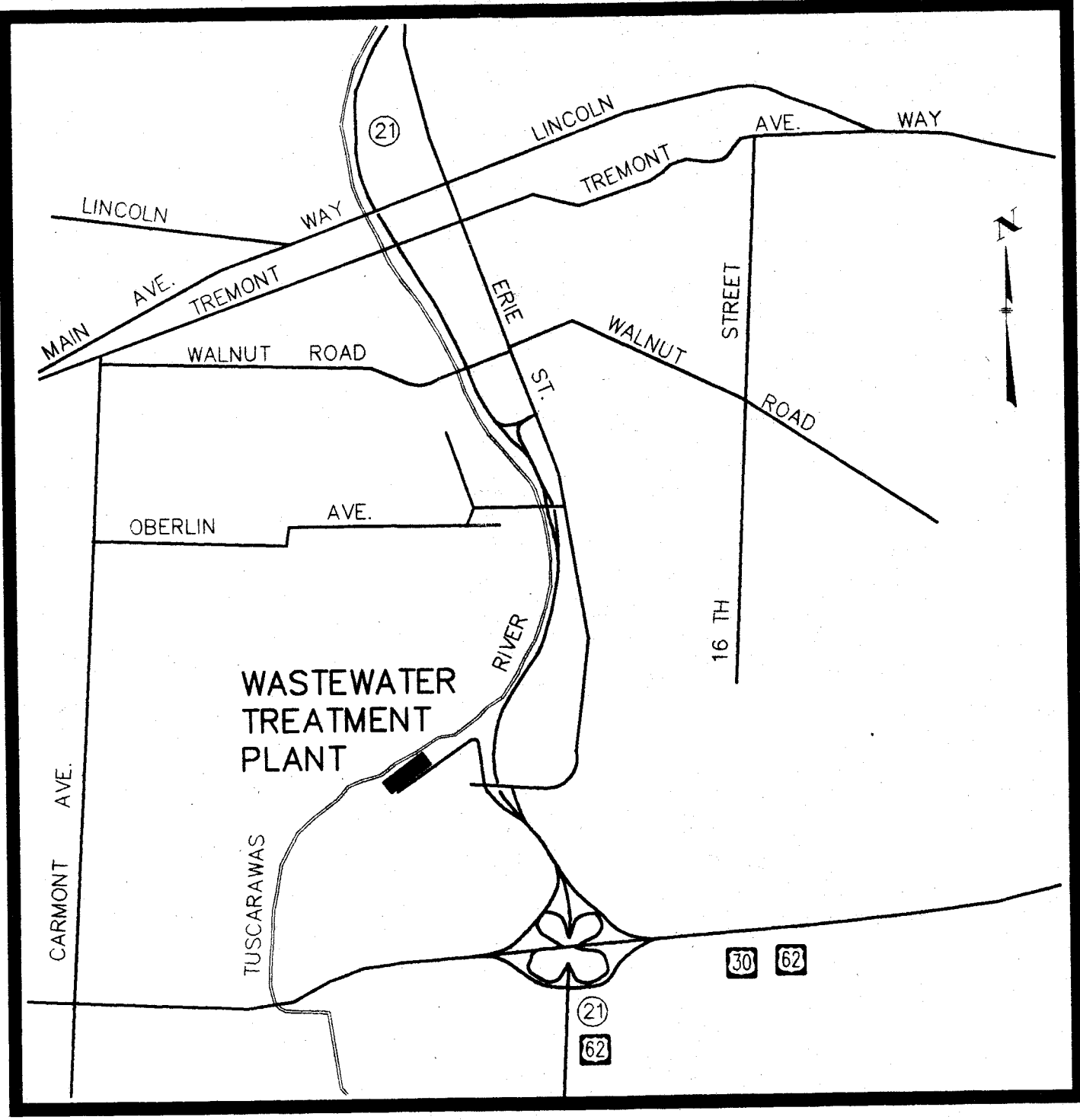


CITY OF MASSILLON, OHIO

PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS

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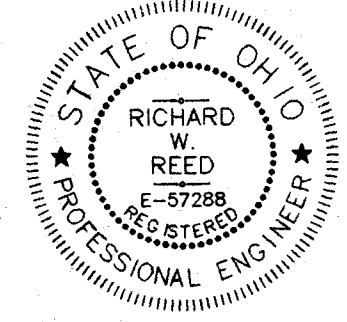
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LOCATION MAP
NOT TO SCALE

PLANS PREPARED BY
CTI ENVIRONMENTAL, INC.
ENGINEERS IN WATER AND EARTH SCIENCES
UNIONTOWN, OHIO

RICHARD W. REED REG. ENGINEER No. E-57288

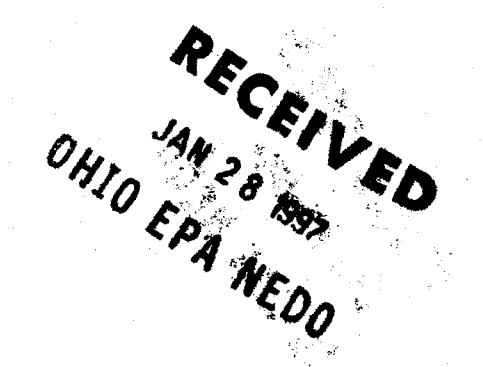
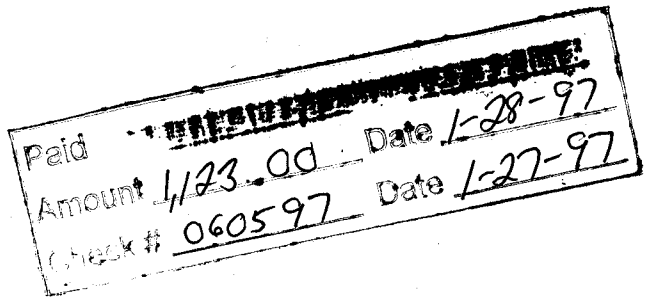


CITY OFFICIALS

FRANCIS H. CICCHINELLI, JR.	MAYOR
ALAN W. CLIMER	SAFETY/SERVICE DIRECTOR
DOLORES B. LOOMIS	AUDITOR
SANDY AEGERTER	TREASURER
JOHN D. FERRERO, JR.	LAW DIRECTOR
JAMES J. BENEKOS, P.E., P.S.	CITY ENGINEER
CHARLES GOODWILL	ACTING MANAGER WASTEWATER TREATMENT DEPARTMENT

CITY COUNCIL

DAVID A. SMITH	PRESIDENT
JAMES H. ROHR	MEMBER
GREGORY E. BROWNING	MEMBER
DALE A. WALTERHOUSE	MEMBER
WILLIAM POOLE	MEMBER
GLEN GAMBER	MEMBER
PAUL F. LAMBERT	MEMBER
BILL H. HAMIT	MEMBER
TIM BRYAN	MEMBER
NANCY J. HALTER	MEMBER
SHARON K. HOWELL	CLERK



ABBREVIATIONS

A	ANCHOR BOLT ADJUSTABLE A.F.F. ABOVE FINISHED FLOOR ALUM ALUMINUM ASPH ASPHALT AUTO AUTOMATIC AVG AVERAGE	G	GAUGE OR GAGE GAL GALLON GALV GALVANIZED GEN GENERAL GRD GRADE OR GRADING	Q	QUAN QUANTITY
B	BEAM OR BOTTOM BASE LINE BLDG BUILDING BM BENCH MARK BOB BOTTOM OF BANK BOT BOTTOM BRG BEARING	H	HB HOSE BIBB HC HOLLOW CORE HK HOOK(S) HM HOLLOW METAL HORIZ HORIZONTAL HP HORSEPOWER HS HIGH SERVICE HT HEIGHT HU HEATING UNIT HVAC HEATING/VENTILATION HWL HIGH WATER LEVEL	R	RISE RAD RADIUS RA RETURN AIR RB ROOF BEAM RCP REINFORCED CONCRETE PIPE RD ROOF DRAIN REINF REINFORCING REQ'D REQUIRED RFBP REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY
C	CATCH BASIN CU FT CUBIC FEET CFM CUBIC FEET PER MINUTE CI CAST IRON CIP CAST IRON PIPE CL CENTERLINE C/C CENTERLINE TO CENTERLINE CL CLEAR OR GLASS CLG CEILING CMP CORRUGATED METAL PIPE CMU CONCRETE MASONRY UNIT CO CLEAN OUT COL COLUMN CONC CONCRETE CPR COPPER CJ CONSTRUCTION JOINT CONTR JT CONSTRUCTION JOINT CONST CONSTRUCTION CONT CONTINUOUS CU YD CUBIC YARD	I	ID INSIDE DIAMETER IF INSIDE FACE IJ ISOLATION JOINT IN INCHES INFL INFLUENT INT INTERIOR INV INVERT IP IRON PIN JT JOINT	S	SLAB, SOUTH SUPPLY AIR SANITARY SANITARY SEWER SCHEDULE SECTION SF SQUARE FEET SHT SHEET SJT SAW JOINT SP SEWER PIPE SPC SPACES SPEC SPECIFICATION SPG SPACING SQ SQUARE SS STAINLESS STEEL ST STRAIGHT STA STATION STD STANDARD STIR STIRRUPS STL STEEL STR STRUCTURAL STS STORM SEWER SY SQUARE YARD SYM SYMMETRICAL SW SWITCH
D	DEMO DEMOLITION DIA DIAMETER DIM DIMENSION DIP DUCTILE IRON PIPE DL DEAD LOAD DO DOOR OPENING, DISSOLVED OXYGEN DS DOWN SPOUT OR DISCONNECT SWITCH DWG DRAWING	L	LB POUND LG LENGTH LL LIVE LOAD LLV LONG LEG VERTICAL LS LOW SERVICE LT LEFT LTG LIGHTING LWL LOW WATER LEVEL	T	TOP OR TREAD TOB TOP OF BANK T&B TOP AND BOTTOM TC TOP OF COVER T&G TOP OF COVER TP TONGUE AND GROOVE TP TURNING POINT OR TANGENT POINT TYP TYPICAL
E	EAST EA EACH ED EQUIPMENT DRAIN E.F. EACH FACE EFFL EFFLUENT ELEC ELECTRICAL EL, ELEV ELEVATION EQPT EQUIPMENT E.W. EACH WAY EWC ELECTRIC WATER COOLER EXP EXHAUST FAN EXIST EXISTING EXL EXHAUST LOUVER E J EXPANSION JOINT EXT EXTERIOR	M	MAX MAXIMUM MCC MOTOR CONTROL CENTER MFR MANUFACTURER MGD MILLION GALLONS PER DAY MH MANHOLE MISC MISCELLANEOUS MIN MINIMUM, MINUTE MJ MECHANICAL JOINT MK MARK MOP MASONRY OPENING OR MOTOR OPERATED MRP METAL REINFORCED PLASTIC PIPE MS MOTOR STARTER	V	VACUUM VAR VARIES VCP VALVE CONTROL PANEL VERT VERTICAL
F	FRESH AIR F.A. FRESH AIR FAN FAL FIXED AIR LOUVER FB FLOOR BOX OR FOUNDATION BEAM FDN FOUNDATION FE FIRE EXTINGUISHER FF FAR FACE FH FIRE HYDRANT FIN FINISHED FLG FLANGE FLR FLOOR FD FLOOR DRAIN FM FORCE MAIN FRP FIBERGLASS REINFORCED FT FEET OR FOOT FTG FOOTING	N	NORTH NC NORMALLY CLOSED NF NEAR FACE NO NORMALLY OPEN N.O. NUMBER NS NEAR SIDE NWL NORMAL WATER LEVEL	W	WATER OR WIDE W WITH W/W WITH W/O WITHOUT WC WATER CLOSET WH WATER HEATER OR WALL HYDRANT WL WATER LEVEL OR WATER LINE WWF WELDED WIRE FABRIC
P	PCF POUNDS PER CUBIC FOOT PCP PUMP CONTROL PANEL PE POLYETHYLENE OR PLAIN END PEJM PREMOLDED EXP. JT. MATERIAL PL PLATE P PROPERTY LINE PANEL POL POLISHED PP POLYPROPYLENE PRCP PRESTRESSED REINFORCED CONCRETE PIPE PSF POUNDS PER SQUARE FOOT PSI POUNDS PER SQUARE INCH PVC POLYVINYL CHLORIDE PVT PAVEMENT	O	OC ON CENTER OD OUTSIDE DIAMETER OF OUTSIDE FACE OPG OPENING OPP OPPOSITE OZ OUNCE	Y	YARD HYDRANT

SCHEMATIC PIPING SYMBOLS

	AIR RELEASE VALVE		MOTOR OPERATOR
	ALTITUDE VALVE		SOLENOID OPERATOR
	BACKPRESSURE VALVE		WRENCH OPERATOR
	BALL VALVE		FLEXIBLE CONNECTOR
	BUTTERFLY VALVE		PRESSURE GAUGE
	CHECK VALVE		SLEEVE
	DIAPHRAGM VALVE		SOLENOID VALVE
	GATE VALVE		THERMOMETER
	GLOBE VALVE		THERMOSAT
	GLOBE VALVE (ANGLE)		TRAP
	HOSE BIBB		UNION
	NEEDLE VALVE		VACUUM BREAKER
	PLUG VALVE		WYE
	PRESSURE REDUCING VALVE		PRESSURE RELIEF VALVE
	3-WAY VALVE		REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY
	4-WAY VALVE		REDUCER/INCRERASER
	CHAIN WHEEL OPERATOR		METER
	FLOAT OPERATOR		FLOW
	HANDWHEEL OPERATOR		FLOW
	HYDRAULIC OPERATOR		UP
	LEVER OPERATOR		DOWN
	PNEUMATIC OPERATOR		

SITE PLAN SYMBOLS

	TEST BORING NUMBER		FIRE HYDRANT
	EXISTING FENCE		CLEANOUT, FLOOR DRAIN
	PROPOSED FENCE		IRON PIN SET, IRON PIN FOUND
	EXISTING GUARDRAIL, PROPOSED GUARDRAIL		TREE, SHRUB
	PROPERTY LINE		BRUSH, EVERGREEN
	CENTERLINE LINE		POWER POLE, LIGHT POLE
	BASELINE		TELEPHONE POLE, GUYED WIRE
	RIGHT OF WAY LINE		POWER AND LIGHT POLE
	PROPOSED CONTOUR		POWER AND TELEPHONE POLE
	EXISTING CONTOUR		TELEPHONE, POWER, CABLE AND LIGHT POLE
	NEW GRADE SPOT ELEVATION		
	EXISTING GRADE SPOT ELEVATION		
	EDGE OF WATER		
	DRAINAGE FLOW		
	EXISTING CATCH BASIN, MANHOLE		
	PROPOSED CATCH BASIN, MANHOLE		
	ADJUST TO GRADE CATCH BASIN, MANHOLE		
	GAS, WATER VALVE BOX		

STRUCTURAL/ARCHITECTURAL LEGEND

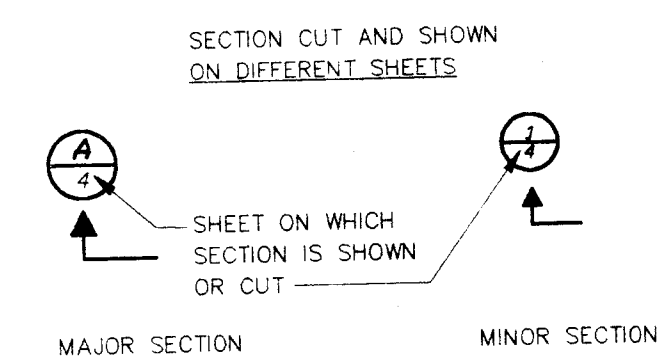
	PROPOSED CONCRETE		WOOD
	EXISTING CONCRETE		STEEL
	CLASS 'B' CONC.		ALUMINUM
	CONCRETE BLOCK		GRAVEL OR COMPACTED FILL
	FACE BLOCK OR BRICK		EARTH
	GLAZED TILE		INSULATION
	DEMOLITION		DEMOLITION

TWO LINE PIPING SYMBOLS

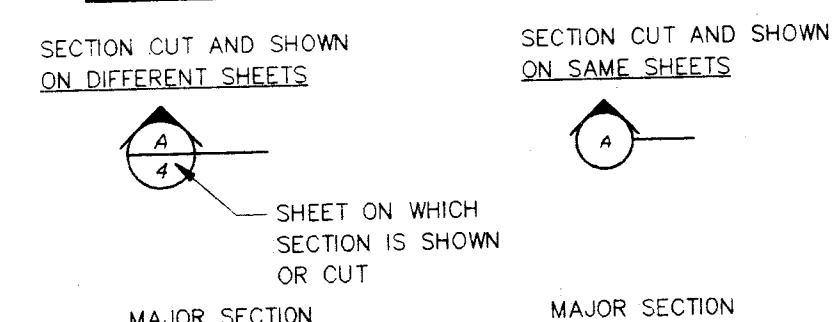
	FLANGE JOINT		WALL SLEEVE
	MECHANICAL JOINT		FLANGE (TAPPED FOR STUDS) PLAIN END
	BELL & SPIGOT JOINT		MECHANICAL JOINT (TAPPED FOR STUDS)
	PVC JOINT		FLANGE-FLANGE (TAPPED FOR STUDS)
	SLEEVE COUPLING		BELL & SPIGOT JOINT (TAPPED FOR STUDS)
	GATE VALVE		
	CHECK VALVE		
	BUTTERFLY VALVE		
	PLUG VALVE		
	CONCENTRIC REDUCER		
	ECCENTRIC REDUCER		



SECTION DESIGNATIONS

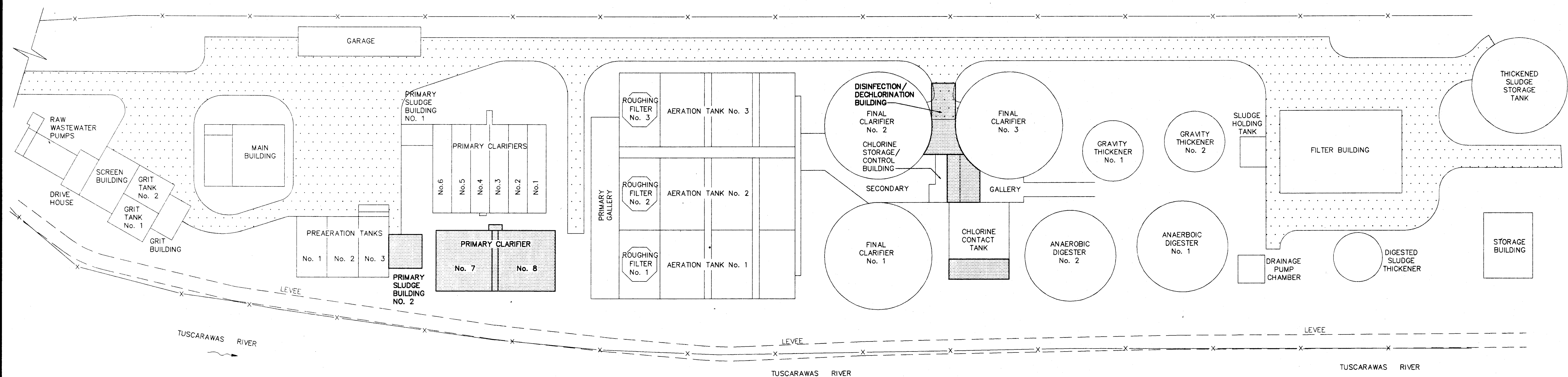


SECTION DESIGNATIONS



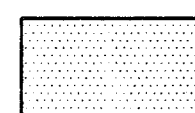
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NO.	DESCRIPTIONS	DATE	BY	APP'D	R.W.R.		DATE 01/20/97
					DRAWN BY A.J.P.		SCALE AS NOTED
					CHECKED BY R.W.R.		SHEET 1A of 2
					APPROVED BY W.A.D.		ABRESYMB.DWG

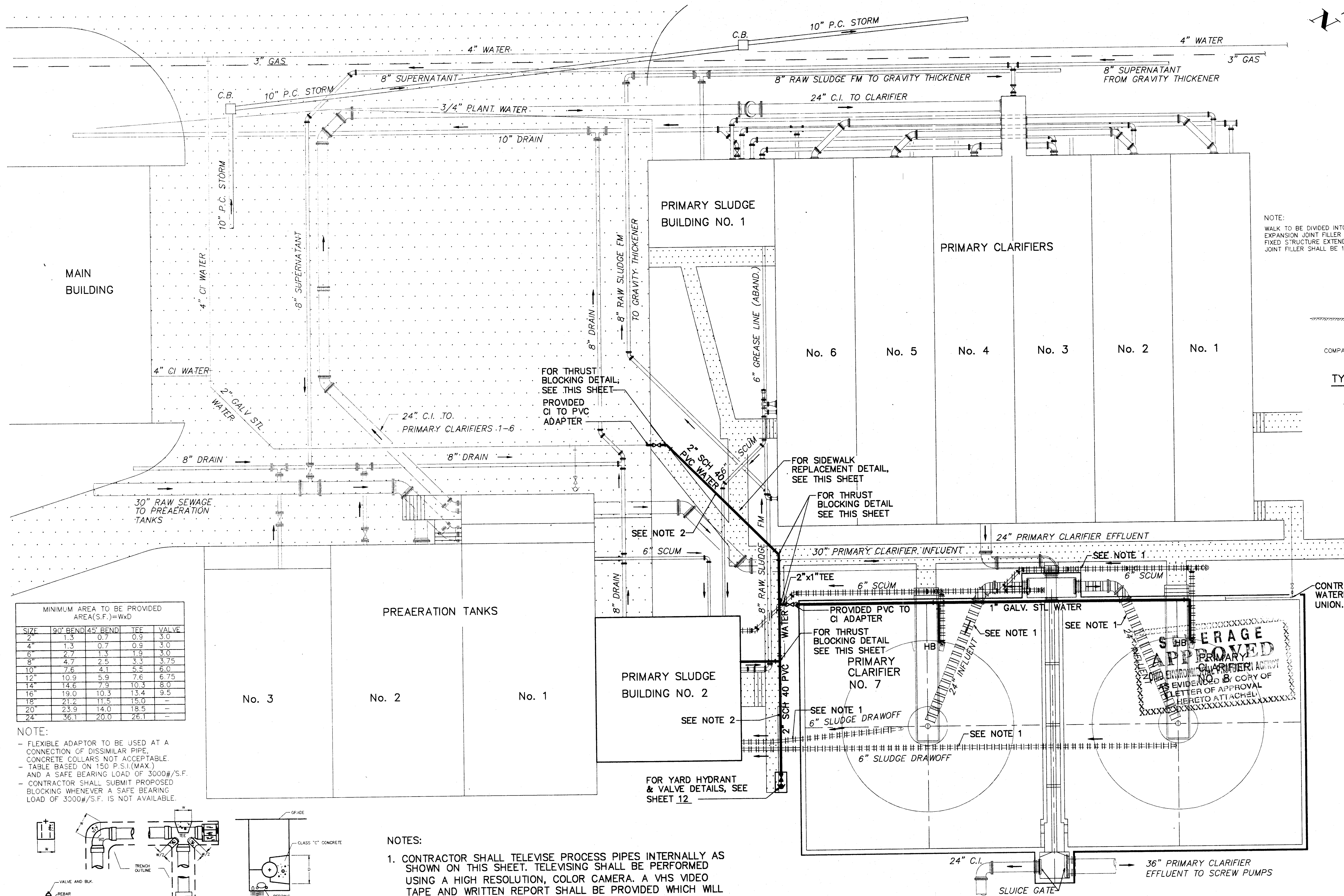
CTI ENVIRONMENTAL, INC.
ENGINEERS IN WATER AND EARTH SCIENCES
UNIONTOWN, OHIO



**SEWERAGE
APPROVED**
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED

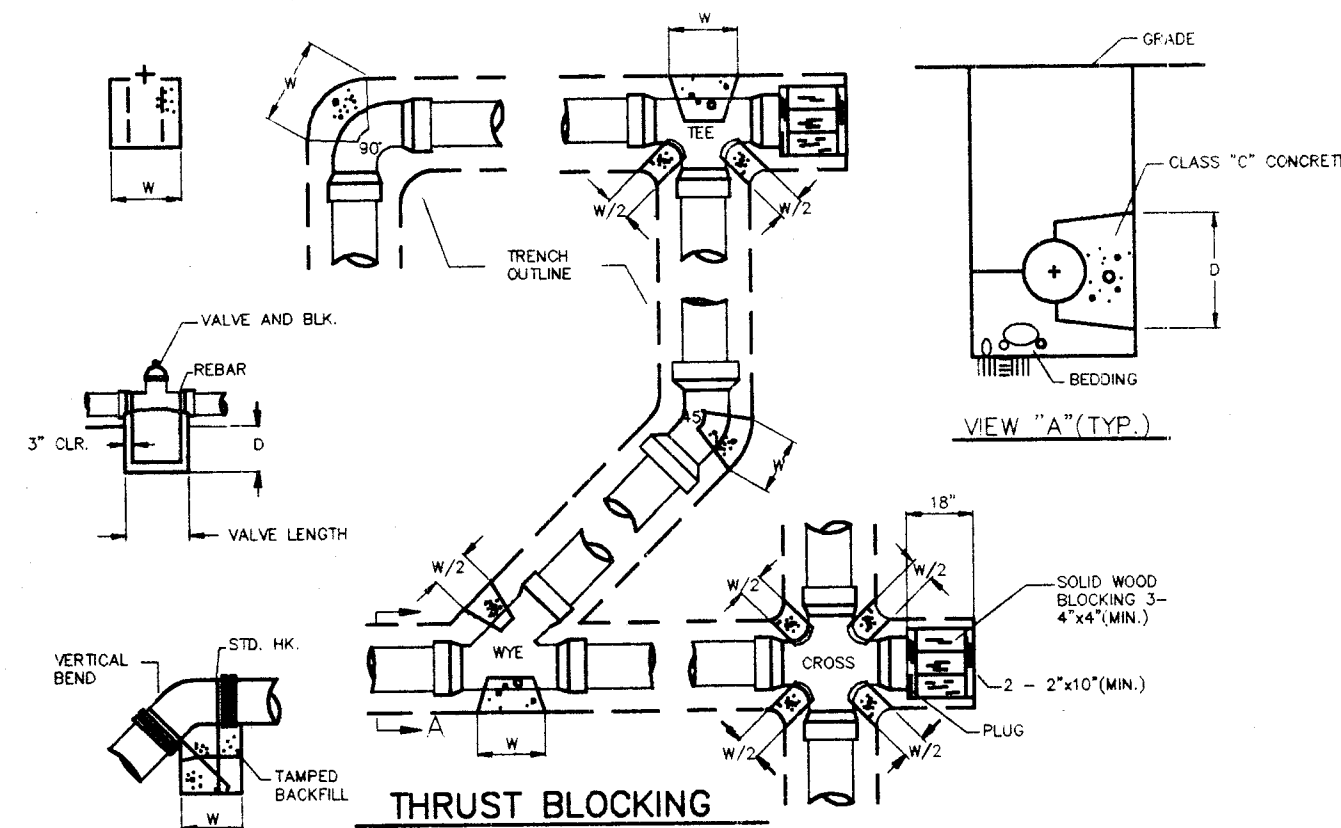
AREA OF WORK

6024 SITE DWG



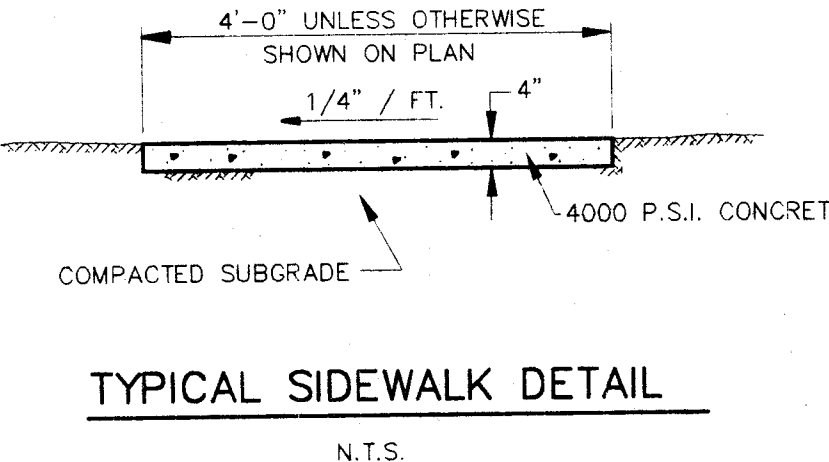
SIZE	90° BEND	45° BEND	TEE	VALVE
2"	1.3	0.7	0.9	3.0
4"	1.3	0.7	0.9	3.0
6"	2.7	1.3	1.9	3.0
8"	4.7	2.5	3.3	3.75
10"	7.6	4.1	5.5	6.0
12"	10.9	5.9	7.6	6.75
14"	14.6	7.9	10.3	8.0
16"	19.0	10.3	13.4	9.5
18"	21.2	11.5	15.0	—
20"	23.9	14.0	18.5	—
24"	36.1	20.0	26.1	—

NOTE:
 - FLEXIBLE ADAPTOR TO BE USED AT A CONNECTION OF DISSIMILAR PIPE. CONCRETE COLLARS NOT ACCEPTABLE.
 - TABLE BASED ON 150 P.S.I.(MAX.) AND A SAFE BEARING LOAD OF 3000#/S.F.
 - CONTRACTOR SHALL SUBMIT PROPOSED BLOCKING WHENEVER A SAFE BEARING LOAD OF 3000#/S.F. IS NOT AVAILABLE.



- NOTES:
- CONTRACTOR SHALL TELEVIEW PROCESS PIPES INTERNALLY AS SHOWN ON THIS SHEET. TELEVIEWING SHALL BE PERFORMED USING A HIGH RESOLUTION, COLOR CAMERA. A VHS VIDEO TAPE AND WRITTEN REPORT SHALL BE PROVIDED WHICH WILL DOCUMENT THE CONDITION OF EACH PIPE. THE INSPECTION VIDEO TAPE AND WRITTEN REPORT SHALL RECORD AND IDENTIFY THE LOCATION OF ALL PIPE ANOMALIES TO WITHIN ±0.1 FOOT.
 - CONTRACTOR TO REPLACE EXISTING 2" GALV. STL. WATER LINE, INCLUDING FITTINGS WITH 2" SCH 40 PVC PIPE. REPLACE ALL VALVES, YARD HYDRANTS AND ACCESSORIES. WATERLINE TO BE REPLACED THROUGH PRIMARY SLUDGE PUMP BUILDING NO. 2 WALL AND INSIDE THE BUILDING. FOR SCHEMATIC INSIDE BUILDING, SEE SHEET NO. 12.

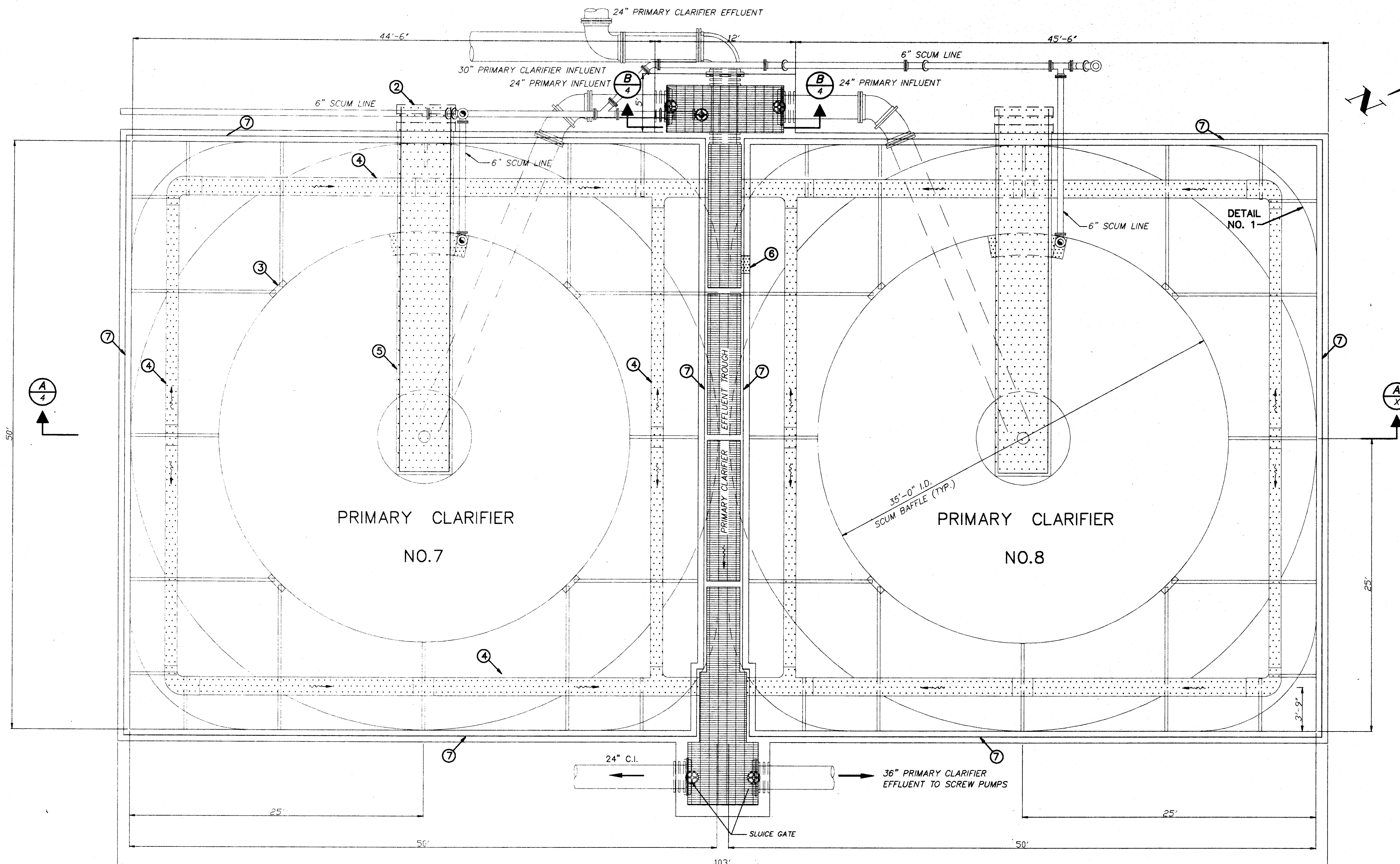
NOTE:
 WALK TO BE DIVIDED INTO EQUALLY SPACED BLOCKS AT APPROXIMATELY 5' INTERVALS. EXPANSION JOINT FILLER 1" THICK SHALL BE INSTALLED BETWEEN WALK AND ANY FIXED STRUCTURE EXTENDING FOR THE FULL DEPTH OF THE SIDEWALK. THE EXPANSION JOINT FILLER SHALL BE 1" THICK WHERE WALK IS INSTALLED AGAINST BACK OF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



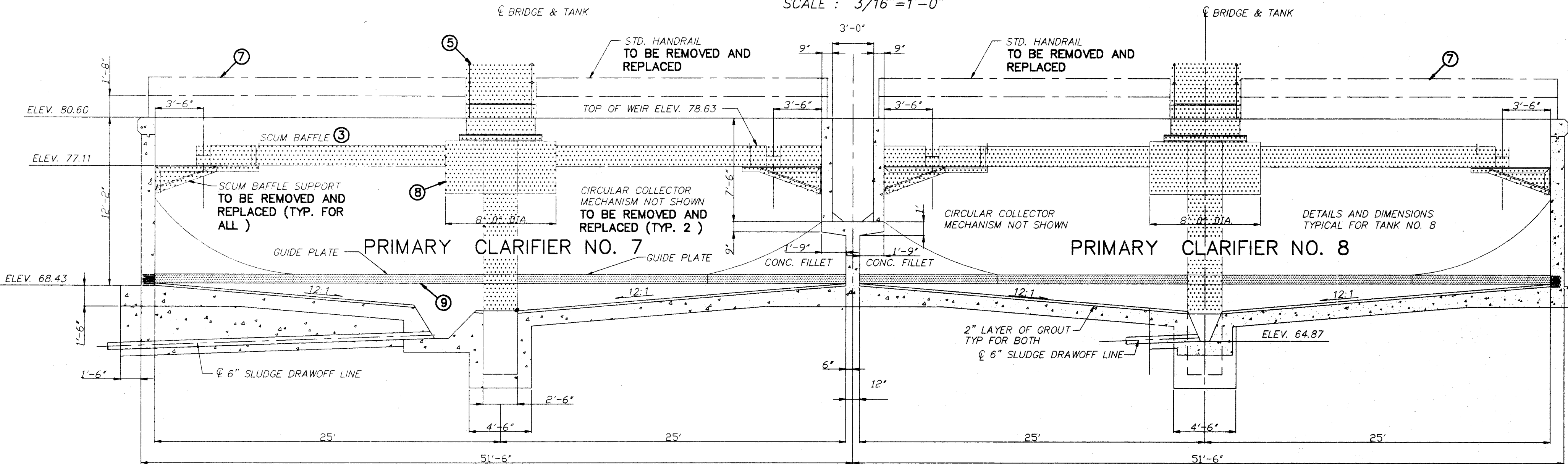
- LEGEND
- HB HOSE BIBB
 - NO. NUMBER
 - CI CAST IRON
 - CB CATCH BASIN
 - FM FORCE MAIN
 - GALV GALVANIZED
 - PC PLASTIC CORRUGATED
 - PVC POLYVINYL CHLORIDE
 - SCH SCHEDULE
 - PIPE TO BE TELEVIEWED

REVISIONS					DESIGNED BY	ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO	JOB NO.
NO.	DESCRIPTIONS	DATE	BY	APP'D	R.W.R.		E6024
					DRAWN BY		DATE
					A.J.P. <td>01/10/97</td>		01/10/97
					CHECKED BY	SCALE	
					R.W.R. <td>1"=10'</td>	1"=10'	
					APPROVED BY	SHEET	
					W.A.D. <td>3 of 25</td>	3 of 25	

CITY OF MASSILLON, OHIO
PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS
PARTIAL YARD PIPING
SLUDGE PUMP BUILDING AND PRIMARY CLARIFIERS

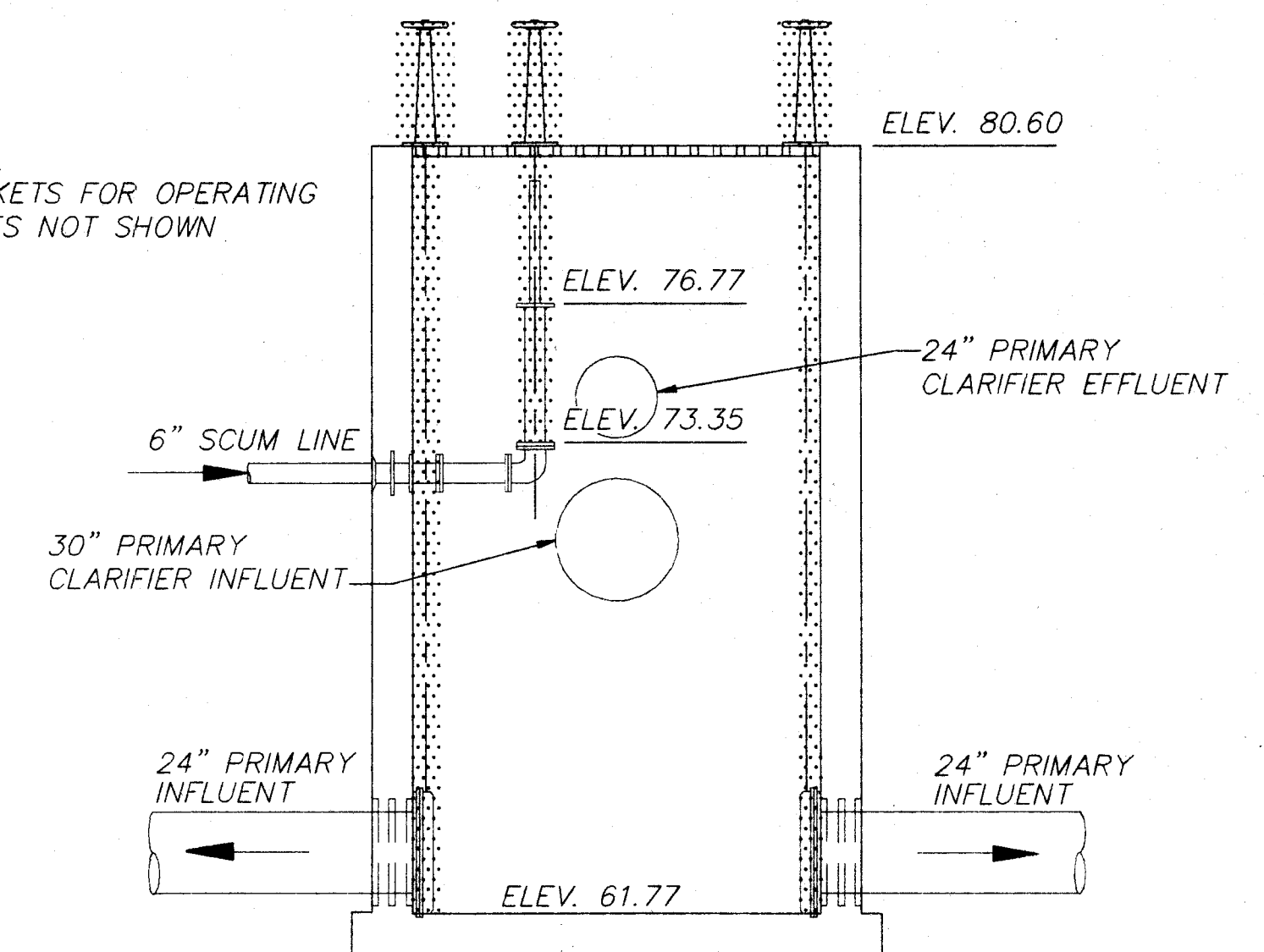


PLAN
SCALE: 3/16"=1'-0"

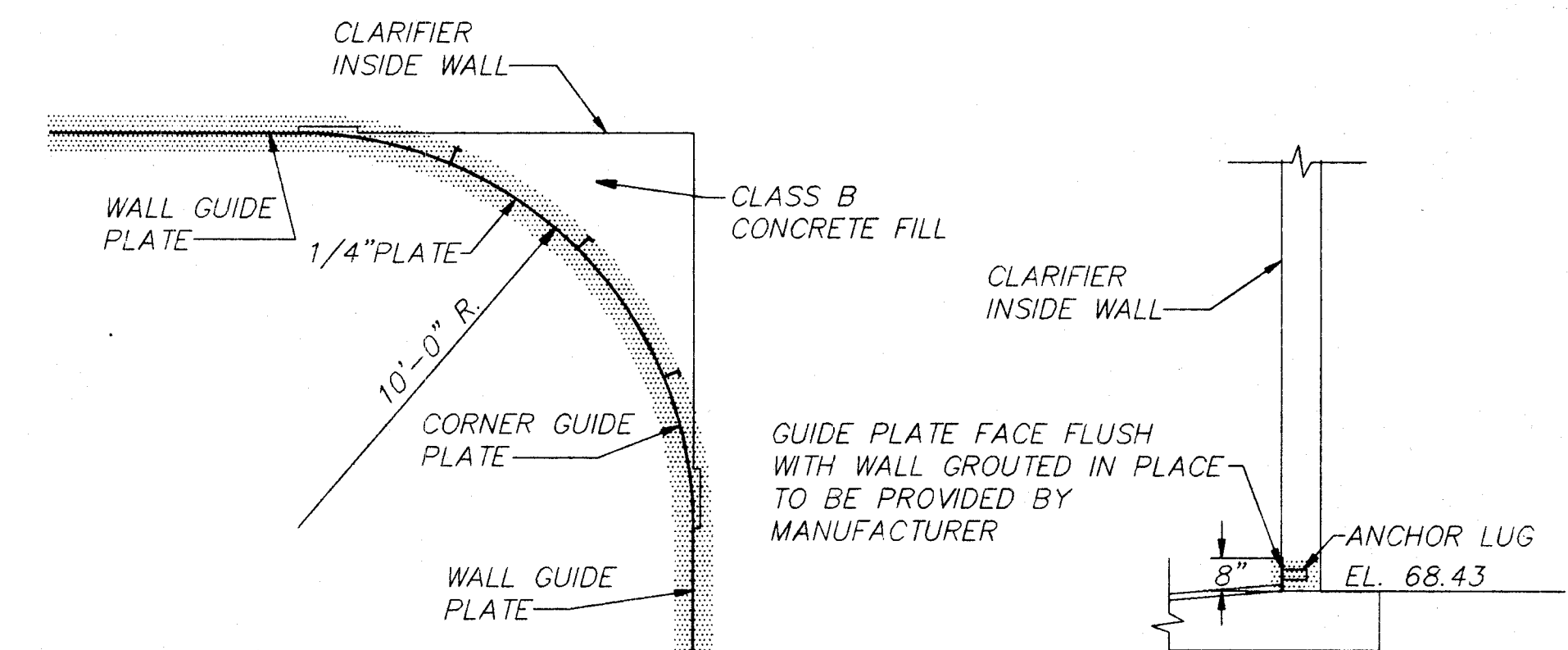


SECTION
SCALE: 3/16"=1'-0"

NOTE:
BRACKETS FOR OPERATING
VALVES NOT SHOWN
DEMO



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



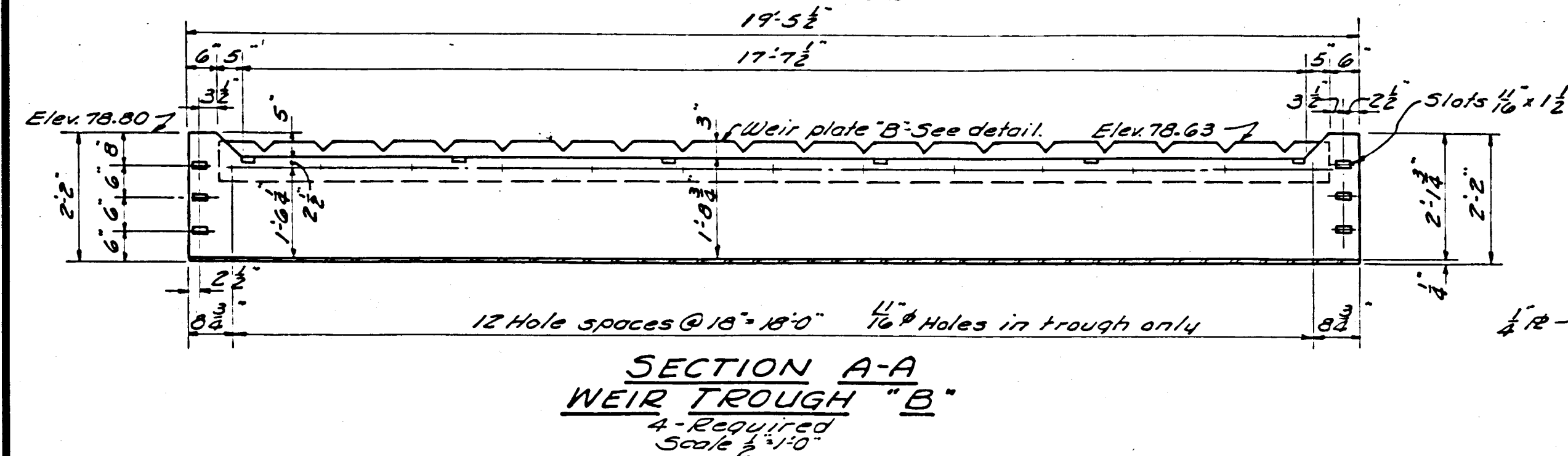
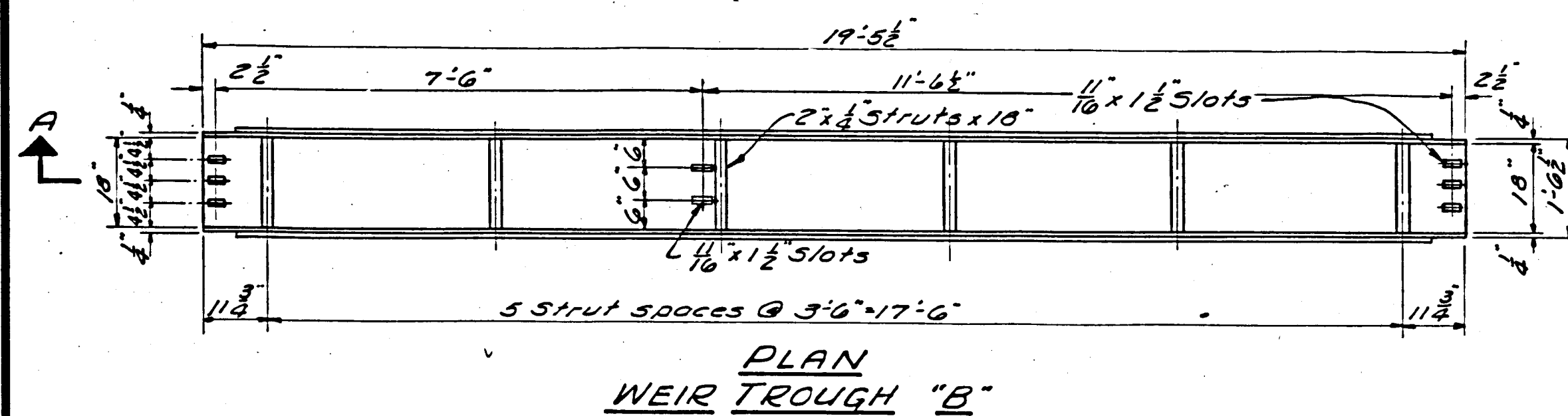
DETAIL NO. 1
TYP. FOR ALL CORNERS - BOTH TANKS
SCALE: NONE
DEMO AND REPLACE

NOTES:

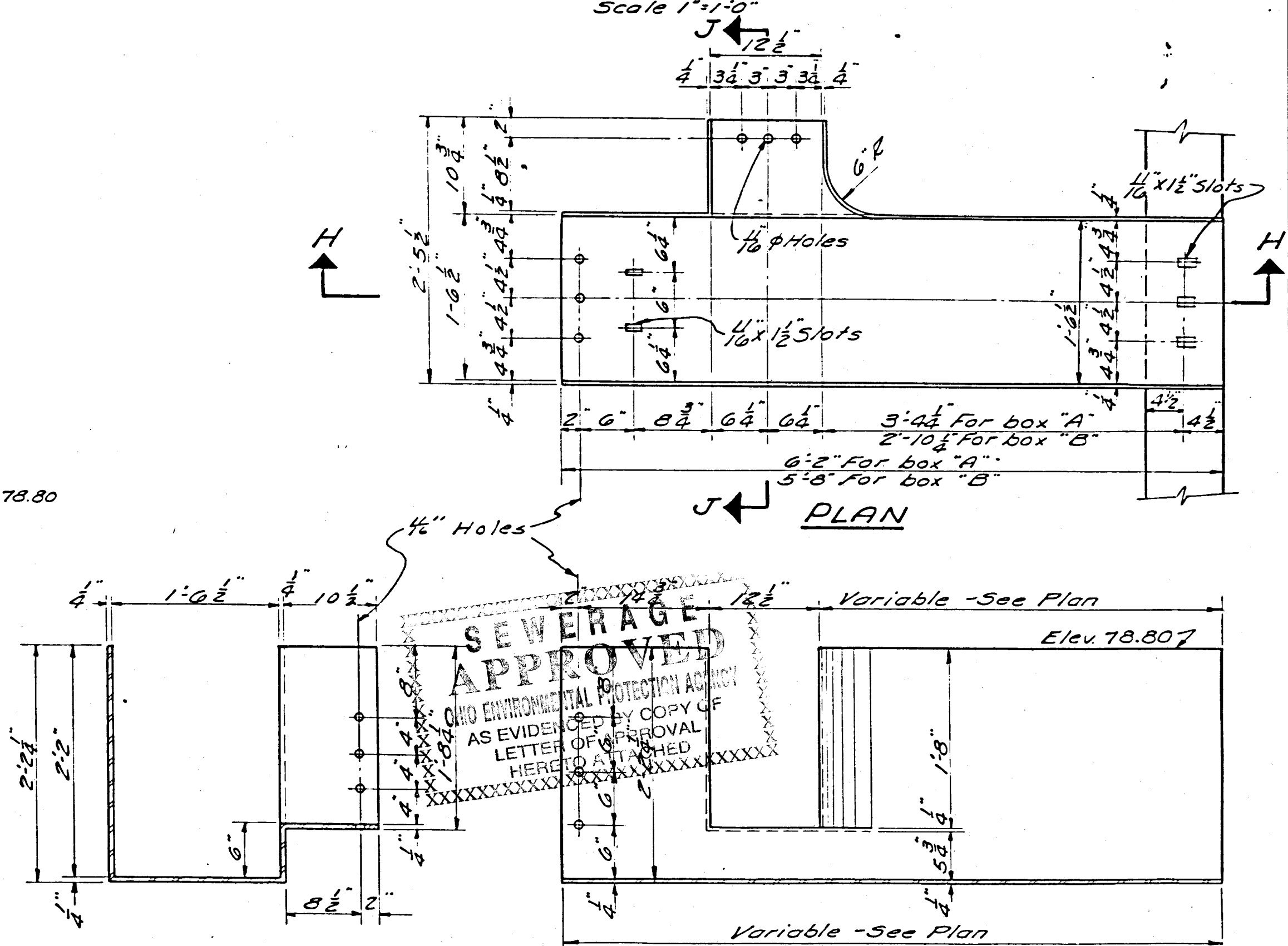
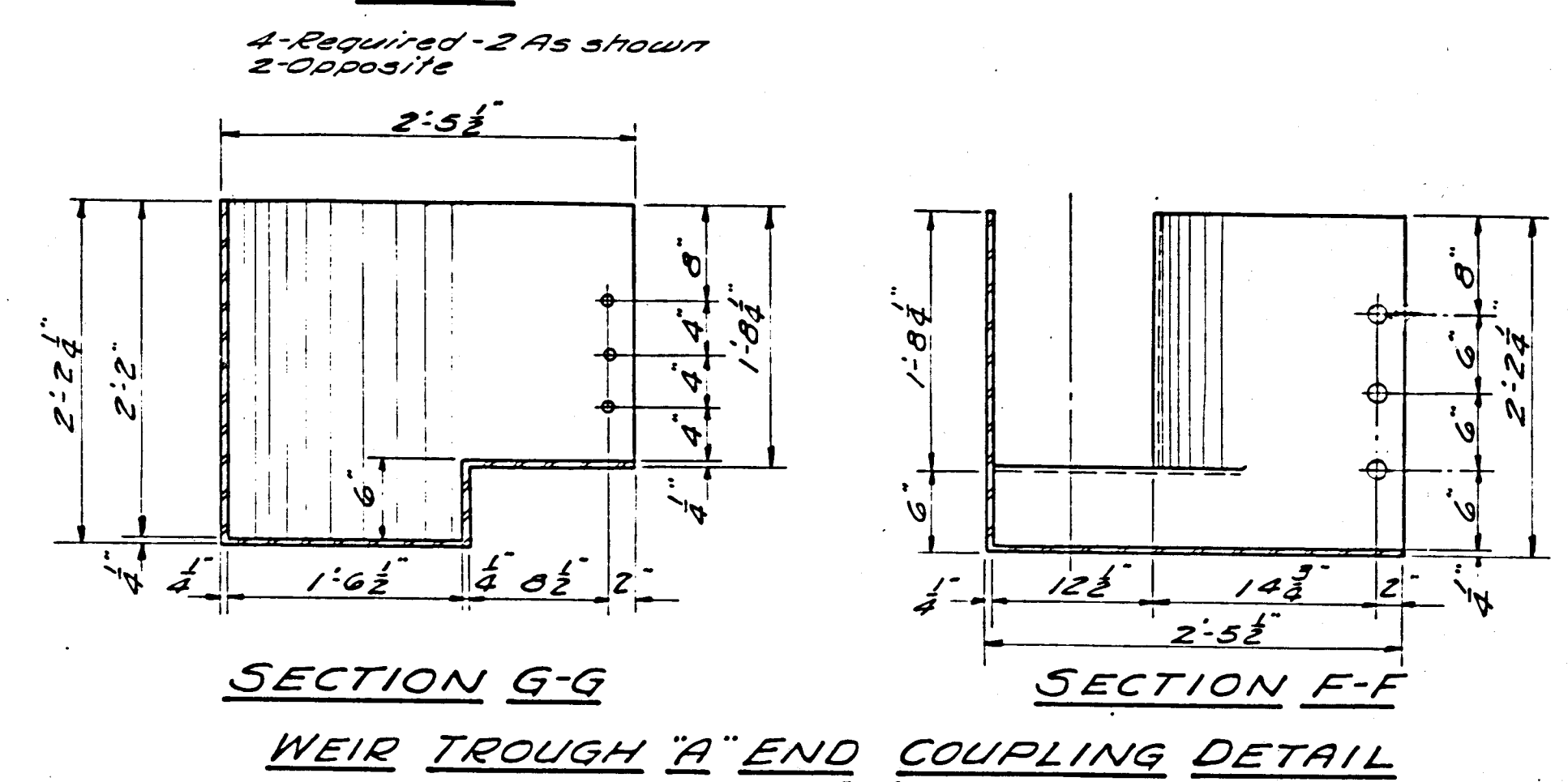
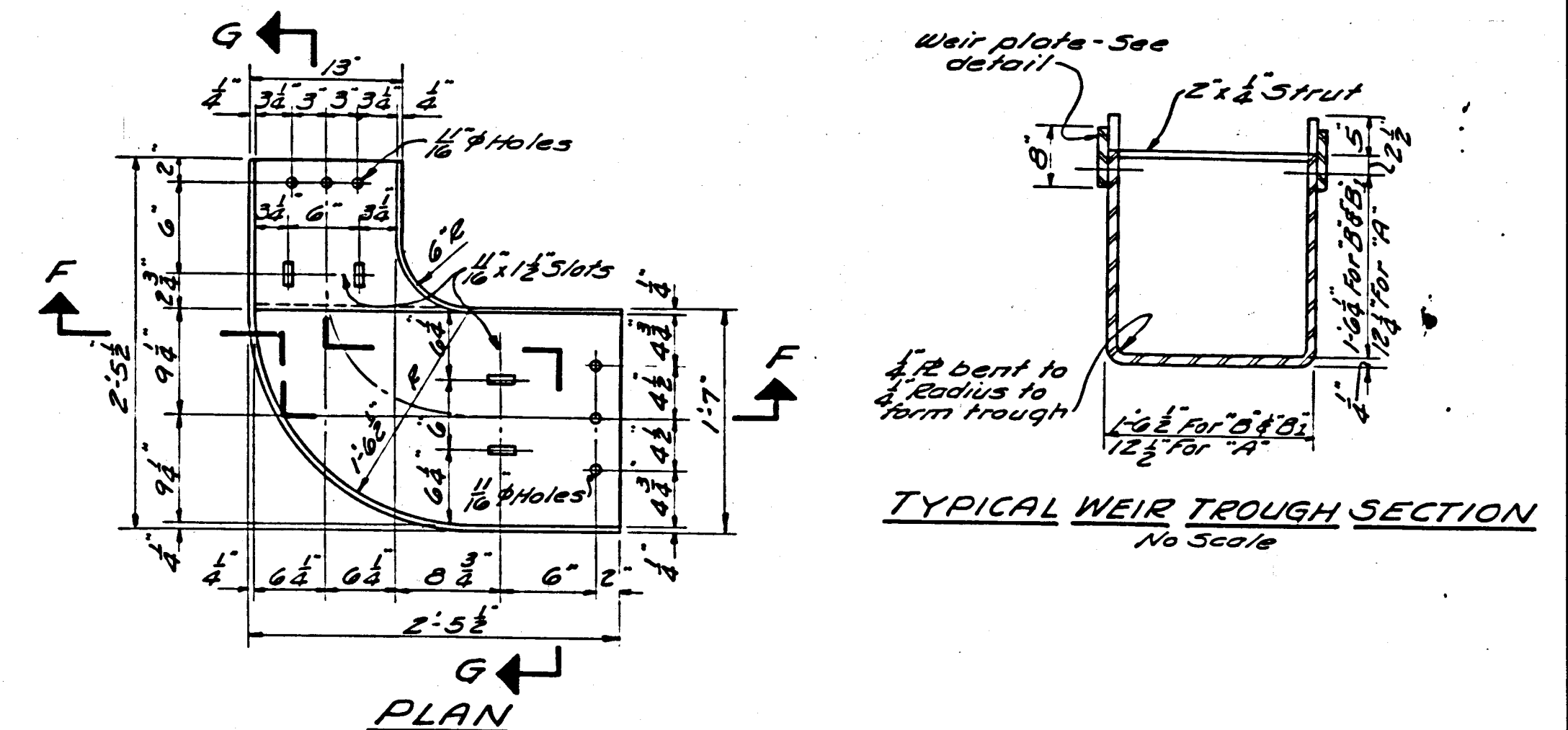
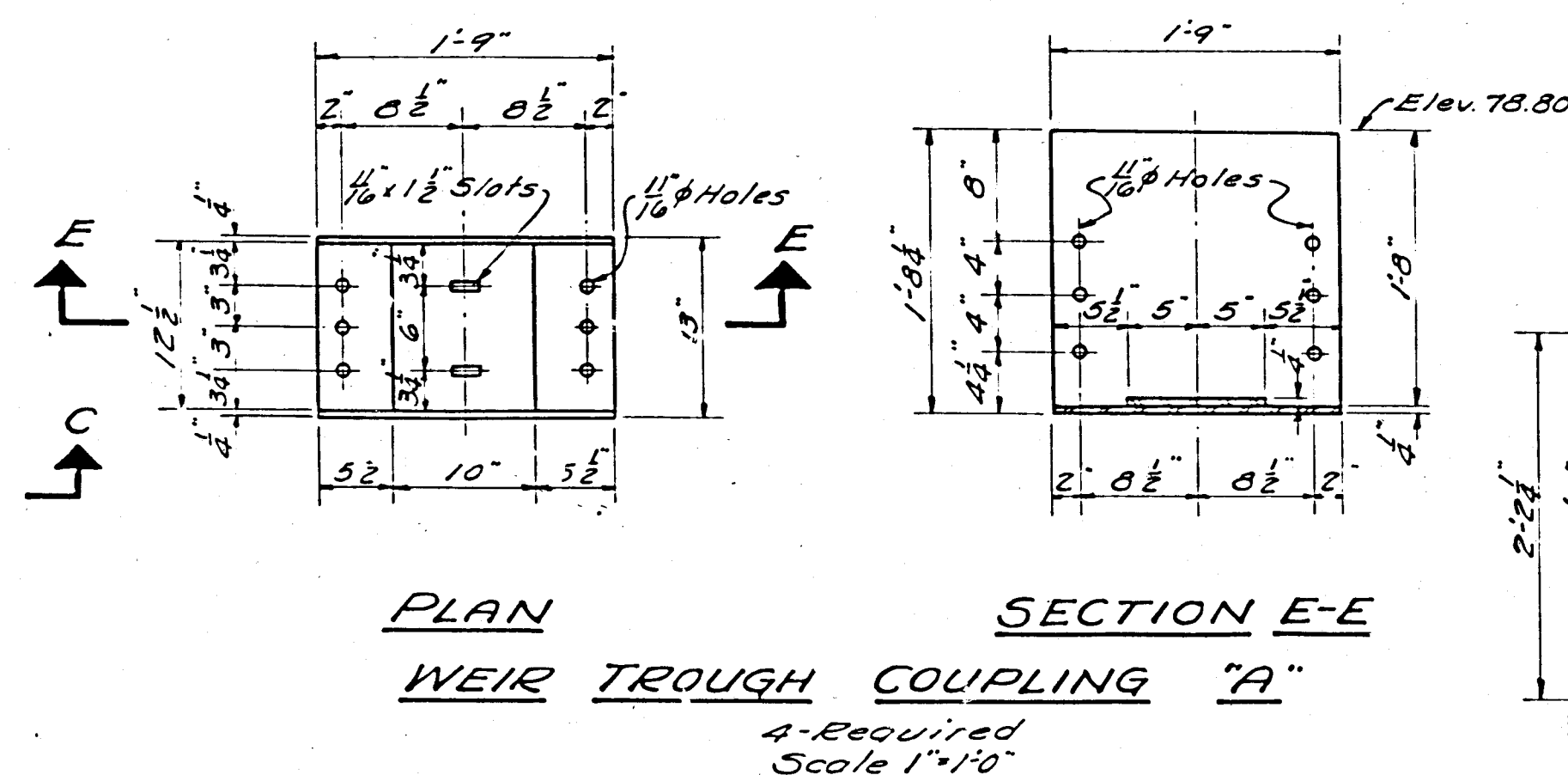
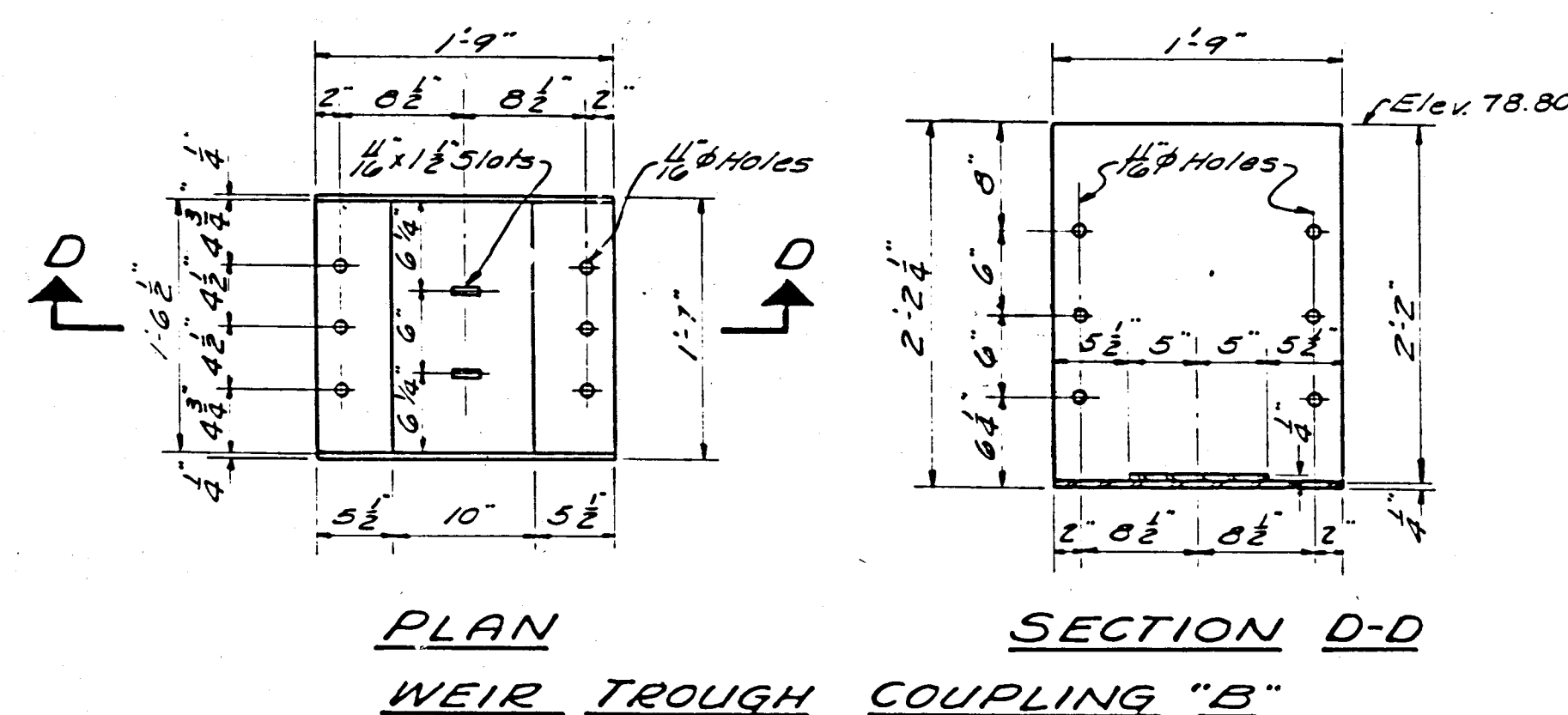
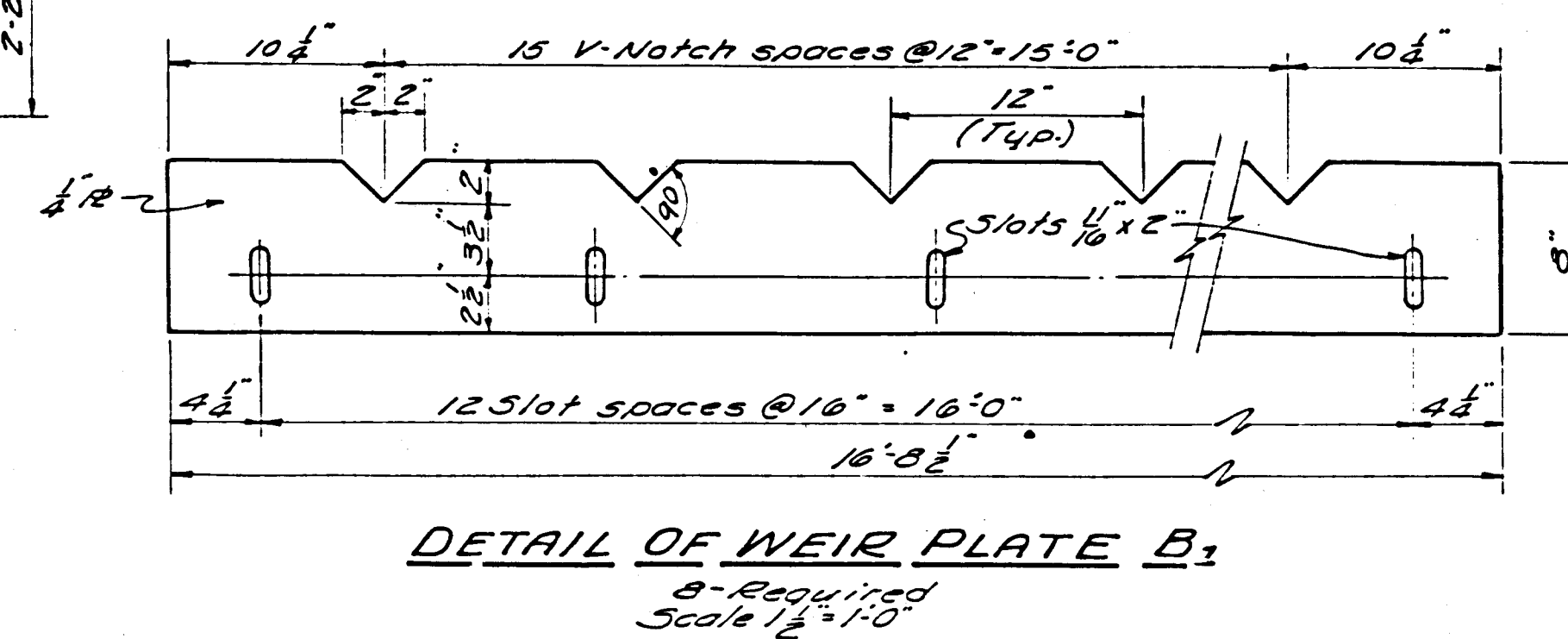
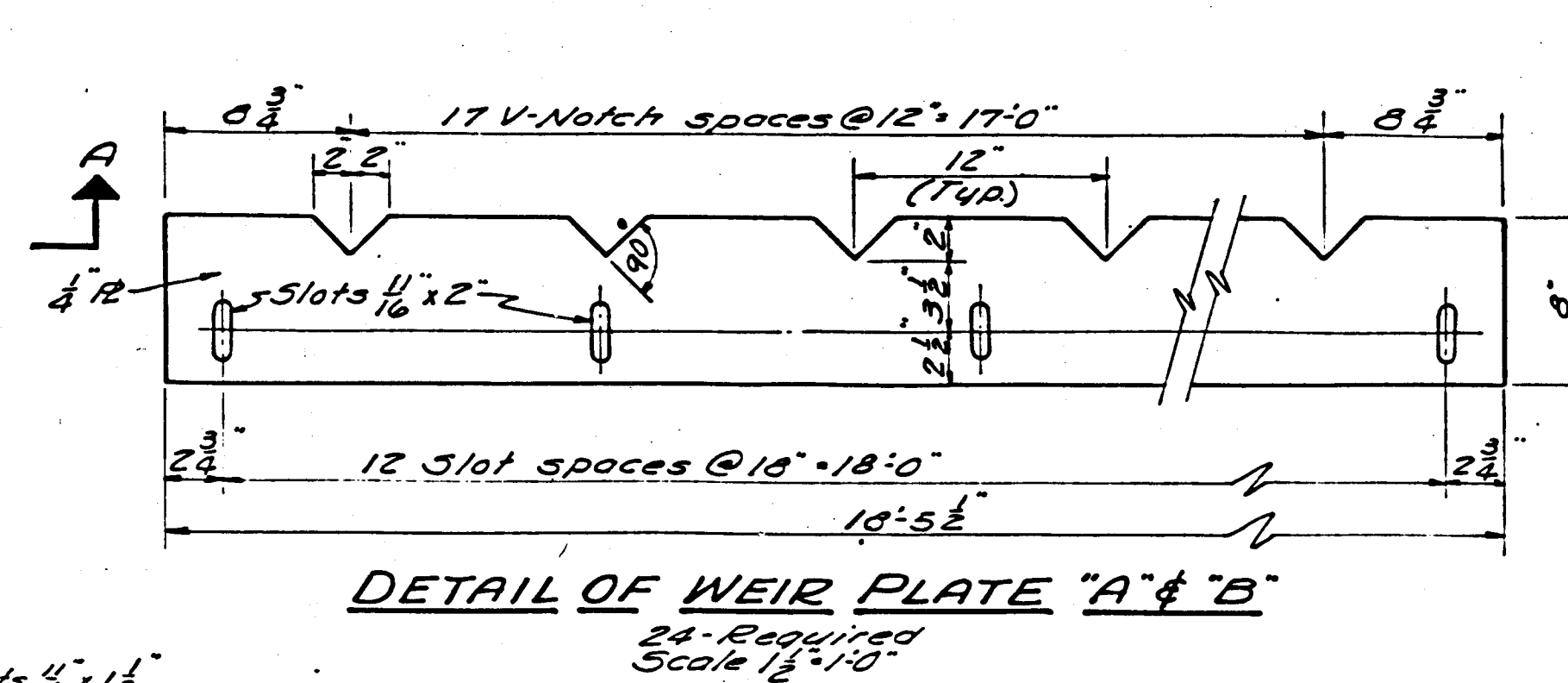
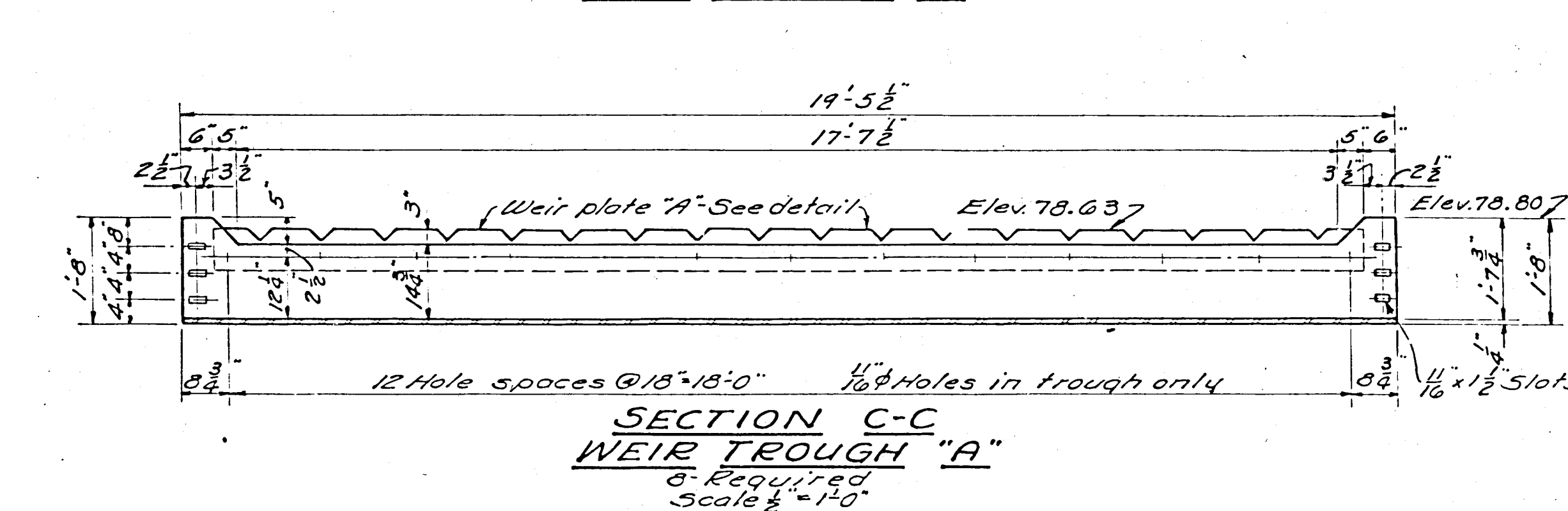
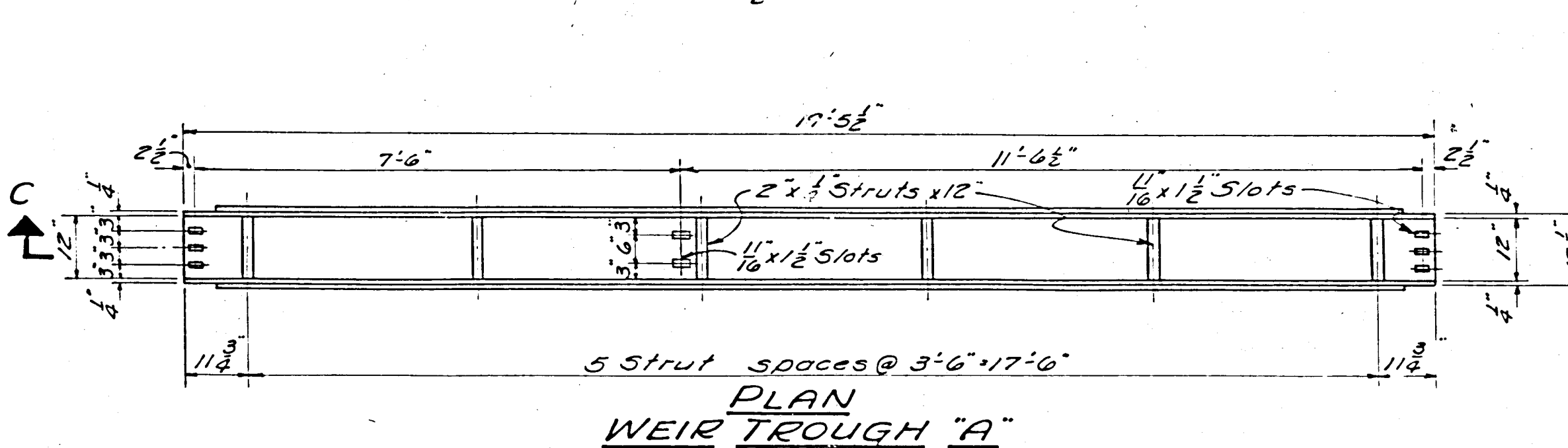
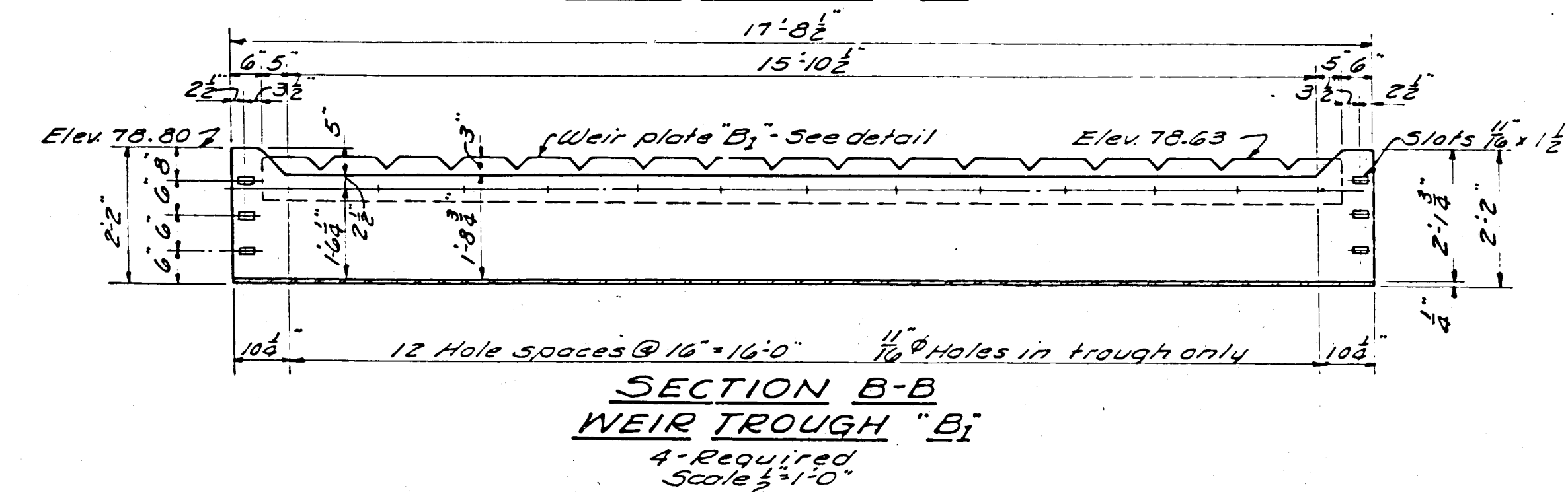
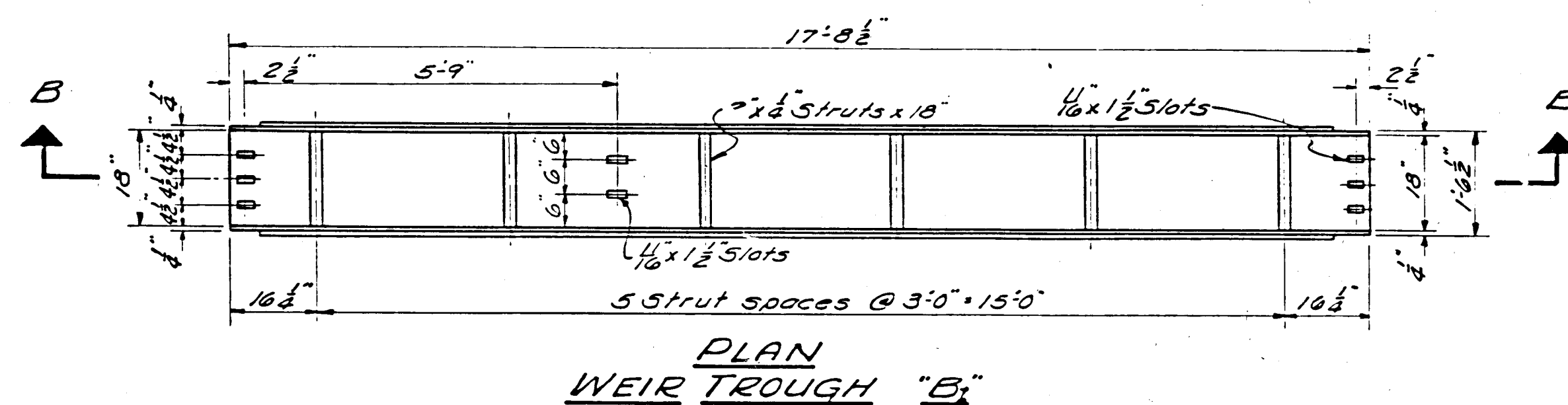
- ITEMS FOR DEMOLITION ARE HATCHED
- EXISTING CONCRETE STEPS TO BE REMOVED AND REPLACED (TYPICAL FOR 2) SEE SHEET NO. 10.
- EXISTING STEEL SCUM BAFFLE (TYPICAL FOR 2) AND SUPPORTS TO BE REMOVED AND REPLACED. FOR SCUM BAFFLE DETAIL, SEE SHEET NO. 7.
- EXISTING STEEL EFFLUENT WEIRS, TROUGHS AND SUPPORTS (TYPICAL FOR ALL) TO BE REMOVED AND REPLACED WITH FIBERGLASS WEIRS AND TROUGHS. SUPPORTS SHALL BE GALVANIZED STEEL. FOR WEIR, TROUGH AND SUPPORT DETAILS, SEE SHEET NO. 6 & 7.
- EXISTING STEEL WALKWAY AND HANDRAIL TO BE REMOVED AND REPLACED. HANDRAILS SHALL BE GALVANIZED STEEL (TYPICAL FOR 2).
- CONTRACTOR TO REPAIR CONCRETE WALL AREA AT HANDRAIL POST.
- ENTIRE EXISTING PAINTED STEEL HANDRAIL (TYPICAL) TO BE REMOVED AND REPLACED WITH NEW 1 1/2\"/>

REVISIONS					DESIGNED BY
NO.	DESCRIPTIONS	DATE	BY	APP'D	R.W.R.
					DRAWN BY
					A.J.P.
					CHECKED BY
					R.W.R.
					APPROVED BY
					W.A.D.

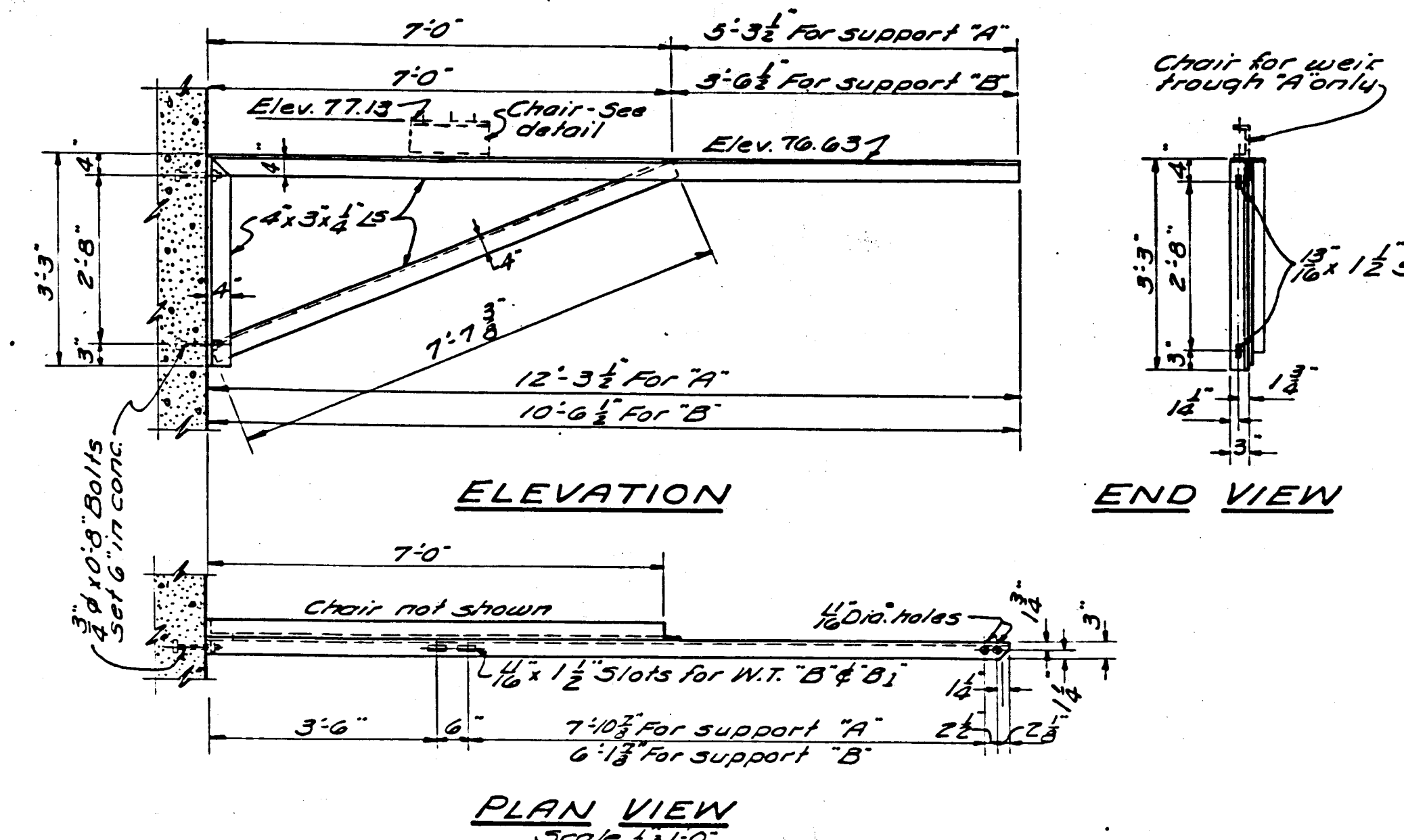
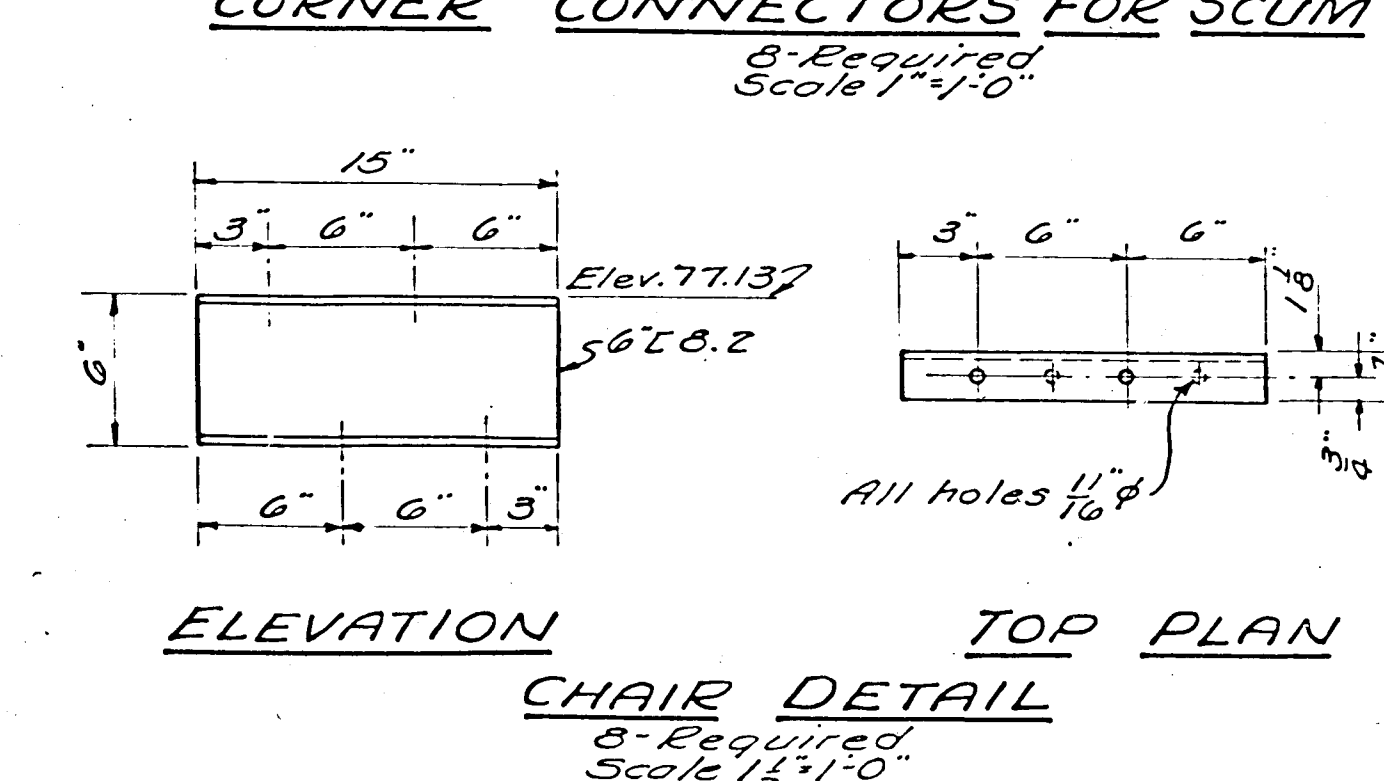
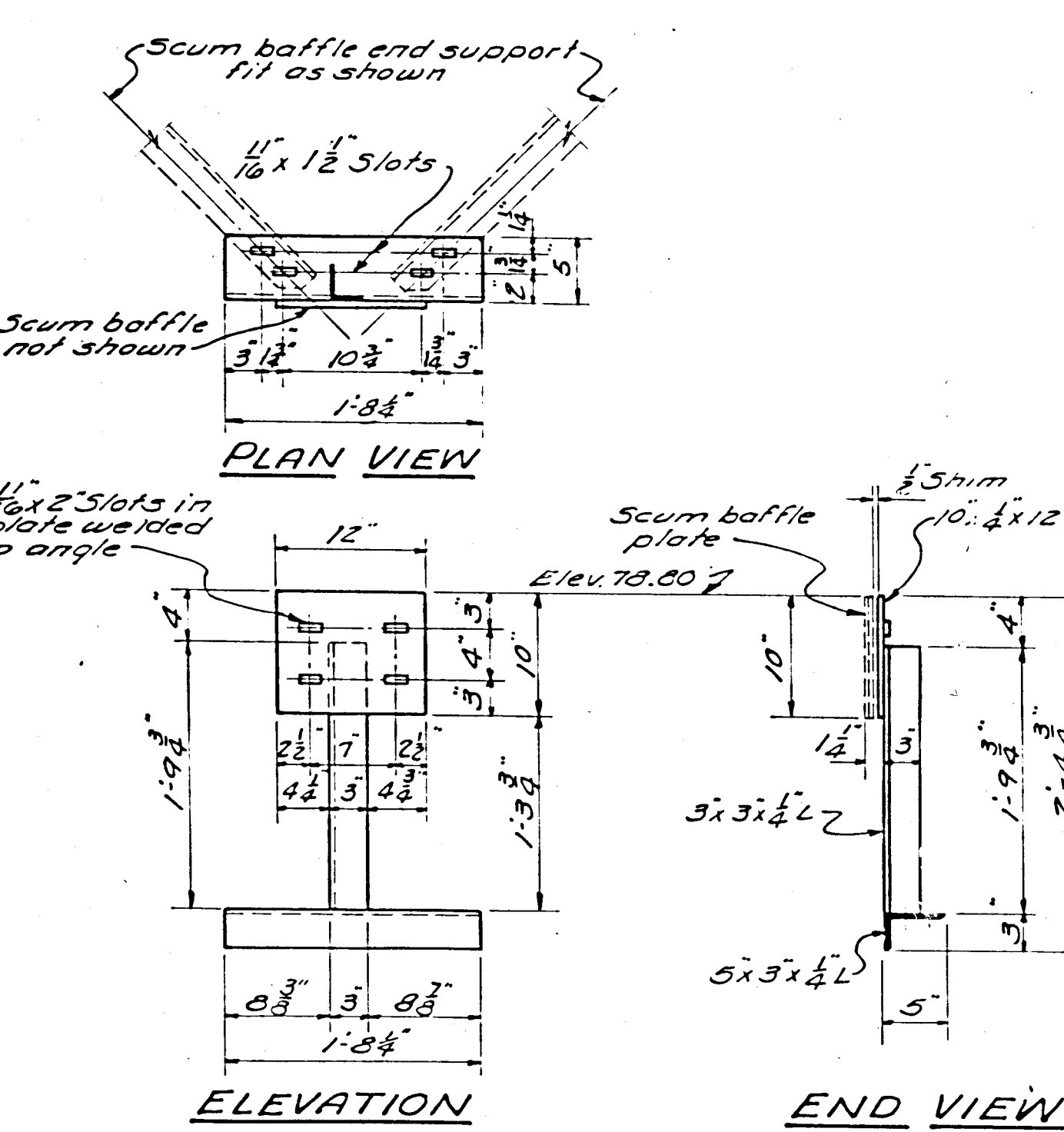
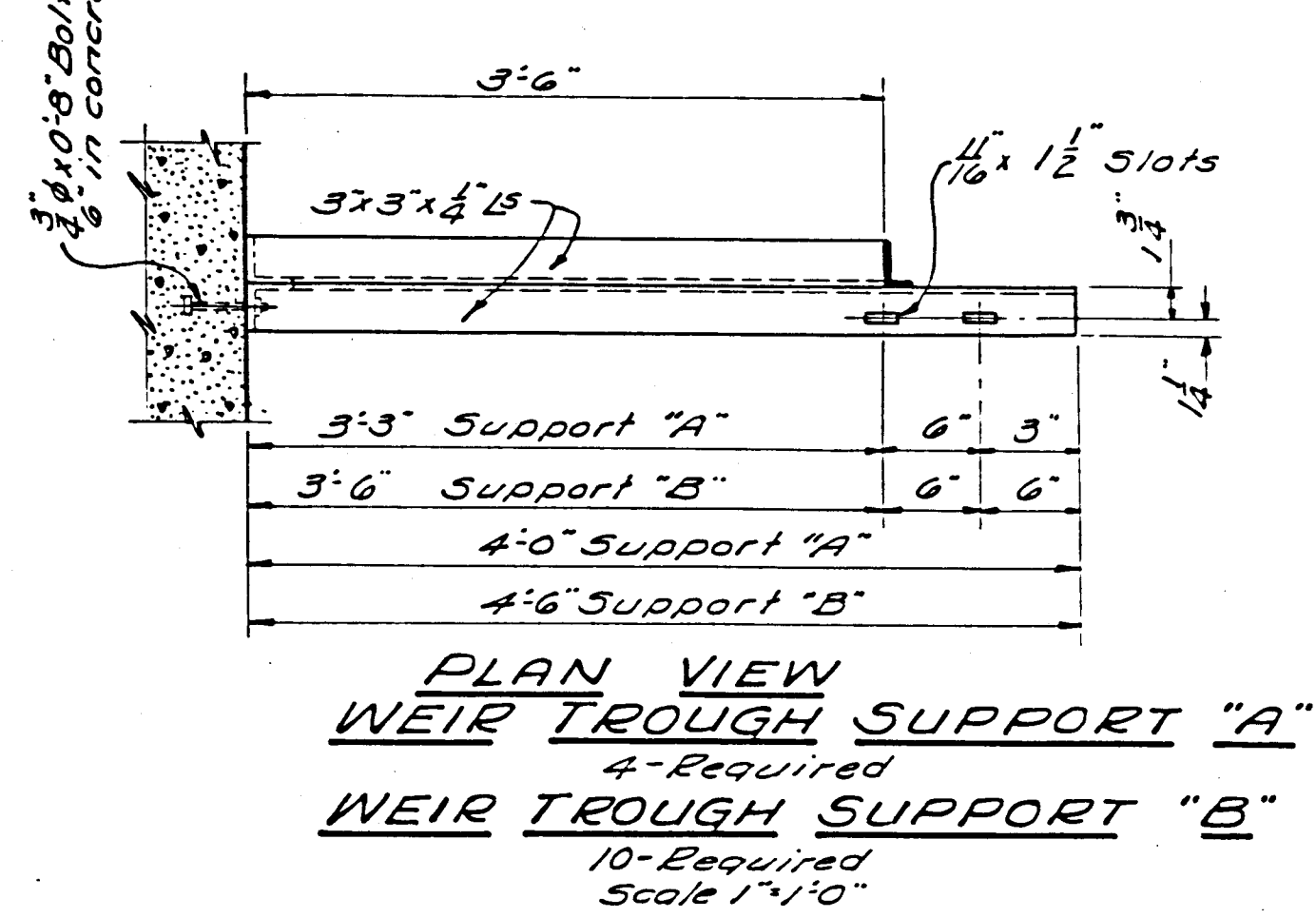
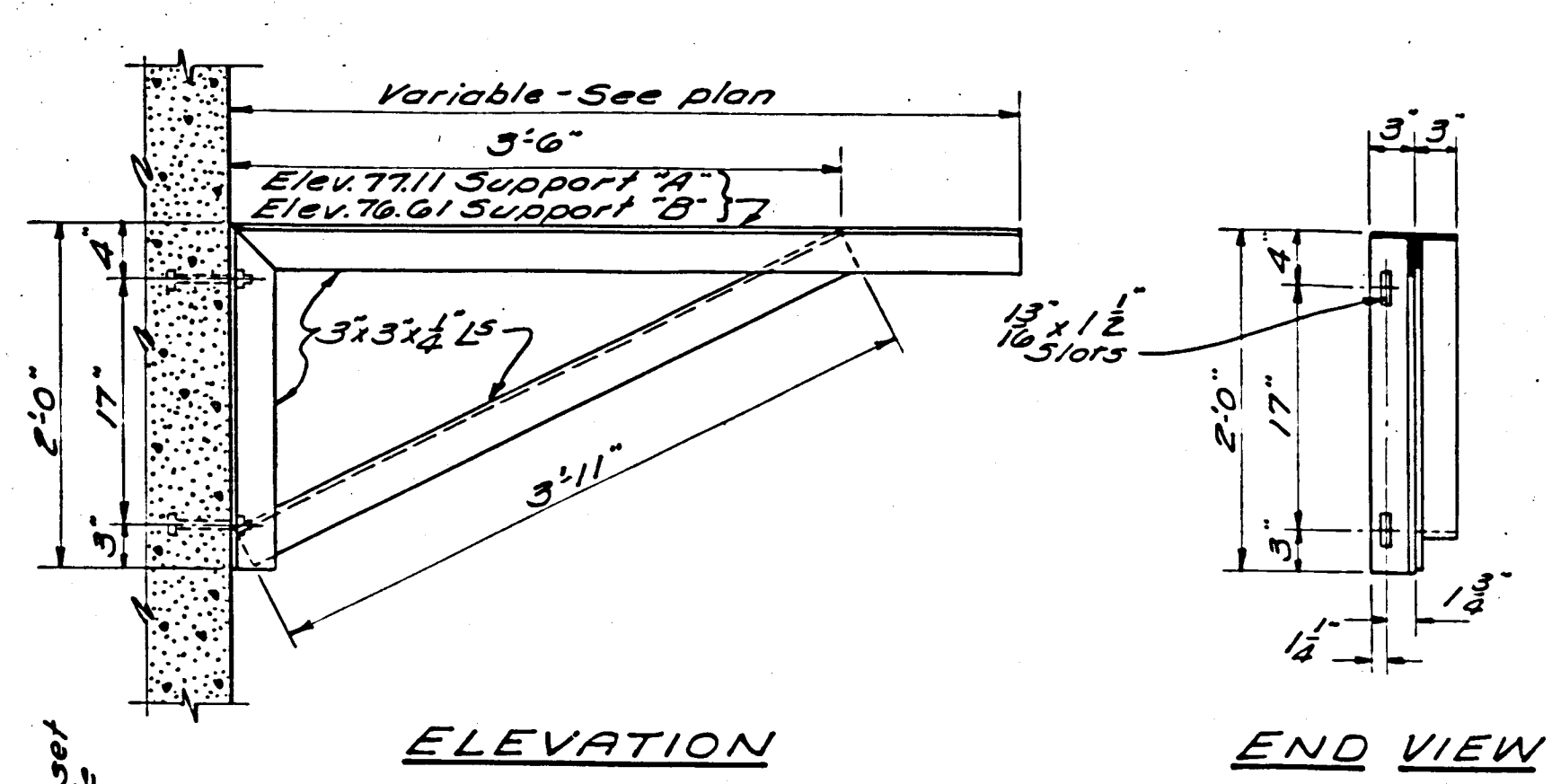
ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO	CITY OF MASSILLON, OHIO		JOB NO.
	PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS		E6024
	PRIMARY CLARIFIERS NO. 7 AND 8		DATE
	DEMOLITION PLAN AND SECTIONS		01/10/97
			SCALE
			AS NOTED
			SHEET
			4 of 25



NOTE: For slot dimensions
see sheet No. 7

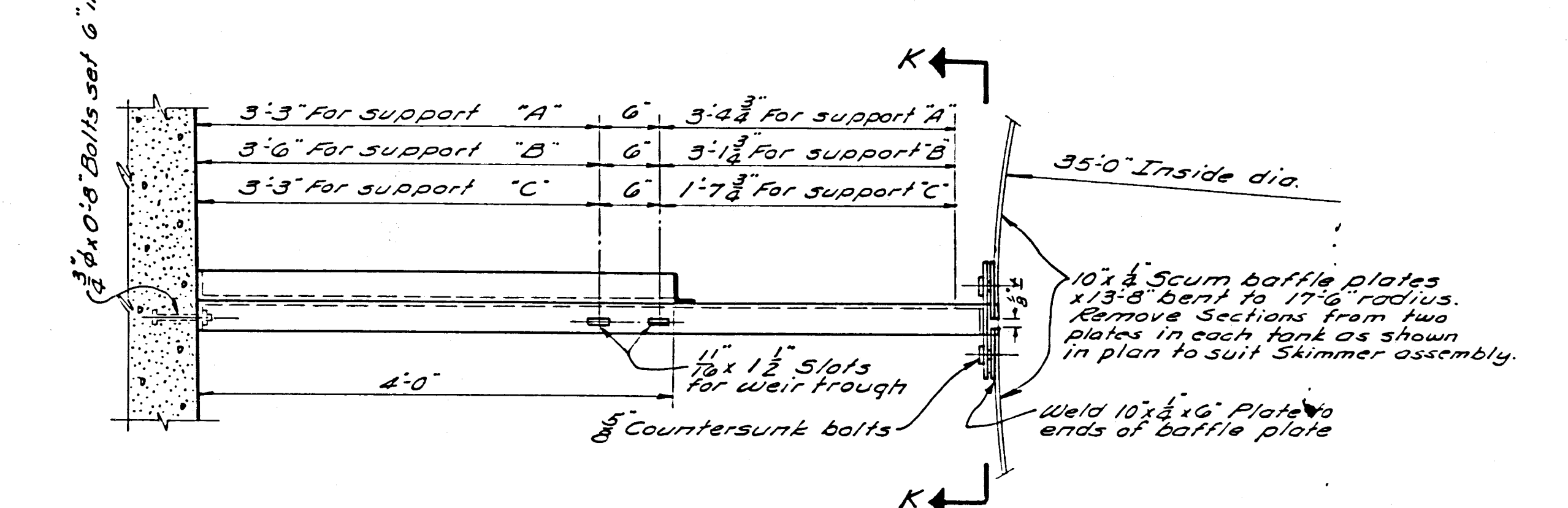
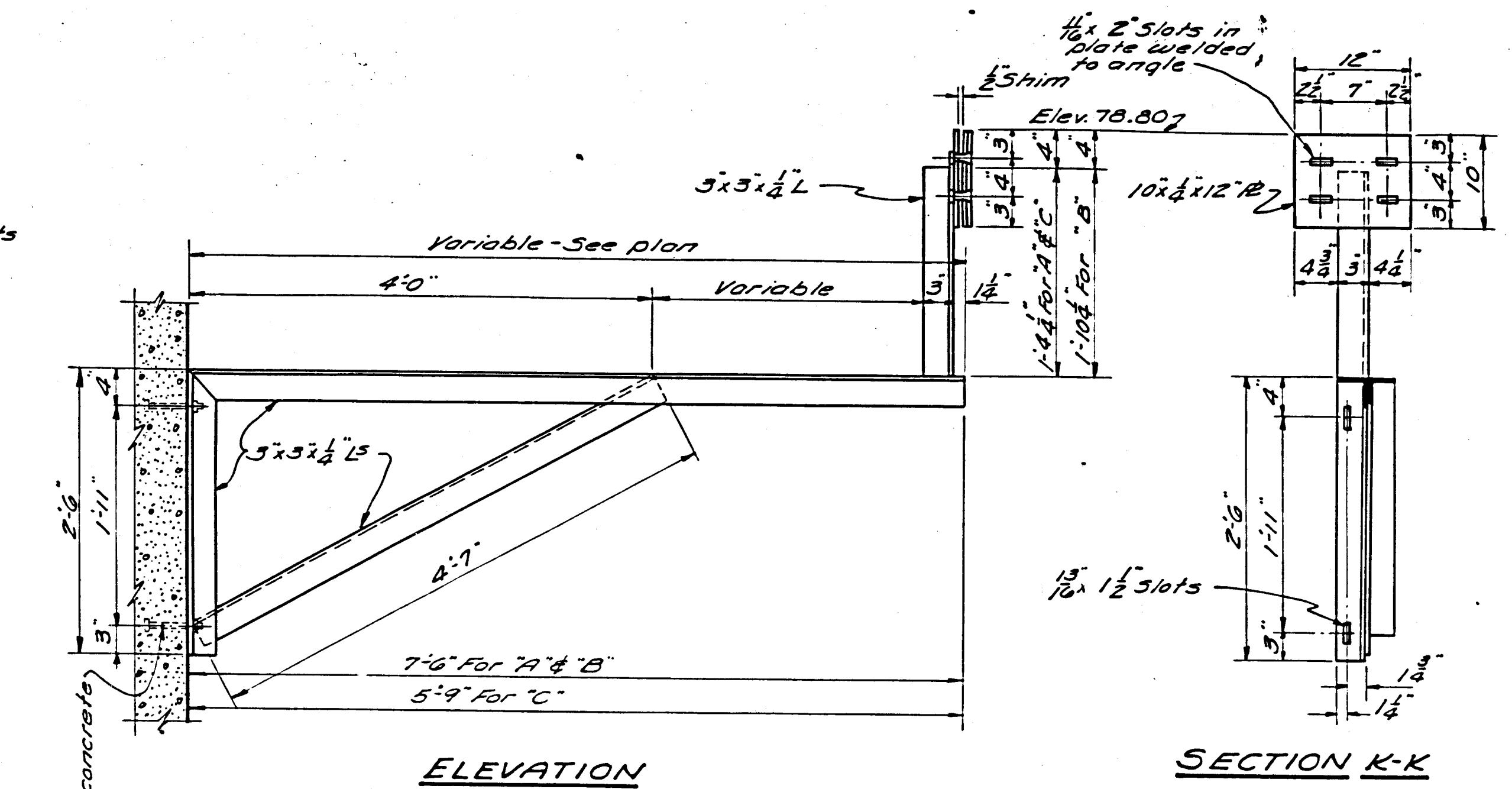
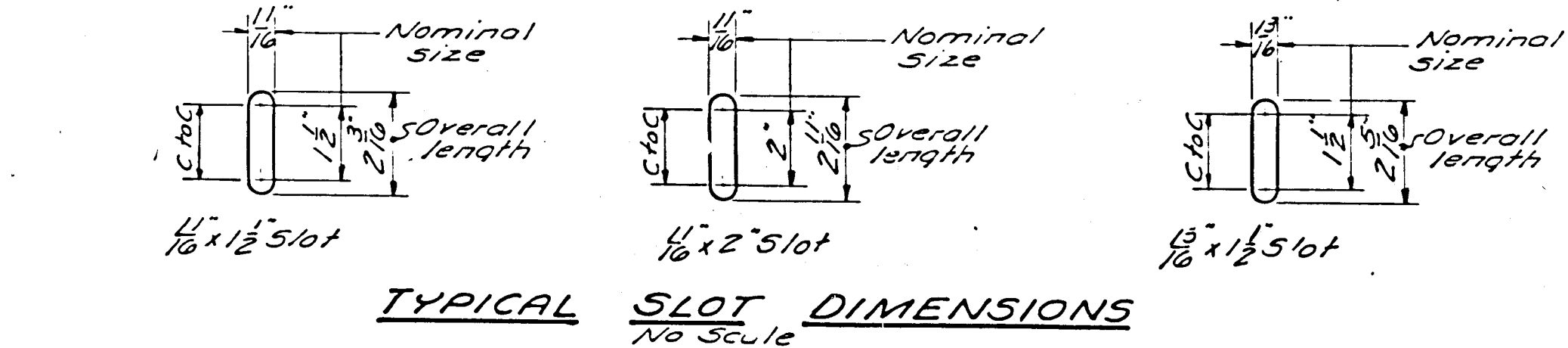
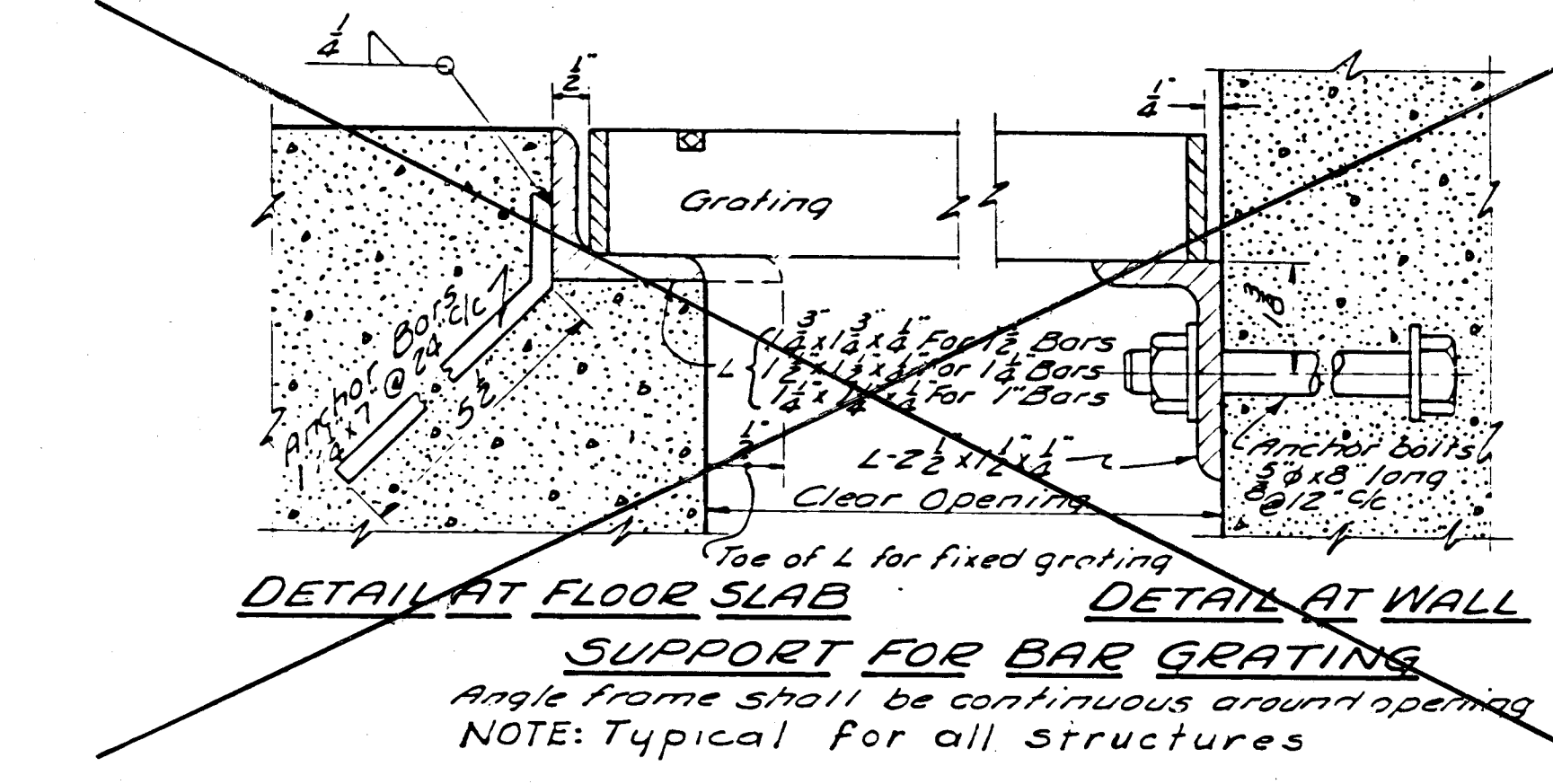


REVISIONS						DESIGNED BY	 ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO	JOB NO.
NO.	DESCRIPTIONS		DATE	BY	APP'D	R. W. R.		E6024
						DRAWN BY		DATE
						A. J. P.		01/10/97
						CHECKED BY		SCALE
						R. W. R.	AS NOTED	
						APPROVED BY	SHEET	
						W. A. D.	6 of 25	



SCUM BAFFLE END SUPPORT "A"

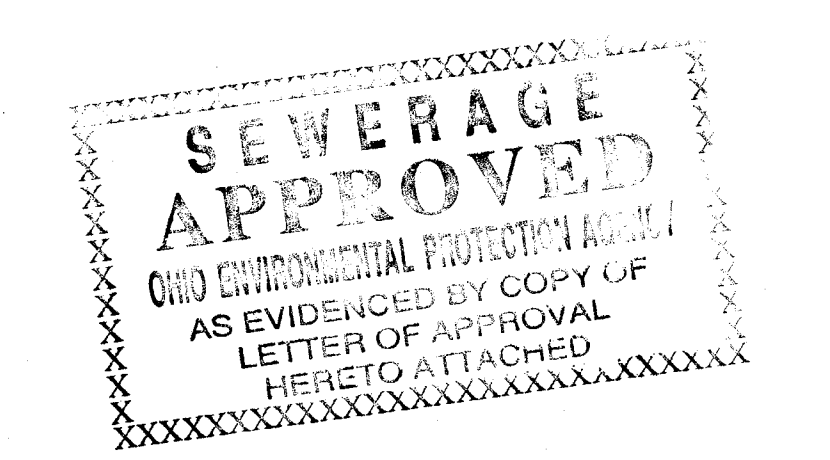
SCUM BAFFLE END SUPPORT "B"



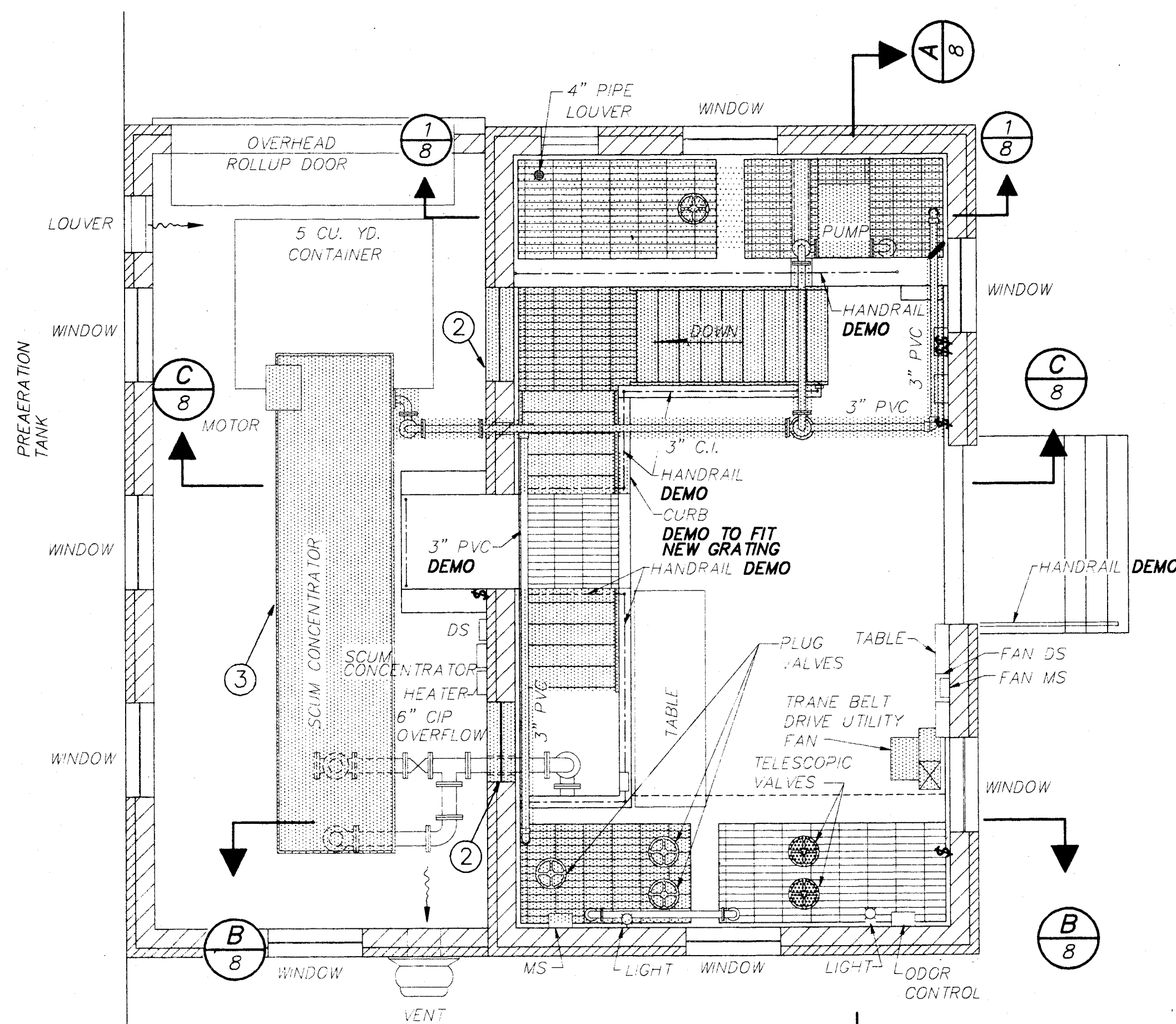
SCUM BAFFLE CENTER SUPPORT "A"

SCUM BAFFLE CENTER SUPPORT "B"

SCUM BAFFLE CENTER SUPPORT "C"

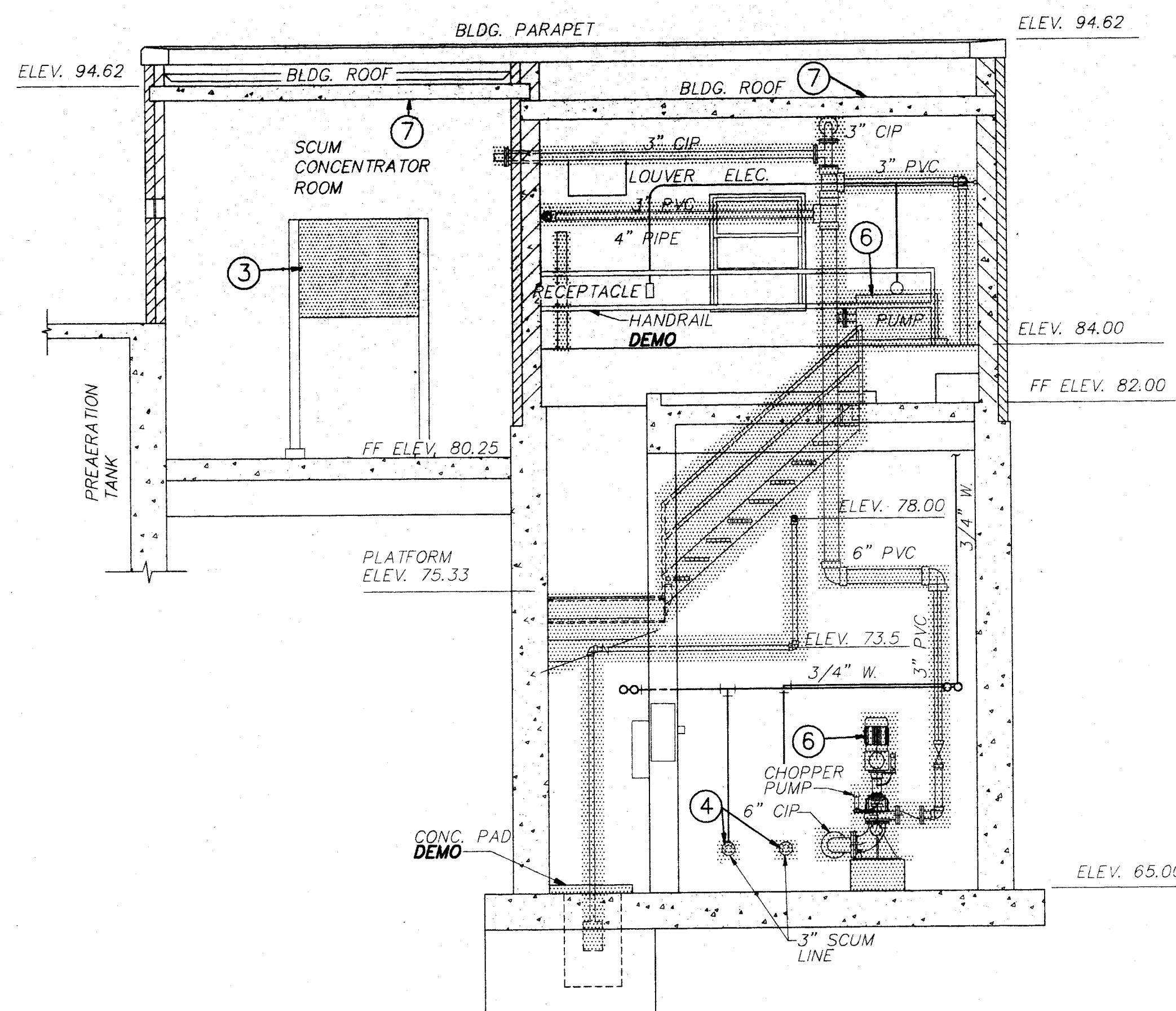


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					CHECKED BY <th>SCALE</th>	SCALE		
					R.W.R. <td>AS NOTED</td>	AS NOTED		
					APPROVED BY <th>SHEET</th>	SHEET		
					W.A.D.	7 of 25		



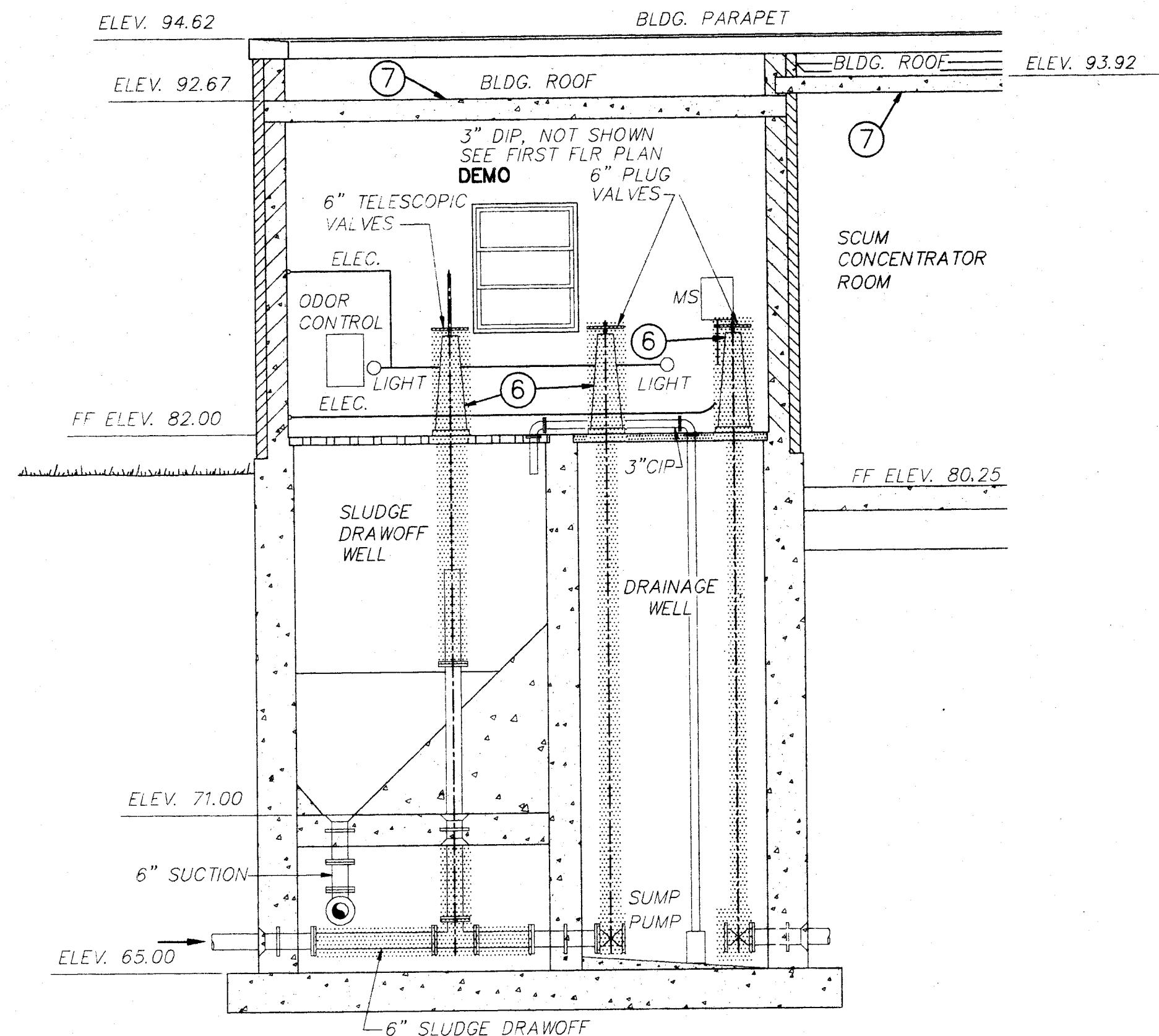
FIRST FLOOR PLAN

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



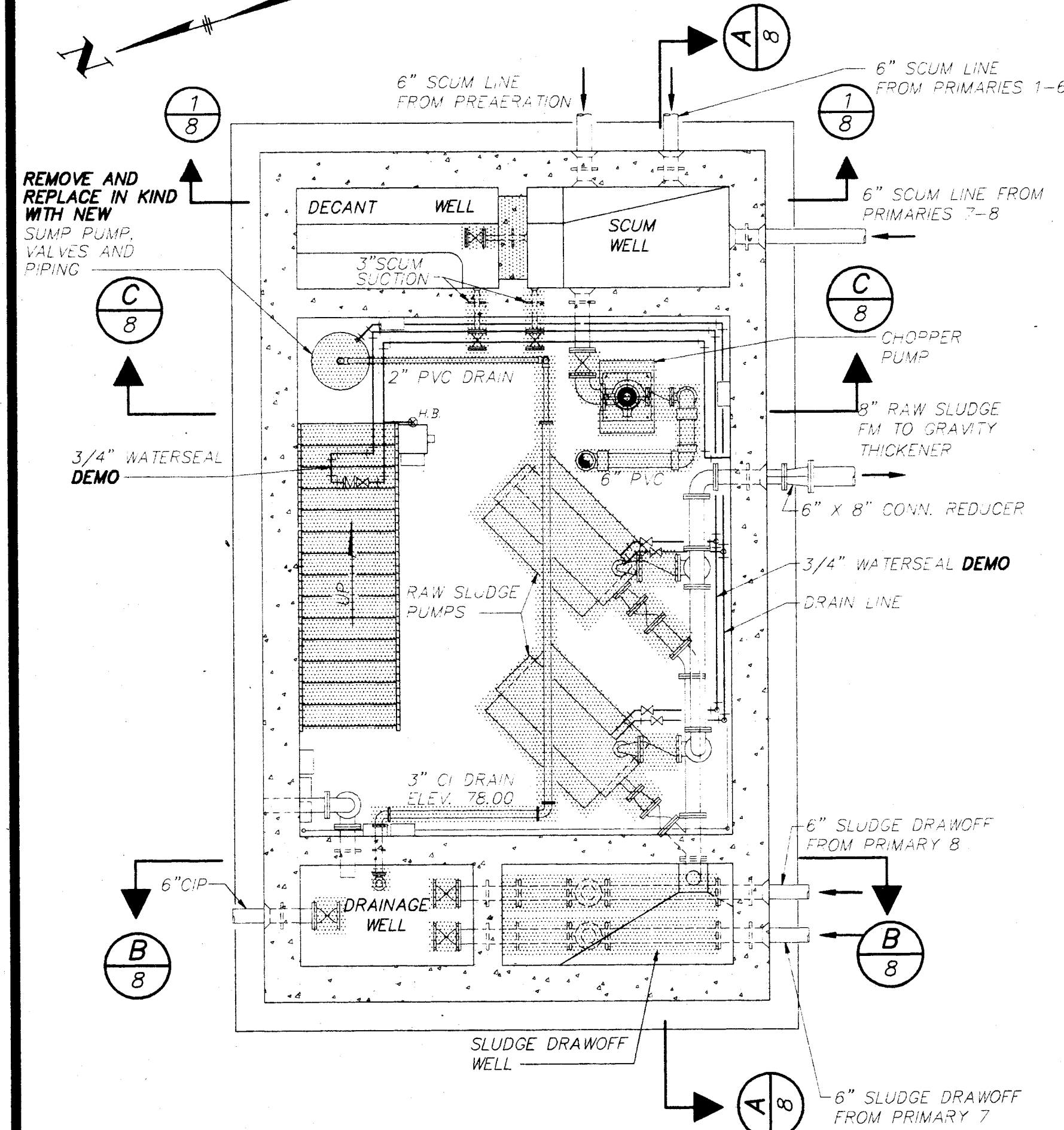
SECTION C-C

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



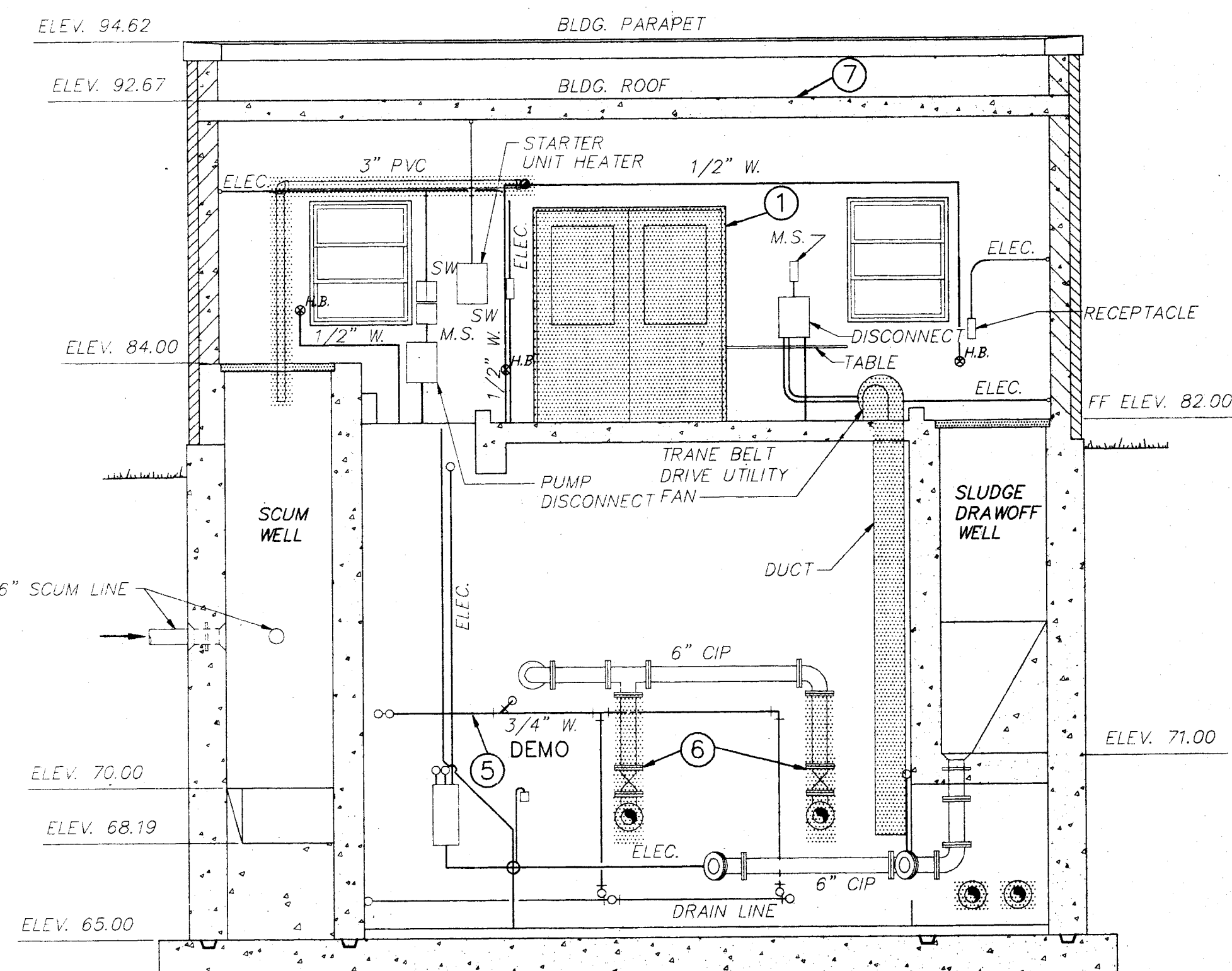
SECTION B-B

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



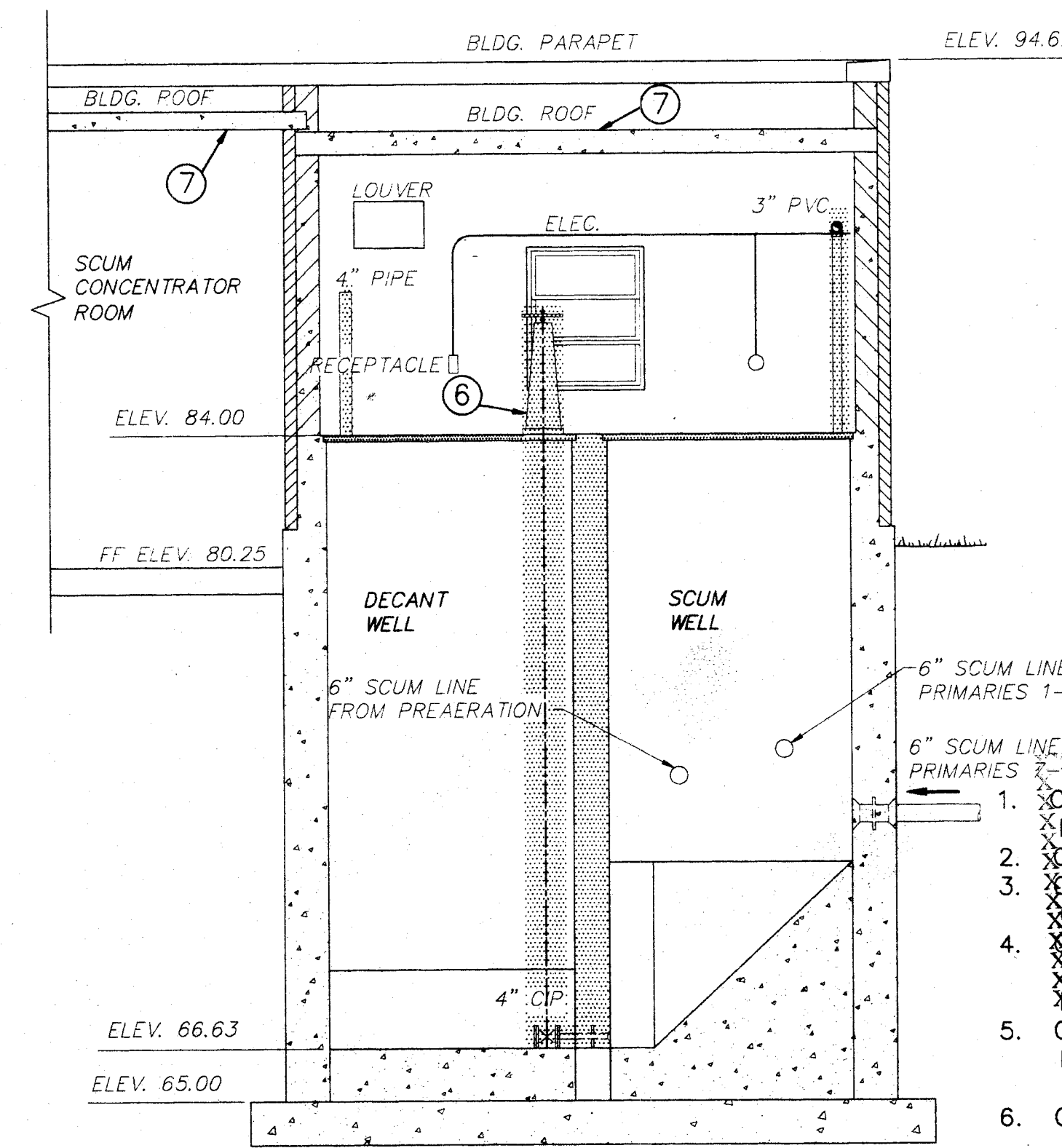
BASEMENT PLAN

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



SECTION A-A

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



SECTION 1-1

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

LEGEND

DS	DISCONNECT SWITCH
MS	MOTOR STARTER
HB	HOSE BIBB
SW	SWITCH
CIP	CAST IRON PIPE
FF	FIRST FLOOR
ELEV	ELEVATION
BLDG	BUILDING
W	WATER
FM	FORCE MAIN
CONC	CONCRETE
CU	CUBIC
YD	YARD

NOTES

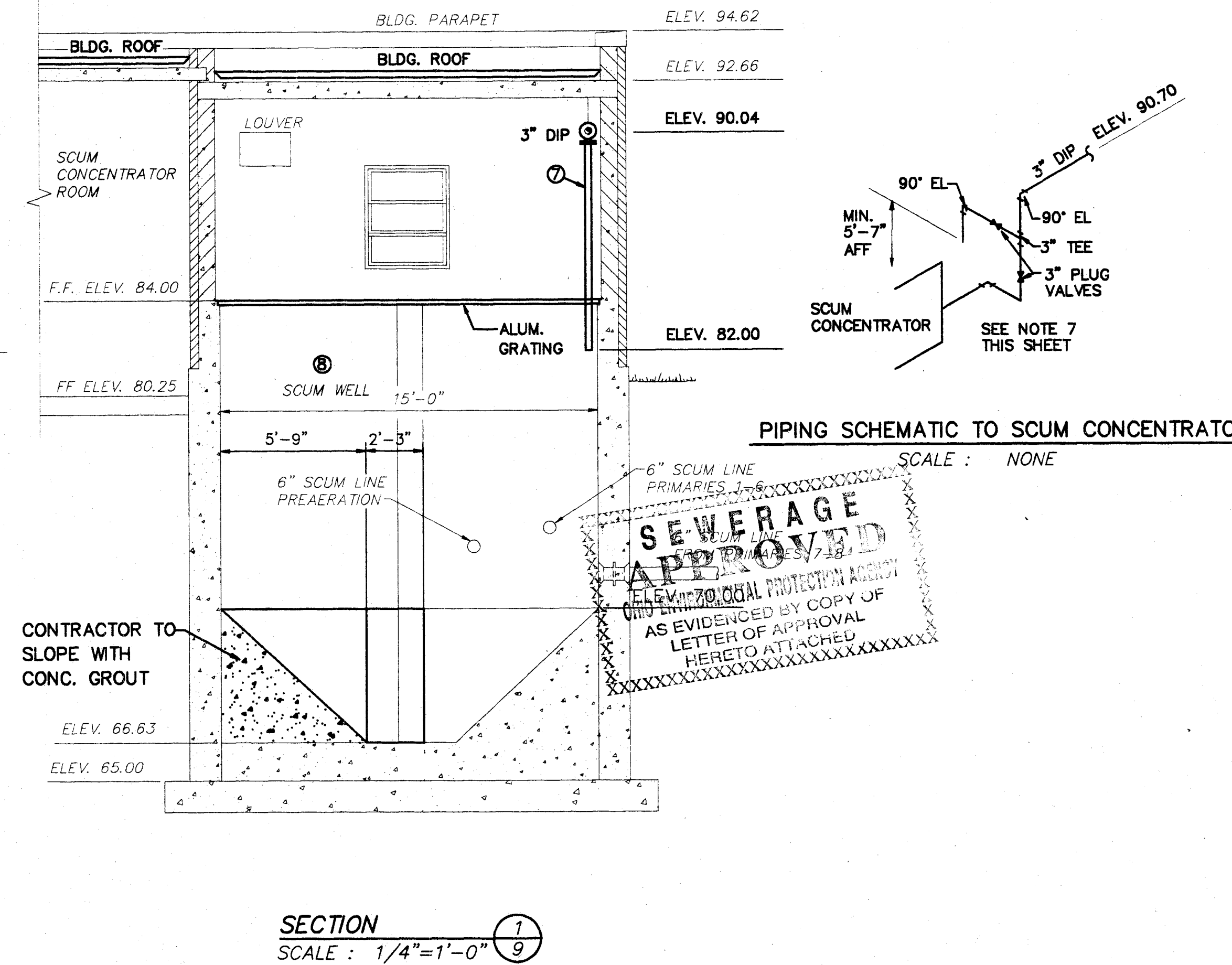
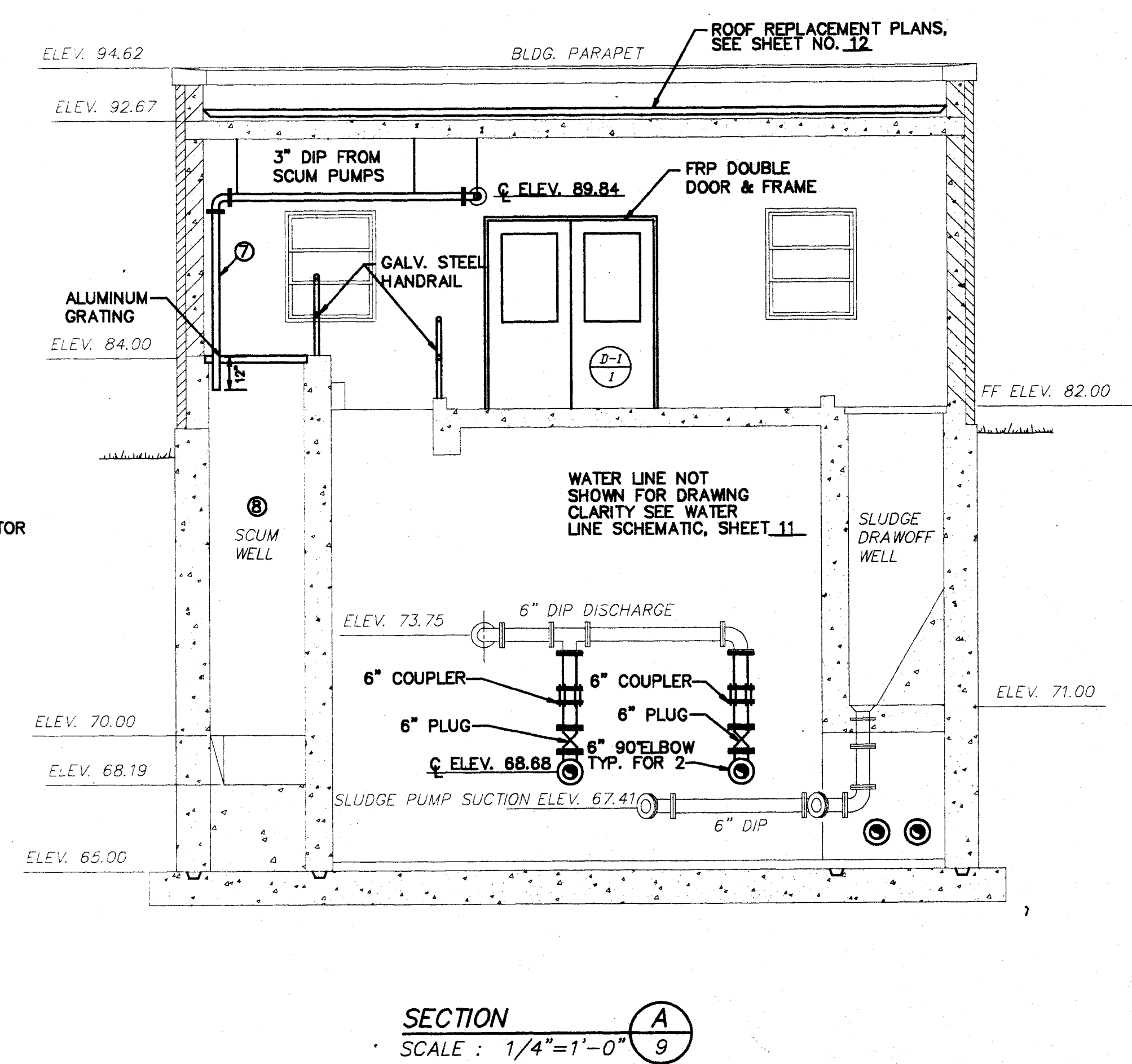
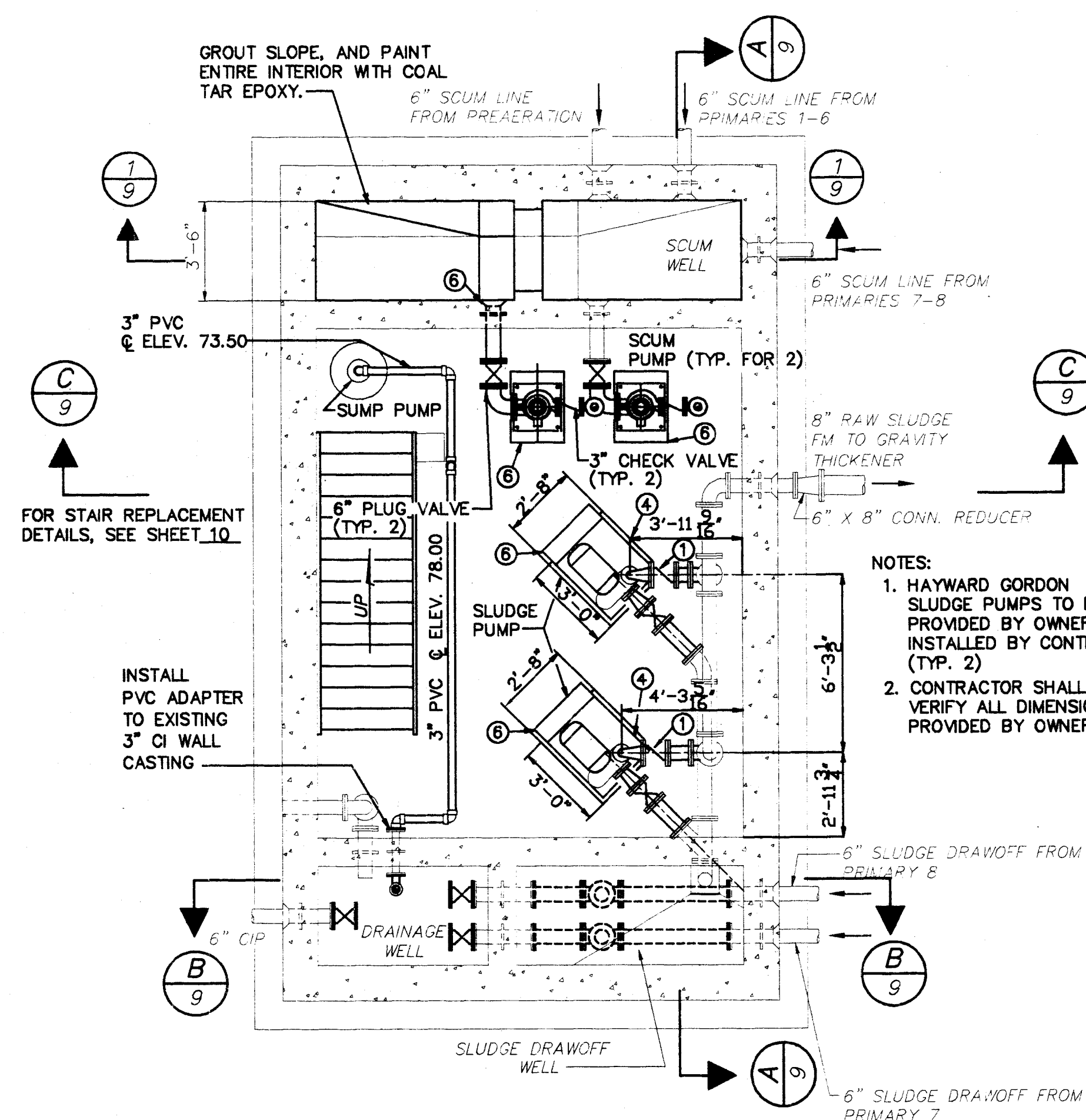
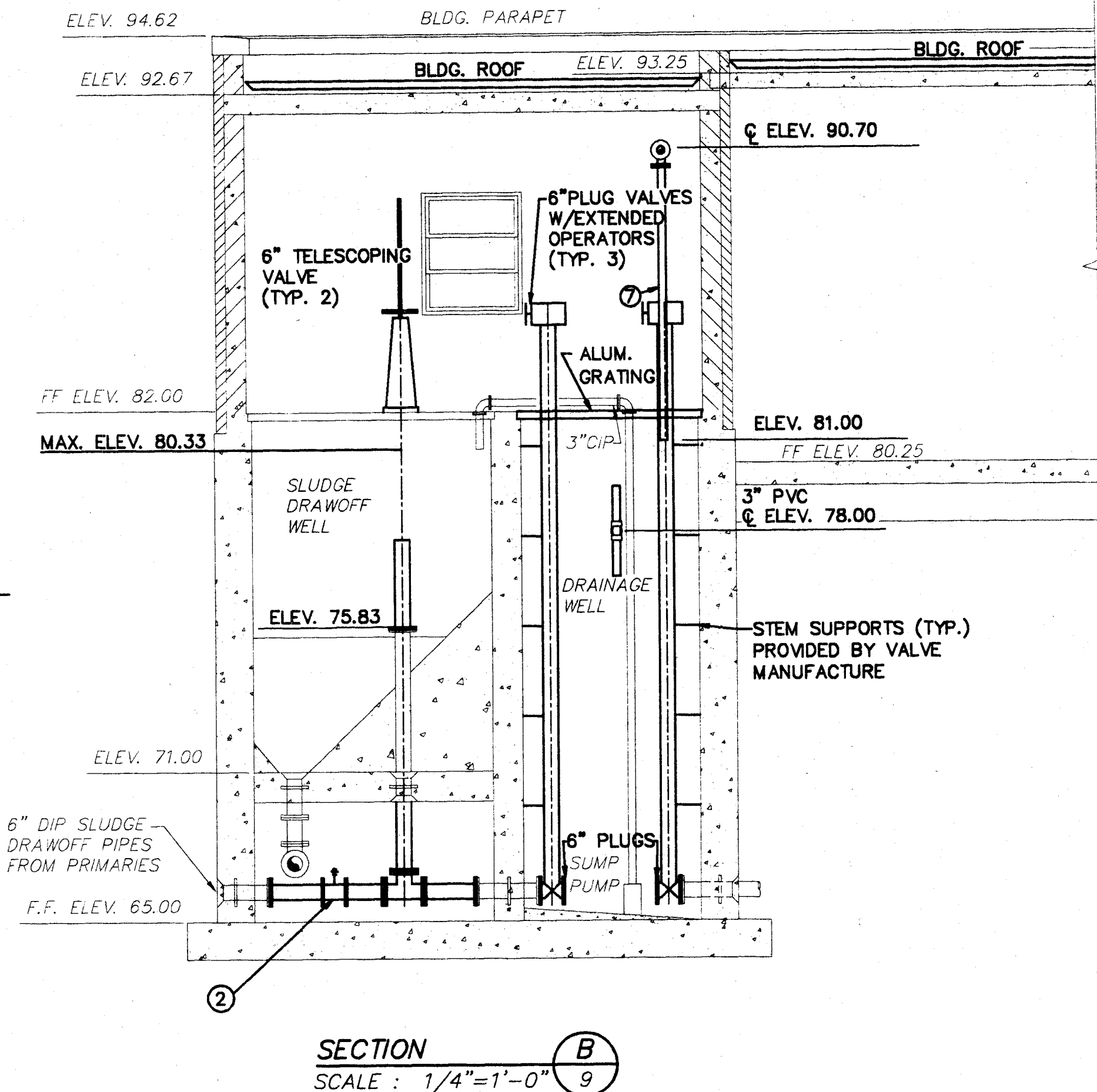
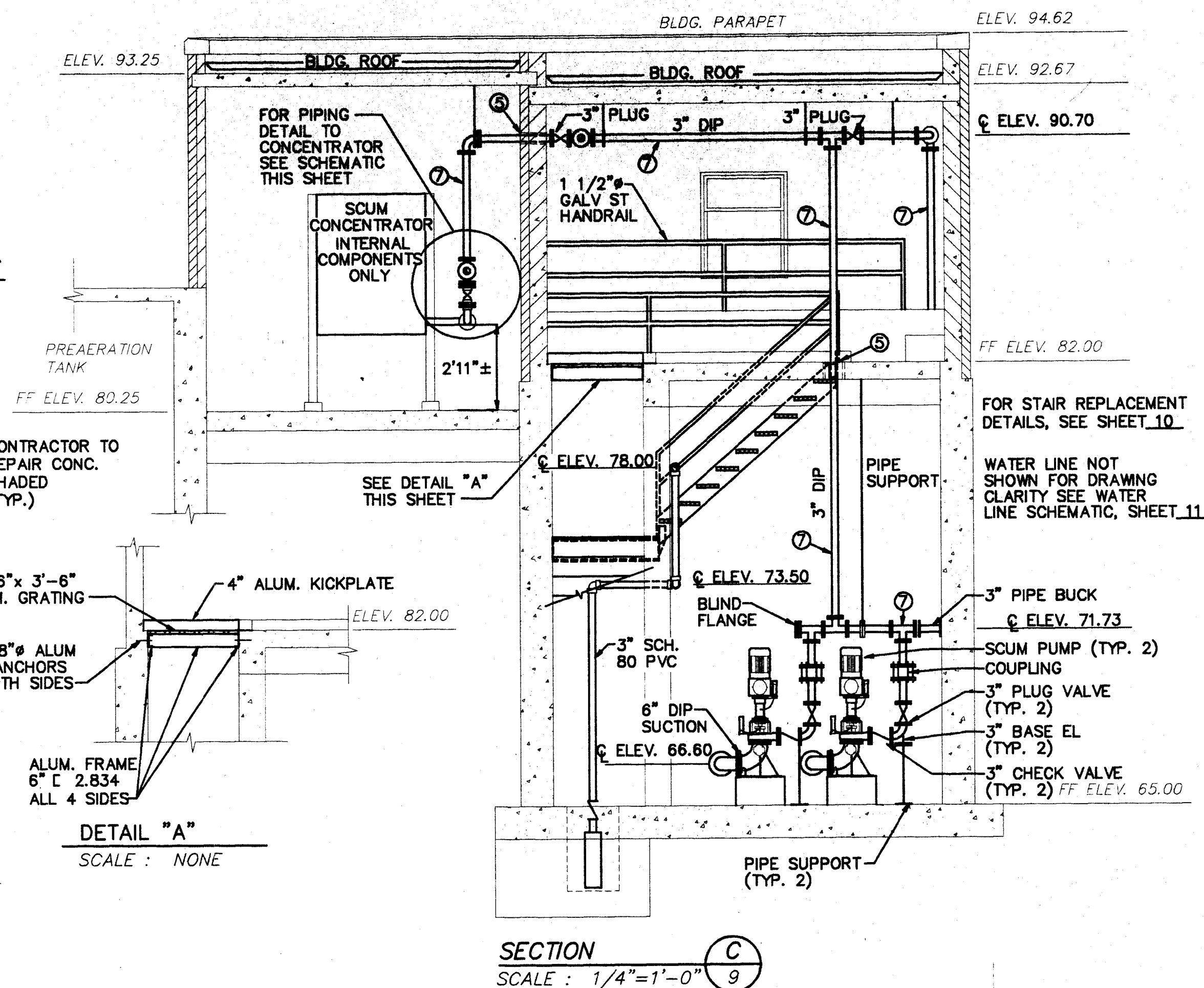
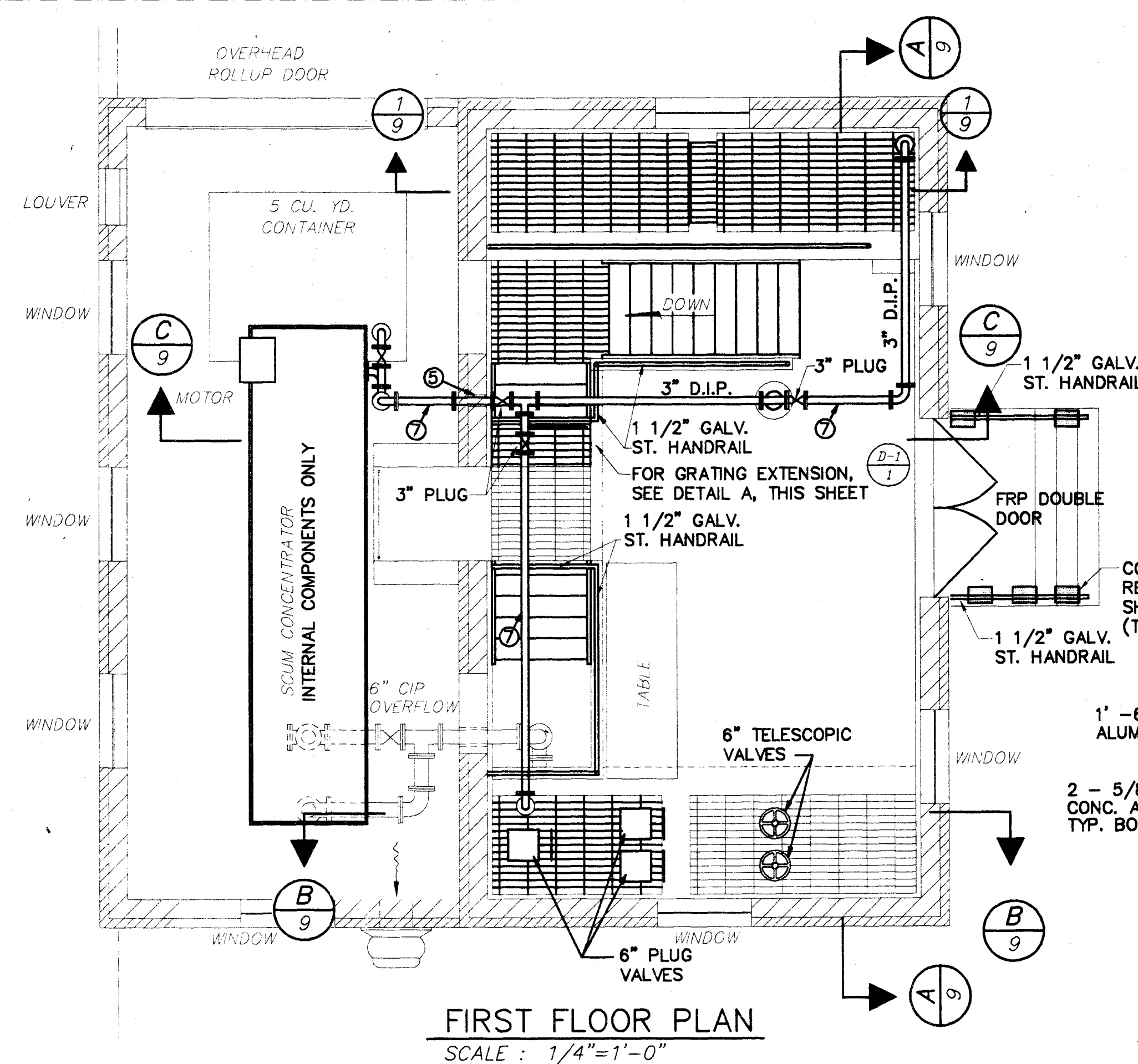
1. CONTRACTOR TO REMOVE AND REPLACE DOUBLE DOOR, FRAME AND HARDWARE. SEE DOOR DETAILS, SHEET 19.
2. CONTRACTOR TO REMOVE AND REPLACE WINDOW FRAME (TYP. 2).
3. CONTRACTOR TO REMOVE AND REPLACE SCUM CONCENTRATOR ROOMS. FOR DETAILS, SEE TECHNICAL SPECIFICATIONS 11302.
4. CONTRACTOR TO REMOVE EXISTING 3" WALL SLEEVES AND VALVES. THEN BRANCH TO CONC. WALL REPAIR DETAIL. SEE SHEET 12.
5. CONTRACTOR TO REMOVE EXISTING WATER LINES INSIDE PUMP STATION AND REPLACE WITH SCH 80 PVC PIPE. FOR WATER LINE SCHEMATIC, SEE SHEET 12.
6. CONTRACTOR TO TURN OVER TO THE CITY ALL VALVES, PUMPS, OPERATORS, AND VALVE STANDS TO BE REMOVED. CONTRACTOR SHALL INSTALL ALL NEW VALVES, PIPE AND PUMPS WITH NEW BRACKETS, FITTINGS, AND GASKETS.
7. CONTRACTOR TO REMOVE EXISTING 3 PLY BUILD-UP ROOF TO PRECAST CONC. ROOF DECK AND REPLACE WITH BALASTED MEMBRANE ROOF. FOR DETAILS, SEE SHEET 10.

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					DRAWN BY
					A.J.P.
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					R.W.R.
					APPROVED BY
					W.A.D.

CTI ENVIRONMENTAL, INC.
ENGINEERS IN WATER AND EARTH SCIENCES
UNIONTOWN, OHIO

CITY OF MASSILLON, OHIO
PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS
PRIMARY SLUDGE PUMP BUILDING
DEMOLITION - PLAN AND SECTIONS

JOB NO.
E6024
DATE
01/10/97
SCALE
AS NOTED
SHEET
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NOTES:

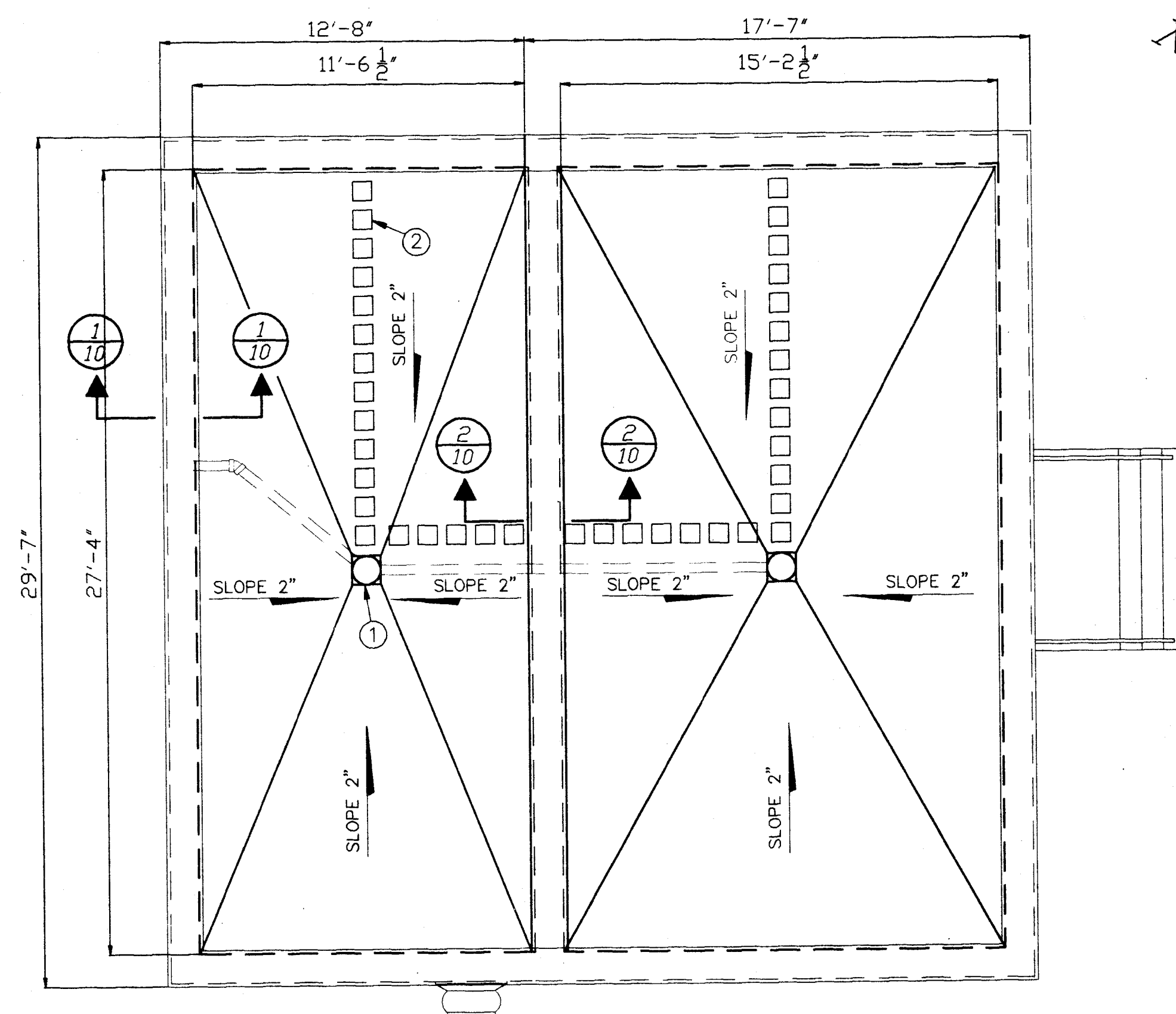
- CONTRACTOR SHALL REINSTALL EXISTING PVC DRAIN LINE TO PROPOSED SLUDGE PUMPS.
- CONTRACTOR SHALL TAP BOTH 6" SLUDGE DRAFF PIPES AND INSTALL 2" PLUG VALVES WITH 2" MALE QUICK DISCONNECTS.
- SEE SHEET 11, FOR PLACING WALL CASTING IN EXISTING WALL.
- FOR SEAL WATER SYSTEM, SEE DETAIL SHEET 11.
- FOR MECHANICAL WALL SEAL DETAIL, SEE SHEET 11.
- FOR CONC. EQUIPMENT PAD DETAIL, SEE SHEET 10.
- ALL SCUM PIPING, VALVES AND FITTINGS SHALL BE POLYETHYLENE LINED DUCTILE IRON PIPE.
- CONTRACTOR SHALL CLEAN AND PAINT ENTIRE INSIDE OF SCUM WET WELL WITH COAL TAR EPOXY.

SECTION A-A
SCALE: 1/4"=1'-0"

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

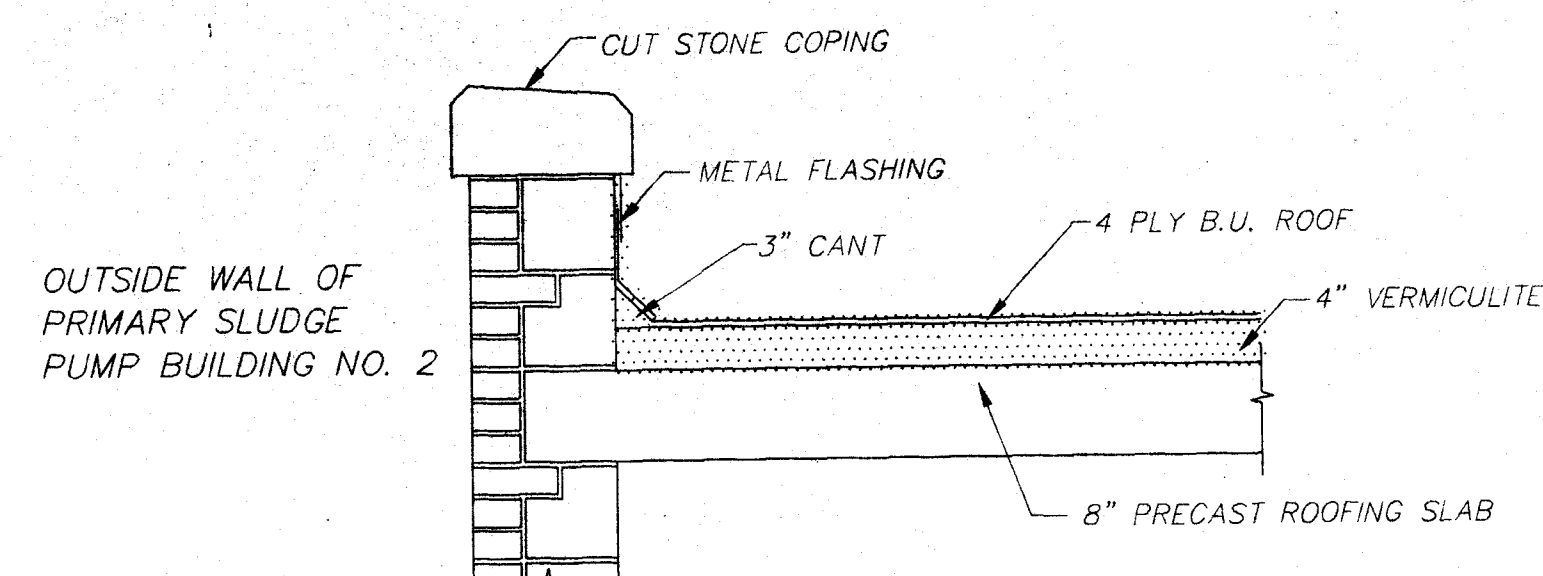
REVISIONS					DESIGNED BY	 ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO	JOB NO.
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					W. A. D.		9 of 25

CITY OF MASSILLON, OHIO	
PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS	
PRIMARY SLUDGE PUMP BUILDING	
PROPOSED - PLAN AND SECTIONS	

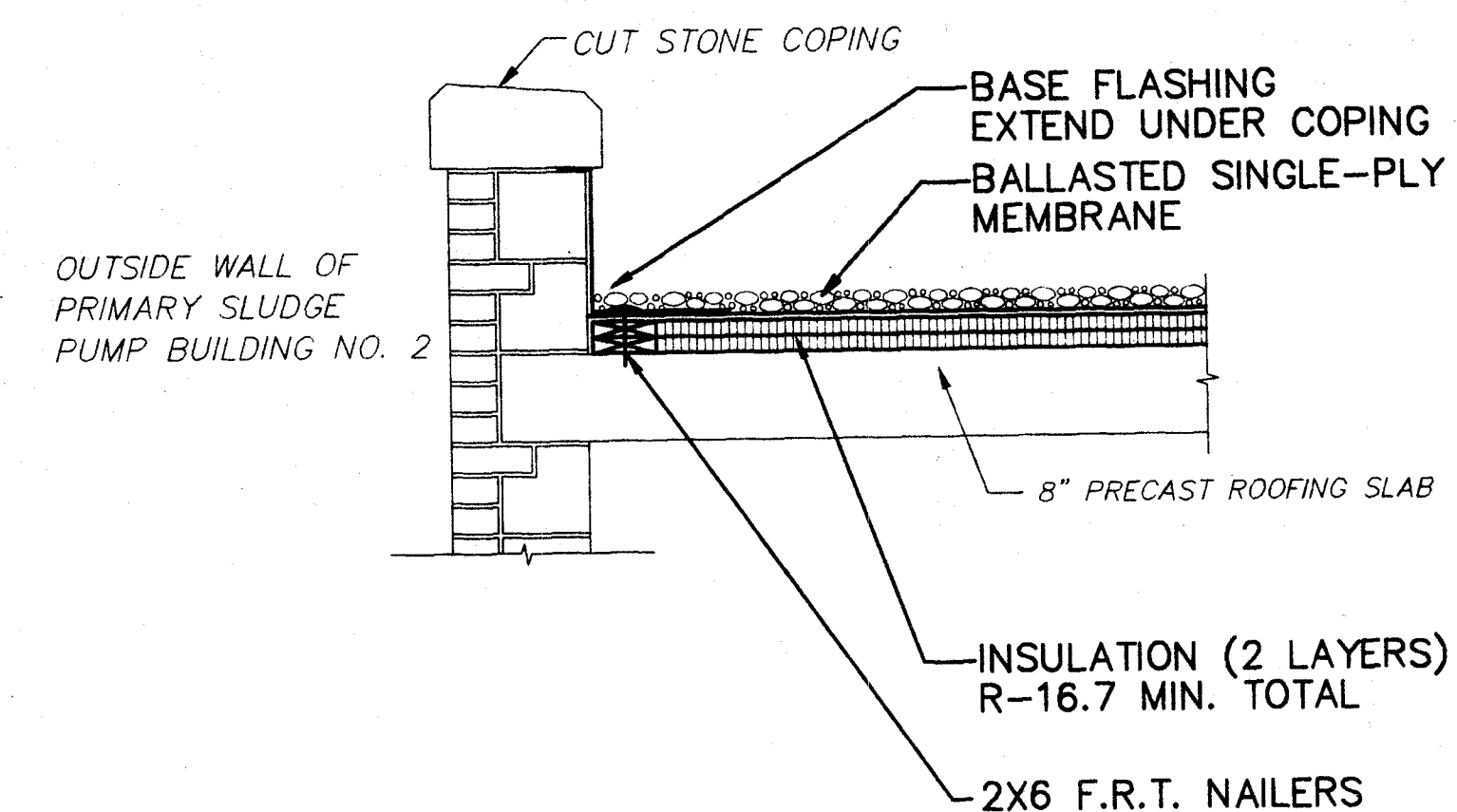


- NOTES:
1. CONTRACTOR TO REMOVE AND REPLACE EXISTING 4" ROOF DRAIN (TYP. FOR 2).
 2. CONTRACTOR TO SUPPLY AND INSTALL CONCRETE WALKWAY PAVERS.

SLUDGE PUMP BUILDING NO. 2
ROOF PLAN
SCALE: 1/4"=1'-0"

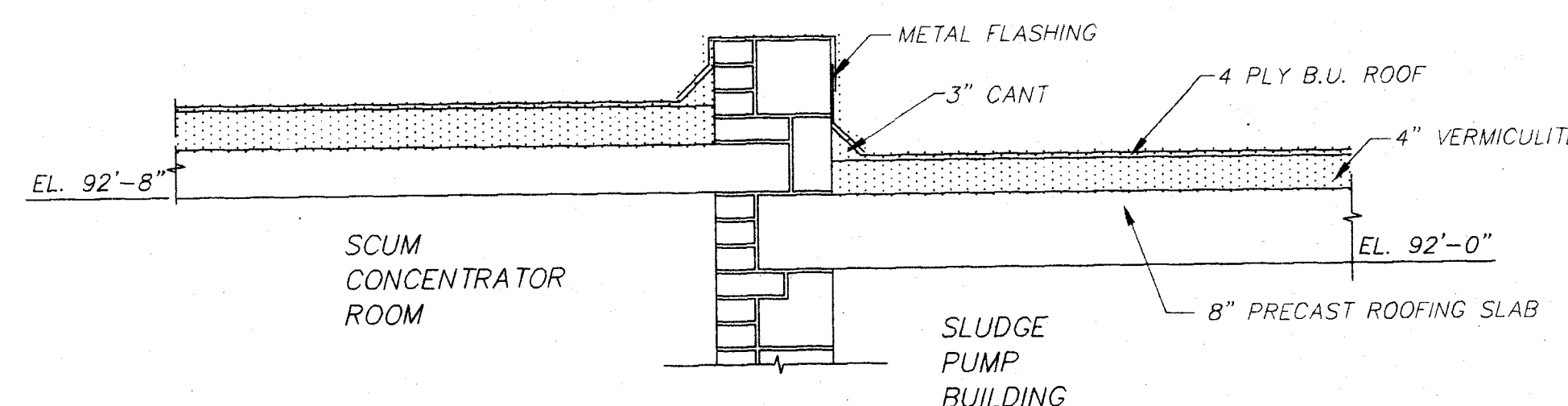


DEMOLITION

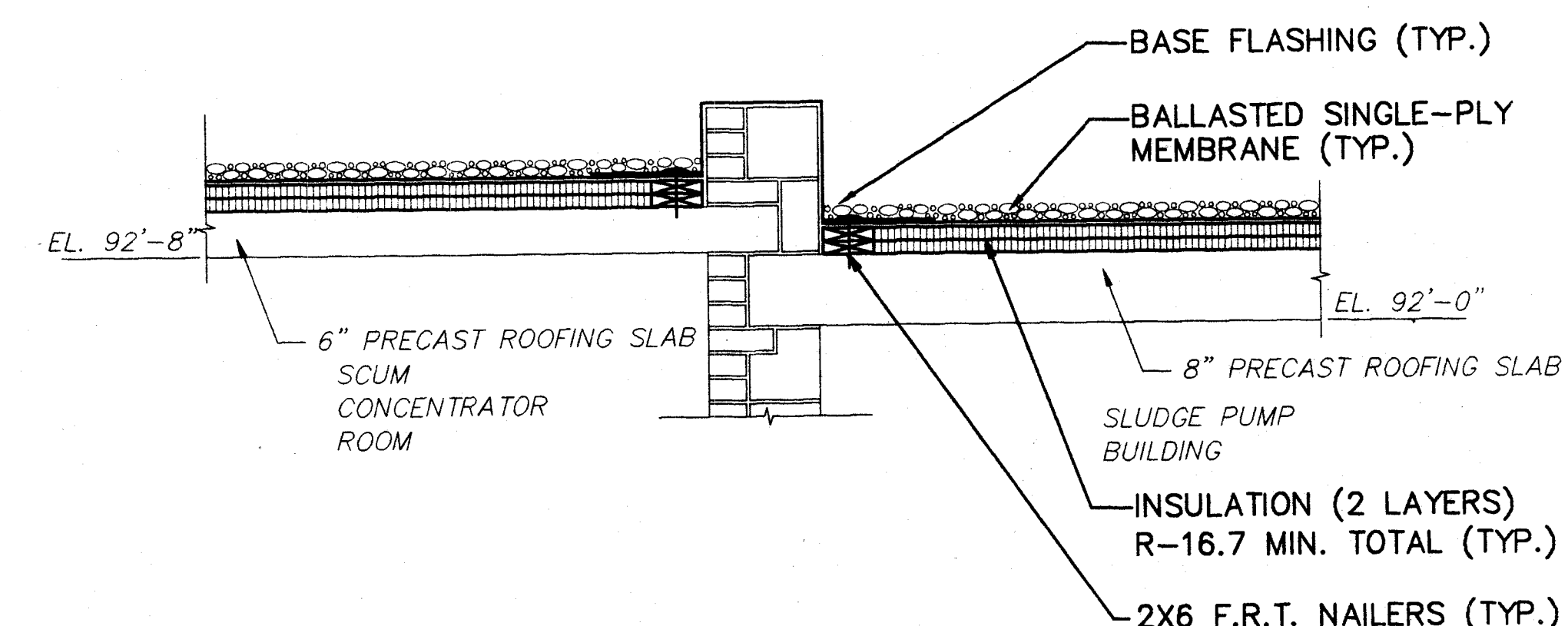


PROPOSED

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

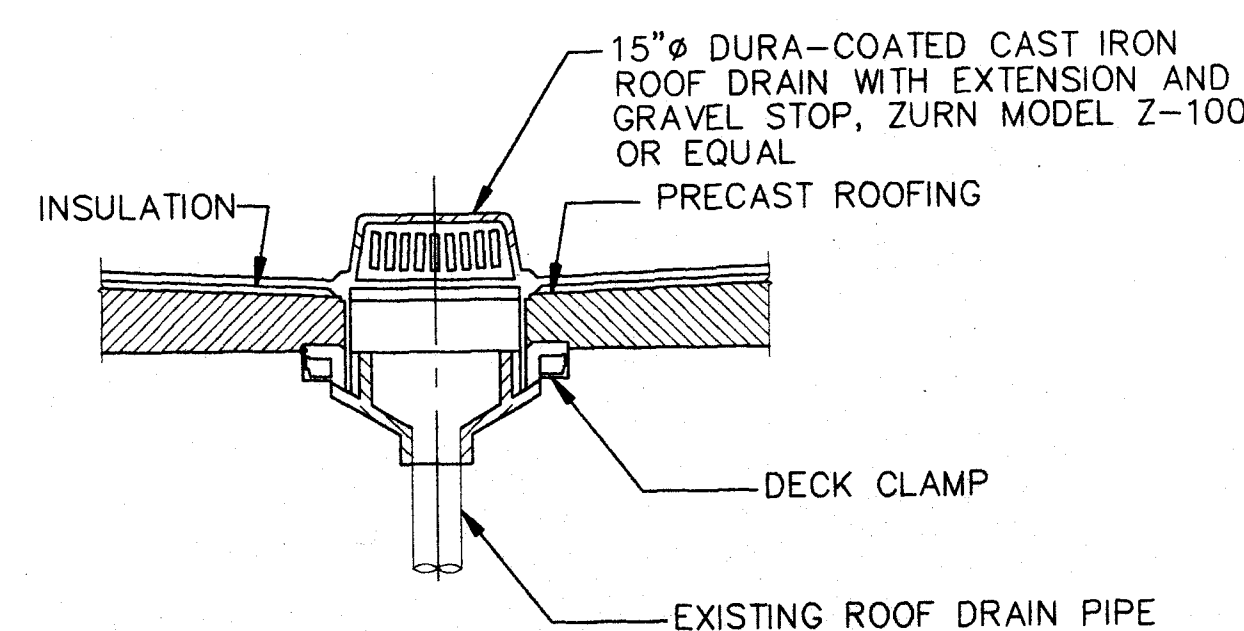


DEMOLITION



PROPOSED

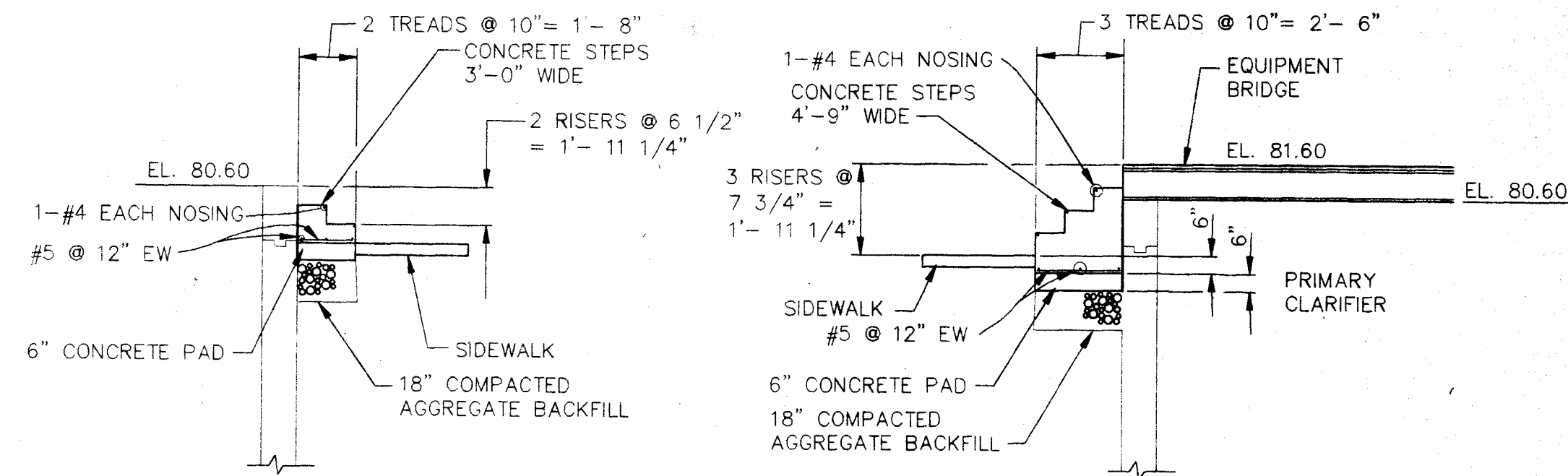
SECTION 2
SCALE: 3/4"=1'-0"



TYPICAL ROOF DRAIN DETAIL
NOT TO SCALE



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					W. A. D.	10 of 25		

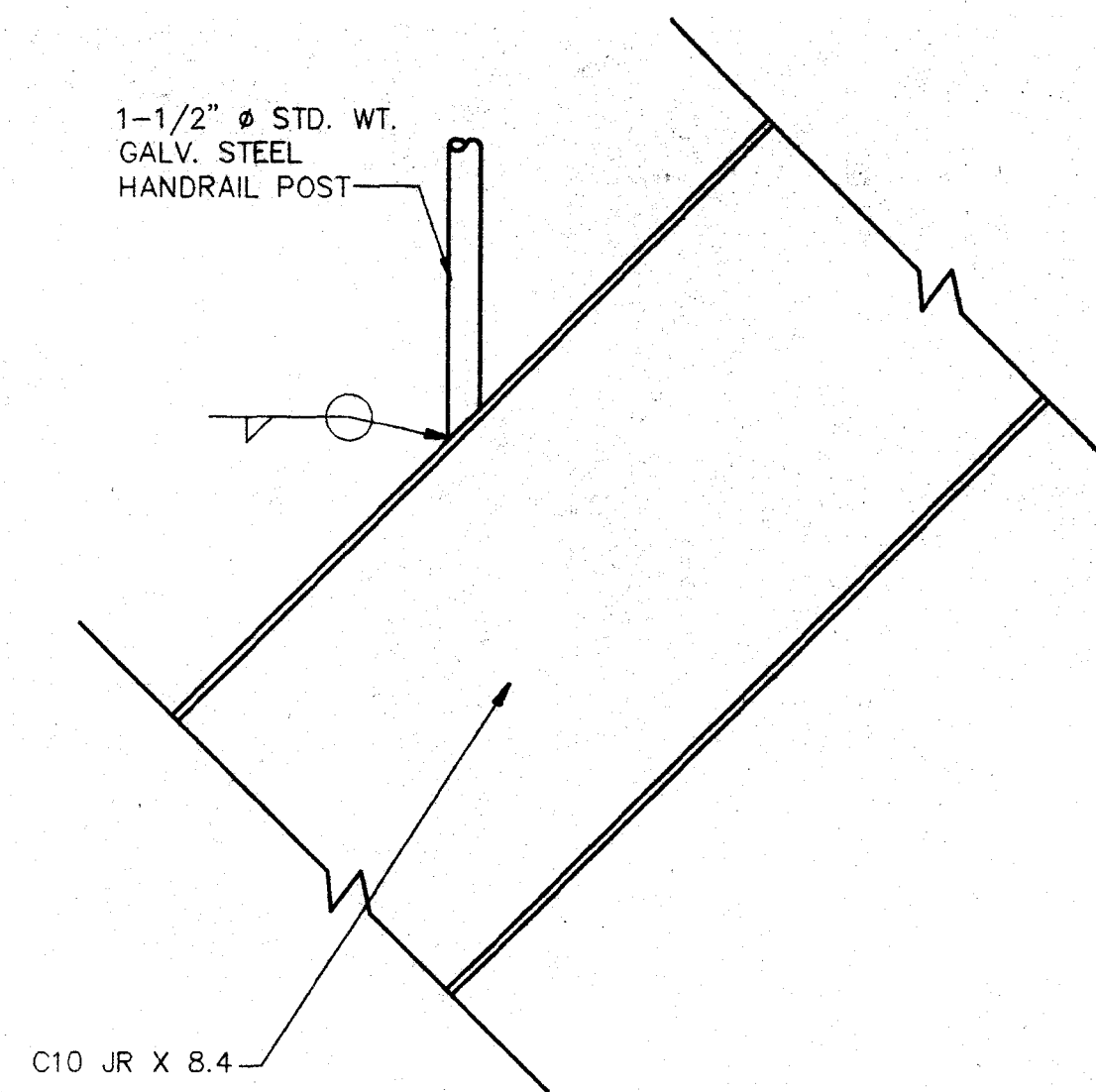


EAST SIDE EFFLUENT CHANNEL

EAST SIDE EQUIPMENT BRIDGE

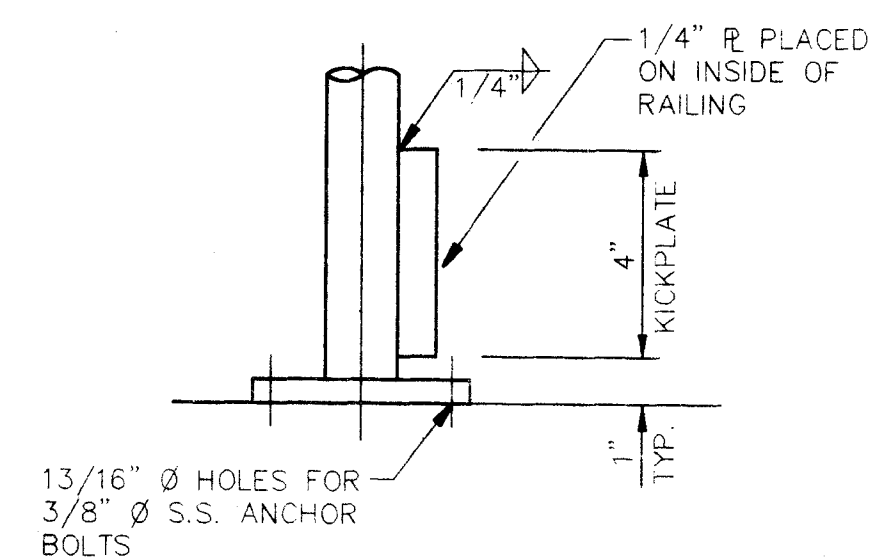
PRIMARY CLARIFIER CONCRETE STAIR DETAIL

NOT TO SCALE

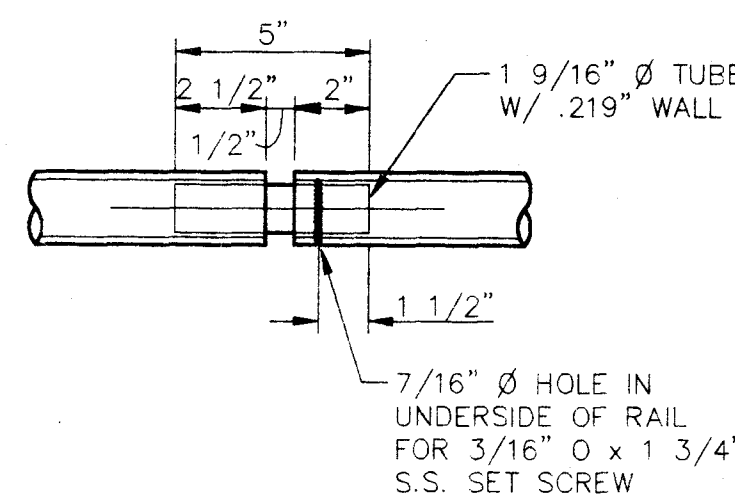


SLUDGE PUMP BUILDING NO.2 CONNECTION OF HANDRAIL POSTS ON STAIRS

NOT TO SCALE



KICKPLATE DETAIL

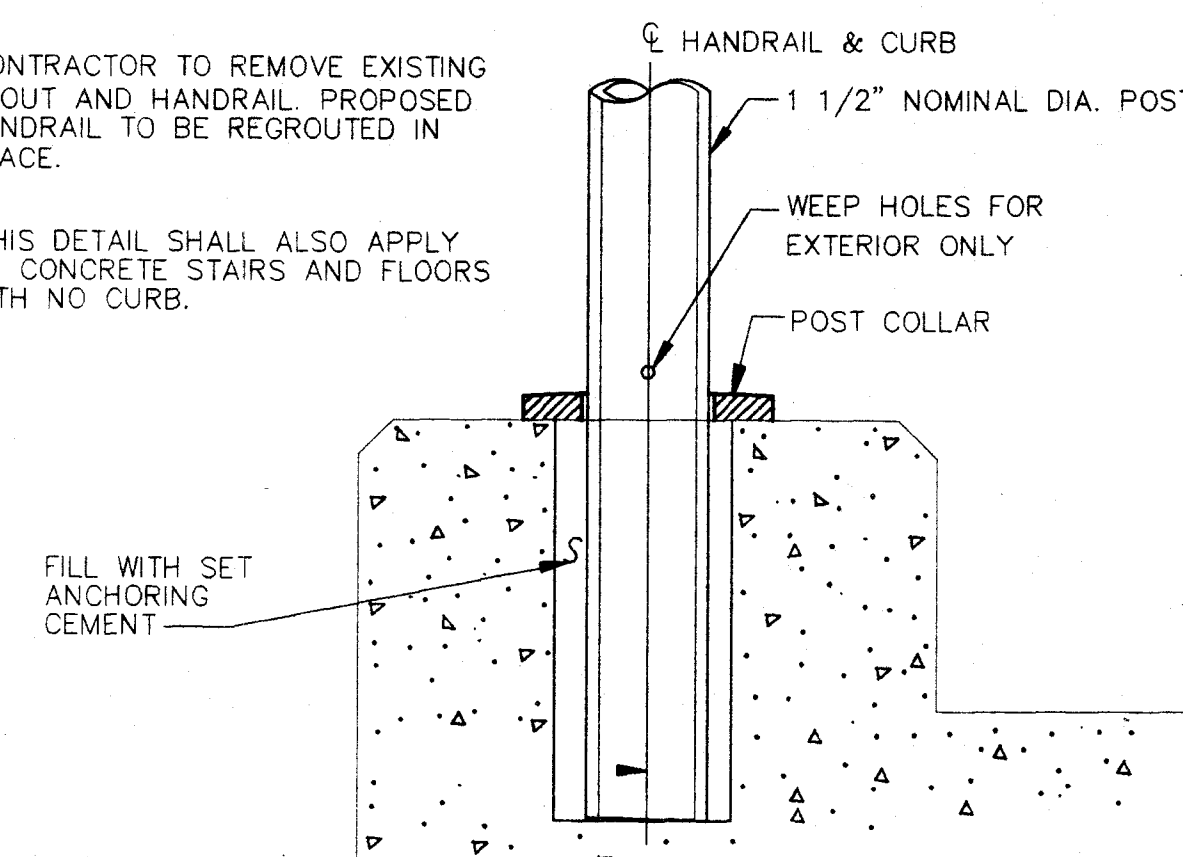


EXPANSION JOINT SPLICE

LOCATED @ 60'-0" MAXIMUM SPACING

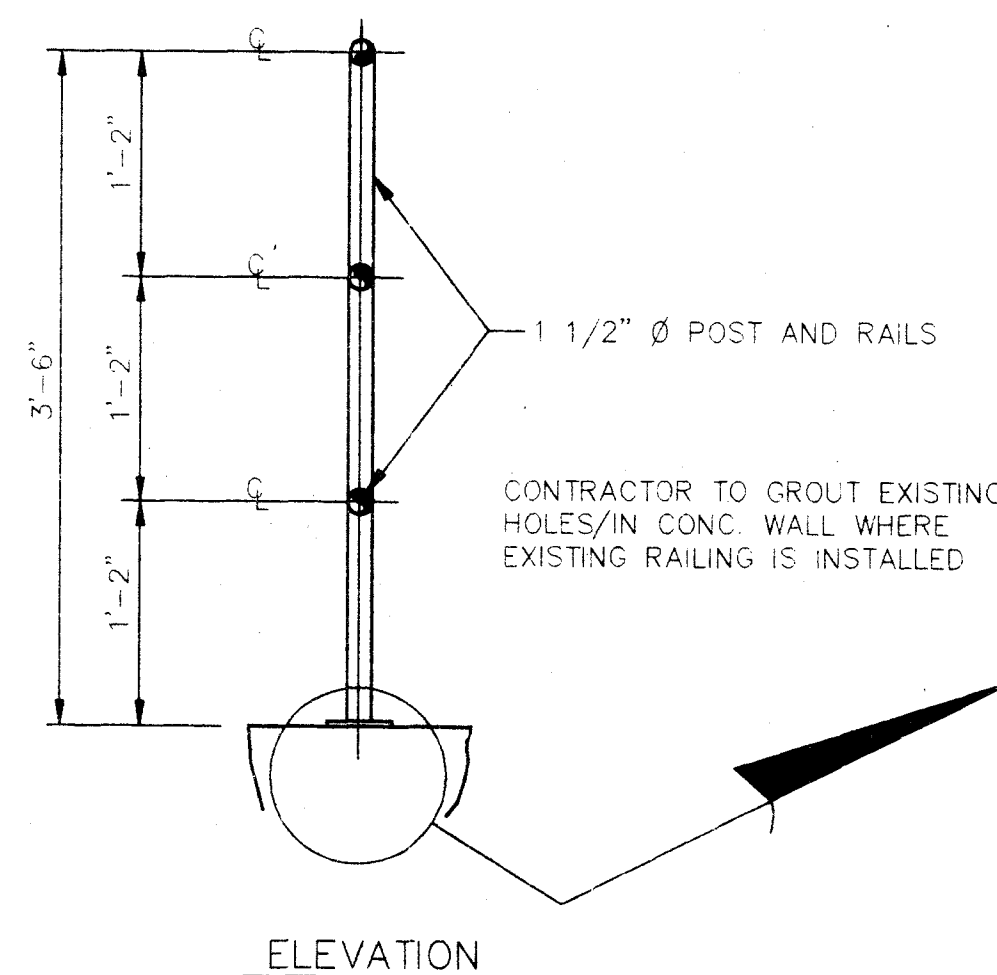
NOTES:

1. CONTRACTOR TO REMOVE EXISTING GROUT AND HANDRAIL PROPOSED HANDRAIL TO BE REGROUTED IN PLACE.
2. THIS DETAIL SHALL ALSO APPLY TO CONCRETE STAIRS AND FLOORS WITH NO CURB.

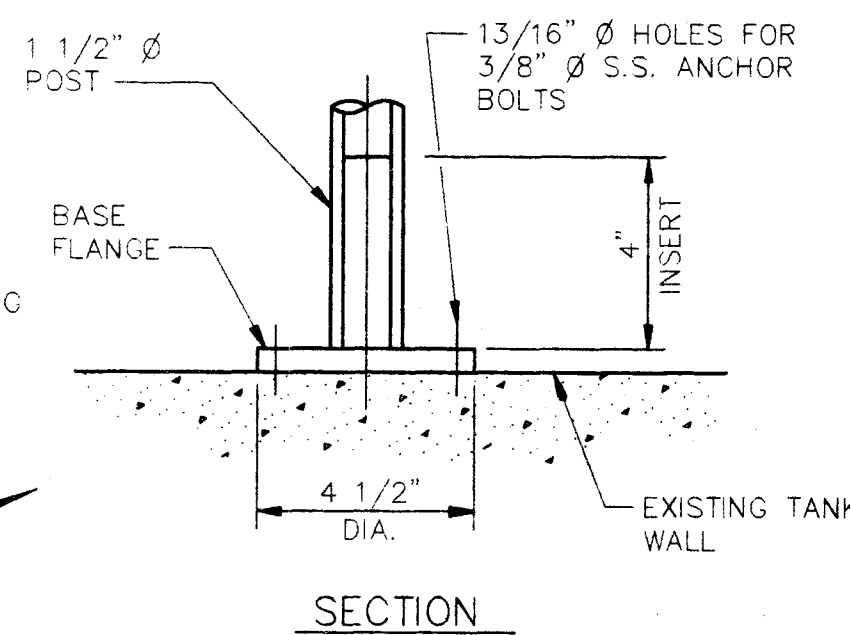


SLUDGE PUMP BUILDING NO.2 HANDRAIL FLOOR MOUNTING DETAIL

NOT TO SCALE



ELEVATION



SECTION

FLUSH MOUNT DETAIL

PRIMARY CLARIFIER RAILING DETAILS

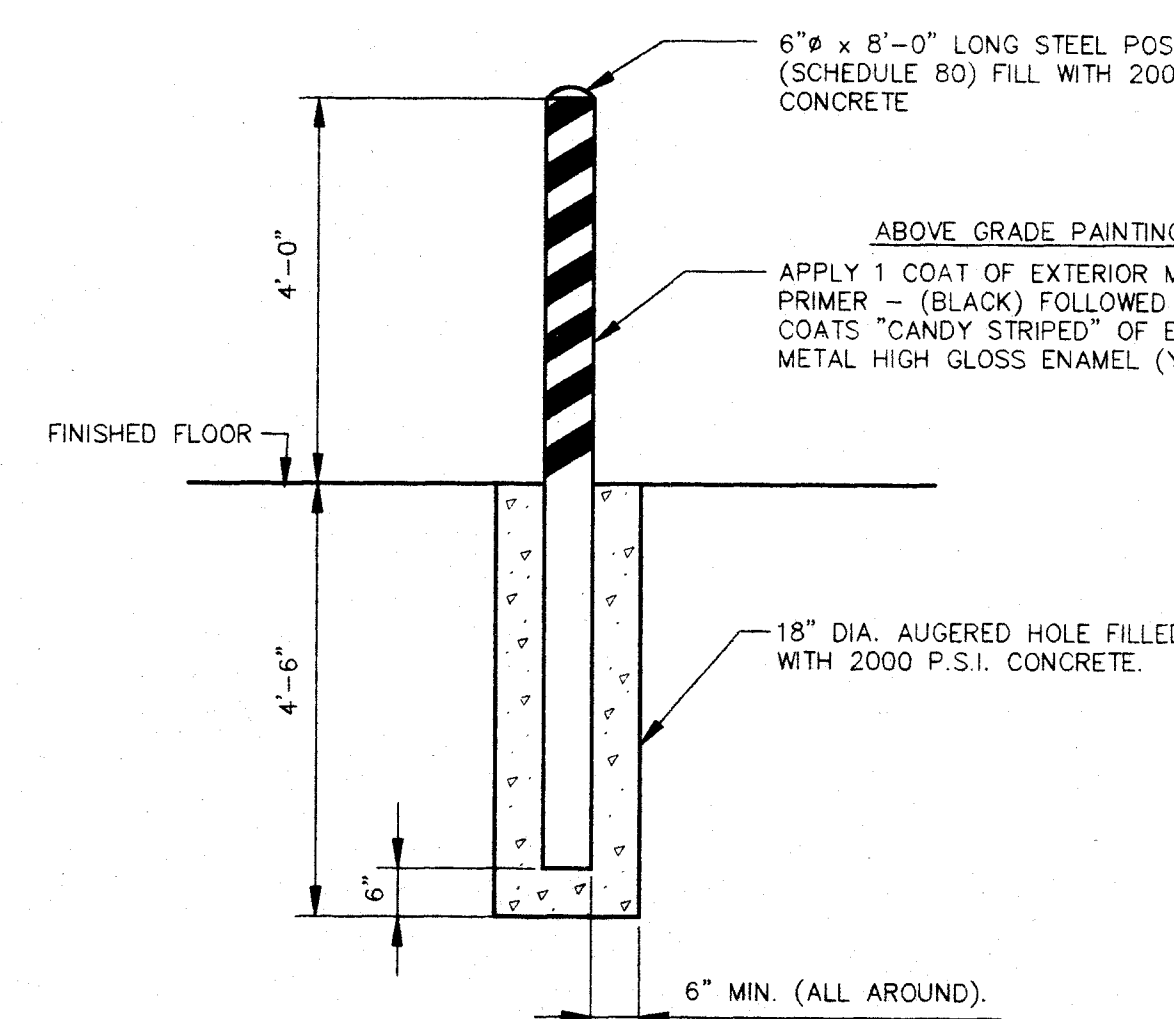
SCALE: NONE

NOTES:

1. Submit shop drawings detailing fabrication and erection of stairs. Include plans, elevations, sections, and details of fabrications and connections.
2. Field Measurements: Check actual locations and elevations of walls, platforms, slabs-on-grade, and other constructions which must be coordinated with stairs. Base shop drawings on actual field measurements.
3. Materials:
 - a. Steel Plates, Shapes, and Bars. ASTM A36.
 - b. Steel Pipe (for railings). ASTM A53, Type S, Grade B, Standard weight (schedule 40).
 - c. Welding Rods and Bare Electrodes. Select in accordance with American Welding Society specifications for materials to be welded.
4. Prefabricated Aluminum Treads. Fabricate from 1-1/2 inch aluminum I-bar grating to provide a tread width of 10-inches (+/- 1/4-inch) and length of 39-inches as shown. Tread to incorporate a slip resistance nosing. Mount to stringer with stainless steel bolts.
5. Epoxy-set (Expansion) Anchors.
 1. "All-thread" rod, nuts, and washers. AISC 304 stainless steel meeting the requirements of ASTM F593.
 2. Epoxy Filler. Two component, high strength, low deflection, ceramic filled epoxy equivalent to EPCON Ceramic 6 by ITW Romset/Red Head. Epoxy fillers shipped and installed in glass capsules are NOT acceptable.
6. Stainless Steel Bolts and Nuts. IFI-104, Type 305 or 316.

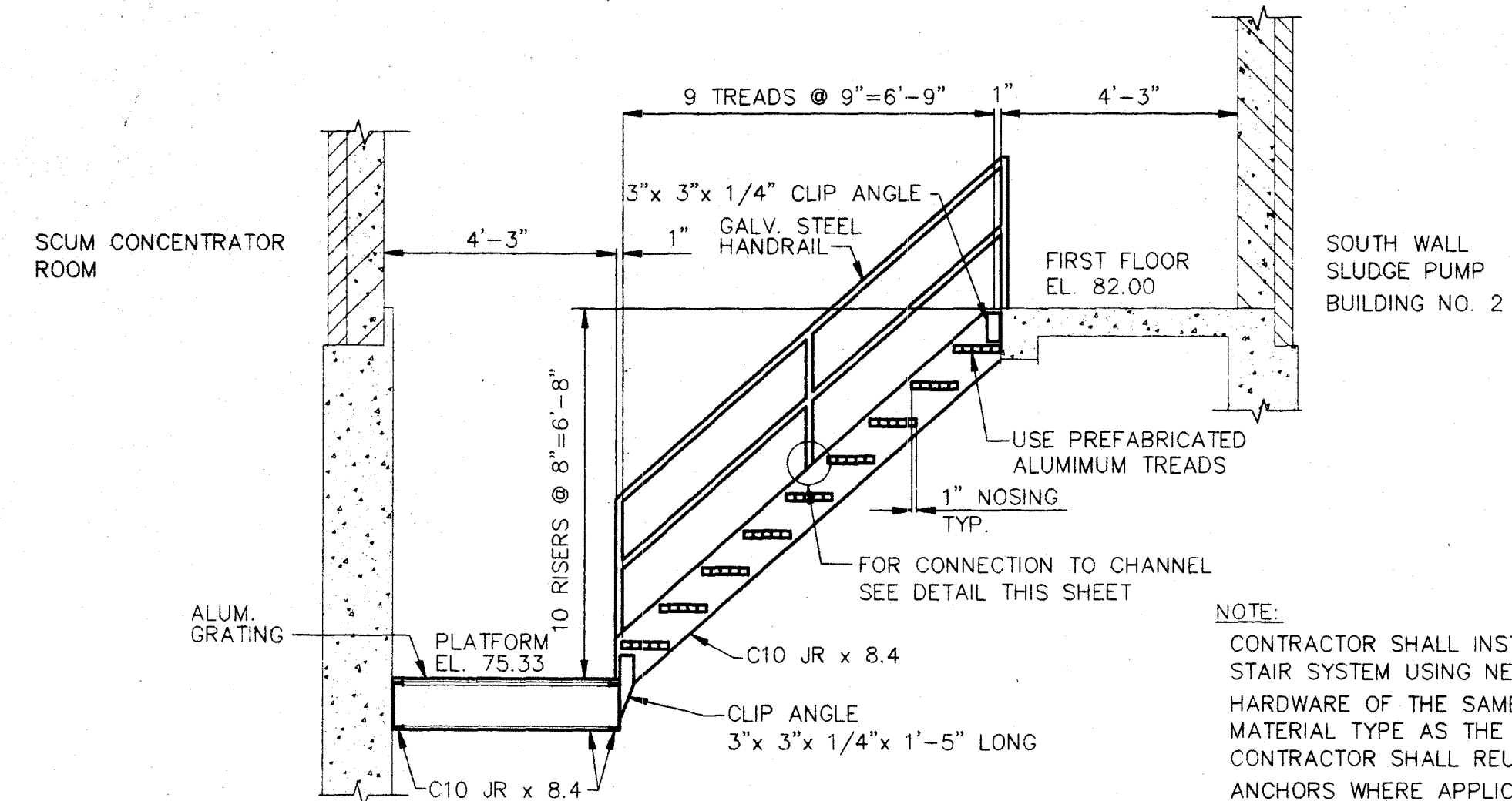
Painting:

- a. Surface Preparation. SSPC Specification SP-6 (NACE No. 3) "Commercial Blast Cleaning" to achieve an anchor pattern of not less than 30 percent of the primer dry film thickness.
- b. Primer. One coat of TNEEC Series 66 "Hi-Build Epoxoline" or approved equal to a dry film thickness of 4 mils.
- c. Top Coat. One coat of TNEEC Series 71 "Endura-Shield" or approved equal to a dry film thickness of 2.5 mils. Prepare primed surface per manufacturer's recommendations.
- d. Color. To be selected by Owner from manufacturer's standard color list.



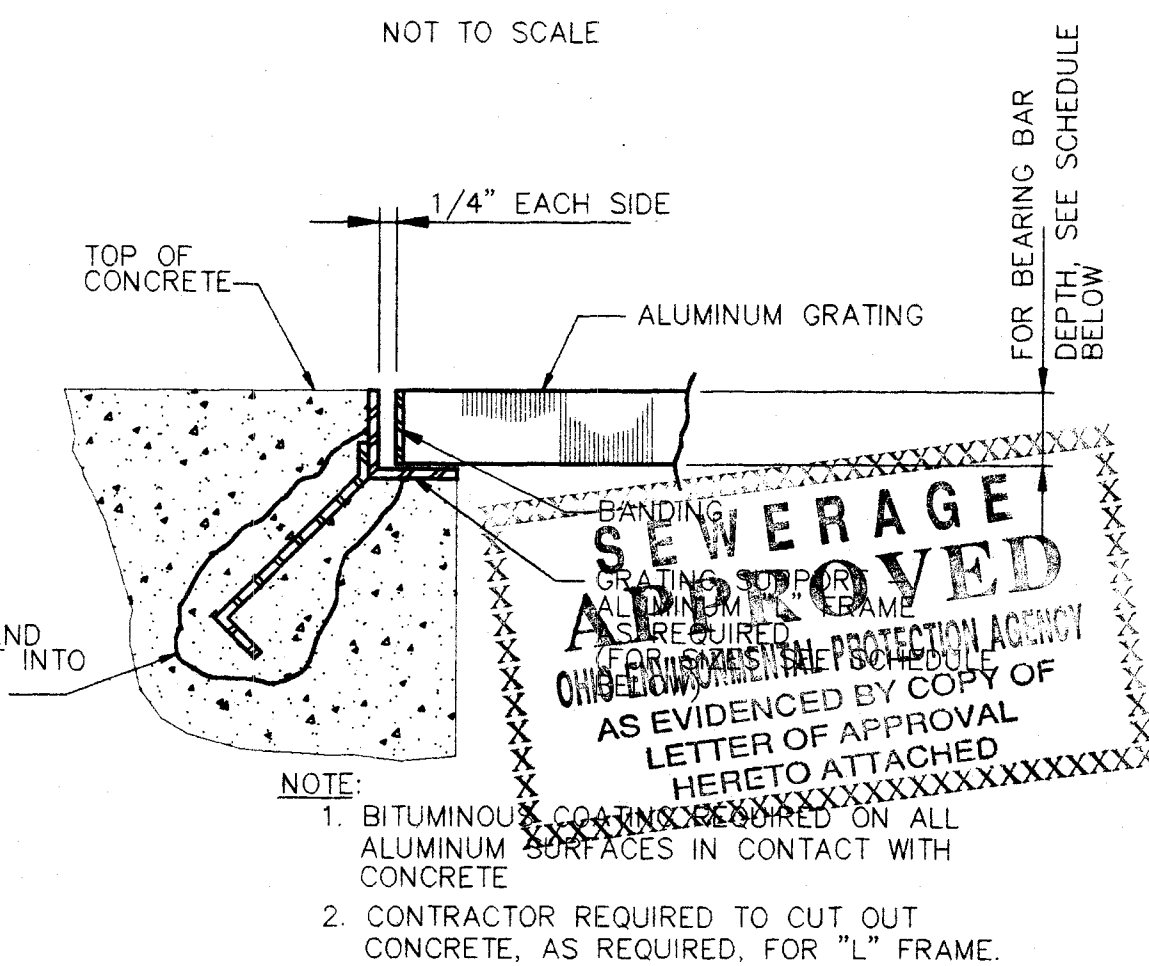
PIPE BOLLARD DETAIL

NOT TO SCALE



SLUDGE PUMP BUILDING NO. 2 STAIRWAY DETAIL

NOT TO SCALE



NOTE:

1. BITUMINOUS COATINGS REQUIRED ON ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE
2. CONTRACTOR REQUIRED TO CUT OUT CONCRETE, AS REQUIRED, FOR "L" FRAME.

MAX. CLEAR SPAN	BEARING BAR DEPTH	ANGLE SIZE
LESS THAN 3'-0"	1 1/4"	1 1/2 x 1 1/2 x 1/4
3'-0" to 4'-0"	1 1/2"	1 3/4 x 1 3/4 x 1/4
4'-1" to 5'-0"	1 3/4"	2 x 2 x 1/4
5'-1" to 6'-0"	2"	2 1/4 x 2 1/4 x 1/4
6'-1" to 7'-0"	2 1/4"	2 1/2 x 2 1/2 x 1/4

SLUDGE PUMP BUILDING NO. 2 GRATING DETAIL

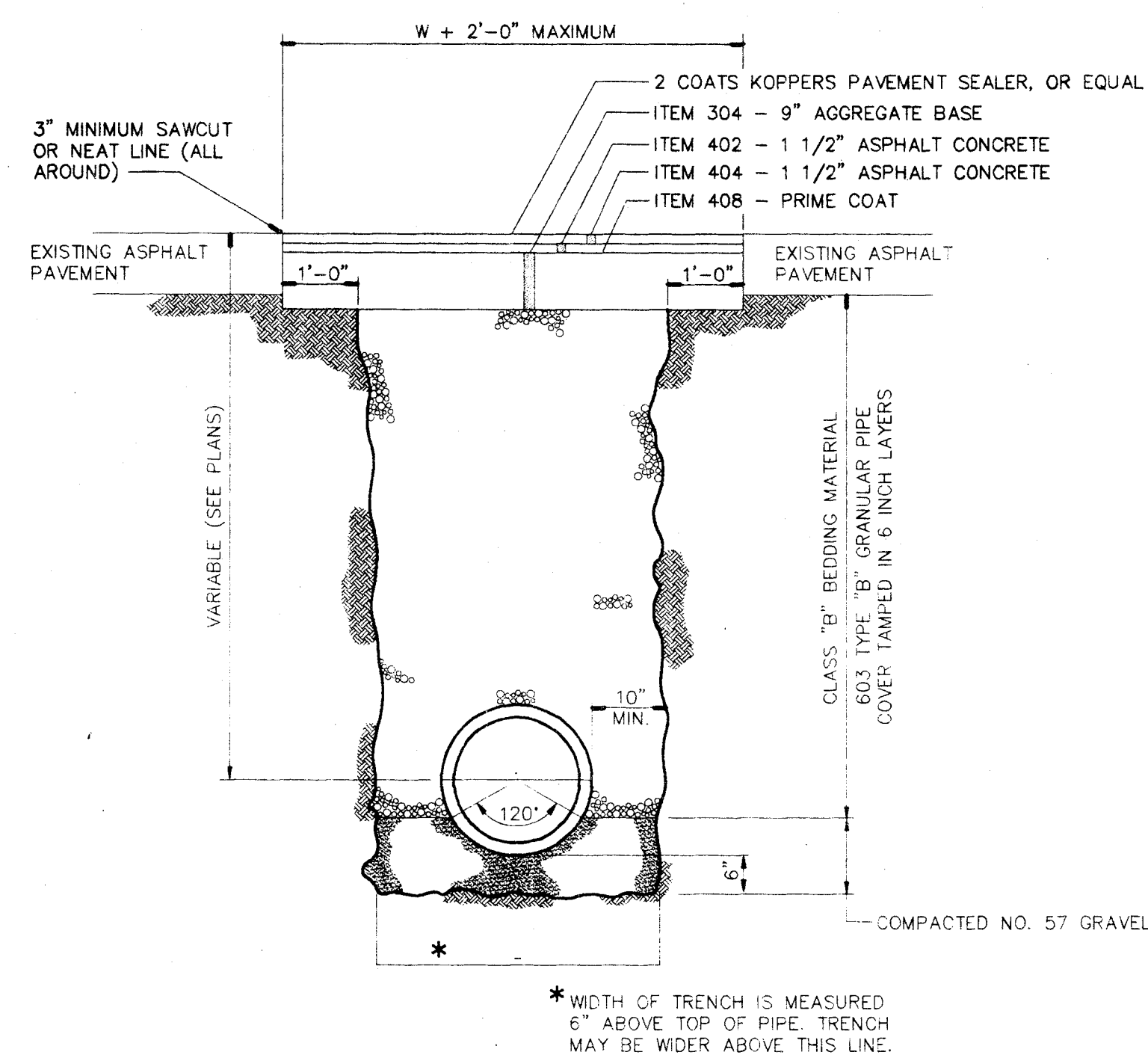
NOT TO SCALE

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ENGINEERS IN WATER AND EARTH SCIENCES
UNIONTOWN, OHIO

CITY OF MASSILLON, OHIO
PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS
MISCELLANEOUS DETAILS

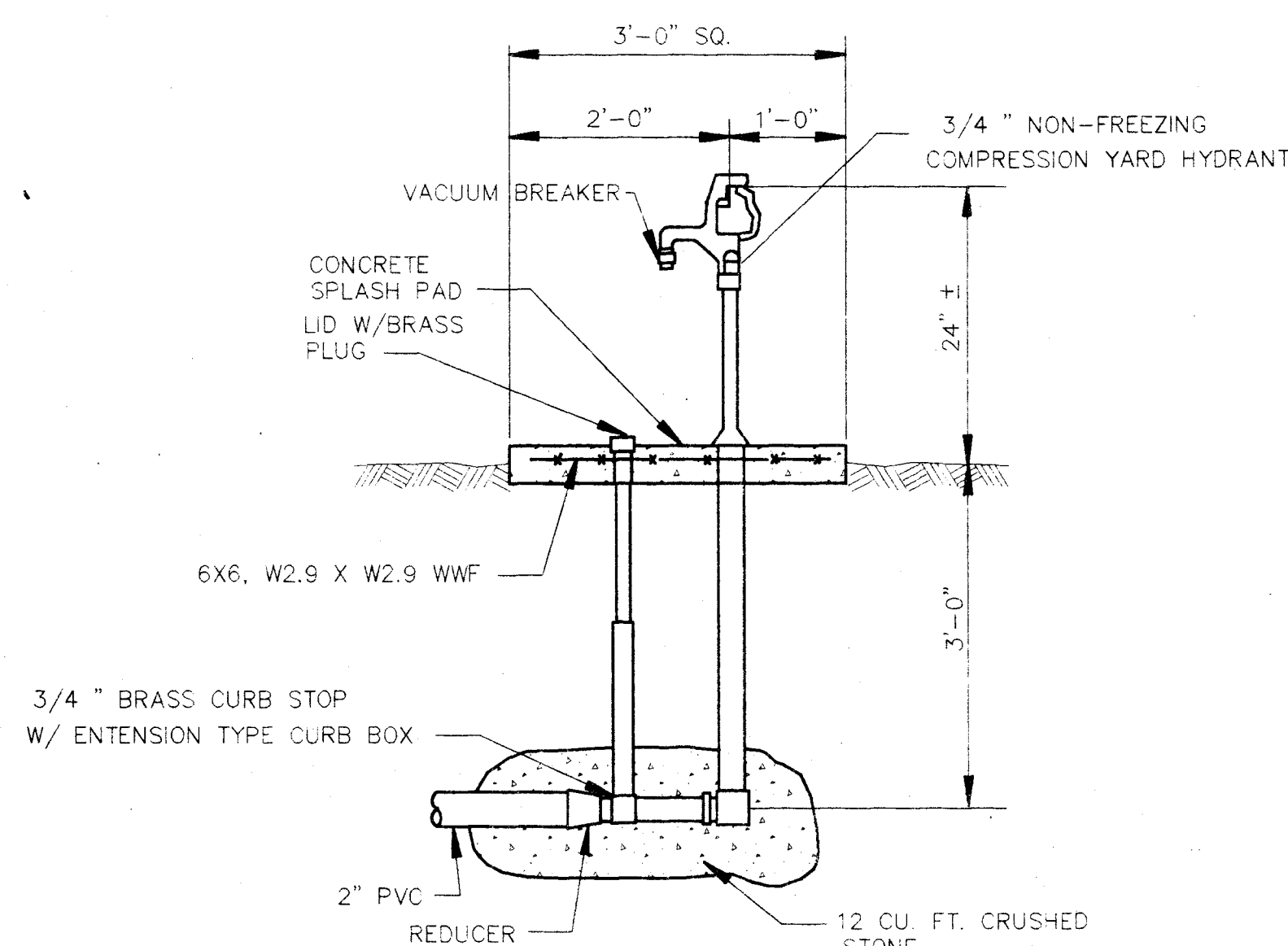
JOB NO.
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NOTE:
ITEM NUMBERS REFER TO LATEST REVISION OF
THE STATE OF OHIO DEPARTMENT OF
TRANSPORTATION CONSTRUCTION AND MATERIAL
SPECIFICATIONS.

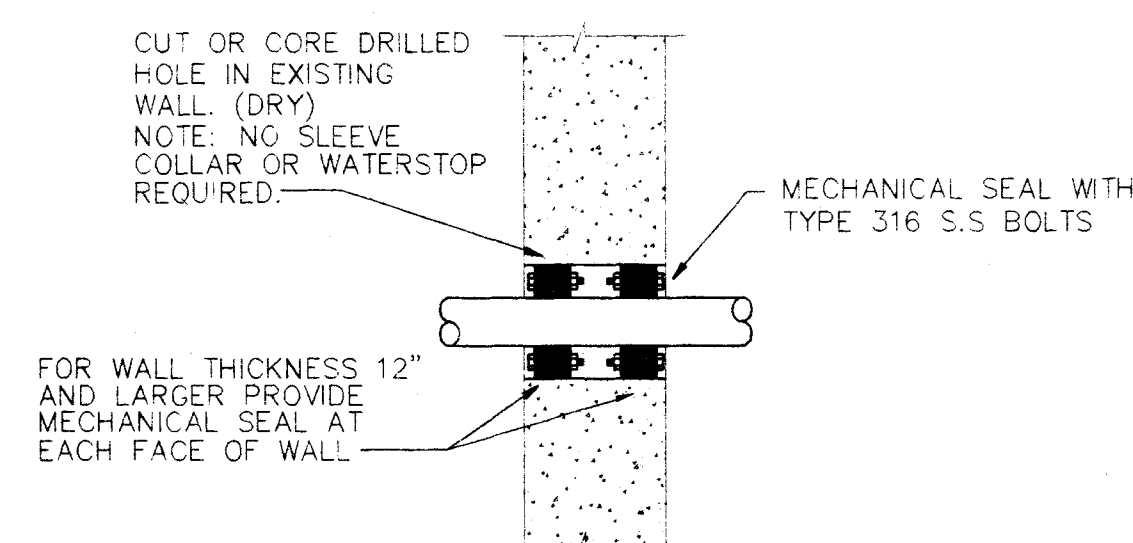
PAVEMENT RELACEMENT & BEDDING DETAIL

NOT TO SCALE



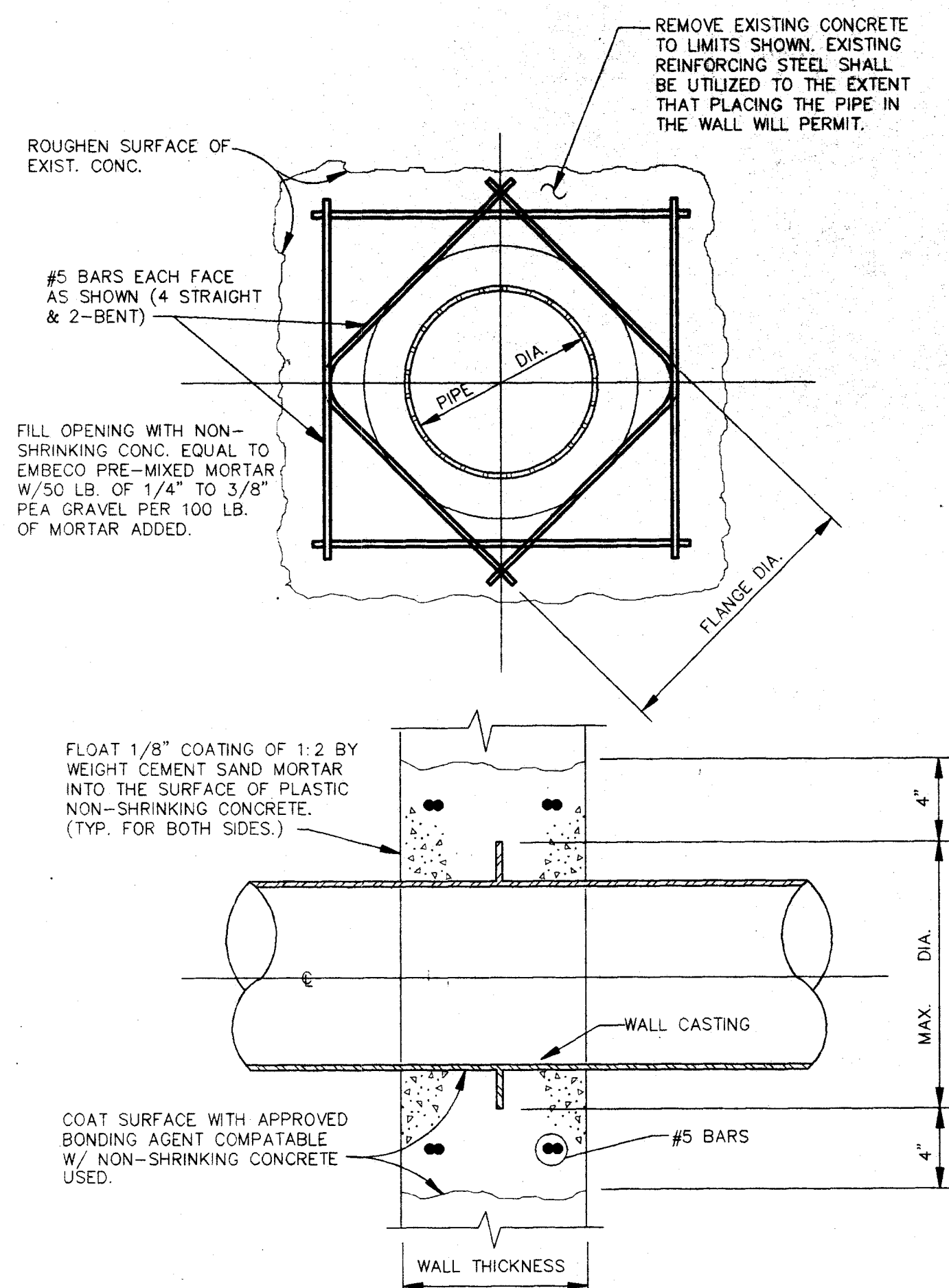
YARD HYDRANT DETAIL

NOT TO SCALE



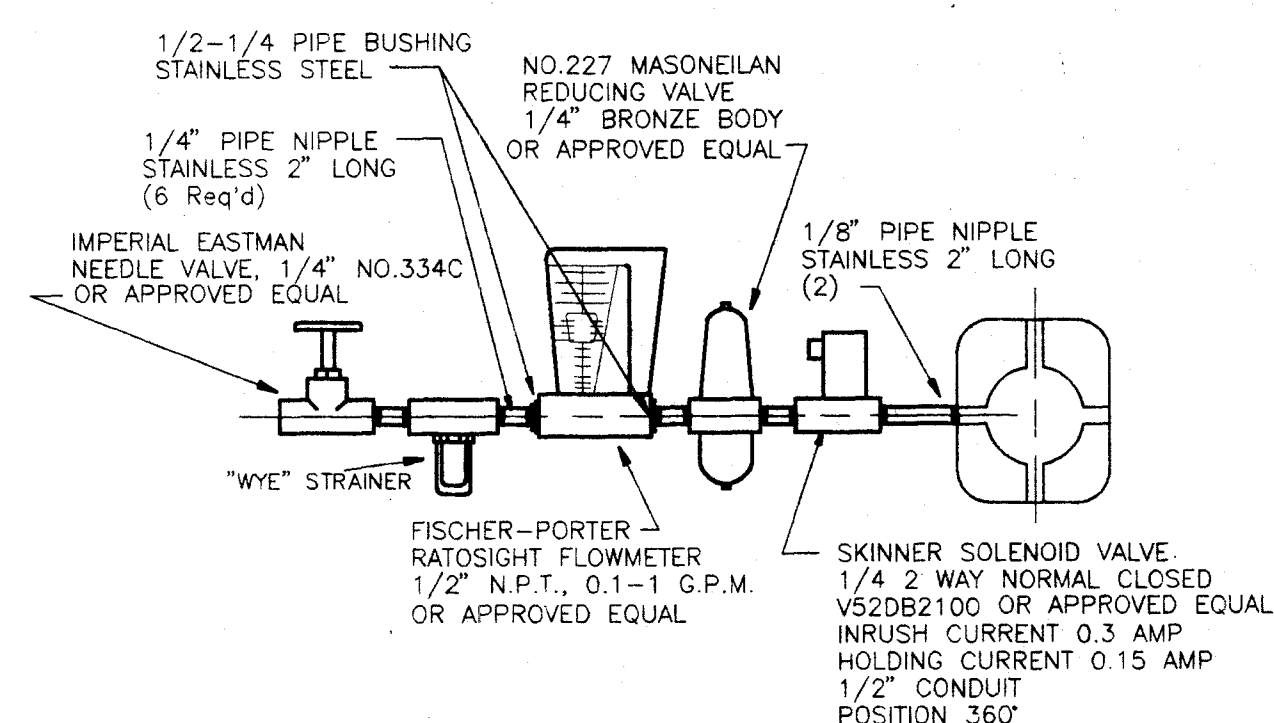
SLUDGE PUMP BUILDING NO.2
MECHANICAL SEAL

NOT TO SCALE



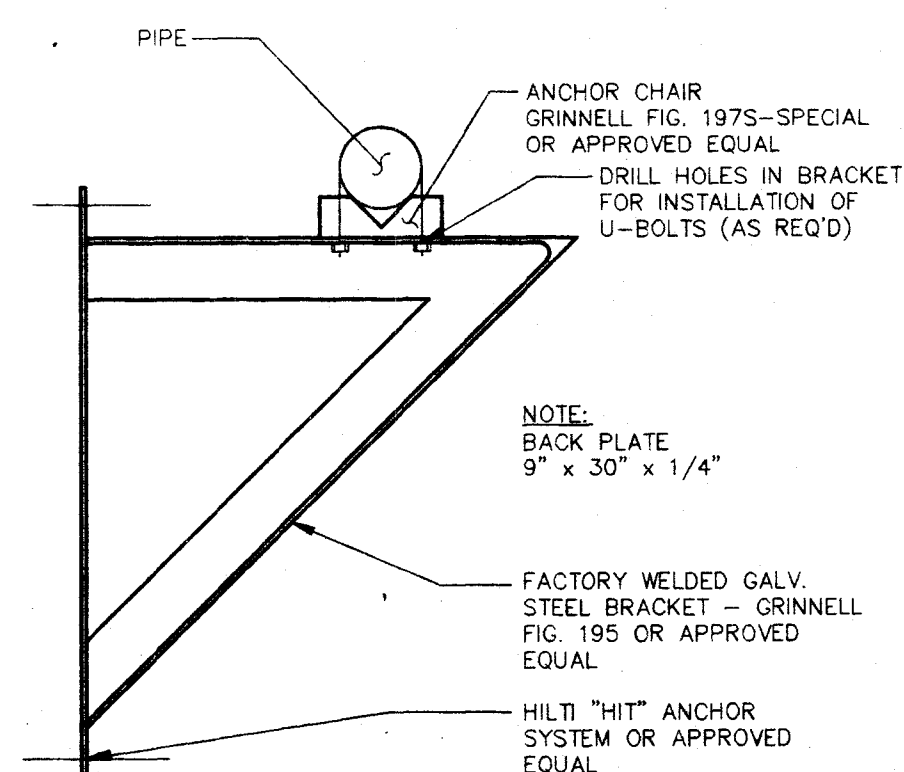
SLUDGE PUMP BUILDING NO. 2
TYPICAL DETAIL FOR PLACING
WALL CASTING IN EXISTING WALL

NOT TO SCALE



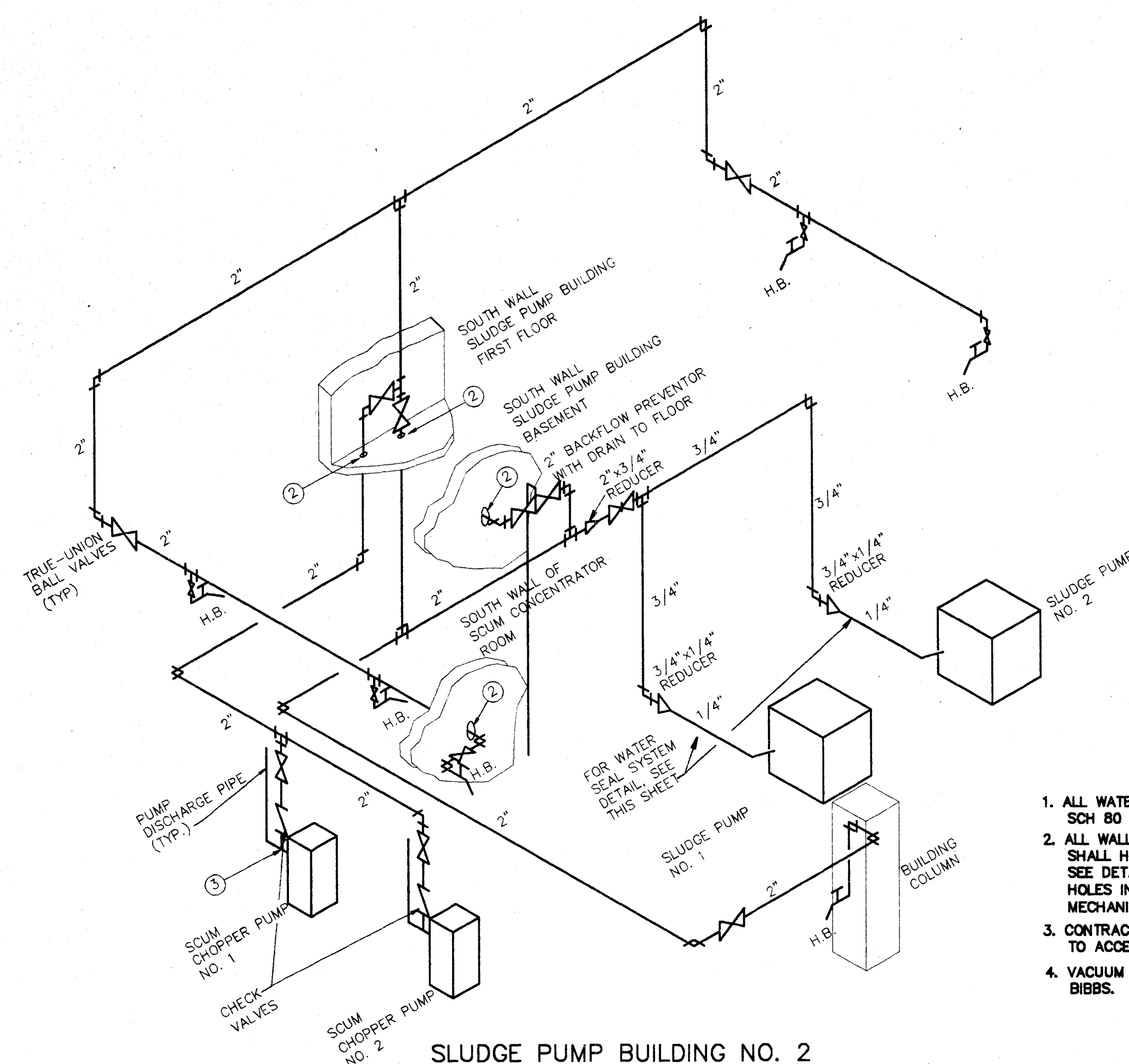
SLUDGE PUMP BUILDING NO.2
SEAL WATER SYSTEM FOR SLUDGE PUMPS

NOT TO SCALE



SLUDGE PUMP BUILDING NO.2
WALL BRACKET PIPE SUPPORT

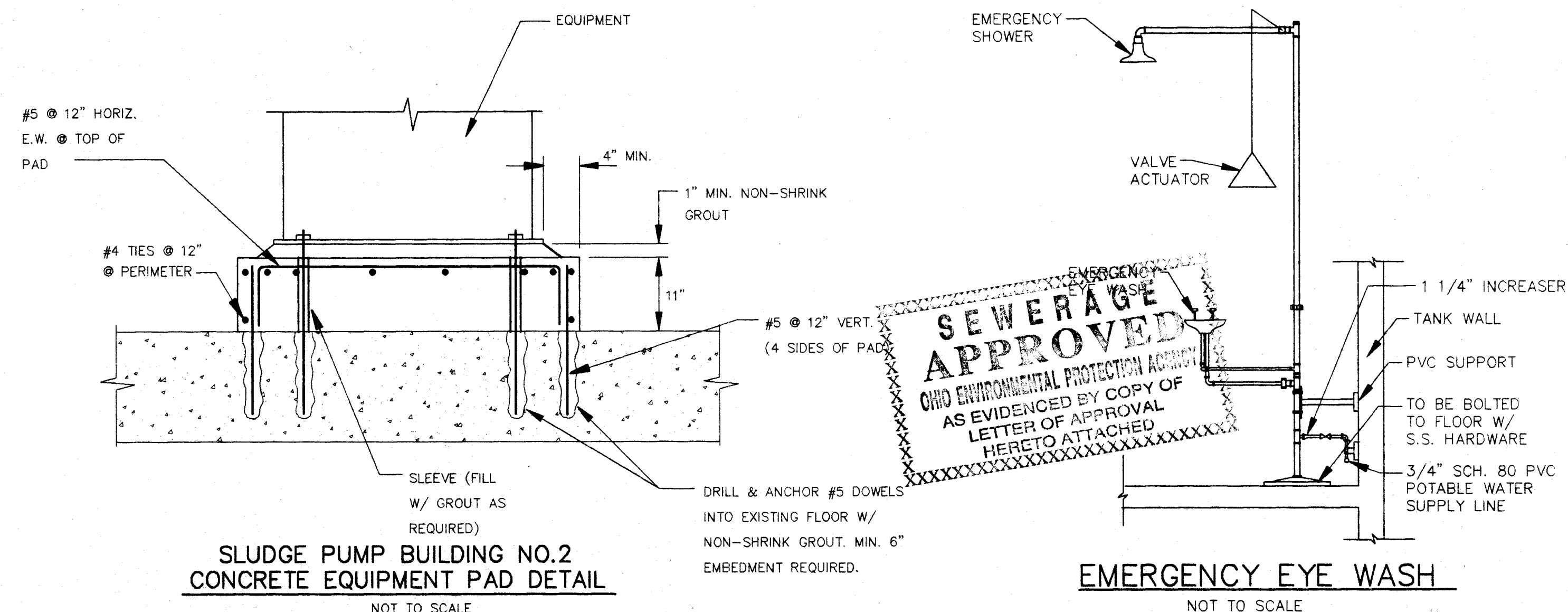
NOT TO SCALE



SLUDGE PUMP BUILDING NO. 2
SEAL WATER PIPING SCHEMATIC

NOT TO SCALE

1. ALL WATER PIPING INSIDE PUMP STATION SHALL BE SCH 80 PVC.
2. ALL WALL PIPE PENETRATIONS SHOWN ON SCHEMATIC SHALL HAVE MODULAR MECHANICAL COUPLING SEALS. SEE DETAIL THIS SHEET. CONTRACTOR SHALL CORE HOLES IN CONC. WALLS AND FLOORS TO ACCEPT MECHANICAL SEALS.
3. CONTRACTOR SHALL TAP SLUDGE PUMP DISCHARGE PIPE TO ACCEPT 2" WATER PIPE.
4. VACUUM BREAKERS TO BE PROVIDED ON ALL HOSE BIBBS.



EMERGENCY EYE WASH

NOT TO SCALE

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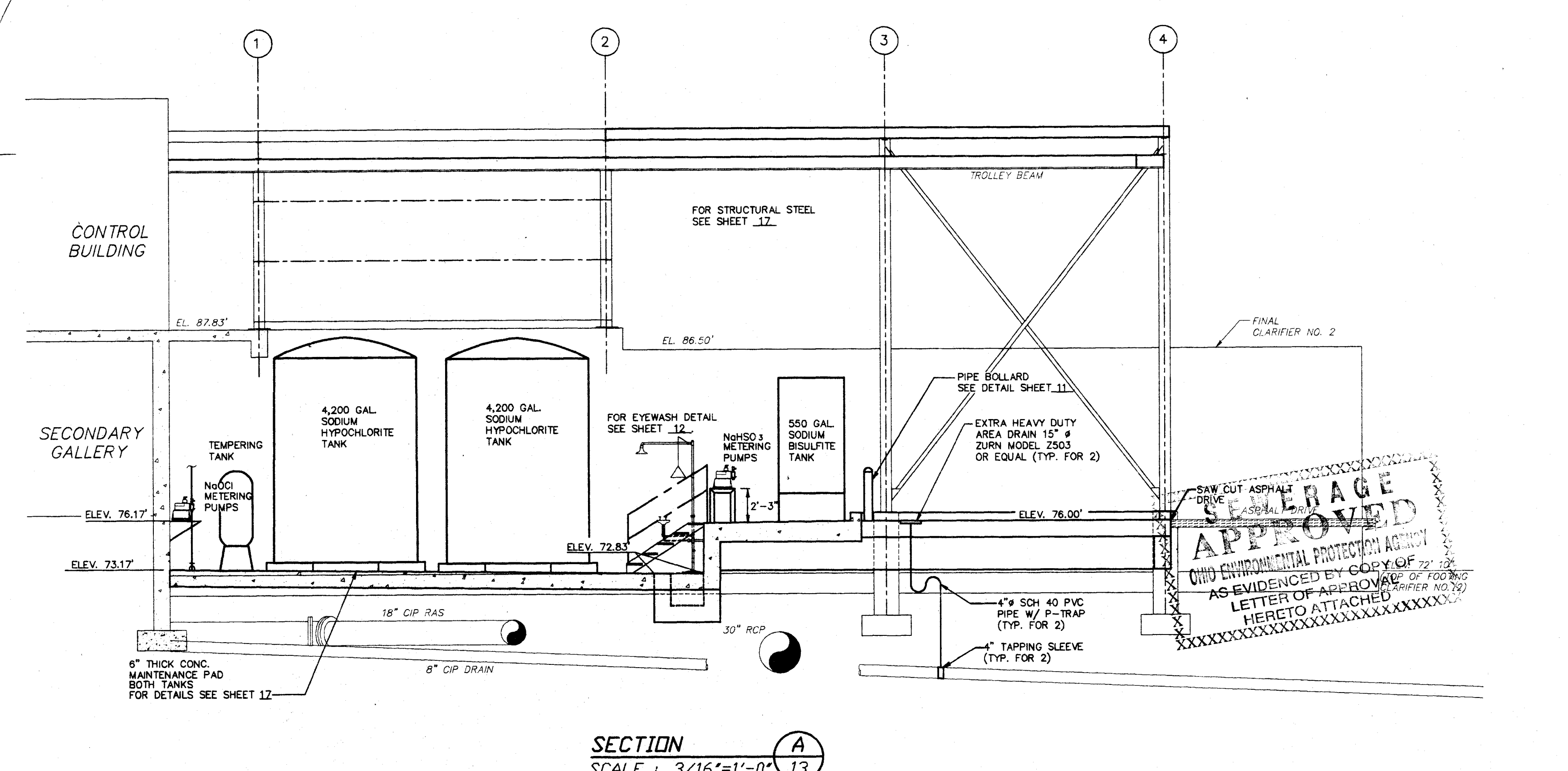
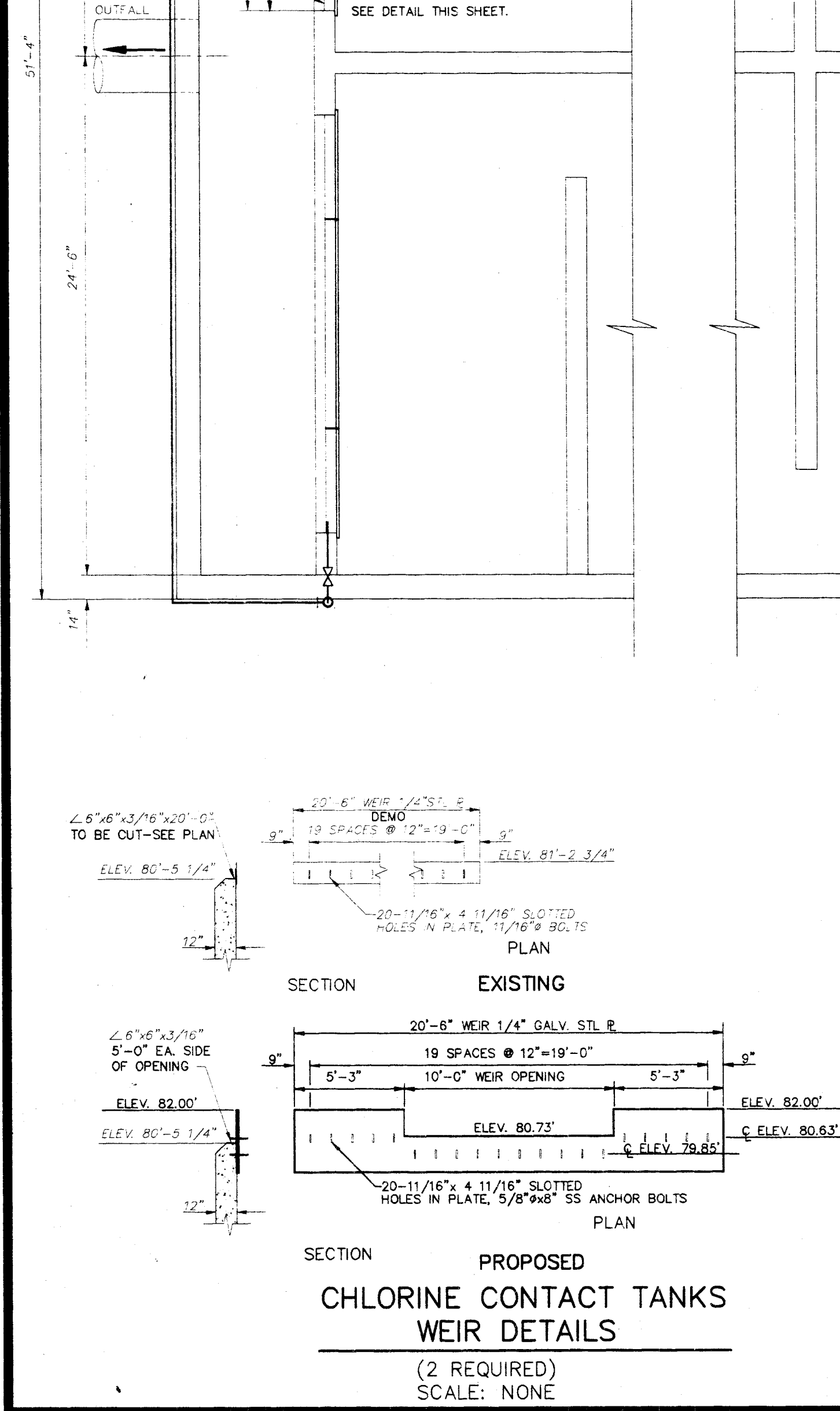
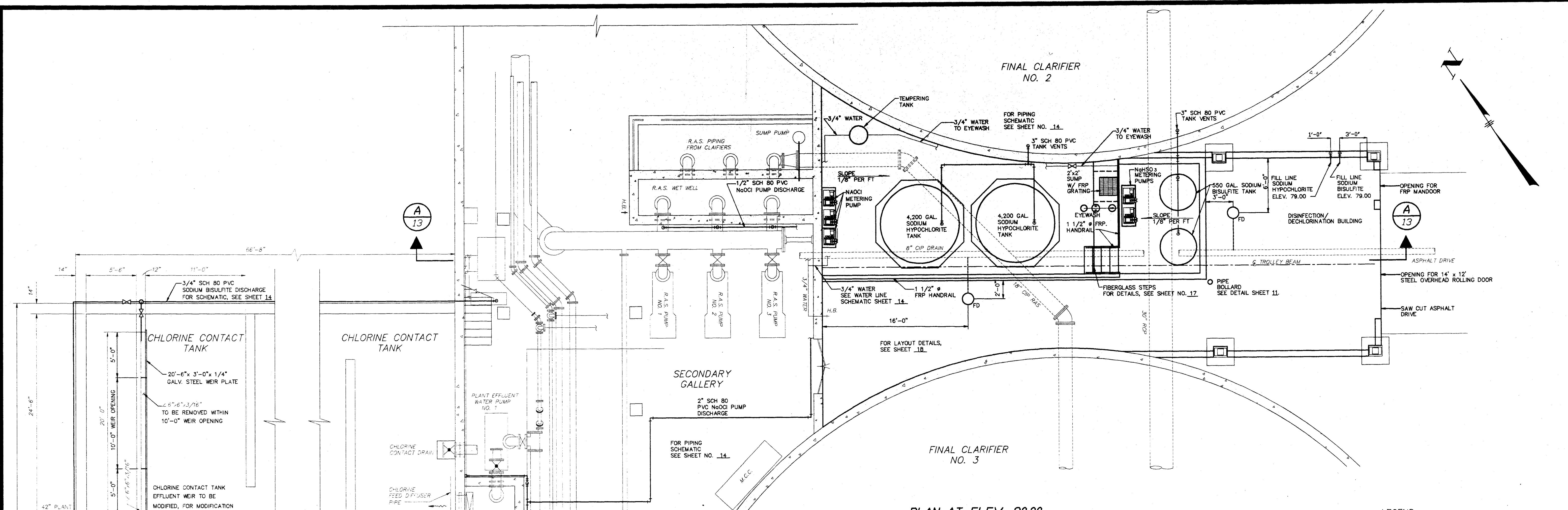
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ENVIRONMENTAL, INC.
ENGINEERS IN WATER AND EARTH SCIENCES
UNIONTOWN, OHIO

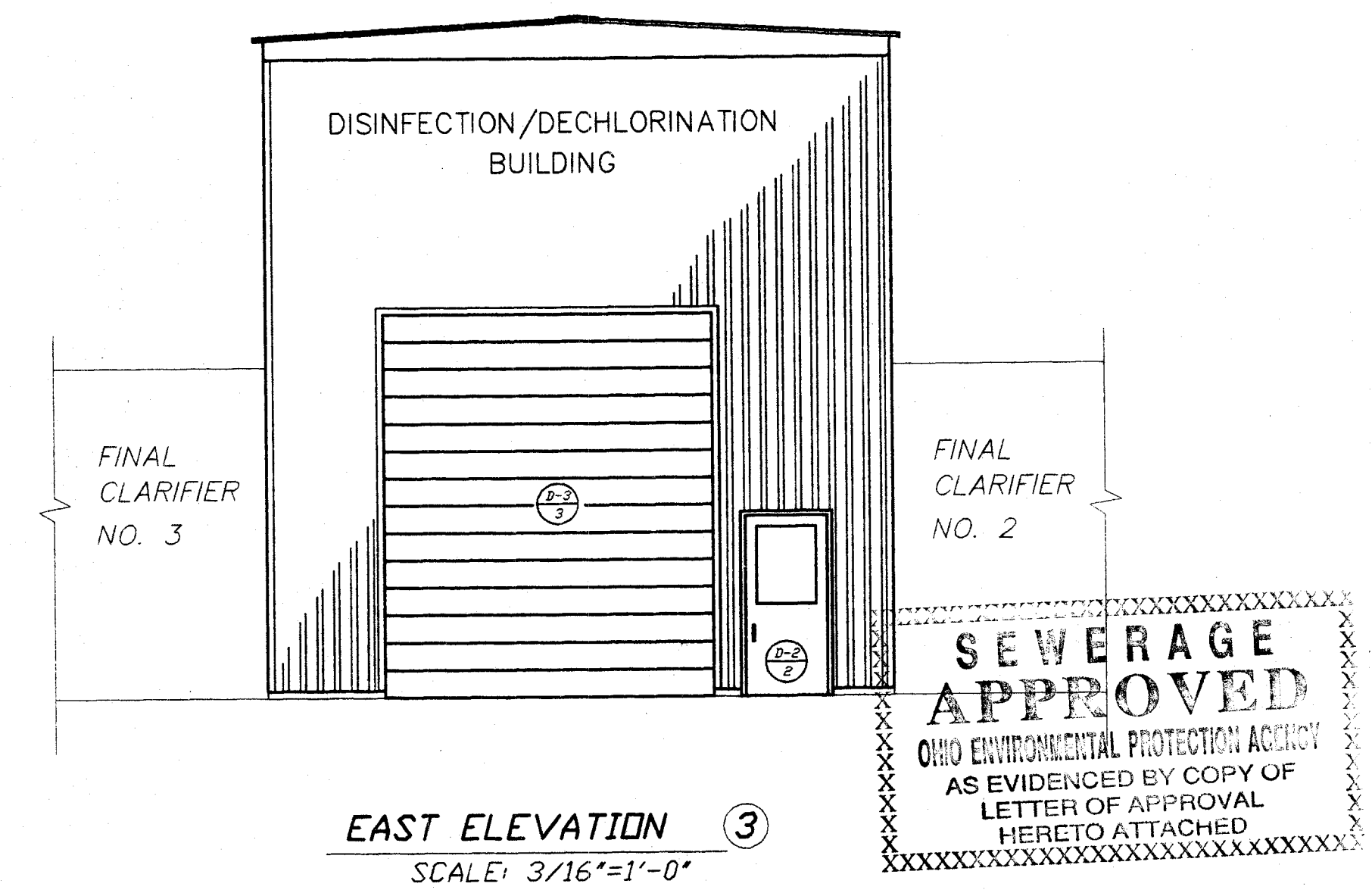
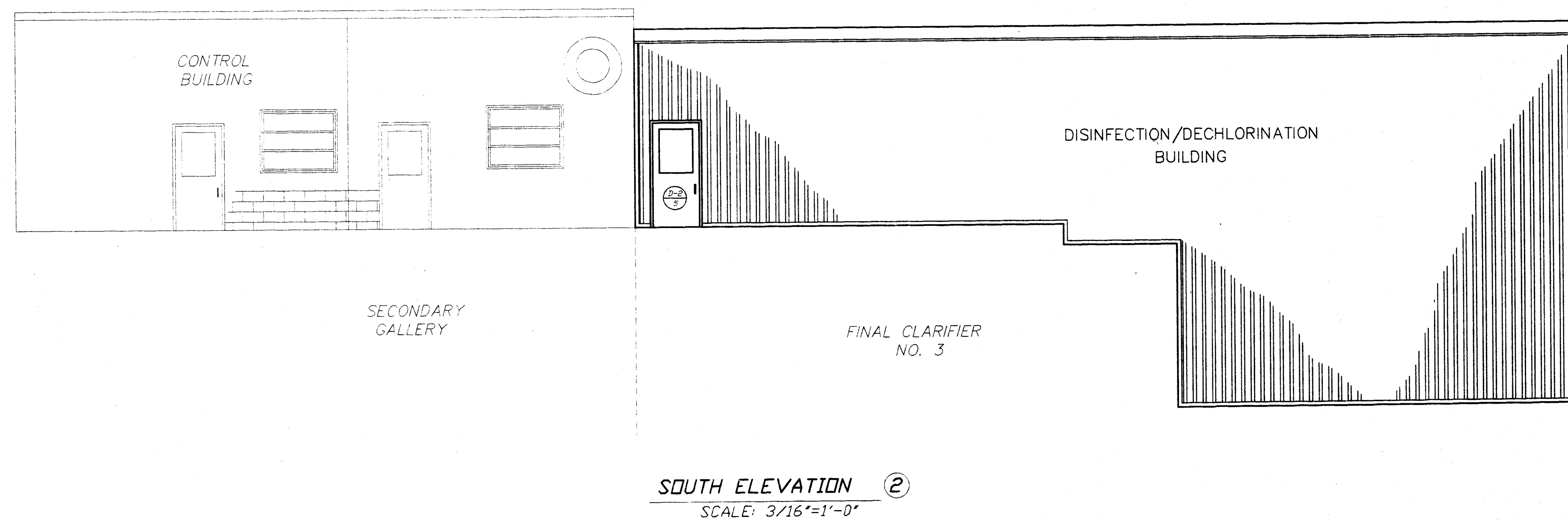
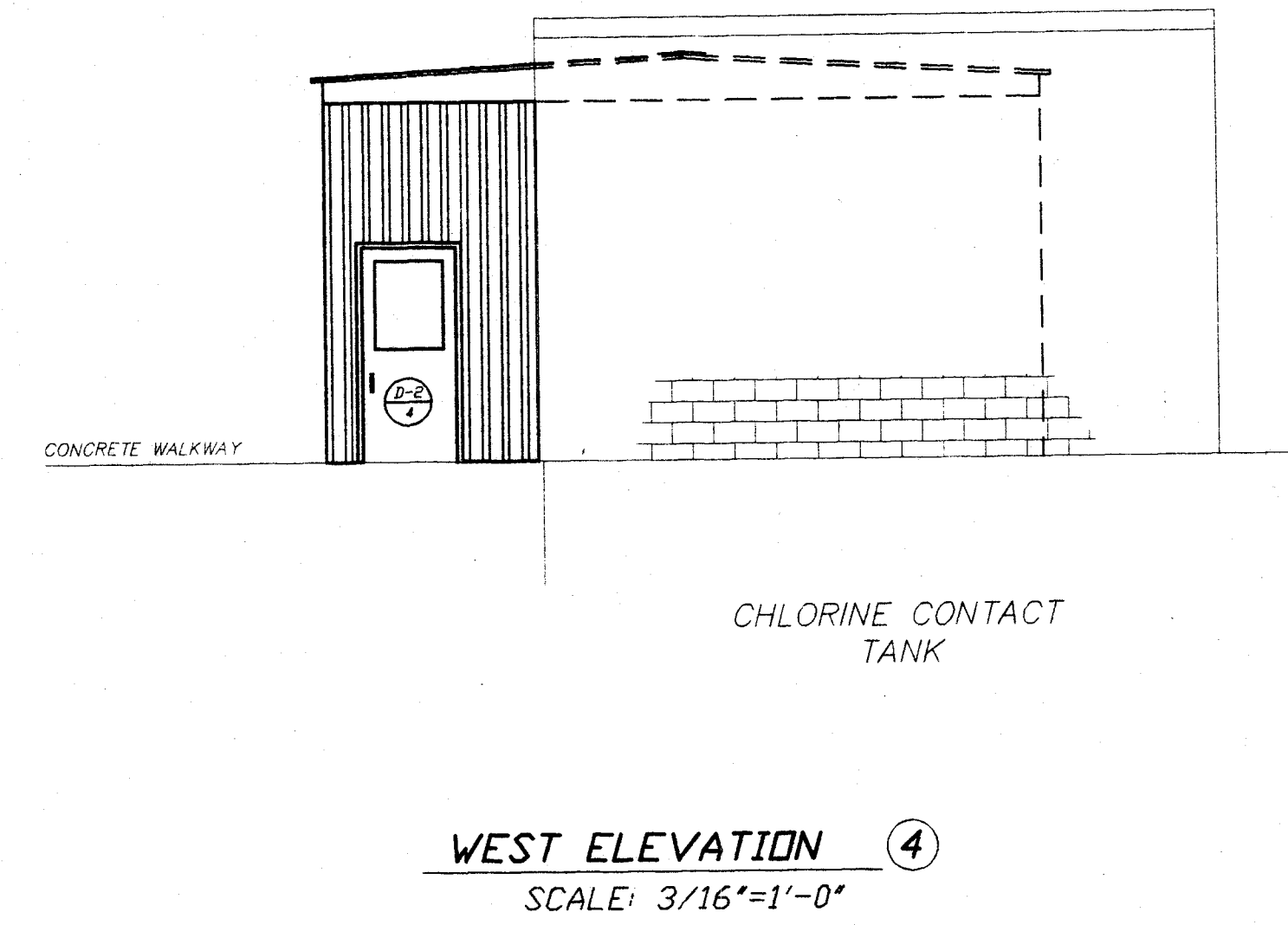
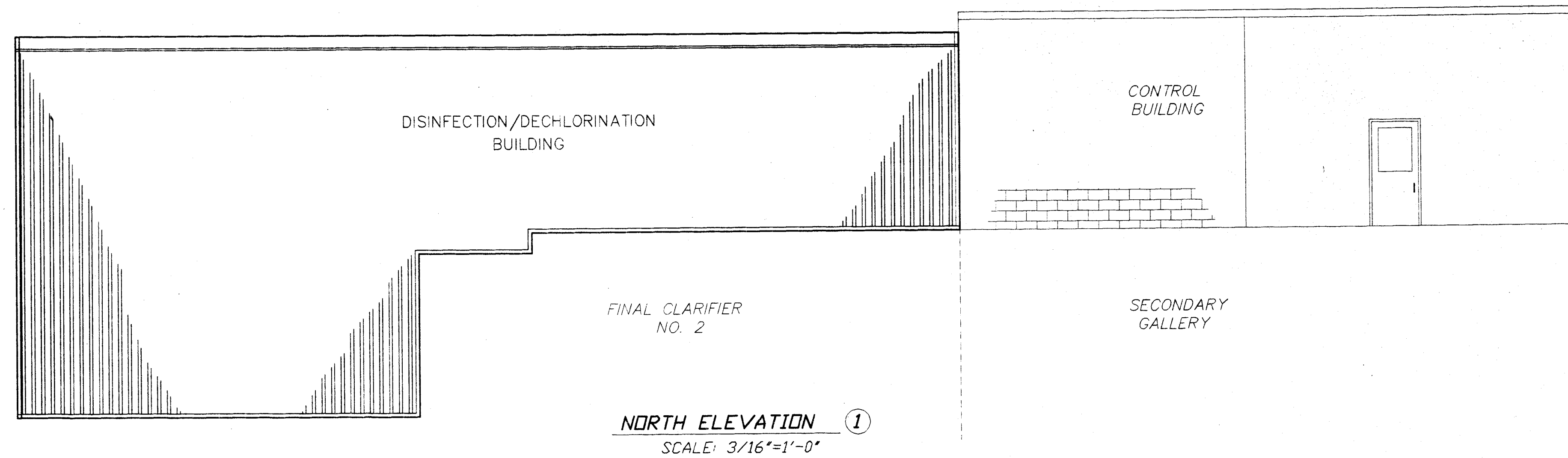
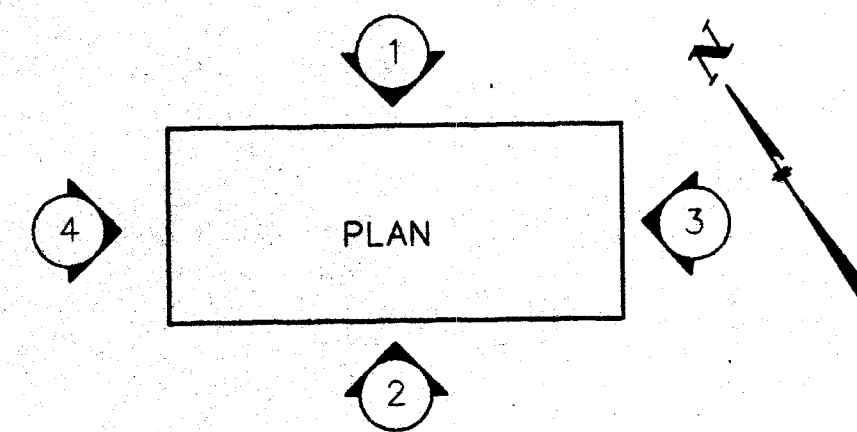
CITY OF MASSILLON, OHIO
PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS
MISCELLANEOUS DETAILS

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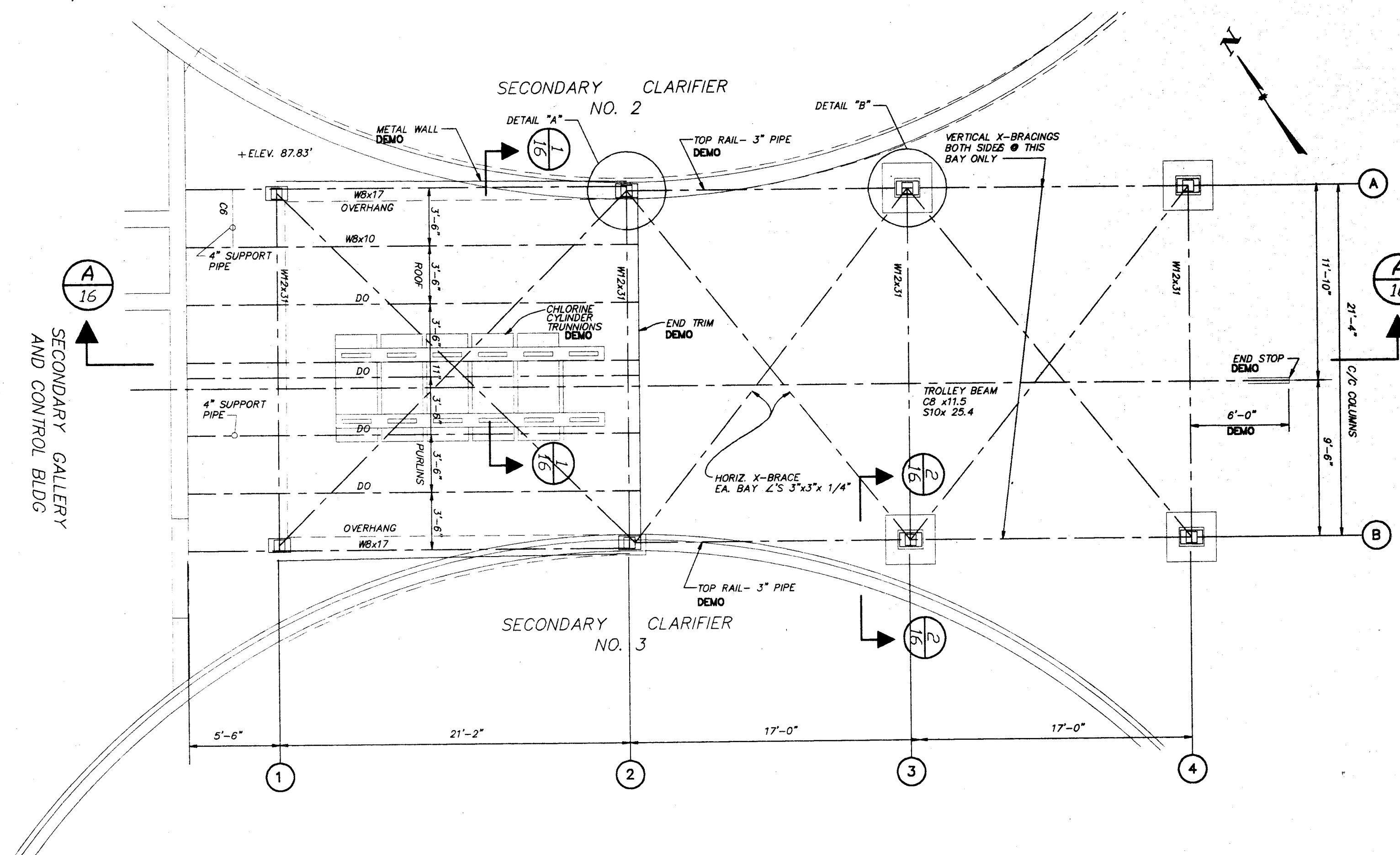
6024DET2.DWG



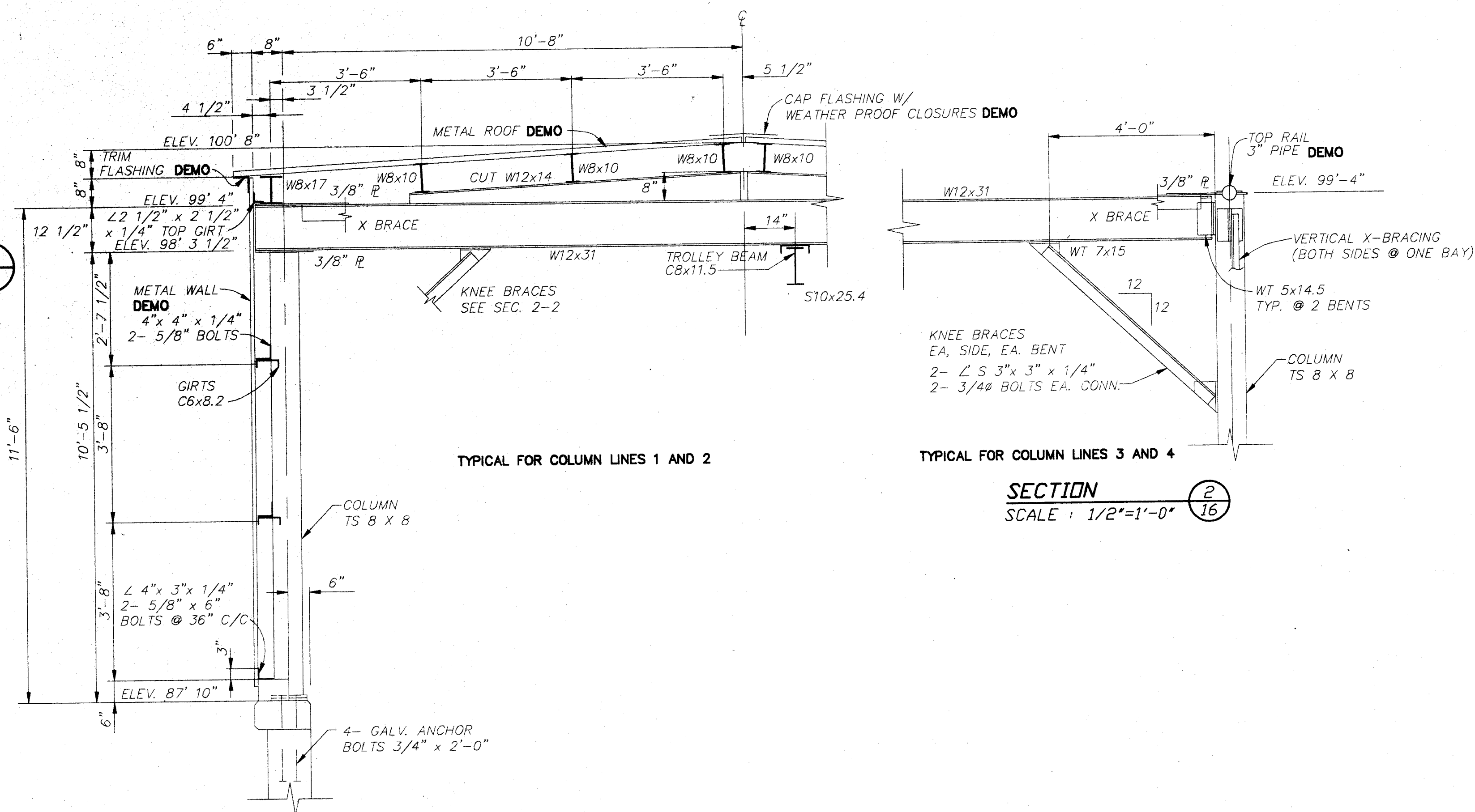
	REVISIONS					DESIGNED BY	 ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO	JOB NO.
	NO.	DESCRIPTIONS	DATE	BY	APP'D	R.W.R.		E6031
								DATE
								01/10/97
								SCALE
								AS NOTED
								SHEET
						13 of 25		
						APPROVED BY	CITY OF MASSILLON, OHIO PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS DISINFECTION/DECHLORINATION BUILDING PLAN AND SECTION	
					W.A.D.			



REVISIONS						DESIGNED BY	 ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO CITY OF MASSILLON, OHIO PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS DISINFECTION/DECHLORINATION ROOM PROPOSED ELEVATIONS	JOB NO.
NO.	DESCRIPTIONS	DATE	BY	APP'D	R.W.R.	E6031		
					DRAWN BY A.J.P.	DATE 01/10/97		
					CHECKED BY R.W.R.	SCALE AS NOTED		
					APPROVED BY W.A.D.	SHEET 15 of 25		
						5031ELEV.DWG		

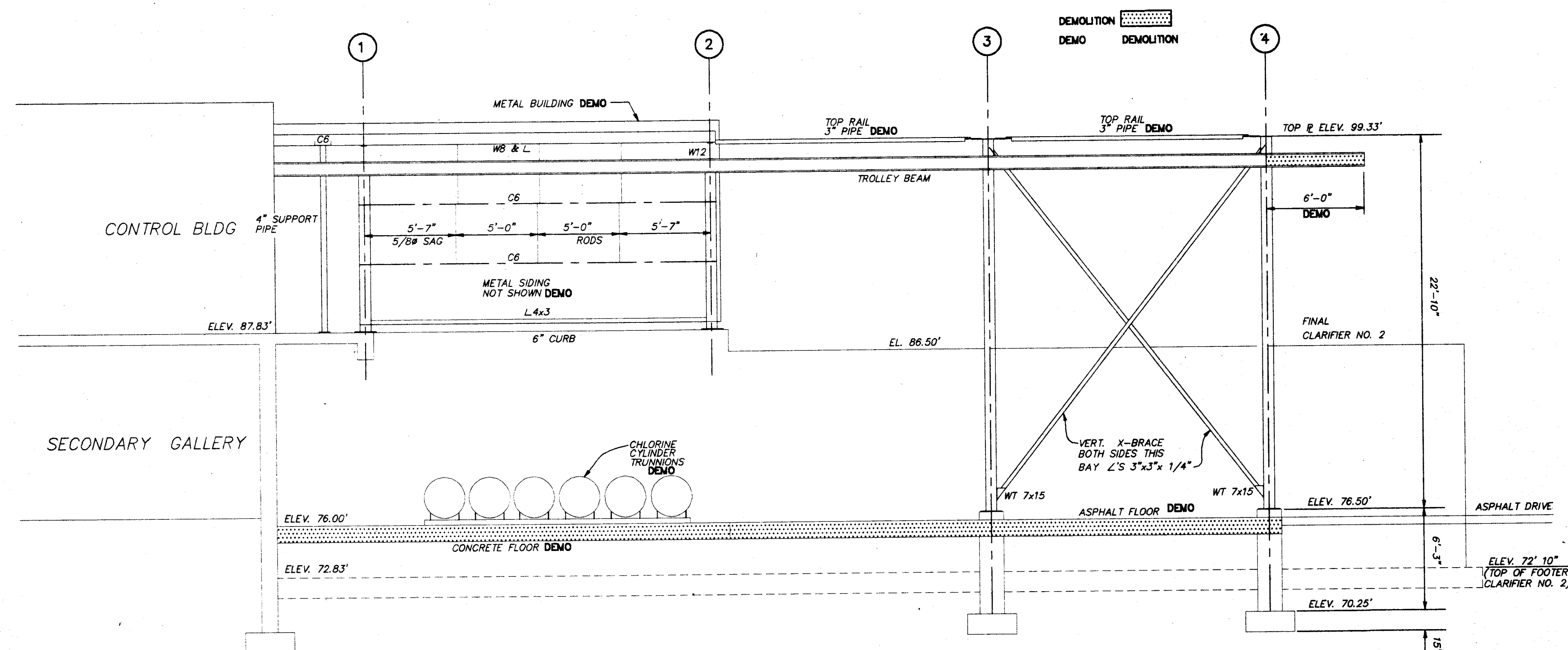


PLAN
SCALE: 3/16"=1'-0"

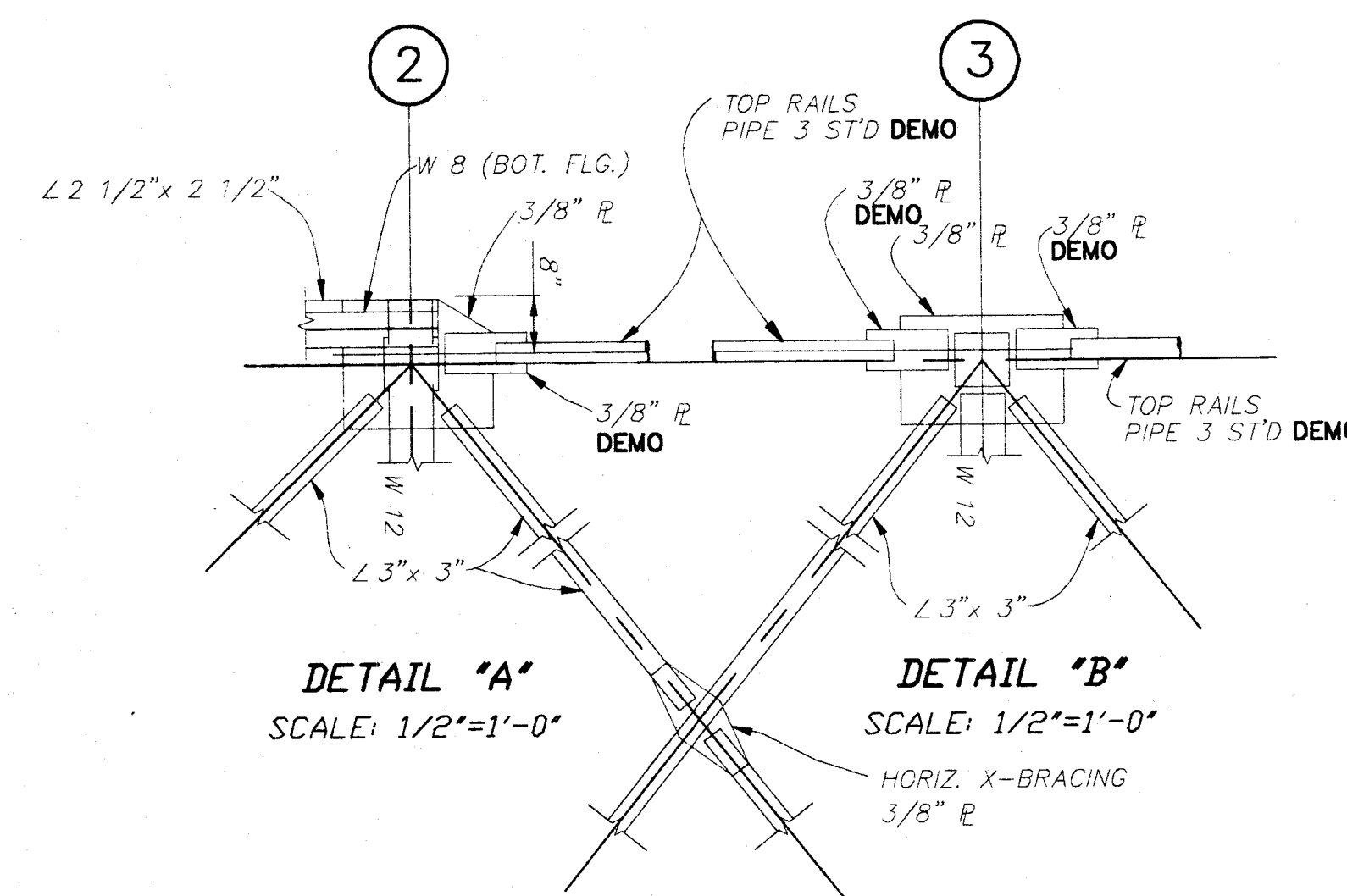


SECTION 1
SCALE: 1/2"=1'-0"

SECTION 2
SCALE: 1/2"=1'-0"

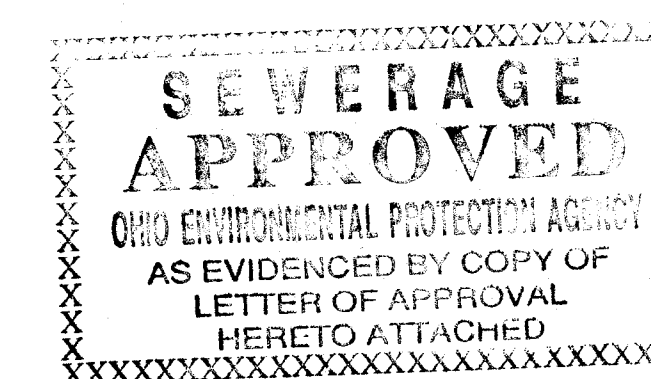


SECTION A
SCALE: 3/16"=1'-0"

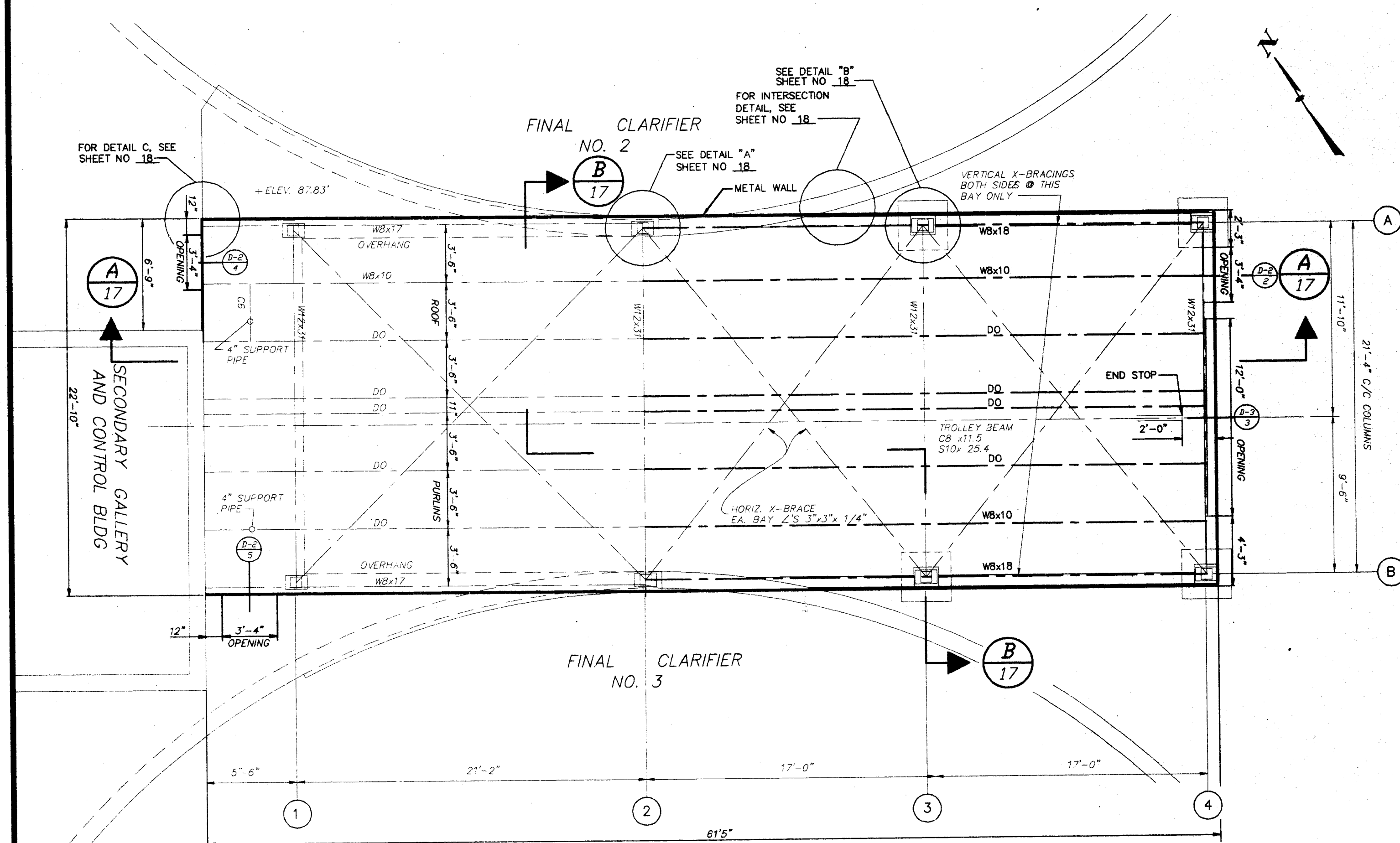


DETAIL A
SCALE: 1/2"=1'-0"

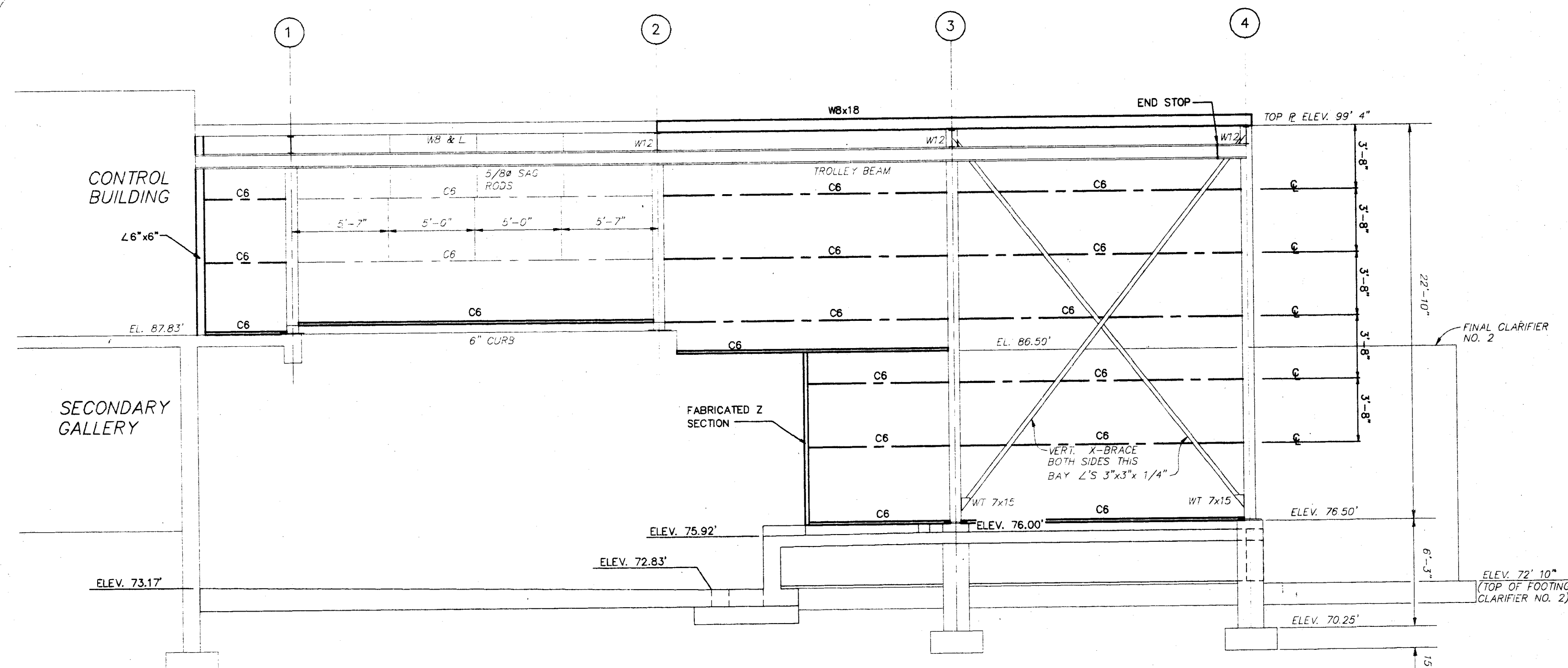
DETAIL B
SCALE: 1/2"=1'-0"



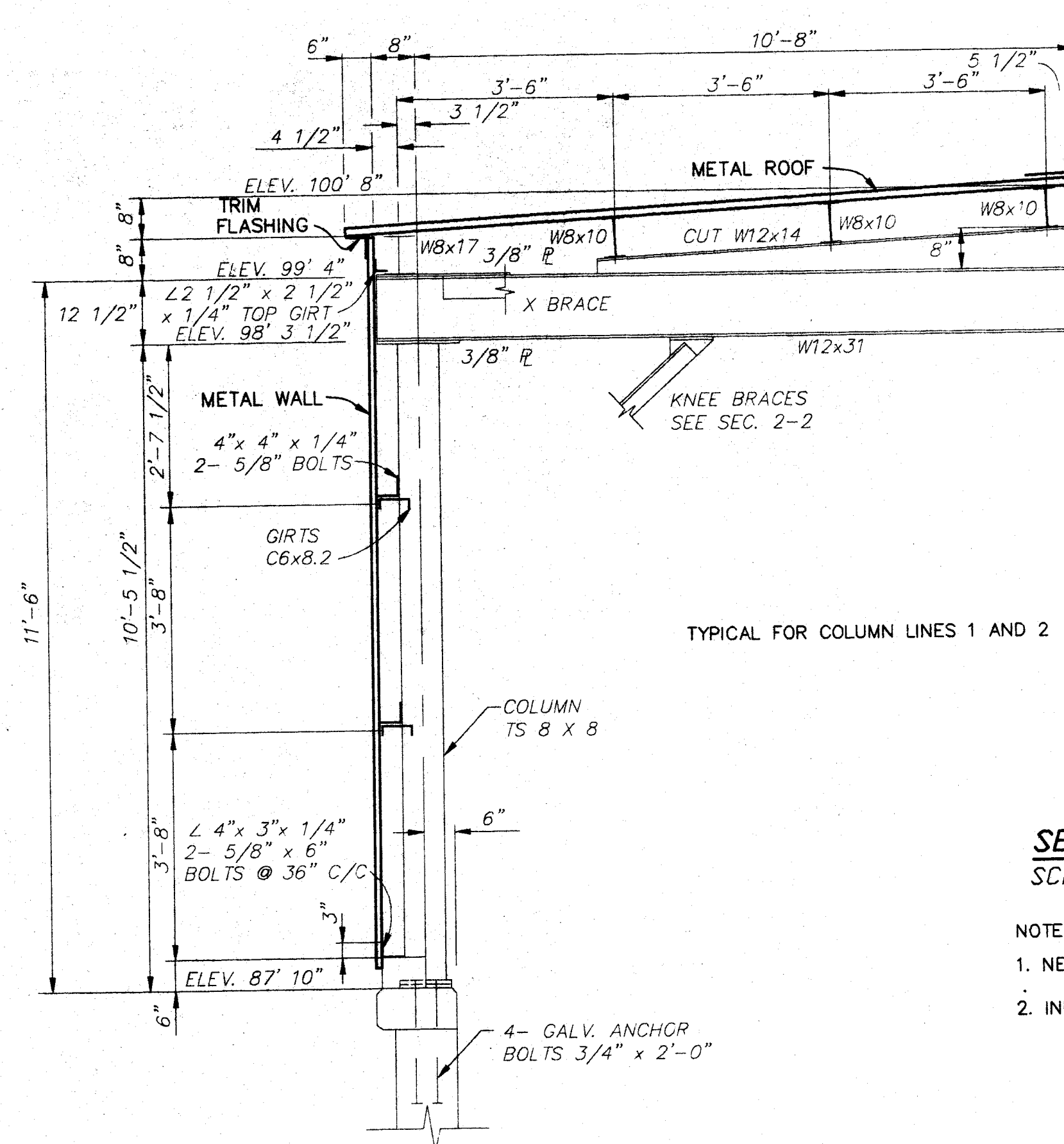
REVISIONS					DESIGNED BY	 ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO	JOB NO.
NO.	DESCRIPTIONS	DATE	BY	APP'D	P.C.C.		E6031
					DRAWN BY		DATE
					A.J.P.		01/10/97
					CHECKED BY		SCALE
					R.W.R.		AS NOTED
					APPROVED BY		SHEET
					W.A.D.	16 of 25	



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



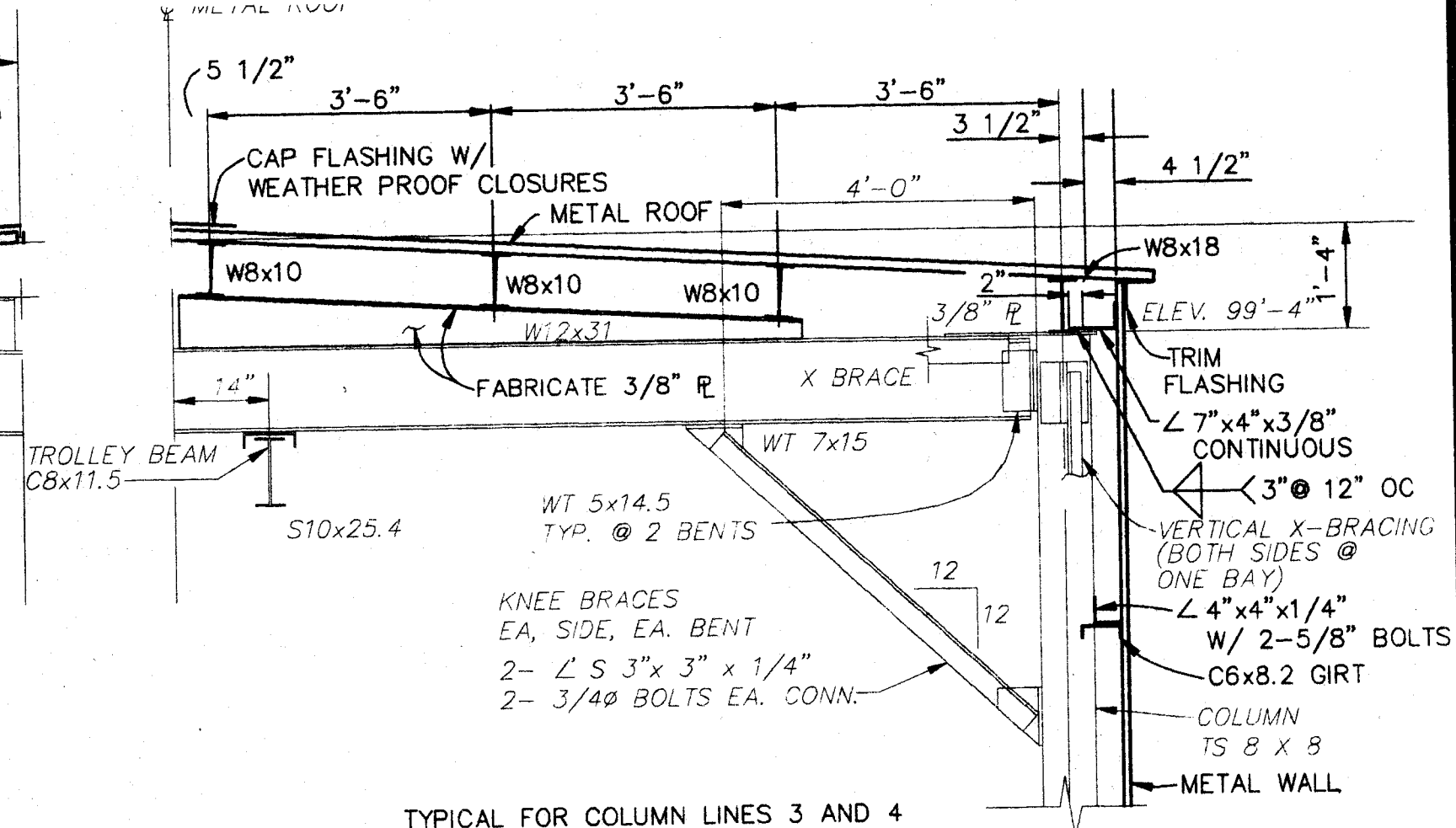
SECTION A-A
SCALE: 3/16"=1'-0"



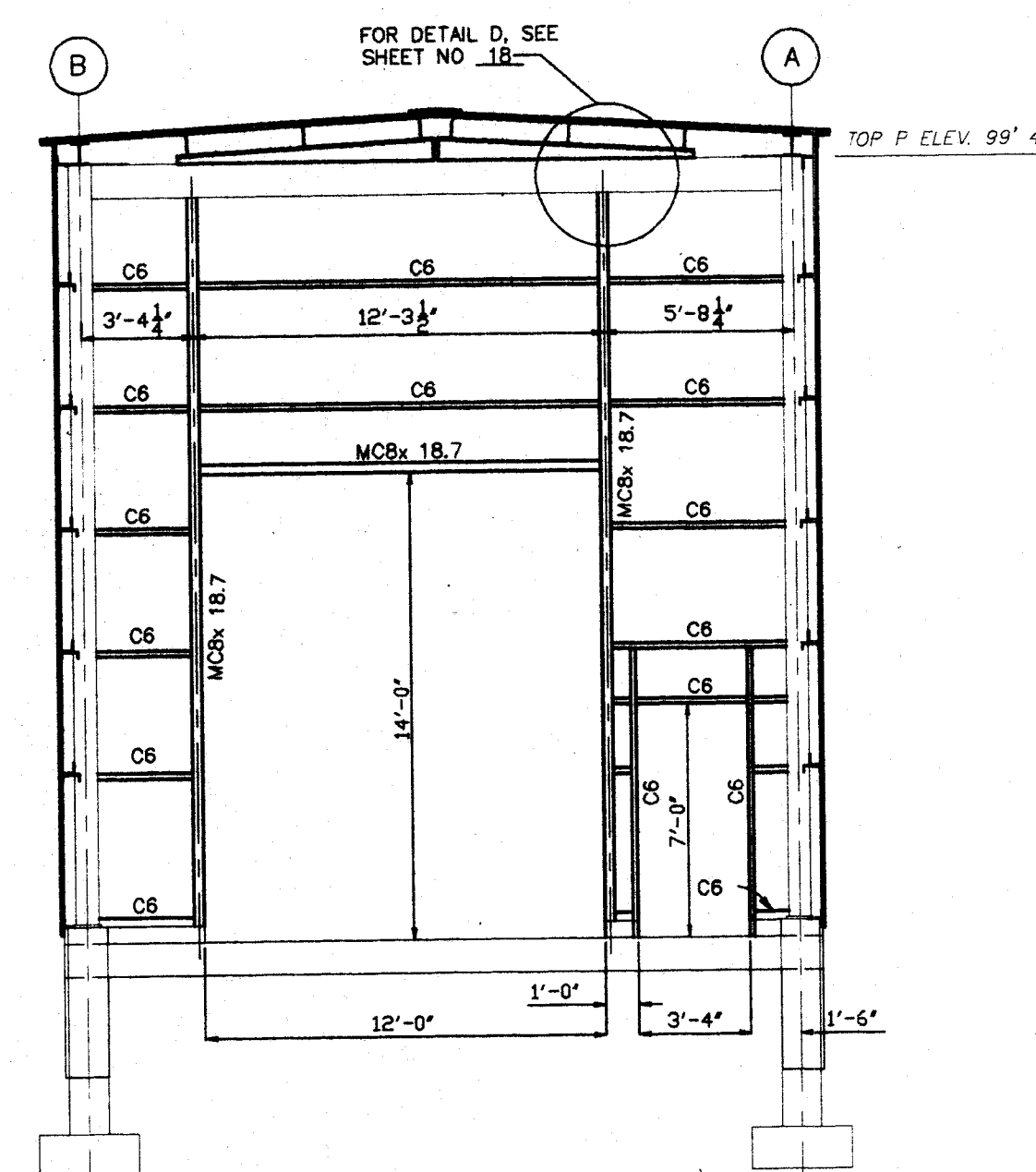
TYPICAL FOR COLUMN LINES 1 AND 2

SECTION B-B
SCALE: 1/2"=1'-0"

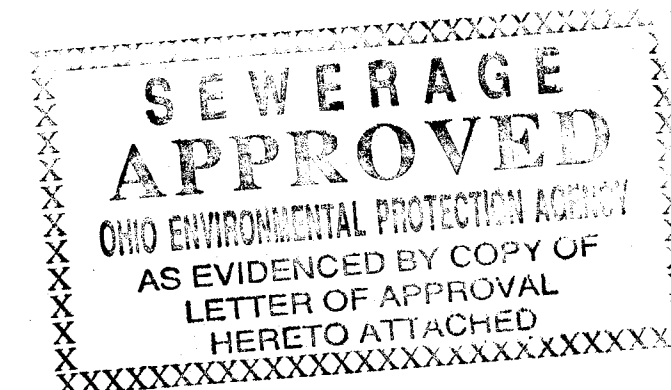
- NOTES:
1. NEW ELEMENTS ARE SHOWN
 2. INNER WALL PANEL NOT SHOWN.



TYPICAL FOR COLUMN LINES 3 AND 4



EAST ELEVATION
SCALE: 3/16"=1'-0"



BUILDING CLASSIFICATION

Use Group— 51 per OBBC, Section 311.0
Construction Type— 2C per OBBC, Section 603.1
Fire Rating— 0, per OBBC, Section 603.1 table 602 *
Occupant Load— 5, per OBBC, Section 1008.1.2
* West wall adjoins an existing masonry structure. Common wall has a 3 hour fire rating.

DESIGN LOADS

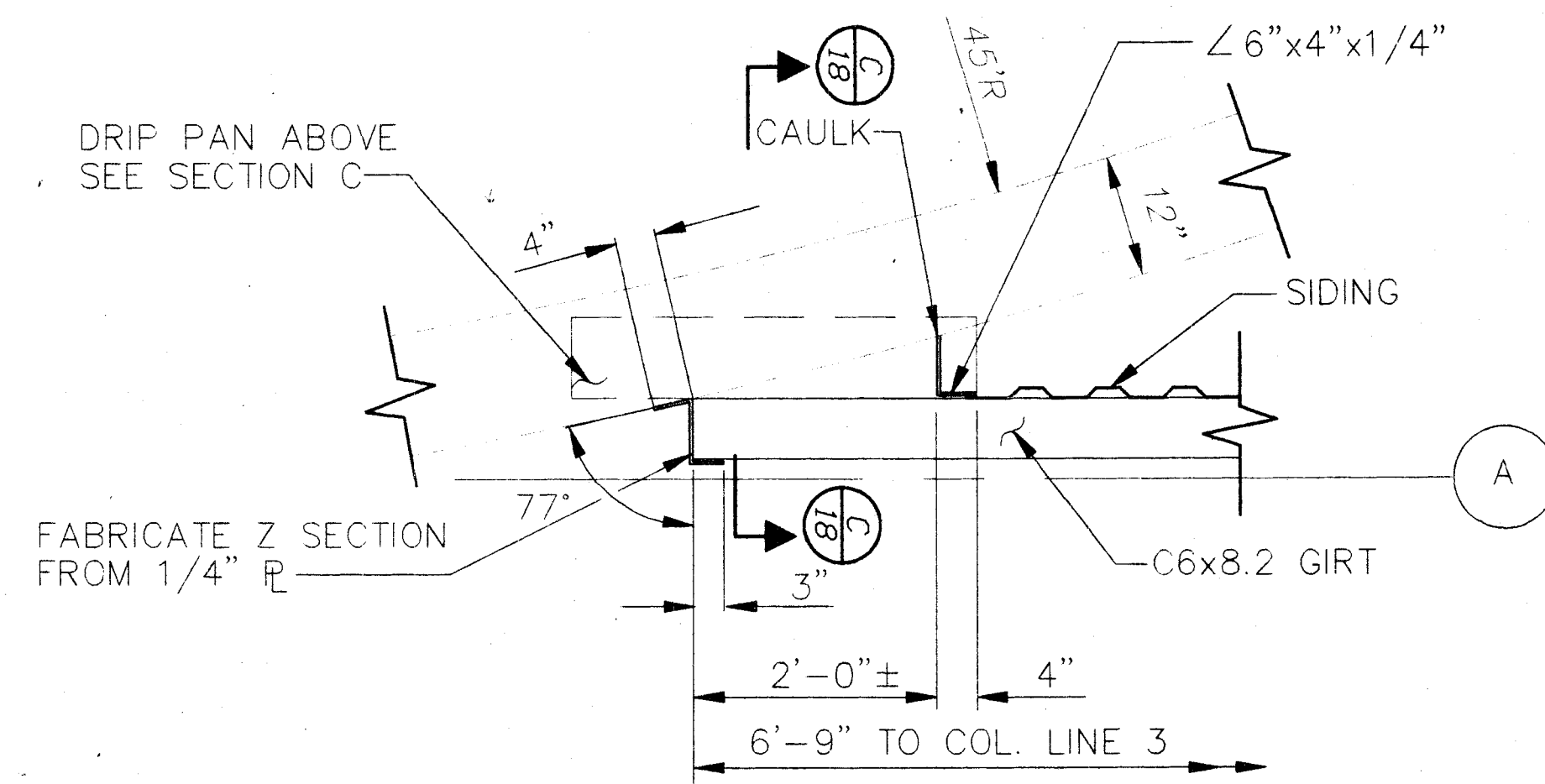
Wind Load — 80 mph 18.4 psf per OBBC, Section 1611.3.
Seismic Load — Hazard Exposure Group 1, OBBC Section 1612, Table 1612.1.5
Snow Load — 25 psf per OBBC Section 1610.3
Floor Live Load — 250 psf
Min Roof Live Load — 18 psf per OBBC, Table 1607.3

REVISIONS					DESIGNED BY
NO.	DESCRIPTIONS	DATE	BY	APP'D	P.C.C.
					DRAWN BY
					A.J.P.
					CHECKED BY
					R.W.R.
					APPROVED BY
					W.A.D.

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ENGINEERS IN WATER AND EARTH SCIENCES
UNIONTOWN, OHIO

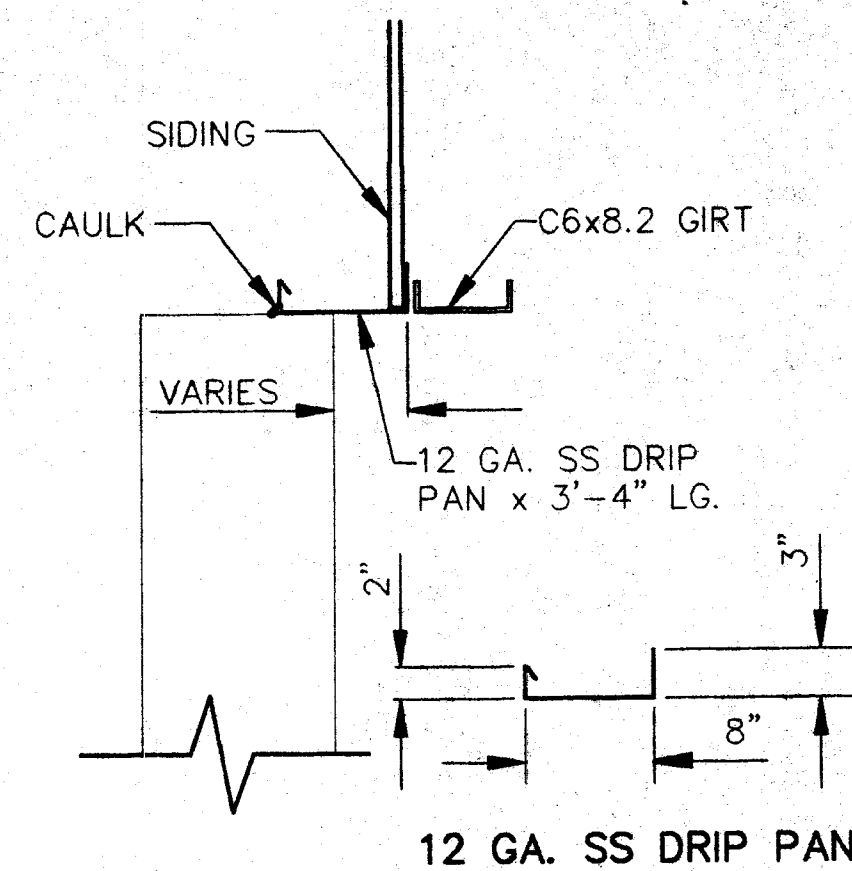
CITY OF MASSILLON, OHIO
PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS
DECHLORINATION ROOM — PROPOSED
STRUCTURAL FRAMING PLAN AND SECTIONS

JOB NO.
E6031
DATE
01/10/97
SCALE
AS NOTED
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17 of 25

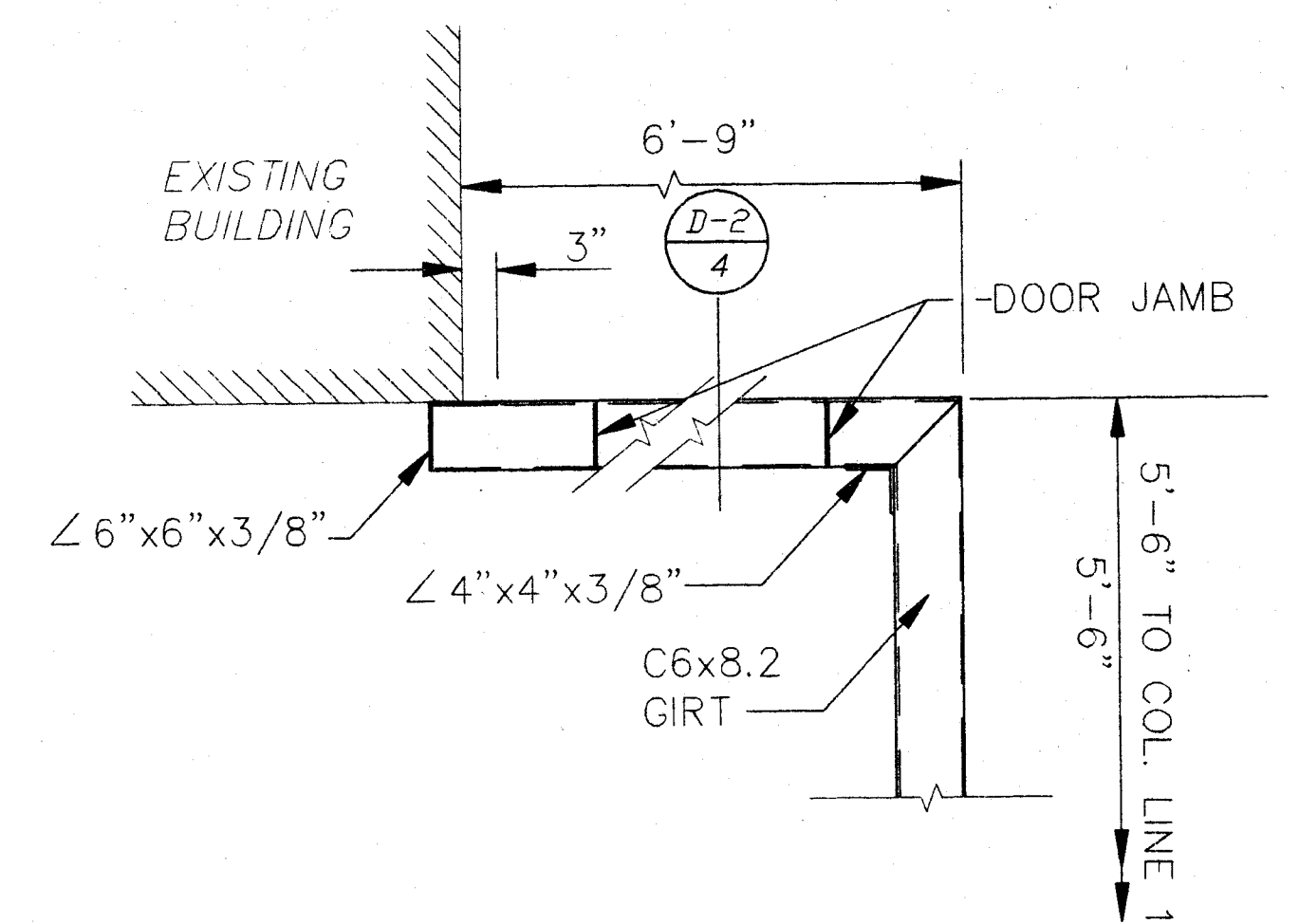


PLAN
SCALE: 3/4"=1'-0"

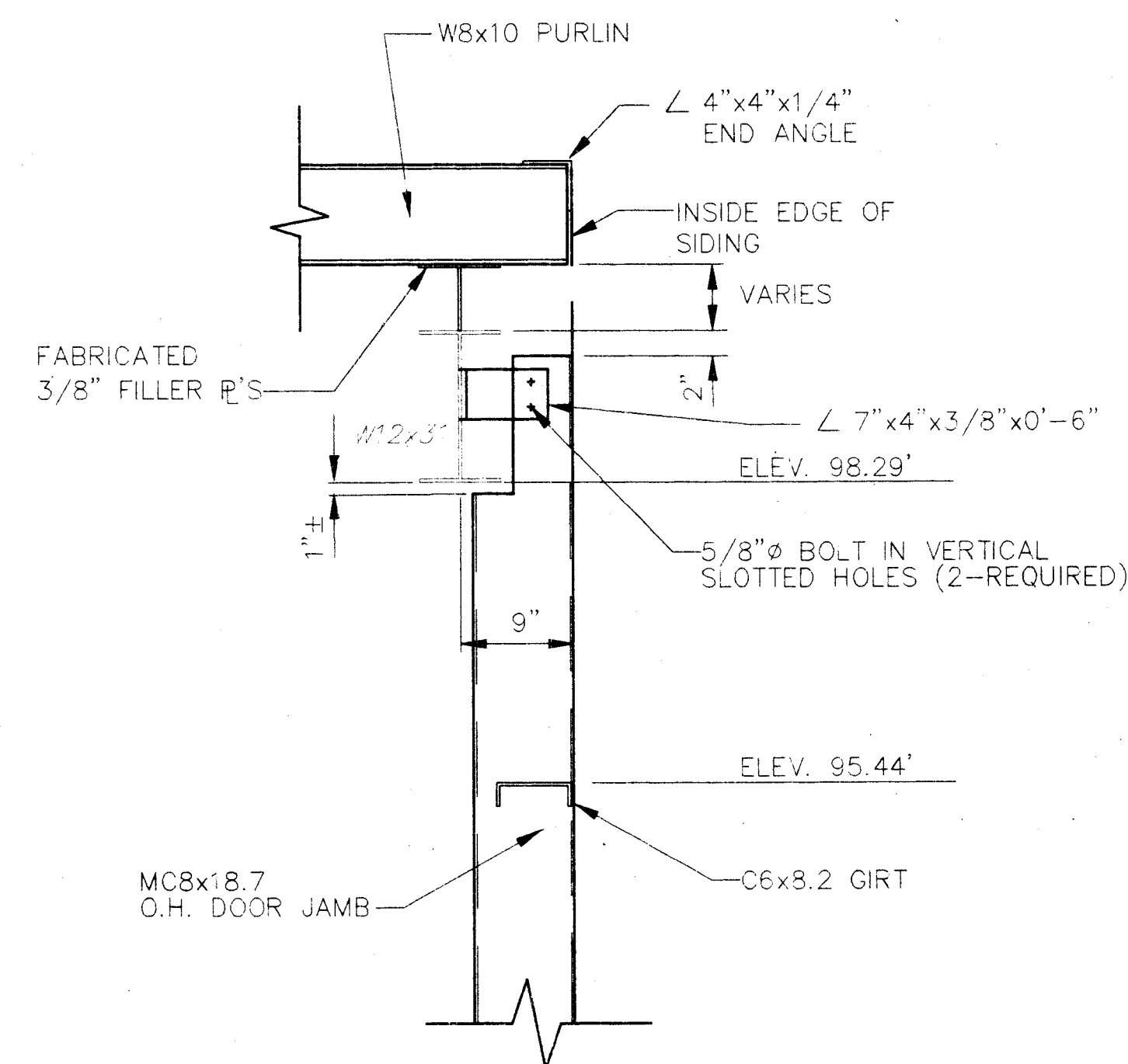
**DETAIL - INTERSECTION
SIDING WALL AND CLARIFIER**
SCALE: AS NOTED



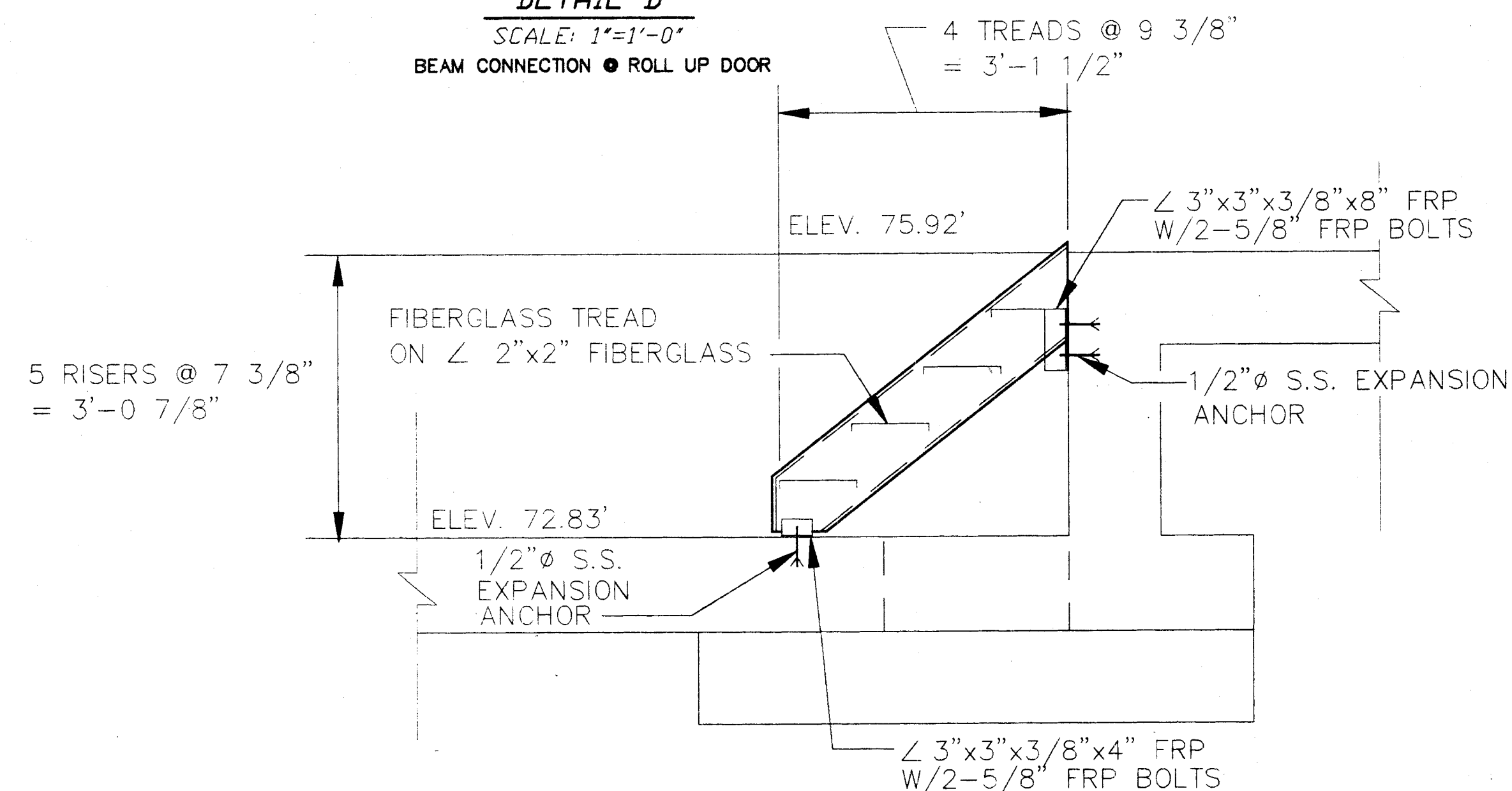
SECTION
SCALE: 1"=1'-0"



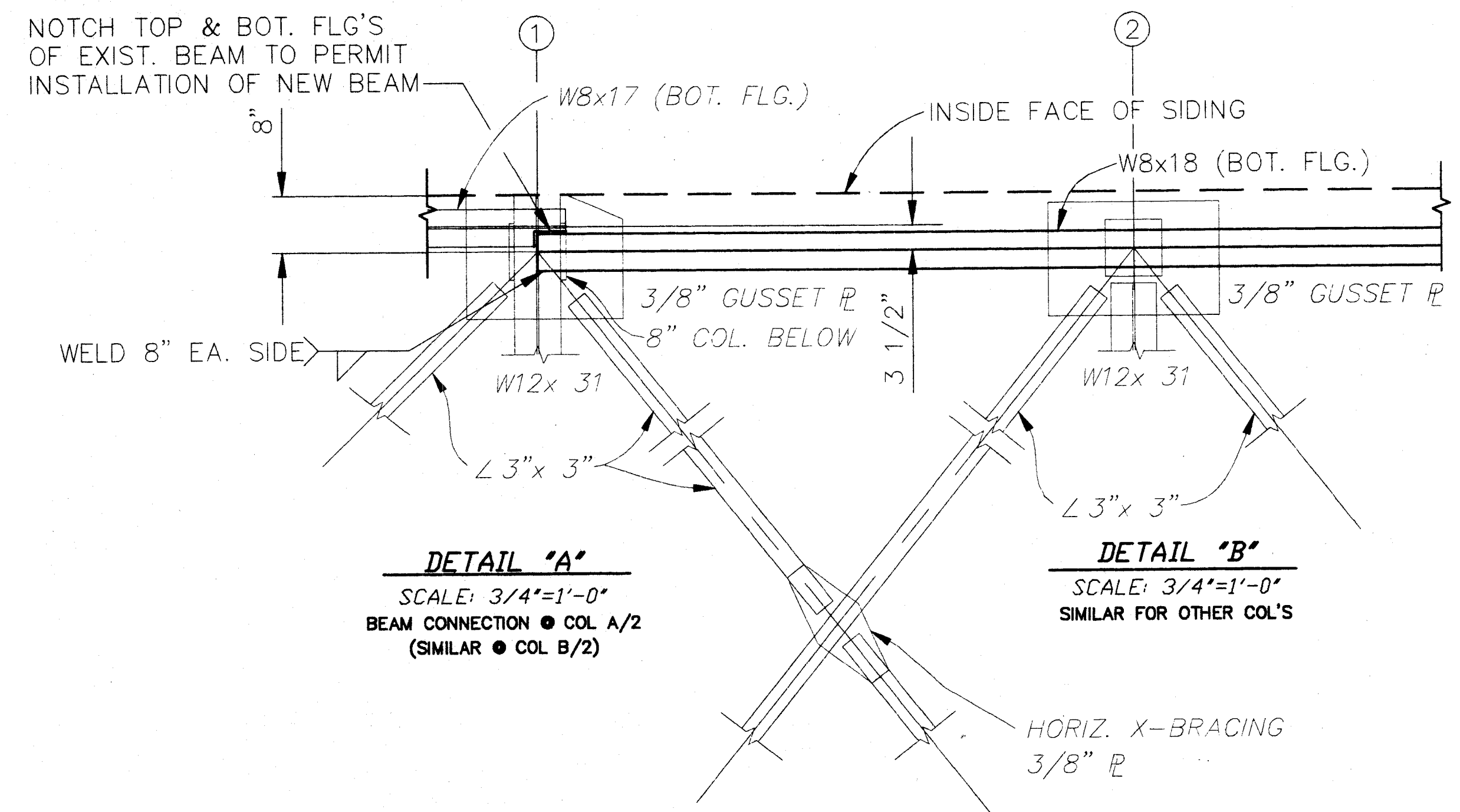
DETAIL C
SCALE: 1"=1'-0"



DETAIL D
SCALE: 1"=1'-0"
BEAM CONNECTION • ROLL UP DOOR

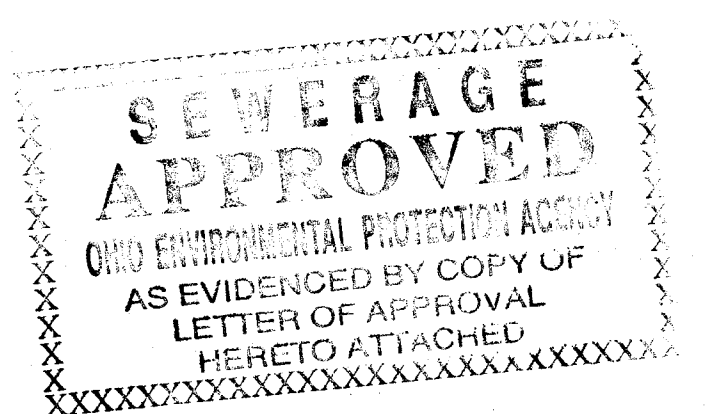


DISINFECTION/DECHLORINATION-STAIRS
SCALE: 3/4"=1'-0"

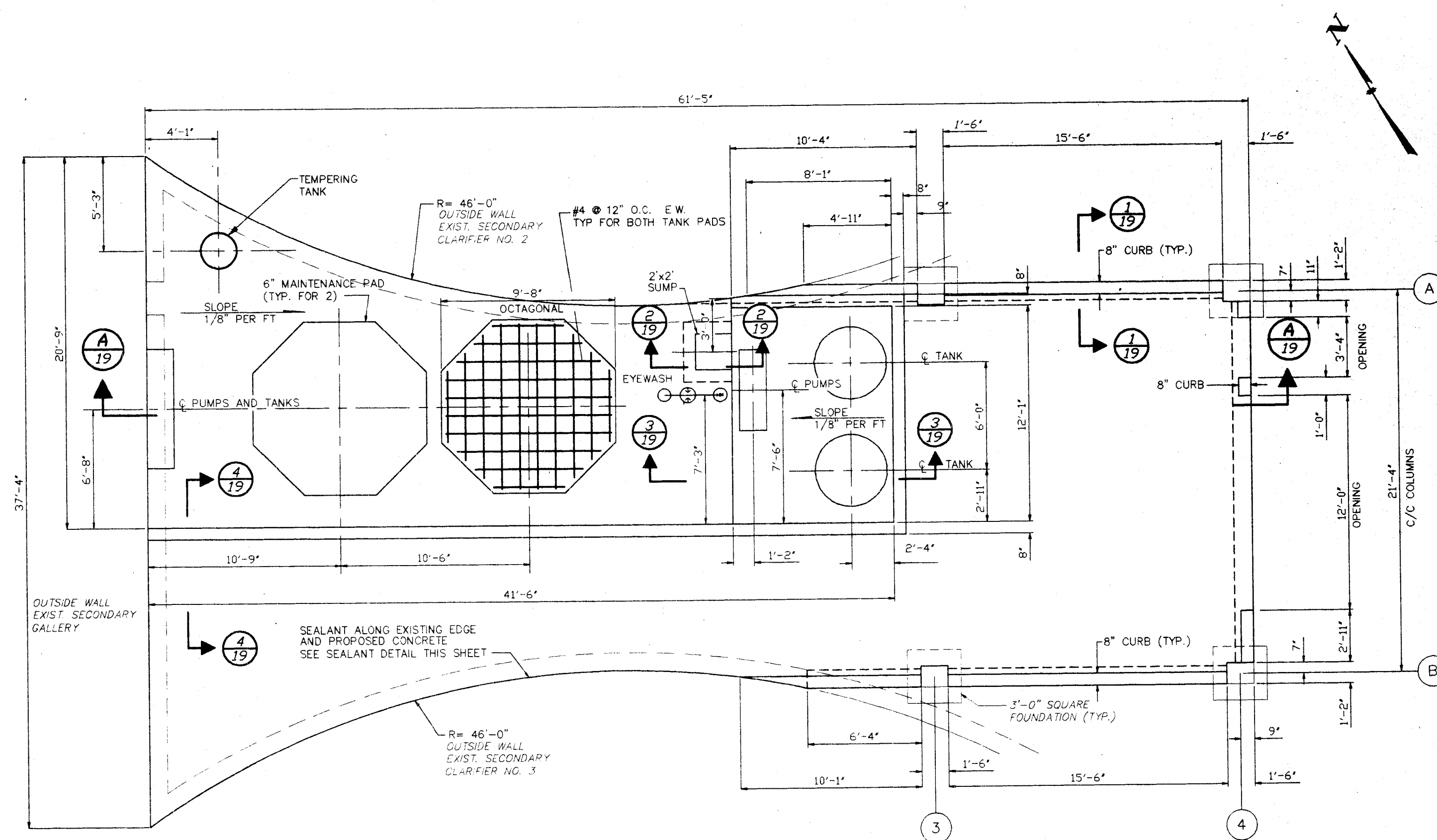


DETAIL "A"
SCALE: 3/4"=1'-0"
BEAM CONNECTION • COL. A/2
(SIMILAR • COL. B/2)

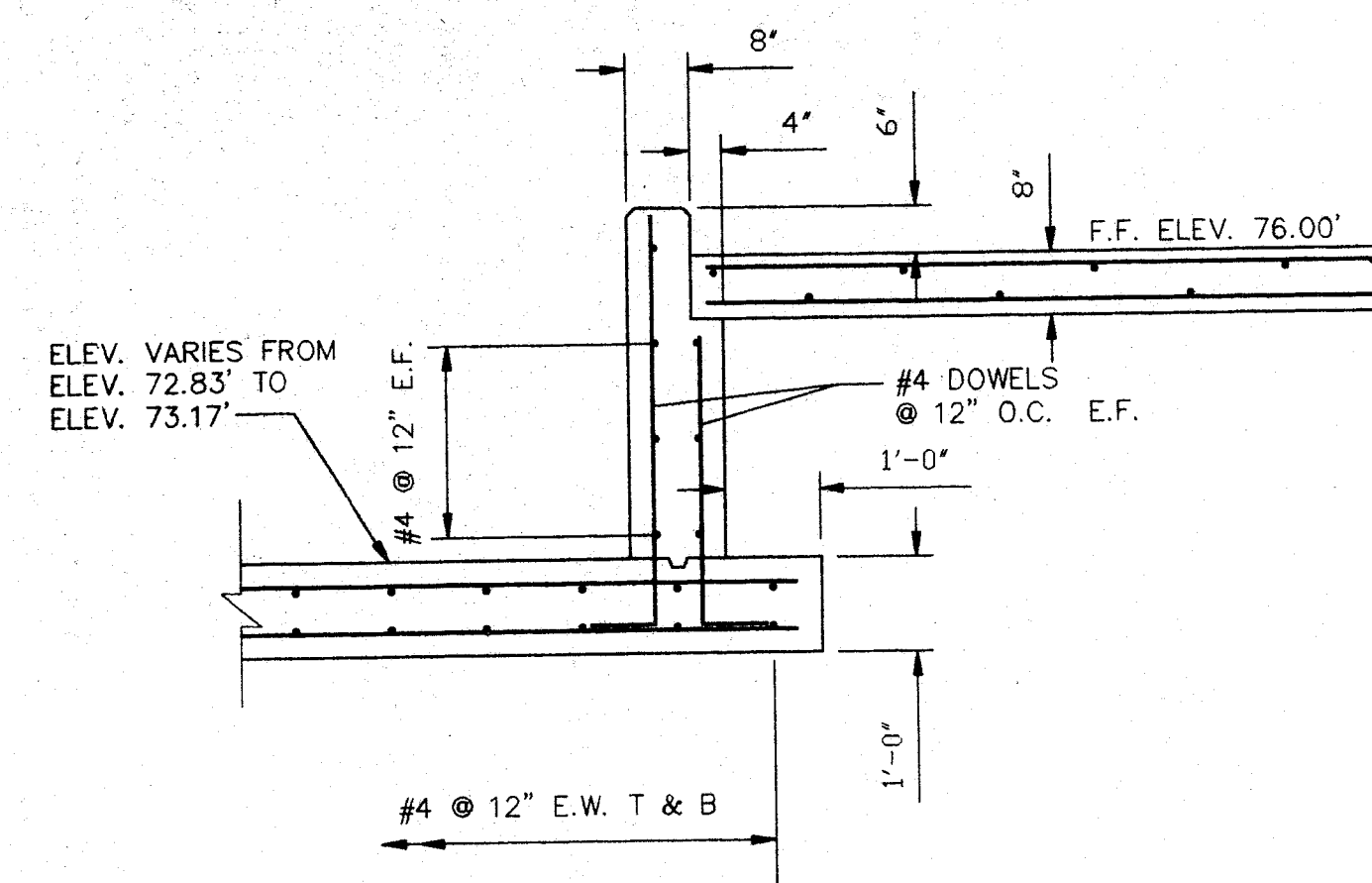
DETAIL "B"
SCALE: 3/4"=1'-0"
SIMILAR FOR OTHER COL'S



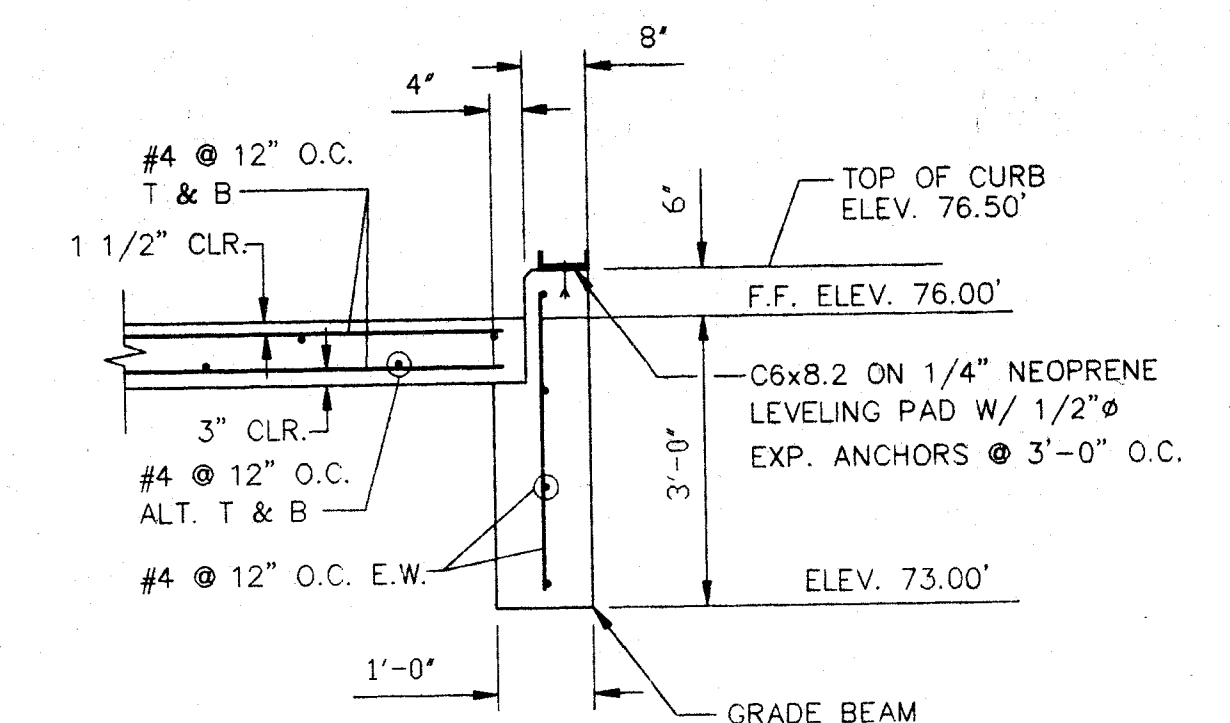
REVISIONS						DESIGNED BY	 ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO CITY OF MASSILLON, OHIO PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS DISINFECTION/DECHLORINATION BUILDING PROPOSED STRUCTURAL STEEL DETAILS	JOB NO. E6031
NO.	DESCRIPTIONS	DATE	BY	APP'D	P.C.C.	DATE 01/10/97		
					DRAWN BY A.J.P. <th>SCALE AS NOTED</th>	SCALE AS NOTED		
					CHECKED BY P.C. <th>SHEET 18 of 25</th>	SHEET 18 of 25		
					APPROVED BY W.A.D. <td></td>			



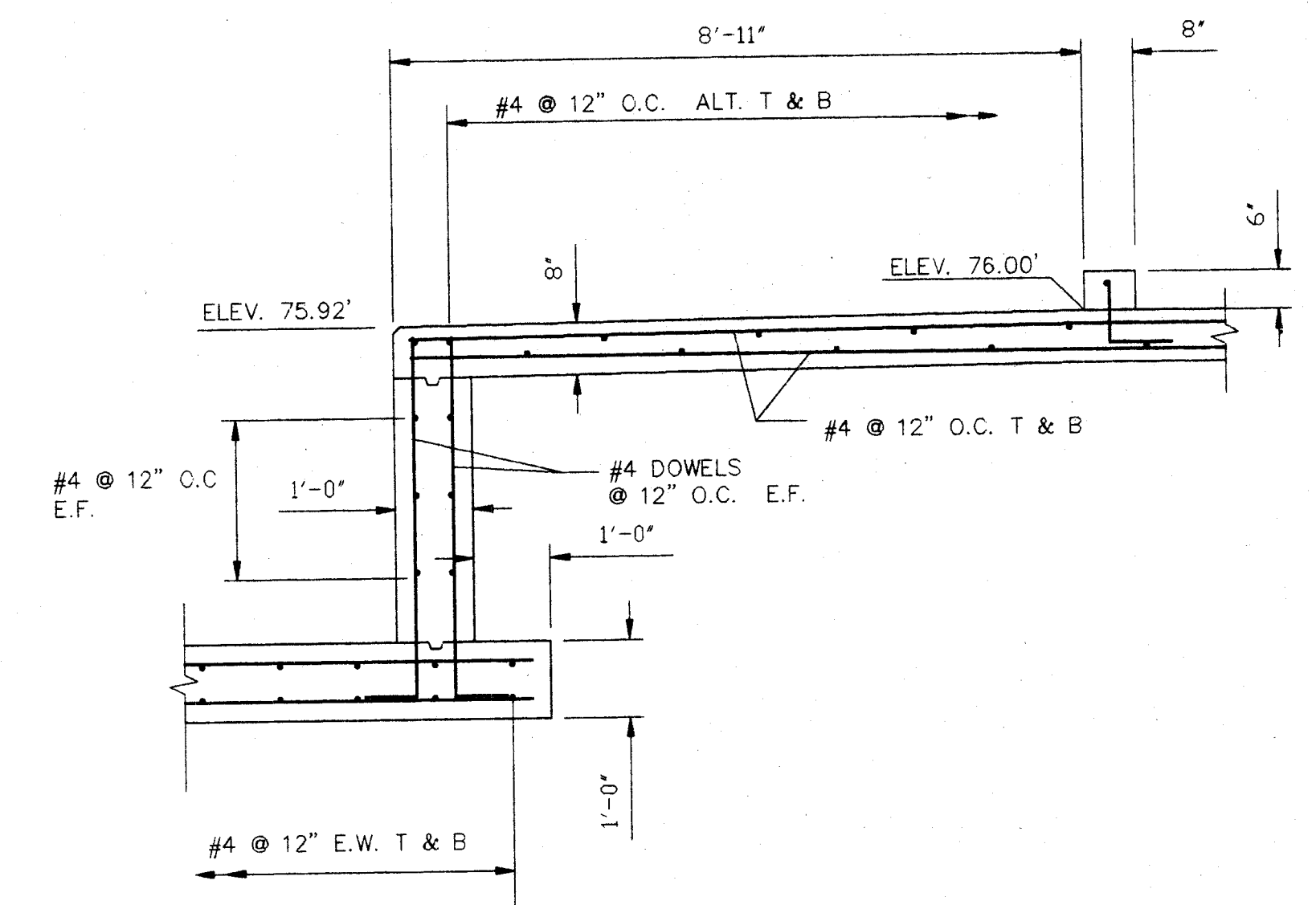
PLAN - LOCATION
SCALE: 3/16"=1'-0"



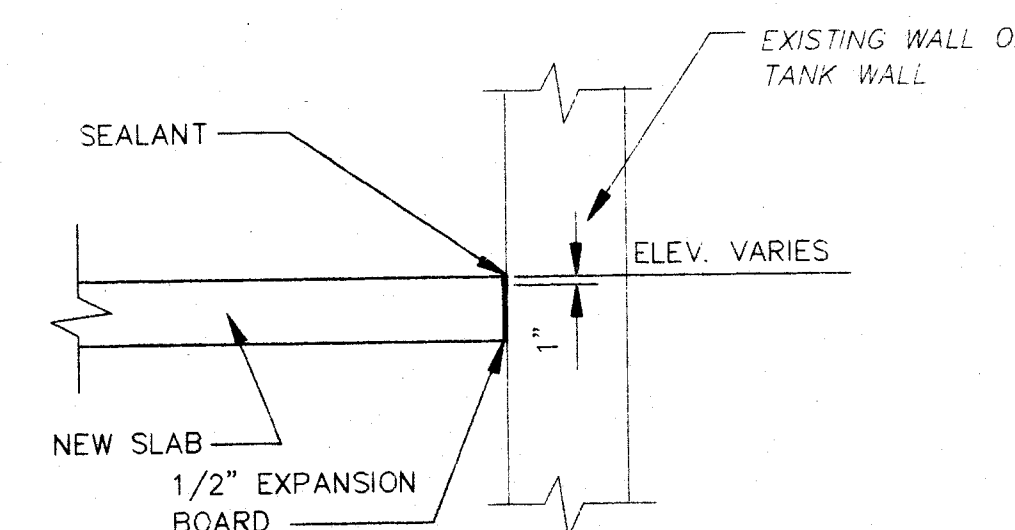
SECTION 4
SCALE: 1/2"=1'-0"



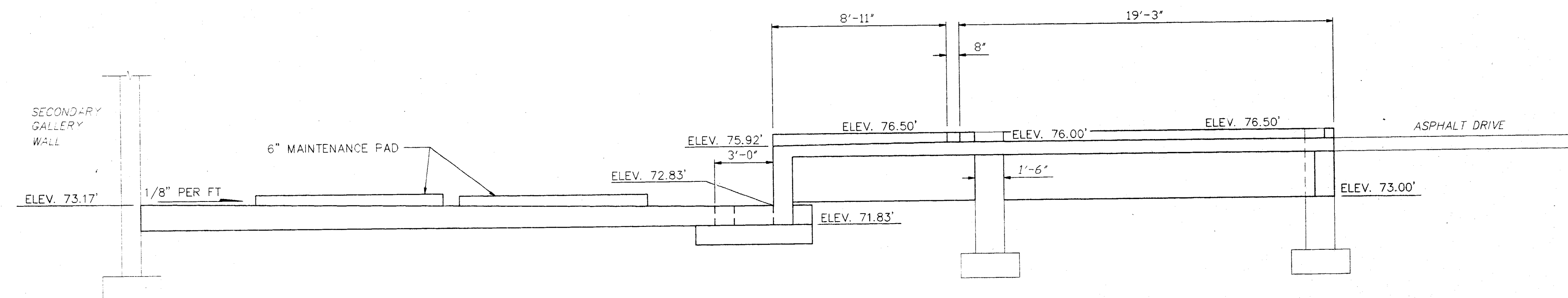
SECTION 1
SCALE: 1/2"=1'-0"



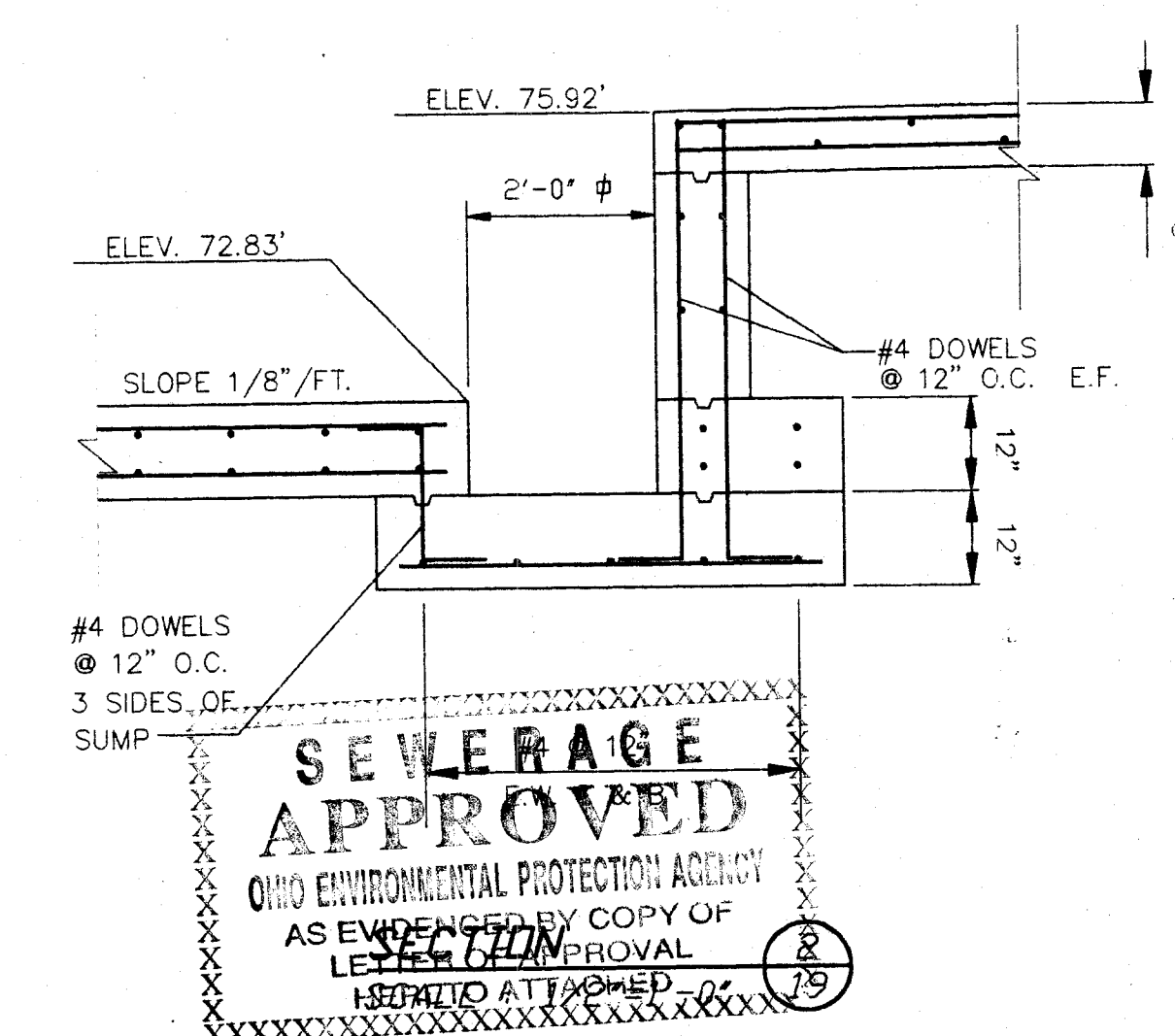
SECTION 3
SCALE: 1/2"=1'-0"



SEALANT DETAIL
SCALE: 1/2"=1'-0"



SECTION A
SCALE: 1/4"=1'-0"



GENERAL NOTES:

- These notes shall apply except where otherwise indicated by the drawings or specifications.
- Where a detail is shown for one condition, it shall apply for all like or similar conditions even though not specifically marked on the drawing.
- Contractor shall coordinate all contract drawings for the location of anchor bolts, floor drains, inserts, etc., before pouring concrete.
- Reinforcing steel shall conform with ASTM A615, Grade 60, and shall be placed in accordance with the appropriate sections of Building Code requirements for reinforced concrete ACI 318, latest edition.
- All concrete shall be Standard Weight 4,000 PSI compressive strength at 28 days.
- Exposed concrete corners shall be chamfered 3/4" unless noted.
- All foundations shall be poured on firm, undisturbed earth or engineered controlled backfill. Minimum bearing capacity shall be 3,000 psf.
- All miscellaneous metal detailing, fabrication, and erection shall be in accordance with the latest edition of AISC, "Manual of Steel Construction."
- All ferrous metal shall be shop cleaned and primed with alkyd enamel primer and two (2) coats of alkyd enamel. Color to be determined by the owner.
- Field verify all dimensions and elevations prior to construction.

REVISIONS					DESIGNED BY
NO.	DESCRIPTIONS	DATE	BY	APP'D	P.C.C.
					DRAWN BY
					A.J.P.
					CHECKED BY
					R.W.R.
					APPROVED BY
					W.A.D.

ENVIRONMENTAL, INC.
ENGINEERS IN WATER AND EARTH SCIENCES
UNIONTOWN, OHIO

CITY OF MASSILLON, OHIO
PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS
DISINFECTION/DECHLORINATION BUILDING
PROPOSED CONCRETE- PLAN, SECTION & DETAILS

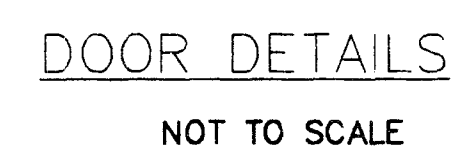
JOB NO.
E6031

DATE
01/10/97

SCALE
AS NOTED

SHEET
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6031CHSP.DWG

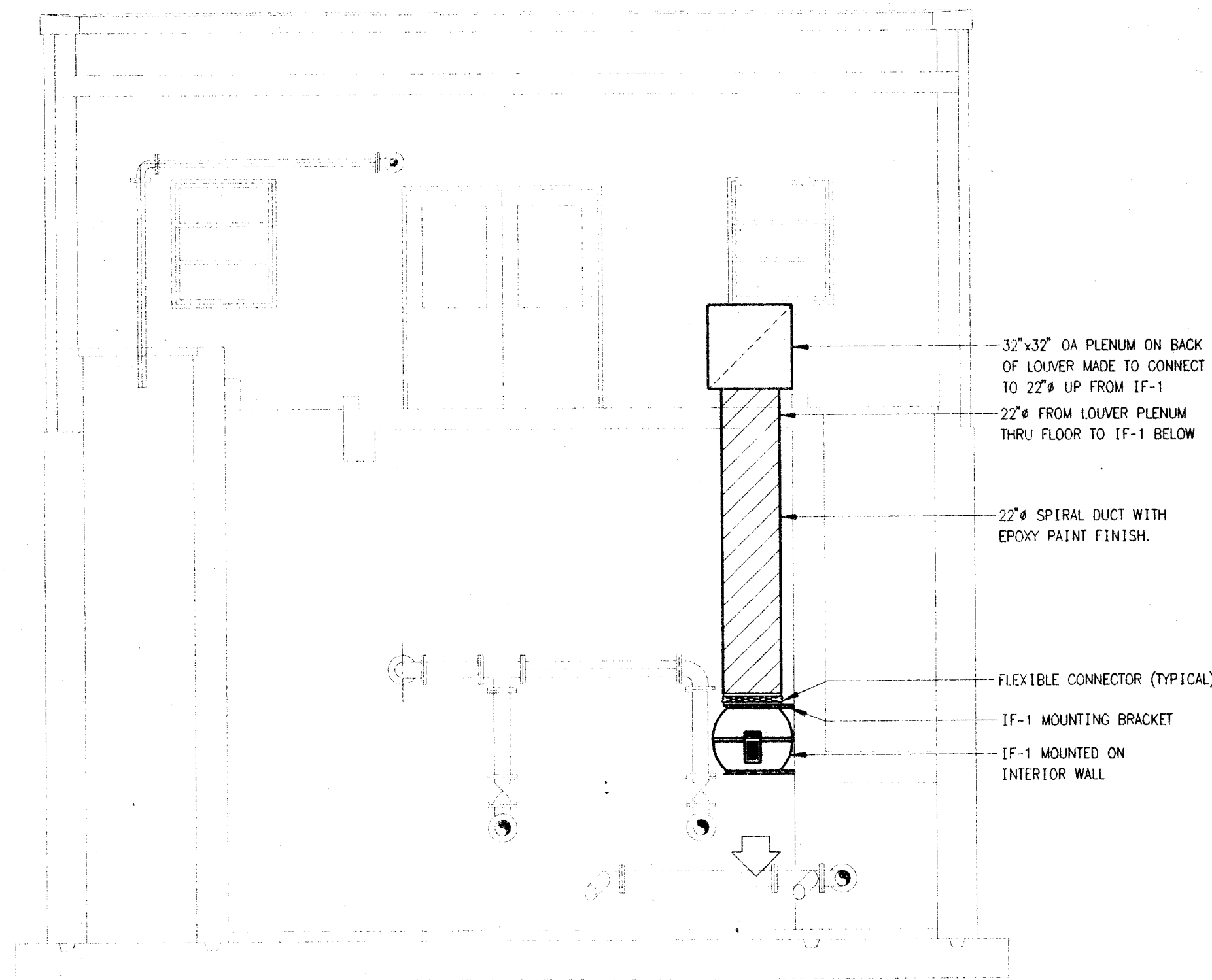


ROOM FINISH SCHEDULE												
ROOM		FINISHES								REMARKS		
NUMBER	NAME	FLOOR	BASE	WALLS				CLG.				
				NORTH	EAST	SOUTH	WEST	TYPE	HEIGHT			
SLUDGE PUMP BUILDING NO. 2 - EXISTING												
-	FIRST FLOOR	-	-	W1	W1	W1	W1	C1	10'-0"			
SCUM CONCENTRATOR ROOM - EXISTING												
-	FIRST FLOOR	-	-	W1	W1	W1	W1	C1	12'-5"			
DISINFECTION BUILDING - NEW												
-												
LEGEND	WALLS W1 CONCRETE MASONRY UNITS (EPOXY PAINT)											
	CEILING C1 PRECAST CONCRETE JOISTS & DECK (PAINT)											

SEWERAGE
APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED

REVISIONS					DESIGNED BY	 ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO	JOB NO. E6024
NO.	DESCRIPTIONS	DATE	BY	APP'D	R.W.R.		DATE 01/10/97
					DRAWN BY A.J.P.		SCALE AS NOTED
					CHECKED BY R.W.R.		SHEET 20 of 25
					APPROVED BY W.A.D.		

CITY OF MASSILLON, OHIO
PRIMARY TREATMENT & DISINFECTION IMPROVEMENTS
ROOM PAINTING AND DOOR SCHEDULE



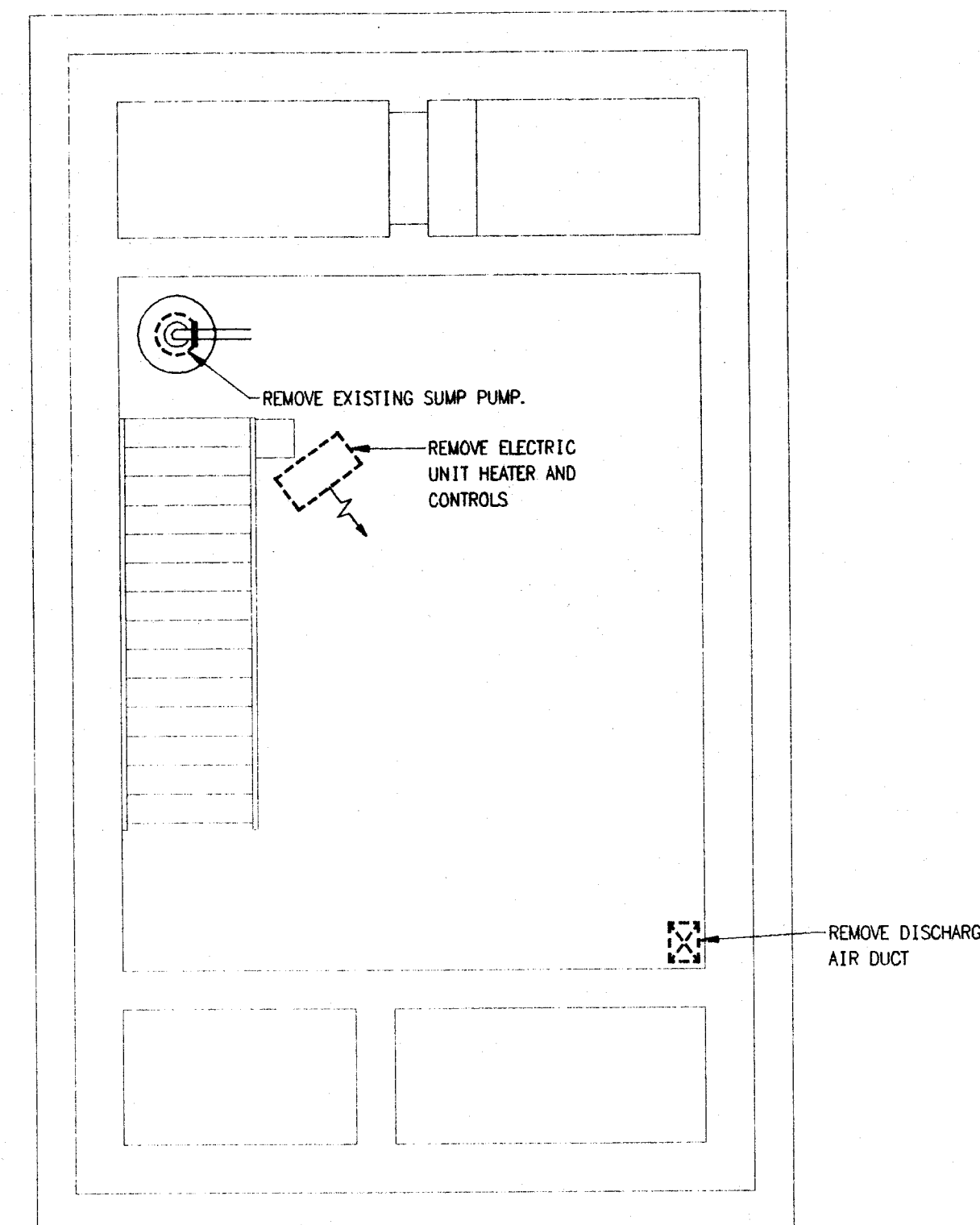
SECTION A
SCALE: 1/4" = 1'-0"

LOUVER SCHEDULE							
No.	MAKE	MODEL	NECK SIZE	FACE SIZE	MOUNTING	DAMPER	REMARKS
L-1	RUSKIN	ELF375DX	24"x16"	-	IN WALL	NONE	KYNAR 500 COLOR BY ENGINEER EXTENDED SILL, INSECT SCREEN
L-2	RUSKIN	ELF375DX	24"x16"	-	IN WALL	NONE	KYNAR 500 COLOR BY ENGINEER EXTENDED SILL, INSECT SCREEN
L-3	RUSKIN	ELF375DX	24"x16"	-	IN WALL	NONE	KYNAR 500 COLOR BY ENGINEER EXTENDED SILL, INSECT SCREEN
L-4	RUSKIN	ELF375DX	24"x16"	-	IN WALL	NONE	KYNAR 500 COLOR BY ENGINEER EXTENDED SILL, INSECT SCREEN
L-5	RUSKIN	ELF375DX	24"x16"	-	IN WALL	NONE	KYNAR 500 COLOR BY ENGINEER EXTENDED SILL, INSECT SCREEN
L-6	RUSKIN	ELF375DX	32"x32"	-	IN WALL	NONE	KYNAR 500 COLOR BY ENGINEER EXTENDED SILL, INSECT SCREEN

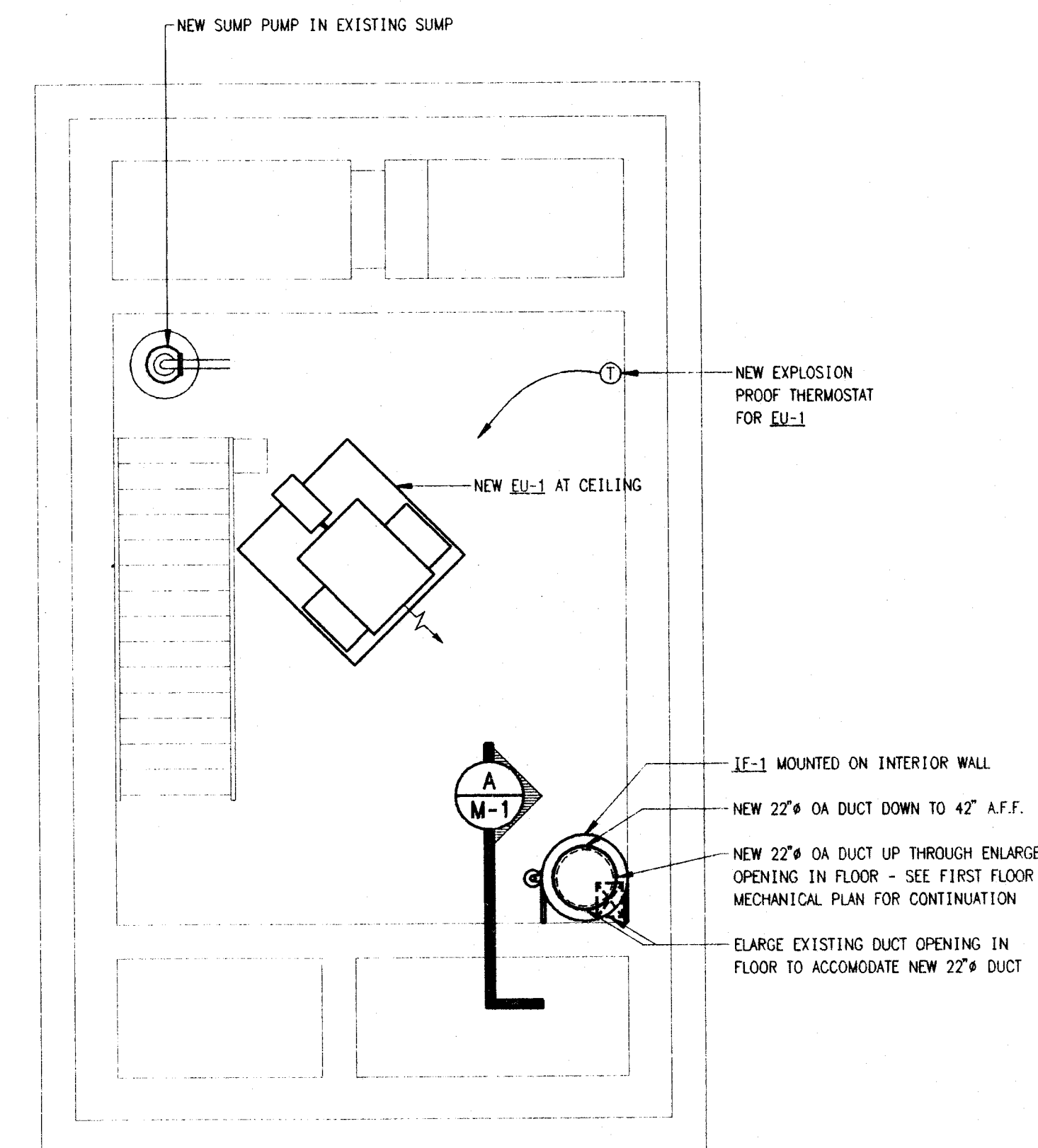
FAN SCHEDULE											
No.	MAKE	MODEL	TYPE	CFM	S.P. (IN)	RPM	SONES	TYPE DRIVE	MOTOR H.P.	VOLTS/PHASE	ACCESSORIES
IF-1	LOREN COOK	QVB20	INLINE CENTRIFUGAL BLOWER	3000	0.50	846	13.5	BELT	3/4	480/3	CLASS 1 GROUP D EXPLOSION PROOF MOTOR, COMPANION FLANGES FOR INLET, EPOXY COATING, BELT GUARD, VIBRATION ISOLATOR MOUNTING PADS, FLEXIBLE CONNECTOR, MOUNTING BRACKET AND SAFETY SCREEN ON OUTLET.
IF-2	LOREN COOK	AWD-12A17D	WALL INTAKE FAN	845	0.125	1725	11.8	DIRECT	1/6	120/1	CLASS 1 GROUP D EXPLOSION PROOF MOTOR, SUPPLY ARRANGEMENT, WIRE GUARD, AND EPOXY COATING.

ELECTRIC UNIT HEATER SCHEDULE											
MARK	MAKE	TYPE	MOUNTING	SIZE	CATALOG No.	DFW	No. ELEMENTS	No. STAGES	KW	VOLTS/PHASE	ACCESSORIES
EU-1	INDECO	EXPLOSION PROOF UNIT HEATER	CEILING	D	232-FB10-0601	2165	15	5	60	480/3	ADJUSTABLE CEILING MOUNTING BRACKET, EXPLOSION PROOF ROOM THERMOSTAT STEP CONTROLLER AND DISCONNECT SWITCH.
EU-2	INDECO	EXPLOSION PROOF UNIT HEATER	CEILING	A	232-FB1A-0151	1775	6	2	15	480/3	ADJUSTABLE CEILING MOUNTING BRACKET, EXPLOSION PROOF ROOM THERMOSTAT STEP CONTROLLER AND DISCONNECT SWITCH.
EU-3	INDECO	EXPLOSION PROOF UNIT HEATER	CEILING	A	232-FB1A-0201	1775	6	2	20	480/3	ADJUSTABLE CEILING MOUNTING BRACKET, EXPLOSION PROOF ROOM THERMOSTAT STEP CONTROLLER AND DISCONNECT SWITCH.

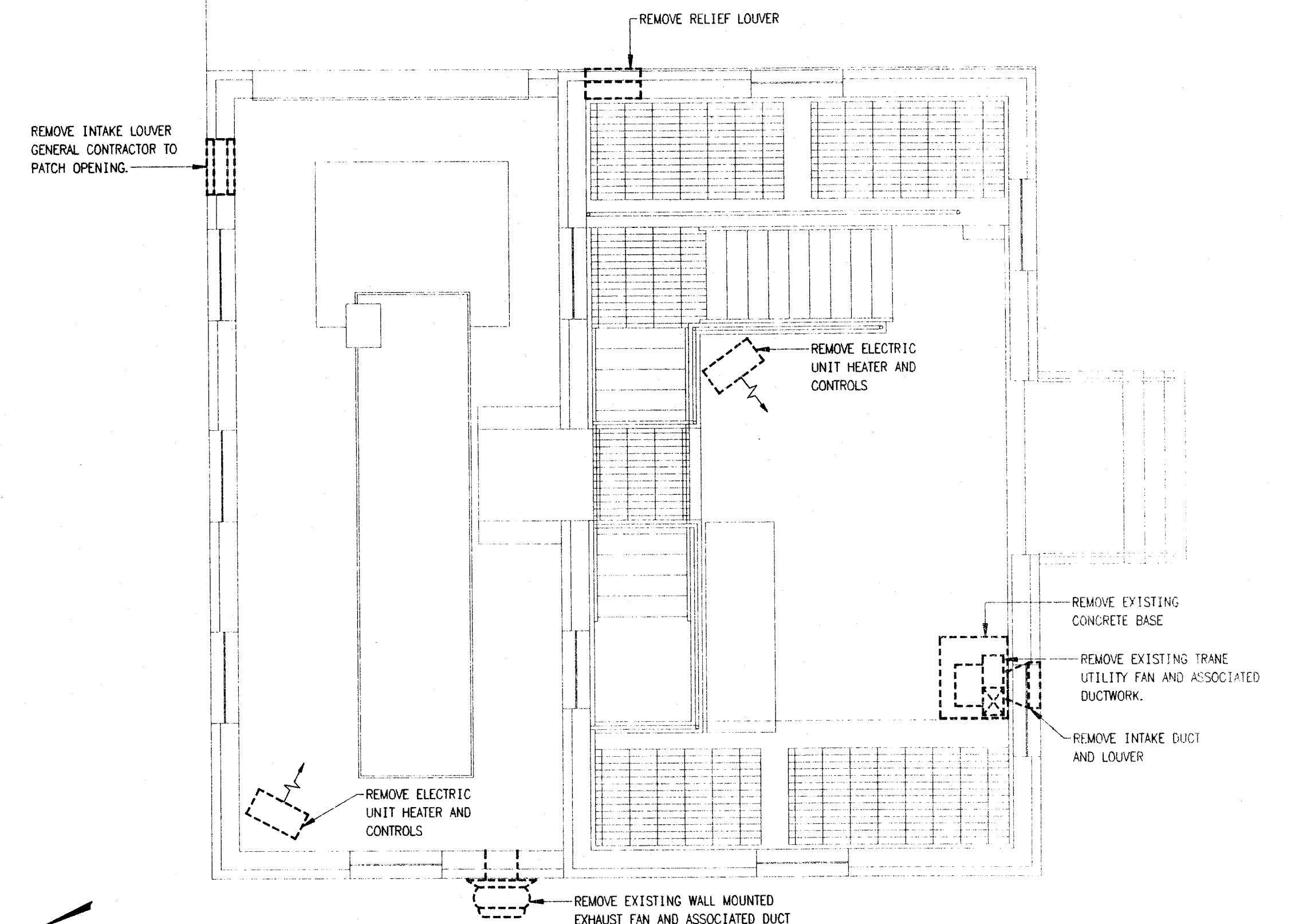
HVAC SYMBOL LEGEND	
①	THERMOSTAT
→	LOW VOLTAGE WIRING
S.A.	SUPPLY AIR
R.A.	RETURN AIR
O.A.	OUTSIDE AIR
E.A.	EXHAUST AIR
16"x16"	RECTANGULAR DUCT DIMENSION
12"	ROUND DUCT DIMENSION
① 200	GRILLE/DIFFUSER/LOUVER #1 BALANCE TO 200 CFM
	SPIRAL ROUND/OVAL DUCT
→	AIR FLOW DIRECTION AT GRILLE/DIFFUSER/LOUVER
→	AIR FLOW DIRECTION AT OPEN DUCT



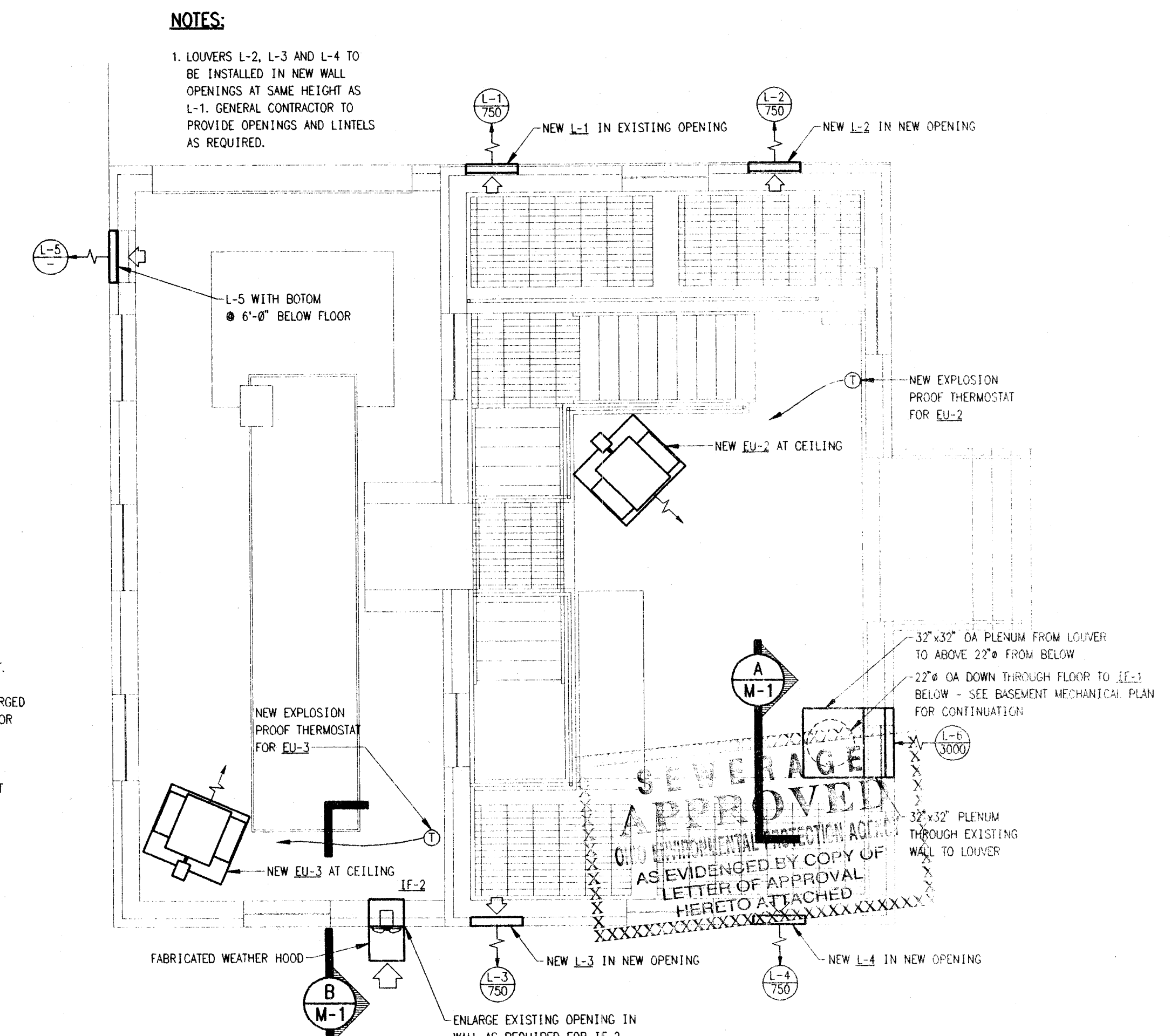
MECHANICAL BASEMENT DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

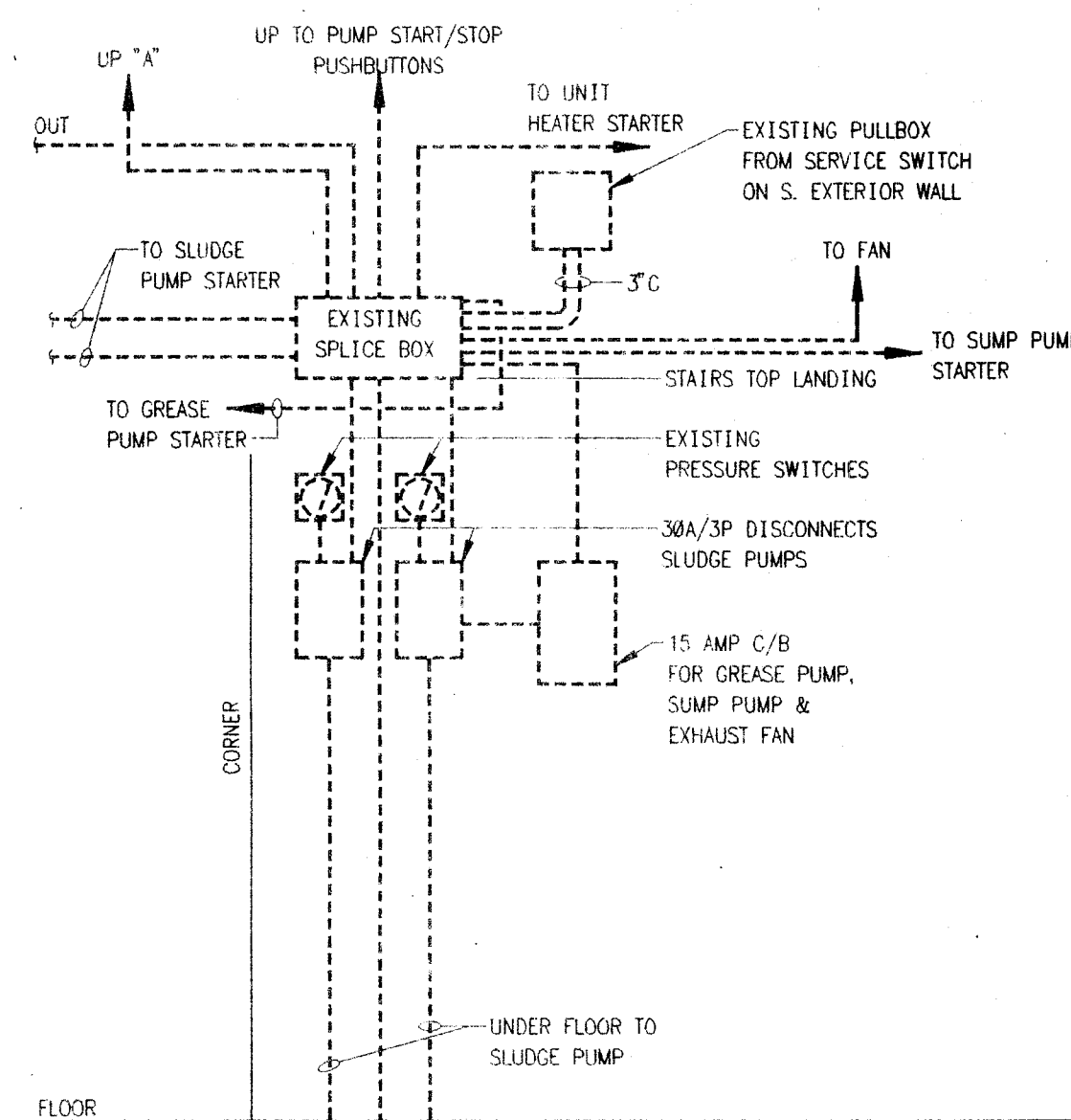


MECHANICAL BASEMENT PLAN
SCALE: 1/4" = 1'-0"



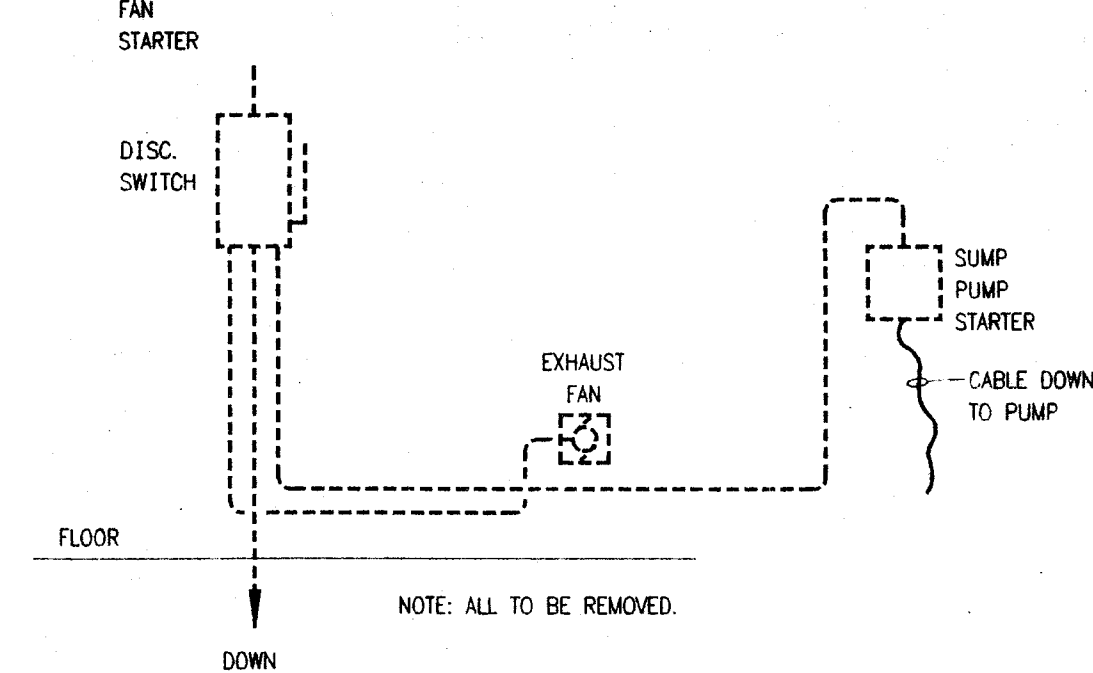
MECHANICAL FIRST FLOOR DEMOLITION PLAN
SCALE: 1/4" = 1'-0"





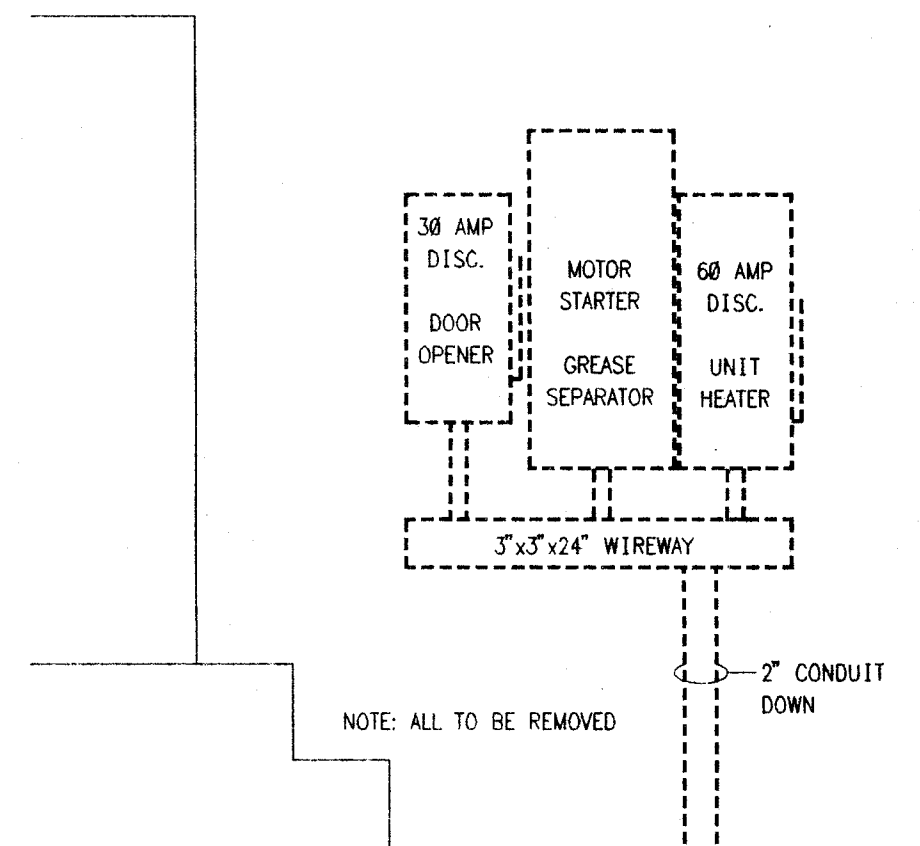
ELEVATION "A-A"
DEMOLITION

NOT TO SCALE



ELEVATION "B-B"

NOT TO SCALE

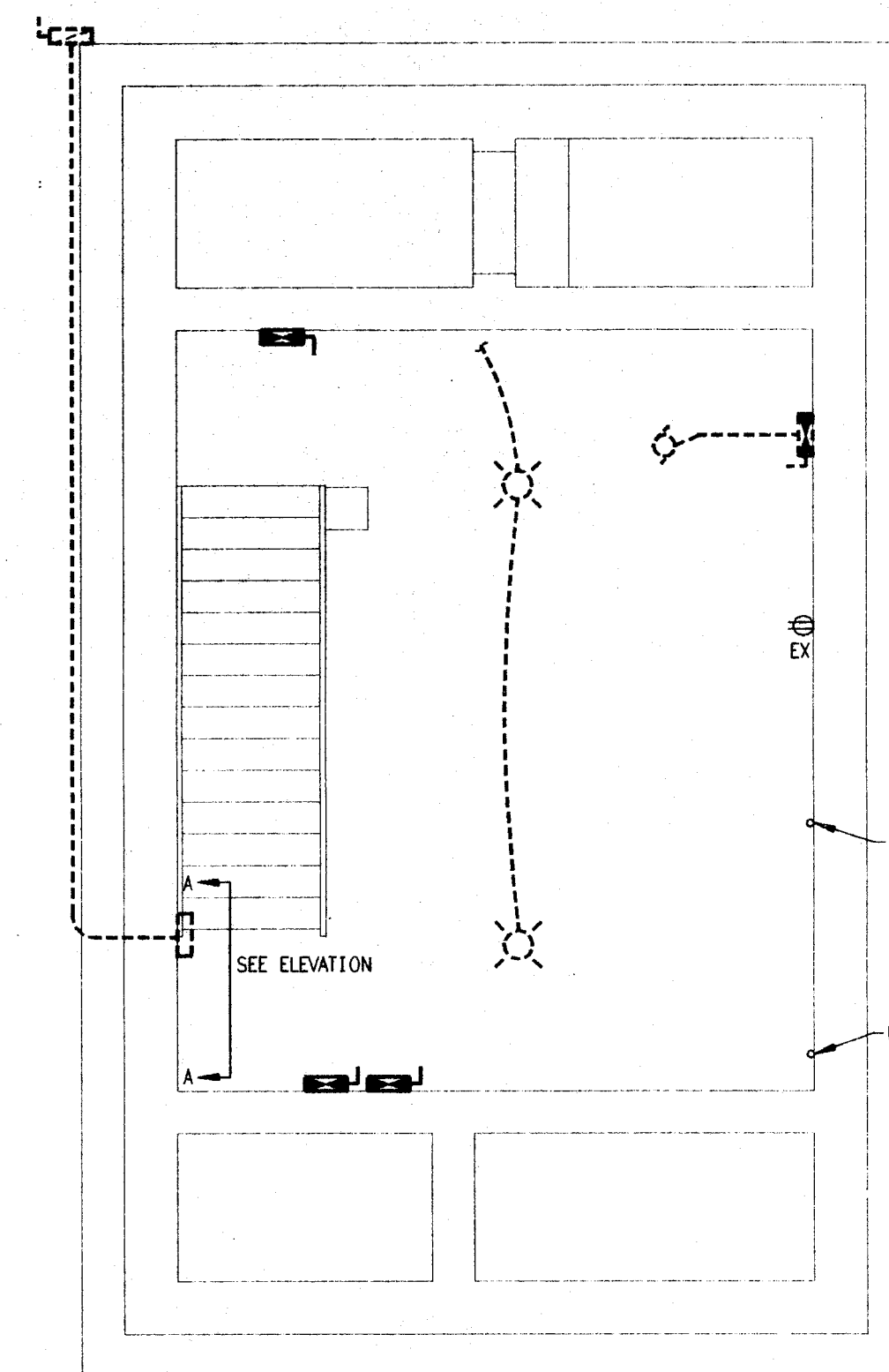


ELEVATION "C-C" DEMOLITION

NOT TO SCALE

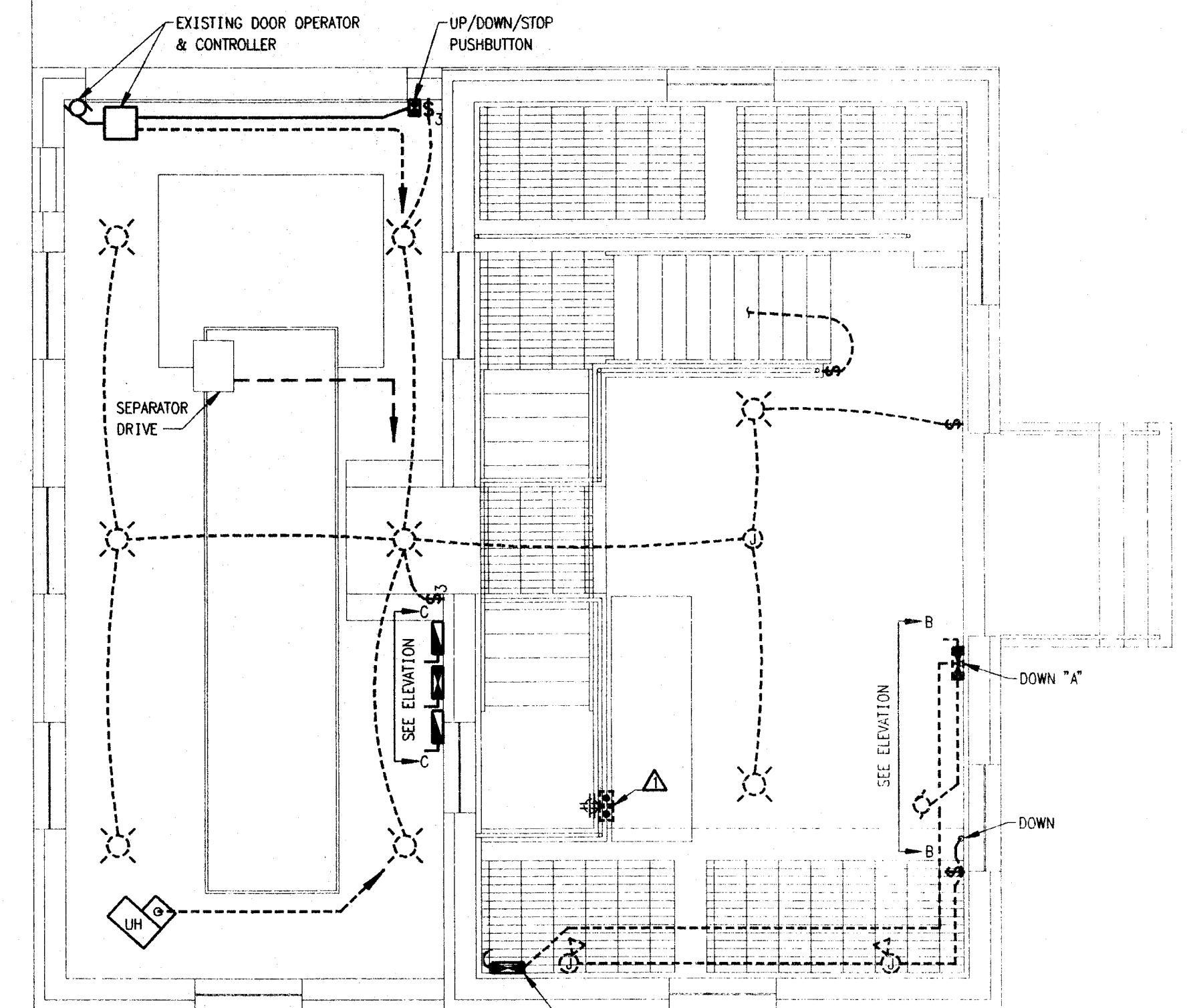
ELECTRICAL SYMBOL SCHEDULE

SYMBOL	DESCRIPTION
	2-LAMP CLASS 1 DIVISION 1 FLUORESCENT FIXTURE WITH 18 LAMPS AND ELECTRONIC BALLASTS CROUSE HINDS #FV22022 WALL MOUNTED PER DETAIL "X" AT 7'-6" AFF.
	2-LAMP CLASS 1 DIVISION 1 FLUORESCENT FIXTURE WITH 18 LAMPS AND ELECTRONIC BALLASTS CROUSE HINDS #FV22022 SUSPENDED AT 6' BELOW CEILING
	WALL MOUNTED CLASS 1 DIVISION 1 INCANDESCENT FIXTURE MOUNT JUST BELOW METAL GRATE CROUSE HINDS #EV210 W/150 WATT A19 LAMP
	WALL MOUNTED EXTERIOR WALL PACK, 175W METAL HALIDE, LITHONIA #
	POLE MOUNTED 100 WATT METAL HALIDE FIXTURE, STANSON MOUNTED ON 1 1/2" RIGID GALVANIZED STEEL PIPE @10' ABOVE CATWALK, CROUSE HINDS #DMWP100GP, FURNISH AND INSTALL POLE AT 48" ABOVE CATWALK A GFCI DUPLEX RECEPTACLE IN A WEATHER PROOF ENCLOSURE, RAIN TIGHT WHEN IN USE.
	3 POSITION MOMENTARY CONTACT START/STOP, GREEN PILOT LIGHT IN CLASS 1 DIVISION 1 ENCLOSURE CROUSE HINDS #EFD1475-J3 LED
	20 AMP 120/277 VOLT LIGHT SWITCH IN CLASS 1 DIVISION 1 ENCLOSURE, CROUSE HINDS #EDS2129
	3-POLE FUSIBLE SAFETY SWITCH IN CLASS 1 DIVISION 1 ENCLOSURE CROUSE HINDS #EWMGB-FD-W...361, SIZED PER PLANS
	CLASS 1 DIVISION 1 DUPLEX RECEPTACLE, CROUSE HINDS #ENRC22201 W/NEMA 5-20R RECEPTACLES. PROVIDE (5) TYPE ENR PLUGS TO OWNER
	COMBINATION MOTOR STARTER, FUSED DISCONNECT SWITCH IN CLASS 1 DIVISION 1 ENCLOSURE COMPLETE WITH FULL VOLTAGE NON REVERSING MOTOR STARTER, CIRCUIT BREAKER FUSED CONTROL TRANSFORMER AND 2NO,2NC AUXILIARY CONTACTS, CROUSE HINDS #EBC1FB-F100-S782, SIZE PER PLANS.
	CLASS 1 DIVISION 1 SEALING FITTING FOR 3/4" CROUSE HINDS #EYS21, 1" CROUSE HINDS #EYS31, 1 1/2" CROUSE HINDS #EYS41, 1 1/2" CROUSE HINDS #EYS51, 2" CROUSE HINDS #EYS61.
	PANELBOARD IN CLASS 1 DIVISION 1 ENCLOSURE, CROUSE HIND TYPE EXD SERIES. SEE SCHEMATIC FOR BREAKER COMPLEMENT AND RATINGS AND BUSS RATING.
	SIZE 0 COMBINATION MOTOR STARTER AND FUSED DISCONNECT SWITCH IN NEMA 4XSS ENCLOSURE WITH CONTROL TRANSFORMER AND (2) ADDITIONAL N.O. AND N.C. CONTACTS. SQUARE D CLASS 8538-SBW13V02A-F4T-V75.
	CLASS 1 DIVISION 1 TELEPHONE OUTLET, CROUSE HINDS #ETW401
	CLASS 1 DIVISION 1 REMOTE POWER RELAY AND RINGER #ETC232/ETR1 MOUNT OUTSIDE BUILDING
	EXPLOSION PROOF JUNCTION BOX
	CONDUIT CONCEALED IN FLOOR OR EARTH
	CONDUIT CONCEALED IN CEILING OR WALLS
	CONDUIT EXPOSED
	NEUTRAL & PHASE WIRES WIRES IN CONDUIT #12 AWG UNLESS NOTED
	GROUND WIRE
	MOTOR, HORSEPOWER & VOLTAGE AS NOTED
	AFF ABOVE FINISHED FLOOR
	+42 INDICATES MOUNT AT 42" ABOVE FINISHED FLOOR TO CENTER LINE OF DEVICE
	NIC NOT IN CONTRACT
	EC ELECTRICAL CONTRACTOR
	A/B-1 INDICATES FIXTURE TYPE A CONNECTED TO CIRCUIT #1 IN PANEL B



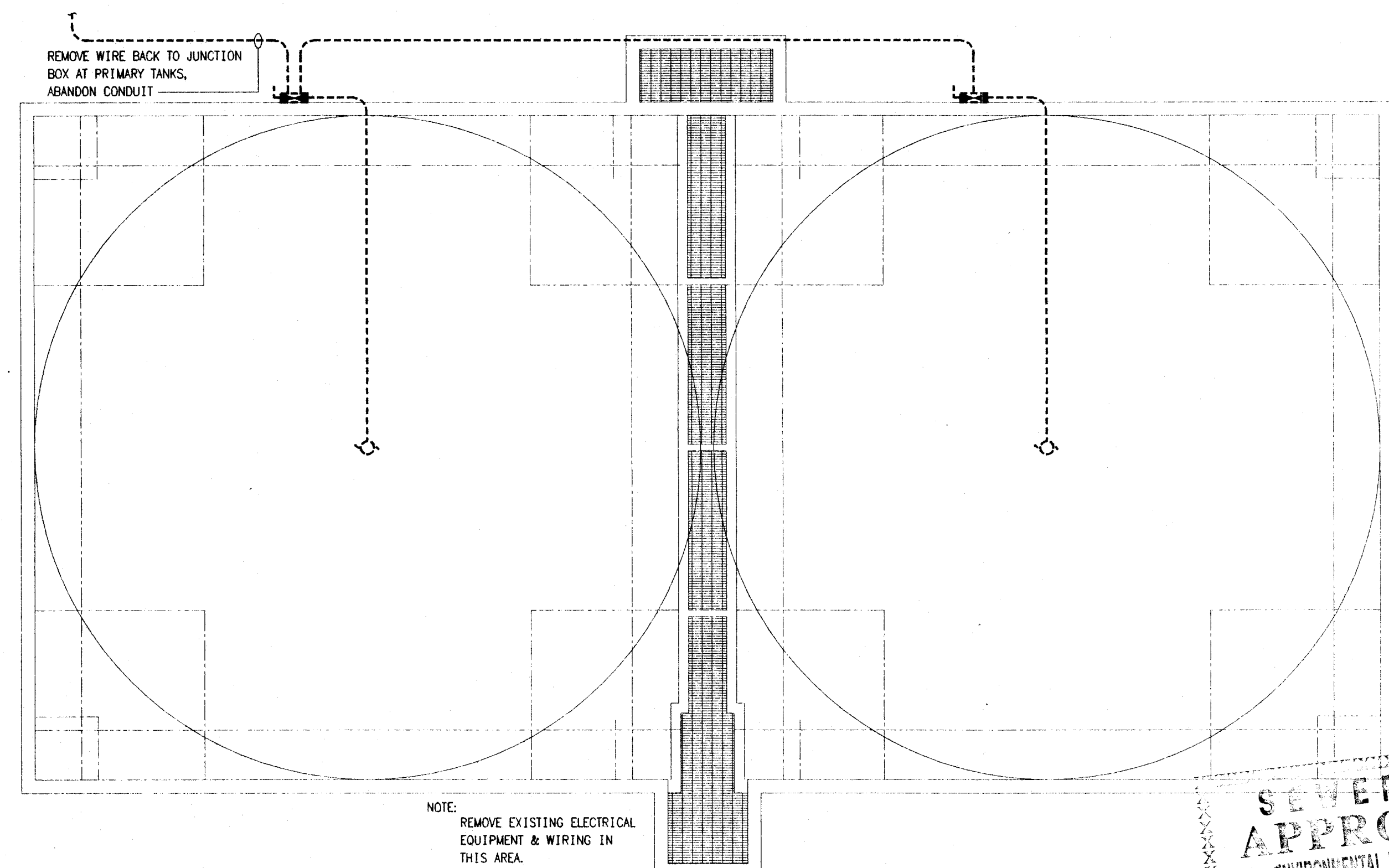
BASEMENT ELECTRICAL DEMOLITION PLAN

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



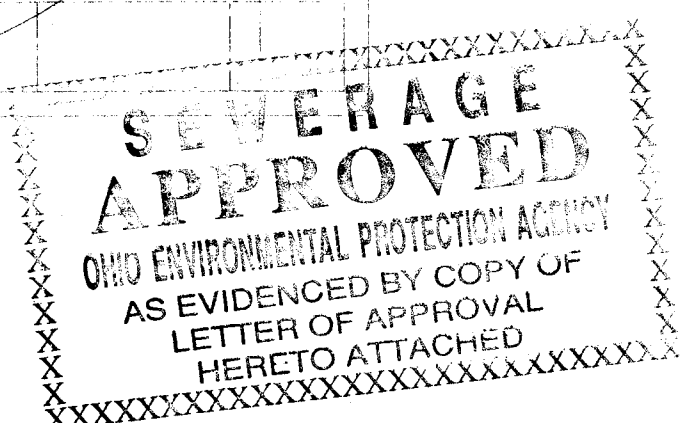
FIRST FLOOR ELECTRICAL DEMOLITION PLAN

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

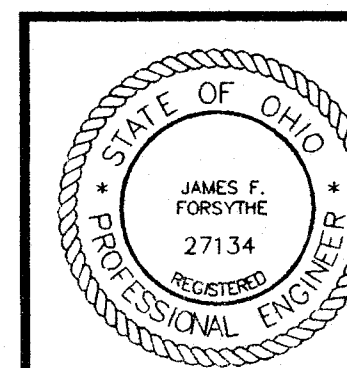


CLARIFIER ELECTRICAL DEMOLITION PLAN

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



ELECTRO-MECH ENGINEERING
567 East Turkeyfoot Lake Road
Akron, Ohio 44319
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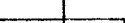
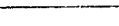
CTI ENVIRONMENTAL, INC. ENGINEERS IN WATER AND EARTH SCIENCES UNIONTOWN, OHIO		JOB NO. E6024
CITY OF MASSILLON, OHIO PRIMARY TREATMENT IMPROVEMENTS ELECTRICAL DEMOLITION PLANS AND DETAILS		DATE 1/24/97
		SCALE AS NOTED
		SHEET 16 of 19

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

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

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

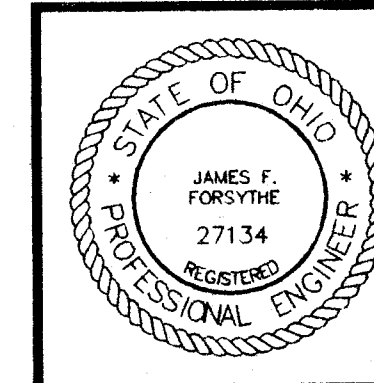
NOT TO SCALE

PANEL: "R"							MOUNTING:		120/240 VOLTS		1 - PHASE		3 - WIRES		
LOCATION: AS SHOWN ON PLAN DRAWING									SURFACE		100 AMP. MAINS		BREAKER SIZE: 50 AMP		
CKT. NO.	USE	WATTS	WIRE IN	SIZES	TERMS	AMPS			AMPS	POLES	WIRE IN	SIZES	WATTS	USE	CKT. NO.
							#A	#B							
1	LIGHTING INTERIOR	836		1	20				20	1				EXTERIOR LIGHTS	2
3	LIGHTING INTERIOR	836		1	20				20	1				INWIRE FAN 2	4
5	LIGHTING PITTS	680		1	20				20	1				LSI CLARIFIERS	6
7	RECEPTACLE			1	20				20	1				RECEPTACLES CLARIFIER	8
9	RECEPTACLE			1	20				20	1				SPARE	10
11	SPARE			1	20				20	1				SPARE	12
13	SPARE			1	20				20	1				SPARE	14
15	SPACE ONLY													SPACE ONLY	16
17	SPACE ONLY													SPACE ONLY	18
19	SPACE ONLY													SPACE ONLY	20
21	SPACE ONLY													SPACE ONLY	22
23	SPACE ONLY													SPACE ONLY	24
PANEL FEEDER SIZE:						TOTAL/PHASE									
AMPS, RMS, S.M.						TOTAL PANEL									
						TOTAL CONNECTED LOAD:	AMPS				GROUND BUS				

PANEL: "SB"										480 VOLTS		3 - PHASE		3 - WIRES	
LOCATION: SLUDGE BUILDING 1										MOUNTING: SURFACE		225 AMP. MAINS		BREAKER SIZE: 225 AMP.	
QKT. NO.	USE	WATTS	WIRE SIZE	POLES	AMPS.	+ N			AMPS.	POLES	WIRE SIZE	WATTS	USE	QKT. NO.	
						ØA	ØB	ØC							
1	SLUDGE PUMPS 1 & 2	14861	-	3	60	34861			80	3	20000		HEATER	2	
3	SCUM PUMPS 1 & 2	14861	-	-	-	34861			-	-	20000		60 KW	4	
5	(2) 10 HP (2) 7.5 HP 445BSW	14863	-	-	-			14863	-	-	20000		HEATER	6	
7	HEATER	5000	-	3	30	11666			35	3	6666		HEATER	8	
9	15 KW	5000	-	-	-			11666	-	-	6666		20 KW	10	
11		5000	-	-	-			11668	-	-	6668			12	
13	SUMP PUMP	347	-	3	15	972			15	3	625		CLARIFIER DRIVES	14	
15	1/2 HP	347	-	-	-			972	-	-	625		(2) 1/2 HP 1875W	16	
17		340	-	-	-			973	-	-	625			18	
19	PANEL "R" TRANSFORMER	2	3Ø	5625					15	3	625		SKIMMER & OVERHEAD DOOR	20	
21	10 KVA	5000	-	-	-			5625	-	-	625		(2) 1/2 HP 1875W	22	
23	SPACE ONLY							625	-	-	625			24	
25	SPACE ONLY											SPACE ONLY		26	
27	SPACE ONLY											SPACE ONLY		28	
29	SPACE ONLY											SPACE ONLY		30	
PANEL FEEDER SIZE:		TOTAL PHASE		53,124		53,124		48,129		TOTAL CONNECTED LOAD:		185.7 AMP		G	
		TOTAL PANEL		154,377										— GROUND BUS	

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

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