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April 22, 2016

14-6549, Task 10

Michael Borchers  
Deputy Director  
Department of Water Resources  
City of Greensboro  
P.O. Box 3136  
Greensboro, NC 27402

**Subject:** TZ Osborne Water Reclamation Facility NPW Pump Station (2015-007)  
Change Order Request No. 2 – Coordination Efforts

Dear Mr. Borchers:

Chester Engineers is submitting this Change Order #2 for additional scope required to update Chester Engineering documents and coordinate with Hazen & Sawyer on their documentation to support a single construction package for the NPW Pump Station and NPW Electrical Upgrades Projects. Scope additions are as follows:

**Building Permit Activity:** *\$4,000 Approximately 30 hours*

- Additional time to coordinate with H&S for adding their drawings to the Building Permit. This includes coordination emails and phone calls with H&S, bundling of H&S documents with Chester documents, checking for presentation and verifying there are no discrepancies between the H&S and Chester documents. Includes 2 submittals; one review to Dewberry and one final electronically submitted to Greensboro Building Inspections.
- Additional time to coordinate with Dewberry on the H&S work being added to the package. This includes review of the new work and how it impacts the Building Code Summary document. Additional time to coordinate any comments from Dewberry with H&S on the H&S portion of the permit.
- Additional time to update the Building Code Summary document with required information to cover the H&S additions.

**ATC Permit:** *\$1,000 Approximately 6 hours*

- Coordinate as needed on a construction sequence to merge the Chester work with the work of the NPW Electrical Upgrades package. Revise sequence to fit format of H&S front end documents. Submit to H&S for review and revise as needed.

**Drawing Coordination:** *7,500 Approximately 60 hours*

- Electrical: Update drawings to incorporate the coordination of Chester and H&S electrical work where ductbanks will be combined coming in to the Chlorination Building. Additional work includes revising Chester drawing backgrounds with updated H&S drawings backgrounds, (see below), defining scope splits, revising ductbank details as needed, revising trench locations as needed, revising specifications as needed, revising power plans as needed, incorporating H&S tagging nomenclature. This has potential to impact Chester drawings G-4, M-4, E-2, E-3, E-4, E-6.

- Mechanical: Update tie-in drawing at the Solids handling Building. The tie-in has changed (recently) from the original H&S layout. There now appears to be a concrete sleeper support under the piping that was not previously there. To update the drawings, Chester needs to know if the new tie-in will be above or below ground and if it will be on the north or south side of the above ground TEE. This has potential to impact Chester Drawings G-4, M-1, M-8.
- Update drawing backgrounds and incorporate updated reference files from H&S. Adjust CAD standards (layers, line weights, plot styles) as needed between Hazen & Sawyer and Chester Engineers drawings.

Specification Coordination: \$2,000 Approximately 16 hours

- Assisting H&S with front end document coordination, confirming H&S is incorporating the front end specs that are referenced in the Chester specifications.
- Revising Chester specifications where H&S front end document numbers do not match the numbers in Chester's specifications.

Ongoing Coordination between H&S and Chester: \$2,500 Approximately 20 hours

- Weekly conference calls to discuss the coordination efforts between Chester and H&S to complete the work. Chester estimates a 5 week duration, 4 hours per week to cover individuals who attend the call and any modifications to the drawings and specifications, assuming any changes beyond those listed under the Drawing Coordination (above) would be minimal.

Additional Coordination Efforts: \$10,000 Approximately 80 hours

- Coordinate with CITI, COG and H&S on the operation of system for programing purposes. Develop tag listing and functional description.
- Evaluate and review for bidding purposes potential pump and VFD suppliers beyond those listed in the specifications.
- Coordinate with H&S and CDM on changes throughout the project on drawing updates and relocating of piping and electrical to avoid interferences.

Based on this added level of effort, we kindly request that our fee for the subject be increased by \$27,000 to a total of \$227,000. Thank you for allowing Chester Engineers the opportunity to continue serving the City of Greensboro.

Should have any questions or require any additional information, please feel free to contact Darnetta Craig at 336.482.5512 or myself at 412.809.6514.

Respectfully,

**CHESTER ENGINEERS**



Raymond J. Gallenz  
Project Manager

cc: central records