



Legislation Details (With Text)

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On agenda: 1/25/2023 **Final action:** 1/25/2023

Title: Proposed Change Order 3
Contract No. GLWA-CON-197
Modifications to Incineration Sludge Feed Systems in Complex II at WRRF, Package "A";
Replacement of EB-26 Unit Substation, Package "B"; Replacement of Nine MCCs, Package "C"
CIP #213007
Vendor: Weiss Construction Co., LLC

Sponsors: Navid Mehram

Indexes: Wastewater Operations

Code sections:

Attachments:

Date	Ver.	Action By	Action	Result
1/25/2023	1	Board of Directors	Approved	Pass
1/11/2023	1	Operations and Resources Committee	Recommended for Approval	Pass

Proposed Change Order 3

Contract No. GLWA-CON-197

**Modifications to Incineration Sludge Feed Systems in Complex II at WRRF, Package "A";
Replacement of EB-26 Unit Substation, Package "B"; Replacement of Nine MCCs, Package "C"**

CIP #213007

Vendor: Weiss Construction Co., LLC

Agenda of: January 25, 2023

Item No.: **2022-609**

Amount: Original Contract \$18,631,083.00
Change Order No. 1 905,731.00
Change Order No. 2 850,000.00
Proposed Change Order No. 3 0.00
Total Revised Contract \$20,386,814.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Suzanne R. Coffey, P.E.

Chief Executive Officer
Great Lakes Water Authority

DATE: December 27, 2022

**RE: Proposed Change Order No. 3
Contract No.: GLWA-CON-197
Modifications to Incineration Sludge Feed Systems in Complex II at WRRF,
Package “A”; Replacement of EB-26 Unit Substation, Package “B”; Replacement
of Nine MCCs, Package “C”
Vendor: Weiss Construction Co., LLC**

MOTION

Upon recommendation of Navid Mehram, Chief Operating Officer - Wastewater Operating Services, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into Contract No. GLWA-CON-197, Proposed Change Order No. 3, “Modifications to Incineration Sludge Feed Systems in Complex II at WRRF, Package ‘A’; Replacement of EB-26 Unit Substation, Package ‘B’; Replacement of Nine MCCs, Package ‘C’,” with Weiss Construction Co., LLC, at no increase in cost for a total cost not to exceed \$20,386,814.00 and for an increased duration of 243 days, for a total duration of 2,007 days;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

On April 2, 2018, Great Lakes Water Authority gave the notice to proceed with the contract GLWA-CON-197, to Weiss Construction Co., LLC. This contract is composed of three packages: A, B and C.

Package “A” is the replacement of belt conveyors, screw feeders, strainers, lighting, motor control centers, and installation of process controls equipment supporting equipment that replaces belt conveyors destroyed in the fire event in March 2016. The scope of this work also includes repainting the interior spaces of Dewatering Complex II and Incineration Complex II.

Package “B” is the replacement of the EB-26-unit substation that serves as the primary electrical power distribution source for portions of the dewatered sludge cake conveyance equipment in Incineration Complex II.

Package “C” is the replacement of nine Motor Control Centers which provide electrical distribution for the incinerator combustion controls and various electrical systems within Complex II. Incineration Complex II is actively used to dispose of dewatered sludge cake generated from the wastewater treatment process at WRRF. There are eight operational incinerators which are used to incinerate sludge cake that is processed in Dewatering Complex II. A portion of liquid thickened sludge is pumped to the Biosolids Drying Facility (BDF) for processing.

The original contract required substantial completion of the project (all packages) was July 31, 2020, and the original required final completion of the project was January 30, 2021. Change Order No.1 added \$905,731.00 to the contract and extended both the substantial and final completion time by 364 days. Change Order No. 2 added \$850,000.00 to the contract and further extended both the substantial and final completion time by 365 days.

As of this Board Letter, all new conveyors, strainers, unit substations and motor control centers have been installed, and the Contractor has completed rehabilitation of the sludge feed systems for all eight incinerators. Additionally, the Contractor has completed retrofits of all the screw feeders to prevent sludge bridging which had caused issues with the incinerator feed port. The remaining work under Package A includes final modifications and performance testing of the new belt conveyors, strainers, and screw feeders, as well as completion of any owner-requested changes to the contract. Package B and C work is complete, with only punch list items remaining to be completed.

JUSTIFICATION

Initial operation of the new screw feeders resulted in sludge bridging that caused issues with the incinerator feed ports. Correction of this issue required development of prototype modifications, installation and trial operation with the prototype shrouds installed, and further modifications to address issues noted during the initial trial operation. Following a second trial operation period at incinerators 12 through 14, GLWA directed the Contractor on September 14, 2022, to proceed with the improved shroud installation at the screw feeders for incinerators 7 through 10. This work was completed by October 24, 2022.

Additionally, as a result of the feed port challenges, GLWA directed the Contractor to repair the Bomb-bay doors at incinerators 7, 8, 9, 10, 13 and 14, with repair of the Bomb-bay doors at Incinerators 11 and 12 completed by GLWA maintenance teams. During the repair work it was discovered that the doors were in poor condition, requiring more extensive work and a longer period for repairs than originally anticipated. These GLWA-directed changes, the screw feeder sludge bridging, and belt conveyor sludge spillage issues prevented the Contractor from achieving the contract substantial completion date established by Change Order 2. In addition, the new sludge feed system for Incinerator 11 cannot yet be placed into trial operation because that incinerator is out of service for rehabilitation under another contract.

After the screw feeders and Bomb-bay door repairs, trial operation of the conveyor system by GLWA revealed a need for additional correction to sludge chutes and belt training idlers before the system acceptance could proceed. The required corrections are now in progress and are expected to be completed by the end of January 2023, proceeding with the 30-day equipment test specified in the contract. If the test is successful, substantial completion will be issued.

The Contractor has requested a 171-day extension for final completion including testing, modifications necessary to successfully complete testing, submittal of O&M manuals and as-built drawings. GLWA is adding an additional 72 days to complete review and finalize close out for the

contract totaling 243 days requested in this change order.

PROJECT MANAGEMENT STATUS

Original Final Contract Time	1,035 days (04/02/2018 - 01/30/2021)
Change Order No. 1	364 days (01/31/2021 - 01/29/2022)
Change Order No. 2	365 days (01/30/2022 - 01/29/2023)
Proposed Change Order No. 3	243 days (01/30/2023 - 09/29/2023)
New Contract Time	2,007 days (04/02/2018 - 09/29/2023)

PROJECT ESTIMATE

Original Contract Price	\$18,631,083.00
Change Order No. 1	905,731.00
Change Order No. 2	850,000.00
Proposed Change Order No. 3	0.00
New Contract Total	\$20,386,814.00

FINANCIAL PLAN IMPACT

Summary: Sufficient funds are provided in the financial plan for this project.

Funding Source: Sewer Construction Fund

Cost Center: Wastewater

Expense Type: Construction (5421-892211.000-616900-213007)

Estimated Cost by Year and Related Estimating Variance: See table below:

Original Contract Price	\$18,631,083.00
Change Order No. 1	905,731.00
Change Order No. 2	850,000.00
Proposed Change Order No. 3	0.00
New Contract Total	\$20,386,814.00
Amended Financial Plan Estimate	\$19,537,000.00

Estimating Variance	(\$849,814.00)
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Please note that the amounts above as per the Draft#1 FY2024-2028 CIP has \$19,537,000.00 budgeted for contract CON-197. The original contract plus Change Orders is \$20,386,814.00, which leaves a negative estimate variance of (\$849,814.00). This proposed Changed Order No. 3 is for time extension only and has no impact on financial plan.

COMMITTEE REVIEW

This matter was presented to the Operations and Resources Committee at its meeting on January 11, 2023. The Operations and Resources Committee unanimously recommended that the GLWA Board adopt the resolution as presented.

SHARED SERVICES IMPACT

This item does not impact the shared services agreement between GLWA and DWSD.