

Addendum No. 1

CITY OF ABERDEEN ABERDEEN, MARYLAND DEPARTMENT OF PUBLIC WORKS

AWWTP Digester Gas Flare Replacement

Engineering Project No. 12563982

Receipt of this Addendum shall be automatically recorded by the City of Aberdeen once each Bidder downloads the Addendum No. 1 file from the City of Aberdeen website. No further action on the part of a Bidder is required to acknowledge receipt.

This addendum content includes the agenda and discussions captured at the Prebid Meeting held at the AWWTP Thursday April 13, 2023

BIDDING REMINDERS

- **Bids due May 18, 2023 at 2:00 PM.** Deliver executed bid documents to Shawn Brogan at the City Office, 60 North Parke Street, Aberdeen, Maryland 21001 prior to 2:00 PM.
- Questions are due by Friday May 5, 2023 @ 4:00 p.m. to sbrogan@aberdeemnd.gov

General Clarifications and Reminders

1. Contractor is responsible for removal of solids from Digesters 1 and 2 and cleaning of the interior walls of the tanks. An allowance has been made in the bid documents for minor repairs and painting digester gas piping if directed by the Owner. The allowance includes contractor markup, overhead and profit.
2. There are no Wage Rates for this Project.
3. Contractor is responsible for local permits with the City of Aberdeen.
4. The Project goal is to install and test new gas flare equipment with at least 1 digester in service. Schedule work to allow the AWWTP operations to continue solids stabilization without removing both digesters from service.
5. The City has confirmed that WWTP utility water may be used to pressure wash the digester walls and interior piping.

Supplemental Information to Assist Bidders

Section Not Used

Modifications to the Project Manual

- Replace the Table of Contents with the attached revised table of contents
- Replace specification sections 15940 and 15985 with the revised specification sections.

Questions posed by bidders are as follows:

1. *Is Spec Section 01555 necessary? It does not appear in the TOC but it is referenced in 5.02 as follows: 5.02 Schedule B – Lump Sum Bid Item: Digester Cleaning A. Bidder agrees to provide*

all Work specified in 01555 – Digester Cleaning and Sludge Disposal, and the Contract Documents. Lump sum work price shall include the cost for providing equipment and materials for the cleaning of both digesters, complete in place.

- a. The table of contents has been updated to include Section 01555. This specification section is included in the bid documents.
2. *Will the allowance noted in 5.03 include the contractors standard overhead and profit of just the items described as follows: 5.03 Schedule C - Allowance: Minor Interior Digester Wall Repair A. Bidder agrees to provide an allowance of \$10,000.00. Allowance includes cost of products and applicable taxes to Contractor or Subcontractor, less applicable trade discounts. Allowance includes costs associated with labor, equipment, and material costs to perform minor repairs to cracks and spalling on the digester interior walls, not identified in the Contract Documents, that are identified by the Owner during the Construction Period at the Site.*
 - a. The stipulated allowances shall include contractors standard overhead and profit.
3. *Will the allowance noted in 5.04 include the contractors standard overhead and profit of just the items described as follows: 5.04 Schedule D - Allowance: Digester Process Piping Painting A. Bidder agrees to provide an allowance of \$25,000.00. Allowance includes cost of product and applicable taxes to Contractor or Subcontractor, less applicable trade discounts. Allowance includes costs associated with labor, equipment, and material costs to clean blast and paint the interior piping and piping supports for the digester process to remain, not identified in the Contract Documents, that are identified by the Owner during the Construction Period at the Site.*
 - a. The stipulated allowances shall include contractors standard overhead and profit.
4. *The proposal included in Section 11336 from Sherwood Logan includes a requirement for AIS Steel; however, there are no AIS Steel requirements included in the bid documents. We assume AIS Steel Requirements do not apply to this contract.*
 - a. AIS Steel Requirements do not apply to this project

Modifications to the Project Drawings

Refer to the attached drawings and referenced below.

5. *We assume the precast manhole on sheet 6 is 4' inside diameter.*
 - a. The precast manhole on Sheet 6 is 4' inside diameter.
6. *We assume the Vault Drain Piping - PVC (02698A) shown on sheet 6 is PVC.*
 - a. The vault drain piping on sheet 6 is PVC. Contractor shall provide PVC SDR 35 Gasketed Sewer Pipe and Fittings.

7. *Please clarify if pipe noted as Abandoned on the drawings is to be left in place or removed and disposed of.*
 - a. The pipes noted as abandoned are to be removed and disposed by the Contractor
8. *Can any as-built information be provided on the existing aluminum panels that need to be fabricated to match existing on the south side of the building exterior shown on sheet 8.*
 - a. The attached record drawings for bidders reference only, from the “Town of Aberdeen Advanced Wastewater Treatment Plant” Drawing No. 33 and 35 show the profile and sectional views of the Administrative Building. The panels are identified as “Insulated Aluminum Panels”
9. *Based on the scaled drawings, the Precast Flare Vault appears to be less than 8ft inside height, while the Precast Drip Trap Chamber appears to be approximately 15ft inside height. We assume we are not to scale these dimensions but should calculate the height based on the required slope and location of the 4” digester gas line at the penetration of the Digester Building. Please provide the following elevations for the 4” digester gas line: Invert at Building Basement Wall, Invert at Precast Drip Trap*
10. *Chamber and Invert at Precast Flare Vault.*

For questions 10 and 11 above, see the attached revised Sheet D02101.

11. *We assume no construction entrance, concrete washout, silt fence and temporary seeds requirements are applicable to this project as not are included on the plans.*
 - a. Refer to the Erosion and Sedimentation Control plan and narrative drawings CE0001, CE00101 and CE00501 to be included as part of this contract.
12. *Are there any special security requirements for access to the project site for this project?*
 - a. There are no specific security clearances required for access to the project site. Contractor is responsible for checking in with the administrative office during each site visit.
13. *Are there any special safety requirements for work on this site?*
 - a. The project work involves demolition and construction around an operating wastewater treatment plant. Contractor shall follow all OSHA guidelines for work of this type.

END OF ADDENDUM NO. 1



Agenda

April 13, 2023

Project: City of Aberdeen Department of Public Works
Aberdeen Advanced Wastewater Treatment Plant
(AAWWTP)
Digester Gas Flare Replacement

Project No: 12563982

Venue/Time: AAWWTP @ 10:00 a.m. on Thursday April 13, 2023

Attendees: Please Complete the Sign-In Sheet

1. INTRODUCTIONS

- a. Owner: City of Aberdeen
- b. Design Engineer: GHD Inc.

2. SUBMISSION OF BIDS

- a. **Bids** due Thursday, May 18 at 2:00 p.m; Attn: Shawn Brogan
Deliver hard copies of Bid Documents to Shawn Brogan at the City Office, 60 North Parke Street, Aberdeen, Maryland 21001 prior to the due date and time.
- b. Bids will be opened immediately following due date and time.
- c. Bidding Requirements – See Contract Documents.
- d. Bid Form
 - Schedule A Total Lump Sum Bid
 - Schedule B – Digester Cleaning
 - Allowances in Schedule C and D include contractor OH&P and are included as stated.
 - Schedule E and F – Sludge Removal – based on estimated Tons of solids removed

3. ADDENDUM

- a. Questions Due by Friday, May 5 @ 4:00 p.m.
- a. Addendum #1 will be issued to reflect any technical changes to the contract documents and to document the discussions during this meeting.
- b. Verbal interpretation of the contract documents by the Engineer or Owner will be without legal effect.



4. PERMITS

- a. Contractor is responsible for local permits within the AAWWTP.

5. SCHEDULE

- a. City is prepared to Award the contract after receipt and review of the bids. Contractor should be prepared to execute and return paperwork quickly.
- b. The Work will be substantially complete within 450 calendar days after the Notice to Proceed is issued and ready for final payment within 510 calendar days following Notice to Proceed.

6. DESIGN

- a. Tour project area at end of meeting.

7. INSPECTION

- a. The City's representative will provide routine inspections of the work with part-time observation by GHD.

8. CONTRACTOR MAINTENANCE OF OPERATIONS AND SAFETY PROCEDURES

- a. Existing WWTP digester system must remain functional to maintain treatment during the Work.
- b. Follow all nationally recognized Safety, Health and Environmental standards in fulfillment of this Contract.
- c. Erect and maintain reasonable safeguards for safety and protection of the existing AWWTP and employee worksite, during all hours for the duration of the project. Coordinate any concerns with the City.
- d. Submit to Owner and Engineer for their records a project specific safety plan addressing intended program for maintaining safety in accordance with requirements.

9. QUESTIONS/COMMENTS

NOTE: This agenda is for informational purposes only and does not represent any change to the Contract Documents.



MEETING SIGN-IN

MEETING TITLE:	Pre-Bid Meeting	DATE:	April 13, 2023
PROJECT NAME:	City of Aberdeen Department of Public Works AWWTP Digester Gas Flare Replacement	PROJECT NO.:	12563982
		CONTRACT NO(S).:	General Construction

Name and Company (please print)		Email and Phone Contact
1.	MARK PICKERING GHD	mark.pickering@ghd.com (717) 443-4419
2.	PANLEY HESS	PHESS@ABERDEENWP.GOV (443) 617-0038
3.	JEFF HANLHER	SHERWIN-WILLIAMS (301) 310-2202
4.	DUSTIN DOUGHERTY	EMH@emhenviro.com
5.	BRIAN HILSABECK	BIAS@JCC-RI.COM
6.	MIKE SHUC - M2 Construction	est@m2constructionllc.com (717) 305-8801
7.	JOAN LOGAN - SLA	jlogan@sherwoodlogan.com 410 980 8783
8.		
9.		
10.		
11.		
12.		
13.		
14.		

ABERDEEN PROJECT #22-15

BIDDING DOCUMENTS

Document	00000	Cover Page
Document	00001	Table of Contents
Document	00010	Advertisement
Document	00100	Instructions to Bidders
Document	00410	Bid Form
Document	00410A	Statement of Bidder's Qualifications
Document	00410B	Non-Collusion Affidavit
Document	00410C	List of Proposed Subcontractors
Document	00430	Bid Bond

CONTRACT DOCUMENTS

Document	00520	Standard Form of Agreement
Document	00610	Performance Bond
Document	00615	Payment Bond
Document	00700	Standard General Conditions of the Construction Contract (EJCDC C-00700, 2013 Edition)
Document	00800	Supplementary Conditions
		Exhibit A – MDE Water and Sewage Construction Permit

TECHNICAL SPECIFICATIONS

DIVISION 1

GENERAL REQUIREMENTS

Section	01010	Summary of Work
Section	01027	Applications for Payment
Section	01035	Modification Procedures
Section	01040	Project Coordination
Section	01095	Reference Standards and Definitions
Section	01200	Project Meetings
Section	01300	Submittals
Section	01380	Construction Documentation
Section	01400	Quality Control Services
Section	01500	Temporary Facilities and Controls
Section	01555	Digester Cleaning and Sludge Disposal
Section	01600	Materials and Equipment
Section	01630	Product Substitutions
Section	01640	Equipment – General
Section	01660	Testing and Startup
Section	01700	Project Closeout
Section	01732	Selective Demolition
Section	01740	Warranties and Bonds

ADDENDUM 1

DIVISION 2

SITE WORK

Section	02030	Demolition
Section	02110	Site Clearing
Section	021112	Pavement Cutting
Section	02141	Removal of Water
Section	02205	Protection of Existing Facilities
Section	02222	Excavating
Section	02223	Backfilling
Section	02226	Rock Removal
Section	02228	Compaction
Section	02420	Geotextiles
Section	02968	Underground Process Piping
Section	02980	Site Rehabilitation

DIVISION 3

CONCRETE

Section	03300	Cast-In-Place Concrete
Section	03410	Plant-Precast Structural Concrete

DIVISION 4

MASONRY

Section	04810	Unit Masonry Assemblies
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DIVISION 5		METALS
Section	05500	Metal Fabrications
Section	05510	Post-Installed Concrete and Masonry Anchors
Section	05521	Pipe and Tube Railings

DIVISION 7		THERMAL AND MOISTURE PROTECTION
Section	07920	Joint Sealants

DIVISION 8		DOORS AND WINDOWS
Section	08110	Steel Doors and Frames

DIVISION 9		FINISHES
Section	09900	Painting

DIVISION 11		EQUIPMENT
Section	11336	Waste Gas Burner and Safety Equipment

DIVISION 14		CONVEYING SYSTEMS
Section	14602	Hoists, Cranes, and Fall Protection

DIVISION 15		MECHANICAL
Section	15001	HVAC – General
Section	15002	Plumbing – General
Section	15060	Aboveground Process Piping
Section	15083	Piping and Equipment Isulation
Section	15100	Aboveground Process Valves and Hydrants
Section	15140	Supports and Anchors
Section	15170	Motors
Section	15430	Plumbing – Drainage & Vent Piping
Section	15865	Axial Fans
Section	15870	Power Ventilators
Section	15890	Ductwork
Section	15910	Ductwork Accessories
Section	15940	Air Outlets and Inlets
Section	15985	HVAC Controls and Sequence of Operations
Section	15990	Testing, Adjusting, And Balancing

DIVISION 16		ELECTRICAL
Section	16050	Electrical – General
Section	16100	Grounding

Section	16110	Raceways
Section	16120	Conductors
Section	16130	Boxes
Section	16161	Control Panels and Enclosures
Section	16191	Electrical Supports, Anchors and Fasteners
Section	16196	Electrical System Identification
Section	16442	Disconnect and Safety Swtiches
Section	16484	Contactors and Motor Starting Equipment
Section	16900	Auxiliary Controls and Relays
Section	16950	Testing and Inspection

DIVISION 17

INSTRUMENTATION AND CONTROLS

Section	17000	Instrumentation
Section	17450	Air and Gas Flow Meters

In addition to the technical provisions listed in this Table of Contents, all Work shall comply with the applicable provisions of Part 26 – Water and Sewer Specifications and Details and Part 27 – Approved List of Suppliers and Materials for Water and Sewer Construction of Harford County General Rules and Regulations, latest revision, except as otherwise noted. Refer to the Harford County, Maryland website (<http://www.harfordcountymd.gov/>) to search for the documents.

SECTION 15940
AIR OUTLETS AND INLETS

PART 1 GENERAL

1.01. RELATED DOCUMENTS

- A. Section 07900 - Joint Sealers.
- B. Section 15890 - Ductwork.
- C. Section 15910 - Ductwork Accessories.
- D. Section 15990 - Testing, Adjusting and Balancing.

1.02. SUMMARY

- A. Exhaust registers.
- B. Louvers.

1.03. DEFINITIONS (NOT APPLICABLE)

1.04. SUBMITTALS

- A. Submit product data under provisions of Section 01640 - Equipment – General.
- B. Provide product data for items required for this project.
- C. Submit schedule of outlets and inlets indicating type, size, location, application, free area, and noise level.
- D. Review requirements of outlets and inlets as to size, finish, and type of mounting prior to submitting product data and schedules of outlets and inlets.
- E. Submit manufacturer's installation instructions under provisions of Section 01640 - Equipment-General for louvers and diffusers.
- F. Submit manufacturer's color chart for color selection by Owner.

1.05. QUALITY ASSURANCE

- A. Test and rate performance of air outlets and inlets in accordance with ADC Equipment Test Code 1062 and ASHRAE 70.
- B. Test and rate performance of louvers in accordance with AMCA 500.
- C. References:

ADC 1062	Certification, Rating and Test Manual
AMCA 500	Test Method for Louvers, Dampers and Shutters

ANSI/NFPA 90A	Installation of Air Conditioning and Ventilating Systems
ARI 650	Air Outlets and Inlets
ASHRAE 70	Method of Testing for Rating the Air Flow Performance of Outlets and Inlets
SMACNA	Low Pressure Duct Construction Standard

D. Conform to ANSI/NFPA 90A.

1.06. ENVIRONMENTAL REQUIREMENTS (NOT APPLICABLE)

1.07. DESIGN AND PERFORMANCE REQUIREMENTS (NOT APPLICABLE)

1.08. WARRANTY

A. See Section 00700 General Conditions, Articles 6 and 13.

PART 2 PRODUCTS

2.01. EXHAUST REGISTERS

ADDENDUM 1

A. **Type ER-1, Wire Mesh - 1/4-inch square Type 316 stainless steel wire mesh within removable stainless steel frame. Free area of screen shall be no less than 80 percent.**

2.02. EXHAUST REGISTERS

A. Type ER-1, Exhaust Register:

1. Streamlined blades, depth of which exceeds 3/4-inch spacing, with spring or other device to set blades, horizontal face.
2. Fabricate 1-1/4-inch margin frame with countersunk screw mounting.
3. Fabricate of 316 stainless steel with 20 gage minimum frames and 22 gage minimum blades, with factory clear lacquer finish.
4. Where not individually connected to exhaust fans, provide integral, gang-operated, stainless steel opposed blade dampers with removable key operator, operable from face.
5. Registers shall be suitable for duct or surface mounting.
6. AJ Manufacturing Model 550HD, Krueger Model 9880, or equal.

2.03. FIXED LOUVERS

A. Manufacturers:

1. Greenheck - Model ESJ-401.
2. Arrow – Model EA-400.

- 3. Or equal.
- B. Fabricate of 12 gage (0.081-inch) extruded aluminum channel frame, 12 gage (0.081-inch) thick blades positioned at 45-degree angles, welded assembly, with factory Kynar or equal 70 percent fluoropolymer factory finish.
- C. Louver shall bear the AMCA seal for air performance and water penetration.
- D. Provide interior-mounted aluminum bird screen with 1/2-inch square mesh for exhaust and 3/4-inch for intake and attic vents. Finish to match louver.

PART 3 EXECUTION

3.01. INSTALLATION

- A. Install items in accordance with manufacturers' instructions.
- B. Check location of outlets and inlets and make necessary adjustments in position to conform with architectural features, symmetry, and lighting arrangement. Refer to Section 07900 - Joint Sealers.
- C. Provide balancing dampers on duct takeoff to diffusers, and grilles and registers, regardless of whether dampers are specified as part of the diffuser, or grille and register assembly.

END OF SECTION

SECTION 15985

HVAC CONTROLS AND SEQUENCE OF OPERATION

PART 1 GENERAL

1.01. DESCRIPTION OF WORK

- A. Furnish, install, and test HVAC control systems and components and sequence of operation of HVAC equipment and all required accessories in accordance with the Contract Documents.

1.02. RELATED SECTIONS

- A. Section 15865 - Axial Fans.
- B. Section 15870 - Power Ventilators.
- C. Section 15890 - Ductwork.
- D. Section 15910 - Ductwork Accessories.
- E. Section 15940 - Air Outlets and Inlets.

1.03. SYSTEM DESCRIPTION

- A. This section defines the manner and method by which controls for HVAC systems function. Requirements for each type of control system operation are specified. Equipment, devices and system components required for control systems may not be specified in detail; however, the Contractor shall supply and install complete systems of control for all heating, ventilating and air conditioning equipment.
- B. Control systems, where possible, shall be provided by one manufacturer: Honeywell, Schneider, Johnson Controls, or equal. All control panels shall meet all of the requirements of this section and related Division 16 Electrical specification sections.
- C. All electrical equipment, including control panel components and devices specified herein shall be in accordance with the Division 16 electrical specification sections.
- D. All conduit, wiring, cables, enclosures and other electrical equipment shall be in accordance with the Division 16 electrical specification sections.
- E. Control systems shall be industrial quality and shall be suitable for the environments in which they are to be installed.

1.04. SUBMITTALS

- A. Provide in accordance with Sections 01300 - Submittals, 01600 - Materials and Equipment and as supplemented herein. Submittals shall include, but not be limited to, the following:
 - 1. Shop Drawing, which shall include, but not limited to, the following:
 - a. Written description of control.

- b. Damper motor operators and installation details showing damper motor operator location in relation to louver/damper and linkage arrangement.
- c. Control panels with face mounted switches, indicator lights and labels.
- d. Thermostats.

1.05. QUALIFICATIONS

- A. Company specializing in performing the work of this section shall have minimum five years' experience.

1.06. SPARE PARTS

- A. Furnish the following spare parts in accordance with the Section 01600 - Materials and Equipment in clearly identified dust proof containers.
 - 1. Provide two NEMA 1 or 2 standard motor operators.

PART 2 PRODUCTS

2.01. CONTROL PANELS - GENERAL

- A. General - Unless otherwise noted, control panels for the heating and ventilating systems shall be provided under this Contract.

2.02. DAMPER AND VALVE MOTOR OPERATORS

- A. Manufacturers:
 - 1. Belimo.
 - 2. Barber Colman.
 - 3. Honeywell.
 - 4. Valvcon.
 - 5. Or equal.
- B. All damper operators shall be provided with an unfused disconnect switch provided by the Contractor. The switch shall be of the single pole, single-throw toggle type mounted in a single gang box. The box shall be connected to the operator with a close nipple and shall be of similar construction as the damper motor enclosure. The switch and box shall be installed and wired by the Contractor. Where required by damper size, multiple damper operators shall be provided or high torque operators shall be provided to match the operating characteristics of the proposed damper/louver.
- C. Where noted on the Contract Drawings, damper operators shall be enclosed in corrosion-resistant enclosures meeting the NEMA ratings noted in these specifications and as noted on the Contract Drawings.
- D. Damper operators shall be as follows:

1. Standard, Two-Position, Power Open/Spring Return - NEMA 1 or 2 enclosure for inside use and out of airstream (not suitable for unducted dampers or operable louvers used for outside air inlets) Honeywell Model M4185A; Belimo Model AF, NF; or equal.
 2. Weatherproof - Standard motor operators with Belimo ZS 300, NEMA 4X enclosure, actuator cover; suitable for direct exposure to outside air at temperatures to 40 degrees F; cast aluminum housing or other corrosion-resistant finish suitable for exposure to outside air required; other equal units with required NEMA rating are acceptable.
 3. Corrosion Resistant - Same construction as weatherproof units above, but also provided with corrosion-resistant finish (such as heresite or baked phenolic coating) suitable for the particular corrosive environment noted on the Drawings. In some cases, the standard unit casing (such as cast aluminum) may be inherently corrosion resistant for the specific application. Other equal units with required NEMA rating may be acceptable.
- E. Damper operators located in outside air intake ducts, mixing boxes or plenums or which could be exposed to outside air temperatures shall be suitable for operating in ambient temperatures as cold as -22 degrees F and shall be provided with a NEMA 3R weatherproof enclosure.

2.03. THERMOSTATS

- A. All thermostats used for HVAC control, except where otherwise indicated, shall be wall mounted and easily accessible for reading and adjusting purposes. Thermostats shall be as follows:
1. Type 1 - Single-stage; Honeywell T631B1005 or equal; for high limit temperature control in areas with high ambient temperatures, nominal 35 to 100 degrees F range.
 2. Type 2 - Corrosion-resistant type. Johnson Controls A19, or equal; Snap acting, SPDT, 40 to 100 degrees F range, NEMA 4X enclosure. Provide duct mounting accessories where called for on drawings.
 3. Type 3 – Corrosion-resistant type; PECO Model TRF115-005, or equal; Nominal 0 to 120 degrees F range. Enclosure to have corrosion-resistant NEMA 4X construction. Provide unit with stainless steel remote capillary and sensing bulb five (5) foot in length.
 4. Type 4 – Low temperature; Schneider Electric TC-5231 or equal; low temperature thermostat capable of sensing of temperature and providing switched output with automatic reset. Minimum temperature set point range of 35 to 60 degrees F.
 5. Type 5 - Wired thermostat furnished by the split system ductless heat pump manufacturer.
 6. Type 6 - Factory installed and prewired to the control enclosure by electric unit heater manufacturer. Thermostat is adjustable from 50° to 90°F.

PART 3 EXECUTION

3.01. EQUIPMENT INSTALLATION

- A. Install in accordance with the Contract Documents and the manufacturer's written instructions.
- B. Final acceptance of the control systems will be made after each system has met the stated performance requirements to the satisfaction of the Engineer.
- C. Thermostats shall not be mounted behind cabinets, equipment, ducts, etc. or in direct airstream of supply or outside air.

3.02. SERVICES OF MANUFACTURER'S REPRESENTATIVE

- A. Provide services of the equipment manufacturer or their approved representative in accordance with Section 01600 - Materials and Equipment and as specified herein.
- B. Provide the following additional services:
 - 1. Controls representative shall provide startup and training of operators upon completion of installation.

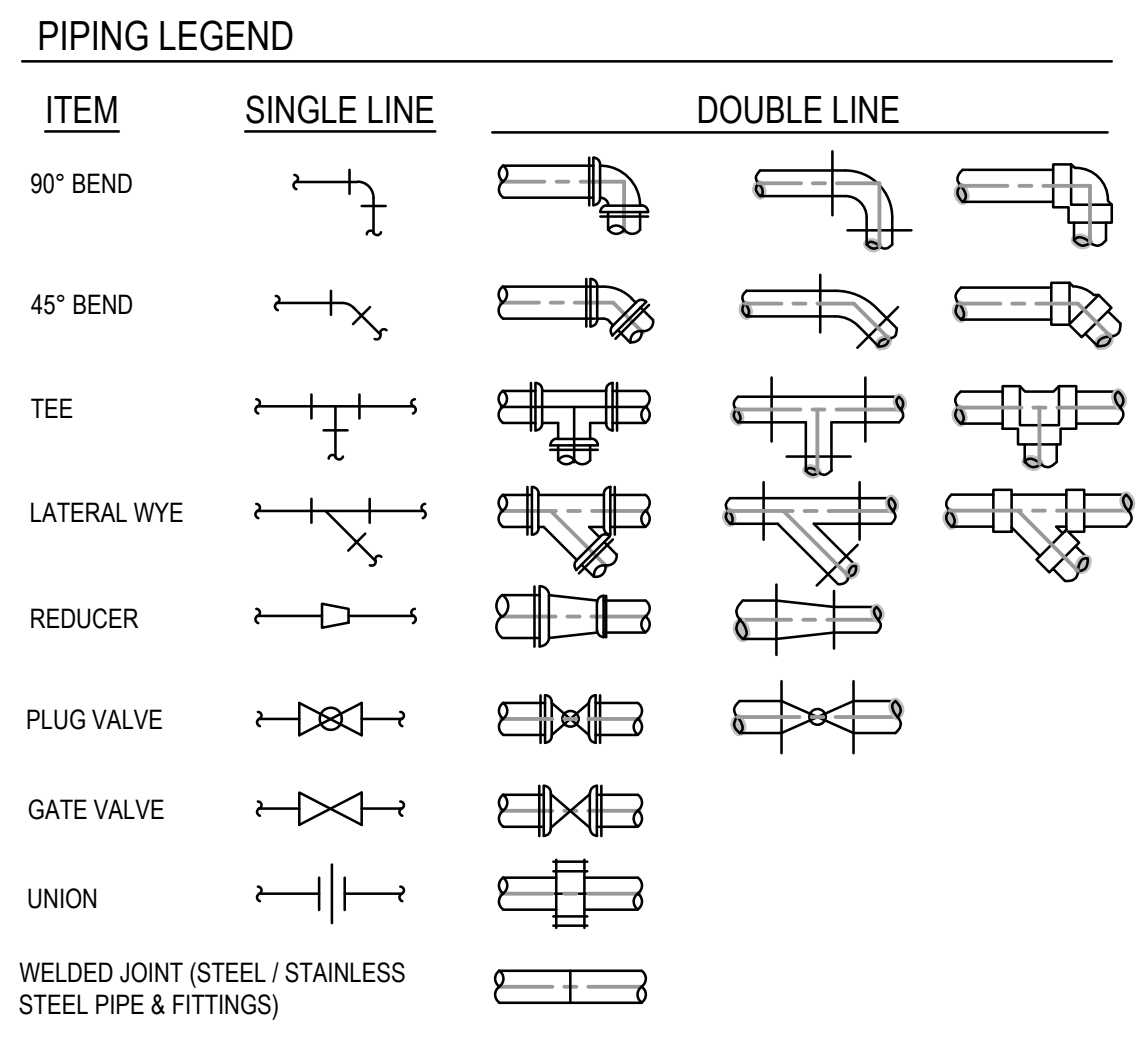
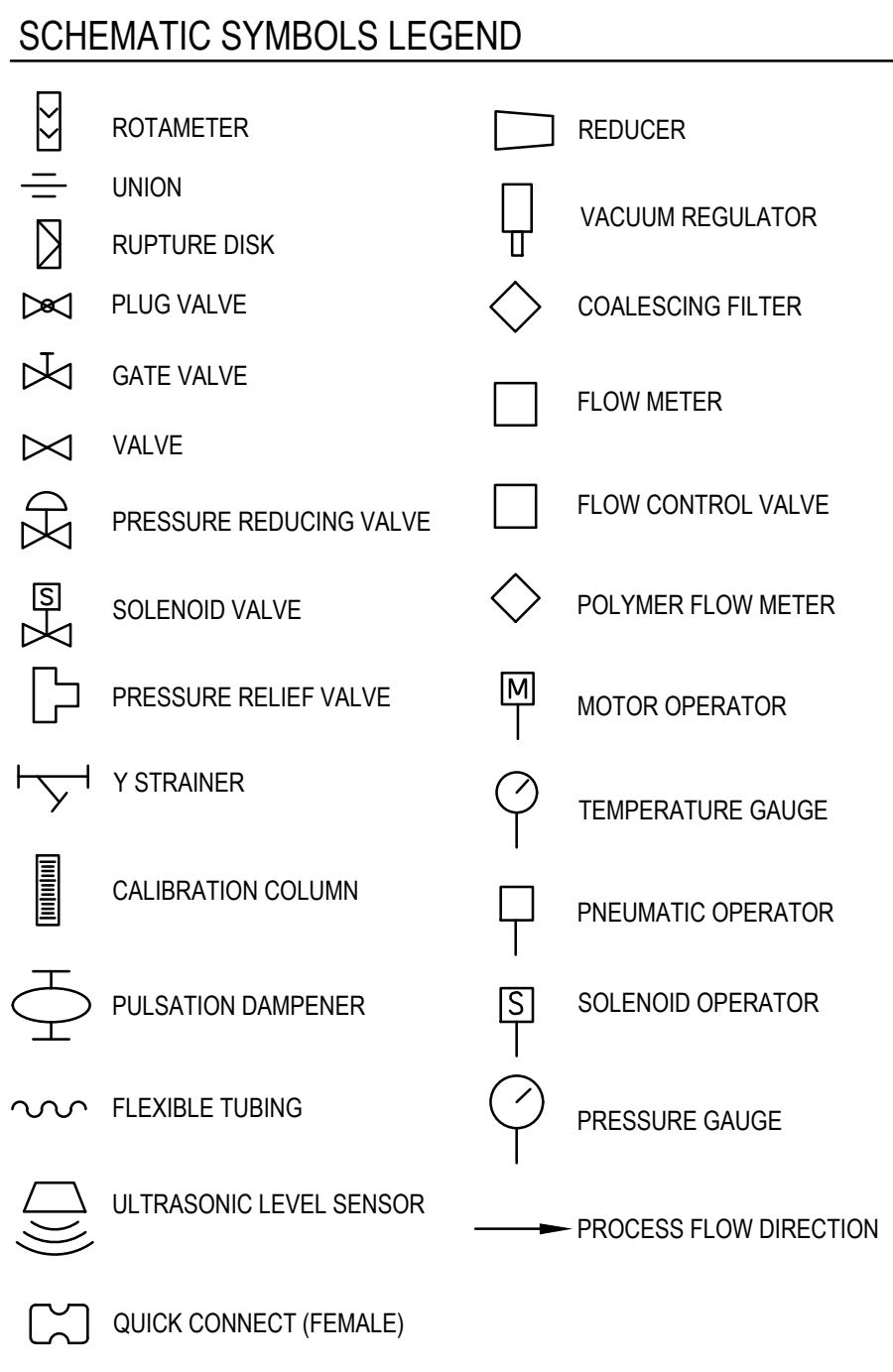
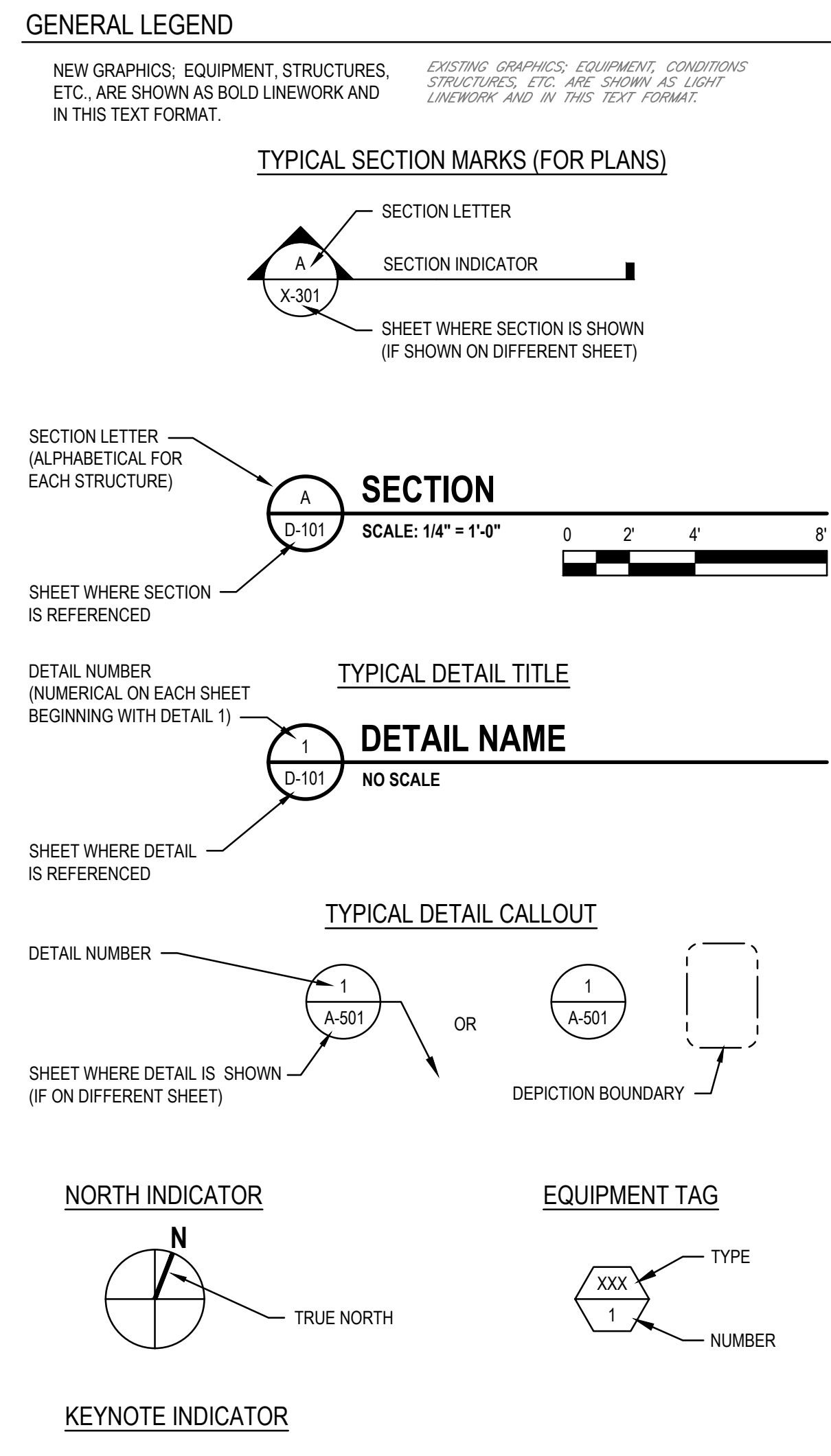
3.03. DESCRIPTION OF AUTOMATIC CONTROL

ADDENDUM 1

- A. **Refer to the Fan and Exhaust Schedule for "Controls". Refer to Damper and Louver schedule for fan interlock identification.**
 - 1. **Blower room exhaust fan EF-1**
 - a. **Provide type 1 thermostat. Operate fan based on a single reverse acting thermostat set for 90 degrees F. Upon a space temperature rise above 90 degrees, the exhaust fan shall run. Open associated motor operated dampers MOD-1 .**
 - b. **Heating – Electric unit heater EUH-1. Setpoint shall be 55 degrees F (adjustable). Electric unit heaters shall be controlled by an remote thermostat to maintain set-point temperature.**
- B. UNIT HEATERS – ELECTRIC
 - 1. Provide a remote thermostat to control electric unit heaters.

END OF SECTION

ABBREVIATIONS:			
ADDL	ADDITIONAL	ID	INSIDE DIAMETER
ADJ	ADJUSTABLE	IF	INSIDE FACE
AGGR	AGGREGATE	INV	INVERT
ALLOW	ALLOWANCE	I/O	INPUT / OUTPUT
ALT	ALTERNATE		
ALUM	ALUMINUM	LF	LINEAR FEET
ARCH	ARCHITECT OR ARCHITECTURAL	LL	LIVE LOAD
ASSY	ASSEMBLY	LWL	LOW WATER LEVEL
APPROX	APPROXIMATE		
		M	MOTOR
BLDG	BUILDING	MGD	MILLION GALLONS PER DAY
BLK	BLOCK	MH	MANHOLE
BOT or B	BOTTOM	MJ	MECHANICAL JOINT
		MFR	MANUFACTURER
CF	CUBIC FEET	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	MISC	MISCELLANEOUS
CI	CAST IRON		
CIP	CAST IRON PIPE	NPT	NATIONAL PIPE THREAD
CMP	CORRUGATED METAL PIPE	NTS	NOT TO SCALE
CO	CLEANOUT		
CONN	CONNECTION	OC	ON CENTER
CY	CUBIC YARD	OD	OUTSIDE DIAMETER
CL	CLEAR	OF	OUTSIDE FACE
¢	CENTER LINE	OPNG	OPENING
CONC	CONCRETE		
CONT	CONTINUOUS	PRV	PRESSURE RELIEF VALVE
CPVC	CHLORINATED POLYVINYL CHLORIDE	PSI	POUNDS PER SQUARE INCH
CL JT	CONTROL JOINT	PVC	POLYVINYL CHLORIDE
		POLY / PE	POLYETHYLENE
		¢	PLATE, PROPERTY LINE
DL	DEAD LOAD		
DIA, Ø	DIAMETER	R	RADIUS
DIP	DUCTILE IRON PIPE	REINF	REINFORCING
DWL	DOWEL	REQD	REQUIRED
		SF	SQUARE FOOT
EF	EACH FACE	SS	STAINLESS STEEL
EA	EACH	SCH	SCHEDULE
EL or ELEV	ELEVATION	EQU	EQUAL
ELEC	ELECTRIC	EQ	EQUAL SPECIFICATION
EQ	EQUAL	EQ	EQUAL
EX, EXIST	EXISTING	EQ	EQUAL
EXT	EXTERIOR	STL	STEEL
		STD	STANDARD
		SYM	SYMBOL
FF	FAR FACE / FINISHED FLOOR		
FM	FORCE MAIN	TEL	TELEPHONE
FLR	FLOOR	TEMP	TEMPERATURE
FT	FEET	TYP	TYPICAL
FTG	FOOTING		
		UV	ULTRAVIOLET
G	NATURAL GAS		
GPM	GALLONS PER MINUTE	W	WATER
GA	GAUGE	WL	WATER LEVEL
GAL	GALLON	W/O	WITHOUT
GALV	GALVANIZED	WWF	WELDED WIRE FABRIC
GC	GENERAL CONTRACTOR		
HDPE	HIGH-DENSITY POLYURETHYLENE		
HWL	HIGH WATER LEVEL		
HP	HORSEPOWER		



SHEET INDEX

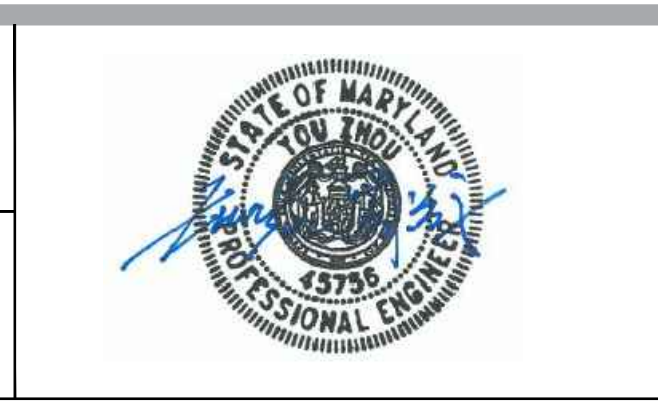
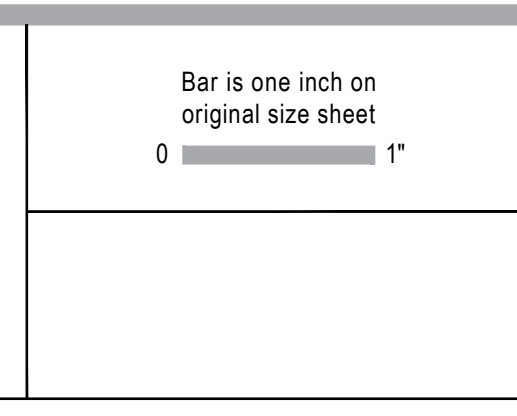
SEQUENCE NUMBER	SHEET NUMBER	SHEET TITLE
GENERAL		
1	G-00001	COVERSHEET
2	G-00002	SHEET INDEX, GENERAL NOTES & LEGENDS
CIVIL		
3	C-00501	DETAILS
4	C-01101	EXISTING SITE PLAN
5	C-01102	EXISTING YARD PIPING PLAN
6	C-01103	SITE PLAN
	CE-001	EROSION AND SEDIMENTATION CONTROL NOTES
	CE-101	EROSION AND SEDIMENTATION CONTROL SITE PLAN
	CE-501	EROSION AND SEDIMENTATION CONTROL DETAILS
STRUCTURAL		
7	S-00501	STRUCTURAL NOTES AND DETAILS
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9	DD-01101	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING BASEMENT DEMOLITION PLAN
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11	DD-01103	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING ROOF DEMOLITION PLAN
12	DD-01301	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING DEMOLITION SECTION
13	DD-01302	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING GAS METERING ROOM DEMOLITION SECTION
14	D-00501	DETAILS
15	D-01101	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING BASEMENT PLAN
16	D-01102	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING FIRST FLOOR PLAN
17	D-01103	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING ROOF PLAN
18	D-01301	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING SECTION
19	D-02101	DRIP TRAP CHAMBER PLANS AND SECTION
20	D-03101	DIGESTER GAS FLARE VAULT PLANS AND SECTIONS
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21	M-01101	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING FIRST FLOOR PLAN
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25	E-01101	EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING FIRST FLOOR POWER PLAN
26	E-01102	DRIP TRAP CHAMBER AND GAS FLARE VAULT PLANS
27	E-01501	ELECTRICAL DETAILS SCHEDULES AND SCHEMATICS
28	E-01601	SINGLE LINE DIAGRAM

GENERAL NOTES (APPLY TO ALL SHEETS)

- EXISTING FACILITIES AND PIPING SHOWN LIGHT. NEW FACILITIES AND PIPING SHOWN DARK.
- CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING PIPING ELEVATIONS, LOCATIONS, SIZE AND TYPE OF MATERIAL, WITH NEW PIPING PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING EQUIPMENT DIMENSIONS AND ELEVATIONS, AS REQUIRED, PRIOR TO ORDERING NEW EQUIPMENT.
- CONTRACTOR SHALL COORDINATE ALL PIPING AND OTHER CONNECTIONS WITH THE APPROVED EQUIPMENT SHOP DRAWINGS.
- SITE PLAN AND YARD PIPING IS BASED ON DRAWINGS FROM "ADVANCED WWTP ENR UPGRADE CONTRACT NO. COA-33" DATED 2010 AND PREPARED BY STEARNS & WHEELER.
- PROJECT SCOPE INVOLVES WORK WITHIN EXISTING WWTP OPERATIONS. CONTRACTOR TO CONDUCT ALL WORK IN COORDINATION WITH OWNER SO THAT WWTP OPERATIONS ARE NOT COMPROMISED IN ANY WAY.
- FLOOR ELEVATIONS BASED ON "ADVANCED WASTEWATER TREATMENT PLANT" DRAWING SET, DATED DECEMBER, 1977.

1 ADDENDUM No 1				EC	MLP	APR-21-2023
0 BID DOCUMENTS				EC	MLP	MAR-14-2023
No.	Issue	Checked	Approved	Date		
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Client	CITY OF ABERDEEN
Project	ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT
Project No.	12563982
Date	March 14, 2023
Scale	AS SHOWN

Title	SHEET INDEX, GENERAL NOTES & LEGENDS
Sheet No.	G-00002
Sheet	2 of 28

E&S NOTES FOR LINEAR APPLICATIONS:

- FOR UTILITY TRENCHES OUTSIDE THE DRAINAGE AREA LIMITS OF EROSION AND SEDIMENT CONTROL (ESC) CONTROLS, THE CONTRACTOR SHALL OPEN ONLY A SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED AT THE END OF EACH WORKDAY. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT. ANY EXCESS STOCKPILE MATERIAL SHALL BE REMOVED FROM THE SITE AT THE END OF EACH WORKDAY. FOR PVIOUS SURFACES, THE USE OF ANY VEHICLE TRAFFIC IS PROHIBITED THE FIRST 24 HOURS AFTER A RAIN EVENT.
- IF A STOCKPILE AREA IS NOT SHOWN ON THE APPROVED ESC PLAN, NO STOCKPILING SHALL BE ALLOWED. ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE AT THE END OF EACH WORK DAY AND SENT TO A DISPOSAL SITE GOVERNED BY AN APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- IF A STAGING AREA IS NOT SHOWN ON THE APPROVED ESC PLAN, NO STAGING AREA SHALL BE ALLOWED ON SITE. STAGING AREAS OUTSIDE OF THE LOD MUST BE LOCATED ON AN IMPERVIOUS SURFACE, AND SHALL NOT RESULT IN EARTH DISTURBANCE. STOCKPILES OF ERODIBLE MATERIAL WILL NOT BE PERMITTED AT A STAGING AREA
- ALL DISTURBED AREAS SHALL BE STABILIZED PER THE STABILIZATION SCHEDULE.
- THE ESC INSPECTOR HAS AUTHORITY TO REQUIRE ADDITIONAL ESC CONTROLS BEYOND THOSE SHOWN ON THE APPROVED ESC PLAN. ANY ADDITIONAL CONTROLS REQUIRED BY THE INSPECTOR SHALL BE PROVIDED BY THE CONTRACTOR AT THE DIRECTION OF THE INSPECTOR WITH 24 HOURS OF VERBAL NOTIFICATION BY THE ESC INSPECTOR.
- WHERE NO STABILIZED CONSTRUCTION ENTRANCE (SCE) IS PROVIDED, THE CONTRACTOR SHALL DESIGNATE PIECES OF CONSTRUCTION EQUIPMENT THAT SHALL BE ALLOWED WITHIN THE LOD. THIS EQUIPMENT SHALL BE KEPT WITHIN THE LOD UNTIL THE PROPOSED WORK IS COMPLETE, AND SHALL HAVE TREADS/TIRES CLEANED PRIOR TO LEAVING THE LOD. ALL MATERIAL REMOVAL OR DELIVERY SHALL BE EITHER LIFTED FROM OR INTO THE LOD; AND, ANY SEDIMENT TRACKED OR DROPPED OUTSIDE THE LOD CLEANED IMMEDIATELY. FLUSHING WILL NOT BE PERMITTED.
- WHERE SAME DAY STABILIZATION IS SPECIFIED ON THE ESC PLAN, IT SHALL BE CONSIDERED THE PRIMARY ESC CONTROL. ANY CONTROLS PROVIDED DOWNSTREAM OF AREAS SPECIFIED FOR SAME DAY STABILIZATION SHALL BE CONSIDERED SECONDARY CONTROLS UNLESS SPECIFIED OTHERWISE. (SECONDARY CONTROLS ARE DEFINED AS CONTROLS PROVIDED AS BACKUP MEASURES TO A PRIMARY CONTROL).
- SAME DAY STABILIZATION IS DEFINED AS THE COMPLETION OF PROPOSED WORK WITHIN A DEFINED AREA WITH THE STIPULATION OF A NON-ERODIBLE SURFACE AT THE END OF EACH WORK DAY. EXAMPLES OF ACCEPTABLE NON-ERODIBLE SURFACES INCLUDE PAVEMENT, STEEL PLATES, A 2" MINIMUM STONE LAYER, OR STABILIZATION MATTING OVER PERMANENT SEEDING. THIRTY (30) MIL PLASTIC SHEETING WITH ANCHORING MAY BE CONSIDERED ACCEPTABLE IF EITHER SPECIFIED ON AN APPROVED PLAN, OR APPROVED BY THE ESC INSPECTOR. TEMPORARY SEEDING AND MULCH IS NOT CONSIDERED AN ACCTPABLE SAME DAY STABILIZATION PRACTICE.

HARDFORD COUNTY SEDIMENT CONTROL NOTES:

- THE CONTRACTOR/OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. FURTHER, NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE UNTIL ALL REQUIRED PERMITS HAVE BEEN OBTAINED.
- THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO EARTH DISTURBANCE TO ENSURE COMPLIANCE WITH THE PLANS.
- ALL SEDIMENT CONTROL PRACTICES MUST BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY.
- ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD INTO PUBLIC WAYS. DURING CONSTRUCTION, EVERY MEANS WILL BE TAKEN TO CONTROL SOIL EROSION AND SILTATION.
- FIELD CHANGES AND MINOR ADJUSTMENTS ARE PERMISSIBLE TO E&S CONTROL MEASURES AS LONG AS THE INSTALLATION FUNCTIONS AND CONFORMS TO SPECIFICATIONS. THE SITE INSPECTOR PRIOR TO INSTALLATION MUST APPROVE ALL SUCH CHANGES.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - THREE CALENDAR DAYS FOR THE SURFACE OF ALL PERIMETER CONTROLS.
 - SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT SITE.
- DUST CONTROL MUST BE MANAGED AS PART OF ALL SEDIMENT CONTROL PLANS. FAILURE TO DO SO IS A VIOLATION OF THIS PLAN.
- AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT OPERATIONAL. A WEEKLY LOG WILL BE KEPT IN ACCORDANCE WITH REGULATIONS. A COPY OF THE APPROVED SEDIMENT CONTROL PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES.
- CUT AND/OR FILL SHALL BE DONE IN CONFORMANCE WITH 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS FOR LAND GRADING.
- OFF-SITE WASTE OR BORROW AREAS SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE IMPORT OR EXPORT OF MATERIAL TO/FROM THE PROJECT SITE.
- ALL MATERIAL ORIGINATING FROM THE DEVELOPMENT OF THE PROPERTY AND DEPOSITED ON THE PUBLIC RIGHT-OF-WAY SHALL BE IMMEDIATELY REMOVED.
- STORM DRAIN INLETS AND OUTLETS SHALL BE PROTECTED PER 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
- TOPSOIL, LIMING, FERTILIZING, SEEDING, MULCHING, SOD, ETC. ARE ALL ESSENTIAL PARTS OF THE SEDIMENT CONTROL PLAN AND MUST BE COMPLETED ALONG WITH ALL OTHER PRACTICES.
- SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS FOR WHICH THE PRACTICES WERE INSTALLED HAVE BEEN STABILIZED. ALL DISTURBED AREAS RESULTING FROM THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE STABILIZED IMMEDIATELY.

TEMPOARY VEGETATION STABILIZATION:

- A. SEEDBED PREPARATION:
- LOOSEN UPPER THREE INCHES BY DISCING, RAKING OR OTHER ACCEPTABLE MEANS.
- B. SOIL AMENDMENTS:
- APPLY 600 LBS PER ACRE OF L 0-10-10 FERTILIZER AND TWO TONS PER ACRE OF LIME.
- C. SEEDING: *
- FOR PERIODS OF MARCH 1 TO APRIL 30 AND AUGUST 15 TO NOVEMBER 15: SEED WITH 2.5 BU. PER ACRE OF CEREAL RYE PLUS 30 LBS PER ACRE OF TALL FESCUE OR 5 LBS PER ACRE OF REDTOP OR 20 LBS PER ACRE OF PERENNIAL RYEGRASS.
- FOR PERIOD OF MAY 1 TO AUGUST 14: SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS OR 40 LBS PER ACRE OF JAPANESE OR FOXTAIL MILLET.
- FOR THE PERIOD OF NOVEMBER 16 TO FEBRUARY 28: PROTECT THE SITE BY APPLYING TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE SOD.
- D. MULCHING SPECIFICATIONS:
- MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
- APPLY 2 TONS PER ACRE OF STRAW OVER ALL SEEDED AREAS. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHALL BE INCREASED TO 2.5 TONS PER ACRE.**
- MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND AND WATER. THE TYPE OF MULCH ANCHORING USED MUST COMPLY WITH **THE 2011 MARYLAND STANDARD AND SPECIFICATIONS**.
- * IF OTHER SEED MIXES ARE TO BE SUBSTITUTED, THEY MUST COMPLY WITH THE **2011 MARYLAND STANDARD AND SPECIFICATIONS, CHAPTER B, TABLE B-1 (PAGE B 20)**.
- ** IF A DIFFERENT TYPE OF MULCH IS TO BE USED, IT MUST COMPLY WITH THE **2011 MARYLAND STANDARD AND SPECIFICATION, CHAPTER B, MULCHING (PAGES B 6 & B 7)**

PERMANENT VEGETATIVE STABILIZATION:

- ALL DISTURBED AREAS, WHICH ARE NOT TO BE PAVED, SHALL BE PERMANENTLY STABILIZED AS FOLLOWS:
- A. SEEDBED PREPARATION:
- LOOSEN UPPER THREE INCHES BY RAKING, DISCING, OR OTHER ACCEPTABLE MEANS AFTER SPREADING FOUR INCHES OF TOPSOIL.
- B. SOIL AMENDMENTS:
- APPLY 500 LBS PER ACRE OF 10-10-10 FERTILIZER AND TWO TONS PER ACRE OF LIME.
- C. SEEDING: *
- FOR PERIODS OF MARCH 1 TO MAY 15 AND AUGUST 15 TO OCTOBER 15: SEED WITH 125 LBS PER ACRE OF TALL FESCUE, 15 LBS PER ACRE OF PERENNIAL RYEGRASS, AND 10 LBS OF KENTUCKY BLUEGRASS.
- FOR PERIOD OF MAY 16 TO AUGUST 14: SEED WITH 110 LBS PER ACRE OF TALL FESCUE AND 3 LBS PER ACRE OF WEEPING LOVEGRASS.
- FOR PERIOD OF OCTOBER 16 TO FEBRUARY 28, PROTECT SITE BY: OPTION 1: 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION 2: USE SOD, OR OPTION 3: SEED WITH 60 LBS PER ACRE OF TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW.

NOTE: FOR QUICK COVER WITH TALL FESCUE, ADD 2 LBS OF SMALL GRAIN PER 1,000 SQ. FT.

D. MULCHING SPECIFICATIONS:

- MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
- APPLY 2 TONS PER ACRE OF STRAW OVER ALL SEEDED AREAS. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHALL BE INCREASED TO 2.5 TONS PER ACRES.**
- MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND AND WATER. THE TYPE OF MULCH ANCHORING USED MUST COMPLY WITH THE **2011 MARYLAND STANDARD SPECIFICATIONS**.
- * IF OTHER SEED MIXES ARE TO BE SUBSTITUTED, THEY MUST COMPLY WITH THE **2011 MARYLAND STANDARD AND SPECIFICATIONS, CHAPTER B, TABLE B-3 (PAGES B 26 TO B 31)**.
- ** IF A DIFFERENT TYPE OF MULCH IS TO BE USED, IT MUST COMPLY WITH THE **2011 MARYLAND STANDARD AND SPECIFICATION, CHAPTER B: MULCHING (PAGES B 6 & B 7)**.

SOILS TABLE			
MAP UNIT SYMBOL	SOIL SERIES NAME	SLOPE (%)	SOIL LIMITATIONS
MkB	MATAPEAKE SILT LOAM	2 - 5	DUSTY, UNSTABLE EXCAVATION WALLS, DEPTH TO SATURATED ZONE

SOIL LIMITATION RESOLUTIONS:

- DEPTH TO SATURATED ZONE, FLOODING AND PONDING LIMITATIONS WILL BE ADDRESSED BY USE OF A FILTER BAG OR OTHER DEWATERING MEASURE, IF NECESSARY. DEWATERING SHALL BE DONE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS SHOWN ON THE PLANS.
- DUSTY LIMITATIONS FOR CONSTRUCTION WILL BE ADDRESSED BY SPRINKLING THE SITE WITH WATER UNTIL THE SURFACE IS MOIST IN ACCORDANCE WITH THE MDE STANDARDS AND SPECIFICATIONS FOR DUST CONTROL. DUSTY LIMITATIONS FOR LANDSCAPING WILL BE ADDRESSED BY SEEDING AND MULCHING IN ACCORDANCE WITH THE PLANS AND BY SUPPLEMENTAL WATERING, IF NECESSARY.
- CONTRACTOR IS REQUIRED BY LAW TO FOLLOW OSHA REQUIREMENTS: THIS WILL ADDRESS ANY LIMITATIONS ASSOCIATED WITH UNSTABLE EXCAVATION WALLS.

STANDARD STABILIZATION NOTE	
FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:	
A	THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
B	SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

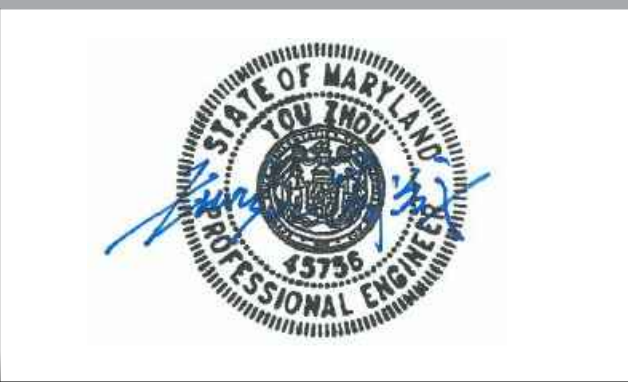
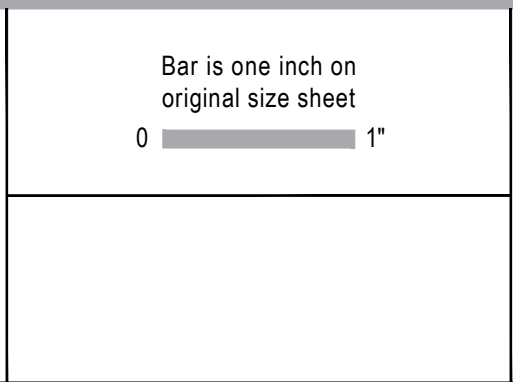
EROSION AND SEDIMENTATION CONTROL BMP QUANTITIES		
BMP DEVICE	UNIT	QUANTITY
COMPOST FILTER SOCK	LINEAR FEET	140
STABILIZED CONSTRUCTION ENTRANCE	COUNT	1

WARNING: THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE QUANTITIES SHOWN ON THIS PLAN ARE FOR INFORMATIONAL AND PERMITTING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES TO HIS OWN SATISFACTION PRIOR TO BEGINNING CONSTRUCTION

SITE INFORMATION	
TOTAL APPROXIMATE DISTURBED AREA	0.11 ACRES (4,900 SQ. FT.)
TOTAL CUT	0 CUBIC YARDS
TOTAL FILL	0 CUBIC YARDS
EXCESS CUT/FILL	0 CUBIC YARDS
OFF-SITE BORROW / WASTE AREA LOCATION	TBD
EXCESS /WASTE MATERIAL SHALL BE TAKEN TO AN APPROVED, PERMITTED, OFFSITE LOCATION AT THE EXPENSE OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR ANY PERMITS REQUIRED FOR OFFSITE WASTE/BORROW AREAS.	

1	ADDENDUM No 1	EC	MLP	APR-21-2023
No.	Issue	Checked	Approved	Date
Author	E. CAMACHO	Drafting Check	M. WIESTLING	Project Manager
Designer	G. KUNKA	Design Check	Project Director	S. CROSSWELL

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Client **CITY OF ABERDEEN**

Project **ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT**

Project No. **12563982**

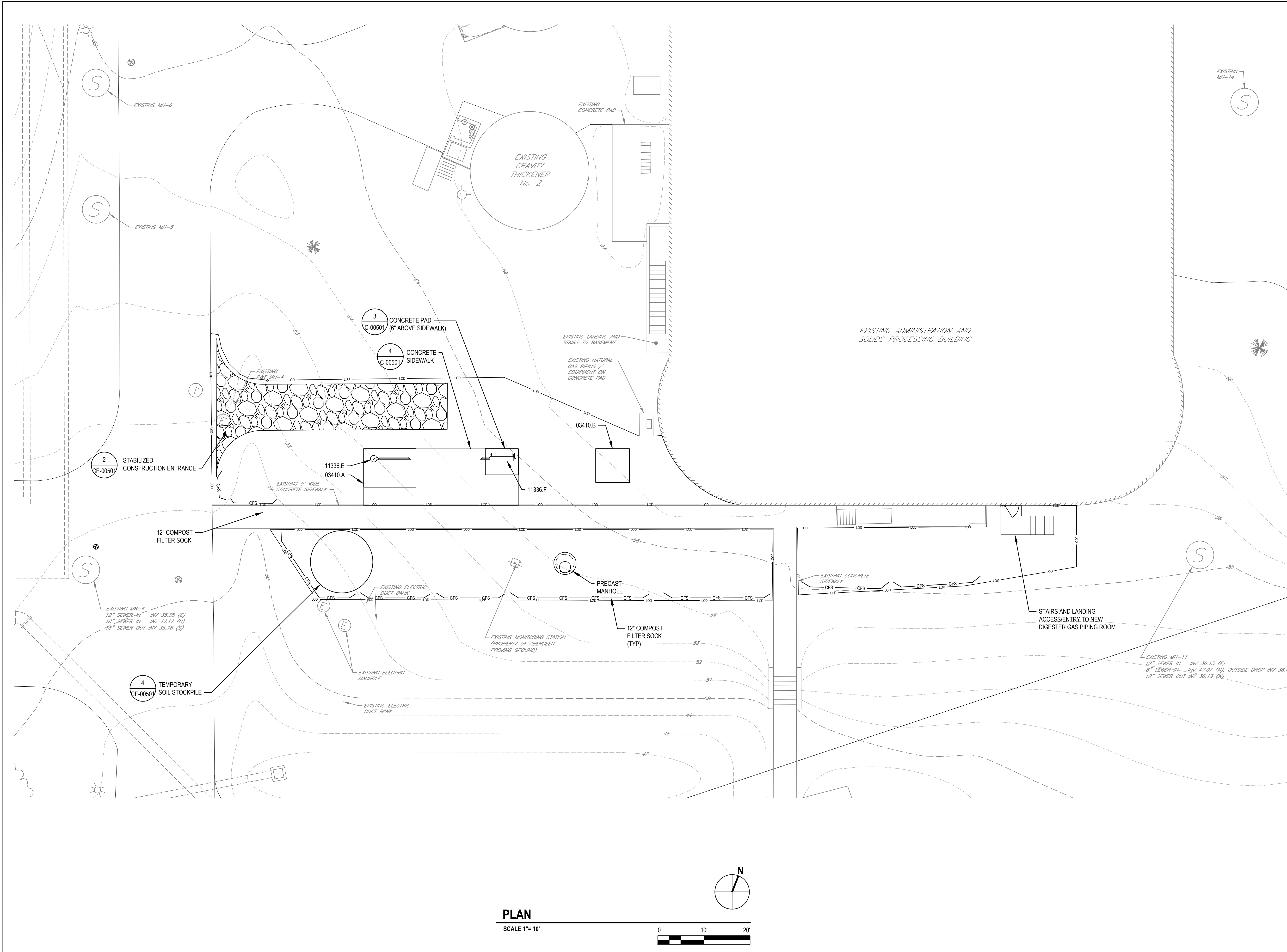
Date **March 14, 2023**

Scale **AS SHOWN**

Title **EROSION AND SEDIMENTATION CONTROL NOTES**

Sheet No. **CE-00001**

Sheet of



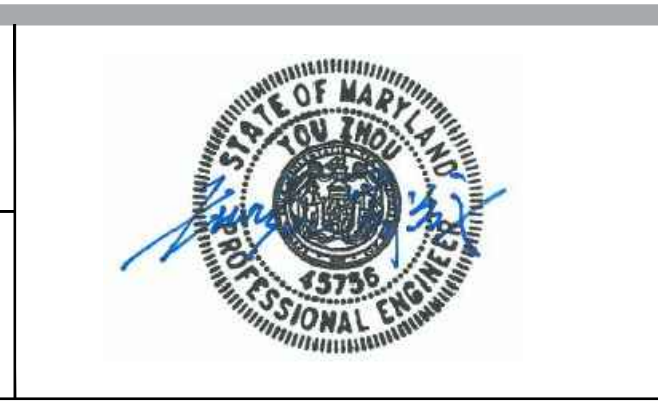
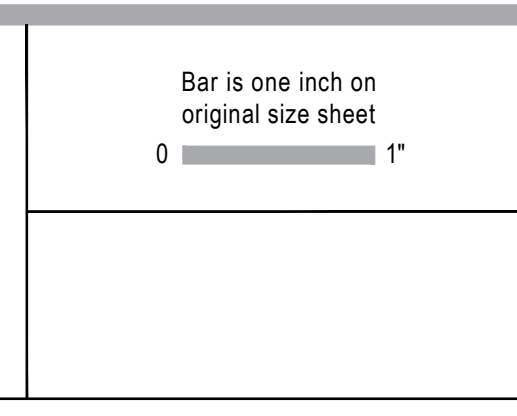
LEGEND	
	EXISTING CONTOUR MAJOR
	EXISTING CONTOUR MINOR
	EXISTING FENCE LINE
	EXISTING TREE
	EXISTING EVERGREEN TREE
	EXISTING BUILDING
	EXISTING STRUCTURE
	COMPOST FILTER SOCK
	LIMIT OF DISTURBANCE

MATERIAL KEYING LEGEND	
03410:	PRECAST STRUCTURAL CONCRETE
A	PRECAST FLARE VAULT (10'-0" X 7'-0" INSIDE)
B	PRECAST DRIP TRAP CHAMBER (6'-0" X 6'-0" INSIDE)
11336:	WASTE GAS BURNER AND SAFETY EQUIPMENT
E	FLARE ASSEMBLY
F	FLARE CONTROL PANEL

PLAN
SCALE 1" = 10'

1 ADDENDUM No 1				EC	MLP	APR-21-2023
No.	Issue	Checked	Approved	Date		
Author	E. CAMACHO	Drafting Check	M. WIESTLING	Project Manager	M. PICKERING	
Designer	G. KUNKA	Design Check		Project Director	S. CROSSWELL	

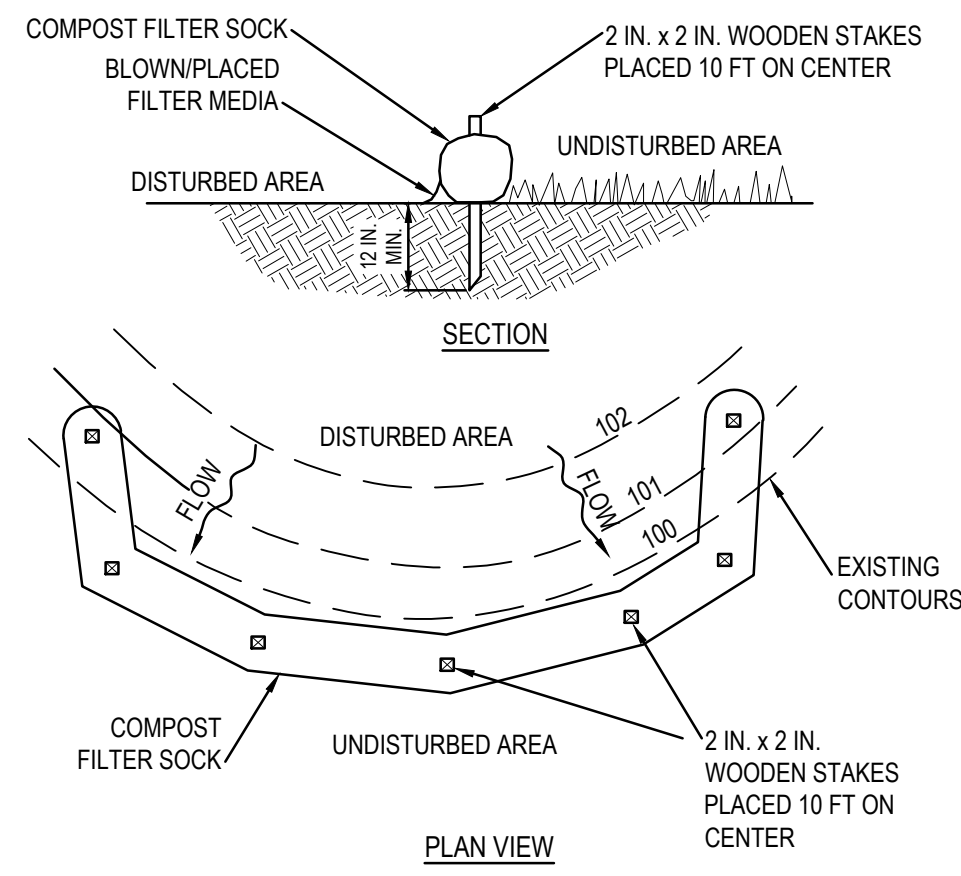
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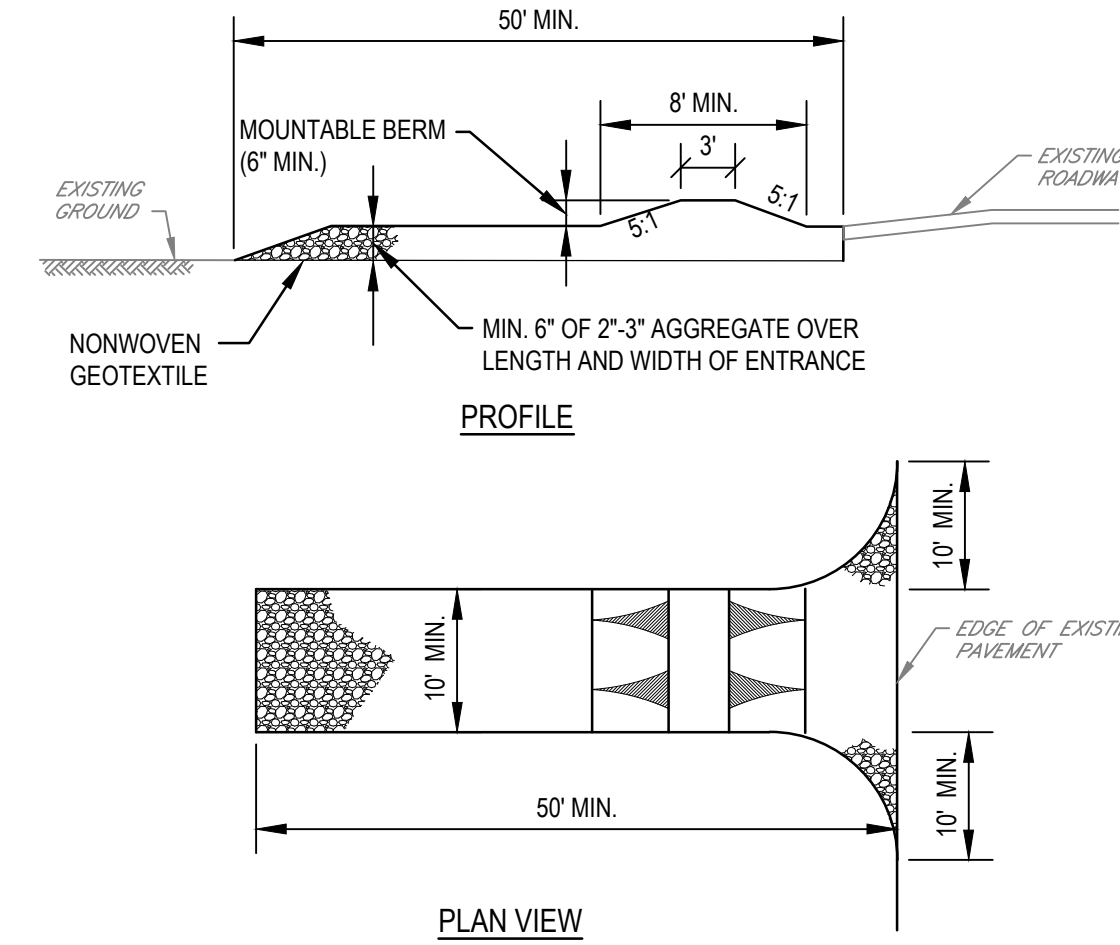
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Client	CITY OF ABERDEEN
Project	ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT
Project No.	12563982
Date	March 14, 2023
Scale	AS SHOWN

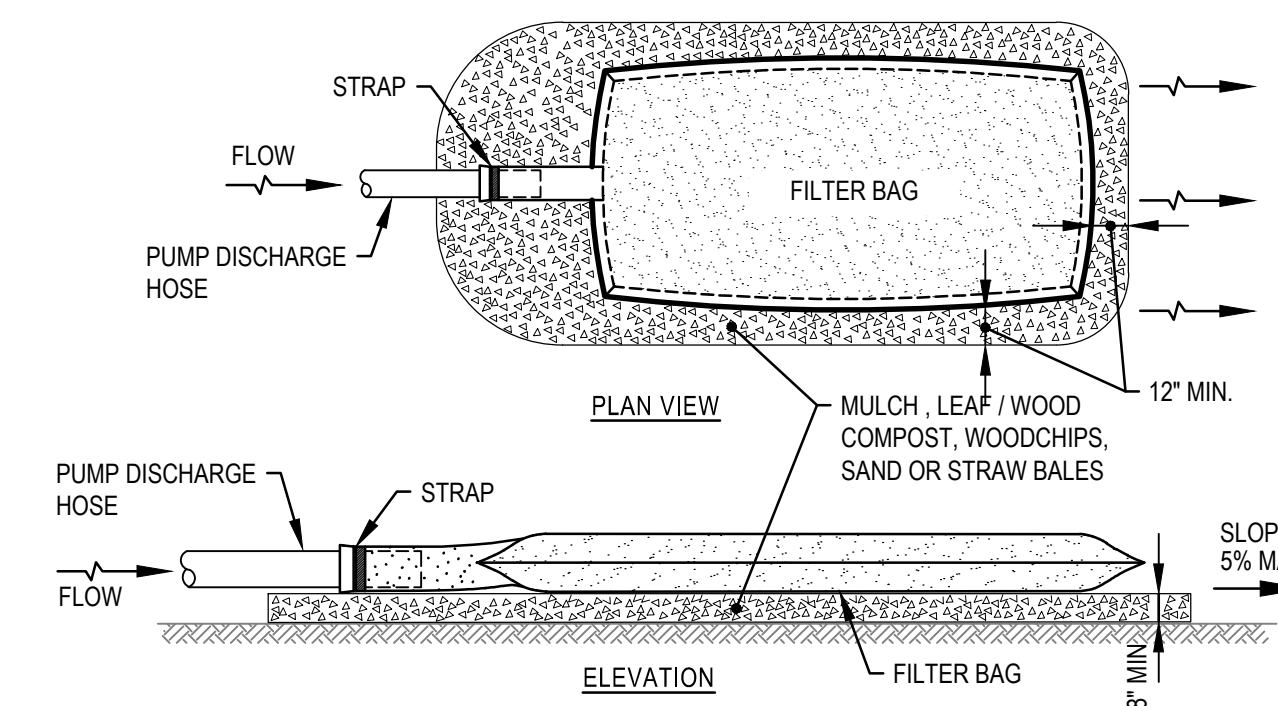
Title	EROSION AND SEDIMENTATION CONTROL SITE PLAN
Sheet No.	CE-00103
Sheet of	1



- NOTES:
- SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.
 - COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
 - TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
 - ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
 - COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURERS SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
 - BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURERS RECOMMENDATIONS.
 - UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.



- NOTES:
- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (<30 FEET FOR SINGLE RESIDENCE LOT> USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
 - PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
 - PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
 - PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE> OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
 - MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.



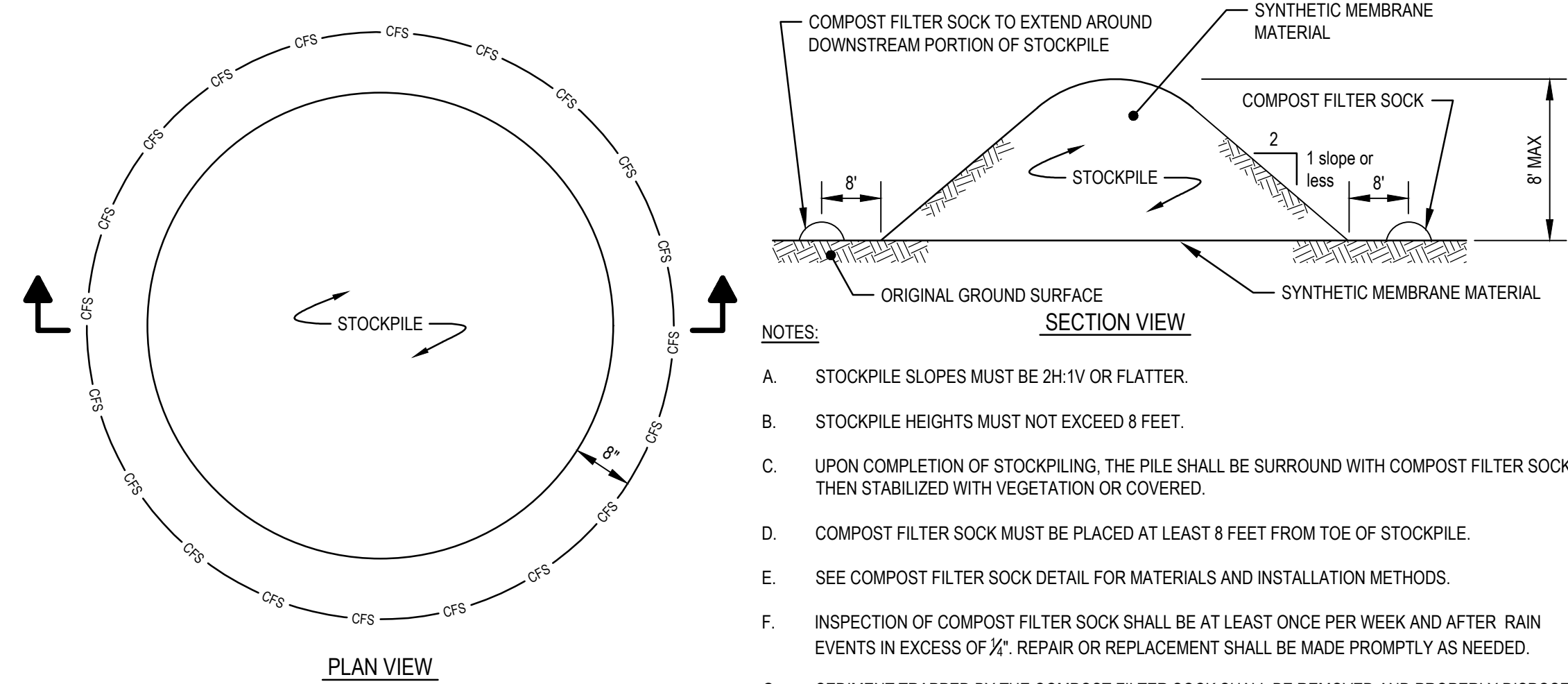
CONSTRUCTION SPECIFICATIONS

- TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
 - PLACE FILTER BAG ON SUITABLE BASE (E.G. MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
 - CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
 - REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
 - USE NON-WOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NON-WOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:
- | | | |
|-----------------------------|--------------------------|-------------|
| GRAB TENSILE | 250 LB | ASTM D-4632 |
| PUNCTURE | 150 LB | ASTM D-4835 |
| FLOW RATE | 70 GAL/MIN/FT² | ASTM D-4491 |
| PERMITTIVITY (SEC⁻¹) | 1.2 SEC⁻¹ | ASTM D-4491 |
| UV RESISTANCE | 70% STRENGTH @ 500 HOURS | ASTM D-4355 |
| APPARENT OPENING SIZE (AOS) | 0.15-0.18 MM | ASTM D-4751 |
| SEAM STRENGTH | 90% | ASTM D-4632 |
- REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

1 COMPOST FILTER SOCK DETAIL
NO SCALE

2 STABILIZED CONSTRUCTION ENTRANCE DETAIL
NO SCALE

3 FILTER BAG DETAIL
NO SCALE



- NOTES:
- STOCKPILE SLOPES MUST BE 2H:1V OR FLATTER.
 - STOCKPILE HEIGHTS MUST NOT EXCEED 8 FEET.
 - UPON COMPLETION OF STOCKPILING, THE PILE SHALL BE SURROUND WITH COMPOST FILTER SOCK, THEN STABILIZED WITH VEGETATION OR COVERED.
 - COMPOST FILTER SOCK MUST BE PLACED AT LEAST 8 FEET FROM TOE OF STOCKPILE.
 - SEE COMPOST FILTER SOCK DETAIL FOR MATERIALS AND INSTALLATION METHODS.
 - INSPECTION OF COMPOST FILTER SOCK SHALL BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF 1/4". REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - SEDIMENT TRAPPED BY THE COMPOST FILTER SOCK SHALL BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
 - COMPOST FILTER SOCK SHALL BE MAINTAINED IN PLACE UNTIL SOIL STOCKPILE HAS BEEN ELIMINATED.
 - PLACE MATERIAL ON A SYNTHETIC MATERIAL MEMBRANE BARRIER. COVER STOCKPILED MATERIAL WITH SYNTHETIC MATERIAL MEMBRANE BARRIER AND ANCHOR THE COVER.

4 TEMPORARY SOIL STOCKPILE DETAIL
NO SCALE

1	ADDENDUM No 1	EC	MLP	APR-21-2023	
No.	Issue	Checked	Approved	Date	
Author	E. CAMACHO	Drafting Check	M. WIESTLING	Project Manager	M. PICKERING
Designer	G. KUNKA	Design Check	Project Director	S. CROSSWELL	

Bar is one inch on original size sheet
0 1"



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Client **CITY OF ABERDEEN**
Project **ABERDEEN AWWTP
DIGESTER GAS FLARE REPLACEMENT**

Title **EROSION AND SEDIMENTATION
CONTROL
DETAILS**

Project No. **12563982** Date **March 14, 2023** Scale **AS SHOWN**

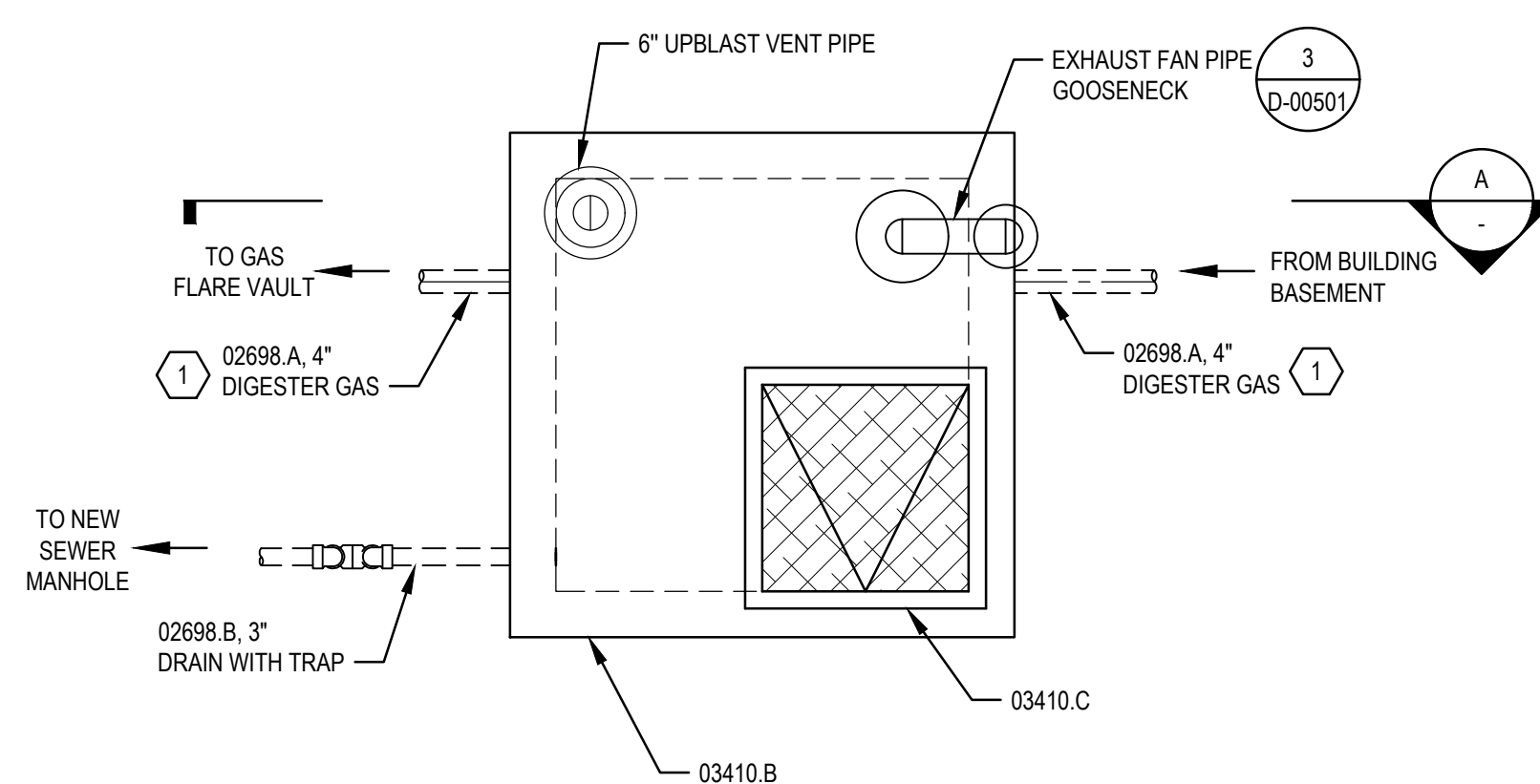
Sheet No. **CE-00501** Sheet of

MATERIAL KEYING LEGEND

- 02223: BACKFILLING
 - A CRUSHER RUN AGGREGATE
- 02698: UNDERGROUND PROCESS PIPING
 - A HDPE PIPE
 - B SCH 80 PVC PIPE
- 03410: PRECAST STRUCTURAL CONCRETE
 - B PRECAST DRIP TRAP CHAMBER (6'-0" X 6'-0" INSIDE)
 - C 36" X 36" SINGLE-LEAF ALUMINUM ACCESS HATCH WITH GUTTER TYPE FRAME
 - D ACCESS LADDER WITH SAFETY EXTENSION
- 11336: WASTE GAS BURNER AND SAFETY EQUIPMENT
 - H DRIP TRAP WITH ELECTRIC ACTUATOR
- 15060: ABOVE GROUND PROCESS PIPING
 - B SS PIPE
- 15083: PIPE AND EQUIPMENT INSULATION
 - A PIPE INSULATION
- 15140: SUPPORTS AND ANCHORS
 - A PIPE SUPPORT
- 15460: HEAT TRACING
 - A HEAT TRACE

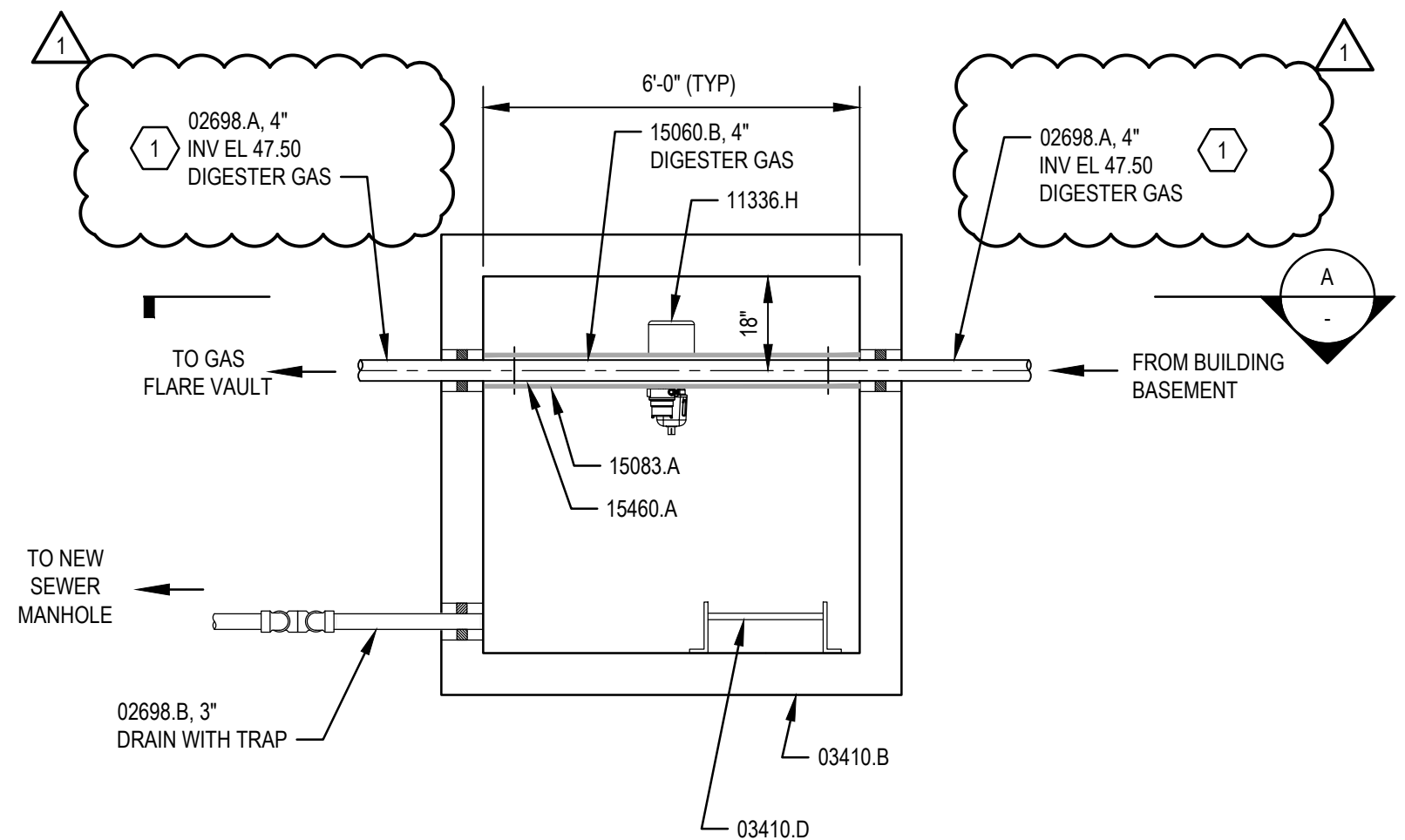
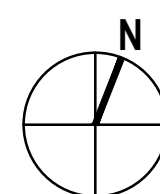
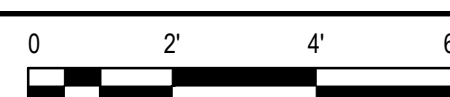
SHEET KEYNOTES

- 1. CONTRACTOR TO INSTALL PIPE WITH 2% (MIN) SLOPE TO DRIP TRAP CHAMBER.



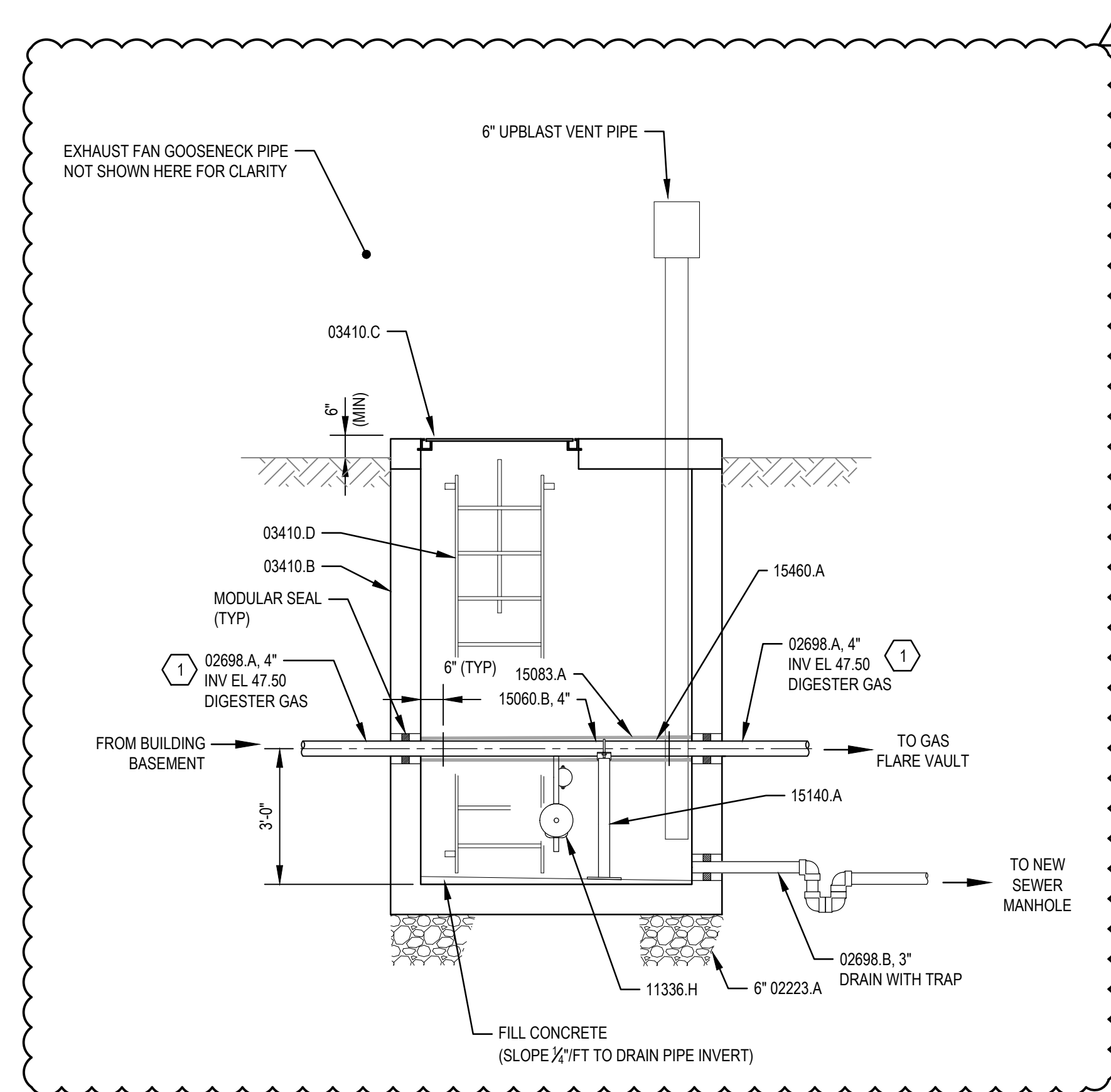
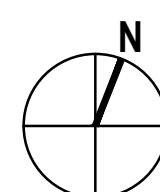
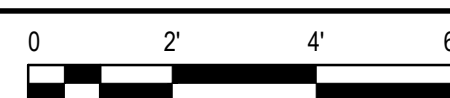
TOP PLAN

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



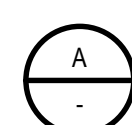
INTERIOR PLAN

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



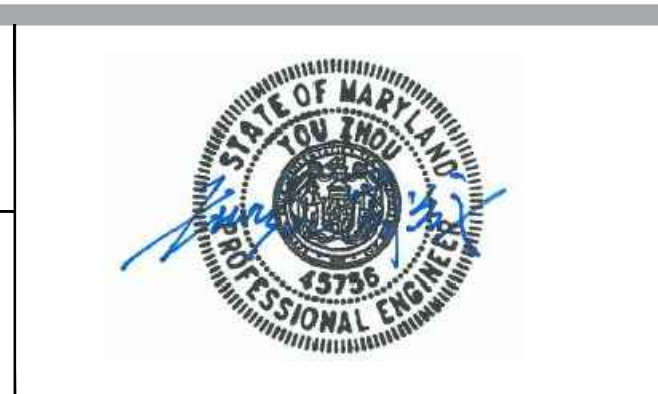
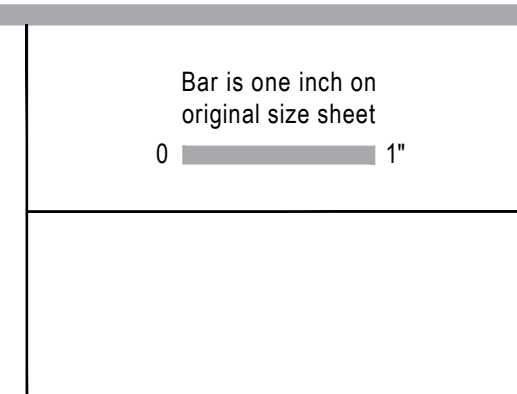
SECTION

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



1 ADDENDUM No 1				EC	MLP	APR-21-2023
0 BID DOCUMENTS				EC	MLP	MAR-14-2023
No.	Issue	Checked	Approved	Date		
Author	E. CAMACHO	Drafting Check	M. WIESTLING	Project Manager	M. PICKERING	
Designer	M. PICKERING	Design Check	N. HATALA	Project Director	S. CROSSWELL	

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0 1'	



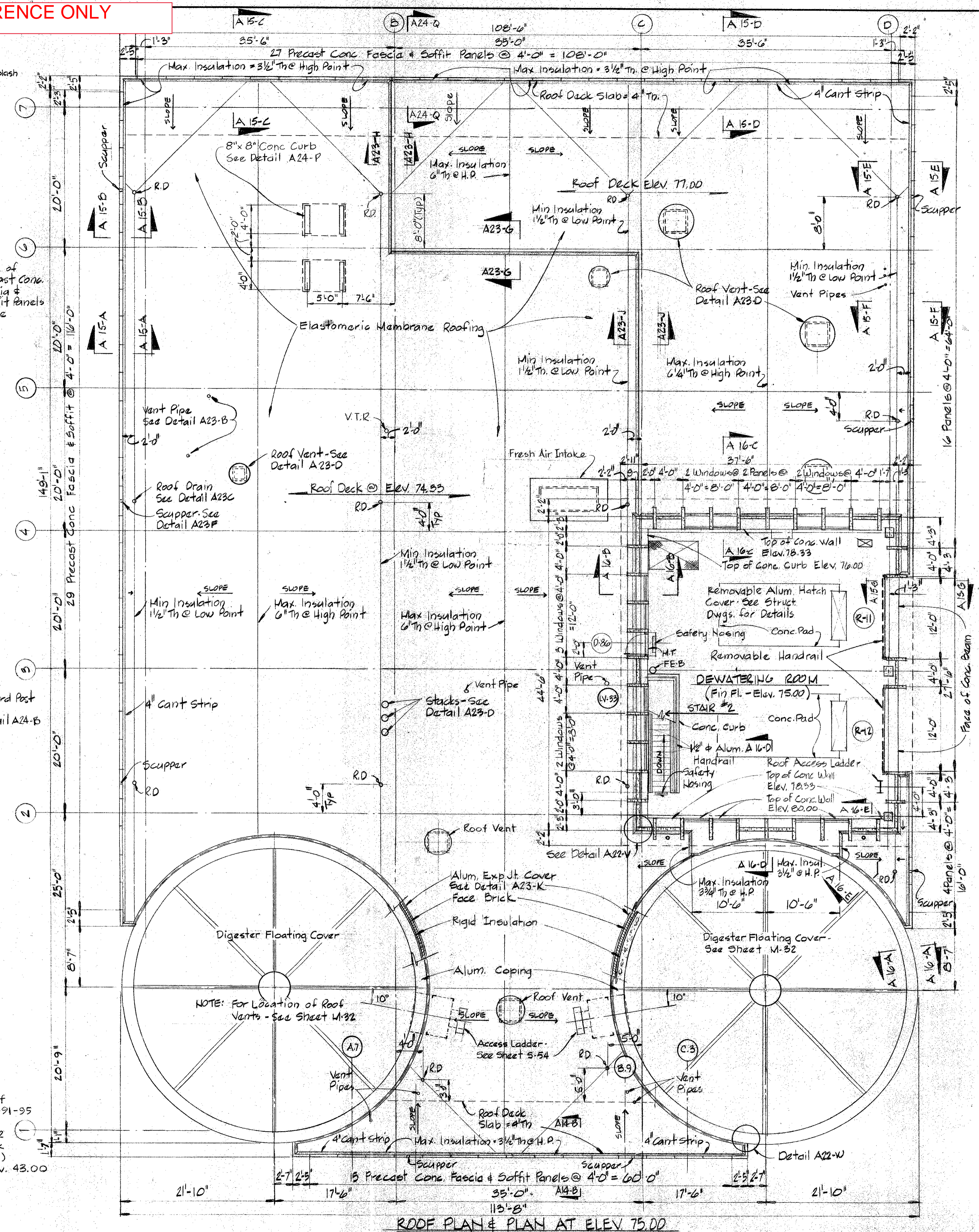
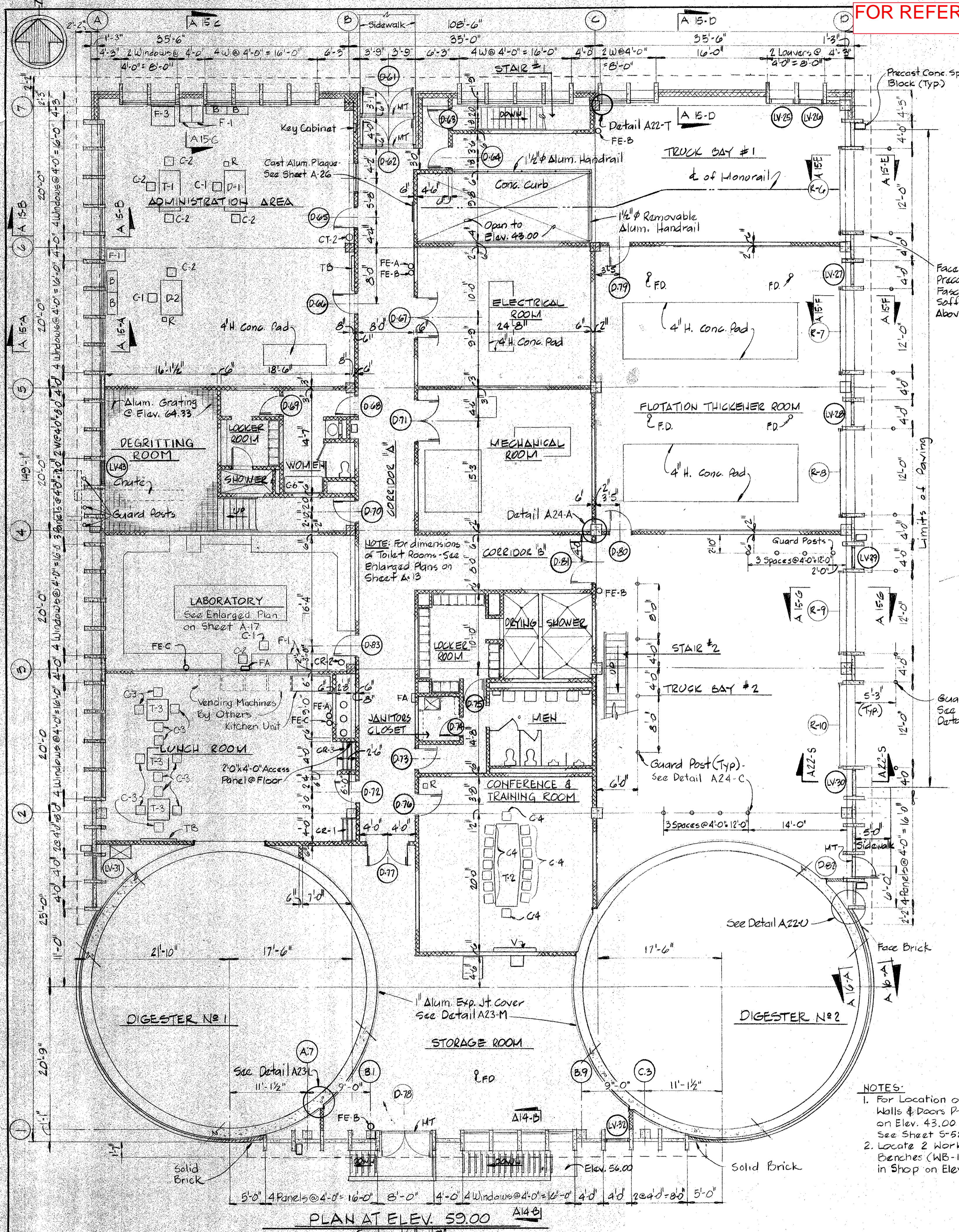
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Client	CITY OF ABERDEEN
Project	ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT
Project No.	12563982
Date	March 14, 2023
Scale	AS SHOWN

Title	DRIP TRAP CHAMBER PLANS AND SECTION
Sheet No.	D-02101
Sheet	19 of 28

FOR REFERENCE ONLY



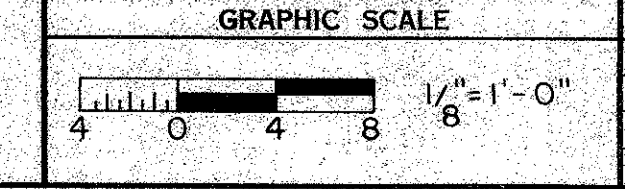
WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND

DESIGNED: R.L.S.
DRAWN: J.W.
CHECKED: R.L.S.

TOWN OF ABERDEEN
MARYLAND

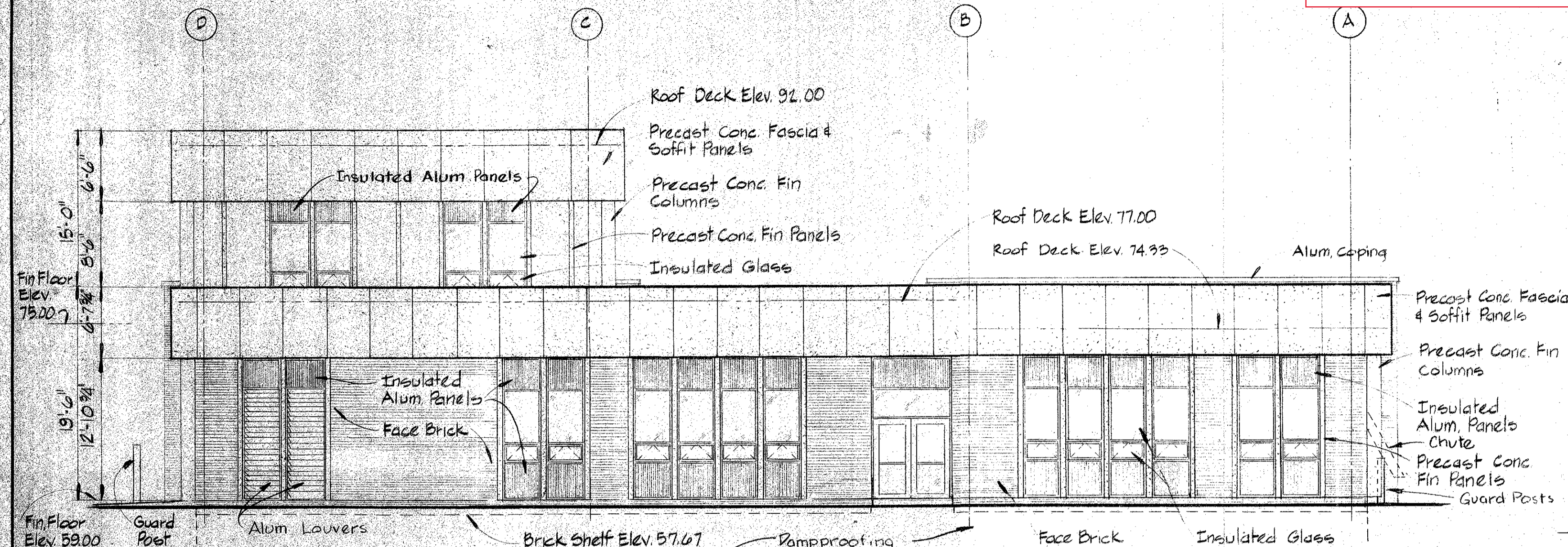
ADVANCED
WASTEWATER TREATMENT PLANT

ADMINISTRATION & SOLIDS PROCESSING BUILDING
PLANS

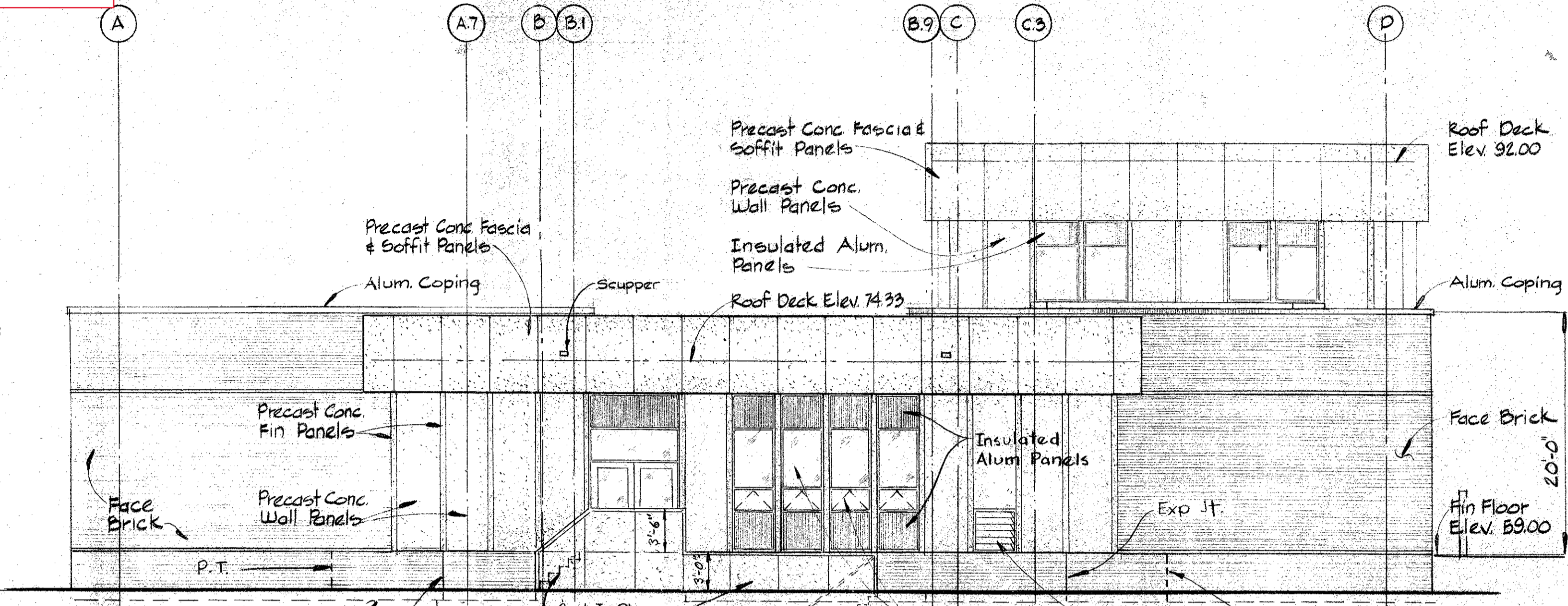


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		PROJECT NO.			SHEET NO.
		C-240346-01			A-12

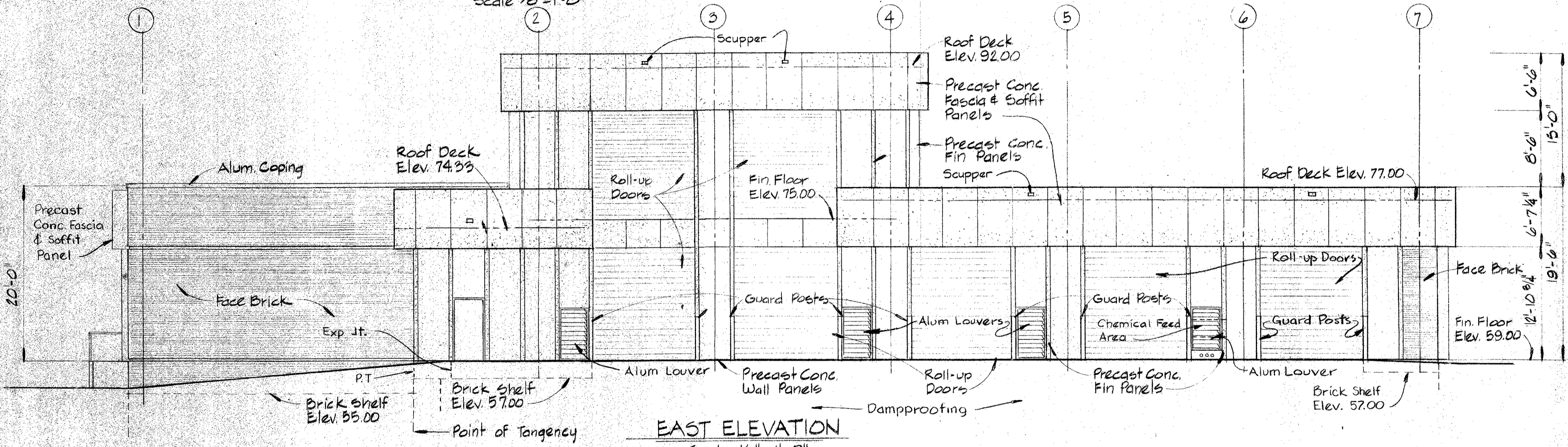
FOR REFERENCE ONLY



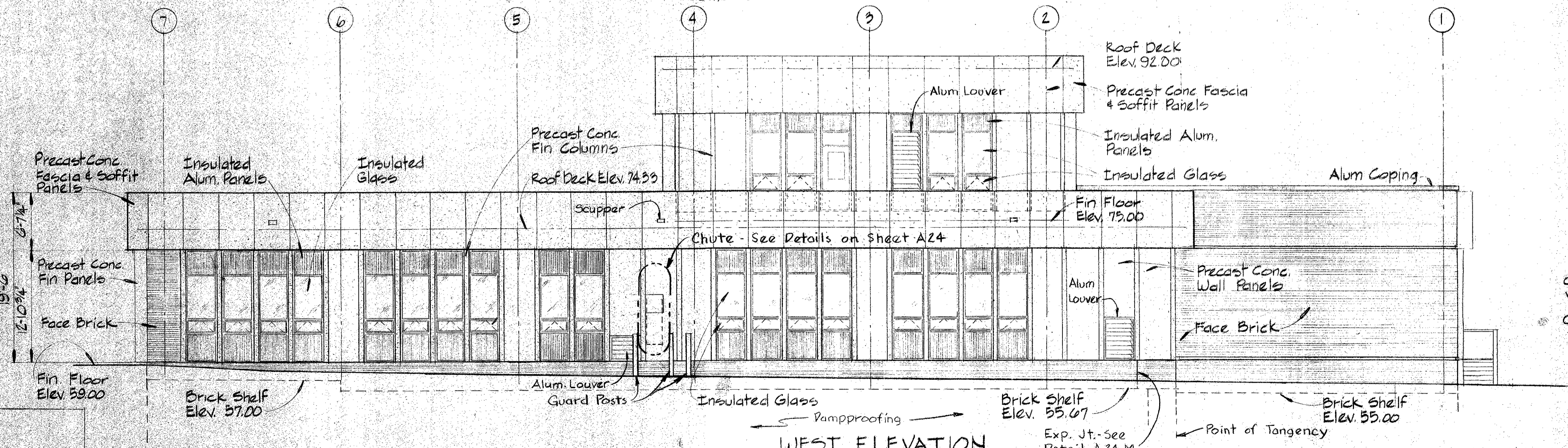
NORTH ELEVATION
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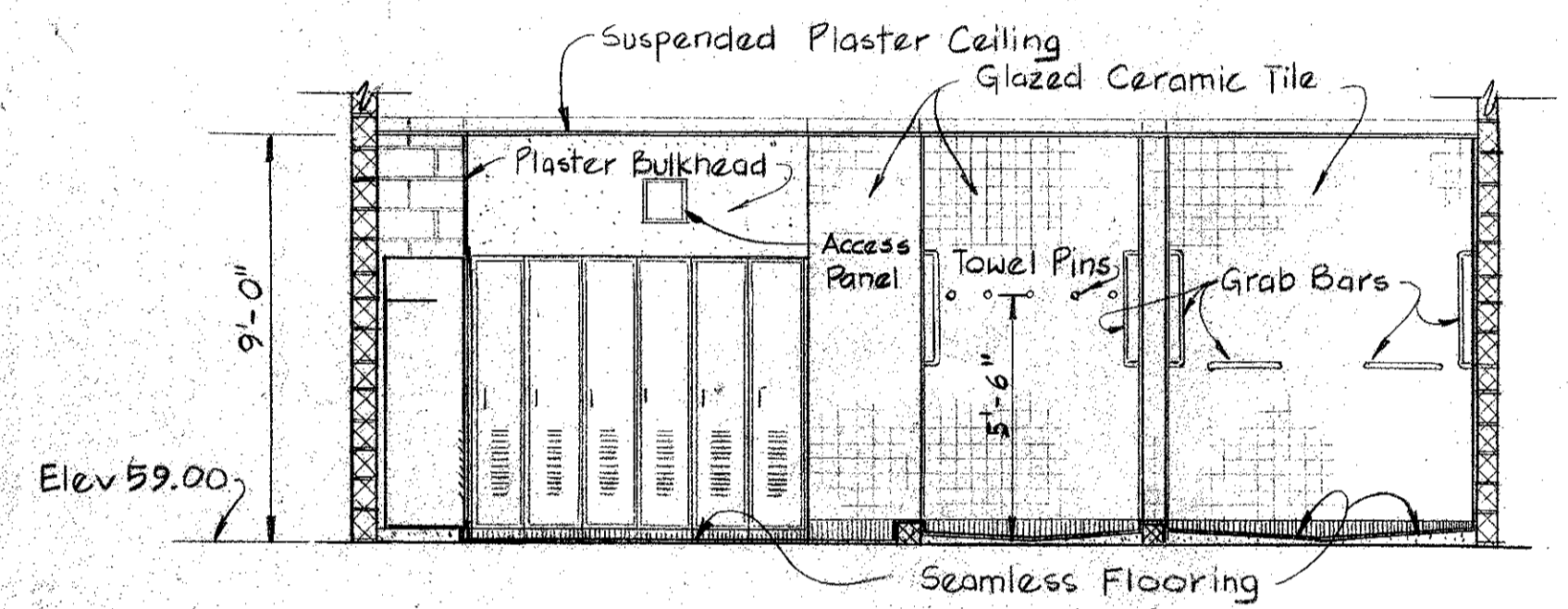
SOUTH ELEVATION
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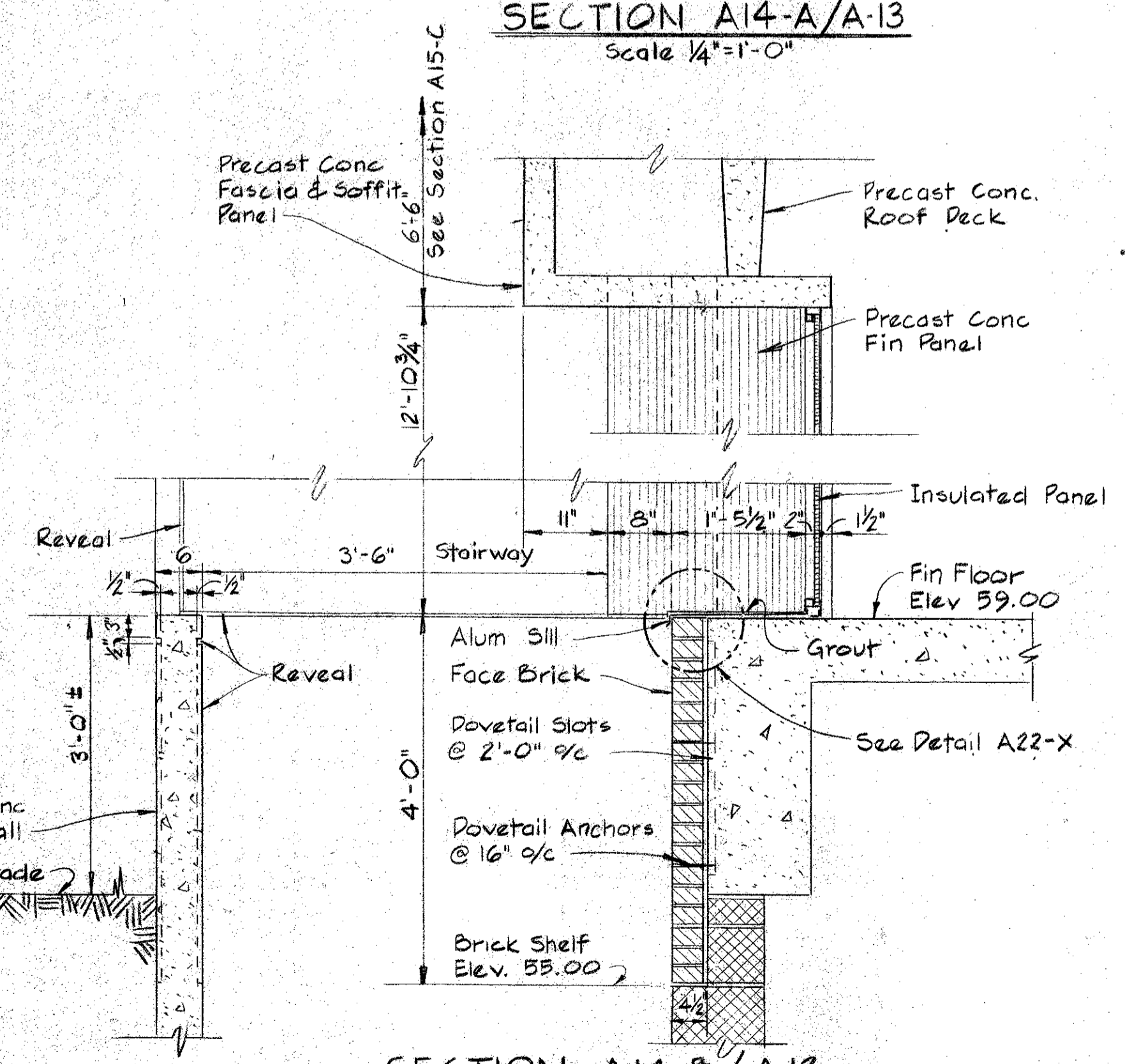
EAST ELEVATION
Scale 1/8" = 1'-0"



WEST ELEVATION
Scale 1/8" = 1'-0"



SECTION A14-A/A13
Scale 1/4" = 1'-0"



SECTION A14-B/A12
Scale 3/4" = 1'-0"

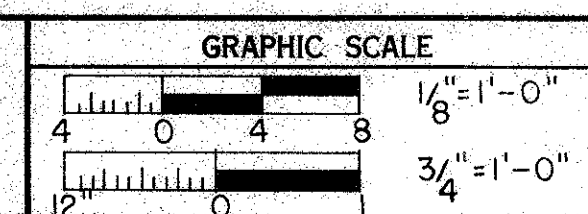
WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND

DESIGNED: R.L.S.
DRAWN: J.W.
CHECKED: R.L.S.

TOWN OF ABERDEEN
MARYLAND

ADVANCED
WASTEWATER TREATMENT PLANT

ADMINISTRATION & SOLIDS PROCESSING BUILDING
ELEVATIONS



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		DEC. 1977			33
		PROJECT NO.			SHEET NO.
		C-240346-01			A-14