alcosan
allegheny county sanitary authority

Memorandum

MARCH 6, 2026

CONTRACT NO. 1819

SCREEN REPLACEMENTS AT ELLA AND CORLISS PUMP STATIONS

ADDENDUM No. 2

All bidders bidding **Contract No. 1819** shall read and take note of this **Addendum No. 2.** The Contract Documents for **Contract No. 1819 – SCREEN REPLACEMENTS AT ELLA AND CORLISS PUMP STATIONS** are hereby revised and/or clarified as stated below.

Acknowledgement of Contract No. 1819; Addendum No. 2

The Acknowledgement attached to **Addendum No. 2** is to be signed and returned immediately via email to **Judith Shropshire** at contract.clerks@alcosan.org and acknowledged with Bidder's Proposal.

Michael Lichte, P.E.
Director - Regional Conveyance

ACKNOWLEDGEMENT OF

CONTRACT NO. 1819

SCREEN REPLACEMENTS AT ELLA AND

CORLISS PUMP STATIONS

ADDENDUM No. 2

FIRM NAME: _____

SIGNATURE: _____

TITLE: _____

DATE: _____

MARCH 6, 2026

CONTRACT 1819

SCREEN REPLACEMENTS AT ELLA

AND CORLISS PUMP STATIONS

ADDENDUM No. 2

ATTENTION: *Note the date changes reflected below for submitting bids and questions.*

BIDS DUE: Tuesday, March 31, 2026 at 11:00 AM EDT

DEADLINE FOR QUESTIONS: Friday, March 20, 2026 at 4:00 PM EDT

This Addendum No. 2 consists of 20 total pages, including the following attachments:

- Attachment A – BIDDING DOCUMENTS, TECHNICAL SPECIFICATIONS
    - Section 05220 HANDRAILS (6 pages, Revised 03/02/2026)
- Attachment B – BIDDING DOCUMENTS, CONTRACT DRAWINGS (1 page)
    - Revised 1819_O06A_MPLN_01 (Sheet 16 of 34)
- Attachment C – ADDITIONAL SITE PHOTOS (4 pages)

ATTENTION BIDDERS
The following additions to and modifications of the Contract Documents will be included in and become part of the Contract for the Allegheny County Sanitary Authority (ALCOSAN) Screen Replacements at Ella and Corliss Pump Stations. Bidders are instructed to take the following into account in rendering any Bid for this work.

The Bidder is responsible for verifying that they have received and reviewed all of the pages of the Contract Documents as well as all of the pages and attachments of all addenda. The Bidder shall verify all pages with the table of contents in the Contract Documents and the first page of all Addenda. Receipt of this Addendum No. 2 must be noted on the Bid Form. These items modify the portions of the documents specifically noted; all other provisions of the Contract Documents shall remain in effect.

MARCH 6, 2026

CONTRACT 1819

SCREEN REPLACEMENTS AT ELLA

AND CORLISS PUMP STATIONS

ADDENDUM No. 2

A. **Miscellaneous**

1. The period to submit questions has been extended until Friday, March 20, 2026 at 4:00 PM EDT. The date to submit bids has been extended to Tuesday, March 31, 2026 at 11:00 AM EDT.

B. **Requests for Information**

1. **Questions Submitted Following the Pre-Bid Meeting Conference:** The following questions were submitted following the meeting:

   i. Is there additional power/spare bucket an electrician could tie into at both Corliss and Ella pump stations to temporary site power at both locations or must our own power be provided? Please advise.

   Answer: Site power is available at both locations. It is confirmed that power is available as 120V, 208V and 480V 3PH 100A service. Connection work for any such use shall be coordinated directly with ALCOSAN.

   ii. On sheet 16 of 34 there is roughly 14ft of handrail around the new bar screen. There are no specifications for this handrail. Please provide handrail specs.

   Answer: A handrail specification, Section 05520 Handrails, has been ADDED to the Technical Specifications via Attachment A in Addendum 2. Plan A on Sheet 16 has also been REVISED via Attachment A in Addendum 2 to specify "New 42" high 3-rail 304 stainless steel handrail and toe plate around opening."

   iii. On sheet 23 of 34 there is 1- 24x24 access hatch. There are no specifications for the access hatch. Please provide access hatch specs.

   Answer: Information including the manufacturer, size, model number, and material of the hatch is provided in Note 2 on Sheet 23. Please advise if additional information is needed.

iv. Corliss Pump Stations bypass location starting point O-13, no information has been provided about this structure in the bid documents, are there as-built documents available as to what where pumping out of and access into the structure, please advise.

Answer: Drawings and photos included in Addendum 1.

v. Corliss Pump Station bypass location ending point manhole O-10-02, is there any further information available for this location, elevations, size, current condition, photographs, please advise.

Answer: Drawings and photos included in Addendum 1.

vi. After an initial schedule analysis, we are requesting six additional months be added to project duration.

Answer: No extension of the contract duration beyond the current 360 days is approved at this time. Please advise on justification for time extension request.

vii. Ella Street Pump Station - Initial bypass pumping from manhole MH0074M03 to manhole O-06-18 (Hamilton street & Ella street) for the sluice gate replacement: Why can't that bypass stay in place for the entire length of project instead of moving to sequence 2 for the replacement of mechanical bar screen and concrete work. That initial bypass would still be picking up the flow of the 60" line and keeping everything dry for work to be completed.

Answer: The Suggested Bypass Plan for Ella Street Pump Station includes relocation of the initial bypass configuration to minimize work outside of the boundaries of the pump station property lines. The relocated bypass configuration (Sequence 2) would be on ALCOSAN property and would remove the burden of managing the bypass on a public roadway and the additional manpower associated with traffic control. The Contractor may propose an alternative bypass plan.

viii. Please provide profile drawings of manhole MH0074M03 and 0-06-18 at Ella Street Pump Station.

Answer: Drawings included in Addendum 1.

ix. Ella Street Pump Station - In the new 8" bypass connection, we do not recommend for permanent installations as it adds friction loss and risk with solids moving at too high a velocity through the pipe and tap. Should this be at least a 10" or greater for permanent install based on the required flows, please advise.

Answer: The new 8" bypass connection is acceptable. ALCOSAN does not anticipate frequent use of the bypass, or that bypass flows will regularly be as high as the peak dry weather flow.

x. Please provide profile drawings and surrounding lines/structures for the 0-13-RG Combined Sewer Regulator.

Answer: Drawings and photos included in Addendum 1 and this Addendum 2.

xi. Has CSX been notified of this project? We have tried but will not get the required response back for some time. Will they allow for bypass piping to be laid along the edge of their service road (Ohio River Side), current profile makes embankment bypass impractical and floating bypass due to the currently ongoing Potomac incident also extremely impractical, please advise.

Answer: CSX has not been notified about the project. A suggested bypass plan has been provided in specifications, but it is the Contractor's means and methods to determine the final proposed bypass plan. See the "CSX Public Project Information For Construction and Improvement Projects That May Involve the Railroad" in Appendix B of the bidding documents.

[ATTACHMENTS FOLLOW THIS PAGE]

ATTACHMENT A – BIDDING DOCUMENTS, TECHNICAL SPECIFICATION SECTIONS

05220 HANDRAIL SPECIFICATION, Revised 03/02/2026 (6 pages)

SECTION 05520
HANDRAILS

PART 1 GENERAL

1.1 DESCRIPTION

A. This specification establishes the design criteria, material requirements, fabrication standards, and installation procedures for a three-rail stainless steel guardrail system with an integral toeboard, to be installed in the screen room of the Ella Street Pump Station. The system shall function as a permanent fall-protection and personnel-safety barrier and shall comply with all applicable structural load requirements, occupational safety regulations, and building code provisions.

B. Provide a complete guardrail assembly—including posts, top rail, intermediate rails, toe-plate, fittings, and anchorage hardware—designed, fabricated, and installed in accordance with the latest editions of the following standards

1.2 REFERENCES

A. International Building Code (IBC), latest adopted by PA UCC

B. Pennsylvania Uniform Construction Code (UCC), latest edition

C. American Society for Testing and Materials (ASTM):

1. ASTM A240 – Stainless Steel Plate, Sheet, and Strip
2. ASTM A276 – Stainless Steel Bars and Shapes
3. ASTM A312 – Stainless Steel Pipe
4. ASTM A554 – Welded Stainless Steel Mechanical Tubing
5. ASTM E985 – Permanently Installed Metal Rail Systems

D. Occupational Safety and Health Act (OSHA): 29 CFR 19.10, Code of Federal Regulations (Walking and Working Surface Standards for Industrial Environments

1.3 DEFINITIONS

A. Handrails: Synonymous with terms, i.e., guardrail system, railing system, ramp-rail system, and stair-rail system. Handrails are comprised of a framework of vertical, horizontal, or inclined members, grillwork or panels, accessories, or combination thereof.

B. Toeboards: Vertical barrier at floor level usually erected on handrails along exposed edges of floor or wall openings, platforms, ramps, or stairs to prevent miscellaneous items from falling through.

1.4 SUBMITTALS

A. Shop Drawings: Indicate guardrail profiles, sizes, connections, anchorage, size and type of fasteners, and accessories. Project-specific scale plans and elevations of handrails.

B. Product Data:

1. Manufacturer's literature and catalog data of handrail and components including tubing, fittings, and fasteners.
2. Design Data: Calculations or test data using design performance loads. Design loads and calculations shall be verified by a licensed Commonwealth of Pennsylvania Professional Engineer. They shall include the following:
    a. Bending stress in, and deflection of, posts in accordance with ASTM E985.
    b. Stress in post base connection.
    c. Calculation of anchorage forces and comparison of these forces to safe allowable design loads of concrete anchors.
    d. Calculation of deflection demonstrating compliance with ASTM E985 criteria
    e. Calculations and test data for concrete anchorage.

C. Installation Instructions

1. Manufacturer's installation guidance for field assembly.

1.5 QUALITY ASSURANCE

A. Qualifications: Calculations required for design data stamped by a registered engineer licensed in the Commonwealth of Pennsylvania.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Handrails are adequately packaged and wrapped to prevent scratching and denting during shipment, storage, and installation. Maintain protective wrapping until railing is completely installed.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Thermal Movements: Allow for thermal movement resulting from the following maximum range in ambient temperature in the design, fabrication, and installation of handrails to prevent buckling, opening up of joints, over stressing of

components, connections and other detrimental effects. The temperature change is the difference between high or low temperature and installation temperature.

1. Temperature Change Range: 70 degrees F, ambient; 100 degrees F, material surfaces.

PART 2 PRODUCTS

2.1 DESIGN PERFORMANCE

A. Structural Performance of Handrails: Design, test, fabricate, and install handrails to withstand the following structural loads without exceeding the allowable design working stress or allowable deflection. Apply each load to produce maximum stress and deflection in each of the respective components comprising handrails.

1. Top Rail of Handrails: Capable of withstanding the following load cases applied:
   a. Concentrated load of 200 pounds applied at any point and in any direction in accordance with IBC.
   b. Uniform load of 50 pounds per linear foot applied horizontally and concurrently with uniform load of 100 pounds per linear foot applied vertically downward in accordance with IBC.
2. In-Fill Area of Railing Systems:
   a. Capable of withstanding a horizontal concentrated load of 200 pounds applied to 1 square foot at any point in the system including panels, intermediate rails, balusters, or other elements composing the in-fill area.
   b. Horizontal concentrated load need not be assumed to act concurrently with loads on top rails of handrails.
3. Mid-rails with corner returns to withstand a 300-pound concentrated vertical load applied at any point or direction without damage and loosening of pipe, fittings, or attachment hardware.
4. Concrete Anchors for Handrail Brackets: Anchors with a strength required by calculations with concrete strength assumed at 4,000 psi and not exceeding allowable loads for actual spacing, edge distance, and embedment.
5. Anchors with Other Substrates: In accordance with allowable load values for size, length, embedment, spacing, and edge distance to match required loads shown in calculations.

B. Concrete Embedded Metal Anchorages: In accordance with Section 05051, ANCHORS, INSERTS, AND EPOXY DOWELS.

C. Finishes:

1. Handrail Pipe and Post: In accordance with ASTM A480/A480M — Surface Finish Definitions for Stainless Steel Sheet & Plate, No. 4 Finish

2. Cast Fittings and Toeboards: STM A480/A480M — Surface Finish Definitions for Stainless Steel Sheet & Plate, No. 4 Finish

2.2 MATERIALS

A. Stainless Steel Tubing:
1. Posts and Rails:
a. ASTM A554 or A312
b. Type 304 or 316 Stainless Steel
c. Rail Outer Diameter: 1.5 to 1.9 inch
d. Rail Wall Thickness: minimum 0.109” (11 gauge)

2. Fittings:
a. Stainless steel mechanical fittings or welded stainless connections
b. Materials shall be alloy as tubing

2.3 ANCHOR BOLTS, FASTENERS, AND CONCRETE ANCHORS

A. Locknuts, Washers, and Screws:

1. Elastic Locknuts, Steel Flat Washers, RHMS Round Head Machine Screws: Type A 316 stainless steel.
2. Flat Washers: Molded nylon.
3. Manufacturer: McMaster-Carr Supply Co., Los Angeles, CA.

B. Bolts and Nuts for Bolting Handrail to Metal Beams: ASTM A193 and ASTM A194, Type A 316 stainless steel with minimum yield strength for bolts of 95,000 psi, unless otherwise shown.

C. Concrete Anchors:

1. All concrete anchors for handrails shall be epoxy adhesive and use minimum of 1/2 inch diameter anchors, in accordance with Section 05051, ANCHORS, INSERTS, AND EPOXY DOWELS, Design and provide the number required.
2. Stainless steel Type 316.
3. Use approved loading values for size, length, embedment, spacing, and edge distance to match required loads shown in calculations.

PART 3 EXECUTION

3.1 GENERAL

A. Provide railing posts longer than needed and field cut to exact dimensions required in order to satisfy vertical variations in the actual structure. Install railing with a base that provides plus or minus 1/4-inch vertical adjustment inside the base fitting. If adjustment is required in the field and exceeds plus or minus

1/4-inch, reduce post length not to exceed beyond bottom of lowest setscrew or bolt in base fitting.

B. Field fabrication of aluminum railing systems is not permitted.

C. Modification to structure not permitted where handrail is attached.

3.2 HANDRAIL INSTALLATION

A. Assembly and Installation: Perform in accordance with manufacturer's written recommendations for installation.

B. Protection from Entrapped Water:

1. Make provisions in exterior and interior installations subject to high humidity to drain water from railing system.
2. Posts mounted in concrete, bends and elbows occurring at low points, drill weep holes of 1/4-inch diameter at lowest possible elevations, one hole per post or rail.

C. Expansion Joints:

1. Maximum intervals of 54 feet on center and at structural joints.
2. Slip joint with internal sleeve extending 2 inches beyond each side of joint. Provide 1/2-inch slip joint gap to allow for expansion.
3. Fasten to one side using 3/8-inch diameter setscrew. Place setscrew at bottom of pipe.
4. Locate joints within 12 inches of posts. Locate expansion joints in rails that span expansion joints in structural walls and floors supporting the posts.

D. Setting Posts:

1. Embedded:
   a. Clean dust and foreign matter from sleeves or blockouts.
   b. Moisten interior of hole and surrounding surface with clean water. Fill hole with nonshrink grout prior to installing post.
   c. Brace railing until grout sets.
   d. At posts installed outside and exposed to freezing temperatures, drill weep holes through post approximately 1/2-inch above the level of the grout inside the post and in plane of the rail to prevent entrapment and freezing of water inside post.
2. Surface Mounted:
   a. Bolt post baseplate connectors firmly in place.
   b. Shims, wedges, grout, and similar devices for handrail post alignment are not permitted.

E. Posts and Rails:

1. Set posts plumb and aligned to within 1/8 inch in 12 feet.
2. Set rails horizontal or parallel to slope of steps to within 1/8 inch in 12 feet.
3. Install posts and rails in same plane. Remove projections or irregularities and provide a smooth surface for sliding hands continuously along top rail. Use offset rail for use on stairs and platforms if post is attached to web of stringers or structural platform supports.
4. Support 1-1/2-inch rails directly above stairway stringers with offset fittings.
5. Support wall rails on brackets spaced maximum 5 feet as measured on the horizontal projection.

F. Toeboard:

1. Provide at all handrails.
2. Accurately measure in field for correct length, after handrail post installation, cut and secure to posts.
3. Dimension between bottom of toeboard and walking surface not to exceed 1/4 inch.
4. Provide expansion and contraction connections between each post.

3.3 FIELD FINISHING

A. Corrosion Protection: Prevent galvanic action and other forms of corrosion caused from direct contact with concrete and dissimilar metals by coating metal surfaces with a high-build 100% solids epoxy barrier.

3.4 CLEANING

A. Wash railing system thoroughly using clean water and soap. Rinse with clean water.

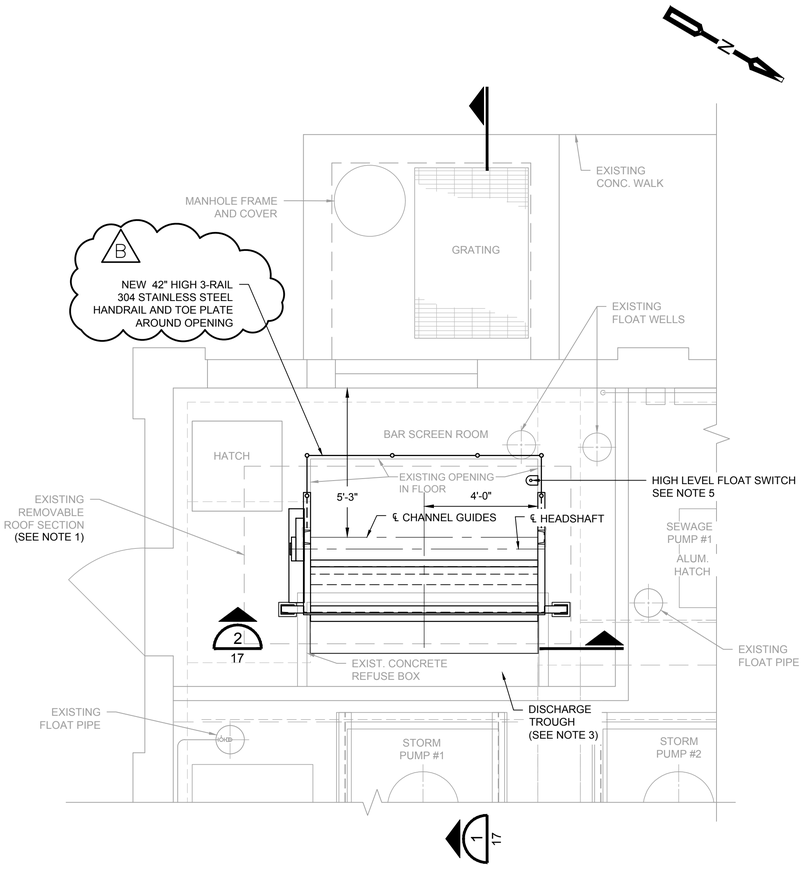
B. Do not use acid solution, steel wool, or other harsh abrasive.

C. If stain remains after washing, restore in accordance with manufacturer's recommendations, or replace stained handrails if repair is not satisfactory.

END OF SECTION

ATTACHMENT B – BIDDING DOCUMENTS, CONTRACT DRAWINGS

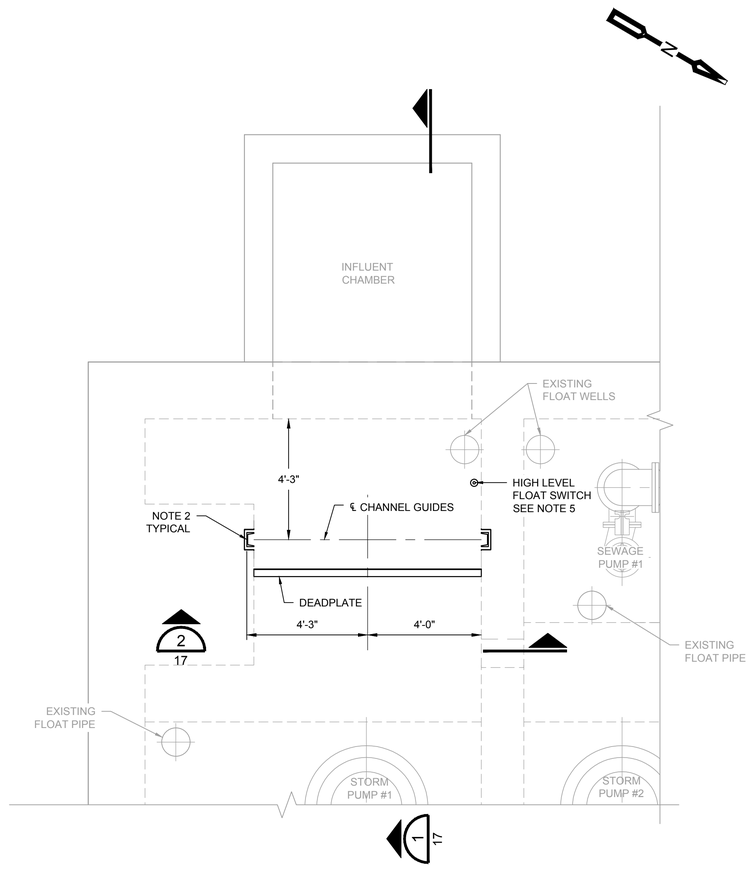
Revised 1819_O06A_MPLN_01 (Sheet 16 of 34) (1 page)



FIRST FLOOR
ELEVATION 731.54

PLAN A

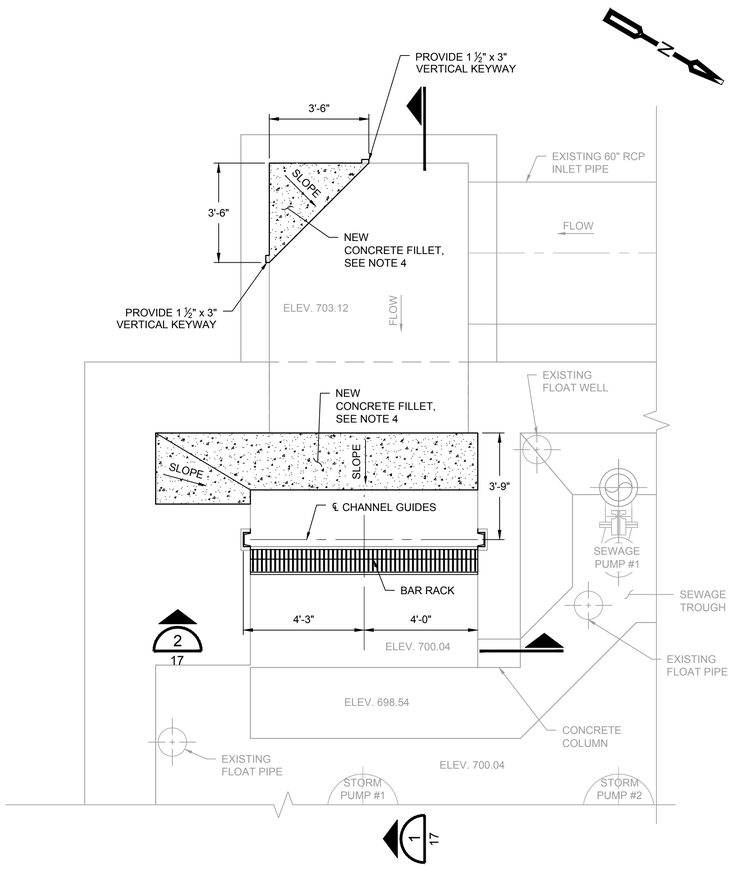
SCALE: 3/8" = 1'-0" 16



INTERMEDIATE FLOOR
ELEVATION 722.00

PLAN A

SCALE: 3/8" = 1'-0" 16



WET WELL
ELEVATION 703.12

PLAN C

SCALE: 3/8" = 1'-0" 16

NOTES:

1. CONTRACTOR TO CONFIRM ROOF OPENING AND OPENING WITH REMOVABLE BEAM SIZE IS LARGE ENOUGH TO ALLOW THE LARGEST PART OF THE SCREEN TO PASS THROUGH THE OPENING.
2. EXISTING CHANNEL POCKETS TO BE REUSED AND ANCHOR LOCATIONS TO BE RELOCATED TO AVOID INTERFERENCE WITH EXISTING ANCHOR LOCATIONS. CHANNEL POCKET DIMENSIONS AND ANCHOR LOCATIONS MUST BE FIELD CONFIRMED. CHANNEL GUIDES TO BE ANCHORED IN ACCORDANCE WITH THE SCREEN MANUFACTURER RECOMMENDATIONS.
3. SCREEN DISCHARGE TROUGH TO MATCH EXISTING TROUGH WITH SIDE DISCHARGE.
4. INSTALL NEW CAST-IN-PLACE CONCRETE FILLET AS SHOWN. REFER TO DEMOLITION DRAWINGS FOR SURFACE PREPARATION. INSTALL PATTERN OF #3 ADHESIVE DOWELS AT 12" o.c. IN EACH DIRECTION IN THE EXISTING BOTTOM SLAB AND WALL TO ANCHOR FILLET. MINIMUM OF 3 1/2" EMBEDMENT AND 2" CLEAR COVER SHALL BE PROVIDED.
5. INSTALL NEW HIGH LEVEL FLOAT SWITCH. MOUNTING SPECIFIED BY SCREEN MANUFACTURER.

0 1 2 4

3/8"=1'-0"

H244026-0000-240-251-0007-0001.DWG

Designed by:	REVISION			
C. DUMM	REV No.	DATE	DESCRIPTION	APPV
Drawn by:	A	10/03/25	ISSUED FOR BID	CLL
R. KNOUSE	B	02/25/26	ISSUED FOR ADDENDUM 2	CLL
Checked by:				
C. LAMPARK				

HATCH

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ALLEGHENY COUNTY SANITARY AUTHORITY
REGIONAL CONVEYANCE SYSTEM
SCREEN REPLACEMENT AT ELLA AND CORLISS PUMP STATIONS

1819_O06A_MPLN_01
ELLA PUMP STATION
MECHANICAL BAR SCREEN PLANS

Contract: 1819
CAD File Name: 1819_O06A_MPLN_01.DWG
Date: 10/03/2025
Sheet: 16 of 34

ATTACHMENT C – ADDITIONAL SITE PHOTOS (4 pages)

Contract 1819 – Addendum No. 2
Attachment C: ADDITIONAL SITE PHOTOS

Corliss, O-13 Structure with prior work setup

Corliss, O-13 Structure with prior work setup

Contract 1819 – Addendum No. 2
Attachment C: ADDITIONAL SITE PHOTOS

Corliss, O-13 Structure with prior work setup

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Corliss, O-13 Structure with prior work setup

Corliss, O-13 Structure interior view