



AGENDA MEMORANDUM

Future Item for the City Council Meeting of April 12, 2016
Action Item for the City Council Meeting of April 19, 2016

DATE: March 24, 2016

TO: Ronald L. Olson, City Manager

THRU: Mark Van Vleck, P.E., Assistant City Manager
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Engineering Construction & Testing Contract

Elevated Water Storage Tanks
(Alternative Capacity Requirement Implementation, Phase 2)

CAPTION:

Motion authorizing the City Manager or designee to execute a construction contract with CB&I, Inc. of The Woodlands, Texas in the amount of \$9,245,050 for the Elevated Water Storage Tanks (Alternative Capacity Requirement Implementation, Phase 2) for the Base Bid plus Additive Alternates No. 2 and 4 and to execute a construction materials testing agreement with Rock Engineering and Testing Laboratory, Inc. of Corpus Christi, Texas in the amount of \$63,400 for the Elevated Water Storage Tanks.

PURPOSE:

The purpose of this agenda item is to obtain authority to execute a construction contract for the Base Bid plus Additive Alternates No. 2 and 4 for the Elevated Water Storage Tanks (Alternative Capacity Requirement Implementation, Phase 2) and a testing contract to complete the project.

CIP DESCRIPTION:

The existing Elevated Storage Tanks (EST) have inadequate volume and elevation to meet minimum storage requirement as defined by the Texas Commission on Environmental Quality (TCEQ). This project is a phased multi-year effort that will provide four new ESTs with 7.5 million gallons of storage. This improved storage capacity, combined with the new heights and two new pump station generators (addressed under a separate CIP project) will place the City's distribution system in compliance with TCEQ's Alternative Capacity Requirement (ACR). Land acquisition and design for Tanks 1 and 2 are in process and construction is scheduled to begin in fiscal year 2016. The remaining tanks will follow the same life cycle and are scheduled to be

completed by end of fiscal year 2022. This project is the second phase of ACR Implementation following the ACR Generation project. Included in this project is the completion of the Water Distribution System Master Plan in accordance with TCEQ ACR Implementation criteria.

BACKGROUND AND FINDINGS:

This project was approved as part of the City's Water Capital Improvement Program (Water CIP Item No. 3) presented above. In June 2012, the Texas Commission on Environmental Quality (TCEQ) approved the City's ACR Implementation Plan in Pressure Zone 1 that increases the elevated storage capacity from current 3.5 Million Gallon (MG) to 7.5 MG. The City water distribution system is divided into two "Pressure Zones" (see attached Pressure Zone Map). The ACR Plan was developed with four Phases to be constructed over a 9-year period. The phasing plan and status are presented below:

Phase	Description	Status
1	Construct 2 new emergency generators located Navigation and Staple Pump Stations, respectively	Under Design
2	Construct 2 new EST's; 3.0 MG at the Holly Road Pump Station and 0.75 MG EST at the Rand Morgan Street	Construction (THIS PROJECT)
3	Construct a new 2.5 MG EST at the Starry Road on City-owned property	Negotiating Design
4	Construct a new 1.25 MG EST at the Nueces Bay Blvd at undetermined site	Beginning Land Acquisition
	Note: Phase 3 & 4 will be combined as single contract to improve efficiencies and cost effectiveness.	

This construction project for Phase 2 includes a **Base Bid** plus four (4) **Additive Alternates**.

Base Bid: Construction of two new elevated storage tanks (EST) with 3.0 million gallon EST at the Holly Road, and 0.75 million gallon EST at the Rand Morgan Street with appurtenances, piping, valves, SCADA and integration, site development, and utility connections.

Additive Alternates: Two alternative water tank mixing systems to improve water quality were included for each location.

- 1) Provides a passive (hydrodynamic) mixing system that mixes during the fill cycle for the Rand Morgan EST.
- 2) Provides an active (electronic submersible) mixing system for the Rand Morgan EST.
- 3) Provides a passive (hydrodynamic) mixing system that mixes during the fill cycle for the Holly Road EST.
- 4) Provides an active (electronic submersible) mixing system for the Holly Road EST.

On February 17, 2016, the City received proposals with bids from three (3) bidders as follows:

CONTRACTOR	Base Bid	Add. Alt. No.1	Add. Alt. No.2	Add. Alt. No.3	Add. Alt. No.4	Total Bid	Total Base Bid plus Alt. No. 2 & 4
CB&I, Inc. Woodlands, TX	\$9,144,050	\$79,000	\$50,000	\$84,000	\$51,000	\$9,408,050	\$9,245,050
Landmark Structures LLP Fort Worth, TX	\$9,563,000	\$80,000	\$60,000	\$80,000	\$60,000	\$9,843,000	\$9,683,000
Caldwell Tanks, Inc., Louisville, KY	\$13,355,000	\$70,000	\$54,000	\$70,000	\$54,000	\$13,603,000	\$13,463,000

The City's consultant, LNV, Inc., evaluated the three proposals and recommends the City award the project to the lowest responsible bidder for the Total Base Bid plus Alternate No.'s 2 and 4. The lowest responsible bidder, based on the quantities provided for evaluation purposes, is CB&I, Inc. Based on a review of CB&I's experience and resources from the information they submitted in accordance with the contract documents, CB&I, Inc. is qualified to provide the construction services for the program.

Rock Engineering and Testing Laboratory (RETL) provided geotechnical investigation services during design phase. RETL brings expertise and excellent past performance assisting the City in geotechnical investigation and construction material testing services for various projects, and is recommended to provide construction materials testing services for this project.

ALTERNATIVES:

1. Authorize the execution of the construction and testing contracts.
2. Do not authorize the execution of the construction and testing contracts. (Not Recommended)

OTHER CONSIDERATIONS:

Not applicable

CONFORMITY TO CITY POLICY:

Conforms to City Fiscal Policy

EMERGENCY / NON-EMERGENCY:

Non-Emergency

DEPARTMENTAL CLEARANCES:

Utilities Department

FINANCIAL IMPACT:

☐ Operating ☐ Revenue ☒ Capital ☐ Not applicable

Fiscal Year 2015-2016	Prior Fiscal Years	Current Year	Future Years	TOTALS
Line Item Budget	\$2,251,754	\$5,200,000	\$9,900,000	\$17,351,754
Encumbered / Expended Amount	1,020,386			1,020,386
This Item (CB&I, Inc.)		\$5,999,970	\$3,245,080	\$9,245,050
This Item (Rock Eng.)		\$63,400		\$63,400
Future Anticipated Expenditures This Project		367,998	1,558,424	1,926,422
BALANCE	\$1,231,368	-1,231,368	\$5,096,496	\$5,096,496

Fund(s): Water CIP #3

Comments: This project requires approximately 580 calendar days with anticipated completion in December 2017. The construction contract will result in the expenditure of an amount not to exceed \$9,245,050. The testing contract will result in the expenditure of an amount not to exceed \$63,400.

RECOMMENDATION:

City Staff recommends approval of a construction contract with CB&I, Inc. of The Woodlands, Texas in the amount of \$9,245,050 for the Elevated Water Storage Tanks (Alternative Capacity Requirement Implementation, Phase 2) for the Base Bid plus Additive Alternates No. 2 and 4 and approval of a construction materials testing agreement with Rock Engineering and Testing Laboratory, Inc. of Corpus Christi, Texas in the amount of \$63,400.

LIST OF SUPPORTING DOCUMENTS:

Project Budget
Location Map
Contract (Rock Engineering)
Presentation
Pressure Zone Map
Form 1295 (2)