



PAT FRANK  
Clerk of the Circuit Court  
13th Judicial Circuit

**COUNTY AUDIT**

**HILLSBOROUGH COUNTY, FLORIDA**

**PCL CONSTRUCTION – SOUTH COUNTY  
ADVANCED WASTEWATER TREATMENT PLANT EXPANSION**

**REPORT # 254**

**December 12, 2013**

December 12, 2013

The Honorable Mark Sharpe, Chairman  
The Honorable Kevin Beckner  
The Honorable Victor D. Crist  
The Honorable Ken Hagan  
The Honorable Al Higginbotham  
The Honorable Lesley “Les” Miller  
The Honorable Sandra L. Murman

Dear Chairman Sharpe and Commissioners:

County Audit performed an audit of the PCL Construction –South County Advanced Wastewater Treatment Plant (AWTP) Expansion agreement (Audit Report #254 dated December 12, 2013). A response to the Audit Team’s recommendation was received from the Director of Public Utilities and has been included in the report after the audit comment and recommendation.

County Audit appreciates the cooperation and professional courtesies extended to the auditors by the Director and personnel of Public Utilities during this audit.

Sincerely,

Peggy Caskey, CIA, CISA, CFE  
Director, County Audit

c: Mike Merrill, County Administrator  
Lucia Garsys, Deputy County Administrator  
George Cassady, Director, Public Utilities Department  
John Lyons, Director, Public Works Department (Formerly Director of Public Utilities)  
Bruce Dangremond, Manager, Performance Mgmt, Business and Support Services

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## EXECUTIVE SUMMARY

### BACKGROUND INFORMATION:

On February 22, 2012, the Board of County Commissioners (BOCC) awarded a \$65,004,160 contract to PCL Construction Incorporated (PCL) for the *South County Advanced Wastewater Treatment Plant Expansion (AWTP) from 4.5 to 10 MGD, CIP 10143*. This contract includes all construction activities required to expand the capacity of the facility to 10 million gallons per day (MGD). The expansion is to be functionally sound, technically proficient, constructed with structural integrity, exhibiting a high quality of materials and construction, and in compliance with all governing laws, regulations and building codes in effect as of the date of substantial completion.

On August 2, 2012, the BOCC approved a PCL change order in the amount of \$446,334. The change order was required to maintain compliance with the 2011 Effluent Reuse Protocol. The change allowed for the installation of temporary storage tanks and piping to provide the necessary overflow storage and allow for demolition of old clarifiers.

The County contracted with an engineering firm, HDR, Inc., to design and oversee the construction of the AWTP Expansion project. Engineering firm CDM Smith is a subcontractor of HDR. CDM Smith provides onsite inspections of the work conducted for the project. It also provides daily reports detailing the project's progress.

### OBJECTIVE:

The objective of the audit was to review and evaluate internal controls related to the duties of the Public Utilities Department (Public Utilities) in managing the AWTP Expansion contract with PCL.

### SCOPE:

The audit was conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing* issued by the Institute of Internal Auditors. The audit period was from the agreement inception through May 31, 2013. The audit procedures included interviewing Public Utilities, PCL, HDR, and CDM Smith personnel, documenting the contract requirements, and reviewing support documentation related to these requirements to determine compliance with the contract terms and with County policies and procedures.

### OVERALL EVALUATION:

Public Utilities, PCL, HDR, and CDM Smith personnel were responsive to the Audit Team's inquiries and provided data and other information in a prompt and courteous manner. The Audit Team found knowledgeable and dedicated employees who were receptive to the Audit Team's suggestions for improvement.

The audit test results indicate that Public Utilities had adequate internal controls in place to reasonably ensure that:

- PCL provided the County with timely progress reports.
- The work performed by PCL was adequately reviewed by the subcontractor (HDR).
- Timely payments were made to PCL.
- Construction materials and equipment were properly secured.
- Change orders were properly supported and approved.
- Project milestone completion dates were monitored.
- HDR’s staff and subcontractor staff maintained professional licenses.
- PCL maintained required insurance coverage.
- Contract services were properly performed.
- PCL was in compliance with Disadvantaged Minority/Women Business Enterprise (DM&WBE) contract requirements.
- PCL had procedures for ensuring it met the contract requirements for employing an authorized workforce.
- There were no overcharges and/or unsupported costs for the project.

The Audit Team identified the following opportunity to improve controls over contract monitoring.

AUDIT COMMENT	DESCRIPTION	PAGE REFERENCE
1	Opportunities exist to improve monitoring and documentation of contractor/subcontractor work.	page 3

**OPINION:**

Based on audit test results, except as noted in the audit comment, Public Utilities appears to have adequate internal controls to manage the AWTP Expansion contract with PCL.

The exit conference was held on October 28, 2013.

**AUDITED BY:**

Peggy Caskey, Director, County Audit  
Mark Kolman, Audit Manager  
Lovonia Scott, Auditor  
Marc Hogan, Auditor

## AUDIT COMMENT & RECOMMENDATION

**Control Activities:** Listed below is an audit comment that represents opportunities for Public Utilities to strengthen the internal controls related to the AWTP Expansion contract. For the comment, a recommendation has been included.

### AUDIT COMMENT 1

#### **Opportunities exist to improve monitoring and documentation of contractor/subcontractor work.**

The County's contract with HDR under section Construction Phase Services, Task 7, Construction Management and Observation Services, states that:

*"The PROFESSIONAL will perform the following tasks: Conduct and record on-site observations of the work in progress with such frequency as necessary to verify accuracy and quality of installation and materials installed. Maintain a complete and accurate daily log of activities; fill out Daily Reports of Construction with submittal of reports to the COUNTY; take progress photos and provide in bound, dated, and noted format to the COUNTY upon request. Submit logs and photos at weekly progress meetings."*

HDR subcontracted the above responsibility to CDM Smith. A CDM Smith onsite inspector was assigned to review and document activities including: pictures of work performed by PCL and its subcontractors, daily weather conditions, time of work, deliveries, pickups, accidents and defective work. This documentation was recorded in Daily Progress Reports.

The Audit Team randomly selected 12 Daily Progress Reports and sample tested an activity from each of these reports to determine if that activity performed by PCL and its subcontractors was adequately documented and supported. Test results indicate that:

- The CDM Smith onsite inspector completed a Daily Progress Report for each of the 12 days selected for sample testing. The onsite inspector electronically signed and uploaded the reports to the Project Tracker Collaboration System for review by an HDR resident engineer.
- Photos were included in the Daily Progress Reports reviewed, but the CDM Smith onsite inspector did not include a corresponding photo for each of the 12 individual activities reviewed (seven of the 12 activities were supported with a photo).
- The HDR resident engineer did not document his review of 11 of the 12 Daily Progress Reports tested.

Per the HDR resident engineer, as a monitoring control, he randomly reviewed reports two to three times per month and on a case-by-case basis when there was a known concern. The HDR resident engineer relied upon the expertise of the CDM Smith onsite inspector to document and verify completion of work.

- The Public Utilities project manager did not document her review of 12 of the 12 Daily Progress Reports.

Written procedures for reviewing a contractor's documentation are not located in one document, and some written procedures may not be fully developed.

Per the Public Utilities project manager, as a monitoring control, her reviews were conducted on an as needed basis and when the reports contained known discrepancies or defective work.

### **RECOMMENDATIONS:**

Consideration should be given to requiring the CDM Smith onsite inspector to provide photo support documentation for each activity contained in the Daily Progress Report.

Consideration should be given to enhancing monitoring controls to include:

- establishing a foundation for monitoring,
- designing and executing monitoring procedures, and
- assessing and reporting the results.

Consideration should be given to developing written procedures for monitoring the documentation of contractor/subcontractor work including:

- the expected frequency of reviews,
- what documentation is to be reviewed,
- how the documentation should be reviewed, and
- how issues or concerns should be documented, monitored, and resolved.

### **CLIENT RESPONSE:**

*Concur*

### **CORRECTIVE ACTION PLAN:**

*CDM Smith's inspection team is being directed to include photo documentation of each activity described in their daily reports. This requirement will go into effect Monday, November 18, 2013.*

*The Public Utilities Department has developed procedures to strengthen internal controls with a focus on improving monitoring and documentation of contractor work. These procedures will include expected frequency of reviews, documentation to be reviewed, how documentation is to be reviewed and how issues will be documented, monitored and resolved. This procedure will be completed and implemented by Monday, November 25, 2013.*

### **TARGET COMPLETION DATE:**

*November 25, 2013*