



Date: September 5, 2017

To: Thomas J. Bonfield, City Manager
Through: W. Bowman Ferguson, Deputy City Manager
From: Donald F. Greeley, Director, Water Management
Subject: North and South Durham Water Reclamation Facilities Phase 1 Process Improvements - Construction Contract Award to Crowder Construction Company

Executive Summary

The Department of Water Management (DWM) opened bids on August 16, 2017 for the North and South Durham Water Reclamation Facilities (WRF) Process Improvements project. These improvements are the first-phase improvements recommended in the 2011 Master Plans for the North Durham and South Durham WRFs. The improvements will increase capacity during severe wet-weather flow events, replace aging and obsolete equipment, and enhance nutrient removal in order to comply with the Falls Lake Rules and Jordan Lake Rules. The DWM recommends the contract be awarded to Crowder Construction Company, the lowest responsive and responsible bidder. The DWM also recommends establishing a 10% contingency fund for the project.

Recommendation

The Department of Water Management recommends City Council:

1. Authorize the City Manager to execute a contract with Crowder Construction Company for construction of the North and South Durham WRF Phase I Process Improvements project in the amount of \$65,429,412.00.
2. Establish a contingency fund for the contract in the amount of \$6,543,000.00.
3. Authorize the City Manager to negotiate change orders for the contract provided the cost of all change orders together with the original contract amount does not exceed \$71,972,412.00.

Background

The City owns and operates two water reclamation facilities, the North Durham WRF and the South Durham WRF. In 2011, master plans for each WRF were finalized that detailed the projects needed to meet the City's wastewater treatment needs through the year 2031. The master plans considered the City's build-out flow projections; new, more-stringent regulatory discharge limits for Falls Lake and Jordan Lake; as well as process upgrades and replacements for obsolete or aging equipment.

This construction project constitutes the first phase of major construction at the WRFs, and it includes the following elements:

North Durham WRF

1. New influent screenings facility
2. New secondary clarifiers
3. Aeration basin improvements
4. Odor control improvements
5. New polymer feed systems
6. Stormwater improvements
7. Floodwall improvements

South Durham WRF

1. New influent screenings facility
2. New secondary clarifier
3. Aeration basin improvements
4. Odor control improvements
5. New polymer feed systems
6. Grit removal equipment
7. New equalization basin
8. Tertiary filter improvements
9. New UV disinfection system

After this construction is complete in approximately three (3) years, a second phase will take place under a separate, new construction contract. The second phase project is under design.

Issues and Analysis

The general construction contract was advertised on June 23, 2017. The following six bids were received on August 16, 2017:

Contractor	Base Bid	Sum of Additive Alternates 2, 3, 4	Bid Totals	UBE Participation
Crowder Construction Company	\$65,146,412.00	\$221,000.00	\$65,367,412.00	(12.9 % of bid total) \$8,478,216.00
Balfour Beatty Infrastructure	\$66,250,000.00	\$237,000.00	\$66,487,000.00	\$7,146,390.00
Adams Robinson Construction	\$70,147,000.00	\$355,000.00	\$70,502,000.00	\$3,673,293.00
English Construction Company	\$74,485,000.00	\$500,385.00	\$74,985,385.00	\$4,088,000.00
Ulliman Shutte Construction	\$80,444,000.00	\$293,000.00	\$80,737,000.00	\$2,171,900.00
TA Loving Company	\$80,600,000.00	\$422,000.00	\$81,022,000.00	\$3,886,929.00

DWM has chosen to accept three additive alternates for rehabilitation of existing plant equipment:

- Additive Alternate No. 2 involves re-grouting of deteriorated concrete in two existing SDWRF final clarifiers.
- Additive Alternate No. 3 involves replacing damaged mechanisms in two existing SDWRF final clarifiers.
- Additive Alternate No. 4 involves replacing aging air pipe expansion joints at SDWRF.

DWM has elected not to accept a deductive alternate to provide certain clarifier mechanism components with stainless steel in lieu of providing the entire mechanism of stainless steel.

A review of the bids has deemed Crowder Construction Company to be the lowest responsive and responsible bidder. Based on the final contract price including Additive Alternates 2, 3, and 4, in addition to past performance on other plant projects for the City,

Crowder Construction Company is recommended as the contractor for Phase 1 Construction of the North and South Durham WRF Process Improvements project.

Alternatives

The only alternative identified would be to not execute a contract with Crowder Construction Company for the Phase 1 Construction of the North and South Durham WRF Process Improvements project. This construction project is critical to the WRFs ability to treat increased inflows and to meet increasingly stringent regulatory criteria. This alternative would risk the City’s ability to maintain continued compliance with state and federal regulatory requirements.

Financial Impact

Funding for this contract is available in the following accounts:

4100P002	731000	P252J	\$59,000,000.00
4100P002	731000	P213J	\$6,429,412.00
4100P002	731900	P252J	\$6,543,000.00
Total			\$71,972,412.00

UBE Summary

Crowder Construction Company will subcontract to the following certified firms:

Firm	ID	City/State	Amount	% of Contract
CITI, LLC	MUBE	Charlotte, NC	\$1,446,900.00	2.2%
Black Hawk International Security	MUBE	Mocksville, NC	\$321,750.00	0.5%
Vistabution	MUBE	Raleigh, NC	\$54,500.00	0.08%
Graymac Electric Supply, Inc.	MUBE	Kernersville, NC	\$177,000.00	0.27%
National Erectors Rebar	MUBE	Durham, NC	\$1,483,000.00	2.2%
J-Rod Rebar LLC	MUBE	Bear Creek, NC	\$1,885,380.00	2.8%
Nickerson Transport, Inc.*	DBE/ MBE	Raleigh, NC	\$285,000.00	0.4%
Cruz Brothers Concrete, Inc.	MUBE	Graham, NC	\$25,470.00	0.04%
Covenant Trucking Company, Inc.	MUBE	Youngsville, NC	\$120,000.00	0.18%
SVG Concrete Services, Inc.	MUBE	Cary, NC	\$265,000.00	0.4%
Southern Garden, Inc.	WUBE	Cary, NC	\$126,216.00	0.2%
Mayer Electric Supply Company	WUBE	Durham, NC	\$1,700,000.00	2.6%
Canady’s Landscape and Erosion Control	WUBE	Lexington, NC	\$58,000.00	0.09%
Aquarius Technologies, LLC	WUBE	Saukville, WI	\$530,000.00	0.8%
Custom Sheetmetal Services, Inc.	WUBE	Durham, NC	\$35,500.00	0.054%
Triangle Insulation Services	WUBE	Durham, NC	\$59,200.00	0.09%

* Nickerson Transport, Inc. is a NCDOT certified DBE/MBE firm, and this certification is recognized for UBE participation.

WORKFORCE STATISTICS

Total Workforce:

Employment Category	Total Employees	Total Males	Total Females
Executive Management	7	5	2
Project Manager	124	116	8
Professional	103	92	11
Technical	14	13	1
Sales	4	3	1
Clerical	67	18	49
Craft	462	452	10
Operatives	82	82	0
Labor	65	60	5
Total	928	841	87

Male:

Employment Category	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native	Two or more Races*
Executive Management	5	0	0	0	0	0
Project Manager	109	3	4	0	0	0
Professional	87	1	3	0	0	1
Technical	10	2	1	0	0	0
Sales	3	0	0	0	0	0
Clerical	15	1	2	0	0	0
Craft	246	69	121	0	13	3
Operatives	69	4	7	0	1	1
Labor	21	15	23	0	0	1
Total	565	95	161	0	14	6

Female:

Employment Category	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native	Two or more Races*
Executive Management	2	0	0	0	0	0
Project Manager	6	2	0	0	0	0
Professional	8	1	1	1	0	0
Technical	1	0	0	0	0	0
Sales	0	0	0	0	0	1
Clerical	37	8	2	1	1	0
Craft	9	0	1	0	0	0
Operatives	0	0	0	0	0	0
Labor	4	0	1	0	0	0
Total	67	11	5	2	1	1

* Category added per EEO-1 Report submitted by firm.