City of Calistoga

Staff Report

TO: Honorable Mayor and City Council

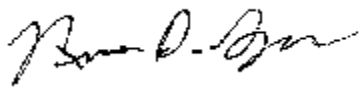
FROM: Derek Rayner, Senior Civil Engineer

VIA: Dan Takasugi, Public Works Director/City Engineer

DATE: August 7, 2012

SUBJECT: Construction Status Report for the Mt. Washington Water Storage Tank Project

APPROVAL FOR FORWARDING:



Richard D. Spitler, City Manager

ISSUE:

Construction Status Report for the Mt. Washington Water Storage Tank Project.

RECOMMENDATION:

Receive report and provide comments as appropriate.

BACKGROUND/DISCUSSION:

The City is required to provide adequate water storage to meet the daily demands of existing customers, satisfy peak fire flow rates, and provide emergency reserve in the event of an interruption in supply or transmission of potable water. Although the City maintains a 1 million gallon storage tank at Fiege Canyon, this tank does not provide enough capacity to meet the City's storage requirements for the existing population. Further, the existing Fiege Canyon water tank needs to be taken out of service for

cleaning and rehabilitation without disrupting water service, which requires an alternative location for potable water storage to accomplish this work. In recognition of these issues, the State Department of Health Services has required the City to design and construct a new water tank to address the City's water storage needs and to upgrade the Fiege Canyon tank (over 46 years in age).

In 2006, the City acquired the Mt. Washington parcel for the purpose of constructing this water tank. That same year, the City contracted with Tetra Tech, Inc. for engineering design services for the project. Council approved the 90% documents previously in June 2008. The tree removal work was performed separately and completed in February 2011. The approved for construction plans and specifications were completed by TetraTech in April 2011 and put out to bid in May 2011. The bid was awarded to Pacific Hydrotech Corporation (PHC) for $4,506,800 of Perris, California. Pacific Hydrotech has built over 10 wire wrapped, post tensioned, concrete tanks similar to ours in the last 5 years. Council approved award of a contract to PHC on June 7, 2011.

Notice to proceed on construction was issued to PHC on July 25, 2011. The Contractor broke ground on July 28, 2011. The estimated time to construct these improvements was 20-months. We are about a year into construction and public works has prepared a presentation to inform members of the council of the progress that's been made and the upcoming expected improvement schedule and fiscal status.

As an overview of the construction progress so far, the contractor has mainly been completing site work. The contractor has accomplished the site excavation, prepared the tank sub-grade, built the retaining wall, installed 14-inch inlet/outlet and 12-inch drain pipe (minus connection points), and prepared the majority of the road sub-grade for the project. Initially there were a few minor noise and visual complaints from Solage and B-Cellars but these were mitigated with meetings and minor adjustments between the parties.

These activities have taken a significant amount of time due to limited site constraints and the amount of improvements required. There is a narrow road over a ¼ mile long that rises over 125-feet of steep terrain being constructed. Approximately 60% of the road has a 4 to 10+ foot high retaining wall running along the uphill side. The earthwork excavation alone is over 33,000 cubic yards (over 2,500 truck loads) of material with excavations in excess of 45-feet at the top of the hill. Single road access conditions and small/narrow construction site areas have made it challenging to remove material and complete more than one task at a time.

They are currently working on getting the tank foundation ready for forms, rebar and concrete by placing and compacting base rock, stubbing up inlet/outlet and drain pipes, and installing sub-drain piping underneath the tank slab. The contractor is anticipating their first slab on grade pour in the later part of August. The tank

construction is anticipated to take 6-months. The tank will most likely come online a few months ahead of the project completion.

The original schedule was 20-months to complete the project. It is anticipated between time extensions and weather delays to be closer to 24-months. The project should be completed in summer of 2013.

FISCAL IMPACT:

The construction contract was awarded for $4,506,800. The contractor has invoiced for about $1.5 million in FY11/12 and plans to invoice the remaining $3 million in FY12/13.

There have been 9 change orders so far. The total change order costs are $53,395, and of the 9 change orders 3 were credit changes. There were three design related changes made (e.g. drainage, seismic, and water quality benefits) to improve tank protection and improve tank function. Two of the changes were made related to instrumentation and control items that were not well defined in the contract documents. One was related to the cultural resource inspection related to the Wappo Indian tribe. There also was a no cost change for the contractor to widen the access road between 1 to 2 feet from the original design in order to help them better access construction equipment up and down the hill. The percentage of change orders for the overall project cost so far is 1.2%. These change order costs are within the project's contingency budget.

The Public Works Department has been performing project management of the construction activity. Emphasis has been made to reduce project costs and maintain clear communication amongst all parties. Staff is leading bi-weekly construction meetings, reviewing submittals, responding to the contractor requests for information, and coordinating any change orders or design clarifications required during the project, thereby reducing outside consulting costs. Open dialogue between the contractor, City and consultants has been the key to keeping the construction project successful for everyone involved.

We have limited the design consultants (TetraTech) oversight with our in-house expertise. TetraTech is generally only involved in any critical structural, electrical issues. Public works is also able to reduce outside consulting services by preparing the final as-built CAD drawings and negotiating change orders for the benefit of the city (last change order was negotiated down by approximately 20%, previous design consultant fees were negotiated down by approximately $100,000, a reduction of over 75%).