



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: July 22, 2014

TO: Mayor and Councilmembers

FROM: Engineering Division, Public Works Department

SUBJECT: Contract For Design For Influent Pump Station Variable Frequency Drive And Programmable Logic Controller Replacement Project

RECOMMENDATION:

That Council authorize the Public Works Director to execute a City Professional Services contract with Brown & Caldwell in the amount of \$74,154 for design services for the Influent Pump Station Variable Frequency Drive and Programmable Logic Controller Replacement Project, and authorize the Public Works Director to approve expenditures of up to \$7,415 for extra services of Brown & Caldwell that may result from necessary changes in the scope of work.

DISCUSSION:

BACKGROUND

On July 17, 2012, Council awarded a contract to construct the El Estero Wastewater Treatment Plant Influent Pump Replacement Project. The work generally consisted of replacing the four existing influent pumps, shafts and motors, replacement of two existing variable frequency drives (VFDs) for the high flow pumps, installation of four new jib cranes to service each pump, and new ventilation ductwork to replace the existing ductwork.

During the design phase, the two VFDs for the low flow pumps and the programmable logic controller (PLC) were identified as equipment that could be reused as a cost saving measure. This equipment was installed in the late 1990's and had a useful lifespan of up to 20 years. It was inspected and appeared to be in good working condition, with no apparent problems.

The project is now substantially complete, and the two existing VFDs and PLC are not performing as expected. Staff attempted to remedy this during the construction phase; however, the existing VFDs are not reliable, and the PLC needs to be updated.

Additionally, spare parts for some of the component parts are no longer readily available.

PROJECT DESCRIPTION

The work for the Influent Pump Station Variable Frequency Drive And Programmable Logic Controller Replacement Project (Project) consists of preparing bid specifications and drawings for two new VFDs for the low flow pumps, and replacing the existing PLC with a new, updated PLC, along with a redundant backup PLC.

DESIGN PHASE CONSULTANT ENGINEERING SERVICES

Staff recommends that Council authorize the Public Works Director to execute a contract with Brown & Caldwell (BC) in the amount of \$74,154 for design and \$7,415 for potential extra services, for a total amount of \$81,569. BC designed the Influent Pumps Replacement Project and will leverage its design as much as possible to efficiently prepare plans and specifications to bid this Project.

FUNDING

The following summarizes all estimated total Project costs:

ESTIMATED TOTAL PROJECT COST

| | |
|--|------------------|
| Design (by Contract) | \$81,569 |
| Other Design Costs - City staff | \$24,140 |
| Subtotal | \$105,709 |
| Estimated Construction Contract w/Change Order Allowance | \$495,000 |
| Estimated Construction Management/Inspection (City) | \$24,217 |
| Estimated Construction Support Services (by Contract) | \$20,000 |
| Subtotal | \$539,217 |
| TOTAL PROJECT COST | \$644,926 |

There are sufficient funds in the Wastewater Capital Fund to cover these costs.

PREPARED BY: Lisa Arroyo, Supervising Civil Engineer/mh

SUBMITTED BY: Rebecca J. Bjork, Public Works Director

APPROVED BY: City Administrator's Office