

## **TASK ORDER No. 04**

Dated this    day of                    , 2017

### **CITY OF FORT LAUDERDALE PEELE DIXIE WTP SODIUM HYPOCHLORITE TANKS REPLACEMENT AND DEGASIFIER IMPROVEMENTS**

#### **PROFESSIONAL SERVICES**

This Task Order between the City of Fort Lauderdale, a Florida municipal corporation (“CITY”) and CH2M HILL Engineers, Inc., a Delaware Corporation authorized to transact business in the State of Florida, (“CONSULTANT”) is pursuant to the “Civil Engineering Services Continuing Contract” dated March 7, 2017 (“Master Agreement #466-11723”).

#### **PROJECT BACKGROUND**

The CITY is requesting the CONSULTANT provide engineering and other professional services for chemical storage tank replacements and degasifier improvements at the Peele Dixie Reverse Osmosis (RO) Water Treatment Plant (WTP), constructed in period 2006-2008.

The existing bulk and day storage tanks, which store at six percent strength sodium hypochlorite, are made of Fiber Reinforced Plastic (FRP). Signs of leaks are visible near the existing nozzles and at some seams. The tanks are at the end of their useful life and need to be replaced with similar sized tanks, however associated pipework and metering pumps will remain as is. Removal of and placement of the storage tanks requires building modifications.

The existing degasifiers, which remove hydrogen sulfide and carbon dioxide from the membrane permeate, have no in-situ cleaning system. Consequently, the existing media has fouled affecting the performance of the degasifiers. An in-situ cleaning system will be provided for both degasifiers as well as new media.

#### **GENERAL REQUIREMENTS**

##### **Design Standards**

The CONSULTANT shall be solely responsible for determining the standards of the work, they shall meet and obtain all the requisite regulatory approvals. The design shall include, but is not limited to, the plans and specifications, which describe all systems, elements, details, components, materials, equipment, and any other information necessary for construction. The design shall be accurate, coordinated between disciplines, and in all respects, adequate for construction, and shall be in conformity, and compliance, with all applicable laws, codes, permits, and regulations.

##### **Quality Control**

The CONSULTANT is responsible for the quality control (QC) of their work and of its sub-consultants. The CONSULTANT shall provide to the City the list of sub-consultants which shall be used for this project. This list shall not be changed without prior approval of the CITY. All sub-consultant documents and submittals shall be submitted directly to the CONSULTANT for their independent QC review. The City shall only accept submittals for review and action from the CONSULTANT.

The CONSULTANT shall be responsible for the professional quality, technical accuracy, and coordination of all pre-design services, designs, drawings, specifications, and other services furnished by the CONSULTANT and their sub-consultant(s). It is the CONSULTANT's responsibility to independently and continually QC their plans, specifications, reports, electronic files, progress payment applications, schedules, and all project deliverables required by this task order. The CONSULTANT shall provide the CITY with a marked up set of plans and/or specifications showing the CONSULTANT's QC review. Such mark-ups shall accompany the CONSULTANT's scheduled deliverables. The submittal shall include the names of the CONSULTANT's staff that performed the QC review for each component (structures, roadway, drainage, etc.).

### **Project Schedule**

The CONSULTANT shall submit a preliminary project schedule as an exhibit of this task order. The schedule shall be prepared in Microsoft Project, and shall utilize an estimated Notice-to-Proceed (NTP), based on best available information.

The CONSULTANT shall submit a final project schedule to the CITY, for approval, within 10 business days after receiving the NTP and prior to beginning work. No work shall commence without an approved schedule. The final schedule shall include design, permitting activities, submittal review timeframes, and other project activities as required to complete the work. The CONSULTANT shall submit updated project schedules as required in the specific scope of services.

### **Permitting**

The CONSULTANT shall coordinate with the CITY, regulatory agencies, and any other government entity having an interest or jurisdiction, which may require permits for this project. The CONSULTANT shall provide an estimate of fees and duration associated with the permitting process. Some of the regulatory or permitting agencies associated with this project include, but are not limited to:

- CITY' s Department of Sustainable Development (DSD) City Building Permit
- Broward County Health Department (BCHD)

### **SPECIFIC SCOPE OF SERVICES**

The Scope of Services to be provided by the CONSULTANT under this task order shall include the following activities:

- Task 1 – Project Kick-off
- Task 2 – Schematic (30%) Design
- Task 3 – Detailed (90/100%) Design
- Task 4 – Permitting Assistance
- Task 5 – Bidding and Negotiation Assistance
- Task 6 – Engineering Services during Construction

The professional services associated with each task is described in further detail in the following sections of this scoping document.

### **Task 1 – Project Kick-off**

The CONSULTANT will attend a project kick-off meeting with the CITY to be held at the Peele Dixie WTP. The kick-off meeting will include a facility walkthrough, discussion on specific areas of concern, equipment and material preferences and confirmation of project work plan. A list of requested information will be requested and reviewed ahead of the kickoff meeting. This meeting will be held within 2 weeks from the Notice to Proceed (NTP). The CONSULTANT will prepare an agenda and distribute a meeting summary within 5 working days after the meeting.

### **Task 2 – Schematic (30%) Design**

Sodium hypochlorite is currently supplied at 12 percent, diluted at delivery with potable water to 6 percent and stored in three 11,450 gallons bulk storage tanks at 6 percent. The system also includes one 950 gallons day storage tank. This storage capacity and tank arrangement will remain as is, unless the tanks have to be replaced, at which time the CONSULTANT will evaluate increasing the size of the day tank. Possible material selections for tanks, and potential internal lining of tanks, will be reviewed and discussed with CITY. The location of tank fittings will be very similar to existing fittings to avoid unnecessary modifications to connecting pipelines, supports and valves. The building is not equipped with mechanical rollup doors, but includes a 'knock-out' wall, to remove existing tanks and install new tanks. The option to assemble new tanks after cutting up and removing the existing tanks without removing the knock out walls will be explored. The placement of new tanks requires building modifications as well as permanent diversions of electrical, air, chemical and water piping, currently affixed to the 'knockout' wall. The CONSULTANT shall evaluate options for the replacement wall.

The anticipated in-situ cleaning system for the degasifiers will include chemical dosing connection, cleaning solution recirculation pump and piping, and waste disposal pipeline to sewer. Cleaning chemicals will be dosed to the degasifier wet sumps through manual, temporary connections from a carboy or tote. The recirculation pump will have a diversion with manual valves to pump cleaning waste to the sewer, or alternative location. The work will also include placement of new media in the degasifiers.

Under this task, the CONSULTANT will prepare a "Schematic Design Report" for the improvements. The report will consist of drawings and other documents illustrating the scale and relationship of the project components. The Schematic Design will contain a comparison between the alternatives, a description of improvements of the selected alternative, sizing calculations, preliminary drawings, and preliminary equipment specifications.

The CONSULTANT will also develop a Class 4 estimate of probable construction costs, in accordance with the AACE International Recommended Practice No. 56R-08.

The CONSULTANT will organize a meeting to review the draft Schematic Design Report and obtain written approval of the CITY for the Schematic Design Phase prior to proceeding with the Detailed Design. Meeting minutes will be prepared to document the conclusions and actions of the meeting. The comments made by the CITY will be incorporated into the final Schematic Design Report and follow-on detailed design documents.

### **Task 3 – Detailed (90/100%) Design**

Under this task, the CONSULTANT will develop the design documents from Schematic Design to Detailed Design. The final deliverable will be a Bid Package based on the CITY's requirements consisting of drawings, specifications and other documents which fix and describe the

requirements of the project.

The CONSULTANT will also develop a Class 1 estimate of probable construction costs, in accordance with the AACE International Recommended Practice No. 56R-08.

The CONSULTANT will organize a review meeting with the CITY to discuss draft detailed design documents, at an approximate 90% completion level. Meeting minutes will be prepared to document the conclusions and actions of the meeting. The comments made by the CITY, among comments from the building department, will be incorporated into the final version (100%) of the detailed design documents.

#### **Task 4 – Permitting Assistance**

The CONSULTANT will develop the application documents for the following permits:

- PWS permit from the Broward County Department of Health, based on the Schematic Design Report (30%).
- Building permit from the City of Fort Lauderdale Building Department, based on the draft Detailed Design Documentation (90%).

As part of this task, the CONSULTANT will participate in pre-application meetings with the permitting agencies having jurisdiction over the project in order to confirm the agency's approach and design criteria required for the project. CONSULTANT will provide advance notice to the CITY of planned meetings with agencies.

The CONSULTANT will respond to up to two request for additional information (RFI) from any of the permitting agencies.

#### **Task 5 - Bidding and Negotiation Assistance**

Unless otherwise agreed in writing, the CONSULTANT shall perform the following bidding services in connection with the Project:

- Assist CITY staff in preparing the bid package. The CITY will prepare and use their Division 0 documents for issuing the documents to bid. The CONSULTANT shall assist the CITY in the pre-bid meeting.
- Prepare for CITY approval written addenda as appropriate to interpret, clarify or expand the Bidding Documents. The CONSULTANT shall coordinate with CITY during the bidding process and be available to assist the CITY in addressing bidders' questions and comments at any time during the bidding process.
- Review and advise CITY as to qualifications of prospective contractors, subcontractors, suppliers, and others proposed by bidder and shall assist in evaluating all bids received to determine compliance with bidding requirements and lowest responsive and responsible bidder. The CITY will prepare and provide appropriate bid tabulation sheets and bidder submitted information for the CONSULTANT's use in providing a contract award recommendation letter.
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#### **Task 6 – Engineering Services during Construction**

Unless otherwise agreed in writing, the CONSULTANT shall perform the following engineering services during construction services (ESDC) in connection with the Project:

- Prepare conformed documents incorporating the revisions and additions made to the

bidding documents by addenda.

- Attend one pre-construction conference with Contractor to review project communication, coordination and other procedures and discuss Contractor's general approach and requirements for the project.
- Review shop drawings, schedules and samples, results of manufacturer's tests and inspections, and other data the Contractor is required to submit. The review of shop drawings, samples and submittals will be for general conformance with the design concept and general compliance with the requirements of the contract for construction.
- Confirm that all materials/parts/chemicals that interact with the water are NSF or equivalent per FAC 62-555.
- Review Contractor's requests for information (RFI) or clarification of the construction contract in coordination with the CITY. RFIs will be logged.
- Attend progress meetings with Contractors by phone or in person, if requested by CITY.
- Conduct discipline site visits during the construction phase and at substantial completion to evaluate general compliance with the requirements of the contract documents and design intent. The purpose of these site visits is to provide guidance and feedback to the CITY's construction manager.
- Provide technical review and feedback/approval of change orders to verify that the changed scope meets the intent of the design criteria, applicable codes /regulations and cost review.
- Revise the construction set of design drawings upon completion of the project, and provide both signed and sealed hard copy and electronic (PDF) record drawings to CITY.
- Review new sections of the Operations and Maintenance Manual incorporating the new equipment and materials.
- Attend and witness field functional, performance and operational readiness tests as described in the contract documents.
- New chemical tanks and new parts installed in the degasifiers shall be compliant with ASME RTP-1.

### **PROJECT ASSUMPTIONS**

- Design will be based on federal, state, and local codes and standards in effect on the effective date of the task order and will not impact the water's corrosivity, four-log virus removal requirement, nor the plant's lead and copper compliance.
- Design documents will be prepared for a single construction contract.
- CITY will pay all permitting fees.
- CONSULTANT's master technical specifications (Division 01 - 49) will be used as the basis for all specifications. CITY will provide procurement and contracting requirements in Microsoft Word format for CONSULTANT to edit for project specific requirements.
- The drawings will follow the CITY's CAE/CAD standards. AutoCAD will be used to develop the drawings.
- In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the project, CONSULTANT has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by operating personnel or third parties; and other economic and operational factors that may materially affect the ultimate project cost or schedule.
- CITY will assign a project manager who will be the CONSULTANT's main point of contact

during design and who will be the construction manager during construction.

- CITY's project manager will consolidate the CITY's comments to draft summaries and will respond within ten business days of the date of each submittal.
- CITY will make available, in hard or electronic copy, existing information from Peele Dixie.
- Up to five hard copies of the interim and final deliverables will be provided to the CITY.
- CITY should inform CH2M staff of any safety rules, personal protective equipment, safety precautions, restricted areas, hazardous chemicals, and emergency procedures (e.g., alarms, assembly areas, etc.) prior to the site visits.
- The approval from BCHD is assumed to take 8 weeks after submitting application. Any additional time impacting this task order will be subject to an amendment.
- There will be no intermediate deliverable between Schematic Design and Detailed Design.
- The WTP is ISO 9001 compliant.
- The plant must be able to properly and always dose hypochlorite with no interruption.

### **ADDITIONAL SERVICES**

If authorized in writing by the CITY, as an amendment to this Task Order, the CONSULTANT shall furnish, or obtain, Additional Services of the types listed in the MASTER AGREEMENT. The CITY, as indicated in the MASTER AGREEMENT, will pay for these services.

### **PERFORMANCE SCHEDULE**

It is anticipated that the total duration of this task order will not exceed 52 weeks, although this might be affected by the bidding and construction schedules which are outside of the CONSULTANT's control. A tentative schedule of deliverables is included in **Exhibit C**.

### **PROJECT FUNDING**

Performance of this project is at the CITY's discretion and may be contingent upon the CITY receiving funding and work shall not begin until the CITY provides a Notice to Proceed to CONSULTANT.

### **METHOD OF COMPENSATION**

The services performed will be accomplished using the Not-to-Exceed method of compensation. The total hourly rates payable by the CITY for labor, reimbursable expenses, if any, and sub-consultant fees, if any, are shown on **Exhibit A** attached hereto and made a part hereof.

Pay application requests shall be prepared on CITY's approved pay application request form. CONSULTANT shall submit the pay application request to the CITY's Project Manager for review and then to CITY's accounts payable department via email ([AcctsPayable@fortlauderdale.gov](mailto:AcctsPayable@fortlauderdale.gov)).

Pay application requests shall be submitted monthly and shall include the following back-up documentation:

- Timesheets of CONSULTANT's staff and sub-consultant staff.
- A progress report noting work completed, pending, risks, or input needed from CITY.

This fee schedule is based upon an estimate of the personnel to work on the project. The actual personnel may vary based upon availability and area of expertise. It is agreed that the method of compensation is that of "Not to Exceed Amount" which means that the CONSULTANT shall

perform the services set forth in this Task Order for a total compensation in the amount of or less than the stated total.

**TERMS OF COMPENSATION**

Services will be provided for the following Not-to-Exceed amounts:

<b>Task No.</b>	<b>Task Title</b>	<b>Labor Fees Consultant</b>
1	Project Kickoff	\$5,056.96
2	Schematic (30%) Design	\$25,440.88
3	Detailed (90/100%) Design	\$47,308.98
4	Permitting Assistance	\$12,665.32
5	Bidding and Negotiations Assistance	\$6,370.40
6	Engineering Services during Construction	\$61,149.96
	Expenses	\$1,000.00
	Total	\$158,992.50

## **CITY CONTACTS**

Requests for payments should be directed to CITY of Fort Lauderdale Accounts Payable via e-mail to [AcctsPayable@FortLauderdale.gov](mailto:AcctsPayable@FortLauderdale.gov) after getting approval from the CITY's Project Manager. All other correspondence and submittals should be directed to the attention of Steve Hillberg, Project Manager II, at the address shown below. **Please be sure that all correspondence refers to the CITY project number and title as stated above.**

### **Steve Hillberg**

Project Manager II Public Works Dep.  
100 N Andrews Ave  
Fort Lauderdale, FL 33301  
(954) 828-5076  
[SHillberg@fortlauderdale.gov](mailto:SHillberg@fortlauderdale.gov)

### **Jorge Holguin**

Senior Project Manager Public Works Dep.  
100 N Andrews Avenue  
Fort Lauderdale, FL 33301  
(954) 828-5675  
[JHolguin@fortlauderdale.gov](mailto:JHolguin@fortlauderdale.gov)

### **Cesar Alza**

Regional Water Facilities Manager  
Five Ash Water Plant  
949 NW 38<sup>th</sup> Street  
Fort Lauderdale, FL 33309  
(954) 828-7505  
[CALza@fortlauderdale.gov](mailto:CALza@fortlauderdale.gov)

### **Don Hering**

Maintenance Chief Public Works Dep.  
Peele Dixie Water Plant  
1500 South State Road  
Fort Lauderdale, FL 33312  
(954) 828-7502  
[DHering@fortlauderdale.gov](mailto:DHering@fortlauderdale.gov)

## **CONSULTANT CONTACTS**

### **Rick Morales**

Project Director  
CH2M HILL  
550 W. Cypress Creek Road Suite 400  
Fort Lauderdale, FL 33309  
(954) 513-1528  
[Rick.Morales@ch2m.com](mailto:Rick.Morales@ch2m.com)

### **Gerardus Schers**

Project Manager  
CH2M HILL  
550 W. Cypress Creek Road Suite 400  
Fort Lauderdale, FL 33309  
(954) 513-1540  
[gj.schers@ch2m.com](mailto:gj.schers@ch2m.com)



**CITY**

IN WITNESS OF THE FOREGOING, the parties have set their hands and seals the day and year first above written.

CITY OF FORT LAUDERDALE, a municipal corporation of the State of Florida

By: \_\_\_\_\_  
Lee R. Feldman, CITY Manager

(CORPORATE SEAL)

ATTEST:

\_\_\_\_\_  
Jeffrey A. Modarelli, CITY Clerk

Approved as to Legal Form:

\_\_\_\_\_  
Rhonda Montoya Hasan  
Assistant CITY Attorney

**CONSULTANT**

WITNESSES

CH2M HILL Engineers Inc, a Delaware Corporation, and Authorized to transact business in Florida.

*Yvonne Picard*  
Yvonne Picard  
Print Name

By *Francis Menard*  
Francis Didier Menard  
Designated Manager

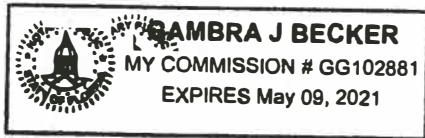
*Angela Shepard*  
ANGELA SHEPARD  
Print Name



STATE OF FLORIDA:  
COUNTY OF ~~BROWARD~~:  
ORANGE

The foregoing instrument was acknowledged before me this 7<sup>TH</sup> day of August, 2017 by Didier Menard of CH2M Hill Engineers, Inc., a Delaware corporation authorized to transact business in Florida

(SEAL)



*Gambra J Becker*  
Notary Public, State of Florida  
(Signature of Notary taking Acknowledgment)

GAMBRA J BECKER  
Name of Notary Typed, Printed or Stamped

Personally known  or Produced identification \_\_\_\_\_

Type of Identification N/A

**Exhibit A – Work Break Down Fee Schedule**

TASK ORDER 1: PEELE DIXIE WTP SODIUM HYPOCHLORITE TANKS REPLACEMENT											
Task	Description	CH2MHILL								Sub-Total Hours	Total Fees
		Engineer 7	Engineer 6	Engineer 5	Engineer 3	Engineer 1	Technician 3	Technician 2	Office		
	Hourly Rate	\$234.50	\$198.45	\$170.85	\$119.78	\$101.51	\$81.86	\$71.27	\$76.62		
<b>1</b>	<b>Project Kickoff</b>										
	Information Request and Review		2		16				8	26	
	Kickoff Meeting	2	2		8				4	16	
	Sub-Total Labor Hours	2	4	0	24	0	0	0	12	42	
	Sub-Total Labor Fee	\$469.00	\$793.80	\$0.00	\$2,874.72	\$0.00	\$0.00	\$0.00	\$919.44		\$5,056.96
<b>2</b>	<b>Schematic Design</b>										
	Schematic Design Report, including Drawings	2	12	24	60		16	60	20	194	
	Class 4 Estimate of Probable Construction Cost		2	12	4					18	
	Review Meeting	2	2		2				2	8	
	Sub-Total Labor Hours	4	16	36	66	0	16	60	22	220	
	Sub-Total Labor Fee	\$938.00	\$3,175.20	\$6,150.60	\$7,905.48	\$0.00	\$1,309.76	\$4,276.20	\$1,685.64		\$25,440.88
<b>3</b>	<b>Detailed Design</b>										
	Detailed Design Documents		12	36	120	16	32	161	40	417	
	Class 2 Estimate of Probable Construction Cost		2	19	6					27	
	Review Meeting	2	2		2				2	8	
	Sub-Total Labor Hours	2	16	55	128	16	32	161	42	452	
	Sub-Total Labor Fee	\$469.00	\$3,175.20	\$9,396.75	\$15,331.84	\$1,624.16	\$2,619.52	\$11,474.47	\$3,218.04		\$47,308.98
<b>4</b>	<b>Permitting Assistance</b>										
	PWS Permit Application and RFIs		8		24	8		8		48	
	Building Permit Applications and RFIs		8		24	12		16		60	
	Sub-Total Labor Hours	0	16	0	48	20	0	24	0	108	
	Sub-Total Labor Fee	\$0.00	\$3,175.20	\$0.00	\$5,749.44	\$2,030.20	\$0.00	\$1,710.48	\$0.00		\$12,665.32
<b>5</b>	<b>Bidding and Negotiation Assistance</b>										
	Bid Package and Pre-Bid Meeting		4		8			8		20	
	Addenda and RFIs		4		8					12	
	Bid Evaluation	2	8		2					12	
	Sub-Total Labor Hours	2	16	0	18	0	0	8	0	44	
	Sub-Total Labor Fee	\$469.00	\$3,175.20	\$0.00	\$2,156.04	\$0.00	\$0.00	\$570.16	\$0.00		\$6,370.40
<b>6</b>	<b>Engineering Services during Construction</b>										
	Conformed Documents, Pre-Construction		2		4			8		14	
	Shopdrawing Review		12	20	60			8		100	
	RFI and Change Order review		16	16	56					88	
	Construction Progress Meetings, Inspections, Startup	8	72	40	32				40	192	
	Record Drawings, O&M manual		2		8			32		42	
	Sub-Total Labor Hours	8	104	76	160	0	0	48	40	436	
	Sub-Total Labor Fee	\$1,876.00	\$20,638.80	\$12,984.60	\$19,164.80	\$0.00	\$0.00	\$3,420.96	\$3,064.80		\$61,149.96
	<b>Estimated Expenses (total)</b>										\$1,000.00
	Totals										
	<b>TOTAL NTE FEE TASK ORDER</b>										<b>\$158,992.50</b>

**Exhibit B – Location Map**

Not used.

**Exhibit C – Project Tentative Schedule**

The CONSULTANT and CITY will schedule a kick-off meeting within two weeks of the Notice to Proceed (NTP) from the CITY. The delivery schedule of subsequent drafts and final versions of the schematic design report, design documents and other documents are indicated in the table below. It is anticipated that the total duration of this task order will not exceed 52 weeks.

A schedule of deliverables is included in the table below.

<b>Task ID</b>	<b>Work Order Deliverable</b>	<b>Estimated Schedule for Completion (from NTP)</b>
1	Project Kickoff Summary	1 week
2	Draft Schematic Design Report, incl. cost estimate Final Schematic Design Report	4 weeks 6 weeks
3	Draft Detailed Design Docs, incl. cost estimate Final Detailed Design Docs	12 weeks 14 weeks
4	PWS Application Building Application RFIs	6 weeks 12 weeks As needed
5	Bid Package Pre-bid meeting, Q/A, RFIs, Addenda, Clarifications, and Bid Tabulation	16 weeks As needed
6	Conformed documents, review and other documentation during construction	As needed

**Exhibit D – Sub-Consultant’s Proposals**

Not used.