

**CITY OF ANN ARBOR
UTILITIES DEPARTMENT CHANGE ORDER
CHANGE ORDER NO. 1**


Date: November 23, 2020 Encumbrance Order No. _____ Change Order No. 1

File No. 19003 Contractor RAM Construction Services of Michigan, Inc.

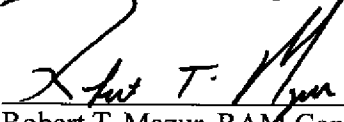
Contract Name WTP 2018 Architectural and Structural Repairs

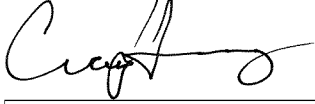
No.	Description of Change	Quantity	Unit	Unit Price	Addition (Deduction)
1	Additional Work Items and Project Costs	NA	NA	NA	\$ 216,791.95
Sub-total from page 2					\$ 216,791.95
Net Addition or (Deduction) this Change Order No. 1					\$ 216,791.95
Contract amount ± previous Change Orders					\$ 2,156,037.65
NEW TOTAL CONTRACT AMOUNT					\$ 2,372,829.60

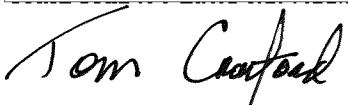
Completion: Final Completion – June 30, 2021

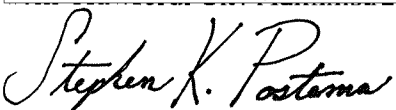
Recommended by:  Date 11/30/2020
 Glen Wiczorek, P.E., Sr. Utilities Engineer

The Contractor agrees to the changes and prices outlined above.

Accepted by:  Date 11/30/20
 Robert T. Mazur, RAM Construction Services of Michigan, Inc.

Approved by:  12/01/2020 Date _____
 CRAIG HUPY, PUBLIC SERVICES AREA ADMINISTRATOR

Approved by:  12/06/2020 Date _____
 TOM CRAWFORD, CITY ADMINISTRATOR

Reviewed by:  12/04/2020 Date _____
 STEPHEN POSTEMA, CITY ATTORNEY

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Project: WTP 2018 Architectural and Structural Repairs

Bid Number: 4553

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Description	Unit Price	Quantity	Value Change	Contract Time Extension (Consecutive Calendar Days)
1) Unused Allowable Quantities	1	LS	(\$290,530.05)	
2a) Additional Roof Areas (WTP)	1	LS	\$62,281.00	
2b) Additional Roof Area (Pump Stations)	1	LS	\$34,699.00	
3) Precast Panel Restoration	1	LS	\$44,812.00	
4) Concrete Repairs (Thickener and Filter 21)	1	LS	\$85,530.00	
5) Safety Access Ladders	1	LS	\$60,000.00	
6) Air Handling Unit Replacement	1	LS	\$220,000.00	
7) Time Extension for Project Final Completion				June 30, 2021
Final Total Value of Changes			\$ 216,791.95	

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Change Item Explanation

1. **Unused Allowable Quantities:** This project was set-up as a unit price contract with quantities estimated during study and design phase. On projects of this nature, estimating the extent of repairs is challenging due to limited ability to assess conditions of building construction behind brick/masonry façade, through entire heights of building and below roofing, particularly with buildings vintages ranging from 1938 to 2015.

Allowable quantities in the bid form were provided to cover unforeseen repairs frequently encountered in structural repair projects, including hazardous material abatement allowances. This amount is the balance of available project funds broken down as follows:
 - a. Brick Rebuild and Replacement Allowance
 - b. Masonry Repointing Allowances
 - c. Routing/Sealing Allowances
 - d. Hazardous Material Abatement
2. **Additional Roof Areas at the WTP (Items 2a and 2b):** There were multiple WTP roof area replacements and outstations that were included in the original bid documents, but not included in the original contract due to budget limitations at time of award (Feb 2019). As the Contractor nears completion of original contract scope, high priority roof replacements can be completed using unused contract allowances and funds (see Item 1). This amount compensates the contractor for labor, equipment, and materials, and all related work to replace the chemical feed room roof, calciner stairwell roof, portions of the administration building roof, S. Industrial Pump Station and Liberty Pump Station.
3. **Precast Concrete Panel Patching and Repairs (Calciner Building and Filter Press Building):** The restoration of the precast concrete panels on the Calciner Building and Filter Press Building was included in the original bid documents, but not included in the original contract due to budget limitations at the time of award. The extent of deterioration was investigated more closely during construction and high priority repairs can be completed using unused contract allowances and funds (see Item 1).
4. **Concrete Repairs:** Severe concrete deterioration of the Sludge Thickener No. 2 and Filter 21 have been identified in recent condition assessments. The thickener and filter are both critical assets and treatment infrastructure. Concrete repairs are necessary to extend the useful life of both structures. This amount compensates the contractor for labor, equipment, and materials to perform demolition of failed concrete, rebar coating, placing new concrete and waterproofing of Thickener No. 2, as well as demolition of failed concrete, preparation, and concrete patching of Filter 21.
5. **Safety Access Ladders:** While performing masonry repair and roof replacement through the various additions of the WTP, several existing ladders were identified as being in poor condition and/or not meeting current safety standards. In addition, other areas that have no ladder access were identified as needing a ladder for maintenance access. This amount compensates the contractor for labor, equipment, and materials to furnish and install safety access ladders at 11 locations throughout the WTP.

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6. **Air Handling Unit Replacement:** The roof-top air handling unit (AHU-5) provides ventilation to the WTP Control Room, Process Laboratory and connecting spaces. This unit has failed multiple times and has reached the end of its useful life. This amount compensates the contractor for labor, equipment, and materials to furnish and install a replacement unit.
7. **Time Extension:** An extension of the Final Completion Date to June 30, 2021 is necessary to accommodate delays due to the impact of the on-going COVID-19 public health situation, and to accommodate the additional scope and weather necessary to complete the additional work.



November 25, 2020

Ann Arbor Water Treatment Plant
919 Sunset Rd
Ann Arbor, Michigan 48103

Attention: Ms. Emily Schlanderer
eschlanderer@a2gov.org

Regarding: Ann Arbor Water Treatment Plant
Additional Work Areas
Ann Arbor, Michigan

Dear Ms. Schlanderer,

In answer to your request, we propose to furnish all labor, materials, equipment, supervision, and insurance to complete the following work on the above captioned project.

Scope of Work – Additional Roofing Replacement #1:

- Carefully remove the existing roofing assemblies at roof areas P-4A and CA-2.
- Reinstall roofing, per the contract drawings and specifications, at these two (2) areas.
- Remove all work-related debris and haul offsite.

The above scope can be completed for a lump sum amount of.....**\$38,961.00**

- Total Time to Complete Work = **64 Working Hours**
 - Skilled RAM Labor 64 Hours @ \$85.00 / Hour: **\$ 5,440.00**
- Material
 - Stainless Steel Flashing, Mortar, Etc.: **\$ 1,200.00**
- Subcontractors
 - Quality Roofing: **\$29,834.00**
 - Subcontractor Mark-up [5%]: **\$ 1,491.00**

Total Labor and Material	= \$ 6,640.00
15% OH/P	= \$ 996.00
Total Subs	= \$31,325.00
TOTAL ADDITIONAL WORK	= <u>\$38,961.00</u>

Scope of Work – Additional Roofing Replacement #2:

- Carefully remove the existing roofing assemblies at roof areas AD-2 & AD-3.
- Reinstall roofing, per the contract drawings and specifications, at these two (2) areas.
- Remove all work-related debris and haul offsite.

The above scope can be completed for a lump sum amount of.....**\$23,320.00**

	Description	Units	Quantity	Extended Cost
1.1	General Conditions	LS	1	\$2,200.00
1.2	Mobilization	LS	1	\$2,200.00
7.2	Roofing Replacement AD-2 & AD-3	LS	1	\$18,920.00

Scope of Work – Additional Roofing Replacement #3:

- Carefully remove the existing roofing assemblies at South Industrial Pumping Station.
- Reinstall roofing, per the contract drawings and specifications, at this area.
- Remove all work-related debris and haul offsite.

The above scope can be completed for a lump sum amount of.....**\$34,699.00**

	Description	Units	Quantity	Extended Cost
1.1	General Conditions	LS	1	\$2,890.00
1.2	Mobilization	LS	1	\$2,890.00
7.1	Window/Door Sealants	LF	202	\$1,929.00
7.2	Roofing Replacement IP-1	LS	1	\$26,990.00

Scope of Work – Concrete Patching:

- Provide concrete patching at delaminated areas of concrete/precast walls at Filter Press and Calciner Buildings.
- Provide crack injection repair at cracks in concrete/precast walls at Filter Press and Calciner Buildings.
- Remove and replace sealant at precast panel joints at Filter Press and Calciner Buildings.
- Remove all work-related debris and haul offsite.

The above scope can be completed for a lump sum amount of.....**\$44,812.00**

	Description	Units	Quantity	Extended Cost
1.1	General Conditions	LS	1	\$3,734.00
1.2	Mobilization	LS	1	\$3,734.00
3.1	Concrete Patching - R12 Repair	SF	40	\$3,740.00
3.2	Conc. Crack Injection - R13 Repair	LF	80	\$7,780.00

3.3	Precast Sealant Joints - R8 Repair	LF	3,663	\$25,824.00
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Scope of Work – Thickener Concrete Work:

- The top ring wall of the thickener has experienced extreme concrete deterioration on the lower half of the upper ring wall. We propose to perform necessary concrete demo on this portion and supplement new epoxy coated rebar where existing reinforcement has severely deteriorated. Once the failed concrete has been removed and the steel reinforcement has been cleaned and coated with an epoxy corrosion inhibitor, we will install wood formwork and place back concrete with a shotcrete application. Necessary protection will be implemented to ensure that there is no construction debris able to enter the thickener. This scope of work will be completed in three (3) phases around the tank.
- We will also seal up the construction joints with a urethane caulk sealant in two (2) locations around the entire top ring to control future cracking.
- Additional concrete repairs and sealants were necessary inside of the trough and outer ring above the concrete repairs.

The above scope can be completed for a lump sum amount of.....**\$52,690.00**

Scope of Work – Thickener Trough Waterproofing:

- Inside the weir trough, we propose to power wash to remove calcium, dirt, and any other containments present.
- We performed a sample area that we power washed and it will not remove all that is needed to ensure a proper surface to bond to in the bottom of the trough. We will need to utilize grinder to remove the build-up materials to achieve a good surface for the waterproofing to adhere to.
- Once all surface contaminants have been removed, we will power wash the trough again.
- Once the areas are dry, we will install a 8-10 mil coat of Sikalastic MT Primer.
- We will then install two (2) coats of Sikaguard 7600 VG to complete the waterproofing system.

The above scope can be completed for a lump sum amount of.....**\$18,840.00**

Scope of Work – Filter 2I Concrete Repairs:

- Move the filter media away from the deteriorated wall in the filter tank.
- Sawcut and demo all deteriorated concrete in filter tank on one wall only where deterioration is evident. We will demo around the existing steel reinforcement in the wall for our repair material to grab onto.
- Prep the steel and coat with a corrosion inhibitor.
- Install necessary formwork and bracing.
- Mix and pour high strength concrete bag material.

- Remove formwork, patch any imperfections, and clean up all construction related debris.

The above scope can be completed for a lump sum amount of.....**\$14,000.00**

Scope of Work – Roof Safety Ladder Installation:

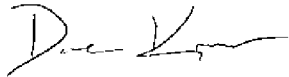
- Furnish and install safety ladders at eight (8) locations throughout the Water Treatment Plant facility.
 - Four (4) Fixed Vertical Ladders with Walk-Through
 - Four (4) Fixed Vertical Ladder with Parapet Return

The above scope can be completed for an allowance of.....**\$60,000.00**

Should you have any questions please do not hesitate to contact me.

Sincerely,

RAM Construction Services of Michigan, Inc.



Dave Kramer