De La Cruz Boulevard/ Coleman Avenue Bikeway Planning Study

DRAFT FINAL | September 2024

Prepared by:

Kimley»Horn

City of Santa Clara

The Center of What's Possible

Acknowledgments

City Council

Lisa M. Gillmor
Mayor

Kathy Watanabe
District 1

Raj Chahal
District 2

Karen Hardy
District 3

Kevin Park
District 4

Sudhanshu "Suds" Jain
District 5

Anthony Becker
Vice Mayor, District 6

City of Santa Clara Staff

Craig Mobeck
Director of Public Works

Michael Liw
Assistant Public Works Director

Steve Chan
Transportation Manager

Carol Shariat
Project Manager, Principal Transportation Planner

Ralph Garcia
Senior Civil Engineer

Consultant Team

Kimley-Horn

Alta Planning + Design

Commissions and Committees

Bicycle and Pedestrian Advisory Committee

Senior Advisory Commission

Parks and Recreation Commission

Youth Commission

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01

Introduction and Background

01. Introduction and Background

Origins of the Study

In 2019, the City of Santa Clara approved and adopted the *Bicycle Master Plan Update 2018* in a continuing effort to develop a robust network of bicycle facilities that are both accessible and comfortable for people of all ages and abilities. The Plan identified several areas for further study, including feasibility assessments for bicycle facilities along key corridors within the City. As an outcome of those recommendations, and through funding by the Santa Clara Valley Transportation Agency's (VTA) Measure B grant program, the City of Santa Clara is studying the feasibility of a bike facility on a 1.4-mile section of De La Cruz Boulevard between Central Expressway and Lafayette Street and Coleman Avenue between Reed Street and Brokaw Road.

Study Objectives

The De La Cruz Boulevard/Coleman Avenue Bikeway Planning Study ("Study") began in Winter 2023 to develop recommendations for bicycle facility implementation on De La Cruz Boulevard and Coleman Avenue ("Corridor"). Improvements identified in this Study aim to provide a more comfortable biking experience along the Corridor. Recommendations are based on a thorough review of existing conditions and community input collected throughout the project. The area considered for this Study is shown in **Figure 1**.

The project is a high priority corridor in both the City and County Bicycle Plans. Additionally, the project would help implement the City's Complete Streets Policy Resolution 18-8593 and achieve the goals of the City's *Climate Action Plan*. At the heart of the Study, the project's purpose is to enhance safety and comfort for everyone.

Parking data, collision records, in-person site visits, and other City data informed the preliminary project analysis, which evaluated existing conditions, identifed opportunities and constraints within the Corridor, and helped shape the concepts. In addition to analyzing

Project Goals

- *Install Class IV bicycle lanes on De La Cruz and Coleman*
- *Create streets for everyone, no matter who they are or how they choose to travel*
- *Provide convenient, comfortable, and connected transportation choices*
- *Understand community environment*

Figure 1: Corridor Overview

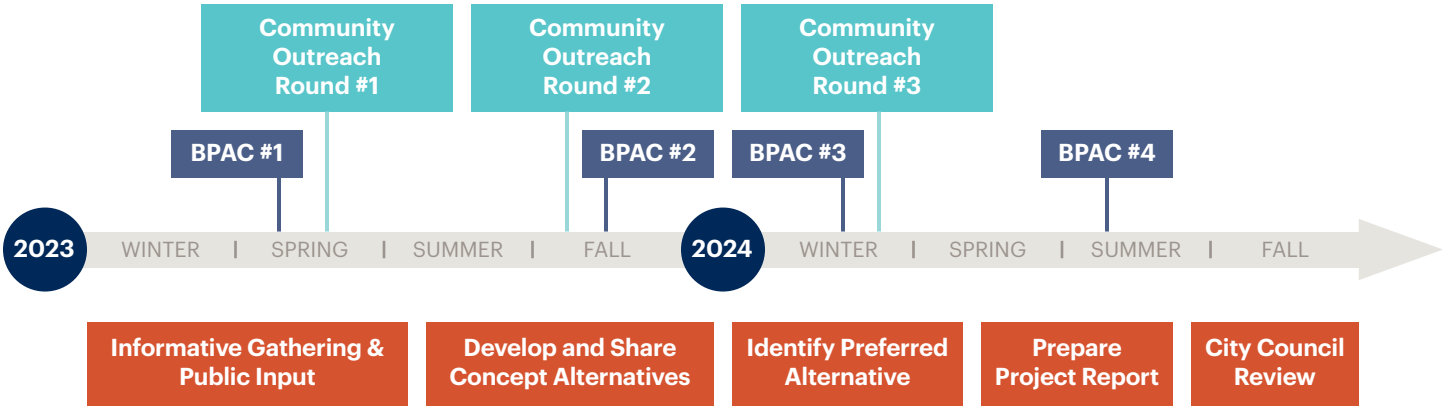
transportation data, this Study also collected extensive input from the Santa Clara community and Bicycle and Pedestrian Advisory Committee (BPAC) through three rounds of community engagement. Engagement activities such as public workshops, online surveys, and community pop-up events coincided with major project milestones, allowing the project team to receive community and BPAC feedback at each point of the Study.

Results from the analysis and community outreach events are summarized in this Study with additional information included as Appendices. The City Council will consider design options and decide the best path forward given the collected community input and analysis findings.

Timeline

This Study began with data collection in Winter 2023 to gain an understanding of the existing conditions within the Corridor, how the community currently uses and accesses the study area, and the community's thoughts about current walking and biking conditions along the facility. After the first project phase of data collection and community outreach, the project team used the information gathered to develop preliminary concepts for the Corridor. These concepts were shared with the community and BPAC during the second phase of community outreach. Feedback collected from community members, BPAC members, and City staff was then incorporated in the designs to further refine the alternative concepts. These refined concepts were then presented during the third round of outreach, where BPAC and community members had an opportunity to select their preferred alternative. This Study will be presented to BPAC and posted online for community review and feedback during the fourth round of outreach, before the project ultimately advances to the City Council for determination of next steps. **Figure 2** shows the project timeline.

Figure 2: Project Timeline



02

Existing Conditions

02. Existing Conditions

To evaluate the current conditions of the Corridor, the team performed an in-person site visit with members of the BPAC, reviewed collision records, and analyzed parking utilization data. Collision data provides an overview of the potential existing safety challenges within the Corridor, while parking occupancy data helps to understand the amount of on-street parking that is used along the Corridor. Key methodologies and findings from each analysis are summarized in the following sections and discussed in more detail in **Appendix A: Existing Conditions Memorandum**.

Roadway Configuration

De La Cruz Boulevard and Coleman Avenue serves as a crucial north-south connection between US 101, El Camino Real (SR 82), and Interstate 880. Within the study area, De La Cruz Boulevard is typically a six-lane corridor with a 40-mph posted speed limit. The roadway is divided by a median in the northern portion and a two-way center left-turn lane along the southern portion. Additional width at both edges of the roadway is dedicated to on-street parking or shoulders.

The Corridor is bordered by the San Jose Airport to the east; other surrounding land uses consist largely of industrial and commercial spaces. At Reed Street, the roadway transitions into the tri-level portion of the facility, where an interchange connects De La Cruz Boulevard to Lewis Street and Coleman Avenue, creating a three-directional interchange with overlapping ramps. The southwestern leg of the tri-level interchange consists of a long bridge spanning the Caltrain and Altamont Corridor Express (ACE) rail corridors. Additional characteristics of individual roadways within the study area, and crossing the project corridor, are noted in **Table 1**.

Table 1: Study Area Roadways

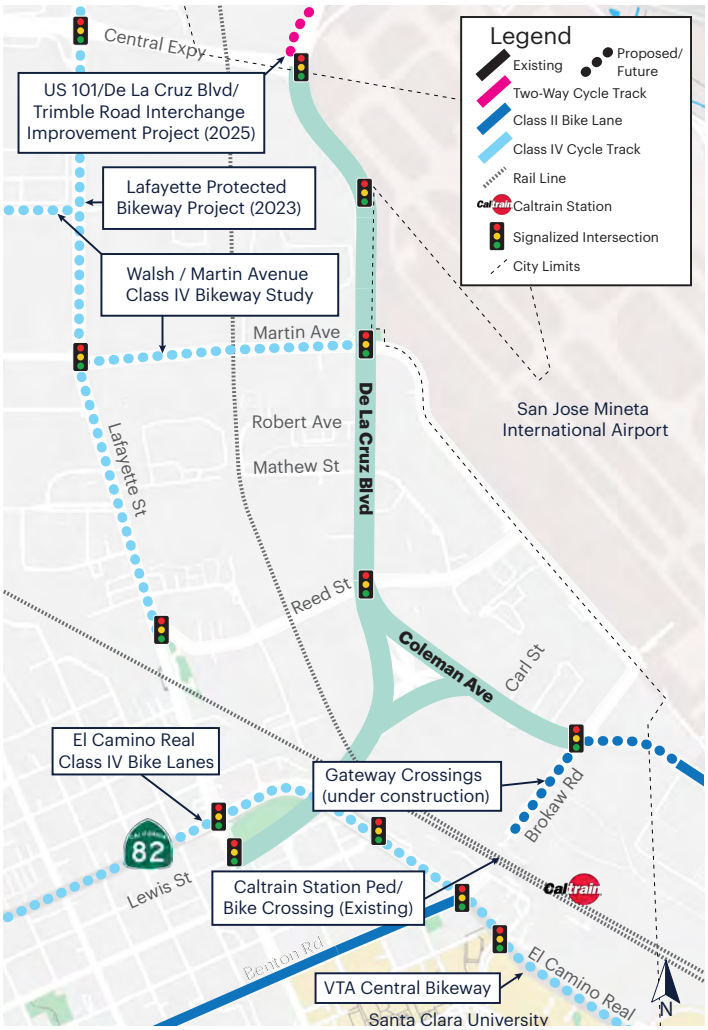
Roadway	Roadway Cross Section	Functional Classification (City of Santa Clara)	Posted Speed Limit
De La Cruz Boulevard	6-lane divided, ~16' median or TWLTL	Arterial	40 mph
Coleman Avenue	6-lane divided, ~12' median or TWLTL	Arterial	40 mph
Central Expressway	6-lane divided, ~12' median or TWLTL	Expressway	50 mph
Martin Avenue	2-lane undivided E of De La Cruz Blvd 4-lane undivided W of De La Cruz Blvd	Collector	25 mph
Robert Avenue	2-lane undivided	Local	Not Posted
Mathew Street	2-lane undivided	Local	Not Posted
Reed Street	2-lane undivided	Local	Not Posted
Brokaw Road	2-lane undivided	Collector E of Coleman Ave, Local W of Coleman Ave	25 mph

Note:
TWLTL = two-way left-turn lane

As illustrated in **Figure 3**, the Corridor connects to other local and regional bikeways in the area and would serve as a key link in the Santa Clara bike network. The De La Cruz Boulevard/Coleman Avenue Bikeway would connect to:

- US 101/De La Cruz/Trimble Interchange shared-use path (in construction)
  - » Connects to the Guadalupe River Trail
- Walsh/Martin Class IV Bikeway Study (in planning)
- New bike lanes on Coleman Avenue south of Brokaw Road and on Brokaw Road, as part of the Gateway Crossings project(in construction)
- Santa Clara Station Focus Area Plan (in planning)

Figure 3: Transportation Network Improvements



Study Area Observations

On March 20, 2023, the project team, accompanied by City staff and BPAC members, conducted an in-person site visit to assess existing conditions along the Corridor.

During the site walk, participants noted that the Corridor is designed primarily for vehicles with wide roadways, large intersections, and fast-moving traffic. While the Corridor serves a key role in the vehicle network as a north-south connection between US 101, El Camino Real (SR 82), and Interstate 880 in eastern Santa Clara, the roadway is currently not comfortable for most bicyclists due to high vehicle speeds and volumes, lack of designated bike facilities, and an auto-oriented roadway design. Under existing conditions, the Corridor has limited to no dedicated space for people biking and non-continuous sidewalk with minimal intersection amenities for people walking. Participants noted several opportunities to increase comfort for all modes, including re-purposing existing, underutilized parking space for dedicated, protected bicycle facilities to create a safer and more inviting environment for people biking.

North-facing view of Coleman Avenue from Brokaw Road

Intersection of Coleman Avenue and Brokaw Road looking south

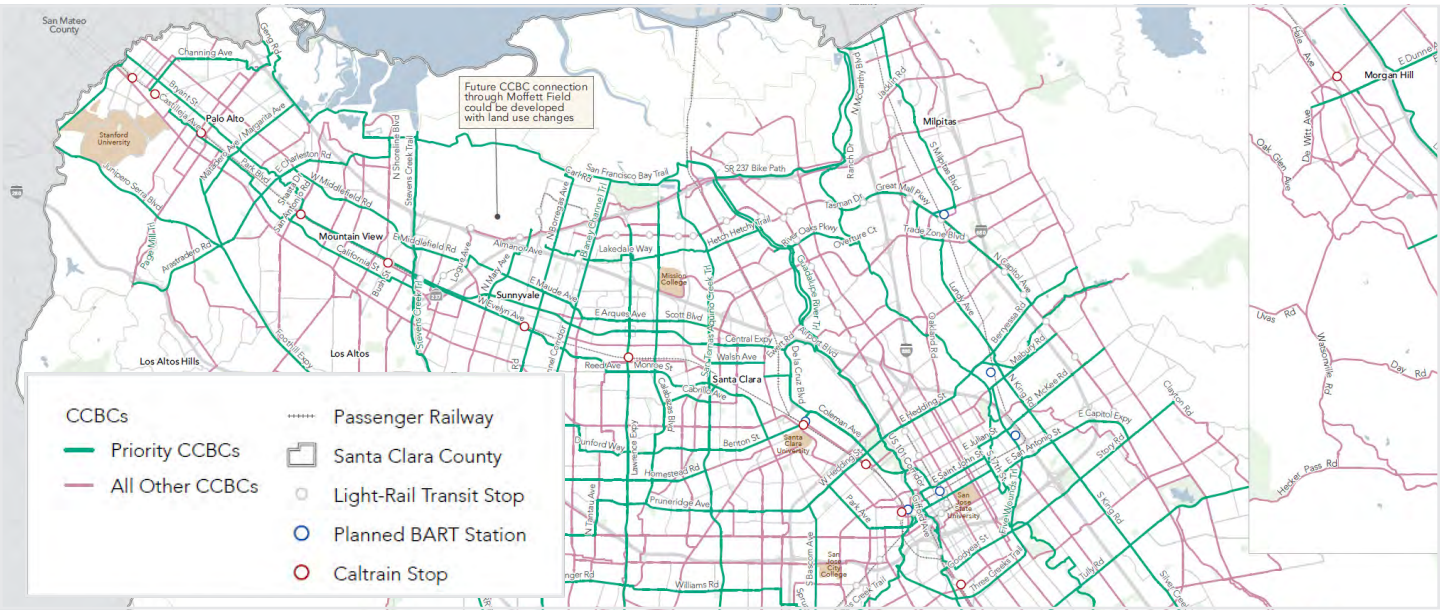
Project team investigates infrastructure on El Camino Real adjacent

South-facing view of De La Cruz Boulevard at Martin Avenue

Relevant Plans

Recommendations developed as part of this Study build upon several previous planning efforts. The City's General Plan (2010-2035) highlighted the De La Cruz facility as a bicycle corridor for future study, while the subsequent Santa Clara Valley Transportation Authority (VTA) Countywide Bicycle Plan identified the Corridor as a priority cross-county bicycle corridor. The City's Bicycle Plan Update 2018 recommended a Class IV separated bikeway along De La Cruz Boulevard, in addition to a Class II bicycle lane along Coleman Avenue south of the tri-level interchange. This Study also supports and builds upon several key City policies, including strategy T2 from the Climate Action Plan, which seeks to expand clean mobility options and reduce reliance on single occupancy vehicles.

Several additional projects located around the Study corridor are being pursued by the City of Santa Clara and would further improve the nearby landscape of bicycle and pedestrian infrastructure. These projects will be discussed further in this report and are described in the Existing Conditions Memorandum, included as **Appendix A**.



VTA Countywide Bicycle Plan, Priority Cross County Bicycle Corridors

Transportation & Land Use

Transition to clean and efficient mobility options and transportation modes while maintaining accessibility and mobility for all.

Strategy T1	**Transition vehicles to electric alternatives.**
T-1-1	Community EV Blueprint implementation
T-1-2	EV charging for all new construction
T-1-3	City Fleet Electrification Plan implementation
T-1-4	Heavy duty electric trucks
T-1-5	Municipal charging infrastructure
Strategy T2	**Expand clean mobility options and use of non-SOV transportation modes.**
T-2-1	Pedestrian & Bicycle Master Plans implementation
T-2-2	Curb management improvements
T-2-3	Bike & shared mobility improvements
T-2-4	Transit gap & improvement study
Strategy T3	**Advance sustainable land use.**
T-3-1	TDM plan requirements
T-3-2	Sustainable development in underutilized non-residential areas
T-3-3	Transit-oriented development
T-3-4	Telework
T-3-5	Transportation Analysis Policy compliance

Santa Clara Climate Action Plan, Transportation & Land Use Strategies

Safety

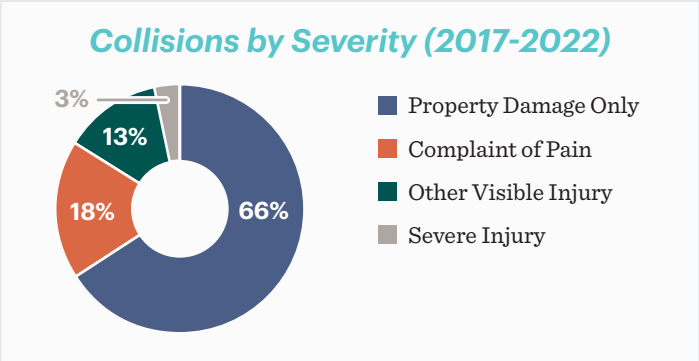
Collision data between 2017 and 2022 was reviewed to understand collision patterns and safety trends throughout the study area.

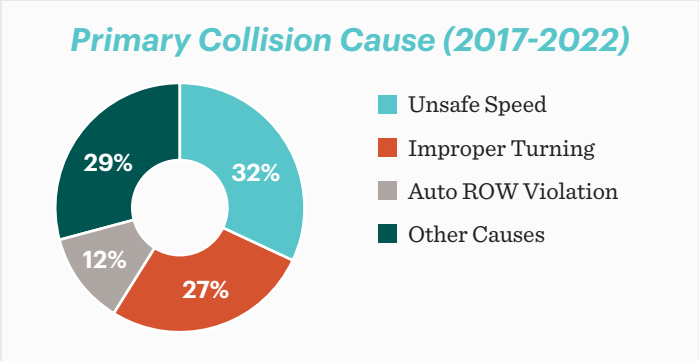
There were a total of 107 collisions that occurred within the study area during the last six years of available data, 36 of which resulted in injuries or complaints of pain. Three collisions resulted in severe injuries within the observed time period, but no fatalities were observed. Of the 107 total collisions, 63 were attributed to either unsafe speeds or improper turning maneuvers; 75 collisions occurred within 250-feet of an intersection and 22 occurred along a roadway segment. **Figure 4** depicts the locations of collisions that occurred between 2017 and 2022 within the study area. As shown in the figure, the intersections of De La Cruz Boulevard with Central Expressway and Martin Avenue had the most collisions within the Corridor. The tri-level experienced the most roadway segment collisions.

The data noted two pedestrian-involved collisions, which resulted in two visible injuries to pedestrians, and one bicycle-involved collision, which resulted in property damage only. It is noted that the low rate of pedestrian and bicycle collisions in the study area can possibly be attributed to limited existing walking and biking infrastructure, which results in a limited number of people who walk and bike along the Corridor. **Figure 5** displays a summary of the collision data. Additional details and analysis regarding the collision data is available in **Appendix A**.

Figure 4: Collision Summary Map

Figure 5: Collision Data Summaries





Parking Analysis

Parking data was collected over the course of a typical week to develop a comprehensive understanding of usage and average occupancy. Data was collected along the project corridor and adjacent side streets (within 500 feet of the Corridor) from March 30 to April 5, 2023, every 30 minutes, from 7am-7pm and 11pm-2am. **Figure 6** provides an overview of the parking inventory analyzed for this evaluation.

Weekdays had higher parking occupancy than weekends, consistent with typical patterns from the industrial and commercial uses that line the Corridor. The hour with the highest average parking occupancy in the study area was weekdays from 1-2 pm. On average, 33% of parking spaces within the study area were utilized during this peak parking period, leaving two-thirds of the parking inventory unoccupied. Notably, along De La Cruz Boulevard, only around 13% of spaces were occupied during the peak hour. **Table 2** provides a summary of the parking inventory and peak parking hour occupancy. **Figure 7** illustrates the peak parking hour occupancy.

This indicates that the study area on-street parking is typically underutilized, with plenty of available parking spaces; only a quarter of available spaces are expected to be occupied at a given time based on the full day's average. The parking analysis conducted for this Study is described further in **Appendix A**.

Table 2: Study Area Parking Utilization

On-Street Parking Location	Parking Inventory[1]	Weekday Peak Hour Parking Occupancy[2]	Observed Weekday Peak Hour Utilization[2]
De La Cruz – West Side	132	12	9%
De La Cruz – East Side	61	12	20%
Side Streets – West Side	134	78	58%
Side Streets – East Side	166	62	38%
Total	*493*	*164*	*33%*

[1] Approximate number of existing, available on-street parking spaces. Actual inventory may vary based on the size and type of vehicles and parking efficiency.

[2] Average parking utilization for the peak parking period during observations: Monday-Friday 1-2 PM

Figure 6: De La Cruz Boulevard Parking Inventory

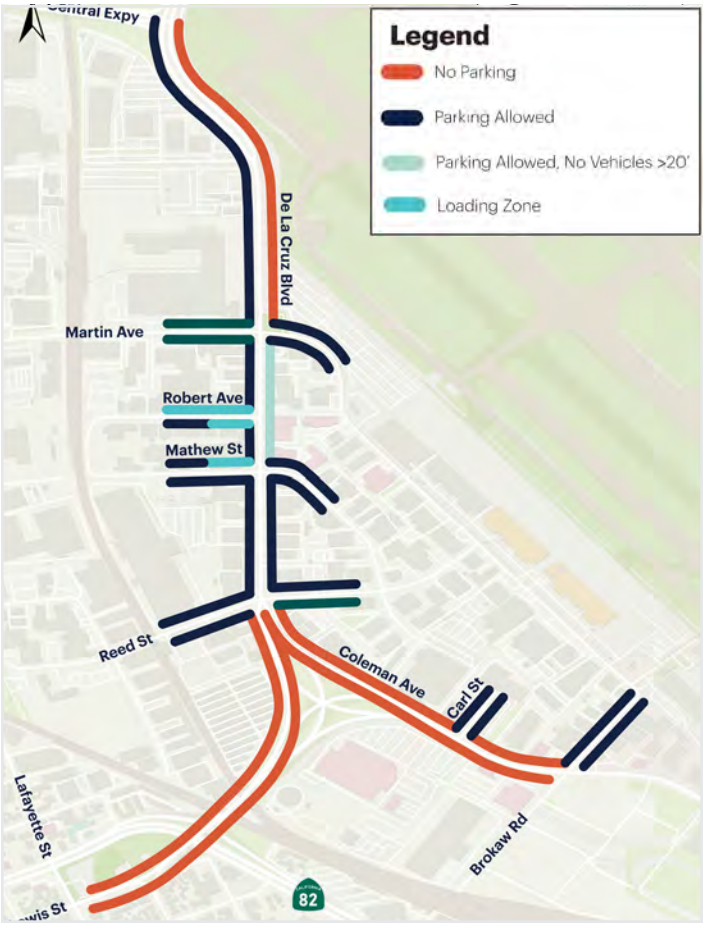
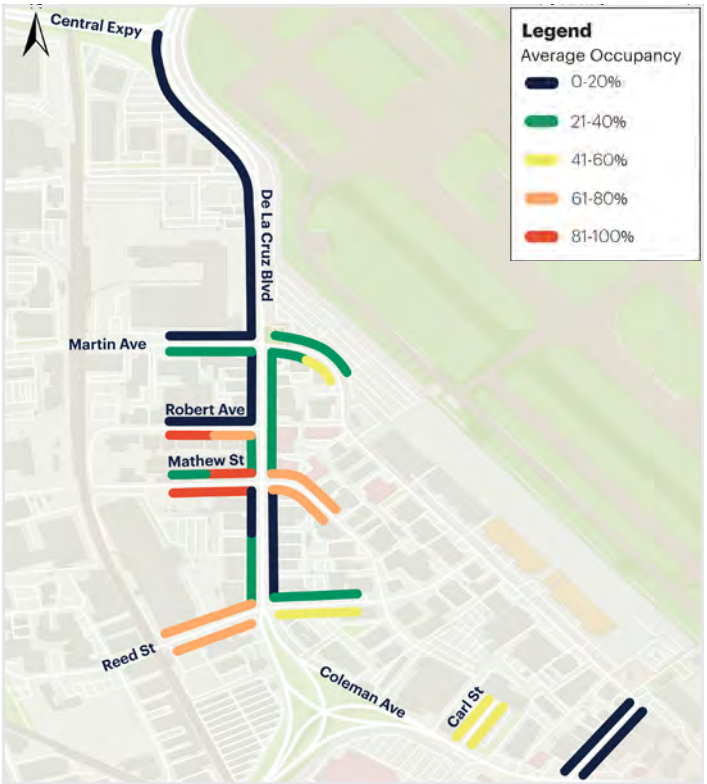


Figure 7: Average Occupancy During Weekday Peak Parking Hour (Mon-Fri, 1-2 PM)



03

Corridor Alternative Concepts and Analyses

03. Corridor Alternative Concepts and Analyses

The project team developed two alternative concepts to meet the project goals. The concepts utilize the Corridor's wide cross-section and underutilized parking to provide separated Class IV bike lanes along De La Cruz Boulevard and Coleman Avenue. Due to the existing conditions and roadway constraints south of Martin Avenue, both alternative concepts are the same south of Martin Avenue. Both concepts propose to maintain the existing number of vehicle travel lanes.

Each design concept, as well as the existing configuration or "No Build" scenario, is described briefly below and presented as an overview map and typical roadway cross sections. A summary comparison between design concepts is included at the end of the section.

Class IV Bikeways

Class IV Bikeways, which are also referred to as Protected Bike Lanes, Cycle Tracks, or Separated Bikeways, provide a physical, vertical separation element between motor vehicle traffic and the bike lane. Examples of vertical separation include: plastic posts, bollards, medians, planters, raised bumps, and parked cars.

Existing Conditions/No Build

North of Reed Street, De La Cruz Boulevard typically includes six vehicle lanes, a raised center median or turn lane, and parking or a shoulder on both sides of the street. There is intermittent sidewalk along the west side of the street and no sidewalk along the east side of the street. There are no existing bike facilities.

South of Reed Street, the roadway transitions to the tri-level interchange, where directional roadways and flyovers connect vehicles between De La Cruz Boulevard, Coleman Avenue, and Lewis Street. Southwest of the tri-level structure, De La Cruz Boulevard merges with Lewis Street to become a four-lane section with paved shoulders, crossing over El Camino Real. Directly south of the tri-level structure, De La Cruz Boulevard becomes Coleman Avenue, where it maintains a similar section with six through lanes, a two-way left-turn lane and sidewalk along both sides of the roadway. It is noted that cross-sections are not shown for several legs of the tri-level interchange due to improvement implementation challenges that will be discussed further in this section. Under the Existing Conditions/No Build scenario, no bike improvements would be provided on the Corridor.

Concept A

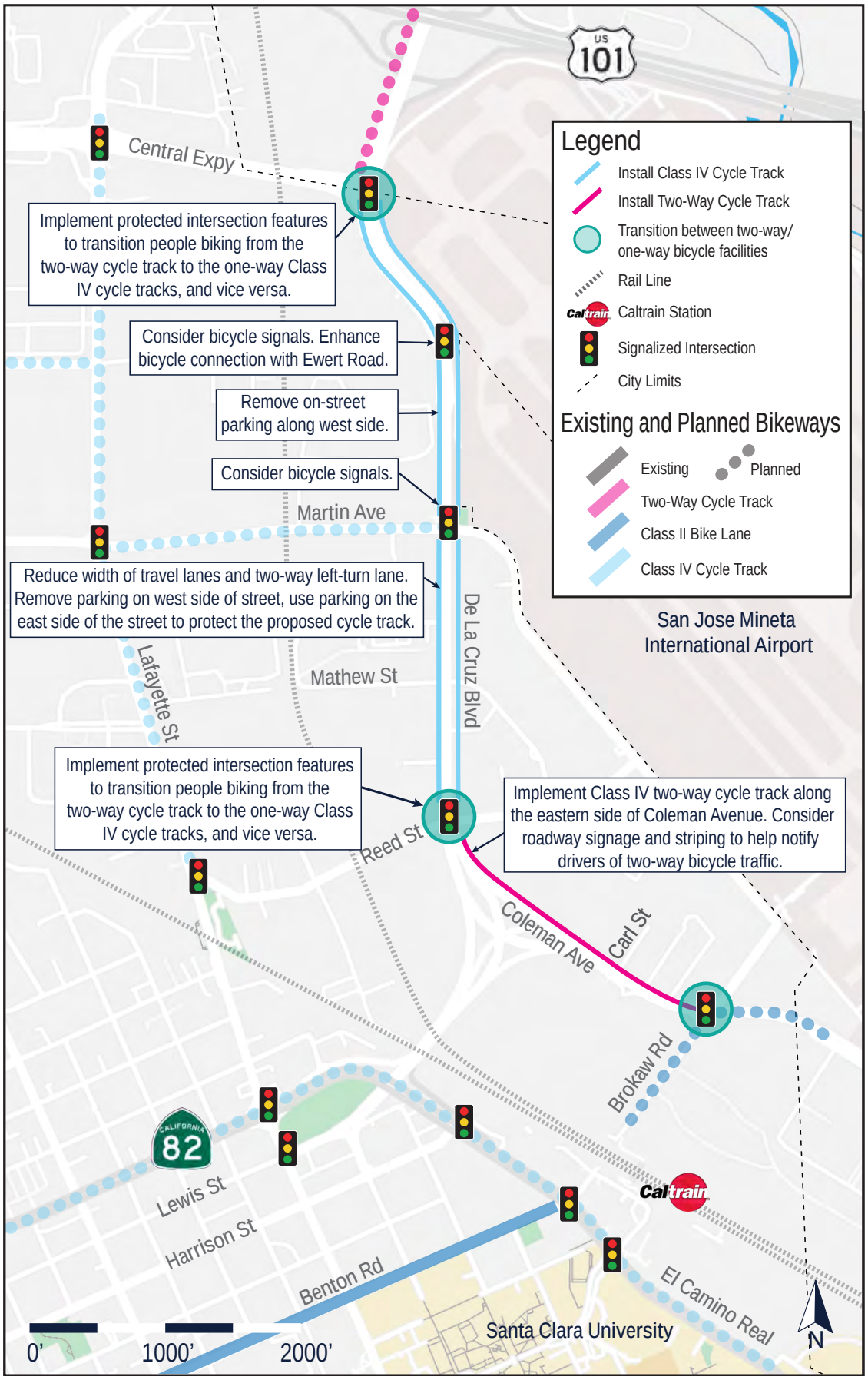
Concept A proposes Class IV cycle tracks on each side of De La Cruz Boulevard between Central Expressway and Reed Street and a two-way cycle track on the east side of Coleman Avenue south of Reed Street to Brokaw Road. A two-way cycle track is proposed south of Reed Street to create a safer and more comfortable experience for people biking, allowing southbound bicyclists to avoid potential conflicts with vehicles merging from the tri-level and with vehicles entering and exiting the Costco parking lot.

Concept A proposes to narrow vehicle travel lanes and repurpose parking on the west side of the street (from Central Expressway to Reed Street) to create space for protected bike lanes. North of Reed Street, Concept A includes 6'-7' wide bike lanes and 2'-3' wide physical separation for the bike lanes, to create a comfortable, dedicated space for people biking. South of Reed Street, Concept A proposes a 10'- 12′ wide two-way cycle track with 2'- 3 wide physical separation. Options for the physical separation element are discussed in more detail later in this report.

At signalized intersections, the project may implement protected intersection features and/or bike signals to help people biking cross safely and transition people biking between one-way/two-way cycle tracks.

With Concept A, northbound bicyclists would transition from the east side of the street to the west side of the street at Central Expressway to connect to the US 101/De La Cruz/Trimble Interchange Class I shared-use path (currently in construction). Concept A provides a more direct connection to Ewart Road (on-airport) for northbound cyclists than Concept B.

Figure 8: Concept A Overview



Concept B

Concept B proposes a two-way cycle track along the west side of De La Cruz Boulevard between Central Expressway and Martin Avenue, Class IV cycle tracks on each side of De La Cruz Boulevard between Martin Avenue and Reed Street, and a two-way cycle track on the east side of Coleman Avenue south of Reed Street. Concept B proposes to narrow vehicle travel lanes and repurpose parking on the west side of the street (from Central Expressway to Reed Street) to create space for protected bike lanes. North of Martin Avenue, Concept B includes a 10' wide two-way cycle track with 2' wide physical separation, serving as an extension to the facility proposed by the US 101-Trimble Interchange project. Between Martin Avenue and Reed Street, Concept B includes 6' wide bike lanes and 2'-3' wide physical separation for the bike lanes. South of Reed Street, Concept B also proposes a 10'- 12′ wide two-way cycle track with 2'- 3′ wide physical separation. Options for the physical separation element are discussed in more detail later in this report.

At signalized intersections, the project may implement protected intersection features and/or bike signals to help people biking cross safely and transition people biking between one-way/two-way cycle tracks.

With Concept B, northbound bicyclists would transition from the east side of the street to the west side of the street at Martin Avenue. This may be a more comfortable location to cross than at Central Expressway , which is the crossing location for Concept A. Concept B provides more direct access to commercial destinations on the west side of De La Cruz Boulevard north of Martin Avenue, especially for northbound cyclists, than Concept A.

Please note, neither Concept A or Concept B propose a two-way cycle track between Martin Avenue and Reed Street due to the frequency of driveways and side streets on both sides of the street. Two-way cycle tracks are generally not recommended on commercial, high-speed corridors like this when there are frequent driveways as the result of a higher risk of potential conflicts between people biking and people driving who may not expect two-way bike traffic. Additionally, the one-way cycle tracks provide convenient access to the adjacent retail land uses along both sides of the street between Martin Avenue and Reed Street.

Figure 9: Concept B Overview

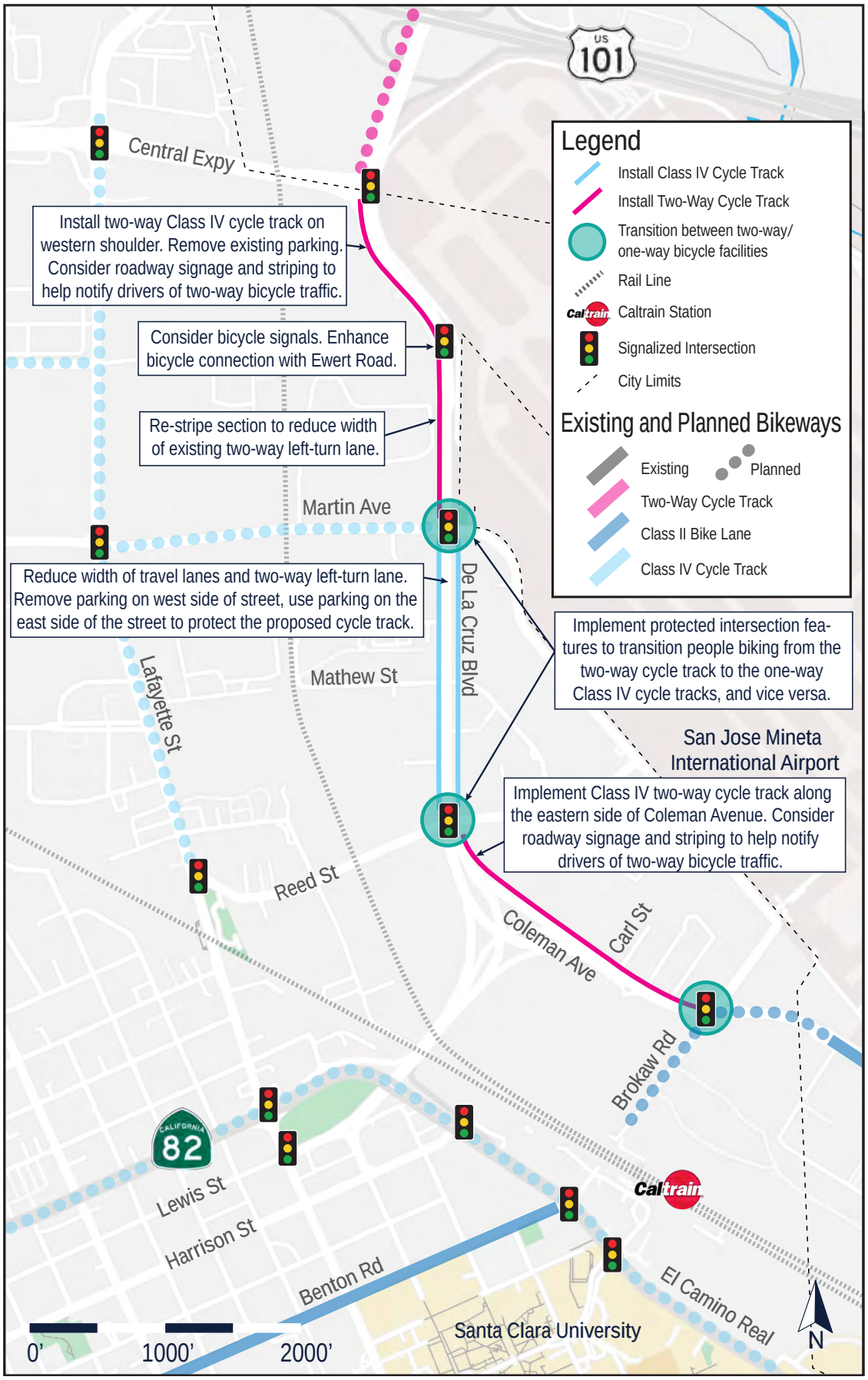


Figure 10 illustrates the portion of the Corridor that each cross section represents. **Figures 11 to 15** illustrate example roadway cross sections for Existing Conditions/No Build, Concept A, and Concept B.

Figure 10: Concept Section Overview

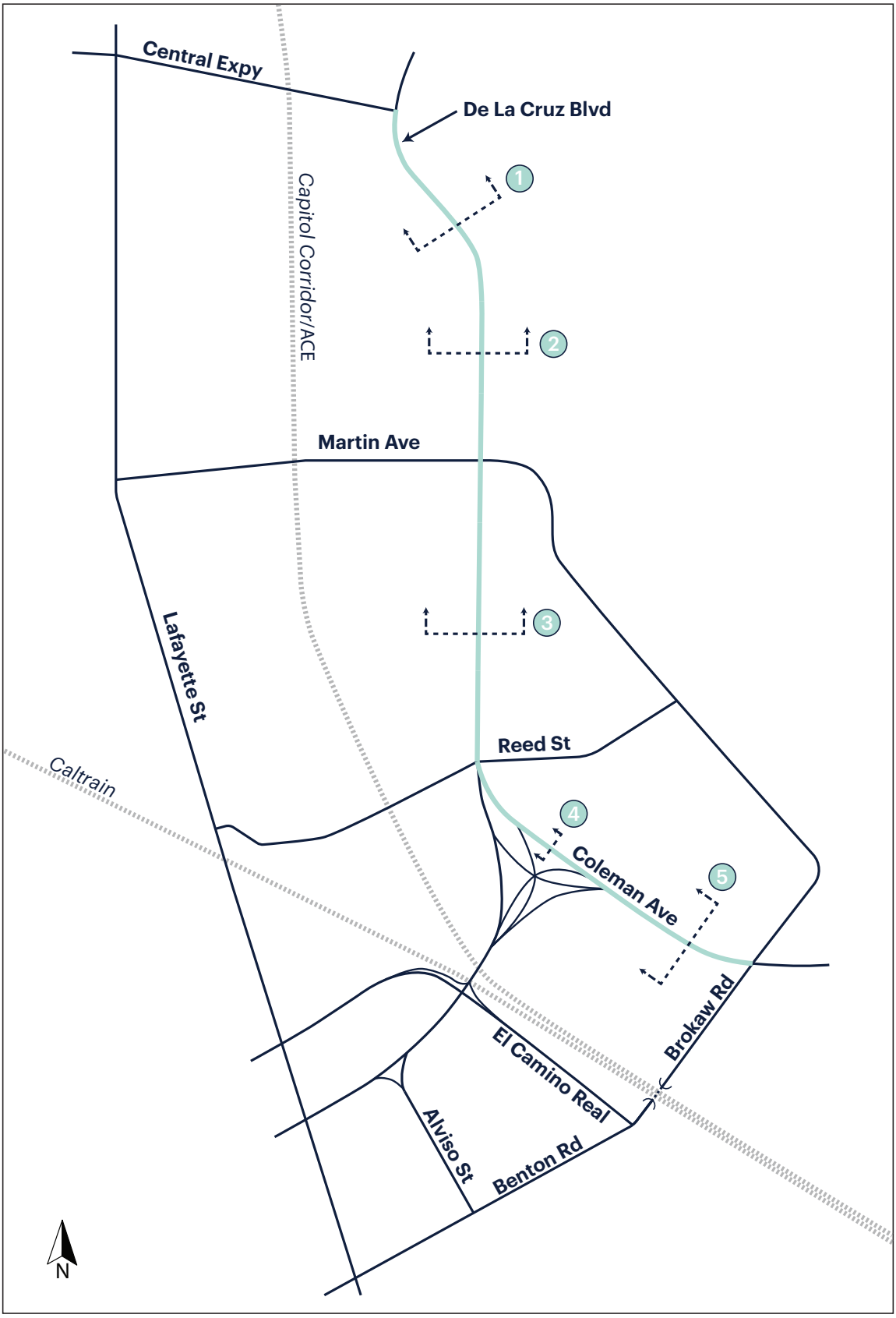


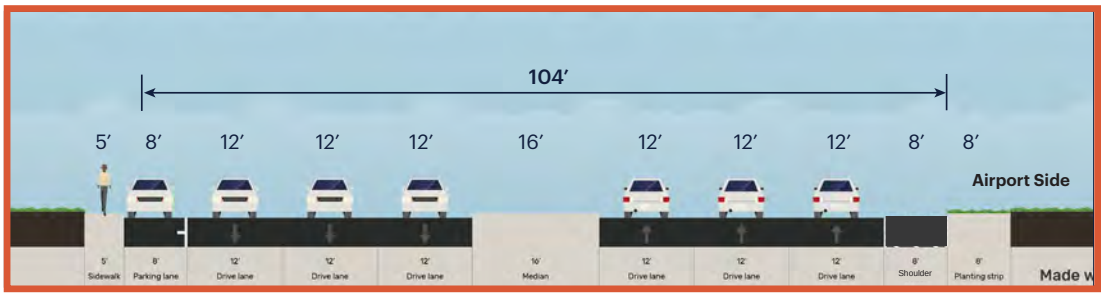
Figure 11: Concept Section 1

1

Section 1 - Existing

Travel Lanes:	6 (12')
Bike Lane:	N/A
Median:	16' raised
Buffer:	N/A
Parking:	8' (west side)

De La Cruz Blvd: Central Expressway to Airport Technology Park
6 lanes, raised median, parking on west side

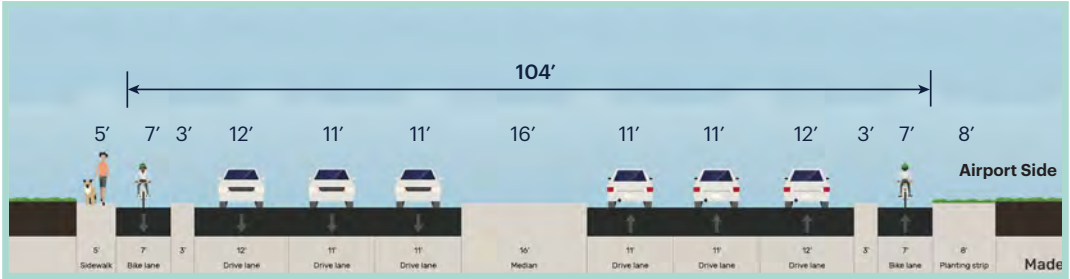


1A

Section 1 - Concept A

Travel Lanes:	6 (11'-12')
Bike Lane:	7' (Class IV)
Median:	16' raised
Buffer:	3'
Parking:	None

De La Cruz Blvd: Central Expressway to Airport Technology Park
6 lanes, raised median, remove parking on west side, one-way Class IV protected bike lanes

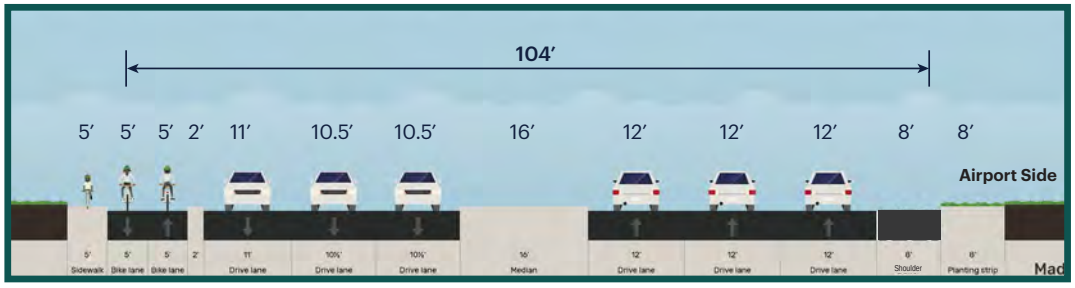


1B

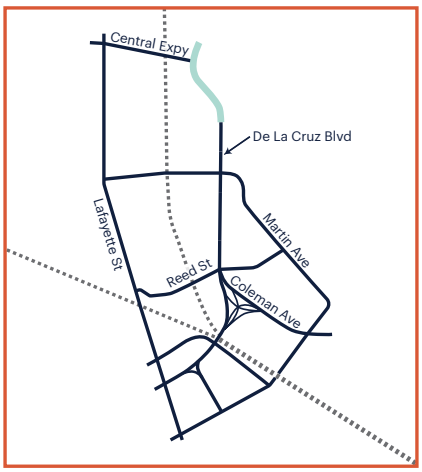
Section 1 - Concept B

Travel Lanes:	6 (10.5'-11')
Bike Lane:	10' (Class IV two-way)
Median:	16' raised
Buffer:	2'
Parking:	None

De La Cruz Blvd: Central Expressway to Airport Technology Park
6 lanes, raised median, remove parking on west side, two-way Class IV protected cycle track



Note: Lane widths will be further refined through future design phases.



1A: Implement protected intersection features at the intersection of De La Cruz Boulevard and Central Expressway to help safely transition people biking between the planned two-way cycle track* and one-way Class IV cycle tracks.

*Assumes implementation of the US 101/De La Cruz Boulevard/Trimble Road Interchange Improvement Project (2024)

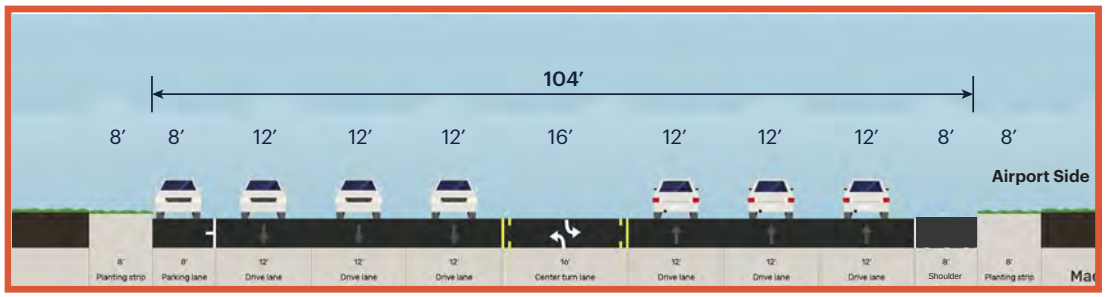
Figure 12: Concept Section 2

2

Section 2 - Existing

Travel Lanes:	6 (12')
Bike Lane:	N/A
Median:	16' TWLTL
Buffer:	N/A
Parking:	8' (west side)

De La Cruz Blvd: Airport Technology Park to Martin Avenue
6 lanes, TWLTL, parking on west side

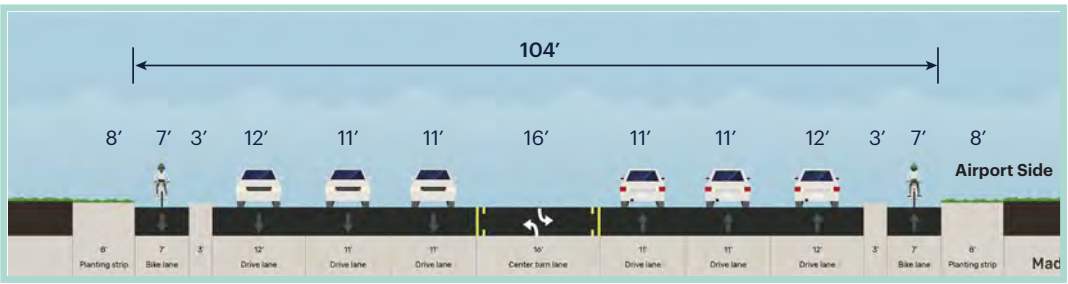


2A

Section 2 - Concept A

Travel Lanes:	6 (11'-12')
Bike Lane:	7' (Class IV)
Median:	16' TWLTL
Buffer:	3'
Parking:	None

De La Cruz Blvd: Airport Technology Park to Martin Avenue
6 lanes, TWLTL, remove parking on west side, one-way Class IV protected bike lanes

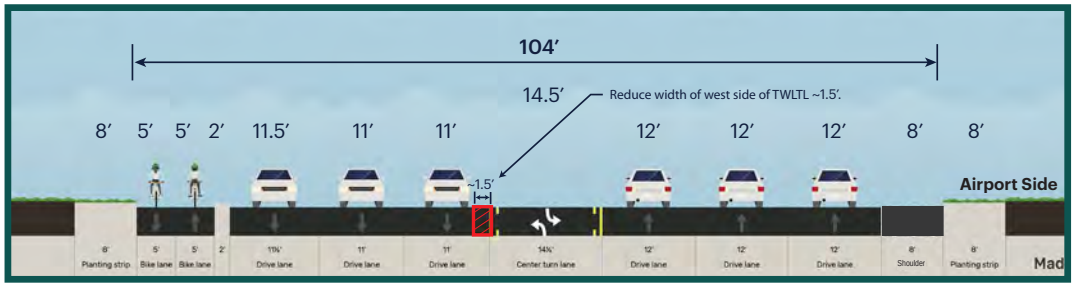


2B

Section 2 - Concept B

Travel Lanes:	6 (11'-11.5')
Bike Lane:	10' (Class IV two-way)
Median:	14.5' TWLTL
Buffer:	2'
Parking:	None

De La Cruz Blvd: Airport Technology Park to Martin Avenue
6 lanes, TWLTL, remove parking on west side, two-way Class IV protected cycle track



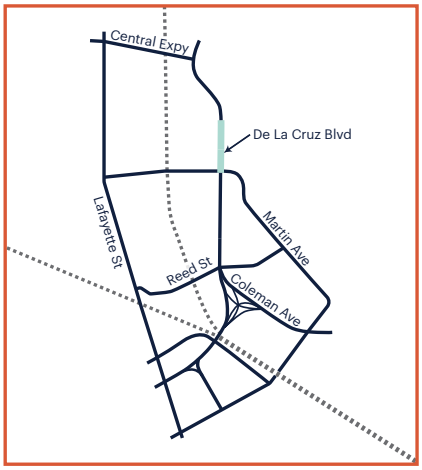


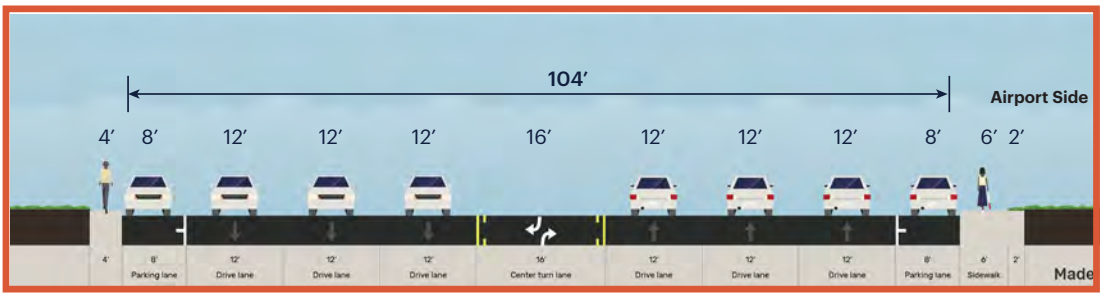
Figure 13: Concept Section 3

3

Section 3 - Existing

De La Cruz Blvd: Martin Avenue to Reed Street
6 lanes, TWLTL, parking on both sides

Travel Lanes:	6 (12')
Bike Lane:	N/A
Median:	16' TWLTL
Buffer:	N/A
Parking:	8' (both sides)

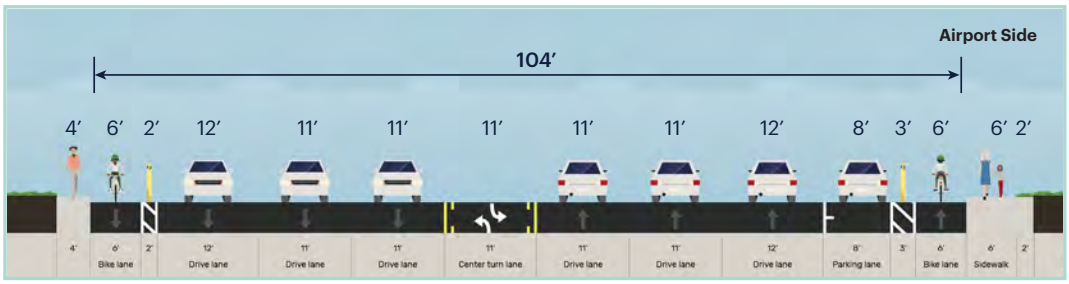


3A

Section 3 - Concept A/B

De La Cruz Blvd: Martin Avenue to Reed Street
6 lanes, TWLTL, remove parking on west side, one-way Class IV protected bike lanes

Travel Lanes:	6 (11'- 12')
Bike Lane:	6' (Class IV)
Median:	11' TWLTL
Buffer:	2-3'
Parking:	None



3A: Vertical separation elements can help prevent automobiles from parking within the buffer space.

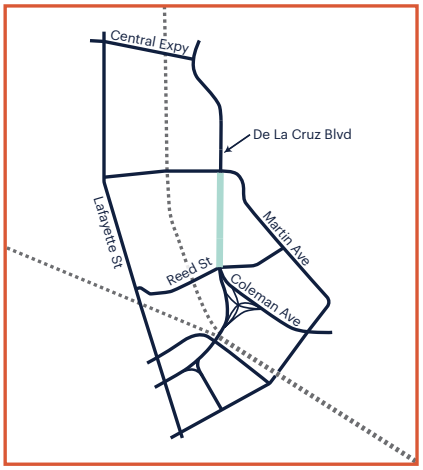


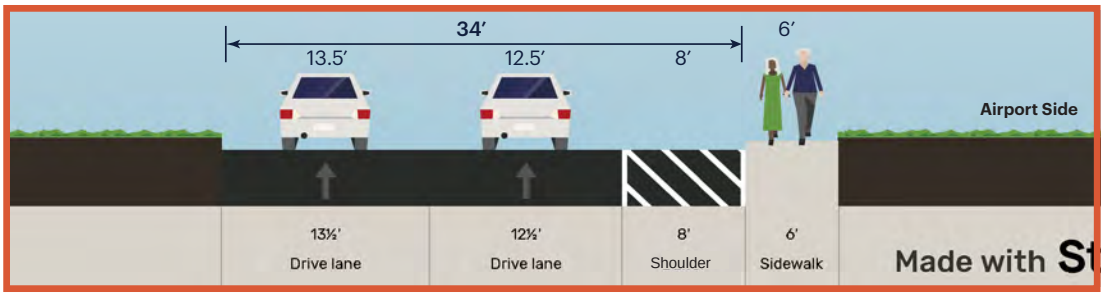
Figure 14: Concept Section 4

4

Section 4 - Existing

NB Coleman Avenue: Tri-Level (Reed Street to S of Tri-Level)
2 lanes, paved shoulder

Travel Lanes:	2 (12.5'-13.5')
Bike Lane:	N/A
Median:	N/A
Buffer:	N/A
Parking:	None

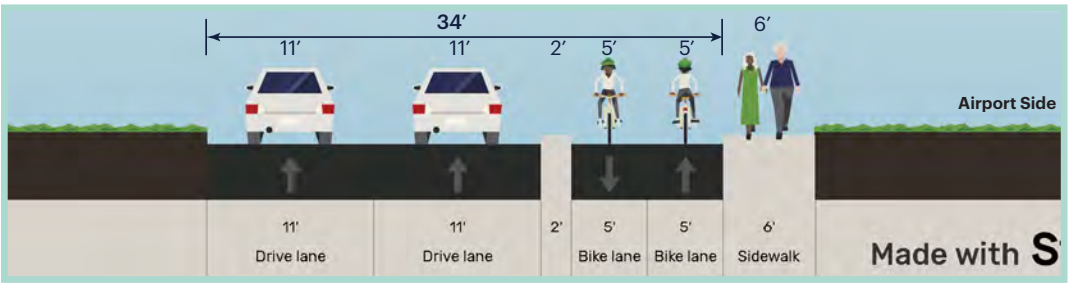


4A

Section 4 - Concept A/B

NB Coleman Avenue: Tri-Level (Reed Street to S of Tri-Level)
2 lanes, two-way Class IV protected cycle track

Travel Lanes:	2 11'
Bike Lane:	10' (two-way Class IV)
Median:	N/A
Buffer:	2'
Parking:	None



4A: Implement protected intersection features at the intersection of De LA Cruz Boulevard and Reed Street to help safely transition cyclists between the one-way and two-way Class IV facilities.

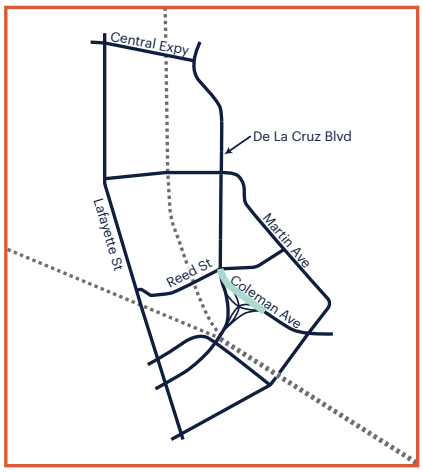


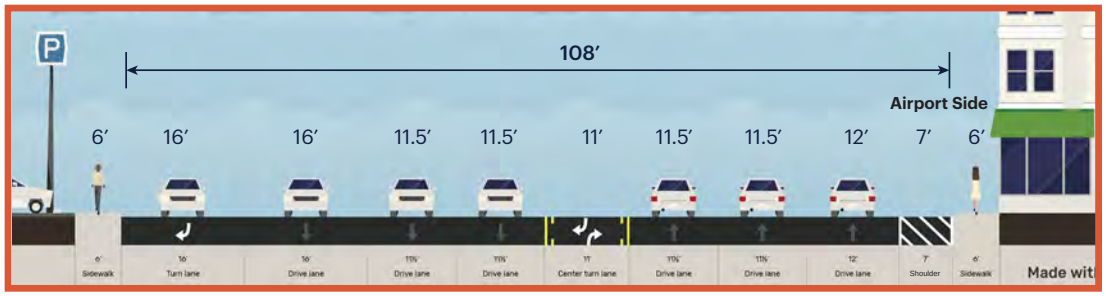
Figure 15: Concept Section 5

5

Section 5 - Existing

Coleman Avenue: S of Tri-Level to Brokaw Road
7 lanes, TWLTL, paved shoulder

Travel Lanes:	7 (11.5'-16')
Bike Lane:	N/A
Median:	11' TWLTL
Buffer:	N/A
Parking:	None

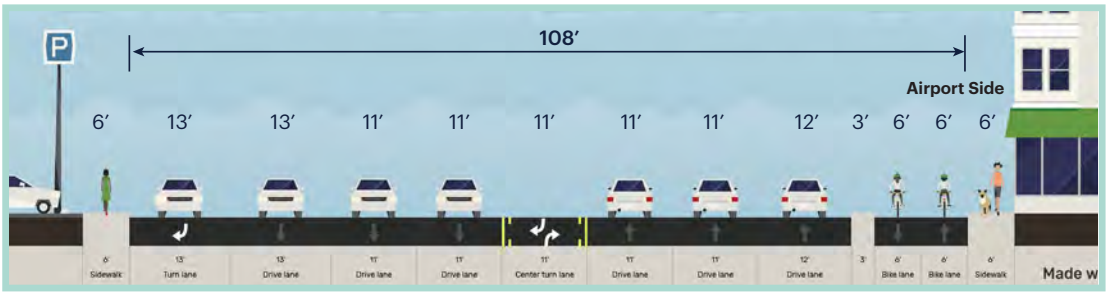


5A

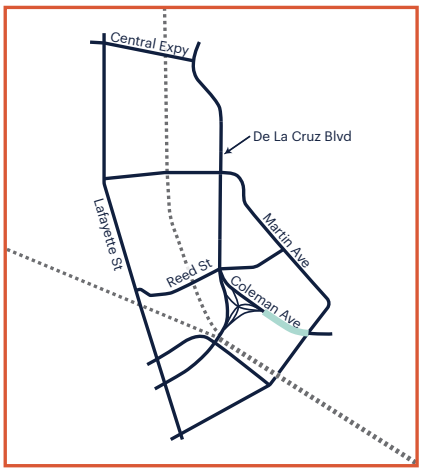
Section 5 - Concept A/B

Coleman Avenue: S of Tri-Level to Brokaw Road
7 lanes, TWLTL, two-way Class IV protected cycle track

Travel Lanes:	7 (11'-13')
Bike Lane:	12' (two-way Class IV)
Median:	11' TWLTL
Buffer:	3'
Parking:	None



5B: Consider a protected intersection at the intersection of Coleman Avenue and Brokaw Road to transition riders between one- and two-way facilities.



Tri-Level

The project team performed an extensive evaluation of the tri-level and determined that it would not be possible to construct all ages and abilities bike facilities through the tri-level without major infrastructure changes and/or capacity reductions due to the following factors:

- High vehicle speeds and volumes
- Limited sight distance
- Some roadway widths too narrow to provide protected bike lanes
- Large elevation change would be difficult for some people biking
- Multiple bridge structures
- Many convergence and divergence points
- Many potential conflict points between people biking and motor vehicles

Solutions that result in lane reductions or require extensive infrastructure improvements were not considered as part of this study. These may be considered in a future study and could provide additional crossing opportunities. Additionally, the project does not propose "partial" bike facilities through the tri-level. It would not be safe or comfortable to provide a bike facility for the start of a tri-level segment, only to have it end halfway through in an area with poor visibility. Therefore, beyond the easternmost Coleman Avenue leg, no bike facilities are proposed along the tri-level at this time.

Figure 16 provides an overview of the challenges associated with the tri-level. Additional details and breakdowns of individual movements within the structure can be found in **Appendix B: Tri-Level Considerations.**

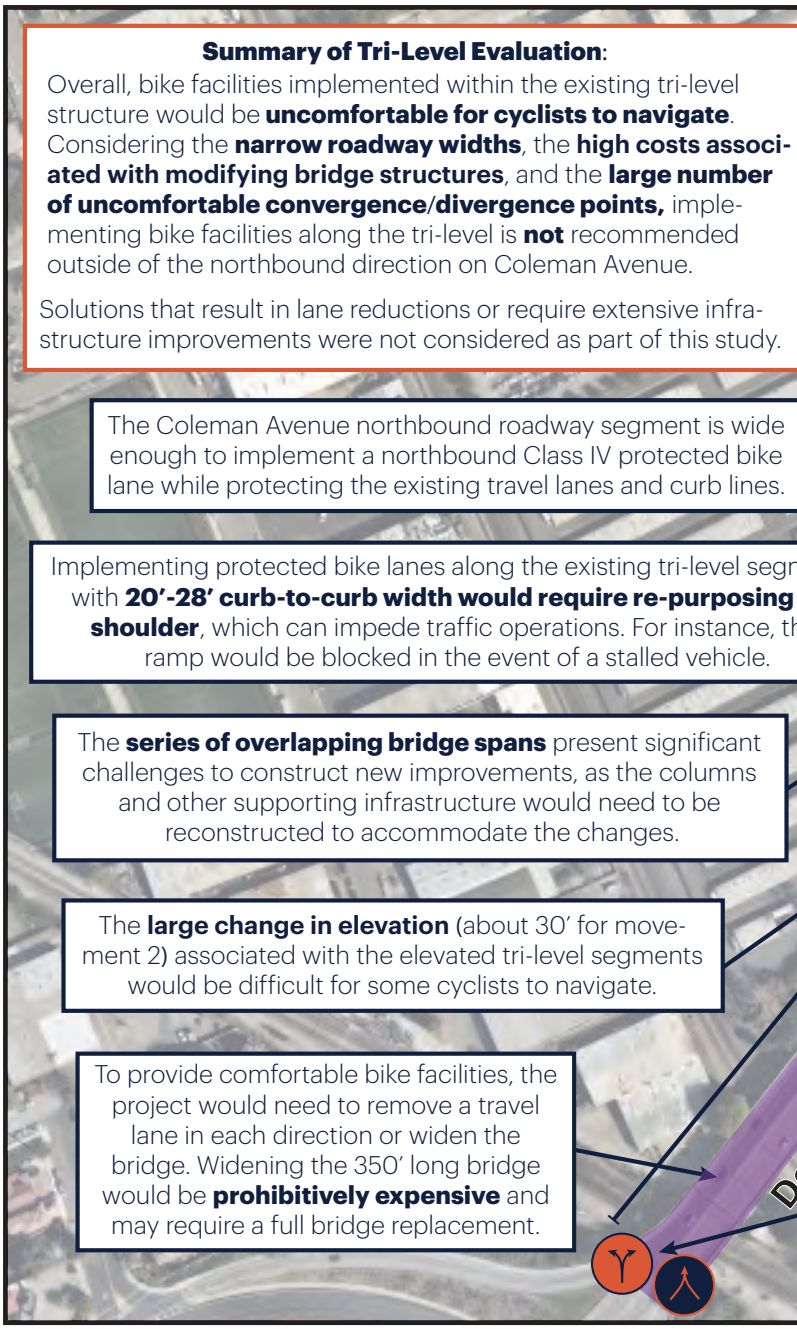


Figure 16: Tri-Level Constraints

Design Considerations

Areas for Future Study

This Study focuses on short-term solutions and opportunities to enhance bicycle connectivity along the Corridor. However, through the study process, other areas were identified for potential further study. Implementing bike facilities along these segments may require removing travel lanes, additional coordination with other agencies, or more expensive design solutions.

- **Tri-level** – there may be opportunities to provide additional bike facilities through the tri-level with the removal of travel lanes or implementation of more capital-intensive solutions, such as widening the bridge over the Caltrain and ACE tracks.
- **Martin Avenue** – there may be opportunities to provide bike facilities on Martin Avenue, which runs approximately parallel to De La Cruz Boulevard between Martin Avenue and Brokaw Road. Martin Avenue has lower vehicle volumes and speeds, which may provide a more comfortable environment for biking. The City boundary between Santa Clara and San Jose runs through the middle of portions of Martin Avenue, and further coordination with the City of San Jose would be required.
- **Alternative track crossing** – the community expressed a desire to have a bike crossing of the Caltrain tracks that did not require dismounting their bike (through the Caltrain Station tunnel) or sharing the road with high-speed traffic (through the tri-level). Consideration should be given to providing a high-quality bike crossing of the tracks in the future. This topic may also be addressed further in the Santa Clara Station Focus Area Plan.

Design Details

This is a planning-level Study meant to set the framework for future project implementation. However, there were several design topics highlighted by the community that should be further considered during the design phase, should this project proceed to implementation. These design features that can influence the cost, ease of implementation, and effectiveness of the recommended infrastructure are discussed briefly below.

Bikeway Separation

Due to the high vehicle speeds and volumes on De La Cruz Boulevard and Coleman Avenue, a sturdy, permanent separation element is recommended, such as a median with 6” curb. Or, to reduce construction costs and impacts, a pin-on 6” curb median could be used. Quick-build separation elements, like pin-on rubber curbs (Zicla Zebra or similar) or flexible post bollards, may be considered if their use would allow for quicker project implementation and the City maintained plans to provide a more permanent form of separation in the future.

Vehicle Lane Widths

This project balances reducing travel lane widths with an understanding of the key role the Corridor plays in the City’s transportation network. The preferred minimum vehicle lane width along De La Cruz Boulevard and Coleman Avenue is 11’ due to the mix of heavy vehicles. In constrained locations, the project proposes 10.5’ minimum lanes. Reduced travel lane widths are correlated with traffic calming effects, which was highlighted by several community members as a priority along the Corridor. Proposed vehicle lane widths may be further refined through the design phase, if the City moves forward with implementation of the project.

Signage and Striping

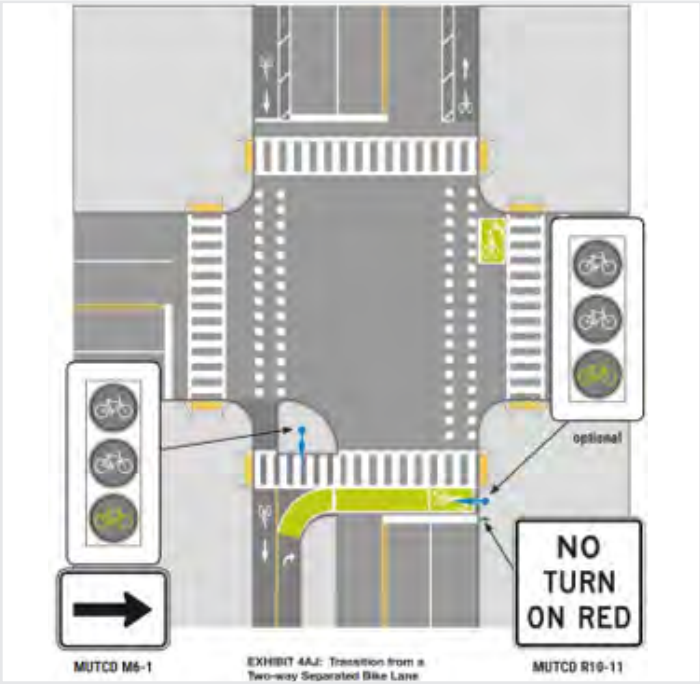
The future project design will include signage and conflict striping at driveways and intersections to help alert vehicles of people biking. Several community members suggested the placement of signs along the Corridor to alert drivers of nearby two-way bike traffic. Additionally, bicycle wayfinding signage is recommended along and near the Corridor to help people biking navigate the community safely and effectively.

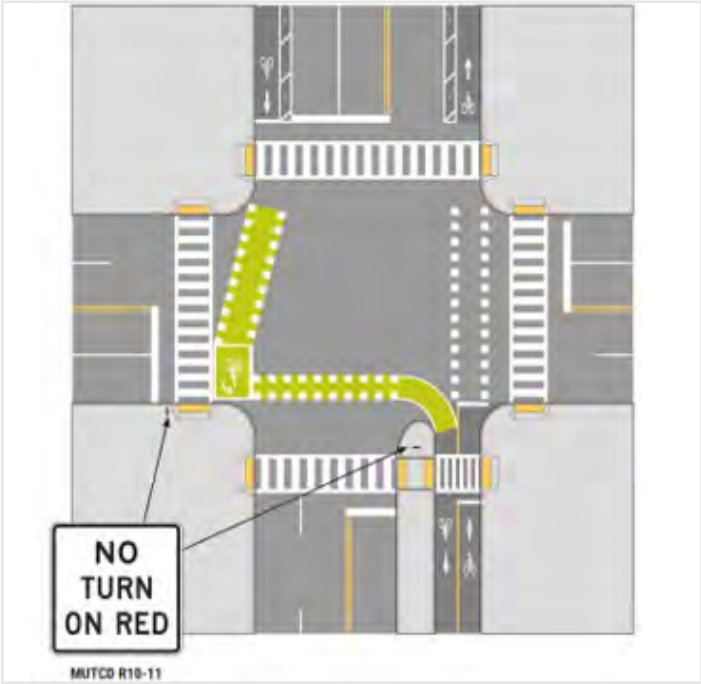
Intersection Treatments

Intersection treatments will be developed during future design phases. Designs will focus on reducing conflicts by separating people biking and turning vehicles with space (using protected intersection features) and/or time (using bike signals, leading pedestrian intervals, and two-stage left turn queue boxes). The future design will help make bike movements, including transitions between one-way and two-way cycle tracks, safe, comfortable, and intuitive. The following examples and graphics show design features similar to what the De La Cruz Boulevard/Coleman Avenue Bikeway could use.

Location: Madonna Road & Dalidio Drive, San Luis Obispo, CA
Source: NearMap

Location: Harrison Street & 21st Street, Oakland, CA
Source: NearMap





MassDOT provides example intersection configurations to transition between one-way and two-way cycle tracks.
Source: MassDOT Separated Bike Lane Planning and Design Guide

Corridor Transportation Analysis

Changes to safety, parking, and the overall corridor with the implementation of Concept A or Concept B are summarized in the following sections. A detailed traffic capacity analysis was not completed for this Study because both Concept A and B propose to maintain the existing number of vehicle lanes. There may be minor changes to intersection delay with project implementation due to the addition of bicycle signals, right-turn-on-red restrictions, or other project features, which may be considered in future design phases.

Safety

Both Concept A and Concept B propose to narrow vehicle travel lanes and add protected bike lanes, which may promote a reduction in vehicle speeds by up to 1 to 3 miles per hour along the Corridor. Additionally, protected intersection features which are intended to slow vehicle turning speeds may be included. Reducing vehicle speeds is correlated with reducing the number and severity of collisions – slower travel speeds give everyone more time to react to potential conflicts.

Both Concept A and Concept B propose to create dedicated, protected space for people biking. This will improve the access and safety for active transportation modes along the Corridor. While there were only three pedestrian and cyclist-involved collisions during the study period, adding protected space for cyclists and providing an additional buffer for pedestrians would significantly improve user comfort and experience. Project implementation is expected to increase bicycle activity while also providing a safer, more comfortable experience for users.

Parking

As previously discussed, parking data for the Corridor was collected over a week long period to understand on-street parking utilization. The analysis found that parking along the Corridor is generally underutilized, with only around 33% of the spaces occupied during the busiest time period. Both Concept A and Concept B propose to repurpose the same number of parking spaces to implement bike facilities. **Table 3** compares the existing and with project parking utilization.

As shown in **Table 3**, both Concepts A and B would reduce existing on-street parking along De La Cruz Boulevard by about 170 spaces. However, the proposed parking inventory is still expected to be sufficient to accommodate peak parking demands, with only about half of the parking spaces utilized. Therefore, implementation of Concept A or Concept B is not expected have an adverse impact to parking.

Table 3: Existing and Forecasted Parking Occupancy

	Existing			Concepts A & B	
On-Street Parking Location	Parking Inventory[1]	Weekday Peak Hour Parking Occupancy[2]	Observed Weekday Peak Hour Utilization[2]	Proposed Parking Inventory[3]	Forecast Weekday Peak Utilization Factor[4]
De La Cruz – West Side	132	12	9%	0	-
De La Cruz – East Side	61	12	20%	21	57%
Side Streets – West Side	134	78	58%	134	67%
Side Streets – East Side	166	62	38%	166	38%
Total	*493*	*164*	*33%*	*321*	*51%*

[1] *Approximate number of existing, available on-street parking spaces. Actual parking inventory may vary based on the size and type of vehicles and parking efficiency.*

[2] *Average parking utilization for the peak parking period during observations: Monday to Friday, 1-2pm*

[3] *Approximate number of future on-street parking spaces is the same for both Alternatives. Assumes no parking for approximately 30' on each side of each driveway along the bike corridor, adjacent to protected bike lanes, to improve visibility between people biking, through traffic, and turning vehicles.*

[4] *Forecast utilization assumes people who currently park on the west side of De La Cruz Boulevard will instead park on the side streets on the west side of De La Cruz Boulevard.*

Vehicle Miles Travelled Analysis

The California Air Resources Board, *Quantifying Reductions in Vehicle Miles Traveled from New Bike Paths, Lanes, and Cycle Tracks* provides a methodology to estimate the reduction in annual vehicle miles traveled (VMT) as a result of a proposed bike facility. The calculation considers bicycle counts (counts taken on the street to be improved with the bike facility, or, in the case of a facility not on an existing street, a parallel street), the corridor length, and a seasonal adjustment factor. Based on this calculation, both Concept A and Concept B are estimated to reduce annual VMT by 1,905 miles per year.

Planning-Level Cost Estimate

A planning-level cost estimate range was developed for both Concept A and Concept B. The estimates were developed using recent, available bid data and reflect 2024 dollars. Because design details will be developed through future project phases, a range of potential costs is included for each concept. These ranges reflect the variety of design features that could be utilized and reflect uncertainties that may be encountered during design. At the lower end, the cost reflects more "quick-build" features, such as flexible post delineators, and less extensive intersection improvements. At the higher end, the cost reflects more permanent features, such as a full-depth median, and more extensive intersection improvements.

Table 4 provides an opinion of probable construction cost and support costs (for design, environmental, and construction support) for each concept. All costs assume a 30% contingency. As noted in the table, Concept A and Concept B are anticipated to have similar costs. While Concept A would require additional bikeway separation length to accommodate bike lanes on both sides of the street north of Martin Avenue, Concept B includes additional funding for intersection improvements at Martin Avenue and Central Avenue to accommodate the two-way cycle track crossing.

Table 4: Planning-Level Cost Estimate

	Lower End Cost	Higher End Cost
Concept A		
Construction Cost	$4.7 M	$10 M
Design, Environmental, and Construction Support	$1.5 M	$3.1 M
Total Cost	***$6.2 M***	***$ 13.1 M***
Concept B		
Construction Cost	$4.7 M	$10.1 M
Design, Environmental, and Construction Support	$1.5 M	$3.2 M
Total Cost	***$6.2 M***	***$13.3M***

Alternatives Analysis Summary

Table 5 summarizes the alternatives analysis for the No Build, Concept A, and Concept B scenarios. **Table 6** summarizes the benefits for the No Build, Concept A, and Concept B scenarios.

Table 5: Alternatives Analysis Summary

Concept	Forecast Speed Reduction	Collision Reduction Potential	Forecast Parking Availability[1]	Annual VMT Reduction Estimate[2]
Current Conditions/No Build	None	None	West: 91% East: 80%	None
Concept A: Protected Bike Lanes on De La Cruz Blvd, Two-Way Cycle Track on Coleman Ave	1-3 mph slower	Negligible	West: No parking East: 43%	1,905 miles/year
Concept B: Protected Bike Lanes & Two-Way Cycle Track on De La Cruz Blvd, Two-Way Cycle Track on Coleman Ave	1-3 mph slower	Negligible	West: No parking East: 43%	1,905 miles/year

[1] Reflects average parking availability (total parking minus utilization) for the peak parking hour during observations: Monday to Friday, 1-2pm

[2] Source: California Air Resources Board, Quantifying Reductions in Vehicle Miles Traveled from New Bike Paths, Lanes, and Cycle Tracks

Table 6: Alternatives Benefits Summary

	No Build		Concept A		Concept B	
Benefits for People Biking	***Yes***	***No***	***Yes***	***No***	***Yes***	***No***
Adds a bicycle facility		✓	✓		✓	
Provides physical separation between traffic and bicyclists		✓	✓		✓	
Encourages bicyclists to not ride on sidewalks		✓	✓		✓	
Provides consistent clear visibility of bicyclists		✓	✓		✓	
No crossing of De La Cruz needed at Central Expressway		✓		✓	✓	
Direct northbound bike connection to Ewert Road		✓	✓			✓
Benefits for Community & Businesses	***Yes***	***No***	***Yes***	***No***	***Yes***	***No***
Reduces VMT		✓	✓		✓	
Maintains existing on-street parking capacity	✓			✓		✓
Encourages slower automobile speeds		✓	✓		✓	

04

Community Engagement

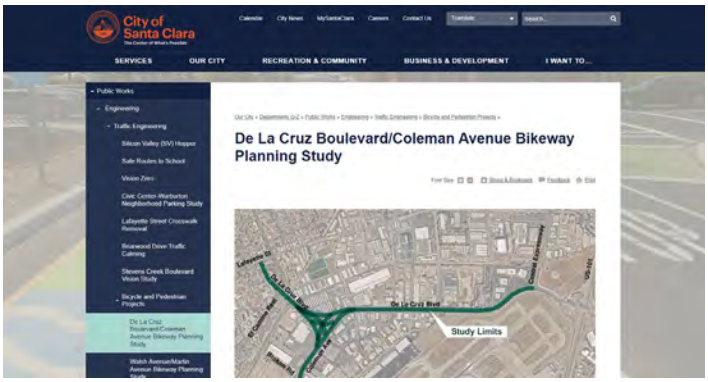
04. Community Engagement

To understand the needs and desires of Santa Clara residents related to the study area, the City and the project team implemented a comprehensive community engagement plan with events intended to educate the public on the project and gather input from community members on preferred solutions. Engaging the community early and often was a key priority for the outreach process; the three separate phases of engagement were aligned with major project milestones, allowing the project team to receive community and BPAC feedback at each point of the Study and integrate the findings into its concept development approach.

Engagement Strategies

Project Website, Hotline, and Email

Throughout the project, the City of Santa Clara hosted a website to provide up-to-date information about the Study. This website was a key landing page for community members looking for project information, including project documents, outreach event details, and recordings of public workshops. The website also provided an opportunity for the community to submit feedback, with three online surveys, and an email and phone number to provide messages at any time. The project website was launched in March 2023. (SantaClaraCa.gov/BikePedProjects)



Roadway Signs

In an effort to spread the word about the project and promote community engagement, the City placed 10 roadway signs along the De La Cruz Boulevard and Coleman Avenue Corridor. These signs contained information relevant to the project, providing a direct channel of engagement to people who use the Corridor on a day-to-day basis. The signs remained displayed along De La Cruz Boulevard throughout the duration of the project.

Site Visit (BPAC)

On March 20, 2023, the project team, accompanied by City staff and a subset of committee members from the City's BPAC, conducted an in-person site visit to assess existing conditions along the Corridor. Participants walked the Corridor to gain an understanding of opportunities and constraints within the study area. While the group observed the existing roadway to be designed primarily for vehicles and uninviting to people walking and biking, they also noted several key opportunities to deliver a more comfortable walking and biking experience along the Corridor.

Committee/Commission Meetings

The City partnered with several local Commissions and Advisory Committees over the course of the project to share progress and collect input from community partners. Feedback collected from each of these meetings and presentations allowed the project team to reach relevant individuals and groups in a targeted, intentional effort. Presentations and other meetings typically consisted of informational slide shows, interactive polls, and opportunities for questions and feedback.

Bicycle & Pedestrian Advisory Committee (BPAC)

Meeting #1: March 27, 2023

The Study was first introduced to the BPAC at the Committee's regularly-scheduled meeting held on March 27, 2023. The project team gave a presentation outlining the project purpose and goals, the intended Study approach, and the existing state of the Corridor, which the group had visited in the week prior. At the end of the presentation, BPAC members were given the opportunity to participate in the community survey developed as part of the Engagement Round 1 efforts.

Meeting #2: October 23, 2023

The project team gave the second BPAC presentation at the Committee's October 23, 2023 meeting. In this meeting, Committee members were provided with an update on the efforts completed since the previous meeting, which included an analysis of the existing parking and safety conditions, initial engagement efforts, and preliminary concept development. At the end of the presentation, BPAC members were given the opportunity to participate in the community survey developed as part of the preliminary Engagement Round 2 efforts and ask questions regarding the proposed concepts.

Meeting #3: January 22, 2024

The project team gave the third BPAC presentation at the Committee's January 22, 2024 meeting. The presentation refreshed the Committee on previous efforts and presented the updated concepts developed for the Corridor. In addition, the team answered frequently asked questions from the second round of engagement, expanding on nearby bike projects, potential intersection treatments, and barriers to implementation within the Corridor. The team also took an informal poll of the preferred alternative, which found that one BPAC member preferred Concept A and four BPAC members preferred Concept B.

Meeting #4: Month Day, 2024

To be provided with final report.

Additional Commission Presentations

The project team presented to the Parks & Recreation Commission, Youth Commission, and Senior Commission during the second round of engagement in Fall 2023. The team outlined the project purpose and goals and the proposed concepts, and allowed Commission members to ask questions and provide feedback about the proposed concepts.

City Council

The project was presented to the members of the City Council in two small study sessions on March 21st and March 22nd, 2024. The Council was shown the concepts and had the opportunity to ask questions and provide feedback on the project.

Community Workshops

To foster community participation in the planning process, virtual workshops were held throughout the course of the project. The events were advertised through the project website, social media, and mailed postcards sent to businesses and residences within a half-mile of the project corridor. At these workshops, staff presented information on recent project activities, and attendees had the opportunity to provide input through interactive polling and question and answer sessions with the project team. Presentations created for these events are provided in **Appendix C: Community Engagement Summaries**.

Community Workshop #1: May 22, 2023

The first workshop hosted for community members took place on May 22, 2023. Project staff presented the goals of the project, a summary of the existing conditions, and the scope of the Study. The presentation included interactive polling and a question-and-answer session to solicit feedback and answer questions from community members. Information collected during this workshop helped the project team understand current travel patterns and community preferences on general improvement needs.

Community Workshop #2: October 19, 2023

The project hosted a second community workshop on October 19, 2023. During this workshop, the project team provided attendees with updates on the project, including a review of the preliminary improvement concepts developed for De La Cruz Boulevard and Coleman Avenue. Attendees shared feedback through

interactive polling to help the project team gauge community support for the concepts and collect additional input on project goals and features.

Community Workshop #3: January 31, 2024

A third community workshop was held on January 31, 2024. During this workshop, the project team presented a summary of the project's previous work efforts and showed the updated concepts for the Corridor. Additionally, the team answered frequently asked questions from the second round of engagement, including expanding on nearby bike projects, potential intersection treatments, and barriers to implementation within the Corridor. Feedback from community members was collected through a question-and-answer period at the end of the presentation, where community members asked additional questions and provided more feedback.

Pop-up Events

During the three rounds of community engagement for the project, team members and City staff held four in-person events intended to meet community members in their neighborhoods, provide them with information on the project, and get their feedback to incorporate into project tasks. Poster boards were setup at each event location to provide project information. QR codes on the poster boards allowed community members to access the project website and surveys.

Bike To Work Day

The City partnered with Silicon Valley Power to co-host an energizer station and pop-up event along the San Tomas Aquino Creek Trail on Bike to Work Day, Thursday, May 18, 2023. The event was held at a trailhead near the Agnew Road intersection and featured representation from each of the City's four ongoing corridor planning projects. Staff was present to describe the City's projects to community members, ultimately gathering and gathered feedback from over 30 individuals.

People biking by the energizer station stopped to share feedback on the project corridors

Art & Wine Festival

On September 16 and 17, 2023, at Central Park, the planning team had a booth set up with concept display boards, paper surveys, and QR codes for the project website and survey. Over 400 community members engaged with staff on the project.

Tree Lighting Ceremony

The City hosted a pop-up event at the Santa Clara Christmas Tree Lighting Ceremony in Central Park on Friday, December 1, 2023 from 5:30-8:30 pm. This event featured representation from all four of the City's corridor planning projects. Overall, the staff gathered feedback from over 20 community members. During this event, there were several common comment themes on the De La Cruz Boulevard/Coleman Avenue corridor:

- Concepts A and B both received positive feedback, with community members having a slight preference for Concept B
- Bikes are on sidewalks currently because there are no safe bike facilities
- Interest in enhancing the bicycle connection to the access road on the east side of De La Cruz Boulevard at Central Expressway to improve connections to the airport and Guadalupe River Trail.

People at the holiday festivities for the Tree Lighting Ceremony stopped to share feedback on the project corridors.

Caltrain Station

The planning team hosted a pop-up event at the Santa Clara Caltrain Station on Thursday, February 15, 2024, from 4:00 to 6:00 pm. Overall, City staff and consultants engaged about a dozen community members, including those using bicycles to access public transportation at this major hub. People noted their need for safe,

continuous east-west connections in Santa Clara to better access local and regional destinations.

Community members engage with City staff on concepts for De La Cruz Boulevard and Coleman Avenue Bikeway.

Online Surveys

During each phase of community engagement, the project team developed and shared surveys to provide an opportunity for input. In the first phase, survey questions allowed respondents to provide information on their relation to the study area, their current travel behaviors, and their initial thoughts on the project's central aims. Sixty-three people completed the first survey.

During the second phase, respondents were presented with the draft concepts and asked to provide feedback. Twenty-three people completed the second survey.

During the third phase, respondents were presented with the revised draft concepts and asked to select their preferred concept. Forty-one people completed the third survey.

Questions and results from each of the community surveys are included in **Appendix C**.

Phase 1 Engagement Summary Findings

The first outreach phase occurred between March and June 2023 and focused on gathering feedback from the community about existing conditions in the study area and sharing the proposed project goals and scope. Several notable takeaways are outlined below:

- Most people who bike in the area find it much easier and safer to bike around the tri-level area than to bike through it.
- The intersection of De La Cruz Boulevard and Central Expressway was identified as being problematic for active transportation users.
- Many people desired a better connection to the Guadalupe River Trail.
- Most of the workshop attendees (83%) cited "Continuous Bike Lanes" as something that would encourage them to use a bicycle facility along De La Cruz Boulevard.
- High car speeds were identified as a major safety concern along the Corridor.

The Phase 1 community survey received 63 responses. Common themes from the open-ended questions include the following:

- Many people currently avoid biking in the study area because it feels unsafe, uncomfortable, and "hostile" due to the high vehicle speeds, merge points, and lack of dedicated space for people biking.
- Many people noted that only a bike lane with physical protection would help them feel comfortable using the Corridor.
- One comment noted that trucks may use the Corridor more frequently during certain seasons to access the cannery. Several comments noted that truck parking should be a consideration.
- Several people noted that the tri-level and Costco traffic are problematic for active transportation users.

A summary of this phase of engagement is included in **Appendix C**.

Phase 2 Engagement Summary Findings

The project team continued to reach out to community members and engage them on options for corridor bikeway concepts throughout the second phase of outreach, between August and October 2023. During this phase, community members were given an opportunity to give feedback on each of the proposed concepts. This included an in-person pop-up event, an online survey, and an online community workshop. Several notable takeaways from the efforts are outlined below:

- Concepts A and B both received positive feedback.
- People had questions about how intersections would be designed and how two-way/one-way cycle track transitions would work.
- Attendees shared a desire to calm traffic on De La Cruz Boulevard and Coleman Avenue.
- There was an interest in designing facilities for all micromobility users, particularly those with mobility challenges, such as recumbent-trike users.
- Some attendees asked if there were any other improvements that could be applied to the tri-level.

The Phase 2 community survey received 23 responses:

- 90% of respondents supported, or supported with minor changes, Concept A.
- 61% of respondents supported, or supported with minor changes, Concept B.
- Many respondents had questions or concerns about how intersections would be designed and how two-way/one-way cycle track transitions would work.
- Respondents shared a desire to make sure wayfinding and signage would be included in the final design.

A summary of this phase of engagement is included in **Appendix C**.

Phase 3 Engagement Summary Findings

The City continued to engage community members throughout the third phase of outreach, between January and February 2024. During this phase, the project team shared the revised concepts, answered frequently asked questions from the previous phase, and asked community members to provide input on their preferred concept. Several notable takeaways from the efforts are outlined below:

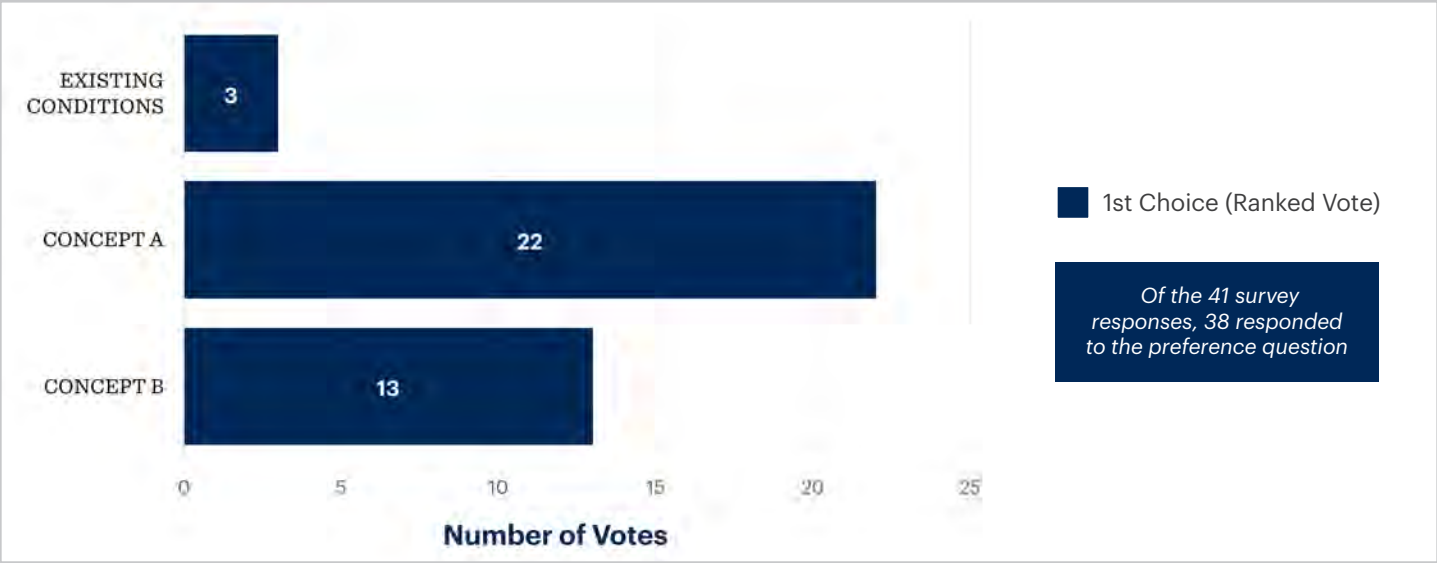
- Some people changed their preference from Concept A to Concept B after learning about how the project will tie into US 101/Trimble/De La Cruz interchange project, which includes a shared-use path on the west side of De La Cruz Boulevard and is in construction.
- People noted their support of protected intersection features.
- People noted their support for narrowing travel lanes along the Corridor.
- Some attendees asked questions about why trucks parked along the Corridor today: whether to access nearby uses or just because the parking was available.

The Phase 3 community online survey received 41 responses:

- 58% of respondents prefer Concept A, 34% prefer Concept B, and 8% prefer to keep existing conditions/No Build. See **Figure 17**.
- Respondents noted that they would prefer to minimize the number of changes from one-way to two-way cycle tracks (note, both concepts include the same number of transition points).
- Respondents noted that protection and separation from motor vehicles is a priority.

A summary of this phase of engagement is included in **Appendix C**.

Figure 17: Results from Community Preference Vote in Phase 3 Online Survey



05
Recommendations

05. Recommendations

Draft Recommendations

City Council will review the results of the Study and make a recommendation.

Next Steps & Funding

After City Council's review and recommendation, the project may proceed to the design and environmental phase and the City will seek out funding opportunities. The proposed improvements will make biking along and across De La Cruz Boulevard and Coleman Avenue more comfortable for everyone, helping create a safer, healthier, more accessible Santa Clara for all.

Coordination with Relevant Projects

Consistent with the City's effort to expand its active transportation network, there are several ongoing active transportation projects that are adjacent to or connect with the proposed De La Cruz Boulevard/Coleman Avenue Bikeway. The project team should continue to coordinate with adjacent projects to ensure efficient implementation and provide the most comprehensive and well-connected network possible. These projects include:

- US 101/De La Cruz/Trimble Interchange (in construction)
- Walsh/Martin Class IV Bikeway Study (in planning)
- Gateway Crossings (in construction)
- Santa Clara Station Focus Area Plan (in planning)

Funding Options

Local and Regional Grant Programs

2016 MEASURE B

Santa Clara County voters approved a half-cent sales tax in 2016 to fund transportation infrastructure investments. Measure B is expected to raise $6.3 billion (2017 dollars) over 30 years to fund nine program categories. The Local Streets and Roads Program returns funds to the cities and the County on a formula basis to be used to repair and maintain the street system. The allocation is based on the population of the cities and the County of Santa Clara's road and expressway lane mileage. Cities and the County will be required to demonstrate that these funds would be used to enhance and not replace their current investments for road system maintenance and repair. The program would also require that cities and the County apply Complete Streets best practices in order to improve bicycle and pedestrian elements of the street system. Measure B also has a competitive, discretionary grant program for the Bicycle and Pedestrian Program. Funds are allocated every two years. A 10% non-Measure B match is required for competitive grant funds.

Funds are programmed by VTA.

TRANSPORTATION FUND FOR CLEAN AIR COUNTY PROGRAM MANAGER FUND

The Bay Area Air Quality Management District (BAAQMD) administers funds to the VTA for projects that reduce vehicle emissions including bicycle projects. These funds come from a $4 vehicle registration surcharge in Bay Area counties and can be used as a match for competitive state or federal programs.

Funds are programmed by VTA.

ONE BAY AREA GRANT

The One Bay Area grant program (OBAG) emphasizes funding for projects within Priority Development Areas (PDAs). Funds are targeted to address critical climate and focused growth goals of Plan Bay Area 2050, and used to coordinate and deploy strategies that are best suited for regional implementation. Projects that are within or provide access to PDAs could qualify for OBAG grants.

Funds are programmed by the Metropolitan Transportation Commission (MTC) and the Santa Clara Valley Transportation Authority (VTA).

TRANSPORTATION DEVELOPMENT ACT ARTICLE 3

Transportation Development Act Article 3 (TDA 3) provides funding annually for bicycle and pedestrian projects. Two percent of TDA funds collected within the county are used for TDA 3 projects. MTC policies require that all projects be reviewed by a Bicycle and Pedestrian Advisory Committee or similar body before approval.

Funds are programmed by VTA.

State and Federal Grant Programs

ACTIVE TRANSPORTATION PROGRAM (ATP)

Governor Brown signed legislation in 2013 which consolidates existing federal and state transportation programs including the Transportation Alternatives program, Bicycle Transportation Account, and State Safe Routes to School, into a single program which is focused on expanding and enhancing active transportation across the state. The ATP program is intended to increase the use of active transportation, enhance safety for non-motorized users, improve public health, and advance regional Greenhouse Gas (GHG) reduction goals pursuant to SB 375 (of 2008) and SB 341 (of 2009). This grant program funds a wide variety of activities and projects which further the goals of the program including infrastructure, non-infrastructure, and planning studies.

Funds are programmed by Caltrans with guidance from the CTC.

AFFORDABLE HOUSING AND SUSTAINABLE COMMUNITIES PROGRAM

The Affordable Housing and Sustainable Communities Program (AHSC) funds land use, housing, transportation, and land preservation projects that support infill and compact development that reduces greenhouse gas (GHG) emissions. Projects must fall within one of three project area types: transit-oriented development, integrated connectivity project, or rural innovation project areas. Fundable activities include affordable housing developments, sustainable transportation infrastructure, transportation related amenities, and program costs.

Funds are programmed by the Strategic Growth Council and implemented by the Department of Housing and Community Development.

HIGHWAY SAFETY IMPROVEMENT PROGRAM

Caltrans offers Highway Safety Improvement Program (HSIP) grants every one to two years. Projects on any publicly owned road or active transportation facility are eligible, including bicycle and pedestrian improvements. HSIP focuses on projects that explicitly address documented safety challenges through proven countermeasures, are implementation ready, and demonstrate cost-effectiveness. The small number of pedestrian and bicycle collisions in recent years on this Corridor may make the problem less competitive for HSIP funds.

Funds are programmed by Caltrans.

OTHER STATE PROGRAMS ROAD MAINTENANCE AND REHABILITATION PROGRAM

Senate Bill 1 (SB1) created the Road Maintenance and Rehabilitation Program (RMRP) to address deferred maintenance on state highways and local road systems. Program funds can be spent on both design and construction efforts. On-street active transportation related maintenance projects are eligible if program maintenance and other thresholds are met. Funds are allocated to eligible jurisdictions.

Funds are programmed by the State Controller's Office with guidance from the CTC.

Table 7 summarizes the funding sources by type.

Table 7: Funding Sources by Type

Local Source	Formula Grants (Federal/State)	Formula Grants (Regional)	Competitive Grants (Federal/State)	Competitive Grants (Regional)
Santa Clara Capital Improvement Plan (CIP)	Local Streets and Roads Program (SB1)	Measure B (2016) Local Streets and Roads	Highway Safety Improvement Program (HSIP)	One Bay Area Grant Program (OBAG)
Traffic Impact Fees			Affordable Housing Sustainable Communities (AHSC)	Measure B (2016) Bicycle and Pedestrian Program
			Active Transportation Program (ATP)	Transportation Fund for Clean Air (TFCA)
			TDA Article 3	

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