



CROSSTOWN CONNECTORS

Exploring Options for Enhancing Community Mobility, Safety, and Connectedness



CITY COUNCIL WORKSHOP

OCTOBER 10, 2022

OVERVIEW

- Workshop Objective
- Background
- Existing Connectors
- Potential Connectors
- Crosstown Mobility Analysis
- Financial Considerations
- Next Steps
- Discussion & Prioritization



OVERVIEW

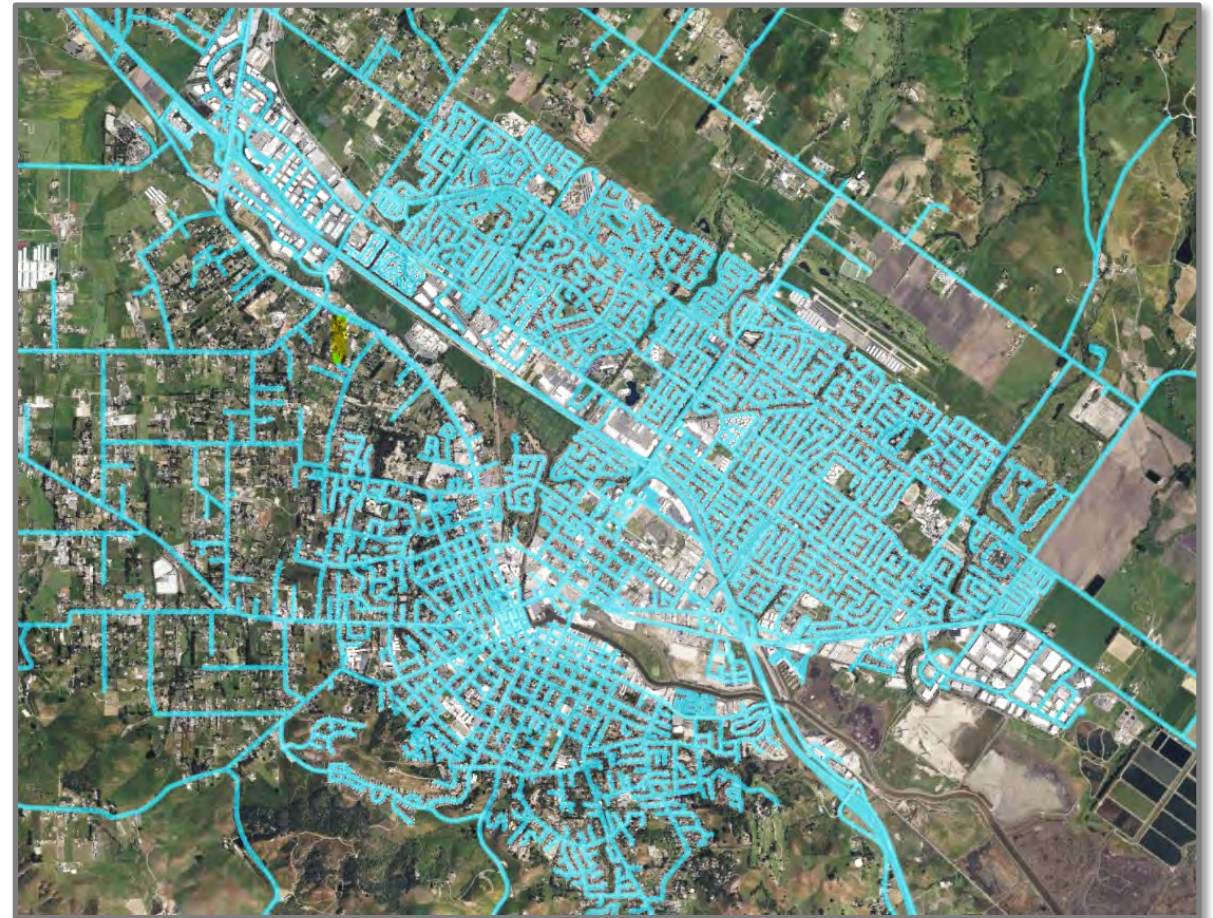
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Workshop Objectives



Present information for discussion and direction on prioritization regarding current and proposed crosstown connectors



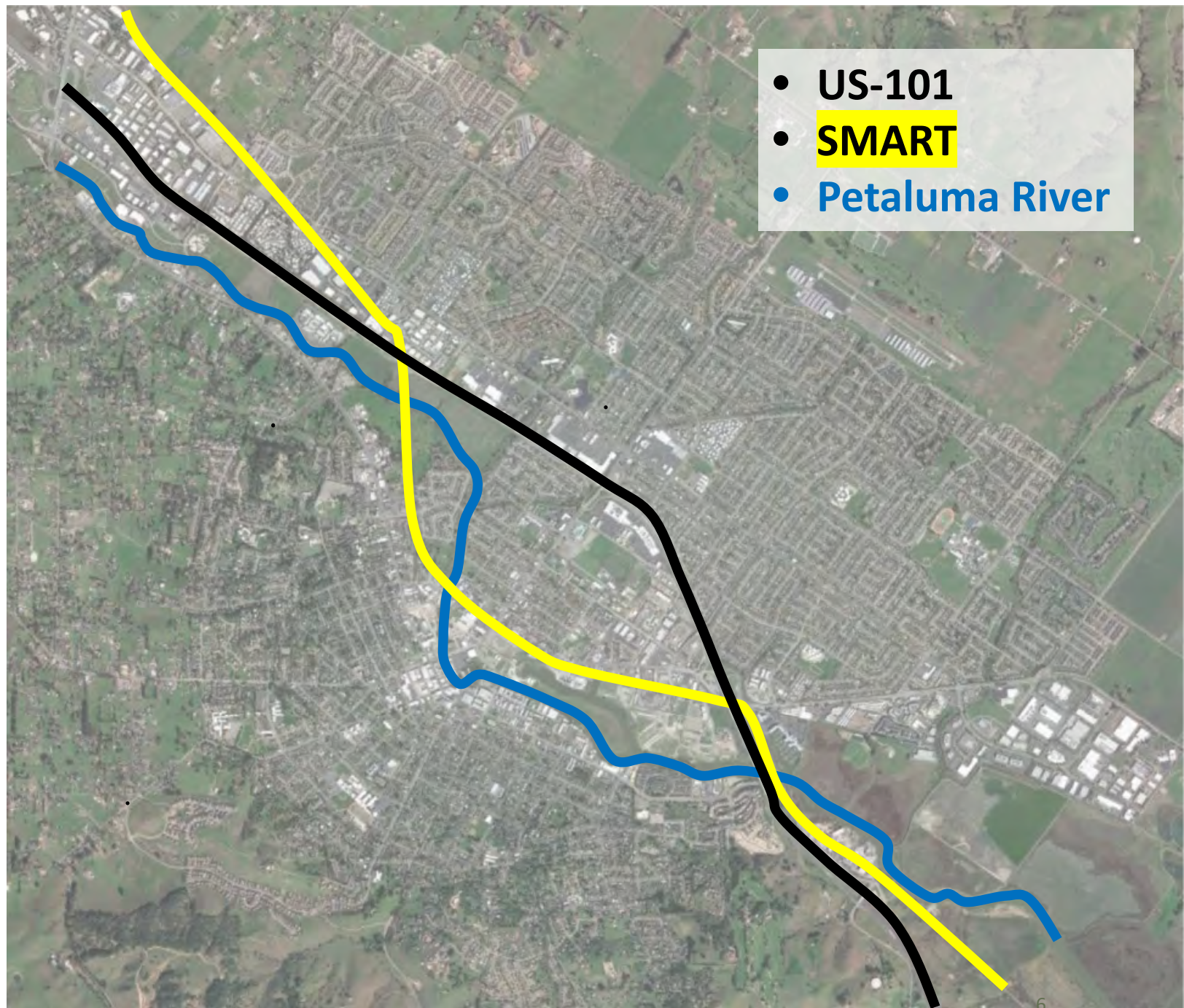
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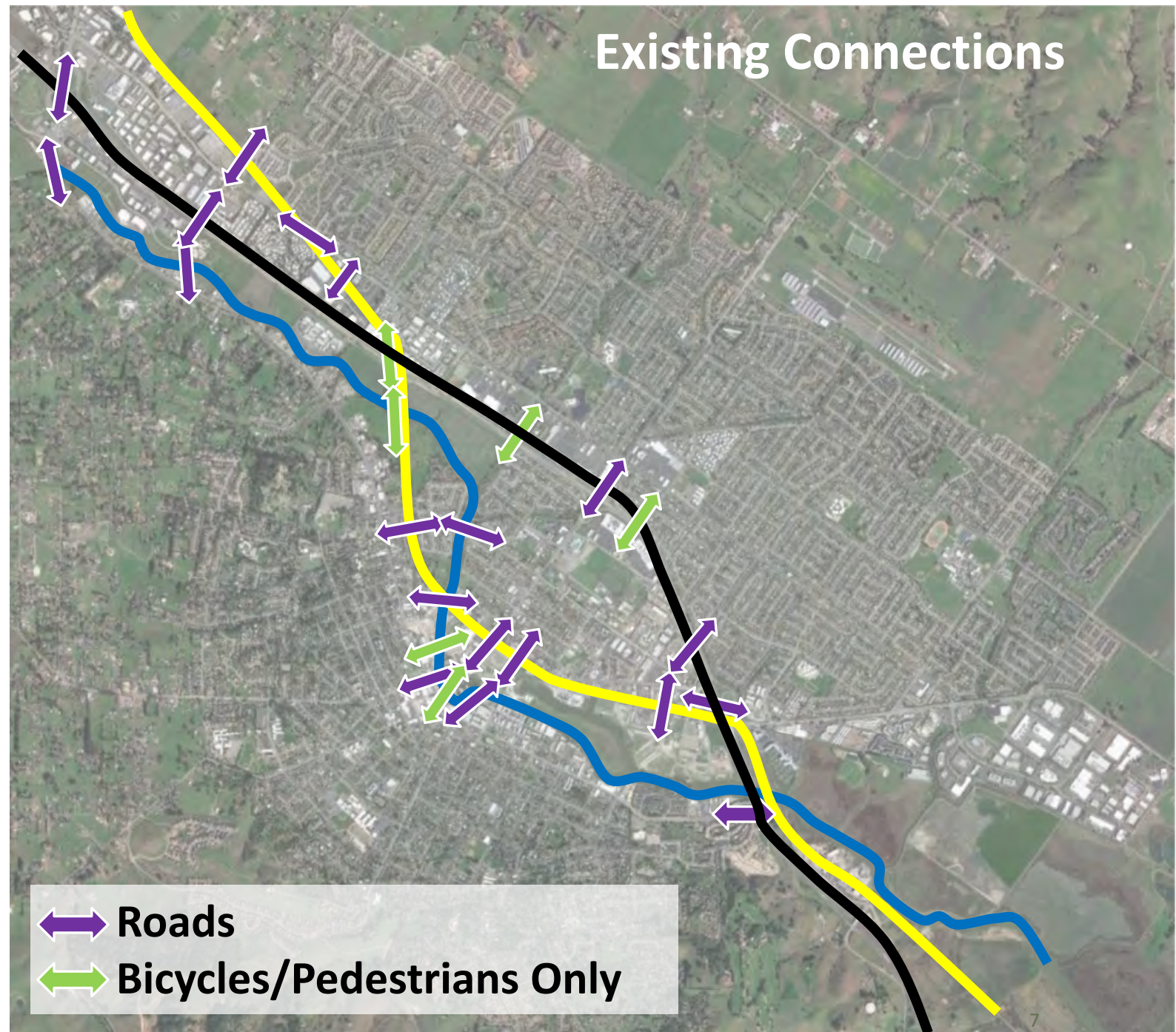
BACKGROUND

- Crosstown Barriers
- General Plan
- Goals & Priorities
- Traffic Impact Fees

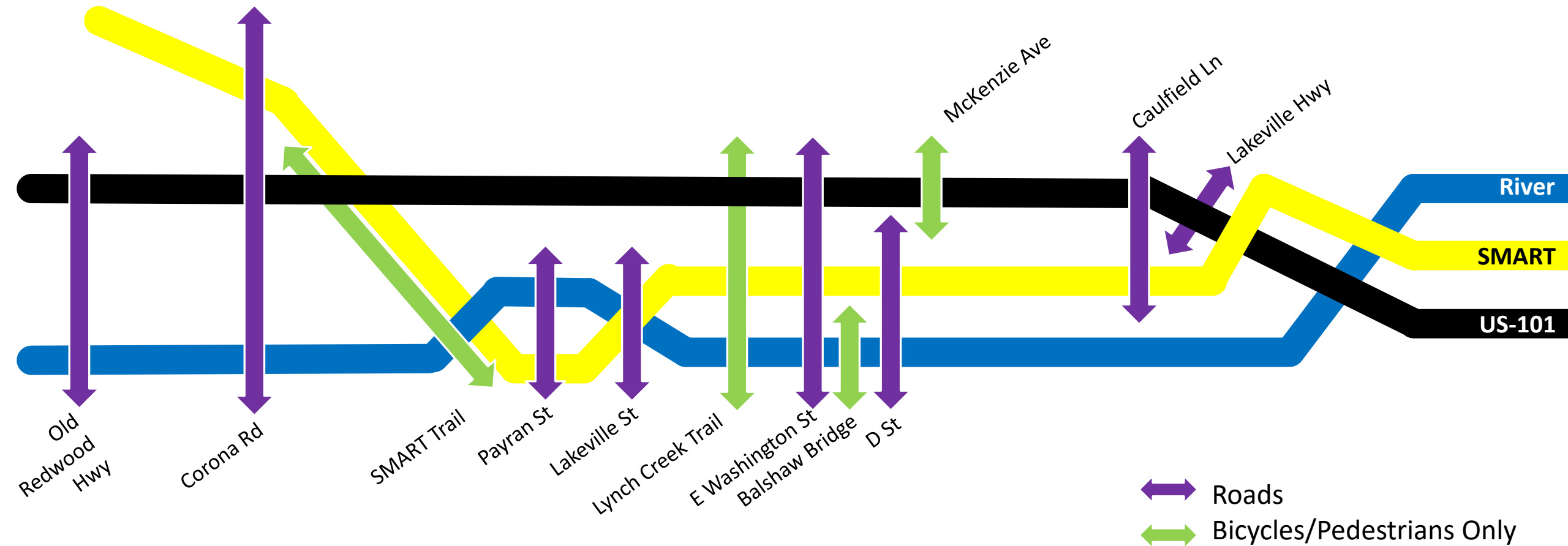


BACKGROUND

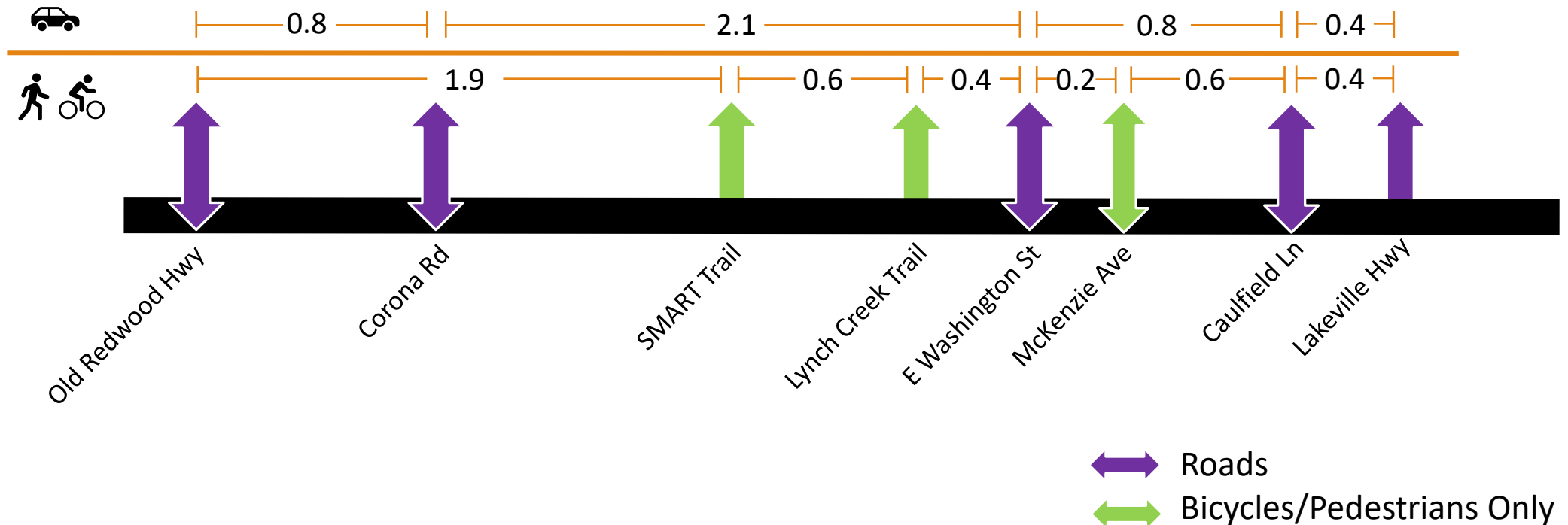
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Existing Crossing Schematic



Distances Between US-101 Crossings



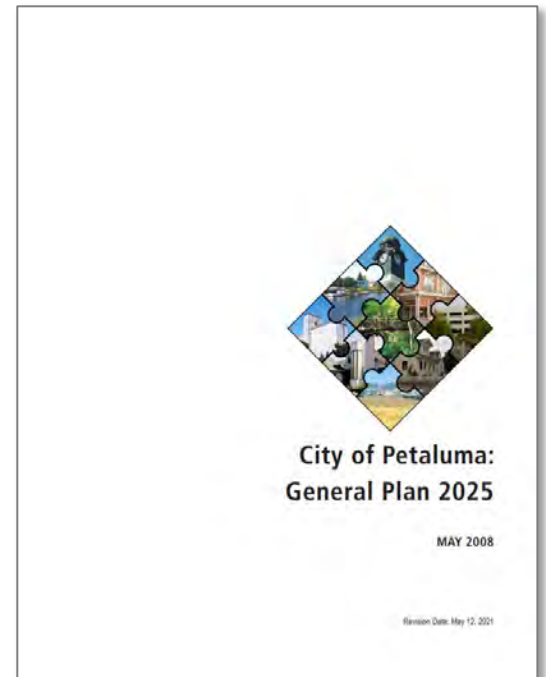
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Guiding Principle #13:

Integrate and connect the east and west sides of town.

*The Petaluma River, the railroad tracks, and Highway 101 present barriers between the eastern and western portions of the city. Integration of different parts of the city is a theme that is reflected in several Plan policies. Roadway improvements and new streets are also proposed to link different neighborhoods, including **two major east-west connections—the Rainier underpass/interchange and the Caulfield Lane “southern crossing”—to better integrate the east and west sides of town.***



<https://cityofpetaluma.org/documents/general-plan/>

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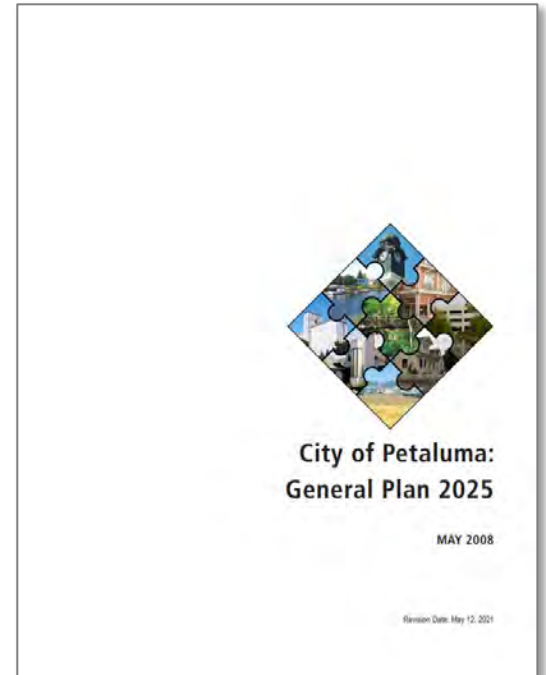
5.3 Motor Vehicle Circulation Planned Improvements

Rainier Avenue Extension and Interchange.

Rainier Avenue will be extended to connect with a new freeway interchange on Highway 101 between Washington Street and Corona Road and provide another cross-town travel route and access to Highway 101.

Caulfield Lane Extension.

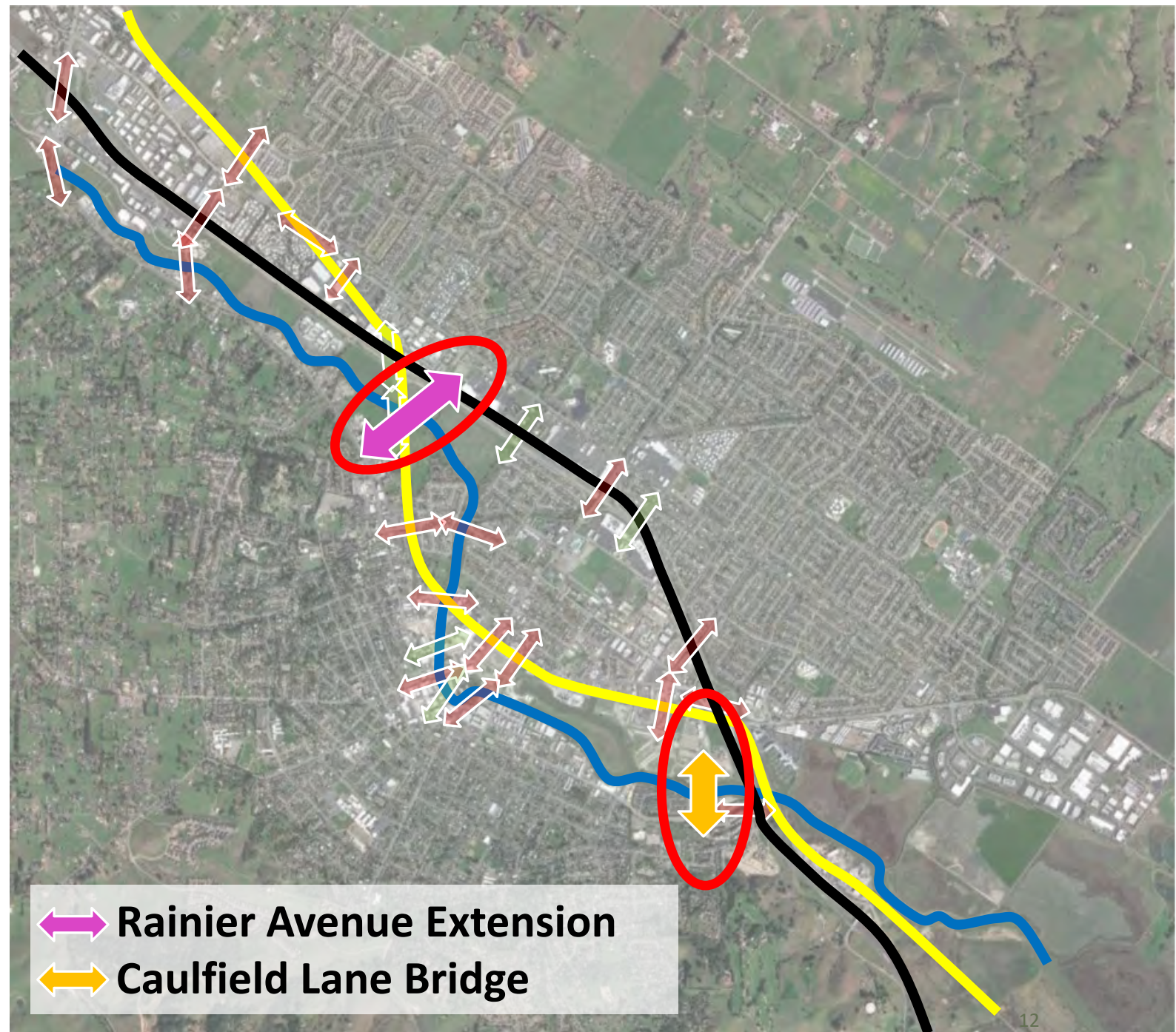
A 'Southern Crossing' of the Petaluma River is incorporated to reduce traffic congestion along the D Street and Washington Street corridors. A connecting grid of streets will be developed near Caulfield Lane between the River and Lakeville Street.



<https://cityofpetaluma.org/documents/general-plan/>

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Goals & Priorities



A SAFE COMMUNITY THAT THRIVES

- **Workplan Item #93:** Create and promote multi-cultural and multi-generational recreation and wellness programs that support community connection, physical well-being, and opportunities for play. Focus on public health in planning processes—including air quality, walkability, and childcare incorporated into larger developments, including revisiting zoning around sensitive receptors (e.g., schools, health care facilities).

A CITY THAT WORKS FOR EVERYONE

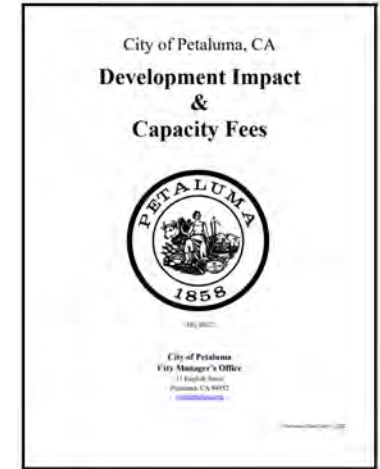
- **Workplan Item #14:** Identify funding options to complete Petaluma's planned crosstown connectors.
- **Workplan Item #15:** Identify funds and develop a plan to improve Petaluma's streets and roads.
- **Workplan Item #18:** Establish and improve paths, as useful transportation options, and make walking and biking easy, fun, and safe.
- **Workplan Item #20:** Better integrate multi-modal transportation with street designs.
- **Workplan Item #26:** Update the City's Bicycle and Pedestrian Plan and realize opportunities for crosstown connections for all modes of transportation.

BACKGROUND

- Crosstown Barriers
- General Plan
- Goals & Priorities
- Traffic Impact Fees

Purpose

“Provide funding to achieve the City’s goal of maintaining existing traffic service levels and to provide traffic facilities to mitigate the traffic impacts of new development within the City, consistent with the land use and transportation policies of the General Plan, by developing an overall transportation system that will accommodate the City’s expected future traffic demand and to accommodate the needs generated by future development including...”



<https://cityofpetaluma.org/documents/development-impact-and-capacity-fees-booklet/>

Traffic Impact Fees Overview

- Funds must be programmed based on nexus study project allocation
- Must be for projects that mitigate traffic impacts of new development
- Must be spent on projects identified in the General Plan and the Fee Study
 - The TIFs were developed to provide funding specifically for these elements
- Funds can be spent on any project in the fee program at any time
- Per nexus study, some projects are fully funded by TIF while others only partially funded
 - Projects partially funded by TIF require matching funds

BACKGROUND

- Crosstown Barriers
- General Plan
- Goals & Priorities
- Traffic Impact Fees

Traffic Impact Fee Nexus Study – Projects and Funding Allocation Estimated Cost and Potential Fee Contribution

Note: Potential Fee Contribution based on projected full build out – actual fees collected to date below nexus study projections

Improvement	Net City Cost	New Development Share	Potential Fee Contribution
Rainier Avenue Extension and Interchange – locally preferred alternative	\$89,725,097	100.00%	\$89,725,097
Caulfield Lane Extension	\$54,561,194	100.00%	\$54,561,194
✓ Old Redwood Highway Interchange Improvements	\$2,879,990	100.00%	\$2,879,990
✓ Caulfield Lane/Payran Street Intersection Improvements	\$500,000	100.00%	\$500,000
Petaluma Boulevard/Magnolia Avenue – Payran Street Intersection	\$500,000	100.00%	\$500,000
Construction of New Intersections Throughout the City ¹	\$2,250,000	74.14%	\$1,668,224
✓ Traffic Signal Upgrades Throughout the City ²	\$1,885,000	22.43%	\$422,803
✓ Pedestrian/Bicycle Improvements Throughout the City ³	\$27,389,000	32.78%	\$8,978,853
Transit Improvements Throughout the City ²	\$2,500,000	22.43%	\$560,746
✓ Redevelopment Supplement	\$9,972,739	100.00%	\$9,972,739
✓ SMART Station (350 Parking Spaces) ²	\$10,500,000	22.43%	\$2,355,134
Administration Costs ⁴	--	--	\$1,278,262
Total	\$202,663,020	--	\$173,403,042

✓ Completed








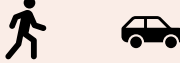
✓ In Progress/Construction Upcoming

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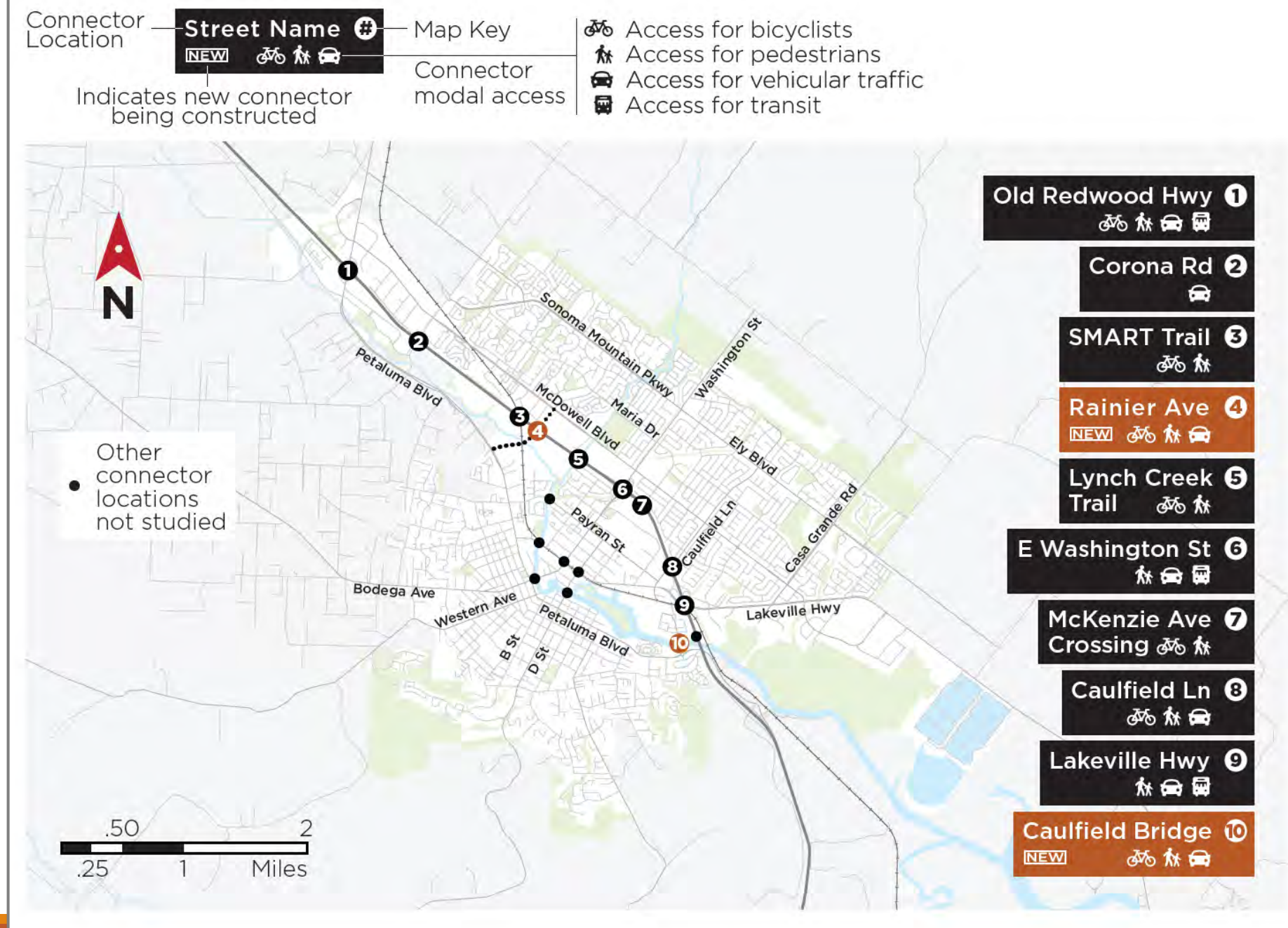


Existing Highway 101 Crosstown Connectors: At-a-Glance

Crossing	Owner*	Existing Access	CIP Project	Local Funding \$M	Grant Request \$M	Total \$M	Current Status/ Next Steps
Old Redwood Hwy.	Caltrans/ City			-	-	-	Maintenance – striping
Corona Rd.	Caltrans		X	\$0.025	\$0.125 (awarded)	\$0.15	Planning/Study
SMART Trail	SMART		X	\$0.05	-	\$0.05	Wayfinding
Lynch Creek Trail	City		X	\$0.27	\$1.60M	\$1.95	Construction
E. Washington St.	Caltrans/ City			-	-	-	Planning/Study
McKenzie Ave.	Caltrans/ City		X	\$0.025	\$0.125 (awarded)	\$0.15	Planning/Study
Caulfield Ln. (101 Overcrossing; Payran to Ely)	Caltrans/ City		(FY23/24)	\$0.455	\$3.35	\$3.85	Construction (Include in FY23/24 CIP)
Rivertrail - 101 Undercrossing (@ Lakeville Hwy.)	City (Caltrans/SMART Easements)		X	\$1.30	\$3.20	\$4.50	Construction
TOTAL				\$2.125M	\$8.40M	\$10.525M	

*Ownership of the bridge structure is Caltrans as indicated with City responsibility for maintenance of the deck/roadway surface, sidewalks, etc.

Map of Petaluma's Crossings



EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

Old Redwood Highway



Overview

Active CIP Projects

Future Projects

- Reconstructed by the City in 2016 (\$38.2M)
- Average Daily Traffic: 18,000 (2020)
- Bicycle & Pedestrian Access:
 - Class II bike lanes
 - Sidewalks
- Identified in Sonoma County Vision Zero High-Injury Network
- Striping & pedestrian crossing enhancements are being explored

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

Old Redwood Highway



Overview

Active CIP Projects

Future Projects

Project	Cost Estimate
Bike lane and crosswalk enhancements	TBD

EXISTING CONNECTORS

- Old Redwood Highway
- **Corona Road**
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

Corona Road



Overview

Active CIP Projects

Future Projects

- Bridge received seismic retrofit in 1995
- Average Daily Traffic: 14,300 (2020)
- Active transportation accommodations need improvement
 - Upcoming study just approved by Council to explore feasibility of widening the bridge or adding a cantilever

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

Corona Road



Overview

Active CIP Projects

Future Projects

Project	Estimated Completion	Funding Gap
Study feasibility of the addition of bicycle and pedestrian facilities; develop concept plan	2023	\$0

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

Corona Road



Overview

Active CIP Projects

Future Projects

Project

Cost Estimate

Implement study recommendations

Coordinate with SCTA and Caltrans to enhance/replace bridge to accommodate bicycle and pedestrian facilities

TBD

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- **SMART Trail**
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

SMART Trail



Overview

Active CIP Projects

Future Projects

- Owned by SMART
- First segment (Payran St. to Southpoint Blvd.) constructed in 2020
 - Closed for 101 construction; reopening October 2022
- Remaining segments slated for construction by SMART (active):
 - 2022/23 - Lakeville St. to Payran St.
 - 2023/24 - Southpoint Blvd. to Penngrove
- City advocating for future extension from Lakeville St. to Water St.

SMART Trail Improvements Progress Summary Map



EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- **SMART Trail**
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

SMART Trail



Overview

Active CIP Projects

Future Projects

Project	Estimated Completion	Funding Gap
Install trail wayfinding (Phase I)	2023	\$0.05M (Phase II)

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- **SMART Trail**
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

SMART Trail



Overview

Active CIP Projects

Future Projects

Project	Cost Estimate
Install trail lighting	TBD

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- **Lynch Creek Trail**
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

Lynch Creek Trail



Overview

Active CIP Projects

Future Projects

- \$416k in improvements in 2021
 - Paved 0.2 mi segment north of Payran Street
 - Rehabilitated 0.5 mi segment north of Sonoma Mtn. Pkwy.
- Entire trail will be paved by end of 2023, pending funding (including rehabilitation of paved sections in poor condition)
- Following paving projects, focus will shift to trail crossings, lighting, and other amenities

Lynch Creek Trail (LCT) Improvements Progress Summary Map



LCT Pavement Condition Snapshot (October 2022)	
Good	1.7 mi (68%)
Poor	0.4 mi (16%)
Unpaved	0.4 mi (16%)*
*Note: 0.2 mi. to be completed by developer in late 2022	

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
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- Rivertrail – 101 Undercrossing (Lakeville Highway)

Lynch Creek Trail



Overview

Active CIP Projects

Future Projects

Project	Estimated Completion	Funding Gap
Install trail wayfinding (Phase I)	2023	\$0.05M (Phase II)
<ul style="list-style-type: none"> • Rehabilitate pavement west of N. McDowell Blvd. • Improve access at Payran St. • Pave trail from Payran St. to Edith St. 	2023	\$1.6M*
Pave trail from Edith St. to Lakeville St. (by developer)	2023	\$ -

*Grant application submitted; decision expected January 2023. \$220,000 local match required.

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

Lynch Creek Trail



Overview

Active CIP Projects

Future Projects

Project	Cost Estimate
Install trail lighting	TBD
Study feasibility of trail crossing improvements at E. Washington St., N. McDowell Blvd., and Sonoma Mtn. Pkwy.	TBD
Implement trail crossing improvements	TBD

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- **E. Washington Street**
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

E. Washington Street



Overview

Active CIP Projects

Future Projects

- Average Daily Traffic: 19,200 (2020)
- Bicycle & Pedestrian Access:
 - No bicycle facilities
 - Sidewalk on eastbound side
- Identified in Sonoma County Vision Zero High-Injury Network
- Commencing signal coordination improvements
- Seeking grant funding to plan improvements to active transportation, safety, and pavement reconstruction
- Address the need to make this community gateway more welcoming and comfortable in accordance with public input and feedback received (General Plan, SDAT*, etc.)

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- **E. Washington Street**
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

E. Washington Street



Overview

Active CIP Projects

Future Projects

Project	Cost Estimate
Rehabilitate pavement and reconfigure roadway to provide bike lanes (if feasible)	TBD

McKenzie Avenue Bike/Ped Overcrossing



EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- **McKenzie Avenue Bike/Ped Overcrossing**
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

Overview

Active CIP Projects

Future Projects

- Difficult to enter/exit at McKenzie Avenue (east side), especially for people with bikes, mobility devices, strollers, etc.
 - Upcoming study to explore access improvements

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- **McKenzie Avenue Bike/Ped Overcrossing**
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

McKenzie Avenue Bike/Ped Overcrossing



Overview

Active CIP Projects

Future Projects

Project	Estimated Completion	Funding Gap
Develop concept plan for improved access at McKenzie Ave.	2023	\$0

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- **McKenzie Avenue Bike/Ped Overcrossing**
- Caulfield Lane (101 Overcrossing)
- Rivertrail – 101 Undercrossing (Lakeville Highway)

McKenzie Avenue Bike/Ped Overcrossing



Overview

Active CIP Projects

Future Projects

Project	Cost Estimate
Implement study recommendations; improve access at McKenzie	TBD
Improve bicycle and pedestrian connectivity to bridge, including wayfinding	TBD

EXISTING CONNECTORS

- Old Redwood Highway
- Corona Road
- SMART Trail
- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- **Caulfield Lane (101 Overcrossing)**
- Rivertrail – 101 Undercrossing (Lakeville Highway)

Caulfield Lane (101 Overcrossing; Payran to Ely)



Overview

Active CIP Projects

Future Projects

- Average Daily Traffic: 11,400 (2020)
- Bicycle & Pedestrian Access:
 - Class II bike lanes
 - Sidewalk on westbound side
- Identified in Sonoma County Vision Zero High-Injury Network
- Seeking grant funding for pavement rehabilitation, traffic calming, and active transportation improvements (Ely Blvd. S. to Payran St.)

EXISTING CONNECTORS

- Old Redwood Highway
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Caulfield Lane (101 Overcrossing; Payran to Ely)



Overview

Active CIP Projects

Future Projects

Project	Estimated Completion	Funding Gap
Rehabilitate pavement; implement traffic calming; and install protected bike lanes	2025	\$3.35M*

*Local Partnership Program (SB 1) grant application will be submitted March 2023 in partnership with SCTA for submission to CTC by June 2023. Go Sonoma application submitted as well to SCTA.

\$455,000 local match required.

EXISTING CONNECTORS

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- **Rivertrail – 101 Undercrossing (Lakeville Highway)**

Rivertrail – 101 Undercrossing (Lakeville Highway)



Overview

Active CIP Projects

Future Projects

- Proposed multi-use trail to close a major bike/ped gap
- Lakeville Highway Average Daily Traffic: 19,800 (2020)
 - No bicycle facilities; sidewalk only on the northbound side
 - Identified in Sonoma County Vision Zero High Injury Network
- Easements needed from Caltrans & SMART
- General Plan 2025
 - Bicycle & Pedestrian Master Plan (2008)
 - River Access & Enhancement Plan (1996)

Rivertrail – 101 Undercrossing

(Lakeville Highway)



EXISTING CONNECTORS

- Old Redwood Highway
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- Lynch Creek Trail
- E. Washington Street
- McKenzie Avenue Bike/Ped Overcrossing
- Caulfield Lane (101 Overcrossing)
- **Rivertrail – 101 Undercrossing (Lakeville Highway)**

Overview

Active CIP Projects

Future Projects

Project	Estimated Completion	Funding Gap
Construct Rivertrail	2026	\$3.2M*

*Active Transportation Program Grant application has been submitted; decisions expected October 2022 (CTC; state component) and May 2023 (MTC; regional component).

\$1.3M local match required.

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POTENTIAL CONNECTORS

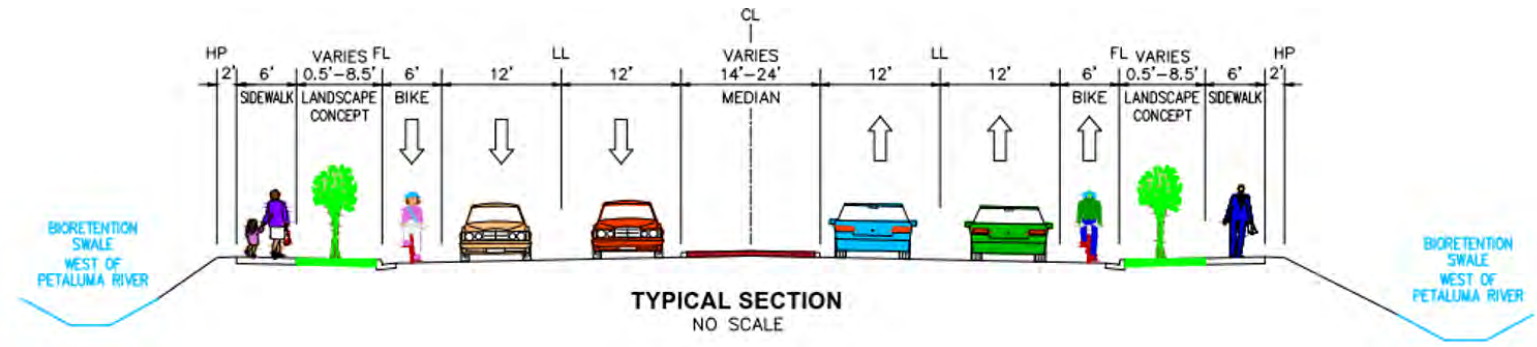
- Rainier Avenue Extension
- Caulfield Bridge/
Southern Crossing



POTENTIAL CONNECTORS

- Rainier Avenue Extension
- Caulfield Bridge/
Southern Crossing

Preliminary Design Analyzed from the Environmental Impact Report (EIR)



- 4 lanes
- Bicycles, pedestrian, and ADA access
- Crosses under Highway 101 & over the SMART tracks and the Petaluma River
- Highway 101 interchange ramps not included
- Habitat protection
- Floodplain impacts and mitigation measures

ACCESS OPTION FOR POTENTIAL PUBLIC SPACE/RECREATION AREA (GP GOAL)

BIORETENTION SWALE WEST OF PETALUMA RIVER

BIORETENTION SWALE EAST OF PETALUMA RIVER

DETENTION BASIN WEST OF PETALUMA RIVER

DETENTION BASIN EAST OF PETALUMA RIVER

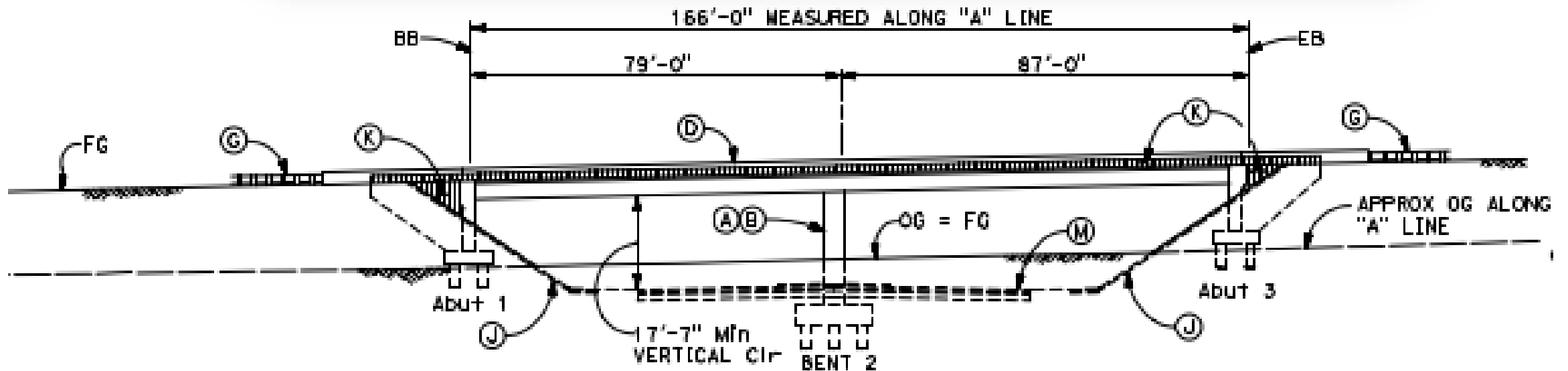
TYPICAL SECTION NO SCALE

LEGEND

- PROPOSED RETAINING WALL
- LANDSCAPING
- RAISED MEDIAN
- EMBANKMENT
- BIORETENTION SWALE AND DETENTION BASIN
- ACCESS LOCATION OPTION
- 100-YEAR FLOOD PLAIN
- SIGNALIZED INTERSECTION

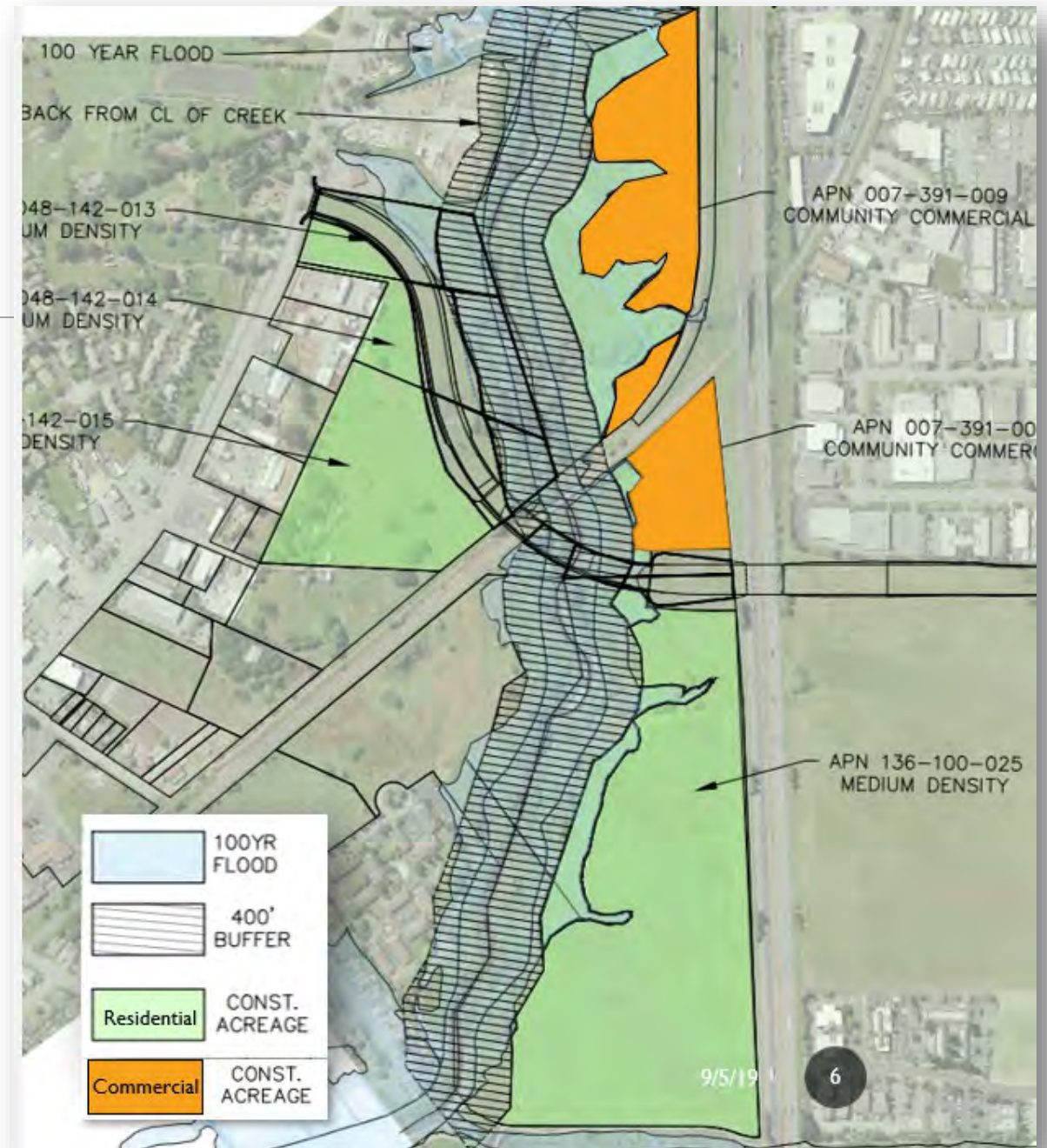
RAINIER AVENUE CROSS-TOWN CONNECTOR PRELIMINARY LAYOUT

US 101 Widening Project: New Underpass Installed



Rainier Avenue: Key Considerations

- Potential access to landlocked parcels
- Open space
- Floodplain
- Cultural resources
- Housing & Equity
- New underpass connectivity
 - Active Transportation/MUP Options
- Climate change resiliency



POTENTIAL CONNECTORS

- Rainier Avenue Extension
- Caulfield Bridge/Southern Crossing

Rainier Avenue:

Estimated Project Costs & Timeline

Current Estimate (4-Lane)

\$102.3M Total*

(\$10M Invested to Date)

\$92.3M Total Remaining*

Optional Estimate (2-Lane)

\$64M Total Remaining*

Updates & Next Steps if a Priority

- Currently at 30% Design
- Right-of-Way acquisition
- Environmental & final design
- Construction possible 2027/2028

Updated Cost Estimate

2028 Construction Assumed

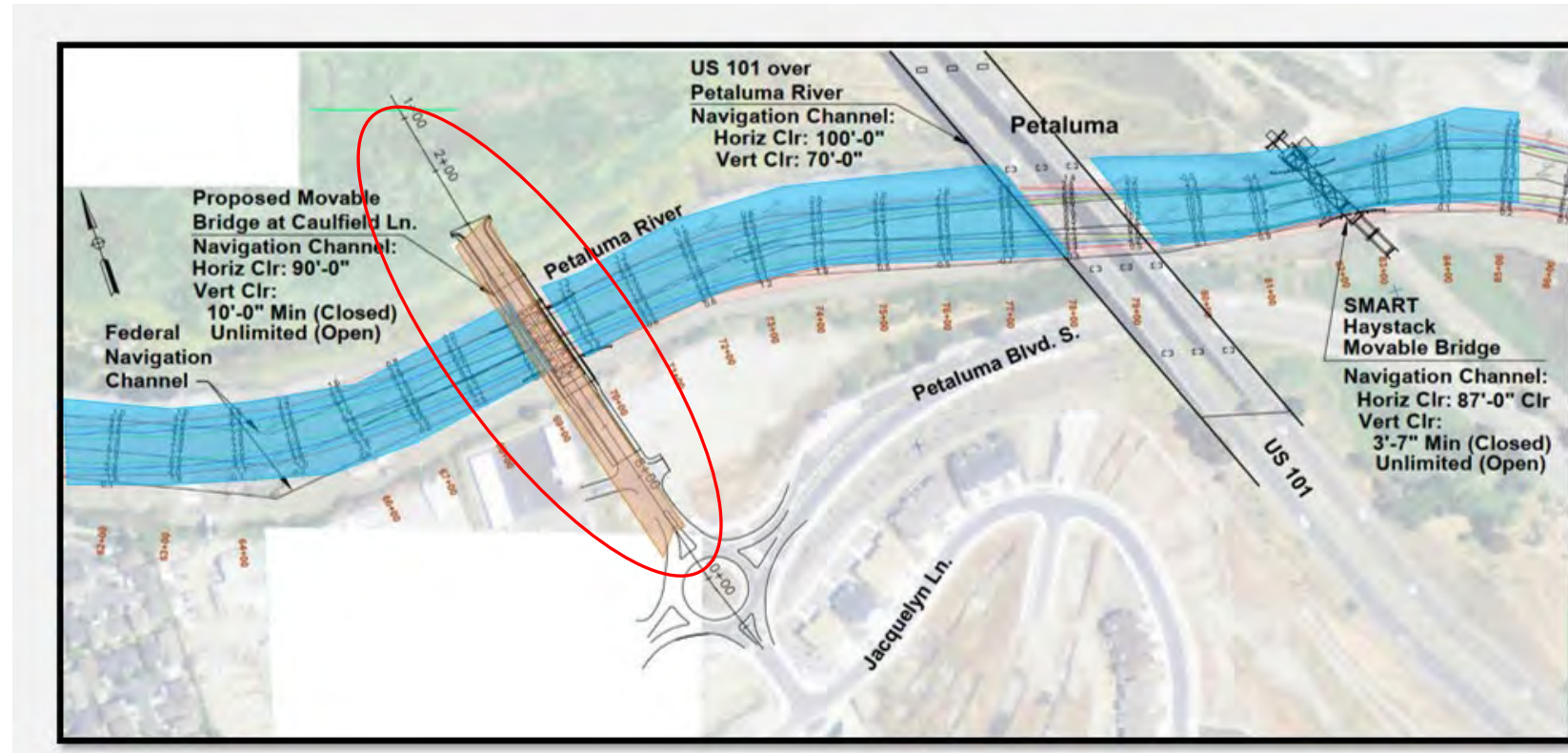
	Remaining Costs 2-Lane Street	Remaining Costs 4-Lane Street
Planning	\$250,000	\$250,000
Design & Admin	\$3,200,000	\$3,200,000
ROW Acquisition	\$3,160,000	\$3,160,000
Construction	\$54,690,000	\$81,620,000
Support	\$2,720,000	\$4,070,000
TOTAL	\$64,020,000	\$92,300,000

*NOTE: Depends on inflation (specific to the construction industry; not the CPI), property values (acquisition), and when construction occurs

Caulfield Bridge/ Southern Crossing

POTENTIAL CONNECTORS

- Rainier Avenue Extension
- Caulfield Bridge/
Southern Crossing



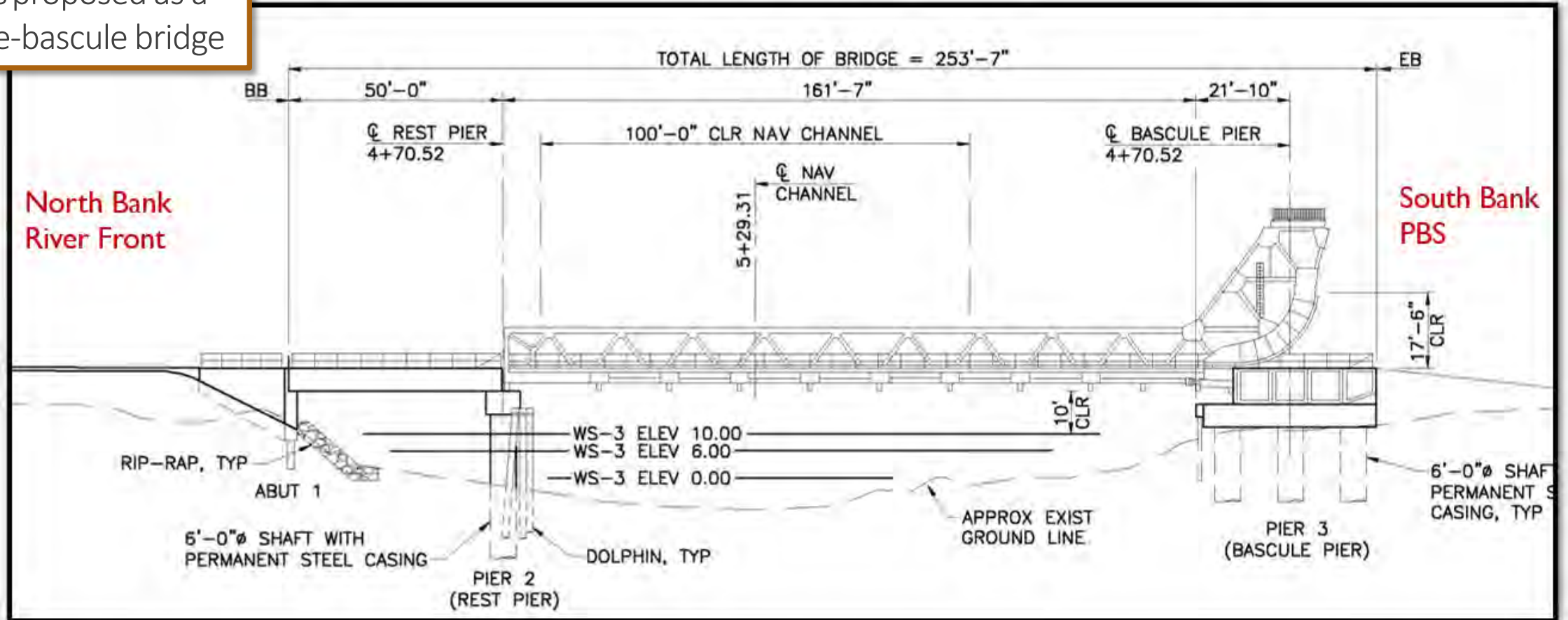
Caulfield Bridge/Southern Crossing: Traffic Flow & Adjacent Development



2019 WORKSHOP

Was proposed as a
single-bascule bridge

CAULFIELD BRIDGE SECTION



Section view looking down river

9/23/19

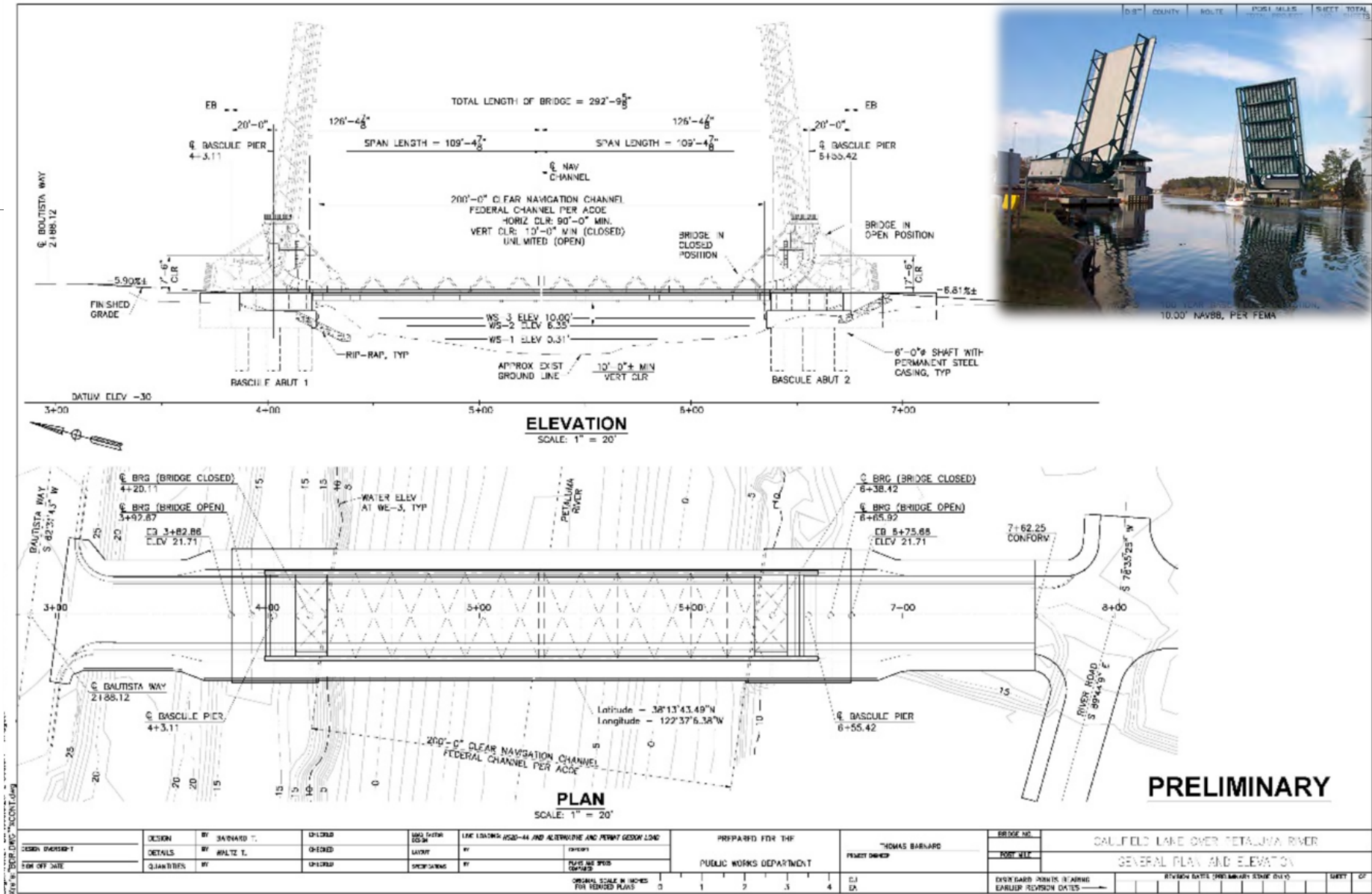
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Southern Crossing

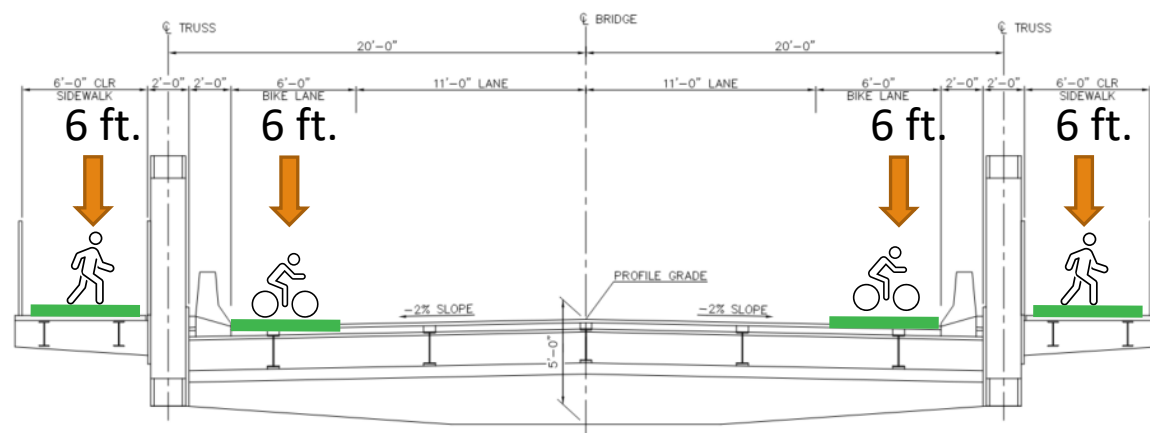
Was a single-leaf bascule bridge

UPDATES :

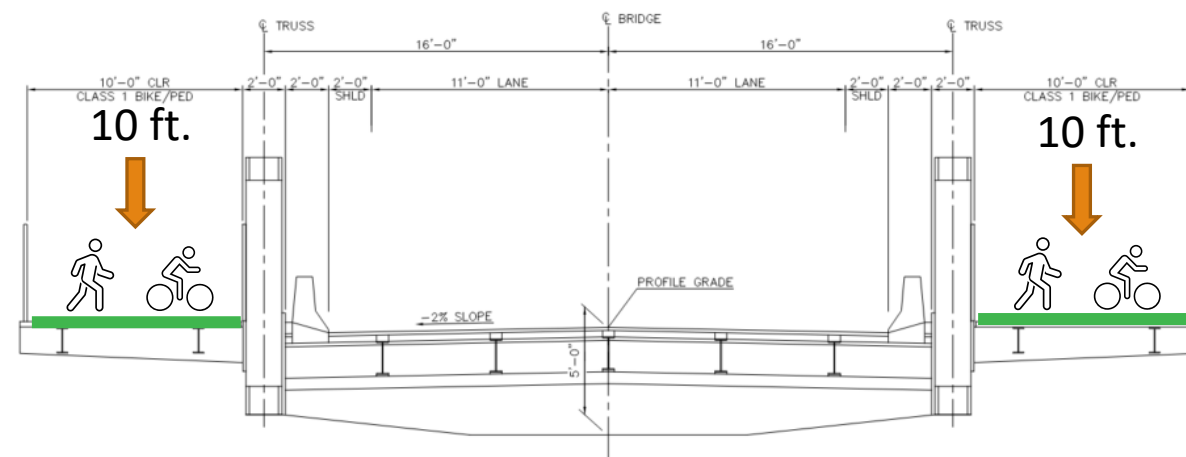
- Two-leaf bascule bridge now required
- Floodplain analysis completed
- 10% design completed
- Preliminary Coast Guard Approval
- ROW dedicated



Caulfield Bridge/Southern Crossing: Bicycle & Pedestrian Accommodations



Base Alternative
Separated Sidewalk - Class II Bike Lanes



Preferred Alternative
Class I Fully Separated Sidewalk and Bike Facility

Caulfield Bridge/Southern Crossing: Estimated Project Costs & Timeline

Updated Cost Estimate

- Bridge & roadway approaches only
- \$48.52M Total – Base Alternative***
 - Double-bascul bridge, Class II bike/ped
- \$44.86M Total – Preferred Alternative***
 - Double-bascul bridge, Class I (separated) multi-use path

Updates & Next Steps if a Priority

- Currently at 10% Design
- Final design & environmental work
- Right-of-Way Acquisition
 - Already dedicated
- Construction possible in 2025/2026

Updated Cost Estimate			
2025/26 Construction			
	2019 Estimate	Current Estimate Base Alt.	Current Estimate Preferred Alt.
	Single-Bascul 119 ft. Span	Double-Bascul, Class II 200 ft. Span	Double-Bascul, Class I 200 ft. Span
Roadway	\$2,200,000	\$3,100,000	\$3,100,000
Structures	\$20,700,000	\$37,320,000	\$33,660,000
Support	\$6,900,000	\$8,100,000	\$8,100,000
TOTAL	\$29,800,000	\$48,520,000	\$44,860,000

***NOTE:** Depends on inflation (specific to the construction industry; not the CPI) and when construction occurs

Summary:

Project Delivery Status & Timelines

Phase	Rainier Avenue	Caulfield Bridge/ Southern Crossing
Environmental Work	EIR Complete; Updates possibly needed	EIR Needed
Design Status	30% Preliminary Design	10% Final Design
Right-of-Way Status	Some ROW is dedicated; Acquisition needed	All ROW is dedicated; Acquisition not needed
Soonest Construction	2027/2028	2025/2026
Remaining Cost Estimate	\$64M - \$92.3M (2 Lane) (4 Lane)	\$44.86M - \$48.52M (Preferred) (Base)

OVERVIEW

- Workshop Objective
- Background
- Existing Connectors
- Potential Connectors
- **Crosstown Mobility Analysis**
- Financial Considerations
- Next Steps
- Discussion & Prioritization



CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services

Evaluation Metrics

- **Climate**

- What role do the crosstown connectors serve in the Climate Emergency Framework?

- **Traffic Volumes and Delay to People Driving**

- How would Rainier and Caulfield affect traffic patterns and travel times for people driving?

- **Accessibility**

- Which connectors provide safe and comfortable connections across Petaluma?
 - Who could safe and comfortable connections benefit?

- **Transit**

- How do crosstown connectors serve transit within Petaluma?

- **Emergency Services**

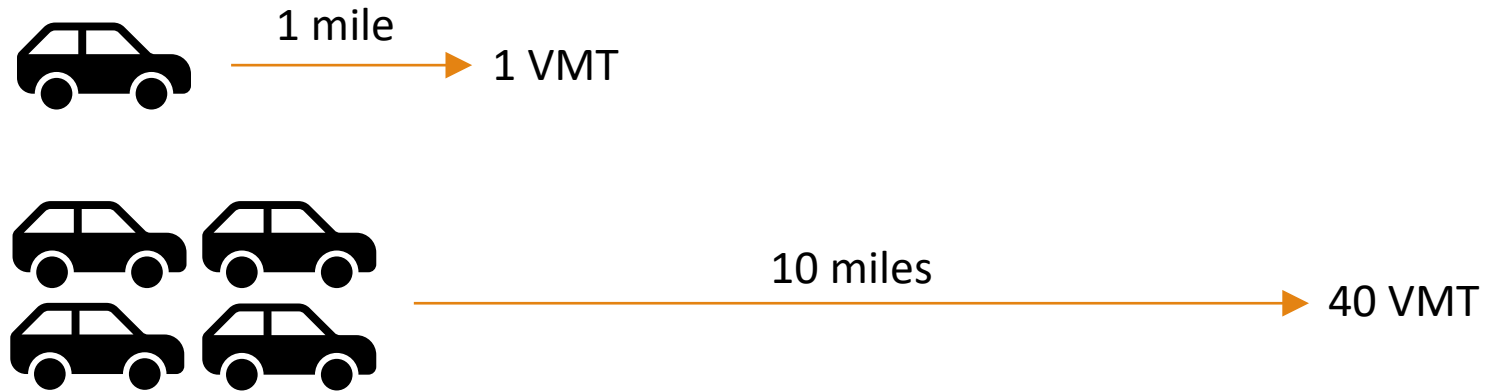
- How do crosstown connectors serve Police and Fire within Petaluma?

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
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- Emergency Services

Climate

What is Vehicle Miles Traveled (VMT)?



Key City policies related to VMT:

- Climate Emergency Framework
- SB 743 Implementation Guidelines

Per SB 743 Guidelines: A transportation project would result in a significant impact if it "*results in induced travel and an increase in citywide VMT*"

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
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- Emergency Services

Climate: Vehicle Infrastructure

Based on the Sonoma County Travel Model, the vehicle-oriented portion of the crosstown connectors would:

- Reduce vehicle trip length for neighborhoods along Rainier or Caulfield
- Potentially induce some additional vehicle travel due to additional vehicle capacity (per Caltrans guidance)
- No substantial change to Citywide VMT associated with the roadways

	Total Citywide VMT	% Change
Existing	1,103,300	-
Caulfield Only	1,103,300	0%
Rainier Avenue Only	1,102,000	-0.1%
Caulfield and Rainier	1,102,100	-0.1%

Note: Existing land uses are based on 2019 land uses plus Riverfront and 500 Hopper developments, which were added to support the evaluation of Caulfield Bridge / Southern Crossing given the near-term nature of the projects. No land uses were included along Rainier Avenue Extension.

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
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- Emergency Services

Climate: Active Transportation

What role does bicycle and pedestrian infrastructure play in climate goals?



Some considerations:

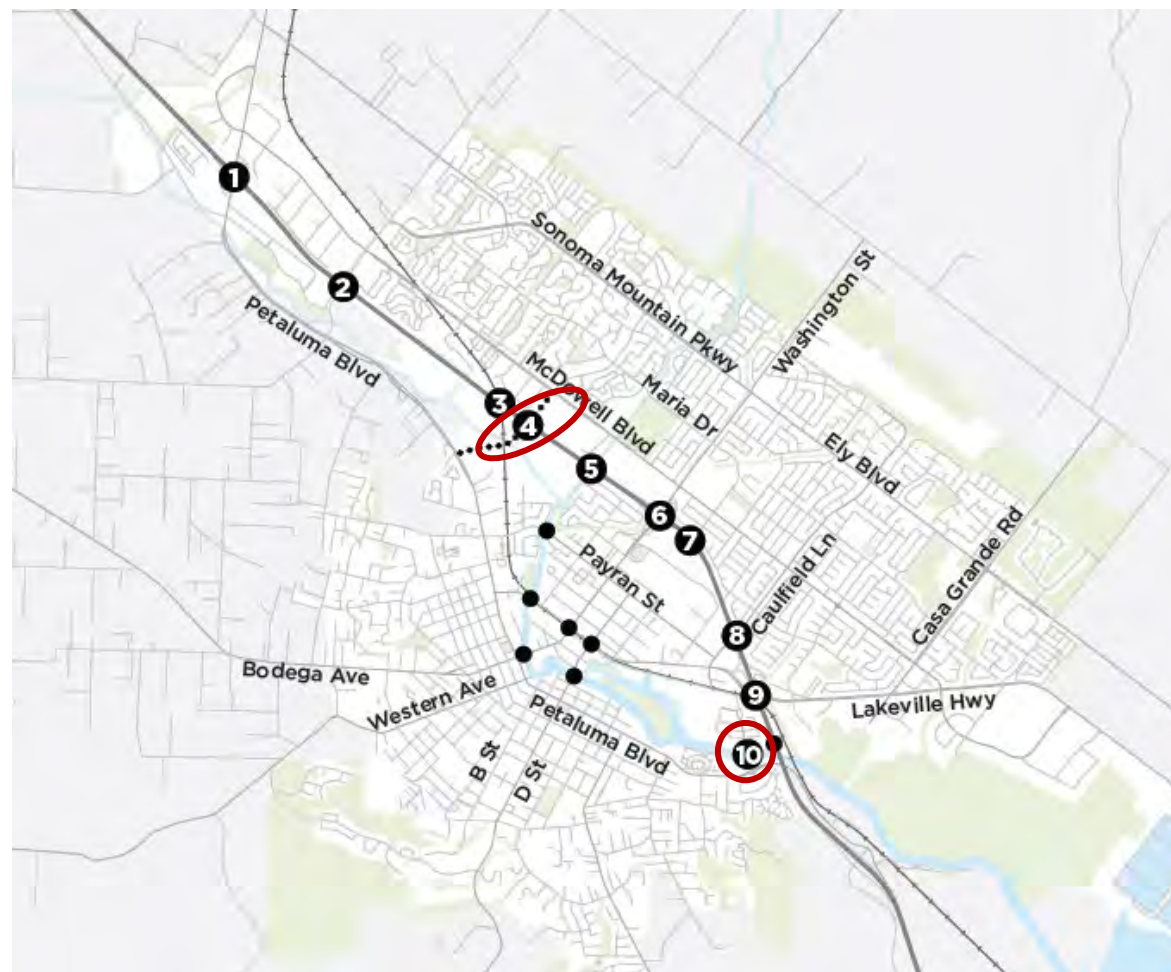
- Any crosstown connector that can contribute to a safe, citywide bicycle and pedestrian network can help reduce VMT, although individually their contribution to citywide VMT would likely be very small.
- Achieving meaningful VMT reductions will require a transformative rethinking of Petaluma's transportation system to create a safe and connected network for people walking and bicycling.

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
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- Emergency Services

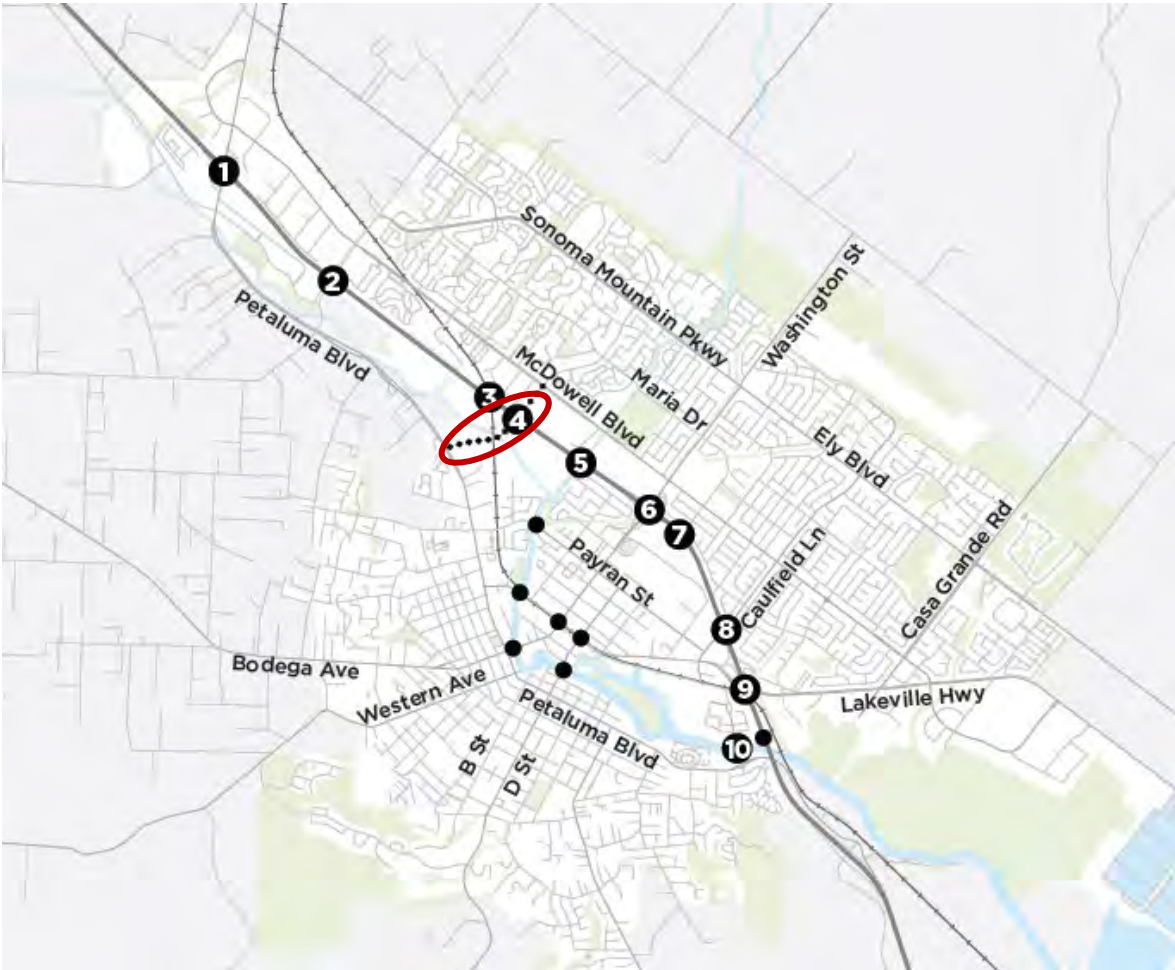
Traffic Changes

- Sonoma County Travel Model calibrated to 2019 conditions
- Evaluate changes to traffic volumes due to the Rainier Avenue Extension and Caulfield Bridge / Southern Crossing



Traffic Changes: Rainier Ave Extension

How might roadway volumes change on crosstown connectors if Rainier Avenue Extension was built?



- Largest effect on Corona Road with shorter trips for people living and working north of East Washington.
- 5 to 10% change on other roadways.
- Four-lane Rainer modeled. Volumes within capacity if two-lane Rainier is built.

	Existing Daily Traffic Over US-101	Daily Traffic With Rainier Ext. (% change) ²
1. Old Redwood Highway	18,000	16,500 (-8%)
2. Corona Road	14,000	11,000 (-22%)
4. Rainier Avenue Extension	-	17,000 (N/A)
6. East Washington Street	19,000 to 24,000	18,000 to 23,000 (-5%)
8. Caulfield Lane over US-101	11,000	10,000 (-8%)
9. Lakeville Highway	20,000	18,500 (-8%)
10. Caulfield Bridge/ Southern Crossing	-	-

Notes:

1. Based on SCTA travel demand model for existing conditions with the addition of Riverfront and 500 Hopper developments to support the evaluation of Caulfield Bridge / Southern Crossing.

2. Percent and daily traffic volumes are rounded and may not add up as they are representative of the traffic volume changes on these crosstown connectors.

Traffic Changes : Caulfield Bridge/Southern Crossing

How might roadway volumes change on crosstown connectors if Caulfield Bridge / Southern Crossing is built?



- Serves local traffic patterns on Caulfield, Lakeville, D Street, and Petaluma Boulevard adjacent to the connector.

	Existing Daily Traffic Over US-101 ¹	Daily Traffic With Caulfield Bridge (% change) ²
1. Old Redwood Highway	18,000	18,000 (0%)
2. Corona Road	14,000	14,000 (0%)
4. Rainier Avenue Extension	-	-
6. East Washington Street	19,000 to 24,000	18,800 to 23,800 (-1%)
8. Caulfield Lane over US-101	11,000	12,000 (+9%)
9. Lakeville Highway	20,000	22,000 (+9%)
10. Caulfield Bridge / Southern Crossing	-	13,000 (N/A)

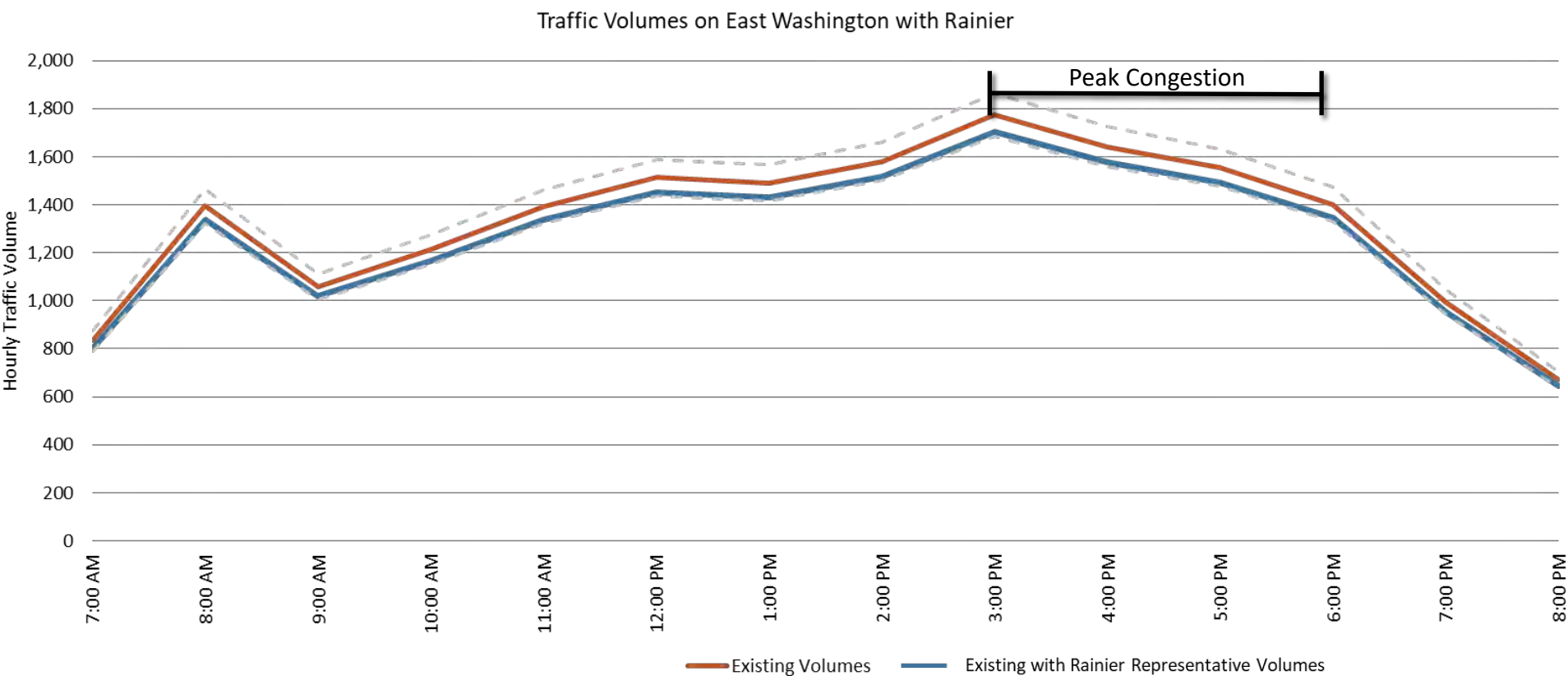
Notes:

1. Based on SCTA travel demand model for existing conditions with the addition of Riverfront and 500 Hopper developments to support the evaluation of Caulfield Bridge / Southern Crossing.

2. Percent and daily traffic volumes are rounded and may not add up as they are representative of the traffic volume changes on these crosstown connectors.

Traffic Changes: E. Washington Street

How would traffic on Washington Street feel with Rainier Avenue Extension?



Traffic volumes typically fluctuate by 5-10% on a daily basis (shown in dotted lines)

SCTA model estimates that East Washington volumes could reduce by approximately 5%

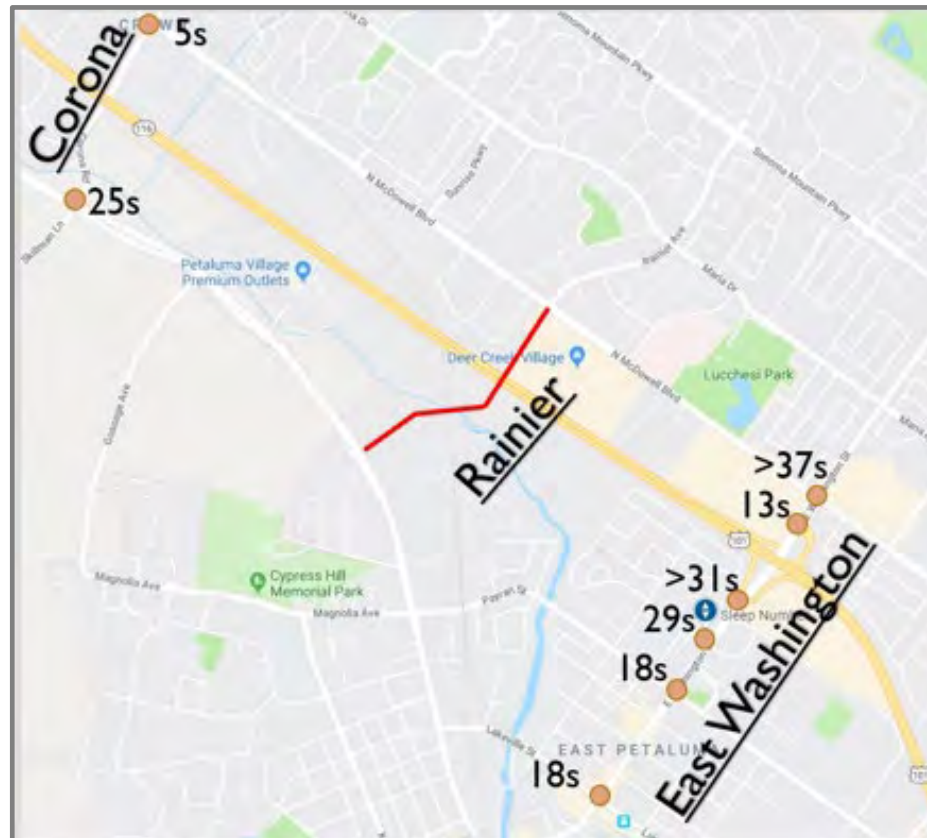
Traffic congestion that currently starts extends from 3pm to early evening may start later

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services

Rainier Avenue Extension Effects: Level of Service (LOS)

- Numbers indicate the reduction in delays under the worst period of traffic from future year forecasted conditions in Rainier EIR
- Time saved for drivers during other times of day would be less



Corona

- Up to 30 Seconds saved during worst case traffic conditions

East Washington

- Up to 2.5 Minutes saved during worst case traffic conditions

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services

Accessibility

Accessibility measures the overall connectivity of the transportation network – how far do people need to travel to access destinations (school, shopping, work, etc.)?

- If safe and comfortable facilities are available, how many **households and employees** would be within a:
 - 10-minute walk (1/2 mile)?
 - 20-minute walk (1 mile)?*
- Which connectors provide **safe and comfortable** connections across Petaluma?
- Which connectors provide the greatest benefit to **disadvantaged communities** within Petaluma?

*The crosstown connector walksheds serve to illustrate connectivity between neighborhoods and is different than the 15-minute neighborhood concept, which would concentrate local amenities in existing neighborhoods.

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services

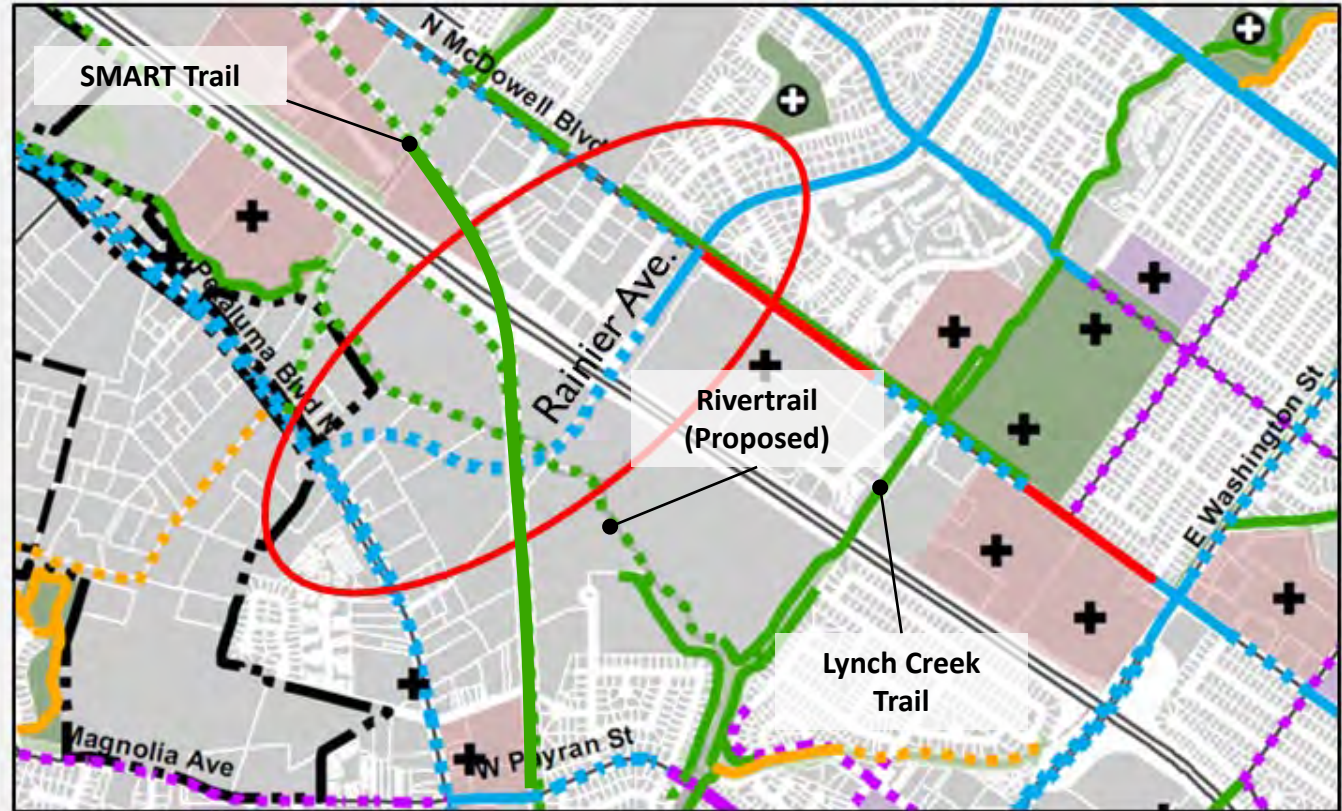


Image from Figure 5-2 of General Plan Bicycle Facilities

- Class II bike lanes were proposed in current GP
- Connects McDowell Blvd. with Petaluma Blvd.
 - Existing alternatives: SMART Trail, Lynch Creek Trail
- Connects with SMART Trail and would connect with Lynch Creek Trail via planned Rivertrail segment

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services

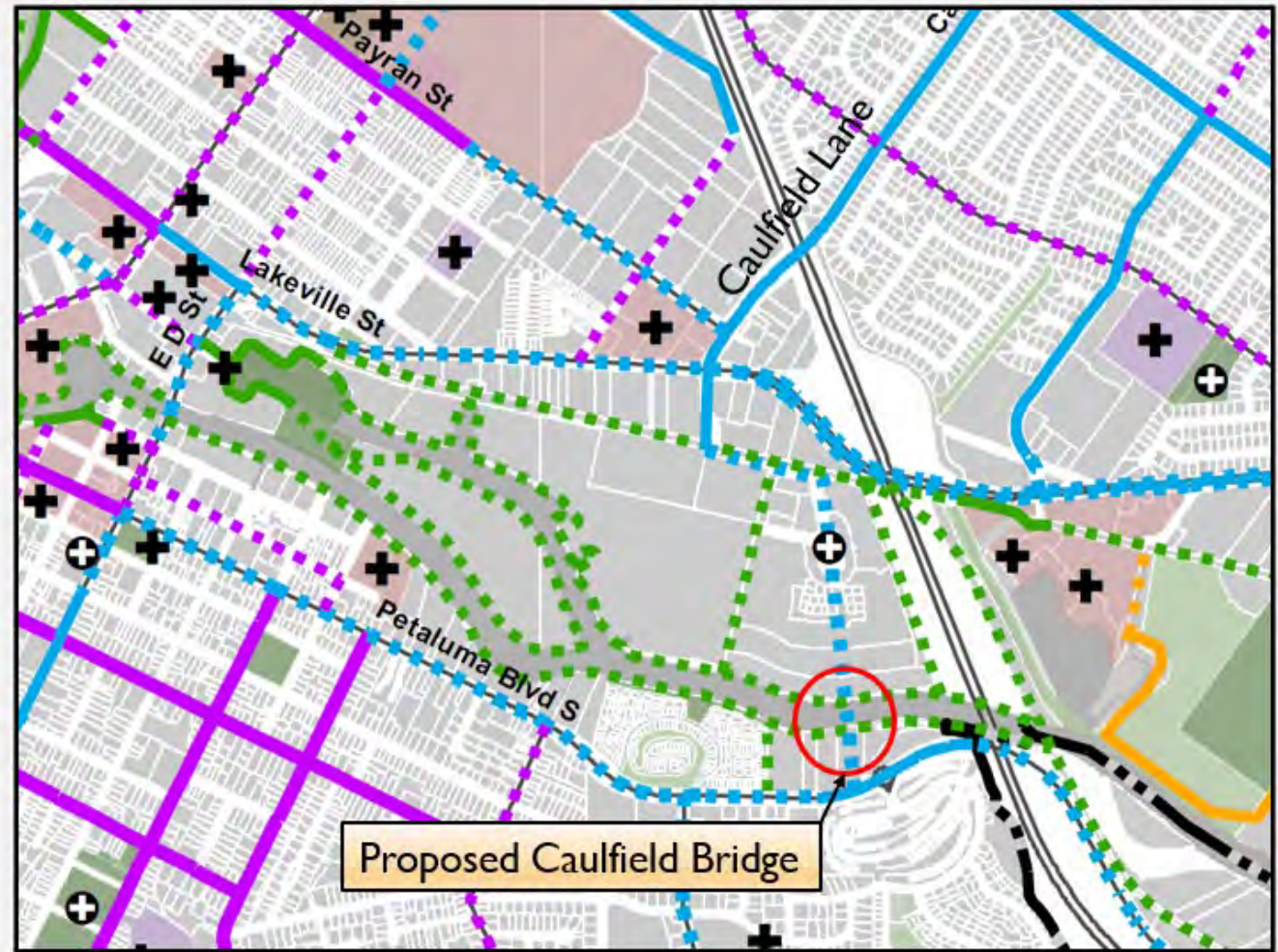
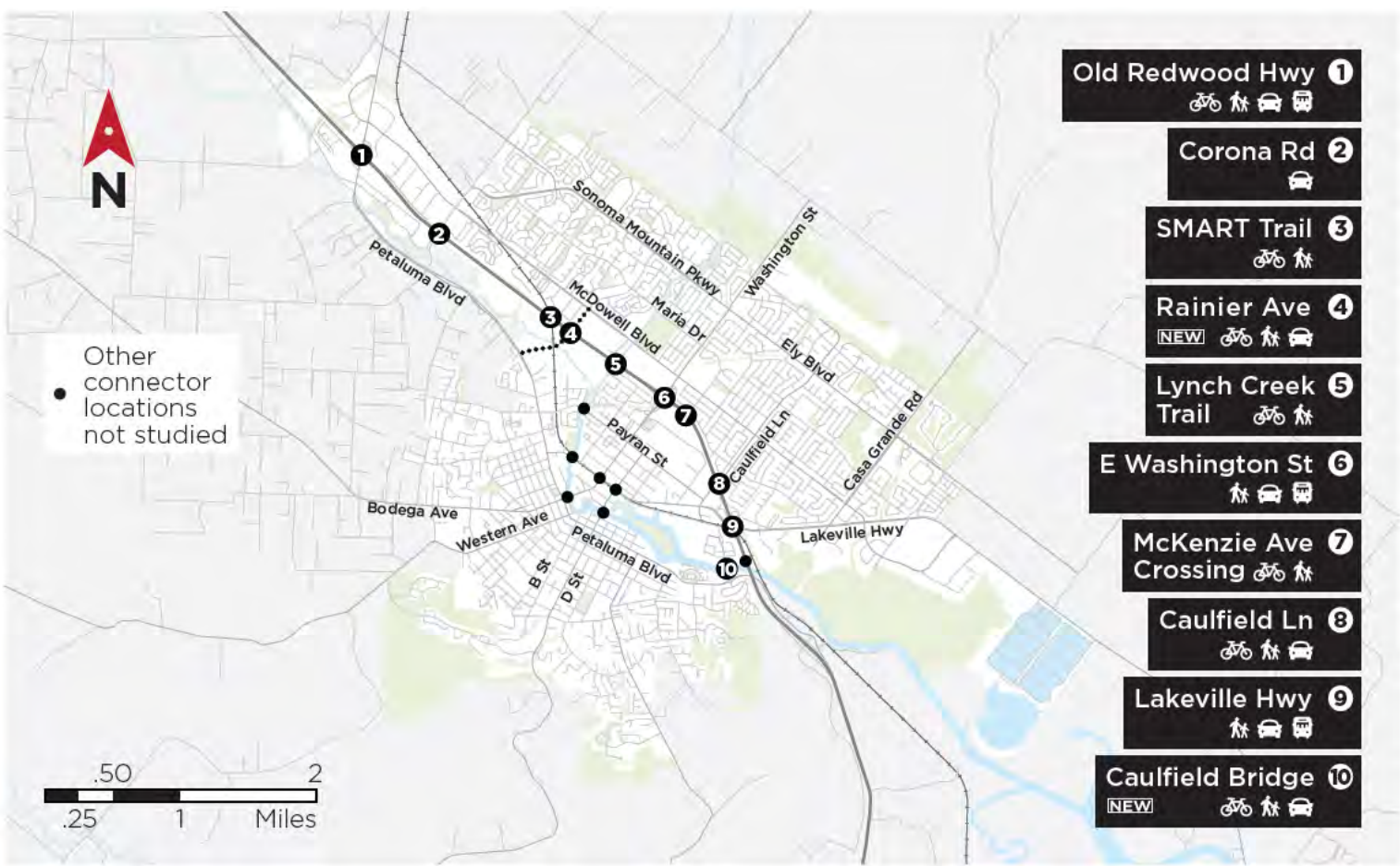


Image from Figure 5-2 of General Plan Bicycle Facilities

- Currently 2.5 mile trip to cross river at proposed bridge site (via Petaluma Blvd. S., D St., Hopper St.)
- New preferred alternative would include Class I facilities

Accessibility Analysis: Households & Jobs

Which connectors would provide access for the most residents & employees?



Connectors more central in Petaluma provide the most connectivity for residents and employees.

Crosstown Connector		Households	Jobs
1	Old Redwood Hwy	240	5,480
2	Corona Road	1,070	4,370
3	SMART Trail	1,820	2,610
4	Rainier Avenue	2,520	3,350
5	Lynch Creek Trail	3,020	3,990
6	East Washington Street	4,170	4,630
7	McKenzie Bridge	3,970	3,510
8	Caulfield Lane*	4,130	4,140
9	Lakeville Highway*	3,010	3,620
10	Caulfield Bridge*	3,030	2,880

Sources: Parcel and LEHD data from 2019
* Includes Riverfront and 500 Hopper developments

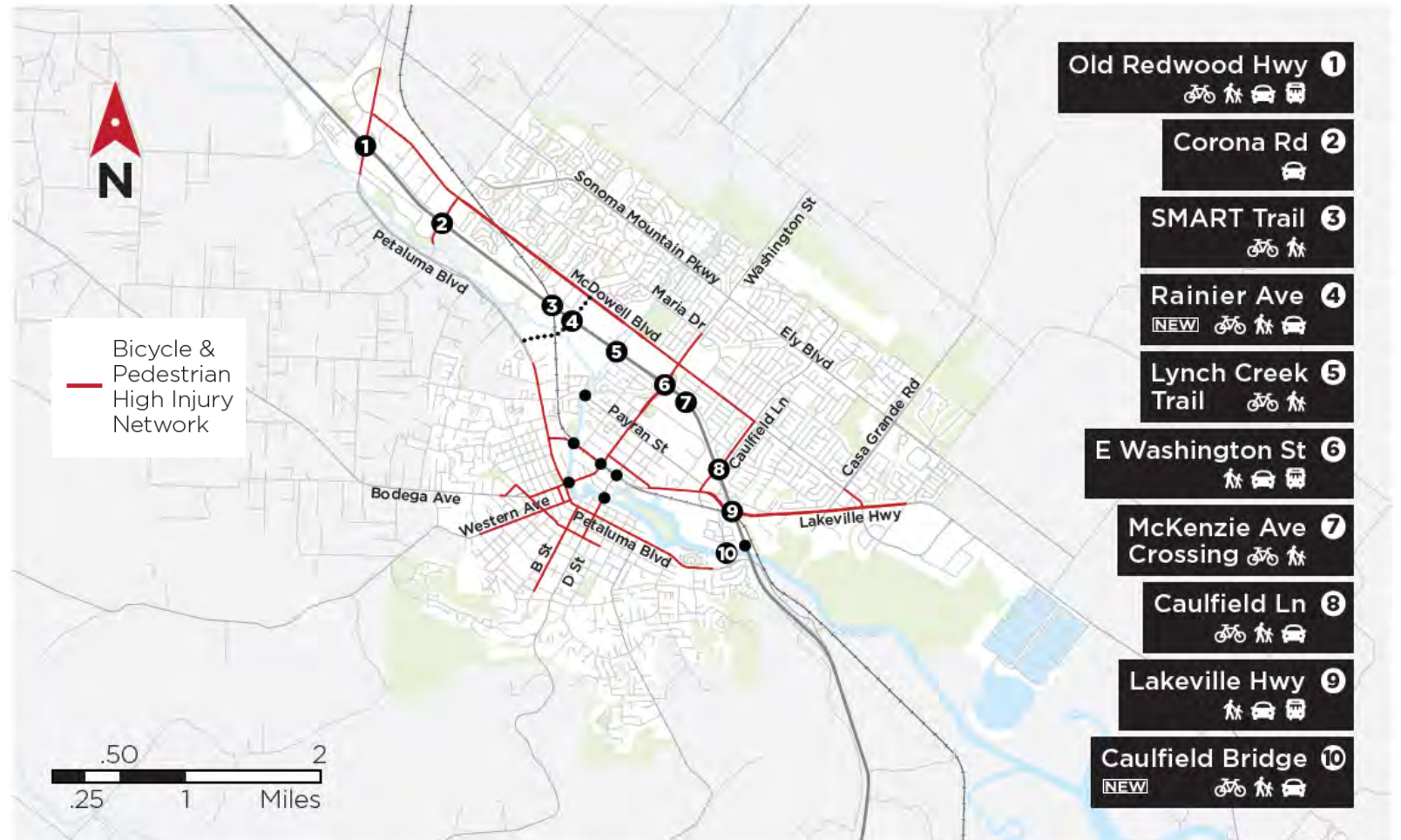
Accessibility Analysis: Safety & Comfort

Which connectors provide **safe and comfortable** connections across Petaluma?

High Injury Network roadways were identified* based on the history of collisions, and are roadways where people walking or bicycling are at higher risk.

With the exception of trails and the McKenzie bridge, **all existing crosstown connectors are on the High Injury Network**. Each of these connectors is also a high-stress** roadway for people bicycling.

*Identified through the Sonoma County Vision Zero Action Plan and Petaluma Active Transportation Plan
**high vehicle volumes and speeds, unprotected or no bike facilities



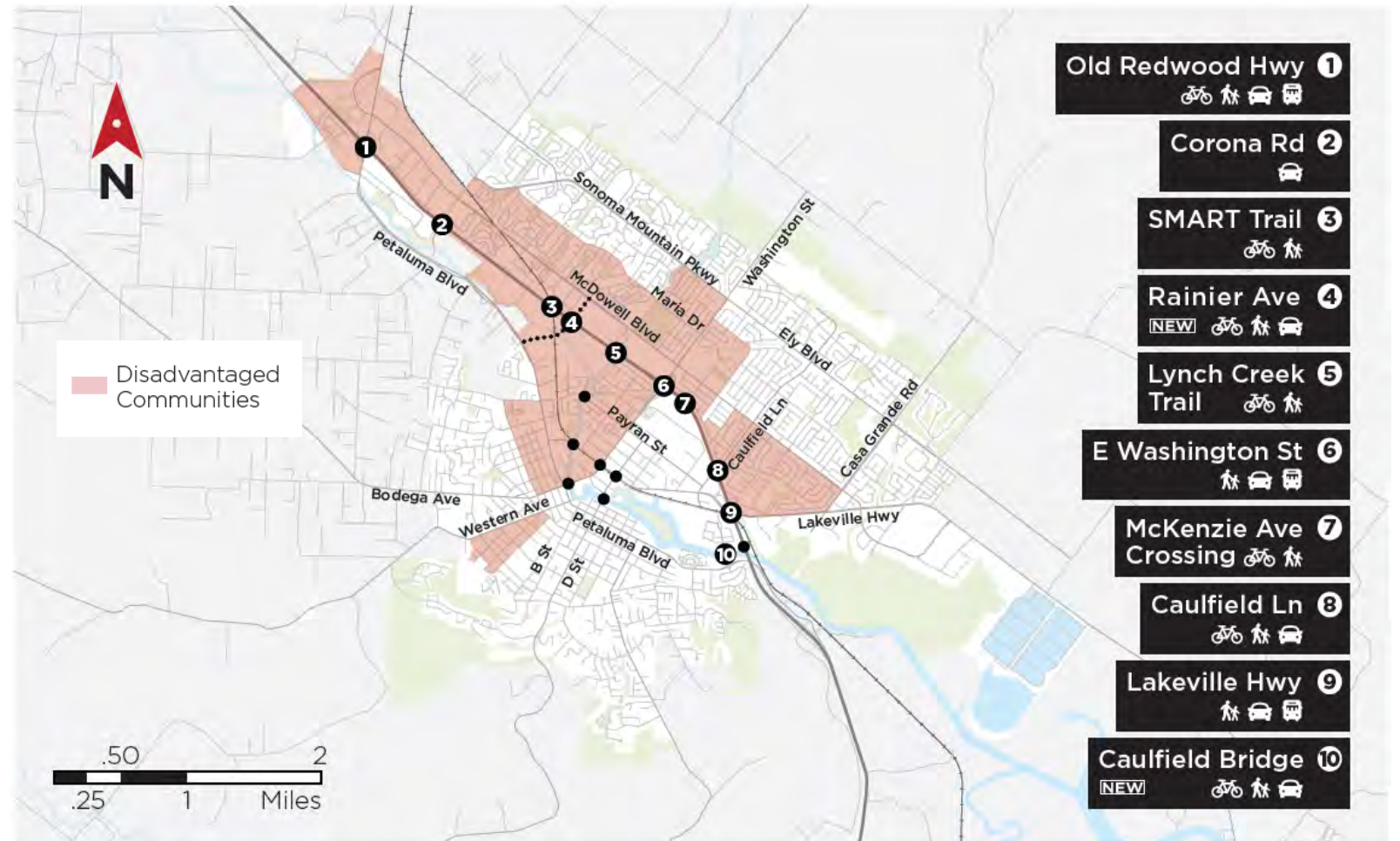
Accessibility Analysis: Disadvantaged Communities

Which connectors provide the greatest benefit to **disadvantaged communities** within Petaluma?

Disadvantaged communities (DACs) were identified through the General Plan Update* based on a combination of socioeconomic factors, exposure to pollutants, health outcomes, and access to public facilities.

DACs in Petaluma are concentrated along US-101. Reducing VMT/GHG reduces exposure to air pollutants, and providing safe and comfortable facilities for walking and biking improves accessibility.

*Health and Environmental Justice Existing Conditions Assessment



CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



1. Old Redwood Highway



Households (20-minute walk, 1 mile)	240
Jobs (20-minute walk, 1 mile)	5,480
High Injury Network	Yes
Level of Traffic Stress	High
Disadvantaged Community	Yes

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



2. Corona Road



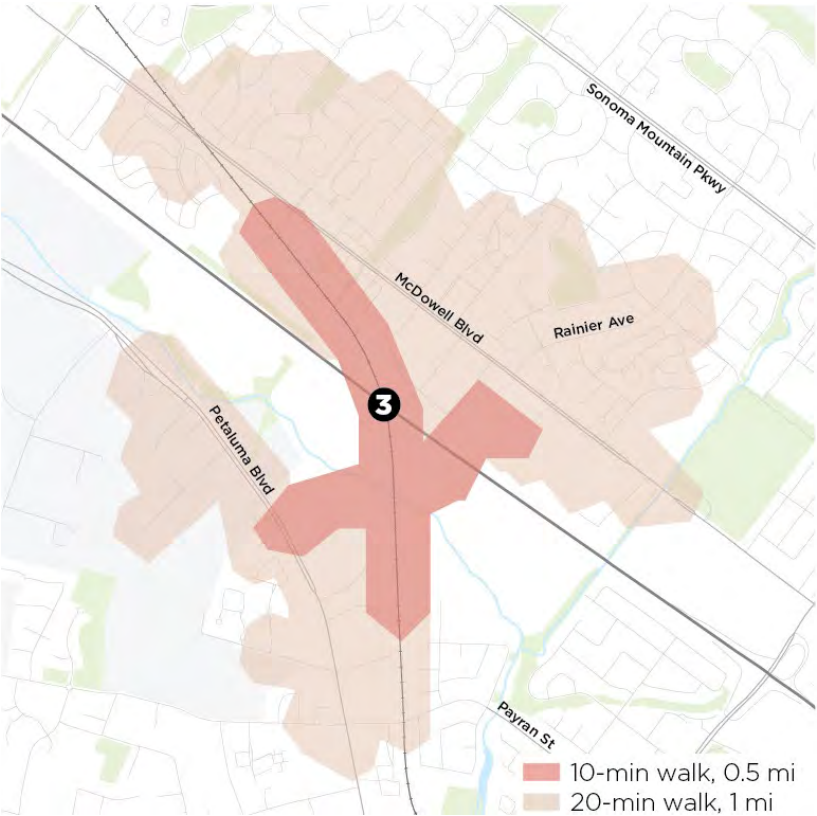
Households (20-minute walk, 1 mile)	1,070
Jobs (20-minute walk, 1 mile)	4,370
High Injury Network	Yes
Level of Traffic Stress	High
Disadvantaged Community	Yes

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



3. SMART Trail



Households* (20-minute walk, 1 mile)	1,820
Jobs* (20-minute walk, 1 mile)	2,610
High Injury Network	-
Level of Traffic Stress**	Low
Disadvantaged Community	Yes

*Includes access from a new bike/ped connection at Rainier Avenue.

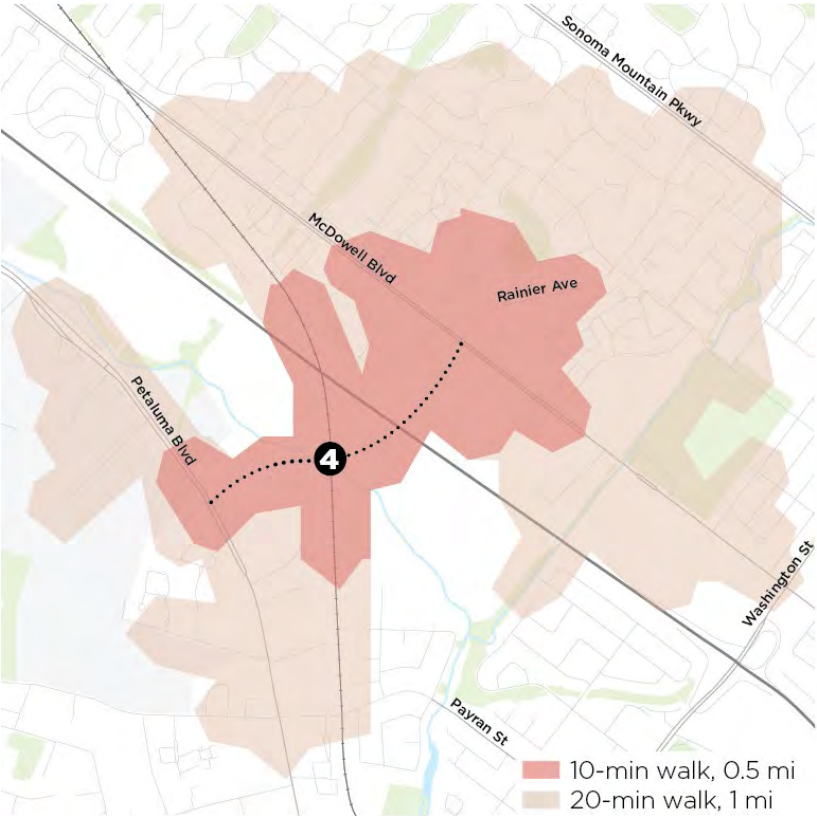
**At US-101; crossings with other major roadways may be higher stress

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



4. Rainier Avenue



Households* (20-minute walk, 1 mile)	2,520
Jobs* (20-minute walk, 1 mile)	3,350
High Injury Network	N/A
Level of Traffic Stress**	Med-High
Disadvantaged Community	Yes

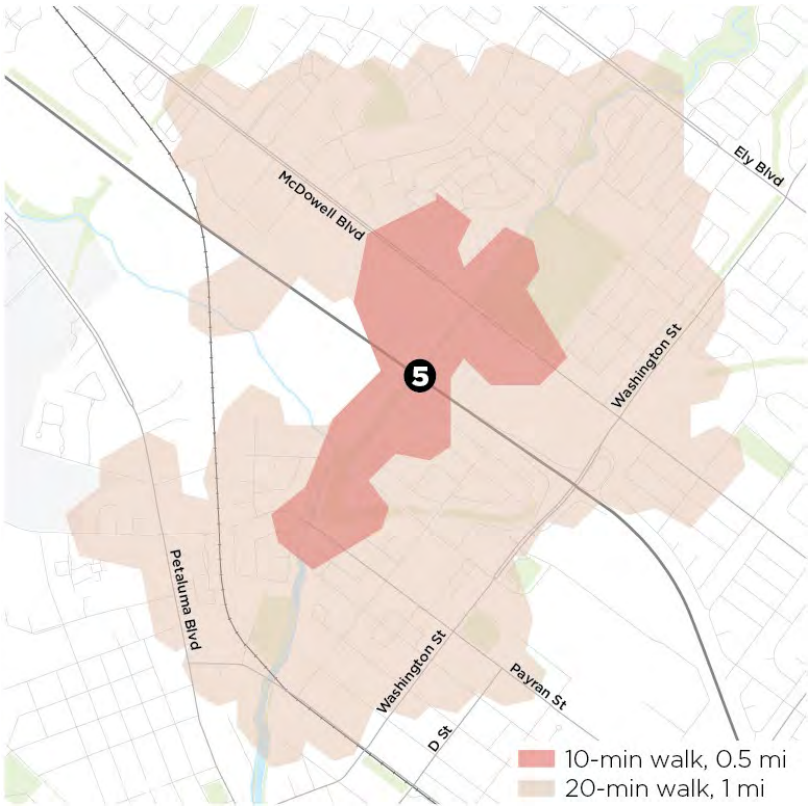
*Does not included potential future development
**Based on proposed design with Class II bike lanes

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



5. Lynch Creek Trail



Households (20-minute walk, 1 mile)	3,020
Jobs (20-minute walk, 1 mile)	3,990
High Injury Network	-
Level of Traffic Stress*	Low
Disadvantaged Community	Yes

*At US-101; crossings with other major roadways may be higher stress

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



6. East Washington Street



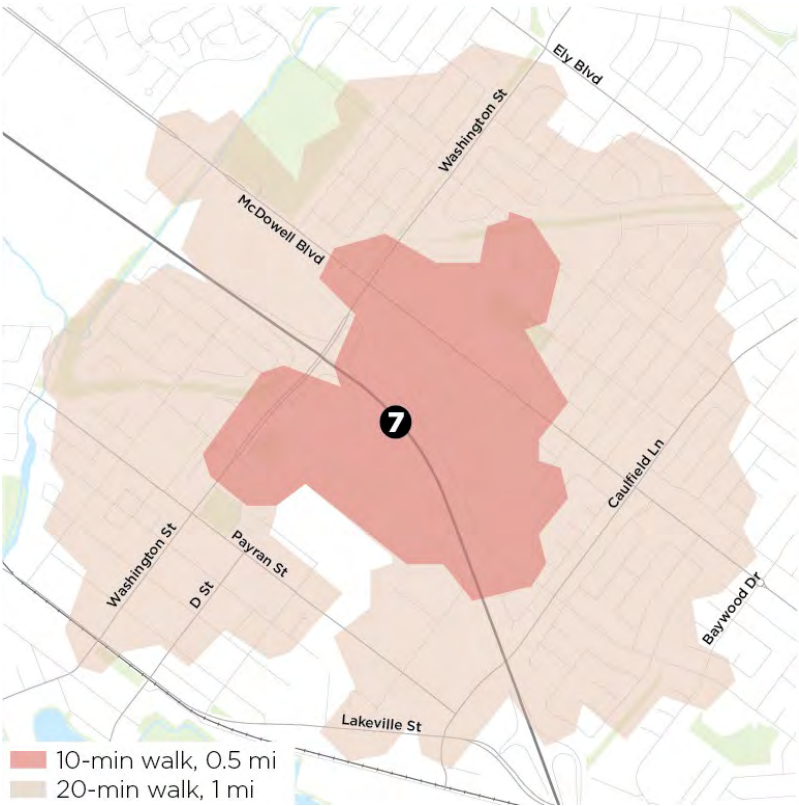
Households (20-minute walk, 1 mile)	4,170
Jobs (20-minute walk, 1 mile)	4,630
High Injury Network	Yes
Level of Traffic Stress	High
Disadvantaged Community	Yes

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



7. McKenzie Ave Bridge



Households (20-minute walk, 1 mile)	3,970
Jobs (20-minute walk, 1 mile)	3,510
High Injury Network	-
Level of Traffic Stress*	Low
Disadvantaged Community	Yes

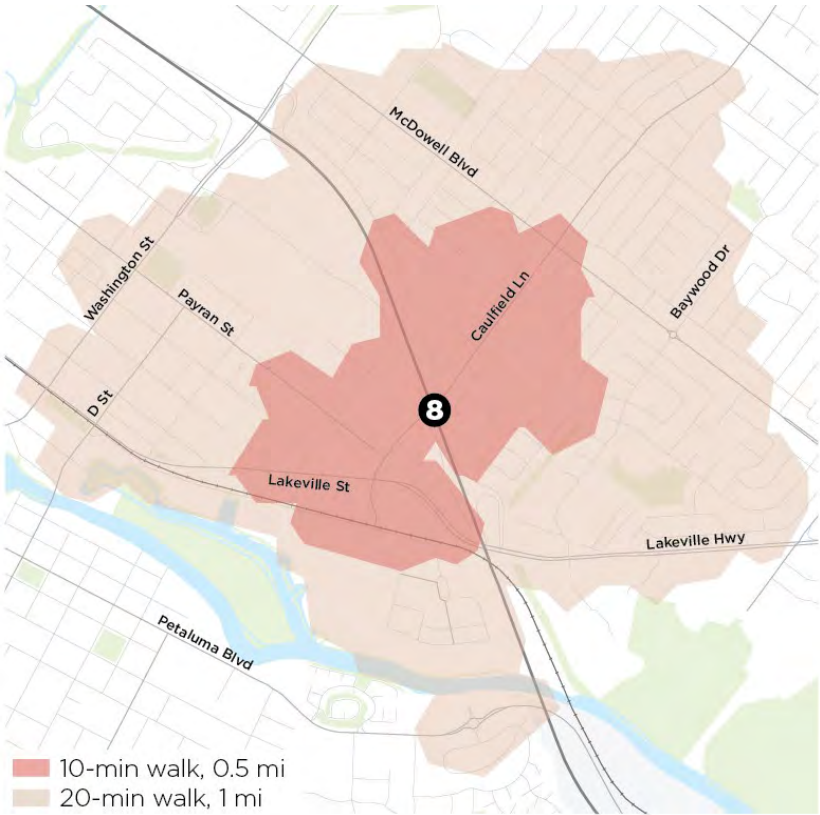
*At US-101; crossings with other major roadways may be higher stress

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



8. Caulfield Lane



Households* (20-minute walk, 1 mile)	4,130
Jobs* (20-minute walk, 1 mile)	4,140
High Injury Network	Yes
Level of Traffic Stress	High
Disadvantaged Community	Yes

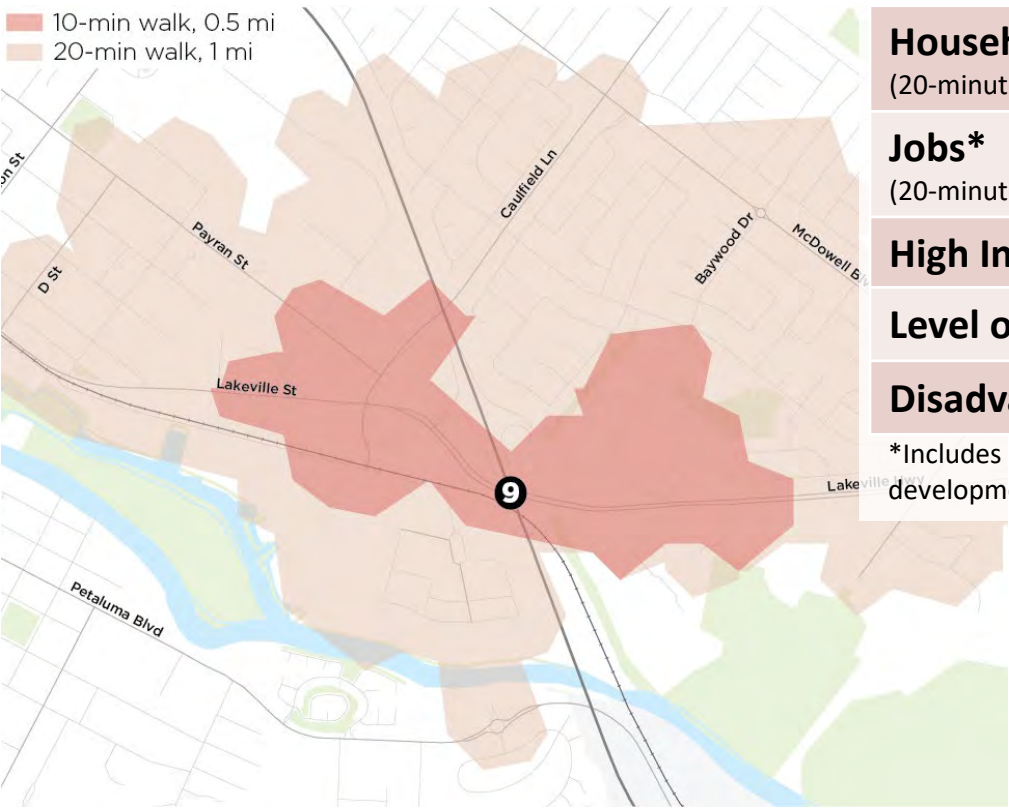
*Includes planned Riverfront and 500 Hopper Street developments

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



9. Lakeville Highway



Households* (20-minute walk, 1 mile)	3,010
Jobs* (20-minute walk, 1 mile)	3,620
High Injury Network	Yes
Level of Traffic Stress	High
Disadvantaged Community	Yes

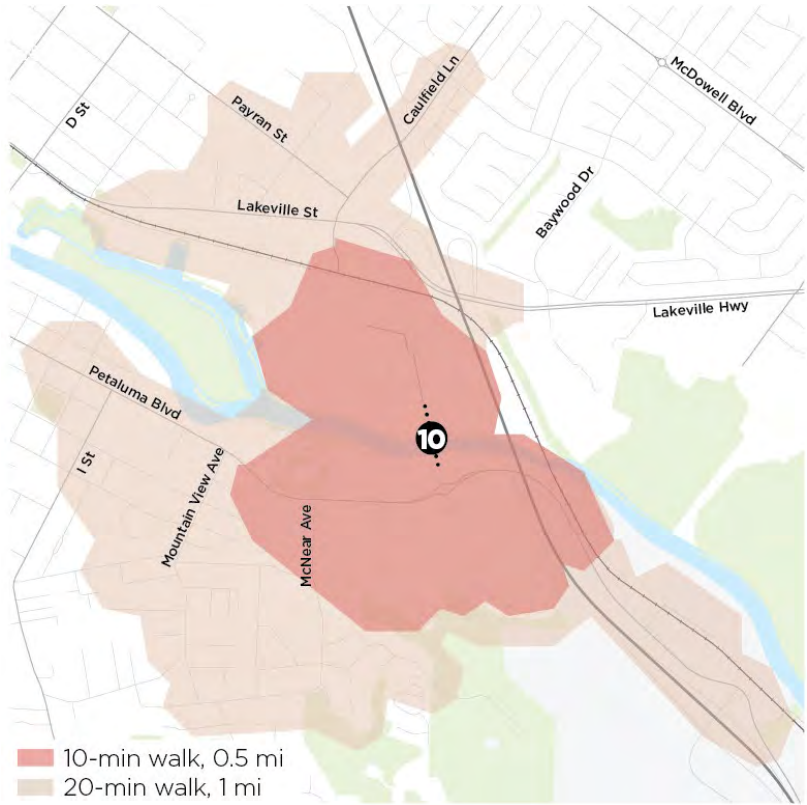
*Includes planned Riverfront and 500 Hopper Street developments

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services



10. Caulfield Bridge



Households* (20-minute walk, 1 mile)	3,030
Jobs* (20-minute walk, 1 mile)	2,880
High Injury Network	N/A
Level of Traffic Stress**	(Low-Med)
Disadvantaged Community	Yes

*Includes planned Riverfront and 500 Hopper Street developments
**Based on a 2-lane roadway, depends on traffic speed and bike facilities

CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
- Accessibility
- Transit Service
- Emergency Services

Transit Service

Rainier Avenue Crosstown Connector

- Improved, faster connections between N. McDowell Blvd & Petaluma Blvd N
- Would need additional destinations and activity along proposed corridor to justify fixed route service

Caulfield Bridge/Southern Connector

- Potential for new service to Riverfront and 500 Hopper developments, connecting east Petaluma to Petaluma Blvd. South
- Improved connections from West Petaluma to Kaiser Hospital, Casa Grande High School and Cypress Drive business park area

Washington Street

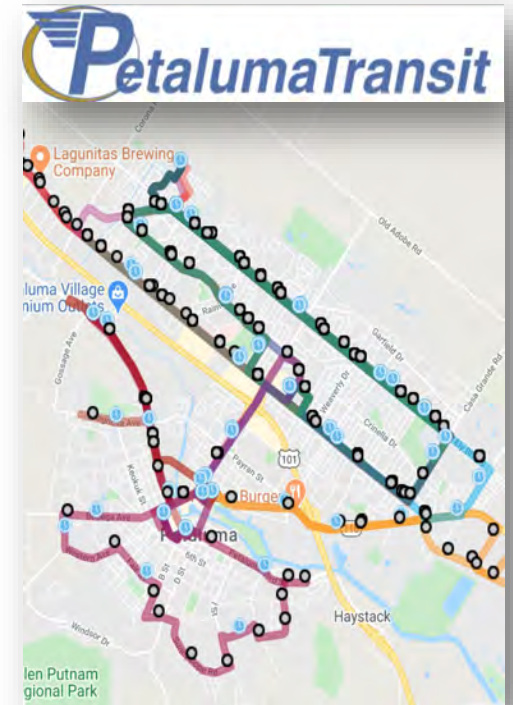
- Primary crosstown connector given central location, higher density along route, serving multiple destinations, variety of land use types
- Improved service levels anticipated in the near term

Corona Road

- Additional connections to SRJC campus once Corona SMART station is completed (estimated 2023-2024)

Microtransit & Paratransit Services

- Alternatives in all areas will provide opportunities for microtransit/shuttles
- Additional connections will help with paratransit services reduced trip times



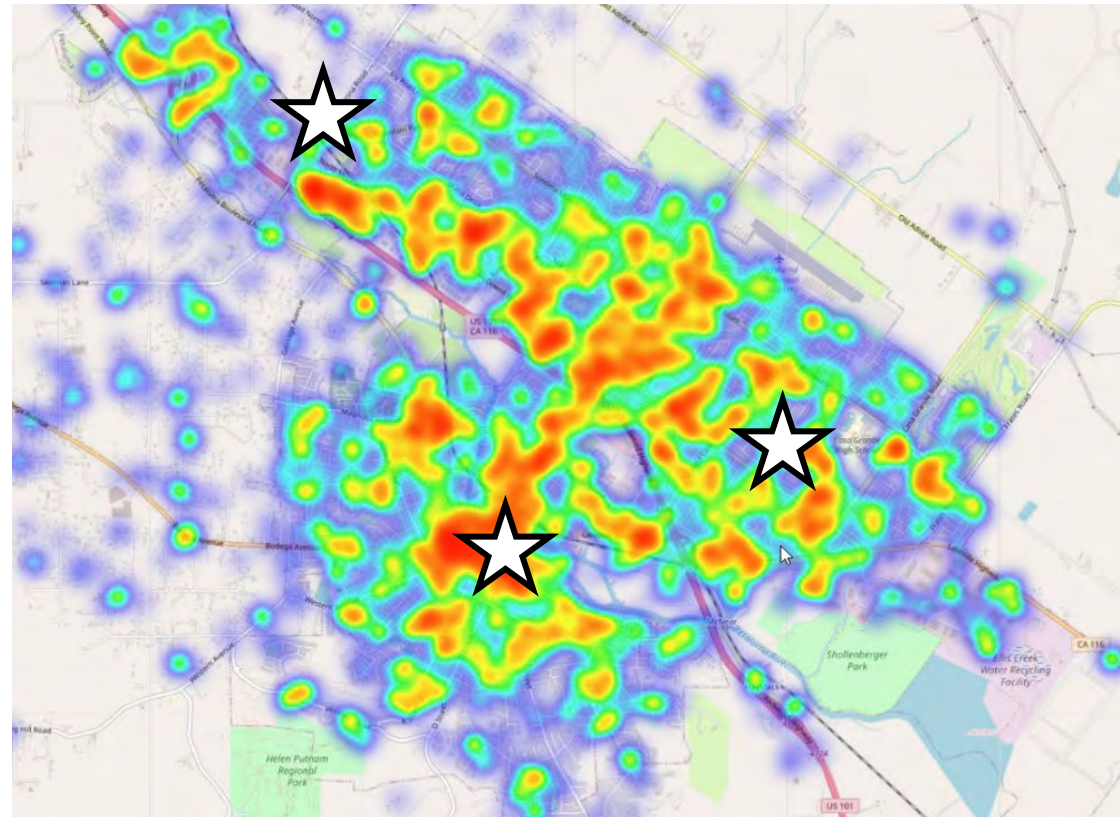
CROSSTOWN MOBILITY ANALYSIS

- Climate
- Traffic Changes
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Emergency Services

Fire Department

- With existing station locations:
 - Fire service response times could improve with Caulfield Bridge/Southern Crossing due to concentration of calls on the east side of Petaluma and existing location of stations
 - Rainier Avenue unlikely to be heavily used due to locations of stations and limited calls in West Petaluma near where Rainier would connect
- 2022 Heat Map of Fire Service Calls



★ Station location

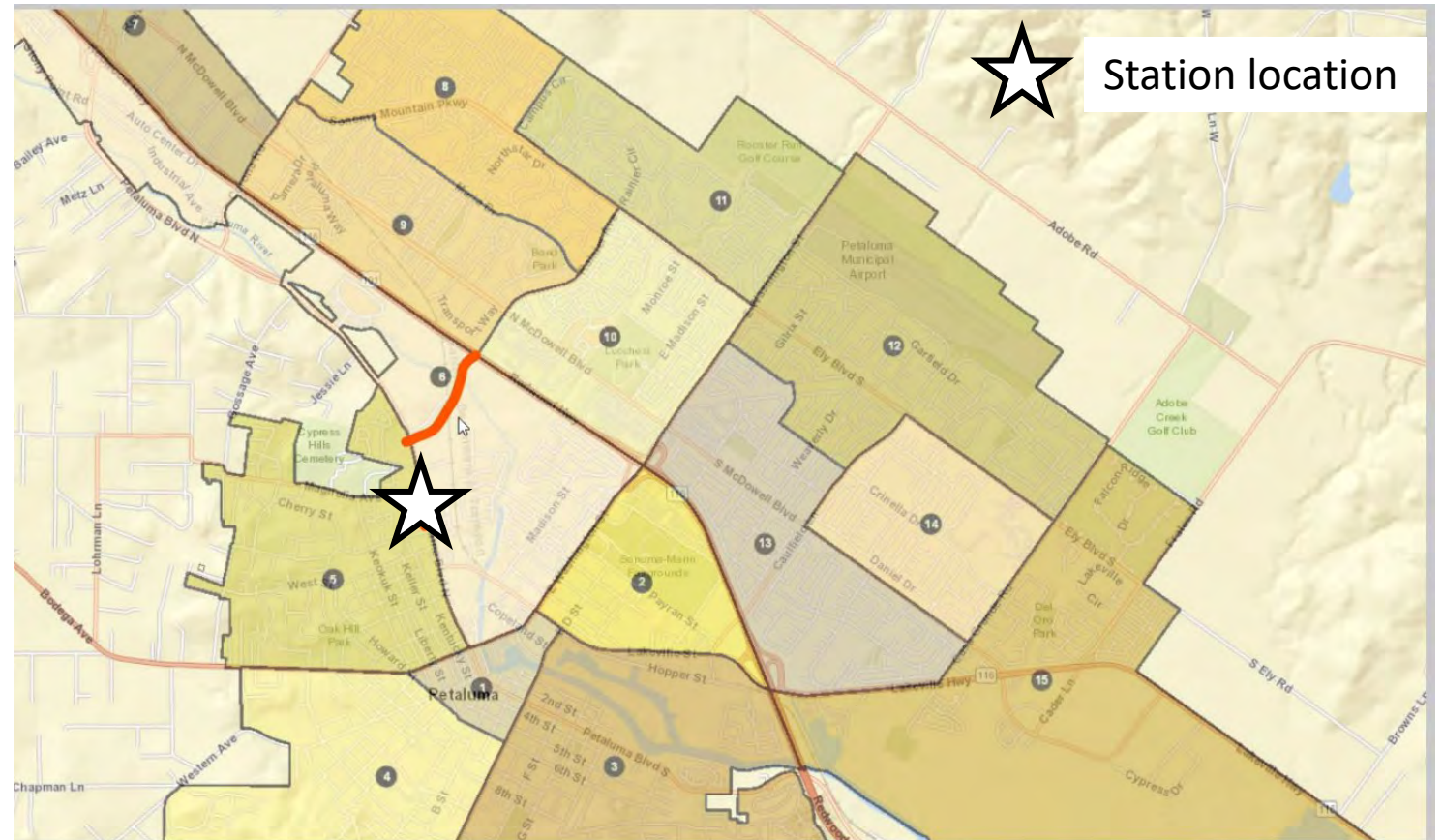
CROSSTOWN MOBILITY ANALYSIS

- Climate
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Emergency Services

Police Department

- Rainier Avenue would shorten response times in serving east Petaluma
- Less benefit from Caulfield Bridge/Southern Crossing due to existing location



OVERVIEW

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FINANCIAL CONSIDERATIONS

- Traffic Impact Fees
- Grant Funding

Traffic Impact Fee (TIF) Program Update

- \$32.7M Current Balance
- \$2M/yr. Estimated Average Annual TIF Contribution
 - Based on historical trends
 - Projections are as follows:
 - FY 30 - \$47.4M
 - FY 40 - \$68.4M
 - FY 50 - \$89.4M
- The following developments comprise anticipated FY 22/23 revenue:

Project Names	Anticipated Fees
RESIDENTIAL	
PEP Housing (54 units)	\$248,724.00
North River Apartments (River Building -- 83 units)	\$816,886.00
North River Apartments (Blvd Building -- 101 units)	\$994,042.00
North Bank at Riverfront (25 units)	\$400,875.00
MidPen (44 units)	\$175,806.00
Total Residential	\$2,636,333.00

- Potential pipeline projects:
 - Labcon Expansion – Anticipated future TIF of \$2.5M

Traffic Impact Fees: Funding Summary

FINANCIAL CONSIDERATIONS

- Traffic Impact Fees
- Grant Funding

	RAINIER AVENUE	CAULFIELD BRIDGE/ SOUTHERN CROSSING (BASE ALT)	CAULFIELD BRIDGE/ SOUTHERN CROSSING (PREFERRED ALT)
FUNDING NEEDED	\$92.3M	\$48.52M	\$44.86M

- Current TIF Balance: **\$32.7M**
- Estimated Annual TIF Revenue: \$2M per year
- Important Notes:
 - Only the costs of Rainier and Caulfield can be 100% allocated to new development
 - Those projects are only needed for cumulative traffic impacts
 - Improvements to existing crosstown connectors need to have other funding sources to supplement TIF
 - For example: Corona, Old Redwood, and E. Washington

FINANCIAL CONSIDERATIONS

- Traffic Impact Fees
- Grant Funding

Grant Funding

- Working closely with SCTA and continuously tracking federal and state programs
- Numerous grants are available for active transportation
- Currently, roadway expansion/new construction projects are challenging
- No regionally-designated Equity Priority Communities in Petaluma



OVERVIEW

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Potential Next Steps/ Council Consideration

Existing Connectors

- Continue enhancing Active Transportation and implementing safety enhancements as planned and in accordance with the adopted CIP

Caulfield Bridge/Southern Crossing

- Move forward with design & environmental work
 - Feasible construction 2025/2026

Rainier Avenue Connector

- Move forward with existing design and property acquisition
 - Feasible construction 2027/2028
- Move forward with exploring other design options

OVERVIEW

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THANK YOU!

City Council Discussion & Prioritization



CROSSTOWN CONNECTORS

Exploring Options for Enhancing Community Mobility, Safety, and Connectedness