CITY OF HIGH POINT AGENDA ITEM



Title: Amendment 2 - Engineering Services for Eastside WWTP Solids Handling Facilities

From: Terry Houk – Public Services Director

Derrick Boone - Public Services Asst. Director

Meeting Date: September 17, 2018

Public Hearing: N/A Advertising Date: N/A

Advertised By: N/A

Attachments: Attachment A – Amendment No. 2

PURPOSE: This amendment modifies the original agreement entered into on May 2011 and the Amendment No. 1 entered into in May 2013 for engineering services related to the Solids Handling Facilties. The scope of services is amended to include the additional services for remediate certain conditions at the bio-solids facility.

BACKGROUND: This amendment is for engineering services for additional repairs and replacement of the mercury control equipment.

BUDGET IMPACT: Funds for this are available in the adopted budget.

RECOMMENDATION / ACTION REQUESTED: The Public Services Department recommends approval of Amendment No. 2 to Hazen for \$385,850.00.

AMENDMENT NO. 2

CONTRACT FOR

PROFESSIONAL ENGINEERING SERVICES

for

EASTSIDE WASTEWATER TREATMENT PLANT SOLIDS HANDLING FACILITIES

THIS AMENDMENT NO. 2 modifies the original Agreement entered into in May 2011, and the Amendment No. 1 to the original Agreement entered into in May 2013 by and between THE CITY OF HIGH POINT, NORTH CAROLINA (OWNER) and HAZEN AND SAWYER, P.C. (ENGINEERS).

WHEREAS, the OWNER desires to complete the improvements begun on the solids disposal operations at its Eastside Wastewater Treatment Plant, and

WHEREAS, the ENGINEERS desire to complete the improvements begun on and remediate certain conditions at the Eastside Wastewater Treatment Plant.

WITNESSETH, that the parties hereto do mutually agree as follows:

ARTICLE I—DESCRIPTION OF PROJECT

The scope of services related to the project contained in the original Agreement, as amended, is to be modified by this Amendment No. 2 to include design services, engineering services, construction administration, and startup support.

ARTICLE II—SERVICES TO BE PERFORMED

Services shall be provided as described in detail in Attachment A and Attachment B.

ARTICLE III—SCHEDULE

The work to be performed and the services to be rendered under this Amendment No. 2 shall commence immediately, as directed by the OWNER, and shall be coordinated with the project schedule.

ARTICLE IV—COMPENSATION

OWNER shall pay the ENGINEERS allowable and allocable costs that are incurred up to the cost ceilings indicated below under Basis of Compensation and in Attachment B.

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BASIS OF COMPENSATION

Type Fee Task \$80,700 Not to Exceed Task 1 - Installation of new Mercury Control System Not to Exceed \$110,260 Task 2 - Design and engineering services for ancillary equipment Not to Exceed Task 3 - Construction and \$194,890 Startup Support

IN WITNESS WHEREOF, the parties hereto have executed this Amendment No. 2.

OWNER: ENGINEERS:

City of High Point Hazen and Sawyer, P.C.

By:

Date: Date:

Address for giving notice: Address for giving notice:

Department of Public Services 4011 WestChase Blvd. P.O. Box 230 Suite 500

High Point, NC 27261 Raleigh, NC 27607

Designated Representative Designated Representative

Terry Houk Alan Stone, P.E.
Title: Director of Public Services Title: Vice President

Phone Number: (336) 883-3218 Phone Number: (919) 755-8569 Facsimile Number: (336) 883-1675 Facsimile Number: (919) 833-1828 terry.houk@highpointnc.gov astone@hazenandsawyer.com

APPROVAL BY CITY ATTORNEY

Signed:	Date:
APP	PROVAL BY FINANCE OFFICER
Signed:	Date:

ATTACHMENT A

Further Description of Basic Engineering Services and Related Matters

Task 1—Installation of new Mercury Control System: the Engineers, Hazen and Sawyer ("Hazen"), will provide services necessary for the Contractor to install the Owner selected and purchased mercury control equipment. Hazen will provide stamped as-built drawings when the installation is complete. Subtasks are outlined below for Task 1.

• Task 1.1	Site visits to inspect existing incineration equipment and obtain information for design and engineering services
• Task 1.2	Review, revise, and develop necessary drawings for installation
● Task 1.3	Provide necessary engineering services for electrical and I&C modifications to accommodate equipment
• Task 1.4	Provide necessary engineering services for structural modifications to accommodate equipment
 Task 1.5 	Task 1 QA/QC
• Task 1.6	Develop Work Change Directive for issue to Contractor
• Task 1.7	Provide stamped as-built drawings of entire mercury control system

Task 2—Design and engineering services for ancillary equipment: Hazen will evaluate, design, and provide engineering services for the ancillary equipment needed to support the operation of the fluidized bed incineration system. Sub tasks are outlined below for Task 2.

• Task 2.1	Site visits to evaluate issues identified by Owner
• Task 2.2	Design modifications to fuel oil pump discharge piping and valves
• Task 2.3	Design modifications to purge air system piping
• Task 2.4	Design modifications to compressed air supply
• Task 2.5	Design modifications to scrubber system
• Task 2.6	Design modifications to process water drains and non-potable water line
• Task 2.7	Prepare new functional descriptions for existing incinerator PLC program
 Task 2.8 	Design modifications to roof spray system
• Task 2.9	Design modifications to sand silo fill valve
• Task 2.10	Provide necessary engineering services for tasks 2.2–2.9
• Task 2.11	Task 2 QA/QC
• Task 2.12	Develop Work Change Directive for issue to Contractor

Task 3—Construction and startup support: Hazen will administer the construction and coordinate the startup and commissioning efforts for the incinerator and associated equipment.

• Task 3.1	Review and approve documents as needed
• Task 3.2	Respond to Contractor and Owner inquiries during construction

0	Task 3.3	Inspection and troubleshooting services during construction
6	Task 3.4	Startup, testing, and commissioning services

ATTACHMENT B

[DETAILED COST BREAKDOWN]

Eastside WWTP

Solids Handling Facility - Incinerator Restart Project

FEE ESTIMATE

LABOR COSTS					STAFFING HOURS	HOURS						
TASK DESCRIPTION	Vice President	Assoc. Vice President	Sr. Associate	Associate	Sr. Principal Engineer	Principal Engineer	Operations Specialist	Principal Designer	Assist Engineer	Technician	Subtotal Hours	Subtotal Cost
Average Hourly Rate	\$230.00	\$215.00	\$195.00	\$160.00	\$135.00	\$130.00	\$125.00	\$120.00	\$110.00	\$50.00		
Task I - Design for installation of new mercury control system												
Site visits to inspect existing incineration equipment and obtain information (measurements, etc.) for design development			09	99			09		16	16	212	\$ 23,860
Mechanical modifications to accommodate new equipment (includes development of drawings and technical specifications)			40	40				54			120	\$ 19,000
Electrical and L&C modifications to accommodate new equipment (includes development of drawings and technical specifications)			16	40				40	24		120	\$ 16,960
Structural modifications to accommodate new equipment (includes development of drawings and technical specifications)			12	04				40			92	\$ 13,540
QAIQC	8	16					24				84	\$ 5,280
Develop Work Change Directive for issue to Contractor			4	8							12	\$ 2,060
								-	Su	Subtotal - Task 1	592	\$ 80,700
Task 2 - Design for items not related to mercury control system												
Site visits to investigate issues identified by Cleint			8	84			09		16	16	200	\$ 21,940
Design modifications to fuel oil pump discharge piping and valves			00	16				80	60		40	\$ 5,960
Design modifications to purge air system piping			16	4				24	22		104	\$ 15,040
Design modifications to roof spray system			∞	œ				-7	8		28	\$ 4,200
Design modifications to compressed air supply			2	60				4			14	\$ 2,150
Design modifications to sand silo fill valve			2	60				+			14	\$ 2,150
Design modifications to scrubber system			40	80				40	16		176	\$ 27,160

\$ 385,850	Total for Labor S	Total for Labor S Other Direct Cotts S										
		1000										Summary of Costs
5		Total Other Direct Cost	Total Other									
mcluded												A. A
												A. (1 1)
Cost		W/ Markup	Unit Cost	Unit		Qt						OTHER DIRECT COSTS
	2584	357	216	228	1152	0	0	452	1200	32	16	Subtotal Hours
\$ 194,890	1184	Subtotal - Task 3	Subt									The second secon
\$ 94,050	1045	165			440				440			Startup, testing and commissioning sorvices (3 months)
\$ 54,800	880	160		7/	480				340			Inspection Services During Construction (3 months)
\$ 10,440	8		7,2						40			Respond to RFIs and RFFs during Construction
\$ 35,600	240		40		9				160			Review material submittals during construction
												Task 4 - Construction and Startup Support
\$ 110,260	808	Subtotal - Task 2	Subt									
\$ 2,060	12							₩	4			Develop Work Change Directive for issue to Contractor
\$ 5,280	48				24					16	8	QAQC
\$ 12,920	112		8		24			24	24			Prepare new funcational descriptions for existing incinerator PLC proram
\$ 11,400	22			24				24	24			Design modifications to process water drains and nonportable water line