



**CITY OF SAN CARLOS  
TRANSPORTATION AND CIRCULATION COMMISSION  
STAFF REPORT**

**COMMISSION MEETING DATE: September 15, 2009**

**ITEM TITLE: CONSIDER THE FORMAT FOR A MATRIX TO BE USED FOR THE HOLLY STREET AT US 101 ACCESS ALTERNATIVES STUDY**

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**RECOMMENDATION:**

Approve the matrix format (Attachment 1) proposed by the project team.

**FISCAL IMPLICATIONS:**

The matrix format (Attachment 1) includes a criterion for project cost.

**BACKGROUND:**

Approval of the matrix format (Attachment 1) will be an important step forward in the Holly Street at US 101 access alternatives study. The matrix will be used by the project team to evaluate alternatives against the baseline project. The baseline project represents the traffic mitigations identified in the Palo Alto Medical Foundation traffic report, which have since been adopted in the General Plan and the Traffic Mitigation Impact Fee program.

The matrix format lists criteria on the left and packages of alternatives across the top. A summary page lists the major criteria:

- Traffic Benefits
- Bike/Pedestrian Benefits
- Community Impacts
- Environmental Impacts
- Cost
- Grant Eligibility
- Caltrans Approval

With the exception of one, these criteria were presented to the Commission at the August 18, 2009 meeting. The one new criterion, Caltrans Approval, is recommended by the project team after discussing the key role that Caltrans will have in reviewing modifications to the interchange.

The matrix format is based on the "Pugh Matrix" system, suggested by a community member at the August 18, 2009 Commission meeting. Each alternative is evaluated as either better (+), equal, or worse (-) than the baseline project. Behind the summary page, detailed pages are used to evaluate sub-criteria for each of the major criteria. The pluses and minuses for the sub-criteria will be added up on the detailed pages. If the net result is positive, the alternative would be considered better than the baseline project for that criterion and a plus (+) would be entered on the summary page. If the net result is negative, the alternative would be considered worse than the

baseline project for that criterion and a negative ( - ) would be entered on the summary page. An equal score would be entered as zero.

On the summary page, weights would be applied to each of the criterion. The project team has proposed the weights shown on the matrix format (Attachment 1). Consistent with General Plan policies, traffic benefits, bike/pedestrian benefits, and community impacts are considered equal in value and would be assigned the highest weight (5). Cost would be assigned a weight of 4, but grant eligibility (weighted at 3) and Caltrans approval (weighted at 2) are also cost-related criteria. Environmental impacts would be weighted at 2 because most of the environmental impacts of the project are addressed in the Community Impacts criterion. The draft Mitigated Negative Declaration for the Holly Street Widening at Industrial Road did not find significant impacts in areas other than community impacts such as noise and aesthetics.

The summary page would be used to arrive at the total score for each alternative. The plus (+), minus (-) or zero score for each criterion would be multiplied by the weight for that criterion. The weighted scores would then be added up. The total scores would be used to select the top tier of two to four alternatives, which would then be recommended to the City Council for further evaluation.

The packages of alternatives were developed to illustrate tradeoffs between alternatives. For example, Alternative C, "Best Use of Existing Holly Street Curb Lines + Full Par-Clo Interchange" would eliminate the widening near Industrial Road that is included in the baseline project. This cost savings could be applied to a full par-clo conversion of the interchange, which has bicycle and pedestrian benefits.

In the final analysis, it may make sense to combine the best aspects of several alternatives. For example, the East San Carlos Bike Corridor could be combined with most of the alternatives. The current matrix format lists it as an add-on to the baseline project so that its costs and benefits can be highlighted.

Over the next month, the project team will be preparing sketch plans for each of the alternatives, evaluating their performance in a traffic model, and estimating costs and benefits. If alternatives do not achieve the intersection level of service required by General Plan policies, they will be eliminated from further consideration.

It may be necessary for the project team to make some adjustments to the matrix when it is actually put to use. Any changes will be reviewed with the Commission when the results are presented.

The results will be reviewed informally with the community at a meeting on October 28, 2009 and a draft alternatives analysis will be considered by the Commission at the regular meeting on November 17, 2009. A final report on the alternatives analysis is tentatively scheduled for Commission consideration at the regular meeting on December 15, 2009. The City Council would consider the report in January 2010, a timeline that is consistent with the objectives set forth in the Strategic Plan. Please refer to the updated community outreach plan (Attachment 2).

In summary, the matrix format (Attachment 1) provides an objective tool for comparing alternatives against the baseline project.

ALTERNATIVES:

1. Approve the matrix format (Attachment 1) proposed by the project team.
2. Adjust the weighting of criteria.
3. Add or delete criteria.
4. Provide alternate direction to staff.

Respectfully submitted,

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Public Works Director/City Engineer

Attachments:

1. Matrix format
2. Updated Community Outreach Plan