



FU24-005 Greenwood WWTP Electrical Improvements

Follow-Up Report

City Auditor's Office
George H. Holland
City Auditor

February 28, 2025

Executive Summary

As part of our 2024 Annual Audit Plan, we conducted a follow-up review of the AU24-004 Greenwood WWTP Electrical Improvements audit dated December 7, 2023.

The original closeout audit had two findings and seven observations that were agreed to by management. One observation was disagreed to by management.

This close-out audit was performed by Talson Solutions. The focus was on contractual compliance by CSA Construction, Inc. (CSA), the general contractors, and included assessing the City's construction and engineering management of capital program areas. Focus areas included construction cost and change management, claims/disputes, project administration, progress status and cost reporting.

In January, 2025 management indicated that nine of nine agreed recommendations have been implemented. Auditors reviewed information submitted and found nine have been implemented. A complete list of recommendations and current statuses can be seen on pages 3-5. Additional information on recommendations can be found in Appendix A.

Management agrees with the conclusion of this report and their responses can be found in Appendix B. We would like to commend staff from the Engineering Department for their assistance during this process.

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FU24-005 Greenwood WWTP Electrical Improvements

Follow-up Report

Summary of Recommendations			
Issue #	Recommendation	Management's Reply	Status
A. Commissioning systems.			
Finding 1	CSA should submit operational testing, inspections and commissioning documentation for formal approval by LAN (Lockwood, Andrews & Newnam) and receipt by the City/Operations prior to CSA (CSA Construction, Inc.) requesting formal notice of substantial completion.	Complete	Complete
B. Utilization or Substantial Completion			
Finding 2	The City should determine a schedule and related work scope to accurately forecast a realistic date to achieve substantial completion and subsequent final project closeout.	Complete	Complete
C. Communication between the City, LAN, and CSA (CSA Construction, Inc.) for Project closeout.			
Observation No. 1	There is an opportunity to enhance communication between the City (various departments), LAN and CSA to resolve issues related to the closeout of the Project. Open issues include (but are not limited to): a) New SCADA tie-in and integration with the existing SCADA software and programming b) Outfall pipe overflowing and causing drainage issues c) Flow meter in UV Disinfection System not working d) Status of punch list/open items e) Inconsistencies of design obligations for requirement and placement of measuring equipment (e.g. Flow Meter, etc.) f) Finalization of Commissioning Plan and associated activities g) Disposition of Substantial Completion date.	Complete	Complete
D. Communication between the City, LAN, and CSA for design start-up phase.			
Observation No. 2	Talson noted a lack of communication with LAN that occurred during the construction and start-up phase which may have led to current discrepancies and required clarity for various design questions. Evidence is as follows: a) LAN was unaware that CSA had demobilized from the project in the Spring of 2023 b) LAN did not know that the City had placed the Effluent Filter and UV Disinfection System into service in September 2022. c) LAN did not participate in commissioning, start-up, or acceptance testing of new systems d) In November 2023, LAN was asked to conduct or participate in Project punch list walks but no formal punch lists have been completed.	Complete	Complete

Summary of Recommendations			
Issue #	Recommendation	Management's Reply	Status
E. Contract language.			
Observation No. 3	Talson noted conflicting contract language (which has been addressed in subsequent contracts) regarding who receives notice of the request for the Certificate of Substantial Completion. <i>Article 17.12 Substantial Completion</i> directs CSA to notify the Owner Authorized Representative (OAR) when work is substantially complete and request Certificate of Substantial completion. <i>Article 29A Substantial Completion</i> directs the Contractor (CSA) to notify the Designer (LAN) that the work is substantially completed including a list of items remaining to be completed or corrected before Project is considered complete. The Designer is designated as issuer of Notice of Substantial completion.	Complete	Complete
F. Contract documents and closeout activities.			
Observation No. 4	Talson noted numerous inconsistencies and discrepancies regarding the status of submitted contractually obligated documents and closeout activities, including items referenced in Observation No. 1 (e.g., Commissioning Plan, acceptance of punch list/open items, etc.) which could have been alleviated through the use of formal submittals and RFIs.	Complete	N/A
G. Open Project closeout tasks.			
Observation No. 5	LAN and CSA have several tasks remaining to be completed collectively in order to comply with their LAN Construction Administration and CSA's General Conditions contract obligations. a) Submit Final Completion Letter to TCEQ (<i>Exhibit A - task No. 6</i>) b) Conduct Project walk-through documenting punch list items for correction (<i>required in CSA contract - General conditions</i>) c) Produce and transmit Record Drawing incorporating the redlines/as-built drawings submitted by the CSA (<i>required in CSA contract - General Conditions</i>) .	Complete	Complete
H. Certificate of Substantial Completion.			
Observation No. 6	CSA would like to proceed with final contract close-out but are awaiting the Certificate of Substantial Completion in order to proceed with Final Inspection and submit Final Payment Estimate to the City.	Complete	Complete

Summary of Recommendations			
Issue #	Recommendation	Management's Reply	Status
I. Evaluation of the use the formal risk management process.			
Observation No. 7	Talson was unable to obtain any documentation to determine if an evaluation of the use of the formal risk management process would be required for the Project per Engineering Services.	Complete	Complete
J. Closeout Procedure is delayed.			
Observation No. 8	Final Project closeout per Closeout Procedure is delayed and cannot commence until Substantial completion has been achieved and a project walk-through with punch list is conducted. Additionally, Contract Funds Administration (CFA) cannot begin the final closeout budget reconciliation until CSA has submitted the Final Payment Estimate No. 17.	Complete	Complete

Appendix A – Additional Follow-up Information

Finding No. 1.- Commissioning Systems

Plans for the commissioning of process system per contract specifications had not been fully complied with and/or addressed through a formal submittal process. Evidence includes:

- a) The operational testing and submission of certified reports for testing, start-up and calibration of the facility, to be prepared by CSA as the system supplier has not been formally submitted and/or approved by the Design Engineer or Engineering Services as required in *Specification 40 80 00 Commissioning of Process Systems – 1.1 Scope*. *Specification 40 80 00 Commissioning of Process Systems – 1.2 Submittals* requires that a Test Plan be submitted for approval describing what tests should be conducted, inclusive of list of test equipment, procedures, check lists, and reporting formats. The Test Plan is to be submitted sixty (60) days before commissioning activities are scheduled to start. CSA's Submittal Log does not show a submission for this requirement nor was the City aware of any submission for commissioning by CSA.
- b) *Specification 40 80 00 Commissioning of Process Systems – 3.2 Test Reports* requires “check-off lists” to be submitted to the City at least sixty (60) days before commissioning starts, when requested by the City and no more frequently than once a week. CSA's Submittal Log does not show any “check-off list” submittals for this requirement.

Recommendation No. 1:

CSA should submit operational testing, inspection and commissioning documentation for formal approval by LAN and receipt by the City/Operations prior to CSA requesting formal notice of Substantial Completion.

Management Assertion: Completed

Audit Status: Completed

Finding No. 2. - Partial Utilization or Substantial Completion

The City is non-compliant with conditions of “partial utilization” or Substantial Completion requirements of the contract. Evidence includes:

- a) Although the facility has been placed in service, the contractually required Certificate of Substantial Completion for partially accepted work has not been issued to CSA per *General Conditions Article 17.13 Partial Utilization*. This Article directs Contractor and Owner to follow the process detailed in *General Conditions Article 17.12 Substantial Completion* when the City takes beneficial use of installed equipment or systems. CSA submitted a letter dated June 8, 2023, memorializing the dates when the Filtration and UV Disinfection Systems were put into service and operated by the City and a subsequent email dated August 15, 2023, requesting Substantial Completion in October 2022. The City is obligated to respond on or before October 8, 2023 (120 days) with either acceptance or non-acceptance.
- b) The City has taken partial utilization of the Effluent Filter Facility, which was placed in service on September 26, 2022, and UV Disinfection Facility placed in service on September 7, 2022.
- c) On November 28, 2023, the City officially responded to CSA indicating partial utilization and warranty start date of September 28, 2022, for the Filter and UV systems.

Recommendation No. 2:

The City should determine a schedule and related work scope to accurately forecast a realistic date to achieve Substantial Completion and subsequent final project closeout.

Management Assertion: Complete

Audit Status: Complete

The following *Observations* have been discussed with the City:

Observation No. 1

There is an opportunity to enhance communication between the City (various departments), LAN and CSA to resolve issues related to the closeout of the Project. Open issues may include, but are not limited to:

- a) New SCADA tie-in and integration with the existing SCADA software and programming.
- b) Outfall pipe overflowing and drainage issues.
- c) Flow meter in UV Disinfection System not working.
- d) Status of punch list items.
- e) Inconsistencies of design obligations for requirement and placement of measuring equipment (e.g., Flow Meter, etc.).
- f) Finalization of Commissioning Plan and associated activities.
- g) Disposition of Substantial Completion date.

Management Assertion: Complete

Audit Status: Complete

Observation No. 2

Talson noted a lack of communication with LAN that occurred during the construction and start-up phase which may have led to current discrepancies and required clarity for various design questions. Evidence is as follows:

- a) LAN was unaware that CSA had demobilized from the project in the Spring of 2023.
- b) LAN did not know that the City had placed the Effluent Filter and UV Disinfection System into service in September 2022.
- c) LAN did not participate in commissioning, start-up, or acceptance testing of new systems.
- d) In November 2023, LAN was asked to conduct or participate in Project punch list walks, but no formal punch list has been completed.

Management Assertion: Complete

Audit Status: Complete

Observation No. 3

Talson noted conflicting contract language (*which has been addressed in subsequent contracts*) regarding who receives notice of the request for the Certificate of Substantial Completion.

Article 17.12 Substantial Completion directs CSA to notify the Owner Authorized Representative (OAR) when work is substantially complete and request Certificate of Substantial Completion.

Article 29.02A Substantial Completion directs the Contractor (CSA) to notify the Designer (LAN) that the Work is substantially complete including a list of items remaining to be completed or corrected before Project is considered complete. The Designer is designated as issuer of Notice of Substantial Completion.

Management Assertion: Complete

Audit Status: Complete

Observation No. 4

Talson noted numerous inconsistencies and discrepancies regarding the status of submitted contractually obligated documents and closeout activities, including items referenced in Observation No. 1 (e.g., Commissioning Plan, acceptance of punch list, etc.)

Management Assertion: Complete

Audit Status: N/A – disagreed

Observation No. 5

LAN has several open tasks remaining as part of the Project closeout activities.

- a) Submit Final Completion Letter to TCEQ (*Exhibit A – Task No. 6*).
- b) Conduct project walk documenting punch list items for correction (*required in CSA contract – General Conditions*).
- c) Produce and transmit Record Drawings incorporating the redlines/as-built drawings submitted by the CSA (*required in CSA contract – General Conditions*).

Management Assertion: Complete

Audit Status: Complete

Observation No. 6

CSA would like to proceed with final contract close-out but are awaiting the Certificate of Substantial Completion in order to proceed with Final Inspection and submit Final Payment Estimate to the City.

Management Assertion: Complete

Audit Status: Complete

Observation No. 7

Talson was unable to obtain any documentation to determine if an evaluation of the use of the formal risk management process would be required for the Project per Engineering Services.

Management Assertion: Complete

Audit Status: Complete

Observation No. 8

Final Project closeout per Project Closeout Procedure is delayed and cannot commence until Substantial Completion has been achieved and a project walk-through with punch list is conducted. Additionally, Contract Funds Administration (CFA) cannot begin the final closeout budget reconciliation until CSA has submitted the Final Payment Estimate No. 17.

The documents required for closing a project are as follows:

- | | |
|--------------------------|---|
| a. Final Estimate No. 17 | f. Minority Business Enterprise Participation |
| b. Acceptance Memo | g. Closeout Checklist |
| c. Project Summary | h. Record Drawings/As-Builts |
| d. Affidavit | i. Punch List |
| e. Waiver of Lien | |

Management Assertion: Complete

Audit Status: Complete

Staff Acknowledgement:

Wendy Pullin, CPA

Amr Hussein, CIA, CISA

Appendix B – Management Response



February 27, 2025

George H. Holland
City Auditor
Corpus Christi, Texas

Re: FU24-005

We have reviewed the follow-up report and provided comments below. As there are no recommendations for management, no responses are required.

☒ Fully Agree

☐ Do Not Agree

Sincerely,

 2/27/25

Jeffrey H. Edmonds
Director of Engineering Services

Date

 3-2-25

Michael Rodriguez
Deputy City Manager

Date

 3/12/25
for

Peter Zanoni
City Manager

Date