



Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street
Chicago, IL 60611

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Title: Authority to increase Contract 15-830-3D Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment at Lockport Powerhouse, Stickney Service Area, to IHC Construction Companies, L.L.C. in an amount of \$920,932.03, from an amount of \$12,153,854.05, to an amount not to exceed \$13,074,786.08, Account 401-50000- 645720, Purchase Order 4000070

Sponsors:

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Attachments: 1. Change Order Log - Purchase Order 4000070

Date	Ver.	Action By	Action	Result
2/18/2021	1	Board of Commissioners	Approved	Pass

TRANSMITTAL LETTER FOR BOARD MEETING OF FEBRUARY 18, 2021

COMMITTEE ON PROCUREMENT

Mr. Brian A. Perkovich, Executive Director

Authority to increase Contract 15-830-3D Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment at Lockport Powerhouse, Stickney Service Area, to IHC Construction Companies, L.L.C. in an amount of \$920,932.03, from an amount of \$12,153,854.05, to an amount not to exceed \$13,074,786.08, Account 401-50000- 645720, Purchase Order 4000070

Dear Sir:

On June 6, 2019, the Board of Commissioners authorized the Director of Procurement and Materials Management to award Contract 15-830-3D Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment at Lockport Powerhouse, Stickney Service Area, to IHC Construction Companies, L.L.C., in an amount not to exceed \$12,075,000.00, plus a five (5) percent allowance for change orders in an amount of \$603,750.00, for a total amount not to exceed \$12,678,750.00. The scheduled contract completion date is August 12, 2022.

As of February 5, 2021, the attached list of change orders has been approved. The effect of these change orders resulted in an increase in the amount of \$78,854.05 from the original amount awarded of \$12,075,000.00. The current contract value is \$12,153,854.05. The prior approved change orders reflect a 0.65% increase to the original contract value.

This contract includes installation of two temporary cofferdams. The cofferdams are constructed in wet conditions from the surface of the water down to the bottom rock of the channel. Once constructed, the channel water is pumped out allowing a confined dry area to perform work. The cofferdams will permit construction in the tailrace areas of Bay 1 and Bay 2 in two phases. The construction work includes a new base slab, walls, and deck in each bay on the south side of the Powerhouse with new isolation stop logs. The

existing old isolation stop logs do not function adequately and thus major rehabilitation work on the electricity generating turbines is not possible. The new stop logs will allow complete isolation from the tailrace side of the channel and allow for necessary major rehabilitation work to be performed on the turbines.

Following installation of the Phase 1 cofferdam, the area was dewatered and the rock was excavated to the bearing elevation for the new Bay 1 structure. At that time, it was discovered that substantial water was entering the cofferdam via voids under the existing Powerhouse and fissures in the rock substrate. The volume of leakage encountered prevents work on the new structure and requires continuous pumping to keep the cofferdam emptied. After consulting with a geotechnical engineer, the District issued a request for proposal to pressure grout the fissures and voids in an attempt to reduce the water infiltration to acceptable levels. Prior to submitting a proposal for the work, the contractor proceeded at his own risk and performed pressure injection after determining that it was in the best interest of the contract. Costs for performing the work were tracked on Time and Material Daily Records (TMDRs). The grouting operation stopped some of the leaks. However, water continues to find alternate paths into the cofferdam via previously unidentified cracks and fissures in the rock.

In order to reduce the leakage into the cofferdam and proceed with the contract, additional remediation is required. Shotcreting and grouting at the northwest corner of the west bank is required to stabilize it and prevent additional rock from sloughing into the cofferdam. A new concrete bottom seal slab needs to be installed over the fractured rock base inside of the cofferdam, and additional pressure grout injection and rock excavation are required to install and seal the slab.

The contractor submitted a cost proposal under COR-4 for an extra in the amount not to exceed \$920,932.03 for performing extra work in Phase 1, Bay 1. The cost proposal includes \$384,267.74 for pressure grouting and other related work which was already performed in an effort to control water infiltration into the Phase 1, Bay 1 cofferdam. The additional work in the proposal includes additional pressure grouting and shotcreting at the northwest corner of the excavation to prevent rock from sloughing into the excavation, a concrete bottom seal slab to control water infiltration into the cofferdam via cracks and fissures in the underlying rock, additional rock excavation needed to install the bottom slab, additional pressure grouting for the bottom slab, and additional dewatering pumping for an amount not to exceed \$536,664.29. The proposal provides for up to 10 days of pressure grouting, excavation of up to 118 cubic yards of rock, and up to 42 days of pumping to be paid on a time and material basis and tracked via TMDR. The actual payments to the contractor for these items will be made based solely on approved TMDRs. The engineer reviewed the proposal, found it to be reasonable, and stated that the Engineering Department would recommend its approval.

Based on site conditions, a future change order may be required to perform pressure grouting, provide a seal slab, and perform associated work necessary to control water infiltration in the second cofferdam for Phase 2, Bay 2.

This change order is in compliance with the Illinois Criminal Code since the change is due to circumstances not reasonably foreseeable at the time the contract was signed, and is in the best interest of the District.

It is hereby recommended that the Board of Commissioners authorize the Director of Procurement and Materials Management to execute a change order to increase Contract 15-830-3D in an amount of \$920,932.03 (7.58% of the current contract value), from an amount of \$12,153,854.05, to an amount not to exceed \$13,074,786.08.

Funds are available in Account 401-50000-645720.

Requested, Catherine A. O'Connor, Director of Engineering, ECB:GR
Recommended, Darlene A. LoCascio, Director of Procurement and Materials Management
Respectfully Submitted, Barbara J. McGowan, Chairman Committee on Procurement
Disposition of this agenda item will be documented in the official Regular Board Meeting Minutes of the Board of Commissioners for February 18, 2021

Attachment