



THE CITY OF
MT. PLEASANT, MICHIGAN

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PRE-BID ADDENDUM NO. 1

Project Bid: 500,000 GALLON DOUBLE ELLIPSE ELEVATED TANK EXTERIOR REPAINT
with CONTAINMENT and WET INTERIOR REPAINT
and MISCELLANEOUS REPAIRS

Bid Date: January 19, 2016

Time: 1:30 p.m.

Opening: Office of the City Clerk
City Hall
320 West Broadway St.
Mt. Pleasant, MI 48858

Addendum Issued By: Division of Public Works

Date Issued: January 13, 2016

Intent: To include Section 13 32 12 Mixing System – attached
To replace Section 00 43 73 Schedule of Values with the
attached section.

Bid Proposal: No change

Specifications: No change

SECTION 13 32 12
MIXING SYSTEM - GRIDBEE

PART 1 – GENERAL

1.01 EQUIPMENT OVERVIEW

- A. These specifications provide the requirements to furnish, install, and place into operation storage tank circulation equipment.

1.02 REFERENCES

- A. Occupational Safety and Health Administration, OSHA
- B. Department of Transportation, DOT
- C. Underwriters Laboratories Inc., UL 508
- D. NSF / ANSI Standard 61

1.03 QUALITY ASSURANCE

- A. Continuous Operation Equipment. The circulation equipment shall operate continuously, all day and all night, using 120 VAC as the power source.
- B. No Visual Defects. The circulation equipment shall have no visual defects, and shall have high quality welds, assembly, and corrosion resistant finish.
- C. Qualified US Manufacturer. The manufacturer of the equipment shall have extensive experience in the production of such equipment, and the equipment shall be manufactured in the continental United States.
- D. Warranty. The circulation equipment shall be warranted to be free of defects in materials and workmanship for a period of 2 years.

1.04 SUBMITTALS

- A. The awarded Bidder shall provide [5] copies of the following documents. Upon acceptance of these documents by the Engineer, the Bidder will be issued a Notice to Proceed, and may then proceed to install the equipment.
 - 1. A qualification statement demonstrating compliance with Section 1.03.
 - 2. Shop drawings for the circulation equipment.
 - 3. Manufacturer's literature, illustrations and specification sheets defining materials of construction, dimensions, and weights.
 - 4. A copy of the warranty statement.
- B. Final submittals shall include:
 - 1. A complete installation, operation and maintenance manual.

1.05 FIELD SERVICES

- A. Safety. Installation personnel shall have received job-specific safety training on (a) Working over Water, (b) Boating Safety, (c) Disinfecting Procedures, (d) Confined Space Entry, (e) Fall Protection, and (f) DOT Compliance.

PART 2 - PRODUCT SPECIFICATIONS

2.01 MANUFACTURER

- A. Specified Equipment. The circulation equipment shall be manufactured by Medora Corporation, of Dickinson, ND, or be a pre-approved alternative.

2.02 PERFORMANCE AND FEATURES

- A. Units Required. To meet the project objectives, the following number of machines are required.

Quantity	Model	Tank or Reservoir
1	GridBee GS-12 120V	Tank

- B. An unobstructed hatch opening of at least 12 Inch diameter (31cm) round is required for installation of the circulation equipment.
- C. Continuous Operation With 120VAC Power Supply. The circulation equipment shall operate continuously during day and night while connected to electric grid power.
- D. Stainless Steel Construction. The circulation equipment shall be constructed primarily of Type 316 stainless steel metal for strength and superior corrosion resistance.
- E. Motor. The circulation equipment shall be mechanically operated by a submersible motor that meets the following criteria.
 - 1. Direct Drive, with no gearbox and no lubrication maintenance required.
 - 2. Designed for submersible operation.
 - 3. Designed for Continuous Operation without overheating or compromising motor life expectancy.
 - 4. Motor to run directly off of 120 V AC power without stepdown transformer.
- F. SCADA and Controls. The mixer shall have the option to add an Electric Control Box including a motor current indicator in a 4-20mA analog output and remote on/off control via 24VDC relay.
- G. Electrical Control Box. The mixer equipment shall be supplied with a Control Box capable of disconnecting 120 VAC outgoing power to the mixer equipment and meeting the following criteria:
 - 1. NEMA 4X enclosure shall be provided with protection against condensation and moisture in a marine environment.
 - 2. Control Box shall be UL 508 Listed for sound electrical design and safety.
 - 3. Control Box shall include exterior mounted HOA switch, definite purpose contactor for mixer control, GFCI, exterior mounted run indicator light, grounding lug, 120 VAC standard three-prong male molded plug, and locking latch for security.
 - 4. Control Box shall include a 4-20 mAmp current transducer providing analog output for motor current allowing for monitoring proper operation. Control Box shall include a 24 VDC relay to allow for remote on and off control of the mixer. Integration of 4-20 mAmp output and remote on/off relay into site PLC/RTU shall be provided by the electrician (not by mixer manufacturer).

5. Control Box requires a 120 VAC power source, Minimum 20 Amp rated service located near the final placement of the Control Box. SCADA and control functions of the Control Box require 24 VDC incoming power for automatic operation and 4-20 mAmp current transducer. The 120 VAC and 24 VDC power source shall be supplied by the electrician (not by mixer manufacturer).
- H. Low Elevation Intake: The circulation equipment shall be supplied with an intake capable of being positioned at the lowest elevation of the tank or reservoir floor. The intake level shall bring water into the circulation equipment at horizontal layer within 6 inches (15 cm) of the tank or reservoir floor.
- I. The circulation equipment shall be NSF / ANSI Standard 61 and NSF Annex G listed for safe contact with potable water.
- J. Contractor to furnish and install Motor Control Panels for all equipment installed, the panels are to be installed in the base of the tank on a 1/8" bent plate welded to the riser wall in the dry interior. Weld using 1/8" full fillet welds. Bolt the control panels using stainless steel or galvanized steel bolts. Repair the coating per section 09 97 13 and 09 97 13.10.
- K. Maintenance Requirements. The circulation equipment shall operate normally with the following maintenance features.
 1. No scheduled lubrication is required of any system components including motor.
 2. No spare parts shall be required to be kept on hand.

PART 3 EXECUTION

3.01 INSTALLATION

- A. The circulation equipment manufacturer shall have capability to provide Installation, Startup, and On-Site Water Testing Services to insure (a) proper machine spatial placement in the reservoir, and (b) proper intake depth setting.
- B. Contractor to provide conduit and electric service from the base of the tank (at the electric panel) up to the roof or utilize the existing conduit if available. All conduit to be galvanized and continuous from ground to roof with no openings.
- C. Contractor to supply coupling and junction box on the roof with water tight seal for electric line and connection point next to the roof hatch for retrieval chain and electric line.
- D. The device is to be installed per manufacturer's recommendations with a weather tight seal on the roof.
- E. Mixer to be installed above the bowl bottom (approximately 4 to 12 inches) using the manufacturers suspension kit.

SECTION 00 43 73
SCHEDULE of VALUES

1.01 PART 1

A. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 05 00 00:

1. <u>PIT WELDING</u>	
\$ _____	/SQ. IN. X 25 SQ. IN. = \$ _____
2. <u>SEAM WELDING</u>	
\$ _____	/LINEAL FT. X 25 LINEAL FT. = \$ _____
3. <u>RISER MANWAY</u>	
_____	\$ _____
4. <u>WET INTERIOR ROOF HATCH</u>	
_____	\$ _____
5. <u>RISER GRATE</u>	
_____	\$ _____
6. <u>OVERFLOW CATCH BASIN AND FLAP GATE</u>	
_____	\$ _____
7. <u>WET INTERIOR LADDER</u>	
_____	\$ _____
8. <u>SIDEWALL LADDER with ROOF PLATFORM</u>	
_____	\$ _____
9. <u>ROOF VENT</u>	
_____	\$ _____
10. <u>WELD CATHODIC COVERS</u>	
_____	\$ _____

11. ANTENNA BRACKET REMOVAL

\$

TOTAL PRICE SECTION 05 00 00 INCLUDING #1 THROUGH #11:

\$

B. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 09 97 13:

1. EXTERIOR REPAINT with CONTAINMENT

\$

2. WET INTERIOR REPAINT

\$

3. SEAM SEALER

\$

C. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 13 32 12:

1. MIXING SYSTEM

\$

TOTAL PRICE SECTION 05 00 00, 09 97 13, and 13 32 12:

SECTION 05 00 00:	\$	_____
SECTION 09 97 13:	\$	_____
SECTION 13 32 12:	\$	_____
PROJECT TOTAL:	\$	_____

1.02 TOTALS

A. Total Base Bid is to match total Base Bid price supplied in Bid/Agreement form.

1.03 BID BOND

A. Bid Bond shall be based on 10% of the total.

1.04 WEIGHTED BIDS

A. Bidder/contractor is advised that, if in the opinion of the owner or engineer, if the Schedule of Values is not an accurate reflection of cost of items, the owner will adjust individual costs to more balance costs. Total will not be changed.

1.05 MISTAKES

- A. Total of Schedule of Values should equal lump sum bid. If addition of individual items does not match total, then each individual items will be proportionately changed to reflect total of values to match lump sum bid.
- B. A mistake in addition for schedule items cannot be used to increase lump sum bid. Individual items will be proportionately changed downward to reflect lump sum price.
- C. A mistake in Schedule of Values may be used as evidence of error in any request to withdraw bids because of error. Approval of request to withdraw bids is covered in the prebid information. This section is not intended to conflict any portion of the bid package. This section is only to reflect one of the reasons to withdraw bids. Approval of bid withdrawal will be based solely on the owner's interpretation of the severity of the mistake.

1.06 CHANGES in SCHEDULE of VALUES by OWNER

- A. The owner reserves the right to delete any line item at their sole discretion for any reason, budgetary or other. All contract general costs should be evenly distributed over these items (mobilization, demobilization, bonds, etc.)
- B. The bidder/contractor is advised not to overload any specific deletable line item. It could result in loss of profit if the overload item is deleted.
- C. This deletion of items or not including additives is an expressly stated reservation (a contractually agreed automatic negotiation). This reservation applies to the three lowest responsible and responsive bidders. Any deletion of specific line item will be completed before selection of the lowest acceptable contractor. Change will be reflected in the Notice of Award.

1.07 NON-DELETABLE WORK

- A. Any adjustment to the items described above will require negotiation and acceptance by both the contractor and owner.
- B. Any deletion of line items, or increase or decrease in unit cost items deemed necessary after the Notice of Award will be completed through the Change Order procedure. Prices used in the Schedule of Values will be used in the Change Order adjustment. If work has begun on an item before being deleted by Change Order, the contractor is entitled to costs incurred.