



## **AGENDA MEMORANDUM**

Future Item for the City Council Meeting of December 20, 2016  
Action Item for the City Council Meeting of January 10, 2017

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**DATE:** December 9, 2016

**TO:** Margie C. Rose, City Manager

**THRU:** Mark Van Vleck, Assistant City Manager  
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<p style="text-align: center;"><b><u>Engineering Construction Contract</u></b> Staples Street Pump Station Improvements (Capital Improvement Program)</p>
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**CAPTION:**

Motion authorizing the City Manager, or designee, to execute a construction contract with Associated Construction Partners, Ltd. of Boerne, Texas in the amount of \$1,923,430 for the Staples Street Pump Station Improvements for the Total Base Bid. (Capital Improvement Program)

**PURPOSE:**

The purpose of this agenda item is to obtain authority to execute a construction contract for the Staples Street Pump Station Improvements for the Total Base Bid.

**CIP Description:** Staples Street Pump Station Improvements

The South Staples Booster Pump Station is equipped with two high service pumps that presently serve the South Side service area. Current operations indicate that additional pumps may be needed to maintain the minimum required pressure. An upgraded pumping system will enable the pump station to meet upcoming demand associated with planned decommissioning of the Holly Road Pump Station. The project will address pumping backup requirements during

pump maintenance. Addition of Variable Speed Drives (VSDs) will improve pumps and provide more efficient energy use. Electrical upgrades are also required in order to meet the Alternative Capacity Requirement (ACR) as required by Texas Commission on Environmental Quality (TCEQ). Control system upgrade will allow the pump station to operate automatically, unmanned.

### **BACKGROUND AND FINDINGS:**

The pump station is located on the south side at the Farm to Market (FM) 2444 (Staples Street) and FM 43 intersection. This project increases the existing pump station capacity from 10 Million Gallons per Day (MGD) to 13.75 MGD and improves the efficiencies for the operations and maintenance.

The existing Staples Street Pumping Plant was designed per the City's 1997 Water Master Plan with initial maximum capacity of 10 MGD, and ultimate capacity of 20 MGD. The pump station was constructed in 2001 with the 10 MGD capacity using the two 5 MGD pumps. The two existing 5 MGD pumps are now at the end of their useful life and cannot efficiently meet the current or future demands. Continued growth on the south side has increased the demands on the pump station that requires the existing pumps to operate outside the peak operating curves. When pumps operate outside the peak design curves (efficiency of the pump of required horsepower versus the measured output), the power usage is higher and greater fatigue on the pump.

City Council awarded an engineering services contract to Urban Engineering to replace the two 5 MGD pumps and increase the capacity to 20 MGD with the four pump configuration; two 5 MGD and two 10 MGD pumps. During design phase, an amendment was awarded by City Council to conduct modeling the water system with various design capacities to better align the pump station with the City's Alternate Capacity Requirement (ACR) plan that was approved by Texas Commission for Environmental Quality (TCEQ). As a result, the design capacity was reduced to 13.75 MGD firm capacity with a configuration of three 7.5 MGD pumps. One pump is designed for redundancy to allow maintenance and pump cycling to improve performance, reliability and maintenance. The new pumps will also be variable speed pumps allowing greater range of operating curves and efficiencies. The new design is more cost efficient for construction, operations and maintenance.

This item provides for the construction contract award to install three new 7.5 MGD pumps and associated valves, piping, mechanical, electrical, upgrades to the supervisory control and data acquisition (SCADA) system and other miscellaneous improvements at the Staples Street Pump station. The operation of two pumps simultaneously achieves the required capacity of 13.75 MGD and place the pumps at the optimal operating curves for efficiency.

The project is critical to the overall ACR plan and must be operational in the fall of 2017 prior to the commissioning of the new elevated water storage tanks currently under construction at Holly Road.

On November 16, 2016, the City received proposals from five (5) bidders and the respective bids were as follows:

CONTRACTOR	TOTAL BASE BID
<b>Associated Construction Partners, Ltd. Boerne, Texas</b>	<b>\$1,923,430</b>
R.M. Wright Construction Company El Paso, Texas	1,936,805
J.S. Haren Company Athens, Tennessee	1,986,025
Black Castle General Contractor New Braunfels, Texas	2,137,880
Pepper Lawson Waterworks, LLC The Woodlands, Texas	2,185,000
Engineer's Opinion of Probable Construction Cost, includes allowance	\$2,060,200

The City's consultant, Urban Engineering analyzed the five proposals and recommended the project be awarded to Associated Construction Partners, Ltd. Based on a review of Associated Construction Partner's experience and resources, Associated Construction Partners is qualified to provide the construction services for the project.

**ALTERNATIVES:**

1. Authorize the execution of the construction contract. (Recommended)
2. Do not authorize the execution of the construction contract. (Not Recommended)

**OTHER CONSIDERATIONS:**

None

**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 2016-2017	Project to Date Expenditures	Current Year	Future Years	TOTALS
Line Item Budget (CIP)		\$3,239,000		\$3,239,000
Encumbered / Expended Amount		425,760		425,760
<b>This Item</b>		<b>1,923,430</b>		<b>1,923,430</b>
Future Anticipated Expenditures This Project		553,633		553,633
<b>BALANCE</b>		<b>\$336,177</b>		<b>\$336,177</b>

Fund(s): Water CIP #11

Comments: This project requires approximately 210 days for construction and will result in the expenditure of an amount not to exceed \$1,923,430.

**RECOMMENDATION:**

City Staff recommends approval of a construction contract with Associated Construction Partners, Ltd. of Boerne, Texas in the amount of \$1,923,430 for the Staples Street Pump Station Improvements for the Total Base Bid. (Capital Improvement Program)

**LIST OF SUPPORTING DOCUMENTS:**

Project Budget  
Location Map  
Presentation  
Form 1295