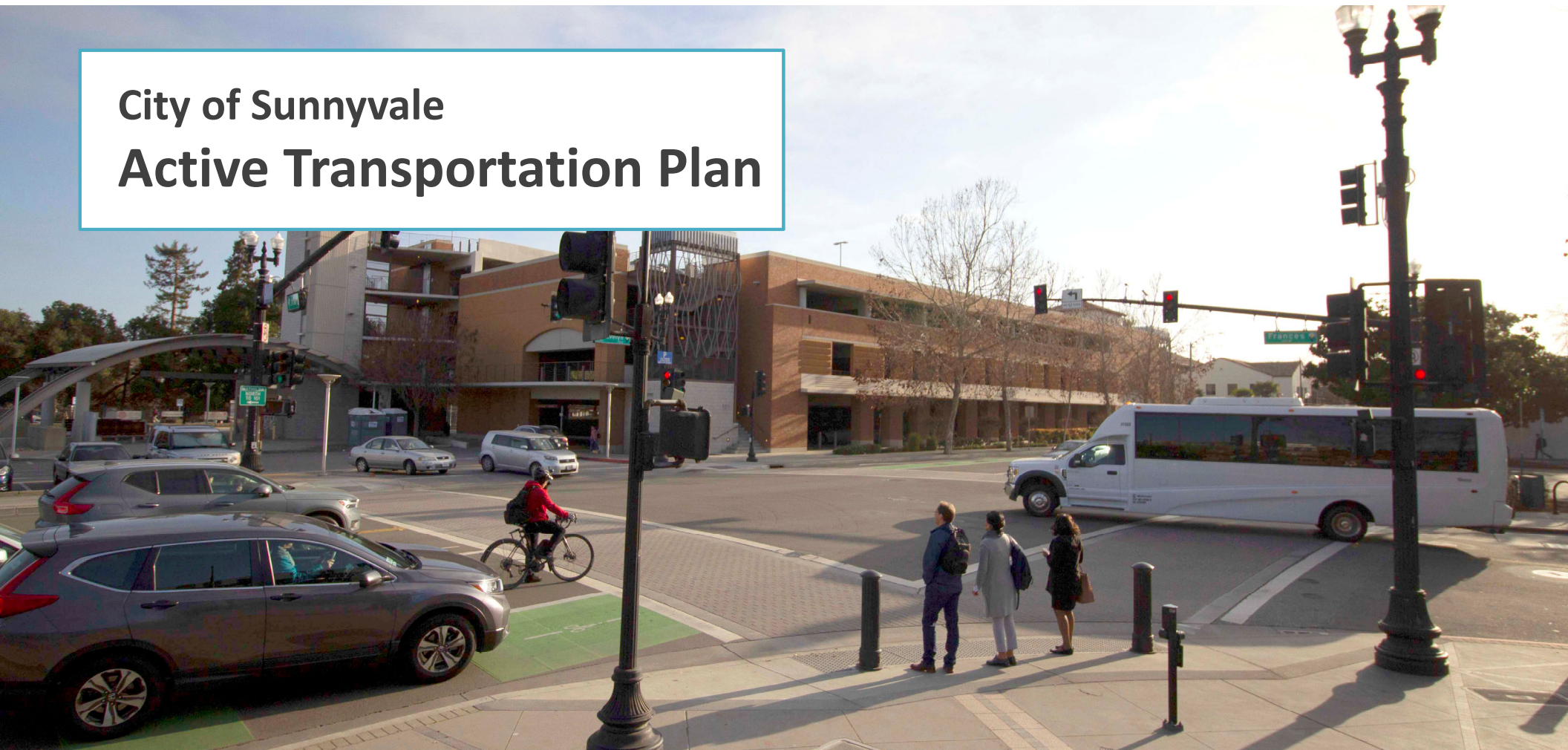


City of Sunnyvale Active Transportation Plan





Agenda

1. Sunnyvale ATP Process
2. Bicycle Network Recommendations
3. Pedestrian Network Recommendations
4. Safe Routes to School Recommendations
5. Public Draft Plan – Comments Received
6. Questions and Comments
7. Next Steps

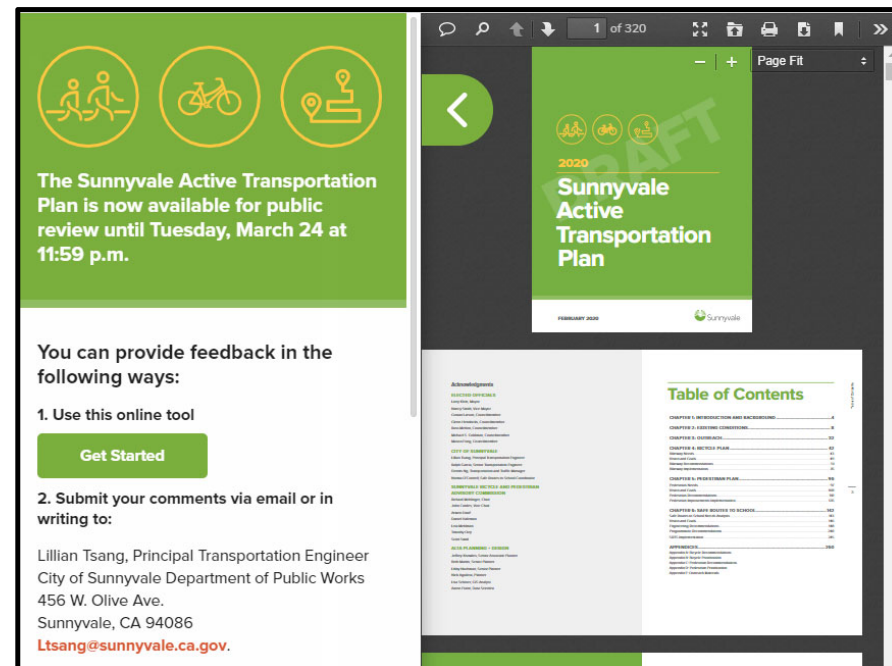
Project Timeline



Feedback on Public Draft Plan

<https://sunnyvaleatp.altaplanning.site>

- Open until Sunday, April 19, 2020
- Received: 342 comments



Public Draft Plan Webinar



- March 12, 2020
- 23 attendees, 3 BPAC members
- 36 questions received

Sunnyvale Active Transportation Plan - Public Draft Plan Webinar

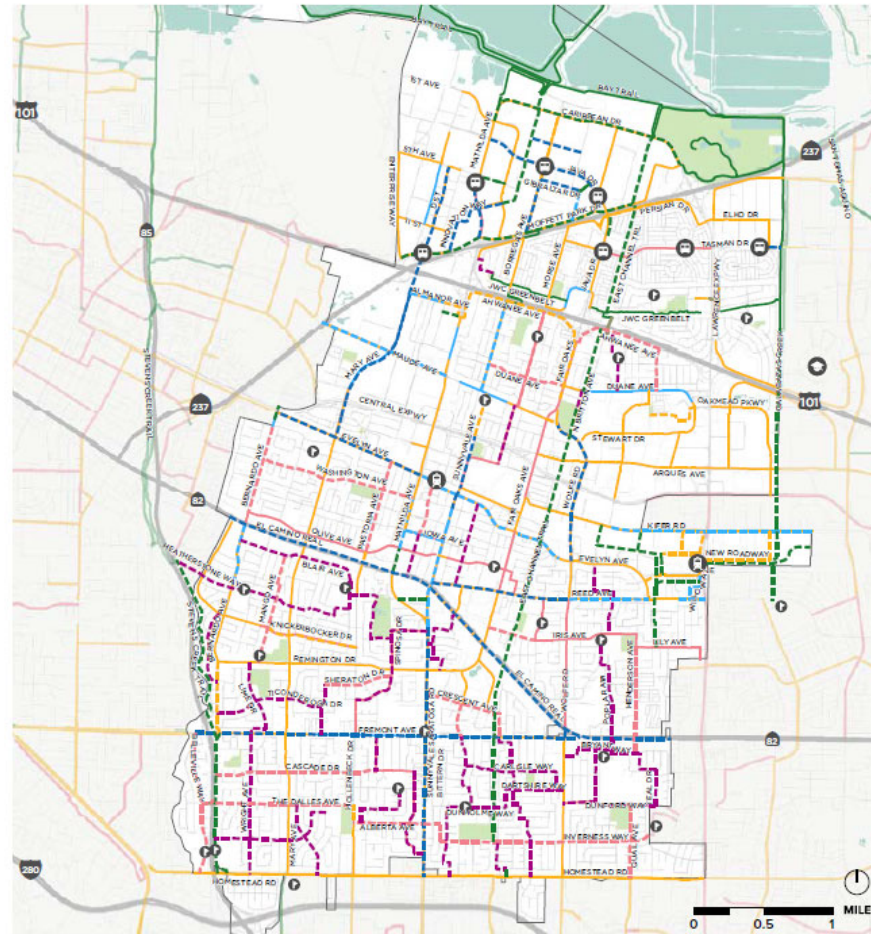
#	Question	Response
5	Is there a way to measure 'walkability'? Is it something the city can assess annually to check progress?	We've found that measuring walkability in general is multi-faceted but includes a few factors including: pedestrian safety, sidewalk connectivity, and a diversity of land uses. The prioritized pedestrian zones and corridors identified through the Plan focus on areas that we consider having the strongest potential for increased walkability based on these categories. The City monitors pedestrian collisions and Census data to understand trends and progress.
6	I'm very concerned that some of the intersections types shown in the pedestrian section are not compatible with bicycle use. Can you explain how that conflict might be addressed?	Ensuring that pedestrian infrastructure improvements does not preclude bicycle infrastructure is a top priority. Curb extensions/bulb-outs can be designed to leave room for bicycle facilities.
7	As far as you know, are the meetings still taking place, or will there be a virtual connection?	The March BPAC meeting has been canceled. The public comment period for the Draft ATP will be extended as well. We will provide an update after the revised schedule has been finalized.
8	Are the BPAC meetings going online? What's the plan in the shadow of COVID-19 social distancing policies?	See response to Question #7
9	If I submit comments online, can I save all my comments locally on my computer?	Unfortunately, the online PDF tool platform does not let commenters save the comments locally on their computer at this time.
10	Did you study the use of Hollenbeck as a bikeway? It seems like a better low-stress route than Mary or Sunnyvale Saratoga. Is there a reason it is not included?	See response to Question #2
11	Could you talk about the reason for the large gaps between low and high cost estimates for class IV?	The construction cost of Class IV Separated Bikeways is largely due to the material used, which can range from something more low cost such as a flexible plastic post delineator, to something more high cost, such as a concrete curb buffer. These costs will be refined when a project moves into detailed design phase.
12	For bikes, the prioritization scheme doesn't tie at all to your goals. Can you explain?	The Vision and Goals within this plan are developed to provide metrics by which the City can track their progress on the Active Transportation Plan. In contrast, the prioritization process is aimed to help the City understand where to prioritize resources for building out the bikeway network. Because of these slightly different goals, the criteria for both are also unique.
13	Cost estimates for bikes look really cheap. Something like \$48M for 87 miles of bikeways. That's way cheaper than Palo Alto has done. Thoughts?	The 48 million dollar estimate is the cost estimate for bikeway construction, and does not include design costs. We will add language in the Plan to reflect that this does not include planning, environment, public outreach or design.
14	I would like to see on street bike parking (bike corrals) as part of the atp. Is that possible?	Bicycle corrals are included as an example of short-term bicycle parking on page 69 of the public draft plan.
15	Why isn't the Pastoria/Hollenbeck corridor included as a possible bike route, using occasional car barriers so that cars can no longer use it as a throughway. With reduced traffic, it would be a comfortable bike route. Better than Mary with bike lanes.	See response to Question #2

Bikeway Network

Bikeway Network

Strategies:

1. Make it Comfortable and Connected
2. Make it Local
3. Fill in the Network
4. Focus on the Intersections



Map 11. Complete Bikeway Network



Bikeway Network

Bikeway Type	Proposed Mileage
Class I Shared-Use Path	17.7
Class II Bicycle Lane	7
Class IIB Buffered Bicycle Lane	7.4
Class III Bicycle Route	14.3
Class IIIB Bicycle Boulevard	21.1
Class IV Separated Bikeway	17.2
TOTAL	84.7

Bicycle Facility Types



CLASS I Shared-Use Path

- Paths completely separated from motor vehicle traffic used by people walking and biking.
- Comfortable for people of all ages and abilities.
- Typically located immediately adjacent and parallel to a roadway or in its own independent right-of-way, such as within a park or along a body of water.



- ### CLASS II Bicycle Lane
- A dedicated lane for bicycle travel adjacent to traffic.
 - A painted white line separates the bicycle lane from motor vehicle traffic.



- ### CLASS IIB Buffered Bicycle Lane
- A dedicated lane for bicycle travel separated from vehicle traffic by a painted buffer.
 - The buffer provides additional comfort for users by providing space from motor vehicles or parked cars.



- ### CLASS III Bicycle Route
- A signed bike routes that people biking share with motor vehicles.
 - Can include pavement markings.
 - Comfortable facility for more confident bicyclists.
 - Recommended when space for a bike lane may not be feasible.



- ### CLASS IIIB Bicycle Boulevard
- Calm, local streets where bicyclists have priority but share roadway space with motor vehicles.
 - Shared roadway bicycle markings on the pavement as well as traffic calming features such as speed humps and traffic diverters to keep these streets more comfortable for bicyclists.
 - Comfortable facility for bicyclists with wider range of abilities.

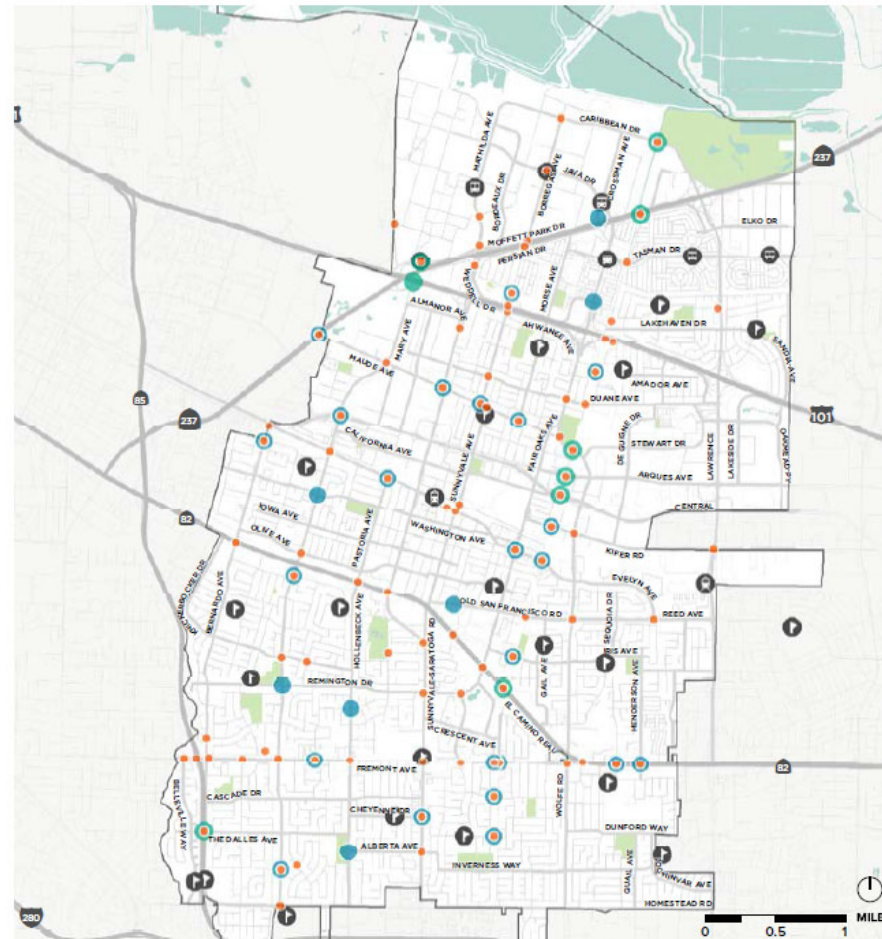


- ### CLASS IV Separated Bikeway
- An on-street bikeway separated from motor vehicle traffic by a curb, median, planters, parking delineators, or other physical barrier.

Bikeway Network

Strategies:

1. Make it Comfortable and Connected
2. Make it Local
3. Fill in the Network
4. Focus on the Intersections



Map 17. Bikeway Spot Improvements

- Crossing Improvement
- Traffic Control Improvement
- Grade-Separation Improvement

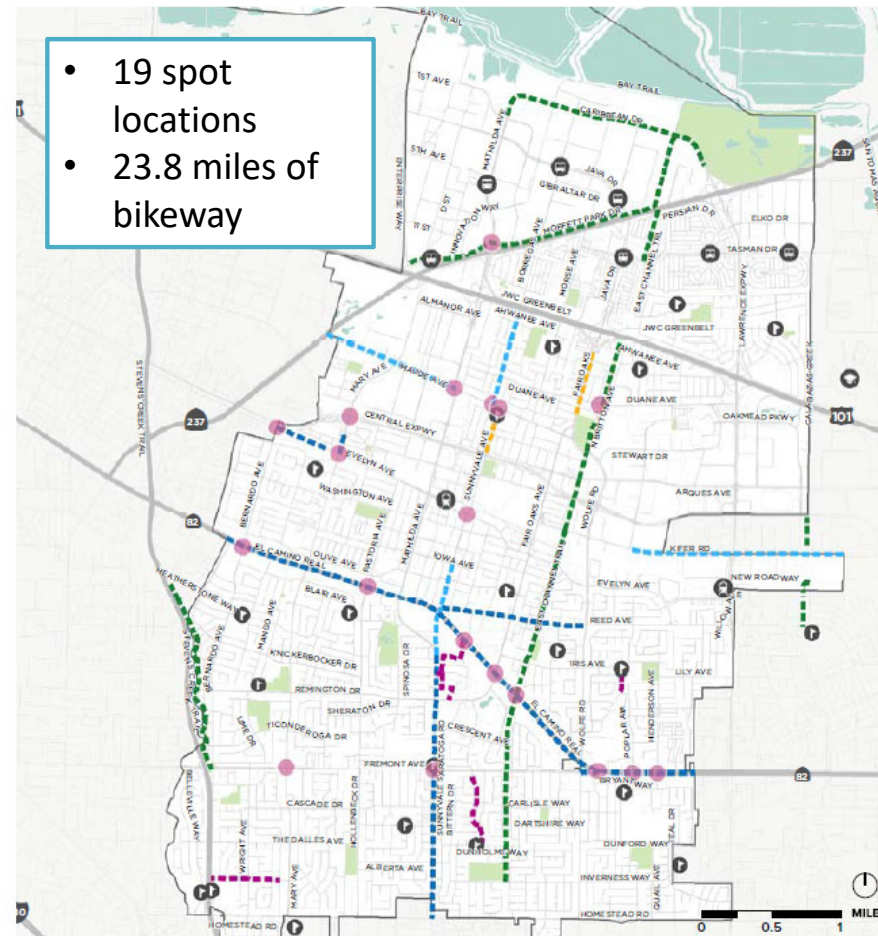
Boundaries + Destinations

- Caltrain Station
- Light Rail Station
- Mission College
- Park
- City Boundary

Project Prioritization

Criteria:

1. Collision Reduction
2. Equity
3. Access to Key Destinations
4. Community-Identified Need
5. Cross-Town Connection



Map 18. High Priority Bikeway Projects

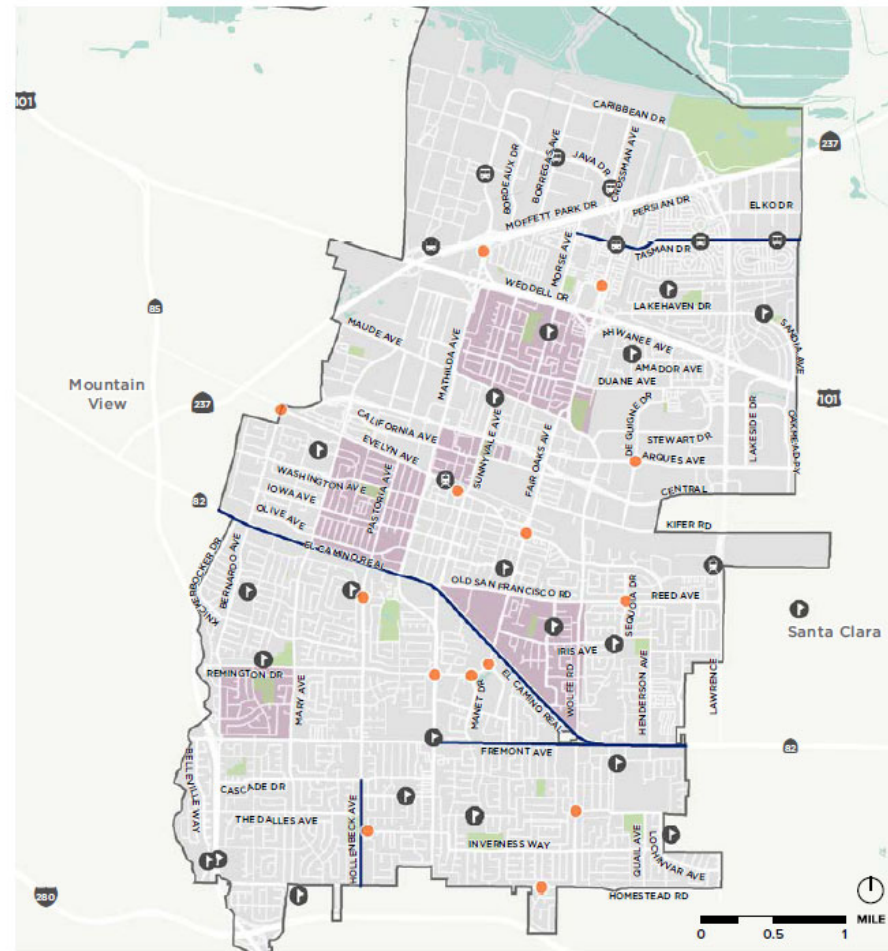


Pedestrian Network

Pedestrian Network

Strategies:

1. Safety
2. Publicly Identified Barriers
3. Equity
4. Access to Local Needs



Map 24. Pedestrian Recommendations

Pedestrian Recommendations

- Pedestrian Improvement
- Priority Corridor
- Priority Area

Boundaries + Destinations

- Ⓟ Public School
- Ⓡ Caltrain Station
- Ⓜ VTA Light Rail Station
- Park
- City Boundary

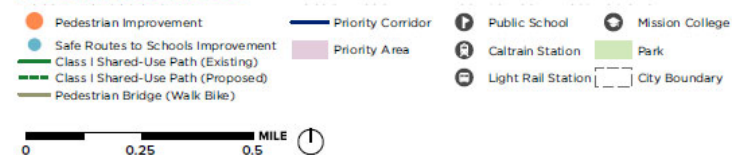
Pedestrian Network

Types :

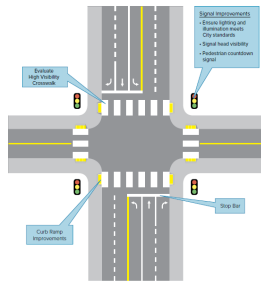
1. Pedestrian Improvement
2. Safe Routes to School Improvement



Map 25. SNAIL Neighborhood and Tasman Corridor Ped Recommendations

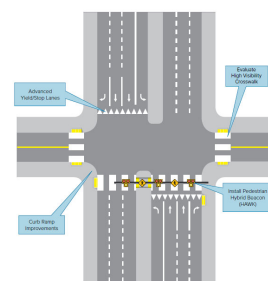


Pedestrian Typologies



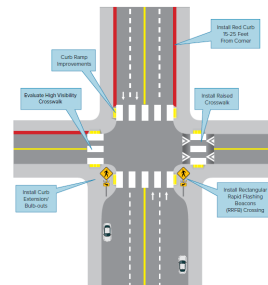
Other Signalized Intersection

- OTHER IMPROVEMENTS**
- Evaluate pedestrian crossing times
 - Remove obstacles (shrubbery, fencing, etc.) for sight distance
 - Install yield to pedestrian signage



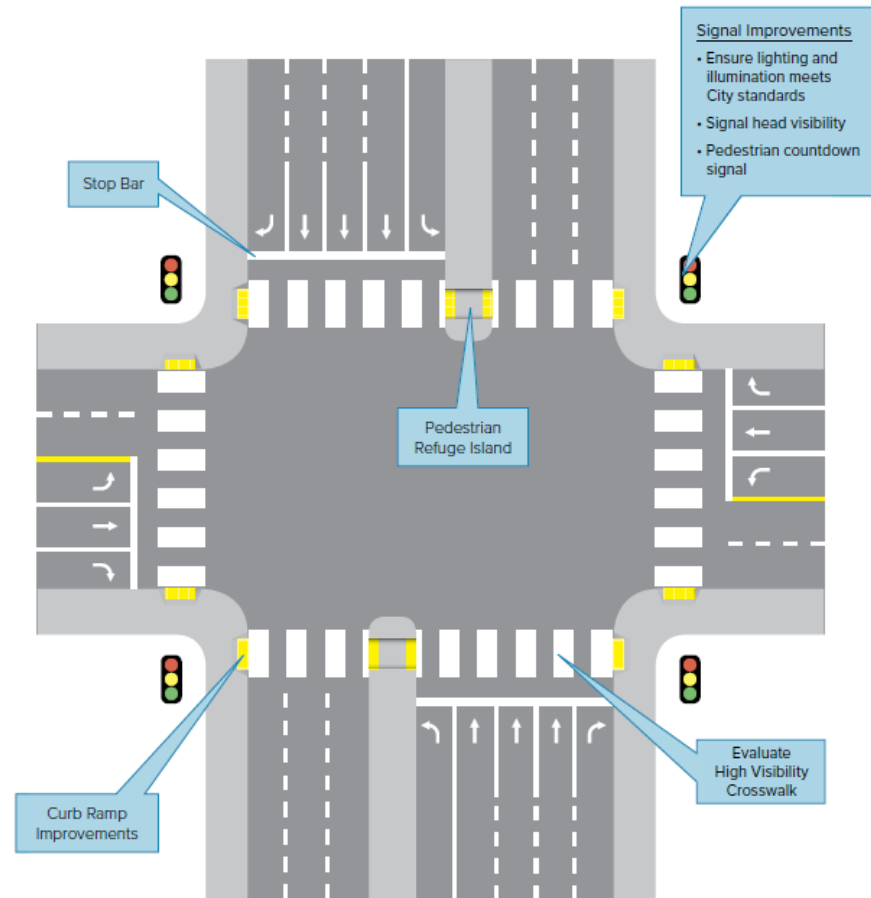
Major Road Unsignalized Intersection

- OTHER IMPROVEMENTS**
- Evaluate if intersection meets signal warrants
 - Ensure lighting and illumination meets City standards



Other Unsignalized Intersection

- OTHER IMPROVEMENTS**
- Evaluate if intersection meets all-way stop controls or signal warrant
 - Ensure lighting and illumination meets City standards
 - Remove obstacles (shrubbery, fencing, etc.) for sight distance



Major Road Signalized Intersection

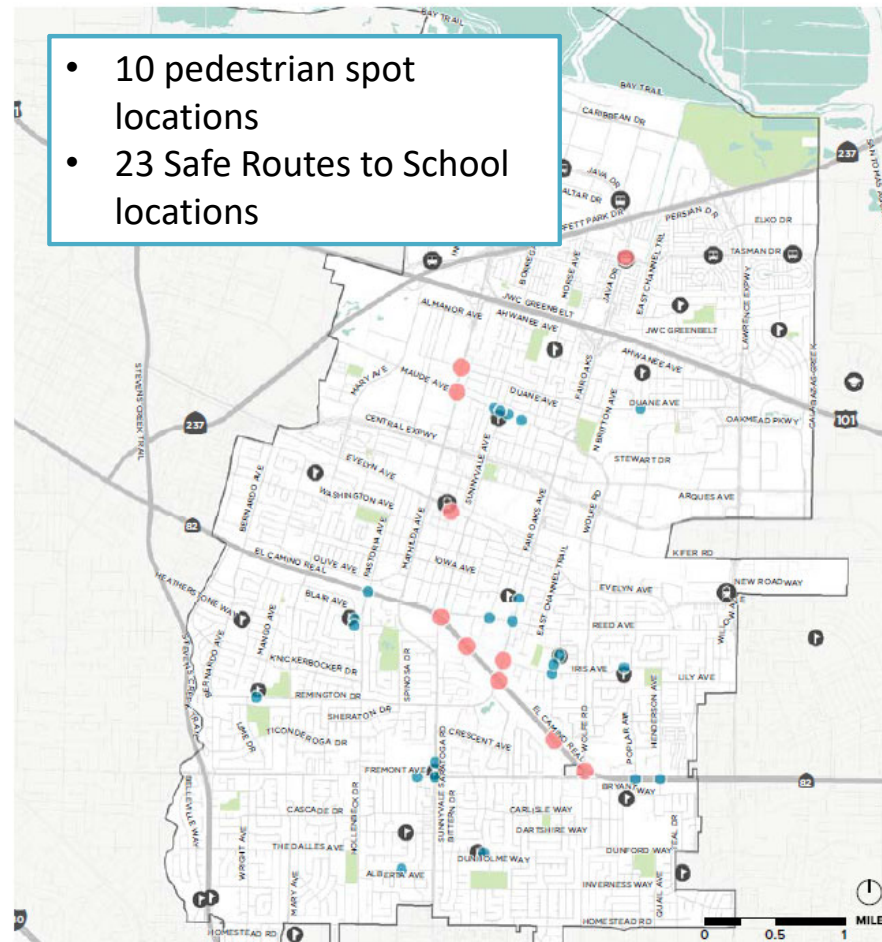
OTHER IMPROVEMENTS

- Evaluate pedestrian crossing
- Redesign of channelized rights to reduce vehicle turning speed
- Install Yield to pedestrian signage
- Curb radius reduction or modify skew intersections

Project Prioritization

Criteria:

1. Collision Reduction
2. Equity
3. Access to Key Destinations
4. Community-Identified Need
5. Cross-Town Connection



Map 29. High Priority Pedestrian Projects

- Safe Routes to School Improvement
- Spot Improvement

Boundaries + Destinations

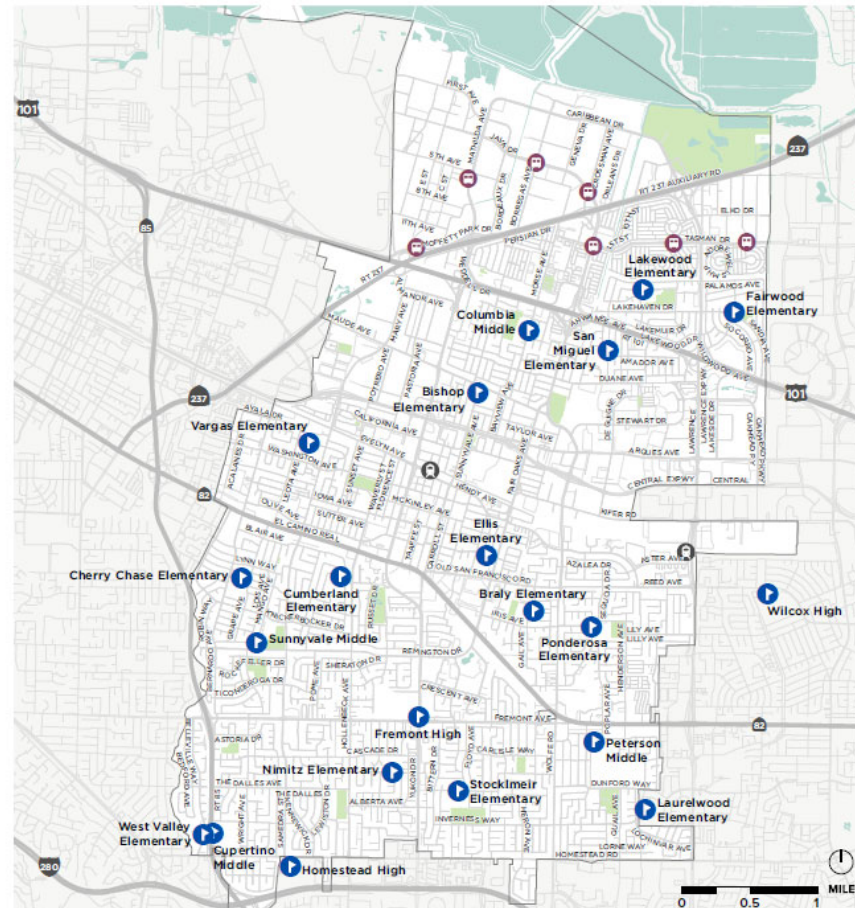
- Caltrain Station
- Light Rail Station
- Mission College
- Public School
- Park
- City Boundary

Safe Routes to School

Safe Routes to School

Process :

1. Conduct school walk audits
2. Develop school-specific recommendations



Map 32. Public Schools

- Public School
- Caltrain Station
- VTA Light Rail Station
- Parks
- City Boundary

Cherry Chase Elementary School

1138 Heatherstone Way
Sunnyvale, CA 94087

GRADES
K-5



SCHOOL TYPE
NEIGHBORHOOD



ENROLLMENT
835



WALK AUDIT
MONDAY, MAY 6, 2019

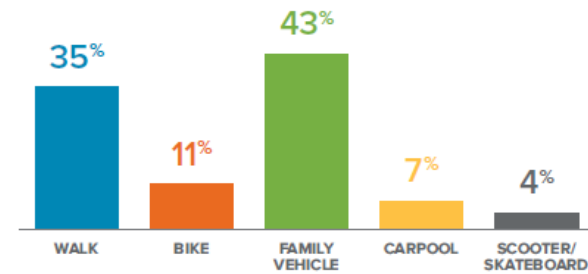
ARRIVAL

DISMISSAL

Cherry Chase Elementary School

is located in a residential neighborhood on the west side of Sunnyvale. The school posts the preferred arrival and dismissal procedures on its website. In addition to the school rules for parking, arrival, and dismissal, the website also provides tips for avoiding common traffic violations and how to properly wear a helmet. Cherry Chase Elementary provides secure bicycle parking for up to 140 bicycles. Previous SRTS activity at Cherry Chase Elementary has included a bike rodeo, and Kindergarten, 2nd and 4th grade in-class walk and bike education.

Cherry Chase Elementary School Hand Tallies, Spring 2018



Hand tally data was collected for the following modes: walk, bicycle, family vehicle, carpool, school bus, public transit, and other (scooter, skateboard, etc.) Only values above 2% are listed above, with the exception of including bicycling regardless of value.

SUMMARY OF EXISTING CONDITIONS

S. Bernardo Avenue / Heatherstone Way

- This is a signalized intersection with the majority of people observed walking north and south.
- The street corners at this intersection have large radii, which allow for fast vehicle turns.

Heatherstone Way School Frontage

- There is a driveway loop that was seen used by 67 parent drivers during the walk audit.
- Congestion and U-turns result in blocked crosswalks and blocked staff parking.

Grape Avenue / Heatherstone Way

- This is a four-way stop-controlled intersection with a crossing guard present during arrival and dismissal hours.
- The street corners at this intersection have large radii, which allow for fast vehicle turns.

- Parents were seen parking at the northeast corner, or double parking south of the intersection, in order to walk students to school.

Grape Avenue / Hudson Way

- This is a yield-controlled T-intersection that is skewed, resulting in long crosswalks and large radii.
- There is a crossing guard present during arrival and dismissal hours, however, some drivers ignored the crossing guard and drove through the intersection when students were crossing.

Existing Conditions

- Crossing Guard Location
- School Access Point
- School Circulation
- Bus Stop
- Bike Parking
- Class II Bicycle Lane

Recommendations

- High-Visibility Crosswalk
- Directional Curb Ramps
- Curb Extension
- R1-5 "Yield to Pedestrians Here" Signage
- R3-4 "No U-Turn" Sign
- Curb Ramp
- "Please Pull Forward" Signage
- R25D "School Loading" Signage
- Red Curb
- White Curb
- R61-19 "Double Lane Control Right & Left Turn" Signage
- White Right & Left Turn Pavement Marking
- R4-11 "Bikes May Use Full Lane" Signage
- Stop Sign Warrant Study
- R26A "No Parking Any Time" Signage
- Class IIIB Bicycle Boulevard
- Class IIIB Buffered Bicycle Lane

Implementing Agency

- City of Sunnyvale
- Sunnyvale School District



Safe Routes to Schools Improvement Plan Cherry Chase Elementary School Sunnyvale

School Audit held May 2019

- S Bernardo Avenue/Heatherstone Way**
 - Upgrade all four existing crosswalks to high visibility crosswalks.
 - Consider installing curb extensions on all four corners and construct with directional curb ramps.
 - Consider installing 20 feet of red curb paint on northwest corner along S Bernardo Avenue and southeast corner along Heatherstone Way.
 - Consider installing 70 feet of red curb paint along southbound VTA bus stop off of S Bernardo Avenue and Heatherstone Way.
- Heatherstone Way Frontage**
 - Consider installing 10 feet of red curb on left and right corners of driveway before drop-off/pick-up loop.
 - Stripe white in the middle of the drop-off to delineate traffic flow.
 - Consider installing white left and right turn pavement arrows at end of school drop-off zone.
 - Consider installing R3-4 "No U-Turn" signage on Heatherstone Way for both east and westbound traffic.
 - Install "Please Pull Forward" signage near entrance of school drop-off zone on both sides on the sidewalk.
 - Install R61-19 "Double Lane Control Right and Left Turn" signage at end of school drop-off zone.
 - Install double yellow centerline striping along Heatherstone Way.
- Grape Avenue/Heatherstone Way**
 - Upgrade existing crosswalk to high visibility crosswalks.
 - Install curb extensions at all four corners.
 - Consider installing and or refreshing 20 feet of red curb paint on all corners.
- Grape Avenue/Hudson Way**
 - Install "Bikes May Use Full Lane" signage on Grape Avenue between Heatherstone Way and W Knickerbocker Drive.
 - Install curb extensions on northeast, northwest, and southeast corners of the intersection.
 - Install red curb paint northeast of proposed post curb extension of Hudson Way.
 - Conduct a stop sign warrant study to evaluate the addition of a stop sign at intersection.
 - Consider installing 160 feet of white curb along Grape Avenue between Hudson Way and Jamestown Drive. Add on RD25 "School Loading" signage along sidewalk.
 - Install R26A "No Parking At Any Time" signage south of southeast corner of intersection.
- Grape Avenue/West Knickerbocker Drive**
 - Install curb extensions at all four corners.
- Bike Parking**
 - Consider securing existing bike parking for students and teachers.

0 200 ft
Improvements not to scale



The above items are recommendations only and based on Safe Routes to Schools site assessment best practices. Feasibility determination, final design, accessibility, funding, and implementation of any recommended improvements is the responsibility of the appropriate governing agency.

Public Draft Plan



High Interest Public Comments

1. Bike intersection improvements
2. Hollenbeck and Washington Ave facilities
3. East-west alternative to Maude Ave
4. Improving Fair Oaks and Wolfe Road facilities
5. Bicycle mode shift goal
6. Cost estimates
7. Potential for quick build projects
8. Bay Trail improvements
9. Gaps in the Low Stress Spine Network

Bike Intersection Improvements

Comment: Need for bike boxes, protected intersections, and improved bicycle cut throughs.



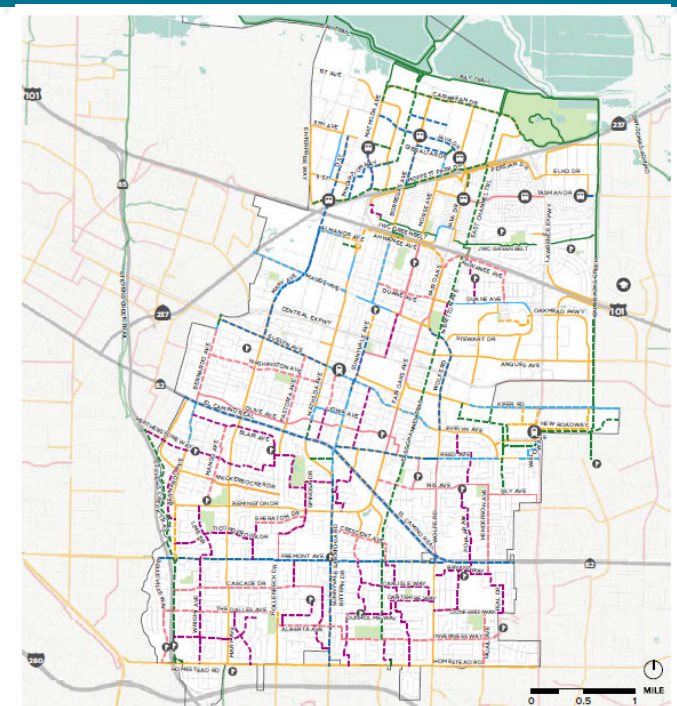
Final plan will include list of bicycle spot improvements on existing and proposed bikeways including:

- *Bike boxes*
- *ADA compliance of bicycle cut throughs*
- *Two-stage turn boxes*
- *Protected intersections*
- *At grade/separated trail crossings*

Hollenbeck and Washington Ave

Comment: No protected facility on roadways such as Hollenbeck and Washington Ave, despite public interest.

For certain roads defined as residential or commercial collectors, the City needs to maintain its role in the network to carry traffic from the neighborhood to the network



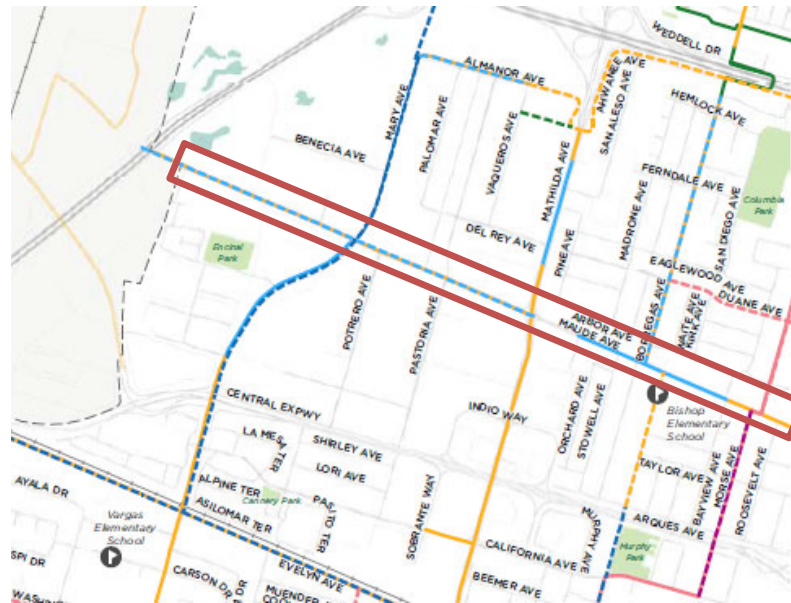
Map 11. Complete Bikeway Network



East-West Alternative to Maude

Comment: Need east-west alternative to Maude Avenue, which currently has a gap.

Project team is exploring possible bicycle improvements on Maude Avenue.



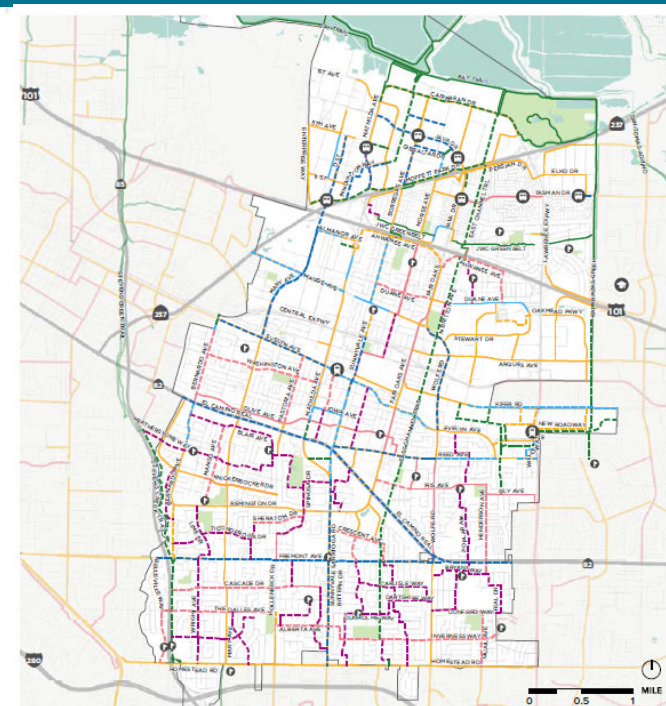
Wolfe Road and Fair Oaks

Comment: Improve Wolfe Road and Fair Oaks facilities

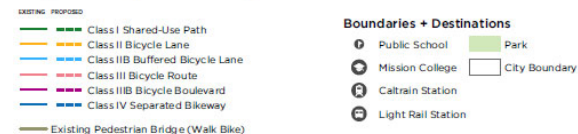
Vehicle volume on segments of Wolfe Road and Fair Oaks preclude road diet, which would be necessary for improved facilities.

Short Term: Bicycle boulevard routes

Long Term: East Channel Trail



Map 11. Complete Bikeway Network



Bicycle Mode Shift Goal

Comment: Mode shift goal for bicycling is too low

GOAL 1

Raise bicycling mode share from 1.5% to 5% by 2030

Jurisdiction	Bicycle mode shift goal	Commute <10 miles
Sunnyvale	5%	45.5%
Palo Alto	5%	34.9%
Cupertino	None listed	48.4%
Santa Clara	5%	50.7%
Mountain View	None listed	66.1%

Cost Estimate Too Low

Comment: Bikeway cost estimates seem too low

Table 9. Capital Costs by Bikeway Type

Bikeway Type	Proposed Mileage	Cost Estimate Low	Cost Estimate High
Class I Shared-Use Path	17.7	\$12,390,000	\$17,700,000
Class II Bicycle Lane	7	\$560,000	\$2,961,000
Class IIB Buffered Bicycle Lane	7.4	\$962,000	\$3,130,200
Class III Bicycle Route	14.3	\$1,072,500	\$2,002,000
Class IIIB Bicycle Boulevard	21.1	\$1,582,500	\$5,275,000
Class IV Separated Bikeway	17.2	\$4,300,000	\$17,200,000
TOTAL	84.7	\$20,867,000	\$48,268,200

Note wide variance in estimates for Separated Bikeways. Low estimate is basic separation such as flexible posts. High estimate could include concrete curbs, planters, or other hardscape items that will be determined in the individual project design phase.

Quick Build Methodology

Comment: City should build some of these projects through quick build methodology



Cost estimates include low cost materials to give staff information on rapid deployment. Engineering and funding is still required before implementation.

Bay Trail Improvements

Comment: Bay Trail needs to be resurfaced to encourage active transportation uses



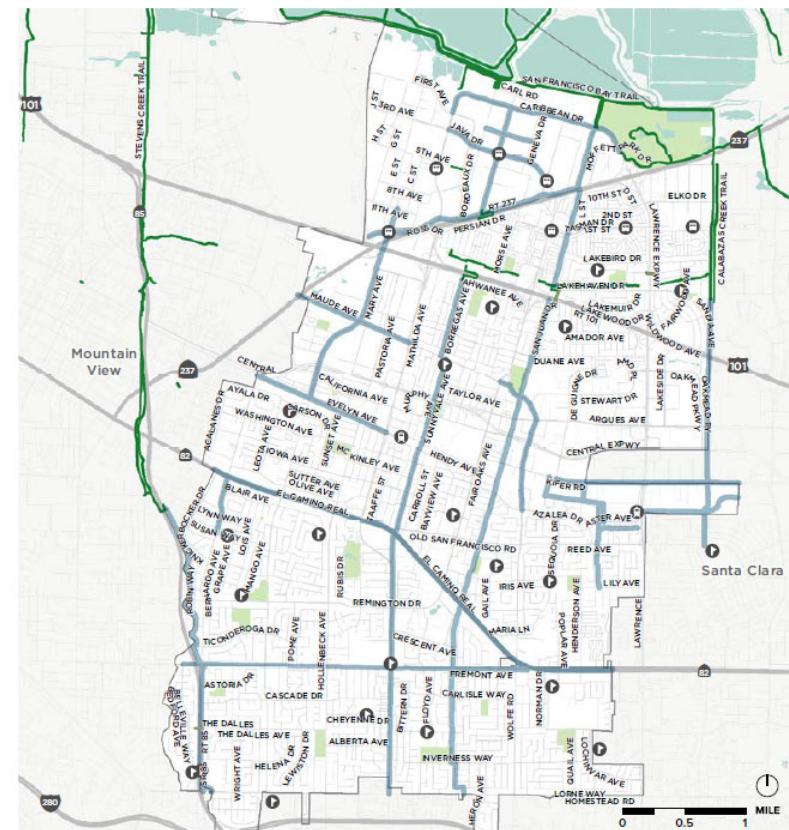
In 2014, the Santa Clara Valley Water District required all trails atop their levees to be crushed stone.

Close Gaps in the Spine Network

Comment: Gaps still exist in the low stress spine network

Closed gaps include:

- *Two-way cycle track on Evelyn Ave extended to Mathilda Pl*
- *East Channel Trail connection to Homestead Rd*



Map 9. Low Stress Spine Network

Next Steps



Next Steps

1. Comment period for public draft (March 4-April 19)
2. Revisions and Final Plan (May)
3. BPAC Meeting (June 18)
4. City Council Meeting (July)

Questions + Comments