



City Council Report

Date: August 24, 2015
To: City Council
Through: Kari Kent, Assistant City Manager
From: Beth Huning, City Engineer
Rob Kidder, Assistant City Engineer
Subject: SEWRP Grit Removal Facilities Improvement Project
City Project No. CP0203
District 6

Strategic Initiatives



Purpose and Recommendation

The purpose of this report is to provide information to the Council concerning the bids received for the Southeast Water Reclamation Plant (SEWRP) Grit Removal Facilities Improvement Project. (See attached Exhibit "A" for location.)

Staff recommends that Council award a contract for this project to the lowest responsible bidder, Archer Western Construction LLC, in the amount of \$3,140,500, and authorize a change order allowance in the amount of \$314,050.

Background

This project will upgrade the Southeast Water Reclamation Plant (SEWRP) to address operational issues with grit removal, and improve the functionality and efficiency of plant operations. Currently, the plant receives four to five million gallons of wastewater per day, with an average operational capacity of eight million gallons per day. Five to seven tons of grit are removed from the wastewater on a weekly basis. The existing grit removal operation is very labor-intensive and, due to its inefficiency in removing grit, it causes excessive wear on the Primary Effluent Pumps. This results in additional maintenance, time, and cost.

Discussion

To improve plant operational efficiency and reduce wear on downstream equipment, a new grit removal system will be installed upstream of the Primary Clarifiers. This will reduce the wear on downstream pumps and improve the operations of the primary treatment process. In addition to improved performance, it will reduce manual cleaning and maintenance requirements. The new grit removal system will require the modification of various plant components.

The new grit removal system consists of two units that can each process up to seven million gallons of wastewater per day. The units can work independently or in tandem, depending on the incoming volume of wastewater. The existing influent pumps and sludge pumps are nearing the end of their operational life and require replacement. Since the system must be reconfigured to integrate the new grit removal process, the pumps and associated variable frequency drives will be replaced as well. Additional components that must be installed to support the new grit removal system include associated water, sludge, and aeration piping. Site improvements include demolition, grading, paving, electrical, and structural improvements.

Once underway, construction of this project is anticipated to last no more than twelve (12) months.

Alternatives

Council may choose not to award the contract. This is not recommended since the upgrades are needed to improve the efficiency of the plant.

Fiscal Impact

The total authorized amount recommended for this project is \$3,454,550 based upon the lowest responsible bid of \$3,140,500, plus an additional \$314,050 (10%) as a change order allowance. This allowance will only be utilized for approved change orders. Funding is available from 2010 Authorized Wastewater Bonds.

Coordinated With

The Water Resources Department concurs with this recommendation.

CITY OF MESA
MESA, ARIZONA

SEWRP Grit Removal Facilities

PROJECT NO. CP0203

Tabulation of Bids Received, Thursday, June 18, at 2:00 P.M.

ENGINEER'S ESTIMATE	\$2,504,000.00
1. Archer Western Construction, LLC	\$3,140,500.00
2. PCL Construction, Inc.	\$3,189,500.00
3. Hunter Contracting Co.	\$3,438,470.00