

# Lafayette Local Road Safety Plan

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Local Road Safety Plan Task Force Meeting #2

10/25/2022

# Welcome and Introductions

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## Presenters

- Patrick Golier, City of Lafayette, City Project Manager
- Diane Xiao, Toole Design, Consultant Project Manager
- Lauren Pepe, Toole Design, Consultant Deputy Project Manager
- Sarah Abel, Toole Design, Consultant Principal In Charge

# Welcome and Introductions

Name	Title/Role
<b>Teresa Gerringer</b>	Lafayette City Council, Mayor
<b>Susan Candell</b>	Lafayette City Council
<b>Mike Moran</b>	City of Lafayette Public Works
<b>Patrick Golier</b>	City of Lafayette Engineering
<b>Greg Brown</b>	Lafayette Transportation and Circulation Commission
<b><u>Stella Wortherspoon</u></b>	Alternate, Lafayette Transportation and Circulation Commission
<b>Colin Clarke</b>	Contra Costa Transportation Authority
<b>Greg Barnes</b>	Lafayette School District

Name	Title/Role
<b>Tommy Rodriguez</b>	Acalanes School District
<b>Kirstin Riker</b>	511 Contra Costa
<b><u>Chief Ben Alldritt</u></b>	Lafayette Police Department
<b><u>Chris Bachman</u></b>	Contra Costa Fire Protection District
<b><u>Luz Gomez</u></b>	Contra Costa Health Services
<b>Emily Warming</b>	Contra Costa Health Services
<b>Katie Santos</b>	Lafayette Chamber of Commerce
<b>Mark Dreger</b>	At-Large Community Member
<b>Jenifer Paul</b>	At-Large Community Member

# Today's agenda for discussion

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- Updated goals and objectives that will guide the development of the Plan
- Review of crash analysis findings
- **Identify priority locations for safety**
- Discuss upcoming field visits
- Review of upcoming public engagement activities

# Meeting norms and agreements

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- Meeting will be recorded.
- Camera on is encouraged.
- Use raise hand function; mute if not speaking.
- Speak your truth and recognize that others' truths are true for them.
- Give everyone a chance to participate equally; avoid dominating.
- Listen as an ally, not an adversary.
- Ask for clarification; don't make assumptions.

# *Updated* Goals and Objectives

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# Goals

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**Goal 1:** Engage with the local community, stakeholders, and different city agencies to better understand factors that are affecting the traffic safety of roadway users within the City of Lafayette.

- **Objective:** Develop a project Task Force to help guide the development of the LRSP.
- **Objective:** Develop project website to share LRSP progress, engagement opportunities, project updates, and draft deliverables, and roadway safety educational materials.
- **Objective:** Host a public meeting, ~~event~~ and attend pop-up events throughout the community, and launch an online survey to engage the public to share project updates and collect local knowledge, concerns, and opportunities.
- **Objective:** Provide project updates and collect input/feedback through public hearings with City Council and the City's Transportation & Circulation Commission.
- **Objective:** Develop an interactive webmap and survey to collect from the public location-based safety related concerns.

# Goals

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**Goal 2:** *Promote a safety culture throughout the community and within different agencies.*

- **Objective:** Maintain regular communication with public and with City partners the importance of traffic safety to create a culture of safety in Lafayette. Continuous engagement and education efforts, including through social media and other virtual channels, should be maintained to help contribute to a safety culture that values human life over expediency and self-interest. Everyone must think about their role in contributing to a safe transportation system. This means knowing and following the law, looking out for one another, and using good judgment.
- **Objective:** Include people from various departments, agencies, businesses, and the community in the development of the plan to ensure everyone has a role to play in creating a safe Lafayette to live, work, and play in.



# Goals

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***Goal 3:** Implement a data-driven approach, supplemented by public input, to identify where and why traffic roadway collisions resulting in fatalities and serious injuries and near-misses are occurring, and which locations feel unsafe, and which locations have risk factors that may result in collisions in the future.*

- **Objective:** Conduct a systemic and proactive collision analysis of Lafayette's road network.
- **Objective:** Use quality data and the latest analytical processes to better understand crash causation and crash risk.
- **Objective:** Identify high priority locations using historical crash data and analysis, proactive systemic safety analysis, stakeholder and public input, and an in-person field visits.

# Goals

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**Goals 4:** *Prioritize traffic safety ~~countermeasures~~ actions and programmatic recommendation investments to advance Lafayette's Vision Zero goals.*

- **Objective:** Identify ~~countermeasures~~ actions utilizing strategies across all traffic safety disciplines, engineering, enforcement, education, emergency medical services, and emerging technologies.
- **Objective:** Develop a safety action~~countermeasure~~ toolbox that includes systemic and effective ~~low-cost~~short- and longer-term ~~countermeasures~~ actions that are specific to Lafayette's crash patterns.
- **Objective:** Produce a list of engineering projects pulling from resources included in the safety ~~countermeasure~~ action toolbox aimed at improving roadway safety for all.
- **Objective:** Include an assessment of current policies, plans, guidelines, and/or standards to identify opportunities to improve how processes prioritize safety.

# Goals

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## *Goals 5: Produce a plan to build safer streets for all.*

- **Objectives:** Use the safety ~~countermeasure~~ actions toolbox and priority locations to proactively address crash risk throughout Lafayette.
- **Objective:** Utilize the best available data and publicly collected feedback to produce a prioritized list of engineering projects that can be submitted for grant application processes.
- **Objective:** Conduct a cost-benefit analysis for all potential projects in the LRSP as part of the prioritization analysis.
- **Objective:** Ensure that the plan includes recommendations and tools that will enable the city to measure safety trends, ~~and~~ update the progress of the plan over time, and be competitive for grant funding.
- **Objective:** Increase the number of people walking, rolling, and biking in Lafayette.

# Questions?

# Crash Analysis Findings

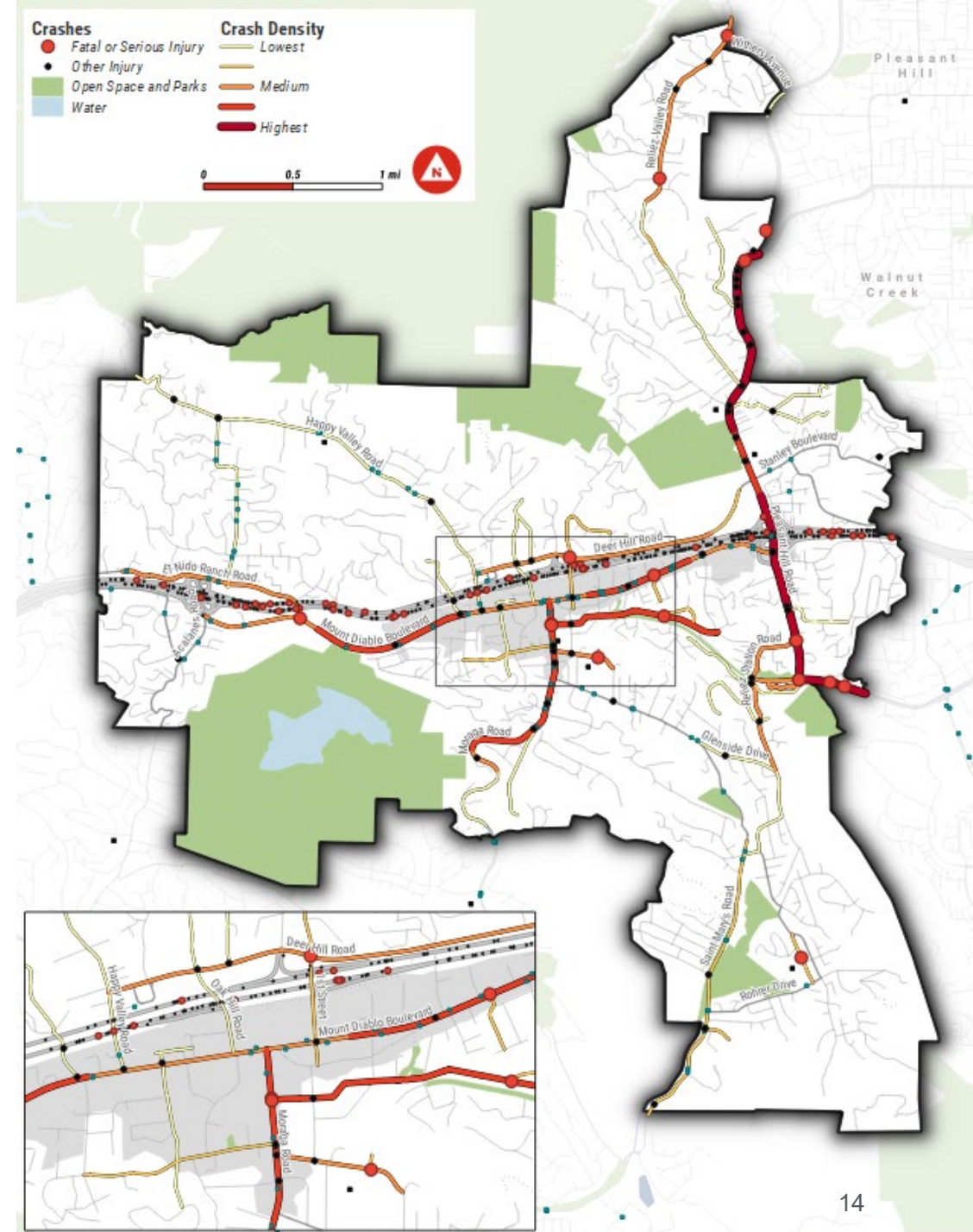
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# Safety Statistics

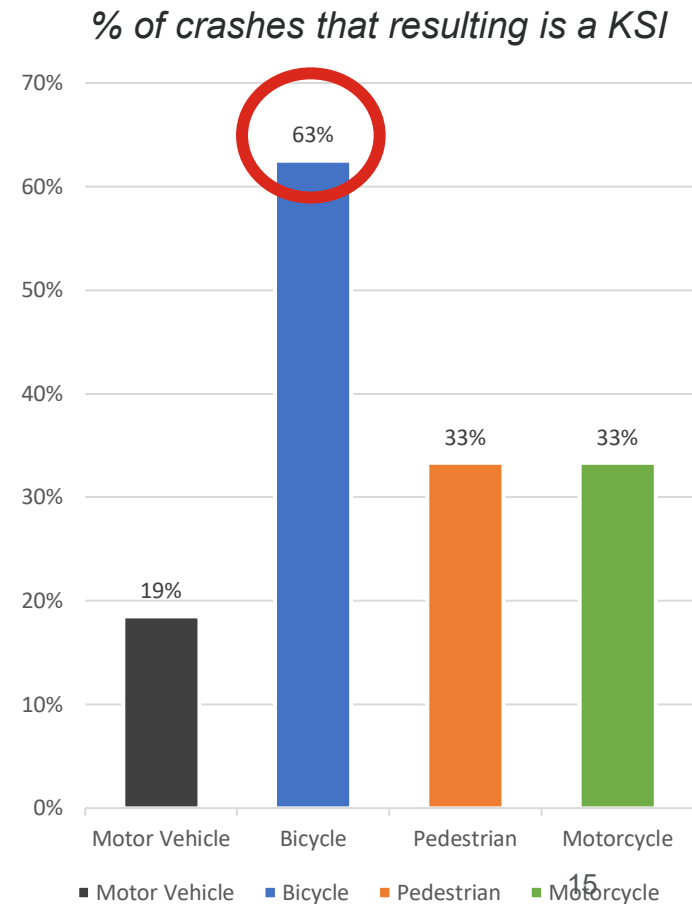
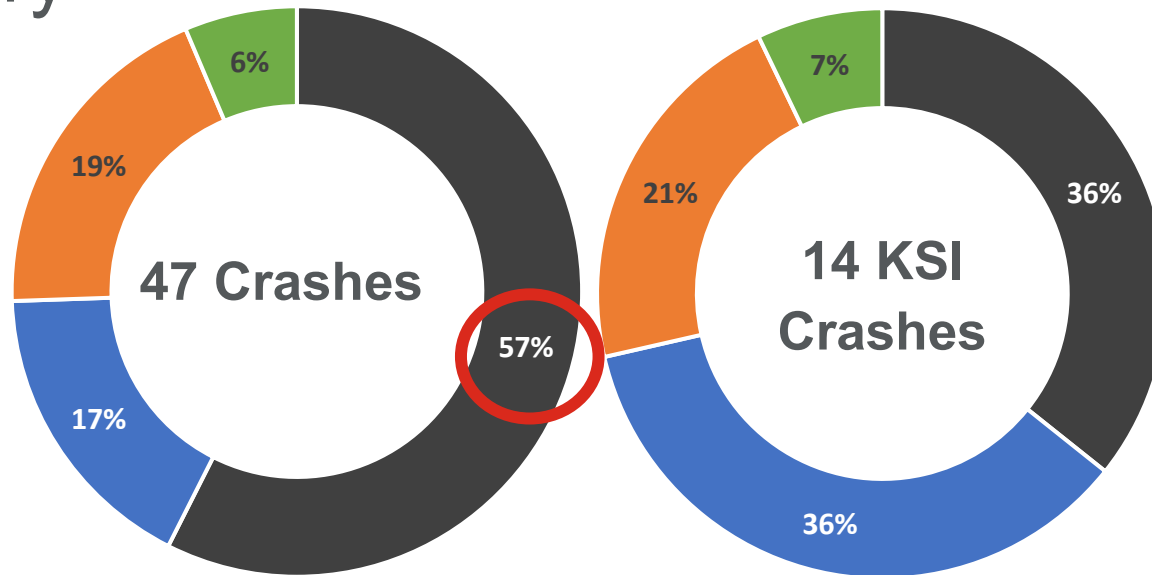
- 408 crashes (2017-2021)
  - 361 (35 KSI) along CA-24
  - **47 (14 KSI) local streets**
- Crashes concentrated along busier streets

KSI = Fatal or Serious Injury



# Safety Statistics

- Bicyclist, pedestrian, and motorcyclists are most at risk for serious injury



# Safety Statistics

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**Most Fatal and Serious Injury Crashes Occurred at Unsignalized Intersections**



**Functional Classification**

Streets with higher functional classification accounted for the largest share of fatal and serious injury crashes



**Posted Speed Limit**

35 mph account for the largest share of crashes and KSI crashes





# Safety Statistics

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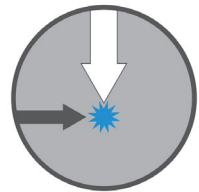
## Lighting

Most crashes occurred during daylight conditions



## Solo- fixed object

These crash type are the most frequent crashes occurring in Lafayette



## Perpendicular

Many crashes occurred when vehicle movements were perpendicular at the time of the crash



# Safety Statistics

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## People aged 20-24

Younger people are disproportionately affected by crashes



## Older adults

Older adults are more likely to suffer from a fatal or serious injuries than others

\*Only victim information was analyzed



# Safety Statistics

## Crash Location Type (Intersection vs. Segment)

Location Type	Control Type	# of Crashes	% of Crashes	# of KSI	% of KSI	% of Crashes Resulted in KSI	Total EPDO	% of EPDO	Avg. EPDO
Intersection	Signalized	13	28%	2	14%	15%	316	12%	24.31
	Unsignalized	20	43%	7	50%	35%	1,450	54%	72.50
<b>Intersection Total</b>		<b>33</b>	<b>70%</b>	<b>9</b>	<b>64%</b>	<b>27%</b>	<b>1,766</b>	<b>66%</b>	<b>53.52</b>
Segment	None	14	30%	5	36%	36%	899	34%	64.21
<b>Total</b>		<b>47</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30%</b>	<b>2,665</b>	<b>100%</b>	<b>56.70</b>

# Safety Statistics

## Functional Classification

Functional Classification	# of Crashes	# KSI	% of Crashes Resulted in KSI	Total EPDO	Avg. EPDO	Miles	Crashes Per Mile	KSI per Mile	EPDO Per Mile
Residential	7	3	43%	612	87.43	111.9	0.06	0.03	5.47
Tertiary	11	2	18%	354	32.18	20.8	0.53	0.10	17.00
Secondary	19	7	37%	1,301	68.47	6.7	2.85	1.05	195.39
Primary	10	2	20%	398	39.80	2.3	4.27	0.85	169.93
<b>Total</b>	<b>47</b>	<b>14</b>	<b>30%</b>	<b>2,665</b>	<b>56.70</b>	<b>162.4</b>	<b>0.29</b>	<b>0.09</b>	<b>16.41</b>

# Safety Statistics

## Posted Speed Limit

Highest Speed Limit	# of Crashes	# KSI		Total EPDO	Avg. EPDO	Miles	Crashes Per Mile	KSI per Int	EPDO Per Int
25	7	3	43%	612	87.43	113.1	0.06	0.03	5.41
30	6	0	0%	51	8.50	35.3	0.17	0.00	1.45
35	23	7	30%	1,254	54.52	10.4	2.22	0.67	120.84
40	5	1	20%	225	45.00	1.2	4.16	0.8	187.09
45	3	2	67%	336	112.00	1.5	2.05	1.37	229.41
55	3	1	33%	187	62.33	0.6	5.30	1.77	330.17
<b>Total</b>	<b>47</b>	<b>14</b>	<b>30%</b>	<b>2,665</b>	<b>56.70</b>	<b>162.4</b>	<b>0.29</b>	<b>0.09</b>	<b>16.41</b>

# Safety Statistics

## Lighting conditions

Lighting Condition	# of Crashes	% of Crashes	# KSI	% KSI	% of Crashes Resulted in KSI	Total EPDO	% of EPDO	Avg. EPDO
Daylight	31	66%	11	79%	35%	2,005	75%	64.68
Dark - Street Lights	10	21%	2	14%	20%	429	16%	42.90
Dark - No Street Lights	3	6%	0	0%	0%	23	1%	7.67
Dusk - Dawn	1	2%	1	7%	100%	191	7%	191.00
-	1	2%	0	0%	0%	11	0%	11.00
Dark - Street Lights Not Functioning	1	2%	0	0%	0%	6	0%	6.00
<b>Total</b>	<b>47</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30%</b>	<b>2,665</b>	<b>100%</b>	<b>56.70</b>

# Safety Statistics

## Crash Type

Crash Type	# of Crashes	% of Crashes	# KSI	% KSI	% of Crashes Resulted in KSI	Total EPDO	% of EPDO	Avg. EPDO
Hit Object	10	21%	2	14%	20%	398	15%	39.80
Broadside	8	17%	2	14%	25%	423	16%	52.88
Vehicle/Pedestrian	7	15%	2	14%	29%	346	13%	49.43
Sideswipe	6	13%	3	21%	50%	570	21%	95.00
Head-On	6	13%	2	14%	33%	350	13%	58.33
Overtaken	5	11%	2	14%	40%	363	14%	72.60
Rear End	4	9%	1	7%	25%	209	8%	52.25
Unknown	1	2%	0	0%	0%	6	0%	6.00
<b>Total</b>	<b>47</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30%</b>	<b>2,665</b>	<b>100%</b>	<b>56.70</b>

# Safety Statistics

## Movement Type

Relative Direction	# of Crashes	% of Crashes	# of KSI	% of KSI	% of Crashes Resulted in KSI	Total EPDO	% of EPDO	Avg. EPDO
Solo	16	34%	5	36%	31%	952	36%	59.50
Perpendicular	10	21%	4	29%	40%	805	30%	80.50
Same	10	21%	3	21%	30%	594	22%	59.40
Unknown	8	17%	1	7%	13%	182	7%	22.75
Opposite	3	6%	1	7%	33%	132	5%	44.00
<b>Total</b>	<b>47</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30%</b>	<b>2,665</b>	<b>100%</b>	<b>56.70</b>



# Safety Statistics

## Victim Age

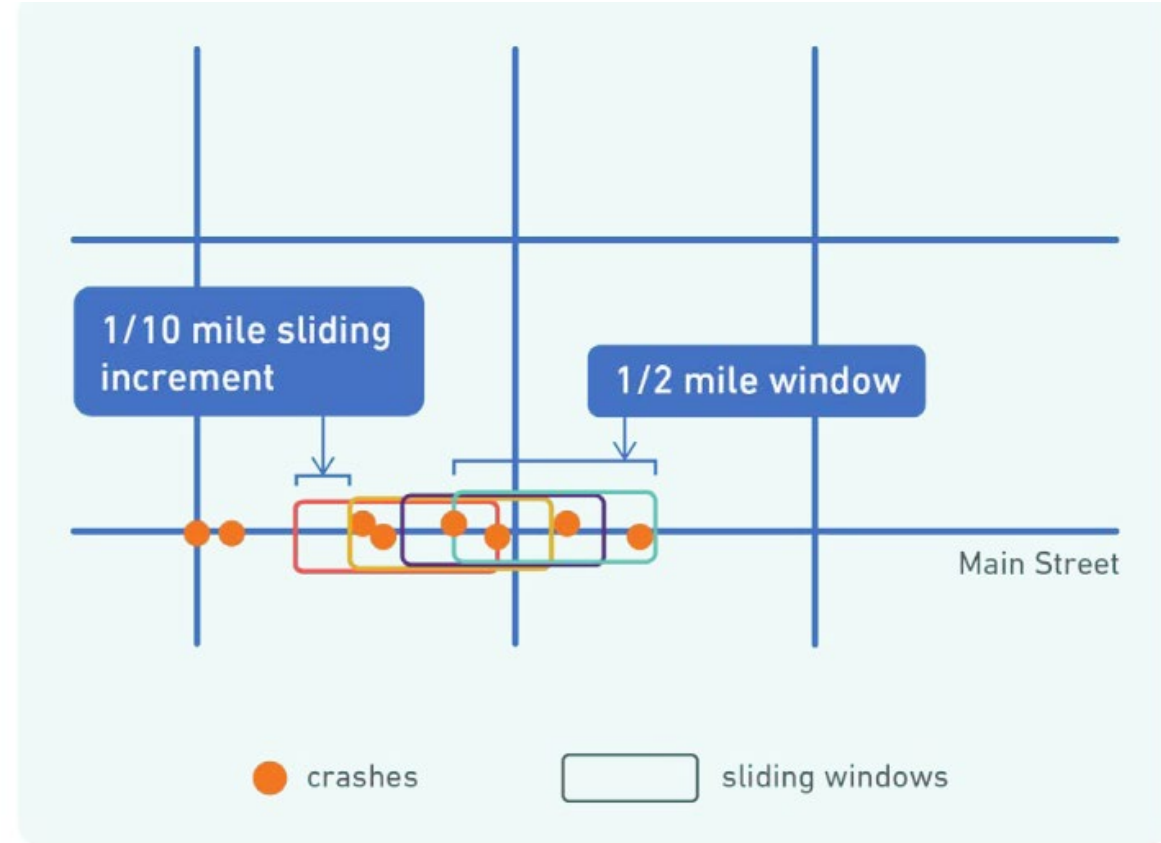
Age	Victims	KSI Victims	% of Victims	% of KSI Victims	Share of Population <sup>5</sup>	Victims: Population Ratio	KSI Victims: Population Ratio	% Crashes resulting in KSI
0 - 4	6	0	1%	0%	4%	0.27	-	0.0%
5 - 9	8	0	1%	0%	8%	0.19	-	0.0%
10 - 14	14	3	3%	5%	9%	0.29	0.62	21.4%
15 - 19	37	0	7%	0%	6%	1.09	-	0.0%
20 - 24	74	13	13%	24%	3%	3.85	6.78	17.6%
25 - 29	60	6	11%	11%	4%	3.06	3.06	10.0%
30 - 34	46	3	8%	5%	4%	2.20	1.44	6.5%
35 - 39	40	5	7%	9%	5%	1.50	1.88	12.5%
40 - 44	52	4	9%	7%	7%	1.36	1.05	7.7%
45 - 49	33	2	6%	4%	8%	0.73	0.44	6.1%
50 - 54	45	4	8%	7%	10%	0.84	0.75	8.9%
55 - 59	25	2	5%	4%	7%	0.61	0.49	8.0%
60 - 64	30	3	5%	5%	6%	0.86	0.86	10.0%
65 - 69	20	1	4%	2%	5%	0.67	0.33	5.0%
70 - 74	13	4	2%	7%	5%	0.46	1.41	30.8%
75 - 79	9	3	2%	5%	4%	0.38	1.27	33.3%
80 - 84	5	0	1%	0%	2%	0.45	-	0.0%
85 +	8	1	1%	2%	2%	0.68	0.85	12.5%
Unknown	26	1	5%	2%	0%	-	-	-

# Questions?

# Safety Statistics

## Safer Street Priority Finder

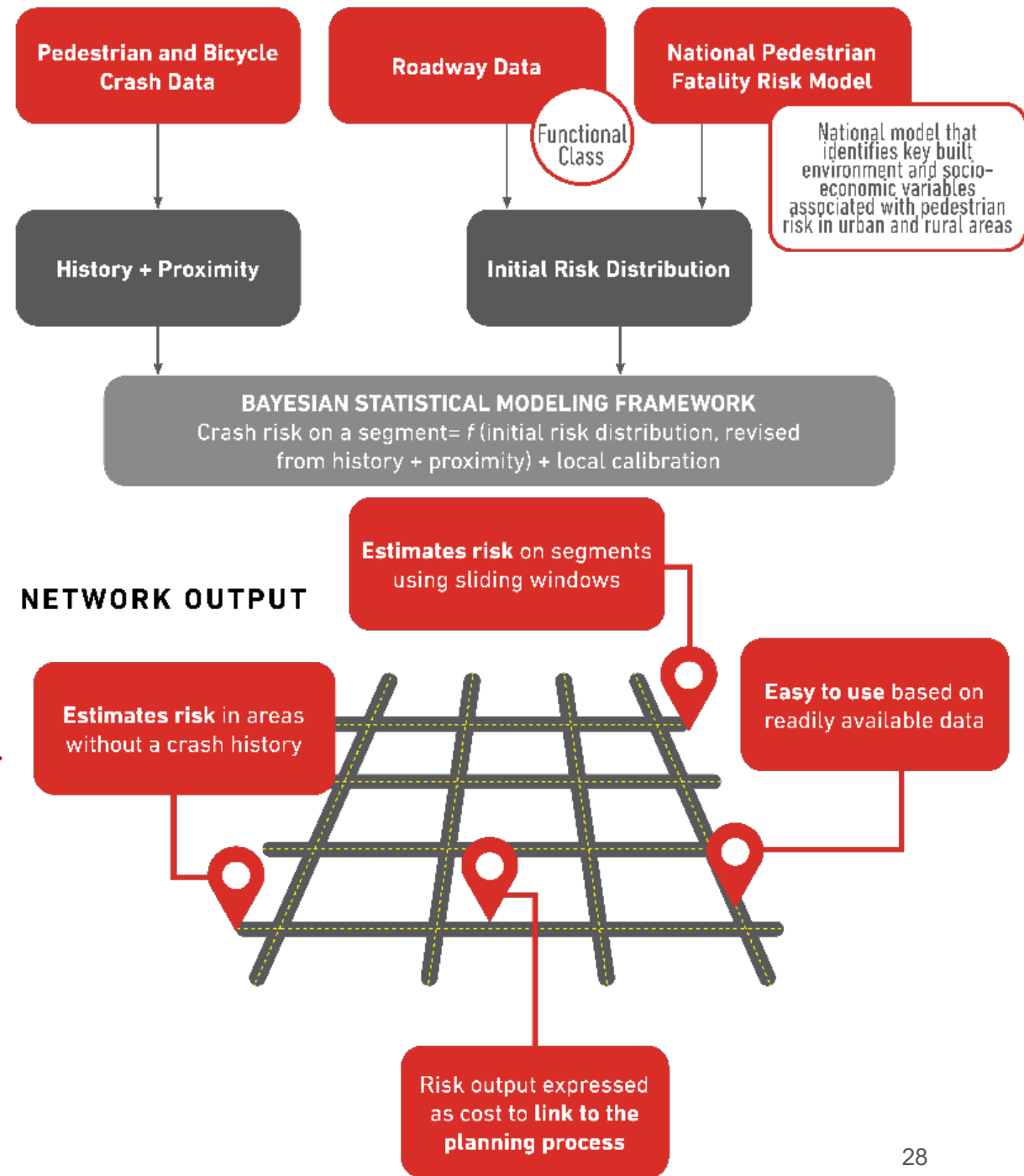
1. Sliding Window Analysis for **identifying historic crash density**
  - **Key Output:** corridors with highest concentration of crashes and KSI crashes for bicycle, pedestrian and motor vehicle using only historical crash data
2. Safer Streets Model for estimating **future crash risk**
  - **Key Output:** corridors with highest potential risk for **bicycle** and **pedestrian** crashes to occur in the future using both historical crash data and a statistical model.



# Safety Statistics

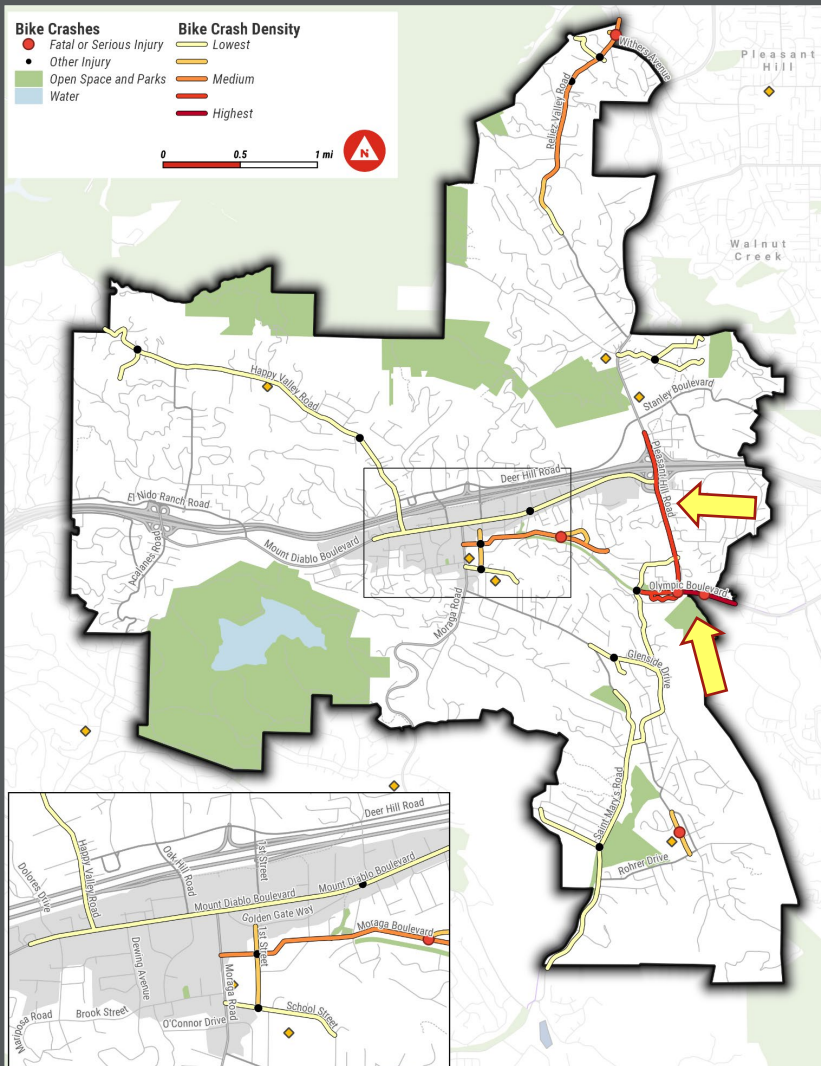
## Safer Street Priority Finder

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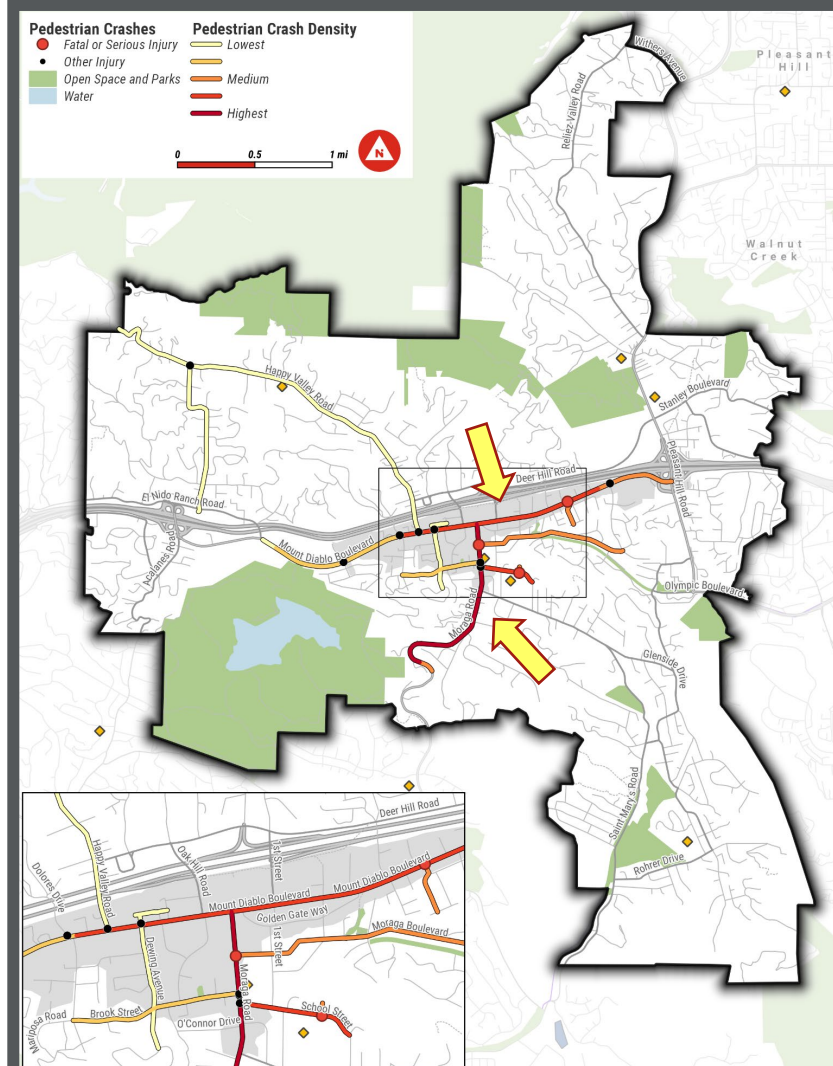


# Crashes per Mile

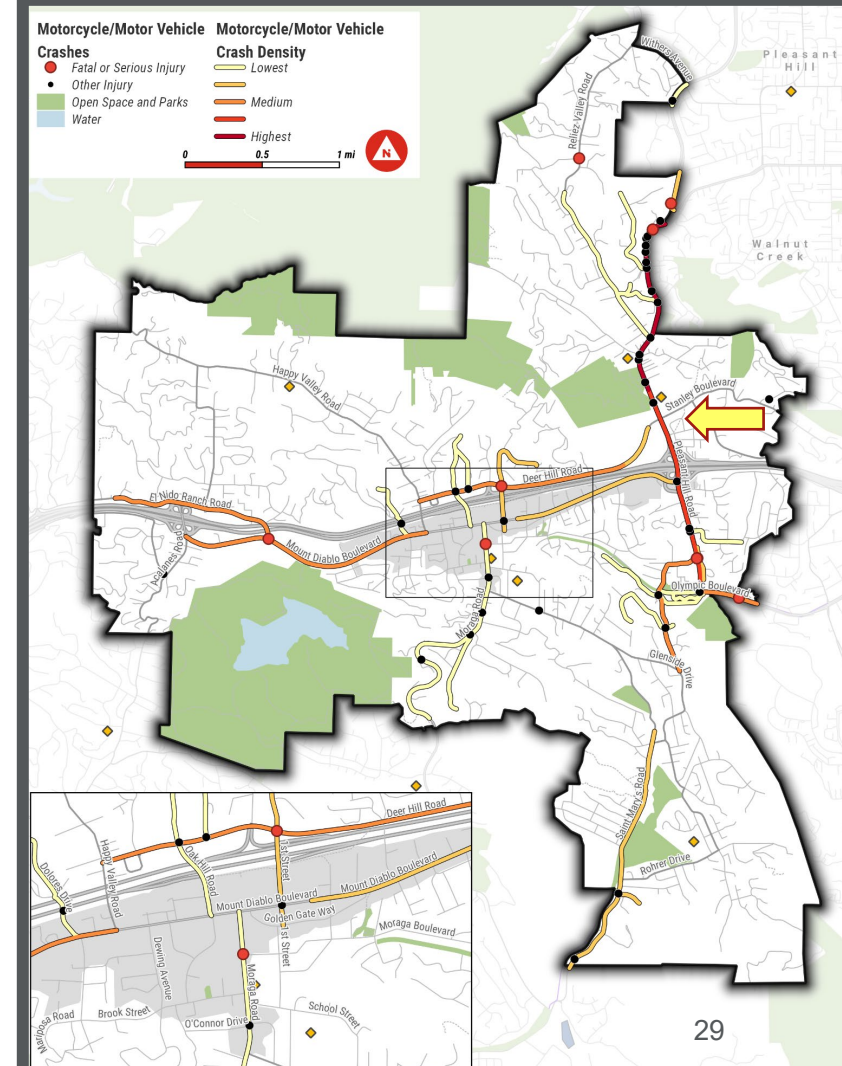
## Bicycle Crashes



## Pedestrian Crashes



## Motor Vehicle Crashes





# Priority Locations

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# Priority Locations

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- Locations with the highest crash density
- Locations with highest estimate crash risk for bicycle and pedestrian crashes
- **Build upon Task Force Knowledge**
- **Community Feedback**

Preliminary list:

- **Mt Diablo Blvd**
- **Pleasant Hill Rd**
- **Olympic Blvd**
- **Moraga Rd**



# Priority Locations

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Preliminary list:

- Mt Diablo Blvd from Acalanes Rd to Pleasant Hill Rd
- Pleasant Hill Rd from Old Tunnel Rd to Olympic Blvd
- Olympic Blvd from Reliez Station Rd to Newell Ct
- Moraga Rd from Mt Diablo to St Marys Rd

## **Task Force:**

- *Does this reflect your experience?*
- *Are there other unsafe streets in Lafayette?*
- *Are there specific locations along these road with safety issues?*

# Upcoming Field Visits

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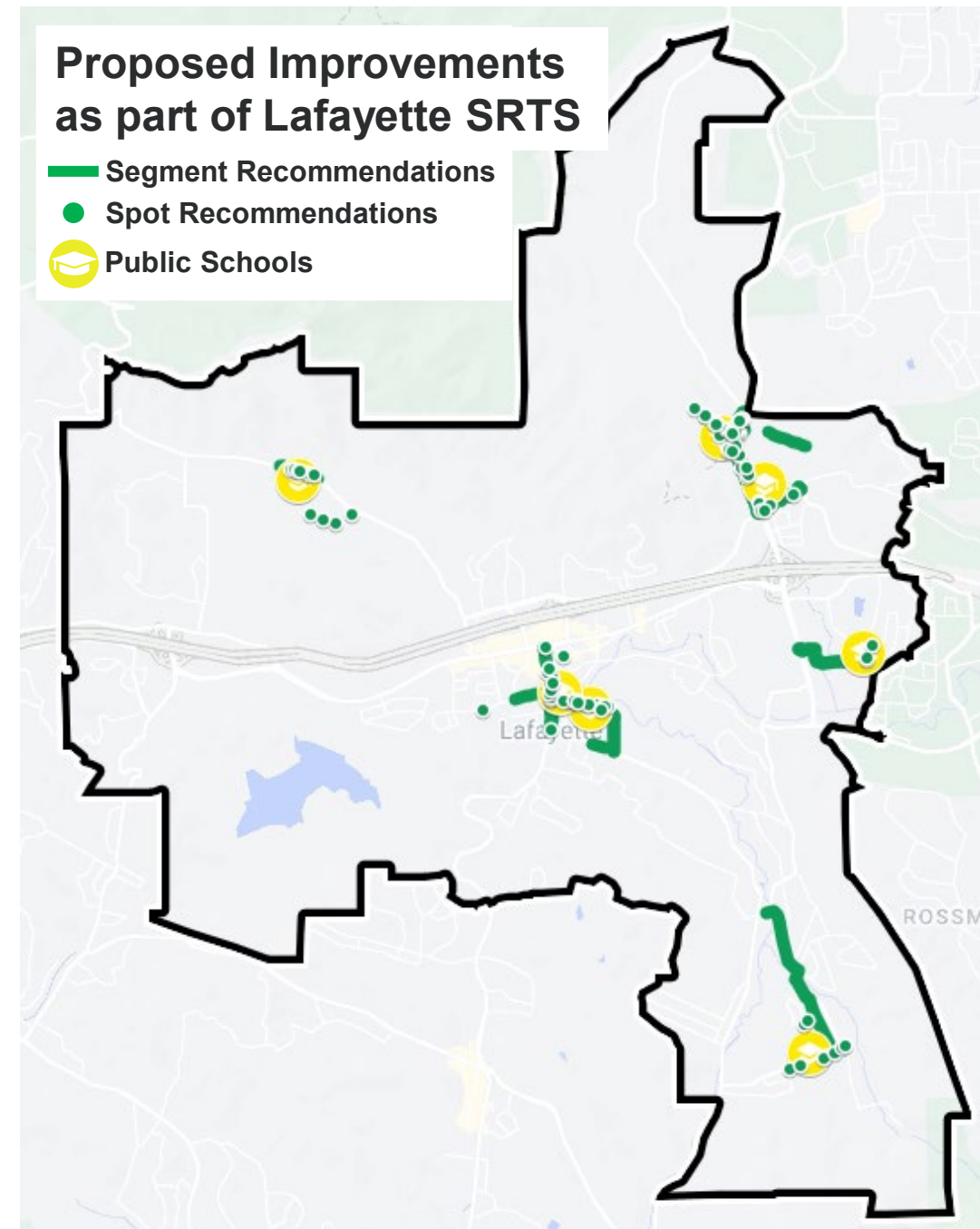
# Field Visits

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- Built off the preliminary list
- Visit Priority Locations to assess possible treatments and interactions
- Develop location profiles for Priority Locations

# Field Visits

- Overlap between this project and the Safe Route to School project
  - Pleasant Hill Rd field visit as part of Acalanes HS and Springhill ES
  - Moraga Rd field visit as part of Stanley MS Lafayette ES



# Questions?

# Upcoming Public Engagement Activities

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# Upcoming Public Engagement

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- Webmap is now live and open until November 20th:  
[www.tinyURL.com/LafayetteLRSP](http://www.tinyURL.com/LafayetteLRSP)
- Pop-up tabling at [Trick or Treat event](#) (Mt. Diablo Boulevard) on Friday October 28th
- Virtual Public Meeting on November 16th or 17th at 6:00pm

# Questions?



# Next steps



# Next Steps

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- Follow-up email and materials coming
- VZ Task Force Meeting #3:
  - Mid December- Please fill out poll on Date and Time that works best
  - <https://www.when2meet.com/?17371665-HoFyW>
- Priority locations & Location profiles
- Emphasis Area & Safety Action Toolbox
- Help us get the word out about the webmap survey! [www.tinyURL.com/LafayetteLRSP](http://www.tinyURL.com/LafayetteLRSP)

**T'OOLE**  
DESIGN

**Thank you**

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