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# Change Order # 6

DATE OF ISSUANCE: **09/21/2023**

EFFECTIVE DATE: **Effective on Funding Agency Approval**

OWNER: **City of Gladstone, MI**  
CONTRACTOR: **Staab Construction Corporation**  
CONTRACT: **SRF Project #5727-01**  
PROJECT: **Gladstone, MI Wastewater Treatment Plant Improvements**  
OWNER'S CONTRACT NO. **21-0210**  
ARCHITECT/ENGINEER'S CONTRACT NO. **21-0210**  
ARCHITECT/ENGINEER **C2AE, Escanaba & Lansing, MI**


You are directed to make the following changes in the Contract Documents:  
Description: **See items below.**

Reason for Change Order: **See items below.**

Attachments: (List documents supporting change) **Bulletin #12, with Contractor Change Order Request 2 signed and Staab quotes dated 03/16/2023; Bulletin #13, with Contractor Change Order Request 3 through 5 and 7 through 9 signed and Staab quotes dated 08/07/2023; Email and Attachments from Contractor dated 07/05/2023 regarding Contract Times and associated costs; Email and Attachment from Contractor dated 08/01/2023 revised work log and cost explanation.**

CHANGE IN CONTRACT PRICE:
Original Contract Price <b>\$17,743,000.00</b>
Net Increase (Decrease) from previous Change Orders No. 1 to 5: <b>\$16,259.00</b>
Contract Price prior to this Change Order: <b>\$17,759,259.00</b>
Net increase of this Change Order: <b>\$154,269.00</b>
Contract Price with all approved Change Orders: <b>\$17,913,528.00</b>

CHANGE IN CONTRACT TIMES:
Original Contract Times: Substantial Completion: <b>April 15, 2024</b> Ready for final payment: <b>June 24, 2024</b>
Net change from previous Change Orders No. 1 to No. 5: Substantial Completion: <b>None</b> Ready for final payment: <b>None</b>
Contract Times prior to this Change Order: Substantial Completion: <b>April 15, 2024</b> Ready for final payment: <b>June 24, 2024</b>
Net increase (decrease) this Change Order: Substantial Completion: <b>3 Months</b> Ready for final payment: <b>2 Months</b>
Contract Times with all approved Change Orders: Substantial Completion: <b>July 15, 2024</b> Ready for final payment: <b>August 15, 2024</b>

RECOMMENDED:  
By:   
ARCH/ENGR (Authorized Signature)  
Date: 09/21/2023

APPROVED:  
By: \_\_\_\_\_  
OWNER (Authorized Signature)  
Date: \_\_\_\_\_

ACCEPTED:  
By: \_\_\_\_\_  
CONTRACTOR (Authorized Signature)  
Date: \_\_\_\_\_

Description:

1. Bulletin #12:

- a. B12.2 **Modifications to 24" MBRE Line and Adjust Existing Cleanouts to Proposed Grades.** Refer to Sheet C-103 (reissued). Add two 24-inch 45 degree elbows to allow for the MBRE line to be installed below existing lines. Add field verification of existing 6-inch final settling tank sludge/scum return line before installing 24" MBRE. Add cleanout for 6-inch chlorine contact drain line. Add the adjustment of two existing cleanouts. Delete 24-inch MBRE TEE as described within addendum item 2.14. Disregard fittings described within B11.2.

Reason: Existing conditions did not match record drawings. Adjustments to the alignment of the MBRE piping were required to accommodate existing ground buried drain lines.

Increase the contract in the amount of: \$26,725.00

2. Bulletin #13:

- a. B13.3 **Provide Sludge Mixing Control Description, Revise Sludge Pumping Control Descriptions, Revise Valve Numbering.** On Sheet EI-107, the piping configuration has been revised and valve numbering corrected to match the revisions to Sheet G-104. Specification Section 40 6196 has been revised to match the changes made to Sheet EI-107 and as noted in the RFI 049 response. Within Section 40 6196, revise the control programming as shown in paragraphs 1.14, 1.16, 1.17 & 1.26. Add the control programming for sludge mixing as shown in paragraph 1.28. On Sheet E-111, where the homerun from the Sludge Recirculation Pump starters to BCP-1 is shown, revise the conductors from ¾"C, 8#12 to ¾", 12#14. Eight of the conductors shall be used by BCP-1 for pump start/stop and pump running control signals. Four of the conductors shall be routed through BCP-1 and utilize the spare conductors shown in the Signal and Control Interconnection Diagram on Sheet E-141 to provide Recirculation Pump running signals to the MCP. Refer to Sheets E-111 (not reissued), E-141 (not reissued), EI-107 (reissued) and Specification Section 40 6196 (reissued).

Reason: The sludge recirculation, transfer, and mixing pumps all draw from a common suction line. To ensure that two separate pumping systems cannot be energized at the same time provisions were included in the programming of the pumping control panels to establish a pumping priority list.

Increase the contract in the amount of: \$29,483.00

- b. B13.4 **Remove the Existing 480V and 120/240V Feeders to the Garage Building and Replace with a New 480V Feeder and Stepdown Transformer.** Disconnect and remove the existing 480V feeder to MCC-C located in the Garage. Disconnect and remove the existing 120/240V feeder to LP-G in the Garage. Furnish and install a new 150A feeder from MCC-B to the Garage Building. At the Garage Building furnish and install a 150A/3P enclosed circuit breaker to function as a service disconnect for the building. Provide grounding as indicated on Sheet E-141. Within the Garage Building furnish and install a new 15kVA, 480-120/240V, 1ph transformer, T-G, to power panelboard LP-G. At MCC-C, furnish and install a new circuit breaker to provide 480V power to new transformer T-G. Refer to Sheets ED-101, ED-102, EC-101, E-111, E-112, E-141 and E-202 (reissued).

Reason: Requested by the Owner to correct existing electrical service feeding. The garage does not meet current required codes.

Increase the contract in the amount of: \$36,581.00

- c. **B13.5 Gas Regulator Added.** The Digester Boiler requires 1 psi natural gas. The meter size will be increased by the Owner to supply 2 psi natural gas. However, the following needs to be changed: Reduce pipe size from natural gas meter from 4" to 2" diameter piping; Reduce piping size from natural gas main to Digester Boiler from 1-1/2" to 1" diameter piping; Reduce piping size on roof to new natural gas regulator from 3" to 2" diameter piping; Provide a secondary natural gas regulator on the roof with an acceptable inlet pressure of 2 psi and an outlet pressure of 11" water column (CFH 2175); Added detail showing new natural gas pressure reducing station. Refer to Sheets PPP-203, PPP-204, and PP-801 (reissued).

Reason: The selected dual fired sludge boiler requires higher gas natural gas pressure than the remaining gas fired equipment in the facility. Provisions are included to increase the natural gas pressure at the service entrance gas and reduce gas pressure to operate the rest of the equipment within the facility.

Increase the contract in the amount of: \$5,307.00

- d. **B13.6 Restored SOO for AHU-1.** The Sequence of Operations (SOO) for the AHU-1 was removed during a previous change. The previous SOO was placed back on the Sheet M-803 with minor modifications. The Variable Air Volume Box Schedule was adjusted to aid the controls contractor. Refer to Sheets M-802 and M-803 (reissued).

Reason: Items from previous changes to the M-sheets were inadvertently omitted. The sheet was reissued with initial details for clarity.

Increase/Decrease the contract in the amount of: \*No Cost Change\* \$0.00

- e. **13.7 Backup Connections for Digester Heating.** If Boiler B-1 were to no longer operate, the Digester will need a backup heating source. Following are required: Provide 2" inlet outlet piping; Provide (4) 2" ball valves; Provide (2) temperature indicators, tees and ancillaries; Provide (1) flow meter. Additionally, added box showing all items that are included with the boiler. Moved the chemical treatment to a location where it will not require adjusting the boilers manufacturer's supplied components. Refer to Sheet M-803 (reissued).

Reason: The capability to be able to interconnect the boiler system with the digester heating system was provided, per Owner request. This modification will allow the Owner to be able to manually heat the digesters in the event of a dual fired boiler failure.

Increase the contract in the amount of: \$3,177.00

- f. **13.8 Modifications to the Existing Drain Lines for FST No. 1 and 2.** The yard piping associated with the three final settling tanks are to be modified as below. Not that if ground buried plug valves, VPG-SS-03 through 05, have been ordered and delivered to the site already, to be returned for \$5,000.00 credit per email dated 9/6/2023. Modifications: Delete FST No. 3 drain line and fittings – approximately 80' of 6" ground buried ductile iron drain line, 3-6" 45 degree elbows, 2-6" tees, 1-6" clean out assembly, 1-6" wye, 6" ground buried plug valves (VPG-SS-03) associated with FST No. 3 drain line, 2-6" pipe penetrations and link seal within FST No. 3. Delete FST No. 1 and 2 ground buried drain plug valves and accessories for VPG-SS-01. Relocate VPG-SS-02 as shown on P-501. Modifications to the previously issued CO 2, item B4.2 – deletion of VPG-SS-05 in favor of replacing the existing mud valve within the FST Sludge Well. The 6" mud valve with an ASA Class 125 Flange, VM-SS-01 shall be resilient seated with a non-rising stem. Provide hand wheel operated floor stand. The deeper ground buried plug valve was deleted to protect the shallower existing 16" SE line adjacent to the drain line. No cost change – note that VPG-SS-04 was relabeled to VPG-SS-01. Note that the existing piping was field verified adjacent to the Sludge Well by the Owner and is reflected within Sheet P-501. Add 6" plug valve VPG-SS-02. Refer to Sheets G-104 and P-501 (reissued).

Reason: Existing conditions did not match record drawings, which indicated drain lines for the existing final settling tanks. These lines are not present and the Owner elected to delete the proposed final settling tank number 3 drain line so that operations are similar for all three tanks.

Decrease the contract in the amount of: (\$19,886.00)

- g. 13.9 **Relocate NPW Backflow Preventer to Building Main.** Per G-105 two 2.5" diameter backflow preventers were shown for the NPW. This change relocates one backflow preventer to the building main water service and increases the size to 4" diameter. The remaining 2.5" diameter backflow preventer will be used for the NPW. The associated valving for the 4" backflow preventer will also need to be increased in size and relocated. Provide credit for a 2.5" backflow preventer and valves and additional cost for new backflow preventer and valves. A new detail was created to show the now singular NPW Backflow Preventer along with condensate drainage; Detail number 7 on Sheet PP-801. A new detail was created to show the relocated Building Main BFP along with condensate drainage; Detail number 6 on Sheet PP-801. References were added for the BFPs on Sheet PPP-202 within Bulletin 8. Sheet G-105 was updated to show the relocation of the BFP. Additionally, pipe sizes on G-105 for the new addition were changed to match what is previously shown on plumbing sheets. Refer to Sheets PP-801 and G-105 (reissued).

Reason: The potable and service water systems are to be protected against contaminating the City's water supply with adequate backflow preventors for both systems.

Increase the contract in the amount of: \$3,400.00

3. Contract Time Extension:

- a. **Contract Time Extension Granted.** Contractor is granted an extension for Substantial Completion to July 15, 2024, and an extension for Final Completion to August 15, 2024. The revised completion dates are shown on the first page of the change order. Contractor's long-term schedules showing these delays are attached. Anticipated costs to extend the Substantial Completion date are below. These costs may be adjusted at Substantial Completion to adjust for actual extension to meet Substantial Completion. Pricing excludes any additional bypassing required to accommodate these delays. Contractor reserves the right to request further extension pending actual delivery dates of electrical equipment.

Reason: Contractor has been advised of significant delays for delivery of the electrical panels from the manufacturer. The Contractor ordered the materials in a timely manner and the delivery delays are beyond their control.

Increase the contract in the amount of: \$69,482.00

**Total This Change Order \$154,269.00**