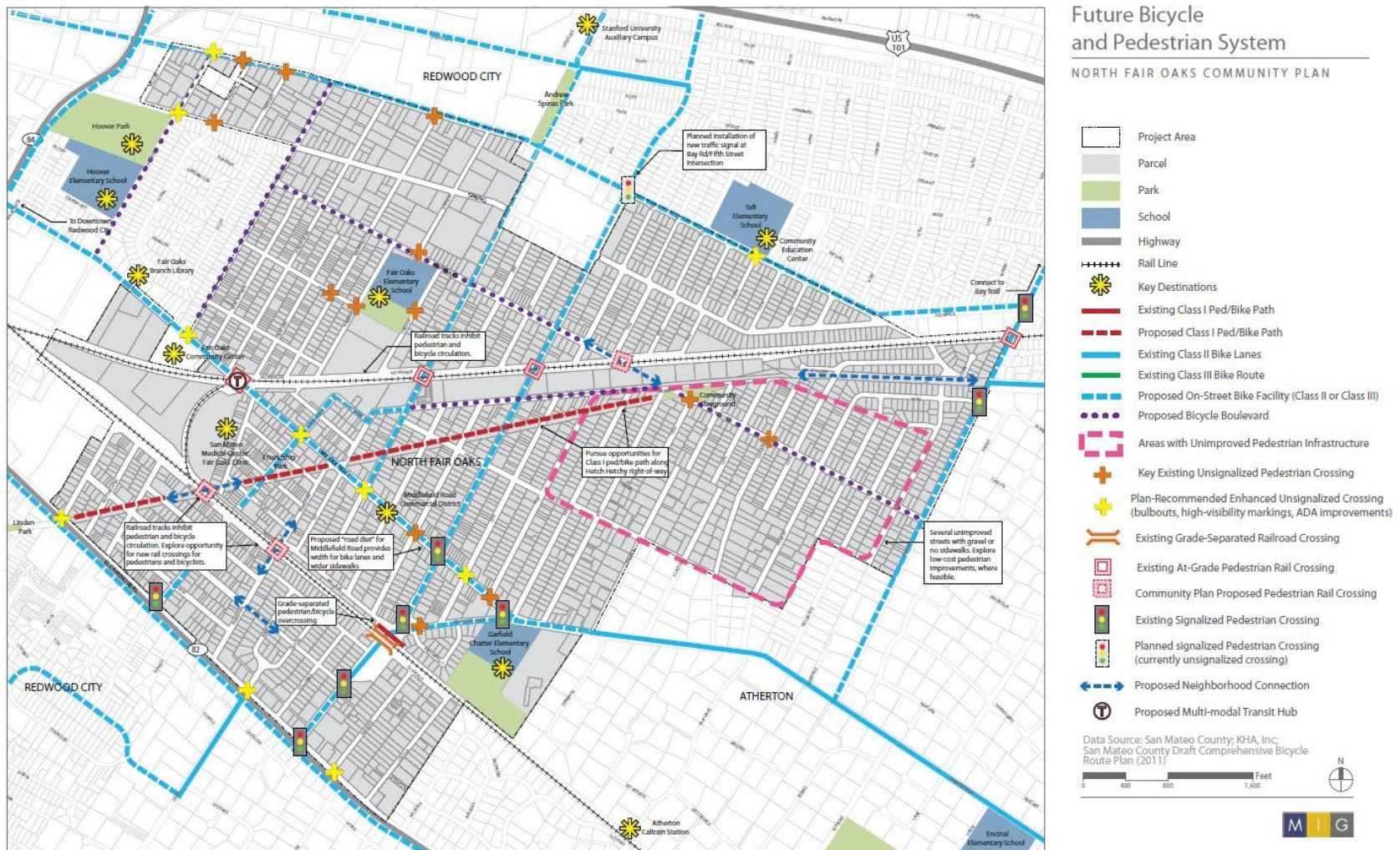
Adopted in 2011, the *North Fair Oaks Community Plan* is a comprehensive planning document intended to establish a long-term vision for the North Fair Oaks Community. The Plan offers an assortment of near-, mid-, and long-term goals to improve quality of life for residents of North Fair Oaks. Chapter 3 of the Plan, Circulation & Parking, evaluates mobility in the community and identifies gaps within the North Fair Oaks network. These gaps include:

- Long rail corridor spans with limited crossing opportunities create significant barriers to pedestrian, bicycle and transit circulation, and overall community connectivity
- While most streets in North Fair Oaks feature proper sidewalk facilities, several streets lack them, and some streets are at risk of flooding due to poor stormwater drainage
- Lack of rail transit stations within walking distance despite the Dumbarton and Caltrain rail corridors travelling through the community
- Lack of bicycle facilities within the community despite heavy bicycle use
- Some of the transit routes in the community are hard to access from certain areas

Recommendations made by the North Fair Oaks Community Plan regarding the community's bicycle and pedestrian network are shown in **Figure 12**.



Figure 12: Future Bicycle and Pedestrian System



Source: North Fair Oaks Community Plan, 2011



North Fair Oaks Rezoning and General Plan Amendment

Initiated by recommendations from the *North Fair Oaks Community Plan*, the County adopted mixed-use designations, standards, and procedures as a part of its Zoning Regulations. In response to difficulties with the application and administration of these adopted standards, the County currently is working on the North Fair Oaks Rezoning and General Plan Amendment Project. The Project is currently in the process of preparing a Draft Environmental Impact Report (EIR).

The project's goals are to adopt more effective zoning by revising provisions that are difficult to administer and/or implement, replacing provisions necessitating subjective interpretation with objective standards, refining development application and review procedures, and incorporating professional practices that better promote Community Plan policies. The project also hopes to increase capacity for housing in the Study area by modifying General Plan designations and zoning standards to potentially allow taller buildings, greater density, reduced building setbacks, modified parking requirements, and/or other strategies, while simultaneously protecting and expanding equitable access to opportunities, community livability, and desirable aspects of community character.

Middlefield Junction

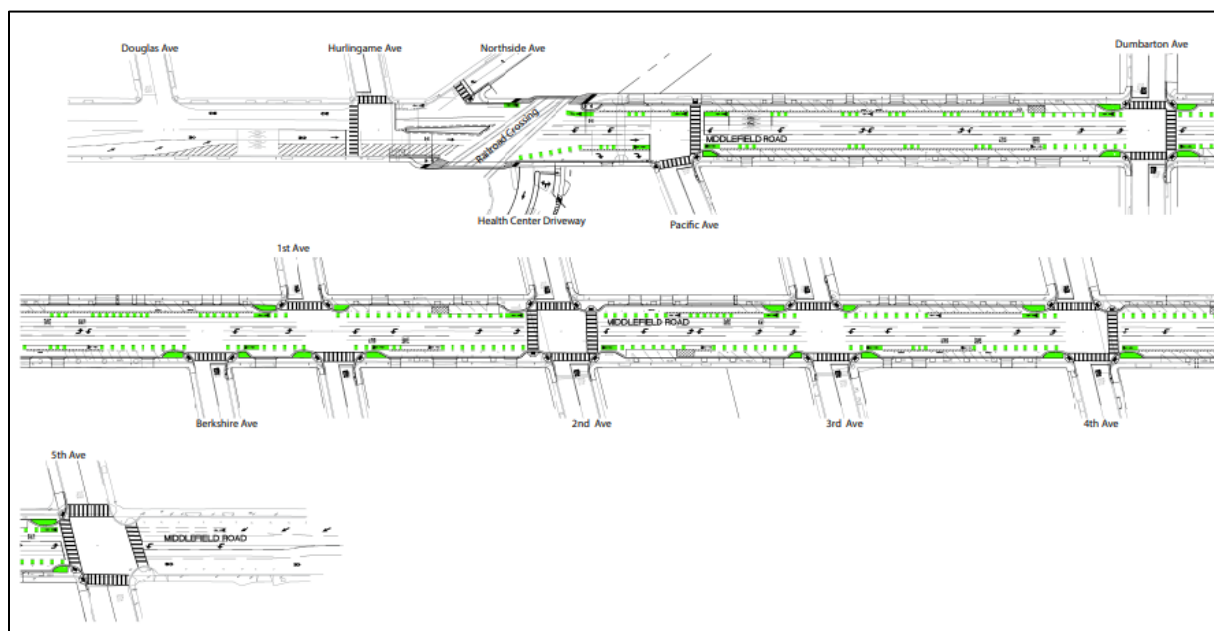
Middlefield Junction is a three-acre site located behind the Fair Oaks Health Center and directly adjacent to the Caltrain tracks that will be developed into an approximate 180-unit affordable housing apartment building with space for childcare and a community childcare center. Community members earning 30% to 80% of the area median income will be eligible to live in the units. The County Department of Housing (DOH) recently received an Affordable Housing and Sustainable Communities (AHSC) grant award for this development project, which is currently in the design phase. DOH staff have noted they are open to the consideration of a potential grade-separated bicycle and pedestrian crossing that connects to this site, if feasible with the housing project design plans.

Middlefield Road Improvement Project

Middlefield Road is a key northwest-southeast thoroughfare located in the center of North Fair Oaks. The Middlefield Road Improvement Project builds on previous recommendations, like those identified in the *North Fair Oaks Community Plan*. This project will significantly transform this road into a more bicycle and pedestrian friendly environment with pedestrian, bicycle, transit, and auto changes to the study area along and around Middlefield Road from Fifth Avenue to Douglas Avenue, as shown in **Figure 13**. The improvements are adding Class II bicycle lanes, wider sidewalks, conversion of existing on-street angled parking to parallel parking, curb extensions at intersections, improved bus stops, landscaping, and other streetscape amenities. Construction on this project is currently under construction.



Figure 13: Middlefield Road Improvement Project



Source: County of San Mateo, Middlefield Road Improvement Project Traffic Operations Analysis Report, 2019

City/County Association of Governments (C/CAG) of San Mateo County Comprehensive Bicycle and Pedestrian Plan

Developed as an update to the 2011 San Mateo County Comprehensive Bicycle and Pedestrian Plan, the 2021 C/CAG Comprehensive Bicycle and Pedestrian Plan builds upon bicycle and pedestrian network recommendations from years prior. The Countywide Bicycle and Pedestrian Plan (CBPP) update sets forth detailed goals and objectives to provide an interconnected system of safe, convenient, and universally accessible bike and pedestrian facilities within San Mateo County. The goals of this plan align with this Study and include establishing a connected network of facilities for bicyclists and pedestrians, improving safety for walking, bicycling, and accessing transit, and developing, prioritizing, and funding projects to advance equity.

The Plan outlines a comprehensive list of improvements and recommendations throughout the entirety of San Mateo County. In general, these improvements include El Camino Real Corridor improvements for pedestrians, providing bicycle and pedestrian crossings of major barriers, safe routes to school, and access to County activity centers.

City/County Association of Governments (C/CAG) of San Mateo Southeast County Community Based Transportation Plan (CBTP)

C/CAG is currently conducting Community-Based Transportation Plans (CBTPs) in Southeast San Mateo County, including North Fair Oaks, and Daly City. CBTPs are community-guided plans that will improve mobility options for struggling communities. Each CBTP will establish solutions to transportation gaps identified during diverse outreach campaigns and coordination with local community groups. The final Plans will include a series of transportation solutions designed to benefit low-income residents, the disabled, senior citizens, those without vehicles and other disadvantaged communities.



San Mateo County Green Infrastructure (GI) Plan - September 2019

To limit harmful externalities of urban development on San Mateo County's waterways, counties and cities within the Bay Area are required to shift from traditional ("gray") stormwater infrastructure to "green" infrastructure systems over time. The *San Mateo County Green Infrastructure (GI) Plan*, prepared in September 2019, outlines strategies and plans for implementing green stormwater infrastructure throughout San Mateo County, including in North Fair Oaks. The plan highlights previous plans published to improve mobility and quality of life within North Fair Oaks, noting that GI can and should be integrated into future transportation and open space improvement projects identified by other planning efforts within the area, such as the Middlefield Road Improvement Project.

San Mateo County Sea Level Rise Vulnerability Assessment

Published in March 2018, the *San Mateo County Sea Level Rise Vulnerability Assessment* set out to evaluate the vulnerabilities of San Mateo County to climate change and to identify impacts of flooding and erosion on people, places, and critical infrastructure. The goal is to provide a menu of actionable solutions to protect places and people by determining risk levels using three flooding and sea level rise scenarios of increasing intensities.

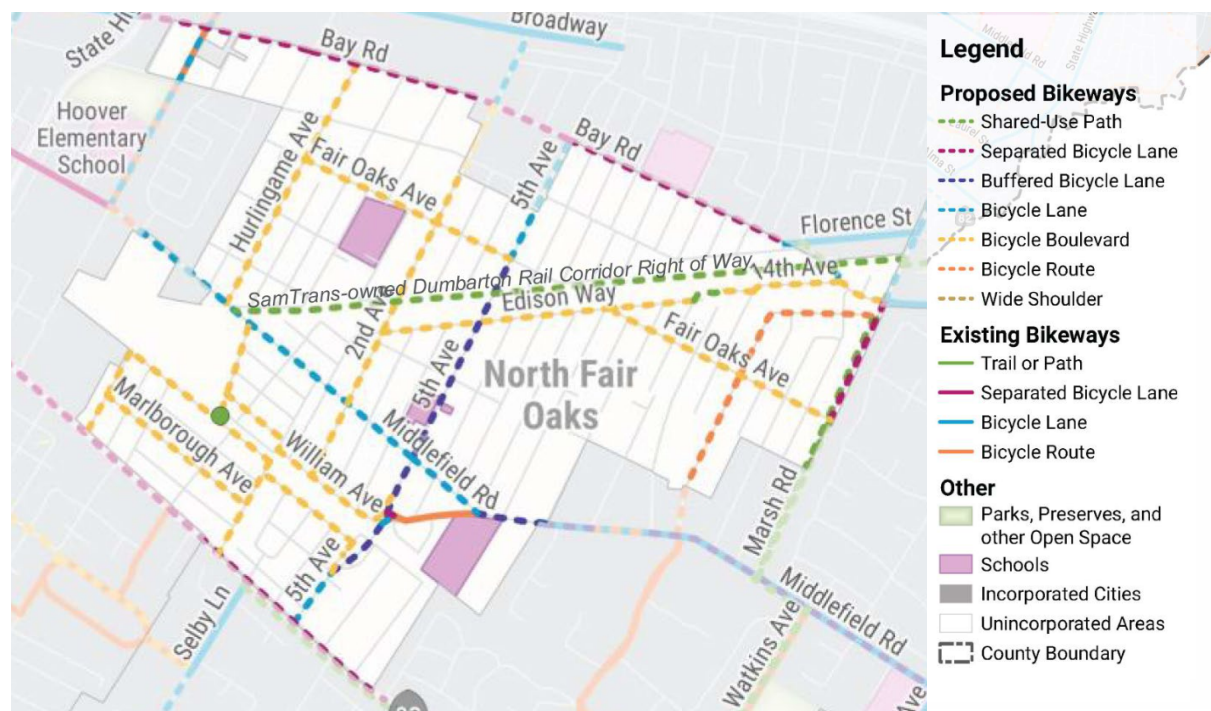
The North Fair Oaks region faces both direct and indirect impacts from sea level rise, with 35 parcels and portions of Bay Road inundated in the baseline flooding analysis. Around 2% and 4% of roads and storm drains are also vulnerable in the mid-level scenario, though less than 1% of the neighborhood's population is vulnerable under the mid-level scenario. The Study area is not within the area that is vulnerable to effects from sea level rise.

Unincorporated San Mateo County Active Transportation Plan

Approved by the San Mateo County Board of Supervisors in February 2021, the *Unincorporated San Mateo County Active Transportation Plan* focuses on the unincorporated areas within San Mateo County, including North Fair Oaks. The Plan provides a comprehensive framework to guide the development of projects and programs for people of all ages and abilities throughout unincorporated County communities. It synthesizes nearly two years' worth of community engagement, existing conditions and data analyses, and concept planning work. The Plan provides contains overarching goals, identifies a proposed bicycle facility network and a series of pedestrian priority destination areas with specific recommendations to improve safety and access, and a section on implementation that includes project prioritization criteria, implementation methods and considerations, planning-level cost estimates, and a list of potential funding sources. Equity is a key goal and project prioritized criteria outlined in the Plan and it is important to note that proposed bicycle projects in North Fair Oaks and other disadvantaged communities rank among the top tier priority projects. Based on a demand analysis, North Fair Oaks was identified as having some of the greatest potential demand for walking and bicycling in all of the County's unincorporated communities. The need for a new bicycle and pedestrian grade-separated crossing of the Caltrain tracks in North Fair Oaks was identified as a way to improve connectivity, closing a key gap in the active transportation network in North Fair Oaks and beyond. It also identifies a series of proposed bicycle boulevards in North Fair Oaks, as shown in **Figure 14**.



Figure 14: Proposed Bicycle Network – North Fair Oaks, Menlo Oaks, West Menlo Park



Source: *Unincorporated San Mateo County Active Transportation Plan, 2021*

Bay to Sea Trail Conceptual Trail Corridor

The Bay to Sea Trail is a conceptual multiuse trail project proposed by the Bay Area Trails Collaborative initiative. As part of a much larger proposed and existing network of multiuse trails, the Bay to Sea Trail would traverse through the North Fair Oaks region along the Dumbarton rail corridor, travelling west to intersect with the Bay Area Ridge Trail and the California Coastal Trail. Implementation of this portion of the trail network would create the first east-west trail on the San Francisco Peninsula, connecting the San Francisco Bay and the Pacific Ocean. A new bicycle and pedestrian grade-separated crossing of the Caltrain tracks in North Fair Oaks, combined with bicycle and pedestrian enhancements on local streets could help further east west access beyond the Dumbarton Corridor for this Trail.

Caltrans Safety Project Initiation Document on El Camino Real

Caltrans is proceeding with a project initiation document (PID) that will explore the provision of Class IV separated bike lanes or Class II bike lanes and the improvement of existing intersections on El Camino Real that will also benefit pedestrians from Shelby Lane, north into Redwood City. Existing on street parking or the right most travel lane on some segments will be removed for the bike lanes. The purpose of this project is to address bicyclist-involved high collision concentration locations to improve bicycle safety with the goal of reducing bicyclist fatalities and serious injuries.

Dumbarton Rail Corridor Project

South of the Dumbarton Highway Bridge (traversed by SR 84) is the Dumbarton Rail Bridge, which carried freight rail traffic between Newark and Menlo Park until 1982. In August 2018 the San Mateo County Transit District (SamTrans) began partnering with the Cross Bay Transit Partners (a joint venture of Meta (formerly Facebook) and Plenary) to explore options to enhance mobility along the Dumbarton rail corridor. That effort explored the feasibility of



reopening the corridor for passenger service and promoting transit-oriented development at existing and future stations. The study analyzed alternative transit modes, including bus, rail, and autonomous transit, in the Dumbarton Rail Corridor, extending between the Redwood City Caltrain station and Union City BART. The study identified the potential for two stops in North Fair Oaks at Marsh Road and Middlefield Road and consideration for a continuous bicycle path along the corridor that traverses North Fair Oaks. SamTrans is currently evaluating next steps for further study and environmental analysis in this corridor.

2040 Caltrain Business Plan

Caltrain's ridership has doubled over the last 15 years, and it is now the 7th largest commuter rail system in the country. By 2040, it is anticipated that there will be a 40% increase in population within 2 miles of Caltrain stations. Caltrain created and adopted a business plan in September 2020 with 2040 in mind, with detailed analysis and public outreach efforts to determine the future of service throughout the Bay Area. Some of the major goals of the project are to offer more frequent service, more flexible schedules, and faster travel times. Caltrain is proceeding with projects to allow for an increase in service along the Caltrain corridor. Part of Caltrain's expansion is the Peninsula Corridor Electrification Project, which is currently under construction. This will allow for the ultimate conversion of the Caltrain fleet to electric motorized units.

Next Steps

This Study will next engage with North Fair Oaks community as part of Outreach Round 1 during late Spring/early Summer 2022 to introduce them to the Study and learn about their current transportation needs around the Caltrain tracks. Feedback from the Community Advisory Committee and community will be used to develop project goals, priorities, and evaluation criteria that will guide the Study. The information contained within this memorandum will be synthesized with the data from the ongoing outreach efforts, including an online survey, which will be summarized in a separate deliverable, to inform the development of project alternatives and evaluation criteria to assess those alternatives later in 2022.



NORTH
FAIR OAKS

BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY

Appendix B - Community Outreach Round 1 Summary



Engagement #1 Summary

The North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study (Study) team seeks to develop a community-guided plan that reflects the priorities of the North Fair Oaks Community. To ensure community input is incorporated into the Study's process and final recommendations, the Study includes four rounds of community engagement. The first round was conducted between June 11 and July 8, 2022.

The first phase of engagement (Engagement #1) introduced the project to the broader community and informed the Study team's understanding of community values, issues, and transportation needs. The team sought input from a wide variety of stakeholders on specific barriers to walking and bicycling in the project area, key destinations in need of connection, opportunities to improve safety and enhance access, and community priorities that will serve to help inform the Study goals and the alternatives evaluation criteria. During Engagement #1, the Study team collected input via a survey and a series of in-person pop-up events. The community feedback shared during Engagement #1 is summarized in this document and will be used to inform the Study next steps and future iterations of engagement.

Engagement Notifications

The Study team used several techniques to notify the public about engagement opportunities and to promote the survey, including:

- Project website (www.NFOwalkbike.org)
- Social media, including Facebook, Instagram, Twitter, and Nextdoor
- Mailers to approximately 1,700 addresses in the project area and surrounding addresses within 300 feet
- Community partner email listservs
- Community partner newsletters

Appendix C includes the social media notification materials.

Engagement Approach

To reach the community during Engagement #1, members of the Study team, in conjunction with key community stakeholders, held 10 pop-up events promoted the Study and received feedback at two virtual presentations, and distributed flyers and an online and paper survey. The following sections provide an overview of these engagement tools and techniques.

The Study team includes County staff, consultant staff, and two community-based organizations: Nuestra Casa and Redwood City Together. Nuestra Casa and Redwood City Together staff, along with their trusted team of promotoras, facilitated in-language conversations at the pop-up events. Promotoras are community outreach workers who are trusted messengers in their communities.

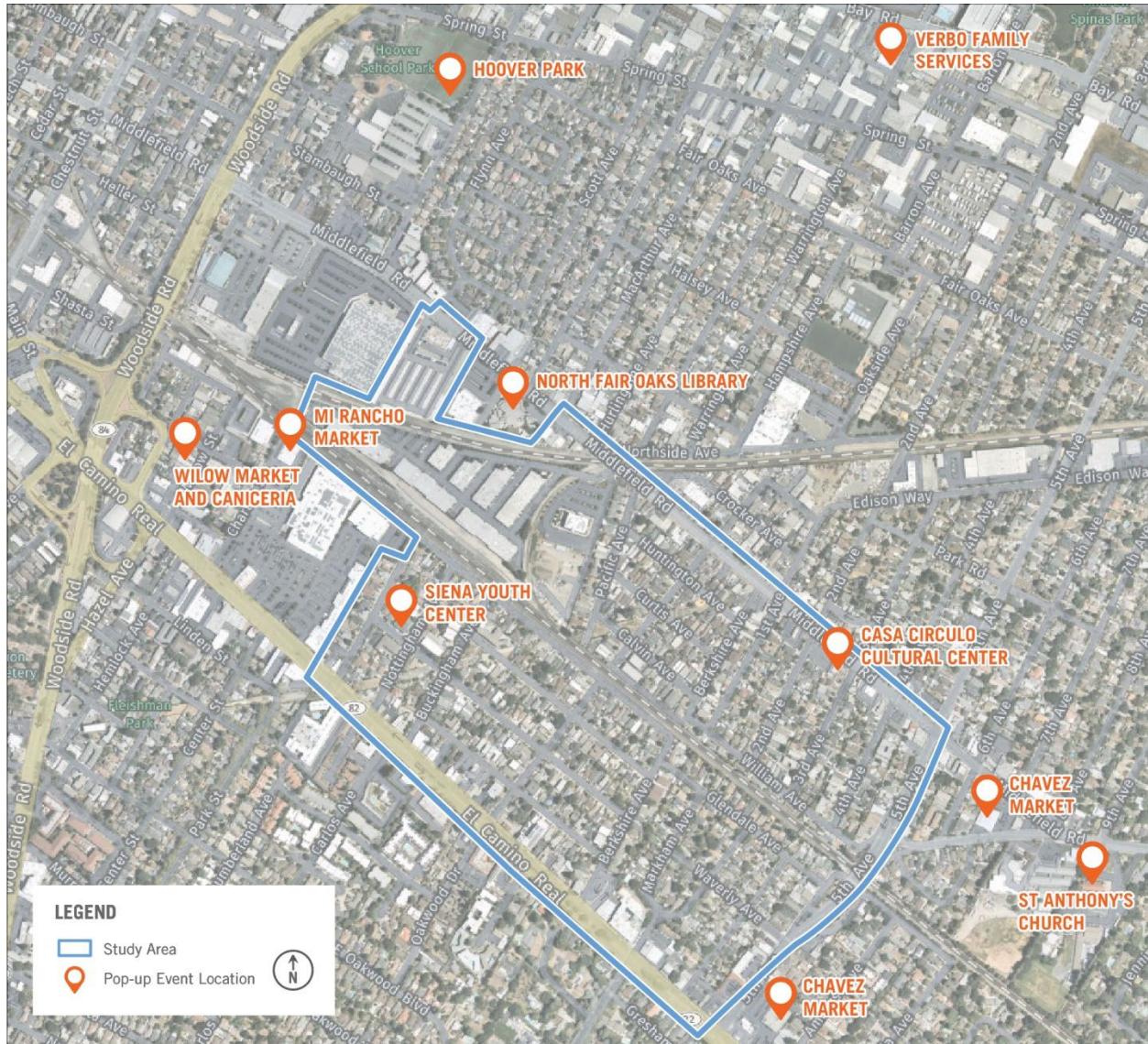
Pop-up Events

Members of the Study team hosted 10 pop-up events during Engagement #1 between June 11 to July 8, 2022. Pop-ups were hosted in convenient locations (Figure 1) and were scheduled to meet people where they already spend time. They were facilitated in-language primarily by promotoras and designed to draw



participants in with specific questions in a socially inviting format, with incentives such as an opportunity to enter a raffle to win a \$50 gift card, bottles of water, pens, tote bags, at-home COVID-19 tests, and snacks. At one event that included a community bike ride, attendees were entered into a raffle to win a bicycle.

Figure 1 Pop-up Event Locations



At the events, the Study team provided interactive boards that communicated the project goals and asked participants what their priorities are for the Study, how the Caltrain tracks affect their mobility, and what other goals should be considered by this Study. The boards created an opportunity for participants to provide feedback using interactive methods like marking their preferences with stickers and using post-its to record qualitative feedback. The Study team also distributed the survey using paper surveys and



tablets to access it online. Details about the pop-up events are provided in Table 1, the event materials are included in Appendix A, and images of the events are included in Appendix G. The Study team engaged with approximately 300 people over the course of these pop-up events.

Table 1 Pop-Up Summary

Pop-up Event Location/Date/Time	People Reached (estimate)	Observed Demographics and Additional Notes ¹
Hoover Park 2100 Spring St June 11, 2022 9:30AM – 12:00PM	25	<p>Age: Majority of participants were between 18-65 years old, with one that appeared to be over 65, and five youth who appeared to be under the age of 18.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: About 60% of participants were male, and 40% were female.</p> <p>Additional context: Lower turnout than expected, likely due to heat, soccer game was cancelled, and no school in session. Given low turnout, the Study team also went to the nearby local shopping center, went door-to-door, and distributed flyers on car windshields around the park.</p>
Casa Circulo Cultural Center 3090 Middlefield Rd June 11, 2022 1:30PM – 4:30PM	40	<p>Age: Majority of participants were between 18-65 years old.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: About 75% of participants were female, and 25% were male.</p> <p>Additional context: After art classes ended, County staff and promotoras went to a few nearby businesses on Middlefield Road and went door to door soliciting survey input from nearby apartments.</p>
Chavez Supermarket 3282 Middlefield Rd June 13, 2022 5:00PM – 8:00PM	35	<p>Age: Majority of participants were between 18-65 years old, four respondents appeared to be 65 or older, and just one respondent appeared to be under 18.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: About 50% of participants were male and 50% were female.</p>
North Fair Oaks Library 2510 Middlefield Rd June 15, 2022 11:00AM – 2:00PM	25	<p>Age: Majority of participants were between 18-65 years old.</p> <p>Language: There was a mix of Spanish-speaking and English-speaking participants.</p>

¹ All demographic information are estimates, which were observed by County staff who attended the pop-up events. Demographic information is not self-reported.



Pop-up Event Location/Date/Time	People Reached (estimate)	Observed Demographics and Additional Notes ¹
		<p>Gender: About 50% of participants were male and 50% were female.</p> <p>Additional context: A range of people participated, including those appearing to experience homelessness or experiencing difficult times. County staff also visited the adjacent Adult Activity Center at the North Fair Oaks Community Center to receive survey input from older adults.</p>
Verbo Family Services 2798 Bay Road June 22, 2022 11:30AM – 2:30PM	55	<p>Age: All participants were between 18-65 years old.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: About 33% of participants were male and 67% were female.</p>
Willow Market and Carniceria 37 Willow Street June 24, 2022 3:30PM – 6:30PM	35	<p>Age: Majority of participants were between 18-65 years old.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: About 67% of participants were male and 33% were female.</p>
Siena Youth Center 2625 Marlborough Avenue June 25, 2022 10:00-1:00PM	25	<p>Age: There was a mix of youth and parents/caregivers with the Siena Youth Center bulldog riders and adults with the Silicon Valley Bicycle Coalition (SVBC). There were three adults who appeared to be over 65 years of age and seven youth who appeared to be under 18 years of age.</p> <p>Language: SVBC members spoke English. Many bulldog riders were bilingual but some of their parents/caregivers primarily spoke Spanish.</p> <p>Gender: There were slightly more males than females at this event.</p> <p>Additional Context: This event was hosted by the Siena Youth Center in conjunction with the SVBC. The pop-up was immediately followed by a community bike ride in celebration of new bike lanes on 5th Avenue.</p>
Mi Rancho Market 150 Charter Street June 28, 2022 5:00PM – 8:00PM	20	<p>Age: Majority of participants were between 18-65 years old.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: Approximately 33% of participants were male and 67% female</p> <p>Additional context: This event overlapped with church services at a small church across the street and County staff distributed flyers on windshields in adjacent surface parking.</p>



Pop-up Event Location/Date/Time	People Reached (estimate)	Observed Demographics and Additional Notes ¹
Chavez Market 46 Fifth Ave June 30, 2022 9:00AM – 11:00AM	25	<p>Age: Majority of participants were between 18-65 years old.</p> <p>Language: Most, if not all, participants spoke Spanish.</p> <p>Gender: All day laborers were male. There were a few female participants</p> <p>Additional Context: County staff, promotoras and staff from the Multi-Cultural Institute engaged with day laborers that congregate in the market parking lot and immediate vicinity. After the day laborers left, County staff and promotoras solicited survey input from local residents at a laundromat across the street.</p>
St. Anthony's Church 3500 Middlefield Rd July 8, 2022 10:30AM – 1:30 PM	40	<p>Age: Majority of participants were between 18-65 years old, and some participants appeared to be over 65.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: About 60% of participants were female and 40% were male.</p> <p>Additional context: A range of people participated, including those appearing to experience homelessness or experiencing difficult times.</p>

Virtual Events

County staff attended two virtual presentations to promote the Study and collect feedback. Details about these events are provided in Table 2.

Table 2 Virtual Events Summary

Event Location/Date/Time	People Reached (estimate)	Event Summary
Familias Unidas ESL Class June 22, 2022 6PM-7:30PM	Unknown	The Study was the main item on the agenda for Familias Unidas. The class was attended by youth and their parents/caregivers. The presentation to the class was in Spanish and Familias Unidas staff provided interpretation services. Familias Unidas staff walked the class through the online survey. Many participants noted difficulty for their children to cross the tracks to attend various schools in the area. Participants mentioned concerns regarding the crossing on the north side of Woodside Road and that students often cross at Chestnut to avoid this crossing because it is narrow, not well lit and concerns with personal security. Concerns were also expressed for the need for a signal at the Selby Lane crossing of State Route 82.



Event Location/Date/Time	People Reached (estimate)	Event Summary
North Fair Oaks Community Council June 23, 2022 7PM	Unknown	County Staff provided an overview of the Study and information on the first phase of community engagement activity. North Fair Oaks Community Council members expressed their interest in a new rail crossing and made suggestions on places for future pop-up events and survey locations.

Survey

The Study team distributed a survey in both online and paper formats to ensure that they reached a broad group of people. Online surveys could be completed on smartphones, tablets or computers. The online survey was hosted by a tool called SocialPinpoint, a survey tool that allows for a combination of standard survey questions and interactive map questions that collect location-specific data. The survey was available in English and Spanish (see Appendix B for the survey). When possible, the Study team and/or promotoras guided participants through the survey.

In total, the survey had 349 respondents – 209 in Spanish and 140 in English. About 27% of the respondents live between Middlefield Road and the Caltrain tracks (or on the east side of the tracks) and about 25% of respondents live between El Camino Real and the Caltrain tracks (or on the west side of the tracks) (

Figure 4). Almost 30% of survey respondents reported that they live outside of the North Fair Oaks neighborhood, although the Study team acknowledges that the “North Fair Oaks” neighborhood boundaries may be unclear to some community members as residents of the unincorporated area have a Redwood City mailing address. In addition, some of the pop-ups were held in adjacent Redwood City, including events at Hoover Park, Willow Market, and Mi Rancho Supermarket. As a result, many participants who responded to the survey at these events may live in adjacent Redwood City. However, even if participants live outside of the project area, they may have an interest in this Study as a new bicycle and pedestrian rail crossing could also benefit them. Most respondents, approximately 63%, were adults ages 26 to 59, while approximately 24% were age 60 and over (Figure 5). About three-quarters of respondents identified as Hispanic or Latinx/a/o and about 12% identified as white (Figure 6). The majority of survey respondents, about 55%, identified as women and approximately 37% identified as men (Figure 7).



Figure 2 Respondent Neighborhood of Residence

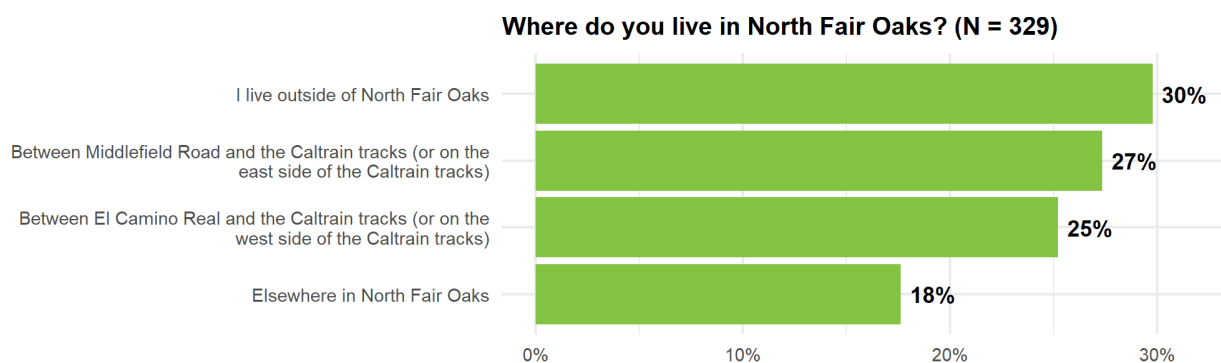


Figure 3 Respondent Age

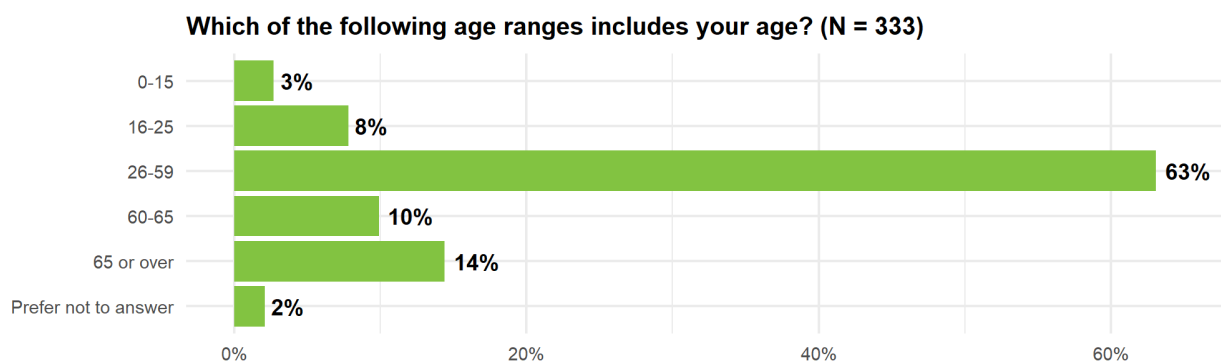


Figure 4 Respondent Race

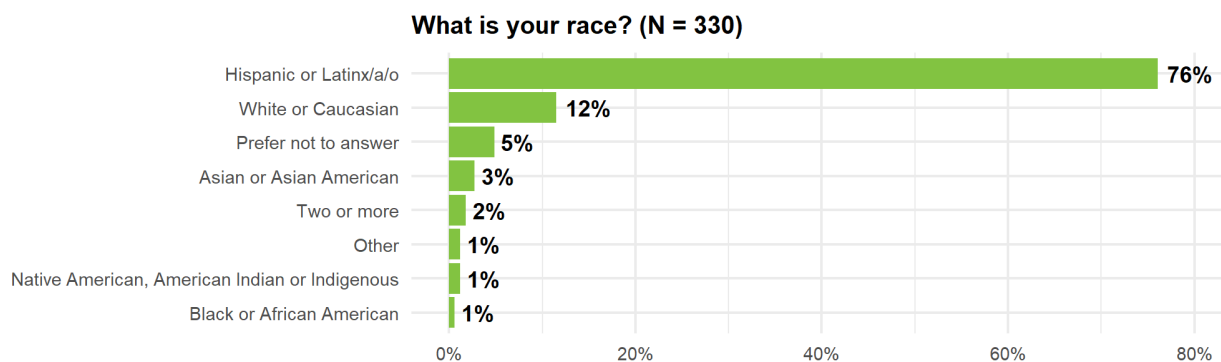
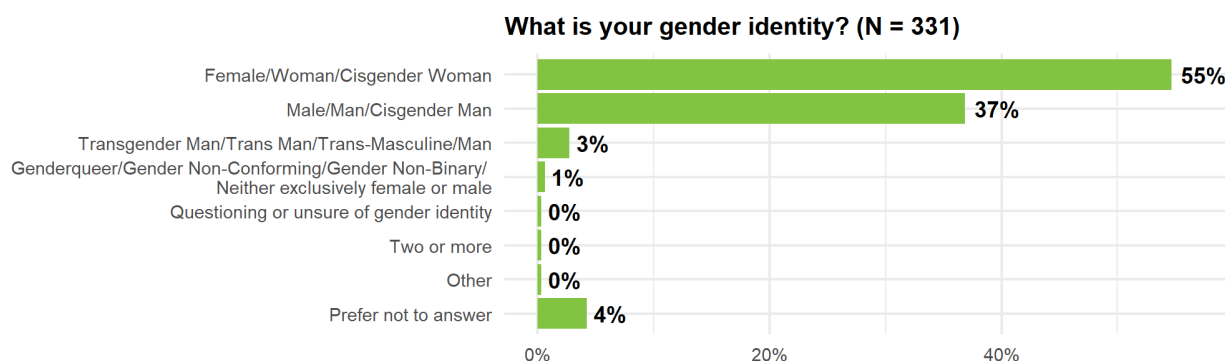




Figure 5 Respondent Gender Identity



What We Heard

The Study team gathered input about 1) how community members travel today and 2) how they would like to travel. Information collected during the pop-up events supplemented feedback collected via three of the survey questions. Table 3 provides an overview of topics considered within these two themes and how data was collected, via survey and/or pop-up events. The following sections summarize what we heard from community members on each of these topics.

Table 3 How Community Members Shared Input

Topic	Data collected via survey?	Data collected via pop-up event interactive boards?
<i>How Community Members Travel Today</i>		
Relationship to the North Fair Oaks Study Project Area	Yes	No
How Community Members Get Around	Yes	No
How Community Members Cross the Caltrain Tracks in North Fair Oaks	Yes	No
How the Caltrain Tracks Impact Community Member Travel	Yes	Yes
Walking and Biking Challenges	Yes	No
<i>How Community Members Would Like to Travel</i>		
Bicycle and Pedestrian Crossing Priorities	Yes	Yes
Study Goals	Yes	Yes

Key Takeaways

The following sections describe feedback from Engagement #1 in more detail, with the following summarizing key takeaways:



How community members get around: The most common means of getting around is driving a private vehicle, followed by walking (includes scooter, skateboard, or other mobility device use) – 60% and 46%, respectively.

How community members cross the Caltrain tracks: When crossing the Caltrain tracks, on most days, about 57% of respondents use their own car, about 41% of respondents walk on foot or roll using a scooter, skateboard, wheelchair, or other mobility devices on Woodside Road or Fifth Avenue, and about 16% of respondents ride their bike.

How Caltrain tracks impact community member travel: About 37% of participants currently drive to destinations on the other side of the rail tracks but would prefer to walk or bike if it were possible. About 30% of respondents currently walk, bike, or take the bus to the other side of the tracks but find it challenging because of the distance. Also, about 22% of respondents don't travel to places on the other side of the rail tracks or do so less often because it is difficult to get there.

Walking and biking challenges: High car speeds and poorly lit streets and sidewalks were the main factors that affect participants' sense of safety – about 44% of respondents each. About 37% of respondents said that they don't feel safe crossing the street.

Bicycle and pedestrian crossing priorities: Personal convenience, security, and access were the three highest priorities for the Study.

How Community Members Travel Today

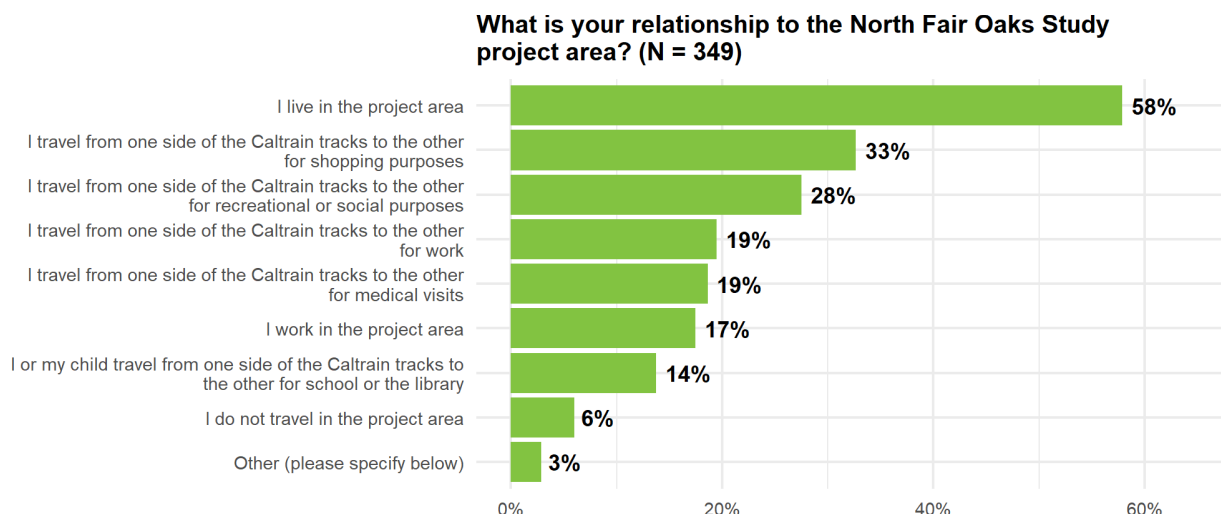
To better understand the needs of the North Fair Oaks community, the Study team asked community members about their relationship to the project area, how they typically get to where they need to go, and how they cross the Caltrain tracks.

Relationship to the North Fair Oaks Project Area

When asked about their relationship to the project area, 58% of respondents indicated that they live in the project area. About 33% of respondents travel from one side of the Caltrain tracks to the other for shopping purposes and about 28% of respondents travel across the Caltrain tracks for social purposes. Work and medical visits were also a common reason for crossing the Caltrain tracks; nearly 20% of respondents shared that these are common trips for them (Figure 8).



Figure 6 Respondent Relationship to The North Fair Oaks Study Project Area

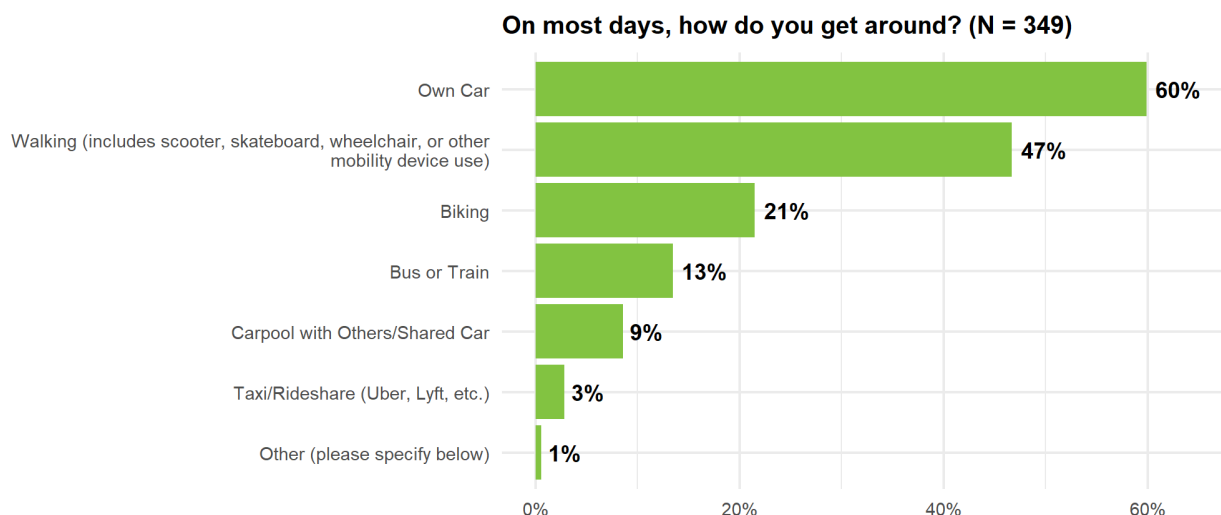


*Respondents were allowed to select more than one option

How Community Members Get Around

Driving and walking are the most common modes of travel for survey respondents – 60% of respondents shared they use a private vehicle on most days and 46% of respondents said they walk (includes scooter, skateboard, wheelchair, or other mobility device use) most days. Biking and transit are also common modes of transportation – about 21% of respondents ride their bike most days and about 14% of respondents ride bus or train (Figure 9).

Figure 7 Respondent Typical Mode of Travel



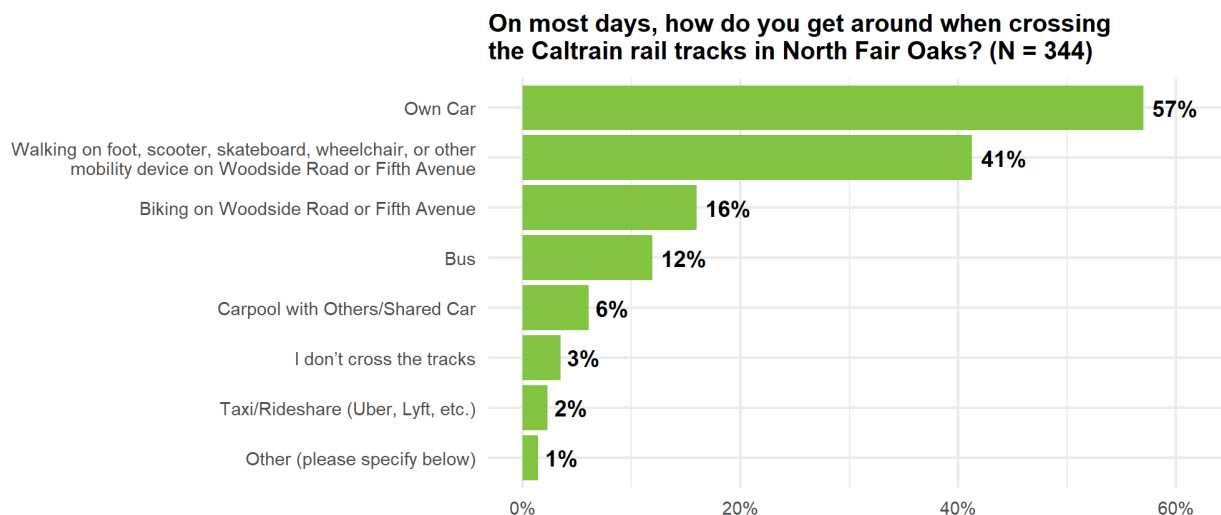
*Respondents were allowed to select more than one option



How Community Members Cross the Caltrain Tracks in North Fair Oaks

When crossing the Caltrain tracks, on most days, 57% of respondents use their own car and 41% of respondents walk on foot or roll using a scooter, skateboard, wheelchair, or other mobility devices on Woodside Road or Fifth Avenue. About 16% of respondents typically cross by riding their bike and 12% of respondents typically cross by riding the bus. Very few respondents (3%) shared that they don't cross the tracks (Figure 10).

Figure 8 Respondent Means of Crossing Caltrain Rail Tracks



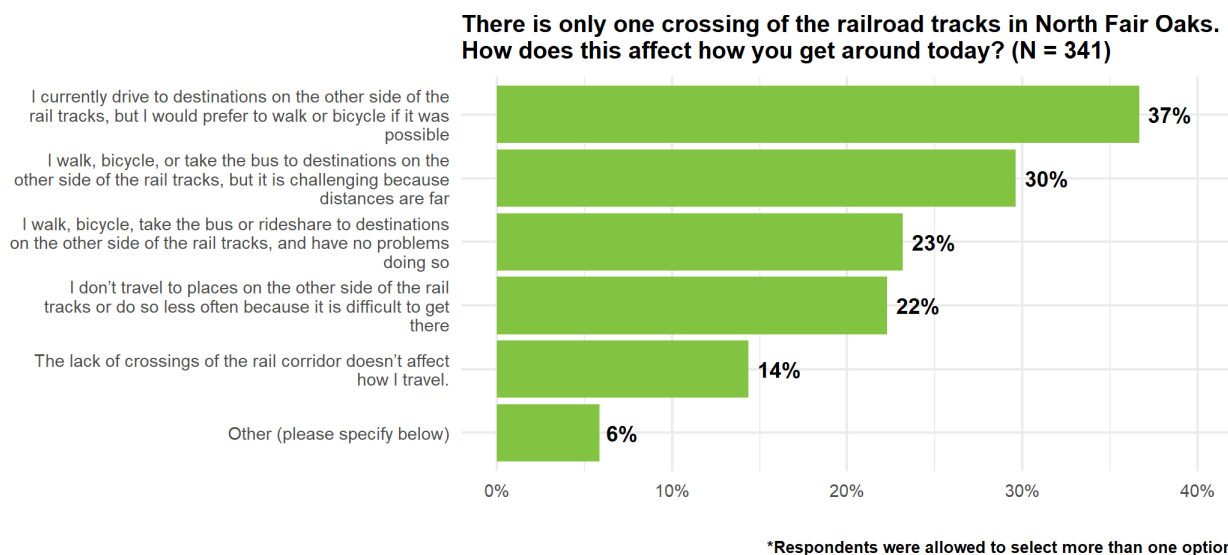
*Respondents were allowed to select more than one option

How the Caltrain Tracks Impact Community Member Travel

There is only one crossing of the railroad tracks in or near the North Fair Oaks community. Using both the survey and interactive pop-up boards, the Study team asked community members how having only one crossing affects their ability to get around. The highest share of survey respondents, about 37%, currently drive to destinations on the other side of the rail tracks but would prefer to walk or bike if it were possible. About 30% of survey respondents currently walk, bike, or take the bus to the other side of the tracks but find it challenging because the distance is far, while 23% of survey respondents choose the same modes but have no problems crossing (Figure 11). About 6% of respondents selected other; 4% did not provide further explanation, and the remaining 2% reported that they have difficulty navigating traffic when driving, walking, or biking.



Figure 9 How Respondents Are Affected by Only Having One Crossing



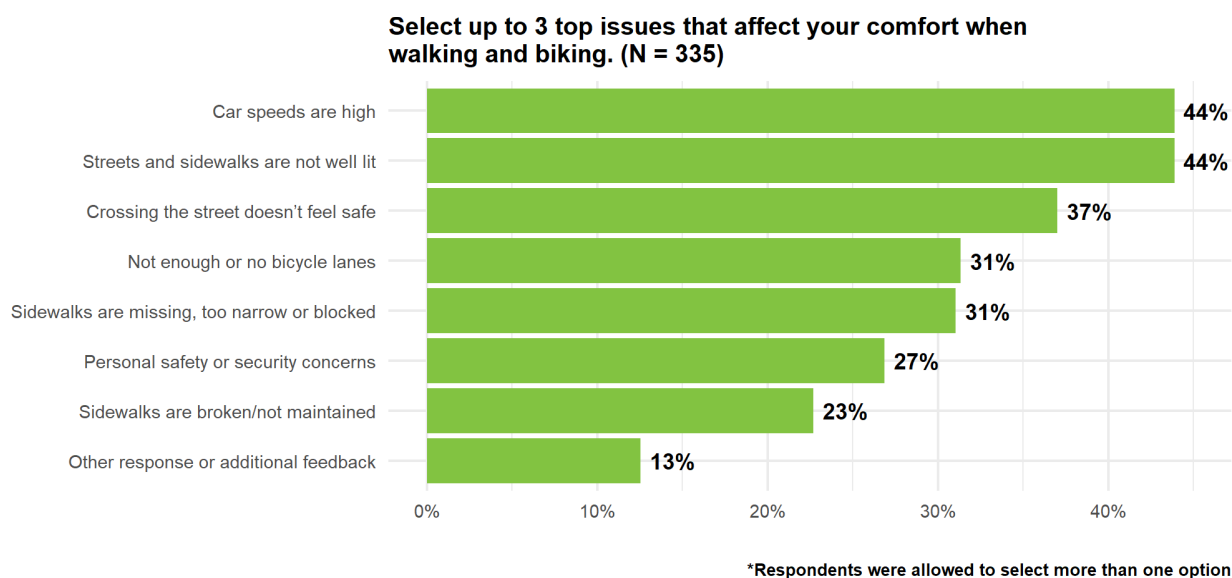
There were 34 community members who shared insights about this issue via the interactive boards during the pop-up events; this represents 10% of the number of respondents who shared their feedback via survey. However, note that some respondents who shared input via the interactive boards may have also shared input with the survey. While almost half said the tracks do not affect their ability to get around, almost 30% said they prefer to drive and avoid walking. An additional 20% said they walk, bike or take the bus to cross the tracks but it's challenging and 10% avoid making a trip that requires crossing the tracks entirely.

Walking and Biking Challenges

Survey participants were asked to select up to three of their top issues that affect their comfort when walking and biking. The most common issues for respondents are high car speeds and poorly lit streets and sidewalks – 44% of respondents selected one or both of these issues as within their top three. About 37% of respondents said that they don't feel safe crossing the street and about 31% of respondents said that there are not enough or no bicycle lanes. Respondents also reported that missing, narrow, or blocked sidewalks are an issue – about 31% of respondents chose this as one of their top issues (Figure 12). About 13% of respondents selected other; 4% did not provide further explanation, 7% selected all of the proposed issues, and the remaining 2% cited concerns due to lack of lighting, discomfort due to personal health conditions, cars and cyclists not obeying traffic rules, and the need to be alert at all times to avoid collisions. When taking the paper survey, 14 respondents (4% of the total respondents) selected more than three options.



Figure 10 Top Three Issues That Affect Comfort When Walking and Biking



How You Would Like to Travel

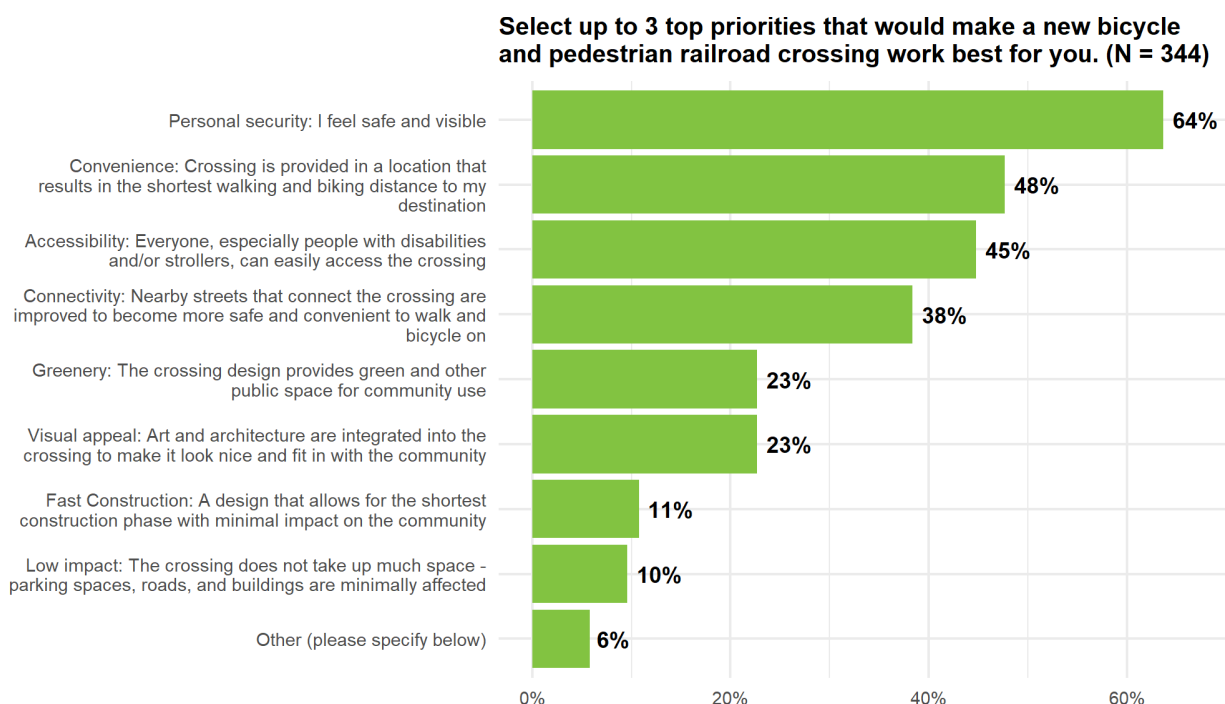
Participants were asked for their input on the Study draft priorities and on additional Study goals. The following sections provide a summary of feedback collected via the survey and pop-up engagement events regarding these topics.

Bicycle and Pedestrian Crossing Priorities

Via both the survey and interactive pop-up boards, the Study team asked community members about their top priorities that would make a pedestrian and bicycle rail corridor crossing more comfortable for them. About 64% of survey respondents shared that **personal security** and feeling safe and visible was one of their top three priorities. The next most common priorities included **convenience** of crossing location with short distance to walk, and **accessibility** for people with disabilities and and/or strollers – 48% and 45% of respondents, respectively. The fourth highest priority was **connectivity** with the larger community and active transportation network at the crossing site, which was chosen by 38% of respondents (Figure 13). About 6% selected other; 2% did not provide further explanation, 2% did not want a bicycle and pedestrian rail crossing, and the remaining 2% shared various priorities such as including accessibility for elderly and people with disabilities and minimal impact on surrounding businesses. When taking the paper survey, nine respondents (less than 3% of the total respondents) selected more than three options.



Figure 11 Top Three Priorities That Would Make a Pedestrian Crossing Work Best



*Respondents were allowed to select more than one option

There were 40 community members who shared insights about this issue via the interactive boards during the pop-up events; this represents less than 10% of the number of respondents who shared their feedback via survey. However, note that some respondents who shared input via the interactive boards may have also shared input with the survey. Similar to the online survey results, the highest priority shared among participants was **personal security**, which was selected by 85% of participants. **Greenspace** and **accessibility** were the second highest priorities with about 50% of participants choosing these options, respectively.

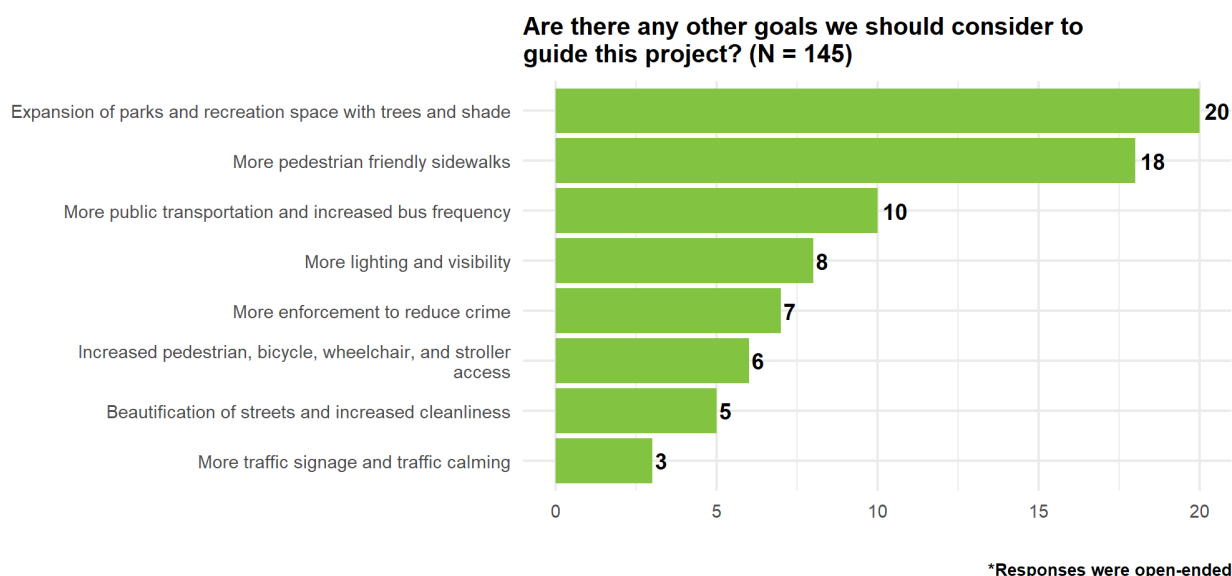
Study Goals

Via both the survey and interactive pop-up boards, the Study team asked community members to share any other goals that should be considered for the project. Survey respondents shared their input via an open-ended response question, which the Study team categorized into eight goals: parks and public space, sidewalks, public transit, lighting and visibility, crime, accessibility, sanitation, and traffic. Many of these ideas reinforce the draft priorities that the Study team presented in the previous question. The two most common responses to this question included green space should be increased to create areas of shade and sidewalks should be more pedestrian friendly (Figure 14).

At the pop-up events via the interactive boards, a handful of community members shared additional feedback on the Study goals. Several community members reinforced the overall goal that streets should be better for cycling and walking and that bus service should be improved.



Figure 12 Additional Goals That Should Be Considered



Map Survey

The online survey included an interactive map to provide community members with an opportunity to share detailed comments on their mobility challenges within the Study project area. Key takeaways about walking and biking connection issues are summarized below. Due in part to the map survey only being available online and not through the paper survey, as well as some respondents finding the map not very user-friendly, only 10 respondents shared their input via the interactive map (Figure 15).

Walking Connection Issues

Respondents shared the following feedback about walking connections:

- The pedestrian call button on Middlefield Road and Hurlingame Avenue was knocked over by a car and has not been replaced. Also, cars rarely stop for pedestrians at this intersection.
- El Camino Real and East Selby Lane was identified by multiple respondents as a dangerous intersection for pedestrians to cross.
- Safety underneath the Fifth Avenue underpass was also noted as an issue by one respondent; they would like to see a parklet built in this area.

Bicycle Connection Issues

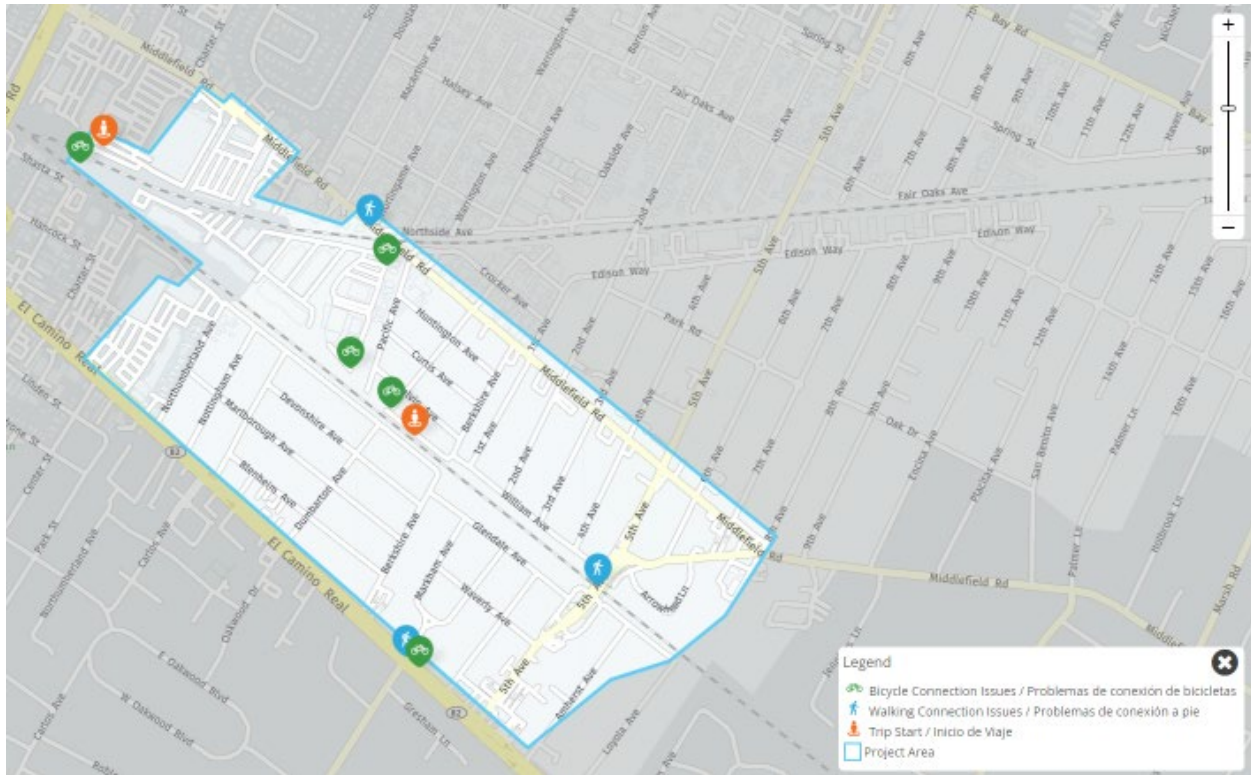
Respondents shared the following feedback about bicycle connections:

- El Camino Real and East Selby Lane was identified as a dangerous crossing for cyclist passing through the area.



- One respondent noted that they would like to see a pedestrian/bicycle underpass crossing the tracks near Shasta Street.
- One respondent noted that they would like a bike bridge at the Fair Oaks Health Clinic and Target shopping center to meet the needs of upcoming housing development.

Figure 13 Survey Map Results



Other

During Engagement #1, the Study team heard feedback from the community that did not fall within the scope of the Study. Comments that were shared outside the Study scope included:

- Trash is an issue, particularly on Calvin Street.
- There is a need for a stop sign on Fifth Avenue and Park Road.
- Crime and guns are a concern for residents.
- There is a need for a shuttle bus to downtown on Middlefield Road.
- There is a desire for easy access to Bayshore Highway

Next Steps

The feedback collected during Engagement #1 will be used to inform the development of design alternatives for the railroad crossing, project goals and objectives, and evaluation criteria. In late 2022



and/or early 2023, the Study team will return to the community for Engagement #2 to collect their input on design alternatives for the railroad crossing.



Appendix A: Interactive Poster Boards

NORTH FAIR OAKS

PROYECTO DE CONEXIONES COMUNITARIAS Y CRUCES FERROCARRILES PARA PEATONES Y BICICLETAS BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY



Se necesita
más iluminación
en las calles
de la zona de
Hodderfield
para mejorar la
seguridad de los
peatones y ciclistas.

Se necesita
más iluminación
en las calles
de la zona de
Hodderfield
para mejorar la
seguridad de los
peatones y ciclistas.

¿Cuáles son los objetivos del proyecto? What are the goals of the Study?

Este proyecto tiene como objetivo desarrollar un plan guiado por la comunidad para construir conexiones cómodas y convenientes para las personas que caminan y andan en bicicleta a través del corredor ferrocarril en las calles de los vecindarios locales en North Fair Oaks que:

This Study aims to develop a community-guided plan to build comfortable and convenient connections for people walking and biking across the rail corridor and on local neighborhood streets in North Fair Oaks, also benefiting residents in adjacent Redwood City, that will:

Ampliará las opciones para viajar sin automóvil
Expand choices for traveling without a car

Reducirá las lesiones graves y fallecimientos
Reduce serious injuries and fatalities

Promoverá oportunidades para la actividad física
Promote opportunities for physical activity

Mejorará el acceso al servicio de autobús existente
Improve access to existing bus service

Mejorará la calidad del aire y tener un impacto positivo en el medio ambiente
Improve air quality and have a positive impact on the environment

Mejorará las conexiones hacia y desde la comunidad de North Fair Oaks y otros vecindarios
Improve connections to and from the North Fair Oaks community and neighborhoods

Mejorará el acceso a las empresas a ambos lados de las vías del tren de Caltrain
Improve access to businesses on either side of the Caltrain railroad tracks

Apoyará las oportunidades para mejorar las calles para andar en bicicleta y caminar
Support opportunities to make streets better for bicycling and walking

¡Necesitamos su opinión! We need your input!



Díganos como y adonde viaja en la área de enfoque
Tell us how and where you travel through this Study area

Ayude a definir mejor los objetivos para el Proyecto
Help best define the Study goals

Comparta sus prioridades para caminar y andar en bicicleta
Share your priorities for walking and biking

¿Lo hicimos bien? ¿Qué otro objetivo tiene para este proyecto? ¡Escriba su idea en una nota!
Did we get it right? What other goals do you have for this project? Write your idea on a Sticky Note!

Se necesita más iluminación en las calles de la zona de Hodderfield para mejorar la seguridad de los peatones y ciclistas.

Se necesita más iluminación en las calles de la zona de Hodderfield para mejorar la seguridad de los peatones y ciclistas.

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NORTH FAIR OAKS

PROYECTO DE CONEXIONES COMUNITARIAS Y CRUCES FERROCARRILES PARA PEATONES Y BICICLETAS BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY



¿Cuáles son los objetivos del proyecto? What are the goals of the Study?

Este proyecto tiene como objetivo desarrollar un plan guiado por la comunidad para construir conexiones cómodas y convenientes para las personas que caminan y andan en bicicleta a través del corredor ferrocarril en las calles de los vecindarios locales en North Fair Oaks que:

This Study aims to develop a community-guided plan to build comfortable and convenient connections for people walking and biking across the rail corridor and on local neighborhood streets in North Fair Oaks, also benefiting residents in adjacent Redwood City, that will:

Ampliará las opciones para viajar sin automóvil

Expand choices for traveling without a car



Reducirá las lesiones graves y fallecimientos

Reduce serious injuries and fatalities



Promoverá oportunidades para la actividad física

Promote opportunities for physical activity



Mejorará el acceso al servicio de autobús existente

Improve access to existing bus service



Mejorará la calidad del aire y tener un impacto positivo en el medio ambiente

Improve air quality and have a positive impact on the environment



Mejorará las conexiones hacia y desde la comunidad de North Fair Oaks y otros vecindarios

Improve connections to and from the North Fair Oaks community and neighborhoods



Mejorará el acceso a las empresas a ambos lados de las vías del tren de Caltrain

Improve access to businesses on either side of the Caltrain railroad tracks



Apoyará las oportunidades para mejorar las calles para andar en bicicleta y caminar

Support opportunities to make streets better for bicycling and walking



¡Necesitamos su opinión! We need your input!

ESCANEA AQUÍ PARA TOMAR UNA ENCUESTA
SCAN HERE TO TAKE A SURVEY



Díganos como y adonde viaja en la área de enfoque

Tell us how and where you travel through this Study area



Ayude a definir mejor los objetivos para el Proyecto

Help best define the Study goals



Comparta sus prioridades para caminar y andar en bicicleta

Share your priorities for walking and biking

¿Lo hicimos bien? ¿Qué otro objetivo tiene para este proyecto? ¡Escriba su idea en una nota!
Did we get it right? What other goals do you have for this project? Write your idea on a Sticky Note!

to get easy access to bayshore highway

very windy gas pump high road for safety - driving slowly - bikes slow down w/ cars drivers need to know that

A suitable bus for the Downtown Middlefield Redwood

3. Deducción de presupuesto para mejorar las conexiones de Caltrain a la estación de Redwood

Coloque la nota aquí
Place Sticky Note here

NORTH FAIR OAKS

PROYECTO DE CONEXIONES COMUNITARIAS Y CRUCES FERROCARRILES PARA PEATONES Y BICICLETAS BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY



¿Las vías del tren Caltrain limitan la forma en que te mueves hoy en día?
Do the Caltrain railroad tracks limit how you get around today?

Coloque sus calcomanías cerca de cualquiera de las oraciones que sean verdaderas para usted:
Put your stickers near any of the statements that are true for you:



Prefiero conducir y evitar caminar o andar en bicicleta cuando necesito cruzar las vías del tren.

I prefer to drive and avoid walking or biking when I need to cross the rail tracks.



Evito hacer viajes a través de las vías del tren.

I avoid making trips across the rail tracks.



Camino, ando en bicicleta o tomo el autobús para cruzar la vías del tren, pero es un reto porque está lejos.

I walk, bike, or take bus to cross the rail tracks, but it is challenging because it's far.



Las vías del tren no afectan mi capacidad para moverme.

The rail tracks do not impact my ability to get around.

¿Otros límites o hay algo más que debemos saber sobre caminar y andar en bicicleta en la área del proyecto?
Other limits OR is there anything else we need to know about walking and biking in the Study area?

Bus + Xceler
Dumbarton Ave
Cruzando las vías del tren
600'

En la 99 y la 100
O más bien al lado
4400 de la 100
Juntos en
stop o semáforo
es

Necesitan
Luces Al cruzar
las calles
Stop

Lack of lights

People driving
don't stop at
crosswalk with
flashing light

Many people
tend to block
Crosswalk
Community Center
from Target

Stop Sign 14
way in
Stop on and
Park Ave.
Cruzando las vías
across the tracks
at Dumbarton

Intersection
on the tracks

Bus
Station
(corner on)

Clayton
big intersection
north side of tracks
gangs on north
side

Please
treat encounters
as a priority

NORTH
FAIR OAKS

PROYECTO DE CONEXIONES COMUNITARIAS Y CRUCES
FERROCARRILES PARA PEATONES Y BICICLETAS
BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY



¿Las vías del tren Caltrain limitan la forma en que te mueves hoy en día?
Do the Caltrain railroad tracks limit how you get around today?

Coloque sus calcomanías cerca de cualquiera de las oraciones que sean verdaderas para usted:
Put your stickers near any of the statements that are true for you:



Prefiero conducir y evitar caminar
o andar en bicicleta cuando
necesito cruzar las vías del tren.

I prefer to drive and avoid walking or biking
when I need to cross the rail tracks.



Evito hacer viajes a través de
las vías del tren.

I avoid making trips across the rail tracks.



Camino, ando en bicicleta o tomo el
autobús para cruzar la vías del tren,
pero es un reto porque está lejos.

I walk, bike, or take bus to cross the rail
tracks, but it is challenging because it's far.



Las vías del tren no afectan mi
capacidad para moverme.

The rail tracks do not impact my ability
to get around.



¿Otros limites o hay algo más que debemos saber sobre caminar y andar en bicicleta en la área del proyecto?

Other limits QR is there anything else we need to know about walking and biking in the Study area?

Concern about
quality of
displacement if
area is improved

Not enough
bike lanes

Speed bump quality
for those driving
slowly. But for
bicyclists, they
have to slow down

- Feeling like
hiking & walking
- bike lanes need
proper cars
opening doors
in the way

Need to make
the lanes better
with the Caltrain
from El Centro

There are many
more reasons to
be concerned.

Caltrain is a
transportation
bar.

There are
a lot of
reasons to
be concerned

Light or sign
that says not
to drink alcohol

NORTH FAIR OAKS

PROYECTO DE CONEXIONES COMUNITARIAS Y CRUCES FERROCARRILES PARA PEATONES Y BICICLETAS BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY



¿Cuáles son sus prioridades para un nuevo cruce de bicicletas y peatones? What are your priorities for a new bicycle and pedestrian crossing?

COMO PARTICIPAR: HOW TO PARTICIPATE:

- 1 Elija 3 cosas que sean más importantes para usted cuando se trata de caminar y andar en bicicleta sobre las vías del tren.
Choose 3 things that are most important to you when it comes to walking and biking over the railroad tracks.
- 2 Seleccione 3 calcomanía puntos para representar sus respuestas.
Select 3 sticker dots to represent your answers.
- 3 Coloque sus respuestas en el mural de Valores Movilidad.
Place your answers on the Mobility Values mural.

SEGURIDAD PERSONAL
PERSONAL SECURITY
Me siento segura y visible
I feel safe and visible

COMODIDAD
CONVENIENCE
El cruce se proporciona en un lugar que resulta en la distancia más corta a pie y en bicicleta a mi destino
Crossing is provided in a location that results in the shortest walking and biking distance to my destination

ATRACTIVO VISUAL
VISUAL APPEAL
Arte y arquitectura se integran en el cruce haciendo que se vea y quede bien con la comunidad
Art and architecture are integrated into the crossing to make it look nice and fit with the community

ZONA VERDE
GREENERY
El cruce incluye zonas verdes y otros espacios públicos de uso comunitario
The crossing design provides green and other public space for community use

CONECTIVIDAD
CONNECTIVITY
Las calles que conectan con el cruce se mejoran para ser más seguro y conveniente para caminar y andar en bicicleta
Nearby streets that connect to the crossing are improved to be safer and more convenient to walk and bicycle on

ACCESIBILIDAD
ACCESSIBILITY
Todos, especialmente las personas con discapacidad y/o carritos, pueden acceder fácilmente el cruce
Everyone, especially people with disabilities and/or strollers, can easily access the crossing

CAPACIDAD DE ENTREGA
FAST CONSTRUCTION
Un diseño que permite la fase de construcción más corta con mínimo impacto en la comunidad
A design that allows for the shortest construction phase with minimal impact on the community

BAJO IMPACTO
LOW IMPACT
El cruce ocupa poco espacio; estacionamiento, conducción, y las propiedades existentes se ven mínimamente afectadas
The crossing has a small footprint - parking, driving, and existing properties are minimally affected

NORTH FAIR OAKS

PROYECTO DE CONEXIONES COMUNITARIAS Y CRUCES FERROCARRILES PARA PEATONES Y BICICLETAS

BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY



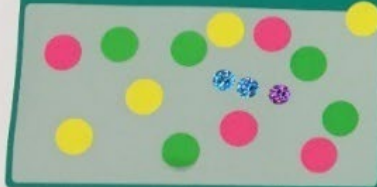
¿Cuáles son sus prioridades para un nuevo cruce de bicicletas y peatones?
What are your priorities for a new bicycle and pedestrian crossing?

COMO PARTICIPAR: HOW TO PARTICIPATE:

- 1 Elija 3 cosas que sean más importantes para usted cuando se trata de caminar y andar en bicicleta sobre las vías del tren.
Choose 3 things that are most important to you when it comes to walking and biking over the railroad tracks.
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Place your answers on the Mobility Values mural.

SEGURIDAD PERSONAL PERSONAL SECURITY

Me siento seguro y visible
I feel safe and visible



COMODIDAD CONVENIENCE

El cruce se proporciona en un lugar que resulta en la distancia más corta a pie y en bicicleta a mi destino
Crossing is provided in a location that results in the shortest walking and biking distance to my destination



ATRACTIVO VISUAL VISUAL APPEAL

Arte y arquitectura se integran en el cruce haciendo que se vea y quede bien con la comunidad
Art and architecture are integrated into the crossing to make it look nice and fit with the community



ZONA VERDE GREENERY

El cruce incluye zonas verdes y otros espacios públicos de uso comunitario
The crossing design provides green and other public space for community use



CONECTIVIDAD CONNECTIVITY

Las calles que conectan con el cruce se mejoran para ser más seguro y conveniente para caminar y andar en bicicleta
Nearby streets that connect to the crossing are improved to be safer and more convenient to walk and bicycle on



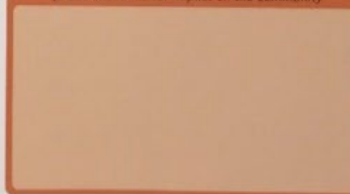
ACCESIBILIDAD ACCESSIBILITY

Todos, especialmente las personas con discapacidad y/o carritos, pueden acceder fácilmente el cruce
Everyone, especially people with disabilities and/or strollers, can easily access the crossing



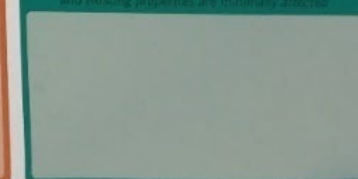
CAPACIDAD DE ENTREGA FAST CONSTRUCTION

Un diseño que permite la fase de construcción más corta con mínimo impacto en la comunidad
A design that allows for the shortest construction phase with minimal impact on the community



BAJO IMPACTO LOW IMPACT

El cruce ocupa poco espacio: estacionamiento, construcción, y las propiedades existentes se ven mínimamente afectadas
The crossing has a small footprint; parking, paving, and existing properties are minimally affected





Appendix B: Survey Questions



The County of San Mateo is studying how to make walking and bicycling easier in North Fair Oaks, including the opportunity for a new pedestrian and bicycle crossing over or under the Caltrain railroad tracks.

Your responses to the survey will help the County identify and compare different options for a railroad crossing and bicycle and pedestrian improvements.

Two survey respondents will randomly be selected to win \$50 gift cards at the conclusion of the survey.

HOW YOU TRAVEL TODAY

Question 1 What is your relationship to the North Fair Oaks Study project area? (Check all that apply)

- ☐ I live in the project area
- ☐ I work in the project area
- ☐ I travel from one side of the Caltrain tracks to the other for work
- ☐ I or my child travel from one side of the Caltrain tracks to the other for school or the library
- ☐ I travel from one side of the Caltrain tracks to the other for shopping purposes
- ☐ I travel from one side of the Caltrain tracks to the other for medical visits
- ☐ I travel from one side of the Caltrain tracks to the other for recreational or social purposes
- ☐ I do not travel in the project area
- ☐ Other (please specify)

Question 2 On most days, how do you get around? (Check all that apply)

- ☐ Walking (includes scooter, skateboard, wheelchair, or other mobility device use)
- ☐ Biking
- ☐ Bus or train
- ☐ Taxi/Rideshare (Uber, Lyft, etc.)
- ☐ Own Car
- ☐ Carpool with Others/Shared Car
- ☐ Other (please specify)

Question 3

On most days, how do you get around when crossing the Caltrain rail tracks in North Fair Oaks? *(Check all that apply)*

- ☐ Walking on foot, scooter, skateboard, wheelchair, or other mobility device on Woodside Road or Fifth Avenue
- ☐ Biking on Woodside Road or Fifth Avenue
- ☐ Bus
- ☐ Taxi/Rideshare (Uber, Lyft, etc.)
- ☐ Own Car
- ☐ Carpool with Others/Shared Car
- ☐ I don't cross the tracks
- ☐ Other (please specify)

Question 4

There is only one crossing of the railroad tracks in North Fair Oaks. How does this affect how you get around today? *(Check all that apply)*

- ☐ I walk, bicycle, take the bus or rideshare to destinations on the other side of the rail tracks, and have no problems doing so
- ☐ I walk, bicycle, or take the bus to destinations on the other side of the rail tracks, but it is challenging because distances are far
- ☐ I currently drive to destinations on the other side of the rail tracks, but I would prefer to walk or bicycle if it was possible
- ☐ I don't travel to places on the other side of the rail tracks or do so less often because it is difficult to get there
- ☐ The lack of crossings of the rail corridor doesn't affect how I travel.
- ☐ Other (please specify)

Question 5

Check up to three top issues that affect your comfort when walking and biking *(aside from temporary ongoing construction activity).*

- ☐ Streets and sidewalks are not well lit
- ☐ Car speeds are high
- ☐ Sidewalks are missing, too narrow or blocked
- ☐ Sidewalks are broken/not maintained
- ☐ Not enough or no bicycle lanes
- ☐ Crossing the street doesn't feel safe
- ☐ Personal safety or security concerns

Other response or additional feedback (please specify)

Question 6

This project aims to build a comfortable and convenient connection for people walking and biking across the rail corridor in North Fair Oaks:

- Expand choices for traveling without a car
- Reduce serious injuries and fatalities
- Promote opportunities for physical activity
- Improve access to existing bus service
- Improve access to businesses on either side of the Caltrain railroad tracks
- Support opportunities to make streets better for bicycling and walking
- Improve air quality and have a positive impact on the environment
- Improve connections to and from the North Fair Oaks community and other neighborhoods

Are there any other goals we should consider to guide this project?

Question 7

Check up to three top priorities that would make a new bicycle and pedestrian railroad crossing work best for you.

- ☐ **Personal security:** I feel safe and visible
- ☐ **Connectivity:** Nearby streets that connect the crossing are improved to become more safe and convenient to walk and bicycle on
- ☐ **Convenience:** Crossing is provided in a location that results in the shortest walking and biking distance to my destination
- ☐ **Accessibility:** Everyone, especially people with disabilities and/or strollers, can easily access the crossing
- ☐ **Visual appeal:** Art and architecture are integrated into the crossing to make it look nice and fit in with the community
- ☐ **Fast Construction:** A design that allows for the shortest construction phase with minimal impact on the community
- ☐ **Greenery:** The crossing design provides green and other public space for community use
- ☐ **Low impact:** The crossing does not take up much space - parking spaces, roads, and buildings are minimally affected
- ☐ **Other (please specify)**

ABOUT YOU *(Optional)*

Question 8

Where do you live in North Fair Oaks?

- ☐ Between Middlefield Road and the Caltrain tracks (or on the east side of the Caltrain tracks)
- ☐ Between El Camino Real and the Caltrain tracks (or on the west side of the Caltrain tracks)
- ☐ Elsewhere in North Fair Oaks
- ☐ I live outside of North Fair Oaks

Question 9 Which of the following age ranges includes your age?

- ☐ 0-15
- ☐ 16-25
- ☐ 26-59
- ☐ 60-65
- ☐ 65 or over
- ☐ Prefer not to answer

Question 10 What is your race? *(Check all that apply)*

- ☐ Asian or Asian American
- ☐ Black or African American
- ☐ Hispanic or Latinx/a/o
- ☐ Native American, American Indian or Indigenous
- ☐ Native Hawaiian or Pacific Islander
- ☐ White or Caucasian
- ☐ Prefer not to answer
- ☐ If not listed above, please share your race in the box below.

Question 11 What is your gender identity?

- ☐ Female/Woman/Cisgender Woman
- ☐ Genderqueer/Gender Non-Conforming/Gender Non-Binary/Neither exclusively female or male
- ☐ Indigenous Gender Identity
- ☐ Male/Man/Cisgender Man
- ☐ Transgender Man/Trans Man/Trans-Masculine/Man
- ☐ Transgender Women/Trans Woman/Trans-Feminine/Woman
- ☐ Questioning or unsure of gender identity
- ☐ Prefer not to answer
- ☐ If not listed above, please share in the text box here.

Question 12 If you would like to be eligible for a drawing for a \$50 gift card or would like to stay informed about the North Fair Oaks Railroad Crossing and Community Connections Study, please provide your e-mail address.

THANK YOU!



El condado de San Mateo está estudiando cómo hacer caminar y andar en bicicleta más fácil en North Fair Oaks, incluyendo la oportunidad de un nuevo cruce para peatones y bicicletas sobre o debajo de las vías del tren Caltrain.

Sus respuestas a la encuesta ayudaran al Condado a identificar y comparar diferentes opciones para un cruce de ferrocarril y mejoramientos para ciclistas y peatones.

Dos personas de las que tomaron la encuesta serán seleccionadas para ganar una tarjeta de \$50 al final del periodo de la encuesta.

COMO VIAJAS HOY

Pregunta 1 ¿Qué es su relación con el área del proyecto de North Fair Oaks? (Marque todo lo que corresponda)

- ☐ Yo vivo en el área del proyecto
- ☐ Yo trabajo en el área del proyecto
- ☐ Yo viajo de un lado a otro de las vías de Caltrain por trabajo
- ☐ Yo o mi hijo/a viajamos de un lado a otro de las vías de Caltrain para ir a la escuela o librería
- ☐ Yo viajo de un lado a otro de las vías de Caltrain por propósito de compras
- ☐ Yo viajo de un lado a otro de las vías de Caltrain para visitas medicas
- ☐ Yo viajo de un lado a otro de las vías de Caltrain por fines recreativos o sociales
- ☐ Yo no viajo en la área del proyecto
- ☐ Otro (Por favor especifique)

Pregunta 2 La mayoría de los días, ¿Cómo te mueves? (Marque todo lo que corresponda)

- ☐ Caminando (incluye scooter, patineta, silla de ruedas, u otro dispositivo de movilidad)
- ☐ Bicicleta
- ☐ Autobús o tren
- ☐ Taxi/Viaje compartido (Uber, Lyft, etc.)
- ☐ Carro propio
- ☐ Compartir coche con otros/coche compartido
- ☐ Otro (Por favor especifique)

Pregunta 3

La mayoría de los días, ¿Cómo te mueves cuando necesitas cruzar las vías del tren Caltrain en North Fair Oaks? *(Marque todo lo que corresponda)*

- ☐ Caminado en pie, scooter, patineta, silla de ruedas, u otro dispositivo de movilidad por Woodside Road o Quinta Avenida
- ☐ En bicicleta por Woodside Road o Quinta Avenida
- ☐ Autobús
- ☐ Taxi/Viaje compartido (Uber, Lyft, etc.)
- ☐ Carro propio
- ☐ Compartir coche con otros/coche compartido
- ☐ Yo no cruzo las vías
- ☐ Otro (Por favor especifique)

Pregunta 4

Solo hay un cruce de las vías del tren en North Fair Oaks. ¿Como afecta esto la forma en que te mueves hoy? *(Marque todo lo que corresponda)*

- ☐ Yo camino, ando en bicicleta, tomo el autobús o uso viajes compartidos a destinos al otro lado de las vías del tren, y no tengo problemas para hacerlo.
- ☐ Yo camino, ando en bicicleta, tomo el autobús o uso viajes compartidos a destinos al otro lado de las vías del tren, pero puede ser difícil porque las distancias son largas.
- ☐ Actualmente conduzco a destinos al otro lado de las vías del tren, pero preferiría caminar o andar en bicicleta si fuera posible.
- ☐ Yo no viajo a lugares al otro lado de las vías del tren o lo hago con menos frecuencia porque es difícil llegar
- ☐ La falta de cruces del corredor ferrocarril no afecta mi forma de viajar.
- ☐ Otro (Por favor especifique)

Pregunta 5

Identifique tres problemas principales que afectan su comodidad para viajar a pie y andar en bicicleta *(Aparte de la construcción temporal en curso)*

- ☐ Las calles y banquetas no están bien iluminadas
- ☐ Las velocidades de los autos son altas
- ☐ Faltan banquetas, son demasiado estrechas o están bloqueadas
- ☐ Las banquetas están rotas/sin mantenimiento
- ☐ No hay suficiente o no hay líneas para bicicletas
- ☐ Cruzar la calle no se siente seguro
- ☐ Preocupaciones de seguridad o seguridad personal

Otra respuesta o comentarios adicionales (especifique)

Pregunta 6

Este proyecto tiene como objetivo construir una conexión cómoda y conveniente para las personas que caminan y andan en bicicleta a través del corredor ferrocarril en North Fair Oaks que:

- Ampliaría las opciones para viajar sin automóvil
- Reduciría las lesiones graves y fallecimientos
- Promovería oportunidades para la actividad física
- Mejoraría el acceso al servicio de autobús existente
- Mejoraría el acceso a las empresas a ambos lados de las vías del tren de Caltrain
- Mejoraría las conexiones hacia y desde la comunidad de North Fair Oaks y otros vecindarios
- Apoyaría las oportunidades para mejorar las calles para andar en bicicleta y caminar
- Mejoraría la calidad del aire y tener un impacto positivo en el medio ambiente

¿Hay otros objetivos que deberíamos considerar para guiar este proyecto?

Pregunta 7

Seleccione sus 3 prioridades principales que harían que un nuevo cruce ferrocarril para bicicletas y peatones funcione mejor para usted.

- ☐ **Seguridad personal:** Me siento seguro y visible
- ☐ **Conectividad:** Es conveniente y seguro caminar y andar en bicicleta en las calles cercanas que conectan con el cruce.
- ☐ **Comodidad:** Puedo llegar más rápido a donde voy debido al cruce
- ☐ **Accesibilidad:** Todos, especialmente las personas con discapacidad y/o carriolas, pueden acceder fácilmente al paso
- ☐ **Atractivo visual:** El cruce se ve y queda bien con la comunidad
- ☐ **Capacidad de entrega:** La fase de construcción es corta y tiene un impacto mínimo en la comunidad
- ☐ **Zona verde:** El cruce incluye zonas verdes y otros espacios públicos de uso comunitario
- ☐ **Bajo impacto:** El cruce no ocupa mucho espacio- espacios de estacionamiento, las carreteras y los edificios se ven mínimamente afectados
- ☐ **Otro (especifique)**

ACERCA DE TI (opcional)

Pregunta 8

¿En dónde vives en North Fair Oaks?

- ☐ Entre Middlefield Road y las vías del tren Caltrain (o en el lado este de las vías del Caltrain)
- ☐ Entre El Camino Real y las vías del tren Caltrain (o en el lado oeste de las vías de Caltrain)
- ☐ En otro lugar en North Fair Oaks
- ☐ Yo vivo afuera de North Fair Oaks

Pregunta 9 ¿Cuál de los siguientes rangos de edad incluye su edad?

- ☐ 0-15
- ☐ 16-25
- ☐ 26-59
- ☐ 60-65
- ☐ 65 o mas
- ☐ Prefiero no responder

Pregunta 10 ¿Cuál es su raza? (Marque todo lo que corresponda)

- ☐ Asiático o asiático americano
- ☐ Negro o afroamericano
- ☐ Hispano o Latinx/a/o
- ☐ Nativo Americano, indio americano o indígena
- ☐ Nativo de Hawái o de las islas del Pacifico
- ☐ Blanco o caucásico
- ☐ Prefiero no responder
- ☐ Si no está en la lista anterior, comparta su raza en el cuadro a continuación

Pregunta 11 ¿Cuál es tu identidad de género?

- ☐ Femenino/Mujer/Mujer Cisgenero
- ☐ Genero queer/ Genero no conforme/ Genero no binario/ Ni exclusivamente femenino o masculino
- ☐ Identidad de género indígena
- ☐ Hombre/ Hombre cisgenero
- ☐ Hombre Trans/ Trans-masculino
- ☐ Mujeres transgénico/ Mujer trans/ Transfemenino/ Mujer
- ☐ Cuestionamiento o inseguridad sobre la identidad de genero
- ☐ Prefiero no responder
- ☐ Si no se encuentra en la lista anterior, comparta en el cuadro de texto aqui

Pregunta 12 Si desea ser elegible para un sorteo de una tarjeta de \$50 o si desea mantenerse informado sobre el proyecto de conexiones comunitarias y cruces ferrocarriles de North Fair Oaks, por favor de compartir su correo electrónico.

¡Gracias!



Appendix C: Social Media Notification Materials

Instagram Notifications

NORTH
FAIR OAKS


BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY


WE WANT TO HEAR FROM YOU!

San Mateo County is studying how to make walking and bicycling easier in North Fair Oaks, including the opportunity for a new pedestrian and bicycle crossing over or under the Caltrain railroad tracks.

Share your thoughts on the railroad crossing and walking and bicycling needs:

 **Take a short survey**

 **Attend a pop-up event**

 **Share a comment
on the County's
website**



NORTH
FAIR OAKS

BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY

¡NOSOTROS QUEREMOS ESCUCHAR DE USTED!

El condado de San Mateo está estudiando cómo hacer caminar y andar en bicicleta más fácil en North Fair Oaks, incluyendo la oportunidad de un nuevo cruce para peatones y bicicletas sobre o debajo de las vías del tren Caltrain.

Comparta sus pensamientos sobre el cruce de ferrocarril y las necesidades de caminar y andar en bicicleta:

 **Toma una breve encuesta**

 **Asista a un evento**

 **Comparta un comentario
en el sitio web del
condado**



Facebook Notifications




NORTH
FAIR OAKS


BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY

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Share your thoughts on the railroad crossing and walking and bicycling needs:

-  **Take a short survey**
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-  **Share a comment on the County's website**



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FAIR OAKS

BICYCLE AND PEDESTRIAN RAILROAD CROSSING
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¡NOSOTROS QUEREMOS ESCUCHAR DE USTED!

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Comparta sus pensamientos sobre el cruce de ferrocarril y las necesidades de caminar y andar en bicicleta:

-  **Toma una breve encuesta**
-  **Asista a un evento**
-  **Comparta un comentario en el sitio web del condado**





Appendix D: Postcard Mailer

¿QUIERE HACER QUE CAMINAR Y ANDAR EN BICICLETA SEA MEJOR EN SU COMUNIDAD?

El condado de San Mateo está estudiando cómo hacer caminar y andar en bicicleta más fácil en North Fair Oaks, incluyendo la oportunidad de un nuevo cruce para peatones y bicicletas sobre o debajo de las vías del tren Caltrain.

Comparte tus pensamientos sobre el cruce de ferrocarril y las necesidades de caminar y andar en bicicleta:

Asista a uno de nuestros próximos eventos emergentes, como el siguiente:

Siena Youth Center Un paseo comunitario comenzando en frente del Siena Youth Center a las 10:00 am el sábado el 25 de junio

Visite nuestro sitio web en www.NFOWalkBike.org para obtener más información, llenar una encuesta, compartir comentarios y encontrar un evento cerca de usted.



OFFICE OF
SUSTAINABILITY
COUNTY OF SAN MATEO

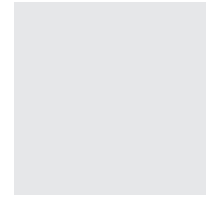
WWW.NFOWALKBIKE.ORG



WANT TO MAKE WALKING AND BIKING BETTER IN YOUR NEIGHBORHOOD?

San Mateo County is studying how to make walking and bicycling easier in North Fair Oaks, including the opportunity for a new pedestrian and bicycle crossing over or under the Caltrain railroad tracks.

County of San Mateo Office of Sustainability
455 County Center, 4th Floor
Redwood City, CA 94063



Share your thoughts on the railroad crossing and walking and bicycling needs:

Attend one of our upcoming pop-up events, such as the one below:

Siena Youth Center

**Starting 10:00 am Saturday, June 25th
with a community bike ride**

Check out our website at www.NF0walkbike.org to learn more, take a survey, share comments, and find out more when we'll be at an event near you.



OFFICE OF
SUSTAINABILITY
COUNTY OF SAN MATEO

WWW.NFOWALKBIKE.ORG





Appendix E: Flyer

What is the Study and why is it needed?

The Caltrain railroad tracks in North Fair Oaks separate residents from local destinations that include, but aren't limited to, community facilities and services, schools, shopping, and local bus service. To improve safety, connectivity, and access in the North Fair Oaks community, the County of San Mateo is evaluating opportunities for:



A new pedestrian and bicycle crossing of the Caltrain railroad tracks (underpass or overpass) to better support walking and biking connections



Bicycle and pedestrian improvements on local streets that provide connections to the new rail crossing and local destinations on both sides of the tracks in your community

What are the goals of the Study?

This Study aims to develop a community-guided plan to build comfortable and convenient connections for people walking and biking across the rail corridor and on local neighborhood streets in North Fair Oaks, also benefiting residents in adjacent Redwood City, that will:

Expand choices for traveling without a car



Reduce serious injuries and fatalities



Promote opportunities for physical activity



Improve access to existing bus service



Improve air quality and have a positive impact on the environment



Improve connections to and from the North Fair Oaks community and neighborhoods



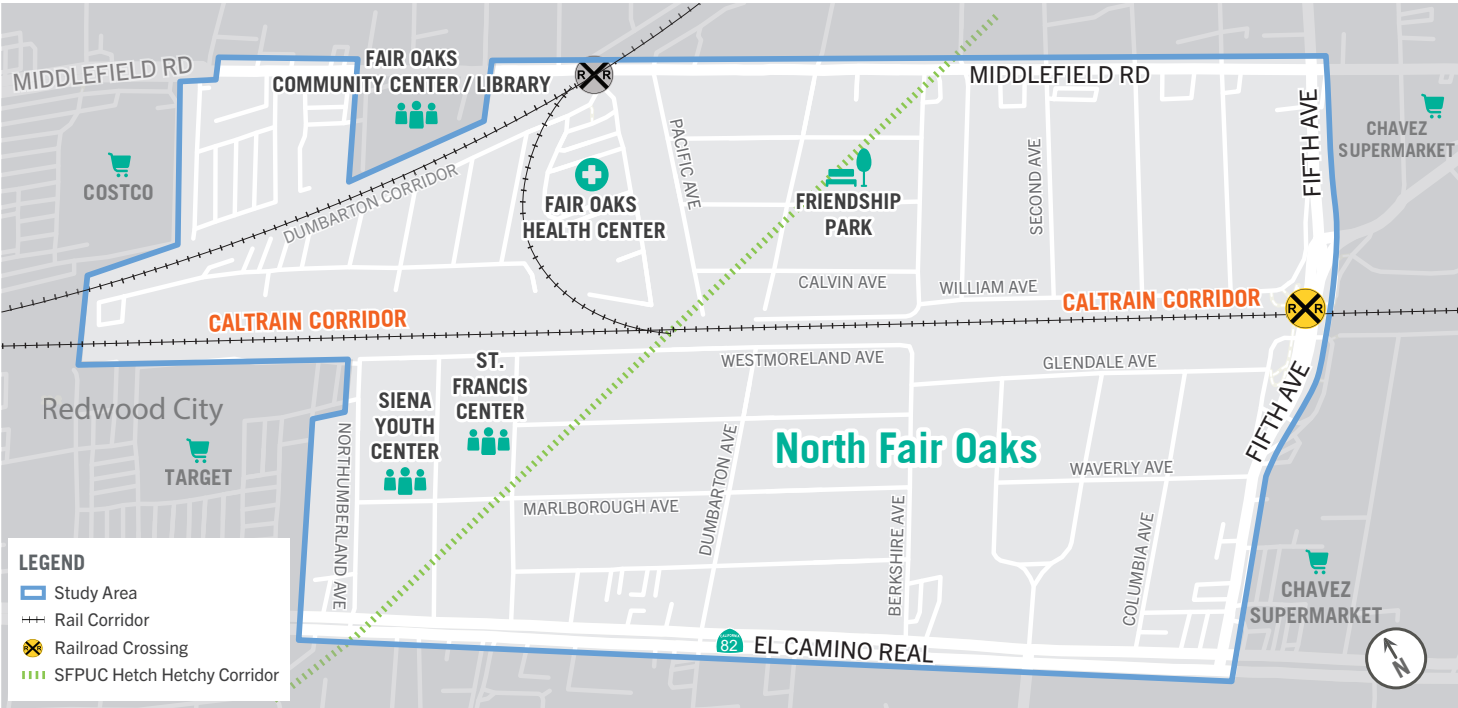
Improve access to businesses on either side of the Caltrain railroad tracks



Support opportunities to make streets better for bicycling and walking



Where is the Study area?



What is the Study timeline?



WE NEED YOUR INPUT!

We want to ensure this Study reflects the priorities of the neighborhoods adjacent to the Caltrain railroad tracks and defines a collaborative path forward together.

Tell us how and where you travel through this Study area

Help best define the Study goals

Share your priorities for walking and biking

SCAN HERE TO TAKE A SURVEY

¿Qué es el proyecto y por qué es necesario?

Las vías del tren de Caltrain separan a los residentes de los destinos locales que incluyen, entre otros, instalaciones y servicios comunitarios, escuelas, tiendas y servicio de autobús local. Para mejorar la seguridad, la conectividad y el acceso en la comunidad de North Fair Oaks, el condado de San Mateo está evaluando oportunidades para:



Un nuevo cruce para peatones y bicicletas en las vías del tren de Caltrain (paso subterráneo o paso elevado) para apoyar mejor las conexiones para caminar y andar en bicicleta



Mejoramientos para ciclistas y peatones en las calles locales que brindan conexiones con el nuevo cruce ferrocarril y destinos locales en ambos lados de las vías en su comunidad.

¿Cuáles son los objetivos del proyecto?

Este proyecto tiene como objetivo desarrollar un plan guiado por la comunidad para construir conexiones cómodas y convenientes para las personas que caminan y andan en bicicleta a través del corredor ferrocarril en las calles de los vecindarios locales en North Fair Oaks que:

Ampliará las opciones para viajar sin automóvil



Reducirá las lesiones graves y fallecimientos



Promoverá oportunidades para la actividad física



Mejorará el acceso al servicio de autobús existente



Mejorará la calidad del aire y tener un impacto positivo en el medio ambiente



Mejorará las conexiones hacia y desde la comunidad de North Fair Oaks y otros vecindarios



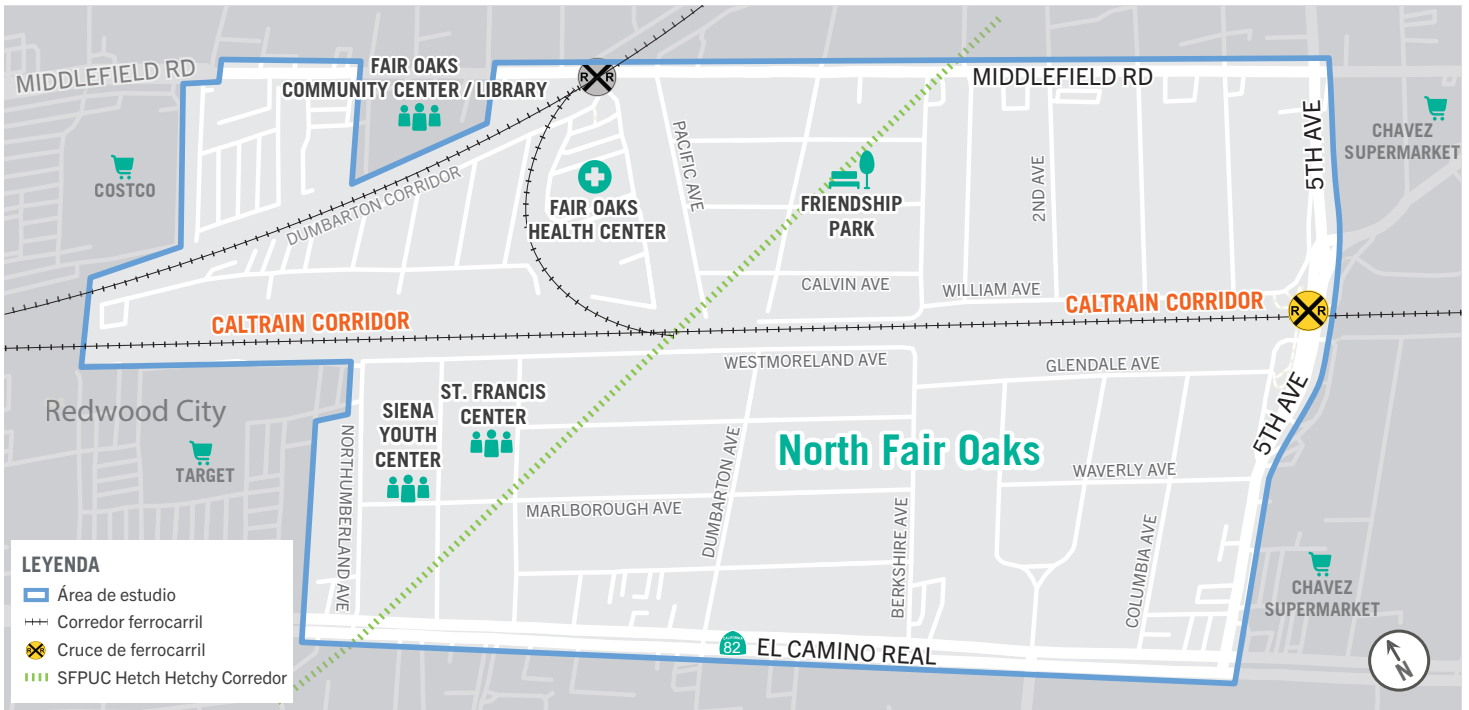
Mejorará el acceso a las empresas a ambos lados de las vías del tren de Caltrain



Apoyará las oportunidades para mejorar las calles para andar en bicicleta y caminar

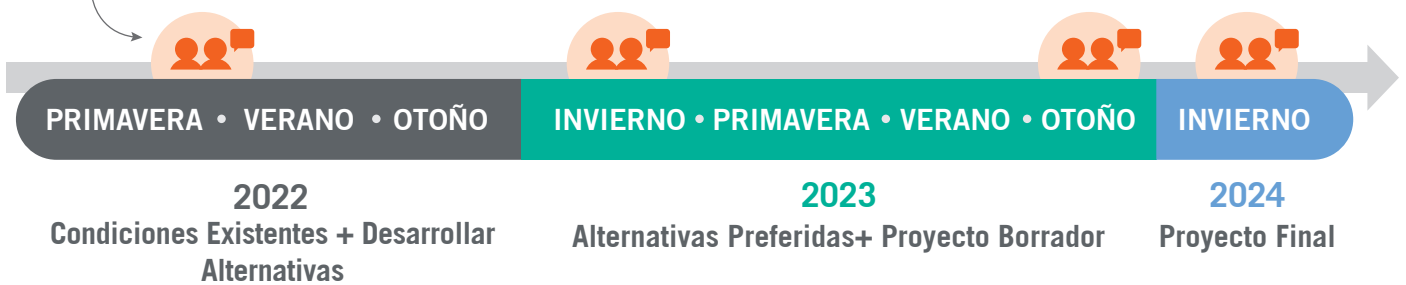


¿Dónde está el area del proyecto?



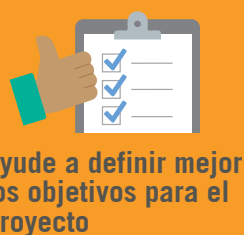
¿Cuál es la cronología para este proyecto?

EVENTOS DE ALCANCE COMUNITARIO



¡NECESITAMOS SU OPINIÓN!

Queremos asegurarnos de que este proyecto refleje las prioridades de los vecindarios que se encuentran alado de las vías del tren de Caltrain y defina un camino de colaboración hacia adelante juntos.



ESCANEA AQUÍ
PARA TOMAR UNA
ENCUESTA





Appendix F: Email Notification

English Version

Dear North Fair Oaks community member,

San Mateo County is studying how to make walking and bicycling easier in North Fair Oaks, including the opportunity for a new pedestrian and bicycle crossing over or under the Caltrain railroad tracks. The project team is working to develop a community-informed Study that reflects the priorities of the community and would like to hear from you!

Now through Friday July 8th, you can provide feedback on the railroad crossing and walking and bicycling needs in three ways:

Take a short survey: <https://engagekh.com/nfowalkbike>

Attend a pop-up event

Saturday, June 11th 9:30am-12:30pm @ Hoover Park, 2100 Spring Street

Saturday, June 11th 1:30pm-4:30pm @ Casa Circulo Cultural, 3090 Middlefield Road

Monday, June 13th 5pm-8pm @ Chavez Supermarket, 3282 Middlefield Rd

Wednesday, June 15th 11am-2pm @ North Fair Oaks Library, 2510 Middlefield Road

Wednesday, June 22nd 11:30am-2:30pm @ Verbo, 2798 Bay Road

Saturday, June 25th, 10am-1pm, pop-up and community bike ride starting at Siena Youth Center, 2625 Marlborough Avenue

Sunday, June 26th 5-8pm @ Mi Rancho Supermarket, 150 Charter Street

More events will be announced soon!

Share a comment on the Study website: www.NFOwalkbike.org

The project team appreciates any time you can give towards this effort and look forward to hearing from you!

Spanish Version

Hola miembro de la comunidad de North Fair Oaks,

El condado de San Mateo está estudiando cómo hacer caminar y andar en bicicleta más fácil en North Fair Oaks, incluyendo la oportunidad de un nuevo cruce para peatones y bicicletas sobre o debajo de las vías del tren Caltrain. ¡El equipo del proyecto está trabajando para desarrollar un proyecto informado por la comunidad que refleje las prioridades de la comunidad y le gustaría escuchar de usted!

Desde hoy hasta el viernes 8 de julio, usted puede compartir sus comentarios sobre el cruce de ferrocarril y las necesidades de caminar y andar en bicicleta de tres maneras:

Tome una breve encuesta: <https://engagekh.com/nfowalkbike>

Asiste a un evento



Sabado, 11 de junio, 9:30am-12:30pm @ Hoover Park, 2100 Spring Street

Sabado, 11 de junio, 1:30pm-4:30pm @ Casa Circulo Cultural, 3090 Middlefield Road

Lunes, 13 de junio, 5-8pm @ Chavez Supermarket on Middlefield Rd, 3282 Middlefield Road

Miércoles, 15 de junio, 11am-2pm @ North Fair Oaks Library, 2510 Middlefield Road

Miércoles, 22 de junio, 11:30am-2:30pm @ Verbo, 2798 Bay Road

Sabado, 25 de junio, 10am-1pm, un evento y un paseo en bicicleta empieza @ Siena Youth Center, 2625 Marlborough Avenue

Domingo, 26 de junio, 5-8pm @ Mi Rancho Supermarket, 150 Charter Street

¡Pronto se anunciarán más eventos!

Comparte un comentario en el sitio web del condado: www.NFOwalkbike.org

¡El equipo del proyecto aprecia cualquier tiempo que pueda dedicar a este esfuerzo y espera escuchar de usted!



Appendix G: Event Photos

Hoover Park Pop-Up Event on June 11 (left), Casa Circulo Pop-up Event on June 11 (right)



Chavez Supermarket Pop-Up Event on June 13 (left), North Fair Oaks Library Pop-up Event on June 15 (right)





Verbo Family Services Pop-up Event on June 22 (left), Willow Market and Carniceria Pop-Up Event on June 24 (right)



Siena Youth Center Pop-Up Event on June 25 (left), Mi Rancho Market Pop-Up Event on June 28 (right)





St. Anthony's Church Pop-Up Event on July 8 (right)





NORTH
FAIR OAKS

BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY

Appendix C - Goals and Evaluation Criteria Memorandum



North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study

*Goals and Evaluation Criteria Technical
Memorandum*

October 2022



1 INTRODUCTION

The North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study (Study) is evaluating the potential for a grade-separated bicycle and pedestrian rail crossing and additional bicycle and pedestrian infrastructure improvements in North Fair Oaks. Despite being a densely residential area, residents within North Fair Oaks and the Study area face widespread mobility gaps, including inadequate sidewalks, a lack of sufficient bicycle infrastructure, and a Caltrain rail corridor that runs through the community that, with limited crossing opportunities, acts as a community mobility barrier. The Study seeks to evaluate and recommend a rail crossing and series of bicycle and pedestrian improvements that expand mobility within the North Fair Oaks community.

This technical memorandum establishes the project goals and priorities that will be used to guide the development of rail crossing and bicycle and pedestrian infrastructure options (alternatives). It also outlines the evaluation process that will be utilized to inform the community of the trade-offs of design alternatives and the subsequent selection of a preferred alternative. The high-level goals and priorities identified anchor the evaluation process in key community priorities. Each of these goals are linked to specific criteria, with measurable outcomes, that will be used to evaluate the alternatives. In the alternative evaluation process, each criterion will be evaluated based on a three-category scale of high, medium, and low. The evaluation process will inform San Mateo County's ultimate identification of the preferred alternative of the rail crossing and associated bicycle and pedestrian infrastructure improvements.

2 PROJECT NEED

The community of North Fair Oaks has been a key focus of multiple local and regional planning documents over the course of the past decade. Unincorporated North Fair Oaks is a low-income community of color, and the Study area is designated by the Metropolitan Transportation Commission (MTC) as an [Equity Priority Community](#). The community is bifurcated by the Caltrain rail corridor and there is no crossing of the tracks for a one-mile segment. With only one existing crossing of the corridor within the community (Fifth Avenue), the population's mobility is impacted, especially for the many residents who do not have access to a personal automobile.

Consequently, planning documents like the *North Fair Oaks Community Plan*, adopted in 2011, have identified crossing(s) of the railroad tracks as a major mobility priority. Successive documents, the most recent being the 2021 *Unincorporated San Mateo County Active Transportation Plan* (ATP), have continued to identify North Fair Oaks as a region with large potential multimodal transportation demand but with limited infrastructure. In response to the



identification of the crossing need in the planning documents and feedback from the community itself, San Mateo County's Office of Sustainability is moving forward with evaluating a new rail crossing in the community along with accompanying improvements to existing pedestrian and bicycle infrastructure. The purpose of the Study is to comprehensively engage the North Fair Oaks community and other relevant stakeholders to develop an effective grade-separated rail crossing facility, as well as accompanying implementable bicycle and pedestrian infrastructure improvements to enhance community mobility.

2.1 Feedback from Community and Stakeholder Engagement

To properly align the Study's goals with the needs and desires of the community, the project team completed its first round of community engagement in June and July of 2022 (Engagement #1). Feedback was collected through pop-up events, presentations, distributed flyers, and a survey distributed online and in paper. In sum, nearly 350 individuals with connections to the North Fair Oaks community filled out the project survey, and over 350 individuals engaged with the project team at pop-up events or virtual presentations (many of these individuals also filled out the project survey). The project team also engaged members of the project Technical Advisory Committee (TAC) and Community Advisory Committee (CAC) to receive feedback from agency stakeholders and community representatives, respectively.

Part of the initial outreach effort was designed to gather data about the mobility problem caused by the tracks from residents and other people who work or travel through the area. A survey administered during Engagement #1 found that 46% of respondents prefer to travel by foot or other mobility device. Similarly, 41% of these participants reported walking or using other mobility devices to cross the Caltrain corridor. This is notable given the lack of convenient existing connections and reflect the significant burden that many residents bear to meet basic mobility needs. In addition, 37% of survey participants who drive to get across the Caltrain tracks would prefer to use alternative methods if it were possible, while another 22% of participants indicated that they don't cross the tracks or rarely do so specifically due to the crossing barrier. These findings are consistent with an understanding of high non-vehicular demand in the community and strongly suggest that many could benefit from a new bicycle and pedestrian crossing.

In addition to feedback from community members, the team also worked to engage the TAC and CAC to provide insight from key community and agency stakeholders on the mobility needs of this community. TAC and CAC members shared concerns consistent with the findings of previous planning studies. A representative from the Fair Oaks Community Center, a valued community institution located within the Study area, noted that most of the people accessing the center do so by foot or bicycle, a challenging trek for those living south of the tracks. Similarly, an official



from the Redwood City School District told the team that the train tracks create an inaccessible, almost wall-like, barrier to access one side of the tracks from the other. TAC and CAC respondents also noted key details that make the Study area a unique challenge, including a large socially-vulnerable population, low car ownership, and the inadequacy of existing facilities.

Another aspect of the initial community engagement efforts centered around gathering feedback on an initial set of guiding principles and prioritizing improvement attributes that will inform the development of project alternatives and, ultimately, identifying a recommended solution. The role of the outreach process in the definition of these goals and priorities are described in the following section.

3 GOALS AND PRIORITIES

Based on the project need discussed in the previous section, the team developed a preliminary set of four (4) project guiding principles to solicit reaction and feedback from stakeholders. These initial guiding principles included:

- Provide a comfortable and convenient connection across the rail corridor for bicycles and pedestrians in North Fair Oaks
- Promote equitable transportation and design solutions
- Enhance safety for all modes
- Support economic activity by improving access to the commercial corridors (Middlefield Road and El Camino Real)

The guiding principles were shared with the TAC and CAC, and they were asked to share what other principles the project should keep in mind. Many members emphasized the convenience of the connections formed by the rail crossing and other roadway improvements. Other members cited the facilities' safety as a key concern, and a few wanted to see the implementation of greenspace and sustainable infrastructure within the facilities. Finally, members emphasized equity and the desire to ensure benefits of the project were well-distributed throughout the whole community.

Based on that input, the initial guiding principles were expanded in the Engagement #1 survey to both a list of eight (8) project goals and a range of eight (8) priorities. The project goals posited for feedback as part of the survey were:

- Expand choices for traveling without a car
- Reduce serious injuries and fatalities
- Promote opportunities for physical activity



- Improve access to existing bus service
- Improve access to businesses on either side of the Caltrain railroad tracks
- Support opportunities to make streets better for bicycling and walking
- Improve air quality and have a positive impact on the environment
- Improve connections to and from the North Fair Oaks community and other neighborhoods

The draft project priorities presented in the survey were:

- Personal security: I feel safe and visible
- Connectivity: Nearby streets that connect the crossing are improved to become safer and more convenient to walk and bicycle on
- Convenience: Crossing is provided in a location that results in the shortest walking and biking distance to my destination
- Accessibility: Everyone, especially people with disabilities and/or strollers, can easily access the crossing
- Visual appeal: Art and architecture are integrated into the crossing to make it look nice and fit in with the community
- Fast Construction: A design that allows for the shortest construction phase with minimal impact on the community
- Greenery: The crossing design provides green and other public space for community use
- Low impact: The crossing does not take up much space - parking spaces, roads, and buildings are minimally affected

Survey respondents were requested to identify any other project goals beyond the ones listed and to select their top three of the eight priorities listed. Among the additional goals provided by survey respondents, the most common ones were expansion of recreation space with trees and shade (20 participants), more pedestrian-friendly sidewalks (18 participants), and improved public transportation (10 participants). Other goals listed by multiple individuals included more lighting and visibility, improved pedestrian/bicycle/wheelchair/stroller access, and employment of additional traffic-calming measures. For the question regarding the eight priorities, respondents most frequently selected personal security (64% of participants), convenience (48% of participants), and accessibility (45% of participants) in their top three. Additionally, about 50% of community members who engaged at pop-up events wanted the implementation of greenspace to be a priority.

Based on the feedback received from TAC, CAC, and community members, the project team refined the project goals that will guide subsequent project efforts, including the alternatives



evaluation. The goals and their definition include (in alphabetical order):

- **Access:** Provide widely accessible pedestrian and bicycle connections across the rail corridor and to adjacent communities to create a more useful, inclusive, and safer transportation network.
- **Community Integration:** Ensure that newly constructed facilities enhance the sense of community and community aesthetic of North Fair Oaks through improved connections and by incorporating public art, public spaces, and attractive structures.
- **Constructability:** To the extent possible, limit adverse impacts to the surrounding community and infrastructure during construction, while striving to minimize construction and maintenance costs given limited funding.
- **Equity:** Prioritize equitable transportation implementation, especially for those without access to a car, while limiting community impacts to housing, adhering to larger community and regional sustainability goals beyond the immediate Study goals, and considering all stakeholder input.
- **Safety:** Design facilities guided by the prioritization for the most vulnerable populations, and create safe, well-lit spaces that are comfortable to access and utilize with personal security in mind.

While some of the community's desired aspects of the project, such as expanded transit service and improvement of crossings outside of the study, did not fall within the specific scope of the Study, the key areas of consistent feedback from the community, TAC, and CAC were incorporated into the Study goals.

4 EVALUATION CRITERIA

Specific, targeted evaluation criteria were selected to assess each alternative, inclusive of a rail crossing alignment and the corresponding local street bicycle and pedestrian improvements, for its performance against the overarching set of established project goals. Each evaluation criteria includes a measure to determine how well the alternative meets the evaluation criteria and Study goal. Each of the alternatives selected for final evaluation by San Mateo County will be assessed for each measure based on a three-category scale of High, Medium, or Low (low being the least desirable, high being the most desirable). The evaluation will primarily be qualitative in nature based on the relative performance of the alternatives using engineering judgement. Note that some of the individual measures are quantitative, while others are qualitative; however, all the alternatives will be evaluated on the same three-category scale. **Table 1** shows an example of how this scale would appear in the evaluation report. As no weighting of measures will be



performed, the total rating for each alternative will not be summed. The ratings will then be used to compare the different alternatives to one another and ultimately inform selection of the preferred alternative for advancement.

Table 1: Evaluation Scale




Low (least desirable)	
Medium	
High (most desirable)	

Table 2 includes the individual evaluation criteria, the designated measure for each criterion, and the Study goals. Some of the evaluation criteria are specific to the rail crossing alternatives; these are noted with an asterisk.



Table 2: Rail Crossing and Bicycle/Pedestrian Improvement Alternatives Evaluation Criteria and Measures

Evaluation Criteria	Measure	Access	Community Integration	Constructability	Equity	Safety
Service Population*	Existing population within ¼ mile walking distance from rail crossing access points.	X			X	
Motor Vehicle Circulation	Extent to which changes to the roadway network would be anticipated to cause diversion and congestion.	X				
Bicycle and Pedestrian Comfort	Ability of the improved bicycle and pedestrian network to meet the mobility needs of all ages and abilities.	X	X		X	X
Connectivity with Community-wide & Regional Transportation Network	Connectivity between proposed Study improvements and the greater transportation network on surrounding streets, including El Camino Real, Middlefield Road, and Fifth Avenue.	X	X		X	X
Parking Impacts	Number of net parking spaces lost.			X		
Public Space	Potential to create new public spaces.		X		X	
Green Infrastructure	Potential to implement green infrastructure, like solar panels or bio-retention facilities.		X		X	
Connections to Local Destinations	Directness of travel path to local destinations (e.g., schools, community center, medical facilities, etc.).	X	X		X	
Rail Crossing Length*	Total length of crossing facility.	X	X	X		
Visual Impact*	Level of disruption to views and privacy.		X		X	
Public Infrastructure Impact	Level of disruption to existing and planned utilities (e.g., SFPUC) and transportation service (e.g., Caltrain).			X		
Construction Cost	Rough order of magnitude (ROM) of project construction cost.			X		
Construction Impact	Magnitude of short-term adverse effects to residents and businesses during construction, including traffic diversion and access restrictions	X		X	X	
Operations and Maintenance Cost	Magnitude of projected annual cost of operations and maintenance.			X		
Direct Parcel Impacts*	Number of parcels needed, all or in part, to construct railroad crossing.			X	X	
Emergency Access	Effects on emergency vehicle access (e.g., fire/police).					X
Personal Security	Alignment of facility configuration with Crime Prevention Through Environmental Design (CPTED) ¹ best practices.	X	X			x

*These criteria are specific to the rail crossing alternatives

¹ CPTED is a multi-disciplinary approach of crime prevention that uses urban and architectural design and the management of built and natural environments. It aims to reduce victimization, deter offender decisions that precede criminal acts, and build a sense of community among inhabitants so they can gain territorial control of areas, reduce crime, and minimize fear of crime.



5 NEXT STEPS

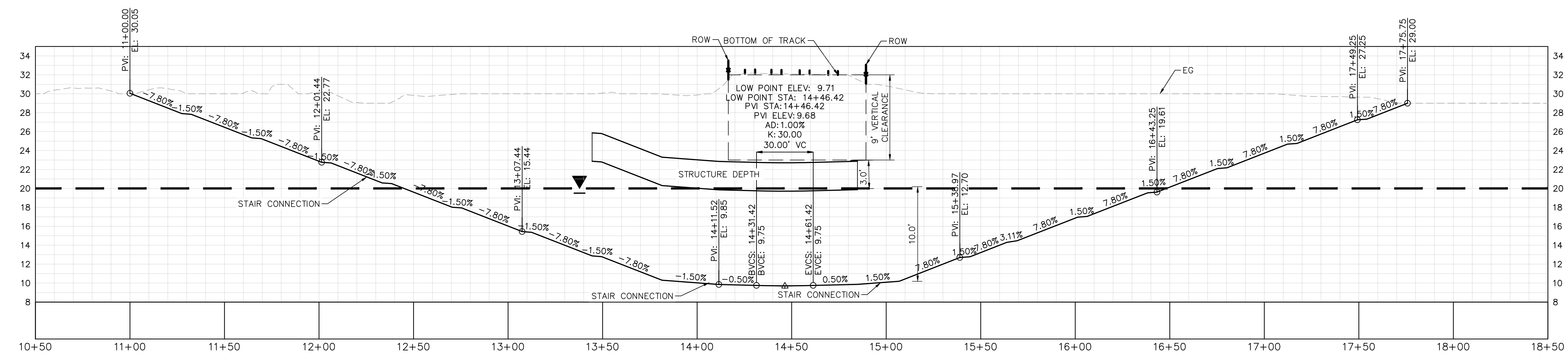
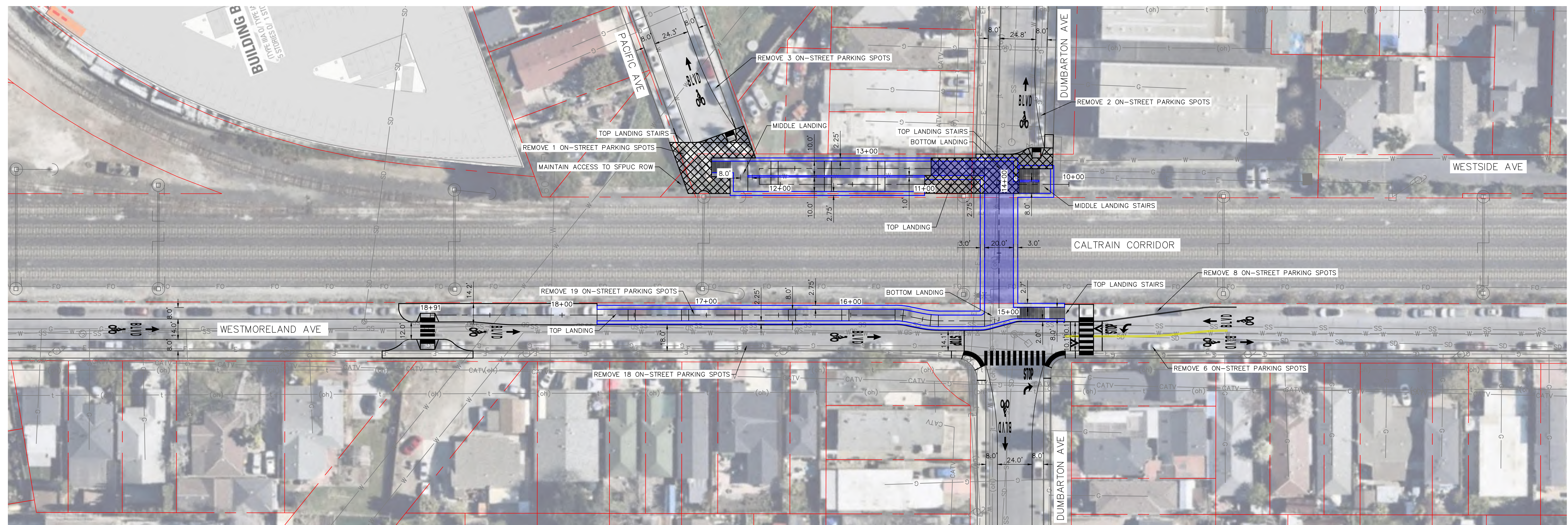
During the alternative development phase, San Mateo County staff will select rail crossing alternatives and corresponding bicycle and pedestrian connection improvements for concept design development. These will be shared with the TAC and CAC for input. Subsequently, the methodology outlined in this technical memorandum will be used to evaluate the selected alternatives. Notably, the measures identified in **Table 2** may be modified slightly from their current form after the final alternatives are selected to allow for the most effective differentiation of alternatives. The alternatives and the completed technical evaluation will be shared with the community, TAC, and CAC to gather feedback before the selection of preferred alternative for rail crossing and bicycle and pedestrian infrastructure. Community, TAC, and CAC feedback will also be incorporated into the final alternative concept designs for the preferred alternative.



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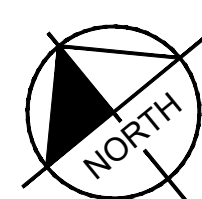
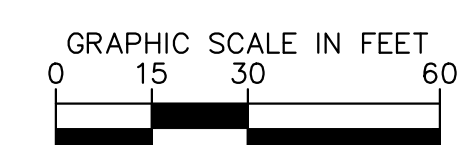
Appendix D - Concept Plans

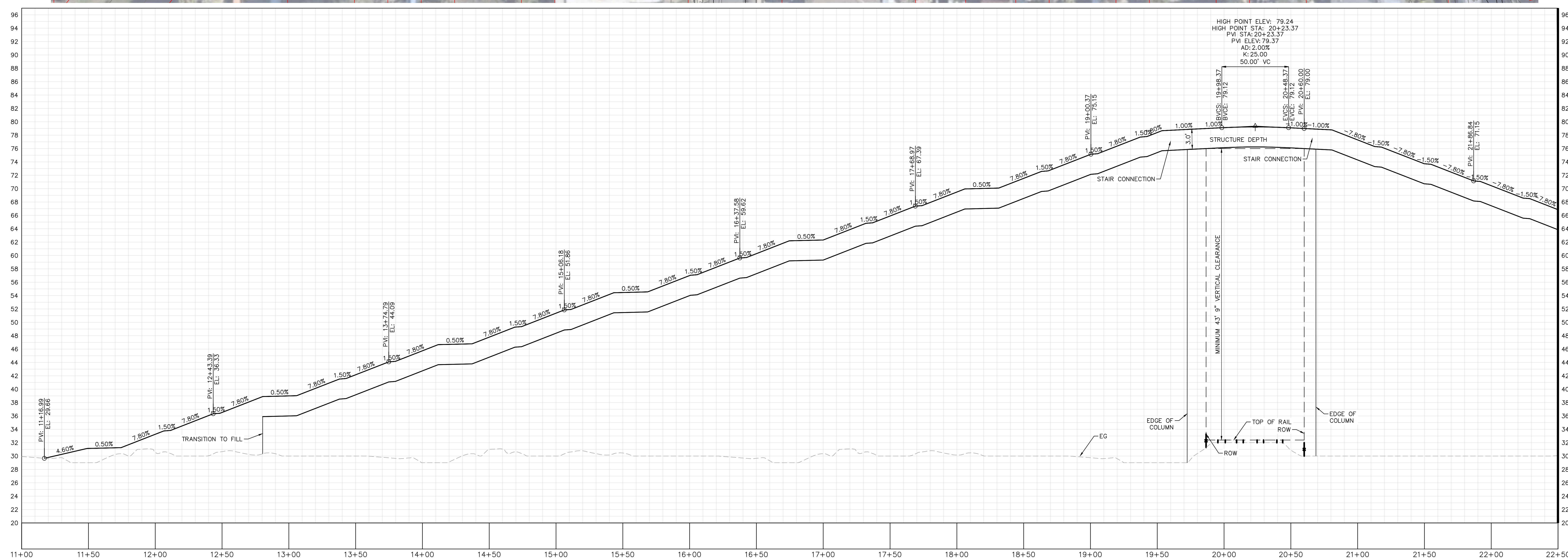


ALTERNATIVE A: PACIFIC AVENUE/DUMBARTON AVENUE UNDERCROSSING
NORTH FAIR OAKS BICYCLE AND PEDESTRIAN RAILROAD CROSSING
SHEET 1 OF 6
FEBRUARY 2023

NOTES:

1. RECOMMENDED IMPROVEMENTS ARE PRELIMINARY AND WOULD REQUIRE FURTHER ANALYSIS DURING SUBSEQUENT DESIGN PHASES.
2. ALL TRAFFIC STRIPING AND MARKINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY THAT WILL BE FURTHER STUDIED DURING FINAL DESIGN AND WILL FOLLOW CA-MUTCD GUIDELINES.

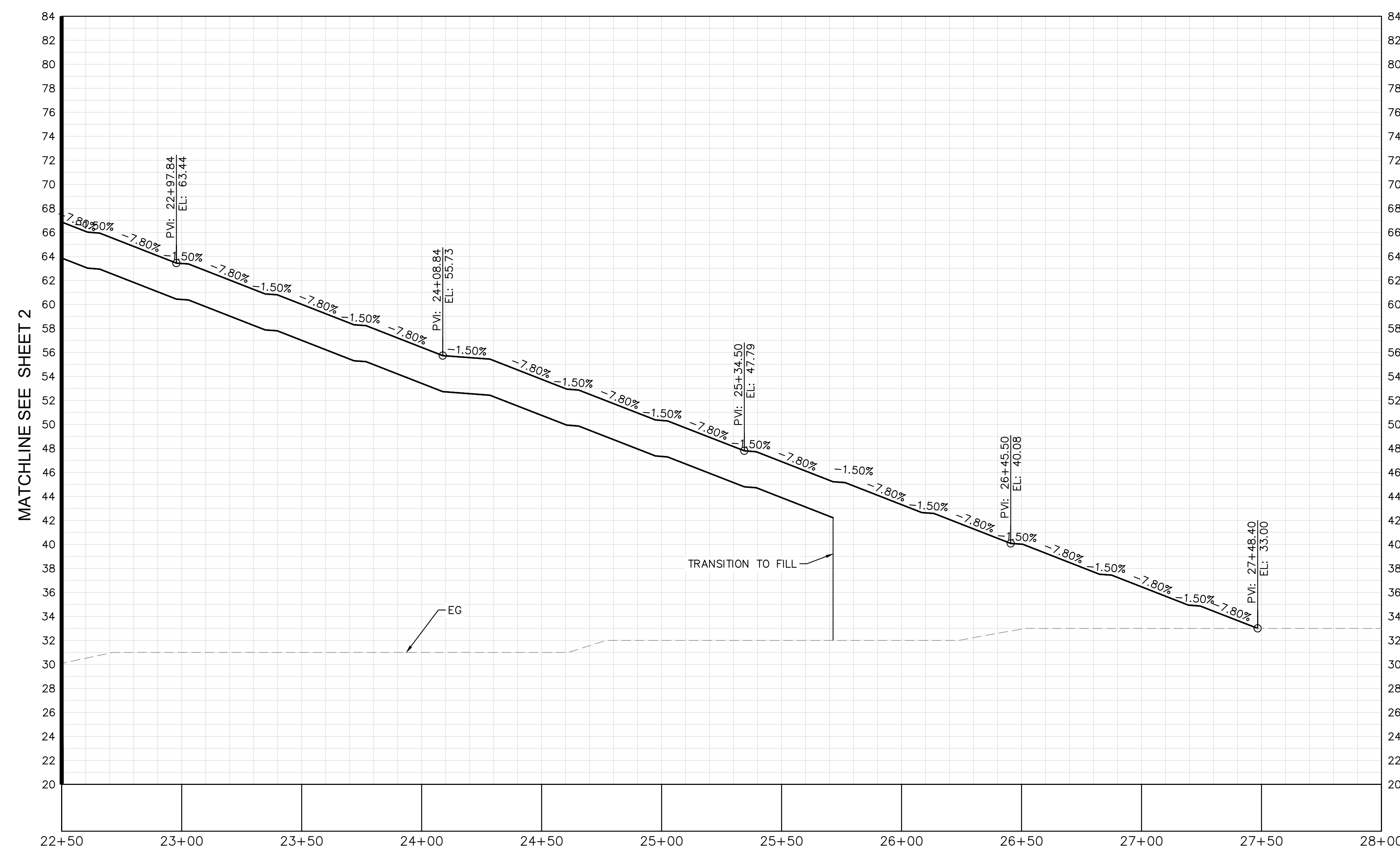
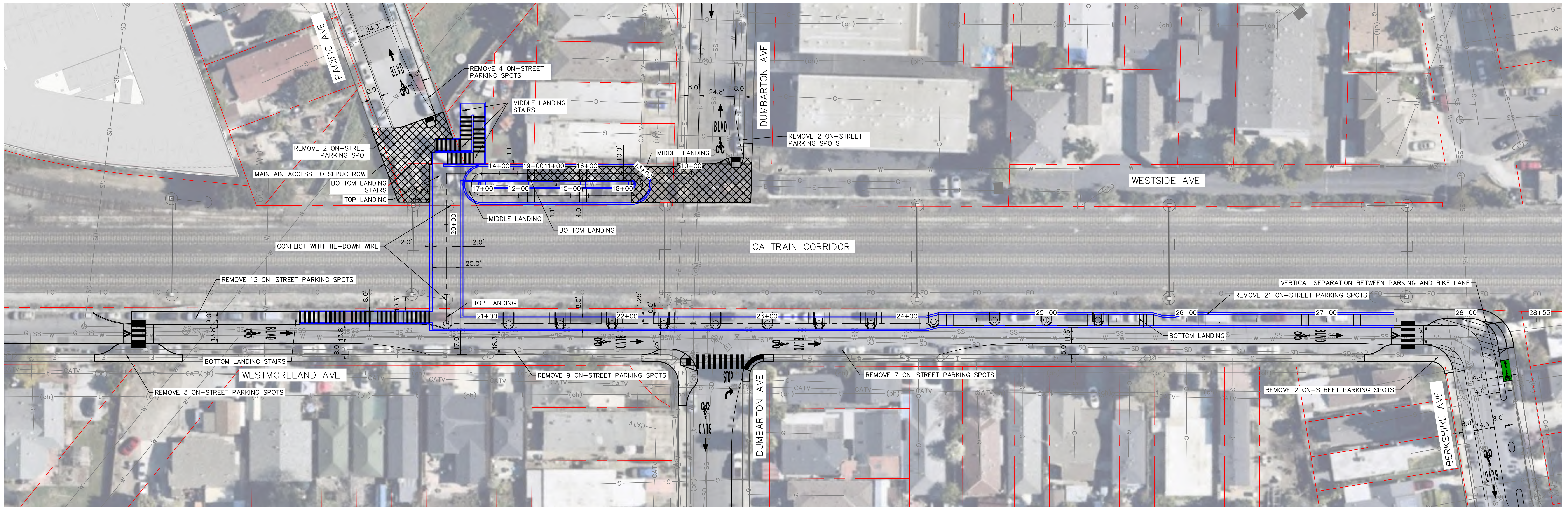




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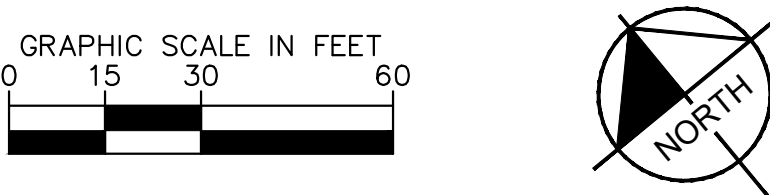
RECOMMENDED IMPROVEMENTS ARE PRELIMINARY AND WOULD REQUIRE FURTHER ANALYSIS DURING SUBSEQUENT DESIGN PHASES.

ALL TRAFFIC STRIPING AND MARKINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY THAT WILL BE FURTHER STUDIED DURING FINAL DESIGN, AND WILL FOLLOW CA-MUTCD GUIDELINES.



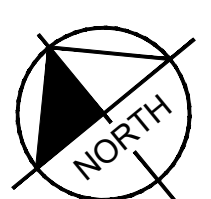
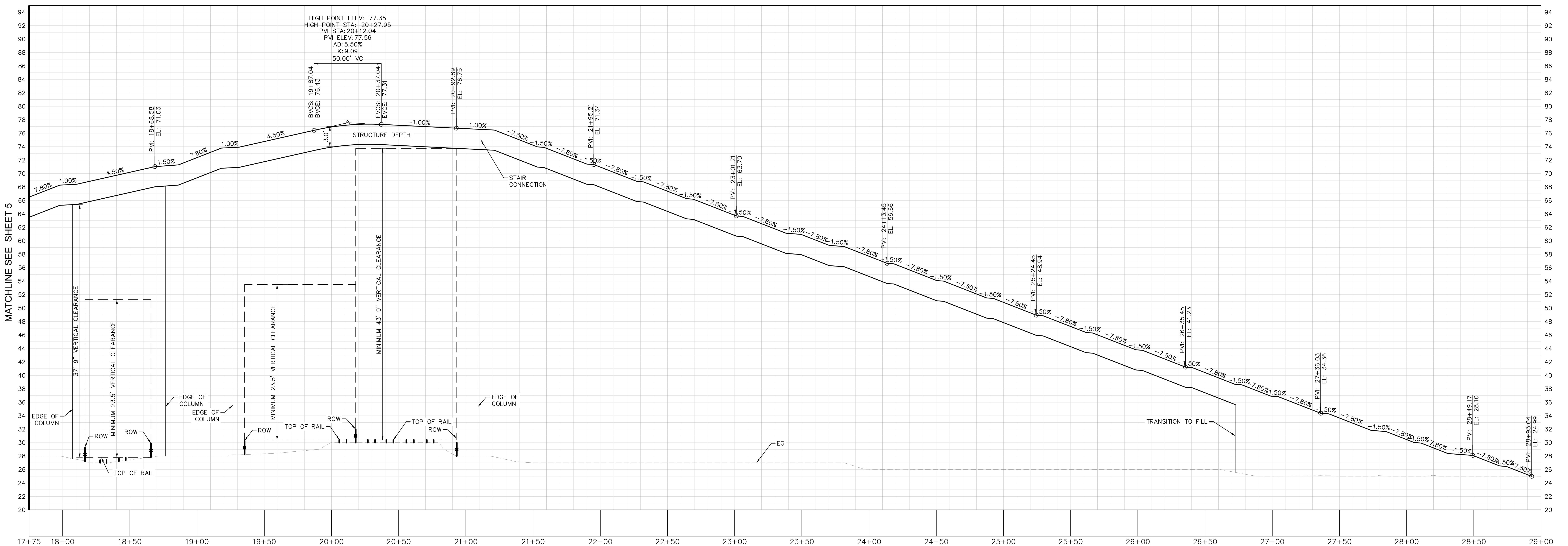
ALTERNATIVE B: PACIFIC AVENUE/DUMBARTON AVENUE OVERCROSSING
NORTH FAIR OAKS BICYCLE AND PEDESTRIAN RAILROAD CROSSING
SHEET 3 OF 6
FEBRUARY 2023

- NOTES:
1. RECOMMENDED IMPROVEMENTS ARE PRELIMINARY AND WOULD REQUIRE FURTHER ANALYSIS DURING SUBSEQUENT DESIGN PHASES.
 2. ALL TRAFFIC STRIPING AND MARKINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY THAT WILL BE FURTHER STUDIED DURING FINAL DESIGN AND WILL FOLLOW CA-MUTCD GUIDELINES.



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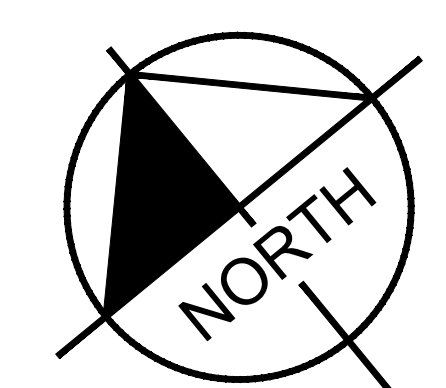
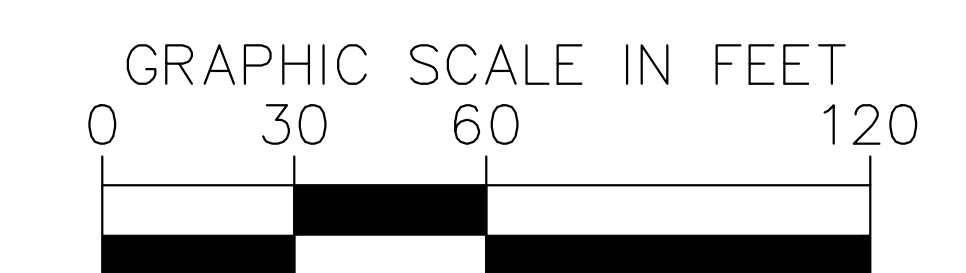
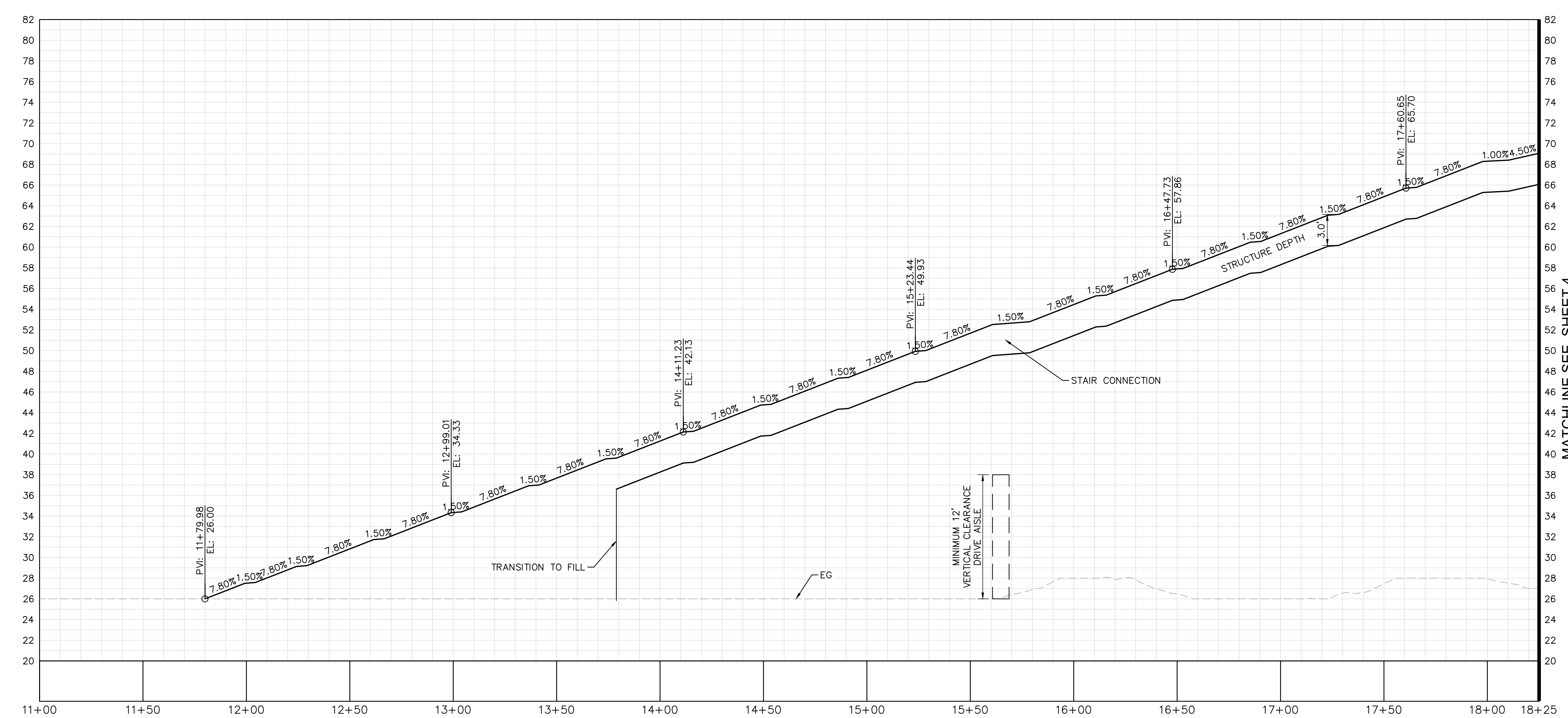
1. RECOMMENDED IMPROVEMENTS ARE PRELIMINARY AND WOULD REQUIRE FURTHER ANALYSIS DURING SUBSEQUENT DESIGN PHASES.
2. ALL TRAFFIC STRIPING AND MARKINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY THAT WILL BE FURTHER STUDIED DURING FINAL DESIGN AND WILL FOLLOW CA-MUTCD GUIDELINES.



ALTERNATIVE C: MIDDLEFIELD OVERCROSSING
NORTH FAIR OAKS BICYCLE AND PEDESTRIAN RAILROAD CROSSING
SHEET 5 OF 6
FEBRUARY 2023

NOTES:

1. RECOMMENDED IMPROVEMENTS ARE PRELIMINARY AND WOULD REQUIRE FURTHER ANALYSIS DURING SUBSEQUENT DESIGN PHASES.
2. ALL TRAFFIC STRIPING AND MARKINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY THAT WILL BE FURTHER STUDIED DURING FINAL DESIGN AND WILL FOLLOW CA-MUTCD GUIDELINES.



ALTERNATIVE C: MIDDLEFIELD OVERCROSSING
NORTH FAIR OAKS BICYCLE AND PEDESTRIAN RAILROAD CROSSING
SHEET 6 OF 6
FEBRUARY 2023

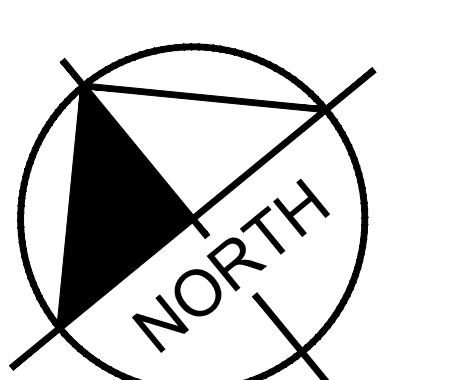
NOTES:

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2. ALL TRAFFIC STRIPING AND MARKINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY THAT WILL BE FURTHER STUDIED DURING FINAL DESIGN AND WILL FOLLOW CA-MUTCD GUIDELINES.



GRAPHIC SCALE IN FEET

0 30 60 120

A horizontal line with vertical tick marks at 0, 30, 60, and 120 feet. The segments between 0 and 30, 30 and 60, and 60 and 120 are shaded black.



NORTH
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BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY

Appendix E - Community Outreach Round 2 Summary



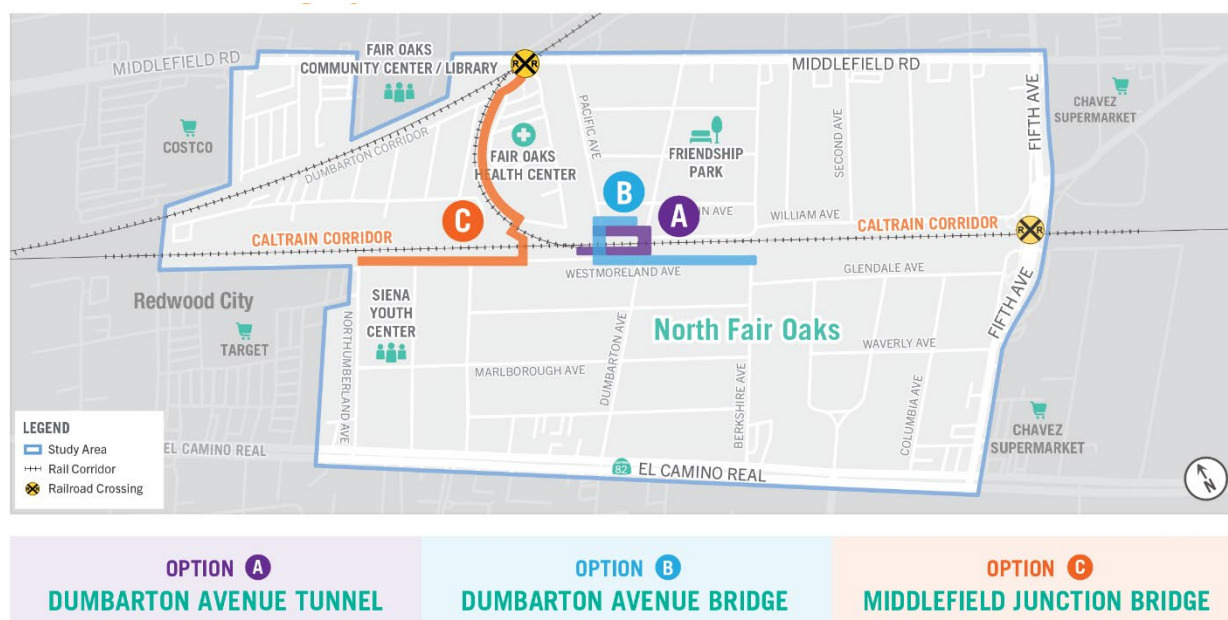
Engagement Round #2 Summary

The North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study (Study) team seeks to assess the potential for a bicycle and pedestrian railroad crossing over or under the Caltrain tracks to make walking and cycling easier and safer in North Fair Oaks and part of Redwood City. To ensure community input is incorporated into the Study's process and final recommendations, the Study includes four rounds of community engagement.

The first round of engagement (Engagement #1) occurred between June 11 and July 8, 2022. Engagement #1 introduced the project to the North Fair Oaks/adjacent Redwood City community and gathered input on barriers to walking and bicycling in the project area, key destinations in need of connection, and opportunities to improve safety and enhance access. The engagement summary from Engagement #1 is available on the project website (www.NFOwalkbike.org) under the Study Documents section. Input from the first engagement phase was used to develop three potential railroad crossings (locations shown in Figure 1) and community bicycle and pedestrian improvements. Option A Dumbarton Avenue Tunnel is shown in purple. Option B Dumbarton Avenue Bridge is shown in blue. Option C Middlefield Junction Bridge is shown in orange.

The second phase of engagement (Engagement #2) was conducted between March 17 and April 24, 2023. Input was collected via a survey, in-person pop-up events, in person and virtual presentations to three different groups of community members and an open house to help the Study team compare different options and identify the preferred crossing and infrastructure improvements. The community feedback shared during Engagement #2 is summarized in this document and will be used to inform the Study's next steps and future iterations of engagement.

Figure 1: Railroad Crossing Locations





Executive Summary of Engagement Findings

The Dumbarton Avenue Bridge (Option B) was the first choice and the Middlefield Junction Bridge (Option C) was the second choice among survey respondents, and 78% of survey respondents indicated that they would use the crossing frequently. The following summarizes key takeaways from the survey that was distributed in Engagement #2, and from conversations with community members. A full summary of survey results is described in more detail under the Survey section of this report.

How consistent are railroad crossing option designs with goals: Survey participants were asked to evaluate the desirability of three build railroad crossing options based on connections to destinations, safety, community integration, impact on traffic flow and parking, and opportunity for public space. **The Dumbarton Avenue Bridge (Option B) is the most consistent with the goals** whereas the Dumbarton Avenue Tunnel (Option A) had less agreement among the three options.

Preferred railroad crossing option: The Dumbarton Avenue Bridge (Option B) was the first choice and the Middlefield Junction Bridge (Option C) was the second choice among respondents. The Dumbarton Avenue Bridge (Option B) is the most preferred option when the number for first and second preferences are combined – approximately one third more votes than the Middlefield Junction Bridge (Option C), nearly double the votes compared to the Dumbarton Avenue Tunnel (Option A) and nine times more votes than the “do not build a rail crossing” option. Respondents prefer a bridge over a tunnel as most respondents chose the Dumbarton Avenue Tunnel as their third choice. **The majority of respondents preferred a railroad crossing over no crossing**, with 127 respondents ranking “do not build a rail crossing” as their last choice.

How frequently community members will use the preferred crossing option: 78% of survey respondents would use the crossing frequently, with 59% of respondents indicated that they would use it multiple times a week and 19% would use it once a week. All three build options were ranked as first preference among frequent travelers. However, **the Dumbarton Avenue Bridge (Option B) received the most votes for the first and second preferred railroad crossing option thus making it the most preferred option among frequent travelers.**

Mode of choice to travel on preferred crossing option: Majority of respondents would use an active mode of transportation to access the railroad crossing – 80% reported that they would walk or use a mobility device, 24% would bike, and 18% of respondents would take transit as part of their trip using the crossing.

Bicycle and pedestrian improvements preferences: Sidewalk and crosswalk lighting, high-visibility crosswalks, and accessible (ADA) curb ramps were the top three infrastructure improvements survey respondents would like to see incorporated on neighborhood streets.

Other Additional Amenities and Features: Participants expressed that safety, maintenance, accessibility, and public spaces and art are their top priorities for the railroad crossing.

Conversations with Community Members: The Study team heard the following key themes from community members at in-person events:

- Personal security concerns related to safety while being in the tunnel or on the bridge



- Maintenance of railroad crossing
- Benefits of railroad crossing for all groups of people
- Access to parking
- Concern related to funding

More details about conversations are listed in the Conversations with Community Members section.

Engagement Notifications

The Study team used several techniques to notify the public about engagement opportunities and to promote the survey, including:

- Project website (www.NFOwalkbike.org), including a promotional video asking community members to participate in the survey¹
- Social media, including both County of San Mateo and Office of Sustainability's Facebook, Instagram, Twitter, and Nextdoor
- Mailers to approximately 1,800 addresses in the project area and surrounding addresses in North Fair Oaks and Redwood City
- Flyers distributed at community event at Samaritan House Free Clinic, and at pop-up events
- Community partner email listservs
- Community partner newsletters
- Canvassing in residential areas north and south of Caltrain tracks

Appendix A includes the engagement notification materials.

Engagement Approach

To reach the community during Engagement #2, members of the Study team in conjunction with key community stakeholders held 10 pop-up events, an open house event, presented at in-person and virtual meetings (total of 3 community presentations), and distributed flyers. Feedback was requested via an online and paper survey. Over 950 online and paper surveys were completed throughout the various engagement activities. The following sections provide an overview of these engagement tools and techniques.

The Study team included County staff, consultant staff, and community-based organization Nuestra Casa. Nuestra Casa staff, along with their team of promotoras, who facilitated Spanish-language conversations at the pop-up events. Promotoras are community outreach workers who are trusted messengers in their communities.

Pop-up Events

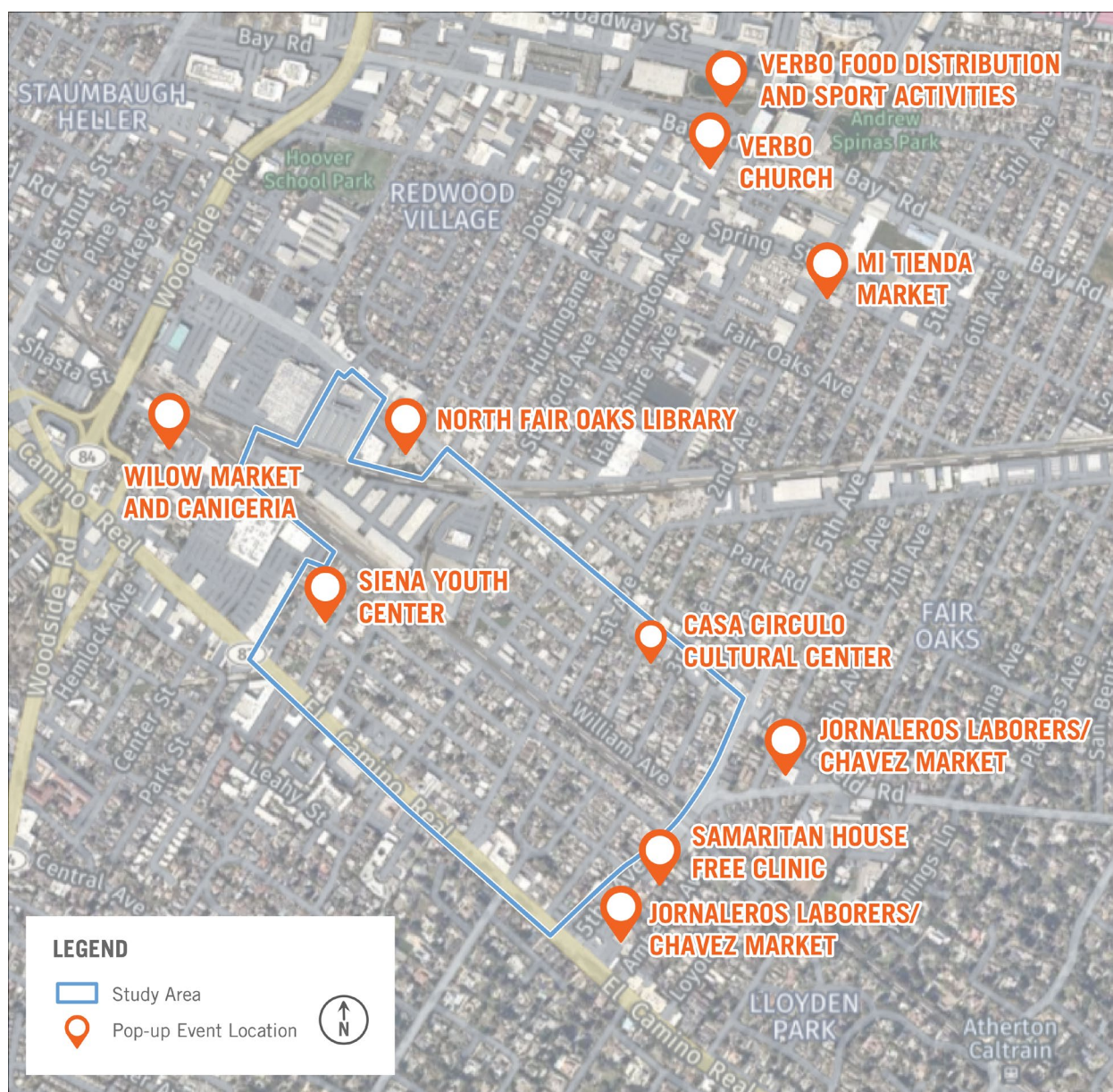
Members of the Study team hosted 10 pop-up events during Engagement #2 from March 24 to April 14, 2023, and distributed flyers at a community event on March 17, 2023. Pop-ups were hosted in convenient locations (Figure 2) and were scheduled to meet people where they already spend time. They were facilitated in Spanish, primarily by promotoras, and designed to draw participants in with specific

¹ The promotional video is on San Mateo County's YouTube Channel and following this link: <https://www.youtube.com/watch?v=mr0iDe4rCHU>



questions in a socially inviting format with incentives such as an opportunity to enter a raffle to win one of the two \$50 gift cards, COVID-19 tests, bottles of water, pens, tote bags, and snacks.

Figure 2: Pop-up Event Locations



At the events, the Study team provided bilingual (English and Spanish) interactive poster boards that communicated project goals, design considerations, three potential options for railroad crossing designs, and bicycle and pedestrian improvements. Participants were asked to choose their preferred railroad crossing options and infrastructure improvements and provide explanations for their choices. The boards created an opportunity for participants to provide feedback using interactive methods like marking their



preferences with stickers and using post-it notes to record qualitative feedback. The Study team also solicited feedback using paper and online surveys. Details about the pop-up events, surveys completed and participants at each event are provided in Table 1. A small number of surveys were also collected at Hoover Park on April 5, 2023 (not a formal pop-up event). Images of the interactive poster boards are included in Appendix B, and photos from the events are included in Appendix C.

Table 1: Pop-Up Summary

Pop-up Event Location/ Date/ Time	Paper Surveys Completed	Observed Demographics and Additional Notes ²
North Fair Oaks Library and Fair Oaks Community Center 2600 Middlefield Road March 24, 2023 9:00AM – 1:00PM	55 surveys completed	<p>Age: Majority were 65+ years old. There were some families with children.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: There were slightly more females than males.</p> <p>Additional context: The program manager at the Adult Activity Center took copies of the survey to distribute to their constituents. Although County staff and promotoras distributed flyers with survey QR codes to community members in cars waiting in line for the food distribution, due to fast moving nature of the line, many did not complete the survey at the event.</p>
Jornaleros Laborers/Chavez Supermarket 3282 Middlefield Rd March 27, 2023 8:00AM – 10:00AM	38 surveys completed	<p>Age: Majority of participants were 18-59, with one participant who was 65+.</p> <p>Language: All jornaleros surveyed spoke Spanish.</p> <p>Gender: All jornaleros surveyed were male.</p> <p>Additional context: Promotoras canvassed nearby businesses around Chavez Supermarket.</p>
Samaritan House Free Clinic 114 5 th Ave March 27, 2023 10:00AM – 12:30PM	21 surveys completed	<p>Age: Majority of participants were between the ages of 25-45.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: Majority of participants were male.</p>

² All demographic information are estimates, which were observed by County staff who attended the pop-up events. Demographic information is not self-reported.



Pop-up Event Location/ Date/ Time	Paper Surveys Completed	Observed Demographics and Additional Notes ²
Willow Market and Carniceria 37 Willow Street March 30, 2023 3:00PM – 6:00PM	31 surveys completed	Age: There was a mix of younger adults and older adults who completed the survey. Language: Majority of participants spoke Spanish. Gender: Majority of participants were male.
Verbo Church 2789 Bay Road April 2, 2023 10:30AM – 1:30PM	33 surveys completed	Age: There was a mix of youth, younger adults, and older adults who completed the survey. Language: There was a mix of English speakers and Spanish speakers. Gender: There were slightly more females than males.
Casa Circulo Cultural 3090 Middlefield Road April 5, 2023 5:00PM – 8:00PM	73 surveys completed	Age: Majority of participants were younger, ages ranging between 20-40. Language: Majority of participants spoke Spanish. Gender: There were slightly more females than males. Additional Context: Promotoras canvassed nearby businesses.
Siena Youth Center 2625 Marlborough Ave April 6, 2023 4:00PM – 6:00PM	30 surveys completed	Age: Majority of participants were between 26-59. Language: There was a mix of English speakers and Spanish speakers. The youth and younger adults primarily spoke English. Gender: There was slightly more females than males. Additional Context: About four children voted on the boards using sticker dots.
Jornaleros Laborers/Chavez Supermarket 46 5 th Ave April 10, 2023 7:30AM – 10:00AM	34 surveys completed	Age: Participants ranged from 18-59, and some were high school students. Language: Majority of participants spoke Spanish with a few who spoke English. Gender: Majority of participants were male. Additional context: Promotoras canvassed in the surrounding businesses like the laundromat and Sequoia Adult School. There were fewer jornaleros compared to the March 27 th pop-up event. The Study team also spoke to people walking to and from Saint Anthony's Church.



Pop-up Event Location/ Date/ Time	Paper Surveys Completed	Observed Demographics and Additional Notes ²
Mi Tienda Market 812 5 th Avenue April 10, 2023 10:30AM – 1:30PM	49 surveys completed	<p>Age: There was a mix of youth, parents/caregivers, and older adults.</p> <p>Language: Majority of participants spoke Spanish with a few who spoke English.</p> <p>Gender: There were slightly more females than males.</p> <p>Additional Context: Promotoras canvassed at the store entrance and parking lot.</p>
Verbo Food Distribution and Sport Activities 2789 Bay Road April 14, 2023 5:00PM – 7:30PM	31 surveys completed	<p>Age: Most people at the food distribution were in their mid-30s and 40s, and a few were older (65+) adults. Most of the soccer players were in their teens or young adults and many of the spectators included older adults.</p> <p>Language: Majority of participants spoke Spanish with a few who spoke English.</p> <p>Gender: Approximately 67% were female and 33% were male at the food distribution. All of the people playing soccer were male with a majority of male spectators.</p>

Presentations

County staff attended three in-person and virtual presentations to present and collect feedback on the three potential railroad crossing options and bicycle and bicycle improvements. Details about these events are provided in Table 2.

Table 2: In-person and Virtual Presentations Summary

Event Location/Date/Time	People Reached/ surveys completed	Event Summary
Sequoia Adult School ESL Class April 2, 2023 6:00 PM – 7:30PM	30	<p>Age: Participants were between the ages of 16-25.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: About 50% of participants were male and 50% were female.</p> <p>Additional Context: The presentation to the class was in English as it was a level 4 class.</p>
Hoover School Cafecito April 7, 2023 8:45AM – 9:30AM	14	<p>Age: Majority of participants were parents/caregivers, and some had young children with them. Most were in their 20s and 30s.</p> <p>Language: All participants spoke Spanish.</p> <p>Gender: All but one participant were female.</p>



Event Location/Date/Time	People Reached/ surveys completed	Event Summary
Familias Unidas Virtual ESL Class April 19, 2023 6:00PM – 7:30PM	Unknown number of surveys; Over 40 people attended virtually	<p>Age: Varied, it was not possible to determine the ages of attendees on-line.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: It was not possible to determine the gender of attendees on-line.</p> <p>Additional Context: Some participants shared the same device to join the Zoom call.</p>

Open House

The Study team, County staff, Nuestra Casa staff and promotoras hosted and facilitated an open house event to solicit input from the community about the Study. The open house event also provided more time, compared to pop-up events, for community members to learn and ask questions about the project. Details about the open house are provided in Table 3.

Table 3: Open House Summary

Event Location/Date/Time	Paper Surveys Completed and People Reached (estimate)	Event Summary
Casa Circulo Cultural 3090 Middlefield Road April 12, 2023 6:00PM – 8:00PM	23 surveys completed; 60 people attended	<p>Age: There was a mix of youth, parents/caregivers, younger adults, and older adults.</p> <p>Language: Majority of participants spoke Spanish.</p> <p>Gender: There were slightly more females than males.</p> <p>Additional Context: Casa Circulo Cultural staff provided childcare. A lot of participants had already taken the survey but came back to learn more about the Study and provide more feedback.</p>

Canvassing

County staff, Nuestra Casa staff and promotoras canvassed in neighborhoods surrounding the Caltrain tracks. Table 4 list details about the canvassing events.



Table 4: Canvassing Summary

Event Location/Date/Time	Paper Surveys Completed	Event Summary
South side of tracks: Westmoreland Ave, Devonshire Ave, Berkshire Ave, Dumbarton Ave, Buckingham Ave, Nottingham Ave, Marlborough Ave, El Camino Real April 1, 2023 3:00PM – 6:30PM	74 surveys completed	Age: Participants were between the ages of 12-70. Language: Majority of participants spoke Spanish. Gender: About 75% were male, and 25% were female.
North side of tracks: Dumbarton Ave, Pacific Ave, Berkshire Ave, Calvin Ave, William Ave, Curtis Ave, Huntington Ave, Middlefield Rd, Westside Ave April 2, 2023 3:00PM – 6:30PM	53 surveys completed	Age: Participants were between the ages of 17-65. Language: Majority of participants spoke Spanish Gender: About 50% of participants were male and 50% were female.

Survey Responses

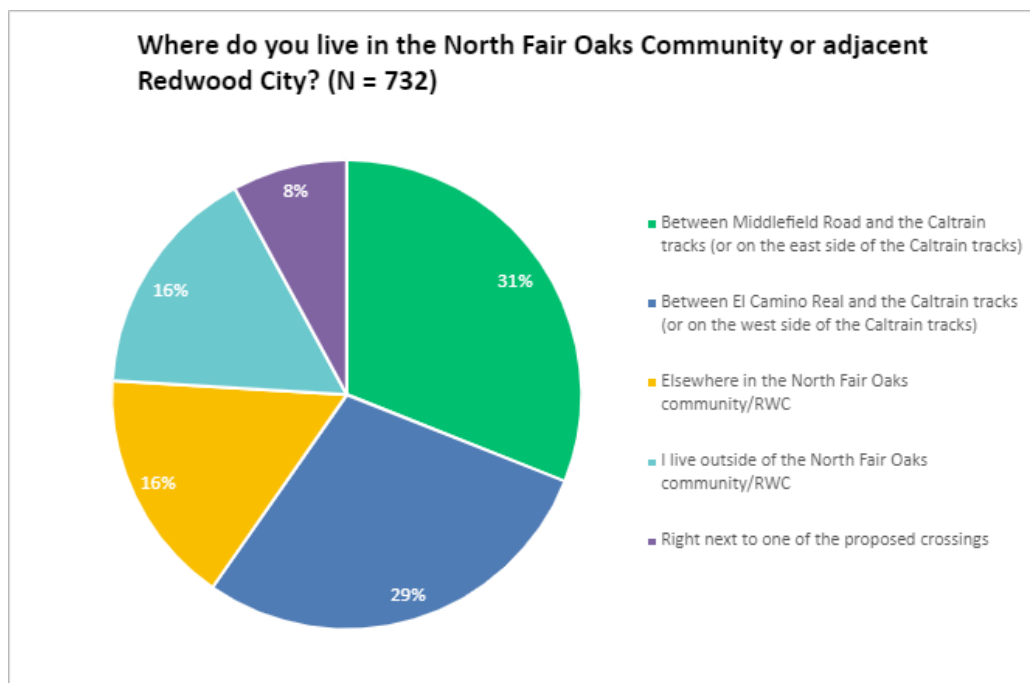
The Study team distributed a survey in both online and paper formats to ensure that it reached a broad group of people. The online survey was hosted by Survey Monkey and could be completed on a smartphone, tablet or computer. The survey was available in English and Spanish (see Appendix D for the survey). When possible, the Study team and/or promotoras guided participants through the survey at pop-up events, the open house, and while canvassing. The link for the online survey was also shared via the project website, flyers, and other community notifications.

In total, about 770 survey responses were received – two-thirds were paper surveys and one-third were online surveys. About an even number of respondents lived on both sides of the Caltrain tracks, with 31% of respondents who live between Middlefield Road and the Caltrain tracks (or on the northeast side of the tracks) and about 29% who live between El Camino Real and the Caltrain tracks (or on the southwest side of the tracks) (Figure 3). Approximately 8% or more live right next to one of the proposed crossing locations (on Westmoreland between Northumberland and Berkshire Avenues, or on Pacific or Dumbarton Avenue between Calvin Avenue and the Caltrain tracks). Almost 16% live elsewhere in the North Fair Oaks community or Redwood City. Additionally, 16% reported that they live outside of North Fair Oaks/adjacent Redwood City. Some of the pop-ups were held in adjacent Redwood City, including at



Willow Market, Verbo Church, and Mi Tienda Market. As a result, many participants who responded to the survey at these events may also live in adjacent Redwood City. Participants living outside of the project area may have an interest in this Study as a new bicycle and pedestrian rail crossing could also benefit them.

Figure 3: Respondent Neighborhood of Residence



Most respondents, approximately 70%, were adults ages 26-59, while 13% were age 60 and over (**Figure 4**). Most respondents (91%) identified as Hispanic or Latinx/a/o (**Figure 5**). Slightly over half of the survey respondents (54%) identified as women and approximately 46% identified as men (**Figure 6**).



Figure 4: Respondent Age

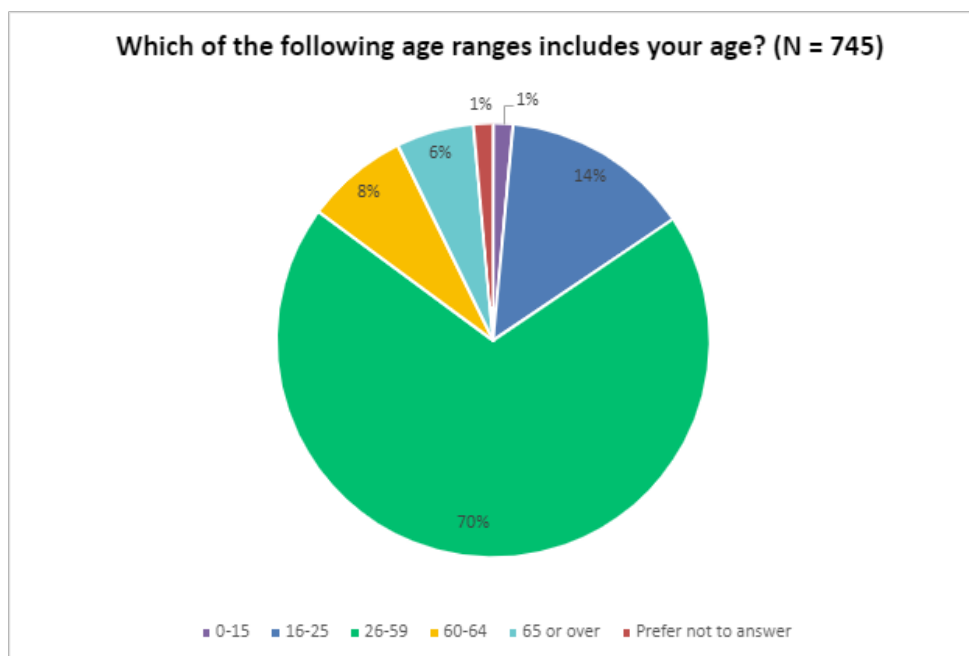


Figure 5: Respondent Race

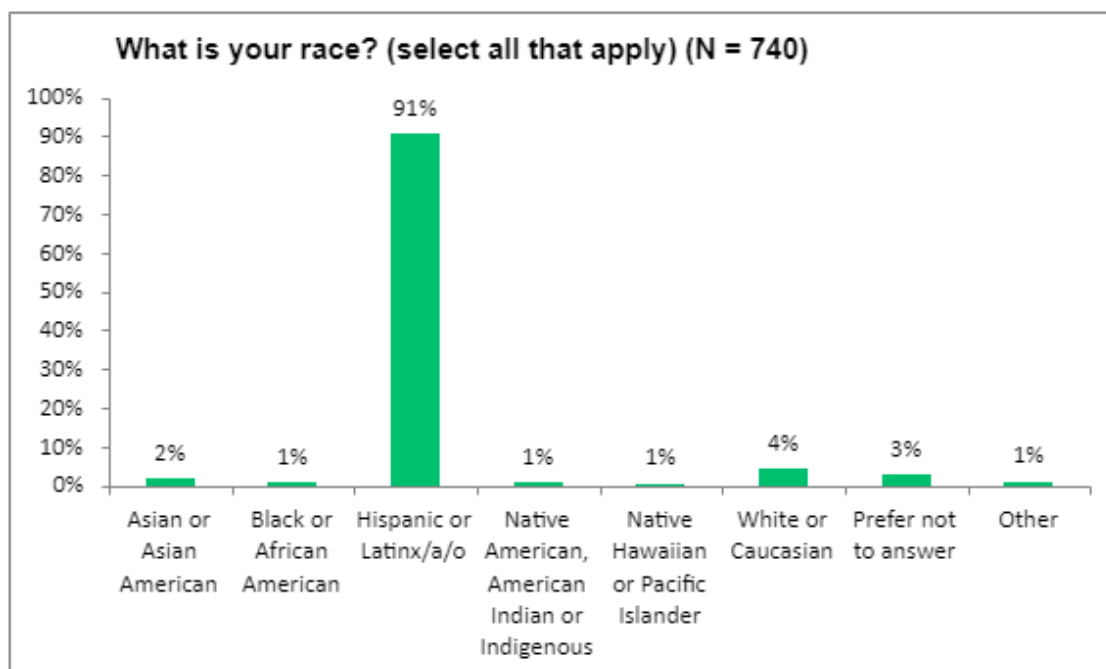
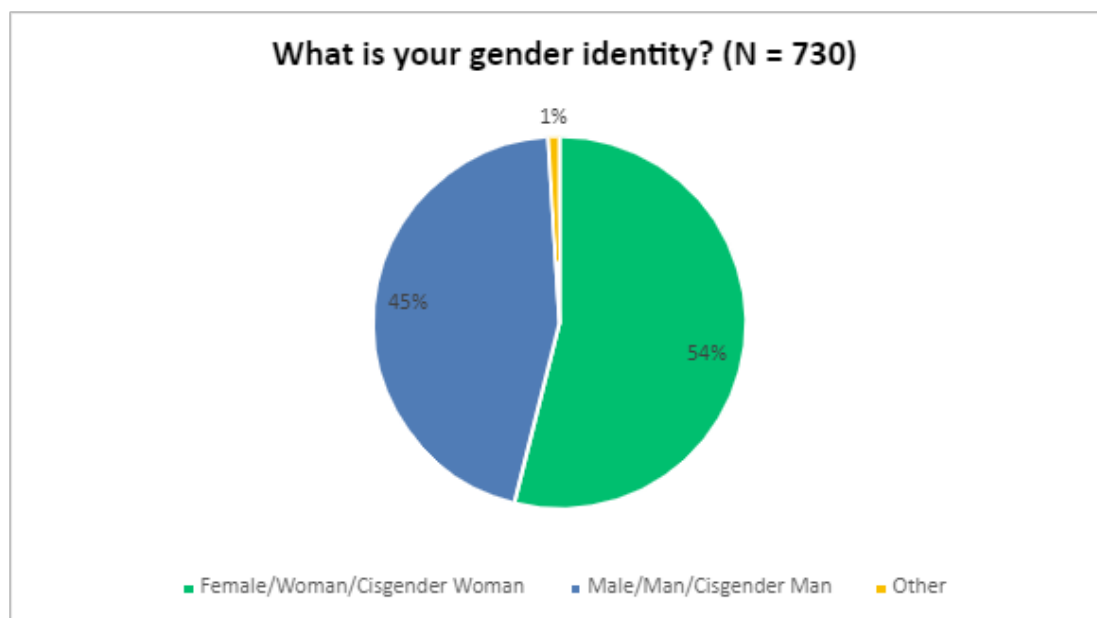




Figure 6: Respondent Gender Identity



What We Heard

The Study team gathered input about 1) preferred railroad crossing designs (or no crossing), 2) preferred bicycle and pedestrian improvements, and 3) explanations for these choices. The interactive boards created for pop-up events supplemented the survey feedback. The open house event provided another opportunity for community members to give feedback and have more in-depth discussions about the project with the Study team. The following sections summarize what the Study team heard from community members on each of these topics.

Key Takeaways

The following sections describe feedback from the survey, posterboards, and in-person and virtual events during Engagement #2 in more detail, with the following summarizing key takeaways:

How Consistent are Railroad Crossing Option Designs with Each Goal: Survey participants were asked to evaluate the design of three railroad crossing options based on connections to destinations, safety, community integration, impact on traffic flow and parking, and opportunity for public space. More respondents agreed than disagreed that all three options achieved the listed goals. The Dumbarton Avenue Bridge (Option B) received the most agreement for achieving these goals, with 310 to 388 respondents agreeing that the option met with each stated goal. Responses for the Middlefield Junction Bridge (Option C) were similar and ranged from 297 to 353 respondents agreeing. While the differences for Options B and C were small (see below for additional details), there was less agreement about the Dumbarton Avenue Tunnel (Option A), with only 228 to 278 respondents agreeing that this option addresses the goals. This assessment of Option A stands out as more respondents indicated that they do not feel safe and comfortable crossing a tunnel compared to the bridges.



Preferred railroad crossing option: The Dumbarton Avenue Bridge (Option B) and the Middlefield Junction Bridge (Option C) were ranked closely as the first preference for the railroading crossing option among survey participants. When the numbers of votes for the first and second preferences are combined, the Dumbarton Avenue Bridge (Option B) received 116 more votes than the Middlefield Junction Bridge (Option C), indicating that more participants prefer the Dumbarton Avenue Bridge (Option B). Respondents prefer a bridge over a tunnel, as most respondents chose the Dumbarton Avenue Tunnel (Option A) as their third choice. The majority of respondents preferred a railroad crossing over no crossing, with 127 respondents ranking “do not build a rail crossing” as their last choice.

How frequently community members will use the preferred crossing option: Seventy-eight percent (78%) of survey respondents would use the crossing frequently, with 59% of respondents indicated that they would use it multiple times a week and 19% would use it once a week. Sixteen percent (16%) of respondents would use the railroad crossing a few times a year, and only 5% would not use the crossing. Among frequent travelers, the Dumbarton Avenue Bridge (Option B) and the Middlefield Junction Bridge (Option C) were ranked closely as the first preference for the railroad crossing. When the numbers of votes for the first and second preferences are combined, the Dumbarton Avenue Bridge (Option B) received 95 more votes than the Middlefield Junction Bridge (Option C), indicating that more participants prefer the Dumbarton Avenue Bridge (Option B). Respondents who are frequent travelers, similar to all travelers, prefer a bridge over a tunnel as most respondents chose the Dumbarton Avenue Tunnel (Option A) as their third choice.

Mode of choice to travel to preferred crossing option: The majority of respondents would use an active mode of transportation to access the railroad crossing – 80% reported that they would walk or use a mobility device, 24% would bike, and 18% of respondents would take transit to access the crossing.

Bicycle and pedestrian improvements preferences: Sidewalk and crosswalk lighting, high-visibility crosswalks, and accessible (ADA) curb ramps were the top three infrastructure improvements survey respondents would like to see incorporated on neighborhood streets.

Other Additional Amenities and Features: Participants expressed that safety, maintenance, accessibility, and public spaces and art are their top priorities for the railroad crossing.

How Consistent are Railroad Crossing Option Designs with Each Goal

Participants were asked whether the design of each railroad crossing option would achieve the following goals:

- Conveniently connects me to my destination
- Would be safe and comfortable to use as a pedestrian, wheelchair user, or cyclist
- Fits in well with the surrounding community
- Making it easier to walk or bike outweighs on-street parking and changes in traffic flow
- Provides opportunity for nice public space

While more survey respondents agreed than disagreed with these statements for all three options, they most consistently agreed that the Dumbarton Avenue Bridge (Option B) achieves these goals with 310 to

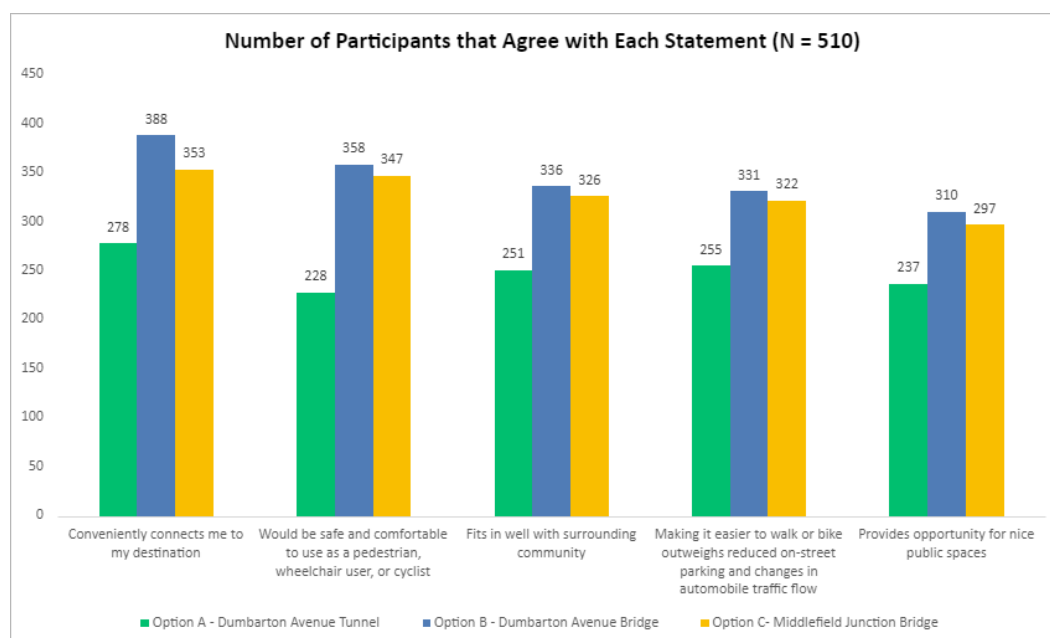


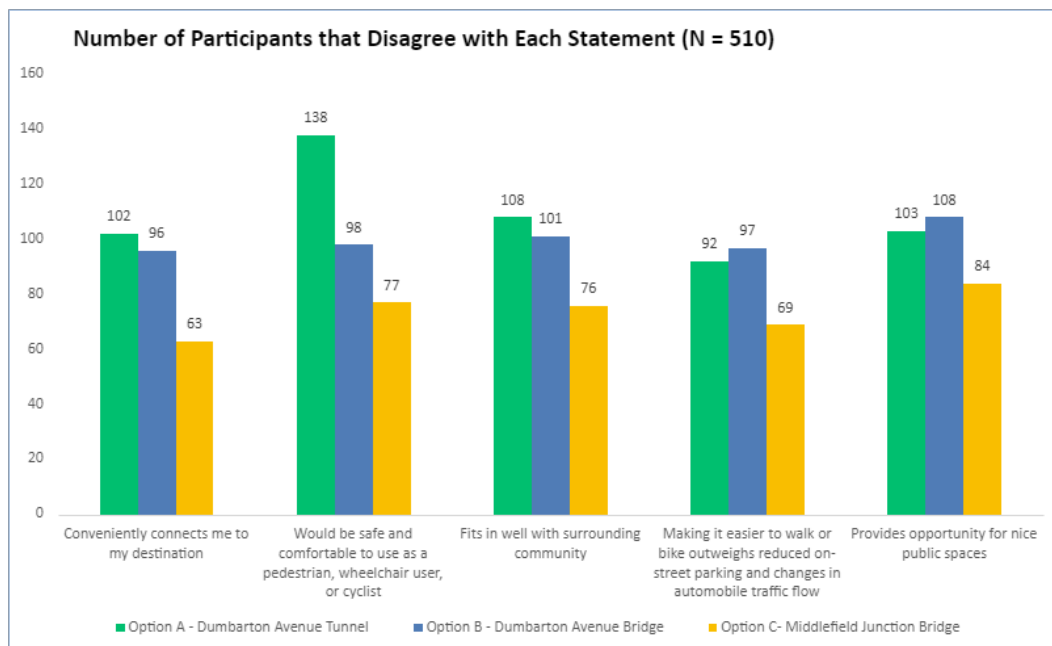
388 respondents that agreed. This option especially stands out for conveniently connecting destinations. Responses for the Middlefield Junction Bridge (Option C) were similar and ranged from 297 to 353 respondents agreeing. While the Middlefield Junction Bridge (Option C) had the least number of respondents that disagree with each of the statements, the difference between this option and the Dumbarton Avenue Bridge (Option B) is small and ranges from 21 to 33.

In contrast, there is less agreement that the Dumbarton Avenue Tunnel (Option A) achieves these goals. Only 228 to 278 respondents agree, receiving 76 to 110 fewer votes compared to the Dumbarton Avenue Bridge (Option B) and 60 to 119 fewer votes compared to the Middlefield Junction Bridge (Option C).

Error! Not a valid bookmark self-reference. and Figure 8 show the number of participants that agree and disagree with each goal for all three railroad crossings.

Figure 7: Number of Participants that Agree with Each Statement



**Figure 8: Number of Participants that Disagree with Each Statement**

Preferred Railroad Crossing

Participants were asked to rank the three railroad crossings and the option to not build a rail crossing in order of preference, from 1 (most favorite) to 4 (least favorite). The Dumbarton Avenue Bridge (Option B) and the Middlefield Junction Bridge (Option C) were the top two preferred railroad crossings (Figure 9). While the Dumbarton Avenue Bridge (Option B) and the Middlefield Junction Bridge (Option C) were ranked closely for the first preference, the Dumbarton Avenue Bridge (Option B) is the most preferred option.

When combining the numbers for the first and second preferences, the Dumbarton Avenue Bridge (Option B) received 116 more votes compared to the Middlefield Junction Bridge (Option C), 213 more votes than the Dumbarton Avenue Tunnel (Option A), and 402 more votes than the “do not build a rail crossing” option (Figure 10). The Dumbarton Avenue Tunnel (Option A) received the most votes as the third preference with 138 respondents among the four options, indicating that respondents prefer a bridge over a tunnel as the preferred crossing option.

Respondents would prefer having a railroad crossing built rather than not have one at all, with most respondents (127) indicating “do not build a rail crossing” as their last choice.



Figure 9: Respondent Ranking of Railroad Crossing Options

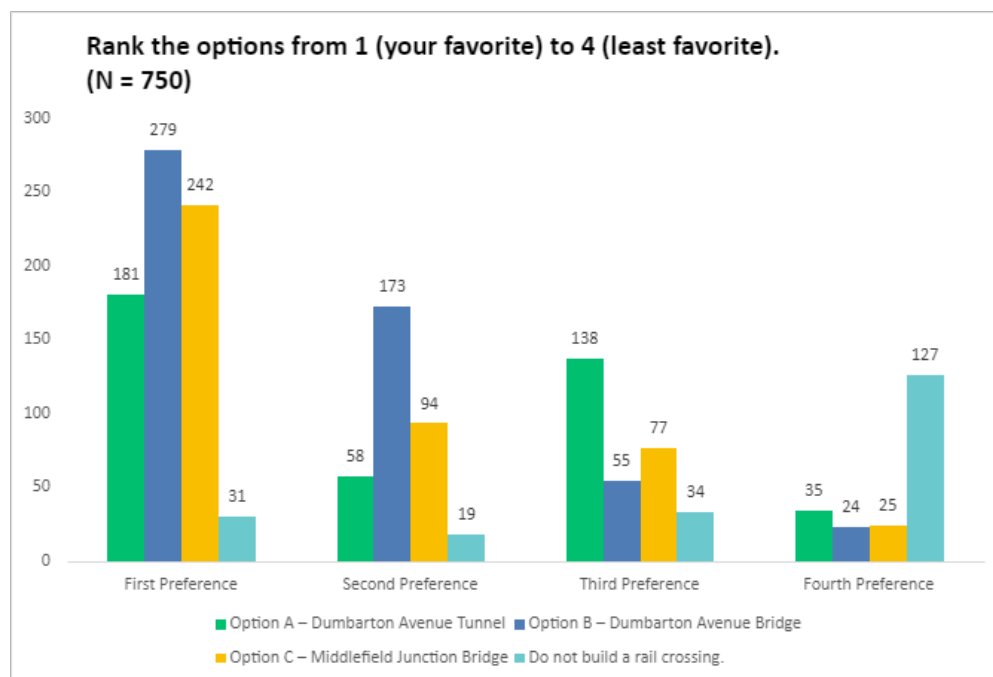
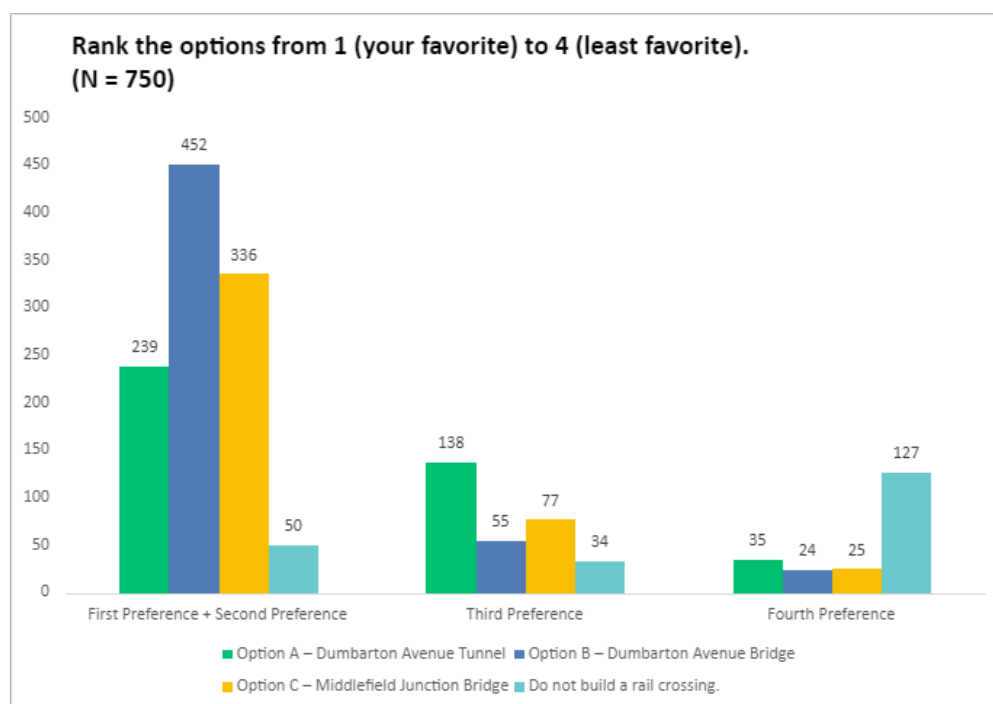


Figure 10: Respondent Ranking (First and Second Preferences Combined) of Railroad Crossing Options





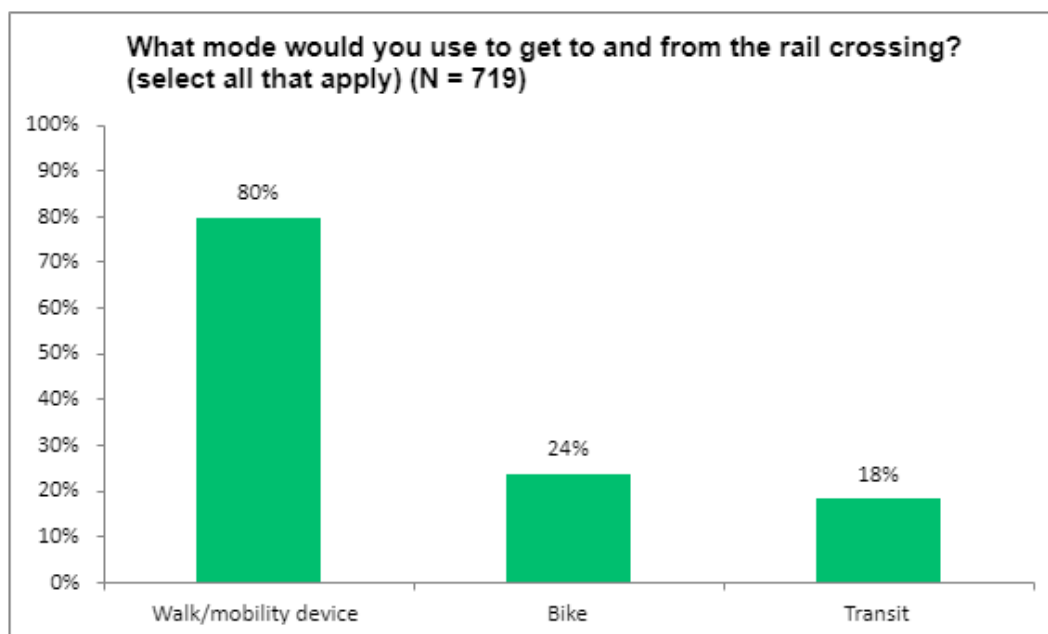
How Community Members would use the Railroad Crossing

To better understand how community members would use the railroad crossing, the Study team asked what mode of travel they would use to access the crossing and how often they would use it.

Mode of choice to travel to preferred crossing option

Most respondents would use an active mode of travel to access the railroad crossing, with 80% indicating that they would walk and/or use a mobility device and 24% would bike. Approximately 18% of respondents said they would take transit to access the crossing (Figure 11). Respondents were invited to select all modes that may be used, so totals add up to more than 100%, reflecting that some would use more than one mode on occasion.

Figure 11: Respondent Choice of Travel on the Potential Railroad Crossing

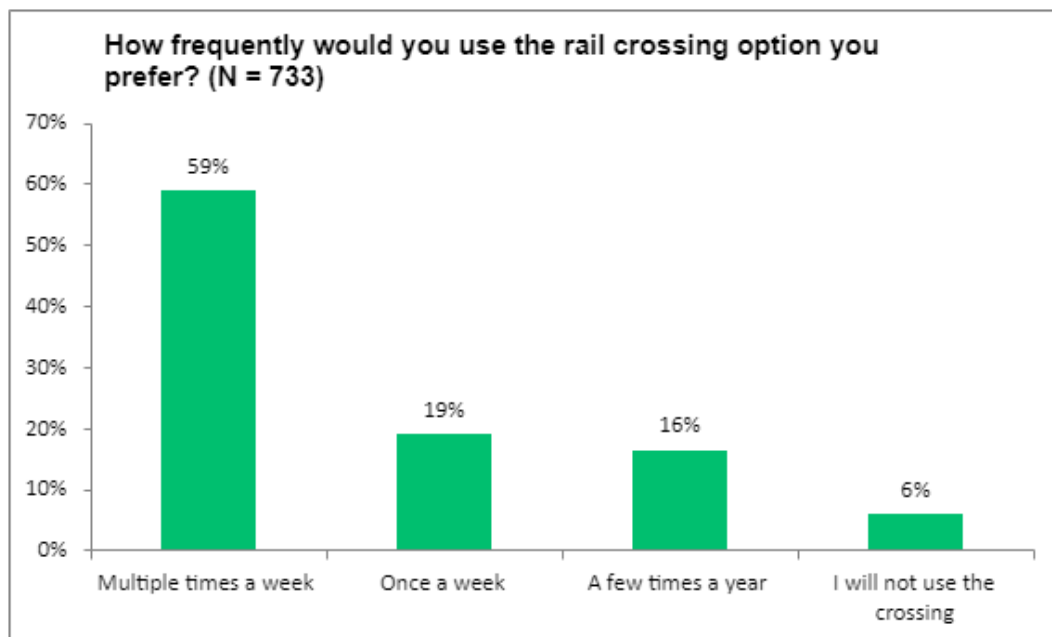


How Frequent Community Members will use the Railroad Crossing

Most survey respondents would use the crossing frequently (78%), with 59% indicating that they would use it multiple times a week and 19% would use it once a week. Only 16% of respondents would use the railroad crossing a few times a year, and 5% would not use the crossing (Figure 12).



Figure 12: Respondent Typical Frequency on the Potential Railroad Crossing



Preferred Choices Among Frequent Users

To identify preferences among those who are most likely to use the crossing, we isolated responses from frequent travelers, those who indicated they would use the crossing once or multiple times a week.

The Dumbarton Avenue Bridge (Option B) and the Middlefield Junction Bridge (Option C) were the top two preferred railroad crossings among frequent users. The preferences among frequent users are aligned closely with all travelers. While the Dumbarton Avenue Bridge (Option B) and the Middlefield Junction Bridge (Option C) were ranked closely, the Dumbarton Avenue Bridge (Option B) is the most preferred option among frequent users.

When the first and second preferences are combined to represent the number of respondents who selected each option as either a first or second preference, the Dumbarton Avenue Bridge (Option B) is the most preferred railroad crossing option among frequent users (331), with 95 more votes than the Middlefield Junction Bridge (Option C) and 149 more votes than the Dumbarton Avenue Tunnel (Option A). The Dumbarton Avenue Tunnel (Option A) was most consistently ranked as the third preference with 95 respondents among the four options, indicating that respondents who would use the railroad crossing consistently prefer a bridge over a tunnel.



Figure 13: Frequent Travelers Preferred Railroad Crossing Option

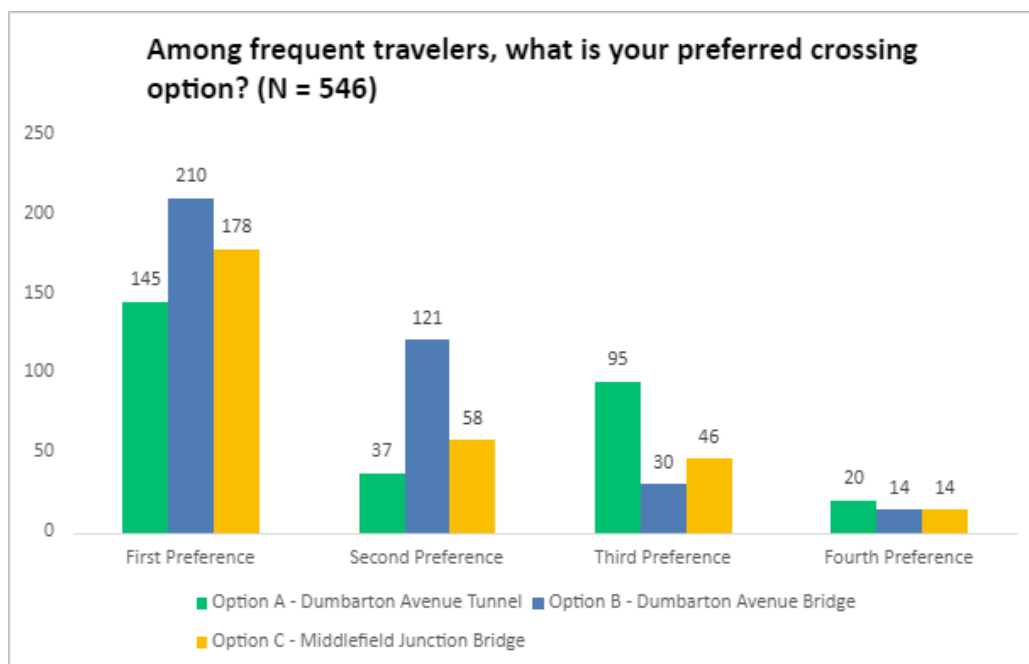
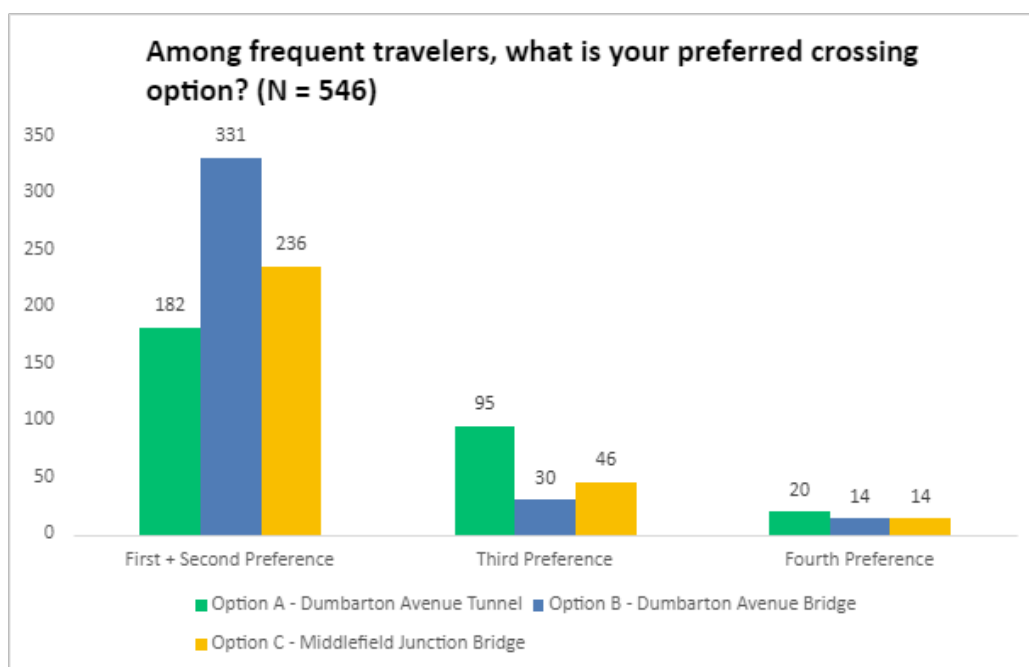


Figure 14: Frequent Travelers Preferred Railroad Crossing Option (First and Second Preferences Combined)



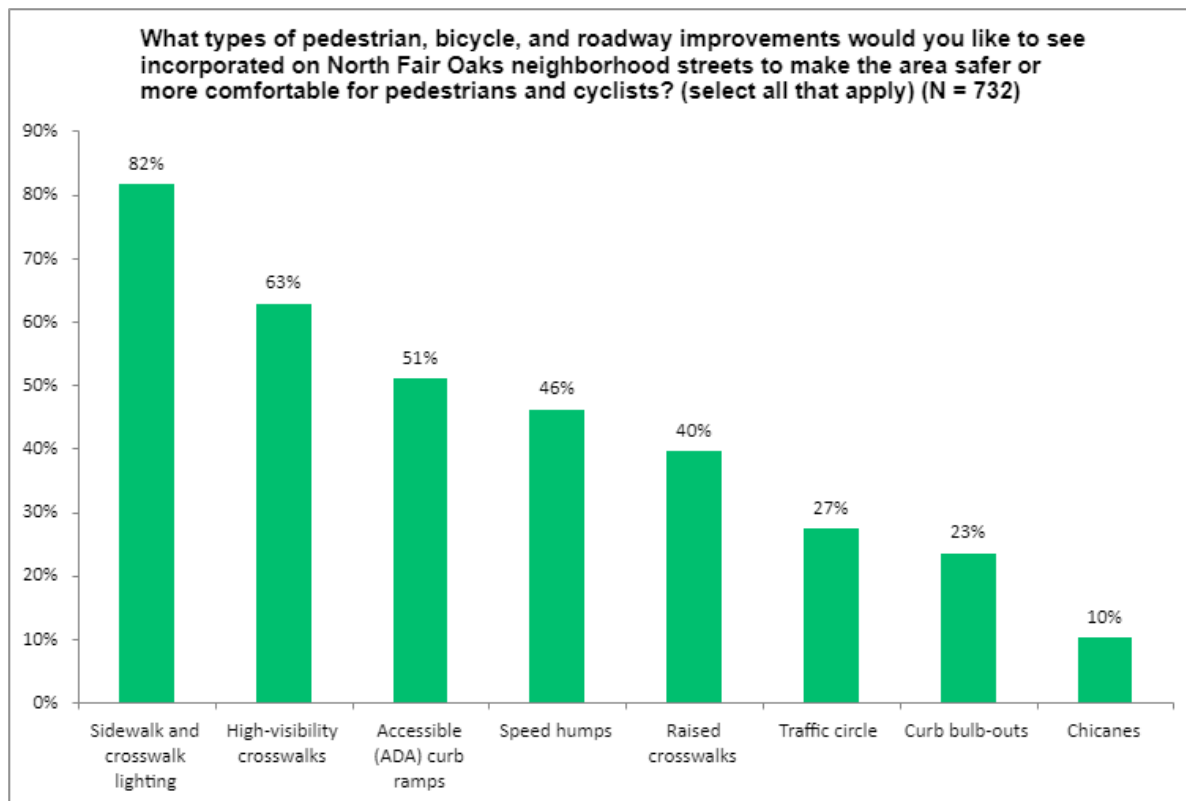


Favorite pedestrian, bicycle, and roadway improvements

Participants were asked to choose the types of pedestrian, bicycle, and roadway improvements they would like to incorporate on local streets to make the area safer or more comfortable. Participants were able to choose multiple options. The top three improvements were sidewalk and crosswalk lighting (82%), high-visibility crosswalks (63%), and accessible (ADA) curb ramps (51%) (Figure 15). Other improvement options included curb bulb-outs, raised crosswalks, traffic circles, speed humps, and chicanes.

Participants also voted for improvements by placing dot stickers on the interactive poster boards, and sidewalk and crossing lighting and speed humps were the most popular with 23 and 13 dots, respectively. Fewer participants voted for curb ramps, curb bulb-outs, high-visibility crosswalks, raised crosswalks, and traffic circles.

Figure 15: Respondent Choices for Types of Pedestrian, Bicycle, and Roadway Improvements



Additional Amenities or Features

Survey participants shared other amenities or features they would like to see incorporated in a railroad crossing through an open-ended response question. Common themes included:

- Increasing safety through lighting and security cameras
- Maintaining a clean railroad crossing free of trash and vandalism



- Ensuring all groups of people can cross (people with disabilities, older adults)
- Providing bike channels so cyclists do not have to carry bikes on stairs
- Incorporating public spaces and art for community members to gather and enjoy

Conversations with Community Members

Many conversations between the Study team and community members occurred during the pop-up events, open house, and canvassing. Community members provided input on topics listed and not listed on the survey and asked additional questions. Summaries of conversations by topic are below.

Safety

- Community members raised concerns related to personal security as some have been in unsafe situations around the Study area, such as being robbed or harassed.
- Many participants raised personal security concerns about not being visible should they be in the Dumbarton Avenue Tunnel (Option A). Additionally, participants liked that the two bridges were more visible than the tunnel.
- One community member mentioned that handrails need to be installed for the Dumbarton Avenue Tunnel (Option A).
- Community members noted that elevation change from the bridges may be difficult for older adults.
- A few community members mentioned that the bridges need to have mechanisms (e.g. higher fences) to prevent people from jumping off or pushing others off the bridge or ramps.
- Some participants liked that the Middlefield Junction Bridge (Option C) had fewer switchback ramps.

Access to Destinations

- Some participants liked the Middlefield Junction Bridge (Option C) the most because it connected to more large shopping destinations such as Target and Costco, community facilities like the Fair Oaks Community Center and Library, and surrounding residential areas on north and south sides of the railroad tracks. However, other participants liked the ability to more directly connect to the smaller local shops on Middlefield via the Dumbarton Avenue Bridge (Option B).

Community Design

- Community members noted that the railroad crossing must be well maintained, free of trash and vandalism.
- Some expressed concern that the new crossing and accompanying plazas would attract the unhoused.
- A community member suggested that the Dumbarton Avenue Tunnel (Option A) be designed like the Belmont Caltrain Station because it is in the open thus increasing safety.

Equity

- Community members said that the new crossing will benefit many, especially the youth, older adults, pedestrians, and cyclists.

Issues with Existing Infrastructure

- Cars block ADA ramps and driveways and park on sidewalks or double park.



Impacts to Parking

- Community members asked how the construction of the crossing would affect parking since both the southern and northern areas of the crossing have limited access to available on-street parking.
- A community member asked if the parking lot on the side of Marshall's from the Middlefield Junction Bridge (Option C) can be used for residential parking since street parking will be lost to construct this option.

Implementation Constructability

- Related to carrying out the construction, a community member asked what the purpose is of building the project and how the project is funded.

Other

During Engagement #2, the Study team heard feedback from the community that did not fall within the scope of the Study. Comments that were shared outside the Study scope included:

- Homeowners asked if the cost of housing (e.g. rent, taxes) would increase if the new railroad crossing was built.
- Existing infrastructure is inadequate around Hoover School.
- Some community members shared that the County has not been responsive to their concerns for other projects.

Next Steps

The feedback collected during Engagement #2 will be used to inform the development draft study including the identified preferred alternative. In late 2023, the Study team will distribute and collect feedback on the draft study for Engagement #3.



Appendix A: Engagement Materials Notifications

Social Media Notifications

NORTH FAIR OAKS | BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY

WE WANT TO HEAR FROM YOU!

San Mateo County is studying how to make walking and bicycling easier in North Fair Oaks, including the opportunity for a new pedestrian and bicycle crossing over or under the Caltrain railroad tracks.

Share your thoughts on three potential railroad crossing designs and other neighborhood bicycle and pedestrian improvements:

- Take a short survey**
- Attend a pop-up event**
- Share a comment on the County's website**

Project Study Area

LEGEND

- Study Area
- Rail Corridor
- Railroad Crossing

OPTION A: DUMBARTON AVENUE TUNNEL
OPTION B: DUMBARTON AVENUE BRIDGE
OPTION C: MIDDLEFIELD JUNCTION BRIDGE

NORTH FAIR OAKS | PROYECTO DE CONEXIONES COMUNITARIAS Y CRUCES FERROCARRILES PARA PEATONES Y BICICLETAS

¡NOSOTROS QUEREMOS ESCUCHAR DE USTED!

El condado de San Mateo está estudiando cómo hacer caminar y andar en bicicleta más fácil en North Fair Oaks, incluyendo la oportunidad de un nuevo cruce para peatones y bicicletas sobre o debajo de las vías del tren Caltrain.

Comparta sus pensamientos, sobre tres posibles diseños de cruces ferroviario y otras mejoras, para bicicletas y peatones en el vecindario:

- Toma una breve encuesta**
- Asista a un evento**
- Comparta un comentario en el sitio web del condado**

Área de estudio del proyecto

LEYENDA

- Área de estudio
- Corredor ferroviario
- Cruce ferroviario

OPCIÓN A: TÚNEL DE LA AVENIDA DUMBARTON
OPCIÓN B: PUENTE DE LA AVENIDA DUMBARTON
OPCIÓN C: MIDDLEFIELD PUENTE DE CRUCE






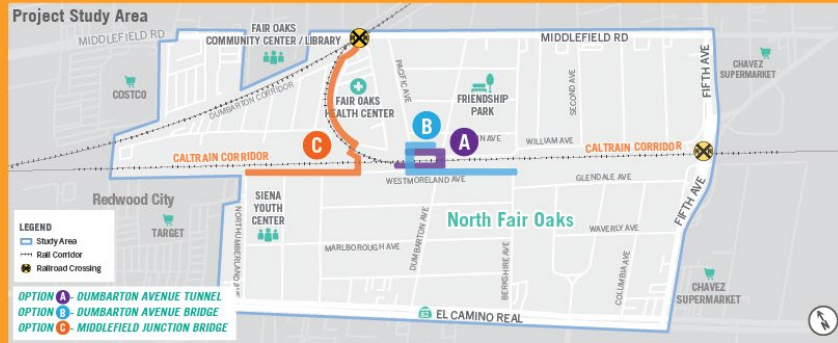
WE WANT TO HEAR FROM YOU!

NORTH FAIR OAKS BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY

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Share your thoughts on three potential railroad crossing designs and other neighborhood bicycle and pedestrian improvements:

-  Take a short survey
-  Attend a pop-up event
-  Share a comment on the website






¡NOSOTROS QUEREMOS ESCUCHAR DE USTED!

NORTH FAIR OAKS PROYECTO DE CONEXIONES COMUNITARIAS Y CRUCES FERROCARRILES PARA PEATONES Y BICICLETAS

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-  Toma una breve encuesta
-  Asista a un evento
-  Comparta un comentario en el sitio web del condado





Mailer

¡NECESITAMOS TU COMENTARIO!

WE NEED YOUR INPUT!

OPTION A

DUMBARTON AVENUE TUNNEL



OPTION B

DUMBARTON AVENUE BRIDGE



OPTION C

MIDDLEFIELD JUNCTION BRIDGE



OFFICE OF
SUSTAINABILITY
COUNTY OF SAN MATEO

www.NFOWalkBike.org

— NORTH FAIR OAKS | BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY —

Comparta sus pensamientos sobre un nuevo cruce potencial de las vías de Caltrain para facilitar caminar y andar en bicicleta en North Fair Oaks

Share your thoughts on a potential new crossing of the Caltrain tracks to make walking and biking easier in North Fair Oaks

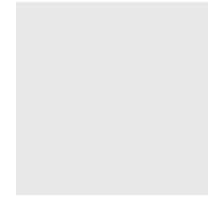
Visite nuestro sitio web en www.NFOwalkbike.org para averiguar cuándo estaremos en un evento cerca de usted, obtenga más información sobre nuestro estudio y comparta comentarios.

Go to our website at www.NFOwalkbike.org to find out when we'll be at an event near you, learn more about our study, and share comments!



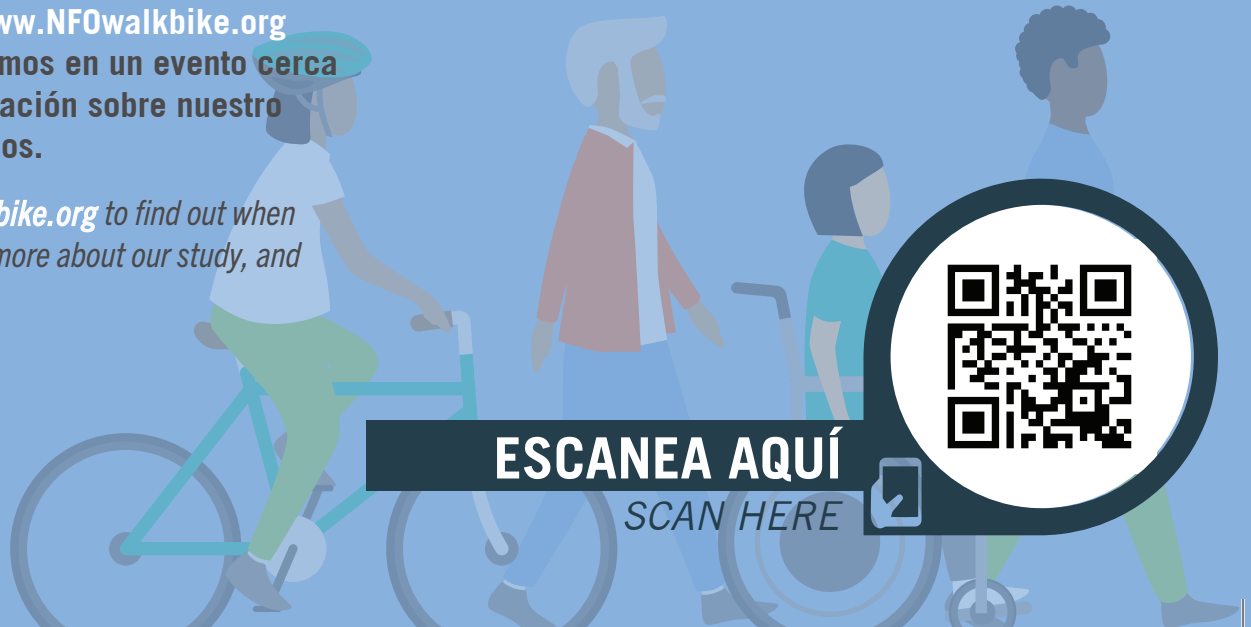
OFFICE OF
SUSTAINABILITY
COUNTY OF SAN MATEO

County of San Mateo Office of Sustainability
455 County Center, 4th Floor
Redwood City, CA 94063



ESCANEA AQUÍ

SCAN HERE





Flyers

¿Qué es el proyecto y por qué es necesario?

Las vías del tren de Caltrain separan a los residentes de los destinos locales que incluyen, entre otros, instalaciones y servicios comunitarios, escuelas, tiendas y servicio de autobús local. Para mejorar la seguridad, la conectividad y el acceso en la comunidad de North Fair Oaks, el condado de San Mateo está evaluando oportunidades para:



Un nuevo cruce para peatones y bicicletas en las vías del tren de Caltrain (túnel o puente) para apoyar mejor las conexiones para caminar y andar en bicicleta



Mejoramientos para ciclistas y peatones en las calles locales que brindan conexiones con el nuevo cruce ferrocarril y destinos locales en ambos lados de las vías en su comunidad.

¿Cuáles son los objetivos del proyecto?

El objetivo del Estudio es crear opciones, para un nuevo cruce peatonal y en bicicleta, que brinde los siguientes beneficios a la comunidad:



Acceso

Mejor acceso para las personas que caminan, circulan y transitan en bicicleta, a través del corredor ferroviario y los vecindarios cercanos.



Seguridad

Espacios públicos más seguros y bien iluminados, que sean cómodos y agradables, para personas de todas las edades y capacidades.



Equidad

Mejoras para las personas que viajan sin automóvil, que reflejen las prioridades de la comunidad, que logren objetivos de sostenibilidad, locales y regionales, sin desplazamiento de viviendas.



Diseño Comunitario

Sentido de comunidad, a través de atractivos espacios públicos, arte público y estructurado.

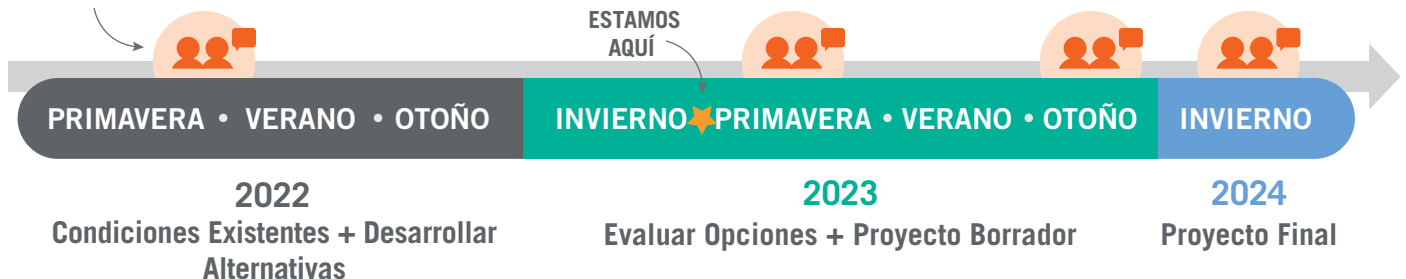


Constructibilidad

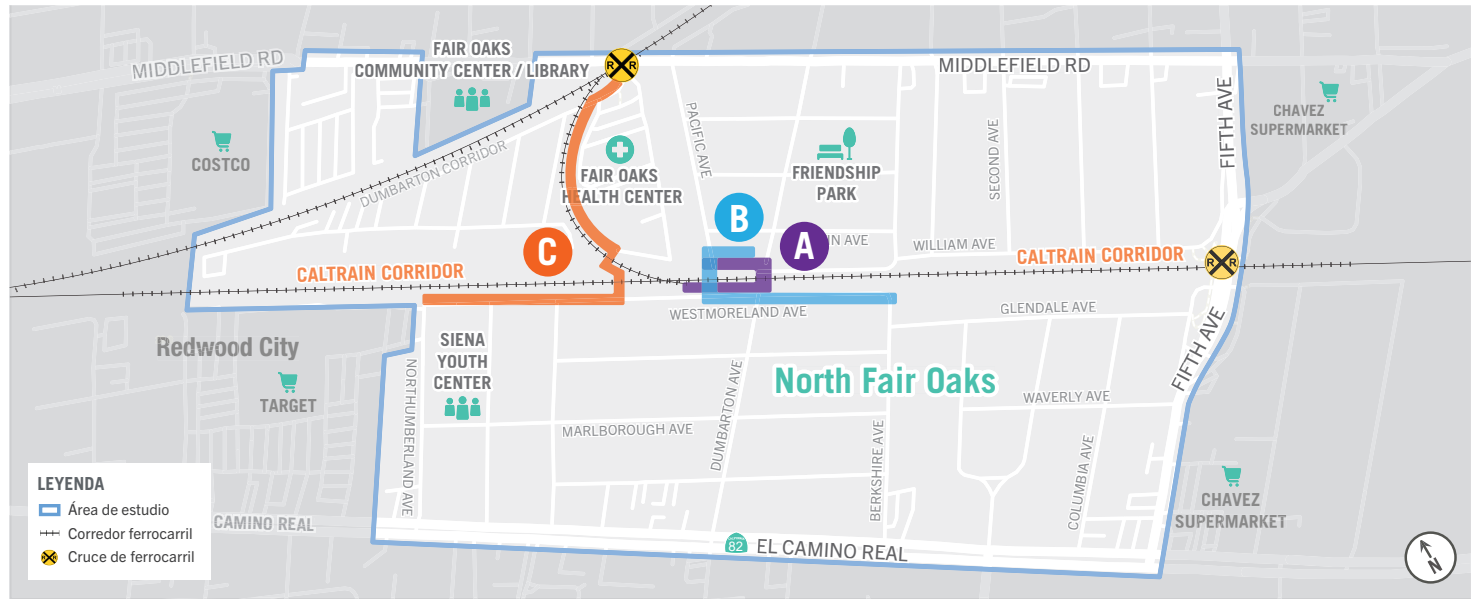
Impactos mínimos de construcción, en la comunidad y un presupuesto de proyecto factible.

¿Cuál es la cronología para este proyecto?

EVENTOS DE ALCANCE COMUNITARIO



Las tres opciones de cruce:



OPCIÓN A TÚNEL DE LA AVENIDA DUMBARTON



OPCIÓN B PUENTE DE LA AVENIDA DUMBARTON



OPCIÓN C MIDDLEFIELD PUENTE DE CRUCE



¡NECESITAMOS SU OPINIÓN!

Se quiere que este estudio refleje, las prioridades de los vecindarios adyacentes a las vías del ferrocarril Caltrain y definir juntos, un camino colaborativo.



Comparta con nosotros sus pensamientos, sobre los diseños de cada opción del cruce del ferrocarril.



Díganos qué opción de cruce del ferrocarril, funciona mejor para la comunidad.



Seleccione qué mejoras en la calle, funcionarían mejor para el cruce del ferrocarril.

ESCANEA AQUÍ
PARA TOMAR UNA
ENCUESTA



¿Quiere aprender más? Visite el sitio web del Proyecto de Conexiones Comunitarias y Cruces Ferrocarriles para Peatones y Bicicletas en North Fair Oaks: www.NFOwalkbike.org o contáctenos mandándonos un correo electrónico a: NFOwalkbikesmc@smcgov.org

What is the Study and why is it needed?

The Caltrain railroad tracks in North Fair Oaks separate residents from local destinations that include, but aren't limited to, community facilities and services, schools, shopping, and local bus service. To improve safety, connectivity, and access in the North Fair Oaks community, the County of San Mateo is evaluating opportunities for:



A new pedestrian and bicycle crossing of the Caltrain railroad tracks (tunnel or bridge) to better support walking and biking connections



Bicycle and pedestrian improvements on local streets that provide connections to the new rail crossing and local destinations on both sides of the tracks in your community

What are the goals of the Study?

The Study aims to create options for a new pedestrian and bicycle crossing that brings the following benefits to the community:



Access

Improved access for people walking, rolling, and biking across the rail corridor and nearby neighborhoods.



Safety

Safer and well-lit public spaces that are comfortable and inviting for people of all ages and abilities.



Equity

Improvements for people traveling without a car that reflect community priorities and achieve local and regional sustainability goals with no housing displacement.



Community Design

Sense of community through attractive public spaces, public art, and structures.



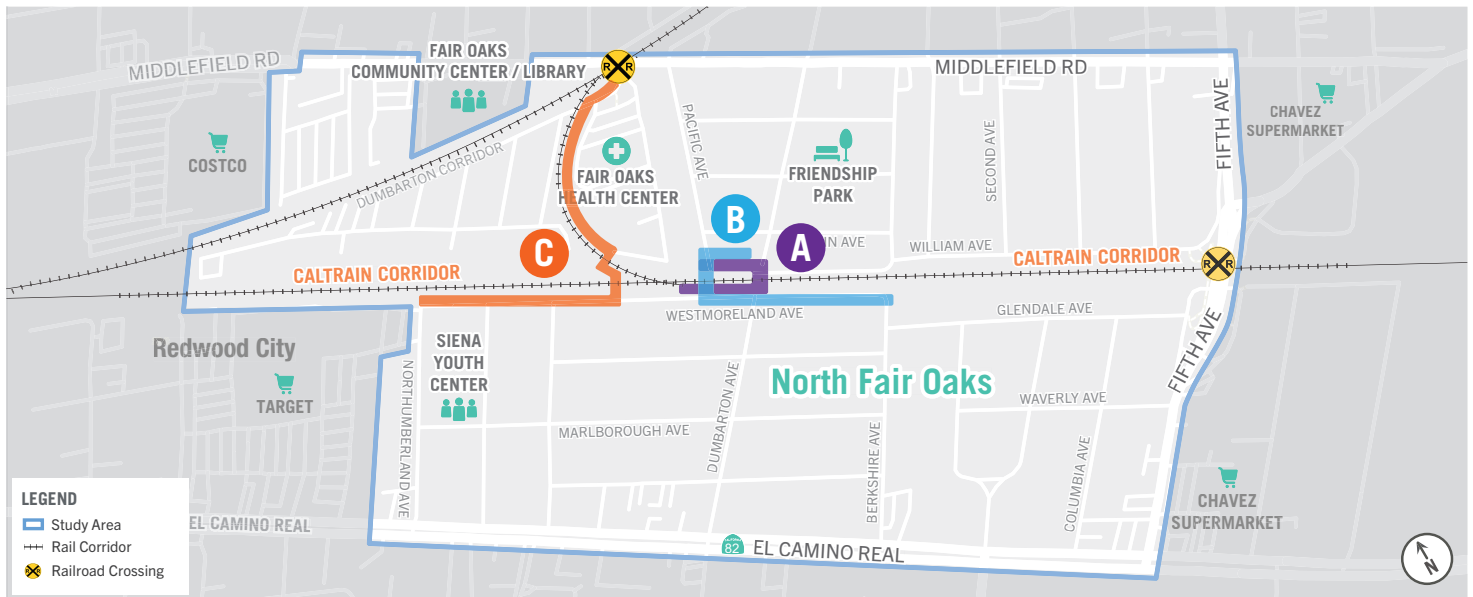
Constructability

Minimal construction impacts on the community and feasible project budget.

What is the Study timeline?



The three crossing options:



OPTION A

DUMBARTON AVENUE TUNNEL



OPTION B

DUMBARTON AVENUE BRIDGE



OPTION C

MIDDLEFIELD JUNCTION BRIDGE



WE NEED YOUR INPUT!

We want this Study to reflect the priorities of neighborhoods adjacent to the Caltrain railroad tracks and define a collaborative path forward together.



Share with us your thoughts on the designs of each rail crossing options.



Tell us which rail crossing option works best for the community.



Select which street improvements would be best to improve safety for walking and biking.

SCAN HERE TO TAKE A SURVEY



Want to learn more? Visit the North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study website: www.NFOwalkbike.org or reach out to us via e-mail at: NFOwalkbikesmc@smcgov.org

WE NEED YOUR INPUT!

OPTION A

DUMBARTON AVENUE TUNNEL



OPTION B

DUMBARTON AVENUE BRIDGE

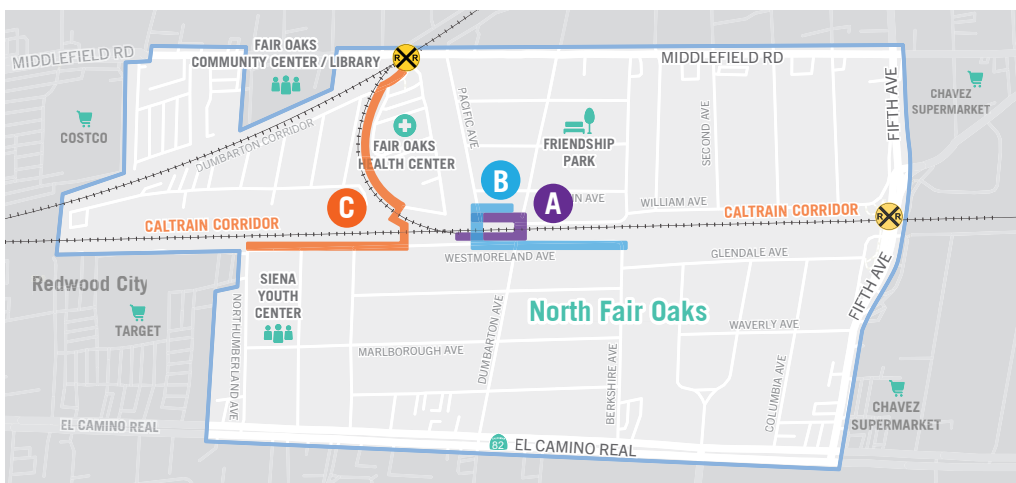


OPTION C

MIDDLEFIELD JUNCTION BRIDGE



COME JOIN US AT OUR OPEN HOUSE!



DATE: Wednesday, April 12

TIME: 6:00-8:00 PM

LOCATION: Casa Circulo Cultural
3090 Middlefield Rd.
North Fair Oaks

Food and childcare provided.

Every attendee has a chance to
win one of two \$50 gift cards!



OFFICE OF
SUSTAINABILITY
COUNTY OF SAN MATEO



Find out more at
NFOWalkBike.org

NORTH
FAIR OAKS

CRUCE DE BICICLETAS Y PEATONES
Y ESTUDIO DE CONEXIONES COMUNITARIAS

¡NECESITAMOS TU APOORTE!

OPCIÓN A

TUNEL AVE. DUMBARTON



OPCIÓN B

PUENTE AVE. DUMBARTON

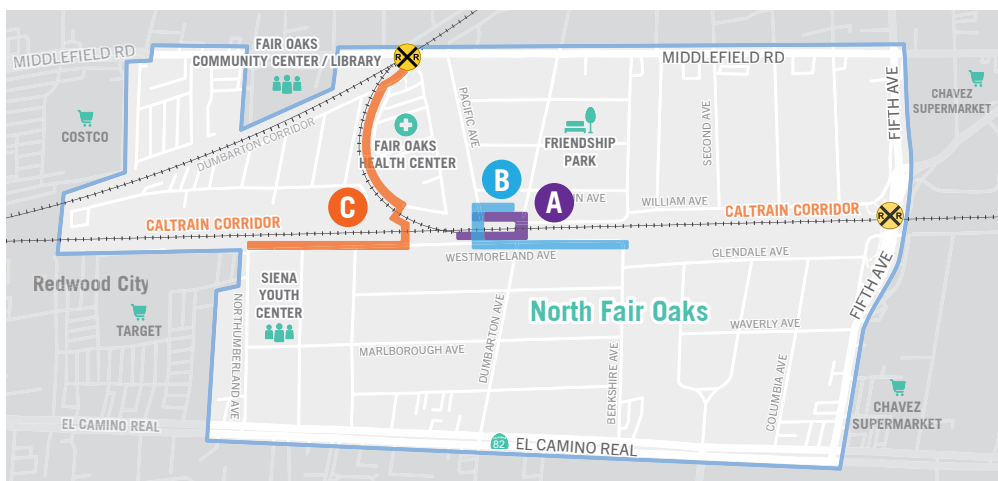


OPCIÓN C

PUENTE MIDDLEFIELD CRUCE



¡VEN Y ÚNETE A NOSOTROS EN NUESTRA CASA ABIERTA!



FECHA: Miércoles, 12 de Abril

TIEMPO: 6:00-8:00 PM

LOCACION: Casa Circulo Cultural
3090 Middlefield Rd.
North Fair Oaks

Alimentos y cuidado de niños
estarán disponibles.

¡Cada asistente tiene la oportunidad
de ganar una de las dos tarjetas de
regalo de \$50!



OFFICE OF
SUSTAINABILITY
COUNTY OF SAN MATEO



Obtenga más información en
NFOWalkBike.org



Email Notification

English Version

Dear North Fair Oaks/adjacent Redwood City community member,

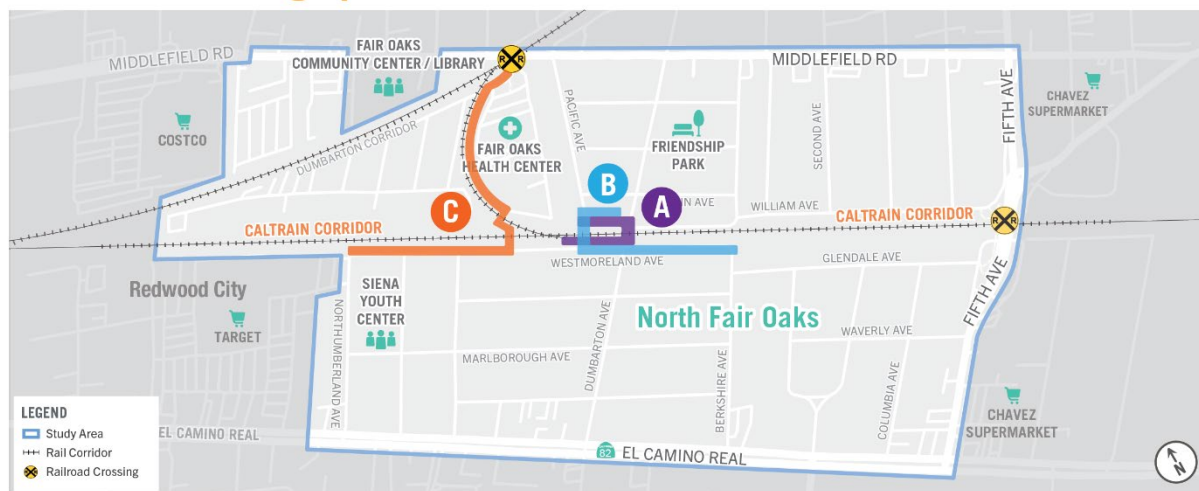
San Mateo County is continuing to study how to build new comfortable and convenient connections for people walking, rolling, and biking across the Caltrain rail corridor to local destinations and on neighborhood streets. The project team wants to hear from the community about three potential railroad crossing designs by [taking our survey](#) or attending a pop up event. You can find out more about this study and how to participate below and on the [project website](#).

The project team has been working to develop a community-informed Study that reflects the priorities of the community. During the first phase of engagement in summer 2022 we introduced the project to the North Fair Oaks/adjacent Redwood City community and gathered input about specific barriers to walking and bicycling in the project study area (shown below), key destinations in need of connection, and opportunities to improve safety and enhance access. The engagement summary from the first phase is available on the [project website](#).

Input from the first engagement phase was used to develop three potential railroad crossing designs (shown in purple, blue and orange) and bicycle and pedestrian improvements. More details will be shared at community events and online.

Input from the first engagement phase was used to develop three potential railroad crossing designs (shown in purple, blue and orange) and bicycle and pedestrian improvements. More details will be shared at community events and online.

The three crossing options:



OPTION A
DUMBARTON AVENUE TUNNEL

OPTION B
DUMBARTON AVENUE BRIDGE

OPTION C
MIDDLEFIELD JUNCTION BRIDGE

We want to ensure this Study reflects the priorities of the neighborhoods adjacent to the Caltrain railroad tracks and defines a collaborative path forward together.

Now through Sunday April 16, you can provide feedback in three ways:

- Take a short survey: <https://www.surveymonkey.com/r/VPDDBTBTP>
- Attend one of our engagement activities in March or April 2023:



Date	Time	Location
Friday, March 24th	9am - 1pm	North Fair Oaks Library and Fair Oaks Community Center, 2600 Middlefield Road
Monday, March 27th	8:30am - 12pm	Chavez Market and Jornaleros Laborers, 3282 Middlefield Road
Monday, March 27th	10am -12:30pm	Samaritan House Free Clinic, 114 5 th Avenue
Thursday, March 30th	3 - 6pm	Willow Market and Carniceria, 37 Willow Street
Sunday, April 2nd	10:30am - 1:30pm	Verbo Church, 2789 Bay Road
Wednesday, April 5th	5 - 8pm	Casa Circulo Cultural, 3090 Middlefield Road
Thursday, April 6th	4 - 6pm	Siena Youth Center, 2625 Marlborough Avenue
Monday, April 10th	7:30 – 10am	Jornaleros Laborers/Chavez Market, 46 5th Avenue
Monday, April 10th	10:30am – 1:30pm	Mi Tienda Market, 812 5th Avenue
Friday, April 14th	5 – 7:30pm	Verbo Food Distribution and Sport Activities, 2789 Bay Road

**Other events will be announced soon, and dates/locations may change due to weather.

Share a comment on the Study website: www.NFOwalkbike.org

Promote and share the Study video and promote the survey on social media too!

- Instagram link to survey post:
- Twitter link to survey post:
- Facebook link to survey post:
- YouTube link to survey post:

The project team appreciates any feedback you can provide, and we look forward to hearing from you!

Spanish Version

Estimado miembro de la comunidad de North Fair Oaks/adyacente a Redwood City,

El Condado de San Mateo continúa estudiando, cómo construir nuevas conexiones cómodas y convenientes para las personas que caminan, transitan y viajan en bicicleta, a través del corredor ferroviario de Caltrain, hacia los destinos locales y las calles de los vecindarios. El equipo del proyecto quiere escuchar de la comunidad, acerca de tres posibles diseños de cruces de ferrocarril, [respondiendo a nuestra encuesta](#) o asistiendo a un evento emergente. Puede obtener más información, sobre este estudio y cómo participar a continuación y en el sitio.

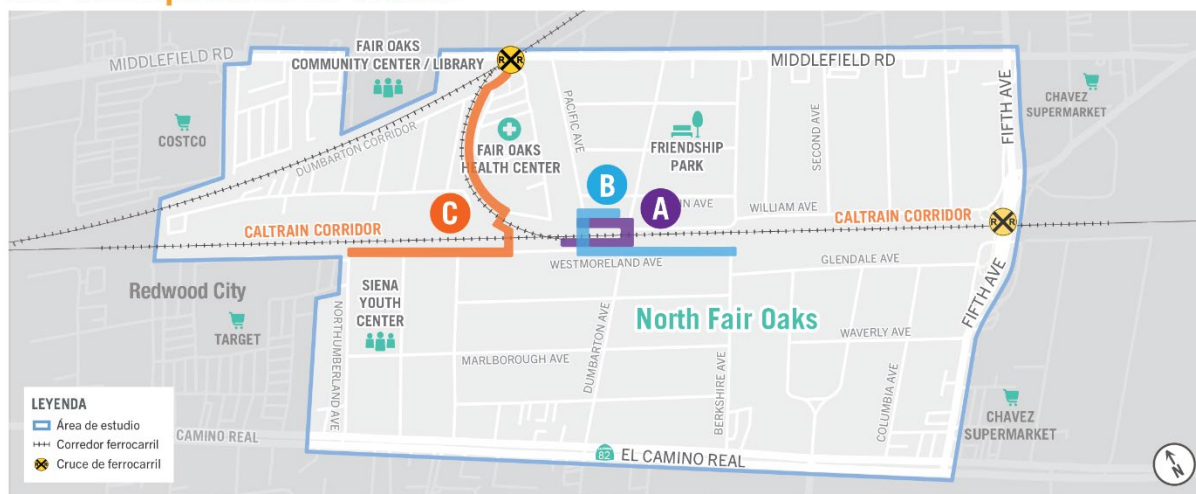
El equipo del proyecto ha estado trabajando, para desarrollar un estudio informado por la comunidad, que refleje las prioridades de la comunidad. Durante la primera fase de compromiso en el verano de 2022, presentamos el proyecto a la comunidad de North Fair Oaks/Redwood City adyacente y reunimos información, sobre las barreras específicas para caminar y andar en bicicleta, en el área de estudio del



proyecto (que se muestra a continuación), destinos clave que necesitan conexión, y oportunidades para mejorar la seguridad y mejorar el acceso. El resumen del compromiso de la primera fase está disponible en [el sitio](#).

Los aportes de la primera fase de compromiso, se utilizaron para desarrollar tres posibles diseños de cruces de ferrocarril (mostrados en morado, azul y naranja) y mejoras para ciclistas y peatones. Se compartirán más detalles en eventos comunitarios y en línea.

Las tres opciones de cruce:



OPCIÓN A TÚNEL DE LA AVENIDA DUMBARTON

OPCIÓN B PUENTE DE LA AVENIDA DUMBARTON

OPCIÓN C MIDDLEFIELD PUENTE DE CRUCE

Queremos asegurarnos de que este Estudio, refleje las prioridades de los vecindarios adyacentes, a las vías del tren de Caltrain y defina un camino de colaboración: hacia adelante juntos.

- Desde ahora hasta el domingo 16 de Abril, usted puede proporcionar comentarios de tres maneras:
- Realice una breve encuesta: <https://www.surveymonkey.com/r/VPDDBTP>
- Asista a una de nuestras actividades de participación en Marzo o Abril de 2023:

Date	Time	Location
Friday, March 24th	9am - 1pm	North Fair Oaks Library and Fair Oaks Community Center, 2600 Middlefield Road
Monday, March 27th	8:30am - 12pm	Chavez Market and Jornaleros Laborers, 3282 Middlefield Road
Monday, March 27th	10am -12:30pm	Samaritan House Free Clinic, 114 5 th Avenue
Thursday, March 30th	3 - 6pm	Willow Market and Carniceria, 37 Willow Street
Sunday, April 2nd	10:30am - 1:30pm	Verbo Church, 2789 Bay Road



Wednesday, April 5th	5 - 8pm	Casa Circulo Cultural, 3090 Middlefield Road
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Monday, April 10th	10:30am – 1:30pm	Mi Tienda Market, 812 5th Avenue
Friday, April 14th	5 – 7:30pm	Verbo Food Distribution and Sport Activities, 2789 Bay Road

**Otros eventos se anunciarán pronto y las fechas/ubicaciones pueden cambiar debido al clima.

- Comparta un comentario en el sitio web del Estudio: www.NFOwalkbike.org

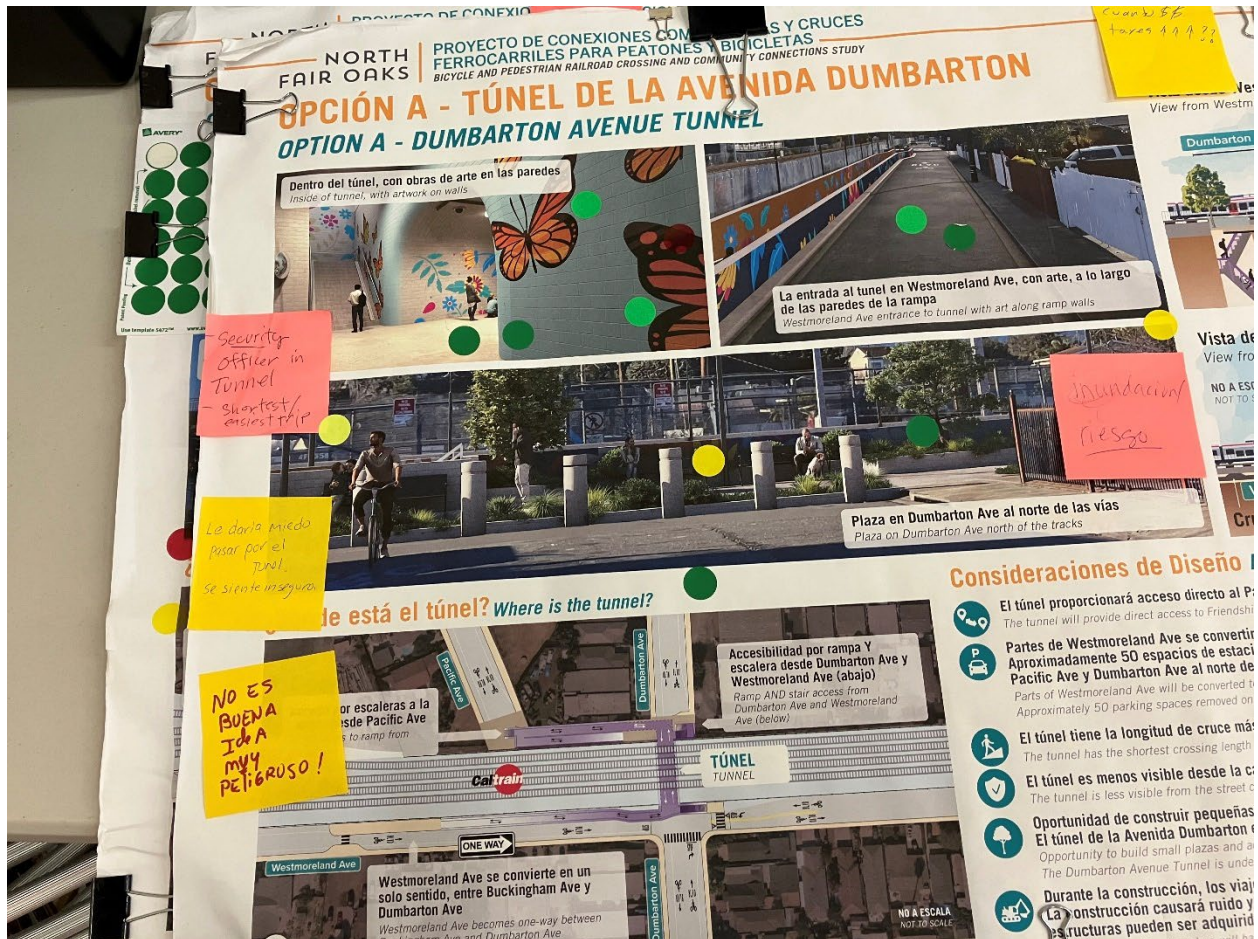
¡Promocione y comparta el video del Estudio y también promueva la encuesta, en las redes sociales!

- Enlace de Instagram a la publicación de la encuesta:
- Enlace de Twitter a la publicación de la encuesta:
- Enlace de Facebook a la publicación de la encuesta:
- Enlace de YouTube a la publicación de la encuesta:

El equipo del proyecto, agradece cualquier comentario que pueda proporcionar, ¡y esperamos saber de usted!



Appendix B: Interactive Posters





CONEXIÓN PARA RAILROAD
RAILROAD
ARIAS Y CRU
BICICLETAS
COMMUNITY CONNECTIONS STUDY

E DUMBARTON AVENUE BRIDGE

Entrada a la rampa en Westmoreland Ave
Entrance to ramp on Westmoreland Ave

Vista desde Westmoreland Ave, mirando hacia el norte
View from Westmoreland Ave looking north

NO A ESCALA
NOT TO SCALE

El puente está a 47 pies sobre el suelo
Bridge is 47' above ground

Cruce Peatonal Elevado
Raised Crosswalk

Vista desde Dumbarton Ave, mirando sur
View from Dumbarton Ave looking south

NO A ESCALA
NOT TO SCALE

Westmoreland Ave Dumbarton Ave Dumbarton Ave Pacific Ave

Consideraciones de Diseño Design Considerations

- El puente ofrece acceso directo al Parque de la Amistad, el Centro Juvenil Siena y el Centro St. Francis
The bridge provides direct access to Friendship Park, Siena Youth Center, and the St. Francis Center
- Partes de Westmoreland se convertirán en una calle de sentido único; Aproximadamente 55 espacios de estacionamiento eliminados, en Westmoreland Ave, y 5 espacios de estacionamiento eliminados, en Pacific y Dumbarton Ave, al norte de las vías.
Parts of Westmoreland will be converted to a one-way street; Approximately 55 parking spaces removed on Westmoreland Ave, and 5 parking spaces removed on Pacific and Dumbarton Ave north of the tracks
- Los puentes requieren distancias de cruce más largas y mayores cambios de elevación, en comparación con la opción de túnel; El puente se conecta directamente con una calle de bicicletas, de dos vías en Berkshire Ave
The bridges require longer crossing distances and bigger elevation changes compared to the tunnel option; Bridge connects directly to short two-way bikeway on Berkshire Ave
- Los viajeros permanecen por encima del suelo, aunque la altura del puente puede dificultar el acceso a los patios de juego.
Travelers remain above ground, although the height of the bridge may make access to playgrounds difficult.

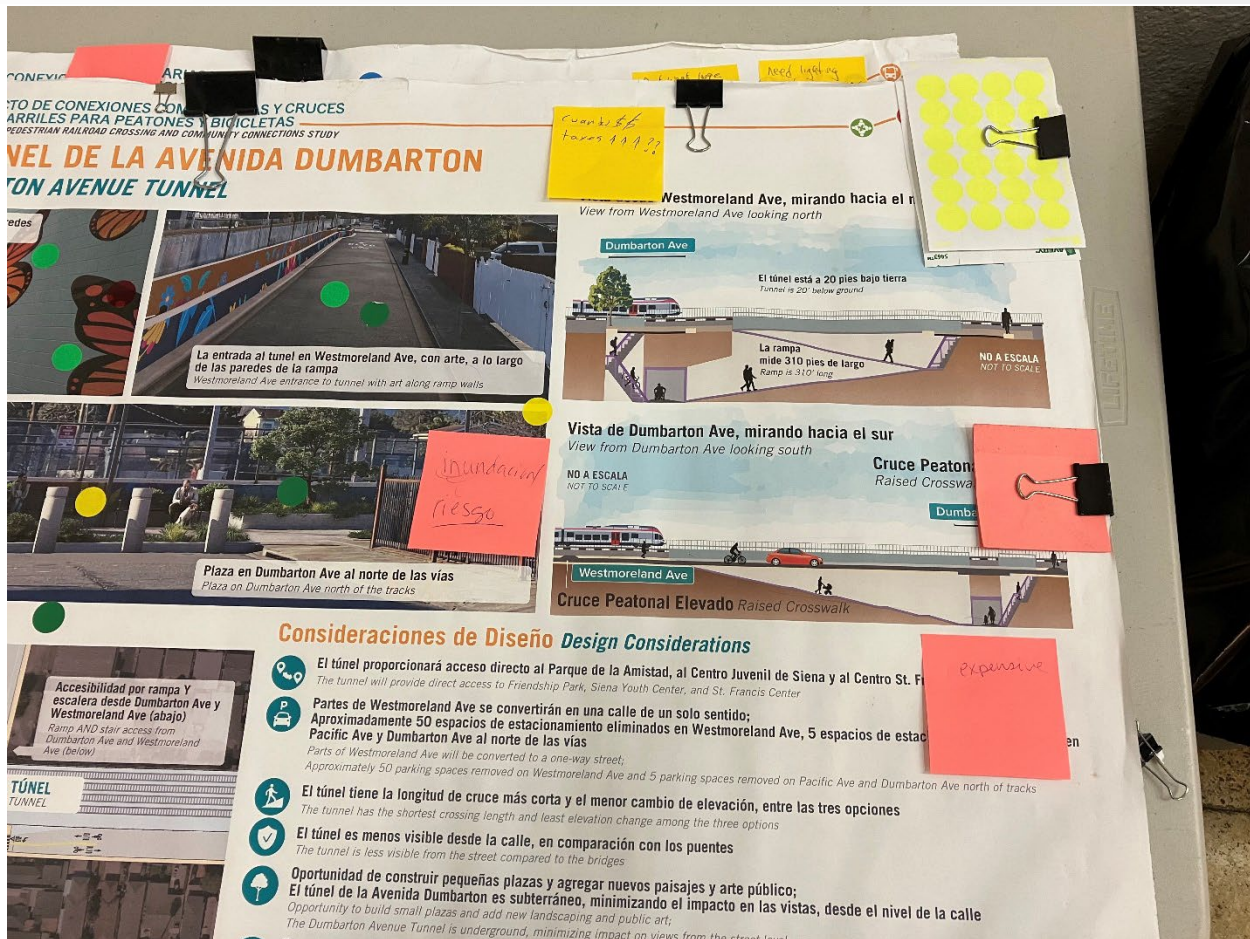
Why does Facebook have a bridge crossing? Why can't NFO have one? The Facebook crossing is not well used

Need for a crossing is greater in NFO

Don't want large structure in front of home

Need lighting on bridge ramps

#1 Security Not just cameras





NORTH FAIR OAKS | PROYECTO DE CONEXIÓN FERROCARRILES PARA BICICLETAS Y CRUCE PEATONAL | COMMUNITY CONNECTIONS STUDY

OPCIÓN B - PUENTE DE AVENIDA DUMBARTON

OPCIÓN B - DUMBARTON AVENUE BRIDGE

Vista de la plaza, la rampa y el puente en Dumbarton Ave. al norte de las vías
View of plaza, ramp, and bridge on Dumbarton Ave north of tracks

Entrada a la rampa en Westmoreland Ave
Entrance to ramp on Westmoreland Ave

Vista desde Westmoreland Ave, mirando hacia el norte
View from Westmoreland Ave looking north

El puente está a 47 pies sobre el suelo
Bridge is 47' above ground

Cruce Peatonal Elevado
Elevated Pedestrian Crossing

Vista desde Dumbarton Ave, mirando hacia el sur
View from Dumbarton Ave looking south

NO A ESCALA
NOT TO SCALE

Consideraciones de Diseño Design Considerations

- El puente ofrece acceso directo al Parque de la Amistad, el Centro Juvenil Siena y el Centro de San Francisco
The bridge provides direct access to Friendship Park, Siena Youth Center, and the St. Francis Center
- Partes de Westmoreland se convertirán en una calle de sentido único; Aproximadamente 55 espacios de estacionamiento eliminados, en Westmoreland Ave, y 5 espacios de estacionamiento eliminados, en Pacific y Dumbarton Ave, al norte de las vías
Parts of Westmoreland will be converted to a one-way street; Approximately 55 parking spaces removed on Westmoreland Ave, and 5 parking spaces removed on Pacific and Dumbarton Ave north of the tracks
- Los puentes requieren distancias de cruce más largas y mayores cambios de elevación, en comparación con la opción de túnel; El puente se conecta directamente con una calle de bicicletas, de dos vías en Berkshire Ave
The bridges require longer crossing distances and bigger elevation changes compared to the tunnel option; Bridge connects directly to short two-way bikeway on Berkshire Ave
- Los viajeros permanecen por encima del suelo, aunque la altura del puente puede dificultar la visión de los viajeros desde el nivel de la calle
Travelers remain above ground, though the height of the bridge may make it difficult to see travelers from the street level
- Oportunidad de construir pequeñas plazas y agregar nuevos paisajes y arte público; El puente de la Avenida Dumbarton estará adyacente a áreas residenciales y será más alto, que los edificios cercanos
Opportunity to build small plazas and add new landscaping and public art; The Dumbarton Avenue Bridge will be adjacent to residential areas and will be taller than nearby buildings
- Durante la construcción, los viajeros tendrán acceso limitado a lo largo de Westmoreland Ave; La construcción causará ruido y vibración, similar en las tres opciones; No desplazamiento de viviendas; sin embargo, 1-2 lotes sin estructuras pueden ser adquiridos para el túnel
During construction, travelers will have limited access along Westmoreland Ave; Construction will cause noise and vibration, similar in the three options; No displacement of homes; however, 1-2 lots without structures can be acquired for the tunnel

¿está el puente? Where is the bridge?

Acceso en rampa desde Dumbarton Ave
Ramp access from Dumbarton Ave

PUENTE
BRIDGE

Caltrans

Westmoreland Ave se convierte en un solo sentido entre Buckingham Ave y Berkshire Ave
Westmoreland Ave becomes one-way between Buckingham Ave and Berkshire Ave

Accesibilidad por rampa y escalera desde Westmoreland Ave
Accessibility by ramp and stair access from Westmoreland Ave

Westmoreland Ave

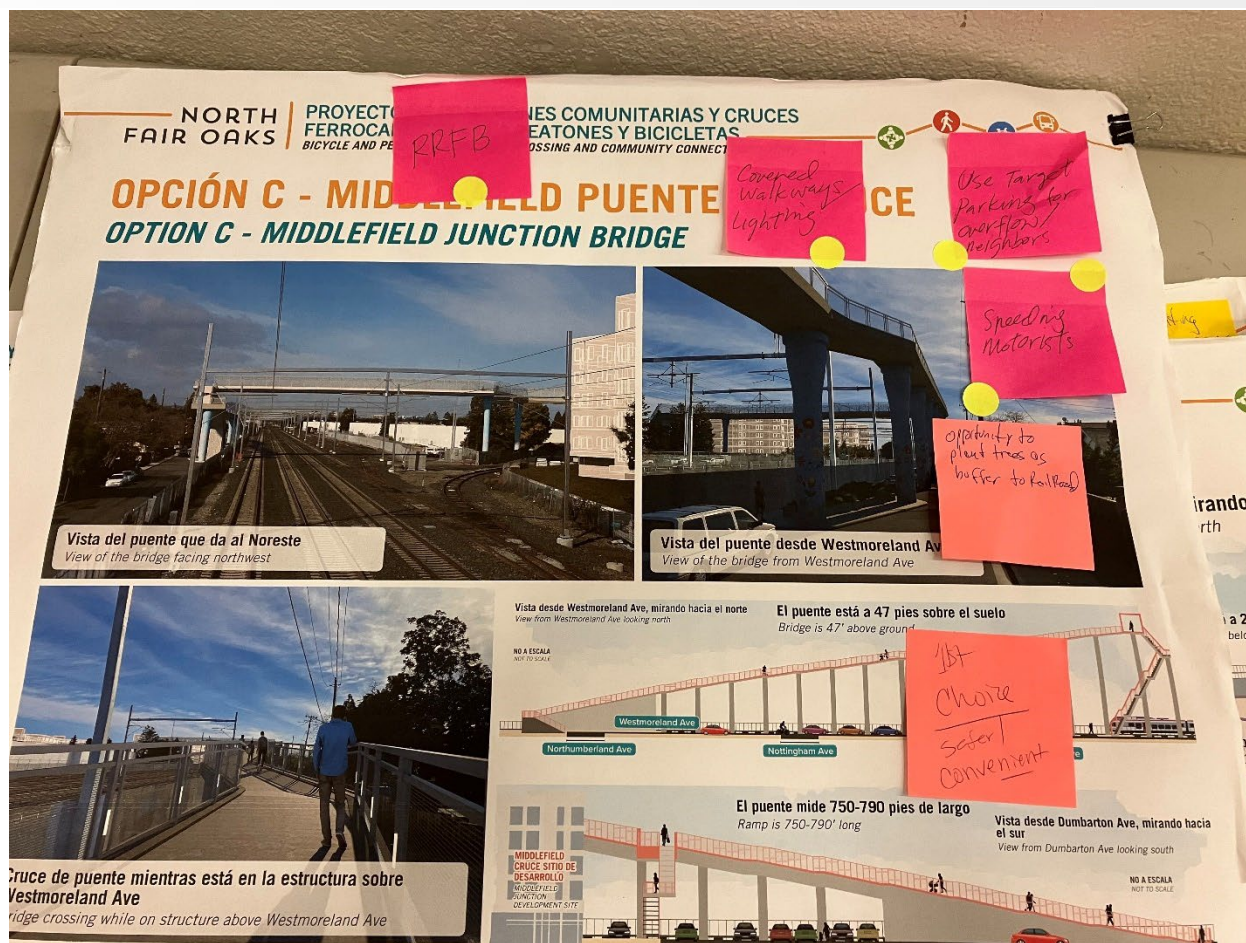
Buckingham Ave

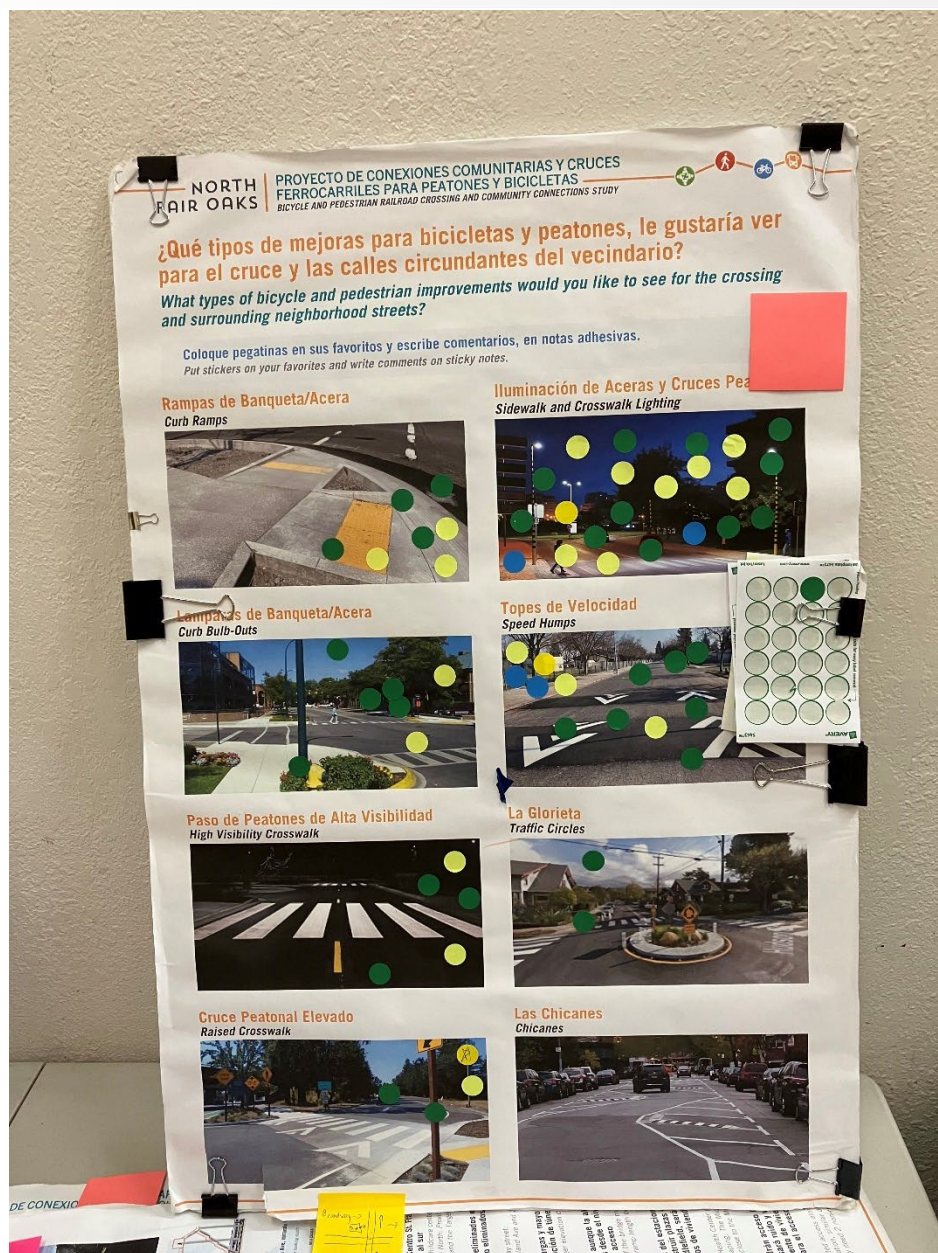
Berkshire Ave

ONE WAY

Handwritten notes:

- #1 Security not just cameras
- Don't need higher view from street - see home
- Need lighting on bridge ramps
- Why does Facebook have a bridge crossing? Why can't NFO have one? The Facebook one is not well used
- Need for a crossing greater in NFO







Appendix C: Event Photos

Fair Oaks Health Center Flyer Distribution Event on March 17 (left), Fair Oaks Food Distribution Pop-Up Event on March 24 (right)



Samaritan House and Chavez Market Pop-Up Events on March 27 (left), Verbo Church Pop-Up Event on April 2 (right)





Casa Circulo Pop-Up Event on April 5 (left), Mi Tienda Pop-Up Event on April 10 (right)



Casa Circulo Open House Event on April 12 (left), Verbo Food Distribution and Sport Activities Pop-Up Event on April 14 (right)





Appendix D: Survey



The County of San Mateo is studying how to make walking and bicycling easier and safer in North Fair Oaks, including the opportunity for a new pedestrian and bicycle crossing over or under the Caltrain railroad tracks.

The project team has developed three rail crossing alternatives and accompanying bicycle and pedestrian improvements on connecting neighborhood streets. We want to hear from you about which ideas will work best for the North Fair Oaks community. Your responses to the survey will help the County compare the different options and identify the preferred alternative.

Two survey respondents will randomly be selected to win \$50 gift cards at the conclusion of the survey. We thank you for your time.

For Questions 1, 2, and 3, check the statements that you most agree and disagree with for each Alternative. You do not need to provide a response to every statement.

Question 1 Alternative A - Dumbarton Avenue Tunnel



	Agree	Disagree
Conveniently connects me to my destination	<input type="checkbox"/>	<input type="checkbox"/>
Would be safe and comfortable to use as a pedestrian, wheelchair user, or cyclist	<input type="checkbox"/>	<input type="checkbox"/>
Fits in well with surrounding community	<input type="checkbox"/>	<input type="checkbox"/>
Making it easier to walk or bike outweighs reduced on-street parking and changes in automobile traffic flow	<input type="checkbox"/>	<input type="checkbox"/>
Provides opportunity for nice public spaces	<input type="checkbox"/>	<input type="checkbox"/>

Question 2 Alternative B - Dumbarton Avenue Bridge



	Agree	Disagree
Conveniently connects me to my destination	<input type="checkbox"/>	<input type="checkbox"/>
Would be safe and comfortable to use as a pedestrian, wheelchair user, or cyclist	<input type="checkbox"/>	<input type="checkbox"/>
Fits in well with surrounding community	<input type="checkbox"/>	<input type="checkbox"/>
Making it easier to walk or bike outweighs reduced on-street parking and changes in automobile traffic flow	<input type="checkbox"/>	<input type="checkbox"/>
Provides opportunity for nice public spaces	<input type="checkbox"/>	<input type="checkbox"/>

Question 3 Alternative C – Middlefield Junction Bridge



	Agree	Disagree
Conveniently connects me to my destination	<input type="checkbox"/>	<input type="checkbox"/>
Would be safe and comfortable to use as a pedestrian, wheelchair user, or cyclist	<input type="checkbox"/>	<input type="checkbox"/>
Fits in well with surrounding community	<input type="checkbox"/>	<input type="checkbox"/>
Making it easier to walk or bike outweighs reduced on-street parking and changes in automobile traffic flow	<input type="checkbox"/>	<input type="checkbox"/>
Provides opportunity for nice public spaces	<input type="checkbox"/>	<input type="checkbox"/>

Question 4

Rank the alternatives from 1 (your favorite) to 4 (least favorite)

- ☐ Alternative A: Tunnel Dumbarton Avenue
- ☐ Alternative B: Dumbarton Avenue Bridge
- ☐ Alternative C: Middlefield Junction Bridge
- ☐ Do not build a rail crossing.

Question 5

Is there an additional amenity or feature that you would like to see incorporated into the preferred alternative to make it more desirable to use or better integrate in the community?

Question 6

How frequently would you use the rail crossing alternative you prefer?

- | | |
|--|--|
| <input type="checkbox"/> Multiple times a week | <input type="checkbox"/> A few times a year |
| <input type="checkbox"/> Once a week | <input type="checkbox"/> I will not use the crossing |

Question 7

What mode would you use to get to and from the rail crossing?

(check all that apply)

- ☐ Walk/mobility device
- ☐ Bike
- ☐ Transit

Question 8

What types of pedestrian, bicycle, and roadway improvements would you like to see incorporated on North Fair Oaks neighborhood streets to make the area safer or more comfortable for pedestrians and cyclists?

(check all that apply)

- ☐ Curb bulb-outs
- ☐ Accessible (ADA) curb ramps
- ☐ High-visibility crosswalks
- ☐ Raised crosswalks
- ☐ Sidewalk and crosswalk lighting
- ☐ Traffic circle
- ☐ Speed humps
- ☐ Chicanes

About You

Question 9

Where do you live in North Fair Oaks community?

- ☐ Between Middlefield Road and the Caltrain tracks (or on the east side of the Caltrain tracks)
- ☐ Between El Camino Real and the Caltrain tracks (or on the west side of the Caltrain tracks)
- ☐ Elsewhere in the North Fair Oaks community
- ☐ I live outside of the North Fair Oaks community

Question 10

Which of the following age ranges includes your age?

- | | |
|--------------------------------|---|
| <input type="checkbox"/> 0-15 | <input type="checkbox"/> 60-65 |
| <input type="checkbox"/> 16-25 | <input type="checkbox"/> 65 or over |
| <input type="checkbox"/> 26-59 | <input type="checkbox"/> Prefer not to answer |

Question 11

What is your race? *(check all that apply)*

- ☐ Asian or Asian American
- ☐ Black or African American
- ☐ Hispanic or Latinx/a/o
- ☐ Native American, American Indian or Indigenous
- ☐ Native Hawaiian or Pacific Islander
- ☐ White or Caucasian
- ☐ Prefer not to answer
- ☐ If not listed above, please share your race in the box below.

Question 12

What is your gender identity?

- ☐ Female/Woman/Cisgender Woman
- ☐ Male/Man/Cisgender Man
- ☐ If not listed above, please share here.

Question 13

If you would like to stay informed about the North Fair Oaks Railroad Crossing and Community Connections Study, please provide your e-mail address.

Question 14

If you would like to be eligible for a drawing for a \$50 gift card, please provide your phone number or e-mail address.

THANK YOU!



El condado de San Mateo está realizando un estudio, de cómo hacer que el caminar y andar en bicicleta, sea más fácil y seguro en el area de North Fair Oaks. Esto incluye la oportunidad de un nuevo cruce para peatones y bicicletas, sobre o por debajo de las vías del tren: Caltrain.

El equipo del proyecto ha desarrollado tres alternativas de cruce ferroviario, ademas de mejorar el paso para ciclistas y peatones, en la conexión de las calles del vecindario. Queremos saber de usted, qué ideas funcionarán mejor para la comunidad de North Fair Oaks. Sus respuestas a la encuesta ayudarán al Condado, a comparar las diferentes opciones, ademas de identificar la mejor alternativa.

Dos entrevistados, serán seleccionados por sorteo, para ganar tarjetas de regalo de \$50, al finalizar el periodo de encuestas. ¡Agradecemos su tiempo!

Descripción general de las tres alternativas con gráficas. Marque los enunciados en los que más está: de acuerdo y en desacuerdo, para cada Alternativa. No es necesario que proporcione una respuesta a cada enunciado.

Pregunta 1

Alternativa A – Túnel de la Avenida Dumbarton



	Estoy de acuerdo	No estoy de acuerdo
Me conecta convenientemente con mi destino	<input type="checkbox"/>	<input type="checkbox"/>
Sería seguro y cómodo para usar como peatón, usuario de silla de ruedas o ciclista	<input type="checkbox"/>	<input type="checkbox"/>
Encaja bien con la comunidad circundante	<input type="checkbox"/>	<input type="checkbox"/>
Hacer más fácil caminar o andar en bicicleta, compensa la reducción del estacionamiento en la calle y los cambios en la fluides de tráfico de los autos	<input type="checkbox"/>	<input type="checkbox"/>
Brinda oportunidades para espacios públicos agradables	<input type="checkbox"/>	<input type="checkbox"/>

Pregunta 2

Alternativa B – Puente en la Avenida Dumbarton



	Estoy de acuerdo	No estoy de acuerdo
Me conecta convenientemente con mi destino	<input type="checkbox"/>	<input type="checkbox"/>
Sería seguro y cómodo para usar como peatón, usuario de silla de ruedas o ciclista	<input type="checkbox"/>	<input type="checkbox"/>
Encaja bien con la comunidad circundante	<input type="checkbox"/>	<input type="checkbox"/>
Hacer más fácil caminar o andar en bicicleta, compensa la reducción del estacionamiento en la calle y los cambios en la fluides de tráfico de los autos	<input type="checkbox"/>	<input type="checkbox"/>
Brinda oportunidades para espacios públicos agradables	<input type="checkbox"/>	<input type="checkbox"/>

Pregunta 3

Alternativa C – Puente de cruce de Middlefield



	Estoy de acuerdo	No estoy de acuerdo
Me conecta convenientemente con mi destino	<input type="checkbox"/>	<input type="checkbox"/>
Sería seguro y cómodo para usar como peatón, usuario de silla de ruedas o ciclista	<input type="checkbox"/>	<input type="checkbox"/>
Encaja bien con la comunidad circundante	<input type="checkbox"/>	<input type="checkbox"/>
Hacer más fácil caminar o andar en bicicleta, compensa la reducción del estacionamiento en la calle y los cambios en la fluides de tráfico de los autos	<input type="checkbox"/>	<input type="checkbox"/>
Brinda oportunidades para espacios públicos agradables	<input type="checkbox"/>	<input type="checkbox"/>

Pregunta 4**Clasifique las alternativas: donde 1 (es su favorito) a 4 (menos favorito)**

- ☐ Alternativa A – Túnel Dumbarton Avenue
- ☐ Alternativa B – Puente de la Avenida Dumbarton
- ☐ Alternativa C – Puente de cruce de Middlefield
- ☐ No se debe construir un cruce de ferrocarril.

Pregunta 5**¿Hay algún servicio o característica adicional, que le gustaría ver incorporado en la alternativa preferida, para que sea más deseable usar o integrarse mejor en la comunidad?**

Pregunta 6**¿Con qué frecuencia usaría, la alternativa de cruce de ferrocarril que prefiere?**

- | | |
|---|--|
| <input type="checkbox"/> Varias veces a la semana | <input type="checkbox"/> Unas cuantas veces al año |
| <input type="checkbox"/> Una vez por semana | <input type="checkbox"/> No usaría el cruce |

Su idea**Pregunta 9****¿Dónde vive en la comunidad de North Fair Oaks?**

- ☐ Entre Middlefield Road y las vías de Caltrain (o en el lado este de las vías de Caltrain)
- ☐ Entre El Camino Real y las vías de Caltrain (o en el lado oeste de las vías de Caltrain)
- ☐ En otro lugar en la comunidad de North Fair Oaks
- ☐ Yo vivo afuera de la comunidad de North Fair Oaks

Pregunta 10**¿Cuál de los siguientes rangos de edad incluye su edad?**

- | | |
|--------------------------------|--|
| <input type="checkbox"/> 0-15 | <input type="checkbox"/> 60-65 |
| <input type="checkbox"/> 16-25 | <input type="checkbox"/> 65 o más |
| <input type="checkbox"/> 26-59 | <input type="checkbox"/> Prefiero no responder |

Pregunta 11**¿Cuál es su grupo étnico? (marque todas las que correspondan)**

- ☐ Asiático o Asiático Americano
- ☐ Negro O Afro-americano
- ☐ Hispano o Latinx/a/o
- ☐ Nativo Americano, Indio Americano o Indígena
- ☐ Nativo de Hawai o de las Islas del Pacífico
- ☐ Blanco o Caucásico
- ☐ Prefiero no responder
- ☐ Si no aparece en la lista anterior, por favor comparta su raza en el cuadro de abajo.

Pregunta 7**¿Qué manera utilizaría para llegar y volver del cruce de ferrocarril?***(marque todas las opciones que correspondan)*

- ☐ Caminar/ Dispositivo para caminar
- ☐ Bicicleta
- ☐ Tránsito

Pregunta 8**¿Qué tipos de mejoras para peatones, bicicletas y carreteras le gustaría ver incorporadas, en las calles del vecindario de North Fair Oaks para hacer que el área sea más segura o más cómoda para peatones y ciclistas?***(marque todas las opciones que correspondan)*

- ☐ Curvas en las banquetas/aceras
- ☐ Rampas accesibles en banquetas/aceras
- ☐ Paso de peatones con alta visibilidad
- ☐ Cruces elevados
- ☐ Iluminación de banquetas/aceras y cruces peatonales
- ☐ Glorieta/Rotonda
- ☐ Topes de velocidad
- ☐ Curva repentina en una carretera

Pregunta 12**¿Cuál es su identidad de género?**

- ☐ Femenino/Mujer/Mujer cisgénero
- ☐ Masculino/ Hombre/ Hombre cisgénero
- ☐ Si no aparece en la lista anterior, por favor comparta en el cuadro de texto aquí.

Pregunta 13**Si desea mantenerse informado sobre el estudio de cruce de ferrocarriles y conexiones comunitarias de North Fair Oaks, por favor proporcione su correo electrónico.****Pregunta 14****Si desea ser elegible para un sorteo de una tarjeta de regalo de \$50, por favor proporcione su número de teléfono o correo electrónico.**

¡Gracias!



NORTH
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BICYCLE AND PEDESTRIAN RAILROAD CROSSING
AND COMMUNITY CONNECTIONS STUDY

Appendix F - Bridge Constructability Review

Date: August 29, 2023



To: Bin Zhang, PE, Deputy Director, Caltrain

From: Brett Faust, PE, PMP, Project Manager

Re: Constructability Review of the Proposed North Fair Oaks Crossing

The County of San Mateo has developed concepts for the North Fair Oaks Bike and Pedestrian overcrossing project, that would allow pedestrians and bicyclists to cross the Caltrain tracks in the North Fair Oaks neighborhood of Redwood City. HNTB was tasked to provide an assessment of the constructability of the concepts, performed as a work directive under our On-Call General Engineering Consultant Design Services contract with Caltrain. This assessment specifically focuses on identifying unavoidable impacts to the railroad and adjacent features based on the likely overcrossing bridge type, means of construction, and physical constraints on and around the site. This memo summarizes the findings of our assessment.

Summary of Task and Methodology

The County of San Mateo's Office of Sustainability is leading the North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study to assess the potential for a pedestrian and bicycle railroad crossing over or under the Caltrain tracks in Redwood City, CA. The County engaged an engineering consultant to develop the conceptual designs and has made public three concepts:

- A. Alternative A – Undercrossing
- B. Alternative B – Pacific Avenue/Dumbarton Avenue Overcrossing
- C. Alternative C – Middlefield Overcrossing

Alternatives B and C are the subject of this study. Excerpts of the conceptual designs are included as Attachment A.

To support the findings of this assessment, HNTB coordinated with a prefabricated pedestrian bridge manufacturer to establish preliminary design information for a sample bridge type and coordinated with a crane contractor that specializes in lifting operations for bridge erection. HNTB reviewed, validated, and summarized the information provided by each for this assessment.

Conceptual Plan Review

Alternative B is an overcrossing located at Pacific Avenue and Caltrain's railroad. The main bridge span is approximately 100 feet long with the approaches built parallel to the tracks and located outside of Caltrain's right-of-way (ROW). The site is constrained by adjacent residential properties, San Francisco Public Utilities Commission's (SFPUC) ROW containing two water utility lines, and the railroad's overhead catenary structures.

Alternative C is an overcrossing located about 435 feet up-station of Alternative B, northwest of a Union Pacific Railroad (UPRR) spur track. To avoid locating foundations within Caltrain’s ROW, the bridge span length is expected to be between 170 feet and 180 feet. Smaller spans would run parallel to and cross over the UPRR spur track, and the west approach would run parallel to the mainline similar to Alternative B. The Alternative C site is constrained by adjacent residential properties, the UPRR spur track and the railroad’s overhead catenary structures.

Both concepts are shown to be 20 feet clear walkway width (24 feet wide overall) over the railroad while the clear walkway width of the approaches varies from 8 feet to 10 feet.

Site Visit

HNTB participated in a site visit with Caltrain, County staff, and the County’s engineering consultant on July 20, 2023, to assess the site and understand the project footprint, working space, construction access, and constraints. Photos from this visit are included in Attachment B.

Bridge Manufacturer Input

To facilitate this assessment, a Contech Engineering Solutions (“Contech”) prefabricated pedestrian bridge has been assumed. HNTB selected this bridge type for this assessment given Contech’s extensive resume, their ability to provide preliminary design information, and the common usage of these cost-effective prefabricated bridges for pedestrian overcrossings.

A typical 12-foot path width and a 170-foot main span was assumed using Contech’s “Gateway” style truss bridge. The 12-foot width of this bridge differs from the 20 feet shown in the County’s conceptual plans. Widths of 12 to 15 feet are the most common for shared pedestrian and bicycle crossings and the added weight of the County’s 20-foot-wide crossing is considered impractical given the erection analysis presented further below. A 12-foot limit is more practical for a prefabricated bridge shipped to site. A wider bridge cannot be shipped pre-made due to limits on freight width and would instead have to be assembled onsite. Preliminary drawings from Contech are included as Attachment C and Table 1 below summarizes the concept bridge.

Span Length	170 feet
Path Width	12 feet
Weight	124,830 lbs.
No. of Pre-Assembled Segments	3
Price	\$517,400 (Contech quote for superstructure delivery only)

Table 1 Preliminary Bridge Information

Contech configured the bridge to be an unpainted weathering steel through-truss-style bridge with metal deck form and cast-in-place concrete deck. The concrete deck would be poured in-place after the bridge truss is erected.

Crane Contractor Input and Considerations

HNTB consulted with Maxim Crane Works (Maxim), a national crane rental firm specializing in crane selection and lift engineering. Maxim provided crane recommendations and developed conceptual lifting

plans for Alternative C bridge erection based on the preliminary bridge information from Contech. The material provided by Maxim is included as Attachment D.

Maxim recommends using a 300 Ton lattice-boom crawler crane for installation of the overcrossing bridge. The conceptual lift plan would involve these main steps:

1. Place crane mat
2. Mobilize and erect the crane
3. Transport the bridge segments to the site, assemble segments
4. Pick up bridge with crane, rotate crane to swing over the Caltrain tracks and OCS
5. Place bridge on piers, secure bridge to anchor rods and bearings
6. Demobilize crane and remove crane mat

For Alternative C, Maxim's conceptual lift plan sites the crane between the Caltrain main tracks and the UPRR spur track, across from the intersection of Buckingham Avenue and Westmoreland Avenue.

Construction Limitations, Unavoidable Impacts, and Risks

Caltrain Infrastructure and Operations

Caltrain's overhead contact system (OCS) and associated wires, which have not been installed yet but can be expected to be in place at the time of any future overcrossing construction, will be a major restriction for overcrossing construction. The feeder wire heights and minimum clearances determine the bridge's elevation. This in turn affects the crane pick height, boom size, and overall crane selection. The OCS structures and wires will also complicate the tag lines needed for swinging the bridge into position and controlling its alignment while on the hook.

For safety reasons, the OCS and any ancillary wires must be fully de-energized during the overcrossing bridge erection. If any ancillary lines cannot be de-energized a temporary diversion would be required for the wires that cannot be de-energized while the bridge is erected over the tracks and de-energized OCS.

The overcrossing will need to be installed during non-revenue (nighttime) hours when no trains are operating due to the risk of construction operations fouling the Caltrain tracks. It is also expected that the detailed work plan that the erection contractor will prepare may indicate the need for a longer outage that will impact revenue service, particularly when considering the time required for safely de-energizing and re-energizing the system which provides only a two- to three-hour work window.

For Alternative C, the fence located east of the tracks adjacent to the UPRR sidings contains signage by Caltrain and so is assumed to be owned by Caltrain. This fence may need to be temporarily removed to increase the space for staging and access. Between the mainline and the UPRR spur, there appears to be a signal pole and hut that will limit the counterweight swing of the Alternate C crane and may force the need to place crane mats over the outside track(s).

UPRR Property and Spur Track

Portions of the Alternative C alignment cross over a UPRR spur track. Additionally, the alternative could impact the adjacent UPRR siding track(s) during assembly of the crane and bridge. At a minimum, foul time would be required for safely working next to the active railroad, however UPRR may require closure of the siding(s). While closure of the spur would be relatively brief, this impact could be as long as a

month. Getting permission for a temporary construction easement and permission for a permanent crossing over UPRR property would be required and is a significant risk for Alternative C overall.

SFPUC Hetch-Hetchy Line and Easements

One of the more constraining considerations for Alternative B is the SFPUC utilities, for which survey markings in the street indicate a 36-inch diameter water line running in the center of Westmoreland Avenue, and a 60-inch diameter water line running in alignment with the SFPUC ROW and across Caltrain's ROW near Pacific Avenue. The most promising location for assembly and erection of Alternative B is within the SFPUC ROW at Pacific Avenue.

HNTB contacted the SFPUC requesting additional information on the utilities and requirements for their protection, however the timeline in which the materials would be provided preclude the ability to discuss the information in this memo.

Absent information from SFPUC, HNTB anticipates that the SFPUC would not allow construction equipment to be placed or operated on the streets above their utilities without protective measures, and therefore significant protection would be needed given the size of the crane required. At a minimum, this would likely mean two plies of crane mats but more likely a bridging system would be required over the utilities to ensure crane loading does not adversely impact the utilities. The utilities will require pre-construction inspection, construction monitoring and a post-construction condition survey.

As with UPRR, it is possible that SFPUC will not allow Alternative B's encroachment whatsoever. Risk to the utility can be mitigated but not eliminated. Given the potential consequences, that risk may be considered intolerable, which jeopardizes the viability of Alternative B.

Local Streets and Neighborhood Access

For Alternative B, portions of the local city streets will need to be temporarily closed during construction, to allow sufficient space for materials laydown, construction staging, crane mobilization/demobilization, bridge delivery and assembly, and bridge erection. This may include portions of Pacific Avenue, Calvin Avenue, Dumbarton Avenue, and Westmoreland Avenue. Alternative C, being mostly on Caltrain and UPRR property, would have minimal impact on local streets except Westmoreland Avenue.

Permanent removal of on-street parking spots is indicated on the conceptual plans.

The curb-to-curb width of Westmoreland Avenue is approximately 30 feet. The edge of railroad ties appears to be approximately 18 feet from the inside face of curb in the road. By visual inspection only, the rail elevation appears approximately 3 feet higher than the road surface. Each of these dimensions forms a constraint on the ability to site the crane on Westmoreland Avenue, recognizing the need to provide clearance for turning of the crane cab and counterweight.

For Alternative B, the end of Pacific Avenue is tightly constrained by the SFPUC ROW and private residential ROW. There appears to be insufficient room to site the crane over public (City or County) ROW without encroaching over private or SFPUC lands. It may be necessary for residences to be vacated during specific operations like the primary crane pick.

Constructing a bridge in a dense residential area can have significant impacts on the community. The constrained site means there will be limited opportunity for mitigating noise and vibration. Material and equipment deliveries will also force short-term closures of local streets on a regular basis and require

temporary displacement of on-street parking. Both alternatives can be expected to restrict access to residences and will require agreements with property owners.

Overhead Utilities

Many pole-mounted electrical and telecom lines are located near the construction staging areas and will constrain crane movement and operations. This is particularly true for the Pacific and Calvin Avenues area required for Alternative B. It is possible that some of the overhead cables will require temporary relocation. The proposed construction will also put the overhead utilities at risk of accidental disruption.

Assessment Summary

The preliminary crane pick information provided by Maxim for Alternative C was analyzed and extrapolated for Alternative B. The shorter 100-foot span length may allow for a smaller crane, but the site constraints, risks, and impacts will remain similar. The same crane is conservatively assumed in this assessment as a simplification. The span would need to be staged and erected from either Westmoreland Avenue or Pacific Avenue. The Pacific Avenue location is more likely given that it is a dead-end street with extra room provided by the SFPUC ROW. This scenario would have the bridge assembled on the SFPUC land. The crane would pick and walk the span down Pacific Avenue toward the tracks. See Attachment E. Impacts and risks from Alternative B may include:

- Overnight closure of the railroad tracks, expected to extend into revenue hours which risks further disruption of train service.
- De-energizing the Caltrain OCS and de-energizing or bypassing Caltrain ancillary wires.
- Potential damage to catenaries puts train service at risk of long-term interruption.
- Encroachment on SFPUC land and the need for significant protection of their below ground water infrastructure. The possibilities of not receiving a temporary construction easement or damaging the SFPUC utilities are significant project risks.
- Extended closures of Pacific Avenue and Calvin Avenue for bridge and crane assembly.
- Evacuation of residents during critical crane picks.
- Restricted access to residences requiring agreements with property owners.
- Temporary roadway closures and suspension of on-street parking for major deliveries.
- Potential relocation of overhead utilities at Calvin Avenue.
- Encroachment on private residences requiring construction easements.

For Alternative C, the only practical assembly and erection area is by the UPRR spur as shown in Maxim's preliminary lift plan and HNTB's concept (Attachments D and E respectively). This larger span will push the limit of any crane that can fit within the site. The suggested MLC300 VPC-Max crane includes an innovative variable counterweight, making it one of the most efficient cranes available. Even so, Alternative C may not achieve the 150% over-capacity stipulation that some railroads enforce and is conservatively assumed in this assessment. Impacts and risks from Alternative C may include:

- Overnight closure of the railroad tracks, expected to extend into revenue hours which risks further disruption of train service.
- De-energizing the Caltrain OCS and de-energizing or bypassing Caltrain ancillary wires.
- Potential damage to catenaries puts train service at risk of long-term interruption.
- Encroachment on the UPRR spur requiring temporary and permanent aerial easements, which are significant risks to the alternative's overall viability. Deliveries are expected to require further

easements along the spur and/or siding. Removal and replacement of Caltrain's fencing to accommodate the lay down area and crane.

- Potential disruption of the signal pole and/or hut. (Relocation is assumed to be unacceptable given the criticality of this infrastructure.)
- The outside siding track(s) may require extended foul time as well as several days of closure for the installation and removal of crane mats.
- Restricted access to residences requiring agreements with property owners.
- Temporary roadway closures and suspension of on-street parking for major deliveries.
- A complex lift scenario that rotates the span 270 degrees and may require waiving 150% over-capacity requirements, if applicable to work over Caltrain's tracks.

Methods of bridge erection other than crane picks have been considered but are not deemed feasible given the site constraints at both locations. The conceptual pick plans developed herein for Alternatives B and C appear feasible at this stage but do represent very challenging picks that will require engineered lift plans and skilled operators.

Any heavy lift is a risk to the infrastructure below and exposes Caltrain vital infrastructure to very significant risk. Mishandling the bridge spans is a low-probability, high-consequence risk to the railroad particularly the OCS system. Damage to the OCS system could take weeks or months to repair with suspension of revenue service.

This assessment is entirely contingent upon a narrower pathway width than the County's 20-foot-wide concept. The assessment conducted for this memo finds that bridges wider than 12 or 15 feet will be extremely difficult if not impossible to lift safely with available cranes and the limited space at each location.



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Appendix G - Caltrain Statement on Bridge Constructability



MEMORANDUM

TO: Joel Slavit, Acting Program Manager - Active Transportation, County of San Mateo
FROM: Nicole Soultanov, Deputy Director, Capital Program Planning, Caltrain
DATE: October 6, 2023
SUBJECT: Caltrain statement on the constructability analysis of an overcrossing at North Fair Oaks

In May 2023, Caltrain and the County of San Mateo agreed to perform a constructability study to understand the technical considerations and identify the potential impacts and risks of building a bicycle and pedestrian bridge over Caltrain's tracks in the North Fair Oaks community. HNTB was selected to perform the analysis.

This analysis was shared with the County at the beginning of September 2023. Shortly after, Caltrain held an internal workshop to define whether the impacts identified are compatible with the railroad's current and future needs.

Based on the findings from the constructability analysis and Caltrain's additional considerations, which are further described in this document, **Caltrain believes the overcrossing alternatives' impacts can be acceptable with careful planning and conditions that ensure no impacts to revenue service.**

However, Caltrain strongly encourages the County to weigh all costs and benefits carefully and share these with the community before finalizing a Locally Preferred Alternative. Caltrain staff remain available as a resource to the County in communicating the findings from the constructability analysis with the community.

Background

The County of San Mateo is proposing a new bicycle and pedestrian crossing of the Caltrain right of way (ROW) within the North Fair Oaks community. This location on the railroad has four tracks, as well as a nearby spur track owned by Union Pacific Railroad (UPRR). Three conceptual alternatives are currently considered by the County:

- Alternative A: Undercrossing at Dumbarton Avenue and connecting to Westmoreland Avenue.
- Alternative B: Overcrossing at Pacific Avenue and connecting to Westmoreland Avenue.
- Alternative C: Overcrossing connecting Middlefield Junction affordable housing development and County Health Center with Westmoreland Avenue.

Considering that the project would be constructed, operated, and maintained when the corridor is electrified, the County and Caltrain agreed to the development of a constructability study for the overcrossing alternatives. This study was focused on identifying the impacts and risks related to the project's construction. Once the impacts were identified, Caltrain staff conducted an internal multidisciplinary review (workshop) to assess those impacts.

Constructability analysis and Caltrain internal workshop's takeaways

The review of the impacts identified by the constructability analysis was based on Caltrain's current understanding of the future conditions of the corridor. Because assessing potential impacts under conditions that have not been implemented is particularly challenging, Caltrain must use conservative assumptions to account for the uncertainty of operating and maintaining an electrified corridor.

The construction process for alternatives B and C considers an initial stage where the substructure is put in place while the superstructure is fully built in an area adjacent to the crossing. In a second stage, the superstructure is lifted and assembled on top of the substructure. This process would require closing the railroad along with de-energizing the Overhead Contact System (OCS) before the lifting operation can begin. Following completion, the OCS would need to be re-energized.

The takeaways of Caltrain's multidisciplinary review are presented below:

- Currently, Caltrain does not have the ability to de-energize and re-energize the OCS in a short enough time to confirm the work proposed in the County's overcrossing alternatives can be completed outside of revenue service. The OCS is a new system and Caltrain will be learning to operate and maintain the system over the next year.
- Caltrain shares a joint interest with the County in developing the ability to meet the work window needs that would be required, which will allow Caltrain to complete its own projects and required maintenance. Caltrain expects to be able to develop that ability by the time this project would be constructed.
- The County would need to take on the responsibility for working with Caltrain, its design team, and the contractor to prove the work could be completed outside of revenue service hours.
- The lifting and assembly operations cannot extend into revenue service hours due to the following reasons:
 - Disruption to Caltrain customers are not acceptable - there have been significant service interruptions during the electrification process. Once the system is electrified, it must show the value of this investment. Customer experience is a key service principle for Caltrain and must be considered for every planning, design, construction, operation, and maintenance decision.
 - Revenue impacts are not acceptable - Caltrain must run regular service as much as possible in order to support returning ridership. Not doing so risks the long-term financial health of the agency.
 - Projects must be cost-neutral for Caltrain – Both the impacts in terms of revenue loss and costs of the potential mitigations to address the closure of the railroad will create a financial burden for Caltrain.
- The County would be liable for all potential disruptions created on the railroad, including closures that extend beyond the planned time into revenue hours.

The constructability analysis also finds construction limitations, unavoidable impacts and risks that should be considered by the County before finalizing a Locally Preferred Alternative, summarized below:

- The assessment conducted for the constructability analysis finds that bridges wider than 12 to 15 feet will be extremely difficult if not impossible to lift safely with available cranes and the limited space at both alternatives (B and C) locations.
- Portions of the Alternative C alignment cross over a UPRR spur track. Coordination with UPRR would be required and presents a risk for Alternative C.
- Similarly, coordination with SFPUC will be required because of Alternative B's proximity to their Hetch-Hetchy Line and presents a risk for Alternative B.
- For Alternative B, there appears to be insufficient room to site the crane over public (City or County) Right-of-Way (ROW) without encroaching over private or SFPUC lands. It may be necessary for residences to be vacated during specific operations like the primary crane pick.
- Relocation of signal poles and huts required for the overcrossing alternatives would require extensive planning and entail high costs.

Caltrain's additional considerations

Caltrain has identified a series of additional risks for the project, specifically for the overcrossing alternatives:

- The estimated duration of the overnight work window might be affected by future schedule changes.
- Operations and safety conditions regarding working around the OCS might change once the electrified system is implemented, requiring additional safeguards and constraints on working around the operating railroad.
- The County will be responsible for the maintenance of the crossing. Maintenance of overhead crossings has significant costs, which will need to be assumed by the County. A recent example is Caltrain's Bayshore Station Overpass Pedestrian Bridge Rehabilitation project.

Conclusion

While Caltrain believes the overcrossing alternatives' impacts can be acceptable with careful planning and conditions that ensure no impacts to revenue service, the Alternative A (undercrossing) would not present the same delivery and maintenance risks to the project, so Caltrain would encourage the County to weigh the costs and benefits carefully before finalizing a Locally Preferred Alternative.

cc:

Rob Barnard, Deputy Chief, Caltrain Design and Construction, Caltrain
Dahlia Chazan, Deputy Chief, Caltrain Planning, Caltrain
John Hogan, Chief Operating Officer, Rail, Caltrain
Lori Low, Manager, Government and Community Affairs, Caltrain



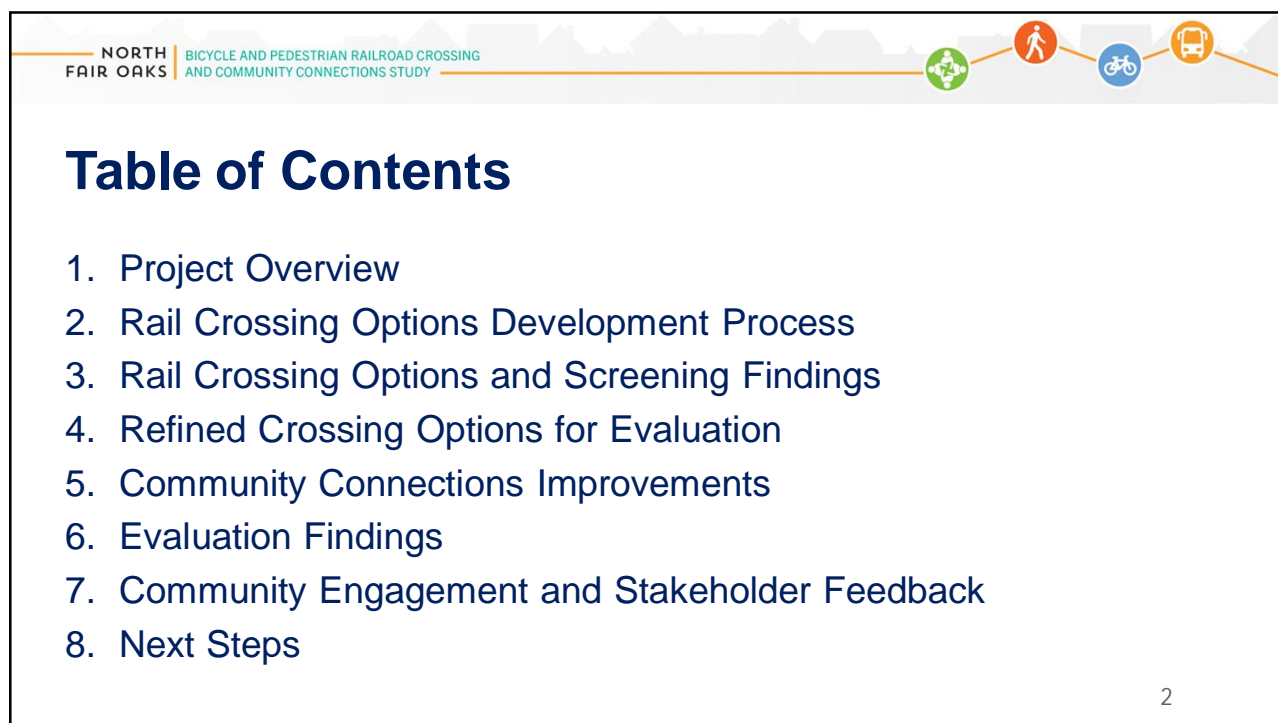
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Appendix H - Task 5.5 Project Summary Presentation



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1. Project Overview

3



Desired Study Outcomes



Identify a viable, community-preferred location and configuration for a new bicycle/pedestrian grade-separated crossing of the Caltrain tracks



Identify bicycle and pedestrian enhancements on local streets linking the preferred rail crossing to key destinations



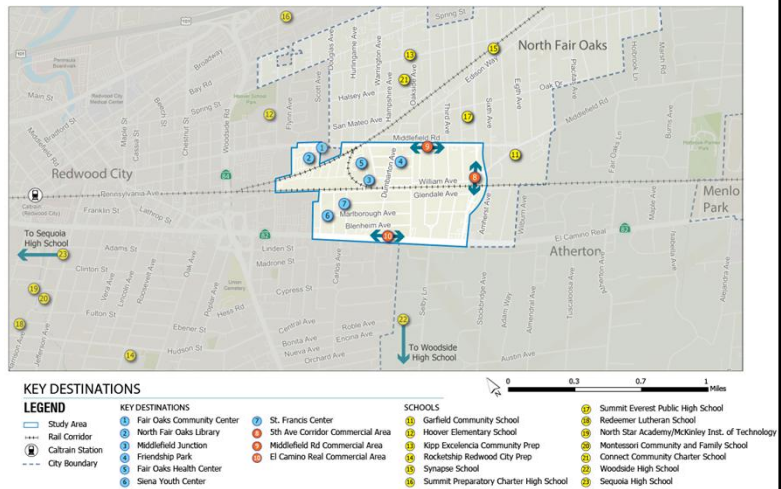
Position the County to be competitive for future grant funding opportunities to support implementation

4

Study Area

North Fair Oaks

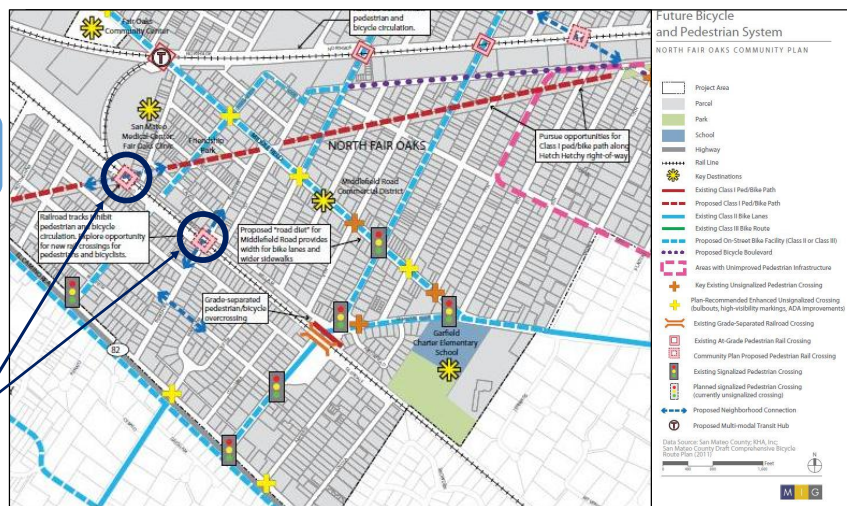
- Dense, predominantly residential community of approximately 15,000 people
- Large Hispanic population (~70%)
- Caltrain rail corridor expands from 2 continuous tracks to 4-track at 5th Street, creating a wide barrier to the community
- Only one crossing of the rail corridor in North Fair Oaks
- 1.0 mile between the Fifth Avenue crossing in North Fair Oaks and the Woodside Road crossing in Redwood City
- Woodside Road crossing has limited connectivity to community centers, narrow pathways with sparse lighting, and features that do not adhere to ADA standards



Previous Plans

North Fair Oaks Community Plan (2011)

- Plan adopted to establish a long-term vision for the North Fair Oaks Community
- Evaluated mobility and identified gaps in the existing transportation system
- Proposed studying new pedestrian and bicycle rail crossing options within the area

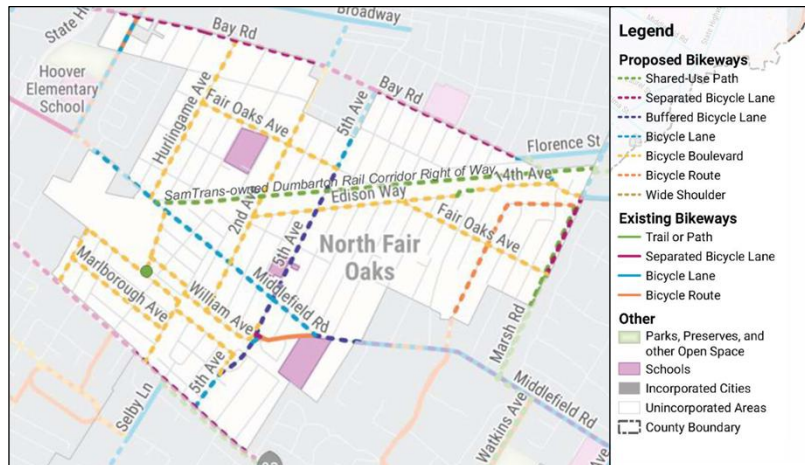




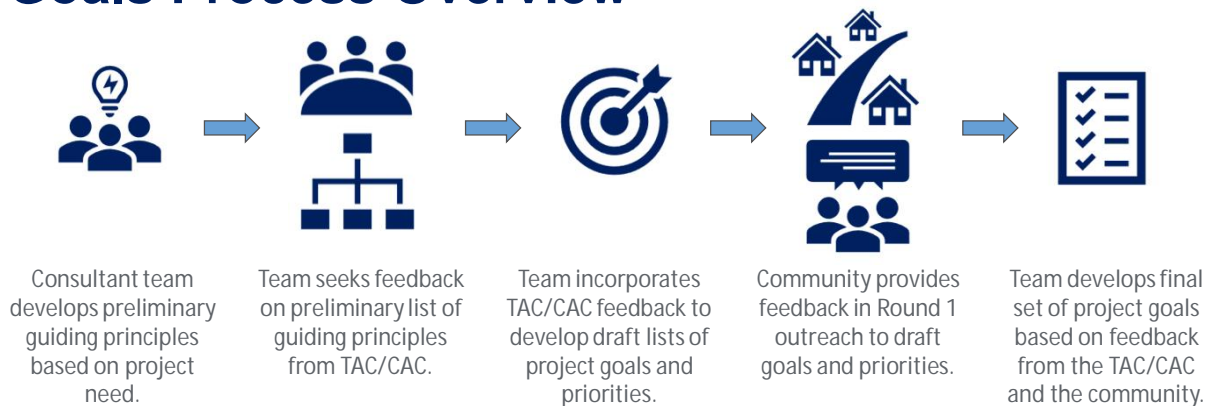
Previous Plans

Unincorporated San Mateo County Active Transportation Plan (2021)

- Plan provides a comprehensive framework to guide the development of active transportation projects throughout unincorporated County communities
- Identified North Fair Oaks as having some of the greatest potential demand for walking/bicycling in the County's unincorporated communities
- Identified a Study for a new pedestrian/bicycle crossing of the Caltrain tracks as an ongoing high priority



Goals Process Overview



NORTH FAIR OAKS

BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY

Project Goals

Access	Community Integration	Constructability	Equity	Safety
Provide widely accessible pedestrian and bicycle connections across the rail corridor and to adjacent communities to create a more useful, inclusive, and safer transportation network.	Ensure that newly constructed facilities enhance the sense of community and community aesthetic of North Fair Oaks through improved connections and by incorporating public art, public spaces, and attractive structures.	To the extent possible, limit adverse impacts to the surrounding community and infrastructure during construction, while striving to minimize construction and maintenance costs given limited funding.	Prioritize equitable transportation implementation, especially for those without access to a car, while limiting community impacts to housing, adhering to larger community and regional sustainability goals beyond the immediate Study goals, and considering all stakeholder input.	Design facilities guided by the prioritization for the most vulnerable populations, and create safe, well-lit spaces that are comfortable to access and utilize with personal security in mind.

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COUNTY OF SAN MATEO

9

9

NORTH FAIR OAKS

BICYCLE AND PEDESTRIAN RAILROAD CROSSING AND COMMUNITY CONNECTIONS STUDY

2. Rail Crossing Options Development and Screening

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COUNTY OF SAN MATEO

Kimley»Horn

10



Options Development Process



Rail Crossing Screening Criteria



Parcel Impacts

Does the footprint encroach into any privately-owned parcels?

Design Approach: Minimize parcel impacts where possible and completely avoid residential displacement

Parking Impacts

Do required roadway modifications limit the amount of parking options near the crossing?

Design Approach: Minimize parking loss wherever possible. At least some parking loss expected for most options.

Access Impacts

Would access to any parcels be impacted?

Design Approach: Avoid ramps and configurations that preclude residential access. Minimize changes in circulation to residential access, although some changes unavoidable.

Fire/Emergency Access

Will emergency vehicles be able to access the crossing and surrounding properties?

Design Approach: Identify roadway clear widths less than 20'. Ensure intersections are navigable for emergency vehicles.

SFPUC Utilities

Would construction conflict with the Hetch Hetchy Bay Division pipeline or the Palo Alto Pipeline?

Design Approach: Design ramps in a way that avoids conflict with Bay Division pipeline.

Caltrain Conflicts

Does facility adhere to Caltrain-specified standards?

Design Approach: Ensure facility meets all separation requirements from OCS poles as well as track clearance requirements.



Screening Criteria:

Parcel Impacts
Parking Impacts
Access Impacts
Fire/Emergency Access
SFPUC Utilities
Caltrain Conflicts



All concepts causing residential displacement were eliminated from further consideration.



No County road right-of-way owned in fee title streets actually touch the Caltrain right-of-way on the north side



Westmoreland Ave is highly constrained with no sidewalk on the north side and a lack of usable public parcels

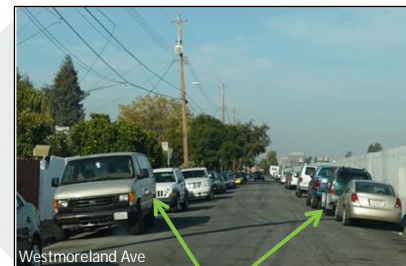


Screening Criteria:

Parcel Impacts
Parking Impacts
Access Impacts
Fire/Emergency Access
SFPUC Utilities
Caltrain Conflicts



Desire to minimize parking loss



On-street parking already heavily utilized

Screening Criteria:

Parcel Impacts
Parking Impacts
Access Impacts
Fire/Emergency Access
SFPUC Utilities
Caltrain Conflicts



Preserve access to residential parcels

Screening Criteria:

Parcel Impacts
Parking Impacts
Access Impacts
Fire/Emergency Access
SFPUC Utilities
Caltrain Conflicts



Engage Fire Department during study to ensure sufficient emergency access and circulation



Screening Criteria:

Parcel Impacts
Parking Impacts
Access Impacts
Fire/Emergency Access
SFPUC Utilities
Caltrain Conflicts

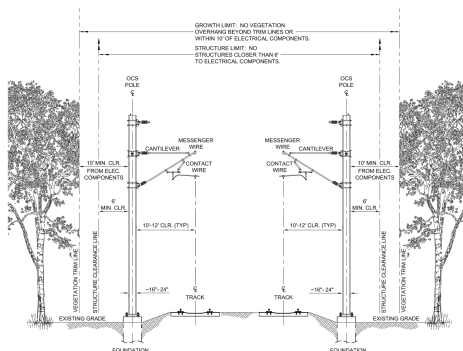


Identify conflicts with SFPUC Utilities and avoid impacts to Bay Division and Palo Alto Pipelines



Screening Criteria:

Parcel Impacts
Parking Impacts
Access Impacts
Fire/Emergency Access
SFPUC Utilities
Caltrain Conflicts



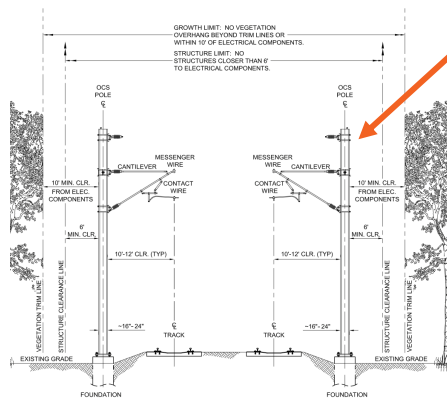
- Caltrain Requirements:
- Minimum 30' above tracks
 - Minimum 5' below tracks
 - 10' from Overhead Catenary System (OCS) Poles to electrical components, 6' for grounded construction equipment



Crossing design must adhere to Caltrain requirements in order to enter their ROW



Caltrain Conflicts – OCS Clearance



Constraint: Caltrain's newly-installed Overhead Catenary System (OCS) poles pose a challenge to bridge construction over the Caltrain corridor.

Required clearance and construction feasibility depend primarily upon OCS interactions.

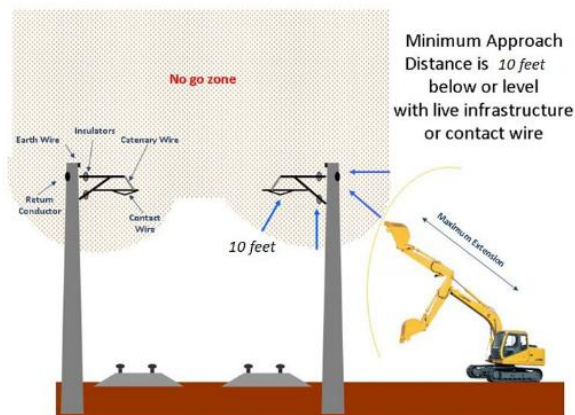
Greater height requires longer ramps and a larger footprint, resulting in greater visual and parking impacts. Greater elevation changes and longer ramps are more challenging for mobility-impaired persons.



Caltrain Conflicts – Bridge Constructability

The OCS system also complicates construction, as equipment must maintain a safe distance from system features.

Caltrain is in the process of developing more comprehensive criteria for structures over the corridor, which could impact crossing projects going forward.



Source: Caltrain Electrical Safety Awareness Training, March 2023.



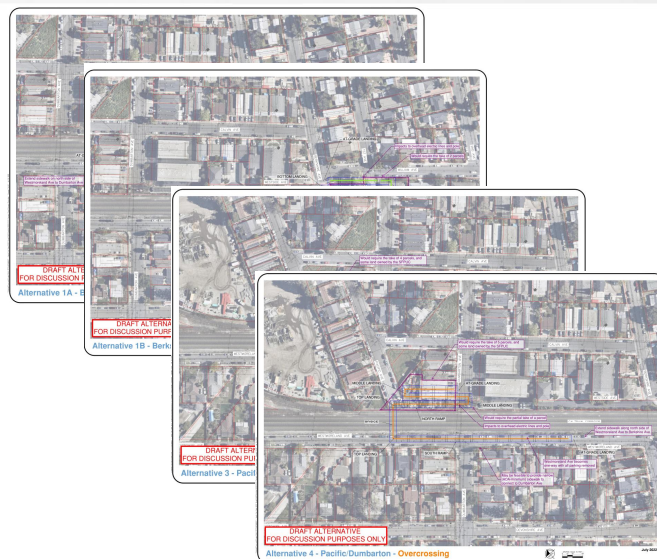
3. Rail Crossing Options and Screening Findings



Initial Set of Options

The team initially laid out 13 different concepts for consideration, evaluating the impacts of each from a high level.

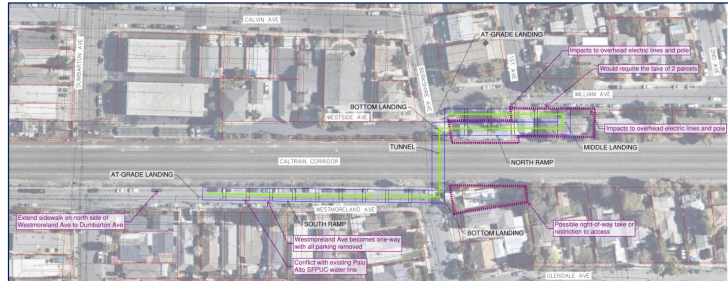
The final 3 options selected include a combination of features from multiple preliminary concepts.





Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Three residential dwelling units removed Potential ROW take from an additional residential parcel
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 50 parking spaces from Westmoreland, 10 from William
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 9 driveways
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto Pipeline likely impacted
Caltrain Conflicts	N/A

Option 1A Berkshire Ave Undercrossing

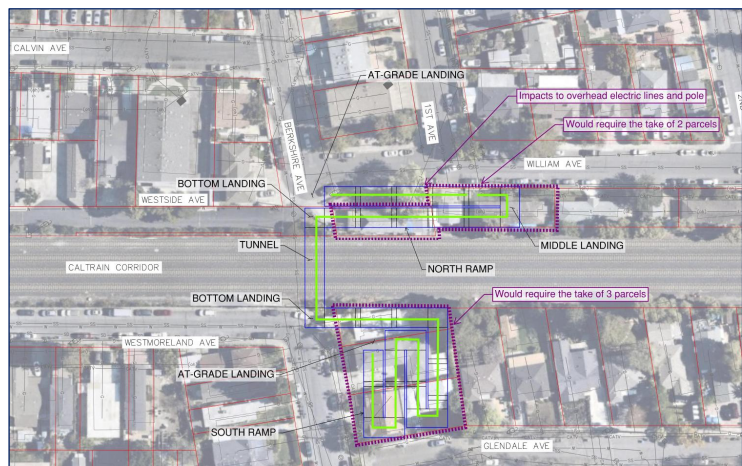


Recommendation: Requires taking multiple residential parcels – do not consider further.



Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Ten residential dwelling units removed
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 10 parking spaces from William
Access Impacts	N/A
Fire/Emergency Access	N/A
SFPUC Utilities	<ul style="list-style-type: none"> Potentially conflicts with the Palo Alto Pipeline; further investigation may be required
Caltrain Conflicts	N/A

Option 1B Berkshire Ave Undercrossing



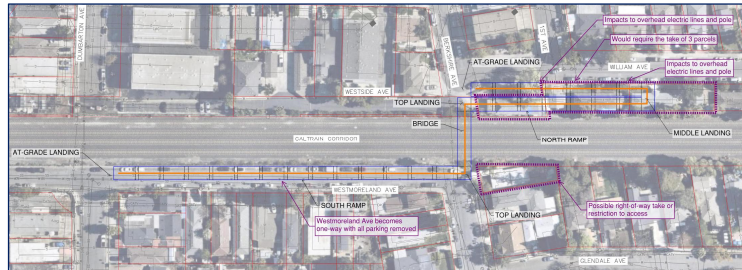
Recommendation: Requires taking multiple residential parcels – do not consider further.





Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Five residential dwelling units removed Potential ROW take from an additional residential parcel
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 50 parking spaces from Westmoreland, 10 from William
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 9 driveways
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted
Caltrain Conflicts	<ul style="list-style-type: none"> Overcrossing will need to be designed to accommodate setback requirements from Caltrain OCS infrastructure

Option 2 Berkshire Ave Overcrossing

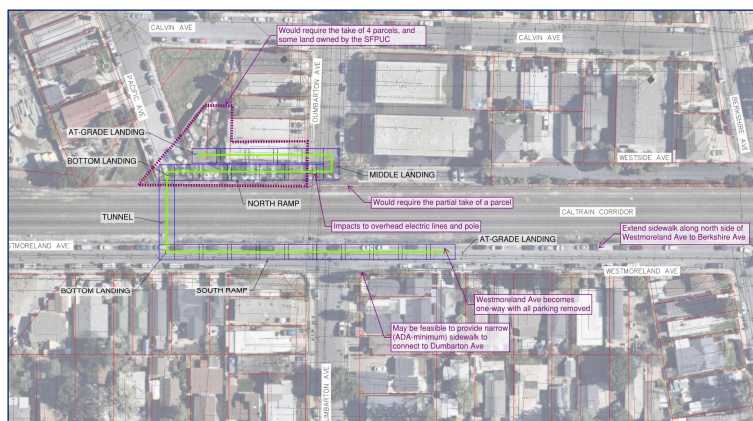


Recommendation: Requires taking multiple residential parcels – do not consider further.



Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Two residential dwelling units removed ROW take from an additional residential parcel
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 60 parking spaces from Westmoreland
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 24 driveways
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted; some SFPUC-owned land required
Caltrain Conflicts	N/A

Option 3 Pacific/Dumbarton Undercrossing



Recommendation: Requires taking a residential parcel – re-configure northern ramp to preserve the residential parcel and consider further.



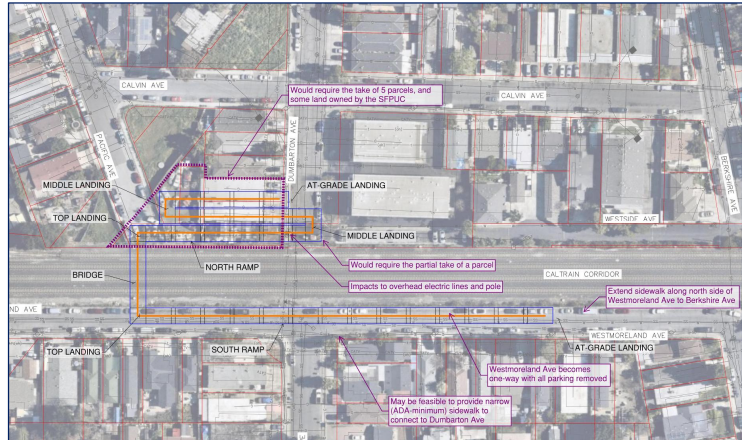


Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Four residential dwelling units removed ROW take from an additional residential parcel
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 80 parking spaces from Westmoreland
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 24 driveways
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted; some SFPUC-owned land required
Caltrain Conflicts	<ul style="list-style-type: none"> Overcrossing will need to be designed to accommodate setback requirements from Caltrain OCS infrastructure

Recommendation: Requires taking multiple residential parcels. Modify northern ramp to preserve the residential parcels and consider further.



Option 4 Pacific/Dumbarton Overcrossing

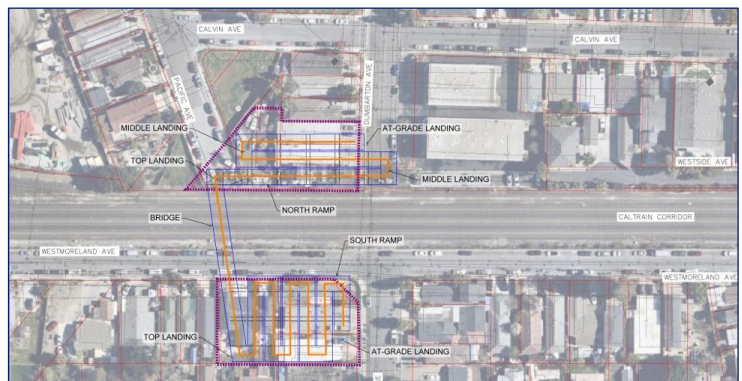


Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> 11 residential dwelling units removed ROW take from an additional residential parcel
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 80 parking spaces from Westmoreland
Access Impacts	<ul style="list-style-type: none"> Re-configuration of 200 Dumbarton driveway
Fire/Emergency Access	N/A
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted; some SFPUC-owned land required
Caltrain Conflicts	<ul style="list-style-type: none"> Overcrossing will need to be designed to accommodate setback requirements from Caltrain OCS infrastructure

Recommendation: Requires taking multiple residential parcels – do not consider further.



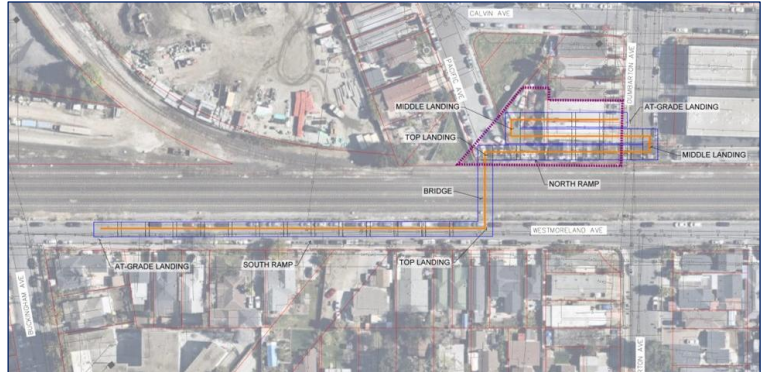
Option 4-7A Pacific/Dumbarton Overcrossing





Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Four residential dwelling units removed ROW take from an additional residential parcel
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 60 parking spaces from Westmoreland
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 17 driveways
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted; some SFPUC-owned land required Crosses over Hetch Hetchy pipelines
Caltrain Conflicts	<ul style="list-style-type: none"> Overcrossing will need to be designed to accommodate setback requirements from Caltrain OCS Infrastructure

Option 4B Pacific/Dumbarton Overcrossing



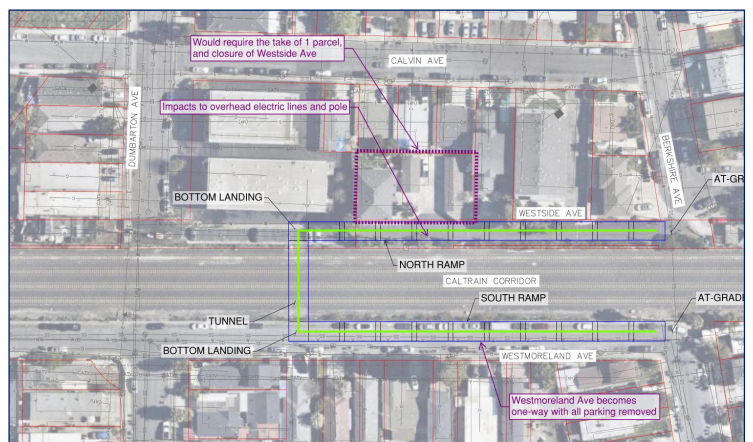
*SMC staff-proposed option

Recommendation: Requires taking multiple residential parcels – do not consider further.



Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Removal of property access on Westside impacts and potentially precludes access to multiple residential parcels
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 50 parking spaces from Westmoreland and approximately 7 parking spaces from 200 Dumbarton apartment complex
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 9 driveways Closes Westside, eliminating access to one residential parcel
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted
Caltrain Conflicts	N/A

Option 5 Dumbarton/Westside/Berkshire Undercrossing



Recommendation: Eliminates access to one residential parcel – do not consider further.



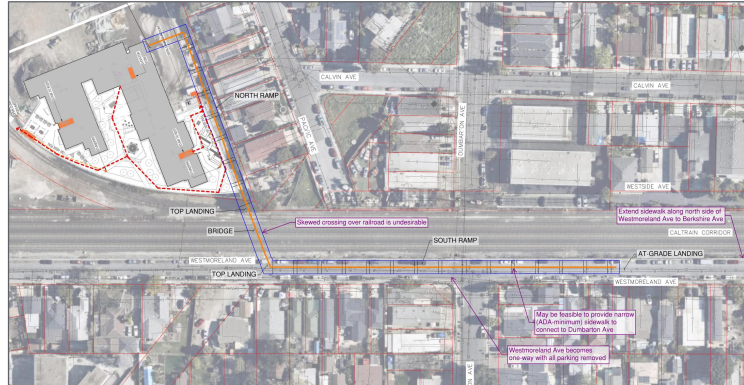


Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Conflicts with the Middlefield Junction site layout and utilities; requires further coordination with site developer
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 70 parking spaces from Westmoreland
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 20 driveways
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted Spans over Hetch Hetchy pipelines
Caltrain Conflicts	<ul style="list-style-type: none"> Overcrossing will need to be designed to accommodate setback requirements from Caltrain OCS infrastructure

Recommendation: Conflicts with Middlefield Junction site design and existing utilities – do not consider further.



Option 6A Middlefield Junction Overcrossing

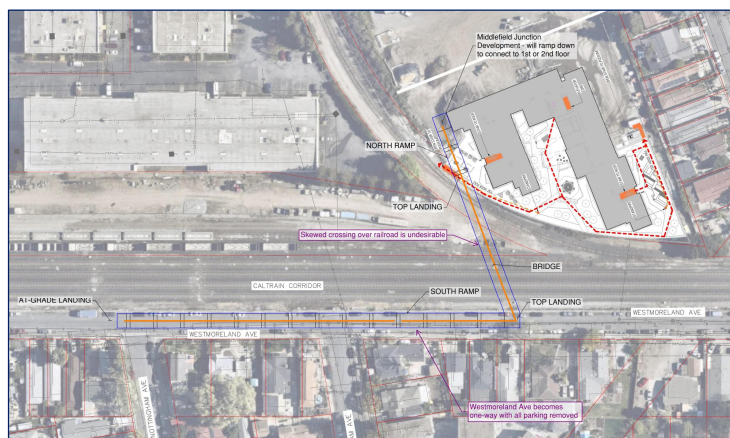


Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Requires further coordination with Middlefield Junction developer to integrate with site plan
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 54 parking spaces from Westmoreland Additional parking impacts on Middlefield Junction site
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 20 driveways Requires further coordination with Middlefield Junction developer to integrate with site plan
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department
SFPUC Utilities	N/A
Caltrain Conflicts	<ul style="list-style-type: none"> Overcrossing will need to be designed to accommodate setback requirements from Caltrain OCS infrastructure

Recommendation: Modify northern ramp to accommodate Middlefield Junction site plan and adjust crossing to reduce skew across tracks. Consider further.



Option 6B Middlefield Junction Overcrossing



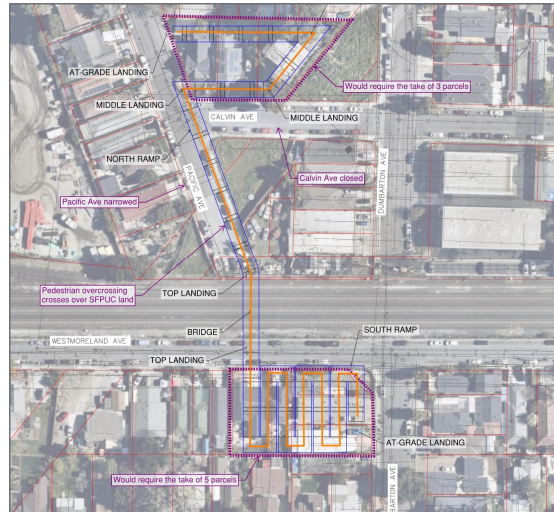


Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Twelve residential dwelling units removed
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 25 parking spaces from Pacific Avenue and 25 from Calvin Avenue
Access Impacts	N/A
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department Closure of Calvin Avenue would restrict emergency vehicle circulation
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted; some SFPUC-owned land required Longer bridge span, higher vertical clearance may be required over SFPUC infrastructure
Caltrain Conflicts	<ul style="list-style-type: none"> Overcrossing will need to be designed to accommodate setback requirements from Caltrain OCS infrastructure

Recommendation: Requires taking multiple residential parcels – do not consider further.



Option 7A Calvin/Pacific Overcrossing

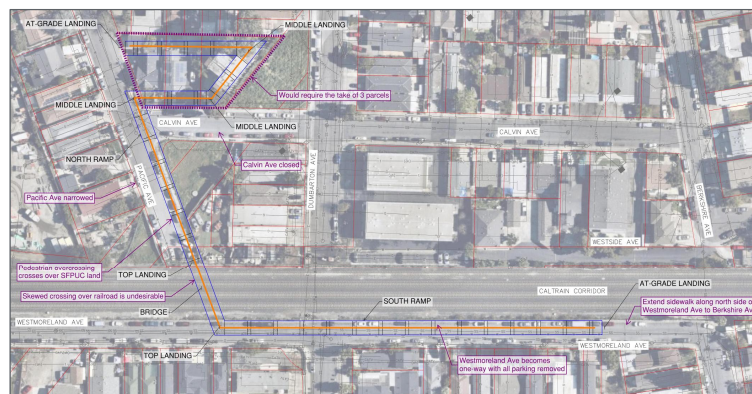


Screening Considerations	Impacts
Parcel Impacts	<ul style="list-style-type: none"> Five residential dwelling units removed
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 80 parking spaces from Westmoreland Avenue, 25 from Pacific Avenue, and 25 from Calvin Avenue
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 24 driveways
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department Closure of Calvin Avenue would restrict emergency vehicle circulation
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted Longer bridge span, higher vertical clearance may be required over SFPUC infrastructure
Caltrain Conflicts	<ul style="list-style-type: none"> Overcrossing will need to be designed to accommodate setback requirements from Caltrain OCS infrastructure

Recommendation: Requires multiple residential parcels – do not consider further.



Option 7B Calvin/Pacific Overcrossing



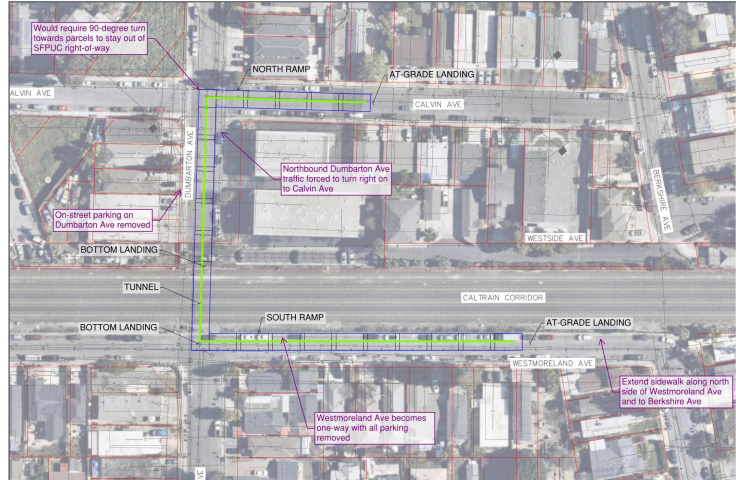


Screening Considerations	Impacts
Parcel Impacts	N/A
Parking Impacts	<ul style="list-style-type: none"> Removes approximately 50 parking spaces from Westmoreland Avenue, 10 from Dumbarton Avenue, and 15 from Calvin Avenue
Access Impacts	<ul style="list-style-type: none"> One-way conversion of Westmoreland modifies access to 9 driveways Approximately 6 driveways along Dumbarton Avenue would have modified or restricted access
Fire/Emergency Access	<ul style="list-style-type: none"> Narrowing of Westmoreland requires further coordination with Fire Department Dumbarton narrowed to sub-standard width, would not meet fire code
SFPUC Utilities	<ul style="list-style-type: none"> Palo Alto pipeline likely impacted
Caltrain Conflicts	N/A

Recommendation: Dumbarton modifications not feasible while maintaining adequate width for emergency access – do not consider further.



Option 8 Calvin/Pacific Undercrossing



Other Considerations - Gondolas

Opportunities

- Compact, relatively small footprint compared to other transit modes
- May avoid need for other vertical circulation strategies

Challenges

- Need for stations would require private property, impacting and/or displacing residents
- Very expensive ongoing operating cost, including on-site attendants
- Limited hours of operation
- Privacy concerns for adjacent residents
- Gondolas typically used for connections longer than a crossing over a rail corridor



Source: KXAN, Austin, TX

Opportunities

- ## Challenges

- High operations and maintenance cost (estimated to be approximately \$100k+ annually) for repairs, security, and cleaning
- Personal security concerns, particularly without nearby staffing
- Requires alternative ADA accommodations, such as ramps or bus bridge during periods when elevators are out of service

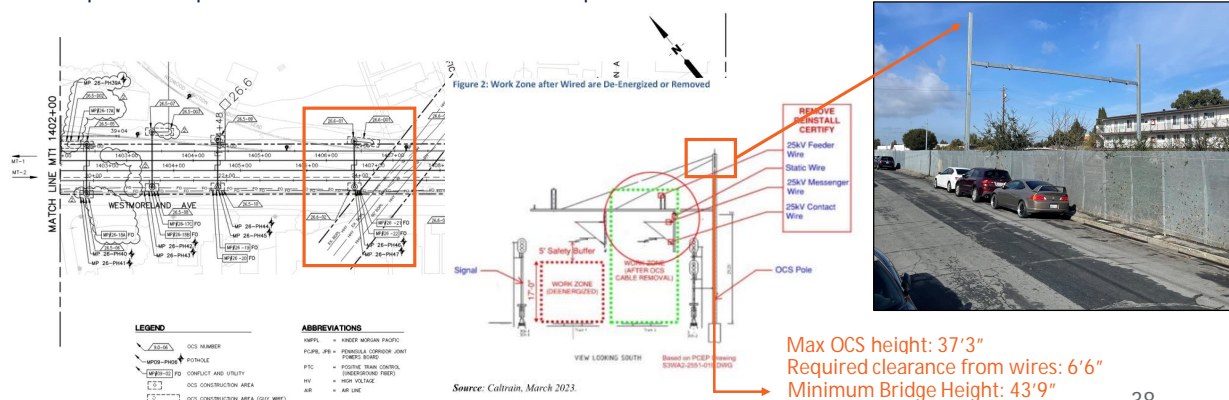


Source: BikePortland, Portland, OR.

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Following the development of initial options, Caltrain provided updated guidance on clearance requirements over the under-construction OCS system. This new requirement increased the required clearance and causes the bridge facility footprints to expand, which is reflected in the refined options.



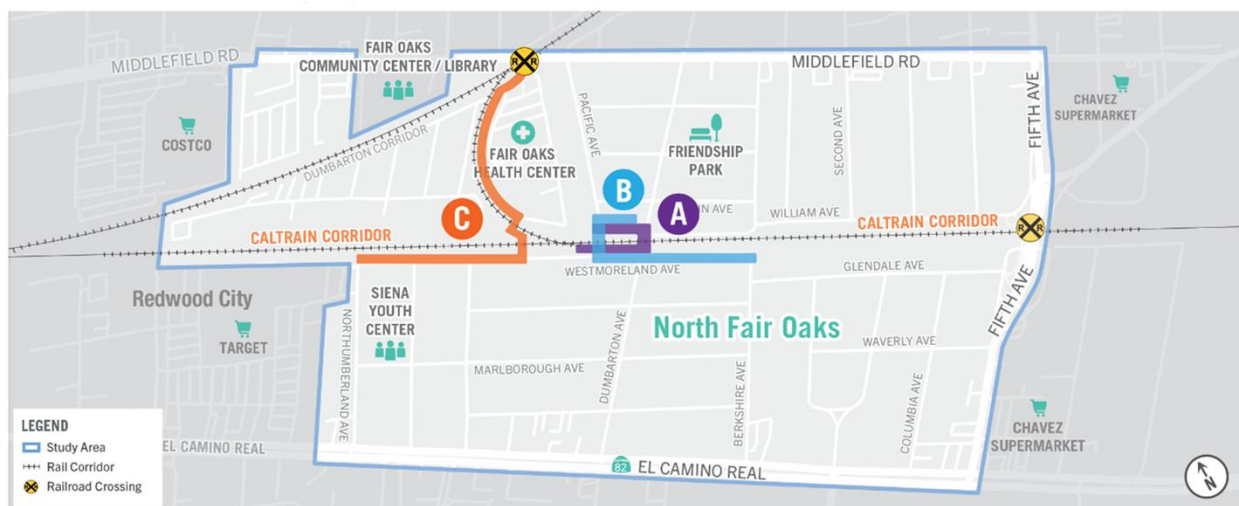
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4. Refined Crossing Options for Evaluation

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OPTION A
DUMBARTON AVENUE TUNNEL

OPTION B
DUMBARTON AVENUE BRIDGE

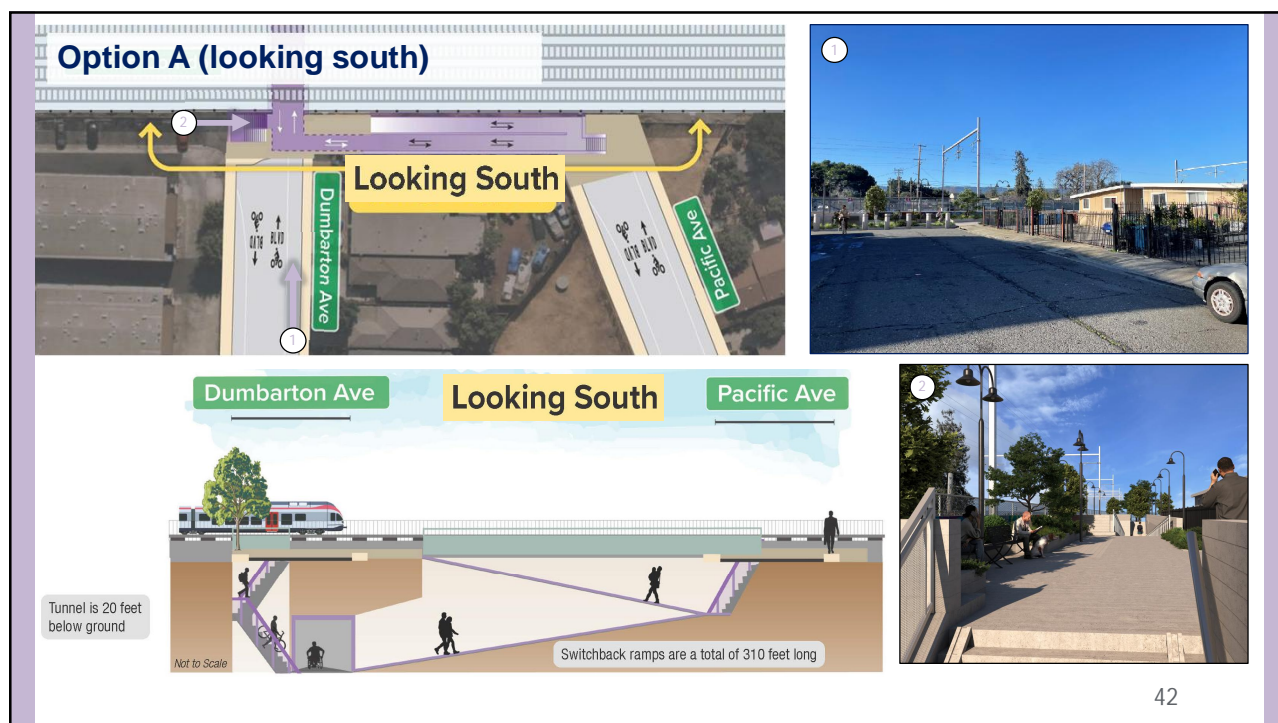
OPTION C
MIDDLEFIELD JUNCTION BRIDGE

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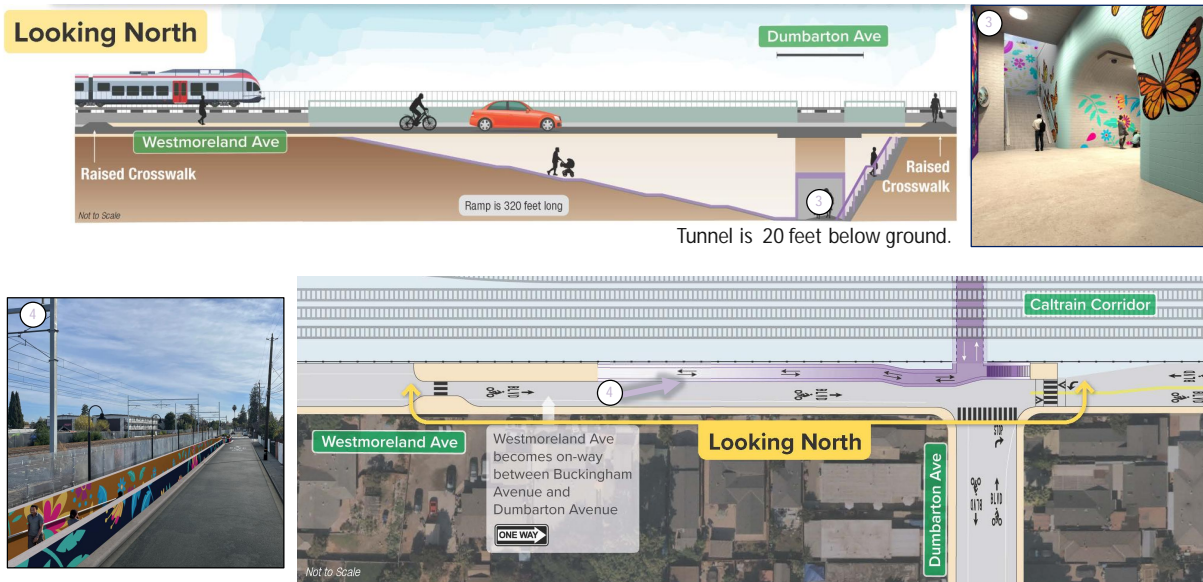
41



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Option A (looking north)

Looking North



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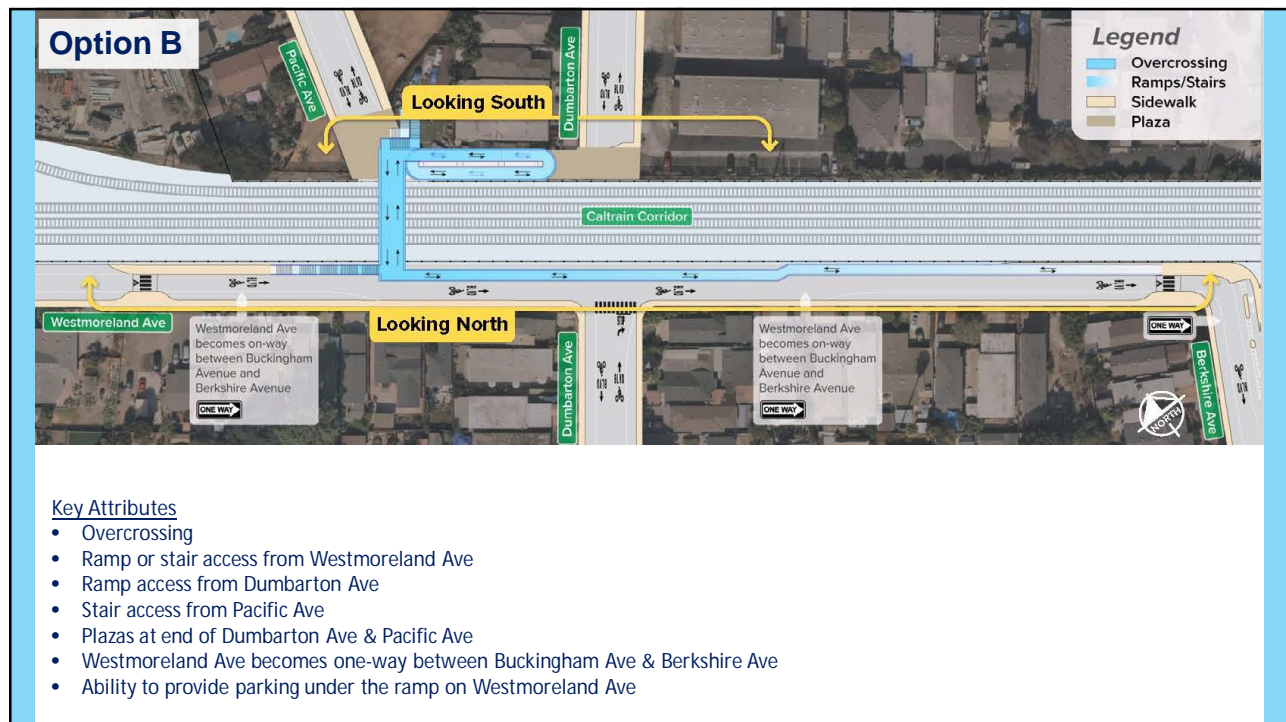


Option A – Key Considerations

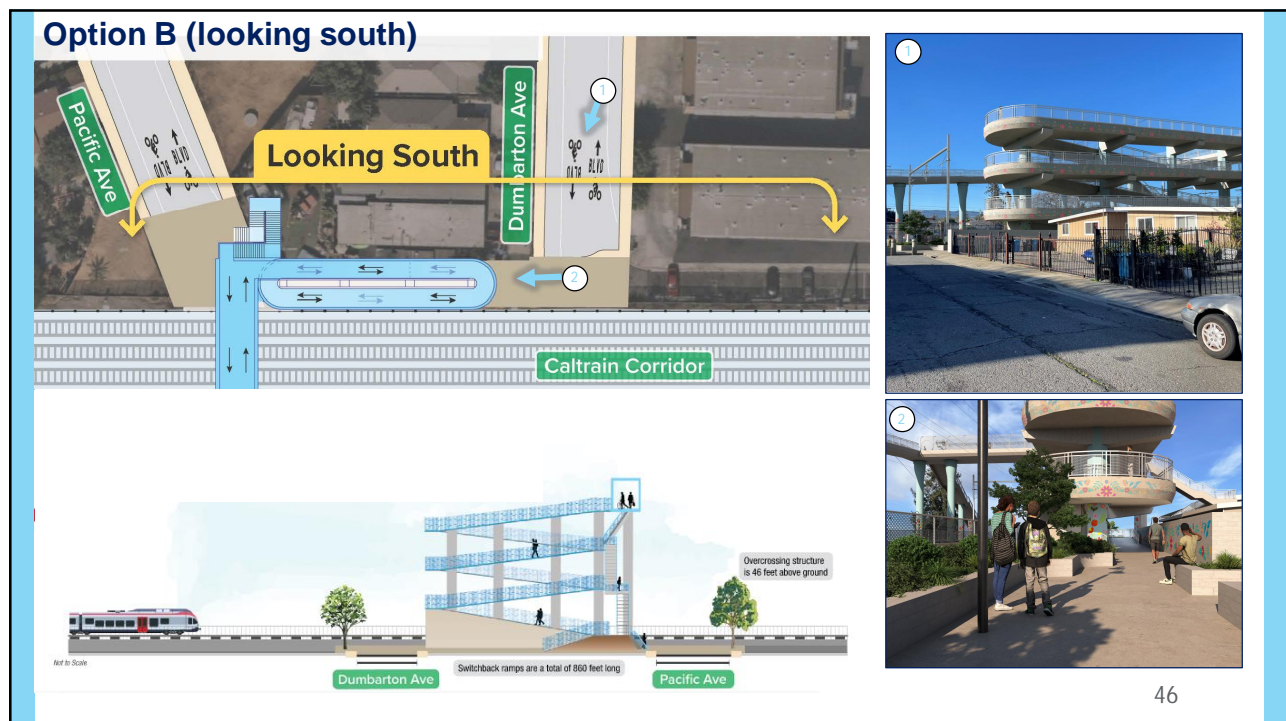
- Stairs directly connect Dumbarton Ave across tracks
- Least amount of grade change for users
- Parking loss of approximately 57 spaces
- Westmoreland Ave becomes one-way for one block
- Property acquisition for portions of two parcels on north side, but no residential displacement
- Tunneling activity would impact access and circulation during construction

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Option B – Key Considerations

- Parking loss of approximately 60 spaces
- Southern stair access is provided in the middle of the block
- Westmoreland Ave becomes one-way for two blocks
- Property acquisition for portions of three parcels on north side, but no residential displacement
- Tall overcrossing structure would be visually prominent and requires large grade change for users
- Would likely require relocation of the Palo Alto Pipeline

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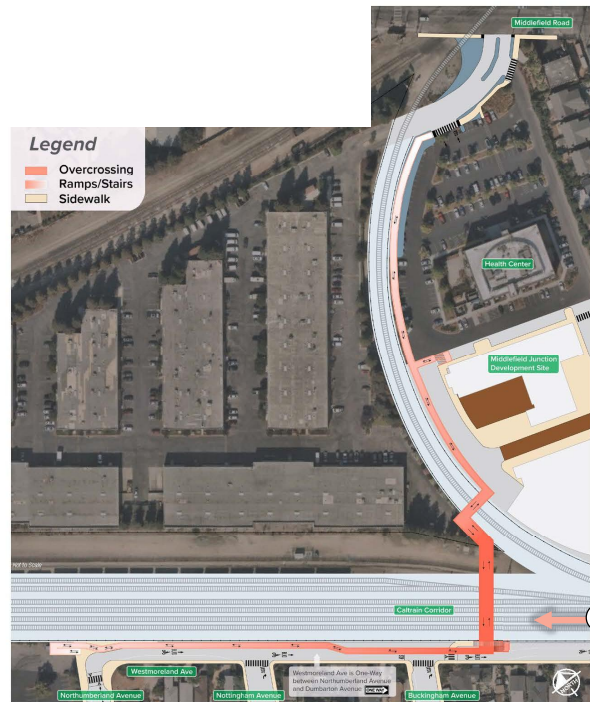
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Option C

Key Attributes

- Overcrossing
- Ramp or stair access from Westmoreland Ave
- Ramp + stair access from Middlefield Junction
- Ramp access from Health Center
- Westmoreland Ave becomes one-way between Northumberland Ave & Dumbarton Ave
- Ability to provide parking under the ramps on Westmoreland Ave and a portion of Heath Center parking lot



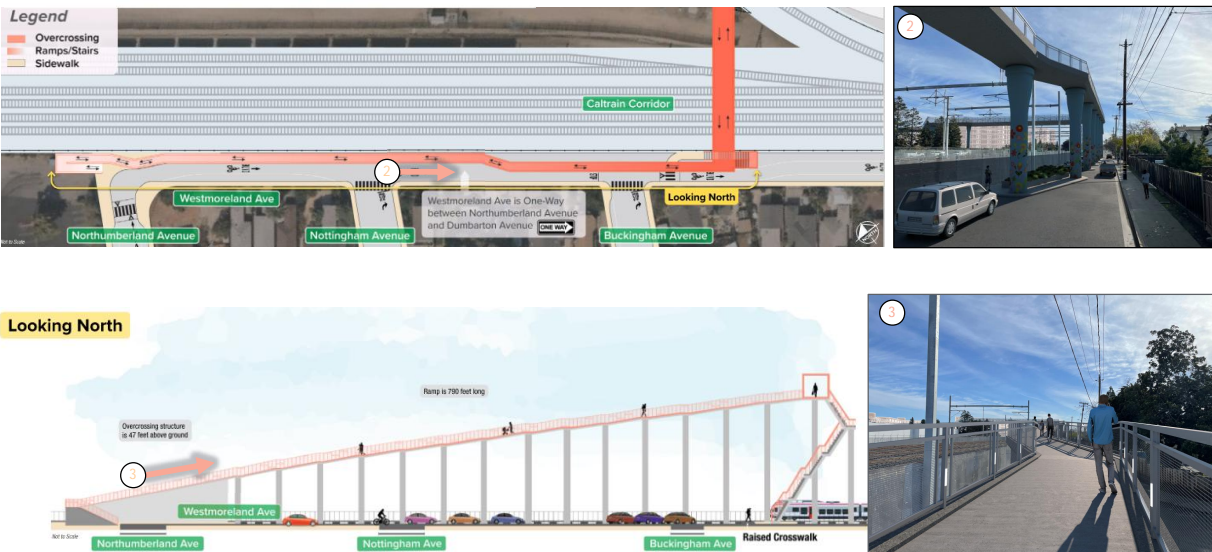
49

Option C (looking west)



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Option C (looking north)



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Option C – Key Considerations

- No residential property acquisition
- Directly connects to Middlefield Junction development and Health Center
- Parking loss of approximately 76 spaces (~30 at Fair Oaks Health Center, ~46 along Westmoreland Avenue)
- Westmoreland Avenue becomes one-way from Northumberland Avenue to Dumbarton Avenue
- Requires relocation of a planned transformer on Middlefield Junction site
- Less connected to existing residential areas north of tracks
- Tall overcrossing structure would be visually prominent and requires large grade change for users

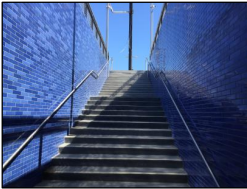
52

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Illustrative Common Crossing Design Features

South San Francisco Caltrain Station Undercrossing



Stairs 8-10' wide



Undercrossing 20' wide

Common Design Features

- Switchback ramps to minimize footprint size
- Incorporate public art into structures and/or plazas
- Overcrossings are fully enclosed by fencing above rail corridor
- Pedestrian-scale lighting



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Xander's Crossing over the Caltrain Tracks & Monterey Highway



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Example Facilities

Mayfield Avenue/San Antonio Caltrain Station Undercrossing



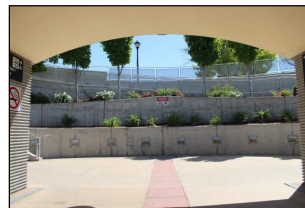
Common Design Features

- ADA-accessible ramps
- Incorporate landscaping where feasible within plazas
- Wayfinding signage
- Safety measures like convex mirrors and security cameras



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Santa Clara Caltrain Station Undercrossing



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5. Community Connections Improvements

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AND COMMUNITY CONNECTIONS STUDY

Community Connections

Objective: Identify, recommend, and design surface street improvements that facilitate the movement of pedestrians and bicyclists to the rail crossing facility and local community destinations in a safe, efficient manner.

Considerations:

Key Bike/Ped Routes to Crossing

Local Plan Synergy

Existing Infrastructure

Key Destinations

Emergency Access

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Community Connections Considerations - Examples

Key Bike/Ped Routes to Crossing



- What is the most direct pedestrian or bicycle route to the proposed crossings?
- Which corridors would be the most heavily-travelled under each grade crossing alternative because of controlled crossings of major streets or access to key destinations?

Local Plan Synergy



- Do the recommendations comply with or adhere to recommendations made in the North Fair Oaks Community Plan and the San Mateo County Active Transportation Plan?
- Which problem areas have previously been identified by other planning studies?

Existing Infrastructure



- Where are there gaps in the pedestrian network or barriers for safe crossings?
 - Where is existing pedestrian and bicycle infrastructure like pedestrian hybrid beacons, signalized crosswalks, and protected bike lanes?

Key Destinations



- Where are the key community destinations and what existing bike and pedestrian facilities connect to them?
- How would someone who wants to go from one key destination to another get there, considering the grade crossing alternatives?

Emergency Access



- Where will proposed pedestrian and bicycle improvements and other network changes impact emergency vehicle circulation?
- How can access to parcels be maintained while still providing comprehensive infrastructure upgrades?



Pedestrian Access Improvements

Surface street improvements like vehicle speed control or enhanced crosswalk facilities compliment the rail crossing by providing a safer, simpler, and more attractive user experience all around.

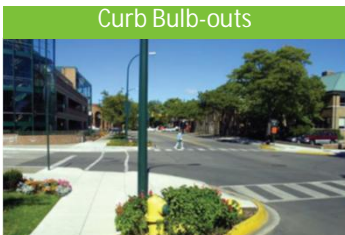
ADA Curb Ramps



High-Visibility Crosswalk



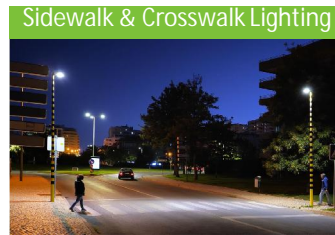
Curb Bulb-outs



Raised Crosswalk



Sidewalk & Crosswalk Lighting





Traffic Calming Improvements

Efforts were made during the outreach phase to understand which surface street improvements* community members were excited about and wanted to see implemented with the proposed crossing.

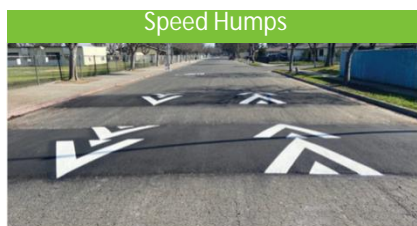
Traffic Circle



Chicanes



Speed Humps



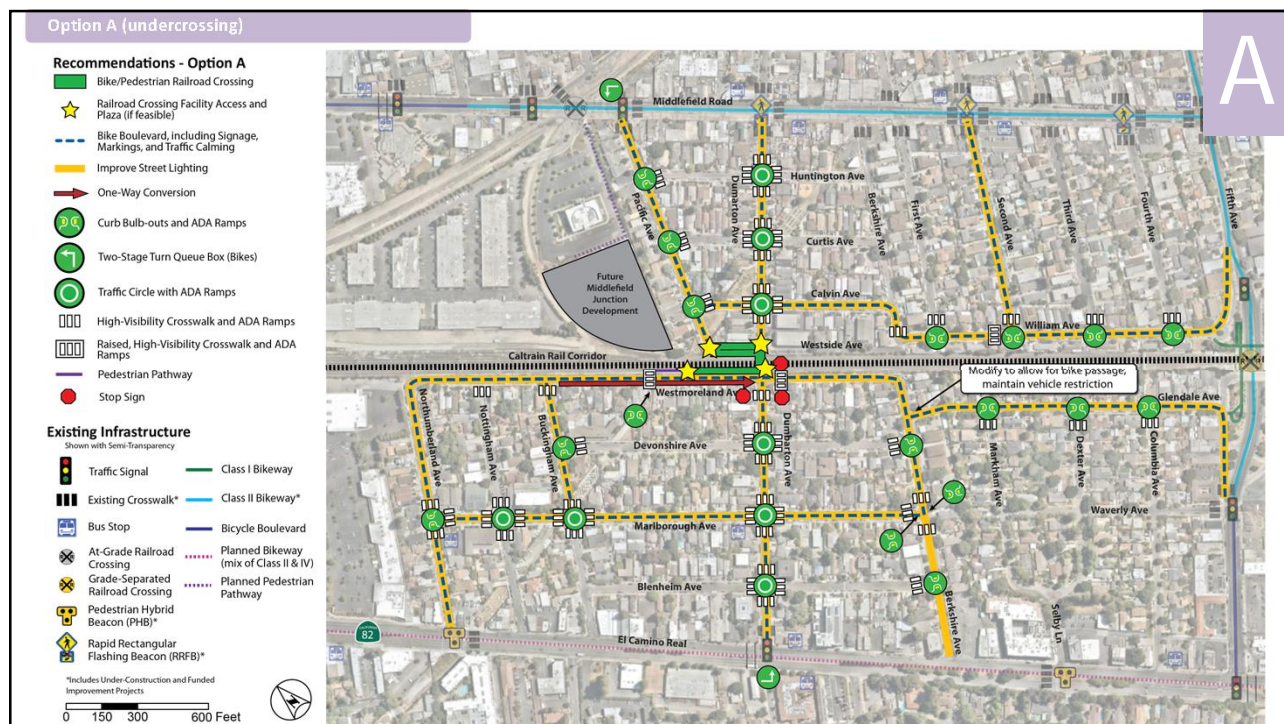
*Note: All traffic calming devices will need to be evaluated by the Department of Public Works - engineering studies/warrants may be needed.

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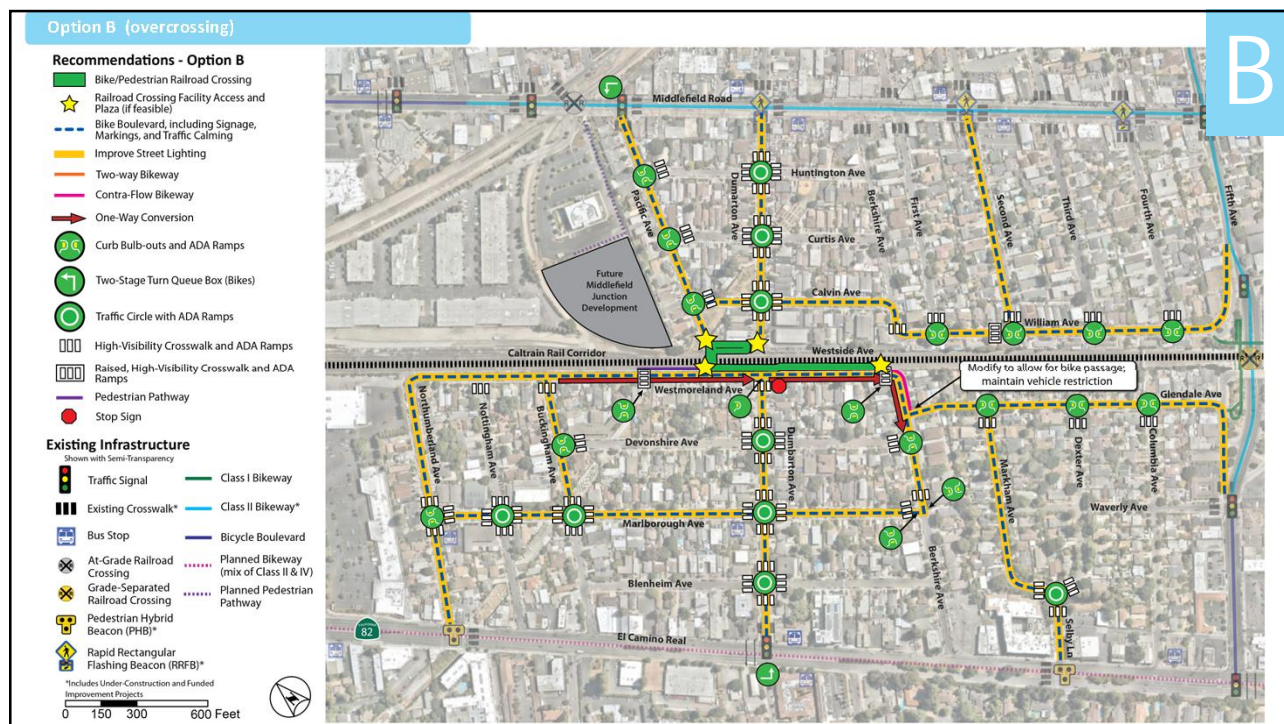
Option A – Community Connections

- New facilities largely adhere to previous plan recommendations
- Traffic-calming improvements like traffic circles and pedestrian bulbs make facilities safer for pedestrians and bicyclists
- Installs pedestrian-scale lighting along key corridors, a feature frequently requested by community
- Buckingham and Northumberland bicycle and pedestrian connection helps improve access to southern ramp
- Recommended facilities on northern side create connections to recently improved signalized or enhanced Middlefield crossings
- Enhances the Dumbarton corridor, which allows for the most direct connection between ECR and Middlefield via the new crossing
- Two-stage turn boxes at Pacific & Middlefield and Dumbarton & ECR enhances bike access

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Option B – Community Connections

- New facilities largely adhere to previous plan recommendations
- Traffic-calming improvements like traffic circles and pedestrian bulbs make facilities safer for pedestrians and bicyclists
- Improves lighting along key pedestrian corridors, a key feature requested by community
- Raised mid-block crossings on Westmoreland between Buckingham and Dumbarton and Berkshire provides more comfortable access from base of stairs and ramp to rest of network
- Contra-flow bikeway on Berkshire provides connections from ECR via Selby/Markham or Dumbarton/Marlborough
- Markham bicycle and pedestrian connection to the Pedestrian Hybrid Beacon to cross ECR at Selby Lane. This would be the primary route from the southern ramp to ECR.
- Enhances the Dumbarton corridor, which allows for the most direct connection between ECR and Middlefield via the new crossing
- Buckingham and Northumberland bicycle and pedestrian connection helps improve access to southern ramp
- Two-stage turn boxes at Pacific & Middlefield and Dumbarton & ECR enhances bike access

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Option C – Community Connections

- New facilities largely adhere to previous plan recommendations
- Traffic-calming improvements like traffic circles and pedestrian bulbs make facilities safer for pedestrians and bicyclists
- Improves lighting along key pedestrian corridors, a key feature requested by community
- New pedestrian path connecting the northern ramp to the pedestrian path to be provided with the Middlefield Improvement project, connecting the facility to Middlefield Road
- Northumberland and Dumbarton provide connections to the ramp and stairs from signalized crossings of ECR
- Markham bicycle and pedestrian connection to the Pedestrian Hybrid Beacon to cross ECR at Selby Lane
- Two-stage turn boxes at Pacific & Middlefield and Dumbarton & ECR enhances bike access
- Note: Due to existing, continuous housing along Pacific Avenue, no direct connection from Middlefield Junction Affordable Housing Site to Pacific Avenue can be provided without residential displacement

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Factors to Consider for a Preferred Rail Crossing/Community Connection Option

Goals

Technical Evaluation

Community Engagement

Caltrain Railroad Corridor Use Policy/Use Variance

CAC & TAC Feedback

Advisory Body Feedback

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6. Evaluation Findings

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Evaluation Process

To evaluate each crossing option based on the established project goals, criteria were developed through collaboration with the County and input from Community members. Measures were established to help rate each crossing on how well each addresses the developed criteria.

Example Criteria – Service Population:

Develop Measures

Service Population

- Existing population within ¼ mile walking distance from rail crossing access points.



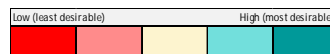
Evaluate

Use GIS and County data to calculate the population for each alternative



Rank

Translate the evaluation findings to a rating for each alternative for each measure



Review

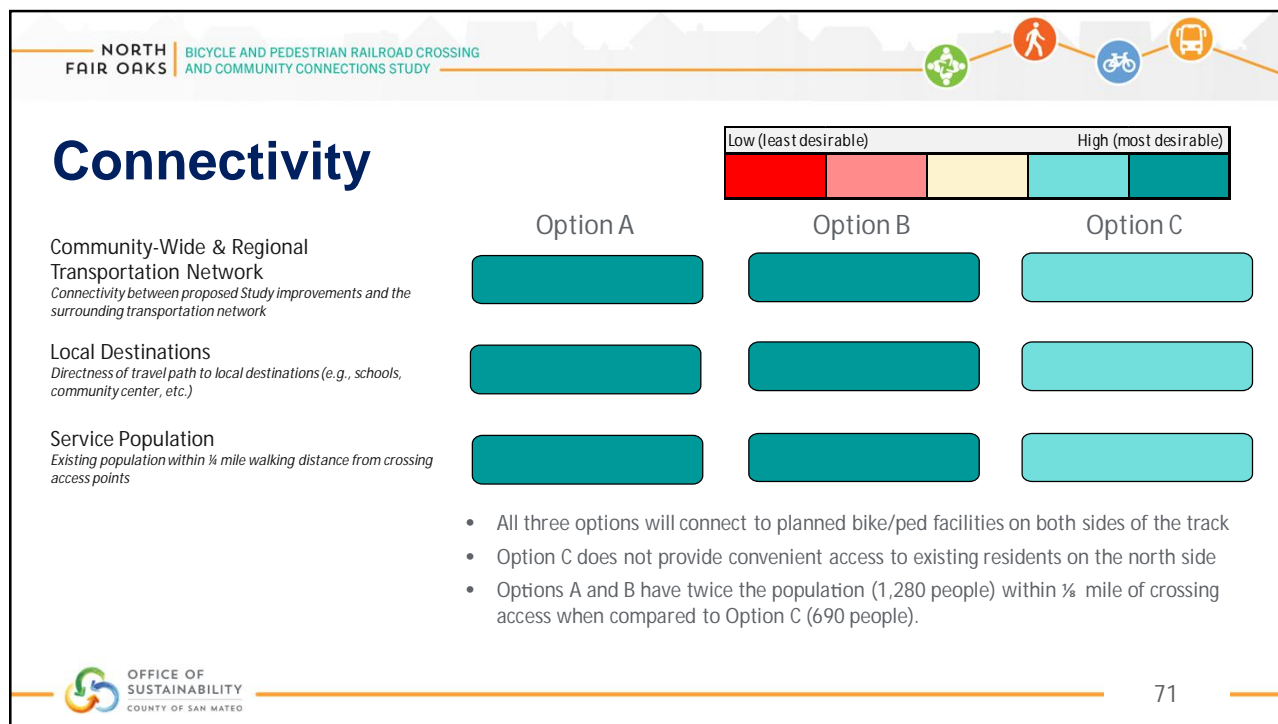
Summarize results for all measures in one table to inform selection of preferred alternative



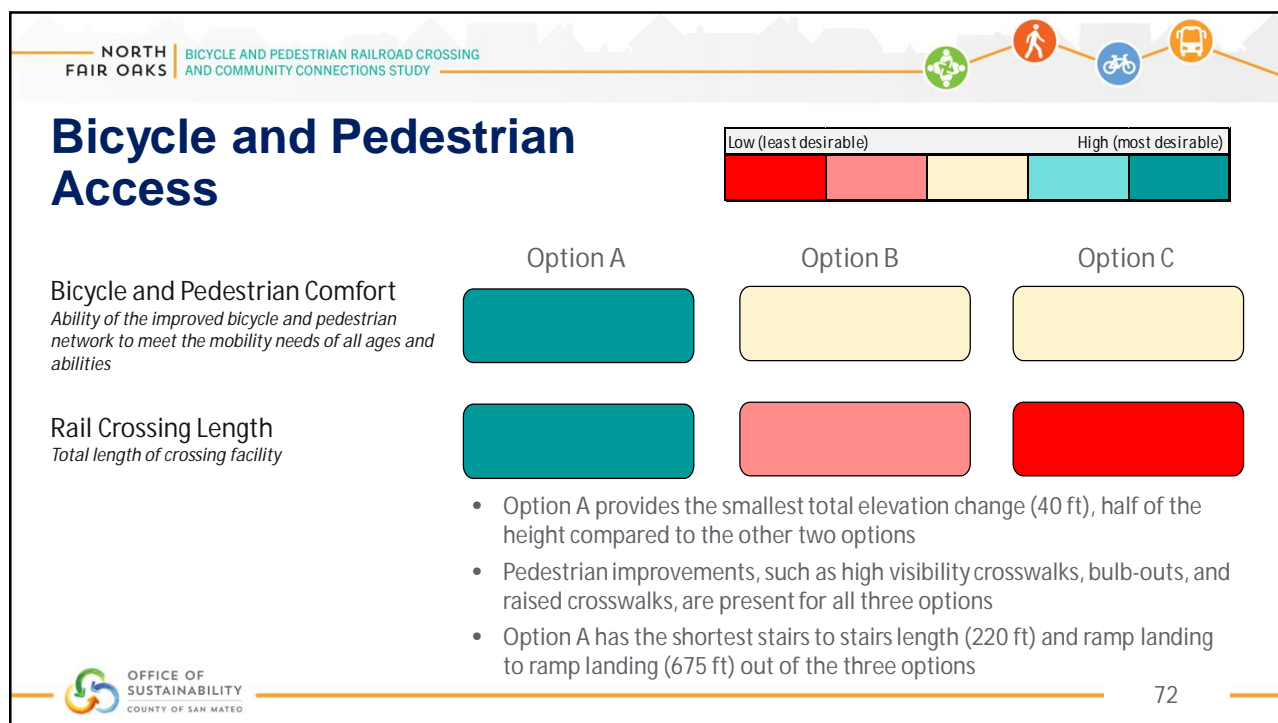
Evaluation Review – Goals and Criteria

With feedback from the community, the final sets of goals and criteria are developed. Each criteria is used to measure how each option performs for each goal.

Access	Community Integration	Constructability	Equity	Safety
<ul style="list-style-type: none"> Connectivity with community-wide & regional transportation network Motor vehicle circulation Rail crossing length 	<ul style="list-style-type: none"> Public space Green infrastructure Connections to local destinations Visual impact 	<ul style="list-style-type: none"> Parking impacts Construction cost Operations and maintenance cost Public infrastructure impact 	<ul style="list-style-type: none"> Service population Direct parcel impacts Construction impact 	<ul style="list-style-type: none"> Bicycle/pedestrian comfort Emergency access Personal security



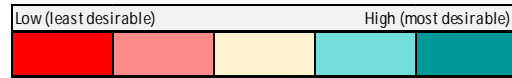
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Infrastructure



Public Space

Potential to create new public spaces

Option A



Option B



Option C



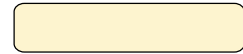
Visual Impact

Level of disruption to views and privacy



Green Infrastructure

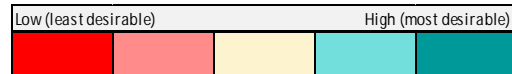
Potential to implement green infrastructure, like solar panels or bio-retention facilities



- Options A & B allow for landscaping, benches and bio-retention in plaza area
- Option C lacks space for landscaping at crossing access points and vegetative screening from Caltrain corridor
- Option A located underground, minimally impacts existing sightlines



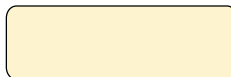
Safety



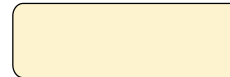
Emergency Access

Effects on emergency vehicle access (e.g. fire/police)

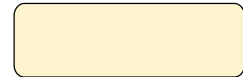
Option A



Option B

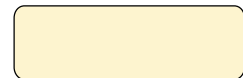
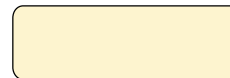
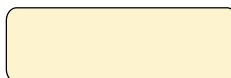


Option C

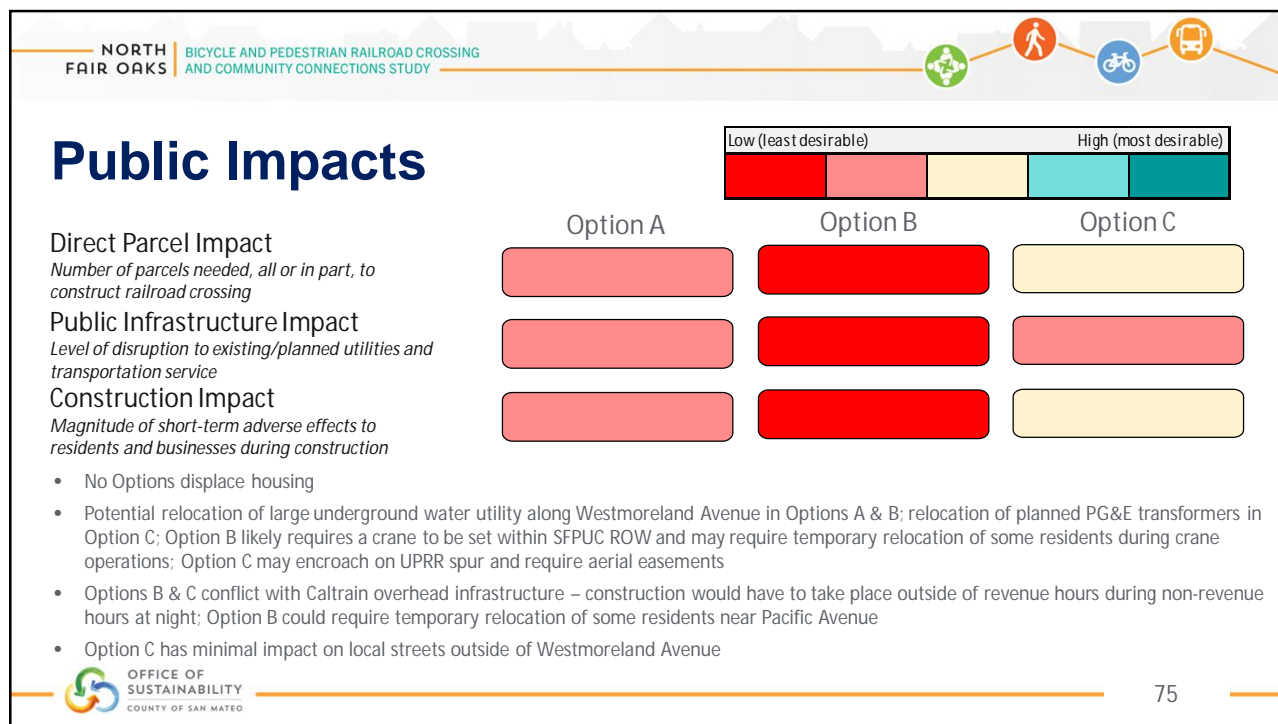


Personal Security

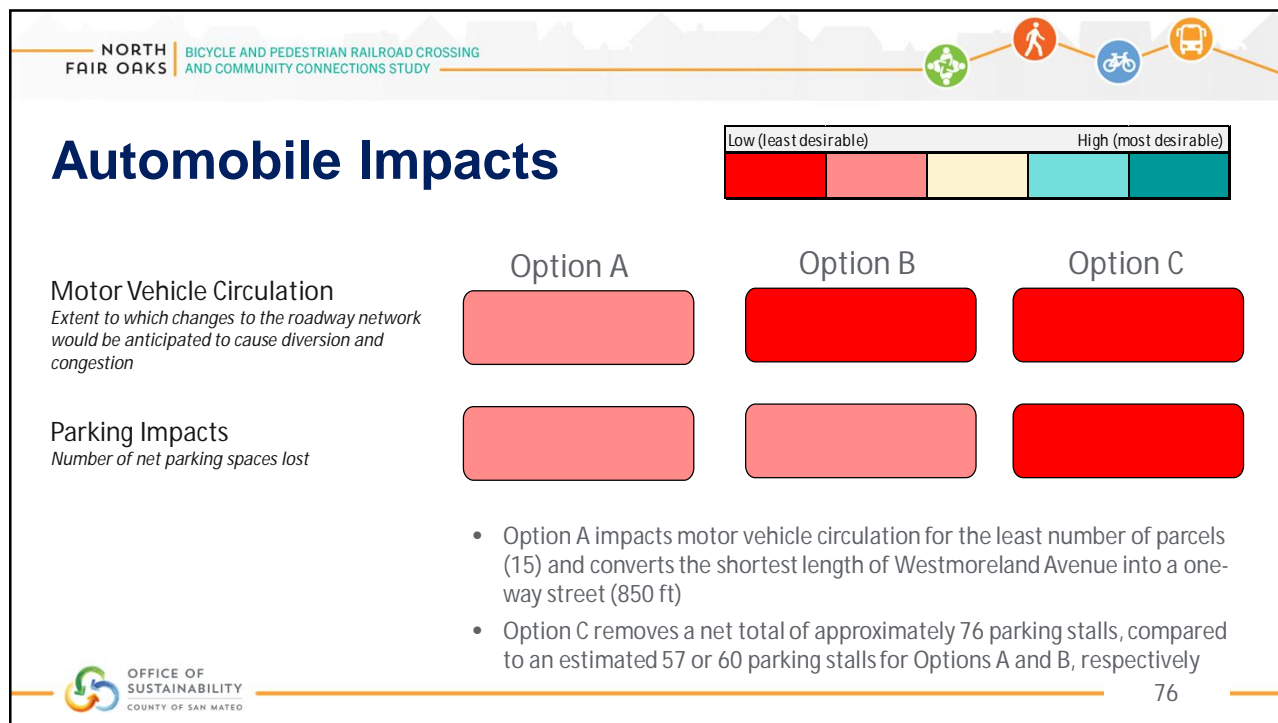
Alignment of facility configuration with Crime Prevention through Environmental Design (CPTED) best practices



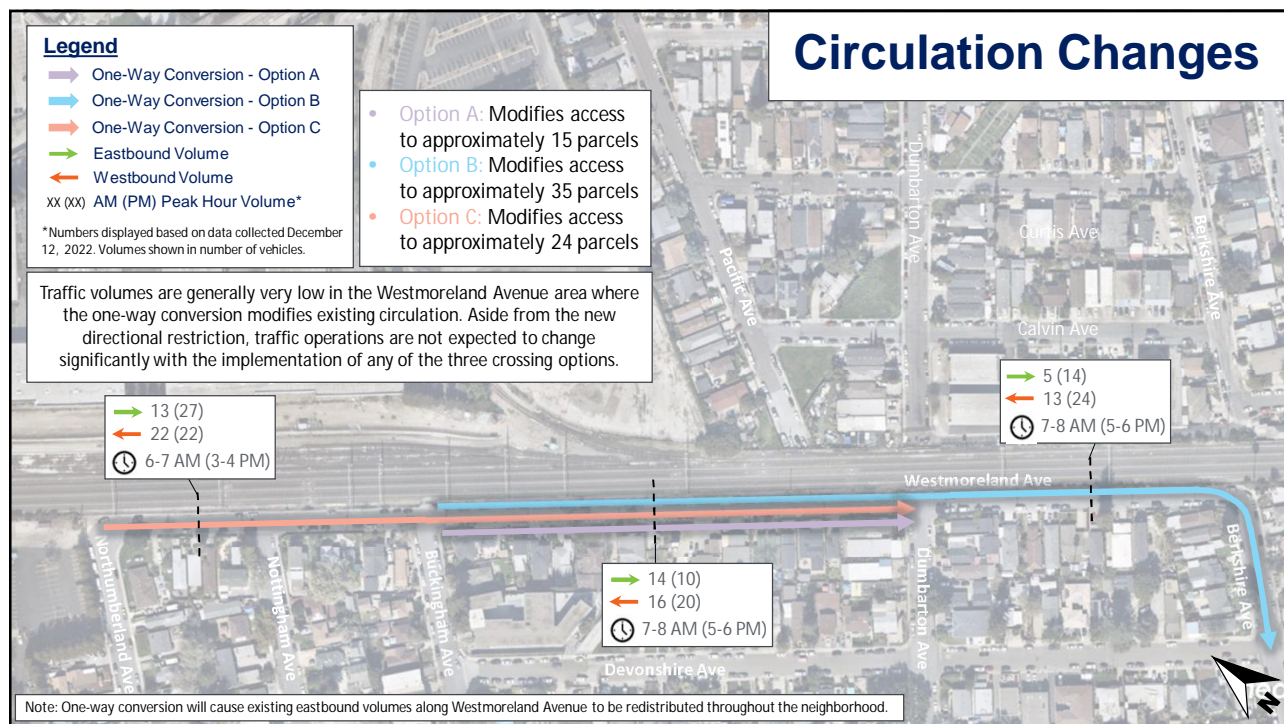
- All options have reduced visibility of users from street level, with the undercrossing below ground and the overcrossings significantly above ground with long distances between access points



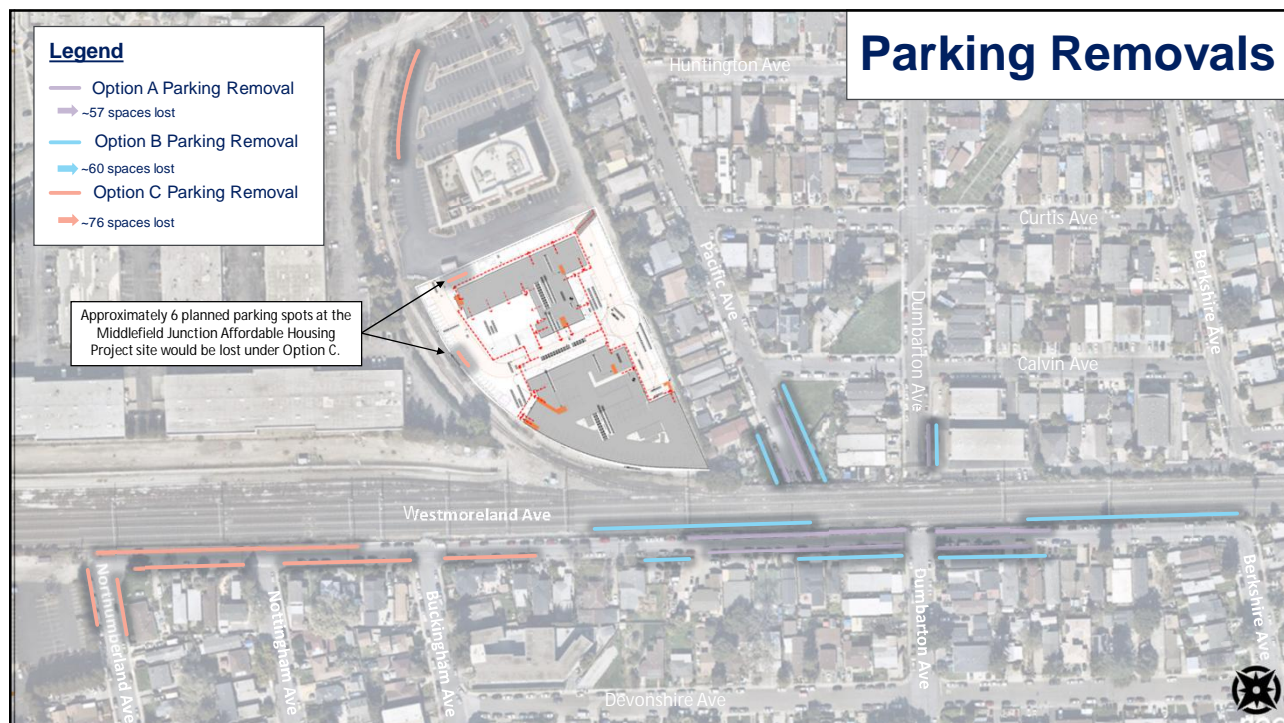
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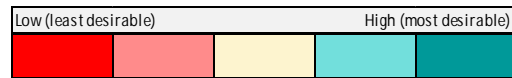
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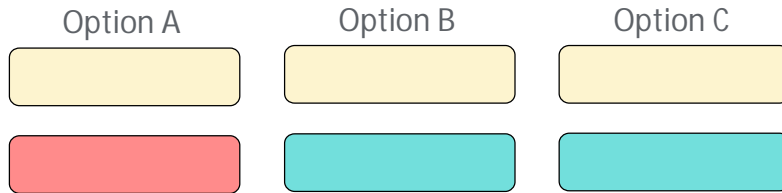


Costs

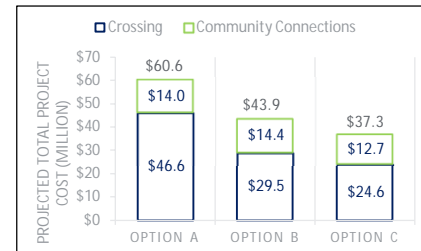


Operation and Maintenance Cost
Magnitude of project annual cost of operations and maintenance

Construction Cost
Rough order of magnitude (ROM) of project construction cost



- All 3 options have similar maintenance costs
- Total design and construction costs of crossings and community connections:
 - Option A – \$60.6m
 - Option B – \$43.9m
 - Option C – \$37.3m



Summary

- **Option A**
 - Provides the greatest connectivity and comfort for users
 - Highest cost
- **Option B**
 - Creates many of the same community connections as A
 - Along with C, has highest visual and auto impacts
- **Option C**
 - Longest crossing and relatively less effective at creating connections
 - Lowest impact and cost of the three options

	A	B	C
Service Population	High	High	High
Rail Crossing Length	High	Low	Low
Regional Transportation Network Connectivity	High	High	High
Local Destination Connectivity	High	High	High
Motor Vehicle Circulation	Low	High	High
Bicycle and Pedestrian Comfort	High	Low	Low
Public Space	High	High	Low
Visual Impact	High	High	High
Green Infrastructure	High	High	Low
Emergency Access	Low	Low	Low
Personal Security	Low	Low	Low
Public Infrastructure Impact	Low	High	High
Construction Impact	Low	High	High
Direct Parcel Impact	Low	High	Low
Parking Impacts	Low	Low	High
Operation and Maintenance Cost	Low	Low	Low
Construction Cost	Low	High	High



7. Community Engagement and Stakeholder Feedback



Outreach Objectives

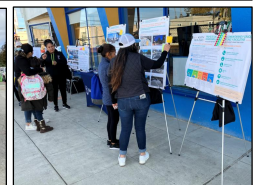
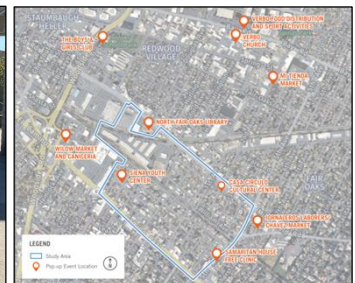
- Thus far, the project has conducted two rounds of outreach. Round 1 collected input from the community on priorities, goals, and the potential need for a new railroad crossing. Round 2 was focused on collecting feedback on the alternatives. Round 2 outreach objectives included:
 - Present the community with the final three options and educate residents on the different facility alternatives and their features
 - Gain an understanding of which of the three options community members would prefer
 - Solicit community feedback on improvement types proposed for the Community Connections portion of the project
 - Seek other relevant feedback from community members regarding the project



- **11 pop-ups, 3 community presentations, and 1 open house**
- **Residential canvassing near crossing options**
- **Online and paper survey – 770 responses!**
- **Approx. 1,800 Mailers** sent to addresses w/in 300 ft of Study Area
- **Project website and promotional video** - www.NFOwalkbike.org
- **Social media** - Facebook, Instagram, Twitter, Nextdoor
- Community partner email **listservs** and **newsletters**



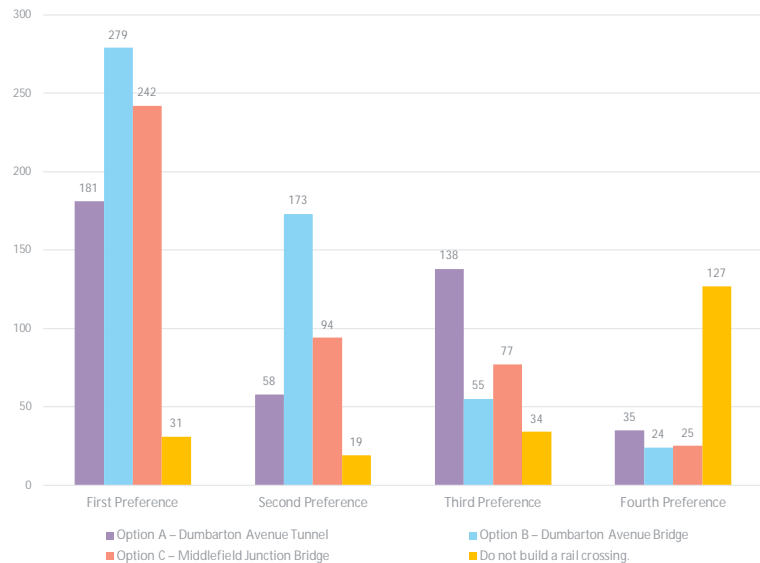
- Connected with **over 700 community members** at in-person events and many others virtually
 - Majority language: **Spanish**
 - Majority age range: **18-65** years old
- Over 500 paper survey responses and 200 online
 - **89% Hispanic or Latinx/a/o**
 - **70% adults ages 26 – 59 and 13% 60 or over**





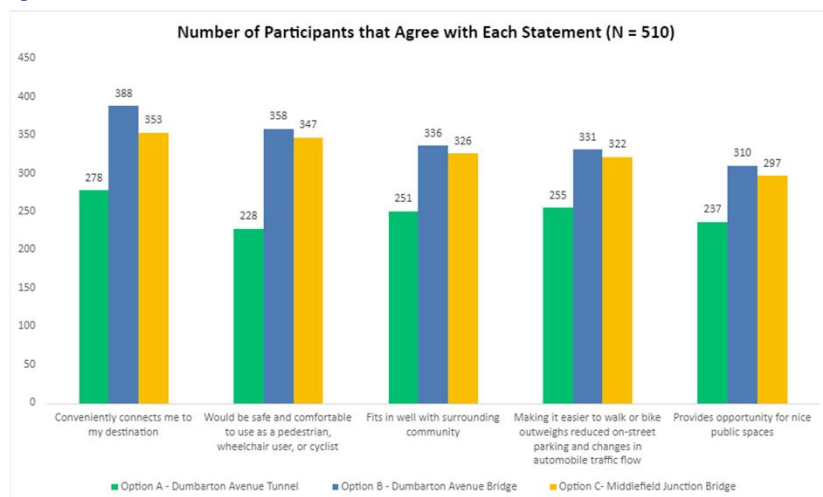
Option Preference

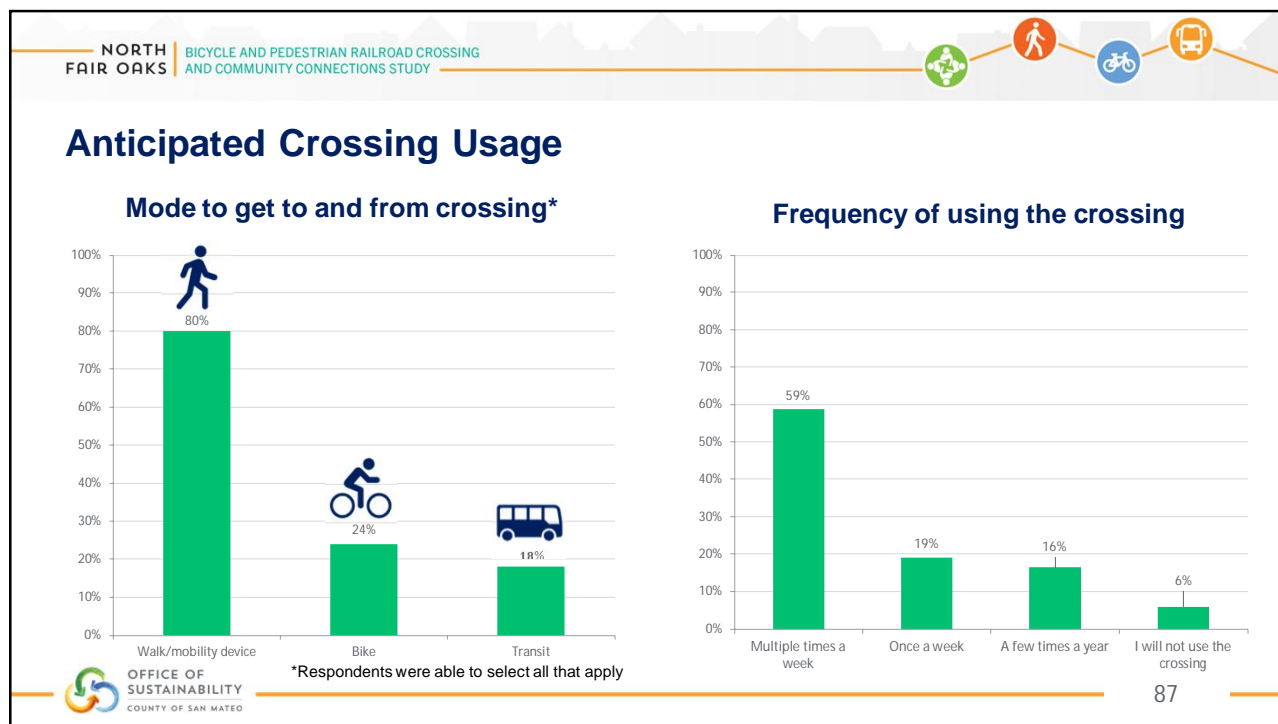
- **Option B** was ranked as 1st or 2nd preference by **62%** of participants
- **Option C** was ranked as 1st or 2nd preference by **46%** of participants
- **85%** of participants **voted for a bridge option** as their 1st or 2nd preference
- **Only 7%** ranked “Do nothing” as their 1st or 2nd preference



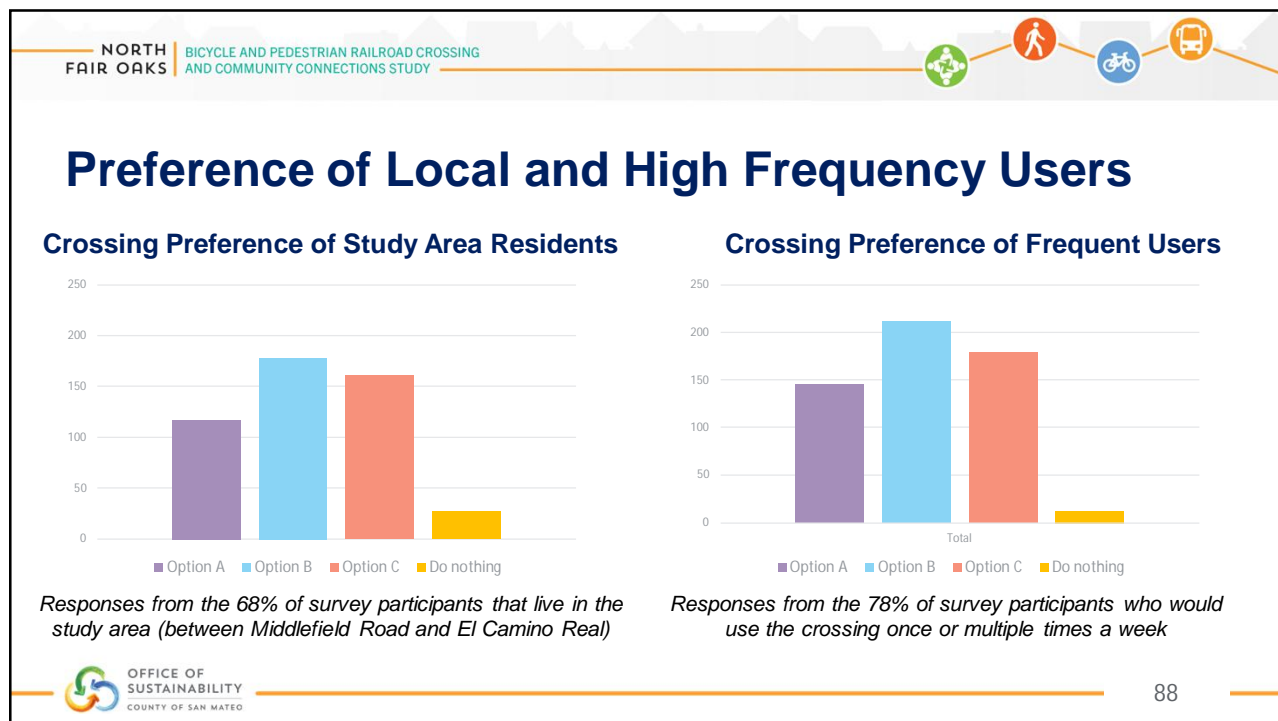
Option Results Comparison

- Survey participants thought **Option B** met **key project goals**, closely followed by **Option C**
- **Nearly 140 participants** did not think **Option A** would feel safe and comfortable





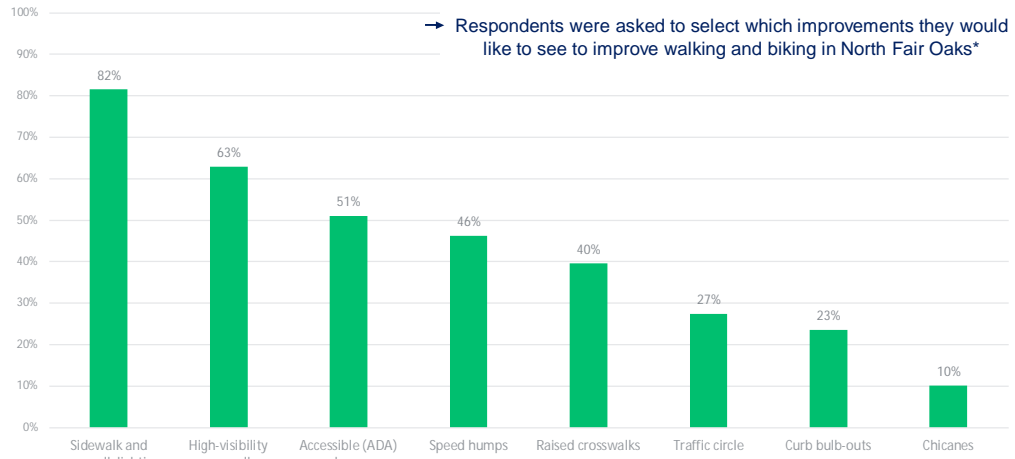
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Community Connections Improvements



*Respondents were able to select all that apply



Key Takeaways from Round 2 Outreach

- Community members said that the **new crossing will benefit many**, especially the youth, older adults, pedestrians, and cyclists.
- While crossing option preference varied across the community, the majority of residents agreed that **any of the options would be preferable to having no crossing at all**
- Community members raised **concerns related to personal security and safety** around the crossings, especially with the tunnel in Option A
- Community members noted that the railroad **crossing must be well maintained, free of trash and vandalism**
- Community members asked how the construction of the **crossing would affect parking**



Feedback Summary - North Fair Oaks Community

Round 1:

- Nearly 40% of respondents currently drive over the crossings, but **would bike or walk if possible and convenient**
- Just over 40% of respondents currently use active transportation when crossing the Caltrain tracks
- Nearly 1 in 4 residents reported that they **would like to access destinations on the other side of the tracks, but they cannot** due to the physical barrier the tracks create
- **High car speeds** and **poorly lit streets and sidewalks** were the main factors that affect participants' sense of safety
- **Personal security, convenience, and accessibility** were the top three priorities of the respondents

Round 2:

- The Dumbarton Avenue Bridge (**Option B**) was the **preferred** railroad crossing option among participants, followed by the Middlefield Junction Bridge (Option C)
- **Most respondents preferred a railroad crossing over no crossing.** Less than 5% of respondents ranked "Don't build a crossing" as their first preference, with that option similarly ranked as least preferable by over 60% of respondents
- **Sidewalk and crosswalk lighting, high-visibility crosswalks, and accessible (ADA) curb ramps** were the top three infrastructure improvements survey respondents would like to see incorporated on neighborhood streets



Feedback Summary – Community Advisory Committee (CAC)

- The committee agreed that outreach was effective in reaching the community
- The group also agreed that a new crossing is needed for this community
- Split between Option A or Option B as the preferred crossing option
- Expressed interest in enlarging plazas into SFPUC parcels in Option A and Option B
- Some members reiterated their community's preference for a bridge over a tunnel due to personal security concerns associated with an undercrossing
- Parking is very limited within the area and highly-utilized, so further coordination must occur between the County and the impacted residents to minimize parking trade-offs
- The CAC encouraged the group to highlight some of the amenities that the options have for residents, highlighting attributes like parklets, plazas, and improved access



8. Next Steps



Bridge Constructability Review

- Given the geometric constraints of the right-of-way and concerns regarding impacts to rail operations, Caltrain identified a need to evaluate the feasibility of constructing an overcrossing in the proposed Option B and Option C locations
- This Caltrain review includes the following:
 - Site visit with Caltrain and the County
 - Discussions with bridge manufacturer to provide details on weight and dimensions of potential bridge structure
 - Discussions with contractor to develop workplan for how to build bridge
 - Consultant review of bridge manufacturer and contractor provided information to confirm feasibility
 - Review of cost implications for construction
- The review will help shape future direction for the County to obtain a compatibility finding as part of the Caltrain Railroad Corridor Use Policy (RCUP)/ Use Variance process



Bridge Height and OCS Review

- A subsequent study would be needed to evaluate the feasibility of lowering the Caltrain OCS feeder wires under the proposed crossing, which would allow for the overhead structure to be lower than currently proposed
 - Lowering the feeder wires could:
 - *Reduce the vertical height and ramp length needed for the overhead crossing*
 - *Create a better user experience*
 - *Reduce construction cost*
 - *Potentially reduce parking and visual impacts*
- The subsequent Study would be subject to a positive outcome with the Bridge Constructability Review & may be beyond the timeframe of this grant funded Study



Final TAC/CAC and Advisory Body Input

- Technical Advisory Committee reviews the Administrative Draft Study prior to release of the Draft Study for public review
- Community Advisory Committee members invited to attend focus groups during public review of the Draft Study
- County Bicycle & Pedestrian Advisory Committee, North Fair Oaks Community Council, and the Planning Commission provide feedback prior to presentation of Final Study to County Board of Supervisors



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AND COMMUNITY CONNECTIONS STUDY

Appendix I - Potential Project Funding Sources

Potential Funding Sources

Federal

Rebuilding American Infrastructure with Sustainability and Equity (RAISE)

Reconnecting Communities and Neighborhoods Grant Program

One Bay Area Grant County and Local Program (OBAG) 3 (future rounds)

State

Active Transportation Program

Reconnecting Communities: Highways to Boulevards

Transit and Intercity Rail Capital Program

California Public Utilities Section: 190 Program

Local

C/CAG TDA Article 3

MTC Regional Transportation Program

Measure K (San Mateo County)

Measure RR (San Francisco, San Mateo, and Santa Clara Counties)



Sources for Railroad Crossing



Sources for Community Connections Improvements



Sources for Both

Funding sources and programs are subject to change.