

VILLAGE OF WEST UNION

UV DISINFECTION ADDITION

ADAMS COUNTY, OHIO

2026

BID SET

verdantas



ADMINISTRATION:

JASON BUDA	MAYOR
KENNY FERGUSON	VILLAGE ADMINISTRATOR
MELISSA HALL	FISCAL OFFICER
SHELLEY GIFFORD	VILLAGE TREASURER

COUNCIL:

RACHAEL HAMILTON	MEMBER
RYAN MYERS	MEMBER
JASON FRANCIS	MEMBER
RANDY BREWER	MEMBER
CHELSEA PHELPS	MEMBER
DONNA YOUNG	MEMBER



LOCATION MAP
NOT TO SCALE

APPROVALS:

Jason Paul Buda 7-20-26
JASON BUDA - MAYOR DATE

Kenny Ferguson 7-20-26
KENNY FERGUSON - VILLAGE ADMINISTRATOR DATE

OFFICE:

WEST UNION UTILITY OFFICE
11700 STATE ROUTE 41
WEST UNION, OH 45693

(937) 544-5217 PHONE

PROJECT SITE:

WASTE WATER TREATMENT PLANT
6875 STATE ROUTE 247
WEST UNION, OH 45693

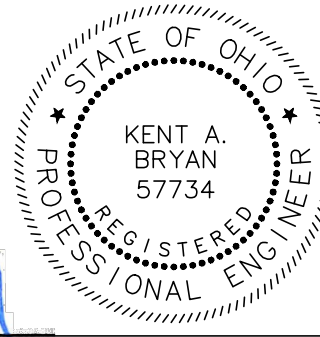
(937) 544-5217 PHONE

ENGINEER:

VERDANTAS, LLC
4420 COOPER RD., SUITE 200
CINCINNATI, OH 45242

(513) 792-8442 PHONE

Kent A. Bryan
KENT A. BRYAN P.E. No. E-57734



7/20/2026
DATE



1. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
2. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

ENGINEER'S PROJECT No. 42899

ISSUED FOR:	BIDDING	NO	REVISION	DATE
ISSUE DATE:	7/20/2026			
SCALE:	AS NOTED			
DESIGNED BY:	KAB			
DRAWN BY:	AGD			
CHECKED BY:	KAB			

VILLAGE OF WEST UNION UV DISINFECTION ADDITION	WEST UNION, OHIO
	ADAMS COUNTY
	GENERAL - 00 SERIES COVER SHEET

PROJECT NO.	42899
DISCIPLINE	GENERAL
SHEET NAME	00G-01
SHEET	OF
1	12

IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO VISIT THE SITE AND VERIFY THE EXTENT OF THE WORK TO BE PERFORMED PRIOR TO SUBMITTING HIS BID. THIS IS ESPECIALLY TRUE WITH REGARD TO ANY REMOVAL ITEMS.

NO WORK MAY COMMENCE WITHOUT AN EXECUTED CONTRACT.

THE OWNER OF THIS PROJECT IS THE VILLAGE OF WEST UNION.

THE ENGINEER OF THIS PROJECT IS C.T. CONSULTANTS, INC..

ANY REVISIONS TO THE ACCEPTED CONSTRUCTION PLANS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT AND SHALL NOTIFY ENGINEER IN WRITING OF ANY DISCREPANCIES.

THE CONTRACTOR SHALL CONSTRUCT THIS PROJECT IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL BUILDING CODES AND PROJECT PERMITS.

ANY DISTURBED AREAS NOT SCHEDULED FOR CONSTRUCTION ACTIVITIES WITHIN 2 DAYS FOR AREAS WITHIN 50 FEET OF THE RIVER AND 7 DAYS FOR ALL OTHER AREAS SHALL BE TEMPORARILY STABILIZED.

ALL POLLUTANTS OTHER THAN SEDIMENT THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND LEGALLY DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORM OR SURFACE WATERS. POLLUTANTS OF CONCERN INCLUDE, BUT ARE NOT LIMITED TO, FUELS, LUBRICANTS, SOLVENTS, CONCRETE BY-PRODUCTS AND CONSTRUCTION MATERIALS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR BARRICADING AND/OR FENCING AREAS THAT ARE DEEMED UNSAFE BY OWNER OR ENGINEER.

THE CONTRACTOR SHALL COORDINATE WITH OWNER THE STORAGE OF STORED MATERIALS AND REMOVED EXISTING EQUIPMENT TO BE RETAINED.

NOTIFY THE OWNER TWENTY-FOUR (24) HOURS PRIOR TO STARTING CONSTRUCTION

THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL CONSTRUCTION DEBRIS. THE CONTRACTOR SHALL NOT FILL ANY WETLANDS, LOW LANDS, FLOOD PLAINS, OR DRAINAGE WAYS WITH SAID DEBRIS WITHOUT OBTAINING PROPER APPROVALS, PERMITS, LICENSES, ETC. FROM LOCAL, STATE, OR FEDERAL AGENCIES.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED TO BE ESSENTIALLY CORRECT, BUT NEITHER THE OWNER NOR THE ENGINEER ENSURES THEIR ACCURACY OR COMPLETENESS.

THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST THREE (3) WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO CONSTRUCTION TO HAVE UTILITIES STAKED, MARKED OR OTHERWISE DESIGNATED IN THE CONSTRUCTION AREA IN SUCH A MANNER OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY THREE (3) DAYS AHEAD OF THE PLANNED CONSTRUCTION.

OSHA STANDARDS PROHIBITS CRANE OR BACKHOE OPERATIONS WITHIN TEN (10) FEET OF ENERGIZED PRIMARY CONDUCTORS. TEMPORARY RELOCATION OF ELECTRICAL UTILITIES, INCLUDING RESTRAINT POLES, RELOCATION OF POLES AND RUBBER COVERING OF ENERGIZED CONDUCTORS MAY BE REQUIRED. THE COORDINATION AND COST OF THESE SERVICES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MAY RESTRAIN POLES IF THE METHOD OF SUPPORT HAS BEEN SUBMITTED TO AND APPROVED BY THE UTILITY OWNER.

EXISTING UTILITY (GAS, ELECTRICAL, CABLE TELEVISION, TELEPHONE, WATER LINE, STORM OR SANITARY SEWER, WATER LINE OR STORM OR SANITARY SEWER APPURTENANCE, ETC.) IN OR OUTSIDE THE CONSTRUCTION LIMITS DAMAGED DURING THE CONSTRUCTION OF THE PROPOSED PROJECT, WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE. INDIVIDUAL SANITARY, STORM, GAS, WATER, ELECTRIC AND TELEPHONE AND CABLE SERVICE CONNECTIONS ARE NOT SHOWN.

THE REMOVAL AND DISPOSAL OF ALL SURPLUS EXCAVATED MATERIAL AND CONSTRUCTION DEBRIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR ULTIMATE DISPOSAL. THE DISPOSAL OF ALL CONSTRUCTION DEBRIS SHALL BE AT AN EPA APPROVED LANDFILL. THE DISPOSAL OF ALL EXCAVATED MATERIAL SHALL BE AT AN EPA APPROVED LANDFILL OR OTHER SITES APPROVED BY THE OWNER AND ENGINEER. THE DISPOSAL OF FILTER MATERIAL AND MUDWELL SLUDGE SHALL BE AT AN APPROVED LANDFILL. THE CONTRACTOR SHALL OBTAIN ALL APPROVALS, PERMITS, LICENSES, ETC. FROM LOCAL, STATE AND FEDERAL AGENCIES AND/OR PRIVATE LANDOWNERS. THE CONTRACTOR SHALL FURNISH THE ENGINEER A COPY OF ALL APPROVALS OR WRITTEN PERMISSION PRIOR TO DISPOSING OF ANY WASTE AT SAID SITE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE RESTORATION OF ALL MATERIAL WASTE AREAS USED IN THE COURSE OF THIS CONTRACT. THE RESTORATION WORK SHALL INCLUDE CLEANUP, SHAPING AND GRADING AND ESTABLISHMENT OF VEGETATIVE COVER BY SEEDING AND MULCHING IN ACCORDANCE WITH ODOT LS 659. THE FINAL GRADING OF WASTE AREAS SHALL BE PROPERLY SLOPED TO PROVIDE DRAINAGE RUNOFF. ALL ROCKS, BOULDERS AND CONCRETE CHUNKS SHALL BE BURIED WITHIN THE WASTE AREA TO A DEPTH OF AT LEAST TWO (2) FEET AND SHALL NOT BE VISIBLE AT COMPLETION.

THE COST OF HEREIN DESCRIBED WORK, INCLUDING SEEDING AND MULCHING NECESSARY TO SECURE THESE RESULTS SHALL BE CONSIDERED INCIDENTAL TO THE OTHER VARIOUS ITEMS OF WORK IN THIS CONTRACT AND INCLUDED IN THE RESPECTIVE PAY ITEMS. NO SEPARATE PAYMENT SHALL BE MADE.

TEMPORARY SURFACES WHERE EXCAVATION ARE LOCATED IN STREETS, DRIVES AND PARKING AREAS SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR AND SHALL BE FULLY MAINTAINED TO MINIMIZE INCONVENIENCE TO THE PUBLIC AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL CLEAR ALL DEBRIS, DIRT, VEHICLES AND EQUIPMENT FROM WALKWAY AND TRAFFIC ROUTES AT THE CONCLUSION OF WORK EACH DAY.

THE ABOVE DESCRIBED WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF ALL WORK AND INCLUDED IN THE RESPECTIVE PAY ITEMS AND SHALL NOT BE A SEPERATE PAY ITEM.

THE CONTRACTOR SHALL BE REQUIRED, AT HIS EXPENSE, TO DO EVERYTHING NECESSARY TO PROTECT, SUPPORT AND SUSTAIN ALL SANITARY SEWERS, STORM DRAINS, WATER, PROCESS OR GAS PIPES, SERVICE PIPES, ELECTRIC LIGHTS, POWER AND TELEPHONE POLES, CONDUIT AND OTHER FIXTURES LAID ACROSS OR ALONG THE SITE OF THE WORK. THE ENGINEER AS WELL AS THE COMPANY OR CORPORATION OWNING SAID PIPES, POLES OR CONDUITS MUST BE NOTIFIED IN WRITING OF ANY SUCH DAMAGE TO SUCH PIPES, POLES OR CONDUITS BEFORE ANY SUCH DAMAGE IN CASE ANY OF THE SAID SEWER, DRAIN, GAS, PROCESS OR WATER PIPES, SERVICE PIPES, ELECTRIC LIGHT, POWER AND TELEPHONE POLES, CONDUITS OR OTHER FIXTURES ARE DAMAGED. THEY SHALL BE REPAIRED BY THE AUTHORITIES HAVING CONTROL OF THE SAME AND THE EXPENSE OF SAID REPAIRS SHALL BE DEDUCTED FROM THE MONIES WHICH ARE DUE OR TO BECOME DUE TO THE CONTRACTOR UNDER THIS CONTRACT.

SHOULD IT BECOME NECESSARY TO CHANGE THE POSITION OR TEMPORARILY REMOVE ANY STORM DRAIN, SANITARY SEWER, ELECTRIC CONDUITS, WATER PIPES, GAS PIPES, PROCESS OR OTHER PIPES OR WIRES IN ORDER TO PERMIT THE CONTRACTOR TO USE A PARTICULAR METHOD OF CONSTRUCTION OR IN ORDER TO CLEAR THE STRUCTURES BEING BUILT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE LOCATION AND CIRCUMSTANCES AND SHALL CEASE WORK IF NECESSARY, UNTIL SATISFACTORY ARRANGEMENTS HAVE BEEN MADE BY THE OWNERS OF SAID PIPES OR WIRES TO PROPERLY CARE FOR THE SAME. NO CLAIMS FOR DAMAGES WILL BE ALLOWED ON ACCOUNT OF ANY DELAY OCCASIONED THEREBY. THE ENTIRE COST OF THE CHANGES OR TEMPORARY REMOVAL MUST BE INCLUDED IN THE PRICES STIPULATED FOR THE VARIOUS ITEMS OF WORK TO BE DONE UNDER THIS CONTRACT.

NO SURFACE, GROUND OR TRENCH WATER SHALL BE ALLOWED TO FLOW INTO EXISTING SANITARY SEWERS.

THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS AND STAKES AND IN CASE OF WILLFUL OR CARELESS DESTRUCTION, HE SHALL BE CHARGED WITH THE RESULTING EXPENSE OF REPLACEMENT AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE. ANY EXISTING PROPERTY CORNER PINS OR MONUMENTS DAMAGED OR DESTROYED BY CONSTRUCTION SHALL BE RESET BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE UPON COMPLETION OF THE PROJECT PRIOR TO FINAL PAYMENT. A CERTIFICATION SHALL BE FURNISHED BY A REGISTERED SURVEYOR, STATING THAT SAID DAMAGES HAVE BEEN RESTORED.

TRACKING OR SPILLING MUD, DIRT OR DEBRIS UPON STREETS, RESIDENTIAL OR COMMERCIAL DRIVES, SIDEWALKS OR BIKE PATHS IS PROHIBITED. ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER. IF THE CONTRACTOR FAILS TO REMOVE SAID MUD, DIRT, DEBRIS, OR SPILLAGE, THE OWNER RESERVES THE RIGHT TO REMOVE THESE MATERIALS AND CLEAN AFFECTED AREAS, THE COST OF WHICH SHALL BE DEDUCTED FROM MONIES DUE TO THE CONTRACTOR.

THE CONTRACTOR SHOULD ASSUME THAT SOME GROUNDWATER WILL BE PRESENT IN ALL EXCAVATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE REMOVING AND DISPOSING OF GROUNDWATER THAT IS FREE OF SILT AND OTHER CONTAMINANTS OR SOLIDS.

CONSTRUCTION NEAR RESIDENTIAL OR COMMERCIAL AREAS MUST BE LIMITED TO DAYTIME HOURS

CONSTRUCTION EQUIPMENT WILL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS, AS REQUIRED BY SAFETY STANDARDS.

ALL CONSTRUCTION VEHICLES SHOULD BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT.

PERIODICALLY CHECK EQUIPMENT AND MACHINERY FOR PROPER TUNING TO MINIMIZE EXHAUST EMISSIONS AND NOISE.

ALL DEWATERING FLOWS ARE TO BE SETTLED IN SEDIMENTATION BASINS OR DIRECTED THROUGH FILTERING DEVICES BEFORE DISCHARGE TO STABILIZED SITES, SUCH AS STREAMS OR STORM SEWERS; NOT ONTO EXPOSED SOILS, STREAM BANKS OR ANY OTHER SITE WHERE THE FLOW COULD CAUSE EROSION.

SEDIMENT FROM CONSTRUCTION OPERATIONS MUST NOT BE PERMITTED TO ENTER THE STORM SEWER SYSTEM. WHEN CONSTRUCTION OCCURS NEAR STORM SEWER INLETS, EROSION CONTROL MEASURES SUCH AS INLET FILTERS AND STRAW BALES MUST BE USED TO PREVENT SEDIMENT

DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL OR TREES, BRUSH AND OTHER DEBRIS IN ANY STREAM CORRIDOR, FLOOD PLAIN, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS EVEN WITH THE PERMISSION OF THE PROPERTY OWNER.

INDISCRIMINATE, ARBITRARY OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAMS OR
STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS

PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS; ALL SUCH WATER MUST BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE.

DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO NATURAL OR MAN-MADE CHANNELS.

PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM.

DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA.

OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.

DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, DRILLING, BUFFING, GRINDING, POLISHING, SHAPING OR SURFACING CLOSER THAN 200 FEET TO PLACES OF RESIDENCES OR COMMERCIAL, PROFESSIONAL, QUASI-PUBLIC OR PUBLIC PLACES OF HUMAN OCCUPATION.

RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE PROJECT ENGINEER.

OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOUR OF 8:00 A.M. AND 5:00 P.M., OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS.

CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE PROJECT ENGINEER, AND CLOSING CLEAR ACCESS BY: (1) FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES; (2) THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE; OR, (3) VEHICLES TO DRIVEWAYS WITHOUT PROVIDING ALTERNATE ACCESS.

NO TRACKED EQUIPMENT IS PERMITTED TO TRAVERSE CITY/VILLAGE ROADS. TRACKED EQUIPMENT NEEDS TO BE DELIVERED TO THE SITE.

TREATMENT PLANT PROCESS

OPERATIONAL DESCRIPTION	FLOW NO.			1	2	3	4	5	6	7	8	9	10	11	12	13
	FLOW DESCRIPTION															
	WASTE WATER INFLUENT (MGD)															
	FLOW TO EQUALIZATION TANK (MGD)															
	DRUM SCREEN 1 (MGD)															
	DRUM SCREEN 2 (MGD)															
	AERO-MOD TREATMENT 1 (MGD)															
	AERO-MOD TREATMENT 2 (MGD)															
	UV INFLUENT (MGD)															
	FINAL EFFLUENT (MGD)															
	SLUDGE TO DIGESTER 1 (MGD)															
	SLUDGE TO DIGESTER 2 (MGD)															
	WAS															
DECANT																
DRY SOLIDS																
AVERAGE DAILY DESIGN FLOW	0.70	~	0.70	~	0.35	0.35	0.70	0.70	0.016	0.016	0.005	~	~			
MAX DAILY DESIGN FLOW	4.0	~	2.00	2.00	2.00	2.00	4.00	4.00	~	~	~	~	~			
PEAK HOURLY DESIGN FLOW	4.90	0.90	~	~	~	~	~	~	~	~	~	~	~			
INFLUENT CONC. (MG/L)	CBOD	TSS	NH ₃													
AVERAGE	250	200	~													
DESIGN	250	200	30													

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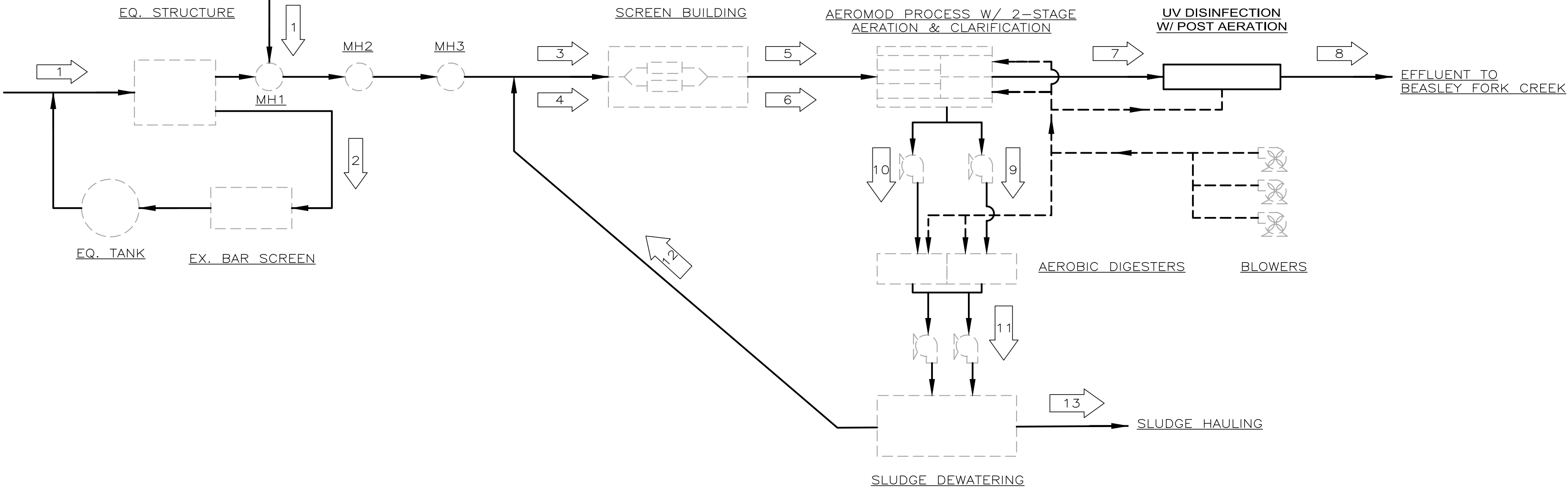
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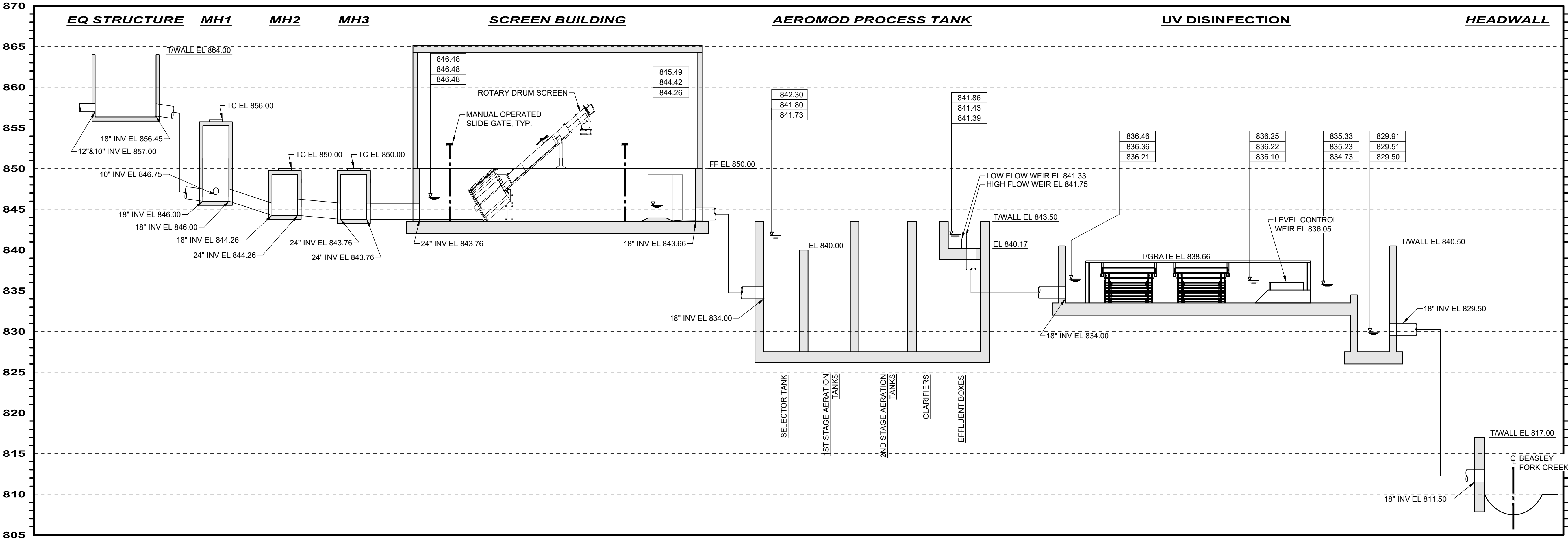


DESIGN CRITERIA	
ADD	0.70 MGD
MDF	4.00 MGD
PHF	4.90 MGD
	FLOW NO.
	PUMP
	BLOWER
	SOLIDS STREAM
	AIR STREAM
	EXISTING STRUCTURE
	PROPOSED STRUCTURE

BID SET



PROCESS HYDRAULIC PROFILE



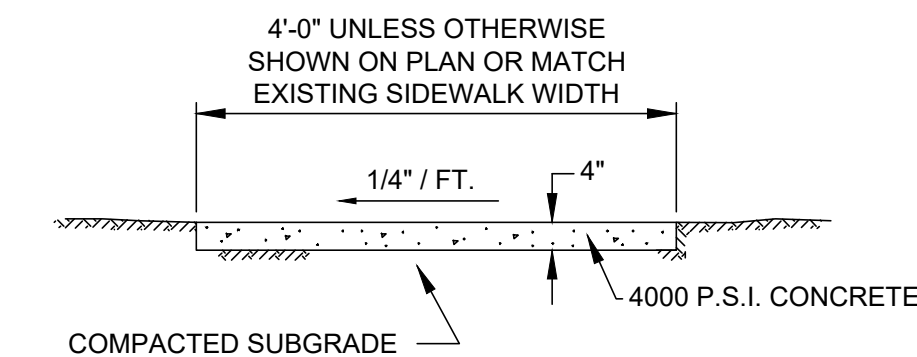
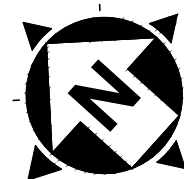
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**VILLAGE OF WEST UNION
UV DISINFECTION ADDITION**

GENERAL - 00 SERIES

PROCESS FLOW DIAGRAM & HYDRAULIC PROFILE

PROJECT NO.	
42899	
DISCIPLINE	
GENERAL	
SHEET NAME	
00G-03	
SHEET	OF
3	12

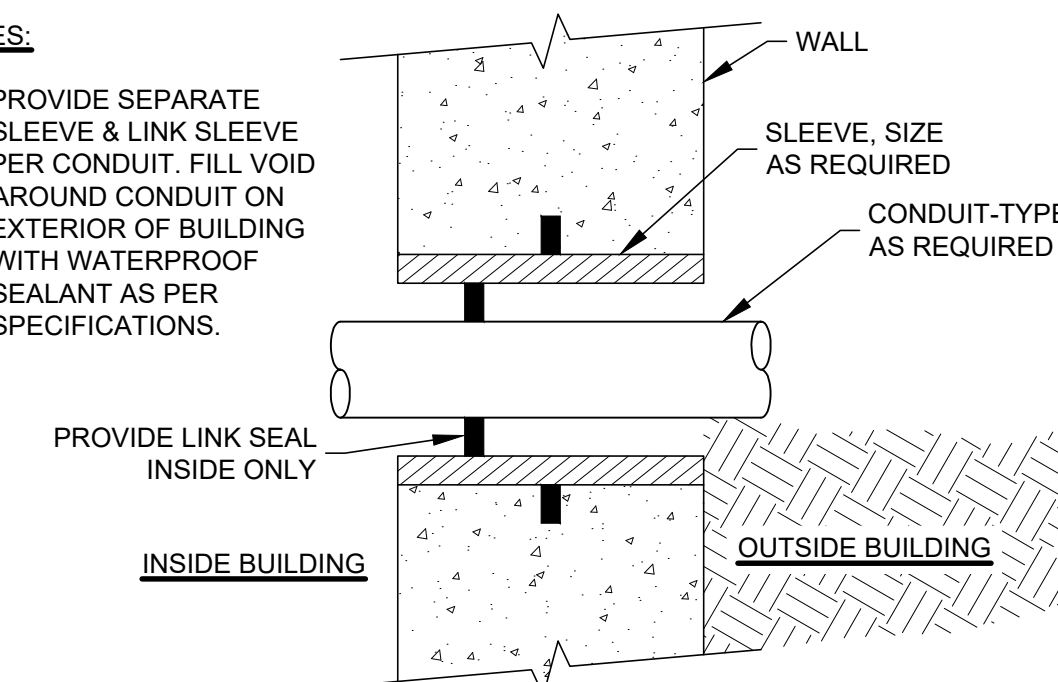


WALK TO BE DIVIDED INTO EQUALLY SPACED BLOCKS AT APPROXIMATELY 5' INTERVALS. EXPANSION JOINT FILLER 1/2" THICK SHALL BE INSTALLED BETWEEN WALK AND ANY FIXED STRUCTURE EXTENDING FOR THE FULL DEPTH OF THE SIDEWALK. THE EXPANSION JOINT FILLER SHALL BE 1" THICK WHERE WALK IS INSTALLED AGAINST BACK OF CURB.

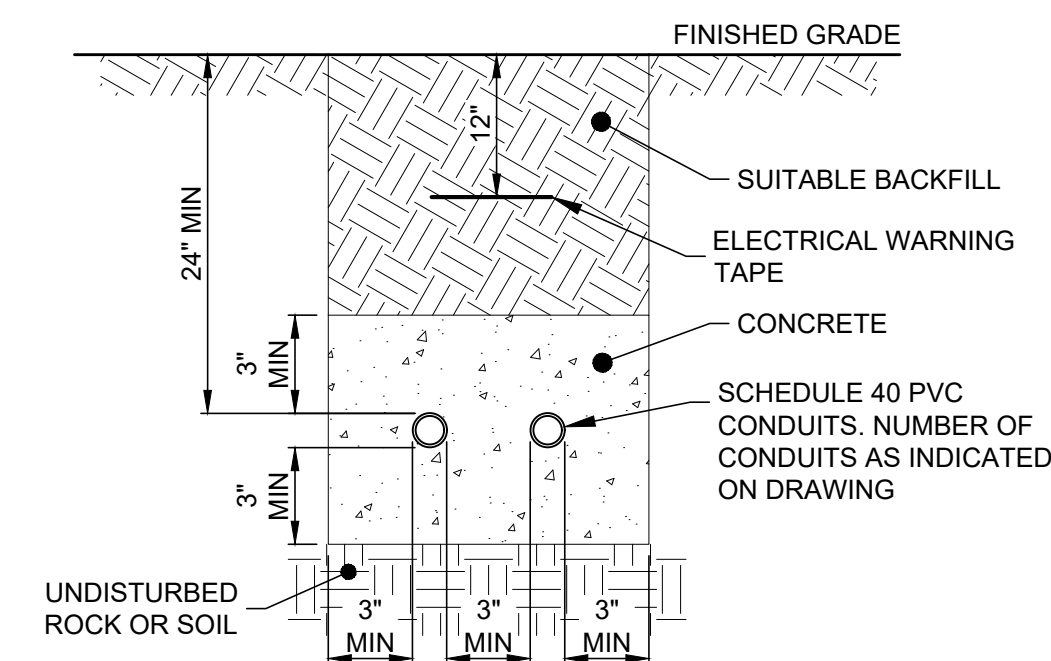
TYPICAL SIDEWALK DETAIL
NOT TO SCALE

NOTES:

1. PROVIDE SEPARATE SLEEVE & LINK SLEEVE PER CONDUIT. FILL VOID AROUND CONDUIT ON EXTERIOR OF BUILDING WITH WATERPROOF SEALANT AS PER SPECIFICATIONS.



UNDERGROUND CONDUIT WALL PENETRATION
BELOW GRADE TO INSIDE BUILDING/STRUCTURE
NOT TO SCALE



ELECTRICAL TRENCH DETAIL
NOT TO SCALE

DRAWING PLAN WRITTEN NOTE:

1. EXISTING SPARE ELECTRICAL CONDUIT INSTALLED DURING WWTP PROJECT. CONTRACTOR SHALL COORDINATE LOCATION WITH THE OWNER.

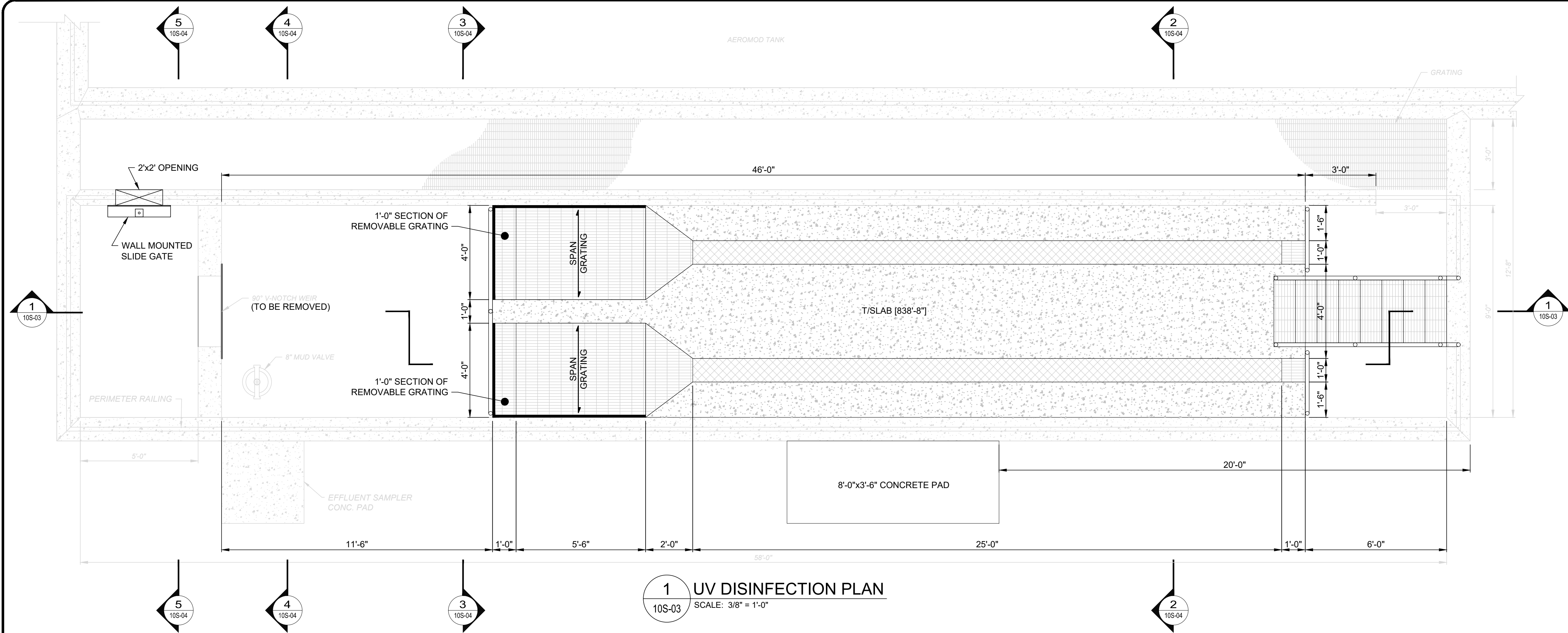
VERTICAL CONTROL POINTS

BM1:
DESC: IRON PIN FOUND
NORTHING: 288943.34
EASTING: 1671427.95
ELEVATION = 852.19'

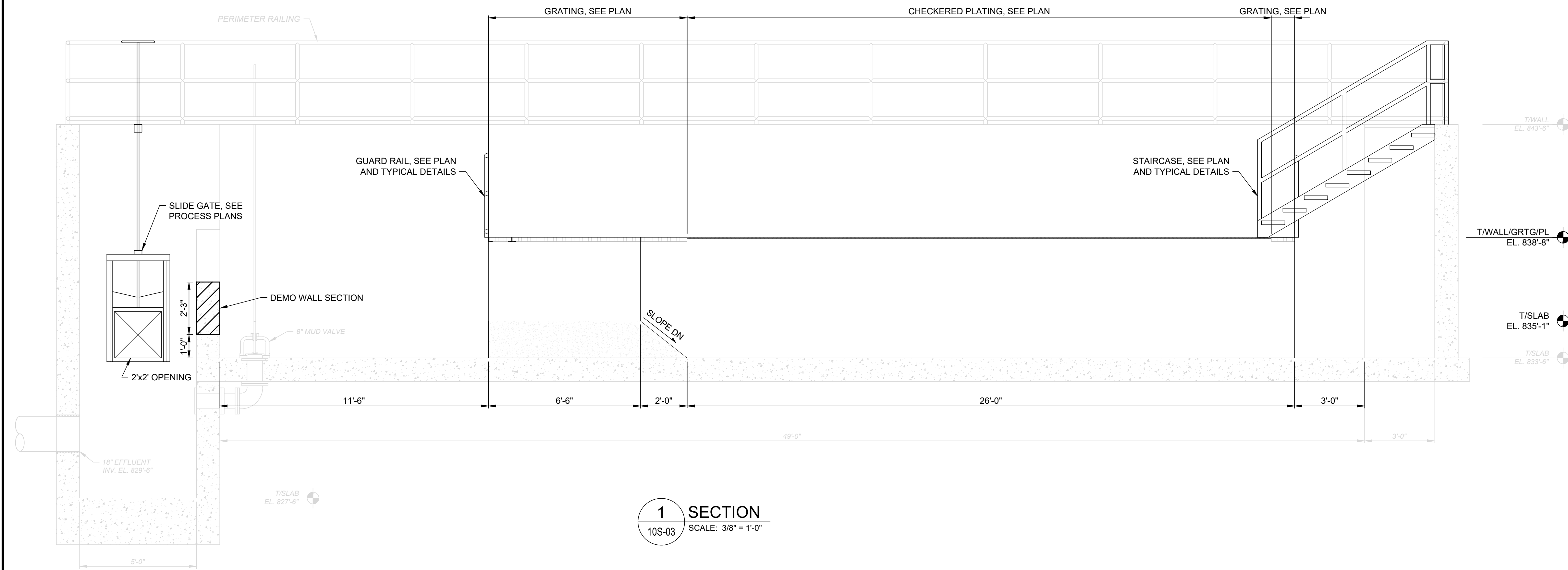
ISSUED FOR:	BIDDING	NO	REVISION	DATE
ISSUE DATE:	7/20/2026			
SCALE:	AS NOTED			
DESIGNED BY:	AGD			
DRAWN BY:	AGD			
CHECKED BY:	KAB			

VILLAGE OF WEST UNION UV DISINFECTION ADDITION

PROJECT NO.	
42899	
DISCIPLINE	
CIVIL	
SHEET NAME	
01C-01	
SHEET	OF
4	12



1 UV DISINFECTION PLAN
10S-03 SCALE: 3/8" = 1'-0"



1 SECTION
10S-03 SCALE: 3/8" = 1'-0"

UV DISINFECTION PLAN NOTES:

- SEE SHEET 10S-01 FOR GENERAL STRUCTURAL NOTES.
- SEE SHEET 10S-04 AND 10S-05 FOR TYPICAL DETAILS.
- VERIFY ALL DIMENSIONS AND ELEVATIONS. SEE PROCESS DRAWINGS FOR ALL MEASUREMENTS AND ELEVATIONS NOT SHOWN. ALL DIMENSIONS SHALL CONFORM TO THE PROCESS DRAWINGS.
- COORDINATE LOCATION AND SIZE OF PENETRATIONS AND OPENINGS WITH PROCESS DRAWINGS.
- TOP OF EXISTING CONCRETE WALL ELEVATION 843'-0".
- TOP OF EXISTING FOOTING ELEVATION 833'-6".
- TOP OF GRATING AND CHECKERED PLATING SHALL BE AT ELEVATION AS THE TOP OF SLAB, UNO.
- FLOOR CONSTRUCTION
SEE PLAN LEGEND FOR GRATING AND CHECKERED PLATE INFORMATION.
- CONTRACTOR SHALL DETERMINE CONSTRUCTION JOINT LOCATIONS AND SUBMIT PLANS TO THE ENGINEER FOR APPROVAL.
- ALUMINUM L3x3x3/8 SHALL BE MOUNTED TO THE FACE OF THE WALL WITH (2) 1/2" STAINLESS STEEL ANCHORS, EACH END. FIRST ANCHOR SHALL BE LOCATED 4" (MIN.) FROM EDGE OF CHANNEL. 4" EMBEDMENT, 1-1/2" PROJECTION.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO UNDERMINE, DISTURB, DAMAGE OR, IN ANY WAY, CAUSE UNDESIRABLE MOVEMENT, CRACKING, AND/OR SETTLEMENT OF THE ADJACENT CONSTRUCTION.
- CONCRETE MODIFICATIONS SHALL NOT USE METHODS THAT WILL CAUSE CRACKING OR MICROCRACKS IN THE REMAINING CONCRETE SUBSTRATE. DO NOT CHIP SOUND CONCRETE DEEPER THAN 3/4" IN A SINGLE PASS WITHOUT APPROVAL OF THE ENGINEER.
A. APPROVED LOW-IMPACT CONCRETE SURFACE REMOVAL METHODS:
 - SAWCUT
 - CORE DRILL
 - COR SAW
 - HIGH-PRESSURE WATER OR ULTRA-HIGH-PRESSURE WATER JETTING.
 - CONTROLLED HAND CHIPPING WITH SMALL CHIPPING HAMMERS. USING 14 LBS OR SMALLER CHIPPING HAMMERS. ACI 502 COMPLIANT. DO NOT USE CHIPPING HAMMERS LARGER THAN 15 LBS FOR THIS WORK.
 - LOW-ENERGY GRINDING/SCARIFYING.
B. NOT APPROVED HIGH-IMPACT SURFACE REMOVAL METHODS, HEAVY MECHANICAL IMPACT CONCRETE REMOVAL:
 - 60 LB JACKHAMMERS OR HEAVIER.
 - HYDRAULIC BREAKERS.
 - DROP HAMMERS.
 - PERCUSSIVE MECHANICAL MILLING.
 - SANDBLASTING.
 - SHOTBLASTING.
- CONCRETE REMOVAL, SAWCUT OF CONCRETE SHALL BE PERFORMED WITHOUT OVERCUTTING AT CORNERS. AT RE-ENTRY (INSIDE) CORNERS, SAWCUTS SHALL TERMINATE AT THE PERPENDICULAR SAWCUT LINE AND SHALL NOT EXTEND BEYOND THE INTERSECTION. OVERCUTS BEYOND CORNER INTERSECTIONS ARE NOT PERMITTED. AT RE-ENTRY, DRILL OR CORE SAW CORNER, THE REQUIRED SAWCUT DEPTH, PRIOR TO SAWCUT.
- AT WALL OPENING ON THE OPPOSITE SIDE OF THE SLIDE GATE, PROVIDE A 3/4" CONTINUOUS CHAMFER.

PLAN LEGEND:

- GRATING SPAN DIRECTION
- GRATING SUPPORT ANGLE
- INDICATES 1-3/4"x3/16" 19AS4 ALUMINUM GRATING
- INDICATES 5/8" SS CHECKERED PLATING

BID SET

verdantas

DATE	REVISION	NO	BIDDING	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
			7/20/2026	AS NOTED					

VILLAGE OF WEST UNION UV DISINFECTION ADDITION	WEST UNION, OHIO
ADAMS COUNTY	UV DISINFECTION - 10 SERIES
	UV DISINFECTION - PLAN & SECTION

PROJECT NO.	42899
DISCIPLINE	STRUCTURAL
SHEET NAME	10S-01
SHEET	OF
5	12

BID SET

verdantas

UV DISINFECTION PLAN NOTES:

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 - CONTROLLED HAND CHIPPING WITH SMALL CHIPPING HAMMERS. USING 14 LBS OR SMALLER CHIPPING HAMMERS. ACI 502 COMPLIANT. DO NOT USE CHIPPING HAMMERS LARGER THAN 15 LBS FOR THIS WORK.
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PLAN LEGEND:

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- GRATING SUPPORT ANGLE
- ▨ INDICATES 1-3/4"x3/16" 19AS4 ALUMINUM GRATING
- ▩ INDICATES 5/8" SS CHECKERED PLATING

VILLAGE OF WEST UNION
UV DISINFECTION ADDITION

ADAMS COUNTY WEST UNION, OHIO

UV DISINFECTION - 10 SERIES

UV DISINFECTION - SECTIONS

PROJECT NO.

42899

DISCIPLINE

SHEET NAME

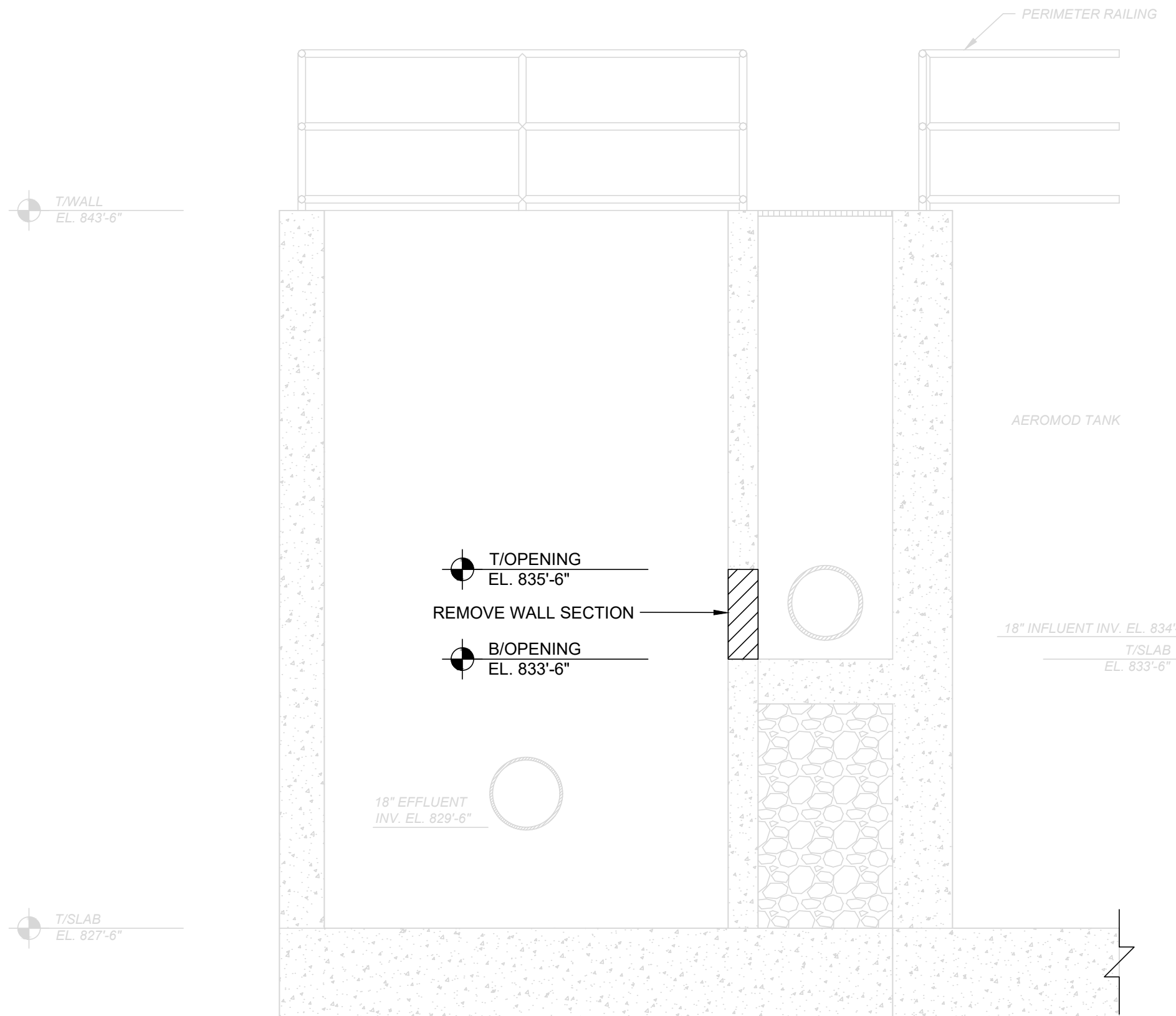
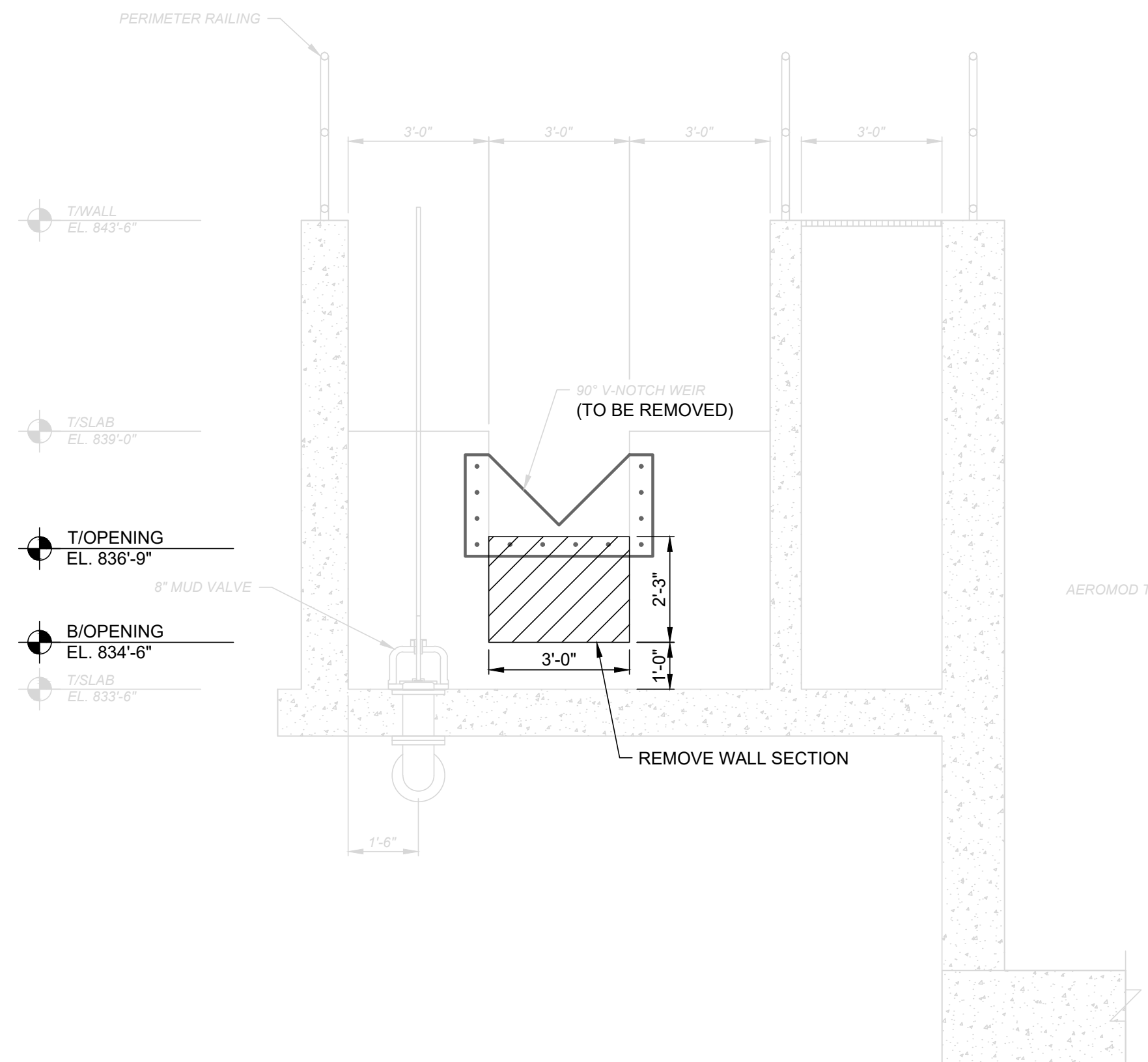
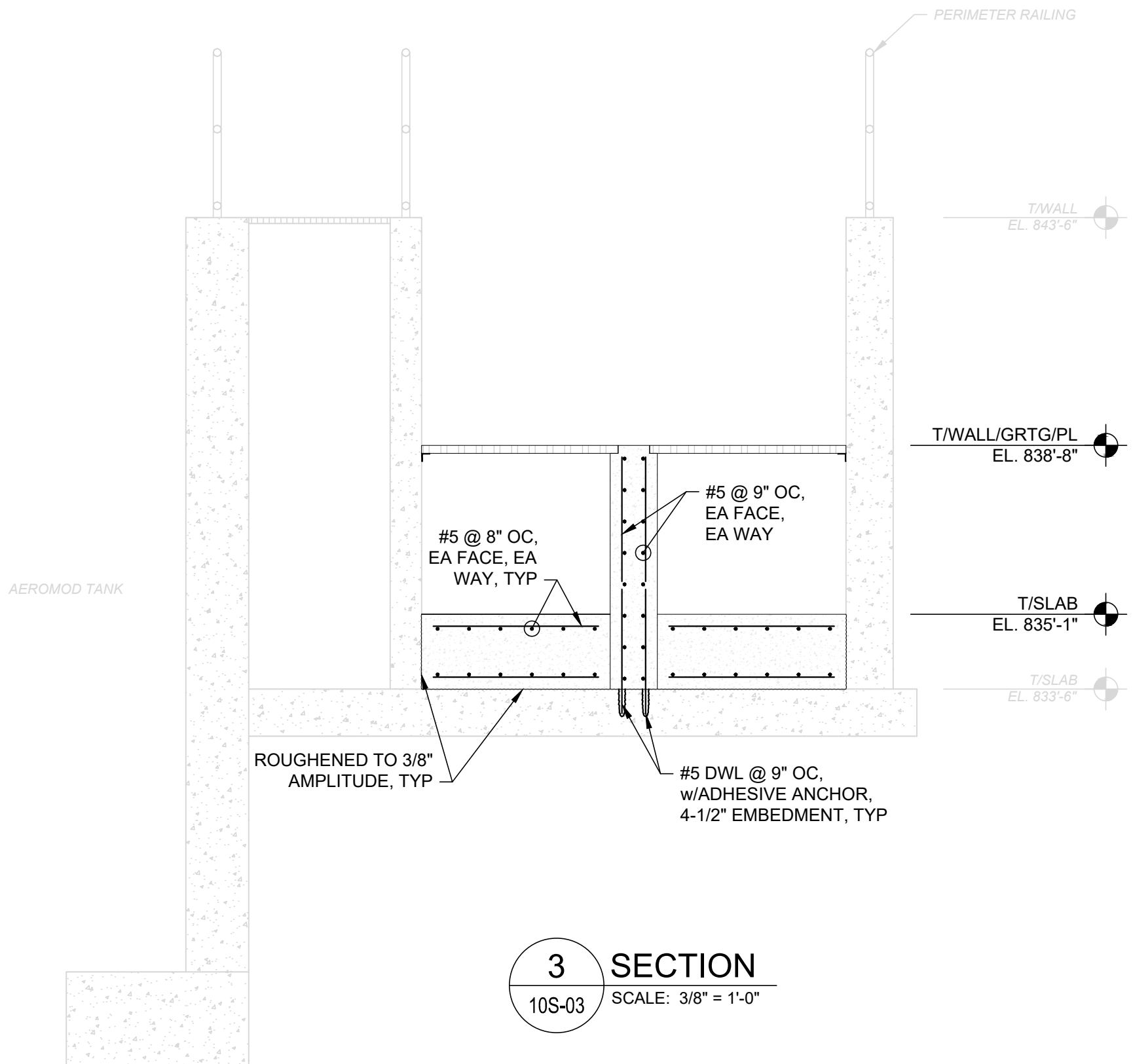
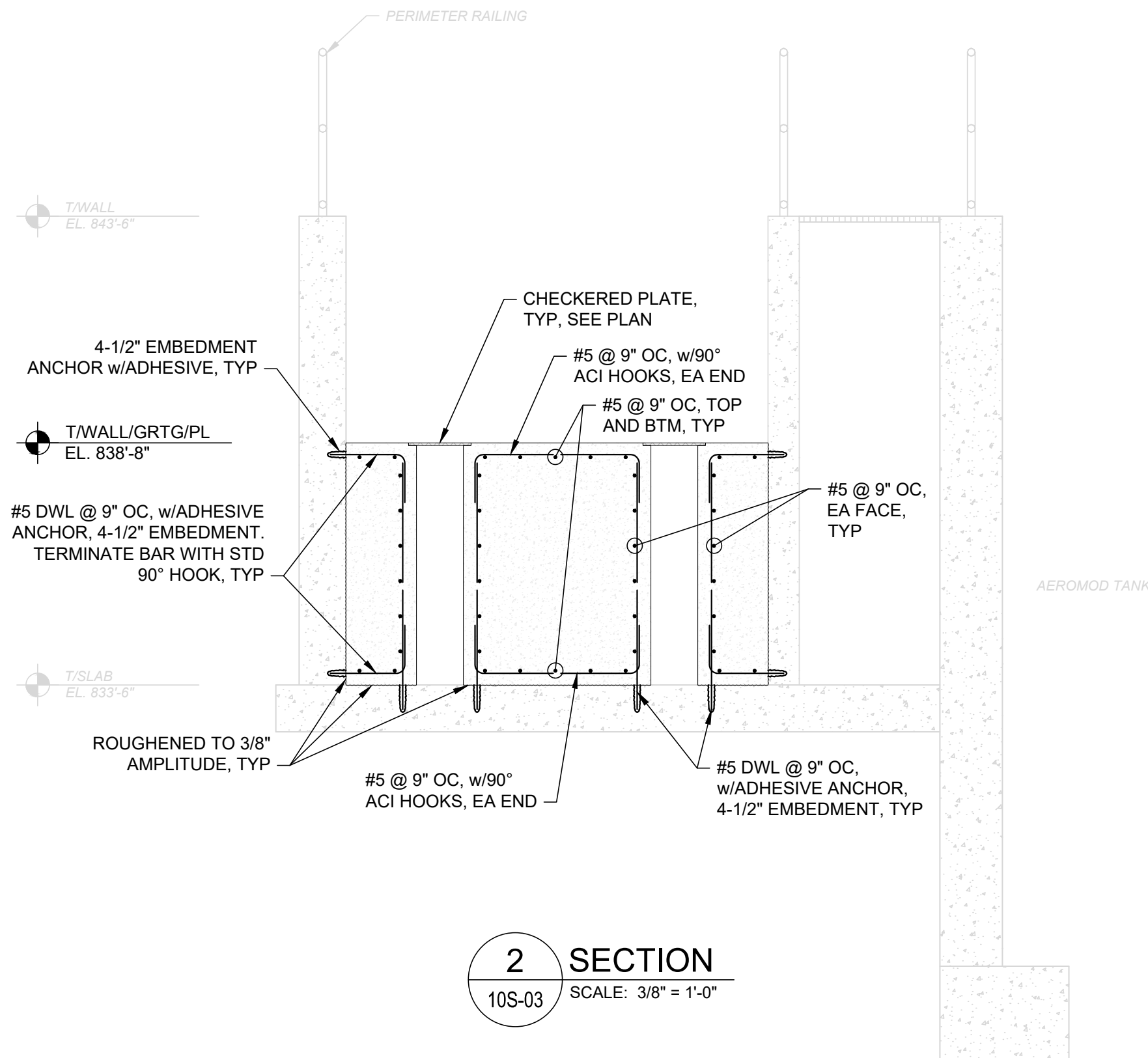
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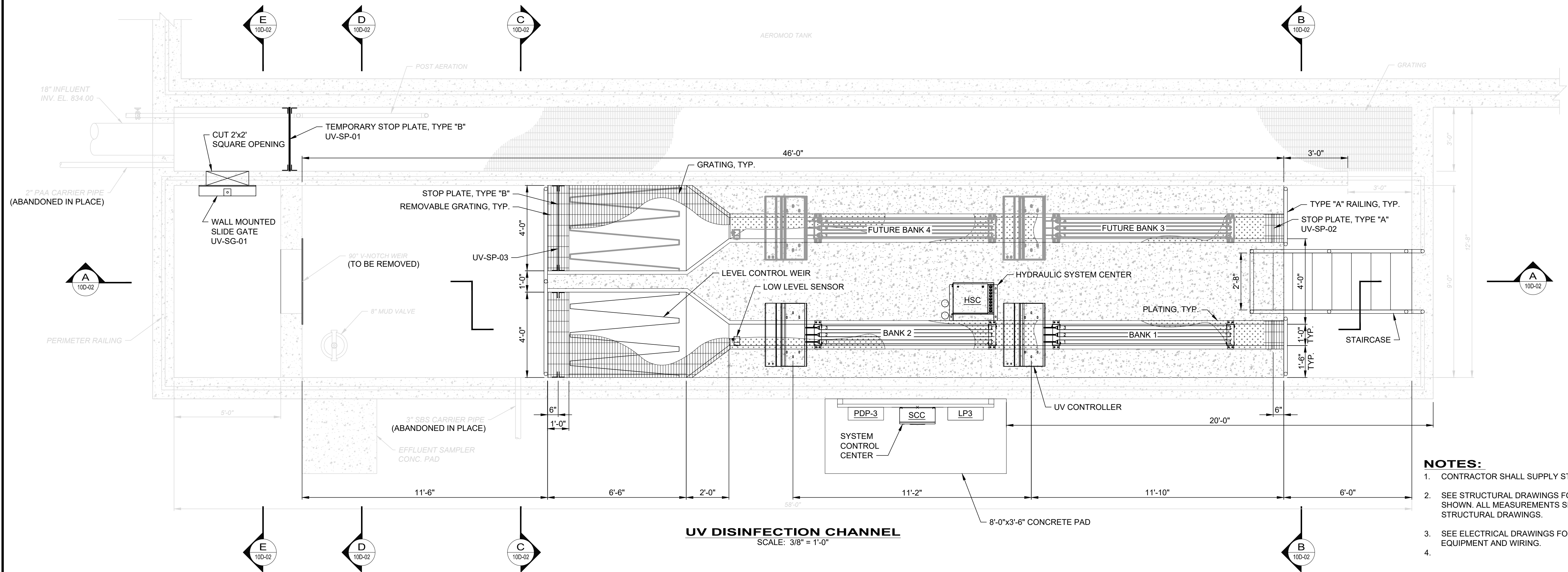
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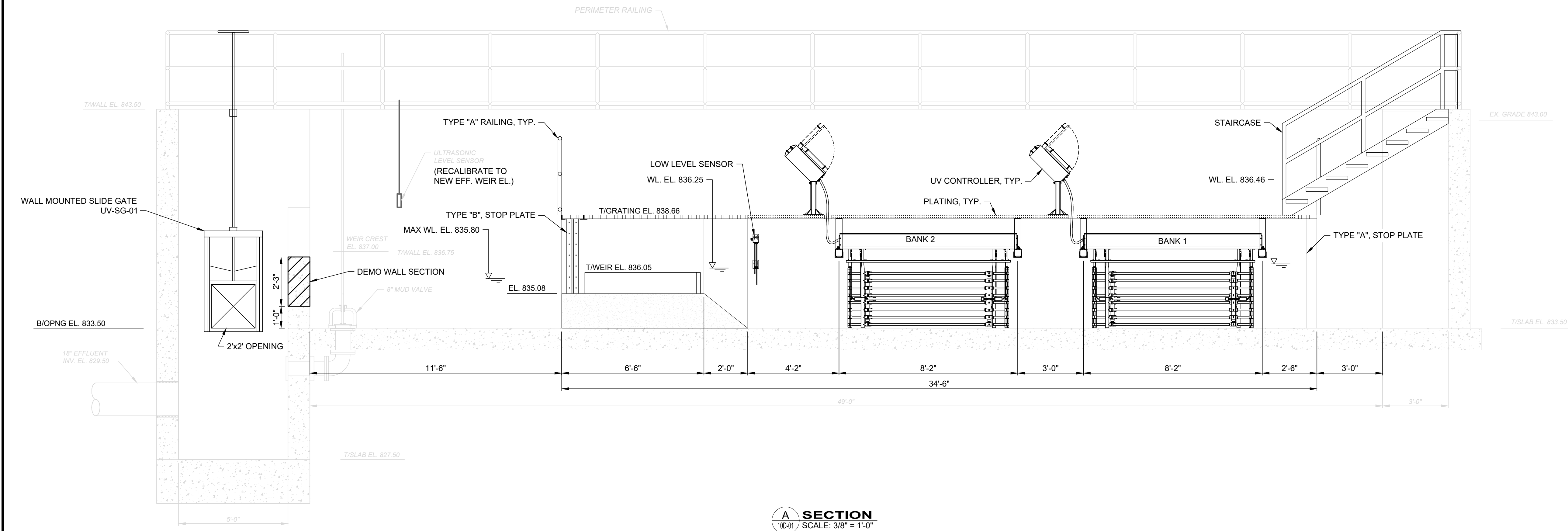
12





UV DISINFECTION CHANNEL
SCALE: 3/8" = 1'-0"

- NOTES:**
1. CONTRACTOR SHALL SUPPLY STOP PLATES FOR EACH CHANNEL.
 2. SEE STRUCTURAL DRAWINGS FOR ALL MEASUREMENTS NOT SHOWN. ALL MEASUREMENTS SHALL CONFORM TO THE STRUCTURAL DRAWINGS.
 3. SEE ELECTRICAL DRAWINGS FOR POWER AND CONTROL EQUIPMENT AND WIRING.
 - 4.



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

BID SET

verdantas

ISSUED FOR:	BIDDING	NO	REVISION	DATE
ISSUE DATE:	7/20/2028			
SCALE:	AS NOTED			
DESIGNED BY:	AGD			
DRAWN BY:	AGD			
CHECKED BY:	KAB			

**VILLAGE OF WEST UNION
UV DISINFECTION ADDITION**

ADAMS COUNTY
WEST UNION, OHIO
UV DISINFECTION - 10 SERIES
UV DISINFECTION - PLAN & SECTION

PROJECT NO.

42899

DISCIPLINE

PROCESS

SHEET NAME

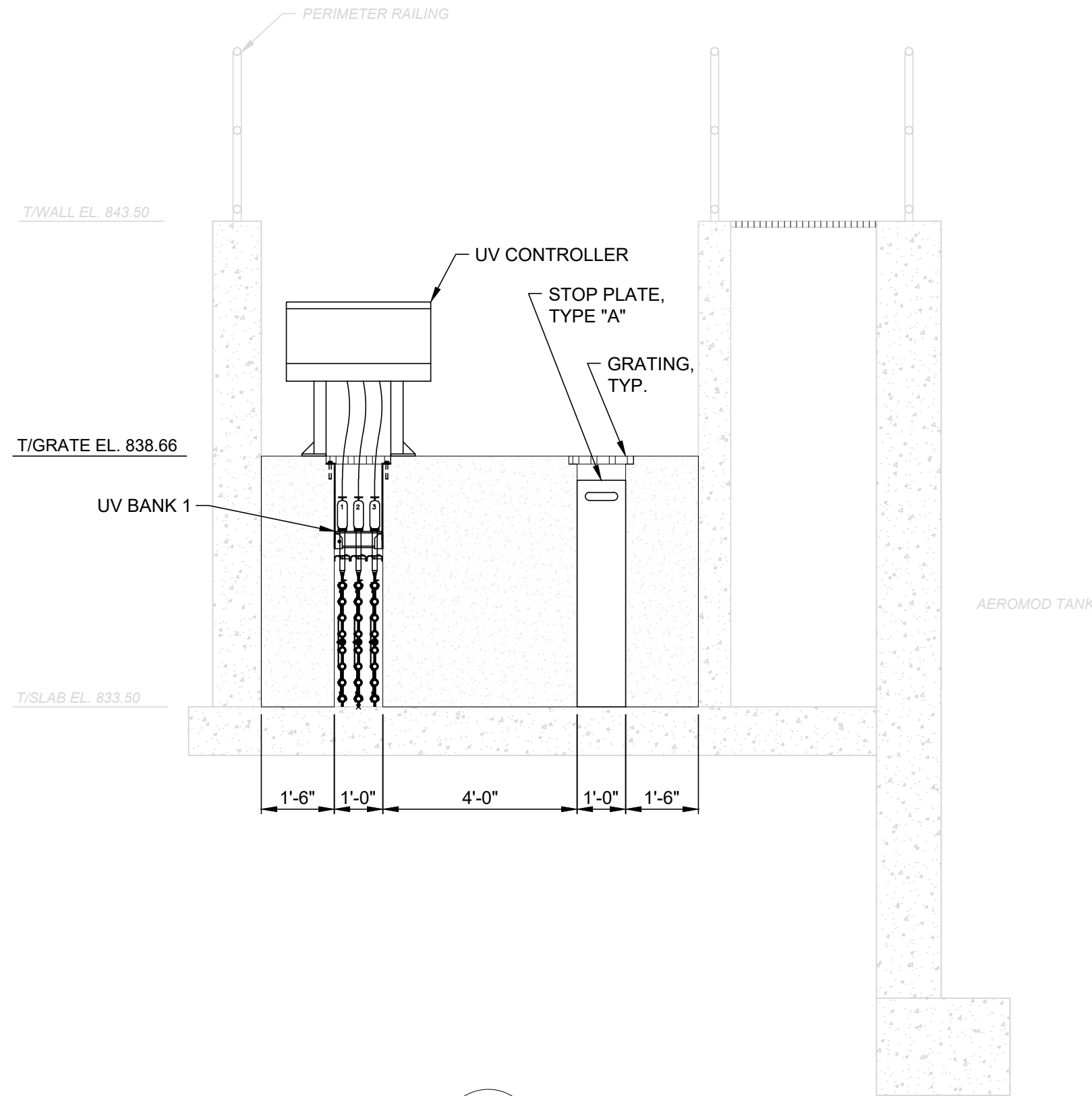
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SHEET

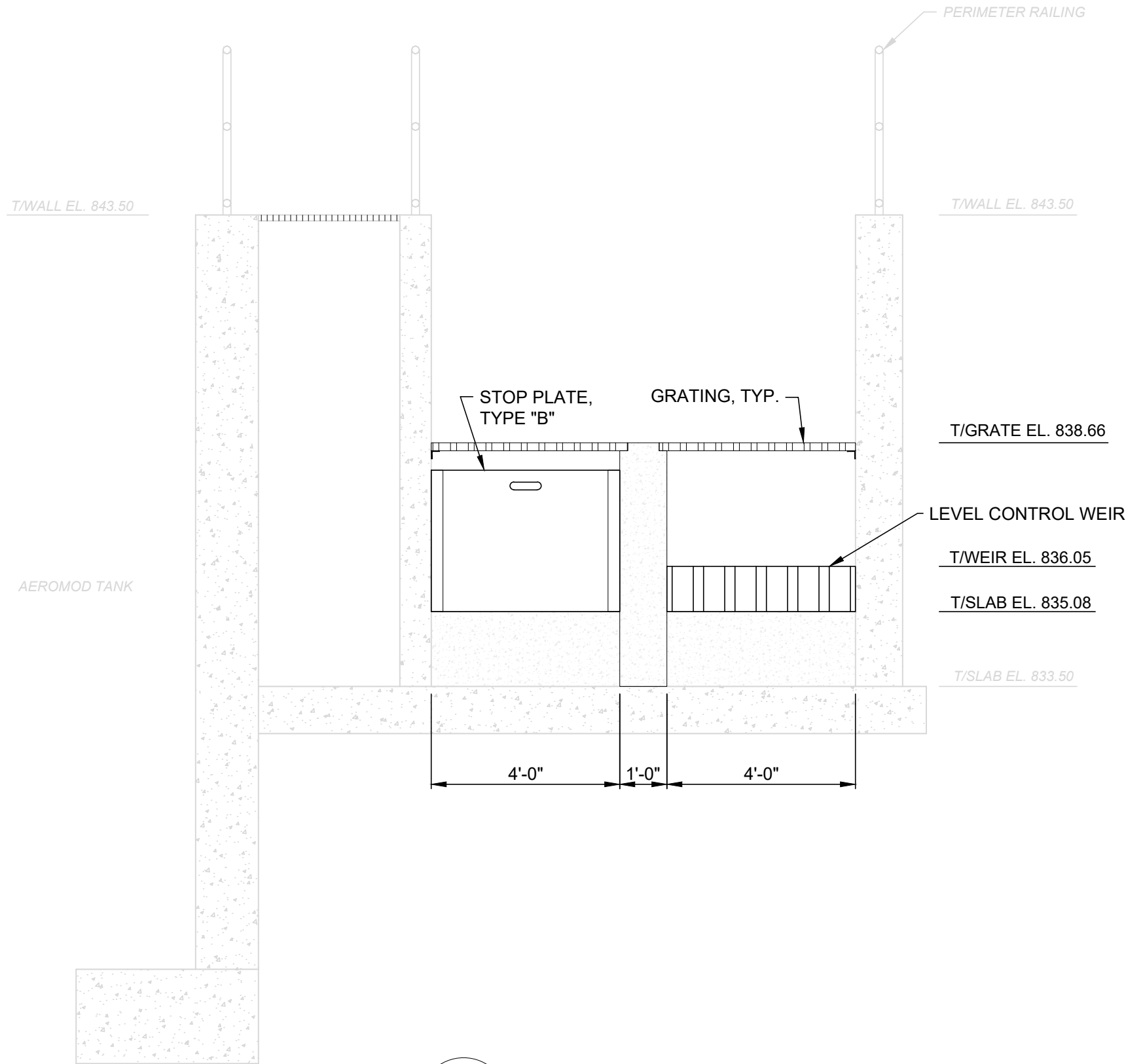
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OF

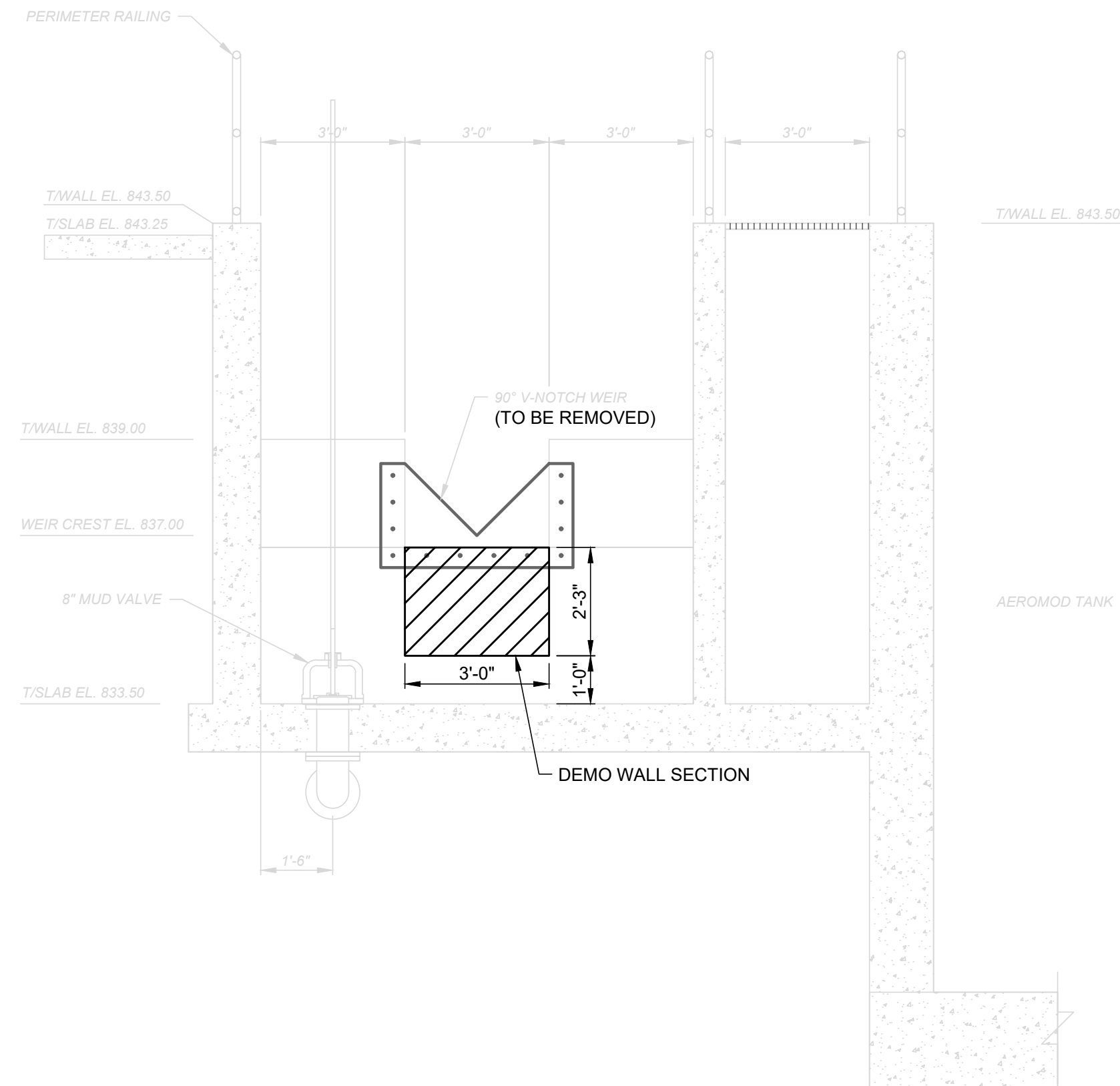
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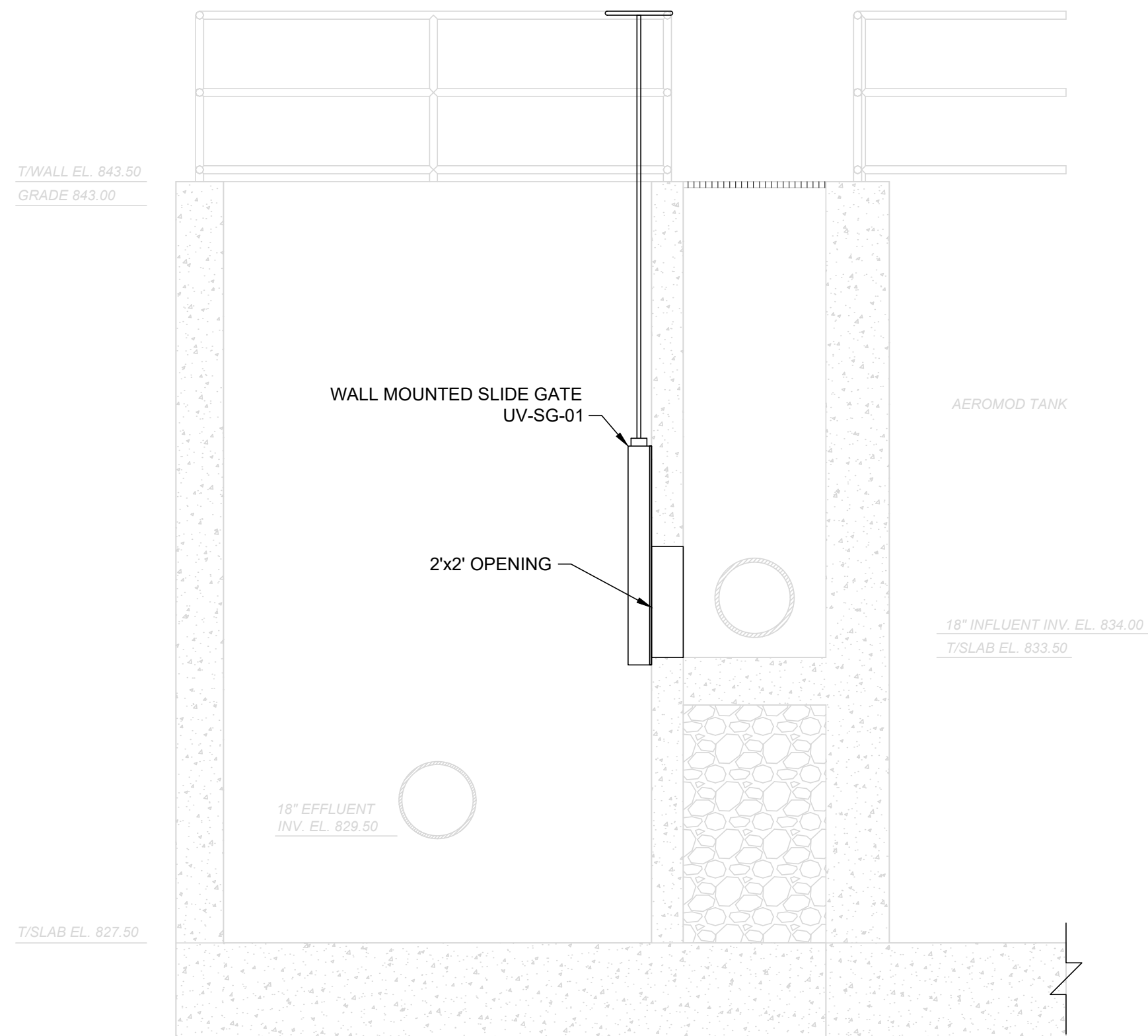
B SECTION
10D-01 SCALE: 1/4" = 1'-0"



C SECTION
10D-01 SCALE: 1/4" = 1'-0"



D SECTION
10D-01 SCALE: 1/4" = 1'-0"



E SECTION
10D-01 SCALE: 1/4" = 1'-0"

BID SET

verdantas

ISSUED FOR:	BIDDING	NO	REVISION	DATE
ISSUE DATE:	7/20/2026			
SCALE:	AS NOTED			
DESIGNED BY:	AGD			
DRAWN BY:	AGD			
CHECKED BY:	KAB			

VILLAGE OF WEST UNION
UV DISINFECTION ADDITION

ADAMS COUNTY
WEST UNION, OHIO
UV DISINFECTION - 10 SERIES
UV DISINFECTION - SECTIONS

PROJECT NO.	42899
DISCIPLINE	PROCESS
SHEET NAME	10D-02
SHEET	OF
8	12

ISSUED FOR:	BIDDING	NO	REVISION	DATE
7/20/2026	7/20/2026			
AS NOTED	AS NOTED			
AGD	AGD			
AGD	AGD			
KAB	KAB			

VILLAGE OF WEST UNION
UV DISINFECTION ADDITION

WEST UNION, OHIO

ADAMS COUNTY

STANDARD DETAILS - 20 SERIES

PROCESS DETAILS

PROJECT NO.

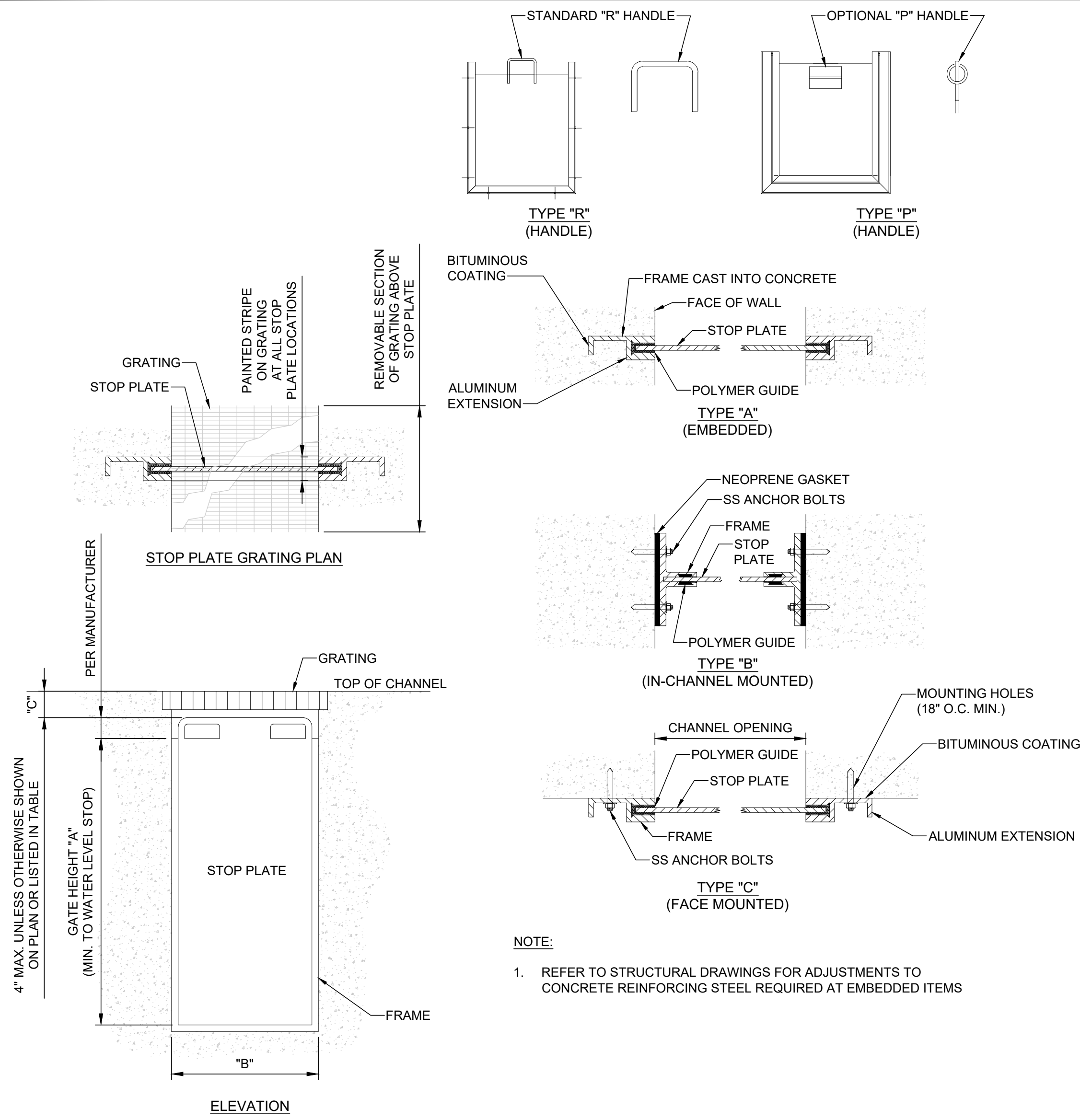
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PROCESS

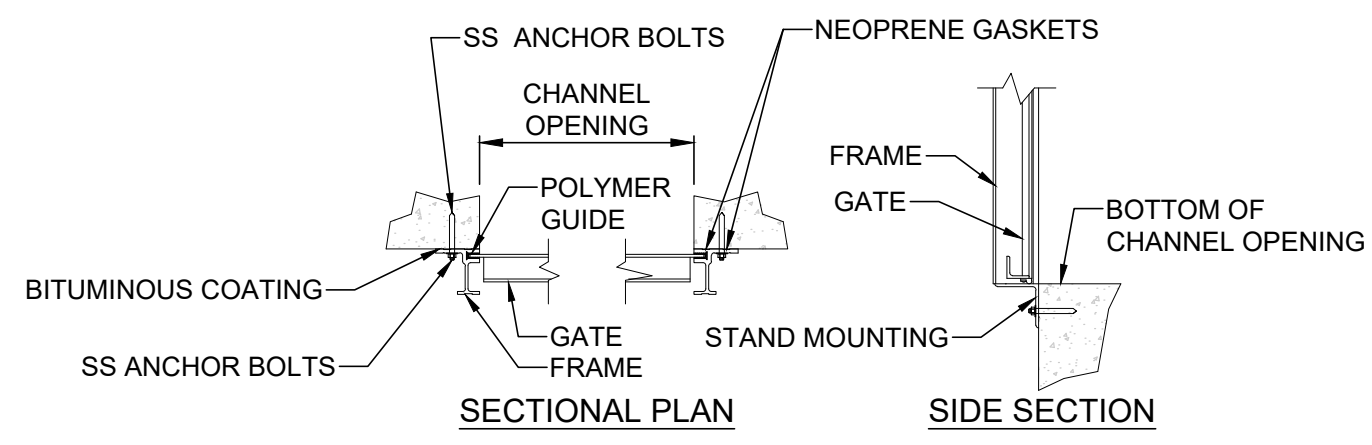
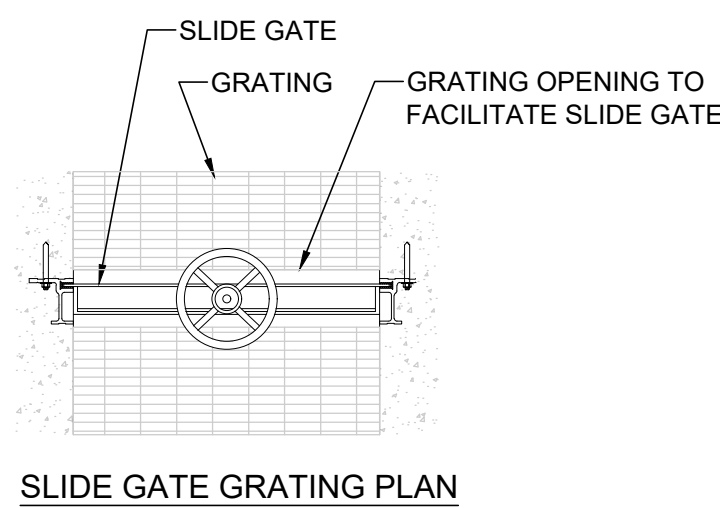
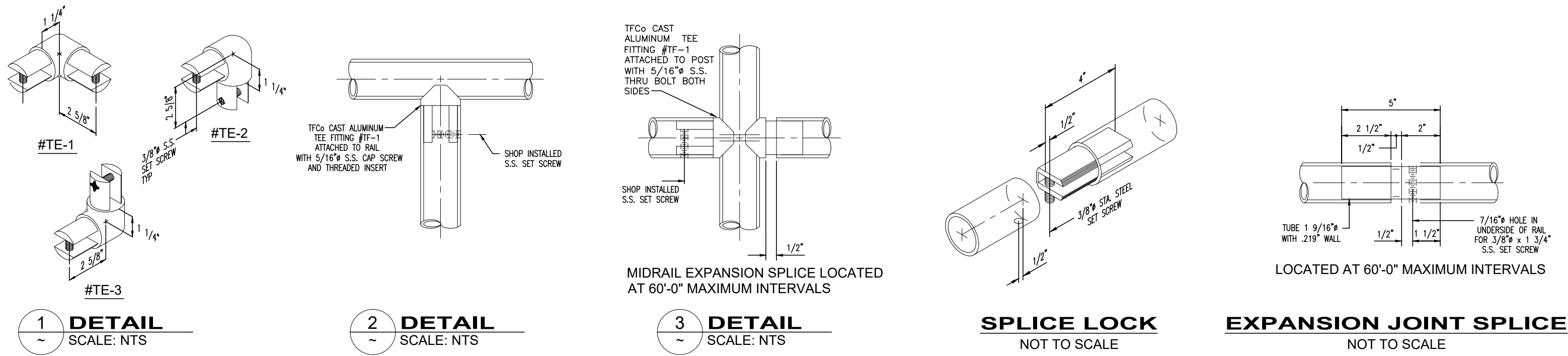
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20D-01

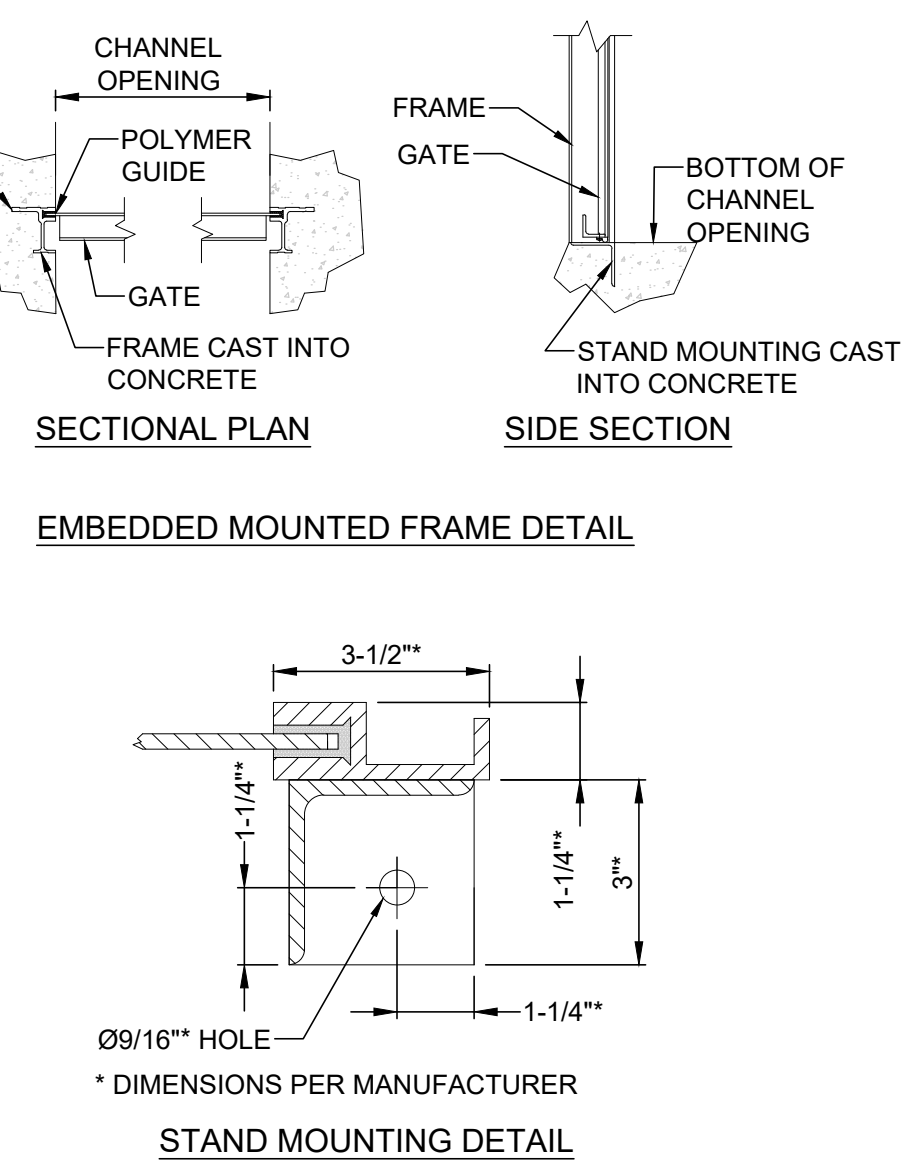
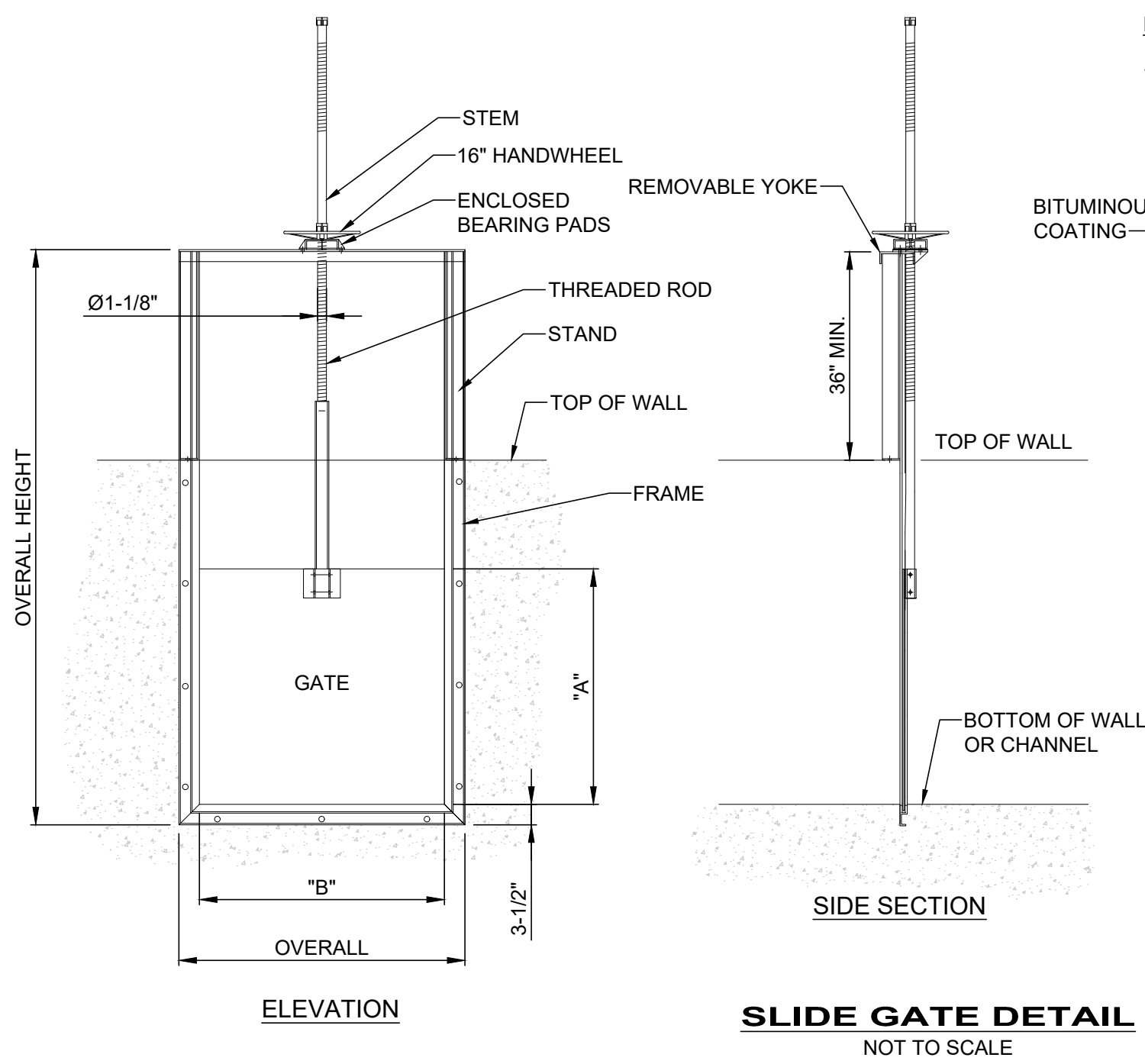
SHEET OF
9 12



- NOTE:
- REFER TO STRUCTURAL DRAWINGS FOR ADJUSTMENTS TO CONCRETE REINFORCING STEEL REQUIRED AT EMBEDDED ITEMS



- NOTE:
- REFER TO STRUCTURAL DRAWINGS FOR ADJUSTMENTS TO CONCRETE REINFORCING STEEL REQUIRED AT EMBEDDED ITEMS



SLUICE / SLIDE GATE SCHEDULE															
REF. #	SHEET REF.	QUANTITY	MATERIAL	OPENING DIRECTION	NORMAL POSITION	OPENING NOMINAL DIMENSIONS		TYPE OF FRAME	OPERATING HEAD IN FEET OF WATER		STEM LENGTH (FT)	OPERATOR TYPE	THIMBLE GUIDE		LOCATION
						WIDTH	HEIGHT		SEATING	UNSEATING			TYPE	LENGTH	
UV-SG-01	10D-01	1	SS	UPWARD	CLOSED	24	24	FACE	2.75	-	9	MO-HW	NA		UV DISINFECTION CHANNEL

- NOTES:
- SEE SHEET 20D-01 FOR SLIDE GATE DETAIL.
 - ABBREVIATIONS: (MO) - MANUALLY OPERATED, (HW) - HANDWHEEL, (ON) - 2" OPERATING NUT
 - STEM HEIGHT MEASUREMENT IS FROM CENTERLINE OF GATE TO OPERATOR MOUNTING PLATFORM.
 - J-SEALS REQUIRED ON BOTTOM AND TWO SIDES.
 - PER AWWA STANDARD C-501, SEC. 1402, ALL GATES 24 AND WIDER WITH UNSEATING HEADS 5 OR MORE SHALL HAVE TOP AND BOTTOM WEDGES.
 - VERIFY STEM LENGTHS AT ALL LOCATIONS TO CONFIRM INTERFACE OF EQUIPMENT WITH MOUNTING LOCATIONS.

STOP PLATE SCHEDULE											
PLATE REF. #	SHEET REF.	MATERIAL	DIMENSIONS			OPERATING HEAD	TYPE GUIDE	TYPE HANDLE	QUANTITY		LOCATION
			A	B	C				GATE	GUIDE	
UV-SP-01	10D-01	ALUM	4.0'	3.0'	0.5'	2.75'	B	R	1	1	PRE UV DISINFECTION CHANNEL
UV-SP-02	10D-01	ALUM	4.0'	1.0'	0.5'	2.75'	A	R	2	2	UV DISINFECTION CHANNEL
UV-SP-03	10D-01	ALUM	3.25'	4.0'	0.5'	1.0'	B	R	2	2	UV DISINFECTION CHANNEL

- NOTES:
- SEE SHEET 60D-03 FOR STOP PLATE DETAIL.
 - PLATES SHALL BE FABRICATED AT THE DIMENSIONS NOTED. EDGES OF PLATE THAT FIT WITHIN GUIDES SHALL BE MILLED 1/32" ON ONE FACE TO FACILITATE OPERATION OF PLATE.
 - CONTRACTOR SHALL COMPLETE FABRICATION OF ONE (1) OF THE PROPOSED PLATES WITH THE MINIMUM MILLED THICKNESS AS STATED IN NOTE 2. FABRICATED PLATE SHALL BE FIELD FIT WITHIN ALL FOUR LOCATIONS TO VERIFY FUNCTIONALITY PRIOR TO FABRICATION OF REMAINING THREE PLATES. IF FUNCTIONALITY REMAINS LIMITED, MILLED THICKNESS CAN BE INCREASED TO A MAXIMUM OF 1/16" ON EDGES THAT FIT WITHIN GUIDES.

ELECTRICAL SYMBOLS - PLAN:

	HOME RUN TO PANEL
	MOTOR
	MOTOR CONTROLLER
	FUSIBLE SAFETY SWITCH
	NON-FUSIBLE DISCONNECT SWITCH
	SIMPLEX RECEPTACLE, EXPLOSION PROOF
	DUPLEX RECEPTACLE
	QUADPLEX RECEPTACLE
	DATA PORT, RJ45
	SPECIAL RECEPTACLE, NEMA TYPE NOTED
	SINGLE-POLE SWITCH, "3" INDICATES 3-WAY, "OS" INDICATES OCCUPANCY SENSING
	DRY-TYPE TRANSFORMER
	PUSHBUTTON STATION
	LOUVER OPERATOR
	JUNCTION BOX
	SOLENOID VALVE
	LIMIT SWITCH
	FLOW: SWITCH, SENSOR, TRANSMITTER W / DISPLAY
	LEVEL: SWITCH, SENSOR, TRANSMITTER W / DISPLAY
	PRESSURE: SWITCH, SENSOR, TRANSMITTER W / DISPLAY
	TEMPERATURE: SWITCH, SENSOR, TRANSMITTER W / DISPLAY
	OTHER SENSOR / INDICATING TRANSMITTER AS NOTED
	HAZARDOUS AREA LIGHT FIXTURE
	OUTDOOR CANOPY LIGHT FIXTURE
	EXTERIOR WALL-PACK LIGHT FIXTURE
	HIGH BAY LIGHT FIXTURE
	LINEAR LED LIGHT FIXTURE
	EXIT SIGN
	EMERGENCY REMOTE HEAD
	EMERGENCY WALL-PACK
	FIRE ALARM PULL STATION, STROBE, HORN-STROBE
	FIRE ALARM AREA SMOKE DETECTOR

ELECTRIC SYMBOLS - UTILITIES:

EX:	PR:
	AIR CONDITIONING UNIT
	ELECTRIC CONTROL BOX
	ELECTRIC JUNCTION BOX
	ELECTRIC PULL BOX
	ELECTRIC RISER BOX
	ELECTRIC VAULT BOX
	ELECTRIC LIGHT - GROUND
	ELECTRIC LIGHT - POST
	ELECTRIC MARKER POST
	ELECTRIC METER
	ELECTRIC MANHOLE - 48"
	ELECTRIC MANHOLE - 48" - ADJUST
	ELECTRIC MANHOLE - LID
	ELECTRIC PAINT MARK
	ELECTRIC PEDESTAL
	ELECTRIC TRANSFORMER

SINGLE LINE, ELEMENTARY, & INTERCONNECTION DIAGRAMS (ONLY) SYMBOLOGY:

	DISCONNECT SWITCH - AMP RATING		N.O. LIMIT SWITCH		CONTACT - NORMALLY OPEN
	FUSE - AMP RATING		N.O. FLOW SWITCH		CONTACT - NORMALLY CLOSED
	CIRCUIT BREAKER - AMP RATING		N.O. LEVEL SWITCH		SOLENOID COIL
	TRANSFORMER		N.O. PRESSURE SWITCH		PILOT LIGHT - PUSH TO TEST (COLOR)
	MOTOR W / HORSEPOWER INDICATED		N.O. TEMPERATURE SWITCH		GROUND
	AMMETER		N.O. TIME DELAY AFTER ENERGIZATION		CAPACITOR
	VOLT METER		N.C. TIME DELAY AFTER ENERGIZATION		2 POSITION SELECTOR SWITCH
	POWER FACTOR METER		N.C. TIME DELAY AFTER DE-ENERGIZATION		3 POSITION SELECTOR SWITCH
	GROUND FAULT RELAY		N.O. TIME DELAY AFTER DE-ENERGIZATION		EQUIPMENT FIELD TERMINAL
	RELAY COIL		N.O. SWITCH (GENERAL)		LOCAL PANEL / BLDG WIRING
	TIMING RELAY COIL		START PUSHBUTTON NORMALLY OPEN		EXTERNAL / FIELD WIRING
	MOTOR STARTER COIL		STOP PUSHBUTTON NORMALLY CLOSED		
	ELAPSED TIME TOTALIZER				
	GROUNDING BUS				
	TRANSIENT VOLTAGE SURGE SUPPRESSOR				

ABBREVIATIONS:

x-CSC	x-CONDUCTOR SHIELDED CABLE	IAW	IN ACCORDANCE WITH
A	AMPS	ICP	INSTRUMENTATION & CONTROL PANEL
AF	AMPERE FRAME	IPP	INSTRUMENT POWER PANEL
AFF	ABOVE FINISHED FLOOR	JB	JUNCTION BOX
AFG	ABOVE FINISHED GRADE	JBC	JUNCTION BOX - CONTROL
AI	ANALOG INPUT (PLC)	JBM	JUNCTION BOX - METERING
AL	ALUMINUM	JBP	JUNCTION BOX - POWER
AM	AMMETER	KCM	KILO (1000) CIRCULAR MILL
AO	ANALOG OUTPUT (PLC)	kVA	KILOVOLT AMPERES
AP	ALARM PANEL	KVAR	KILOVOLT AMPERES-REACTIVE
AT	AMPERE TRIP	kW	KILOWATT
AWG	AMERICAN WIRE GAUGE	LA	LIGHTNING ARRESTOR
C	CONDUIT	LGT	LIGHT
CAP	CAPACITOR	LOR	LOCAL/OFF/REMOTE SELECTOR SWITCH
CB	CIRCUIT BREAKER	LP	LIGHTING PANEL
CJB	CONTROL JUNCTION BOX	LS	LEVEL SWITCH
CP	CONTROL PANEL	LT	PILOT LIGHT
CPT	CONTROL POWER TRANSFORMER	MCC	MOTOR CONTROL CENTER
CR	CORROSION RESISTANT	MCP	MOTOR CIRCUIT PROTECTOR
CS	CONTROL STATION	MDP	MAIN DISTRIBUTION PANEL
CT	CURRENT TRANSFORMER	MJB	METERING JUNCTION BOX
Cu	COPPER	NEC	NATIONAL ELECTRICAL CODE
DB	DUCT BANK	NEMA	NATIONAL ELECTRICAL MFR ASSOC.
DI	DIGITAL INPUT (PLC)	NEU	NEUTRAL
DO	DIGITAL OUTPUT (PLC)	NFDS	NON-FUSED DISCONNECT SWITCH
EAG	ELECTRICALLY ACTIVATED GATE	OCSS	OPEN/CLOSE SELECTOR SWITCH
EAV	ELECTRICALLY ACTIVATED VALVE	OL	OVERLOAD
EF	EXHAUST FAN	O-O	ON/OFF SELECTOR SWITCH
ESPB	EMERGENCY STOP PUSHBUTTON (MAINTAINED)	OS	OCCUPANCY SENSING
ETM	ELAPSED TIME MONITOR	OTS	OVER TORQUE SWITCH
EWD	ELEMENTARY WIRING DIAGRAM	P	POLE
FDS	FUSED DISCONNECT SWITCH	PB	PULL BOX; PUSHBUTTON
FLA	FULL LOAD AMPERES	PBC	PULL BOX - CONTROL
FS	FLOW SWITCH	PBM	PULL BOX - METERING
FVC	FULL VOLTAGE CONTACTOR	PBP	PULL BOX - POWER
FVNR-1	FULL VOLTAGE NON-REVERSING STARTER, SIZE 1	PC	PHOTO CONTROL
GFI	GROUND FAULT INTERRUPTER	PF	POWER FACTOR
GND	GROUND	PH	PHASE
GFR	GROUND FAULT RELAY	PJB	POWER JUNCTION BOX
HOA	HAND/OFF/AUTO SELECTOR SWITCH	PLC	PROGRAMMABLE LOGIC CONTROLLER
HP	HORSEPOWER	PP	POWER PANEL
HTR	HEATER	PRI	PRIMARY
HTS	HIGH TORQUE SWITCH	PS	PRESSURE SWITCH
HZ	HERTZ	PT	POTENTIAL TRANSFORMER

ELECTRICAL LINE SYMBOLOGY:

PROPOSED:

_____	CONDUIT AND WIRE RUN EXPOSED
_____	CONDUIT AND WIRE BELOW GRADE
_____ELEC_____	ELECTRIC LINE
_____ELEC-OH_____	ELECTRIC LINE - OVERHEAD
_____ELEC-UG_____	ELECTRIC LINE - UNDERGROUND
_____ELEC_____ELEC_____	ELEC SERVICE
_____ELEC-OH_____ELEC-OH_____ELEC-OH_____	ELEC SERVICE - OVERHEAD
_____ELEC-UG_____ELEC-UG_____ELEC-UG_____	ELEC SERVICE - UNDERGROUND
_____LIGHT-OH_____LIGHT-OH_____LIGHT-OH_____	ELEC LIGHTING - OVERHEAD
_____LIGHT-UG_____LIGHT-UG_____LIGHT-UG_____	ELEC LIGHTING - UNDERGROUND

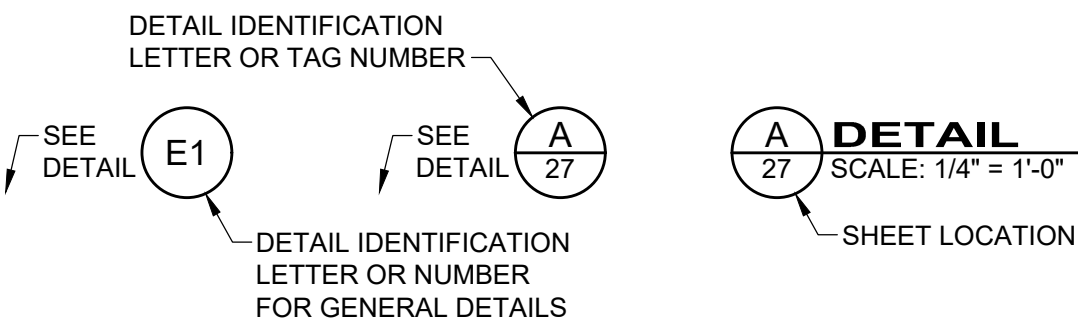
EXISTING:

_____ELEC_____	_____ELEC_____	ELECTRIC LINE
_____ELEC-ABAN_____	_____ELEC-ABAN_____	ELECTRIC LINE - ABANDONED
_____ELEC-OH_____	_____ELEC-OH_____	ELECTRIC LINE - OVERHEAD
_____ELEC-UG_____	_____ELEC-UG_____	ELECTRIC LINE - UNDERGROUND
_____ELEC_____	_____ELEC_____	ELECTRIC SERVICE
_____ELEC-OH_____	_____ELEC-OH_____	ELECTRIC SERVICE - OVERHEAD
_____ELEC-UG_____	_____ELEC-UG_____	ELECTRIC SERVICE - UNDERGROUND
_____LIGHT-OH_____	_____LIGHT-OH_____	ELECTRIC LIGHTING - OVERHEAD
_____LIGHT-UG_____	_____LIGHT-UG_____	ELECTRIC LIGHTING - UNDERGROUND
_____	_____	ELECTRIC DUCT

ELECTRICAL CODED NOTES:

	NEW WORK - NOTE 1		DEMOLITION - NOTE 1		REVISION - NOTE 1
	NEW WORK - NOTE 2		DEMOLITION - NOTE 2		REVISION - NOTE 2
	NEW WORK - NOTE 3		DEMOLITION - NOTE 3		REVISION - NOTE 3

ELECTRICAL DETAIL REFERENCE:



ELECTRICAL GENERAL NOTES:

- ALL ELECTRICAL EQUIPMENT AND MATERIALS WILL BE SELECTED AND INSTALLED IN COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL FIRE CODES, INCLUDING BUT NOT LIMITED TO ALL PERTINENT NFPA REGULATIONS. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE WITH THESE CODES.
- DO NOT INSTALL DEVICES SCALED FROM THESE DRAWINGS. ALL DEVICES SHALL BE INSTALLED AT LOCATIONS SHOWN IN THE APPROVED CONDUIT/DEVICE LAYOUT DRAWINGS AND WITH DIMENSIONS TAKEN IN THE FIELD.
- ELECTRICIAN TO VISIT SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO BID.
- NO DUCTWORK OR PIPING TO BE RUN ABOVE ELECTRICAL PANELS OR THROUGH ELECTRICAL EQUIPMENT ROOMS. ELECTRICIAN SHALL COORDINATE WITH ALL TRADES FOR EQUIPMENT LAYOUTS PRIOR TO ROUGH-IN OF ALL SYSTEMS.
- MANUFACTURERS AND CATALOG NUMBERS SHOWN IN THE LIGHT FIXTURE SCHEDULE ARE PROVIDED TO INDICATE DESIRED LIGHT FIXTURE CHARACTERISTICS. IT IS THE INTENT OF THE DOCUMENTS TO ALLOW ALTERNATE MANUFACTURERS TO PROVIDE LIGHTING PRODUCTS FOR THE PROJECT, AS LONG AS PROPOSED ALTERNATES PROVIDE THE SAME GENERAL DESIGN AND LIGHTING CHARACTERISTICS AS NOTED IN THE LIGHT FIXTURE DESCRIPTION.
- ELECTRICIAN TO CONFIRM LOCATIONS OF ALL ELECTRICAL EQUIPMENT AND ELECTRICAL CHARACTERISTICS OF PROCESS EQUIPMENT PROVIDED BY OTHER TRADES PRIOR TO INSTALLING ROUGH-INS AS SHOWN ON THE ELECTRICAL PLANS. ALL SHOP DRAWING REQUIREMENTS WILL BE CONSIDERED AS THE MEANS AND METHODS OF INSTALLATION.
- THIS PROJECT INVOLVES WORK AT AN INDUSTRIAL FACILITY AND THE CONTRACTOR IS EXPECTED TO PROVIDE CRAFTSMANSHIP REFLECTING THE NATURE OF THE FACILITY. CONDUITS IN PROCESS AREAS ARE TO BE SURFACE MOUNTED RIGID GALVANIZED STEEL (RGS). IN CLASSIFIED AREAS SEAL ALL CONDUITS TO RESTRICT THE PASSAGE OF GASSES AND VAPORS, AND ARRANGE SEALING FITTING DRAINS IN CONDUIT SYSTEMS TO PREVENT ACCUMULATION OF CONDENSATE ABOVE SEALS. ALL CONDUITS ENTERING OR LEAVING A MOTOR CONTROL CENTER, CONTROL PANEL, VALVE ACTUATOR, INSTRUMENT, A BUILDING, OR A PANELBOARD SHALL BE MADE WATERTIGHT USING AN INFLATABLE SEALED BLADDER DUCT SEALING SYSTEM, RAYCHEM 'RAYFLATE' DUCT SEALING SYSTEM RDSS OR APPROVED EQUAL. ALL HARDWARE IS TO BE STAINLESS STEEL UNLESS OTHERWISE DIRECTED.

ALL ENCLOSURES ARE TO BE RATED AS FOLLOWS (UON):

 - OUTDOORS: NEMA 4X (STAINLESS STEEL)
 - CLASSIFIED AREAS: NEMA 7
 - INDOORS (CORROSIVE AREAS): NEMA 4X (STAINLESS STEEL)
 - INDOORS (CONTROLLED ENVIRONMENT) NEMA 12
- ELECTRICIAN SHALL REVIEW ALL OTHER TRADES' CONSTRUCTION DOCUMENTS AND/OR COORDINATE WITH OTHER TRADES AND VERIFY IF THERE ARE ANY ADDITIONAL ELECTRICAL REQUIREMENTS NOT SHOWN ON ELECTRICAL DRAWINGS. COST FOR WORK SHOWN ON OTHER TRADES' DRAWINGS SHALL BE INCLUDED IN BASE BID. ALL FIELD WIRING AND TERMINATIONS OF PROCESS EQUIPMENT AND INSTRUMENTATION AND CONTROLS SHALL BE THE RESPONSIBILITY OF THE ELECTRICIAN. ALL CABLES AND WIRES PROVIDED BY VENDORS SHALL BE INSTALLED AND TERMINATED BY THE ELECTRICIAN. WIRE ALL MISCELLANEOUS POWER AND CONTROLS AS REQUIRED TO PROVIDE A COMPLETE FUNCTIONING SYSTEM.
- A 4-20mA SIGNAL IS AN ANALOG SIGNAL USED TO TRANSMIT DATA (LEVEL, FLOW, ETC.) FOR PROCESS CONTROLS. THE ELECTRICIAN SHALL PROVIDE, INSTALL, AND TERMINATE x-CONDUCTOR SHIELDED CABLE (x-CSC) WIRING IN RIGID GALVANIZED STEEL CONDUIT (RGS). RGS IS USED IN AN ATTEMPT TO REDUCE THE DISTORTION AFFECT FROM EMI AND RFI. BELOW GRADE CONDUITS SHALL BE PVC SCH-40. PARALLEL RUNS OF DATA CONDUITS AND POWER CONDUITS SHALL BE SEPARATED BY 2 FEET. THE x-CSC SHIELD SHALL BE GROUNDED AT THE CONTROL PANEL ONLY (DO NOT GROUND AT BOTH ENDS).
- THE ELECTRICIAN SHALL BE RESPONSIBLE FOR LAYOUT AND COORDINATION OF OPENINGS AND CHASES AND SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED TO INSTALL THEIR WORK. ALL CONCRETE HOUSE KEEPING PADS SHALL BE FRAMED AND POURED BY THE ELECTRICIAN. PADS SHALL HAVE A 45 DEGREE, 1" CHAMFER AROUND UPPER EDGE.
- THE ELECTRICIAN SHALL INSTALL & DISTRIBUTE TEMPORARY POWER SERVICE FOR THE DURATION OF THIS PROJECT AS DEFINED IN DIVISION 1 SPECIFICATIONS. ALL COSTS ASSOCIATED WITH THE INSTALLATION, DISTRIBUTION AND MAINTENANCE OF THE TEMPORARY POWER IS THE RESPONSIBILITY OF THE ELECTRICIAN. THERE SHALL BE 480/277V, 3ø, 4-W; 208/120V, 3ø, 4-W; AND 120/240V, 1ø, 3-W POWER AVAILABLE AT ALL LOCATIONS OF CONSTRUCTION AS DIRECTED IN FIELD AND AS SPECIFIED. ALL TEMPORARY EQUIPMENT, CONDUITS & CONDUCTORS SHALL BE COMPLETELY REMOVED AT COMPLETION OF PROJECT.
- ALL ELECTRICAL EQUIPMENT, DEVICES, LIGHTING FIXTURES, CONDUIT, AND WIRING SHOWN ON THE ELECTRICAL DRAWINGS IS NEW UNLESS CLEARLY CALLED OUT AS EXISTING. ALL EXISTING ELECTRICAL EQUIPMENT THAT IS CALLED OUT TO BE REUSED SHALL BE INSPECTED IN THE FIELD BY THE ELECTRICIAN AND THE CONSTRUCTION MANAGER TO DETERMINE ITS CONDITION PRIOR TO STARTING ANY WORK. PROVIDE DOCUMENTATION TO OWNER INDICATING CONDITION OF THE EXISTING EQUIPMENT, AND REUSE EXISTING EQUIPMENT ONLY IF ALL PARTIES AGREE THE CONDITION IS ACCEPTABLE. ALL EXISTING EQUIPMENT DETERMINED TO BE UNUSABLE SHALL BE REPLACED WITH LIKE KIND AS DIRECTED BY THE OWNER. ANY OF THE OWNERS EQUIPMENT DETERMINED TO BE REUSED THAT IS DAMAGED BY ANY CONTRACTOR DURING SWITCHOVER SHALL BE REPLACED BY THAT CONTRACTOR. ALL EXISTING EQUIPMENT IS THE PROPERTY OF THE OWNER (NOT THE CONTRACTOR) AND SHALL BE TREATED ACCORDINGLY.
- THE ELECTRICIAN SHALL BE HELD RESPONSIBLE TO ENSURE ALL CONTROLLERS TO BE INSTALLED ARE CAPABLE OF LOCKOUT / TAGOUT PRIOR TO INSTALLATION.
- CONFORM TO THE NEC, OSHA, FIRE MARSHAL, BUILDING DEPARTMENT AND OTHER APPLICABLE CODES AND REGULATIONS. OBTAIN PERMITS, PAY ALL FEES, AND ARRANGE FOR REQUIRED INSPECTIONS.
- ALL LIGHTING AND RECEPTACLE WIRING TO BE #12 XHHW WITH EQUIPMENT GROUND IN 3/4" C UNLESS OTHERWISE NOTED.
- DO NOT MOUNT ANY LIGHT FIXTURE DIRECTLY OVER PIPING OR EQUIPMENT THAT WILL INTERFERE WITH NORMAL LIGHTING DISTRIBUTION.
- SIZE JUNCTION BOXES AS REQUIRED PER NEC. PROVIDE BARRIER TYPE TERMINAL STRIPS, AND ALL WIRING TO BE IN CONDUIT.
- SIZE PULL BOXES AS REQUIRED PER NEC.
- PROVIDE SEPARATE PULL BOXES FOR CONTROL AND POWER CONDUCTORS.
- MOTOR OVERLOAD SETTING SHALL BE FIELD SELECTED PER MOTOR NAME PLATE CURRENT AND INSTALLED ACCORDINGLY.
- MOUNT LOCAL CONTROLS AND SERVICE DISCONNECTS ON WALL NEAREST EQUIPMENT WHERE POSSIBLE. (MAXIMUM 60" ABOVE FINISHED FLOOR OR FINAL GRADE, MAXIMUM LATERAL DISTANCE FROM WALL TO EQUIPMENT - 10 FEET).
- ALL FEEDERS RUN BELOW GRADE SHALL BE RUN IN PVC CONDUIT AT MINIMUM 3'-0" BELOW FINISHED GRADE. TRANSITION TO ABOVE GRADE SHALL BE MADE USING FACTORY PVC COATED RIGID STEEL CONDUIT SWEEPS.

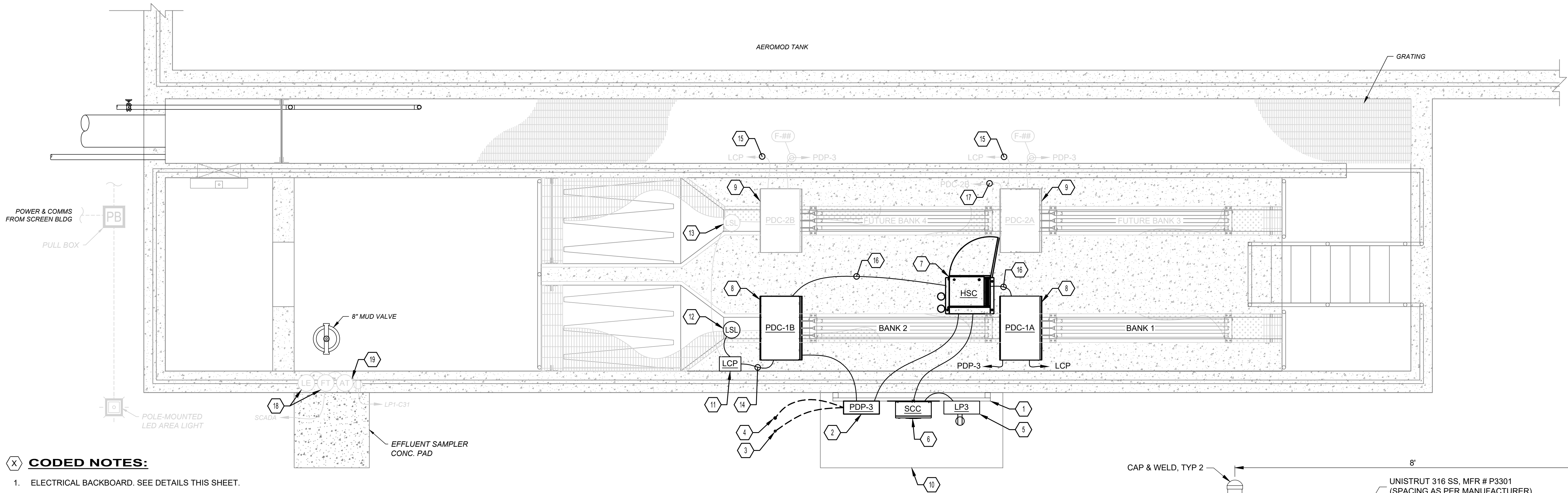
BID SET

verdantas

DATE	REVISION	NO	BIDDING	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
					7/20/2026	AS NOTED			

VILLAGE OF WEST UNION UV DISINFECTION ADDITION	WEST UNION, OHIO
ADAMS COUNTY	ELECTRICAL - E SERIES
ELECTRICAL LEGEND, NOTES & DETAILS	

PROJECT NO.	42899
DISCIPLINE	ELECTRICAL
SHEET NAME	E-01
SHEET	OF
10	12

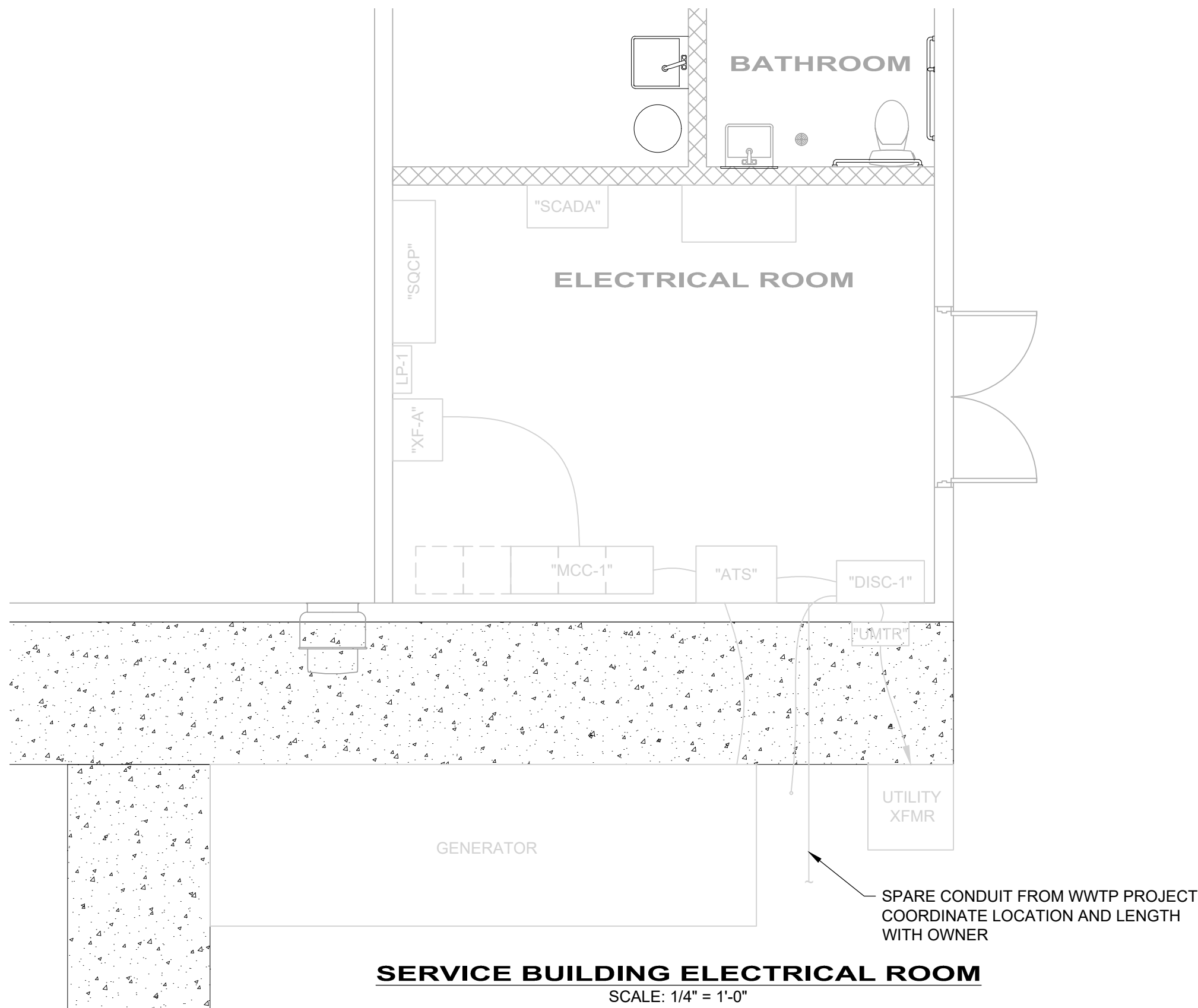


- CODED NOTES:**
- ELECTRICAL BACKBOARD. SEE DETAILS THIS SHEET.
 - UV SYSTEM POWER DISTRIBUTION PANEL "PDP-3", 480/277V, 3 ϕ , 4-W, 100A BUS, 18 kAIC, NEMA 4X, EATON# XLPBDS4323*01330*01220*06315-3M035-1 OR APPROVED EQUAL
 - 5/8" $\varnothing$ X 8" COPPER-CLAD GROUND ROD DRIVEN TO A DEPTH OF 36", MIN. EXOTHERMICALLY WELDED TO #8 BARE COPPER CONDUCTOR AND TERMINATED ON PDP-3 GROUND LUG.
 - #8 BARE COPPER GROUNDING ELECTRODE CONDUCTOR CONNECTED TO PROCESS PIPING VIA LISTED FASTENER AND BONDED TO GROUND BUS IN PDP-3
 - LIGHTING DISTRIBUTION PANEL "LP3", 240/120V, 1 ϕ , 3-W, 100A BUS, 30A MCB, NEMA 4X, WALL-MOUNTED ENCLOSURE, EATON # XLPBAS2108*04120*04115-2M030 OR APPROVED EQUAL
 - UV SYSTEM CONTROL CENTER "SCC", SUPPLIED BY VENDOR, INSTALLED BY CONTRACTOR. SEE Y-SERIES SHEETS FOR CONTROL WIRING DETAILS.
 - UV SYSTEM HYDRAULIC SYSTEM CENTER "HSC". INSTALL PER VENDOR DRAWINGS.
 - UV SYSTEM POWER DISTRIBUTION CENTERS "PDC-1A" & "PDC-1B". INSTALL PER VENDOR DRAWINGS WHILE LEAVING ROOM FOR FUTURE UNITS.
 - FUTURE UV SYSTEM POWER DISTRIBUTION CENTERS "PDC-2A" & "PDC-2B". INSTALL EMPTY CONDUIT FOR FUTURE EQUIPMENT AND CAP IN PLACE.
 - ELECTRICAL BACKBOARD HOUSEKEEPING PAD INSTALLED PER TYPICAL SLAB-ON-GRADE DETAILS. SEE STRUCTURAL SERIES FOR REFERENCE. EXTEND FROM UV CHANNEL WALL TO DIMENSIONS SHOWN WITH 6" DEPTH AND 1", MIN. FROM TOC TO FINISHED GRADE.
 - LEVEL CONTROL PANEL "LCP", SUPPLIED BY VENDOR, INSTALLED BY CONTRACTOR. SECURE TO CONCRETE VIA SS STRUT CHANNEL & ACCESSORIES.
 - UV CHANNEL 1 LOW WATER LEVEL SENSOR "LSL-901", SUPPLIED BY VENDOR. INSTALLED BY CONTRACTOR PER VENDOR & PROCESS DRAWINGS. VENDOR REPRESENTATIVE TO MAKE FINAL ADJUSTMENTS. WIRE TO LCP WITH (1) #14 2-CONDUCTOR CABLE WITH CORROSION-PROOF JACKET. UTILIZE CABLE GLANDS TO PENETRATE ENCLOSURES.
 - FUTURE UV CHANNEL 2 LOW WATER LEVEL SENSOR "LSL-902", INSTALLED THE SAME WAY AS CODED NOTE #12.
 - LOW WATER LEVEL INTERLOCK TO UV SYSTEM CHANNEL 1 PDC'S, 24VDC, (1) #14 4-CONDUCTOR CABLE WITH CORROSION-PROOF JACKET. UTILIZE CABLE GLANDS TO PENETRATE ENCLOSURES.
 - FUTURE LOW WATER LEVEL INTERLOCK TO UV SYSTEM CHANNEL 2 PDC'S, INSTALLED THE SAME WAY AS CODED NOTE #14.
 - MODBUS RS-485 NETWORK CABLE, (1) 2-CSC IN 3/4" C. DAISY CHAIN CONNECTIONS TO ENCLOSURES AS SHOWN. INSTALL TERMINATING RESISTOR AT LAST PDC.
 - FUTURE MODBUS RS-485 NETWORK CABLE EXTENSION, (1) 2-CSC IN 3/4" C. EXTEND NETWORK CHAIN TO NEW ENCLOSURES AS SHOWN. MOVE TERMINATING RESISTOR TO LAST PDC IN NEW CHAIN.
 - EXISTING PLANT EFFLUENT LEVEL DETECTOR AND FLOW TRANSMITTER. FACTORY CABLE RUN IN 3/4" C BETWEEN SENSOR AND TRANSMITTER. 2-C SHLD CABLE RUN IN 3/4" C BACK TO SCADA PLC IN SERVICE BUILDING ELECTRICAL ROOM.
 - EXISTING ALL-WEATHER EFFLUENT SAMPLER, PLUGGED INTO DEDICATED RECEPTACLE.

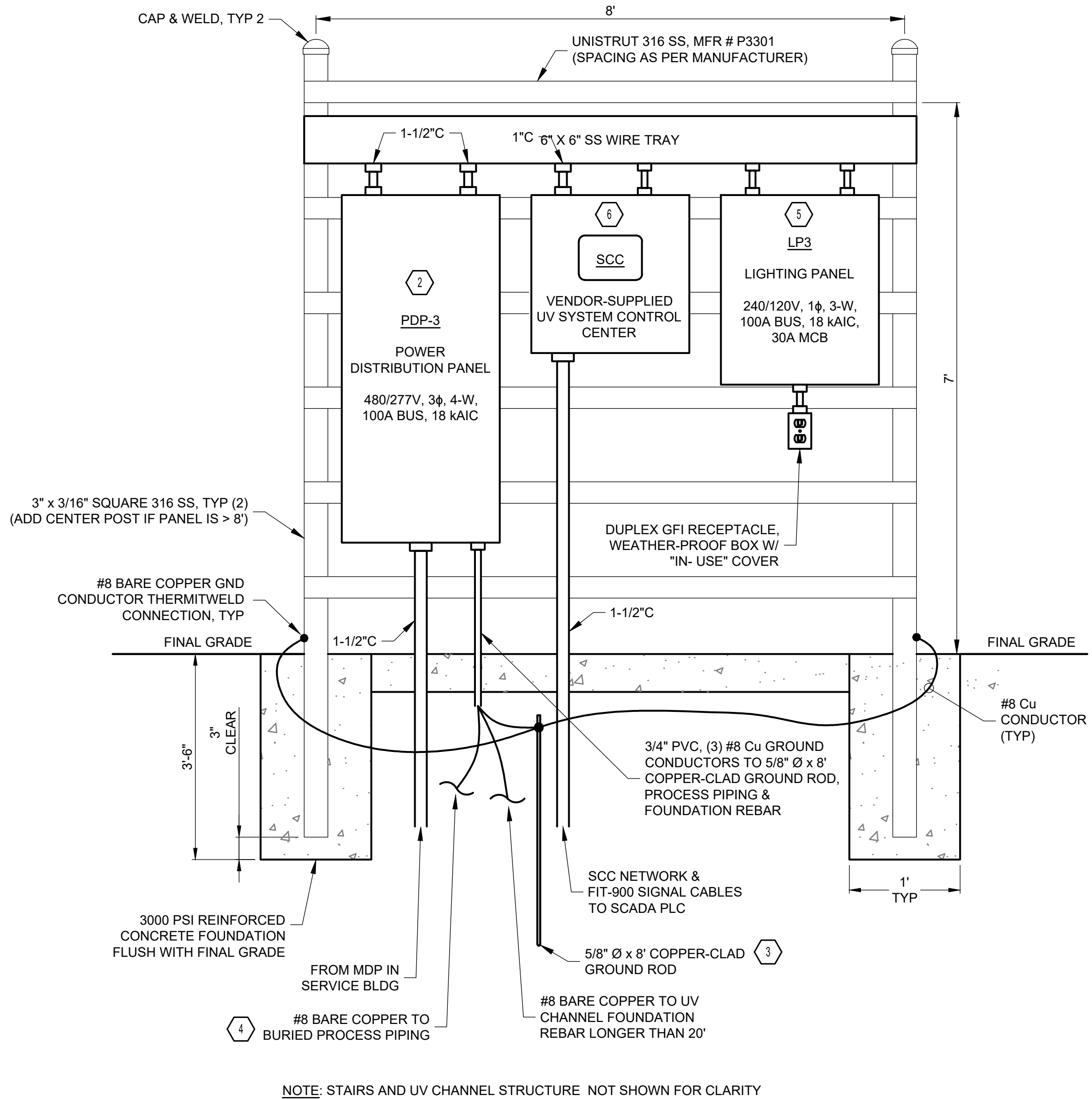
UV DISINFECTION CHANNEL - POWER & INSTRUMENTATION PLAN
SCALE: 3/8" = 1'-0"

GENERAL NOTES:

- PROVIDE GROUNDING ELECTRODE SYSTEM PER NEC. PROVIDE APPROVED CONDUCTORS AND BONDING FROM GROUND BUS TO THE XF-3 SECONDARY.
- ALL CIRCUIT WIRING TO BE (2) #12 + (1) #12 GND IN 3/4" C, UNO.



SERVICE BUILDING ELECTRICAL ROOM
SCALE: 1/4" = 1'-0"



NOTE: STAIRS AND UV CHANNEL STRUCTURE NOT SHOWN FOR CLARITY

UV SYSTEM ELECTRICAL BACKBOARD DETAILS
NOT TO SCALE

BID SET

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ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
BIDDING	7/20/2026	AS NOTED	---	---	---
NO	REVISION	DATE			

**VILLAGE OF WEST UNION
UV DISINFECTION ADDITION**

ADAMS COUNTY
WEST UNION, OHIO
ELECTRICAL - E SERIES
UV DISINFECTION - ELECTRICAL PLAN

PROJECT NO.	42899
DISCIPLINE	---
SHEET NAME	E-02
SHEET	OF
11	12



PROJECT NO.		42899	
DISCIPLINE		ELECTRICAL	
SHEET NAME		E-03	
SHEET	OF	12	12