

Yuba City Active Transportation Plan

Appendices

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MONTH 2026



Appendix A.

Existing Conditions

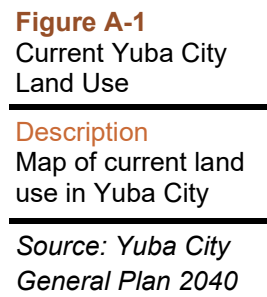
Supporting Data

Current Zoning

Figure A-1 depicts current zoning in Yuba City, identifying residential, commercial, and industrial areas.

Current Roadway Classification

Figure A-2 depicts current roadway classifications Yuba City.





Appendix B.

Public Participation

Obtaining input from the residents of Yuba City was an important part of the ATP development process. The public helped identify recommended improvements to the bicycling and walking facilities as well as priorities for projects.

STAKEHOLDER INTERVIEWS

Interviews were conducted with key local stakeholders to understand their concerns and needs related to walking and biking in Yuba City.

Stakeholders included the following:

- Yuba City Public Works
- Yuba City Department of Recreation
- Yuba City Police Department
- Yuba City Fire Department
- Yuba City Department of Development Services
- Sutter County Public Works
- Chamber of Commerce
- Seniors In Retirement (S.I.R.)
- Yuba City Bicycle Advocates (YABA)
- Blue Zones – Walking Moi at Regency Park
- The Bike Campaign

Key takeaways from the discussions are summarized below.

- City's new development projects align more closely with current active transportation best practices; working to rehabilitate older neighborhoods.
- Downtown congestion and parking is a perceived issue for many despite available off-street parking.
- Maintenance of bike lanes is a critical issue including debris and pavement conditions.
- Areas around Tierra Buena including Tierra Buena school are in poor condition and missing facilities.
- The Sutter Bikeway is a highly appreciated feature of the overall Yuba City network
- Crossing SR 20, SR 99, and crossing the Feather River limit active transportation access and often have to compete with vehicles.

Public Outreach

Project staff hosted a mix of pop-up and community meeting style events over 2 phases. The events provided the opportunity for engagement from a broader cross-section of the public than that which would attend a typical project-specific public meeting.

Materials used at the booths included posters, presentations, comment cards, and voting methods shown on subsequent pages. All materials were provided in English, Spanish, and Punjabi. Spanish and Punjabi translators were available at all community and select pop-up events.

PHASE 1 MATERIAL LIST

Existing Bike Facilities Board: Participants were shown a comprehensive map of Yuba City's existing bike network and were asked to identify where they live (blue sticky dot), where they currently go (red sticky dot), and where they would like to go if there were no barriers (green sticky dot), in addition to leaving comments on sticky notes.

Preferred Bikeways Board: Participants were shown a list of different bikeway classifications, and were asked to vote on which bikeway they would feel most safe and comfortable traveling on. Participants were able to vote for their top three (3) bikeways with sticky dots and leave comments on sticky notes.

Walk, Bike, Roll Frequency: Participants were asked to vote on the frequency that they travel around Yuba City either by walking/rolling, or biking. Participants placed a maximum of one (1) sticky dot in each column, representing the frequency they did that mode of transportation.

Goals and Objectives Prioritization: Participants were given a list of 18 potential objectives to be reflected in the Active Transportation Plan update. Eight (8) colored sticky dots were provided, allowing them to vote for two (2) objectives in each of the following categories: Highest Priority (red sticky dot), Medium Priority (yellow sticky dot), Low Priority (greens sticky dot), Lowest Priority (blue sticky dot). Votes were weighted per event to extract the top eight (8) objectives each group of participants wanted to see.

YUBA-SUTTER FAIR

Project Team attended the annual Yuba-Sutter Fair from June 21-June 22, 2025 located at the Yuba-Sutter Fairgrounds (442 Franklin Ave, Yuba City, CA 95991) in the Main Exhibition Hall. During Sunday's pop-up, live interpretation was provided in Spanish and Punjabi.

A total of 40 people participated at the booth, and a total of 57 comments were recorded.

Comment comments and themes during the event included the following:

- **Pedestrians and bicyclists prefer to be separated from vehicles** due to multiple stories of near miss crashes, and voting results preferring bikeways such as Class IV: Separated Bikeways and Class I: Shared-Used Paths.
- **Safety should consider accessibility for all ages and abilities**, especially on routes needed for daily trips, such as to schools, food, healthcare, and retail.
- **Community members desire upgraded bikeways** in comparison to current conditions which offer narrow bike lanes, missing sidewalks, potholes, and outdated bikeway facilities.
- **Intersection and corridor safety** frequently arose in community feedback, with one parent sharing that their son was hit by a vehicle while biking off South Walton Avenue & Cherry Street. Other parents shared large concerns, as their children skateboard to school off Tierra Buena Road citing its need for improvements.
- **Needs for improved bike facilities** were reinforced through public comments, with locations all over the map being cited. Locations discussed include Lincoln Road, Live Oak Boulevard, SR 20, and Harter Parkway.
- **Sidewalk and accessibility gaps** are identified as barriers to accessing recreation, healthcare, and shopping. Butte House Road & Harter Parkway was noted for lacking sidewalks but critical to access Walmart, a large and frequented retailer in Yuba City.
- **Road conditions and driver behavior** were listed as another cause for barriers and challenges to active transportation in Yuba City. Concerning locations include Plumas Road, Butte House Road and Gray Avenue.

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COMMUNITY MEETING

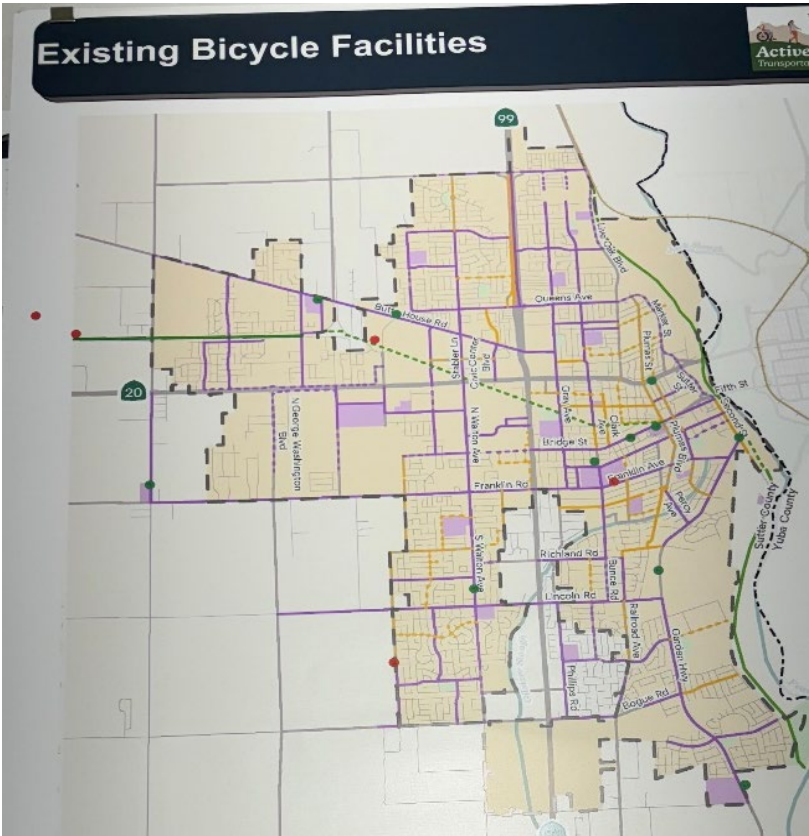
The Project Team held a community meeting on August 13, 2025, from 5:30-6:30pm. The meeting location was at the Yuba City Senior Center (777 Ainsley Ave, Yuba City, CA 95991). Live interpretation was provided at this meeting with two onsite interpreters for Spanish and Punjabi.

A total of 6 community members attended the event.

A summary of comments and themes are included below:

- Lack of sidewalks throughout the city and lack of infrastructure to help those who walk, bike and/or roll to destinations in particular in areas like downtown Yuba City.
- The highest priority for attendees was to have infrastructure throughout the city to support safe access to schools and areas that have been historically disinvested.
- Attendees would like to travel along Butte House Road, Shasta Street (instead of Plumas Street), from Bridge Street to B Street, S. Walton Avenue, Garden Highway, and Second Street. Unfortunately, community members do not feel safe traveling through these corridors due to sidewalk gaps, high traffic volume, and lack of bike infrastructure.
- Currently community members are traveling along Franklin Avenue and state that biking along the corridor is unsafe.
- Walking is more common as biking is limited by safety concerns.
- Safe routes to schools and equitable access for underserved neighborhoods rise as a priority.
- Infrastructure improvements are needed across key corridors.
- Participants prioritized both expanding bicycle parking and building a more connected active transportation system across Yuba City.

Figure B-1: Community Meeting Feedback (August 13, 2025)



**EXISTING BICYCLE FACILITIES
ACTIVITY INSTRUCTIONS**

Place a sticker and leave a comment!

- Where do you live? (Blue)
- Where do you go? (Red)
- Where do you want to go? (Green)

Figure B-2: Community Meeting Feedback (August 13, 2025)

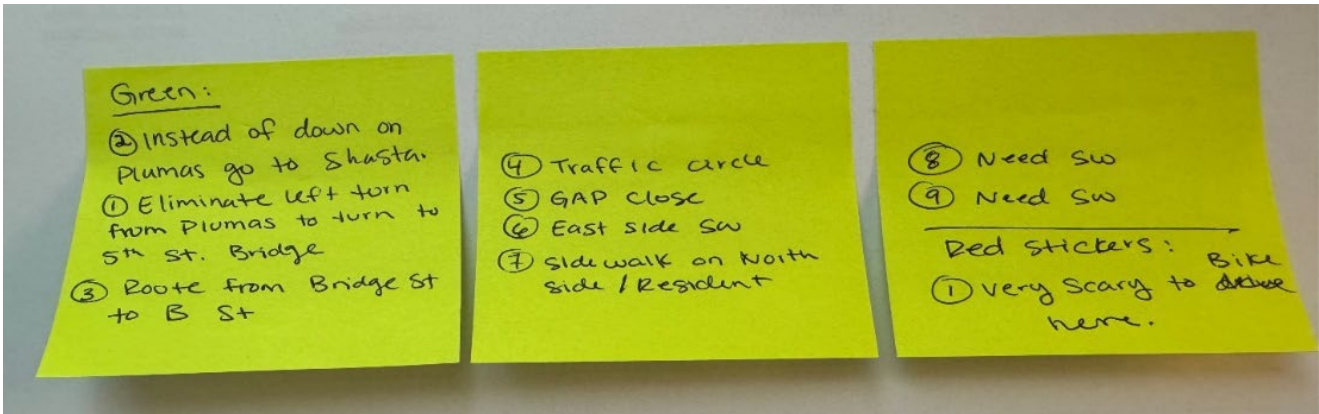


Figure B-3: Community Meeting Feedback (August 13, 2025)

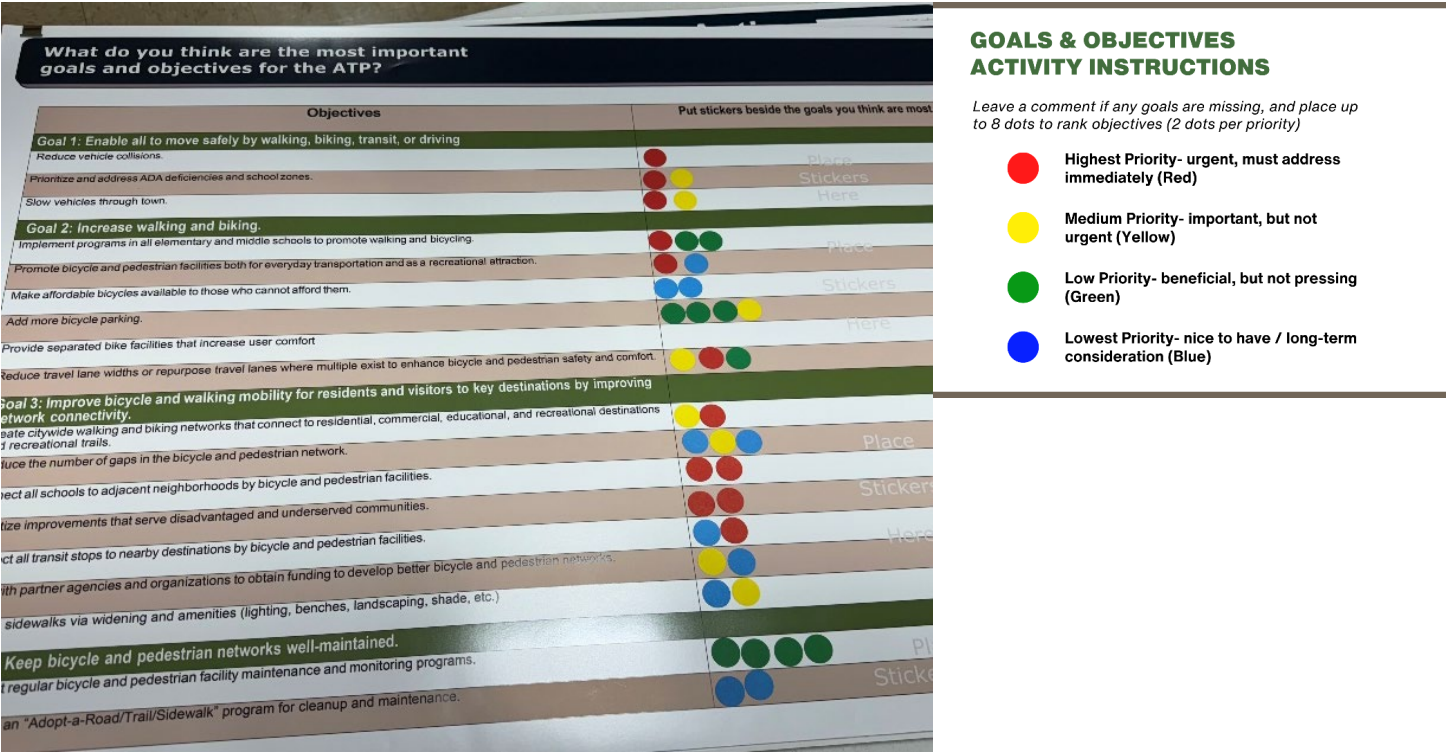
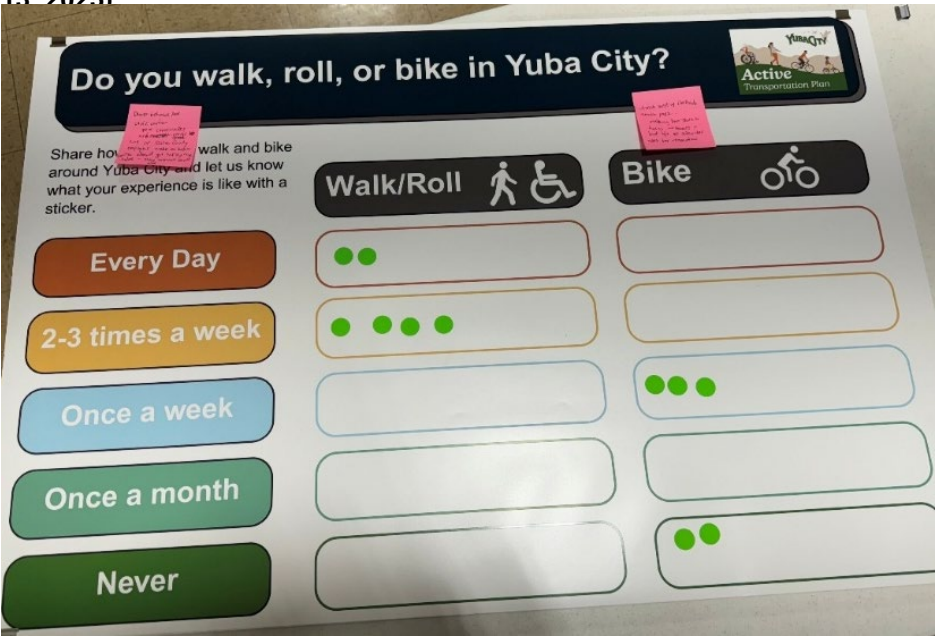


Figure B-4: Community Meeting Feedback (August 13, 2025)



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Table B-1: Community Meeting Feedback (August 13, 2025)

<i>Objectives</i>	Highest Priority (4 points)	Medium Priority (3 points)	Low Priority (2 points)	Lowest Priority (1 point)	Weighted Score
Add more bicycle parking	0	1	3	0	9.0
Reduce travel lane widths or repurpose travel lanes where multiple exist except to enhance bicycle and pedestrian safety and comfort	1	1	1	0	9.0
Implement programs in all elementary and middle schools to promote walking and bicycling	1	0	2	0	8.0
Implement regular bicycle and pedestrian facility maintenance and monitoring programs	0	0	4	0	8.0
Connect all schools to adjacent neighborhoods by bicycle and pedestrian facilities	2	0	0	0	8.0
Prioritize improvements that serve disadvantaged and underserved communities	2	0	0	0	8.0
Prioritize and address ADA deficiencies and school zones	1	1	0	0	7.0
Slow vehicles through town	1	1	0	0	7.0
Create citywide walking and biking networks that connect to residential, commercial, educational, and recreational destinations and recreational trails	1	1	0	0	7.0
Connect all transit stops to nearby destinations by bicycle and pedestrian facilities	1	0	0	1	5.0
Promote bicycle and pedestrian facilities both for everyday transportation and as a recreational attraction	1	0	0	1	5.0
Reduce the number of gaps in the bicycle and pedestrian network	0	1	0	2	5.0
Improve sidewalks via widening and amenities	0	1	0	1	4.0
Reduce vehicle collisions	1	0	0	0	4.0
Work with partner agencies and organizations to obtain funding to develop better bicycle and pedestrian networks	0	1	0	1	4.0
Make affordable bicycles available to those who cannot afford them	0	0	0	2	2.0

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Implement an "Adopt-a-Road/Trail/Sidewalk" program for cleanup and maintenance	0	0	0	2	2.0
Provide separated bike facilities that increase user comfort	0	0	0	0	0.0

Table B-2: List of Location-Specific Public Comments from Phase 1 Events

<i>Location</i>	<i>Comment</i>
Butte House Road, Shasta Street (as alternative to Plumas Street) between Bridge Street and B Street, S Walton Avenue, Garden Highway, and Second Street.	Preferred corridor of travel
Franklin Avenue	Biking along the corridor is unsafe.
Butte House Road, Shasta Street, Franklin Avenue, and Sanborn Road.	Unsafe due to traffic, congestion, and missing facilities
Bogue Road and Walton Avenue	Needs intersection improvements
Bogue Road and Pebble Beach	Nothing on intersection
Bogue Road	Needs bike lanes
Walton Avenue and Cherry Street	Son was hit biking off Cherry by vehicle at first westbound left, from S. Walton Ave
Lincoln Road and Walton Avenue	Could use Class IV / better bike paths
Harter Parkway	lots of safety issues
Harter Parkway	
Bogue Road/Walton	Needs intersection improvements Bogue Road/Walton Ave Pebble Beach – Nothing on intersection Bogue needs bike lanes
Walton Avenue	–Son was hit biking off Cherry by vehicle at first westbound left, from S. Walton Ave –Cherry, off S Walton – rides to school through Terra Buena via skateboard. Would feel safer with improvements –Lincoln and Walton – could use Class IV / better bike paths
Franklin Avenue	Wants Class IV
Bridge Street/99	Raley's Intersection is problematic

ONLINE CROWDSOURCED INTERACTIVE MAP

An online crowdsourced interactive map was made available to the public prior to and after the development of the draft bicycle and pedestrian networks. The public could use the map to recommend improvements and vote for improvements recommended by others. The platform allowed the public to view key data, such as existing bike and pedestrian facilities, as well as add location-specific comments about the challenges they experience walking and biking and the improvements they would like to see in the city.

The web map was publicized on Facebook and at local events. The web map during the first phase had a two-month response period, opening in June 2025 and closing in September 2025. During that period, 59 responses were received. A second phase opened in October 2025 and closed in November 2025. During that period, 19 comments were received. Responses are identified in Figure B-5 and B-6.

Figure B-5: Social Pinpoint Phase 1 Feedback Map

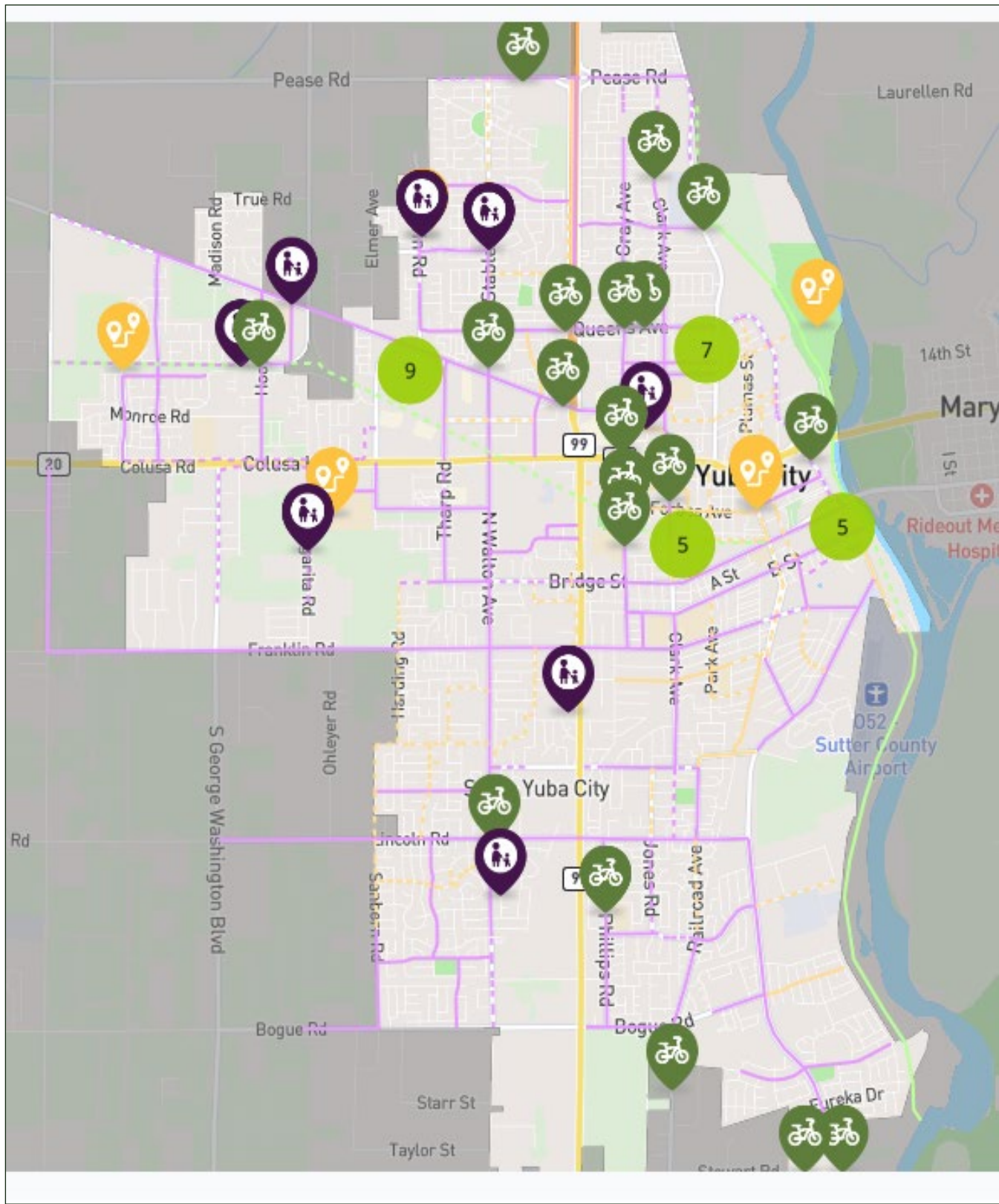


Figure B-6: Social Pinpoint Phase 2 Feedback Map

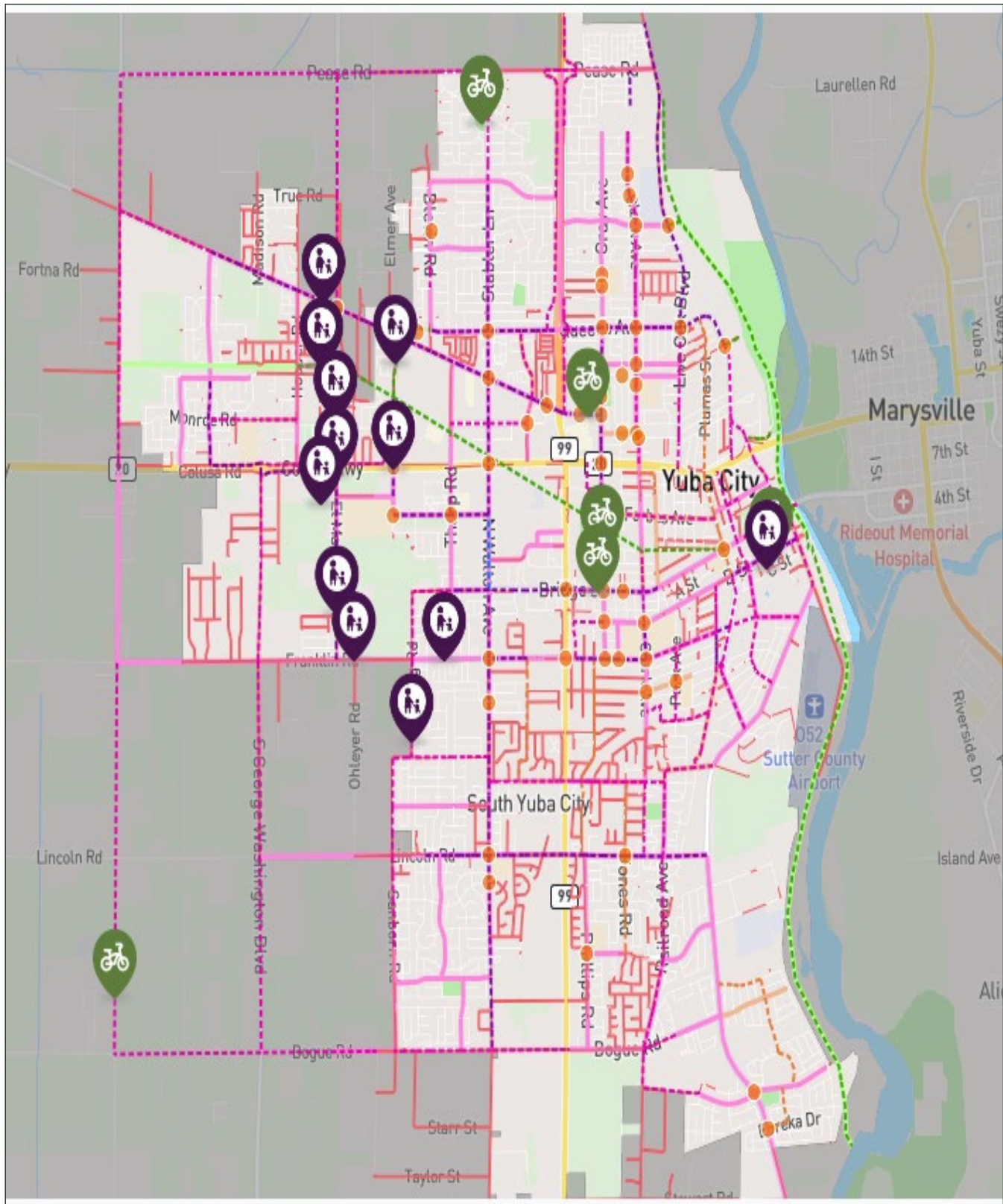


Table B-3: Phase 1 Online Comments

Location	Comment
750 Forbes Avenue, Yuba City, California 95991, United States	I want to bike here, no low-stress route Many people bike, walk, or use alternate transportation to the Sutter County Library.
750 Forbes Avenue, Yuba City, California 95991, United States	No/Not enough sidewalk access (curb cuts)
Levee Road, Yuba City, California 95991, United States	I bike here already, no low-stress route
Colusa Frontage Road, Yuba City, California 95993, United States	I bike here already, on a low-stress route
718 Plumas Street, Yuba City, California 95991, United States	I bike here already, no low-stress route
Western Parkway, Yuba City, California 95993, United States	I bike here already, no low-stress route. access to trail from south of hwy 20 is desirable
801 El Margarita Road, Yuba City, California 95993, United States	no safe route from north Stabler to RV High School
2195 Blevin Road, Yuba City, California 95993, United States	I want to bike here, no low-stress route. no safe route from south of Hwy 20 to Butte Vista Elementary
1581 Lincoln Road, Yuba City, California 95993, United States	No bike lane from hwy 99 towards S. George Washington espeially around the school, a bike lane is available on the other side?
1512 Hooper Road, Yuba City, California 95993, United States	the Sutter Bike Path is highly used by the community (both biking and walking). There are cracks in the asphalt that need filling.
759 Washington Avenue, Yuba City, California 95991, United States	Washington Ave is a great low stress environment for bike traffic (e.g., versus using Queens Ave). Striping would make it even better. That said, the road condition is so bad that it is difficult to comfortably ride a bike on it.

Draft

Location	Comment
759 Washington Avenue, Yuba City, California 95991, United States	Washington Ave is a great low stress environment for bike traffic (e.g., versus using Queens Ave). Striping would make it even better. That said, the road condition is so bad that it is difficult to comfortably ride a bike on it.
1720 Stabler Lane, Yuba City, California 95993, United States	Pedestrian crossing should be here I put a marker here because this is the ONLY safe place to cross Stabler between Queens and Jamie Dr. Children on the E side of Stabler have this one access point to cross over to Butte Vista School. It's no wonder that so many parents drive their kids to school
285 Lynn Way, Yuba City, California 95991, United States	I want to bike here, no low-stress route. What a wonderful asset this is. To be able to comfortably bike here from the West side of town would be ideal.
429 Bridge Street, Yuba City, California 95991, United States	I want to bike here, no low-stress route. It is very convoluted to get onto the 5th street bridge heading east from Bridge street. You should add a two way bike path on the north side of bridge street from Plumas to Sutter Street so riders can do the loop to get onto the bridge.
1020 Bridge Street, Yuba City, California 95991, United States	To turn south on Gray from Bridge you should add signage for bikes or a small turn lane for bike. The bike shop is literally around the corner and most people would like to ride to it.
645 Reeves Avenue, Yuba City, California 95991, United States	The old rail line is no brainer and needs to be completed. You can plant species of plant which sequester arsenic, and apply a 6 foot asphalt path, to. meet bare needs.
1879 Butte House Road, Yuba City, California 95993, United States	Bike lane is extremely uneven, even before the recent construction and a pile of tire popping debris accumulates in the middle of Blevin on Butte House Rd.
1695 Butte House Road, Yuba City, California 95993, United States	Massive cracks in roadway is dangerous for cyclists
775 Sutter Street, Yuba City, California 95991, United States	I want to bike here but the shoulder/bike lane needs help. It is a dangerous surface for cyclists.
1895 Clark Avenue, Yuba City, California 95991, United States	Families will ride on the left side of the road or on the sidewalk to Northgate Park. Maybe put up signs, for those riding on the left, to remind folks that it's illegal, unsafe, or encourage them to ride on the right.
301 Stewart Road, Yuba City, California 95991, United States	New bike lane on north side of Stewart Rd. Nothing on south side. Signs for walkers and cyclists would be great. I can't remember if there are speed limit signs for the school zone.

Draft

Location	Comment
730 Bridge Street, Yuba City, California 95991, United States	No bike lane it turns into parking and vehicles are travelling at excessive speeds while riding in travel lane.
1340 Harter Parkway, Yuba City, California 95993, United States	I want to bike here, no low-stress route. Currently have to suffer a non compatible signal or ride through businesses to access directly to my home
1465 Tharp Road, Yuba City, California 95993, United States	I bike here already, no low-stress route. It's a riding group meet up, yoga studio, and popular grocery market but access from the east involves a hazardous lane change
1395 Stabler Lane, Yuba City, California 95993, United States	Large, tire-gobbling asphalt deterioration makes for unsafe conditions. Plus, excess speed 35-50 mph in a 25 zone is extremely dangerous to pedestrians, cyclists, and motorists alike. Let's get some speed surveillance and start mailing citations.
1005 Gray Avenue, Yuba City, California 95991, United States	Bike lane width was sacrificed years ago and is inadequate. It's no reasonable to use the gutter in your width measurement. Nobody want to ride in the gutter.
741 Plumas Street, Yuba City, California 95991, United States	I want to bike here, no low-stress route. Plumas Street is the logical way for riders to arrive at downtown restaurants but autos are confused, cyclists feel pushed up on the sidewalks and there isn't enough bicycle parking along the street. A bicycle garage would be acceptable.
216 Teegarden Avenue, Yuba City, California 95991, United States	Need traffic calming measures at this intersection. Traffic speeds are too fast and motorist tend to not stop for pedestrians.
319 Lynn Way, Yuba City, California 95991, United States	Pedestrian crossing should be here. Intersection should have crosswalks painted and signs up. This intersection leads directly to the levee path access. Motorist speed are too fast in this area.
160 C Street, Yuba City, California 95991, United States	Levee path access is fenced off making you need to continue on 2nd St. This makes you cross at 2nd and Garden Hwy. to continue to the levee path. That is not a safe intersection for pedestrians.
1261 Live Oak Boulevard, Yuba City, California 95991, United States	No/Not enough sidewalk access (curb cuts) Walking down live oak blvd in some spots requires you to walk in the bike lane because there is not a side walk. It feels unsafe when drivers treat this road as a mini highway.
861 Gray Avenue, Yuba City, California 95991, United States	Gray Ave bike lanes are undersized (i.e., the gutter pan should not be included as part of the 3' set aside for a bike lane)

Draft

Location	Comment
2195 Blevin Road, Yuba City, California 95993, United States	Sidewalk too narrow or blocked for wheelchair use. The sidewalk ends and begins again with a huge curb. No wheelchair/stroller access to cross at the crosswalk for school. There is a ramp at the side closest to the street but that is not connect to the sidewalk for the school to access the gate (nor where the crossing guard stands). Please add ramps to both sides of the sidewalk for strollers etc. Thank you.
1356 Queens Avenue, Yuba City, California 95993, United States	There are a lot of car movements here but I'd say it's one of the safer places to cross HWY99. Good markings for bikes although most drivers feel free to drive right through the bike lanes as needed.
1501 Clark Avenue, Yuba City, California 95991, United States	Clark Ave is a GREAT NS connector for bikes. This is probably one of the safest places to cross HWY20 due to the excellent green paint markings in the intersection. This should be an example for our other City intersections.
2035 Butte House Road, Yuba City, California 95993, United States	Connecting Queens to Harter will provide a connection from the levee (Lynn Way) to Sutter (via Didar Bains park)
1272 Market Street, Yuba City, California 95991, United States	The road is extra wide at this location, with no striping. This is a critical access point to the levee (for YC-Marysville travel). Intersection needs work to provide a safe means for SB bikes to turn E on Lynn Way. At the very least set up a light that can be triggered bike bike/ped to slow traffic so the road can be crossed.
1385 Butte House Road, Yuba City, California 95993, United States	Access "under the freeway" for bikes could be ideal here. But undersized bike lanes and high rates of speed for cars makes it unsafe. Skinny the lanes down (including the middle turn lane which is rarely used between Hwy99 and Civic Center) and provide a buffered bike lane.
2866 Kennedy Drive, Yuba City, California 95993, United States	No/Not enough sidewalk access (curb cuts)
1275 Tharp Road, Yuba City, California 95993, United States	Generally not a lot of traffic but lots of raised seams and pot holes.
1515 Pease Road, Yuba City, California 95993, United States	I think the westbound shoulder used to be delineated but now faded, rough sections of road.

Draft

Location	Comment
757 Queens Avenue, Yuba City, California 95991, United States	Queens, between Gray Ave. and Clark Ave. used to have a canopy of trees that shaded the entire street curb to curb. This is amazing for biking and walking. (See Sac., Davis, Chico). Safety is important, yet it's nice to be comfortable and cooler, shady roads and paths will be more welcoming and ultimately safer, as our temps. continue to rise.
2169 Live Oak Boulevard, Yuba City, California 95991, United States	There is no cross walk on Live Oak Blvd. to Northgate. The levee bike trail ends at that dirt parking lot. Peds. and cyclists have to watch 4 lanes of fast traffic and the intersection. Maybe flashers, like those across Live Oak Blvd. for King Ave. School, could work.
868 Clark Avenue, Yuba City, California 95991, United States	Riding between Forbes and Louise is very tight due to cars parked on Clark Ave. Maybe add shadows is not already there or 'green' bike lane on left side of parked cars.
2323 Railroad Avenue, Yuba City, California 95991, United States	No protected shoulder, seasonal flooding.
1130 Queens Avenue, Yuba City, California 95991, United States	The signal to turn left from Queens on to Gray Ave. does not recognize cyclists.
843 Gray Avenue, Yuba City, California 95991, United States	Gray Ave. and other roads that have some bike lanes (I agree they need to be widened) can really use some shade. More trees will create a canopy to help cool our roads down and encourage folks to use alternative transportation. Many trees are being removed and others are damaged by heat. More continuous canopy equals a more enjoyable experience.
1291 Joseph Street, Yuba City, California 95993, United States	Missing sidewalk
430 Second Street, Yuba City, California 95991, United States	In order to travel from south Yuba City to North Yuba City on the levee, a cyclist needs to exit the levee onto 2nd Street, turn right onto Second Street, then right onto C or D Street to access the levee behind the Sutter County Office Building. It is not a safe, low stress route.
1124 Stafford Way, Yuba City, California 95991, United States	Pedestrian crossing should be here
1300 Stafford Way, Yuba City, California 95991, United States	Pedestrian crossing should be here
399 California Highway 99, Yuba City, California 95993, United States	Missing sidewalk
658 El Margarita Road, Yuba City, California 95993, United States	Missing sidewalk

Draft

Location	Comment
1466 Market Street, Yuba City, California 95991, United States	Cars get too close to us. Please add designated bike lane.
2700 Garden Highway, Yuba City, California 95991, United States	I ride my bike home from Riverbend Elementary and there is no bike lane or marked shoulder to ride on the right going north on Garden Hwy. between Stewart Rd. and Diamond Pointe Way. Cars are flying by so I have to ride the side walk or bike lane on the left. The students always ride on the sidewalk leaving school.
2590 Butte House Road, Yuba City, California 95993, United States	Pedestrian crossing should be here
1335 Harter Parkway, Yuba City, California 95993, United States	Missing sidewalk
430 Second Street, Yuba City, California 95991, United States	I order to travel from south Yuba City to North Yuba City on the levee, a cyclist needs to exit the levee onto 2nd Street, turn right onto Second Street, then right onto C or D Street to access the levee behind the Sutter County Office Building. It is not a safe, low stress route.
2700 Garden Highway, Yuba City, California 95991, United States	I ride my bike home from Riverbend Elementary and there is no bike lane or marked shoulder to ride on the right going north on Garden Hwy. between Stewart Rd. and Diamond Pointe Way. Cars are flying by so I have to ride the side walk or bike lane on the left. The students always ride on the sidewalk leaving school.
2120 Colusa Highway, Yuba City, California 95993, United States	Pedestrian & bike overpass. Deadly intersection with high rate of foot traffic.
856 El Margarita Road, Yuba City, California 95993, United States	Pedestrian and bike overpass is needed, too many people have & will die already here.
1351 Harter Parkway, Yuba City, California 95993, United States	Needs sidewalk from Butte House Rd to Didar S. Bains park
410 Harding Road, Yuba City, California 95993, United States	Harding Road is very populated road for walkers and bikers. Cars drive too fast on this road. The road needs sidewalks
1699 South Township Road, Yuba City, California 95993, United States	Several bicycles ride on Bogue and South Township Roads and it would be great to widen the road and have marked lanes.
Harter Road, Oroville, California 95965, United States	I would like to see more sidewalk for pedestrians walking from Walmart. With new housing & development there, I am hoping there will be safer walking conditions. I had to walk past Walmart to my residence & felt uncomfortable walking where the sidewalk ended with cars driving by.

Draft

Table B-4: Phase 2 Online Comments

<i>Location</i>	<i>Comment</i>
2595 Butte House Road, Yuba City, California 95993, United States	Intersection needs traffic control, wider pedestrian & bike lanes. This intersection and Tierra Buena Rd might benefit with a traffic circle instead of lights. Definitely need sidewalks on Butte House & Villa Ave for safety.
1580 Tierra Buena Road, Yuba City, California 95993, United States	This neighborhood has no safe or easy access to the new park that was intended for this neglected area. Currently, a person has to backtrack to Hooper & Jefferson, walk east on Butte House 3/4 of a mile or cross private property to access the Bains park.
1807 Franklin Road, Yuba City, California 95993, United States	Please build a cross walk with a light, similar to Franklin-Nantucket. Many family and kids cross from Bristol over to the other side of Franklin rd and vice versa. Very unsafe.
2339 Franklin Road, Yuba City, California 95993, United States	Add sidewalk on Franklin road leading to el Margarita rd for students and families to walk safely from home to school at River Valley high school.
469 El Margarita Road, Yuba City, California 95993, United States	Add sidewalk or safe walking path along el Margarita for families and students to walk from home to River Valley high school.
1229 El Margarita Road, Yuba City, California 95993, United States	With the new development being built to the east of this neighborhood, I feel that sidewalks are becoming crucial. We are seeing more and more pedestrians and no space for them to safely walk.
345 B Street, Yuba City, California 95991, United States	Road needs to be repaved. It has a lot of foot traffic with the fair grounds and community events put on at the GAP . There are no sidewalks or streetlights as well so it gets pretty dark.
311 B Street, Yuba City, California 95991, United States	This should be a bike blvd. Bridge st has too much high speed traffic and B st runs parallell
944 El Margarita Road, Yuba City, California 95993, United States	Add safe crossings for all users (bike, ped, and motorists) from north El Margarita Rd to south El Margarita Rd.

PHASE 2 MATERIAL LIST

Draft Recommended Bike Facilities Board:

Participants were shown a comprehensive map of Yuba City's existing and recommended bike network and were asked to identify where they travel via active transportation, if the recommended facilities felt they would provide users a low-stress travel way, and if gaps in the network were not addressed. The board was provided in English, Spanish, and Punjabi.

Draft Recommended Pedestrian Facilities Board:

Participants were shown a comprehensive map of Yuba City's existing and recommended location for sidewalk improvements and the location of recommended crossing improvements. Participants were asked to identify additional locations for sidewalk or crossing improvements. The board was provided in English, Spanish, and Punjabi.

Draft Project Prioritization:

Participants were shown a comprehensive map of Yuba City with a prioritization overlay that applied ½ mile hexagons over the City rating hexagonal areas on a scale of low and high priority. Prioritization was determined based on four categories, each with several metrics pertaining to its relevant factor. The board was provided in English, Spanish, and Punjabi. These categories included

- Safety
- Need (Access and Connectivity)
- Disadvantaged Communities
- Community and Staff Feedback

TRICK OR TREAT THE STREET

Project Team attended the annual Trick or Treat the Street event on October 23, 2025 from 4:00-6:00pm on Plumas Street.

A total of 30 people participated at the booth, and a total of 30 comments were recorded.

Comment comments and themes during the event included the following:

pedestrian safety. Areas which lack night time visibility included El Margarita Road, Bridge Street, Garden Highway, and Market Street.

- **Safe routes to school** was uplifted as parents and caregivers are concerned for their youth traveling to school along main roads across the network. Community members requested for reduced speeds such as along April Lane Elementary School and along Garden Highway vertical protections along Garden Highway, and improved sidewalks and marked crossings around Tierra Buena Road which leads to Tierra Buena School.
- **Better connectivity to recreation** was noted as Tierra Buena Road serves as a prime opportunity to enhance direct access to the Sutter Bike Trail.
- **Bike lane widening and bike lane maintenance** was requested across the network. Residents noted the widening of bike lanes being the most helpful around El Margarita Road and Bridge Street. Maintenance of the roads and bike lanes are needed off Market Street and Washington Avenue. General maintenance of the roads to address debris, potholes, and other obstructions would make existing bike lanes safer as well as prevent cars from veering out of their lane and into the bike lane in an attempt to avoid obstacles.
- **Sidewalk gaps and need for maintenance** were identified as barriers to pedestrian safety. Corridors such as Washington Avenue, Butte House Road, Garden Highway, Tierra Buena Road, and Queens Avenue were noted for sidewalk gaps or obstructions in the sidewalk. Burns Drive, Market Street, Second Street, Walton Avenue, and SR 20 and George Washington Boulevard were flagged for having potholes and uneven sidewalk surfaces.

LITERACY CLASS

The Project Team held a focus group meeting on November 5, 2025, from 4:30-5:30pm. The meeting location was at the Sutter County Library (750 Forbes Ave, Yuba City, CA 95991). Live interpretation was provided at this meeting with three onsite interpreters for Spanish, Punjabi, and Farsi.

A total of 22 attendees were present.

A summary of comments and themes are included below:

- **Poor road conditions** were commonly mentioned, for example potholes, faded striping, and deteriorating pavement.

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- **Community specific high use routes**, particularly near schools clinics markets and key, community

rely on for daily trips emphasizing the need for infrastructure that supports safe and accessible travel to essential destinations. Key routes include Gray Avenue, Garden highway, and Lask Drive.

- **Safe routes to school** should be a priority community members emphasized unsafe walking conditions for students key issues included non functioning pedestrian beacons missing sidewalks hazardous crossings with high traffic volumes during pickup and drop off
- **Sidewalk gaps and poor pedestrian infrastructure.** Several areas require significant upgrades to support safe pedestrian movement, particularly missing or narrow sidewalks (e.g., Franklin Road, El Margarita Road and general maintenance needs, including uneven or deteriorated sidewalks (e.g., Casa Loma Lane).

COMMUNITY MEETING

The project team held a Community Meeting on November 10, 2025, from 6:00-7:30pm. The meeting location was at the Sutter Theater for the Arts (754 Plumas St, Yuba City, CA 95991). Two interpreters were onsite in the event Spanish and Punjabi interpretation services were needed.

32 community members attended the event

- **Safety concerns across the network.** Community members consistently flagged high vehicle speeds, unsafe curves and intersections, dangerous SR 99 crossings, and areas where bicyclists feel uncomfortable riding in the roadway. Common areas included Queens Avenue, Market Street, and Sutter Street. Queens Avenue, Stabler Lane, Second Street, Garden Highway, Spirit Way, were identified for drivers speeding, while unsafe intersections, lack of crosswalks or stop signs, and frequent pedestrian and bicycle incidents were noted along Live Oak Blvd, Sutter Street, Second Street, and Clark Avenue. Traffic calming measures were requested in areas such as Bridge Street near Bridge Street Elementary and areas with speeding issues like Queens Avenue and Market Street.
- **Bike lane maintenance and obstructions** are recurring issues that include debris and tree limbs

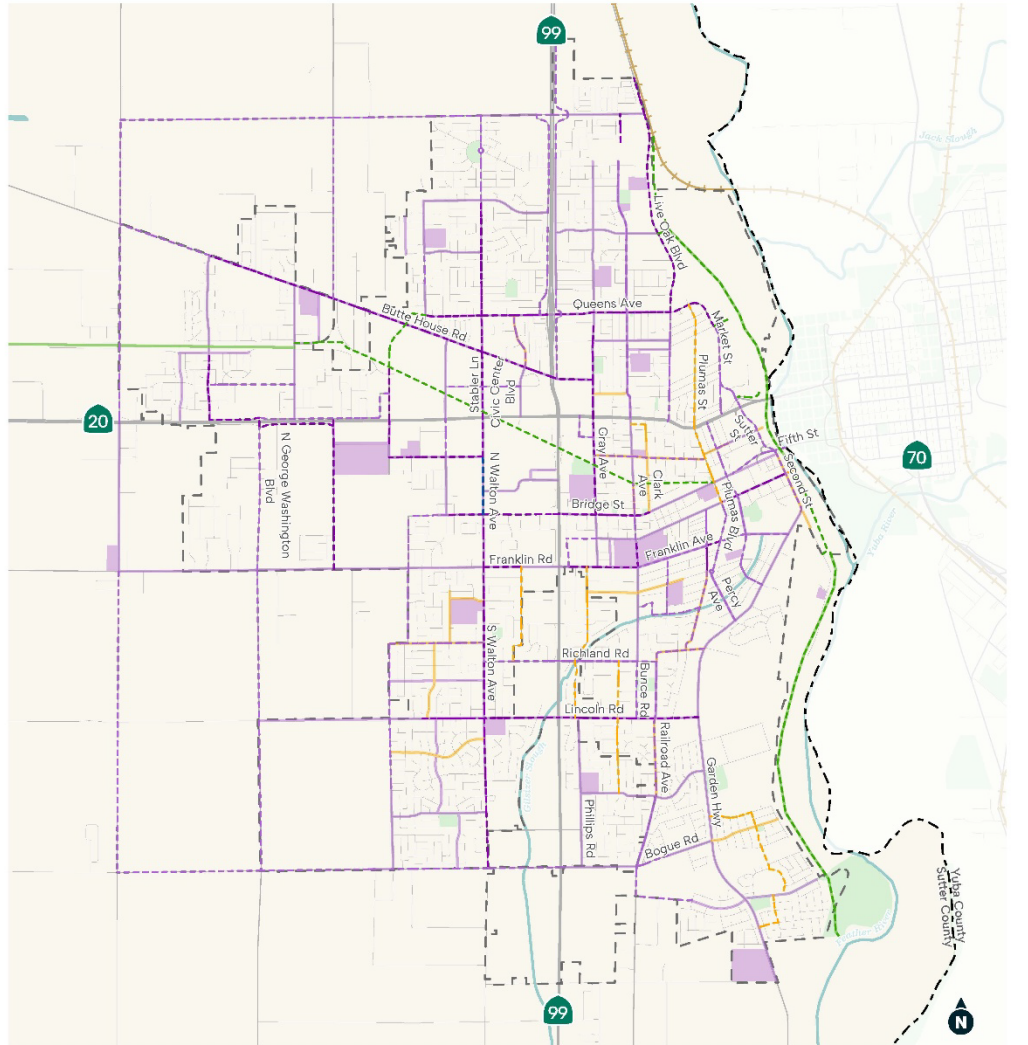
destinations require priority improvements the Afghan community highlighted specific corridors they

on the bike lanes, vehicles parking on bicycle lanes, and infrastructure obstructions such as utility poles inside the bicycle right of way. These issues especially affect Butte House Road, Bunce Street, and Bogue Street, and Garden Highway.

- **Sidewalk gaps and accessibility challenges** were also noted across the network. Many streets lack sidewalks entirely, noting Hooper Street, Tharp Street, Bunce Street, parts of Walton Avenue, Neil Drive, and Clark Avenue. Sidewalk gaps were found around schools such as Tierra Buena Elementary, Lincoln Elementary, Andros Karperos Middle School, and River Valley High School. Barriers to accessibility were accounted to narrow, raised, or obstructed sidewalks, often caused by overgrown vegetation, utility poles, or poor maintenance, such as on Stabler Ln, Regency Park area, and Tres Picos Drive, E Onstott Street, N Walton Avenue, and the Poole/Stabler intersection.
- **Strong desire for higher- quality bicycle facilities** Community members left comments asking for upgrades to Class I, Class IIB, and Class IV facilities across multiple corridors, especially near schools, major roadways, and north-south connectors.
- **Safe Routes to School needs** were raised by community members. Several roads heavily traveled by students and families are in need of safer conditions, including Butte House Street, Stabler Lane, and Bridge Street. Families mentioned Tierra Buena Elementary, Butte Vista Elementary, Lincoln Elementary, River Valley High School, Andros Karperos Middle School, Yuba City High School, and St. Isidore Catholic Church/School as key areas where they would like to target improvements.
- **Need for better connectivity between Yuba City and Marysville.** There is strong interest in safer connections across the Feather River and access to the levee. Market Street and Sutter Street identified as dangerous but essential routes for people traveling to Marysville and the Ampla Clinic.
- **Need for improved lighting.** Insufficient lighting on corridors like Garden Hwy, Queens Avenue, Washington Avenue, George Washington Boulevard, Stabler Lane, and Colusa Avenue.

Recommended Bike Facilities Instalaciones para Bicicletas Recomendadas

ਸਾਈਕਲ ਸਵਾਰੀ ਲਈ ਸੁਝਾਏ ਗਏ ਸਹੂਲਤਾਂ ਵਾਲੇ ਸਥਾਨ



Recommended Recomendada	Existing Existentes	Bicycle Facilities Instalaciones para bicicletas
---	---	Class I Bike Path Clase I Camino de bicicletas camino a través del campo
---	---	Class I Bike Lane Clase I Carril de bicicletas camino a través del centro
---	---	Class II Buffered Lane Clase II Carril ancho protegido camino a través del centro
---	---	Class III Bike Route Clase III Ruta de bicicletas camino a través del centro
---	---	Class IV Shared Bike Lane Clase IV Carril compartido camino a través del centro

Waterway / Camino acuático / ਜਲਮਾਰਗ

Rail Network / Red ferroviaria / ਰੇਲ ਨੈੱਟਵਰਕ

School / Escuela / ਸਕੂਲ

Park / Parque / ਪਾਰਕ

Yuba City City Limits / Límites de la ciudad de Yuba City / ਯੂਬਾ ਸਿਟੀ ਸ਼ਹਰ ਦੀਆਂ ਸੀਮਾਵਾਂ

County Boundary / Límite del condado / ਕਾਉਂਟੀ ਸੀਮਾ

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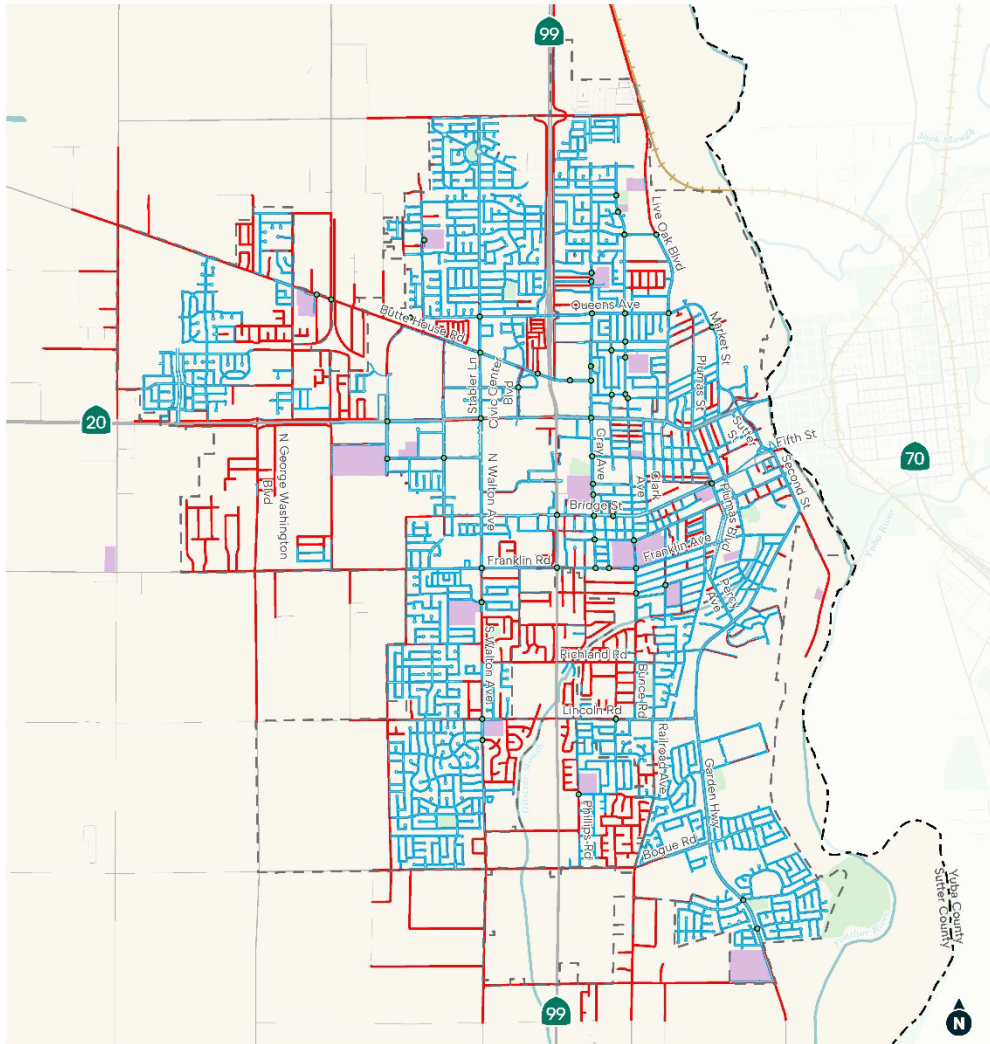
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Figure B-8: Recommended pedestrian Facilities

Public Community Workshop, November 16, 2025

Active Transportation Priority Project Locations Ubicaciones Prioritarias de Transporte Activo ਸਕਰੀਅਨ ਟਰਾਂਸਪੋਰਟੇਸ਼ਨ ਦੀ ਤਰਜੀਹ ਵਾਲੀਆਂ ਥਾਵਾਂ



- | | |
|---|--|
| <ul style="list-style-type: none"> Recommended Crossing Improvement Locations Ubicaciones Propuestas Para Mejorar Cruces Peatonales ਸੜਕ ਪਾਰ ਕਰਨ ਵਾਲੇ ਰਸਤੇ ਸੁਧਾਰ ਲਈ ਸੁਝਾਏ ਗਏ ਸਥਾਨ | <ul style="list-style-type: none"> Waterway / Camino acuático / ਜਲਮਾਰਗ Rail Network / Red ferroviaria / ਰੇਲ ਨੈੱਟਵਰਕ |
| <ul style="list-style-type: none"> Recommended Sidewalk Improvements Mejoras propuestas en aceras ਫੁੱਟਪਾਥ ਸੁਧਾਰ ਲਈ ਸੁਝਾਅ | <ul style="list-style-type: none"> School / Escuela / ਸਕੂਲ Park / Parque / ਪਾਰਕ |
| <ul style="list-style-type: none"> Existing Sidewalk Locations Ubicaciones actuales de aceras ਮੌਜੂਦਾ ਫੁੱਟਪਾਥਾਂ ਦੇ ਸਥਾਨ | <ul style="list-style-type: none"> Yuba City City Limits / Límites de la ciudad de Yuba City / ਯੂਬਾ ਸਿਟੀ ਸ਼ਹਿਰ ਦੀਆਂ ਸੀਮਾਵਾਂ County Boundary / Límite del condado / ਕਾਉਂਟੀ ਸੀਮਾ |

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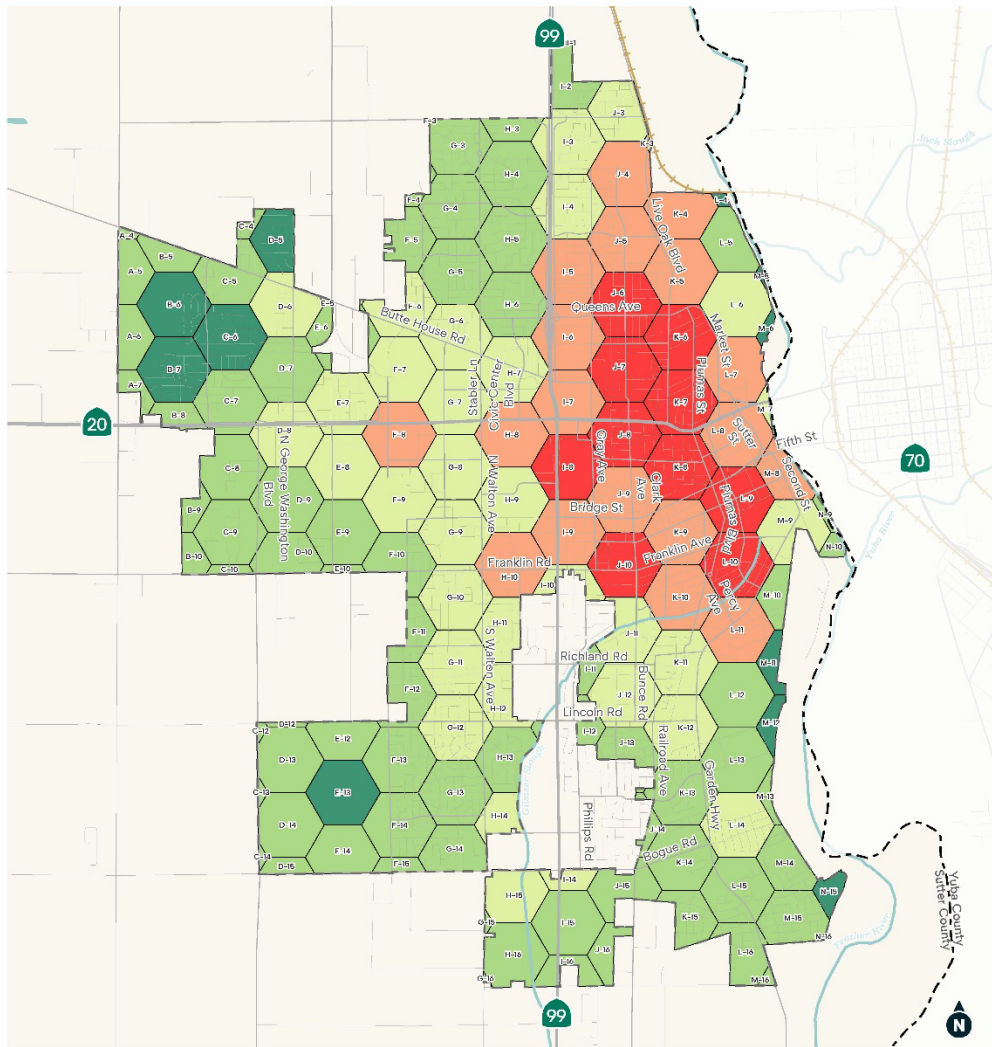
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Figure B-6: Project Prioritization Board – Community

Workshop, November 10, 2025

Active Transportation Priority Project Locations **Ubicaciones Prioritarias de Transporte Activo** ਸਕਰੀਅ ਟਰਾਂਸਪੋਰਟੇਸ਼ਨ ਦੀ ਤਰਜੀਹ ਵਾਲੀਆਂ ਥਾਵਾਂ



Total Prioritization Score
Puntuación Total de Priorización
ਕੁੱਲ ਤਰਜੀਹ ਸਕੋਰ

- 21 – 26
- 16 – 20
- 11 – 15
- 5 – 10
- 1 – 4

Waterway / Camino acuático / ਜਲਮਾਰਗ

Rail Network / Red ferroviaria / ਰੇਲ ਨੈੱਟਵਰਕ

Yuba City City Limits / Límites de la ciudad de Yuba City / ਯੂਬਾ ਸਟੀਟੀ ਸ਼ਹਿਰ ਦੀਆਂ ਸੀਮਾਵਾਂ

County Boundary / Límite del condado / ਕਾਉਂਟੀ ਸੀਮਾ

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ਸਾਡੇ ਆਨਲਾਈਨ ਨਕਸ਼ੇ ਵਿੱਚ ਆਪਣੀਆਂ ਟਿੱਪਣੀਆਂ ਐਡ ਕਰ ਕੇ ਸਾਨੂੰ ਆਪਣੇ ਵਿਚਾਰ ਦੱਸੋ।

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Table B-4: Project Prioritization Feedback

Hexagon ID	Recommended Prioritization Score	Community Feedback
J-6	Highest	All day speeders, unsafe for kids to go to school (April Lane Elementary School)
L-9	Highest	Near Garden Highway, is very unsafe, drivers go too fast More lights are needed
L-10	Highest	Near Garden Highway, is very unsafe, drivers go too fast
F-8	High	More lights, wider bike lanes on El Margarita
I-5	High	Unsafe walking, lots of speeders
I-6	High	Unsafe walking, lots of speeders Unsafe area
K-10	High	Sidewalks can be improved and better lighting
L-7	High	Better lighting, better maintenance is needed
F-7	Medium	More lights, wider bike lanes on El Margarita
D-6	Medium	No sidewalk
D-8	Medium	Washington needs improvements roads/sidewalk
G-9	Medium	Bridge St. could use better lighting, wider sidewalks and wider bike lanes
H-9	Medium	Bridge St. could use better lighting, wider sidewalks and wider bike lanes
M-6	Lowest	Better lighting, better maintenance is needed
I-8	Highest	Noble Halal Market is located here and is a frequent destination for the Afghan community. (F) Would like to see new asphalt off Gray Ave for everyone's safety. (F)
I-5	High	Sidewalk improvements needed and more lighting (S)
K-9	High	At my child's school, Bridge Street Elementary, there was an accident in the parking lot/pick up drop off. Cars have to enter through Bridge St to get into the school. There is a lot of traffic rush at Bridge St and Plumas St, in the intersection where students cross. (F)
K-13	Low	Agree with low prioritization. Lask Drive feels safe (F)

Hexagon ID	Recommended Prioritization Score	Community Feedback
I-9	High	Due to more traffic volume, <u>will</u> need more narrow lanes
J-9	High	Due to more traffic volume, <u>will</u> need more narrow lanes
L-8	High	Due to <u>more traffic volume</u> , <u>will need</u> more narrow lanes, better maintenance and more lighting.
M-8	High	Due to more traffic volume, <u>will</u> need more narrow lanes
E-8	Medium	Sidewalks are missing in some areas
D-6	Medium	Sidewalk/ No sidewalk for kids to walk
E-7	Medium	Connected sidewalk
F-6	Medium	Better access to the bike path (more connectivity), separate bike path, narrow lanes
F-7	Medium	Separate bike path
G-6	Medium	Narrow lanes
G-12	Medium	There are no sidewalks, Provide a ped crosswalk on west side of Lincoln and Walton, <u>similar to</u> the one on Franklin on the west side
H-7	Medium	Narrow lanes
L-6	Medium	Better maintenance and more lighting.
E-6	Low	Connected sidewalk, Villa Ave needs sidewalk
F-12	Low	There are no sidewalks
E-9	Low	Sidewalks are missing in some areas
L-16	Low	More connected sidewalk
M-16	Low	More connected sidewalk

Table B-5: Recommended Bicycle Facility Feedback

<i>Location</i>	<i>Comment</i>
Bogue Road	- o Desire Class IIB west of SR-99 - o Debris on the ground makes it hard for bicycle riders
Bridge Street	o Support for lane reduction to accommodate Class IIB
Bunce Road	o Debris on the ground makes it hard for bicycle riders
Butte House Road	- o Class IV recommended – kids and older adults use this roadway - o People accessing Tierra Buena ES sometimes park in bike lane - o Trees and debris frequently exist in the bike lane - o Stabler to SR-99 needs Class IV - o Utility pole exists within the bike lane ROW on western portion
Clark Avenue	- o Certain areas, including near dentistry may be too tight for proposed Class IIB facilities - o Feels good as is with Class II/Parking
Gray Avenue	o North of SR-20 bike facilities mostly in gutter pan
Hooper Road	- o Kids and older adults/grandparents who walk them to school use this road to access Tierra Buena Elementary School - o No sidewalks or bike lanes
Lincoln Road	o Desire to close facility gap between SR-99 and S Walton
Live Oak Boulevard	o Support for proposed Class IIB

Location	Comment
Main Street	Has a lot of parked cars where north/south connection facilities are proposed
Market Street	Curve/turn at northern end near Queens dangerous for bicyclists, drivers too fast on turn
Market Street/Sutter Street	Close to Ampla, riding bikes is dangerous. This is concerning because many people walk or bike to get to Marysville
N. George Washington Boulevard	- Could use Class IV for southern portions - Add basic bike lanes
Pease Road	- Uses Pease but does not feel comfortable on it - Would like to see widen roads (<i>Note: Not City rightaway</i>) - Add basic bike lanes
Plumas Street	- Near Bridge Elementary needs traffic calming - People on bikes use sidewalks
Queens Avenue	- Drivers park cars on bike lanes - Class IIB supported (+1) - People drive fast along this road - Crossing and exits on SR-99 is bad
Second Street	Support connections for Class I
Stabler Lane	- North of SR-20 needs improvements - Kids use this, needs Class IIB - More space for bike lanes needed
Tharp Road	<u>Missing facilities on many sections – needs them</u>
Tierra Buena Road	Add basic bike lanes

Table B-6: Recommended Pedestrian Facility Feedback

Location	Comment
B Street and Teegarden Avenue (Levee)	○ Better access to levee needed
Bunce Road	○ Between Franklin Ave and Richland Rd, no lighting, no sidewalk
Butte House Road	○ Sidewalks needed ○ Under Hwy 99- There are overgrown bushes
Clark Avenue	○ Near Saint Isidore Catholic Church – No sidewalks, crosswalk is not visible enough, frequent pedestrian accidents
Colusa Avenue	○ Entrance near Colusa by Feather River Bridge – Narrow road with no lighting
Colusa Highway and Clark Avenue	○ Pedestrian was hit
E Onstott Road and Butte House Road	○ Sidewalks are narrow, poles obstruct sidewalk
El Margarita Road	○ Lighting & sidewalks are needed ○ Drivers speed
Garden Highway	○ Drivers speeding, not enough lighting, debris on the ground
George Washington Boulevard	○ Lighting needed throughout
Hooper Road	○ No sidewalks or bike lanes
Lincoln Road	○ East side near S. Walton Ave. – Crosswalks are needed
Live Oak Boulevard	○ School zones should be prioritized ○ Frequent pedestrian accidents ○ Improve sidewalks that are raised ○ Better pedestrian visibility
Market Street and Sutter Street	○ Close to Ampla; riding bikes is dangerous, especially for people walking or biking to Marysville

<i>Location</i>	<i>Comment</i>
N. Walton and Bridge Street	o No sidewalk
N Walton Avenue	o Near Sunsweet Growers Inc.- Poles obstruct sidewalk
Neil Drive	o Sidewalks are needed but driveways are not big enough for additions
Poole Road and Stabler Lane	o Bushes are overgrown & poles obstruct sidewalk
Queens Avenue	- o Drivers park cars on bike lanes - o Lighting is bad - o High-speed traffic
Regency Park	- o Needs light - o Trees are lifting sidewalks
S. Walton Avenue	o By Andros Karperos Middle School – No sidewalks
S Walton Avenue and Lincoln Road	o Crosswalks are needed
Second Street	- o Drivers speeding - o No crosswalk or pedestrian visibility
Stabler Lane	- o Vehicles speeding; traffic calming measures needed - o Anticipating how sidewalks will be used - o More space for bike lanes needed - o Considering residents with new improvements
Stabler Lane and Jamie Drive	o Sidewalk is raised
Teegarden Avenue	- o No crosswalks, no stop signs - o Pedestrian visibility needed - o Road is wide
Teegarden Avenue and Sutter Street	o Dangerous intersection
Tharp Road and Poole Road	o West side of the streets do not have sidewalks
Tres Picos Drive	o Trees are lifting sidewalks
Washington Avenue	o Feels safe

Appendix C.

Relevant Plans and Policies

Many local, regional, state, and federal plans and other documents were reviewed in development of this ATP. These plans and documents contain goals and policies as well as specific requirements related to active transportation.

Local

City documents containing policies and requirements related to transportation include the Yuba City General Plan, Yuba City Bicycle Master Plan, Yuba City Safe Routes to School, Yuba City ADA Transition Plan, and Yuba City Municipal Code.

CITY OF YUBA CITY 2040 GENERAL PLAN UPDATE

Goal CI 1-1 Promote more efficient motor vehicle, bicycle, and pedestrian circulation.

Goal CI 2-1 Provide fair and equitable means of paying for future street improvements.

Goal CI 5-1 Make efficient use of existing transportation facilities, and, through the arrangement of land uses, provision of safer and more direct routes for pedestrians and bicyclists, strive to reduce the total vehicle-miles traveled per household.

Goal CI 6-1 Continue to expand and improve the existing transit and non-motorized network to provide convenient and efficient mobility between residential areas and workplaces, shopping, and other destinations.

Goal CI 7-1 Develop a system of sidewalks and bikeways that promote multimodal transportation and recreation.

Goal CI 10-1 Actively participate in local and regional transportation planning.

Goal DS 16-1 Ensure that new street networks are coherent and provide multimodal access within and between neighborhoods.

YUBA CITY BICYCLE MASTER PLAN (2011)

Goal 1 Maximize public participation in planning and implementation of bikeway projects

Goal 2 Continuously increase the use of the bikeway system

Goal 3 Develop comprehensive bikeway system

Goal 4 Provide continuous bikeways

Goal 5 Create safe routes

Goal 6 Evaluate and provide bicycle storage facilities

Goal 7 Create an education component

Goal 8 Upgrade existing bikeways and facilities

Goal 9 Maximize the amount of state and federal funding for bikeway improvements

Goal 10 Maintain existing facilities

Goal 11 Earn designation of Yuba City as a "Bicycle Friendly Community"

Goal 12 Enhance enforcement program to reduce collisions, injuries, and fatalities

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YUBA CITY ABANDONED RAILROAD CORRIDOR

FEASIBILITY STUDY (2023)

Studied the conversion of 2.3 miles of abandoned Union Pacific Railroad (UPRR) corridor into a multi-use pathway.

Stated purpose and goals:

- Transportation equity
- VMT reduction
- Community engagement

Outcome of study:

A multi-use path alignment with Civic Center Improvements was recommended and determined to provide a low-stress gap closure in the active transportation network from Harter Parkway to the Feather River Levee Path. The total cost of the project was estimated at \$67-\$70 million depending on specific project attributes.

YUBA CITY ADA TRANSITION PLAN (2012)

Straight or “Perpendicular” Type Curb Ramps

Depressed Sidewalk or “Parallel” Type Curb Ramps

Diagonal or Corner Type Curb Ramps

Curb Ramp Transition Plan Data Spread Sheets

Detectable Warnings

Sidewalks

Any public sidewalk constructed or altered since 1994 is required to be a minimum of 48 inches in width to be in compliance with the California Title 24 Standards.

Public Sidewalk Accessible Passing Area

YUBA CITY LOCAL ROADWAY SAFETY PLAN (2023)

The following corridors were identified for receiving safety improvements:

- Walton Avenue Between SR 20 and Franklin Avenue
- Gray Avenue Between SR 20 and Franklin Avenue
- Sutter Street/2nd Street/ Garden Highway Between SR 20 and Franklin Avenue
- Bridge Street Between SR 99 and Shasta Street
- Live Oak Boulevard Between Pease Road and Queens Avenue

Regional

YUBA-SUTTER REGIONAL SAFETY ACTION PLAN (2026)

Priority Safety Corridors identified within Yuba City include:

- SR 20 from Western Parkway to Feather River
- SR 99 from Butte House Road to Franklin Avenue
- Stabler Lane from SR 20 to Queens Avenue
- Walton Avenue from SR 20 to Lincoln Road
- Gray Avenue from SR 20 to Franklin Avenue
- Bridge Street from SR 99 to Shasta Street

SACOG SACRAMENTO REGION TRAIL NETWORK ACTION PLAN (2022)

While the plan did not include specific policies, it established six quantifiable goals developed upon reviewing close to 80 local, regional, and state plans that addressed active transportation throughout the region:

- Safety
- Environmental justice
- Health
- Economic vitality
- All ages and abilities
- Recreation

State and Federal

Several state and federal plans and other documents contain goals, policies, and requirements relevant to the ATP.

CALIFORNIA STATE BICYCLE AND PEDESTRIAN PLAN (2017)

In June 2017, Caltrans finalized “Toward an Active California,” the State Bicycle and Pedestrian Plan. The plan sets targets to greatly increase walking and bicycling in California and identifies objectives and strategies to achieve these targets.

CALIFORNIA TRANSPORTATION PLAN 2045

A strategy of the California Transportation Plan 2045 (released in 2021) that supports improved multimodal mobility and accessibility goals is to double bicycle and pedestrian mode shares.

CALIFORNIA GREEN BUILDING CODE

The 2013 California Green Building Standards contain specific requirements for the amount and type of both short-term and long-term bicycle parking. Requirements are mandatory for non-residential projects and voluntary for residential projects. These standards may be superseded by local requirements if local requirements are stricter.

CALIFORNIA ASSEMBLY BILL 32 AND SENATE BILL 375

Senate Bill (SB) 375 is the implementation legislation for Assembly Bill (AB) 32. AB 32 requires the reduction of greenhouse gases (GHG) by 28% by the year 2020 and by 50% by the year 2050. Greenhouse gases are emissions - carbon dioxide chief among them – that accumulate in the atmosphere and trap solar energy in a way that can affect global climate patterns. The largest sources of these emissions related to human activity are combustion-powered machinery, internal combustion vehicle engines, and equipment used to generate power and heat. SB 375 tasks metropolitan and regional transportation planning agencies with achieving GHG reductions through their Regional Metropolitan Transportation Plans. The reduction of the use of the automobiles for trip making is one method for reducing GHG emissions. This outcome can be achieved by use of modes other than the automobile such as walking, bicycling, or using transit.

CALIFORNIA ASSEMBLY BILL 1358

Assembly Bill 1358, the Complete Streets Act, calls for the inclusion of all modes upon any substantive revision

of the circulation element of a city or county’s general plan circulation element. The legislation requires planning for a “balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation.”

CALIFORNIA SENATE BILL 743

SB 743, passed in 2013, required the development of new guidelines that address transportation impact metrics under the California Environmental Quality Act (CEQA). As stated in the legislation, upon adoption of the new guidelines, “automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any.” The new criteria promote the development of multimodal transportation networks.

US DOT POLICY STATEMENT ON BICYCLE AND PEDESTRIAN ACCOMMODATION REGULATIONS AND RECOMMENDATIONS

In 2010, the United States Department of Transportation (US DOT) issued a policy directive in support of walking and bicycling, encouraging transportation agencies to go beyond minimum standards in fully integrating active transportation into projects. As part of the statement, the US DOT encouraged agencies to adopt similar policy statements in support of walking and bicycling considerations such as:

- Considering walking and bicycling equal with other transportation modes
- Ensuring availability of transportation choices for people of all ages and abilities
- Going beyond minimum design standards
- Integrating bicycling and pedestrian accommodations on new, rehabilitated, and limited access bridges
- Collecting data on walking and bicycling trips
- Setting mode share for walking and bicycling and tracking them over time
- Removing snow from sidewalks and shared use paths
- Improving non-motorized facilities during maintenance projects

US AMERICANS WITH DISABILITIES ACT

The Americans with Disabilities Act title III is legislation enacted in 1990 that provides thorough civil liberties protections to individuals with disabilities concerning employment, state and local government services, and access to public accommodations, transportation, and telecommunications. Title III of the act requires places

of public accommodation to be accessible and usable to all people, including those with disabilities. While the letter of the law applies to “public accommodations,” the spirit of the law applies not only to public agencies but also to all facilities serving the public, whether publicly or privately funded.

Appendix D. Walking and Biking Facilities Toolkit

Introduction

This appendix discusses best practices for bicycle and pedestrian infrastructure projects and non-infrastructure programs. It is focused on recommendations useful for cities with characteristics similar to Yuba City. Because no general design guide can cover the unique characteristics of every location, this guidance should be used in conjunction with study of each individual location, engineering judgment, and other necessary considerations as appropriate for each individual application.

New projects and programs are most likely to be successful when implemented in partnership with the community. Strategies for public engagement include the following:

- Talking to the community to understand their desires and priorities
- Implementing new types of facilities incrementally to generate feedback and support
- Publicizing projects and educating the public on the changes to be implemented and their benefits

This guide draws on research and emphasizes engineering judgment, design flexibility, documentation, and experimentation.

Resources

This appendix is based on a review of existing studies, guidelines, and manuals related to pedestrian and bicycle infrastructure and strategies. The following documents are general resources for these topics:

- NACTO Urban Bikeway Guide, 2nd Edition (2025)
- NACTO Urban Streets Design Guide (2013)
- NACTO Transit Street Design Guide (2016)
- FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations (2018)

- FHWA Small and Rural Multi-Modal Networks Guide (2016)
- FHWA Separated Bicycle Lane Planning and Design Guide (2015)
- FHWA Bikeway Selection Guide (2019)
- AASHTO Guide for the Development of Bicycle Facilities, 4th Edition (2012)
- Caltrans Highway Design Manual (2020)
- Caltrans Design Information Bulletin (DIB) 94 Complete Streets: Contextual Design Guidance (2024)
- Caltrans Class IV Bikeway Guidance (DIB 89-02) (2022)
- League of American Bicyclists Benchmarking Bike Networks (2022)
- Design Manual for Bicycle Traffic (CROW Manual) (2017)
- ITE Recommended Practices on Accommodating Pedestrian and Bicyclists at Interchanges (2016)
- Association of Pedestrian and Bicycle Professionals Essentials of Bicycle Parking: Selecting and Installing Bicycle Parking That Works (2015)

Bikeways

Several types of bikeways and supporting facilities come together to form a complete bicycle network. Bikeways are classified in Chapter 1000 of the Highway Design Manual into four primary types, arranged in order from most separated and protected to least:

- Class I shared-use paths (bike paths)
- Class IV separated bikeways (cycle tracks)
- Class II bike lanes (includes buffered bike lanes)
- Class III bike routes (shared lanes or bike boulevards)

BIKEWAY SELECTION

The FHWA Bikeway Selection Guide and the League of American Bicyclists Benchmarking Bike Networks are good references for selecting bikeway types based on local conditions. Three primary goals are important in guiding bikeway selection:

- **Safety:** Reducing the frequency and severity of crashes and minimizing conflicts between users.
- **Comfort:** Minimizing stress, anxiety, and safety concerns for the target design user. (Comfort and safety are closely related.)
- **Connectivity:** Making trips direct and convenient and offering access to all destinations served by the roadway network and creating seamless and clear transitions between bikeways and general roadways.

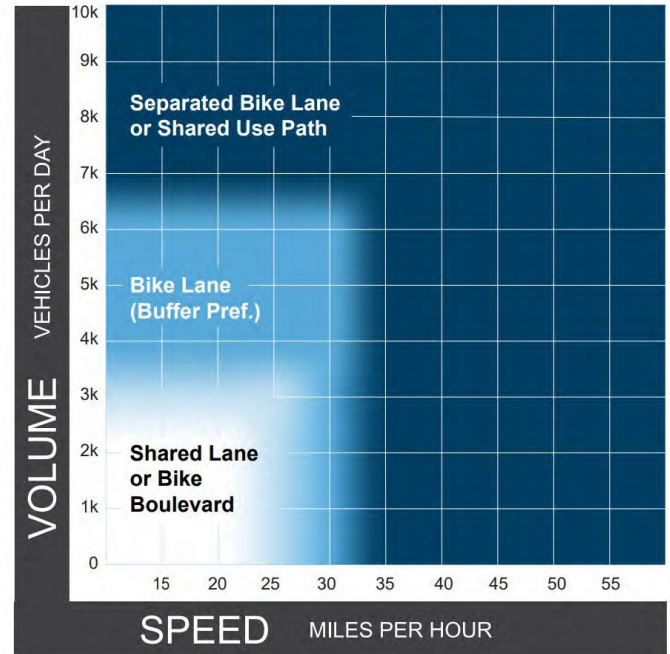
The following graphic from the guide indicates the ideal bikeway type based on vehicle volume and speed. In this graphic and in the following section, bikeways are arranged in order from the most separation and protection from traffic to the least.

Other factors such as available right-of-way and cost may also influence bikeway selection, especially when retrofitting bikeways onto existing streets. Curb-to-curb width and parking considerations in older neighborhoods can present challenges to design. As described in the guide, other such factors include the following:

- Unusually high peak hour motor vehicle volumes
- High percentages of trucks and buses
- High parking turnover or curbside activity
- Frequent driveways or intersections

- High concentrations of vulnerable populations such as children and older adults

If the preferred bikeway cannot be provided, the next best bikeway should be considered, as it still may increase comfort and safety for more confident bicyclists. Alternative parallel routes may also be considered.



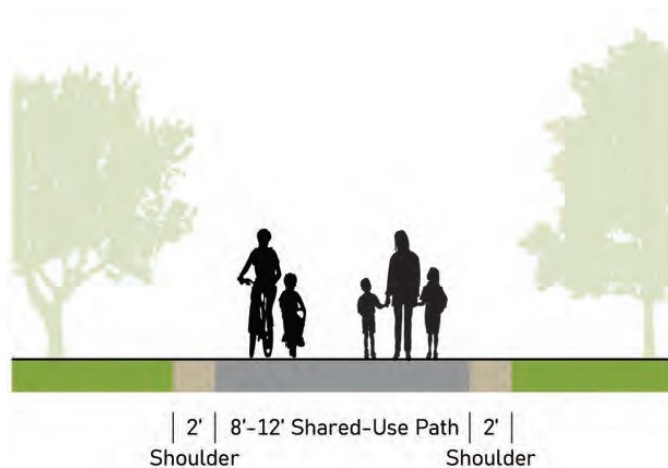
Source: Federal Highway Administration,

Class I Bikeway: Shared-Use Path

Shared-use paths, often referred to as bike paths or multi-use trails, are off-street facilities that provide exclusive use for non-motorized travel by both bicyclists and pedestrians. Shared-use paths have minimal cross flow with motorists and are typically located along landscaped corridors. Shared-use paths can be utilized for both recreational and commute trips. These paths provide an important recreational amenity for bicyclists, pedestrians, dog walkers, runners, skaters, and those using other non-motorized forms of travel. They are frequently designed to offer specific benefits such as a connections not otherwise included in the bicycle or pedestrian network or traversing barriers such as freeways or rivers.

Design principles

- Use where maximum separation from traffic is desired and right-of-way is available.
- Best in locations with little cross-flow.
- For a two-way path, provide a width of at least 8 feet with a two-foot shoulder; 10 feet with a two-foot shoulder is preferred.
- For a one-way path, typically only used when transitioning to an on-street bikeway, provide a width of at least 5 feet and a two-foot shoulder.



- At freeways, highways, and railroads, consider grade-separated crossings.
- Include curb ramps and curb cuts that are convenient and conform to the Americans with Disabilities Act (ADA).
- Ensure adequate path width, sight distance, and drainage.
- Include wayfinding signs for easier navigation.
- Provide shade to encourage use.
- Include scenic attributes such as landscaping and trail placement highlighting views.

Maintenance needs

- Conduct maintenance frequently to avoid hazards such as tree root cracking and debris.
- Refresh faded striping and repair or replace damaged or faded signage.
- Maintain adequate vegetation clearance.

Include street crossings with measures such as bike and pedestrian activated traffic signals, median islands, and warning signs.

Draft

Class IV Bikeway: Separated Bikeway

Class IV separated bikeways, commonly known as cycle tracks, are physically separated bicycle facilities that are distinct from the sidewalk and designed for exclusive use by bicyclists. They are located within the street right-of-way, but provide comfort similar to Class I shared-use paths. The key feature of a separated bikeway is a vertical element that provides physical separation from motor vehicle traffic. Common vertical elements used for separation include a vertical curb, a painted buffer with flexible posts, parked cars, a landscaped area, large planters, or a fixed barrier. Separated bikeways may also be constructed by creating a bikeway at a height above the vehicular lanes. Separated bikeways can be either one-way or two-way, accommodating a single direction of travel or both directions.

Streets with high vehicular volumes and speeds are appropriate candidates for separated bikeways, which increase the comfort of bicyclists on these higher-stress roads. Separated bikeways are most beneficial on streets with 6,000 or more average daily vehicle traffic (ADT) and/or 30 miles per hour (MPH) or greater posted speed limits.

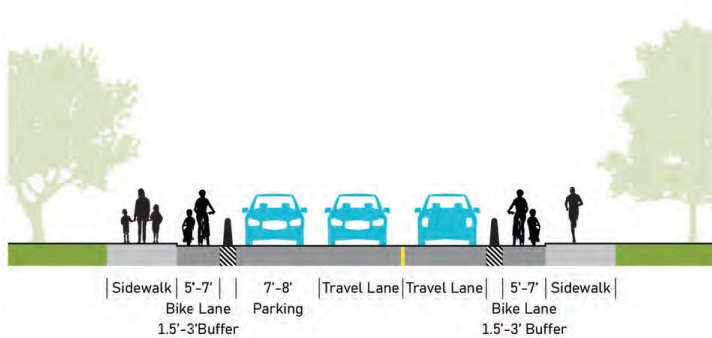
Two-way separated bikeways are most appropriate where destinations are concentrated along one side of a street, the bikeway is connecting to other two-way bikeways, or where the bikeway is located on a one-way street for motor vehicle travel. In these locations, wrong-way bicycling may be likely in a one-way bikeway configuration. Special considerations should be taken at intersections when designing a two-way separated bikeway.

Design principles

- Preferred bike lane width is 7 feet to allow for passing and maintenance. Also consider minimum width achievable by street sweeper.
- Minimum buffer width should be 18 inches, or 3 feet with parked cars.
- Best placed in areas with fewer driveways to minimize conflicts with motor vehicles.
- Require wider right-of-way than Class II bike lanes.
- Require careful design of appropriate intersection treatments.
- May use skipped green markings in conflict zones.
- Design drainage grates to avoid catching bicycle tires.

Maintenance needs

- Conduct maintenance frequently to avoid roadway hazards such as potholes and debris. Smaller street cleaning equipment may be required to fit between the curb and barrier.
- Maintain posts, bollards, or other physical buffer.
- Refresh faded striping and repair or replace damaged or faded signage.



Best on streets with 6,000+ vehicles daily

and/or

30 MPH+ speed limits

Draft

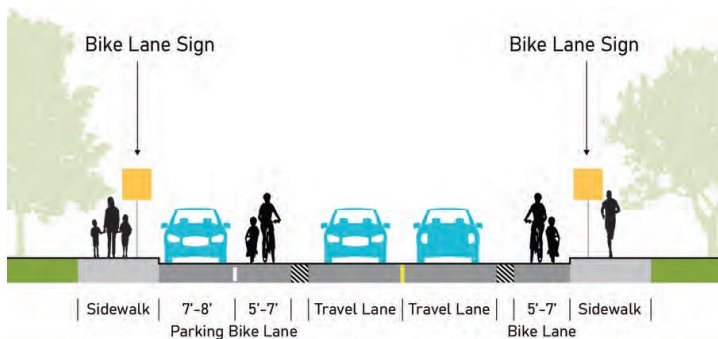
Class II Bikeway: Bike Lane

Class II bike lanes are on-street facilities that use striping, stencils, and signage to denote preferential or exclusive use by bicyclists. On-street bike lanes are located adjacent to motor vehicle traffic. Bike lanes provide adequate space for comfortable riding and alert drivers about the predictable movements of bicyclists.

Bike lanes are most beneficial on streets with 3,000 to 6,000 ADT and/or 25 to 30 MPH posted speed limits.

Design principles

- Provide a width of at least 5 feet. At least 3 feet should be clear of any gutter pan.
- Minimize vehicle travel and parking lane widths to reduce vehicle speeds and create safer roadway conditions for all users, and to provide maximum bike lane widths to allow bicyclists to pass other riders safely and navigate around parked cars and other road hazards.
- As available roadway width for the bike lane increases beyond 5 feet, consider use of painted buffers:
 - Left-side painted buffers on bike lanes improve separation between bicycles and vehicles. They are especially useful in cases with vehicle speeds that are greater than 25 miles per hour.
 - Right-side painted buffers can be added between parallel parked cars and the bike lane to create separation from the door zone, the space in which a driver may open their car door and hit a bicyclist.



- Lane striping (six inches wide) should be dashed through heavily trafficked merging areas, including turn lanes at intersection approaches. Refer to California MUTCD Section 9C.04 for guidance.
- May use skipped green markings in conflict zones.
- Design drainage grates to avoid catching bicycle tires.

Maintenance needs

- Conduct maintenance frequently to prevent and remedy roadway hazards such as potholes and debris.
- Refresh faded striping and repair or replace damaged or faded signage.

Best on streets with: 3,000 – 6,000 vehicles daily

and/or

25 – 30 MPH speed limits

Draft

Class III Bikeway: Bike Route

Class III bike routes are streets with signage where bicyclists travel on the shoulder or share a lane with motor vehicles. Class III bike routes are utilized on low-speed and low-volume streets that do not provide enough space for dedicated lanes. Shoulders are preferable but not required on streets with Class III bike routes. In addition to alerting motorists to the presence of bicyclists, bike routes help bike riders find their way to other bikeways or regional destinations like schools and parks.

Shared-lane markings, or sharrows, are an optional pavement marking for bike routes. Sharrows alert drivers that bicyclists are sharing the road and facilitate wayfinding through neighborhoods. Sharrow markings should be painted near the center of the travel lane, out of the parked vehicle door zone.

Bike routes are most beneficial on streets with 3,000 or fewer ADT and 25 MPH or lower posted speed limits.

Design principles

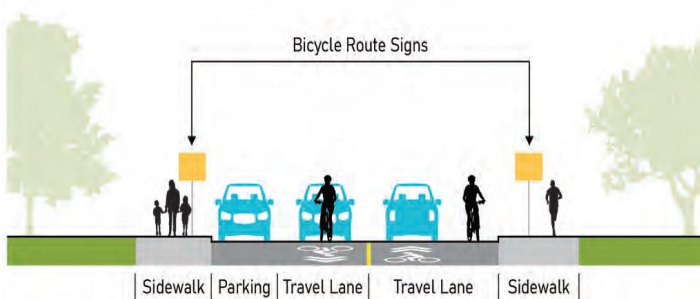
- Shoulders are preferable but not required.
- Sharrow markings can be used to alert drivers to presence of bikes.

Maintenance needs

- Conduct maintenance frequently to prevent and remedy roadway hazards such as potholes and debris.
- Refresh faded striping and repair or replace damaged or faded signage.

Class III Bikeway: Bicycle Boulevard

Bicycle boulevards are bike routes that are intentionally located on low-volume, low-speed local streets that include other features designed to make a low-stress, comfortable, attractive bikeway that prioritizes bicycle travel. These features include shared lane markings, wayfinding signs, and traffic calming features, including at crossings with higher volume arterials. Physical and non-physical measures such as signs, pavement markings, speed lumps, and low or reduced vehicle speeds are utilized to discourage through trips by motor vehicles and create safe, convenient bicycle access.



Best on streets with: <3,000
vehicles daily

and/or

<25 MPH speed limit

Complementary Bicycle Treatments

GREEN-COLORED PAVEMENT

Green markings used in high volume intersections and busy driveway locations. Use skipped green in weaving areas or conflict zones. May be installed with either paint or thermoplastic. Thermoplastic is initially more expensive, but less expensive when considering maintenance life cycle costs. Although not yet incorporated into the California MUTCD, the FHWA MUTCD provides guidance on its use.

Use

- Supplemental marking in high conflict areas to improve safety

Benefits

- Calls attention to vehicle/bicycle conflict areas

Challenges

- Less effective if overused



Source: Fehr & Peers

THROUGH BIKE LANES

Through bike lanes reduce conflicts at intersections by allowing bicyclists to follow the preferred travel path, ideally a straight connection from the preceding bike lane. Traveling at intersections can be particularly challenging if the bike lane ends prior to the intersection forcing a merge with vehicle traffic. Continuing the bicycle lane to the intersection approach provides bicyclists the opportunity to avoid conflicts with turning vehicles. Through bike lanes should be placed to the left of the right-turn only lane. Dotted lines are used to signify the merge area that motorists traverse to get to the right-turn lane.

Use

- Intersections where vehicle lanes conflict with bike lanes

Benefits

- Reduce conflict between through bicyclists and turning vehicles

Challenges

- Typically used with Class II bike lanes and not appropriate for use with Class IV separated bikeways



Source: Fehr & Peers

BICYCLE BOXES

Dedicated visible space for bicyclists to wait in front of vehicle traffic at a signalized intersection. Provide bicyclists priority crossing major streets. May span the entire approach, allowing bicyclists safe waiting zones for left turns, or may be placed only in front of the right-turn lane. Colored pavement, typically green, should be used to encourage compliance by motorists.

Use

- At signalized intersections with a high volume of bicycles, especially those making left turns

Benefits

- Facilitate left-turn movements for bicyclists
- Reduce right-hook conflicts with right-turning vehicles
- Also reduce vehicle encroachment into crosswalks

Challenges

- Requires restriction of right turns on red
- Colored pavement increases maintenance costs



Source: NACTO

TWO-STAGE TURN BOX

Space outside of the vehicle path for bicyclists to make a left turn. During the green signal, bicyclists proceed through the intersection until reaching the box on the right-hand side. The bicyclist will be able to turn left in the bicycle box and wait for the green signal to continue through the intersection, thus making a left turn.

Use

- At signalized intersections on roadways with high speeds and multiple lanes

Benefits

- Increase safety for left turning cyclists

Challenges

- Requires restriction of right turns on red
- Colored pavement increases maintenance costs



Source: SFMTA

Pedestrian Facilities

Pedestrian facilities include sidewalks and crosswalks, which, with some exceptions, are primarily for pedestrian use. Some types of facilities are shared by both pedestrians and bicyclists, including Class I shared-use paths, which are described earlier in the toolkit.

SIDEWALKS

Paved areas immediately adjacent to the vehicular right-of-way for the exclusive use of pedestrians. They may be used by people riding bicycles unless prohibited.

Design principles

- Usable width should generally be five feet or more
- Crossings of driveways should be at grade
- Street trees and landscaping provide shade and comfort
- Slower vehicle speeds on the adjacent roadway increase comfort
- Pedestrian-scale lighting can increase safety and security for pedestrian walking outside of daylight hours.

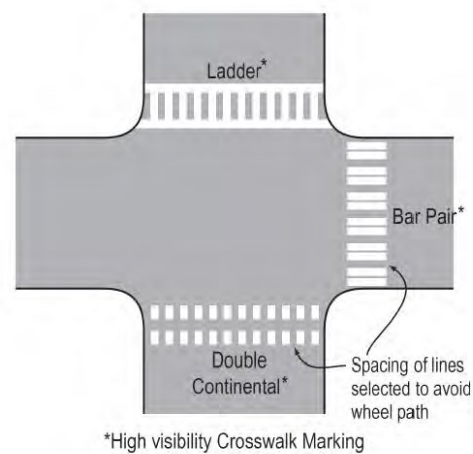
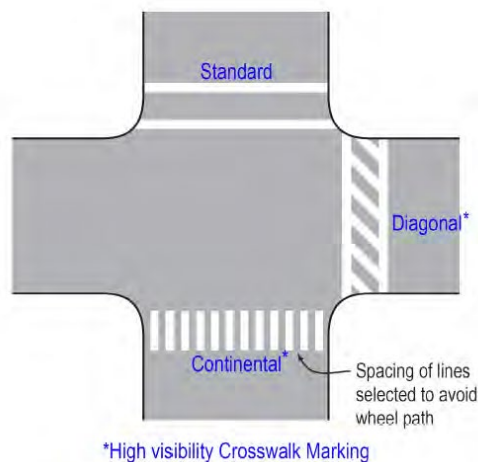
MARKED CROSSWALKS

Marked crosswalks feature striping and other enhancements. These features may be used to raise awareness of the crossing and to delineate the best place to cross. There are two types of marked crosswalks:

- Controlled: With vehicle stop signs or traffic signals.
- Uncontrolled: Without stop signs or traffic signals. Under California law, drivers are legally required to yield to pedestrians at uncontrolled crosswalks.

Design principles

- Although not yet incorporated into the California MUTCD, the FHWA MUTCD provides guidance on when to mark a crosswalk.
- Of the six designs below from the California MUTCD, all except the Standard markings are considered to be high visibility, more easily discerned by drivers.
- Lines in a Continental, Double Continental, or Bar Pair marking should be spaced to avoid the wheel path of vehicles and thus reduce striping maintenance.
- Use stop lines and yield lines in conjunction with signs at crosswalks, as described in the California MUTCD, to improve driver yielding to pedestrians.



Source: Caltrans, 2024. California Manual on Uniform Traffic Control Devices, Figure 3B-19.

Complementary Pedestrian Treatments

The following treatments should be used with sidewalks and crosswalks as warranted. The FHWA Guide for Improving Pedestrian Safety and Uncontrolled Crossing Locations contains detailed guidance for selecting appropriate treatments, as shown in the table at the right. Key inputs are roadway configuration (including number of lanes and presence of a median), vehicle annual average daily traffic (AADT), and posted speed limit. Refer to the Guide for additional recommendations on treatment application.

The Guide also provides information on pedestrian collision analysis and selection of countermeasures based on collision analysis. Use that information when applying countermeasures in response to collision history or systemic safety analysis.

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	① 2 4 5 6	① 5 6 7 9	① 5 6 ⑦ ⑨	① 4 5 6	① 5 6 7 9	① 5 6 ⑦ ⑨	① 4 5 6 7 9	① 5 6 7 9	① 5 6 ⑨
3 lanes with raised median (1 lane in each direction)	① 2 3 4 5	① ③ 5 7 9	① ③ 5 ⑦ ⑨	① 3 4 5 7 9	① ③ 5 ⑦ ⑨	① ③ 5 ⑦ ⑨	① ③ 4 5 7 9	① ③ 5 ⑦ ⑨	① ③ 5 ⑨
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	① 2 3 4 5 6 7 9	① ③ 5 6 7 9	① ③ 5 6 ⑨	① 3 4 5 6 7 9	① ③ 5 6 ⑦ ⑨	① ③ 5 6 ⑨	① ③ 4 5 6 7 9	① ③ 5 6 ⑨	① ③ 5 6 ⑨
4+ lanes with raised median (2 or more lanes in each direction)	① ③ 5 7 8 9	① ③ 5 7 8 9	① ③ 5 8 ⑨	① ③ 5 7 8 9	① ③ 5 ⑦ 8 ⑨	① ③ 5 8 ⑨	① ③ 5 ⑦ 8 ⑨	① ③ 5 8 ⑨	① ③ 5 8 ⑨
4+ lanes w/o raised median (2 or more lanes in each direction)	① ③ 5 6 7 8 9	① ③ 5 ⑥ 7 8 9	① ③ 5 ⑥ 8 ⑨	① ③ 5 ⑥ 7 8 9	① ③ 5 ⑥ ⑦ 8 ⑨	① ③ 5 ⑥ 8 ⑨	① ③ 5 ⑥ ⑦ 8 ⑨	① ③ 5 ⑥ 8 ⑨	① ③ 5 ⑥ 8 ⑨
Given the set of conditions in a cell, # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location. ● Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location. ○ Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.* The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.				1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs 2 Raised crosswalk 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line 4 In-Street Pedestrian Crossing sign 5 Curb extension 6 Pedestrian refuge island 7 Rectangular Rapid-Flashing Beacon (RRFB)** 8 Road Diet 9 Pedestrian Hybrid Beacon (PHB)**					

*Refer to Chapter 4, 'Using Table 1 and Table 2 to Select Countermeasures,' for more information about using multiple countermeasures.

**It should be noted that the PHB and RRFB are not both installed at the same crossing location.

Source: Federal Highway Administration Guide for Improving Pedestrian Safety at Uncontrolled Intersections

CURB EXTENSIONS

Curb extensions, also known as bulb-outs, decrease the pedestrian crossing distance at intersections and improve the visibility of pedestrians waiting to cross the street.

Benefits:

- Reduces time pedestrians are exposed to vehicles

Challenges:

- Potential for higher cost due to drainage accommodations

MEDIAN REFUGE ISLANDS

Allow pedestrians to cross one direction of traffic then wait in the center of the street to cross the other direction of traffic.

Design principles

- Use on roadways with few gaps in traffic
- Consider in locations with existing medians.
- If no medians are existing, consider creating space by eliminating on-street parking or narrowing vehicle travel lanes.
- Split pedestrian crossover refuge islands, generally used at uncontrolled mid-block locations, encourage pedestrians to look towards the oncoming direction of traffic before completing the crossing.

Benefits

- Reduce time pedestrians are exposed to vehicles
- Narrow roadway, reducing speeds

Challenges

- May restrict or inhibit left turning vehicles



Source: Fehr & Peers



Source: Fehr & Peers

WARNING SIGNAGE

Improves visibility of crosswalks and increases the likelihood that a driver will yield or stop to pedestrians. Additional signage in school zones helps alert drivers that children, who are known to make unpredictable movements, may be present.

Design principles

- In-street signs are ideal for streets with low vehicle speeds and two lanes. They can be permanently installed or movable for peak hours such as pick-up/drop-off times at schools.
- Overhead signs are more impactful at busier, wider streets. These are typically installed at mid-block crossings or intersections.



Source: Fehr & Peers

RAISED CROSSWALK

Pedestrian crossings raised to sidewalk level or just below. Act as traffic calming device.

Design principles

- Should not be constructed on streets with sharp curves or steep grades.
- Tactile treatments are needed at the sidewalk/street boundary so that visually impaired pedestrians can identify the edge of the street.

Benefits

- Effective in reducing vehicle speed.
- Allow pedestrian to cross at a nearly constant grade without requiring curb ramps.

Challenges

- May have higher costs due to drainage infrastructure.



Source: Fehr & Peers

RECTANGULAR RAPID FLASHING BEACONS

Rectangular Rapid Flashing Beacons (RRFBs) are a type of pedestrian activated warning beacon that improve driver-yielding rates. They consist of rapid-flash system LED beacons that are similar in operation to emergency flashers on police vehicles.

RRFBs have generally shown the greatest effectiveness among the types of pedestrian activated warning beacons. Some jurisdictions also use signs with flashing LEDs within the border of the sign itself. However, these treatments have not been demonstrated to have efficacy comparable to RRFBs.

Benefits

- Increase driver yielding
- Can lead to reduction in pedestrian crashes

Challenges

- Require pedestrian activation
- Do not stop traffic, but require vehicles to yield



Source: Fehr & Peers

PEDESTRIAN HYBRID BEACON

Pedestrian Hybrid Beacons (PHBs), also known as High-intensity Activated crosswalks or HAWK signals, require vehicles to stop at a red light to allow pedestrians to cross. PHBs are ideal for roadways that are higher speeds and volumes than a rectangular rapid flashing beacon, but do not require a full pedestrian signal. They should only be installed in locations that include a marked crosswalk. The California Manual on Uniform Traffic Control Devices (MUTCD) provides details on use of PHBs.

PHBs operate with the following phases:

1. Flashing Yellow – Upon actuation, beacon flashes yellow
2. Solid Yellow – Alerts drivers pedestrians will soon cross
3. Solid Red – Drivers must stop and remain stopped
4. Flashing Red – Drivers stop and proceed when clear, as they would with a stop sign
5. No Indication – When not actuated, signal is dark

Benefits

- Increases driver yielding
- Can lead to reduction in pedestrian crashes

Challenges

- Similar cost to a pedestrian signal



Source: Fehr & Peers

TRAFFIC SIGNAL

When warranted based on the applicable signal warrants in the California MUTCD, a traffic signal to allow pedestrians to utilize a marked crosswalk safely may be appropriate. Countdown pedestrian signal heads should be used at all traffic signals, except where pedestrian crossing is prohibited.

Benefits

- Reduces pedestrian-vehicle conflict points

Challenges

- May increase waiting times for pedestrians and drivers
- High cost

LEADING PEDESTRIAN INTERVAL

A leading pedestrian interval (LPI) allows pedestrians to begin crossing a signalized intersection before vehicles begin moving by providing a walk signal three to seven seconds before the corresponding vehicle signal turns green.

Benefits

- Makes pedestrians more visible
- Emphasizes pedestrian right-of-way

Challenges

- May increase waiting times for drivers

TIGHTER CURB-RETURN RADII

Tighter curb-return radii require vehicles to slow to turn more sharply at intersections. Reduced vehicle speeds increase driver awareness and thus reduce collision frequency. Slower vehicle speeds also decrease injury severity when collisions occur.

Design principles

- Design should limit turning speeds to 15 miles per hour or less.
- Land use context and design vehicles should be considered when reducing radii; industrial areas with frequent truck traffic may require larger radii than commercial or residential areas.

Benefits

- Reduce vehicle speeds
- Reduce pedestrian crossing distances

Challenges

- Can be costly to retrofit on existing streets
- Drainage and storm sewers need to be considered especially when retrofit.

PEDESTRIAN SCRAMBLE

Intersection treatments that include a pedestrian-only phase in the traffic signal cycle, when pedestrians are able to cross in all directions including to the opposite corner by traveling through the middle of the intersection. Pedestrian scrambles and diagonal crosswalks allow pedestrians to cross more efficiently, directly to their destination. Recommended for intersections with high pedestrian volumes crossing multiple crosswalks.

Benefits

- Allows pedestrians to cross more directly
- Emphasizes pedestrian right-of-way
- Eliminates conflict between turning vehicles and pedestrians

Challenges

- Pedestrian-only phase may increase vehicle waiting time



Source: NACTO

Other Treatments and Support Facilities

Some improvements can serve both bicyclists and pedestrians and can be used in combination with other treatments.

TRAFFIC CALMING

Traffic calming devices include a wide range of design treatments capable of reducing vehicle speeds and thus improving the safety and comfort of the transportation network for all users. Reducing vehicle speeds makes travel safer for both bicycles and pedestrians.

Vertical deflection devices cause drivers to experience a physical response that is aggravated when traveling at high speeds. Many existing streets can be retrofitted with vertical measures.

Horizontal deflection devices are used to deflect vehicles from traveling at high speeds. Horizontal deflection measures require drivers to navigate laterally and consequentially reduce speed.

Narrowing traffic calming devices are a sub-category of horizontal deflection traffic calming devices. Wider roads are associated with greater crash rates and higher impact speeds. Narrowing roadways often leads to decreased vehicle speeds and improves safety.

Restriping narrower travel lanes for vehicle traffic via centerline and edgeline striping can reduce motor vehicle speed. Cross-hatch pavement marking applied to outer edge of a roadway to create a shoulder and reduce lane widths if the space is not used for a bike lane or parking. In many locations, interior traffic lanes can be narrowed to 10 feet or less to encourage lower speeds. Narrow lanes can make room in the roadway right-of-way for painted medians, center turn lanes, bicycle lanes, or parking.

Countermeasure Toolbox

Countermeasure	Description	Cost
ADA Accessibility		
Audible Push Button Upgrade	Push buttons must comply with the Americans with Disability Act (ADA) standards for accessibility. Pushbuttons should be visible and conveniently located for pedestrians waiting at a crosswalk. Accessible pedestrian signals, including audible push buttons, improve access for pedestrians who are blind or have low vision. Public Rights of Way Accessibility Guidelines (PROWAG) includes accessibility design guidance.	\$
Upgrade Curb Ramp	Tactile warning devices must be detectable to visually impaired pedestrians. Curb ramps must follow PROWAG and local design guidelines.	\$\$
Bicycle Safety		
Bicycle Ramp	A ramp that connects bicyclists from the road to the sidewalk or a shared use path.	\$
Bicycles May Use Full Lane Sign	A sign placed on roads with lanes that are too narrow to allow safe side-by-side in-lane passing of a bicyclist by a motorist - signs indicate that bicyclists may occupy the full lane. Intended to encourage motorists to provide ample space between side of the vehicle and an adjacent bicyclist when passing.	\$
Bicycle Crossing (Solid Green Paint)	Solid green paint across an intersection signifies the path of the bicycle crossing. Increases visibility of bicyclists' anticipated path of travel through an intersection.	\$
Green Conflict Striping	Green conflict striping is green pavement markings in a dashed pattern that extend across bike lanes approaching an intersection and/or going through an intersection. Green conflict striping improves and increases the visibility of bicyclists and potential conflict points so motorists and bicyclists can use caution when traveling toward and through an intersection.	\$
Mixing Zone	A mixing zone is where a suggested bike lane is within the inside portion of a dedicated motor vehicle turn lane. Lane markings delineate space for bicyclists and motorists within the same lane and indicate the intended path for bicyclists to reduce conflict with turning motor vehicles.	\$
Bike Box	A designated area between the crosswalk and vehicle stop bar at a signalized intersection that is often painted green where bicyclists can wait during a red signal phase. The use of the bike box places bicyclists in a location where they are more visible to motorists.	\$
Two-Stage Turn Queue Bike Box	This roadway treatment provides bicyclists with a means of making a left turn at a multi-lane signalized intersection from a bike lane or cycle track on the far right side of the roadway. In this way, bicyclists are removed from the flow of traffic while waiting to turn. Use of this treatment could be mirrored for right-turns from a one-way street with a left-side bikeway.	\$
Door Zone Markings	Pavement markings denoting door zone of parked vehicles to raise awareness of bicyclists and motorists of that conflict area where an open car door could obstruct the path of a passing bicyclist.	\$

Extend Bike Lane to Intersection	In locations where a bike lane is dropped due to the addition of a right turn pocket, the intersection approach may be restriped to allow for bicyclists to move to the left side of right turning vehicles ahead of reaching the intersection.	\$
Bike-Friendly Drain	Drains that avoid placing grating in the right-of-way that may pose a hazard to bicyclists by increasing their risk of falling.	\$\$
Bike Lane	Bike lanes designate an exclusive space for bicyclists using pavement markings and signage. The bike lane is located adjacent to motor vehicle travel lanes and flows in the same direction as motor vehicle traffic. Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or travel lane.	\$\$
Buffered Bike Lane	Buffered Bike Lanes are standard bike lanes paired with a designated horizontal buffer space, separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. This type of bikeway provides greater distance between vehicles and bicycles; provides space for bicyclists to pass each other; provides greater space for bicycling without making the bike lane appear so wide that it might be mistaken for a travel lane; and encourages bicycling by contributing to the perception of safety.	\$\$
Separated Bikeway	A separated bikeway, also called a cycletrack, provides dedicated street space, typically adjacent to outer vehicle travel lanes, with physical separation from vehicle traffic, designated lane markings, pavement legends, and signage. Physical separation may consist of plastic posts, parked vehicles, raised median, or a curb (if the separated bike lane is raised to sidewalk level). Separated bikeways reduce conflicts between people biking and motorists. They also provide more physical protection that further reduces the risk of severe conflicts between bicycles and vehicles on the road. Separated bike lanes can also help manage or reduce vehicle speeds as some of the design features can have a traffic calming effect.	\$\$\$
Shared-Use Path	Shared-use paths or trails are off-street facilities that provide exclusive use for nonmotorized travel, including bicyclists and pedestrians. They could be located alongside a roadway, or exist in a separate right-of-way. Bike paths have minimal cross flow with motorists and can be utilized for both recreational and commute trips.	\$\$\$
Roadway Clearance		
Relocate Select Hazardous Utility Poles	Relocating or removing utility poles from within the clear zone alleviates the potential for fixed-object crashes. If utility poles cannot be completely eliminated from within the clear zone, efforts can be made to either relocate the poles to a greater offset from the road or given high-visibility treatments.	\$\$
Create or Increase Clear Zone	A clear zone is an unobstructed, traversable roadside area that allows a driver to stop safely or regain control of a vehicle that has left the roadway. The width of the clear zone is informed by roadway context, desired vehicle speeds, and agency design standards.	\$\$

Install/Upgrade Pedestrian Crossing at Uncontrolled Locations (Signs and Markings Only)	A pedestrian crossing at an intersection or on a segment provides a formalized location for people to cross the street, reducing the risk of people crossing outside crosswalks where drivers are not expecting them. Crosswalk striping, signs, and other enhanced features alert drivers that there may be a pedestrian crossing.	\$
All-Way Stop Control	An all-way stop-controlled intersection requires all vehicles to stop before crossing the intersection. An all-way stop-controlled intersection reduces the risk of severe conflicts as long as all road users see and obey the stop signs. The MUTCD (Manual on Uniform Traffic Control Devices) includes information on when and how to implement "All Way" Or "Multi-Way" stop control intersections.	\$
Neighborhood Traffic Circle	Neighborhood traffic circles are circular intersections similar to roundabouts, but are stop controlled on the approach and intended for smaller intersections. Typically, they supplement existing stop-controlled intersections with a circular island in the center that is designed to slow traffic and eliminates severe conflict points (such as conflicting left-turn movements).	\$
Splitter Island	A raised area that separates the two directions of travel on the minor street approach at an unsignalized intersection or roundabout. Helps channelize traffic in opposing directions of travel. Also helps improve the visibility of an intersection when approaching it. Provides a refuge for pedestrians.	\$\$
Remove Obstructions For Sightlines	Remove objects that may prevent drivers and pedestrians from having a clear sightline. May include installing red curb at intersection approaches to remove parked vehicles (also called "daylighting"), trimming or removing landscaping, or removing or relocating large signs.	\$
Widen/Pave Shoulder	Widened and paved shoulders, which may also include flattening the slopes along the sides of the roadway, create a separated space for bicyclists, create space for a driver to safely recover if they inadvertently depart the travel lane, and also provide space for inoperable vehicles to pull out of the travel lane. The addition of a paved shoulder to an existing road can help to reduce run-off-road crashes. Benefits can be realized for high-risk rural roads without paved shoulders, regardless of existing lane pavement width. Adding paved shoulders within horizontal curve sections may help agencies maximize the benefits of the treatment while minimizing costs as opposed to adding paved shoulders to an entire corridor.	\$\$
Intersection Configuration		
Left Turn Enhanced Daylighting/Slow Turn Wedge	Uses paint and bollards to extend the curb and slow left turns at intersections of one-way to one-way or two-way streets. Widening the turning radii of left-turning vehicles expands the field of vision for drivers and increases the visibility of pedestrians.	\$
Partial Closure/Diverter	A roadway treatment that restricts through vehicle movements using physical diversion while allowing bicyclists and pedestrians to proceed through an intersection in all directions.	\$

Directional Median Openings to Restrict Left Turns	A directional median opening restricts specific turning movements, such as allowing a left-turn from a major street but not from a minor street. A directional median opening to restrict left turn improves safety by reducing the number of conflict points.	\$\$
Pedestrian refuge	Modifies the corner of an intersection to remove the sweeping right turn lane for vehicles. Results in shorter crossings for pedestrians, reduced speed for turning vehicles, better sight lines, and space for landscaping and other amenities.	\$\$\$
Intersection Reconstruction and Tightening	Intersections that intersect at a skewed angle or angle notably different than 90-degrees have a greater likelihood of collisions. Squaring up the intersection helps reduce the likelihood of collisions. "Squaring up" an intersection as close to 90 degrees as possible involves intersection reconstruction and approach realignment to provide better visibility for all road users, also reducing high speed turns, reducing length exposure for vehicles and/or bikes passing through the intersection, and reducing pedestrian crossing length.	\$\$\$
Protected Intersection	Protected intersections use corner islands, curb extensions, and colored paint to delineate bicycle and pedestrian movements across an intersection. Slower driving speeds and shorter crossing distance increase safety for pedestrians. Separates bicycles from pedestrians as well as moving vehicles.	\$\$\$
Roundabout	A roundabout is a type of circular intersection in which road traffic is permitted to flow in one direction around a central island, and priority is typically given to traffic already in the junction. The types of conflicts that occur at roundabouts are different from those occurring at conventional intersections: namely, severe conflicts from crossing and left-turn movements are not present in a roundabout. The geometry of a roundabout forces drivers to reduce speeds as they proceed through the intersection; the range of vehicle speeds is also narrowed, reducing the severity of crashes when they do occur. Pedestrians also only have to cross one direction of traffic at a time at roundabouts, thus reducing exposure to vehicle traffic.	\$\$\$
Signal	Traffic signals at intersections control the flow of traffic by assigning right-of-way to different movements at different times. Some traffic signal phasing is more effective at reducing the likelihood of severe injury collisions. For example, protected left-turn signal phasing reduces the likelihood of severe left-turn collisions more effectively than permitted left-turn signal phasing.	\$\$\$
Reduced Left-Turn Conflict Intersection	Geometric designs that alter how left-turn movements occur can simplify decisions and minimize the potential for left-turn related crashes. Two designs that rely on U-turns to complete certain left-turn movements are known as the restricted crossing U-turn (RCUT) and the median U-turn (MUT). Both designs require some out of direction travel for vehicles.	\$\$\$
Lighting		

Intersection Lighting	Adding intersection and/or pedestrian-scale lighting at intersections increases the visibility of all road users. This countermeasure is most effective at reducing or preventing collisions at intersections at night or in low-light conditions. When lighting pedestrian crosswalks, it is helpful to use lighting analysis to avoid designs that inadvertently introduce glare or backlight pedestrians, making it hard for motorists to see them.	\$\$
Segment Lighting	Providing roadway lighting increases driver awareness and can improve visibility of other road users and/or objects in the roadway.	\$\$
Upgrade Lighting to LED	Upgrading Lighting to LED replaces high-pressure sodium light bulbs with LED light bulbs in street lights. Upgrading Lighting to LED increases the visibility of pedestrians in crosswalks through greater color contrast and larger areas of light distribution.	\$\$
Pavement		
Safety Edge	When a vehicle leaves the traveled way and encounters a pavement-shoulder drop-off, it can be difficult for the driver to return safely to the roadway. A safety edge is a treatment intended to minimize the severity of roadway or lane departure crashes. With this treatment, the shoulder pavement edge is sloped at an angle (30-35 degrees) to make it easier for a driver to safely reenter the roadway after inadvertently driving onto the shoulder. This treatment could be incorporated as a standard practice in overlay or roadway resurfacing projects.	\$
Improved Pavement Friction	High friction surface treatments improve a vehicles' ability to stay on the roadway as well as come to a stop over a shorter distance. The treatment can be used to help address roadway departure crashes and/or intersection crashes on approach to unsignalized intersections.	\$\$
Superelevation at Horizontal Curve Locations	Superelevation is the rotation of the pavement on the approach to and through a horizontal curve and is intended to assist the driver in negotiating the curve by counteracting the lateral acceleration produced by tracking. In other words, the road is designed so that the pavement rises as it curves, offsetting the horizontal sideways momentum of the approaching vehicle. Superelevation can help vehicles stay on the roadway. Superelevation can also inadvertently make it easier for drivers to drive at higher than desirable speeds. Consider the target or desired speed for a roadway and relevant design guidance when selecting appropriate superelevation.	\$\$
Pedestrian Safety		
Advance Stop Bar	An advanced stop bar is a horizontal stripe painted ahead of the crosswalk at stop signs and signals to indicate where drivers should stop. An advanced stop bar reduces instances of vehicles encroaching on the crosswalk. Creating a wider stop bar or setting the stop bar further back may be appropriate for locations with known crosswalk encroachment issues.	\$
Advance Yield Markings	Yield lines are placed 20 to 50 feet in advance of multi-lane pedestrian crossings to increase visibility of pedestrians. They can reduce the likelihood of a multiple-threat crash.	\$
Restripe Crosswalk	Periodic restriping of crosswalks is necessary to maintain visibility of the traffic markings. Crosswalk may be restriped with high visibility markings.	\$

High-Visibility Crosswalk	A high-visibility crosswalk has a striped pattern with ladder markings made of high-visibility material, such as thermoplastic tape, instead of paint. A high-visibility crosswalk improves the visibility of marked crosswalks and provides motorists a cue to slow down and yield to pedestrians.	\$
Remove Crossing Prohibition	Removes existing crossing prohibitions and provides marked crosswalk and other crossing enhancements for pedestrians to cross the street.	\$
Straighten Crosswalk	Straightening crosswalks improves sight lines, making pedestrians more visible to oncoming drivers, and may shorten the crossing distance, reducing the length of time required for pedestrians to cross an intersection.	\$
Widen Sidewalk	Widening sidewalks provides a more comfortable space for pedestrians, particularly in locations with high volumes of pedestrians, and provides space to accommodate people in wheelchairs. Widening sidewalks reduces the likelihood of collisions with pedestrians walking in the road.	\$\$
Raised Crosswalk	A Raised Crosswalk is a pedestrian crosswalk that is typically elevated 3-6 inches above the road or at sidewalk level. A Raised Crosswalk improves increases crosswalk and pedestrian visibility and slows down motorists.	\$\$
Pedestrian Countdown Timer	Displays "countdown" of seconds remaining on the pedestrian signal. Countdown indications improve safety for all road users, and are required for all newly installed traffic signals where pedestrian signals are installed.	\$\$
Refuge Island	A Raised Median, or Refuge Island, is a raised barrier in the center of the roadway that can restrict certain turning movements and provide a place for pedestrians to wait if they are unable to finish crossing the intersection. A Raised Median reduces the number of potential conflict points with designated zones for vehicles to turn, and a pedestrian refuge island reduces the exposure for pedestrians crossing the intersection. Pedestrian refuge areas constructed from paint and plastic may be implemented as part of a low-cost/quick build project.	\$\$
Rectangular Rapid Flashing Beacon	A rectangular rapid flashing beacon (RRFB) is a pedestrian-activated flashing light with additional signage to alert motorists of a pedestrian crossing. An RRFB increases the visibility of marked crosswalks and provides motorists a cue to slow down and yield to pedestrians.	\$\$
Pedestrian Hybrid Beacon	A pedestrian-hybrid beacon (PHB) is used at unsignalized intersections or mid-block crosswalks to notify oncoming motorists to stop with a series of red and yellow lights. Unlike a traffic signal, the PHB rests in dark until a pedestrian activates it via pushbutton or other form of detection.	\$\$\$
Add Sidewalk	Adding sidewalks provides a separated and continuous facility for people to walk along the roadway.	\$\$\$
Roadway Departure		

Centerline Hardening	Centerline hardening involves placing durable plastic bollards, flex posts, and/or rubber curbs along the centerline. When used at intersections, they can be effective at requiring motorists to make left-turn movements at a 90-degree angle, thereby slowing vehicle speeds and improving motorists' visibility of the crosswalks across which they travel when turning. When used along a roadway segment, they can be effective at generally slowing vehicle speeds and preventing undesirable left-turning and/or U-turns between intersections.	\$
Impact Attenuators	Impact attenuators bring an errant vehicle to a more-controlled stop or redirect the vehicle away from a rigid object. Impact attenuators are typically used to shield rigid roadside objects such as concrete barrier ends, steel guardrail ends and bridge pillars from oncoming automobiles. Attenuators tend to be installed where it is impractical for the objects to be removed.	\$\$
Raised Median	Curbed sections in the center of the roadway that are physically separated from vehicular traffic. Raised medians can also help control access to and from side streets and driveways, reducing conflict points.	\$\$
Median Guardrail	The installation of median guardrail is most suitable for use in traversable medians having no or little change in grade and cross slope. While these systems may not reduce the frequency of crashes due to roadway departure, they can help prevent a lane-departure crash from becoming a head-on collision.	\$\$
Guardrail	Guardrail redirects a vehicle away from embankment slopes or fixed objects and dissipates the energy of an errant vehicle. Guardrail is installed to reduce the severity of lane departure crashes. However, guardrail can reduce crash severity only for those conditions where striking the guardrail is less severe than going down an embankment or striking a fixed object.	\$\$
Median Barrier	Barrier in the center of the roadway that physically separates opposing vehicular traffic. Median barriers can also help control access to and from side streets and driveways, reducing the number of conflict points.	\$\$\$
Signal Timing		
Extend Pedestrian Crossing Time	Increases time for pedestrian walk phases, especially to accommodate vulnerable populations, such as children and the elderly.	\$
Extend Time Push Button	A push button that can be pressed to request extra time for using the crosswalk, beyond the standard crossing time. Ideal near senior-serving land uses.	\$
Extend Green Time For Bikes	Prolongs the green phase when bicyclists are present to provide additional time for bicyclists to clear the intersection. Can occur automatically in the signal phasing or when prompted with bicycle detection. Topography should be considered in clearance time.	\$

Leading Pedestrian Interval and Pedestrian Recall	At intersection locations that have a high volume of turning vehicles and have high pedestrian vs. vehicle crashes, a leading pedestrian interval gives pedestrians the opportunity to enter an intersection 3 – 7 seconds before vehicles are given a green indication. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn left or right. Pedestrian recall is a traffic signal timing function that causes a pedestrian walk phase to activate automatically every cycle.	\$
Extend Yellow and All Red Time	Extending yellow and all red time increases the time allotted for the yellow and red lights during a signal phase. Extending yellow and all red time allows drivers and bicyclists a few additional seconds of time at the end of a signal phase to cross through a signalized intersection before conflicting traffic movements are permitted to enter the intersection.	\$
Shorten Cycle Length	Traffic signal cycle lengths have a significant impact on the quality of the urban realm and consequently, the opportunities for bicyclists, pedestrians, and transit vehicles to operate effectively along a corridor. Long signal cycles, compounded over multiple intersections, can make crossing a street or walking even a short distance prohibitive and frustrating. Short cycle lengths of 60–90 seconds are ideal for urban areas.	\$
Advanced Dilemma Zone Detection	The Advanced Dilemma-Zone Detection system adjusts the start time of the yellow-signal phase (i.e. earlier or later) based on observed vehicle locations and speeds. The Advanced Dilemma-Zone Detection system minimizes the number of drivers that are faced with the dilemma of determining if they should stop at the intersection or drive through the intersection based on their speed and distance from the intersection.	\$\$
Protected Left Turns	A protected left turn can be implemented at signalized intersections (with existing left turns pockets) that currently have a permissive left-turn or no left-turn protection. Providing protected left-turn phases for signalized intersections removes the need for the drivers to navigate through gaps in oncoming/opposing through vehicles.	\$\$
Flashing Yellow Turn Phase	Flashing yellow turn arrow alerts drivers to proceed with caution and decide if there is a sufficient gap in oncoming traffic to safely make a turn. To be used only when a pedestrian walk phase is not called. Protected-only phases should be used when pedestrians are present.	\$\$
Separate Right-Turn Phasing	Provides a green arrow phase for right-turning vehicles. Avoids conflicts between right-turning traffic and bicyclists or pedestrians crossing the intersection on their right.	\$\$\$
Signal Interconnectivity and Coordination / Green Wave	The emphasis on improving signal coordination for this countermeasure is to provide an opportunity for slow-speed signal coordination. Coordinating signals to allow for bicyclist progression, also known as a 'green wave,' gives bicyclists and pedestrians more time to cross through the 'green wave' intersections. It also slows vehicle speeds, helping to reduce the likelihood of severe collisions.	\$\$

Speed Sensitive Rest in Red Signal	At certain hours (e.g. late night) a signal remains red for all approaches or certain approaches until a vehicle arrives at the intersection. If the vehicle is going faster than the desired speed, the signal will not turn green until after vehicle stops. If the vehicle is going the desired speed the signal will change to green before the vehicle arrives. This signal timing provides operational benefit to drivers traveling at the desired speed limit. Can be paired with variable speed warning signs.	\$\$
Pedestrian Scramble	A form of pedestrian "WALK" phase at a signalized intersection in which all vehicular traffic is required to stop, allowing pedestrians to cross through the intersection in any direction, including diagonally.	\$\$
Pedestrian Detection	An intersection treatment that relies on sensors to detect when a pedestrian is waiting at a crosswalk and automatically triggers the pedestrian "WALK" phase. Reduces crossings at inappropriate times while providing sufficient time for pedestrians to cross the roadway.	\$\$
Bike Detection	Technology used at signalized intersections, either through use of push-buttons, in-pavement loops, or by video or infrared cameras, to call a green light for bicyclists and reduce delay for bicycle travel. Discourages red light running by bicyclists and increases convenience of bicycling.	\$\$
Bicycle Signal/Exclusive Bike Phase	A traffic signal directing bicycle traffic across an intersection. Separates in time bicycle movements from conflicting motor vehicle, streetcar, light rail, or pedestrian movements. May be applicable for Class IV facilities when the bikeway is brought up to the intersection.	\$\$\$
Signs/Striping		
Wayfinding	A network of signs that highlight nearby pedestrian and bicycle facilities. Can help to reduce crossings at locations with poor sight distance or limited crossing enhancements.	\$
Delineators, Reflectors, and/or Object Markers	Delineators, reflectors and/or object markers are intended to warn drivers of an approaching curve or fixed object that cannot easily be removed. They are generally less costly than Chevron Signs as they don't require posts to place along the roadside.	\$
Striping Through Intersection	Adding clear pavement markings can guide motorists through complex intersections. Intersections where the lane designations are not clearly visible to approaching motorists and/or intersections noted as being complex and experiencing crashes that could be attributed to a driver's unsuccessful attempt to navigate the intersection can benefit from this treatment.	\$
Painted Centerline and Raised Pavement Markers at Curves on Residential Streets	A raised pavement marker is a small device attached to the road and used as a positioning guide for drivers.	\$
Rumble Strips	Rumble strips create noise and vibration inside the vehicle that alert a driver as they cross the centerline or edge line. Treatment can help with lane keeping instances where a driver is distracted or drowsy. Rumble strips also alert drivers to the lane limits when conditions such as rain, fog, snow, or dust reduce driver visibility.	\$

Transverse Rumble Strips	Transverse rumble strips are raised or grooved patterns installed perpendicular to the direction of travel in the roadway travel lane. Typically installed on rural roadways that have low volume and with infrequent traffic control devices. Transverse rumble strips provide an audible and tactile warning downstream of a decision point.	\$
Speed Legends on Pavement at Neighborhood Entries	Speed legends are numerals painted on the roadway indicating the current speed limit in miles per hour. They are usually placed near speed limit signposts.	\$
Upgrade Intersection Pavement Markings	Upgrading intersection pavement marking can include "Stop Ahead" markings and the addition of centerlines and stop bars. Upgrading intersection pavement markings can increase the visibility of intersections for drivers approaching and at the intersection.	\$
Upgrade Striping	Restripe lanes with reflective striping to improve striping visibility and clarify lane assignment, especially where the number of lanes changes.	\$
Yield To Pedestrians Sign	"Yield Here to Pedestrians" signs alert drivers about the presence of pedestrians. These signs are required with advance yield lines. Other sign types can be placed on the centerline in the roadway.	\$
Curve Advance Warning Sign	A curve advance warning sign notifies drivers of an approaching curve and may include an advisory speed limit as drivers navigate around the curve. This warning sign is ideally combined with other infrastructure that alerts drivers of the curve, such as chevron signs, delineators, and flashing beacons. A curve advance warning sign provides drivers additional time to slow down for the curve.	\$
Chevron Signs on Horizontal Curves	Post-mounted chevrons are intended to warn drivers of an approaching curve and provide tracking information and guidance to the drivers.	\$
Upgrade to Larger Warning Signs	Upgrading to larger warning signs replaces existing signs with physically larger signs with larger warning information. Upgrading to larger warning signs increases the visibility of the information provided, particularly for older drivers.	\$
Upgrade Signs with Fluorescent Sheeting	Upgrading signs with fluorescent sheeting replaces existing signs with new signs that can clearly display warnings by reflecting headlamp light back to vehicles. Upgrading signs with fluorescent sheeting improves visibility of signs to drivers at night.	\$
Speed Feedback Sign	A speed feedback sign notifies drivers of their current speed, usually followed by a reminder of the posted speed limit. A speed feedback sign provides a cue for drivers to check their speed and slow down, if necessary.	\$
Retroreflective Tape on Signals	Retroreflective borders enhance the visibility of traffic signals for aging and color-vision-impaired drivers, enabling them to understand which signal indication is illuminated. Retroreflective borders may also alert drivers to signalized intersections during periods of power outages when the signals would otherwise be dark and non-reflective signal heads and backplates would not be visible.	\$
LED-Enhanced Sign	An LED-Enhanced Sign has LED lights embedded in the sign to outline the sign itself or the words and symbols on the sign. The LEDs may be set to flash or operate in a steady mode. An LED-enhanced sign improves the visibility of signs at locations with visibility limitations or with a documented history of drivers failing to see or obey the sign (e.g. at STOP signs).	\$

Flashing Beacon as Advance Warning	A flashing beacon as an Advanced Warning is a blinking light with signage to notify motorists of an upcoming intersection or crosswalk. A flashing beacon provides motorists more time to be aware of and slow down for an intersection or yield to pedestrians crossing a crosswalk.	\$\$
Traffic Calming		
Speed Limit Reduction	As an industry, there is a consistent movement away from setting speed limits solely based on 85th percentile vehicle speeds. Roadway characteristics, adjacent land use context, as well as the risk higher speeds create for all road users are now considered. Where separate space is not available for vulnerable road users and/or severe conflicts (e.g., crossing or turning conflicts) are present between motorvehicles speeds of 25 mph are preferable to reduce the risk of severe collisions. Where separated space is provided for vulnerable road users and severe conflicts between vehicles are managed, speed limits above 25 mph can be considered.	\$
Speed Hump or Speed Table	These traffic calming devices use vertical deflection to raise the entire wheelbase of a vehicle and encourage motorists to travel at slower speeds.	\$
Lane Narrowing	Lane narrowing reduces the width of the marked vehicle lanes to encourage motorists to travel at slower speeds. Lane narrowing can also help reallocate existing roadway space to other road users.	\$
Landscape Buffer	Separating drivers from bicyclists and pedestrians using landscaping provides more space between the modes and can produce a traffic calming effect by encouraging drivers to drive at slower speeds, lowering the risk of crashing.	\$\$
Road Diet	A Road Diet reduces roadway space dedicated to vehicle travel lanes to create room for bicycle facilities, wider sidewalks, or center turn lanes. A Road Diet reduces vehicle speeds and creates designated space for all road users.	\$\$
Curb Extensions	A curb extension is a traffic calming measure that widens the sidewalk for a short distance to enhance the pedestrian crossing. This reduces the crossing distance and allows pedestrians and drivers to see each other when parked vehicles would otherwise block visibility. Paint and plastic curb extensions are a low-cost/quick-build option.	\$\$
Raised Intersection	Elevates the intersection to bring vehicles to the sidewalk level. Serves as a traffic calming measure by extending the sidewalk context across the road.	\$\$\$
Traffic Signals		
Upgrade Signal Head	Upgrading Signal Heads replaces existing 8-inch signal heads with 12-inch signal heads to comply with the California MUTCD's 2014 guidelines. Upgrading signal heads provides better visibility of intersection signals and by aiding drivers' advanced perception of upcoming intersections.	\$
Supplemental Signal Heads	Additional signal heads allow drivers to anticipate signal changes farther away from intersections. Supplemental traffic signals may be placed on the near side of an intersection, far-left, far-right, or very high.	\$\$
Red Light Camera	A red light camera enforces traffic signal compliance by capturing the image of a vehicle that has entered an intersection in spite of the traffic signal indicating red. The automatic photographic evidence is used by authorities to enforce traffic laws and issue traffic violation tickets.	\$\$
Transit		

Co-Locate Bus Stops and Pedestrian Crossings	Place bus stops and pedestrian crossings in close proximity to allow transit riders to cross the street at well designed crossing locations.	\$
Far-Side Bus Stop	Far-side bus stops are located immediately after an intersection, allowing the bus to pass through the intersection before stopping for passenger loading and unloading. Far-side stops encourage pedestrians to cross behind the bus for greater visibility and can improve transit service reliability.	\$
Floating Transit Island or Bus Boarding Island	Transit boarding island that is designed to allow bicycles to pass between the sidewalk and island thereby avoiding a bus-bike conflict when the bus stops at the boarding island. Can be used in combination with a bike lane, buffered bike lane, or separated bike lane. The treatment can also reduce vehicle speeds as the island itself visually narrows the roadway and can have a traffic calming effect.	\$\$
Turn Restrictions		
Prohibit Right-Turn-on-Red	Prohibiting right-turn-on-red movements should be considered at skewed intersections, or where exclusive pedestrian "WALK" phases. Leading Pedestrian Intervals (LPIs), sight distance issues, or high pedestrian volumes are present. Can help prevent crashes between vehicles turning right on red from one street and through vehicles on the cross street, and crashes involving pedestrians.	\$
Prohibit Left Turn	Prohibitions of left turns at locations where a turning vehicle may conflict with pedestrians in the crosswalk or where opposing traffic volume is high. Reduces pedestrian interaction with vehicles when crossing.	\$
Prohibit Turns During Pedestrian Phase	Restricts left or right turns during the pedestrian crossing phase at locations where a turning vehicle may conflict with pedestrians in the crosswalk. This restriction may be displayed with a blank-out sign.	\$
Time-Based Turn Restriction	Restricts left-turns or right-turns during certain time periods when there may be increased potential for conflict (e.g., peak periods, school hours).	\$
Other		
Access Management/Close Driveway	Vehicles entering and exiting driveways may conflict with pedestrians and with vehicles on the main road, especially at driveways within 250 feet of intersections. Driveway consolidation reduces conflict points along a segment and/or near intersections.	\$\$
Back-In Angled Parking	Back-In Angled Parking requires motorists to back into an angled on-street parking spot and to drive forward when exiting a parking spot. Back-in angled parking increases the visibility of passing vehicles and bicycles while exiting a spot, particularly if large adjacent vehicles obstruct sight, and allows trunk unloading to happen on the curb instead of in the street.	\$
Curbside Management	Curbside management helps prioritize different uses that would otherwise be in conflict with one another such as location of bus stops, bicycle infrastructure, freight deliveries, passenger pick-ups/drop-offs, green stormwater infrastructure, public spaces, and parking management.	\$
Daylighting	Prohibits the stopping, standing, or parking of a vehicle within 20 feet of the vehicle approach side of any unmarked or marked crosswalk or 15 feet of any crosswalk with a curb extension anywhere in California creating a better line of sight between people driving and people in crosswalks.	\$

Draft

ROAD DIETS

Road diets reduce the number of travel lanes. This is typically done by converting a four lane road into a three lane road with a two-way-left-turn lane and bike lanes. The space created by removing lanes can also be used for painted medians or parking.

Design principles

- Use on roadways with current and expected future ADT approximately 20,000 or less.

Benefits

- Help to reduce speeds.
- Reduce conflicts at crossings.
- Can increase the separation of pedestrians from traffic.

Challenges

- Can be expensive

LIGHTING

Sufficient lighting on bicycle and pedestrian facilities prevents collisions that occur due to decreased visibility. Pedestrian walkways should have lighting that allows people to identify faces from a distance of about 30 feet. Lighting should be consistent to reduce deep shadows and avoid excessive glare. It is necessary to maintain conventional light fixtures regularly, keeping lamp bowls clean and promptly replacing bulbs that have burnt out. Newer light emitting diode (LED) fixtures, which have much longer bulb life, have greatly decreased maintenance requirements.

WAYFINDING

Wayfinding refers to the network of informational signage posted to guide pedestrians or bicyclists to their destination. Good wayfinding signage presents destination, direction, and distance information in a manner that is easy to read and interpret. Bicycle specific wayfinding must be tailored so that bicyclists can see the information from a comfortable distance. Signs posted at trail junctions and intersections of trails with arterials are particularly helpful. Guidance on sign design and installation is available in Chapter 9B of the California MUTCD and the National Association of City Transportation Officials (NACTO) design guidelines. Wayfinding signage can also be enhanced with average walk times and bike times to destinations and local branding.



Source: Fehr and Peers

Non-Infrastructure Best Practices

In addition to physical changes to the transportation system, other programs can also benefit pedestrians and bicyclists.

EDUCATION

Bicycle and Pedestrian Education for Children

Safe Routes to School (SRTS) programs are effective ways to make walking and bicycling to school safer and more accessible for children, including those with disabilities, and to increase the number of children who choose to walk and bicycle. Creation of a SRTS Program typically includes identifying local stakeholders, identification of issues and solutions, and creation of a plan including encouragement, enforcement, education, and engineering strategies. These strategies should be accompanied by a timeline with prioritization and a funding approach. For more information, visit <http://guide.saferoutesinfo.org/steps/index.cfm>.

Educating school-aged children on safe bicycling is important to establish active habits and travel behaviors early in life. There are a number of different programs and approaches, both formal and informal, which are effective in educating kids about safe bicycling. Kidical Mass is one event, which closes sections of roadway to vehicles, usually a route near the local elementary school, to allow families to ride their bikes without traffic. This empowers kids and families to get on their bikes and familiarizes them with the bike route to school. For more information on Kidical Mass, visit <http://kidicalmassdc.blogspot.com/p/abcs-of-family-biking.html>.

Bicycle Education for Adults

The League of American Bicyclists has a number of resources to teach safe bicycling including informational packets, curricula, and courses with trained instructors. The Smart Cycling Quick Guide (<http://bikeleague.org/quickguide>) is an easy-to-read booklet that outlines the basics of a bike, rules of the road, and the knowledge everyone needs to know to ride a bike on a range of facility types safely and confidently.

For a short summary, the League of American Bicyclists has a page of Smart Cycling Tips (<http://bikeleague.org/content/smart-cycling-tips-0>) for biking safely including maintenance and trail etiquette.

Bicycle Ambassadors

Bicycle ambassadors are either volunteers from the community or employees of local advocacy groups that take a leading role in educating, encouraging, and activating the community to be a safer and more comfortable place for bicyclists. Ambassadors have undergone a safety education course and are also supplied with maintenance and educational resources to distribute to the community both formally and informally. This educational model empowers community members through a bottom-up approach to improving bicycle safety and mode share. Some examples of bicycle ambassador programs include:

- Fort Collins: <http://bicycleambassadorprogram.org/>
- Missoula: <http://www.ci.missoula.mt.us/DocumentCenter/Home/View/4604>
- Washington, DC: <http://www.waba.org/programs/d-c-bike-ambassador/>

ENCOURAGEMENT

Encouragement can occur through local groups and regular events and campaigns. Local schools can encourage biking and walking through bike rodeos, fun runs, walkathons, and bike/walk/roll to school events. Programs such as “walking school buses,” a program where kids and families walk to school in groups, are other good opportunities for neighborhood schools to encourage walking. Local running, walking, hiking, and biking events also encourage active engagement for adults. Bike to work events are also useful to encourage adult bicycling.

Typical campaigns are often focused on videos and downloadable materials or public advertisements on buses or public billboards. These campaign messages can be reformatted to reach wider audiences through social media communication tactics. Key messages can be finessed to reach target areas and groups.



ENFORCEMENT

Proper enforcement is important to ensuring the safety of the street network for bicyclists and pedestrians. This is done through proper training of law enforcement, increasing the safety of bicyclists and pedestrians, theft prevention, and the proper pairing of education and enforcement.

Local law enforcement can partner with schools to step up enforcement of good motor vehicle behaviors around pedestrians and bicyclists at the beginning of the school year. Continuing this effort periodically throughout the school year and expanding it to other places frequented by pedestrians and bicyclists can further help active transportation.

Training

It is important for the police department to include collision reporting and bicycle and pedestrian rules of the road into their training. There are a number of resources from other communities and national sources that can be used, such as this National Highway Traffic Safety Administration video:

http://www.nhtsa.gov/multimedia/bicycles/bicycle_safety_LE.wmv.

Bicycle Patrol Units

Bicycle fleet officers improve the relationship between officers and bicyclists and improve the effectiveness of enforcement for all modes as it affects bicyclists' safety.

Police Participation in Education

Safety, as discussed in the Education section, can also be applied as a responsibility of the police department. Officers practice this by distributing literature on safe pedestrian habits as part of enforcement efforts and meetings and events with students and the public. This can include education on proper helmet use, light giveaways, and targeting infractions.

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Bicycle Diversion Programs

Bicycle diversion programs provide bicyclists who are cited for certain infractions the option to attend a bicycle safety class rather than paying a ticket. This educational component is associated with a greater degree of lasting behavior change.

Bike Theft

The fear and reality of bike theft can be a barrier to bicycling for all users. Recommendations for reducing bike theft include improving locking practices through education, providing adequate bicycle parking facilities, providing bicycle registration, providing recovery resources and programs, and offender detection such as bait bikes.



Source: MTBR, [reviews.mtbr.com/how-to-get-your-stolen-bike-back](https://www.mtbr.com/how-to-get-your-stolen-bike-back)

Speed Management

Raising awareness of speeding is important at a neighborhood level and can be achieved through local events and education. Residents are less likely to speed if they know their neighbors.

Speed monitoring programs train residents in using radar detectors which then distribute warnings to speeding vehicles. This type of program helps residents understand that this is a local and personal issue and the importance of driving the speed limit. Pairing education with enforcement by distributing warnings and educational materials before giving tickets provides drivers with a deeper understanding of the law and its value.

Speed feedback signs and radar trailers that display real-time signs and flash when drivers exceed the limit. Radar trailers are appropriate on a temporary basis only. These treatments are useful on corridors with prevalent cases of speeding that lack room for physical measures or in conjunction with recent construction of physical measures.

However, speed monitoring and feedback signs may have only temporary effectiveness as drivers grow accustomed to their presence.



Electric Mobility Devices

Electric bicycles (e-bikes) and other electric mobility devices such as electric scooters are a rapidly growing new transportation alternative in cities and other areas in California. These devices provide a potential option to cover longer travel distances and steeper grades. Bike share companies that include electric bikes and electric scooter rentals are common in many cities. By improving personal mobility without requiring use of a car, these devices may also be an appealing option to aging but active populations.

E-BIKES

California designates three classes of e-bikes (CVC Section 312.5):

- **Class 1** – low-speed pedal-assisted electric bicycle: Bicycle equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the e-bike reaches 20 mph.
- **Class 2** – low-speed throttle-assisted electric bicycle: Bicycle equipped with a throttle-actuated motor that ceases to provide assistance when the e-bike reaches 20 mph.
- **Class 3** – speed pedal-assisted electric bicycle: Bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the e-bike reaches 28 mph.

Class 1 and 2 e-bikes are generally treated similarly to regular bicycles:

- There is no minimum age to ride.
- Helmets are required for ages 17 and under.
- Allowed on all classes of bikeways, unless prohibited by the local jurisdiction (CVC Section 21207.5).

Class 3 e-bikes have more limitations on their use:

- Riders must be 16 years of age or older.
- A helmet is required for all riders.
- They are allowed on Class II bike lanes or Class III bike routes, but not allowed on Class I shared-use paths or Class IV protected bikeways (CVC Section 21207.5).

ELECTRIC SCOOTERS

California Vehicle Code defines an electric scooter as a “motorized scooter”: any two-wheeled device that has handlebars, has a floorboard that is designed to be stood upon when riding, and is powered by an electric motor. This device may also have a driver seat that does not interfere with the ability of the rider to stand and ride and may also be designed to be powered by human propulsion (California Vehicle Code Section 407.5).

Limitations on their use include:

- Riders must use Class II bike lanes when they are present (CVC Section 21229).
- Motorized scooters are not allowed on roads with a speed limit in excess of 25 miles per hour, unless in a Class II bike lane or Class IV separated bikeway (CVC section 21235). This prohibition includes street designated as Class III bicycle routes. A local authority may, by ordinance or resolution, authorize the operation of a motorized scooter outside of a Class II or Class IV bikeway on a highway with a speed limit of up to 35 miles per hour.
- Motorized scooters are allowed on all other classes of bikeways unless prohibited by the local jurisdiction (CVC Section 21230).
- Riders are prohibited from using sidewalks, except when entering or leaving adjacent property.
- A helmet is required for all riders under 18 years of age.
- A valid driver's license or instruction permit is required.
- Speeds are limited to 15 miles per hour,
- Leaving a scooter on its side on a sidewalk, or otherwise parking one so that there was not an adequate path for pedestrians, is prohibited.

ELECTRICALLY MOTORIZED BOARDS

According to California Vehicle Code, the term “electrically motorized board” is any wheeled device that has a floorboard designed to be stood upon when riding with a maximum speed of 20 miles per hour. The device may be designed to also be powered by human propulsion (CVC Section 313.5).

Use is restricted to roads with speed limits of 35 miles per hour or less, unless operated in a Class II or Class IV bikeway. On other bikeways, speed is limited to 15 miles per hour (CVC Section 21294).

- Riders must be 16 years of age or older.
- A helmet is required for all riders.

ELECTRIC PERSONAL ASSISTIVE MOBILITY DEVICES

According to California Vehicle Code, the term “electric personal assistive mobility device” (EPAMD) means a self-balancing, non-tandem two-wheeled device that can turn in place, with a maximum speed of 12.5 miles per hour (CVC Section 313). The most common example is the Segway. “Pedestrian” includes use of EPAMDs (CVC Section 467). EPAMDs can operate on bikeways and sidewalks unless prohibited by the local jurisdiction, but must yield to pedestrians (CVC Sections 21281.5 and 21282).

ACCESS

Laws for each electric device are different. E-bikes generally have more options for locations to ride, as summarized in **Table D-1**.

Bike and Scooter Share

In addition to private ownership, bikes, e-bikes, and scooters are available through short-term point-to-point rental or “shared” systems. Bike share systems at first were primarily based on docks, or unmanned physical locations where a bike could be rented or returned, with docks located at destinations across an area.

More recently “dockless” systems, where bikes or scooters, equipped with appropriate wireless technology, could be rented at any location or left at any location, have become more widespread. The systems can often be deployed and operated at lower cost than docked systems. However, concerns have arisen in some locations about dockless bikes or scooters being parked in inappropriate locations, in particular when they have blocked pedestrian flows. Some cities have responded to this by developing “corrals,” marked pavement locations where bikes or scooters can be left standing out of the way of pedestrians and other traffic.

	Class I Shared-Use Path	Class II Bike Lane	Class III Bike Route	Class IV Separated Bikeway	Additional Comments
Class 1 E-bike	Allowed	Allowed	Allowed	Allowed	
Class 2 E-Bike	Allowed	Allowed	Allowed	Allowed	
Class 3 E-Bike	Prohibited	Allowed	Allowed	Prohibited	
Electric Scooter	Allowed	Allowed	Allowed (if speed limit ≤ 35 mph)	Allowed	Prohibited from roads with speed limit > 35 mph
Electrically Motorized Board	Allowed	Allowed	Allowed	Allowed	
Electric Personal Assistive Mobility Device	Allowed	Allowed	Allowed	Allowed	

D-1: E-Bike Access Regulations

Note: Local jurisdictions may enact further restrictions.
Source: California Vehicle Code 2018, Fehr & Peers, 2025

CONSIDERATIONS WHEN DETERMINING ACCESS

POLICY

When determining access for electric bicycles and other electric devices, the following issues should be considered:

- Electric mobility devices provide increased mobility for users who are less able to use regular bicycles due to age or disability.
- Terrain with frequent elevation changes may discourage some people from walking or bicycling as transportation. Electric mobility devices may encourage more people to reduce use of motor vehicles.
- Higher-speed electric mobility devices may generally be faster than most bicycles and pedestrians.
- Some non-electric bike users and pedestrians may consider e-bikes and other powered to detract from their experience on bikeways and trails.
- Consideration should be given to regulating parking and storage of devices so that they do not impede pedestrian or other traffic, in particular through the use of corrals.
- The data that bike and scooter share companies collect can be valuable to a jurisdiction seeking to understand the movement of people and planning for them.

Policy Options

Use of these devices is expected to continue to expand, and sharing services are expected to spread.

Electric scooters have spread rapidly into different cities, but some concerns have attended their spread. A large concern with scooters has been their mixing with much slower pedestrian traffic. Some cities have responded by prohibiting sidewalk use, but on streets with fast vehicles and heavy traffic without bike lanes, they may be forced to mix with vehicular traffic, which may be less comfortable or safe and reduce overall use. Speed limits for scooters are another option, but enforcement may be challenging.

Jurisdictions have several policy options for e-bikes and other electric mobility devices. Different policies may be enacted for each device. Access options include the following:

- Continue with existing access as allowed by state law.
 - This option provides the most mobility and accessibility for those who use these transportation options.
- Prohibit access to sidewalks and Class I shared-use paths, where pedestrians are also present, but continue access to other bikeways. This option separates the slowest and some of the fastest users of the path, but will not eliminate all fast riders, as regular bicycles may travel as fast as or faster than e-devices.
 - This option would result in more e-devices mixing with motor vehicle traffic.
 - In some locations, there may be no access for electric scooters, which are prohibited from roads with speed limits greater than 35 mph unless a bike lane or separated bikeway is available.
- For Class 3 e-bikes, prohibit access to all bikeways except Class III bike routes.
 - This option provides the greatest restriction and separation.
 - This option would force e-devices to mix with vehicular traffic, which may be less comfortable or safe and reduce overall use of e-devices, and under some conditions may be prohibited by state law.

When developing these policies, consideration should also be given to other issues:

- Develop policies concerning parking and storage of these devices, especially sharing systems, to minimize impacts on flows of pedestrians and other vehicles. These policies may require use of corrals, prohibit blocking of entrances, or other aspects.
- Develop data sharing agreements in conjunction with permitting new shared services.

Appendix E: Project Priorities and Cost Estimates

This appendix provides lists of prioritized projects for Yuba City, including lengths, costs, and if the project is in a disadvantaged community, and explains how projects were prioritized and costs were estimated.

PRIORITIZATION

As discussed in the Implementation chapter, the projects identified to develop the network were prioritized based on several criteria, weighted based on relative importance:

- Proximity to key destinations, including schools, parks, medical facilities, and activity centers
- Collision locations
- Disadvantaged community indicators
- Population density
- Judgment of City staff
- Public comment

Prioritized projects are shown in Figures E-1 and E-2 on the following pages.

Figure E-1 Priority Pedestrian Projects

Description

Location of priority
sidewalks and
crossings in Yuba City

Source: Yuba City, 2025;
Fehr & Peers 2025

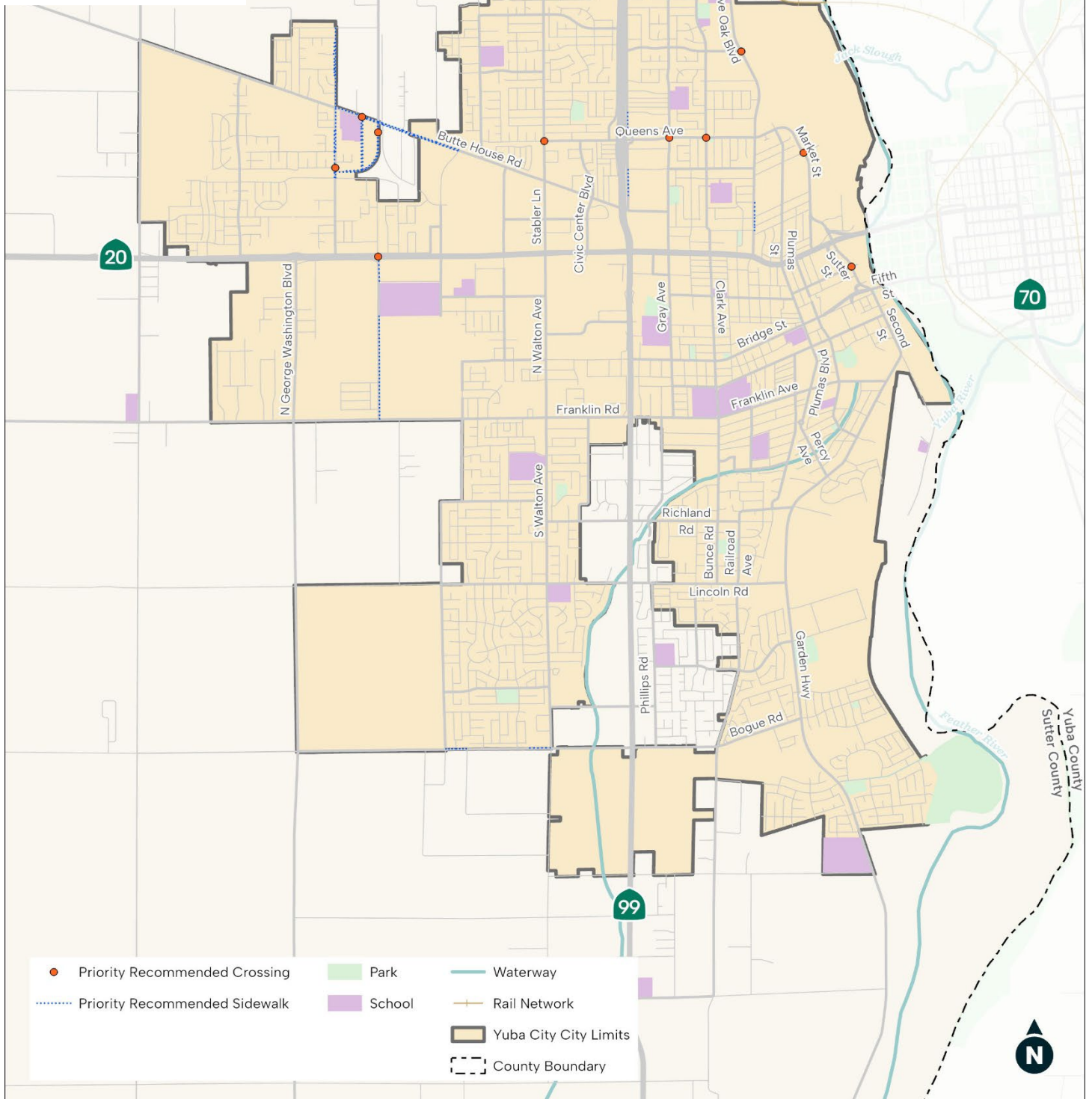
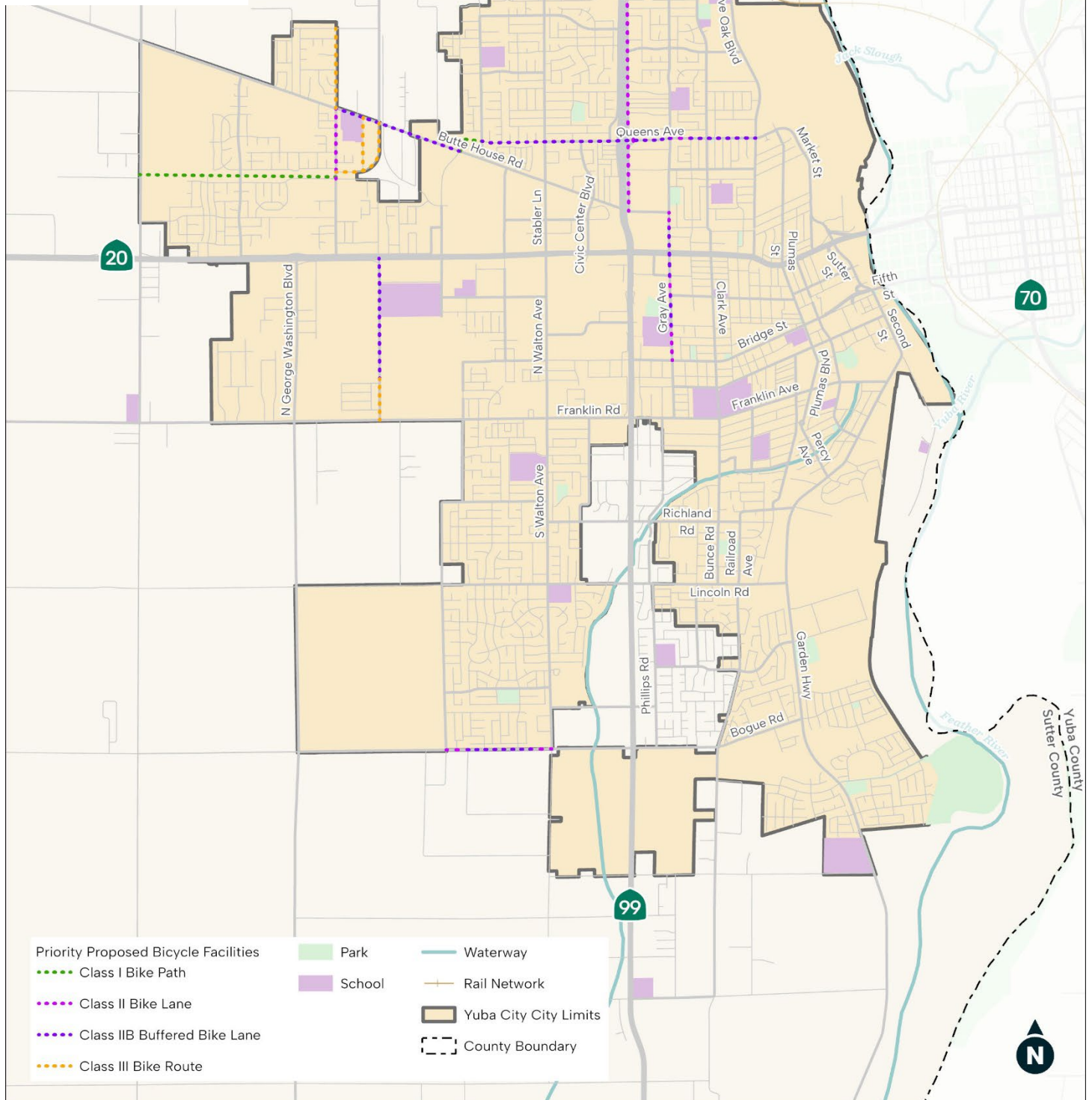


Figure E-2 Priority Bicycle Projects

Description

Location of priority
bicycle projects in
Yuba City

Source: Yuba City, 2025;
Fehr & Peers 2025



Cost Estimation

Cost estimates are based on unit costs developed from recent local projects. These unit costs are identified in Table E-1 below. In a few cases, more detailed cost estimates were available and used. All project cost estimates are high-level, and more detailed study of individual project will be required to refine them. Engineering, land acquisition, road widening, and utility relocation costs are not included unless otherwise noted. Specific costs will vary based on local conditions.

Pedestrian crossing improvements are based on the typical costs shown in Table E-2. These criteria are for cost estimating purposes, the actual design of the crossing treatment will require additional study and must meet California MUTCD standards.

Costs for planned projects in each jurisdiction are provided in Tables E-3 to E-5.

Table E-1: Bicycle and Pedestrian Improvement Unit Costs

Facility	Cost	Unit	Assumptions
Sidewalks	\$396,000	Per Side Per Mile	Assumes 5' sidewalk
Class I Shared-Use Path	\$792,100	Per Mile	Assumes 10' paved path
Class II Bike Lane	\$36,960	Per Centerline Mile	Assumes project does not include widening
Class II Buffered Bike Lane	\$42,240	Per Centerline Mile	
Class III Bicycle Route	\$10,560	Per Centerline Mile	
Class IV Separated Bikeway	\$396,000	Per Centerline Mile	

Source: Fehr & Peers, 2025

Table E-2: Intersection Treatment Unit Costs

Facility	Cost	Unit	Assumptions
High Visibility Crosswalk	\$7,000	Per Crossing	
Bulb-out/Curb Extension	\$6,000	Per corner	Assumes 200 square feet coverage and curb ramp installation.
Rectangular Rapid Flashing Beacon (RRFB)	\$100,000	Per Crossing	
Pedestrian Hybrid Beacon (PHB) or Pedestrian Signal	\$350,000	Per Crossing	

Source: Fehr & Peers, 2025

Table E-3: Yuba City Sidewalk Projects

Location / Extent	Length (miles)	Priority	Cost
Total length*	141.98	--	\$52,224,337.03

*Individual sidewalk segments in development. Recommended network totals provided.
Fehr & Peers, 2025

Table E-4: Yuba City Intersection Projects

Location / Extent	Recommendation	Priority	Cost
2nd St and B St	Curb extensions on northwest, northeast, and southeast corners, high visibility crosswalk	High	\$46,000.00
Belvin Rd and Butte Vista Elementary	High visibility crosswalk	Low	\$7,000.00
Bridge St and Lloyd Park between Fippins Ave and Hughes Ave		High	\$357,000.00
Brown Ave and Franklin Ave	High visibility crosswalk, curb extension, Pedestrian Hybrid Beacon	High	\$7,000.00
Civic Center Blvd and Poole Blvd/Veterans Memorial Cir		Medium	\$52,000.00
Clark Ave and Ainsley Ave (north)	High visibility crosswalk on north and west legs, curb extension on northeast, northwest, and southwest corner	High	\$32,000.00
Clark Ave and Ainsley Ave (south)	High visibility crosswalk on east leg, curb extension on northeast and southeast corners	High	\$19,000.00
Clark Ave and B St	Curb extension on all four corners	High	\$24,000.00
Clark Ave and Franklin Ave	High visibility crosswalks, curb extensions on all corners	High	\$52,000.00
Clark Ave and Greenhaven Dr	High visibility crosswalk on west and south leg, curb extensions on all corners, rapid rectangular flashing beacon	High	\$138,000.00
Clark Ave and Morton/Marcia Ave	Pedestrian refuge island	High	\$100,000.00
Clark Ave and Northgate Dr	High visibility crosswalks, curb extensions on all corners	High	\$52,000.00
Clark Ave and Northridge Dr	High visibility crosswalk on west, north, and south leg, curb extensions on all corners, rapid rectangular flashing beacon	Medium	\$145,000.00
Clark Ave and Queens Ave	High visibility crosswalks, curb extensions on all corners	High	\$52,000.00
Clark Ave and Rosemary Ln	High visibility crosswalks on west and south legs, rapid rectangular flashing beacon	High	\$114,000.00
Clark Ave and Spiva Ave	High visibility crosswalks on north and south leg, pedestrian hybrid beacon	High	\$364,000.00
Clark Ave and Washington Ave	High visibility crosswalks, curb extensions on all corners	High	\$52,000.00
Cooper Ave between Reeves Ave and Spiva Ave	High visibility crosswalks on north and south leg, pedestrian hybrid beacon	High	\$364,000.00
El Margarita Rd and Spirit Dr	High visibility crosswalks on north and south leg, pedestrian hybrid beacon	Medium	\$364,000.00
El Margarita Rd and SR 20	Pedestrian hybrid beacon, high visibility crosswalk on west leg, pedestrian refuge island	Medium	\$357,000.00
Garden Hwy and Eureka Dr	High visibility crosswalks, curb extensions on all corners	Medium	\$52,000.00
Garden Hwy and Franklin Ave	Curb extensions on northwest and northeast corner	Medium	\$12,000.00
Garden Hwy and Shanghai Bend Rd	High visibility crosswalks on all legs, curb extensions on southeast and northwest corner	Medium	\$40,000.00

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Location / Extent	Recommendation	Priority	Cost
Gray Ave and B St	High visibility crosswalks on all legs	High	\$28,000.00
Gray Ave and Bridge St	High visibility crosswalks on all legs	High	\$28,000.00
Gray Ave and Butte House Rd	High visibility crosswalks on west and south legs	High	\$14,000.00
Gray Ave and Casita Dr	High visibility crosswalks on all legs	High	\$28,000.00
Gray Ave and Forbes Ave	Advance stop lines on Forbes Ave.	High	\$7,000.00
Gray Ave and Franklin Ave	High visibility crosswalk on west and north legs	High	\$14,000.00
Gray Ave and Kimball Ave	High visibility crosswalk on east leg	High	\$7,000.00
Gray Ave and Kingwood Park between Charlotte Ave and Butte House Rd	High visibility crosswalk, pedestrian hybrid beacon	High	\$357,000.00
Gray Ave and Melton Dr	High visibility crosswalks on east and west legs	High	\$14,000.00
Gray Ave and Queens Ave	High visibility crosswalk on all legs, curb extension on all corners	High	\$52,000.00
Gray Ave and Spiva Ave	Pedestrian hybrid beacon	High	\$350,000.00
Gray Ave and SR 20	High visibility crosswalk on all four legs	High	\$28,000.00
Gray Ave and UPRR Track south of Forbes Ave	High visibility crosswalk, pedestrian hybrid beacon	High	\$357,000.00
Harter Pkwy and Lassen Blvd	Pedestrian hybrid beacon	High	\$350,000.00
Harter Pkwy and SR 20	High visibility crosswalk on all four legs	High	\$28,000.00
Harter Pkwy north of Jefferson Ave	High visibility crosswalk across Harter Parkway, pedestrian hybrid beacon	Medium	\$357,000.00
Hooper Rd and Kennedy Dr	Pedestrian hybrid beacon, high visibility crosswalk on south leg	Medium	\$357,000.00
Jones Rd and Lincoln Rd	Curb extensions and high visibility crosswalks on all four corners	Medium	\$52,000.00
Live Oak Blvd and Northgate Dr	High visibility crosswalk on west and south leg, curb extensions on all corners, pedestrian hybrid beacon	High	\$388,000.00
Live Oak Blvd and Queens Ave	Curb extensions and high visibility crosswalks on all four corners	High	\$52,000.00
Live Oaks Blvd and Twin Rivers Charter School	High visibility crosswalk across Live Oak Boulevard, pedestrian hybrid beacon	Medium	\$357,000.00
Market St and Bird St	Curb extensions on northwest and southwest corners, high visibility crosswalks across Market Street, pedestrian hybrid beacon	Medium	\$369,000.00
Market St and Lynn Way	Curb extensions and high visibility crosswalks on all four corners	High	\$52,000.00
Park Ave and Morton St	Curb extensions and high visibility crosswalks on all four corners	High	\$52,000.00
Phillips Rd and Teesdale Rd	Pedestrian hybrid beacon	N/A	\$350,000.00

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Location / Extent	Recommendation	Priority	Cost
Plumas Blvd and Percy Ave	Rapid rectangular flashing beacon on south leg	High	\$100,000.00
Plumas St and Bridge St	Curb extensions and high visibility crosswalks on all four corners	High	\$52,000.00
Queens Ave and Harter Pkwy Connector	High visibility crosswalks and curb extensions on all legs	Medium	\$52,000.00
S Walton Ave and Camino de Flores	High visibility crosswalks and curb extensions on all legs	Medium	\$52,000.00
S Walton Ave and Franklin Rd	High visibility crosswalks and curb extensions on all legs	Medium	\$52,000.00
S Walton Ave and Joseph St	High visibility crosswalks and curb extensions on all legs, pedestrian hybrid beacon	Medium	\$402,000.00
S Walton Ave and Lincoln Rd	High visibility crosswalks and curb extensions on all legs	Medium	\$52,000.00
SR 99 and Bridge St	Curb extensions on all four corners	High	\$24,000.00
SR 99 and Franklin Rd	Curb extensions on all four corners	Medium	\$24,000.00
Stabler Ln and Butte House Rd	High visibility crosswalks on all legs	Medium	\$28,000.00
Stabler Ln and Queens Ave	High visibility crosswalks and curb extensions on all legs	Medium	\$52,000.00
Stabler Ln and SR 20	Curb extensions on all four corners	Medium	\$24,000.00
Stafford Way and Ainsley Ave	High visibility crosswalks on all legs	High	\$28,000.00
Stafford Way and King Ave	High visibility crosswalks on all legs	High	\$28,000.00
Steven Way and Butte House Rd	High visibility crosswalk across Butte House Road, pedestrian hybrid beacon	Medium	\$357,000.00
Sutter St and Colusa Ave	Curb extension on all four corners, high visibility crosswalks on all legs, rapid rectangular flashing beacons	High	\$152,000.00
Sutter St and Teegarden Ave	High visibility crosswalks on all legs, curb extensions on southeast, southwest, and northwest corners, pedestrian hybrid beacon	High	\$396,000.00
Tharp Rd and Lassen Blvd	High visibility crosswalks on south and north leg	Medium	\$14,000.00
Tharp Rd south of Poole Blvd	High visibility crosswalk across Tharp Rd, pedestrian hybrid beacon	Medium	\$357,000.00
Tierra Buena Rd and Butte House Rd	High visibility crosswalks on south, west, and north leg, pedestrian hybrid beacon	Medium	\$371,000.00
Tierra Buena Rd and River Valley Church	High visibility crosswalk	Medium	\$7,000.00
Villa Ave and Butte House Rd	High visibility crosswalk on south and west leg, pedestrian hybrid beacon	Medium	\$364,000.00

Bold= Priority Project

Source: Fehr & Peers, 2025

Table E-5: Yuba City Bicycle Facilities Projects

Location / Extent	Facility Type	Length (miles)	Priority	Cost
B St to Peach Bowl Little League Field	Class I Bicycle Path	0.65	Medium	\$517,874.92
Bradley Estates Dr to Queens Ave	Class I Bicycle Path	0.39	Medium	\$310,062.65
Harter Rd to Reeves Ave	Class I Bicycle Path	2.29	Medium	\$1,817,216.39
Hooper Rd to Harter Rd	Class I Bicycle Path	0.64	Medium	\$510,014.80
Between N Township Rd to Hooper Rd	Class I Bicycle Path	1.17	Low	\$926,743.60
Ainsley Avenue Between Calrk Ave to Live Oak Blvd	Class III Bicycle Route	0.26	High	\$2,750.49
B Street Between East of 2nd St	Class III Bicycle Route	0.05	High	\$528.97
B Street Between N Palora Ave to Gray Ave	Class II Bicycle Lane	0.20	High	\$7,347.14
B Street Between Plumas St to Shasta St	Class IIB Buffered Bike Lane	0.11	High	\$4,841.98
Blevin Road Between Bradley Estates Dr to Calais Dr	Class II Bicycle Lane	0.12	Medium	\$4,291.26
Blevin Road Between Calais Dr to Janice Way	Class II Bicycle Lane	0.08	Medium	\$3,078.52
Bogue Road Between East of Germaine Dr to S Walton Ave	Class II Bicycle Lane	0.13	Medium	\$4,640.48
Bogue Road Between Grove Rd to East of Germaine Dr	Class IIB Buffered Bike Lane	0.37	Medium	\$15,783.72
Bogue Road Between Railroad Ave to Garden Hwy	Class IIB Buffered Bike Lane	0.53	Medium	\$22,295.43
Bogue Road Between S George Washington Blvd Sanborn Rd	Class IIB Buffered Bike Lane	0.88	Medium	\$37,100.20
Bogue Road Between S Walton Ave to SR 99	Class IIB Buffered Bike Lane	0.48	Medium	\$20,377.58
Bogue Road Between Sanborn Rd to Grove Rd	Class II Bicycle Lane	0.13	Low	\$4,805.68
Bogue Road Between SR 99 to Railroad Ave	Class IIB Buffered Bike Lane	0.51	Medium	\$21,388.37
Bradley Estates Drive Between Tuly Pkwy to Belvin Rd	Class II Bicycle Lane	0.12	Low	\$4,315.41
Bridge Street Between Gray Ave to Clark Ave	Class IIB Buffered Bike Lane	0.36	High	\$15,179.60
Bridge Street Between N Walton Ave to Oji Way	Class II Bicycle Lane	0.38	Medium	\$13,905.77
Bridge Street Between Oji Way to SR 99	Class II Bicycle Lane	0.12	High	\$4,553.09
Bridge Street Between Plumas St to Shasta St	Class II Bicycle Lane	0.09	High	\$3,455.21
Bridge Street Between SR 99 to Gray Ave	Class II Bicycle Lane	0.25	High	\$9,229.76
Bunce Road Between Richland Rd to Lincoln Rd	Class II Bicycle Lane	0.38	Medium	\$13,900.59

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Butte House Road Between Belvin Rd to Tharp Rd	Class IIB Buffered Bike Lane	0.15	Medium	\$6,545.90
Butte House Road Between Del Prada Way to Stabler Ln	Class II Bicycle Lane	0.19	Medium	\$7,048.79
Butte House Road Between Dustin Dr to El Dorado Ln	Class II Bicycle Lane	0.13	Medium	\$4,957.17
Butte House Road Between El Dorado Ln to Sylvia Way	Class II Bicycle Lane	0.03	Medium	\$1,280.06
Butte House Road Between Harter Rd to Belvin Rd	Class IIB Buffered Bike Lane	0.15	Medium	\$6,182.38
Butte House Road Between Honor Oak Ln to Steven Way	Class II Bicycle Lane	0.03	Medium	\$1,255.68
Butte House Road Between Hooper Rd to Harter Pkwy	Class IIB Buffered Bike Lane	0.78	Medium	\$32,909.23
Butte House Road Between Lang Rd to Royo Ranchero Dr	Class II Bicycle Lane	0.42	Medium	\$15,474.64
Butte House Road Between N Township Rd to Lang Rd	Class II Bicycle Lane	0.21	Medium	\$7,849.90
Butte House Road Between SR 99 to E Onstott Frontage Rd	Class II Bicycle Lane	0.03	High	\$942.89
Butte House Road Between Stabler Ln to Dustin Dr	Class II Bicycle Lane	0.17	Medium	\$6,246.02
Butte House Road Between Steven Way to SR 99	Class II Bicycle Lane	0.09	High	\$3,477.80
Butte House Road Between Sylvia Way to Honor Oak Ln	Class II Bicycle Lane	0.04	Medium	\$1,390.08
Butte House Road Between Tharp Rd to Del Prada Way	Class II Bicycle Lane	0.05	Medium	\$1,946.09
Carmelo Way Between Shanghai Bend Rd to Eureka Dr	Class III Bicycle Route	0.18	Low	\$1,942.46
Cherry Street Between Allen Way to S Walton Ave	Class II Bicycle Lane	0.33	Medium	\$12,223.92
Cherry Street Between Harding Rd to Allen Way	Class II Bicycle Lane	0.17	Low	\$6,467.72
Cherry Street Between Sanborn Rd to Harding Rd	Class II Bicycle Lane	0.12	Low	\$4,512.97
Clark Avenue Between B St to Franklin Ave	Class IIB Buffered Bike Lane	0.19	High	\$7,964.37
Clark Avenue Between Bridge St to B St	Class II Bicycle Lane	0.16	High	\$5,850.77
Clark Avenue Between Heritage Way to end of road	Class II Bicycle Lane	0.11	Medium	\$3,948.34
Clark Avenue Between Pease Rd to Heritage Way	Class II Bicycle Lane	0.08	Medium	\$2,866.00
Clark Avenue Between Spiva Ave Bridge St	Class II Bicycle Lane	0.21	High	\$7,864.68

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Clark Avenue Between Bridge St to B St	Class II Bicycle Lane	0.16	High	\$6,791.97
Clark Avenue Between Heritage Way to end of road	Class II Bicycle Lane	0.11	Medium	\$18,326.68
Clark Avenue Between Pease Rd to Heritage Way	Class II Bicycle Lane	0.08	Medium	\$13,871.06
Clark Avenue Between Spiva Ave Bridge St	Class II Bicycle Lane	0.21	High	\$12,316.42
Currant Drive Between Harter Marketplace Way to Harter Rd	Class II Bicycle Lane	0.06	Medium	\$16,461.74
East Onstott Frontage Road Between Kenny Dr to Queens Ave	Class II Bicycle Lane	0.18	High	\$20,290.23
East Onstott Frontage Road Between Manchester Way to Northgate Dr	Class II Bicycle Lane	0.50	Medium	\$3,477.80
East Onstott Frontage Road Between Northgate Dr to Kenny Dr	Class II Bicycle Lane	0.38	High	\$1,390.08
East Onstott Frontage Road Between Pease Rd to Manchester Way	Class II Bicycle Lane	0.33	Medium	\$1,946.09
East Onstott Frontage Road Between Queens Ave to Butte Houe Rd	Class II Bicycle Lane	0.45	High	\$1,942.46
East Onstott Frontage Road Between Yuba College Sutter County Center north Driveway to Pease Rd	Class II Bicycle Lane	0.55	Medium	\$12,223.92
El Dorado Lane Between Dustin Dr to Butte House Rd	Class II Bicycle Lane	0.17	Medium	\$6,131.98
El Dorado Lane Between Geary Cir to Dustin Dr	Class II Bicycle Lane	0.05	Medium	\$1,911.96
El Dorado Lane Between Geary Cir to Mirada Cir	Class II Bicycle Lane	0.05	Medium	\$2,021.39
El Dorado Lane Between Mirada Cir to Geary Cir	Class II Bicycle Lane	0.04	Medium	\$1,497.53
El Dorado Lane Between Queens Ave to Geary Cr	Class II Bicycle Lane	0.05	Medium	\$1,913.37
El Margarita Road Between Ethel Dr to Colusa Frontage Rd	Class II Bicycle Lane	0.08	Medium	\$2,789.49
El Margarita Road Between North of Imperial Way to Franklin Rd	Class III Bicycle Route	0.25	Medium	\$2,641.96
El Margarita Road Between River Valley High School southern property line to North of Imperial Way	Class IIB Buffered Bike Lane	0.37	Medium	\$15,814.84
El Margarita Road Between SR 20 to River Valley High School southern property line	Class IIB Buffered Bike Lane	0.36	Medium	\$15,029.39
Eureka Drive Between Garden Hwy to Carmelo Way	Class III Bicycle Route	0.13	Low	\$1,414.51
Forbes Avenue Between Gray Ave to Walnut St	Class II Bicycle Lane	0.68	High	\$25,156.40
Forbes Avenue Between Walnut St to Plumas St	Class IIB Buffered Bike Lane	0.06	High	\$2,543.55

Draft

Franklin Avenue Between N Barrett Rd to Clark Ave	Class II Bicycle Lane	0.34	High	\$12,602.69
Location / Extent	Facility Type	Length (miles)	Priority	Cost
Franklin Avenue Between Percy Ave to Plumas Blvd	Class IIB Buffered Bike Lane	0.09	High	
Franklin Avenue Between Plumas Blvd to Wilbur	Class II Bicycle Lane	0.18	High	\$6,582.71
Franklin Road Between El Margarita Rd to Ohleyer Rd	Class IIB Buffered Bike Lane	0.12	Low	\$5,132.19
Franklin Road Between N Palora Ave to N Barrett Rd	Class II Bicycle Lane	0.12	Medium	\$4,469.14
Franklin Road Between Ohleyer Rd to Harding Rd	Class IIB Buffered Bike Lane	0.37	Medium	\$15,830.08
Gold River Drive Between Wild River Dr to Shanghai Bend Rd	Class III Bicycle Route	0.23	Low	\$2,446.56
Gray Avenue Between Ainsley Ave to SR 20	Class IIB Buffered Bike Lane	0.16	High	\$6,713.29
Gray Avenue Between Butte House Rd to Ainsley Ave	Class II Bicycle Lane	0.09	High	\$3,451.59
Gray Avenue Between Forbes Ave to Spiva Ave	Class IIB Buffered Bike Lane	0.18	High	\$7,670.83
Gray Avenue Between Heritage Way to Norwich Way	Class II Bicycle Lane	0.04	Medium	\$1,581.01
Gray Avenue Between Louise Ave to Forbes Ave	Class II Bicycle Lane	0.12	High	\$4,451.29
Gray Avenue Between Mayflower Way to end of road	Class II Bicycle Lane	0.02	Medium	\$793.03
Gray Avenue Between Norwich Way to Mayflower Way	Class II Bicycle Lane	0.04	Medium	\$1,591.44
Gray Avenue Between Pease Rd to Herritage Way	Class II Bicycle Lane	0.08	Medium	\$2,839.52
Gray Avenue Between Spiva Ave to Bridge St	Class II Bicycle Lane	0.21	High	\$7,856.15
Gray Avenue Between SR 20 to Louise Ave	Class IIB Buffered Bike Lane	0.13	High	\$5,525.07
Harding Road Between Franklin Rd to Michelle Dr	Class II Bicycle Lane	0.17	Medium	\$6,326.96
Harding Road Between Michelle Dr to Cherry St	Class II Bicycle Lane	0.33	Low	\$12,200.56
Harter Marketplace Way Between Colusa Frontage Rd to Currant Dr	Class II Bicycle Lane	0.18	High	\$6,712.64
Harter Parkway Between Belvin Rd to Butte House Rd	Class I Bicycle Path	0.19	Medium	\$152,243.50
Harter Parkway Between Butte House Rd to north of Jefferson Ave	Class I Bicycle Path	0.32	Medium	\$252,440.36
Hooper Road Between Butte House Rd to Jefferson Ave	Class II Bicycle Lane	0.43	Medium	\$15,812.73

Draft

Hooper Road Between True Rd to Butte House Rd	Class III Bicycle Route	0.48	Low	\$5,104.54
Location / Extent	Facility Type	Length (miles)	Priority	Cost
Jefferson Avenue Between Hooper Rd to east of	Class II Bicycle Lane	0.28	Medium	\$10,367.86
Jefferson Avenue Between Hooper Rd to Stonegate Dr	Class II Bicycle Lane	0.31	Medium	\$11,400.03
Jones Road Between Arbor Dr to south of Mariposa Dr	Class III Bicycle Route	0.20	Low	
Jones Road Between Lincoln Rd to Arbor Dr	Class III Bicycle Route	0.05	Medium	\$558.79
Jones Road Between Richland Rd to Lincoln Rd	Class III Bicycle Route	0.38	Medium	\$4,000.80
Julie Drive Between Clark Ave to Orchard St	Class II Bicycle Lane	0.19	Medium	\$6,873.47
Kelton Way Between Louise Ave to end of road	Class III Bicycle Route	0.07	High	\$740.44
Lassen Boulevard Between Carson Dr to Klammath Ln	Class IV Separated Bikeway	0.06	High	\$23,100.30
Lassen Boulevard Between Harter Rd to Carson Dr	Class IV Separated Bikeway	0.15	High	\$58,889.83
Lassen Boulevard Between Klammath Ln to Tharp Rd	Class IV Separated Bikeway	0.17	Medium	\$67,419.32
Lassen Boulevard Between Tharp Rd to N Walton Ave	Class IIB Buffered Bike Lane	0.25	Medium	\$10,429.01
Lincoln Road Between City Limits east of Crest Dro to SR 99	Class IIB Buffered Bike Lane	0.26	Medium	\$10,954.78
Lincoln Road Between Crest Dr to City limits east of Crest Dr	Class IIB Buffered Bike Lane	0.07	Medium	\$2,874.85
Lincoln Road Between S Walton Ave to Crest Dr	Class IIB Buffered Bike Lane	0.16	Medium	\$6,933.36
Lincoln Road Between West of Sanborn Rd	Class II Bicycle Lane	0.00	Low	\$92.28
Lincoln Road Between Yolanda Dr to S Walton Ave	Class IIB Buffered Bike Lane	0.43	Medium	\$18,176.78
Littlejohn Road Between Franklin Rd to Hunn Rd	Class III Bicycle Route	0.38	Medium	\$4,027.44
Littlejohn Road Between Hunn Rd to Richland Rd	Class III Bicycle Route	0.29	Medium	\$3,075.76
Live Oak Boulevard Between Ainsley Ave to Colusa Ave	Class II Bicycle Lane	0.17	High	\$6,122.55
Live Oak Boulevard Between Beutler Dr to Chasity Way	Class II Bicycle Lane	0.11	Medium	\$4,209.99
Live Oak Boulevard Between Beutler Dr to Pease Rd	Class II Bicycle Lane	0.11	Medium	\$3,948.25
Live Oak Boulevard Between Cassidy Ave to Lorel Way	Class IV Separated Bikeway	0.12	Medium	\$46,665.63
Live Oak Boulevard Between City limits to Chasity Way	Class II Bicycle Lane	0.02	Medium	\$828.98

Draft

Live Oak Boulevard Between Downie St to Queens Ave	Class IV Separated Bikeway	0.11	High	\$44,891.87
Location / Extent	Facility Type	Length (miles)	Priority	Cost
Live Oak Boulevard Between Lorel Way to Downie St	Class IV Separated Bikeway	0.12	Medium	\$46,177.22
Live Oak Boulevard Between Northgate Dr to Cassidy Ave	Class IV Separated Bikeway	0.20	Medium	\$79,095.50
Live Oak Boulevard Between Pease Rd to Northgate Dr	Class IV Separated Bikeway	0.82	Medium	\$323,269.93
Live Oak Boulevard Between Queens Ave to Ainsley Ave	Class IIB Buffered Bike Lane	0.56	High	\$23,716.46
Louise Avenue Between Gray Ave to Stafford Way	Class II Bicycle Lane	0.13	High	\$4,853.70
Louise Avenue Between Kelton Way to Gray Ave	Class II Bicycle Lane	0.22	High	\$8,211.52
Louise Avenue Between Stafford Way to Cooper Ave	Class III Bicycle Route	0.22	High	\$2,312.79
Lynn Way Between East of Market St	Class I Bicycle Path	0.10	Medium	\$78,871.49
Main Street Between Benton Dr to Winship Rd	Class II Bicycle Lane	0.20	Medium	\$7,338.95
Main Street Between Morton St to Benton Dr	Class II Bicycle Lane	0.35	High	\$13,094.91
Market Street Between Bird St to Del Norte Ave	Class II Bicycle Lane	0.11	Medium	\$4,003.92
Market Street Between Del Norte Ave to Perkins Way	Class II Bicycle Lane	0.17	Medium	\$6,247.93
Market Street Between East of Plumas St to Lynn Way	Class IIB Buffered Bike Lane	0.21	High	\$8,742.20
Market Street Between Lynn Way to Bird St	Class II Bicycle Lane	0.24	Medium	\$8,967.72
Market Street Between Perkins Way to Colusa Ave	Class II Bicycle Lane	0.07	High	\$2,722.52
Monroe Road Between Live Oak Canal to Hooper Rd	Class III Bicycle Route	0.26	Medium	\$2,754.06
Monroe Road Between Royo Rancher Dr to Live Oak Canal	Class III Bicycle Route	0.32	Low	\$3,361.01
North Colusa Frontage Road Between El Margarita Rd to Kimberly Dr E	Class II Bicycle Lane	0.23	Medium	\$8,396.89
North Colusa Frontage Road Between Hooper Rd to El Margarita Rd	Class II Bicycle Lane	0.25	Medium	\$9,293.92
North Colusa Frontage Road Between Kimberly Dr E to Harter Marketplace Way	Class II Bicycle Lane	0.06	High	\$2,360.41
North Colusa Frontage Road Between N George Washinton Blvd to Hooper Rd	Class II Bicycle Lane	0.24	Medium	\$8,736.41
North Colusa Frontage Road Between Royo Ranchero Dr to N George Washington Blvd	Class II Bicycle Lane	0.33	Low	\$12,269.93

Draft

North George Washington Boulevard Between 477 N George Washington Blvd to Franklin Rd	Class IIB Buffered Bike Lane	0.25	Low	\$10,571.66
North George Washington Boulevard Between Colusa Frontage Rd to SR 20	Class II Bicycle Lane	0.02	Medium	\$789.32
Location / Extent	Facility Type	Length (miles)	Priority	Cost
North George Washington Boulevard Between Colusa Rd to Industrial Dr	Class II Bicycle Lane	0.20	Medium	\$7,295.75
North George Washington Boulevard Between Industrial Dr to Lynwood Dr	Class II Bicycle Lane	0.14	Low	\$5,239.00
North George Washington Boulevard Between Lynnwood Dr to 477 N George Washington Blvd	Class IIB Buffered Bike Lane	0.36	Medium	\$15,040.30
North George Washington Boulevard Between SR 20 to Colusa Rd	Class II Bicycle Lane	0.04	Medium	\$1,356.34
North Harding Road Between Bridge St to Franklin Rd	Class II Bicycle Lane	0.35	Medium	\$12,803.08
North Township Road Between Alameda Rd to Monroe Dr	Class II Bicycle Lane	0.26	Low	\$9,790.47
North Township Road Between Butte House Rd to Fortna Rd	Class II Bicycle Lane	0.31	Low	\$11,343.23
North Township Road Between Dresser Rd to Alameda Rd	Class II Bicycle Lane	0.15	Low	\$5,385.52
North Township Road Between Dresser Rd to Shirley Pl	Class II Bicycle Lane	0.12	Low	\$4,502.14
North Township Road Between Fortna Rd to Shirley Pl	Class II Bicycle Lane	0.25	Low	\$9,279.83
North Township Road Between North of Butte House Rd	Class II Bicycle Lane	0.00	Medium	\$184.28
North Walton Avenue Between Bridge St to Franklin Rd	Class IIB Buffered Bike Lane	0.35	Medium	\$14,806.53
North Walton Avenue Between Lassen Blvd to Bridge St	Class IIB Buffered Bike Lane	0.39	Medium	\$16,275.48
North Walton Avenue Between SR 20 to Lassen Blvd	Class IIB Buffered Bike Lane	0.26	Medium	\$11,147.34
Orchard Street Between Julie Dr to Main St	Class II Bicycle Lane	0.32	High	\$11,729.73
Palora Avenue Between B St to Franklin Ave	Class II Bicycle Lane	0.19	High	\$7,036.06
Park Avenue Between Franklin Ave to Orchard St	Class II Bicycle Lane	0.37	High	\$13,790.97
Peach Tree Lane Between Peach Tree Ln to Queens Ave	Class II Bicycle Lane	0.05	Medium	\$1,842.49
Pease Road Between Butte Vista Ln to City Limits	Class II Bicycle Lane	0.02	Medium	\$839.90
Pease Road Between Butte Vista Ln to Stabler Ln	Class II Bicycle Lane	0.31	Medium	\$11,329.50

Draft

Pease Road Between E Onstott Rd to Clark Ave	Class II Bicycle Lane	0.35	Medium	\$12,851.71
Pease Road Between SR 99 tp E Onstott Frontage Rd	Class II Bicycle Lane	0.10	Medium	\$3,563.34
Pease Road Between W Onstott Frontage Rd to SR 99	Class II Bicycle Lane	0.11	Medium	\$4,151.00
Location / Extent	Facility Type	Length (miles)	Priority	Cost
Percy Avenue/Main St Between Franklin Ave to Morton St	Class IIB Buffered Bike Lane	0.17	High	\$7,226.60
Plumas Boulevard Between B Sto to Franklin Ave	Class II Bicycle Lane	0.27	High	\$9,922.44
Plumas Boulevard Between Franklin Ave to Percy Ave Roundabout	Class II Bicycle Lane	0.27	High	\$9,971.35
Plumas Street Between Queens Ave to Colusa Ave	Class II Bicycle Lane	0.82	High	\$30,430.99
Poole Boulevard Between Stabler Ln to Civic Center Blvd	Class II Bicycle Lane	0.25	Medium	\$9,324.02
Poole Boulevard Between Tharp Rd to Stabler Ln	Class II Bicycle Lane	0.24	Medium	\$9,053.87
Queens Avenue Between 1180/1166 Queens Ave property line to Gray Ave	Class IIB Buffered Bike Lane	0.09	High	\$3,996.23
Queens Avenue Between Belvin Rd to Stabler Ln	Class IIB Buffered Bike Lane	0.38	Medium	\$15,857.76
Queens Avenue Between Brundy Ct to Plumas St	Class IIB Buffered Bike Lane	0.07	High	\$3,039.26
Queens Avenue Between East of Plumas St	Class IIB Buffered Bike Lane	0.05	High	\$1,924.61
Queens Avenue Between Gray Ave to Stafford Way	Class II Bicycle Lane	0.12	High	\$4,555.55
Queens Avenue Between Live Oak blvd to Brundy Ct	Class IIB Buffered Bike Lane	0.06	High	\$2,531.22
Queens Avenue Between Stabler Ln to 1180/1166 Queens Ave property line	Class IIB Buffered Bike Lane	0.65	Medium	\$27,555.05
Queens Avenue Between Stafford Way to Live Oak Blvd	Class IIB Buffered Bike Lane	0.39	High	\$16,345.06
Railroad Avenue Between bogue Rd to Tuscan Rd	Class II Bicycle Lane	0.20	Medium	\$7,358.26
Railroad Avenue Between Jan Ct to Railroad Ave	Class II Bicycle Lane	0.17	Medium	\$6,219.23
Railroad Avenue Between Lincoln Rd to Rickey Rd	Class II Bicycle Lane	0.15	Medium	\$5,474.27
Railroad Avenue Between Richland Rd to Winship Rd	Class II Bicycle Lane	0.06	Medium	\$2,155.34
Railroad Avenue Between Rickey Dr to Jan Ct	Class II Bicycle Lane	0.21	Low	\$7,762.20

Draft

Railroad Avenue Between southland Dr to Bogue Rd	Class II Bicycle Lane	0.09	Medium	\$3,428.97
Railroad Avenue Between Teesdale Rd to Southland Dr	Class II Bicycle Lane	0.38	Low	\$14,132.28

Location / Extent	Facility Type	Length (miles)	Priority	Cost
Reeves Avenue Between Cooper Ave to Plumas Tower Plaza Mini Park	Class III Bicycle Route	0.42	High	\$4,474.39
Richland Road Between Queensbury Way to Railroad Ave	Class II Bicycle Lane	0.31	Medium	\$11,377.22
Richland Road Between S Walton Ave to west of Hillcrest Ave	Class II Bicycle Lane	0.65	Medium	\$23,998.11
Richland Road Between West of Hillcrest Ave to Queensbury Way	Class II Bicycle Lane	0.20	Low	\$7,222.01
River Oaks Drive Between Garden Hwy to Wild River Dr	Class III Bicycle Route	0.29	Medium	\$3,019.79
Royo Ranchero Drive Between Monroe Rd to Colusa Frontage Rd	Class IIB Buffered Bike Lane	0.23	Low	\$9,883.97
Royo Ranchero Drive Between Sutter Bikeway to Monroe Rd	Class IIB Buffered Bike Lane	0.25	Low	\$10,754.37
Sanborn Road Between Cherry St to McCune Ave	Class II Bicycle Lane	0.25	Low	\$9,160.61
Sanborn Road Between Lincoln Rd to Nand Dr	Class II Bicycle Lane	0.77	Low	\$28,491.94
Sanborn Road Between McCune Ave to Lincoln Rd	Class II Bicycle Lane	0.25	Low	\$9,286.99
Second Street Between B St to Woodcrest Way	Class II Bicycle Lane	0.15	High	\$5,654.12
Second Street Between Bridge St to B St	Class II Bicycle Lane	0.14	High	\$5,339.13
Second Street Between Woodcrest Way to 2nd St	Class II Bicycle Lane	0.12	Medium	\$4,439.24
Shanghai Bend Road Between Railroad Ave to Tulsa Dr	Class II Bicycle Lane	0.38	Low	\$13,928.15
Shasta Street Between Bridge St to B St	Class II Bicycle Lane	0.15	High	\$5,394.90
Shasta Street Between Colusa Frontage Rd to Teegarden Ave	Class II Bicycle Lane	0.18	High	\$6,823.03
Shasta Street Between Teegarden Ave to Bridge St	Class III Bicycle Route	0.20	High	\$2,072.40
South Barrett Road Between Franklin Ave to Marcia Ave	Class II Bicycle Lane	0.17	Medium	\$6,127.37
South Colusa Frontage Road Between N George Washington Blvd to El Margrita Rd	Class II Bicycle Lane	0.50	Medium	\$18,358.63

Draft

South George Washington Boulevard Between Lincoln Rd to Bogue Rd	Class II Bicycle Lane	1.00	Low	\$36,891.94
South George Washington Boulevard Between South of Franklin Rd	Class II Bicycle Lane	0.01	Low	\$287.74
South Walton Avenue Between Augusta Ln to Smith Rd	Class IIB Buffered Bike Lane	0.22	Medium	\$9,419.08

Location / Extent	Facility Type	Length (miles)	Priority	Cost
South Walton Avenue Between Franklin Rd to Richland Rd	Class IIB Buffered Bike Lane	0.63	Medium	\$26,567.16
South Walton Avenue Between Lincoln Rd to Tracy Dr	Class IIB Buffered Bike Lane	0.37	Medium	\$15,628.21
South Walton Avenue Between Richland Rd to Lincoln Rd	Class IIB Buffered Bike Lane	0.38	Medium	\$15,915.64
South Walton Avenue Between Smith Rd to Bogue Rd	Class IIB Buffered Bike Lane	0.25	Medium	\$10,597.56
South Walton Avenue Between Tracy Dr to Augusta Ln	Class IIB Buffered Bike Lane	0.15	Low	\$6,338.58
Stabler Lane Between Butte Vista Ln to Par East Dr	Class II Bicycle Lane	0.07	Medium	\$2,567.05
Stabler Lane Between Parc East Dr to Tres Picos Dr	Class II Bicycle Lane	0.16	Low	\$5,886.19
Stabler Lane Between Parc West Dr to Butte Vista Ln	Class II Bicycle Lane	0.14	Medium	\$5,195.98
Stabler Lane Between Pease Rd to Tres Picos Dr	Class II Bicycle Lane	0.10	Medium	\$3,582.57
Stabler Lane Between Starr Dr to SR 20	Class II Bicycle Lane	0.12	Medium	\$4,407.61
Stabler Lane Between Tres Picos Dr to Jamie Dr	Class II Bicycle Lane	0.09	Low	\$3,218.50
Stabler Lane Between Tres Picos Dr to Parc West Dr	Class II Bicycle Lane	0.07	Medium	\$2,648.86
Stafford Way Between Louise Ave N to Louise Ave S	Class III Bicycle Route	0.01	High	\$157.31
Sumner Street Between East of Von Gelden Way	Class I Bicycle Path	0.08	Medium	\$63,193.57
Sumner Street Between West of Von Gelden Way	Class I Bicycle Path	0.07	Medium	\$59,379.83
Sutter Street Between Colusa Frontage Rd to Teegarden Ave	Class II Bicycle Lane	0.24	High	\$8,849.25
Sutter Street Between Market St to Colusa Ave	Class II Bicycle Lane	0.18	Medium	\$6,542.52
Sutter Street Between Teegarden Ave to Bridge St	Class II Bicycle Lane	0.22	High	\$7,996.43

Draft

Tharp Road Between Bridge St to Deerfield Dr	Class III Bicycle Route	0.13	Medium	\$1,336.71
Tharp Road Between Franklin Rd to end of road	Class III Bicycle Route	0.23	Medium	\$2,402.65
Tharp Road Between Sierra Ave to Lassen Blvd	Class II Bicycle Lane	0.17	Medium	\$6,264.15
Tharp Road Between SR 20 to Sierra Ave	Class II Bicycle Lane	0.08	Medium	\$2,855.78
Tierra Buena Road Between Hooper Rd to Butte House Rd	Class III Bicycle Route	0.49	Medium	\$5,209.40
Villa Avenue Between Butte House Rd to Tierra Buena Rd	Class III Bicycle Route	0.32	Medium	\$3,405.94
Location / Extent	Facility Type	Length (miles)	Priority	Cost
Walnut Street Between Forbes Ave to Reeves Ave	Class III Bicycle Route	0.16	High	\$1,679.38
Washington Avenue Between E Onstott Rd to Gray Ave	Class II Bicycle Lane	0.24	High	\$8,984.30
West Onstott Frontage Road Between Danna Dr to Jamie Dr	Class II Bicycle Lane	0.30	Medium	\$11,058.24
West Onstott Frontage Road Between Debbie Ln to Peach Tree Ln	Class II Bicycle Lane	0.10	Medium	\$3,715.44
West Onstott Frontage Road Between Eden Way to Debbie Ln	Class II Bicycle Lane	0.16	High	\$6,023.21
West Onstott Frontage Road Between Jamie Dr to Portofina Dr	Class II Bicycle Lane	0.10	Medium	\$3,674.03
West Onstott Frontage Road Between Pease Rd to Danna Dr	Class II Bicycle Lane	0.40	Medium	\$14,754.19
West Onstott Frontage Road Between Portofina Dr to Eden Way	Class II Bicycle Lane	0.28	High	\$10,356.67
Wilbur Avenue Between Franklin Ave to Garden Hwy	Class III Bicycle Route	0.41	High	\$4,282.40
Wild River Drive Between Lonely Oak St to Gold River Dr	Class III Bicycle Route	0.16	Low	\$1,665.57
Wild River Drive Between River Oaks Dr to Lonely Oak St	Class III Bicycle Route	0.24	Medium	\$2,530.91
Winship Road Between Railroad Ave to Garden Highway	Class II Bicycle Lane	0.32	Medium	\$11,647.35

Bold= Priority Project

Source: Fehr & Peers, 2025

Appendix F: Funding Sources

The funding sources on the following pages are organized into local, state and federal opportunities. A Brief description is provided for each. Note that funding sources may be limited to certain project types as noted. For further details on each funding program visit the link provided.

Table F-1: Regional Funding Sources

Source/Program	Agency	Description	Project Types	Website
Regional Active Transportation Program (ATP)	Sacramento Area Council of Governments (SACOG)	Provides trails and networks to improve connections and increase riding, walking, and rolling. Projects and programs funded through this program are consistent with the vision of the Blueprint and support the implementation of the long-range transportation plan for SACOG.	Infrastructure	https://www.sacog.org/funding/regional-funding-programs/regional-active-transportation-program
Engage, Empower, Implement (EEI)	SACOG	Funding program that will establish and fund community-based outreach and engagement projects throughout the six-county SACOG region. Community-based organizations (CBOs) and SACOG member jurisdictions will partner to plan and implement these projects in their local communities with assistance from the EEI process, technical resources, and tools. EEI will incorporate community-led planning and design principles to identify communities' priorities and develop projects that meet their needs.	Infrastructure	https://www.sacog.org/funding/regional-funding-programs/engage-empower-implement
Metropolitan Transportation Improvement Program (MTIP)	SACOG	Short-term listing of surface transportation projects that receive federal funds, are subject to a federally required action, or are regionally significant. Many, but not all, transit, highway, local roadway, bicycle and pedestrian investments are included in the MTIP. Only projects included in with the Metropolitan Transportation Plan (MTP) may be incorporated into the MTIP.	Infrastructure	https://www.sacog.org/funding/transportation-improvement-programs

Table F-2: State Funding Sources

Source/Program	Agency	Description	Project Types	Website
Active Transportation Program	California Department of Transportation (Caltrans)	Primary statewide funding program for active transportation projects, non-infrastructure programs, and planning. Annual cycle.	Infrastructure, Non-Infrastructure, Planning	https://catc.ca.gov/programs/active-transportation-program
Affordable Housing and Sustainable Communities (AHSC) Program	Strategic Growth Council	Program funds can be used for projects which demonstrate reduction in vehicle miles traveled through fewer or shorter vehicle trips or mode shift to transit use, bicycling or walking within areas lacking high quality transit, with an emphasis on providing disadvantaged community benefits.	Infrastructure, Non-Infrastructure	https://sgc.ca.gov/programs/ahsc/
Clean Mobility Options Program	California Air Resources Board	This pilot program makes \$20 million available for low-emission mobility projects (such as bike sharing and on-demand shuttles) in disadvantaged and low-income communities.	Infrastructure	http://www.cleanmobilityoptions.org/
Land and Water Conservation Fund	California Department of Parks and Recreation	These grants provide funding for the acquisition or development of land to create new outdoor recreation opportunities for the health and wellness of Californians.	Infrastructure	https://www.parks.ca.gov/?page_id=21360
Local Streets and Roads (LSR) Program	California Transportation Commission	The purpose of the program is to provide approximately \$1.5 billion per year to cities and counties for basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads system.	Infrastructure	https://catc.ca.gov/programs/sb1/local-streets-roads-program
Local Partnership Program (LPP)	California Transportation Commission	The primary objective of this program is to provide funding to counties, cities, districts, and regional transportation agencies in which voters have approved fees or taxes dedicated solely to transportation improvements or that have imposed fees, including uniform developer fees, dedicated solely to transportation improvements. Funding includes \$200 million per year to improve aging infrastructure, active transportation, and safety.	Infrastructure	https://catc.ca.gov/programs/sb1/local-partnership-program

Source/Program	Agency	Description	Project Types	Website
Local Transportation Fund (LTF)	California Department of Transportation (Caltrans) [Administered by SACOG]	Limited amounts (2%) from the Local Transportation Fund (LTF), which is part of the Transportation Development Act (TDA) and derived from a ¼ cent of the general sales tax collected statewide, can be used for bicycle and pedestrian facilities. Article 3 funds for planning and construction of pedestrian and bicycle facilities are administered locally through SACOG and are allocated to member agencies based on population and taxable sales.	Infrastructure	https://dot.ca.gov/programs/rail-and-mass-transportation/transportation-development-act
Office of Traffic Safety Grant Program	Office of Traffic Safety	The Program provides funds annually to prevent serious injury and death resulting from motor vehicle crashes. Projects need to be supported by local crash data that demonstrates a need for funding. Safety education and encouragement campaigns for pedestrian and bicycles safety. Applications are due every January.	Non-Infrastructure	https://www.ots.ca.gov/Grants/
Reconnecting Communities: Highways to Boulevards	Caltrans	In response to the adoption of Streets & Highways Code 104.3, this Pilot Program was launched. Funding is for planning and constructing the conversion of key underutilized highways in the state into multimodal corridors to reconnect communities divided by transportation infrastructure. The historical harm will be addressed through community-based transportation planning, design, demolition, and/or reconstruction of city streets, parks, or other infrastructure.	Infrastructure, Planning	https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/rc-h2b
Recreational Trails Program	California Department of Parks and Recreation	The Recreational Trails Program (RTP) provides funds annually to develop non-motorized recreational trails and trails-related facilities.	Infrastructure	https://www.parks.ca.gov/?page_id=24324
Road Maintenance and Rehabilitation Account & Highway Users Tax Account (RMRA & HUTA)	California State Controlled	A percentage of RMRA funding is apportioned by formula to eligible cities and counties pursuant to Streets and Highways Code section 2032(h) for basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads system. Revenues from the gas tax deposited into the Highway Users Tax Account (HUTA), apportioned by the SCO to cities and counties.	Infrastructure	https://www.sco.ca.gov/aud_road_maintenance_sb1.html

Source/Program	Agency	Description	Project Types	Website
Solutions for Congested Corridors Program (SCCP)	California Transportation Commission	The program provides funding to achieve a balanced set of transportation, environmental, and community access improvements to reduce congestion throughout the state. This statewide, competitive program makes \$250 million available annually for projects that implement specific transportation performance improvements and are part of a comprehensive corridor plan by providing more transportation choices while preserving the character of local communities and creating opportunities for neighborhood enhancement.	Infrastructure	https://catc.ca.gov/programs/sb1/solutions-for-congested-corridors-program
State Transportation Improvement Program (STIP)	California Transportation Commission	The STIP is the biennial five-year plan adopted by the CTC for future allocations of certain state transportation funds for state highway improvements, intercity rail, and regional highway and transit improvements. As the Metropolitan Planning Organization, local agencies should work through SACOG to nominate projects for inclusion in the STIP.	Infrastructure	https://catc.ca.gov/programs/state-transportation-improvement-program
Sustainable Transportation Planning Grants	Caltrans Division of Transportation Planning	The program encourages local and regional planning that furthers state goals, including the goals and best practices cited in the Regional Transportation Plan Guidelines adopted by the California Transportation Commission.	Planning	https://dot.ca.gov/programs/transportation-planning/regional-planning/sustainable-transportation-planning-grants
Transformative Climate Communities (TCC) Program	Strategic Growth Council and Department of Conservation	The program funds community-led development and infrastructure projects that achieve major environmental, health, and economic benefits in California's most disadvantaged communities. TCC is one of many California Climate Investments programs.	Infrastructure	http://www.sgc.ca.gov/programs/tcc/
Urban Greening Program	California Natural Resources Agency	The program supports the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits. Proposed projects can include tree planting, and construction of bicycle paths, bicycle lanes, or pedestrian facilities to connect important destinations.	Infrastructure	https://resources.ca.gov/grants/urban-greening

Table F-3: Federal Funding Sources

Source/Program	Agency	Description	Project Types	Website
Carbon Reduction Program	U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA) [Administered by SACOG]	The programs seeks to reduce transportation emissions through the development of state carbon reduction strategies and by funding projects designed to reduce transportation emissions as established by the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL).	Infrastructure, Non-Infrastructure	https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp.cfm
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA) [Administered by SACOG]	The program provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. The program supports surface transportation projects and other related efforts that contribute to air quality improvement and provide congestion relief, including bicycle and pedestrian facilities, shared micromobility projects, diesel engine retrofits, transit improvements, and more. Federal funds from STBGP and CMAQ programs are allocated to SACOG. Distribution is allocated either competitively or proportionally according to jurisdiction population.	Infrastructure, Non-Infrastructure	https://www.fhwa.dot.gov/environment/air_quality/cmaq/
Highway Safety Improvement Program (HSIP) Grants	U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA)	The program focuses on roadway safety; projects with documented collision history are typically ranked higher. While this funding source is often used for major roadway improvement projects, installation of traffic signals, and most other cost-intensive projects, funding has routinely been awarded to bicycle and pedestrian projects. Successful projects have included: median refuges and curb extensions, curb, gutter, and sidewalk, paved shoulders, upgraded traffic signals with pedestrian countdown signals, pedestrian-scale lighting, bicycle lane striping, crosswalk striping, and rectangular rapid flashing beacons (RRFB). The Caltrans Division of Local Assistance (DLA) manages California's local agency share of HSIP funds. Solicitation varies from annually to semi-annually.	Infrastructure	https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program
Better Utilizing Investments to Leverage Development (BUILD)	U.S. Department of Transportation (DOT)	The BUILD grant program, formerly known as Rebuilding American Infrastructure with Sustainability and Equity (RAISE) provides grants for surface transportation infrastructure projects with significant local or regional impact. The eligibility requirements of BUILD allow project sponsors, including state and local governments, counties, Tribal governments, transit agencies, and port authorities, to pursue multi-modal and multi-jurisdictional projects that are more difficult to fund through other grant programs.	Infrastructure	https://www.transportation.gov/BUILDgrants
Rural Surface Transportation Grant Program	U.S. Department of Transportation (DOT)	The Rural Surface Transportation Grant Program supports projects that improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight,	Infrastructure	https://www.transportation.gov/grants/rural-surface-transportation-grant

		and generate regional economic growth and improve quality of life.		
Source/Program	Agency	Description	Project Types	Website
Safe Streets and Roads for All (SS4A)	U.S. Department of Transportation (DOT)	The program funds regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries. The SS4A program supports the U.S. Department of Transportation's National Roadway Safety Strategy and our goal of zero roadway deaths using a Safe System Approach. Funding is available until 2026. Over \$3 billion is still available for future funding rounds.	Infrastructure, Planning	https://www.transportation.gov/grants/SS4A

Source: Fehr & Peers, 2025; Caltrans, 2025

Appendix G: Project Fact Sheets [In Progress]

Appendix H: Plan Conformance with ATP Guidelines

Table H-1 identifies the page number of the plan or the specific appendix where each required element for active transportation plans, according to the California Transportation Commission 2025 Active Transportation Program Guidelines, is addressed in this ATP.

Item	Requirement	Pages
H	Collision Analysis: The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, both in absolute numbers and as a percentage of all collisions and injuries, and a goal for collision, serious injury, and fatality reduction after implementation of the plan.	Existing: 41-45 Planned: 59
I	Equity Analysis: Identify census tracts that are considered disadvantaged or low income and identify bicycle and pedestrian needs of those disadvantaged or low income residents, including lack of connectivity to key destinations, mobility challenges, public health concerns, and safety issues.	Existing: 29-35 Needs: Appendix A
J	Community Engagement: A description of the extent of community involvement in the development of the plan, including disadvantaged and underserved communities.	Existing: 12-13, Appendix B
K	Coordination: A description of how the active transportation plan has been coordinated with neighboring jurisdictions, including school districts within the plan area, and is consistent with other local or regional transportation, air quality, housing, or energy conservation plans, including, but not limited to, general plans and a Sustainable Community Strategy in a Regional Transportation Plan, and local or regional housing plans or process improvements that are adopted or in development.	Appendix C
L	Prioritization: A description of the projects and programs proposed in the plan and a listing of their priorities for implementation, including the methodology for project prioritization and a proposed timeline for implementation.	Increases: 59 In compliance, Pg TRD
B	Description of Land Use/Destinations: A map and description of existing and proposed land use and settlement patterns which must include, but not be limited to, the following: existing and proposed land use and settlement patterns which must include, but not be limited to, the following:	Existing: 24-28
M	Funding: A description of future financial needs for projects and programs that improve safety and convenience for bicyclists and pedestrians in the plan area. Include anticipated cost, revenue sources, and potential funding for bicycle and pedestrian uses.	Existing: 59, Appendix E, F
C	Pedestrian Facilities: A map and description of existing and proposed pedestrian facilities, including those at major transit hubs and those that serve public and private schools.	Existing: 36-38
N	Implementation: A description of steps necessary to implement the plan and the reporting process that will be used to keep the adopting agency and community informed of the progress being made in implementing the plan.	Existing: 57 Proposed: 49, 51
O	Maintenance: A description of the policies and procedures for maintaining existing and proposed bicycle and pedestrian facilities, including, but not limited to, the maintenance of smooth pavement, ADA level surfaces, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.	Existing: 56 Proposed: 56
E	Bicycle Parking: A map and description of existing and proposed end-of-trip bicycle parking facilities. Include a description of existing and proposed policies related to bicycle parking in public locations, private parking garages and parking lots, and in new commercial and residential developments. Also, include a map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These must include, but not be limited to, bicycle parking facilities at transit stops, school and transit terminals, ferry docks, and public buildings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.	Existing: 19, 40 Appendix I Proposed: 53 Appendix D, 54, 57
F	Wayfinding: A description of existing and proposed signage providing wayfinding along bicycle and pedestrian networks to designated destinations.	Existing: 42 Proposed: 42
G	Non-Infrastructure: A description of existing and proposed bicycle and pedestrian education and encouragement programs conducted in the area included within the plan.	Existing: 54-56 Proposed: 54-56

Appendix I: Plan Resolution Adopting the Plan [Placeholder]