



# Local Road Safety Plan

Stakeholder Meeting #1

September 26, 2023

12:00 pm





# Agenda

- Introductions
- What is a Local Road Safety Plan (LRSP?)
- LRSP Process
- Your Role as a Safety Champion
- Preliminary Collision Analysis Findings
- Emphasis Areas
- Project Website and Interactive Map Input Walk-Through
- Discussion
- Next Steps





# Introduction



# What is a Local Road Safety Plan (LRSP)?

## Goals:

- Identify locations with highest concentration of vehicular collisions
- Identify location with higher concentration of bicycle and pedestrian collisions

## Objectives:

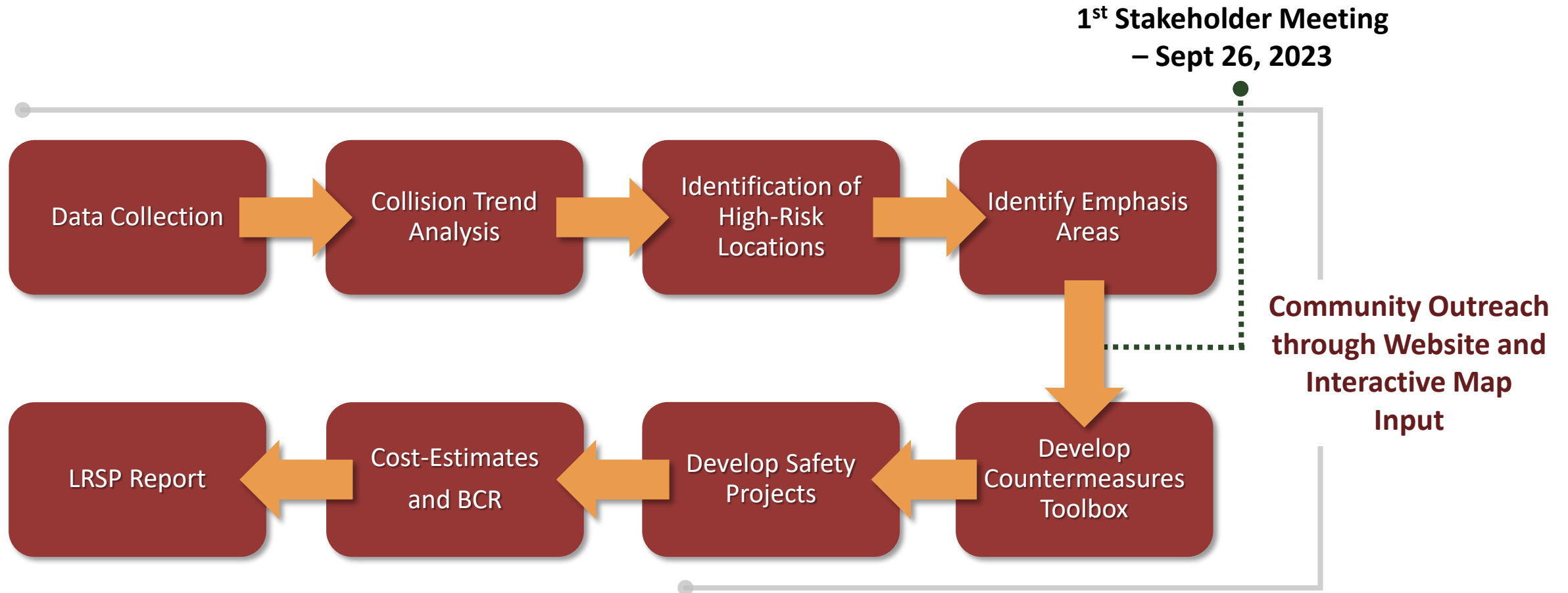
- Identify major contributing factors to crashes and define priority locations for roadway safety improvements
- Identify cost-effective countermeasures and safety investments that can be applied systemically
- Create an LRSP document to capitalize on established safety initiatives and identify other strategies to prioritize safety investments
- Document proposed countermeasures, implementation considerations, and benefit/cost for priority locations identified through this study to aid in the evaluation and preparation of grant applications

Considers engineering and non-engineering strategies:

- 5 E's of Traffic Safety: **E**ducation, **E**nforcement, **E**ngineering, **E**mergency Medical Services (EMS), and **E**quity

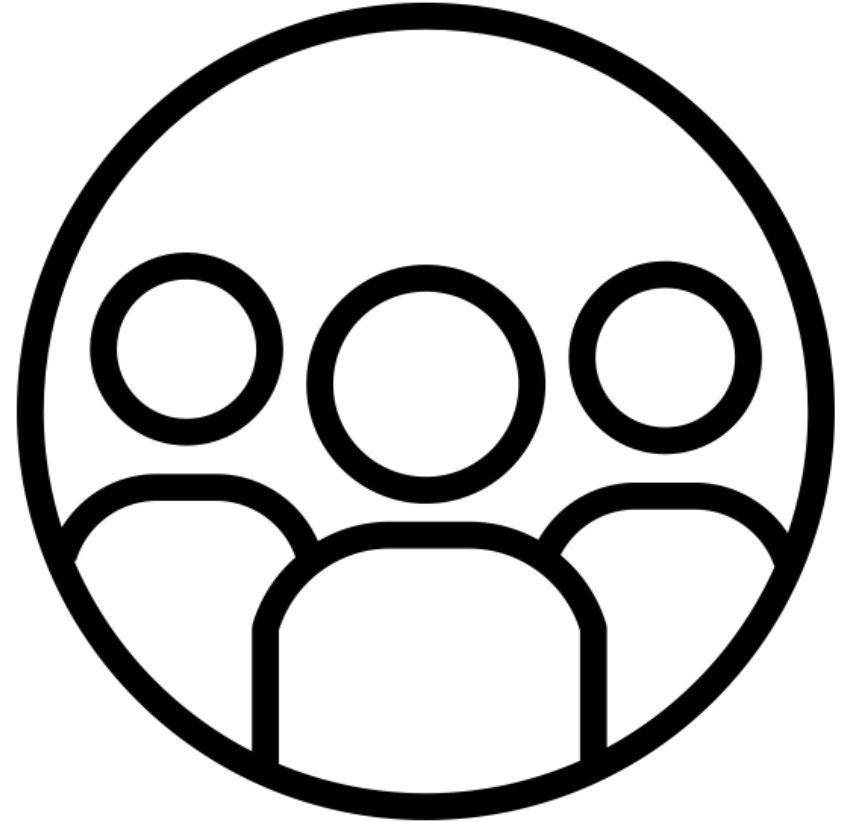


# LRSP Process

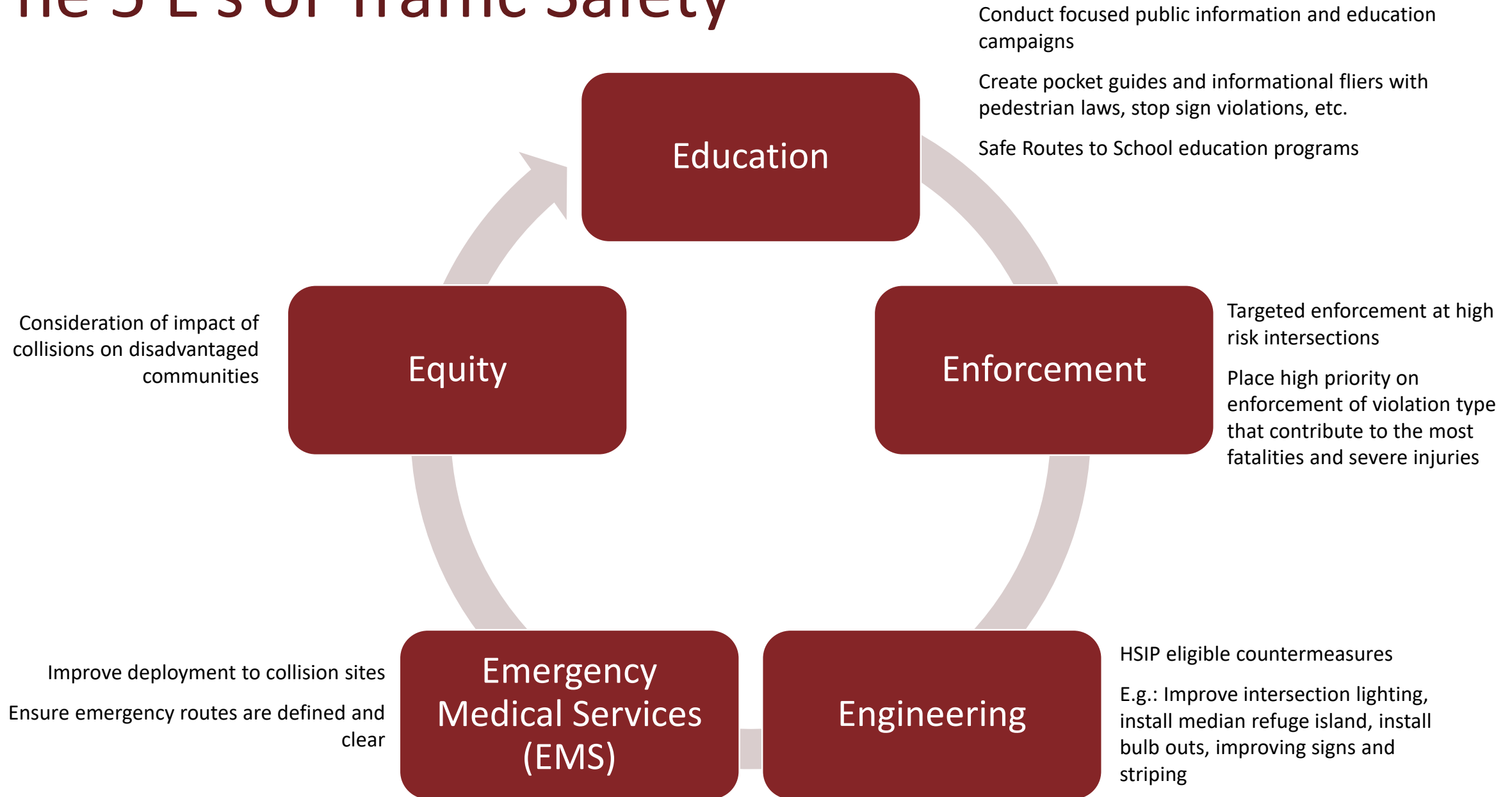


# Your Role as a Safety Champion!

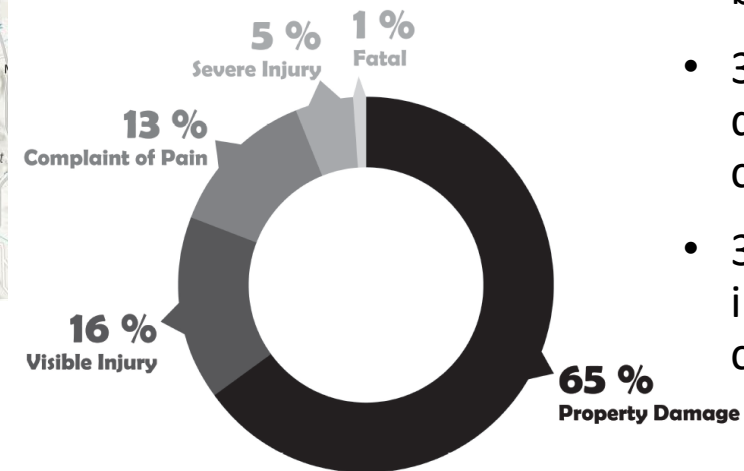
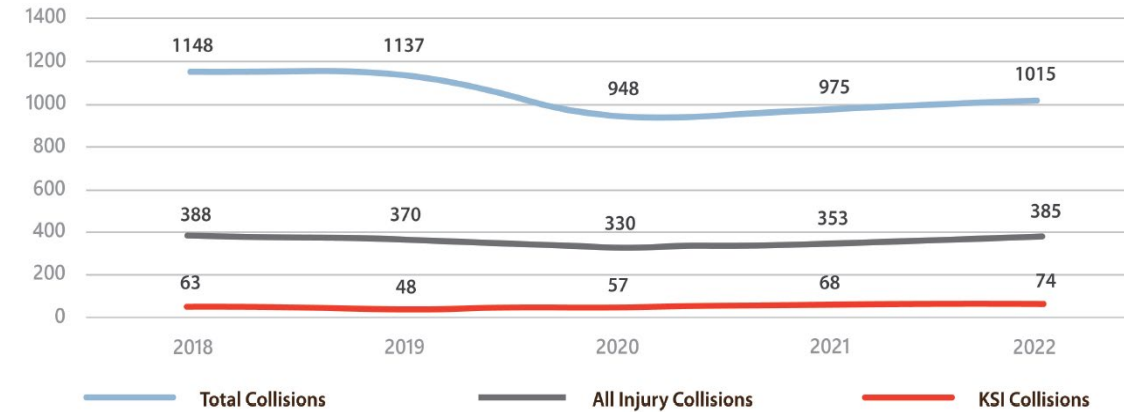
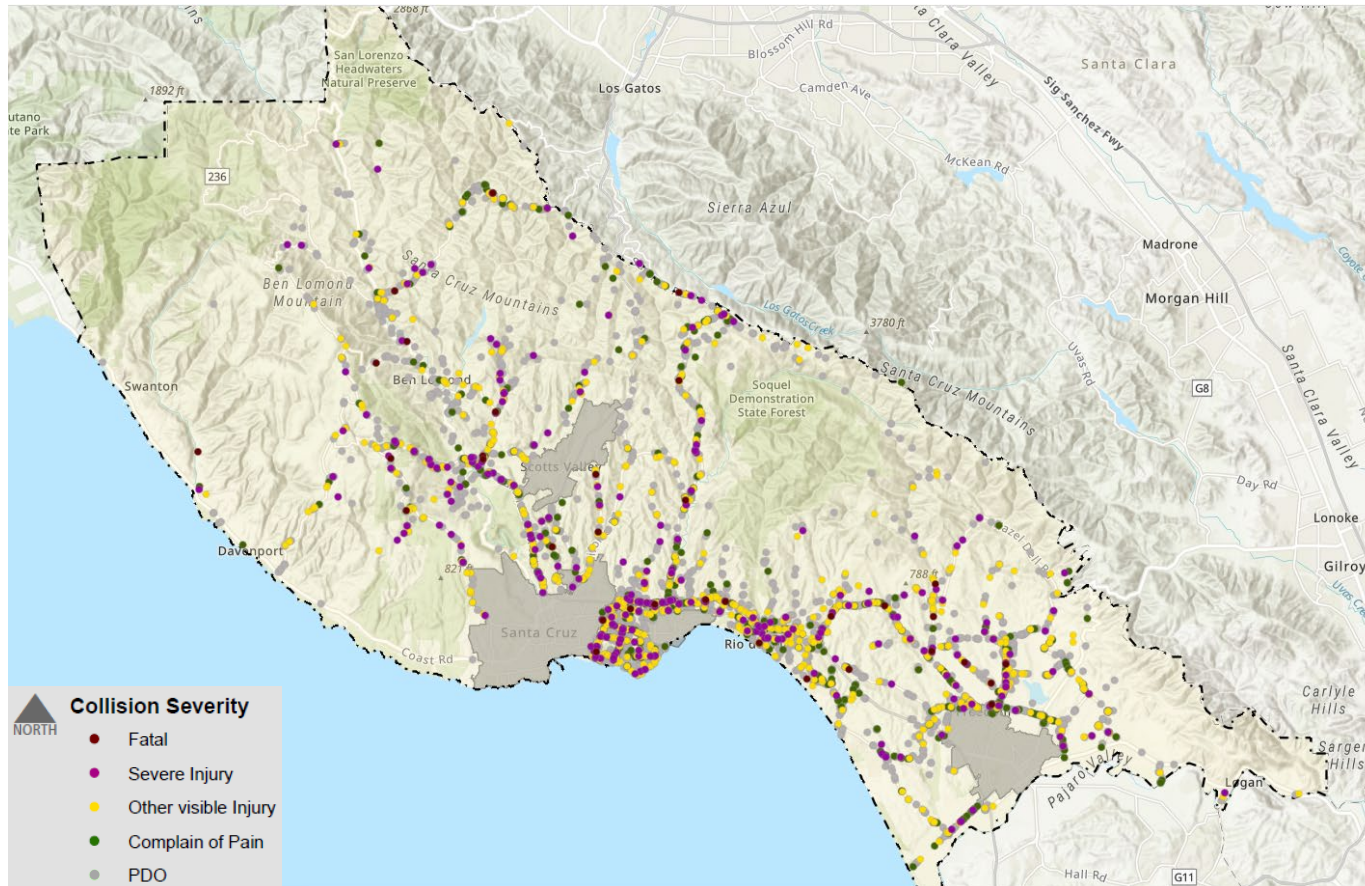
- Comment on the presentation
- Tell us about your traffic safety related issues or concerns
- Tell us what you heard from the members of the community
- Share with us any ideas for programs/safety measures under the E categories (Education, Enforcement, Engineering, EMS, and Equity)
- Report your concerns in a map-based survey at <https://www.SantaCruzCountySafeStreets.com/>
- Share the survey with everyone
- Stay informed about the project!



# The 5 E's of Traffic Safety



# Collision Analysis Findings

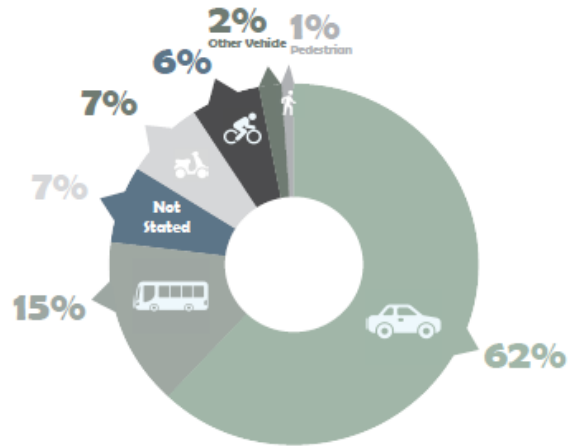


- 5,223 collisions between 2018-2022
- 3,397 property damage only (PDO collisions)
- 310 fatal and severe injury (F+SI/KSI collisions)

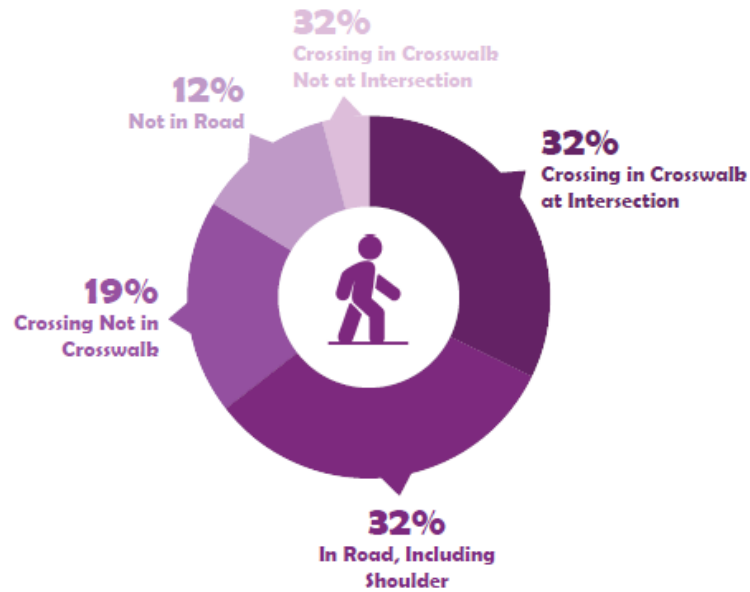


# Injury Collision Analysis Findings

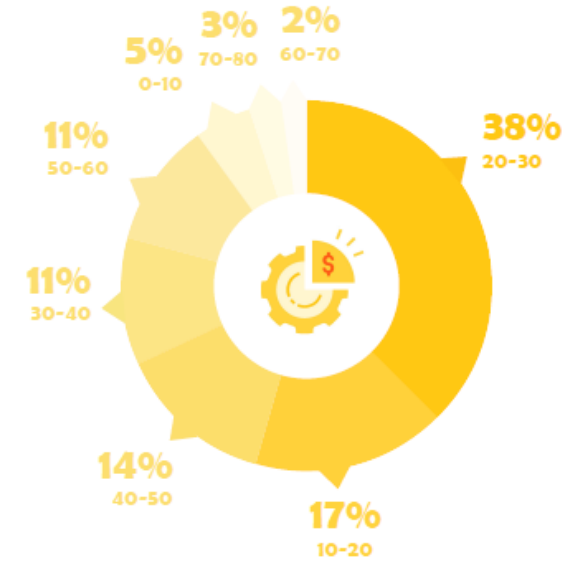
## VEHICLE AT FAULT



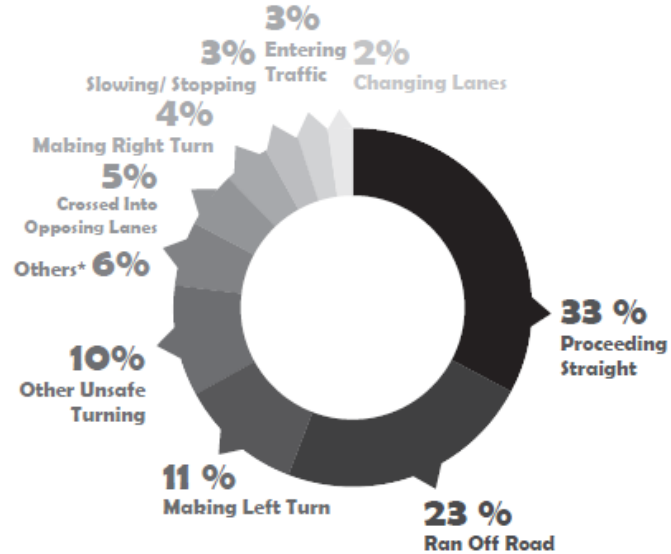
## PEDESTRIAN LOCATION DURING CRASH



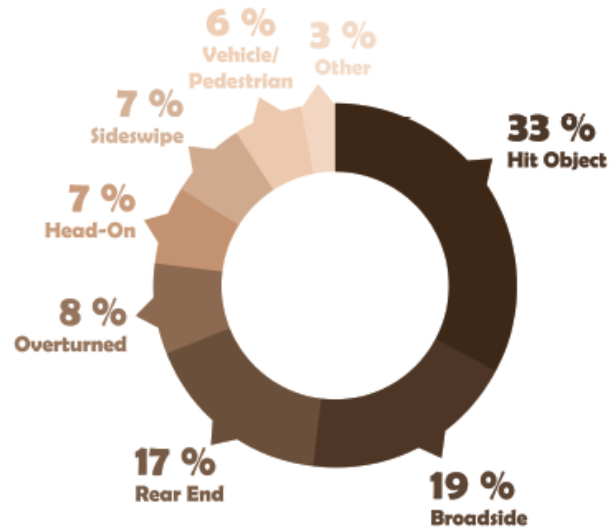
## EQUITY



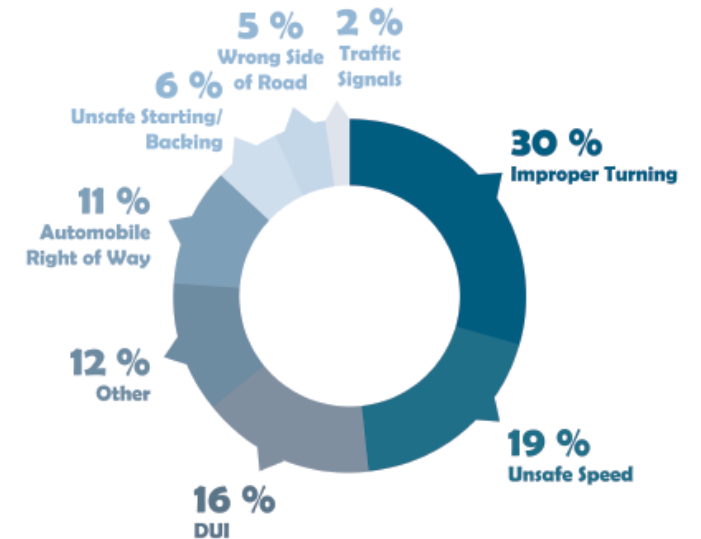
## MOVEMENT PRECEDING CRASH



## TYPE OF COLLISIONS



## VIOLATION CATEGORY



# Equivalent Property Damage Only (EPDO) Score

Collision Severity	EPDO Score
Fatal and Severe Injury Combined	165
Visible Injury	11
Complaint of Pain	6
Property Damage Only (PDO)	1

EPDO Score =

(165 x # of Fatal Collisions) +

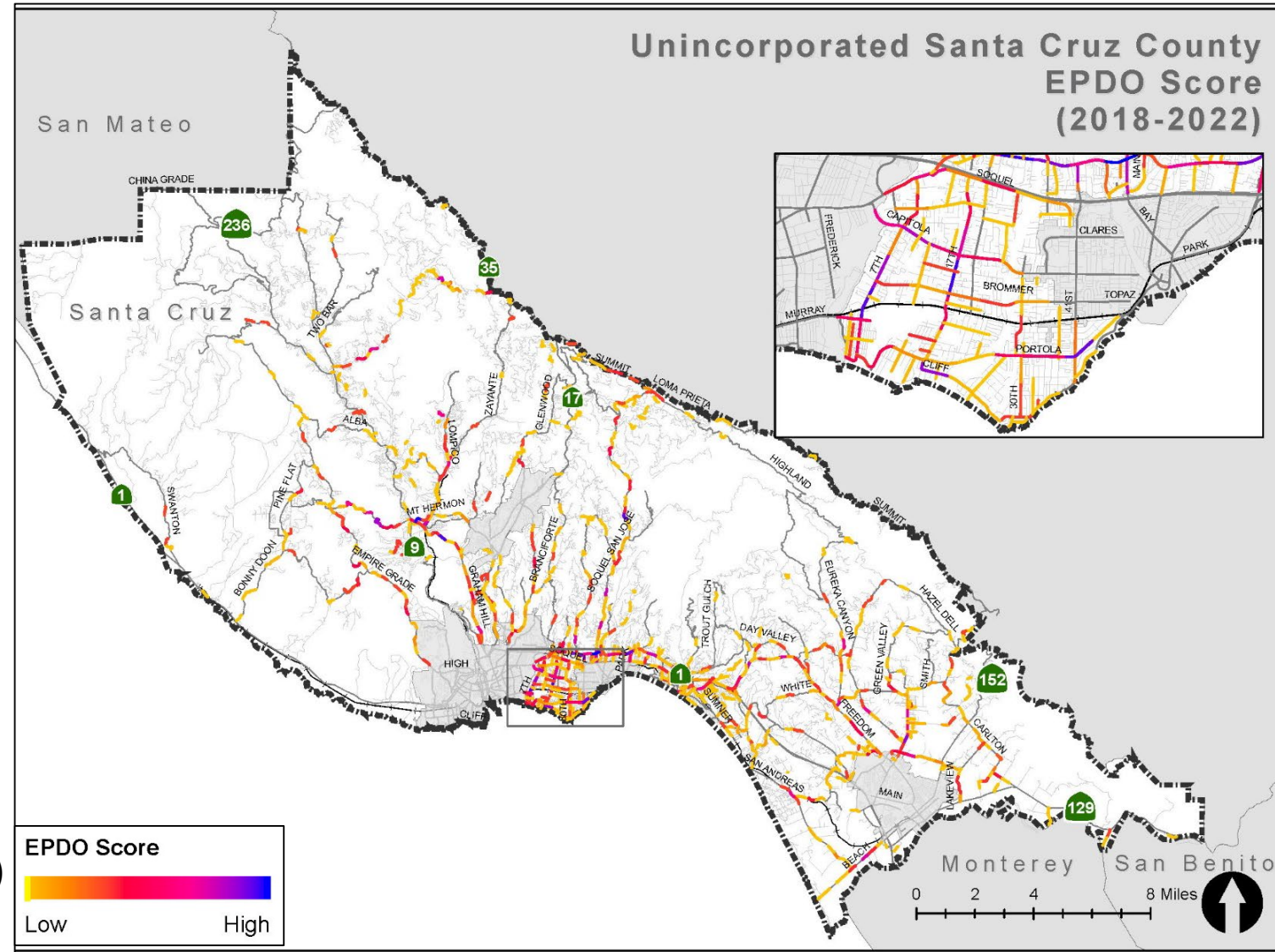
(165 x # of Severe Injury Collisions) +

(11 x # of Other Visible Injury Collisions) +

(6 x # of Complaint of Pain Collisions) +

(1 x # of PDO Collisions)

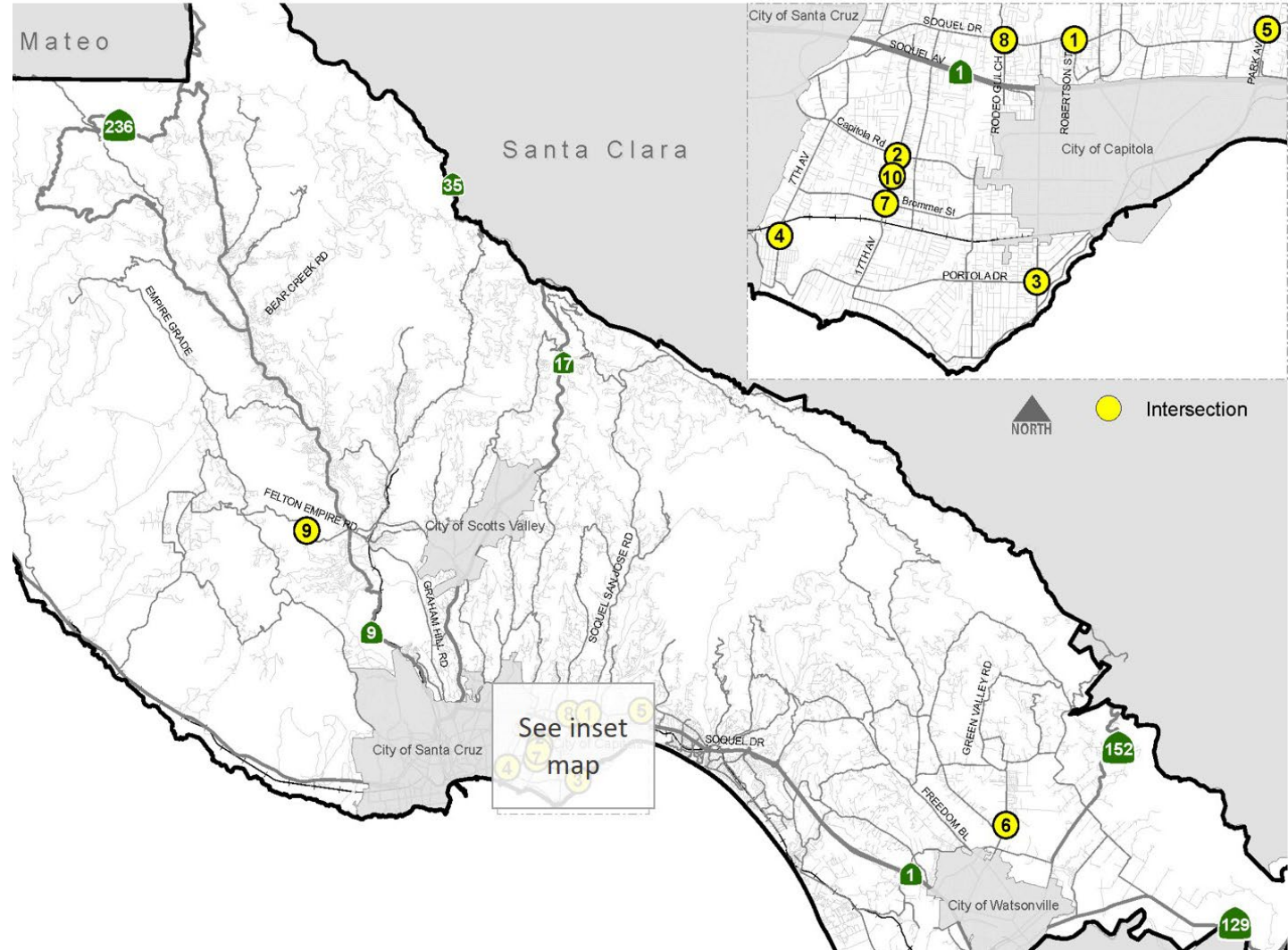
(Source: Local Roadway Safety Manual 2022, Caltrans)





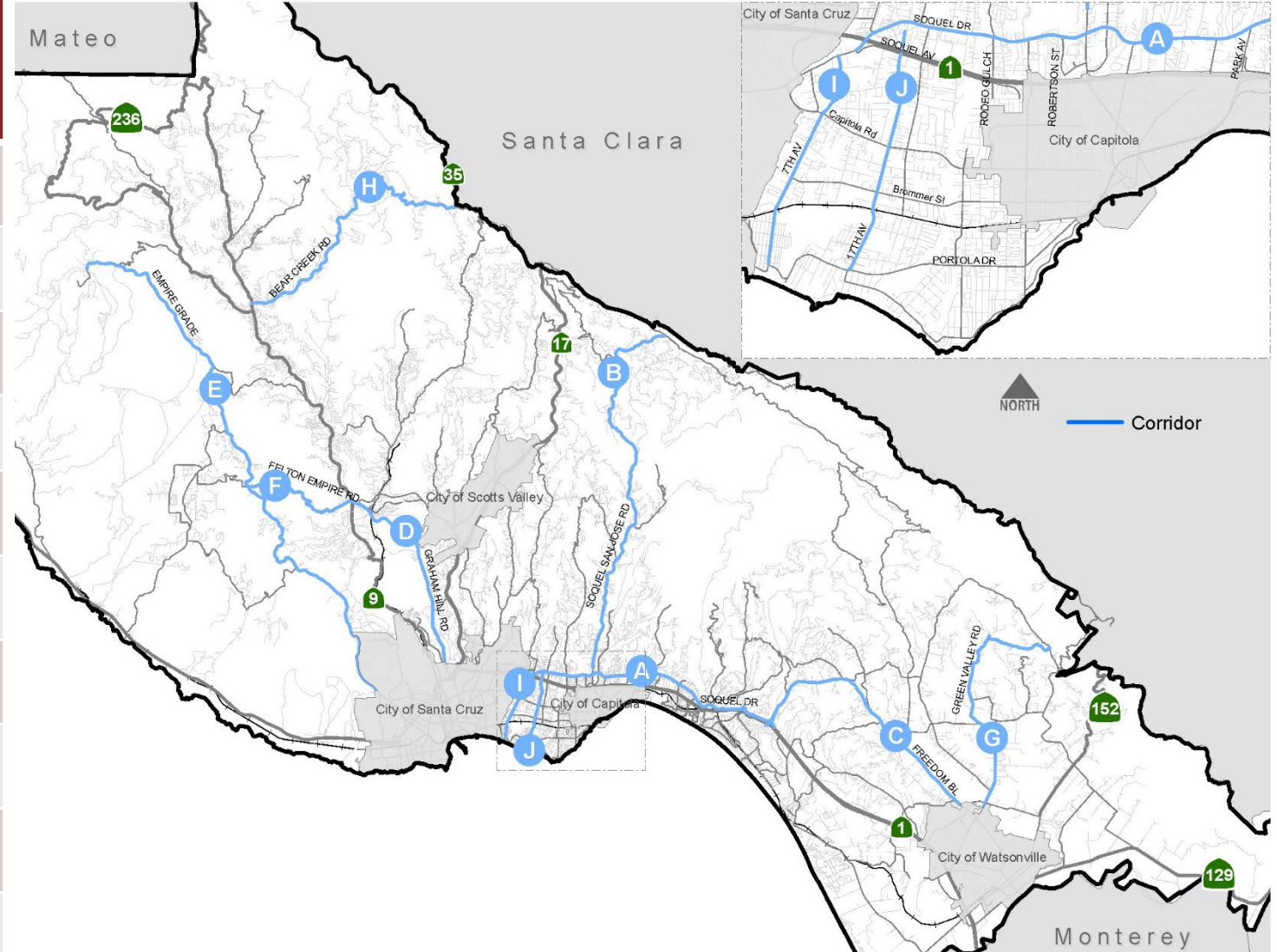
# High-Injury Intersections

ID	Intersection	Total Injury Collisions	KSI Collisions	Severity Weight
1	Soquel Dr and Robertson St	13	3	570
2	Capitola Rd and 17th Ave	12	3	564
3	41st Ave and Portola Dr	10	3	562
4	Eaton St and 7th Ave	9	3	546
5	Park Ave and Soquel Dr	10	2	398
6	Green Valley Rd and Dick Phelps Rd	8	2	386
7	17th Ave and Brommer St	8	2	381
8	Soquel Dr and N Rodeo Gulch Rd	8	2	381
9	Felton Empire Rd and Crazy Acre Ln	6	2	369
10	17th Ave and Harper St	7	2	365



# High-Injury Corridors

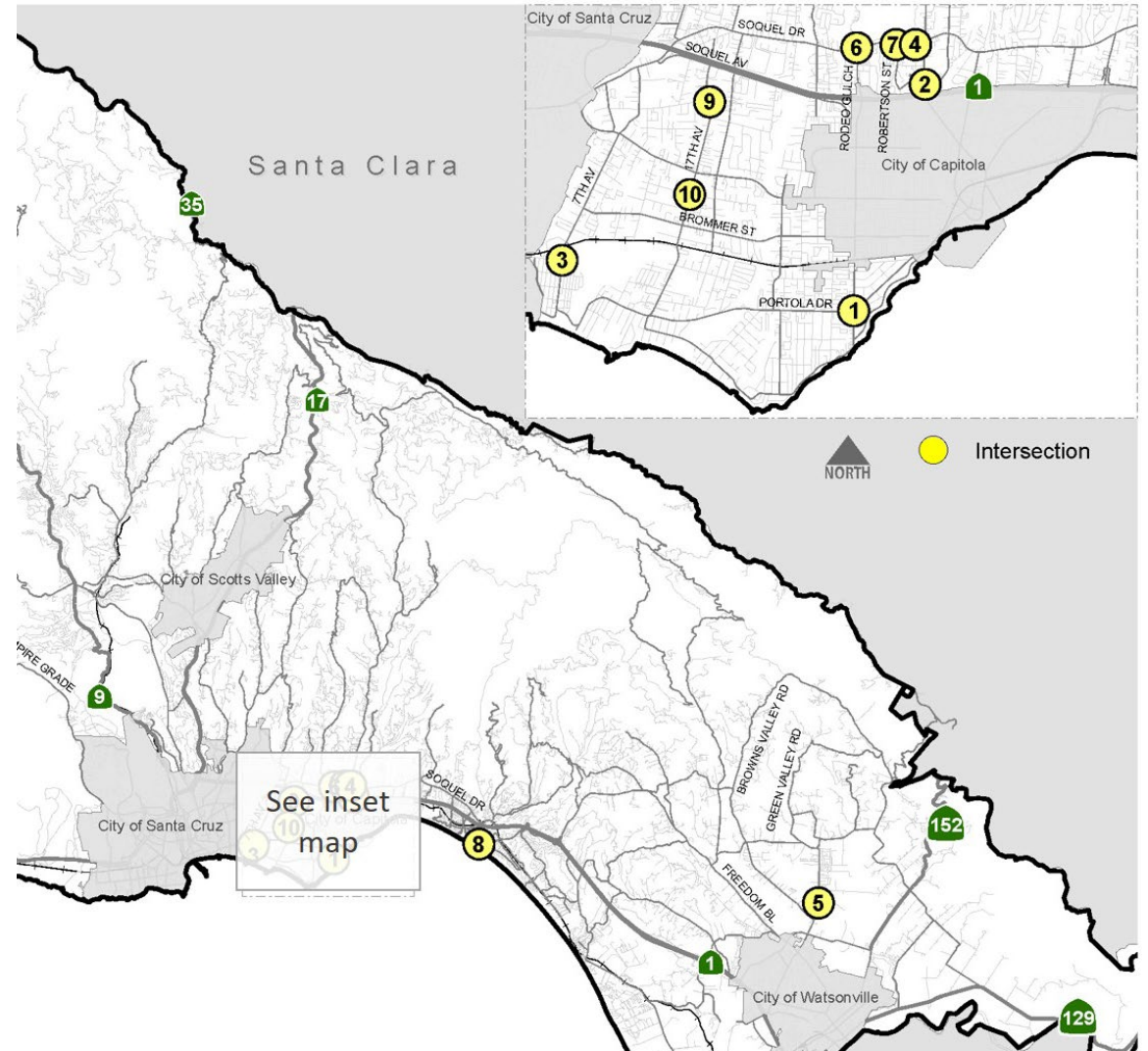
ID	Corridor	Total Injury Collisions	Length (miles)	Severity Weight
A	Soquel Dr: Soquel Avenue to Freedom Blvd	180	7.5	4903
B	Soquel San Jose Rd: Paper Mill Rd to Summit Rd	65	11	2627
C	Freedom Blvd: Bonita Dr to Buena Vista Dr	74	7.3	2517
D	Graham Hill Rd: SR-9 to Corday Ln	60	5.5	2408
E	Empire Grade Rd: Bertoli Dr to Santa Cruz City Limit	43	14.8	2132
F	Felton Empire Rd: Empire Grade Rd to SR-9	34	3.7	1879
G	Green Valley Rd: Hazel Dell Rd to Holohan Rd	57	7	1749
H	Bear Creek Rd: SR-9 to Summit Rd	46	10	1653
I	7 <sup>th</sup> Ave: Soquel Ave to E Cliff Dr	31	1.6	1190
J	17 <sup>th</sup> Ave: Soquel Dr to Portola Dr	25	6	1.6





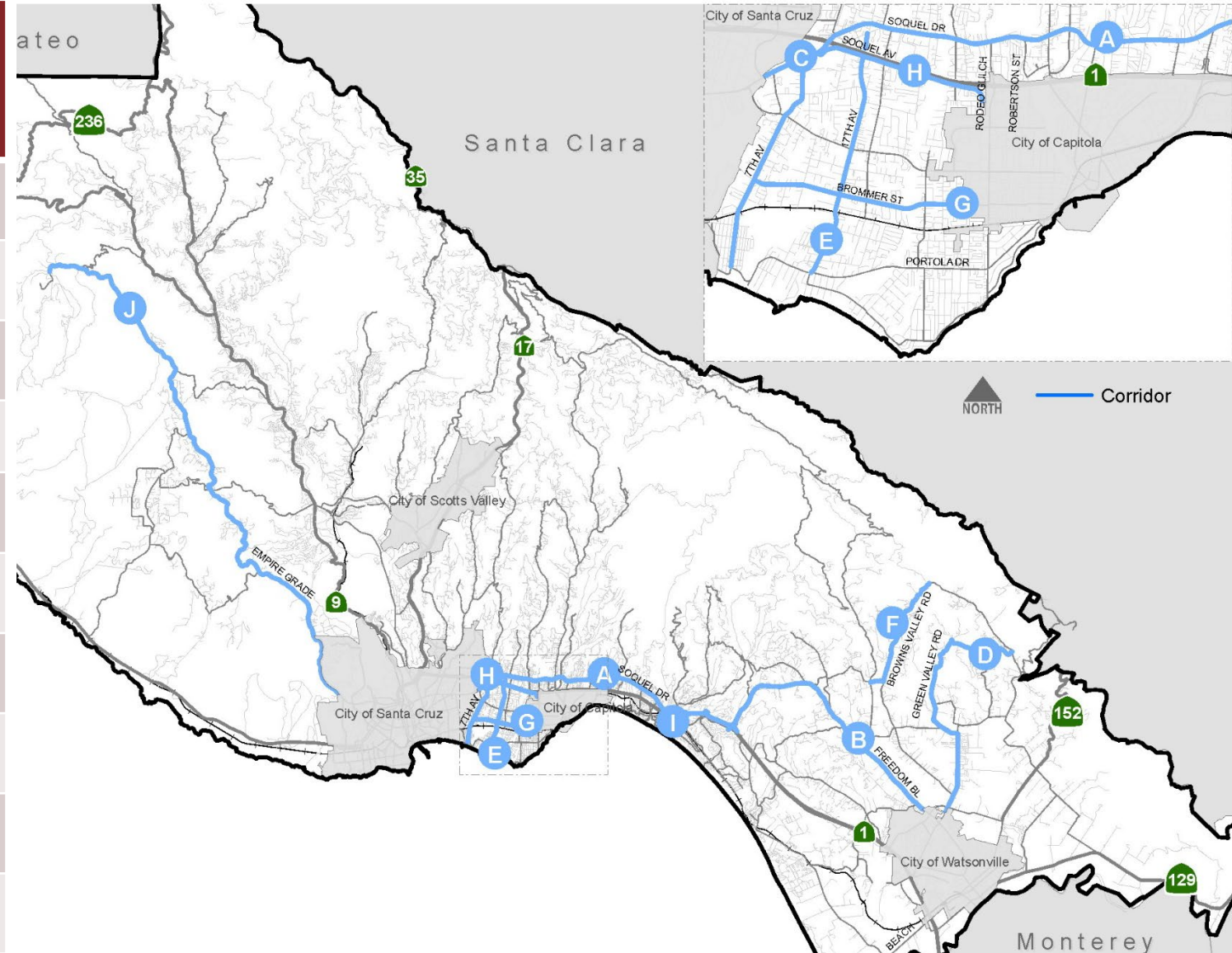
# High-Injury Intersections – Pedestrian & Bicycle

ID	Intersection	Total Injury Collisions	KSI Collisions	Severity Weight
1	Portola Dr and 41st St	4	2	352
2	Portar St and Main St	2	2	330
3	Eaton St and 7th Ave	2	2	330
4	Daubenbiss Ave and Soquel Dr	4	1	198
5	Green Valley Rd and Minto Rd	3	1	187
6	Soquel Dr and 41st Ave	3	1	187
7	Robertson St and Soquel Dr	3	1	182
8	Aptos Beach Dr, Rio Del Mar Blvd, Venetian Rd, Esplanade	3	1	182
9	17th Ave and Rodriguez St	3	1	177
10	17th Ave and Harper St	3	1	177



# High-Injury Corridors – Pedestrian & Bicycle

ID	Corridor	Total Injury Collisions	Length (miles)	Severity Weight
A	Soquel Dr: Soquel Avenue to Freedom Blvd	53	7.5	2053
B	Freedom Blvd: Bonita Dr to Buena Vista Dr	8	7.3	704
C	7 <sup>th</sup> Ave: Soquel Ave to E Cliff Dr	8	1.6	699
D	Green Valley Rd: Hazel Dell Rd to Holohan Rd	7	7	693
E	17 <sup>th</sup> Ave: Soquel Dr to Portola Dr	7	1.6	683
F	Browns Valley Rd: Redwood Rd to Corralitos Rd	3	3.4	495
G	Brommer St: 7 <sup>th</sup> Ave to Bulb Ave	6	1.5	364
H	Soquel Ave: La Fonda Ave to Gross Rd	5	1.8	363
I	Aptos Beach Dr: Rio Del Mar Blvd to Esplanade	3	0.7	341
J	Empire Grade Rd: Bertoli Dr to Santa Cruz City Limit	3	14.8	341



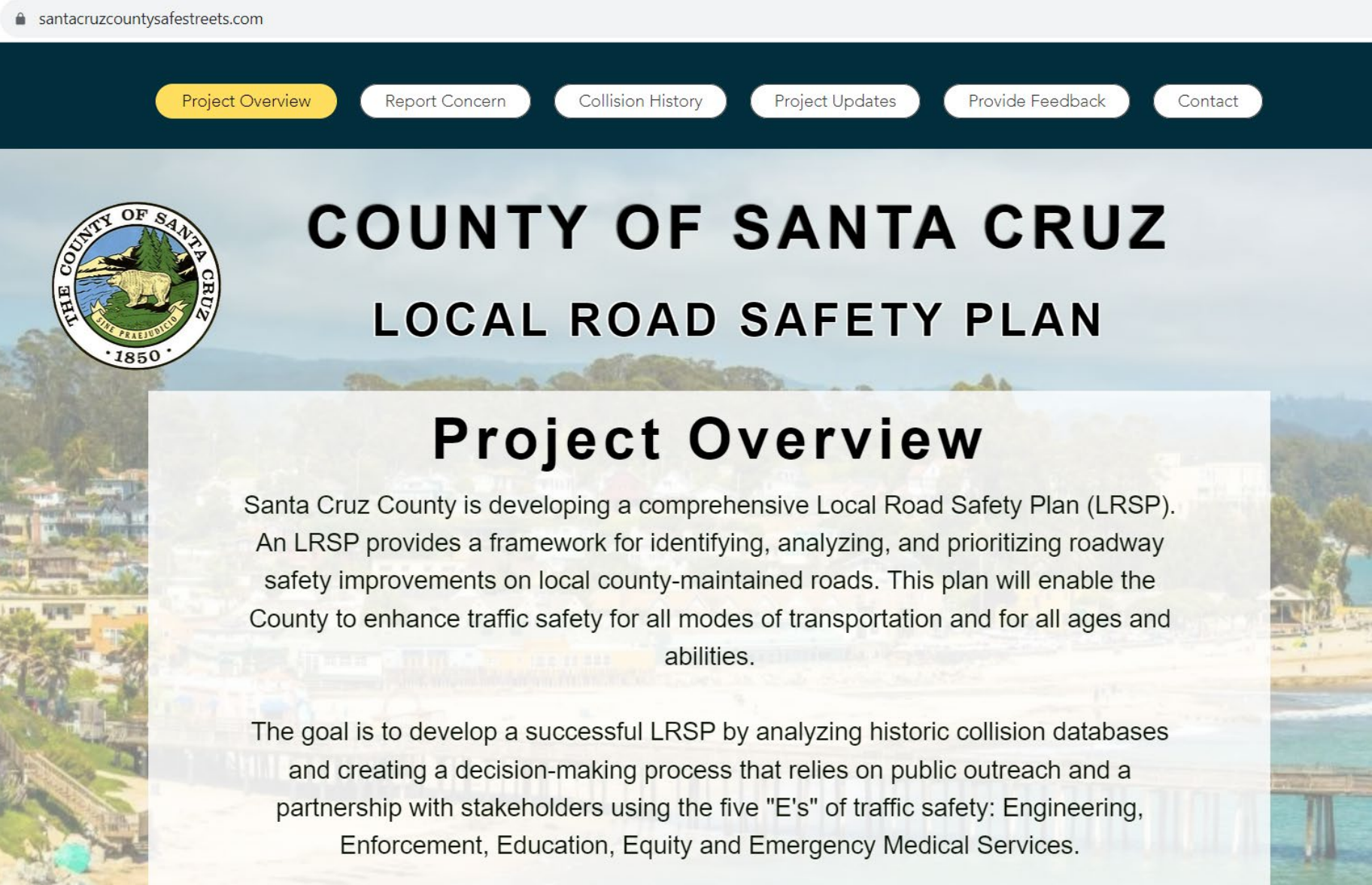


# Top Emphasis Areas

- Address Intersection Collisions
- Address Roadway Segment Collisions
- Address Hit Object Collisions
- Address Broadside Collisions
- Address Rear-end Collisions
- Address Unsafe Speed Violations
- Address Improper Turning Violations
- Address DUI Collisions
- Address Automobile Right of Way Violations
- Address Nighttime Collisions
- Address Pedestrian Collisions
- Address Bicycle Collisions
- Address Collisions involving Young Adults (Age 20-29)


Objective:			
Reduce the number of KSI collisions at intersections.			
	Strategy	Performance Measure	Agencies/ Organizations
Education	Conduct public information and education campaign for intersection safety laws regarding traffic signals, stop signs, and turning left or right.	Number of education campaigns or residents reached.	County/Sheriff Department
Enforcement	Targeted enforcement at high-injury intersections to monitor right-of-way violations, speed limit laws and other violations that occur at intersections.	Decrease in number of citations and/or warnings issued over time due to increased driver compliance.	Sheriff Department
Engineering	<ul style="list-style-type: none"> <li>• S02, Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number</li> <li>• S03, Improve signal timing</li> <li>• S08, Convert signal to mast arm (from pedestal-mounted)</li> <li>• S09, Install raised pavement markers</li> <li>• S16/NS04/NS05, Convert intersection to roundabout</li> <li>• NS06, Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs</li> <li>• NS07, Upgrade intersection pavement markings</li> <li>• NS08, Install Flashing Beacons at Stop-Controlled Intersections</li> <li>• NS09, Install flashing beacons as advance warning (Non-Signalized Intersection) (NS.I.)</li> <li>• NS10, Install transverse rumble strips on approaches</li> <li>• NS11, Improve sight distance to intersection (Clear Sight Triangles)</li> <li>• NS13, Install splitter-islands on the minor road approaches</li> <li>• NS14, Install raised median on approaches</li> <li>• NS19PB, Install raised medians (refuge islands)</li> <li>• Automated Red-light Enforcement</li> </ul>	Number of locations improved.	County
EMS	<p>S05, Install emergency vehicle pre-emption systems</p> <p>Improve resource of deployment for emergency responses to collision sites.</p> <p>Ensure emergency routes are clear and well defined</p>	EMS vehicle response time.	County/Fire Department & EMS Response Teams

# Project Website is Live!



santacruzcountysafestroads.com

[Project Overview](#) [Report Concern](#) [Collision History](#) [Project Updates](#) [Provide Feedback](#) [Contact](#)



## COUNTY OF SANTA CRUZ LOCAL ROAD SAFETY PLAN

### Project Overview

Santa Cruz County is developing a comprehensive Local Road Safety Plan (LRSP). An LRSP provides a framework for identifying, analyzing, and prioritizing roadway safety improvements on local county-maintained roads. This plan will enable the County to enhance traffic safety for all modes of transportation and for all ages and abilities.

The goal is to develop a successful LRSP by analyzing historic collision databases and creating a decision-making process that relies on public outreach and a partnership with stakeholders using the five "E's" of traffic safety: Engineering, Enforcement, Education, Equity and Emergency Medical Services.



# Provide Feedback

Project Overview

Report Concern

Collision History

Project Updates

Provide Feedback

Contact



## Report Your Area of Concern

Your input is essential for the success of the County's Local Road Safety Plan. Click the button below to provide us with your concerns regarding traffic and safety on County maintained roads.

Sample comments -

- This roadway segment is unsafe for walking and biking.
- Cars don't stop at this stop-controlled intersection.
- Speeding on this roadway segment.

Report Your Area of Concern


CLICK HERE!


For further updates, check [Project Updates](#) section.

# Tell us your concerns on the map!

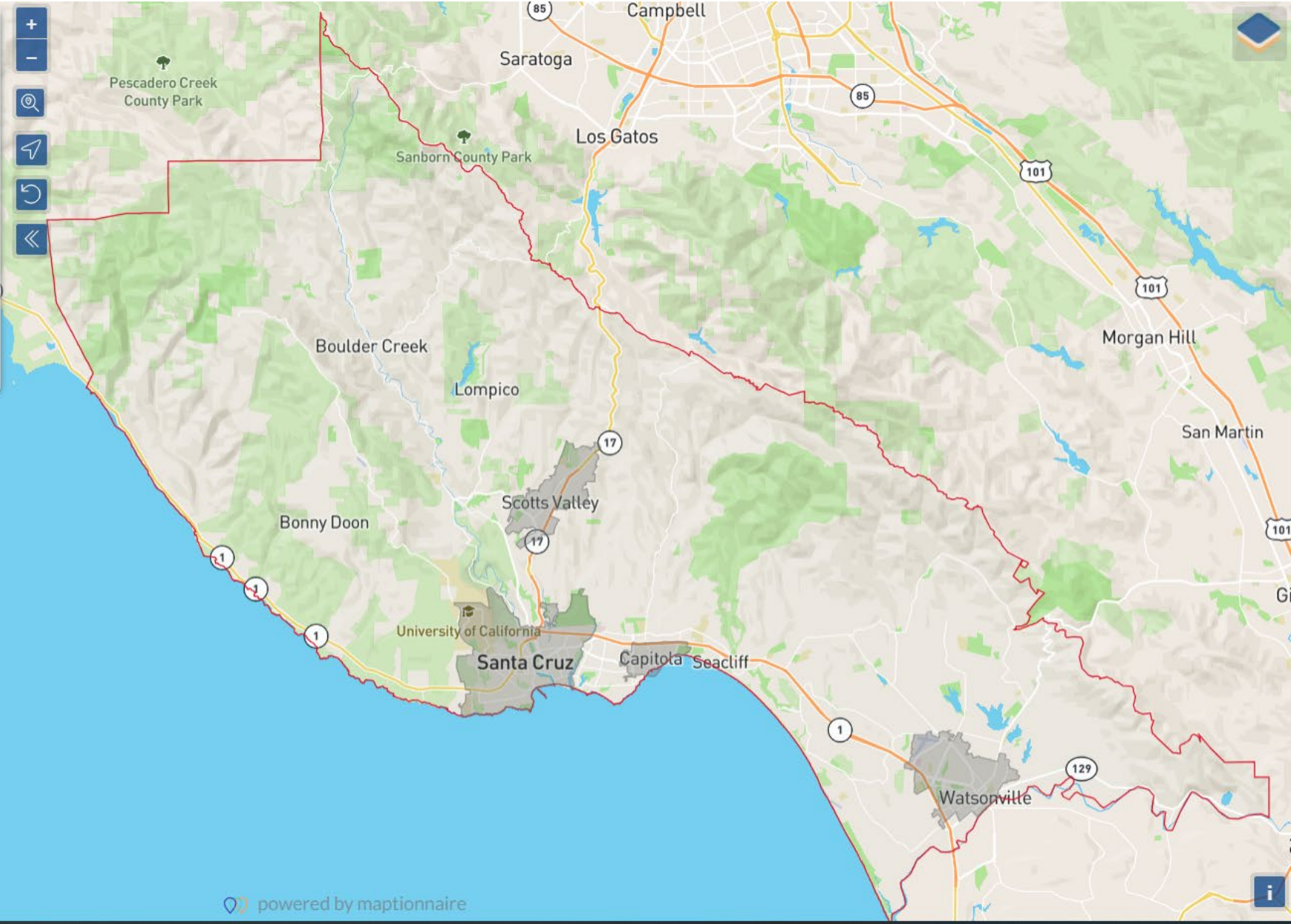
**Provide your input**

Zoom to your desired location, or click the magnifying glass to the right to search for a specific address or street. Use one of the methods below to express your traffic safety-related concerns!

Pin a Location 

Draw a Line 

< 2 / 4 >



The map displays the Santa Cruz region, including cities like Campbell, Saratoga, Los Gatos, Morgan Hill, San Martin, Santa Cruz, and Watsonville. A red boundary line is drawn across the map, enclosing areas from Pescadero Creek County Park in the north to the University of California and Santa Cruz in the south. Major roads like SR 85, SR 101, SR 17, and SR 129 are visible. The map interface includes a sidebar with navigation tools (zoom in/out, search, compass, history, home) and a scale bar at the bottom left showing 10 km. The text 'powered by maptionnaire' is at the bottom center.

powered by maptionnaire





# Discussion



# Next Steps

- Summarize stakeholder and public input
- Identify and prioritize engineering countermeasures and non-engineering strategies
- Develop safety projects for all high-injury locations
- Stakeholder Meeting #2

