



108 E. Proctor Street
Carson City, Nevada 89701
(775) 887-2180
Hearing Impaired: 711

Staff Report To: Redevelopment Authority Citizens Committee

Meeting Date: August 3, 2020

Item 4.C

Staff Contact: Lee Plemel, Director (lplemel@carson.org; 283-7075); Lucia Maloney, Transportation Manager (lmaloney@carson.org or 283-7396)

Agenda Title: For Discussion Only: Presentation and discussion regarding the Southwest Carson Circulation Study.

Staff Summary: Staff will present initial findings from the Southwest Carson Circulation Study. This study was conducted to understand long-term circulation and access needs throughout southwest Carson City and to understand how ongoing developments affect streets parallel and adjacent to South Carson Street.

Proposed Motion: [No action.]

DISCUSSION:

Please refer to the attached staff report from Lucia Maloney, Transportation Manager, and the attached presentation regarding the Southwest Carson Circulation Study. To view the complete detailed study, go to the Regional Transportation Commission meeting webpage at the link below and click on the link for the meeting of July 8, 2020, and see Item 6-C.

<https://www.carson.org/government/departments-q-z/public-works/transportation/meetings/rtc-agendas/2020-rtc-agendas>

If you have any questions regarding this item, please contact Lee Plemel at 283-7075 or lplemel@carson.org.

Attachments:

1. Regional Transportation Manager's staff report
2. Staff presentation



STAFF REPORT

Report To: The Redevelopment Authority Citizens Committee (RACC)

Meeting Date: August 3, 2020

Staff Contact: Lucia Maloney, Transportation Manager

Agenda Title: For Discussion Only – Discussion and presentation on the Southwest Carson Circulation Study.

Staff Summary: Staff will present initial findings from the Southwest Carson Circulation Study. This study was conducted to understand long-term circulation and access needs throughout southwest Carson City and to understand how ongoing developments affect streets parallel and adjacent to South Carson Street.

Agenda Action: Other/Presentation

Time Requested: 20 minutes

Proposed Motion

N/A

Background/Issues & Analysis

Currently, Carson City is constructing the South Carson Street Complete Streets Project – a 2.5 mile, \$20M+ project along South Carson Street from 5th Street to Roland Street. The South Carson Street Complete Streets Project includes improved business access, additional bicycle and pedestrian facilities, addition of fiber-optic cable and “smart city” improvements, a roundabout at South Carson Street and Stewart Street, stormwater improvements, decorative street lighting, and landscaping.

The construction and completion of the South Carson Street project combined with ongoing development and growth throughout southwest Carson City present the need to comprehensively understand long-term circulation and access needs for parallel and adjacent side streets. Planning ahead for these future connections is critical to ensuring realization of the full potential of prior and current transportation investments. Headway Transportation was selected to complete the study at the September 11, 2019 RTC Board Meeting.

The primary purposes of the study were to:

- Create and illustrate alignment options, opportunities, and constraints for the realignment of Snyder Avenue to Appion Way and signalization of the new four-way intersection with S. Carson Street
- Identify improvements on S. Curry Street and Silver Sage Drive for improved overall circulation and high-quality parallel routes to S. Carson Street, including related cross streets
- Identify other long-term transportation improvements in the study area that support business access and revitalization goals

Headway completed two reports associated with this study; one examining alternatives for the realignment of Snyder Avenue to Appion Way, and one assessing the connections and routes parallel to South Carson Street.

The two reports resulted in the following conclusions and recommendations:

- Realign Snyder Avenue to connect to W. Appion Way. Signalize the intersection of W. Appion Way/Snyder Avenue/S. Carson Street.
- The Cochise Street/ S. Curry Street corridor and S. Roop Street/ Silver Sage Drive corridor have adequate capacity to accommodate additional traffic and promote circulation and development in the area.
- S. Curry Street and Cochise Street are more commercial and less residential in nature than Silver Sage Drive and therefore are better suited for development and traffic increases.
- All studied intersections are expected to operate within Carson City's level of service (LOS) policy in the future year 2040 in their current configurations.
- The extension of Stewart Street to S. Curry Street as a two-lane roadway, with appropriate turn lanes, will benefit traffic circulation and access.
- Pavement and striping maintenance on S. Curry Street and Cochise Street should be provided, and the posted speed limit on S. Curry Street and Cochise Street should be revised to be a consistent 30 mph, subject to the recommendations of a speed limit study.
- Consideration should be given to signalization of the Rhodes Street/S. Carson Street intersection (potentially privately funded by future development(s) if/when appropriate signal warrants are met).
- Improve Oak Street between Roland Street and Clearview Drive.
- Work collaboratively with property owners to improve access from properties south of the Snyder Avenue to Oak Street.

Applicable Statute, Code, Policy, Rule or Regulation

N/A

Financial Information

Is there a fiscal impact? Yes No

If yes, account name/number: N/A

Is it currently budgeted? Yes No

Explanation of Fiscal Impact:

Alternatives

N/A

Supporting Material

- Exhibit-1: Presentation to RTC on the South Carson Circulation Study

SOUTHWEST CARSON CITY CIRCULATION STUDY

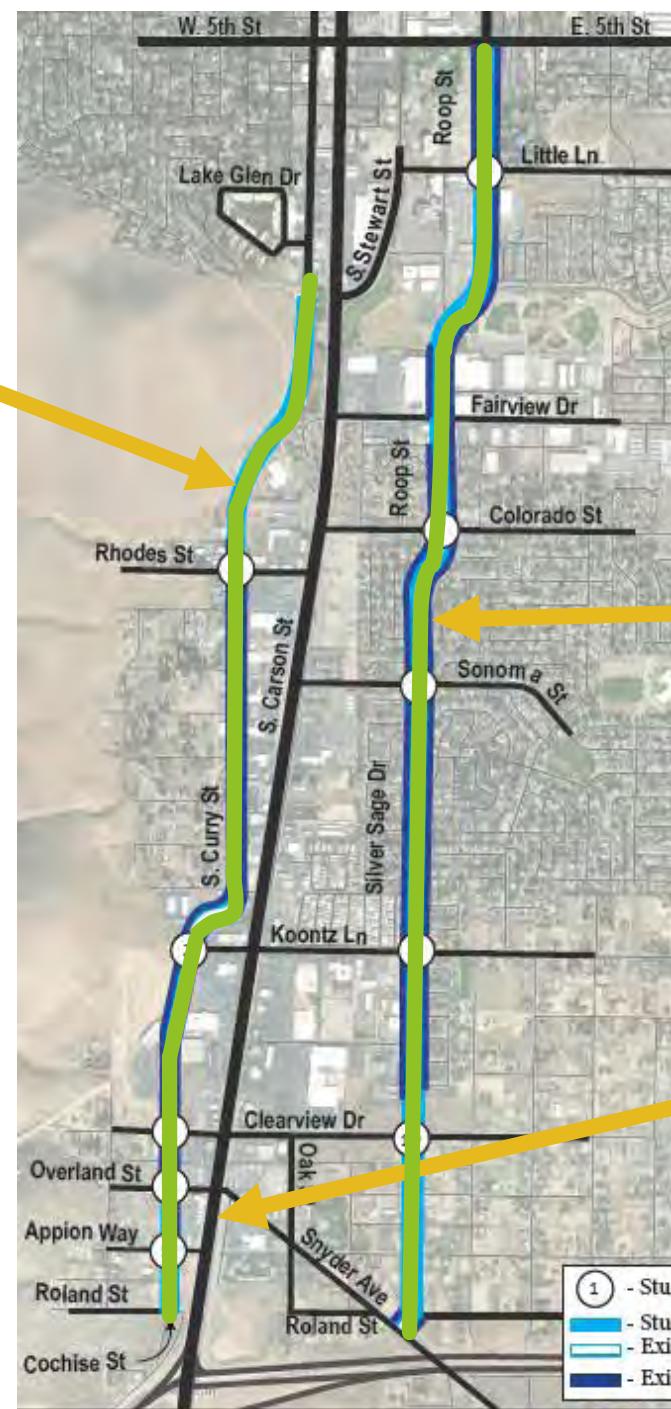
Carson City Regional Transportation
Commission (RTC)

July 8, 2020

Overall Study Goals

Cochise Street/
S. Curry Street
Parallel Route

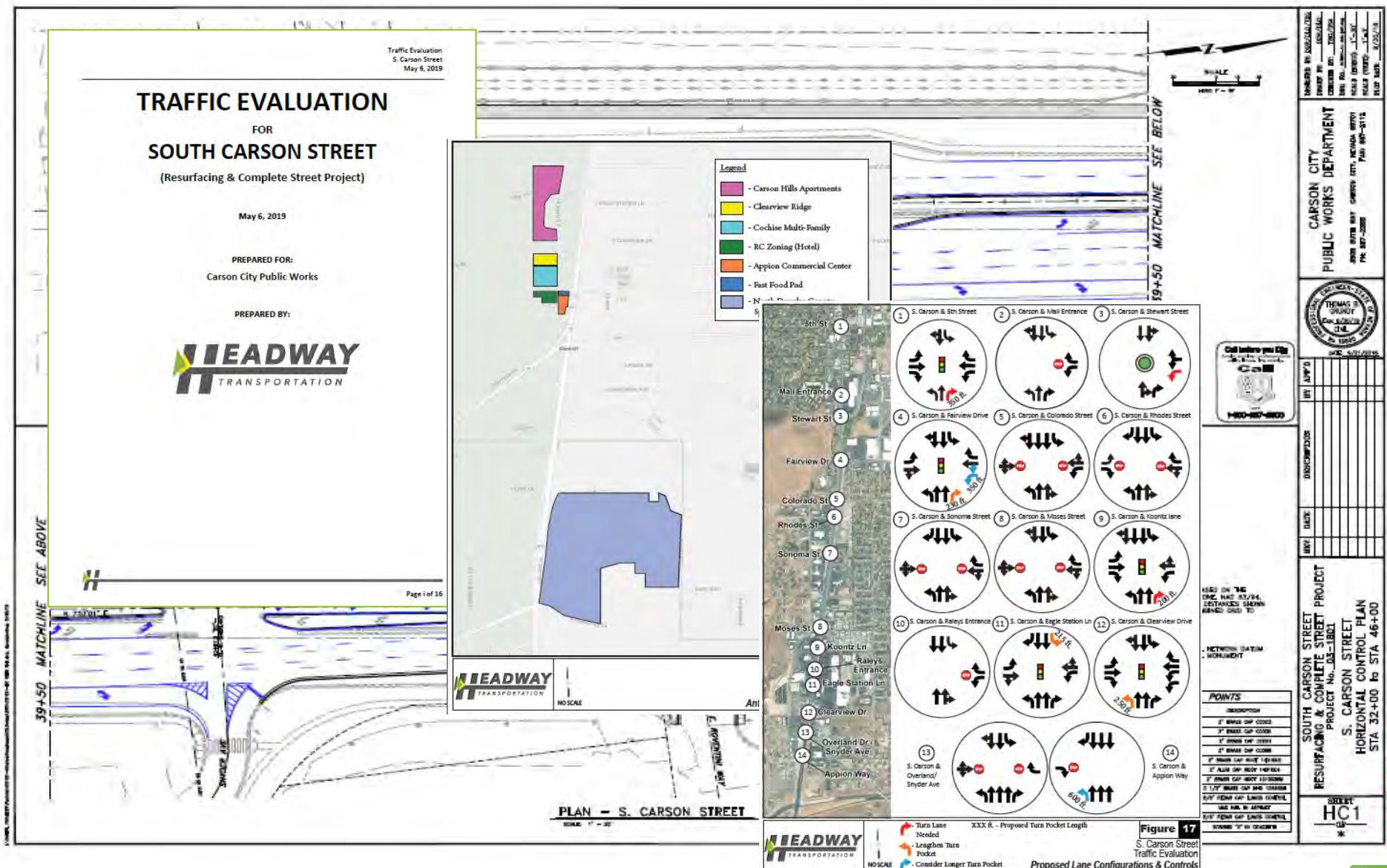
- ▶ Evaluate long-term traffic circulation including evaluating alignment options and potential roadway improvements in Southwest Carson City
- ▶ Identify improvements that will enhance overall circulation, redevelopment, and business vitality



S. Roop Street/
Silver Sage Drive
Parallel Route

Appion Way /Snyder
Avenue Alternatives
Analysis

Background and Previous Studies



Appion/Snyder Alternatives Analysis

Goals:

- ▶ Emergency response
- ▶ New signalized crossing
- ▶ Improve left turns
- ▶ Access for W. Appion Way
- ▶ Access for properties on the east side of S. Carson Street



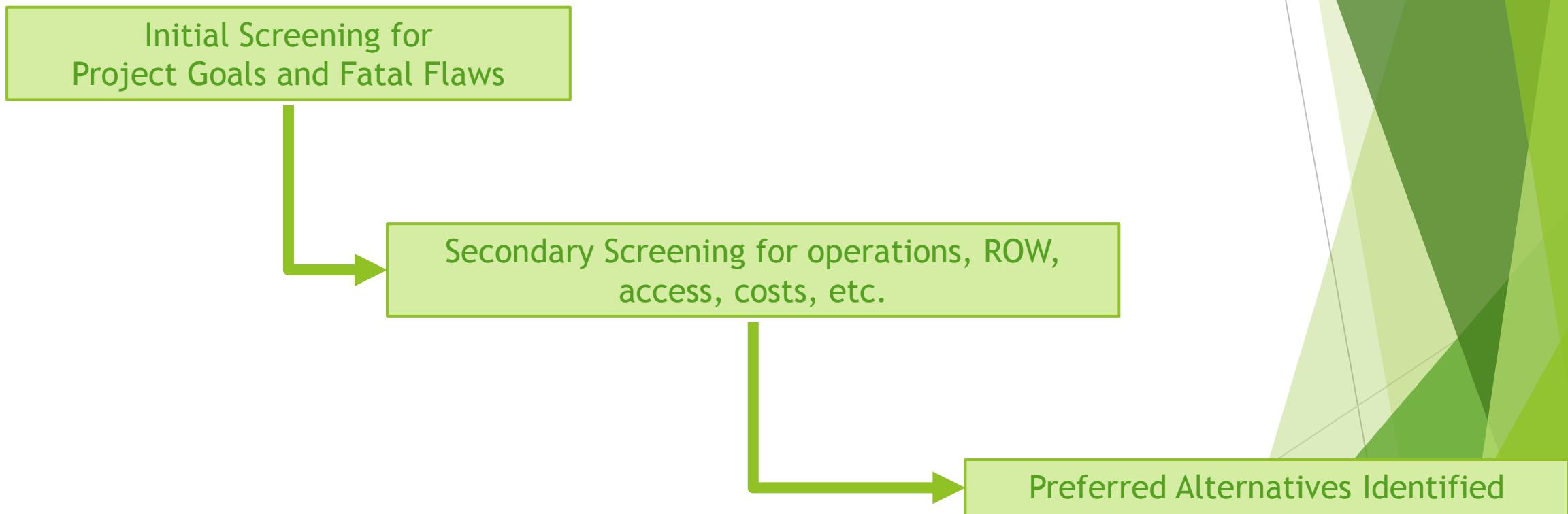
Figure 5

S. Carson Street
Traffic Evaluation

Anticipated Development Locations

Snyder/Appion Alternatives Analysis Process

Three step process to review and screen alternatives:



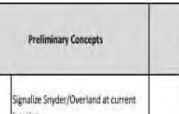
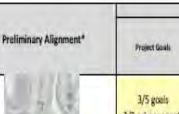
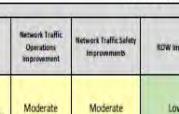
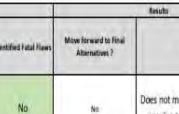
Snyder/Appion Alternatives Recommendation

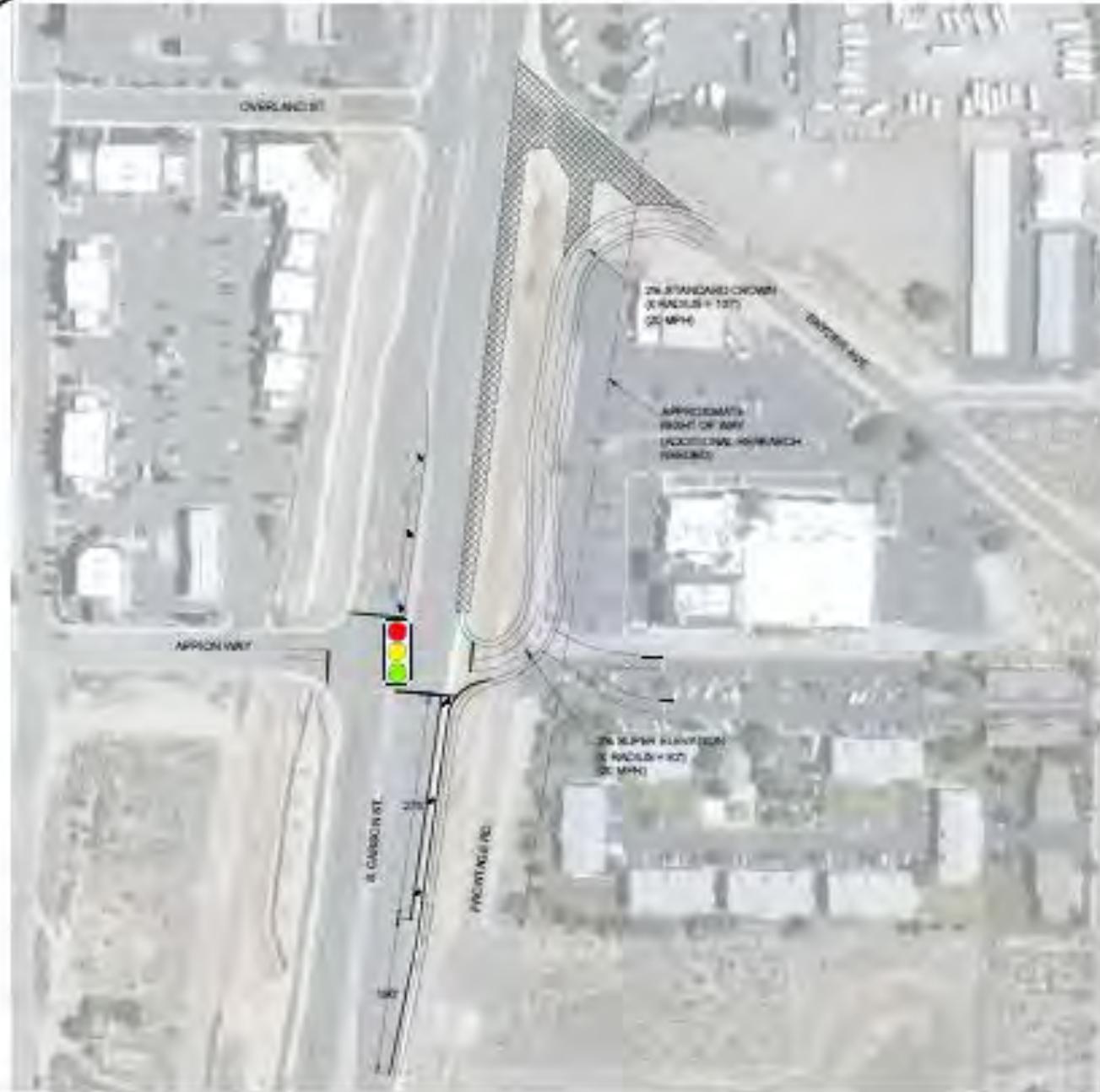
Two Preferred Alternatives were recommended, both providing a full movement signal at W. Appion Way

Table 1. Initial Screening

Potential Options		Project Goals	Fatal Flaws Identified	Potential Issues	Move forward to Prelim Concepts?
1	Signalize Snyder/Overland at current location	1,2,5	No	Potential operational issue with proximity to Clearview	Yes
2	Signalize W. Appion with a connection to the east side	1,2,3,4,5	No	Potential property impacts and/or high costs	Yes
3	Signalize W. Appion, add right turn lane to east side	4,5	No	Does not provide a signalized crossing or improve emergency response	Yes
4	Route traffic via Oak to Clearview	1,5	No	Indirect route and roadway improvements required	Yes
5	Provide U-turns at Clearview and Appion	1,3	No	Potentially does not provide enough benefit	Yes
6	Signalize T-intersections at Snyder/Overland and at W. Appion with merging lefts	1,3,4,5	Yes	Fatal Flaw identified - merge lengths do not meet AASHTO standards.	No
7	Connect Roland to S. Carson and signalize	1	No	Intersection spacing too close to interchange, expected high costs	No
8	Align Snyder Avenue with Silver Sage or California		No	Indirect route and roadway improvements required	No
9	Provide a U-turn between Snyder and Clearview	1	Yes	Fatal Flaw Identified: Does not fit geometrically	No
10	Construct a roundabout at Snyder and/or W Appion	1,3	Yes	Fatal Flaw identified: Volumes, roadway class and speed are not appropriate for a roundabout	No
11	Construct an emergency access signal at Snyder/Carson	1	No	Could potentially be considered in addition to other options	No

Table 3: Preliminary Concepts Screening

Preliminary Concepts		Preliminary Alignment ^a	Criteria										Results	
			Project Goals	Network Traffic Operations Improvement	Network Traffic Safety Improvements	ROW Impacts	Access Improvement	Causes Additional Roadway Modifications	Estimated Construction Costs	Possible Opportunity for Private Partnership	Meets Design Standards	Identified Fatal Flaws	Move forward to Final Alternative?	Reason
1	Signalize Snyder/Overland at current location		3/5 goals 2/2 primary goals	Moderate	Moderate	Low	Moderate	No	Low	Yes	Yes	No	No	Does not meet enough goals, signal spacing to Clearview too close.
2a	Via frontage road		5/5 goals 2/2 primary goals	Significant	Significant	Medium	Significant	No	High	Yes	No	No	Yes	Met all project goals with less impacts than similar concepts
2b	Via Roland/ frontage road		5/5 goals 2/2 primary goals	Moderate	Significant	High	Moderate	Yes	High	Yes	Yes	No	No	High ROW and costs with only moderate improvement to access
2c	Via an "S-curve" through the bowling alley		5/5 goals 2/2 primary goals	Significant	Significant	High	Significant	No	Medium	Yes	Yes	No	Only feasible if constructed by property owner	Significant property impacts
2d	Alignment between bowling alley and apartments		5/5 goals 2/2 primary goals	Significant	Significant	High	Significant	No	High	No	Yes	No	No	Significant property impacts
2e	Via frontage road with a mini-roundabout		5/5 goals 2/2 primary goals	Significant	Moderate	Medium	Significant	No	High	Yes	No	No	Yes	Met all project goals with less impacts than similar concepts
3	Signalize W. Appion, add right turn lane to east side		2/5 goals 0/2 primary goals	Moderate	Moderate	Low	Moderate	No	Medium	Yes	Yes	No	No	Does not meet enough project goals.
4	Route traffic via Oak to Clearview		2/5 goals 1/2 primary goals	Minimal/None	Minimal/None	Low	Minimal/None	Yes	Not determined	No	Yes	No	No	Does not meet enough project goals. Does not provide operational, access, or network safety improvements.
5	Provide U-turns at Clearview and Appion		2/5 goals 1/2 primary goals	Minimal/None	Minimal/None	Low	Minimal/None	No	Low	No	Yes	No	No	Does not meet enough project goals. Does not provide operational, access, or network safety improvements.



ASSOCIATED IMPROVEMENTS		COST
TRAFFIC SIGNAL	\$ 500,000	
INTERCONNECT TO CLEARVIEW	\$ 150,000	
SNYDER / A. CARSON FRONTAGE DEMOLITION	\$ 200,000	
RIGHT TURN LANE TO FRONTAGE	\$ 300,000	
SNYDER / FRONTAGE IMPROVEMENTS	\$ 750,000	
MOUNTAIN VISTA VILLAGE APARTMENTS DRIVEWAY	\$ 100,000	
APPION / A. CARSON MODIFICATIONS	\$ 200,000	
ROADWAY / INTERSECTION STRIPPING	\$ 50,000	
TOTAL	\$ 2,400,000	

SEGMENTS/PROCUREMENT OF PROPERTY REQUIRED FOR THIS
OPTION

SOUTHWEST CARSON CITY CIRCULATION STUDY SNYDER AVE AND APPION WAY ALTERNATIVES

PREPARED FOR CARSON CITY



HEADWAY
TRANSPORTATION

3000 Longley Lane, Suite B
Reno, NV 89511
(775) 786-0300

ALTERNATIVE 2c:
CONNECT SNYDER
W/ APPION
AND SIGNALIZE

MAP 9-24

FIGURE 1-24

Figure 1:
Alternative 2c



ASSOCIATED IMPROVEMENTS: SIGNAL AND MINI-ROUNDABOUT WITH REALIGNMENTS COST: \$2.5M - \$3.0M
EASEMENTS/PROCUREMENT OF PROPERTY REQUIRED FOR THIS OPTION.

**SOUTHWEST CARSON CITY CIRCULATION STUDY
SYNDER AVE AND APPION WAY ALTERNATIVES**

PREPARED FOR CARSON CITY



5402 Longley Lane, Suite B
Reno, NV 89511
(775) 322-4300

ALTERNATIVE 2e:
SIGNALIZE APPION/
S. CARSON
WITH
MINI-ROUNABOUT

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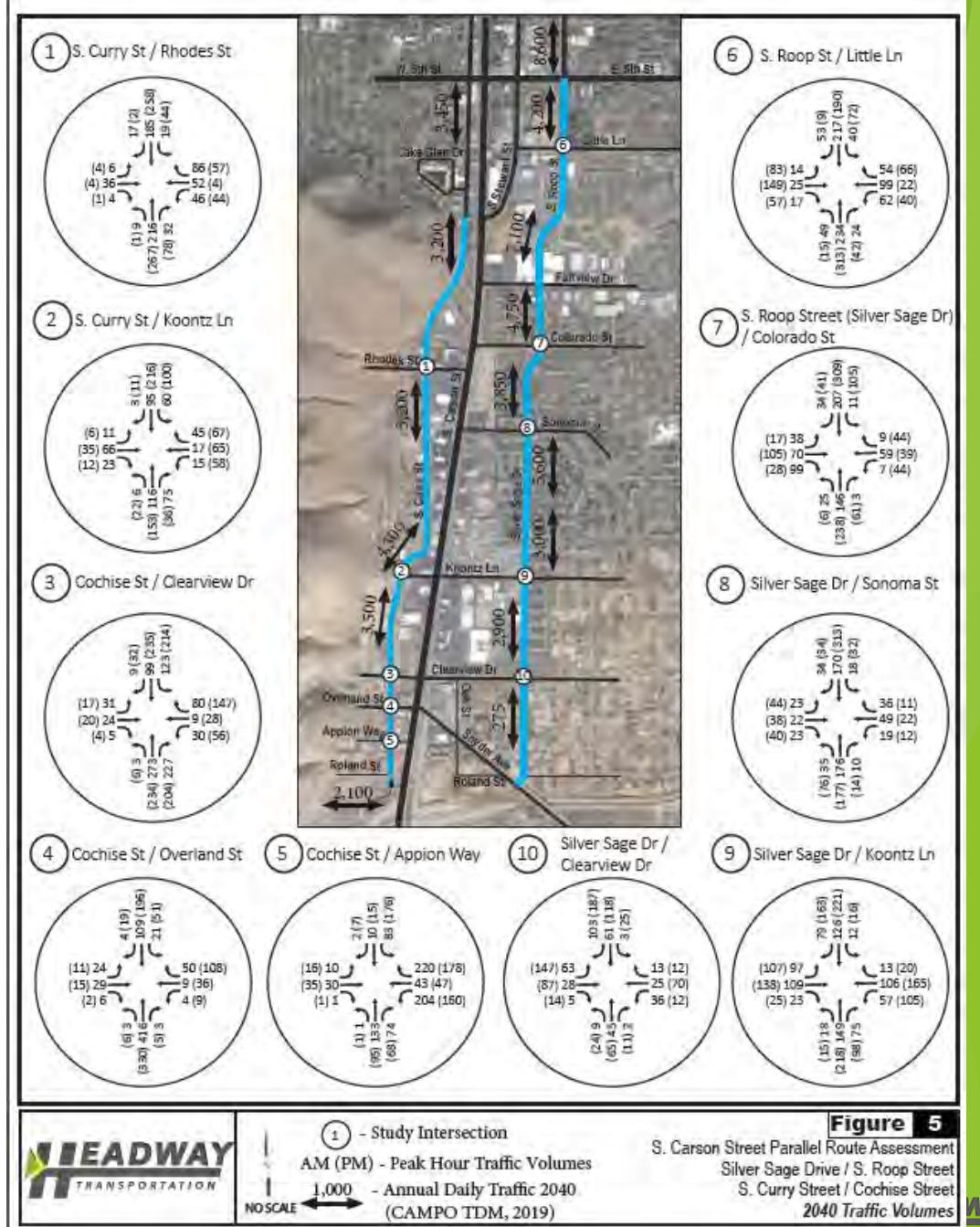
February 20, 2020

Headway

Figure 2:
Alternative 2e

Cochise Street/ S. Curry Street S. Roop Street/ Silver Sage Drive Parallel Route Analysis

- Purpose is to assess the current and future operations on these routes and identify and mitigate any capacity issues at key intersections.
- Key intersections include:
 - S. Curry Street/ Rhodes Street
 - S. Curry Street/ Koontz Lane
 - Cochise Street/ Clearview Drive
 - Cochise Street/ Overland Street
 - Cochise Street/ W. Appion Way
 - S. Roop Street/ Little Lane
 - Silver Sage Drive/ Colorado Street
 - Silver Sage Drive/ Sonoma Street
 - Silver Sage Drive/ Koontz Lane
 - Silver Sage Drive/ Clearview Drive



Parallel Route Findings

- ▶ Both parallel routes have adequate capacity based on known projects
- ▶ Level-of-Service is within policy thresholds for 2040
- ▶ Cochise St/Curry St is more commercial
- ▶ Silver Sage Dr/Roop St is more residential
- ▶ Links between Curry St and Carson St benefit circulation and access



Parallel Routes/ Circulation Recommendations

- ▶ In addition to these projects, continue to improve bicycle and pedestrian facilities in accordance with other Master Plans



QUESTIONS?