

# BPAC Meeting

March 25, 2019

## BICYCLE MASTER PLAN UPDATE 2018



**City of  
Santa Clara**

# Agenda

1. Welcome and Introductions
2. Background
3. Recommendations
4. Draft Plan Community Input
5. Draft Final Plan



# Background



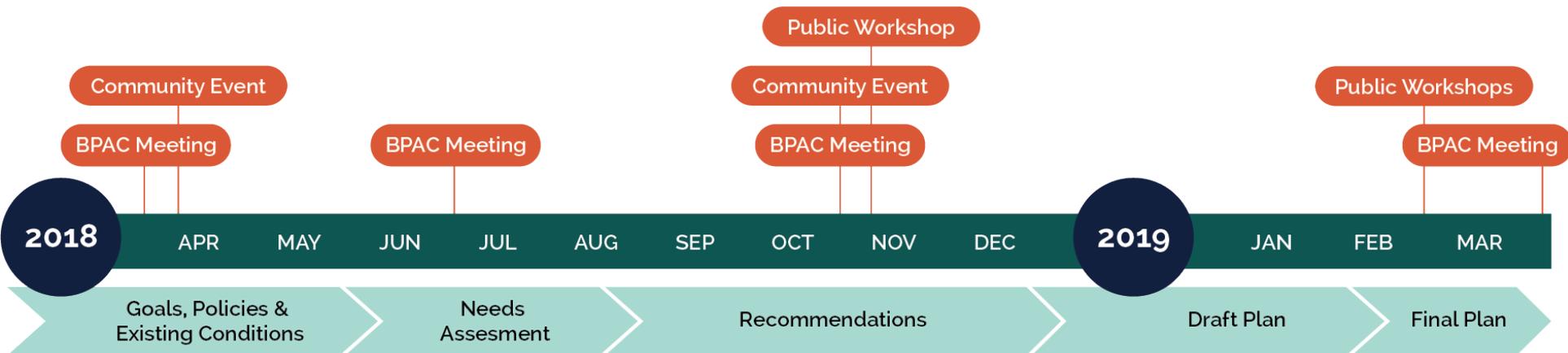
**City of  
Santa Clara**

# Vision

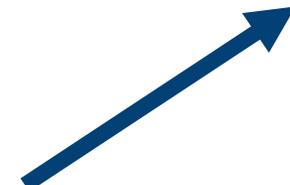
The City of Santa Clara is a healthy, thriving, and safe city where people of all ages and abilities may easily and comfortably ride a bicycle as a part of their daily lives.



# Project Timeline



We are here



# Project Outreach

- Meeting with Bicycle and Pedestrian Advisory Committee three times
- Project website
- Social media feeds and City Manager's Blog
- Four pop-up events in April and November
  - Health and Wellness Fair
  - Arbor Day Celebration
  - Farmer's Market
  - Northside Library
- Online mapping tool
- Public workshop in November
  - Draft recommendations
- Online PDF comment tool
- Public Workshops in March



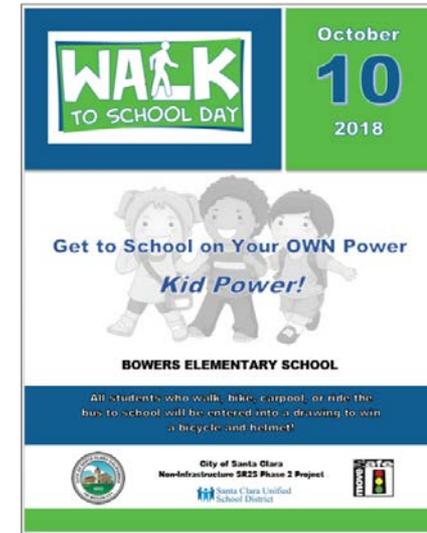
# Recommendations



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# Program Recommendation Types

- Five Es:
  - Education
  - Encouragement
  - Enforcement
  - Evaluation
  - Equity

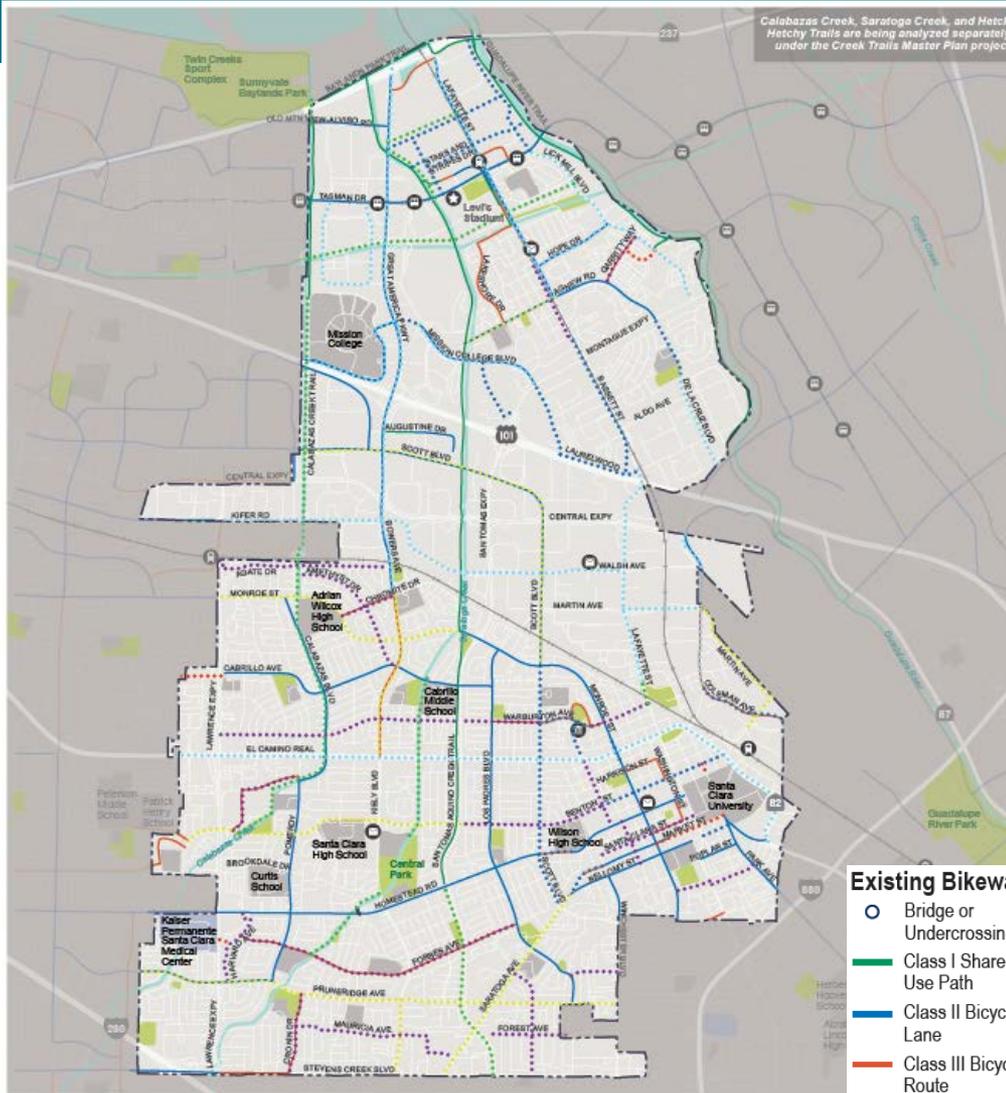


# Project Recommendation Summary

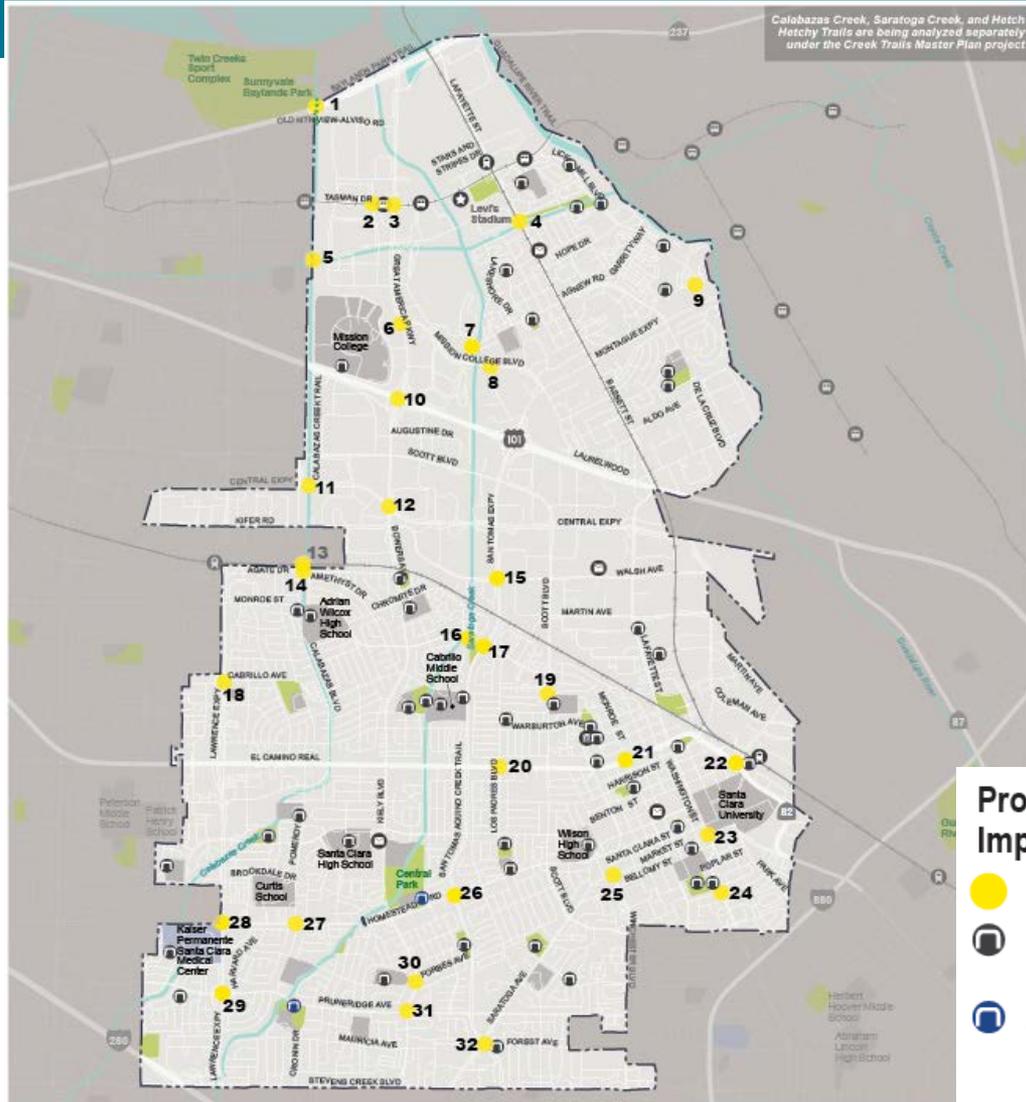
Bikeway Type	Existing	Recommended	Complete Build Out
Class I Shared Use Path	11.5	11.2	22.7
Class II Bicycle Lane/Buffered Bicycle Lane	34.5	23.7	58.2
Class III Bicycle Route	12.8	1.4	14.2
Expressway Bicycle Route	11.6	0	11.6
Class III Bicycle Boulevard	0	14.1	14.1
Class IV Separated Bikeway	0	20.8	20.8
<b>Total</b>	<b>70.4</b>	<b>71.2</b>	<b>141.6</b>

# Bikeway Recommendations

*Calabazas Creek, Saratoga Creek, and Hetch Hetchy Trails are being analyzed separately under the Creek Trails Master Plan project*



# Spot Improvements



- 79 total spot improvements
- 47 new bike parking locations
  - 9 Priority projects

# Prioritization Criteria

- Safety/collision reduction
- Connectivity
- Gap closure
- Comfort
- Community identified
- Feasibility

# Prioritization Matrix



= FULLY MET CRITERIA

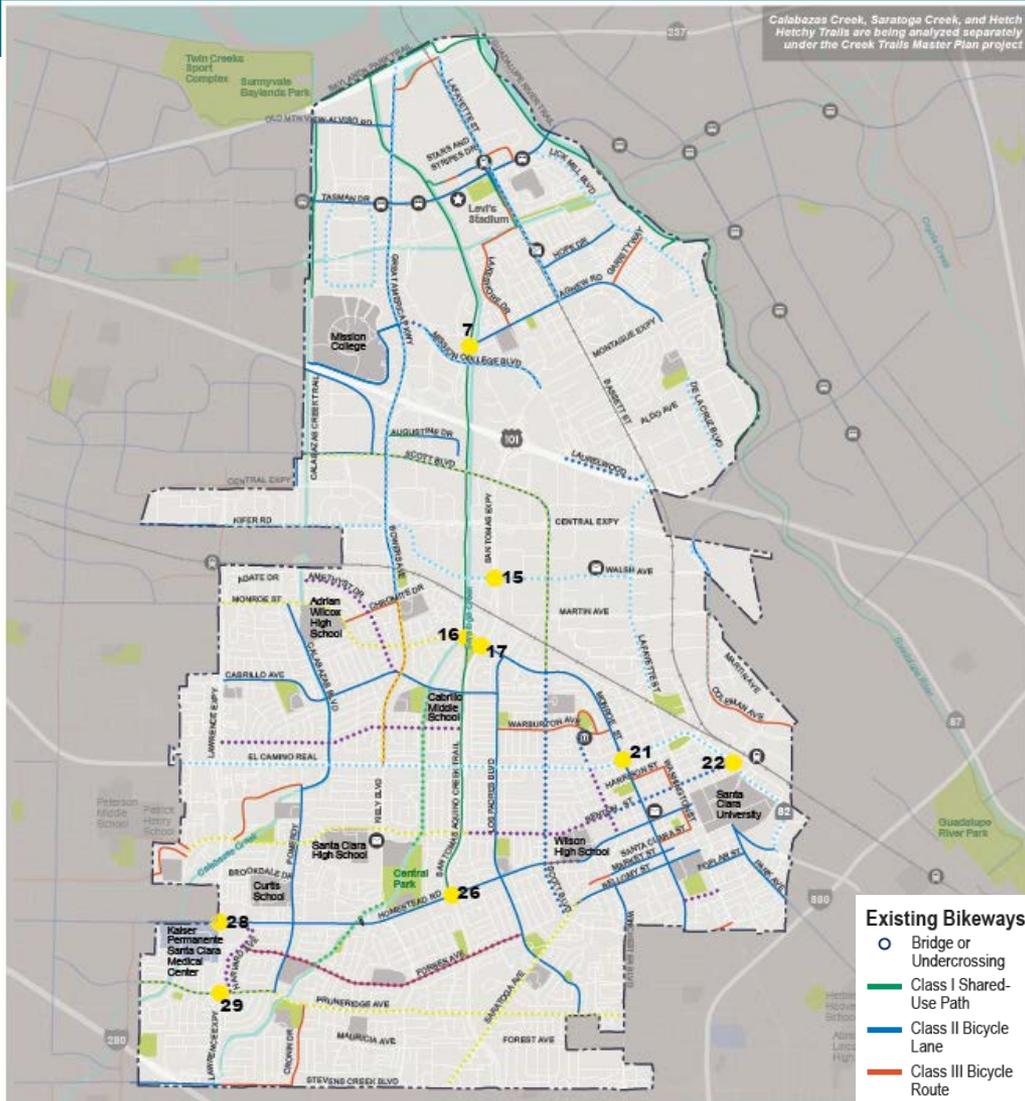


= PARTIALLY MET CRITERIA

EMPTY = DID NOT MEET CRITERIA FOR PRIORITIZATION

Rank	Name	Recommendation	Safety	Comfort	Connectivity	Gap Closure	Community Identified	Feasibility
1	El Camino Real between western city limit and eastern city limit	Corridor: Class IV separated bikeway	●	●	●		●	
2	Pruneridge Avenue between western city limit and eastern city limit	Corridor: Class II bikes lanes and Class III bicycle boulevard Class II buffered bike lanes	◐		●	●	●	
3	Scott Boulevard between Monroe Street and Saratoga Avenue	Corridor: Class II bike lanes	◐		●		●	◐
4	Benton Street between El Camino Real and Lincoln Street	Corridor: Class II bike lanes					●	●
5	Bowers Avenue/Kiely Boulevard between Chromite Drive and Benton Avenue	Corridor: Class II buffered bike lanes	●		●			◐
6	El Camino Real at Benton Street	Spot #22: signal detection, tighten turning radii		●				●
7	El Camino Real at Monroe Street	Spot #21: signal detection, tighten turning radii		●				●
8	Harvard Avenue between Homestead Road and Pruneridge Avenue	Corridor: Class III bicycle boulevard				●		●
9	Homestead Road between Scott Boulevard and Viader Court	Corridor: Class II bike lanes				●		●
10	Lincoln Street between Warburton Avenue and Homestead Road	Corridor: Class II bikes lanes and Class III bicycle boulevard				●		●

# Priority Projects



- 46.3 miles of all priority bikeways
- 18.8 miles of priority Class IV separated bikeways
- Nine (9) spot improvements
- Price tag: \$11,051,000 - \$19,706,000+

**Existing Bikeways**

- Bridge or Undercrossing
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route

**Recommended Bikeways**

- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway

**Proposed Improvements**

- Spot Improvement
- New Bicycle Parking
- Additional Bicycle Parking

**Destinations + Boundaries**

- Ⓜ City Hall
- 🚊 Train Station
- 🚇 Light Rail Station
- 📮 USPS Office
- ⚽ Sport Stadium
- 🏫 School
- 🏥 Hospital
- 🌳 Park

# Priority Project Summary

Table ES-1: High Priority Corridor Recommendations

Bikeway Type	Miles	Cost Estimate – Low	Cost Estimate – High
Class I Shared Use Paths	5.83	\$4,083,000	\$5,832,000
Class II Bicycle Lanes	3.66	\$292,000	\$1,549,000
Class II Buffered Bicycle Lanes	11.4	\$1,482,000	\$4,821,000
Class III Bicycle Boulevards	6.58	\$495,000	\$922,000
Class IV Separated Bikeways	18.81	\$4,699,000	\$6,582,000
<b>Total</b>	<b>46.28</b>	<b>\$11,051,000</b>	<b>\$19,706,000</b>

Table ES-2: High Priority Spot Improvement Recommendations

Improvement Type	Number of Recommendations	Cost Estimate – Low	Cost Estimate – High
Intersection Improvements (several)	5	\$32,500	\$465,000
Protected Intersection	4	\$2,255,000	\$6,000,000

# Design Guidelines



## Bicycle Lanes

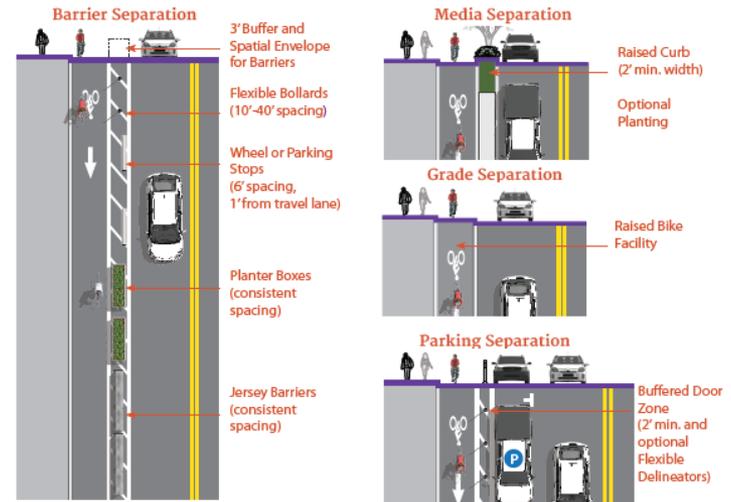
On-street bike lanes (Class II Bikeways) designate an exclusive space for bicyclists through the use of pavement markings and signs. The bike lane is located directly adjacent to motor vehicle travel lanes and travels in the same direction as motor vehicle traffic. Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane.

### TYPICAL APPLICATION

- Bike lanes may be used on any street with adequate space, but are most effective on streets with moderate traffic volumes  $\geq 6,000$  ADT ( $\geq 3,000$  preferred).
- Bike lanes are most appropriate on streets with moderate speeds  $\geq 25$  mph.
- Appropriate for skilled adult riders on most streets.
- May be appropriate for children when configured as 6+ ft wide lanes on lower-speed, lower-volume streets with one lane in each direction.

### DESIGN FEATURES

- A** Include a bicycle lane marking at the beginning of blocks and at 500 ft intervals along the route.
- B** In-lane cyclist icon should be depicted wearing a helmet.
- C** 6 ft width preferred adjacent to on-street parking (5 ft min.) (HDM)
- D** 6 ft preferred adjacent to curb and gutter (VTA) or 4 ft more than the gutter pan width.



## Separated Bikeway Barriers

Separated bikeways may use a variety of vertical elements to physically separate the bikeway from adjacent travel lanes. Barriers may be robust constructed elements such as curbs, or may be more interim in nature, such as flexible delineator posts.

### TYPICAL APPLICATION

Appropriate barriers for retrofit projects:

- Parked Cars
- Flexible delineators
- Bollards
- Planter boxes; K-Rail/Jersey barrier
- Wheel or Parking stops

Appropriate barriers for reconstruction projects:

- Curb separation
- Medians
- Landscaped medians
- Raised or protected bikeway with vertical or mountable curb
- Pedestrian safety islands

# Draft Plan Community Input



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# Public Input Received

- “Executive Summary is too long.”
- “Policy language is too vague.”
  - Bike parking requirements
  - Maintenance
- “What are these ‘Future’ roadways shown in the tables?”
- “How can I tell what is recommended for each Spot Improvement?”
- “The City should better communicate with neighboring jurisdictions for projects that cross boundaries.”
- “Thank you very much for the bicycle master plan update.”
- “Since it will be adopted in 2019, shouldn't it be the Bicycle Master Plan Update 2019?”

# Draft Final Plan



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# Updates for Draft Final Plan

- Rearranged and updated Executive Summary
  - Highlights High Priority projects
  - Includes Plan goals
- Updated policy language to include potential Municipal Code changes for bicycle parking standards
- Updated recommendations maps to assign numbers to spot improvements
- Separated short- and long-term recommendations in tables
  - Provided cost estimates for each
- Highlighted collaboration between jurisdictions
- Over 100 minor clarifications/copyedits based on public comments

# Next Steps

- March 25, 2019 - BPAC Recommendation to Council
- May 21, 2019 – City Council Meeting

# Questions?

