

Covelo/Round Valley Non-Motorized Needs Assessment and Engineered Feasibility Study Presentation of Final Draft to MCOG Board



Lead Agencies:



Consultant Team:



Local
Government
Commission



RAU AND ASSOCIATES INC.

Civil Engineers • Land Surveyors



Today's Objectives

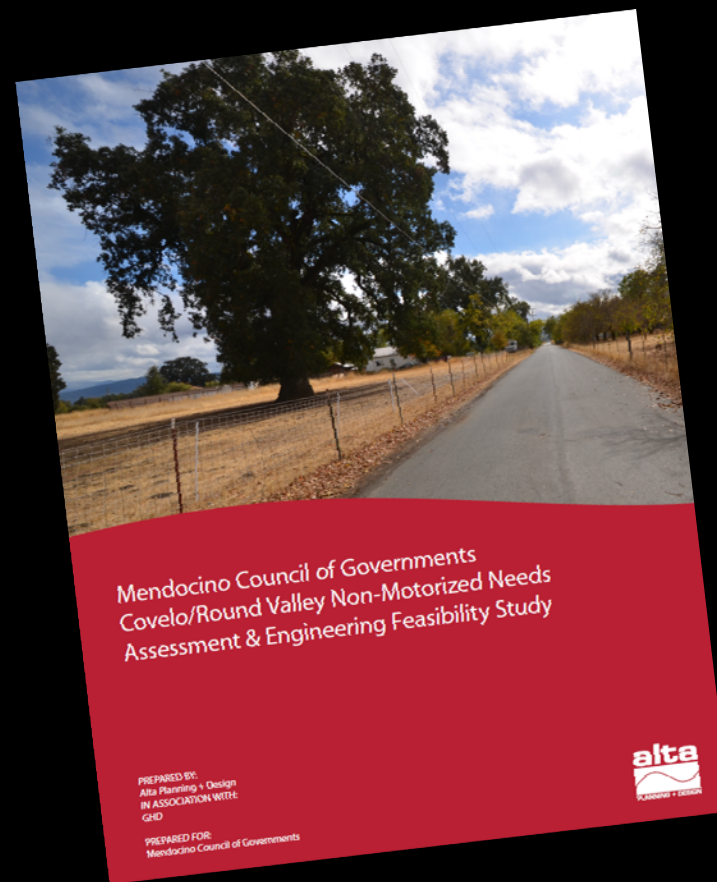
- Review deliverables and the process for their development
- Present draft designs
- Discuss next steps and implementation considerations

Deliverables

- Non-motorized Needs Assessment and Engineering Feasibility Study
- Supporting Technical Studies

Final Draft

Non-Motorized Needs Assessment & Engineering Feasibility Study



Chapter 1: Introduction (Programming and Funding)

- Project programmed through MCOG FY11/12, FY 12/13 & 13/14 OWPs
- Project funded by two Caltrans transportation planning grants
 - \$135,000 Environmental Justice grant, plus \$15,000 in local matching funds (\$9,862 Local Transportation Funds + \$5,138 Planning, Programming & Monitoring funds)
 - \$150,000 State Planning & Research grant

Chapter 1: Introduction (Project Goals)

- Improve bike/ped access to schools, public facilities, and other community centers of activity
- Improve bike/ped safety through most heavily traveled non-motorized corridors
- Develop feasible improvements based on real-world data
- Identify and incorporate community priorities

Chapter 1: Introduction (Planning Process)

- TAG: Guide data collection and review technical documents
- RVIT Council and Staff: Coordination and collaboration
- Public Workshops: February and September 2013



Appendix A: Summary of Public Outreach

Appendix A: Summary of Public Outreach and Engagement

DRAFT

Covele/Round Valley Non Motorized Needs Assessment & Engineering Feasibility Study

October 7, 2013



Chapter 2: Coordination with Other Plans

- Making Safe & Healthy Community Connections in Round Valley (2010)
- Safe Routes to School Project
- Project Study Report (PSR) (2012)
- Mendocino County General Plan (2009)
- Regional Transportation Plan (2010)
- Mendocino County Regional Bikeway Plan (2012)

Chapter 3: Existing Conditions, Opportunities, and Constraints

1. Right-of-Way and Property Ownership
2. Biological Resources
3. Cultural Resources
4. Existing Bike/Ped Facilities
5. Other Existing Conditions

Figure 3-11: Off-Highway Trail Opportunities and Constraints between Henderson Road and SR 162



Appendix E: Survey and ROW Research



Supporting Document 1: Biological Resources





	Habitat-General		Animal Habitat		
		<p>ALL portions of the study have the appropriate habitat to host rare plants and therefore would require protocol level rare plant surveys.</p>			

Paper Size 8.5" x 11" (ANSI A)
 0 50 100 150
 Feet
 Map Projection: Lambert Conformal Conic
 Horizontal Datum: North American 1983
 Contour: NAD 1983 StatePlane California 3 FIPS 5402 Feet

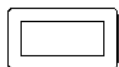
MCOG and Caltrans
 Covelo/Round Valley Non-Motorized
 Needs Assessment & EFS
**Reconnaissance Level
 Biological Investigation**

Job Number | 8410146
 Revision | A
 Date | 11 Jun 2013

718 Third Street Eureka CA 95501 USA T 707 443 8330 F 707 444 8330 E eureka@ghd.com W www.ghd.com

01/24/10 MCOG 410146 MCOG Covelo Round Valley EFS 08-02 Map of general habitat, Wetland, MD, Ditch, new.mxd
 © 2012. While every care has been taken to prepare this map, GHD MCOG and Caltrans make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unusable in any way and for any reason.
 Data sources: Mendocino County parcel data, Caltrans road data; GHD field work: 3/6-6/13 Created by: jkayden

Figure 3-7



Study Area



Round Valley
Parcels

Habitat-General



Biological Restrictions



Riparain Dripline



Sensitive Habitat

Animal Habitat



Rocky Substrate Creek



Bird & Bat Habitat

Plant Habitat

ALL portions of the study have the appropriate habitat to host rare plants and therefore would require protocol level rare plant surveys.

Potential Wetland Location



Palustrine Wetland



Riverine



Palustrine Ditch



Photo Point



Photo Orientation
Field-of-View





Supporting Documents 2 & 3: Cultural Resources



Chapter 4: Design Standards and Guidelines

Design Toolkit – Bikeway/Trail Types

Class I
Path/Trail



Class II Bike
Lane



Class III Shared
Route Marking



Informal
Path/Trail



Design Toolkit – Crossing Treatments

Pedestrian Refuge Island



Ladder Crosswalk



Typical Crosswalk
(Transverse Parallel)



Raised Crosswalk



Design Toolkit – Pedestrian Facilities

Sidewalk with planter strip



Curb Tight Sidewalk



Narrow Shoulder



Wide Shoulder



Design Toolkit – Fixtures and Amenities

Interpretive
Signage



Wayfinding
Signage

Lighting



Fencing



Benches, Trash
Receptacles

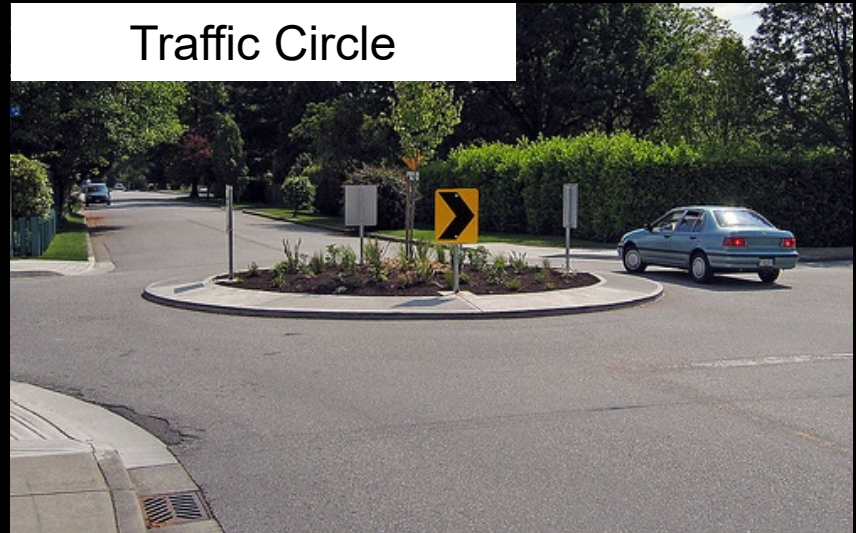


Design Toolkit - Traffic Control/Calming

Curb Bulb-Outs



Traffic Circle



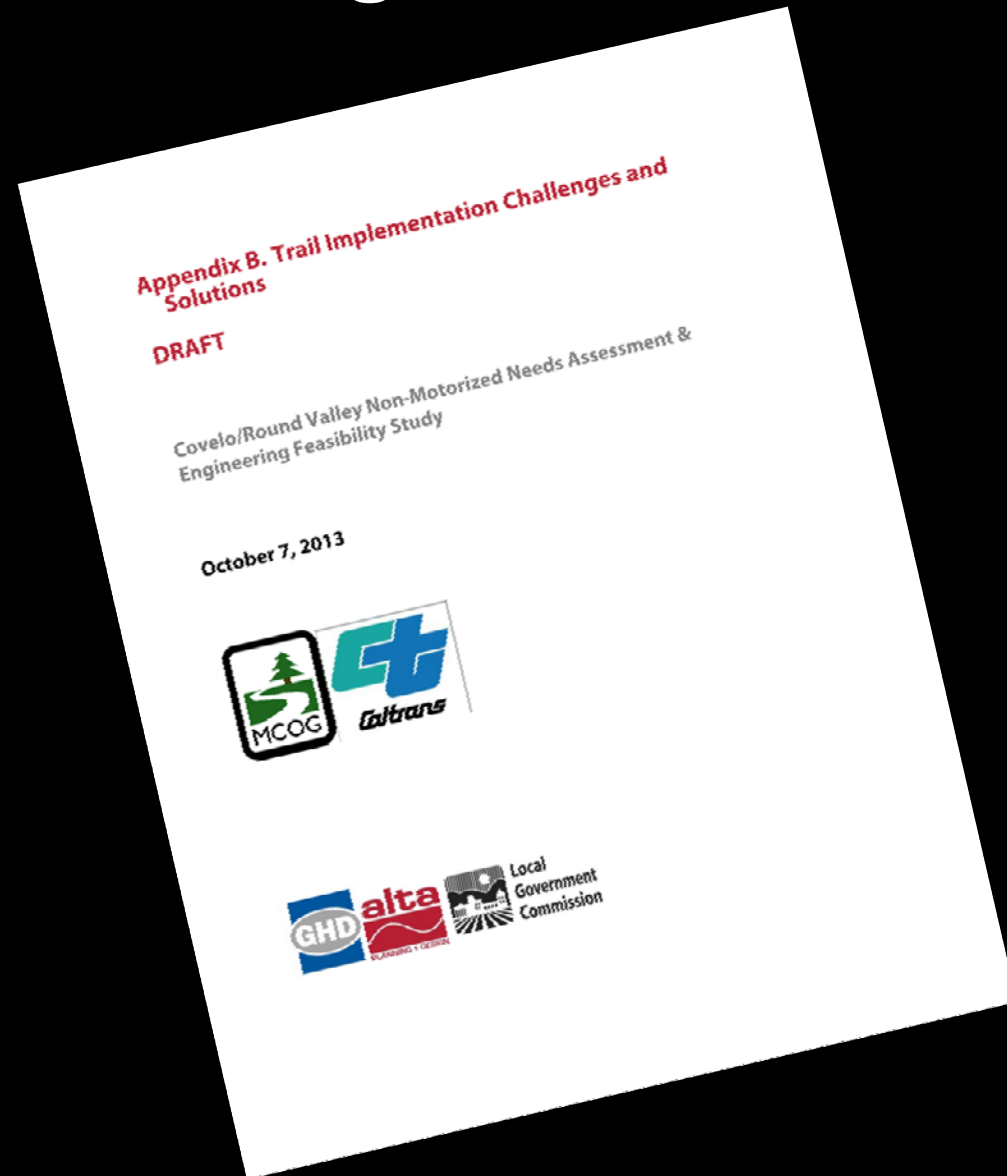
Rectangular Rapid Flashing Beacon



High-Intensity Activated Crosswalk (HAWK)

Chapter 5: Improvement Concepts

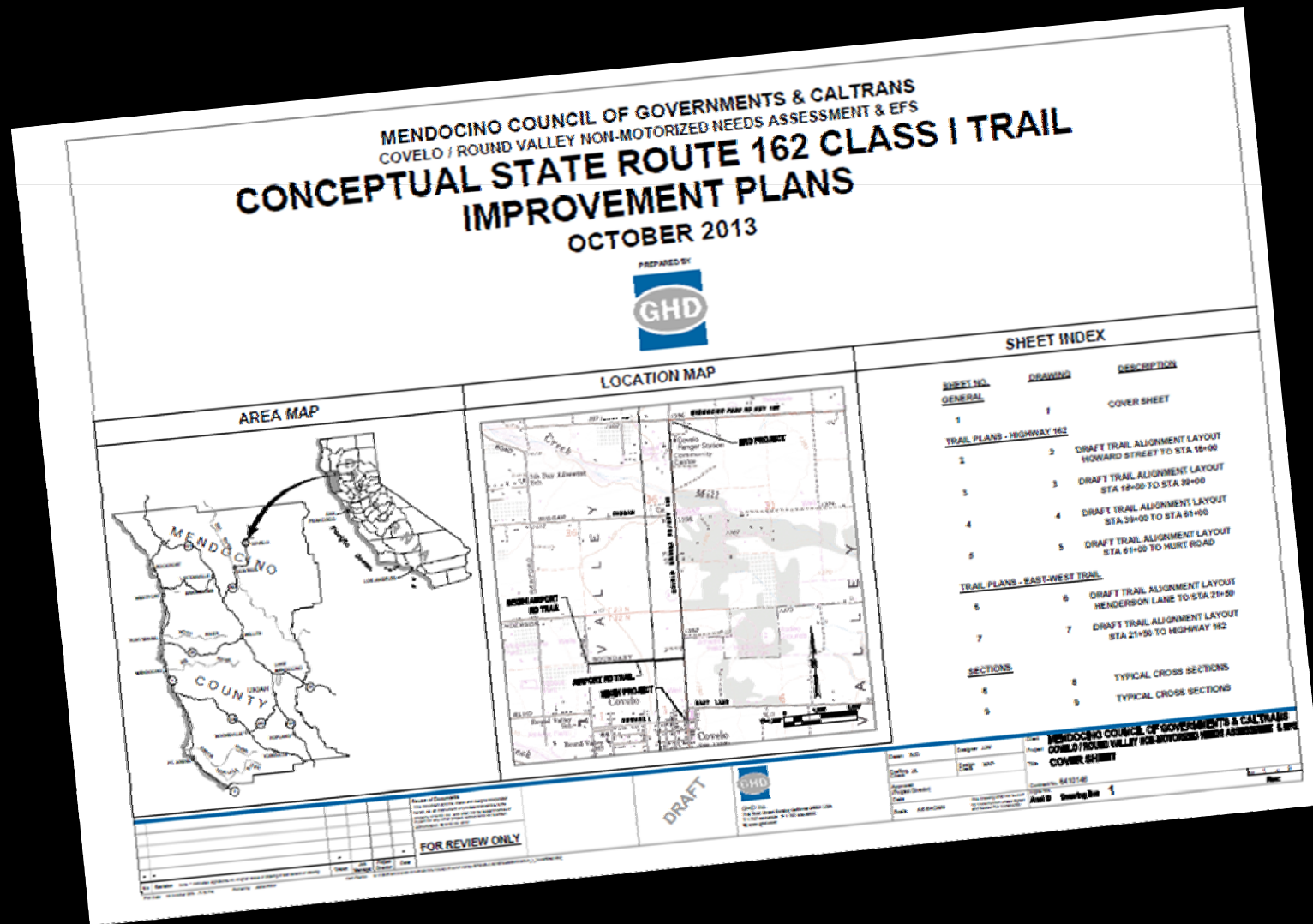
Appendix B: Trail Implementation Challenges and Solutions



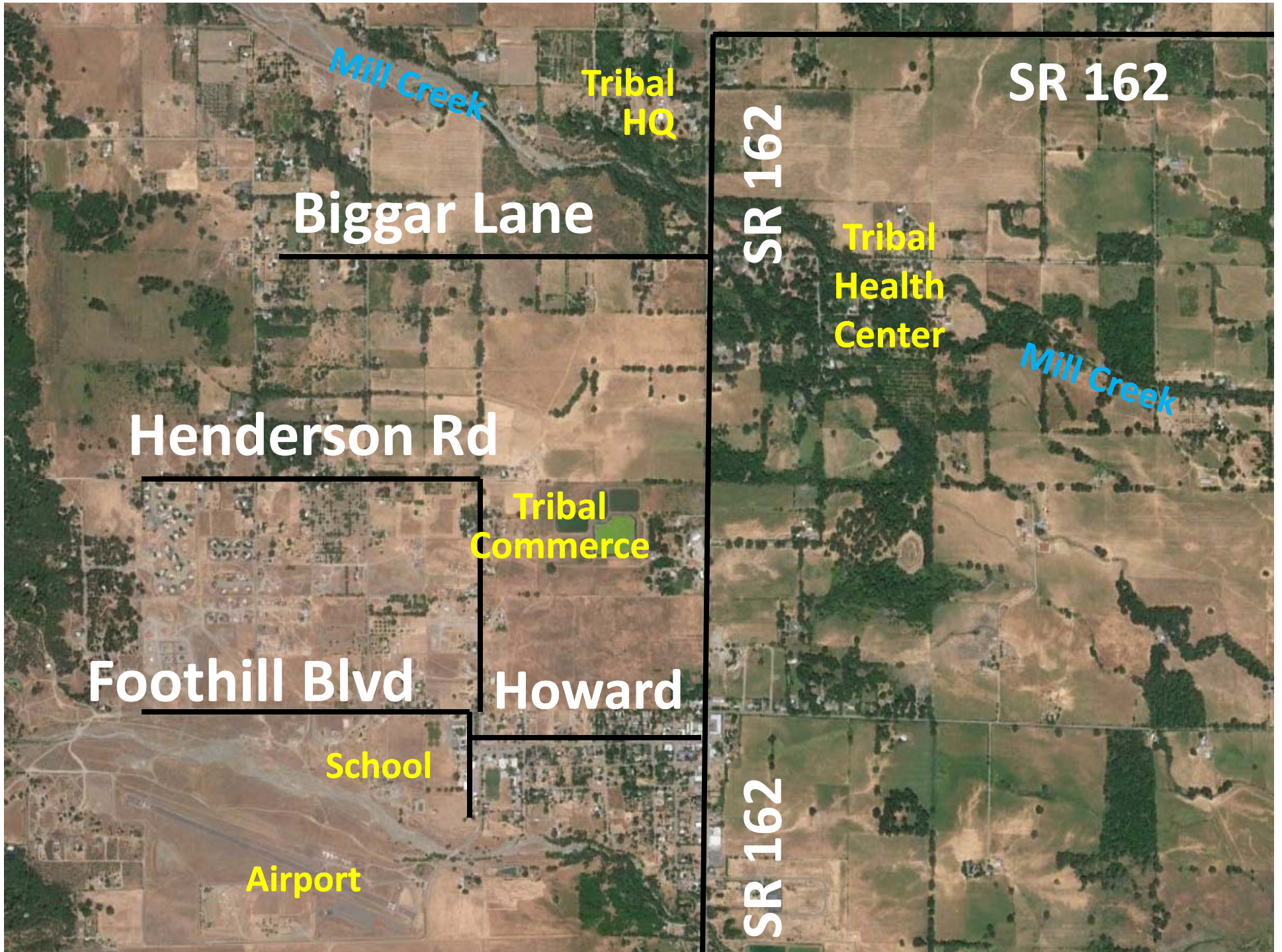
Appendix C: Improvement Cost Estimates



Appendix D: 15% Design for SR 162 Trail







Mill Creek

Tribal HQ

Biggar Lane

SR 162

SR 162

Tribal Health Center

Mill Creek

Henderson Rd

Tribal Commerce

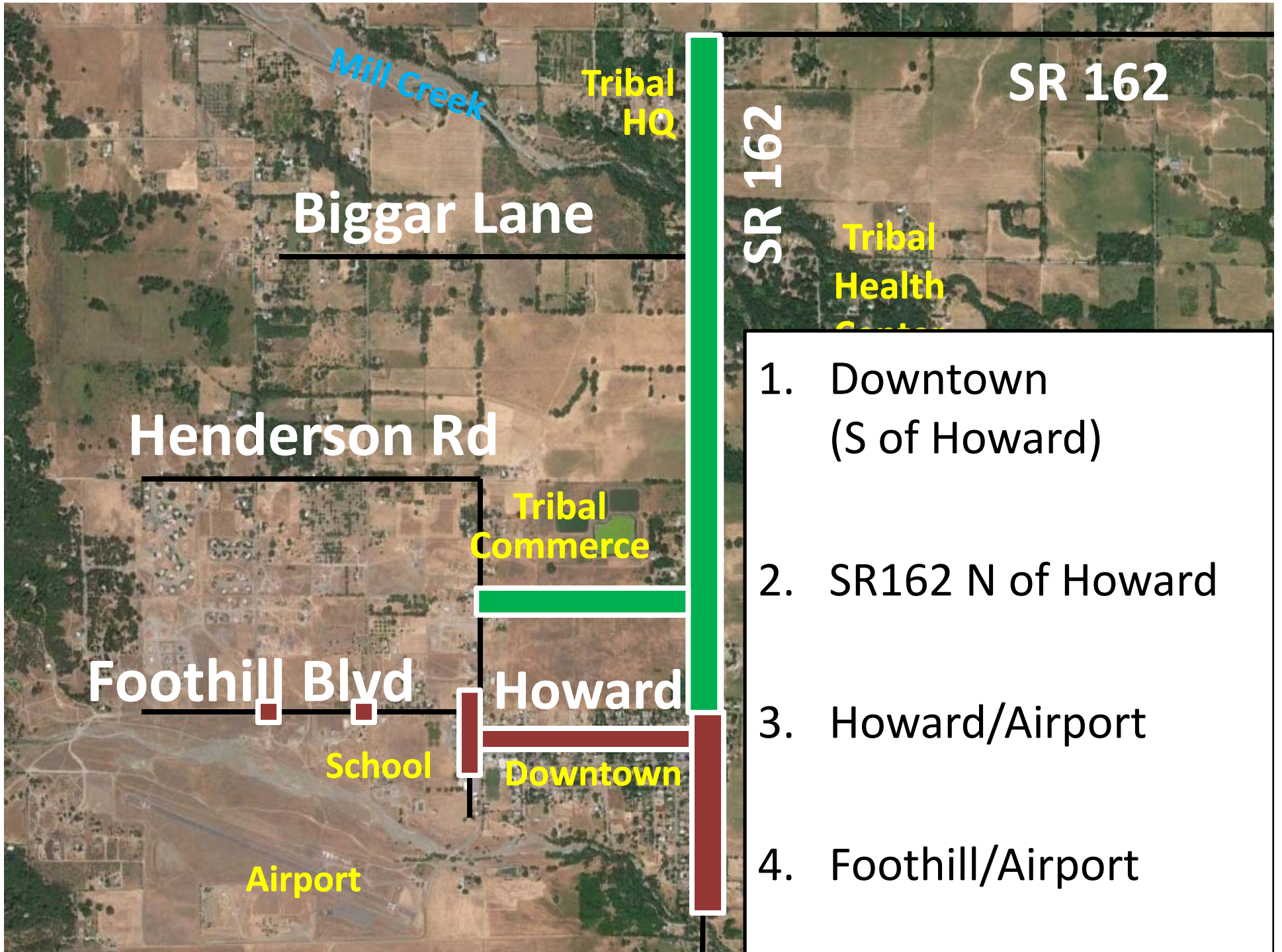
Foothill Blvd

Howard

School

Airport

SR 162



Mill Creek

Tribal HQ

Biggar Lane

SR 162

Tribal Health Center

Henderson Rd

Tribal Commerce

Foothill Blyd

Howard

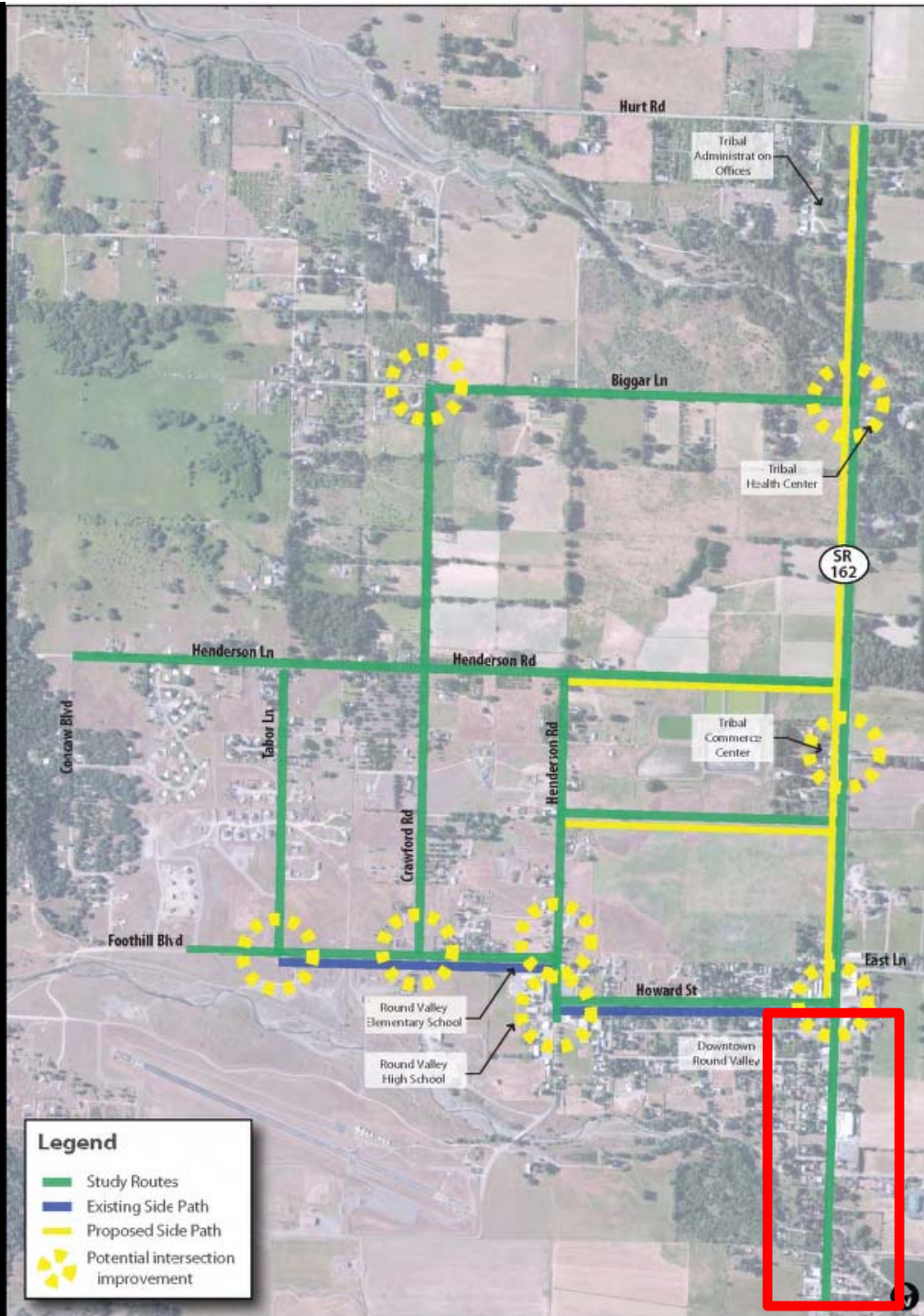
School

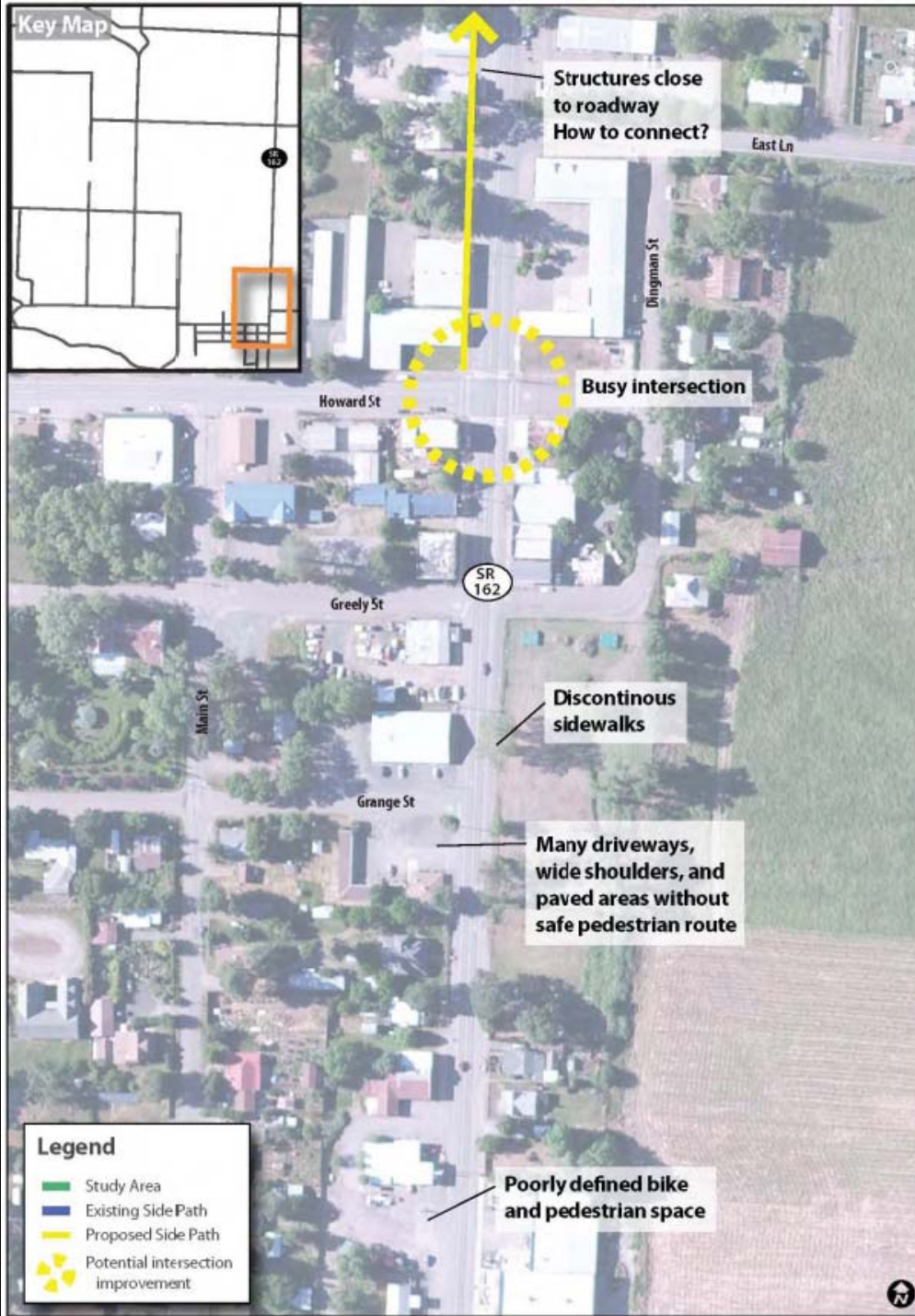
Downtown

Airport

1. Downtown (S of Howard)
2. SR162 N of Howard
3. Howard/Airport
4. Foothill/Airport

Downtown (SR 162 South of Howard)







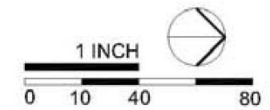
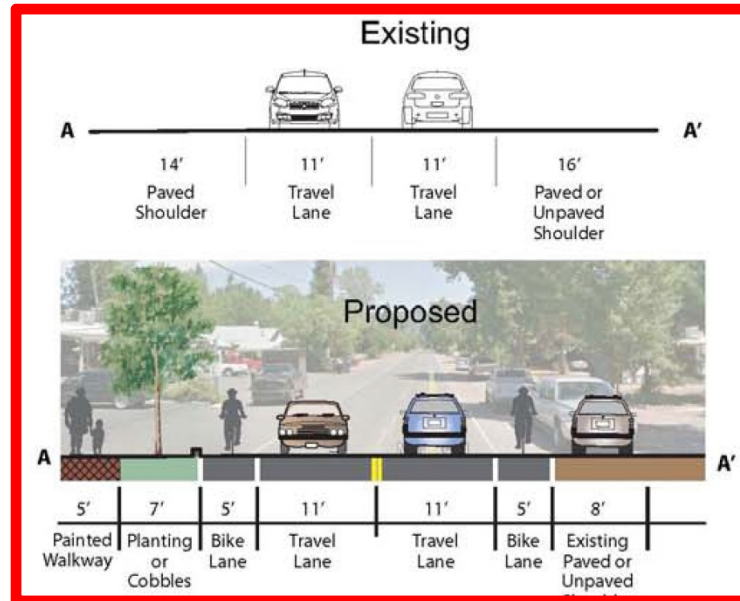
Commercial Street / Mina Road

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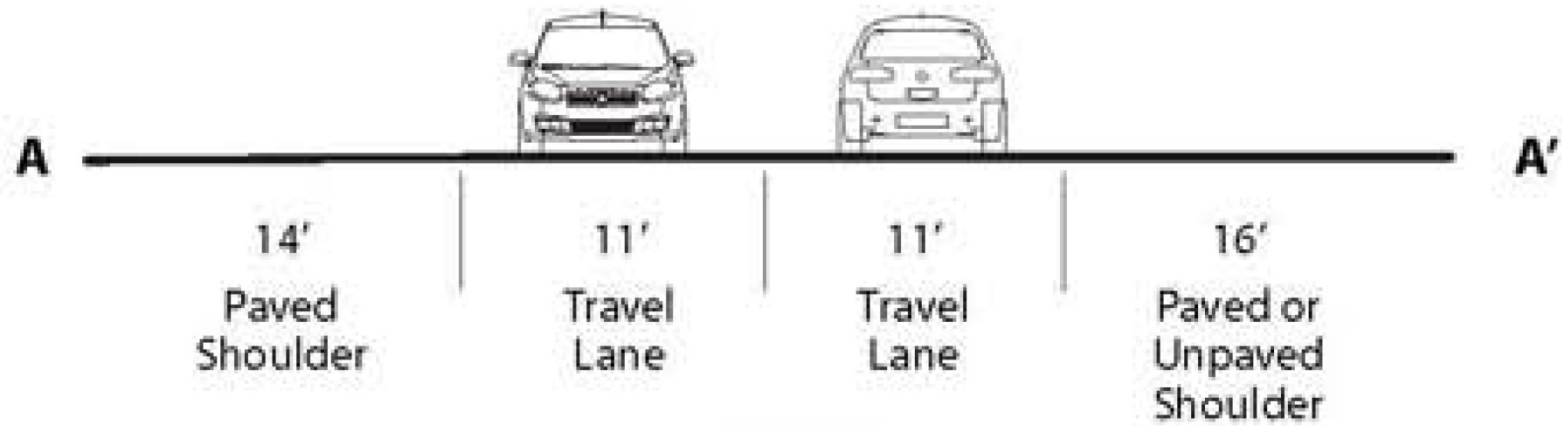
Lanes continue north to Figure 5-2



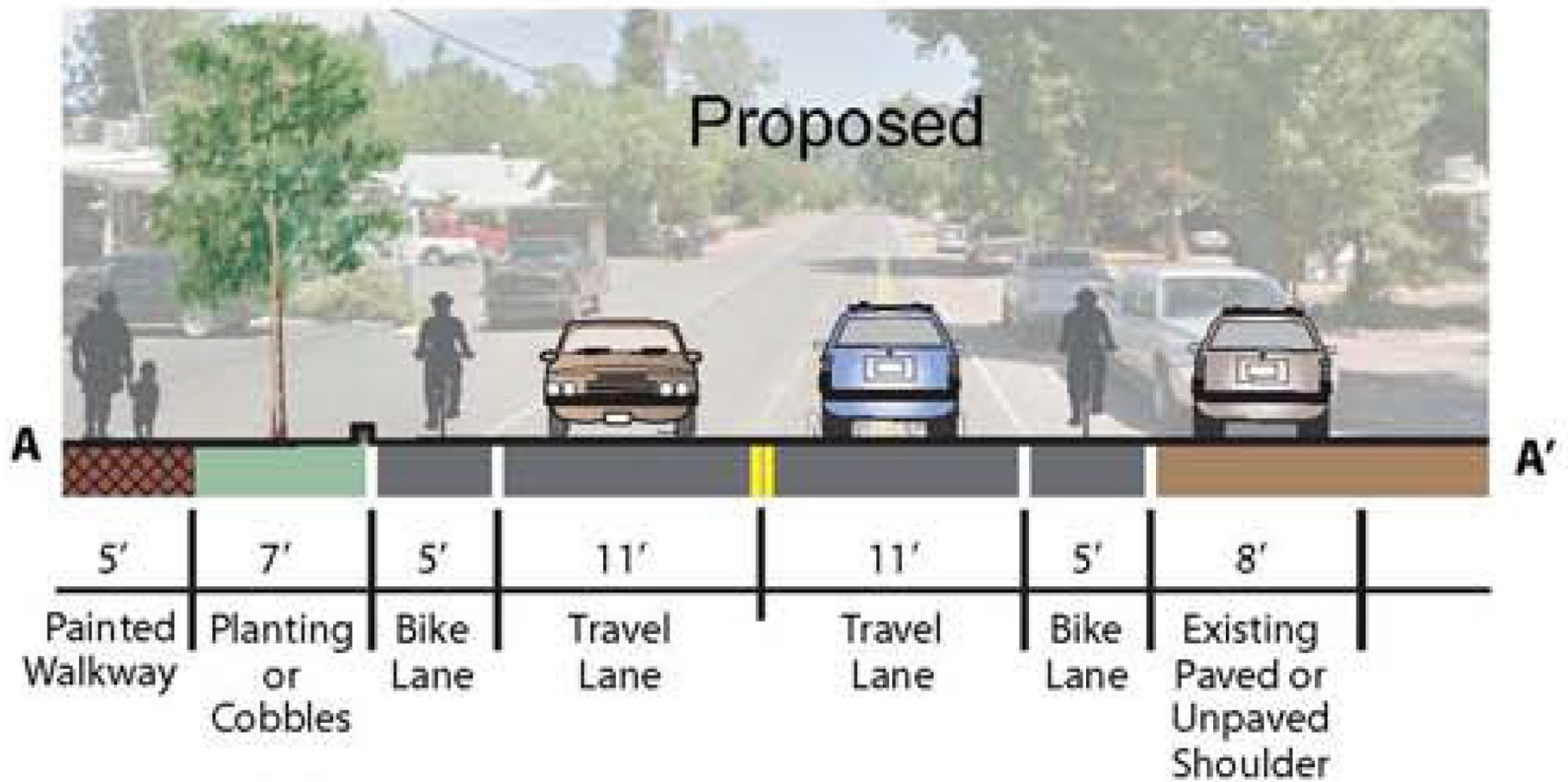
- New sidewalk
- Repave existing sidewalk
- High visibility crosswalk
- Curb extension plaza
- Landscape area
- Street tree
- Painted walkway

Figure 5-4: Southern State Road 162 Commercial Area

Existing



Proposed



76140 Mina Road



Exit Street View



Covelo, CA

Eberle Street / Mina Road

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39° 47' 25.15" N 123° 14' 52.94" W elev. 1396 ft

Eye alt. 1405 ft

[Report a problem](#)

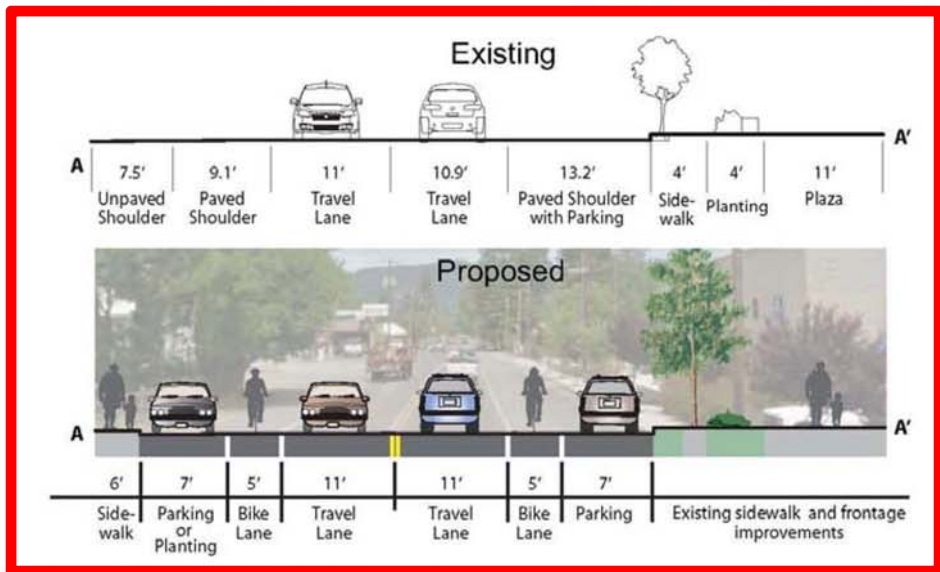
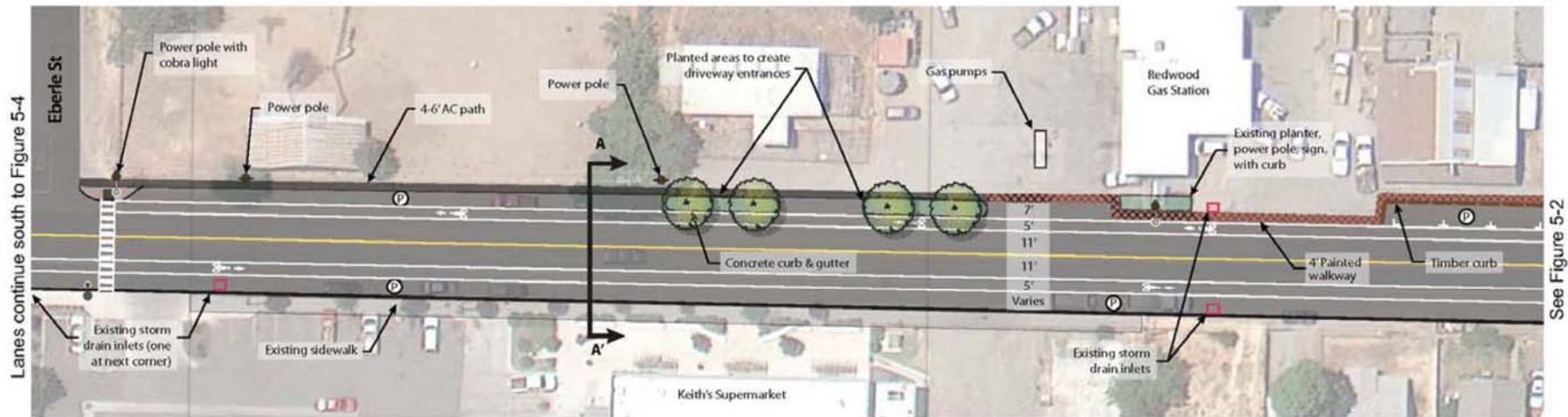
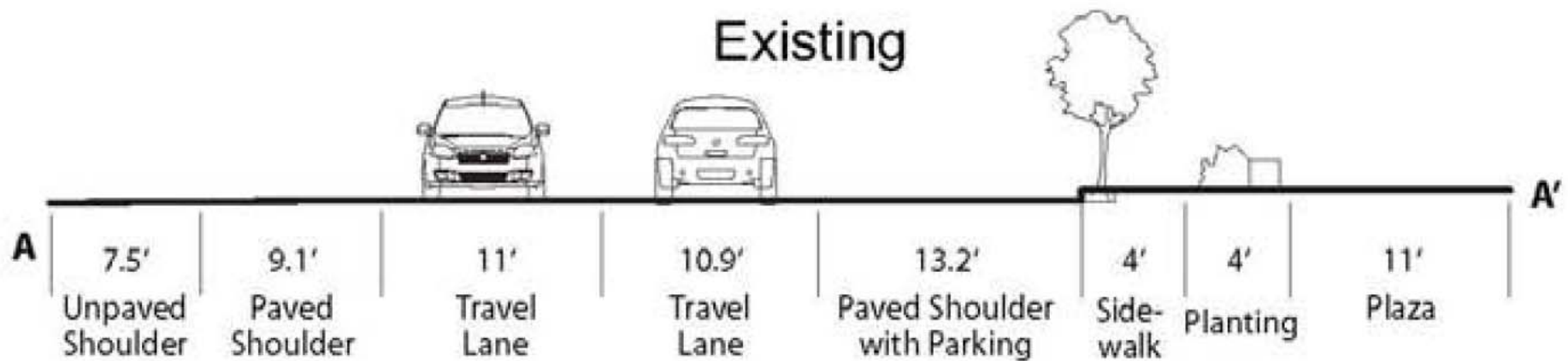


Figure 5-3: State Route 162 - Redwood Market to Eberle Street

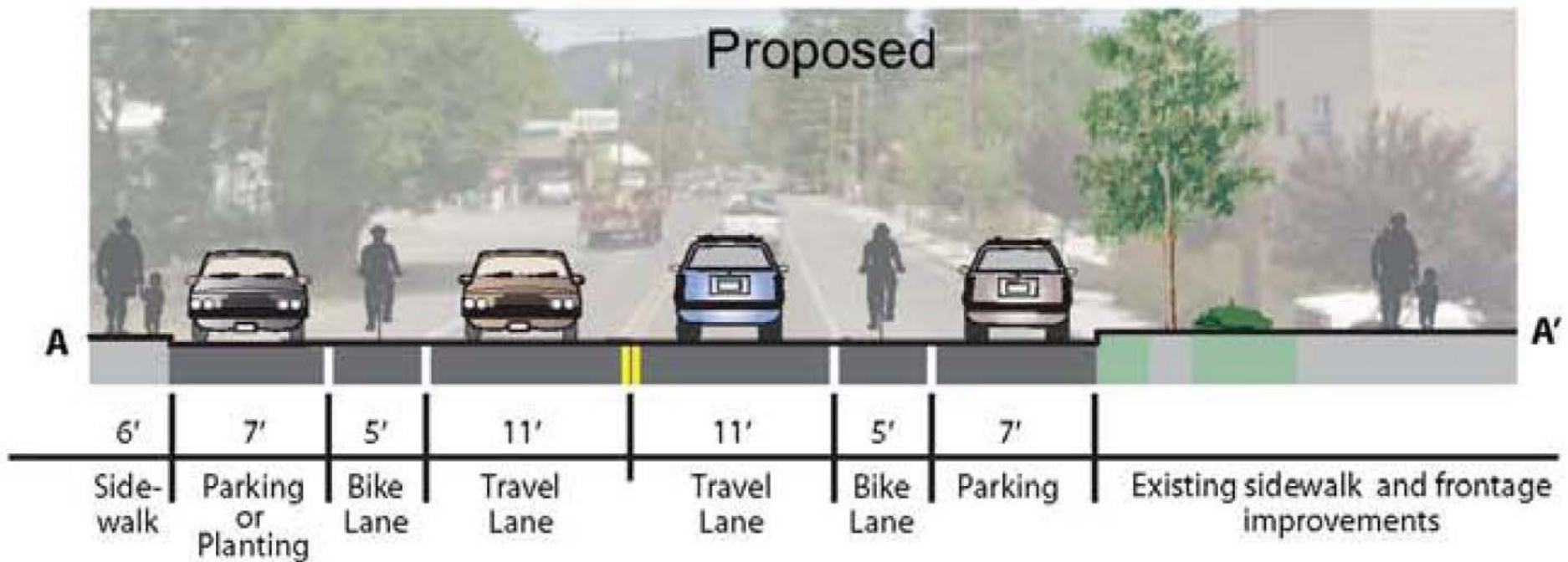
Covelo/Round Valley Non-motorized Transportation Plan

Figure 5-3: SR 162 – Keith’s Supermarket

Existing



Proposed





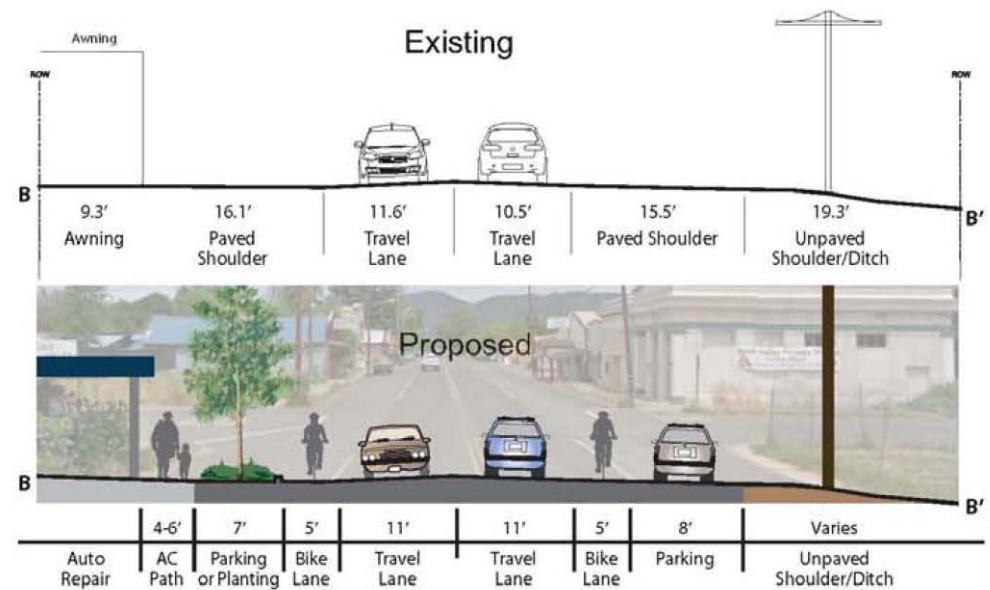
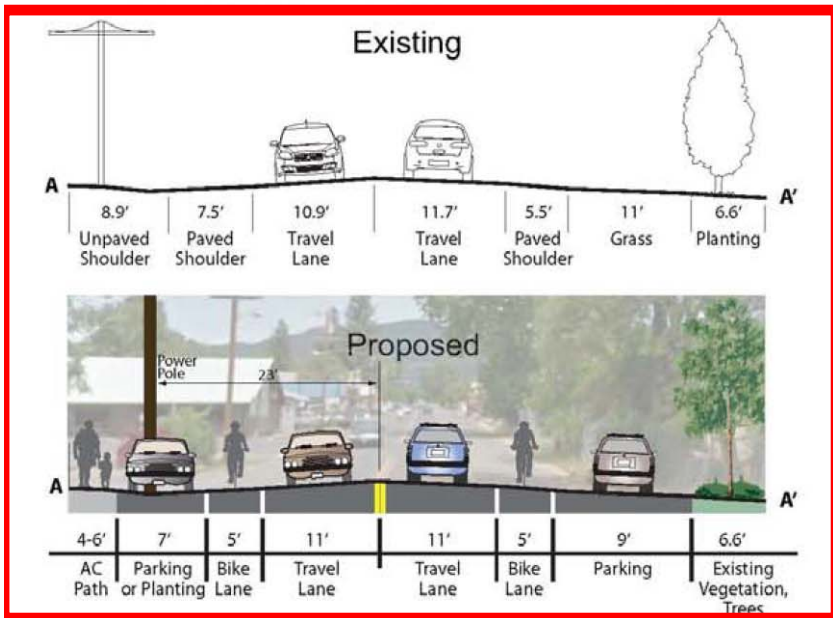
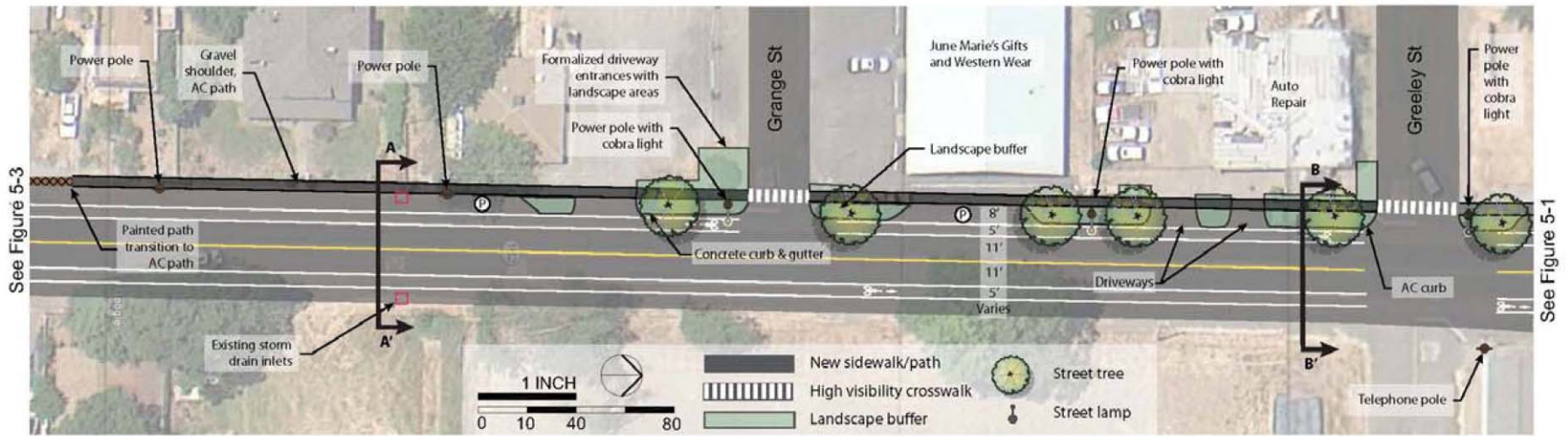
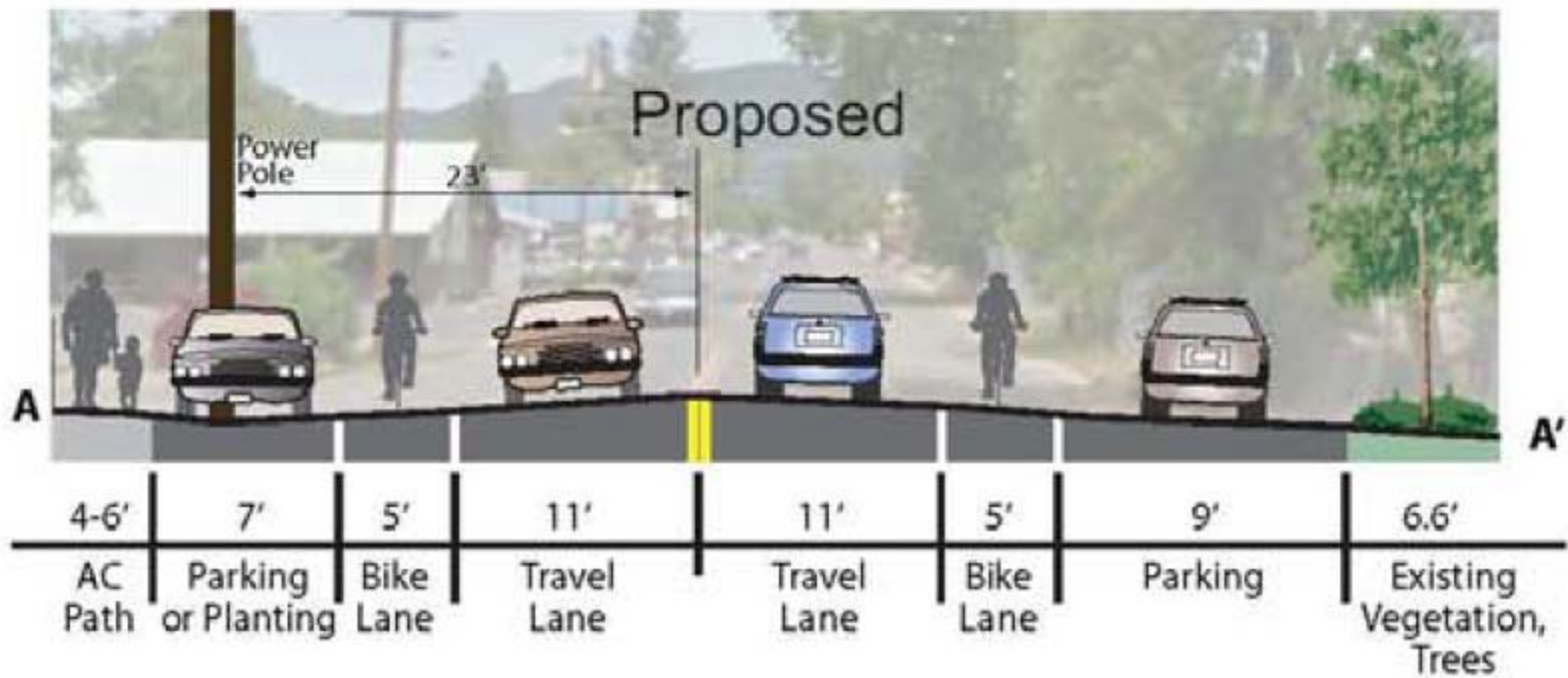
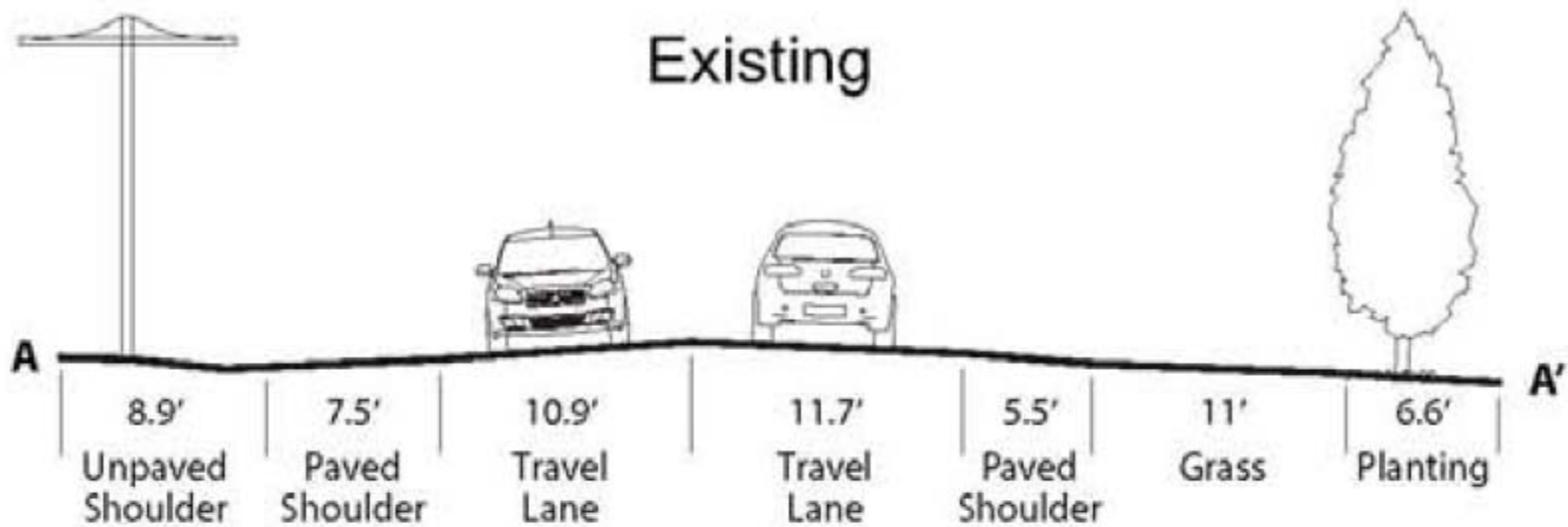


Figure 5-2: State Route 162 - Greeley and Grange Streets



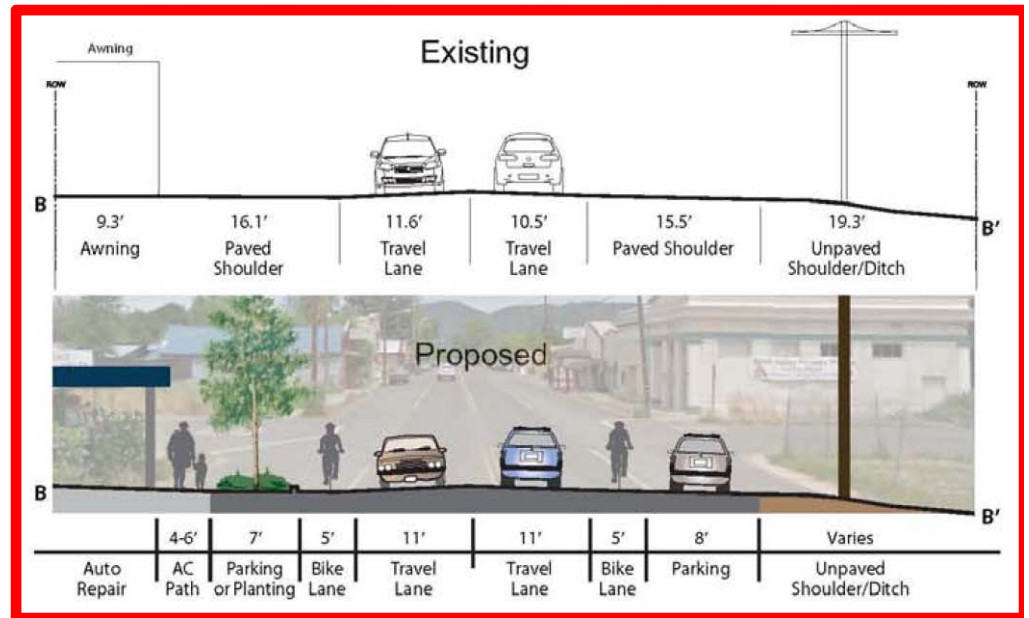
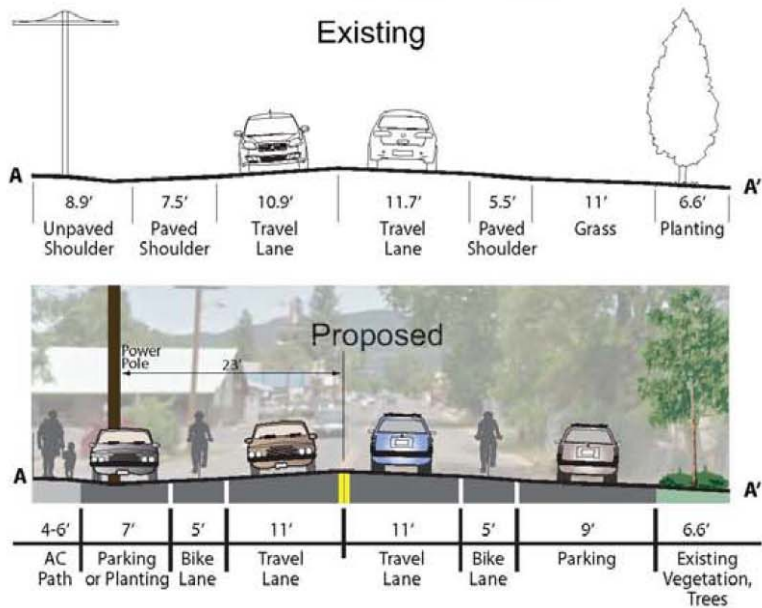
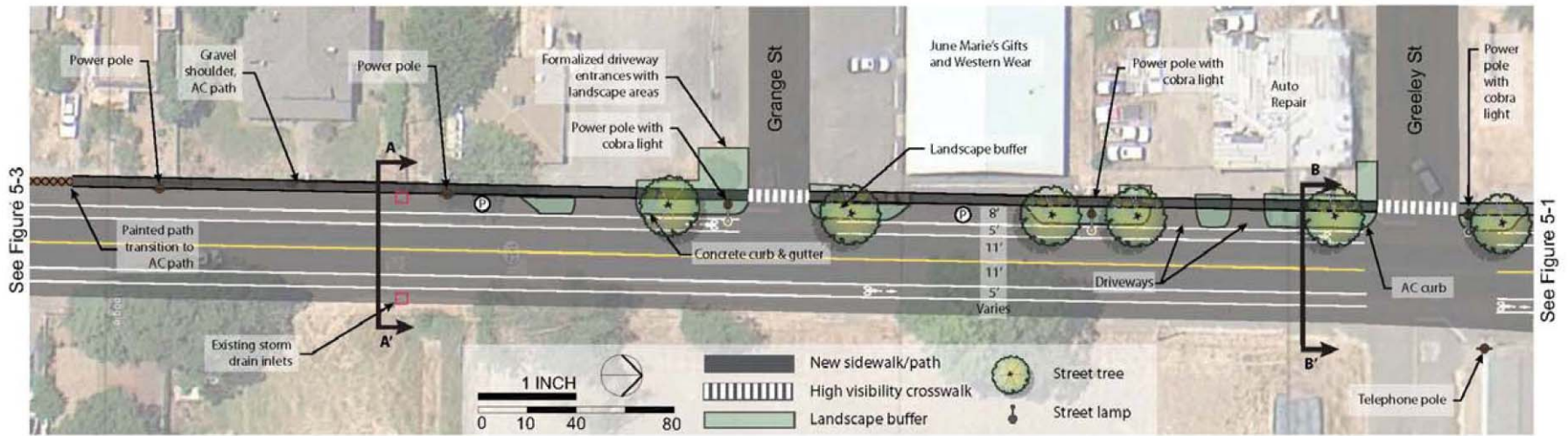
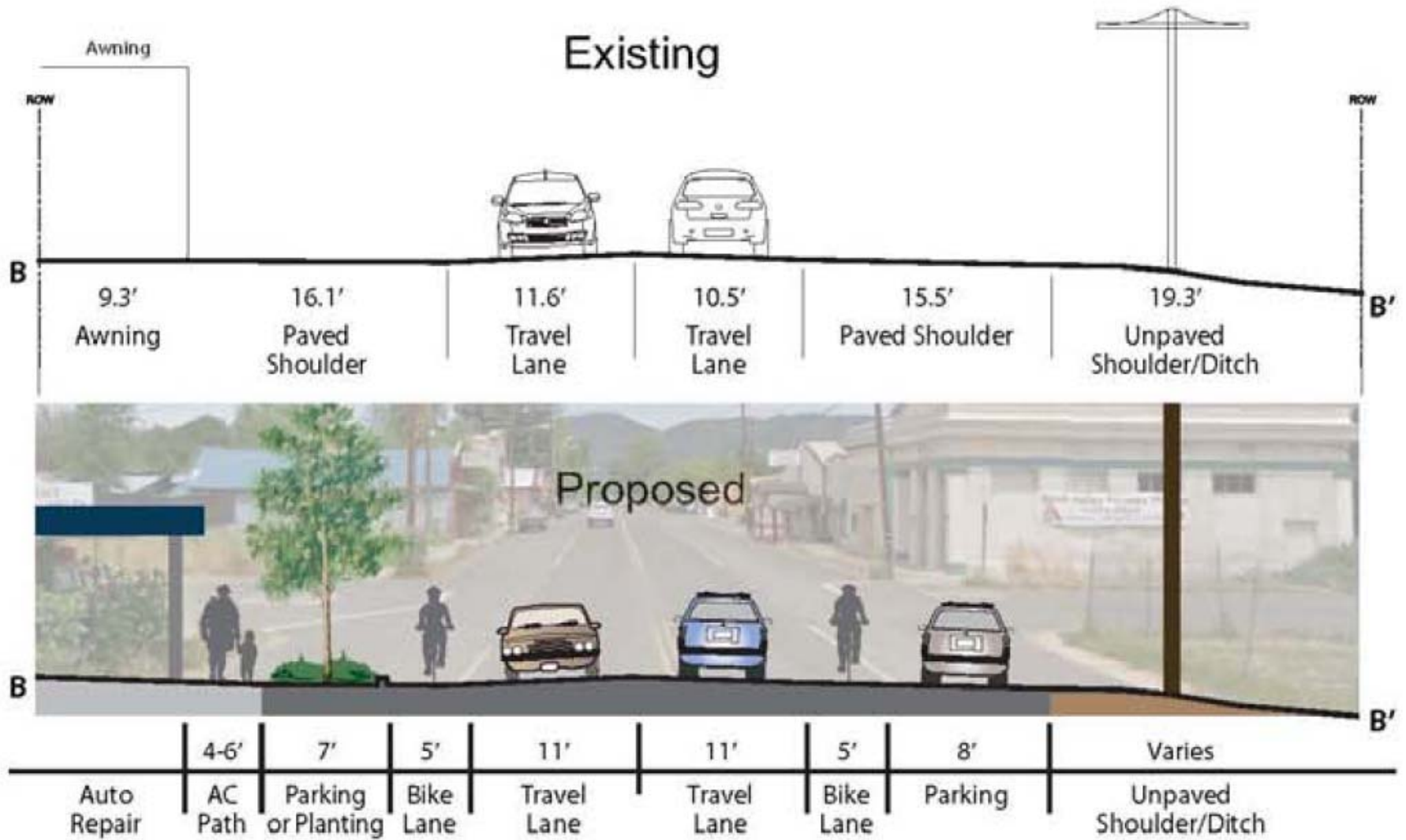


Figure 5-2: State Route 162 - Greeley and Grange Streets





76362 Mina Road



Exit Street View

N

Mina Road

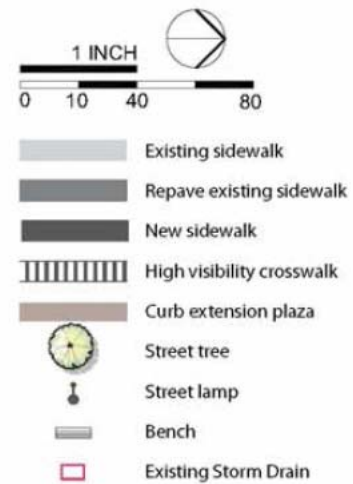
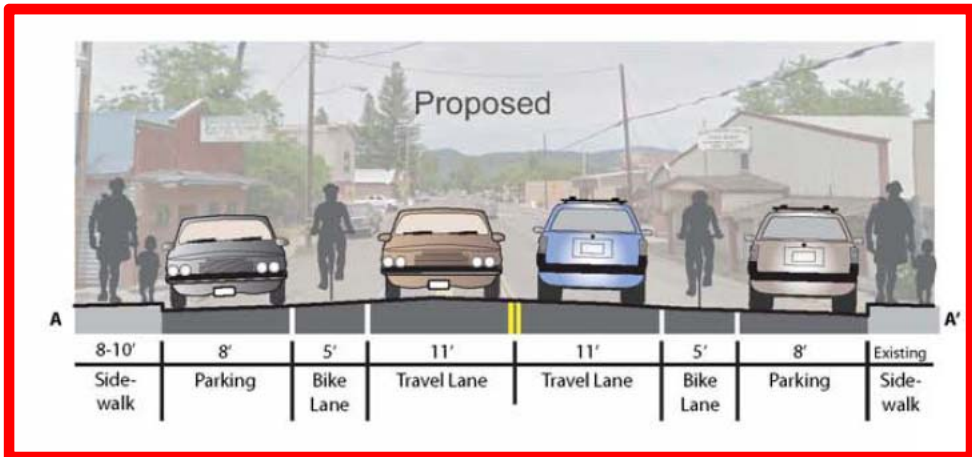
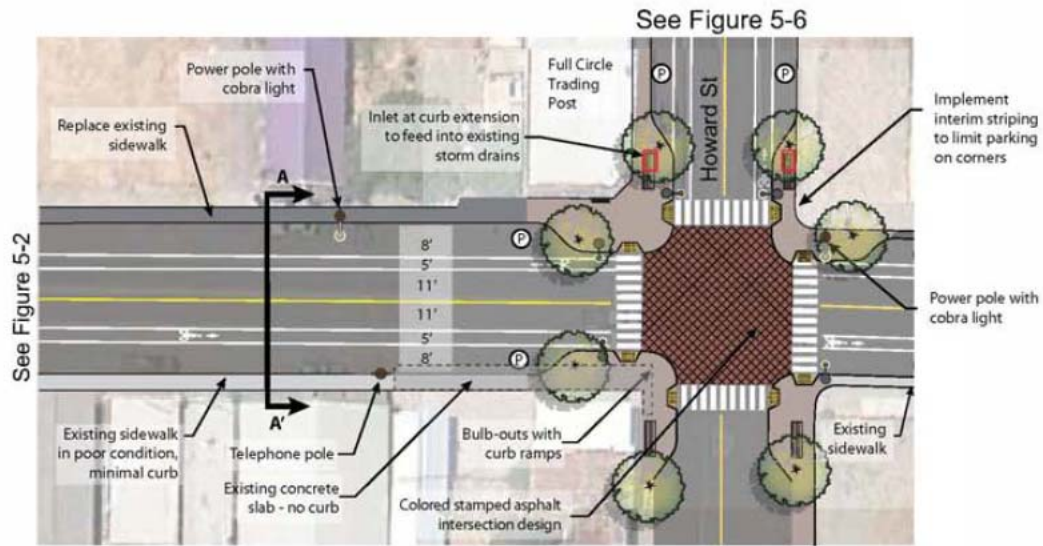
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Eye alt 1408 ft

39° 47' 40.31" N 123° 14' 53.70" W elev 1400 ft

Report a problem

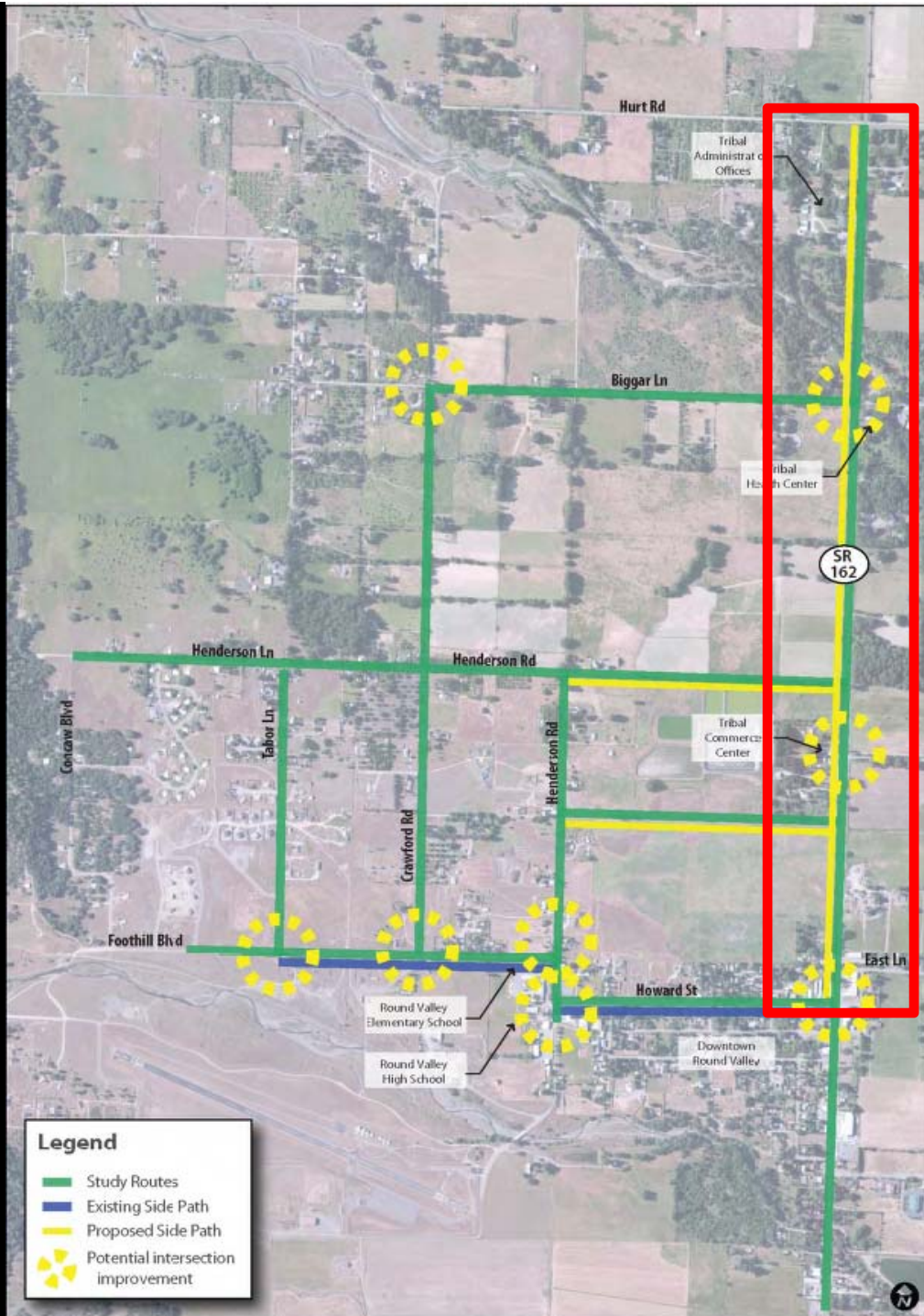


Proposed



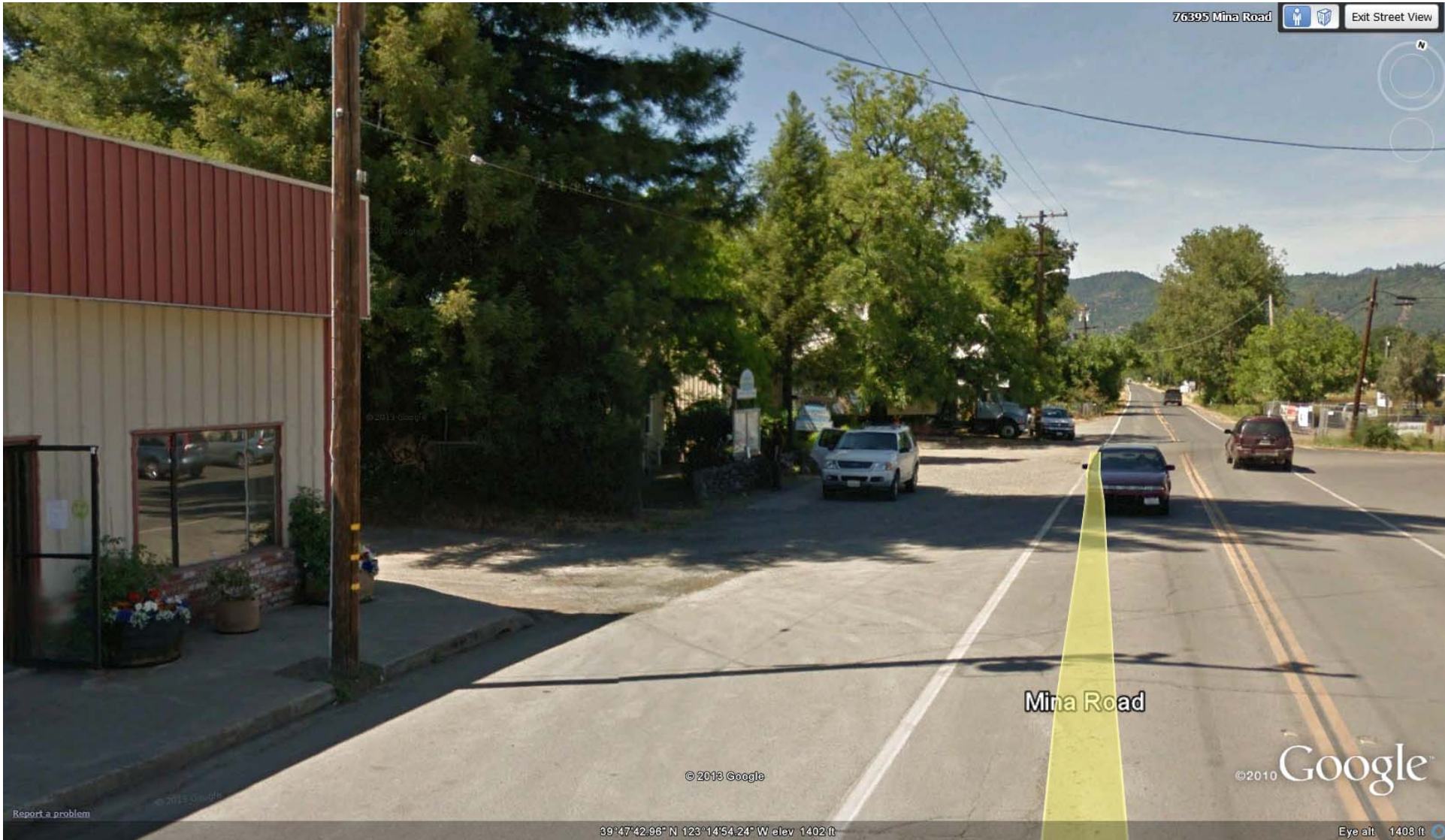
A	8-10'	8'	5'	11'	11'	5'	8'	Existing	A'
	Side-walk	Parking	Bike Lane	Travel Lane	Travel Lane	Bike Lane	Parking	Side-walk	

SR 162 North of Howard









76395 Mina Road



Exit Street View

N

Mina Road

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© 2010 Google

39°47'42.96" N 123°14'54.24" W elev 1402 ft

Eye alt 1408 ft



East Lane / Mina Road



Exit Street View

Mina Road

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38°47'43.15" N 123°14'53.69" W elev. 1400 ft

Eye alt. 1408 ft

Report a problem



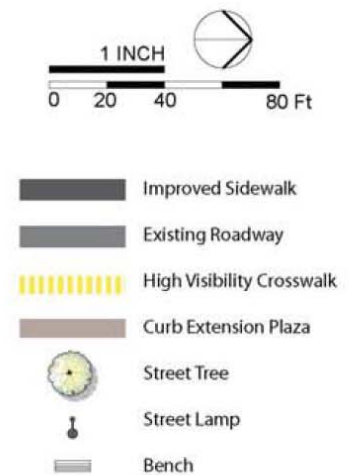
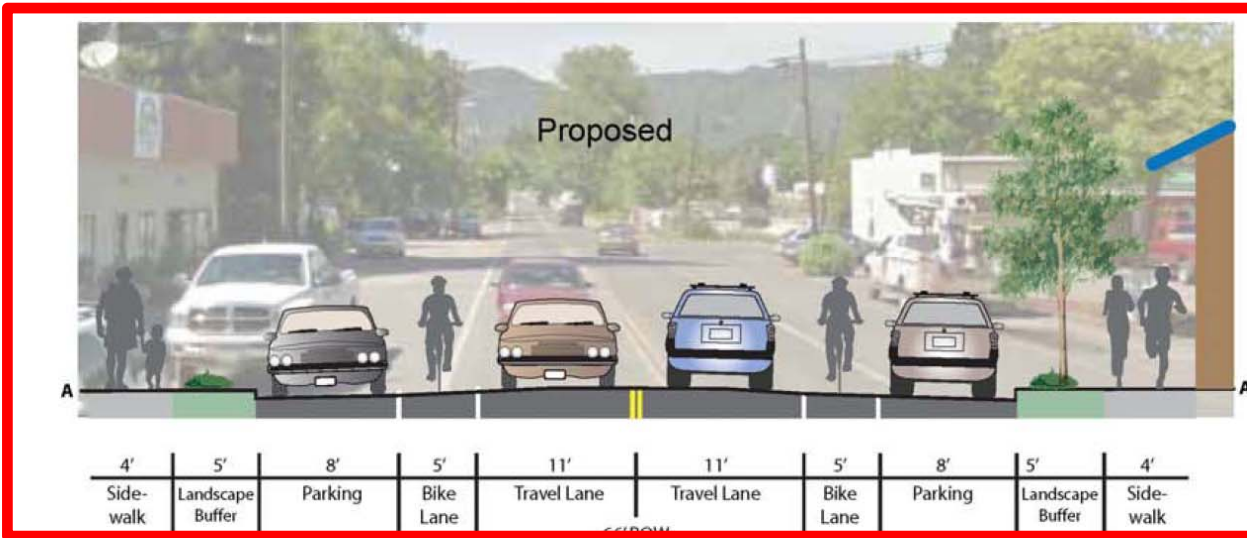
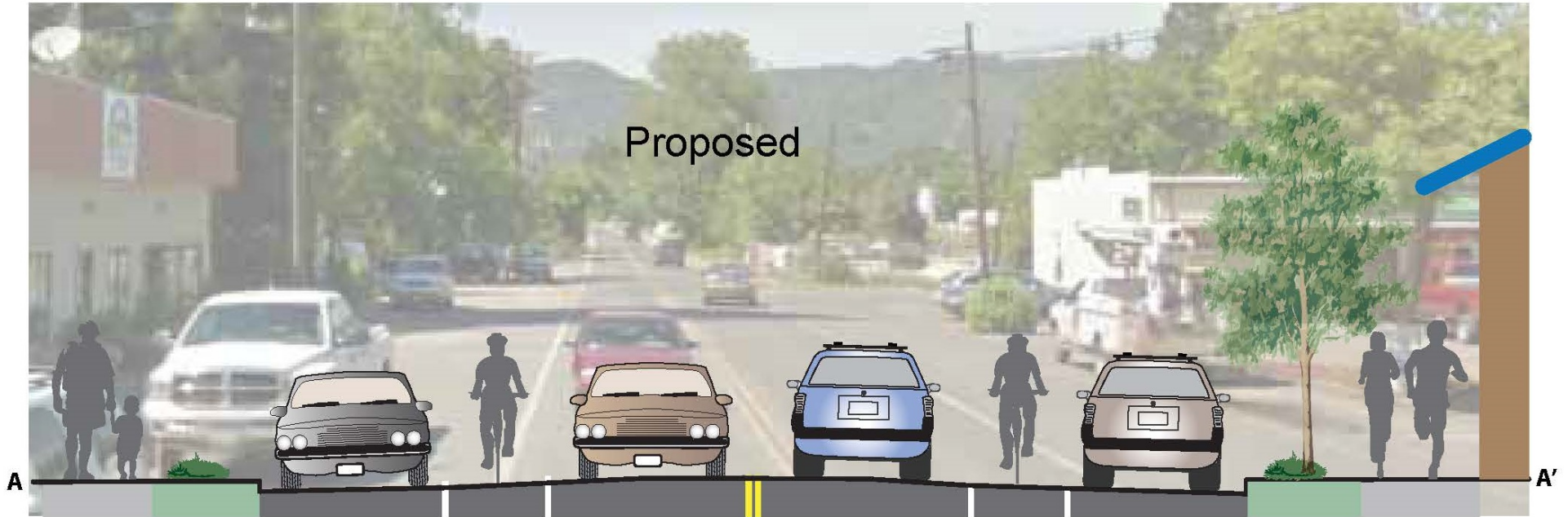
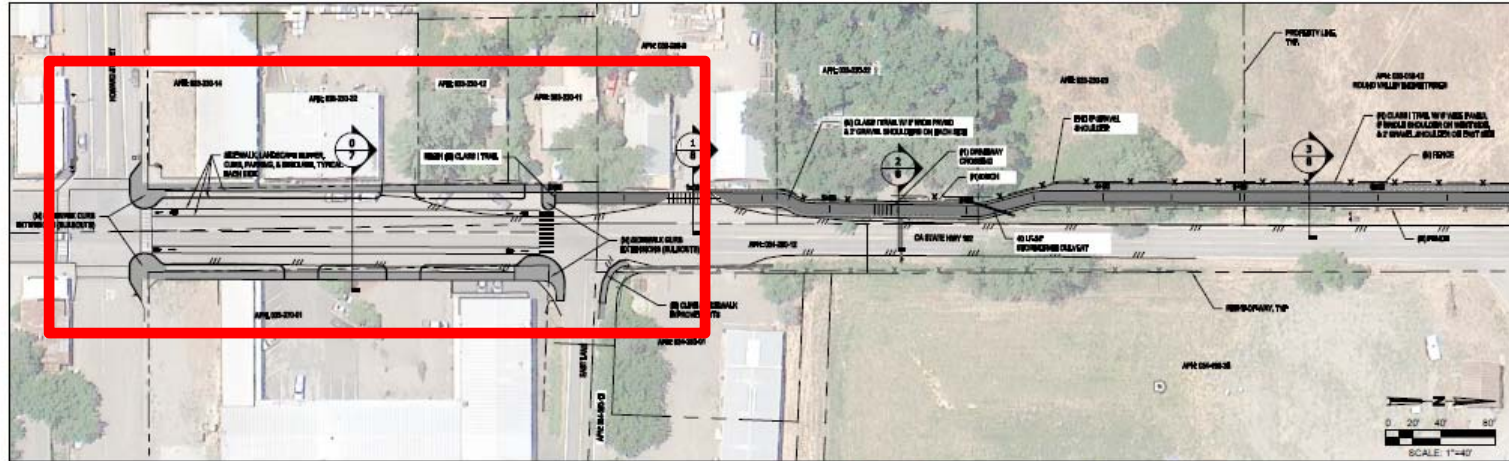


Figure 5-8: State Route 162 - Howard Intersection to East Lane

Proposed



4'	5'	8'	5'	11'	11'	5'	8'	5'	4'
Sidewalk	Landscape Buffer	Parking	Bike Lane	Travel Lane	Travel Lane	Bike Lane	Parking	Landscape Buffer	Sidewalk
66' ROW									



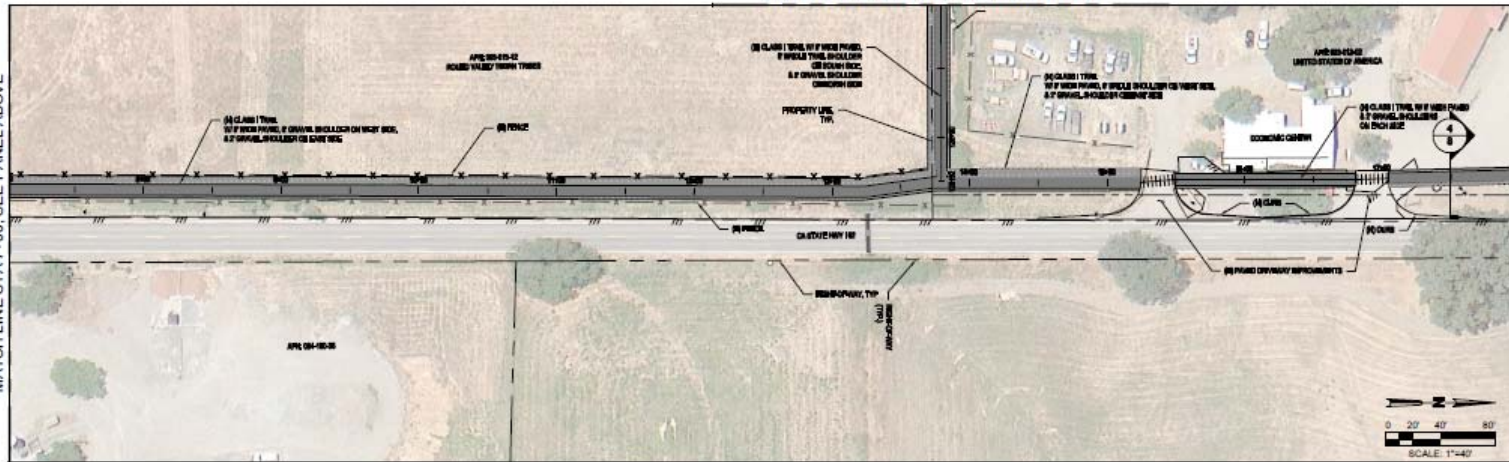
LEGEND	
	(N) CLASS 1 TRAIL
	(N) SIDEWALK CONCRETE
	(N) CLASS 1 BIKE LANE
	(N) HIGH VISIBILITY CROSSING
	(N) SIGN
	(N) FENCE
	(N) EDGE OF PAVEMENT
	(N) DITCH

SURVEY NOTES

TOPOGRAPHIC SURVEY, RIGHT-OF-WAY, PROPERTY LINES, OWNERSHIP AND EXISTING FEATURES BY SHALL ASSOCIATES. SEE SURVEY DATED MARCH 2013 FOR DETAILS NOT SHOWN HERE.

MATCH LINE STA 7+00, SEE PANEL BELOW

MATCH LINE STA 127+00, SEE DRAWING NO.7



MATCH LINE STA 18+00, SEE DRAWING NO. 3

MATCH LINE STA 7+00, SEE PANEL ABOVE

NO.	REVISION	DATE	BY	CHKD.	APP'D.	DATE

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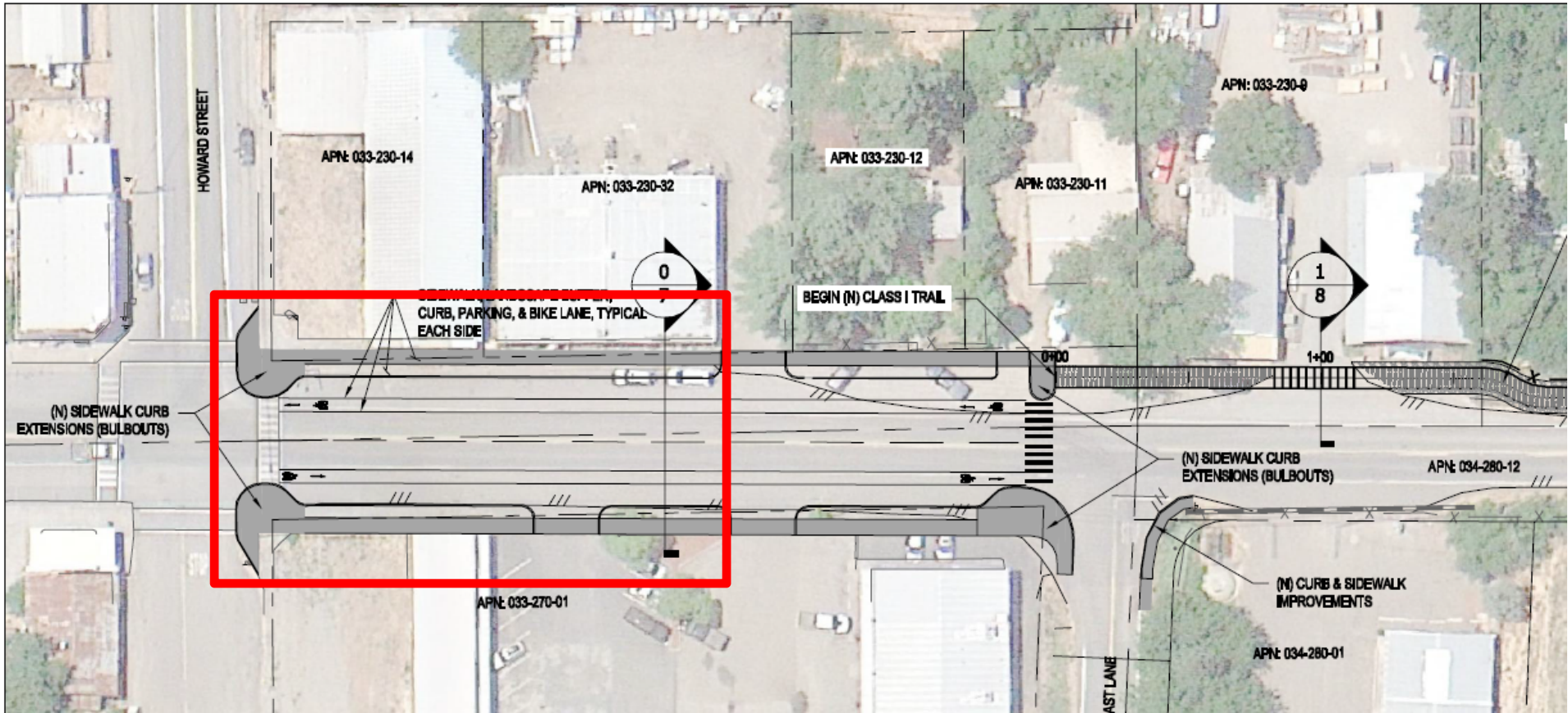
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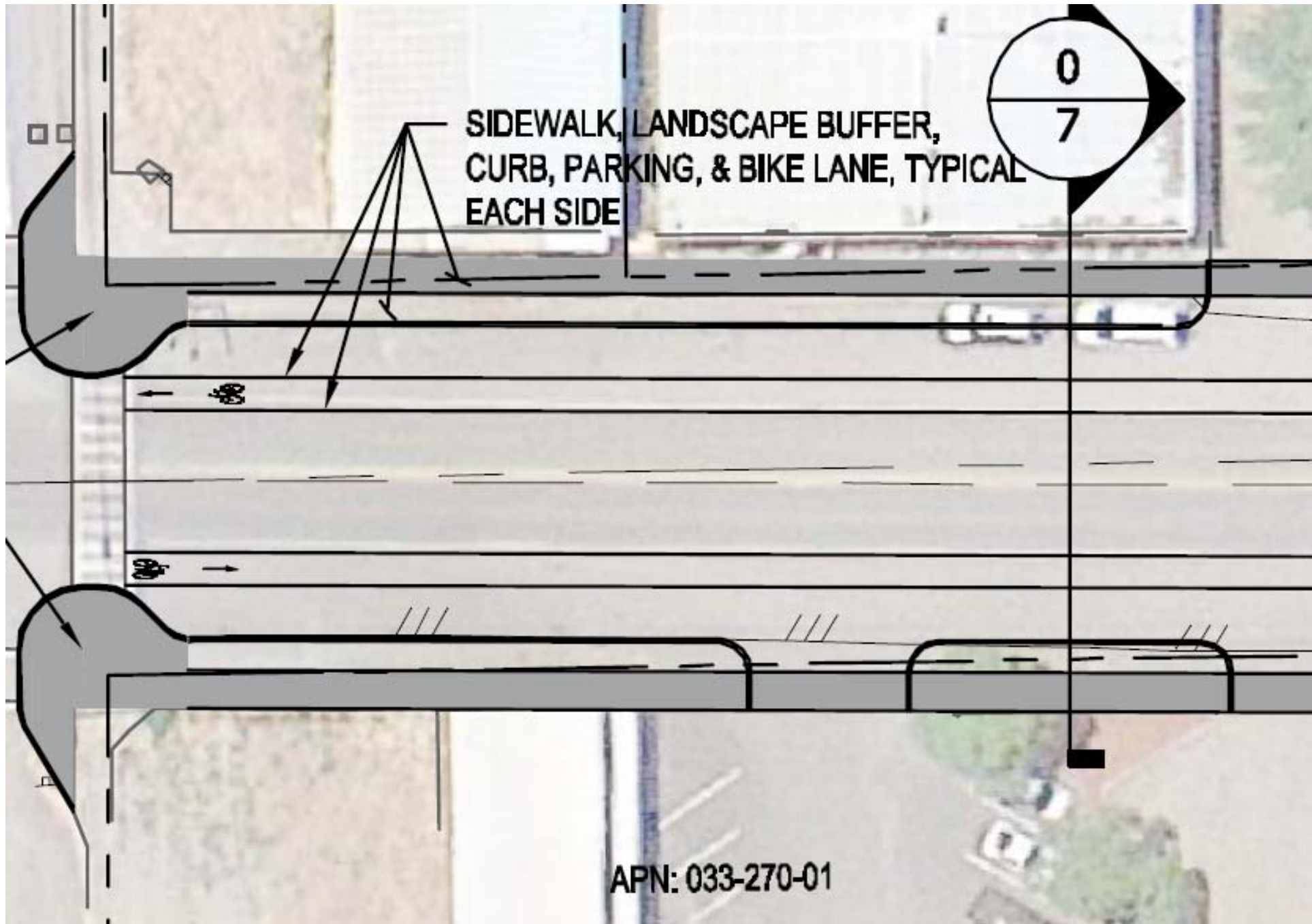
DRAFT



Drawn: JMW	Designer: JMW
Checked: JMW	Design: MP
Approved (Project Director):	Date:
Scale: AS SHOWN	This Drawing shall not be used for Construction unless signed and Sealed by the Consultant.

Client:	MENDOCINO COUNCIL OF GOVERNMENTS & CALTRANS
Project:	COVELO / ROUND VALLEY NON-MOTORIZED NEEDS ASSESSMENT & EFS
Title:	HIGHWAY 162
	DRAFT TRAIL ALIGNMENT LAYOUT
Contract No.:	8410145
Drawn by:	April D
Drawing No.:	2





SIDEWALK, LANDSCAPE BUFFER,
CURB, PARKING, & BIKE LANE, TYPICAL
EACH SIDE

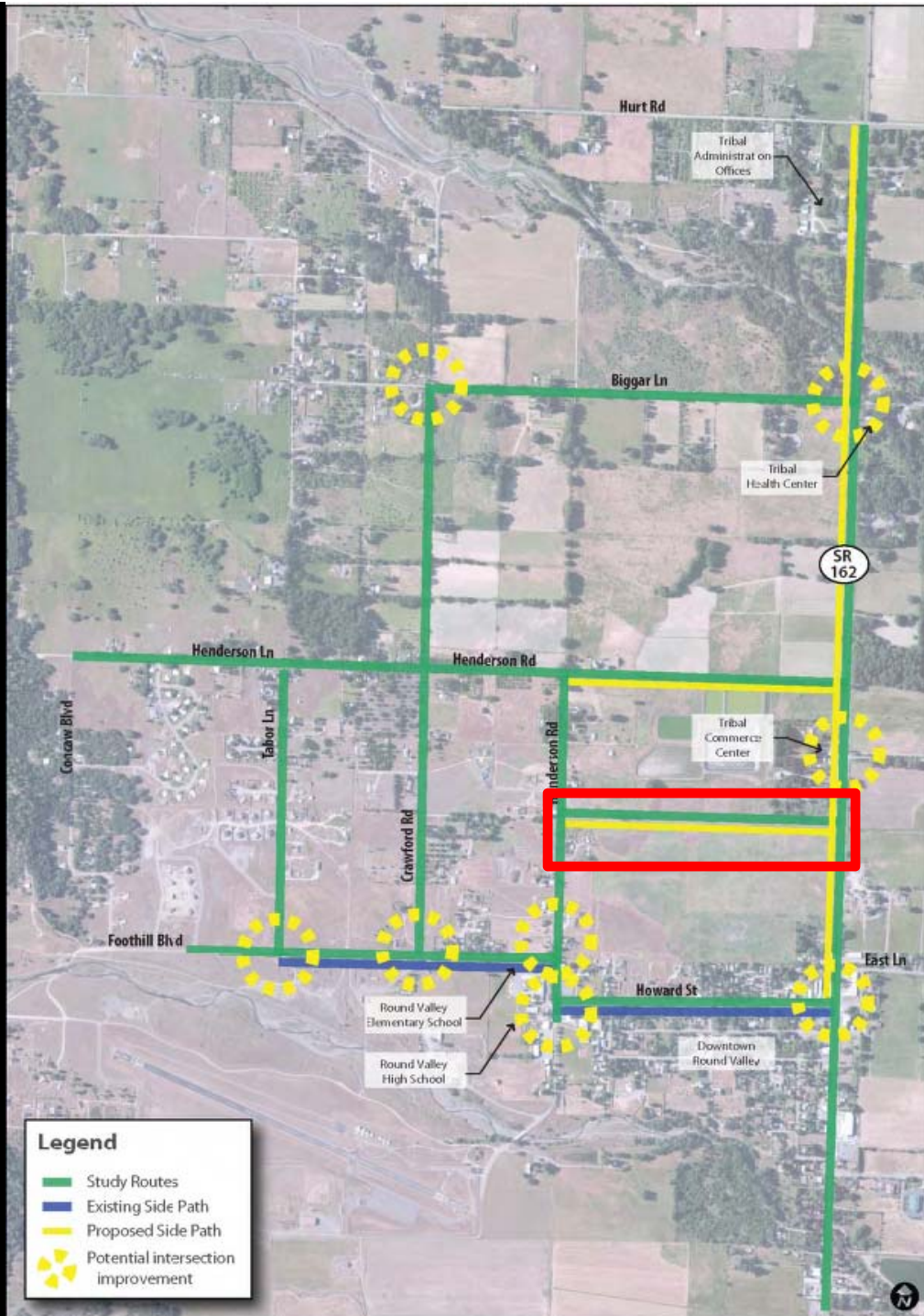


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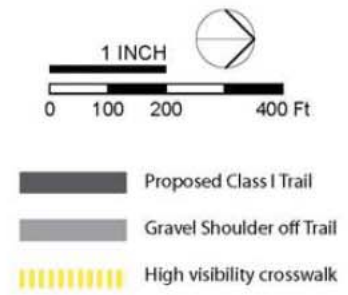


Figure 5-9 : East-West Trail – SR 162 to Henderson

Proposed











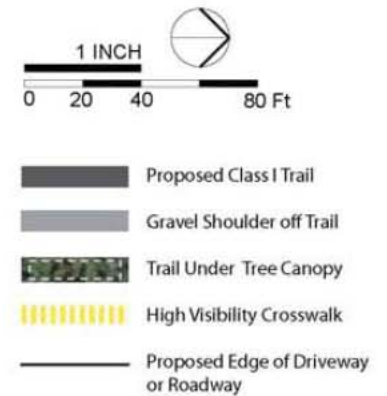
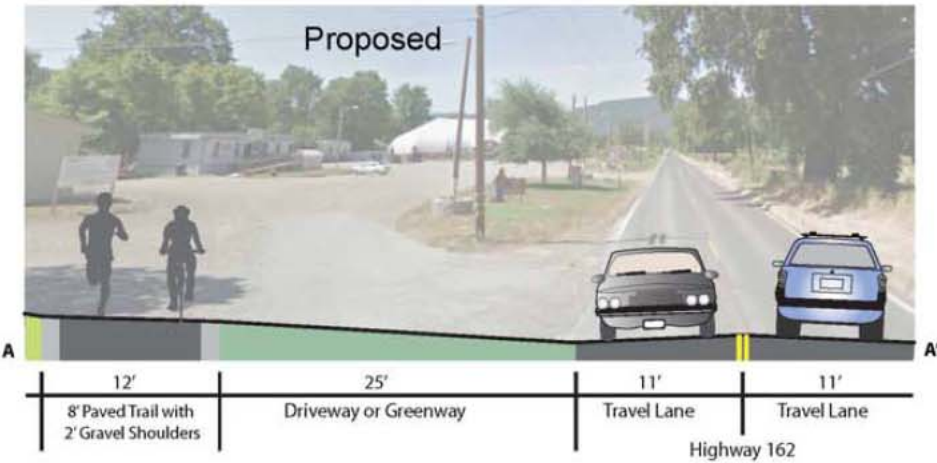
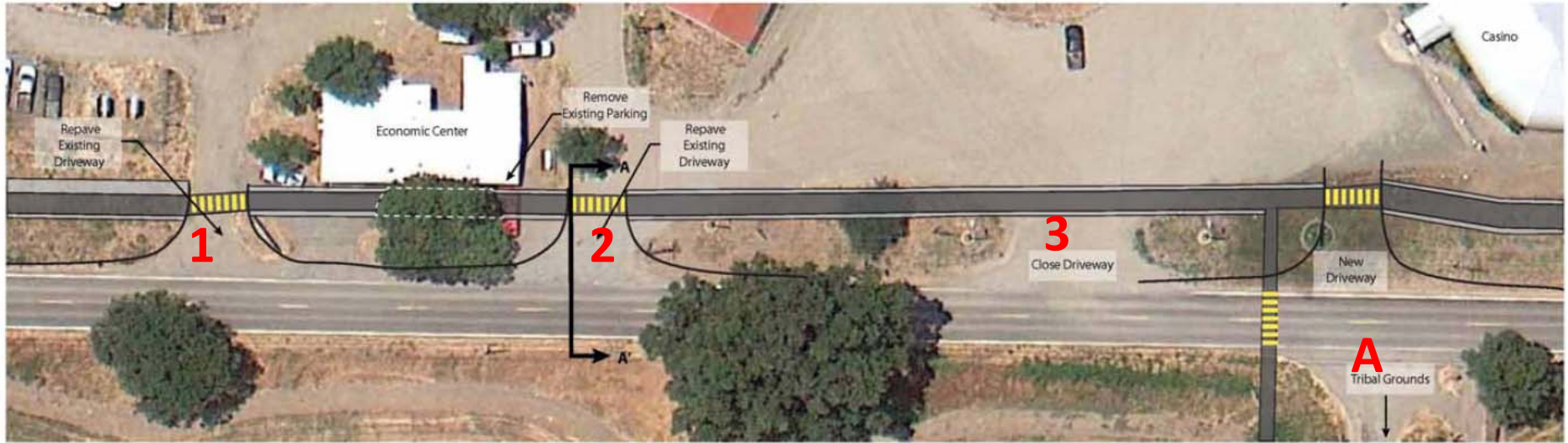
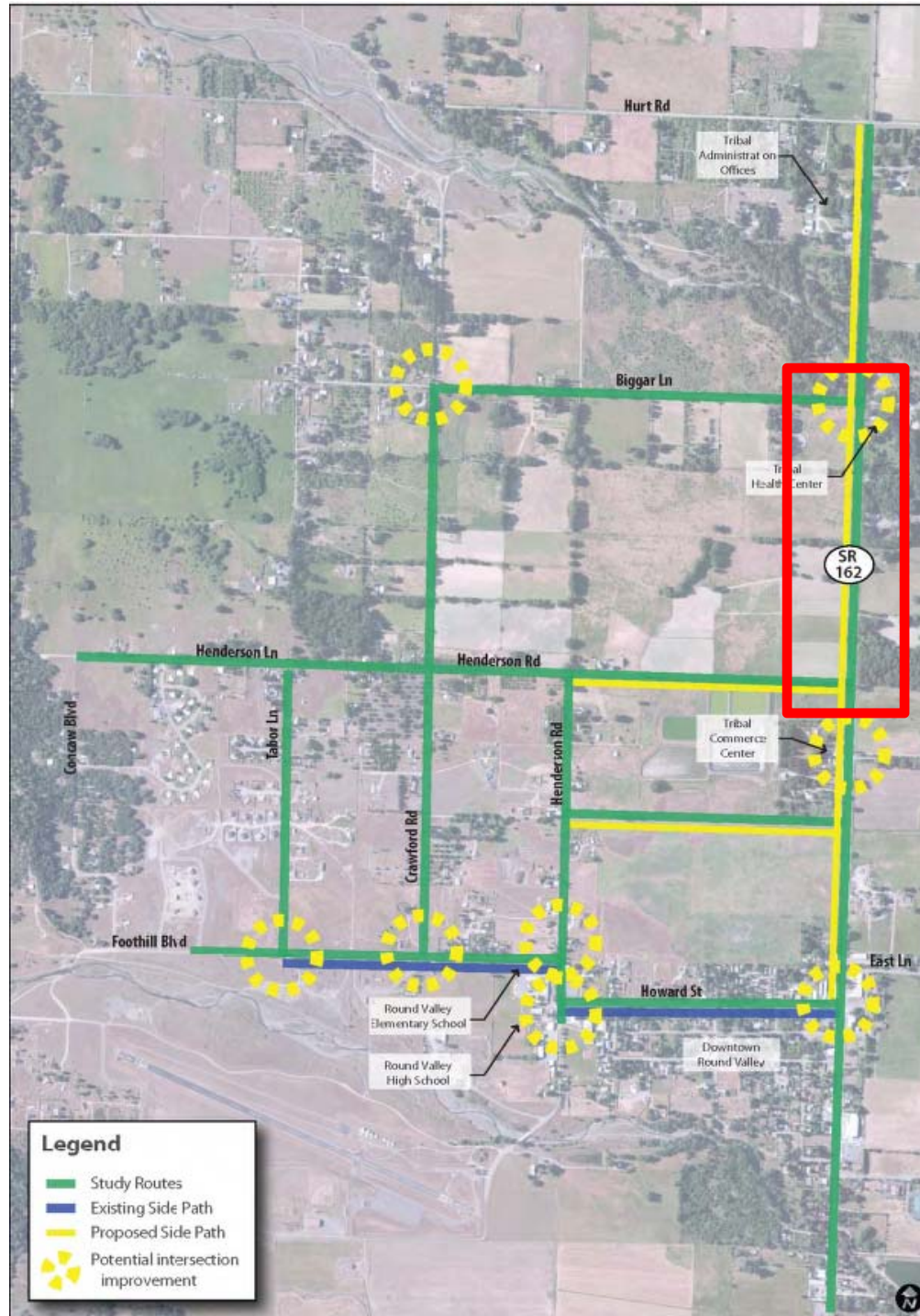


Figure 5-10: State Route 162 - Trail at Tribal Economic Center





Consequence of moving ditch = more expensive project

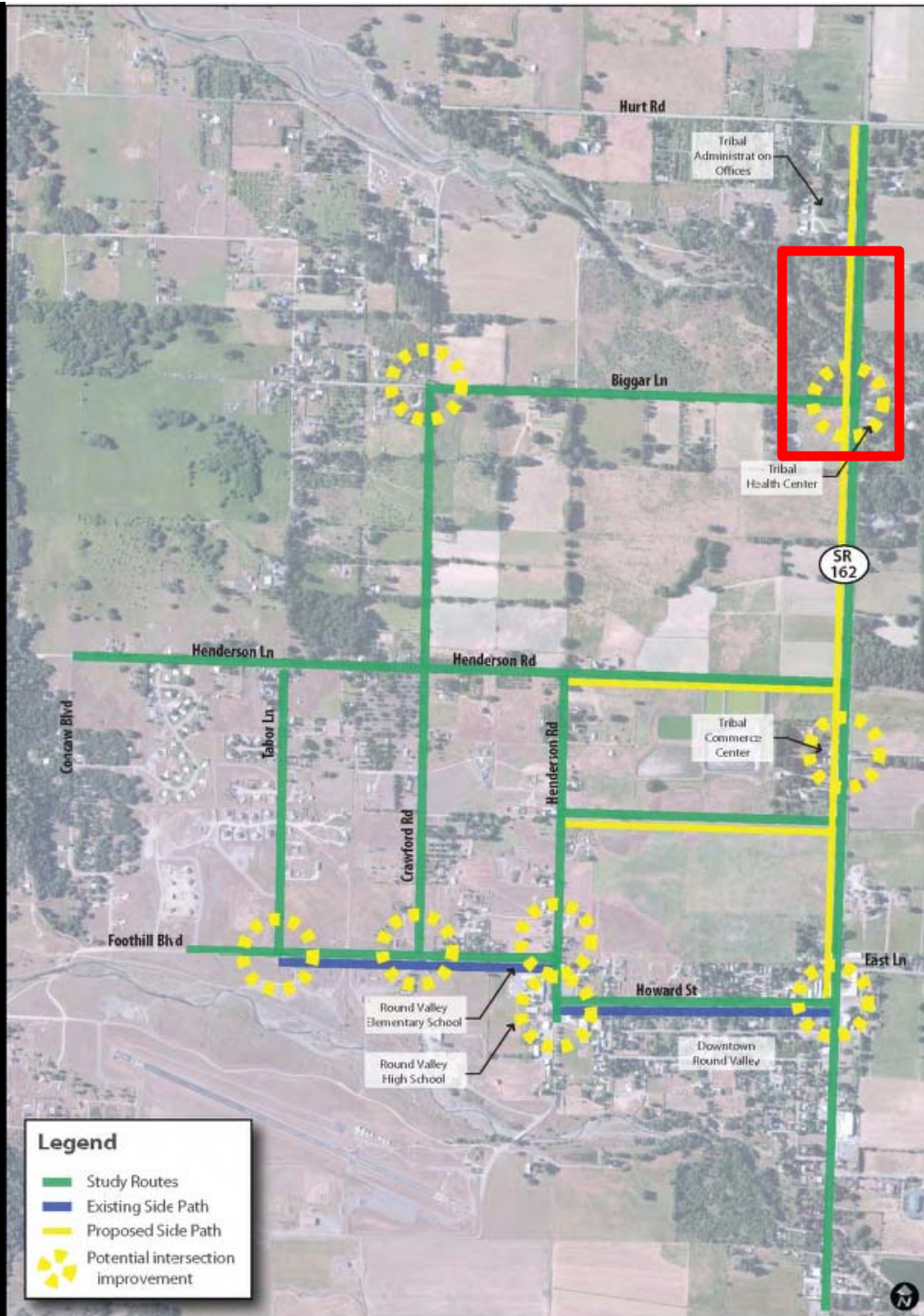


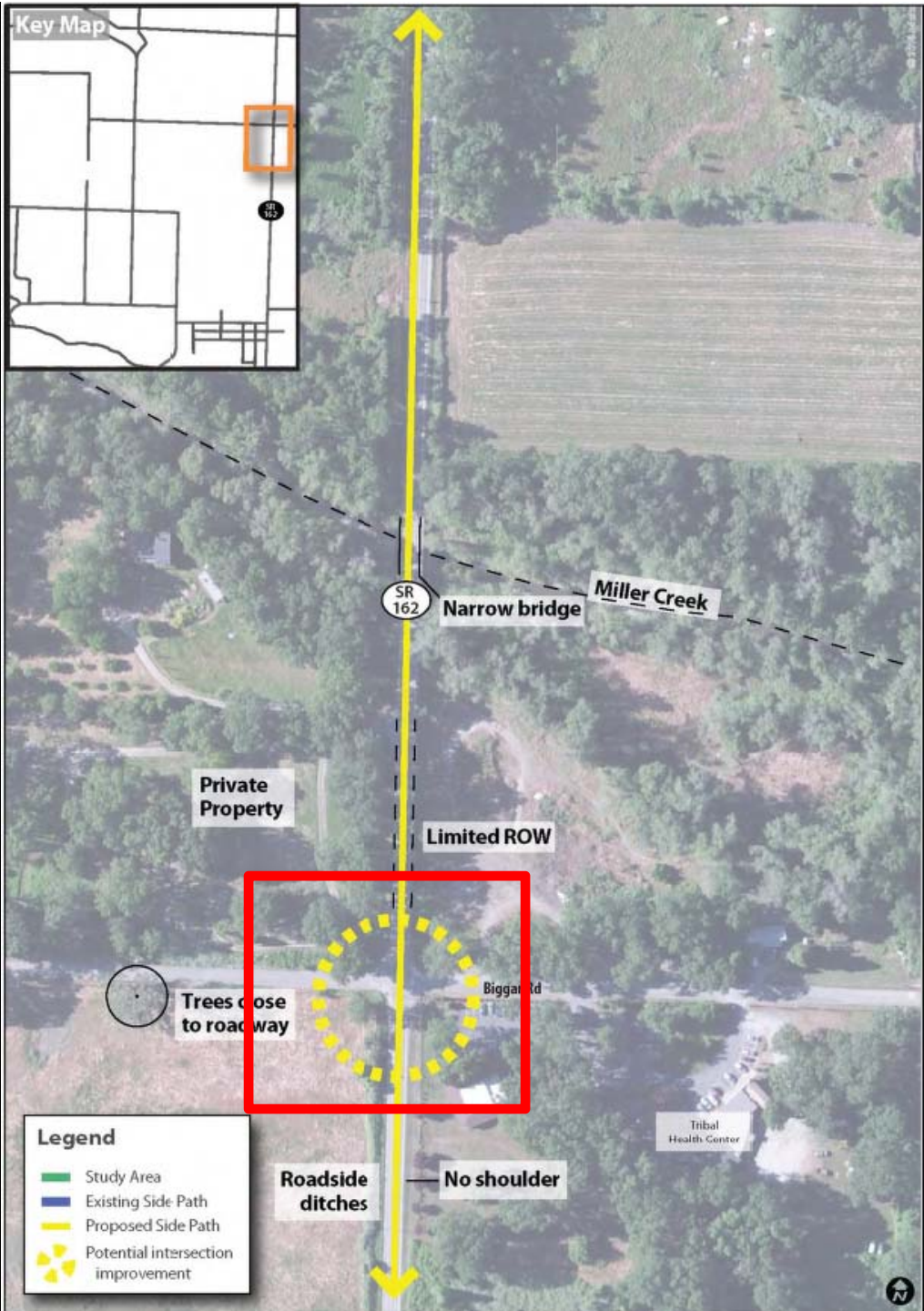
Consequence of “undergrounding” ditch = even more expensive project



Six property owners on east side









Mina Road

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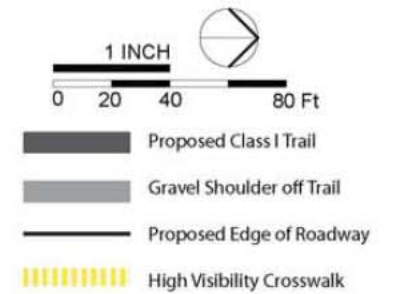
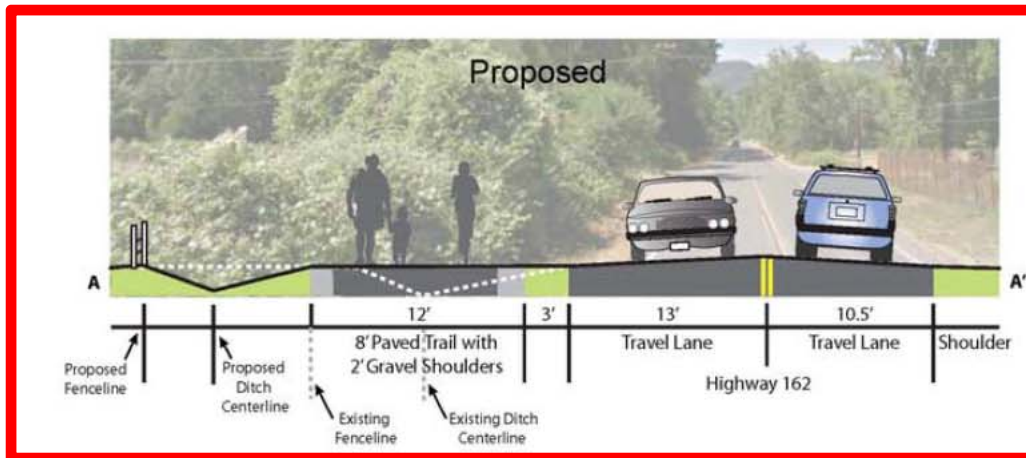
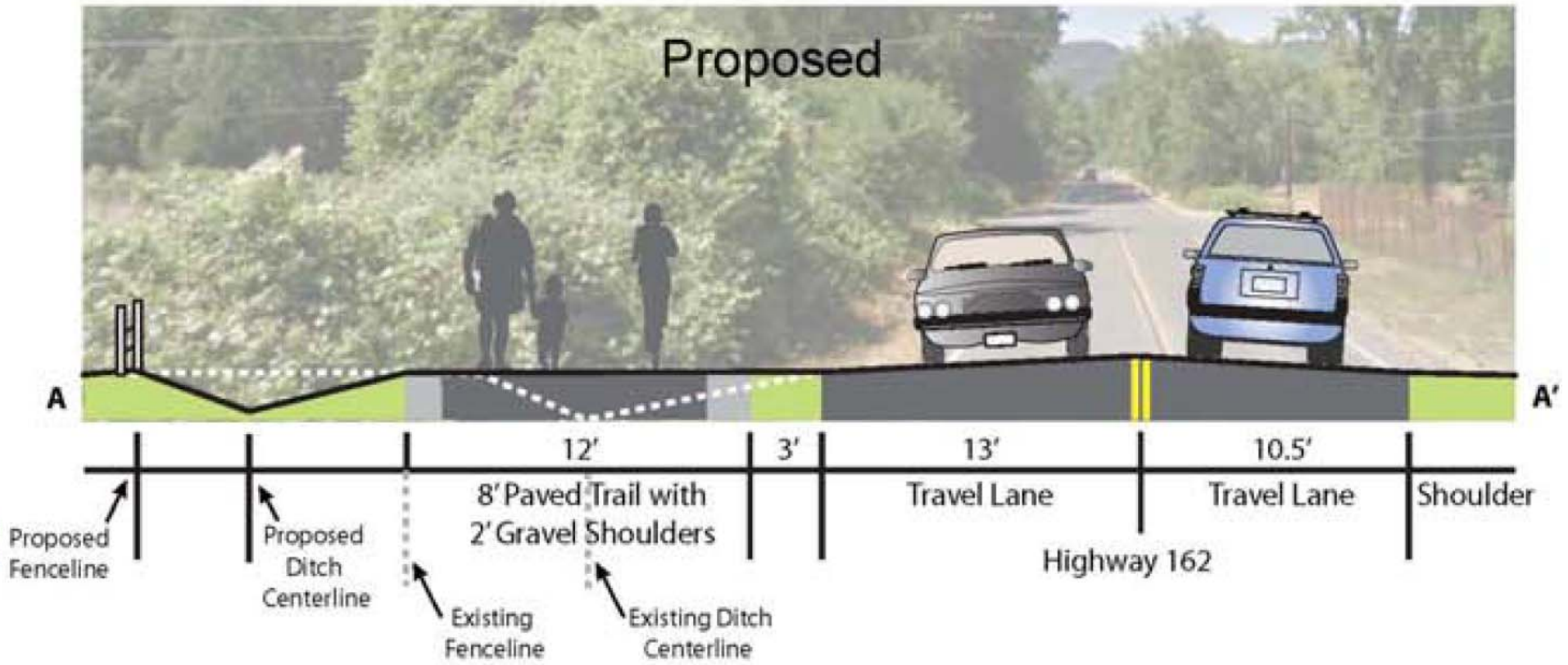


Figure 5-11: State Route 162 - Trail at Biggar Lane

Proposed



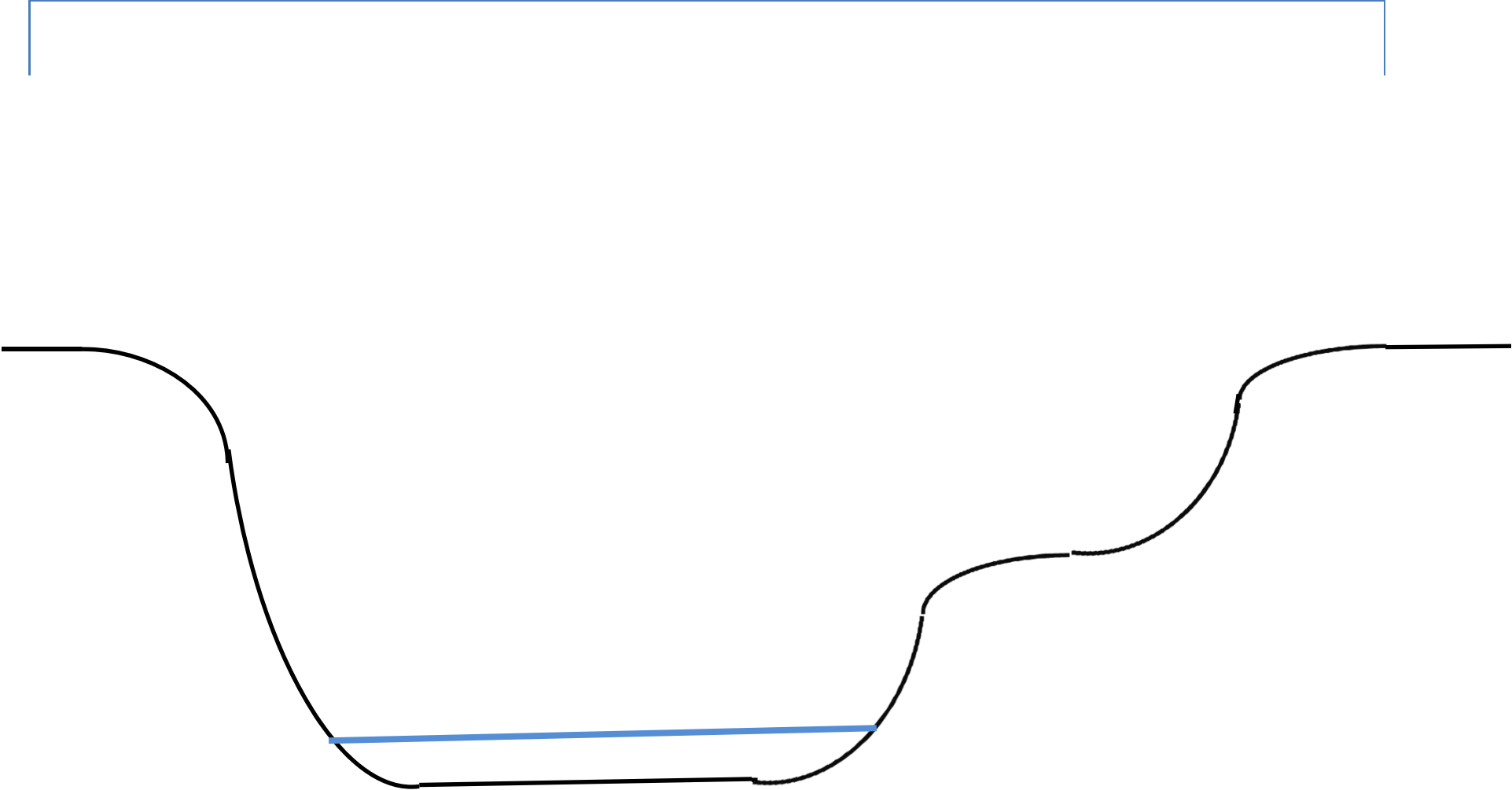




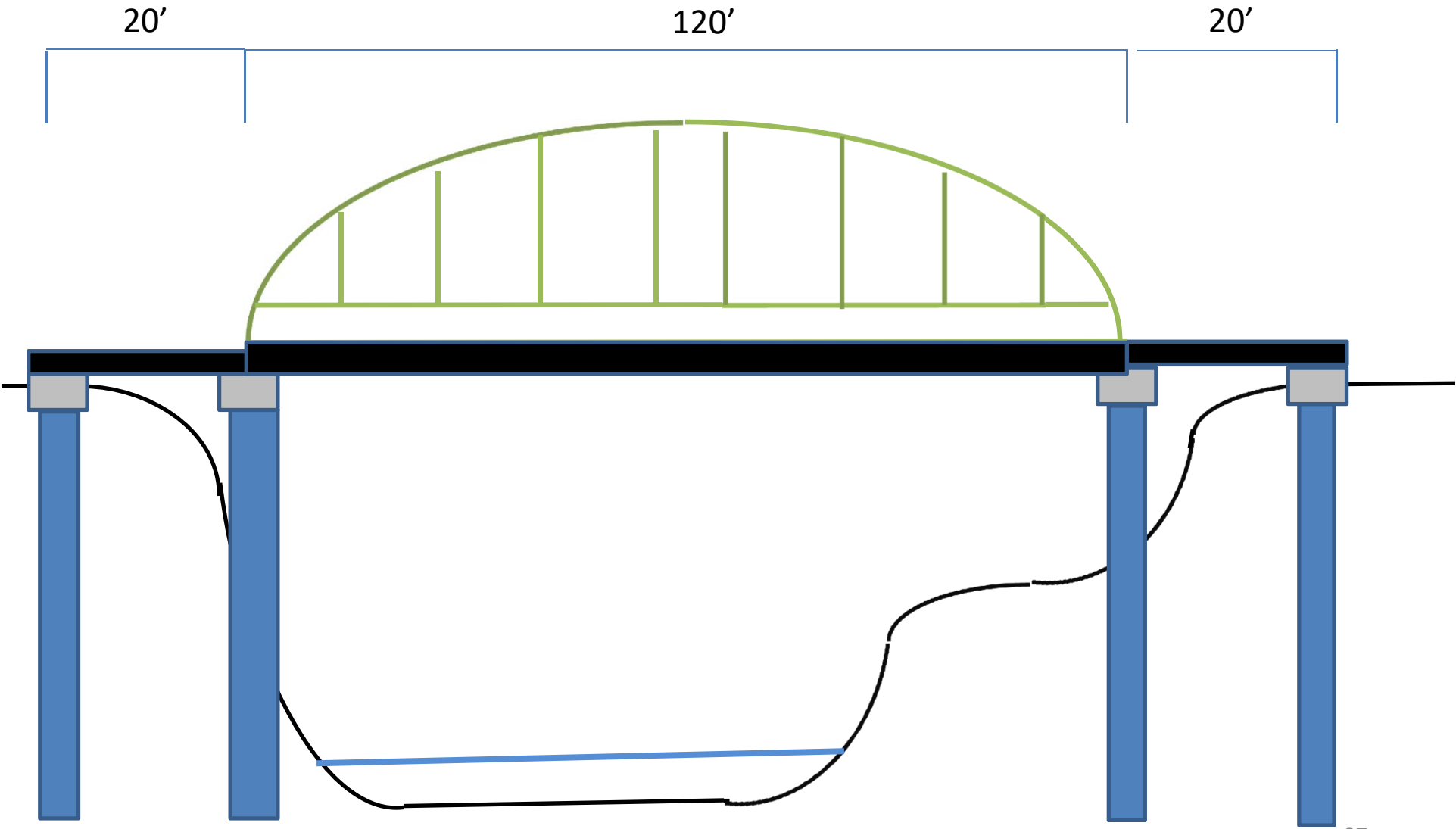


WEIGHT
LIMIT
13T
19T
25T

160'

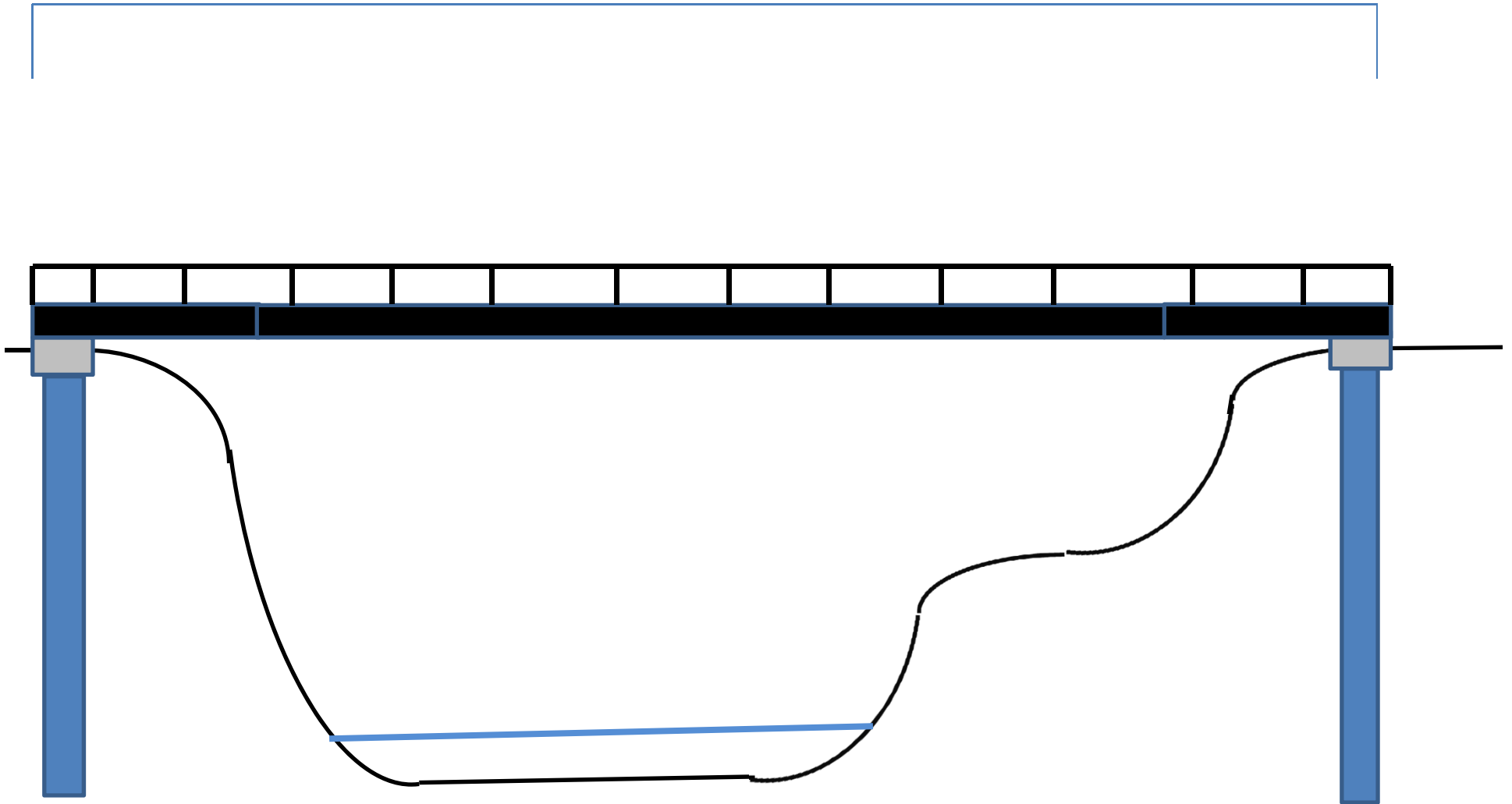


Use Existing Bridge



New Pre-fabricated Bridge

160'



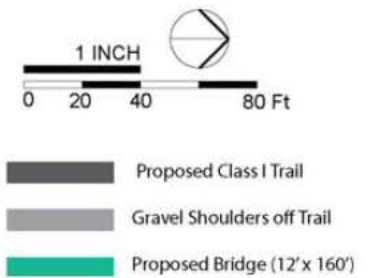
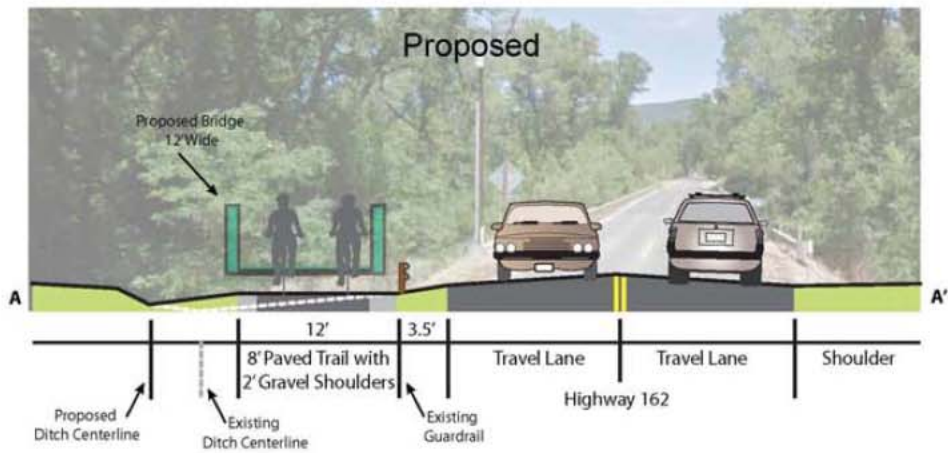
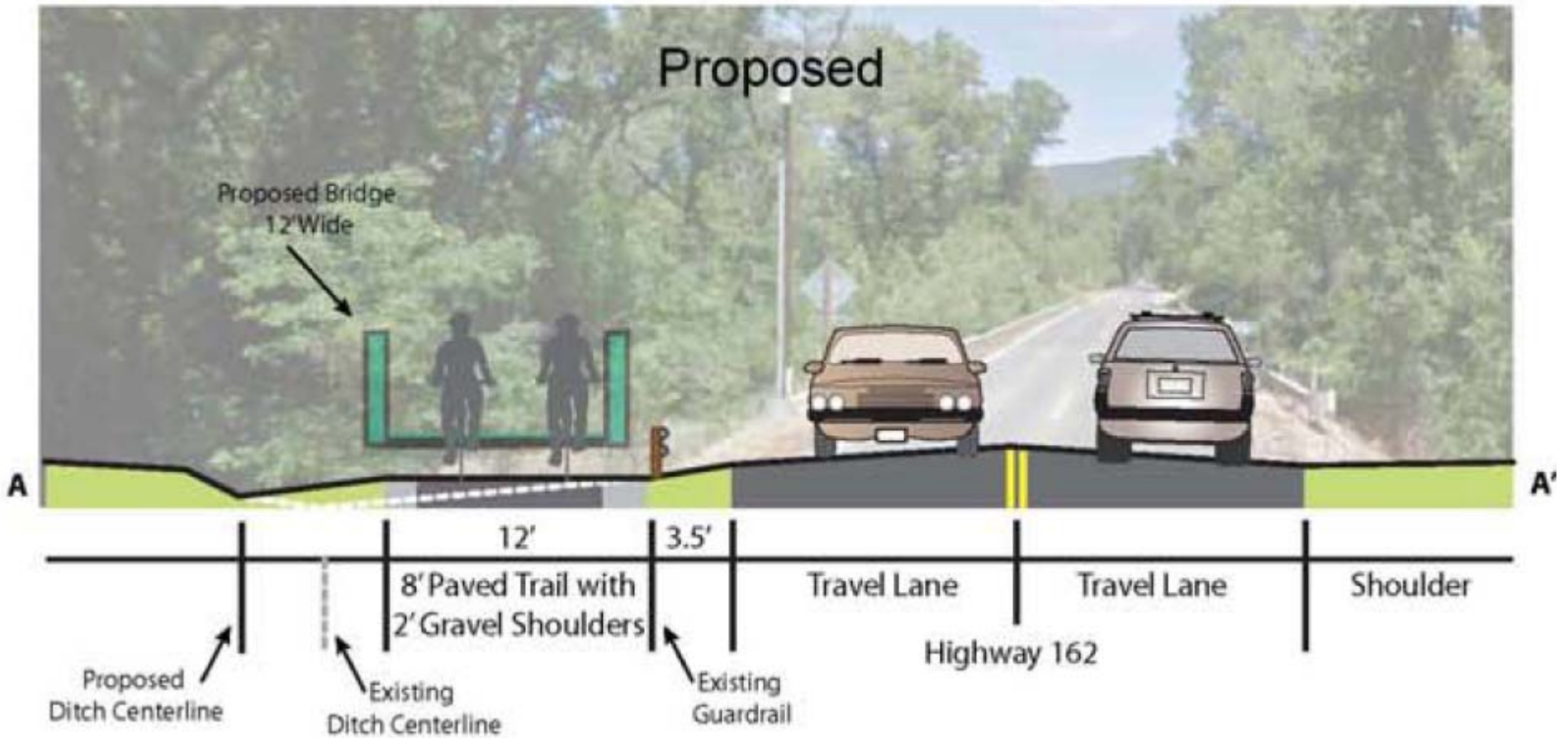
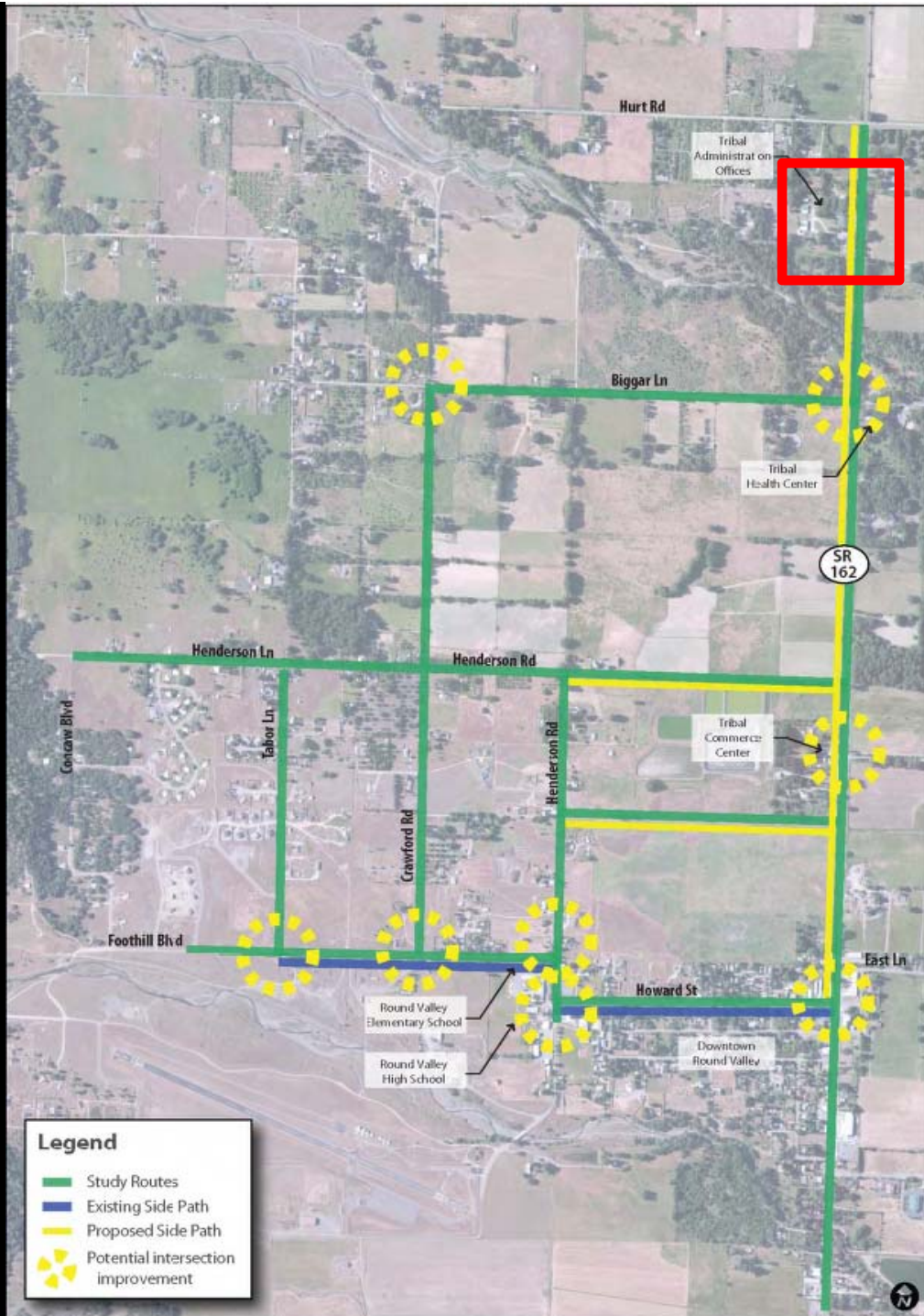


Figure 5-12: State Route 162 - Trail and Bridge over Mill Creek

Proposed







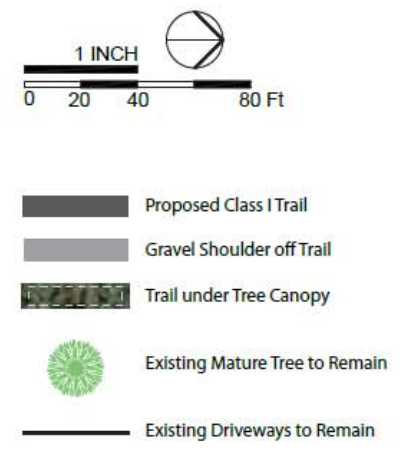
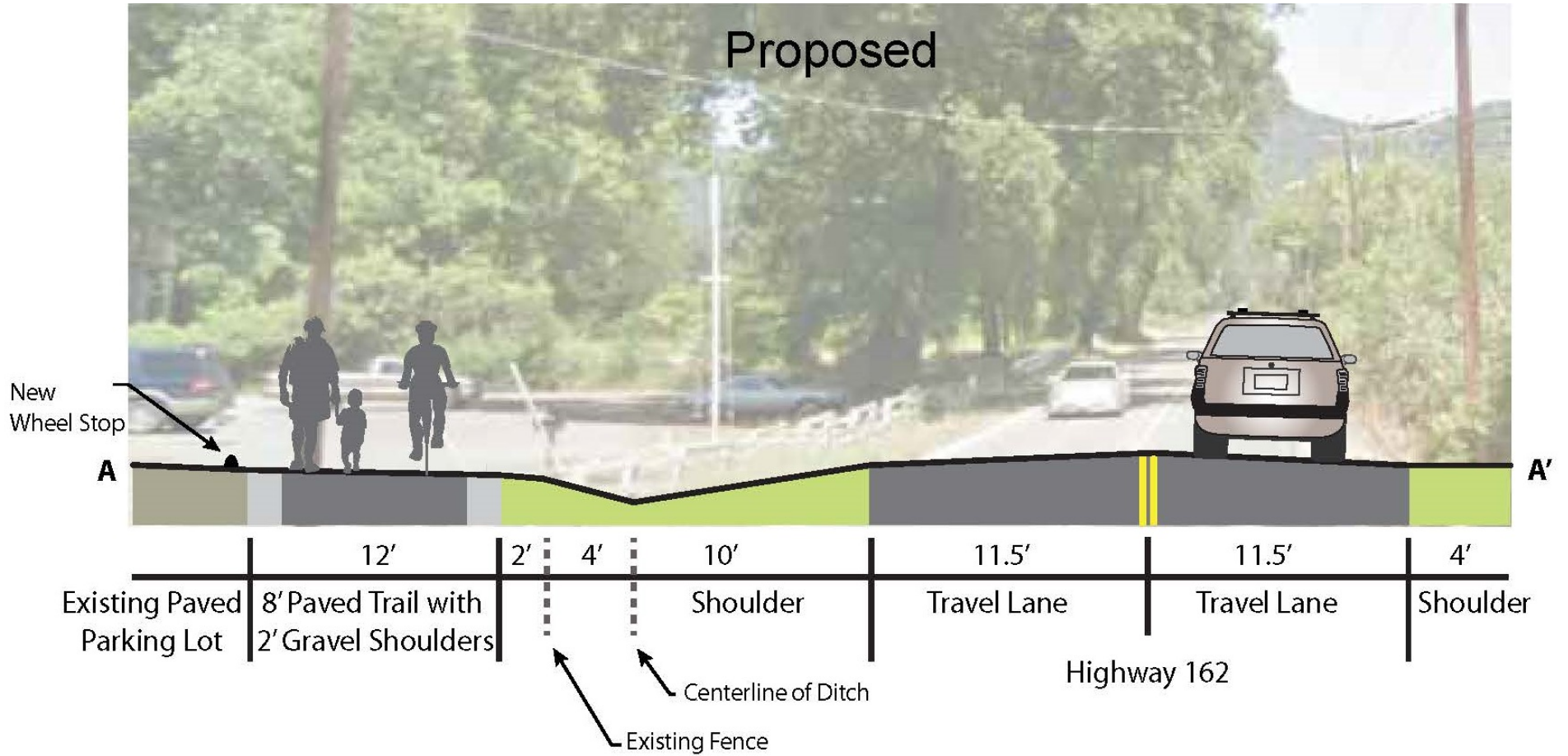


Figure 5-12: State Route 162 - Trail at Tribal Administration Center

Proposed



Howard Street





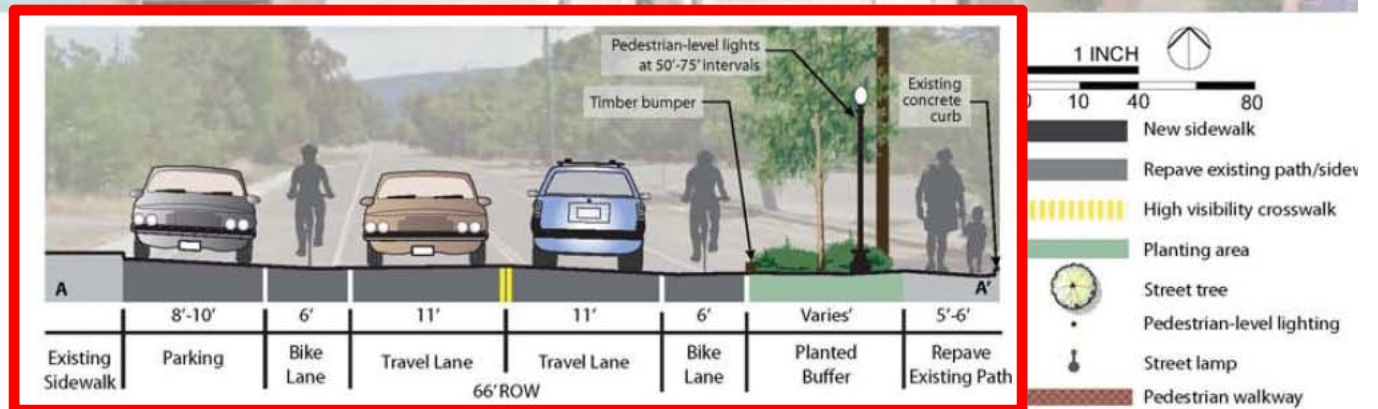
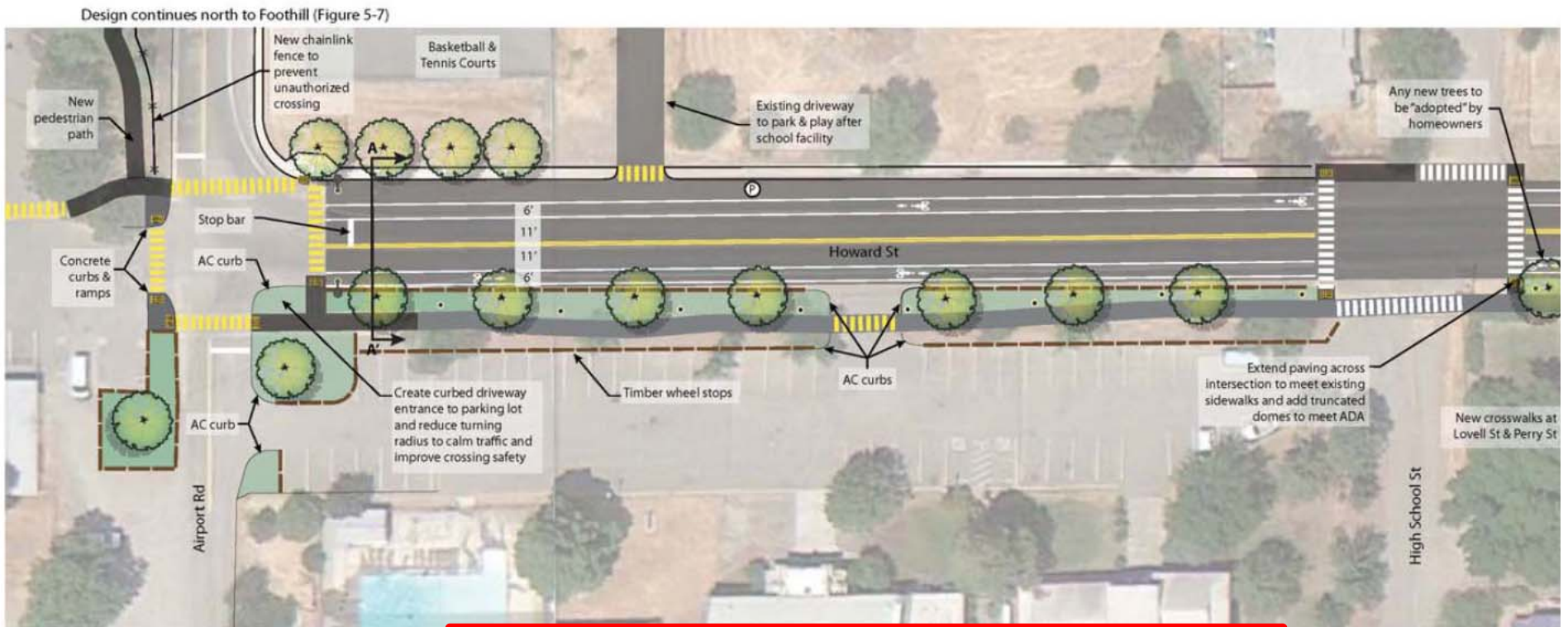
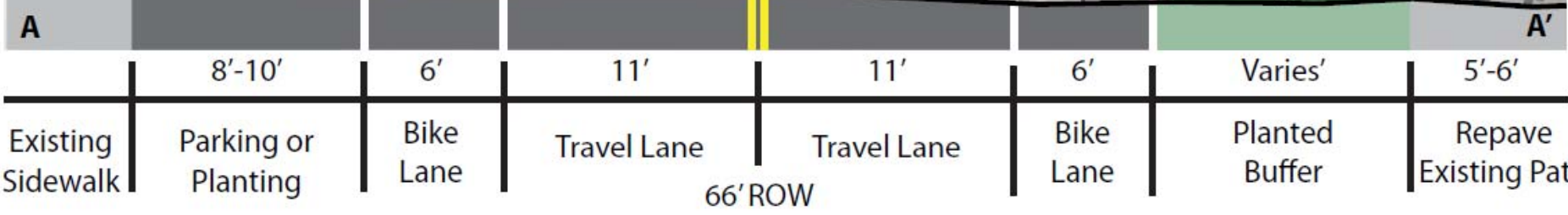


Figure 5-6: Howard Street at Airport Road







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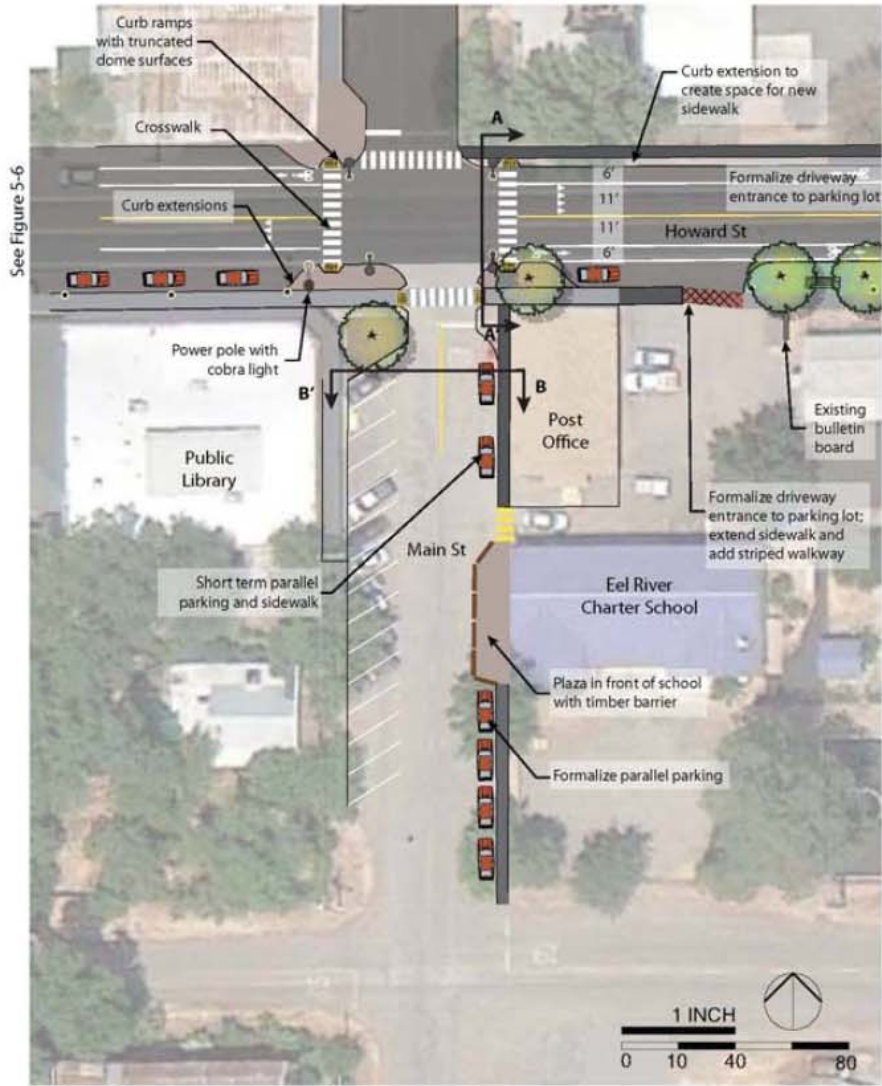
2

Howard Street

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101



Design continues east to SR162 (Figure 5-1)

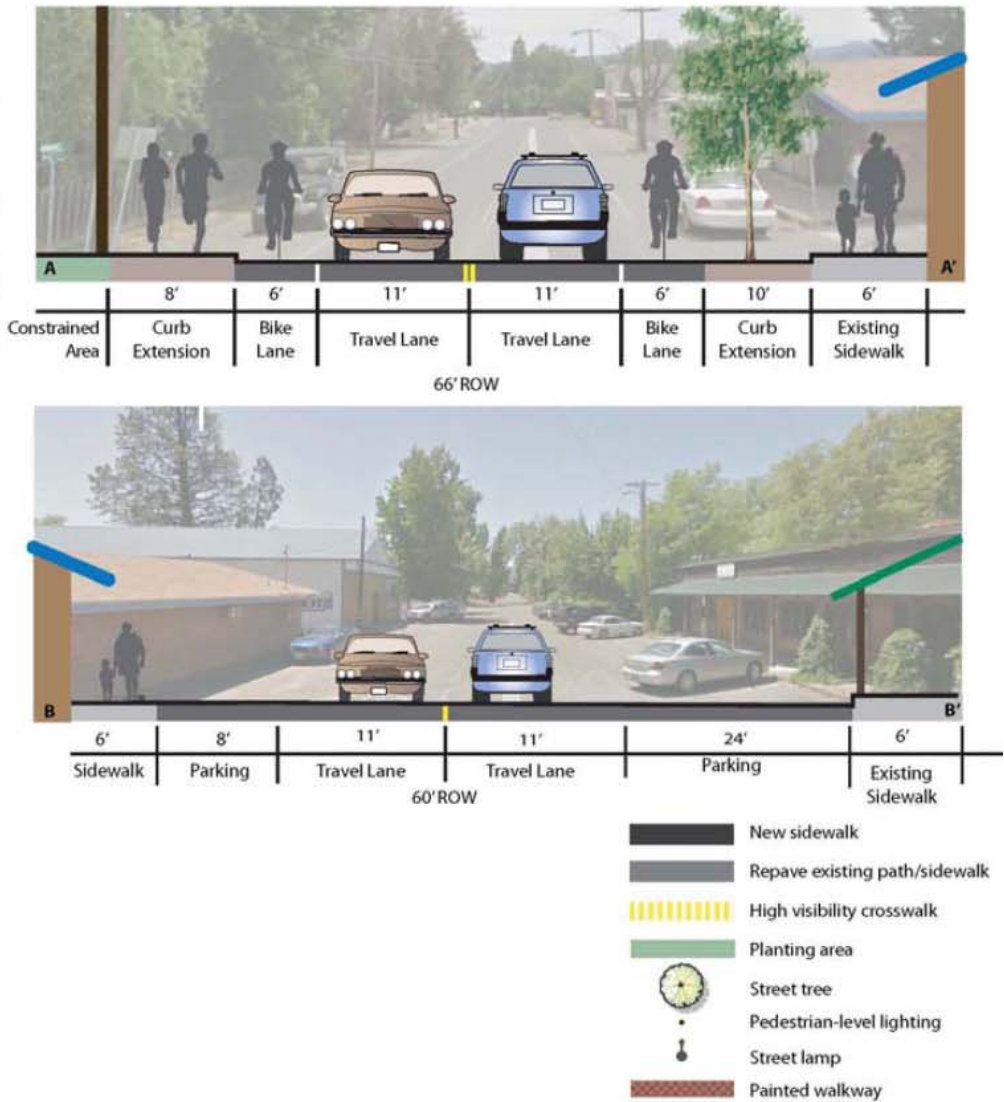


Figure 5-5: Howard Street at Main Street

Foothill Blvd



Figure 5-7a: Foothill at Airport Road

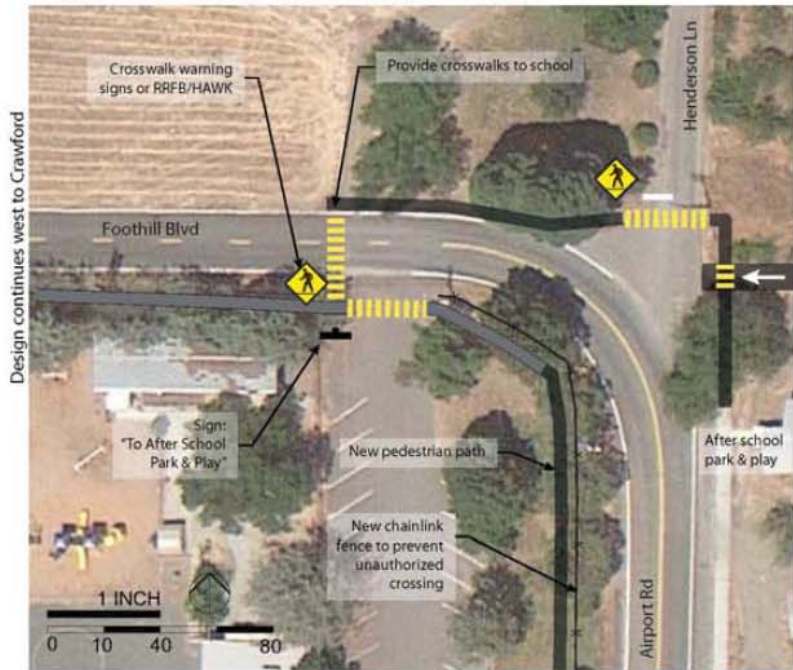


Figure 5-7b: Foothill at Tabor

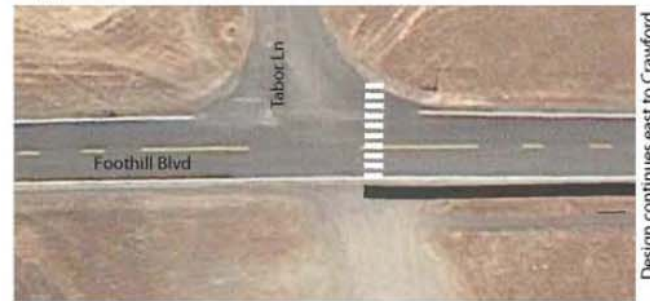
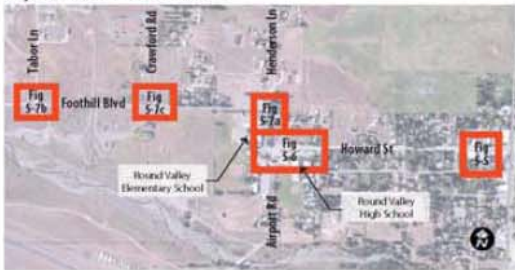


Figure 5-7c: Foothill at Crawford



Key to Howard Street Sheets



Foothill (Existing, typ.)

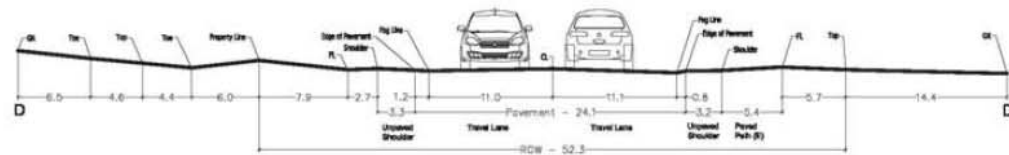


Figure 5-7: Foothill Boulevard





Foothill Boulevard

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Phased Projects and Preliminary Estimates of Probable Construction Cost

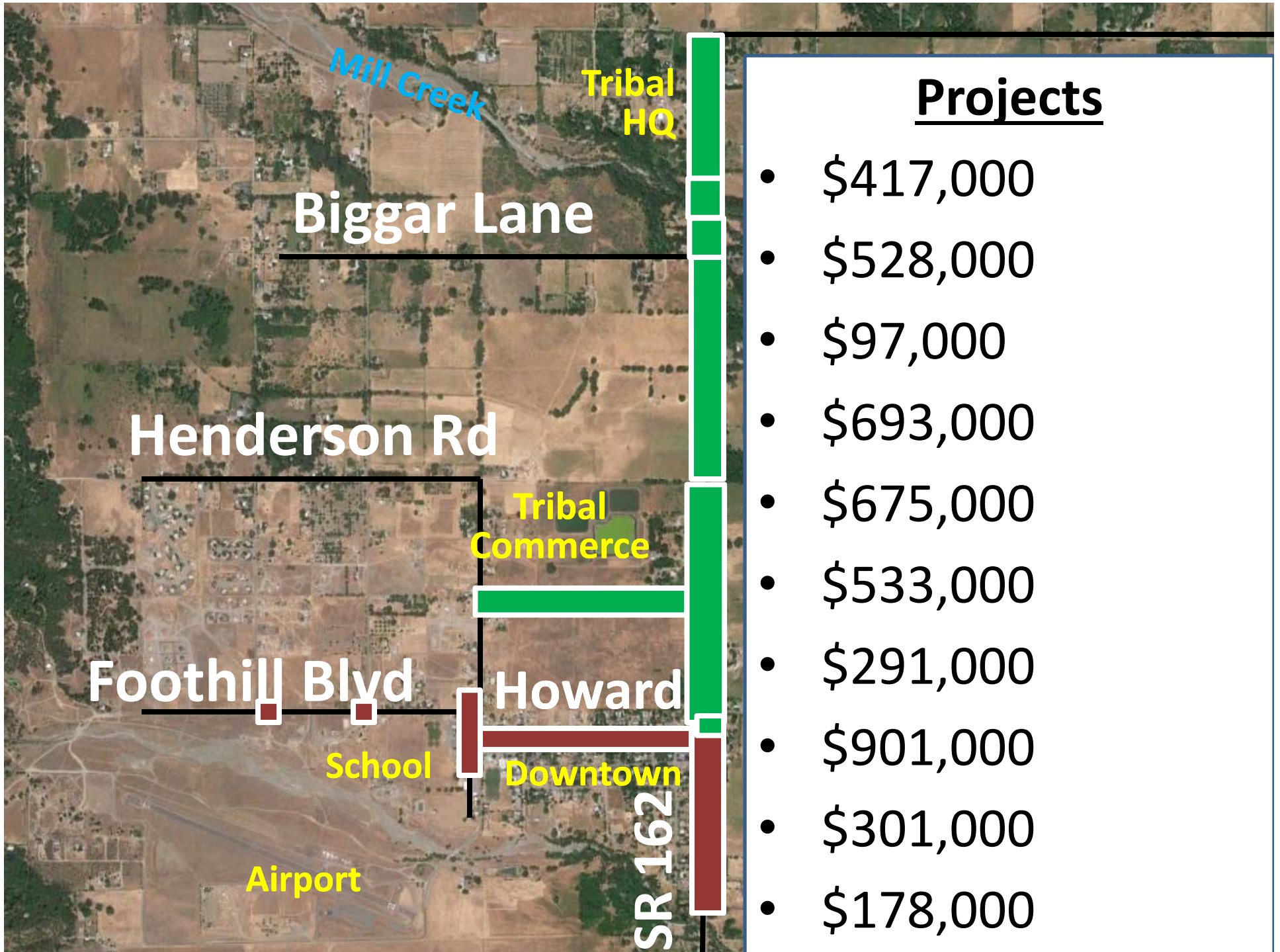
Preliminary Estimates of Probable Cost

Table C- 3: State Route 162 - Howard Intersection

	ITEM & ASSUMPTIONS	QTY	UNIT	UNIT COST	COST	SUB TOTAL
1	Mobilization - maximum of 5% of total bid price	1	ALLOW	5.00%	\$13,033.42	
2	General Conditions, Bonds and Insurance	1	ALLOW	2.00%	\$5,213.37	
3	Erosion Control - includes all BMPs, SWPPP and Supply QSP	1	ALLOW	5.00%	\$13,033.42	
4	Traffic Control	1	ALLOW	10.00%	\$26,066.84	
	Sub-total					\$57,347.06
5	Sitework, Demolition and Removal - includes all demolition, site preparation for all construction; relocation or re-setting of utilities; temporary construction fencing.					
5.1	Sawcut pavement	1064	LF	\$5.00	\$5,320.00	
5.2	Remove AC pavement	8675	SF	\$0.25	\$2,168.75	
5.3	Remove concrete pavement	2221	SF	\$0.25	\$555.25	
	Sub-total					\$8,044.00
6	Earthwork					
6.1	Clearing and Grubbing	8,206	SF	\$0.25	\$2,051.50	
6.2	Excavation and Grading	0	CY	\$18.00	\$0.00	
6.3	Embankment, Import Borrow	0	CY	\$30.00	\$0.00	
6.4	Soil for new landscape areas	0	CY	\$10.00	\$0.00	
	Sub-total					\$2,051.50
7	Concrete Work and Asphalt Paving - includes concrete curbs, 4' PCC sidewalk, Type I pedestrian ramps, concrete pads, Class I Trail					
7.1	Construct curb & gutter	1049	LF	\$24.00	\$25,176.00	
7.2	Construct AC curb	0	LF	\$12.00	\$0.00	

What is included in the Preliminary Estimates of Probable Cost?

- Final Survey and Final Design Engineering
- Environmental Permitting
- Environmental Mitigation
- Right-of-Way Acquisition
- Construction
- Contingencies



Mill Creek

Tribal HQ

Biggar Lane

Henderson Rd

Tribal Commerce

Foothill Blyd

Howard

School

Downtown

Airport

SR 162

TOTAL COST OF ALL PROJECTS

1	Hurt to bridge	\$	417,000.00
2	Bridge	\$	528,000.00
3	Bridge to Biggar, Biggar	\$	97,000.00
4	Biggar to Tribal Econ Center	\$	693,000.00
5	Tribal Econ to East	\$	675,000.00
6	Howard @ HWY162	\$	533,000.00
7	Downtown (162 so of Howard)	\$	291,000.00
8	Howard Street and Main Street	\$	901,000.00
9	Xcountry	\$	301,000.00
10	Foothill	\$	178,000.00

TOTAL

\$ 4,326,000

TOTAL COST OF COMBINED TRAIL PROJECT

1	Hurt to bridge	\$	417,000.00
2	Bridge	\$	528,000.00
3	Bridge to Biggar, Biggar	\$	97,000.00
4	Biggar to Tribal Econ Center	\$	693,000.00
5	Tribal Econ to East	\$	675,000.00

TOTAL

\$2,410,000

Chapter 6: Implementation Steps and Funding Opportunities

Implementation Considerations

- Update Transportation Planning Documents
- Coordination of implementing agency(s)
- Identify funding sources
 - Grant Programs
 - TAP Program (SR2S, BTA, etc)
 - TIGER
 - HSIP
 - Others
- Phase and prioritize projects to match funding availability

Discussion and Q&A



Lead Agencies:



Consultant Team:



Local
Government
Commission



RAU AND ASSOCIATES INC.

Civil Engineers • Land Surveyors