

Community of Yarnell

State Road (SR) 89
MilePost 276 to 278



Final Report

Prepared by:

Arizona Road Safety Assessment Program
Arizona Department of Transportation
Traffic Safety Section
1615 West Jackson Street, Mail Drop 065R
Phoenix, Arizona 85007-3217
602-712-2332

Site Visited Week of September 13, 2022

Report Completed: December 2, 2022

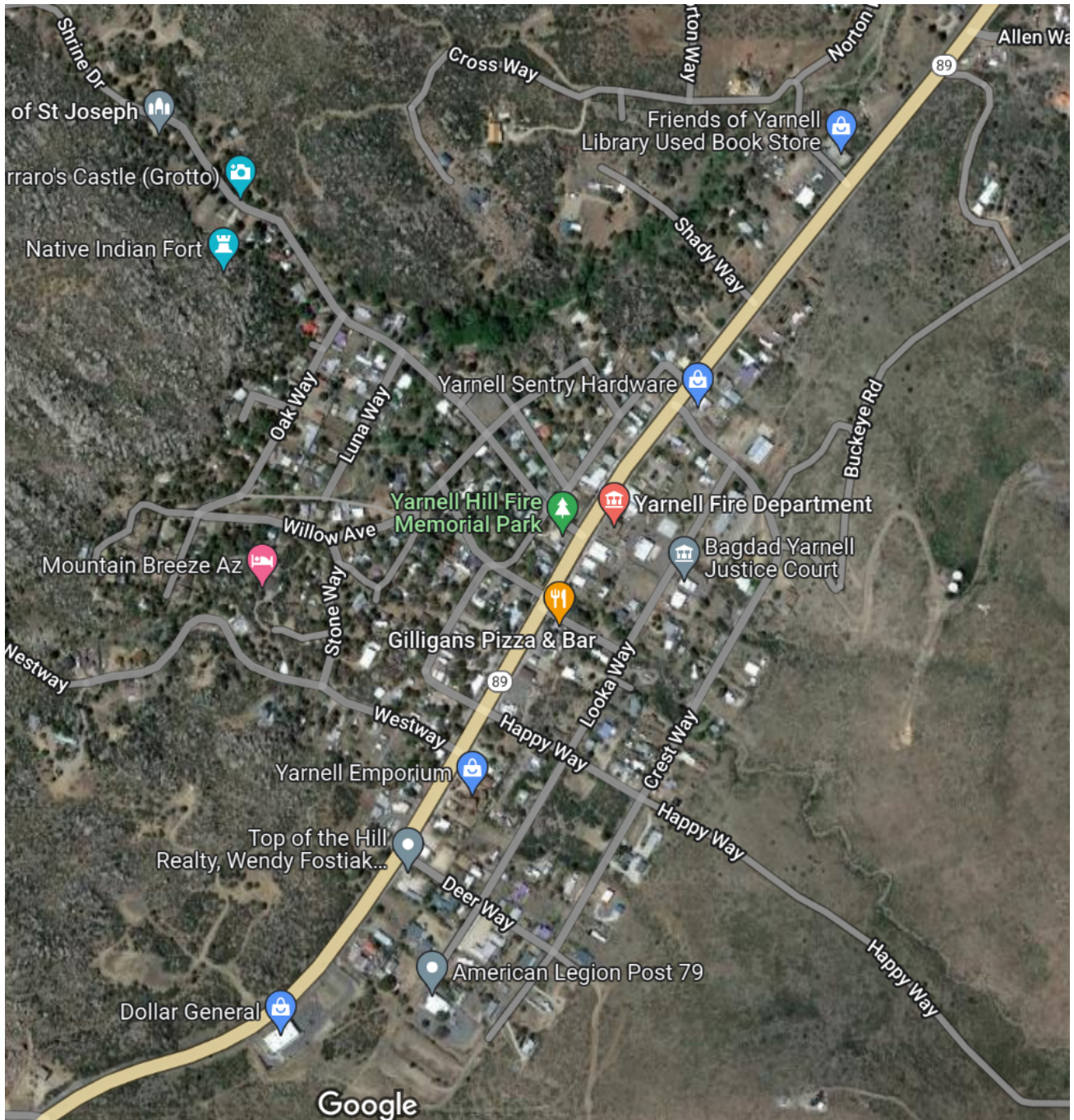
Internal ADOT Road Safety Assessment

This report is subject to provisions of 23 USC § 407. Any intentional or inadvertent release of this material, or any data derived from its use does not constitute a waiver of privilege pursuant to 23 USC § 407.

23 USC § 407 - Discovery and admission as evidence of certain reports and surveys

Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

SR 89 Milepost 276 to 278



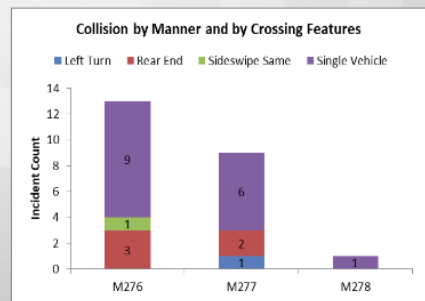
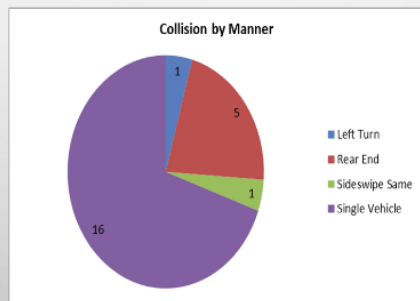
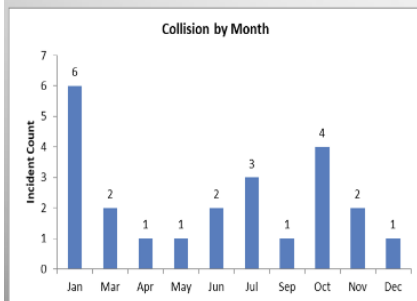
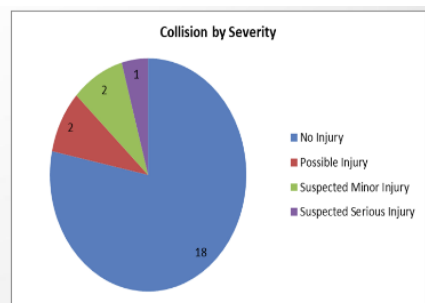
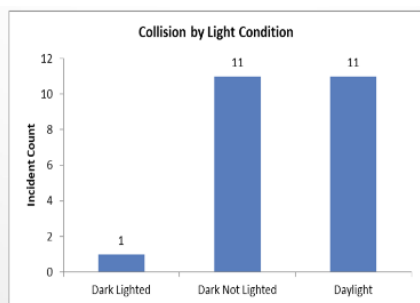
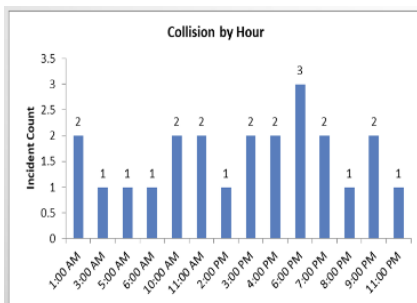
SR 89 Milepost 276 to 278

1/1/2017-12/31/2021 Crash Data

Highlights		
Total Crashes 23	Top 5 Crash Types	Injury Severity
Wet Road Surface 0	Single Vehicle 16	K 0 A 1 B 2 C 2 O 18
Motorcycle 2	Rear End 5	Impairment (Alcohol) of Traffic Unit 0
Non-Motorist Counts	Left Turn 1	Top 5 Violations (Unit 1)
Pedalcyclist 0	Sideswipe Same Direction 1	No Improper Action 12
Pedestrian 0	Dark Light Conditions	Speed Too Fast For Conditions 7
	Dark Lighted 1	Failed To Keep In Proper Lane 1
	Dark Not Lighted 11	Made Improper Turn 1
	Traffic Unit Not Using Safety Device	Other 1
	Traffic Unit Not Using Safety Device 1	

Injury Severity Description

K = Fatal, A = Suspected Serious Injury, B = Suspected Minor Injury, C = Possible Injury, O = No Injury



SR 89 Milepost 276 to 278

RSA Team, Stakeholder, and Intersection Details

RSA Team Members

The independent, multi-disciplinary RSA team was led by Amirul Rajib, PE, the ADOT RSA Program Manager. Field review primarily performed on September 13, 2022.

The RSA team included:

- Amirul Rajib, PE – ADOT RSA Program Manager
 - RSA Team lead experience
- George Williams, PE, PTOE, PTP – ADOT Asst. State Engineer
 - RSA Team lead experience; Traffic Safety, Operations, Ped, Bike, Human Factors
- Kerry Wilcoxon, PE – ADOT State Traffic Safety Engineer
 - RSA Team lead experience
- Glen Robison – Law Enforcement Specialist, ADOT
 - Expert Law Enforcement Perspective
- Daniel Oldham - Transportation Engineering Specialist, ADOT
- Josh Hale - Transportation Engineering Specialist, ADOT
- Ryan Wolff - Transportation Engineering Specialist, ADOT
- Elaine Mariolle - ADOT Active Transportation Coordinator

Owners/Stakeholders

- TSMO: John Litteer, Northern Regional Traffic Engineering
- IDO: Anthony Brozich, Northwest Engineering District
- Local: Town of Yarnell, Yavapai County
- Law Enforcement
 - AZ DPS
 - Yavapai County Sheriff's Department

Crash Overview

Trends

Primary Crash Types: Single Vehicle (16 of 23)

Primary Crash Causes: No Improper Action (12 of 23)

SR 89 Milepost 276 to 278

Field Observations and RSA Team Discussion

SR 89 along MP 276-278

1. Several peds were observed on sidewalk and crossing street at various locations
2. Some peds were observed crossing in various locations to get to their cars parked on street
3. Three wheelchair users observed in first hour
4. Vehicles stopped in front of the Post Office to drop-off passenger/mail. This occurred consistently over several hours.
5. Parking near corners can impact visibility from corners
6. Sidewalks are narrow
7. Visibility driving street is good with possible exceptions of parking near corners
8. Lighting observed during dark hours appeared to be adequate

Potential Countermeasures

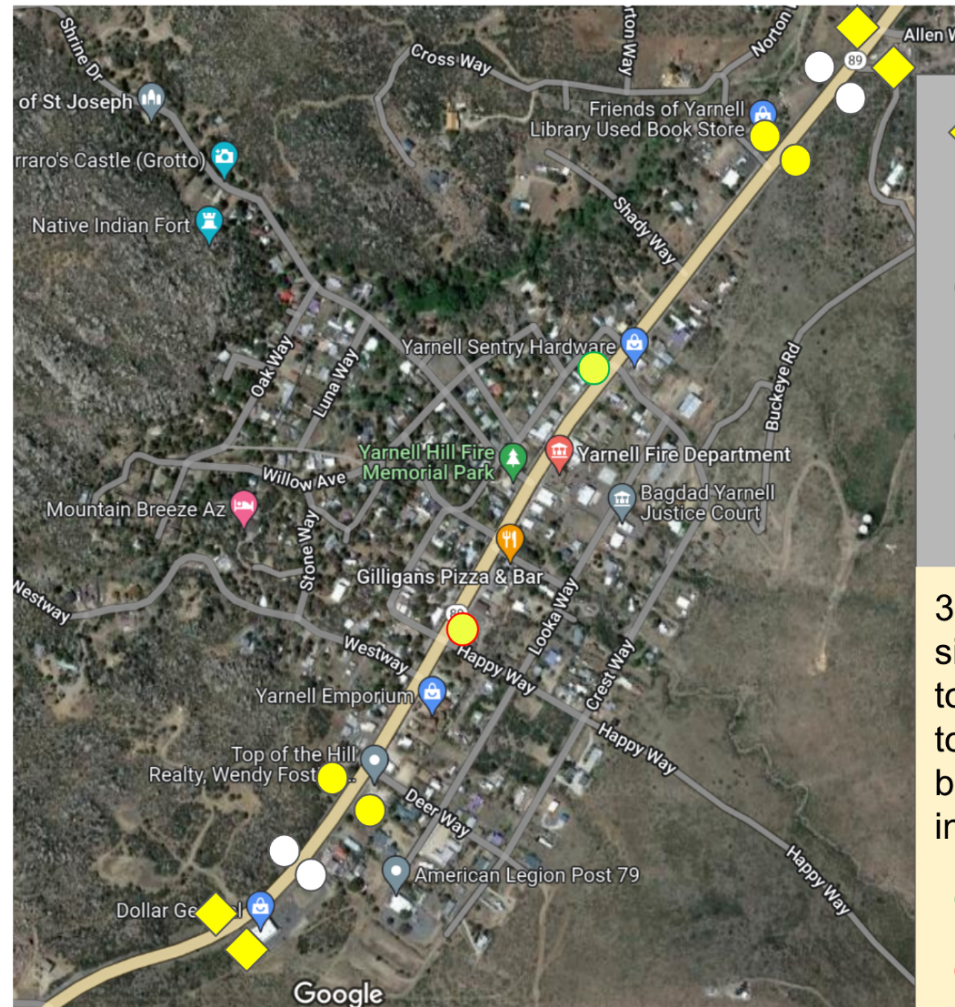
Based on the above crash information and the field observations made at the site, the RSA team recommends the countermeasures shown in the following table and maps. In addition, pedestrian level lighting could be considered at pedestrian curb extensions and islands as needed.

SR 89 Milepost 276 to 278

Countermeasure Diagram

New Signage
Already Completed
(12 signs)

Proposed relocation
(1 sign)



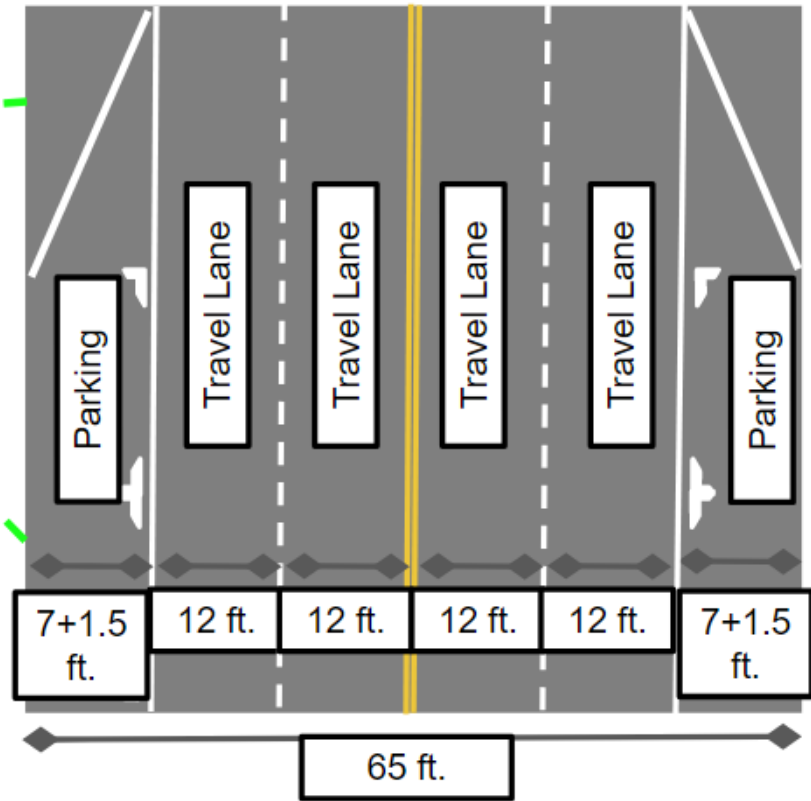
3 sets of double up signs for each approach to the town (12 signs total) - Consider back to back Ped signs 7 to 9 ft in height

- Existing ped sign
- Relocated ped sign

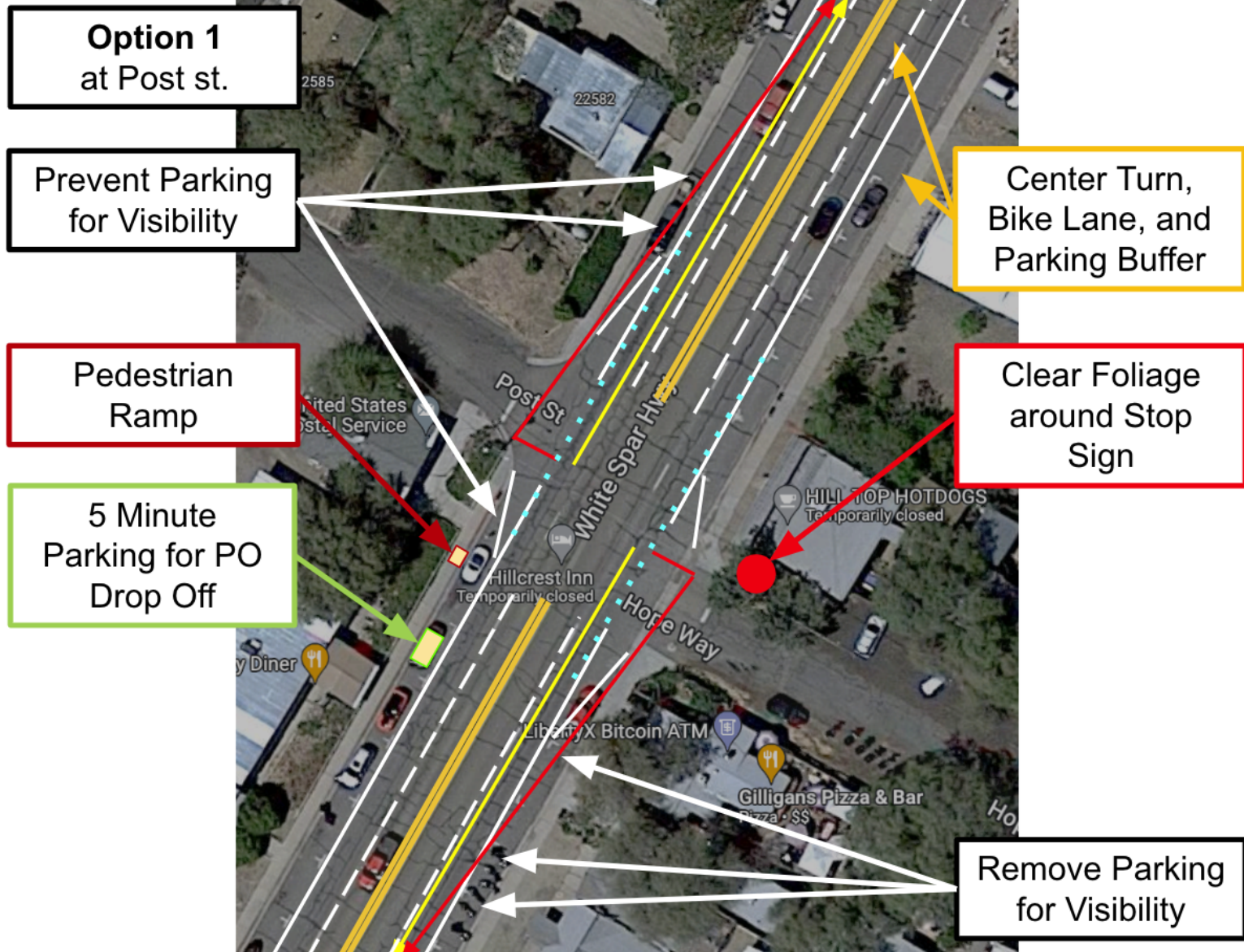
SR 89 Milepost 276 to 278



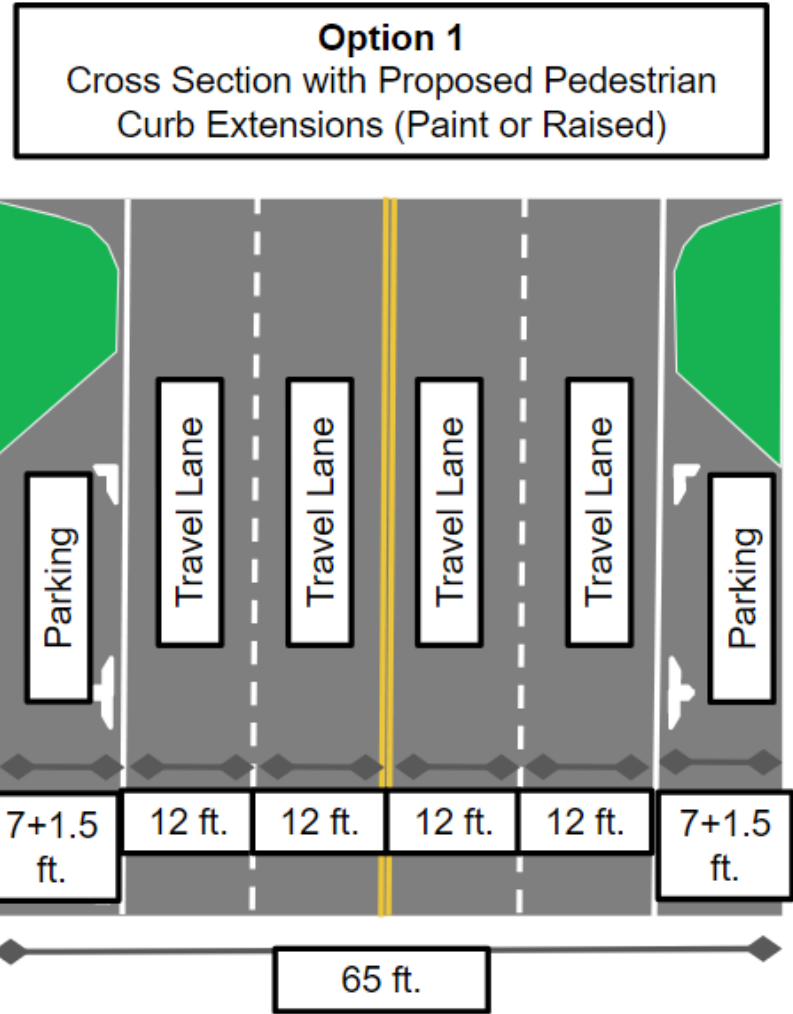
Option 1
Cross Section with Parking Restrictions at Corners



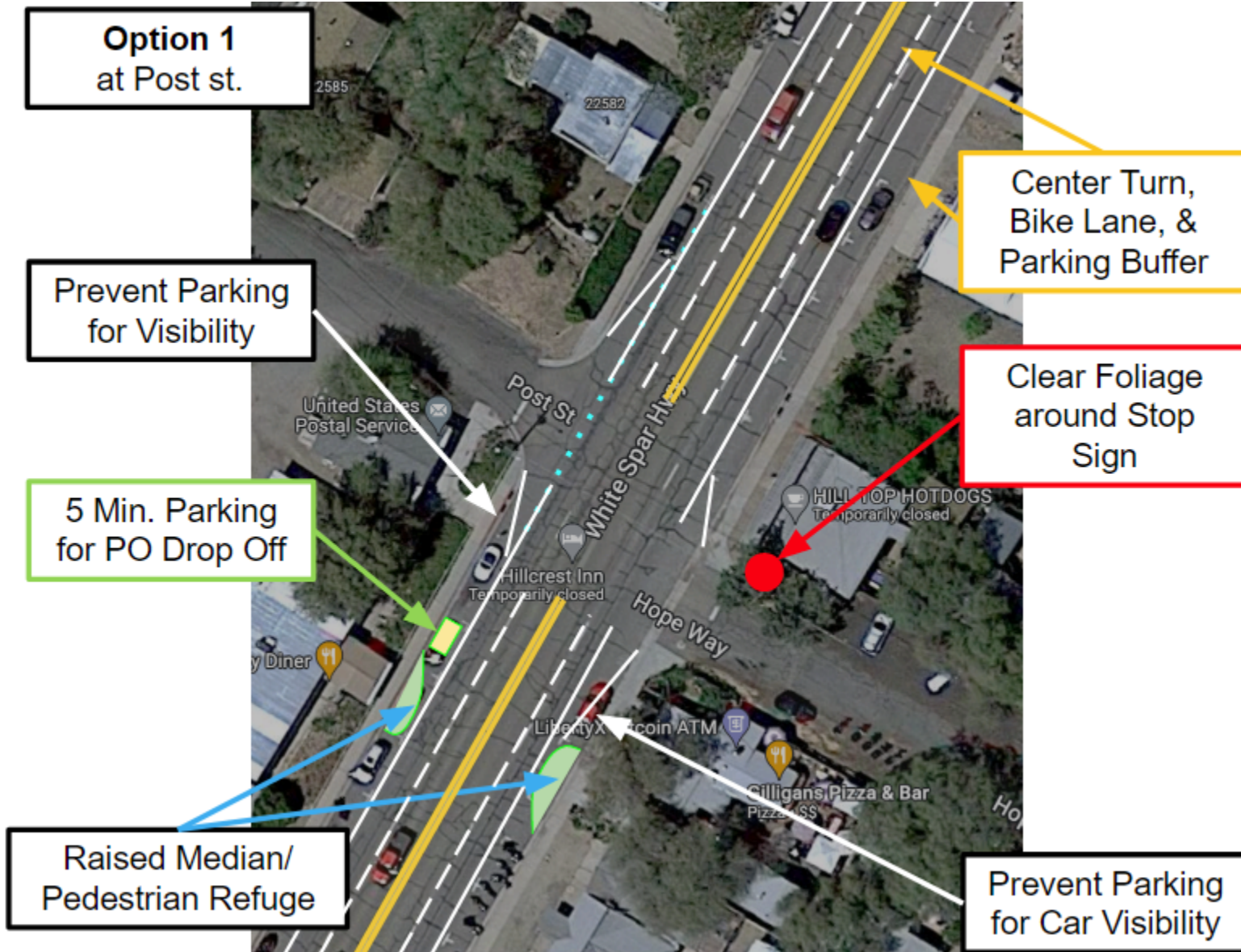
SR 89 Milepost 276 to 278



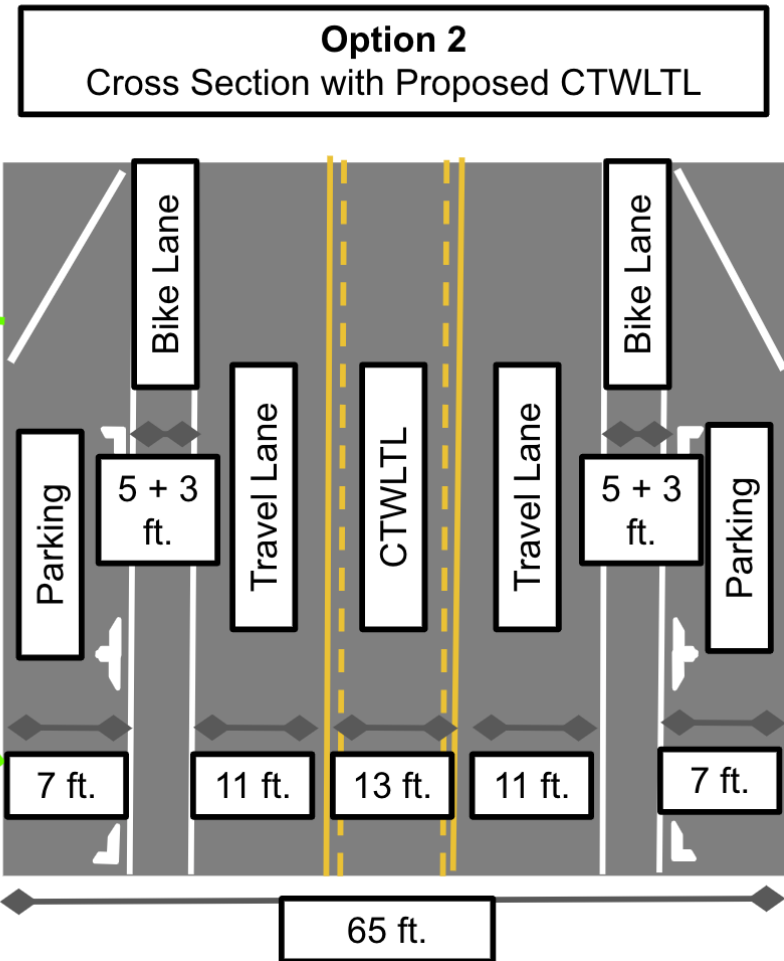
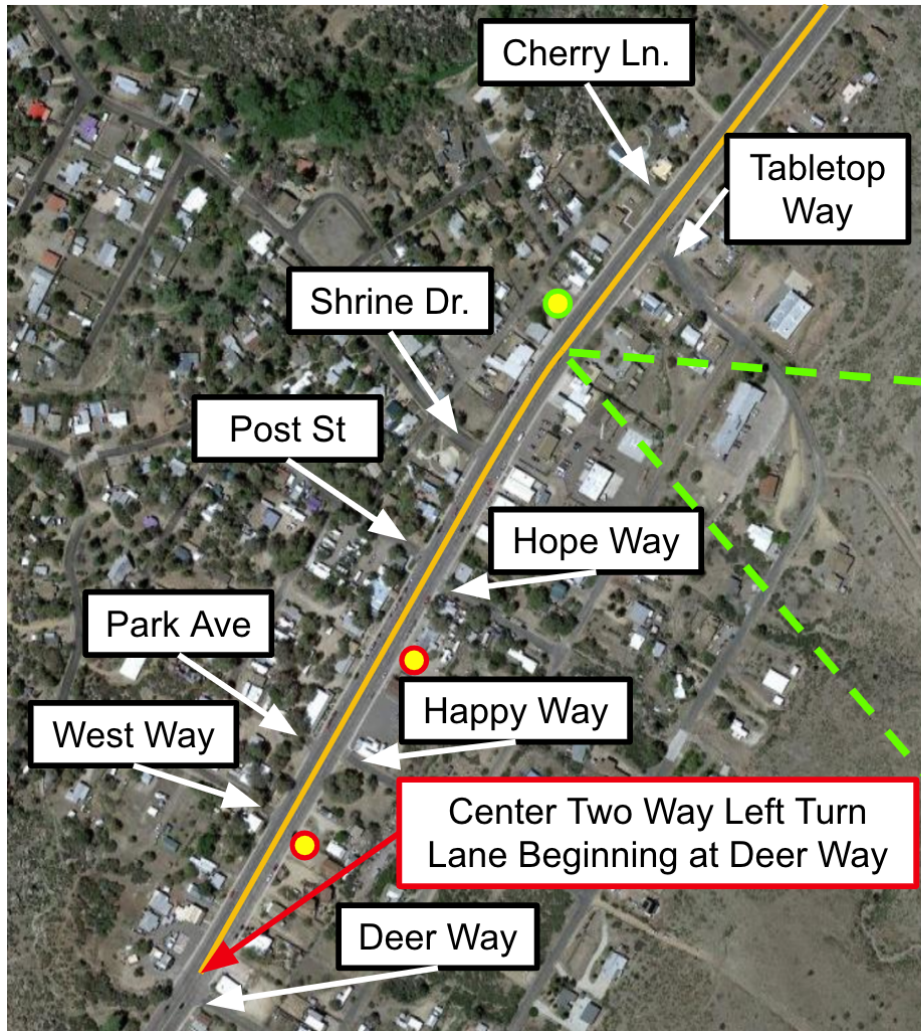
SR 89 Milepost 276 to 278



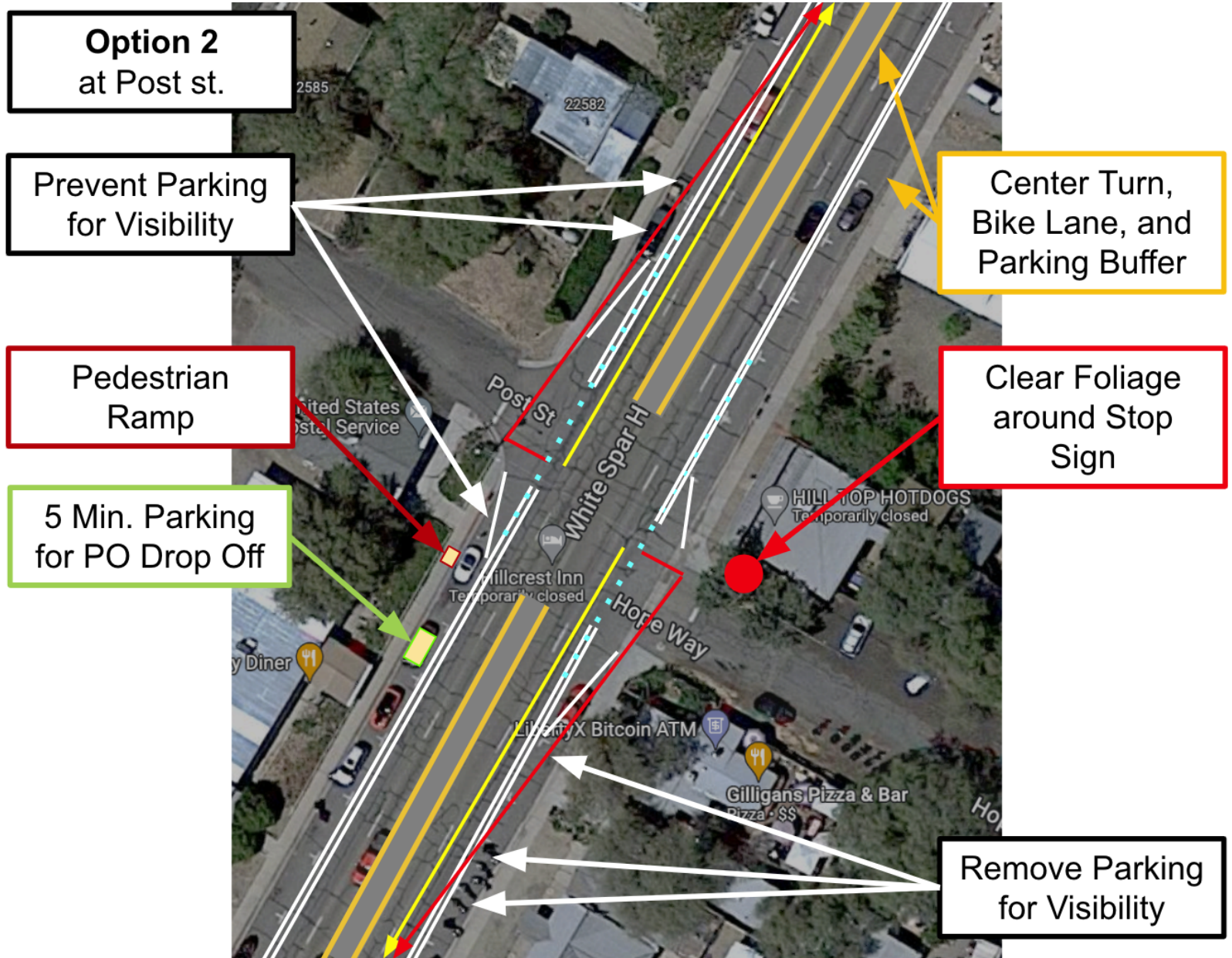
SR 89 Milepost 276 to 278



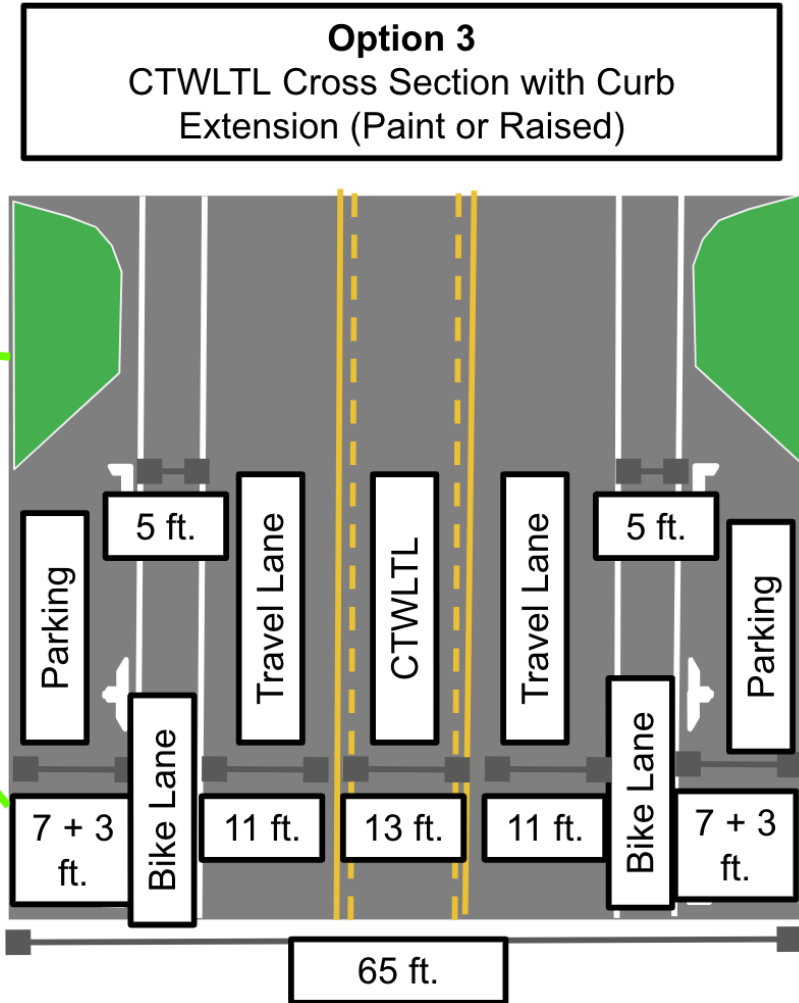
SR 89 Milepost 276 to 278



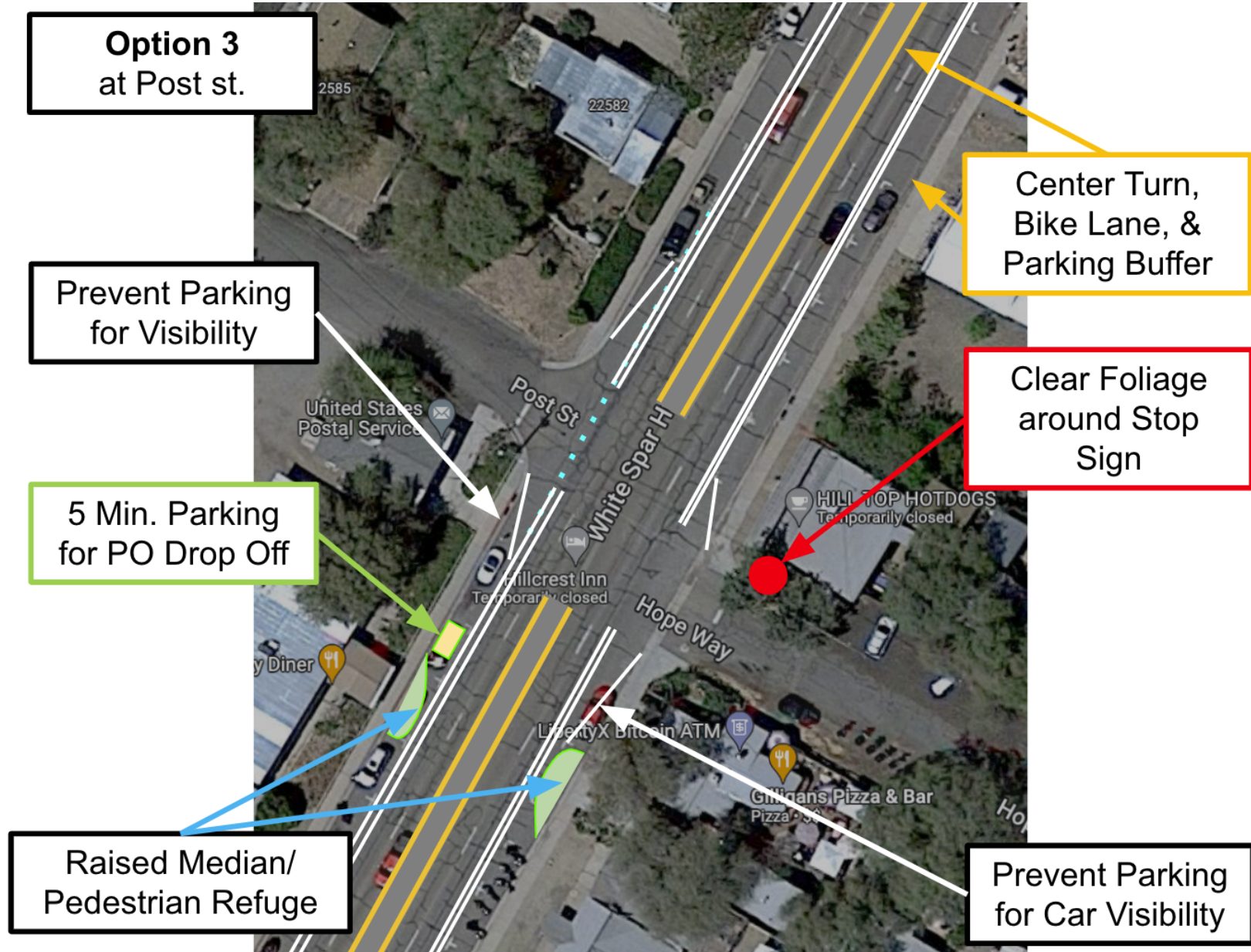
SR 89 Milepost 276 to 278



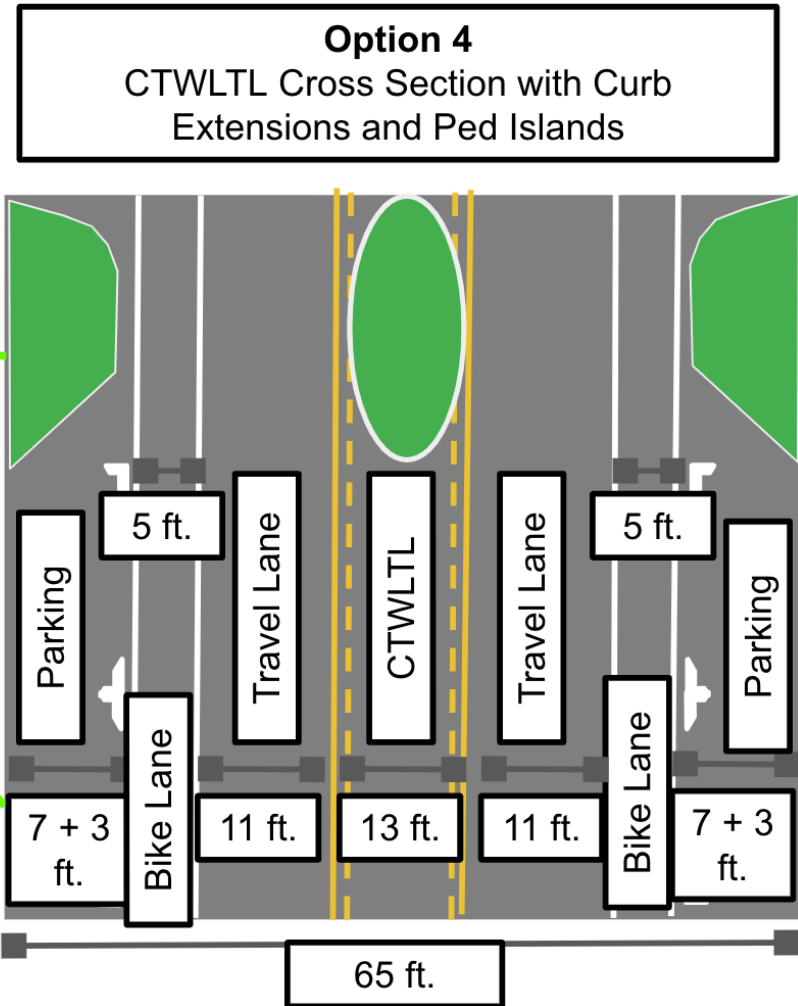
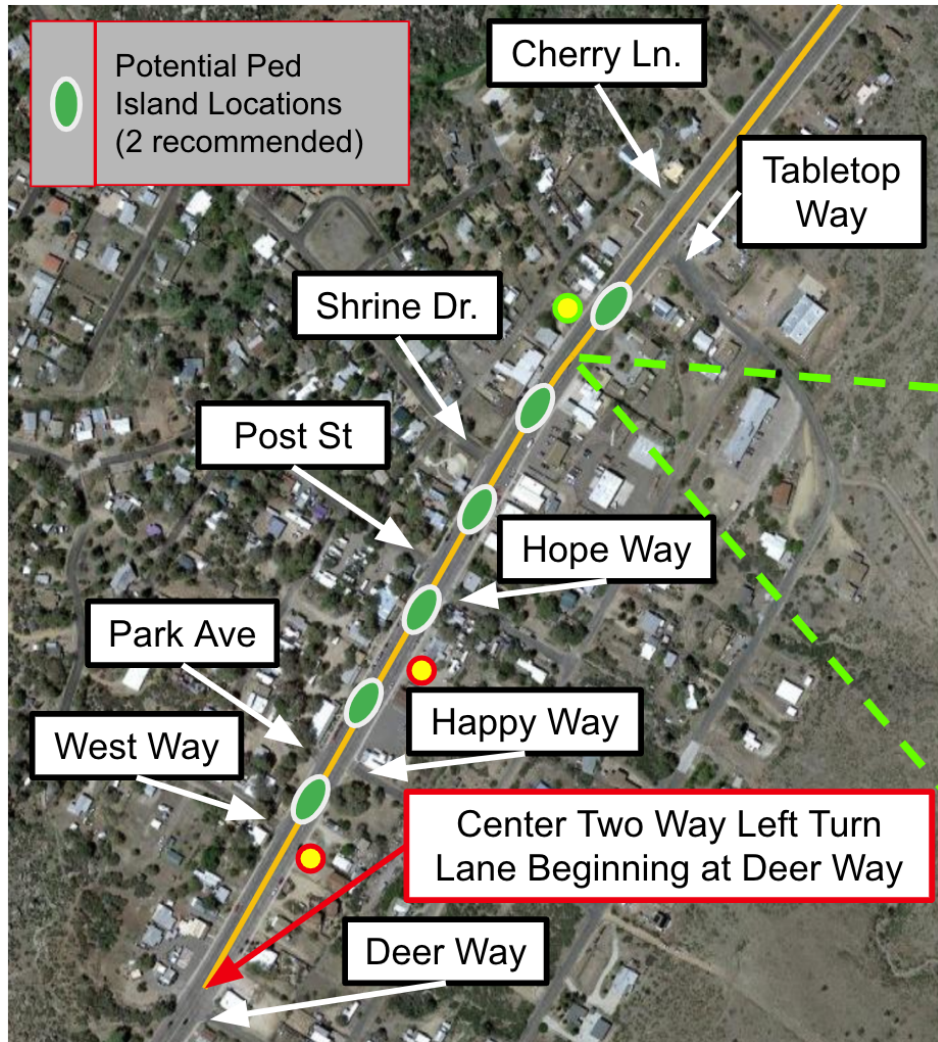
SR 89 Milepost 276 to 278



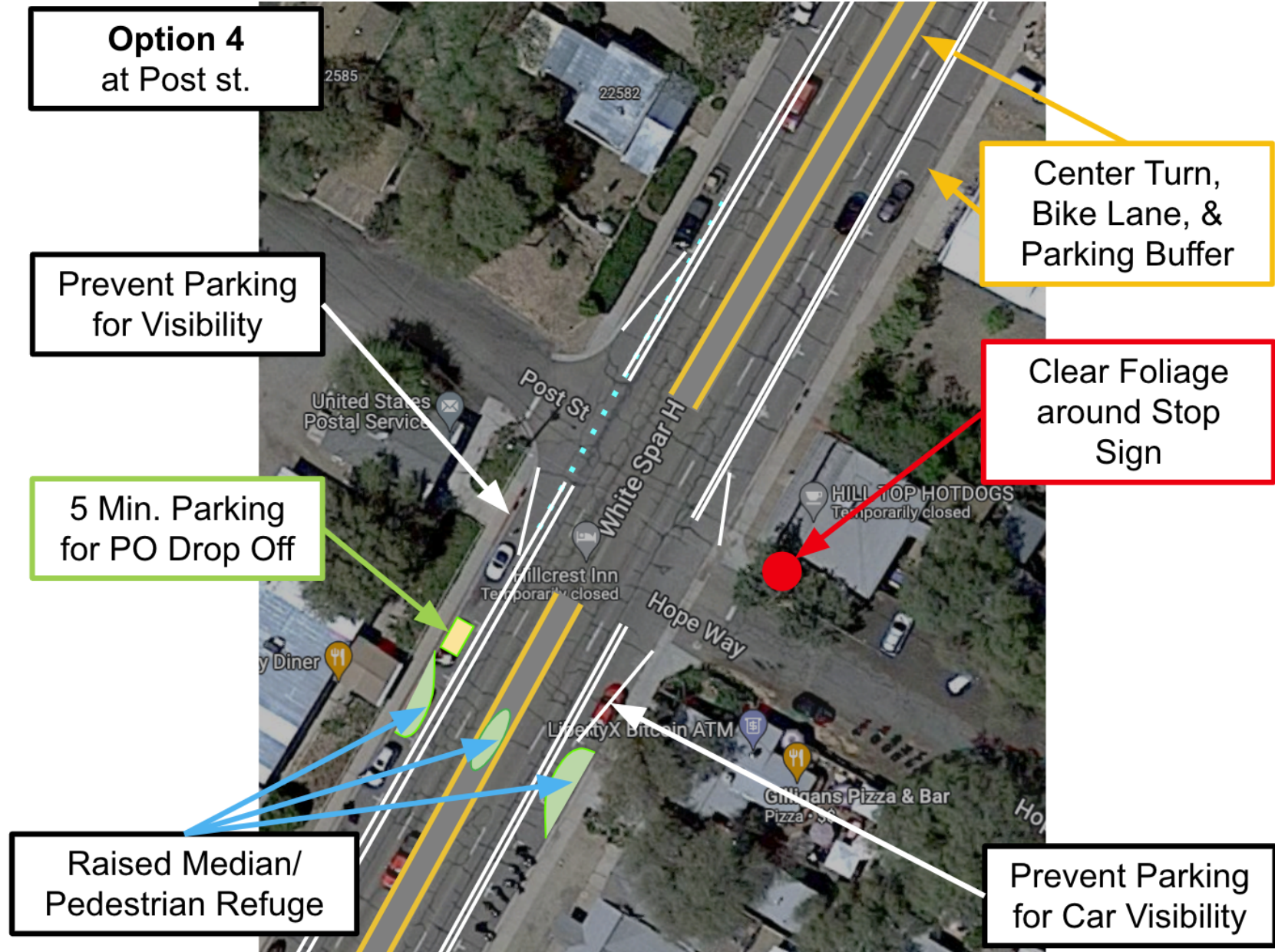
SR 89 Milepost 276 to 278



SR 89 Milepost 276 to 278

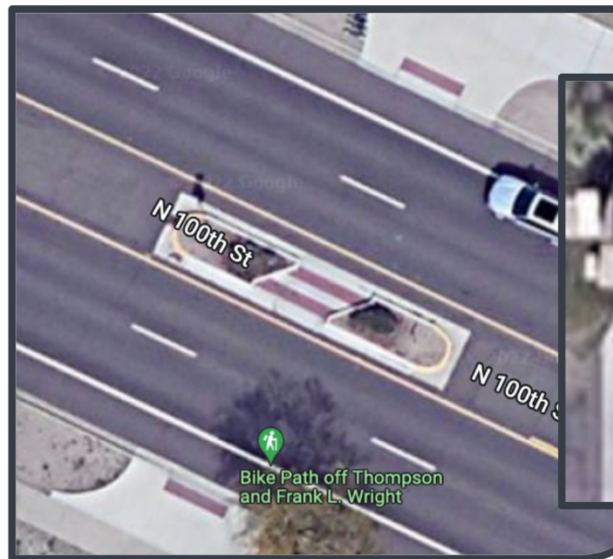


SR 89 Milepost 276 to 278



SR 89 Milepost 276 to 278

Examples
of
Pedestrian
Refuges



SR 89 Milepost 276 to 278

Proposed Countermeasures

Location: SR 89 MP 276-278		Observers: RSA Team (see page 5 for details)		Date: Week of September 13, 2022	
Issues/Trends		Potential Countermeasures	Implementation Plan	Ownership	Initials
1	Turning on to the roadway/visibility	Four Lane Option with parking restrictions at corners	Possible but not preferred		
2	Turning on to the roadway/visibility/passing/crossing	Three Lane Option with parking restrictions at corner	Preferred: ADOT RTE Work Order - Medium Term		
3	Turning on to the roadway/visibility/passing/crossing	Three Lane Option with parking restrictions at corner and curb extensions	ADOT or Local Project - Long Term		
4	Turning on to the roadway/visibility/passing/crossing	Three Lane Option with parking restrictions at corner & curb extensions & pedestrian island	Preferred: ADOT or Local Project - Long Term		
5	Crossing	Double-up Pedestrian signs	ADOT RTE Work Order - Completed		
6.	Speeding	Doubled-up Speed reduction signs and Doubled-up Speed limit signs	ADOT RTE Work Order - Completed		
7	Speeding	Enforcement	Per law enforcement		