Jones & Henry
ENGINEERS, LTD.

Village of Antwerp
New Water Treatment Plant

ADDENDUM 3

November 6, 2026

Planholders on the Village of Antwerp, New Water Treatment Plant are hereby notified of the following amendments to the Contract Documents. This Addendum is hereby made a part of the Contract Documents.

SPECIFICATIONS

Replace the following specifications with the attached:

11026 – Vertical Pressure Filter

Planholders should update the Table of Contents to reflect the above sections.

An updated Table of Contents will be included in the Issued for Construction Project Manual.

DRAWINGS

Replace the following drawings with the attached:

C-2.1	16 of 98	A-2.5	27 of 98	A-2.8	30 of 98
A-0.3	19 of 98	A-2.7	29 of 98	PE-2.2	53 of 98

Planholders should update the Drawing Index to reflect the above changes.

An updated Drawing Index will be included in the Issued for Construction Project Manual.

RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON PAGE C-410-1 OF THE BID.

3103 Executive Parkway, Suite 300, Toledo, Ohio 43606 - 419.473.9611

SECTION 11026
VERTICAL PRESSURE FILTER

PART 1 GENERAL

1.01 SCOPE

A. This Section includes installing four vertical pressure filters and related accessories as specified and as shown on the Drawings and as described in this Section.

B. Under this Section, the Contractor shall furnish labor, materials, equipment and incidentals as specified to install and test the filtration equipment complete with piping, internals, and appurtenances.

C. All work performed under this Section shall comply with all approved trade practices and manufacturer's recommendations.

D. Additional product requirements are specified in Section 01350.

1.02 SUBMITTALS

A. Submittals shall be in accordance with the requirement of Section 01300 and shall include:

1. Shop Drawings for Review:

   a. The Contractor shall indicate all variances from the requirement of the Contract Documents.

   b. Dimensions.

   c. Manufacturer's literature.

   d. Manufacturer's installation instructions.

   e. Manufacturer's certificates.

   f. Filter media sieve analysis reports.

2. Information for the Record:

   a. Equipment supplier's written report that equipment:

      1) Has been properly installed.

      2) Has been operated and that satisfactory operation has been obtained.

   b. Complete list of all component parts including:

      1) Manufacturer's name and model number.

      2) Materials of construction.

3) Accessories.

4) Performance data.

c. Catalog data.

d. Design data.

B. Operation and Maintenance Manuals.

1.03 MANUFACTURER

A. It is the specific intent of this Section to limit the equipment furnished to a product of a major process equipment manufacturer that has substantial experience and expertise in similar size pressure filters and that will assume responsibility with respect to the overall functional capability of the equipment provided.

B. All major filter components shall be furnished by a single manufacturer who has adequate experience and experimental data, in the judgment of the Engineer, concerning filters of the type to be furnished for this Section.

C. The manufacturer shall have at least 10 years experience with similar capacity installations and shall provide documented proof of installations that successfully removed iron and manganese to less than 0.1 and 0.015 mg/L respectively using dual media and simultaneous air and water backwash (**Addendum 3, Issued November 6, 2026**) with similar water characteristics as given in this Section.

D. To establish a minimum quality required, the products furnished under this Section shall be by WesTech Engineering, LLC; Tonka Water; Hungerford & Terry, Inc.; Artesian of Pioneer, Inc. or Loprest. Filter and piping arrangement shown on Drawings is based on standard Tonka Water details. (**Addendum 2, Issued October 30, 2026**)

E. All equipment in this section shall be supplied by a single manufacturer.

PART 2 PRODUCTS

2.01 FILTER

A. Each vertical pressure filter unit shall be capable of filtering at water flow of 150 gpm to 200 gpm at a filtration rate of 3.0 gpm/sf to 4.0 gpm/sf when filtering a water with the following analysis:

Total Alkalinity (as CaCO3 mg/L)	230-240
pH	7.2-7.5
Temperature (°C)	4-10
Total Hardness (as CaCO3 mg/L)	350-540
TOC (mg/L)	1.2
Fluoride (mg/L)	1.5-2.3
Iron (ug/L)	35-1,300

Manganese (ug/L)	0-20
Sulfur (ug/L)	50,000-213,000
Nitrogen, Ammonia (mg/L) (**Addendum 2, Issued October 30, 2026**)	0.3-0.4

Prior to application to the filters the water will be aerated, and a 12.5 percent solution of sodium hypochlorite applied.

2.02 FILTERS

A. Four vertical pressure filters shall be supplied and sized as follows:

1. Total Flow Rate: 600 gpm
2. Filtration rate: 3 gpm/sf (4 gpm/sf with one filter offline)
3. Tank diameter: 8’-0”
4. Tank side shell height: 6’-0”
5. Tank design pressure: 100 psig
6. Tank hydrostatic test pressure: 130 psig

B. The vessels shall be constructed in accordance with ASME code Section VIII Division 1 requirements with ASME code stamp required.

C. Each tank shall be equipped with the necessary flanges and connections for the main piping system. The top tank head shall be equipped with one 24 inch manhole. Each unit is to be supported on four structural legs welded to the side shell. A 2-inch drain valve shall be included on each filter effluent. (**Addendum 2, Issued October 30, 2026**) Each leg is to be provided with a suitable base plate and manufacturer supplied anchor bolts.

2.03 FILTER UNDERDRAIN SYSTEM

A. Each filter bottom shall be equipped with an underdrain system consisting of a rigidly supported flat plate extending over the entire bottom of the filter area. It shall be perforated with openings to receive non-clogging plastic distributors.

B. A header-lateral cast in concrete alternative is also acceptable.

1. Underdrain pipes: Structurally supported PVC pipe construction.
2. Header pipe with laterals on 12” centers.
3. Header-lateral underdrain piping factory installed by the manufacturer. Field installed systems are not acceptable.
4. Concrete fill: Installed by Contractor to bottom of the underdrain diffuser nozzles per manufacturer’s instructions.

a. Take care so as not to introduce foreign material into the underdrain laterals during the installation process.

b. Plug laterals until the installation process has been completed, after which the plugs will be removed and the underdrain diffuser nozzles are installed by the contractor. (**Addendum 2, Issued October 30, 2026**)

C. The design of the underdrain distributor shall consist of a single horizontal slot with a minimum opening of 0.125 inch. Slot area of the distributor shall be greater than the final orifice area to assure uniform distribution. The quantity of distributors shall be such that the ratio of final orifices to filter area is approximately 0.003.

D. The underdrain shall be so designed to reduce the water velocity, discharging the water horizontally without impeding its flow, thereby preventing channeling in the filter bed.

E. Underdrain nozzles shall be NSF Standard 61 approved for use in drinking water. Plastic underdrain components without this approval shall not be allowed.

F. Supporting Beds

1. Each filter shall be provided with a 15-inch supporting bed consisting of the following graded layers of gravel:

Layer & Depth	Passing Screen	Retained on Screen
Bottom 4-inch	3/4-inch	1/2-inch
Next 4-inches	1/2-inch	3/16-inch
Next 4-inches	3/16-inch	3/32-inch
Top 3-inches (Torpedo Sand)	2.0 mm	0.8 mm

2. The gravel shall conform to AWWA standards B-100 and be free from clay, loam, dirt, calcareous, or other foreign material and shall consist of round or angular particles being relatively free of flat or elongated particles.

3. The gravel shall be shipped bagged.

2.04 FILTER MEDIA

A. Torpedo sand shall have an effective size of 0.8-2.0 millimeters and uniformity coefficient not greater than 1.7.

B. Each filter shall be provided with an 18 inch deep bed of best quality GreensandPlus. The GreensandPlus shall have an effective size of 0.30-0.35 millimeters, a uniformity coefficient not greater than ~~1.55~~ 1.60 (**Addendum 2, Issued October 30, 2026**) and shall be specifically processed and stabilized for continuous regeneration with sodium hypochlorite.

C. A 12 inch deep bed of 0.8-1.2 millimeters effective size anthracite with a uniformity coefficient no more than 1.7 shall be furnished on top of the GreensandPlus layer.

D. Sieve analysis reports of filter media including torpedo sand, greensand plus and anthracite shall be submitted for review in accordance with AWWA B100-16.

2.05 BACKWASH COLLECTION

A. A backwash collection and influent distribution (**Addendum 2, Issued October 30, 2026**) system shall be provided consisting of a washwater collector and media-backwash water separator. The backwash collection system shall separate the air and media from the backwash water without interfering with removal of accumulated suspended solids. The backwash collection system shall be located immediately above the top of the filter media and provide for simultaneous air-water backwashing in a manner, which results in clean media and minimal mud ball formation and surface cracking essential for maintaining high quality filter effluent at all time. Additionally, the simultaneous air and water backwash system must be designed so that filter media is not lost during the backwash cycle to the extent continued media replacement will be required. Continual media loss during backwash is not acceptable.

1. Troughs:

   a. Material: 304 stainless steel or high density polyethylene.(**Addendum 3, Issued November 6, 2026**)

   b. Hardware 316 stainless steel.

2. Simultaneous air and water:

   a. Minimum of 2 cfm/sf air and 3-5 gpm/sf water.

   b. Minimum of 12 gpm/sf of water without air.

B. H-Pattern Inlet distributor/backwash collector alternative. An alternative collection systems shall be furnished with an H-pattern inlet distributor/backwash collector system designed with schedule 80 PVC pipe and fittings. The hub will extend down from the tank top head and include two (2) lateral arms, each ending with two (2) upturned elbows. The distributing system shall be designed for uniform distribution of inlet water over the entire filter bed and for the uniform collection of the backwash water during the backwash operation. (**Addendum 2, Issued October 30, 2026**) Simultaneous air and water backwashing is required as specified in 2.05.A. The system shall be design so that filter media is not lost during the backwash cycle to the extent continued media replacement will be required. Continual media loss during backwash is not acceptable. (**Addendum 3, Issued November 6, 2026**)

2.06 PIPING AND VALVES

A. The piping shall be arranged to carry out all the operations of filtering, backwashing, air washing and filtering to waste. Piping shall be as shown on the drawings. All piping 3 inches in diameter and larger shall be ~~standard~~ ductile iron pipe as specified in Section 15210 or epoxy lined carbon steel piping ~~weight flanged steel construction.~~ (**Addendum**

2, Issued October 30, 2026) Flanges are to be standard weld on flanges. No threads are to be cut on pipe 3 inches and larger.

B. The filter equipment supplier shall supply butterfly type filter function valves. All valve bodies shall be monoflange for mounting between ANSI 125/150 flanges. Valves shall be designed for watertight control at the maximum actual working pressure. Disc material shall be corrosion resistant. Shafts shall be one piece solid stainless steel with corrosion resistant bearings. Seat material and shaft seals shall be EPDM.

C. The following electrically operated filter function valves shall be furnished by the filtration equipment manufacturer:

1. 4 - size 4" influent modulating valves.
2. 4 - size 6" backwash waste valves.
3. 4 - size 6" backwash supply valves.
4. 4 - size 6" effluent valves.
5. ~~4 - size 2" drain valves.~~ (**Addendum 2, Issued October 30, 2026**)
6. 1 - size 4" backwash low rate set valve.
7. 1 - size 6" backwash high rate set valve.
8. 4 - size ~~3~~ 4" air wash valves. (**Addendum 2, Issued October 30, 2026**)

D. Each filter function valve shall be furnished with an electric actuator. Each electrically actuated butterfly valve shall be controlled by a 120-volt, single-phase electric actuator. Each actuator shall be weatherproof and furnished with a corrosion resistant cover complete with sealing gaskets. Power for these actuators is to be supplied from the control panel.

E. All necessary air vents and relief valves shall be furnished. Air release piping shall be supplied by the Contractor.

2.07 LOSS OF HEAD GAUGES

A. The filter system shall be equipped with (4) loss of head assemblies including pressure gauges for indicating loss of head. Each ~~set of filters~~ filter to include an assembly. A differential pressure switch shall be included as part of the assembly to automatically initiate backwash when terminal headloss is reached. (**Addendum 2, Issued October 30, 2026**)

2.08 RATE OF FLOW INDICATOR

A. Filters shall be equipped with a magnetic flow meter for backwash supply metering and (4) magnetic flow meters for filter influent metering.

1. Acceptable manufacturers: Siemens Sitran, Rosemount, Endress+Hauser or equal.

2. Capable of bi-directional flow measurement.
3. Fabricated from carbon steel and internally lined with polyurethane or Ebonite hard rubber.
4. Meter housing: rated for 200 psi minimum.
5. Include two (2) stainless steel grounding rings, shipped loose for installation on per manufacturer's instructions.
6. Install full face gaskets between grounding ring and flanged ends of meter.
7. Meter converter:
    a. Local or remote mount.
    b. Housed in TYPE 4 enclosure with readout display.
    c. Meter transmitter: capable of producing pulse and analog output signals.

2.09 SAMPLING COCKS

A. Sampling cocks shall be provided in the pipe nozzles so that representative water samples may be secured at the following ports.
    1. Filter influent.
    2. Filter effluent.

2.10 PAINTING

A. The interior and exterior of the filter tanks shall be thoroughly cleaned of loose mill scale and grease and sandblasted to SSPC-SP10/NACE 2 near white blast in preparation for the coating systems.

B. The interior filter coating shall be an NSF-600 coating system applied above the underdrain plate prior to shipment.
    a. One coat of Tnemec Series 21-1255 (beige) primer to 5 – 7 mils dry film thickness.
    b. One stripe coat of Tnemec Series 21-WH16 (off-white) primer applied with brush to all weld and hard to reach areas.
    c. One finish coat of Tnemec Series 21-WH16 (Off-White) to 5 – 7 mils dry film thickness.

C. The exterior of the filter tank shall receive the following coating system prior to shipment:
    a. One factory coat of Tnemec Series 21-1255 (beige) primer to 5 – 7 mils dry film thickness.
    b. One stripe coat of Tnemec Series 21-WH16 primer applied with brush to all weld and hard to reach areas.

c. Additional coatings shall be furnished and field applied by the installing contractor.

D. The contractor shall be responsible for touching up the coating system as needed.

2.11 BACKWASH CONTROL

A. A control system shall be furnished to provide fully automatic sustained simultaneous air and water backwash of four filters in sequence.

B. Automatic Backwash Control:

1. The automatic MULTIWASH backwash cycle shall be initiated by elapsed time, by loss of head with a differential pressure switch, or by manual pushbutton.

C. Orifice Plates

1. Orifice plates shall be installed as shown on the Plans and made of 304 stainless steel.

D. Control Features

1. Automatic (Filter selector to "AUTO"): Each of the Four (4) filters shall automatically proceed in sequence through simultaneous air and water backwash, air purge water wash and return to service. Only one filter cell is to be backwashed at a time.

   a. One set of filters (two total) shall be backwashed sequentially.

2. Semi-Automatic (Filter selector to "AUTO"): To initiate backwashing manually, the control system shall be provided with a "BACKWASH START" push button, which can initiate the filter backwash cycle. The filter shall then proceed through the backwash cycle and return to service.

3. Manual or Off (Filter selector to "OFF"): The filter function valve solenoids shall be provided with manual overrides to allow the valves to be positioned manually.

4. Removing a filter from service: It shall be possible to remove a filter from service by changing the filter selector to "OFF" and placing the filter valve in the required position by use of the manual overrides on the solenoid pilots, providing the control air reserve is adequate.

E. Control Components

1. Backwash: Contacts shall be provided to operate the backwash sequence with the control system. The duration of the backwash shall be adjustable from 0 - 30 minutes. One panel shall service all units. The backwash rate shall be controlled by a manual rate set valve in the backwash water waste line in conjunction with a backwash rate of flow indicator. A HAND-OFF-AUTO selector switch shall be included on the front of the panel to operate the backwash pump when using the "MANUAL" control mode.

2. Backwash water supply shall be supplied by high service pumping. When a filter is in backwash mode, the remaining three filters shall remain online to ensure adequate backwash water is supplied to the system.

3. Air wash: Contacts shall be provided to operate the air wash blower in the proper sequence with the control system. The duration of the air wash shall be adjustable from 0-10 minutes. One timer shall service all units. The air wash rate shall be 3 cfm/sf. A HAND-OFF-AUTO selector switch shall be included on the front of the panel to operate the air wash blower when using the "MANUAL" control mode.

4. Indicator lights: OIT lights shall indicate both the service and backwash position of each unit. There shall also be included on the panel "ON - OFF" lights for the backwash pump. There shall also be included on the panel "ON-OFF" lights for the air wash blower.

F. Interlocks and safeties:

1. In the event of a power failure, the units shall remain in the service position if the control air reserve is adequate. If the failure occurs during the backwash cycle, the valves shall return to the service position. On restoration of power, the unit shall return to the beginning of the cycle and continue to completion.

2. Each unit shall be interlocked to ensure that only one unit can backwash at a time.

2.12 BACKWASH CONTROL PANEL

A. The control panel shall be a single door NEMA 4X steel ~~wall~~ floor (**Addendum 2, Issued October 30, 2026**) mounted control cabinet containing a programmable logic controller. An operator interface terminal (OIT) shall be mounted on the face of the panel for adjustment of the backwash duration and other timers/setpoints. The OIT shall include a connection for remote programming and troubleshooting.

B. A 120 volt, 60 Hz, 1 phase electrical power source, sized for 20 amps, is to be supplied to the control panel. All electrical wiring within the panel shall be factory installed and tested before shipment. All panel wiring shall terminate at a numbered terminal strip. All wiring external to the panel shall be furnished and installed by others under the electrical contract.

2.13 AIR SCOUR BLOWER

A. Air for the air scour shall be provided by a regenerative blower designed to deliver 3 cubic feet per minute per square foot of filter area at a pressure of 5 psig. The blower shall be furnished as part of the filter equipment.

B. Blower accessories shall consist of intake air filter, intake silencer, discharge silencer, pressure relief valve, check valve, isolation valve, intake and outlet flexible connections, and pressure gauge.

C. Blower should be FPZ Inc K10- MS-10-3 or equal.

2.14 AIR WASH GRIDS

A. Provide an in bed air wash distributor system for each filter to be placed at the interface between the supporting gravel bed and the filter media. The air wash grids shall be properly sized to provide even distribution of air throughout the entire filter bed when air is applied at a rate of 3 cfm/sq. ft. of bed area.

B. Each in bed air wash grid system shall consist of minimum Sch. 80 PVC pipe headers and 3/4 inch diameter Sch. 80 PVC laterals on 8" centers. Laterals shall be provided with air distribution points on 7 inch centers. Air distribution points shall be designed to prevent media intrusion. Laterals shall be cut to proper length and have the distributors factory installed. The pipe headers shall be rigidly supported at points not exceeding 5 feet – 0 inch centers.

PART 3 EXECUTION

3.01 INSTALLATION

A. The filter and accessories shall be installed in accordance with the Contract Documents, manufacturer's recommendations, and Engineer's instructions.

B. Filter support gravel and filter media shall be installed per manufacturer's recommendations and in accordance with AWWA B100.

C. After all work related to placement of the media has been completed, and before the filter is placed in service, the entire filter shall be cleaned and disinfected by chlorination in accordance with AWWA C653.

3.02 APPLICATION

A. The method of introduction of raw water to the filter units, or the collection of wash water from the units, shall be such that water is distributed to, or collected from, the entire filter bed in a uniform manner.

3.03 INSPECTION, STARTUP, AND TRAINING

A. The Contractor shall furnish the services of a manufacturer's factory service person for final inspection and startup of all equipment furnished by the manufacturer and to instruct Owner and Contractor personnel in proper operation and maintenance procedures. A minimum of two trip~~s~~ for a total of six, eight-hour workdays shall be required.

B. Inspection, startup, and training services shall consist of an equipment check, startup, and training of operating personnel. The Contractor shall ensure that all equipment is in operating condition and ready for service.

C. Contractor to coordinate Startup plan in accordance with Section 01650.

PART 4 SPECIAL PROVISIONS

Not used.

END OF SECTION

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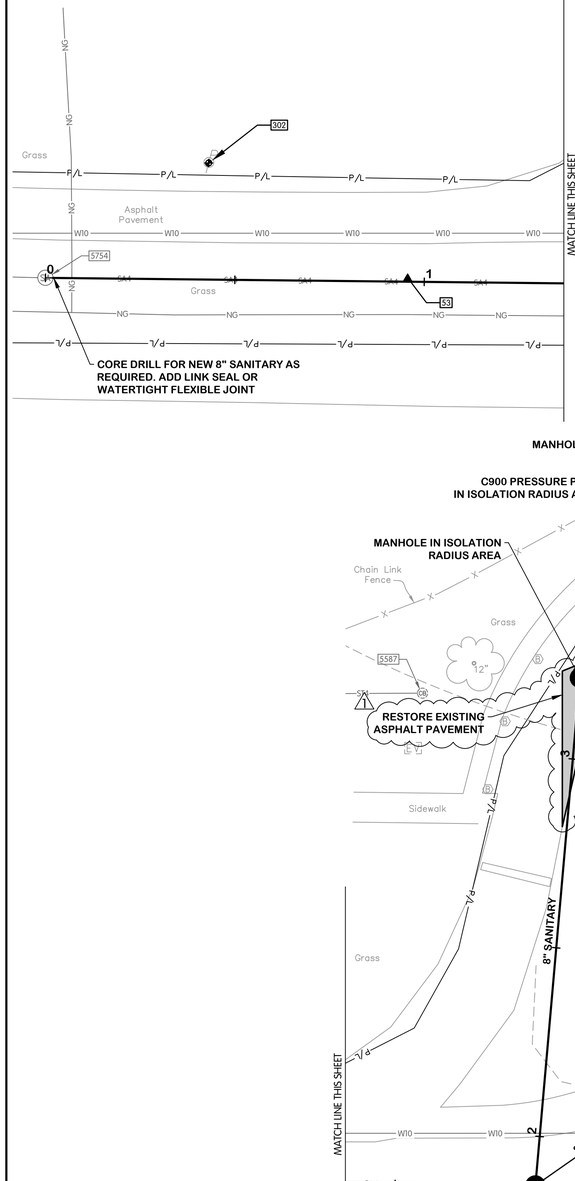
BENCHMARKS				
POINT #	RAW DESCRIPTION	NORTHING	EASTING	ELEVATION
300	SET SQUARE CUT ON SOUTHWEST CORNER OF CONCRETE VAULT	557,617.24	1,353,937.15	733.76
301	SET SQUARE CUT ON SOUTH SIDE OF LIGHT POLE BASE	558,185.82	1,353,798.60	735.95
302	SET BENCHMARK TIE IN POWER POLE	557,555.81	1,353,476.62	735.25

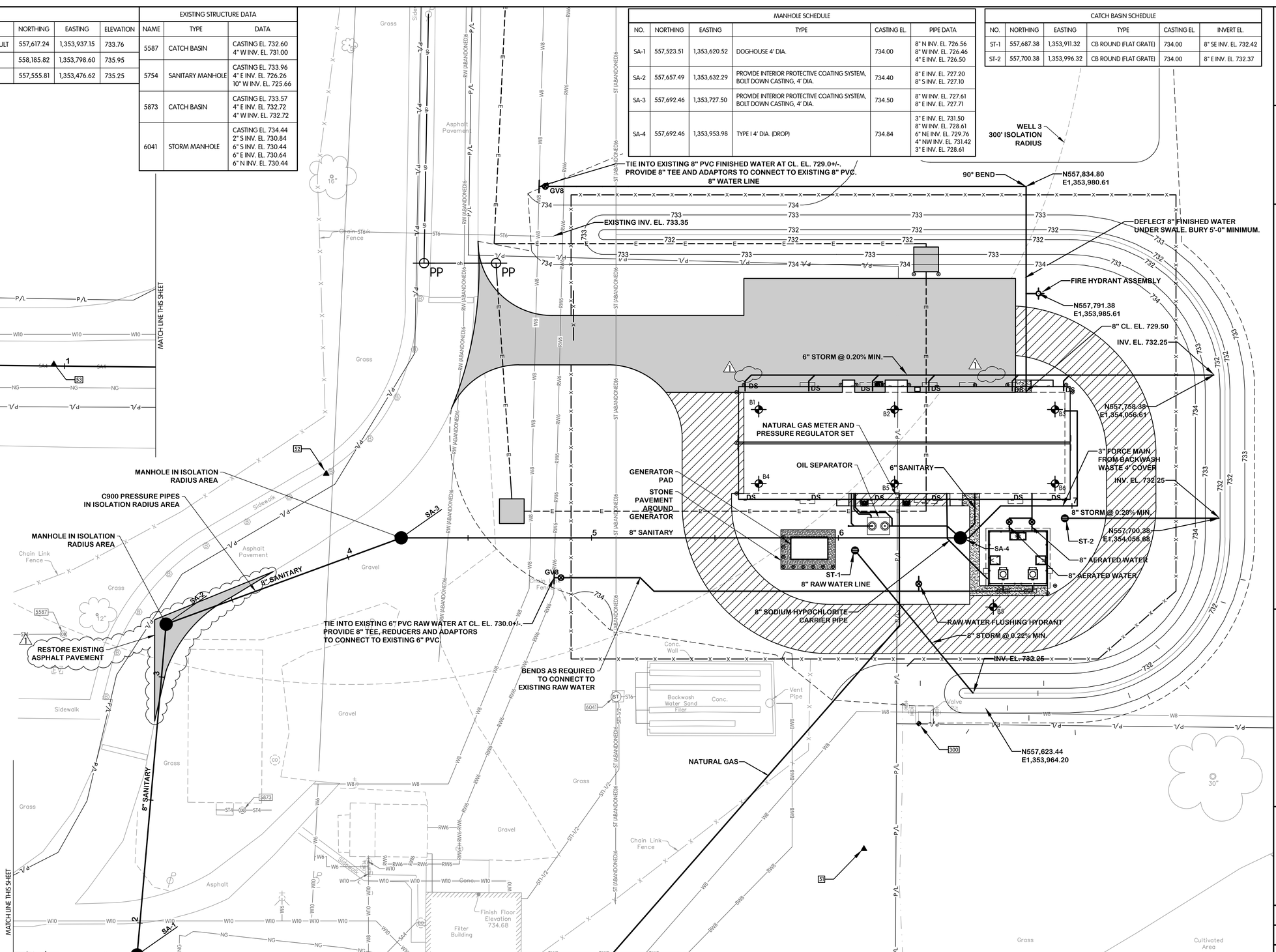
CONTROL POINTS			
POINT #	RAW DESCRIPTION	NORTHING	EASTING
50	SET CAPPED IRON REBAR	558,180.18	1,353,909.77
51	SET CAPPED IRON REBAR	557,566.81	1,353,914.94
52	SET MAG NAIL	557,718.76	1,353,697.12
53	SET CAPPED IRON REBAR	557,525.51	1,353,529.12

EXISTING STRUCTURE DATA		
NAME	TYPE	DATA
5587	CATCH BASIN	CASTING EL. 732.60 4" W INV. EL. 731.00
5754	SANITARY MANHOLE	CASTING EL. 733.96 4" E INV. EL. 726.26 10" W INV. EL. 725.66
5873	CATCH BASIN	CASTING EL. 733.57 4" E INV. EL. 732.72 4" W INV. EL. 732.72
6041	STORM MANHOLE	CASTING EL. 734.44 2" S INV. EL. 730.84 6" S INV. EL. 730.44 6" E INV. EL. 730.64 6" N INV. EL. 730.44

MANHOLE SCHEDULE					
NO.	NORTHING	EASTING	TYPE	CASTING EL.	PIPE DATA
SA-1	557,523.51	1,353,620.52	DOGHOUSE 4' DIA.	734.00	8" N INV. EL. 726.56 8" W INV. EL. 726.46 4" E INV. EL. 726.50
SA-2	557,657.49	1,353,632.29	PROVIDE INTERIOR PROTECTIVE COATING SYSTEM, BOLT DOWN CASTING, 4' DIA.	734.40	8" E INV. EL. 727.20 8" S INV. EL. 727.10
SA-3	557,692.46	1,353,727.50	PROVIDE INTERIOR PROTECTIVE COATING SYSTEM, BOLT DOWN CASTING, 4' DIA.	734.50	8" W INV. EL. 727.61 8" E INV. EL. 727.71
SA-4	557,692.46	1,353,953.98	TYPE I 4' DIA. (DROP)	734.84	3" E INV. EL. 731.50 8" W INV. EL. 728.61 6" NE INV. EL. 729.76 4" NW INV. EL. 731.42 3" E INV. EL. 728.61

CATCH BASIN SCHEDULE					
NO.	NORTHING	EASTING	TYPE	CASTING EL.	INVERT EL.
ST-1	557,687.38	1,353,911.32	CB ROUND (FLAT GRATE)	734.00	8" SE INV. EL. 732.42
ST-2	557,700.38	1,353,996.32	CB ROUND (FLAT GRATE)	734.00	8" E INV. EL. 732.37





TCL-8141001CL-C-2.1 YARD PIPING PLAN
JAMES D. MELLINGHAM
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CIVIL
YARD PIPING
PLAN

VILLAGE OF ANTWERP, OHIO
NEW WATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	11/04/26	ADDENDUM 1	JDM

Jones & Henry Engineers, Ltd.

Fluid thinking©.
www.JHeng.com

JOB NO.	564-8141.001
SCALE	1"=20'

THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
JDM	BJD	

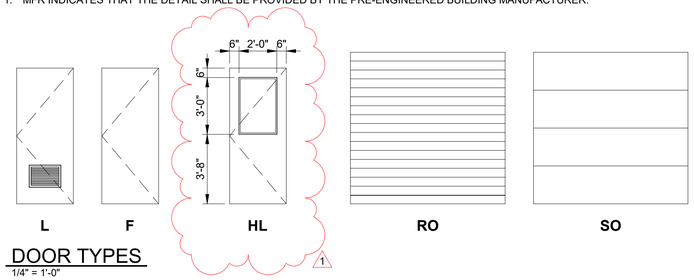
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DATE: 9/28/26

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C-2.1
16 OF 98

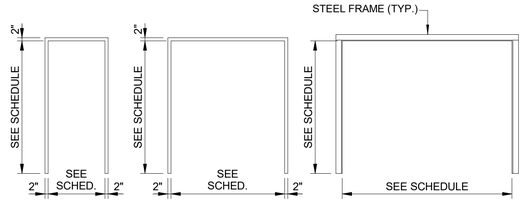
DOOR SCHEDULE

TAG / ID	QNTY.	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR TYPE	DESCRIPTION	DOOR MATERIAL	STRUCTURAL DETAILS HEAD	STRUCTURAL DETAILS JAMB	ARCHITECTURAL DETAILS HEAD	ARCHITECTURAL DETAILS JAMB	ARCHITECTURAL DETAILS THRESHOLD	FRAME MATERIAL	HARDWARE SET	UL LABEL	REMARKS
D-2-1	1	6' - 0"	7' - 2"	1 3/4"	F	DOUBLE LEAF DOOR	HM	MFR	MFR	DH-A2	DJ-A2	T1	HM	1	N/A	
D-2-2	1	12' - 0"	12' - 0"	1 1/2"	RO	ROLL UP DOOR	ALUM	MFR	MFR	RH-A1	RJ-A1	T2	MFR		N/A	
D-2-3	1	6' - 0"	7' - 2"	1 3/4"	F	DOUBLE LEAF DOOR	FRP	MFR	MFR	DH-A3	DJ-A3	T1	MFR	3	1 1/2 HR.	
D-2-4	1	3' - 0"	7' - 2"	1 3/4"	HL	SINGLE LEAF DOOR	HM	MFR	MFR	DH-A2	DJ-A2	T1	HM	2	N/A	
D-2-5	1	10' - 0"	12' - 0"	2"	SO	SECTIONAL OVERHEAD LIFT DOOR	MFR	MFR	MFR	OH-A1	OJ-A1	T2	MFR		N/A	
D-2-6	1	10' - 0"	12' - 0"	2"	SO	SECTIONAL OVERHEAD LIFT DOOR	MFR	MFR	MFR	OH-A1	OJ-A1	T2	MFR		N/A	
D-2-7	1	10' - 0"	12' - 0"	2"	SO	SECTIONAL OVERHEAD LIFT DOOR	MFR	MFR	MFR	OH-A1	OJ-A1	T2	MFR		N/A	
D-2-8	1	3' - 0"	7' - 2"	1 3/4"	HL	SINGLE LEAF DOOR	HM	MFR	MFR	DH-A2	DJ-A2	T1	HM	2	N/A	
D-2-9	1	3' - 0"	7' - 2"	1 3/4"	HL	SINGLE LEAF DOOR	HM	MFR	MFR	DH-A2	DJ-A2	T1	HM	2	N/A	
D-2-10	1	12' - 0"	12' - 0"	1 1/2"	RO	ROLL UP DOOR	ALUM	MFR	MFR	RH-A1	RJ-A1	T2	MFR		N/A	
D-2-11	1	6' - 0"	7' - 2"	1 3/4"	F	DOUBLE LEAF DOOR	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	HM	4.1	1 1/2 HR.	
D-2-12	1	6' - 0"	7' - 2"	1 3/4"	F	DOUBLE LEAF DOOR	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	HM	4	N/A	
D-2-13	1	6' - 0"	7' - 2"	1 3/4"	F	DOUBLE LEAF DOOR	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	HM	6	N/A	
D-2-14	1	3' - 0"	7' - 2"	1 3/4"	L	SINGLE LEAF DOOR	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	HM	9	N/A	
D-2-15	1	3' - 0"	7' - 2"	1 3/4"	F	SINGLE LEAF DOOR	FRP	DH-S1	DJ-S1	DH-A1	DJ-A1	-	FRP	7	1 1/2 HR.	
D-2-16	1	3' - 0"	7' - 2"	1 3/4"	HL	SINGLE LEAF DOOR	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	HM	8	N/A	
D-2-17	1	3' - 0"	7' - 2"	1 3/4"	HL	SINGLE LEAF DOOR	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	HM	8	N/A	
D-2-18	1	6' - 0"	7' - 2"	1 3/4"	F	DOUBLE LEAF DOOR	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	HM	5	1 1/2 HR.	

DOOR SCHEDULE NOTES:
1. MFR INDICATES THAT THE DETAIL SHALL BE PROVIDED BY THE PRE-ENGINEERED BUILDING MANUFACTURER.



DOOR TYPES
1/4" = 1'-0"

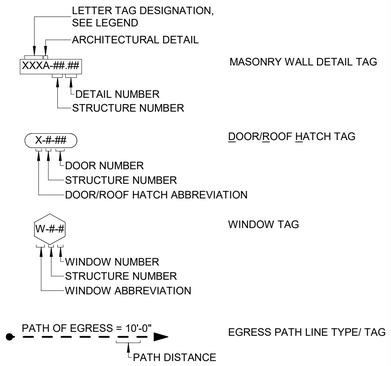


DOOR FRAME TYPES
1/4" = 1'-0"

ARCHITECTURAL ABBREVIATIONS

ALUM	ALUMINUM
B	BOTTOM
BLDG	BUILDING
C/C	CENTER TO CENTER
CJ	CONTROL JOINT
DIA	DIAMTER
DEG	DEGREES
DIAG	DIAGONAL
EL	ELEVATION
EMB	EMBEDMENT
EPOXY	RESINOUS FLOOR SYSTEM
EXPJT	EXPANSION JOINT
EXT	EXTERIOR
EXIST	EXISTING
FRP	FIBERGLASS
GALV	GALVANIZED
HORIZ	HORIZONTAL
INT	INTERIOR
NTS	NOT TO SCALE
O/O	OUT TO OUT
SS	STAINLESS STEEL
STD	STANDARD
T	TOP
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
ACT	ACOUSTICAL CEILING TILE
HM	HOLLOW METAL
MFR	MANUFACTURER

ARCHITECTURAL SHEET SYMBOLS



ARCHITECTURAL TAG LEGEND

PWTA	-PARAPET WALL TOP, ARCHITECTURAL
WBA	-WALL BASE DETAIL, ARCHITECTURAL
WPCA	-WALL/PLANK CONNECTION DETAIL, ARCHITECTURAL
WTCA	-WALL/TRUSS CONNECTION DETAIL, ARCHITECTURAL

TYPICAL ARCHITECTURAL NOTES

1. THE CONSTRUCTION SHALL CONFORM TO THE TYPICAL ARCHITECTURAL NOTES, DETAIL, AD SCHEDULES, UNLESS NOTED OTHERWISE. TYPICAL NOTES, DETAILS, AND SCHEDULES ARE PREFIXED WITH THE WORD "TYPICAL".

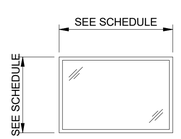
ROOM FINISH SCHEDULE

ROOM NAME	FLOOR / WALL BASE	NORTH MATERIAL	NORTH FINISH	EAST MATERIAL	EAST FINISH	SOUTH MATERIAL	SOUTH FINISH	WEST MATERIAL	WEST FINISH	CEILING MATERIAL	CEILING FINISH	HEIGHT	REMARKS
2-WATER TREATMENT BUILDING													
BLOWER ROOM	SEALED CONCRETE	METAL LINER PANEL	FACTORY FINISH	CMU	PAINT	CMU	PAINT	CMU	PAINT	PRECAST CONCRETE	PAINT	14'-0"	
ELECTRICAL ROOM	SEALED CONCRETE	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT	PRECAST CONCRETE	PAINT	14'-0"	
GARAGE AREA	SEALED CONCRETE	METAL LINER PANEL	FACTORY FINISH	CMU	PAINT	METAL LINER PANEL	FACTORY FINISH	METAL LINER PANEL	FACTORY FINISH	EXP. TO STRUCTURE		-	
HALLWAY	EPOXY; COVE BASE	CMU	PAINT	CMU	PAINT	METAL LINER PANEL / CMU	FACTORY FINISH / PAINT	CMU	PAINT	ACT	ACT	8'-0"	
LAB	EPOXY; COVE BASE	CMU	PAINT	CMU	PAINT	METAL LINER PANEL	FACTORY FINISH	CMU	PAINT	ACT	ACT	8'-0"	
OFFICE	EPOXY; COVE BASE	METAL LINER PANEL	FACTORY FINISH	CMU	PAINT	CMU	PAINT	CMU	PAINT	ACT	ACT	8'-0"	
PROCESS ROOM	SEALED CONCRETE	METAL LINER PANEL	FACTORY FINISH	METAL LINER PANL	FACTORY FINISH	METAL LINER PANEL	FACTORY FINISH	CMU	PAINT	EXP. TO STRUCTURE		-	
RESTROOM	EPOXY; COVE BASE	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT	ACT	ACT	8'-0"	
SODIUM HYPOCHLORITE ROOM	SEALED CONCRETE	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT	PRECAST CONCRETE	PAINT	14'-0"	

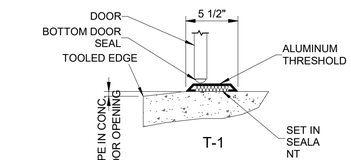
WINDOW SCHEDULE

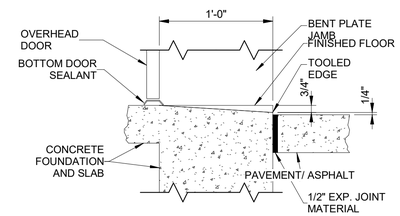
TAG / ID	QNTY	WINDOW WIDTH	WINDOW HEIGHT	WINDOW TYPE	DESCRIPTION	STRUCTURAL DETAILS HEAD	STRUCTURAL DETAILS JAMB	STRUCTURAL DETAILS SILL	ARCHITECTURAL DETAILS HEAD	ARCHITECTURAL DETAILS JAMB	ARCHITECTURAL DETAILS SILL	FRAME MATERIAL	HARDWARE SET	REMARKS
2-WATER TREATMENT BUILDING														
W-2-1	1	6' - 0"	3' - 0"	F	FIXED WINDOW	MFR	MFR	MFR	WH-A1	WJ-A1	WS-A1	ALUM		
W-2-2	1	6' - 0"	3' - 0"	F	FIXED WINDOW	MFR	MFR	MFR	WH-A1	WJ-A1	WS-A1	ALUM		
W-2-3	1	4' - 0"	4' - 0"	F	FIXED WINDOW	MFR	MFR	MFR	WH-A1	WJ-A1	WS-A1	ALUM		
W-2-4	1	6' - 0"	3' - 0"	F	FIXED WINDOW	MFR	MFR	MFR	WH-A1	WJ-A1	WS-A1	ALUM		
W-2-5	1	6' - 0"	3' - 0"	F	FIXED WINDOW	MFR	MFR	MFR	WH-A1	WJ-A1	WS-A1	ALUM		
W-2-6	1	6' - 0"	3' - 0"	F	FIXED WINDOW	MFR	MFR	MFR	WH-A1	WJ-A1	WS-A1	ALUM		
W-2-7	1	6' - 0"	3' - 0"	F	FIXED WINDOW	MFR	MFR	MFR	WH-A1	WJ-A1	WS-A1	ALUM		
W-2-8	1	6' - 0"	3' - 0"	F	FIXED WINDOW	MFR	MFR	MFR	WH-A1	WJ-A1	WS-A1	ALUM		

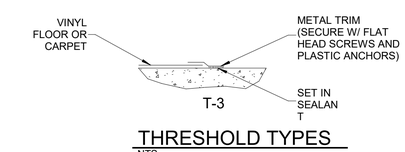
WINDOW SCHEDULE NOTES:
1. MFR INDICATES THAT THE DETAIL SHALL BE PROVIDED BY THE PRE-ENGINEERED BUILDING MANUFACTURER.



WINDOW TYPES
1/4" = 1'-0"







THRESHOLD TYPES
NTS

NOTE:
SCHEDULES ARE NOT GUARANTEED TO BE COMPLETE. ALL ITEMS SHOWN ON THE DRAWINGS OR SPECIFIED SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WHETHER OR NOT LISTED IN THE FOLLOWING SCHEDULE.

STATE OF OHIO
ANDREW R. KNOPH
17352
REGISTERED ARCHITECT

THOMAS PORTER ARCHITECTS

ARCHITECTURAL
LEGENDS, ABBREVIATIONS, SCHEDULES, AND NOTES

VILLAGE OF ANTWERP, OHIO
NEW WATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	11/04/2026	ADDENDUM 3	

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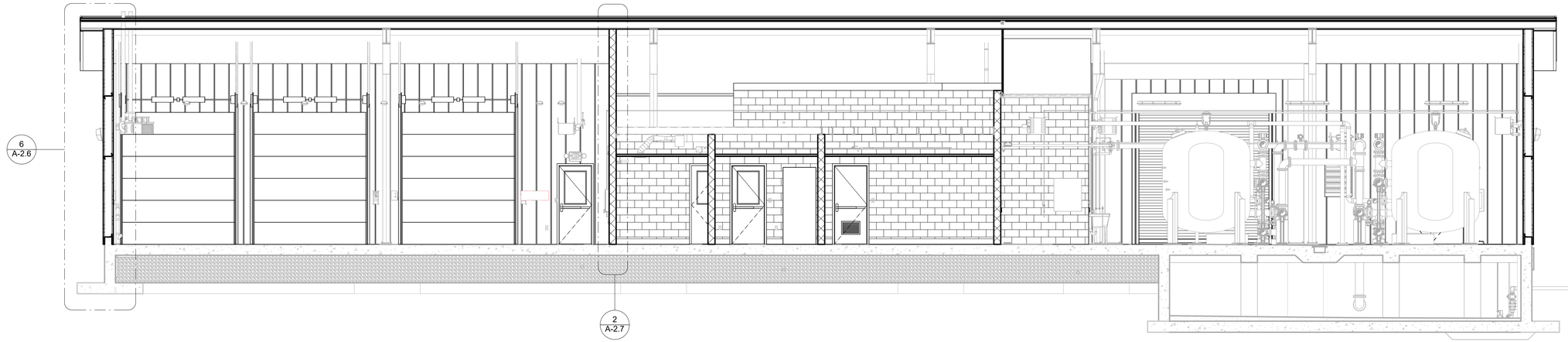
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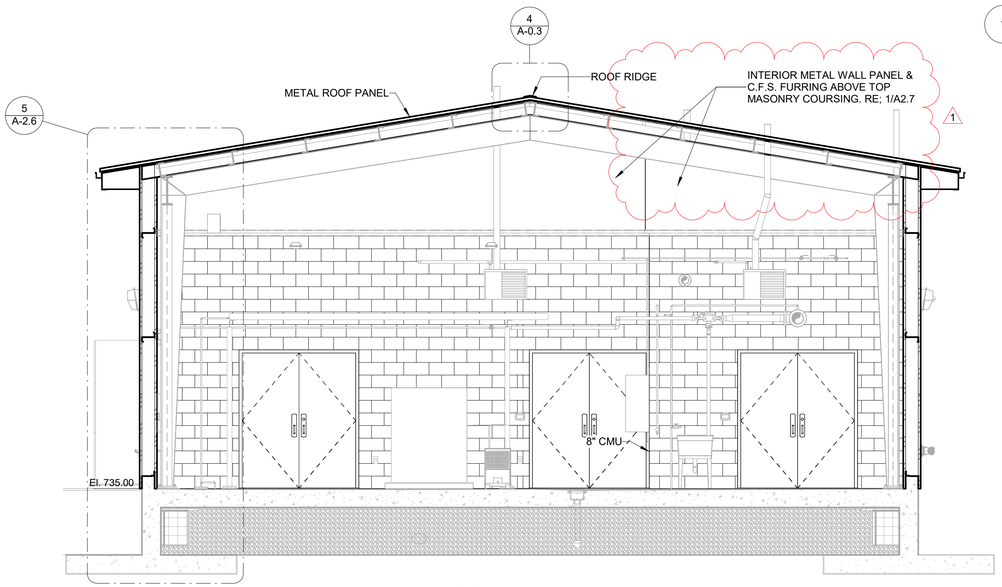
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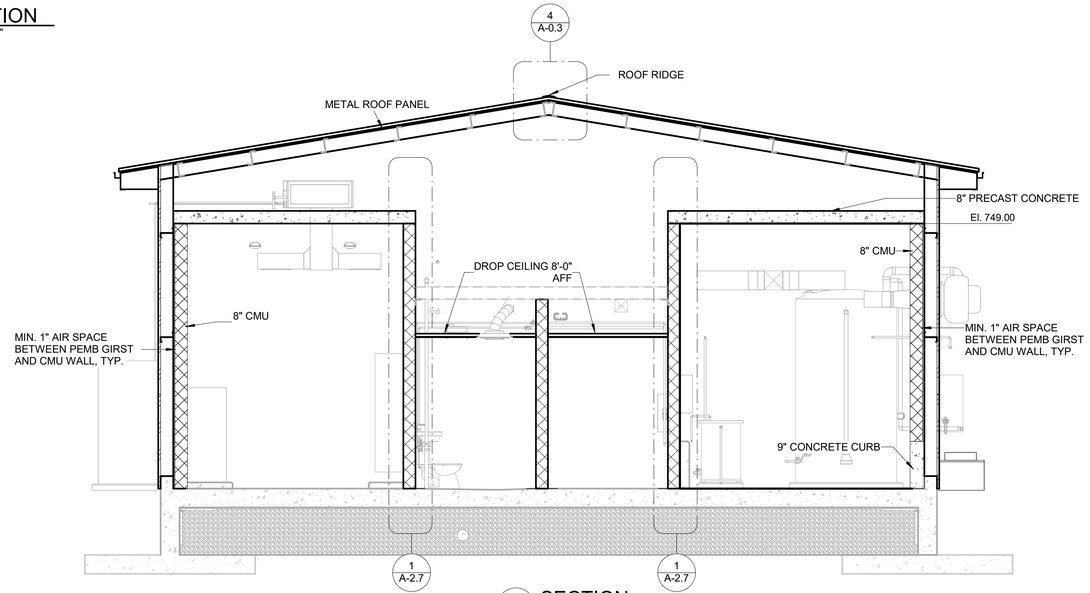
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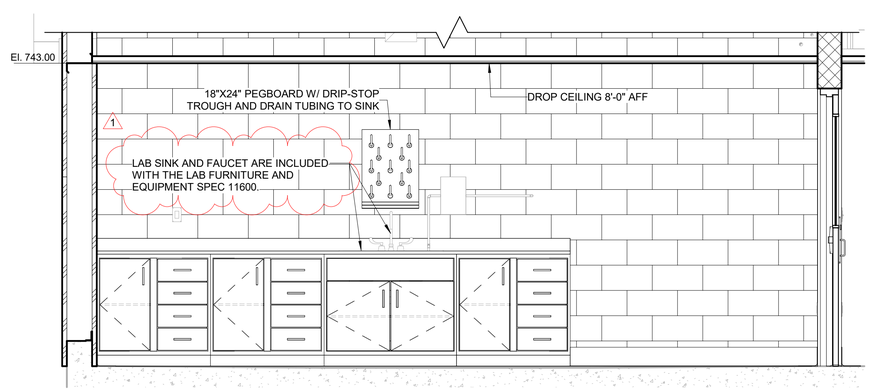
1 SECTION
3/16" = 1'-0"



3 SECTION
1/4" = 1'-0"



2 SECTION
1/4" = 1'-0"



4 SECTION
1/2" = 1'-0"

STATE OF OHIO
ANDREW
A. R. KNOPP
17352
REGISTERED ARCHITECT

THOMAS
PORTER
ARCHITECTS

WATER TREATMENT BUILDING
ARCHITECTURAL
SECTIONS

VILLAGE OF ANTWERP, OHIO
NEW WATER TREATMENT PLANT

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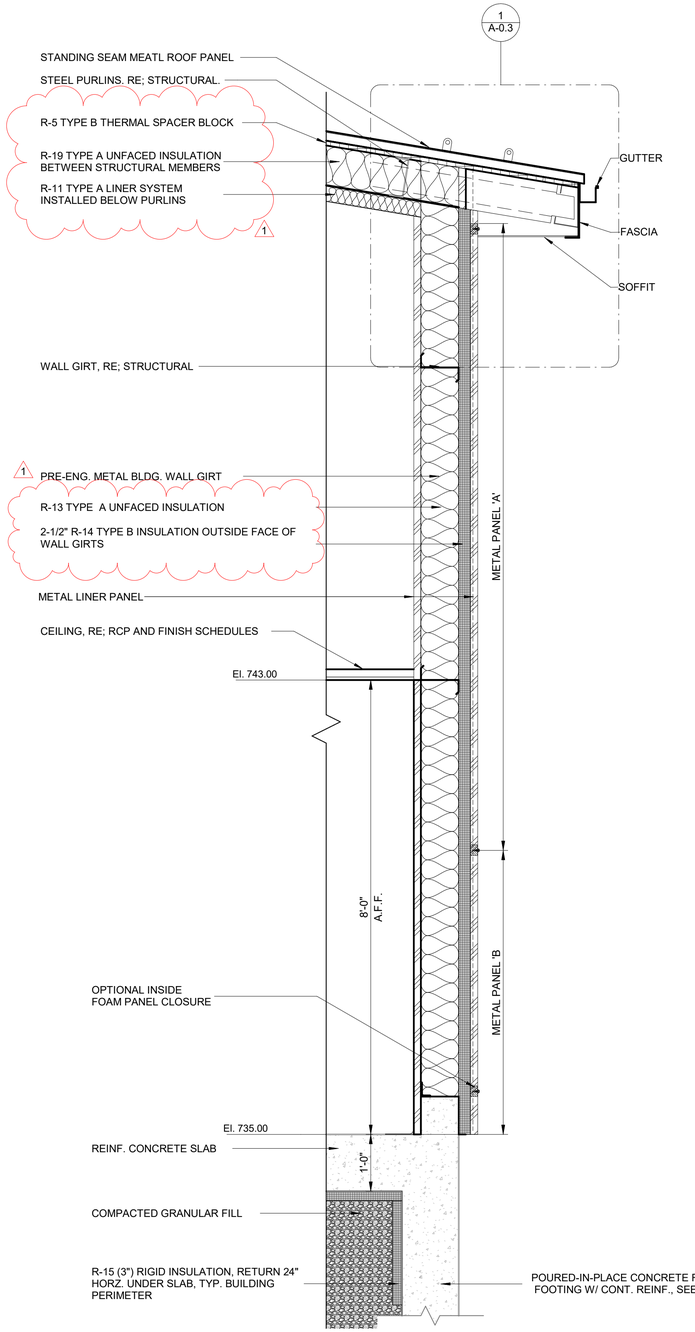
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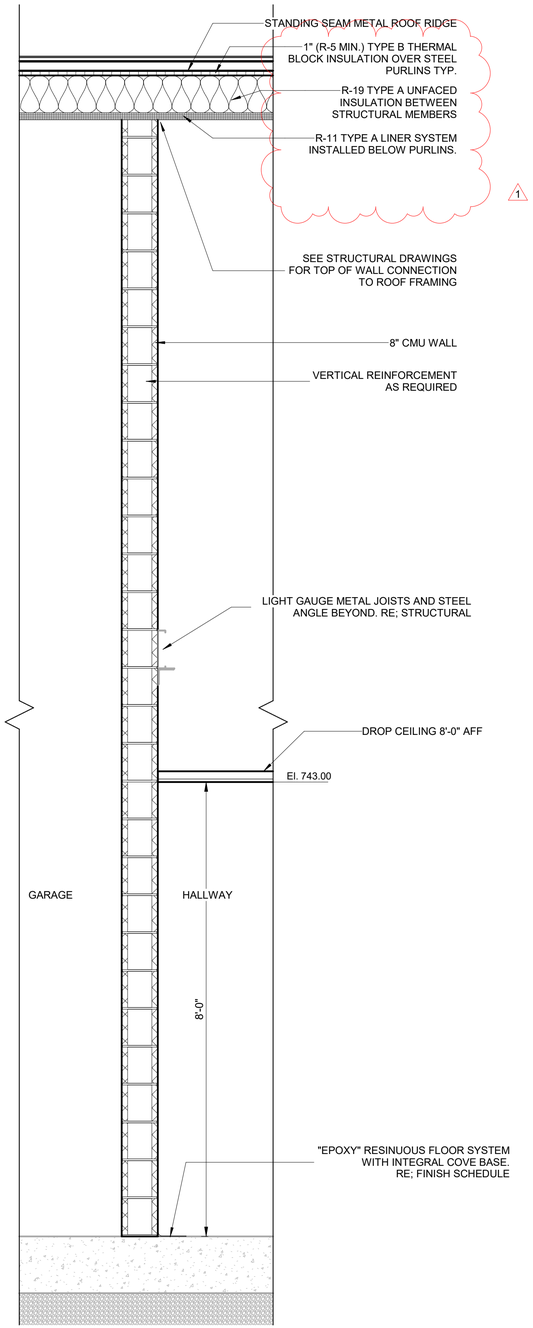
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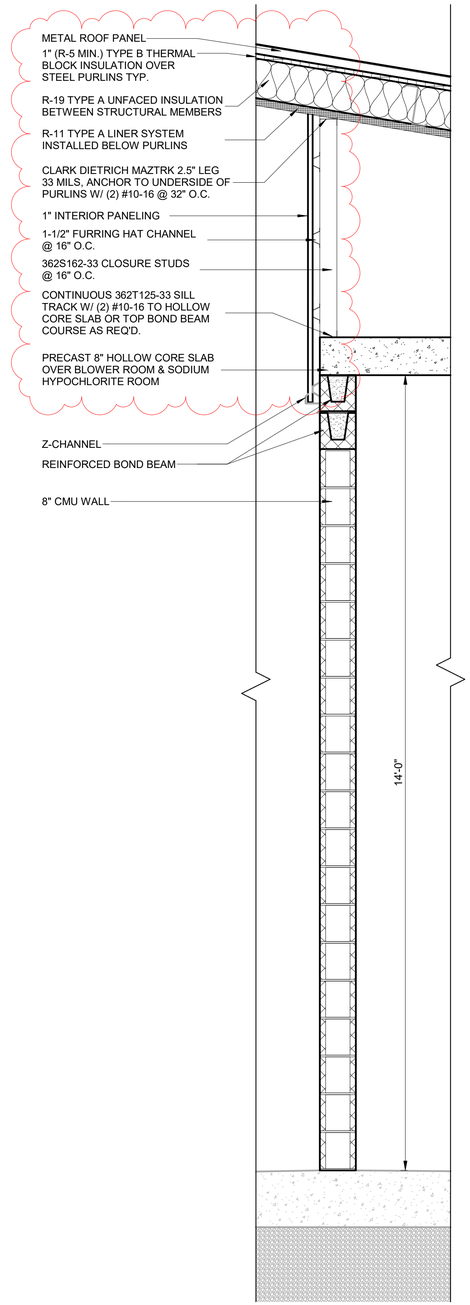
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3 SECTION
3/4" = 1'-0"



2 SECTION
3/4" = 1'-0"



1 SECTION
3/4" = 1'-0"

NOTE: REFER TO STRUCTURAL DRAWINGS FOR ALL CONCRETE AND MASONRY REINFORCING

STATE OF OHIO
ANDREW R. KNOPH
17352
REGISTERED ARCHITECT

THOMAS PORTER ARCHITECTS

WATER TREATMENT BUILDING ARCHITECTURAL SECTIONS

VILLAGE OF ANTWERP, OHIO
NEW WATER TREATMENT PLANT

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SCALE: 3/4" = 1'-0"

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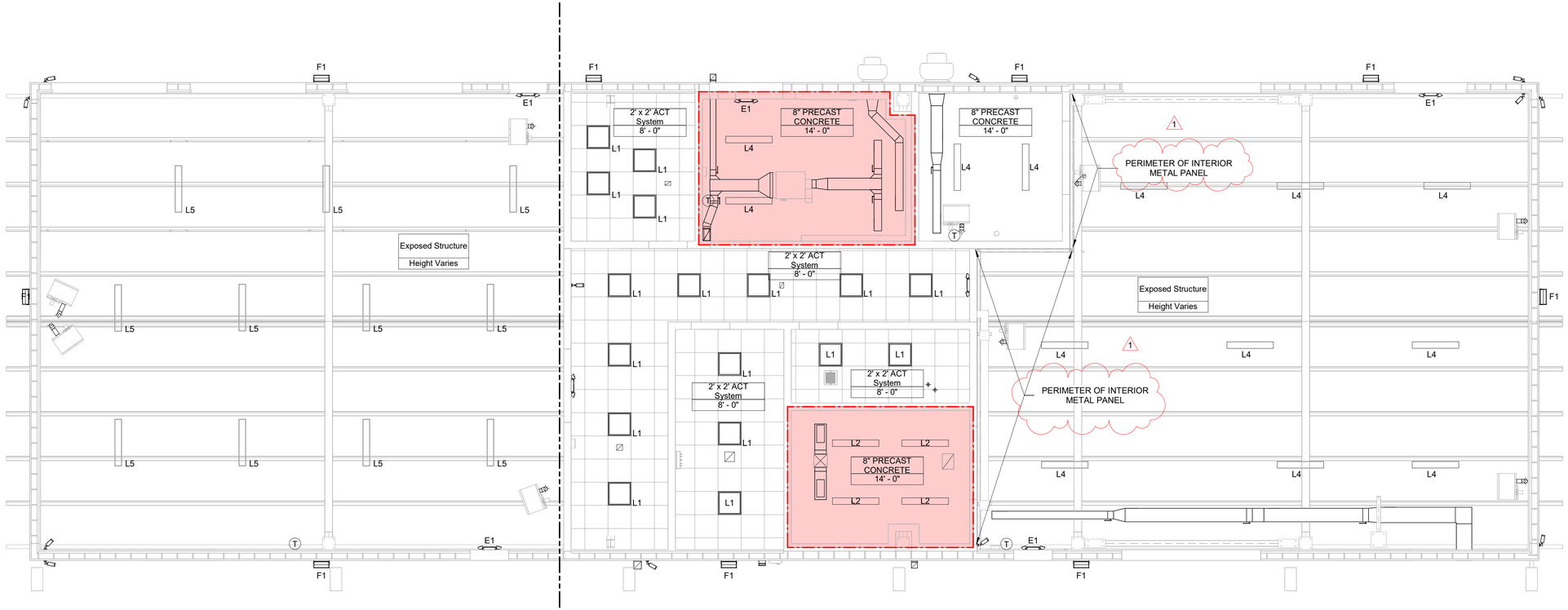
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ARCHITECTURAL REFLECTED CEILING PLAN

3/16" = 1'-0"

NORTH

Ceiling Legend

- 2' x 2' ACT SYSTEM
- L1 2'x2' LIGHT FIXTURE. RE; ELECTRICAL PLANS
- L2 4000 LUMIN LINEAR LIGHT. RE; ELEC. PLANS
- L4 10000 LUMIN LINEAR LIGHT. RE; ELEC. PLANS
- L5 8000 LUMIN LINEAR LIGHT. RE; ELEC. PLANS
- CEILING EXHAUST FAN
- SUPPLY AIR DUCT
- RETURN AIR DUCT
- GAS UNIT HEATER. RE; MECH. PLANS
- AREA OF UL J995 2 HR RATED 8" PRECAST CONCRETE CEILING

LIGHTING FIXTURE SCHEDULE

TAG/ID	DESCRIPTION
E1	LHQM LED R HO COMBO EXIT/ EMERGENCY LED, 90 MIN NI-CADMIUM BATTERY. WIRE AHEAD OF SWITCH FOR LIGHTS SERVING AREA.
F1	TWH LED WITH 30 LEDs @1000mA 5000K AND TYPE 3 MEDIUM OPTICS
L1	CPX 2x2 LED PANEL 3200LM 80CRI 4000K SATIN WHITE LENS
L2	FEM L48 4000LM IMACD MD XX 40K 80CRI
L4	FEM L48 10000LM IMACD MD XX 40K 80CRI
L5	FEM L48 8000LM IMACD MD XX 40K 80CRI

KEY PLAN

STATE OF OHIO
ANDREW KNOPIK
17352
REGISTERED ARCHITECT

THOMAS PORTER ARCHITECTS

WATER TREATMENT BUILDING
ARCHITECTURAL
ARCHITECTURAL REFLECTED CEILING PLAN

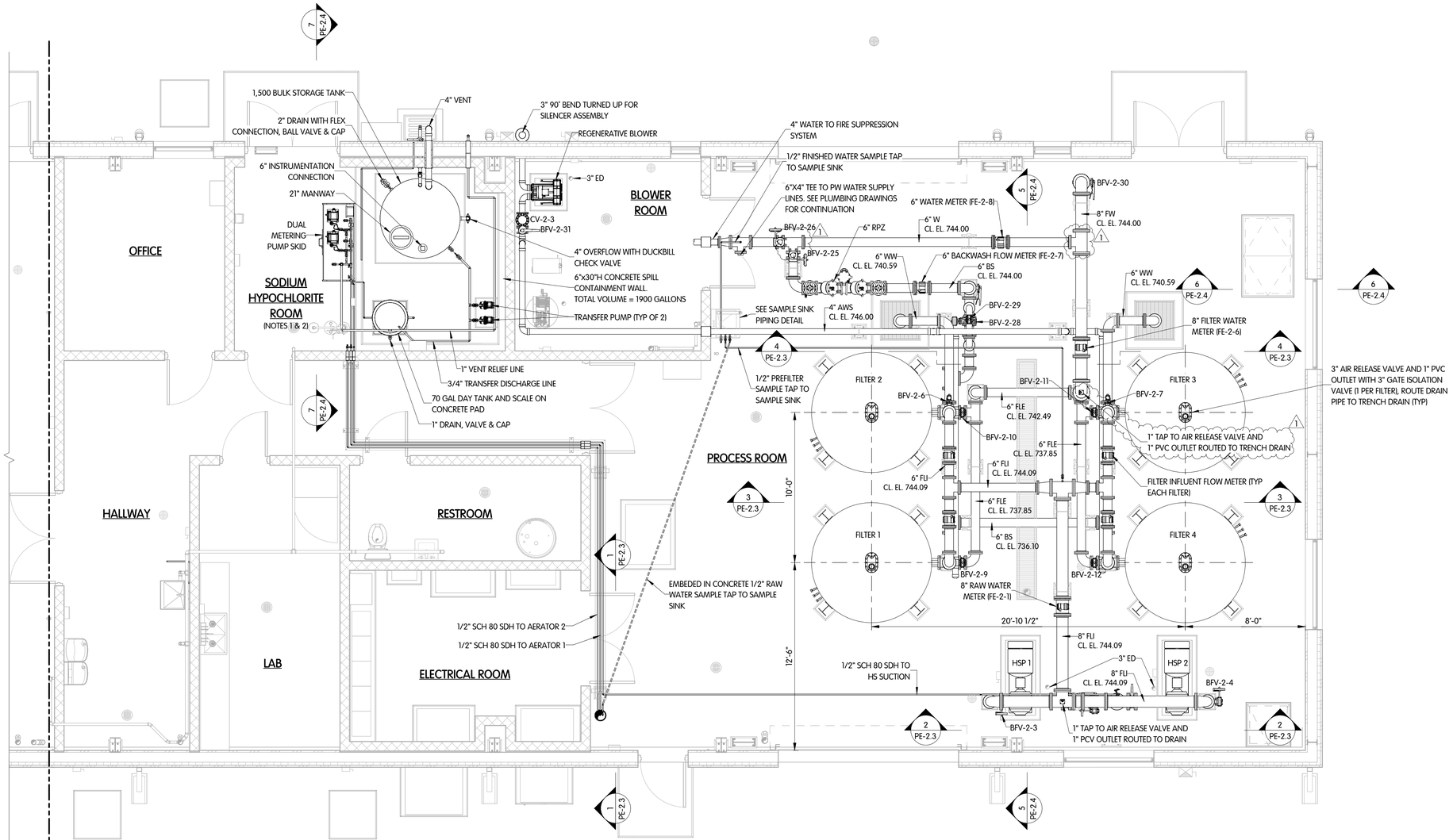
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NEW WATER TREATMENT PLANT

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PLAN AT EL. 747.00 - EAST

1/4" = 1'-0"

NOTES:

1. ALL PIPE SUPPORTS, BRACKETS, AND APPURTENANCES SHALL BE FRP IN SODIUM HYPOCHLORITE ROOM.
2. ALL WALL PENETRATIONS THROUGH INTERIOR WALLS SHALL INCLUDE FIRESTOPPING.

KEY PLAN

WATER TREATMENT BUILDING
PIPING & EQUIPMENT
PLAN AT EL. 747.00 - EAST

VILLAGE OF ANTWERP, OHIO
NEW WATER TREATMENT PLANT

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