



Legislation Details (With Text)

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On agenda: 10/31/2019 **Final action:** 10/31/2019
Title: Proposed Change Order No. 1
Contract No. GLWA-CON-297
Fairview Sewage Pump Station Improvements
Sponsors: Cheryl Porter, Grant Gartrell
Indexes: Water Operations
Code sections:
Attachments:

Date	Ver.	Action By	Action	Result
10/31/2019	1	Board of Directors	Approved	Pass
10/9/2019	1	Operations and Resources Committee	Recommended for Approval	Pass

Proposed Change Order No. 1
Contract No. GLWA-CON-297
Fairview Sewage Pump Station Improvements

Agenda of: October 31, 2019

Item No.: **2019-367**

Amount:	Original Contract	\$28,891,000.00
	Proposed Change Order No. 1	3,654,540.00
	Total Contract Amount	\$32,545,540.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Sue F. McCormick
Chief Executive Officer
Great Lakes Water Authority

DATE: October 2, 2019

RE: **Proposed Change Order No. 1**
Contract No. GLWA-CON-297
Fairview Sewage Pump Station Improvements
Vendor: Weiss Construction Company, LLC

MOTION

Upon recommendation of Cheryl Porter, Chief Operating Officer - Water and Field Services, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into Contract No. CON-297 Change Order No. 1 “Fairview Sewage Pump Station Improvements” with Weiss Construction Company, LLC, at an increased cost of \$3,654,540.00 for a total cost not to exceed \$32,545,540.00, and an increased duration of 224 days for a total contract duration of 1,174 days;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

Construction Contract No. GLWA-CON-297 involves comprehensive improvements to the Fairview Sewage Pumping Station (Fairview Station) located in Detroit in the Joseph Berry subdivision. These improvements generally include installing new sewage pumping units, electrical switchgear, primary electrical transformers, motor control centers, motor controls, instrumentation, controls, water control gates, building heating and ventilating equipment, roofing replacement, structural work, and architectural improvements to the building. The Fairview Station was constructed in 1913 with some upgrades in 1950 and 1998 and is a critical pumping station as it lifts raw sewage flows into the Detroit River Interceptor (DRI) from several major upstream sewer tributaries, including Fox Creek, East Jefferson, northeast Wayne County, and southwest Macomb County. Firm and total pumping capacities of the Fairview Station are 200- and 240-million gallons per day (mgd), respectively.

The start work date for Contract No. CON-297 is January 7, 2019 with the dates for substantial and final completion being May 16, 2021 and August 14, 2021, respectively. Water levels in the Great Lakes and the Detroit River are at near historic highs and have caused abnormally high dry weather flows in the sewer interceptor system. Normal dry weather flows seen at the Fairview Station average about 80 mgd with peak dry weather flows reaching about 120 mgd. Dry weather flows over the past 6 months, however, have been consistently above 150 mgd and are frequently reaching 200 mgd. These dry weather flows are unprecedented and have not been seen before. Construction of the improvements to the Fairview Station depend on a temporary bypass sewage pumping station to be constructed and operated by the CON-297 Contractor. The temporary bypass sewage pumping station, however, is specified to be a 120 mgd station based on historic dry weather flows. Until dry weather flows return back to normal, substantial construction work at the Fairview Station cannot proceed. This includes installing new sewage pumping units.

An alternative to proceeding with the installation of new sewage pumping units under the abnormally high dry weather flows involves increasing the capacity of the temporary bypass sewage pumping station from 120 mgd to 200 mgd. This will allow the construction work to proceed as it will be able to

bypass dry weather flows up to 200 mgd.

Concurrently, there is work being performed on the Detroit River Interceptor (DRI) under Contract No. DB-226. This work requires holding up flow during the day and pumping down at night. With the original 120 mgd capacity, work under DB-226 would be limited due to the reduction in available pumping capacity from 240 mgd to 120 mgd. This proposed change order to construction contract CON-297 would substantially improve the available work time for contract DB-226. Assuming a dry weather flow of 80 mgd, the 200 mgd capacity will allow daily work on the DRI (with approximately 8 hours of recovery time pumping) as opposed to a 24-hour recovery time pumping at a rate of 120 mgd.

Lastly, it should also be noted that due to the old age and poor condition of the existing station equipment, there is one pumping unit permanently out of service. This out-of-service unit is beyond repair. If another pump is lost, then the total pumping capacity of the station will drop significantly and will put the Fairview Station in danger of not being able to pump normal dry weather flows due to its poor condition.

JUSTIFICATION

Abnormally and excessively high dry weather flows exceed the planned design capacity of the temporary sewage bypass pumping station. Delaying the installation of the new pumping units at Fairview Station while waiting for dry weather flows to subside to normal flows poses the risk of not being able to pump dry weather flows in the event that another sewage pump permanently fails at Fairview Station. Increasing the capacity of the temporary bypass sewage pumping station, which is the scope of this proposed change order, will allow the project to progress and see that the new pumping units are installed as soon as practically possible.

PROJECT MANAGEMENT STATUS

Original Contract Time	950 Days
Proposed Change Order No. 1	224 Days
New Contract Time	1,174 Days
New Date for Substantial Completion of the Contract December 25, 2021	
New Date for Final Completion of the Contract March 25, 2022	

PROJECT ESTIMATE

Original Contract Price	\$ 28,891,000.00
Proposed Change Order No. 1	3,654,540.00
New Contract Total	\$ 32,545,540.00

FINANCIAL PLAN IMPACT

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

Funding Source: Wastewater Construction Bond

Cost Center: Field Services Engineering

Expense Type: Design (5421-892211.000-616900-232001)

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

Fiscal Year

FY 2019 Budget	\$ 5,506,000.00
FY 2020 Budget	17,506,000.00
FY 2021 Budget	<u>4,397,000.00</u>
Financial Plan Estimate	\$ 27,409,000.00
Proposed Contract Award	<u>32,545,540.00</u>
Negative Estimating Variance	\$ (5,136,540.00)

The negative estimating variance will be funded from capital reserves.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on October 9, 2019. 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.