Santa Cruz County

-- SAFETY ACTION PLAN --

April 2026

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List of Acronyms

AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic
ARIDE	Advanced Roadside Impaired Driving Enforcement
Caltrans	California Department of Transportation
CCR	Critical Crash Rate
CHP	California Highway Patrol
CMF	Crash Modification Factor
CRF	Crash Reduction Factor
DRE	Drug Recognition Expert
EPDO	Equivalent Property Damage Only
FHWA	Federal Highway Administration
GIS	Geographic Information System
HFST	High Friction Surface Treatment
HSM	Highway Safety Manual
K+SI	Fatal and Severe Injury Crashes
NHTSA	National Highway Traffic Safety Administration
PDO	Property Damage Only
RRFB	Rectangular Rapid Flashing Beacon
SHSP	Strategic Highway Safety Plan
SWITRS	Statewide Integrated Traffic Records System

1

Introduction

1. Introduction

The Santa Cruz County Safe Streets and Roads for All (SS4A) Safety Action Plan has been developed to improve road safety across unincorporated Santa Cruz County, the City of Scotts Valley, and the City of Watsonville. This plan identifies traffic safety improvements based on a review of crash data and input from the staff, stakeholders, and the community. This project also aims to provide a foundation for a decision-making framework so that the County and Cities may identify, prioritize, and implement proven safety countermeasures from the toolbox in the following years. This report is intended to serve as an ongoing resource for county and city staff as they identify and pursue funding through various programs to implement the identified safety improvements.

The Safety Action Plan summarizes the existing safety context for Santa Cruz County, the City of Scotts Valley, and the City of Watsonville based on crash data obtained from the California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS) database. This data has been used to identify safety trends, high-crash locations, and locations with unusual crash patterns or high-crash severities within the two cities and county. The analysis was conducted using a network screening process for the roadway systems maintained by the two cities and the county using crash records spanning a five-year period from January 1, 2019, through December 31, 2023. **Section 3** of the report describes the analysis techniques that were used and why these methods were chosen.

Safety Action Plan Purpose:

1.1. SS4A Grant Program

The Safe Streets and Roads for All (SS4A) Grant Program, established under the Bipartisan Infrastructure Law (Infrastructure Investment and Jobs Act of 2021), provides federal funding to support regional, local, and Tribal initiatives aimed at preventing roadway deaths and serious injuries. Administered by the U.S. Department of Transportation (USDOT), the program aligns with the national Vision Zero goal of eliminating traffic fatalities and serious injuries.

SS4A funding is available for both Action Plan development and Implementation projects. Action Plans establish a data-driven framework for identifying, prioritizing, and addressing the most significant roadway safety issues in a community, while Implementation grants provide resources to carry out projects and strategies identified in these plans.

For Santa Cruz County, the City of Scotts Valley, and the City of Watsonville, participation in the SS4A program provides an opportunity to advance a coordinated, regionally significant Safety Action Plan. By leveraging federal resources, these jurisdictions can identify local crash trends, evaluate safety challenges, and establish evidence-based strategies to reduce fatal and serious injury collisions. This collaborative planning effort not only strengthens eligibility for future federal Implementation funding but also supports long-term goals of improving roadway safety, enhancing mobility for all users, and fostering safer, more resilient communities across the county.

1.2. Safe Systems Approach

The Safe System Approach (SSA) is the guiding framework for roadway safety in the United States, promoted by the U.S. Department of Transportation and central to the Safe Streets and Roads for All (SS4A) program. The approach acknowledges that while human errors are inevitable, roadway deaths and serious injuries are preventable. Rather than placing sole responsibility on road users, the Safe System Approach emphasizes designing a transportation system that anticipates mistakes and reduces crash forces to prevent fatal or life-altering outcomes. The approach is built around five core elements:

- **Safe Roads** – Designing and operating roadways that prioritize safety for all users.
- **Safe Speeds** – Managing speeds to reduce the likelihood and severity of crashes.
- **Safe Vehicles** – Promoting vehicle technologies and standards that protect occupants and vulnerable road users.
- **Safe Road Users** – Encouraging safe behaviors through education, enforcement, and equitable policies.
- **Post-Crash Care** – Ensuring timely, effective emergency response to reduce the severity of injuries.

By applying these principles, the Safe System Approach shifts from a reactive to a proactive safety strategy, focusing on system-wide improvements rather than isolated fixes. For Santa Cruz County, the City of Scotts Valley, and the City of Watsonville, adopting the Safe Systems Approach ensures that roadway design, policy decisions, and safety strategies consider all users—drivers, pedestrians, bicyclists, and transit riders alike. This comprehensive, human-centered framework supports the jurisdictions' collective efforts to move toward zero fatalities and serious injuries, while creating safer and more equitable transportation networks for the community.

1.3. Vision Zero

Vision Zero is an international traffic safety movement that originated in Sweden in the 1990s and has since been adopted by cities and regions across the United States. The core principle of Vision Zero is that no loss of life on our roadways is acceptable. Unlike traditional approaches that often view traffic deaths and severe injuries as inevitable, Vision Zero establishes the ethical imperative that the transportation system must be designed to prioritize human life and health.

Vision Zero strategies emphasize proactive, systemic safety improvements that account for human mistakes and vulnerabilities. The initiative promotes safer roadway design, equitable enforcement, community engagement, and policies that encourage safe speeds and protect the most vulnerable users, such as pedestrians and bicyclists. Across the U.S., adoption of Vision Zero has accelerated in recent years as communities recognize the need for bold, measurable commitments to eliminate severe and fatal crashes.

For the Santa Cruz County, the City of Watsonville, and the City of Scotts Valley, Vision Zero would provide both a unifying goal and a policy framework that aligns with federal initiatives like the SS4A Grant Program and the Safe System Approach. By embracing Vision Zero, these jurisdictions may affirm their commitment to a future where residents and visitors alike can travel safely—whether by car, bicycle, foot, or transit—without the risk of death or life-changing injury.

2

Community Engagement

2. Community Engagement

Kimley-Horn's Public Engagement Plan for the Santa Cruz County Safety Action Plan included strategies and activities to reach a broad cross-section of the community throughout the county. The plan included one round of public outreach as well as extensive stakeholder engagement with agency partners and interested parties.

Outreach and engagement efforts occurred between March 2025 and August 2025 and consisted of two main components:

1. In-person pop-up events
2. Online Santa Cruz County Safety Action Plan Survey & Interactive Map hosted on Social Pinpoint

In person Public Engagement officially launched on April 2, 2025, with the first pop-up event held at the Ecology Action Watsonville Family Fun Day. The in-person effort consisted of six pop-ups over a four-month period at various community hubs in Santa Cruz County, Scotts Valley and Watsonville. Ecology Action supported all the in-person events. Interactive poster boards were stationed at the in-person pop-up events, allowing participants to place dots and vote on their top three safety challenges (pictured below).

Figure 1 – Interactive Engagement Poster for Pop-Up Events

The online survey, provided in both English and Spanish, and interactive mapping tool was also made public on March 4, 2025 and remained open for five months until August 1, 2025.

The online survey was promoted through the County of Santa Cruz Department of Community Development and Infrastructure's various communication channels, including a project webpage, e-newsletters, Facebook, Twitter and Instagram (pictured below).

Figure 2 – Sample of Social Media Promotional for the Project

Postcards featuring a QR code to the Santa Cruz County Safety Action Plan survey and interactive map were developed and handed out at. All collateral was disseminated in both English and Spanish, including social media graphics (examples pictured below).

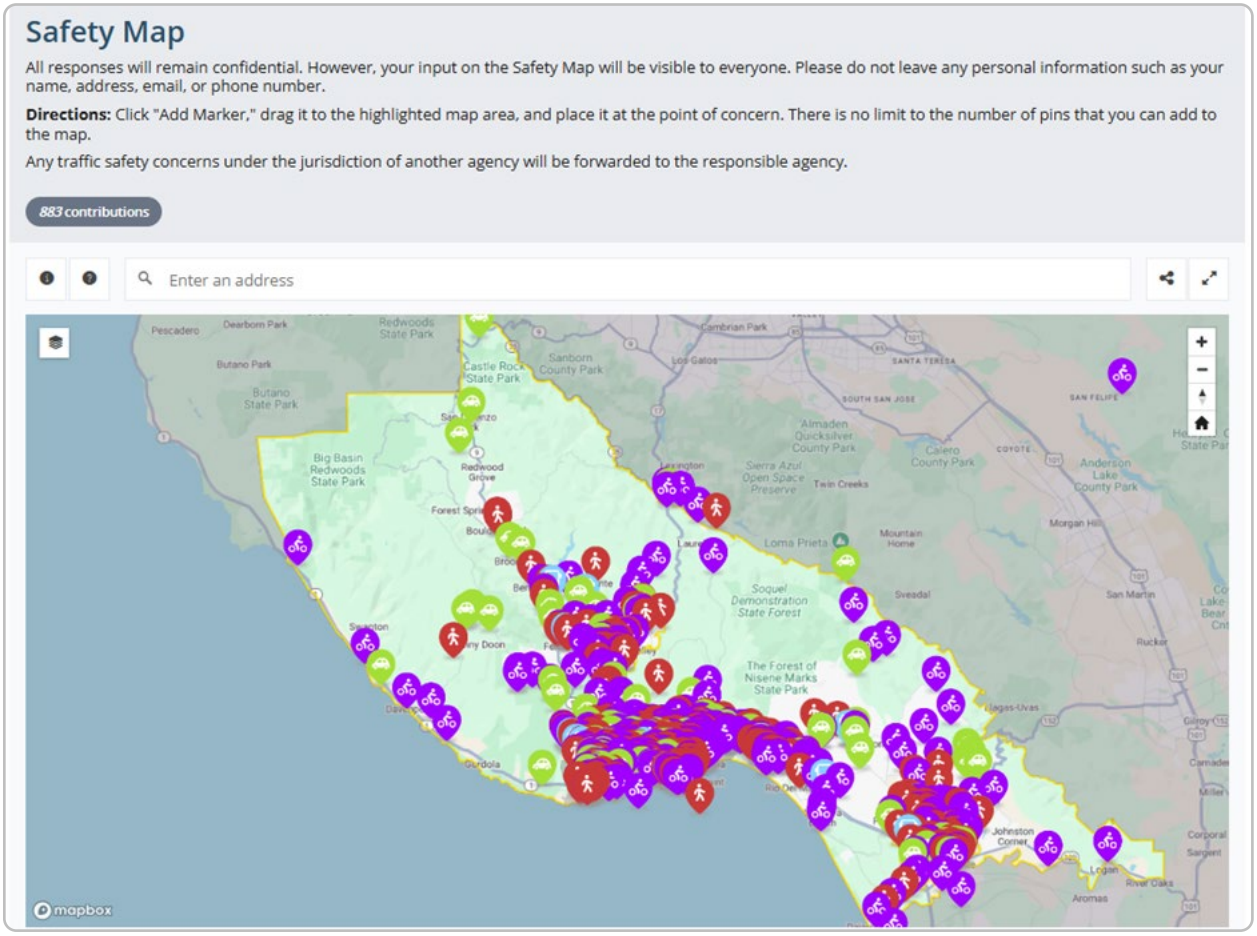
Figure 3 – Bilingual Postcard Developed for Distribution (Front)

Figure 4 – Bilingual Postcard Developed for Distribution (Back)

2.1. Online Community Outreach

The online survey engagement resulted in a total of 1,240 contributions. The online interactive social map had 893 contributors and site-specific comments recorded, and the survey form received 347 contributions. A total of 4 in-person surveys were also completed. Pop-up events throughout the Santa Cruz County aided participation in the online survey platform in addition to the in-person interactive poster board. Comments and surveys received during online engagement can be found in **Appendix A**.

Figure 5 – Online Interactive Map Platform



2.1.1. Online Social Map: Top Contributions by Location

Rank	City	Total	Percentage
1	Live Oak	72	8.07%
2	Watsonville	65	7.29%
3	Scotts Valley	64	7.17%
4	Aptos	57	6.39%
5	Soquel	55	6.17%

Rank	City	Total	Percentage
6	Santa Cruz	36	4.04%
7	Pleasure Point	35	3.93%
8	Capitola	33	3.7%
9	Twin Lakes	32	3.59%
10	Lighthouse	29	3.25%

The interactive social map mainly had contributions concerned with bike safety, followed by pedestrian safety, vehicle safety, and bus/transit safety.

Online Social Map: Top Bike Safety Contributions by Location

Rank	City	Total	Percentage
1	Aptos	33	7.47%
2	Live Oak	33	7.47%
3	Soquel	28	6.33%
4	Watsonville	28	6.33%
5	Scotts Valley	27	6.11%

Online Social Map: Top Vehicle Safety Contributions by Location

Rank	City	Total	Percentage
1	Scotts Valley	12	9.45%
2	Soquel	11	8.66%
3	Live Oak	9	7.09%
4	Watsonville	6	4.72%
5	Lighthouse	6	4.72%

Online Social Map: Top Pedestrian Safety Contributions by Location

Rank	City	Total	Percentage
1	Watsonville	31	10.03%
2	Like Oak	30	9.71%
3	Scotts Valley	25	8.09%
4	Pleasure Point	22	7.12%
5	Aptos	19	6.15%

Online Social Map: Top Bus/Transit Safety Contributions by Location

Rank	City	Total	Percentage
1	Twin Lakes	2	14.29%
2	Mission St Corridor	2	14.29%
3	Watsonville	2	14.29%
4	Aptos	1	7.14%
5	Felton	1	7.14%

Survey Summary

Online and paper surveys collected from various efforts revealed that over half of the respondents live within Unincorporated Santa Cruz County. Most respondents noted that they mainly drive solo as their primary mode of travel, with a large handful of participants noting that they mainly bike and walk. Survey participants expressed that they feel the safest as a driver when traveling through Santa Cruz County. The top three safety challenges expressed by survey users were:

When asked how conditions could be made safer for people traveling through Santa Cruz County, the top three solutions were: 1) provide physical barriers that separate vehicles from pedestrians & cyclists, 2) improve existing bike lanes, 3) create new bike lanes. A combination of these top three improvements was selected the most often, but all remained within the top three.

2.1.2. Key Themes from the Survey

Out of the 1,240 comments received from the online survey platform, key areas of focus and themes were as follows:

1. Safety Concerns Across Different Modes of Transportation:

- Many respondents feel safest as drivers but express significant safety concerns as pedestrians and cyclists.
- Poor road conditions, lack of sidewalks, and inadequate bike lanes are repeatedly mentioned as primary concerns.

2. Aggressive Driving Behavior:

- Common safety challenges include aggressive driving behaviors such as speeding, tailgating, and unsafe lane changes.
- Distracted driving, particularly phone use, is frequently cited as a major problem.

3. Traffic Congestion and Visibility Issues:

- Traffic congestion poses safety risks, especially during school drop-off and pick-up times, as well as morning and evening rush hours.
- Issues with intersection visibility due to parked vehicles, vegetation, and poor lighting are highlighted.

4. Infrastructure and Repair Needs:

- Significant needs for roadway and pavement repairs, with many roads described as having potholes, cracks, and overall poor quality.
- Calls for improving existing sidewalks, creating new bike lanes, and adding physical barriers to separate vehicles from pedestrians and cyclists.

5. Enforcement and Education:

- Need for better enforcement of traffic laws, including speed limits and stop sign adherence.
- Suggestions for more educational programs to teach safe driving, biking, and walking practices, especially for students and young cyclists.

6. Specific Areas Requiring Attention:

- Various specific roads and intersections mentioned as problematic, including Freedom Blvd, Highway 17, Soquel Drive, and areas around schools.
- Requests for improvements in areas like Scotts Valley, Watsonville, and unincorporated Santa Cruz County.
- Based on public feedback, safety improvements were developed for numerous locations across the County such as Freedom Blvd at Day Valley Rd, McDonald Rd, and Buena Vista Dr, Scotts Valley Dr at Granite Creek Rd, and Empire Grade Rd/High Street.

7. Support for Non-Car Transportation Options:

- Increased desire for safe walking and biking paths, especially separate from vehicle traffic.
- Encouragement for public transportation improvements and more reliable, safer alternatives for commuting.

8. Wildlife Conservation Concerns:

- Concerns about wildlife safety alongside human traffic safety, with mentions of wildlife crossings to protect animals.

These themes collectively highlight the community's concerns regarding traffic safety, infrastructure maintenance, aggressive driving, and the need for better enforcement and educational initiatives to ensure safer travel within the Santa Cruz County.

All feedback received from the Public Engagement effort will be incorporated into initial concepts and strategies for proposed improvements. These proposed improvements will be developed in concurrence with County staff, the Stakeholder Working Group, and elected leadership.

2.2. In Person Community Events

The following is a detailed account of the six (6) in-person pop-up events held throughout the Project area. Two in-person events were conducted in unincorporated Santa Cruz County, the City of Scotts Valley, and the City of Watsonville. Full respondent surveys can be found in **Appendix B**.

Event 1: Ecology Action Watsonville Family Fun Day (April 2, 2025)

Landmark Elementary School
Watsonville, CA

At the Watsonville Family Fun Day, the Project team spoke with youth, their parents, and school staff about the Santa Cruz Safety Action Plan using interactive boards. The team distributed palm cards to all organizations and left extras at the front office. Key safety challenges identified included speeding, distracted driving, drivers failing to yield, narrow or broken sidewalks, impaired driving, and cars not stopping at stop signs. Participants also raised concerns about bike safety, noting many cyclists without helmets, and driver safety, observing drivers without seatbelts and engaging in "brake checking."

Figure 6 – Interactive Engagement Board

Event 2: Watsonville Earth Day (April 27, 2025)

358 Main St, Watsonville,
California 95076

At Watsonville's Earth Day event, the Project team engaged with over 70 individuals from the 600 attendees, including youth, parents, Spanish-speaking community members,

Figure 7 – Watsonville Earth Day Event

and Watsonville residents. Our bilingual team facilitated inclusive interactions, making the engagement fun with a spin wheel and stickers. Key safety concerns raised included drivers not yielding to pedestrians and cyclists, speeding, cars running stop signs or red lights, lack of pedestrian crossings, and narrow or broken sidewalks. Specific comments highlighted the need for more pedestrian crossings, better lighting, upkeeping RRFBs near Safeway, and addressing scooters on roads instead of bike lanes.

Event 3: Live Oak Farmers Market (May 4, 2025)

21400 E Cliff Dr, Santa Cruz, CA 95062

At the Live Oak market, the Project team discussed the Santa Cruz Safety Action Plan with both locals and tourists. While three paper surveys were completed, most people preferred taking palm cards to complete the survey later. The team engaged with 19 people, distributed 14 palm cards, and gathered 7 comment cards. Key concerns included drivers not yielding to pedestrians and cyclists, and unsafe biking conditions on busy roads, especially for children. Specific comments highlighted unsafe crosswalks, insufficient room for biking with kids, dangerous blind turns, and the need for more bike lanes.

Figure 8 – Live Oak Farmers Market Event

Event 4: Felton Farmers Market (May 6, 2025)

120 Russell Ave, Felton, CA 95018

At the Felton farmers market kickoff, the Project team discussed the Santa Cruz Safety Action Plan with attendees, most of whom lived locally or along Highway 9. Concerns centered on the lack of bike and pedestrian facilities, with some noting they had to walk on the side of the highway to reach the market. The team engaged with 24 people, identifying top safety challenges such as narrow or missing bike lanes, drivers failing to yield, speeding, narrow or broken sidewalks, lack of pedestrian crossings, poor access for people with disabilities, distracted driving, and poor pavement conditions.

Figure 9 – Felton Farmers Market Event

Event 5: Scotts Valley Farmers Market (May 31, 2025)

5060 Scotts Valley Dr,
Scotts Valley, CA 95066

Engagement was low at this location due to the nonprofit table being set up outside the actual market, leading to low foot traffic and minimal interaction. The team managed to share one palm card and received feedback on three challenge areas: missing bike lanes, missing sidewalks, and drivers failing to yield.

Figure 10 – Scotts Valley Farmers Market Event

Event 6: Scotts Valley Family Fun Day (July 19, 2025)

Skypark - 361 Kings Village Rd
Scotts Valley, CA 95066

The Scotts Valley Family Fun Day served as an excellent community outreach event, drawing local families to engage with agencies and non-profits. Approximately 30 community members, primarily from within the project area, attended and engaged steadily from 10am to 3pm. Most were interested in the interactive challenge area board and opted to visit the project webpage later rather than complete the survey on-site. Key issues raised included e-bike safety concerns and high traffic speeds around schools, hindering children from biking to school. A Metro bus driver suggested more public education to promote courteous driving around buses.

Figure 11 – Scotts Valley Family Fun Day Event

2.3. Community Stakeholder Group

2.3.1. Member List

A stakeholder group was formed to review and provide feedback for the Project. This group was comprised of staff from the following agencies:

- County of Santa Cruz
- City of Santa Cruz
- City of Watsonville
- City of Scotts Valley
- City of Capitola
- Watsonville Vision Zero Task Force
- University of California Santa Cruz
- Cabrillo College
- Santa Cruz County Fire Department
- Santa Cruz METRO
- Santa Cruz Metro Transit District
- Santa Cruz County Office of Education
- Santa Cruz County Regional Transportation Commission (SCCRTC) / Bicycle Advisory Committee
- Santa Cruz County Sheriff's Office
- Community Traffic Safety Coalition
- Bike Santa Cruz County
- Mission: Pedestrian
- Greenway
- California Highway Patrol
- CTSC
- Friends of the Rail and Trail
- Ecology Action

2.3.2. Recap of Meetings

The Project team met with the Santa Cruz Transportation Safety Action Plan Stakeholders to share information about the Project, solicit feedback, and gain support:

March 4, 2025: Stakeholder Meeting #1

Topics Covered

- Project Background and Timeline
- Stakeholder Expectations and Commitment
- Collision Data Analysis
- Community Engagement

April 23, 2025: Stakeholder Meeting #2

Topics Covered

- Top Safety Challenge Areas
- Community Engagement Updates
- Case Study Locations

August 13, 2025: Stakeholder Meeting #3

Topics Covered

- Community Engagement
- Countermeasure Toolbox
- Case Study Locations

November 18, 2025: Stakeholder Meeting #4

Topics Covered

- Public Engagement Summary
- Actions and Strategies
- Case Study (Corridor) Improvements
- Safety Action Plan Outline
- Project Schedule

Figure 12 – Stakeholder Meeting #4 on November 18th, 2025

2.4. Focus Group Engagement

On November 5th, 2025, the Project team organized and met at the Aptos Branch Library with select members of the public to engage in a Focus Group meeting. A total of eighteen participants from all over Santa Cruz County came to participate in the meeting.

A summary of participant geographic representation can be found below:

- Watsonville (3)
- Pleasure Point (3)
- Scotts Valley (2)
- Live Oak (2)
- Westside (2)
- Downtown Santa Cruz (2)
- Aptos (1)
- Felton (1)
- Soquel (1)
- East/Midtown (1)

Figure 13 – Focus Group Meeting on November 5th, 2025

The Focus Group meeting included a presentation covering an overview of the project and a glimpse of the proposed countermeasures and case study locations. Participants were then split into two breakout groups to engage in discussion surrounding seven Focus Group questions.

Figure 14 – Focus Group Meeting Breakout Group #1

Figure 15 – Focus Group Meeting Breakout Group #2

2.4.1. Key Themes from Breakout Group Discussion

Countermeasures participants found ineffective:

1. Bike Boxes
2. Speed Feedback Signs
3. Sharrows

Things participants would like to see less of in the community:

1. Broken infrastructure
2. Hazards in Bike Lanes
3. Impatient and aggressive driving behavior

Education efforts that would help make the community safer:

1. Educate children on bike safety
2. Educate bicyclists and e-bikers on traffic safety
3. Organize safety bike rides to determine the best routes

Countywide or Citywide improvements that participants would like to see implemented:

1. Safer bike infrastructure (ex. Protected & wider bike lanes)
2. Enhanced pedestrian safety (ex. Increase number of crosswalks with flashing lights)
3. Traffic and roadway improvements (ex. Lane & road diets, bulb outs, and daylighting)

Community feedback from the focus group meeting can be found in **Appendix C**. The intersection and corridor improvements presented in **Appendix F** and **Appendix G** include elements requested by the public such as enhanced cycling infrastructure and road diets/ protected intersection treatments.

3

Data Analysis Approach

3. Data Analysis Approach

A critical step in developing a comprehensive Safety Action Plan (SAP) is conducting a detailed analysis of local crash trends, roadway conditions, and community safety challenges. The safety analysis provides the evidence base that guides decision-making, helping jurisdictions identify where and why severe and fatal crashes are occurring, and which populations or roadway users are most affected.

Using a network screening process, locations within the County that would most likely benefit from safety enhancements were identified. The outcome of this analysis helps inform the identification and prioritization of engineering and non-infrastructure safety countermeasures that are most likely to improve roadway safety across Santa Cruz County. This method is well established and conducive to large-scale safety analyses, such as countywide safety assessments. The network screening process ranks intersections and roadway segments by the number of crashes that occurred at each location over the analysis period, and then identifies areas that had more of a given type of crashes than would be expected for that type of location. It should be noted that the City of Scotts Valley has a smaller sample size of crashes on its municipal roadway network, and that caution should be exercised when interpolating year-to-year trends.

Analysis methods such as the critical crash rate and equivalent property damage only were also used to determine crash frequency and severity at each location. The results of the network screening analysis are shown in **Appendix D** and **Appendix E**. These appendices present all of the intersections and roadway segments with three or more crashes. The appendices are color-coded to highlight crash trends and emphasis areas for further study and countermeasure development. The following sections describe the data analysis process.

4 Safety Analysis

4. Safety Analysis

4.1. Unincorporated Santa Cruz County

Approximately 1695 injury crashes occurred on County facilities between 1/1/2019 and 12/31/2023. **Table 1** presents a breakdown of crash severity by facility type. Unsignalized intersections experienced approximately 54% of all injury crashes, followed by roadway segments with 31% of injury crashes. Approximately 60% of all fatal crashes on County facilities occurred on roadway segments, while approximately half of all severe injury crashes occurred at unsignalized intersections. Signalized intersections, which make up a smaller proportion of County intersections, experienced approximately 14.6% of injury crashes and 11.6% of KSI crashes.

Table 1 – Crashes by Facility Type (Unincorporated County)

Severity	Signalized Intersection		Unsignalized Intersection		Roadway Segment		Total	
	Crashes	%	Crashes	%	Crashes	%	Crashes	%
Fatal	1	0.1%	12	0.7%	19	1.1%	32	1.9%
Severe Injury	33	1.9%	128	7.6%	98	5.8%	259	15.3%
Other Visible Injury	99	5.8%	427	25.2%	272	16.0%	798	47.1%
Complaint of Pain	115	6.8%	353	20.8%	138	8.1%	606	35.8%
Total	**248**	**14.6%**	**920**	**54.3%**	**527**	**31.1%**	**1695**	**100%**

Source: TIMS Crash Data 2019-2023

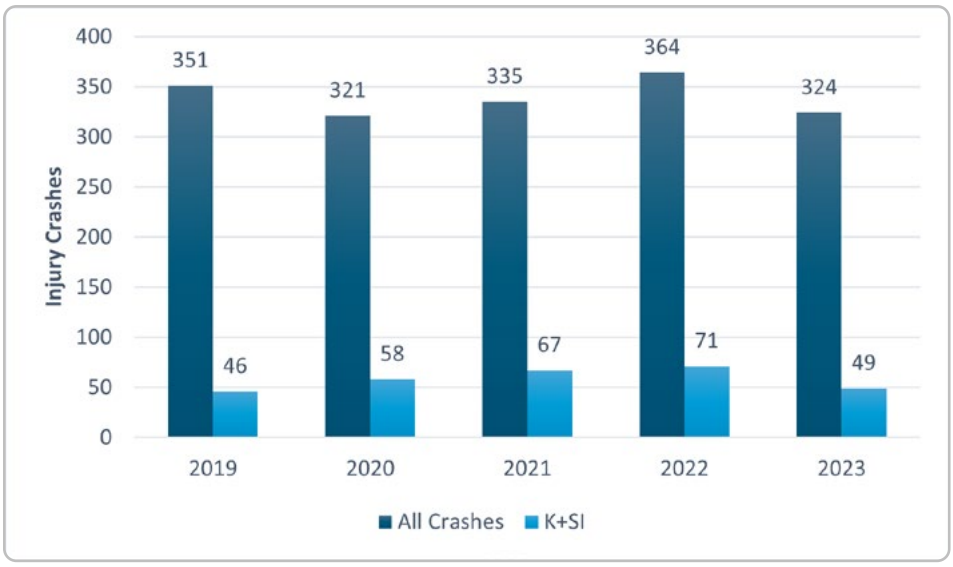
A total of 32 fatal crashes and 259 severe injury crashes occurred during the study period as shown in **Figure 16**. Year 2020 experienced the fewest injury crashes of any year within the study period, with crashes trending upwards for the following two years. The total number of crashes decreased between 2022 and 2023. The total number of KSI crashes per year increased from 2019 to 2022 and then decreased in 2023 to below 2019 values.

The most common crash types during the study period were Hit-Object (559), Rear-End (278), Broadside crashes (254), and Vehicle-Bicycle crashes (239) as seen in **Figure 17**. Hit-Object crashes are common in rural areas with mountainous terrain, typically involving a single vehicle departing from the road and striking a fixed object adjacent to the roadway. Rear-end crashes most commonly occur at intersections and involve a vehicle striking the back of another vehicle slowing to turn or comply with traffic controls. Broadsides are crashes where a driver strikes the side of another vehicle at close to a right angle (T-bone); these occur most commonly at intersections.

The most common crash types contributing to fatalities and severe injuries during the study period were Hit-Object (100), Vehicle-Bicycle crashes (66), Vehicle-Pedestrian crashes (28) and Broadsides (28). Though vulnerable road users (bicycles and pedestrians) were involved in approximately 20% of all crashes, they accounted for a disproportionately large share (33%) of all KSI crashes.

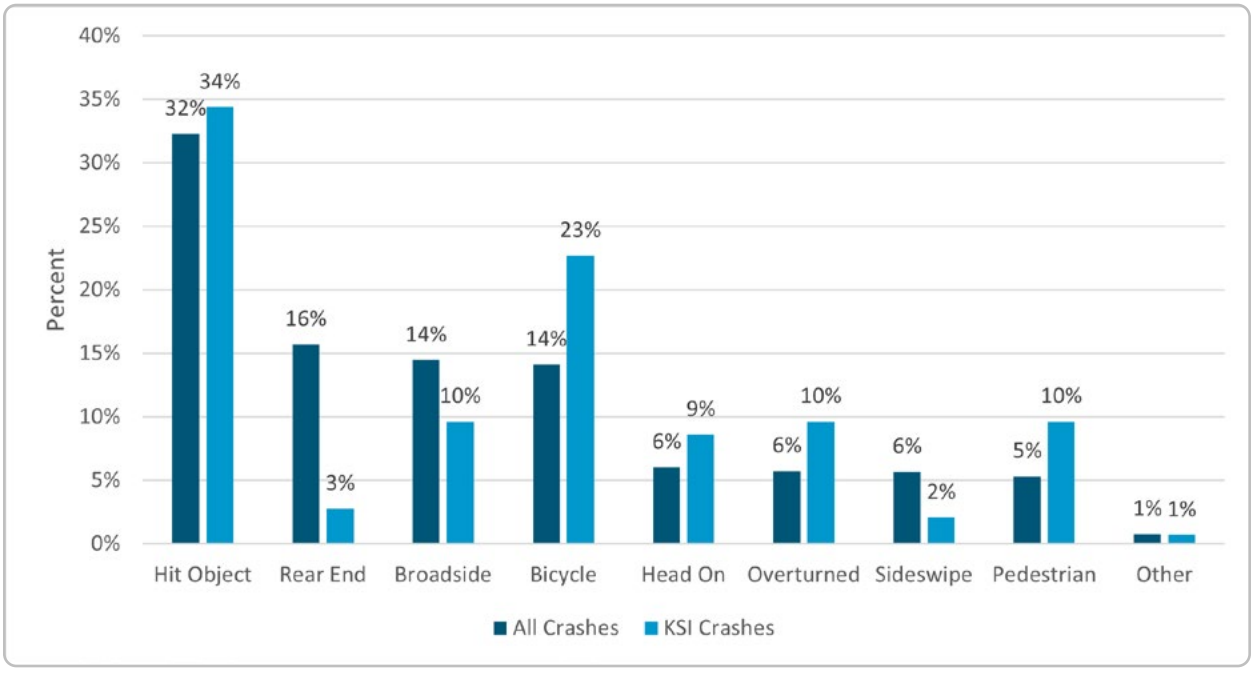
Figure 18 presents a map of KSI crashes on County facilities.

Figure 16 – Annual Crashes in Unincorporated Santa Cruz County



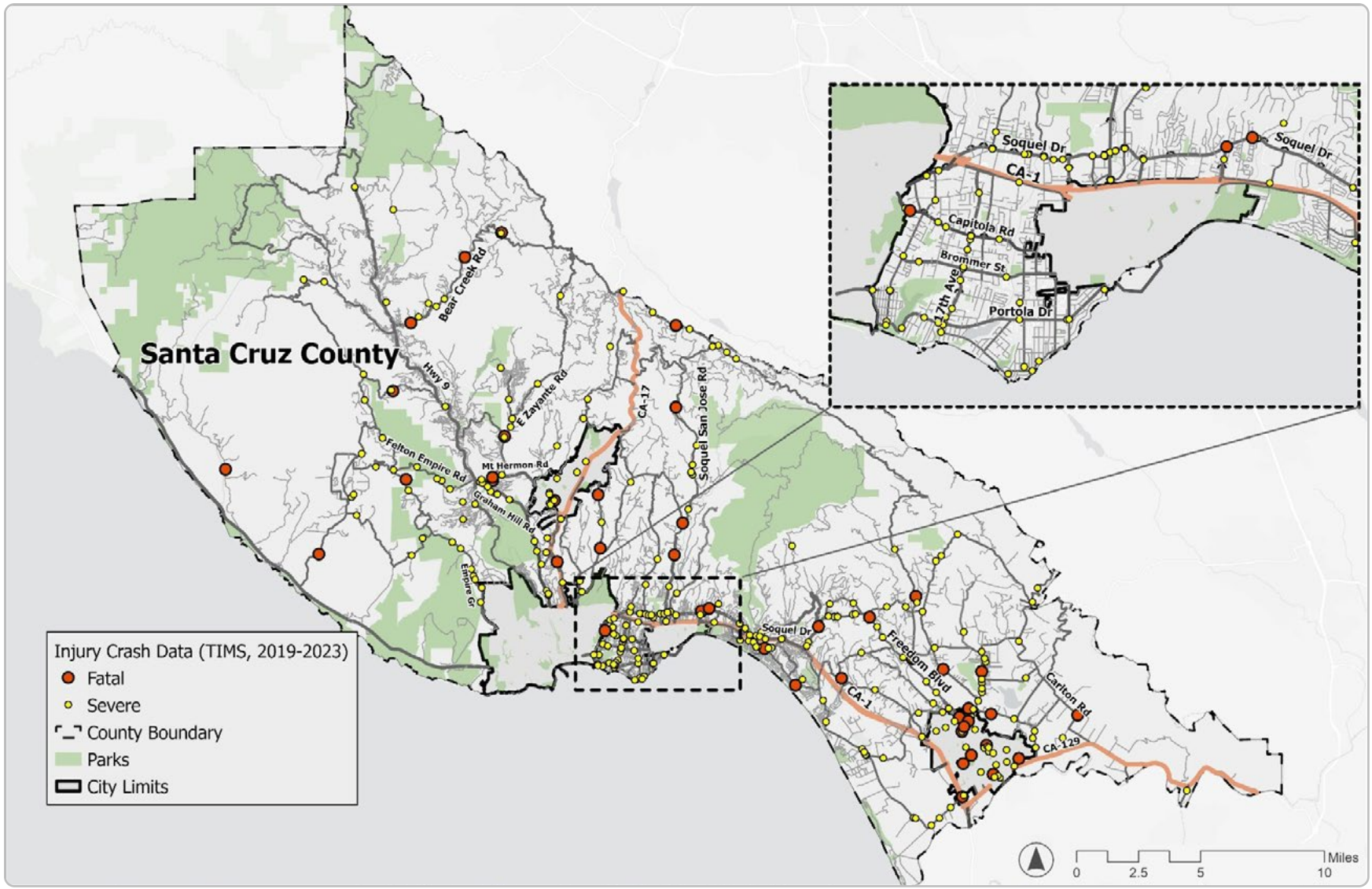
Source: TIMS Crash Data 2019-2023

Figure 17 – Unincorporated Santa Cruz County Crash Types



Source: TIMS Crash Data 2019-2023

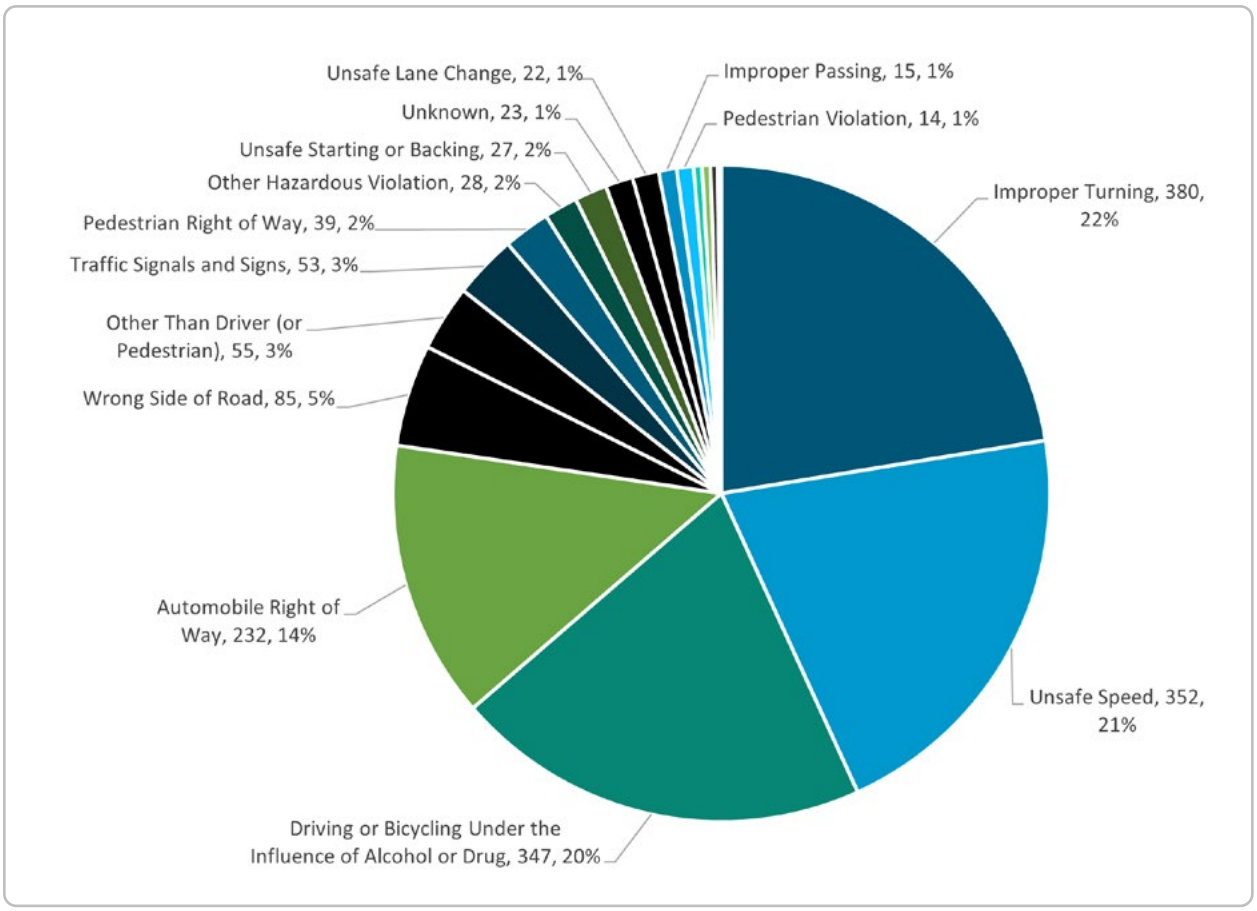
Figure 18 – Unincorporated Santa Cruz County KSI Crash Map



Source: TIMS Crash Data 2019-2023

The most common primary collision factors (PCFs) on County facilities were improper turning (22%), unsafe speed (20.7%), and DUIs (20.4%) as seen in **Figure 19**. The most common PCFs for KSI crashes were improper turning and DUIs (25% each), followed by unsafe speed (15%).

Figure 19 – Primary Collision Factors (County Facilities)



Source: TIMS Crash Data 2019-2023

4.1.1. Regional Safety Performance

SHSP Statewide Comparison Table

The California Strategic Highway Safety Plan (SHSP) focuses on 16 challenge areas identified by the SHSP Executive Leadership and Steering Committees. These challenge areas were identified after an in-depth analysis of California K+SI (fatal and severe injury) crash data as well as an extensive statewide outreach process that involved hundreds of diverse traffic stakeholders around the state. **Table 2** presents a comparison of unincorporated Santa Cruz County's K+SI crashes to the statewide K+SI crashes based on SWITRS data from 2013-2022. **Table 2** presents that unincorporated Santa Cruz County has historically been higher than the statewide average in the following emphasis areas: lane departures, bicyclists, impaired driving, motorcyclists, and aging drivers.

Table 2 – Unincorporated Santa Cruz County K+SI Crashes Compared to Statewide

Challenge Areas	Comparison	Percent of Fatal and Severe Injury Crashes (2013-2022)		% Point Difference
		Unincorporated Santa Cruz County	Statewide	
Lane Departures	Higher	65.5%	42.1%	23.4%
Bicyclists	Higher	14.0%	7.3%	6.7%
Impaired Driving	Higher	29.9%	23.9%	6.0%
Motorcyclists	Higher	24.2%	20.8%	3.4%
Aging Drivers	Higher	13.6%	12.8%	0.8%

1. Percentages will not add up to 100%, as a fatality or severe injury could have involved multiple Challenge Areas (i.e., a young driver that was impaired and unrestrained)

OTS Rankings

The California Office of Traffic Safety (OTS) publishes annual reports ranking agencies of similar population by their crash profile. The rankings presented in **Table 3** were formed following OTS's review of crash data within Santa Cruz County, compared to the other 58 California counties. These rankings provide a comparative perspective on where Santa Cruz County stands in terms of roadway safety outcomes. The county ranked relatively high—meaning worse relative performance—in several crash categories. Santa Cruz County ranked:

- **2nd statewide** for crashes involving alcohol, crashes involving bicycles, and crashes involving young bicyclists (younger than 15 years old).
- **3rd statewide** for crashes involving drivers under age 21 who had been drinking.
- **4th statewide** for crashes involving drivers ages 21–34 who had been drinking.
- **5th statewide** for both pedestrian crashes and speed-related crashes.
- **6th statewide** for crashes involving aging pedestrians (age 65 years old and higher)

This data reinforces the opportunity for a comprehensive, systemic safety strategy that addresses driving behavior and protects vulnerable road users.

Table 3 – Unincorporated Santa Cruz County OTS Ranking (2022)

Crash Category	Victims Killed and Injured	OTS Ranking
Total Fatal and Injury	1429	11/58
Alcohol Involved	319	2/58
Had Been Drinking Driver < 21	37	3/58
Had Been Drinking Driver 21 – 34	136	4/58
Motorcycles	117	14/58
Pedestrians	94	5/58
Pedestrians 65+	17	6/58
Bicycle	165	2/58
Bicyclist < 15	18	2/58
Speed Related	305	5/58
Nighttime (9:00pm – 2:59am)	167	9/58
Hit and Run	118	11/58

Source: Santa Cruz County OTS Ranking (2022)
Notes:
1. Number 1 in the rankings is the highest, or "worst". So, for Group B, a ranking of 1/56 is the highest or worst. 29/58 is average, and 58/58 is the lowest or best.
2. County rankings include all crashes, killed and injured within county borders.

4.1.2. Equivalent Property Damage Only (EPDO)

A location's Equivalent Property Damage Only (EPDO) value is a normalized value representing the severity of the crashes which occurred there. A high EPDO value indicates that KSI crashes have likely occurred, or that a higher quantity of other injury crashes have occurred at that location.

In unincorporated Santa Cruz County, the roadway network is characterized by a predominance of longer rural segments (both mountainous and agricultural) and unsignalized intersections. These roadways often follow curvilinear alignments through higher elevations, reflecting the county's mountainous and coastal terrain. Such conditions can contribute to limited sight distances, higher travel speeds, and fewer controlled crossing opportunities. The following intersections experienced the highest crash severity during the study period and are pictured in **Figure 20**:

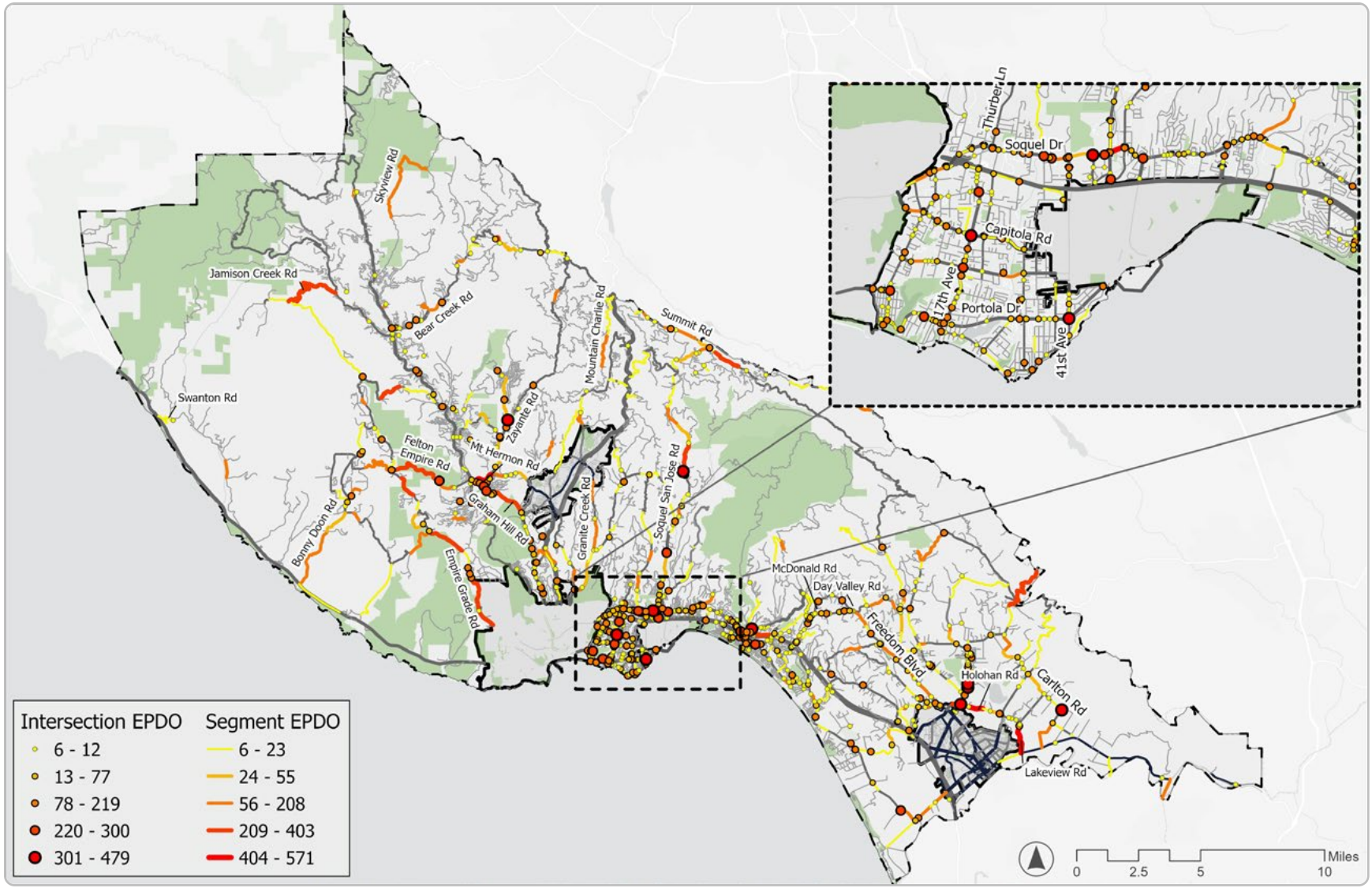
1. **Carlton Rd & Thompson Rd** with an EPDO value of 479 (14 crashes total: 1 fatal, 1 serious injury, 5 other visible injury, and 7 complaint of pain crashes)
2. **Soquel Dr & Robertson St** with an EPDO value of 456 (11 crashes total: 2 serious injury, 4 other visible injury, and 5 complaint of pain crashes)
3. **17th Ave & Capitola Rd** with an EPDO value of 451 (14 crashes total: 3 serious injury, 5 other visible injury, and 6 complaint of pain crashes)

The following three roadway segments with the highest EPDO values during the study period were:

1. **Mount Hermon Rd** (btwn Graham Hill Rd – Covenant Ln) with an EPDO value of 571 (10 crashes total: 1 fatal, 2 serious injury, 5 other visible injury, and 3 complaint of pain crashes)
2. **Lake View Rd** (btwn Hwy 129 – Crestwood Dr) with an EPDO value of 530 (7 total crashes: 3 serious injury, 2 other visible injury, and 2 complaint of pain crashes)
3. **Soquel Dr** (btwn Porter St – Main St/N Main St) with an EPDO value of 519 (6 total crashes; 3 serious injury, 1 other visible injury, and 2 complaint of pain crashes)

Note: Many of these High EPDO locations along Soquel Dr will be improved as part of the existing Soquel Drive Buffered Bike Lane & Congestion Mitigation Project.

Figure 20 – Unincorporated Santa Cruz County EPDO

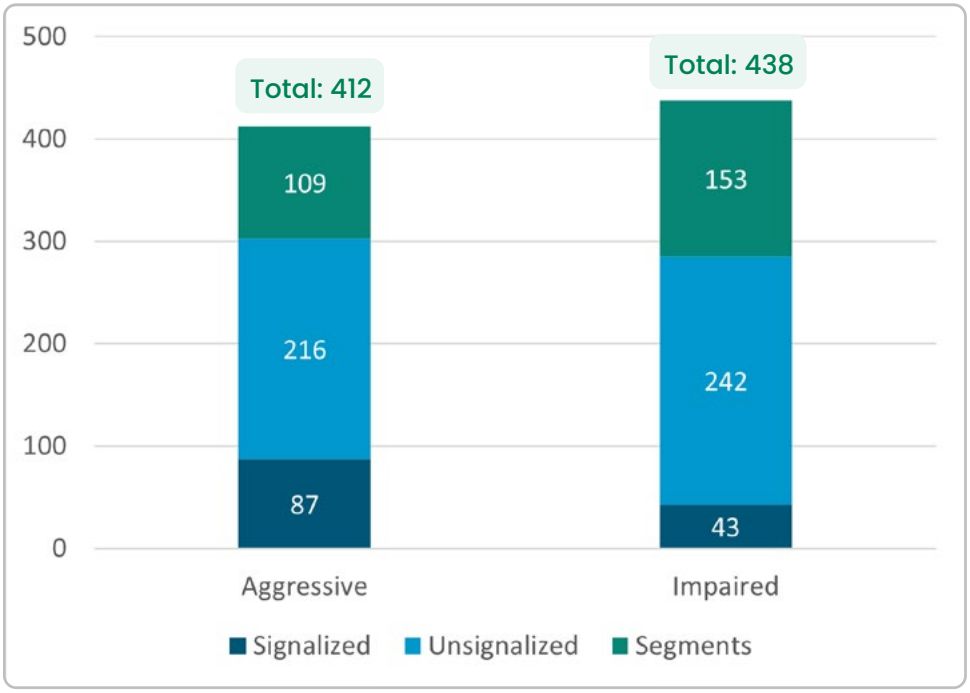


Source: TIMS Crash Data 2019-2023

4.1.3. Aggressive & Impaired Driving

Caltrans recognizes aggressive driving and impaired driving as statewide road safety challenge areas. Aggressive driving is defined as crashes where the primary collision factor included traffic signals/signs violations, unsafe speed, and following too closely. Caltrans defines any crashes where the driver had been drinking as an impaired driving crash. Unincorporated Santa Cruz County reported 412 aggressive driving crashes and 438 impaired driving crashes, as presented in **Figure 21**. Aggressive driving contributed to 17.5% of all KSIs while impaired driving was a factor in 34.7% of KSIs.

Figure 21 – Aggressive and Impaired Driving Crashes (Unincorporated County)



Source: TIMS Crash Data 2019-2023

The intersections with the most aggressive driving crashes within unincorporated County were:

1. **Green Valley Rd & Holohan Rd/Airport Blvd** (11 aggressive driving crashes, 17 injury crashes total)
2. **17th Ave & Capitola Rd** (8 aggressive driving crashes, 14 injury crashes total)
3. **Robertson St & Soquel Dr** (6 aggressive driving crashes, 11 injury crashes total)

The intersections with the most impaired driving crashes within unincorporated County were:

1. **Freedom Blvd & Buena Vista Dr** (5 impaired driving crashes, 7 injury crashes total)
2. **Green Valley Rd & Minto Rd** (5 impaired driving crashes, 10 injury crashes total)
3. **Soquel Dr & Sunset Way/State Park Dr** (4 impaired driving crashes, 8 injury crashes total)

4.1.4. Case Study Locations

The network screening tables for unincorporated County were reviewed in partnership with County Staff and the stakeholder group. Case study locations were selected for further study in a data driven process and are presented in **Figure 22**. Factors such as crash severity, relative crash rates, Countywide emphasis areas, vulnerable road users, and proximity to schools were considered. Locations with programmed improvements or recently completed projects were typically not included in the short list of case study locations with the goal of studying new locations.

Signalized Intersections

- Capitola Road & 17th Avenue
- Soquel Road & Thurber Lane/Commercial Way

Unsignalized Intersections

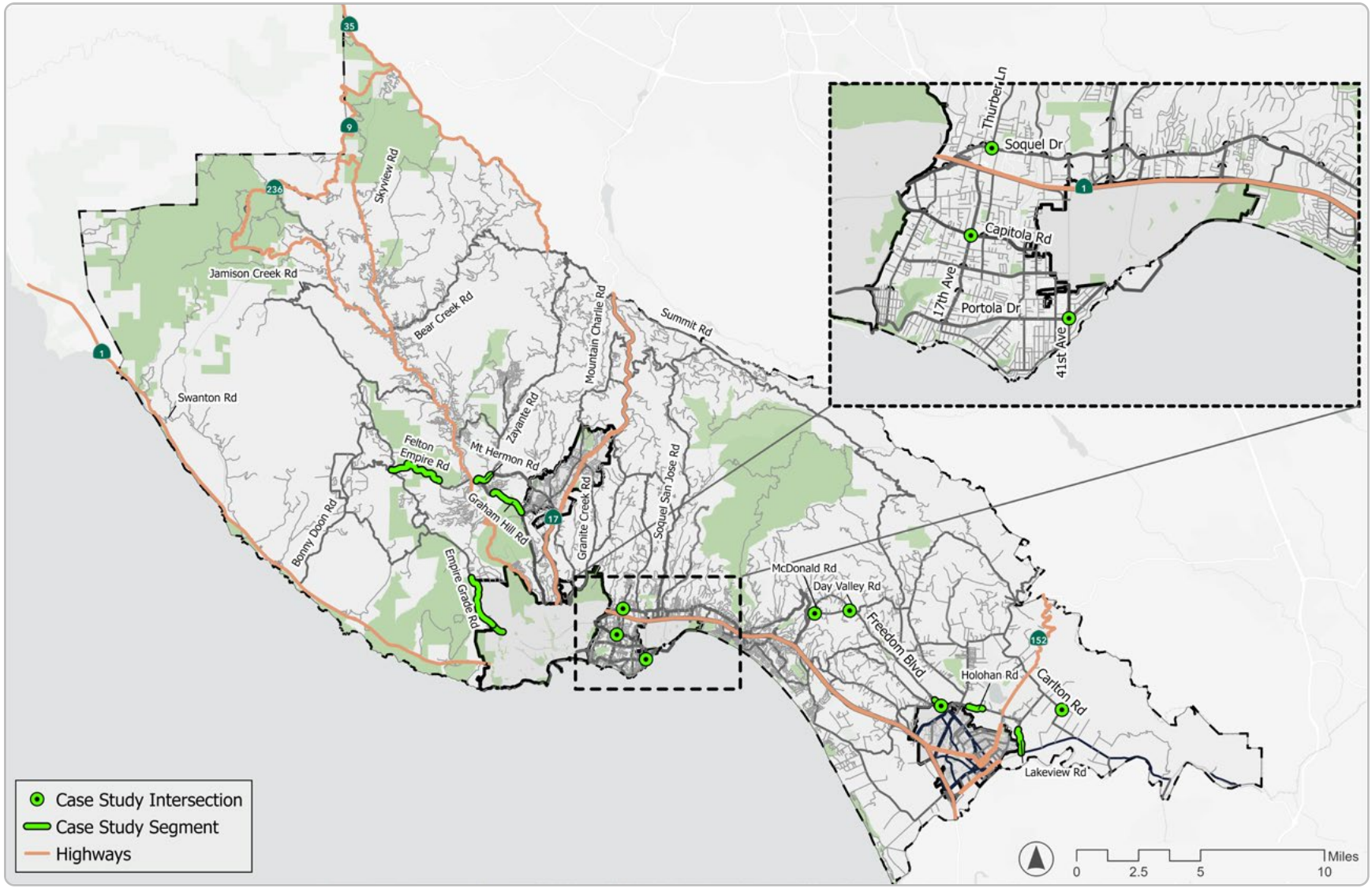
- Portola Drive & 41st Avenue
- Freedom Boulevard & McDonald Road
- Freedom Boulevard & Day Valley Road
- Freedom Boulevard & Buena Vista Drive/Compton Terrace (shared location with the City of Watsonville)
- Carlton Road & Thompson Road

Roadway Segments

- Holohan Road (Grimmer Road to Cottage Road)
- Lakeview Road (Riverside Drive to Crestwood Drive)
- Empire Grade (Fire Break Road to Bay Drive)
- Mt Hermon Rd (Graham Hill Road to Covenant Lane)
- Graham Hill Rd from Summit Drive to Lockewood Lane)
- Felton Empire Road (Krazy Acre Lane to Empire Grade)

Empire Grade Road between Bay Drive and Fire Break Road was identified as a study corridor based on a review of crash data, coordination with the stakeholder group, and public comments. Safety improvements for this corridor and the other case study locations are discussed in **Section 6.2**.

Figure 22 – Santa Cruz County Priority Locations



Source: TIMS Crash Data 2019-2023

4.2. City of Scotts Valley

4.2.1. City Collision Trends

Approximately 80 injury crashes occurred on the City of Scotts Valley facilities between 1/1/2019 and 12/31/2023. **Table 4** presents a breakdown of crash severity by facility type. Signalized intersections experienced 50% of injury crashes, followed by unsignalized intersections at 31.3% and roadway segments at 18.8%. Signalized and unsignalized intersections each experienced five KSI crashes during the study period. Understanding that 81% of crashes occurred at intersections, it is expected that intersection safety improvements will provide maximum safety benefit to the City.

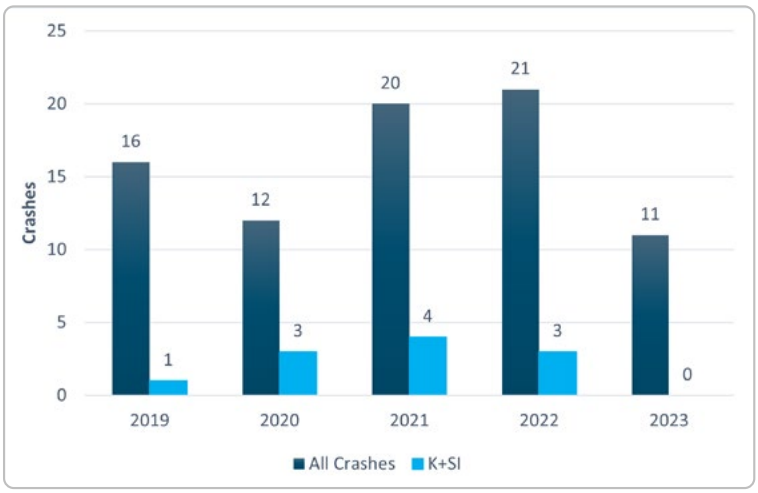
Table 4 – Crashes by Facility Type (City of Scotts Valley)

Severity	Signalized Intersection		Unsignalized Intersection		Roadway Segment		Total	
	Crashes	%	Crashes	%	Crashes	%	Crashes	%
Fatal	1	1.3%	0	0.0%	0	0.0%	1	1.3%
Severe Injury	4	5.0%	5	6.3%	1	1.3%	10	12.5%
Other Visible Injury	24	30.0%	15	18.8%	11	13.8%	50	62.5%
Complaint of Pain	11	13.8%	5	6.3%	3	3.8%	19	23.8%
Total	**40**	**50.0%**	**25**	**31.3%**	**15**	**18.8%**	**80**	**100%**

Source: TIMS Crash Data 2019-2023

During the study period there was 1 fatal crash and 10 severe injury crashes as shown in **Table 4**. Year 2020 experienced the fewest injury crashes of any year within the study period, with crashes trending upwards for each of the following years until 2023 when it decreased (**Figure 23**). The total number of KSI crashes per year increased from 2019 to 2021 and then decreased in 2022 and 2023, with no KSIs occurring in 2023. Because of the smaller size of the City compared to Santa Cruz County and the lower quantity of crashes, it is recommended that caution be applied when interpolating year-to-year trends.

Figure 23– Annual Crashes in the City of Scotts Valley



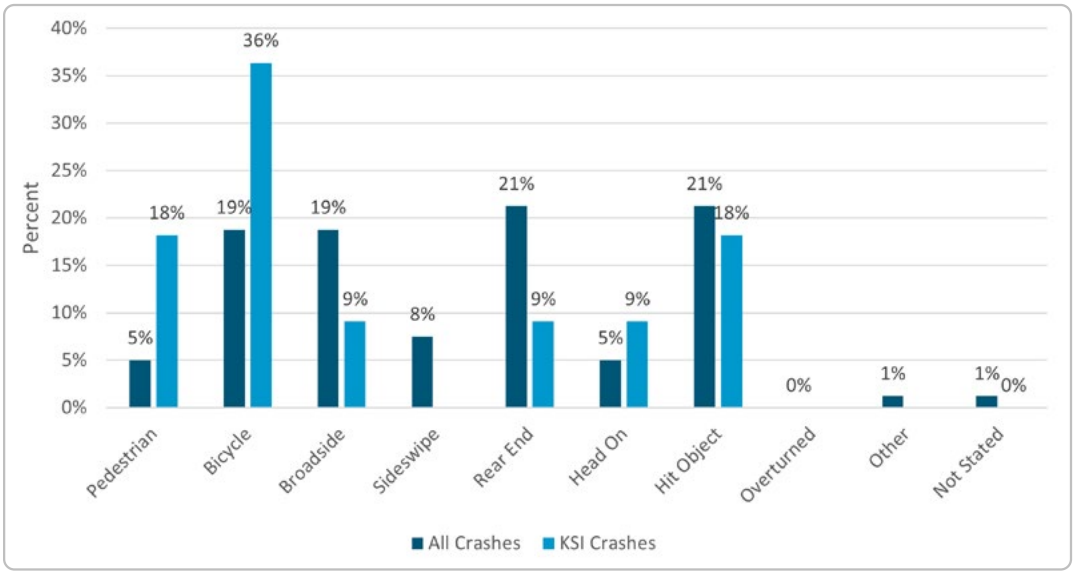
Source: TIMS Crash Data 2019-2023

The most common crash types during the study period were Rear-End (17), Hit-Object (17), Broadside (15), and Vehicle-Bicycle crashes (15), as seen in **Figure 24**. Rear-ends and broadside crashes are consistent with the predominance of intersection crashes, while the trend of bicycle-vehicle crashes is consistent with the regional safety comparisons found in **Section 4.2.2**.

The most common crash types contributing to fatalities and severe injuries during the study period were Vehicle-Bicycle crashes (4), Vehicle-Pedestrian crashes (2) and Hit-Object Crashes (2). Though vulnerable road users (bicycles and pedestrians) were involved in approximately 24% of all crashes, they accounted for a disproportionately large share (55%) of all KSI crashes. In light of this crash history, it is recommended that the City prioritize safety improvements for pedestrians and cyclists.

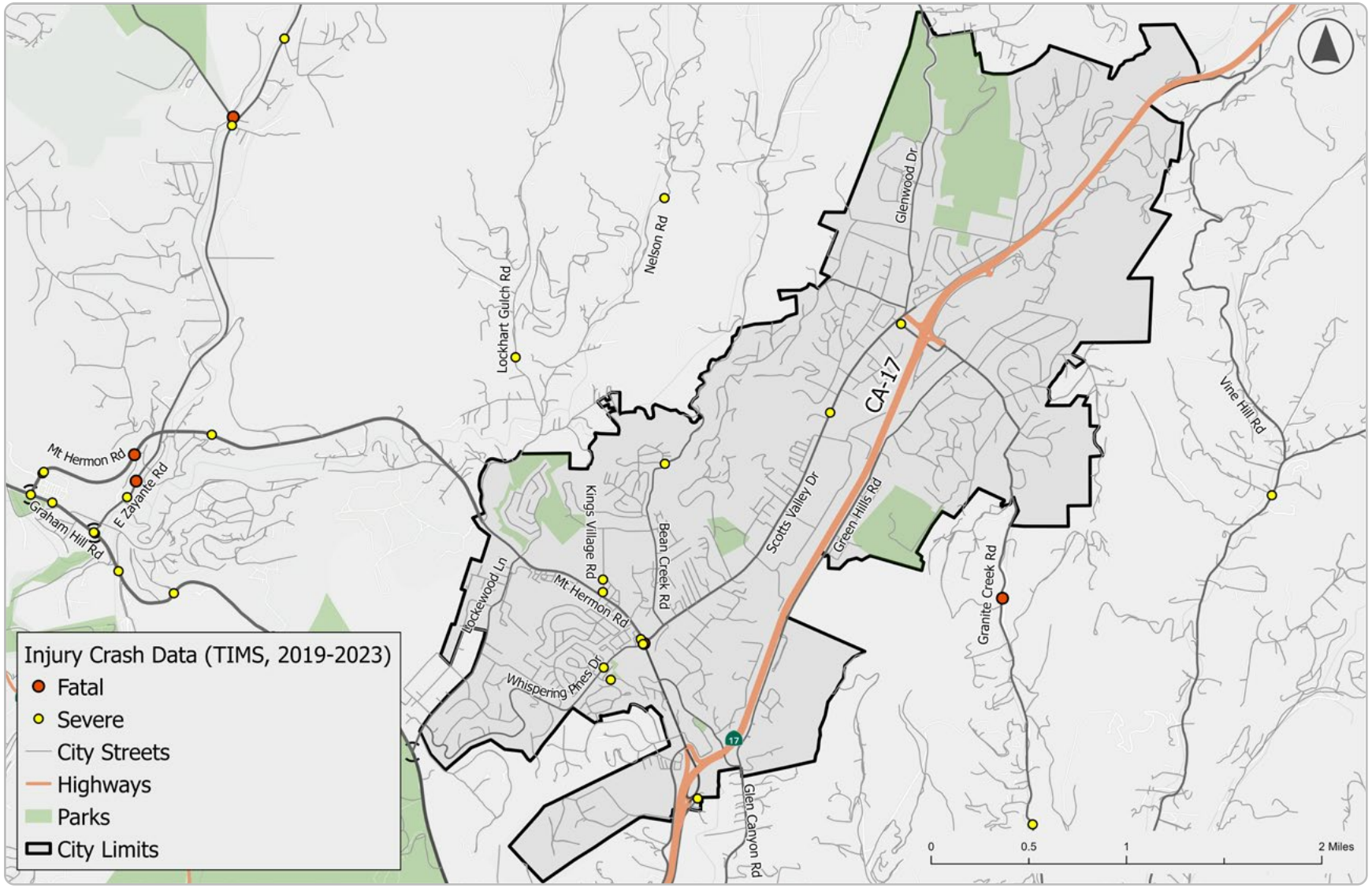
Figure 25 presents a map of KSI crashes on the City of Scotts Valley facilities. A fatal crash occurred at the intersection of Mt Hermon Road and Scotts Valley Road.

Figure 24 – City of Scotts Valley Crash Types



Source: TIMS Crash Data 2019-2023

Figure 25 – City of Scotts Valley KSI Crash Map



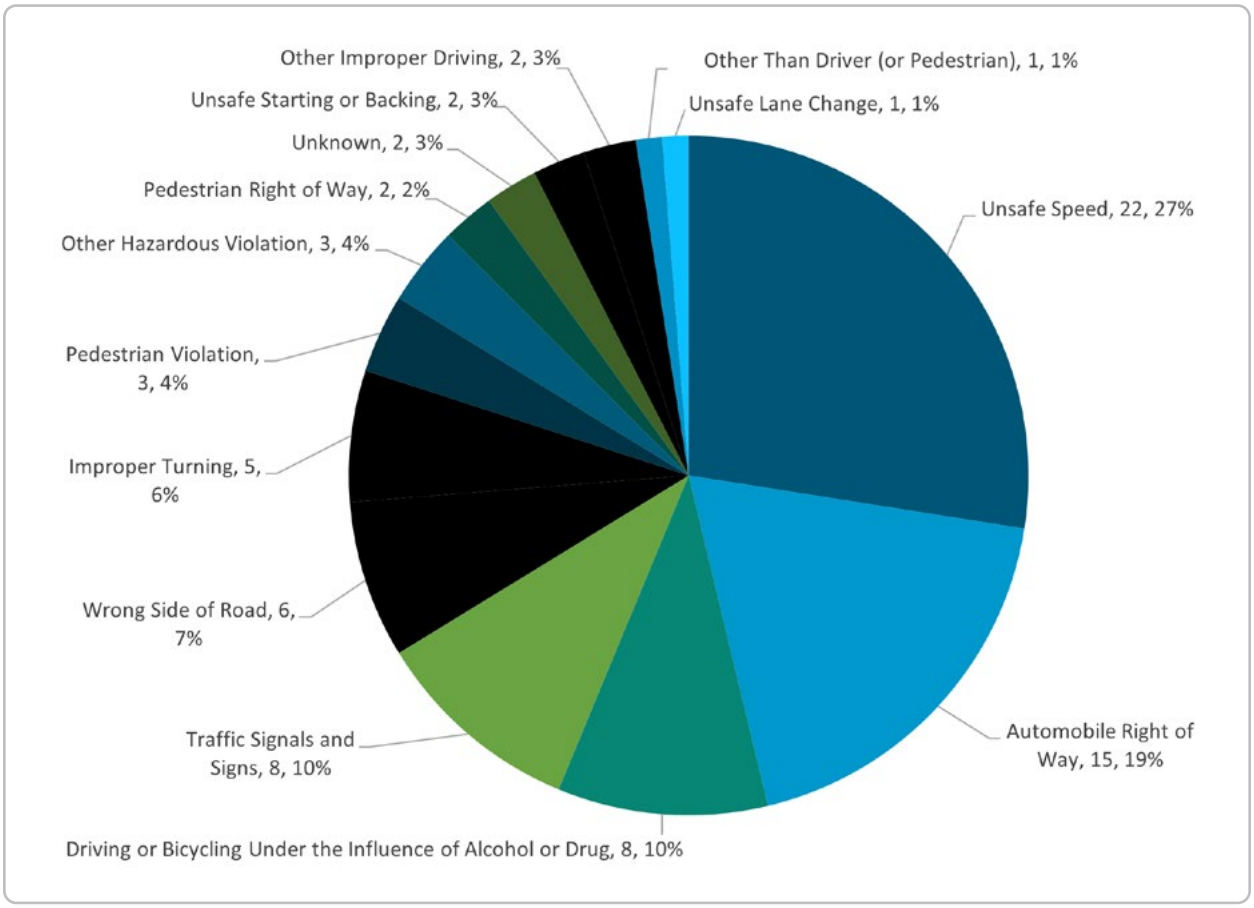
Source: TIMS Crash Data 2019-2023

Note: The intersection of Scotts Valley Drive and Mt Hermon Road experienced one fatal crash and two severe injury crashes.

As shown in **Figure 26**, the most common primary collision factors (PCFs) observed over the study period for the City of Scotts Valley were unsafe speed (22, 27%), and automobile ROW (15, 19%). Driving under the influence and violations regarding traffic signals and signs each made up 8% of total crashes. The most common PCFs for KSI crashes were unsafe speed (4, 36%), followed by automobile ROW (2, 18%); the following each accounted for one KSI (9%): improper turning, DUIs, driving on the wrong side of the road, pedestrian violations, and violating pedestrian right of way.

Traffic calming treatments such as protected intersections, roundabouts, and road diets are effective at lowering vehicle speeds and reducing the likelihood of crashes related to unsafe speed. These treatments also reduce the number of conflict points between vehicles and have the potential to prevent crashes related to automobile right of way violations. Crashes related to DUIs and traffic signals and signs violations can be addressed through enhanced striping, signage, and enforcement.

Figure 26 – Primary Collision Factor (City of Scotts Valley)



Source: TIMS Crash Data 2019-2023

4.2.2. Regional Safety Performance

SHSP Statewide Comparison Table

Table 5 presents a comparison of the City of Scotts Valley's K+SI crashes to the statewide K+SI crashes based on SWITRS data from 2013-2022. The City has historically been higher than the statewide average in the following areas: aggressive driving, aging drivers, bicyclists, distracted driving, occupant protection, and pedestrians.

Table 5 – City of Scotts Valley K+SI Crashes Compared to Statewide K+SI Crashes

Challenge Areas	Comparison	Percent of Fatal and Severe Injury Crashes (2013-2022)		% Point Difference
		Scotts Valley	Statewide	
Aggressive Driving	Higher	57.1%	33.4%	23.7%
Aging Drivers	Higher	33.3%	12.8%	20.5%
Bicyclists	Higher	23.8%	7.3%	16.5%
Distracted Driving	Higher	19.0%	4.4%	14.6%
Occupant Protection	Higher	14.3%	13.1%	1.2%
Pedestrians	Higher	19.0%	18.9%	0.1%

Notes:
1. Percentages will not add up to 100%, as a fatality or severe injury could have involved multiple Challenge Areas (i.e., a young driver that was impaired and unrestrained)

OTS Rankings

The 2022 OTS rankings presented in **Table 6** were formed following OTS's review of crash data within the City of Scotts Valley, compared to 104 other cities in the state within the same group based on population size (10,001 – 25,000). These rankings provide a comparative perspective on where the City of Scotts Valley stands in terms of roadway safety outcomes. The City of Scotts Valley ranked low (meaning worse relative performance) in two categories:

- **13th statewide** for crashes involving bicyclists age under 15.
- **18th statewide** for crashes involving pedestrian age under 15.

The elevated ranking for crashes involving pedestrian and cyclist youths indicates that school-zone safety treatments would be an appropriate countermeasure, as well as youth-focused safety education programs.

Table 6 – City of Scotts Valley OTS Rankings (2022)

Crash Category	Victims Killed and Injured	OTS Ranking
Pedestrians	1	18/104
Bicycle	2	53/104
Bicyclist < 15	1	13/104
Speed Related	8	42/104

Source: City of Scotts Valley OTS Rankings (2022)

Notes:
1. The figures in the ranking column show as two numbers divided by a slash. The first number is that city's ranking in that category. The second number is the total number of cities/counties within that "Group".For instance, if you see "18/104", that means that city ranks 18th out of 104 cities of similar size.
2. Number 1 in the rankings is the highest, or "worst". A ranking of 1/104 is the highest or worst. 52/104 is average, and 104/104 is the lowest or best.
3. City rankings are for incorporated cities only, for local streets in those cities, and state highways that run through cities with shared jurisdiction with the CHP and the city. City rankings do not include numbers of crashes, killed or injured on freeways and on state highways where cities do not have jurisdiction.

4.2.3. Equivalent Property Damage Only (EPDO)

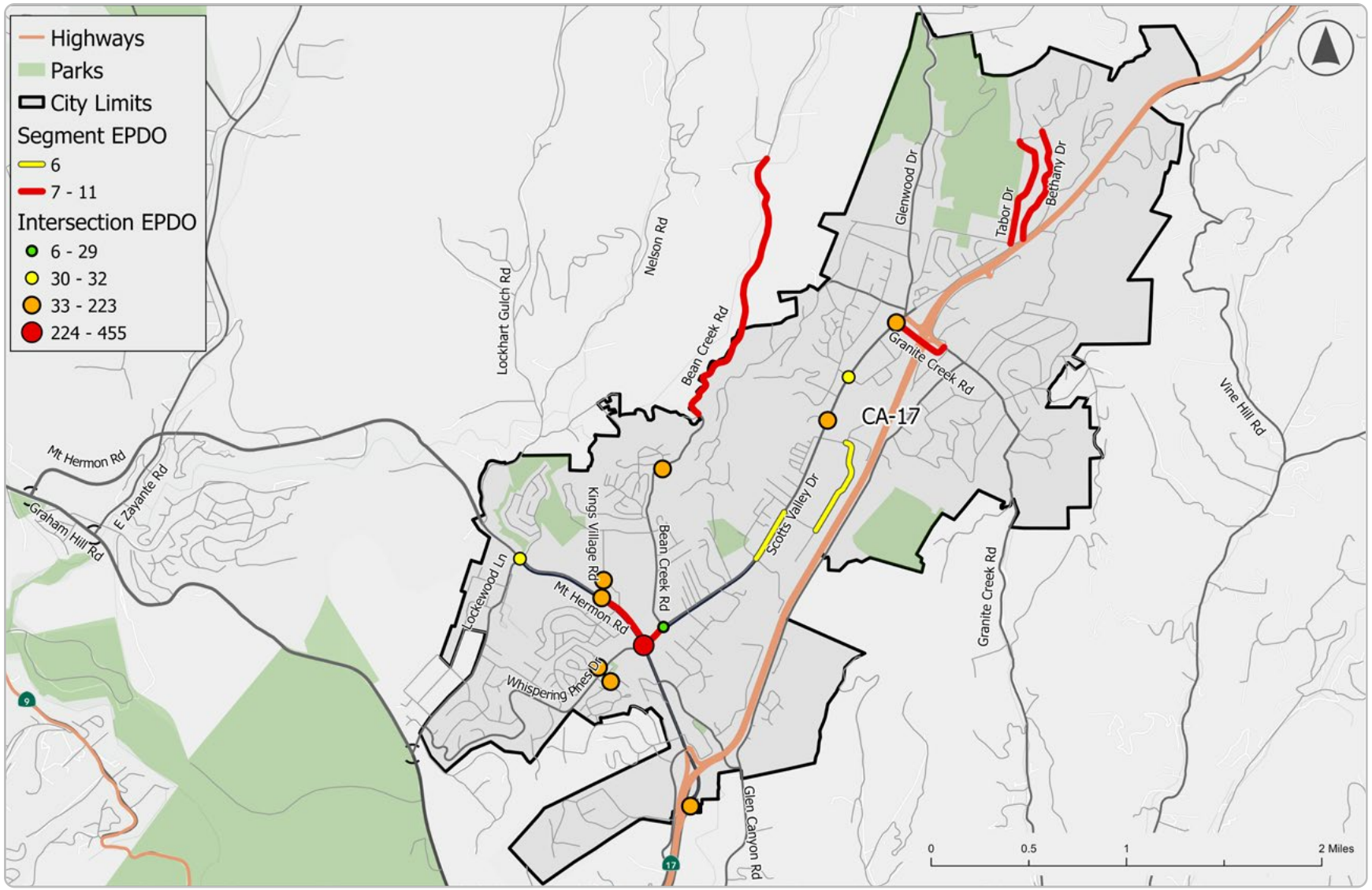
The City of Scotts Valley is a smaller city located in the middle of Santa Cruz County. The roadway network is largely suburban in character, with a mix of residential streets and arterial corridors that serve as key connections to surrounding communities. Many of these roadways feature signalized intersections along primary corridors, while neighborhood streets remain unsignalized with lower traffic volumes. The city's topography, set within the Santa Cruz Mountains, introduces rolling grades and curving alignments that can influence vehicle speeds and visibility.

The top three intersections in the City of Scotts Valley with the highest EPDO are:

1. **Mount Hermon Rd & Scotts Valley Dr/Whispering Pines Dr** with an EPDO value of 455 (Signalized) (14 total crashes: 1 fatal, 2 serious injury, 6 other visible injury, and 5 complaint of pain crashes)
2. **El Rancho Dr & Hwy 17 NB Off-Ramp** with an EPDO value of 223 (Unsignalized) (4 total crashes: 1 serious injury and 3 other visible injury crashes)
3. **Mount Hermon Rd & King Valleys Rd** with an EPDO value of 175 (Signalized) (7 total crashes: 1 serious injury, 4 other visible injury, and 2 complaint of pain crashes)

The roadway segments observed and studied for the analysis yielded low EPDO values, with a total of 6 segments having the an EPDO value of 11. **Figure 27** presents the locations with higher-EPDO values.

Figure 27 – Scotts Valley EPDO Map



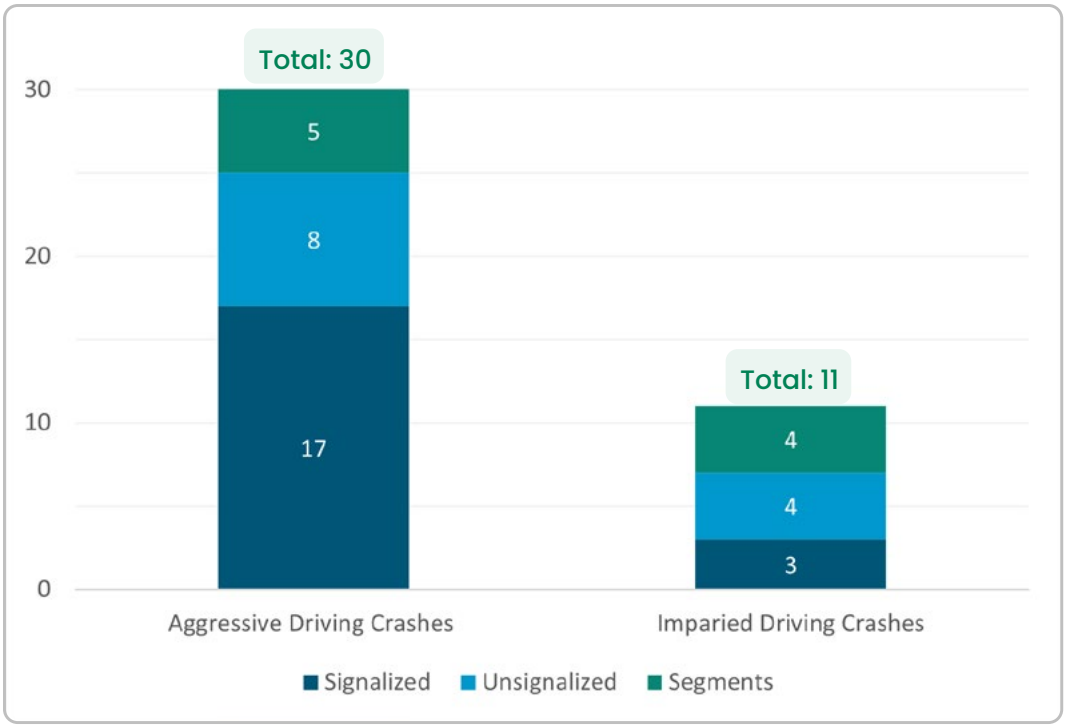
The high-EPDO intersections would benefit from safety treatments such as signal modernization, protected intersection upgrades, protected left-turn phasing, speed management, and enhanced pedestrian crossings. Treatments such as protected intersections and buffered bike lanes would also help enhance road safety for cyclists for vulnerable road users, as cyclists and pedestrians accounted for over 50% of KSI crashes in the study period.

4.2.4. Aggressive and Impaired Driving

Caltrans recognizes aggressive driving and impaired driving as statewide road safety challenge areas. Of the 80 injury crashes reported from 2019-2023, 30 involved aggressive driving and 11 were due to impaired driving, accounting for 38% and 14% of all crashes respectively, as presented in **Figure 28**. There were total of 11 fatal or severe injury crashes, 4 were due to aggressive driving and 2 due to impaired driving accounting for 36% and 18% of all KSI crashes respectively.

Scotts Valley, being a smaller, urban city in Santa Cruz, had relatively less crashes in general compared to other cities in the county. However, Scotts Valley had a high instance of aggressive and impaired driving crashes for its size. Majority of both aggressive and impaired driving crashes occurred along its major intersections and roadways where larger volumes of traffic, pedestrians, and cyclists are present.

Figure 28 – Aggressive and Impaired Driving Crashes (City of Scotts Valley)



The intersections with the most total of aggressive and impaired driving crashes within the City of Scotts Valley were:

1. **Mount Hermon Road & Scotts Valley Drive** (2 aggressive driving crashes, and 1 impaired driving crash)
2. **Mount Hermon Road & Glen Canyon Road** (2 aggressive driving crashes)
3. **Mount Hermon Road & Lockewood Lane/Skypark Drive** (2 aggressive driving crashes)
4. **Scotts Valley Drive & Bean Creek Road** (2 aggressive driving crashes)

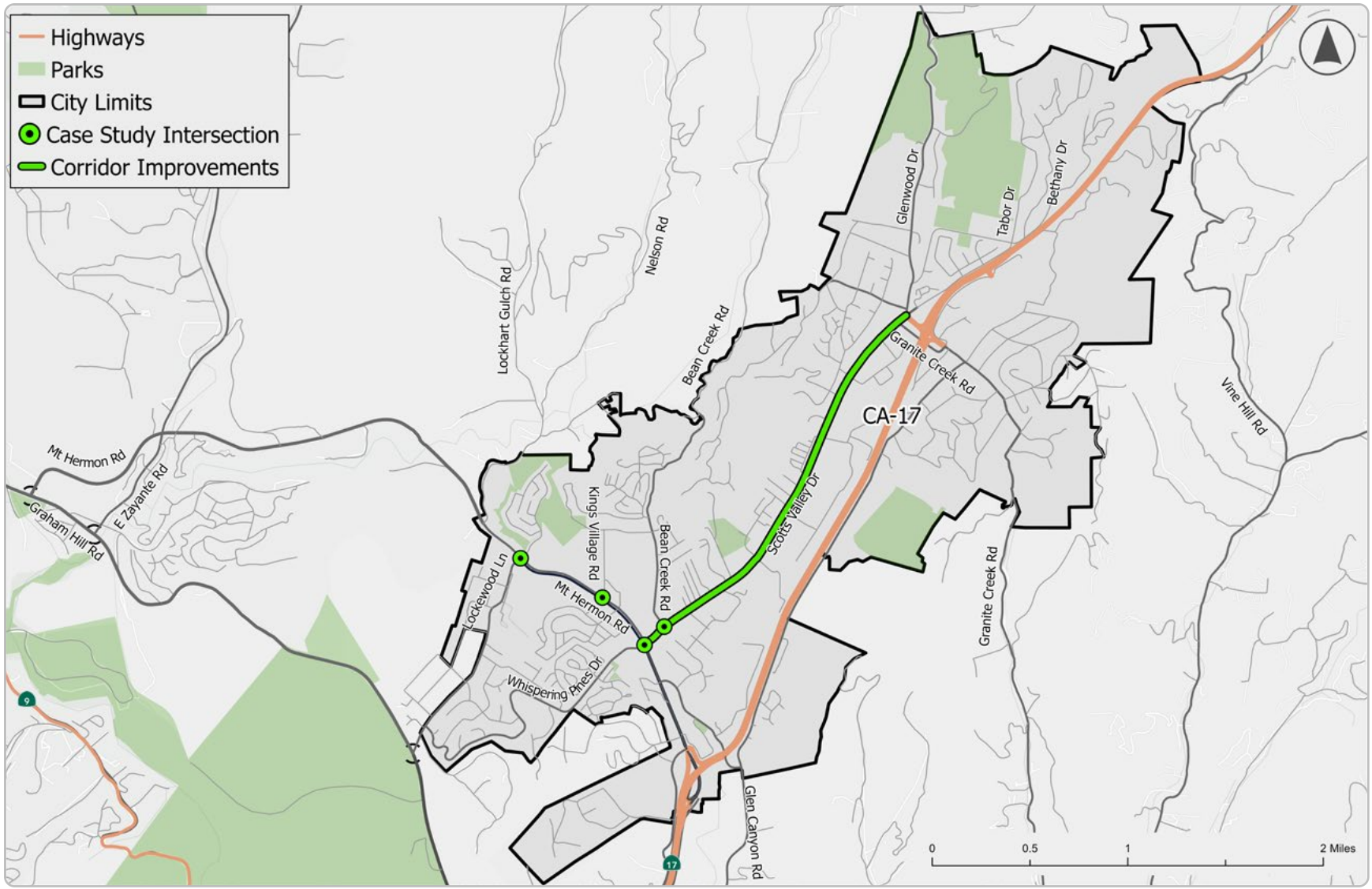
4.2.5. Case Study Locations

The network screening tables for the City of Scotts Valley were reviewed in partnership with City of Scotts Valley Staff and the stakeholder group. Case study locations were selected for further study in a data driven process. Factors such as crash severity, relative crash rates, emphasis areas, vulnerable road users, and proximity to schools were considered. Locations which had recently been improved as part of an existing project were not included as case study intersections to allow an opportunity for the study of new locations. The following signalized intersections were selected for further study:

- **Mount Hermon Road & Scotts Valley Drive**
- **Scotts Valley Road & Bean Creek Road**
- **Mount Hermon Road & Kings Village Road**
- **Mount Hermon Road & Lockewood Lane**

Scotts Valley Drive between Mount Hermon Road and Glenwood Drive was identified as a study corridor based on a review of crash data. This is consistent with comments received from the public, which requested safety improvements by schools and improved bicycle infrastructure, especially at locations such as Scotts Valley Drive and Mount Hermon Road, and Scotts Valley Drive and Granite Creek Road. Safety improvements for this corridor and the other case study locations are discussed in **Section 6.2**.

Figure 29 – Scotts Valley Case Study Locations



4.3. City of Watsonville

4.3.1. City Collision Trends

The majority of injury crashes (61%) occurred at unsignalized intersections. Another 26.9% of crashes occurred at signalized intersections, while the remaining 12% occurred along roadway segments. As shown in **Table 7** there is a higher occurrence of KSI collisions at unsignalized intersections (4 fatal, 15 severe injury). Signalized intersections also have a higher count of KSI collisions (4 fatal, 9 severe injury) as compared to roadway segments (4 fatal, 6 severe injury). While roadway segment collisions only accounted for 12% (50) of all crashes, about 20% (10) of those roadway segment collisions resulted in a fatality or severe injury.

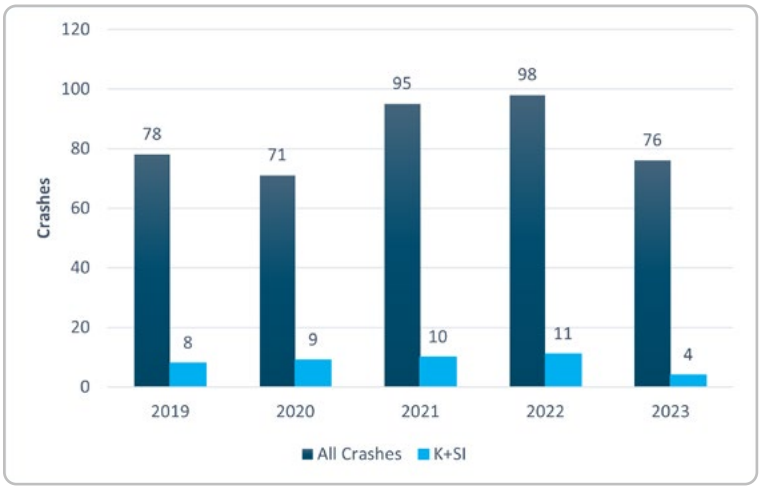
Table 7 – Crashes by Facility Type (City of Watsonville)

Severity	Signalized Intersection		Unsignalized Intersection		Roadway Segment		Total	
	Crashes	%	Crashes	%	Crashes	%	Crashes	%
Fatal	4	1%	4	1%	4	1%	12	2.9%
Severe Injury	9	2.2%	15	3.6%	6	1.4%	30	7.2%
Other Visible Injury	24	5.7%	85	20.3%	12	2.9%	121	28.9%
Complaint of Pain	75	17.9%	152	36.4%	28	6.7%	255	61.0%
Total	**112**	**26.9%**	**250**	**61.2%**	**50**	**12%**	**418**	**100%**

Source: TIMS Crash Data 2019-2023

There were approximately 418 injury crashes which occurred on City facilities between 1/01/2019 and 12/31/2023, as shown in **Figure 30**. The year 2020 experienced the fewest crashes of any year within the study period, with crashes trending upwards each of the following two years. The total number of crashes decreased from 2022 to 2023. The total number of KSI crashes per year increased from 2019 to 2022 and then decreased in 2023 to below 2019 values.

Figure 30 – Annual Crashes in the City of Watsonville

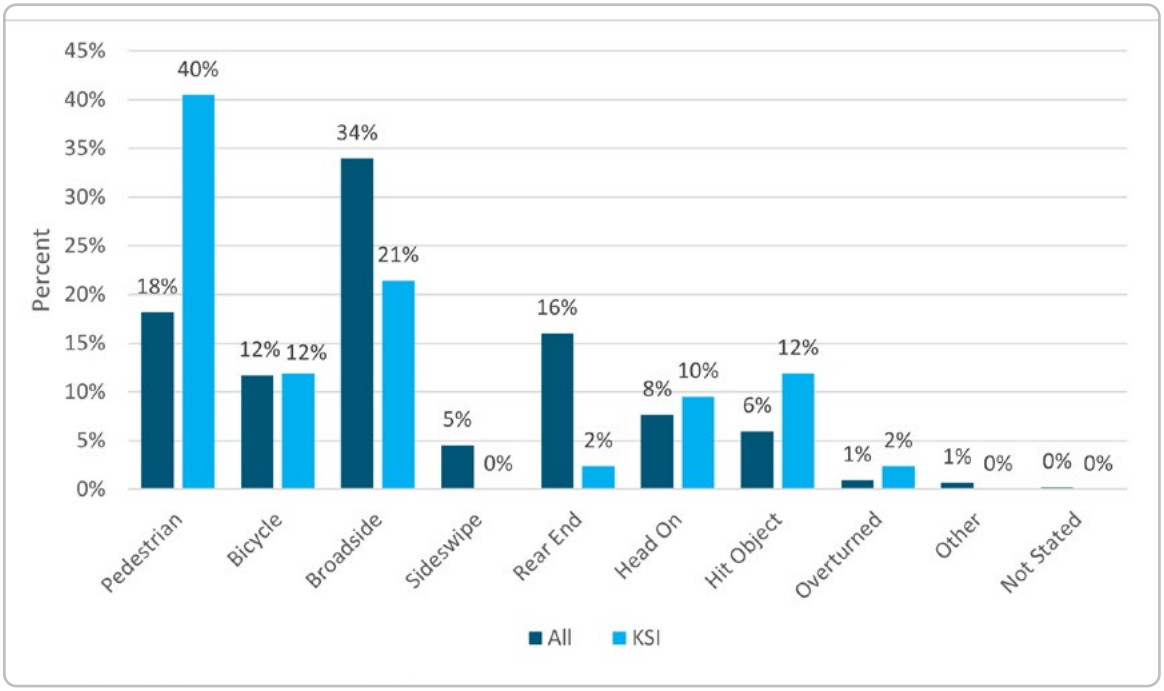


Source: TIMS Crash Data 2019-2023

The most common crash types during the study period were Broadside collisions (142), Vehicle-Pedestrian collisions (76), and Rear-End collisions (67) as seen in **Figure 31**. Pedestrian crashes typically involve a single vehicle striking a pedestrian. Pedestrian crashes are most common in urban cities with an increase of foot traffic and pedestrian crossing sites. Broadsides are crashes where a driver strikes the side of another vehicle at close to a right angle (T-bone); these occur most commonly at intersections. Rear-end crashes most commonly occur at intersections and involve a vehicle striking the back of another vehicle slowing to turn or comply with traffic controls. Watsonville's urban environment and extensive road network results in higher density of intersections where these types of collisions can occur.

The most common crash types contributing to fatalities and severe injuries during the study period were Pedestrian (17), Broadside (9), and Hit Object (5) and Bicycle-Vehicle (5). Despite vulnerable road users (bicyclists and pedestrians) only accounting for 30% of all crashes, they accounted for a disproportionately large (52%) of all KSI crashes.

Figure 31 – City of Watsonville Crash Types

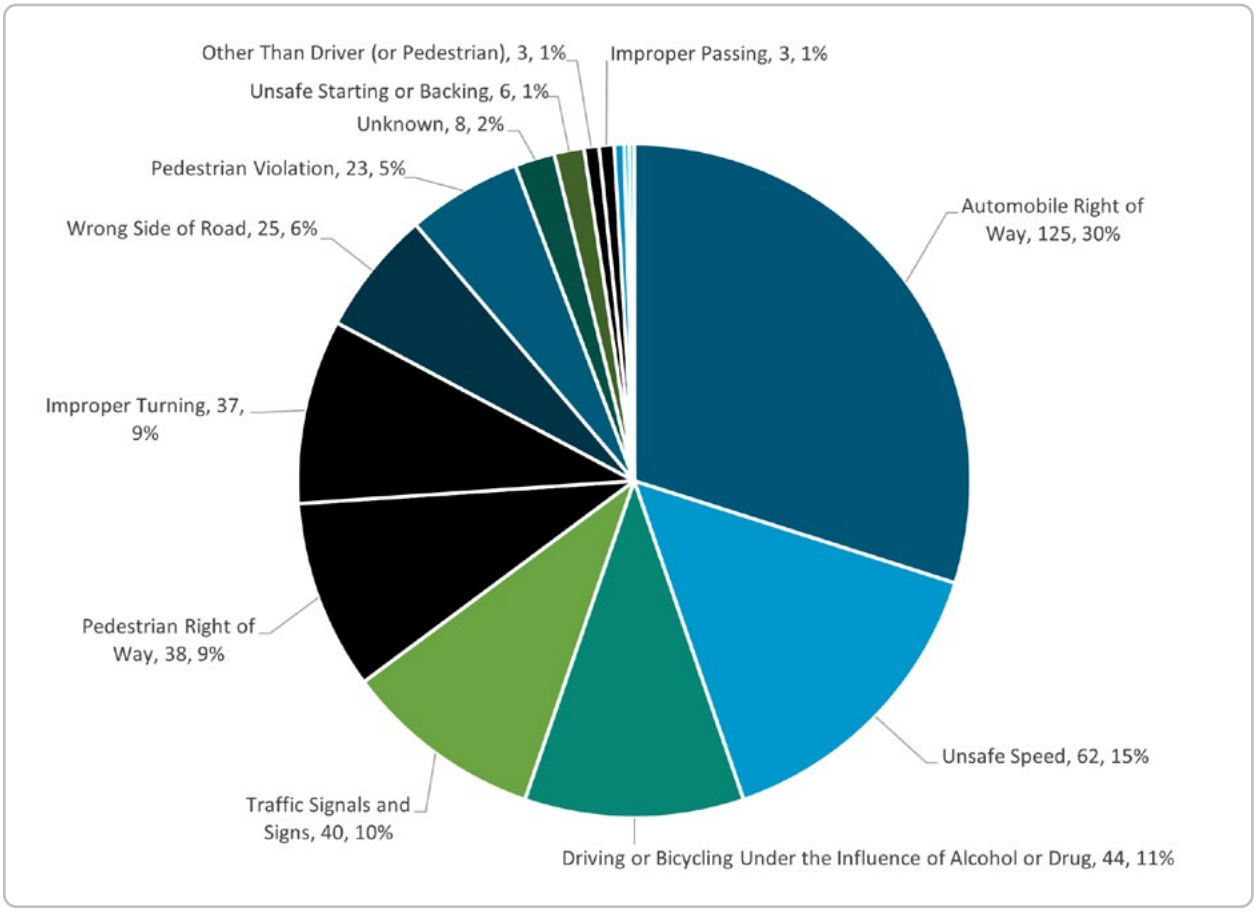


Source: TIMS Crash Data 2019-2023

Based on the crash data used for this analysis, the leading cause of crashes in the City of Watsonville during the study period included automobile right of way (30%), unsafe speed (15%), driving or bicycling under the influence of alcohol or drug use (11%), and traffic signals and signs (10%). While any of these factors can occur at both intersections and along roadway

segments, factors such as automobile ROW, pedestrian ROW, and traffic signals and signs are more likely to play a role in collisions occurring at intersections where interactions between pedestrians and vehicles are more frequent and where intersection control and signage dictate vehicle movement. These trends are presented in **Figure 32** and are consistent with the regional crash comparisons in found in **Table 8** and **Table 9**.

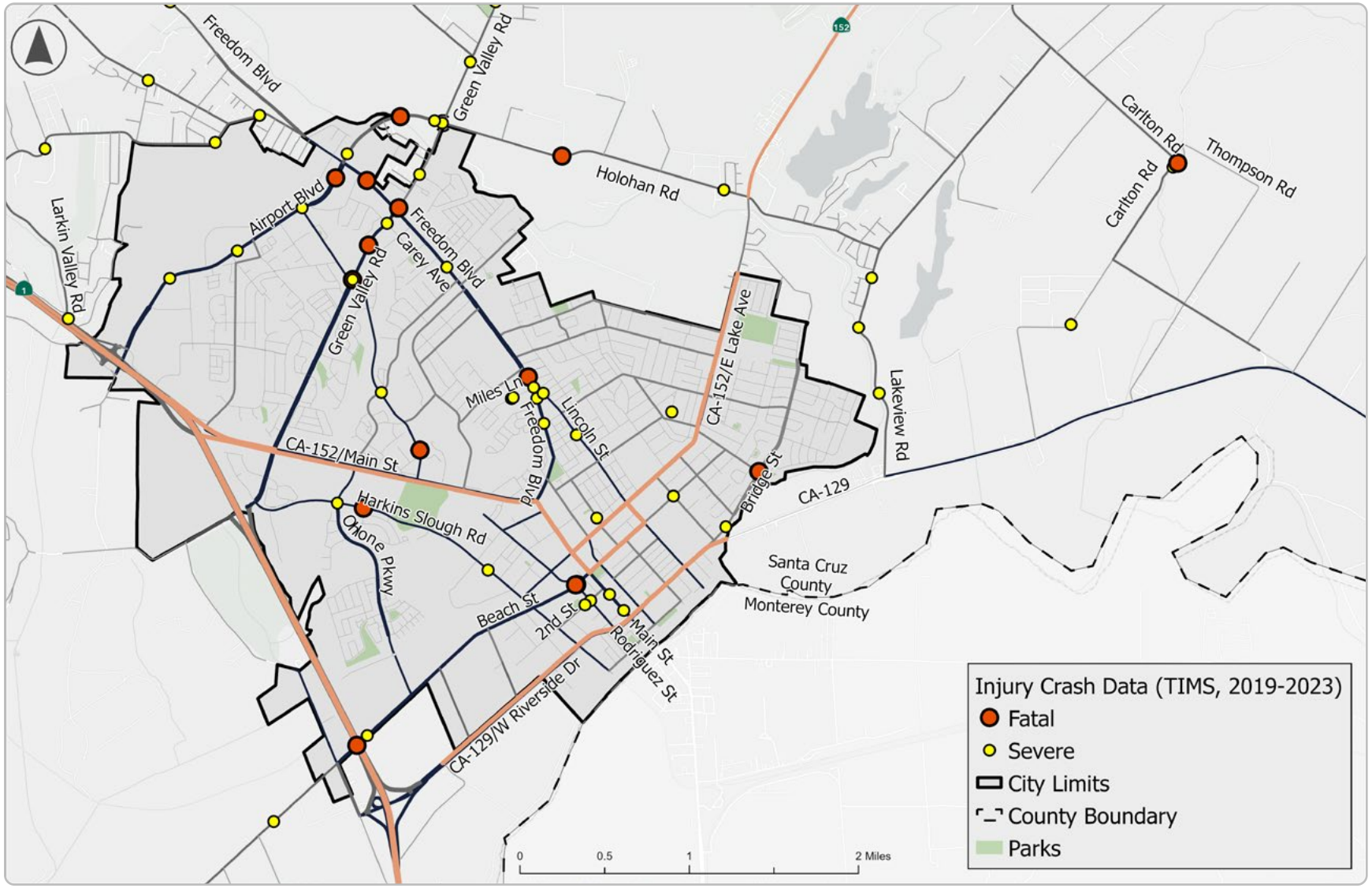
Figure 32 – Primary Collision Factors (Watsonville)



The primary collision factors (PCF) which contributed the most to KSI crashes included pedestrian violations (19%), driving or cycling under the influence of alcohol or drugs (19%), improper turning (14%), automobile right of way (12%), traffic signals and signs (12%), and pedestrian right of way (10%). Pedestrian violations account for a larger share of KSI collisions (19%) than of all crashes (9%), underscoring the heightened vulnerability of pedestrians and cyclists to severe injury. This increase also suggests a need for improved pedestrian and cyclist infrastructure to help reduce such violations.

Figure 33 presents a map of KSI crashes on the Watsonville facilities.

Figure 33 – City of Watsonville KSI Crash Map



4.3.2. Regional Safety Performance

SHSP Statewide Comparison Table

The California Strategic Highway Safety Plan (SHSP) focuses on 16 challenge areas identified by the SHSP Executive Leadership and Steering Committees after an in-depth analysis of California K+SI (fatal and severe injury) crash data as well as an extensive statewide outreach process that involved hundreds of diverse traffic stakeholders around the state contains a comparison of the City of Watsonville's K+SI crashes to the statewide K+SI crashes based on SWITRS data from 2013-2022. **Table 8** presents that the City of Watsonville has historically been higher than the statewide average in the following areas: pedestrians, intersections and bicyclists. **Table 8** also presents a summary of the challenge areas and percentages for the City's and statewide averages.

Table 8 – City of Watsonville K+SI Crashes Compared to Statewide K+SI Crashes

Challenge Areas	Comparison	Percent of Fatal and Severe Injury Crashes (2013-2022)		% Point Difference
		Scotts Valley	Statewide	
Pedestrians	Higher	45.5%	18.9%	26.6%
Intersections	Higher	35.9%	24.3%	11.6%
Bicyclists	Higher	16.6%	7.3%	9.2%

Notes:
1. Percentages will not add up to 100%, as a fatality or severe injury could have involved multiple Challenge Areas (i.e., a young driver that was impaired and unrestrained)

These figures demonstrate that vulnerable road users face a disproportionate safety risk in Watsonville. Intersections also come in as a challenge area in the City of Watsonville highlighting room for improvement at intersections where pedestrians and bicyclists may also be at higher risk if proper infrastructure is not present.

OTS Rankings

Table 9 presents how the City of Watsonville ranked in the 2022 OTS rankings. For the 2022 OTS rankings, the City of Watsonville was compared to 104 other cities in the state within the same group (C) based on population size (50,001 – 100,000). Compared to other cities in the same group in 2022, the City of Watsonville ranked among the top half in crashes involving pedestrians, hit and run, and crashes involving drivers that had been drinking in underage and ages 21—34 populations.

Table 9 – City of Watsonville OTS Rankings (2022)

Crash Category	Victims Killed and Injured	OTS Ranking
Total Fatal and Injury	180	25/104
Alcohol Involved	27	18/104
Had Been Drinking Driver < 21	4	8/104
Had Been Drinking Driver 21 – 34	15	9/104
Motorcycles	13	15/104
Pedestrians	31	3/104
Pedestrians < 15	4	14/104
Pedestrians 65+	4	24/104
Bicycle	17	16/104
Composite	111	14/104
Speed Related	27	33/104
Nighttime (9:00pm – 2:59am)	13	55/104
Hit and Run	25	6/104

Source: City of Watsonville OTS Rankings (2022)

Notes:
1. The figures in the ranking column show as two numbers divided by a slash. The first number is that city's ranking in that category. The second number is the total number of cities/counties within that "Group". For instance, if you see "18/104", that means that city ranks 18th out of 104 cities of similar size.

2. Number 1 in the rankings is the highest, or "worst". A ranking of 1/104 is the highest or worst. 52/104 is average, and 104/104 is the lowest or best.

3. City rankings are for incorporated cities only, for local streets in those cities, and state highways that run through cities with shared jurisdiction with the CHP and the city. City rankings do not include numbers of crashes, killed or injured on freeways and on state highways where cities do not have jurisdiction.

The City of Watsonville is ranked relatively high in the following:

- **3rd statewide** for crashes involving pedestrians.
- **6th statewide** for hit and run crashes.
- **8th statewide** for crashes involving people under 21 years old that have been drinking.
- **9th statewide** for crashes involving persons between the ages of 21 – 34 that had been drinking.

This data reinforces the opportunity and need for pedestrian and vulnerable road user infrastructure improvements as well as a comprehensive and systematic strategy that addresses driver behavior.

4.3.3. Equivalent Property Damage Only (EPDO)

The roadway network in Watsonville is urban with a grid-like pattern of arterial, collector, and local streets serving a compact community. Many intersections are signalized, particularly along major corridors that carry both local and regional traffic. However, the city also contains a number of wide, multi-lane roadways that can encourage higher travel speeds and create barriers for pedestrians and cyclists.

In the City of Watsonville, the intersections with the highest EPDO values are:

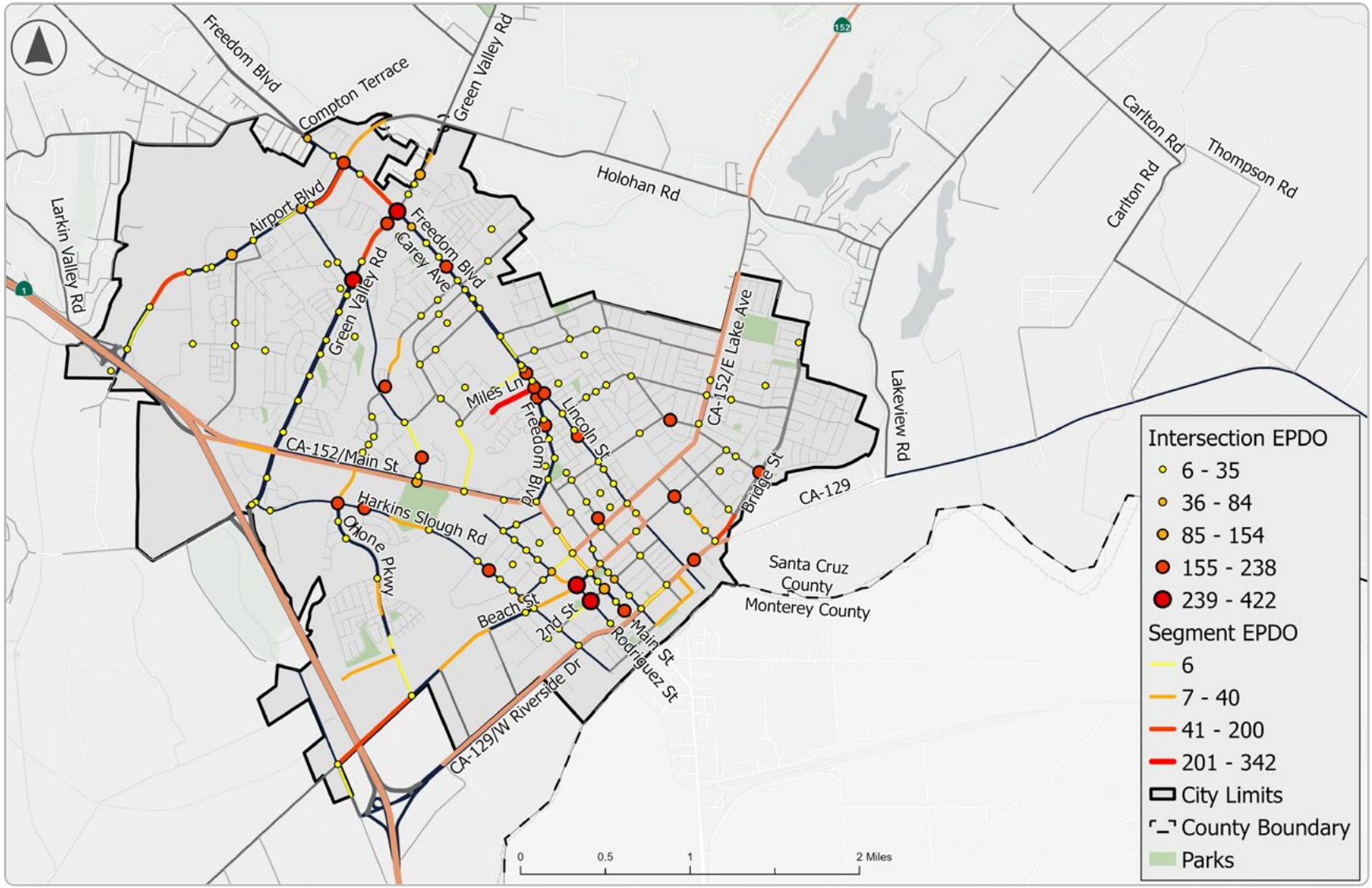
- **Freedom Blvd & Blanca Ln** with an EPDO value of 422 (Unsignalized) (7 crashes total: 2 serious injury, 2 other visible injury, and 3 complaint of pain crashes)
- **Green Valley Rd & Carnation Dr** with an EPDO value of 366 (Signalized) (4 crashes total: 2 fatal, 1 serious injury, and 1 complaint of pain crash)
- **Harkins Slough Rd & Ohlone Pkwy** with an EPDO value of 288 (Signalized) (9 crashes total: 1 fatal, 1 serious injury, 1 other visible, and 6 complaint of pain crashes)

In the City of Watsonville, the roadway segments with the highest EPDO values are:

- **Miles Ln** (between Kimberly Ln/Santa Clara St – Freedom Blvd) with an EPDO value of 342 (3 crashes total: 2 serious injury and 1 other visible injury)
- **Airport Blvd** (Neilson St – Hangar Way) with an EPDO value of 182 (3 crashes total: 1 serious injury, 1 other visible injury, and 1 complaint of pain crash)

Figure 34 presents a map of these high EPDO locations.

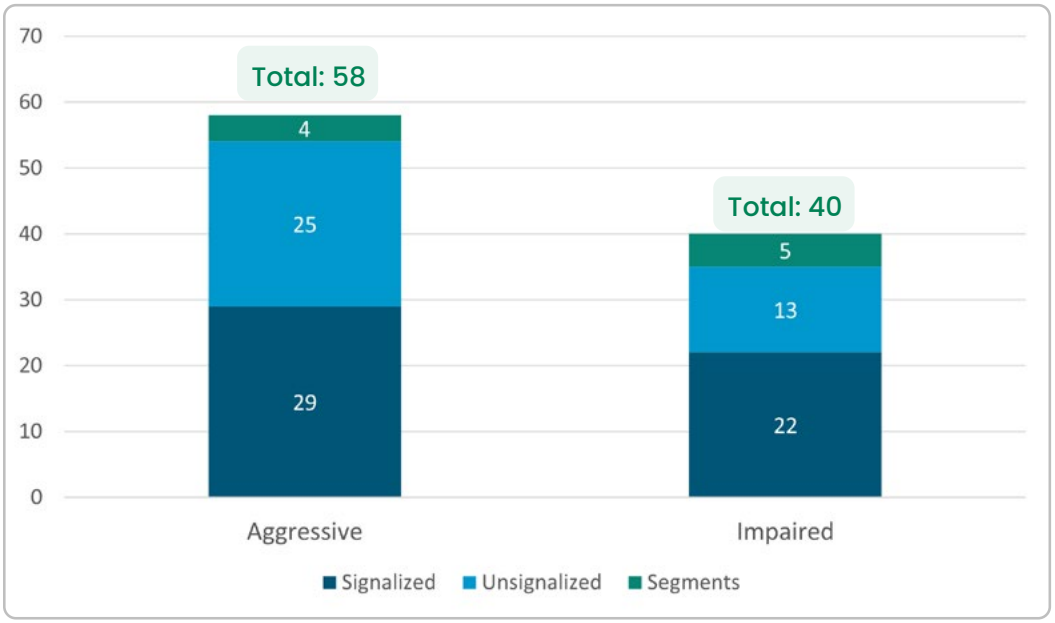
Figure 34 – Watsonville EPDO Map



4.3.4. Aggressive and Impaired Driving

During the study period the City of Watsonville experienced 58 injury crashes resulting from aggressive driving behavior and 40 injury crashes due to impaired driving. As seen in **Figure 35**, these crashes occurred mostly at intersections, with signalized intersections experiencing the highest proportion. Out of 42 fatal or severe crashes, 9 involved aggressive driving and 13 involved impaired driving, accounting for 52% of all KSI crashes.

Figure 35 – Aggressive and Impaired Driving



4.3.5. Case Study Locations

The network screening tables for the City of Watsonville were reviewed in partnership with City of Watsonville Staff, County staff, and the stakeholder group. Case study locations were selected for further study in a data driven process and are pictured in **Figure 36**. Factors such as crash severity, relative crash rates, emphasis areas, vulnerable road users, and proximity to schools were considered. Locations with programmed improvements or recently completed projects were typically not included in the short list of case study locations with the goal of studying new locations.

Signalized Intersections

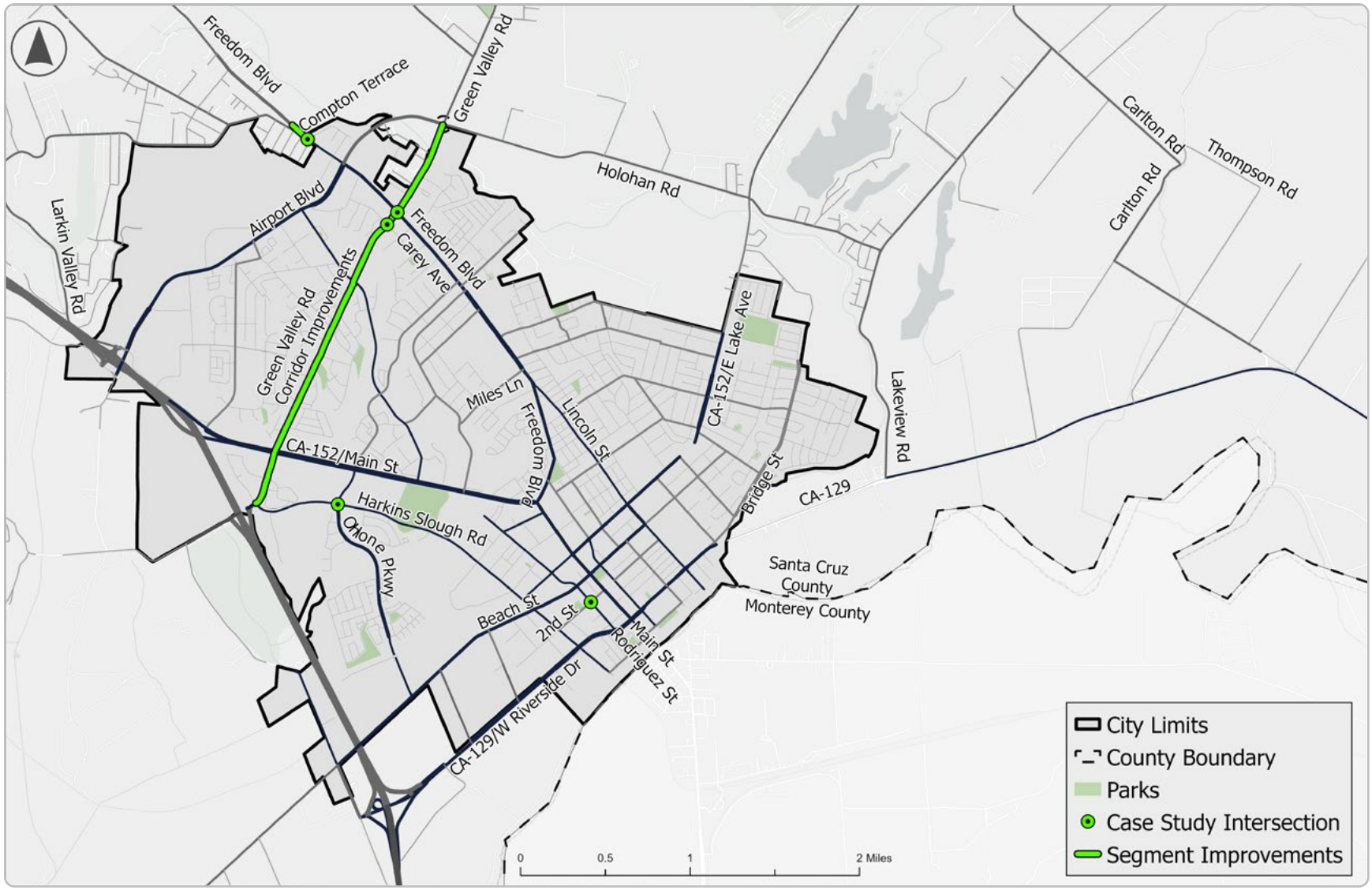
- Ohlone Parkway and Harkins Slough
- Freedom Boulevard and Green Valley Road

Unsignalized Intersections

- Freedom Boulevard and Buena Vista Drive/ Compton Terrace (shared location with the Santa Cruz County)
- Green Valley Road and Carey Avenue
- Rodriquez Street and 2nd Street

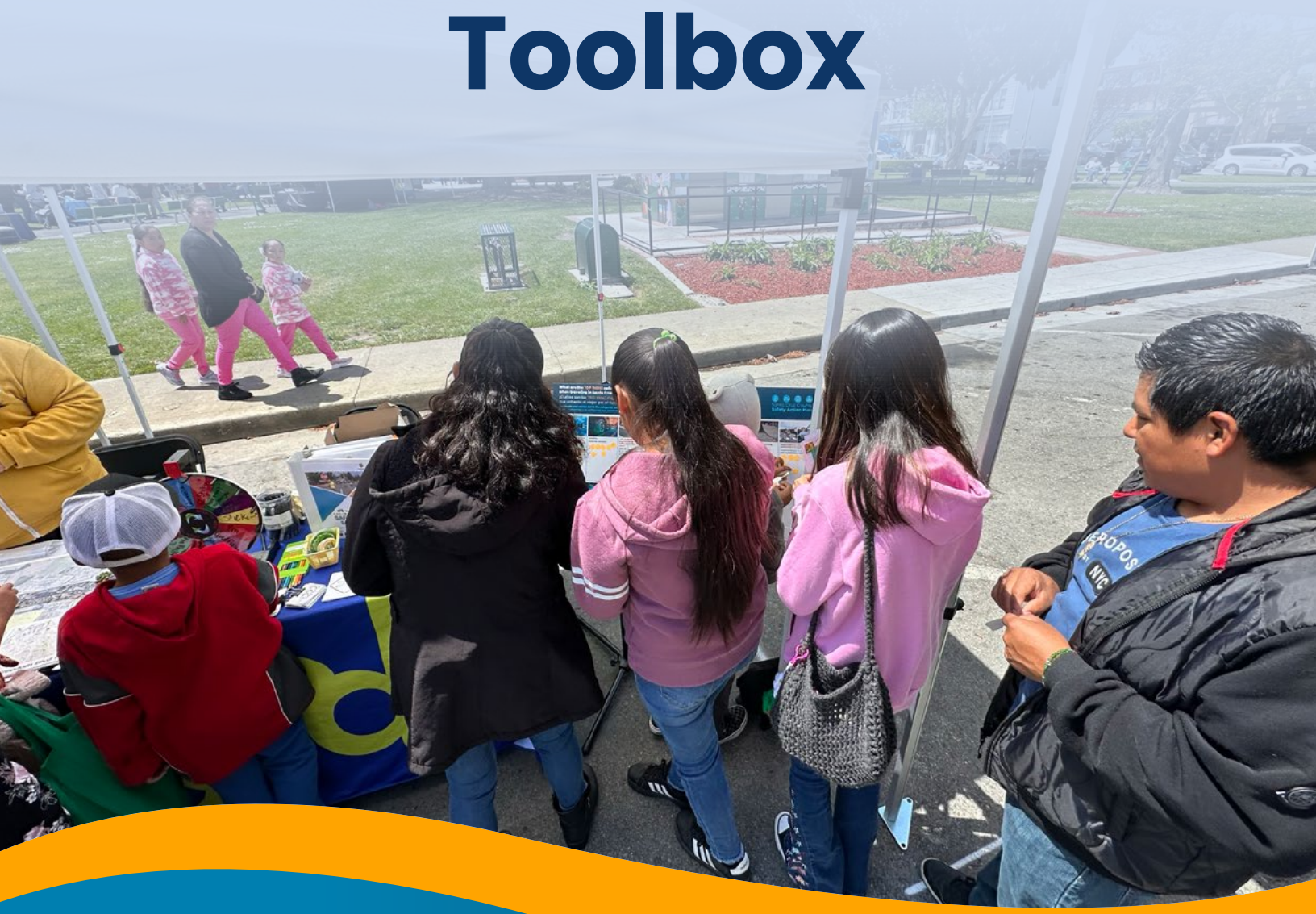
Green Valley Road between Harkins Slough Road and Airport Boulevard/Holohan Road was identified as a study corridor based on a review of crash data. Safety improvements for this corridor and the other case study locations are discussed in **Section 6.2**.

Figure 36 – Watsonville Case Study Locations



5

Countermeasure Toolbox



5. Countermeasure Toolbox

The following sections provide more information on potential engineering and non-infrastructure safety countermeasures that might address conditions that were observed to contribute to crash activity in the County, City of Scotts Valley, and City of Watsonville.

5.1. Engineering Countermeasures

The following sections contain a description of Crash Modification Factors (CMFs) and Crash Reduction Factors (CRFs) associated with the engineering countermeasures toolbox.

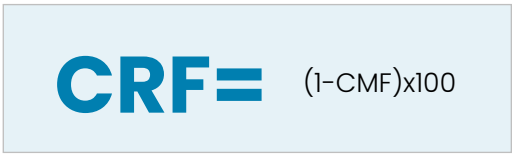
5.1.1. Crash Modification Factors

When identifying potential systemic safety improvements, it is important to look at CMFs for the proposed improvements.The CMF Method is found in Part D of the HSM. CMFs are defined as the ratio of effectiveness of one condition in comparison to another condition and represent the relative change in crash frequency due to a change in one specific condition. In other words, a CMF is a multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure at a specific site. Countermeasures with CMFs less than one are expected to reduce crashes if applied, while those countermeasures with CMFs greater than one are expected to increase crashes. **Figure 37** illustrates the definition of CMFs.

Figure 37 – CMF Calculation

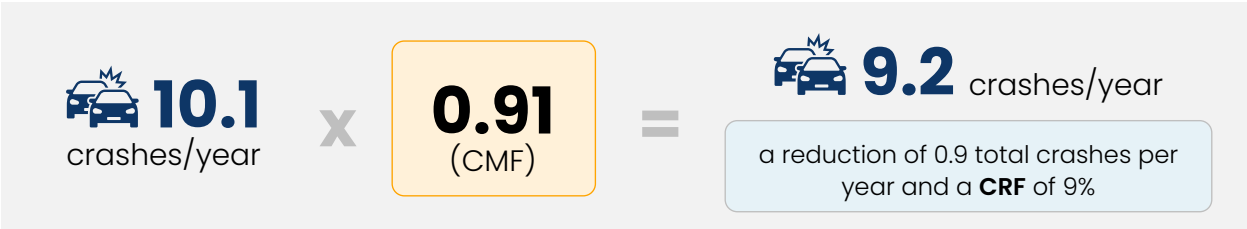
A Crash Reduction Factor (CRF) is similar to a CMF but stated in different terms. A CRF is defined as a percentage of crash reduction that might be expected after the implementation of a given countermeasure at a specific site. In application, the higher a CRF value is, the more effective the countermeasure is at preventing crashes. **Figure 38** shows how a CRF is calculated in relationship to a CMF.

Figure 38 – CRF Calculation



The CMF Method is used to calculate the expected number of crashes by taking the observed number of crashes and multiplying those crashes by the applicable CMF for the proposed countermeasure.It is recommended that CMFs be applied to a minimum of three years of crash data for urban and suburban sites and five years of crash data for a rural site. **Figure 39** is a sample calculation of the CMF method with one CMF being applied to a particular site for a single year.

Figure 39 – CMF Method Sample Calculation



Caution should be used in the selection of appropriate CMFs. The following guidance should be considered when selecting CMFs for predictive crash analysis:

- CMFs should be selected from the HSM Part D, the LRSM, or from the FHWA CMF Clearinghouse website (http://www.cmfclearinghouse.org).
- Read the countermeasure abstract to determine if the CMF is applicable to the proposed improvement.
- Only CMFs with a four-star rating or higher should be considered for use in analysis.
- Be sure the selected CMF is applicable to the set of crash data being used for analysis.Some CMFs may only be applicable to a subset of the crash data.
- The application of multiple CMFs can overestimate the expected crash reduction.Unless each CMF addresses independent crash types, multiple CMFs should not be used.It is suggested that no more than three independent CMFs be applied to a particular site.
- The countermeasures proposed in this SAP were chosen because of their effectiveness in reducing crashes.

5.1.2. Engineering Countermeasures Toolbox

The systemic improvements identified as most likely effective are listed in **Table 10**, and include a wide range of countermeasures that can be implemented in phases where appropriate. Many of these proposed countermeasures have already been implemented in the County and partner Cities, including but not limited to pedestrian countdown signal heads, conversion of stop-controlled intersections to roundabouts, and installation of retro-reflective backplates on traffic signal heads.

The CMF indicates how effective the countermeasure is at reducing crashes. CMFs and CRFs have been provided for reference to aid to staff in understanding potential reductions from crashes by different countermeasures. Caltrans funding levels for each countermeasure are also provided to aid the City in determining what the local match would likely be if the City were to pursue grant funding. Most countermeasures are eligible for Caltrans funding up to 90%, though some are lower.

Table 10 – Santa Cruz County Engineering Countermeasure Toolbox

Countermeasure	Also Addresses		Crash Modification Factor (CMF)	Crash Reduction Factor (CRF)	Applies to		Caltrans Funding	Cost to Implement
	Pedestrian	*Bicycle*			*All*	*Nighttime*		
Signalized Intersections								
Modify signal to provide a Leading Pedestrian Interval (LPI)	X		0.4	60%			90%	$
Install Left Turn Lane, Add Left Turn Phase			0.45	55%	X		90%	$$$
Install High Friction Surface Treatment (HFST)			0.45	55%	X		90%	$$$
Install intersection lighting			0.6	40%		X	90%	$$
Pedestrian scramble	X		0.6	40%			90%	$$
Curb extensions	X		0.63	37%			N/A	$$
Install pedestrian median fencing on approaches	X		0.65	35%			90%	$$
Protected left turn phase			0.7	30%	X		90%	$$
Convert signal from pedestal-mounted to mast arm			0.7	30%	X		90%	$$$
Install signs with LED borders as advanced warning			0.7	30%	X		90%	$$
Install raised median on approaches			0.75	25%	X		90%	$$
Pedestrian countdown signal heads	X		0.75	25%			90%	$
Signal ahead warning signs			0.85	15%	X		N/A	$

$$$ Requires design and construction of extensive infrastructure improvements
$$ Requires procurement and/or minor construction activities
$ Requires limited staff resources and can be implemented in-house with current engineering and/or maintenance staff

Countermeasure	Also Addresses		Crash Modification Factor (CMF)	Crash Reduction Factor (CRF)	Applies to		Caltrans Funding	Cost to Implement
	Pedestrian	*Bicycle*			*All*	*Nighttime*		
Retroreflective backplates	X	X	0.85	15%	X		90%	$
Improve signal timing (coordination)			0.85	15%	X		50%	$$
Advanced stop bar before crosswalk and bicycle box			0.85	15%			90%	$
Install raised pavement markers and striping			0.9	10%	X		90%	$
Flashing yellow arrow			0.94	6%	X		N/A	$
Convert intersection to roundabout (from signal)			*Varies*	Varies	X		90%	$$$
Convert intersection to mini/compact roundabout (from signal)			*Varies*	Varies	X		90%	$$
Install protected Intersection.	X	X	*Not Available*	*Not Available*			N/A	$$
Install a raised intersection	X		*Not Available*	*Not Available*			N/A	$$
Unsignalized Intersections								
Install High Friction Surface Treatment (HFST)			0.45	55%	X		90%	$$$
Pedestrian Signal or Pedestrian High Intensity Activated Crosswalk (HAWK)	X		0.45	55%			90%	$$$
Install all-way STOP control			0.5	50%	X		90%	$

$$$ Requires design and construction of extensive infrastructure improvements
$$ Requires procurement and/or minor construction activities
$ Requires limited staff resources and can be implemented in-house with current engineering and/or maintenance staff

Countermeasure	Also Addresses		Crash Modification Factor (CMF)	Crash Reduction Factor (CRF)	Applies to		Caltrans Funding	Cost to Implement
	Pedestrian	*Bicycle*			*All*	*Nighttime*		
Directional median openings to restrict turning movements			0.5	50%	X		90%	$$
Reduced Left-Turn Conflict (R-CUT) intersections			0.5	50%	X		90%	$$$
Pedestrian refuge island	X		0.55	45%			90%	$$
Install splitter-islands on minor road approaches			0.6	40%	X		90%	$$
Crosswalk lighting	X		0.6	40%		X	90%	$$
Install splitter-islands on minor road approaches			0.6	40%	X		90%	$$
Add intersection lighting			0.6	40%		X	90%	$$
Colored bicycle lanes		X	0.61	39%			90%	$
Curb extensions	X		0.63	37%			N/A	$$$
Install/upgrade pedestrian crossing with enhanced safety features	X		0.65	35%			90%	$$$
Rectangular Rapid Flashing Beacon (RRFB)	X		0.65	35%			90%	$$
Install left-turn lane			0.65	35%	X		90%	$$
Install flashing beacons as advanced warning			0.7	30%	X		90% *(if beacons are utilized)*	$$
Upgrade pavement markings			0.75	25%	X		90%	$

$$$ Requires design and construction of extensive infrastructure improvements
$$ Requires procurement and/or minor construction activities
$ Requires limited staff resources and can be implemented in-house with current engineering and/or maintenance staff

Countermeasure	Also Addresses		Crash Modification Factor (CMF)	Crash Reduction Factor (CRF)	Applies to		Caltrans Funding	Cost to Implement
	Pedestrian	*Bicycle*			*All*	*Nighttime*		
Install raised median on approaches			0.75	25%	X		90%	$$
Clear sight triangles			0.8	20%	X		90%	$
Install right-turn lane			0.8	20%	X		90%	$
Install/upgrade intersection warning/ regulatory signs			0.85	15%	X		90%	$
Install flashing beacons at stop-controlled intersections			0.85	15%	X		90%	$$
Convert intersection to roundabout			*Varies*	*Varies*	X		90%	$$$
Retroreflective strips on sign posts			*Not Available*	*Not Available*	X		90%	$
Install a raised intersection	X		*Not Available*	*Not Available*			N/A	$$$
Partial street closure or diagonal diverter			*Not Available*	*Not Available*	X		N/A	$$
Full street closure	X	X	*Not Available*	*Not Available*	X		N/A	$$
Install protected Intersection.	X	X	*Not Available*	*Not Available*			N/A	$$

$$$ Requires design and construction of extensive infrastructure improvements
$$ Requires procurement and/or minor construction activities
$ Requires limited staff resources and can be implemented in-house with current engineering and/or maintenance staff

Countermeasure	Also Addresses		Crash Modification Factor (CMF)	Crash Reduction Factor (CRF)	Applies to		Caltrans Funding	Cost to Implement
	Pedestrian	*Bicycle*			*All*	*Nighttime*		
Roadway Segments								
Improve pavement friction (High Friction Surface Treatment)			0.45	55%	X		90%	$$$
Install chevron signs on horizontal curves			0.60	40%	X		90%	$
Remove or relocate fixed object outside of Clear Recovery Zone			0.65	35%	X		90%	$$$
Install pedestrian median fencing	X	X	0.65	35%			90%	$$
Install bike lanes	X	X	0.65	35%			90%	$
Add segment lighting			0.85	35%		X	90%	$$
Install/upgrade pedestrian crossing (with enhanced safety features)	X	X	0.65	35%			90%	$$
Install raised pedestrian crossing	X	X	0.65	35%			90%	$$
Install rectangular rapid flashing beacon	X	X	0.65	35%			90%	$$
Install curve advance warning signs (flashing beacon)			0.70	30%	X		90%	$$
Install dynamic/variable speed warning signs			0.70	30%	X		90%	$$
Install curve advance warning signs			0.75	25%	X		90%	$
Install impact attenuators			0.75	25%	X		90%	$$

$$$ Requires design and construction of extensive infrastructure improvements
$$ Requires procurement and/or minor construction activities
$ Requires limited staff resources and can be implemented in-house with current engineering and/or maintenance staff

Countermeasure	Also Addresses		Crash Modification Factor (CMF)	Crash Reduction Factor (CRF)	Applies to		Caltrans Funding	Cost to Implement
	Pedestrian	*Bicycle*			*All*	*Nighttime*		
Install centerline rumble strips/stripes			0.80	20%	X		90%	$$
Install edge line rumble strips/stripes			0.85	15%	X		90%	$$
Install/Upgrade signs with new fluorescent sheeting (regulatory/warning)			0.85	15%	X		90%	$
Install delineators, reflectors and/or object markers			0.85	15%	X		90%	$
Speed feedback signs (mobile or fixed)	X	X	*Not Available*	*Not Available*			Opportunity for OTS Funding	$$
Install lane narrowing treatments (extend curb inward/extend median)	X		*Not Available*	*Not Available*	X		N/A	$$
Install a chicane, deviation, or angled slow point			*Not Available*	*Not Available*	X		N/A	$$$
Install speed hump			*Not Available*	*Not Available*	X		N/A	$$
Install motorcycle guardrail			*Not Available*	*Not Available*	X		90%	$$$

$$$ Requires design and construction of extensive infrastructure improvements
$$ Requires procurement and/or minor construction activities
$ Requires limited staff resources and can be implemented in-house with current engineering and/or maintenance staff

The countermeasures in **Appendix F** can be considered as near-term, mid-term and long-term improvements. Near-term improvements are lower cost and can be implemented most readily. Mid-term improvements are higher cost improvements, while long-term improvements are the highest cost and may require engineering design and permitting to implement. **Table 11** presents an estimated time range for various countermeasures.

Table 11 – Near-Term, Mid-Term, and Long-Term Improvements

Near-Term Improvements (0-3 Years)	Mid-Term Improvements (3-5 Years)	Long-Term Improvements (5+ Years)
• Install retroreflective backplates and/or additional signal heads • Install retroreflective strips • Install raised pavement markings and striping • Install pedestrian countdown signal heads • Advanced stop bars (bicycle box) • Improve signal timing • Implement Leading Pedestrian Interval • Implement All-Way-Stop-Control at intersection • Install/Upgrade intersection warning/ regulatory signs • Clear sight triangles • Install/upgrade pedestrian crossing • Colored bicycle lanes • Install/upgrade signs with new fluorescent sheeting (regulatory or warning) • Install delineators, reflectors and/or object markers • Install dynamic speed warning signs	• Install rumble strips (edgeline and centerline) • Install intersection lighting • Install emergency vehicle preemption • Install protected left turn phase • Install raised median • Create directional median openings • Install flashing beacons in advanced warning or curve or intersection • Install pedestrian median fencing • Install splitter islands on minor road approaches • Install RRFB • Install bike lane • Install motorcycle guardrail	• Install left turn lane and add left turn phase • Convert signal from pedestal mounted to mast arm • Install high-friction surface treatment • Install signal • Curb extensions and bulb-outs • Remove/relocate fixed object out of clear recovery zone • Install separated bike lanes • Install acceleration/ deceleration lanes • Add two-way left turn lane/Implement road diet • Install pedestrian refuge island or raised pedestrian crossing • Convert intersection to roundabout or protected intersection

5.2. Non-Infrastructure Countermeasures

The National Highway Traffic Safety Administration (NHTSA) Countermeasures that Work, Ninth Edition, is a reference to assist safety stakeholders in selecting effective, science-based non-infrastructure traffic safety countermeasures for major highway safety problem areas.While many of the countermeasures are more appropriate to apply at the state-level or require legislative modifications to implement, **Table 12** contains countermeasures that have demonstrated effectiveness and could be applied at the City level. Note that while there are several other non-infrastructure countermeasures available, only those which have an effectiveness rating of four stars or higher are presented.Access to Drug Recognition Experts (DREs) and Advanced Roadside Impaired Driving Enforcement (ARIDE) training for law enforcement is not included in the document but are countermeasures that could also be considered.

Table 12 – Non-Infrastructure Countermeasures Toolbox

Countermeasure	Effectiveness	Cost to Implement	Use	Time to Implement
Aggressive Driving				
Automated enforcement systems (red light camera systems)	**Effective**	**$$$†**	**Medium**	3-12 Months
Impaired Driving				
Publicized Sobriety Checkpoints	**Effective**	**$$$**	**Medium**	> 3 months
High-Visibility Saturation Patrols (large number of law enforcement officers patrolling a specific area)	**Situational**	**$$**	**High**	> 3 months
Occupant Protection (Seat Belts, Helmets, Child Seats)				
Short-term high visibility enforcement	**Effective**	**$$$**	**Medium**	3-12 Months
Integrated nighttime seat belt enforcement *(nighttime seat belt enforcement in conjunction with High-Visibility Saturation Patrols for impaired driving)*	**Situational**	**$$$**	**Unknown**	3-12 Months
Distracted Driving				
High visibility cellphone/ text messaging enforcement	**Situational**	**$$$**	**Low**	3-12 Months

Cost to Implement:
$$$ *Requires extensive new facilities, staff, equipment, or publicity, or makes heavy demands on current resources*
$$ *Requires some additional staff time, equipment, facilities, and/or publicity*
$ *Can be implemented with current staff, perhaps with training; limited costs for equipment, facilities, and publicity*
† *Can be covered by income from citations*

Use:
High *More than two-thirds of states, or a substantial majority of communities*
Medium *Between one-third and two-thirds of states or communities*
Low *Less than one-third of states or communities*
Unknown *Data not available.*

6

Safety Projects

6. Safety Projects

6.1. Case Study Locations

As a result of the Countywide network screening analysis, case study locations were selected for further analysis and development of site-specific safety improvement recommendations. Project sheets were developed to provide a menu of potential safety countermeasures that the respective agency can chose from when applying for funding. These locations were identified through the analysis process based on their crash histories, the observed crash patterns, and their differing characteristics to provide the most insight into addressing Countywide challenge areas. These safety improvements were also informed by public feedback and stakeholder input, focusing on countermeasures with demonstrated effectiveness which also meet community needs.

Each project sheet includes:

- Location maps with a crash data summary, notes, and list of recommended safety countermeasures with corresponding CMFs
- Number of crashes anticipated to be reduced
- 10-year crash reduction estimate and benefit, and
- Planning level construction cost estimates.

The potential safety countermeasures identified reflect safety improvements that can be applied to reduce the likelihood of future crashes. Countermeasures were subjected to a benefit/cost assessment to determine their potential return on investment. These case studies can be used to select the most appropriate countermeasure(s), and to potentially phase improvements over the longer-term. The potential benefit of these countermeasures at locations with similar design characteristics can then be extrapolated regardless of crash history. These project sheets can also be used to position the City for future grant funding opportunities.

Table 13 presents a summary of the potential safety countermeasures identified for each of the project locations and corresponding benefit/cost. A project sheet was developed for each of the priority locations containing additional information and are included in **Appendix F**. The project sheets present a mix of safety countermeasure which have an established crash reduction factor, and other improvements which are recommended based on a field review and understanding of the site. **Table 13** focuses on the countermeasures with established crash reduction factors and a benefit cost ratio of greater than 0. Additional treatments which do not have a known crash reduction factor but are understood to be valuable are included in **Appendix F**.

The case study improvements included in this section demonstrate how the countermeasure toolbox may be applied to achieve an expected reduction in crashes. The agencies may elect to prioritize improvements at other high EPDO which have not been included as case study locations,such as are identified in **Appendix D** and **Appendix E**. Examples include intersections and segments in the County along rural, mountainous roads, such as Graham Hill Rd at Roaring Camp Rd or Felton Empire Rd at Krazy Acre Ln.

Table 13 – Safety Projects

Project	Locations	Recommendation	Countermeasure	Total Cost	B/C*
Santa Cruz County					
1	*Capitola Rd & 17th Ave*	Implement Leading Pedestrian Interval (LPI).	Modify signal phasing to implement a LPI.	**$50,000**	**68.4**
		Install retroreflective backplates on traffic signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number.	**$15,200**	**160**
		Install bike box on 17th Ave approaches and Implement green conflict zone striping for bike lanes.	Install advance stop bar before crosswalk (bicycle box).	**$16,700**	**38.8**
2	*Portola Dr & 41st Ave*	Install bulb outs on intersection approaches by narrowing the approach lanes to one-lane in all directions. Incorporate provisions for cyclists.	Install/upgrade pedestrian crossing at uncontrolled locations (with enhanced safety features).	**$120,000**	**42**
		Install advance stop bars on all approaches	Install advance yield or stop markings.	**$ 2,400**	**1,577**
3	*Freedom Blvd & Day Valley Rd*	Replace existing intersection warning signage along Freedom Blvd with new retroreflective signs.	Install/upgrade signs with new fluorescent sheeting (regulatory or warning).	**$7,500**	**7.7**
		Cut back vegetation near the intersection.	Improve sight distance to intersection (clear sight triangles).	**$5,000**	**24.2**
		Install centerline rumble strips along Lakeview Rd.	Install centerline rumble strips/stripes.	**$38,000**	**3.2**

Project	Locations	Recommendation	Countermeasure	Total Cost	B/C*
4	*Holohan Rd (Grimmer Rd to Cottage Rd)*	Install centerline rumble strips along Holohan Rd.	Install centerline rumble strips/stripes.	$30,720	107
		Install Chevron signs on EB/WB Holohan Rd west of Grimmer Rd and Holohan Rd intersection.	Install chevron signs on horizontal curves.	$4,500	34
		Install solar radar speed feedback sign for both approaches.	Install dynamic/variable speed warning signs.	$45,200	108
		Install roadway lighting at the horizontal curves.	Add segment lighting.	$39,000	57
5	*Lakeview Rd from Riverside Rd to Crestwood Dr*	Install solar radar speed feedback sign	Install dynamic/variable speed warning signs.	$90,400	35
		Install edgeline along Lakeview Rd (both directions).	Install edgelines.	$17,000	235
6	*Carlton Rd & Thompson Rd*	Install chevrons facing NB Carlton Rd.	Install chevron signs on horizontal curves.	$2,250	3,063
		Install a W1-6(R) sign at the curve on Thompson Rd facing SB vehicles. Replace existing signs with larger/ retroreflective signs, and install retroreflective strips on sign posts. Install R1-10b(L) on NB Carlton Rd.	Install/upgrade larger or additional stop signs or other intersection warning/ regulatory signs.	$11,250	230
		Install speed feedback signs along the horizontal curve along the Carlton Rd approaches.	Install dynamic/variable speed warning signs.	$45,200	84.4
		Install high-friction surface treatment.	Improve pavement friction (high friction surface treatments).	$63,333	110.4
		Convert the intersection to all-way stop control.	Convert to all-way stop control (from 2-way or yield control).	$4,680	1,358.5
		Trim back vegetation on NE corner of the intersection.	Improve sight distance to intersection (clear sight triangles).	$3,000	847.7

Project	Locations	Recommendation	Countermeasure	Total Cost	B/C*
7	*Empire Grade (Heller Dr to Fuel Break Rd)*	Install centerline rumble strips.	Install centerline rumble strips/stripes.	$99,840	29
		Install chevron signs on horizontal curves.	Install chevron signs on horizontal curves.	$9,000	644
		Install speed feedback signs.	Install dynamic/variable speed warning signs.	$67,800	117
		Install high friction surface treatment along horizontal curves.	Improve pavement friction (high friction surface treatments).	$540,800	8.1
8	*Soquel Dr & Commercial Way & Thurber Ln*	Implement LPI.	Modify signal phasing to implement a LPI.	$50,000	7.3
		Install retroreflective backplates on traffic signal heads. Upgrade Undersized signal heads.	Install retroreflective backplates on traffic signal heads. Upgrade undersized signal heads.	$11,500	90
		Install luminaire on the Thurber Ln approach.	Install luminaire on the Thurber Ln approach.	$16,700	10
9	*Freedom Blvd & Compton Terrace*	Install traffic signal at Freedom Blvd/Buena Vista Dr. Square up the Buena Vista Dr approach.	Install signals.	$700,000	3
		Install roundabout.	Convert intersection to roundabout.	$1,800,000	12.8
		Install bike lanes through the intersection.	Install bike lanes.	$ 8,300	9.3
		Install crosswalks.	Install pedestrian crossing at uncontrolled locations (signs and markings only).	$14,400	6.7
		Install sidewalk and ADA curb ramps.	Install sidewalk/pathway (to avoid walking along roadway).	$160,000	0.8
		Install left-turn lane from Freedom Blvd to Memorial Ave.	Install left-turn lane (where no left-turn lane exists).	$30,000	80.3

Project	Locations	Recommendation	Countermeasure	Total Cost	B/C*
10	*Freedom Blvd & McDonald Rd*	Install speed feedback signs along the curve (both directions).	Install dynamic/variable speed warning signs.	$52,000	4.5
		Install high-friction surface treatment on the Freedom Blvd approaches.	Improve pavement friction (high friction surface treatments).	$186,000	2.3
11	*Mt Hermon Rd (Graham Hill Rd to Covenant Ln)*	Install centerline rumble strips.	Install centerline rumble strips/stripes.	$46,000	80
		Install high-friction surface treatment.	Improve pavement friction (high friction surface treatments).	$1,998,000	4.3
		Install curve speed feedback signs.	Install dynamic/variable speed warning signs.	$45,200	122
12	*Graham Hill Rd (Lockewood Ln - Summit Ave)*	Install centerline rumble strips	Install centerline rumble strips/stripes.	$99,840	24
		Install high-friction surface treatment	Improve pavement friction (high friction surface treatments).	$1,295,000	4.6
		Install curve speed feedback signs	Install dynamic/variable speed warning signs.	$45,200	79
13	*Felton Empire Rd (Krazy Acre Ln - Empire Grade)*	Install centerline rumble strips.	Install centerline rumble strips/stripes.	**$153,600**	**15.7**
		Install high-friction surface treatment.	Improve pavement friction (high friction surface treatments).	**$1,998,000**	**3**
		Install curve speed feedback signs.	Install dynamic/variable speed warning signs.	**$45,200**	**80**
		Install edgeline.	Install edgelines.	**$42,240**	**71**
		Install intersection warning signage approaching Krazy Acre Ln. Conduct a systemic review of curve signage.	Install/upgrade signs with new fluorescent sheeting (regulatory or warning).	**$20,000**	**46**

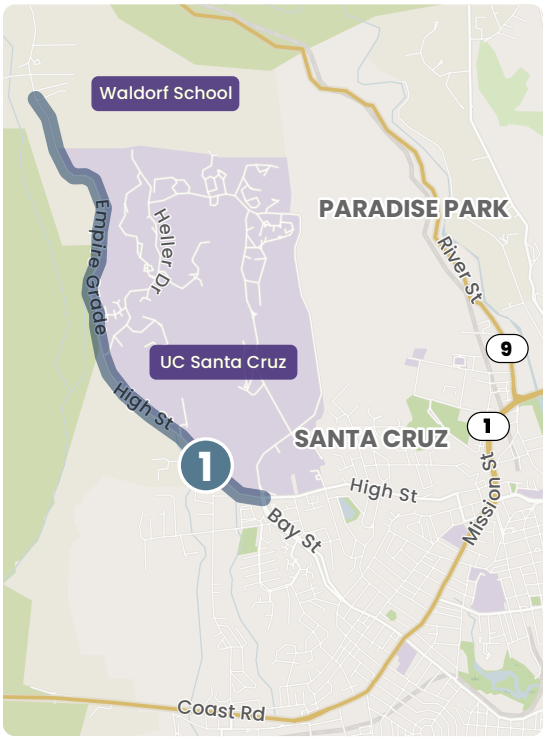
Project	Locations	Recommendation	Countermeasure	Total Cost	B/C*
Scotts Valley					
1	*Mount Hermon Rd & Kings Village Rd*	Install retroreflective backplates on traffic signal heads. Replace 8" signal heads with new 12" LED signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number.	**$20,000**	**46**
		Implement LPI.	Modify signal phasing to implement a Leading Pedestrian Interval (LPI).	**$50,000**	**54.5**
		Update the signal heads to include a protected left-turn phase on Kings Village Rd.	Provide protected left turn phase (left turn lane already exists).	**$320,100**	**5.9**
2	*Mount Hermon Rd & Scotts Valley Dr*	Install retroreflective backplates on traffic signal heads. Replace 8" signal heads with new 12" LED signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number.	**$30,250**	**81.3**
3	*Bean Creek Rd & Scotts Valley Dr*	Install retroreflective backplates on traffic signal heads. Replace 8" signal heads with new 12" LED signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number.	**$27,050**	**5.8**
		Implement LPI.	Modify signal phasing to implement a Leading Pedestrian Interval (LPI).	**$50,000**	**2.2**
		Install two blank-out no right turn on red signs.	Install/upgrade larger or additional stop signs or other intersection warning/ regulatory signs.	**$2,000**	**7.8**
4	*Mount Hermon Rd & Lockewood Ln*	Restripe intersection to include dedicated left-turn lane and a shared through-right turn lane along Lockewood Ln. Upgrade signal heads to have protected left-turn phasing.	Install left-turn lane and add turn phase (signal has no left-turn lane or phase before).	**$630,000**	**1**
		Implement LPI.	Modify signal phasing to implement a Leading Pedestrian Interval (LPI).	**$50,000**	**0**
		Install retroreflective backplates on traffic signal heads. Replace 8" signal heads with new 12" LED signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number.	**$21,300**	**8.2**

Project	Locations	Recommendation	Countermeasure	Total Cost	B/C*
Watsonville					
1	*Green Valley Rd & Carey Ave*	Install HAWK signal or pedestrian hybrid beacon per FHWA guidance.	Install a pedestrian hybrid beacon (PHB or HAWK).	**$425,000**	**9.2**
		Install yield lines and R1-5a signs on the GVR approaches to the crosswalk. Install W11-2 and W16-7P signs at the crosswalk.	Install yield lines and R1-5a signs on the GVR approaches to the crosswalk. Install W11-2 and W16-7P signs at the crosswalk.	**$4,500**	**218**
		Install median barrier along the leg of Green Valley Road south of the intersection.	Install Median Barrier.	**$217,200**	**6.9**
2	*Ohlone Pkwy & Harkins Slough*	Install retroreflective backplates on traffic signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number.	**$19,000**	**49.3**
3	*Rodriquez St & 2nd St*	Install advance stop bars on all approaches.	Install advance yield or stop markings.	**$3,920**	**360.5**
4	*Freedom Blvd & Green Valley Rd*	Install retroreflective backplates on traffic signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number.	**$19,950**	**76.2**
		Implement LPI.	Modify signal phasing to implement a Leading Pedestrian Interval (LPI).	**$5,000**	**591.6**

**B/C is the benefit to cost ratio for each project, calculated by taking the crash reduction benefit and dividing by the estimated cost of the proposed project's implementation.*

6.2. Corridor Improvements

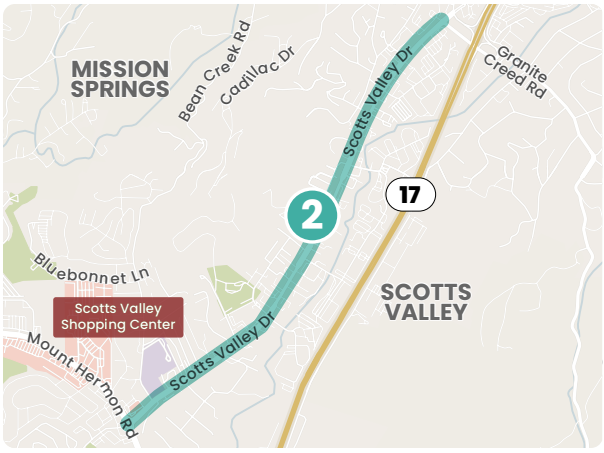
The case study improvements proposed in the above section can provide the project owner with experience implementing engineering countermeasures. These experiences with local safety projects can inform future decisions regarding expanded implementation of such improvements on a broader scale. Favorable countermeasures can be applied on a systemic level or on a corridor-wide basis.



Corridor improvements have been developed for key roadways in Santa Cruz county, Scott's Valley, and Watsonville and are included in **Appendix G**. These corridors were identified following a thorough review of the crash data and coordination with local staff and stakeholders. The improvements proposed are as follows:

1 High St/Empire Grade Rd from Bay St to the approx. location of the Waldorf School

- **North of Heller Dr:** Key improvements include high-friction surface treatment (HFST), chevrons, bike pullout areas, and speed feedback signs on horizontal curves
- **At Heller Dr:** Pedestrian crossing improvements and traffic signal upgrades
- **South of Heller Dr:**
  - ↳ Multiuse path for pedestrians and cyclists south of Heller Dr
  - ↳ Mid-block crossing with Rectangular Rapid Flashing Beacon (RRFB)



2 Scotts Valley Dr from Mt Hermon Rd to Glenwood Dr

- Protected intersection treatments and traffic signal improvements
- Buffered bike lane treatments, including across driveways and CA-17 Ramps

3 Green Valley Rd from Harkins Slough Rd to Airport Blvd/Holohan Rd

- Protected intersection treatments and traffic signal improvements
- Protected bike lane treatments

6.3. Systemic Safety Improvements

While some engineering countermeasures are best applied on a case-by-case basis, others can be applied at scale to maximize the safety benefit to the community. Systemic safety projects at both unsignalized and signalized intersections have been developed for Santa Cruz County and the Cities of Scotts Valley and Watsonville.

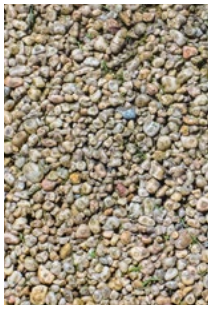
Table 14 – Systemic Intersection Improvements

Systemic Improvement		Agency	Cost	BCR
Signalized Intersections	*Install retroreflective backplates on all traffic signal heads and replace 8" bulb traffic signal heads with 12".*	Santa Cruz County	$1,627,600	19.4
		Scotts Valley	$678,600	7.6
		Watsonville	$1,465,100	8.4
Unsignalized Intersections	*Install retroreflective/larger signage and reflective post strips at all intersections which experienced injury crashes from 2019-2023.*	Santa Cruz County	$3,954,500	67.1
		Scotts Valley	$143,000	57.7
		Watsonville	$929,500	42.4

In addition to the systemic intersection improvements identified for the County, it is recommended that the County complete systemic roadway segment improvements on the rural County roads with high EPDO values. The project sheets in **Appendix F** present case study improvements at specific locations, which could be applied to other similar roadway segments to reduce the occurrence of fatal and severe injury lane departure crashes. These improvements include but are not limited to:

Roadway signage safety audit to ensure regulatory and warning signs are retroreflective, appropriately sized, and placed in compliance with MUTCD requirements

Centerline and/or edgeline rumble strips



High-friction surface treatment

Motorcycle guardrail

The benefit and cost values presented in **Table 14** are planning level and have been developed to determine the feasibility of large-scale safety project across Santa Cruz County. More information about the benefit-cost calculations is presented in **Appendix F**.

7

Actions & Strategies

7. Actions & Strategies

This Plan includes a list of policy and program recommendations to streamline and improve the process of implementing traffic safety improvements, enforcement, and educational outreach. Some key policy and process updates include:

- **Implement and enforce intersection daylighting** as per AB 413.
- **Provide focused training for local agency engineers and planners** responsible for designing and reviewing street design and safety planning activities.
- **Develop resources** (i.e. checklist) to incorporate safety countermeasures along priority/HIN corridors.
- **Explore and implement technologies** such as leading pedestrian interval, transit signal priority, and adaptive traffic signal systems.

Table 14 lists the description, implementation timeline and key partners for each proposed action and strategy. In accordance with the Safe System Approach, the recommendations are presented in relation to following six categories:

Recommendation Categories:

Vision Zero Program
Overall program initiative, planning and budgeting

Safer People
Safety education and driver behavior

Safer Speeds
Speed management and enforcement

Safer Streets
Roadway design and engineering

Safer Vehicles
New vehicle technology and impaired driving prevention

Post-Collision Care
Emergency response

With sufficient funding and resources, the goal is to implement the actions within the timelines identified in **Table 15**.

Table 15 – Actions and Strategies

Action	Description	Key Partners			
		Recommended Implementation Timeline	Santa Cruz County Public Works Dept	City of Scotts Valley Public Works Dept	City of Watsonville Public Works Dept
Programmatic/ Policy Actions					
Safety Action Plan Implementation Funding Program	Establish funding strategies and secure local funding	**Short-Term** *(With plan adoption)*	✓	✓	✓
Working Group/ Task Force	• Add as a standing item to the Community Traffic Safety Coalition meeting. • Form a multi-agency working group to coordinate Countywide Safety and Vision Zero implementation and initiatives.	**Short-Term**	✓	✓	
Progress Report	Publish annual report on Countywide Safety program progress.	**Medium-Term**	✓		
Update Safety Action Plan	Update existing Safety Action Plan in 5 years or per grant requirement	**Medium-Term**	✓	✓	✓
Safer People					
County Staff Communications Training	Conduct training for local agency staff on effective roadway safety and traffic collisions messaging.	**Short-Term**		✓	✓
Stakeholder Engagement	Convene local stakeholder group and conduct workshops or walk audits along priority (High-Injury Network (HIN)) corridors.	**Short-Term**	✓		✓

Action	Description	Key Partners			
		Recommended Implementation Timeline	Santa Cruz County Public Works Dept	City of Scotts Valley Public Works Dept	City of Watsonville Public Works Dept
Traffic Education for Safe Routes to School (SRTS)	Continue providing and expanding traffic safety education (i.e. walking school bus) for students and parents.	**Short-Term**		✓	✓
Traffic Education for Seniors	Provide traffic safety education for seniors.	**Medium-Term**			✓
Continue and Expand Education Campaigns	Conduct and update ongoing education campaigns such as installing message signs or media posts on speeding, distracted driving, or other high-risk behaviors.	**Medium-Term**		✓	✓
Online Safety Dashboard & Data Sharing	Develop/build upon online interactive dashboard as a tool to present traffic safety information. Collaborate on data sharing with County agencies.	**Medium-Term**			✓
Safer Speeds					
Speed Management	Implement speed limit reductions in accordance with AB 43. Define up to 20% of the agencies' street network as Safety Corridors to reduce posted speed limits by 5 miles per hour.	**Short-Term**	✓		✓
Speed & DUI Enforcement	Conduct high-visibility traffic enforcement on speed and driving under influence (DUI) along the priority/HIN corridors.	**Short-Term**	✓		

Action	Description	Key Partners			
		Recommended Implementation Timeline	Santa Cruz County Public Works Dept	City of Scotts Valley Public Works Dept	City of Watsonville Public Works Dept
Collision Data Focused Training for Enforcement and Public Safety Professionals	Participate in training to improve collision reporting practices. The focus area includes improved data on speeding, impairment, distracted driving.	**Medium-Term**	✓		
Police Academy Training	Integrate Vision Zero principles into police training and academy curriculum.	**Long-Term**	✓		
Safer Streets					
Intersection Daylighting	Implement and enforce intersection daylighting as per AB 413.	**Short-Term**	✓	✓	✓
Post KSI-Crash Review	Develop a multi-department collision review process and conduct post-crash review of fatal and severe injuries collisions to discuss potential improvements.	**Short-Term**	✓		✓
Safety Priority Corridors	Update priority corridors as needed and identify funding for design and implementation of top priority corridors.	**Short-Term**	✓	✓	✓
Traffic Calming Program Update	Re-evaluate and update existing traffic calming program and policies. Incorporate best practices and update process of implementing traffic calming measures.	**Short-Term**	✓	✓	✓
School Safety Zones	Establish reduced speed limits of 15 mph in school zones.	**Short-Term**	✓		

Action	Description	Key Partners			
		Recommended Implementation Timeline	Santa Cruz County Public Works Dept	City of Scotts Valley Public Works Dept	City of Watsonville Public Works Dept
Design Review	Create an internal procedure for evaluating and, where possible, implementing safety countermeasures on projects located along priority/ HIN corridors.	**Medium-Term**	✓		✓
Vision Zero Design Standards	Develop and apply Street Design Standards specifically for HIN network. Incorporate best practices such as Santa Cruz METRO's bus stop standards, NACTO, and update County design standards as needed.	**Medium-Term**	✓		
Design Review Training & Resources	Provide focused training for local agency engineers and planners responsible for designing and reviewing street design and safety planning activities. Develop resources (i.e. checklist) to incorporate safety countermeasures along priority/HIN corridors.	**Medium-Term**	✓	✓	✓
Expand Santa Cruz's Bicycle and Pedestrian Network	Continue expanding and upgrading the existing bicycle and pedestrian network per County's Active Transportation Plan.	**Long-Term**	✓		
Intelligent Transportation Systems	Explore and implement technologies such as leading pedestrian interval, transit signal priority, and adaptive traffic signal systems.	**Long-Term**	✓	✓	✓

Action	Description	Key Partners			
		Recommended Implementation Timeline	Santa Cruz County Public Works Dept	City of Scotts Valley Public Works Dept	City of Watsonville Public Works Dept
Improve Data Collection and Analysis	Engage in newer "big data" sources as a proactive strategy to monitor speed, traffic volume, locations with frequent "near misses".	**Long-Term**	✓	✓	✓
Safer Vehicles					
Subsidized Transit	Free or discounted transit fares for holidays and special events to reduce impaired driving.	**Medium-Term**			
Rideshare Program for Impaired Driving Prevention	Establish subsidized rideshare program aimed to reduce impaired driving.	**Medium-Term**			
Future transportation innovation and mitigate future risks	Explore opportunities and prepare for new forms of transportation and enforcement of standards. Track AB 645 Speed Safety System pilot. Collaborate and exchange knowledge with neighboring cities on related policy updates. Support any new state legislation for safer streets.	**Long-Term**			✓
Post-Crash Care					
Emergency Response (ER)	Continue monitoring traffic signal operations with emergency vehicle pre-emption and implement signal and roadway improvements that enhance emergency vehicle response times.	**Medium-Term**		✓	✓

8

Review of Existing Policies, Programs, and Plans

8. Review of Existing Policies, Programs, and Plans

The Santa Cruz County and the Cities of Scotts Valley and Watsonville have taken meaningful steps to prioritize road safety and has successfully integrated these approaches into numerous programs, policies, and practices. This SAP includes an assessment of both the existing and the identified opportunities to enhance programs, policies, and practices to address road safety more comprehensively. **Appendix H** provides a summary of the existing programs, policies, and practices, as well as the recommended enhancements. The County, Cities and stakeholders should collaborate to discuss these policy modifications and set tangible goals for implementation.

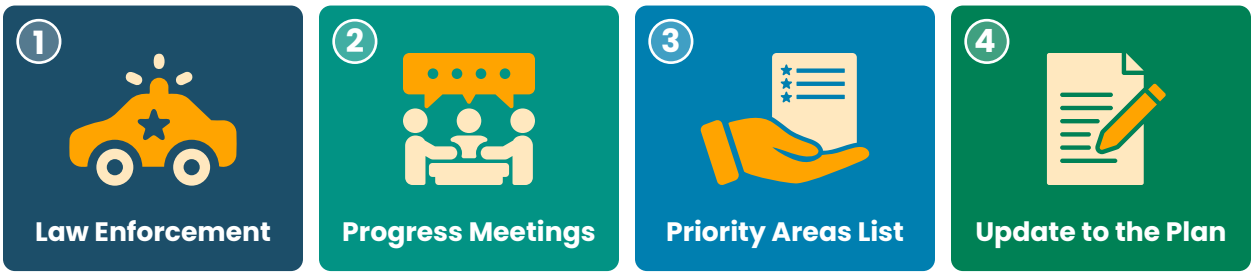
9

Implementation

9. Implementation

9.1. Evaluation

The success of the SAP can be evaluated using the general process outlined below. This process can be useful to monitor progress towards implementation of safety improvement projects and strategies, and to determine when updates to the SAP should be considered.



1. **Law enforcement** continues monitoring and recording of traffic incidents on local roadways.
2. **Conduct frequent progress meetings** (annually or quarterly) between County/City staff and a working group (i.e. traffic safety committee) to review the latest crash data, including assessing the effectiveness of safety countermeasures implemented, discussing ongoing traffic safety challenges, and tracking progress on plan implementation.
3. **Maintain a list of focus/priority areas** where there are transportation safety concerns based on review of crash data. The list of priority and/or top crash locations can be updated as an outcome of review of updated crash data and trends.
4. **Perform an update to the plan** after no more than five years. It is recommended that updates to the SAP be approved by the County Board of Supervisors/City Council and made available to the public in accordance with Caltrans' Local Roadway Safety Plan guidance. Progress should be evaluated by tracking the quantity of K+SI crashes and of crashes related to agency-specific emphasis areas, including but not limited to: vulnerable road users, DUI crashes, and aggressive driving crashes. Updates should also track where safety improvements have been constructed and the corresponding reduction in crashes achieved.

9.2. Implementation

Implementation of the SAP can be accomplished through development and implementation of safety improvement projects and strategies, the establishment of new/updated policies and programs, and development/strengthening of relationships with stakeholders. With regard to projects, the following section identifies potential focus areas for the County and the City in the near-to-mid-term.

9.2.1. Near- and Mid-Term Focus Areas

The opportunities identified in this SAP provide more of the systemic countermeasures that can be applied within the County of Santa Cruz and Cities of Scotts Valley and Watsonville. Over the next three to five years, it is recommended that the County/Cities concentrate its efforts on the following emphasis areas presented in **Table 16**:

Table 16 – Emphasis Areas

Santa Cruz County	Scott's Valley	Watsonville
Aggressive and Impaired Driving	Aggressive Driving	Pedestrian and Cyclist safety
Lane Departure/ Hit Object Crashes	Signalized Intersections	Aggressive and Impaired Driving
Vulnerable Road Users (Pedestrians & Bicyclists)	Young cyclists and pedestrians	Lane Departure/ Hit Object Crashes
Motorcycles		Vulnerable Road Users (Pedestrians & Bicyclists)
		Motorcycles

Analysis conducted at the citywide level indicated that these factors were some of the most frequent influences contributing to crashes within the respective agencies. The countermeasure opportunities previously discussed in this report for both systemic and project-specific improvements can be used as a basis for developing projects at locations where addressing these focus areas would be of the most benefit. Systemic projects that address these focused areas can be developed with a high benefit-to-cost ratio, allowing competitive projects to be developed even at sites with little to no direct crash history, but with conditions that might contribute to future crashes.

It is recommended that the County and Cities apply for funding to implement the safety projects identified in this plan, and to implement engineering and non-engineering countermeasures at additional locations in their jurisdictions. **Appendix I** presents a summary of available grant programs which may be considered.

9.3. Next Steps

The County of Santa Cruz and the Cities of Scotts Valley and Watsonville have completed this SAP to guide the process of future transportation safety improvements for years to come. The data-driven analysis process identified crash types, related primary crash factors, and locations of crashes. Emphasis areas have been identified to inform and guide further safety evaluation of the combined transportation network. These emphasis areas will guide corridor improvements, education programs, and capital improvements for the County and Cities.

Using the analyzed data and outputs from this SAP, the County and Cities can:

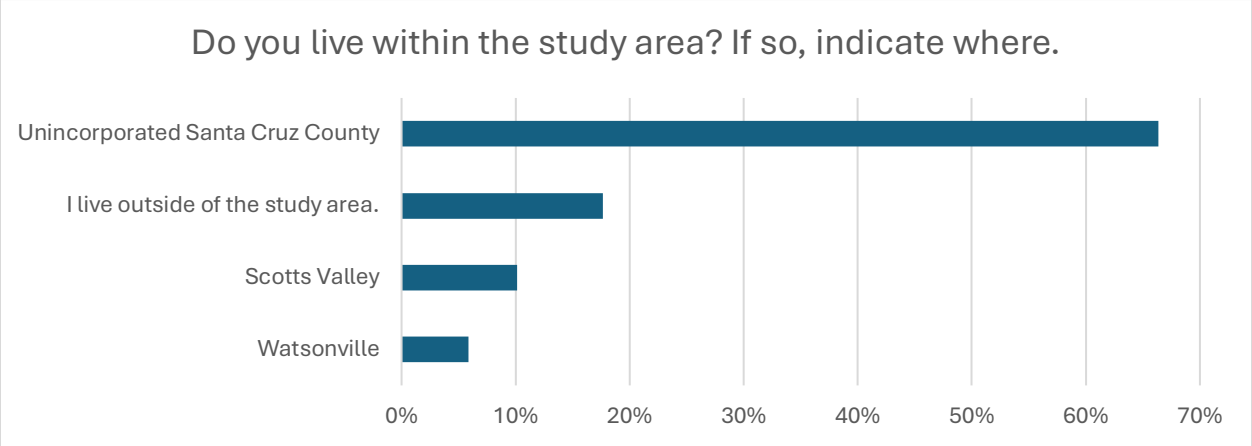
- Apply for HSIP Cycle 13 and SS4A Round 4 funding to implement local, systemic, and multijurisdictional infrastructure improvements
- Actively seek other funding opportunities to improve safety for all modal users
- Collaborate with established stakeholders, safety partners, and neighboring municipalities as improvements are made to create a cohesive transportation network
- Iteratively evaluate existing and proposed transportation safety programs and capital improvements to design a safer transportation network in the County

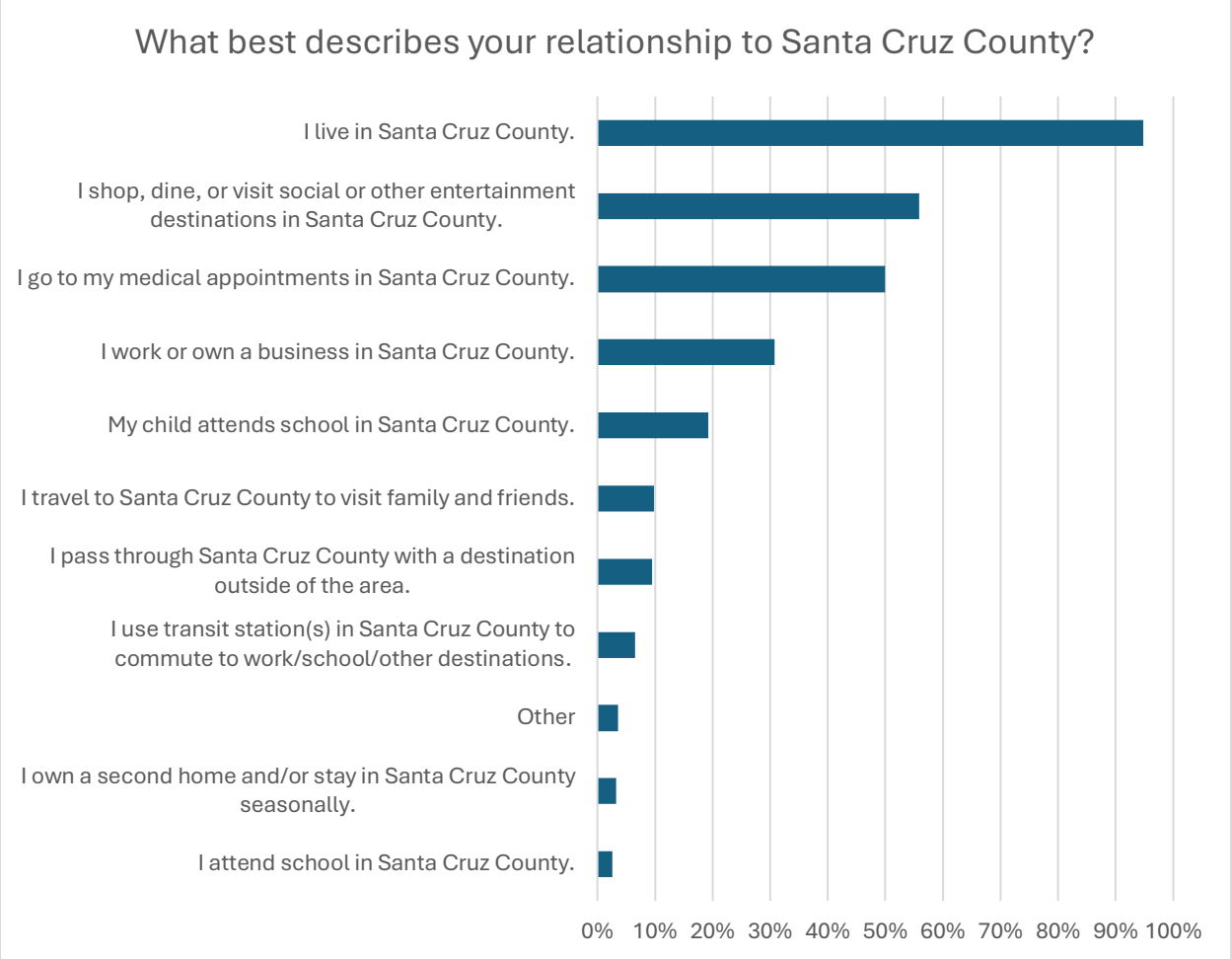
APPENDIX

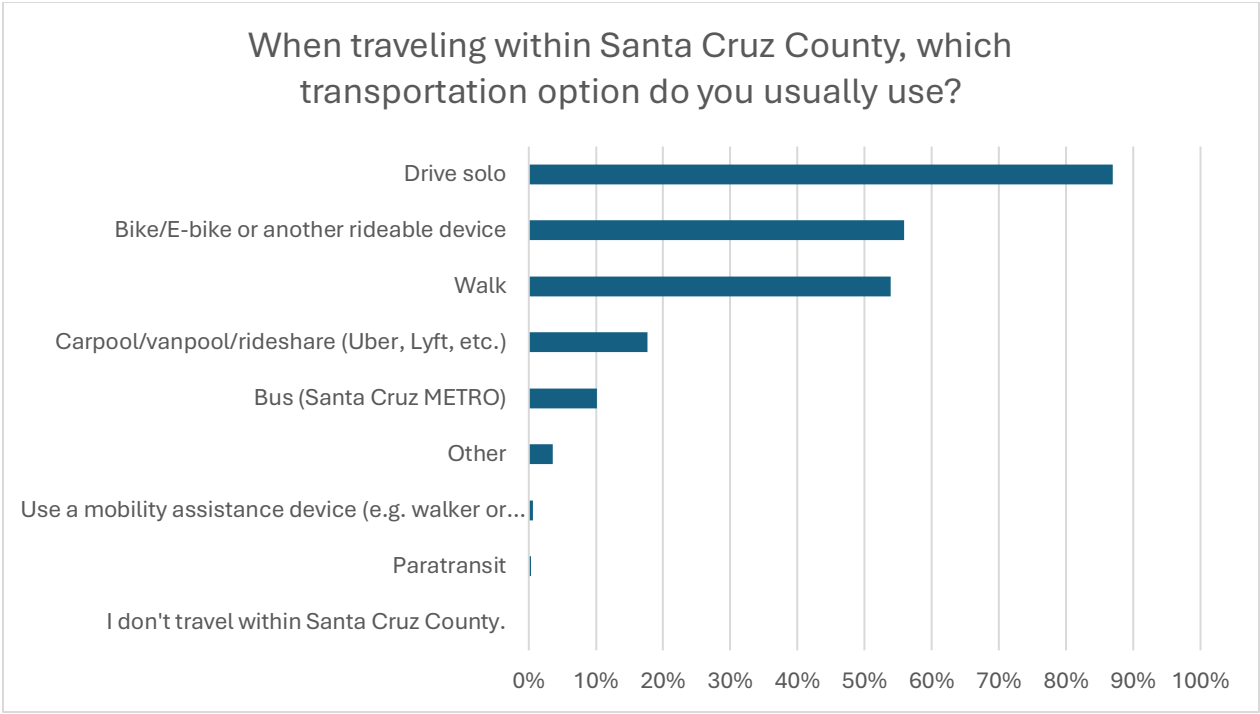
A

Online Survey Comments

APPENDIX A — ONLINE SURVEY COMMENTS



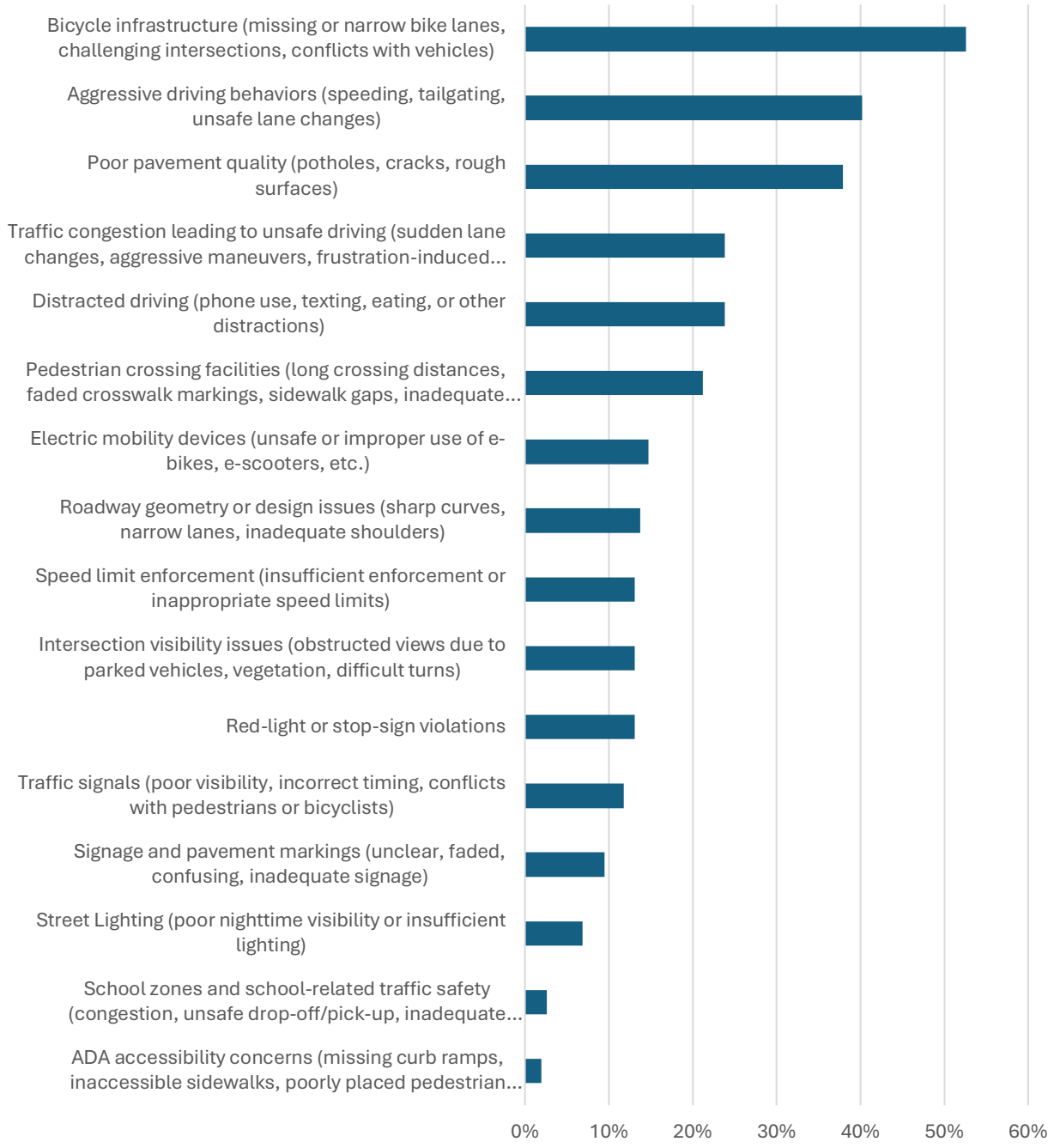




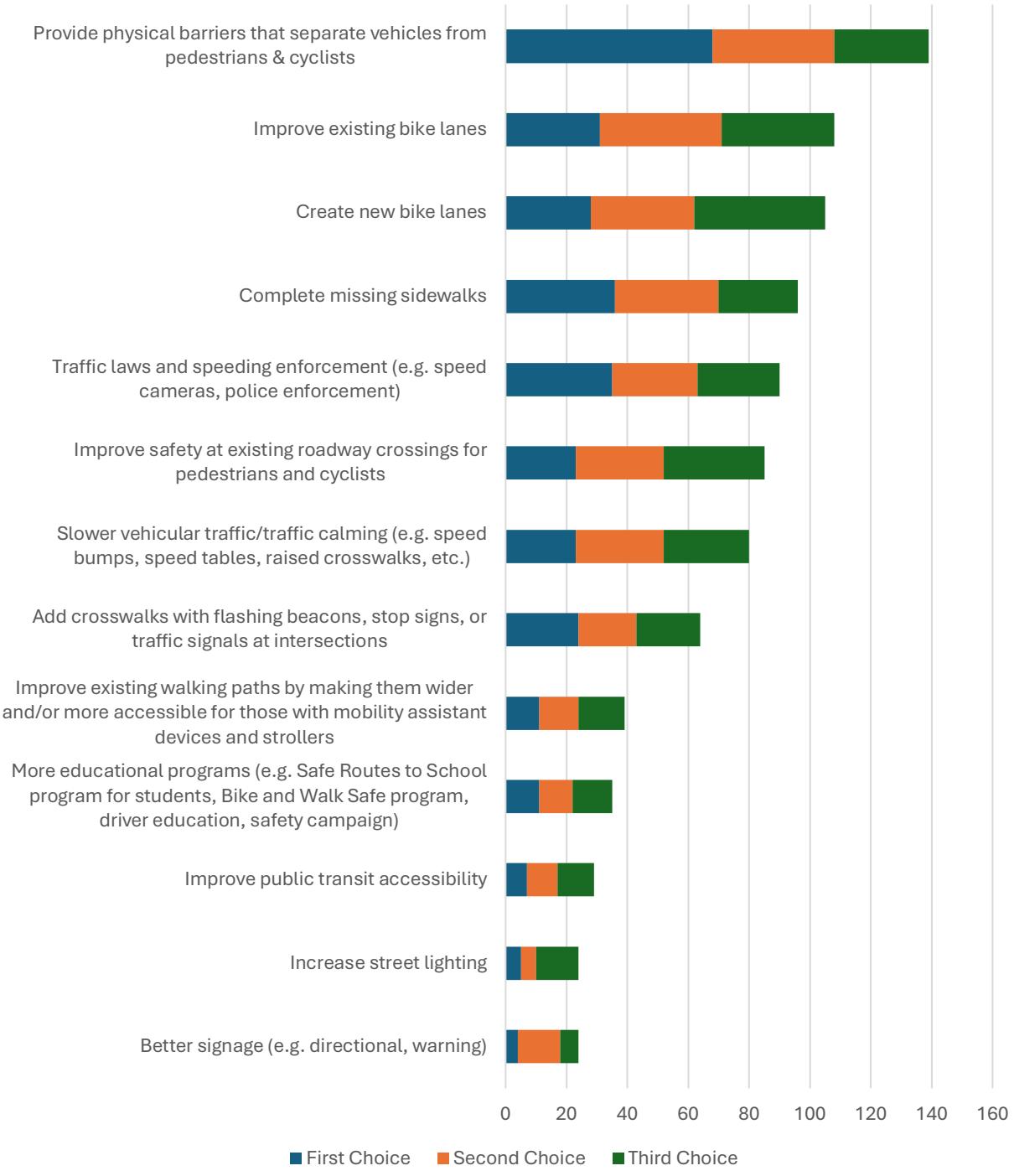
Do you feel safer as a driver, pedestrian, or cyclist traveling in Santa Cruz County?

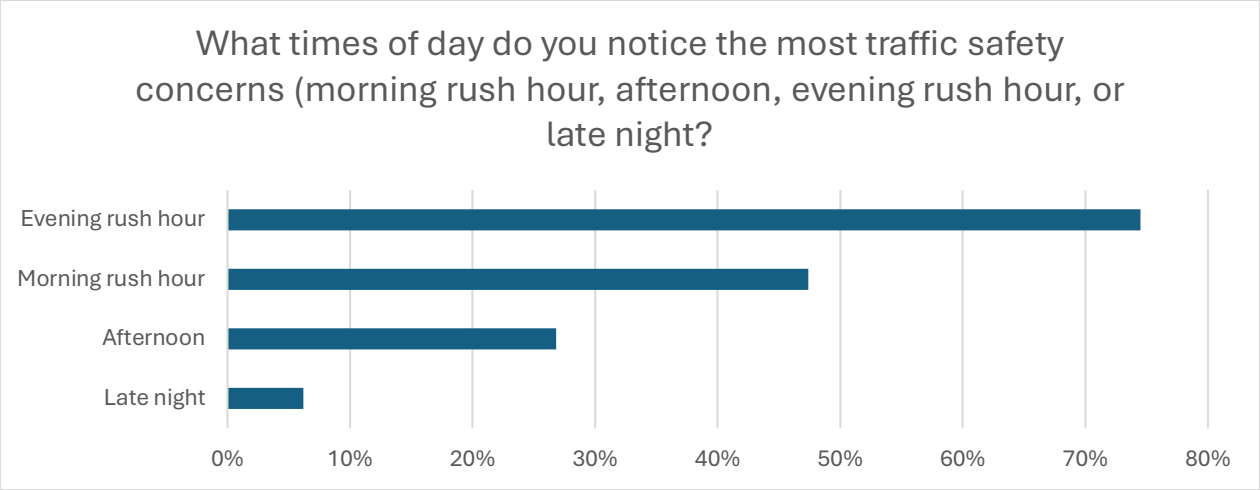
- 234 respondents stated that they feel safer as a driver
- 46 respondents stated that they feel safer as a pedestrian
- 26 respondents stated that they feel safer as a cyclist

Please identify the top three safety challenges you face when traveling in Santa Cruz County.



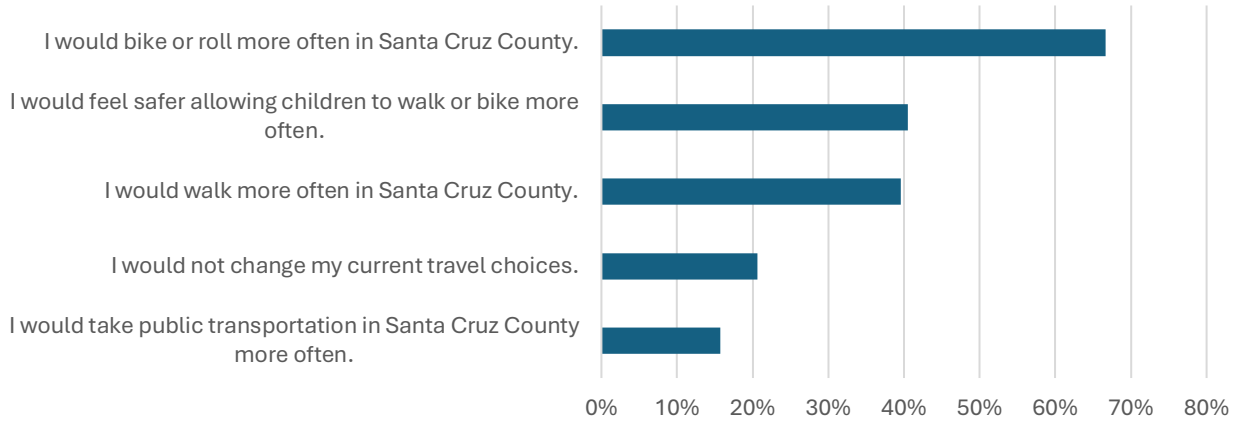
How could conditions be safer for people walking or rolling in Santa Cruz County?



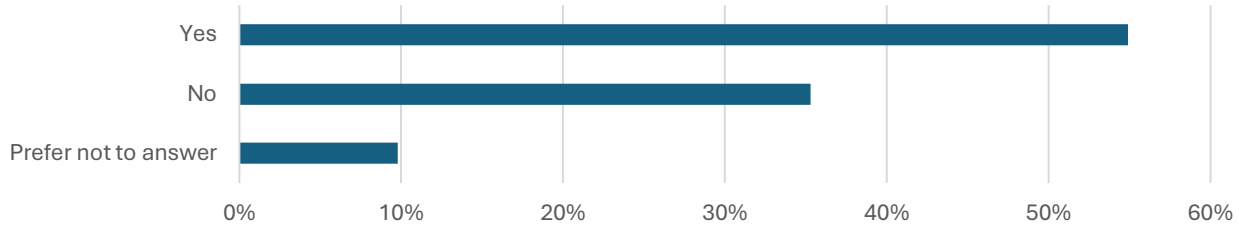


Please elaborate on your answer to Question #7. Why do you feel that the selected time(s) of day elicit the most traffic safety concerns? A full list of legible comments is provided in **Appendix A**.

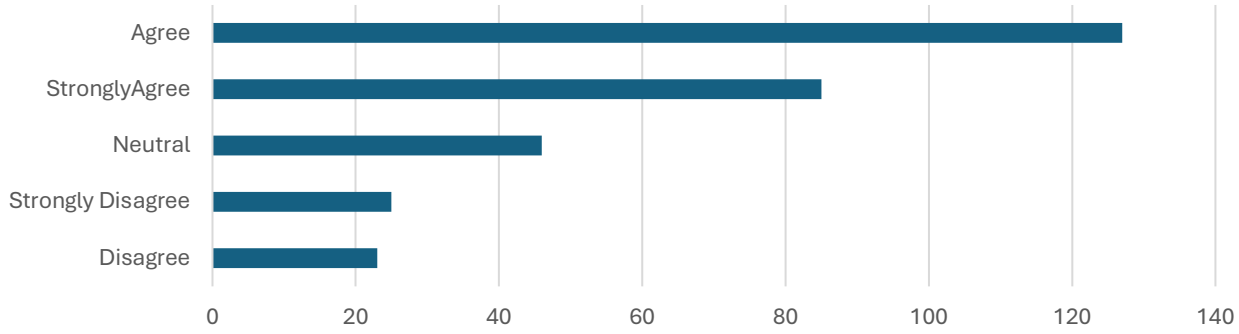
How might your travel decisions change in Santa Cruz County if traffic safety is improved?

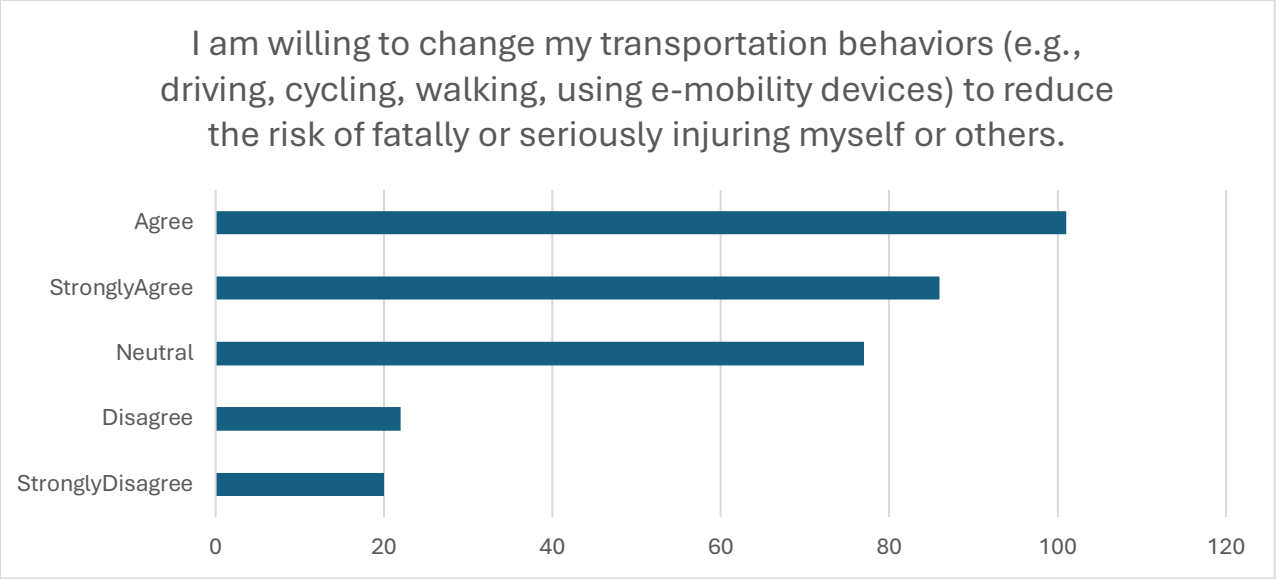


Have you or someone you know personally been affected by a fatal or severe traffic collision?



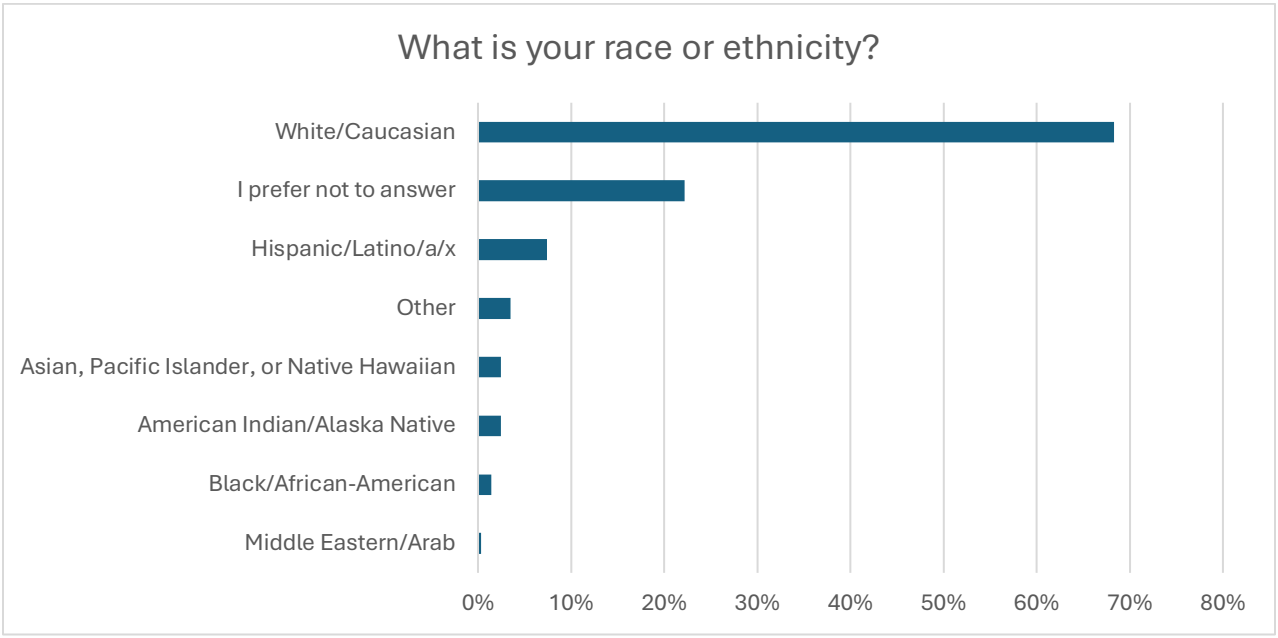
I believe it is possible to eliminate traffic fatalities and serious injuries on roads and streets in Santa Cruz County through different engineering improvements, public education, and enforcement strategies.



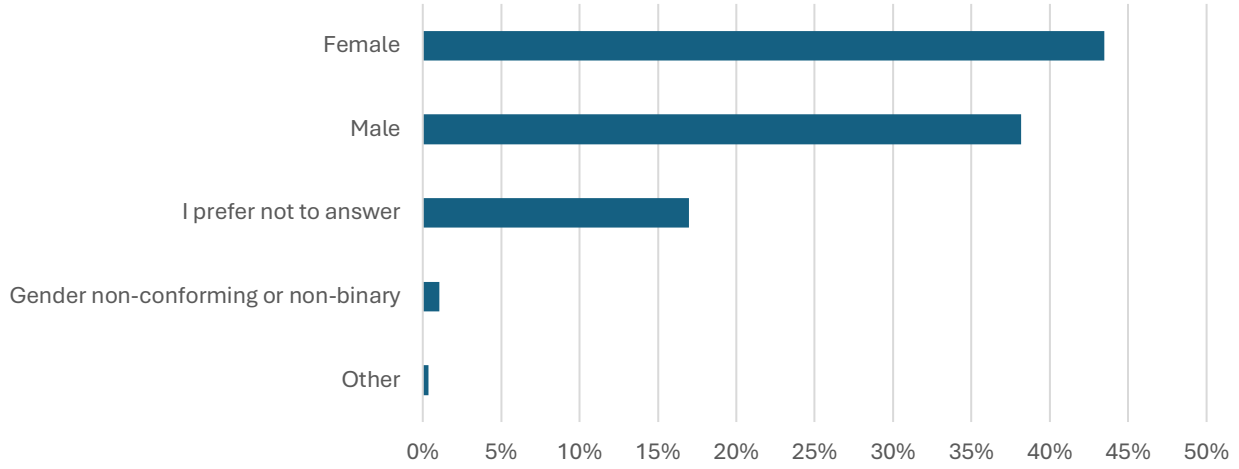


If you indicated agreement to Question #12, briefly describe what changes you'd be most willing to make. A full list of legible comments is provided in Appendix B.

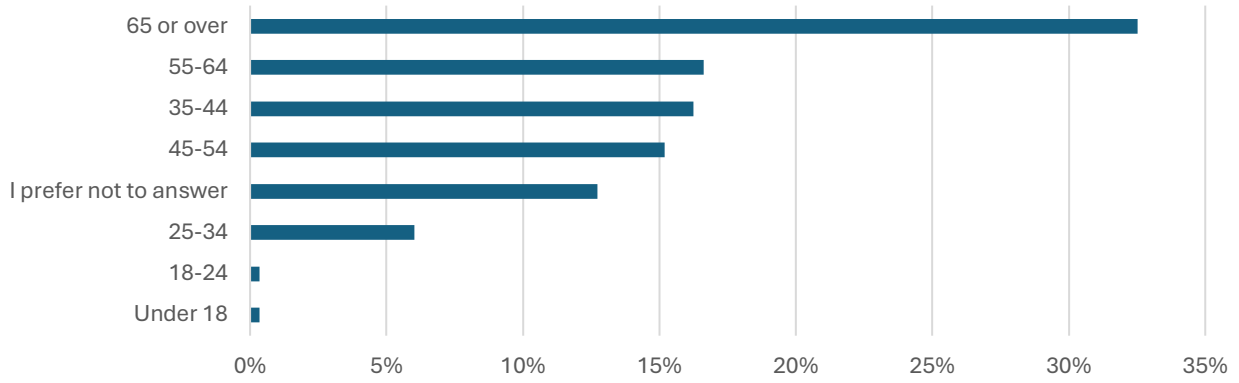
Is there anything else you would like to share about traffic safety concerns in Santa Cruz County? A full list of legible comments is provided in Appendix C.



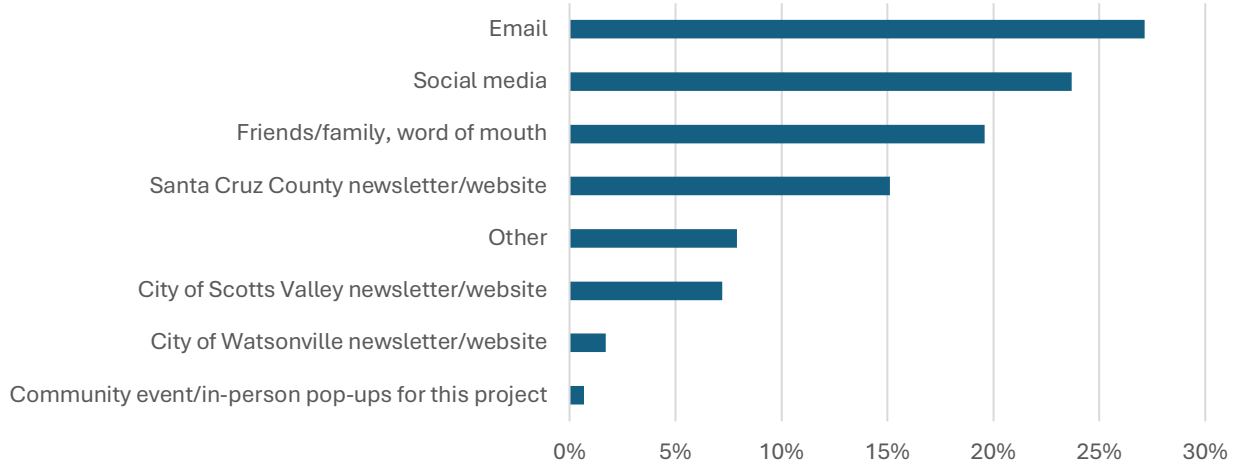
What is your gender?



What is your age?



How did you hear about this survey?



Is there anything else you'd like to share regarding transportation safety in Santa Cruz County (e.g., specific areas needing attention, general safety suggestions, personal experiences)? A full list of legible comments is provided in Appendix D.

Please elaborate on your answer to Question #7. Why do you feel that the selected time(s) of day elicit the most traffic safety concerns?

1. When everyone is rushing to work
2. more cars
3. people are more worried about getting to work on time and the kids are on their way to school. In the afternoon schools get out first then people from work.
4. The congestion is greatest plus the effect of the light especially in winter when the Sun is low.
5. people are likely in a rush to get to work and think running a red light will help them catch-up, spoiler alert: at most they get 2 minutes saved but risk hitting a pedestrian/cyclist or another vehicle.
6. Aggressive dangerous driving in Santa Cruz is a problem at all hours, however, it is easier to avoid more dangerous situations when a large # of people are not rushing to and from work.
7. school kids on bikes , heaviest traffic around 4
8. Commuters driving home or other destinations after getting off work.
9. Speeding, no signals
10. More cars, people distracted and hurrying home
11. A lot of problems are due to school traffic and increased bicycle use
12. People are driving, walking and cycling to work and school.
13. People are tired, in a hurry to get somewhere, grumpy from their day.
14. Lunch hour is mad-hatter's mayhem. Shooting home is delusioned driver sports at day's end.
15. It's systemic at all times of day
16. More congestion
17. No
18. Sun blinds vision and drivers are tired and anxious to get home.
19. People too focused on their destination and rushing to get there.
20. Evening rush hour it seems is the busiest of the day and people get frustrated with traffic and take chances or drive more reckless.
21. People commuting to and from UC as well as Bonny Doon. Distracted student drivers.
22. People get edgy when they feel like there is a real time moment that a chance decision that they can make potential choices that, in the right moment, would potentially better their situation immediately. Drivers erratically change lanes, dangerously.
23. These are just the times I'm out and see the issues. They could be happening when I don't see them.
24. People seem rushed and angry
25. Most people are in a hurry and have multiple things to do. They are often driving and not paying attention to the traffic patterns.
26. Most people on Bicycles (students after school and afternoon commuters) blowing through intersections and entering traffic lanes to pass other cyclists.
27. Increased traffic, school pickup and drop off traffic
28. More traffic leads to more likelihood of incidents. Up here in SLV, traffic drops to nearly nil outside of rush hours, so it's not as much of a concern.
29. People are in a rush to get to either work or back home.
30. Drivers in hurry to get to destination

31. Cars constantly stop in bike lanes during traffic, maybe to try and see what's happening up ahead, but it makes it safe for bikes. In the afternoon honestly I don't know why but seems like drivers are distracted and don't always signal or look for cycist.
32. Twilight reduces visibility, lots of overflow commuter traffic on surface streets.
33. people are in a hurry and distracted
34. Morning commute from South County is atrocious
35. because people are rushing to and from school and work
36. Many people on the road, often congestion. That's why I like to go on my bike during those times.
37. Tired from day and high levels of inpatience
38. In the morning and afternoon, a lot of kids are going to school. In the evening, people seem preoccupied with getting home or wherever they're going.
39. Drivers seem to run red lights more often during morning commute. Are they late?
40. The traffic on Freedom Blvd on weekday mornings during the school year is heavy and challenging for those if us coming out of neighborhoods to intersections where traffic on Freedom does not stop.
41. Too much traffic
42. These times have the most potential for injury because they have the most cars AND recreational/active transportation users on the same roadways.
43. That's when I see the heaviest traffic and most distracted and aggressive driving.
44. School pick up and drop off
45. Most congestion and hurry
46. people are in a hurry
47. Evening rush hour - most distracted, late night = poor lighting
48. These are the high traffic commuter times
49. Traffic congestion leading to aggressive driving
50. If not on freeway in SC between 10am-2:30pm then you will be in stopped traffic.
51. After school and work traffic
52. The highschool and Vine hill traffic makes northern Scotts valley drive a gridlocked disaster.
53. after school hours, students and workers going home
54. unsafe lane changes and running yellow lights are routine problems
55. Schools are letting out, folks are leaving work, lots of action on the roadways.
56. People are in a hurry.
57. School and work
58. Highways are the most crowded and for the longest stretch at this time of day
59. Because of turfAffix at a standstill on Highway 1.
60. Folks on their phones while driving and/or rushing around to get to/from work, etc.
61. more traffic and hence impatience
62. Most impatient drivers
63. Congestion coupled with aggressive and speeding drivers
64. As a cyclist I notice also many weekend (tourist) drivers are not paying attention to cyclist. Also during any day, the trucks are usually too fast and too close.
65. I notice this time because that’s the time I generally ride my bike- late morning to mid afternoon.
66. Drivers are concerned with getting home than the safety of others
67. Dawn and dusk coincide with poor visibility AND high commute traffic. And in the evenings tired drivers just want to get home. Four out of five times I've had cars hit me were on evening commutes. ONE am. And FOUR on Soquel.

68. Seems like more distracted drivers at this time
69. more drivers, and more of them distracted and/or in a hurry
70. Commuters on Soquel and hwy 16
71. More cars on the roads. I don't even ride my bike then.
72. Heaviest traffic
73. Too much traffic and slow traffic causes problems for us cyclists, pedestrians, people upset with the delays from not enough room on the roads for the amount of cars traveling in one direction.
74. Folks are distracted and anxious driving to jobs or schools
75. Rush hour, most people on the road
76. Seems people drive more aggressive during the morning rush hour and especially for bikes and dangerous intersections it feels unsafe.
77. After 2:30 Hwy 1 is jammed up going south.
78. With the Murray Street bridge closed the traffic in the Soquel / Capitola road area is very heavy leading to aggressive and dangerous driving
79. As I am cycling I sense the tension and sense of urgency that drivers face after a long day's work and anxious to get home. I think this is the time when drivers are least aware of cyclists on the road.
80. people are frustrated by congested highway traffic and driving unsafely or fast through surface streets to try to get home
81. Drivers going faster, more often distracted
82. Drivers trying to get home from work/school use surface streets in lieu of freeway because freeway is backed up with traffic during commute.
83. Lots af cars on the road. Increased housing only going to make it worse.
84. People in a hurry and not stopping at stop signs or stop lights. Honking at those of us who *do* stop. 30th Ave at Brommer and 30th Ave at Portola are the worst.
85. School is getting out, it's the end of day & we're all tired, AND it's darker half the year.
86. No safety protocols for schools and students even use rsikroad trestles
87. People seem to be tired and in a rush this time of day.
88. More cars leaving Zayante
89. In my area, Green Valley and Lawrence Avenue, I have seen numerous times, people running a red light at high speeds. Almost had an accident with a motorcyclist and speeding truck last week.
90. Impatient and tired drivers at end of day Increased traffic which can also be frustrating
91. People rushing home and using their phones
92. Seems the most congested and it's the last mile for people coming home from San Jose.
93. Commute hours appear to be the danger times, often coinciding with sunrise/sunset which on east/west bound routes can mean glare from the sun on top of folks being anxious to get to work/home.
94. More cars, people seem to be rushing home
95. Many more cars on the road and drivers rushing to work
96. People are rushed to get home or to complete errands, grocery shopping on way home. Same as on hwy 17 from San Jose thru Los Gatos & hills to SCC.
97. Most cars on the road, people returning from work driving recklessly to get home or to other activities as quickly as possible
98. More people on the road, higher potential for concerns.
99. It is

100. There is so much car congestion with folks bored on their phones and are aggressive and/or anxious to go to work/get home. Not a lot of space for bikes during these times.
101.
102. Speeding & changing lanes
103. I use HW17 it is unsafe whole day , speed cameras would fix the problem with car accidents that happen every day.
104. During morning & evening rush hours, drivers are often in a hurry to get to or from work, leading to higher travel speeds. Combined w/ distractions (e.g., cell phones) & poor light conditions—especially in winter—this increases the risk of collisions.
105. Mostly because I commute by eBike and there is a lot more concentrated volume of cars in a short period of time.
106. higher speeds and more traffic from 7-9 AM on most rural roads in the county
107. Folks are anxious to get to their next stop after work
108. Automobiles going to and from work in the AM and PM.
109. Seriously, you should have had lunchtime, it is nuts, I feel like I am going to get killed on my bike constantly. The other times are better.
110. Well, that's when I'm usually on my bike, so that's what I notice.
111. It really varies, no consistency really. Since enforcement is rare...
112. More cars on the road.
113. Folks wanting to get home.
114. most traffic, people tired
115. Am/pm commute, sun adversely affects driver vision
116. Manic driving behaviour in the afternoon/evening.
117. People always are rushing home and are impatient despite knowing that their aggressive driving will not help much given the traffic build up when you approach the city. I am opften cut off or driven very close to only to end up passing those drivers
118. More incompetent people on rental e-bikes
119. more traffic = more danger
120. There are more cars on the road during rush hours
121. 2pm-5pm
122. People going home from work and are very frustrated with the traffic and challenges of being on the road
123. Riding past a neighborhood high school when cars are unloading passengers and doors in narrow street when doors are opened haphazardly onto cyclists
124. People in a rush or poor visibility
125. I am retired and am out and about after commute times.
126. During evening rush hour cars back up and crowd out any bike lanes
127. so many cars, such a back up, drivers are frustrated and not so patient
128. People are spaced out on their commute
129. Soquel Drive around Robertson
130. Everyone is trying to get somewhere, they are stressed. Traffic is always terrible due to the lack of infrastructure for alternatives.
131. Each time has different reasons for poor safety, but none seems safer than the others. Late night the higher speeds and lack of visibility is what kills, in the morning people seem to be less aware of their surroundings. In the evening aggressive behavio
132. Most cars on road
133. I don't, you made me answer the question.

134. lots of impatient vehicle drivers in daylight (dark is safer in rural areas)
135. School and work traffic in the mornings, congestion on the evening commutes
136. Drivers distracted + low angle sun can be blinding
137. Drivers are distracted and don't look for bicyclists or pedestrians.
138. Folks are tired, and my have the sun in their eyes.
139. More people on the road in the afternoons, school traffic, distracted or frustrated drivers
140. Seems the evening rush is when the roads are most congested - people trying to get home from work/school/etc
141. with construction, difficult to drive with less lanes available
142. More traffic and lack of attention of bicyclists and pedestrians. Many appear oblivious to vehicles.
143. Congestion and timing of traffic lights
144. Everyone is rushing to go home
145. On Gushee St. drivers avoiding the intersection of 9 and Empire Grade turn right and zoom down Gushee. A no right turn sign would be a big help.
146. There are more cars, pedestrians, bikes, etc sharing the roads, shoulders, etc.
147. I think people are tired and in a hurry to get home and their driving gets sloppy.
148. Students and parents, college students rushing to school.
149. Distracted Auto, Bicycle, actually all vehicle drivers; vehicles blocking oncoming traffic in intersection in effort to "get thru on this light". Distracted driving!!! In a hurry, me first, I am angry and moving 4,000 to 12,000 lbs of machinery
150. Pull the tracks.
151. Congestion
152. I notice the most traffic congestion and dangerous driving in the evening rush hour. Some cars go off Soquel Dr. to Mesa Dr to speed their commute when there is a problem and they drive too fast on Mesa Dr.
153. There is always traffic, so the concerns always exisit.
154. People are in a rush to get to and from work. They are used to the roads and are not patient. Weekend driving on Hwy 9 scares me because of the racing.
155. More people should n road due to getting to work and school dropoffs
156. No left hand turns on Mission Street, except in left hand turn bays at signaled intersections.
157. Because it’s busy
158. Morning and school related traffic
159. That's when my kids are going to school.
160. Most traffic flowing to beach or commute
161. Seems to be more distracted drivers including school age kids on electric bikes
162. at the end of the workday, drivers seem to be impatient, tired, and are ignoring laws and safety in order to get home more quickly.
163. People in a hurry driving home.
164. people are rushing to get home and don’t consider speed/safety issues for cyclists and pedestrians
165. Driver's turning into bike lane without signaling a turn. Parked cars flinging doors open.
166. People want to get home from work and that leads to more aggressive driving, less tolerance for other drivers, and people are tired
167. Yes, after 2:00 pm every day.

168. Drivers tired, more distracted
169. Even though traffic is low at night, visiblility is poor, and people drive more recklessly.
170. Far more aggressive, speeding and distracted motorists on all roads.
171. Vehicles speeding, squealing tires and impaired driving.
172. It's always a problem. Because the infrastructure is designed to pit drivers, pedestrians, and cyclists against each other.
173. morning work and school commute time; lots of cars near granite creek rd. worried they'd see a bicyclist.
174. I chose all but late night. I see the traffic safety issues all times of day/night, but I'm not out late night so I can't comment on late night traffic issues.
175. People in a hurry to get to work or home
176. I cycle at all times of day and I only feel safe if I'm home by early afternoon. No matter where I am in the county the traffic picks up by noon and worsens until evening.
177. Wildlife crossing and cars speeding home.
178. not sure
179. I worry for the safety of my kids riding and walking to school when cars are rushing to work; more cars on the road
180. Seems to be a time when UCSC students and staff are driving from the university causing traffic congestion and aggravation.
181. people drive through intersections after light has changed
182. Increase of pedestrians, parents taken kids to school on bikes and vehicles going to work
183. Drivers drinking or eating or cell phone use on their way to work.
184. Morning and afternoon bicycles and ebikes do not follow driving rules and especially do not stop at stop signs while I am in the middle of a left turn.
185. Because people are in a hurry going to and home from work. As well as more people on the roads after school and work.
186. Many people traveling while their mind is on other things (getting to school/work)
187. Hwy 1 is congested so everyone just races through town. Stopping at stop signs and traffic lights is optional, especially Friday afternoons.
188. Combination of school drop-offs and commuters, everyone is in a hurry and there are kids doing unpredictable things
189. That's when the most cars are on the road
190. Distracted, short tempered and rushing drivers
191. People aren't as stuck in traffic as when it's morning or evening rush hour. That little bit of space seems to cause some drivers to drive recklessly.
192. Morning and evening
193. It seems that everyone is in a rush to get to work on time in the AM. Then in the afternoon, everyone is sick of sitting in traffic, so they're frustrated and want to get home.
194. There is little to no traffic violation enforcement
195. I think that drivers are generally driving faster trying to get to work on time.
196. People using alternatives to highway one at freeway speed
197. People in cars are rushing home, driving unsafe. Many tourist are around this time and not paying attention to pedestrians or cyclists.
198. The issues really exist all day, evening rush hour was selected because there are more cars at that time, but the other time slots are equally hazardous.
199. People seem more angry in evening

200. Too many cars on the road commuting from work
201. People are driving to work and need to get there on time.
202. Those are the hours in bike commute and cars have veered into the bike lane and nearly killed me.
203. I don't think it is dependent on time of day, just the people driving, e-biking, or walking at any given time.
204. Most people on the road
205. because that is when I am most often riding my bike places. When I drive to work in the morning things are pretty easy, but in the afternoon streets are crowded and intersections get more difficult.
206. The most cars on the road
207. Cyclists and pedestrians ignore the law..Homeless ignore safety.
208. Late night because of obvious impairment. Morning rush hour because of the intensity. Feel less sure about morning.
209. Amount of traffic and speed issues on surface streets
210. Too many cars on the road. Traffic using neighbor hood street as bypass. south Rodeo Gulch and Gross Road. Ignoring sign of not right turn at the corner of Soquel and S.Rodeo Gulch " 4-7" . No enforcement of law! Impacts egress of local neighborhood.
211. 3 schools and felt st park....
212. E bike riders going to school through Arana Gulch in conflict with pedestrians or going high speed or wrong way in bike lanes
213. The sun is in people's eyes and they are in a hurry to get home.
214. Visiting traffic on coastal or boardwalk roads is erratic due to distracted drivers, inadequate use signal and frequent bike lane obstruction.
215. Rush bour
216. More traffic. Folks in a hurry to get ahead and get home. They get crazy.
217. It's a wide road, with high traffic volume, people are going home, or they're out partying.
218. From 3-6 pm
219. People are in a rush, and don't consider other users of the road.
220. commuters cutting through county rural streets often cut blind corners
221. Beach traffic. The cars that are spending and not slowing down to turn onto 16th ave don't reside in the neighborhood and almost always head to Sunny Cove beach.
222. People rushing to work in giant SUV's and trucks.
223. Combination of people tired from work and returning home along with people that drink heavily during the day reaching peak inebriation.
224. Drivers poor judgement and cyclists ignoring stop signs
225. On the weekends there's a lot of hooliganism and speeding in the roads, I suspect many are not from the area.
226. Drivers coming and going on 26th Ave
227. More traffic, people in a rush
228. Most people are driving at that time and are avoiding highway 1 congestion due to not enough lanes.
229. People are speeding, tailgating and using their phones.
230. The traffic in the later afternoon is so bad, drivers are erratic and not safe. I concerned for other drivers, pedestrians and people walking that angry and rushing drivers will cause harm

231. Morning drivers take side streets to get to their destination quicker. They speed. They seem distracted, too.
232. People commuting to work, school being aggressive with speed,
233. The harbor is closed and hwy construction...
234. There is no police presence in the city. I would like to see patrol in a car, not cameras, because that just makes people pissy.
235. More people on the road. Students traveling to and from school is the highest.
236. People are rushing, and the school areas are super-congested and people are angry and don't follow rules
237. When traffic gets too congested on 41st Avenue, a lot of people use 38th Avenue as a corridor.
238. Drivers are in a hurry and many are oblivious to traffic regulations
239. Heaviest traffic
240. More pepole on the road
241. SUPER congestion from 2:00 pm through the dinner hour
242. Although rush-hour traffic is terrible in the areas, I'm mentioning what makes them dangerous are conditions that exist at all times
243. Lots of cars vs e-bikes
244. Impatience coupled with high number of children present/safety concern
245. more people
246. "rush hour" traffic always seems to increase congestion, tension between drivers/cyclists, etc and is when, maybe due to volume of cars, is when most trouble happens
247. School drop offs make congestion and confusion higher.
248. Near highways. Process of leaving your are I'll take an exuberant amount of time. Simply, there is too many vehicles flowing into Watsonville.
249. WE need to improve highway 1 to allow a car pool/e-vehicle lane. I am concerned with traffic stoppages on freeway--especially south of State Park exit
250. Commuters and more people on the road generally
251. That's when I'm out on the street.
252. School drop off
253. Dawn and dusk coincide with poorer visibility AND high commute traffic. And in the evenings tired drivers just want to get home. Four out of five times I've had cars hit me were on evening commutes. ONE am. And FOUR on Soquel.
254. People do not leave time in their schedules for transit, so they treat all others as "in their way".
255. More folks frustrated and in a hurry
256. Because Hwy 1 is backed up, commuter traffic spills onto surface streets
257. Most cars on road
258. This is when traffic is heaviest and people are rushing after school.
259. People commuting and parents shuttling kids around
260. Traffic congestion
261. I primarily travel by bike. It is the basic infrastructure that is the primary problem.
262. Tired drivers rushing to get home at all costs.
263. Because people want to get home and they flip out about traffic.
264. More congested and more erratic behavior by drivers
265. More people and cars with more distracted driving.
266. So much commute traffic, increased volume of people in transit via car and bike.

267. Traffic
268. I am more commonly traveling during this time
269. I do school drop off in Scotts Valley and the driving is crazy -- people running red lights, turning from wrong lanes, cutting in line at lights, speeding.
270. People traveling to work and in the evenings, people coming back from work
271. More vehicles on the road, more pedestrians in town
272. I commute to work and back every day and the struggle is real. People get so frustrated and their driving reflects that. I've been rearended more than once in commute traffic over the past 16+ years I've been doing it.
273. Heaviest traffic, people in a hurry to get home after work.
274. Busy time for commuters along which children going to school.
275. more traffic I encounter
276. School, work, congestion, more people on the road
277. Volume of drivers and peds
278. More cars on the road.
279. The afternoons are very heavy traffic right around when school gets out, when there are also many child pedestrians.
280. More traffic overall, more people switching lanes, speeding, trying to get out of traffic and cutting on side streets and behaving unpredictably.
281. School traffic (people picking students up from school or students driving home from school) creates safety concerns for pedestrians and people using non-motorized wheeled transportation
282. School drop off and people in a rush to get to work, or tired from a long day at work. Drivers have an attitude it's their Lane, kids on bikes need more education and training. The rail corridor was suppose to create a separate walking and biking path?
283. more cars and low light respectively
284. There is no rush "hour." Traffic congestion is terrible from about noon until 7:30pm. When people are sitting in traffic for that long, they get road rage and tunnel vision.
285. More cars and setting sun makes difficult visibility
286. Everyone is trying to get home after a long day of work
287. When I spend most of my time on the roads.
288. Most traffic at one time
289. 2-6pm
290. Drivers too focused on getting to work on time that increased traffic lowers their wise decision making process
291. It’s when school gets out and when kids are headed to school
292. Stagnant cars
293. Too many cars and not enough lanes
294. Sun creates difficulties seeing pedestrians
295. I think distracted driving during rush hour generates some of our biggest safety concerns.
296. People are tired and in a hurry
297. Traffic is bad when school begins and departs for the day
298. Increased traffic
299. People are in a hurry and in winter it’s not very light out.
300. En route to school in the morning with my children
301. Traffic concerns are all day and night - it's dangerous period.

302. Busiest time of day, people stressed about getting home, multiple types of vehicles on roadway at that time
303. Most traffic flowing through the Eastside at these times
304. Lots of traffic on soquel dr
305. Harried drivers and traffic flowing more freely than at commute hours.
306. I would adjust evening to start after 2pm when school pick-ups and early shifts are off and start commuting. Also the late afternoon sun seems to make visibility more of a challenge than in the morning commute traffic.
307. Most aggressive behaviors
308. The most traffic
309. Traffic safety is an issue nearly all day long. People are overly aggressive, unkind, hostile and use their vehicles as an extension of that anger.
310. Major traffic on Highway 9 at SLV Schools, with children trying to walk to school
311. too much traffic, too many on the road at the same time
312. The morning and evening rush hours have the most congestion. Plus people are in a hurry and often on their phones. There are more people than ever before on bikes, especially e-bikes, sharing the road and drivers are often not aware of them.
313. Missing from Question number 6 #1 that everyone has their head in the sand about, the biggest issue is poor road conditions. The County needs to repave (not patch) roads. Paving is #1

If you indicated agreement to Question #12, briefly describe what changes you'd be most willing to make.

1. I'd be more willing to walk and encourage others to do the same. Perhaps skate my way around.
2. I'd be willing to switch to public transit if it was available on my commute.
3. I would like to use my e-bike on a regular basis, I drive slower when I see kids and construction zones, I hate speedbumps but understand their need in some areas. I try to take the bus when I have time to spare.
4. Reduce the time I use my phone while driving.
5. I would stick to the better protected bike routes, even going out of the way to get to my destination if it is a safer route.
6. When I began taking kids biking on our surface streets, I dramatically changed my driving behaviors. Biking has become FAR MORE dangerous in the past 5 years. I drive very carefully watching for bikes and peds. Drivers need infrastructure to force slowing
7. use transit more if there were better (time saving) options.
8. I would ride my bicycles more often and not be worried about being struck by speeding vehicle, distracted driver, aggressive driver.
9. Driving adjustments
10. Hard to think of what to change since I'm usually a pedestrian. But o guess paying more careful attention
11. Improvement that decrease overall speed for greater safety
12. I would be more aware of pedestrians and even more so when I saw a flashing crosswalk. And as a pedestrian I would use them.
13. Calm down. Be in less of a hurry. Be aware of my speed.
14. I would drive as seldom as possible. Car drivers have become faster and daring to break " rules of the road and focussing on pedestrians."
15. Less driving
16. Comply with new stops
17. Bike more
18. Walk more to shop and other errands.
19. Bike more.
20. I would bike more if the roads were safer with reduced motorist speed.
21. I am not going to start wearing my helmet but I have to take into account that any car might decide to inadvertently kill me So I ride my bike like I don't want to die
22. I feel I'm a safe driver but I know I look at my phone more than I should.
23. Take transit more, if it was frequent, reliable, affordable and safe.
24. I will choose the safest mode of transit for myself and my family members based on the infrastructure available.
25. I would walk more to businesses
26. I bike mostly, but I would be willing to limit distractions while driving.
27. I'm willing to take different routes or to drive more slowly.
28. pay extra attention at intersections and pedestrian crossins
29. Adjust transportation time
30. more biking/walking, less driving
31. Allowing kids y bike farther distances
32. Driving slower, paying more attention to signage

33. poor question. I drive very little. Question assumes one drives primarily. How would walking less reduce the risk of injuring someone?
34. I am in favor of traffic calming features even if they slow down traffic.
35. I would be willing to shift commutes to a bike or e-bike if the infrastructure is built out to get me to my office and home again safely.
36. Bike more often . Would commute by train or light rail if available
37. Drive slower, use alternative routes
38. not worry about being late when traffic congestion happens, need to educate medical offices and others that drivers are doing there best to estimate drive times but things happen.
39. Commit to 1-2 additional days of car free commuting from south county to north county per week
40. I would drive at lower speeds if the posted limit were decreased
41. I would walk more
42. I would definitely walk more often and in different areas if there were sidewalks and street lights in my neighborhood.
43. Bike commute to work
44. Avoid distracted driving. Observe traffic laws.
45. I'd be willing to change routes, go slower, endure traffic-speed mitigation measures if I knew that it meant everyone was safer.
46. Driving less
47. I'd bike everywhere when possible. I'm too fearful to ride on the streets. We need a trail.
48. I feel that I am already a defensive driver and cyclist
49. Not driving or cycling while distracted.
50. Run errands by riding a bicycle
51. Ride more, drive less. Continue to obey sensible traffic laws.
52. I think I act pretty safely already but I'm open to ideas
53. Drive more slowly in deisignated areas
54. Become more cautious/aware
55. The question was too broad. I already have taken measures and drive and ride safely. I've driven for 60 years with no accidents. Alert, aware, and prepared at all times. This is why education is essential for those without decades of experience.
56. Ride my bike more often
57. I would probably bike or walk more for local errands
58. Learn what causes the problems and reduce them.
59. I wouls slow my driving. This would require pretty extensive street redesign and law enforcement, neither of which are occurring now.
60. I would like to bike more and take more public transport if more infrastructure was in place to make it more accessible and safer.
61. Drive instead of cycle
62. I cycle for transportation. I am saddened and disappointed by the fact that our infrastructure has made this a risky endeavor. It baffles my mind that we as civilized people tolerate our current level of road carnage.
63. I'm unsure what of my particular behavior could change but am willing to
64. I would follow new rules or signs if I was aware of them, such as lower automobile speed limits, bike speed limits, etc.N/A
65. Walk more
66. Would love to walk more, but so many sidewalks are non-existent.

67. I'd ride a bike more often
68. Bike more
69. I'd like to use my bike or walk for shorter trips and the bus for longer trips.
70. If i had the ability to feel safe biking around Zayante and Graham hill road, I would absolutely do so, but currently it's a crazy road to bike on, certainly between Quail Hollow and Graham Hill
71. Slow down while driving
72. Increased safety for all
73. Bike more
74. Take more public transit over lyfts
75. always do right
76. If there were more crosswalks, such as in front of the library near the bus station, I would stop at them all.
77. Driving slower on roads that are designed to calm traffic
78. I personally ride an electric scooter, and would be willing to run or ride a bike if people seems scooters unsafe for traffic. I think scooters give unparalleled accessibility that a bike does not, but I am lucky to be able-bodied where I also bike as wel
79. More active travel
80. moving to a different lane/road, taking detours for safer routes
81. Walk more
82. I can't change my transportation because we have no bike lanes and curbs
83. I would be willing to bike more to work and with my family to school if the roads were safer and better connected with buffered or protected bike lanes
84. I generally get around day by day by cycling and I'm willing to put up with poor quality infrastructure. Friends and family aren't as bold as I am.
85. drive slower. deal with traffic calming devices.
86. Drive slower, tolerate more traffic calming measures
87. I feel that if people slow down their would be less injuries between drivers and cyclists/pedistrians.
88. Well if there is something I can do, I'd do it? I follow the traffic rules.
89. more biking less driving
90. DMV requiring more robust and strict requirements before getting license RE: pedestrian and cyclist safety/laws
91. Follow the rules of the road
92. Cycling is my primary way to get around, and I would feel much safer riding and walking
93. cycling and walking instead of driving
94. I mostly bike despite the hazard and being seriously injured by a distracted driver
95. I am willing to ride a bike instead of driving a car for short trips if there are safe routes available to cyclists.
96. I am willing to reduce my driving speed
97. We'll definitely drive with cyclist and pedestrians in mind always
98. Slower driving
99. Willing to change driving behaviors to be more friendly to pedestrians an cyclists
100. be more attentive, take different routes
101. Slower speed limits while driving
102. Better bike infrastructure, a train, and a bus. That's all you need.
103. Curb extensions, eliminate right turn lanes and right on red. Install raised crosswalks.

104. Choose bike over car if safer to ride
105. Walk more if I could walk safely on the road I live on.
106. walking, cycling, transit if it were available to Lompico area
107. Would ride bike more
108. I would bicycle more if it was safer to do so.
109. Less likely to roll through red-lights if the sensor would properly detect my steel frame bike.
110. I have to say, I bike less often than I would like to because of safety concerns. I would take public transit if travel times, route coverage and frequency were better.
111. N/A
112. drive less.
113. Would gladly Spend more time getting places (driving, walking, etc) if traffic control/safety measure were thoughtfully engineered & implemented
114. If bike lanes were wider and safer and separated from pedestrians I would commute by bicycle. But we also need the police to do more to protect cyclists from car drivers.
115. Though I do not have a car, prefer public transportation when it works, I find I review my walking, public transportation every few months. Though not operating a vehicle, I do watch CALTRANS notifications as well as RTC .
116. Pull the tracks.
117. Less distraction, less hurry
118. I walk when it is possible and realistic but some times it is too dangerous, especially at night.
119. Lower speed limits. Use any new improvements such as turnouts, crosswalks, etc.
120. Would cycle more if more safe bike lanes available
121. Maybe public transportation
122. Happy to go slower and more thoughtfully if traffic and other drivers allow. Would love more robust biking options
123. If bike lanes were added to La Madrona I would use them to ride my bike to/from kids school and open spaces.
124. Will be more aware when driving
125. I am looking forward to using the Hwy 1 Chanticleer pedestrian overcrossing to walk across Hwy 1 to Medical appointments, shopping, dining. I will use MetroBus more. When Rail service begins, I will use it. Rail is a very safe transit method.
126. Leave home earlier to safely get to destination
127. I would drive more slowly if speed violations were enforced.
128. Be more patient and decrease my speed when I drive. When I walk, not crossing against the light and making eye contact with drivers when crossing the street
129. Driving less.
130. walk and take transit more
131. I would walk a little more. For example, trying to cross Mount Herman is super dangerous as a pedestrian, so I drive from one shopping center to another. I would consider parking at one and walking to the others if it was easier to cross.
132. I'd walk and bike more if it was safer
133. If there were bike routes in place similar to but safer than Graham Hill or Soquel San Jose for example, I would take them even if less direct.
134. I would be willing to follow best riding routes if a safe route was created to get across town or to where I'm going

135. With more dedicated bike lanes around Santa Cruz city, and throughout the county I would ride my bike more.
136. slow down speeds, stop before proceeding
137. More ebiking
138. I'd walk and ride my bike often.
139. Think about others and drive/ride with empathy
140. I would bike around town way more often.
141. I would be happy to ride my bike on safe routes even if it means going out of my way a bit.
142. As a driver, I would happily accept solutions that increase my drive time in the name of safer roads and increased human space
143. Be patient. Texts can wait
144. It would be being a patient driver. I'm much better but it is always top of my mind when driving now.
145. I would like to drive less, which I generally believe is better for the community.
146. Walk to work
147. I already drive slower in congested situations. When biking, I always ride to right of bike lane and when turning left, generally stop and cross at crosswalk as opposed to cutting left across traffic
148. Using the bus if there was parking near the bus routes
149. I'll continue to follow traffic signs and laws to make sure my neighbors are safe.
150. Bike more
151. I could ride less aggressively- right now, I feel like I have to be proactive and claim safe space on the road to stay safe
152. I do my best to abide by all traffic laws- biking and driving. And I will continue to do so.
153. I would drive certain routes if some were deemed only for bikes, etc. Also, if there were convenient bike paths I would take those over a direct road route.
154. I would be willing to bike more if bike lanes were wider, better marked, more people were ticketed for texting and driving, and more people who rode E-Bikes new the rules of the road
155. If bus service was closer and more frequent
156. Law enforcement needs to enforce the law…when the church on felt street has their monthly yard sale there will be 30 cars in the bike lane…right under the signs that say in red do not park…bike lane…nobody cares….
157. My driving has gotten very cautious with the speeding and wrong way e bike problems.
158. I would take the bus more often
159. Not just better bike lanes. Improved bike routing to provide routes and connections (bridges where necessary) outside of busy roads.
160. Use dedicated bike paths to eliminate myself from vehicular roads.
161. I would walk more.
162. Routing
163. I'd bike more.
164. I live 8 miles from the city limit on very hilly mountain roads. Driving is the only practical way to go to the city in a reasonable amount of time? The repeated questions about walking and bicycling are not relevant to rural mountain residents.
165. Walk more often vs drive

166. I'd cycle more.
167. I would be happy to use public transportation if there were substantial investment in service from the unincorporated county to other parts of the county and Bay Area.
168. I would LOVE to safely and calmly ride my bikes more around town with reassurance that I am unlikely to get killed or badly injured.
169. Increase cycling and walking. Would bike my kids to school.
170. Perhaps suggestions options for this question
171. Bike and walk more if I felt safe
172. Driving slower. Walking more, instead of driving.
173. I already drive defensively.. speeds are dangerous in areas on East Cliff Dr ....
174. I already do: I choose to use my car in order to not get killed on my bike.
175. I would work more days at home if it was possible.
176. Bike or walk instead of driving
177. I might be willing to drive my car again.
178. slower driving
179. Slowing driving with better light sequence
180. I believe making bike lanes safer could reduce traffic congestion on short distance highway trips
181. More Public transit, walking and biking
182. Not sure. I comply with traffic rules. - Additional stop signs might help in some places. Speed controlling behavior (like the speed tables capitola added to clares st)
183. Ride more - which is safer for everyone sharing the road with me - as long as the roads are safer for cyclists.
184. I think I already am very aware of cyclists and pedestrians, but I would follow recommendations such as lower speeds, etc.
185. Bike more
186. If roads made safer for cyclists would ride much more. If bus service was more frequent would use much more.
187. I would walk and cycle more if I felt safe to do so.
188. I'd walk and bike more if I felt it was safe to do so on a protected bike path or trail
189. Do you realize how badly designed this survey is?
190. Watch my back when riding on the roads.
191. We all need to drive slower as a result of engineering changes to our roads. We need engineered/built solutions to protect pedestrians and cyclists from vehicles.
192. Road changes. Such as reduced lanes or some closed to vehicle traffic.
193. I'd be happy to bike more if there were safer routes/paths.
194. I'm willing to bike as much as needed if I felt safe while biking
195. I would take different roads, walk more, bike, etc
196. Writing Santa Cruz METRO Transit
197. I'm willing to stop at more stop signs if they are installed.
198. Most of my local travel is either too far to walk or cycle, too much up/downhill, or missing infrastructure for walking or biking. I'm 78 years old.
199. Longer commute times
200. Ride my bike to work
201. I drive safely.
202. I would be in favor of reducing and enforcing speed limits and eliminating right-on-red at pedestrian-heavy intersections.
203. I would ride my bike for errands more often.

204. We were told we would have a trail across the capitola trestle that would help us to bike to 41st ave shops and connect the county. We were sold a Rail Trail why is that going on city streets? Keep it in the rail corridor
205. Make more public transit (train infrastructure particularly), and people will happily use it.
206. When driving, I'd like to see the roads modifying to slow people down, including myself.
207. I would walk more if there were better crossings and trails. I think the main challenge in the county is narrow roadways and topography.
208. Cycle more if there were safe routes
209. Drive slower. I could sometimes take a bike if mountain road had a bike lane.
210. consider using public transit more often if more available.
211. Drive less
212. I'd bike/walk everywhere if it felt safer.
213. i already have changed as much as i can.
214. Using more walking paths and public transportation to get to Watsonville
215. No distractions while driving
216. I would walk more if I wasn't harassed by beggars, I would cycle if I wasn't worried that my bike would be stolen.
217. I would be willing to take longer to get to work or use a different transportation modality to reduce risk
218. Right now i don't let my kids bike anywhere. If it were safer, I would do it.
219. We watch out for cars trying to hit us. We find aiming a cell phone and taking video changes behavior.
220. bike more
221. Create more barriers to straight streets, increase number of crosswalks, signage, and enforcement
222. I'd walk more
223. I would walk and bike more if it were safer
224. I stopped riding on streets
225. not sure, question 12 is pretty unclear. Yes, of course I would change my behavior if it led to increased safety for myself or others. But how does changing my "transportation behaviors" effectuate that change?

Is there anything else you would like to share about traffic safety concerns in Santa Cruz County?

1. People's lack of care for others is very concerning. Not just in the county but with all drivers. Car culture and individualism are root issues embedded in the culture. I hope to see that change in my lifetime.
2. Trail now, please. And open Murray St bridge to peds/ bike please
3. The kids driving e-bikes and sometimes small motorcycles on roadways is really dangerous. I see a lot of risky behavior; they do not follow the rules of the road. I almost hit a child on an e bike who abruptly turned left at a stop sign from the far right
4. There is a level of anger, even moms with kids in the car, people rushing to get home and get it all done. We need to work on educating people that driving at a safe speed does not cost that much time and SAVES LIVES! It is common for drivers to...
5. Need protected bike lanes. I witnessed a driver almost run over 2 kids on bikes when he was trying to avoid a speed bump on california ave between bay and soquel. Luckily there was no car parked so the kids were able to swerve and avoid an accident.
6. Speed bumps on lower Bay Street. Weekend tourist speed and cut people off which is dangerous for locals
7. I'd love a "hop skip jump" bus system, for short medium and long trips
8. The biggest issue I encounter as an avid pedestrian is cars turning into legal pedestrian crossings: many drivers ignore crossing pedestrians, do not even look or only look one way. Intersections need better ways to alert motorists to crossing pedestrians
9. I would REALLY like an RFB crosswalk at Dawn Lane and Soquel San Jose Rd. in the area of Soquel Cemetery. There needs to be a safe place for children, especially, to cross that road to school the park and to visit friends in the neighborhoods across.
10. CALFIRE has problems crowding both lanes on Felton-Empire Grade. Bikers don't stand-out on shaded Empire Grade or Route 9.
11. I do not feel safe as a woman even in daytime walking or cycling. I don't feel free to be out in the neighborhood after dusk.
12. Motorized bikes are a hazard on trails and lanes for pedestrians. They travel fast and do not consider pedestrian safety
13. Na
14. Encourage more carpooling. Education about looking for pedestrians.
15. e-bikes not following the rules of the road.
16. Bay St gets all the attention on the Westside but there are other streets with serious concerns that are not being addressed.
17. Cops make things worse almost every time. Police following and running plates make people uneasy in a police state. People naturally supply the probable cause when they are terrified. Allow people to be human and observe and report, not harass and arrest!
18. Lots of people blow stop signs and drive aggressively. I'm always worried about the motorcyclists driving like assholes.
19. Transit is woefully inadequate. To make a real difference, we need to be able to catch a bus, trolley or train from anywhere to anywhere without studying schedules or stressing over connections.
20. Enforce traffic laws with cyclists. Failure to stop, fail to yield for pedestrians, fail to signal turns, improper lighting/safety features. This applies to young e-bikers and packs of older recreation road riders. Cyclists in Santa Cruz are the worst I h

21. Along with the usual types of education, I think there should be training on how to drive on mountain roads which are often more technically difficult than driving on Highway 1. Simple would be Highway 9, a more advanced version would be Ice Cream Grade.
22. I can't drive so I need to bike, walk and use public transit in the county. I commute from Santa Cruz to Aptos and back several times a week usually via bike and I love the new barriers and thicker bike lane lines. I wish more areas of soquel had that.
23. The general public won't accept road diets unless they understand that the purpose is to get people to drive slowly without needing enforcement. Road diets need a PR campaign, "Giving fewer speeding tickets" or making the speed police uneccessary.
24. Continue to fix the freeway and support the rail options
25. Please invest in the safety of bike riders and pedestrians! There are more kids out there on electric bikes than ever! We need better infrastructure. Thank you for your attention to this important issue!
26. Very much appreciate asking the community for feedback
27. SLV is needing a lot of these traffic injuries reduction designs
28. Bicycles often don't stop at stop signs and do not position themselves properly for left turns. We need bicycle instruction in schools.
29. would like to see more red light cameras. Police can't be everywhere all the time enforcing, but a camera can.
30. I am also concerned about wildlife safety. I would like to see wildlife crossings and traffic calming measures put in place to protect animals as well.
31. I think we should prioritize building out pedestrian/cycling sidewalks in rural areas or where there are adjacent features that add to the risk of users (e.g. storm water ditches).
32. I have observed Inadequate/unsafe traffic control at road construction on soquel and on front, as well as an overall trend toward lax / nonexistent traffic control in constructions zones throughout the county.
33. Highway 17 is very dangerous. Roads around unincorporated areas also need a lot of attention - that would be my first priority if this was provided as an option in the list of solutions...
34. We need to collectivley give each other a little grace and be safe.
35. The No.1 piece of infrastructure that will help south County in terms of pedestrian, traffic safety and reducing congestion is the rail corridor.
36. Our street is dangerous- La Cuesta Drive. The speed limit is too high for all of the people out and about
37. The road and sidewalks on Glenwood Drive are way too narrow for the amout of car, bike, and foot traffic on it during school drop off and pick up. Students frequently have to step off the sidewalk to pass each other and have close calls with bikes and car
38. I am seeing lots of new bike lanes that don't follow standard traffic patterns (like a double bike lane (one for each direction) on the same side of the road).This causes confusion and possible accidents. Bike lanes should follow normal traffic patterns.
39. I think it would be a good idea to create rumble strips on painted centerlines like CalTrans has done on Hecker Pass.
40. People using devices while driving is a concern of mine. I see it a LOT, both in stop-light-type areas and on the freeways. There must be a way to enforce the law in this area and keep people off their devices, eyes on the road, people!
41. Too many aggressive drivers little enforcement by CHP
42. I see so many drivers speeding and driving dangerously. Santa Cruz is full of walkers and bike riders. The streets are generally narrow and speeders need to slow down

43. Road surface needs improvement
44. ENFORCEMENT. How many vehicles in Santa Cruz have been cited for violating the 3' law? How many cyclists have been cited for going the wrong-way? Or obstruction trails/roads?
45. The condition of county roads is deplorable. We need to stop funding something and start properly maintaining and repairing our county roads.
46. I am most concerned about arming unprepared and unlicensed youths with electric motorcycles. DO NOT BAN THE VEHICLES--STOP THE UNSAFE BEHAVIOR ANY WAY YOU CAN!
47. Would really like to see safety around rural roads since many of us bike for leisure out there and the potholes and narrow shoulders has made it unsafe for many of us causing bicycle accidents.
48. many Street signs showing the name of the streets are needing to replaced as they are bleached out and very difficult to read. The terrible pavement and the potholes are dangerous, and the narrow roads with no shoulders are also dangerous for cyclists and
49. I see many surveys and good intentions from government staff, but a notable lack of political leadership on this issue.
50. Repairing existing failing road infrastructure
51. Please maintain the roads and vegetation at the very least. Thank you
52. The new barriers on the bike lanes are stupid. They make passing fellow cyclists more dangerous, they make the bike lanes narrower, and you have to now dodge the white plastic columns, who thinks of this BS?
53. Clear the levee underpasses of debris through the down town Santa Cruz area. House the homeless so there is no extraneous outdoor housing debris to obstruct passage?
54. In the recent People For Bikes city ratings Santa Cruz ranks #119 in California, #791 in the US, and #1142 worldwide of similar sized cities. Embarasing.
55. As someone who lives in unincorporated county that often gets overlooked (freedom blvd), please pay some attention to us out there. we lack a lot of the basic infrastructure that exists elsewhere (cross walks, stop signs, etc)
56. Traffic laws need to be better enforced. Driver cell phone use needs to be enforced better, e-bikes need follow traffic laws, electric motorized cycles that are not defined as ebikes under the law need to be removed from the streets.
57. How will the county handle all the new traffic from new housing developments?
58. Do not like the roundabouts...The one at the Santa Cruz Wharf is a nightmare. People don't know what to do there.
59. RTC refuses to address known railroad dangers in Watsonville including students walking recklessly on truck routes and trestles
60. The culture around accepting death and serious injuries on our roadways must shift in order for change to occur.
61. There's been a lot of tree work done in SLV, but it'd be great to have more attention up here around road safety and creating more bike lanes. I see other counties like Marin that has created a fantastic trail structure and bike safety process.
62. I wish people who ride bikes would all follow traffic safety guidelines, like traveling with traffic, and staying off sidewalks. In Watsonville, about a third of the cyclists I encounter while walking, are on the sidewalk, or riding into traffic.
63. Would love more folks to bike and walk and feel safe and good about thisSo many I know will not bike due to safety concerns
64. There needs to a prioritization of bicycles / pedestrians over cars. This means cars stop for bikes at trail crossings and not the other way around

65. ANY place the bike lane seperator stripe is worn, it indicates cars intruding into the bike lane and should serve notice that corrections are needed.
66. There need to be more continuous, paved side walks around town, especially between the library and the shops like Target
67. Too many signs at round a bouts & intersections. Distracting. A sign was even put up now advertising parking, & one downtown in front of LuLus says "Downtown."
68. In general, I think we need to deprioritize vehicle traffic especially on the coasts and provide much better infra for pedestrians and micromobility.
69. Additional enforcement of current laws for both vehicles and bicycles would help the most
70. I have a skateboard but the rules are hostile to riding that. I can't use it on the sidewalk and the road is far too unsafe. The skateboard is too slow to be in the bikelane. Where do we go?
71. Put a speed bump on Bluebonnet Lane
72. speed cameras On HW17 !
73. More affordable housing in or near high resource areas of the County would lead to fewer people having to commute longer distances, which would have the benefit of a decreased likelihood of people being fatigued, speeding, and related safety concerns
74. Need more separation of bike/walking infrastructure from vehicles. This means bike/ped ways and routes and traffic calming through neighborhoods.
75. Many 4 way stop signs should be replaced with traffic circles. Ditto for three way intersections.
76. Basic smooth pavement will go a long way to improving safety
77. I'm concerned about the use of trottle bikes being used by mostly young people. Those bike riders need to be regulated.
78. Trash day always means cans in the bike lanes, it would be nice if there was some alternative to that but I get it.
79. I understand fiscal concerns. BUT - our TERRIBLE roads make it dangerous for ALL of us, regardless of transportation mode. This public infrastructure spending is absolutely essential. Head to surrounding counties; we should be embarrassed.
80. Recently there were enforcement officers on the local roads (April 2025?). It's not a routine situation, but appreciated & I told them so.
81. Improve the poor road surfaces in some areas (especially Eureka Canyon Rd. and Glenwood Rd.)
82. road repair is very important for biking
83. The single most important way to increase biking and pedestrian use, and community health is to open the coastal rail corridor for active transportation by railbanking the branchline and building a wide, multimodal trail that separates fast and slower use
84. When using a crosswalk on two lane roads, one car stops, but others blow by in the second lane. Terribly dangerous.
85. Aggressive drivers
86. OH COME ON - YOU OMITTED THE #1 BIKE SAFETY IMPROVEMENT - GET RID OF THE TRACKS AND BUIILD A WORLD CLASS SUPER SAFE TRAIL
87. We seem to be in the mess we are in because of the prioritization of speed and entitlement to use of private vehicles. We have to face this and agree to try alternative approaches.
88. With the increased housing and E bikes written by younger folks, especially the throttle bikes there are many concerns about safety for everyone, even those of us experience on bikes and walking
89. Bike paths like the rail trail are extremely valuable and add safety as I appreciate being separated from car traffic esp in narrow streets with no shoulder

90. The intersection at Scotts Valley Dr and Glenwood Dr sees much more traffic than it can safely handle
91. Hwy 9 needs overhead lighting at all crosswalks & needs lighting at all bus stops with seats & more lighted bus stop enclosures.
92. The amount of people living in the county is absolutely crazy compared to how far behind the infrastructure is. No train, shitty bus services, lots of rural areas with bad roads to drive on. Enforcement of laws and safety is non existent.
93. Speed and aggression are the worst, but people turning never notice pedestrians and cyclists.
94. No
95. Eliminate shoulder-less roads in the county.
96. there are way too many roads with inadequate signage and road paint/ lines, lanes that do not line up at intersections, including many where if you continue going straight at intersection you would wind up in left turn lane for oncoming traffic
97. Enforcement on hiway 17
98. Children need to have a license to operate an electric bicycle - they are dangerous on the roads - helmet laws need to apply to all riders - children and adults
99. Drivers are getting worse.
100. Bike lanes are frequently encroached on by cars. - simple observation or looking at the faded paint of lane markers gives proof of that. More enforcement please.
101. I would like to bike or walk more often but roads around here are not conducive (potholes, no sidewalks). Santa Cruz County is not as bike-friendly as it should or could be.
102. Youth need much more education on walking and bicycle safety
103. Gushee street between the post office and the museum at Empire grade has a library and a discovery park. MANY walkers in the middle of the street due to lack of adaquate sidewalks including families, children on bikes, and no crosswalks.
104. Police enforcement/ticketing of illegal driving maneuvers (cars and bikes) would go a long way toward helping. Mission St area esp needs this.
105. Bike lanes need improvement. Often a biker has to swerve into traffic because of potholes, debris, etc in bike lane.
106. We need wider bike lanes separated from both pedestrians and cars like everywhere else on the planet. We need the police department to stop harassing cyclists and actually do something to protect cyclists from car drivers. Seriously, how many tickets have
107. Please refer to #6: my first two choices go hand in hand. There isn't one without the other PERIOD. EXCLAMATION POINT! No discussion! I see my third choice paired with public transit accessibility.
108. Pull the tracks.
109. More bike trails please!
110. Many of the roads are crumbling and dangerous and have very little room on the side to walk safely.
111. I would like to see enforcement of the racers and people tailgating and passing on double yellows. Some of the motorcyclists drive very dangerously. In downtown Boulder Creek cars park so close to the corners it is hard to see the traffic coming on 9.
112. Speeding on country roads is a huge issue. Add more speed bumps or more police to pull people over.
113. Too many speedsters
114. Concerns about road quality.

115. Please fix the roads particularly on La Madrona. Road quality is poor.
116. I would love to see improved traffic law enforcement. I am sick of walking my dog and watching drivers run right through stop signs near schools.
117. Scotts Valley should prioritize improvements to pedestrian infrastructure, including the parking lots for the shopping centers along Kings Village
118. Potholes and bad street surfaces are a problem.
119. The one kid per car school pick up causes an inordinate about of traffic on relatively small streets. It jams up many areas in town. We need to bring back school busses
120. Make things better. Not worst when improving for all.
121. Build the Trail in the rail corridor ASAP!
122. Traveling throughout the county safely is everyone's responsibility. When we think safe, we travel safe.
123. I often see bicyclists and pedestrians on Graham Hill Rd so it sure would be nice to improve the Graham Hill Trail as an alternative.
124. Instead of studying it to death, get building! Enforcement won't work. Education won't work. The only thing that works is physical infrastructure to limit cars; the rest is fluff
125. I've seen people run red lights right in front of police cars and not get stopped. This simply encourages others to do it too. We had a day in Scotts Valley a while back where traffic laws were enforced and a lot of people got tickets. Enforce them daily.
126. If the rail corridor was a walking and biking path I believe we would have a much safer method of travel for the whole county
127. People drive too fast, bike lanes are not safe, wildlife is not respected.
128. much of the traffic concerns on westside are related to ever growing university dominance of city of santa cruz
129. Parents don’t want kids walking on busy street even though that’s where the sidewalk is bc cars are going so fast and there is more of a chance of encountering a mentally ill pedestrian or driver who means them harm. create safe paths on quiet streets.
130. More round-abouts on major corridor roads within Santa Cruz city would help keep traffic flowing. Look at Bend, OR - they do a great job, and have bike lanes, too.
131. people seem to be angry drivers, too much horn honking, texting while driving
132. Signs and information about safer bike routes. Still see bikes on Mission, when there are safer parallel routes
133. Walking on 26th avenue is challenging due to space issues and lack of sidewalk. If yellow line was removed from center lane vehicles may be more willing to yield to pedestrians or move over to make room for pedestrians.
134. Not enough cyclist protection
135. Please educate cyclists as well as ebike cyclists regarding stop signs and red lights applying to them.
136. People riding bikes on roads like Branciforte where it is a curved road and narrow with no designated bike lane can be challenging.
137. We need more traffic enforcement at dangerous intersections. Namely Rodriguez and 17th and Rodriguez at 7th.
138. Forget the rail and get the trail done. This is a no brained and much faster.
139. The bike/pedestrian infrastructure in SLV is lacking and extremely dangerous; improving this could reduce road traffic significantly
140. In general, I love one-way roads and think they could give us a lot of human space back
141. Keep cars and trash cans out of bike lanes

142. Please add more protected bike lanes and bollards
143. Number 1, enforce existing traffic laws!
144. Kids on e-bikes are very unsafe, giving other cyclists a bad reputation.
145. We need to stop pouring millions (and now billions) into a mythical train and construct a sage bike and pedestrian path on the rail corridor
146. I almost never see traffic enforcement.
147. I'm a bike commuter. I'll be the first to say that many, many bikers do not follow traffic laws. I think that is a shame. And many, many drivers pay no attention to bikes. That is potentially lethal.
148. The potholes and broken pavement on many county roads does make cycling more challenging, especially when dodging it around car traffic.
149. E-bikes and kids riding them without helmets are a huge concern
150. People on bikes put me at risk when I walk...as well as drive
151. I no longer feel safe riding my bicycle on Soquel drive because of auto traffic concerns
152. I ride a moblUlithi scooter, sidewalks end abruptly, there are telephone poles in the middle, fire hydrants in the middle of sidewalks.Railroad tracks should be paved over, ward is no handicap accessible because it's too bump for a scooter. Bushes overgro
153. Some of the e bikes are going over 25 mph in the bike lanes!
154. Please put a signal light at the 41st Ave and Portola Dr intersection! It's a terrible hazard both as a driver and a pedestrian.
155. The bike lanes are sometimes very dangerous with manhole covers and other obstacles
156. The 17th Ave. and Portola intersection needs to be re-engineered.
157. #1 item: commuters cutting blind corners on winding rural roads. #2: bicyclists not obeying stop signs requiring vehicles to pass repeatedly. #3 bicyclists not sharing rural roads wo bike lanes.
158. No
159. I witness drivers frequently sail through the intersection of 7th and Brommer and fail to stop, and not even slow down. It's as if there was no intersection there!
160. People are driving drunk at all times of day and night in this town. An 8am weekday DUI sting would be amazing!
161. Educate cyclists re:obeying traffic sign. Age limit for using electric bikes, require helmets and rear view mirrors.
162. We have "stroads" going through Live Oak which is a residential area, but it's like living next to a freeway. Locals and people from out of the area behave with entitlement and think they can do anything: street racing, doughnuts, burnouts, noise.
163. 26th Ave needs sidewalks and traffic calming. The county should consider centerline removals to calm traffic on residential streets in pleasure point.
164. Ebike licensing should be looked into, too many people riding ebikes that do not know the rules of the road. Something similar to a learner's permit where they are tested on the rules of the road.
165. More enforcement!!!
166. Ban pan handling at all intersections. Allowing people to stand so close to moving vehicles defies all common sense.
167. My neighbors have been bringing up the safety issues related to pedestrian access along East Cliff Dr for years. With the exception of the CHP briefly putting in a sign showing their driving speed to drivers, nothing else has been done.

168. We have to solve these issues; they make living here unsustainable for so many reasons
169. I walk every day in my neighborhood. Drivers are way more reckless, in more of a hurray and more distracted. I walk defensively and always warn other walkers to be on alert for reckless drivers.
170. Just more traffic enforcement, people using off and on ramps instead of waiting on freeway. Using the right hand turn on 41 st south off ramp to cut in front of the left turn lane.
171. Get rid of that idiotic figure 8 at the gym, where Soquel and Water cross. You could very easily make Water one way to downtown and Soquel Ave from downtown.
172. Generally, the population that freaks me out the most are the students traveling to and from school in e-bikes. They are the most at risk and dangerous as every member of my family and I have had to swerve or spot abruptly to avoid a severe accident.
173. I think the County of Santa Cruz, as an employer, should allow people to work from home 4 days a week for positions that can do so.
174. The greatest hazard on the road consists of bikers and pedestrians wearing dark clothing at night, refusing to pay attention when crossing the road and traveling on the wrong side of the street. Ebikes are particularly dangerous when operated by immortal
175. We need a speed bump and sidewalks on 17-26th avenue on East cliff
176. 41 st and the soquel frontage road is too dangerous for people walking and biking
177. E Bikes have killed one pedestrian and injured others in our county. Please do something to curb the reckless driving of these bikes that have no guidelines
178. Prioritize the underserved community near Dominican, where the County has approved already more than 500 new residences and is rezoning to add more
179. No
180. sidewalk needed on East Cliff between Ninth and 13th Ave
181. I want the roads to be safer for my kids to get to school independently, and really for everyone, or course
182. Watch freeway entrances where they intersect w bike lanes. For example soquel northbound at Paul sweet. Very dangerous.
183. Stop wasting money on rail studies and start improving traffic flow, Consider how to add a lane to Soquel Dr between State Park and Rio Del Mar to provide addition opportunities to decrease traffic on highway 1 in high congestion area.
184. I have voiced my concern several times to my city public works department, my highest concern is that the bike, road lanes and turning arrows have not been repainted near the schools especially on Creek Rd Scotts Valley
185. Anywhere a painted white line is worn due to traffic routinely crossing into bike lanes should serve as an indicator to authorities (planning, police, public works) that safety and enforcement improvements are needed and an accident may be likely there.
186. I commute by bike from Santa Cruz to Scotts Valley 2 to 5 days per week depending on weather. Most drivers on my route are fairly safe, but the rude or dangerous ones can create stress which stays with me the rest of the day.
187. I think it is a shame that we have not been able to put a continuous, safe trail on the unused rail corridor. That would be such a fantastic asset and solve a lot of problems here.
188. There has been infrastructure work on streets (pipes, fiber optic) that tore up the roads and the repaving is poor. Valencia road from Cox rd to Trout Gulch needs to be repaved.

189. Prioritize getting the trail finished in the corridor and stop wasting time and money trying to build a train.
190. We should prioritize safe street design higher than signage or enforcement. Safe street design controls for problems before they happen, signage and enforcement are palliative at best.
191. We should build a trail in the rail corridor
192. Need to get bikes off of streets. Own trail.
193. We need a school zone designation near Green Acres campus. We need better bike infrastructure
194. I primarily bike. The bike infrastructure is terrible. Even the areas that are designed for bikes are horrible. It is literally as if the engineers have done everything they can to dissuade people from using bikes for transportation.
195. Agressive drivers not willing to wait 15 seconds for a bike
196. If we are able to engineer roads that allow for more consistent throughput at slower speeds, reduce conflicts with pedestrians and cyclists, and give more space to cyclists and pedestrians in the public space, we will be better off.
197. There is a serious animosity towards cyclists that creates a dangerous environment. Our representatives do nothing to calm this anger. Instead, they waste millions of dollars to have nonsense ballot measures like Greenway that only increase the animosity.
198. Build the rail trail!!!
199. Please invest in bike infrastructure
200. prioritize transit changes that make driving your car less appealing than other options
201. The amount of people running red lights in Scotts Valley is outrageous especially at the Mount Herman and Granite Creek intersections with Scotts Valley Drive.
202. With more cars and construction equipment on the roads, the county needs to look into maintaining high traffic areas better.
203. We definitely need the new lanes on HWY 1 to help with the traffic conjestion during rush hour traffic hours.
204. I think if the speed limit was decreased there would be less fatalitiles. I don't feel safe riding my bike on Freedom - cars go faster than 30MPH!
205. We know where a lot of the problems are, let's keep iterating and building new and better infrastructure to make walking, rolling, and transit more convenient and comfortable than driving.
206. Please slow vehicle speeds around neighborhoods (Use AB43.), and create safe designated bicycle and pedestrian routes to destinations.
207. We have laws we can use to lower speeds, and put in speed tables. Build the Rail Trail in the rail corridor as part of the Monterey Bay Sanctuary Scenic Trail for Safe biking and walking as Promised!
208. n/applicable
209. Our lanes are too wide, we don't have consistent and shorter paths for pedestrians and cyclists, we don't have consistent 'bike boxes' for cyclists.
210. Consider focusing improvements in disadvantaged portions of Santa Cruz County and in areas of high infill potential.
211. Roundabouts with dedicated bike/pedestrian lanes!
212. Add more street lights in Watsonville, streets are so dark at night.

213. Fix the roads. If I don't have to dodge massive potholes and narrow lanes because of brush encroachment or uncleared landslides, I can keep a better eye out for others using the roadways. Fix the roads!!!!!
214. Red light cameras in Scott's valley would likely be effective at reducing red light violations.
215. All the pot holes and lack of street pavement forces traffic into wrong lane. Mountain roads are unacceptable if you actually care about safety.
216. The mix of high speed multilane highways and rural backroads means bad habits from both cross environments, speeding on back roads, being too casual on highways.
217. Fix the roads please
218. No one walks. I try to always walk if it's less than a mile, but the streets really don't feel safe. Speed, cars turning w/o looking for pedestrians infrastructure all add to the problem
219. The city that I dislike being a pedestrian in the most is Scotts Valley. Whatever changes can be made to urban planning and development, & modifications on existing rds & traffic patterns, the better. It's designed only for massive SUVs & it's heinous.
220. Cyclists and pedestrians need to also conform to safer behavior
221. There is a lot of speeding in neighborhoods and little enforcement of speed limits
222. I am concerned given how many adolescents ride e-bikes, that we need to dramatically improve our community's biking infrastructure.
223. I would like to see fewer people stealing bicycles and)or harassing pedestriansp
224. Our county is too car dependent, our county has many active individuals and families and if roadways were safer for cyclists and pedestrians car traffic could be greatly reduced. We don't bike our kids to school or bike commute to work because of cars
225. We absolutely need to make our area more pedestrian / cyclist friendly. Public transportation would also work so well in our small area
226. Completion of a trail along the entirety of the rail corridor would be a total game changer for errands (from Aptos to mid-County and Santa Cruz).
227. improved intersection safety
228. Unincorporated SCC streets have been ignored and in bad repair. I find it difficult to just walk down my street to get to the beach
229. Traffic enforcement needs to increase. It has wained considerably over the past 5 years. People know there aren't any consequences for their bad behavior and it shows.
230. SLV pedestrians deserve at least $1 investment for every $10 for the rail trail, including raising grants, proportionate to County population. We are badly left behind by the richer coastal areas. Unincorporated areas are vastly underinvested in..
231. There are no locations in the county that are safe to walk or roll
232. Finish the RAIL TRAIL!!!!!
233. i think the biggest problems are gaps in the sidewalks and bike lanes. Places where peds/bikes have to use the vehicle lanes.
234. The County needs to repave and restripe roads. If you want to decrease bicycle accidents, don't allow bicycles on busy roads that have no shoulder.
235. It would make a huge difference to remove the silly train tracks and implement a rail trail. I know that I would ride my ebike along the trail to work every morning and so would a lot of my professional friends. It would eliminate lots of cars.

Is there anything else you'd like to share regarding transportation safety in Santa Cruz County (e.g., specific areas needing attention, general safety suggestions, personal experiences)?

1. You can easily tell the difference between the City of Watsonville and unincorporated Santa Cruz County around the Freedom, Interlaken, and Amesti areas of South County. It would be great to provide the same amenities, at least sidewalks and street lights.
2. Power lines should be underground.
3. i am sad that the rail trial project is taking so long I would love to see it completed sooner. I am excited we will get a train station in watsonville
4. Trail now & support Metro instead of continuing to throw money & waste time on train. Thank you
5. Pedestrians need to stop at all crosswalks before stepping out into the street. It is logical for them to wait their turn. Pedestrians have taken advantage of the idea that they have the right of way to walk into the street without any concern for the flow of traffic around them. It isn't reasonable or safe.
6. Question 1 does not allow for a selection of "yes, I live within the study area" and therefore I chose the "unincorporated" option despite the details describing not to. This would skew your responses unless you manually correct/align it with the Q2 responses, sorry about this added work you placed on yourself.
7. Protected corners needs to be implemented at all major intersections so that drivers cannot whip around corners and hit pedestrians and cyclists, especially where there are schools and parks, like on BAY, on Chanticleer, Soquel, Brommer and MANY other locations in this county. Visual road narrowing and safety islands and crossings need to be added in many places in the community. On the West side, the flashing crossings near 7-11 on Mission is VERY dangerous because Mission has 2-lane traffic. One driver may see a ped/cyclist crossing and stop in one lane, but I have seen too many near misses where the driver speeding in the adjacent lane is not paying attention, does not stop, and nearly hits the person crossing. Another issue is that drivers merge right or make right hand turns without looking to see if cyclists are in the bike lane! This is very scary because as a cyclist, one never knows if a driver is paying attention - even if we are. I oppose FLOCK cameras but support SPEEDING cameras like what San Francisco has been implementing. Speeding is a huge issue in this community and speed limits need to be REDUCED to no more than 25 MPH!!! Even lower around schools and parks where young kids are biking to school and play. Drivers also will increase speed to pass cyclists on a narrow situation whereas if all driver SLOWED to pass, the situation would be safer.
8. Need protected bike lanes. I witnessed a driver almost run over 2 kids on bikes when he was trying to avoid a speed bump on california ave between bay and soquel. Luckily there was no car parked so the kids were able to swerve and avoid an accident.
9. Unable to change Question #6 : My choices: #1 - Improve public transit accessibility; #2 - Provide physical barriers that separate vehicles from pedestrians and cyclists; #3 - Add crosswalks with flashing beacons, stop signs, or traffic signals at intersections.
10. I have a baby and we use a stroller. Most of the side walks on the lower Westside are bumpy, to narrow, lots of irregularity which makes it difficult to use the stroller. I end up walking in the street because it's smoother with the stroller. If the sidewalks were better for strollers I would use them.
11. More attention to pedestrians! Bikes are great but a lot of us prefer to walk.

12. A particularly dangerous crossing is King at Storey. There is a middle school there and a lot of students in the area. Motorists coming down Storey ignore for the most part the marked crossing, which is on their LEFT. Often after stopping at the stop sign and looking right, they turn at high speed while pedestrians are in the middle of the crossing, fooled by the fact that the car had stopped. A flashing yellow light or moving the crossing to the other side of the intersection would improve safety.
13. Again, I cannot emphasize enough how a FLASHING crosswalk at the area of Dawn Lane and Soquel San Jose Rd. is sorely needed. Kids have to get across there to make their way down to school(s). Since there is no sidewalk on the cemetery side, they can't safely cross over that busy road to the existing sidewalk near the park unless approaching vehicles see a bright, flashing crosswalk. Yes, people still need to watch both ways when crossing, but an RFB would REALLY help!
14. In wildfire crises I want my family to have clear exits! The county is responsible as much, or more, as CALFIRE. Therefore Un-incorporated areas such as Bonny Doon, Corralitos, Big Basin, Highway 9, et al, shall have viable exits with 20 -foot, side clearances as well as zero over-arching tree canopies. District Supervisors can address safe exiting for our future fire-endangered civilians. Prevention is the defense we must trust…then we care for victims!
15. Parks, entertainment, hiking, biking, camping, touring may sit in the back row rather than being given the nudge to the stage.
16. Street maintenance is deplorable. No non-driving options should be promoted until streets are safe.
17. I find the motorized bikes to be a tremendous hazard on the walking paths and trails. Most travel at high speed as if it is a roadway, without regard for pedestrians or dogs. Trails should ONLY be for pedestrians, pets, and non-motorized bikes. It should be identified with signage. Thank you!
18. More dedicated bike and pedestrian infrastructure is needed
19. Love the repaving and curb work on the upper Westside. Creates more sidewalks for walkers. Also happy to see the flashing light at crosswalks.
20. As I mentioned above, please address speeding motorists on Western Dr by installing speed bumps and speed limit enforcement by police.
21. The soquel/poplar/water intersection is terrible. Fix that. Driving distracted billboards. Work with insurance companies to incentivize and promote their incentivizing programs (like snapshot that Progressive used to do). FLAT sidewalks that don't include driveway divots every 20 feet.
22. Be careful about restricting responses by too narrow questions
23. People are stupid and will continue to do stupid things - drivers, pedestrians and cyclists. Impossible to eliminate accidents by painting roadways green if cyclists and pedestrians continue to enter the roadways unsafely. I have less fear of fellow drivers, and more fear of hitting cyclists that drive erratically and disobey the rules of the road. Put a few police out on bicycles or motorcycles and start enforcing traffic laws with cyclists, and then you might see improvement in accident numbers. Intoxicated/mentally impaired individuals should not be allowed to walk down the middle of the road or hang-out on medians at busy intersections, and pedestrian accidents will go down. More traffic cameras/surveillance will not change your numbers. I drive/commute on a motorcycle, and cyclists and pedestrians are my largest safety worry everyday that I am on the road - cars might speed and drive aggressive, but cyclist safety (bad bike behavior) in this County is the worst.
24. I think that drivers should take additional training on how to drive while sharing the road with bicycles and pedestrians. As a cyclist, I've often gotten into dangerous situations on

the road with cars who do not know the rules of bike lanes. Also, I do think there should be more parking enforcement during high traffic times like the summer tourist season. The bike lane is often blocked by cars trying to squeeze in by the beach, or waiting for something so they just block the bike lane. It would be nice if there was a dedicated division for those kinds of infractions in unincorporated santa cruz county, specifically twin lakes/live oak area.

25. The area between harbor high and Frederick street on soquel, the intersections have a slight slant to them, so cars often end up halfway in the bike lane after going straight across the intersections, and as cyclists we basically have to predict that and change our speed to avoid cars side swiping the bike lane. Not sure how to fix it but it's unsafe.
26. Please please PLEASE stop engineering intersections so that drivers turning right and bicyclists going straight have to merge across eachother. It's incredibly dangerous and totally unnecessary. Please adopt the NACTO(sp?) guidelines from 'Don't Give Up At The Intersection'.
27. Prioritize pedestrians and cyclists
28. Support the rail options.
29. Continue to fix the freeway
30. No safe routes from Felton to Scott's Valley besides driving (or bus). Also need pedestrian/ biking alternatives from Ben Lomond to Felton or Boulder Creek.
31. Glad to see County is concerned about traffic safety. Use more bollards and barricades for inexpensive safety features to reduce curb radii, protect bicyclists and pedestrians, etc.
32. Thank you so much for the much needed pedestrian safety project on Green Valley Road from Holohan to Mesa Verde Dr. As a longtime resident of Mesa Verde Dr, I am thrilled with the flashing crossing signs at the park entrances and the walking path into town. The street trees, landscaping, and art are great additions too.
33. It is very challenging when bicyclist travel in groups and take up road bandwidth rather than staying in the bike lane. While we educate drivers about sharing the road, cyclist need the same messaging to achieve mutual respect and behavior change.
34. I'd love for our street to either have speed bumps added or have a lower speed limit. All of us neighbors talk about it and have been for years.
35. I ride my bike to and from work every day, and when I look into cars to make eye contact at key intersections, the majority of the drivers are looking down at their phones. This is a huge problem, not something that can be solved by maps and surveys, but by having a police officer stand along the road and watch driving behavior. Drivers need to be aware of their surroundings at all times.
36. I think it would be a good idea to create rumble strips on painted centerlines like CalTrans has done on Hecker Pass.
37. Pay attention to unincorporated areas. We have the worst road conditions with terrible pedestrian and bicycle passage.
38. A safe bike and walking trail, A train WILL NOT solve these walking/bike safety issues.
39. Thank you for working on this problem. I'd love to cycle around avidly, but the traffic and overall safety has been a deterrent since I moved here, twenty-five years ago! I did not encourage my daughter to use her bicycle much, since I knew cars were a peril, also. She has, as a pedestrian, nearly been hit three times in the last few months alone due to self-driving car and careless drivers in the street-light area roads of Scotts Valley. So sad!
40. Enforcement by Sheriffs not just CHP
41. A big one is the intersection of Mott and Murray St. Already someone was killed by a speeding driver there. That is a common pedestrian crossing and there is no signage,

crosswalk or blinking lights. Even with blinking lights and a crosswalk (down by the bridge to the boardwalk) , I've seen cars just power through the crosswalk as I'm in the middle of it! They don't even acknowledge anyone in the crosswalk.

42. Obviously many roads in Santa Cruz County have poor pavement conditions. But in my experience, a perceived lack of enforcement of the law has implicitly encouraged violations. As a cyclists I'm appalled at how often I see inattentive drivers next to me staring at their phones as they drift in my lane. Or seen cyclists going the wrong way down the streets, or cars crowding cyclists, not giving them their three feet. I'd be curious to know how many citations for those (and other bike related tickets) were issued within the county. Also, *any* section of roadway where the white line (I've seen referred to as the fog line) or Bike lane line is WORN OFF, indicates cars routinely intrude into the cyclist riding area. I believe that should be an indicator that 'bots dots' should be applied in addition to merely repainting the worn lines. This would help remind inattentive drivers they're encroaching into an area they don't belong. I'll be curious to see the statistics this survey generates. Will the raw data be available to the public? I'll be curious to know what areas were flagged and which areas received the most 'votes'.
43. Many drivers who don’t use bikes or walking to get around think other that cars have priority. When I tell people I ride they tell me how dangerous it is and how bikes are always ‘in the way’. There should be more education to car drivers explaining that bikes have equal rights to the road. And as the slower and more vulnerable road users, cyclicals should be given some respect and space.
44. Pave the Pajaro River levee from the water treatment plant to under main street. To hook up with the upper tail.
45. No, only the road conditions here are the worst I've seen in the entire country. Potholes, ummarked road humps and cracks make driving and riding extremely dangerous!
46. 1. Rodeo Gulch Rd must be fixed. It is a fire evacuation choke point now with the slideouts blocking lanes. Do not lower it's priority because we haven't had a fire yet. Learn from Paradise. I am a cyclist and I still say fix that road before spending the money on more bike lanes.
47. 2. Fix the condition of existing roads before adding more. They are the worst I have seen in the nation.
48. Years ago I was run off the road in two different spots on Bean Creek. I’ve also had many close calls with cars either driving to close to me (less than 3 feet), speeding up to pass me, or turning right in front of me almost causing me to crash.
49. Many street signs showing the name of the streets are needing to replaced as they are bleached out and very difficult to read. The terrible pavement and the potholes are dangerous, and the narrow roads with no shoulders are also dangerous for cyclists and pedestrians. I have been cycling in Santa Cruz for many years, and the roads are terrible. Also, the large number of motorized bikes ridden fast by children, is a large cause for concern. The bicycle lanes are not large enough to pass slower cyclists. The garbage cans that are left in the bike path are very dangerous for cyclists and difficult to get around without going into the car lane.
50. There was a lot of expense in remaking Soquel Drive. But honestly, it does not feel that much safer for cycling, because vehicle lane widths remain wider than necessary, and speeds are excessive. We need more comprehensive state-of-the art design to curb vehicles and speeding. Until we do that, we are nibbling at the margins.
51. Please address the blind left turn coming out of Encino onto Bonita. CHP has issued tickets to residents pulling out of the turn because they deemed the turn "dangerous" when it is

simply just too short of a vision triangle and luck of the draw flooring it. Especially in commuter times. This is mostly due to unmaintained vegetation on County land, but also partly too fast of vehicle traffic on Bonita

52. Please maintain the roads and vegetation at the very least. Thank you
53. Get rid of the dangerous white barriers that make the bike lanes narrower, more difficult to pass other cyclists, and push you out into traffic. WTF!!!
54. Complete construction of continuous south/north county bike transit route/trail! The Ariana gulch path is a game changer.
55. As someone who bike regularly and owns an ebike, we need more enforcement by law enforcement for ebikes specifically. We need to proactively stop the illegal dangerous behavior so that car drivers and public sentiment doesn't turn against all ebikes as a whole. And much of the unsafe ebiking comes from teens and youths in aptos, who may need direction from an adult, since their parents either aren't doing it or they don't care. Even a warning from law enforcement would be helpful
56. The proliferation of ebikes on our streets both legal and illegal has caused a dangerous situation for everyone using our streets and sidewalks. Children riding electric motorized cycles that do not meet the definition of e-bikes, are very common on our streets. I am on my bike for hours every week and see illegal electric motorcycles in use every day. Yesterday I saw a group of seven young people riding illegal cycles at a high rate of speed, doing wheelies, riding on sidewalk, and against traffic. Earlier this year I was proceeding westbound on Brommer St. on my bicycle when I was passed by a teenager on an illegal e-bike who was doing a wheelie within two feet of me. If I'm seeing this as much as I am, I know that law enforcement also sees this illegal use of our streets but does nothing to stop it (my belief based on how many of these illegal bikes I see and that I have never seen law enforcement ticketing them). THE EXISTING LAWS NEED TO BE ENFORCED!
57. East side Santa Cruz needs some help. Would like to see sidewallks in more places to get people walking safely. Would also like to see more law enforcement presence in certain areas where folks are driving straight through stop signs or stop lights, particularly 30th Ave/Brommer and 30th Ave/Portola. No one stops there. I've seen so many pedestrians and cyclists that have almost been hit there (including myself).
58. Please fix Harvard Drive, north of Crown, in Ben Lomond... the tree roots have made large sections of the road completely unusable
59. City of Watsonville, PVUSD snd RTC are reckless about safety resulting in students getting injured in noncompliant crosswalks connected to railroads and railroad intersections. These areas should be openly studied versus hidden in staff reports.
60. I'm so glad to see this plan being developed so our goals and standards around transportation safety can be elevated.
61. Give more attention to the San Lorenzo Valley around road conditions, Highway 9 is also a great place for a bike lane, and I think there's great potential to create an amazing trail structure that is safe for Santa Cruz County. Like I mentioned, Marin County has a fantastic trail structure, and I really feel like we could get there as well with the proper resources and actively looking at grants to pursue.
62. Please put a camera at Green Valley and Lawrence Avenue. Too often, people run the red light at high speeds. Also, why are people allowed to race, during the day, even, in Watsonville. I often hear two cars or motorcycles racing with loud engines. Why are the Watsonville Police not anywhere in sight?
63. Market Street
64. Corridors

65. North Branciforte with 2 large housing projects to come
66. Tons of pot holes around Hacienda and Casa. Traffic gets insanely backed up near the high school in the mornings making it a safety risk for elementary schoolers walking or biking to school. People speeding down the hill at Hacienda Dr. (especially the curve before Cumbre Ln. there should be a cross walk between the library and cruise cafe/the bus stop.
67. A European study years ago confirmed that too much signage confuses drivers & I have witnessed drivers stopping in lane at the wharf entrance round-about almost causing a pileup. I think it was at the Pacific, Front & Center st. round-about that I counted 13 or more signs.
68. I would love to volunteer to help with efforts making Santa Cruz safer for bikes and pedestrians. If there were a way to coordinate such a community effort, I would bet other people would help with this too.
69. Safety is up to those operating the transportation method. You cannot engineer people to driver safer or people to actually stop their bikes at a stop sign.
70. Education and enforcement are the keys to safety success.
71. The traffic lights at bay and nobel are the best thing in the whole world, they have great timing and are responsive to cars and bikes, and keep traffic flowing. love to see it.
72. would love to see downtown closed to cars, a pedestrian mall is so nice and I love when portions are closed off for the artist fair.
73. Reduce traffic on Highway 17
74. Better coordination between the County and City of Watsonville is needed for roadways that span both jurisdictions. More attention is need to South County roads, such as W Beach Street.
75. Concerned that community focus on train infrastructure is a distraction from providing quality cycling/walking infrastructure. Funding passenger rail will take away precious and scarce alternative transportation funds away from active transportation projects. Passenger rail in this county is not feasible and will not mitigate the climate crisis.
76. Please expedite the rail-to-trail project from Santa Cruz to Watsonville and then extend a bike path or class two bike way all the wayto Monterey.
77. Eureka Canyon and Highland road are riddled with potholes. Not a major throughway, but the surface is dangerously pitted.
78. Our county needs to repair and maintain our roads, I hate to say it but our roads are an embarassment.
79. I hope something comes of this survey. I know it takes money which is always in short supply, but it would be awesome if this town was more friendly for non-auto transportation. Good luck with the whole ebike thing. Generally I haven't found issues with bikes going different speeds in the bike lanes. I think one of the biggest problems with bike transport is theft. I bought an expensive lock however you always worry.
80. thanx for your inquiry
81. Fix the roads
82. It really bothers me the RTC can actually do a survey like this and act as if the potential for a proper off road bike super highway does not exist!
83. 1) Enforce existing speed limits on main arteries to ensure pedestrian and cyclist safety. 2) Penalize aggressive drivers to the fullest extent of the law.
84. 3) build traffic circles instead of long signal lights
85. 4)) construct traffic calming speed bumps
86. 5) build ADA compliant sidewalks
87. 6) prohibit cycling on sidewalks and against traffic

88. Look at how comparable cities (e.g. Madison WI) prioritize pedestrians and cyclists and you'll see their quality of life happens to be much higher. We can have the same if we are willing to deprioritize speed and private vehicles.
89. Prioritize easy/fast fixes like bike lane painting and posts to mplementthem quickly
90. Along all of Scotts Valley Dr and especially Glenwood Dr South of the high school, a lot of vegetation or fencing obstructs the view of driveways so cars cannot easily see pedestrians and cyclists while exiting driveways. Also, cars do not look right for pedestrians on the sidewalk with their attention focused on vehicle traffic coming from the left as they exit driveways on these roads. I believe dedicating the space of one of the two lanes to safer paths for vulnerable road users and reducing scotts valley drive to one lane will make the road safer. The road sees little traffic, but feels quite dangerous as a pedestrian.
91. Hwy 9 needs overhead lighting at all crosswalks & needs lighting at all bus stops with seats & more lighted bus stop enclosures
92. Metro needs earlier and later hours for the GO program. Bcycle needs more docking stations. Bcycle needs lower pricing without restrictions. Add Bcycle to the Soquel area. Hwy 9 needs overhead lighting at all crosswalks. Add stop lights in Downtown Boulder Creek, and a 4-way stop sign at Hwy 9 & Forest St.
93. From downtown Santa Cruz to rural areas, traffic is so bad it drives people crazy. A train should have been approved 20 years ago so we could have been using it for the past 5 years. The barriers in place to make a change are completely unrealistic which is why this county will struggle for my lifetime.
94. Bike lanes should have physical barriers to keep cars away. the new daylighting law should be strictly enforced and curbs painted red.
95. Cycling safety needs preference over parking and driving convenience
96. a big part of the problem is lack of follow through and enforcement by sheriff's office. When I was struck by a car on Lompico Rd. I provided video of the vehicle backing up into me deliberately, photos of vehicle and driver, license plate, etc. but Deputy Caitlin McBride said after she got the info that she would find the driver and get his testimony but never followed up and ignored dozens of emails as to whether she had followed through (obviously she hadn't) for 3/15/2023 incident on Lompico Rd. where I was pedestrian and road rage driver objected to me walking safely alongide road and first threatened to knock me over the cliff (into Lompico Creek) if he ever saw me walking along Lompico Road ever again, then he made a Y-turn and came back to hit me on purpose with his vehicle then drove off without providing his registration or drivers license info then came back AGAIN (stalking) and yelled at me from his vehicle luckily I was several feet off the roadway that time. I have seen him since he is still driving dangerously in Lompico area with impunity since the sheriff doesn't do anything. Lompico Rd is (supposedly) patrolled by CHP but since at least one crime was involved it was a matter for the sheriff to handle, confirmed by Deputy Caitlin McBride, but she never followed through to apprehend the driver and ignored communication emails and voicemails. I was injured in the incident (left knee and wrist)
97. need more enforcement of these super bright high beam lights at night on many newer / bigger vehicles
98. there are way too many roads with inadequate signage and road paint/ lines, lanes that do not line up at intersections, including many where if you continue going straight at intersection you would wind up in left turn lane for oncoming traffic including Soquel Rd. or drive in midtown Santa Cruz and 41st Ave. I believe it's at Murray or Portola and many other places

99. the roads in the mountains in unincorporated Santa Cruz County are often in poor repair potholes etc
100. We need better enforcement on Hiway 17. Too many accidents and productive hours lost due to so many accidents. I never see law enforcement presence!!! Road does NOT accommodate the Big Rigs or slow moving transport equipment ……these present a big on going hazard almost everyday now.
101. I rarely, if ever, see a highway patrol car that addresses drivers speeding on Hwy 17, tailgating dangerously on Hwy 1, people who are texting while driving, etc. Where are these folks?
102. Improving pedestrian and bicyclist safety would help, and enforcement of traffic laws would go a long way to making the roads and walkways safer.
103. The Santa Cruz city levee trail can be beautiful, but recently Iv'e been seeing a blight upon it in the forms of folks lounging on the trail, loose dogs etc. - It doesn't feel safe.
104. City of Scotts Valley, please repair roads that are within the city limits. Potholes create unsafe conditions for everyone.
105. I have concern that many drivers are unaware of traffic laws when driving behind school buses (e.g. cannot pass but when lights are flashing).
106. We do not need roundabouts, especially at Main and Freedom Blvd. In Watsonville. We do not need bulbouts on our streets. We do need more flashing crosswalks and encouragement to USE crosswalks. Please resurface our streets and mark them! There does not appear to be much upkeep. Center dividers need to be weed free. Please maintain. Watsonville needs more emphasis on street and sidewalk cleaning and beautification.
107. Gushee Street is a seriously dangerous street between the P.O. and the museum. It deserves a high priority for attention.
108. We need wider bike lanes separated from both pedestrians and cars like everywhere else on the planet. We need the police department to stop harassing cyclists and actually do something to protect cyclists from car drivers. Seriously, how many tickets have been written to enforce the 3 ft passing distance law? I've been asking police, not one has written a ticket for the 3ft passing distance law! As a cyclist, we get passed dangerously EVERY DAY. Please build the remainder of the trail in the train corridor as a wide trail with separation between pedestrians and cyclists. A train is not financially feasible in our county and a tax increase will never be approved. Please build a separated trail!!
109. 1. Road conditions addressed in the 2024 Civil Grand Jury Report.
110. 2. Safe driving is directly linked to effective people moving. Santa Cruz County, and I am referring to residents too, have had effective ideas, voiced observant questions, AND a group of folks have also consistently blocked by a small group of folks effective plans.
111. a. Is highway 1 to be an Interstate between Monterey and San Jose for a small number of people.
112. b. As a County, we are already experiencing split communities and needing to take remedial steps.
113. 3. Our boundaries are the Bay, and the Mountains. Hwy 1 alone is incapable of effectively "moving people".
114. 4. This also refers to "arteries" throughout the County. On time bus service is crucial. I appreciate the steps in process to assist in that process.
115. AND to provide safe passage for emergency vehicles (remember floods, land slides, fires, and moving people to emergency health care). It does seem many

116. visitors and residents need to brush up on "what to do with the vehicle you are driving when an emergency vehicle is approaching". WOW! As a retired
117. healthcare professional it astounds me (yes I could use other words) to see the slip shod responses of drivers to sirens
118. THANK YOU FOR TAKING THE TIME TO ASK. I WILL LOOK FORWARD TO SEEING THE RESULTS OF THE SURVEY IN GOOD TIMES, THE PAJARONIAN, AND OTHER NEWS OUTLETS IN SANTA CRUZ COUNTY.
119. Pull the tracks. A beautiful continuous trail without fences, that uses all the existing trestles and can go all the way to Watsonville is right under those rusted obsolete tracks. It is already cut and leveled and wide enough without taking down trees or carving huge retaining walls. It will forever frustrate anyone with two brain cells that the best trail we can have is also the cheapest and easiest to build and would have been done already if it weren't for the big lie that we can have a train and a trail. Pull the tracks already, while we live!!!
120. Issue with travel lanes going southbound along Porter st at Soquel Dr. Traffic goes into two lanes: right lane must turn right (two hidden signs state this) and left lane can turn left or go straight. However, many drivers in the right lane end up going straight which creates many near misses and some accidents. Increased striping would help this problem, or maybe even a change in traffic rules all together to have the left lane be left turn only and have the right lane be right turn or straight. Most congestion comes from the left turn lane, so switching which lane goes straight might be an improvement. If anything, more striping is needed.
121. More crosswalks with better visibility, designated turnouts on BCR and 9, and fixing potholes are needed.
122. E-bikes and kids under age 16 is becoming a huge problem. Needs to be addressed.
123. Please fix the road quality. The roads on la Madrona are in poor condition. Please add walking/biking lanes to La Madrona. It's currently not safe to walk/bike on La Madrona.
124. Improve paving on our county roads. Our road has not been paved in the last 20-30 years.
125. It would be great to have bike/walking lanes or paths on Graham Hill or El Rancho/La Madrona. There are numerous neighborhoods that access these streets and there is no safe way other than by car to get to Santa Cruz and Scotts Valley. The bikers that presently ride these streets (very few) are taking big risks. I have seen several close calls.
126. Improving Metro accessibility plus adding Passenger Rail service and finishing Rail Trail as soon as possible will increase safety for the people who will use Metro, Rail Trail, and Rail travel. Using rail along with bicycling & carrying bikes onto train also will be advantageous to students.
127. I love all the bike lane improvements. It is way better than it used to be. I am looking forward to riding over the Chanticleer bridge.
128. Keep up all the good work!
129. We need some form of motorized transport on the rail trail to address county traffic going south in the afternoon and coming north in the morning. We need to stop the one car per kid pickups for both morning drop offs and afternoon pickups. We must also face the fact the city of Santa Cruz is an older city that for the most part doesn't have wide streets. Making every street bike friendly doesn't work. We need to designate some north--south corridors for car centric while designating some corridors to be more bike safety centric.

130. Too many cars on roads, population increasing and tourists = never will allow low risk for rollers. Building trail on rail corridor would.
131. Many of the injuries and deaths in the county are caused by unsafe walking, bicycling and driving. We cannot reduce these accidents through legislation or road and bike lane improvements. Education and enforcement of existing rules and laws are the only means to encourage residents to walk, bike and drive safely.
132. Use a quick barrage approach to building projects unpopular with drivers. They can't obstruct all the projects at once. Opponents to sustainable transport must be overwhelmed and overruled because they seek to harm us all with their ignorance.
133. the Granite Creek Rd neighborhood in Scotts Valley needs sidewalks and more street lighting. add a protective bike lane on granite creek rd hwy 17 overpass for commuting, including to the schools. need a protective bike lane on Scotts valley drive.
134. The teens and younger kids riding ebikes are insane, and laws need to be seriously enforced for them. Don't wait til there's a death of a child! They ignore stop signs and red lights, cut across multiple lanes of traffic, ride at high speeds the wrong direction in the bike lanes. Adult bicycle riders are also setting a bad example for these children by ignoring stop signs and red lights as well.
135. Safe bike and pedestrian paths would really be a huge benefit to the well being of the residents.
136. This survey seems too broadly based geographically to be meaningful. There are many different regions in the county, and all have somewhat different safety needs. my survey and comments are related to the westside of city of santa cruz, ucsc and bonny doon/ north coast regions which are vastly different than the urban areas. **********Why don't we start with the major roads #17 #1 than around town. There are no questions in this survey related to those roads.
137. What can be done to increase the safety of #hwy 17 and #hwy 1 ? These must contribute the most injuries/fatalities. **********How about at least,a reasonable toilet facility/rest area at the summit for commuters and others traveling #hwy 17 daily ? People in situations having to use unavailable facilities are much more likely to be driving eratically
138. Population and density growth from the ucsc demographic and the influence of this partially transient demographic on local politics; (students, educators, staff, retirees, and all those providing services to the huge ucsc related population; i.e. 80% ? of population of city, and by far biggest employer, the second being santa cruz county government itself). I'm wondering how many non-UCSC affiliates are filling out this survey. There needs to be more representation of the minority commuter population in santa cruz politics.
139. The new pedestrian crossings in live oak with flashing lights are well used and so helpful! I walk with my kids to school along Harper street instead of driving because there is the safe crossing with lights at 17th and Harper!
140. Electric bikes that are actually mopeds. They should not be able to use the bike lanes. On four or five occasions, I've almost hit a moped passing me on the right when I'm driving the speed limit. Maybe bicyclists need to pass a driving test to get a license to operate?
141. The train tracks should be banked and the space expanded for a dedicated pedestrian and dedicated bike lane. What a wasted opportunity to have a beautiful green belt to allow for safe walking and cycling for local residents to enjoy.
142. Create safer crossings on Portola. Crossing at 30th by 7-11 and crossing at 36th by cat and cloud- vehicles turning left never yield to pedestrians.

143. The bike lane at twin Lakes becomes a parking lot during good weather. Bike lane is not clearly designated after driver‘s park on the signage. Needs law to tow vehicles parked in bike lane.
144. I often walk from 26th Ave, Eastcliff and Portola areas to Sunny Cove and Capitola. I’d feel safer from car traffic if I could walk on a wider sidewalk as well as not jeopardize any cyclists that have to share my path with.
145. As a driver I’d like those speedy little ebikes to slow down and follow driving rules on the road.
146. We should study Santa Barbara. They created more one way tragic roads in order to create wider and safer bike lanes. We can do that. Also, get the rail/trail done minus the rail. It’s already been 20 years. And the new idea of bus shoulder use on hwy 1, great idea, mitigates the need for rail service which is going to be a traffic nightmare going through town anyways.
147. The section of Highway 9 between downtown Felton and Glen Arbor/downtown Ben Lomond has portions that are extremely dangerous with almost no shoulder. Very few kids who attend SLV schools ride bikes or walk to school because of this situation (and I don't blame the parents at all). At the same time, road traffic is getting worse all the time, especially in the morning with staggered schools starts plus regular commuter traffic. Improving this Hwy 9 corridor to get more kids riding or walking to school could solve the traffic congestion issues, in addition to other benefits (environmental issues, exercise, transportation independence, etc).
148. We all need to think "do we REALLY need two-way car traffic right here?". Also question 1 is weird. I live in city of Santa Cruz and that wasnt an option
149. When campers pull out of New Brighton Beach campground and turn left on McGregor Drive they will come to the stop sign at the bottom at the intersection of McGregor and Park Avenue. There isn't much room for campers to turn right onto Park Avenue. Invariably, every once in awhile they will turn too tight and go right up over the curb. My husband was knocked off his bike waiting at the stop sign. I refuse to go beside them. It is dangerous.
150. Improving or adding sidewalks where they are missing, adding crosswalks, and making protected bike lanes with barriers would go a long way towards safety
151. More education for drivers about bikes!!
152. Enhance patrols & enforce the law for motor cycles. Also children on e-bikes riding 20-50mph, not following traffic laws or stopping at stop signs must be enforced. This goes for pedal cycling as well. Why have laws the public voted for if they are not enforced?
153. I can’t wait for the rail trail. This addition will extremely help me cycle safely in my city.
154. Can we please have a cohesive plan? The Arana path, while beautiful, is a deadly design (pedestrians and bike commuting are incompatible uses) and it will now be duplicated on the Murray St bridge (in 3 -5 years of insane disruption), and (if it ever happens) it will be replicated again on the "Rail Trail" on the rail trestle over the Harbor. One of these choices should be prioritized for bikes, one for cars, and one for peds. Or they should be engineered to genuinely accommodate multi use. A label does not make it so, but it does create a liability. We should have had a usable path on the Rail line 6 or 7 years ago. What gives? 100 million $ later.
155. Lines need to be repainted

156. As long as scary homeless are allowed to go without consequences spending money on feel good transportation will not make it better. People want a clean safe place to live, work and play.
157. I'd like to see a bike lane on Glen Canyon Road (and similar roads), both for the safety of bicyclists when I am driving and because I might be willing to bike into town.
158. I am aware that many bicyclists do not feel they should have to obey stop signs and stop lights. I disagree and think those should apply to cyclists and the rules should be enforced by law enforcement. I often find myself in conflict with bicyclists running stop signs both as a pedestrian and as a driver. If there is in fact a good reason for bicyclists not to stop, then the laws should be changed.
159. I rode a bike for many years in San Francisco and the East Bay.
160. Unaddressed in this survey is the conflict between hikers and mountain bikers. Wilder Ranch, for example, doesn't have a single trail that is pedestrians and horses only. Some bicyclists (not all) are extremely aggressive and it's clear they want to discourage hikers from hiking in our parks. They yell and ride straight at hikers even though there's room for them to go around. Nisene Marks restricts bicyclists to certain trails and dirt roads, but cyclists ignore the clearly stated rules.
161. The rail and bike trail project is not realistic.... This has been researched for over 20+ years with nothing to show for it except more expensive studies.
162. The rail corridor needs to be a bikeway and completed soon.
163. There are thousands of children riding e-bikes that 5 years ago didn't exist.
164. We need a safe and separate bicycle corridor!
165. Bushes are hiding signs and overgrown sidewalks. Someone built a ridiculous bridge over HWy 1 from nowhere, a frontage road no one walks on because its dangerous, too narrow, overgrown, no sidewalks, to nothing on the other side except to the hospital? Walking to the hospital???? Great for coyotes, looking forward to more on this side of the freeway.
166. Paint the other corner red on felt and aloha.....and when the church on felt st holds their monthly yard sales have the chp ticket people who park in the bike lane...have the church put up a sign when holding these yard sales that says do not park in the bike lane....have pics of at least twenty cars in the bike lane.....if bike lanes are so important people wouldn't park there and the chp would be more aggressive in enforcing that monthly mess. And definitely need the other side of aloha and felt corner with a red safety area....kids and grownups too ride electric bikes and because of the schools and park ...both sides of the street are safety impaired...also add all the cars that use the park for just bathrooms.....it's mostly in early am...
167. Please mow the medians in Live Oak. The weeds are so tall it's hard to see oncoming traffic when making a turn.
168. Highway 9 corridor from glen arbor to Ben lomond. Most realistically boneless a better alternative for pedestrians and bikes.
169. A rail trail for biking from Davenport to Moss Landing would be amazing.
170. All pedestrian crossings, particularly in areas with high traffic volume, need to be illuminated. Please look into steel speed bumps that automatically rise with speeding vehicles. A camera raises them. Thanks.
171. I live in Seabright and work in midtown. I see many red light runners on the roads paralleling the freeway, ie: Broadway, Murray, Soquel, water, Fairmont.
172. The county needs funding to improve its roads. I can go into neighboring counties and the roads are fine. Ours are full of potholes, heaves, and subsidences.

173. Please add speed bumps, lighted pedestrian crossings, and speed cameras. Thank you.
174. Please try walking back and forth along Portola between 26th and 41st in the evening on a late spring or late autumn Friday between 4 and 6. It is a frightening experience!
175. It's not the worst, but so much could be done for everyone. The "stroads" freeways going through residential areas of Live Oak are really dangerous. I live near the intersection of 7th Ave. and Brommer and it's a dangerous, noisy intersection with very aggressive behavior. I have personally spoken to several CHP officers at Starbucks about it. They were aware, but my overall sense was that they didn't take it terribly seriously.
176. I would like to add that I saw a brilliant YouTube video from Sweden that illustrated a flat steel speed bump that becomes elevated when receiving a signal from a speed camera. We desperately need something like that in this area. Thank you!
177. 26th Ave needs help. Sidewalks, traffic calming. Consider centerline removal for traffic calming. Consider asking employees at the Lode St. facility to slow down and respect residents on 26th Ave.
178. Children riding e-bikes with their helmet hanging on the handle bar and friend hanging off the back are a disaster waiting to happen. They are children with brains that are not fully developed, and require the help of adults to keep them safe.
179. Safer pedestrian access along East Cliff Drive from Twin Lakes Beach to 12th Ave.
180. Thanks for your work on this. Please make it a priority, it affects nearly every single person in our area. Thanks so much!
181. I own a limo company and drive 60+ k miles a year. Too much roadway aggression and people not following basic rules. We need to have law enforcement ticket more people. Speed, blocking do not block , cutting over solid lines, as well as any bike not following car rules or pedestrian rules.
182. Get rid of the right turn bike lane from Soquel Ave onto Capitola Road Ext. I have never seen a bicyclist use it, they use the same road cars use and still turn right.
183. Get rid of the figure 8.
184. Time all the lights in the City for calming flow, not stop at every red light. We should not be waiting minutes for the light to turn green, when there aren't even any cars going the other way.
185. Unincorporated Aptos is pretty awful; the roads are falling apart and sidewalks are mostly non-existent near our school, crossing the highway is terrifying and confusing intersections make it really dangerous for kids on foot.
186. I think that 38th Avenue from Portola Drive to Brommer Street needs to have speed bumps and radar. I have seen near collisions of cars with pedestrians and cyclists. A bus driver saw a near collision of a car with my husband on a bicycle, as the driver of the car swerved purposely close to my husband to get him off the road, which is narrow. We have seen and heard cars going down our street at 90 mph. We have a lot of mobile homes on this stretch of road, which means we have a high-density of people living on this road, and which means more cars, more pedestrians and more bicycles.
187. Start requiring bikes to have lights if they're being operated during hours of darkness. PSAs encouraging pedestrians to wear visible clothing when walking at night. Crack down on speeding and distracted driving.
188. yes. with the coming construction of about 5000 mandated housing units the PLACEMENT of those 47 sites is critical. After attending meetings very little is being considered in regard to safety, traffic flow, parking and intrusion. It is known fact that we

need AFFORDABLE housing (back to the 25% not the current 6% of each new building) BUT the placement of many of these developments is abhorrent (a FIVE story, 63 unit monstrosity at 7th and Capitola???) Are you kidding? This is the WORST thought out of all the 47 sites as this parcel is postage stamped and there WILL be wrecks on Capitola Ave going in and out. Look at how the low income structure at 17th and Capitola is WELL thought out, planned with ample parking in/out access and such. Contrast these two. Reckless planning will cause increased traffic congestion, parking and likely deaths from collision. RETHINK these at best.

189. The street regularly identified as one of the most dangerous in the county for biking and walking near the largest employers in the county is regularly sidelined, ignored, and de-prioritized when it comes to fixing bicycle and pedestrian infrastructure. Prioritize and focus on Soquel Drive!
190. Soquel village is a nightmare every day.. Signage regarding road closures and detours is often unavailable, not seen far enough in advance, or inaccurate/unhelpful.
191. N/A
192. Stop spending money on North County projects and spend more money on roads and highway and bike lanes between Watsonville and State Park Drive
193. I cannot emphasis more the biggest safety issues in my city Scotts Valley where I mostly drive and walk, is the upkeep of painting the street lanes and evening the sidewalks. Also, educating school children on the safety of riding e-bikes. There also need to be enforced consequences for not following the rules just as motor vehicles are. I have seen and been a part of many "close calls" where unsafe riding, "doing wheelies" cutting across moving traffic or when traffic is about to move when a light changes green.
194. I've been in FIVE (fortunately MINOR) accidents with cars in Santa Cruz. FOUR on Soquel (ONE my fault - tailgating) Three drivers fault. One on Glen Canyon road. All happened during commute hours. The Soquel corridor in Santa Cruz IMO is potentially lethal between Ocean and the Highway one overpass. Inconsistent shoulder, lane confusion for out of town drivers, some places sufficiently wide, others suddenly narrower. Look at the worn lane markings to view where cars routinely intrude on the bike lanes. IMO bots dots in those locations would help cars know that they've entered the bike lane, without impeding street-sweeping or car/bike access. Anywhere a painted white line is worn due to traffic routinely crossing into bike lanes should serve as an indicator to authorities (planning, police, public works) that safety and enforcement improvements are needed and an accident may be likely there.
195. Speed cameras! Easy revenue gain for the county and city with no additional police staffing. I travel regularly to Germany - they use these extensively and it works. Villages which have no sidewalks use the 30 kph speed limit enforced by speed camera and are able to be kept safe for kids and elders.
196. Prioritize bike safety over parking and car lanes. More money to strengthen the metro bus system and let go of the train.
197. I'll just reiterate again; invest in the engineering and design of safe streets FIRST. Enforcement and signage aren't as effective.
198. Our roads need repair and our walking and biking infrastructure needs vast improvement
199. We need a bike path through the county
200. Again, this survey is remarkably poorly designed. You will need to "interpret" many answers because of the mediocrity.

201. As someone that primarily uses a bike for transportation, the survey feels biased against me. It is primarily designed for people in cars.
202. The bike infrastructure is almost non-existent. Even where it exists, it is poorly done. I've fallen and seriously injured myself twice because of poor infrastructure.
203. Stop treating biking as if it is only recreation!!!!
204. Just the other day, I was riding my bike up Bay Street between Mission and King and had to move into the lane of traffic because there were cars parked in the bike lane. I moved into the lane as it was clear. Moments later a car came up behind me, violently accelerated around me, just narrowly missing me. The car then stopped at the red light at King St. I pulled up beside the driver and he told me I was going to be a "hood ornament the next time I got in his way". How do we change this kind of behavior? This guy threatened to kill me because he perceived I was wasting his time? Even though we both ended up at the red light at the same time...
205. We need engineered solutions to move people around our city safely and without conflict. By creating protected transportation alternatives to cars, we will at the same time incentivize people to travel in other ways than many people's default which is their car. If people feel safe biking and walking, we can reduce car travel, traffic, and frustration.
206. Education, signage, and paint will not change driver behavior. Only physical infrastructure will.
207. Go on Nextdoor and Facebook. Read all the hateful comments between cyclists and drivers. Know that the hate is not limited to online forums, but it is experienced on the roads, as well. Take that seriously. Only so much can be done with infrastructure. Foster a community of individuals that respect each other.
208. Rodeo gulch road in serious need of repairs west of hidden valley road. Creates very dangerous conditions for bikers and driver.
209. Build the rail trail!!
210. It’s so disappointing to be a taxpayer and see the bike infrastructure in the city. It’s such a great city to bike. Should there be the proper infrastructure in place
211. I would love for my child to use the public bus to get to and from school but I worry because there have been times when people clearly using illegal substances were on there acting erraticaly and I would be worried for my child to be alone on the bus if that was to happen.
212. We need to create barriers between traffic and bicycle lanes.
213. I really hope the transit center gets transferred back to it's newly rebuilt station soon and that the roadways surrounding that shopping center will be put back to something usable. Santa Cruz does Not need any more one way streets or obliterated parking spaces.
214. CALTRANS needs to repave the Northbound off ramp off of Hwy 17 to Mt. Hermon road, all the way to the first traffic light on Mt. Hermon. It's heavily alligatored and potholing. Same comment for the off ramp from Southbound 17 to Mt. Hermon, heavily alligatored.
215. I'm very happy with the change in the crosswalks along Mt Hermon Drive where pedestrians now get their own "turn" - it was incredibly dangerous before when pedestrians walked at the same time drivers turning left were focused on yielding to oncoming traffic. This was a major safety improvement! Thank you :)
216. Complete the sidewalk gaps identified in the County Active Transportation Plan, build separated bike lanes on roads with travel speeds 30 mph or higher, introduce traffic calming on roads between 20-30 mph, complete the bike network, add bike parking, add color into the roadway for bike lanes as a constant visual reminder of where bikes go and where cars go.

217. We dont have bike lanes in front of New Brighton middle school, safe routes to school should be our # 1 priority. We need to change drivers attitude and behaviors to be mindful and co-exist with e-bikes. Capitola village has no space for dedicated bike lanes, we need to use our resources for safety. The Capitola Trestle can't support a Train but it can support people! That is what we all were sold and told. That is the dedicated corridor for walking and biking.
218. Train infrastructure would relieve existing traffic and keep Santa Cruz County residents safer.
219. This survey is too driver focused:
220. There's no discussion of safety features like marking crosswalks for marked trail intersecting our highways;
221. Our lanes are oversized in slow speed areas;
222. Lanes are oversized on mountain corners for the benefit of trucks without regard for the majority of cars will be misled as to the proper speed and lane position to the detriment of bicycles and pedestrians;
223. Lack of consistent 'bike box' at intersections;
224. And there's no support in this survey for our many grade-separate multi-use paths which need to be supported just as much as our car lanes do.
225. Please just fix the roads - I spend more time dodging potholes, etc. when I should be scanning the road for other drivers, pedestrians, cyclists, wildlife, etc.
226. The first portion of Lockwood lane off of Graham hill has no sidewalk. It’s extremely dangerous.
227. You need to pave Buzzard Lagoon Road! This county maintained road violates your codes requiring roads over 15% grade be paved. Erosion not only dangerous for traffic also an environmental hazard with all the mud running into corralitos creek.
228. People swerve out of the lanes on eureka canyons to avoid potholes. If these were fixed people would stay in their lanes
229. As above, I think the least friendly area of our county is Scotts Valley. It feels like a giant drive-thru zone, and has very few pedestrians, cyclists, ppl who roll, carpooling families, and maybe even is a low Metro-bus using zone. Whatever collaborations can be done to improve and promote alternative, non-car, nonSUVs there, and collaborate more with the school system even on safe & active transportation, the better. It is an unpleasant experience being a non-driving moving person there, & yet it;s one of the few areas of our county that continues to grow, be developed, & attracts ppl moving there as a commuter town, but urban development and non-car traffic & transit is just severely ignored/undeveloped/unconsidered/overlooked. It is often quite dangerous to be a pedestrian there too, as ppl tend to speed and to not expect to have to consider pedestrians in their driving zone. SV truly needs all the help it can get, because it's a shame and an embarrassment that it's as hostile to and unpleasant for pedestrians as it is. Ppl literally drive btwn parking lots on either side of Mt Hermon Rd to go btwn stores, rather than walk. Changing those kinds of patterns is indeed challenging, but there's barely any incentivization for ppl to do it differently, given how anti-pedestrian it feels. whatever can be done would likely be an improvement on how it is now. Thanks for reading.
230. Speeders are far too prevalent. Running red lights is also. Investing in Speed camera enforcement (might) help reduce the problem of the high percentage of undisciplined drivers. Police cannot.

231. Santa Cruz would embrace the changes to become a more bike friendly town like places in Europe, for example Amsterdam or Munich. We are interested in staying fit and fighting climate change. Seems like a win win situation!
232. I live less than a mile from the supermarket but I drive because as a pedestrian I have been harassed by transients. I would cycle but I've had bicycles stolen, even when locked up outside the store.
233. I marked a series of locations along Rio del Mar Boulevard where we walk most of the time, and very frequently have close calls while crossing Soquel Drive and the Hwy 1 ramps with a walk sign. We provided a series of suggestions via the CHP member of a traffic safety committee. The timing on the two Caltrans signals was changed to delay car traffic, but not car traffic that conflicts with pedestrian crossings. It's actually worse now, because left turning cars know the on-coming traffic has a delay. Where a delayed green would really help is at Rio del Mar Blvd and Soquel, giving pedestrians crossing Soquel Drive a head start over traffic turning left from Rio del Mar onto Soquel Drive. The other very dangerous location is crossing Trout Gulch Road. This location is very constrained in regard to sign placement, with a driveway and railroad, and it is really unclear to drivers where they should stop. This location needs a creative solution to make pedestrian crossings safer.
234. It feels nonexistent
235. Fix the pot holes as often times I have steer away from them to avoid damage to my vehicle. Which means I also need to make nothing is in the opposing lane or in the side rod the road.
236. Our roads suck. Stop spending money on train studies and start paving, not patching, our roadways. Stripe the lanes. Make wider bike lanes or clear the weeds and overgrowth from the ones we have. Take some pride.
237. With safer facilities, e-biking is a very viable transportation modality. I would use it regularly if I thought it was safe. Gravel on road shoulders, inadequate bike lanes keep me from e-biking more.
238. Public transit needs to be more frequent and efficient to be broadly viable. It is very expensive in terms of the time it takes to get anywhere.
239. The train will suck away all the capacity for grant writing just as it has sucked away all the energy and public discourse. SLV pedestrian safety deserves at least $1 investment for every $10 for the rail trail, including raising grants, proportionate to County population. We are badly left behind by the richer coastal areas. Unincorporated areas are vastly underinvested in..
240. Thank you for doing this!

APPENDIX

B

In-Person Tabling Map Comments

APPENDIX B — IN-PERSON TABLING MAP COMMENTS

Event Name: Ecology Action Watsonville Family Fun Day

Location: Landmark Elementary School in Watsonville, CA

Date: April 2, 2025

Ecology Action Staff Present: Ahtziri Carranza and Cindy Aguilar-Castaneda

Notes:

Our Ecology Action team spoke to youth and their parents about the Santa Cruz Safety Action Plan. Given that many participants were youth, we used the interactive boards provided by KH to engage in conversation and identify the youth's top safety challenges. School staff also participated. Ecology Action shared palm cards with all organizations tabling at the event and left a handful of palm cards in the front office.

The top safety challenge areas identified by participants at the Watsonville Family Fun Day event were:

1. Speeding (17)
2. Distracted driving (17)
3. Drivers failing to yield to pedestrians and cyclists (14)
4. Narrow, broken or missing sidewalks (14)
5. Impaired driving (8)
6. Cars not stopping at stop signs or running through red lights (7)

Additional insights from participants centered around safety, including:

- Bike safety
  - They noticed many students/adults who ride their bike do not wear helmets
- Driver safety
  - They noticed drivers were not wearing their seatbelts
  - Drivers were "brake checking"

Event Name: Watsonville Earth Day

Location: 358 Main St, Watsonville, California 95076

Date: April 27, 2025

Ecology Action Staff Present: Ahtziri Carranza and Cindy Aguilar-Castaneda

Notes:

Ecology Action participated in Watsonville's Earth Day event, engaging directly with the community at our booth. With approximately 600 attendees, we had the opportunity for meaningful one-on-one connections with over 70 individuals, including youth, parents, Spanish-speaking community members, and Watsonville residents. Our bilingual team was on-site to ensure inclusive and accessible engagement. To make the experience interactive and fun, we also featured a spin wheel and provided incentives such as stickers for participants.

1. Drivers failing to yield to pedestrians and cyclists (23)
2. Speeding (20)
3. Cars not stopping at stop signs or running through red lights (17)
4. Lack of pedestrian crossings (13)
5. Narrow, broken, or missing sidewalks (10)
6. Impaired driving (9)
7. Distracted driving (8)

Additional comments received:

Location	Comment	Translation
Watsonville (DMV Crosswalk)	No hay cruce peatonal.	There is no pedestrian crossing
Watsonville	También luego hay scooters en la carretera en ves de usar el carril para bicicletas	Also, sometimes there are scooters on the road instead of using the bike lane.
Watsonville (Clifford & Main)	Need more lighting	

Watsonville (Near Safeway)	The RRFBs need upkeeping, sometimes the lights don't go on	
Watsonville (Near Santa Fe)	Quiero ver cruces peatonales pintados y quizas un semaforo	I want to see painted crosswalks and maybe a traffic light.

Figure 2-a. Concerns marked by community members

Event Name: Live Oak Farmers Market

Location: 21400 E Cliff Dr, Santa Cruz, CA 95062

Date: May 4, 2025

Ecology Action Staff Present: Chloe Ortiz

Ecology Action Interns Present: Sydney Stedman and Jasper Kallsen

Figure 2-b. Staff at event

Notes:

Our Ecology Action team spoke to Live Oak market-goers about the Santa Cruz Safety Action Plan. While some of the people we spoke with lived in the area, many of the people were just visiting as tourists. Three paper surveys were completed. In lieu of putting stickers on the challenge area board, the team asked people to verbally share their top challenge areas and recorded their input on comment cards. A full list of the comments received is included below. Many of the people who approached the table shared that they didn't have time to do the complete survey on the spot but took a palm card so they could do it at home. Common threads of concern included drivers not yielding to pedestrians and cyclists and feeling unsafe biking on busy roads, especially with children.

In summary:

- 19 total engagements
- 14 palm cards taken

- 7 comment cards completed
- 3 surveys completed

Comment Cards:

1.) Location: HWY 9 @ Tannery

Comment: Crosswalks feel very unsafe, especially for homeless people going to the shelter nearby

2.) Location: Live Oak (general)

Comment: Good for walking!

3.) Location: Soquel Drive

Comment: Concern biking with kids, not enough room with cars.

4.) Location: Eastcliff

Comment: Blind turns feel dangerous when biking

5.) Location: Capitola

Comment: Too much southbound traffic in the afternoons

6.) Location: 7th and Eaton

Comment: Drivers don't look for pedestrians when turning right.

7.) Location: Santa Cruz County (general)

Comment: More bike lanes please!

Event Name: Felton Farmers Market

Location: 120 Russell Ave, Felton, CA 95018

Date: May 6, 2025

Ecology Action Staff Present: Ahtziri Carranza and Chloe Ortiz

Figure 2-c. Staff at event

Notes:

Our Ecology Action team spoke to Felton market-goers about the Santa Cruz Safety Action Plan. This farmers market is only open during the warmer months, and this was the kickoff, so there were more people than usual. Most of the people we spoke with lived in the area or further up Highway 9. The most common thread was concern around lack of bike and pedestrian facilities within the towns along Highway 9. Several people pointed out that just to get to the farmer's market they had to walk on the side of the highway. In total, we engaged with 24 people.

The top safety challenge areas identified by participants at the Felton Farmer's Market were:

1. Narrow or missing bike Lanes (7)
2. Drivers failing to yield to pedestrians and cyclists (6)
3. Speeding (6)
4. Narrow, broken or missing sidewalks (5)

5. Lack of pedestrian crossings (3)
6. Lack of access for people with disabilities (3)
7. Distracted driving (3)
8. Poor pavement conditions (3)

Event Name: Scotts Valley Farmers Market

Location: 5060 Scotts Valley Dr, Scotts Valley, CA 95066

Date: May 31, 2025

Ecology Action Staff Present: Chloe Ortiz

Ecology Action Interns Present: Sydney Stedman

Figure 2-d. Staff at event

Notes:

Unfortunately, engagement was very low at this location. The designated tabling area for nonprofits was located outside of the actual market, resulting in attendees not walking near the table, and dismissing invitations to approach and learn more. The team was able

to share one palm card and receive three stickers of challenge areas. (Missing bike lanes, missing sidewalks, and drivers failing to yield.)

The team is working on finding alternative channels for targeted Scotts Valley outreach.

Event Name: Scotts Valley Family Fun Day

Location: Skypark - 361 Kings Village Rd Scotts Valley, CA 95066

Date: July 19, 2025

Ecology Action Staff Present: Chloe Ortiz

Kimley Horn Staff Present: Zachary Ramalingam

Notes:

The Scotts Valley Family Fun Day was an ideal event for community outreach because families attended the event with the goal of engaging with local agencies and non-profits. Almost all of the people we spoke with lived within the project area (about half lived within Scotts Valley city limits, and about half lived in surrounding unincorporated areas of the county.) There was a steady flow of conversations throughout the event (10am-3pm) without ever being swarmed. We spoke with approximately 30 community members. Most of them were drawn in by the interactive challenge area board, and stickers added to their priority areas. Only one attendee wanted to take the complete survey on the spot, but almost everyone took a palm card and said they would take a look at the webpage at home. A top issue that we heard from community members was safety concerns around e-bike usage in Scotts Valley. Several families shared that they want to allow their children to bike to school, but don't feel safe doing so with high speeds of traffic around the schools in Scotts Valley. A Metro bus driver requested that the County do more public education campaigns to encourage drivers to be courteous to buses and emphasize the risk of merging directly in front of a bus. It was convenient to have another Ecology Action table adjacent to us, so we could direct questions about our other programs to their table.

APPENDIX

C

Focus Group Feedback

APPENDIX C — FOCUS GROUP FEEDBACK

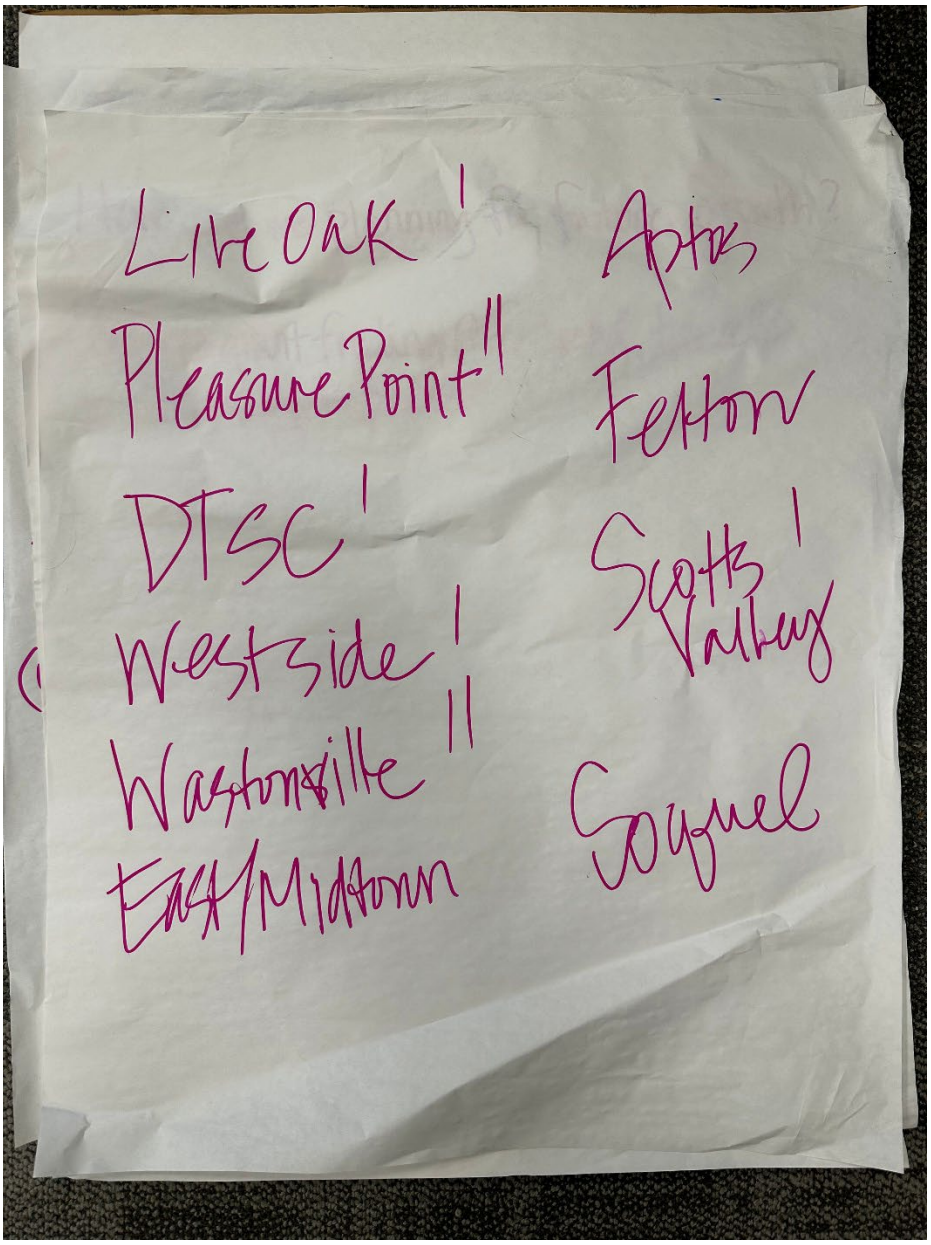


Figure 2-a. Tally of Focus Group Participants Locations

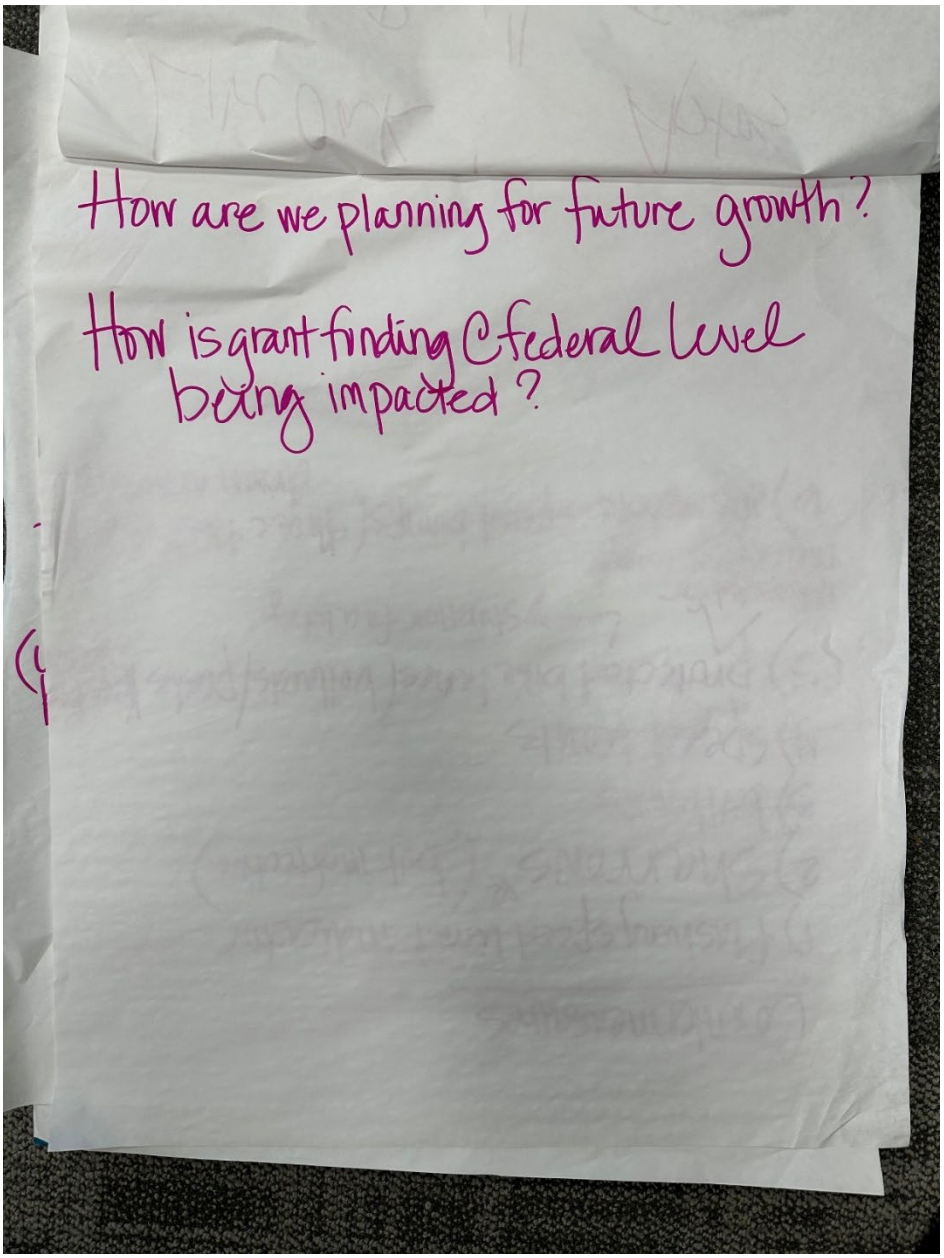


Figure 2-b. Questions from Focus Groups

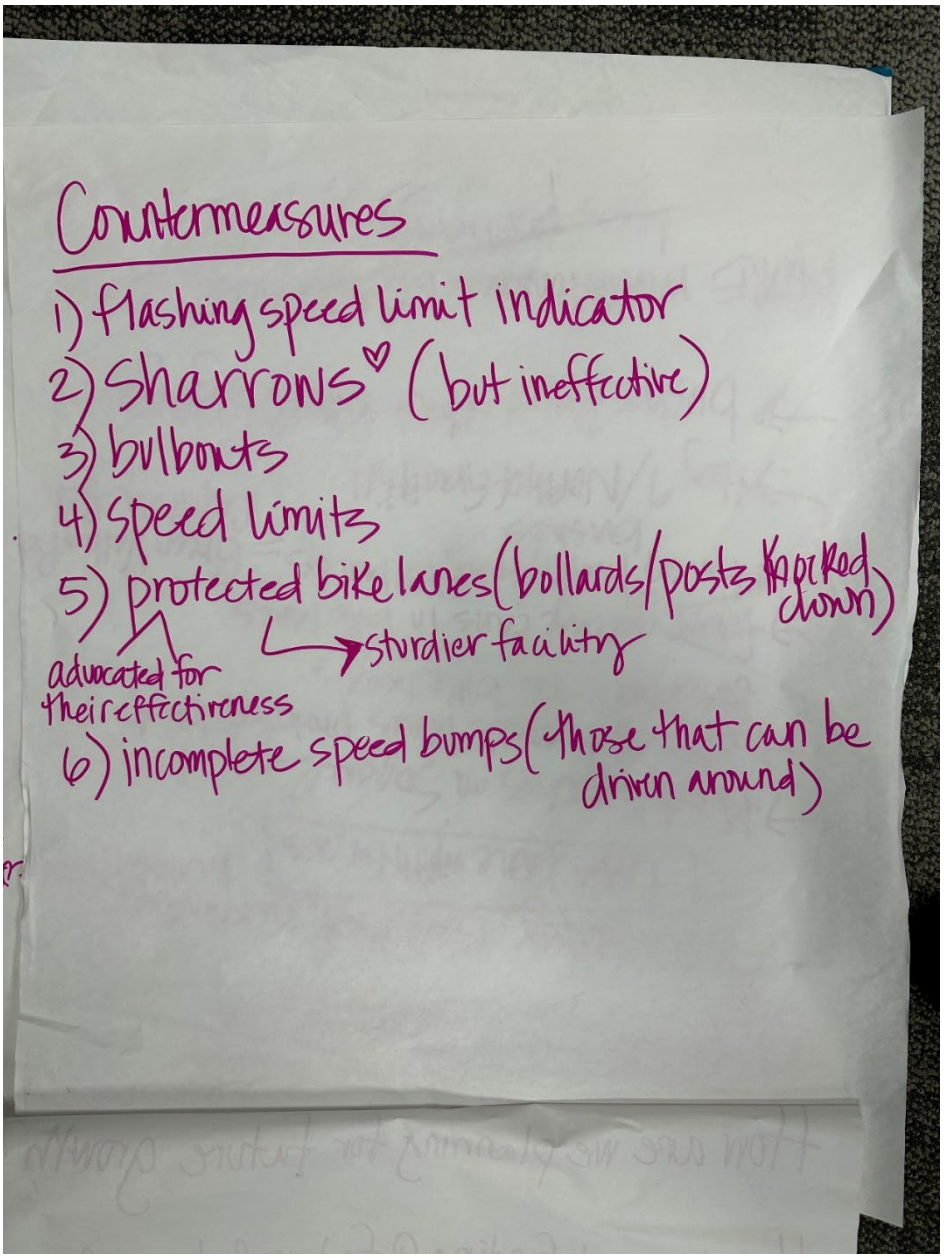


Figure 2-c. Countermeasures mentioned by focus group A participants they find ineffective

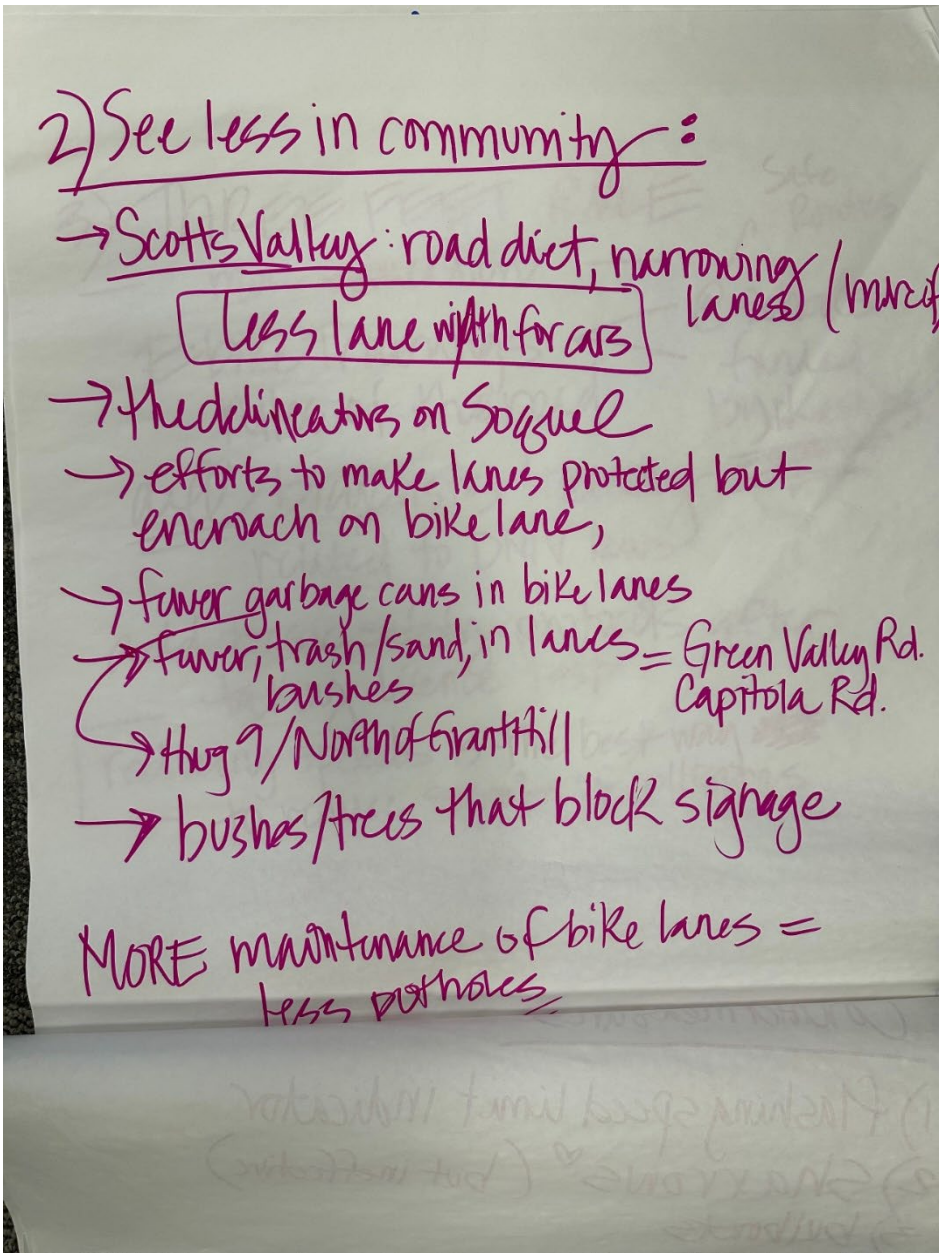


Figure 2-d. Infrastructure focus group A would like to see less of

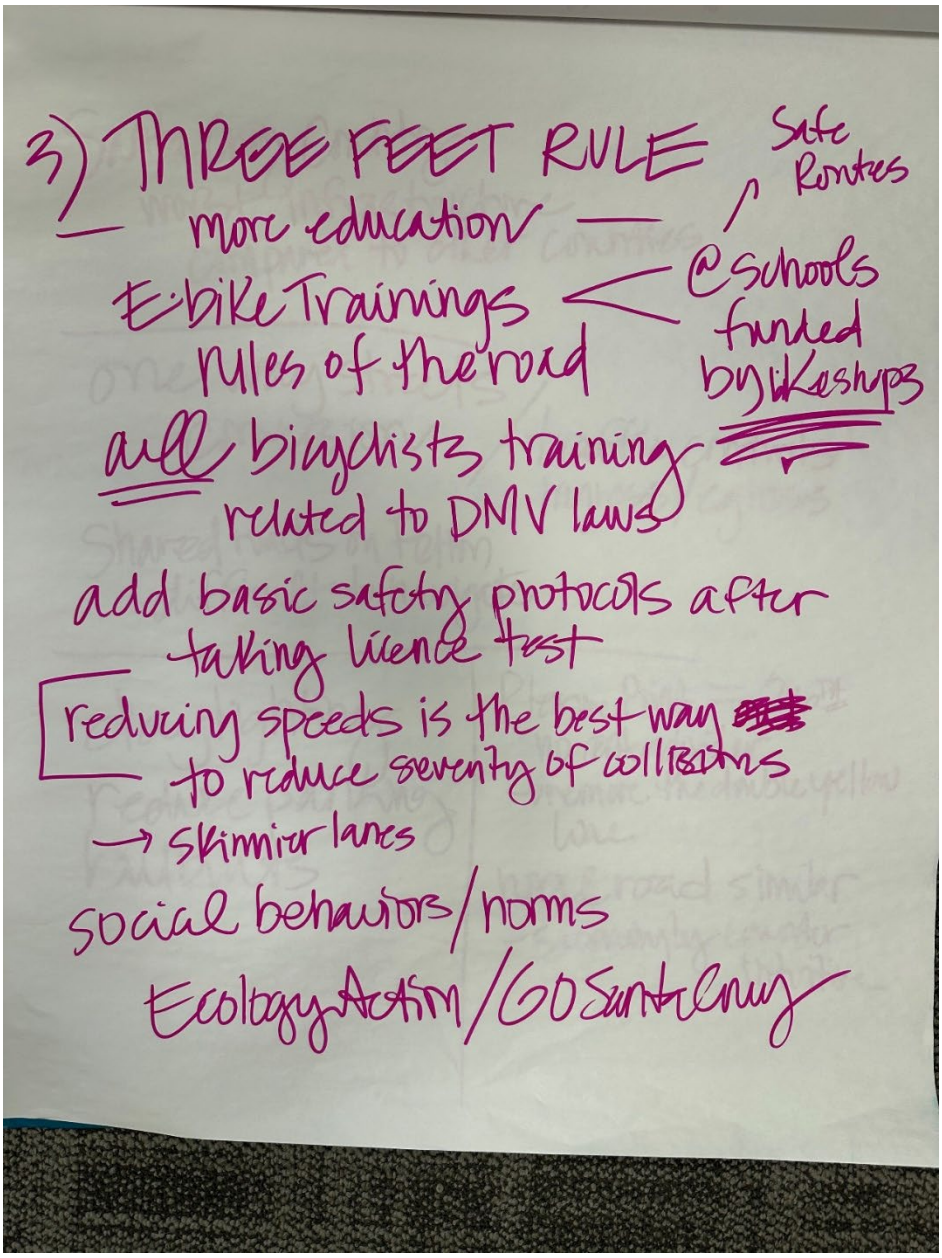


Figure 2-e. Programing suggestions mentioned by focus group A

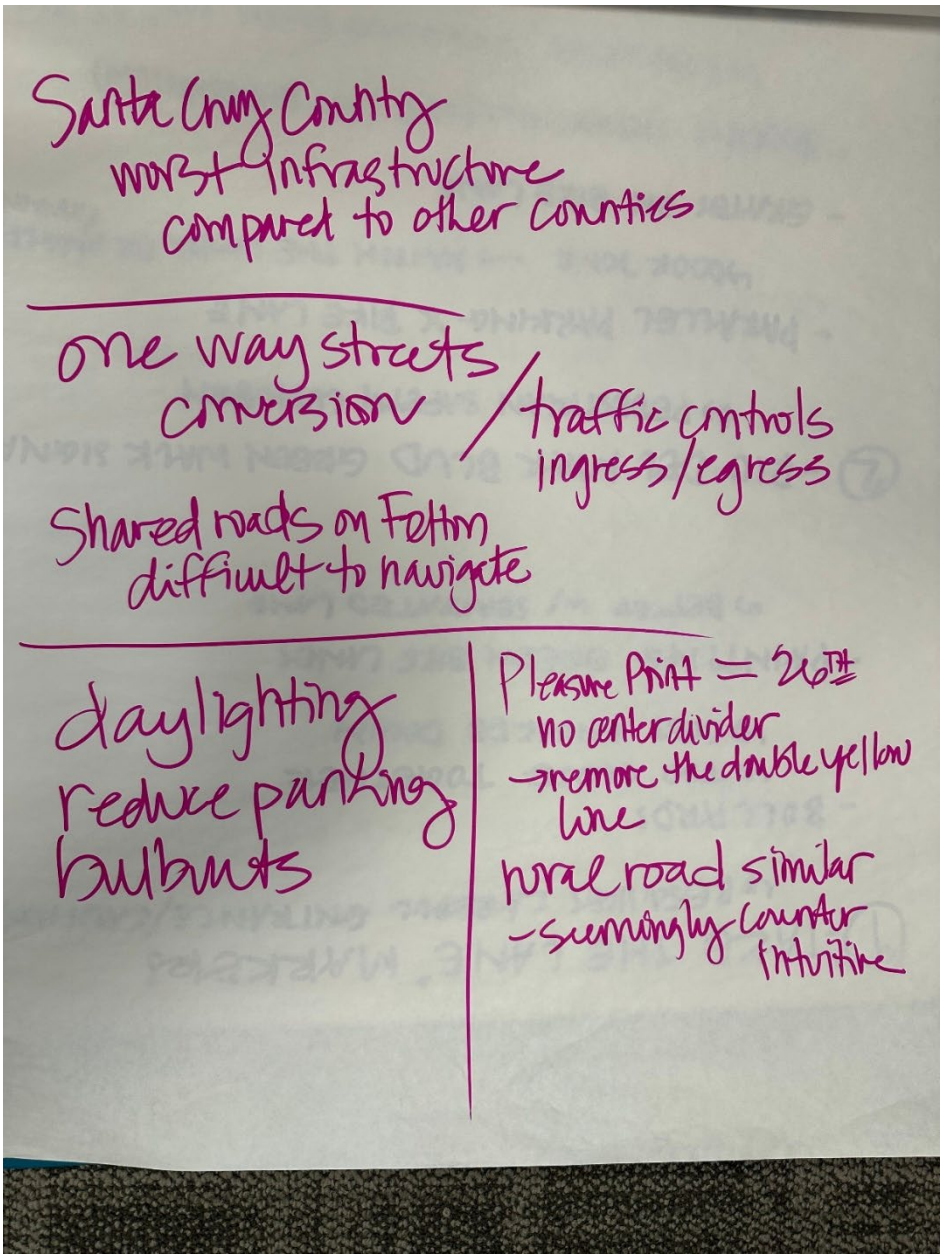


Figure 2-f. Other general comments of trouble areas from focus group A

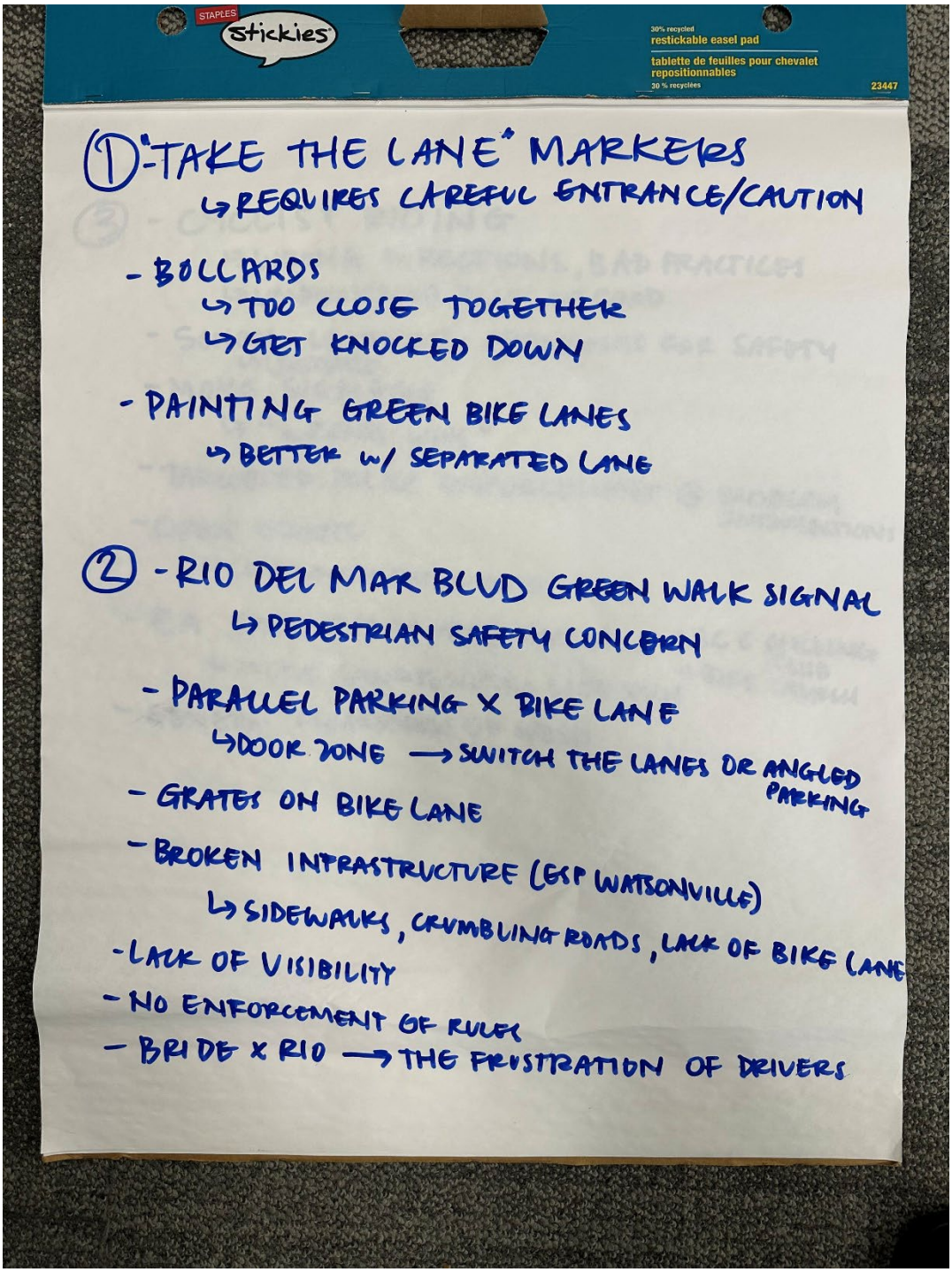


Figure 2-g. Focus group B answers to ineffective countermeasures

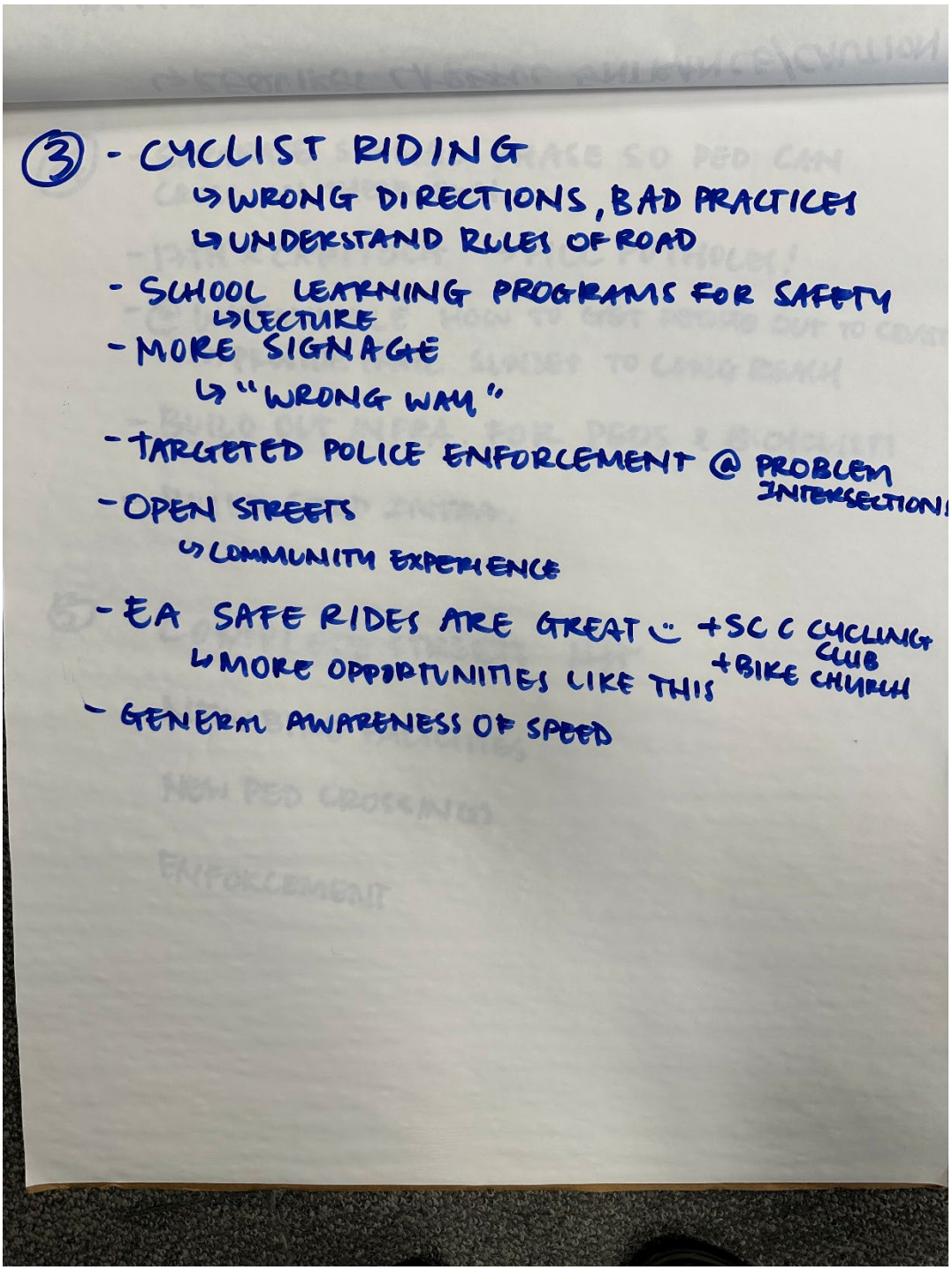


Figure 2-h. Focus group B education measures suggestions

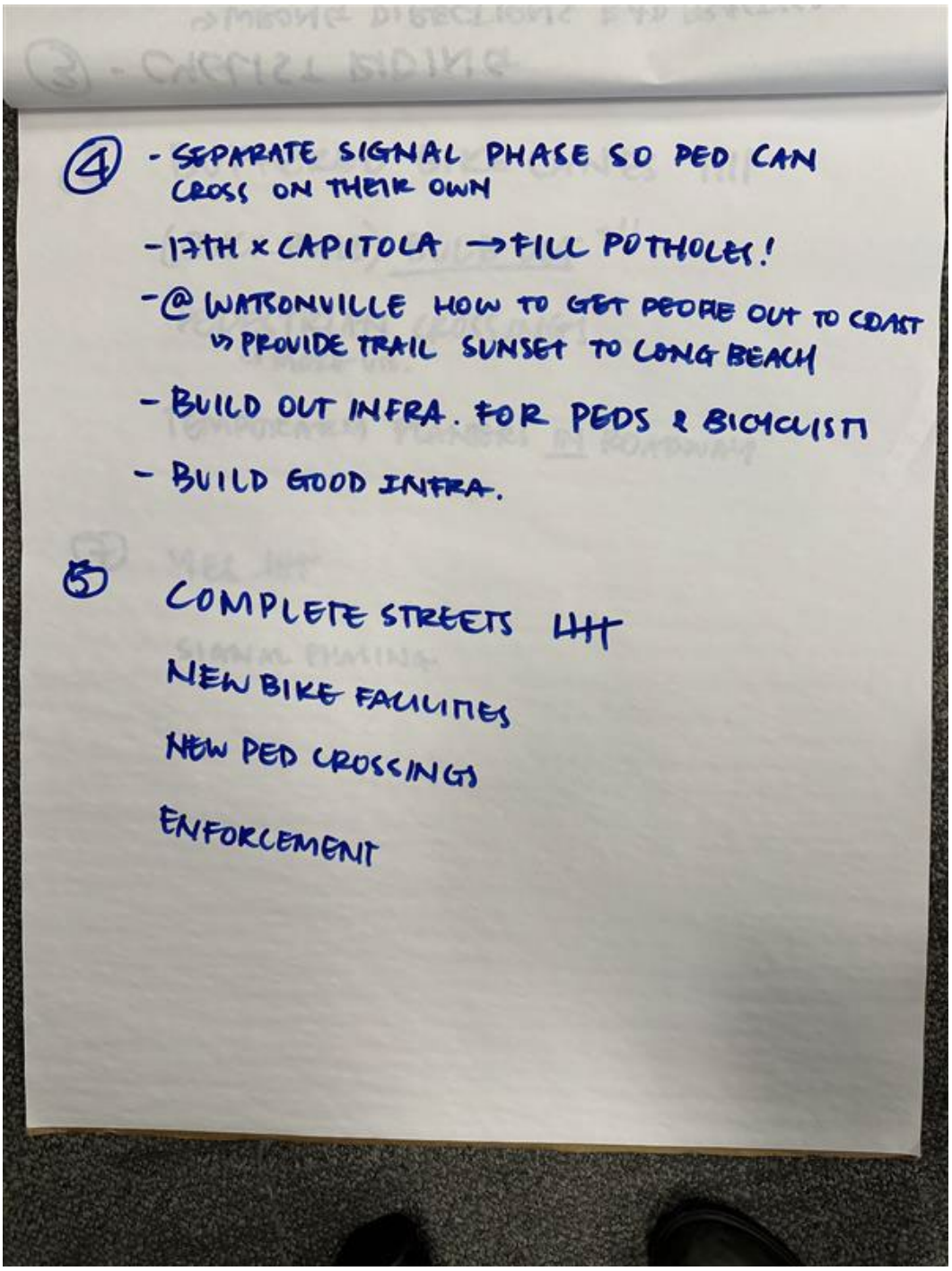


Figure 2-i. Focus group B on what they would like to see more of

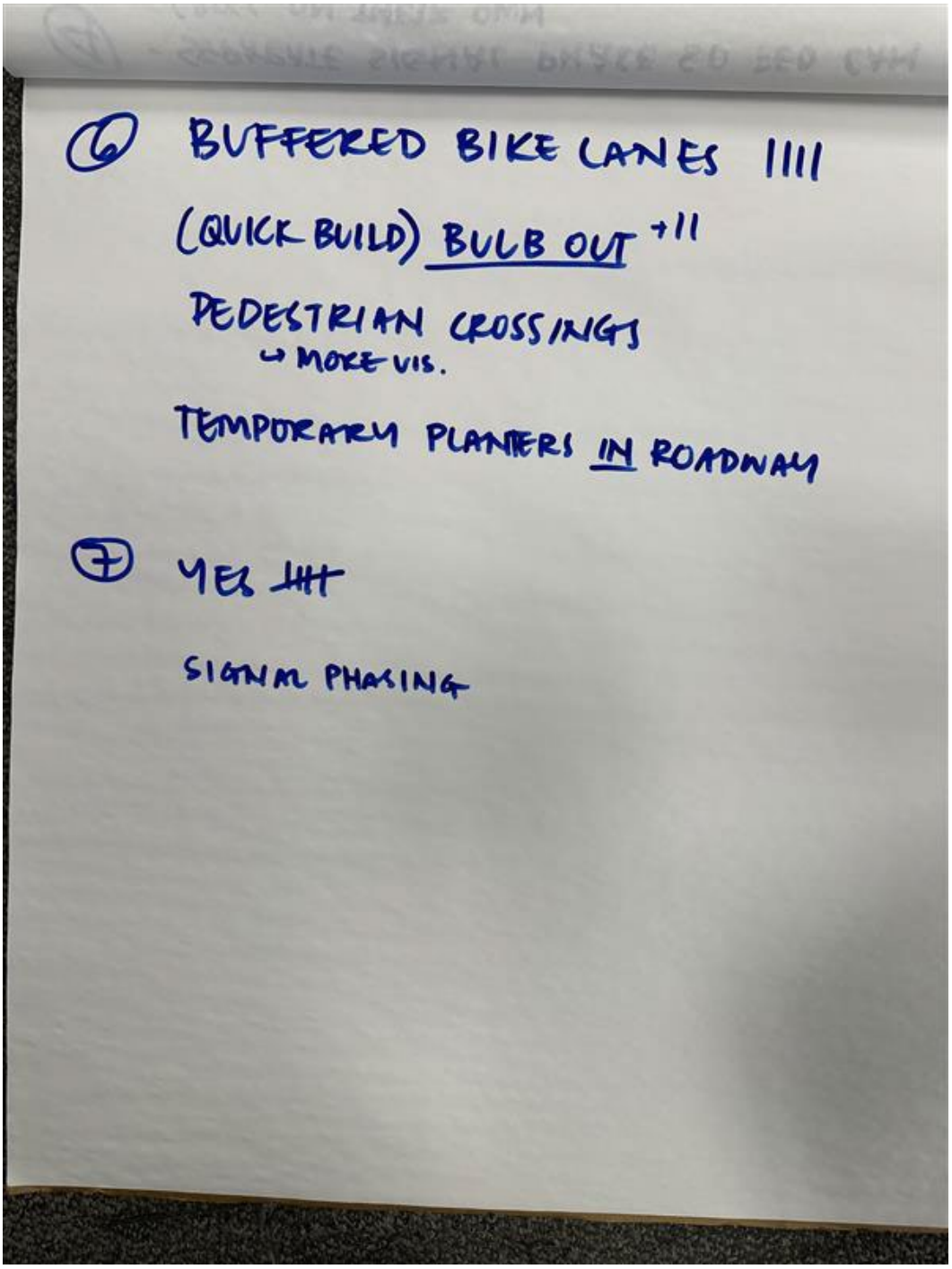


Figure 2-j. Focus group B quick build tallies and answer to support of speed cameras

APPENDIX

D

Intersection Network Screening Results

Unincorporated Santa Cruz County Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
Signalized Intersections																				
17TH AVE AND CAPITOLA RD	14	0.03	451		3	5	6	1		7	1					5	8	2	3	
GREEN VALLEY RD AND HOLOHAN RD/AIRPORT BLVD	17	0.02	355		2	5	10	2	2	11					1	1	11	2	5	
41ST AVE AND SOQUEL DR	14	0.03	113			6	8		3	3	2					6	5	1	1	
PARK AVE AND SOQUEL DR	11	0.01	209	1		6	4	2	1	3	1		1		1	2	2	1	2	
GREEN VALLEY RD AND MINTO RD	10	0.04	422		3	4	3	2	1	3		1			1	2	3	5	2	
MAIN ST AND SOQUEL DR	9	0.04	183		1	3	5	4		2	1	1				1	4	1	1	
SOQUEL DR AND COMMERCIAL WAY/THURBER LN	9	0.06	192		1	5	3	3	1	1	1	1				2	3	2	1	
SOQUEL DR AND WINKLE AVE	8	-0.07	63			3	5	2		2				1	1	2	2	2	3	
PORTER ST AND SOQUEL DR	8	-0.09	177		1	3	4	1	2	2						3	1		1	
DAUBENBISS AVE AND SOQUEL DR	8	-0.02	300		2	5	1			1						7	1	1	1	
SOQUEL DR AND SUNSET WAY/STATE PARK DR	8	-0.09	67			4	4	2	1	3		1				1	4	4	3	
APTOS CREEK RD AND SOQUEL DR	8	0.00	177		1	3	4	2		2	1				1	2	3		1	
S RODEO GULCH RD/N RODEO GULCH RD AND SOQUEL DR	7	-0.09	289		2	4	1	3	1	1						2	3	1	1	
SOQUEL AVE AND SOQUEL DR	7	-0.11	57			3	4	1	1	4		1					4	2	1	
17TH AVE AND BROMMER ST	7	-0.06	285		2	3	2	3			1		1		1	1	1	1	1	
COMMERCIAL CROSSING/HOSPITAL DR AND SOQUEL DR	6	-0.11	51			3	3			2					1	3	2		2	
7TH AVE AND CAPITOLA RD	6	-0.10	51			3	3	2	1	1		1				1		1	1	
7TH AVE AND EATON ST	6	-0.11	279		2	3	1		1	1	1					3	1	1	2	
17TH AVE AND E CLIFF DR /PORTOLA DR	6	-0.09	155		1	1	4					3	1			2	1	3	2	
GREEN VALLEY RD AND PAULSEN RD	6	-0.09	160		1	2	3			4		1			1		2	2	2	
MISSION DR AND SOQUEL DR	5	-0.13	35			1	4		1	2	1				1		2			
7TH AVE AND SOQUEL AVE	5	-0.13	44			3	2	2				1		1		1	1		1	
MAIN ST AND PORTER ST	5	-0.13	259		2		3		2	1						2		2	1	
APTOS RANCHO RD/ RANCHO DEL MAR AND SOQUEL DR	5	-0.12	44			3	2	1		1						3	1			
SOQUEL DR AND SPRECKELS DR	5	-0.12	40			2	3	3		1			1				2	2	1	
41ST AVE AND DRIVEWAY 195 FT NORTH OF CORY ST	4	-0.13	143		1	1	2	2			1					1				
E ZAYANTE RD AND GRAHAM HILL RD	4	-0.14	262		2	2			1	1		2						1	2	
GRAHAM HILL RD AND LOCKEWOOD LN	4	-0.14	24				4	1	1	2							3	1	1	

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Unincorporated Santa Cruz County Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
TROUT GULCH RD AND APTOS RD/SOQUEL DR	4	-0.09	143		1	1	2			2						2	1	2	3	
SOQUEL DR AND N POLO DR/RIO DEL MAR BLVD	4	-0.08	38			3	1			1	1	1				1	3			
DOVER DR AND SOQUEL DR	3	-0.18	137		1	1	1	1		2							2	1	1	
CAPITOLA AVE AND SOQUEL DR	3	-0.18	251		2	1						2			1		1	1	2	
17TH AVE AND SOQUEL AVE	3	-0.18	23			1	2			2		1					2		1	
Unsignalized Intersections																				
CARLTON RD AND THOMPSON RD	14	5.65	479	1	1	5	7	8	1	1	2	1	1				2	3	1	
ROBERTSON ST AND SOQUEL DR	11	0.18	456		2	4	5	3	1	2		1		1	1	2	6	1	1	
SOQUEL DR AND COMMERCIAL WAY/PAUL SWEET RD	8	0.02	77			6	2			3		1			2	2	3	2	2	
RANCHO DEL MAR AND SOQUEL DR	8	0.11	252		1	4	3			3					3	2	3			
DICK PHELPS RD AND GREEN VALLEY RD	8	0.13	433		2	3	3	1	2	1	1	2	1				2	3	2	
PAUL MINNIE AVE AND SOQUEL AVE	7	0.11	47			1	6		2	4	1						4			
7TH AVE AND BROMMER ST	7	0.14	47			1	6	3		3						1	2	2	2	
BUENA VISTA DR AND FREEDOM BLVD/MEMORIAL AVE	7	0.41	57			3	4	2		1	1	3						5	5	
41ST AVE AND PORTOLA DR	6	0.09	421		2	3	1	1							4	1	1	2	3	
17TH AVE AND RODRIGUEZ ST	6	0.10	231		1	2	3	3							1	1	2		1	
RIO DEL MAR BLVD AND APTOS BEACH DR/TOWNSEND DR	6	3.01	231	1		2	3			1		1			2	2	1	2		
14TH AVE AND E CLIFF DR	6	0.11	236		1	3	2	3		1					1	1	1		1	
CARRIKER LN and SOQUEL DR	5	0.01	234		1	4		2	1	1			1				1			
GRAHAM HILL RD AND ROARING CAMP RD	5	0.03	225		1	2	2	2			1	2								
FELTON EMPIRE RD AND KRAZY ACRE LN	5	0.69	225		1	2	2				1	2	1			1	1	2	3	
SOQUEL DR AND WILLOWBROOK LN/MERRILL RD	5	0.04	54			5		1								4			1	
BOWKER RD AND CALABASAS RD	5	0.31	44			3	2	2							2	1	1	1	1	

Kimley»Horn

Unincorporated Santa Cruz County Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
CARLTON RD AND COWARD RD	5	1.02	54			5		1				2	1			1	2	2	2	
DAIRY RD AND SAN ANDREAS RD	5	0.70	229		1	3	1	1				2	2				2	3	2	
GRAHAM HILL RD AND GRANDVIEW AVE	4	0.02	29			1	3			1		3					1	2	2	
SOQUEL SAN JOSE RD AND INTERSECTION 0.1 MILES SOUTH OF LOS ROBLES RD	4	0.10	223	1		3						4						3	4	
DEER PATH RD AND GRAHAM HILL RD	4	0.02	38			3	1			1		2	1				1	1	1	
ENOS LN AND HAMES RD	4	0.32	38			3	1	1				1				2	1	1	1	
CHANTICLEER AVE AND SOQUEL DR	4	-0.01	24				4	4												
SOQUEL DR AND PEPPERWOOD WAY/HARDIN WAY	4	0.01	34			2	2			2					1	1	2	2	1	
MONTEREY AVE AND SOQUEL DR	4	0.01	43			4		2		1		1					1		1	
41ST AVE AND CORDELIA LN	4	0.02	24				4	1	2	1							1			
MATTISON LN AND SOQUEL AVE	4	0.15	209		1		3		1	1	1		1				2		1	
7TH AVE SND RODRIGUEZ ST	4	0.24	214		1	1	2	2	1			1					2		1	
15TH AVE AND CAPITOLA RD	4	0.02	38			3	1	1		3							1	1	2	
17TH AVE AND HARPER ST	4	0.04	214		1	1	2	1				1				2	2	2	2	
30TH AVE AND BROMMER ST	4	0.04	34			2	2	2							2			1	2	
CASSERLY RD AND SMITH RD	4	0.31	34			2	2			1		3					3	1	1	
GREEN VALLEY RD AND MESA VERDE DR	4	0.04	219		1	2	1					4						3	3	
CASSERLY RD AND DIAS LN	4	0.43	38			3	1					2	1			1	1	2		
41ST AVE AND BAIN AVE	4	0.03	43			4		1				1				2			1	
30TH AVE/SAMUEL ST AND PORTOLA DR	4	0.03	214		1	1	2	4												
26TH AVE AND PORTOLA DR	4	0.04	34			2	2						1			3				
38TH AVE AND PORTOLA DR	4	0.04	38			3	1	1		1						2	3			

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Unincorporated Santa Cruz County Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
AMESTI RD AND GREEN VALLEY RD	4	0.00	214		1	1	2	2		1					1		1		1	
GREEN VALLEY RD and MELLO VIEW LN	3	-0.02	28			2	1		1	2							1	2	1	
26TH AVE and E CLIFF DR	3	0.39	23			1	2			1		1				1	1	2	1	
BEAR CREEK RD and BEAR CREEK WAY	3	0.17	28			2	1		1			2								
SOQUEL DR AND ATHERTON DR	3	0.03	213	1		2		1				2					1	1	1	
EMPIRE GRADE AND FELTON EMPIRE RD/ ICE CREAM GRADE	3	0.14	213		1	2		1				1	1					1	1	
SOQUEL SAN JOSE RD AND DAWN LN	3	-0.01	28			2	1			2						1	3			
PORTER GULCH RD AND SOQUEL DR	3	-0.02	213		1	2						2				1		2	1	
SOQUEL DR AND MCGLENN DR/SHERATON PL	3	-0.02	28			2	1									3			1	
PORTER ST/SOQUEL SAN JOSE RD AND PAPER MILL RD	3	-0.02	23			1	2			2					1		2			
CENTER ST AND SOQUEL DR	3	0.00	18				3				1	1				1				
SOQUEL DR AND STANLEY AVE	3	-0.03	203		1		2	1		1						1	2			
EUREKA CANYON RD/CORRALITOS RD AND HAMES RD/BROWNS VALLEY RD	3	0.13	28			2	1	2							1		1		1	
RESEARCH PARK DR AND SOQUEL DR	3	-0.04	28			2	1	1							1	1		1		
GREENBRAE LN AND SOQUEL DR	3	-0.03	208		1	1	1	1		1					1		1			
FREEDOM BLVD AND MIGUES MOUNTAIN LN	3	-0.01	28			2	1				1	2						2	3	
SOQUEL AVE/ 40TH AVE AND GROSS RD	3	0.05	18				3			2		1					1	1	1	
SOQUEL DR AND W LEDYARD WAY/HEATHER TERR	3	-0.02	23			1	2	2				1								
E LEDYARD WAY AND SOQUEL DR	3	-0.02	203		1		2			1						2	1			
OLD DOMINION CT/RANCHO DEL MAR AND STATE PARK DR	3	-0.03	32			3				3							3			
SOQUEL DR AND DRIVEWAY 500 FT SOUTH OF STATE PARK DR	3	-0.03	23			1	2	2							1					
EMPIRE GRADE AND DRIVEWAY 200 FT SOUTH OF COVE GULCH	3	0.27	208		1	1	1				1	2						1	1	

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Unincorporated Santa Cruz County Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
BEAR CREEK RD AND DRIVEWAY 0.2 MILES WEST OF BEAR MOUNTAIN RD	3	0.15	32			3						2	1				1	1	1	
CATHEDRAL DR AND TROUT GULCH RD	3	0.11	388		2		1				1	1			1			1	2	
CAPITOLA RD AND EL DORADO AVE	3	-0.02	208		1	1	1	1				2						1	1	
APTOS WHARF RD AND SOQUEL DR	3	-0.03	28			2	1	1				1				1		1	1	
FREEDOM BLVD AND WILLOW HTS/PLEASANT VALLEY CT	3	0.07	213		1	2						3					1	2		
CENTER AVE/SEACLIFF DR AND STATE PARK DR	3	0.07	28			2	1	1				1				1			1	
30TH AVE AND CAPITOLA RD	3	-0.02	18				3	1		1					1		1	2	2	
BROADWAY AND NORTH AVE/CENTER AVE	3	0.13	23			1	2								3			1	1	
SEACLIFF DR AND SPRECKELS DR	3	0.04	208		1	1	1			1					1	1	1	1		
APTOS BEACH DR AND VENETIAN RD	3	0.99	213		1	2										3				
CASSERLY RD AND GREEN VALLEY RD	3	0.01	23			1	2	2				1					1			
APTOS BEACH RD AND RIO DEL MAR BLVD	3	0.28	28			2	1					1	1		1		1	1	1	
EATON ST AND LAKE AVE	3	-0.03	208		1	1	1			1						2	2	1		
17TH AVE AND KINSLEY ST/ATRAN	3	-0.01	213		1	2						2				1		1	2	
5TH AVE AND EATON ST	3	-0.03	18				3	1		2							2	2	1	
16TH AVE AND E CLIFF DR	3	-0.01	28			2	1		1			1				1			1	
ASSEMBLY AVE AND E CLIFF DR	3	0.23	208		1	1	1		1		1				1			1		
SUNNY COVE DR AND E CLIFF DR	3	0.40	208		1	1	1	1		1	1							3		
41ST AVE AND OPAL CLIFF DR	3	0.51	32			3						1			1	1	2	1		
E CLIFF DR AND DRIVEWAY	3	-0.01	208		1	1	1			1	1	1					1	1	1	
FREEDOM BLVD AND CORRALIROS RD/JOHNSEN LN	3	0.13	23			1	2	1	1	1							2		1	
ERTA LN AND FREEDOM BLVD	3	0.02	28			2	1	1			1	1						2	2	
LAPIS DR AND PAULSEN RD	3	0.18	28			2	1			1	1	1						1		
GREEN VALLEY RD AND HASTINGS LN	3	-0.02	23			1	2	1		2							2			
GREEN VALLEY RD AND LITA LN	3	-0.02	213		1	2						1	1		1			1	1	

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Unincorporated Santa Cruz County Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
HOLOHAN RD AND LAKEN DR	3	-0.02	203		1		2			2	1						2		1	
BUENA VISTA DR AND HARKINS SLOUGH RD	3	0.14	28			2	1					2		1				2	2	
SAN ANDREAS RD AND SUNSET BEACH RD	3	0.27	23			1	2	2			1							2		
BEACH RD AND SAN ANDREAS RD	3	0.02	28			2	1	1			1	1					1	1	1	

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

Legend					
Fatal/Serious Injury Collisions		LCCR Differential		Probability of Collision Type Exceeding Threshold Proportion	
	+2 KSI Collisions		> 1.0		90-100%
	2		0.33 - 1.0		80-90%
	1		< 0.33		70-80%

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City of Scotts Valley Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
Signalized Intersections																				
MOUNT HERMON RD AND WHISPERING PINES DR/SCOTTS VALLEY DR	14	0.06	455	1	2	6	5	5	1	2	1	2			1	1	5	2	5	
MOUNT HERMON RD AND KINGS VILLAGE RD	7	0.00	175		1	4	2	1	2	1	1				1	1	2		2	
SCOTTS VALLEY DR AND BEAN CREEK RD	4	-0.03	29			1	3	1		1		1			1		2	1		
SCOTTS VALLEY DR AND VICTOR SQUARE EXTENTION	3	-0.05	32			3				1				1		1	2		1	
MOUNT HERMON RD AND SKYPARK DR/LOCKEWOOD LN	3	-0.06	32			3		3									3		1	
Unsignalized Intersections																				
EL RANCHO DR AND HWY 17 NB OFF RAMP	4	1.33	223		1	3		1			1	2						2		1

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

Legend					
Fatal/Serious Injury Collisions		LCCR Differential		Probability of Collision Type Exceeding Threshold Proportion	
	+2 KSI Collisions		> 1.0		90-100%
	2		0.33 - 1.0		80-90%
	1		< 0.33		70-80%

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City of Watsonville Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
Signalized Intersections																				
AIRPORT BLVD AND FREEDOM BLVD	12	0.13	201		1	3	8	4		3	3	1			1		2	5	4	1
HARKINS SLOUGH RD AND OHLONE PKWY	9	0.20	174		1	1	7	4		2		1			1	1	4		3	1
PENNSYLVANIA DR AND S GREEN VALLEY RD	9	0.08	288	1	1	1	6	3		4	2						5	4	4	1
FREEDOM BLVD AND GREEN VALLEY RD	8	0.01	282	1	1	1	5	1	1	2		1			1	2	1	3	2	1
RODRIGUEZ ST AND W LAKE AVE	6	0.04	51			3	3	2							2	2		1	2	
QUIET MEADOW DR AND S GREEN VALLEY RD	5	0.02	35			1	4	1	1						3		1	1	1	
FREEDOM BLVD AND ALTA VISTA AVE	5	0.00	35			1	4	2		3							2		1	
FREEDOM BLVD AND CLIFFORD DR/GARDNER AVE	5	0.08	31				5	1		2					1	1	2	1	2	
AIRPORT BLVD AND HOLM RD	5	0.00	154		1	2	2	2		1						2	1			
FREEDOM BLVD AND SYDNEY AVE	5	0.00	35			1	4	2		2						1	1	2	1	
AIRPORT BLVD AND LOMA PRIETA AVE	5	0.00	154		1	2	2	2			2				1		3	1	1	
RODRIGUEZ ST AND W BEACH ST	4	0.02	366	2	1		1				1				2	1		1		
AIRPORT BLVD AND LARKIN VALLEY RD/WESTGATE DR	4	-0.02	34			2	2	1		1					1	1	2		1	
GREEN VALLEY RD AND CARNATION DR	4	-0.01	143		1	1	2	2		1	1						3	1		

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City of Watsonville Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
MAIN ST AND MAPLE AVE/2ND ST	3	-0.06	132		1		2			1		1				1		1	1	
FREEDOM BLVD AND BRENNAN ST	3	-0.05	28			2	1			1						2	1			
AIRPORT BLVD AND NEILSON ST	3	-0.04	23			1	2	1			1				1		1	1	1	
LEE RD AND W BEACH ST	3	-0.32	18				3		1		2									
Unsignalized Intersections																				
FREEDOM BLVD AND COMPTON TERRACE	10	0.21	84			5	5	5	1		2				1	1		1	1	
CAREY AVE AND S GREEN VALLEY RD	8	0.09	239		1	1	6	4		1					2	1	1	1	2	
2ND ST AND RODRIGUEZ ST	7	0.50	422		2	2	3	3							1	3	3			1
FREEDOM BLVD AND MARIN ST	7	0.06	52			2	5	4			1					2	1		2	
FREEDOM BLVD AND BLANCA LN	7	0.05	237		1	2	4	1		2	3					1	2	2	1	
FREEDOM BLVD AND LANDIS AVE	6	0.03	55			4	2	3	1			1			1			1	1	1
WALKER ST AND 2ND ST	5	0.12	35			1	4	4									1		3	
WALKER ST AND W LAKE AVE	5	0.02	44			3	2								4	1		1	1	
MAPLE AVE AND UNION ST	5	0.31	40			2	3	1							3	1	2			
FREEDOM BLVD AND BROADIS ST/LINCOLN ST	5	-0.01	35			1	4	1			1	2				1	1		2	
RODRIGUEZ ST AND 5TH ST	4	0.73	29			1	3	1		2					1		1	1	1	
HARKINS SLOUGH RD AND SUNSET VISTA DR	4	0.06	214	1		1	2	1		1	1				1		1	1	1	
FREEDOM BLVD AND SUDDEN ST	4	-0.01	34			2	2	2		2							2			1
LASSEN WAY AND CLIFFORD DR	4	3.42	219		1	2	1	1				2			1		1	1	2	
FREEDOM BLVD AND ARTHUR RD	4	-0.02	29			1	3	3								1				1
FREEDOM BLVD AND ROACHE RD	4	0.00	29			1	3	3		1							1			
W BEACH ST AND WALKER ST	3	-0.03	23			1	2			1		1				1	1			
BLACKBURN ST AND E BEACH ST	3	0.01	203		1		2	1			1				1		1	1	1	

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City of Watsonville Crash Summary

Intersection	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
FREEDOM BLVD AND PROSPECT ST	3	-0.04	208		1	1	1				1	1				1		1		
LINCOLN ST AND PROSPECT ST	3	-0.02	208		1	1	1	2							1			1	2	
MADISON ST AND PROSPECT ST	3	0.26	18				3	3									3		1	1
BREWINGTON AVE AND MARTINELLI ST	3	0.07	23			1	2	2								1	2			
FREEDOM BLVD AND MARIPOSA AVE	3	-0.04	18				3	1		1					1		1	1	2	

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

Legend					
Fatal/Serious Injury Collisions		LCCR Differential		Probability of Collision Type Exceeding Threshold Proportion	
	+2 KSI Collisions		> 1.0		90-100%
	2		0.33 - 1.0		80-90%
	1		< 0.33		70-80%

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APPENDIX

E

Segment Network Screening Results

Unincorporated Santa Cruz County Crash Summary

Facility	Limits	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
Major Arterial																					
SOQUEL AVE	7TH AVE - SOQUEL DR	3	0.34	178		1		2			2						1	2		1	
SOQUEL AVE	CAPITOLA RD EXN - BOSTWICK LN	3	0.22	182		1	1	1					2				1		2	1	
Minor Arterial																					
MOUNT HERMON RD	GRAHAM HILL RD - COVENANT LN	10	0.33	571	1	2	7		1	1		1	5	2				2	4	6	3
GRAHAM HILL RD	LOCKEWOOD LN - SUMMIT AVE	8	0.11	391		2	5	1					8					1	4	5	2
SOQUEL DR	APTOS ST - VALENCIA AVE	7	0.33	380		2	4	1	1	1	1		1	2			1	2		3	
SOQUEL DR	PORTER ST - MAIN ST	6	1.06	519		3	1	2			2			1		1	2	4	1		
SOQUEL DR	41ST AVE - ROBERTSON ST	5	0.41	35			1	4	3	1	1							1		1	
SOQUEL DR	CARRIKER LN - GREENBRAE LN	4	0.35	188		1	1	2			2					1	1	1			1
SOQUEL SAN JOSE RD	LITTLE CREEK RD - CONFERENCE GROUND RD	4	0.22	34			2	2	1				3						3	3	1
SOQUEL DR	PERIMETER RD - CABRILLO COLLEGE DR	4	0.39	38			3	1		1	1		2						2	1	1
FREEDOM BLVD	PISTA LN - BUENA VISTA DR	3	0.26	32			3		1	1		1							1		
MOUNT HERMON RD	LOCATELLI LN - CONFERENCE DR	3	0.04	32			3				1		2					2		1	1
Major Collector																					
EMPIRE GRADE	HELLER DR - FUEL BREAK RD	10	1.32	403		2	5	3					9	1					5	5	1
FELTON EMPIRE RD	EMPIRE GRADE/ICE CREAM GRADE - KRAZY ACRE LN	9	0.89	392		2	4	3				1	6	2				2	1	3	5
SOQUEL SAN JOSE RD	SOQUEL TURNPIKE RD - AMAYA RIDGE RD	7	0.72	380		2	4	1					5	2					2	1	
LAKEVIEW RD	HWY 129 - CRESTWOOD DR	7	0.77	530		3	2	2			1		6					1	4	2	
EMPIRE GRADE	PINERIDGE RD - MCGIVERN WAY	6	1.05	369	1	1	3	1		2			4						2	3	1
BRANCIFORTE DR	GLEN CANYON RD - MILL RD	6	2.57	205		1	2	3	1		1		4					1	2	2	1
BEAR CREEK RD	DAVID BRUCE WINERY DW - OLD SHINGLE MILL RD	6	1.12	55			4	2				2	3	1				3	1	2	
SUMMIT RD	LOMA PRIETA AVE - HIGHLAND WAY/SOQUEL SAN JOSE RD	5	0.90	40			2	3	3			2							2	1	1
SOQUEL SAN JOSE RD	AMAYA RIDGE RD - HESTER CREEK RD	5	0.53	44			3	2		1			2				2	1	1	2	
BEACH RD	CLEARWATER LN - LEE RD	5	0.42	190		1		4			2		2	1				2	2	1	1
HOLOHAN RD	COTTAGE RD - GRIMMER RD	5	0.17	513	1	2	1	1				1	3	1					2	2	
FELTON EMPIRE RD	KRAZY ACRE LN - FETHERSTON WAY	5	0.74	208		1	4						1	3			1	2	1		2
MOUNT MADONNA RD	VALLEY VIEW RD - COUNTY BOUNDARY	5	1.01	354		2	1	2				2	1	1			1	1			
CORRALITOS RD	SKYLARK LN - ALDRIDGE LN	4	0.64	43			4						3		1				2		
EMPIRE GRADE	SAN LORENZO AVE - QUARRY BEND RD	4	0.54	38			3	1					3	1				1	2	2	1
FREEDOM BLVD	HAMES RD - DAISY LN	4	0.76	193	1		2	1	1				2			1			2	2	
BRANCIFORTE DR	MILL RD - MYSTERY SPOT RD	4	0.41	43			4		1				2				1	1	2	1	1
SOQUEL SAN JOSE RD	MILLER HILL RD - MILLER CUT OFF RD	4	0.42	34			2	2			1		3					3		1	3

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Facility	Limits	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
QUAIL HOLLOW RD	VISTA ROBLES DR - QUAIL HOLLOW RANCH COUNTY PARK DW	4	1.61	43			4		1				3						1	4	
HOLOHAN RD	LAKEN DR - 118 HOLOHAN RD	4	0.23	34			2	2	1		3							3			
CARLTON RD	LAKEVIEW RD - HWY 152/CASSERLY RD	4	1.67	38			3	1		1		1	1	1					2	1	1
BONNY DOON RD	LONE STAR EQUIPMNT RD - SMITH GRADE	4	0.96	38			3	1					3	1				1	1		
EMPIRE GRADE	TWIN GATE/HIKING TRAIL - SMITH GRADE/SYLVESTER RD	4	0.30	352		2	2						3	1				1	1	2	2
BEACH RD	THURWACHER RD - PANABAKER RD	3	0.13	182		1	1	1			1	1	1					1		2	
BUENA VISTA DR	WHISKEY HILL RD - HARKINS SLOUGH RD	3	0.32	23			1	2					2	1				1			
SAN ANDREAS RD	BUENA VISTA DR - CREST DR	3	1.76	337		2		1					1	1			1	1			
FREEDOM BLVD	DAISY LN - LA VIDA DR	3	0.50	178		1		2					3						1		1
E ZAYANTE RD	LOMPICO RD - VALLEY VIEW AVE	3	4.03	18				3					3						2	2	1
LOMPICO RD	E ZAYANTE RD - LAKE BLVD	3	0.15	28			2	1					3						3	2	
FREEDOM BLVD	SCURICH LN - KLINSKY LN	3	0.11	187		1	2		1				2							2	
LOMPICO RD	LAKE BLVD - CARROL AVE	3	0.14	32			3					1	1	1						1	2
SOQUEL SAN JOSE RD	PURLING BROOK - SOQUEL CREEK RD	3	0.46	178		1		2		1		1		1							
SAN ANDREAS RD	BEACH RD - DAIRY RD	3	0.61	178		1		2				1	1	1				1			
E ZAYANTE RD	MT HERMON RD - OLYMPIA STATION RD	3	0.11	28			2	1	1				2						1	1	
CASSERLY RD	0.2 MILES NORTH OF DIAS LN - DIAS LN	3	0.56	28			2	1					2	1				1	1	2	
BUENA VISTA DR	HARKINS SLOUGH RD - RANCHO RD	3	0.23	32			3						2	1						1	2
BUENA VISTA DR	LARKIN VALLEY RD - DRIVEWAY 0.2 MILES EAST OF LARKING RD	3	1.53	23			1	2					2	1							
Minor Collector																					
GREEN VALLEY RD	PIONEER RD - LITCHFIELD LN	3	1.47	28			2	1		1			1	1					1	1	
Local Roads																					
BEACH RD	RIO BOCA RD - SAN ANDREAS RD	3	0.00	23			1	2	1			1	1					1			

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

Legend					
Fatal/Serious Injury Collisions		LCCR Differential		Probability of Collision Type Exceeding Threshold Proportion	
	+2 KSI Collisions		> 1.0		90-100%
	2		0.33 - 1.0		80-90%
	1		< 0.33		70-80%

Kimley»Horn

City of Scotts Valley Crash Summary

Facility	Limits	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
Minor Arterials																					
GRANITE CREEK RD	SCOTTS VALLEY DR - CA-17	1	0.17	11			1				1							1			
SCOTTS VALLEY DR	MOUNT HERMON RD/WHISPERING PINES DR - BEAN CREEK RD	1	0.01	11			1				1								1		
MOUNT HERMON RD	KINGS VILLAGE RD - SCOTTS VALLEY DR/WHISPERING PINES DR	1	-0.03	11			1										1				
SCOTTS VALLEY DR	CIVIC CENTER DR/DISC DR - CARBONERO WAY	1	-0.02	6				1									1				
Local Roads																					
BEAN CREEK RD	GREENWOOD ST - CITY LIMITS	1	-0.10	11			1												1	1	
EL PUEBLO DR	CARBONERO WAY - JANIS WAY	1	0.13	6				1	1												1
BETHANY DR	SCOTTS VALLEY DR - TABOR WAY	1	0.23	11			1				1							1			
TABOR DR	SCOTTS VALLEY DR/VINE HILL SCHOOL RD - TABOR WAY	1	0.03	11			1			1								1	1	1	

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

Legend					
Fatal/Serious Injury Collisions		LCCR Differential		Probability of Collision Type Exceeding Threshold Proportion	
	+2 KSI Collisions		> 1.0		90-100%
	2		0.33 - 1.0		80-90%
	1		< 0.33		70-80%

Kimley»Horn

City of Watsonville Crash Summary

Facility	Limits	Injury Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Impaired	Dark	Wet
Major Arterial																					
AIRPORT BLVD	FREEDOM BLVD - PAJARO LN	5	0.24	40			2	3	2	1	1					1		2	2	1	
AIRPORT BLVD	NEILSON ST - HANGAR WAY	3	0.07	182		1	1	1					1			2				3	1
W BEACH ST	INDUSTRIAL RD - HARVEST DR	3	0.33	18				3	2			1								1	
Minor Arterial																					
HARKINS SLOUGH RD	BAYVIEW DR - BLACKBIRD CIR	4	0.75	29			1	3			2					2		2	1	1	
Local Roads																					
MILES LN	KIMBERLY LN/SANTA CLARA ST - FREEDOM BLVD	3	5.24	342		2	1									3			2	3	

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

Legend					
Fatal/Serious Injury Collisions		LCCR Differential		Probability of Collision Type Exceeding Threshold Proportion	
	+2 KSI Collisions		> 1.0		90-100%
	2		0.33 - 1.0		80-90%
	1		< 0.33		70-80%

Kimley»Horn

APPENDIX

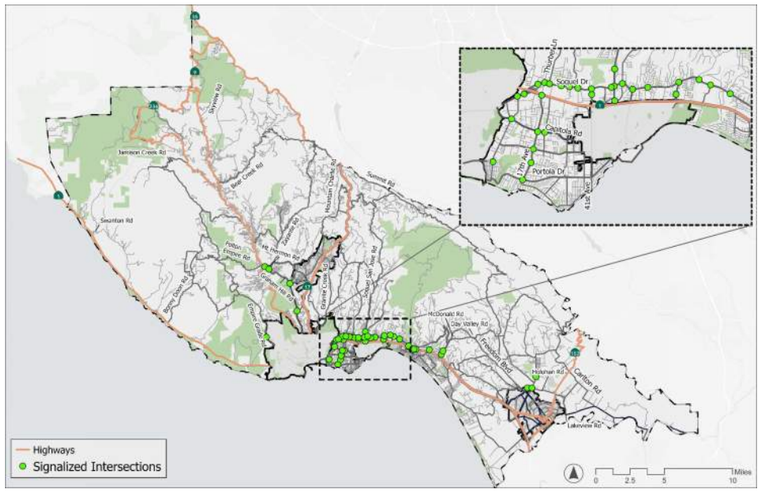
F

Project Sheets

Santa Cruz County Safety Action Plan

Systemic Signalized Intersections

Location: Unincorporated County of Santa Cruz
Agency Name: Santa Cruz County
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us



Total Crashes	238
Local CCR Differential	-
Equivalent Property Damage Only	5848
Fatal	1
Severe Injury	33
Other Visible Injury	99
Complaint of Pain	115
Crash Type	
Broadside	50
Sideswipe	21
Rear End	69
Head On	13
Hit Object	17
Overturned	4
Non-Motorist Crashes	
Pedestrian	9
Bicycle	52
Contributing Factors	
Aggressive	84
Impaired	39
Crash Conditions	
Dark	45
Wet	8
Number of Signalized Intersections	47

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
Conservative estimate to establish feasibility	All	Install retroreflective backplates on traffic signal heads and replace 8'' bulb traffic signal heads with 12"	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	90%	FATAL	1	0.15	0.30	$ 2,162,000	$ 648,600	$ 31,579,500	752 Backplates 100 Signal Heads	$1000 per Backplate & $5000 per signal head	$ 1,252,000	**25.2**
								SEVERE	33	4.95	9.90	$ 2,162,000	$ 21,403,800					
								OTHER VISIBLE	99	14.85	29.70	$ 193,000	$ 5,732,100					
								COMPLAINT OF PAIN	115	17.25	34.50	$ 110,000	$ 3,795,000					

	Total Cost	**$ 1,252,000**
	Contingency	**$ 375,600**
	Contingency + Cost	**$ 1,627,600**
	Benefit	**$ 31,579,500**
	Benefit Cost Ratio:	**19.4**

Santa Cruz County Safety Action Plan

Systemic Un-Signalized Intersections

Location: Unincorporated County of Santa Cruz
Agency Name: Santa Cruz County
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Unsignalized interections with One or more crashes

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2026 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2026 $)	COST ESTIMATE (2026 $)	BENEFIT/COST
	All	Improved signage and/or reflective strips	Improved signage and/or reflective strips	NS08	10	0.80	90%	FATAL	12	2.4	4.80	$ 3,440,000	$ 16,512,000	$ 241,136,400	553 Intersections	$ 5,000	$ 2,765,000	**87.2**
								SEVERE	128	25.6	51.20	$ 3,440,000	$ 176,128,000					
								OTHER VISIBLE	427	85.4	170.80	$ 193,000	$ 32,964,400					
								COMPLAINT OF PAIN	353	70.6	141.20	$ 110,000	$ 15,532,000					

Total Cost	**$ 2,765,000**
Contingency	**$ 829,500**
Contingency + Cost	**$ 3,594,500**
Benefit	**$ 241,136,400**
Benefit Cost Ratio:	**67.1**

Unsignalized interections with Two or more crashes

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
	All	Improved signage and/or reflective strips	Improved signage and/or reflective strips	–	10	0.80	90%	FATAL	6	1.2	2.40	$ 3,440,000	$ 8,256,000	$ 143,993,600	205 Intersections	$ 5,000	$ 1,025,000	**140.5**
								SEVERE	76	15.2	30.40	$ 3,440,000	$ 104,576,000					
								OTHER VISIBLE	268	53.6	107.20	$ 193,000	$ 20,689,600					
								COMPLAINT OF PAIN	238	47.6	95.20	$ 110,000	$ 10,472,000					

Total Cost	**$ 1,025,000**
Contingency	**$ 307,500**
Contingency + Cost	**$ 1,332,500**
Benefit	**$ 143,993,600**
Benefit Cost Ratio:	**108.1**

Unsignalized interections with Three or more crashes

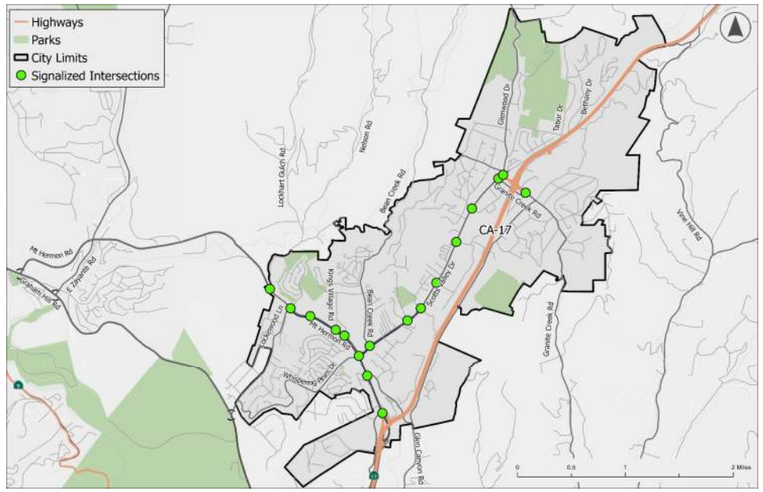
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
	All	Improved signage and/or reflective strips	Improved signage and/or reflective strips	–	10	0.80	90%	FATAL	4	0.8	1.60	$ 3,440,000	$ 5,504,000	$ 87,403,200	91 Intersections	$ 5,000	$ 455,000	**192.1**
								SEVERE	44	8.8	17.60	$ 3,440,000	$ 60,544,000					
								OTHER VISIBLE	186	37.2	74.40	$ 193,000	$ 14,359,200					
								COMPLAINT OF PAIN	159	31.8	63.60	$ 110,000	$ 6,996,000					

Total Cost	**$ 455,000**
Contingency	**$ 136,500**
Contingency + Cost	**$ 591,500**
Benefit	**$ 87,403,200**
Benefit Cost Ratio:	**147.8**

Santa Cruz County Safety Action Plan

Systemic Signalized Intersections

Location: Scotts Valley
Agency Name: City of Scotts Valley
Contact Name: Rodolfo Onchi
E-mail: ronchi@scottsvalley.gov



Total Crashes	43
Local CCR Differential	-
Equivalent Property Damage Only	953
Fatal	1
Severe Injury	4
Other Visible Injury	26
Complaint of Pain	12
Crash Type	
Broadside	11
Sideswipe	3
Rear End	9
Head On	2
Hit Object	6
Other	2
Non-Motorist Crashes	
Pedestrian	3
Bicycle	7
Contributing Factors	
Aggressive	17
Impaired	3
Crash Conditions	
Dark	10
Wet	1
Number of Signalized Intersections	17

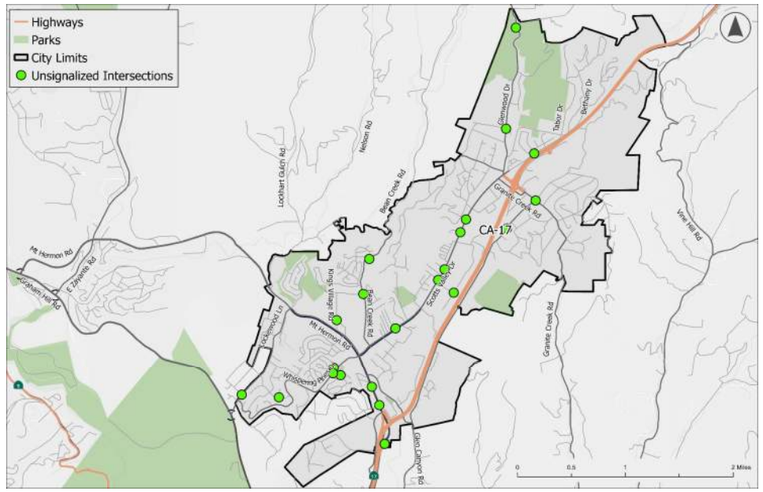
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
Conservative estimate to establish feasibility	All	Install retroreflective backplates on traffic signal heads and replace 8'' bulb traffic signal heads with 12''	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	90%	FATAL	1	0.15	0.30	$ 2,162,000	$ 648,600	$ 5,144,400	272 Backplates 50 Signal Heads	$1000 per Backplate & $5000 per signal head	$ 522,000	**9.9**
								SEVERE	4	0.6	1.20	$ 2,162,000	$ 2,594,400					
								OTHER VISIBLE	26	3.9	7.80	$ 193,000	$ 1,505,400					
								COMPLAINT OF PAIN	12	1.8	3.60	$ 110,000	$ 396,000					

	Total Cost	**$ 522,000**
		$ 156,600
	Contingency + Cost	**$ 678,600**
	Benefit	**$ 5,144,400**
	Benefit Cost Ratio:	**7.6**

Santa Cruz County Safety Action Plan

Systemic Unsignalized Intersections

Location: Scotts Valley
Agency Name: City of Scotts Valley
Contact Name: Rodolfo Onchi
E-mail: ronchi@scottsvalley.gov



Total Crashes	25
Local CCR Differential	-
Equivalent Property Damage Only	1147
Fatal	0
Severe Injury	5
Other Visible Injury	15
Complaint of Pain	5
Crash Type	
Broadside	3
Sideswipe	2
Rear End	6
Head On	1
Hit Object	6
Other	2
Non-Motorist Crashes	
Pedestrian	1
Bicycle	6
Contributing Factors	
Aggressive	8
Impaired	4
Crash Conditions	
Dark	1
Wet	2
Number of Signalized Intersections	22

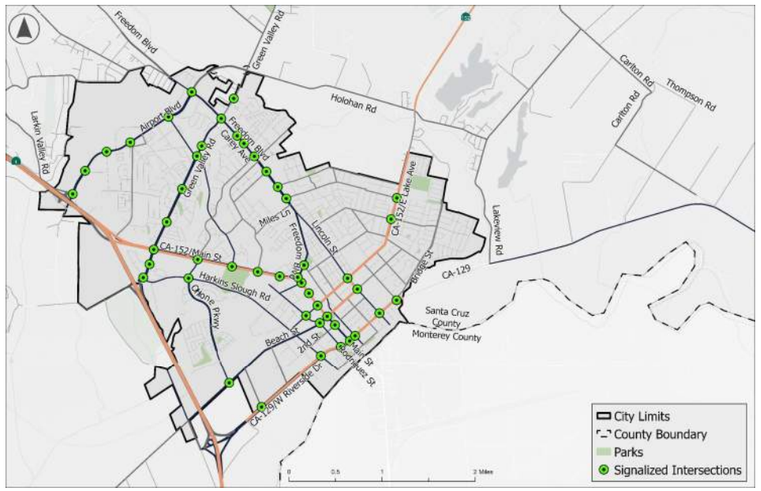
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
All unsignalized intersections with at least one crash are included	All	Improved signage and/or reflective strips	Improved signage and/or reflective strips	NS08	10	0.80	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 8,258,000	22 Intersections	$ 5,000	$ 110,000	**75.1**
								SEVERE	5	1	2.00	$ 3,440,000	$ 6,880,000				
								OTHER VISIBLE	15	3	6.00	$ 193,000	$ 1,158,000				
								COMPLAINT OF PAIN	5	1	2.00	$ 110,000	$ 220,000				

Total Cost	**$ 110,000**
	$ 33,000
Contingency + Cost	**$ 143,000**
Benefit	**$ 8,258,000**
Benefit Cost Ratio:	**57.7**

Santa Cruz County Safety Action Plan

Systemic Signalized Intersections

Location: Watsonville
Agency Name: City of Watsonville
Contact Name: Murray Fontes
E-mail: murray.fontes@cityofwatsonville.org



Total Crashes	112
Local CCR Differential	-
Equivalent Property Damage Only	2277
Fatal	4
Severe Injury	9
Other Visible Injury	24
Complaint of Pain	75
Crash Type	
Broadside	32
Sideswipe	3
Rear End	25
Head On	13
Hit Object	5
Overturned	0
Non-Motorist Crashes	
Pedestrian	17
Bicycle	17
Contributing Factors	
Aggressive	36
Impaired	23
Crash Conditions	
Dark	26
Wet	4
Number of Signalized Intersections	47

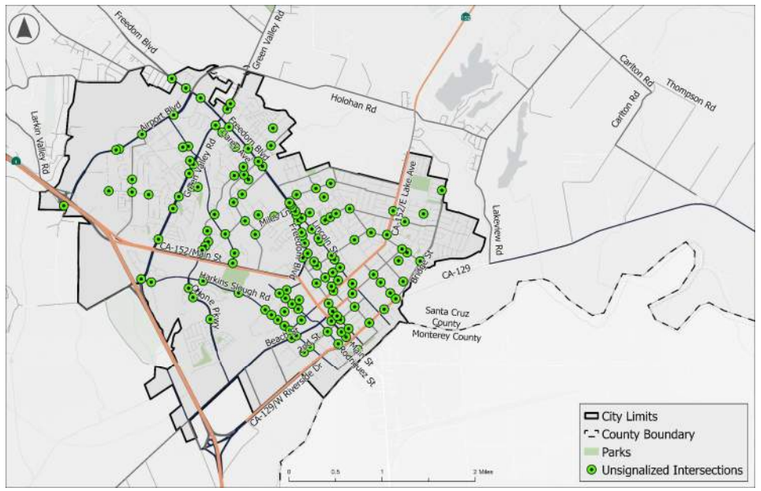
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
Conservative estimate to establish feasibility	All	Install retroreflective backplates on traffic signal heads and replace 8'' bulb traffic signal heads with 12"	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	90%	FATAL	4	0.6	1.20	$ 2,162,000	$ 2,594,400	$ 12,296,400	752 Backplates 75 Signal Heads	$1000 per Backplate & $5000 per signal head	$ 1,127,000	**10.9**
								SEVERE	9	1.35	2.70	$ 2,162,000	$ 5,837,400					
								OTHER VISIBLE	24	3.6	7.20	$ 193,000	$ 1,389,600					
								COMPLAINT OF PAIN	75	11.25	22.50	$ 110,000	$ 2,475,000					

Total Cost	**$**	**1,127,000**
Contingency	**$**	**338,100**
Contingency + Cost	**$**	**1,465,100**
Benefit	**$**	**12,296,400**
Benefit Cost Ratio:		**8.4**

Santa Cruz County Safety Action Plan

Systemic Unsignalized Intersections

Location: Watsonville
Agency Name: City of Watsonville
Contact Name: Murray Fontes
E-mail: murray.fontes@cityofwatsonville.org



Total Crashes	256
Local CCR Differential	-
Equivalent Property Damage Only	5471
Fatal	4
Severe Injury	15
Other Visible Injury	85
Complaint of Pain	152
Crash Type	
Broadside	96
Sideswipe	14
Rear End	34
Head On	18
Hit Object	16
Other	7
Non-Motorist Crashes	
Pedestrian	42
Bicycle	29
Contributing Factors	
Aggressive	56
Impaired	40
Crash Conditions	
Dark	56
Wet	13
Number of Signalized Intersections	143

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
All unsignalized intersections with at least one crash are included	All	Improved signage and/or reflective strips	Improved signage and/or reflective strips	NS08	10	0.80	90%	FATAL	4	0.8	1.60	$ 3,440,000	$ 5,504,000	$ 39,394,000	143 Intersections	$ 5,000	$ 715,000	**55.1**
								SEVERE	15	3	6.00	$ 3,440,000	$ 20,640,000				
								OTHER VISIBLE	85	17	34.00	$ 193,000	$ 6,562,000				
								COMPLAINT OF PAIN	152	30.4	60.80	$ 110,000	$ 6,688,000				

Total Cost	**$**	**715,000**
Contingency	**$**	**214,500**
Contingency + Cost	**$**	**929,500**
Benefit	**$**	**39,394,000**
Benefit Cost Ratio:		**42.4**

Santa Cruz County Safety Action Plan

Signalized Intersection

Location: Capitola Rd & 17th Ave
Agency Name: Santa Cruz County
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	14
Local CCR Differential	0.03
Equivalent Property Damage Only	451
Fatal	0
Severe Injury	3
Other Visible Injury	5
Complaint of Pain	6
Crash Type	
Broadside	1
Sideswipe	0
Rear End	7
Head On	1
Hit Object	0
Overturned	0
Non-Motorist Crashes	
Pedestrian	0
Bicycle	5
Contributing Factors	
Aggressive	8
Impaired	2
Crash Conditions	
Dark	3
Wet	0

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
Includes cost of controller updates and design	Bike + Ped	Implement Leading Pedestrian Interval (LPI)	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)	SI22PB	10	0.40	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 3,421,200	1 Lump Sum	$ 50,000	$ 50,000	**68.4**
								SEVERE	1	0.6	1.20	$ 2,162,000	$ 2,594,400					
								OTHER VISIBLE	3	1.8	3.60	$ 193,000	$ 694,800					
								COMPLAINT OF PAIN	1	0.6	1.20	$ 110,000	$ 132,000					
-	All	Install retroreflective backplates on traffic signal heads	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 2,433,300	16 Backplates	$ 950	$ 15,200	**160.1**
								SEVERE	3	0.45	0.90	$ 2,162,000	$ 1,945,800					
								OTHER VISIBLE	5	0.75	1.50	$ 193,000	$ 289,500					
								COMPLAINT OF PAIN	6	0.9	1.80	$ 110,000	$ 198,000					
Intersection crosswalk striping should be a ladder per County Standards	Bike + Ped	Install bike box on 17th Ave approaches and Implement green conflict zone striping for bike lanes	Install advance stop bar before crosswalk (Bicycle Box)	SI21PB	10	0.85	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 648,600	2400 SQFT Striping + $1150 for Bike Box	$ 6	$ 16,700	**38.8**
								SEVERE	1	0.15	0.30	$ 2,162,000	$ 648,600					
								OTHER VISIBLE	0	0	0.00	$ 193,000	$ -					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
-	All	Trim back vegetation and set back the property sign at the Northeast corner of the intersection. Relocate the pedestrian push button on the Northeast corner of the intersection closer to the crosswalk per MUTCD requirements.	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump Sum	$ 50,000	$ 50,000	**0.0**
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
	Bike + Ped	Install advance stop bar on Capitola Rd approaches	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	120 SQFT of Striping	$ 10	$ 1,200	**0.0**
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
-	Bike + Ped	Install APS (accessible pedestrian signals)	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	4 APS	$ 2,110	$ 16,880	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
-	Bike + Ped	Install Yellow Ladder Crosswalks and ADA Curb Ramp Upgrades	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	4 Crosswalks	$ 6	$ 35,500	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
-	Bike + Ped	Install Protected Intersection	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump Sum	-	$ 250,000	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					

Cost	**$**	**435,480**
Contingency (30%)	**$**	**130,644**
Total Cost	**$**	**566,124**
Benefit	**$**	**6,503,100**
Benefit Cost Ratio:		**11.5**

Santa Cruz County Safety Action Plan

Non-Signalized Intersection

Location: Portola Dr & 41st Ave
Agency Name: Santa Cruz County
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	6
Local CCR Differential	0.09
Equivalent Property Damage Only	479
Fatal	0
Severe Injury	2
Other Visible Injury	3
Complaint of Pain	1
Crash Type	
Broadside	1
Sideswipe	0
Rear End	0
Head On	0
Hit Object	0
Overturned	0
Non-Motorist Crashes	
Pedestrian	4
Bicycle	1
Contributing Factors	
Aggressive	1
Impaired	2
Crash Conditions	
Dark	3
Wet	0

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
Designs must include provisions for cyclists. Explore tie-in with proposed County's plan to restripe EB Portola approach to one lane.	Bike + Ped	Install bulb outs on intersection approaches by narrowing the approach lanes to one-lane in all directions	Install/upgrade pedestrian crossing at uncontrolled locations (with enhanced safety features)	NS23PB	20	0.65	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 5,086,200	4 Bulb outs	$ 30,000	$ 120,000	**42.4**
								SEVERE	2	0.7	1.40	$ 3,440,000	$ 4,816,000					
								OTHER VISIBLE	2	0.7	1.40	$ 193,000	$ 270,200					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
-	All	Install advance stop bars on all approaches	Upgrade intersection pavement markings (NS.I.)	NS09	10	0.75	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 3,784,500	240 SQFT of Striping	$ 10	$ 2,400	**1,576.9**
								SEVERE	2	0.5	1.00	$ 3,440,000	$ 3,440,000					
								OTHER VISIBLE	3	0.75	1.50	$ 193,000	$ 289,500					
								COMPLAINT OF PAIN	1	0.25	0.50	$ 110,000	$ 55,000					
-	Bike + Ped	Remove the channelized right-turn lane on the eastbound approach.	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump sum	-	$ 72,000	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
-	Bike + Ped	ADA ramp upgrades	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	4 Curb Ramps	$ 5,275	$ 21,100	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					

Cost	**$**	**215,500**
Contingency (30%)	**$**	**64,650**
Total Cost	**$**	**280,150**
Benefit	**$**	**8,870,700**
Benefit Cost Ratio:		**31.7**

Santa Cruz County Safety Action Plan

Signalized Intersection

Location: Soquel Dr and Comercial Way/Thurber Lane
Agency Name: Santa Cruz County
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	**9**
Local CCR Differential	0.06
Equivalent Property Damage Only	192
Fatal	0
Severe Injury	1
Other Visible Injury	5
Complaint of Pain	3
Crash Type	
Broadside	3
Sideswipe	1
Rear End	1
Head On	1
Hit Object	1
Overturned	0
Non-Motorist Crashes	
Pedestrian	0
Bicycle	2
Contributing Factors	
Aggressive	3
Impaired	2
Crash Conditions	
Dark	1
Wet	0

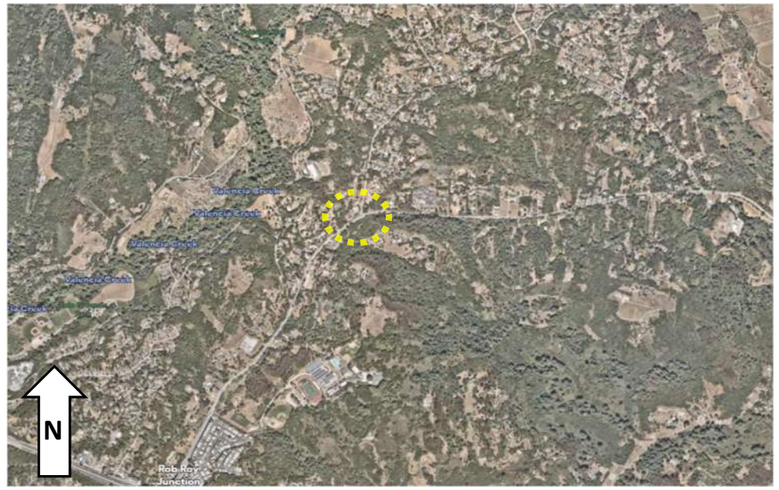
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
Includes cost of upgraded signal controller	Bike + Ped	Implement Leading Pedestrian Interval (LPI)	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)	SI22PB	10	0.40	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 363,600	1 Lump Sum	$ 50,000	$ 50,000	**7.3**
								SEVERE	0	0	0.00	$ 2,162,000	$ -				
								OTHER VISIBLE	1	0.6	1.20	$ 193,000	$ 231,600				
								COMPLAINT OF PAIN	1	0.6	1.20	$ 110,000	$ 132,000				
-	All	Install retroreflective backplates on traffic signal heads. Upgrade Undersized signal heads	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 1,037,100	10 backplates and 1 signal head	$950 per Backplate and $2000 per signal head	$ 11,500	**90.2**
								SEVERE	1	0.15	0.30	$ 2,162,000	$ 648,600				
								OTHER VISIBLE	5	0.75	1.50	$ 193,000	$ 289,500				
								COMPLAINT OF PAIN	3	0.45	0.90	$ 110,000	$ 99,000				
Intersection crosswalk striping should be a ladder per County Standards	All	Install luminaire on the Thurber Lane approach	Add intersection lighting	SI01NT	20	0.55	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 173,700	2400 SQFT Striping + $1150 for Bike Box	$ 6	$ 16,700	**10.4**
								SEVERE	0	0	0.00	$ 2,162,000	$ -				
								OTHER VISIBLE	1	0.45	0.90	$ 193,000	$ 173,700				
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -				
-	All	Trim back or remove vegetation by the Commercial Way approach.	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump Sum	$ 1,000	$ 1,000	-
								SEVERE	-	-	-	-	-				
								OTHER VISIBLE	-	-	-	-	-				
								COMPLAINT OF PAIN	-	-	-	-	-				

Cost	**$**	**79,200**
Contingency (30%)	**$**	**23,760**
Total Cost	**$**	**102,960**
Benefit	**$**	**1,574,400**
Benefit Cost Ratio:		**15.3**

Santa Cruz County Safety Action Plan

Unsignalized Intersection

Location: Freedom Blvd & McDonald Rd
Agency Name: County of Santa Cruz
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us



Total Crashes	1
Local CCR Differential	-0.08
Equivalent Property Damage Only	13
Fatal	0
Severe Injury	0
Other Visible Injury	1
Complaint of Pain	0
Crash Type	
Broadside	0
Sideswipe	0
Rear End	0
Head On	0
Hit Object	1
Overturned	0
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	0
Impaired	1
Crash Conditions	
Dark	1
Wet	0

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install speed feedback signs along the curve (both directions)	Install dynamic/variable speed warning signs	R26	10	0.70	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 231,600	2 Signs	$ 26,000	$ 52,000	**4.5**
								SEVERE	0	0	0.00	$ 3,440,000	$ -				
								OTHER VISIBLE	2	0.6	1.20	$ 193,000	$ 231,600					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
-	Ped/Bike	Install high-friction surface treatment on the Freedom Blvd approaches	Improve pavement friction (High Friction Surface Treatments)	NS14	10	0.45	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 424,600	1 Lump Sum	$ 186,000	$ 186,000	**2.3**
								SEVERE	0	0	0.00	$ 3,440,000	$ -				
								OTHER VISIBLE	2	1.1	2.20	$ 193,000	$ 424,600					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
-	-	Broaden the bus pullout area on the East leg of the intersection	-	-	-	-	-	FATAL	-	-	-	-	-	-	1 Lump Sum	$ 8,000	$ 8,000	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					

Cost	**$**	**246,000**
Contingency (30%)	**$**	**73,800**
Total Cost	**$**	**319,800**
Benefit	**$**	**656,200**
Benefit Cost Ratio:		**2.1**

Santa Cruz County Safety Action Plan

Unsignalized Intersection

Location: Freedom Blvd & Day Valley Rd
Agency Name: County of Santa Cruz
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	2
Local CCR Differential	-0.04
Equivalent Property Damage Only	20
Fatal	0
Severe Injury	0
Other Visible Injury	1
Complaint of Pain	1
Crash Type	
Broadside	0
Sideswipe	1
Rear End	1
Head On	0
Hit Object	0
Overturned	0
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	1
Impaired	0
Crash Conditions	
Dark	0
Wet	0

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Replace existing intersection warning signage along Freedom Blvd with new retroreflective signs	Install/upgrade signs with new fluorescent sheeting (regulatory or warning)	R22	10	0.85	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 57,900	10 Signs and Reflective Strips	$ 750	$ 7,500	**7.7**
								SEVERE	0	0	0.00	$ 3,440,000	$ -				
								OTHER VISIBLE	1	0.15	0.30	$ 193,000	$ 57,900				
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -				
-	All	Cut back vegetation near the intersection	Improve sight distance to intersection (Clear Sight Triangles)	NS13	10	0.80	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 121,200	1 Lump Sum	$ 5,000	$ 5,000	**24.2**
								SEVERE	0	0	0.00	$ 3,440,000	$ -				
								OTHER VISIBLE	1	0.2	0.40	$ 193,000	$ 77,200				
								COMPLAINT OF PAIN	1	0.2	0.40	$ 110,000	$ 44,000				
Not applicable near driveways	-	Install centerline rumble strip along the horizontal (Freedom Blvd)	Install centerline rumble strips/stripes	R30	10	0.80	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 121,200	0.5 Miles	$ 76,800	$ 38,400	**3.2**
								SEVERE	0	0	0.00	$ 3,440,000	$ -				
								OTHER VISIBLE	1	0.2	0.40	$ 193,000	$ 77,200				
								COMPLAINT OF PAIN	1	0.2	0.40	$ 110,000	$ 44,000				

Cost	**$ 50,900**
Contingency (30%)	**$ 15,270**
Total Cost	**$ 66,170**
Benefit	**$ 300,300**
Benefit Cost Ratio:	**4.5**

Santa Cruz County Safety Action Plan

Roadway Segment

Location: Mt Hermon Rd (Graham Hill Rd - Covenant Ln)
Agency Name: County of Santa Cruz
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	10
Local CCR Differential	0.33
Equivalent Property Damage Only	571
Fatal	1
Severe Injury	2
Other Visible Injury	7
Complaint of Pain	0
Crash Type	
Broadside	1
Sideswipe	1
Rear End	0
Head On	1
Hit Object	5
Overturned	2
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	2
Impaired	4
Crash Conditions	
Dark	6
Wet	3

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install centerline rumble strips	Install centerline rumble strips/stripes	R30	10	0.80	90%	FATAL	1	0.2	0.40	$ 2,978,000	$ 1,191,200	$ 3,700,400	0.6 Miles	$ 76,800	$ 46,080	**80.3**
								SEVERE	2	0.4	0.80	$ 2,461,000	$ 1,968,800					
								OTHER VISIBLE	7	1.4	2.80	$ 193,000	$ 540,400					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
-	All	Install high-friction surface treatment	Improve pavement friction (High Friction Surface Treatments)	R21	10	0.45	90%	FATAL	1	0.55	1.10	$ 2,162,000	$ 2,378,200	$ 8,620,700	27000 SQYD	$ 74	$ 1,998,000	**4.3**
								SEVERE	2	1.1	2.20	$ 2,162,000	$ 4,756,400					
								OTHER VISIBLE	7	3.85	7.70	$ 193,000	$ 1,486,100					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
-	All	Install curve speed feedback signs	Install dynamic/variable speed warning signs	R26	10	0.70	90%	FATAL	1	0.3	0.60	$ 2,978,000	$ 1,786,800	$ 5,550,600	2 Signs	$ 22,600	$ 45,200	**122.8**
								SEVERE	2	0.6	1.20	$ 2,461,000	$ 2,953,200					
								OTHER VISIBLE	7	2.1	4.20	$ 193,000	$ 810,600					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					

Cost	**$ 2,089,280**
Contingency (30%)	**$ 626,784**
Total Cost	**$ 2,716,064**
Benefit	**$ 17,871,700**
Benefit Cost Ratio:	**6.6**

Santa Cruz County Safety Action Plan

Roadway Segment

Location: Graham Hill Rd (Lockewood Ln - Summit Ave)
Agency Name: County of Santa Cruz
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	8
Local CCR Differential	0.11
Equivalent Property Damage Only	391
Fatal	0
Severe Injury	2
Other Visible Injury	5
Complaint of Pain	1
Crash Type	
Broadside	0
Sideswipe	0
Rear End	0
Head On	0
Hit Object	8
Overturned	0
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	1
Impaired	4
Crash Conditions	
Dark	5
Wet	2

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install centerline rumble strips	Install centerline rumble strips/stripes	R30	10	0.80	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 2,398,800	1.3 Miles	$ 76,800	$ 99,840	**24.0**
								SEVERE	2	0.4	0.80	$ 2,461,000	$ 1,968,800				
								OTHER VISIBLE	5	1	2.00	$ 193,000	$ 386,000				
								COMPLAINT OF PAIN	1	0.2	0.40	$ 110,000	$ 44,000				
-	All	Install high-friction surface treatment	Improve pavement friction (High Friction Surface Treatments)	R21	10	0.45	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 5,938,900	17500 SQYD	$ 74	$ 1,295,000	**4.6**
								SEVERE	2	1.1	2.20	$ 2,162,000	$ 4,756,400				
								OTHER VISIBLE	5	2.75	5.50	$ 193,000	$ 1,061,500				
								COMPLAINT OF PAIN	1	0.55	1.10	$ 110,000	$ 121,000				
-	All	Install curve speed feedback signs	Install dynamic/variable speed warning signs	R26	10	0.70	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 3,598,200	2 Signs	$ 22,600	$ 45,200	**79.6**
								SEVERE	2	0.6	1.20	$ 2,461,000	$ 2,953,200				
								OTHER VISIBLE	5	1.5	3.00	$ 193,000	$ 579,000				
								COMPLAINT OF PAIN	1	0.3	0.60	$ 110,000	$ 66,000				

Cost	**$ 1,440,040**
Contingency (30%)	**$ 432,012**
Total Cost	**$ 1,872,052**
Benefit	**$ 11,935,900**
Benefit Cost Ratio:	**6.4**

Santa Cruz County Safety Action Plan

Roadway Segment

Location: Felton Empire Rd (Krazy Acre Ln - Empire Grade)
Agency Name: County of Santa Cruz
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	9
Local CCR Differential	0.89
Equivalent Property Damage Only	392
Fatal	0
Severe Injury	2
Other Visible Injury	4
Complaint of Pain	3
Crash Type	
Broadside	0
Sideswipe	0
Rear End	0
Head On	1
Hit Object	6
Overturned	2
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	2
Impaired	1
Crash Conditions	
Dark	3
Wet	5

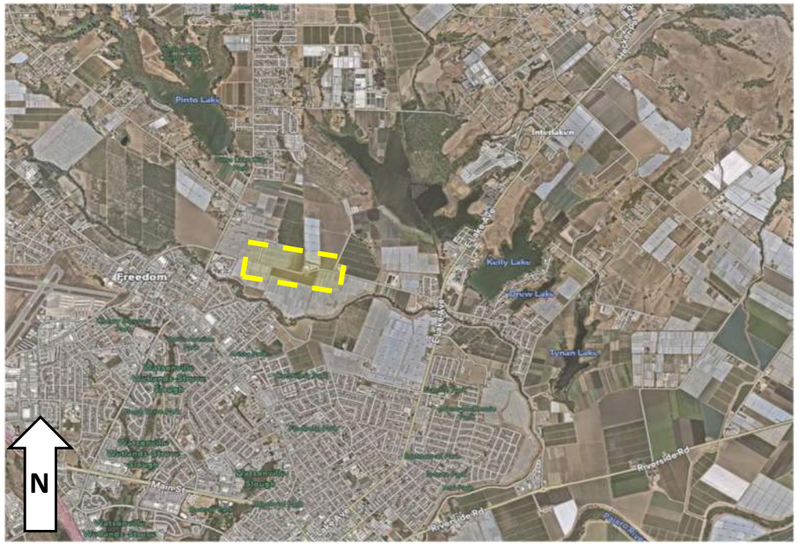
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install centerline rumble strips	Install centerline rumble strips/stripes	R30	10	0.80	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 2,409,600	2 Miles	$ 76,800	$ 153,600	**15.7**
								SEVERE	2	0.4	0.80	$ 2,461,000	$ 1,968,800				
								OTHER VISIBLE	4	0.8	1.60	$ 193,000	$ 308,800				
								COMPLAINT OF PAIN	3	0.6	1.20	$ 110,000	$ 132,000				
-	All	Install high-friction surface treatment	Improve pavement friction (High Friction Surface Treatments)	R21	10	0.45	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 5,968,600	27000 SQYD	$ 74	$ 1,998,000	**3.0**
								SEVERE	2	1.1	2.20	$ 2,162,000	$ 4,756,400				
								OTHER VISIBLE	4	2.2	4.40	$ 193,000	$ 849,200				
								COMPLAINT OF PAIN	3	1.65	3.30	$ 110,000	$ 363,000				
-	All	Install curve speed feedback signs	Install dynamic/variable speed warning signs	R26	10	0.70	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 3,614,400	2 Signs	$ 22,600	$ 45,200	**80.0**
								SEVERE	2	0.6	1.20	$ 2,461,000	$ 2,953,200				
								OTHER VISIBLE	4	1.2	2.40	$ 193,000	$ 463,200				
								COMPLAINT OF PAIN	3	0.9	1.80	$ 110,000	$ 198,000				
-	All	Install edgeline	Install edgelines	R28	10	0.75	90%	FATAL	0	0	0.00	$ 2,461,000	$ -	$ 3,012,000	21120 LF	$ 2	$ 42,240	**71.3**
								SEVERE	2	0.5	1.00	$ 2,461,000	$ 2,461,000				
								OTHER VISIBLE	4	1	2.00	$ 193,000	$ 386,000				
								COMPLAINT OF PAIN	3	0.75	1.50	$ 110,000	$ 165,000				
-	All	Install intersection warning signage approaching Krazy Acre Ln. Conduct a systemic review of curve signage.	Install/Upgrade signs with new fluorescent sheeting (regulatory or warning)	R22	10	0.85	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 920,100	Lump Sum	$ 10,000	$ 20,000	**46.0**
								SEVERE	1	0.15	0.30	$ 2,461,000	$ 738,300				
								OTHER VISIBLE	2	0.3	0.60	$ 193,000	$ 115,800				
								COMPLAINT OF PAIN	2	0.3	0.60	$ 110,000	$ 66,000				

Cost	**$**	**2,196,800**
Contingency (30%)	**$**	**659,040**
Total Cost	**$**	**2,855,840**
Benefit	**$**	**11,992,600**
Benefit Cost Ratio:		**4.2**

Santa Cruz County Safety Action Plan

Roadway Segment

Location: Holohan Rd (btw Grimmer Rd and Cottage Rd)
Agency Name: County of Santa Cruz
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us



Total Crashes	5
Local CCR Differential	0.17
Equivalent Property Damage Only	513
Fatal	1
Severe Injury	2
Other Visible Injury	1
Complaint of Pain	1
Crash Type	
Broadside	0
Sideswipe	0
Rear End	0
Head On	3
Hit Object	1
Overturned	1
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	0
Impaired	2
Crash Conditions	
Dark	2
Wet	0

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install centerline rumble strips along Holohan Rd	Install centerline rumble strips/stripes	R30	10	0.80	90%	FATAL	1	0.2	0.40	$ 2,978,000	$ 1,191,200	$ 3,281,200	0.4 Miles	$ 76,800	$ 30,720	**106.8**
								SEVERE	2	0.4	0.80	$ 2,461,000	$ 1,968,800					
								OTHER VISIBLE	1	0.2	0.40	$ 193,000	$ 77,200					
								COMPLAINT OF PAIN	1	0.2	0.40	$ 110,000	$ 44,000					
-	All	Install chevron signs on EB/WB Holohan Rd west of Grimmer Rd and Holohan Rd intersection	Install chevron signs on horizontal curves	R23	10	0.60	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 154,400	6 Sign	$ 750	$ 4,500	**34.3**
								SEVERE	0	0	0.00	$ 2,461,000	$ -					
								OTHER VISIBLE	1	0.4	0.80	$ 193,000	$ 154,400					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
-	All	Install solar radar speed feedback sign for both approaches	Install dynamic/variable speed warning signs	R26	10	0.70	90%	FATAL	1	0.3	0.60	$ 2,978,000	$ 1,786,800	$ 4,921,800	2 Signs	$ 22,600	$ 45,200	**108.9**
								SEVERE	2	0.6	1.20	$ 2,461,000	$ 2,953,200					
								OTHER VISIBLE	1	0.3	0.60	$ 193,000	$ 115,800					
								COMPLAINT OF PAIN	1	0.3	0.60	$ 110,000	$ 66,000					
Includes unit cost, installation, design and	Dark	Install roadway lighting at the horizontal curves	Add segment lighting	R01	20	0.65	90%	FATAL	1	0.35	0.70	$ 2,978,000	$ 2,084,600	$ 2,219,700	2 Luminaires	$ 19,500	$ 39,000	**56.9**
								SEVERE	0	0	0.00	$ 2,461,000	$ -					
								OTHER VISIBLE	1	0.35	0.70	$ 193,000	$ 135,100					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					

Cost	**$**	**119,420**
Contingency (30%)	**$**	**35,826**
Total Cost	**$**	**155,246**
Benefit	**$**	**10,577,100**
Benefit Cost Ratio:		**68.1**

Santa Cruz County Safety Action Plan

Roadway Segment

Location: Lakeview Rd (btw Crestwood Dr and CA 129/Riverside Rd)
Agency Name: County of Santa Cruz
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	7
Local CCR Differential	0.77
Equivalent Property Damage Only	530
Fatal	0
Severe Injury	3
Other Visible Injury	2
Complaint of Pain	2
Crash Type	
Broadside	0
Sideswipe	0
Rear End	1
Head On	6
Hit Object	6
Overturned	0
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	1
Impaired	4
Crash Conditions	
Dark	2
Wet	0

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install solar radar speed feedback sign	Install dynamic/variable speed warning signs	R26	10	0.70	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 3,184,800	4 Signs	$ 22,600	$ 90,400	**35.2**
								SEVERE	2	0.6	1.20	$ 2,461,000	$ 2,953,200				
								OTHER VISIBLE	2	0.6	1.20	$ 193,000	$ 231,600				
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -				
-	All	Install edgeline	Install edgelines	R28	10	0.75	90%	FATAL	0	0	0.00	$ 2,461,000	$ -	$ 3,994,500	8500 LF	$ 2	$ 17,000	**235.0**
								SEVERE	3	0.75	1.50	$ 2,461,000	$ 3,691,500				
								OTHER VISIBLE	2	0.5	1.00	$ 193,000	$ 193,000				
								COMPLAINT OF PAIN	2	0.5	1.00	$ 110,000	$ 110,000				

Cost	**$**	**189,622**
Contingency (30%)	**$**	**56,887**
Total Cost	**$**	**246,509**
Benefit	**$**	**15,967,200**
Benefit Cost Ratio:		**64.8**

Santa Cruz County Safety Action Plan

Unsignalized Intersection

Location: Carlton Rd & Thompson Rd
Agency Name: County of Santa Cruz
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	14
Local CCR Differential	5.64
Equivalent Property Damage Only	578
Fatal	1
Severe Injury	1
Other Visible Injury	5
Complaint of Pain	7
Crash Type	
Broadside	8
Sideswipe	1
Rear End	1
Head On	2
Hit Object	1
Overturned	1
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	2
Impaired	3
Crash Conditions	
Dark	1
Wet	0

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install chevron facing vehicles approaching NB on Carlton Rd.	Install chevron signs on horizontal curves	R23	10	0.60	90%	FATAL	1	0.4	0.80	$ 3,440,000	$ 2,752,000	$ 6,892,000	3 Signs	$ 750	$ 2,250	**3,063.1**
								SEVERE	1	0.4	0.80	$ 3,440,000	$ 2,752,000					
								OTHER VISIBLE	5	2	4.00	$ 193,000	$ 772,000					
								COMPLAINT OF PAIN	7	2.8	5.60	$ 110,000	$ 616,000					
Install a W1-6(R) sign at the curve on Thompson Rd facing SB vehicles. Replace existing signs with larger/ retroreflective signs, and install retroreflective stips on sign posts. Install R1-10b(L) on NB Carlton Rd.			Install/upgrade larger or additional stop signs or other intersection warning/ regulatory signs	NS08	10	0.85	90%	FATAL	1	0.15	0.30	$ 3,440,000	$ 1,032,000	$ 2,584,500	15 Signs	$ 750	$ 11,250	**229.7**
								SEVERE	1	0.15	0.30	$ 3,440,000	$ 1,032,000					
								OTHER VISIBLE	5	0.75	1.50	$ 193,000	$ 289,500					
								COMPLAINT OF PAIN	7	1.05	2.10	$ 110,000	$ 231,000					
-	All	Install speed feedback signs along the Carlton Rd horizontal curve approaches	Install dynamic/variable speed warning signs	R26	10	0.70	90%	FATAL	1	0.3	0.60	$ 3,440,000	$ 2,064,000	$ 5,169,000	2 Signs	$ 22,600	$ 45,200	**114.4**
								SEVERE	1	0.3	0.60	$ 3,440,000	$ 2,064,000					
								OTHER VISIBLE	5	1.5	3.00	$ 193,000	$ 579,000					
								COMPLAINT OF PAIN	7	2.1	4.20	$ 110,000	$ 462,000					
-	All	Install High-Friction Surface Treatment	Improve pavement friction (High Friction Surface Treatments)	R21	10	0.45	90%	FATAL	1	0.55	1.10	$ 3,440,000	$ 3,784,000	$ 9,476,500	1100 SQYD	$ 74	$ 81,400	**116.4**
								SEVERE	1	0.55	1.10	$ 3,440,000	$ 3,784,000					
								OTHER VISIBLE	5	2.75	5.50	$ 193,000	$ 1,061,500					
								COMPLAINT OF PAIN	7	3.85	7.70	$ 110,000	$ 847,000					
If intersection meets AWSC warrants	All	Convert the intersection to all-way stop control.	Convert to all-way stop control (from 2-way or yield control)	NS02	10	0.50	90%	FATAL	1	0.5	1.00	$ 3,440,000	$ 3,440,000	$ 8,615,000	1 Lump Sum	-	$ 4,680	**1,840.8**
								SEVERE	1	0.5	1.00	$ 3,440,000	$ 3,440,000					
								OTHER VISIBLE	5	2.5	5.00	$ 193,000	$ 965,000					
								COMPLAINT OF PAIN	7	3.5	7.00	$ 110,000	$ 770,000					

Cost	**$**	**144,780**
Contingency (30%)	**$**	**43,434**
Total Cost	**$**	**188,214**
Benefit	**$**	**32,737,000**
Benefit Cost Ratio:		**173.9**

Santa Cruz County Safety Action Plan

Roadway Segment

Location: Empire Grade Rd (Heller Dr to Fuel Break Rd)
Agency Name: County of Santa Cruz
Contact Name: Russell Chen
E-mail: Russell.Chen@santacruzcounty.us

Total Crashes	10
Local CCR Differential	1.32
Equivalent Property Damage Only	403
Fatal	0
Severe Injury	2
Other Visible Injury	5
Complaint of Pain	3
Crash Type	
Broadside	0
Sideswipe	0
Rear End	0
Head On	9
Hit Object	0
Overturned	1
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	0
Impaired	5
Crash Conditions	
Dark	5
Wet	1

Note: more detailed improvements to be identified as part of the corridor improvements

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2022 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install centerline rumble strips	Install centerline rumble strips/stripes	R30	10	0.80	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 2,900,400	1.3 Miles	$ 76,800	$ 99,840	**29.1**
								SEVERE	2	0.4	0.80	$ 2,978,000	$ 2,382,400				
								OTHER VISIBLE	5	1	2.00	$ 193,000	$ 386,000				
								COMPLAINT OF PAIN	3	0.6	1.20	$ 110,000	$ 132,000				
-	All	Install chevron signs on horizontal curves	Install chevron signs on horizontal curves	R23	10	0.60	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 5,800,800	12 Signs	$ 750	$ 9,000	**644.5**
								SEVERE	2	0.8	1.60	$ 2,978,000	$ 4,764,800				
								OTHER VISIBLE	5	2	4.00	$ 193,000	$ 772,000				
								COMPLAINT OF PAIN	3	1.2	2.40	$ 110,000	$ 264,000				
-	All	Install Speed Feedback Signs	Install dynamic/variable speed warning signs	R21	10	0.45	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 7,976,100	3 Signs	$ 22,600	$ 67,800	**117.6**
								SEVERE	2	1.1	2.20	$ 2,978,000	$ 6,551,600				
								OTHER VISIBLE	5	2.75	5.50	$ 193,000	$ 1,061,500				
								COMPLAINT OF PAIN	3	1.65	3.30	$ 110,000	$ 363,000				
-	All	Install high friction surface treatment along horizontal curves	Improve pavement friction (High Friction Surface Treatments)	R26	10	0.70	90%	FATAL	0	0	0.00	$ 2,978,000	$ -	$ 4,350,600	7300 SQYD	$ 74	$ 540,200	**8.1**
								SEVERE	2	0.6	1.20	$ 2,978,000	$ 3,573,600				
								OTHER VISIBLE	5	1.5	3.00	$ 193,000	$ 579,000				
								COMPLAINT OF PAIN	3	0.9	1.80	$ 110,000	$ 198,000				
-	Ped/Bike	Construct bike pullouts at horizontal curves along the corridor	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	18 Pullouts	$ 35,000	$ 630,000	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					

Cost	**$ 108,840**
Contingency (30%)	**$ 32,652**
Total Cost	**$ 141,492**
Benefit	**$ 8,701,200**
Benefit Cost Ratio:	**61.5**

Santa Cruz County Safety Action Plan

Signalized Intersection

Location: Mt Hermon Rd & Kings Village Rd
Agency Name: City of Scotts Valley
Contact Name: Rodolfo Onchi
E-mail: ronchi@scottsvalley.gov

Total Crashes	7
Local CCR Differential	0
Equivalent Property Damage Only	175
Fatal	0
Severe Injury	1
Other Visible Injury	4
Complaint of Pain	2
Crash Type	
Broadside	1
Sideswipe	2
Rear End	1
Head On	1
Hit Object	0
Overturned	0
Non-Motorist Crashes	
Pedestrian	1
Bicycle	1
Contributing Factors	
Aggressive	2
Impaired	0
Crash Conditions	
Dark	2
Wet	0

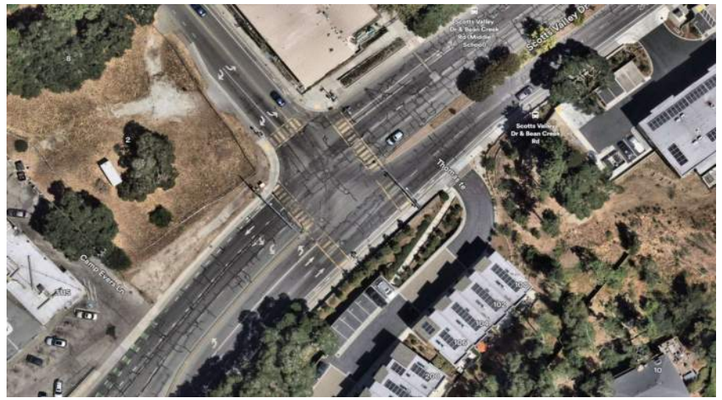
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install retroreflective backplates on traffic signal heads. Replace 8'' signal heads with new 12'' LED signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 946,200	3 Signal Heads and 15 Backplates	$2100 per Signal Heads and $950 per Backplates	$ 20,550	**46.0**
								SEVERE	1	0.15	0.30	$ 2,162,000	$ 648,600				
								OTHER VISIBLE	4	0.6	1.20	$ 193,000	$ 231,600				
								COMPLAINT OF PAIN	2	0.3	0.60	$ 110,000	$ 66,000				
Includes cost of controller updates and design	Bike + Ped	Implement LPI	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)	SI22PB	10	0.40	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 2,726,400	1 Lump Sum	$ 50,000	$ 50,000	**54.5**
								SEVERE	1	0.6	1.20	$ 2,162,000	$ 2,594,400				
								OTHER VISIBLE	0	0	0.00	$ 193,000	$ -				
								COMPLAINT OF PAIN	1	0.6	1.20	$ 110,000	$ 132,000				
-	All	Update the signal heads to include a protected left turn phase.	Provide protected left turn phase (left turn lane already exists)	S106	20	0.70	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 1,892,400	1 Lump Sum	$ 320,100	$ 320,100	**5.9**
								SEVERE	1	0.3	0.60	$ 2,162,000	$ 1,297,200				
								OTHER VISIBLE	4	1.2	2.40	$ 193,000	$ 463,200				
								COMPLAINT OF PAIN	2	0.6	1.20	$ 110,000	$ 132,000				
-	Bike + Ped	Install high-visibility crosswalk	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	362 SQFT of Striping	$ 13	$ 4,706	-
								SEVERE	-	-	-	-	-				
								OTHER VISIBLE	-	-	-	-	-				
								COMPLAINT OF PAIN	-	-	-	-	-				
-	Bike + Ped	Install an activated "No right turn on red" sign during the pedestrian phase.	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	4 Signs	$ 6,000	$ 24,000	-
								SEVERE	-	-	-	-	-				
								OTHER VISIBLE	-	-	-	-	-				
								COMPLAINT OF PAIN	-	-	-	-	-				
-	Bike + Ped	Install advanced stop bars at crosswalk approaches	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump Sum	$ 5,000	$ 5,000	-
								SEVERE	-	-	-	-	-				
								OTHER VISIBLE	-	-	-	-	-				
								COMPLAINT OF PAIN	-	-	-	-	-				

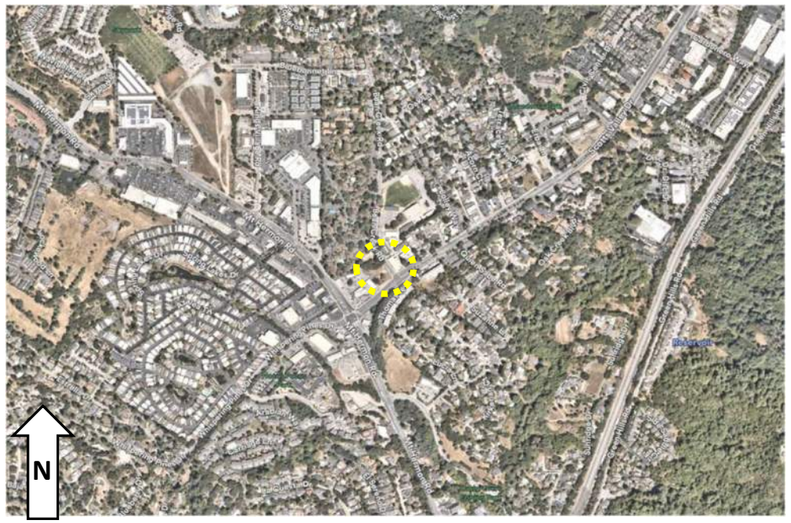
Cost	**$**	**430,856**
Contingency (30%)	**$**	**129,257**
Total Cost	**$**	**560,113**
Benefit	**$**	**5,565,000**
Benefit Cost Ratio:		**9.9**

Santa Cruz County Safety Action Plan

Signalized Intersection

Location: Bean Creek Rd & Scotts Valley Dr
Agency Name: City of Scotts valley
Contact Name: Rodolfo Onchi
E-mail: ronchi@scottsvalley.gov





Total Crashes	4
Local CCR Differential	-0.03
Equivalent Property Damage Only	29
Fatal	0
Severe Injury	0
Other Visible Injury	1
Complaint of Pain	3
Crash Type	
Broadside	1
Sideswipe	0
Rear End	1
Head On	0
Hit Object	1
Overturned	0
Non-Motorist Crashes	
Pedestrian	1
Bicycle	0
Contributing Factors	
Aggressive	2
Impaired	0
Crash Conditions	
Dark	1
Wet	0

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install retroreflective backplates on traffic signal heads. Replace 8" signal heads with new 12" LED signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	0.9	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 156,900	7 Signal heads and 13 Backplates	$2100 per Signal heads and $950 per Backplates	$ 27,050	**5.8**
								SEVERE	0	0	0.00	$ 2,162,000	$ -				
								OTHER VISIBLE	1	0.15	0.30	$ 193,000	$ 57,900				
								COMPLAINT OF PAIN	3	0.45	0.90	$ 110,000	$ 99,000				
Includes cost of controller updates and design	Bike + Ped	Implement LPI	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)	SI22PB	10	0.4	0.9	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 132,000	1 Lump Sum	$ 50,000	$ 50,000	**2.6**
								SEVERE	0	0	0.00	$ 2,162,000	$ -				
								OTHER VISIBLE	0	0	0.00	$ 193,000	$ -				
								COMPLAINT OF PAIN	1	0.6	1.20	$ 110,000	$ 132,000				
-	All	Install two blank-out no right turn on red signs.	Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs	NS08	10	0.85	0.9	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 156,900	2 Signs	$ 10,000	$ 20,000	**7.8**
								SEVERE	0	0	0.00	$ 2,162,000	$ -				
								OTHER VISIBLE	1	0.15	0.30	$ 193,000	$ 57,900				
								COMPLAINT OF PAIN	3	0.45	0.90	$ 110,000	$ 99,000				
Includes cost of moving loops	Bike + Ped	Install advanced stop bar (all approaches)	Install advance stop bar before crosswalk	-	-	-	-	FATAL	0	-	-	-	-	$ -	1 Lump Sum	$ 36,000	$ 36,000	-
								SEVERE	0	-	-	-	-				
								OTHER VISIBLE	0	-	-	-	-				
								COMPLAINT OF PAIN	1	-	-	-	-				
-	Bike + Ped	Remove pedestrian push button located in the median.	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump Sum	$ 1,500	$ 1,500	-
								SEVERE	-	-	-	-	-				
								OTHER VISIBLE	-	-	-	-	-				
								COMPLAINT OF PAIN	-	-	-	-	-				
Includes utility relocation	Bike + Ped	ADA ramp upgrades	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump sum	$ 250,000	$ 250,000	-
								SEVERE	-	-	-	-	-				
								OTHER VISIBLE	-	-	-	-	-				
								COMPLAINT OF PAIN	-	-	-	-	-				
-	All	Confirm that the EVP systems are active and functional.	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Diagnostic Test	$ 2,000	$ 2,000	-
								SEVERE	-	-	-	-	-				
								OTHER VISIBLE	-	-	-	-	-				
								COMPLAINT OF PAIN	-	-	-	-	-				

Cost	**$**	**386,550**
Contingency (30%)	**$**	**115,965**
Total Cost	**$**	**502,515**
Benefit	**$**	**445,800**
Benefit Cost Ratio:		**0.9**

Signalized Intersection

Location: Mt Hermon Rd & Scotts Valley Dr/Whispering Pines Dr
Agency Name: City of Scotts Valley
Contact Name: Rodolfo Onchi
E-mail: ronchi@scottsvalley.gov

Total Crashes	14
Local CCR Differential	0.06
Equivalent Property Damage Only	455
Fatal	1
Severe Injury	2
Other Visible Injury	6
Complaint of Pain	5
Crash Type	
Broadside	5
Sideswipe	1
Rear End	2
Head On	1
Hit Object	2
Overturned	0
Other	1
Non-Motorist Crashes	
Pedestrian	1
Bicycle	1
Contributing Factors	
Aggressive	5
Impaired	2
Crash Conditions	
Dark	5
Wet	0

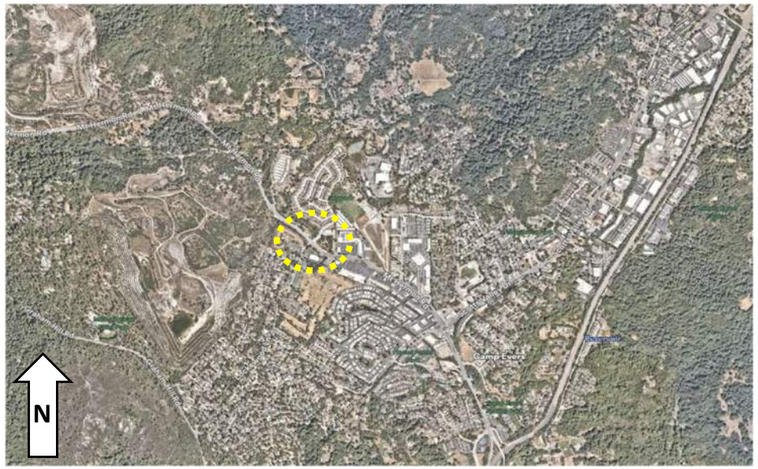
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install retroreflective backplates on traffic signal heads. Replace 8'' signal heads with new 12'' LED signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	S102	10	0.85	90%	FATAL	1	0.15	0.30	$ 2,162,000	$ 648,600	$ 2,458,200	4 Signal heads and 23 Backplates	$2100 per Signal heads and $950 per Backplates	$ 30,250	**81.3**
								SEVERE	2	0.3	0.60	$ 2,162,000	$ 1,297,200					
								OTHER VISIBLE	6	0.9	1.80	$ 193,000	$ 347,400					
								COMPLAINT OF PAIN	5	0.75	1.50	$ 110,000	$ 165,000					
-	Bike + Ped	Remove the channelized right-turn lanes and square up the intersection.	-	-	-	-	-	FATAL	-	-	-	-	-	-	1 Lump Sum	$ 750,000	$ 750,000	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
Median is too narrow to serve as a refuge island.	Bike + Ped	Remove the pedestrian push button in the median.	-	-	-	-	-	FATAL	-	-	-	-	-	-	1 Lump Sum	$ 2,500	$ 2,500	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
Includes utility relocation	Bike + Ped	ADA ramp upgrades	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump sum and 6 truncated dome mats	$ 120,000	$ 120,000	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					

Cost	**$ 902,750**
Contingency (30%)	**$ 270,825**
Total Cost	**$ 1,173,575**
Benefit	**$ 2,458,200**
Benefit Cost Ratio:	**2.1**

Santa Cruz County Safety Action Plan

Signalized Intersection

Location: Mt Hermon Rd & Lockewood Ln/Skypark Dr
Agency Name: City of Scotts Valley
Contact Name: Rodolfo Onchi
E-mail: ronchi@scottsvalley.gov



Total Crashes	3
Local CCR Differential	-0.06
Equivalent Property Damage Only	32
Fatal	0
Severe Injury	0
Other Visible Injury	3
Complaint of Pain	0
Crash Type	
Broadside	3
Sideswipe	0
Rear End	0
Head On	0
Hit Object	0
Overturned	0
Non-Motorist Crashes	
Pedestrian	0
Bicycle	0
Contributing Factors	
Aggressive	3
Impaired	0
Crash Conditions	
Dark	1
Wet	0

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Restripe intersection to include dedicated left-turn lane and a shared through-right turn lane along Lockewood Ln. Upgrade signal heads to have protected left-turn phasing.	Install left-turn lane and add turn phase (signal has no left-turn lane or phase before)	SI05	20	0.45	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 636,900	1	Lump Sum	$ 630,000	**1.0**
								SEVERE	0	0	0.00	$ 2,162,000	$ -					
								OTHER VISIBLE	3	1.65	3.30	$ 193,000	$ 636,900					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
-	All	Install retroreflective backplates on traffic signal heads. Replace 8'' signal heads with new 12'' LED signal heads.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 173,700	2 Signal heads and 18 Backplates	$2100 per Signal heads and $950 per Backplates	$ 21,300	**8.2**
								SEVERE	0	0	0.00	$ 2,162,000	$ -					
								OTHER VISIBLE	3	0.45	0.90	$ 193,000	$ 173,700					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
Includes cost of controller updates and design	Bike + Ped	Implement LPI	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)	SI22PB	10	0.40	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ -	1 Lump Sum	$ 50,000	$ 50,000	**0.0**
								SEVERE	0	0	0.00	$ 2,162,000	$ -					
								OTHER VISIBLE	0	0	0.00	$ 193,000	$ -					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
Includes cost of moving loops	Bike + Ped	Install advance stop bars.	-	-	-	-	-	FATAL	0	-	-	-	-	$ -	1 Lump Sum	1 Lump Sum	$ 40,000	-
								SEVERE	0	-	-	-	-					
								OTHER VISIBLE	0	-	-	-	-					
								COMPLAINT OF PAIN	0	-	-	-	-					

Cost	**$**	**741,300**
Contingency (30%)	**$**	**222,390**
Total Cost	**$**	**963,690**
Benefit	**$**	**810,600**
Benefit Cost Ratio:		**0.8**

Santa Cruz County Safety Action Plan

Non-Signalized Intersection

Location: Freedom Blvd within the vicinity of Compton Terrance
Agency Name: Santa Cruz County and City of Watsonville
Contact Name: Russell Chen and Murray Fontes
E-mail: Russell.Chen@santacruzcounty.us and murray.fontes@watsonville.gov

Total Crashes	**23**
Local CCR Differential	-
Equivalent Property Damage Only	191
Fatal	0
Severe Injury	0
Other Visible Injury	11
Complaint of Pain	12
Crash Type	
Broadside	10
Sideswipe	2
Rear End	1
Head On	3
Hit Object	3
Overturned	0
Non-Motorist Crashes	
Pedestrian	1
Bicycle	1
Contributing Factors	
Aggressive	0
Impaired	6
Crash Conditions	
Dark	6
Wet	0

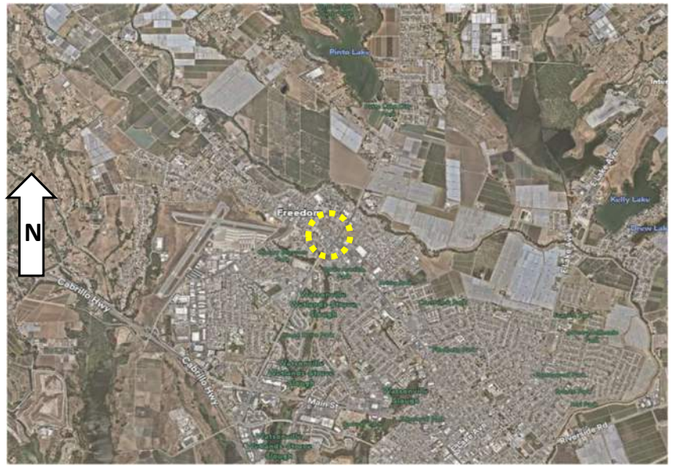
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
Long term alternative	All	Install traffic signal at Freedom Blvd/Buena Vista Dr. Square up the Buena Vista Dr approach	Install Signals	NS03	20	0.70	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 2,065,800	1 Lump Sum	$ 700,000	$ 700,000	**3.0**
								SEVERE	0	0	0.00	$ 3,440,000	$ -					
								OTHER VISIBLE	11	3.3	6.60	$ 193,000	$ 1,273,800					
								COMPLAINT OF PAIN	12	3.6	7.20	$ 110,000	$ 792,000					
Benefit calculated in HSIP Analyzer (long term alternative)	Bike + Ped	Install roundabout	Convert intersection to roundabout	NS04RA	20	Varies	90%	FATAL	0	-	-	-	-	$ 23,050,196	120 SQFT of Striping	$ 1,800,000	$ 1,800,000	**12.8**
								SEVERE	1	-	-	-	-					
								OTHER VISIBLE	3	-	-	-	-					
								COMPLAINT OF PAIN	1	-	-	-	-					
Near-term road layout reconfiguration	Bike + Ped	Install Bike lanes through the intersection	Install Bike lanes	R33PB	10	0.65	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 77,000	1 Lump Sum	$ 8,300	$ 8,300	**9.3**
								SEVERE	0	0	0.00	$ 3,440,000	$ -					
								OTHER VISIBLE	0	0	0.00	$ 193,000	$ -					
								COMPLAINT OF PAIN	1	0.35	0.70	$ 110,000	$ 77,000					
	Bike + Ped	Install crosswalks	Install pedestrian crossing at uncontrolled locations (signs and markings only)	NS22PB	10	0.75	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 96,500	2400 SQFT Striping	$ 6	$ 14,400	**6.7**
								SEVERE	0	0	0.00	$ 3,440,000	$ -					
								OTHER VISIBLE	1	0.25	0.50	$ 193,000	$ 96,500					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
	Bike + Ped	Install sidewalk and ADA Curb Ramps	Install sidewalk/pathway (to avoid walking along roadway)	R35PB	20	0.65	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 135,100	1000 LF	$ 160	$ 160,000	**0.8**
								SEVERE	0	0	0.00	$ 3,440,000	$ -					
								OTHER VISIBLE	1	0.35	0.70	$ 193,000	$ 135,100					
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -					
	All	Install left-turn lane from Freedom Blvd to Memorial Ave	Install left-turn lane (where no left-turn lane exists)	NS20	20	0.65	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 2,410,100	1 lump sum	$ 30,000	$ 30,000	**80.3**
								SEVERE	0	0	0.00	$ 3,440,000	$ -					
								OTHER VISIBLE	11	3.85	7.70	$ 193,000	$ 1,486,100					
								COMPLAINT OF PAIN	12	4.2	8.40	$ 110,000	$ 924,000					

Total Cost of Near-Term Improvements:	**$ 212,700**
Contingency (30%)	**$ 63,810**
Contingency + Cost	**$ 276,510**
Benefit	**$ 2,718,700**
Benefit Cost Ratio:	**9.8**

Santa Cruz County Safety Action Plan

Signalized Intersection

Location: Freedom Blvd & Green Valley Rd
Agency Name: City of Watsonville
Contact Name: Murray Fontes
E-mail: murray.fontes@watsonville.gov



Total Crashes	8
Local CCR Differential	0.01
Equivalent Property Damage Only	282
Fatal	1
Severe Injury	1
Other Visible Injury	1
Complaint of Pain	5
Crash Type	
Broadside	1
Sideswipe	1
Rear End	2
Head On	0
Hit Object	1
Overturned	0
Non-Motorist Crashes	
Pedestrian	1
Bicycle	2
Contributing Factors	
Aggressive	1
Impaired	3
Crash Conditions	
Dark	2
Wet	1

NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install retroreflective backplates on traffic signal heads	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	0.9	FATAL	1	0.15	0.30	$ 2,162,000	$ 648,600	$ 1,520,100	21 Backplates	950	19950	76.19548872
								SEVERE	1	0.15	0.30	$ 2,162,000	$ 648,600					
								OTHER VISIBLE	1	0.15	0.30	$ 193,000	$ 57,900					
								COMPLAINT OF PAIN	5	0.75	1.50	$ 110,000	$ 165,000					
Includes cost of controller updates and design	Bike + Ped	Implement LPI	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)	SI22PB	10	0.4	0.9	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 2,958,000	1 Lump Sum	5000	5000	591.6
								SEVERE	1	0.6	1.20	$ 2,162,000	$ 2,594,400					
								OTHER VISIBLE	1	0.6	1.20	$ 193,000	$ 231,600					
								COMPLAINT OF PAIN	1	0.6	1.20	$ 110,000	$ 132,000					
-	Bike + Ped	Install advanced stop bars at crosswalk approaches	-	-	-	-	-	FATAL	-	-	-	-	-	0	376 SQFT of Striping	10	3760	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
-	All	Activate the adaptive capabilities of eligilble traffic signals.	-	S02	-	-	-	FATAL	-	-	-	-	-	0	-	6000	6000	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					

Total Cost	**$ 34,710**	**$ -**
Contingency (30%)	**$ 10,413**	
Contingency + Cost	**$ 45,123**	
Benefit	**$ 4,478,100**	
Benefit Cost Ratio:		**99.2**

Santa Cruz County Safety Action Plan

Non-signalized Intersection

Location: Green Valley Rd & Carey Ave
Agency Name: City of Watsonville
Contact Name: Murray Fontes
E-mail: murray.fontes@cityofwatsonville.org

Total Crashes	8
Local CCR Differential	0.09
Equivalent Property Damage Only	239
Fatal	0
Severe Injury	1
Other Visible Injury	1
Complaint of Pain	6
Crash Type	
Broadside	4
Sideswipe	0
Rear End	1
Head On	0
Hit Object	0
Overturned	0
Non-Motorist Crashes	
Pedestrian	2
Bicycle	1
Contributing Factors	
Aggressive	1
Impaired	1
Crash Conditions	
Dark	2
Wet	0

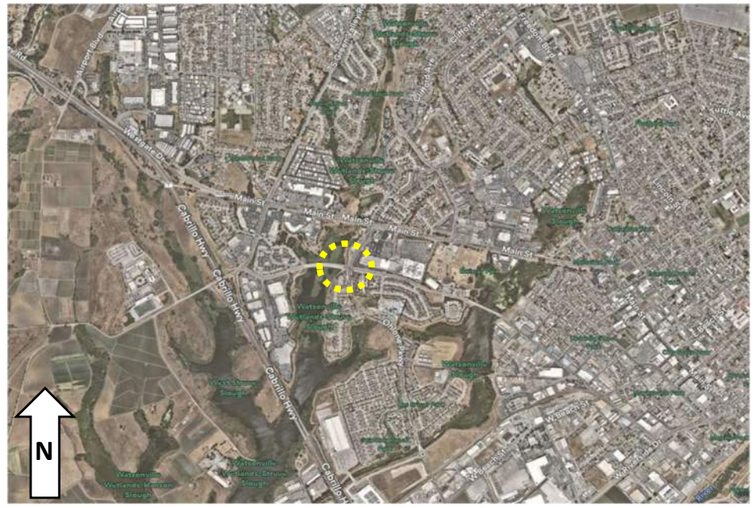
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
Conceptual	Bike + Ped	Install a HAWK signal or pedestrian hybrid beacon per FHWA guidance.	Install a pedestrian hybrid beacon (PHB or HAWK)	NS25PB	20	0.45	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 3,905,000	1 Lump Sum	$ 425,000	$ 425,000	**9.2**
								SEVERE	1	0.55	1.10	$ 3,440,000	$ 3,784,000				
								OTHER VISIBLE	0	0	0.00	$ 193,000	$ -					
								COMPLAINT OF PAIN	1	0.55	1.10	$ 110,000	$ 121,000				
Conceptual	All	Install traffic signal and coordinate signal with Green Valley Rd and Freedom Blvd	Install Signal	NS03	20	0.70	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 2,575,800	1 Lump Sum	$ 550,000	$ 550,000	**4.7**
								SEVERE	1	0.3	0.60	$ 3,440,000	$ 2,064,000				
								OTHER VISIBLE	1	0.3	0.60	$ 193,000	$ 115,800				
								COMPLAINT OF PAIN	6	1.8	3.60	$ 110,000	$ 396,000				
Conceptual	All	Make Carey Ave access right-in right-out only (restrict left-turns)	Create directional median openings to allow (and restrict) left-turns and u-turns (NS.I.)	NS17	20	0.50	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 440,000	1 Lump Sum	$ 36,000	$ 36,000	**12.2**
								SEVERE	0	0	0.00	$ 3,440,000	$ -				
								OTHER VISIBLE	0	0	0.00	$ 193,000	$ -				
								COMPLAINT OF PAIN	4	2	4.00	$ 110,000	$ 440,000				
Near-Term	Bike + Ped	Install yield lines and R1-5a signs on the GVR approaches to the crosswalk. Install W11-2 and W16-7P signs at the crosswalk.	-	NS08	10	0.85	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 1,287,900	1 Lump Sum	$ 5,900	$ 5,900	**218.3**
								SEVERE	1	0.15	0.30	$ 3,440,000	$ 1,032,000				
								OTHER VISIBLE	1	0.15	0.30	$ 193,000	$ 57,900				
								COMPLAINT OF PAIN	6	0.9	1.80	$ 110,000	$ 198,000				

Total Cost	**$ 1,016,900**
Contingency (30%)	**$ 305,070**
Contingency + Cost	**$ 1,321,970**
Benefit	**$ 8,208,700**
Benefit Cost Ratio:	**6.2**

Santa Cruz County Safety Action Plan

Signalized Intersection

Location: Ohlone Parkway & Harkins Slough Road
Agency Name: City of Watsonville
Contact Name: Murray Fontes
E-mail: murray.fontes@cityofwatsonville.org



Total Crashes	9
Local CCR Differential	0.2
Equivalent Property Damage Only	174
Fatal	0
Severe Injury	1
Other Visible Injury	1
Complaint of Pain	7
Crash Type	
Broadside	4
Sideswipe	0
Rear End	2
Head On	0
Hit Object	1
Overturned	0
Non-Motorist Crashes	
Pedestrian	1
Bicycle	1
Contributing Factors	
Aggressive	2
Impaired	2
Crash Conditions	
Dark	1
Wet	0

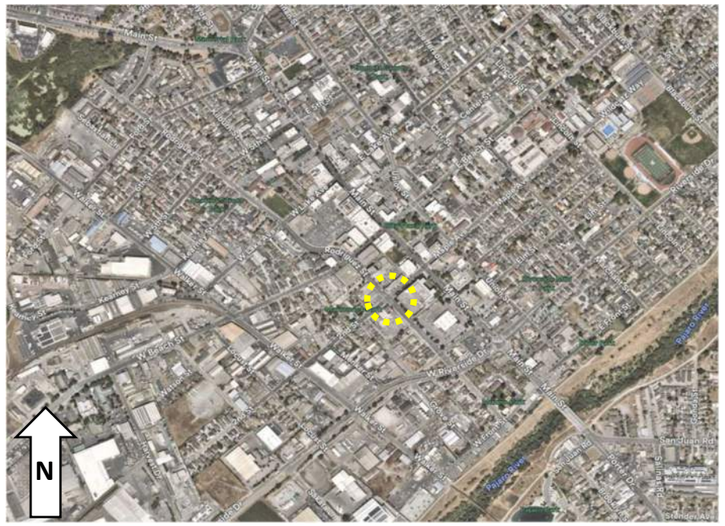
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	All	Install retroreflective backplates on traffic signal heads	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	SI02	10	0.85	90%	FATAL	0	0	0.00	$ 2,162,000	$ -	$ 937,500	20 Backplates	$ 950	$ 19,000	**49.3**
								SEVERE	1	0.15	0.30	$ 2,162,000	$ 648,600				
								OTHER VISIBLE	1	0.15	0.30	$ 193,000	$ 57,900				
								COMPLAINT OF PAIN	7	1.05	2.10	$ 110,000	$ 231,000				
-	Bike + Ped	Install advance stop bars	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	138 SQFT of Striping	$ 13	$ 1,794	-
								SEVERE	-	-	-	-	-				
								OTHER VISIBLE	-	-	-	-	-				
								COMPLAINT OF PAIN	-	-	-	-	-				
-	Bike + Ped	ADA ramp upgrades	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	3 Curb Ramps	$ 5,275	$ 15,825	-
								SEVERE	-	-	-	-	-				
								OTHER VISIBLE	-	-	-	-	-				
								COMPLAINT OF PAIN	-	-	-	-	-				

Total Cost	**$ 36,619**
Contingency (30%)	**$ 10,986**
Contingency + Cost	**$ 47,605**
Benefit	**$ 937,500**
Benefit Cost Ratio:	**19.7**

Santa Cruz County Safety Action Plan

Non-signalized Intersection

Location: Rodriquez St & 2nd St
Agency Name: City of Watsonville
Contact Name: Murray Fontes
E-mail: murray.fontes@cityofwatsonville.org



Total Crashes	7
Local CCR Differential	0.5
Equivalent Property Damage Only	422
Fatal	0
Severe Injury	2
Other Visible Injury	2
Complaint of Pain	3
Crash Type	
Broadside	3
Sideswipe	0
Rear End	0
Head On	0
Hit Object	0
Overturned	0
Non-Motorist Crashes	
Pedestrian	1
Bicycle	3
Contributing Factors	
Aggressive	3
Impaired	0
Crash Conditions	
Dark	0
Wet	1

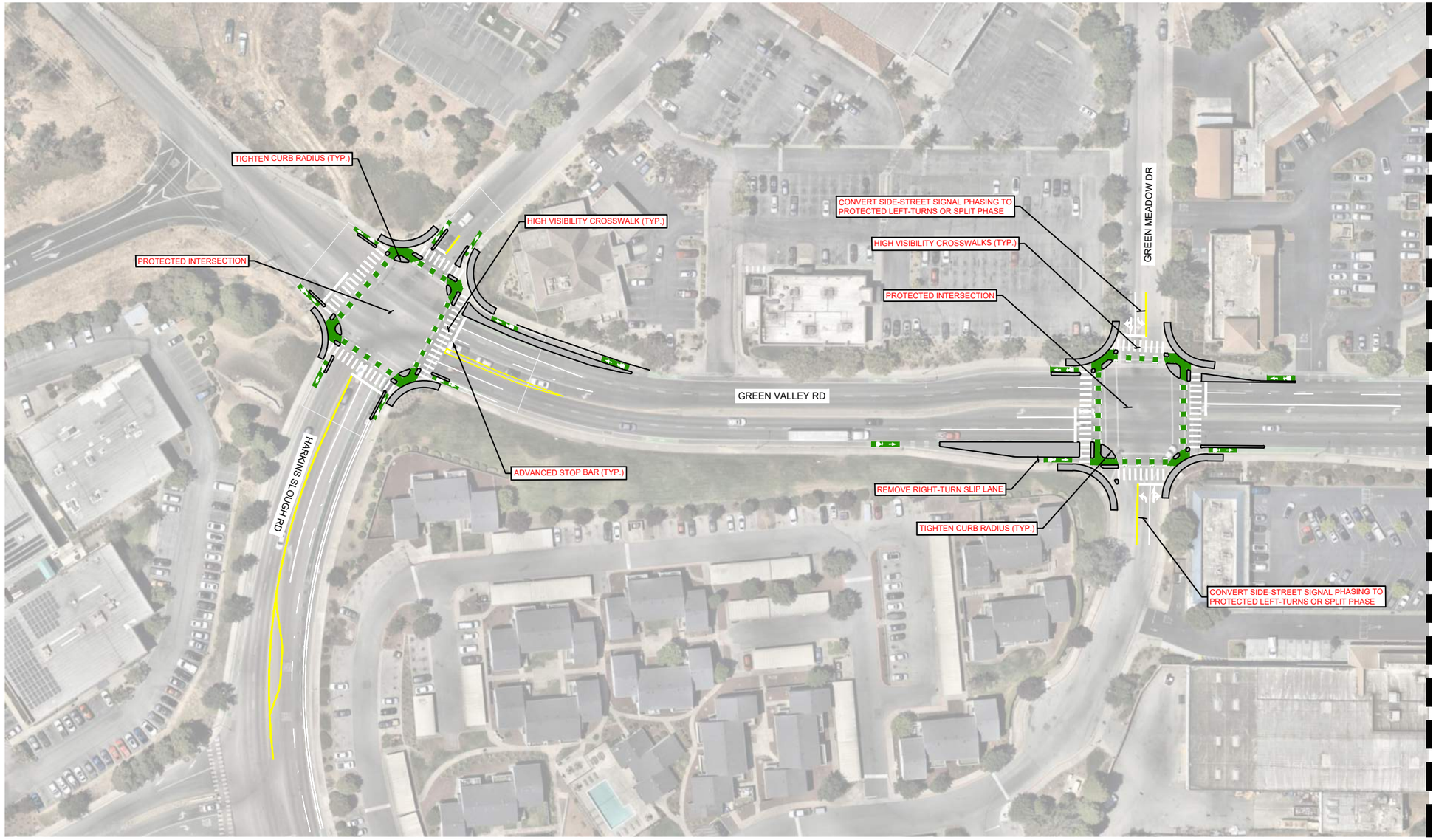
NOTES	COLLISION TYPE	RECOMMENDATION	LOCAL ROADWAY SAFETY MANUAL (LRSM) COUNTERMEASURE	LRSM #	Expected Life (Years)	CMF	CALTRANS FUNDING	NUMBER OF CRASHES (2019-2023)		NUMBER OF HISTORIC CRASHES REDUCED	10-YEAR CRASH REDUCTION ESTIMATE	CRASH SEVERITY COST	10-YEAR CRASH REDUCTION BENEFIT (2025 $)	TOTAL 10-YEAR CRASH REDUCTION BENEFIT	QUANTITY/ NUMBER OF UNITS	UNIT COST (2025 $)	COST ESTIMATE (2025 $)	BENEFIT/COST
-	Bike + Ped	Install advance stop bars.	Upgrade intersection pavement markings (NS.I.)	NS09	10	0.75	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 3,633,000	392 SQFT Striping	$ 10	$ 3,920	**926.8**
								SEVERE	2	0.5	1.00	$ 3,440,000	$ 3,440,000				
								OTHER VISIBLE	2	0.5	1.00	$ 193,000	$ 193,000				
								COMPLAINT OF PAIN	0	0	0.00	$ 110,000	$ -				
	Bike + Ped	Install traffic signal.	Install Signal	NS03	20	0.70	90%	FATAL	0	0	0.00	$ 3,440,000	$ -	$ 4,755,600	1 Lump Sum	$ 550,000	$ 550,000	**8.6**
								SEVERE	2	0.6	1.20	$ 3,440,000	$ 4,128,000				
								OTHER VISIBLE	2	0.6	1.20	$ 193,000	$ 231,600				
								COMPLAINT OF PAIN	6	1.8	3.60	$ 110,000	$ 396,000				
Designs must include provisions	Bike + Ped	Study the feasability of installing bulb-outs on intersection approaches by narrowing the approach lanes to one-lane in all directions.	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump Sum	$ 31,100	$ 31,100	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
-	All	Conduct intersection control evaluation to determine feasibility of traffic signal and roundabout	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	1 Lump Sum	$ 20,000	$ 20,000	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					
-	Bike + Ped	ADA ramp upgrades	-	-	-	-	-	FATAL	-	-	-	-	-	$ -	3 Curb Ramps	$ 5,275	$ 15,825	-
								SEVERE	-	-	-	-	-					
								OTHER VISIBLE	-	-	-	-	-					
								COMPLAINT OF PAIN	-	-	-	-	-					

Total Cost	**$ 620,845**
Contingency (30%)	**$ 186,254**
Contingency + Cost	**$ 807,099**
Benefit	**$ 8,388,600**
Benefit Cost Ratio:	**10.4**

APPENDIX

G

Corridor Improvements



SEE SHEET 2 FOR CONTINUATION

NORTH

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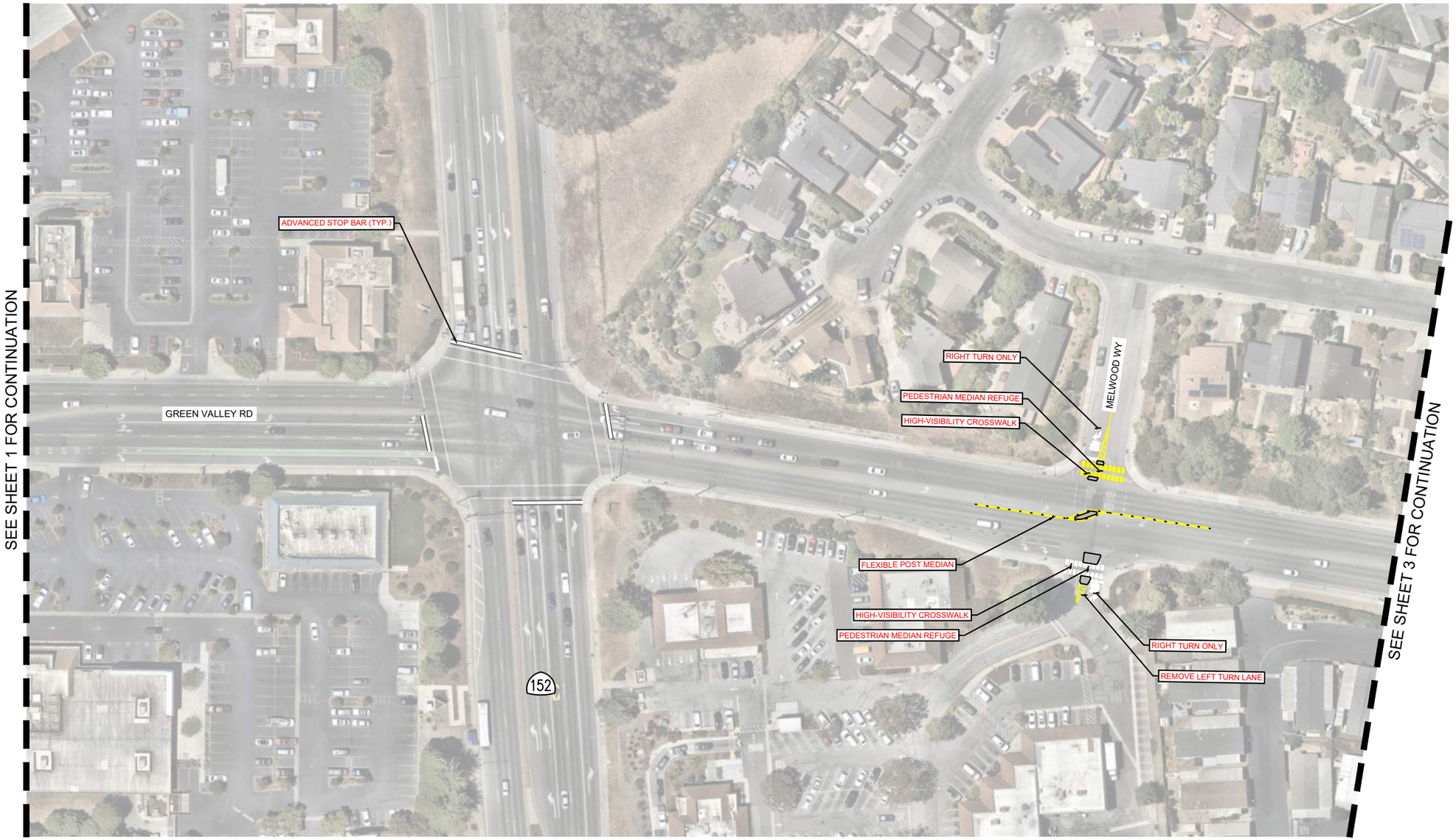
SHEET 1 OF 9



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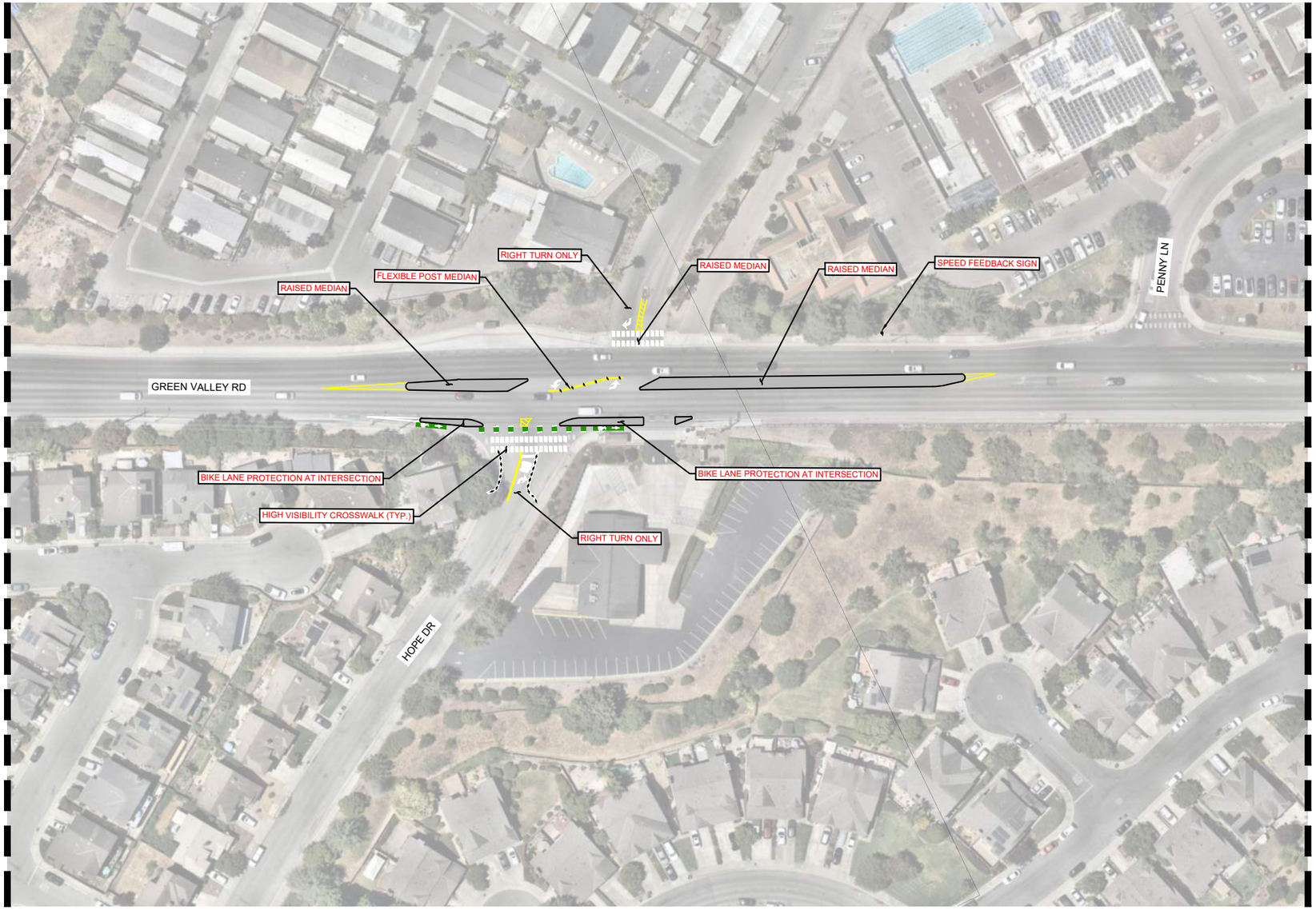

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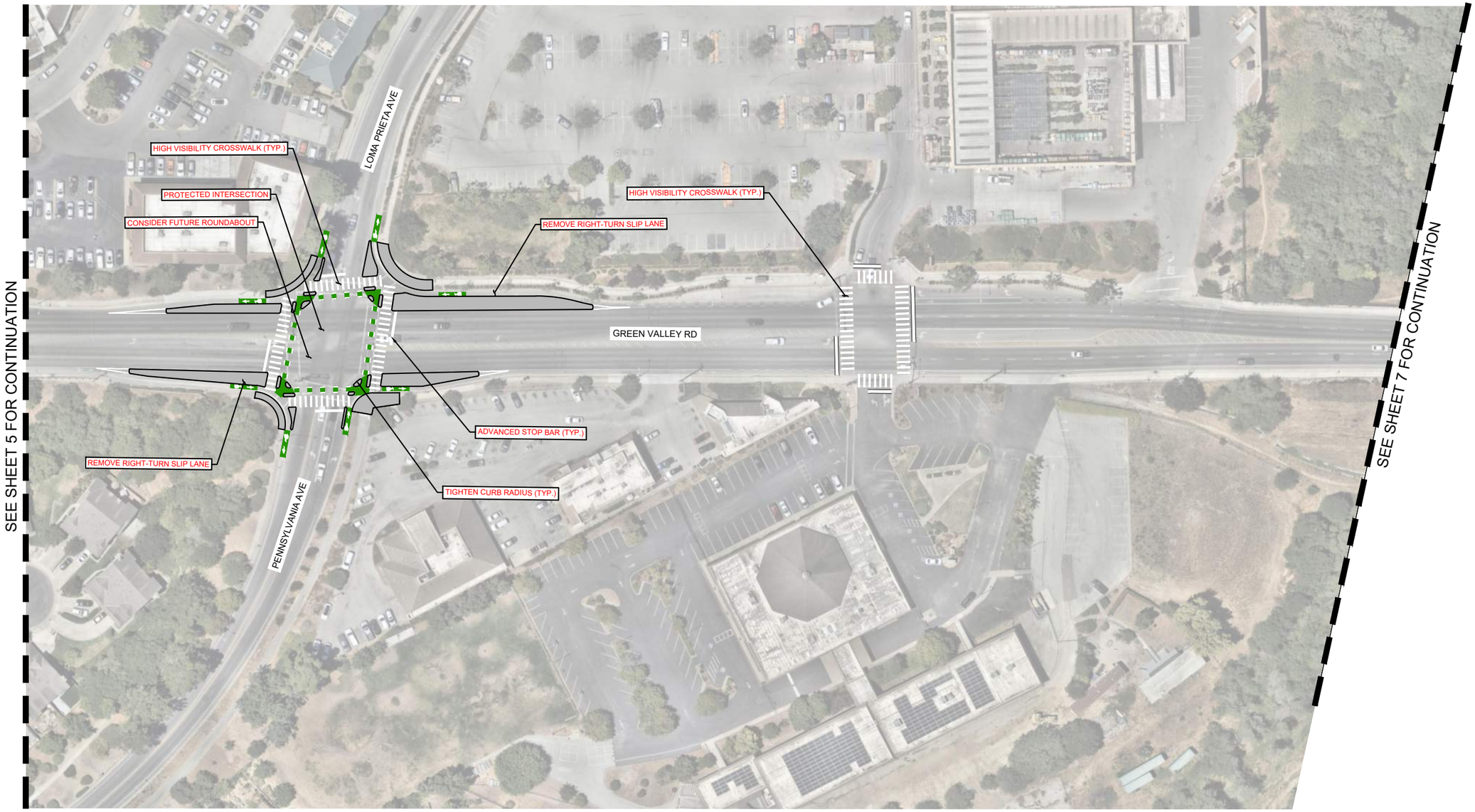

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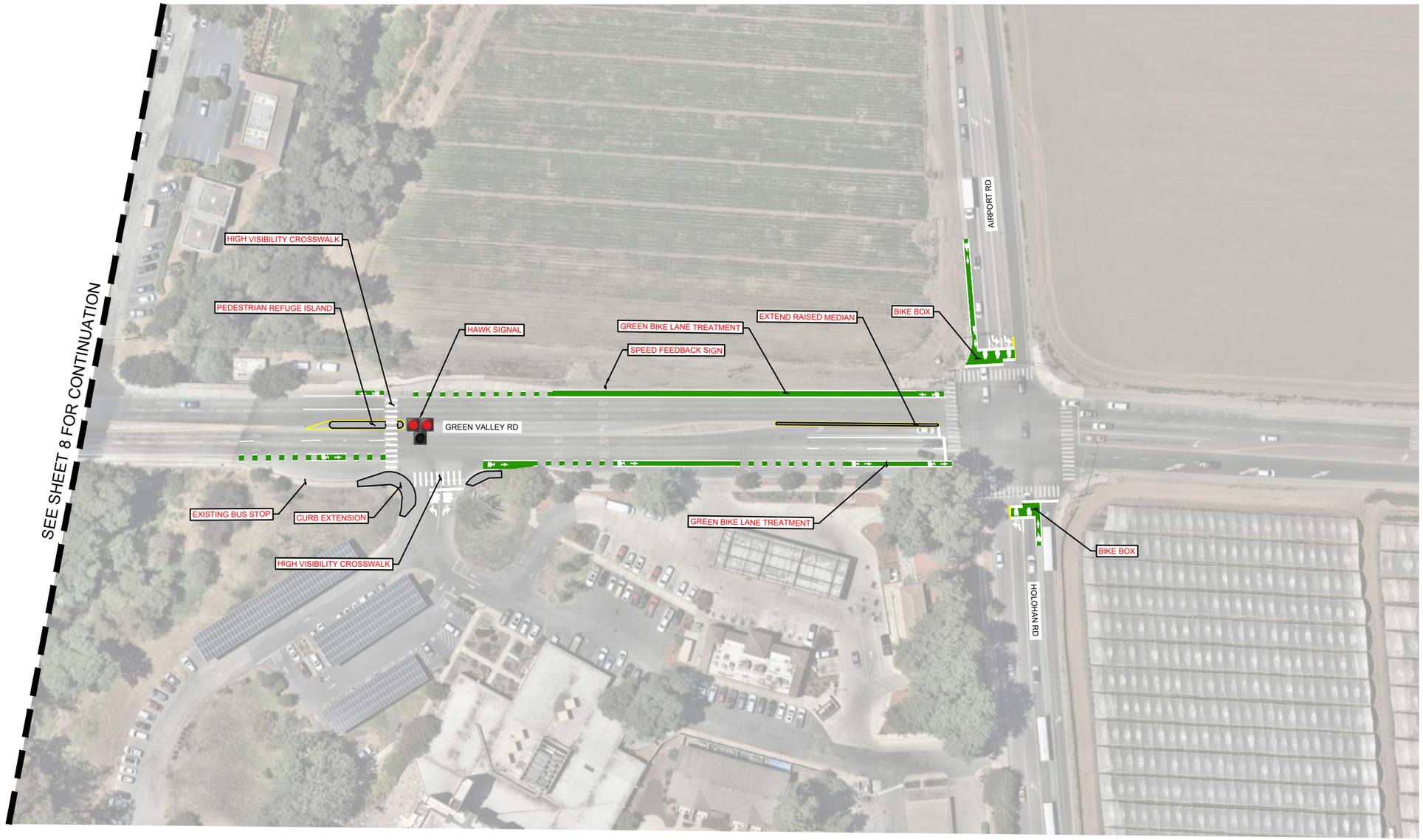

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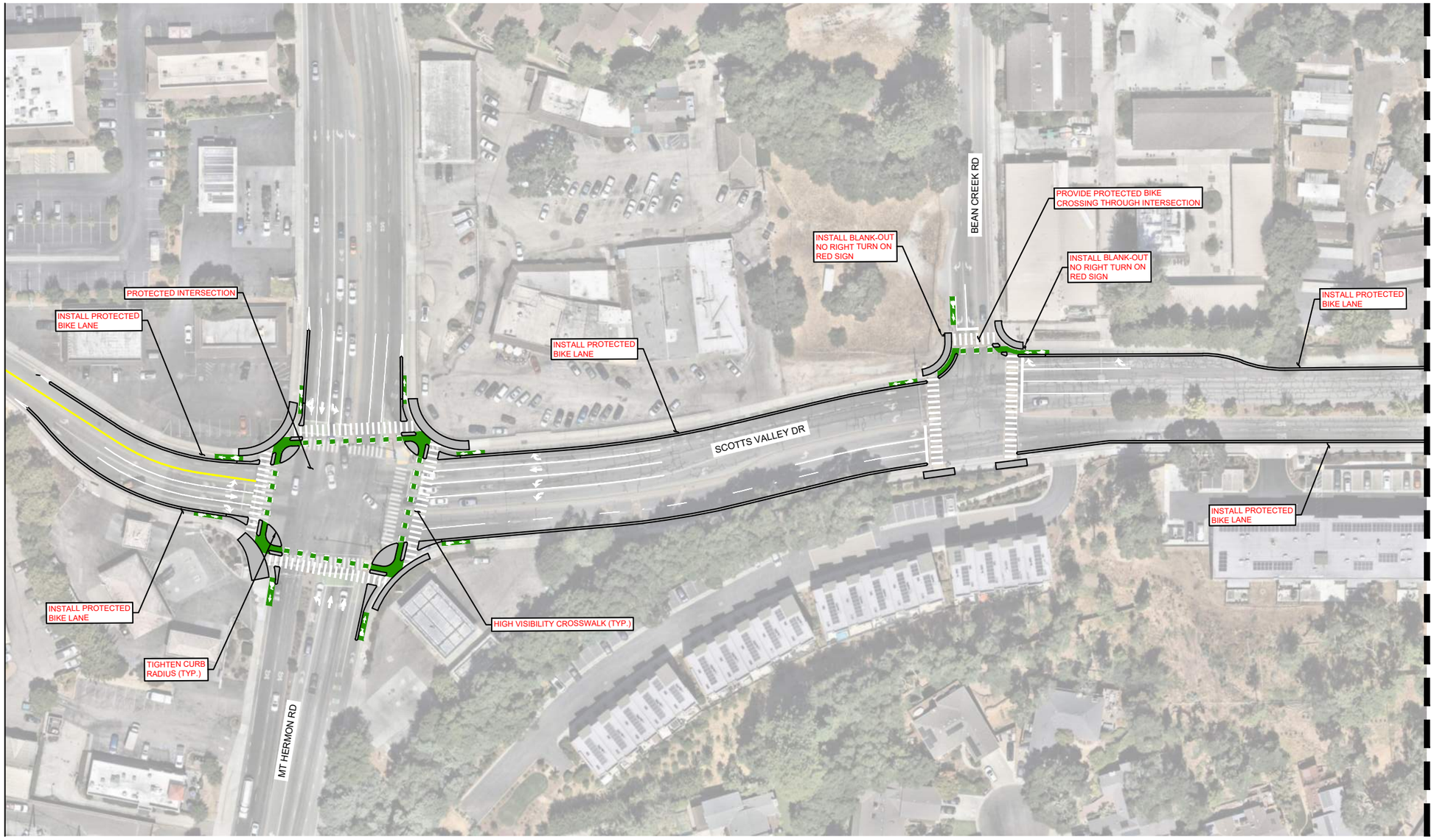

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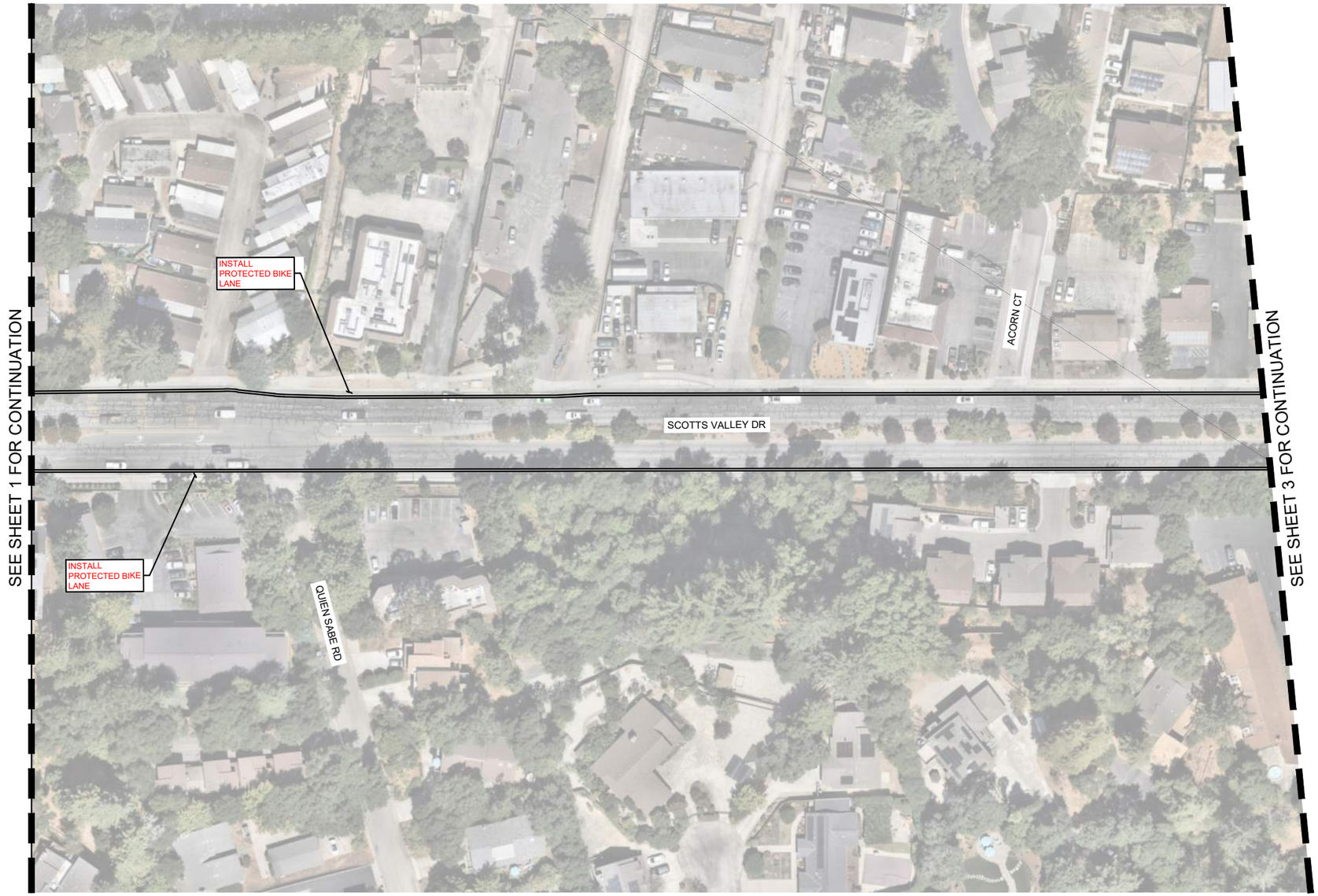

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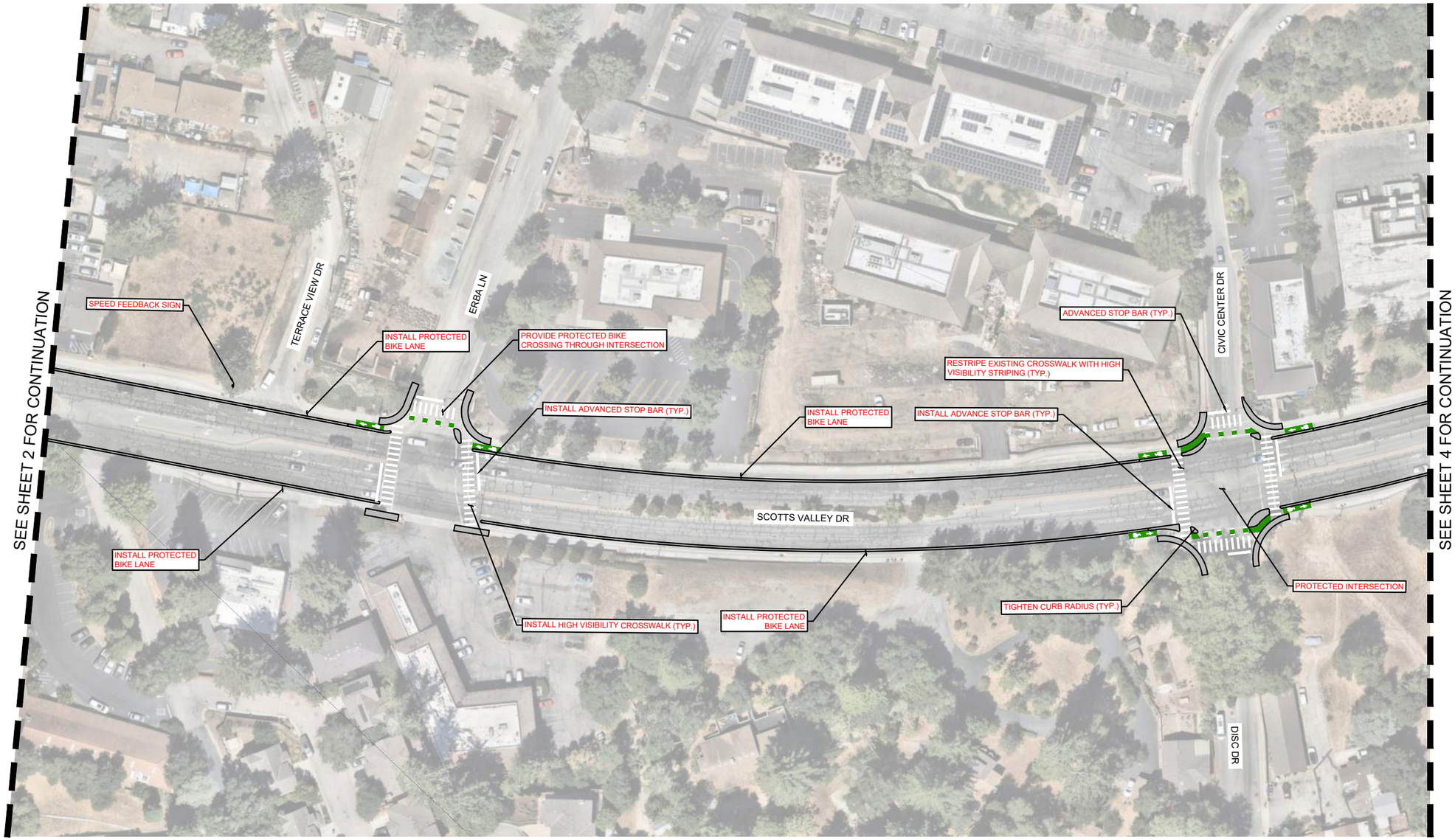

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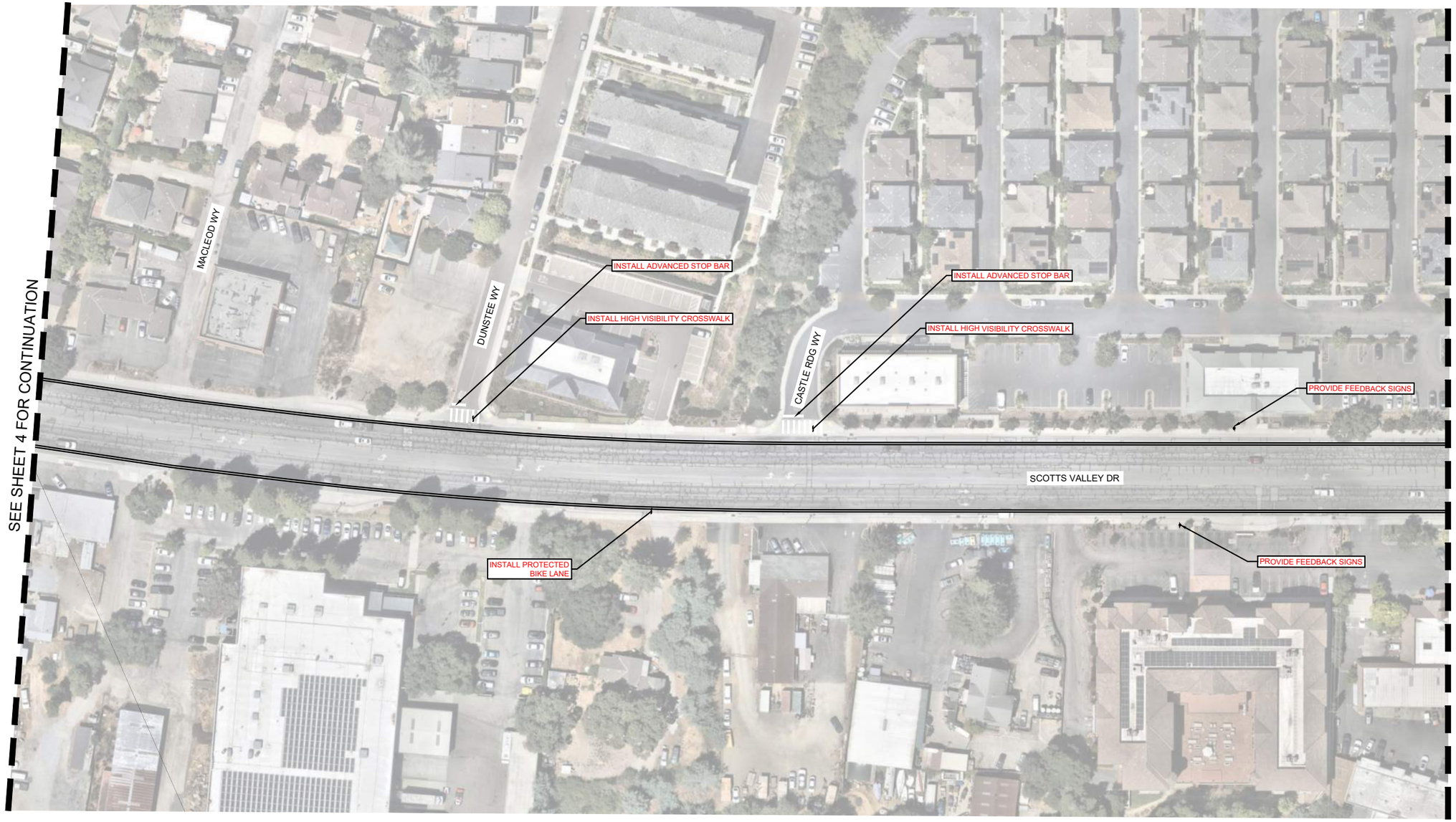

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Watsonville CALIFORNIA

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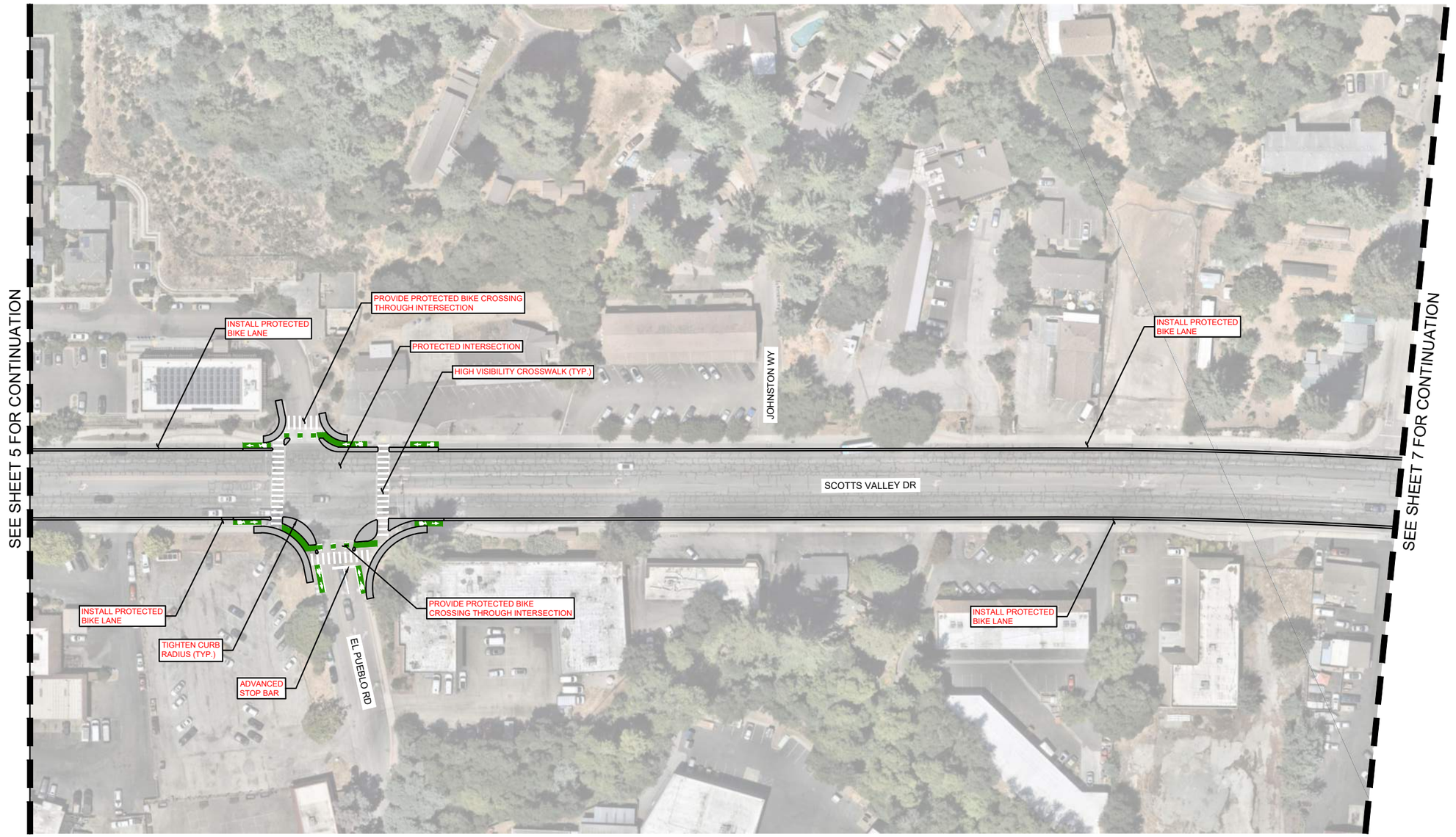

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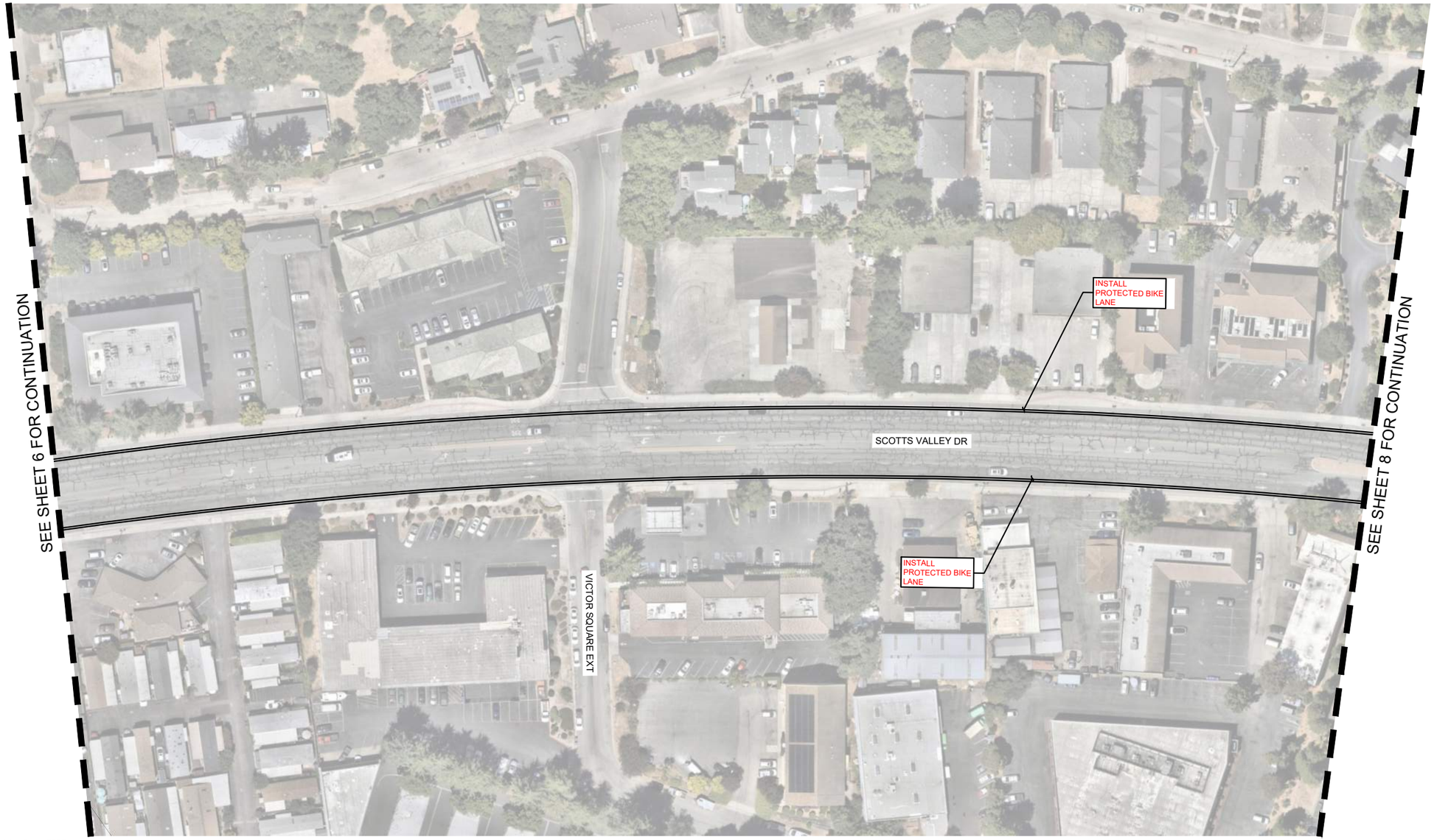

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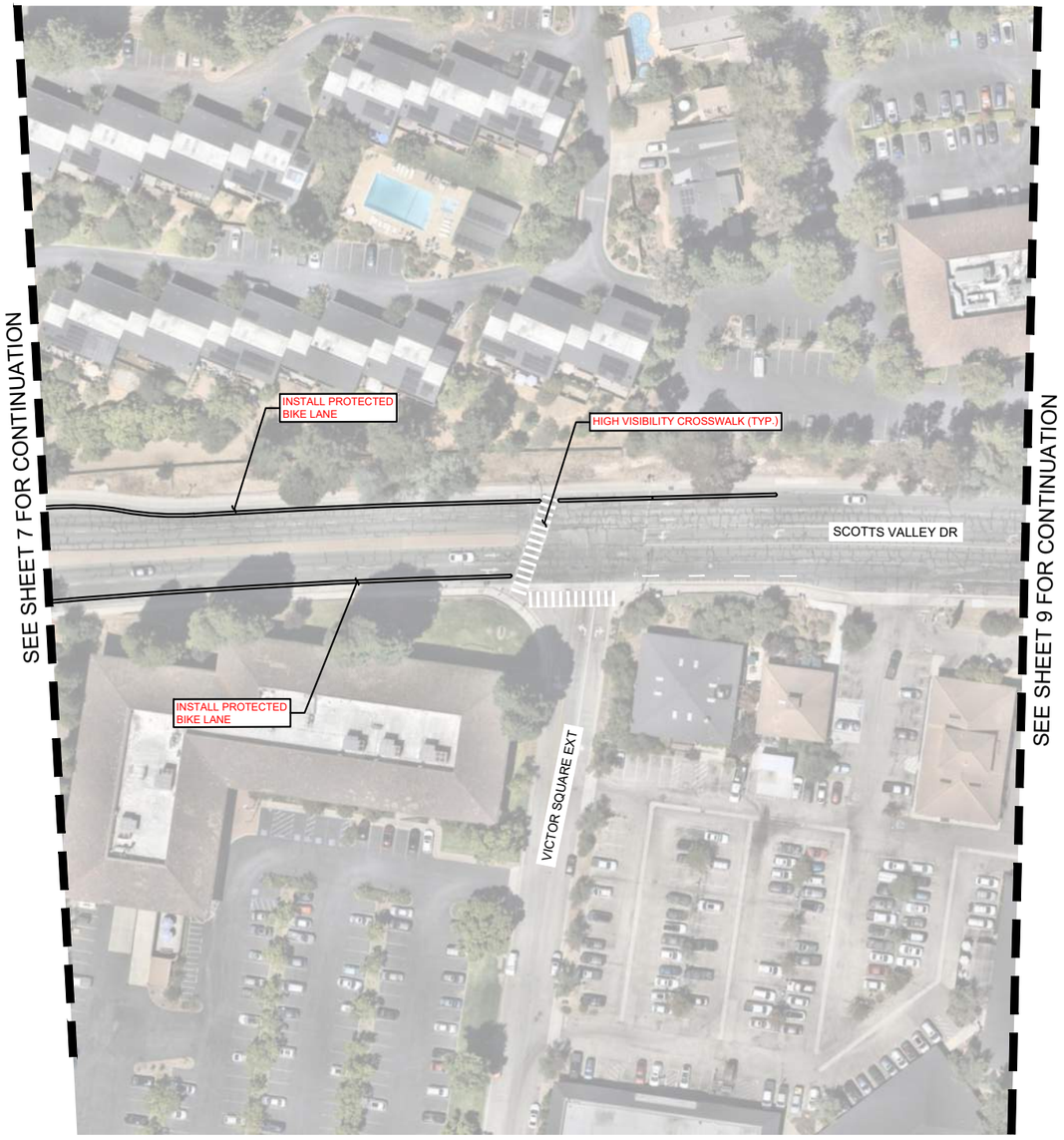

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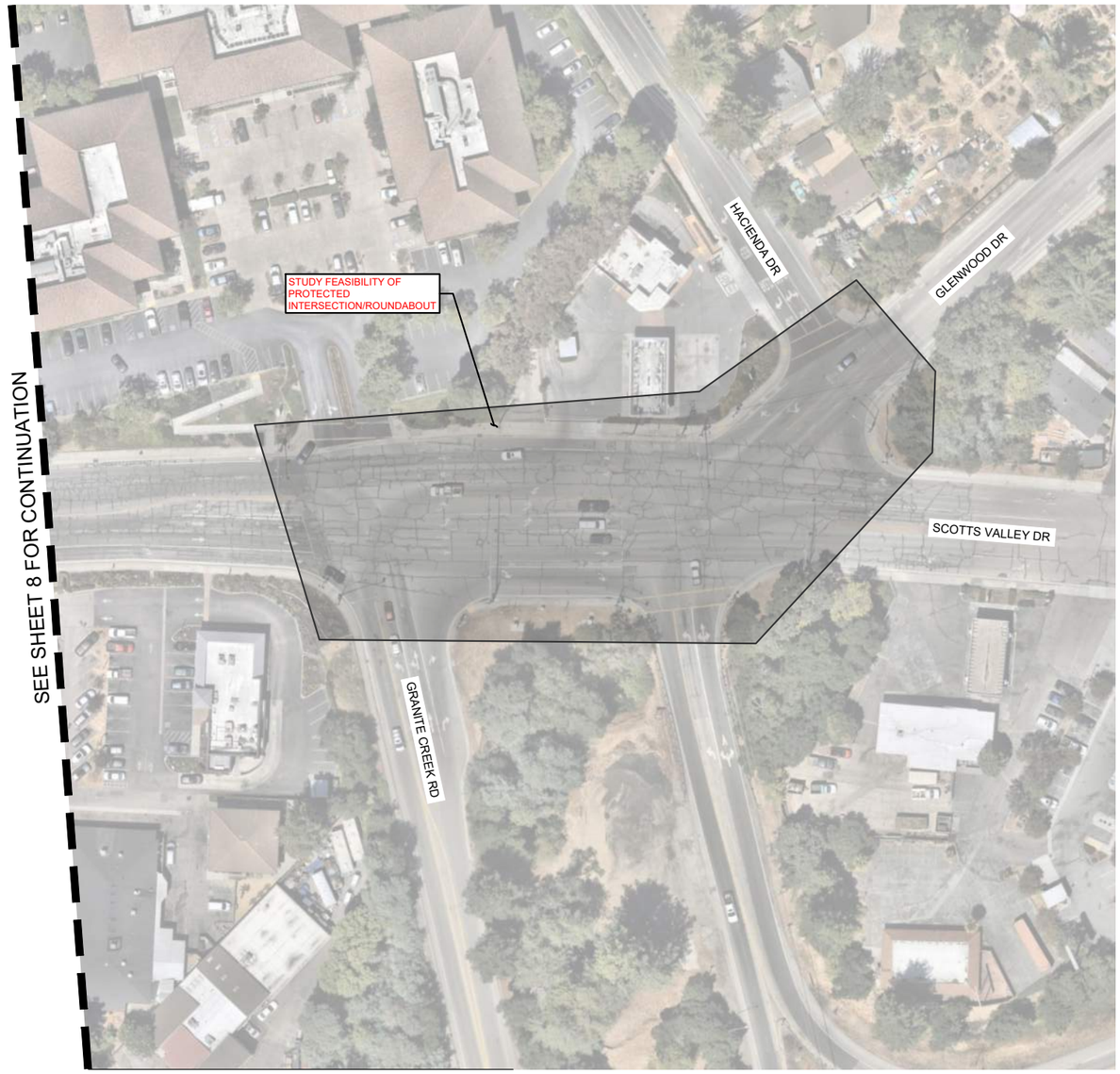

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SIGNALIZED INTERSECTION IMPROVEMENTS:
- LEADING PEDESTRIAN INTERVAL (LPI)
- YELLOW RETROFEFLECTIVE BACKPLATES ON SIGNAL HEADS
- RED CURB (DAYLIGHTING IMPROVEMENTS)
- PROTECTED INTERSECTIONS SUBJECT TO OUTREACH AND/OR FEASIBILITY STUDY

LEGEND
- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB)

APRIL 2026
SCOTTS VALLEY CORRIDOR: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 9 OF 9

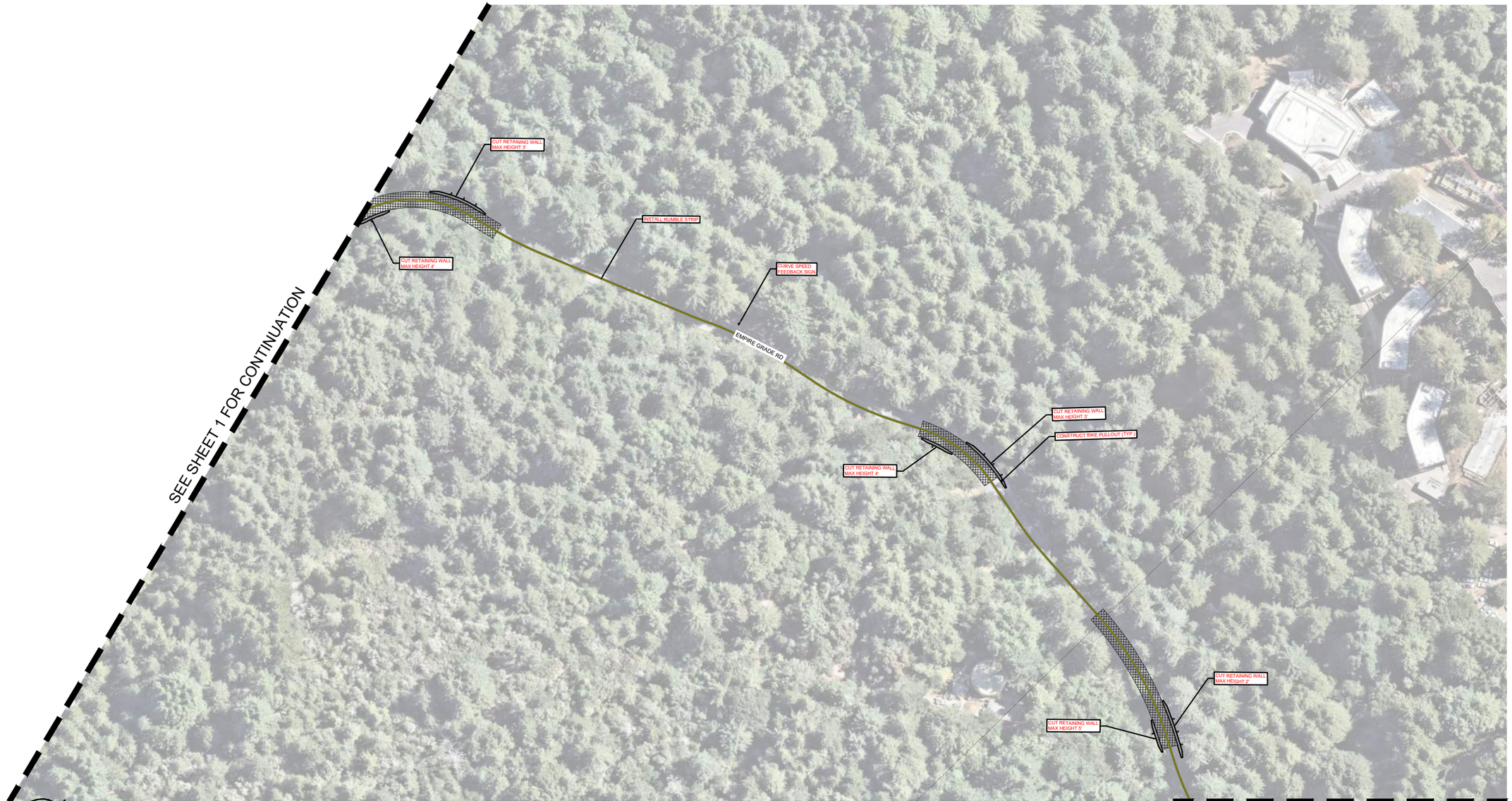
NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

LEGEND

- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB)
- HIGH-FRICTION SURFACE TREATMENT
- RUMBLE STRIP
- SIDE BEING RETAINED — RETAINING WALL

APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 1 OF 10



NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

LEGEND

- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB)
- HIGH-FRICTION SURFACE TREATMENT
- RUMBLE STRIP
- SIDE BEING RETAINED — RETAINING WALL

APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 2 OF 10

Watsonville CALIFORNIA

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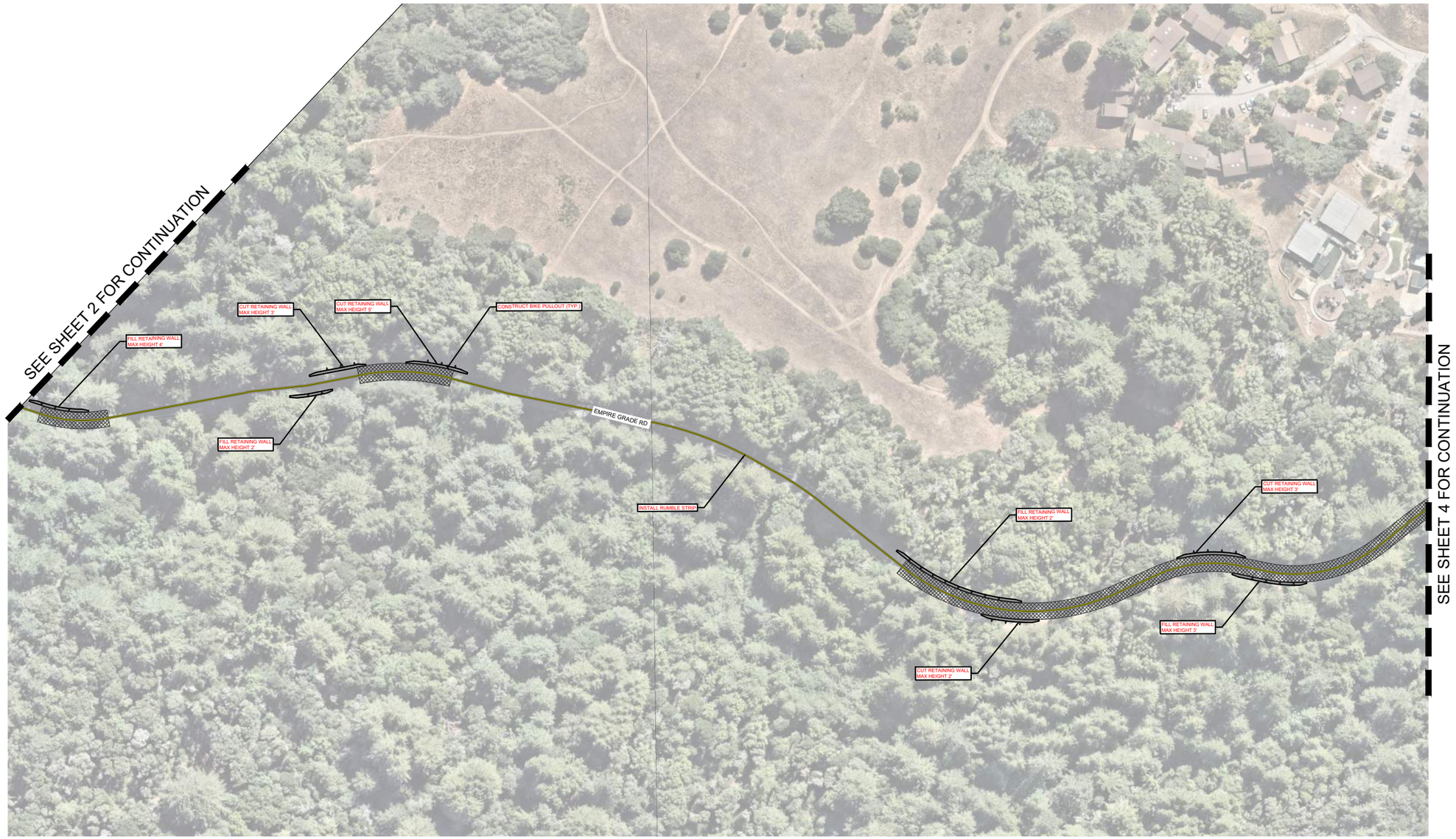


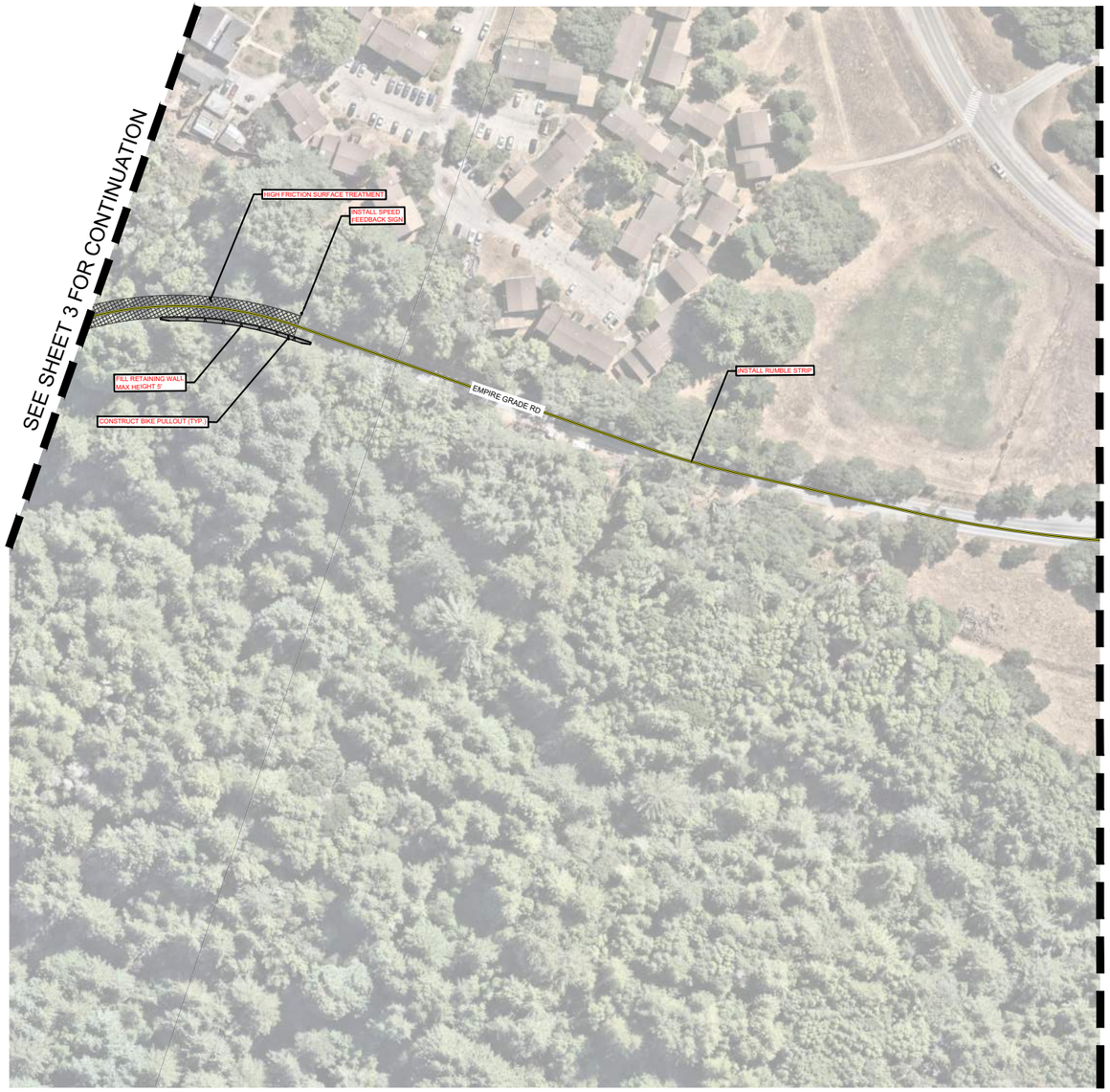
NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

LEGEND

- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB)
- HIGH-FRICTION SURFACE TREATMENT
- RUMBLE STRIP
- SIDE BEING RETAINED — RETAINING WALL

APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 3 OF 10



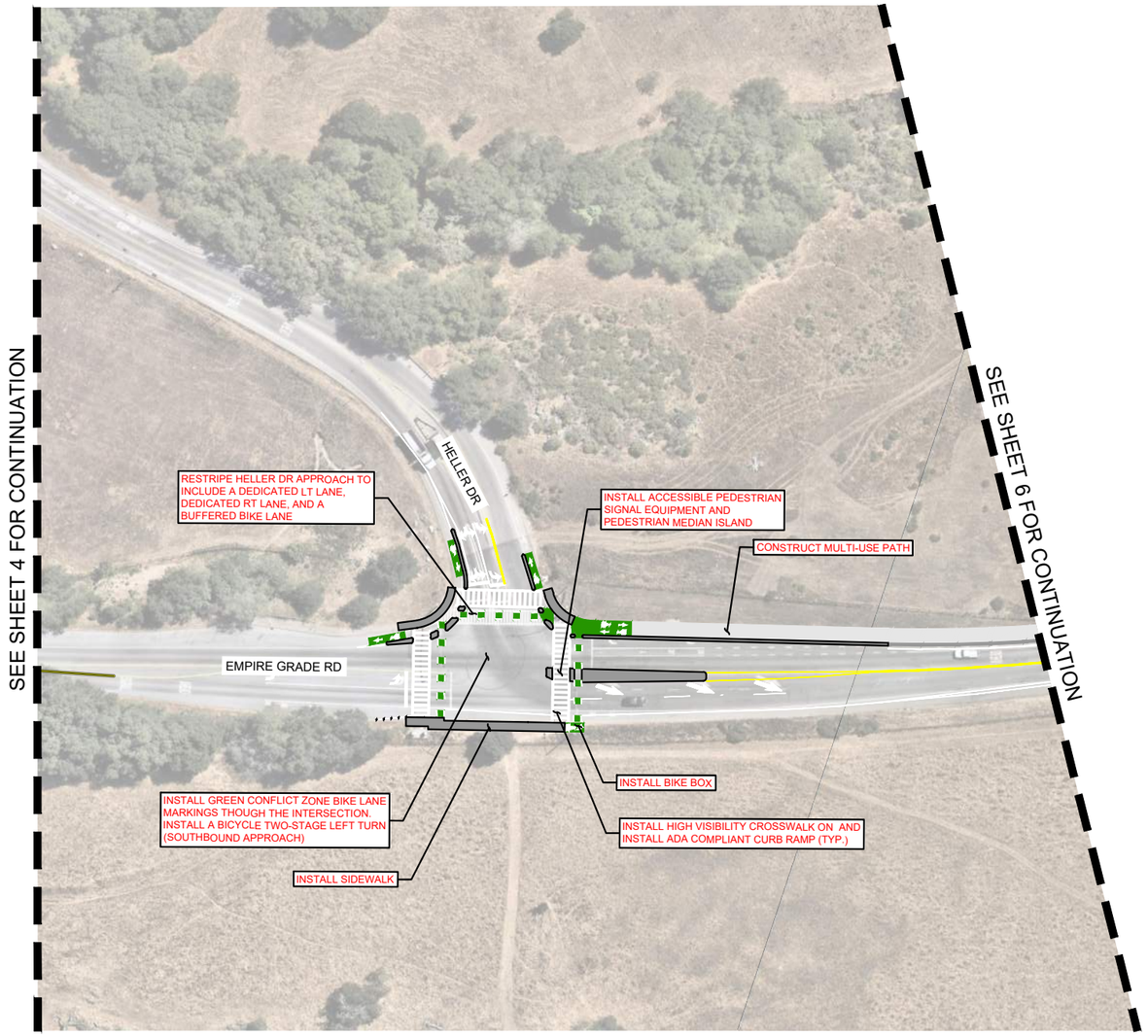
NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

LEGEND

- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB)
- HIGH-FRICTION SURFACE TREATMENT
- RUMBLE STRIP
- SIDE BEING RETAINED — RETAINING WALL

APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 4 OF 10



NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

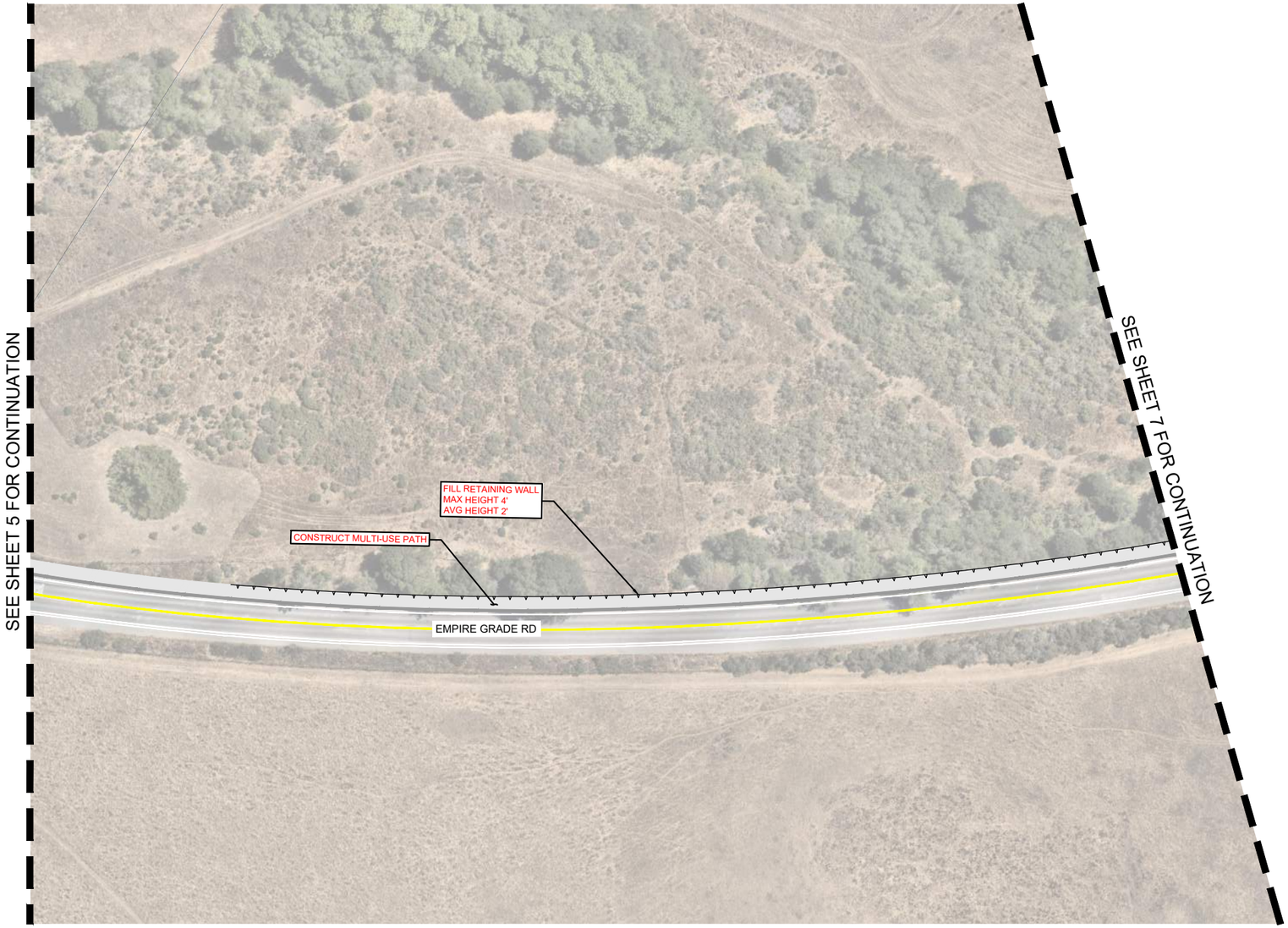
SIGNALIZED INTERSECTION IMPROVEMENTS:

- LEADING PEDESTRIAN INTERVAL (LPI)
- YELLOW RETROFEFLECTIVE BACKPLATES ON SIGNAL HEADS
- RED CURB (DAYLIGHTING IMPROVEMENTS)
- PROTECTED INTERSECTIONS SUBJECT TO OUTREACH AND/OR FEASIBILITY STUDY

LEGEND

- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB)
- HIGH-FRICTION SURFACE TREATMENT
- RUMBLE STRIP
- SIDE BEING RETAINED — RETAINING WALL

APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 5 OF 10



NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

LEGEND

- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB)
- HIGH-FRICTION SURFACE TREATMENT
- RUMBLE STRIP
- SIDE BEING RETAINED — RETAINING WALL

APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 6 OF 10

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

LEGEND

- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB)
- HIGH-FRICTION SURFACE TREATMENT
- RUMBLE STRIP
- RETAINING WALL (SIDE BEING RETAINED)

APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 7 OF 10

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

LEGEND

- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
- RECTANGULAR RAPID FLASHING BEACON (RRFB)
- HIGH-FRICTION SURFACE TREATMENT
- RUMBLE STRIP
- SIDE BEING RETAINED — RETAINING WALL

APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 8 OF 10

Watsonville CALIFORNIA

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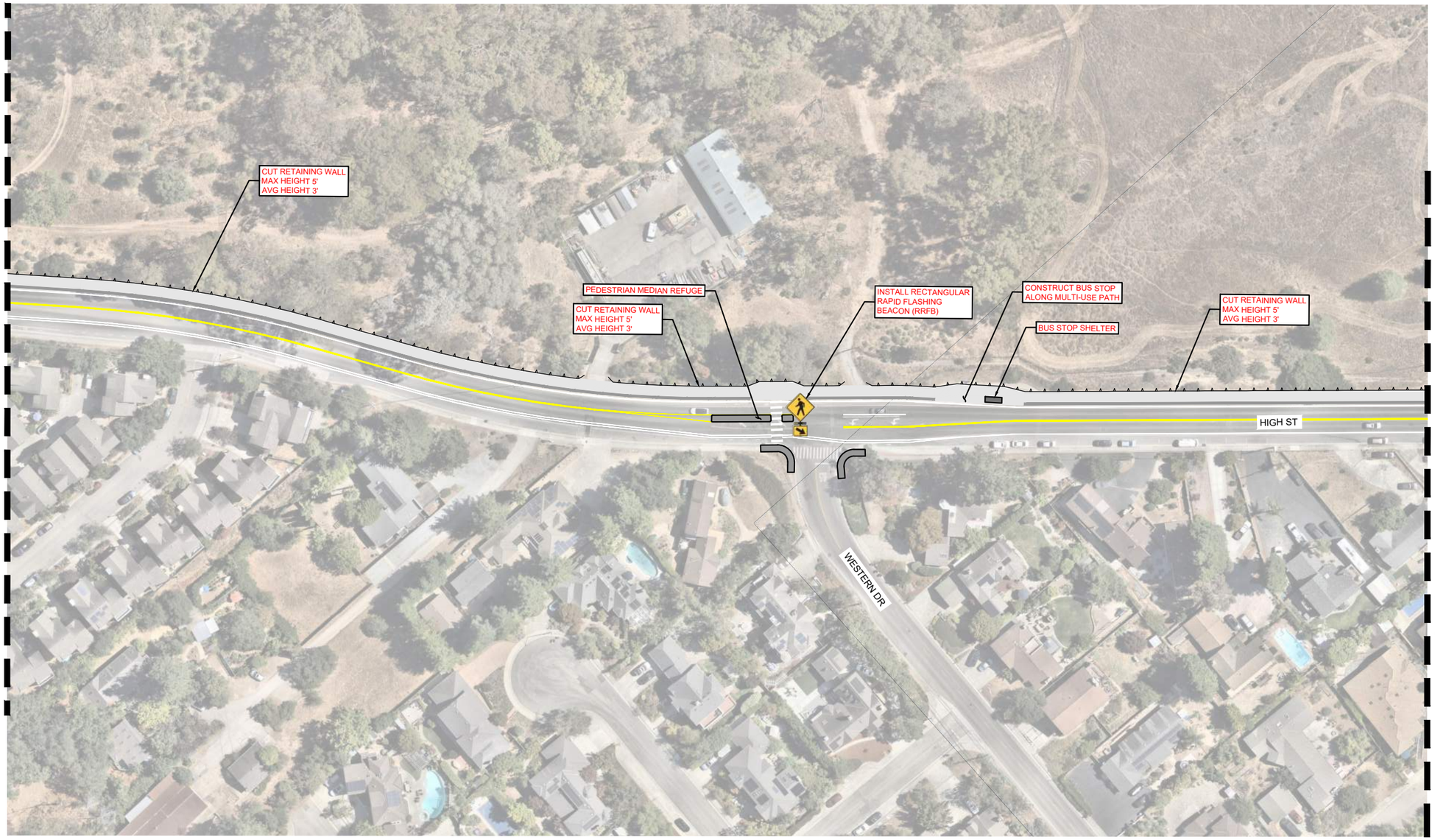

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

LEGEND

- PROPOSED SIDEWALK/MEDIAN
- DELINEATORS
- HAWK SIGNAL
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- RUMBLE STRIP
- SIDE BEING RETAINED — RETAINING WALL

APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 9 OF 10

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

SIGNALIZED INTERSECTION IMPROVEMENTS:
- LEADING PEDESTRIAN INTERVAL (LPI)
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- RED CURB (DAYLIGHTING IMPROVEMENTS)

LEGEND

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APRIL 2026
EMPIRE GRADE ROAD: 10% CONCEPTS
SANTA CRUZ COUNTY SAFETY ACTION PLAN
SHEET 10 OF 10

APPENDIX

H

Review of Policies, Programs and Planning Documents

Santa Cruz County SS4A Safety Action Plan - Summary of Programs, Policies, and Practices for Santa Cruz County, the City of Watsonville, and the City of Scotts Valley

Topic	Santa Cruz County		Scotts Valley		Watsonville	
	Current Status	Implement or Enhance	Current Status	Implement or Enhance	Current Status	Implement or Enhance
Complete Streets Policy	The County's General Plan, Goal AM-2.0 states that the City will "Provide streets that are safe, comfortable, and convenient for all modes and people of all ages and abilities." The Santa Cruz County Regional Transportation Commission (SCCRTC) manages the Santa Cruz County complete Streets Program.	Proceed with the set of implementation strategies outlined in the general plan. Consult resources such as the Monterey Bay Area Complete Streets Guidebook during project development.	The City has an updated Circulation Element in conformance with AB 1358 Complete Streets Act of 2008 (see Goal M-2). The City of Scotts Valley adopted a Complete Streets to School Plan in 2019.	Proceed with the set of actions outlined in the general plan such as developing complete streets Standards and including complete streets projects in the City's Capital Improvement Program (CIP) list.	The City of Watsonville's 2005 General Plan identified goals related to bicycle and pedestrian circulation and safety. The Downtown Watsonville Complete Streets Plan was accepted and approved by the City Council at its October 22, 2019 through Council Resolution #164-19 (CM). The City of Watsonville adopted a Complete Streets to Schools Plan in 2020.	Adopt a formal Complete Streets policy and incorporate complete streets goals and actions into the 2050 General Plan Update. Implement the Citywide recommendations and school specific improvements outlined in the Complete Streets to Schools Plan, as well as the improvements identified for downtown Watsonville.
Traffic Impact Fees	The County administers a transportation and roadside improvement fee in accordance with Chapter 15.12 of the Santa Cruz Municipal code.	Allocate a percentage of fees to traffic safety improvement projects.	City levies development of Cumulative Traffic Impact Mitigation Fee	Allocate a percentage of fees to traffic safety improvement projects.	City of Watsonville requires traffic impact fees (see the Development Fee Summary 2024-2025)	Allocate a percentage of fees to traffic safety improvement projects.
Safe Routes to School Funding	The County completed a series of Complete Streets to School projects with funding from Caltrans and SB 1. In 2018, the County held kick off meetings to create comprehensive safety projects as part of Safe Routes to School Planning in Santa Cruz County.	Apply for grant funding to implement the school safety improvements identified in the plans. Continue coordination with school districts located in unincorporated county to develop additional safety improvements.	Has an ongoing safe route to school program.	Apply for grant funding to implement the school safety improvements identified in the plans. Continue coordination with school districts to develop additional safety improvements.	In 2020 the City of Watsonville Complete Streets Plan - Safe Routes to School was unanimously approved by the Watsonville City Council and the Pajaro Valley Unified School District (PVUSD) Board, wrapping up a two-year planning process. The Plan was a partnership between the City of Watsonville, County Public Health, PVUSD, and Ecology Action.	Apply for grant funding to implement the school safety improvements identified in the plans. Continue coordination with school districts to develop additional safety improvements.
Traffic Safety Education	Community Traffic Safety Coalition of Santa Cruz County provides resources and safety tips.	Continue outreach and education efforts, especially in communities along the County's high injury network.	The City received an OTS grant, which may be used to fund community presentations on safety issues.	Consider participating in the County's Street Smarts program. Convene the Traffic Safety Committee to provide input on safety education efforts.	The City received a grant from the California Office of Traffic Safety (OTS) to support its ongoing enforcement and educational programs. The City participates in the County's Street Smarts program.	Continue participation with the County's Street Smarts Program and focus additional effort on safety in agricultural/ rural settings.
Program for Reviewing Crash Activity	The County collects crash data but does not have a formal process for review.	Update the Local Roadway Safety Plan (LRSP) or Comprehensive Safety Action Plans (CSAP) every 3-5 years. Convene the Community Traffic safety Coalition to discuss incidents.	The City does not have a formal crash data review policy.	Consider establishing regular safety reviews to be conducted by PD or Public Works. Adopt the Santa Cruz County CSAP.	The City's Vision Zero Action Plan identified an action to gather, analyze, utilize and share reliable data to understand traffic safety issues.	Establish regular safety reviews to be conducted by Planning Department (PD) or Public Works. Adopt the Santa Cruz County CSAP.

Topic	Santa Cruz County		Scotts Valley		Watsonville	
	Current Status	**Implement or Enhance**	**Current Status**	**Implement or Enhance**	**Current Status**	**Implement or Enhance**
Crossroads Database Updates	The County maintains a Crossroads crash database.	Coordinate with PD and PW to secure the quality and availability of data for supplemental safety reviews and grant applications.	The City has does not use a Crossroads database.	Consider acquiring a crossroads database to facilitate crash data safety reviews.	The City maintains a Crossroads crash database.	Coordinate with PD and PW to secure the quality and availability of data for supplemental safety reviews and grant applications.
County/City Enforcement on Bicycle Rules	The County has established ordinances regarding e-bikes on sidewalks. Community members may obtain free helmets from designated locations, which are required for cyclists under 18 years of age.	Continue enforcing bicycle traffic laws and coordinating with bicycle advocacy groups, for the benefit of public safety.	Per Scotts Valley Active Transportation Plan the Scotts Valley Police Department has explored providing bicycles to officers to allow for on-bike enforcement.	Continue enforcement of relevant cyclist laws using bicycle-mounted officers.	The City of Watsonville prohibits the use of bicycles on sidewalks. The police Department conducts some bicycle safety- related enforcement activities.	As stated in the City's Bicycle Safety Assessment, "Consider a 'warning ticket' program for youth and adults who are observed riding the wrong-way on sidewalks and on roadways and other unsafe practices.
Sobriety / Seatbelt Checks	CHP has conducted sobriety checkpoints.	Pursue OTS grants to fund additional DUI checkpoints on local roads and allow for further partnership with CHP.	The City has conducted joint DUI checkpoints using OTS grant funds.	Perform additional DUI checkpoints in coordination with other local law enforcement agencies.	The City conducted a DUI checkpoint in 2024 using funding from the National Highway Traffic Safety Administration.	Continue performing DUI checkpoints at key locations/times of year.
County/City Law Enforcement Coordinate with Adjacent Jurisdictions	The City has coordinated with adjacent jurisdictions but only on the basis of investigating elder and dependent adult abuse. No concurrent jurisdiction responsibility and agreements are listed in the Santa Cruz County Sheriff's Office Policy Manual.	Consider coordination with local city jurisdictions.	The City has coordinated with adjacent jurisdictions on enforcement activities.	Continue coordination with adjacent jurisdictions.	The City has coordinated with adjacent jurisdictions but only on the basis of investigating elder and dependent adult abuse. No concurrent jurisdiction responsibility and agreements are listed in the Watsonville PD Policy Manual.	Consider coordination with adjacent jurisdictions.
Speed Surveys	The County collects daily volumes and performs regular ET&S projects.	Continue to implement regular surveying as required by California Vehicle Code; Review new guidance from Assembly Bill 43 and identify locations where posted speed limits can be reduced through identification of "Safety Corridors" and guidance contained in the CA MUTCD.	Not posted online	Consider posting ET&S projects online. Continue to implement regular surveying as required by California Vehicle Code; Review new guidance from Assembly Bill 43 and identify locations where posted speed limits can be reduced through identification of "Safety Corridors" and guidance contained in the CA MUTCD.	Watsonville performs regular ET&S projects as indicated by the Neighborhood Traffic Mangement Plan.	Consider posting ET&S projects online. Continue to implement regular surveying as required by California Vehicle Code; Review new guidance from Assembly Bill 43 and identify locations where posted speed limits can be reduced through identification of "Safety Corridors" and guidance contained in the CA MUTCD.
Speed Limits	Speed limits posted of various streets in the county set by county regulations on the Santa Cruz County Municipal Code. Speed limits are set using regularly conducted speed surveys.	Continue to update as required by California Vehicle Code; Exercise context-based flexibility offered under Assembly Bill 43. Consider posting all current speed limits online.	Speed Limits are posted online when a change in speed limit occurs.	Continue to update as required by California Vehicle Code; Exercise context-based flexibility offered under Assembly Bill 43. Consider posting all current speed limits online.	Speed Limits are posted online when a change in speed limit occurs.	Continue to update as required by California Vehicle Code; Exercise context-based flexibility offered under Assembly Bill 43. Consider posting all current speed limits online.

Topic	Santa Cruz County		Scotts Valley		Watsonville	
	Current Status	**Implement or Enhance**	**Current Status**	**Implement or Enhance**	**Current Status**	**Implement or Enhance**
Traffic Calming Policies	The County General Plan Access + Mobility Element includes Policy AM-5.2-3, Limiting Traffic Volumes, to apply traffic calming measures that would limit traffic volumes and speeds in residential neighborhoods. There are implementation strategies that encourage traffic calming measures, such as Implementation Strategies AM-3.2c and AM-5.2b.	Consider a citywide neighborhood traffic calming program to promote slower speeds and enhance vulnerable road user safety on local roads.	The City of Scotts Valley General Plan includes a traffic calming policy listed under Policy M-4.5, Traffic Calming. The General Plan also outlines traffic calming methods to slow down traffic.	Consider preparation of a Neighborhood Traffic Management Plan.	City of Watsonville Neighborhood Traffic Management Plan (NTMP) outlines the process through which residents can request traffic calming measures to improve safety in their neighborhoods	Continue allowing residents to request traffic calming measures in their neighborhoods.
Transit Vehicles Accommodation of Bicycles	Santa Cruz Metro accommodates bicycles on buses.	Continue supporting the use of bicycles by accommodating bicycles on buses.	Per Santa Cruz Metro, all METRO buses are equipped with front-mounted racks with space for three standard size bikes, use of bicycle rack is free to fare paying customers, on a first-come, first-serve basis, bicycles may be loaded at all posted bus stops and you can request that the operator kneel the bus for your convenience	Continue supporting the use of bicycles by accommodating bicycles on buses.	Buses are equipped with bike racks, and bikes are permitted inside buses when racks are full and the bus is less than 50% full. If there is rai, bikes are permitted inside rail cars. No restrictions on folding bikes on buses or rail.	Continue supporting the use of bicycles by accommodating bicycles on buses.
Coordination of Transit Providers and County/City Staff	The Santa Cruz County Regional Transportation Commission (SCCRTC) serves as the Santa Cruz County's regional transportation planning agency (RTPA), supporting and funding a variety of transit projects in coordination with Local and Regional Transit Operators, including, but not limited to, Santa Cruz Metropolitan Transit District (METRO), Valley Transportation Authority (VTA), UCSC Transportation and Parking Services (TAPS).	Maintain county coordination with Transit Providers' continue RTC support of transit projects.	The City coordinates with transit providers.	Continue coordination; Work to identify areas for improvements, particularly with first and last mile connections.	The City coordinates with transit providers.	Continue coordination; Work to identify areas for improvements, particularly with first and last mile connections.
Bicycle and Pedestrian Master Plans	The County of Santa Cruz has an Active Transportation Plan. The Santa Cruz County Regional Transportation Commission (SCCRTC) has a 2015 Implementation Plan for the	Continue tracking bike and pedestrian crashes and implementing identified projects with high need and high feasibility.	The City of Scotts Valley has an Active Transportation Plan.	Continue tracking bike and pedestrian crashes and implementing identified projects with high need and high feasibility.	The City of Watsonville has a Trails and Bicycle Master Plan and a Downtown Complete Streets Plan.	Consider implementing an Active Transportation Plan and tracking bike and pedestrian crashes citywide.

Topic	Santa Cruz County		Scotts Valley		Watsonville	
	Current Status	**Implement or Enhance**	**Current Status**	**Implement or Enhance**	**Current Status**	**Implement or Enhance**
	Santa Cruz County Bicycle Route Signage Program.					
General Plan Addresses Multimodal Traffic Safety	Through Watsonville-Santa Cruz Multimodal Corridor Program (WSC-MCP), the RTC is working toward a sustainable, multimodal transportation system that will address some of Santa Cruz County's transportation challenges now and into the future. The County of Santa Cruz General Plan Access + Mobility Element contains multiple goals and policies to encourage a multimodal transportation system for all users.	Continue to implement recommendations under General Plan; Regularly assess progress and areas for improvement; Ensure that projects incorporate multimodal safety.	The City of Scotts Valley General Plan includes goals and policies to provide a balanced multi-modal transportation system. The Scotts Valley Active Transportation Plan would also encourage multi-modal transportation.	Continue to implement recommendations under General Plan; Regularly assess progress and areas for improvement; Ensure that projects incorporate multimodal safety.	The existing 2005 General Plan does not explicitly express multimodal in the plan language though there are elements of bike and pedestrian safety.	Implement multimodal traffic safety recommendations in the future General Plan 2050.
Inventory of Bicycle, Pedestrian, Parking, and other facilities	SCCRTC has bikeway maps available for Santa Cruz County. The County of Santa Cruz Active Transportation Plan identifies existing sidewalks and missing sidewalks.	Consider documenting an inventory of parking facilities.	The City of Scotts Valley Parks & Recreation Master Plan includes an inventory of parks and trails. The City of Scotts Valley Active Transportation Plan includes an inventory of bike and pedestrian facilities.	Continue to provide inventory of bicycle, pedestrian, and other facilities; perform annual monitoring. Consider documenting an inventory of parking facilities. There are recommendations to access audit and transition plan for City facilities (City wide).	The City of Watsonville Parks and Recreation Facilities Master Plan identifies recreational facilities. The City of Watsonville Trails & Bicycle Master Plan for the Watsonville Scenic Trails Network contains citywide pedestrian and bicycle trails system.	Continue to provide inventory of bicycle, pedestrian, and other facilities; perform annual monitoring. Consider documenting an inventory of parking facilities.
Traffic Safety Audit Program	None	Implement a traffic safety audit program to regularly review collision data and respond to community feedback regarding traffic safety challenges.	None	Consider implementing a traffic safety audit program to regularly review crash data and respond to community feedback regarding traffic safety challenges.	None	Implement a traffic safety audit program to regularly review collision data and respond to community feedback regarding traffic safety challenges.
Coordination between Emergency Response and City Transportation Planning	Santa Cruz Operational Emergency Operations Plan provides detailed information on ways to provide timely, effective and clear communication	Continue engaging emergency response in transportation planning processes; Include membership in project technical advisory committees where appropriate.	Emergency responders and transit providers are involved in all aspects of bikeway planning/design, including pilot testing. Response times are balanced with cyclist safety	Continue engaging emergency response in transportation planning processes; Include membership in project technical advisory committees where appropriate.	Improve or when possible build new City Hall, Municipal Service Center, Police Department and Fire Station, Continue to expand the equipment maintenance services, and providing Police and Fire Youth Academy are identified as a goal in the Watsonville City Council Strategic Plan 2023-2025	Continue engaging emergency response in transportation planning processes; Include membership in project technical advisory committees where appropriate.

Topic	Santa Cruz County		Scotts Valley		Watsonville	
	Current Status	**Implement or Enhance**	**Current Status**	**Implement or Enhance**	**Current Status**	**Implement or Enhance**
Coordination between Local Health Agencies and City Transportation Planning	The Santa Cruz County Health Services Agency was awarded an OTS Grant to lead its Arrive Sober/Llegar Sobrio Program. The County of Santa Cruz Health Services Agency (HSA) created a Community Traffic Safety Coalition (CTSC) partnership consisting of community organizations, government agencies, businesses, and individuals representing law enforcement, public works, education, health and injury prevention, parents, bicycling advocates, retailers, and manufacturers to prevent traffic-related injuries and fatalities for all road users. In Santa Cruz County, Vision Zero is led by County Public Health.	Continue engaging local health agencies in transportation planning processes; Include membership in working group or technical advisory committees where appropriate.	Health agencies have programs to promote healthy lifestyles through active transportation. The City of Scotts Valley partnered with County of Santa Cruz Public Health to develop the County of Santa Cruz/City of Scotts Valley Complete Streets to Schools Plan.	Continue engaging local health agencies in transportation planning processes; Include membership in working group or technical advisory committees where appropriate.	The City of Watsonville has partnered with the Santa Cruz County Health Services Agency to develop a Complete Streets to Schools Plan and the Vision Zero Plan.	Continue engaging local health agencies in transportation planning processes; Include membership in working group or technical advisory committees where appropriate.
Resident Feedback	The Santa Cruz County Regional Transportation Commission (SCCRTC) utilizes social media/other technology and brings workshops/materials to other meetings to encourage a wide range of participants in public involvement.	Continue to seek out resident feedback; Review comments for trends and patterns that may suggest opportunities for systemic safety improvement.	Uses social media/other technology and brings workshops/materials to other meetings to encourage a wide range of participants in public involvement. Resident feedback informed the Scotts Valley Active Transportation Plan.	Continue to seek out resident feedback; Review comments for trends and patterns that may suggest opportunities for systemic safety improvement.	Uses social media/other technology and brings workshops/materials to other meetings to encourage a wide range of participants in public involvement. An example includes October 2024 virtual public meetings to develop a Rural Highways Safety Action Plan.	If the City of Watsonville developed an Active Transportation Plan, consider gathering resident feedback via surveys and/or through community workshops.
Maintenance of Roadway Surfaces	The County's Road Maintenance Crews are responsible for maintenance of approximately 595 miles of County roadways including pothole repair, roadway patching, roadway striping, roadway culvert cleaning & replacement, brush trimming, ditch clearing, culvert maintenance, bridge and guardrail repair, and much more. The County of Santa Cruz also regularly updates the Pavement Management Program.	Continue regular maintenance of roadway surfaces and regular update of the Pavement Management Program.	There is a Pavement Management Plan	Continue regular maintenance of roadway surfaces and regular update of the Pavement Management Program as listed in the City of Scotts Valley Service and Sphere of Influence Review.	There is a Pavement Management Program.	Continue regular maintenance of roadway surfaces and operation of the Pavement Management Program to regularly inventory the condition of the streets and assign a Pavement Condition Index (PCI).

Topic	Santa Cruz County		Scotts Valley		Watsonville	
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Transportation Demand Management Policies/Programs	The Santa Cruz County General Plan Appendix I outlines Transportation Demand Management Strategies. VTA developed a Transportation Demand Management program.	Continue to coordinate with VTA to review strategies to implement/improve local TDM programs.	The City of Scotts Valley has developed VMT Implementation Guidelines and a VMT calculator tool for use in the VMT analysis of land use projects. VTA developed a Transportation Demand Management program.	Coordinate with VTA to review strategies to implement/improve local TDM programs.	The City of Watsonville has developed SB 743 Implementation Guidelines to analyze vehicle miles travelled for CEQA compliance. VTA developed a Transportation Demand Management program.	Coordinate with VTA to review strategies to implement/improve local TDM programs.
Use of overlays, specific plans, redevelopment areas to encourage infill development to reduce VMT	The Santa Cruz County Redevelopment Agency identifies redevelopment areas pertaining to business and commercial, community facilities, parks, the Live Oak-Soquel Redevelopment Area, and the streets and sidewalks.	Identify areas where infill development will require safety improvements.	City follows direction in SB 743 I effort to reduce VMT. The Scotts Valley Town Center Specific Plan has promoted infill developments in line with its sustainable design guidelines.	Identify areas where infill development will require safety improvements; Coordinate with County to ensure connectivity and continuation of safety amenities with other municipalities.	The Downtown Watsonville Specific Plan promotes, encourages, and increases higher levels of infill in area's urban design.	Identify areas where infill development will require safety improvements; Coordinate with County to ensure connectivity and continuation of safety amenities with other municipalities.
Regular Collection of Traffic / Bicycle / Pedestrian Volumes	Santa Cruz County works with the Regional Transportation Commission to regularly conduct Traffic Counts. The Santa Cruz County Regional Transportation Commission (RTC) has conducted Bicycle, Pedestrian, Vehicle Occupancy and Motor Vehicle Counts at select locations throughout the County.	Conduct regular collection of traffic, bicycle and pedestrian volumes.	The City of Scotts Valley collects these volumes on a case-by-case basis	Require bicycle and pedestrian counts as part of routine traffic counting policies for the City when traffic impact studies or environmental documents are being developed.	The City of Watsonville works with the Regional Transportation Commission to gather traffic data.	Require bicycle and pedestrian counts as part of routine traffic counting policies for the City when traffic impact studies or environmental documents are being developed.
Program for Installing Wayfinding Signage	SCCRTC has a Bicycle Route Signage Program to implement wayfinding signage throughout the county.	Utilize solar-powered digital bulletin boards to advertise traffic safety best practices or wayfinding. Identify key City destinations and access route.	The RTC is implementing bicycle wayfinding signage throughout the county.	Coordinate with the RTC to implement the Bicycle Route Signage Program.	The RTC is implementing bicycle wayfinding signage throughout the county. The City of Watsonville is in the process of developing a Signage and Wayfinding Master Plan.	Coordinate with the RTC to implement the Bicycle Route Signage Program. Continue developing a Signage and Wayfinding Master Plan.
Warrants for Traffic Control Devices	The CTSC and RTC has developed the Construction Safety Guidelines that are based on the 2012 California Manual on Uniform Traffic Control Devices (MUTCD)	Use the latest CA MUTCD for updating the Construction Safety Guidelines and other guidance documents.	Uses CA MUTCD	Continue to use CA MUTCD warrants; Where frequent citizen requests are not covered by existing warrants, consider developing local warrants to support decision making.	Uses the California Manual on Uniform Traffic Control Devices (CA MUTCD)	Continue to use CA MUTCD warrants; Where frequent citizen requests are not covered by existing warrants, consider developing local warrants to support decision making.
School Zone Safety	The County of Santa Cruz/City of Scotts Valley Complete Streets to Schools Plan includes countywide SRTS recommendations to enhance school zone safety.	Implement SRTS recommendations.	Brook Knoll Elementary, Scotts Valley High School, Scotts Valley Middle School, Vine Hill Elementary are included in the Complete Streets to School Plan to reduce collisions and increase bicycling and walking trips	Implement SRTS recommendations.	The City's public schools are included in the Complete Street to School Plan to reduce collisions and increase bicycling and walking trips	Implement SRTS recommendations.

Topic	Santa Cruz County		Scotts Valley		Watsonville	
	Current Status	**Implement or Enhance**	**Current Status**	**Implement or Enhance**	**Current Status**	**Implement or Enhance**
Crosswalk Safety	The Santa Cruz County Active Transportation Plan recommends installing green conflict markings and high-visibility bicycle crossings, high-visibility pedestrian crossings, raised crosswalks, rectangular rapid flashing beacons (RRFBs), and median refuge islands to improve crosswalk safety.	Implement crosswalk safety improvements countywide.	Scotts Valley Active Transportation Plan recommends installing high-visibility crosswalks, raised crosswalk, median refuge islands to enhance safety and reduce crossing times for pedestrians	Implement crosswalk safety improvements.	The City is enforcing intersection daylighting per AB413 beginning 1/1/2025. The school district employs crossing guards.	Continue enforcement of daylighting crosswalks per AB413. If an Active Transportation Plan is developed, consider recommending FHWA crosswalk safety improvements.

APPENDIX

I

Funding Sources

APPENDIX I — FUNDING SOURCES

Competitive funding resources are available to assist in the development and implementation of safety projects in Santa Cruz County. The County and Cities will continue to seek available funding and grant opportunities from local, state, and federal resources to accelerate their ability to implement safety improvements throughout Santa Cruz. The following is a high-level introduction into some of the main funding programs and grants for which the City can apply.

1.1.1. Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is a Federal program housed under Fixing America's Surface Transportation (FAST) Act. This program apportions funding as a lump sum for each state, which is then divided among apportioned programs. These flexible funds can be used for projects to preserve or improve safety conditions and performance on any Federal-aid highway, bridge projects on any public road, facilities for non-motorized transportation, and other project types. Safety improvement projects eligible for this funding include:

- *New or upgraded traffic signals*
- *Upgraded guardrails*
- *Marked pedestrian crosswalks*

California's local HSIP focuses on infrastructure projects with national recognized crash reduction factors. Normally HSIP call-for-projects is made at an interval of one to two years. The applicant must be a city, a county, or a tribal government federally recognized within the State of California. Additional information regarding this program at the Federal level is available at: https://safety.fhwa.dot.gov/hsip/

California specific HSIP information – including dates for upcoming call for projects – is available at: http://www.dot.ca.gov/hq/LocalPrograms/hsip.html

HSIP Analyzer

The preferred way to calculate the BCR for the HSIP program uses Caltrans HSIP Analyzer tool in the form of an active PDF. The PDF tool contains 4 sections which are used to calculate the Benefit Cost Ratio for the Highway Safety Improvement Program. This tool can be accessed on the Caltrans website:

https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program/apply-now

Projects appropriate for other state grant programs can be analyzed using the Life-Cycle Benefit Cost Analysis Model (CalB/C) which has a much more comprehensive benefit assessment tool set.

HSIP Eligibility

Per Chapter 9 of the Highway Safety Improvement Program, funds are eligible for projects that improve the safety of its users on any public road or publicly owned bicycle or pedestrian pathway or trail, or on tribal lands for general use of tribal members.

HSIP looks for safety projects that can be designed and constructed expeditiously and do not require significant acquisition of rights-of-way. Proposed projects should not require extensive environmental review and mitigation. Additional information on the HSIP project selection criteria can be accessed online:

- Benefit Cost Ratio Applications

https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/hsip/2024/hsip-analyzer-manual-bcr2024.pdf

- Funding Set-asides (Non-Benefit Cost Ratio Applications)

https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/hsip/2024/hsip-analyzer-manual-2024sa-final.pdf

HSIP project eligibility is subject to the California SHSP. The SHSP identifies statewide challenge areas that correspond to safety concerns at the statewide level and potential countermeasure to address them and determine HSIP project eligibility. SHSP's are developed in compliance with FHWA requirements. A list of eligible project types can be seen in the current HSIP Analyzer. More information about the California HSIP application process can be accessed here:

https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/lapg/g09.pdf

1.1.2. Caltrans Active Transportation Program (ATP)

Caltrans Active Transportation Program (ATP) is a statewide funding program, created in 2013, consolidating several federal and state programs. The ATP funds projects that encourage increased mode share for walking and bicycling, improve mobility and safety for non-motorized users, enhance public health, and decrease greenhouse gas emissions. Projects eligible for this funding include:

- *Bicycle and pedestrian infrastructure projects*
- *Bicycle and pedestrian planning projects (e.g. safe routes to school)*
- *Non-infrastructure programs (education and enforcement)*

This program funding is provided annually. The ATP call for projects typically comes out in the spring. Information on this program and cycles can be found online:

https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/active-transportation-program

1.1.3. State Transportation Improvement Program (STIP)

The State Transportation Improvement Program (STIP) provides state and federal gas tax money for improvements both on and off the state highway system. STIP programming occurs every two years. The programming cycle begins with the release of a proposed fund estimate, followed by California Transportation Commission (CTC) adoption of the fund estimate. The fund estimate serves to identify the amount of new funds available for the programming of transportation projects. Once the fund estimate is adopted, Caltrans and the regional planning agencies prepare transportation improvement plans for submittal. Caltrans prepares the Interregional Transportation Improvement Program (ITIP) using Interregional Improvement Program (IIP) funds,

and regional agencies prepare Regional Transportation Improvement Programs (RTIPs) using Regional Improvement Program (RIP) funds. The STIP is then adopted by the CTC.

1.1.4. California Senate Bill 1 (SB 1)

SB 1 is a transportation investment to rebuild California by fixing neighborhood streets, freeways and bridges in communities across California and targeting funds toward transit and congested trade and commute corridor improvements.

California's state-maintained transportation infrastructure will receive roughly half of SB 1 revenue: $26 billion. The other half will go to local roads, transit agencies and an expansion of the state's growing network of pedestrian and cycle routes. Each year, this new funding will be used to tackle deferred maintenance needs both on the state highway system and the local road system, including:

- *Bike and Pedestrian Projects: $100 million*
  - *This funding will go to cities, counties, and regional transportation agencies to build or convert more bike paths, crosswalks, and sidewalks. It is a significant increase in subsidy for these projects through the Active Transportation Program (ATP).*
- *Local Planning Grants: $25 million*

1.1.5. California Office of Traffic Safety (OTS) Grants

This program has funding projects related to traffic safety, including transportation safety education and encouragement activities. Grants applications must be supported by local crash data (such as the data analyzed in this plan) and must relate to the following priority program areas:

- *Alcohol Impaired Driving*
- *Distracted Driving*
- *Drug-Impaired Emergency Medical Services*
- *Motorcycle Safety*
- *Occupant Protection*
- *Pedestrian and Bicycle Safety*
- *Police Traffic Services*
- *Public Relations, Advertising, and Marketing Program*
- *Roadway Safety and Traffic Records*

1.1.6. Safe Streets and Roads for All (SS4A)

The SS4A Grant Program is a federal program established by the Bipartisan Infrastructure Law. A total of $5 billion are available from 2022-2026 in the form of planning grants and implementation grants. Grant applications for projects that implement the Safe Systems Approach, such as those related to speed management, improvements in underserved communities, and vulnerable road users, are encouraged. Implementation grant projects must be identified in an applicant's qualifying Safety Action Plan. The SS4A Self-Certification Eligibility Worksheet describes the required elements of an Action Plan and can be accessed at:

https://www.transportation.gov/sites/dot.gov/files/2025-03/SS4A_FY25-Self-Certification-Worksheet.pdf

Additional information about implementation grants can be found at: https://www.transportation.gov/grants/ss4a/implementation-grants

1.1.7. Advanced Transportation Technology and Innovation (ATTAIN)

The ATTAIN program is a competitive funding initiative administered by FHWA. It aims to support the deployment, installation, and operation of advanced transportation technologies that enhance:

- *Safety*
- *Mobility*
- *Efficiency*
- *System performance*
- *Intermodal connectivity*
- *Infrastructure return on investment*.

The ATTAIN program was scoped with an annual budget of $60 million per year from FY 2022-2026 but is closed as of February 2024. Future funding is to be determined. Additional information can be found at: https://www.fhwa.dot.gov/infrastructure-investment-and-jobs-act/attain.cfm

1.1.8. Reconnecting Communities Pilot (RCP) Grant Program

The RCP Program was established under the Infrastructure Investment and Jobs Act with the aim of reconnecting communities that were divided or harmed by past transportation infrastructure decisions—such as highways, rail lines, or other barriers. It supports both planning and capital construction projects that restore community connectivity, improve mobility, and foster economic development.

The RCP Program has budgeted an annual average of $50 million for planning grants and $140 million for construction grants from FY 2022-2026. RCP priorities include the following:

- *Access*
- *Facility Suitability*
- *Community Engagement, and Community-based Stewardship, Management, and Partnerships*
- *Community Development*
- *Extreme Weather Adaptation and Resilience*
- *Workforce Development and Economic Opportunity*
- *Planning Integration*

Additional information can be found at: https://www.transportation.gov/reconnecting

1.1.9. Strengthening Mobility and Revolutionizing Transportation (SMART)

The SMART Grant Program was established by the Bipartisan Infrastructure Law (BIL) to fund demonstration projects that deploy advanced smart city and community technologies aimed at improving transportation efficiency and safety. The SMART program is organized into two stages, with the first stage focused on planning and prototyping projects with awards up to $2 million; stage two awards are available to stage one recipients only and can be used to further refine, scale

up, or integrate the original project into the existing transportation network. Phase two awards range from $2-18 million, and the SMART Program has budgeted a total of $100 million from FY 2022-2026. More information can be found at: https://www.transportation.gov/grants/SMART