Challenges for Finding a Bridge Location

Presented by: Steve Rhyne, GSP

2015 ESRI User Conference
The Geodesign Project Workflow

1. Project Initiation
2. Project Reconnaissance
3. Goals & Objectives / Stakeholders
4. Issues of Concern
5. Data Requirements
6. Data Acquisition / Project Database
7. Analyze Issues
8. Suitabilities & Vulnerabilities
9. Opportunities & Constraints
10. Planning Strategies
11. Create Alternate Plans*
12. Evaluate Alternate Plans*
13. Select Preferred Plan*
14. Implementation Plan*
15. Reports & Presentations / Website
16. Project Acceptance
17. GeoDesign
18. Bill Miller, formerly Director of GeoDesign Services for Esri
19. Fehr & Peers
**NEED**

The proposed action is needed for the reasons listed below.

1) Limited connectivity across the American River creates a barrier to economic activity, land use development, social exchanges, and access to jobs within the Central City and South Natomas. The barrier causes longer trip lengths between origins and destinations that are physically close, which discourages walking and bicycling, reduces public health, creates inefficient transit routing, consumes more fuel, and generates higher levels of air pollutants and Greenhouse gas (GHG) emissions due to the reliance on automobiles.

2) Limited connectivity across the American River contributes to peak period travel delays on I-5.

3) Limited connectivity across the American River contributes to longer emergency response times and limits evacuation alternatives.

4) Limited connectivity across the American River creates a barrier to recreational opportunities within the American River Parkway.

**PURPOSE**

The proposed action will achieve the following objectives.

1A) Add bridge capacity across the American River between the Central City and South Natomas that serves multiple modes and minimizes the growth in vehicle miles of travel (VMT), air pollutants, and GHG emissions.

1B) Minimize the growth in vehicle traffic on nearby residential streets caused by trips with either origins or destinations outside of the Central City and South Natomas accessing any new or modified bridge of the American River.

2) Add bridge capacity with the primary function of providing local connectivity between the Central City and South Natomas to reduce the overall reliance of local trips on state facilities.

3) Add bridge capacity that increases options for evacuations and emergency/disaster response for the Central City and South Natomas.

4) Improve recreational access to the American River Parkway as part of any bridge capacity improvements.
5 Minute Drive Time

At - 1

At - 2

At - 3

At - 4

At - 5

At - 6

At - 7

At - 8
Emergency Response
Market Area
## Alternatives Analysis

<table>
<thead>
<tr>
<th>Alternatives / Modal Options</th>
<th>2035 Population Pts Employment within 1/2 mile Walk</th>
<th>2035 Population Pts Employment within 5 min. Drive</th>
<th>2035 Regional Daily VMT Change (1, 3)</th>
<th>2035 Daily Traffic Volume Change on I-5 (1)</th>
<th>2035 Lane-Miles of Congestion Change (1, 2, 3)</th>
<th>Greenline Daily LRT Ridership Change (1, 3)</th>
<th>6 Min. Emergency (acre) Traffic Volume Change</th>
<th>Residential Neighborhood Streets Traffic Volume Change</th>
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<tbody>
<tr>
<td>ALTERNATIVE 5</td>
<td>8,760</td>
<td>87,150</td>
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<td>ALTERNATIVE 8</td>
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<td>74,180</td>
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Thank You

Contact Information
s.rhyne@fehrandpeers.com
www.fehrandpeers.com
www.gisvisman.com

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