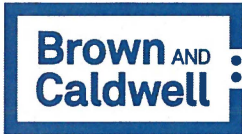


Phone: 954-200-7611
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June 15, 2016

Letter Report

Mr. Gregory Balicki, PE
Broward County Water and Wastewater Services – Engineering Division
2555 W Copans Road
Pompano Beach, FL 33069

149385

Subject: Project 9197: Phase 1 Belt Press Filter Demolition Review

Dear Mr. Balicki:

At your request, Brown and Caldwell performed a blind review of two 100 percent submittals for Broward County Water and Wastewater Services (BCWWS) Project 9197: Phase 1 Belt Press Filter Demolition. This review was performed on documents that were redacted to remove the name of the company and engineer of record that developed the drawings. As recommended by the National Society of Professional Engineers Code of Ethics, BCWWS notified the Engineer(s) of Record for the project in writing that their work was to be reviewed by another consultant.

Scope of Work and Limitations

The Scope of Work of this review is described in Work Authorization BC13-18. Brown and Caldwell conducted a general review of the documents for technical completeness and consistency, presentation and clarity, focusing on site/civil requirements and other aspects of the work that could introduce ambiguity in a potential Contractor's interpretation of the Contract Documents. The scope did not include hazardous materials (lead paint, asbestos, and others) mitigation, field investigations, quantity take-offs, construction sequencing reviews, maintenance of operations reviews, or cost estimating. The level of review provided was similar to what would be provided for a Subconsultant who was taking professional responsibility for their own portions of a design deliverable.

Summary of Key Issues

The drawings and specifications for the first 100 percent submittal and the second 100 percent submittal were reviewed, and comments are compiled on the attached comment logs and marked-up drawing sets. Comments marked as "critical" are ones that, in the opinion of the reviewer, could significantly impact the successful execution of the project. In general, the second 100 percent submittal was more detailed than the first, and some of the issues identified in the first were at least partially corrected in the second.

Key issues identified in the drawing sets included the following:

- Horizontal control (northing and easting) is not provided on the Civil sheets. Horizontal control points should be established for each termination and to delineate pavement cuts.

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- Demolition of the pumps, pad, and Maintenance Access Structure adjacent to the storage tank do not appear to be fully addressed.
- There are several pipe terminations that do not appear to be adequately addressed in the Civil sheets.
- Pipeline nomenclature and linetypes do not appear to be consistent throughout the Civil sheets. Multiple line types are used, and there is not a key that defines what they represent. There are lines labeled as “DRAINAGE” that appear to be gravity sewer lines. Also, force mains and gravity sewers do not appear to be clearly differentiated.
- Some pipeline termination notes for “sewer lines” call for restrained plugs, which imply that they may be force mains. Gravity sewers and pressure sewers need to be clearly delineated.
- Line size, contents, and material do not appear to be labeled in the termination callouts.
- The extent of new fill is not clearly delineated in the drawing set.
- The plans call for a large area to be graded at 11.50’, which is about 6-inches below the surrounding area. There is some potential for ponding in the re-graded area. Also, catch basins and Maintenance Access Structure rims are still showing at their pre-demolition elevations and appear to be 4 to 6-inches above the proposed new grade.
- Mechanical demolition call-outs were significantly more detailed in the second submittal, but additional detail may be needed. It is suggested that piping diameter/material (particularly for piping 4-inches in diameter and larger), chemical tank material and approximate volume, and HVAC units/ductwork be specifically called out, and the level of detail in the mechanical call-outs be similar to the structural demolition sheets.
- Additional electrical demolition detail appears to be needed. A one-line demolition diagram showing all MCCs, switchboards, and panelboards with cable schedules should be included.
- Electrical sheets E-5, 6, 7, 8, 18, and 19 from the original as-built sets show disconnect locations and are referenced in the drawing sets, but are not provided in either submittal. It is suggested that the load centers/breakers referenced in this drawing set be shown.
- Landscaping sheets show proposed locations for new trees that are close to, and potentially conflict with, existing vaults, piping, and other buried infrastructure.

Key issues with the Specifications included the following:

- There are references to specification sections that are not included in the specification set provided.

In addition to the issues identified above, the comment logs identify other opportunities to streamline the drawing set and clarify and correct spelling and nomenclature issues throughout the Contract Documents. Of particular note are the need to conform to the County’s gender neutral language requirements and the need to confirm with the County that using the 50-division specification format is acceptable.

Brown and Caldwell appreciates that BCWWS has requested our services in assisting with this project. Should you have any questions, please do not hesitate to call me at 954-200-7616.

Very truly yours,

Brown and Caldwell



Matthew Charles, PE, Project Manager

MDC:mc

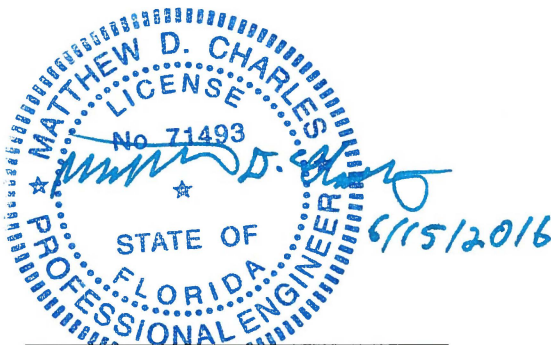
cc: John Morra, PE, Broward County Water and Wastewater Services
Celia Earle, Ph.D., Brown and Caldwell

Attachments (4)

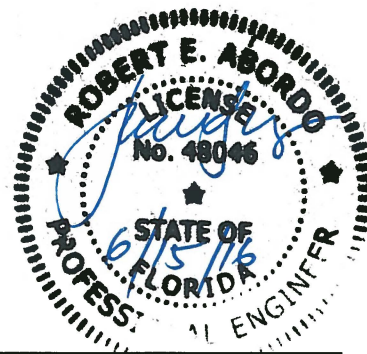
- Attachment A: First 100% submittal drawing and specification comment logs
- Attachment B: Second 100% submittal drawing and specification comment logs
- Attachment C: First 100% submittal marked-up drawing set
- Attachment D: Second 100% submittal marked-up drawing set

Limitations:

This document was prepared solely for Broward County in accordance with professional standards at the time the services were performed and in accordance with the contract between Broward County and Brown and Caldwell dated August 13, 2013. This document is governed by the specific scope of work authorized by Broward County; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Broward County and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.



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