



REPORT TO MAYOR AND CITY COUNCIL

AGENDA ITEM

TO: THE HONORABLE MAYOR
AND CITY COUNCIL

DATE: January 19, 2010

SUBJECT: Beamer Street Pipeline, Well 4 Electrical Upgrade and Backup
Generator Project (CIP#07-49, 08-30 and 08-31), Award Construction
Contract

Report in Brief

In order to complete all of the work necessary to provide the appropriate water pressure for parts of Woodland, staff has merged important portions of four separate capital projects into one contract. In addition to the three project numbers appearing on the cover page of the bid documents, Project #08-08, Water Meter Phase 1 is also providing funding for this contract as the construction will provide the electrical supply for the automatic meter reading system.

The proposed contract comprises preplanned work occurring in a common area that has overlapping components. Merging the work in this manner saves resources and will complete the project in a coordinated manner.

This project consists of the installation of approximately 3,000 feet of 12-inch pipe on Beamer Street, the upgrade of the electrical panel and installation of an emergency generator at Well No. 4. The project is primarily a planned element of the elevated water tank replacement project. The project also provides important work for the upgrade of the electrical panel for Well No. 4's functional operation, the utilization of the previously purchased backup power generator, and to provide electrical service for the automated water meter receiver equipment and the water system's portion of the Supervisory Control and Data Acquisition System (SCADA). The emergency generator at Well No. 4 is necessary to provide backup power during an electrical outage in order to help keep the overall water system running.

Staff recommends that City Council authorize bid award to Tideland Construction Company in the amount of \$469,350; and authorize, as needed, the use of the project contingency of up to \$100,000, for potential change orders or additional construction engineering services during project development for the Beamer Street Pipeline, Well 4 Electrical Upgrade and Backup Generator Project, CIP#07-49, 08-30 and 08-31.

Background

In 2007 West Yost & Associates (WYA) was selected to evaluate the existing water system in relation to the present and future demands. This system evaluation is part of the process to update the City's Urban Water Management Plan as well as update the existing water hydraulic model to evaluate current system capabilities and to plan for future conditions. The WYA hydraulic model was developed utilizing previous reports, maps, plans, operating records, and other valuable data. The model revealed that a new 12-inch pipeline would be required on Beamer Street to improve system flow during peak demand conditions. When the elevated tank contract was awarded, this remaining work was noted at that time. The pipe extends between Frost Drive and West Street on Beamer Street. This pipe work will enhance the rapid discharge of water out of the new elevated tank during times of peak water demand. Using the tank to supply more water into the system at a higher pressure will improve water pressure throughout Woodland and provide improved water supplies and pressure for fire protection in all buildings.

WYA also recommended the upgrade of the existing electrical panel at Well No. 4 to provide power for the new Supervisory Control and Data Acquisition (SCADA) system, the new radio system for the water meters data acquisition and adding an emergency backup generator at Well No. 4. The additional generator is necessary to provide backup power during an electrical outage in order to keep the water system running.

Brown and Caldwell Engineering Inc. designed the pipeline alignment to conform to the results of the hydraulic modeling presented by West Yost Engineering Inc.

Pursuant to this, Brown and Caldwell Engineering Inc. put together the contract document to solicit one contractor to do the work for the Beamer street pipeline, Well 4 electrical upgrade, and the hookup of the backup generator. This combined work is aimed at reducing overall construction costs for the projects. On October 20, 2009, Council approved plans and specifications for the Beamer Street Pipeline, Well No. 4 Upgrade Project and Backup Generator Project, CIP#07-49, 08-30, and 08-31.

Discussion

The proposed new pipeline between West Street and Frost Drive on Beamer Street will provide additional capacity during peak hour of more than 1,500 gallons per minute. This additional flow-rate out of the new storage tank reduces overall capital outlay by eliminating the need for replacing one municipal well. This savings alone is substantially more than the cost of this construction contract while also significantly improving water pressures and fire flow capabilities throughout the City, especially in the downtown area. During peak water demand periods such as July and August, water pressure levels have dropped to the point that the system's ability to deliver water for a major emergency, such as a large structure fire, has been challenged. Staff believes the pipeline element of this contract meets a public safety need as well as improving pressure for the City's water customers.

In January 2008 the City almost ran out of water when a winter storm knocked out power to most of the City for an extended period of time. In response to that event the City purchased three large

generators that will be used at City wells. Two generators are mobile units and are being located at Wells Sites No. 13 and No. 20. The third unit is a large fixed based generator that will be installed under this contract at Well No. 4 so that the well can remain operational during power outages. Electrical upgrades at Well No. 4 will allow staff to use this same generator to maintain operational readiness of several systems, including the SCADA system, the water metering data system and the lighting and security system for the elevated water tank.

The upgrade of the electrical panel is required to support the proposed Supervisory Control and Data Acquisition System (SCADA) that will be installed on the City's water system shortly. It is also required to provide support to the automatic meter reading system that is being installed citywide.

On October 20, 2009, Council approved plans and specifications for the Beamer Pipeline, Well 4 Electrical Upgrade and Backup Generator Project. The City is fortunate to be able to bid this work during a very competitive environment. On December 16, 2009 the City staff received 21 bids as indicated below:

BID RESULTS

Bidder's Name	Base Bid plus Alternate Amount
Tidelands Construction	\$469,350.00
North Bay Construction	\$475,500.00
Ghilotti Construction	\$480,000.00
Campbell Construction Co.	\$481,202.00
Lister Construction	\$488,745.00
Terra Con Pipelines, Inc.	\$508,122.00
Teichert Construction	\$523,300.00
Doug Veerkamp General Engineering, Inc.	\$557,750.00
Gentry General Engineering	\$570,100.00
Sierra National Construction	\$570,850.00
Preston Pipelines	\$598,490.00
Western Engineering	\$599,750.00
Argonaut Contractors	\$615,900.00
North Star Construction	\$625,100.00
Kat Construction Inc.	\$644,925.00
Diamond D General	\$651,825.00
Lamon Construction Co. Inc.	\$659,600.00
W. R. Forde Associates	\$699,350.00
Cal Electro Inc	\$775,452.00
Pfister Excavating, Inc.	\$857,200.00
West Valley Construction	\$934,750.00
Engineer's Estimate	\$895,000.00

Staff has performed due diligence in reviewing the bids and all bids comply with the technical submittal requirements.

The lowest responsive, responsible bidder is Tidelands Construction Company. Staff is recommending award of the Base Bid plus the alternate. The alternate bid work was a connecting pipeline section to the tank which at this point must be included in this contract as it was not included in the tank project.

Staff anticipates construction starting by the end of January 2010. The contract time for the conjoint project is 120 working days.

The California Environmental Quality Act determination for this project is Categorically Exempt based on Article 19, Section 15301(b) Existing Facilities and Section 15304(b) Minor Alterations to Land.

Fiscal Impact

This project is fully funded by water enterprise fund and is included in the approved FY 09/10 Capital Improvement Budget. As this project involves substantial electrical renovation and subsurface work a larger than normal contingency fund is needed to avoid work stoppages. The revised total estimated cost for this contract and related work is \$684,350 as indicated in Table 1 below:

Table 1 – Contract Related Costs

Cost Items	Amount
Construction	\$469,350
Construction Management and Engineering Services	\$ 80,000
Staff Time	\$ 35,000
Contingency	\$100,000
Total Project Cost	\$684,350

The project would be funded from the following projects as indicated in Table 2:

Table 2 – Source of Available Funds

CIP#	CIP Projects	Amount
08-31	Backup Power for Wells	\$ 52,666
07-49	Water Tank Replacement	\$385,672
08-30	Well Improvement	\$165,932
08-08	Water Meter Phase 1	\$150,000
	Total Available Funds	\$754,270

Due to the very competitive construction bidding results available funds are significantly greater than the funds required to award this construction contract.

Public Contact

Several issues of the “Woodland Water News” have explained to the public the need for water system improvements including the tank, SCADA, and automated meter reading. These articles have been prepared by the Utility Engineering Division. These have been distributed to City water customers in their utility bills. The City Council agenda has been posted.

Alternative Courses of Action

1. Authorize bid award to Tideland Construction Company in the amount of \$469,350; and authorize, as needed, the use of the project contingency of up to \$100,000, for potential change orders or additional construction engineering services during project development for the Beamer Street Pipeline, Well 4 Electrical Upgrade and Backup Generator Project, CIP#07-49, 08-30 and 08-31.
2. Do not authorize the award of construction contract and give directions to staff for changes to be made for the Beamer Street Pipeline, Well 4 Electrical Upgrade and Backup Generator Project, CIP#07-49, 08-30 and 08-31.

Recommendation for Action

Staff recommends that City Council approve Alternative No. 1.

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