



Legislation Text

File #: 2022-005, Version: 1

Proposed Change Order No. 2

Contract No. GLWA-DB-226

Repair and Rehabilitation of Detroit River Interceptor from Alter Road to WRRF

CIP #222002

Agenda of: January 26, 2022

Item No.: **2022-005**

Amount:	Original Contract:	\$19,845,500.00
	Change Order No. 1	28,148,335.00
	Proposed Change Order No. 2	38,237,025.00
	Total Contract Amount	\$86,230,860.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Suzanne R. Coffey, P.E.
Interim Chief Executive Officer
Great Lakes Water Authority

DATE: January 5, 2022

RE: Proposed Change Order No. 2

Contract No. GLWA-DB-226

Repair and Rehabilitation of Detroit River Interceptor from Alter Road to WRRF

Vendor: Jay Dee Contractors, Inc.

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 Interim Chief Executive Officer (ICEO) to **enter into Contract No. GLWA-DB-226, Proposed Change Order No. 2 “Repair and Rehabilitation of Detroit River Interceptor from Alter Road to WRRF” with Jay Dee Contractors, Inc., at an increased cost of \$38,237,025.00 for total cost not to exceed \$86,230,860.00 and an increased duration of 1,096 days for a total duration of 2,922 days;** and authorizes the ICEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

The GLWA Conveyance System consists of a network of sewers which collect and transfer wastewater to three major interceptors that direct flow to treatment at the Water Resource Recovery Facility (WRRF). There are three major interceptors: the Detroit River Interceptor (DRI), Northwest Interceptor (NWI) and North Interceptor East Arm (NIEA). The DRI runs parallel to the Detroit River and is approximately 13 miles long with a pipe diameter that varies from 8 feet at Alter Road to 16 feet at the WRRF. The DRI carries about 36% of the total flow to WRRF. NWI runs parallel to the Rouge River. The pipe sizes are up to 13.5 feet in diameter, and it carries about 35% of the flow. NIEA is 15 miles long and works as a relief to the DRI. The NIEA pipe size varies from 12 feet to 17.5 feet in diameter, and it carries about 29% of the flow. The DRI is the oldest of the three interceptors and was constructed in 1927.

The need and original scope for the DB-226 project was based on work performed under previous DWSD contracts and GLWA contracts CON-149, CS-068, and CON-183. Inspections were performed utilizing the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) industry standard and used to form the basis of the repair work. The work was divided into four reaches: Reach 1 - Alter Road to Meldrum Road - about 3.8 miles; Reach 2A Not-in-Contract (NIC) - Meldrum Road to West of McDougal Street - about 2.2 miles; Reach 2 - West of McDougal Street to Rivard Street - about 1 mile; Reach 3 - Rivard Street to WRRF - about 6 miles.

The original scope of work was estimated at approximately \$29 million based on the available information in 2017. The Contract was awarded to Jay Dee Contractors, Inc. for \$19.8 million and work began in May 2018. To date, there has been one Change Order No. 1 approved by the Board for the addition of \$28.1million. Change Order No. 1 memorialized the guaranteed maximum price (GMP) negotiations for Reach 1, 2, and 2A, the NIEA-DRI maintenance connector tunnel, and various improvements to the DRI, including flow control structures and manhole structure and cover improvements. Change Order No. 1 defined the maximum cost to GLWA for all work envisioned for Reaches 1 and 2, the NIEA-DRI connector tunnel, various improvements, and delays due to wet weather and the historic high Detroit River elevations of 2018 and 2019, and adjustments to quantities of the work.

This Change Order No. 2 is being submitted to the Board to authorize Reach 3 work and to extend the contract time for an additional 36 months. This work is being funded through the State of Michigan Revolving Loan Fund (SRF Project No. 5655-01).

This Change Order No. 2 will memorialize the final GMP negotiations for Reach 3 of the DRI and will bring the project upper limit in line with all work envisioned for Reach 3A/3B/3C. An allowance of \$6 million is included for delays due to wet weather and high river, and additional quantities above bid amounts due to lack of inspection for some segments. An additional allowance of \$8 million is included for constructing an as-needed flushing system for the upper reaches of the DRI using Fox Creek to prevent sediment accumulation. The overall work recommended for authorization is \$38.2 million which brings the contract upper limit to \$86.2 million. In addition to these funds, a time extension of 36 months is also included in this Change Order No. 2. This will extend the current final completion date from May 24, 2023 to May 24, 2026.

Attached for your reference is an excerpt of a 2021 CIP and Charges Roll Out presentation, "Highlighted Field Services and Systems Control Projects," that was presented to the Board Capital Planning Committee on October 19, 2021, and at a Charges Roll Out Meeting on November 9, 2021.

JUSTIFICATION

The DRI is a critical component of the overall GLWA conveyance system, as it conveys approximately 55% of the Detroit drainage and 36% of the total GLWA flow to the WRRF. Maintaining a reliable and efficient DRI is a key factor in maintaining the GLWA wastewater conveyance system and a major component of mitigating historical Combined Sewer Overflow (CSO) discharges to the Detroit River. Furthermore, major structural failures of large interceptors such as the DRI can create large sinkholes that cause major destruction to surface structures such as roads, homes, buildings, other utilities, and other infrastructure.

A Closed-Circuit Television (CCTV) inspection and Pipeline Assessment and Certification Program (PACP) condition assessment for several reaches of the DRI was completed in 2016. Several reaches of this inspection raised concerns due to high PACP ratings, indicating structural and corrosion issues within the interceptor. Stretches of the DRI had again manual entry inspections completed on them in 2017 and, more recently, as part of DB-226. Still there are portions of DRI close to the WRRF that have not been inspected. The maintenance/crossover tunnel between NIEA and DRI that was added under this contract will enable the inspection and repair of portions of Reach 3 which has not been inspected since being placed in service.

PROJECT MANAGEMENT STATUS

Original Contract Time	1,826 days	(05/24/2018 - 05/24/2023)
Change Order No. 1	0 days	
Proposed Change Order No. 2	1,096 days	(05/25/2023 - 05/24/2026)
New Contract Time	2,922 days	(05/24/2018 - 05/24/2026)

PROJECT ESTIMATE

Original Contract Price	\$19,845,500.00
Change Order No. 1	28,148,335.00
Proposed Change Order No. 2	38,237,025.00
New Contract Total	\$ 86,230,860.00

FINANCIAL PLAN IMPACT

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

Funding Source: Wastewater Construction Fund

Cost Center: Wastewater Field Engineering

Expense Type: Construction (5421-892211.000-616900-222002)

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

Original Contract Price	\$19,845,500.00
Change Order No. 1	28,148,335.00
Proposed Change Order No. 2	<u>38,237,025.00</u>
New Contract Total	86,230,860.00
Amended Financial Plan Estimate	<u>76,752,000.00</u>
Estimating Variance	(\$9,478,860.00)

The award of this change order to the vendor creates a negative estimating variance of \$9,478,860.00. This variance will be funded from capital reserves. Please note that DRAFT 2 of the 2023 - 2027 Capital Improvement Plan has \$76,752,000.00 (\$55,724,000.00 planned for contract DB-226 and \$21,028,000.00 of future allocation).

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on January 12, 2022. 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.