

**Cedar Street Reservoir Rehabilitation**

## ADDENDUM NO. 2

July 18, 2023

THIS IS AN ADDENDUM

TO PROSPECTIVE BIDDERS AND OTHERS CONCERNED:

This addendum amends or supplements the Procurement Section, Drawings and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in this Addendum have the meanings stated in the General Conditions. Additional terms used in this Addendum have the meanings stated below, which are applicable to both the singular and plural thereof.

## I. PROCUREMENT

- A. Updated Bid Form 00 42 13 Addendum #2 attached, (Pages 1-11). Bids shall include new Bid Form and required attachments to the bid as identified in 00 42 13 Article 7.

## II. CONTRACT DOCUMENTS

## A. GENERAL REQUIREMENTS

- i. Replace Table of Contents with attached updated Table of Contents  
 ii. Per the Attached 01 20 00 Updated Price and Payment Procedures:  
 iii. DELETE Item No. 16 from Section 01 22 16 UNIT PRICE PAY ITEMS:  
 ADD New Item No. 16 to Section 01 22 16 UNIT PRICE PAY ITEMS:

*Item No. 16            Clean Exposed Masonry Wall*

Payment for this item shall include all labor, material, and equipment necessary to clean the existing exposed masonry wall and to apply protective coating. Cleaning of exposed masonry wall shall be based on a two time application of cleaning materials or a single application of dustless blasting. The completed work shall be paid for at the contract unit price.

- iv. ADD New Item No. 43 to Section 01 22 16 UNIT PRICE PAY ITEMS:

*Item No. 43            Masonry Tuck Pointing*

Payment for this item shall include all labor, material, and equipment necessary for tuck pointing damaged or defective brick and grout on the masonry wall located along the south side of the south reservoir. The completed work shall be paid for at the contract unit price.

- v. ADD New Item No. 44 to Section 01 22 16 UNIT PRICE PAY ITEMS:

*Item No. 44            Paving Alternative 1*

Payment for this item shall include all labor, material, and equipment necessary for milling of existing asphalt and placement of 2 ½" of 4C asphalt as depicted in the bid drawings. The completed work shall be paid for at the contract unit price.

- vi. ADD New Item No. 45 to Section 01 22 16 UNIT PRICE PAY ITEMS:

*Item No. 45            Paving Alternative 2*

Payment for this item shall include all labor, material, and equipment necessary for removal of

existing stone drive, placement of 6” 21AA crushed limestone base, and 4” of 4C asphalt as depicted in the bid drawings. The completed work shall be paid for at the contract unit price.

vii. ADD New Item No. 46 to Section 01 22 16 UNIT PRICE PAY ITEMS:

*Item No. 46 Paving Alternative 3*

Payment for this item shall include all labor, material, and equipment necessary for removal of existing stone drive, placement of 6” 21AA crushed limestone base, and 4” of 4C asphalt as depicted in the bid drawings. The completed work shall be paid for at the contract unit price.

viii. ADD New Item No. 47 to Section 01 22 16 UNIT PRICE PAY ITEMS:

*Item No. 47 Building Permit Allowance*

Payment for this item will be the actual cost to obtain the building permits from the City of Flint.

B. TECHNICAL SPECIFICATIONS

- i. ADD attached Specification 02 41 12 Pavement Removal and Disposal (Pages 1-2)
- ii. ADD attached Specification 32 12 20 Asphalt Paving (Pages 1-5)
- iii. DELETE Specification 04 01 20.51 Masonry Cleaning (Pages 1-2)
- iv. ADD attached Updated Specification Section 04 01 20.51 Masonry Cleaning (Pages 1-2)

III. CONTRACTOR QUESTIONS & ANSWERS

Prospective bidders shall attach this Addendum page to their proposal and shall sign the Addendum and submit same with bid and shall enter Addendum Number and date on the Bid Form. Failure to include signed Addendum with bid proposal shall be cause for rejection of bid.

\_\_\_\_\_  
(Bidder)

By: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

# Cedar Street Reservoir Rehabilitation

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BID FORM

**ARTICLE 1 – BID RECIPIENT**

1.1 This Bid is submitted to:

The City of Flint  
Department of Purchases and Supplies  
1101 S. Saginaw Street, Room 203  
Flint, MI 48502

Attn: Lauren Rowley  
Purchasing Manager

(Hereinafter called Owner)

1.2 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS**

2.1 Bidder accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 120 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner. Bidder shall sign and deliver the required number of counterparts of the Agreement with the bonds and other documents required by the Bidding Documents within twenty (20) days after the issuance date of the Notice of Award.

**ARTICLE 3 – BIDDER’S REPRESENTATIONS**

3.1 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in SC-4.2 as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in SC-4.6 as containing reliable "technical data."
- E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 3.1.E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- J. In connection with the performance of Work under this Contract, Bidder agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition or developmental disability, or national origin.
- K. The submission of this Bid constitutes and incontrovertible representation by the Bidder that the Bidder has complied with every requirement of the Bidding Documents, and that without exception, the Bid prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.



## **ARTICLE 4 – BIDDER’S CERTIFICATION**

4.1 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.1.D:
  - 1. “corrupt practice” means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
  - 2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
  - 4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

## **ARTICLE 5 – BASIS OF BID**

5.1 Bidder will complete the Work in accordance with the Contract Documents for the prices identified below.

- A. Unit Prices shall be computed in accordance with Paragraph 11.3.B of the General Conditions.
- B. The Owner reserves the right to award additional assignments once a Contract’s original scope of work is completed and accepted by the Owner.
- C. The Contractor shall not be entitled to renegotiate any unit pricing based upon the quantity of any work.
- D. Bidder acknowledges that quantities of work are not guaranteed. Final payment for all unit price Bid items will be based on actual quantities of work completed as described in the Contract Documents.

- E. The City of Flint reserves the right to reject any or all Bids, or to accept or reject any Bid in part, and to waive any minor informality or irregularity in the Bid received if it is determined by the City of Flint, or their designee, that the best interest of the City will be served by doing so. No Bid will be considered from any person, firm, or corporation in arrears or in default to the City on any contract, debt, taxes, or other obligation, or if the Bidder is debarred by the City of Flint from consideration for a Contract award.

The undersigned bidder will complete the Work in accordance with the Contract Documents for the following pay items.

Item No.	Description	Quantity	Units	Unit Price	Bid Amount
1	Mobilization	1	LS		
2	Clearing and Site Preparation	1	LS		
3	Site Demolition	1	LS		
4	Conc Patching	100	SF		
5	Concrete Crack Repair	1600	LF		
6	Top Slab Expansion Joint Repair	570	LF		
7	Exterior Wall and Base Slab Expansion Joint Repair	1010	LF		
8	Overflow Headwall	1	EA		
9	Sluice Gates (48")	2	EA		
10	Sluice Gates (36")	1	EA		
11	Roof Hatch (3' x 3')	3	EA		
12	Roof Hatch (4' x 4')	2	EA		
13	Roof Hatch (5' x 2'6")	3	EA		
14	Roof Hatch (5' x 3'6")	2	EA		
15	Sand Blast and Paint Vent	10	EA		
16	Clean Exposed Masonry Wall – Sikagard-850	3700	SFT		
17	22" Candy Cane Vent with Screen	8	EA		
18	Replace Vent Screen	10	EA		
19	Sluice Gate Operators	3	EA		
20	Limit Switches	11	EA		
21	1" Conduit	416	LF		
22	¾" Conduit	745	LF		
23	Replace Electrical Panel	2	EA		
24	New Security Camera	3	EA		
25	New Light	3	EA		
26	Silt Fence	2000	LF		
27	Rip-Rap	7	CYD		
28	Replace Handrail	470	LF		
29	Replace 36" Butterfly Valve	3	EA		
30	Replace 6" Gate Valve	1	EA		
31	Replace 12" Gate Valve	1	EA		
32	24" Reinf. Conc. Pipe CL-IV	8	LF		
33	Replace 24" Flap Gate	1	EA		
34	30" Flap Gate	1	EA		
35	42" Flap Gate	2	EA		
36	Roof Slab Bottom Coating	135000	SFT		
37	Construction Joint Repair	2100	LF		
38	Fiberglass Ladder	12	EA		

39	Crystalline Waterproofing	8550	SFT			
40	Brick Weep Holes	1	LS			
41	Bottom Slab Survey	1	LS			
42	Tank Deterioration Allowance	1	Allow	\$100,000.00		
43	Masonry Tuck Pointing	2000	SFT			
44	Paving Alternative 1	954	SYD			
45	Paving Alternative 2	447	SYD			
46	Paving Alternative 3	945	SYD			
47	Building Permit Allowance	1	LS	\$20,000.00		
		Total				\$

Items 44, 45, and 46 may be deleted from the contract.

Pay items have been computed in accordance with Article 11 of the General Conditions. Work not specifically listed as a Pay Item is included in the Pay Items listed and will not be paid for separately.

In accordance with the above understanding, the undersigned proposes to perform the Work, furnish all labor, materials and equipment to complete the Work in its entirety in the manner and under the conditions required for the Contract Price of

\$ \_\_\_\_\_.

**Total Bid Amount in Words**

G. This Contract will be awarded to the lowest responsive, responsible Bidder. The Bidder(s) to whom an award is made will be notified at the earliest possible date. Tentative acceptance of the Bid, intent to recommend award of a contract, and actual award of the Contract will be provided by written notice sent to the Bidder at the address designated in the bid. After a final award of the Agreement by the City of Flint, the Bidder must execute and perform said Agreement. If, for by reasons of refusal by the Bidder, a contract is not executed with the selected Bidder after notice of recommendation for award, then the City may recommend the next lowest responsive and responsible Bidder.

H. Bidder acknowledges that:

1. Each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor’s overhead and profit for each separately identified item, and
2. Estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

**ARTICLE 6 – TIME OF COMPLETION**

- 6.1 Bidder agrees that the Work is anticipated to be substantially complete on or before February 17, 2024 and will be completed and ready for final payment in accordance with Paragraph 14.7 of the General Conditions on or before March 18, 2024.
- 6.2 Bidder accepts the provisions of the Agreement as to liquidated damages should final completion exceed anticipated completion date based upon mutual acceptance of the contract

- parties.
- 6.3 **All Work shall be done under a one (1) year warranty.**

## **ARTICLE 7 – ATTACHMENTS TO THIS BID**

- 7.1 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security in the form of a Bid Bond. Refer to Section 00 43 13;
  - B. Non-collusion Affidavit of Prime Bidder included as Exhibit B.
  - C. Bid Certification Form included as Exhibit C.
  - D. List of Proposed Subcontractors. Use the form included as Exhibit D.
  - E. List of Proposed Suppliers. Use the form included as Exhibit E.
  - F. List of Project References. Use the form included as Exhibit F.
  - G. Evidence of authority to do business in the state of Michigan; or a written covenant to obtain such license within the time for acceptance of Bids;
  - H. Contractor's License No: [\_\_\_\_\_] (if applicable) Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
  - I. Required Bidder Qualification Statement with Supporting Data; and
  - J. Ownership statement. Use the form included as Exhibit G.
  - K. Supplemental information as defined in Article 3 of the Instructions to Bidders.

## **ARTICLE 8 – DEFINED TERMS**

- 8.1 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

**ARTICLE 9 – BID SUBMITTAL**

9.1 This Bid is submitted

by: An Individual

Name (typed or printed): \_\_\_\_\_

By: \_\_\_\_\_  
(Individual's signature)

Doing business as: \_\_\_\_\_

A Partnership

Partnership Name: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Corporation

Corporation Name: \_\_\_\_\_ (SEAL)

State of Incorporation: \_\_\_\_\_  
Type (General Business, Professional, Service, Limited Liability): \_\_\_\_\_

By: \_\_\_\_\_  
(Signature -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_  
(CORPORATE SEAL)

Attest \_\_\_\_\_

Date of Qualification to do business in Michigan is \_\_\_\_/\_\_\_\_/\_\_\_\_.

A Joint Venture

Name of Joint Venture: \_\_\_\_\_

First Joint Venturer Name: \_\_\_\_\_(SEAL)

By: \_\_\_\_\_  
(Signature of first joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Second Joint Venturer Name: \_\_\_\_\_(SEAL)

By: \_\_\_\_\_  
(Signature of first joint venture partner - attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidder's Business Address \_\_\_\_\_

Phone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

E-mail \_\_\_\_\_

SUBMITTED on \_\_\_\_\_, 20\_\_\_\_.

State Contractor License No. \_\_\_\_\_.

Sworn and subscribed to before me this

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary or other officer authorized to administer oaths

My commission expires: \_\_\_\_\_, 20\_\_\_\_.

(Bidders shall not add any conditions or qualifying statements to this Bid as otherwise the Bid may be declared irregular as being not responsive to the advertisement. BIDDERS SHALL USE THIS BID FORM IN SUBMITTING THEIR BIDS.)

Bidder acknowledges that the above representations are material and important and will be relied on by the Owner in awarding the Contract(s) for which this Bid is submitted. The Bidder understands that misstatement in this Bid is and shall be treated as fraudulent concealment from the Owner of the true facts relating to the submission of the Bid for this Contract.

Bidder, being duly sworn, deposes and states that he is the person making the above Bid or is authorized to make this Bid on behalf of said partnership, joint venture or corporation; and that said Bid is genuine and not sham or collusive, and is not made in the interest of or on behalf of any person, partnership, joint venture, or corporation not therein named, and that he has not directly or indirectly induced or solicited any bidder to put in a sham bid; that he has not directly or indirectly induced or solicited any other person, partnership, joint venture, or corporation to refrain from bidding, and that he has not in any manner sought by collusion to secure himself or to said partnership, joint venture, or corporation an advantage over other bidders.

## EXHIBIT A

### CHECKLIST OF ITEMS REQUIRED FOR SUBMISSION OF BID

#### **BIDDERS MUST COMPLETE THIS SHEET AND SUBMIT WITH THEIR BID, ALONG WITH THE FOLLOWING ITEMS**

- \_\_\_ Checklist form – Exhibit A
- \_\_\_ Non-Collusion Affidavit – Exhibit B
- \_\_\_ Bid Certification – Exhibit C
- \_\_\_ Capacity information
  - Bidder has to provide information on their capacity to perform the work outlined in the bid documents.
  - Provide a historical summary of work that demonstrates the required experience, both in time and quantity of work completed.
- \_\_\_ Experience and qualifications
  - Identify all subcontractors (if applicable) and provide same information as proposed bidder. – Exhibit D
  - Identify all equipment and suppliers (if applicable) intended to be utilized for this contract. – Exhibit E
- \_\_\_ References
  - Supply at least five (5) references from municipalities (city, county, township, etc.) or communities (or developments) demonstrating experience working on projects that are similar in size and scope to this project. Please include customer's name, dates of contracts, summary of services provided, reference contact name, phone number, and address. – Exhibit F
- \_\_\_ Other
  - Ownership Statement – Exhibit G
  - Identify the name of the landfill or approved disposal site in which excavation spoils, debris, and waste will be disposed for the period of this contract. The City may request financial information of said landfill or disposal site at a later date.
  - Describe how your company meets or exceeds the minimum experience qualification of the services requested.
  - Any information that the vendor would like to submit with their proposal.
- \_\_\_ Supplemental information as defined in Article 3 of the Instructions to Bidders.
- \_\_\_ Bid Bond – Section 00 43 13

**PLEASE NOTE: FAILURE TO SUBMIT THE ABOVE ITEMS WILL RESULT IN A REJECTION OF YOUR BID.**



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EXHIBIT B

NON-COLLUSION AFFIDAVIT

State of \_\_\_\_\_:

s.s.

County of \_\_\_\_\_:

I state that I am \_\_\_\_\_ of \_\_\_\_\_  
(Title) (Name of Firm)

and that I am authorized to make this affidavit on behalf of my Firm, its Owner, Directors and Officers. I am the person responsible in my firm for the price(s) and the amount of the bid.

I state that:

1. The price(s) and the amounts of this bid have been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder.
2. Neither the price(s) nor the amount of the bid, and neither the approximate price(s) nor the approximate amount of the bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before the bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive or other form of complementary bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a discussion with, or inducement from, any firm or person to submit a complementary or noncompetitive bid.
5. \_\_\_\_\_, its affiliates, subsidiaries, officers, directors and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as follows:

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I state that \_\_\_\_\_ understands and  
(Name of Firm)

Acknowledges that the above representations are material and important and will be relied on by the City of Flint, Department of Purchases and Supplies in awarding the contract(s) for which this bid is submitted. I understand and my firm understands that misstatement in this affidavit is and shall be treated as fraudulent concealment from the City of Flint, Department of Purchases and Supplies of the true facts relating to the submission of bids for this contract.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Position / Job Title)

EXHIBIT C

BID CERTIFICATION FORM

**THIS PAGE MUST BE COMPLETED AND INCLUDED WITH THE BID**

The undersigned hereby certifies, on behalf of the respondent named in this Certification (the "Respondent"), that the information provided in this offer submitted to the City of Flint, Department of Purchases and Supplies is accurate and complete, and that I am duly authorized to submit same. I hereby certify that the Respondent has reviewed all documents and requirements included in this offer and accept its terms and conditions.

Company (Respondent): \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

City, State & Zip Code: \_\_\_\_\_

Phone / Fax Number: \_\_\_\_\_

Email: \_\_\_\_\_

Authorized Representative: \_\_\_\_\_  
(Printed)

\_\_\_\_\_  
(Signature)

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EXHIBIT F

PROJECT REFERENCES

Herewith is the list of Project References referenced in the Bid submitted by:

\_\_\_\_\_  
(Bidder)

City of Flint, Department of Purchases and Supplies  
(Owner)

dated \_\_\_\_\_

The following work will be performed (or provided) by the following Project References, and coordinated by us:

<b>PROJECT</b>	
Owner's Name	
Owner's Contact Person	
Owner's Contact Phone Number	
Owner's Contact Address	
Owner's Contact Email Address	
Description of Work (include value of contract and date of work):	
Owner's Name	
Owner's Contact Person	
Owner's Contact Phone Number	
Owner's Contact Address	
Owner's Contact Email Address	
Description of Work (include value of contract and date of work):	

Owner's Name	
Owner's Contact Person	
Owner's Contact Phone Number	
Owner's Contact Address	
Owner's Contact Email Address	
Description of Work (include value of contract and date of work):	
Owner's Name	
Owner's Contact Person	
Owner's Contact Phone Number	
Owner's Contact Address	
Owner's Contact Email Address	
Description of Work (include value of contract and date of work):	
Owner's Name	
Owner's Contact Person	
Owner's Contact Phone Number	
Owner's Contact Address	
Owner's Contact Email Address	
Description of Work (include value of contract and date of work):	

EXHIBIT G  
OWNERSHIP STATEMENT

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OWNER	-	City of Flint, Department of Purchase and Supplies
ENGINEER	-	City of Flint or their designee
PROJECT	-	<b><i>Cedar Street Reservoir Rehabilitation</i></b>

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**ARTICLE 1**

1.1 If the Bidder is a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the Bidder, in compliance with P.L. 1977, Chapter 33, shall submit, with the Bid, the following statement setting forth the names and addresses of all stockholders or individual partners who own ten percent (10%) or more of its stock or interest. If one or more such stockholder or partner is itself a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the stockholders holding ten percent (10%) or more of that corporation's stock, or the individual partners owning ten percent (10%) or greater interest in that partnership, as the case may be, shall also be listed.

IF NONE, SO STATE

INDIVIDUAL

ADDRESS

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NOTE: ADDITIONAL SHEETS CONSISTING OF \_\_\_\_\_ PAGES ARE ATTACHED.

END OF SECTION

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01 22 00  
01 22 13

UNIT PRICE

01 22 00  
METHOD OF MEASUREMENT 01 22 13

A. General

Quantities of work completed under the contract will be measured by the Engineer according to United States standard measures unless otherwise noted.

Quantities of materials furnished and of work performed under the contract will be determined by methods of measurement and computations that are generally recognized as conforming to good engineering practice.

1. Aggregates furnished and measured by weight will paid including an allowance for moisture of up to six [6%] percent moisture. Where aggregate field tests indicate moisture content is greater than 6%, a payment adjustment shall be made. The excess weight above 6% moisture shall be deducted from the scale weights.
2. In-place cubic yard (ICY) shall be the volume based on field survey data and the "average end area" methods.
3. Truck cubic yard (TCY) shall be the volume of each specific truck bed by design. Based on the full volume of each truck bed level with the top rail.
  - a. Each truck removing material from the site shall:
    - 1) \_\_\_\_\_ mark designation
    - 2) \_\_\_\_\_ Owner
    - 3) \_\_\_\_\_ Bed volume struck
4. Tons: (2,000 pounds) as recorded on weight scales having a "Department of Agriculture" certificate valid for one year at the time of weighing. Payment for this Work shall be made on the basis of weight tickets noting project, contractor, time, date, gross, tare and net weights.

All items of work for this contract will be measured in units as indicated on the Proposal and as noted herein. CF, cubic feet; CYD, cubic yard; EA, each; LS., lump sum; LF., linear feet; SYD, square yard; SF., square feet; T, Ton (2000 lb.); AC, acre 43560 sf; ICY, in-place cubic yard; TCY, truck cubic yard.

01 22 16

UNIT PRICE PAY ITEMS

01 22 16

*Item No. 1 Mobilization*

Payment for this item shall include project cost related to preparatory work, operations, and General Requirements Division, Audio Video and Traffic control and signage, less sub articles amounts paid as separate items. The Lump Sum (L.S.) amount shall be paid in increments on a basis of work completed: 0%, 10% and 25% for pay of this item at 50%, 70%, and 100% respectively.

*Item No. 2 Clearing and Site Preparation*

Payment for this item shall include all labor, material, and equipment necessary for site clearing and preparation. The completed work shall be paid for at the contract Lump Sum price.

*Item No. 3 Site Demolition*

Payment for this item shall include all labor, material, equipment, and disposal cost necessary to perform site demolition as indicated on the Drawings. The completed work shall be paid for at the contract Lump Sum Price.

*Item No. 4 Concrete Patching*

Payment for this item shall include all labor, material and equipment necessary to prepare the surface, place bonding agent, place patching material, formwork as necessary, clean rebar and cure concrete patching per Detail 1/S-103 on sheet S-103.

The

completed work shall be paid for at the contract unit price.

*Item No. 5 Concrete Crack Repair*

Payment for this item shall include all labor, material and equipment necessary to complete the concrete crack repair by grout

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injection. This item shall include material labor equipment, injection site preparation and cleanup necessary to complete the process as shown on Detail 2/S-103 sheet S-103. The completed work shall be paid for at the contract unit price.

*Item No. 6 Top Slab Expansion Joint Repair*

Payment for this item shall include all labor, material and equipment necessary to complete the top slab expansion joint repair including excavation, water proofing, backer rod, joint filler, backfill, top soil seed and mulch and restoration necessary to complete the repair per Detail 4/S-103 on sheet S-103. The maximum weight of equipment allowed on top of the reservoir will be limited to 4,000 Lbs. The depth of fill over the reservoir is approximately 30 inches. The completed work shall be paid for at the contract unit price.

*Item No. 7 Exterior Wall and Base Slab Expansion Joint Repair*

Payment for this item shall include all labor, material, cleaning and equipment necessary to complete the exterior wall and base slab expansion joint repair per Detail 5/S-103 as shown on sheet S-103. The completed work shall be paid for at the contract unit price.

*Item No. 8 Overflow Headwall*

Payment for this item shall include all labor, material, and equipment necessary to replace the overflow headwall as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 9 Sluice Gates, 48"*

Payment for this item shall include all labor, material, and equipment necessary to replace the 48-inch sluice gate as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 10 Sluice Gates, 36"*

Payment for this item shall include all labor, material, and equipment necessary to replace the 36-inch sluice gate as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 11 Roof Hatch (3 x 3')*

Payment for this item shall include all labor, material, and equipment necessary to replace the roof hatch as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 12 Roof Hatch (4' x 4')*

Payment for this item shall include all labor, material, and equipment necessary to replace the roof hatch as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 13 Roof Hatch (5' x 2'-6")*

Payment for this item shall include all labor, material, and equipment necessary to replace the roof hatch as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 14 Roof Hatch (5' x 3'-6")*

Payment for this item shall include all labor, material, and equipment necessary to replace the roof hatch as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 15 Sand Blast and Paint Vent*

Payment for this item shall include all labor, material, and equipment necessary for surface preparation to paint the vents as indicated on the Drawings. The completed work shall be paid for at the contract unit price.



*Item No. 16      Clean Exposed Masonry Wall*

Payment for this item shall include all labor, material, and equipment necessary to clean the existing exposed masonry wall and to apply protective coating. Cleaning of exposed masonry wall shall be based a two time application of cleaning materials or a single application of dustless blasting. The completed work shall be paid for at the contract unit price.

*Item No. 17      22" Candy Cane Vent with Screen*

Payment for this item shall include all labor, material, and equipment necessary to install the 22-inch candy cane vent with screen as detailed in the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 18      Replace Vent Screen.*

Payment for this item shall include all labor, material, and equipment necessary to furnish and replace the existing vent screens as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 19      Sluice Gate Operators*

Payment for this item shall include all labor, material, and equipment necessary to furnish and install sluice gate operators for the proposed sluice gates as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 20      Limit Switches*

Payment for this item shall include all labor, material, and equipment necessary to furnish and install limit switches as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 21      1" Conduit*

Payment for this item shall include all labor, material, and equipment necessary to install 1-inch conduit as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 22      3/4" Conduit*

Payment for this item shall include all labor, material, and equipment necessary to install 3/4-inch conduit as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 23      Replace Electrical Panel*

Payment for this item shall include all labor, material, and equipment necessary to furnish and replace the existing electrical panels as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 24      New Security Camera*

Payment for this item shall include all labor, material, and equipment necessary to furnish and install new security cameras as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 25      New Light*

Payment for this item shall include all labor, material, and equipment necessary to install new lights as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 26      Silt Fence*

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Payment for this item shall include all labor, material, and equipment necessary to replace the roof hatch as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 27 Rip-Rap*

Payment for this item shall include all labor, material, and equipment necessary to furnish and place rip rap as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 28 Replace Handrail*

Payment for this item shall include all labor, material, and equipment necessary to furnish and replace all proposed handrailing with new fiberglass handrailing as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 29 Replace 36" Butterfly Valve*

Payment for this item shall include all labor, material, and equipment necessary to furnish and replace the existing 36" butterfly valve as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 30 Replace 6" Gate Valve*

Payment for this item shall include all labor, material, and equipment necessary to furnish and replace the existing 6" gate valve as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 31 Replace 12" Gate Valve*

Payment for this item shall include all labor, material, and equipment necessary to furnish and replace the existing 12" gate valve as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 32 24" Reinf. Conc. Pipe CL-IV*

Payment for this item shall include all labor, material, and equipment necessary to furnish and install 24" Reinforced Concrete Pipe, Class IV as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 33 Replace 24" Flap Gate*

Payment for this item shall include all labor, material, and equipment necessary to furnish and replace the 24" Flap Gate as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 34 Replace 30" Flap Gate*

Payment for this item shall include all labor, material, and equipment necessary to furnish and replace the 30" Flap Gate as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 35 Replace 42" Flap Gate*

Payment for this item shall include all labor, material, and equipment necessary to furnish and replace the 42" Flap Gate as indicated on the Drawings. The completed work shall be paid for at the contract unit price.

*Item No. 36 Roof Slab Bottom Coating*

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Payment for this item shall include all labor, material, cleaning and equipment necessary to complete the coating of the bottom side of the roof slab and 2 feet of exterior walls per Note 3 on Sheet S-101 & S-102. The completed work shall be paid for at the contract unit price.

*Item No. 37 Construction Joint Repair*

Payment for this item shall include all labor, material, cleaning and equipment necessary to complete the construction joint repair per Detail 3/S0193 as shown on sheet S-103. The completed work shall be paid for at the contract unit price.

*Item No. 38 Fiberglass Ladder*

Payment for this item shall include all labor, material, cleaning and equipment necessary to remove the existing manhole rungs and install a new fiberglass ladder with fall extension post and fall arrest system as noted on sheets S-101 and S-102. The completed work shall be paid for at the contract unit price.

*Item No. 39 Crystalline Waterproofing*

Payment for this item shall include all labor, material, cleaning, equipment and curing necessary to surface apply crystalline waterproofing as noted on Sheet S-102. The completed work shall be paid for at the contract unit price.

*Item No. 40 Brick Weep Holes*

Payment for this item shall include all labor, material, cleaning and equipment necessary to remove the existing brick weep holes and to install the new weep holes as noted on sheet S-102. The completed work shall be paid for at the contract unit price.

*Item No. 41 Bottom Slab Survey*

Payment for this item shall include all labor, material, and equipment necessary to perform a visual inspection and delamination survey of the bottom slab and providing documentation of any noted deterioration as indicated on sheets S-101 and S-102. Cleaning of the tank shall be covered under a separate item. The completed work shall be paid for at the contract unit price.

*Item No. 42 Tank Deterioration Allowance*

Payment for this item shall include all labor, material, and equipment necessary to perform structural repairs required within the reservoir discovered during the Bottom Slab Survey or other deficiencies not noted on the contract drawings. The completed work shall be paid for out of the allocated allowance upon review and approval from the Engineer and Owner.

*Item No. 43 Masonry Tuck Pointing*

Payment for this item shall include all labor, material, and equipment necessary for tuck pointing damaged or defective brick and grout on the masonry wall located along the south side of the south reservoir. The completed work shall be paid for at the contract unit price.

*Item No. 44 Paving Alternative 1*

Payment for this item shall include all labor, material, and equipment necessary for milling of existing asphalt and placement of 2 ½" of 4C asphalt as depicted in the bid drawings. The completed work shall be paid for at the contract unit price.

*Item No. 45 Paving Alternative 2*

Payment for this item shall include all labor, material, and equipment necessary for removal of existing stone drive, placement of 6” 21AA crushed limestone base, and 4” of 4C asphalt as depicted in the bid drawings. The completed work shall be paid for at the contract unit price.

*Item No. 46 Paving Alternative 3*

Payment for this item shall include all labor, material, and equipment necessary for removal of existing stone drive, placement of 6” 21AA crushed limestone base, and 4” of 4C asphalt as depicted in the bid drawings. The completed work shall be paid for at the contract unit price.

*Item No. 47 Building Permit Allowance*

Payment for this item will be the actual cost to obtain the building permits from the City of Flint.

**01 26 00**

**CONTRACT MODIFICATIONS**

**01 26 00**

1.01 SUMMARY

- A. This Section includes forms/documents to be used for modifying/changing this Contract.
  - 1. Forms shall be used by the Contractor or Engineer as needed.
  - 2. Pay Application Forms should be submitted on EJCDC form C-620
  - 3. Field Orders (FO) shall be submitted on EJCDC Form C-942
  - 4. Change Order (CO) shall be submitted on EJCDC Form C-941

1.02 REFERENCES

- A. Definitions:
  - RFI: Request for Interpretation  
Initiated by Contractor and processed by the Engineer.
  - FO: Field Order (EJCDC Form C-942)  
Initiated by Engineer for Contractor’s immediate action (variance from contract, future actions, impacting this project)
  - Bulletin: Proposal Request  
Initiated by Engineer requesting new/additional pricing for an anticipated/changing of the Contract Work
  - CO: Change Order (EJCDC Form C-941)  
This document changes the Contract/Agreement Amount. All other forms can be supporting documents especially FO and Bulletins.
  - SMS: Stored Material Summary  
Part of the Contractor’s Pay application form EJCDC C-620

**01 29 00**

**PAYMENT PROCEDURES**

**01 29 00**

01 29 73

PAYMENT SUBDIVISIONS 01 29 73

- A. Payment application shall be supported by Work subdivisions:
  - 1. Unit prices as noted in the proposal/ agreement or
  - 2. Schedule of Values. Shall be a subdivision of cost of Work, listed in the Proposal, and/or the further subdividing of the proposal cost by technical specifications categories; agreed between the Contractor and the Engineer.

01 29 76

PAYMENT PROCEDURES 01 29 76

- A. Payment Application shall be submitted on the “Contractor’s Application for Payment” form EJCDC- C-620. The Application shall list the ‘Unit Prices’ or ‘Schedule of Values’. The sum of the extended ‘unit prices’ or the ‘schedule of values’ shall equal the agreed “Contract Prices”.

- B. Other Attachments to the “Contractors Application for Payment” shall be as listed”
1. Noted in the Supplementary Conditions art .SC- 6.00 ‘Contractors Responsibilities
  2. Required by Funding Agencies.

- C. Contractual Payment and Retainage Procedure are further delineated.

00 55 00 – Agreement, article (retainage)

00 72 13 – General Conditions, Article 14

00 73 16 – Supplementary Conditions: SC 14.02c (time)

PAVEMENT REMOVAL  
AND DISPOSAL  
Section 02-41-12

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes requirements for the removal of and disposal of pavement as noted on the drawings.

1.02 REFERENCES

A. Definition:

1. HMA – Hot Mixed Asphalt surface five (5) inches thick or less overlaying concrete aggregate base.
2. Conc. – 6” or 8” Concrete Pavement, reinforced or non-reinforced on an aggregate base.

1.03 INFORMATION SUBMITTAL

A. Data:

1. Submit names of the disposal / dump site to be used. Submit one week before the disposal operation is conducted.
2. Disposal Documents: Contractor shall provide copies of all manifests, chain of custody, delivery and/or receipts issued for the disposal of site debris.

PART 2 – PRODUCTS – NONE

PART 3 – EXECUTION

3.01 PREPARATION

A. Site:

1. Designate haul routes for debris removal.
2. Review truck tire cleaning plan.

- B. Saw-cut pavement/paved surfaces full depth where noted to “save” surfaces.

3.02 LOADING AND HAULING

- A. Inspect haul vehicles for soil adhesion to wheels and under carriage. These soils shall be removed and properly handled by the Contractor before leaving site.

1. No transport vehicles shall be allowed to leave the site which are leaking or spilling materials.
2. All transport vehicles shall be in strict conformance with all the applicable federal, state and local laws.

- B. Truck-loaded volume shall be determined by the Owner’s Representative.

3.03 REMOVAL AND DEMOLITION

- A. Breaking Down and Removing: Remove entirely, or to the limits shown, all structures or portions thereof shown on the plans to be removed, including all attached parts and connections. Do not damage the retained portion of an existing structure.

1. Pavement, Curb, Sidewalk: Remove pavement, curb, gutter, curb and gutter, sidewalk, and similar structures to an existing joint or to a sawed joint. Saw concrete full depth unless otherwise allowed. Do not use a crane and ball pavement breaker. Provide for proper grades and connections.
2. Partially or completely remove all structures, including utility structures, having a least dimension of 12 inches if constructed of masonry or non-reinforced concrete; 8 inches for reinforced concrete structures.

- B. Do not damage the retained portion of an existing structure or new work under construction by removal operations.

PAVEMENT REMOVAL  
AND DISPOSAL  
Section 02-41-12

Do not use explosives except with the written permission of the Engineer. Such permission does not relieve the Contractor of liability and or responsibility for damages resulting from the use of explosives.

3.04 DISPOSAL

- A. All disposal shall conform to Federal, State and local government regulations.
- B. For non-hazardous contaminated wastes the Contractor shall utilize a State of Michigan approved manifest system so that the waste can be tracked from generation to ultimate disposal. The manifest shall comply with all of the provisions of the transportation and disposal regulations.

3.05 SPILLS

- A. The Contractor is responsible for cleaning up all the leaks, spills from containers and other items on site or off site that occur because of the Contractor's negligence. Immediate containment actions shall be taken as necessary to minimize the effect of any spill or leak. The Contractor shall notify the Engineer and appropriate governmental authorities of the incident. Cleanup shall be in accordance with applicable Federal, State, and local laws and regulations.

3.06 CLEANING / CLOSEOUT

- A. All haul roads shall be bladed and leveled at project completion.

## MASONRY MAINTENANCE

## MASONRY CLEANING Section 04-01-20.51

### PART 1 – GENERAL

#### 1.01 SUMMARY

- A. This section covers the preparation, materials, services, and equipment required for the cleaning on all above grade, vertical, exterior exposed surfaces of masonry, concrete, brick, or stucco.

#### 1.02 RELATED SECTIONS

- A. None

#### 1.03 SUBMITTAL

- A. Product Specification Data: Submit manufacturer's technical literature, specifications, and application instructions for the specified clear water repellent material.
- B. Applicator Qualifications: Submit certification stating applicator has a minimum of three (3) years experience using the specified product. Provide a list of several most recently completed projects where the specified material was used. Include the project name, location, architect and method of application.

#### 1.04 QUALITY ASSURANCE

- A. Applicator Qualification: A firm with no less than three (3) years experience in the application of the products specified in this Section. In addition, applicator must state the intended use of the proper application equipment and that it has been well maintained.
- B. Mock-Up:
1. Apply cleaning product per manufacturer's application instructions as directed by the Engineer to substrate material that matches actual job conditions. Determine the acceptability of appearance and optimum coverage rate required for application.
  2. Obtain Engineer and/or Project Owner approval prior to full scale application of cleaning solutions.
  3. Test Panel:
    - a. Two (2) locations selected by Engineer/Owner.
    - b. Size: 4 ft. x 4 ft.

#### 1.05 PROJECT CONDITIONS

- A. Environmental Requirements:
1. Air and substrate temperature must be above 40°F (4°C) or below 100°F (38°C) unless otherwise specified by manufacturer.
  2. Do not proceed with application if the substrate is wet or contains frozen water.

#### 1.06 SCHEDULING

- A. Engineer/Owner shall be notified not less than 48 hours before each application of the cleaning agent is scheduled.

### PART 2 – PRODUCTS

#### 2.01 CLEANING AGENT

- A. General: All products shall be liquid cleaner used to block, brick, concrete, stone and other porous masonry substrates.



## MASONRY MAINTENANCE

## MASONRY CLEANING Section 04-01-20.51

1. Biodegradable Cleaner-Extra Muscle, Great Lake Laboratory.

### PART 3 – EXECUTION

#### 3.01 EXAMINATION

- A. Verify the following
  1. Surface to be treated is clean, dry and contains no frozen water.
  2. Environmental conditions are appropriate for application.

#### 3.02 PREPARATION

- A. Protection:
  1. Special precautions should be taken to avoid vapor transmission (fumes) from entering the building being treated. Ventilation systems and fresh air intakes should be turned off and closed.
  2. Protect shrubs, metal, wood trim, glass, asphalt and other building hardware during application from over-spray.
  3. Do not permit spray mist or liquid to drift onto surrounding properties or parking lots.

#### 3.03 APPLICATION

- A. Apply cleaner by brush, roller, or low pressure sprayer directly to the “tagged” surface and allow it to dwell for 5 to 8 minutes keeping substrate wet with cleaner. Agitate completely with a nylon scrub brush and rinse thoroughly with water. A power washer (not to exceed 1000 psi) may be required to remove graffiti. Alternatively, dustless blasting such as wet blasting may be an alternative means and methods to remove graffiti.
- B. In areas that receive multiple “taggings” and if graffiti removal become difficult, a reapplication may be required. If after multiple cleanings, deep-seeded graffiti remains, a more stringent paint remover may be required to completely remove all residual markings.

#### 3.04 CLEANING

- A. Remove protective coverings from adjacent surfaces and other protected areas.
- B. Immediately clean water repellent coating from adjoining surfaces and surfaces soiled by water-repellent application as work progresses.
- C. At completion, remove from the job site, all excess material, debris, and waste resulting from this work. Dispose of water repellent containers according to state and local environmental regulations.

END OF SECTION

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section includes basic materials, mixes and placement criteria for Hot Mixed Asphalt paving.
- B. Related Requirements:
  - 1. Aggregate Base Course 32-11-23.
  - 2. Paving and Surface Restoration 32-01-10.
  - 3. Common Materials for Bases and Paving 32-05-16.

1.02 REFERENCES

- A. Abbreviations:
  - 1. HMA – Hot Mixed Asphalt.
  - 2. RAP – Reclaimed Asphalt Pavement.
  - 3. MDOT – Michigan Department of Transportation.
  - 5. Mixture Parameters:
    - a. VMA – Voids in Mineral Aggregate.
    - b. VFA -
    - c. JMF – Job-Mix-Formula.
    - d. GMB – Bulk Specific Gravity.
    - e. GMM - Maximum Specific Gravity.
- B. Reference Standards:
  - 1. Standard Specification for Construction: “Michigan Department of Transportation 2003”.

1.03 ACTION SUBMITTALS 01-33-00

- A. Product Data:
  - 1. Source of Materials: Submit source of bituminous paving materials proposed for the work giving the name and address of the supplier.
  - 2. Job Mix Formula: Submit proposed job mix formula and the testing results for each bituminous mixture to the Engineer one week (7 days) prior to paving.
  - 3. Delivery Tickets: Submit one copy of each delivery ticket, indicating delivered weights for bituminous mixtures to Engineer Inspector.

1.04 CLOSEOUT SUBMITTAL

- A. Density Testing Correlation: Submit one HMA in place core for density test correlation as described in Paragraph 3.03.E2.
- B. Pay Weight Adjustments: When blast furnace slag or steel furnace is used in the production of HMA mixtures, the pay weight of the HMA mixture will be the product obtained by multiplying the actual tons of HMA mixture used by the factor of 150 divided by the maximum field density (in pounds per cubic foot) for the HMA mixture.

1.05 SITE CONDITIONS

- A. Environmental Conditions:
  - 1. Do not apply bituminous materials on wet surfaces, when weather is rainy or threatening rain, or when surface temperature is below 40°F.
  - 2. Target placement temperatures per MDOT Section 502.03.E Table 502-1.

Surface Temp. of °F	Rate of Application Lb/Syd	
	120-200	200+
40-49	330	315
50-59	315	300
60-69	300	285
70-79	285	270

- 3. Allowable placement tolerance shall be +/- 20°F. All loads having temperature below 250°F or above 350°F at time of discharge from hauling unit will be rejected.
- 4. Grade Control: Establish and maintain the required lines and grades for each course during construction operations. Reestablish cross slopes as shown on the drawings.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Bituminous Materials: MDOT Standard Specifications, Section 904, and as follows:
  - 1. Bond Coat: Asphalt Emulsion SS1h.
  - 2. Asphalt binder usually PG 64-22 for leveling and top courses and PG 58-22 for base course unless polymer modified binder is necessary.
- B. Aggregates: MDOT Standard Specifications
- C. Recycled Asphalt (RAP): Recycled Asphalt shall “reclaimed asphalt pavement” free of “cold patch” and other deleterious materials.
  - 1. Processed RAP shall be a size that will be compatible with the specified HMA mixture.
  - 2. Binder adjustments may be made according to MDOT special provision 03SP501(G) “Recycled Hot Mix Asphalt Mixture”.

2.02 MIXES

- A. Composition of Hot Mixed Asphalt: MDOT Standard Specifications, Section 501.and Table 904 using aggregates specified in this Paragraph.

1. **Table 1: Mix Design Criteria and Volumetric Properties**

	Mixture No.				
	2C	3C	4C	13A	36A
Target Air Void, % (a)	3.00	4.00	4.00	3.0	4.00
VMA (min) (b)	11.00	13.00	14.00	14.00	15.00
VFA	65-78	65-78	65-78	65-78	65-78
Fines to Binder Ratio (max) (c)	1.2	1.2	1.2	1.2	1.2
Flow (0.01 inch)	8-16	8-16	8-16	8-16	8-16
Stability (min), lbs	1200	1200	1200	900	900
a. Lower target air voids by 1.00% if used in a separate shoulder paving operation. Air void targets to 3.00% for lower traffic volume roadways when designing 13A and 36A and mixtures for local agency use. b. VMA calculated using Gsb of the combined aggregates. c. Ratio of the weight of aggregate passing the No. 200 sieve to total asphalt binder content by weight; including fines and binder contributed by RAP.					

2. **Table 2: Aggregate Properties**

	Mixture No.				
	2C	3C	4C	13A	36A
Percent Passing indicated Sieve or Property Limit					
1 ½ inch	100				
1 inch	91-100	100			
¾ inch	90 max.	91-100	100	100	
½ inch	78 max.	90 max.	91-100	75-95	100
5/8 inch	70 max.	77 max.	90 max.	60-90	92-100
No. 4	52 max.	57 max.	67 max.	45-80	65-90
No. 8	15-40	15-45	15-52	30-65	55-75
No. 16	30 max.	33 max.	37 max.	20-50	
No. 30	22 max.	25 max.	27 max.	15-40	25-45
No. 50	17 max.	19 max.	20 max.	10-25	
No. 100	15 max.	15 max.	15 max.	5-15	
No. 200	3-6	3-6	3-6	3-6	3-10
Crushed (min), % (MTM 117)	90	90	90	25	60
Soft Particle (max), % (a)	12.0	12.0	4.0	8.0	8.0
Angularity Index (min) (b)	4.0	4.0	40	2.5	3.0
L.A. Abrasion (max), % loss (c)	40	40		40	40
Sand Ratio (max) (d)	-	-	-	50	50

- a. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 8.0 percent for aggregates used in top course. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 12.0 percent for aggregates used in base and leveling courses.
- b. The fine aggregate angularity of blended aggregates, determined by MTM 118, must meet the minimum requirement. In mixtures containing RAP, the required minimum fine aggregate angularity must be met by the virgin material. NAA fine aggregate angularity must be reported for information only and must include the fine material contributed by RAP if present in the mixture.
- c. Los Angeles abrasion maximum loss must be met for the composite mixture, however, each individual aggregate must be less than 50.
- d. Sand ratio for 13A and 36A no more than 50% of the material passing the No. 4 sieve is allowed to pass the No. 30 Sieve.

- B. Mixes shall be designated as Mixture Number.
  - 1. HMA mixes for leveling courses and wearing courses shall be as shown on the drawings.

2.03 QUALITY CONTROL

- A. Material acceptance testing: Acceptance sampling and testing will be performed by the Road Commission using the sampling method and testing options selected by the Engineer. Each day of production, the Road Commission will determine the number of samples to be taken for each mix type. Acceptance testing will be performed at minimum frequency of one per 1000 tons. Quality Control measures to ensure job control are the responsibility of the Contractor.
- B. Pavement density will be measured for acceptance with a Nuclear Density Gauge using the Bulk Specific Gravity (GMB) from the job-mix-formula (JMF) for the density control target.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Bond Coating:
  - 1. Treat bituminous or portland cement concrete, or both, base course surfaces with bond coat applied at a uniform rate of 0.10 gallon per sq. yd. and in accordance with MDOT Standard Specifications, Section 502.03.D.
  - 2. Where paving existing bituminous surface, remove all loose materials from paving surface, then treat surface with bond coat. Bond coat application shall be:
    - a. 0.10 gal/yd<sup>2</sup> on ex. pavement.
    - b. 0.05 gal/yd<sup>2</sup> between HMA course.

3.02 INSTALLATION

- A. General:
  - 1. Equipment, transportation of mixtures, placing hot mixed asphalt mixture, and rolling shall be as specified in MDOT Standard Specifications, Section 502 “Hot-Mixed Asphalt Construction Practices”.
  - 2. Application temperature for bituminous materials shall be as specified in Paragraph 1.05.A.2.
  - 3. Application Schedule: Hot mixed asphalt shall be placed at the application rates as noted on the plan section details.
  - 4. Cleaning Pavement: Before the bond coat is applied, the HMA surface shall be cleaned as directed by the Engineer with a mechanical sweeper that does not throw or emit dust.
- B. Hot Mixed Asphalt Pavement: Mix designations shall be as shown on the drawings.
  - 1. Over Aggregate Base Course:
    - a. Construct hot mixed asphalt leveling course over aggregate base in one lift having compacted nominal thickness as specified on the drawings. Note: If noted on the drawings 2C base course shall be placed in two (2) lifts.
    - b. Treat hot mixed asphalt leveling course surface with bond coat applied at a uniform rate of 0.05 gallon per sq. yd.
    - c. Construct hot mixed asphalt wearing course over bond coat treated leveling course in one lift having compacted nominal thickness of 1” or greater as required to provide the total bituminous pavement thickness as specified on the drawings.

2. Over Other Bases: Construct hot mixed asphalt wearing course over bond coat treated bituminous base course or Portland cement concrete base course or existing bituminous paving, as applicable, in one lift having compacted nominal thickness as specified on the drawings.
- C. Placing and Spreading:
1. On aggregate base course or bond treated leveling course, as applicable, place hot mixed asphalt mixture using self-propelled spreading and finishing equipment, at a uniform rate avoiding intermittent operation.
  2. After spreading and before compaction, adjust any surface inequalities by hand, adding or removing bituminous mixture as required.
  3. Coat portion of concrete curbs, catch basins and the like against hot mixed asphalt is placed with bond coat (asphalt emulsion). Protect all other surfaces.
  4. Adjust irregularities in outside edges before rolling. Edge each course straight following initial rolling.
  5. "Set up" longitudinal joints at proper height above adjacent construction to receive maximum compaction, coat with bond coat (asphalt emulsion), hand rake, and broom to provide dense, smooth connection.
  6. Don't hand rake edges. Proper height should be adjusted on paver.
  7. Compact from hot side with roller hanging 6" over unsupported edge or cold joint.
- D. Compaction:
1. Roll each course as soon after spreading as the mixture will bear the roller without undue displacement or hair cracking. Continue until all roller marks are eliminated and no further compaction is possible.
  2. Roll longitudinally; from edges toward center, overlapping on successive trips with alternate trips terminated at least 3 feet from preceding stops.
  3. Compact areas inaccessible to the roller with hot hand tampers.
  4. Remove defective bituminous mixture or mixture contaminated with foreign material, replace with fresh bituminous mixture, and compact to the density of the surrounding area.
- E. Finish: Surfaces of each finished course shall be smooth, and constructed true to line, grade and cross-section to the tolerance tests under Article 3.03.

### 3.03 FIELD QUALITY CONTROL

- A. Visual Test: Surface of finished hot mixed asphalt paving shall be free from depressions, ridges, cracks, soft areas, roller marks, and other irregularities.
- B. Smoothness Test:
1. The surface of finished hot mixed asphalt paving shall not show any deviation in excess of 3/16" when tested with a 10-foot straightedge applied both parallel with and at right angles to the centerline of the paved area.
  2. The average allowable deviation shall be not more than 1/8"
  3. Measurements shall be made at random locations as directed by the Engineer and on the basis of 3 tests for each 500 square yards of completed hot mixed asphalt paving.
- C. Cross-Section Test:
1. The cross-section of finished hot mixed asphalt paving shall not show any deviation in excess of 1/4" when tested with a crown template centered on and at right angles to the centerline of the crown.
  2. Measurements shall be made as specified under Paragraph 3.03.B.3.
- D. Thickness Control:
1. The average thickness of each hot mixed asphalt course shall be within 1/4" of that shown on the drawings.
  2. Measurements shall be made at random locations as directed by the Engineer on the basis of one measurement for each 500 square yards of completed hot mixed asphalt.
- E. Density Compaction:
1. The required in-place Density for the HMA mixture shall be based on the (JMF) Air Voids. A minimum of 97% in-place Density of the (GMB) for 3% Air Void mixes, and a minimum of 96% in-place Density for 4% Air Void mixes. The Contractor shall be responsible for establishing a rolling pattern that will achieve the required in-place Density.
  2. At least one core per Job-Mix-Formula shall be obtained after final rolling is completed. The asphalt cores shall be tested to correlate the actual density with Nuclear Density Gauge(s) according to the MDOT Procedure for Determining Pavement Density as described in MTM 315. The engineer will mark the core location with a two-inch diameter paint dot which represents the center of the core.
    - a. The Contractor shall drill a 6-inch core sample at the core location. The Contractor shall notify the Engineer sufficiently in advance of coring to ensure that the Owner has a representative to witness the coring operation and take immediate possession of the cores.

- b. The minimum thickness of the core shall comply with MTM 315. If it is insufficient, or if the core is damaged, the Engineer shall document the problem and select another location for coring if necessary.

END OF SECTION



INNOVATIVE IDEAS  
EXCEPTIONAL DESIGN  
UNMATCHED CLIENT SERVICE

City of Flint  
Cedar Street Reservoir Rehabilitation  
Bidder Questions and Answers

### **Pullman Services**

Q1: There are asphalt road repair alternates shown on the drawings, but I didn't see those on the bid form at all. Do we need to include pricing for that work?

A1: Additional pay items to cover this work are included in Addendum #2. The paving will be broken down into three (3) alternatives, all at a unit cost per SYD. Please see the pay item description under the Price and Payment Procedures specification section.

Q2: Note 3 on S101 and S102 indicate that the concrete coating quantity would be much higher than the quantity in the bid form. Can you confirm the correct quantity/location for that work?

A2: Sheets S101 through S103 have been updated with the correct quantity information. Quantities match the original quantities within the bid form.

Q3: Are we able to work in both reservoirs at one time?

A3: Yes, both reservoirs will be taken off line and drained simultaneously. Work can be conducted simultaneously on both reservoirs.

Q4: Given that the addendum is schedule to come out on the 21<sup>st</sup>, can the bid be extended at least a few days to account for time to review and incorporate the addendum information?

A4: No. The bid period is driven by EGLE deadlines to have a signed agreement. The 24<sup>th</sup> is the latest we can accept bids. We will try to issue the final addendum as early as possible to assist bidders.

### **Smith's Waterproofing, LLC**

Q1: On sheets S-101 and S-102 GENERAL NOTES: Note #3 Coat all interior concrete surfaces-----with SIKA FEROGUARD 903 (585,860 SF and 128,618 SF) , Bid item 36 -Roof slab bottom coating quantity does not match the quantities on note 3 , also the note #3 calls for all the walls, columns, and ceiling to be coated please clarify.

A1: The discrepancy has already been brought to my attention. The latest structural sheets were not bound to the bid set. The latest versions of those drawings are included in Addendum 2. The quantity in the bid form is correct (135,000 SF) so you can base your costs off of this quantity. Drawings will reflect this. Coating will be for interior concrete roof surfaces and 2' of exterior walls.

Q2: MASONRY MAINTENANCE MASONRY CLEANING Section 04-01-20.51

“3.03 APPLICATION A. Apply cleaner by brush, roller, or low pressure sprayer directly to the “tagged” surface and allow it to dwell for 5 to 8 minutes keeping substrate wet with cleaner. Agitate completely with a nylon scrub brush and rinse thoroughly with water. A power washer (not to exceed 1000 psi) may be required to remove graffiti. B. In areas that receive multiple “taggings” and if graffiti removal become difficult, a reapplication may be required. If after multiple cleanings, deep-seeded graffiti remains, a more stringent paint remover may be required to completely remove all residual markings.”

The description above calls for complete removal of the graffiti regardless of if the specified material would work or not. Also, the spec does not limit how many times the cleaning material should be applied which h will make it difficult to bid. Can you please limit bid item 16- to two-time application and add a pay item that if additional application is needed will be paid on per application basses.

A2: The pay item description has been updated to reflect a two time application on item 16 with dustless blasting as an alternative means and methods of removal. Additional applications will be handled in the contract via a change order, possibly T&M. Specification section 04-01-20.51 has also been updated to reflect the alternative means and methods.

Q3: During our pre bid walk through as we have disused with you that the exposed masonry wall needs some tuckpointing and brick replacement, are you going to add these items to the bid form?

A3: A pay item has been included for 2000SF of tuck pointing. Final scope of tuck pointing will be coordinated in the field with the on site inspector.

**Questions/Discussions from Pre-Bid Site Visit**

Q1: Is there other access to the headwall besides the gate to the west of the reservoir? Should be include clearing of brush and trees in the bid?

A1: It is unclear if there is other access to that location. There may be a trail access from Kellar Park Dr. as there is a stone path northwest of the headwall, but I do not know if there is reliable access from this location. Clearing for a skidsteer or other small equipment should be included in pay item no. 2 – Clearing and Site Preparation.

Q2: How many means of egress are there into the reservoirs?

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A2: There are only two points of access, one for each reservoir. The north reservoir is accessed from above the sluice gate chamber on the east side of the reservoir. The south reservoir is access from above the sluice gate chamber on the north-northeast side of the reservoir.

Q3: Is there sufficient site power for equipment at the reservoir?

A3: Power is supplied from the pump station, but this will not be a reliable means to power equipment as the power will be interrupted at some point during the rehabilitation of the pump station. There is three-phase power currently to the reservoir. Power may or may not be interrupted during the course of the reservoir rehabilitation project. Contractor should include provisions to provide temporary power for their equipment in the even that power is not longer available. Costs shall be built into the bid.