

**Action Requested/Required:**

- ☒ Vote/Action Requested
☐ Discussion or Presentation Only
☐ Public Hearing
Report Date: _____
Hearing Date: _____
Voting Date: _____

Department: Water & Sewer **Presenter(s) & Title:** Dave Hatabian
Utility Engineer

Agenda Item Title:

Discussion and Possible Action to Award Task Order No. 6 to Black & Veatch for Design and Construction Administration Services for the New Brown Industrial Water Booster Pump Station.

Summary:

The 1.0 MG East Canton Elevated Storage receives water from an aging Water Booster Pump Station located on N. Crisler St. In order ensure reliable and continuous water supply to the East Canton Tank and to provide the ability to service the tank without affecting water service to the East Canton area, a new Water Booster Pump Station will be constructed on the site of the existing Brown Industrial Ground Water Storage Tank. This project was identified in the Water Master Plan as prepared by Black & Veatch in 2018.

Budget Implications:

Budgeted? ☒ Yes ☐ No ☐ N/A

Total Cost of Project: \$ 239,040.00 Check if Estimated ☐

Fund Source: General Fund ☐ Water & Sewer ☒ Sales Tax ☐ Other: _____

Staff Recommendations:

Staff recommends awarding Task Order No. 6 to Black & Veatch

Reviews:

Has this been reviewed by Management and Legal Counsel, if required? ☐ Yes ☐ No

Attachments:

Industrial Park Water BPS Proposal

PROPOSAL FOR

BROWN INDUSTRIAL WATER SYSTEM IMPROVEMENTS

PREPARED FOR

CANTON

City of Canton

5 OCTOBER 2022



Exhibit A

Scope of Services

Project Purpose

The City of Canton (City) has tasked Black & Veatch (B&V) to design a water system improvement project which includes the demolition of the existing abandoned Brown Industrial Ground Storage Tank, decommissioning of the Coker Street booster pump system, construction of a new Brown Industrial Booster Pump Station (BPS) and waterline extension for intake and discharge from the Brown Industrial BPS to the 1292 pressure zone. The components of the proposed project were addressed in the Water System Master Plan from 2018. The purpose of the proposed upgrades is to provide improved flow to the 1292 Pressure Zone.

As part of this project, B&V will provide the following professional services: project administration and management, detailed design, bidding assistance, and construction observation services.

Background

The City water system delivery area consists of three main pressure zones, defined as 1184, 1292 and 1442, which represents the maximum hydraulic grade line (HGL) and tank overflow in each zone. There are also two small zones within the 1442 zone defined as “1520 (Waleska)” and the “1530 (Laurel Canyon), which are both based on its maximum HGL and the wholesale customers that these zones serve. The Waleska system is served by a private tank, and the Laurel Canyon system is served by the Laurel Canyon BPS.

Currently, the Brown Industrial Tank is currently not used due to poor condition. As developed in the Water Master Plan from 2018, projected storage requirements in the 1184 Pressure Zone indicated that additional storage required between the years 2025 and 2040. Actual storage needs for the City of Canton, are occurring in the 1292 pressure zone, and storage needs in the 1184 pressure zone have not been realized. Therefore, additional storage in the 1292 pressure zone will be addressed in another project for the Ridge Pine elevated tank.

Currently, the supply to the east side of the 1292 pressure zone is currently limited to the Coker PS (500gpm), which makes maintaining the Big Oak (East Canton) Elevated Tank challenging during high demands. With increasing demands in the east side of 1292, specifically at the Northside Cherokee Hospital, increased capacity is needed to supply this area. Furthermore, the Coker PS is in poor condition and needs to be replaced. Once completion of the proposed Brown Industrial Water System Improvements is complete, the Coker PS can be demolished.

The site of the existing Brown Industrial Tank is a viable location for the 1292 BPS because of land availability, proximity to the 1292 water mains towards Big Oak and the 1184 mains to transport water to and from the storage facility.

Proposed Improvements

Demolition of the Brown Industrial Elevated Water Storage Tank - 1184 Pressure Zone

- Demolition and removal of the existing abandoned Brown Industrial Ground Storage Tank

Brown Industrial Booster Pump Station and Waterline - 1292 Pressure Zone

- The pump station will be a package pre-fabricated structure for unoccupied operation, with electric unit heaters and ventilation only. A pump room with floor drain and wall-mounted VFDs and electrical equipment is envisioned. Supplier will provide a performance specification.
- The BPS will provide adequate capacity to serve average flow demand and fire flow demands with backups. The 2018 Master Plan estimated the utilization of two 2.2 mgd (1500gpm) VFD pumps @ 137 feet head, with horizontal end suction centrifugal style pumps, floor mounted, spaced for removal with a manual, portable hoist.
- Backup power generator and ATS to ensure BPS operation in the event of power outages.
- Adequate electrical power, telephone landline for SCADA autodialer, natural gas, potable water, and sanitary sewer service assumed available onsite.
- A proposed parallel 16" water main will act as the discharge from the proposed Brown Industrial BPS to Cumming Highway. The length of waterline is approximately 930 LF to connect to a water main in the 1292 pressure zone.
- A proposed 16" water main will act as the intake to the BPS to Cumming Highway. The length of waterline is approximately 400 LF.
- Jack and Bore under Cumming Highway with 30" casing.

Decommissioning of the Coker Street BPS

- Once the Brown Industrial BPS is installed and in operation, the Coker Street BPS will be decommissioned.

Proposed Water Main Intake to the Brown Industrial BPS



Scope of Work

The City is seeking engineering services for the Brown Industrial Water System Improvements. B&V shall provide services for project management, detailed design, bidding assistance services to include the following:

1. Project Administration and Management

- A. Consultant to provide the following services:
 - i. Coordination of the project kickoff meeting.
 - ii. Monthly project reporting and invoicing.
- B. Deliverables
 - i. Kickoff meeting summary.
 - ii. Project progress report summaries and invoices.

2. Survey and Geotechnical Investigations

- A. Provide, through a subcontract, site surveying services including topographical and existing utility location information in the areas of the facility impacted by the project. Existing benchmarks furnished by the OWNER (if available) will be used and, as appropriate, new benchmarks established. The survey will be completed using NAD 83/GA State Plane coordinates.

- B. Provide, through a subcontract, geotechnical engineering services, laboratory and testing, and professional guidance in interpretation of these test results.

3. Detailed Design

- A. Consultant to provide the following services pursuant to the Detailed Design phase of the project:
 - i. Design development report for submittal to Georgia EPD
 - ii. Complete single set of detailed design for the subject project (70 and 100% design stages) with associated reviews with City and operational staff for each stage.
 - iii. Design review meeting at 70% design stage. Consultant to prepare design review meeting agenda and summary.
 - iv. Internal quality control reviews.
 - v. Coordinate surveying services for survey of existing conditions and site survey of pump station.
 - vi. Coordinate geotechnical services.
- B. Deliverables
 - i. Design development report.
 - ii. 70% and 100% submittals.
 - iii. Final opinion of probable construction costs (OPCC).
 - iv. Single set of bid documents for construction.
 - v. Site Survey
 - vi. Electronic files (AutoCAD format, and pdfs).

4. Permitting

- A. Soil and Erosion Control and Land Disturbance
- B. GDOT on Cumming Highway Crossing (Hwy 20)

5. Bidding Services

- A. Consultant is to provide bid phase services including:
 - i. Attendance at pre-bid meeting and site visit.
 - ii. Respond to bidder's questions.
 - iii. Development of addenda.
 - iv. Prepare conformed documents after bidding.

6. Limited Construction Administrative Services

- A. Consultant is to provide limited construction administrative services including:
 - i. Schedule and attend a pre-construction conference and prepare agenda and meeting summary.

- ii. Attend monthly construction progress meetings, perform site visit, and review Contractor's meeting summaries.
- iii. Two electrical specialty inspection site inspections.
- iv. Review submittals and shop drawings and maintain a submittal log.
- v. Review and respond to RFI's related to the contract documents, and maintain an RFI log.
- vi. Review change order requests, and maintain a change management log.
- vii. Provide project record drawings, incorporating Contractor's markups.

Supplemental Services and Owner Responsibilities

Supplemental services are not in the scope of work for this Contract. These services will be performed at OWNER's request with compensation adjustments. Supplemental services that OWNER might choose to add to the scope of services include, but are not limited to, the following items.

- A. Pump station will be a package system and supplier will provide performance specification. Pump station will not include I&C custom control packages
- B. Prepare legal descriptions for the OWNER's use in acquiring property or rights-of-way and easements. Owner to contract directly with a surveyor consultant for survey and easements
- C. Owner to contract directly for geotechnical services
- D. Permitting will be coordinated through the City of Canton, therefore permitting excluded in this contract. Supplemental engineering work required to meet the requirements of regulatory or funding agencies that become effective subsequent to the date of this agreement.
- E. Owner to manage advertisement and documents to bidders during bidding period.

Exhibit B

Estimated Labor Hours and Associated Fee

The following estimate of labor and fee based on billing rates are responsive to Exhibit A - Scope of Services. The Scope of Services shown below is authorized upon execution of this task order. If additional effort is requested, Consultant will notify the City and not proceed without written authorization (email or letter) by the City Representative.

			Brown Industrial Booster Pump, Tank Demo and Waterline City of Canton									 BLACK & VEATCH Building a world of difference.™	
Project Task/Level of Effort Spreads heet													
Task Description		Senior Project Manager	Principal Engineer	Senior Engineer	Project Engineer	Staff Engineer	Senior Designer	Engineering Technician	Senior Accountant	Administrative Assistant	Total	Total Subs	Total Task
		Hours	Cost	Cost								Cost	Cost
	Billing Rate	\$259	\$220	\$195	\$150	\$115	\$110	\$100	\$105	\$85			
1.0	Project Administration and Management	4	16	0	16	16	0	0	12	16	80	\$0	\$11,416
2.0	Survey and Geotechnical Investigations	2	2	0	4	4	2	2	0	2	18	\$19,250	\$21,858
3.0	Permitting	8	12	0	16	16	8	8	0	4	72	\$0	\$10,972
4.0	Design Services	82	132	40	144	112	200	160	0	24	894	\$0	\$132,598
5.0	Bidding Services	8	4	0	16	24	20	0	0	10	82	\$0	\$11,162
6.0	Construction Services	46	66	0	62	60	64	0	0	16	314	\$0	\$51,034
Project Total		150	232	40	258	232	294	170	12	72	1460	\$19,250	\$239,040

Exhibit C Project Milestones

Consultant's services will commence upon written authorization from the City, which will constitute a Notice to Proceed (NTP). The schedule of Consultant's services will coincide with contractual milestones established between City and Consultant.

Within seven (7) calendar days of receipt of the NTP, Consultant's will submit a preliminary Schedule for the Project Kickoff meeting. Milestones will be established for each Phase.

Milestone	Anticipated Completion Date
Kick Off Meeting	2 weeks after NTP
Start of Surveying	3 weeks after NTP
Design Development Report	6 weeks after kickoff meeting
Completion of 70% Design	10 weeks after Survey deliverable
Completion of 100% Design	8 weeks after comments received from Owner
Bidding	10 weeks after Design Completion
Begin Construction	8 weeks after Bidding
Complete Construction	9 months after Construction NTP