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MAY 17 2013

City Manager's Office

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Julie Edmonds-Mares
David Sykes

SUBJECT: THREE CREEKS BRIDGE ISSUES

DATE: May 17, 2013

Approved

Date

5/17/13

INFORMATION

On March 26 and April 9, 2013, the City Council approved actions to remove an existing railroad trestle over Los Gatos Creek (see Attachment A) and replace it with a new free-span steel bridge structure along the Three Creeks Trail right-of-way that the City acquired in late 2011.

Per City Council direction, staff is currently proceeding with the bridge replacement project. Over the past few weeks, however, community members have raised questions and concerns regarding the City Council decision and staff's recommendation. The purpose of this memorandum is to provide clarifications about staff's recommendation and to address specific questions regarding the decision-making process.

ANALYSIS

Last year the Department of Public Works hired the engineering firm CH2M HILL to prepare a report on the viability of reusing the former railroad bridge as a pedestrian bridge for the Three Creeks Trail alignment. The study is dated October 8, 2012, and can be found on the City's website at: <http://www.sanjoseca.gov/DocumentCenter/View/11898>. The study was posted on the City web site in early February in advance of the March 26 Council meeting to consider staff recommendations. It provides background information and technical data that informed staff's recommendations on whether to remove and replace the aging creosote-treated wood trestle with a new steel bridge, or to preserve the existing bridge and rehabilitate it.

After careful consideration, staff concluded that removing and replacing the trestle bridge would be the best course of action for the City. Key factors leading to this decision are discussed further below.

Annual Cost to Inspect and Maintain

Estimated costs for retaining the wooden trestle are significantly higher than for a replacement bridge, and annual maintenance and inspection of trails and bridges are paid from the General Fund. Maintenance, repair and inspection of the trestle would require an ongoing need for

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specialized equipment and environmental permits because of its location in Los Gatos Creek. At a minimum, maintenance would include the annual cleaning of leaf, wood, and flood debris within the structure and from around the support piles located within the creek channel. This would also include annual inspections of the wooden structure and periodic repair of any deficiencies found in the structure. The in-creek maintenance and inspection would require environmental permits and a high degree of ongoing oversight by the City. The alternative steel and concrete replacement structure would require very little oversight, maintenance and inspection in comparison.

Project Life Cycle Costs

As noted in the engineering study and in feedback that has been received from the community, the upfront construction cost estimate to repair the existing trestle is \$550,000-\$700,000 less than the upfront construction cost estimate to provide a replacement bridge. However, when factoring in the life cycle costs of each alternative over a forty-year period, the present worth cost of each alternative is nearly identical. The funding currently available for the project must be spent on the capital costs of construction and cannot be spent on annual maintenance and inspection. For the replacement option, the bulk of these funds are available now to be spent on the project. If the City were to keep and repair the existing wooden structure, then ongoing costs would have to be paid from the General Fund and found from a different source.

Environmental Permitting

The environmental permitting for both options would be substantially the same. Both the rehabilitation and replacement options involve work in the streambed that require the stream to be diverted, and both options require the disposal of creosote-treated wood. In 2007, the California Department of Toxic Substance Control created an alternate management standard for Treated Wood Waste (TWW) that allows disposal at specific non-hazardous waste landfills. Under this standard, creosote-treated wood is considered to be TWW but does not have to be trucked to a special landfill. There are several local landfills which have been authorized to accept TWW. The engineering study includes the cost of the disposal of creosote-treated wood in both options that were factored into the life-cycle estimates.

In addition, some members of the community have raised a concern regarding the impact that piles removal may have by the potential release of creosote into Los Gatos Creek. Similar concerns were raised in December 2007 during the discussion related to a proposed BART tunnel underneath Coyote Creek. City staff, including the Environmental Services Department, has reviewed this issue and have found that these two projects are very different. Staff is confident that an environmentally safe method can be used to remove the wooden pilings. The proper removal method will be confirmed and approved by the appropriate regulatory agencies prior to construction.

The Structure of the Trestle Bridge is Degraded

The creosote-timber bridge has not been actively maintained since Union Pacific Rail Road abandoned it in 2004, and without regular maintenance the structure has significantly deteriorated since then. Major rehabilitation would be needed to make the trestle structurally

sound as a pedestrian bridge. It is estimated that at least five pilings, 45 substantial timbers, and 372 bolts would need to be replaced. While this could be accomplished within the available project budget, it is likely that the old wooden structure will continue to decay over time, and there likely would be significant costs and bridge closures in the future when major replacement and maintenance projects are required.

In addition, it is also possible that more damage might be exposed during the repairs, or that some rotted areas may be found to be more damaged, as repair work on older structures often exposes further conditions that were not anticipated. For example, the tops of the stringers are currently covered with railroad ties, and a more thorough investigation of the top surface would be conducted after the ties have been removed. This might find additional rot areas that were previously hidden. Similarly, if the extent of the pile voids is larger than anticipated, different and more expensive repair or replacement of piles might be needed. For these reasons, staff would recommend that the trestle rehabilitation construction contingency be increased to 20%, compared to the standard construction contingency for a replacement bridge that would be 10%.

Historic Significance

Staff understands that the bridge has significant sentimental value to some members of the community as a tangible connection to the city's past. The State of California, as part of the National Environmental Policy Act (NEPA) process, investigated historic structures at the site. The Office of Historic Preservation found in 2004 that there were "no known prehistoric or historic archeological resources within or adjacent to the [trail project]". The Categorical Exemption in the environmental clearance process for the project states that, "This project does not involve significant impacts on properties protected by the National Historic Preservation Act." For this reason, staff did not present this project proposal to the Historical Landmarks Commission. Recognizing the community interest, staff will work diligently during the bridge replacement design process, as well as during the implementation of the Three Creeks Trail master plan, to ensure that project design will appropriately acknowledge and celebrate the history of the area and the trestle bridge.

Eventual Loss of the Trestle Structure

Structural elements of the trestle would need to be repaired or replaced in order to establish structural integrity for reuse as a pedestrian and bicycle bridge. As the structure continues to age, however, staff anticipates that eventually repairs will no longer be sufficient to sustain the structure and removal would have to be considered. In addition, the trestle has a history of being set on fire, and just in the past five years there have been ten verified fires at this site. Creosote-timber construction is very vulnerable to fire, and there is a substantial risk that the wooden trestle would have to be replaced if it burns. If this occurs, the bridge would likely be closed for several years until funding could be identified for a replacement structure. This would disrupt the Three Creeks Trail system for an unknown period, which would be a loss to the community.

Grant Funding

The deadline for using \$1,230,000 in state grant funds for bridge replacement or rehabilitation is June 2015. The physical work must be done by April 2015, and invoices and project closeout

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must be completed by June. The state has already required the City to confirm a work plan for the use of the grant funds by March 30, 2013. Work within the creek channel is typically limited to the period between June and October to avoid winter rains, stream flows, and other environmental concerns, so construction must occur in 2014 to meet this grant funding schedule in 2015. Removal of the trestle and installation of a new steel bridge can be scheduled and completed with greater certainty than a trestle retrofit because of the many unknowns that likely would arise with rehabilitation of an old structure.

Staff has already contacted the state about the possibility of a grant schedule extension. The State informed the City that further extensions, though theoretically possible, cannot be guaranteed. Currently, the City is operating on a very tight schedule to complete the replacement bridge project within the current grant timelines in order to secure the funding in order to avoid the loss of the \$1.2 million grant. Additionally, the Santa Clara Valley Water District has provided a \$450,000 grant for the project. City staff has confirmed with SCVWD staff that the City can move forward with this grant under either the retrofit or replacement scenario.

Engineering Study

The engineering study determined that both replacement and preservation of the trestle are possible. It also evaluated the costs and other factors of a both presentation and replacement of the structure. A few community members have recently raised concerns about the accuracy or objectivity of the study. On Friday March 10, City staff and the consultant met with community representatives to review their feedback on the study to understand their concerns. Following this discussion and after a careful further review of the study, both CH2M HILL and City staff are confident about its technical findings and conclusions.

One of the questions about the study was whether the evaluation matrix that compared alternatives was correct. Staff and the engineering firm are comfortable that the matrix is correct. It is important to remember, however, that such matrices can be subjective, but they are very useful tools to inform staff as we evaluate options and make our professional recommendations to Council. In this case staff did not solely depend on the engineering report or the matrix for its recommendation.

PUBLIC OUTREACH

After completion of the engineering study in October 2012, staff engaged key community stakeholders and presented the study's findings earlier this year, prior to requesting Council approval of actions leading to the replacement of the trestle bridge. Staff made a presentation to the Save Our Trails board on February 5, 2013, to discuss the options. On March 19, a public meeting attended by approximately sixty residents was held on the overall Three Creeks Trail master plan, and the bridge options were presented and discussed. Representatives from Save Our Trails and the Willow Glen Neighborhood Association spoke in support of staff's recommendation at the March 26 City Council meeting. Recently both Save Our Trails and WGNA have submitted formal letters of support for the bridge replacement project.

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SUMMARY

In summary, staff's recommendation to replace the trestle bridge was based on factors mentioned above and highlighted below:

- Annual maintenance, cleanup, and inspection costs of retaining the existing trestle bridge are significantly higher than the costs for a replacement bridge;
- Keeping the existing trestle presents a significantly higher risk of the bridge and trail system being out of service indefinitely because of the potential for fire damage or continued deterioration;
- The trail network is part of the City's transportation network and having a safe and reliable connection between the Three Creeks Trail and the Los Gatos Creek Trail is critically important;
- The construction schedule for a replacement structure is far more certain than the unknowns associated with the rehabilitation of an old and decaying structure. This is critically important to meet the timeline necessary to secure a \$1.2 million state grant;
- The uncertainty for construction costs is much greater for rehabilitation than for replacement because more damage may be exposed as the structure is repaired. Although the trestle has undergone a thorough inspection, not all portions of the existing timbers are currently visible or accessible.

Staff fully appreciates community interest in retaining the existing trestle for its local cultural and visual value. To this end, staff is committed to continuing to work with affected communities to incorporate cultural relevance and high quality into the design of the replacement bridge and connecting trail. Community engagement on bridge and trail design will continue as part of our ongoing master planning workshops.

/s/

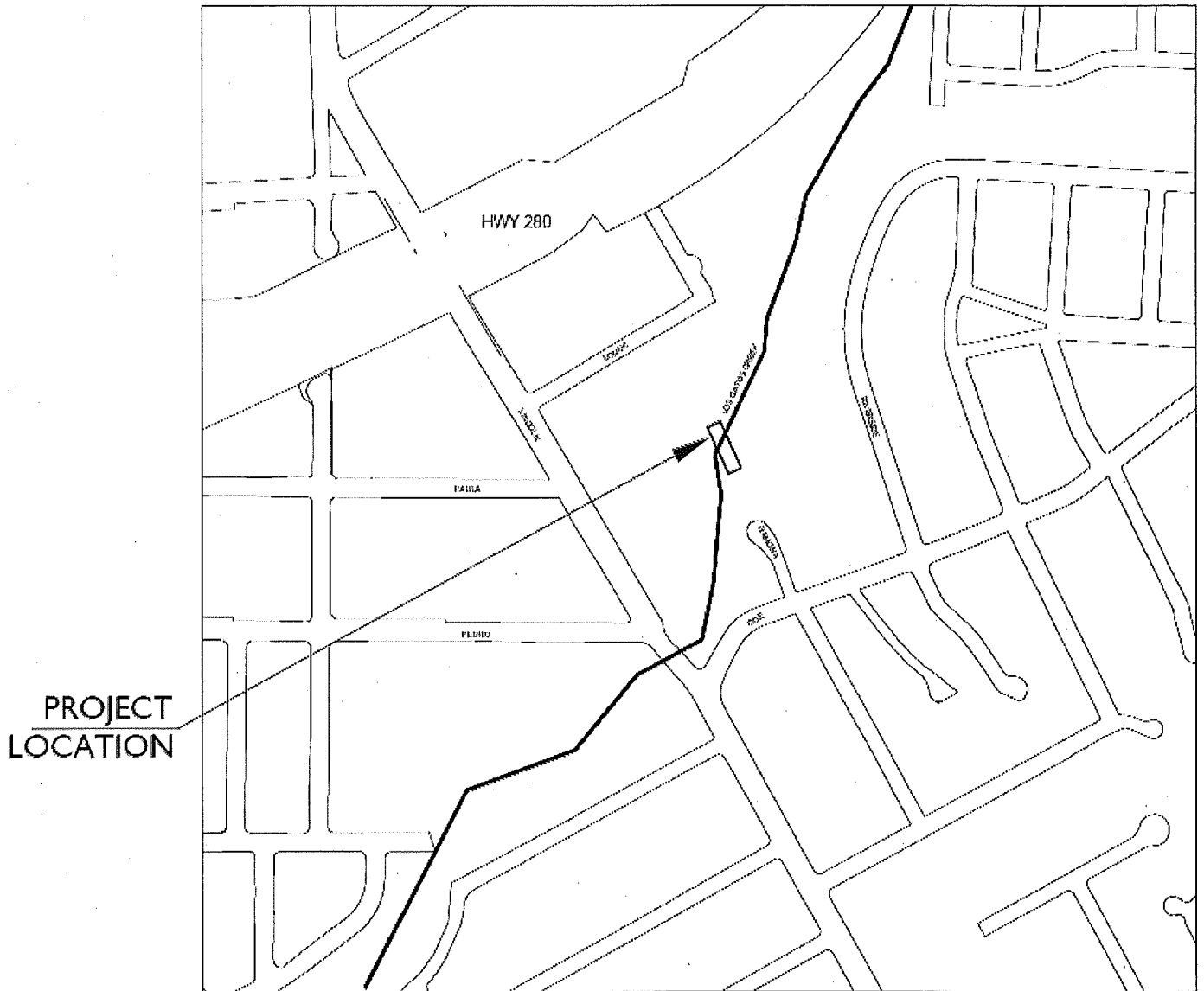
JULIE EDMONDS-MARES
Acting Director of Parks, Recreation
and Neighborhood Services

/s/

DAVID SYKES
Director of Public Works

For questions please contact Matt Cano, Deputy Director, (408) 535-3580

Attachment A
Three Creeks Trail Trestle Bridge Vicinity Map



VICINITY MAP - THREE CREEKS TRESTLE BRIDGE
NOT TO SCALE