



**Santa Cruz County Regional
Transportation Commission's
BICYCLE ADVISORY COMMITTEE**

MEETING AGENDA

Monday, May 8, 2023

6:00 pm to 8:30 pm

In-Person Meeting

SCCRTC Office: 1101 Pacific Ave, Suite 250, Santa Cruz, CA

Remote Participation

Remote participation for a) members of the public, b) nonvoting alternates, or c) voting Committee members unable to attend in person due to an emergency or for cause per AB 2449 (see p. 3 below for more information):

<https://us02web.zoom.us/j/84717770801?pwd=VjRiOEtSRURmcFhTcm1ZSzNuaisyUT09>

Online meeting ID: 847 1777 0801

Password: 093803

Dial-in: +1 669 900 9128 or +1 669 444 9171

COMMITTEE MEMBERSHIP

Member

Scott Roseman
Brad Kava
Sally Arnold
Anna Kammer
Rick Hyman
Paula Bradley
Matt Farrell
Richard Masoner
Gina Cole
Amelia Conlen, Chair
Leo Jed

Alternate

Corrina McFarlane
John Hunt
Peter Scott
Liz Hernandez
Theresia Rogerson
Vacant
Grace Voss
Vacant
Drew Rogers
Matt Miller
Arnold Shir

Representing

District 1
District 2
District 3
District 4
District 5
City of Capitola
City of Santa Cruz
City of Scotts Valley
City of Watsonville
Ecology Action/Bike To Work
Comm. Traffic Safety Coalition

The majority of the Committee constitutes a quorum for the transaction of business.

1. Call to Order
2. Introductions
3. Consider any AB 2449 requests by voting members to participate remotely
4. Announcements – RTC staff

5. Oral communications – members and public

The Committee will receive oral communications during this time on items not on today's agenda. Presentations must be within the jurisdiction of the Committee and may be limited in time at the discretion of the Chair. Committee members will not take action or respond immediately to any Oral Communications presented, but may choose to follow up at a later time, either individually, or on a subsequent Committee agenda.

6. Additions or deletions to consent and regular agendas

CONSENT AGENDA

All items appearing on the consent agenda are considered to be minor or non-controversial and will be acted upon in one motion if no member of the Committee or public wishes an item be removed and discussed on the regular agenda. Members of the Committee may raise questions, seek clarification or add directions to Consent Agenda items without removing the item from the Consent Agenda as long as no other committee member objects to the change.

7. Approve draft minutes of the April 10, 2023 Bicycle Advisory Committee meeting

8. Receive summary of hazard reports

REGULAR AGENDA

9. Pajaro Valley High School Access Project – provide input – Patrice Theriot, City of Watsonville and Madilyn Jacobsen, Caltrans District 5

10. E-bike and bikeshare incentives – provide input – Amanda Marino and Amy Naranjo, Transportation Planners

11. Construction safety for roadwork and encroachments affecting bikeways – receive staff report and discuss – Committee members

12. Updates related to Committee functions – Committee members (oral updates)

13. Adjourn

NEXT MEETING: The next Bicycle Committee meeting is scheduled for June 12, 2023 from 6:00pm to 8:30pm **IN PERSON at the RTC offices**. Members of the public and non-voting committee alternates may join remotely.

SERVICIOS DE TRADUCCIÓN/TRANSLATION SERVICES

Si gusta estar presente o participar en esta junta de la Comisión Regional de Transporte del condado de Santa Cruz y necesita información o servicios de traducción al español por favor llame por lo menos con tres días laborables de anticipo al (831) 460-3200 para hacer los arreglos necesarios. (Spanish language translation is available on an as needed basis. Please make advance arrangements at least three days in advance by calling (831) 460-3200.)

HOW TO REACH US

Santa Cruz County Regional Transportation Commission | 1101 Pacific Avenue Ste. 250, Santa Cruz, CA 95060
phone: (831) 460-3200 | email: info@scrtc.org | website: www.scrtc.org

AGENDAS ONLINE

To receive email notification when the Bicycle Advisory Committee meeting agenda packets are posted on our website, visit <https://scrtc.org/about/esubscriptions/> and choose "BAC Interest – Bicycle"

REMOTE PARTICIPATION –Committee Members (AB 2449)

This meeting is being held in accordance with the California Brown Act. Under traditional Brown Act rules, members of the Committee may attend by teleconference if the location they are attending from is also open to the public to participate and the remote meeting location is listed on the agenda. Members of the Committee may also attend via Zoom up to two times per year due to an emergency or for cause according to requirements set forth in AB 2449, as long as a quorum of the committee is present in person at the RTC office. Committee alternates who are not voting are considered members of the public, not Committee members.

- *AB 2449 defines “just cause” as:*
 - *Care of a child, parent, grandparent, grandchild, sibling, spouse, or domestic partner;*
 - *a contagious illness that prevents a member from attending in person;*
 - *a need related to a physical or mental disability as defined by statute; or*
 - *travel while on official business of the RTC or another state or local agency.*
- *AB 2449 defines “emergency circumstances” as a physical or family medical emergency that prevents a member from attending in person. The Committee member must provide a general description of the circumstances relating to your need to appear remotely at the given meeting (not exceeding 20 words). Medical condition does not need to be disclosed. The Committee must take action to approve the request to participate due to an emergency circumstance at the start of their regularly scheduled meeting.*

REMOTE PARTICIPATION - Public

The public may participate in the meetings of the Regional Transportation Commission (RTC) and its committees in person or remotely via the provided Zoom link. If technical difficulties result in the loss of communication for remote participants, the RTC will work to restore the communication; however, the meeting will continue while efforts are being made to restore communication to the remote participants. Members of the public participating by Zoom are instructed to be on mute during the proceedings and to speak only when public comment is allowed, after requesting and receiving recognition from the Chair.

PARTICIPACIÓN REMOTA – El público

El público puede participar en las juntas de la Commission Regional de Transporte (RTC) en persona o remotamente a través del enlace Zoom proporcionado. Si problemas técnicos resultan en la pérdida de comunicación con quienes participan remotamente, la RTC hará lo posible por restaurar la comunicación. Pero, la junta continuara mientras se hace lo posible por restaurar la comunicación con quienes participan remotamente.

ACCOMMODATIONS FOR PEOPLE WITH DISABILITIES

The Santa Cruz County Regional Transportation Commission does not discriminate on the basis of disability and no person shall, by reason of a disability, be denied the benefits of its services, programs, or activities. This meeting location is an accessible facility. If you wish to attend this meeting and require special assistance in order to participate, please contact RTC staff at 460-3200 (CRS 800/735-2929) at least three working days in advance of this meeting to make arrangements. People with disabilities may request a copy of the agenda in an alternative format. As a courtesy to those person affected, Please attend the meeting smoke and scent-free.

TITLE VI NOTICE

The RTC operates its programs and services without regard to race, color and national origin in accordance with Title VI of the Civil Rights Act. Any person believing to have been aggrieved by the RTC under Title VI may file a complaint with RTC by contacting the RTC at (831) 460-3212 or 1101 Pacific Avenue Ste. 250, Santa Cruz, CA, 95060 or online at www.sccrtc.org. A complaint may also be filed directly with the Federal Transit Administration to the Office of Civil Rights, Attention: Title VI Program Coordinator, East Building, 5th Floor-TCR, 1200 New Jersey Ave., SE, Washington, DC 20590.



**Santa Cruz County Regional
Transportation Commission's**

BICYCLE ADVISORY COMMITTEE

MEETING

**DRAFT MINUTES
Monday, April 10, 2023
6:00 pm to 8:30 pm**

In-Person Meeting

SCCRTC Office: 1101 Pacific Ave, Suite 250, Santa Cruz, CA

Remote Participation

Remote participation for a) members of the public, b) nonvoting alternates, or c) voting Committee members unable to attend in person due to an emergency or for cause per AB 2449 (see p. 3 below for more information):

<https://us02web.zoom.us/j/87121903768?pwd=WjNaYmtJdno4bjkvdCtGYlIdTjYQT09>

Online meeting ID: 832 4937 7389

Password: 005056

Dial-in: +1 669 900 9128 or +1 669 444 9171

1. Call to Order: Chair Amelia Conlen called the meeting to order at 6:05 pm.
2. Introductions

Members Present, in Person:

Scott Roseman, District 1
Sally Arnold, District 3
Anna Kammer, District 4
Grace Voss, City of Santa Cruz (Alt.)
Richard Masoner, City of Scotts Valley
Gina Cole, City of Watsonville
Amelia Conlen, Ecology Action, Chair
Matt Miller, Ecology Action (Alt.)
Leo Jed, CTSC
Arnold Shir, CTSC (Alt.)

Staff:

Tommy Travers, Transportation Planner
Stephanie Britt, Transportation Planning Technician

Guests:

Kailash Mozumder, City of Capitola
Juan Castillo, Ecology Action
Peter Newton, Jane Stillinger, members of the public

Members Remote, Voting under Just Cause or Emergency:

Brad Kava, District 2
Theresa Rogerson, District 5 (Alt.)
Paula Bradley, City of Capitola

Members Remote, Not Voting:

Rick Hyman, District 5

Unexcused Absences:

Excused Absences:

Corrina McFarlane, District 1 (Alt.)
John Hunt, District 2 (Alt.)
Peter Scott, District 3 (Alt.)
Liz Hernandez, District 4 (Alt.)
Matt Farrell, City of Santa Cruz
Drew Rodgers, City of Watsonville (Alt.)

Vacancies:

City Capitola – Alternate
City of Scotts Valley - Alternate

3. Staff announcements –
 - Mike Moore (City of Capitola, alt.) resigned from the committee. The Committee expressed appreciation for his many years of dedicated service. This results in a vacancy for the City of Capitola.
 - Reminder: There is a Committee meeting scheduled for May 8th.
 - Parking requirements – recent state law reduced parking requirements for transit-oriented developments, which may inadvertently affect bicycle parking requirements. Local jurisdictions are starting to address this impact.
 - Caltrans released a progress report for the State Bicycle and Pedestrian Plan
4. Oral communications –
 - Grace Voss announced that the Strawberry Fields Forever Annual Fundraising ride for road bikes will be on May 21st and the Santa Cruz Mountains Challenge will be on July 29th. All profits will go to Resilient Central Coast for conserving energy.
5. Additions or deletions to consent and regular agendas – A handout was uploaded to the RTC website for Item 12.

CONSENT AGENDA

A motion (Roseman/Voss) was made to approve the consent agenda and the motion passed unanimously with members Roseman, Kava, Arnold, Kammer, Rogerson, Bradley, Voss, Masoner, Cole, Conlen, and Jed voting in favor.

6. Approved draft minutes from the February 13, 2023, Bicycle Advisory Committee meeting.
7. Received summary of hazard reports
8. Approved correspondence from Committee to City of Santa Cruz supporting its application for grant funds to update its Active Transportation Plan

REGULAR AGENDA

9. Received SLV Schools Complex Circulation Access Study update. County of Santa Cruz and SLV School district asked whether the Committee would like to form an ad hoc subcommittee to add input to the design. A motion (Roseman/Cole) was made to create the ad hoc subcommittee consisting of Theresia Rogerson and delay its start until the first request to do work. The motion passed unanimously with members Roseman, Arnold, Kammer, Rogerson, Bradley, Voss, Masoner, Cole, Conlen, and Jed voting in favor and with Brad Kava temporarily absent.
10. Provided input for the City of Capitola projects on Kennedy Drive and Capitola Road presented by Kailash Mozumder.

Kennedy Drive Sidewalk Project

- The proposed project would add a sidewalk on one side of the road and a bike lane going up the hill.
- Add a curb ramp for ADA accessibility and move the ladder crosswalk to the other side of Park Avenue.
- Committee members commented:

- Mark 10.5-foot lanes on both sides to get a slightly wider bike lane.
- Narrower bike lanes can serve as traffic calming.
- Ensure the sharrows are in the center of the lane and not off to the side.
- Consider bike lane improvements on more of Kennedy as well.
- Widen curb-adjacent bike lane or improve gutter seam for the bike lane.
- Mark all four crosswalks
- Low-cost curb extensions with bollards could help decrease the distance for the crosswalks.
- Streets are for public access, not private parking.
- Jane Stillinger commented that northbound drivers run that stop sign so there is a need to slow down traffic before the crosswalk.

Roadway Restoration Project on Capitola Road

- The current pavement condition index is 30-40 so it needs restoration. Signage and striping will be added to help cyclists merge over near 30th Avenue and to improve bike lane visibility. The current lane widths will be replicated except near 30th Avenue. Construction will begin in late Summer or early Fall.
- Committee members discussed adding left turn facilities to the 41st Avenue intersection for cyclists (bike boxes and/or queue boxes)

11. Provided input and recommended approval for the TDA Allocation request for Bike to Work/School Program presented by Matt Miller and Juan Castillo.
 - Walk & Roll to school day - rebranding to be inclusive of other students such as users of wheelchairs or scooters.
 - Participation numbers were shared
 - 2023 Date: May 11th.
 - 3rd year of Safe Route Group Rides
 - Encourages group rides for people to try out a safe route since that holds back people from riding.
 - Looking into a route in Scotts Valley also.
 - Bike Challenge
 - Online based bicycle challenge worked to create behavior change with friendly competition.
 - In 2023 there will be a Spanish interface, and there will be engagement campaigns in Spring and Winter to create individual goals and encourage people to feel accountable and participate.
 - The benefits and difficulties of having an in-person bike to work day with tables at multiple locations next year were discussed. Ecology Action noted that their ability to change behavior is more effective throughout the year than just one big event. However, they're aware that the magic of Bike to Work Day is special. The investment is significant but could potentially happen with additional funding.
 - Committee members suggested group rides for different events like bike to Earth Day, or bike with families. Additionally, to attract different types of riders, the Committee members suggested having a series of "bike week" events like in past years, and encouraged everyone to support and volunteer with the schools.
 - A motion (Arnold/Masoner) was made to support the staff recommendation for the TDA allocation. The motion passed unanimously with members Roseman, Kava, Arnold, Kammer, Rogerson, Bradley, Voss, Masoner, Cole, Conlen, and Jed voting in favor.

12. Provided input and recommended approval for the TDA Allocation for Ride N Stride and Community Traffic Safety Coalition (CTSC) presented by Theresia Rogerson.
 - County-wide coalition to prevent traffic-related injuries and fatalities. Goal of zero traffic fatalities. Two-year work plan to assist the City of Watsonville with their vision zero action plan and promote vision zero in other parts of the County. Four of the jurisdictions in Santa Cruz County have adopted vision zero policies, while discussions with the City of Capitola continue. Ride n' Stride is an elementary school safety education program and is offered in Spanish.
 - Proposal by County Health Services Agency to combine all their Ride n' Stride and CTSC programs under one umbrella for funding.
 - Committee members expressed appreciation for the programs, while seeking to understand how success is measured. It was clarified that the Watsonville Vision Zero Task Force, which is partially supported by the CTSC, continues to gather and analyze crash data and target specific areas.
 - A motion (Kammer/Roseman) was made to support the staff recommendation for TDA allocation and budgeting both programs' funding together into one. The motion passed unanimously with members Roseman, Kava, Arnold, Kammer, Hyman, Bradley, Voss, Masoner, Cole, Conlen, and Jed voting in favor and Rogerson abstaining.
13. Deferred the construction safety for roadwork and encroachments affecting bikeways to May meeting.
14. Committee members provided updates related to Committee Functions
 - Anna Kammer: The City of Watsonville is updating its 2005 general plan. The plan will provide opportunities for improved bike and pedestrian networks. There will be many outreach events and committees.
 - Arnold Shir: County Health Services Agency filled the vacant position that helps implement the traffic safety programs.
 - Gina Cole: City of Watsonville will host "bike party." The first will be on April 28th and always be the last Friday of the month.
15. Adjourn – 8:27pm

NEXT MEETING: The next Bicycle Committee meeting is scheduled for May 8th, 2023, from 6:00pm to 8:30pm in hybrid format.

Minutes respectfully prepared and submitted by:
Stephanie Britt, Transportation Planning Technician

Bicycle Hazard Report

Summary May 8, 2023

Date	First Name	Last Name	Location	Cross Street	City	Reported Hazards	Additional Comments	Forwarded To	Forwarded Date	Response
04/14/23	Laurie	Radovan	2299 Delaware Ave	Natural Bridges Dr	Santa Cruz	Bike: Debris on shoulder or bikeway	There is a branch hanging from a cypress tree directly into the bike lane that hit somebody in the head today.	Claire Gallogly, Dan Estranero	04/14/23	5/3/23 Dan Estranero: Staff will check the area and send a hazard letter to the property owner.
04/11/23	Alyssa	Burkhardt	790 Mariner Park Way	N/A	Santa Cruz	Bike: Debris on shoulder or bikeway	There is a large dead raccoon in the bike lane on the Murray street bridge in the eastbound direction.	Claire Gallogly, Dan Estranero	04/14/23	5/3/23 Dan Estranero: Staff will check the area.
04/05/23	Becky	Steinbruner	4516 Wharf Rd	Soquel Wharf Rd	Soquel	Bike: Lighting problem, Construction hazard	This construction area has become very dangerous for bicyclists traveling at night from Capitola to Soquel on Wharf Road because there are now many steel plates in the bike lane, and on the corner of the turn to continue on Wharf Road at Robertson. The steel plates have abrupt edges, and there is no warning sign on the approach from Capitola. Please place flashing beacons in this area, especially on the sharp turn at the Robertson/Wharf Road intersection where the steel plates and construction implements are.	DPW	04/11/23	4/11/23 Ruby Zaragoza: Thank you for your email. I have cc'd our road dispatch for review and response.
04/05/23	Frank	Ramici	A half mile south of Freedom Blvd. and Corralitos Rd	N/A	Corralitos	Bike: Other	Dead deer in bike path.	DPW	04/11/23	4/11/23 Ruby Zaragoza: Thank you for your email. I have cc'd our Dispatch for review and response.
04/05/23	Trician	Comings	59 S Branciforte Ave	East Cliff Dr	Santa Cruz	Bike: Plant overgrowth or interference, Debris on shoulder or bikeway	The vegetation on both sides of the path needs to be cut back. At the top of the path (where S. Branciforte Ave. ends), the Eucalyptus pods and tree slash make it dangerous for both walkers and bicyclists. Bike tires can glance off the triangular shaped pods and the rider could lose balance.	Claire Gallogly, Dan Estranero	04/11/23	5/3/23 Dan Estranero: Staff will check the area and send a hazard letter to the property owner.
04/03/23	Jaime	Bellingham	Traffic light at the Tannery	N/A	Santa Cruz	Bike: Traffic signal problem	At the traffic lights leaving the Tannery, the bike lane is not tripping the traffic lights. This is for when you leave the tannery parking lot and head west on Encinal.	Claire Gallogly, Dan Estranero (Forwarded to Caltrans on 4/11/23)	04/04/23	4/11/23 Katie Osekowsky: Good morning Jaime, Customer Service Request# 951109 has been created for this and it will be assigned to the Caltrans D5 North Region Electrical Crew.
04/03/23	Chris	Zegers	East Cliff drive at the Santa Cruz Riverwalk	Hiawatha Ave	Santa Cruz	Bike: Rough pavement or potholes, Pavement cracks	East Cliff drive at the Santa Cruz Riverwalk cut out (between Hiawatha Ave. and Murray street), the street is severely cracked and poses a safety hazard to cyclists who exit from East Cliff drive onto the Santa Cruz Riverwalk cutout. Very dangerous to safely navigate. Vehicles often speed through here as well.	Claire Gallogly, Dan Estranero	04/04/23	4/4/23 Dan Estranero: We will have someone investigate the area and get back to you.
03/28/23	Ernesto	Anguiano	22130 E Cliff Dr	N/A	Santa Cruz	Bike: Debris on shoulder or bikeway	The county built a curb edge after one of the storms right away and pushed all the sand to one side of the street which has caused large amounts of sand to build on the roadway and bike lane. Bikes coming downhill at high speeds and at night will not be able to stop and could cause someone to become seriously injured. When it builds up on the bike lane, it also forces bikes onto the car section of the road, which is also a hazard. Not sure why the county built that curb and how they got it done so quickly compared to any other infrastructure requirements but I have never seen so much sand built up on the roadway and bike lane until after they constructed it.	DPW	03/28/23	3/28/23 Ruby Zaragoza: Thank you for reporting. I have cc'd our Road Maintenance division for review and response.

TO: Bicycle Advisory Committee

FROM: Tommy Travers, Transportation Planner

RE: Safer Access to Pajaro Valley High School and Beyond Project

RECOMMENDATIONS

Staff recommends that the Committee receive a presentation about the Safer Access to Pajaro Valley High School and Beyond Project and provide design input to City of Watsonville and Caltrans District 5 staff.

BACKGROUND

The Safer Access to Pajaro Valley High School (PVHS) and Beyond Project includes infrastructure improvements at the Highway 1/Harkins Slough Road overcrossing (see [Attachment 1](#)), other safety improvements in the vicinity of feeder schools, and non-infrastructure programming. PVHS is challenging to access for the significant numbers of students who travel by active transportation.

The project funding included STIP funds allocated by the RTC. Such RTC funding allocations require projects seek design input from RTC advisory committee(s).

DISCUSSION

Currently, Harkins Slough Rd is the only road to and from PVHS, and it has gaps and barriers in its pedestrian and bicycle facilities. There is also a high number of pedestrian and bicycle crashes in and around the feeder schools for PVHS. The Harkins Slough Road bridge over Highway 1 currently has one narrow sidewalk on the north side, and no connecting sidewalks to Green Valley Road. Constructing a pedestrian bridge, installing a sidewalk, and reconfiguring the existing bike lanes on Harkins Slough Road will eliminate the gaps and barriers to pedestrians and bicyclists. Providing pedestrian and bicycle improvements and safety training in and around the feeder schools will reduce the number of crashes.

Project elements

- Widen the bridge to install pedestrian sidewalks and bi-directional bike lanes
- Implement improvements at the intersection of Harkins Slough Rd / Green Valley Rd / Silverleaf
- Replace non-ADA compliant curb ramps
- Install high visibility crosswalks
- Implement pedestrian safety improvements at feeder schools in the PVHS attendance area

- Include education programming in the schools and community regarding pedestrian and bicycle safety

Schedule

Currently, Caltrans is preparing design and right-of-way documents. Construction is scheduled to begin in Summer 2024.

Funding

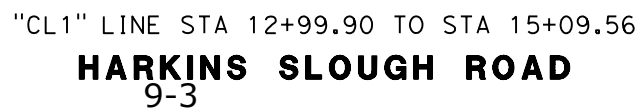
The \$15,823,000 project is funded primarily through a grant from the state Active Transportation Program (ATP), with additional funds from the city's Westside Development fees, the city's 2016 Measure D – Local funds, and State Transportation Improvement Program funds allocated by the RTC.

SUMMARY

Staff recommends that members of the Bicycle Advisory Committee provide input on the project.

Attachment 1: Exhibits of the Caltrans portion of the project (Harkins Slough Road between the freeway on-ramp and the freeway off-ramp)

x
x
x
x

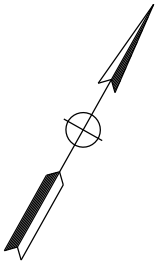


TYPICAL CROSS SECTIONS
NO SCALE **X-2**

NOTE:
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. THE CALTRANS PROJECT (EA 05-1G490) WILL BE BUILT CONCURRENTLY WITH THE CITY OF WATSONVILLE PROJECT.

LEGEND:
⇒ DIRECTION OF TRAFFIC

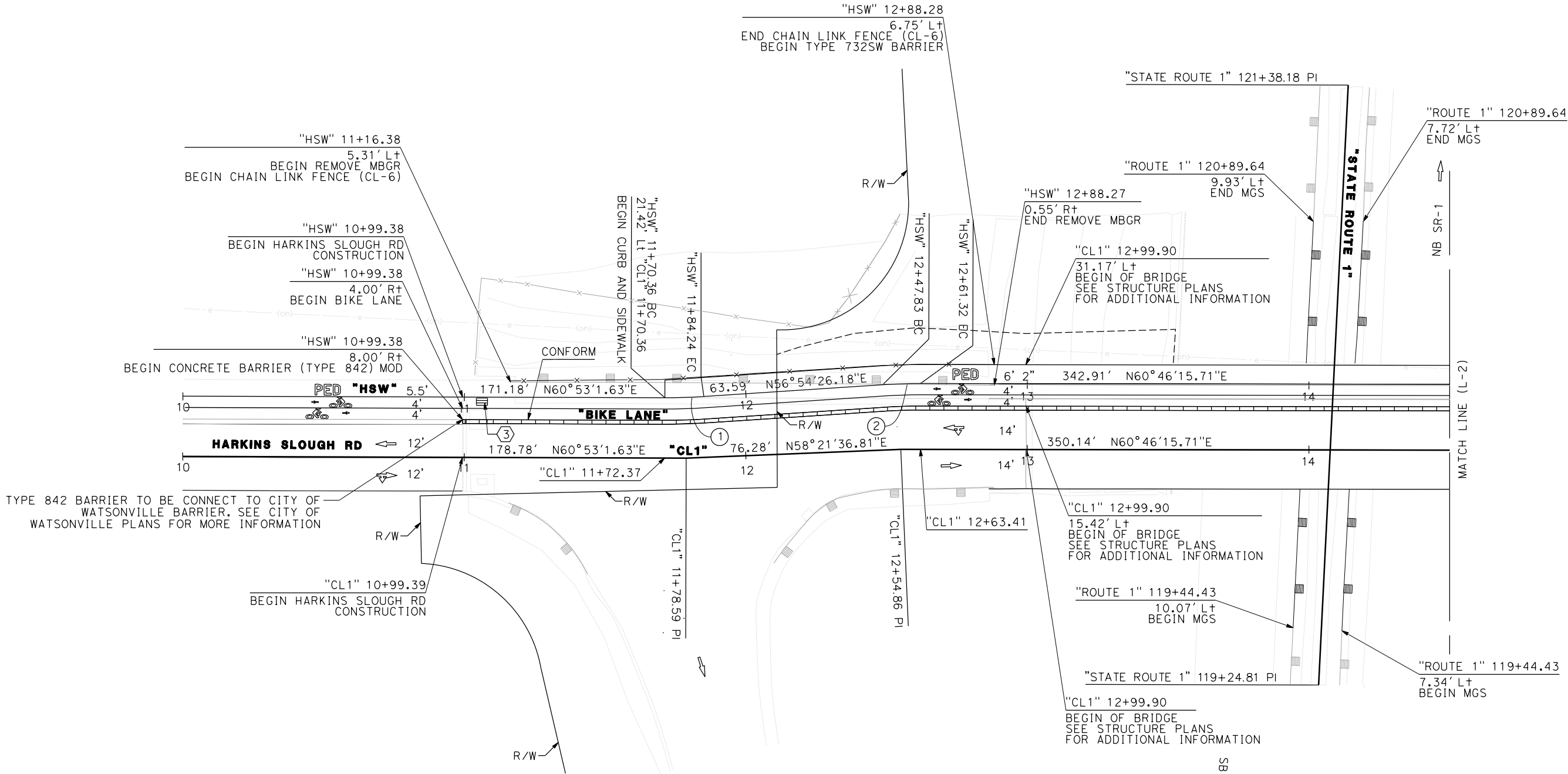
ABBREVIATION:
MGS - MIDWEST GUARDRAIL SYSTEM



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SCR	1	2.27	04	61

REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
No. Exp. CIVIL
STATE OF CALIFORNIA



west side of Highway 1

CURVE DATA

No. #	R	Δ	T	L
1	200.00	03°58'35"	6.94	13.88
2	200.00	03°51'50"	6.75	13.48

LAYOUT

SCALE: 1"= 20'

L-1

TO: RTC Advisory Committees

FROM: Amanda Marino, Transportation Planner and Amy Naranjo, Transportation Planner

RE: Potential GO Santa Cruz County E-Bike, Regular Bike and/or Bikeshare Incentive Pilot Program

RECOMMENDATIONS

Staff recommends that the Bicycle Advisory Committee (BAC) provide input on a potential pilot program to incentivize the use and purchase of electric bicycles, regular bicycles and/or bikeshare services.

BACKGROUND

The Regional Transportation Commission (RTC) supports efforts that increase walking, biking, ride sharing, telecommuting, and taking public transit. The RTC offers transportation demand management (TDM) and motorist information services under the Cruz511 program and encourages travelers to maximize the efficiency of the existing transportation system by providing information and resources to choose sustainable modes of transportation.

RTC provides ride-matching and trip planning services through a web tool called GO Santa Cruz County. The online platform is used to distribute incentives and cash rewards to commuters for choosing sustainable commute options. Staff also partner with regional employers to help establish and expand worksite commuter programs using the GO Santa Cruz County platform. Go Santa Cruz County is a component of the Cruz511 program and is partially funded with Measure D Highway funds.

In April 2023, Staff provided a Go Santa Cruz County update to the Regional Transportation Commission and discussed the potential for piloting a countywide electric bicycle rebate program. The Commission instructed staff to return in June with more information for the pilot concept.

DISCUSSION

Electric bikes are becoming increasingly popular as a form of transportation, due to their environmental benefits and cost savings compared to traditional gas-powered vehicles. However, the upfront cost of electric bikes can be a barrier for some individuals. Electric bikes tend to be significantly more expensive than classic bikes, so a purchase incentive may be the only way for many people to afford one. There is growing support nationally to accelerate adoption of e-bikes by providing financial incentives to make healthy, green transportation options more affordable.

Existing Rebate Programs

California Air Resources Board (CARB) is set to launch a statewide electric bicycle incentives project in 2023 Q3. Up to \$10M worth of vouchers will be available to any California resident to help with the purchase of a class 1, 2, or 3 e-bike¹. Qualifying applicants may be able to get a voucher of up to \$1,000 for a regular e-bike and up to \$1,750 for a cargo or adaptive e-bike. Eligibility for the pilot program will be limited to people whose income is less than 300% of the federal poverty level (\$40,770 for an individual, \$83,250 for a family of 4). People whose income is under 225% FPL or who live in disadvantaged (DAC) census tracts qualify for additional incentives of up to \$250. Demand for the vouchers is likely to exceed available funding.

The Monterey Bay Air Resources District (MBARD) will continue its E-bike Rebate program into FY23/24. Rebates are worth up to \$1,000 for income qualified applicants and are available until funds are exhausted. This incentive is funded by AB 2766 grant funds. Rebates are issued post-purchase and are available for income qualified applicants only.

The City of Santa Cruz currently funds the only electric bicycle rebate program in the region, and it's limited to City of Santa Cruz and Downtown employees only. Standard (base) rebates are \$400, and income qualified downtown employees can receive up to \$800. The City of Santa Cruz intends to continue funding the e-bike rebate program through 2023.

Countywide eBike Voucher Pilot

The potential countywide e-bike/bike/bikeshare rebate pilot would be a GO Santa Cruz County initiative aimed at encouraging more people to switch to electric bikes, bikes and bike sharing for their daily transportation needs. The program would be an expansion of the existing downtown Santa Cruz

¹ Class 1: Pedal-assist only; motor provides assistance all the way up to 20 mph. Class 2: Pedal-assist or throttle; motor provides assistance all the way up to 20 mph. Class 3: Pedal assist only; motor provides assistance all the way up to 28 mph.

program and would offer rebates to residents throughout the county with the goal of making choosing to bike by regular bike, e-bike or bikeshare more affordable and accessible, ultimately leading to reduced emissions and improved air quality. Rebates would be offered on a first-come, first-served basis.

The e-bike rebate program would likely to be funded through a combination of funding sources and staff plans to submit grant applications to different funding sources to fund the potential pilot program. Staff currently estimates a \$300,000 budget for the initial pilot project, which would be used to cover the vouchers (\$250k) and program management/rebate distributions (\$50k).

Staff recommend the Bicycle Advisory Committee provide input on the various options described below for a potential pilot program to provide e-bike and/or classic bike and/or bikeshare vouchers.

Potential Program Eligibility

Applicants

- 18 years or older
- Limit 1 rebate per individual, 1 per household
- Resident of Santa Cruz County *provide verification*
- 300% FPL *provide verification of enrollment in eligible program*

Eligible Bicycles

- Regular Bicycle
- Bikeshare
- Class 1 or 2 electric bikes
- Purchased at a local participating retailer in Santa Cruz County

Potential Incentive Amounts

Potential voucher amounts would vary by type of bike and would only be for income qualified individuals.

- Traditional Bicycle \$200
- Standard/ Base \$800
- Cargo/Adaptive \$1200
- **Estimated number of Vouchers: 320**

Includes vouchers for traditional, non-electric bicycles that tend to be more affordable. Increased incentive for cargo or adaptive bicycles. Voucher amounts could potentially be greater to make the bicycles more affordable, but it would reduce the number of vouchers that could be made available. The vouchers could also be stacked with other incentive programs provided by the State or MBARD.

Complementary Incentives

Staff are also looking into offering discount codes for the regional bikeshare program that is launching this summer through the Go Santa Cruz County platform. To receive the digital code, users would first need to register for GO Santa Cruz County. Staff are in contact with BCycle to set up a discount code and will have more information to share with the committee as new information becomes available.

Electric Bike Incentive Program Concerns

Staff has heard the following concerns regarding electric bike incentive programs and is trying to address the concerns in the potential pilot program.

- Electric bikes are quite expensive that even with the incentives, they may still be too expensive for low-income individuals; therefore, the incentives should be greater and/or stackable and more focused to low-income individuals.
- It is not necessary to incentivize the purchase of electric bikes by individuals who are not low income.
- Incentives should not be available for purchase of Class 3 electric bikes because they are significantly faster and heavier, and would result in significantly greater injuries, if involved in collisions with pedestrians or other bicyclists.
- Incentives should also be available for regular bicycles because they are environmentally superior to electric bikes, are not as fast or as heavy as electric bikes making them safer if involved in collisions with pedestrians or other bikes and are less expensive making them more affordable for lower income individuals.
- Incentives should be available for bike sharing because many lower income individuals may not have the space to store an electric bike or regular bike at their residence.

Outreach Plan

To promote the potential voucher pilot, staff would use a combination of online and offline marketing tactics. This would include:

- Creating a new bilingual webpage for the voucher pilot, where individuals can learn more about the program and apply for a rebate.
- Promoting the program at various local community events and festivals.
- Advertising the program through our various mailing lists, social media channels, and online ads.
- Partnering with local retailers to promote the program in-store.
- Reaching out to local media outlets to generate buzz and awareness about the program.

Furthermore, staff would prioritize outreach efforts to promote GO Santa Cruz County and the rebate pilot to South County residents. Activities under development include:

- Signage for the Watsonville Transit Center – A-frame and posters
- GO Santa Cruz County banner displayed over Main Street in the Plaza
- Providing updated collateral materials (brochures, etc.) for City of Watsonville staff and County Staff (Beach St. offices)

Staff are also looking into tabling at the following events in South County:

- El Mercado/ Farmers Market Ramsay Park
- Santa Cruz County Fair
- Strawberry Festival

SUMMARY

GO Santa Cruz County is an online commuter management and rewards platform administered by the RTC and City of Santa Cruz (for downtown employees). Staff recommends the BAC provide input on developing a countywide electric bicycle, regular bike and/or bikeshare incentive program.

Note: this item was postponed from the April 2023 meeting

AGENDA: May 8, 2023

TO: Bicycle Advisory Committee

FROM: Tommy Travers, Transportation Planner

RE: Construction safety for roadwork and encroachments affecting bikeways

RECOMMENDATION

Staff recommends that the Bicycle Advisory Committee discuss an issue brought forth by Member Scott Roseman and previously discussed by the Community Traffic Safety Coalition (CTSC) regarding construction safety for roadwork and encroachments affecting bicyclists.

BACKGROUND

As discussed briefly during the February Committee meeting, recently lengthy roadwork projects in Santa Cruz County have shown that bicyclists can be either not considered or inadequately considered when construction work occurs along roadways. The Committee may wish to formally ask local jurisdictions to implement improvements to policies and practices regarding mitigating construction impacts to bicyclists.

DISCUSSION

In order to facilitate discussion and ideas to improve bicycle safety and accommodation near construction zones, staff and members of the committee requested information from the CTSC and the local road jurisdictions regarding what is currently recommended and what is required.

Current requirements as reported by the jurisdictions tend to refer their own forces or encroaching parties to follow certain sections of the California MUTCD. These sections include 6D.101(CA) "Bicycle Considerations" and 6G.05 "Work Affecting Pedestrian and Bicycle Facilities." Section 6C.01 states that "Traffic control planning should be completed for all highway construction, utility work, and maintenance operations... Planning for all road users should be included in the process." Jurisdiction staff noted that planning for bicyclists sharing the lane with motor vehicles can be justified when considering speed differentials and other factors.

Of note are text in Section 6G.05 that "Signs should be placed such that they do not block the bicyclist's path of travel and they do not narrow any existing pedestrian passages to less than 48 inches" and text in Section 6D.101(CA) that "When the roadway width is inadequate for allowing bicyclists and motor vehicles to travel side by side, warning signs should be used to advise motorists of the presence of bicyclists in the travel way lanes. See section 6G.05 [bicycle logo and 'Share the Road']" and "Bicyclists shall not be led into direct conflicts with mainline traffic, work site vehicles, or equipment." ([Attachment 1](#))

Below is an example of a recent local project on Soquel Avenue which at this location included a series of three signs placed to completely block the bike lane, and none of them being related to bicycles.



It may be the case that local jurisdictions need to improve the amount of review of their own and contractors' temporary traffic control (TTC) plans, as well as the amount of field inspections performed during major projects, to ensure that requirements are being followed. Fines or contractor disqualification for future work or encroachments may be considered as enforcement options. In addition, for major projects, jurisdictions could attempt to provide TTC plans to the public or advisory committees in advance to allow input.

In addition, some elements of the California MUTCD may be in need of revision, such as the recommendation of "share the road" wording rather than the generally more acceptable "bikes may use full lane." Additional sign text that may be worth considering includes:

- "Construction in bike lane ahead. Proceed with caution"
- "Bikes merge with motor vehicles"
- "Bike lane blocked ahead"
- "Bikes may use sidewalk"

Any jurisdiction may take action to use non-standard signs on their roads if they choose to do so. The quantity of signs placed in the road should be considered if their presence itself is an

unavoidable hazard to bicyclists. That said, jurisdictions could explore creative ways to place temporary construction signs out of the way of bicyclists, such as strapping them overhead to existing sign posts or requesting permission if necessary to place them visibly in landscaping space adjacent to the road or sidewalk.

Another possible action to support bicyclists of all ages and abilities is to allow slow speed bicycling on sidewalks in construction zones where no other separation from motor vehicles exist; this may require ordinance changes in the cities of Santa Cruz, Watsonville, and Capitola.

Additional ideas for improvement include prioritizing temporary bike detours, where they might exist close by and would not be burdensome to use, and the importance of considering adjacent concurrent projects' schedules so that reasonable bike routes and detours are coordinated during major projects.

The CTSC has a document entitled "Recommended Guidelines to Protect the Safety of Bicyclists and Pedestrians, Including Those with Disabilities During Road Construction, Maintenance, or Encroachment" (Attachment 2) which was originally development over 20 years ago and was last updated in 2015. It includes additional relevant text from the California MUTCD. The bicycle elements of this document may contribute to Committee recommendations.

The Committee may wish to discuss these or other ideas and consider its own specific recommendations to local jurisdictions and/or RTC Commissioners to make policy changes to improve bicycle safety in construction zones.

SUMMARY

Staff recommends that the Bicycle Advisory Committee discuss the issue of bicyclist safety in construction zones and consider recommendations to local jurisdictions.

ATTACHMENTS

1. Excerpts from California MUTCD
2. CTSC's Recommended Guidelines for bike and ped construction impacts

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Support:

¹⁰ Judicious use of the special devices described in Item E in Paragraph 9 might be helpful for certain difficult TTC situations, but misuse or overuse of special devices or techniques might lessen their effectiveness.

Section 6D.101(CA) Bicycle Considerations

Support:

⁰¹ There are several considerations in planning for bicyclists in TTC zones on highways and streets:

- A. A travel route that replicates the most desirable characteristics of a wide paved shoulder or bikeway through or around the TTC zone is desirable for bicyclists.
- B. If the TTC zone interrupts the continuity of an existing bikeway system, signs directing bicyclists through or around the zone and back to the bikeway is desirable.
- C. Unless a separate bike path through or around the TTC zone is provided, adequate roadway lane width to allow bicyclists and motor vehicles to travel side by side through or around the TTC zone is desirable.

Guidance:

- D. When the roadway width is inadequate for allowing bicyclists and motor vehicles to travel side by side, warning signs should be used to advise motorists of the presence of bicyclists in the travel way lanes. See Section 6G.05 for more details.

Standard:

- E. Bicyclists shall not be led into direct conflicts with mainline traffic, work site vehicles, or equipment moving through or around the TTC zone.

Support:

⁰² Figures 6H-15, 6H-30, 6H-32(CA), 6H-36(CA), 6H-101(CA), 6H-102(CA), 6H-103(CA), and 6H-104(CA) show typical TTC device usage and techniques for bicycle movement through TTC zones.

- B. Upgrading of devices:*
 - 1. A full complement of standard pavement markings*
 - 2. Brighter and/or wider pavement markings*
 - 3. Larger and/or brighter signs*
 - 4. Channelizing devices with greater conspicuity*
 - 5. Temporary traffic barriers in place of channelizing devices*
- C. Improved geometrics at detours or crossovers*
- D. Increased distances:*
 - 1. Longer advance warning area*
 - 2. Longer tapers*
- E. Lighting:*
 - 1. Temporary roadway lighting*
 - 2. Steady-burn lights used with channelizing devices*
 - 3. Flashing lights for isolated hazards*
 - 4. Illuminated signs*
 - 5. Floodlights*
- F. Pedestrian routes and temporary facilities*
- G. Bicycle diversions and temporary facilities*

Section 6G.05 Work Affecting Pedestrian and Bicycle Facilities

Support:

01 It is not uncommon, particularly in urban areas, that road work and the associated TTC will affect existing pedestrian or bicycle facilities. It is essential that the needs of all road users, including pedestrians with disabilities, are considered in TTC zones.

02 In addition to specific provisions identified in Sections 6G.06 through 6G.14, there are a number of provisions that might be applicable for all of the types of activities identified in this Chapter.

Guidance:

03 *Where pedestrian or bicycle usage is high, the typical applications should be modified by giving particular attention to the provisions set forth in Chapter 6D, this Chapter, Section 6F.74, and in other Sections of Part 6 related to accessibility and detectability provisions in TTC zones.*

04 *Pedestrians should be separated from the worksite by appropriate devices that maintain the accessibility and detectability for pedestrians with disabilities.*

05 *Bicyclists and pedestrians should not be exposed to unprotected excavations, open utility access, overhanging equipment, or other such conditions.*

06 *Except for short duration and mobile operations, when a highway shoulder is occupied, a **SHOULDER WORK (W21-5)** sign, a **SHOULDER CLOSED C30A(CA)** sign, or other similar signs should be placed in advance of the activity area. When work is performed on a paved shoulder 8 feet or more in width, channelizing devices should be placed on a taper having a length that conforms to the requirements of a shoulder taper. Signs should be placed such that they do not narrow any existing pedestrian passages to less than 48 inches.*

06a *When existing accommodations for bicycle travel are disrupted or closed in a long-term duration project (see Section 6G.02), information and devices contained in Figures 6H-101(CA) through 6H-104(CA), as appropriate per situation encountered, should be used in order to replicate existing conditions for the needs and control of bicyclists through a TTC zone.*

06b *Except for short durations and mobile operations (see Section 6G.02), when a highway shoulder is occupied and bicyclists would be sharing a lane with vehicular traffic, as a result of the TTC zone, a combination of **bicycle crossing W11-1** and **SHARE THE ROAD W16 1** plaque should be placed in advance of the activity area. When work is performed on a paved shoulder 8 feet or more in width, channelizing devices should be placed on a taper having a length that conforms to the requirements of a shoulder taper. Signs should be placed such that they do not block the bicyclist's path of travel and they do not narrow any existing pedestrian passages to less than 48 inches.*

07 **Pedestrian detours should be avoided since pedestrians rarely observe them and the cost of providing accessibility and detectability might outweigh the cost of maintaining a continuous route. Whenever possible,**

work should be done in a manner that does not create a need to detour pedestrians from existing routes or crossings.

Standard:

⁰⁸ Where pedestrian routes are closed, alternate pedestrian routes shall be provided.

⁰⁹ When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.

Option:

¹⁰ If establishing or maintaining an alternate pedestrian route is not feasible during the project, an alternate means of providing for pedestrians may be used, such as adding free bus service around the project or assigning a person the responsibility to assist pedestrians with disabilities through the project limits. See Section 6D.01 for details.

Section 6G.06 Work Outside of the Shoulder

Support:

⁰¹ When work is being performed off the roadway (beyond the shoulders, but within the right-of-way), little or no TTC might be needed. TTC generally is not needed where work is confined to an area 15 feet or more from the edge of the traveled way. However, TTC is appropriate where distracting situations exist, such as vehicles parked on the shoulder, vehicles accessing the worksite via the highway, and equipment traveling on or crossing the roadway to perform the work operations (for example, mowing). For work beyond the shoulder, see Figure 6H-1.

Guidance:

⁰² Where the situations described in Paragraph 1 exist, a single warning sign, such as ROAD WORK AHEAD (W20-1) or Workers W21-1 sign, should be used. If the equipment travels on the roadway, the equipment should be equipped with appropriate flags, high-intensity rotating, flashing, oscillating, or strobe lights, and/or a SLOW MOVING VEHICLE (W21-4) sign.

Option:

⁰³ If work vehicles are on the shoulder, a SHOULDER WORK (W21-5) sign may be used. For mowing operations, the sign MOWING AHEAD (W21-8) may be used.

⁰⁴ Where the activity is spread out over a distance of more than 2 miles, the SHOULDER WORK (W21-5) sign may be repeated every 1 mile.

⁰⁵ A supplementary plaque with the message NEXT XX MILES (W7-3aP) may be used.

Guidance:

⁰⁶ A general warning sign like ROAD MACHINERY AHEAD (W21-3) should be used if workers and equipment must occasionally move onto the shoulder.

Section 6G.07 Work on the Shoulder with No Encroachment

Support:

⁰¹ The provisions of this Section apply to short-term through long-term stationary operations.

Standard:

⁰² When paved shoulders having a width of 8 feet or more are closed, at least one advance warning sign shall be used. In addition, channelizing devices shall be used to close the shoulder in advance to delineate the beginning of the work space and direct motor vehicle traffic to remain within the traveled way.

Guidance:

⁰³ When paved shoulders having a width of 8 feet or more are closed on freeways and expressways, road users should be warned about potential disabled vehicles that cannot get off the traveled way. An initial general warning sign, such as ROAD WORK AHEAD (W20-1), should be used, followed by a RIGHT or LEFT SHOULDER CLOSED (W21-5a) sign. Where the downstream end of the shoulder closure extends beyond the distance that can be perceived by road users, a supplementary plaque bearing the message NEXT XX FEET (W16-4P) or MILES (W7-3aP) should be placed below the SHOULDER CLOSED (W21-5a) sign. On multi-lane, divided highways, signs advising of shoulder work or the condition of the shoulder should be placed only on the side of the affected shoulder.

Recommended Guidelines to Protect the Safety of Bicyclists and Pedestrians, Including Those with Disabilities During Road Construction, Maintenance or Encroachment



As stated in the California MUTCD 2012 Edition, “The needs and control of all road users (motorists, bicyclists, and pedestrians within the highway, or on private roads open to public travel, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA)) through a temporary traffic control (TTC) zone shall be an essential part of highway construction, utility work, maintenance operations, and the management of traffic incidents.”

THE PROBLEMS

There are three general situations which impact bicyclists, pedestrians, and disabled travelers:

1. Work in the *bikeway** or *walkway* that forces bicyclists or pedestrians to compete with motor vehicles in a narrow car lane.
2. Work which is not in the *bikeway* or *walkway* but which puts equipment, debris, or warning signs in the *bikeway* or *walkway*.
3. Work that blocks the direction of travel without a clear, safe, and convenient detour for cyclists, pedestrians, or wheelchair travelers.

In addition, please be aware of these specific hazards for bicyclists, pedestrians, and disabled travelers:

Hazards to Bicyclists

- Signs, equipment, or debris in the *bikeway*.
- *Bikeway* blocked without advance warning.
- Rough pavement or gravel without advance warning.
- Poor pavement transitions, especially when parallel to the line of travel (e.g. metal plate edges or pavement removal/resurface areas which are not tapered).
- Inadequate time to pass through a signalized traffic control.

Hazards to All Pedestrians (including those who are visually impaired or use mobility equipment)

- Blocked/hazardous *walkway* that is not marked in a way that is visible in advance, especially at night.
- Alternate route or detour that is not negotiable by pedestrians using wheelchairs, strollers, carts, etc.
- Blocked/hazardous *walkway* without a barrier that is solid enough to be discernible by guide dog or cane.
- Signs, equipment, or debris partially blocking the *walkway* or encroaching on minimum clearance envelope of 4 feet wide by 7 feet tall.
- Sidewalk blocked with no curb cut or ramp to exit or advance warning to exit at a prior curb cut.
- Rough pavement, grooves, or gravel without advance warning. Rocks of 3 inch diameter or greater are especially hazardous as they may cause a wheelchair to stop abruptly and eject the occupant.

* For the purposes of these guidelines, “*bikeway*” will be used to refer to the space usually used by bicyclists for travel within a given right-of-way, including painted bike lanes, paved shoulders, the right side of a wide travel lane, or the center of a narrow travel lane if there is no bike lane or shoulder. “*Walkway*” will be used to refer to sidewalks, shoulders, and paths where pedestrians, including people using wheelchairs, usually travel.

THE SOLUTIONS

The CA MUTCD follows these “fundamental principles” for bicyclists and pedestrians in TTC zones:

1. Bicycle and pedestrian “movement should be disrupted as little as practicable”
2. “Bicyclists and pedestrians, including those with disabilities, should be provided with access and reasonably safe passage through the TTC zone.”
3. “Motorists, bicyclists, and pedestrians should be guided in a clear and positive manner while approaching and traversing TTC zones and incident sites.”

In addition, please consider the following specific safety and access measures:

Detours

- When construction blocks the *bikeway*, accommodations should be made for bicyclists if they are made for motorists, including safe and well-marked detours when needed. When motorists are detoured, try finding a safe corridor that may be left open for bicyclists. If not possible, post “End Bike Lane” and “Bikes May Use Full Lane” (BMUFL) signs to encourage cyclists to merge into the travel lane. Rather than directing bicyclists to walk their bikes, try to provide a rideable alternative.
- If construction or signs must block the *walkway*, establish safe, well-signed detours for pedestrians that are accessible for pedestrians using wheelchairs, strollers, carts, etc.
- When traffic control is conducted using temporary traffic signals, timing should accommodate bicyclists, who will be slower than motor vehicles, especially in the uphill direction. Consider push button signals or special bicycle loop detectors for bicyclists, if practical.
- Barriers should have a portion low enough and solid enough to be easily discernible by a cane, guide dog, or child. If necessary, use flaggers to guide pedestrians in a clear, calm manner.
- For long-term duration projects, the chevron-style “shared roadway bicycle marking” (sharrow) may be used along detours with on-street parking and inadequate lane width.

Signs

- Whenever possible, construction warning signs should be placed out of the *bikeway* and *walkway*, so that the sign itself is not a barrier for bicyclists, pedestrians, or wheelchair travelers. Remove construction signs promptly when construction pauses or ends.
- Any construction or sign that blocks the *bikeway* should have sufficient sight distance, including nighttime visibility, to allow cyclists time to merge safely into the travel lane. Use “End Bike Lane” and “BMUFL” signs appropriately.
- Any construction or sign which blocks the *walkway* should have prior warning to allow pedestrians and wheelchair travelers time to exit the walkway at a prior curb cut.
- For all construction where the *bikeway* or *walkway* is blocked or narrows, post appropriate caution signs to warn motorists to slow down and watch for bicyclists and pedestrians.

Pavement Surface

- Temporary pavement or metal plates installed during TTC zones should have cold mix asphalt tapered at the edges for bicyclist, pedestrian and wheelchair traveler safety. Avoid placing metal plate edges in the middle of the *bikeway*. Debris in the *bikeway* or *walkway* should be cleared at the end of each workday.
- If no smooth surface is available for bicyclists, pedestrians, or wheelchair travelers, post signs warning “Rough Surface” or “Uneven Pavement” at the beginning of the work area. Keep signs posted at the end of the workday. Use reflective signage on barricades with flashers for night safety.
- Prior to “sign off” on projects, verify that the pavement in the *bikeway* and *walkway* is even. Overlay should be smoothed at drainage grates, manholes, and gutter pan, and after narrow trenching in the *bikeway*.