

**AGENDA ITEM EXECUTIVE SUMMARY**

Agenda Item number: 6.d

Title:

**Recommendation to Approve Phosphorus Removal and Digester Improvements Project Change Order No. 1 to IHC for Internal Digester Coating**

Presenter:

Tim Wilson

Meeting: Government Services Committee

Date: February 26, 2018

Proposed Cost: \$28,308.41

Budgeted Amount: \$370,538.47  
(Loan Contingency)Not Budgeted: ☐**Executive Summary** (if not budgeted please explain):

In 2014, the north digester at the main waste water treatment plant was drained in preparation for emergency steel repairs. Because the digester needed to be drained to make the emergency repairs, staff took the opportunity to perform an ocular inspection of the internal coating of the digester in the lower portion of the digester where the liquids are normally present. The results of the inspection were favorable and identified that only the top ten percent of the coating, in an area where the gases are normally located was visually in need of recoating. Consequently when the design process started for the Phosphorus and Digester plan it was anticipated that it would only be necessary to recoat the upper 10% of the digester which typically contains the corrosive gases. Therefore approximately \$20,000 was included in the project budget to install internal coatings of the digesters.

In 2014 it cost the city \$119,000 to drain, clean, and dispose the solids to make the emergency repair and conduct the coating inspection for just for one digester. Therefore the decision was made to forego the process of draining each digester and inspecting the internal coating and steel before designing the current improvements and rely on the data gained from the 2014 inspection. This was done to save an estimated \$240,000 in costs associated with cleaning, dewatering, and sludge disposal.

As part of the construction contract the general contractor (IHC) has drained, cleaned and completed a structural review of the digester tank, its internal coating and other apparatus with a third party engineer. IHC began the project working in the south digester, that digester has never been drained and inspected. The steel in the south digester was found to be in good condition with no repairs needed. The internal coating of this tank, however, was found to be in very poor condition and in need of complete replacement. City staff, IHC and our consulting engineer reviewed the internal conditions as well as the information from the third party review and determined a complete internal coating replacement was warranted.

The City requested the contractor obtained three quotes for the work and they have provided the City with those estimates. City staff is making the recommendation to approve the change order for the internal painting of the digester.

**Attachments** (please list):

\* Change Order #1 \* Summary of Change Order #1 \* Summary of Allowances \* Summary of Loan Contingency Remaining

**Recommendation/Suggested Action** (briefly explain):

Recommendation to Award Change Order No. 1 to IHC in the amount of \$28,308.41.

## CHANGE ORDER NO. 1

Date: February 20, 2018

Date of Agreement: September 25, 2017

Project: City of St. Charles  
2017 Phosphorus Removal and Digester Improvements

Job Number: STC-100

Owner: City of St. Charles  
2 East Main Street  
St. Charles, Illinois 60174

Contractor: IHC Construction Companies, LLC  
1500 Executive Drive  
Elgin, Illinois 60123

The following changes are hereby made to the CONTRACT DOCUMENTS: Work associated with Contract Modification Requests (CMR's) #1 thru #7.

Justification: See attached CMR's.

Original Contract Price	\$13,294,896.00
Amount of Previous Change Order(s)	\$0.00
Current Contract Price adjusted by Previous Change Order(s)	\$13,294,896.00
Change in Contract Price Due to this Change Order	<b>\$28,308.41</b>
Contract Price Including this Change Order	\$13,323,204.41

Original Contract Time	530	Calendar Days
Previous Changes to Contract Time	0	Calendar Days
Current Contract Time adjusted by Previous Change Order(s)	530	Calendar Days
Change to Contract Time Due to this Change Order	0	Calendar Days
Contract Time Including this Change Order	530	Calendar Days

Approvals:

Requested by:

Jerry Ruth, P.E.  
Project Engineer  
Trotter and Associates, Inc.

Recommended by:

Tim Wilson  
Environmental Services  
Manager  
City of St. Charles

Ordered by:

Hon. Raymond Rogina  
Mayor  
City of St. Charles

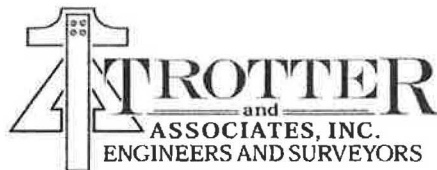
Accepted by:

Brian Rausch  
Project Manager  
IHC Construction Companies,  
LLC

2/20/2018

Change Order No. 1

Trotter and Associates, Inc.  
STC-100



**City of St. Charles - 2017 Phosphorus Removal and Digester Improvements  
Summary of Change Order #1**

<b>CMR No.</b>	<b>Description</b>	<b>Amount</b>	<b>Days</b>
1	Remove the supply of the Engineer's Trailer, furniture, power/comm., etc.	\$ (9,693.00)	0
2	Furnish an enclosure for the FeCl3 feed system with more work space	\$ 3,075.45	0
3	Fermenter relocation (\$1,959.69 from Conflicts Allowance)	\$ -	0
4	Add control contacts and wiring between SS tank mixer CP and PLC	\$ 996.19	0
5	Add emergency stops for the boilers (\$4,618.69 from Conflicts Allowance)	\$ -	0
6	Additional Coating within S. ESAD (\$75,000.00 from ESAD Repair Allowance)	\$ 38,840.50	0
7	Adjust base elevation for process control building	\$ (4,910.73)	0
<b>TOTAL FOR CHANGE ORDER #1</b>		<b>\$ 28,308.41</b>	<b>0</b>

Original Contract Price	\$ 13,294,896.00
Previous Change Orders	\$0.00
Current Contract Price adjust by Previous Change Orders	\$ 13,294,896.00
Contract Price due to this Change Order will be adjusted by	\$ 28,308.41
Contract Price including this Change Order	\$ 13,323,204.41

	<b>Substantial Completion</b>	<b>Final Completion</b>
Original Completion Dates	February 6, 2019	March 8, 2019
Previous Contract Time Adjustment	0	0
Current Completion Dates adjusted by Previous Change Orders	February 6, 2019	March 8, 2019
Contract Time due to this Change Order to be Adjusted by	0	0
Completion Dates including this Change Order	February 6, 2019	March 8, 2019

**City of St. Charles - 2017 Phosphorus Removal and Digester Improvements**  
**Summary of Allowances**

<b>CMR No.</b>	<b>Description</b>	<b>Conflict Allowance</b>	<b>ESAD Repair Allowance</b>
1	Remove the supply of the Engineer's Trailer, furniture, power/comm., etc.		
2	Furnish an enclosure for the FeCl3 feed system with more work space		
3	Fermenter relocation (\$1,959.69 from Conflicts Allowance)	\$ 1,959.69	
4	Add control contacts and wiring between SS tank mixer CP and PLC		
5	Add emergency stops for the boilers (\$4,618.69 from Conflicts Allowance)	\$ 4,618.69	
6	Additional Coating within the ESAD		\$ 75,000.00
7	Adjust base elevation for process control building		
	<b>TOTAL ALLOWANCE AMOUNT UTILIZED</b>	<b>\$ 6,578.38</b>	<b>\$ 75,000.00</b>

	<b>Conflict Allowance</b>	<b>ESAD Repair Allowance</b>	<b>Total</b>
Original Allowance Value	\$ 40,000.00	\$ 150,000.00	\$ 190,000.00
Allowance Utilized by Change Orders	\$ 6,578.38	\$ 75,000.00	\$ 81,578.38
Allowance Amount Remaining	\$ 33,421.62	\$ 75,000.00	\$ 108,421.62



**City of St. Charles - 2017 Phosphorus Removal and Digester Improvements  
Summary of Loan Contingency Remaining**

<b>Description</b>	<b>Total</b>	<b>Loan Eligible</b>
Design Engineering	\$ 921,500.00	\$ 921,500.00
Construction Engineering	\$ 816,000.00	\$ 816,000.00
Construction - IHC Construction Company, L.L.C	\$ 13,294,896.00	\$ 13,294,896.00
Contingency	\$ 398,846.88	\$ 398,846.88
<b>GRAND TOTAL</b>	<b>\$ 15,431,242.88</b>	<b>\$ 15,431,242.88</b>

Original Contract Price	\$ 13,294,896.00
Executed Change Orders	\$ -
Current Contract Price adjust by Previous Change Orders	\$ 13,294,896.00
Contract Price due to this Change Order will be adjusted by	\$ 28,308.41
Contingency Remaining under Loan Limit	\$ 370,538.47
Will we exceed the contingency with the next change order?	<b>NO</b>
Percentage of contingency used up by current change orders	<b>7%</b>