

**ADDENDUM NO. 1**  
**For**  
**18-0057-UT MS WRF Blend Tank Mixer**

**Date: September 30, 2021**

**Subject: Addendum No. 1**

**To: Prospective Bidders and Others Concerned**

---

**ADDENDUM #01 - Responses to Bidder Questions      09/28/2020**

**As follows are Responses to Questions submitted by e-mail to the City Purchasing Agent:**

Question 1: A) The scale given on mechanical drawings (M1 to M9) seems to be wrong. The given dimensions on mechanical drawings don't match with the scale.

**Response:** The Contractor is advised that the Scale Bar is accurate regardless of sheet size with the following exceptions:

- a. The listed scales on Sheet M-3 (3/8"=1'-0") are dependent on the Drawings being a Full-Scale / Full Size 22" x 34" set. Confirm scaling on Sheet M-3.
- b. The Plan view on Sheet M-4 is herein revised to depict the correct scale and Tank Diameter. These sheets were intended for referencing elevations.

Question 1: B) Please confirm the pipe material for 2" EFW-1 on Drawing M-2 when it comes above-ground to get tied to the hose rack which is located on the Sludge Holding Tank Walkway.

**Response:** The Pipe Schedule on M-1 indicates the below grad pipe material – Schedule 80 PVC. The Detail on Sheet M-7 is herein revised to indicate that the above grade pipe shall be 304 SS to match the shown fittings materials.

Question 2: A) Are there any photos of the interior? We were unable to view the interior of the tank. What type of liner is currently on the interior of the tank? How thick is the liner on the interior and when was it applied? How is the interior surface condition of the tank? Is the concrete deteriorated at all on the interior?

**Response:** Please refer to the attached Structural Evaluation Report conducted in 2018. The report includes interior and exterior photos. In general; the exterior of the tank was observed to be in good to fair condition with minor cracking. No signs of active

Leaks or weeping was observed. Only minor cracking was observed at the interior surfaces of the walls and floor slab. No spalling or exposed reinforcement was observed. Per the report, there was no coating system visible at interior wall surfaces.

Question 3: Provide clarification regarding Specification 03180-4,2.01 Coating Systems, A., 1. Green Monster Liner.

**Response:** The Contractor is advised of the following clarifications:

- a. The Cementitious Surfacer shall be Green Monster Liner 60 and shall be applied at a minimum of 1/2 inch thickness and as required to bring the existing structure up to original thickness.
- b. Apply primer in accordance with the manufacturer's requirements.
- c. Apply one coating of Green Monster Structural at a minimum DFT of 125 mils.

Question 4: The Pipe Schedule on Drawing M1 refers to the 4" and 6" DR-1 piping to be PVC but lists Spec. Section 15290-PCV Pipe 3" and smaller as the Spec. Can you clarify the materials required?

**Response:** Contractor shall refer to Clearwater Specification Section 502-2.2 regarding 4", 6" and 8" diameter PVC Piping.

Question 5: A) When was the last time the Tank was cleaned?

**Response:** A) It is believed the last time the Tank was cleaned was in the fall of 2018. Please refer to the Tank Evaluation Report conducted in October 2018, attached herein.

Question: B) Can the sludge be dewatered and returned to the head of the plant or will all 300 CY need to be hauled off?

**Response:** B) Specification 01100-2, Summary of Work Description, Item 3, indicates that any remaining grit, sludge, and rags from the existing Sludge Holding Tank shall be disposed of offsite in accordance with FDEP regulations.

Question: C) What percentage can we anticipate being sludge vs. sand & grit?

**Response:** C) The actual percentage of constituents is not known.

Question: D) Do you have any photos of inside the tank?

**Response:** D) Please refer to the Tank Evaluation Report conducted in 2018, attached herein.

Question 6: In reference to the concrete repair systems listed in 03930 please provide:

Question: A) a concrete repair area in reference to depth of the repairs required, *and*

**Response:** A) Specification 03930-10, 3.05 requires that cracks less than 1/16<sup>th</sup> inch thick shall be repaired by pressure injection. Upon completion of the Tank Interior and Exterior Cleaning an inspection will be conducted by the Contractor and Engineer

to identify and mark areas for repair.

**Question:** B) a crack repair length of the repairs required,

**Response:** B) Upon completion of the Tank Interior and Exterior Cleaning an inspection will be conducted by the Contractor and Engineer to identify and mark areas for repair.

**Question:** C) confirm the concrete coating systems provided in 03180, 2.01.A are sufficient for the interior concrete tank repairs.

**Response:** C) Specification 03180-4,2.01 Coating Systems, A., 1. has been revised to clarify Green Monster Lining coating requirements. Please refer to above response for Question 3. All other coatings manufacturers are specified as indicated.

**Question 7:** In reference to 01500, 1.05, B, please confirm the Owner would like the GC to provide an ATV for this project.

**Response:** An ATV is not required for this project.

**Question 8:** In reference to 01815, 3.03, B.3, we recommend the Owner provide an electrical connection point for electric temporary pumps in lieu of requiring diesel power. This is due to the existing pumps would be running on the Owner's power and it is very difficult for the GC to assume the amount of power used for this pumping system.

**Response:** Contractor is to provide as specified. An alternate electrical pump can be taken into consideration if it meets or exceeds performance requirements. In this case, the Contractor is responsible for obtaining a meter and installing a temporary power drop so that all related electrical service costs can be accounted and paid for by the Contractor.

**Question 9:** Is there any information available on the existing coating that's on the blend tank. Product? Thickness?

**Response:** Please refer to the Tank Structure Evaluation Letter Report, attached herein. Per the report there is no coating.

October 31, 2018

Mr. David T. Yonge, PhD, PE  
Jones Edmunds & Associates, Inc.  
324 S Hyde Park Ave, Suite 250  
Tampa, FL 33606

Re: Structural Evaluation  
Marshall Street WRF Blend Tank  
City of Clearwater, Florida

Dear Mr. Yonge,

As you have requested, on October 29, 2018, Wekiva member David S. Morris, PE visited the above referenced site to view the condition of the blend tank. The purpose of the visit was to make observations regarding the current structural condition of the tank while it was drained and note any deficiencies or concerns as well as provide recommendations for repairs/improvements as part of the evaluation. It is Wekiva's understanding the tank equipment will be upgraded in the near future and the upgrades will consist of a new mixer and covers. Wekiva has been provided record drawings prepared by Briley, Wild & Associates, Inc Dated 4/22/92, Sheets 104,105 &106 to assist in the tank's evaluation. The tank's location at the project site is indicated in Figure A below.

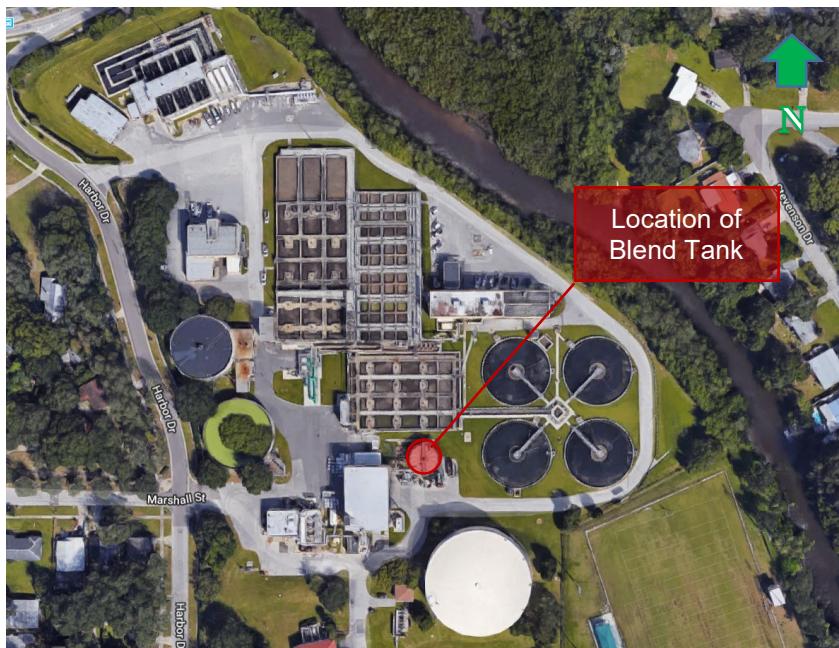


Figure A: Aerial Location Map – Marshal Street WRF

## OBSERVATIONS

---

The blend tank consists of an above grade 40-foot diameter reinforced concrete structure with a side water height of 15-feet. The date of original construction is indicated to be around 1992 according to the record drawings. A steel platform spans across the diameter of tank and provides support to the mixer and the tanks fiberglass covers. At the time of the visit the tank was drained and undergoing maintenance as well as removal of existing steel baffles. Access was provided to the interior of the tank from the 42" diameter manway in the side wall of the tank. Additional observations were also made from the elevated platform.

The following summarizes the observations made during the site visit (all referenced photos are attached):

- The exterior of the tank was observed to be in good to fair condition with minor cracking. No signs of active leaks or weeping was observed. (**Photo 1**)
- Only minor cracking was observed at the interior surfaces of the walls and floor slab. No spalling or exposed reinforcement was observed. There was no coating system visible at interior wall surfaces. (**Photo 3 & 4**)
- The access stairs and landings were taped-off. The treads on the stairs appear to be have experienced some degradation. The upper stair stringers had a noticeable horizontal lean. (**Photo 5**)
- Major corrosion of structural members was observed throughout the steel platform. Substantial to entire section loss was observed in the structural members. (**Photo 7-10**)

## **DISCUSSION AND RECOMMENDATIONS**

---

The overall condition of the concrete portions of the blend tank (walls and base slab) is in good to fair condition given the tanks age. Wekiva has also performed a cursory review of the structural record drawings that were prepared by Briley, Wild & Associates. After performing the site visit and reviewing the record drawings there are no structural concerns for the concrete portions of the tank to remain in service. During the visit, a portion of tank steel baffle walls were being cut and removed. It is recommended that any remaining steel within the tank be grinded below the concrete surfaces approximately 1" and provided with a corrosion inhibitor/bonding agent such as Sika Armatech 110 and then repaired flush with a Sikatop 123 repair mortar.

The steel platform above the tank is in poor condition due to the extent of corrosion observed. Major section loss and delamination was noted along the platforms primary support beams and complete section loss was observed at secondary members. Wekiva recommends complete removal and replacement of the platform. Wekiva does not recommend that personnel and equipment be permitted on the platform until these repairs have been performed. A new platform shall be designed for the proposed mixer and possibly support of the tank covers. Additionally, it is recommended to replace the access stairs as part of the proposed improvements.

If you have any questions or need further information, please call.

Sincerely,



David Morris, P.E.  
Principal / Member

## Photographs



**Photo No. 1: Exterior View of Blend Tank**



**Photo No. 2: View from Platform Looking into Blend Tank (Fiberglass covers have partially been removed)**

## Photographs



Photo No. 3: View of Interior Concrete Walls



Photo No. 4: View of Interior Slab and Walls

## Photographs

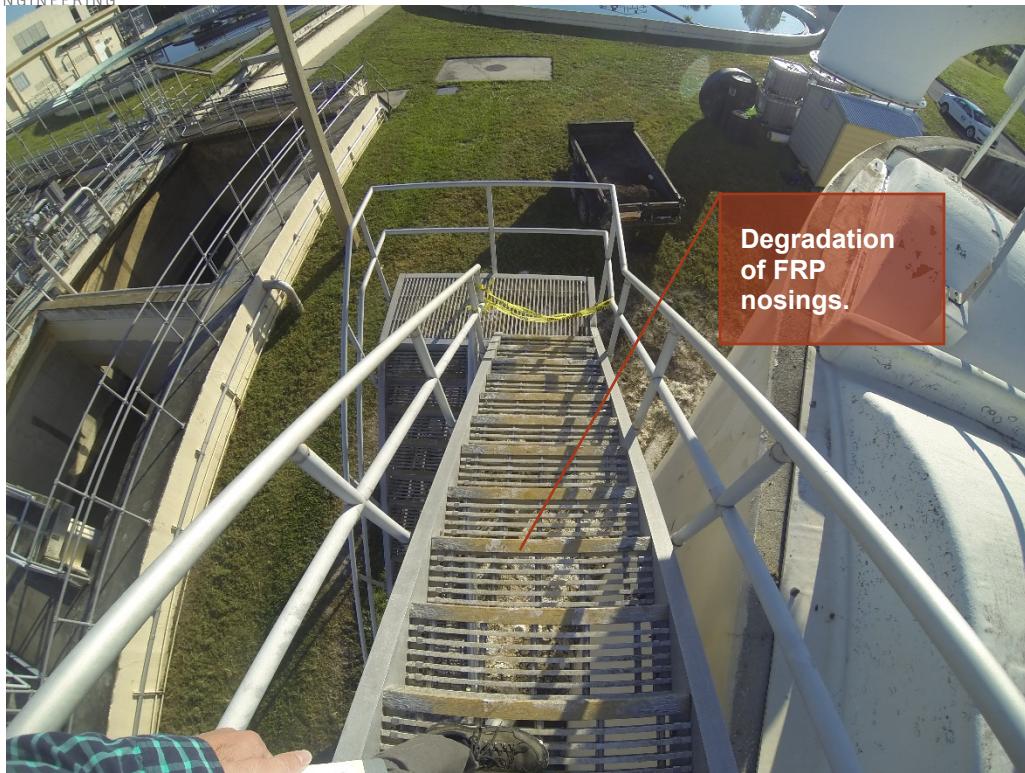


Photo No. 5: Platform Access Stairs

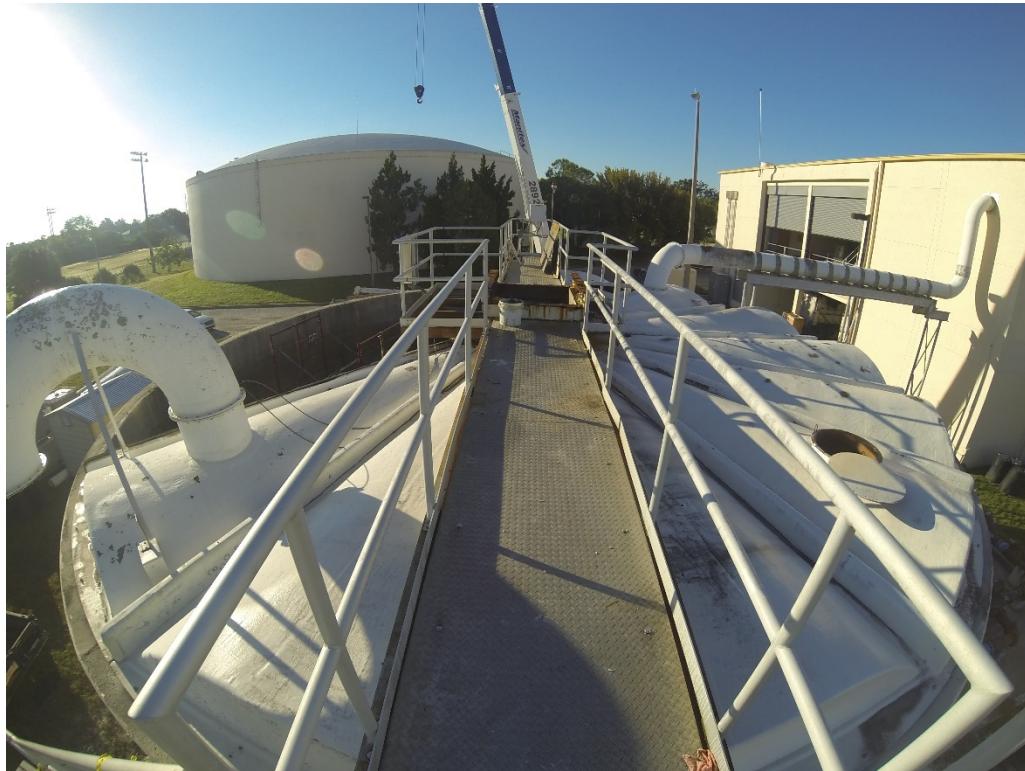


Photo No. 6: Steel Platform Over Blend Tank

## Photographs



Photo No. 7: Equipment Support at Center of Platform



Photo No. 8: Steel Support Beams at Underside of Platform

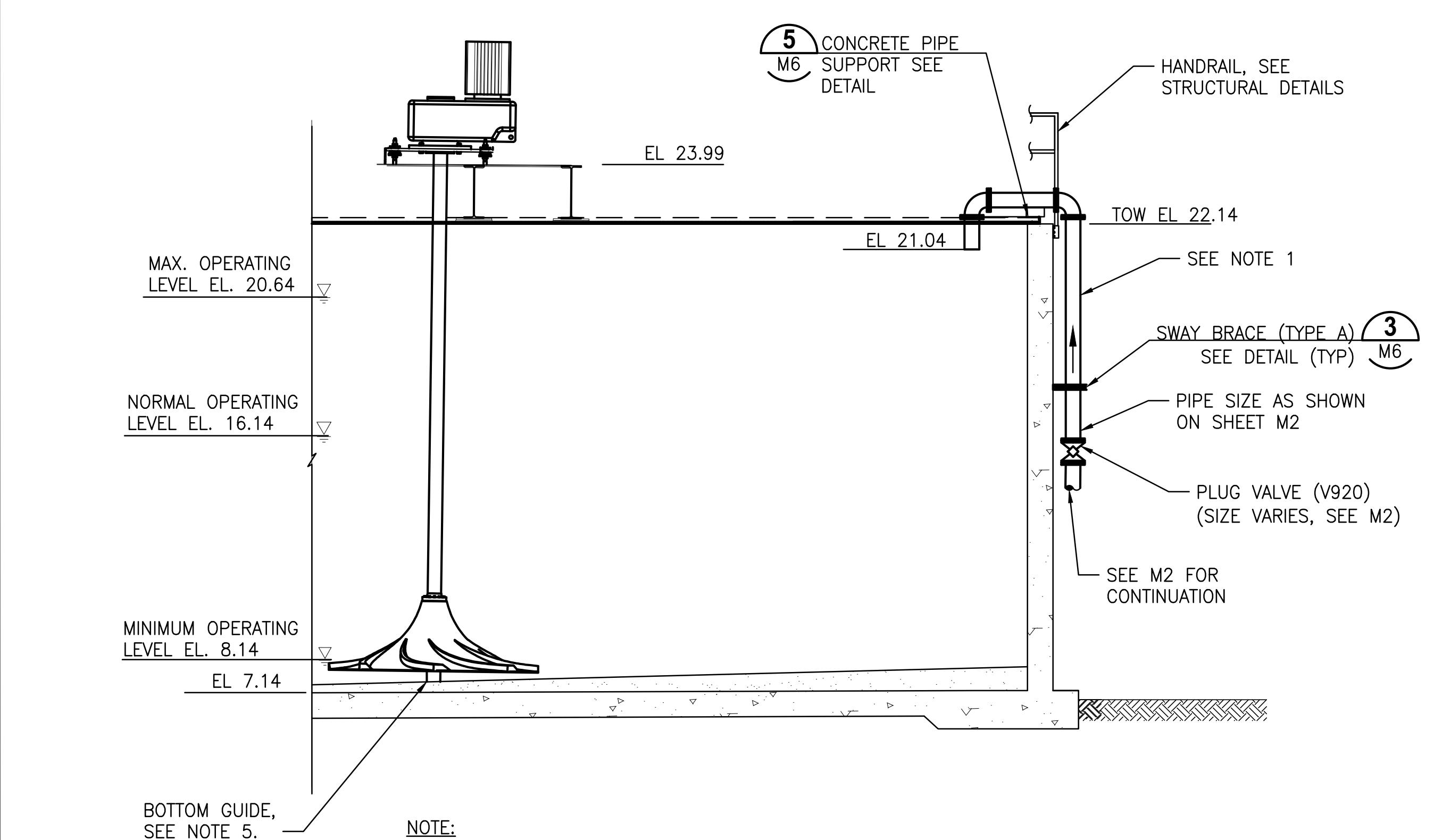
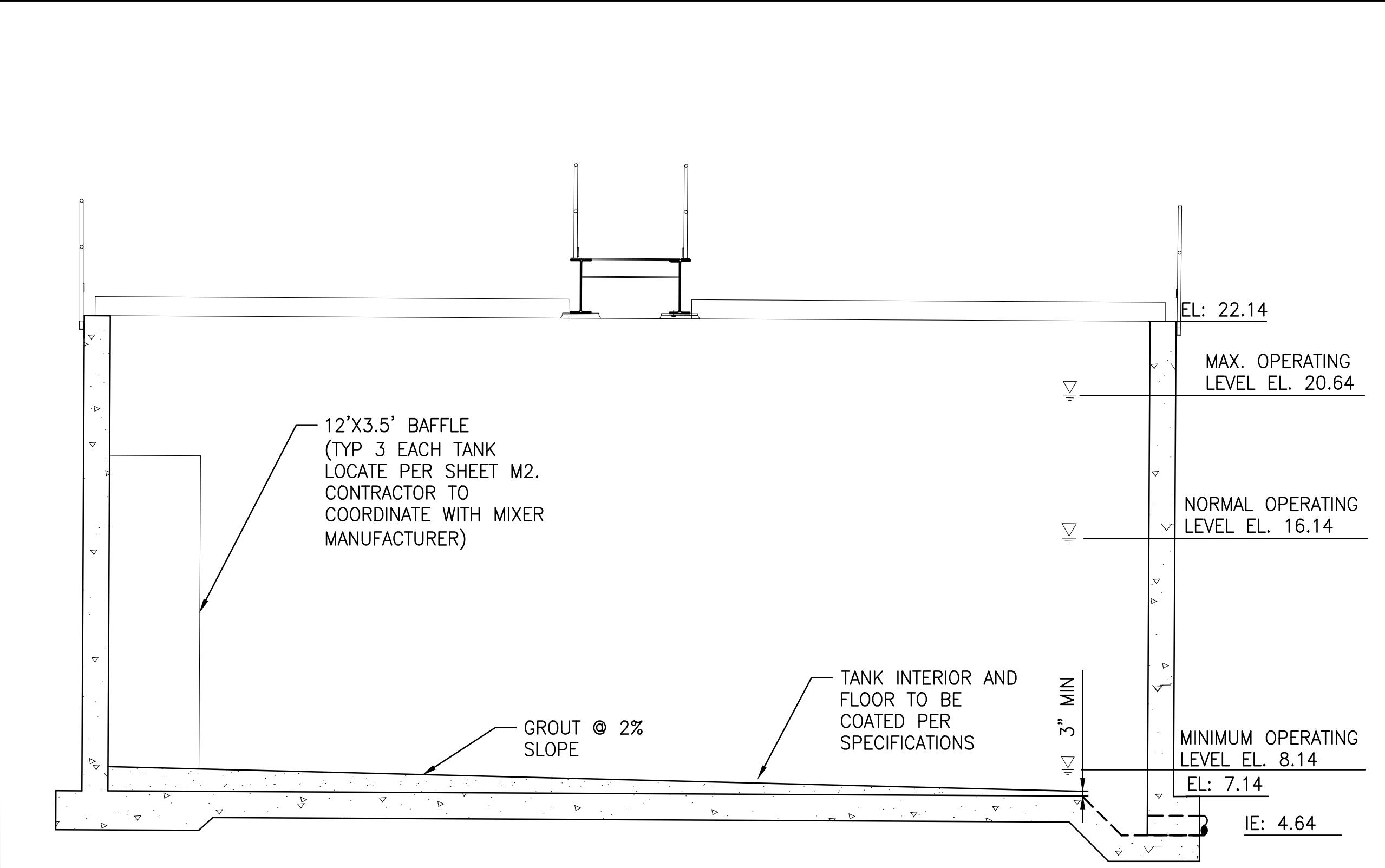
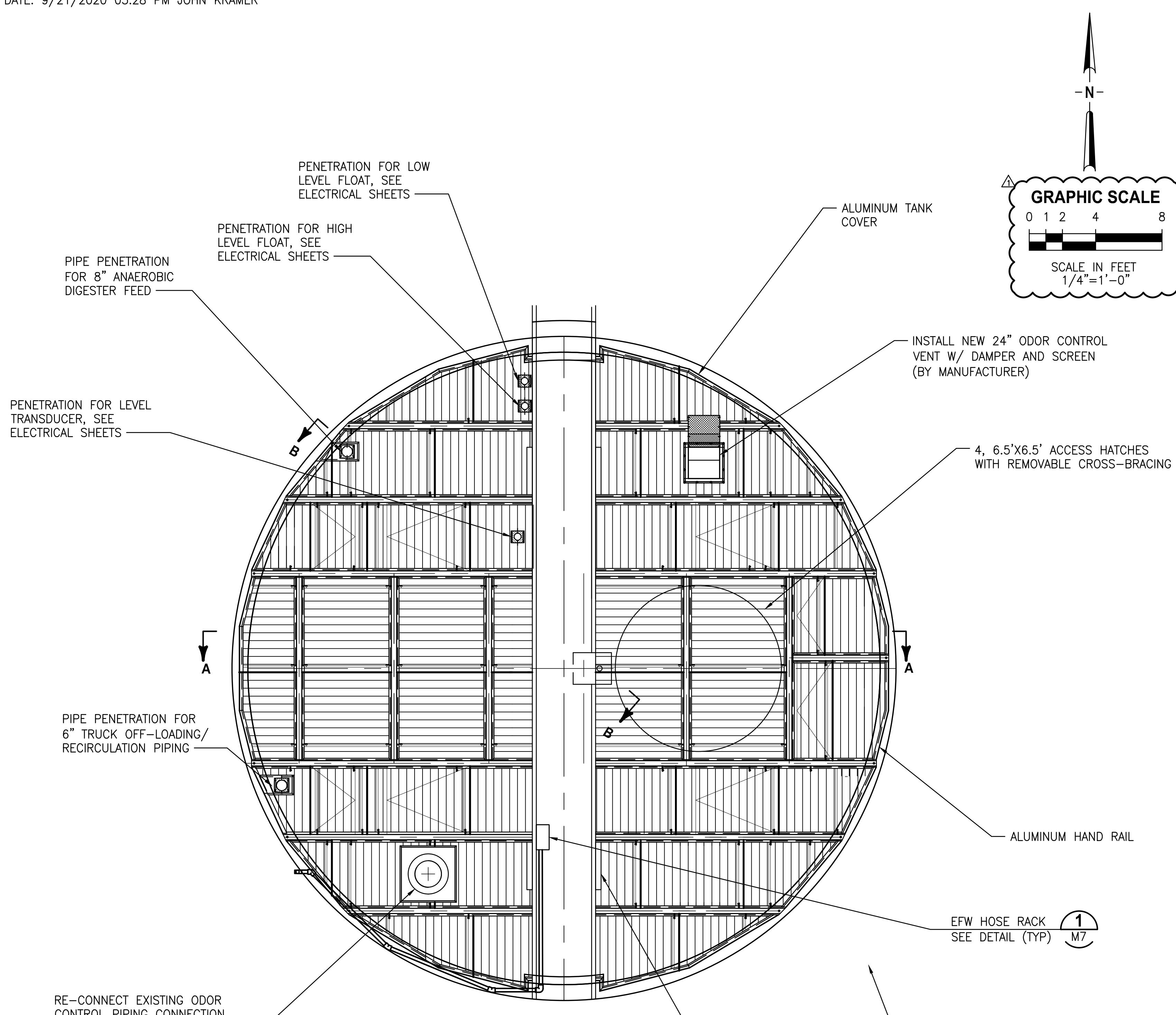
## Photographs



Photo No. 9: Platform End Support Along Exterior Wall



Photo No. 10: View Along Exterior Edge of Steel Platform



RECORD DRAWINGS	DRAWN BY	DATE	REVIEWED BY	DATE
SURVEYED BY:				
PROJECT ENGINEER				
APPROVED BY:				
CITY ENGINEERING DIRECTOR TARA KIVETT, P.E. #86611				

△ ADDENDUM #1 ADJUSTED SCALE  
REVISION BY DATE

CITY OF CLEARWATER, FLORIDA  
ENGINEERING DEPARTMENT  
100 S. MYRTLE AVE.  
CLEARWATER, FL 33756



**JonesEdmunds**

CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
324 S HYDE PARK AVE, SUITE 250, TAMPA, FLORIDA 33606 / (813) 258-0703

MS WRF BLEND TANK  
MIXER PROJECT  
SLUDGE TANK PLAN AND SECTION

DWG NAME: 0372005401-M04.dwg	FIELD BOOK:	SURVEYED BY:	SCALE: VERT.
CONTRACT NO.: 18-J057-UT	DATE DRAWN: JUNE 2020	DRAWN BY: SMENARD	HORIZ. AS NOTED
JOB NO.: 03720-054-01	DESIGNED BY: DYONGE	CHECKED BY: TFRIDRICH	SHEET NO.: M4
APPROVED FOR CONSTRUCTION			
	DWG. T. YONGE, P.E. # 85457		DATE

