

**SUBJECT****BOARD RESOLUTION NO. 17-44**

Pertaining to an amendment to agreement with Black & Veatch Corporation to provide additional engineering services required for the replacement of electrical equipment at McCarrons treatment plant and campus.

**BACKGROUND INFORMATION**

Staff is seeking approval of an amendment to the January 11, 2016 agreement with Black & Veatch to address additional design development, document preparation and administration, and construction services to support additional work required for the McCarrons electrical upgrade project. The proposed cost of the additional services is \$18,000, as detailed in the attached Report. The initial Agreement was in an amount not to exceed \$490,000.

## Cost of Agreement

|                   |                         |
|-------------------|-------------------------|
| Initial Agreement | \$490,000               |
| <b>Amendment</b>  | <b><u>\$ 18,000</u></b> |
| Amended Total     | \$508,000               |

See attached Report and Black & Veatch December 29, 2016 proposal.

**RECOMMENDATION**

Approval is recommended.

## REPORT

### Amendment to agreement for McCarrons Treatment Plant Electrical Equipment Replacement Design and Construction Administration Services

January 10, 2017

## ADDITIONAL SERVICES

### 1 - Addition of Ductbank Alternative

**\$11,000**

*Prepare additional bid design drawings and specifications and observe construction.*

Additional ductbank sections (electrical conduits) inside the campus grounds were added as a bid alternate in the event the budget allowed. These sections are of the same vintage as the ductbank sections being replaced and will result in complete removal of the oldest ductbank.

### 2 – PLC Controls

**\$4,000**

*Design approximately 300 input/output processes.*

PLC (programmable logic controllers) controls were considered as part of the original contract. However, during design development, it became evident that additional pump and valve control programming was necessary to provide the flexibility, functionality, and safety measures being requested by SPRWS staff. A significant source of the additional development was the inclusion of a secondary control point (mimic panel) in the treatment plant that will allow SPRWS staff to operate the pumps and valves from a remote location. Operating from the remote location removes the operator from the electrical hazards presented by directly controlling the equipment.

### 3 – High Service #7 Replacement Electrical Coordination

**\$3,000**

*Review electrical modifications proposed by SEH, Inc., update construction drawings, and issue the necessary change order documentation.*

SEH was hired to provide professional services associated with replacing high service #7 pump and motor. While this is a separate project from the McCarrons electrical work, there is some overlap that requires additional work by Black & Veatch. Changing to a different sized motor requires modifications to the design already supplied to the campus electrical project contractor and suppliers.

## TOTAL

**\$18,000**

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