

Town of Telluride

Southwest Neighborhood Conceptual Master Plan Traffic Study

Monday October 28th, 2019



Traffic/Circulation Meeting Agenda

Monday October 28th (Firehouse)

- 1:00-3:00 Review Traffic Study Findings
Update Street Sections/Circulation

- 6:00-8:00 Public Open House #3 – Traffic/Circulation Focus
 - Presentation
 - Open House



YOU'RE INVITED

COMMUNITY OPEN HOUSE

SOUTHWEST AREA - TRAFFIC STUDY



On Monday, October 28th, 6-8 PM, please stop by the Telluride Fire Station Training Room (131 W. Columbia) for a community discussion about the results obtained from a study regarding the Southwest Neighborhood's pedestrian, bike and car traffic. Topics will include pedestrian/bicycle/vehicular connectivity, transit patterns and routes and potential modifications to existing public roadways.

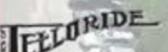
OCTOBER 28 | 6-8 PM
6 PM - Presentation

Fire Station Training Room
131 West Columbia | Telluride CO

Study Area

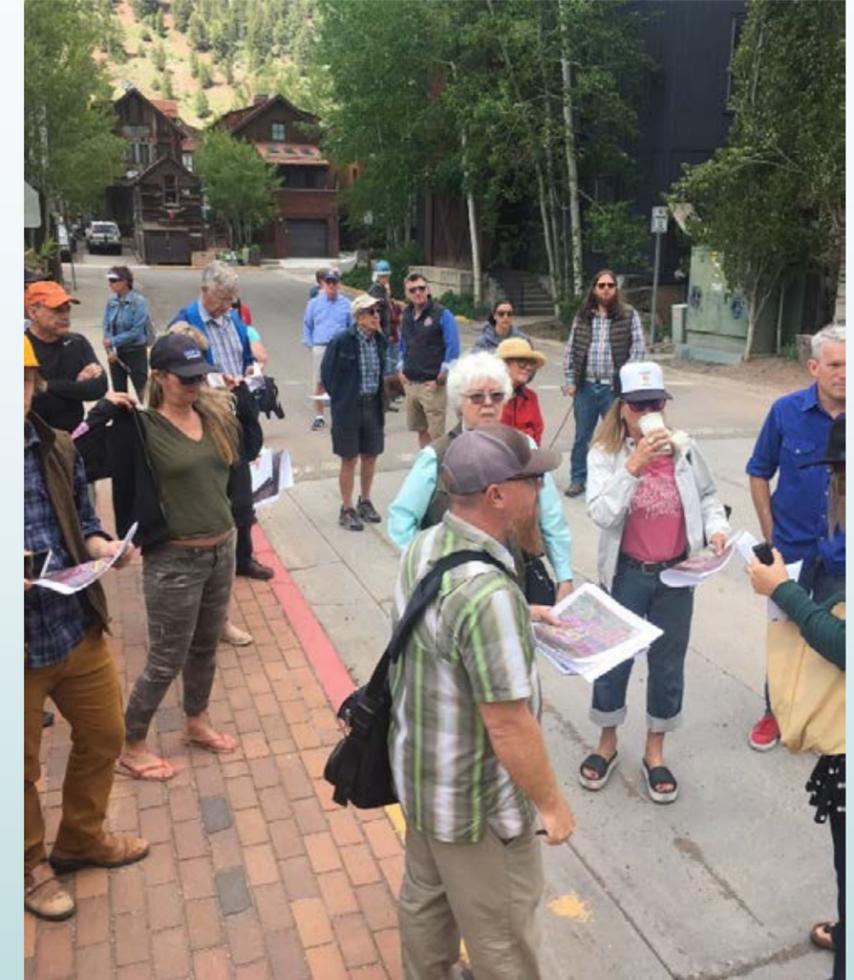


BHM DESIGN LANDSCAPE ARCHITECTURE
URBAN DESIGN + LAND PLANNING
ECOLOGICAL PLANNING



Project Process Recap

- Site Walk with Public - June 10th
- Workshop #1 with Committee/Staff/Public – June 11th
- Public Open House #1 – June 11th
- Workshop #2 with Committee/Staff/Public – July 30th
- Public Open House #2 – July 30th
- Spanish Language Meeting – August 4th
- Traffic Counts – August 7th -13th
- Traffic Observations – Friday Sept 13th Blues and Brews
- Committee Meeting #3 - Traffic – Oct 28th
- Public Open House #3 (Traffic/Circulation Focus) – Oct 28th



Project Process Recap

Key Circulation Items from Previous Meetings – Public and Committee Input

- Improve safety of pedestrians and bicycle flow
- Investigate traffic implications of adding density
- Parking inadequate now
- Better connectivity to rest of town
- Access/connection to ski area, market, school
- Keep green space, enhance what exists
- Improvements to wayfinding – pedestrian and vehicle
- Pedestrians and bicycles are top priority
- Pre-study survey 35% of responses stated preference to keep one-way traffic
- Pre-study survey 2% of responses stated preference for two-way

Goals

- Inform public on findings of traffic study and how it relates to the Southwest Area Master Plan.
- To solicit input to help guide decision making by Council on circulation.

Traffic Study Objectives

1. Determine the traffic impacts of increased density in the Southwest Area
2. Look at Three Different Road Configurations for Pacific Ave
 - Pacific One-way Eastbound between Mahoney and Davis (Existing Condition)
 - Pacific One-way Westbound between Mahoney and Davis
 - Pacific Two-way between Mahoney and Davis
3. Document Pedestrian, vehicular, and bicycle traffic at each intersection
4. Observe Traffic Impacts of large Special Events (Blues and Brews)

Traffic Study Area



Traffic Study Area



*Virginia Placer beyond image

Traffic Study Details

- AM & PM Peak Hour analyzed (only PM Peak presented here)
- Count data was collected from 7am – 7pm between August 7th – 13th
- Assumptions:
 - Existing Conditions
 - 720 Off-street Parking Spaces (Lot B, Shandoka, Carhenge, Virginia Placer)
 - 210 Existing Residential Units
 - Developed Conditions
 - 1365 Off-street Parking Spaces (Lot B, Shandoka, Carhenge, Virginia Placer)
 - 650 Proposed Residential Units

Traffic Study Details (Cont'd)

- Level of Service Definitions:

<u>Level of Service</u>	<u>Stopped Delay per Vehicle (seconds)</u>
A	≤ 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	>50.0

- CDOT standards used to define acceptable levels of service.

Functional Class	Appropriate Level of Service for Specified Combinations of Area and Terrain Type			
	Rural Level	Rural Rolling	Rural Mountainous	Urban and Suburban
Freeway	B	B	C	C or D
Arterial	B	B	C	C or D
Collector	C	C	D	D
Local	D	D	D	D



Traffic Study Projected Results

SH 145/Colorado Ave/Mahoney Roundabout:

- Level of Service A or B for all movements for all configurations for Pacific

Mahoney/Pacific/Lot B:

- Level of Service A or B for all movements for all configurations for Pacific

Pacific/Tomboy/Carhenge:

- Level of Service A for all movements for all configurations for Pacific

Pacific/Davis:

- Level of Service A for all movements for all configurations for Pacific

Colorado/Davis:

- Level of Service from A to E for various movements (see details next sheet)

Traffic Study Preliminary Results (Cont'd)

Colorado/Davis:

PM Peak Hour Level of Service - Davis & Colorado Existing Configuration													
Intersection	EB			WB			NB			SB			Overall Intersection
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
BG Traffic Only - Ex Config (Pacific one-way EB)	0.1			0.2			39.8			21			5.7
	A			A			E			C			A
BG+Project - Ex Config (Pacific one-way EB)	0.1			0.2			148.5			30.1			17.2
	A			A			F			D			C
BG + Project - Pacific one-way WB	0.1			1.2			60			43.5			3.8
	A			A			F			E			A
BG + Project - Pacific two-way	0.1			1.2			42.4			39.4			4
	A			A			E			E			A

Potential Davis/Colorado Improvements (TWLTL)

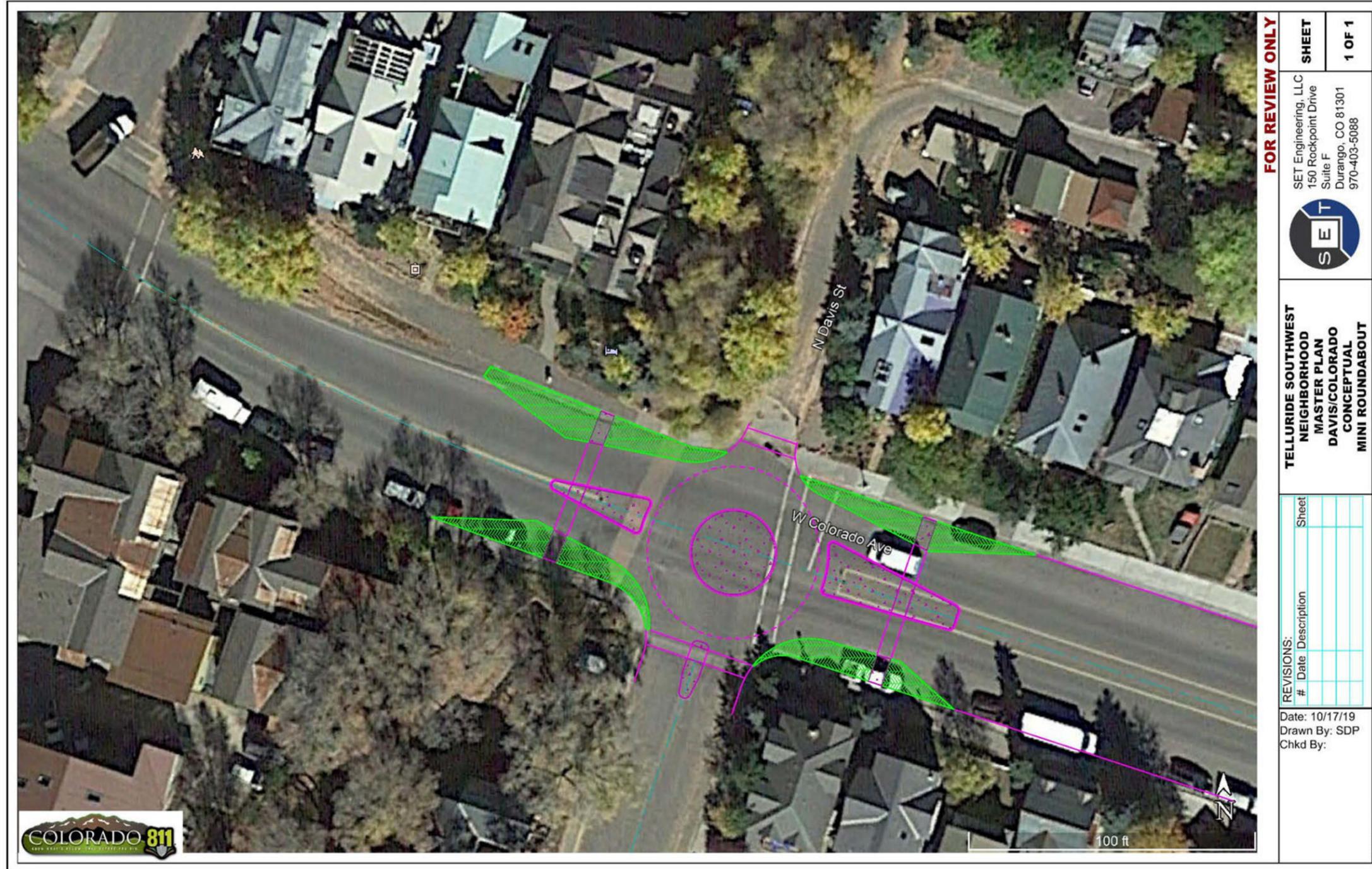


Potential Davis/Colorado Improvements (TWLTL)

Table 12: PM Peak Hour LOS - BG 2019 & Concept #3 Traffic - Davis & Colorado Two-way Left Turn Lane (TWLTL)

Intersection	EB			WB			NB			SB			Overall Intersection
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
Ex Config (Pacific one-way EB)	0.1			0.2			29.6			18.4			3.6
	A			A			D			C			A
Pacific one-way WB)	0.1			0.9			20.6			21			1.7
	A			A			C			C			A
Pacific two-way	0.1			1.2			19.2			21.6			2.2
	A			A			C			C			A

Potential Davis/Colorado Improvements (Mini Roundabout)



FOR REVIEW ONLY

SET Engineering, LLC
 150 Rockpoint Drive
 Suite F
 Durango, CO 81301
 970-403-5088



**TELLURIDE SOUTHWEST
 NEIGHBORHOOD
 MASTER PLAN
 DAVIS/COLORADO
 CONCEPTUAL
 MINI ROUNDABOUT**

REVISIONS:

#	Date	Description	Sheet

Date: 10/17/19
 Drawn By: SDP
 Chkd By:

File Path: 081000

Potential Davis/Colorado Improvements (Mini Roundabout)

- Cursory analysis shows favorable level of service results.
- Further analysis required:
 - Wanted to solicit public input on Mini RAB prior to further analysis.
 - Significant intersection reconstruction may be required. Need to verify this is feasible to construct.

Circulation Options

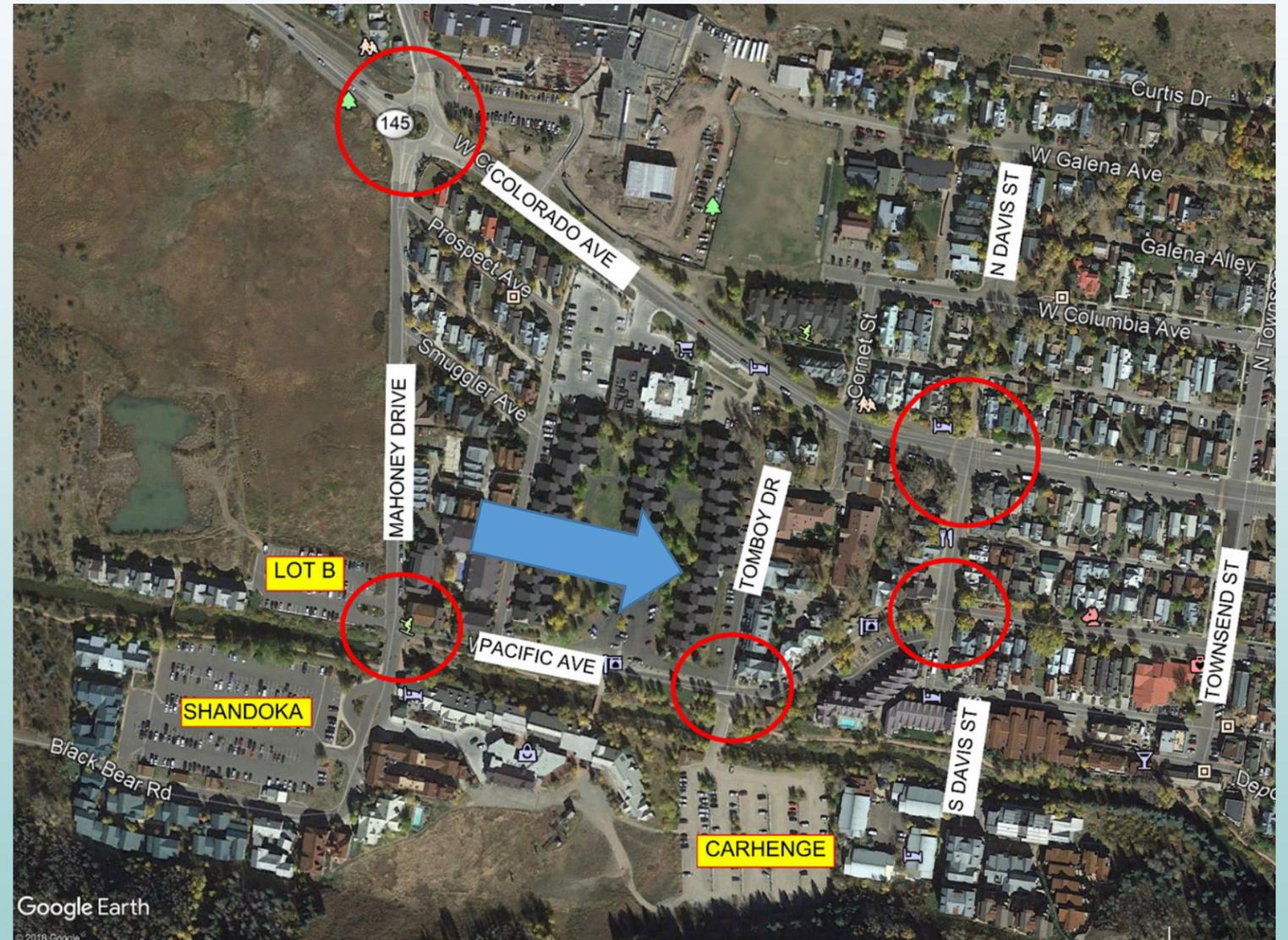
Pacific One-Way Eastbound (Ex Config)

Pros:

- Survey indicated preference for Pacific one-way
- Existing traffic pattern maintained
- Provides separated two-way bike lanes with minimal impact to park
- One-way streets are generally easier to cross

Cons:

- Limits vehicular connectivity/driver options
- Worst level of service with or without improvements at Davis/Colorado
- One-way configurations may result in higher traffic speeds



Circulation Options

Pacific One-Way Westbound:

Pros:

- Survey indicated preference for Pacific one-way
- Motorists have an alternative route to avoid the left at Davis/Colorado
- Provides separated two-way bike lanes with minimal impact to park
- One-way streets are generally easier to cross

Cons:

- Limits vehicular connectivity/driver options
- Increases traffic on Northbound Mahoney and Eastbound Colorado
- One-way configurations may result in higher traffic speeds
- Change in transit direction could have impacts to timing/function of the Goose.



Circulation Options

Pacific Two-way:

Pros:

- Maximizes vehicular connectivity/driver options
- Best level of service with or without improvements at Davis/Colorado
- Two-way configurations may result in lower traffic speeds
- Resolves the wrong-way bicycle traffic on Pacific

Cons:

- Survey indicated preference for Pacific one-way
- Requires most significant widening of Pacific
- Two-way streets are slightly more difficult to cross



Traffic Study Findings

Carhenge, Sep 13, 2019 – Blues and Brews



Shandoka



Carhenge Bluegrass 2019

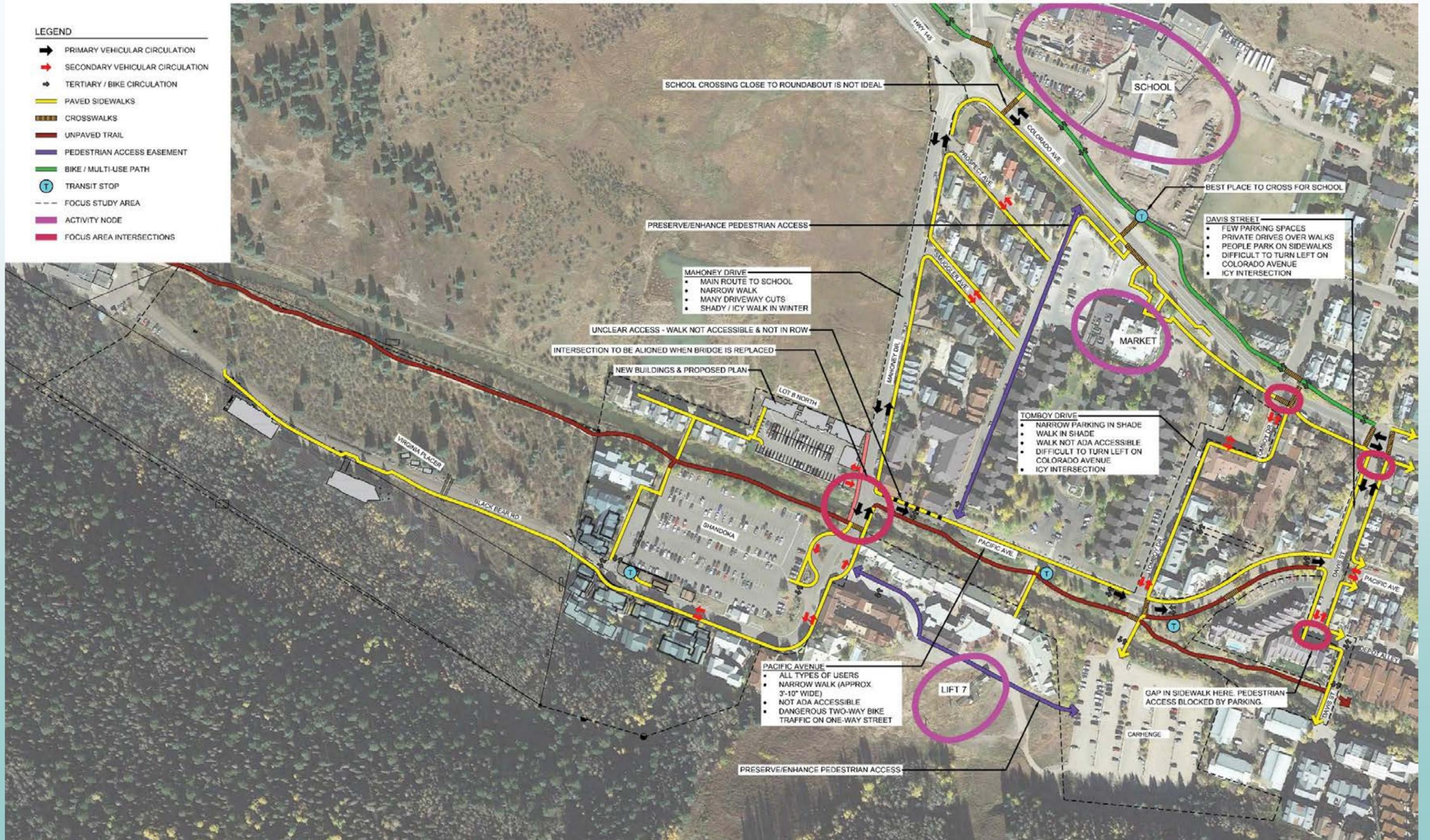


Shandoka Bluegrass 2019



LEGEND

-  PRIMARY VEHICULAR CIRCULATION
-  SECONDARY VEHICULAR CIRCULATION
-  TERTIARY / BIKE CIRCULATION
-  PAVED SIDEWALKS
-  CROSSWALKS
-  UNPAVED TRAIL
-  PEDESTRIAN ACCESS EASEMENT
-  BIKE / MULTI-USE PATH
-  TRANSIT STOP
-  FOCUS STUDY AREA
-  ACTIVITY NODE
-  FOCUS AREA INTERSECTIONS



Multi-Modal Comparison

-Approx. 5,000 vehicles, bikes, pedestrians passed through the three intersections on Pacific during the morning, noon, and evening combined peak hours. August 2019 Traffic Counts.

-Bikes and pedestrians make up the majority of users circulating on Pacific.

-While the River Trail is a wonderful amenity, it does not fully accommodate non-motorized commuters.

-The River Trail is not accessible to all users especially in the winter.

-Because of the narrow trail and recreational users, bikes prefer to be on the street and are riding against traffic on Pacific.

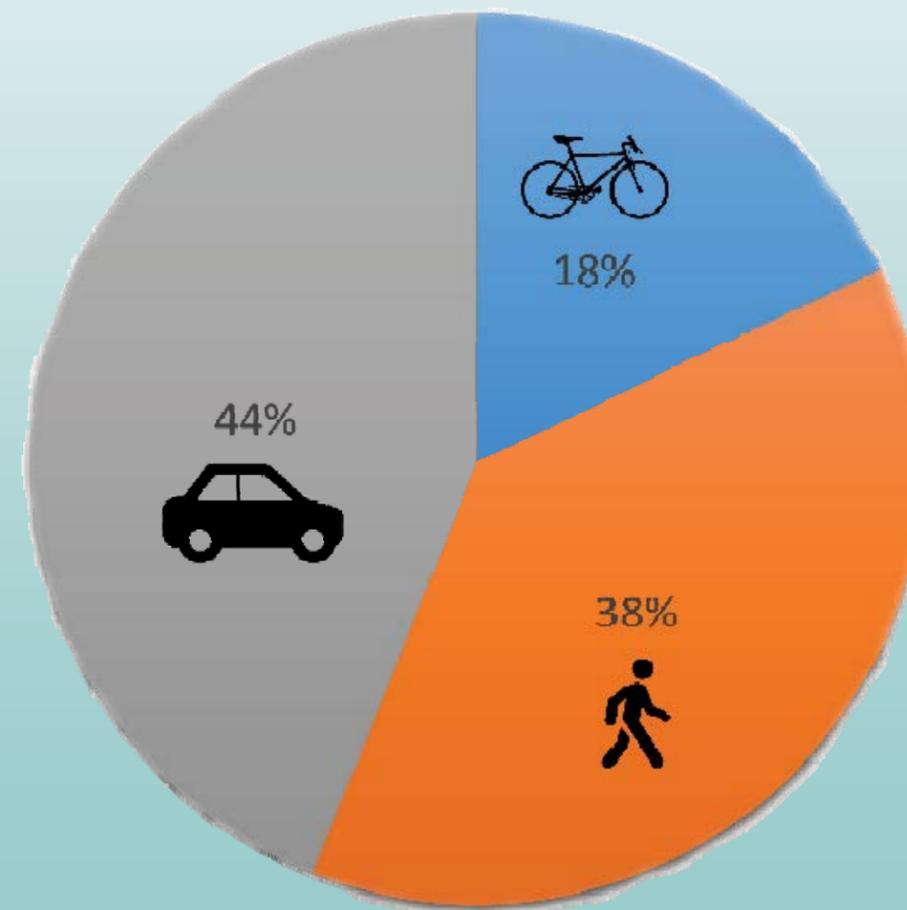
Overall Distribution

18% Bicycles

38% Pedestrians

44% Cars/Trucks

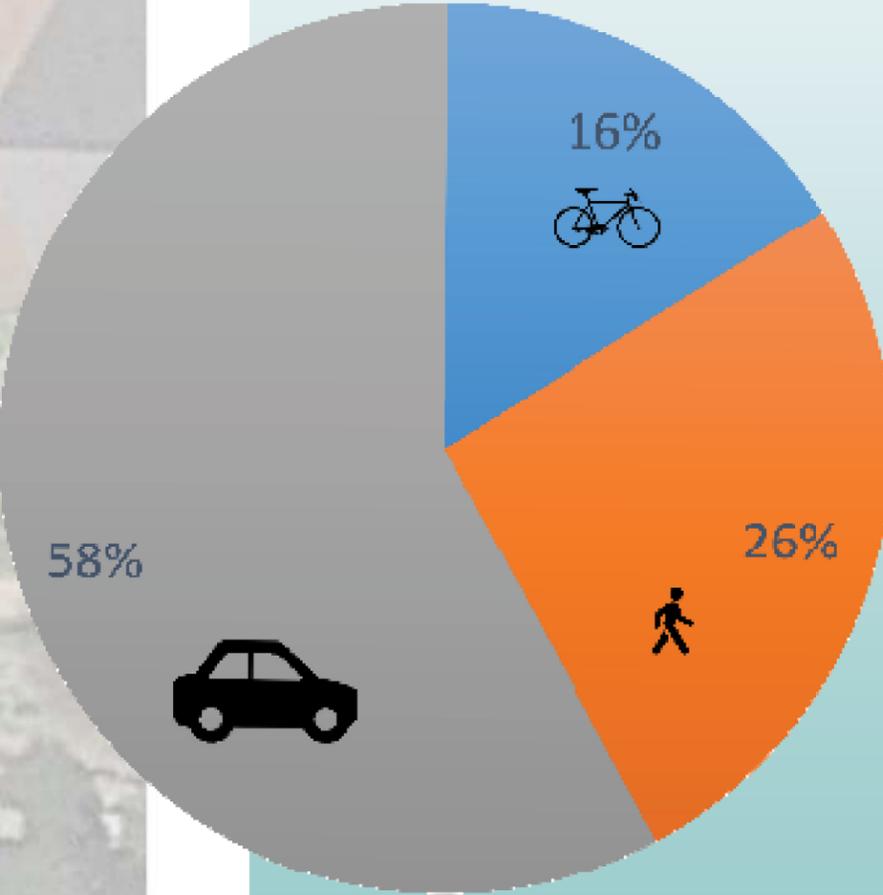
Summary = Bikes and Pedestrians together make up 56% (the majority of users on the corridor).



Mahoney and Pacific (totals based on peak hours) = Most Vehicle Traffic



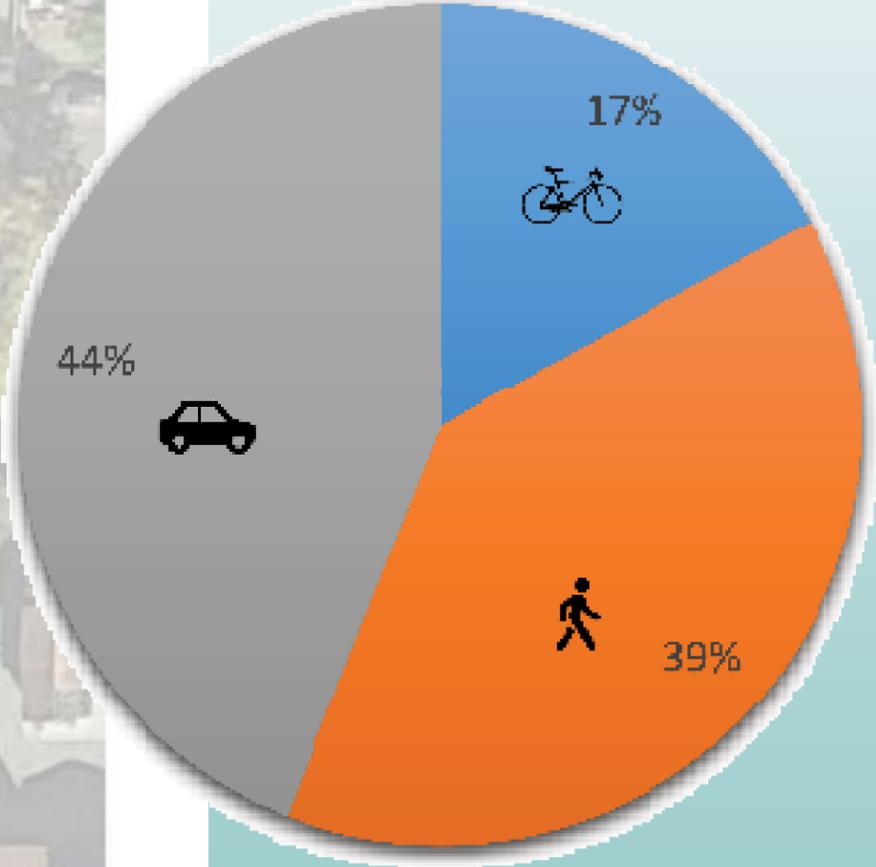
Summary = Car and Truck traffic make up 58% of users at the intersection.



Davis and Pacific

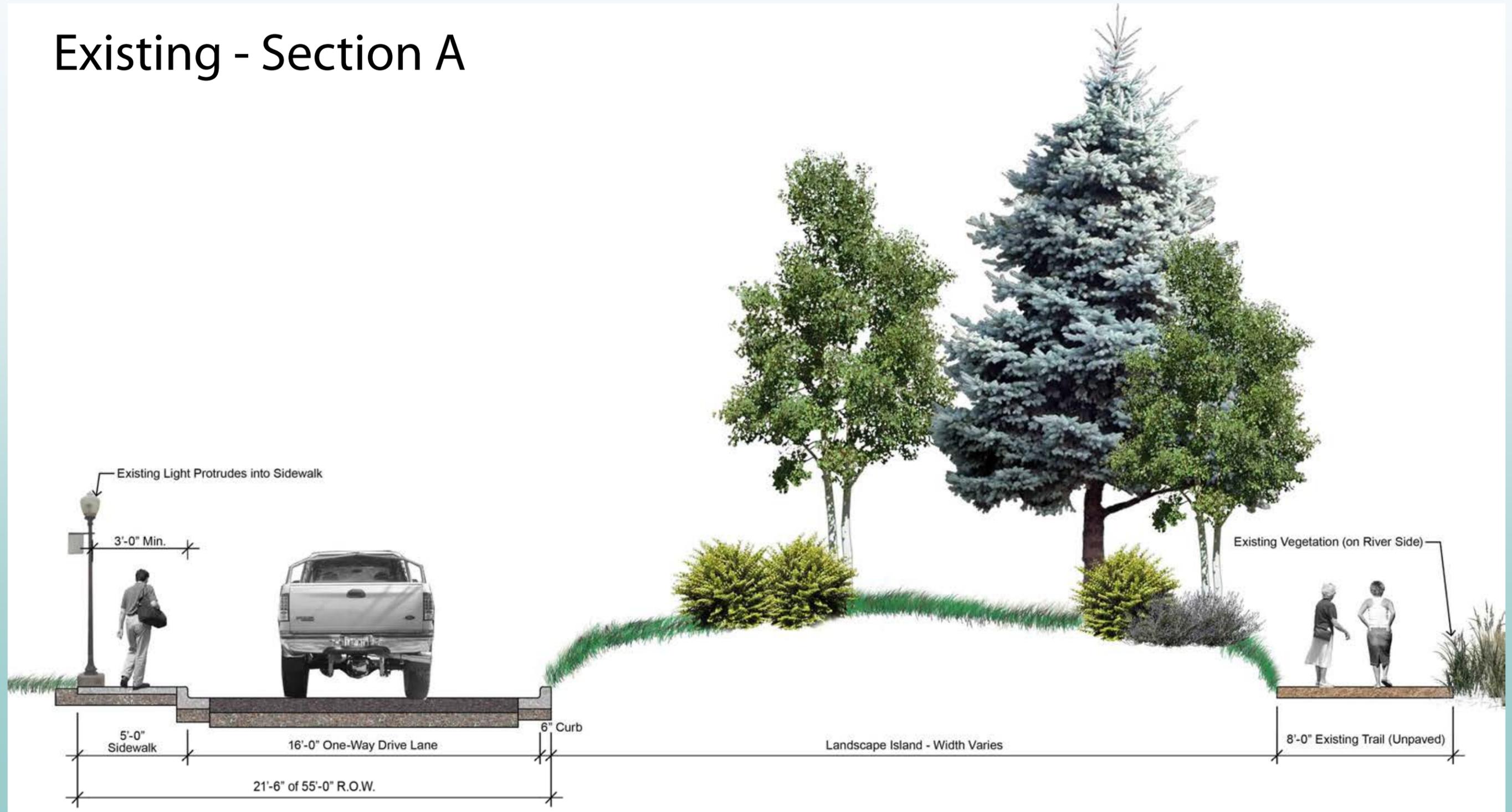


Summary = Bikes and peds together make up 56% (the majority of users on the corridor).



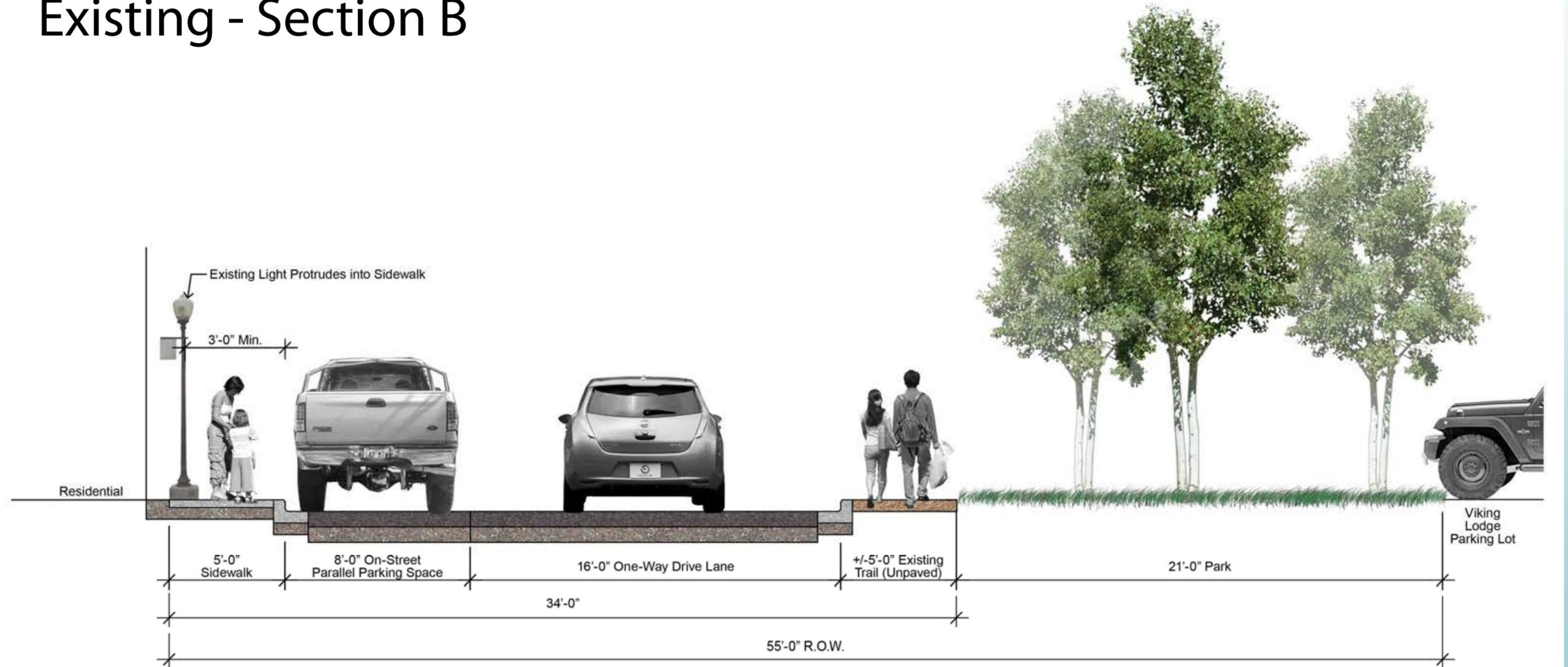
Pacific Avenue

Existing - Section A



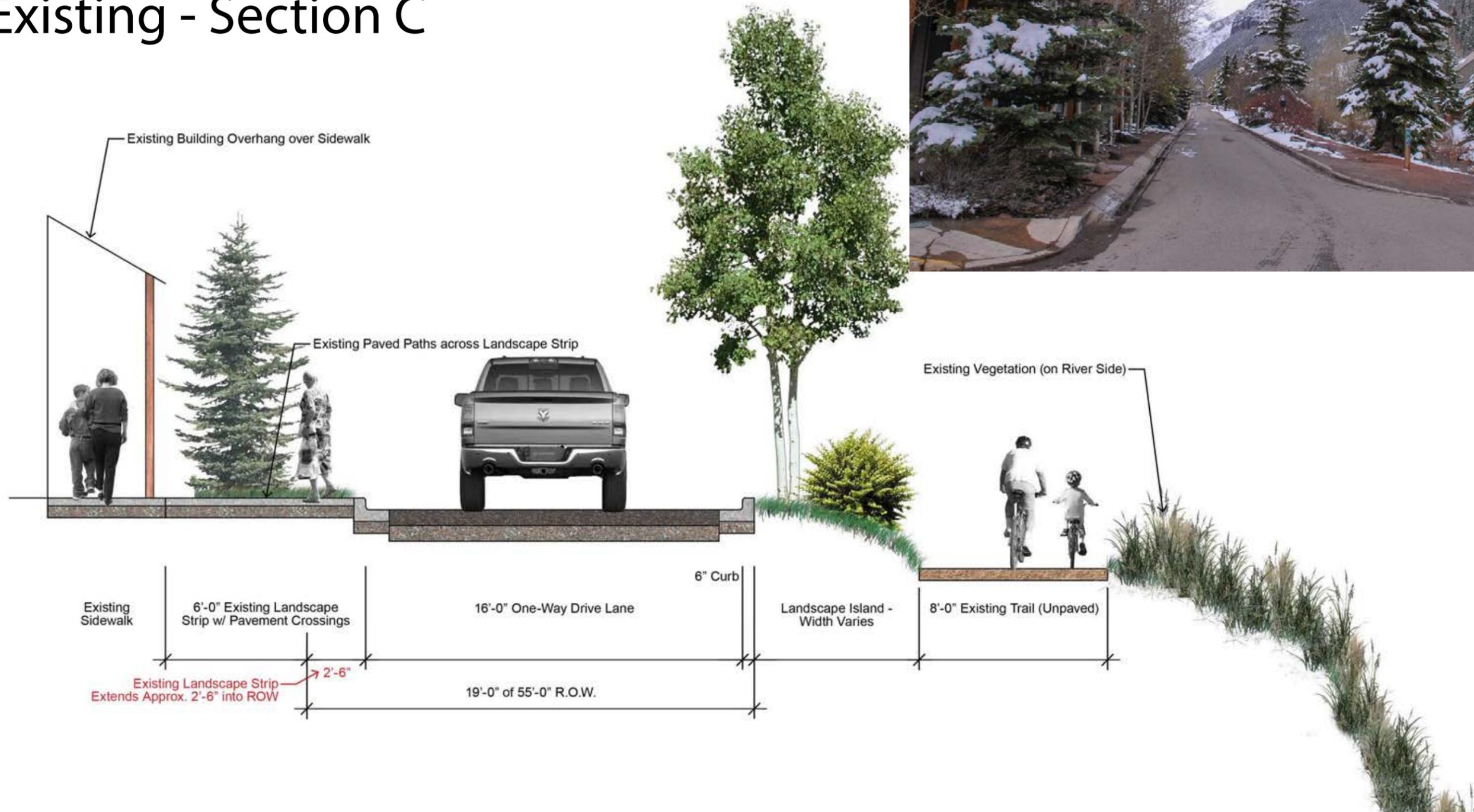
Pacific Avenue

Existing - Section B



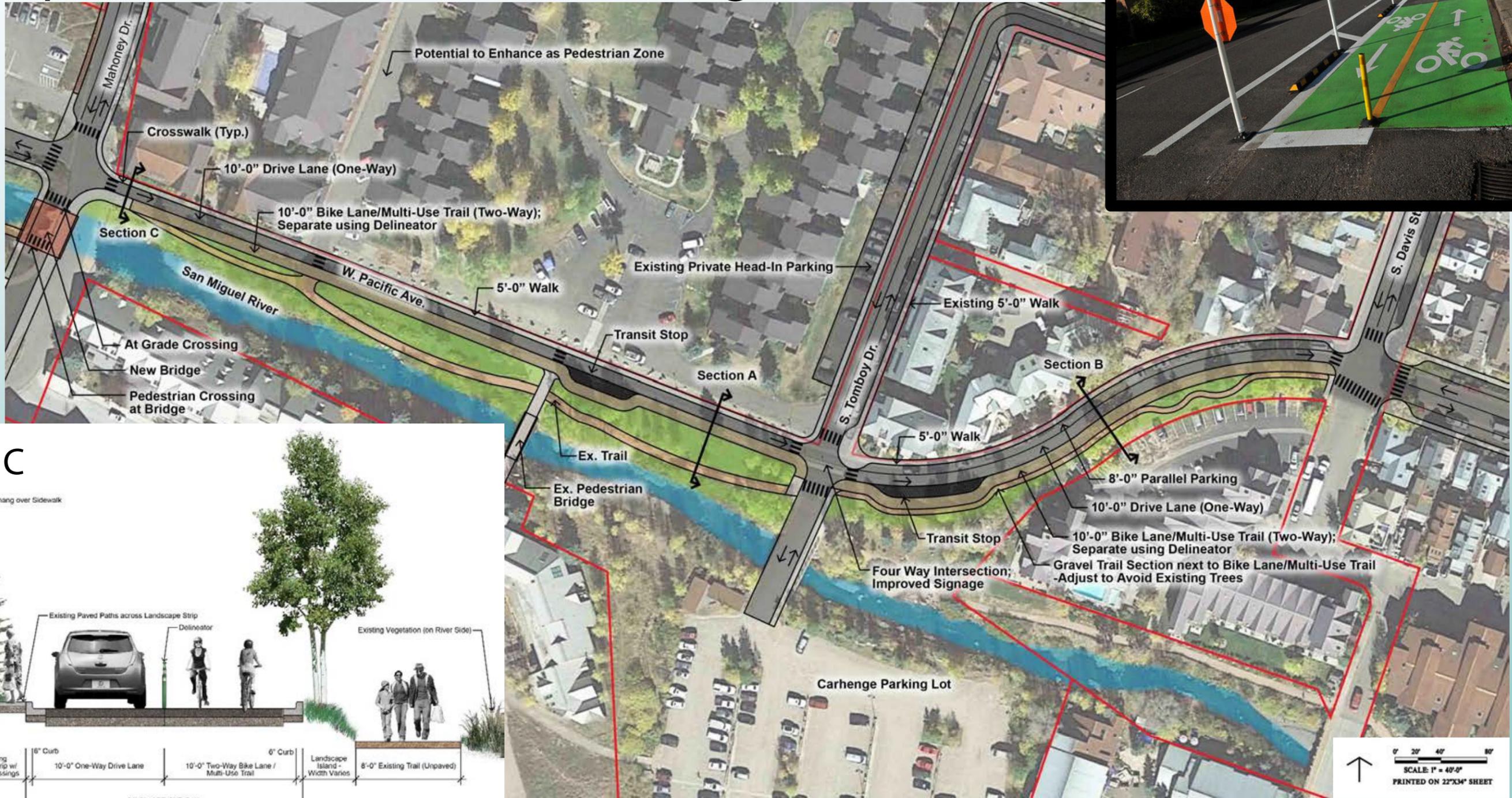
Pacific Avenue

Existing - Section C

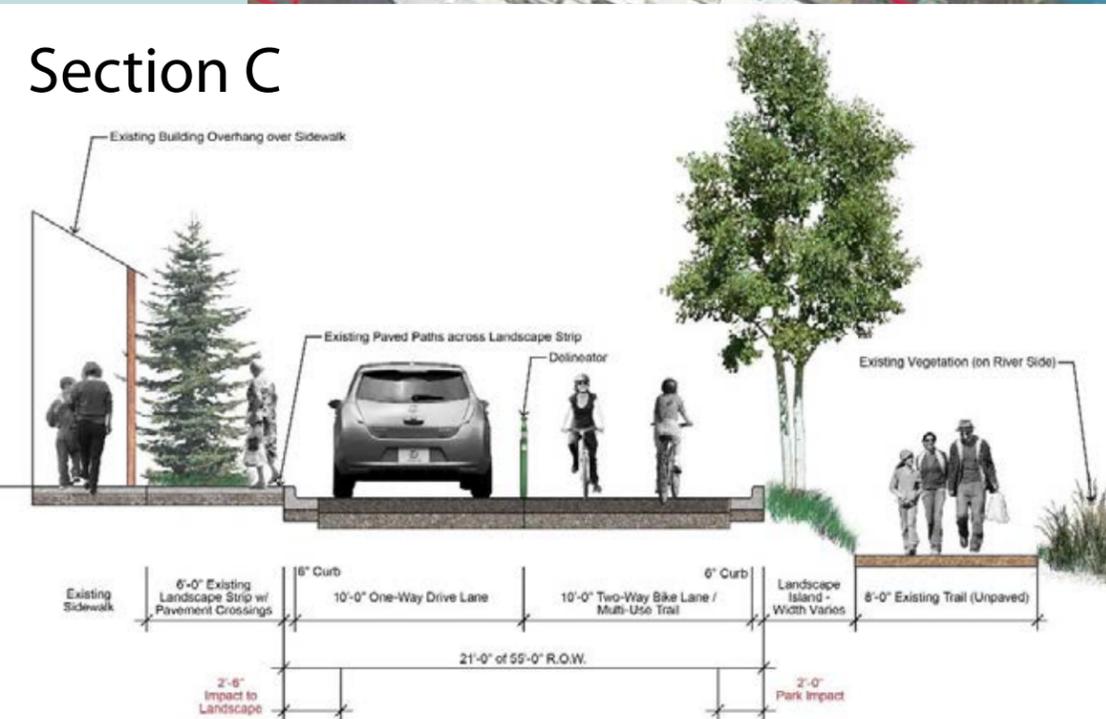


Pacific Avenue

Option 1 Delineator – Plan Enlargement

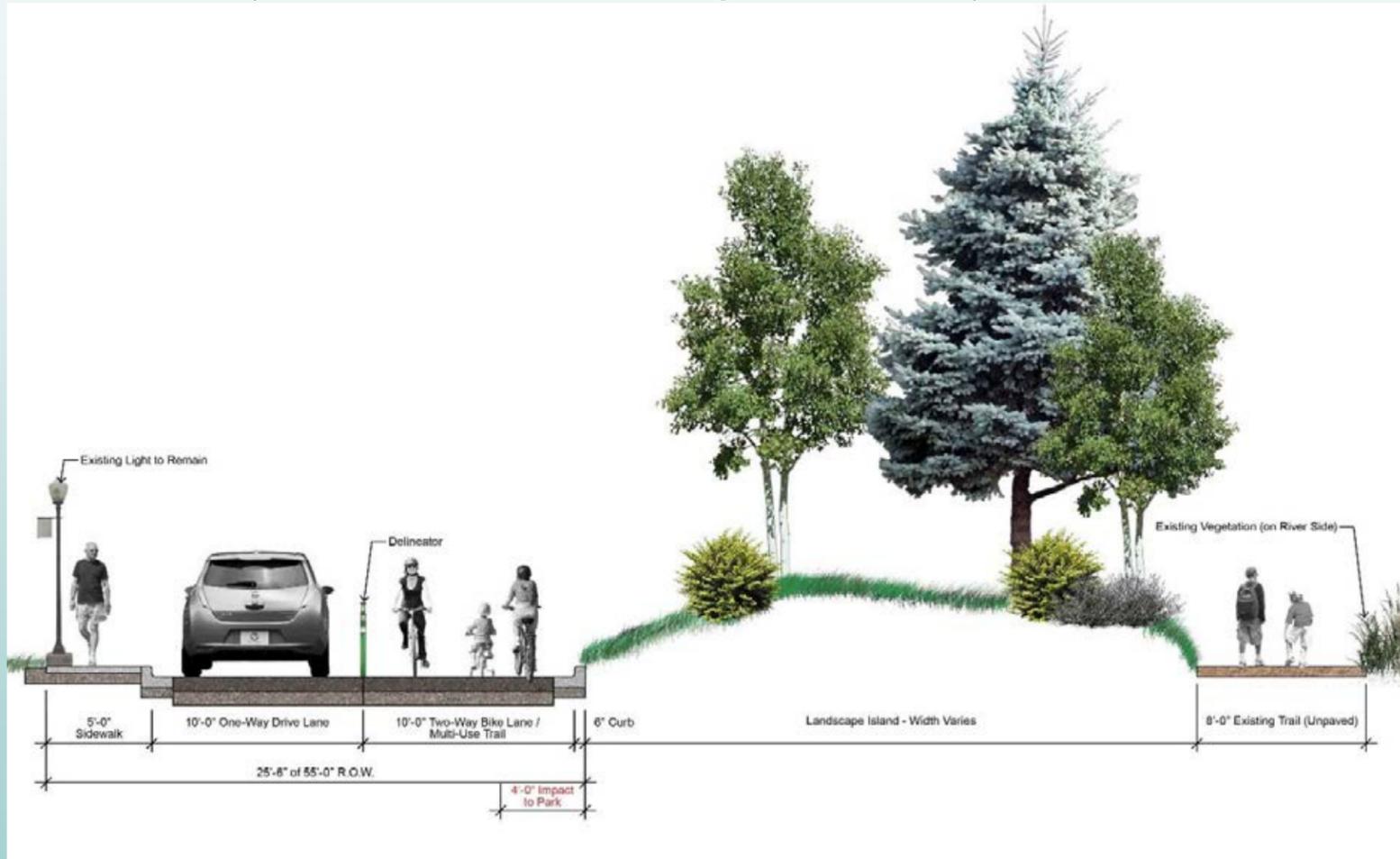


Section C



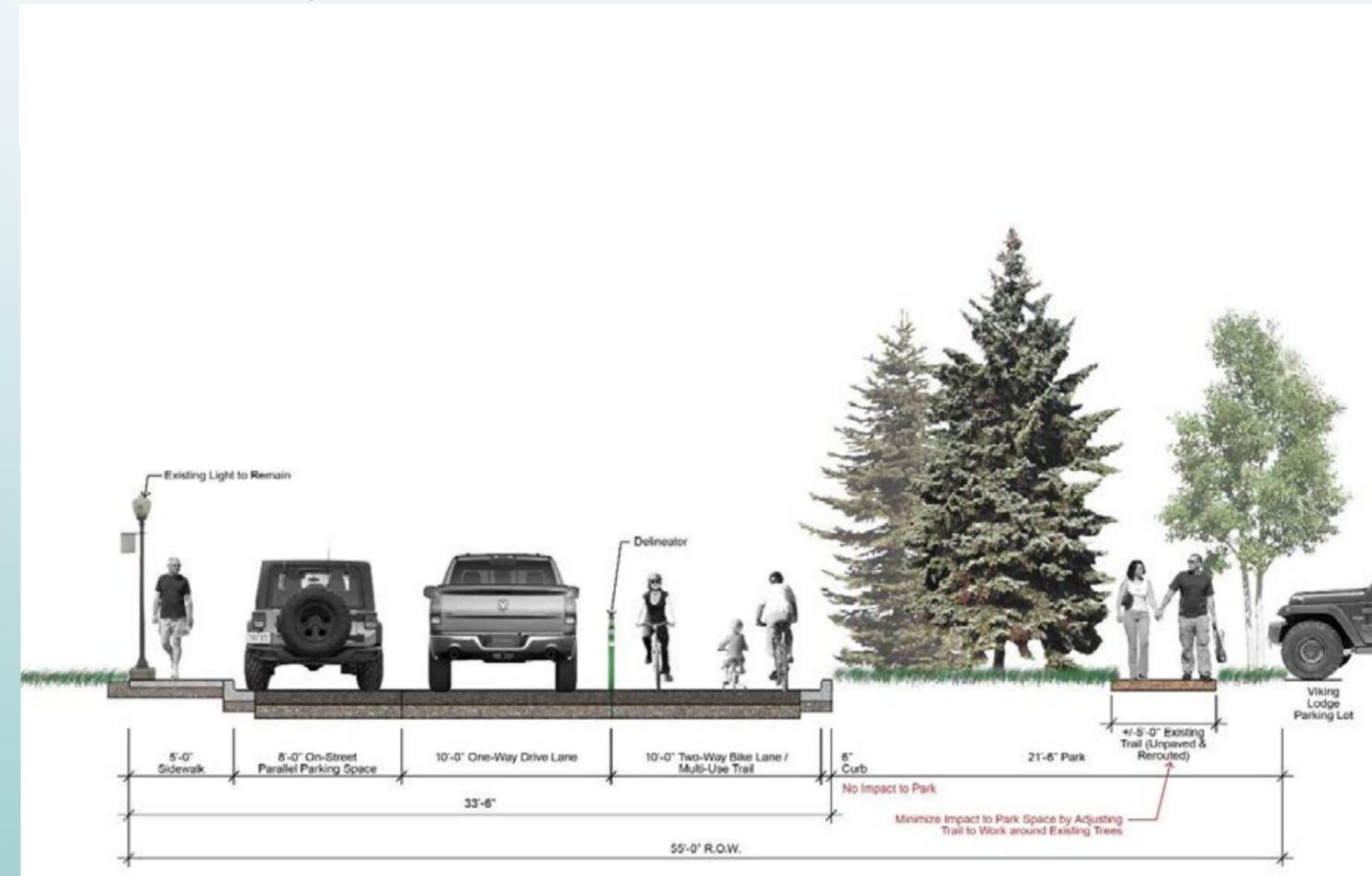
Pacific Avenue

Option 1 – Section A (Proposed)
From Alley West of Telluride Lodge to Tomboy



-Limited impact to park

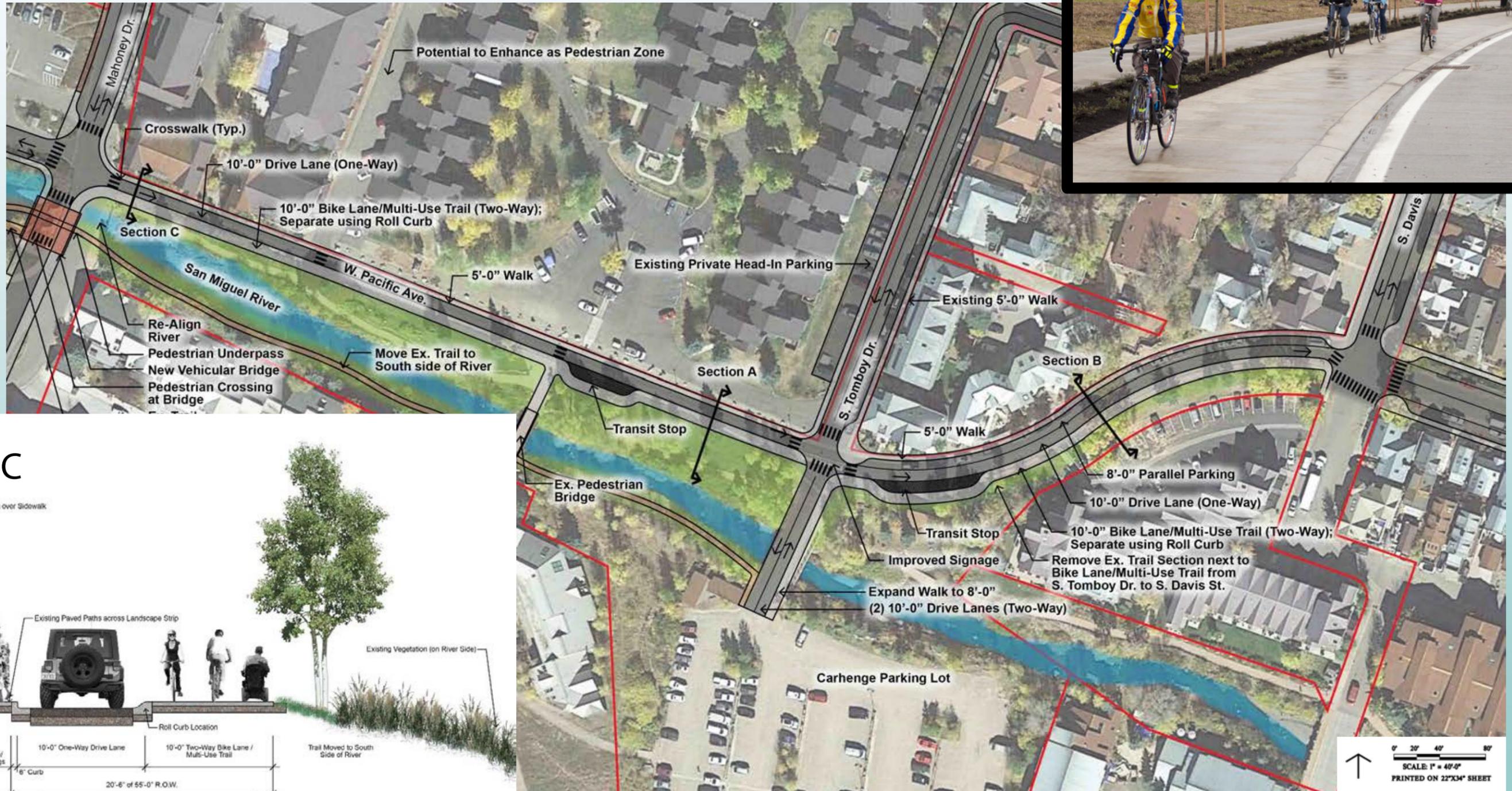
Option 1 – Section B (Proposed)
From Tomboy to Davis



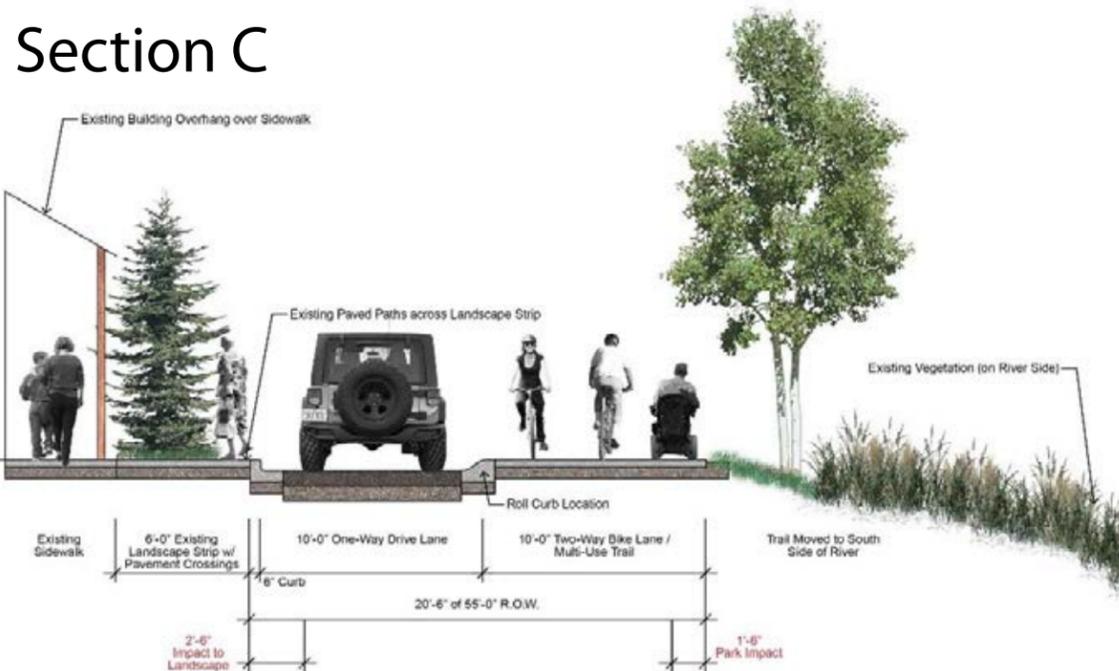
-Limited or no impact to park
-Existing 5' gravel walk can meander around trees if needed

Pacific Avenue

Option 2 Mountable Curb – Plan Enlargement

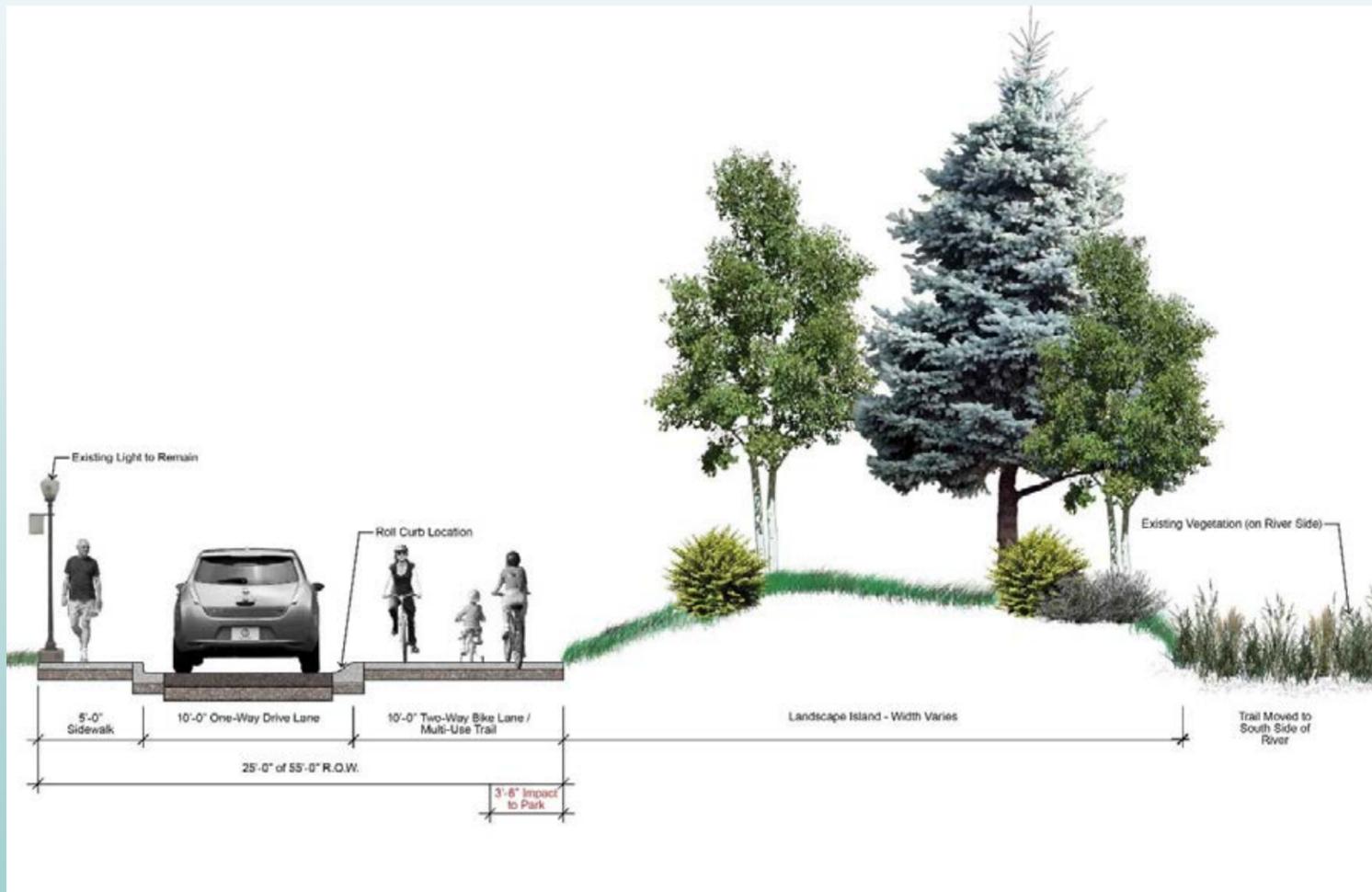


Section C



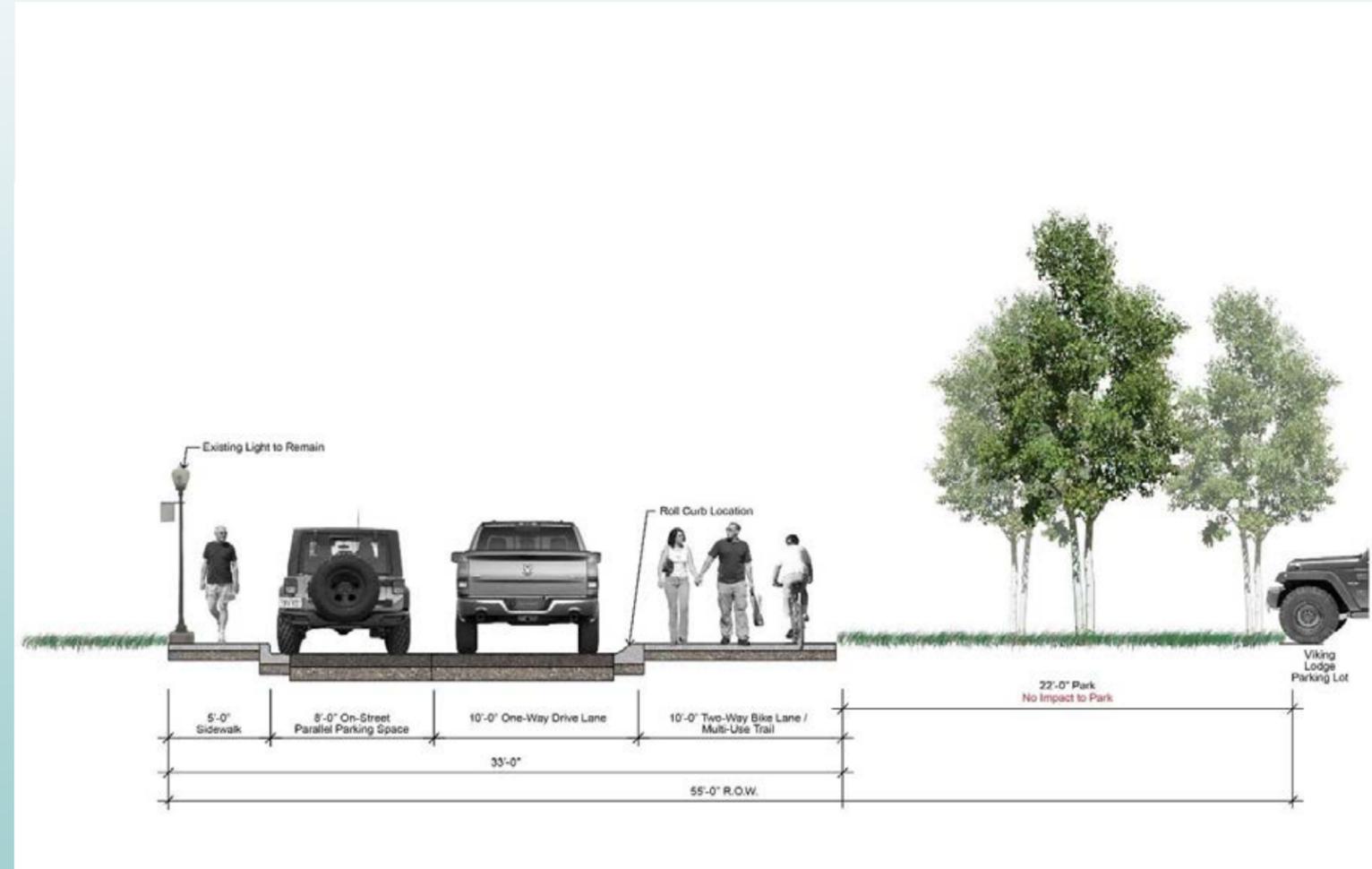
Pacific Avenue

Option 2 – Section A (Proposed)
From Alley West of Telluride Lodge to Tomboy



-Limited impact to park

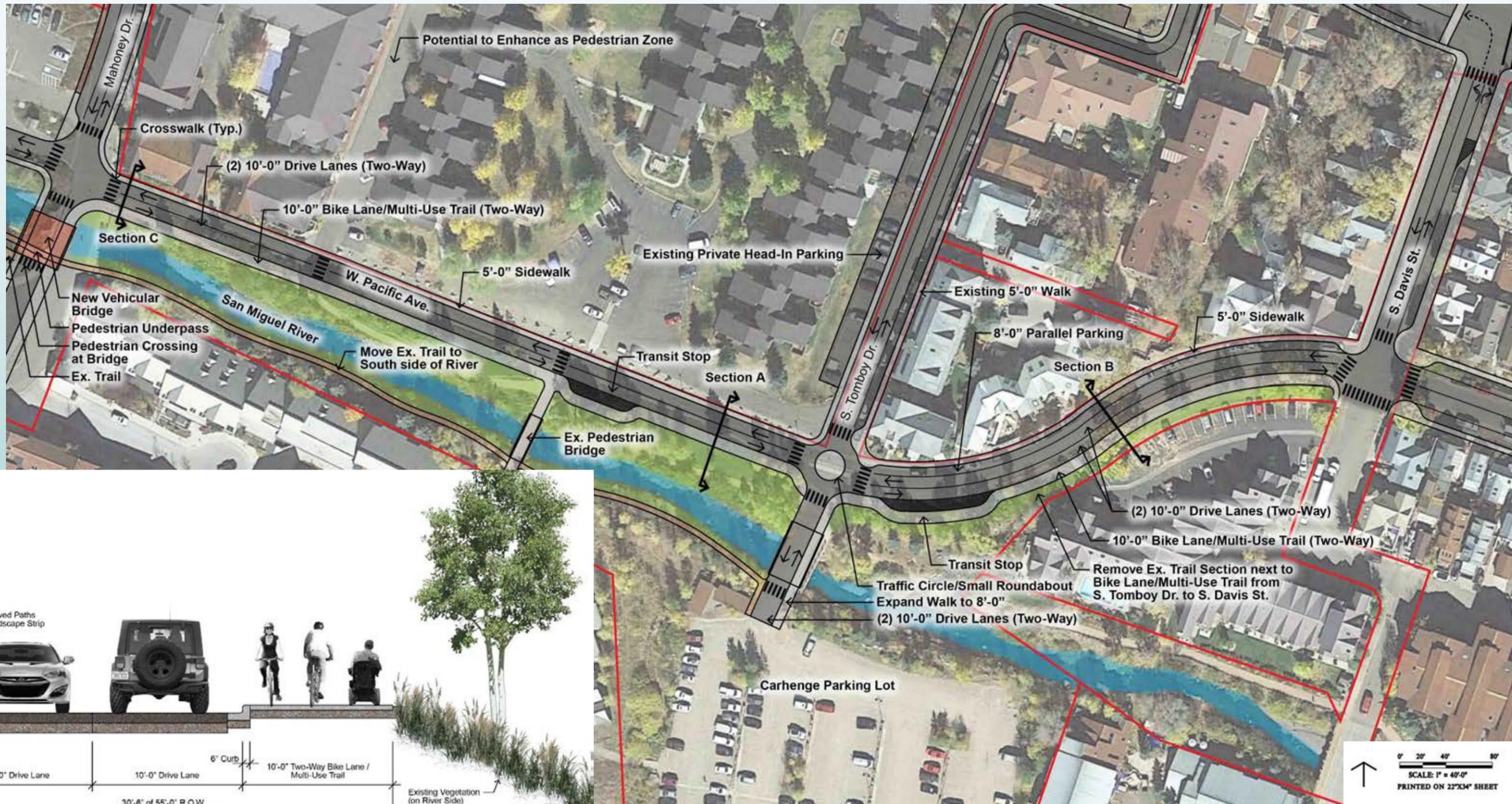
Option 2 – Section B (Proposed)
From Tomboy to Davis



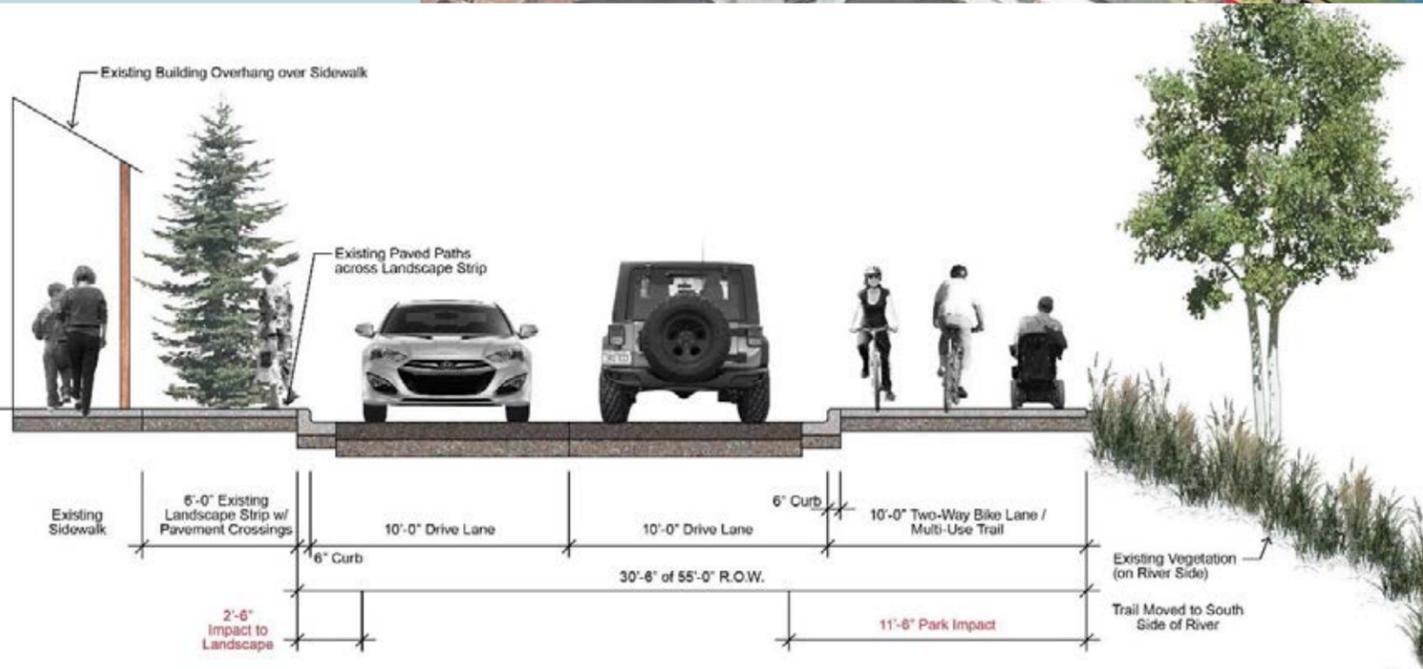
-Limited or no impact to park
-Existing walk on south side becomes 10' paved multi-use trail

Pacific Avenue

Option 3 Two Way – Plan Enlargement



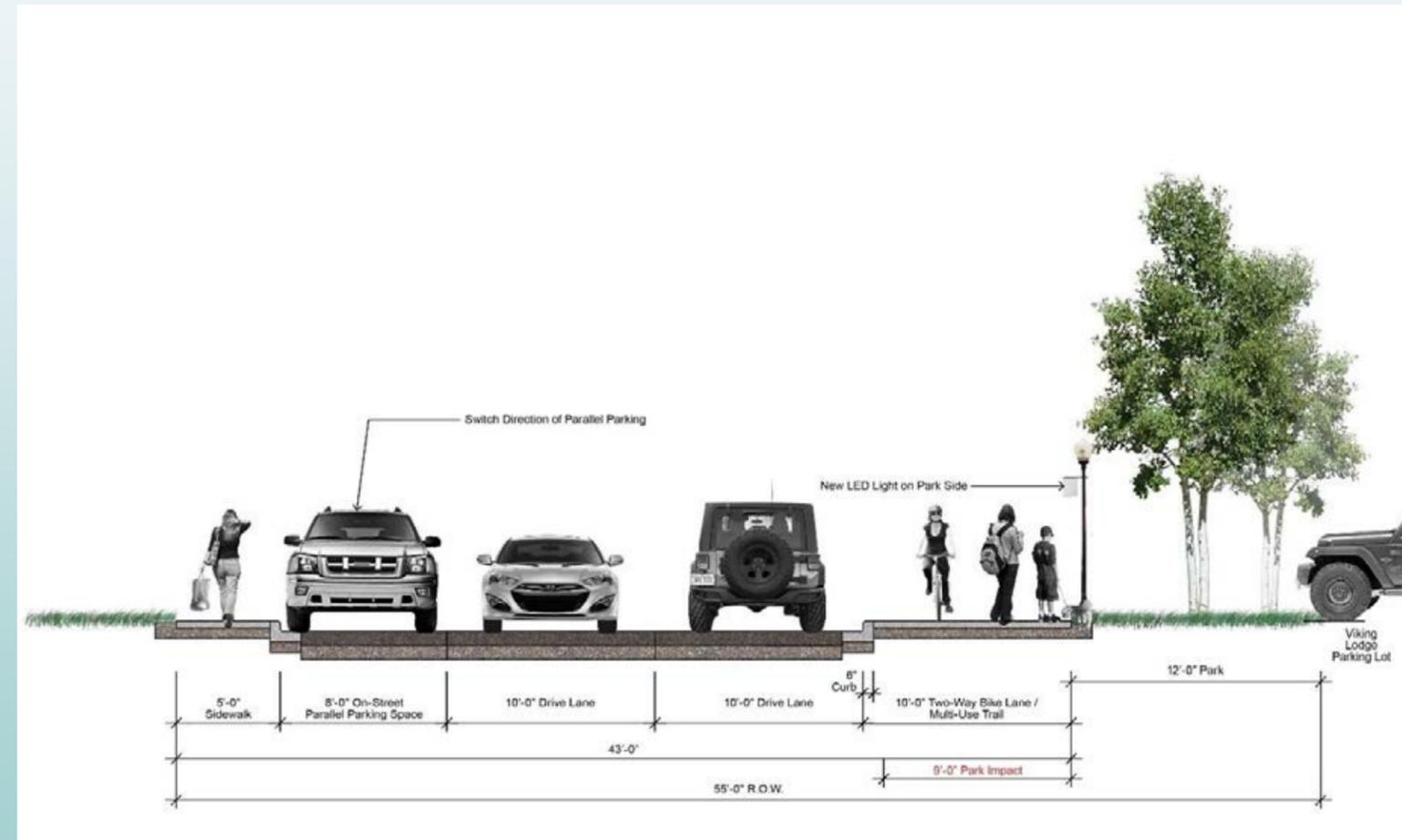
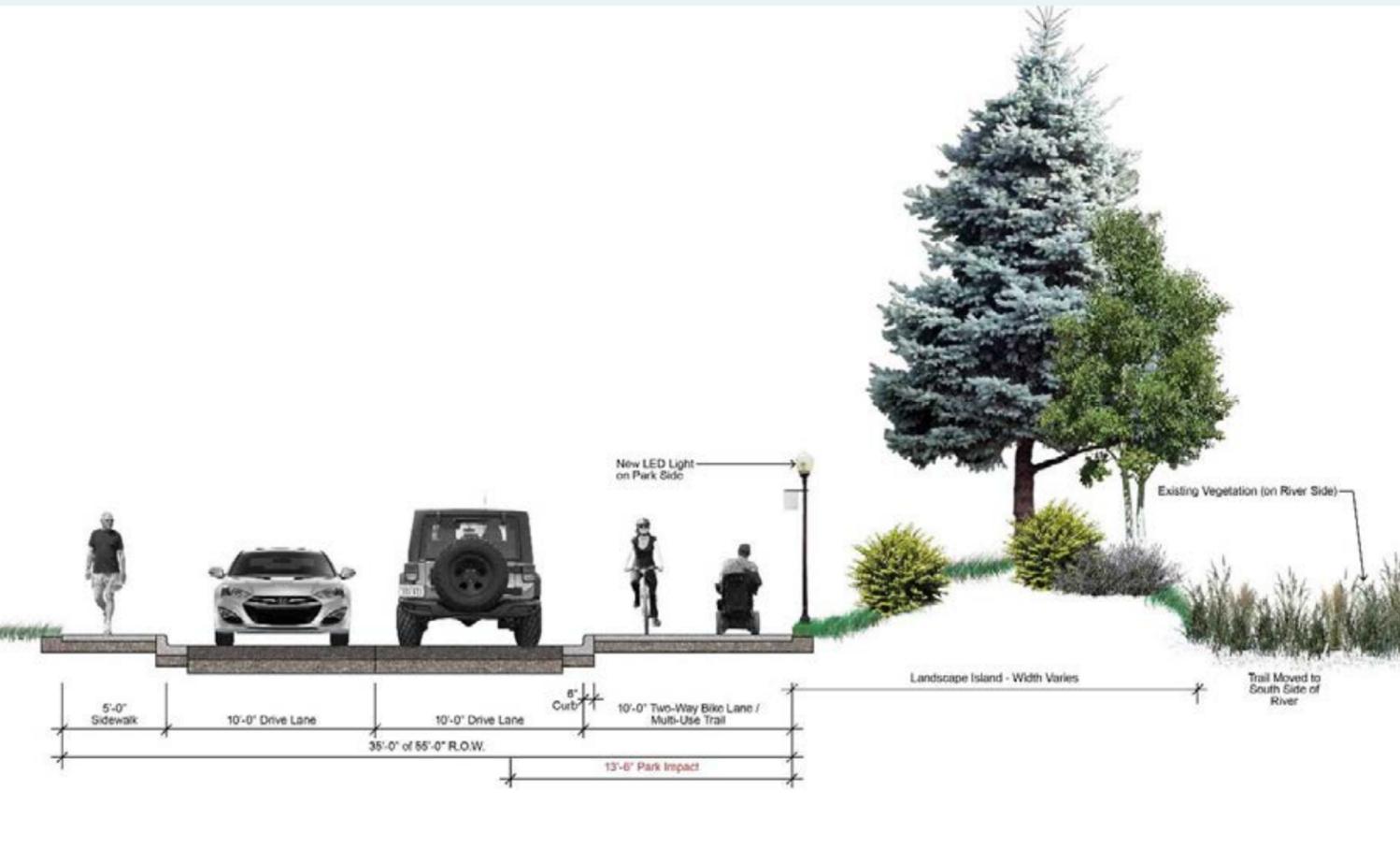
Section C



Pacific Avenue

Option 3 – Section A (Proposed)
From Alley West of Telluride Lodge to Tomboy

Option 3 – Section B (Proposed)
Tomboy to Davis



-13'-6" impact to park

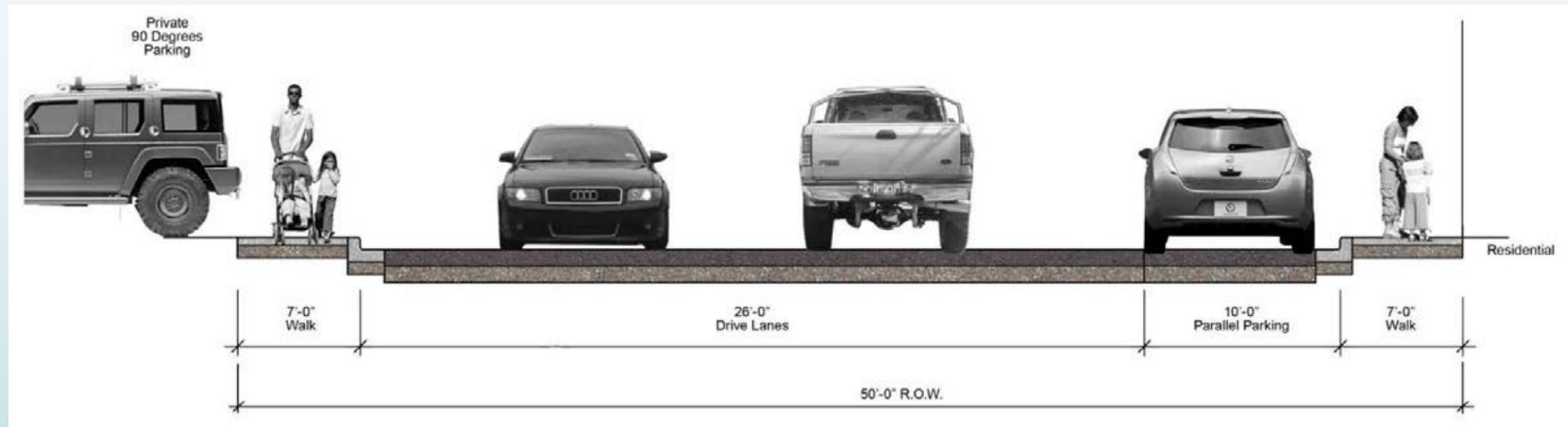
-9' impact to park
-Keeps parking, adds drive lane, adds 10' multi-use trail

Davis Street

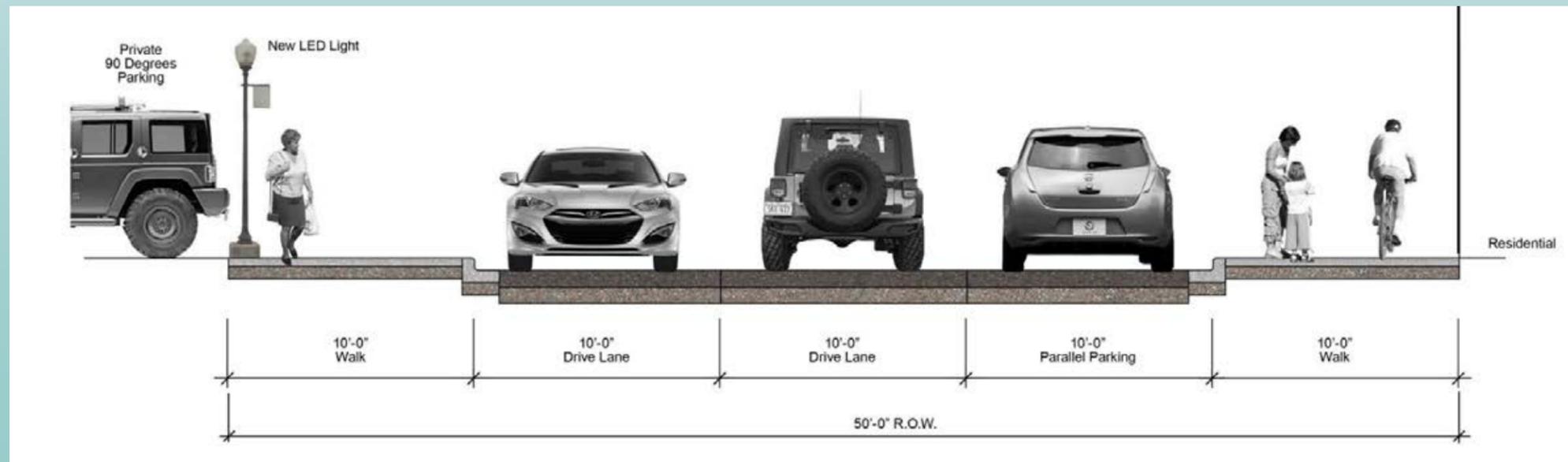
Plan



Existing Section

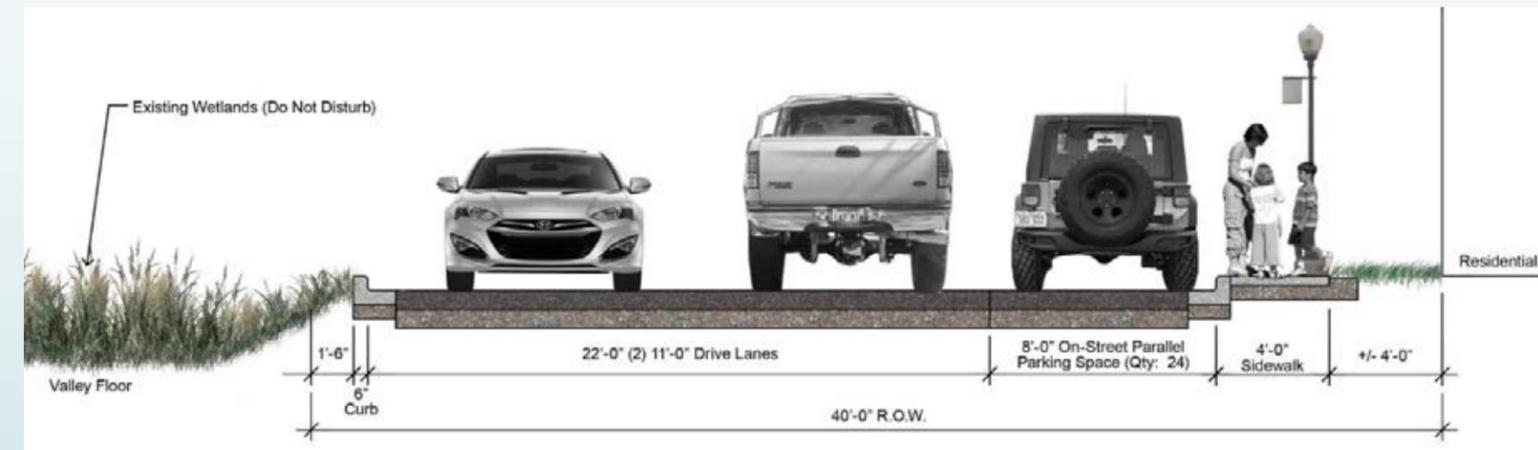


Proposed Section

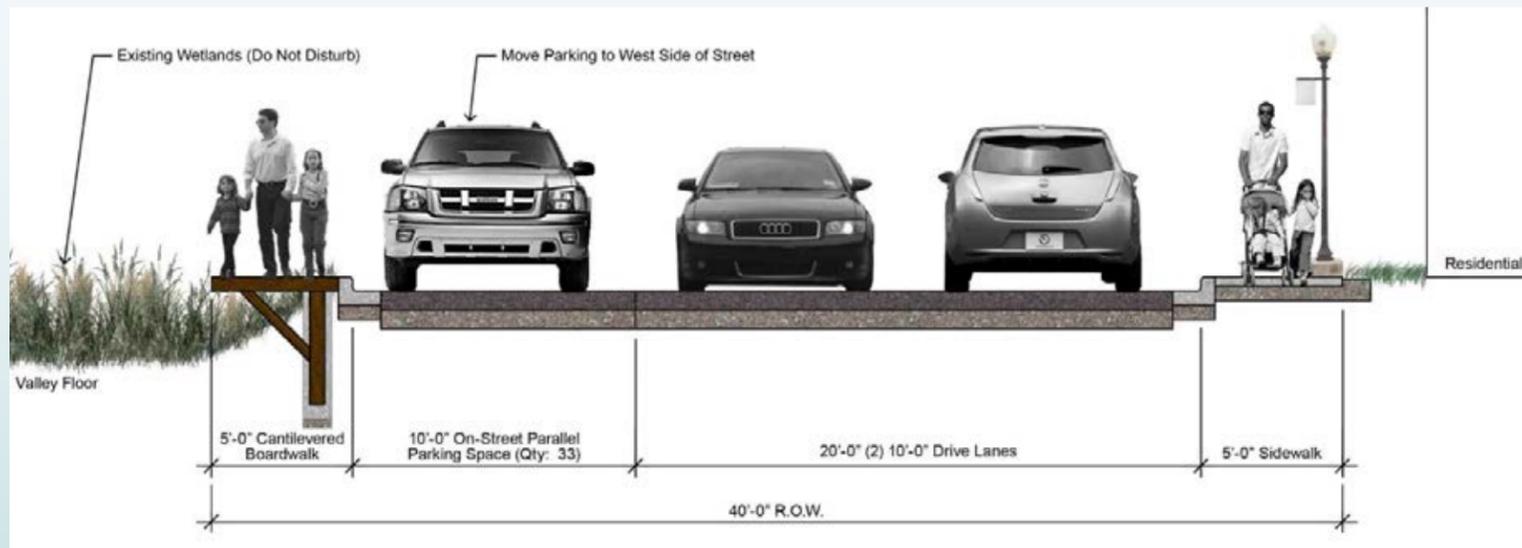


Mahoney Drive

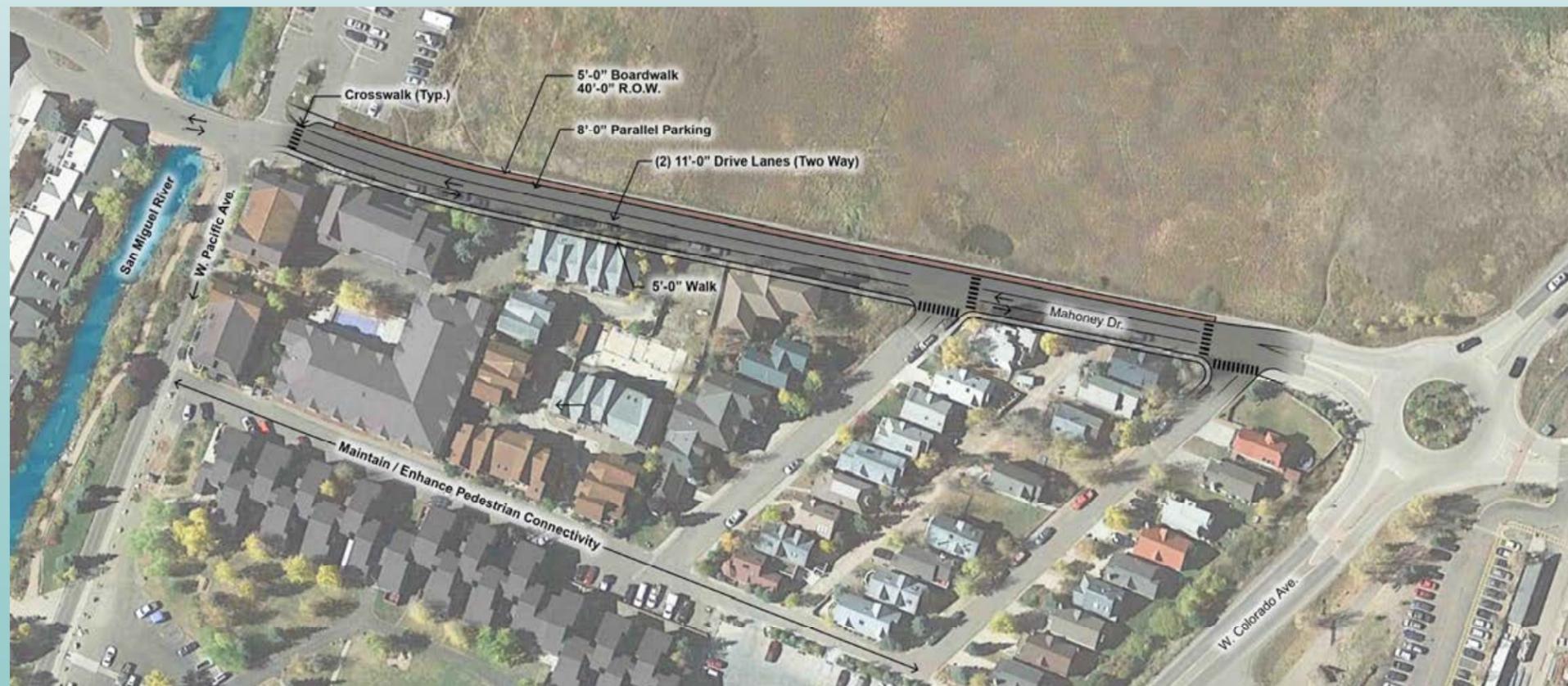
Existing Section



Proposed Section



Plan

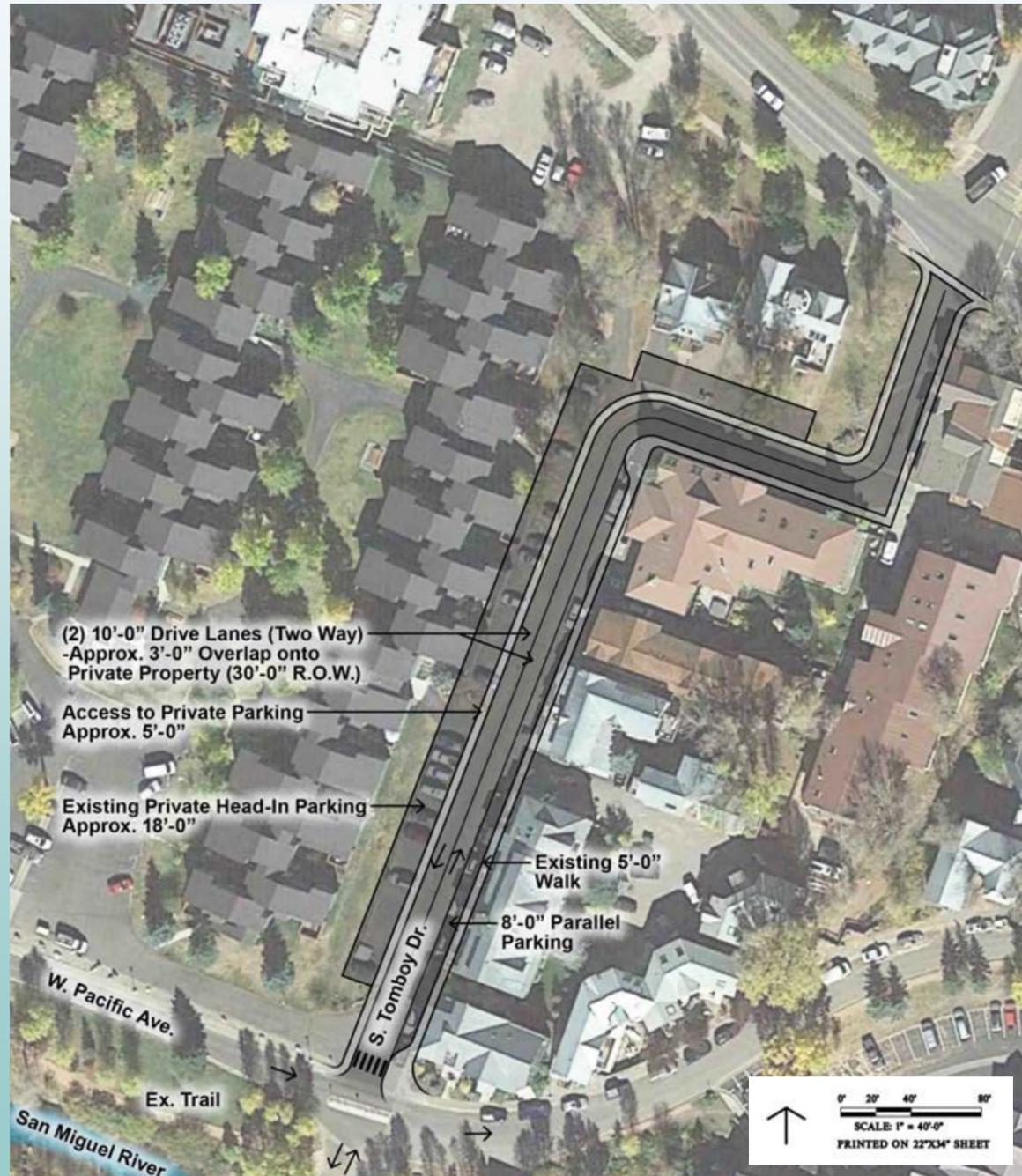


10 Parking Spaces Added

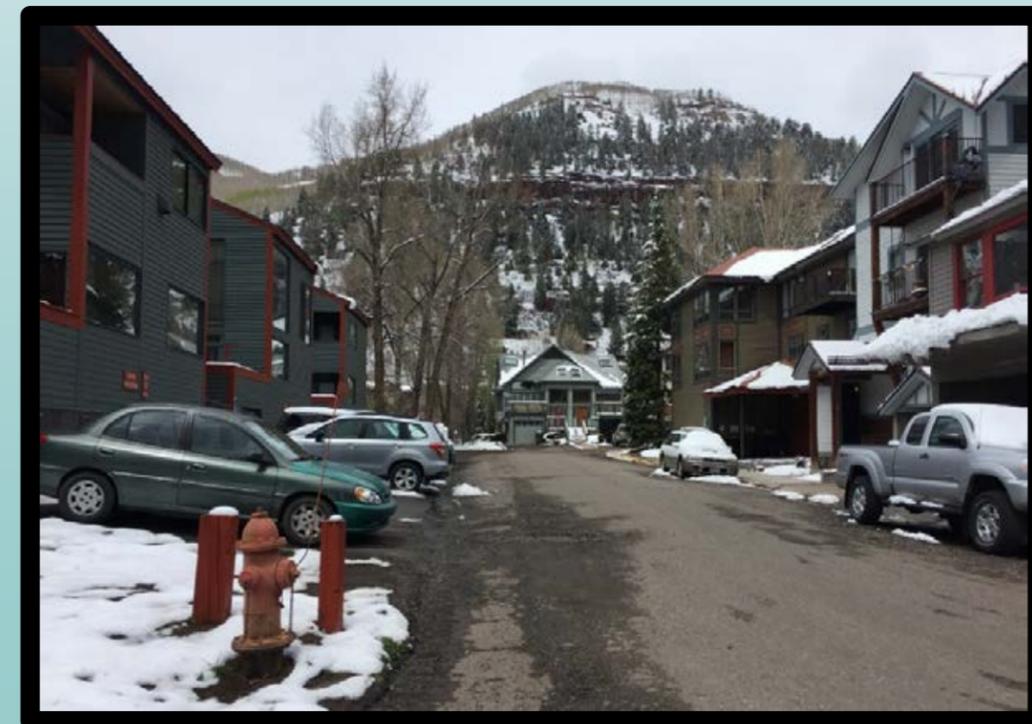
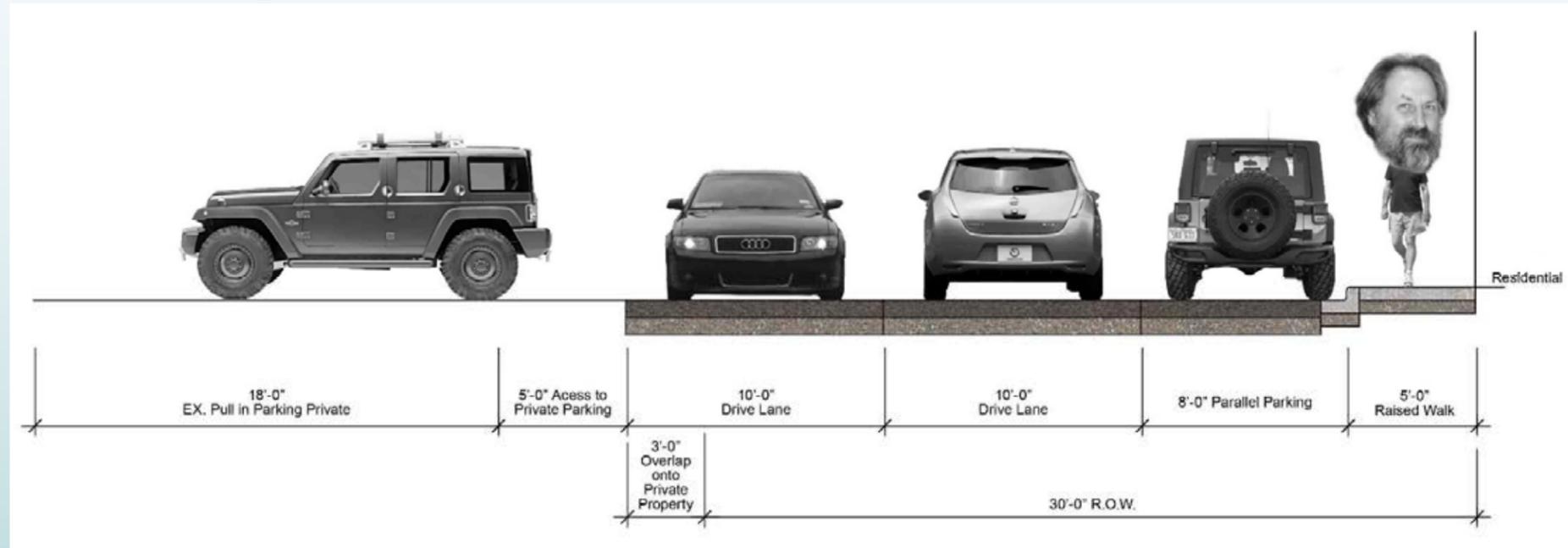


Tomboy Drive

Plan



Existing Section



Tomboy Dr.

- Low-volume shared street
- More pedestrian oriented materials in future renovations



In Summary

Key Issues

- Vehicles Turning onto Colorado from Davis. This intersection needs improvements for existing conditions and tied to future development in the Southwest Area.
- Major Bike Traffic heading west on Pacific is not separated from vehicle traffic, causing safety concerns.
- Bikes and Pedestrians on River Trail have conflict (walking path, not commuting trail)
- Bikes/Pedestrians make up a larger proportion of traffic than most similarly sized communities. More accommodations should be made for these users.

Open House

Stations

- Traffic Study/Circulation
- ROW Sections/Circulation

Next Steps

- Potential Further Traffic Study in Winter (Ski season and School)
- Potential for Additional Public Meeting/Outreach
- Draft Master Plan Summary
- Presentation to Town Council (TBD)
- Final Master Plan Summary

Traffic Study Details

- Count data was collected from 7am – 7pm between August 7th – 13th
- AM & PM Peak Hour analyzed in Traffic Study
- PM peak hour had higher volumes
- Only PM Peak hour results are included in this presentation
- Counts include traffic from all existing public and privately owned land uses and parking areas within the Southwest Area

Traffic Study Details (Cont'd)

- Existing Conditions (Publicly Owned Facilities Only)
 - 720 Off-street Parking Spaces (Lot B, Shandoka, Carhenge, Virginia Placer)
 - 210 Existing Residential Units
 - Traffic Data for these uses were included in traffic counts
- Developed Conditions (Public Facilities Facilities Only)
 - 1365 Off-street Parking Spaces (Lot B, Shandoka, Carhenge, Virginia Placer)
 - 650 Proposed Residential Units
 - Traffic Data projected based on count data and increase in public facilities
- Privately Owned Facilities in the Southwest Neighborhood
 - Assumed same for both Existing and Developed conditions
 - Traffic data for these uses were included in traffic counts