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October 3, 2017

Mr. Michael Diaz, Sr. Project Engineer CH2M 6600 Peachtree Dunwoody Road Embassy Row 400, Suite 600 Atlanta, GA 30328

Subject: Contract #1221-P: Water System Engineer of Record

Task Order FC-18-02: Chlorine Dioxide & Powdered Activated Carbon Storage Notice to Proceed

Dear Mr. Diaz:

Task Order FC-18-02 has been duly executed, and is attached. Please accept this letter as your Notice to Proceed. Your contact person for this project is Lee Pope at (770) 320-6016.

Please keep in mind that all insurance coverage must be kept current for the duration of the contract period.

Thank you for doing business with Fayette County. If you have any questions, please do not hesitate to contact me.

Sincerely,

Ted L. Burgess

Director of Purchasing

Attachment

Task Order

Contract Number: 1221-P Task Order Number: FC-18-02 Contract Name: Water System Engineer of Record Contractor: CH2M This task order (the "Task Order") is made by Fayette County, Georgia and the above-named contractor, parties to the above-identified Contract. The Task Order is authorized for the following purpose: To provide design services for an upgrade of the chlorine dioxide and powdered activated carbon storage and feed system at the South Fayette Water Treatment Plant, as detailed in the attached task order document. The not-to-exceed price of the Task Order is as follows: Labor \$196,393.00 Expenses 2,000.00 Total \$198,393.00 Except as set forth in this amendment, the Contract is unaffected and shall continue in full force and effect in accordance with its terms, conditions, and other stipulations. If there is conflict between this Amendment and the Contract or any earlier amendment, the terms of this amendment will prevail. CONTRACTOR: **FAYETTE COUNTY, GEORGIA**; Signature: Print Name: Steve Lavinder, PE Title: Regional Vice President Date: October 2, 2017



CH2M ATL

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Mr. Lee Pope, Director Fayette County Water System 245 McDonough Road Fayetteville, Georgia 30215 (770) 320-6016 Ipope@fayettecountyga.gov

August 29, 2016

Subject: Task Order FC-18-02 South Fayette Chemical Improvements

Mr. Pope:

Attached is a revised task order to provide design services for an upgrade of the chlorine dioxide and powdered activated carbon storage and feed systems at the South Fayette Water Treatment Plant.

Please review these items and let me know if you have any questions or comments. Upon your review and approval, please sign and return the Task Order.

Please feel free to contact me with any questions.

Regards, CH2M

Michael E. Diaz, PE Project Manager

cc: Rick Brownlow, PE, Client Account Manager, CH2M

Steve Lavinder, PE, Principal, CH2M

Background

The South Fayette Water Treatment Plant (WTP) was originally constructed in 1998 in Fayetteville, GA. The South Fayette WTP has a permitted treatment capacity of 9.3 million gallons per day (mgd) and is owned and operated by the Fayette County Water System (FCWS). The WTP is a conventional water treatment facility equipped with sludge thickening and sludge drying beds. The major treatment processes include rapid mixing, flocculation, sedimentation, filtration, fluoridation, chemical corrosion control, and disinfection. In response to a 2013 sanitary survey conducted by the Georgia Environmental Protection Division (GA EPD), CH2M worked with FCWS to develop a capital improvement plan (CIP) to address deficiencies noted during the sanitary survey. As a part of the CIP, several of the chemical systems at the South Fayette WTP were identified as requiring an upgrade. The most critical of these chemical systems to be addressed is the chlorine dioxide and powdered activated carbon storage and feed systems.

This proposed task order will allow CH2M to assist the County in performing design and bid related services for these chemical system improvements at the South Fayette WTP. The work will include the production of final contract documents (design and technical specification) for the improvements to be incorporated into the overall plant infrastructure.

Scope of Services

Task 1 – Preliminary and Detailed Services Design

CH2M will perform the appropriate detailed design tasks pertaining to the preparation of the construction drawings and specifications for the following improvements at the South Fayette WTP:

- 1. Replacement of the existing chlorine dioxide generation system with a Purate®-based chlorine dioxide generation system and the addition of two new chemical storage tanks (Purate® and sulfuric acid).
- 2. Replacement of the existing powdered activated carbon system with an outdoor bulk bag system with additional bag storage adjacent to the feed system.
- Minor site improvements to accommodate a future sodium permanganate storage and feed system (bulk tank and chemical feed pumps) to be added by FCWS Staff for injection of sodium permanganate into the raw water.

It is anticipated that the detailed design will be completed with three major milestones – 30 percent, 60 percent, and 90 percent – for review by CH2M and FCWS.

The 30 percent design effort will culminate with CH2M's preparation of a preliminary design report that will serve as the guiding document for the subsequent detailed design of the improvements at the South Fayette WTP. Design criteria will be developed for the chemical feed system improvements and this information will be presented in the report. The 30 percent design submittal will include preliminary drawings and sketches showing the recommended improvements to the infrastructure at the South Fayette WTP. Layouts for the chemical feed improvements and consideration for construction sequencing will be prepared as part of the creation of the 30 percent design deliverable. Preliminary process and instrumentation diagrams (P&IDs) will be prepared for the chemical feed system improvements. In addition, an overall electrical one-line diagram for the facility will be prepared to demonstrate the impact of the proposed improvements on the electrical infrastructure. A preliminary construction cost estimate will be developed at the end of the preliminary design phase for all of the improvements identified in order to prioritize the improvements to match the capital funding available

for construction. Three copies of this preliminary engineering report will be submitted to FCWS for review. A Class 3 construction cost estimate will be developed at the end of the 30 percent design phase to identify the probable construction costs associated with the overall project.

At the 60 percent design milestone, CH2M will provide FCWS with four half-sized copies (11-inch x 17-inch) of the design documents for review. A Class 2 construction cost estimate will be developed at the end of the 60 percent design phase to identify the probable construction costs associated with the overall project.

At the 90 percent design milestone, CH2M will provide FCWS with four half-sized copies (11-inch x 17-inch) of the design documents for review. A more detailed Class 1 construction cost estimate will be developed at the end of the 90 percent design phase to identify the probable construction costs associated with the overall project. Following completion of the fix-up of the 90-percent design documents, CH2M will finalize the 100 percent design documents that will serve as the basis for the bidding process based upon internal review comments, as well as the comments from FCWS.

Three design review meetings will be conducted by CH2M with FCWS to review design progress during the course of the detailed design. The meetings will be held at the South Fayette WTP and will coincide with the submittal of 30-percent, 60-percent, and 90-percent design drawings.

Assumptions

The following assumptions are included in Task 1:

- 1. It is assumed that the design package will consist of approximately 40 design drawings and associated technical specifications.
- 2. If the anticipated funding is not available, additive alternates will be identified and discussed with the FCWS Director. CH2M can incorporate additive alternates in the design package as an additional service outside of this scope of services.
- 3. FCWS will provide CH2M with record drawings in an electronic format (either PDF or CAD files) to serve as the basis for the design. CH2M is not responsible for any errors or omissions in the information from others that is incorporated into the record drawings. CH2M will reasonably rely upon the accuracy, timeliness, and completeness of the information provided.
- 4. CH2M will not provide any construction support services as part of this Task Order. This support can be provided as an Additional Service.
- 5. This scope of services does not include the upgrade or replacement of any other facilities or components other than those described.
- 6. No surveying or geotechnical evaluations are included in this Professional Services Assignment. It is assumed that the existing record drawings for the South Fayette WTP will provide the necessary information to support any design needs.
- 7. It is assumed that FCWS will complete its review of deliverables at the 30, 60, and 90 percent milestones within two weeks of submission by CH2M. Engineer's deliverables, including record drawings, are limited to the sealed and signed hard copies. Computer-generated drawing files furnished by CH2M are for FCWS or others' convenience. Any conclusions or information derived or obtained from these files will be at user's sole risk.

Deliverables

The following deliverables are included in Task 1:

1. 30, 60, and 90 percent design deliverables for FCWS review, including drawings and specifications.

Level of Effort

The level of effort summarized in the following table reflects CH2M's proposed team for this project.

Table 1 Level of Effort (Estimated Hours)

Labor Category	Task 1
Senior Consultant / Senior Technologist / Program Manager	130
Senior Engineering Manager / Program Manager (QA/QC)	332
Engineer / Scientist 5	228
Designer / Lead Technician	390
Engineer / Scientist 3	612
Senior Technician	65
Clerical / Word Processing / Accounting / Office Administration	59
Total Budgeted Hours	1816

Schedule

The CH2M team will begin work under this Task Order when authorized by the FCWS. CH2M will complete the tasks within 16 weeks of Notice to Proceed.

Compensation

Compensation for the work in this task order will be based upon a time and expense basis, not to exceed the amount shown in the following Table. Compensation is based upon the previously agreed rates associated with CH2M's Engineer of Record for Water System contract with Fayette County and the following summary by task.

Table 3 Summary of Costs

Task	Hours	Labor	Expenses	Total
Task 1 – Preliminary and Detailed Services Design	1816	\$196,393	\$2,000	\$198,393

Team coordination and management will include a combination of status reporting and weekly phone and/or e-mail communications with key project personnel. The CH2M project team will review project management protocols, discuss deliverables and schedule, and address project delivery issues as they arise. CH2M will submit weekly status update emails as needed and schedule updates with monthly invoices and progress reports. CH2M's Project Manager will track and communicate with the FCWS any changes in scope or budget if needed as a part of the project's monthly status report. No changes will be made without written approval by FCWS.