

CITY OF YUBA CITY
STAFF REPORT

Date: March 21, 2017

To: Honorable Mayor & Members of the City Council

From: Public Works Department

Presentation by: Diana Langley, Public Works Director

Summary

Subject: State Route 99/State Route 20 Interchange – Project Study Report Update

Recommendation: Review and discuss the State Route 99/State Route 20 Interchange Project Study Report presentation, and then note and file.

Fiscal Impact: Informational item only.

Purpose:

To begin the process for the construction of an urban interchange at the State Route 99/State Route 20 intersection.

Background:

The California Department of Transportation (Caltrans) has identified in their State Route 99 Transportation Corridor Concept Report (TCCR) a planned project for the construction of an urban interchange at the intersection of State Route 99 (SR 99) and State Route 20 (SR 20) in Yuba City. The TCCR shows an estimated total cost of \$104 Million including \$64 Million for right-of-way with right-of-way acquisition taking place within the timeframe of 2021-2036.

In early 2016, as part of a Transportation Workshop, City Council expressed a desire to expedite consideration of the construction of an urban interchange at the SR 99/SR 20 intersection and directed staff to reach out to Caltrans. Staff scheduled a meeting with Caltrans District 3 Director Amarjeet Benipal, during which Director Benipal indicated that if the City wanted to advance the project, the City would need to pay for the preparation of a Project Study Report – Project Development Support (PSR-PDS) Project Initiation Document (PID).

Staff obtained a proposal from Caltrans in the amount of \$292,000 to prepare a PSR-PDS to evaluate up to four interchange alternatives. A Cooperative Agreement was prepared by Caltrans, and approved by the City Council on August 16, 2016, which outlined the scope of work, responsibilities of each agency, and payment terms. The report is to be completed by January 16, 2018.

Analysis:

Caltrans has begun analysis on three interchange configuration alternatives, noted below. A brief discussion related to each alternative is attached as Exhibit 1 and will be summarized as part of a presentation to Council at the meeting.

Alternative 1 – Single Quadrant with Slip On-Ramp (Exhibit 2)
Alternative 2 – Single Point (Exhibit 3)
Alternative 3 – Single Quadrant (Exhibit 4)

In addition, Caltrans considered a Diverging Diamond Interchange (Exhibit 5) but rejected it due to the following reasons:

- Limited weaving distance for various turning movements
- No protected left turn lanes in most cases
- Access to the Yuba Sutter Mall would be severely impacted
- Driveways located on SR 20 between SR 99 and Civic Center Boulevard would be severely impacted
- Possible driver confusion

Finally, Caltrans is evaluating the option of lowering the profile of SR 20 so that the profile of SR 99 is minimized. Their initial analysis indicates that any significant lowering of the profile may require realignment of an 84" storm drain line that runs parallel to the east side of SR 99, a storm drain pumping station to mitigate groundwater, relocation of other utilities, acquisition of additional right-of-way, and driveways on SR 20 between Civic Center Boulevard and Rocca Way would need to be terminated. Caltrans then looked at the maximum amount that the profile could be lowered without triggering the above-noted impacts. The determination was that the profile could be lowered three (3') feet. Based on this, staff is looking for feedback from City Council as to whether they would like this option further evaluated.

Fiscal Impact:

The preliminary estimated cost for the three interchange alternatives is \$65 million. A funding source has not been identified at this time.

Alternatives:

Not applicable.

Recommendation:

Review and discuss the State Route 99/State Route 20 Interchange Project Study Report presentation, and then note and file.

Attachments:

1. Summary Discussion Related to Alternatives 1 – 3
2. Alternative 1 – Single Quadrant with Slip On-Ramp
3. Alternative 2 – Single Point
4. Alternative 3 – Single Quadrant
5. Diverging Diamond Interchange

Prepared by:

/s/ Diana Langley

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Finance

City Attorney

Submitted by:

/s/ Steven C. Kroeger

Steven C. Kroeger
City Manager

RB

BY EMAIL

EXHIBIT 1
SUMMARY DISCUSSION RELATED TO ALTERNATIVES 1-3

Alternative 1 – Single Quadrant with Slip On-Ramp

Estimated Tentative Cost: \$65 Million

SR 99

- Shift the alignment of SR 99 to the west
- Raise SR 99 to go over SR 20

SR 20

- Traffic movement on SR 20 (under the structure) will be controlled by two intersections

Local Roads

- Access to SR 99 from Woodward Street, East Onstott Frontage Road, and West Onstott Frontage Road will be terminated
 - Extend Kelton Way south to connect to East Onstott Frontage Road
 - Connect Woodward Street to West Onstott Frontage Road
 - Extend West Onstott Frontage Road to connect to Civic Center Boulevard

Design Constraints

- Weaving Distance
- Merging Tapers for SR 20 and possibly the ramps for Southbound SR 99
- Shoulders on SR 20

Right-of-Way

- Full acquisition of at least 2 parcels
- Possible partial acquisition of 20 parcels

Alternative 2 – Single Point

Estimated Tentative Cost: \$65 Million

SR 99

- Shift the alignment of SR 99 to the west
- Raise SR 99 to go over SR 20
- Retaining walls will be required

SR 20

- Traffic movement on SR 20 (under the structure) will be controlled by a single intersection with a three-phase signal

Local Roads

- Access to SR 99 from Woodward Street, East Onstott Frontage Road, and West Onstott Frontage Road will be terminated
 - Extend Kelton Way south to connect to East Onstott Frontage Road
 - Connect Woodward Street to West Onstott Frontage Road

- Extend West Onstott Frontage Road to connect to Civic Center Boulevard

Design Constraints

- Weaving Distance
- Merging tapers for SR 20 and possibly the ramps for Southbound SR 99
- Shoulders on SR 20

Right-of-Way

- Full acquisition of at least 2 parcels
- Possible partial acquisition of 20 parcels

Alternative 3 – Single Quadrant

Estimated Tentative Cost: \$65 Million

SR 99

- Shift the alignment of SR 99 to the west
- Raise SR 99 to go over SR 20
- Loop located in the northwest quadrant will carry all southbound SR 99 traffic from SR 20

SR 20

- Traffic movement on SR 20 (under the structure) will be controlled by two intersections

Local Roads

- Access to SR 99 from Woodward Street, East Onstott Frontage Road, and West Onstott Frontage Road will be terminated
 - Extend Kelton Way south to connect to East Onstott Frontage Road
 - Connect Woodward Street to West Onstott Frontage Road
 - Extend West Onstott Frontage Road to connect to Civic Center Boulevard

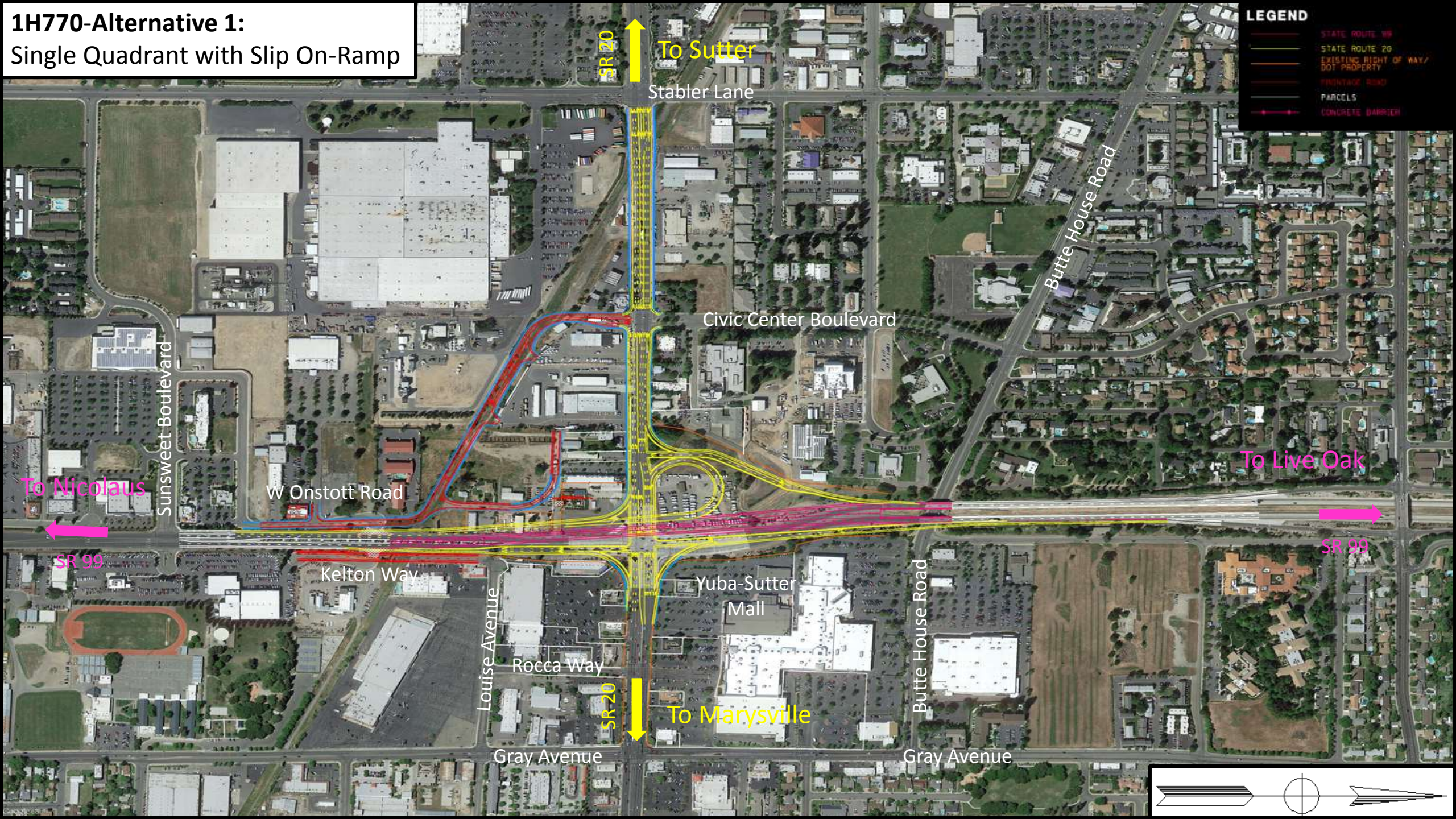
Design Constraints

- Weaving Distance
- Merging tapers for SR 20 and possibly the ramps for Southbound SR 99
- Shoulders on SR 20

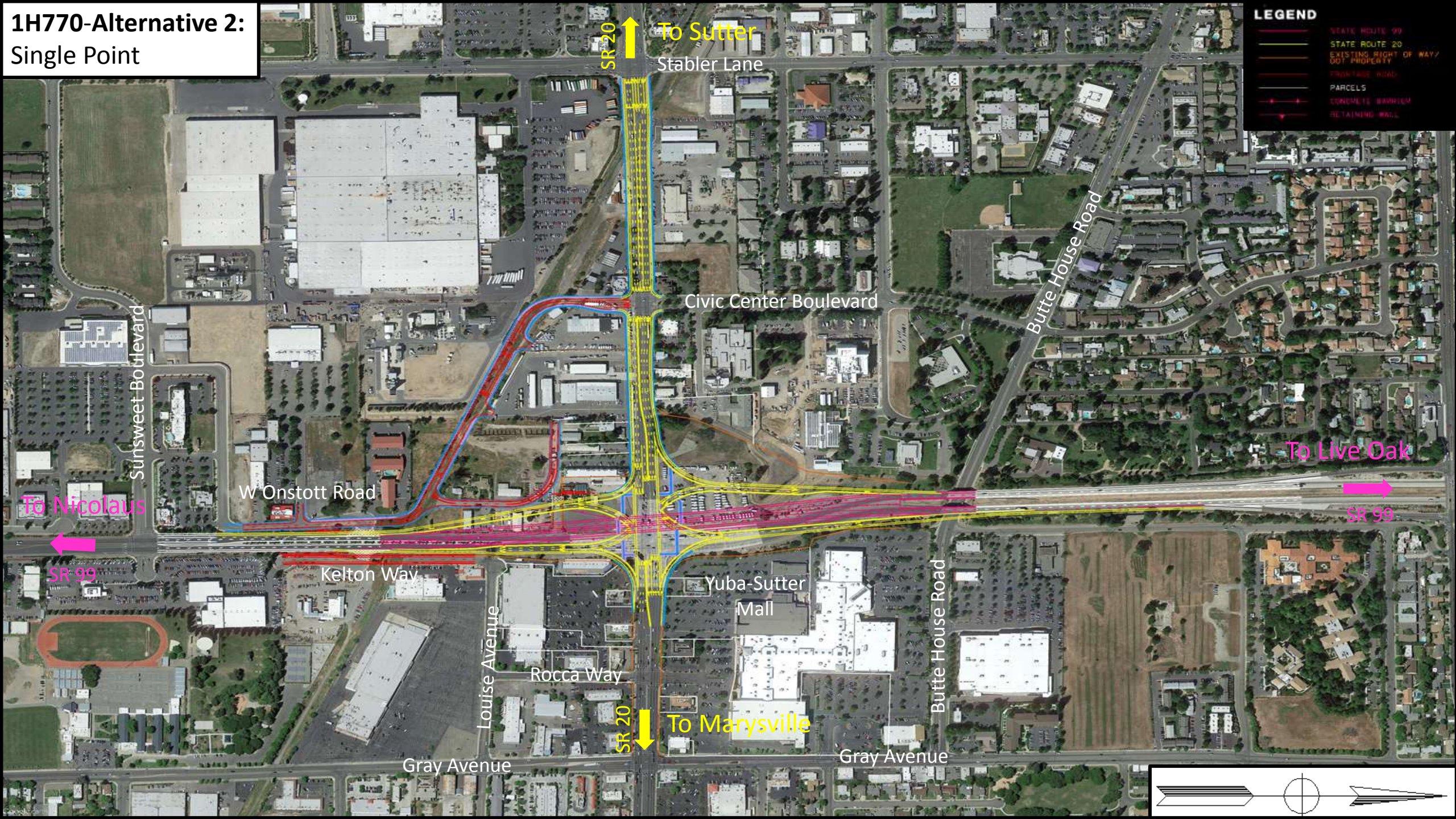
Right-of-Way

- Full acquisition of at least 2 parcels
- Possible partial acquisition of 20 parcels

1H770-Alternative 1: Single Quadrant with Slip On-Ramp



1H770-Alternative 2: Single Point



1H770-Alternative 3: Single Quadrant

