

TOWN OF WINDFALL TIPTON COUNTY, INDIANA

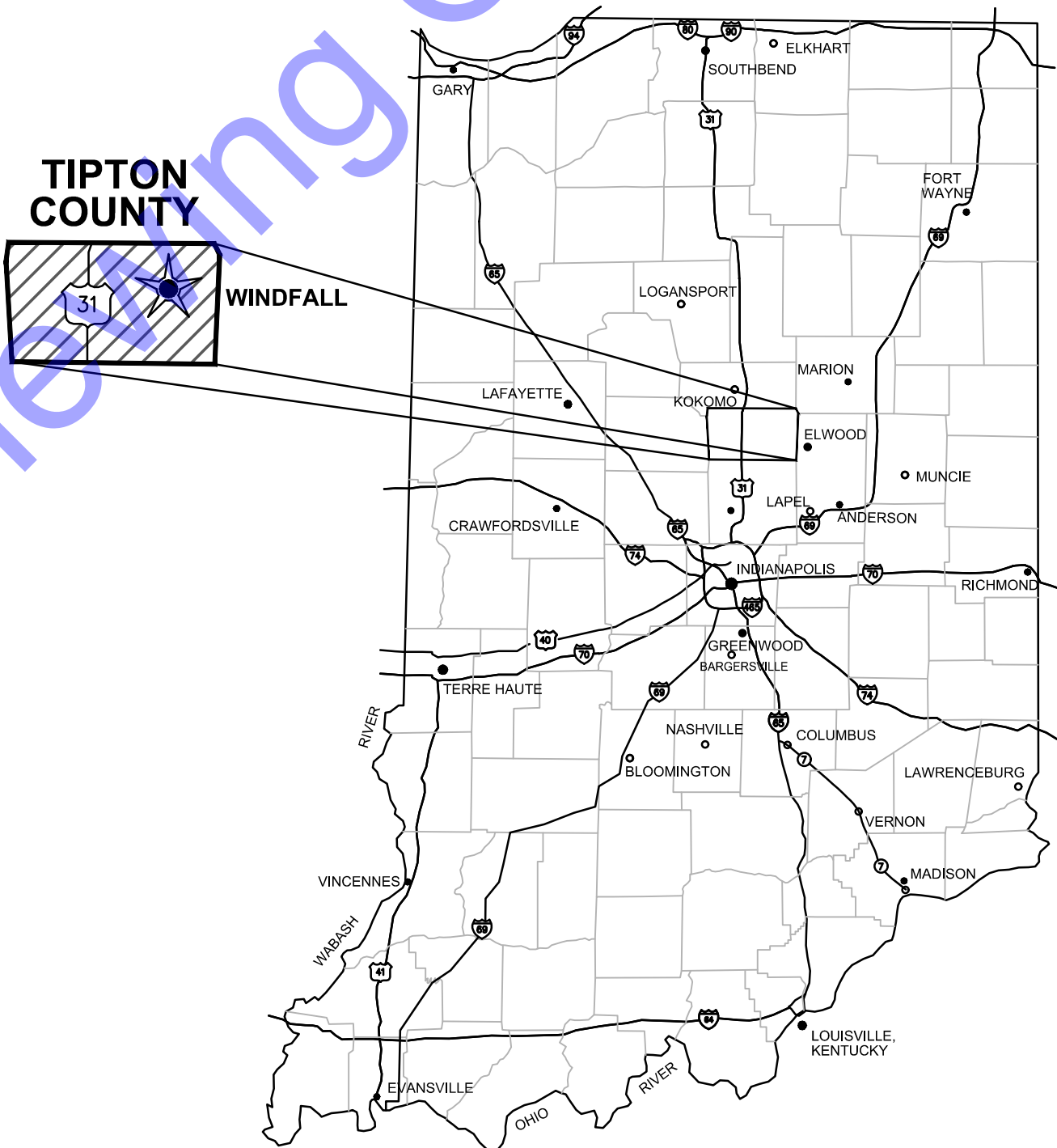
WASTEWATER TREATMENT PLANT IMPROVEMENTS

AUGUST 2026

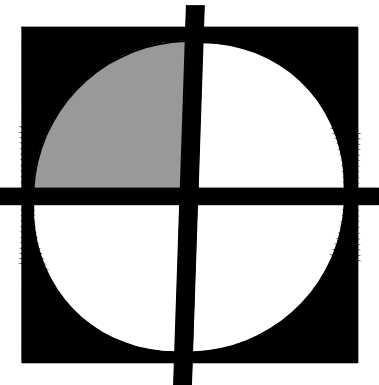
TOWN COUNCIL

ROB SHANKS.....PRESIDENT
BILL DEWITT.....VICE PRESIDENT
THERESA SIMMONS.....MEMBER
MARVA RYAN.....MEMBER

PAMELA LONG.....CLERK-TREASURER
ALAN WILSON.....ATTORNEY
SCOTT SCHUTTE.....WATER / WASTE OPERATOR



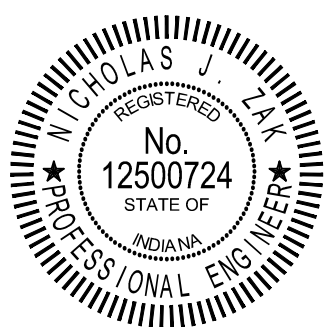
GENERAL LOCATION MAP



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QA/QC BY : DARREN S. WELLS, P.E., BCEE, ENV SP 8-6-26
DATE :

CERTIFIED BY : Nicholas J. Zak 8-6-26
NICHOLAS J. ZAK, P.E.
INDIANA P.E. No. 12500724
DATE :



CONTRACT NO. : S24195



SCALE: 1"=500'-0"

0 500' 1,000'

A horizontal scale bar with alternating black and white segments. It is marked with '0' at the left end, '500'' in the middle, and '1,000'' at the right end.

WWTP
307 E. RAILROAD ST.
WINDFALL, IN 46076

<u>UTILITY CONTACT INFORMATION</u>	
<u>TELEPHONE</u> FRONTIER 260-461-3324	<u>TOWN OF WINDFALL</u> TOWN HALL 210 S. INDEPENDENCE ST. WINDFALL, IN 46076
<u>CABLE TV</u> COMCAST CABLE LINCOLN WASHINGTON LINCOLN WASHINGTON@COMCAST.COM 317-450-2612	<u>SANITARY</u> TOWN OF WINDFALL UTILITIES SCOTT SCHUTTE SCHUTTECOMPLIANCE.COM 765-945-8391
<u>ELECTRIC</u> AMERICAN ELECTRIC POWER ERIK SCHLEMMER EJSCHLEMMER@AEP.COM 260-408-3447	<u>WATER</u> TOWN OF WINDFALL UTILITIES SCOTT SCHUTTE SCHUTTECOMPLIANCE.COM 765-945-8391
<u>DUKE ENERGY</u> DON MCDUFFY DEI-DLINE-COORD@DUKE-ENERGY.COM 317-776-5320	<u>STORM</u> TOWN OF WINDFALL UTILITIES SCOTT SCHUTTE SCHUTTECOMPLIANCE.COM 765-945-8391
<u>GAS</u> NIPSCO GAS UTILITY COORDINATION UTILITYCOORDINATION@NISOURCE.COM 1-800-464-7726	

STORM
TOWN OF WINDFALL UTILITIES
SCOTT SCHUTTE
SCHUTTECOMPLIANCE.COM
765-945-8391

AB	AIR	FLD	FILTRATE DRAIN	P/L	PROPERTY LINE
AFF	ANCHOR BOLT	FLG	FLANGE	POJ	PUSH ON JOINT
ALT	ABOVE FINISH FLOOR	FL	FLUSHING LINE	PSF	POUNDS PER SQUARE FOOT
ALUM	ALTERNATE	FLR	FLOOR	PSI	POUNDS PER SQUARE INCH
@	ALUMINUM	FM	FORCE MAIN	PVC	POLYVINYL CHLORIDE
APP.	AT	FRP	FIBER REINFORCED PLASTIC	PW	POTABLE WATER
ATT	APPARENT	FT	FEET OR FOOT		
AUTO	AERATION TANK TRANSFER	FTG	FOOTING	R	RECIRCULATION
AVG	AUTOMATIC	FW	FINISHED WATER	RAD	RADIUS
	AVERAGE			RAS	RETURN ACTIVATED SLUDGE
B	BAFFLE	G	GAS	RCP	REINFORCED CONCRETE PIPE
BLDG	BUILDING	GALV	GALVANIZED	RD	ROOF DRAIN
BM	BENCH MARK	GEN	GENERAL	REINF	REINFORCING
BOT	BOTTOM	GRD	GROUND OR GRADE	REQ'D	REQUIRED
BRG	BEARING			R/W (ROW)	RIGHT-OF-WAY
		HB	HOSE BIBB		
CFM	CUBIC FEET PER MINUTE	HORIZ	HORIZONTAL	SAN	SANITARY
CL	CENTERLINE	HP	HORSEPOWER	SAS	SANITARY SEWER
CO	CLEAN OUT	HW	HOT WATER	SCH	SCHEDULE
COL/C	COLUMN			SECT	SECTION
CONC	CONCRETE	ID	INSIDE DIAMETER	SF	SQUARE FEET
COP	COPPER	IJ	ISOLATION JOINT	SHT	SHEET
CJ	CONSTRUCTION JOINT	INV	INVERT	SL	SAMPLE LINE
CW	COLD WATER	IP	IRON PIN	SOS	STORM SEWER
CY	CUBIC YARD			SP	STOP PLATE
		LAV	LAVATORY	SQ	SQUARE
D	DRAIN	LB	POUND	STD	STANDARD
DEC	DECIANT	LL	LIVE LOAD	S STL, SS	STAINLESS STEEL
DIA	DIAMETER	LLV	LONG LEG VERTICAL	STL	STEEL
DIM	DIMENSION	LTG	LIGHTING	SUP	SUPERNATANT
DI	DUCTILE IRON PIPE			SY	SQUARE YARD
DL	DEAD LOAD	MAX	MAXIMUM		
DSPT	DOWN SPOUT	MCC	MOTOR CONTROL CENTER	TOS	TOP OF SLAB
DWG	DRAWING	MGD	MILLIONS GALLONS PER DAY	TOW	TOP OF WALL
		MH	MANHOLE	TW	TERTIARY WATER
E	ELECTRICAL CONDUIT	MIN	MINIMUM, MINUTE	TYP	TYPICAL
EA	EACH	MJ	MECHANICAL JOINT		
EF	EACH FACE			V	VACUUM OR VALVE
EFFL	EFFLUENT	NC	NORMALLY CLOSED	VAR	VARIES
EL	ELEVATION	NG	NATURAL GAS	VERT	VERTICAL
EW	EACH WAY	NIC	NOT IN CONTRACT		
EX	EXISTING	NO	NORMALLY OPEN	W	WEIR
EXP	EXHAUST FAN	NPW	NUMBER	W/	WITH
EXP JT	EXPANSION JOINT		NON-POTABLE WATER	W/O	WITHOUT
				WAS	WASTE ACTIVATED SLUDGE
F	FILTER	OC	ON CENTER	WC	WATER CLOSET
FCAR	FLANGED COUPLING ADAPTER,	OD	OUTSIDE DIAMETER	WH	WATER HEATER
	RESTRAINED	OPG	OPENING	WL	WATER LINE
FD	FLOOR DRAIN	OPP	OPPOSITE	WWF	WELDED WIRE FABRIC
FDN	FOUNDATION				
FH	FIRE HYDRANT	PB	PULL BOX	YH	YARD HYDRANT
		PE	POLYETHYLENE EXP. JT.		
			MATERIAL		

1. THE CONTRACTOR SHALL COORDINATE THE ACTIVITIES OF THEIR PERSONNEL, SUBCONTRACTORS, AND UTILITIES UTILITIES NEAR OR ON THIS PROJECT. THE CONTRACTOR SHALL ALSO COORDINATE WITH THE OWNER'S OPERATIONS AND MAINTENANCE PERSONNEL WHO MAY BE WORKING IN OR NEAR THE PROJECT AREA.

2. IF ANY ERRORS OR DISCREPANCIES BECOME APPARENT, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION SO THAT CLARIFICATION MAY OCCUR.

3. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING EROSION CONTROL AND THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

4. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL PERMITS OBTAINED FOR THE PROJECT.

5. THE COST OF ABIDING BY THE PROVISIONS OR PERMITS ISSUED BY VARIOUS AGENCIES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. ALL ASSOCIATED BONDING REQUIREMENTS AND COSTS SHALL ALSO BE CONSIDERED INCIDENTAL TO THE CONTRACT.

6. COORDINATION AND PROPER FIT AND SURVEY OF ALL PROJECT ELEMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION STAKEOUT OF THE PROJECT ELEMENTS TO VERIFY THE COORDINATES PROVIDED.

7. LIMITS OF CONSTRUCTION SHALL BE WITHIN EXISTING RIGHT-OF-WAYS, EASEMENTS AND OWNER'S PROPERTY UNLESS OTHERWISE NOTED.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING, AT NO ADDITIONAL COST TO THE OWNER, TEMPORARY EASEMENTS NEEDED FOR STORAGE, STOCKPILING, ACCESS, OR ANY OTHER REASON, OUTSIDE OF ANY EASEMENTS OR RIGHT-OF-WAY PROVIDED.

9. THE CONTRACTOR SHALL PRESERVE AND PROTECT PROPERTY MARKERS, SECTION CORNERS, SURVEY MARKS AND BENCHMARKS, SUCH AS STONES, PIPES, OR OTHER MONUMENTS ENCOUNTERED. IF THE CONTRACTOR MUST DISTURB THE PROPERTY MARKERS OR MONUMENTS, THEIR HORIZONTAL AND VERTICAL LOCATION SHALL BE DETERMINED AND RECORDED BY A REGISTERED LAND SURVEYOR AND THE OWNER NOTIFIED BEFORE DISTURBING. ALL PROPERTY MARKERS AND MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RE-ESTABLISHED BY A REGISTERED INDIANA LAND SURVEYOR.

10. ALL PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPARENT AND SHALL NOT BE DEEMED AS EXACT LOCATIONS, UNLESS OTHERWISE NOTED. INFORMATION WAS OBTAINED BY VIA "INDIANA ON-LINE" GIS SHAPE FILES. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING PROPERTY AND RIGHT-OF-WAY LINES PRIOR TO START OF CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS.

11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL MUD, DIRT, GRAVEL, AND ANY OTHER MATERIALS TRACKED ONTO ANY PUBLIC OR PRIVATE STREETS, PARKING LOTS, OR WALKS. THIS MATERIAL REMOVAL OR SWEEPING OF THE STREETS SHALL BE DONE AS FREQUENTLY AS NECESSARY TO MAINTAIN REASONABLY CLEAN AREAS. THE CONTRACTOR SHALL ALSO CONTROL DUST THROUGH THE USE OF WATERING, APPLICATION OF DUST PALLIATIVE, OR OTHER APPROVED METHODS. NO DIRECT PAYMENT WILL BE MADE FOR ANY SUCH CLEANING WORK OR DUST CONTROL.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE RESTORATION. SITE RESTORATION SHALL BE EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO CONSTRUCTION.

13. REGRADE AREAS AS NECESSARY WITHIN THE CONSTRUCTION LIMITS TO ALLOW PROPER DRAINAGE TO EXISTING STORM SEWER STRUCTURES OR FEATURES. ANY EXCESS SOIL AND SPOIL MATERIAL SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR OFF-SITE.

14. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING LOCATIONS OF ALL EXISTING UTILITIES NEAR ALL PROPOSED WORK ACTIVITIES. IF UTILITY CONFLICTS OCCUR, CONTRACTOR SHALL NOTIFY RPR PRIOR TO PROCEEDING WITH WORK.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING AND/OR SUPPORTING, AT CONTRACTORS EXPENSE, ANY UTILITY LINES AND/OR SERVICE POLES NECESSARY TO COMPLETE CONSTRUCTION OPERATIONS. UTILITY POLES MAY BE SHOWN ON THE PLANS, BUT OVERHEAD LINES HAVE BEEN OMITTED FOR CLARITY. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF OVERHEAD OBSTRUCTIONS, ESPECIALLY OVERHEAD ELECTRIC LINES.

16. THE EXISTING UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. LOCATION OF SIZE AND MATERIAL SHOWN ON UTILITIES ARE FROM AVAILABLE RECORDS AND AVAILABLE FIELD MARKINGS, SUPPLIED BY THE RESPECTIVE UTILITY COMPANY. THE INDIANA UNDERGROUND PLANT PROTECTION SERVICE (IUPPS) MUST BE NOTIFIED 48 HOURS PRIOR TO ANY EXCAVATION FOR VERIFICATION OF LOCATION, SIZE AND MATERIAL FOR EXISTING UNDERGROUND UTILITIES (1-800-382-5544).

17. SIZE, MATERIAL, DEPTH AND LOCATION OF KNOWN EXISTING UTILITIES IS FROM AVAILABLE HISTORIC INFORMATION AND ABOVE-GROUND INSPECTION AND MEASUREMENT. THE CONTRACTOR SHALL VERIFY ALL UTILITY INFORMATION CONTAINED IN THE CONTRACT DOCUMENTS PRIOR TO ANY CONSTRUCTION WHICH WOULD BE IMPACTED BY FACILITIES NOT LOCATED AS SHOWN IN THE CONTRACT DOCUMENTS. THE COST TO CORRECT ANY FACILITIES INSTALLED PRIOR TO VERIFICATION OF EXISTING CONDITIONS BY THE CONTRACTOR SHALL BE AT NO COST TO THE OWNER OR ENGINEER. DIFFERING CONDITIONS DISCOVERED DURING VERIFICATION WILL BE HANDLED PER THE CONTRACT DOCUMENTS.

18. THE LOCATION OF UTILITIES AND STRUCTURES, BOTH SURFACE AND SUBSURFACE, ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF SURVEY AND ARE NOT NECESSARILY COMPLETE OR CORRECT. DETERMINING THE EXACT LOCATION AND PROTECTING UTILITIES AND STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR, WHICH MAY INCLUDE CONTRACTING THE SERVICES OF A PRIVATE UTILITY LOCATOR. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR (A) THE REPAIR AND RESTORATION OF SAME IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY OWNER AND (B) ANY RESULTING CONTINGENT DAMAGE AND COST.

19. IF UTILITY FACILITIES OTHER THAN THOSE SHOWN ARE LOCATED, OR IF UTILITIES ARE LOCATED WHICH ARE NOT IN ACCORDANCE WITH THE LOCATIONS SHOWN ON THE DRAWINGS, THE ENGINEER SHALL BE NOTIFIED TO DETERMINE IF PLAN REVISIONS ARE NEEDED.

20. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN IN SERVICE ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ANY UTILITY WHICH CAN BE REMOVED DURING CONSTRUCTION WITHOUT UNDUE INTERRUPTION OF SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR WITH THE PERMISSION OF THE OWNER AND THE APPLICABLE UTILITY OWNER.

21. EXISTING UTILITY INFORMATION SHOWN IN DRAWINGS MEETS "ASCE 38-02" QUALITY LEVEL "C" UNLESS OTHERWISE NOTED.

UTILITY COLLECTION AND PROJECT DEPICTION OF EXISTING SUBSURFACE UTILITY DATA

UTILITY QUALITY DESCRIPTIONS:

UTILITY QUALITY LEVEL A: PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATION OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT, ACCURACY OF LOCATION MATCHES PROJECT SURVEY TOLERANCE.

INTERIOR CORNERS OF STRUCTURE, UNLESS OTHERWISE NOTED.

	EXISTING OVERHEAD TELEPHONE LINE		AC UNIT		TELEPHONE LINE MARKER
	EXISTING GAS LINE AND VALVE		BOLLARD		TRAFFIC MANHOLE
	EXISTING WATER LINE AND VALVE		BOULDER / LARGE ROCK		WATER LINE MARKER
	EXISTING FIBER OPTIC LINE		CENTER LINE MONUMENT		WATER METER
	EXISTING OVERHEAD ELECTRIC LINE		RW ROW MONUMENT		CONTROL POINT / BENCH MARK
	EXISTING BURIED ELECTRIC		DRILL HOLE		MAIL BOX
	EXISTING NON-POTABLE WATER LINE		FLAG POLE		POST
	EXISTING POTABLE WATER LINE		STUMP		BUSH / HEDGE
	EXISTING BURIED TELEPHONE LINE		DECIDUOUS TREE		CONIFEROUS TREE
	EXISTING FENCE		SIGN		UTILITY LOCATE FLAG
	EXISTING RIGHT-OF-WAY		GAS LINE MARKER		GAS VALVE
	EXISTING PROPERTY LINE		GAS METER		GUY POLE
	APPARENT RIGHT-OF-WAY		POWER POLE		LIGHT POLE
	APPARENT PROPERTY LINE		GUY WIRE		ELECTRIC METER
	EDGE OF ROAD		ELECTRIC PANEL		ELECTRIC TRANSFORMER
	EDGE OF ROAD WITH CURB		HAND HOLE BOX		FIBER OPTIC MARKER
	EXISTING MAJOR CONTOUR LINE		TEL/TV PEDESTAL		NEW WET SADDLE AND VALVE BODY
	EXISTING MINOR CONTOUR LINE				NEW PLUG
	NEW WATER LINE				NEW LINE STOP
	PROPOSED MAJOR CONTOUR LINE				NEW CUT AND CAP
	PROPOSED MINOR CONTOUR LINE				NEW SANITARY MH
					NEW WATER METER PIT

	QUICK DISCONNECT		BOOSTER PUMP
	FLANGED SPOOL SECTION		AIR RELIEF VALVE
	PRESSURE REDUCER VALVE		FLOW METER
	FLANGED COUPLING ADAPTER		GATE VALVE
	BALL CHECK VALVE		FLOW CONTROL VALVE
	MOTOR ACTUATOR		VALVE
	FLEXIBLE CONNECTION		ECCENTRIC PLUG VALVE
	FLANGE FILLER & S.S. MESH SCREEN		CHECK VALVE
	90° V-NOTCH WEIR		INCREASER / REDUCER
	MAGNETIC FLOW METER		BUTTERFLY VALVE
	ULTRASONIC SENSOR		PIPE THROUGH FLOOR / WALL
	SUBMERSIBLE PUMP		BALL VALVE
	NEW PIPING AND EQUIPMENT		BLIND FLANGE OR PLUG
	EXISTING PIPING AND EQUIPMENT		HOSE BIBB
	FUTURE PIPING AND EQUIPMENT		STOP PLATE
			WEIR

	-CMU WALL (PLAN VIEW)
	-GRANULAR BACKFILL (PROFILE VIEW)
	- DEMOLITION (CONTRACTOR SHALL REFER TO DETAILED SPECIFICATIONS)
	- GROUT
	- CONCRETE
	- STEEL
	- COMPACTED GRANULAR BACKFILL OR COMPACTED FOUNDATION
	- ABANDONED IN PLACE



SCALE: 1"=30'-0"



A horizontal graphic scale bar with three segments. The first segment is labeled '0', the second '30'', and the third '60''. The bar is divided into three equal parts by vertical lines.

TEMPORARY BENCHMARK INFORMATION		
IDENTIFIER	ELEVATION	DESCRIPTION
TBM-1567	863.61	BOAT SPIKE 1-FT ABOVE GRADE ON EAST SIDE OF POWER POLE #238-041

Project coordinates are based on the following:
HORIZONTAL-US State plane coordinates: NAD83 (*North American Datum*) Indiana East Zone (1301)
VERTICAL- USGS 1988 NAVD (North American Vertical Datum)-per GPS observations (Not verified by physical location of published USGS monuments)


Signature _____ Date 08/06/20

TOWN OF WINDFALL
TIPTON COUNTY, INDIANA

WASTEWATER TREATMENT PLANT
IMPROVEMENTS

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[illegible]

Designed By: NJZ	Drawn By: DMJ	Checked By: DSW
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Issue Date: 8-6-26	Project No: S24195	Scale: AS SHOWN
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SURVEY CONTROL MAP

Drawing No:

G4

Sheet: 04 OF 44

SHEET NOTES:

1. CONTRACTOR SHALL VERIFY CONTROL POINT ELEVATIONS AGAINST A BENCHMARK (TBM) PRIOR TO USE IN THE EVENT THE CONTROL POINT HAS BEEN DISTURBED SUBSEQUENT TO THE SITE SURVEY BEING COMPLETED.





SITE DEMOLITION PLAN

SCALE: 1"=10'-0"

0 10' 20'

A horizontal scale bar with alternating black and white segments. It is marked with '0' at the left end, '10'' at the midpoint, and '20'' at the right end.

- SHEET NOTES:**

1. PIPING WITH EXISTING EFFLUENT POLISHING POND SHALL BE CUT AND REMOVED TO POINT PIPE PENETRATES BASIN EARTHEN LINER.
2. REFER TO NOTE 30 ON DWG. G3 FOR PIPING ABANDONMENT.

LEGEND:



TO BE REMOVED, REPLACED OR IMPROVED



TO BE ABANDONED IN PLACE

TOWN OF WINDFALL
TIPTON COUNTY, INDIANA

WASTEWATER TREATMENT PLANT
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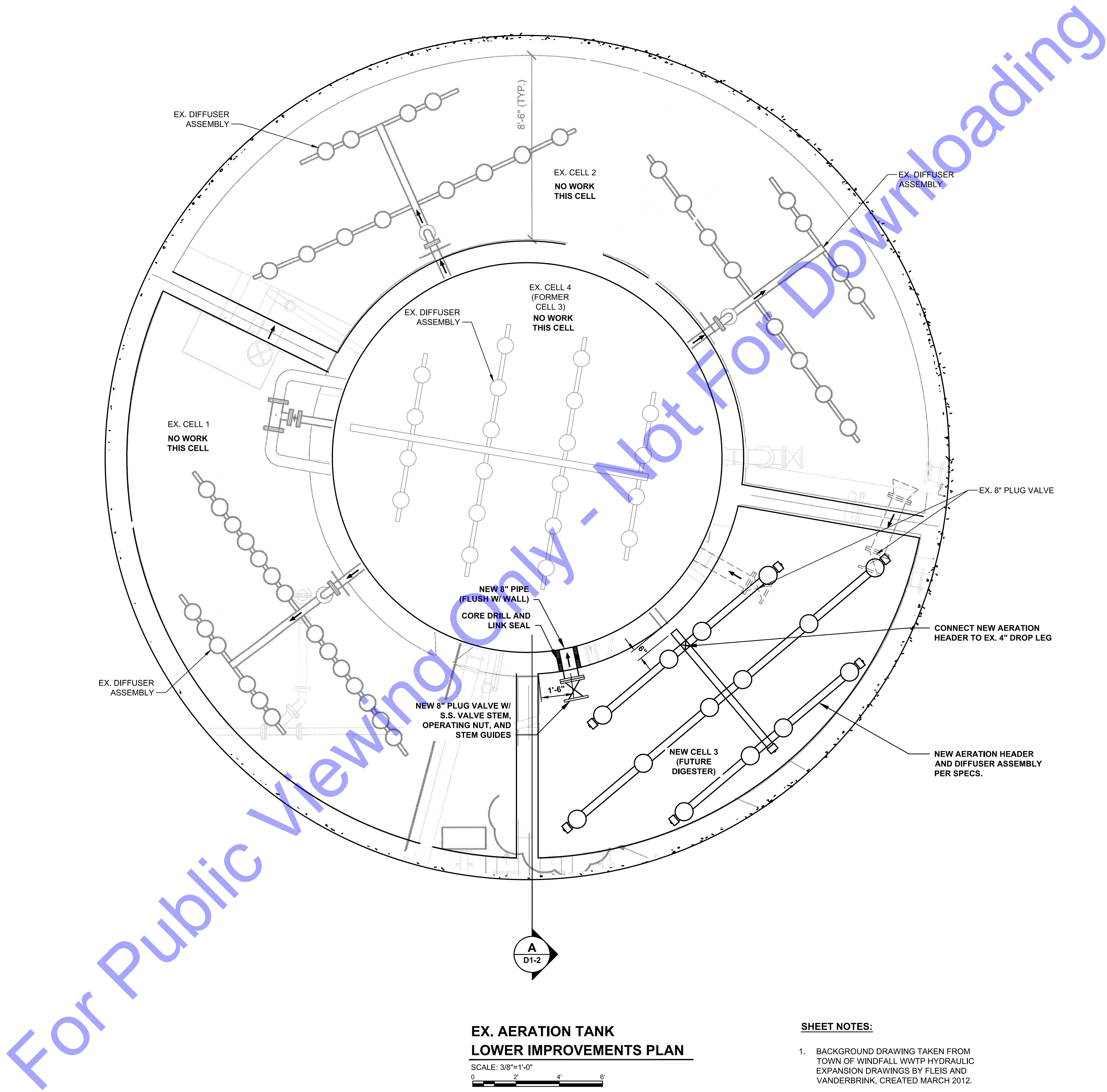
Designed By: NJZ	Drawn By: DMJ	Checked By: DSW
Issue Date: 8-6-26	Project No: S24195	Scale: AS SHOWN

SITE DEMOLITION PLAN

Drawing No:

CD-1

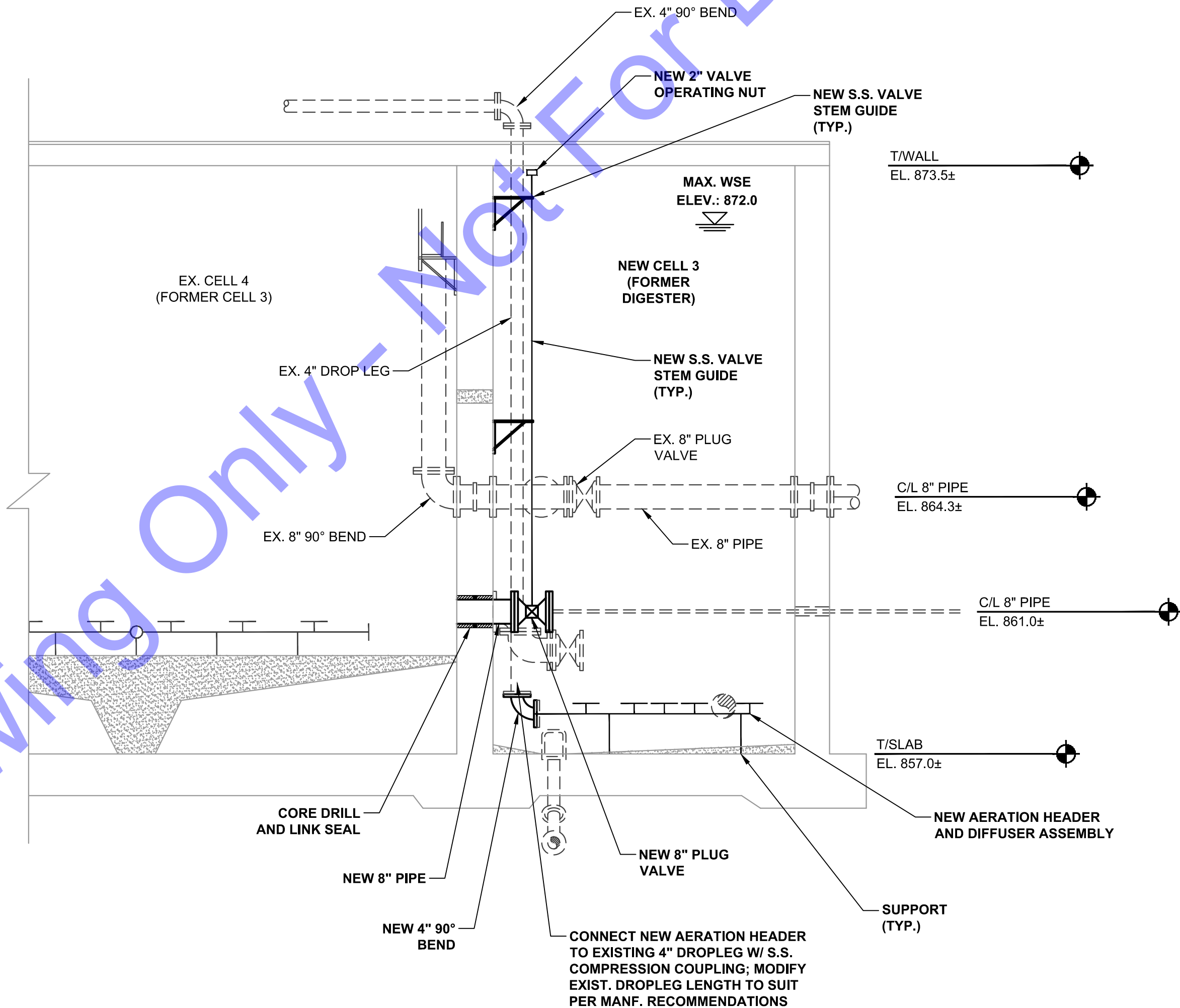
Sheet: 08 OF 44



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

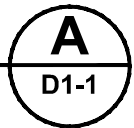
1. BACKGROUND DRAWING TAKEN FROM TOWN OF WINDFALL WWTP HYDRAULIC EXPANSION DRAWINGS BY FLEIS AND VANDERBRINK, CREATED MARCH 2012.

1. BACKGROUND DRAWING TAKEN FROM TOWN OF WINDFALL WWTP HYDRAULIC EXPANSION DRAWINGS BY FLEIS AND VANDERBRINK, CREATED MARCH 2012.



SECTION

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



SHEET NOTES:

1. BACKGROUND DRAWING TAKEN FROM TOWN OF WINDFALL WASTEWATER SYSTEM IMPROVEMENTS DRAWINGS BY FLEIS AND VANDERBRINK, CREATED MAY 2010.



Signature: *Nicholas J. Lankford* Date: 08/06/2026

TOWN OF WINDFALL
TIPTON COUNTY, INDIANA
WASTEWATER TREATMENT PLANT
IMPROVEMENTS

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Indiana 811
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(IT'S THE LAW)

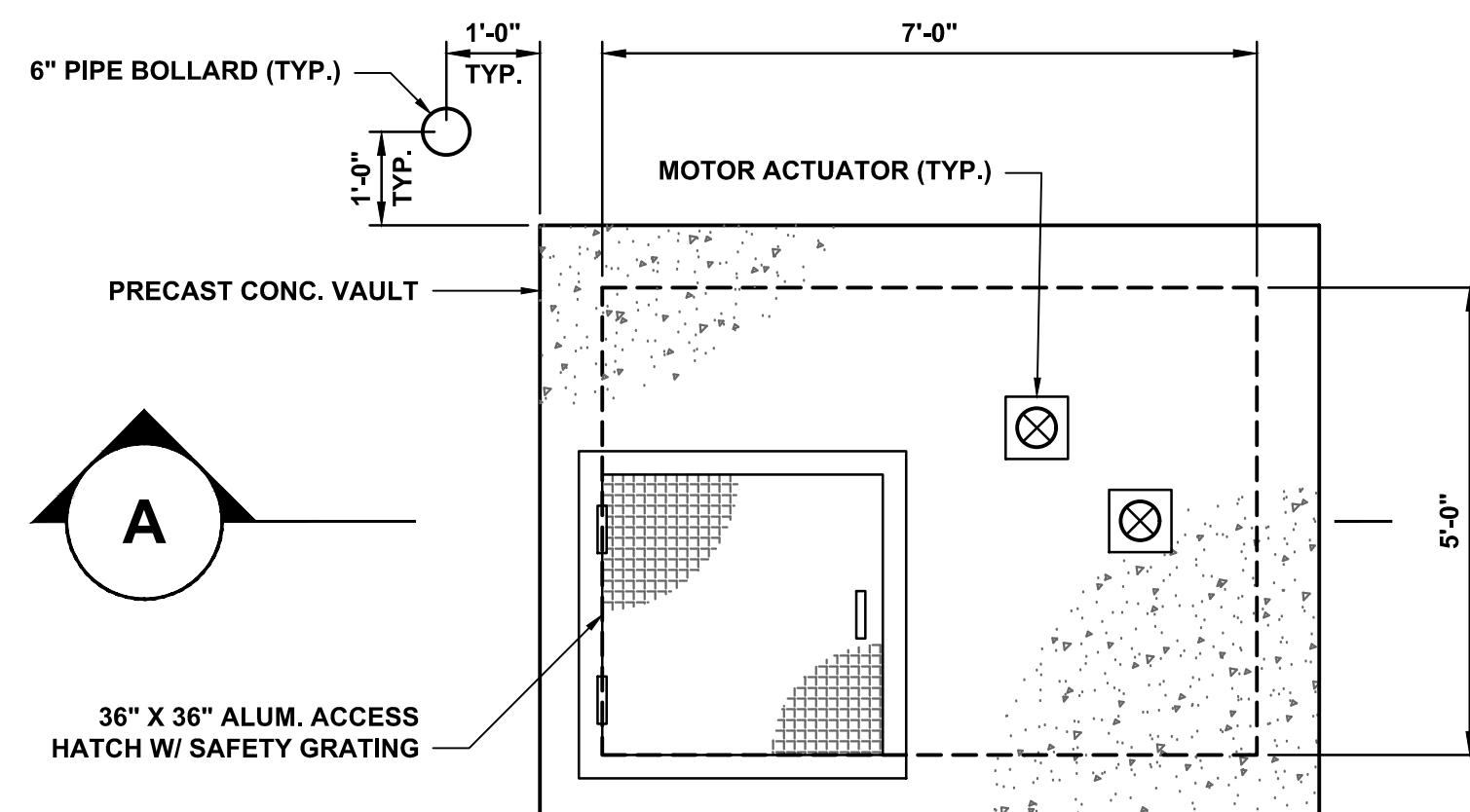
No.	Submittal / Revision	By	Date

Designed By: NJZ	Drawn By: DMJ	Checked By: DSW
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Issue Date: 8-6-26	Project No: S24195	Scale: AS SHOWN
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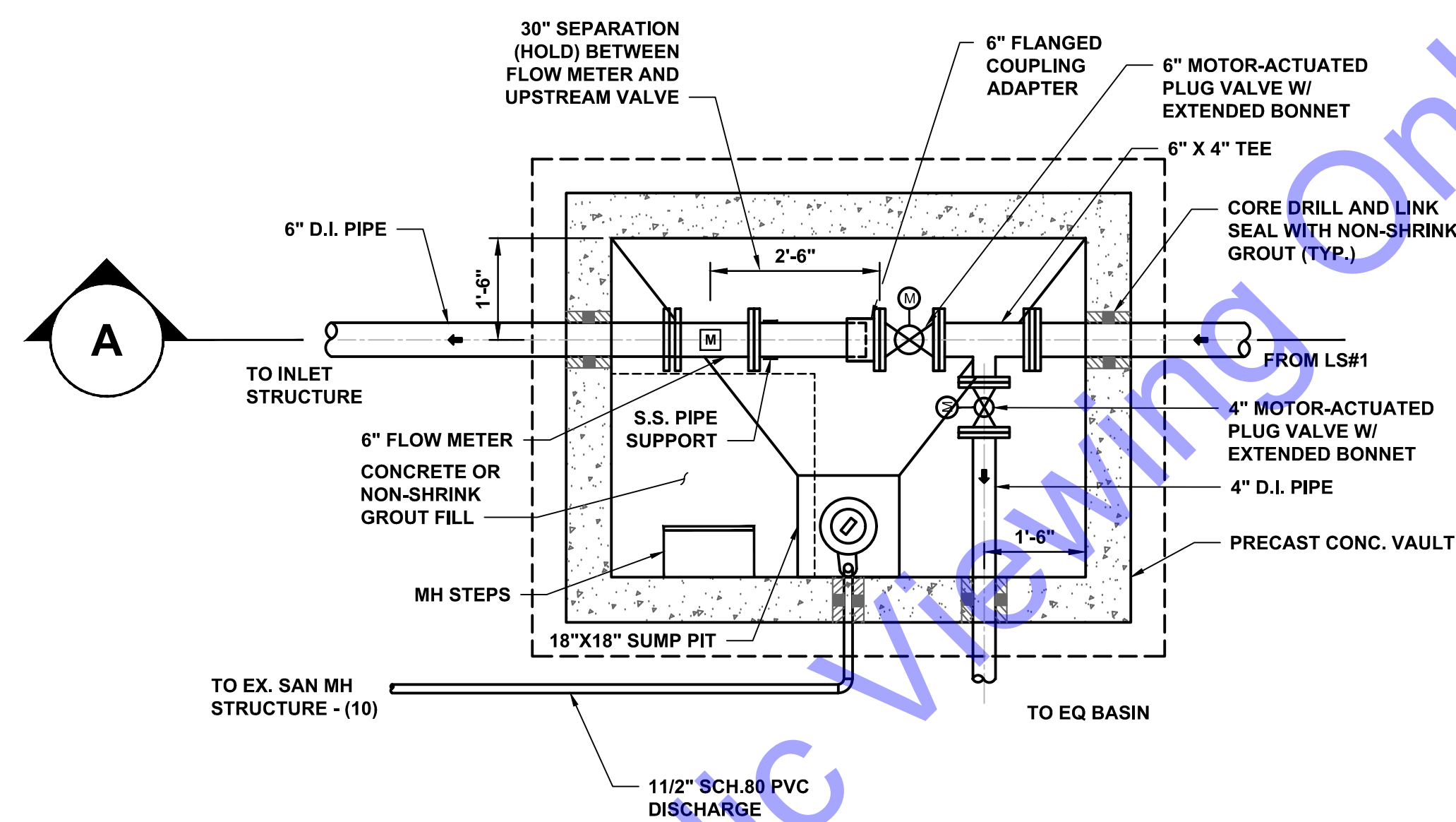
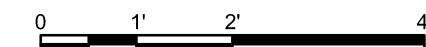
EX. AERATION TANK
IMPROVEMENTS
SECTION AND DETAILS

Drawing No:
D1-2
Sheet: 14 OF 44



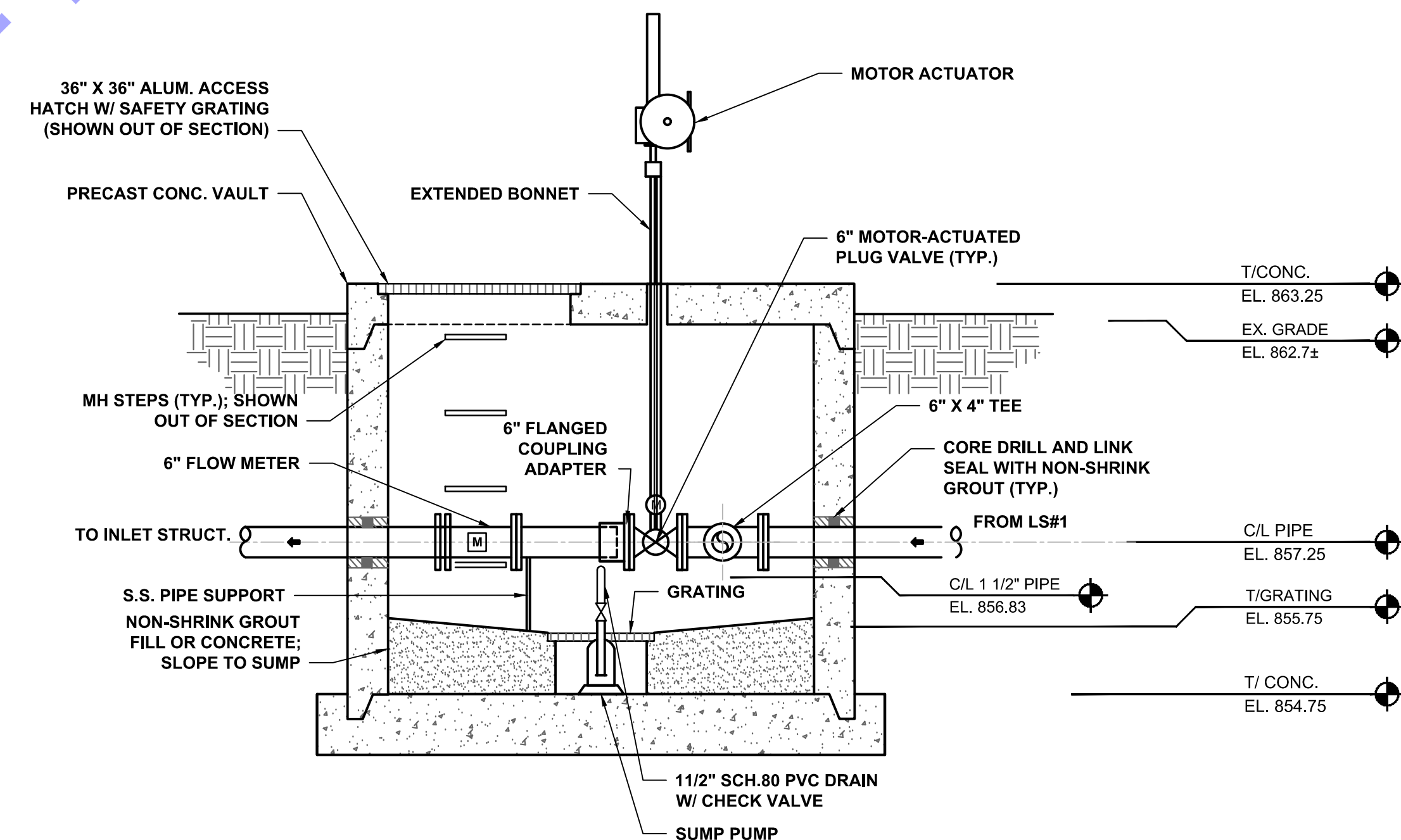
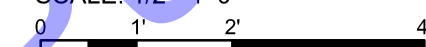
NEW INFLUENT METER VAULT UPPER LEVEL PLAN

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



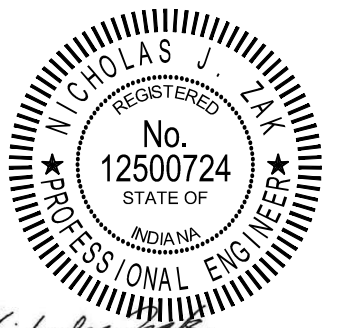
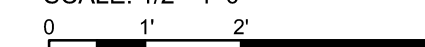
NEW INFLUENT METER VAULT LOWER LEVEL PLAN

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



SECTION

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



Signature

08/06/2026
Date

TOWN OF WINDFALL TIPTON COUNTY, INDIANA WASTEWATER TREATMENT PLANT IMPROVEMENTS

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[illegible]

Designed By: N.JZ	Drawn By: DMJ	Checked By: DSW
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Issue Date:	Project No:	Scale:
8-6-26	S24195	AS SHOWN

NEW INFLUENT METER VAULT PLANS, SECTION, AND DETAILS

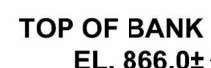
Drawing No:

D2-1

Sheet: 15 OF 44



SCALE: 1"=10'-0"



NOT TO SCALE



NOT TO SCALE

- SHEET NOTES:**



Signature Nicholas J. J. J. Date 08/06/2026

TOWN OF WINDFALL
TIPTON COUNTY, INDIANA

WASTEWATER TREATMENT PLANT
IMPROVEMENTS

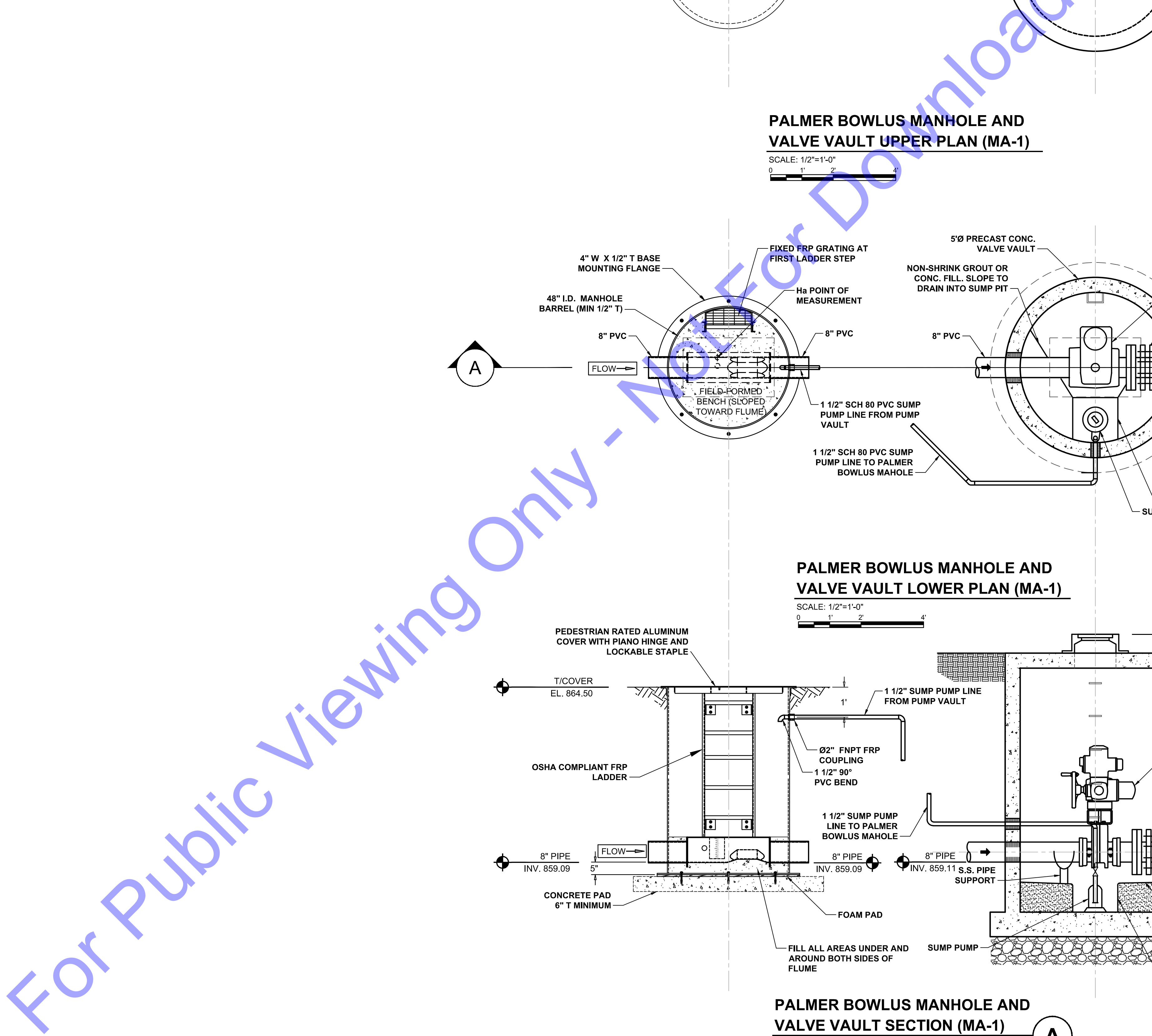
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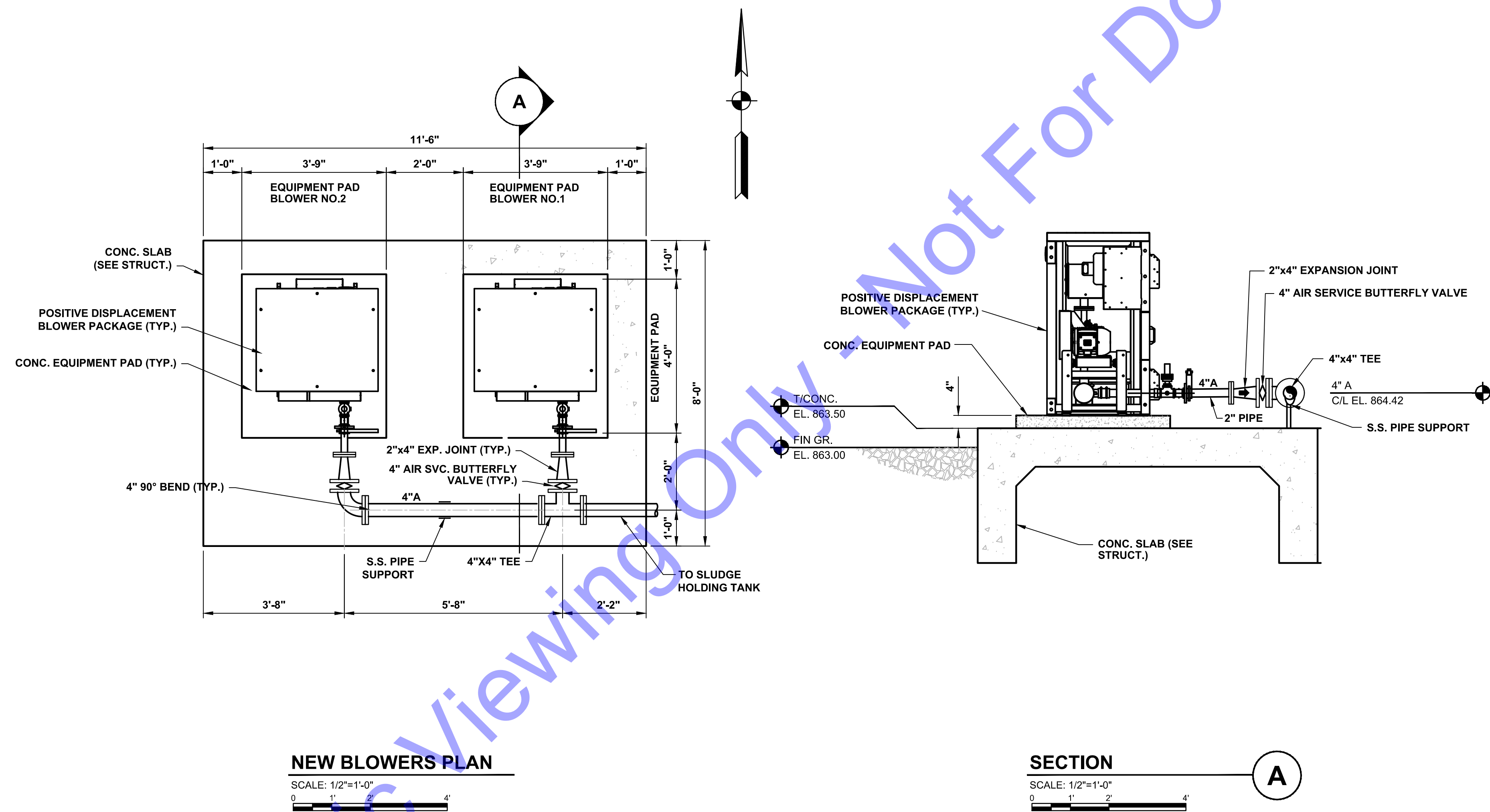
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Designed By: NJZ	Drawn By: DMJ	Checked By: DSW
Issue Date: 8-6-26	Project No: S24195	Scale: AS SHOWN

NEW EQ BASIN IMPROVEMENTS DETAILS

Drawing No:
D3-2





SECTION

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

SHEET NOTES:

1. CONTRACTOR SHALL VERIFY EQUIPMENT PAD REQUIREMENTS WITH MANUFACTURER.

[illegible]

Designed By: NJZ	Drawn By: DMJ	Checked By: DSW
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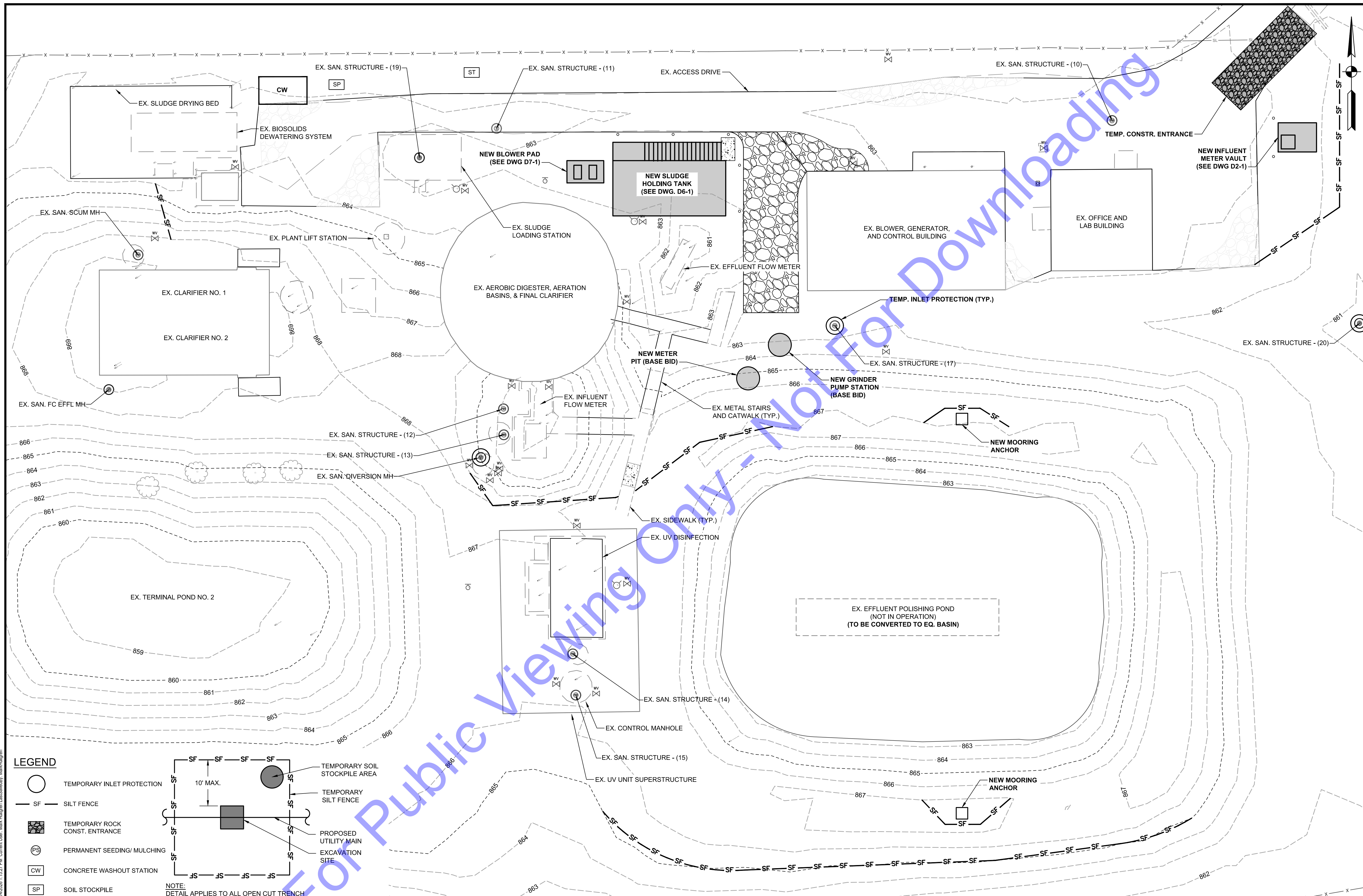
Issue Date: 8-6-26	Project No: S24195	Scale: AS SHOWN
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NEW BLOWERS PLAN AND SECTION

Drawing No:

D7-1

Sheet: 22 OF 44

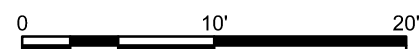


TYPICAL PIPE EXCAVATION EROSION CONTROL DETAIL

NOT TO SCALE

EROSION CONTROL PLAN

SCALE: 1"=10'-0"



NOTES:

1. NOT ALL EROSION CONTROL REQUIREMENTS
MAY BE SHOWN ON THIS SHEET.

File: Z:\SHAREDIN CLIENTS\AZ\WINDFALLS\24195 WASTEWATER AMP AND NP UPDATED\06 CAD\A CURRENT FILES\1 DRAWINGS\118-EROSION CONTROL DETAILS ILWDW
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- STABILIZED CONSTRUCTION
ENTRANCE DETAIL
NO SCALE

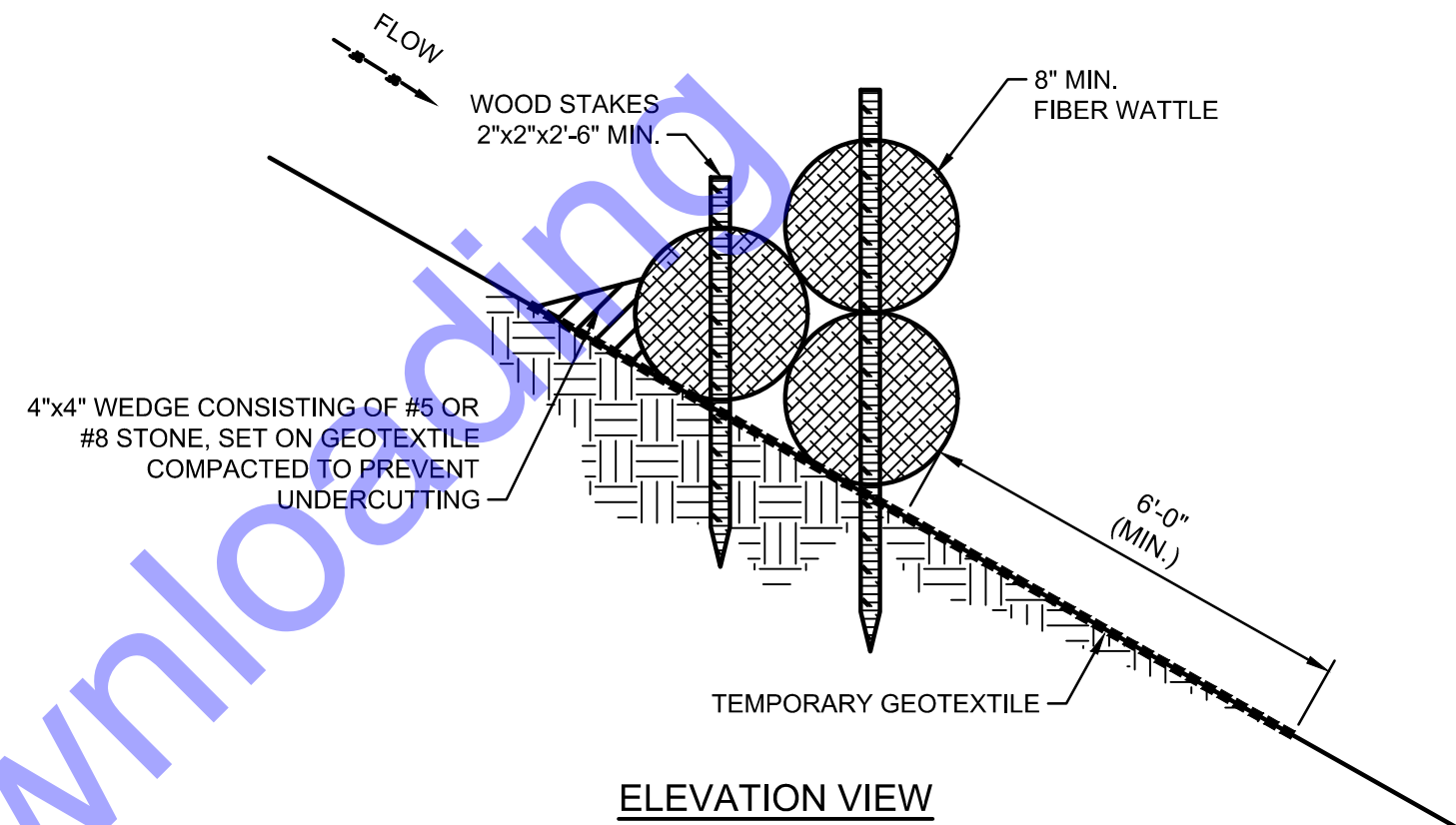
The figure consists of three technical drawings illustrating different inlet filter system configurations for storm structures.

 - TYPICAL INSTALLATION UNDER INLET:** This diagram shows a cross-section of a storm structure. It includes an 'EXIST. REMOVABLE STORM CASTING' at the top, an 'INLET FILTER' below it, and an 'EXIST. STORM FRAME' at the bottom. A 'NOTE: SEDIMENT BAG' is indicated. Below the frame, 'HYDRAULIC REQUIREMENTS' are listed: 'OPENING PER ASTM D-4751 -20 US STD. SIEVE' and 'FLOW RATE ASTM D-4491 - 200 GPM/FT2'. 'PHYSICAL PROPERTIES' are also listed: 'UV RESISTANCE ASTM D-4355' and 'TENSILE STRENGTH AND ELONGATION ASTM D-4632'.
 - ROUND/SQUARE INLET FILTER SYSTEM:** This diagram shows a top-down view of a round or square inlet. It features a 'STANDARD 2" OVERFLOW AREA (TYP.)' around the perimeter. The system includes an '11 GAUGE STEEL SUSPENSION SYSTEM' and 'LIFT HANDLES (TYP.)'. A '2" dimension is shown for the handle height. An 'S.S. CLAMPING BAND (TYP.)' is used to secure the filter. The filter is labeled as 'REPLACEABLE SEDIMENT BAGS WITH GEOTEXTILE FILTER FABRIC'.
 - COMBINATION INLET FILTER FOR CURB HOODS:** This diagram shows a cross-section of a curb hood. It includes a 'REAR CURB GUARD WITH MAGNETIC TIE-DOWNS (PER MANUFACTURER)' and an 'EXIST. CURB'. The filter system is integrated into the curb structure.

GENERAL NOTES:

 1. TO BE INSTALLED AT EXISTING STANDARD INLET GRATES IN PAVED AREAS DOWNSTREAM OF EXCAVATION.
 2. INSTALL INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE AND PER MANUFACTURER'S RECOMMENDATIONS.
 3. FOR CURB BOX INLETS, CURB BACK MUST HAVE FILTER ATTACHED PER MANUFACTURER'S RECOMMENDATION OR CONTRACTOR MUST CREATE A DAM TO DIRECT RUNOFF INTO THE SEDIMENT BAG.

INLET FILTER EROSION CONTROL DETAIL FOR STANDARD SIZED STORM STRUCTURES
NOT TO SCALE



STABILIZED CONSTRUCTION
ENTRANCE DETAIL
NO SCALE

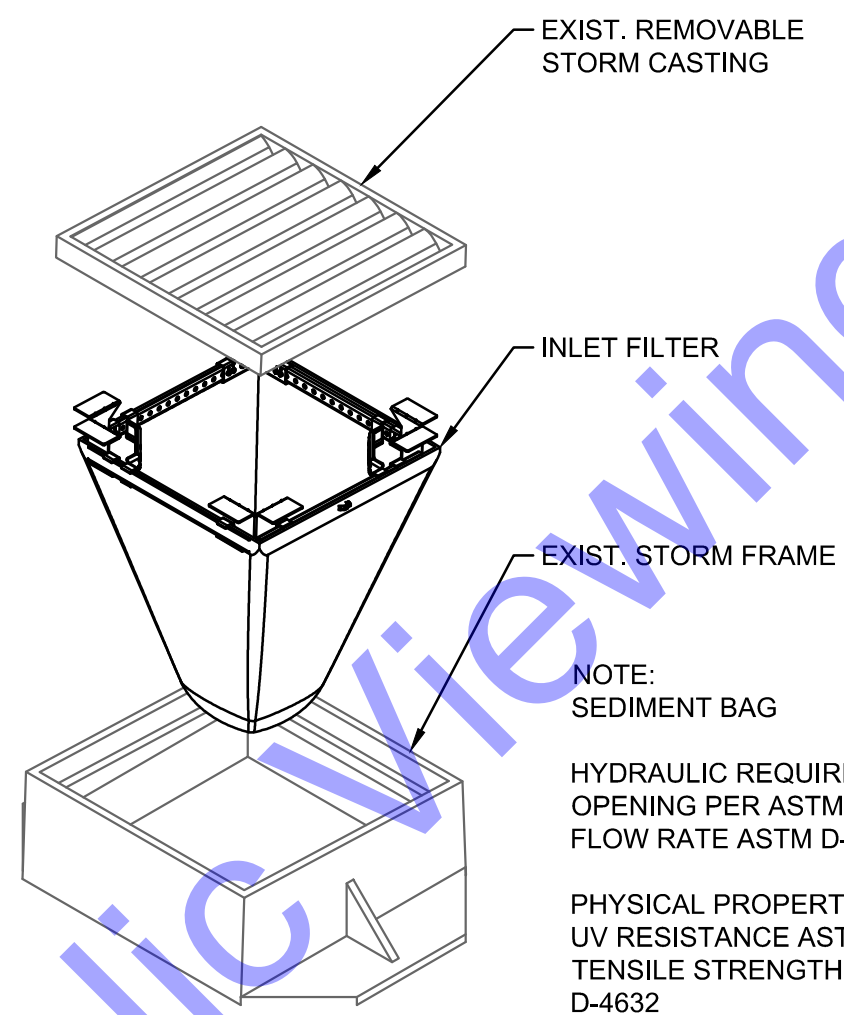
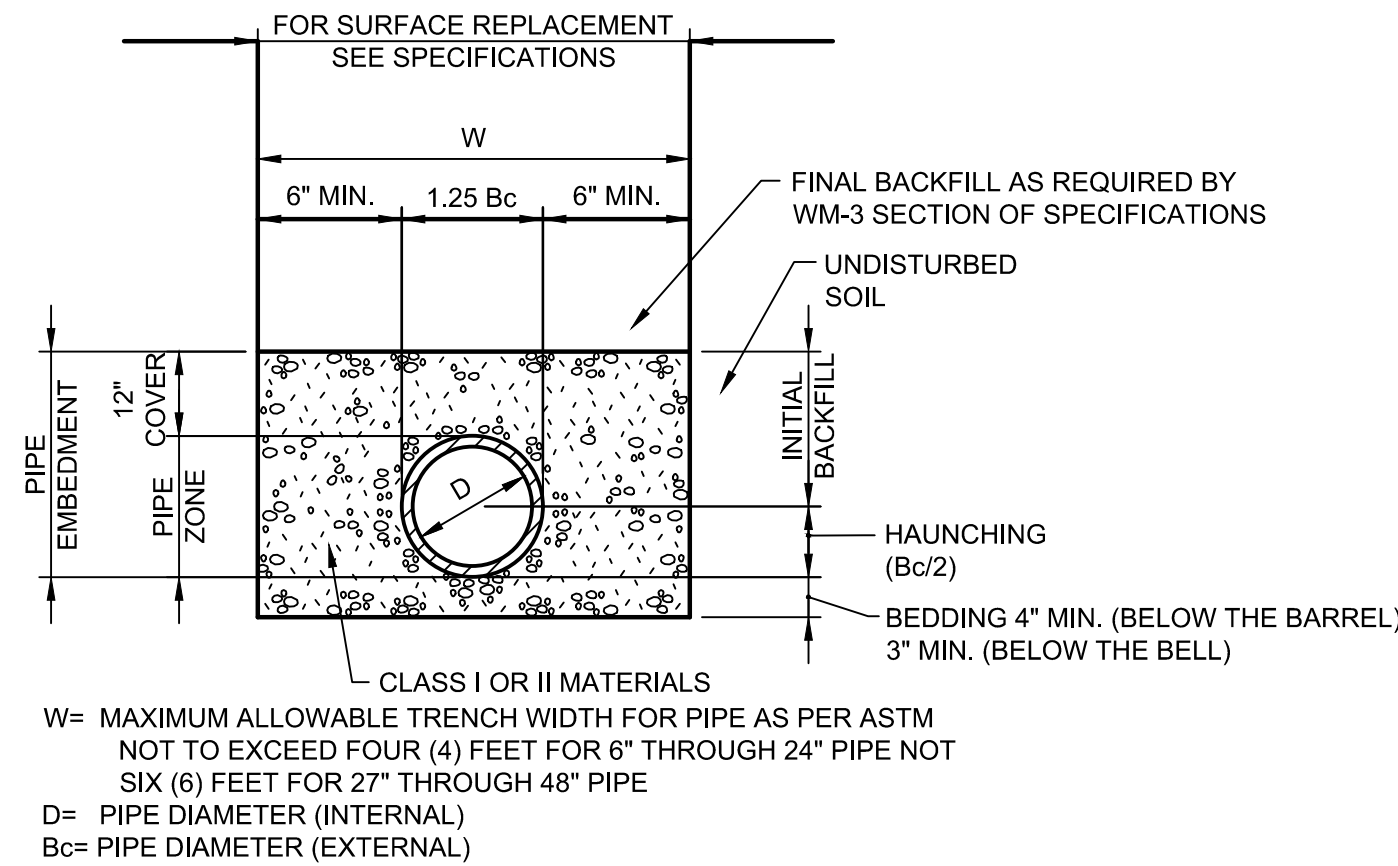


Diagram illustrating the rear curb guard assembly. The assembly includes a rear curb guard with magnetic tie-downs (per manufacturer) and an existing curb.

1. TO BE INSTALLED AT EXISTING STANDARD INLET GRATES IN PAVED AREAS DOWNSTREAM OF EXCAVATION.
2. INSTALL INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE AND PER MANUFACTURER'S RECOMMENDATIONS.
3. FOR CURB BOX INLETS, CURB BACK MUST HAVE FILTER ATTACHED PER MANUFACTURER'S RECOMMENDATION OR CONTRACTOR MUST CREATE A DAM TO DIRECT RUNOFF INTO THE SEDIMENT BAG.

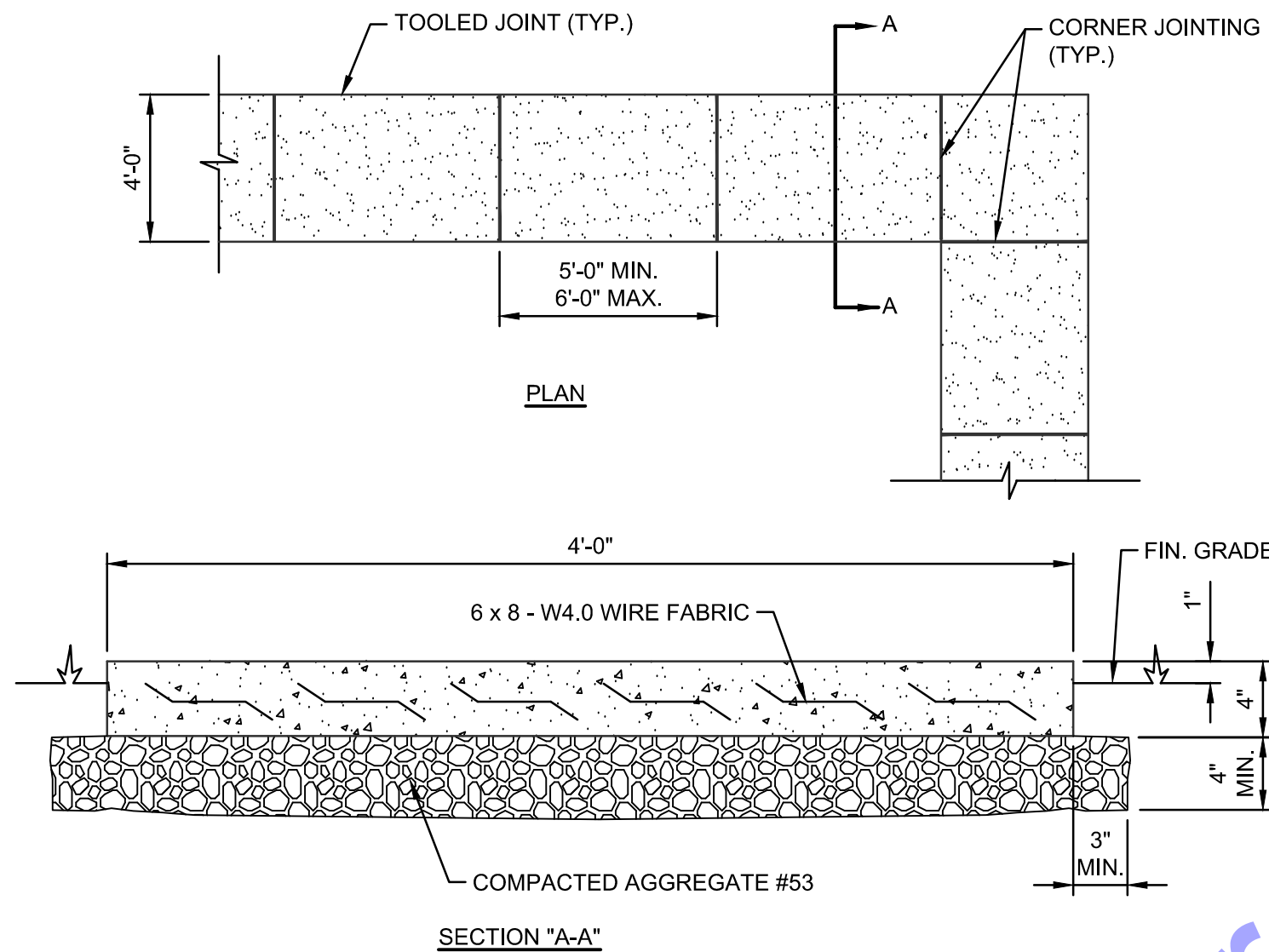
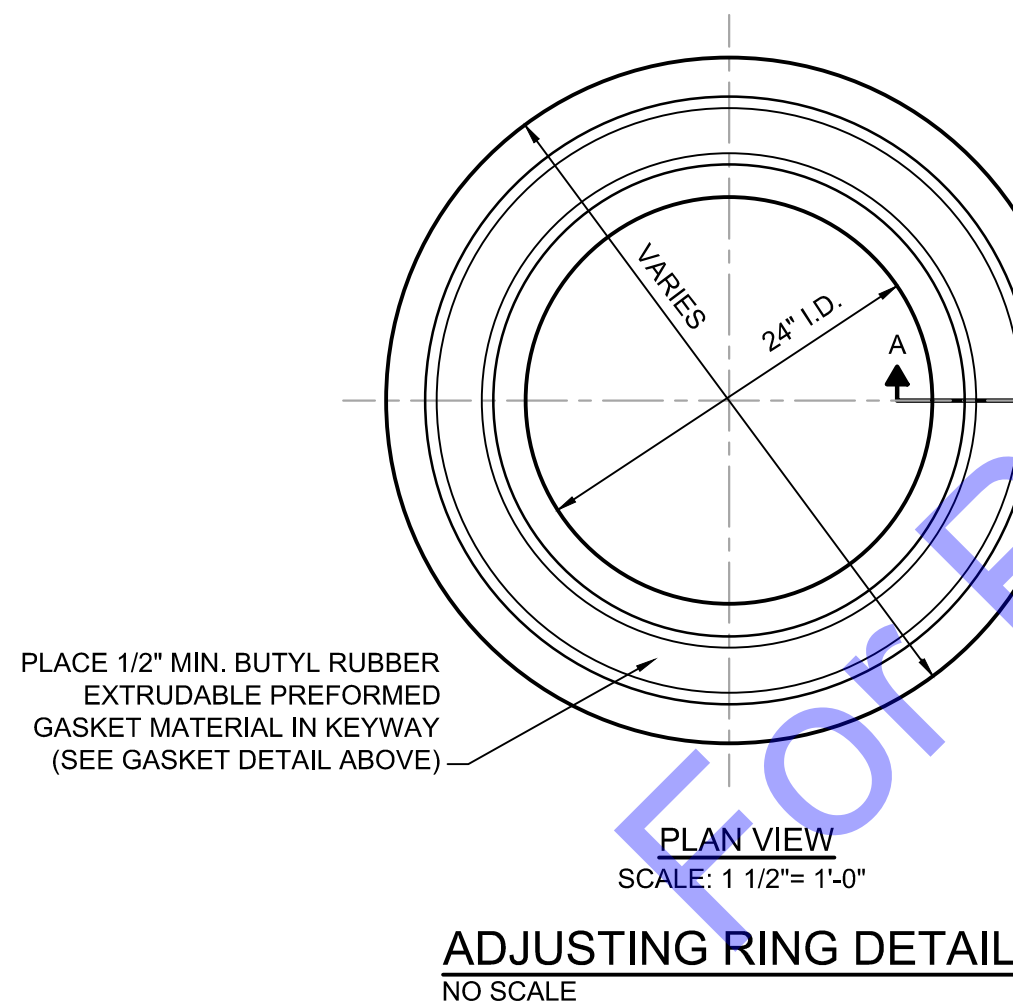
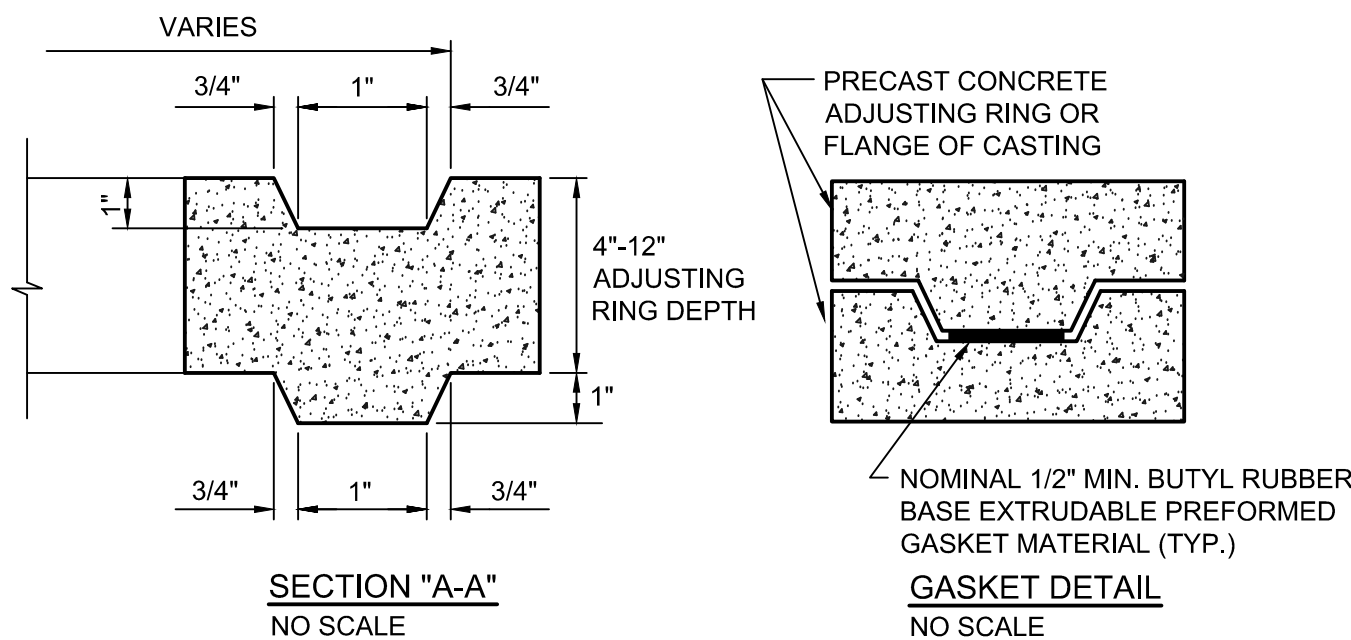
[illegible]



- NOTES:
1. COMPACTED INITIAL BACKFILL SHALL EXTEND A MINIMUM OF 12" ABOVE THE TOP OF THE PIPE. FINAL BACKFILL ABOVE THIS POINT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND AS REQUIRED HEREIN.
 2. WHEN CLASS I MATERIAL IS USED FOR BEDDING, HAUNCHING AND INITIAL BACKFILL COMPACTION MAY BE ACCOMPLISHED BY HAND OR MECHANICAL TAMPING, OR BY WALKING, TO A MIN. OF 85% STANDARD PROCTOR DENSITY.
 3. WHEN CLASS II MATERIAL IS USED FOR BEDDING, HAUNCHING AND INITIAL BACKFILL COMPACTION MAY BE ACCOMPLISHED BY HAND OR MECHANICAL TAMPING TO A MIN. OF 85% STANDARD PROCTOR DENSITY.
 4. WORK FALLING UNDER THE JURISDICTION OF THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) SHALL UTILIZE COMPACTED GRANULAR BACKFILL MATERIAL FOR INITIAL AND FINAL BACKFILL ANYWHERE WITHIN 21 FEET OF THE EDGE OF PAVEMENT. FOR ALL OTHER NON-INDOT PAVEMENT AREAS (INCLUDING BOTH HARD SURFACED AND COMPACTED AGGREGATE), COMPACTED GRANULAR BACKFILL MATERIAL SHALL BE USED WITHIN 5 FEET OF THE EDGE OF THE PAVEMENT.
 5. TRENCH WIDTHS BELOW THE BOTTOM OF TRENCH BOX OR SHORING USED FOR TRENCH SUPPORT. BOTTOM OF TRENCH BOX OR SHORING SHALL BE PLACED NO LOWER THAN THE TOP OF PIPE.

TRENCH DETAIL FOR FLEXIBLE CONDUITS

NO SCALE

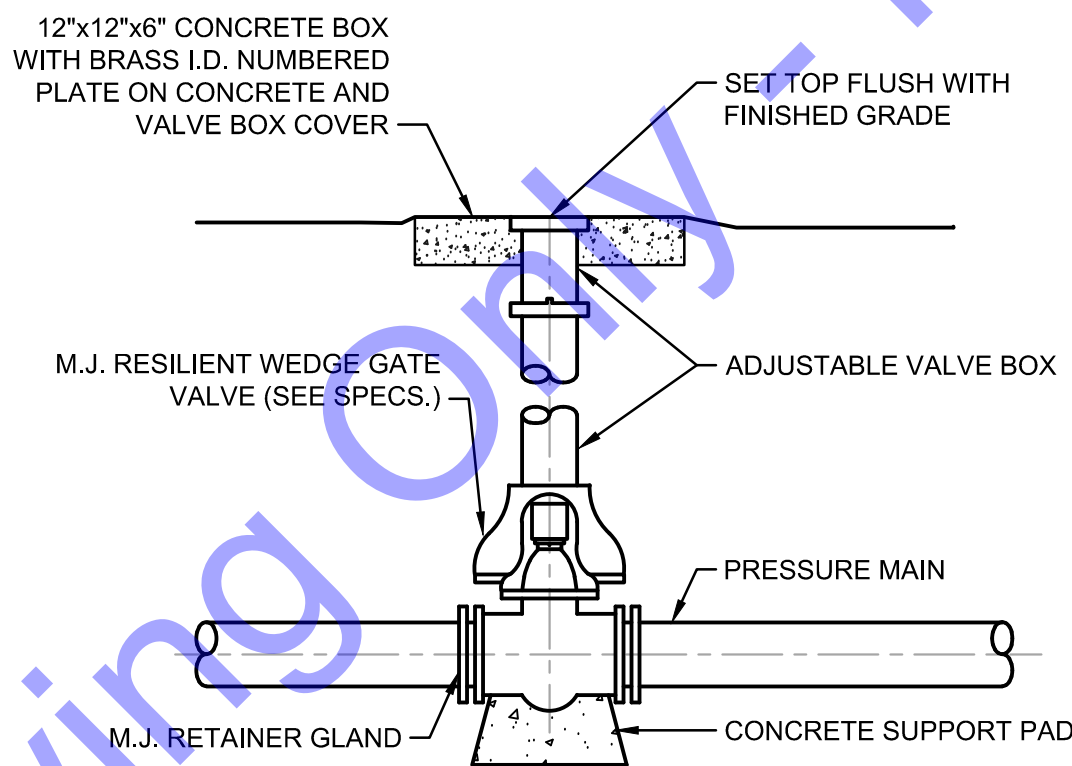


GENERAL NOTES:

1. TRANSVERSE JOINTS SHALL BE CUT WITH A JOINTER HAVING A RADIUS OF 1/4" AT SPACING AT A MINIMUM OF 6'-0"
2. SIDEWALK SHALL BE 6" THICK WITH 8" OF COMPACTED AGGREGATE No. 53 AT ALL DRIVEWAY CROSSINGS
3. SIDE SLOPE SHALL BE 1/4" / FT

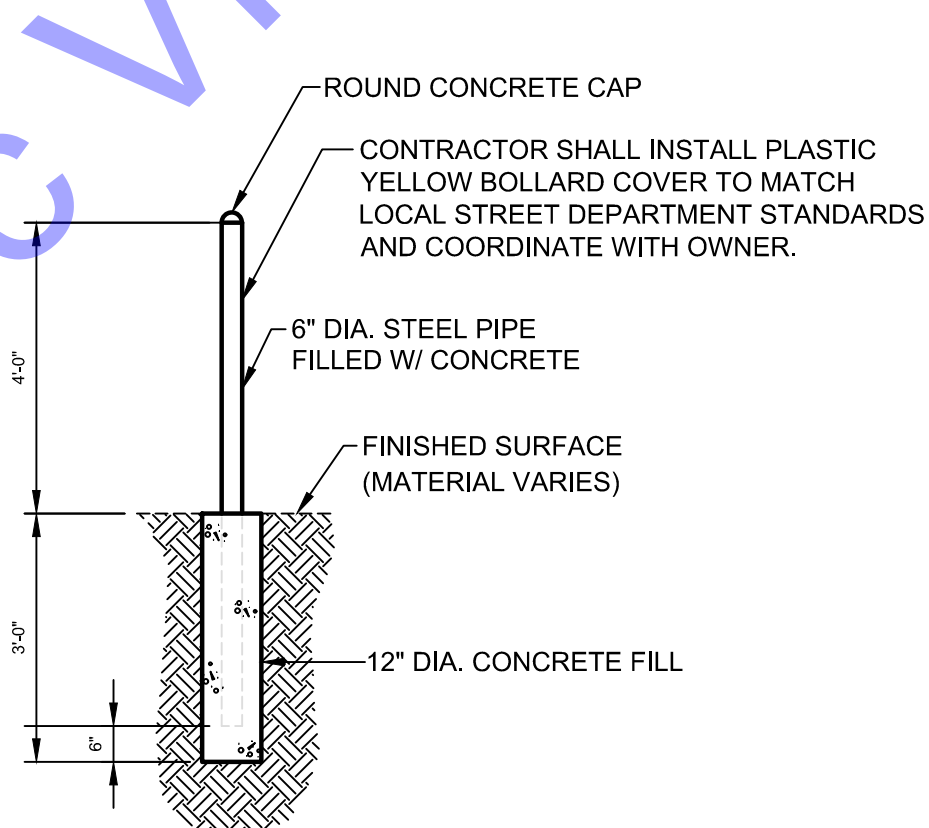
CONCRETE SIDEWALK DETAIL

NO SCALE



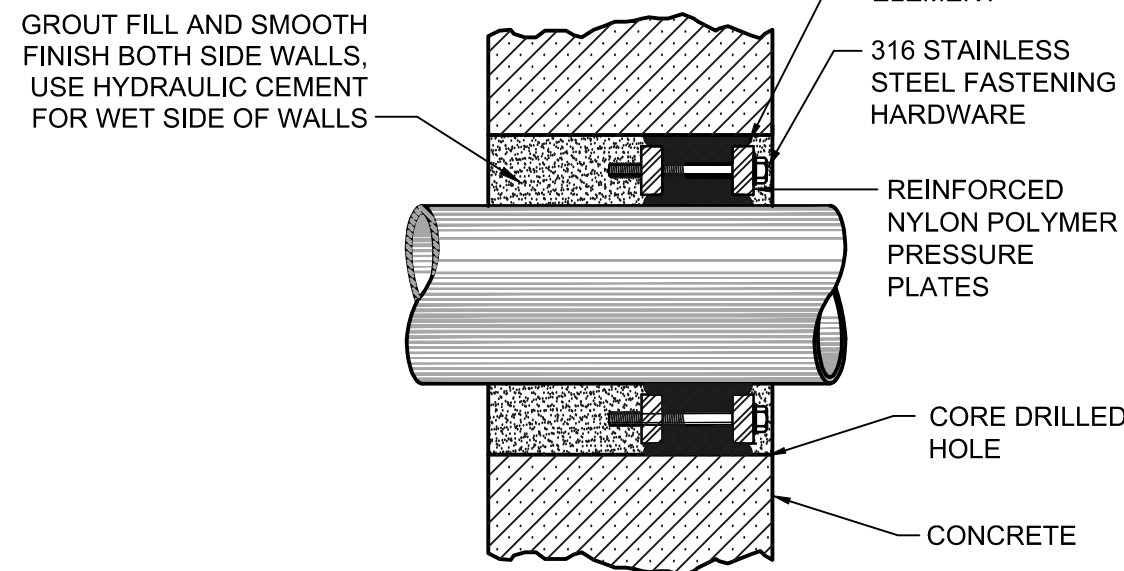
BURIED PLUG/GATE VALVE AND BOX DETAIL

NO SCALE



BOLLARD DETAIL

NO SCALE



NOTES:

1. ELECTROMETRIC ELEMENT AND LINK-SEAL APPARATUS REQUIRED COMPATIBLE FOR HIGH TEMPERATURE APPLICATIONS - FOR ALL LINES
2. ALL WALL PENETRATIONS (EXISTING WALLS) CONVEYING PIPE SHALL UTILIZE A LINK-SEAL EQUIVALENT, SHALL BE GROUTED SMOOTH, AND SHALL HAVE A BONDING AGENT APPLIED.

LINK-SEAL WITH CORE DRILLED HOLE DETAIL

NO SCALE

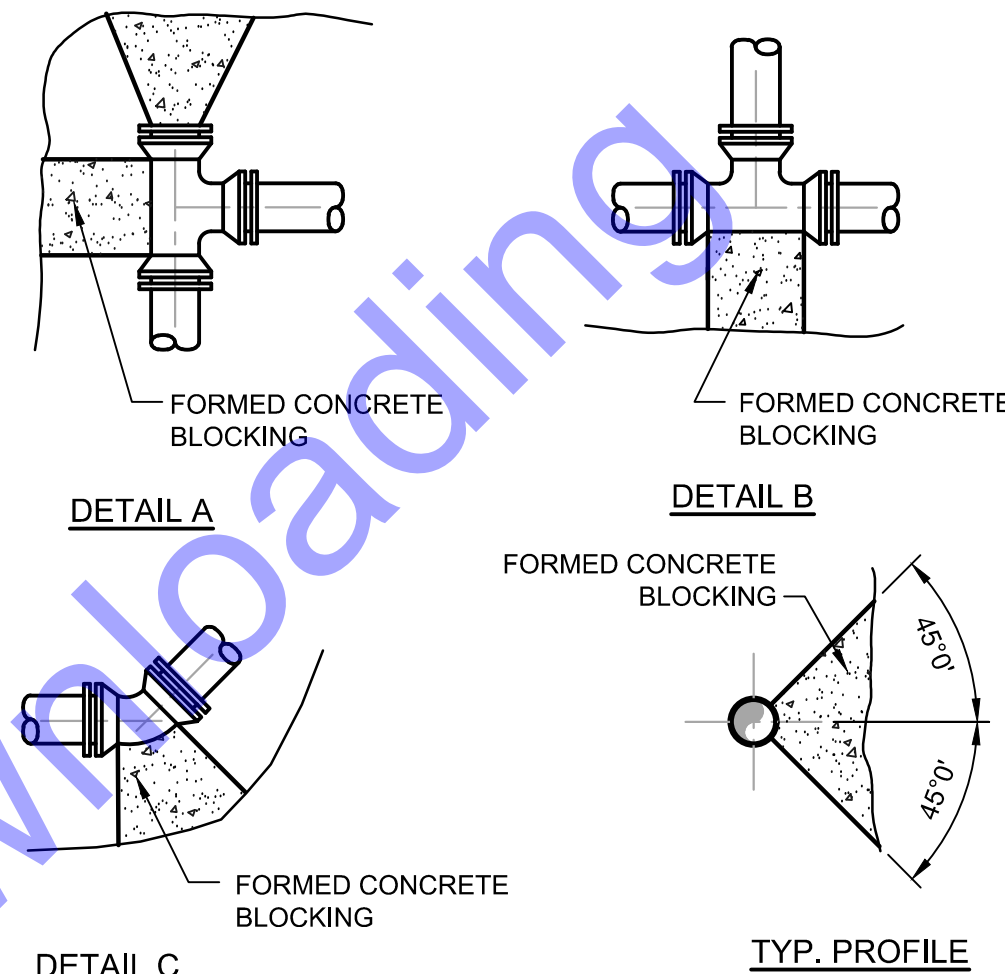


TABLE OF DIMENSIONS FOR CONCRETE BLOCKING

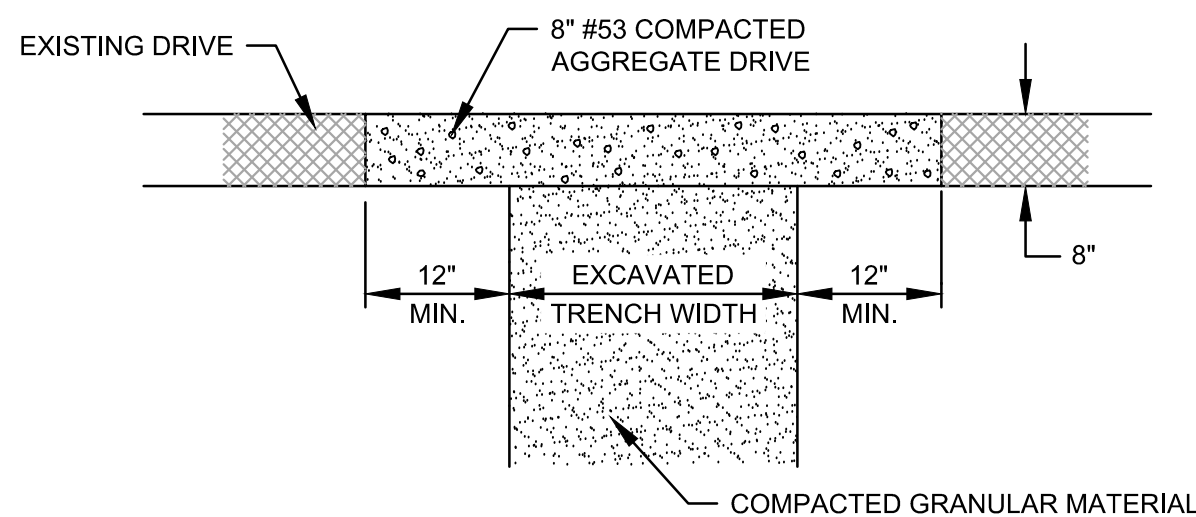
SIZE	TEE				PLUG					90° BEND				45° BEND				22° BEND				11° BEND			
PIPE	L	T	W	D	L	T	W	D	s	L	T	W	D	L	T	W	D	L	T	W	D	L	T	W	D
4"	18"	12"	12"	8"	18"	12"	18"	18"	2"	24"	12"	24"	8"	18"	8"	12"	8"	18"	8"	12"	8"	15"	8"	12"	6"
6"	18"	12"	12"	8"	18"	12"	18"	18"	2"	24"	15"	24"	8"	18"	10"	12"	8"	18"	10"	12"	8"	18"	10"	18"	6"
8"	30"	12"	24"	8"	30"	18"	30"	24"	4"	36"	16"	30"	8"	24"	12"	18"	8"	24"	18"	18"	8"	24"	12"	18"	8"
10"	36"	18"	30"	10"	36"	18"	36"	24"	4"	48"	20"	36"	10"	30"	14"	24"	10"	30"	14"	24"	10"	24"	14"	18"	8"
12"	48"	18"	36"	10"	42"	18"	42"	24"	4"	54"	24"	48"	10"	36"	16"	30"	10"	36"	16"	30"	10"	30"	16"	24"	10"
14"	54"	24"	42"	12"	48"	18"	48"	30"	6"	60"	28"	60"	12"	42"	16"	42"	12"	42"	16"	42"	12"	33"	16"	27"	12"
16"	60"	24"	48"	12"	54"	18"	54"	30"	6"	66"	32"	63"	12"	48"	18"	48"	12"	48"	18"	48"	12"	36"	18"	30"	12"
18"	66"	30"	60"	14"	60"	24"	60"	36"	6"	66"	36"	66"	14"	54"	18"	54"	14"	54"	18"	54"	14"	39"	18"	33"	14"
20"	72"	30"	60"	14"	66"	24"	66"	36"	8"	72"	40"	69"	14"	60"	20"	60"	14"	60"	20"	60"	14"	42"	20"	36"	14"
24"	84"	36"	72"	18"	78"	30"	78"	42"	8"	84"	48"	75"	18"	72"	22"	72"	18"	72"	22"	72"	18"	48"	22"	42"	18"
30"	96"	42"	78"	24"	96"	36"	78"	48"	10"	108"	54"	96"	24"	84"	24"	72"	24"	72"	26"	72"	24"	54"	26"	48"	24"
42"	144"	48"	96"	36"	144"	42"	96"	60"	10"	180"	66"	144"	36"	120"	36"	96"	36"	84"	34"	72"	36"	60"	34"	48"	36"

NOTES:

1. FOR TEE WITH BRANCH UNEQUAL TO RUN USE TEE TYPE KICKER WITH D, L, AND W DIMENSIONS THE SAME AS THOSE FOR PLUG WITH SAME DIAMETER AS BRANCH OF TEE, SELECT "T" DIMENSIONS FROM TEE TABLE UNDER COLUMN HEADED BY THE SIZE OF THE BRANCH
2. IF EXACT SIZE PIPE BLOCKING IS NOT SHOWN USE NEXT LARGER SIZE
3. DEPTH "D" MAY BE GREATER THAN SPECIFIED TO ALLOW WORKING SPACE
4. BLOCKING MUST BE PLACED AGAINST UNDISTURBED EARTH OR ROCK
5. CONCRETE BLOCKING SHALL BE CLASS "B"
6. CONCRETE THRUST BLOCKING SHALL BE USED IN CONJUNCTION WITH RESTRAINED JOINTS PER SPECS.

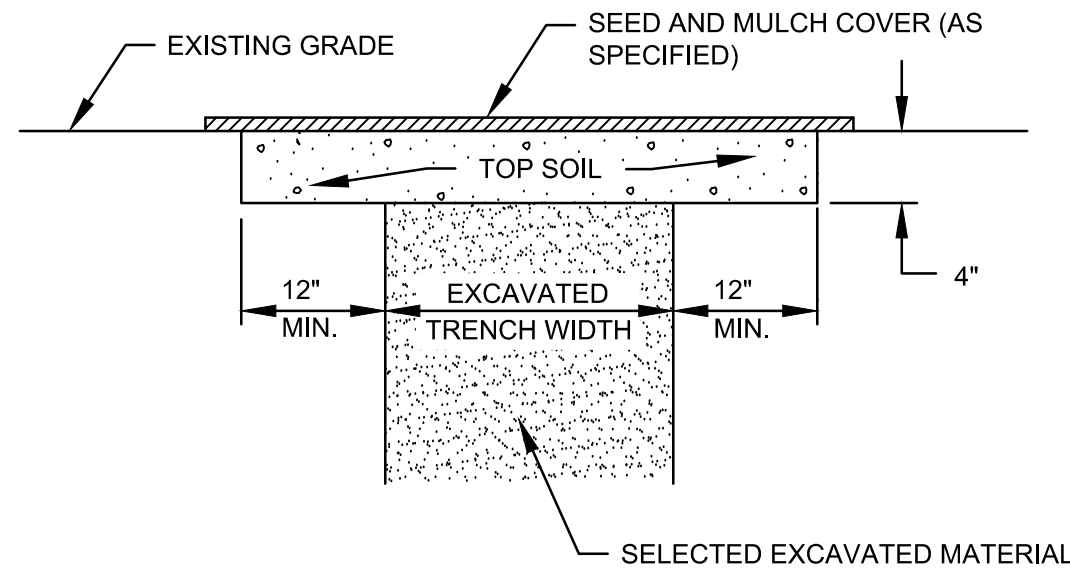
THRUST BLOCKING DETAIL

NO SCALE



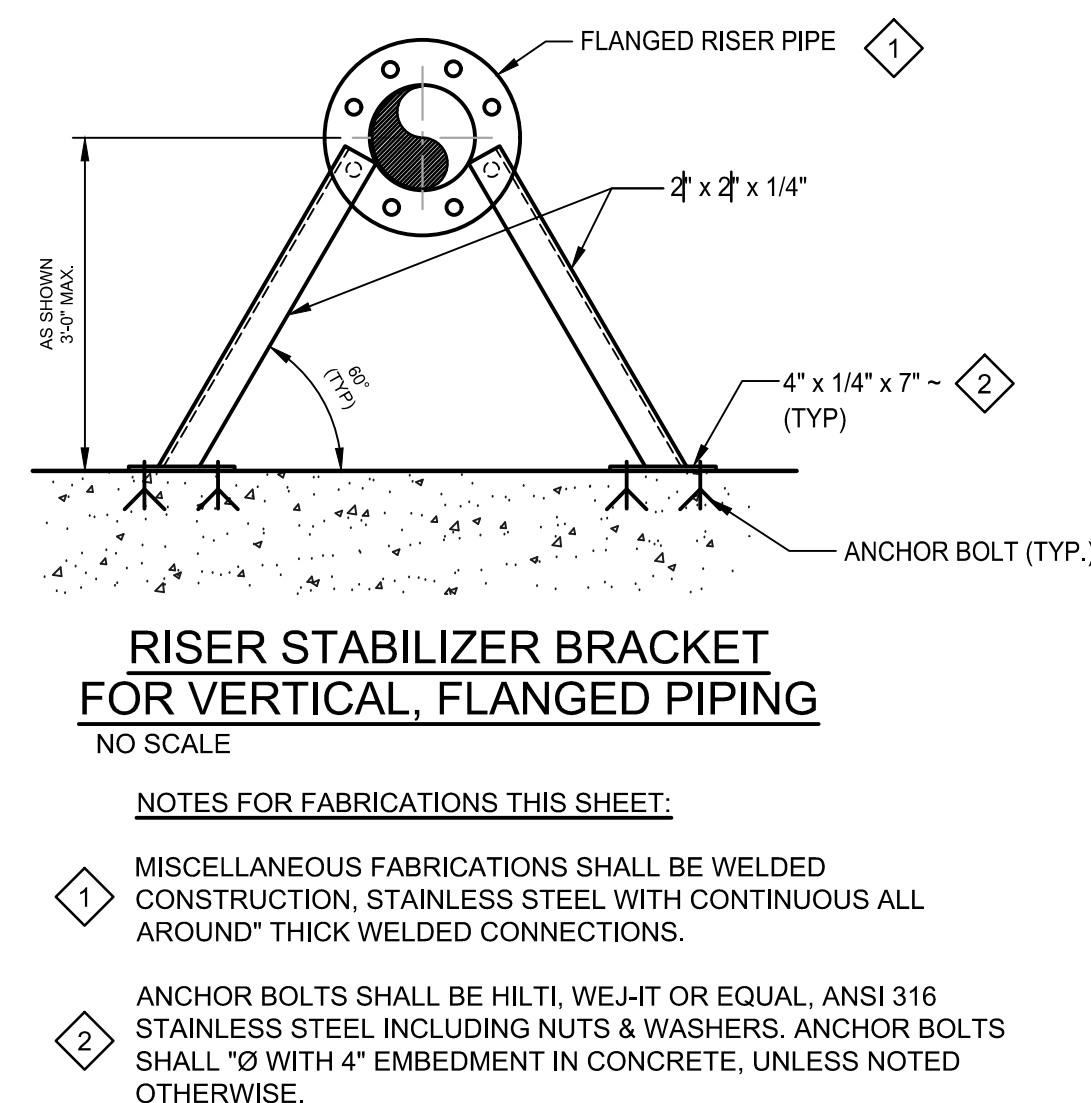
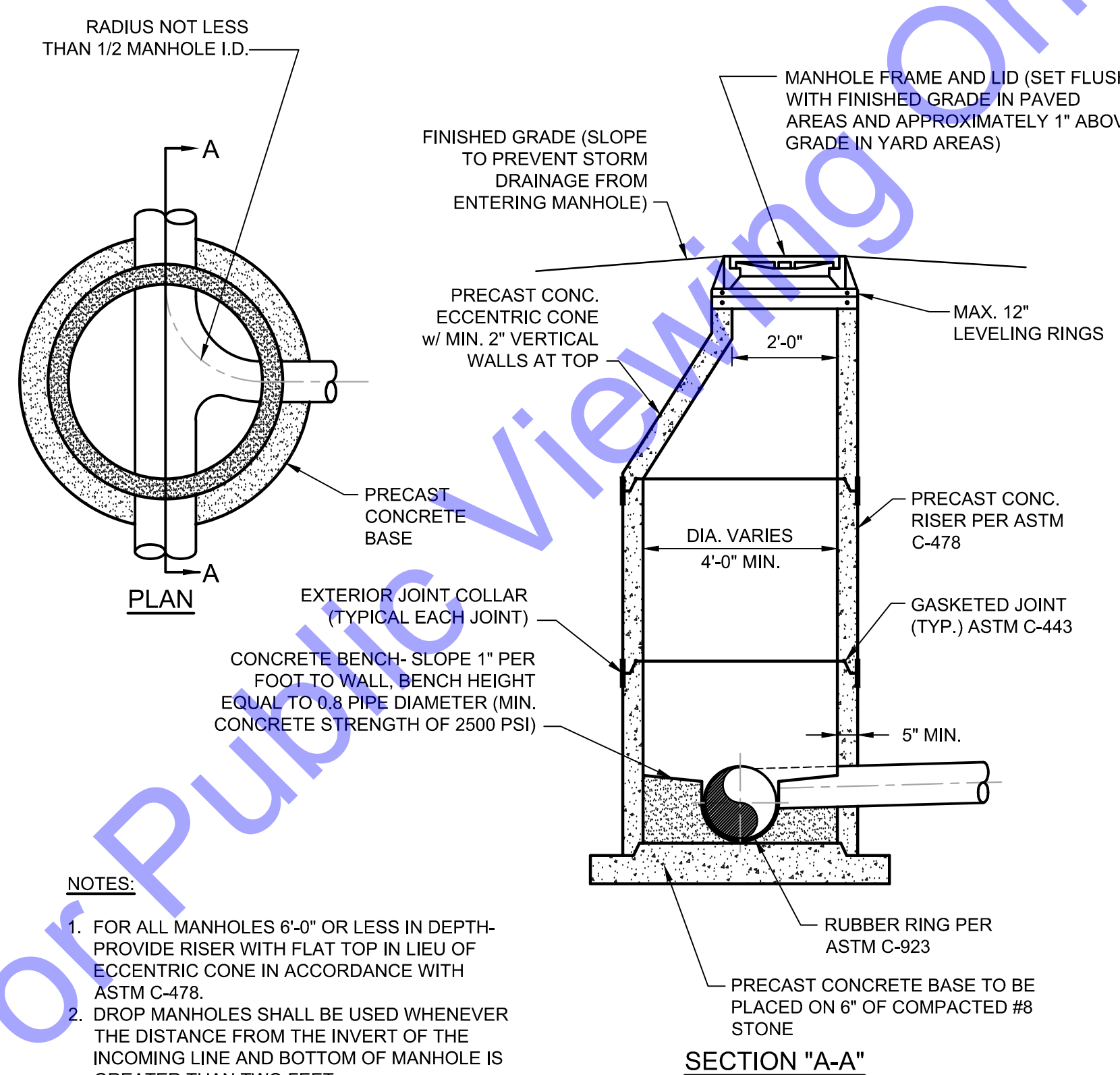
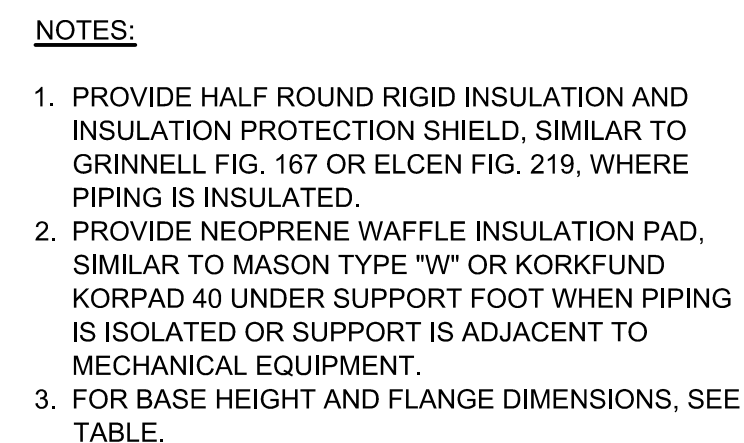
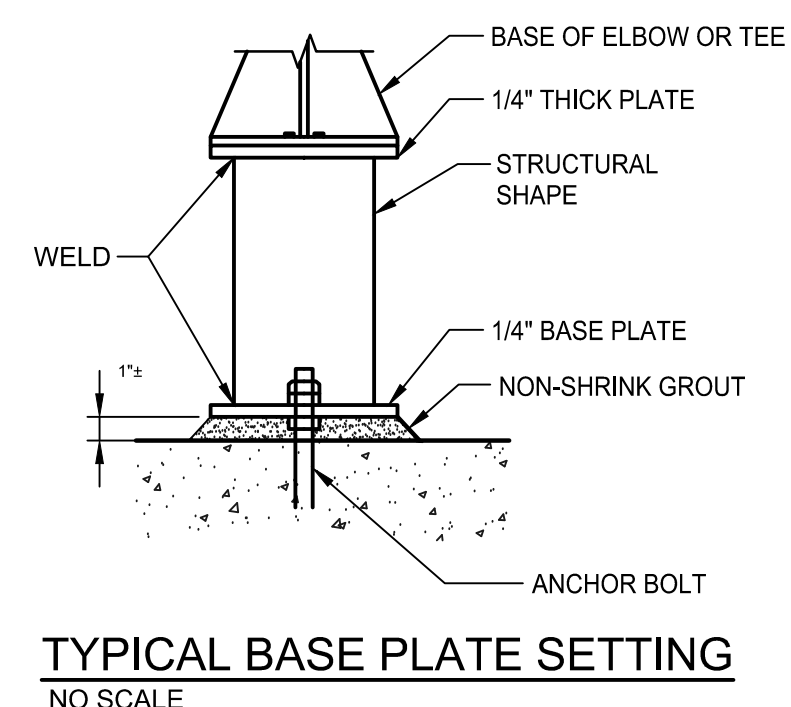
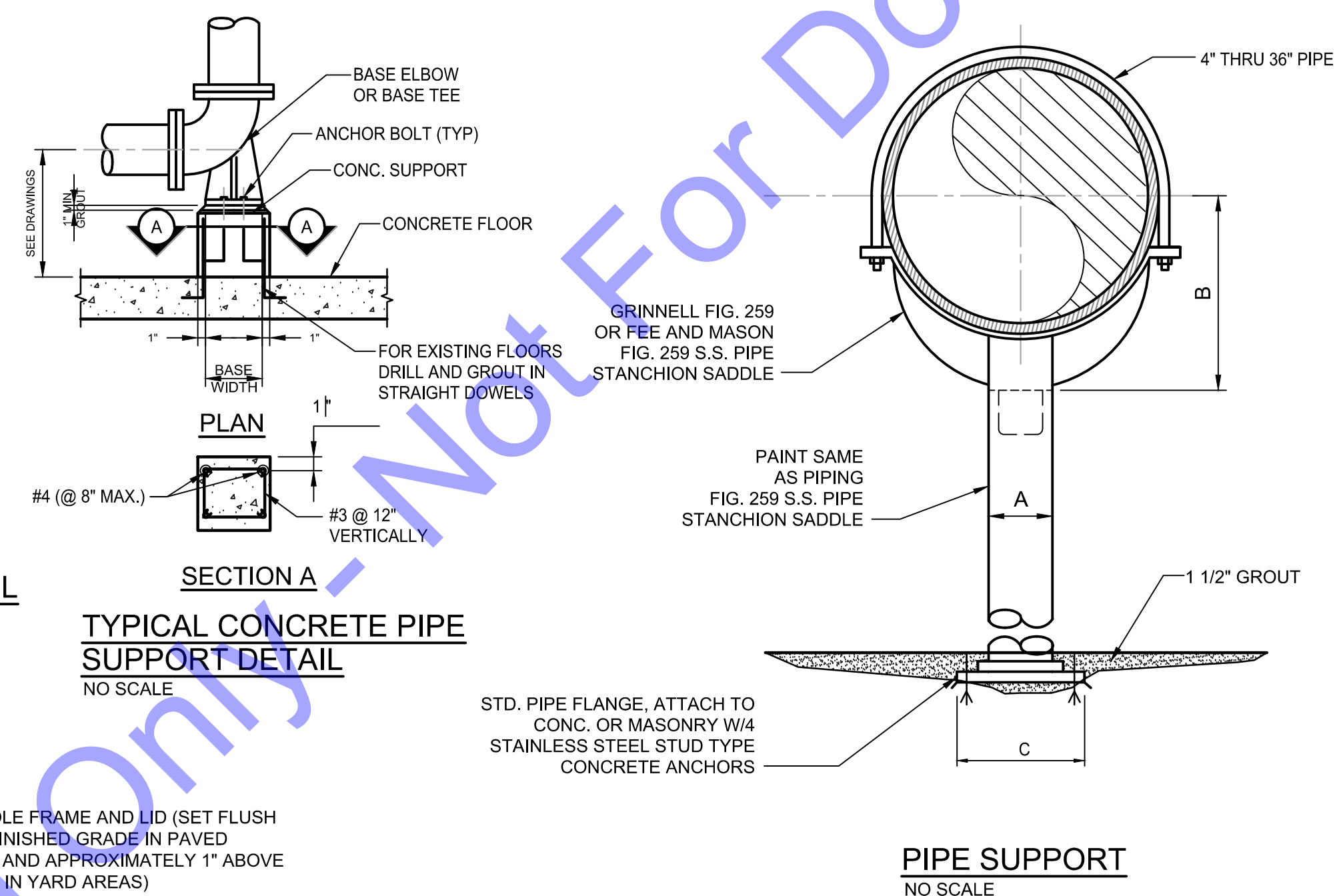
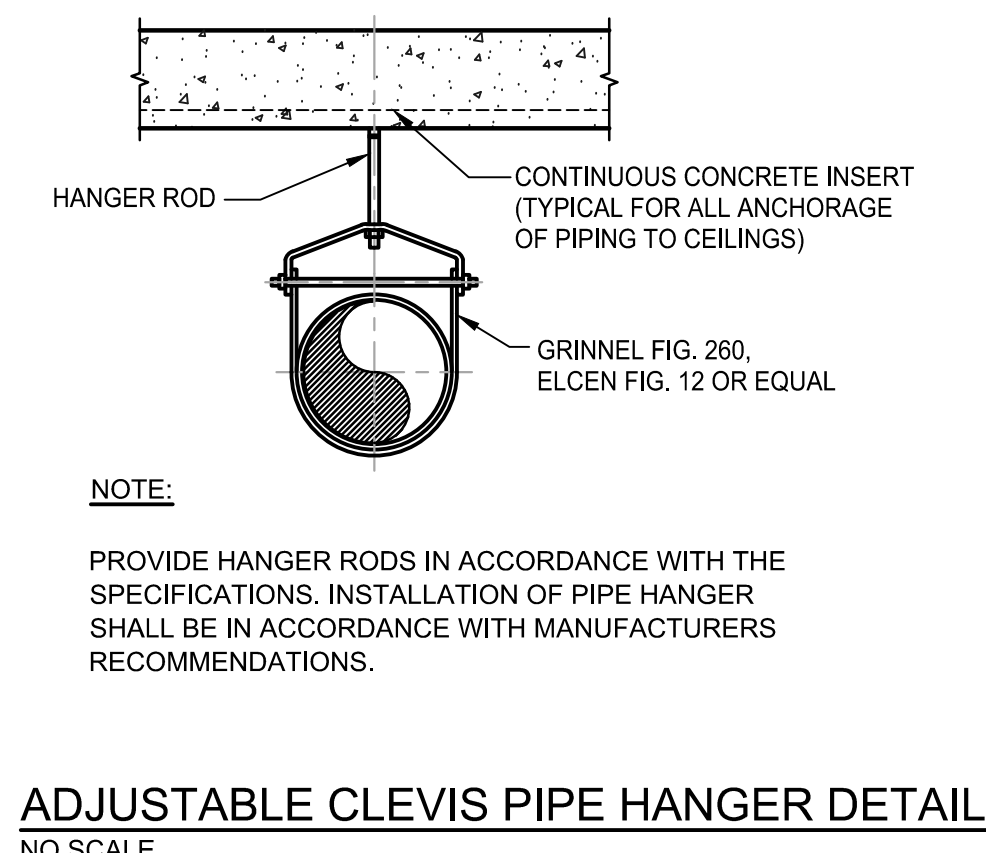
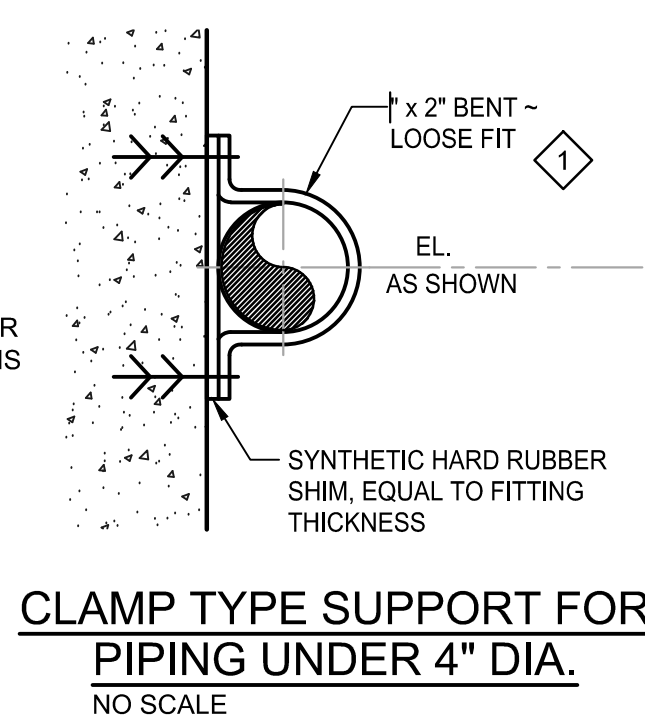
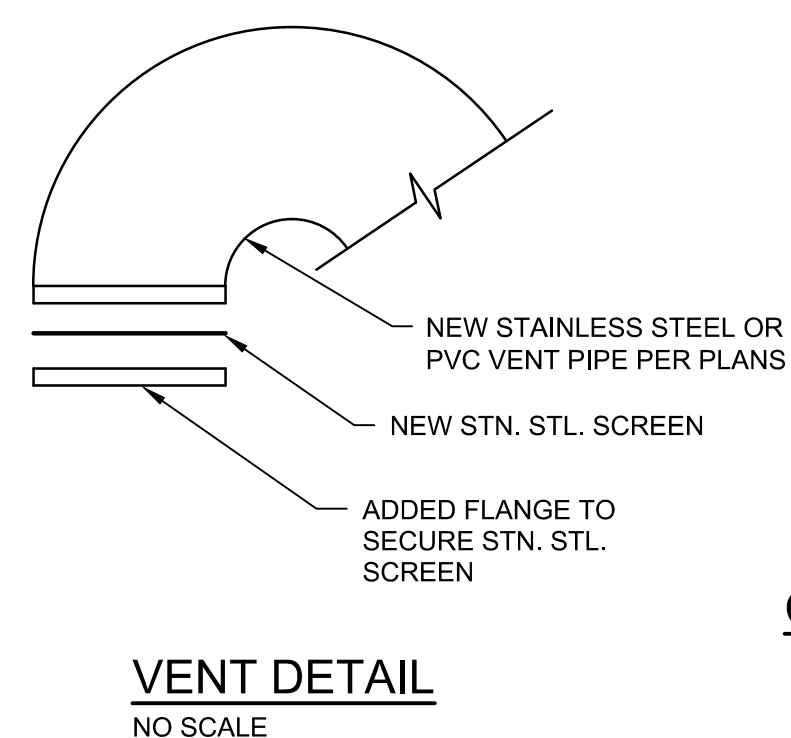
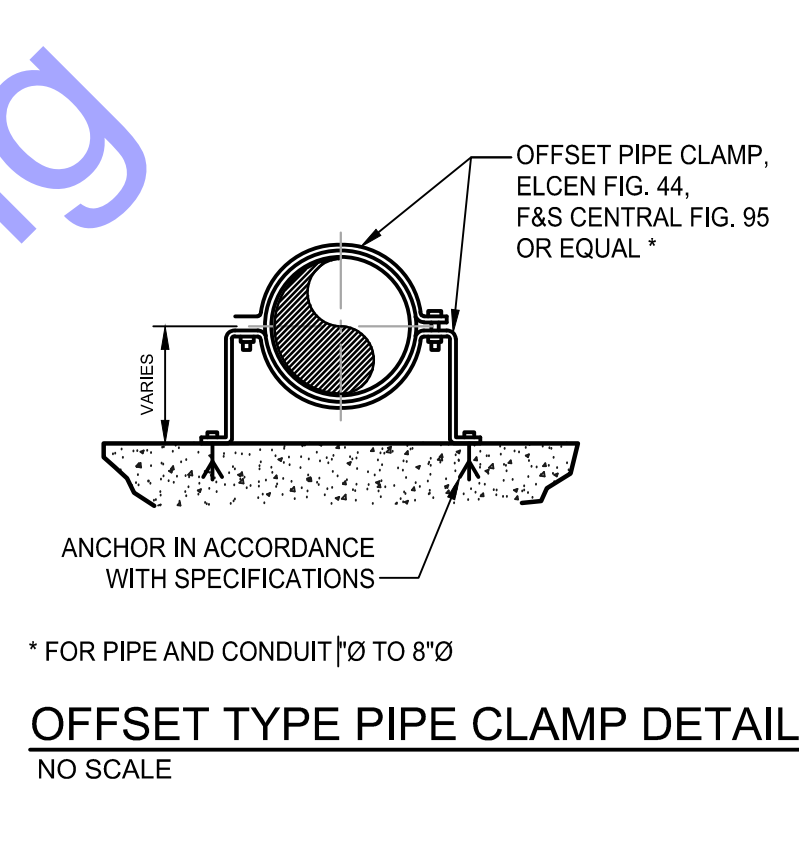
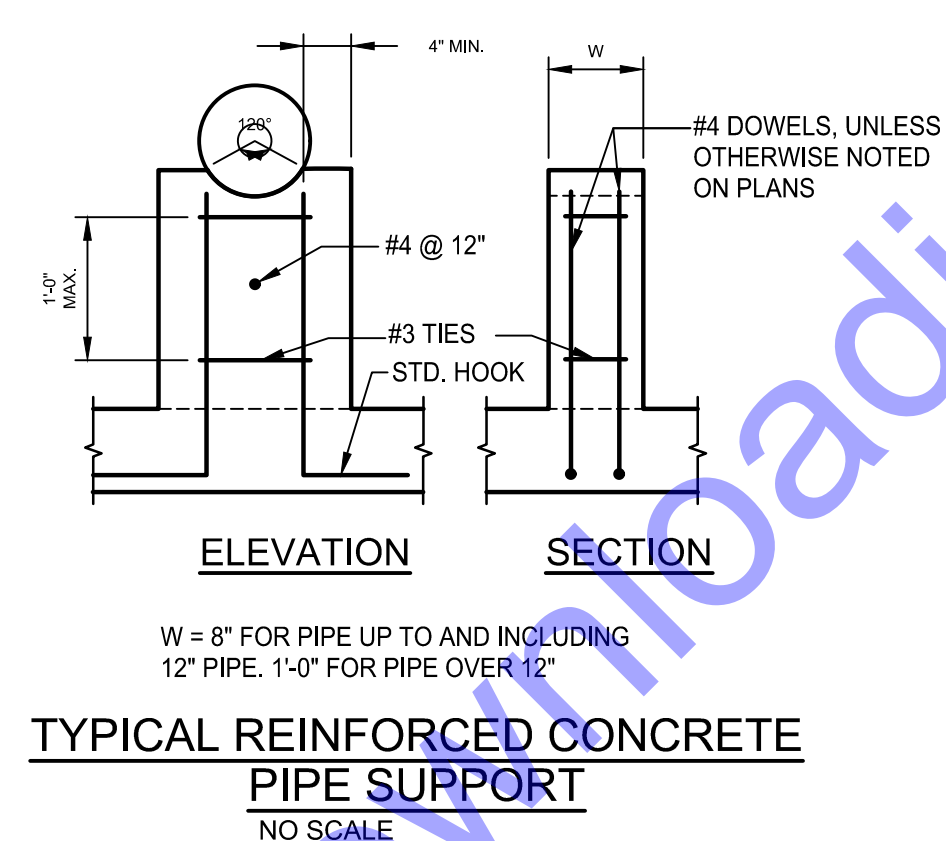
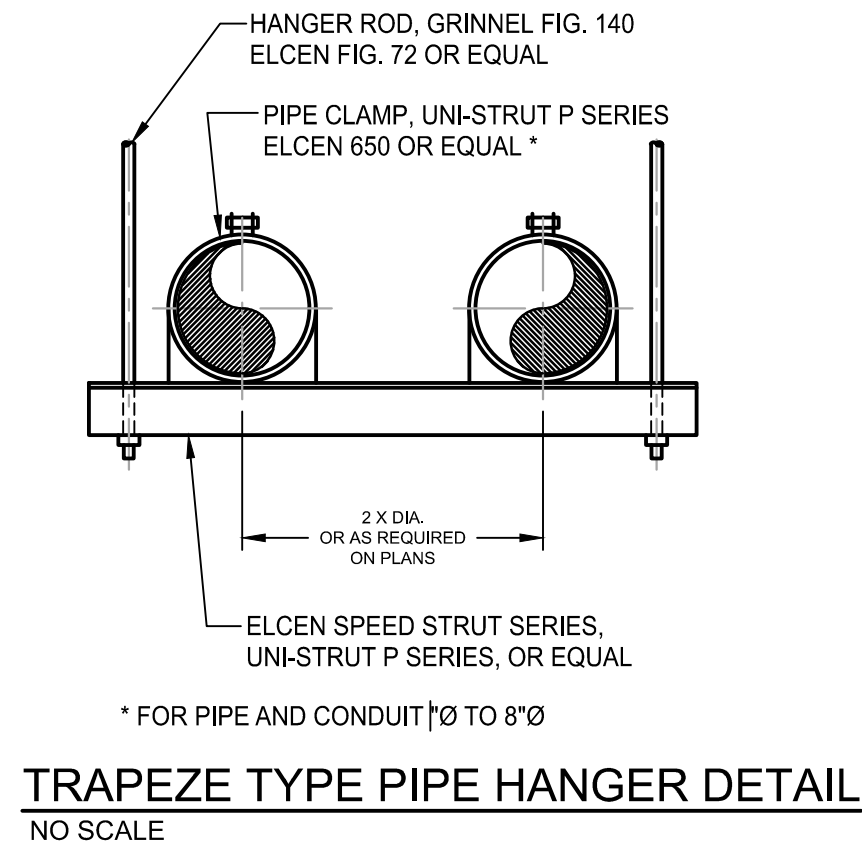
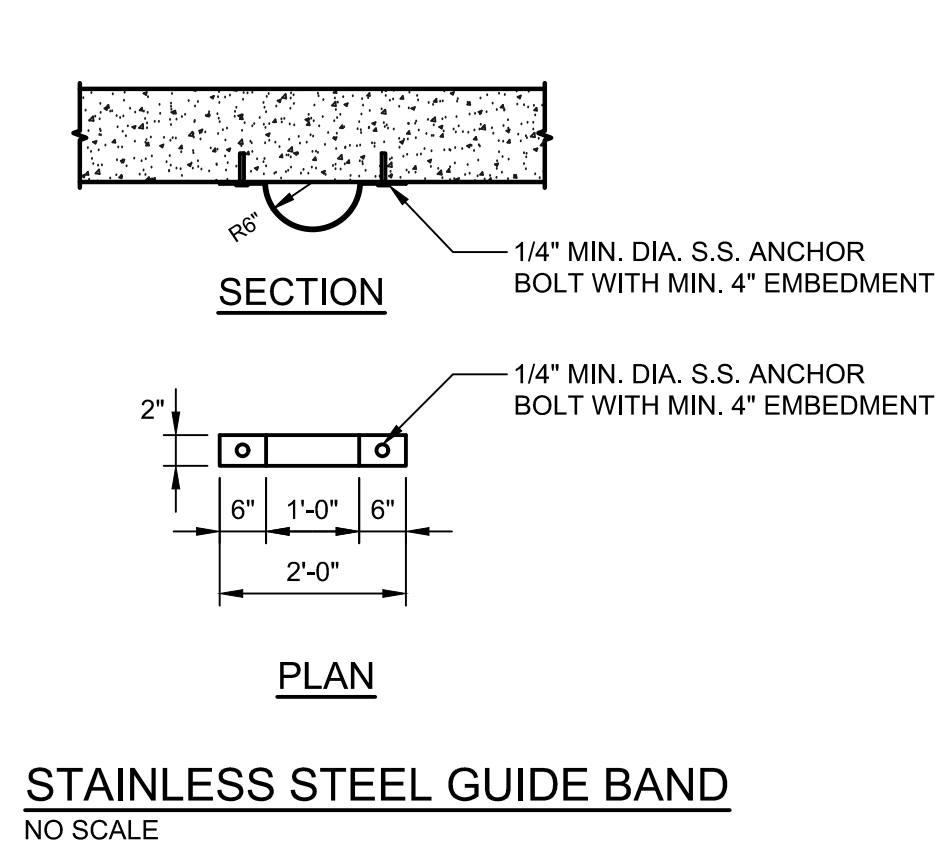
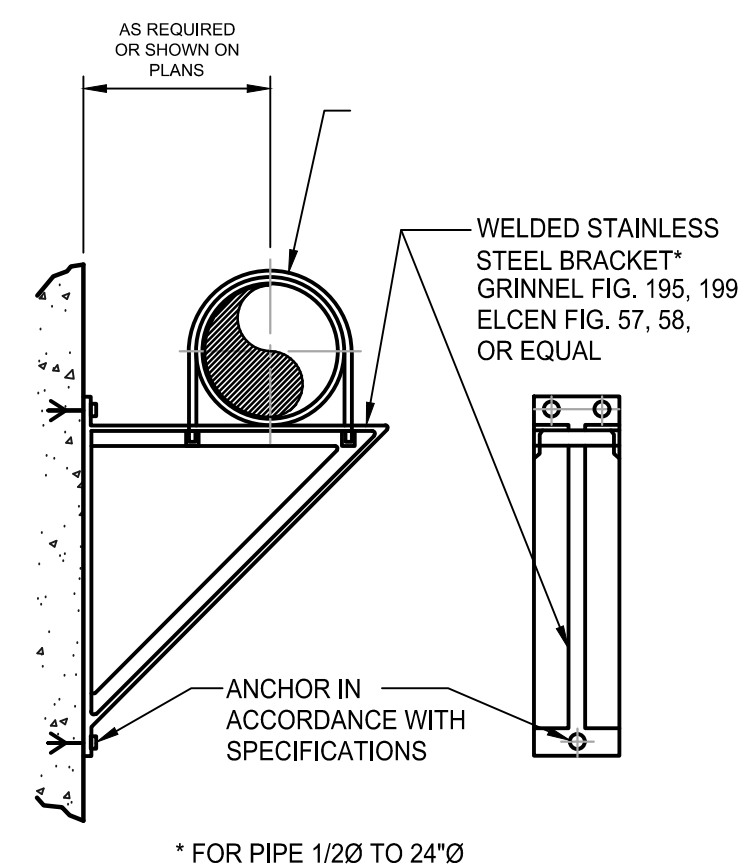
SURFACE RESTORATION DETAIL FOR GRAVEL PAVEMENT- ROAD

NO SCALE



SURFACE RESTORATION DETAIL FOR GRASS AREAS

NO SCALE



DIMENSION TABLE			
PIPE SIZE	A	B	C
0'-4"	0'-3"	0'-4-3/16"	0'-9"
0'-5"	0'-3"	0'-4-13/16"	0'-9"
0'-6"	0'-3"	0'-5-7/16"	0'-9"
0'-8"	0'-3"	0'-6-15/16"	0'-9"
0'-10"	0'-3"	0'-8-7/16"	0'-9"
1'-0"	0'-3"	0'-9-15/16"	0'-9"
1'-2"	0'-4"	0'-10-15/16"	0'-11"
1'-4"	0'-4"	1'-0-3/8"	0'-11"
1'-6"	0'-4"	1'-1-7/8"	0'-11"
1'-8"	0'-6"	1'-3-3/8"	1'-1-1/2"
1'-10"	0'-6"	1'-4-5/8"	1'-1-1/2"
2'-0"	0'-6"	1'-5"-15/16"	1'-1-1/2"
2'-2"	0'-6"	1'-7-1/8"	1'-1-1/2"
2'-6"	0'-6"	1'-9-5/16"	1'-1-1/2"
2'-8"	0'-6"	1'-10-1/2"	1'-1-1/2"
3'-0"	0'-8"	2'-0-1/2"	1'-4"

PIPE SUPPORT AND TABLE DETAIL
NO SCALE

1. The structure has been designed for the in-service loads only. The methods, procedures, and sequences of construction are the responsibility of the Contractor. Supporting formwork for the concrete construction shall not be removed before the concrete has gained sufficient strength to safely support the dead and superimposed loads which will be subsequently applied. The Contractor shall take all necessary precautions to maintain and ensure the integrity of the structure at all stages of construction.
2. All work shall be performed in accordance with the Indiana Building Code, 2014 Edition (2012 International Building Code, first printing, with Indiana Amendments).
3. Where new work is to be fitted to old work, the Contractor shall check all dimensions and conditions in the field, and report any errors or discrepancies to the Structural Engineer prior to the fabrication and erection of any new members.
4. Do not determine dimensions by "scaling" off the plans. The Contractor shall accept all risk associated with "scaling" and shall be responsible for all inadequate work resulting therefrom. Questions regarding missing or conflicting dimensions shall be directed, in writing, to the Structural Engineer.
5. Existing materials to be removed and reinstalled as part of this contract, but become damaged, shall be replaced with approved new material of equivalent quality and appearance at the Contractor's expense.
6. All work shall be performed without damage to adjacent retained work. Adequate protection of areas nearby work against dust, dirt and debris accumulation shall be maintained at all times.
7. Principal openings in the structure are indicated on the structural drawings. Refer to the architectural, mechanical, electrical, and plumbing drawings for sleeves, curbs, inserts, etc. not herein indicated. Openings in slabs with a maximum side dimension or diameter of 10 inches or less shall not require additional framing or reinforcement, unless noted otherwise. The location of sleeves or openings not shown in structural members shall be approved by the Structural Engineer.
8. The location of sleeves or openings not shown in structural members shall be approved by the Structural Engineer.
9. The Contractor shall relocate all mechanical piping, ducts, equipment, electrical conduits, wiring and plumbing that interfere with the proposed construction. Service shall be maintained to all equipment that is served by mechanical, electrical or plumbing conduit being relocated.
10. The Contractor shall relocate all utilities which interfere with the proposed construction. Service shall be maintained at all times during utility relocation unless otherwise noted.

1. Exterior footings shall bear 3'-0" minimum below finish grade and shall bear on undisturbed soil.
2. Foundation excavation and all other soils related work shall be performed in accordance with the geotechnical engineering report prepared by SME (project number 102999.00) dated May 11, 2026 and all associated supplements.
3. Foundation and soils related work shall be performed under the direct supervision of a qualified Geotechnical Engineer.
4. Foundation excavations shall be made to plan elevations. The soil conditions beneath foundations shall then be inspected by a qualified Geotechnical Engineer. If the underlying soils are found to be unacceptable, one of the following procedures shall be followed:
 - A. Remove the unacceptable soil and backfill with an engineered structural fill in accordance with the geotechnical engineering report or inspecting Geotechnical Engineer.
 - B. Lower the footing to an acceptable soil. Contact the Structural Engineer for potential modifications to the foundation system.
5. Subgrade structural elements subjected to differential lateral soil pressure shall be adequately braced until the structural elements which provide lateral restraint have been placed and allowed to cure for a minimum of 7 days.
6. Excavations for spread footings, combined footings, continuous footings and/or mat foundations shall be cleaned and hand tamped to a uniform surface. Foundation excavations shall be adequately protected against detrimental change in condition from disturbance, rain, freezing, etc. Surface runoff shall not be allowed to enter the excavation.
7. Foundation conditions noted during construction, which differ from those described in the geotechnical report shall be reported to the Structural Engineer and Geotechnical Engineer before further construction is attempted.
8. Center all column and wall footings under the column or wall above unless otherwise indicated.

3. Reinforced concrete has been designed in accordance with the latest editions of the Building Code Requirements for Reinforced Concrete (ACI 318) and Environmental Engineering Concrete Structures (ACI 350R) by the American Concrete Institute (ACI).
2. Slabs-on-grade shall be constructed in accordance with the latest edition of the Guide for Concrete Floor and Slab Construction (ACI 302.1R).
3. Mixing, transporting, and placing of concrete shall conform to the latest edition of the Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete (ACI 211.1) and the Standard Specifications for Structural Concrete (ACI 301). The special provisions of ACI 211.1 Appendix 5 (Mass Concrete Mix Proportioning) shall be used in proportioning the concrete mixture for the mat foundation to control temperature rise during hydration. In addition, the provisions of ACI 207.1R (Mass Concrete) shall apply. Concrete curing shall conform to the latest editions of the Standard Practice for Concrete Curing (ACI 308) and the Standard Specification for Curing Concrete (ACI 308.1). In case of a discrepancy, the plans and specifications shall govern.
4. Unless noted otherwise, concrete shall have natural sand and fine aggregate and normal weight coarse aggregates conforming to ASTM C33, and Type I or II Portland Cement conforming to ASTM C150. Type II Portland Cement shall not be used in mass concrete. The Contractor shall submit a mix design for each proposed class of concrete. Mix designs shall indicate proportions by weight, water-cement ratio, slump, air content, synthetic fiber size and quantity, sieve analyses of fine and coarse aggregates, standard deviation analysis, and required average strength and documentation of average strength verifying compliance with ACI 318. The Contractor shall not vary from the mix design without approval from the Structural Engineer.
5. Unless noted otherwise, fly ash may be used as a pozzolan to replace a portion of the Portland Cement in a concrete mix. Fly ash, when used, shall conform to ASTM C618, Type C (except in mass concrete, ASTM C618 Type F shall be used). Concrete mixes using fly ash shall be proportioned to account for the properties of the specific fly ash used and to account for the specific properties of the fly ash concrete thus resulting. The ratio of the amount of the fly ash to the total amount of fly ash plus cement in the mix shall not exceed 25 percent.
6. For mass concrete, ground granulated blast-furnace slag (GGBFS) may be used to replace a portion of the Type I Portland Cement in a concrete mix. Ground granulated blast-furnace slag, when used, shall conform to ASTM C1109, Grade 100. Concrete mixes using GGBFS shall be proportioned to account for the properties of the specific GGBFS used and to account for the specific properties of the GGBFS concrete thus resulting. The ratio of the amount of the GGBFS to the total amount of GGBFS plus cement in the mix shall be between 65 and 70 percent (except for concrete exposed to deicing chemicals the maximum ratio shall be 50 percent).
7. Water-reducing admixtures conforming to ASTM C494 may be used in the concrete mix design. Maximum slump shall be 5 inches for mixes containing water-reducing admixtures and 5 to 8 inches for mixes containing high range water-reducing admixtures.
8. Concrete compressive strength tests shall be performed in accordance with ASTM C39. Copies of the test results shall be forwarded to the Structural Engineer. One set of specimens shall be taken for each day's pour of appreciable size and for each 50 cubic yards (100 cubic yards for mass concrete) in accordance with the latest edition of ASTM C31. Each set shall include one specimen tested at 7 days, 2 specimens tested at 28 days and one specimen retained in reserve. Two additional reserve specimens shall be retained for all mass concrete pours. These test cylinders shall be laboratory cured. For mass concrete pours, these test cylinders shall remain on-site for 48 hours before being transported to the testing lab.
9. When the ambient temperature is expected to fall below 40 degrees during the course of a concrete pour or subsequent curing period, it shall be placed and cured in accordance with the latest edition of Cold Weather Concrete (ACI 306R) and an additional set of concrete test cylinders shall be made. For mass concrete, this set of additional test cylinders shall consist of four specimens for each 200 cubic yards of concrete placed. These cylinders shall be stored immediately adjacent to, and cured under the same conditions as the building concrete. Special curing boxes are not permitted for these test cylinders.

3. Concrete mixed, transported, placed, and cured under conditions of high ambient temperature, low humidity, solar radiation, or high winds shall conform to the latest edition of Hot Weather Concreting (ACI 305R) and an additional set of concrete test cylinders shall be made. For mass concrete, this set of additional test cylinders shall consist of four specimens for each 200 cubic yards of concrete placed. These cylinders shall be stored immediately adjacent to, and cured under the same conditions as the building concrete. Special curing boxes are not permitted for these test cylinders.
11. Slump tests shall be made prior to and following the addition of plasticizers. Where concrete is placed by pumping methods, concrete for test cylinders and slump tests shall be taken at the point of final placement.
12. Water shall not be added to the concrete at the job site. The Contractor is responsible for coordinating a pumpable and workable mix without the addition of water at the job site. The use of plasticizers, retardants and other additives shall be at the option of the Contractor subject to the approval of the Structural Engineer. Follow the recommendations of the manufacturer for the proper use of additives. Use of calcium chloride or other chloride bearing salts is prohibited.
13. Place concrete in a manner so as to prevent segregation of the mix. Delay floating and troweling operations until the concrete has lost surface water sheen or all free water. Do not sprinkle free cement on the slab surface. Finishing of slab surfaces shall conform to the latest editions of ACI 302.1R and ACI 304R (Guide for Measuring, Mixing, Transporting and Placing Concrete).
14. Where an epoxy adhesive is specified for bonding plastic concrete to hardened concrete, it shall conform to the latest edition of the Standard Specification for Bonding Plastic Concrete to Hardened Concrete with a Multi-Component Epoxy Adhesive (ACI 503.2).
15. Maintain concrete in a moist condition for at least 5 days at ambient temperatures above 70 degrees, and at least 7 days at ambient temperatures above 50 degrees. Curing compounds or moisture retention covers shall be used for all non-former surfaces. Formed surfaces shall be cured by leaving forms in place. During hot, dry weather, keep forms moist by sprinkling. When forms are removed prior to the end of the curing period, apply curing compound to the exposed surfaces.
16. All interior slabs shall receive a hard "troweled finish". Exterior slabs, sidewalks, and stoops shall receive a "broom (or other type of slip resistant) finish". All formed surfaces not exposed to public view shall receive a "rough form finish", exposed surfaces shall receive a "smooth form finish". Concrete finishes shall be as defined in ACI 301.
17. Protect finished concrete surfaces from damage, rain, hail, running water, other injurious effects.
18. Protect the concrete surface between finishing operations on hot, dry days or any time plastic shrinkage cracks could develop by using wet burlap, plastic membranes or fogging.
19. Horizontal and vertical joints are not permitted in concrete construction except where indicated.
20. Construction joints and/or contraction joints at locations other than where indicated shall be submitted to the Structural Engineer for approval.
21. Construction joints shall be prepared by roughening the contact surface in an approved manner to a full amplitude of approximately 1/4 inch leaving the contact surface clean and free of laitance.
22. Control joints shall be made in concrete slabs-on-grade at major column centerlines, at points of discontinuity, at reentrant corners, and at other locations shown on the plans.
23. Provide 3/4 inch chamfers on all exposed corners of concrete except those abutting masonry.
24. The Contractor shall verify the location of sleeves, openings, embedded items, etc. and shall ensure that they are in place prior to the placement of the concrete.
25. Earth cuts shall not be used as forms ("bank forming") for vertical or sloping surfaces unless otherwise approved by the Structural Engineer. Where bank forming is permitted, the concrete element shall be increased at least 3 inches on all sides exposed to earth to account for possible soil contamination during concrete placement.

CONCRETE SCHEDULE						
CLASS	f'_c	AIR CONTENT	MIN. CEMENT: LB/CY (SACKS/CY)	MAX. WATER/ CEMENT: RATIO	CONCRETE PLACEMENT	REMARKS
A	3,000 psi	optional	423 (4.5)	0.58	footings	
B	4,000 psi	optional	517 (5.5)	0.48	mat foundation & pedestals	crystalline waterproofing admixture
C	4,500 psi	6% ± 1.5%	611 (6.5)	0.45	retaining walls	crystalline waterproofing admixture
D	4,500 psi	6% ± 1.5%	611 (6.5)	0.40	exterior slabs-on-grade, stoops, curbs, & sidewalks exposed to de-icers	synthetic fibers (1.5 lbs/cys)

1. Reinforcing bar detailing, fabricating, and placing shall conform to the latest edition of the following standards: Specifications for Structural Concrete for Buildings (ACI 301), ACI Detailing Manual (SP66). The latest editions of Concrete Reinforcing Steel Institute's Reinforcing Bar Detailing and Placing Reinforcing Bars may also be used.
2. Provide standard bar chairs, slab bolsters, spacers, etc., as required to maintain concrete protection specified. Reinforcing steel shall be tied to prevent displacement during concrete placement.
3. Reinforcement bars shall not be tack welded, welded, heated or cut unless otherwise indicated or approved by the Structural Engineer.
4. Welding of reinforcement bars, when approved by the Structural Engineer, shall conform to the latest edition of American Welding Society Standard D1.4. Electrodes for shop and field welding of reinforcement bars shall conform to ASTM A233, Class E90XX.
5. Synthetic fibers shall be used for temperature and shrinkage reinforcement in concrete slabs-on-grade. Synthetic fibers shall be virgin (non-recycled) nylon or polypropylene fibers conforming to ASTM C1116, Type III. Fibers shall be introduced into the mix at the plant in accordance with the manufacturer's recommendations. The Contractor shall submit the mix design, including the fiber size and quantity, to the Structural Engineer for approval prior to construction. The Contractor shall take adequate measures to manage any difficulty in concrete finishing associated with the use of the fibers.
6. Concrete cover over reinforcement, unless otherwise noted, shall be as specified in the latest editions of ACI 318 and ACI 350 with the most stringent requirements governing.
7. Unless noted otherwise, splicing of reinforcing bars shall conform to the latest edition of ACI 318. Where the length of lap is not indicated, provide a Class "B" lap at tension splices or 30 bar diameter compression laps at compression splices. If the splice type is not defined as tension or compression, provide the splice type that produces the greatest length.

CONCRETE REINFORCING STEEL LAP SPLICE SCHEDULE			
BAR SIZE	TENSION SPLICE		COMPRESSION SPLICE
	TOP BAR	OTHER	
#3	21"	16"	12"
#4	28"	24"	15"
#5	35"	30"	19"
#6	42"	36"	23"
#7	49"	42"	26"
#8	56"	48"	30"
#9	63"	57"	34"
#10	76"	66"	38"
#11	93"	72"	42"

9. Horizontal bars in walls and continuous wall footings shall be bent at corners and intersections in such a way that continuity is provided through the joint. Separate corner bars of the same size and spacing as the horizontal reinforcing may be substituted for the bent portion of the continuous bars.
 9. Unless noted otherwise, provide 2-#5 bars (one each face) around unframed openings and diagonally at reentrant corners of vertical height offsets in concrete walls. Place bars parallel to the sides of the opening and extend 24 inches beyond corners.
 10. The Contractor shall prepare detailed working or shop drawings to enable him to fabricate, erect and construct all parts of the work in accordance with the drawings and specifications and shall submit one reproducible copy and one blue line copy to the Structural Engineer for review prior to fabrication. These shop drawings will be reviewed for design concepts only. The Contractor shall be responsible for all dimensions, accuracy, and fit of work.
- STRUCTURAL STEEL**
1. Structural steel detailing, fabrication and erection shall conform to the latest editions of the AISC Specification for Structural Steel Buildings, Allowable Stress Design and Plastic Design, and the AISC Code of Standard Practice for Steel Buildings and Bridges.
 2. Erector shall maintain minimum temporary bracing at each bay in each direction until the diaphragm and permanent lateral load resisting system construction are complete.
 3. Structural steel shall be shop-painted with a rust inhibiting primer. Steel which will be exposed to weather shall be hot-dip galvanized (G90 finish). All abrasions caused by handling after shop painting shall be touched-up after erection is complete.
 4. Design connections not shown in accordance with the latest AISC Specification and Manual of Steel Construction (allowable stress design method). Design simple span non-composite beam connections not shown to support one-half the beam load capacity as given in the AISC Uniform Load Constants for Beams Laterally Supported tables. Connection angles shall be double web angles, 5/16" minimum thickness.
 5. Unless otherwise noted, bolted connections for structural steel members shall be bearing-type using 3/4" diameter ASTM A325 high strength bolts with standard 13/16" diameter holes tightened to the snug tight condition. Bolted weld brace connections shall be slip-critical-type (SC) using 3/4" diameter ASTM A325 high strength bolts with oversized 15/16" diameter holes tightened using the turn-of-nut method unless noted otherwise.
 6. High strength bolted connections shall conform to the latest edition of the Specification for Structural Joints Using ASTM A325 or A490 Bolts, approved by the Research Council on Structural Connections of the Engineering Foundation. Facing surfaces of slip-critical-type (SC) connections shall meet the minimum requirements for a Class A surface condition (mean slip coefficient not less than 0.33).
 7. Welding procedures shall conform to the latest edition of the American Welding Society's (AWS) Structural Welding Codes for: Steel ANSI/AWS D1.1 and Sheet Steel ANSI/AWS D1.3, and Reinforcing Steel ANSI/AWS D1.4.
 8. Welded connections using ASTM A572 and A992 steel as a base metal shall be made with E70XX Low Hydrogen electrodes. Unless otherwise noted, other welded connections shall be made with regular E70XX electrodes. Welding shall be performed only where shown and to the extent indicated.
 9. Field drilled holes shall be reamed, cleaned and deburred prior to assembly of the connection.

10. Thermal cutting shall preferably be done by machine. Hand thermally cut edges which will be subjected to substantial stress, or which are to have weld metal deposited on them, shall be reasonably free from notches or gouges. Notches or gouges greater than $3/16"$ that remain from cutting shall be removed by grinding. Re-entrant corners shall be shaped notch-free to a radius of at least $1/2"$.
11. Paint on surfaces adjacent to joints to be field welded shall be wire brushed to reduce the paint film to a minimum.
12. Surfaces within 2" of any field weld shall be free of materials that would prevent proper welding or produce toxic fumes while welding is being done.
13. Splicing of structural steel members where not detailed is prohibited without the prior approval of the Structural Engineer as to location, type of splice and connection to be made.
14. Beams with specified camber shall be cambered upward. Beams without specified camber shall be fabricated so that after erection any minor camber due to rolling or shop assembly is upward.
15. Continuous beam cantilevers and other beams framing over the top of a column shall have a full height $3/8"$ web stiffener on each side of the beam, centered above the supporting column. The beam-to-column connection shall contain no less than 4 bolts (2 each side of beam).
16. The Contractor shall prepare detailed working or shop drawings to enable him to fabricate, erect and construct all parts of the work in accordance with the drawings and specifications and shall submit one reproducible copy and one blue line copy to the Structural Engineer for review prior to fabrication. These shop drawings will be reviewed for design concepts only. The Contractor shall be responsible for all dimensions, accuracy, and fit of work.

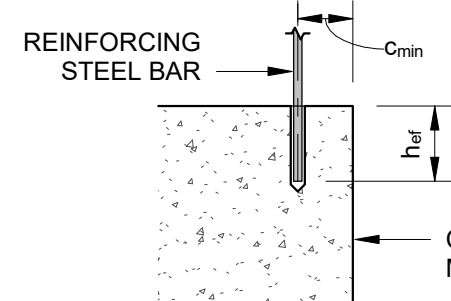
1. Grout shall be a high early strength, non-metallic, shrinkage resistant (when tested in accordance with the latest edition of ASTM C827 or CRD-C621), premixed, non-corrosive, non-staining product conforming to the requirements of the latest edition of ASTM C1107 and containing Portland Cement, silica sands, shrinkage compensating agents and fluidity improving compounds.
2. Grout compressive strength tests shall be performed in accordance with the latest edition of ASTM C109, with a restraining plate placed over the molds.
3. Grout shall be installed in accordance with the manufacturer's instructions.
4. Grout shall be placed in a non-sag flowable state and shall have forms built around it for confinement. Grout shall be cured according to manufacturer's recommendations.

1. The Contractor shall coordinate and check all dimensions relating to architectural finishes, structural framing, mechanical openings, equipment, etc. The Structural Engineer shall be notified of any discrepancies before proceeding with work in an area under question.

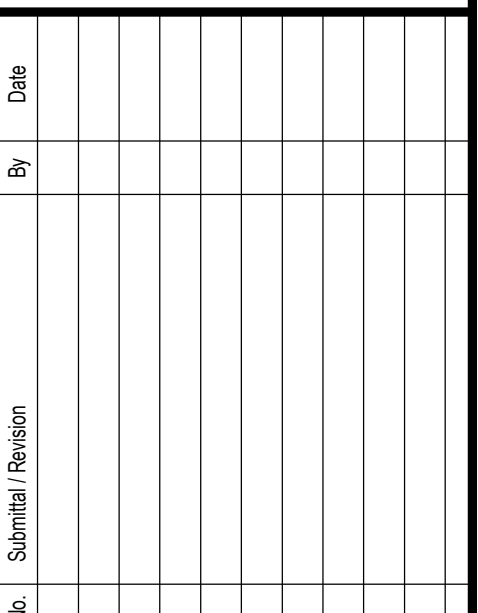
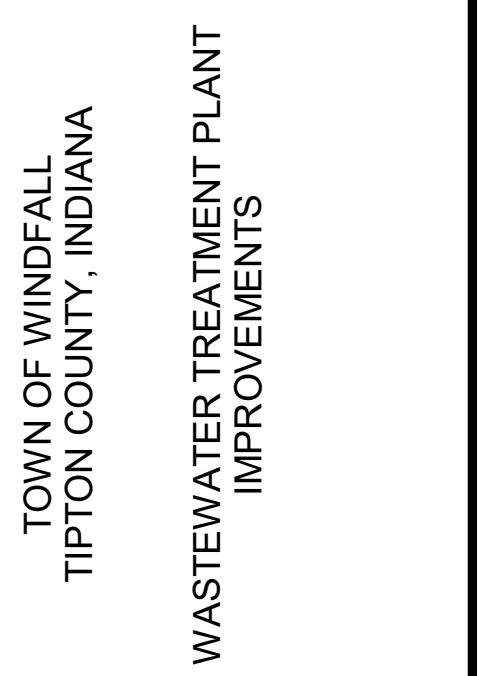
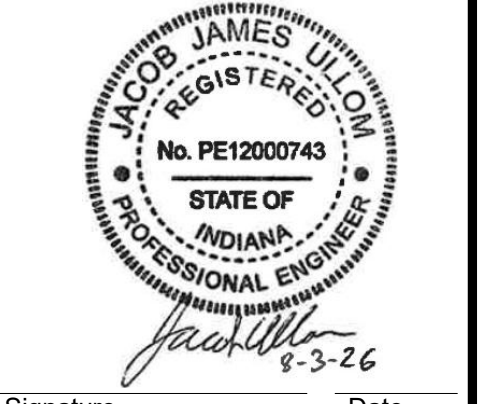
- Under normal conditions and for conventional buildings structures such as the subject structure, reinforced concrete will develop cracks. The cracks are due to inherent shrinkage of the concrete, creep, ambient temperature variation, and restraining effects of vertical and other structural elements.
- The cracks formed are normally cosmetic. The concrete maintains its serviceability and strength requirements. It is possible that a number of hairline cracks, which would normally spread over a wide area, will integrate into a single crack with a width exceeding 0.01 inch. It is emphasized that although special effort is made to reduce the potential causes and number of such cracks, it is not practical to provide total articulation and thereby achieve complete inhibition of all cracks.
- The majority of these cracks develop within the first three years of service. Cracks which are wider than 0.01 inch may require sealing or epoxy injection.
- The object of the joints provided in the structure is to allow movement. Movements due to creep and shrinkage may be noticeable at joints up to two years after construction, beyond which movements due to variations in temperature will persist.

1. Post-installed anchors shall only be used where specified on the Construction Documents. The Contractor shall obtain approval from the Structural Engineer prior to installing the post-installed anchors in place of missing or misplaced cast-in-place anchors.
2. Care shall be taken in placing post-installed anchors to avoid conflicts with existing reinforcing steel.
3. Post-installed anchors shall be installed by qualified personnel in accordance with the drawings and specifications.
4. Post-installed anchors shall be installed by qualified personnel in accordance with the Manufacturer's Printed Installation Instructions (MPII), the drawings and specifications. Installation of adhesive anchors shall be performed by personnel trained to install adhesive anchors. Contractor shall submit installer training cards with anchor package.
5. Post-installed anchors shall be HILTI type as manufactured by HILTI Fastening Systems or approved equivalent. Substitution requests must be submitted by the Contractor to the Structural Engineer for review. Provide back-up technical data that demonstrates that the substituted product is capable of achieving the equivalent performance values (minimum) of the specified products using the appropriate design procedure and/or standard(s) as required by the building code.
6. Masonry cores receiving post-installed anchors shall be filled with course grout. Grout must comply with IBC Section 2103.12 or IRC Section R609.1-1, as applicable. Alternatively, the grout must have a minimum compressive strength, when tested in accordance with ASTM C1019, equal to its specified strength, but not less than 2,000 psi. Post-installed anchors shall not be installed in a masonry mortar joints.
7. The Contractor shall inspect the masonry or concrete surface at each proposed post-installed anchor location prior to installation. If the anchor locations align with mortar joints or the masonry or concrete is honeycombed, cracked or otherwise unsound, the post-installed anchors shall be repositioned so as to be located in sound material and be in accordance with the manufacturer's minimum spacing and edge distance requirements.
8. Adhesive anchors shall be subject to the following additional requirements:
 - A. Anchor shall meet the requirements of ACI 355.2 (mechanical anchors) and ACI 355.4 (adhesive anchors).
 - B. Proof loading of adhesive anchors is not required.
 - C. Anchors shall not be installed in concrete cured less than 21-days
 - D. Anchors shall not be installed until the concrete has reached a minimum compressive strength of 2,500 psi.
 - E. Concrete temperature must be greater than 50 °F and less than 80 °F prior to installation of the anchors unless otherwise permitted by the MPII.
 - F. Anchors shall be installed in holes drilled with the HILTI Hollow Drill Bit (TE-CD (SDS Plus) or TE-YD (SDS Max)) and HILTI VC 20/40 Vacuum (VC 20-U or VC 40-U). Follow the MPII for size and depth of holes required.
 - G. The acceptability of certification other than the ACI/CRSI Adhesive Anchor Installer Certification shall be the responsibility of the Structural Engineer.
 - H. Adhesive anchors installed in horizontal or upward inclined orientations to resist sustained tension loads shall be continuously inspected during installation by an inspector specially approved for that purpose by the building official. The special inspector shall furnish a report to the licensed design professional and building official that the work covered by the report has been performed and that the materials used and the installation procedures used conform to the approved contract documents and MPII.

REINFORCING STEEL EPOXY DOWEL SCHEDULE						
BAR SIZE	#3	#4	#5	#6	#7	#8
STANDARD EFFECTIVE EMBED, ℓ_{eff}	3'-3/8"	4'-1/2"	5'-5/8"	6'-3/4"	7'-7/8"	9"
MINIMUM EDGE DISTANCE, c_{min}	2"	2'-1/2"	3'-1/8"	3'-3/4"	4'-3/8"	5"

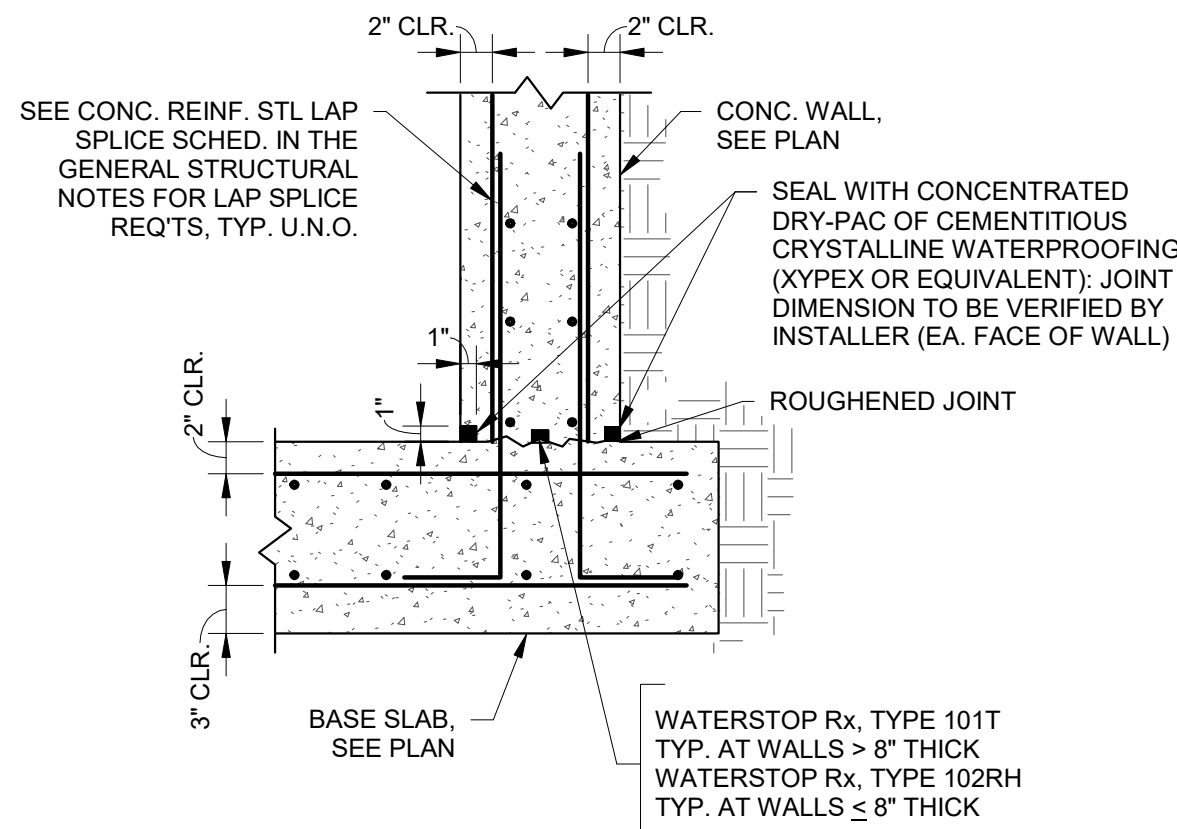


1.	Building Code: Indiana Building Code, 2014 Edition (2012 International Building Code, first printing, with Indiana Amendments).	
2.	Soil information: Allowable net bearing pressure: Spread Footings Continuous Wall Footings Unit weight of soil Unit weight of soil Equivalent fluid pressure on tank walls Equivalent fluid pressure on tank walls	2000 psf 2000 psf 110 pcf above 859.50' 65 pcf below 859.50' 55 psf / ft above 859.50' 95 psf / ft below 859.50'
3.	Concrete: 28 day compressive strength (Fc)	See Schedule
4.	Reinforcing steel (deformed bars of new billet steel): Stirrup and tie Weldable (Low-Alloy) Otherwise Welded wire fabric (smooth)	ASTM A615, Grade 60 ASTM A706, Grade 60 ASTM A615, Grade 60 ASTM A185
5.	Structural Steel: Structural tubing members Structural steel pipe members Structural steel rolled wide flange W shapes Structural steel rolled S, M, and HP shapes & channels Structural steel rolled plates & angles All other members Connection bolts Anchor bolts	ASTM A500, Grade B Fy = 46 ksi ASTM A53, Type E or S, Grade B Fy = 35 ksi ASTM A992 Fy = 50 ksi ASTM A36 ASTM A36 ASTM A36 ASTM A325N ASTM A36
6.	Non-shrink grout: 28 day compressive strength	5,000 psi
7.	Live loads: Stair:	200 psf
8.	Live Load Deflection Limitation: Framing	L/360
9.	Wind loads: Basic wind speed (3-second gust) Importance factor, Iw Exposure	120 mph 1.15 C
10.	Seismic loads: Seismic importance factor, Ie Mapped Spectral Response Acceleration at Short Periods, Ss Mapped Spectral Response Acceleration at 1 Second, S1 Site Class Design Spectral Response Acceleration at Short Periods, Sds Design Spectral Response Acceleration at 1 Second, Sd1 Seismic Design Category	1.25 12.6% g 7.3% g C 10.1% g 8.3% g B



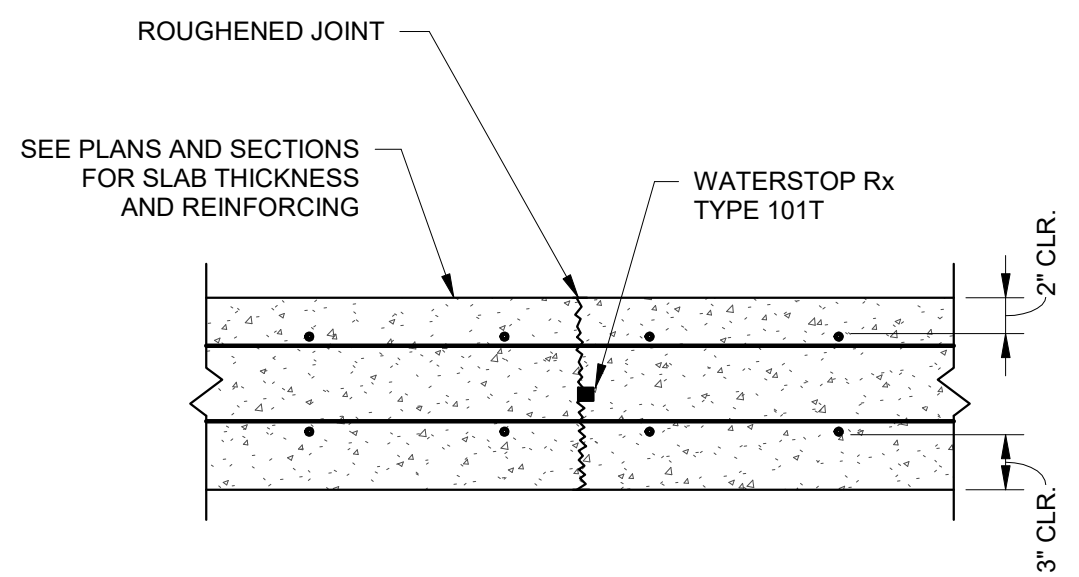
Designed By: JJU	Drawn By: RMS	Checked By: AMS
Issue Date: 08/03/26	Project No: 26-167	Scale: 12" = 1'-0"

Drawing No:
S0-1
Sheet: 28 OF 44



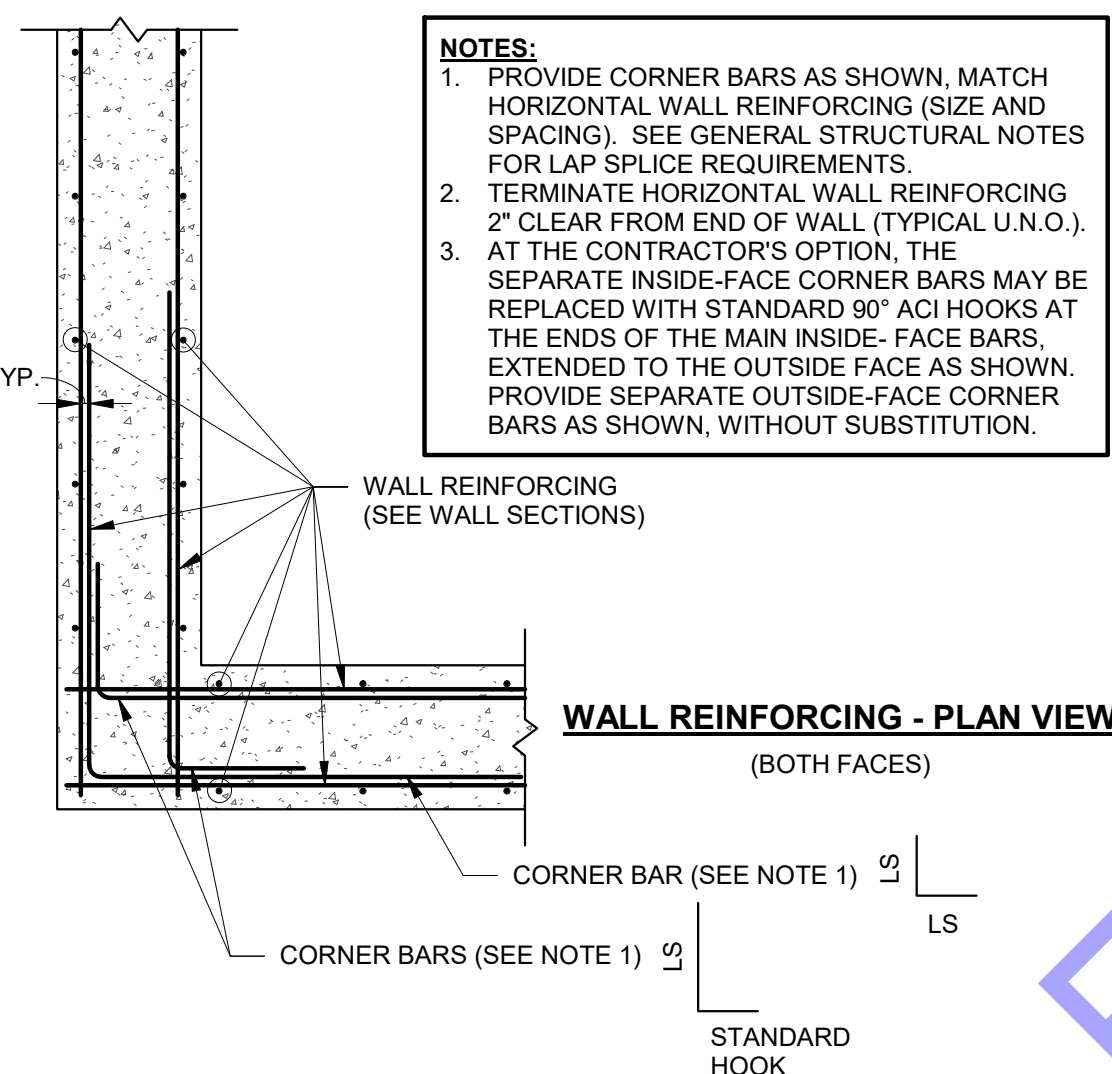
8 TYP. WALL TO BASE SLAB

S0-2 1" = 1'-0"



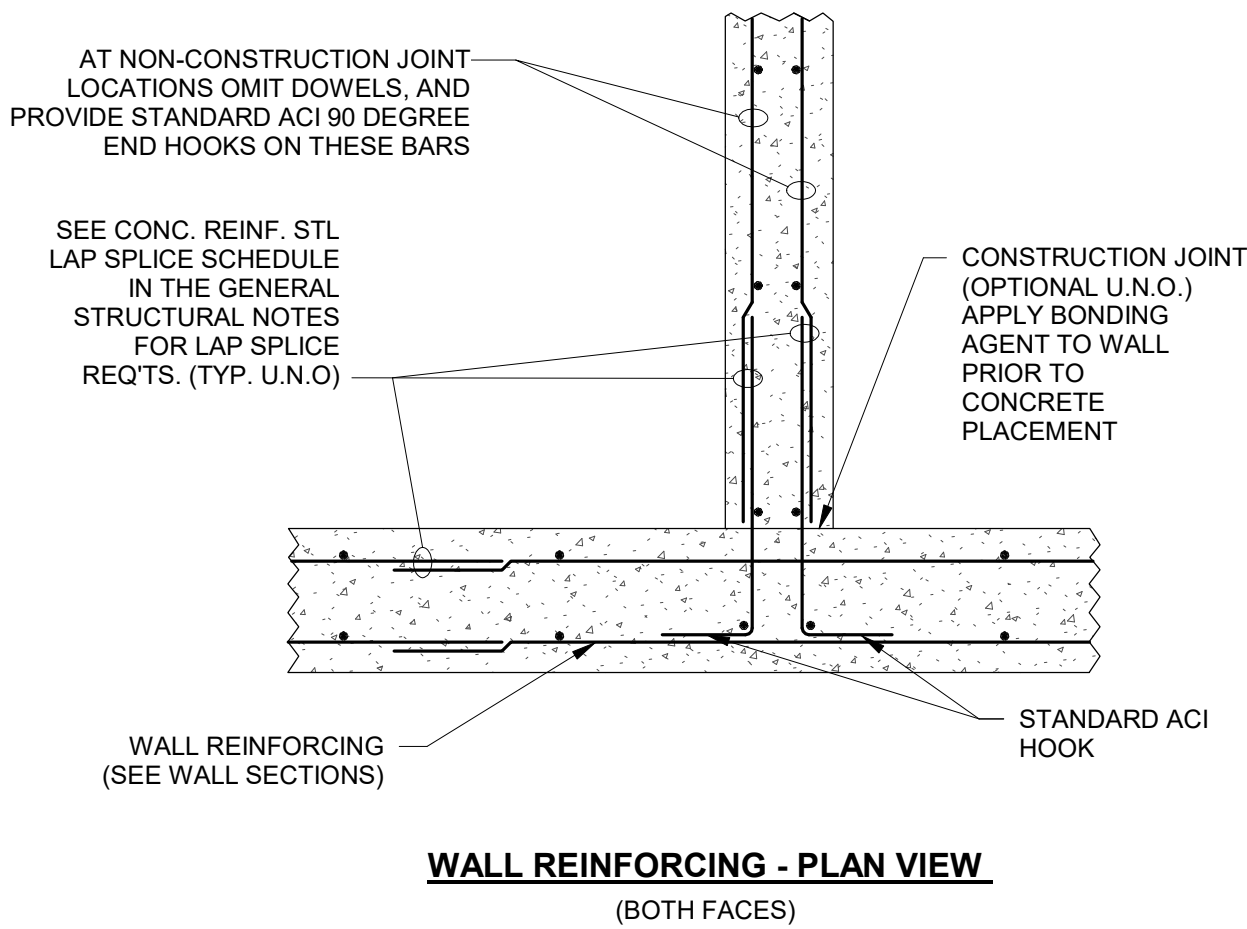
9 TYP. BASE SLAB CONSTRUCTION JT.

S0-2 1" = 1'-0"



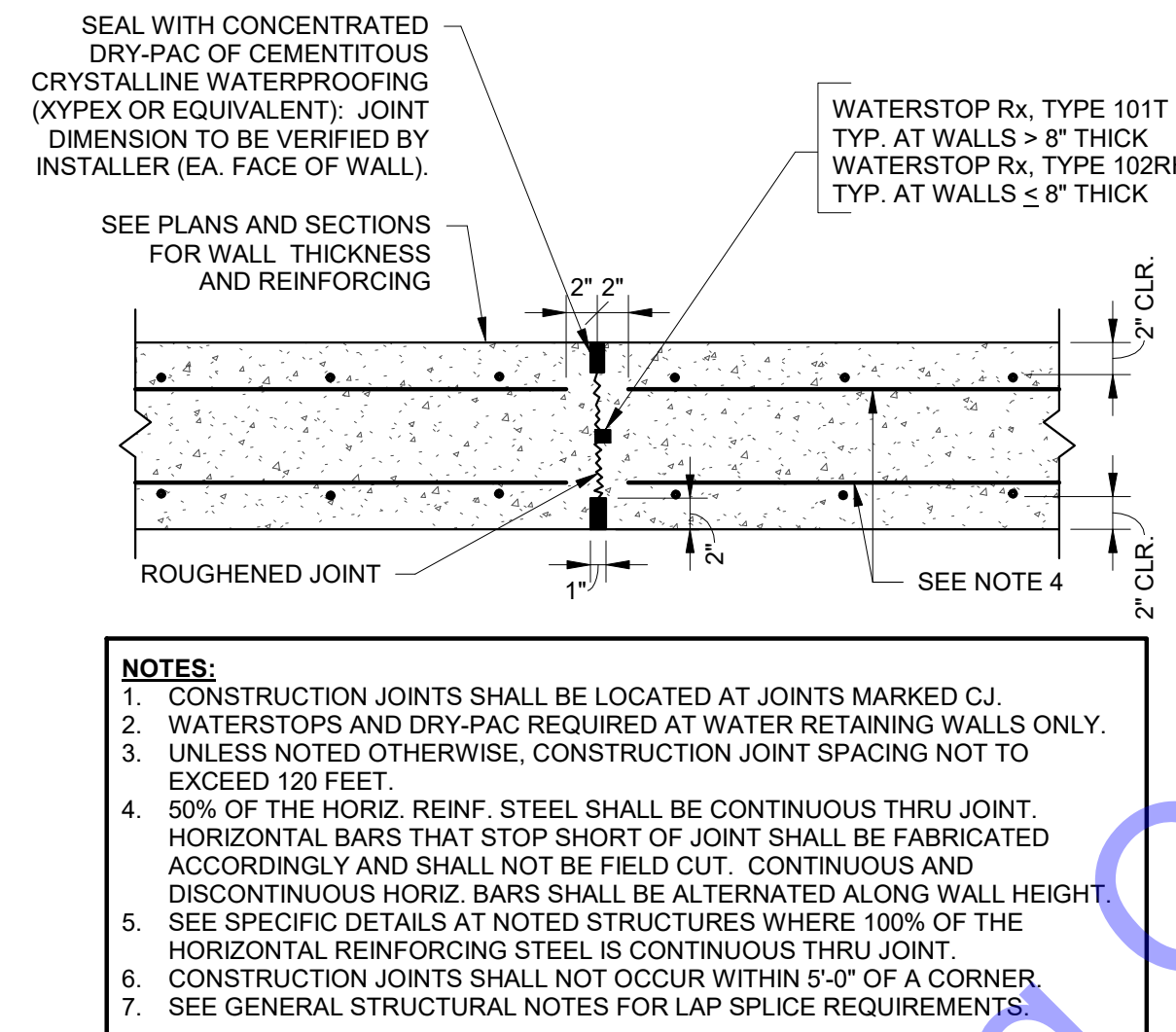
TYPICAL CONCRETE WALL CORNER REINFORCEMENT - PLAN VIEW

S0-2 3/4" = 1'-0"



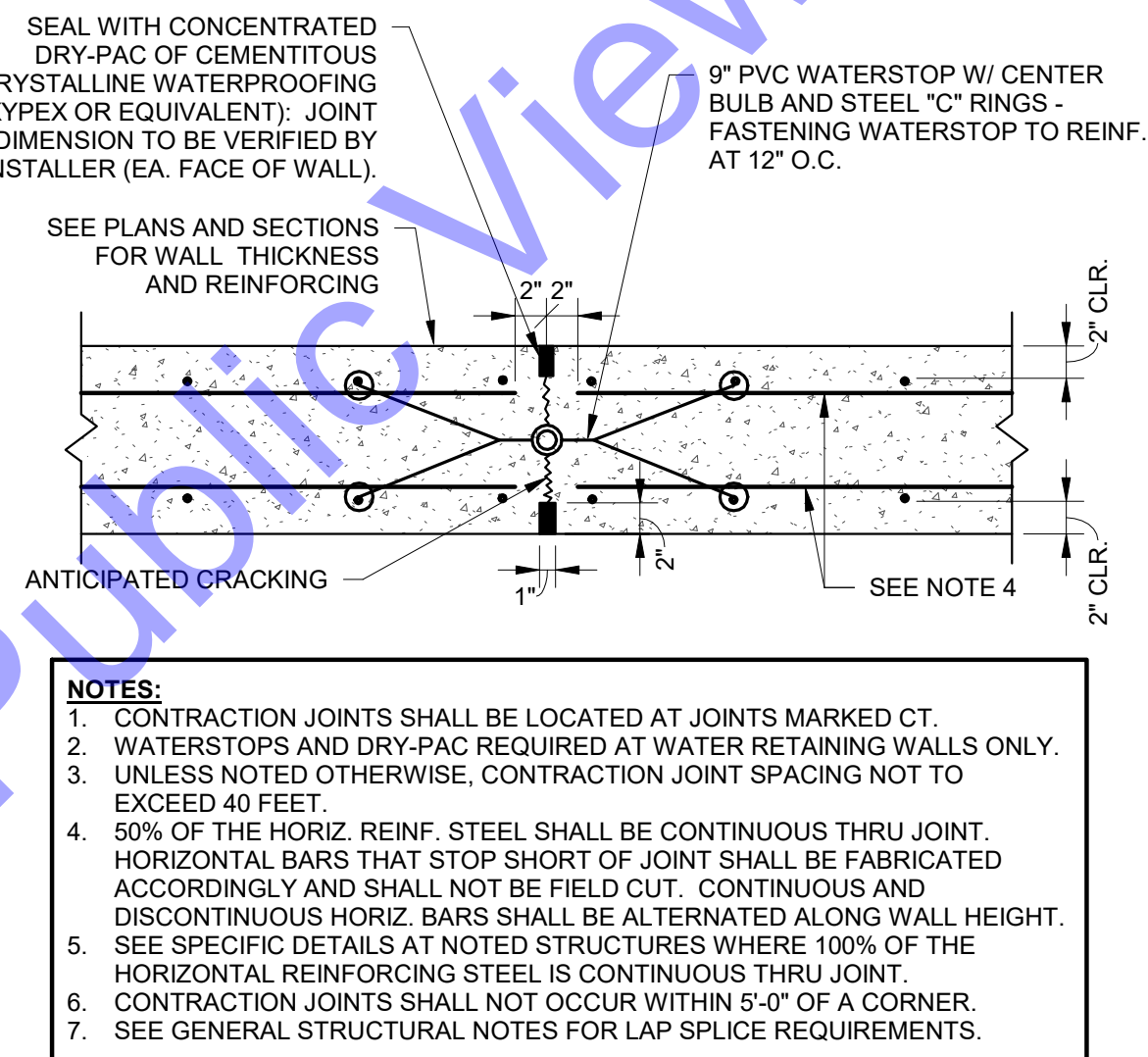
5 TYP. CONC. WALL INTERSECTION

S0-2 1/8" = 1'-0"



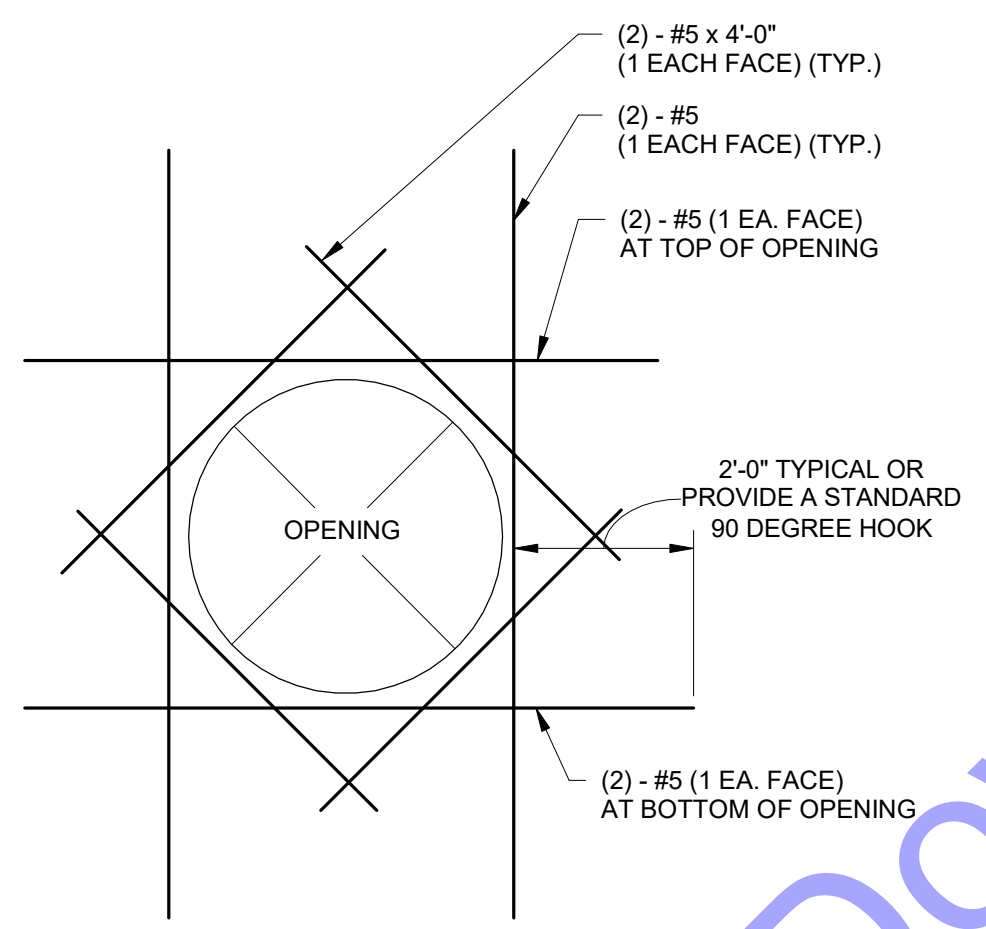
6 TYP. WALL CONSTRUCTION JOINT

S0-2 1" = 1'-0"



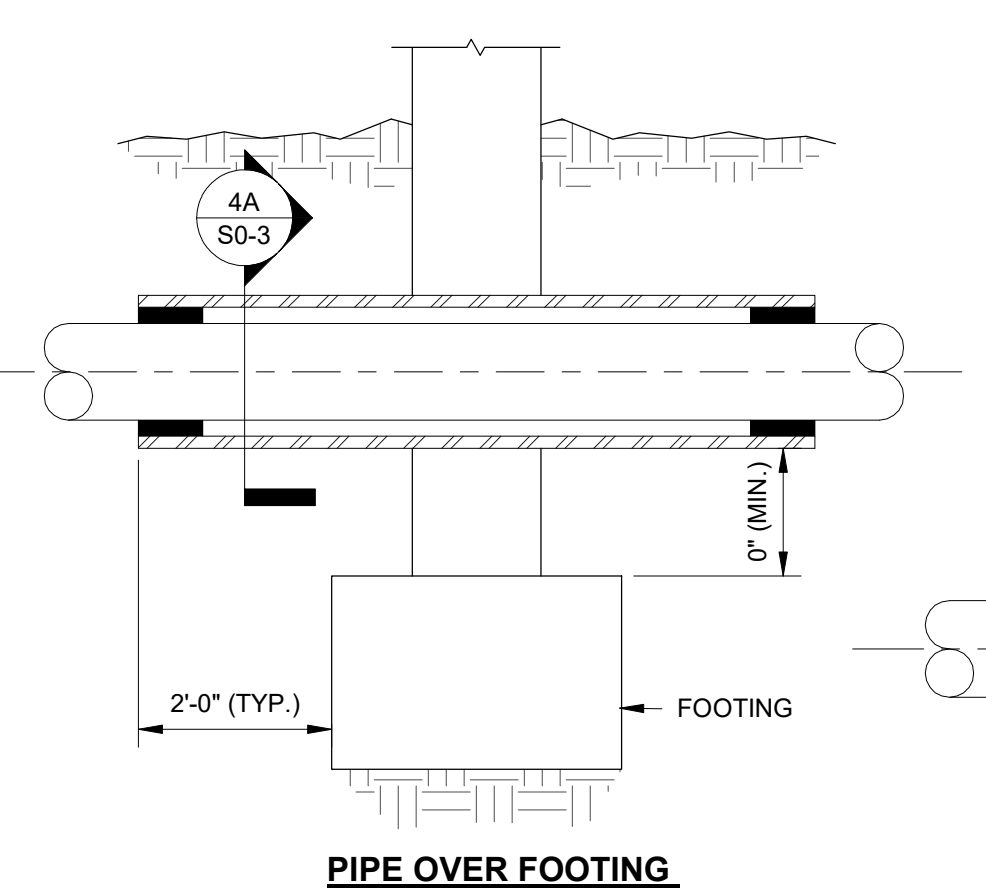
7 TYP. WALL CONTRACTION JOINT

S0-2 1" = 1'-0"



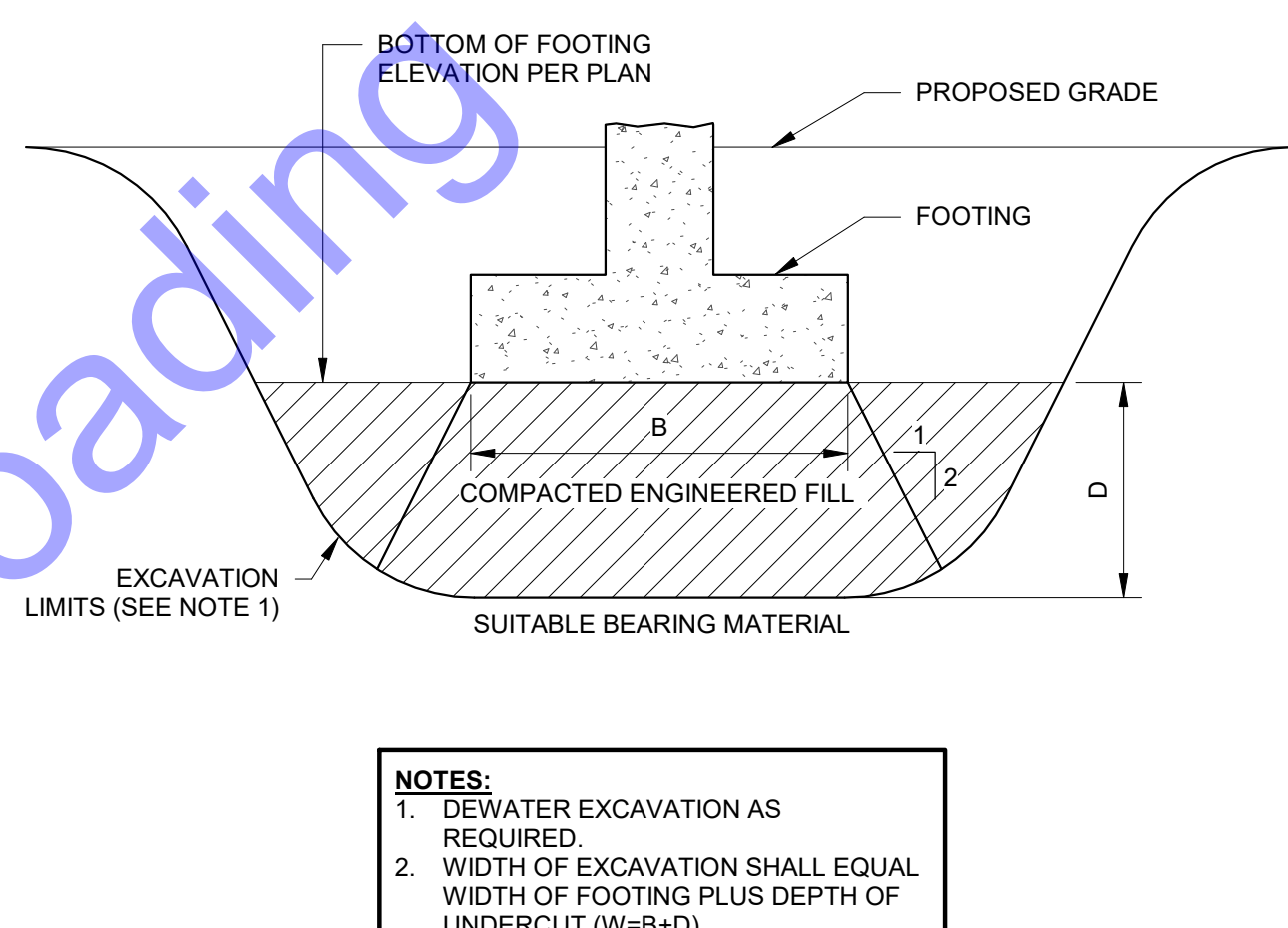
3 TYP. OPENING IN CONCRETE WALL

S0-2 1/8" = 1'-0"



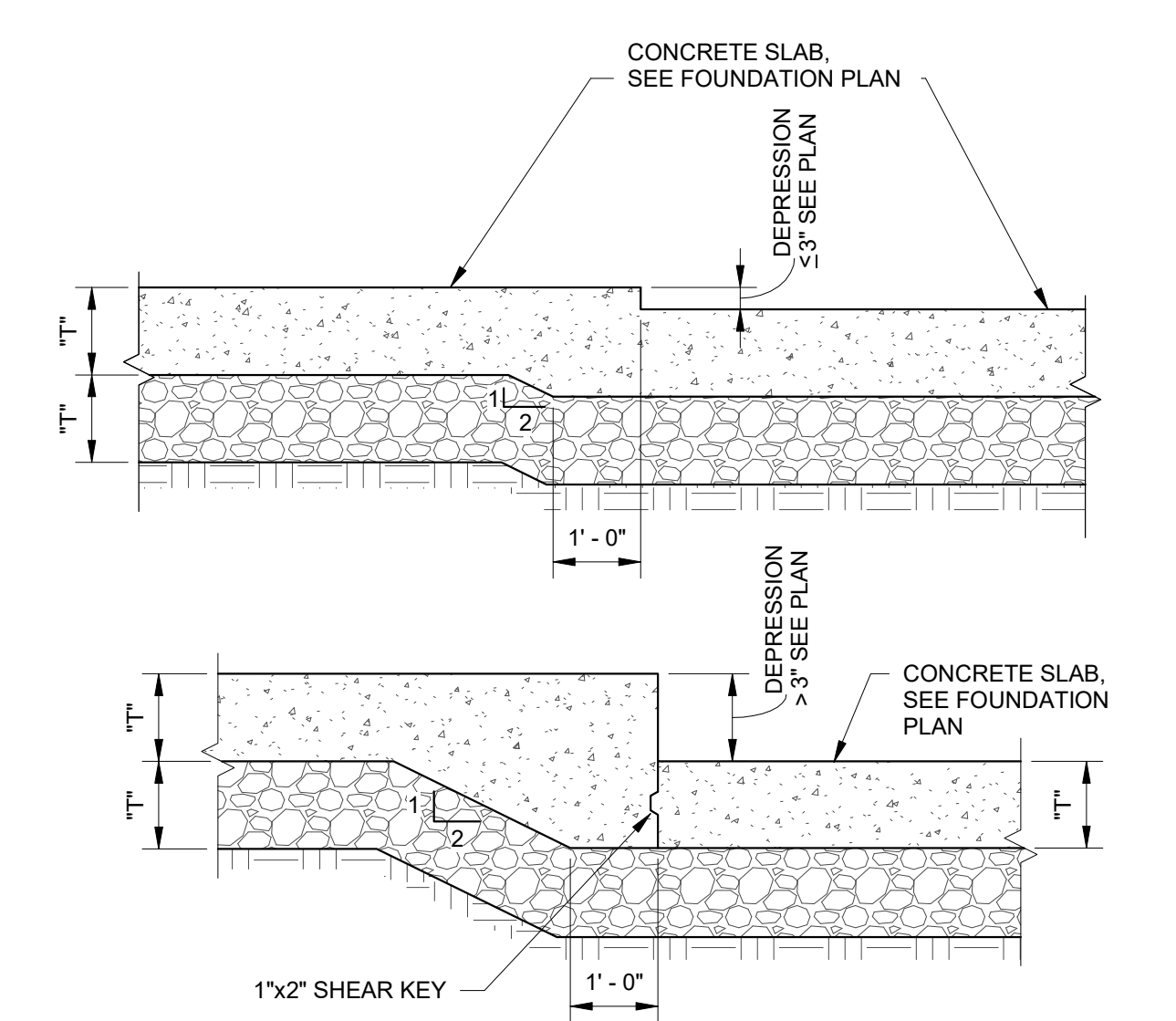
TYP. UNDERGROUND SERVICE PIPE DETAIL AT WALL FOUNDATION

S0-2 1/8" = 1'-0"



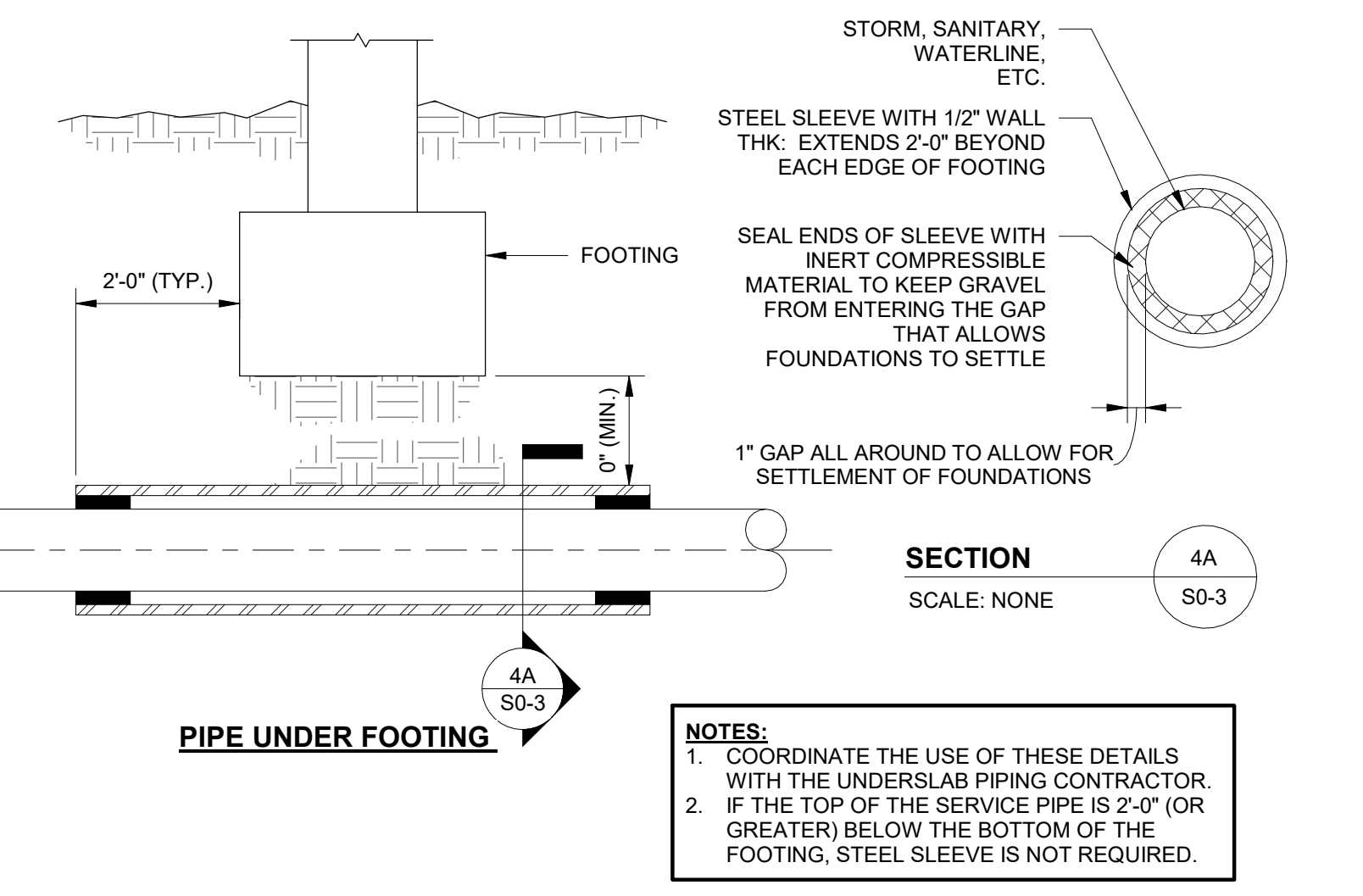
1 TYP. FOOTING IN UNDERCUT AREA

S0-2 1" = 1'-0"



2 SLAB DEPRESSION DETAIL

S0-2 1/2" = 1'-0"



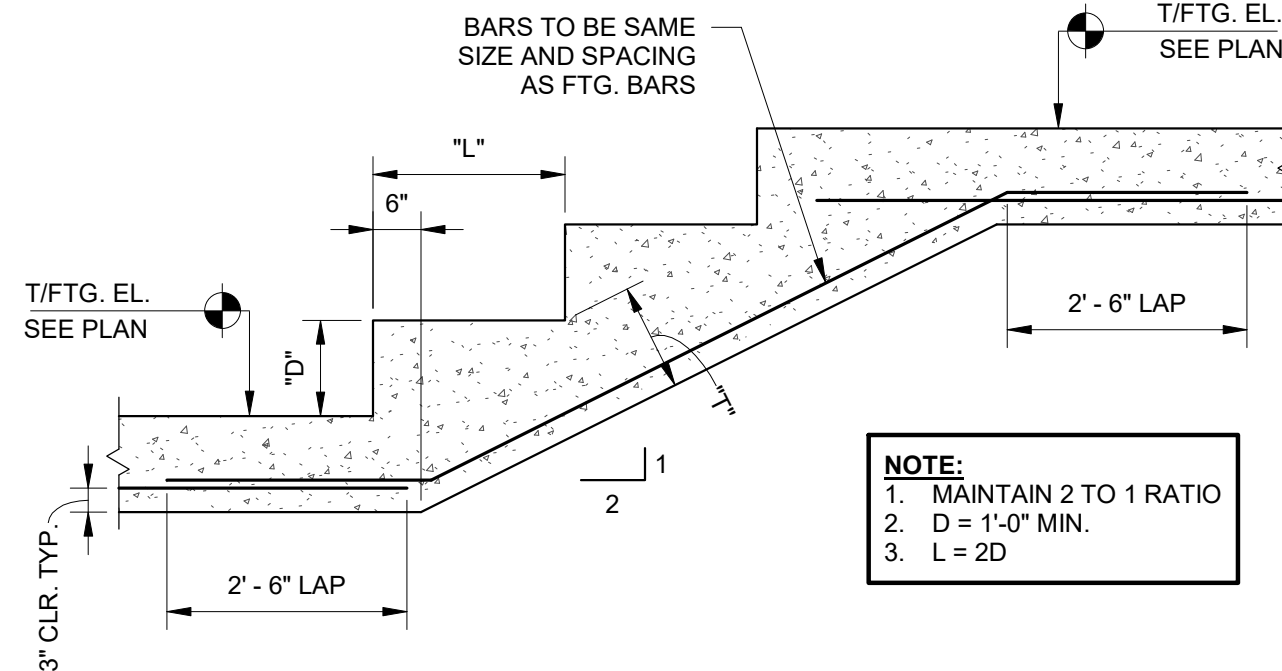
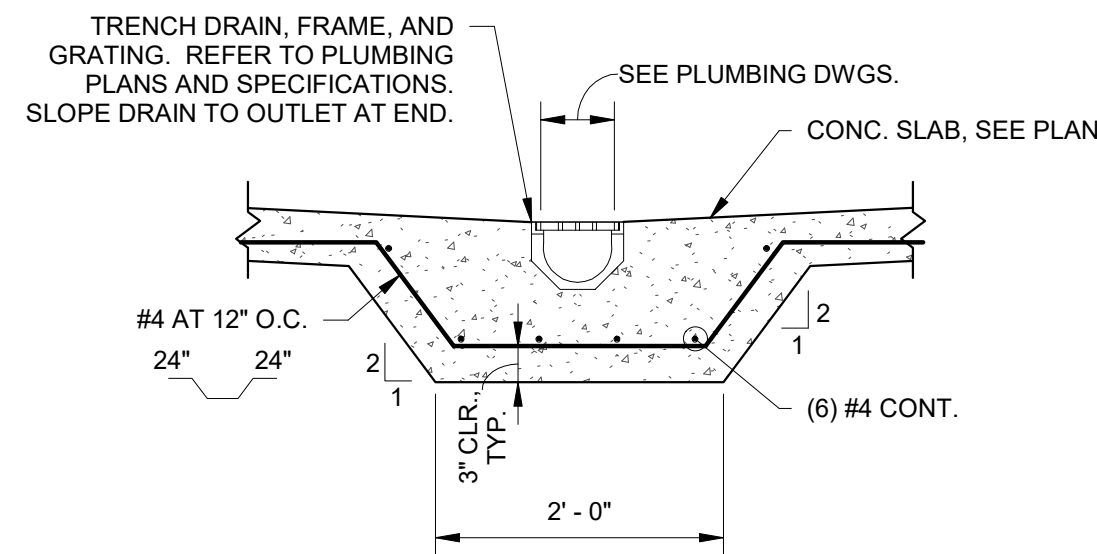
TYP. UNDERGROUND SERVICE PIPE DETAIL AT WALL FOUNDATION

S0-2 1/8" = 1'-0"

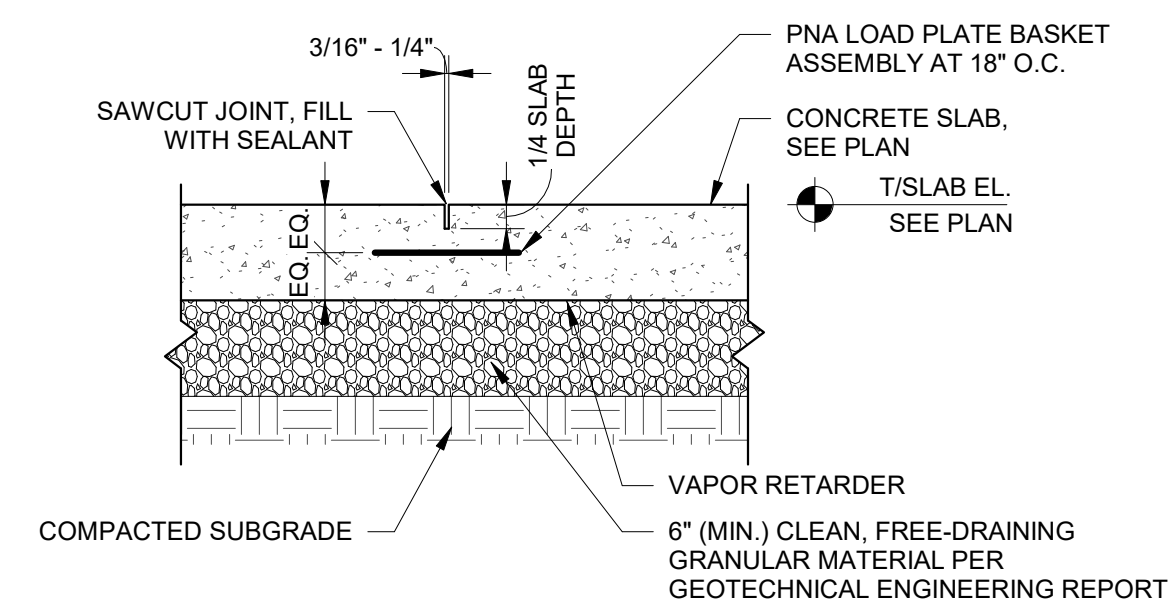
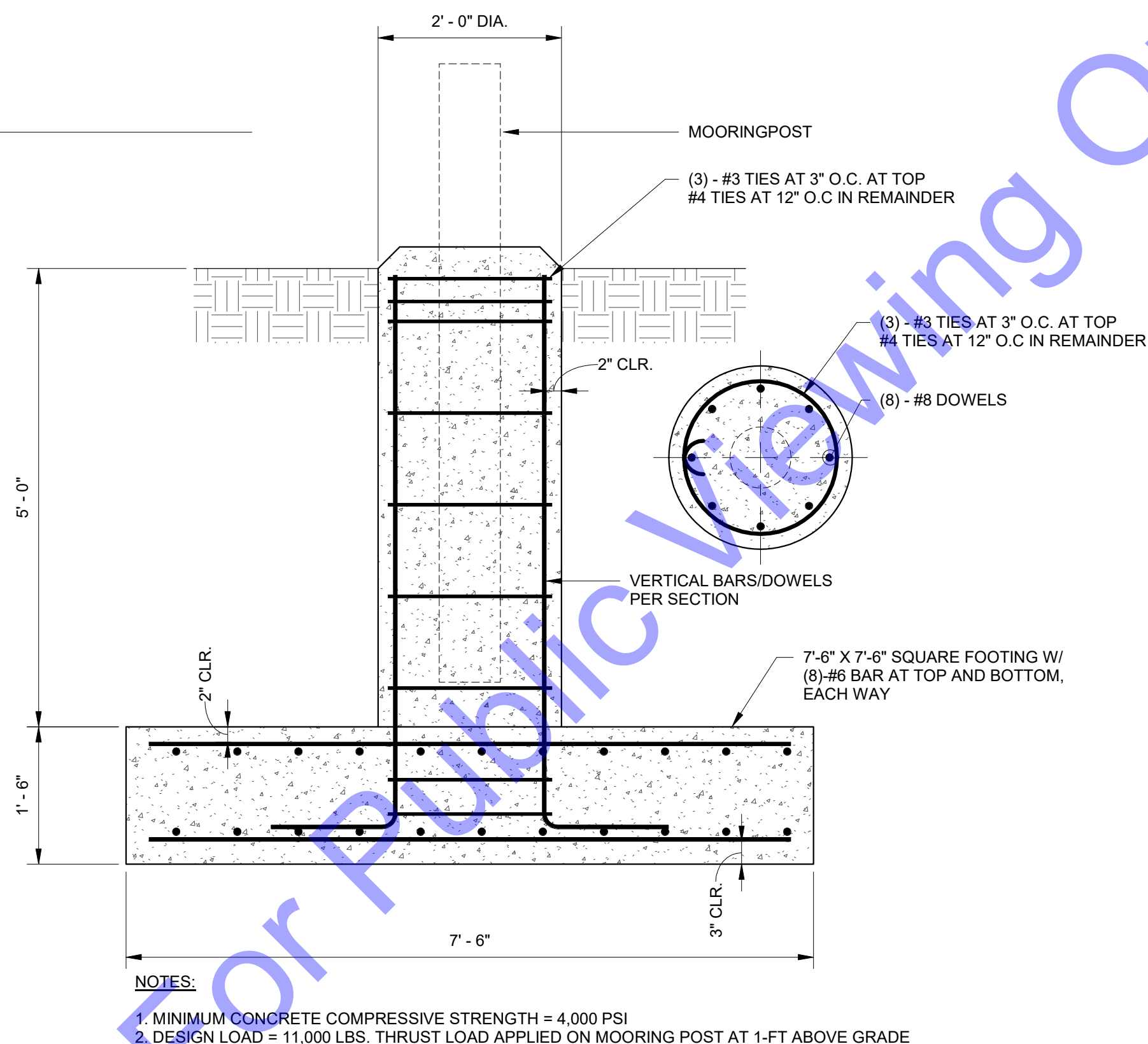
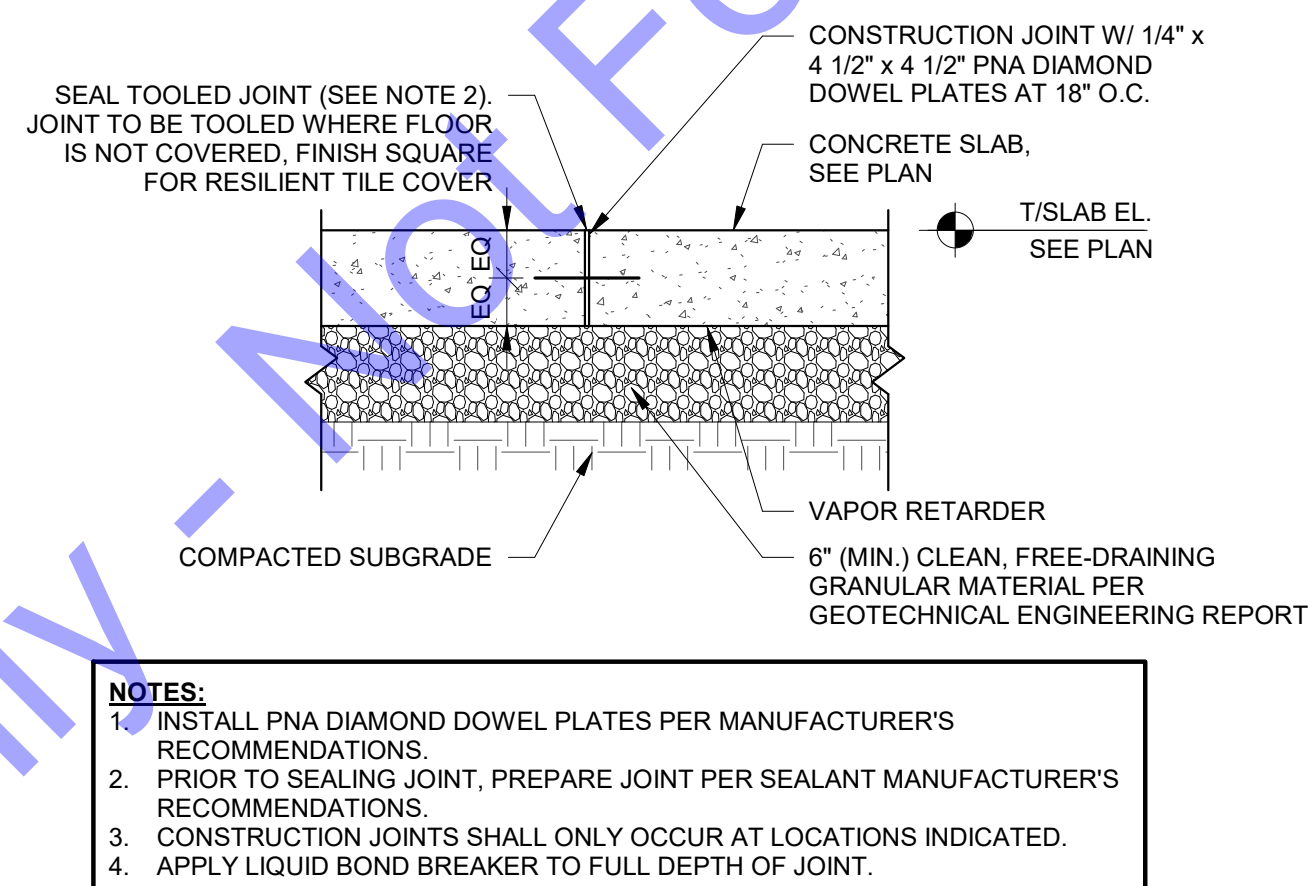
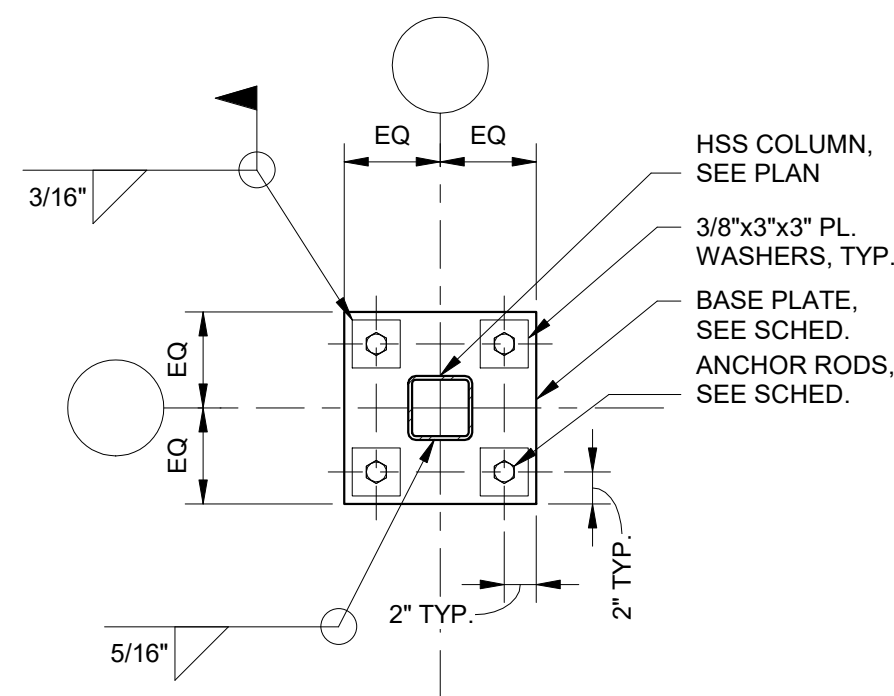
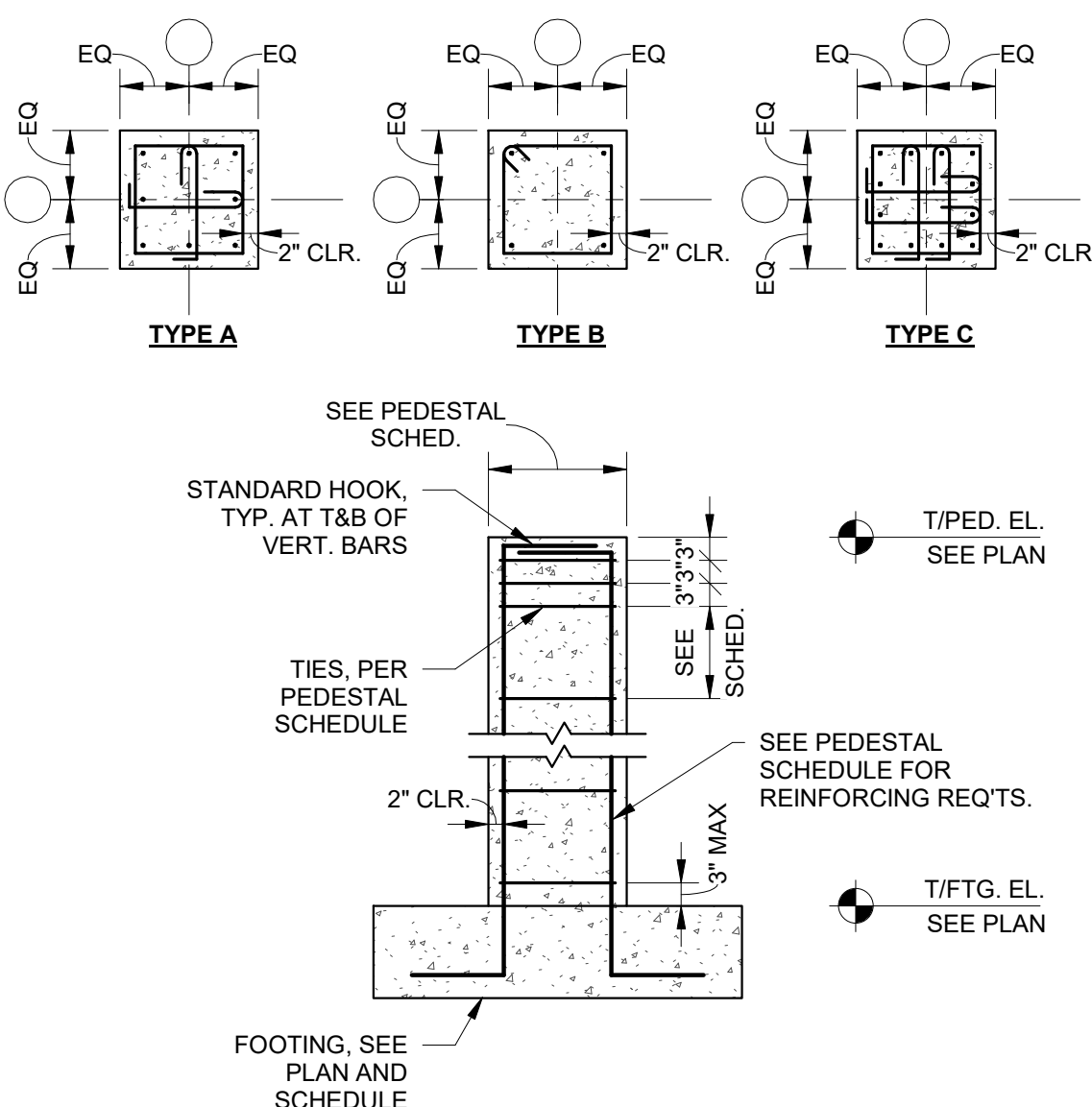
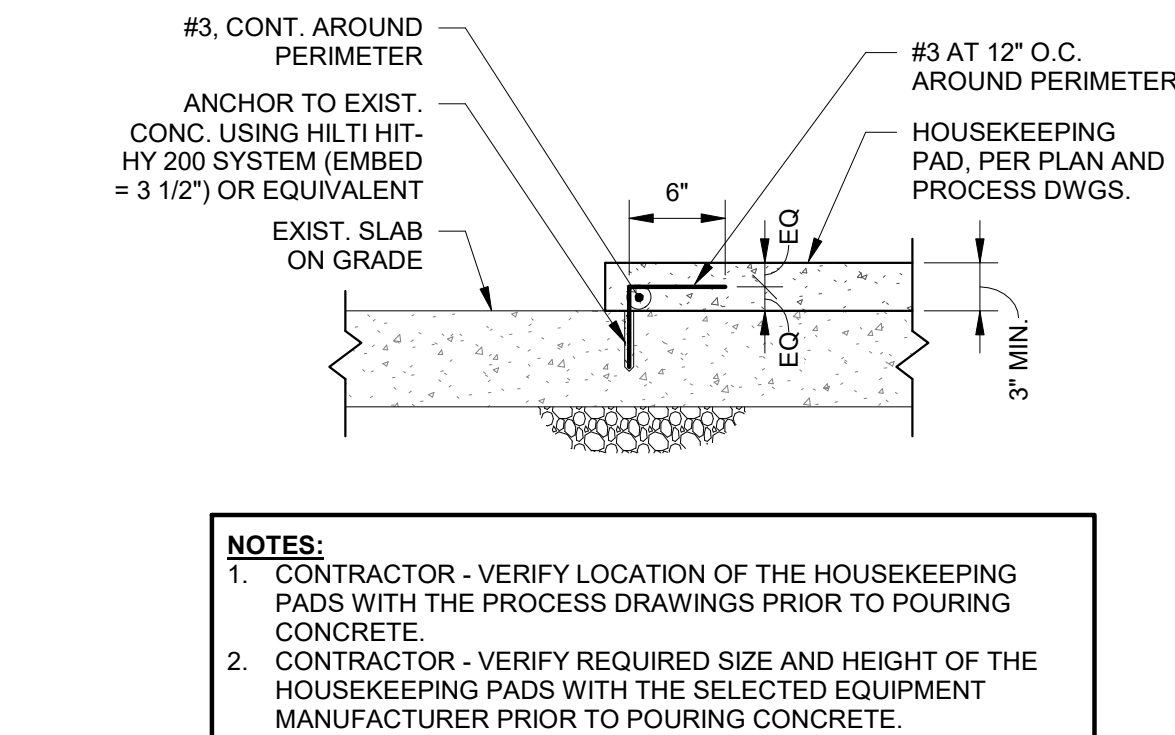
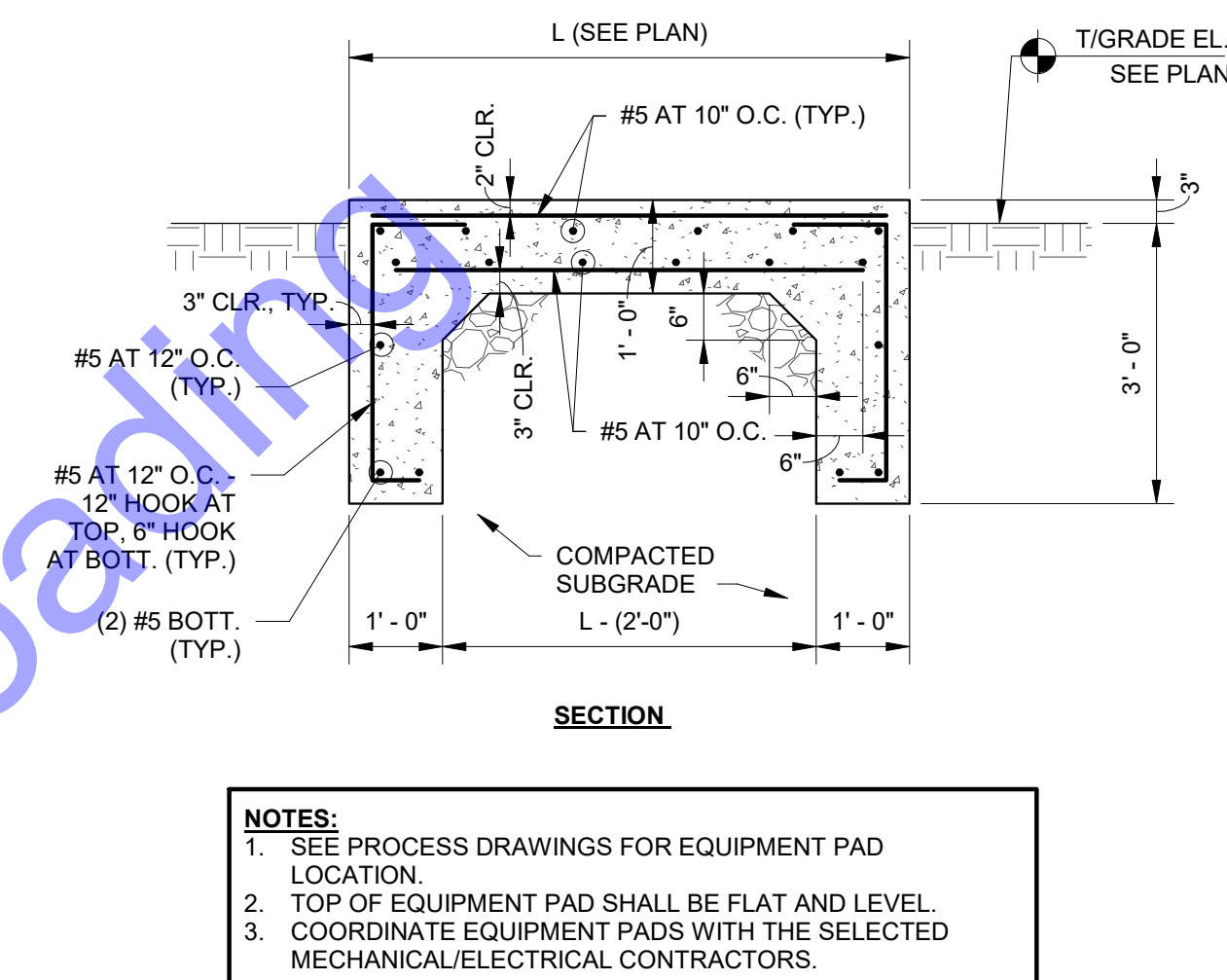
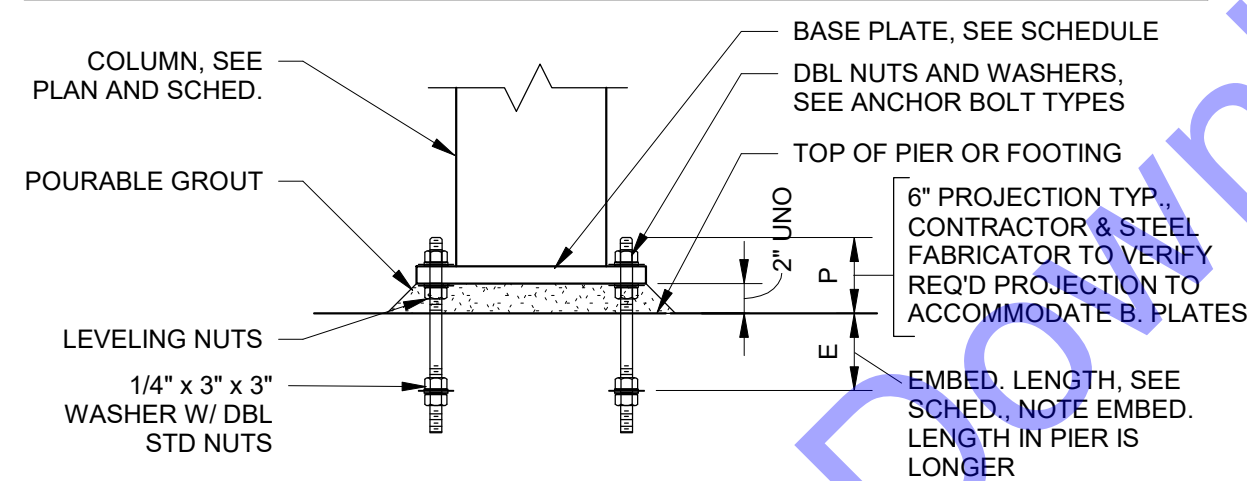
No.	Submittal / Revision	By	Date

Designed By: JUJ	Drawn By: RMS	Checked By: AMS
Issue Date: 08/03/26	Project No: 26-167	Scale: As indicated

TYPICAL STRUCTURAL DETAILS - CONCRETE - 01

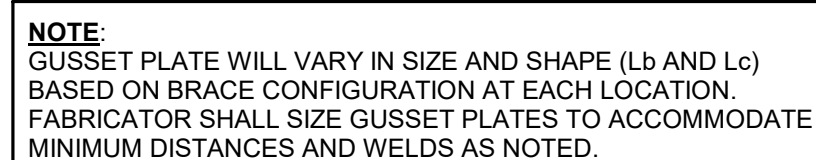


ANCHOR BOLT SCHEDULE			
DIAMETER (D)	MIN. EMBEDMENT (E)	MIN. PIER EMBEDMENT (E)	
1/2"	8"	22"	T/ CONC. (AS REQ'D.) 1 1/2" 1/4" x 3"x3" WASHER W/ DBL STD NUT <u>ASTM A36 STEEL</u> <u>3000 PSI CONC</u>
5/8"	8"	22"	
3/4"	10"	22"	
7/8"	12"	22"	
1"	14"	24"	
1 1/8"	16"	26"	
1 1/4"	18"	28"	
1 1/2"	20"	30"	
1 3/4"	26"	36"	

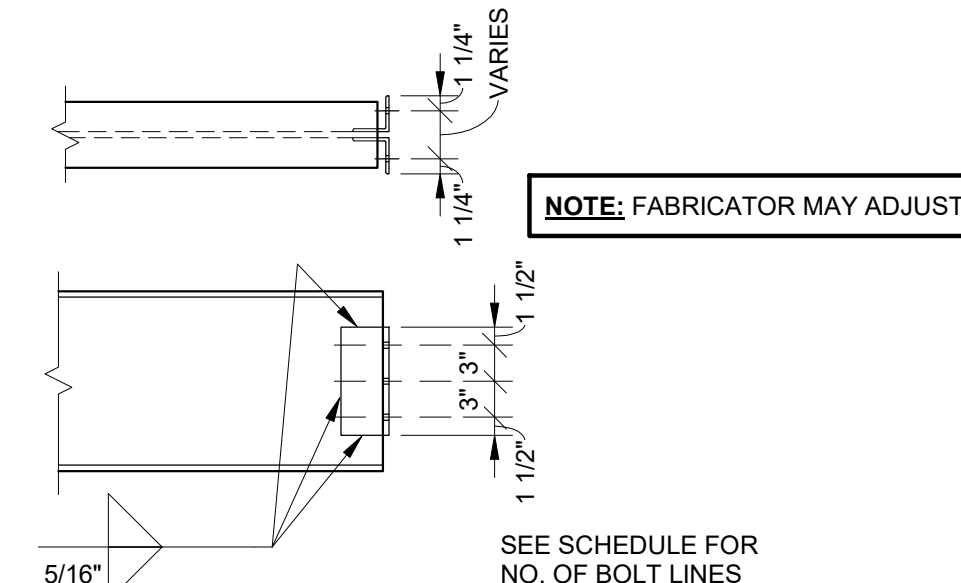




BRACE CONNECTION DETAIL



END REACTION	NO. OF BOLT LINES	TOTAL NO. OF BOLTS	TOTAL LENGTH OF ANGLE
0 thru 37.1 kips	2	4- 3/4" DIA.	6"
37.1 thru 55.7 kips	3	6- 3/4" DIA.	9"
55.7 thru 74.2 kips	4	8- 3/4" DIA.	12"
74.2 thru 92.8 kips	5	10- 3/4" DIA.	15"
92.8 thru 111 kips	6	12- 3/4" DIA.	18"



STEEL BEAM CONNECTION SCHEDULE

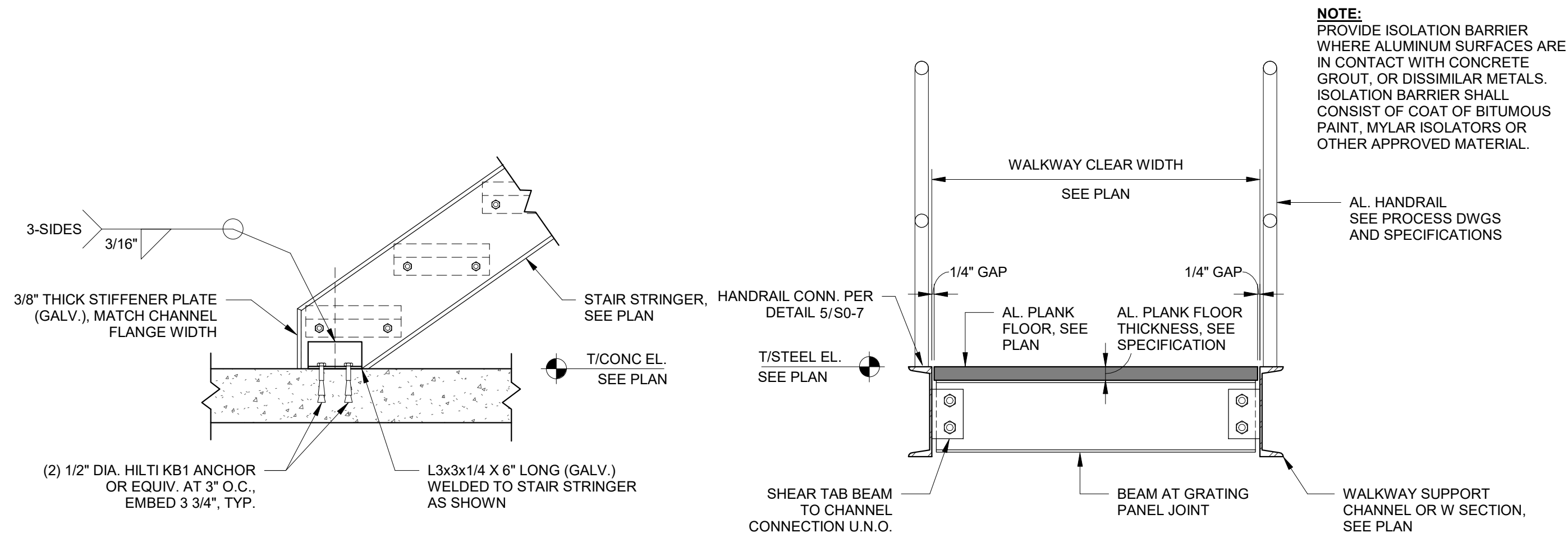
TOWN OF WINDFALL TIPTON COUNTY, INDIANA WASTEWATER TREATMENT PLANT IMPROVEMENTS

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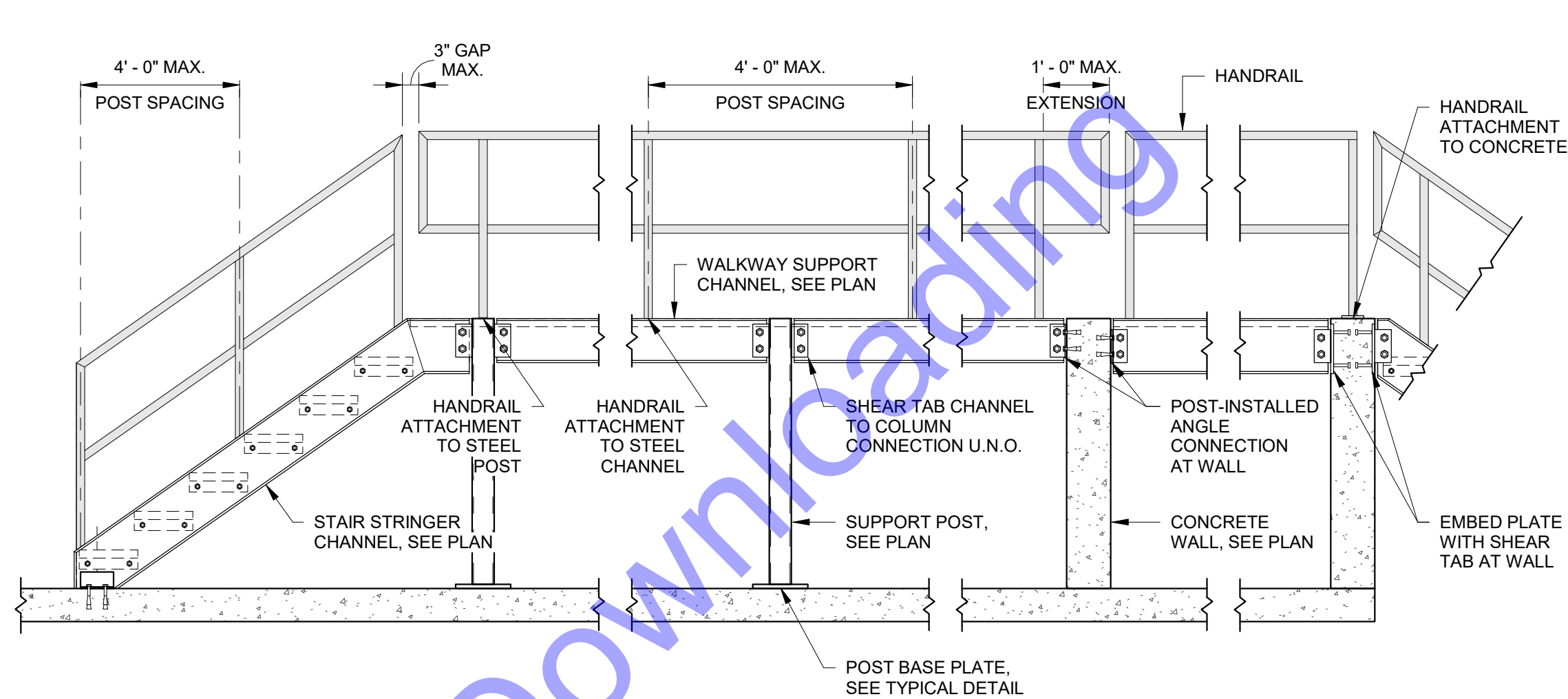
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TYPICAL STRUCTURAL
DETAILS - FRAMING - 01

Drawing No:
S0-4
Sheet: 31 OF 44



WALKWAY SECTION - TRANSVERSE BEAM

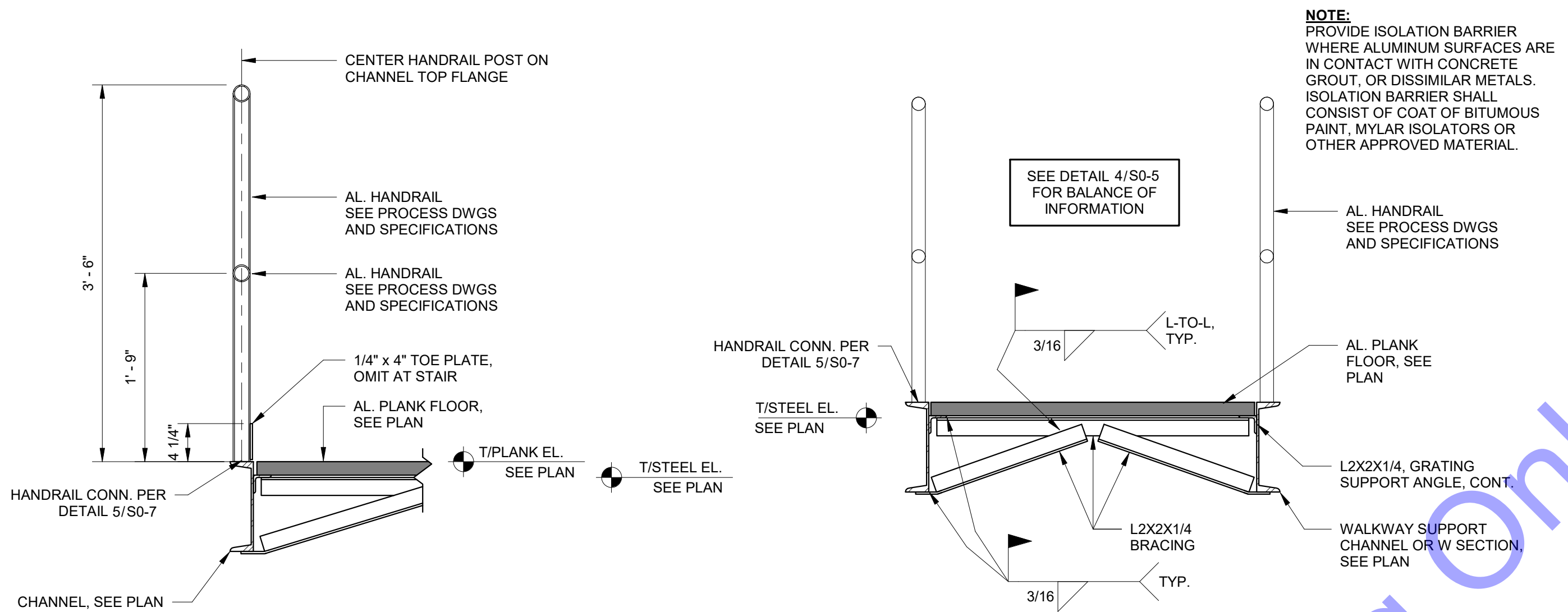


TYP. STAIR AND WALKWAY LAYOUT

SECTION 7
S0-5 1" = 1'-0"

SECTION 4
S0-5 1" = 1'-0"

SECTION 1
S0-5 1/2" = 1'-0"

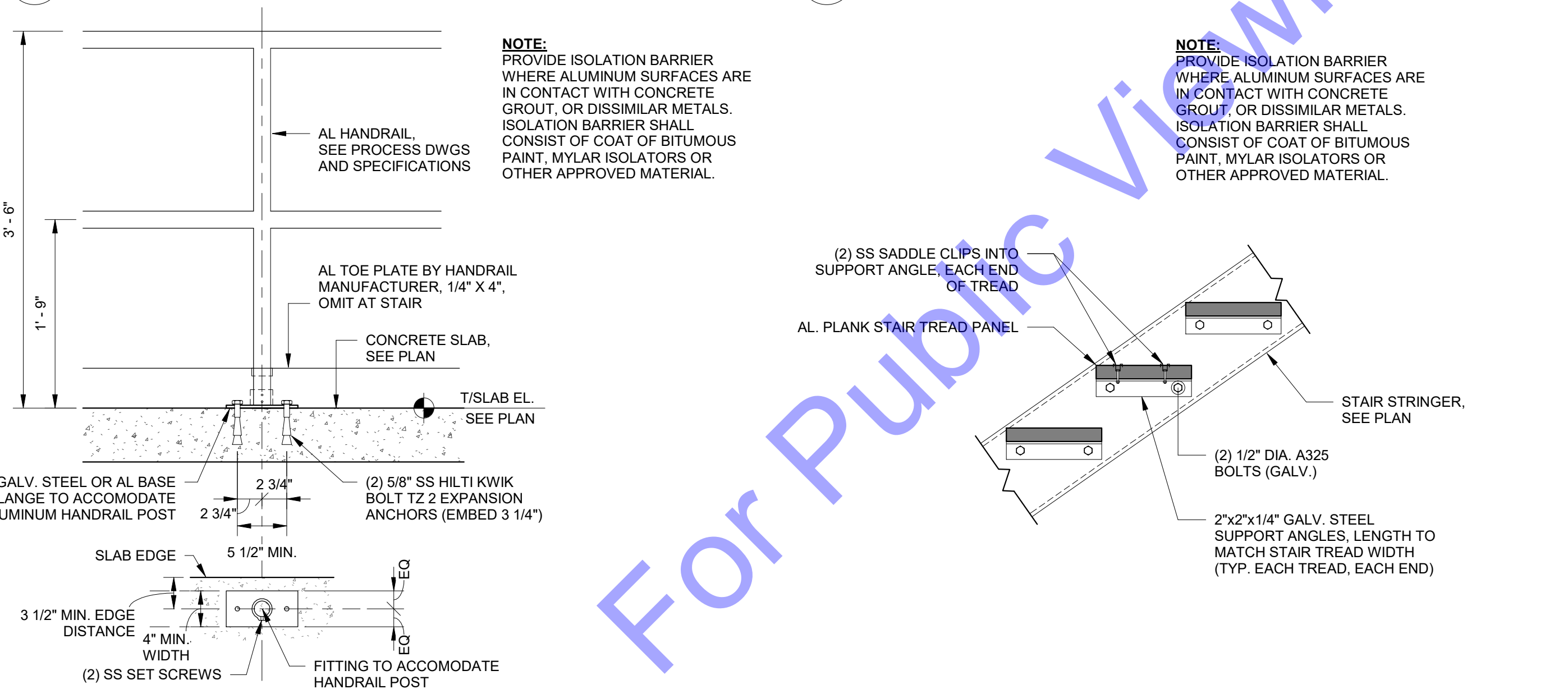


HANDRAIL SECTION - WALKWAY ATTACHMENT

WALKWAY SECTION - BRACING AT HANDRAIL

SECTION 8
S0-5 1" = 1'-0"

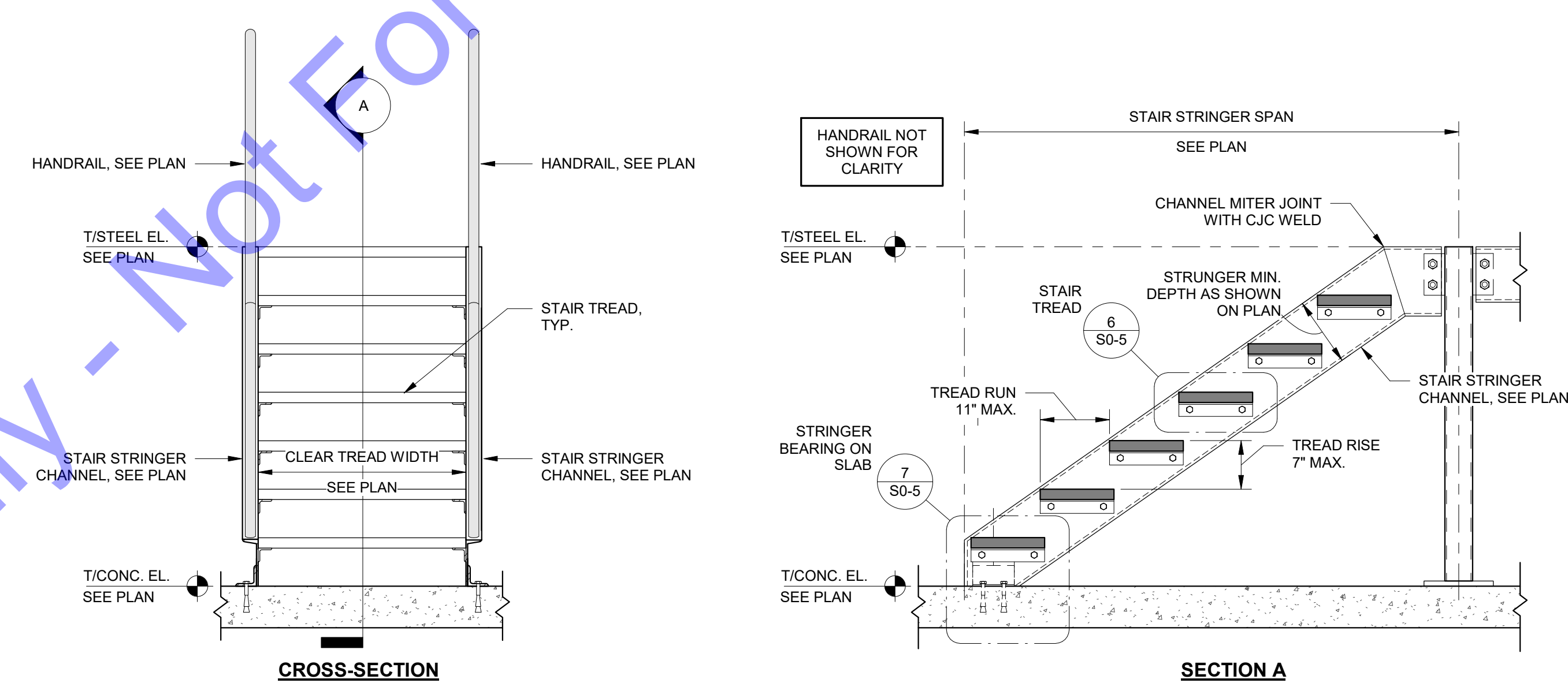
SECTION 5
S0-5 1" = 1'-0"



HANDRAIL SECTION - CONC. ATTACHMENT

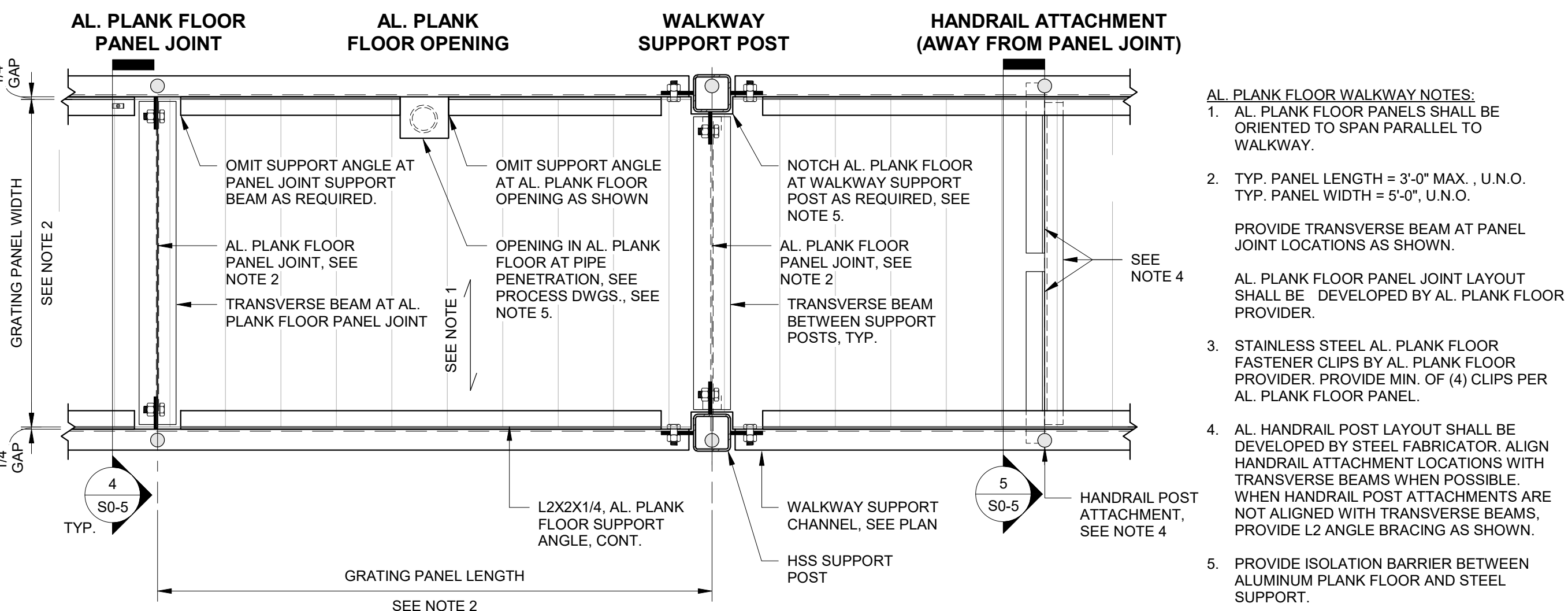
SECTION 6
S0-5 1" = 1'-0"

SECTION 9
S0-5 1" = 1'-0"



TYP. STAIR DETAIL

SECTION 2
S0-5 3/4" = 1'-0"



TYPICAL WALKWAY ENLARGED PLAN

SECTION 3
S0-5 1" = 1'-0"

COMMONWEALTH ENGINEERS, INC.
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JACOB JAMES
REGISTERED PROFESSIONAL ENGINEER
No. PE12000743
STATE OF INDIANA
8-3-26

Signature _____ Date _____

CE Solutions
structural engineers
1870 North St. Ste. 100
Fishers, IN 46038
(317) 238-1932
central@cesolutions.com

TOWN OF WINDFALL
TIPTON COUNTY, INDIANA

WASTEWATER TREATMENT PLANT
IMPROVEMENTS

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Indiana 811
Know what's below. 811 before you dig.
1-800-382-5544
(IT'S THE LAW)

No.	Date	By	Submitted	Revision

Designed By: JJU
Issue Date: 08/03/26

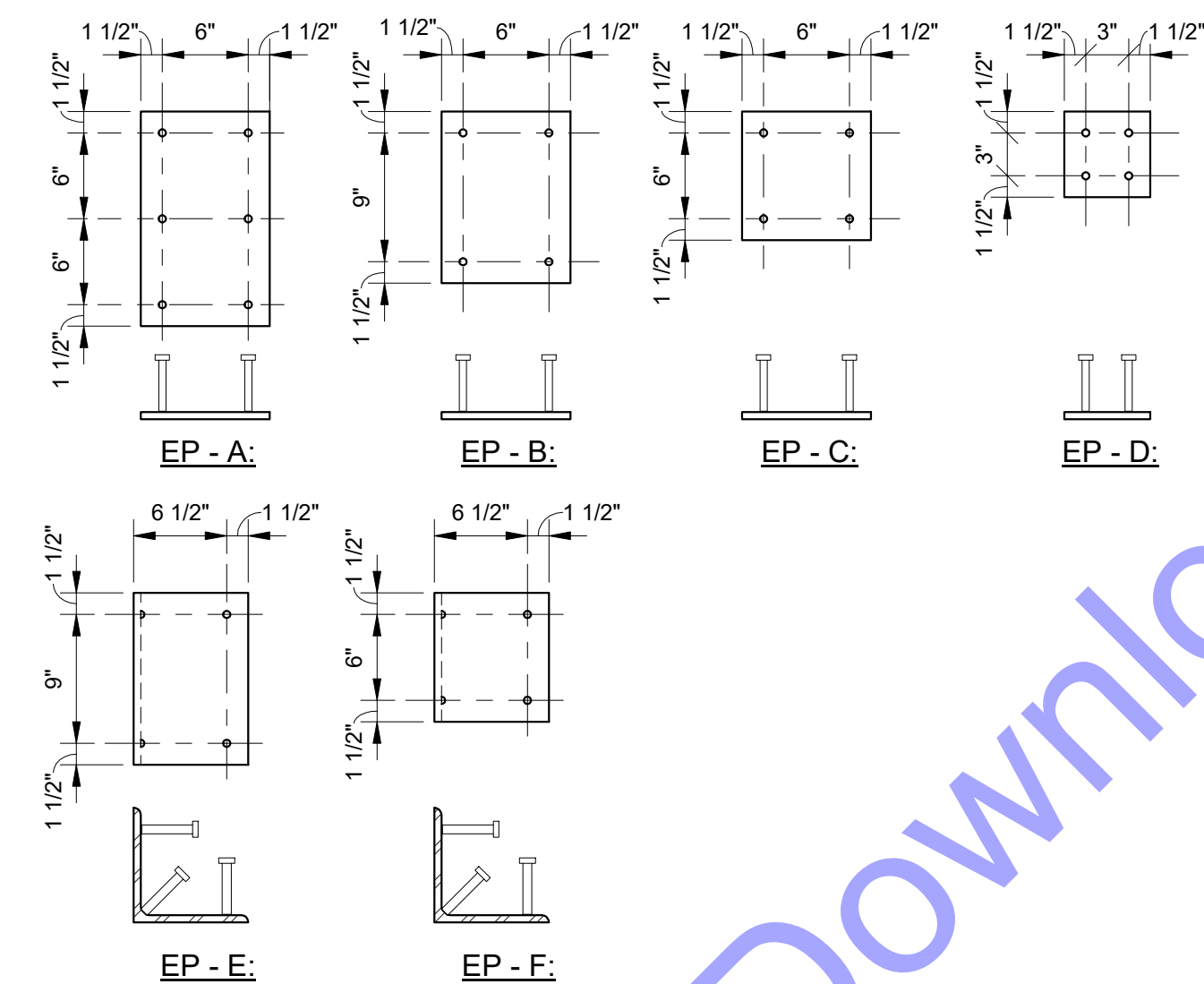
Drawn By: RMS
Project No: 26-167

Checked By: AMS
Scale: As indicated

TYPICAL STRUCTURAL DETAILS - STAIRS - 01

Drawing No:
S0-5

Sheet: 32 OF 44



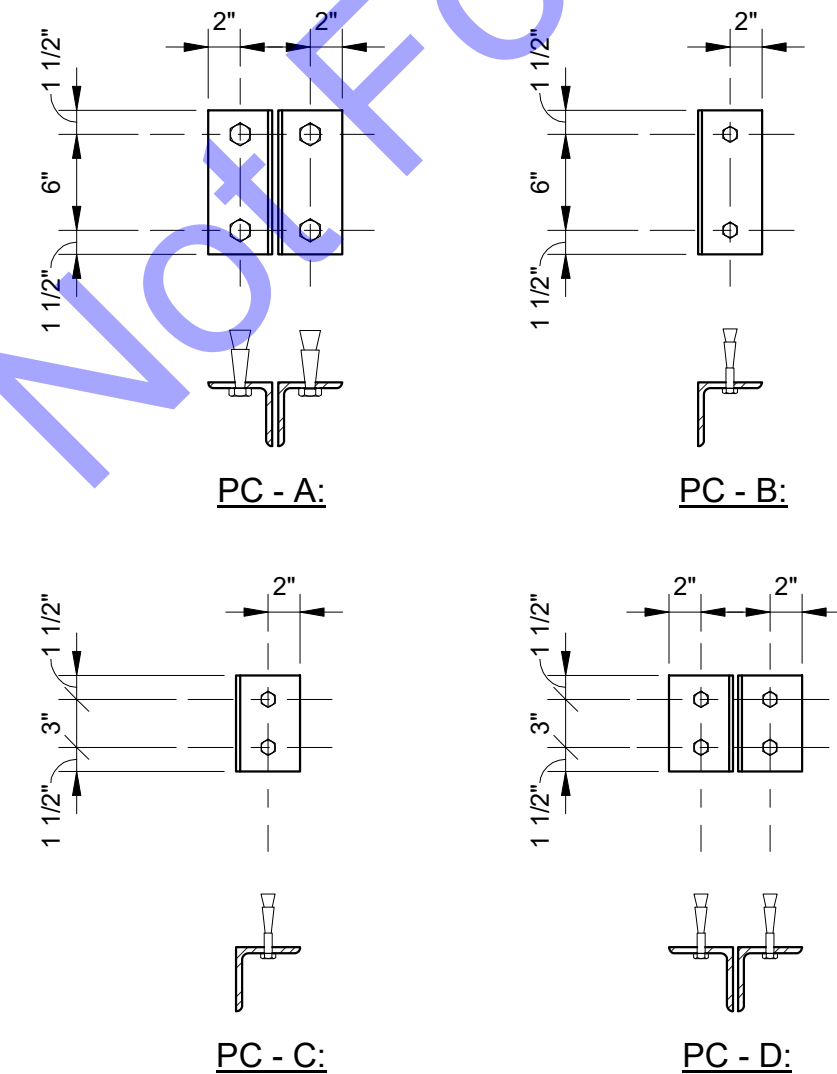
MARK	PLATE SIZE	HAS STUDS
EP-A	1/2" X 15" X 1'-3"	(6) 1/2" DIA. X 5"
EP-B	1/2" X 12" X 0'-9"	(4) 1/2" DIA. X 5"
EP-C	1/2" X 9" X 0'-9"	(4) 1/2" DIA. X 5"
EP-D	1/2" X 6" X 0'-6"	(4) 1/2" DIA. X 5"
EP-E	L8X8X1/2 X 1'-0"	(6) 5/8" DIA. X 4"
EP-F	L8X8X1/2 X 0'-9"	(6) 5/8" DIA. X 4"

NOTES:

1. HATCHED ANCHOR STUDS SHALL BE AUTOMATICALLY END-WELDED USING NERLSSO STUD WELDING EQUIP. OR APPROVED EQUIVALENT. HAND WELDING IS NOT ACCEPTABLE.
2. COORDINATE PLACEMENT WITH REINFORCING AND OTHER ITEMS EMBEDDED IN CONCRETE.

1 EMBED PLATE SCHEDULE

1" = 1'-0"



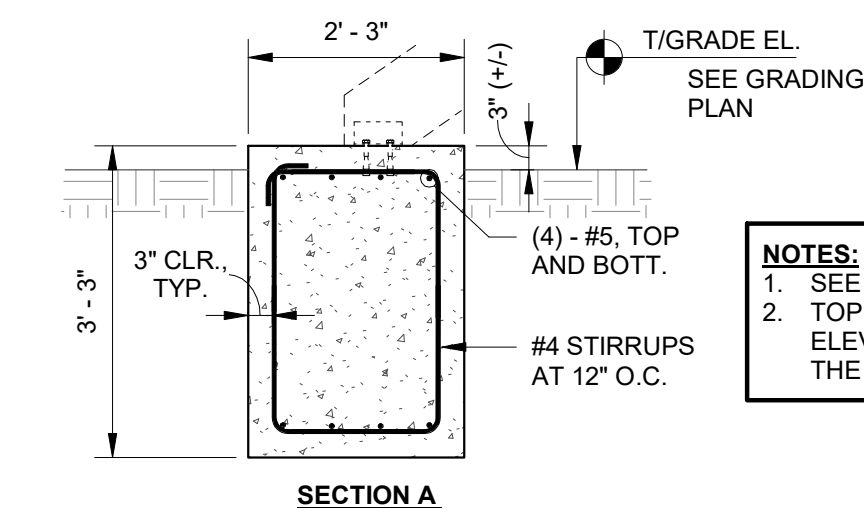
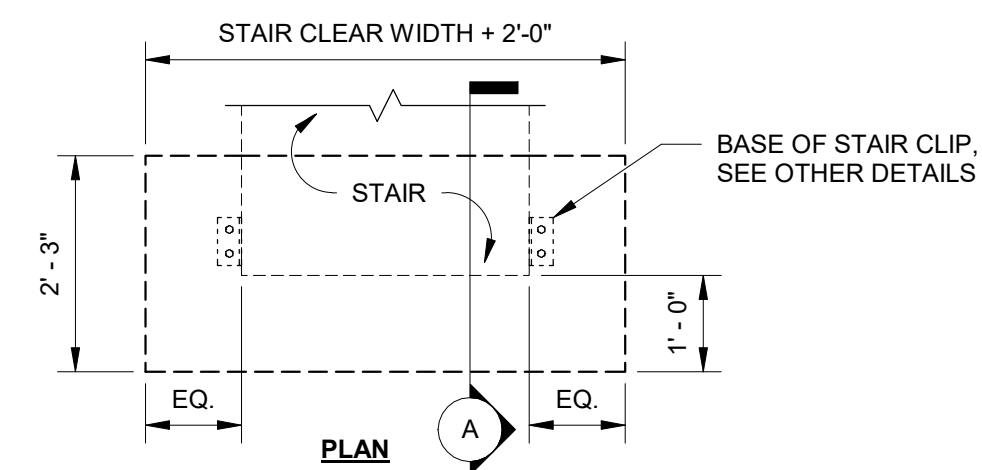
POST-INSTALLED CONNECTION SCHEDULE		
MARK	ANGLE SIZE	POST-INSTALLED ANCHORS
PC-A	(1) L4X4X3/8 X 0'-9"	(4) 1/2" DIA. (SS) HILTI HAS RODS WITH HILTI-HY 270 ADHESIVE SYSTEM (4-1/2" EMBED)
PC-B	(1) L4X4X3/8 X 0'-9"	(2) 1/2" DIA. (SS) HILTI HAS RODS WITH HILTI-HY 270 ADHESIVE SYSTEM (4-1/2" EMBED)
PC-C	(1) L4X4X3/8 X 0'-6"	(2) 1/2" DIA. (SS) HILTI HAS ROD WITH HILTI HIT-HY 200 ADHESIVE SYSTEM (4-1/2" EMBED)
PC-D	(1) L4X4X3/8 X 0'-6"	(4) 1/2" DIA. (SS) HILTI HAS ROD WITH HILTI HIT-HY 200 ADHESIVE SYSTEM (4-1/2" EMBED)

NOTES:

- CMU WALLS SHOULD BE FULLY GROUTED AT AND BELOW POST-INSTALLED ANCHOR LOCATIONS.
- COORDINATE PLACEMENT WITH REINFORCING AND OTHER ITEMS EMBEDDED IN CONCRETE.
- WHERE ADHESIVE ANCHORS ARE INSTALLED IN HOLLOW CMU BLOCKS, PROVIDE SUPPLEMENTAL SLEEVE PER MANUFACTURERS RECOMMENDATIONS.

POST-INSTALLED CONNECTION SCHEDULE

1" = 1'-0"

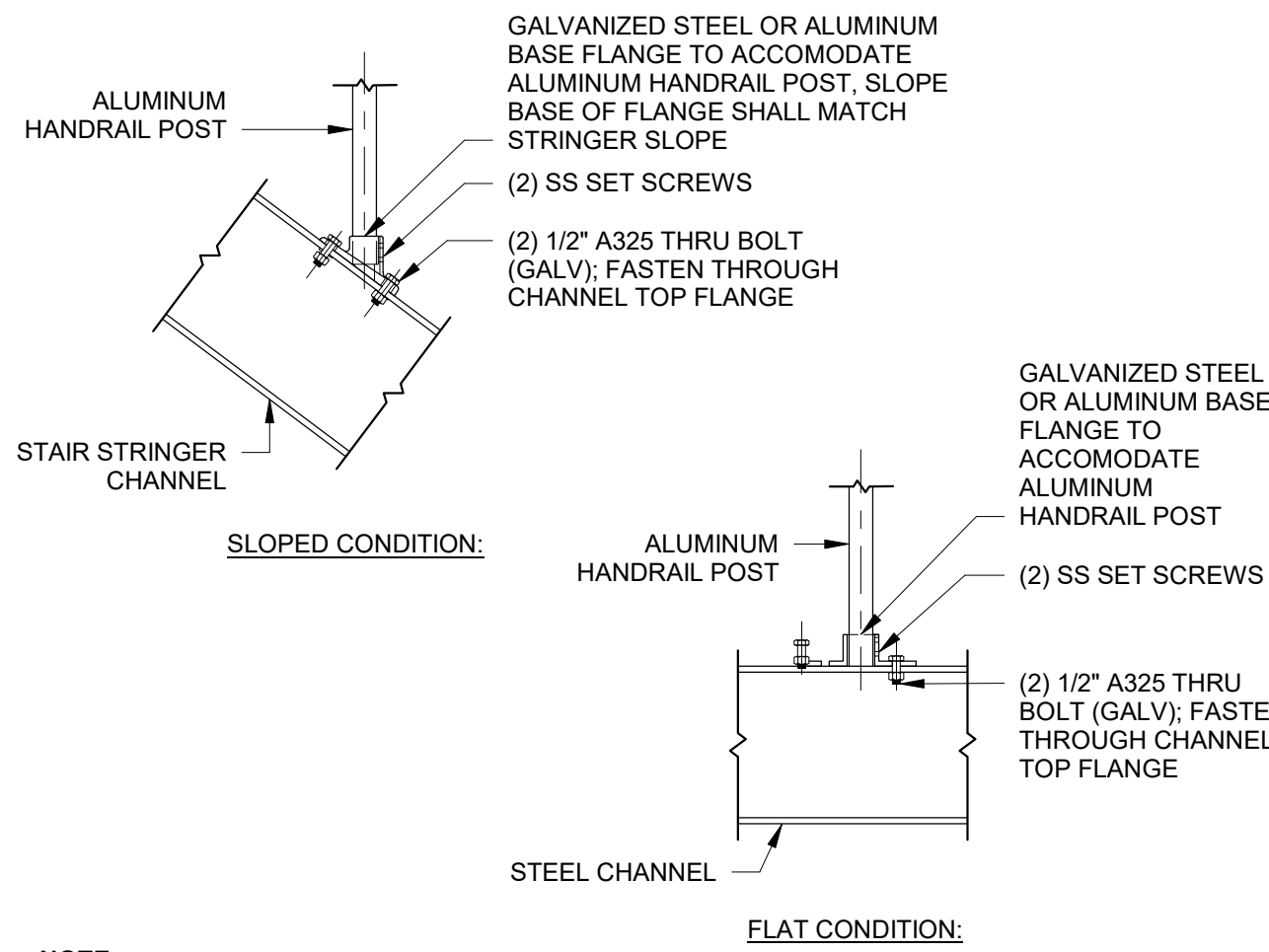


NOTES:

1. SEE PLAN FOR STAIR LOCATIONS.
2. TOP OF STAIR LANDING FOUNDATION ELEVATION SHALL BE SET 3" (+/-) ABOVE THE SURROUNDING GRADE ELEVATION

TYP. EXTERIOR STAIR LANDING
FOUNDATION

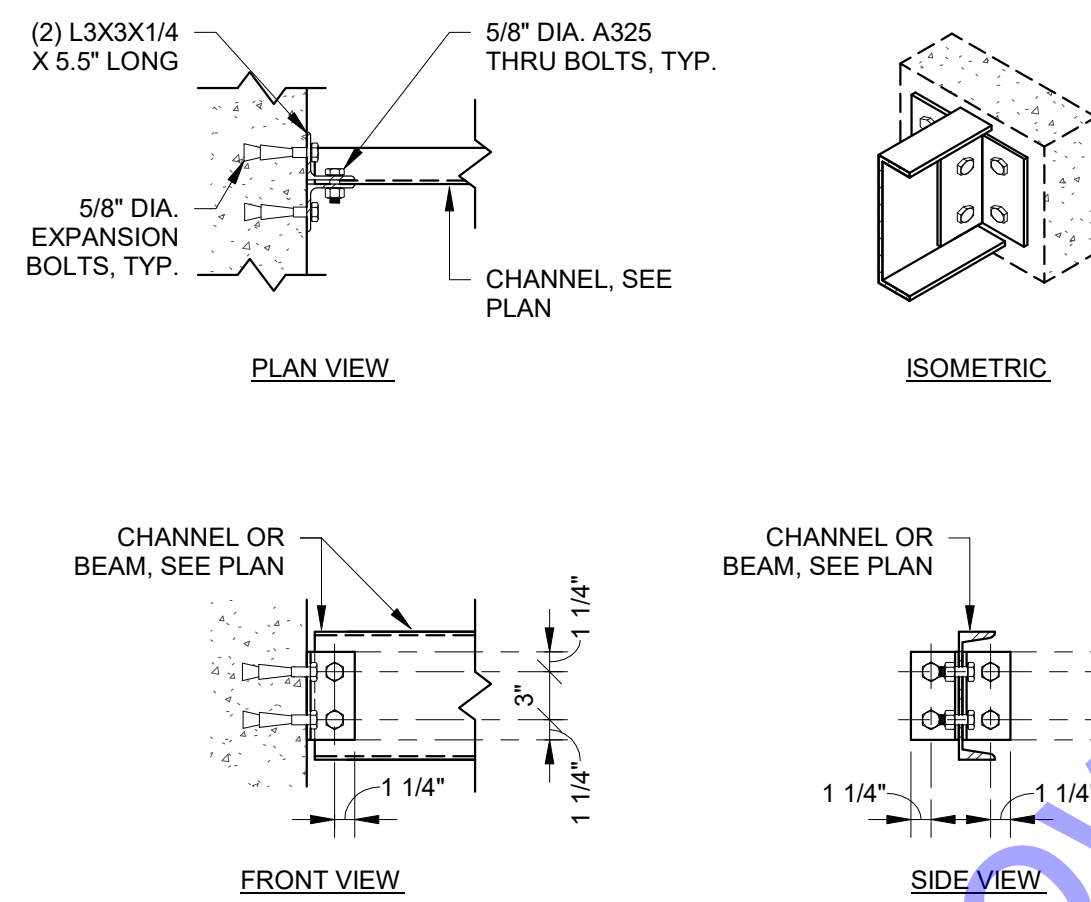
1/2" = 1'-0"



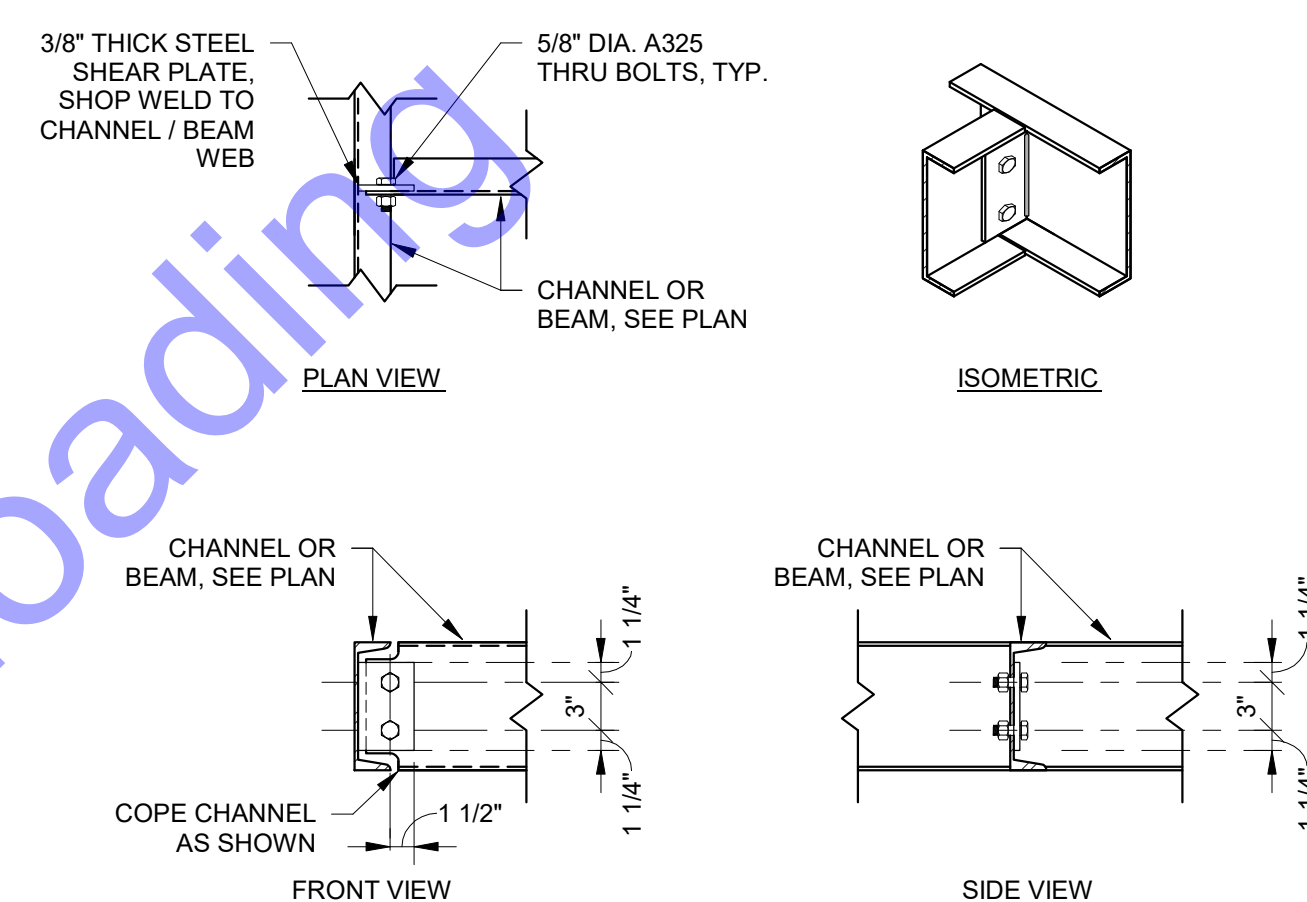
NOTE:

1. ALUMINUM SURFACES IN CONTACT WITH CONCRETE, GROUT, OR DISSIMILAR METALS SHALL BE PROTECTED WITH A COAT OF BITUMINOUS PAINT, MYLAR ISOLATORS OR OTHER APPROVED MATERIAL.

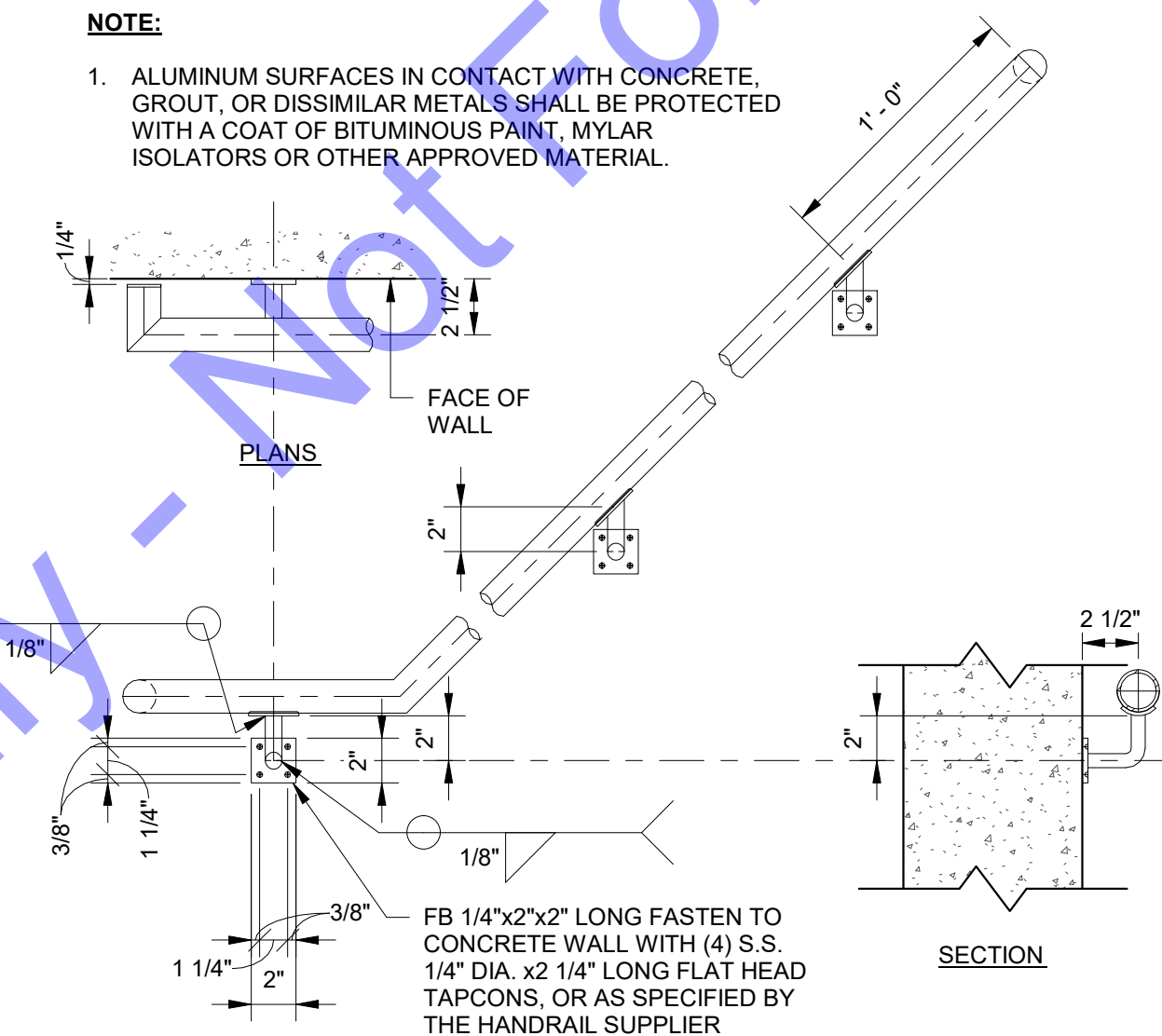
5 HANDRAIL BASE FLANGE - AT STEEL
S0-7 1" = 1'-0"



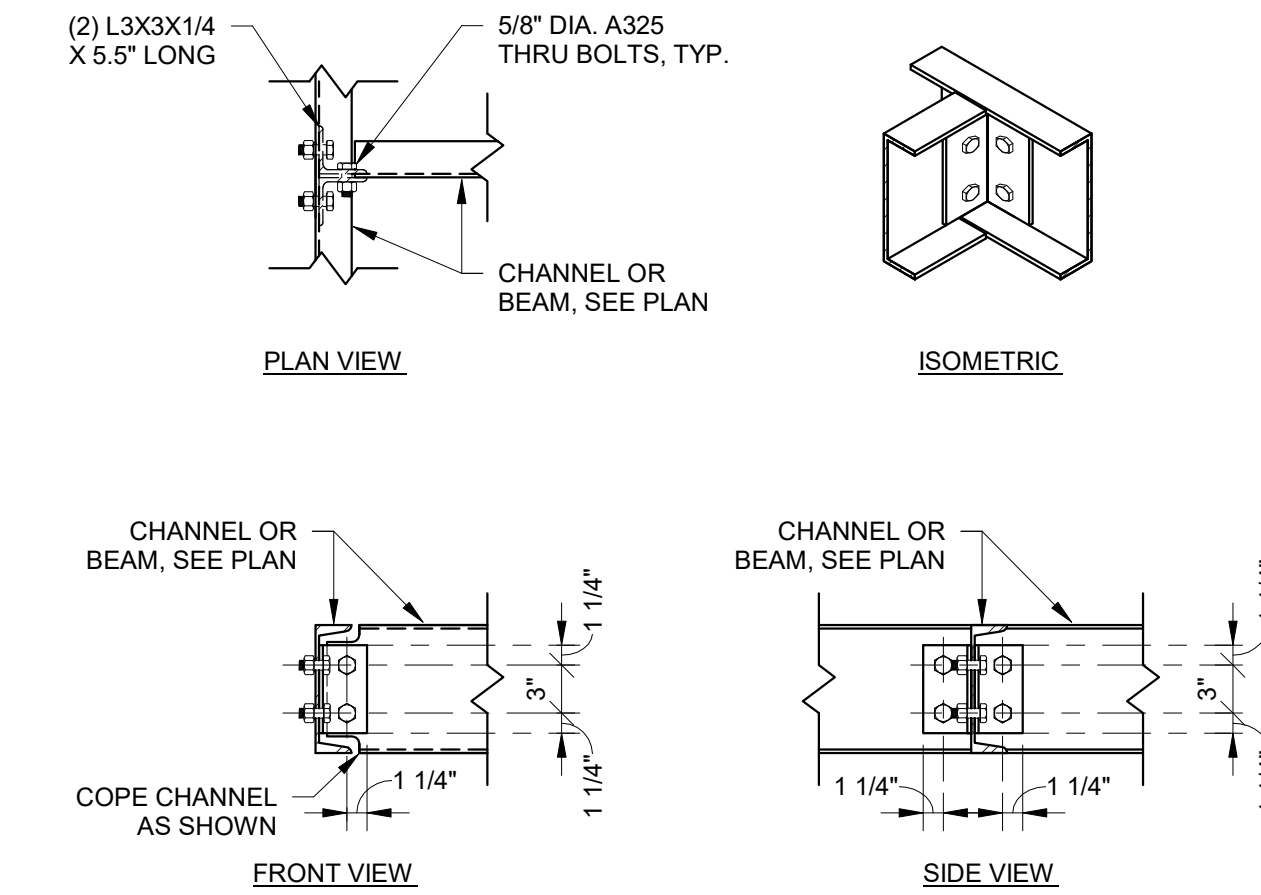
3 TYP. CHANNEL TO WALL CONNECTION
S0-7 1" = 1'-0"



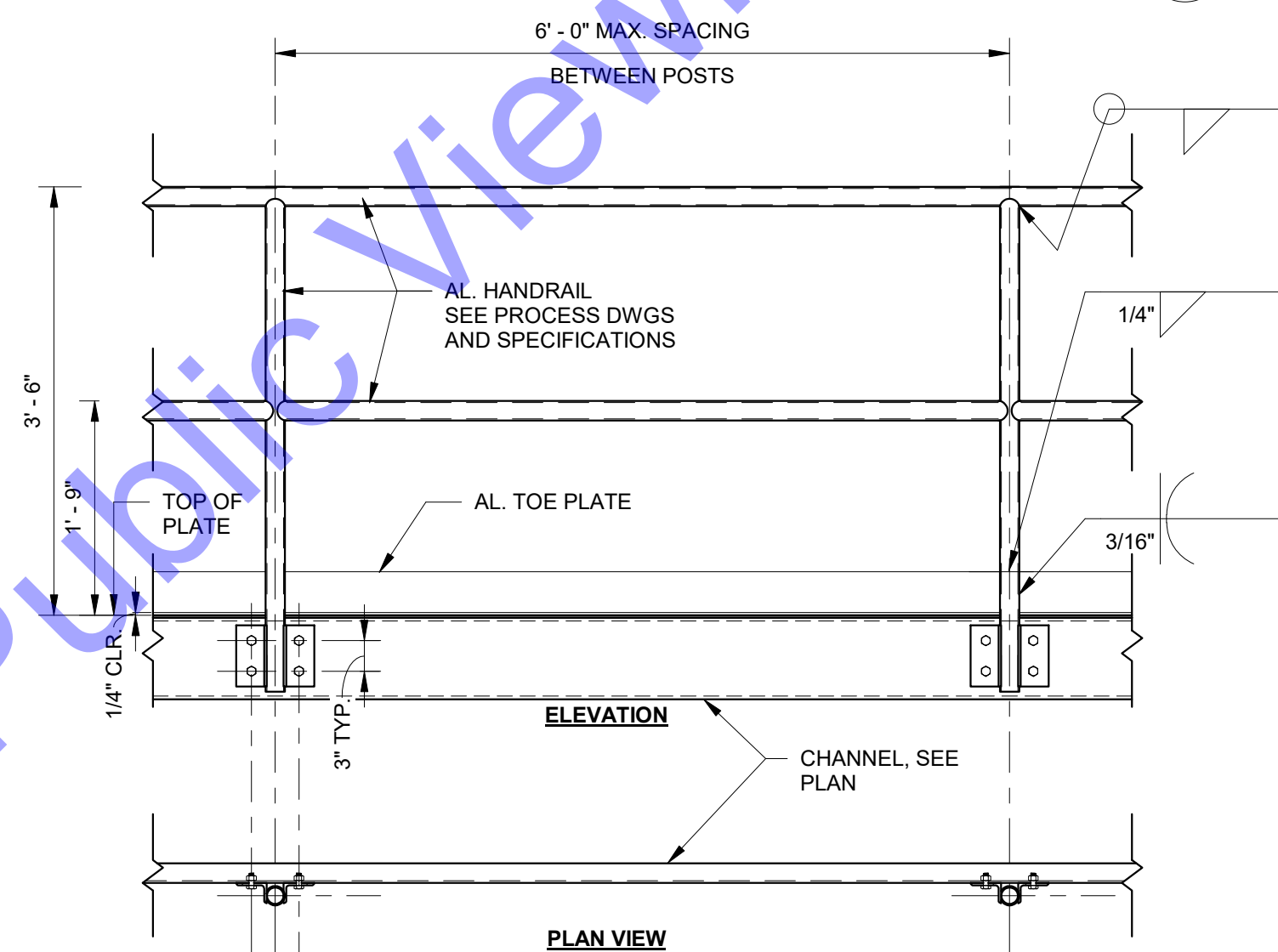
TYP. CHANNEL TO CHANNEL CONNECTION - SHEAR PLATE
S0-7 1" = 1'-0"



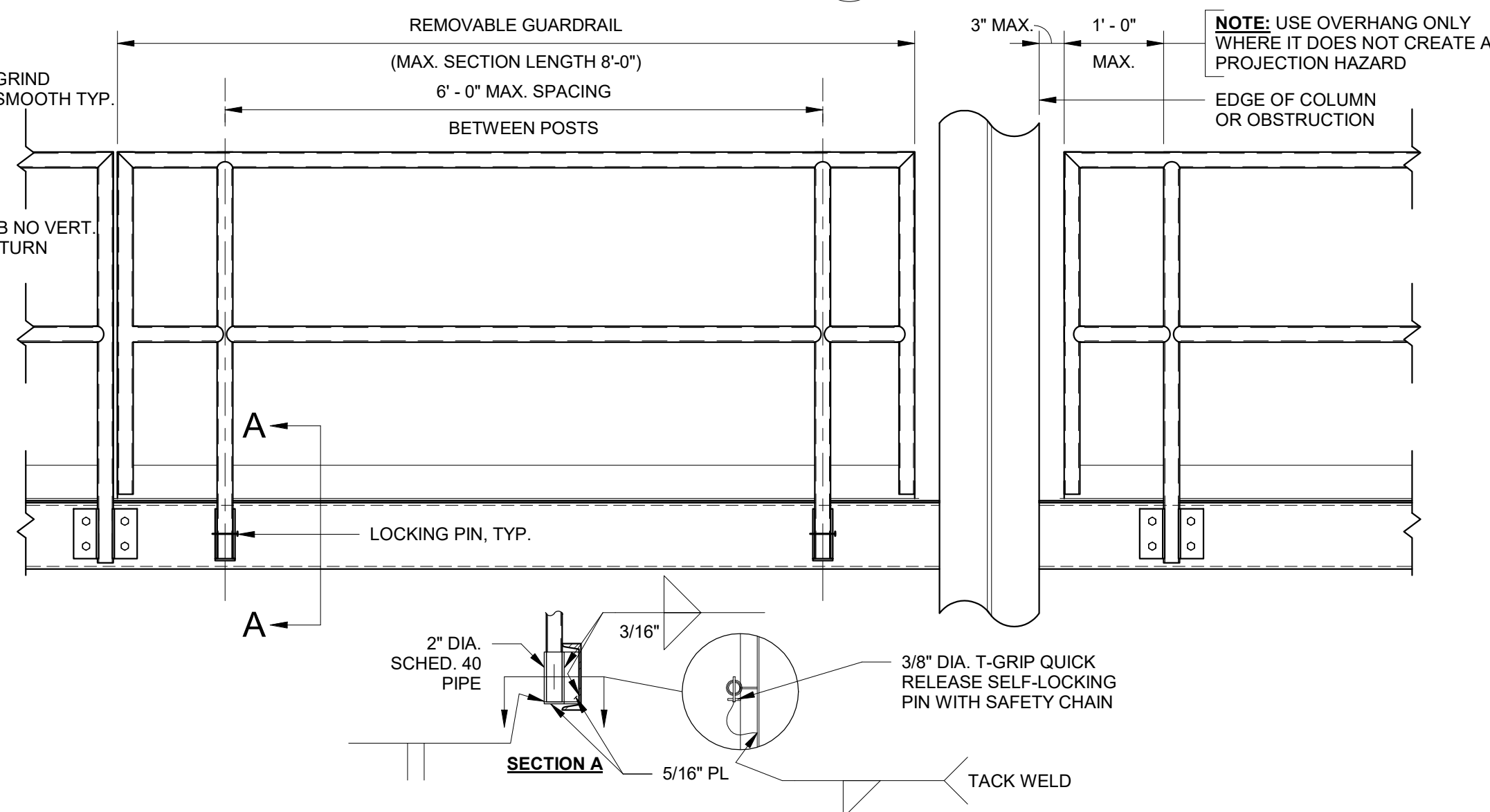
4 TYP. HANDRAIL DETAIL
S0-7 1 1/2" = 1'-0"



TYP. CHANNEL TO CHANNEL CONNECTION - DOUBLE ANGLE
S0-7 1" = 1'-0"



6 TYPICAL GUARDRAIL ELEVATION (ALTERNATE ATTACHMENT)
S0-7 3/4" = 1'-0"



No.	Submittal / Revision	By	Date

Designed By:	Drawn By:	Checked By:
JJU	RMS	AMS
Issue Date:	Project No:	Scale:
08/03/26	26-167	As indicated

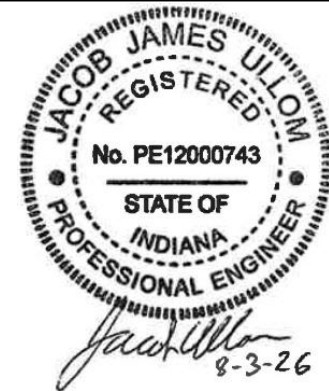
TYPICAL STRUCTURAL DETAILS - STAIRS - 03



1 UPPER LEVEL PLAN
S5-2 1/2" = 1'-0"

UPPER LEVEL PLAN NOTES

- INDICATES NOTE REFERENCED IN PLAN
1. SEE THE S0-SERIES SHEETS FOR GENERAL STRUCTURAL NOTES AND TYPICAL STRUCTURAL DETAILS.
2. GENERAL CONTRACTOR TO COORDINATE ALL OPENING, PIPE SLEEVES, EMBEDDED ITEMS, HANDRAILS, GRATING, ETC. WITH THE PROCESS DRAWINGS.
3. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED PRIOR TO FABRICATION, CONSTRUCTION OR ERECTION. THE GENERAL CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DISCREPANCIES.
4. SEE SITE PLAN FOR ALL FINAL GRADE ELEVATIONS.
5. SEE GEOTECHNICAL REPORT FOR ALL BACKFILLING AND COMPACTION REQUIREMENTS BEHIND WALLS AND UNDER BASE SLABS.
6. GENERAL CONTRACTOR SHALL SUBMIT A CONSTRUCTION JOINT (CJ) AND CONTRACTION JOINT (CT) LOCATION PLAN TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO CONCRETE PLACEMENT.
7. SEE DETAILS 6/S0-2 AND 7/S0-2 FOR WALL CONSTRUCTION JOINT AND WALL CONTRACTION JOINT REQUIREMENTS.
8. MAINTAIN STRUCTURAL SLAB THICKNESS AT ALL FLOOR SLOPES AND DEPRESSIONS.
9. 2" GRATING, UNLESS NOTED OTHERWISE. SEE SPECIFICATION SECTIONS 'WM 19 - MISCELLANEOUS METALS AND ALUMINUM' AND 'WM 20 - FIBERGLASS MATERIALS' FOR ADDITIONAL INFORMATION.



Signature	Date
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TOWN OF WINDFALL
TIPTON COUNTY, INDIANA

WASTEWATER TREATMENT PLANT
IMPROVEMENTS

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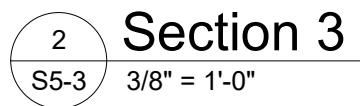
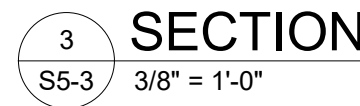
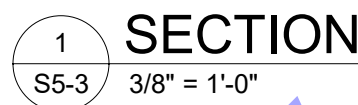


Submitted / Revision	No.										
	By										
	Date										
Designed By:		Drawn By:		Checked By:							
JJU		RMS		AMS							
Issue Date:		Project No:		Scale:							
08/03/26		26-167		As indicated							

SLUDGE HOLDING TANK UPPER LEVEL PLAN

Drawing No:
S5-2

Sheet: 36 OF 44



ELECTRICAL GENERAL NOTES

LEGEND

O	OPEN
OA	OFF-AUTOMATIC
OC	OPEN-CLOSE-AUTOMATIC(MAINTAINED CONTACT)
OC	OPEN-CLOSE(D)MAINTAINED CONTACT
OSC	OPEN-STOP-CLOSE(MOMENTARY CONTACT SPRING RETURN TO CENTER POSITION)
OO	ON-OFF(MAINTAINED CONTACT)
OO	ON-ON-OFF-AUTOMATIC(MAINTAINED CONTACT)
OOR	ON-OFF-REMOTE(MAINTAINED CONTACT)
R	RUN
SBLL	SLUDGE BLANKET INTERFACE LEVEL
SP	SPEED POT
SORT	SQUARE ROOT
SS	START-STOP
SSA	START-STOP-AUTOMATIC
SSL	START-STOP-LOCK (LOCKABLE IN "STOP" POSITION, MOMENTARY CONTACT)
SUM	SUMMATION
VIB	VIBRATION
X	MULTIPLY

TAG SYMBOLS

CONTROL AND I/O DEVICES

DISPLAY

MULTI FUNCTION
MULTI I/O
PROGRAMMABLE DEVICE



NON-DISPLAYED
PROGRAMMABLE DEVICE
(ie: PLC)



DISPLAYED
PROGRAMMABLE DEVICE



DISPLAYED
PROGRAMMABLE POINT

TER(S)

GENERAL NOTES APPLICABLE TO ALL ELECTRICAL SH

(GENERAL NOTES APPLICABLE TO ALL ELECTRICAL SHEETS)

1. CONTRACTOR SHALL EXAMINE NOT ONLY PLANS AND SPECIFICATIONS FOR ELECTRICAL AND INSTRUMENTATION, BUT PLANS AND SPECIFICATIONS FOR OTHER RELATED SECTIONS, VISIT THE SITE TO BECOME ACQUAINTED WITH ALL PROJECT CONDITIONS AND INCLUDE THEM IN THE CONTRACT. EXECUTION OF CONTRACT IS EVIDENCE THAT THE CONTRACTOR HAS EXAMINED ALL DRAWINGS AND SPECIFICATIONS AND THAT ALL CONDITIONS OF INSTALLING THE WORK IN THIS SECTION ARE VERIFIED. LATE CLAIMS FOR LABOR AND MATERIALS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATIONS BEEN MADE WILL NOT BE RECOGNIZED.
2. THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO INCLUDE EVERY DETAIL OF REQUIRED CONSTRUCTION, EQUIPMENT, AND MATERIALS. PROVIDE ALL MATERIALS AND WORK NOT SPECIFICALLY MENTIONED, SHOW OR CAN BE REASONABLY INFERRED ON THE DRAWINGS BUT WHICH ARE NECESSARY TO FULLY COMPLETE THE WORK.
3. WHEN SUBSTITUTING OTHER EQUIPMENT, MATERIALS, AND PRODUCTS THAN SPECIFIED IN THE CONTRACT DOCUMENTS, INCLUDE IN PRICING ALL COSTS FOR OTHER DESIGN CHANGES TO THE PROJECT (ALL DIVISIONS) WHICH WILL RESULT FROM USE OF THE SUBSTITUTED ITEMS.
4. REVIEW THE CONTRACT DOCUMENTS OF OTHER DIVISIONS, AND COORDINATE ELECTRICAL AND INSTRUMENTATION WITH THE WORK OF OTHER DISCIPLINES TO AVOID CONFLICTS AND INTERFERENCE.
5. UPON COMPLETION OF THE WORK REQUIRED UNDER THIS CONTRACT, PROVIDE TYPE UPDATED DIRECTORY WITHIN DOOR OF EACH AFFECTED PANELBOARD. LEAVE "SPARE" BREAKERS IN "OFF" POSITION.
6. ALL MOUNTING HEIGHTS INDICATED ON DRAWINGS ARE TO CENTERLINE, UNLESS NOTED OTHERWISE.
7. PROVIDE LIGHTING FIXTURES COMPATIBLE WITH CEILING CONSTRUCTION, COORDINATE WITH ARCHITECTURAL ROOM FINISH SCHEDULES.
8. IN AREAS HAVING FINISHED CEILINGS, LOCATE CEILING-MOUNTED ELECTRICAL DEVICES AND FIXTURES ACCORDING TO ARCHITECTURAL REFLECTED CEILING PLAN. DO NOT INSTALL CEILING-MOUNTED SMOKE DETECTORS WITHIN 4 FEET OF HVAC SUPPLY DIFFUSERS.
9. IN ELECTRICAL AND MECHANICAL EQUIPMENT SPACES, COORDINATE EXACT LOCATIONS OF LIGHTING FIXTURES WITH CONDUIT BANKS, DUCTWORK, PIPING, AND EQUIPMENT, SUPPORTS, AND OTHER OBSTRUCTIONS. LOCATE FIXTURES SUCH THAT DIALS, GAUGES, METERS, ETC. ARE PROPERLY ILLUMINATED.
10. DO NOT USE ANY LIGHTING FIXTURE AS A RACEWAY FOR CONDUCTORS NOT SERVING THAT PARTICULAR FIXTURE.
11. CONNECT BATTERY-OPERATED EMERGENCY LIGHTING UNITS AND EXIT SIGNS HAVING BATTERY BACK-UP TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND NEC SUCH THAT FAILURE OF CIRCUIT TRANSFERS UNIT FROM NORMAL TO EMERGENCY MODE, CAUTION LAMPS TO REMAIN ON.
12. DO NOT INSTALL OUTLET BOXES BACK-TO-BACK IN NON-RATED PARTITIONS, OFFSET AND SEAL, SIMILAR TO REQUIREMENTS FOR RATED PARTITIONS, TO MINIMIZE SOUND TRANSMISSION.
13. COORDINATE ROUTING OF ALL LARGE CONDUITS (2" DIA AND LARGER) AND PULL BOX LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION TO AVOID CONFLICTS AND TO GUARANTEE REQUIRED CLEARANCE AND ACCESSIBILITY OF ELECTRICAL AND OTHER SYSTEMS.
14. COORDINATE WITH OWNER OR OWNER'S SELECTED VENDOR PRIOR TO ROUGH-IN FOR EXHAUST LOCATIONS AND EXHAUST FAN LOCATIONS. PROVIDE EXHAUST TO SPECIFIC EQUIPMENT. VERIFY REQUIRED NEAR CONFIGURATION OF ALL SUCH OUTLETS.
15. PROVIDE APPROPRIATELY WIRING IN EACH EMPTY SYSTEMS CONDUIT INCLUDED IN THIS PROJECT.
16. INCLUDE GREEN-INSULATED GROUNDING CONDUCTOR SIZED PER 2002 NEC TABLE 250-122 FOR ALL BRANCH CIRCUIT CONDUCTORS SERVING LIGHTING FIXTURES, RECEPTABLES, MECHANICAL, OR OTHER DEVICES INSTALLED AT OR BELOW 8'-0".
17. MATCH A.I.C. RATINGS AND OTHER CHARACTERISTICS OF EXISTING DEVICES IN PANELBOARD WHEN ADDING BREAKERS TO EXISTING PANELBOARDS.
18. ALL WORK SHALL BE IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE - LATEST EDITION ADOPTED BY INDIANA, THE INDIANA CODE AMENDMENT, LOCAL/MUNICIPAL CODE, AND THE AUTHORITIES HAVING JURISDICTION.
19. ALL CONNECTIONS TO EQUIPMENT SUBJECT TO MOVEMENT OR VIBRATION SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, NOT LESS THAN 12" IN LENGTH, NOR GREATER THAN 36" IN LENGTH.
20. ALL CONDUIT PENETRATIONS SHALL BE SEALED WITH APPROPRIATE CONDUIT SEALING MATERIAL.
21. ALL CABLE SIZES SHALL UTILIZE COPPER CONDUCTORS.
22. FIELD VERIFY LOCATIONS OF BUILDING EXPANSION JOINTS WHEN ROUTING CONDUIT. ALL CONDUITS CROSSING EXPANSION JOINTS SHALL BE INSTALLED WITH THE EXPANSION FITTINGS. EXPANSION FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC AND MANUFACTURERS WRITTEN RECOMMENDATIONS.
23. FEEDERS FROM PANELBOARDS BACK TO MAIN SWITCHBOARD, BETWEEN AUTO TRANSFORMER AND MAIN SWITCHBOARD, AND BETWEEN AUTO TRANSFORMERS AND THEIR SOURCES/LOADS ARE NOT INDICATED. FEEDERS ARE PART OF THE WORK, AND SHALL BE SIZED AS INDICATED ON THE LINE DIAGRAM.
24. HOMERUNS SHALL NOT BE COMBINED IN A RACEWAY UNLESS SHOWN ON THE CONTRACT DRAWINGS. SINGLE PHASE BRANCH CIRCUIT HOMERUNS MAY BE COMBINED AT THE CONTRACTORS DISCRETION NOT GREATER THAN (3) PHASE CONDUCTORS, NEUTRAL CONDUCTOR, AND A GROUNDING CONDUCTOR.
25. EACH SINGLE PHASE BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL BACK TO THE PANEL.
26. ALL PENETRATIONS BELOW GRADE SHALL USE LINK SEALS.
27. WHERE LOW VOLTAGE (CONDUIT) CABLING IS UNWOUND TO BE INSTALLED WITHOUT A RACEWAY, IT SHALL BE SUPPORTED NOT EXCEEDING INTERVALS OF 48" AND MORE THAN 18" FROM THE CABINETS, BOXES, FITTINGS, OUTLETS, RACKS, FRAMES AND TERMINALS.
28. ALL MOUNTING HARDWARE INCLUDING NUTS, BOLTS, SCREWS, WASHERS, ETC. SHALL BE STAINLESS STEEL.
29. MOUNT JUNCTION BOXES AND DISCONNECT SWITCHES ON STAINLESS STEEL UNISTRUT.
30. ALL UNISTRUT, MOUNTING BRACKETS AND SUPPORTING STRUCTURES SHALL BE STAINLESS STEEL.
31. DO NOT MIX CONTROL AND POWER CONDUCTORS IN THE SAME CONDUIT. DO NOT MIX DISCREET AND ANALOG CONTROL CONDUCTORS IN THE SAME CONDUIT.
32. ADJUSTABLE SPEED DRIVES (ASD) LINE AND LOAD WIRE SHALL BE RUN IN SEPARATE RACEWAYS.
33. CONTRACTOR SHALL COORDINATE WITH HEAT TRACE MANUFACTURER DURING BUILDING AND INSTRUMENTATION AND SHALL PROVIDE ALL CONDUIT, WIRING, AND CIRCUITS AS REQUIRED. HEAT TRACE SHALL BE PROVIDED/INSTALLED COMPLETE. ALL HEAT TRACE IS REQUIRED TO BE GFI PROTECTED.
34. CONTRACTOR SHALL NOT COMBINE POWER FEEDS FOR THREE PHASE LOADS.
35. THE BELOW LOCATIONS ARE WHERE GFCI OUTLETS ARE REQUIRED:
 - 35.1. KITCHENS: ALL KITCHEN OUTLETS.
 - 35.2. BATHROOMS: GFCI OUTLETS ARE REQUIRED IN BATHROOMS NEAR THE SINK.
 - 35.3. GARAGES: GFCI OUTLETS ARE REQUIRED IN GARAGES THAT HAVE SINKS.
 - 35.4. OUTDOOR SPACES: GFCI OUTLETS ARE REQUIRED AT LEAST ONE GFCI OUTLET.
 - 35.5. OUTDOOR SPACES: GFCI OUTLETS ARE REQUIRED IN OUTDOOR AREAS THAT ARE ACCESSIBLE OR AT GRADE LEVEL.
 - 35.6. LAUNDRY ROOMS: ALL LAUNDRY ROOM OUTLETS.
 - 35.7. CRAWL SPACES: GFCI OUTLETS ARE REQUIRED IN CRAWL SPACES WHERE MECHANICAL EQUIPMENT IS LOCATED.
 - 35.8. UTILITY ROOMS: ALL UTILITY ROOM OUTLETS.
36. LIMIT CABLE AT INSTALLATION TO 230' MAXIMUM DISTANCE. CONTRACTOR SHALL PROVIDE AND INSTALL CABLE AND MEDIA CONVERTERS IF CONDUIT ROUTING EXCEEDS CABLE AT LIMITS.

DESCRIPTION

SYMBOL	DESCRIPTION	TO CL. UON
	OPEN LIGHTING FIXTURE SYMBOLOGY DENOTING FIXTURES CONNECTED TO NORMAL POWER. FIXTURE TYPE DETERMINES MOUNTING.	-----
	SINGLE DIAGONAL LIGHTING FIXTURE SYMBOLOGY DENOTING FIXTURES CONNECTED TO CRITICAL OR EQUIPMENT BRANCH (OR EMERGENCY POWER). UON: FIXTURE TYPE DETERMINES MOUNTING.	-----
	DOUBLE DIAGONAL LIGHTING FIXTURE SYMBOLOGY DENOTING FIXTURES CONNECTED TO LIFE SAFETY BRANCH (OR EMERGENCY POWER). UON: FIXTURE TYPE DETERMINES MOUNTING.	-----
	BATTERY POWERED EMERGENCY LIGHTING UNIT	7'-6"
	EXIT SIGN: ARROWS DENOTE DIRECTIONAL INDICATING CHEVRON REMITS: SHADING DENOTES FACE(S) ORIENTATION	-----
	WALLWASH OR OTHER DIRECTIONALLY ADJUSTABLE/AIMABLE FIXTURE: OPEN SIDE DENOTES ORIENTATION. TYPE DETERMINES MOUNTING.	-----
	TRACK LIGHTING FIXTURE: TYPE DETERMINES MOUNTING.	-----
	POLE-MOUNTED SITE LIGHTING FIXTURE: TYPE DETERMINES MTG.	-----
	FLOOD LIGHTING FIXTURE: TYPE DETERMINES MOUNTING.	-----
	PHOTO-CELL	-----
	ALL FIXTURES IN THIS SPACE SHALL BE SAME TYPE INDICATED. U.O.N.	-----
	SINGLE-POLE TOGGLE SWITCH	3'-10"
	SINGLE-POLE TOGGLE SWITCH: SLASH DENOTES ESSENTIAL POWER SYSTEM CONNECTION - TYPICAL FOR ALL SWITCHES.	3'-10"
	DUAL TECHNOLOGY, WALL MNTD OCCUPANCY SENSOR WITH MANUAL OVERRIDE SWITCH	3'-10"
	SINGLE-POLE REMOTE OVERRIDE SWITCH FOR CEILING MNTD OCCUPANCY SENSOR	3'-10"
	DIMMER SWITCH	3'-10"
	THREE-WAY DIMMER SWITCH	3'-10"
	SINGLE-POLE TOGGLE SWITCH WITH PILOT LIGHT	3'-10"
	SINGLE-POLE MOTOR-RATED TOGGLE SWITCH DISCONNECT	3'-10"
	SINGLE-POLE OR DOUBLE-POLE MANUAL MOTOR STARTER WITH MELTING ALLOY ELEMENTS FOR THERMAL OVERLOAD PROTECTION	3'-10"
	OCCUPANCY SENSOR SWITCH	3'-10"
	INTERVAL TIMER RESET AND CONTROL SWITCH	3'-10"
	JOG SWITCH	3'-10"
	MUSHROOM HEAD TYPE PUSHBUTTON STATION	5'-0"
	AUTO DOOR CONTROL PUSHPLATE	-----
	VARIABLE INTENSITY CONTROLLER INCLUDED WITH OWNER-FURNISHED CONTRACTOR-INSTALLED SURGICAL LIGHTING FIXTURE	5'-0"
	LOW VOLTAGE CONTROL SWITCH	3'-10"
	FACTORY SUPPLIED WALL CONTROLLER FOR CEILING MOUNTED LIGHT-INSTALLED BY ELECTRICAL CONTRACTOR	3'-10"
	120V DUPLEX RECEPTACLE, STANDARD MOUNTING HEIGHT	1'-6"
	120V DUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT INSTALL AT SAME HEIGHT AS SWITCHES IF NO HEIGHT IS INDICATED	ABOVE COUNTER
	120V QUADRUPLUX RECEPTACLE, STANDARD MOUNTING HEIGHT	1'-6"
	120V QUADRUPLUX RECEPTACLE, SPECIAL MOUNTING HEIGHT INSTALL AT SAME HEIGHT AS SWITCHES IF NO HEIGHT IS INDICATED	ABOVE COUNTER
	120V SINGLE RECEPTACLE, AMP RATING (IF OTHER THAN 20A) SHOWN, STANDARD MOUNTING HEIGHT, OR OTHER HEIGHT AS NOTED	1'-6", UON
	120V GFCI DUPLEX RECEPTACLE, STANDARD MOUNTING HEIGHT	1'-6"
	120V GFCI QUADRUPLUX RECEPTACLE, SPECIAL MOUNTING HEIGHT INSTALL AT SAME HEIGHT AS SWITCHES IF NO HEIGHT IS INDICATED	ABOVE COUNTER
	120V GFCI DUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT INSTALL AT SAME HEIGHT AS SWITCHES IF NO HEIGHT IS INDICATED	ABOVE COUNTER
	SINGLE RECEPTACLE (OTHER THAN 120V), VOLTAGE, AMP RATING, NEMA CONFIGURATION, AND MOUNTING HEIGHT AS NOTED	-----
	RECEPTACLE OR J-BOX CONNECTION FOR X-RAY VIEWER: VERIFY CONNECTION REMITS WITH UNIT FURNISHED PRIOR TO ROUGH-IN	-----
	120V DUPLEX RECEPTACLE IN FLUSH FLOOR-MOUNTED BOX	-----
	TELE-POWER POLE	-----
	HALON DUMP STATION	-----
	FIRE ALARM MANUAL PULL STATION	3'-10"
	FIRE ALARM MANUAL PULL STATION, KEY-OPERATED	3'-10"
	FIRE ALARM CEILING-MOUNTED SMOKE DETECTOR	-----
	FIRE ALARM CEILING-MOUNTED HEAT DETECTOR	-----
	FIRE ALARM SUPPLY AIR DUCT-MOUNTED SMOKE DETECTOR	-----
	FIRE ALARM RETURN AIR DUCT-MOUNTED SMOKE DETECTOR	-----
	FIRE ALARM PROJECTED BEAM SMOKE DETECTOR - RECEIVER	AS NOTED
	FIRE ALARM PROJECTED BEAM SMOKE DETECTOR - TRANSMITTER	AS NOTED
	FIRE ALARM CONNECTION TO SPRINKLER SYSTEM VALVE STATUS SWITCH (TAMPER SWITCH)	-----
	FIRE ALARM CONNECTION TO SPRINKLER SYSTEM WATER FLOW SWITCH	-----
	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE-CHIME & STROBE	6'-8"
	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE-HORN & STROBE	6'-8"
	FIRE ALARM VISUAL ONLY NOTIFICATION DEVICE - STROBE LIGHT	6'-8"
	FIRE ALARM SPEAKER: CEILING-MOUNTED, WALL-MOUNTED	6'-8"
	FIRE ALARM HORN, WALL-MOUNTED	AS NOTED
	DUCT SMOKE DETECTOR ALARM REMOTE INDICATOR LIGHT: CEILING-MOUNTED, WALL-MOUNTED	6'-8"
	DUCT SMOKE DETECTOR ALARM REMOTE INDICATOR LIGHT AND TEST SWITCH: CEILING-MOUNTED, WALL-MOUNTED	6'-8"
	FIRE ALARM ZONE ADDRESSABLE MODULE	-----
	FIRE ALARM INDIVIDUAL ADDRESSABLE MODULE	-----
	FIRE ALARM ELECTRO-MAGNETIC DOOR HOLDER	6'-4"
	FIRE RELAY	-----
	DESK MOUNTED INTERCOM	-----
	WALL MOUNTED INTERCOM	-----
	EXPLOSION PROOF SWITCH	3'-10"
	3 WAY SWITCH	3'-10"
	4 WAY SWITCH	3'-10"
	NEMA 4X SWITCH	3'-10"
	DATA OUTLET	1'-6"
	TELEPHONE OUTLET	1'-6"

ABBREVIATIONS

ABV	ABOVE	IG	ISOLATED GROUND
AFF	ABOVE FINISHED FLOOR	MON	MONITOR
ACLG	ABOVE FINISHED CEILING	MTG	MOUNTING
BFC	BELOW FINISHED CEILING	MV	MULTI-VIEWER
C	CRITICAL BRANCH OR EMERG PWR-RED DEVICE & PLATE, UON	MW	MICROWAVE OVEN
CL	CENTER-LINE	NEC	NATIONAL ELECTRICAL CODE
CLG	CEILING-MOUNTED	OCPD	OVERCURRENT PROTECTIVE DEVICE
COF	COFFEE MAKER	OFCI	OWNER-FURNISHED-CONTRACTOR-INSTALLED
COP	COPIER	OFE	OWNER-FURNISHED EQUIPMENT
CTR	COUNTER	PRT	PRINTER
ECB	ENCLOSED CIRCUIT BREAKER	PTS	PNEUMATIC TUBE STATION
EMER	EMERGENCY	Q	EQUIP BRANCH OR EMERG PWR-RED DEVICE & PLATE, UON
EWC	ELECTRIC WATER COOLER	REF	REFRIGERATOR
EWH	ELECTRIC WATER HEATER	RQMTS	REQUIREMENTS
FAX	FACSIMILE MACHINE	T	TAMPERPROOF DEVICE
FBO	FURNISHED BY OTHERS	TSP	TWISTED SHIELDED PAIR
GFCI	GROUND FAULT CIRCUIT INTERRUPTING - PERSONNEL PROTECTION	UON	UNLESS OTHERWISE NOTED
GFI	GROUND FAULT INTERRUPTING - EQUIPMENT PROTECTION	UCR	UNDER-COUNTER REFRIGERATOR
HGT	HEIGHT	WP	WEATHERPROOF
FPMR	FUSED PER MANUFACTURE'S RECOMMENDATIONS		

SYMBOL	DESCRIPTION	MTG HGT AFF TO CL, UON
	EXPOSED RACEWAY	----
	RACEWAY CONCEALED IN OR ABOVE CEILINGS AND WITHIN WALLS	----
	BRANCH CIRCUIT RACEWAY CONCEALED IN OR BELOW FLOOR SLAB OR BELOW GRADE	----
	FEEDER RACEWAY CONCEALED BELOW FLOOR SLAB OR BELOW GRADE	----
	LIGHTNING PROTECTION CABLING	----
	HOMERUN RACEWAY: NUMBER OF ARROWHEADS DENOTES NUMBER OF CIRCUITS	----
	RACEWAY TURNING UP AS VIEWED FROM THE LOAD	----
	RACEWAY TURNING DOWN AS VIEWED FROM THE LOAD	----
	RACEWAY VERTICAL RISER WITH HORIZONTAL CONTINUATION AT TWO LEVELS SHOWN	----
	CAPPED RACEWAY	----
	GENERAL LIGHTING OR OUTLET CIRCUIT - MAY BE DAISY CHAINED	----
	JUNCTION BOX	AS NOTED
	ENCLOSED BREAKER	----
	FUSIBLE SAFETY SWITCH (AMP RATING, POLES, FUSE SIZE, AND NEMA ENCLOSURE TYPE IF OTHER THAN 1 NOTED)	----
	NON-FUSIBLE SAFETY SWITCH (AMP RATING, POLES, AND NEMA ENCLOSURE TYPE IF OTHER THAN 1 NOTED)	----
	COMBINATION MAGNETIC ACROSS-THE-LINE STARTER WITH MOTOR CIRCUIT PROTECTOR (NEMA STARTER SIZE NOTED)	----
	CONTROL PANEL FURNISHED INTEGRAL TO EQUIPMENT (SINGLE-POINT ELECTRICAL CONNECTION REQUIRED)	----
	MOTOR	----
	FLEXIBLE CONDUIT CONNECTION	----
	SURFACE- OR FLUSH-MOUNTED LIGHTING/RECEPTACLE PANELBOARD	----
	POWER DISTRIBUTION PANELBOARD	----
	DRY TYPE TRANSFORMER	----
	MISCELLANEOUS SYSTEMS PANEL OR CABINET: REFER TO ABBREVIATIONS	----

DESCRIPTION

 MS	ACROSS THE LINE MOTOR STARTER
 SS	SOFT STARTER
 VFD	VARIABLE FREQUENCY DRIVE
 MS	ACROSS THE LINE MOTOR STARTER WITH INTEGRAL DISCONNECT
 SS	SOFT STARTER WITH INTEGRAL DISCONNECT
 VFD	VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT

DESCRIPTION

☐	FIXTURE WITH STANDARD BALLAST.
☒	FIXTURE WITH STANDARD BALLAST AND EMERGENCY BALLAST.

DESCRIPTION

	MAGNETIC FLOW METER
	SONIC FLOW METER
	CENTRIFUGAL PUMP
	LOBE PUMP
	PERISTALTIC PUMP
	SUBMERSIBLE PUMP
	GRINDER PUMP

TOWN OF WINDFALL
TIPTON COUNTY, INDIANA
WASTEWATER TREATMENT PLANT
IMPROVEMENTS

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Designed By: DS	Drawn By: DS	Checked By: MM
Issue Date: 8-6-26	Project No: S24195	Scale: AS SHOWN

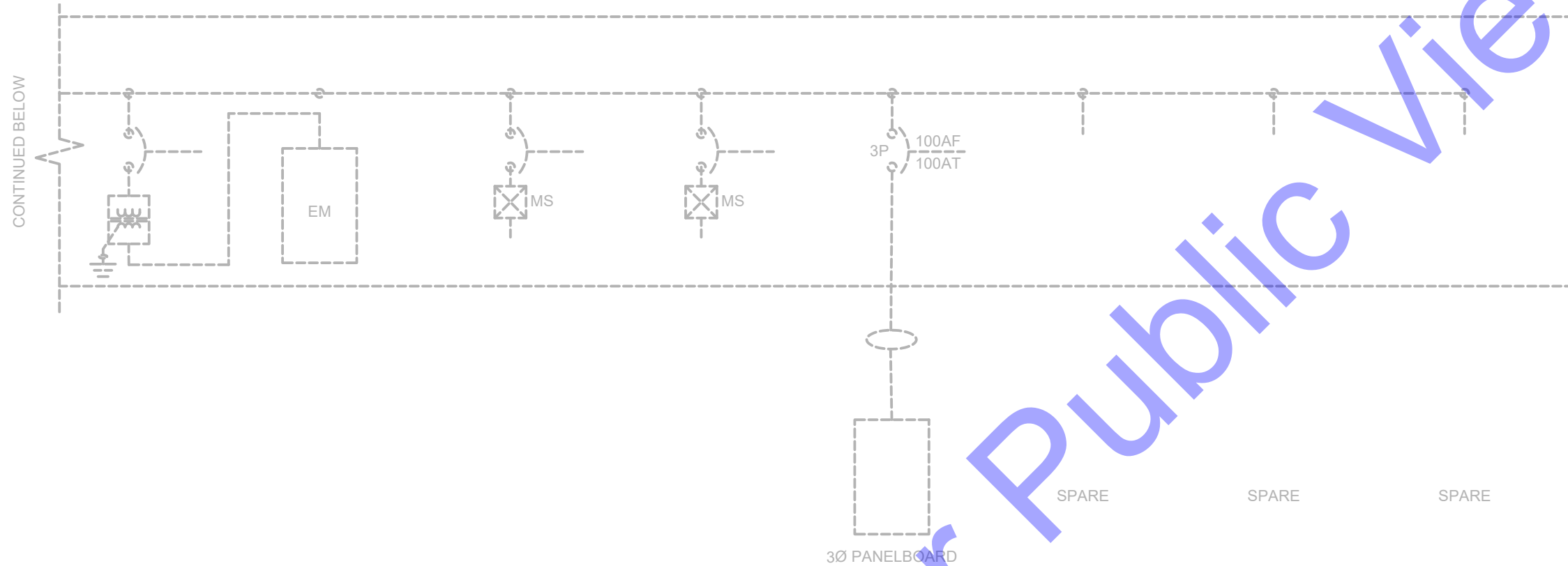
LEGENDS AND SCHEDULES

Drawing No:

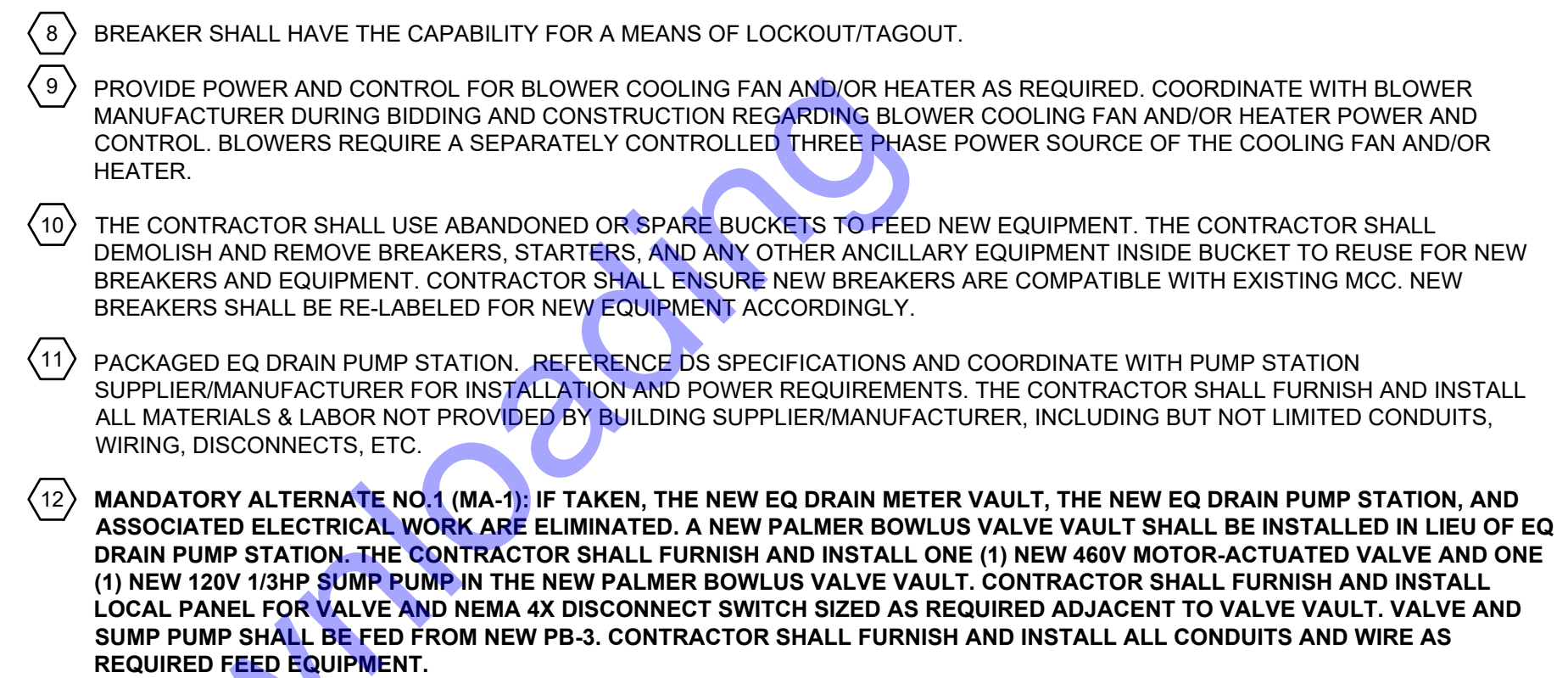
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1. EXISTING INFORMATION OBTAINED FROM 2010 "FLEIS & VANDENBRINK ENGINEERING, INC. WASTE WATER SYSTEM IMPROVEMENTS" AS-BUILTS, SITE SURVEY, AND FIELD INVESTIGATIVE WORK PERFORMED BY CEI. CONTRACTOR SHALL TAKE INTO CONSIDERATION EXISTING BURIED EQUIPMENT WHEN PLANNING THE INSTALLATION OF THE NEW EQUIPMENT OUTLINED IN THIS PROJECT. CONTRACTOR SHALL VISIT THE SITE TO BECOME ACQUAINTED WITH ALL PROJECT CONDITIONS INCLUDING EXISTING CONDITIONS. EXECUTION OF CONTRACT IS EVIDENCE THAT THE CONTRACTOR HAS EXAMINED ALL DRAWINGS AND SPECIFICATIONS AND THAT ALL CONDITIONS OF INSTALLING THE WORK IN THIS SECTION ARE VERIFIED. CLAIMS FOR LABOR, MATERIAL, OR TIME EXTENSIONS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATIONS BEEN MADE, WILL NOT BE RECOGNIZED. REFER TO PROCESS AND STRUCTURAL DRAIN
2. SEE E0.0 FOR PROJECT CONDUIT REQUIREMENTS.
3. EXISTING EQUIPMENT SHOWN LIGHTER.
4. PLANT IS TO REMAIN FULLY FUNCTIONAL DURING DEMOLITION AND CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR WIRE SIZE BASED UPON CONDUIT ROUTING AND LENGTH OF FINAL WIRE RUN. THE CONTRACTOR SHALL SIZE WIRE BASED UPON A MAXIMUM 3% VOLTAGE DROP. THE CONTRACTOR IS RESPONSIBLE FOR ANY COSTS INCURRED BY INCREASED WIRE SIZE.
6. THE CONTRACTOR SHALL EXAMINE NOT ONLY PLANS AND SPECIFICATIONS FOR ELECTRICAL AND INSTRUMENTATION, BUT PLANS AND SPECIFICATIONS FOR OTHER RELATED SECTIONS. VISIT THE SITE TO BECOME ACQUAINTED WITH ALL PROJECT CONDITIONS INCLUDING EXISTING CONDITIONS. EXECUTION OF CONTRACT IS EVIDENCE THAT THE CONTRACTOR HAS EXAMINED ALL DRAWINGS AND SPECIFICATIONS AND THAT ALL CONDITIONS OF INSTALLING THE WORK IN THIS SECTION ARE VERIFIED. CLAIMS FOR LABOR, MATERIAL, OR TIME EXTENSIONS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATIONS BEEN MADE WILL NOT BE RECOGNIZED.



- 1 NEW SERVICE SHALL BE 3Ø 480V, 4-WIRE, 400A SERVICE. THE CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY FOR NEW SERVICE UPGRADE. ELECTRIC UTILITY SHALL PROVIDE NEW TRANSFORMERS, NEW PRIMARY WIRE, AND NEW UTILITY POLES AS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY DURING BIDDING AND CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL FEEDER MATERIAL AND LABOR NOT PROVIDED BY LOCAL UTILITY, INCLUDING BUT NOT LIMITED TO PRIMARY AND SECONDARY CONDUIT, AND SECONDARY WIRE.
- 2 THE CONTRACTOR SHALL PROVIDE METERING AND MOUNTING AS REQUIRED BY LOCAL UTILITY. COORDINATE DURING BIDDING AND CONSTRUCTION. PROVIDE CT CABINETS AND UTILITY DISCONNECT AS REQUIRED BY UTILITY.
- 3 COORDINATE WITH THE EQUIPMENT SUPPLIERS/MANUFACTURERS WHEN SELECTING THE CIRCUIT BREAKER SIZES TO ENSURE PROPER SIZING.
- 4 NEMA 4X STAINLESS STEEL DISCONNECT SIZED AS REQUIRED FOR THE LOAD PER NEC.
- 5 WIRE PUMP SAFETIES AS REQUIRED. REFERENCE DS SPECIFICATIONS AND COORDINATE WITH EQUIPMENT SUPPLIERS/MANUFACTURERS DURING BIDDING AND CONSTRUCTION.
- 6 WIRE BLOWER SAFETIES AS REQUIRED. REFERENCE DS SPECIFICATIONS AND COORDINATE WITH SUPPLIERS/MANUFACTURERS DURING BIDDING AND CONSTRUCTION.
- 7 ENCLOSURES SHALL BE NEMA 4X STAINLESS STEEL, CONDITIONED.



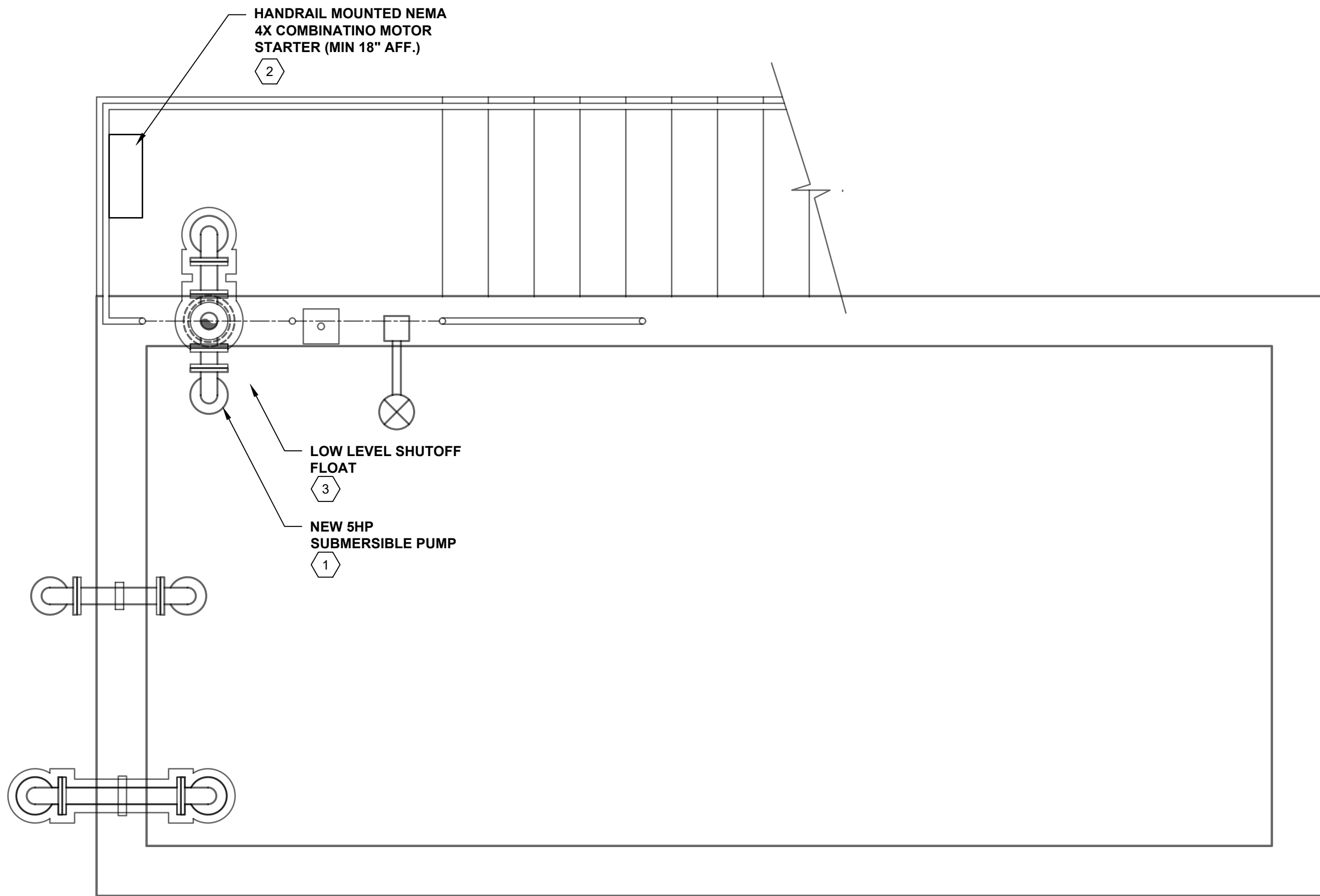
FEEDER SCHEDULE				
	COPPER WIRE			SERVICE
TYPE NO.	QUANTITIES & WIRE SIZE	CONDUIT	W/O NEUTRAL	GROUND
15	4#12 & #12 GROUND	3/4"	3/4"	#8
20	4#12 & #12 GROUND	3/4"	3/4"	#8
30	4#10 & #10 GROUND	3/4"	3/4"	#8
50	4#8 & #10 GROUND	1"	1"	#8
65	4#6 & #8 GROUND	1-1/4"	1-1/4"	#8
85	4#4 & #8 GROUND	1-1/4"	1-1/4"	#8
100	4#3 & #8 GROUND	1-1/2"	1-1/4"	#8
115	4#2 & #6 GROUND	1-1/2"	1-1/2"	#8
130	4#1 & #6 GROUND	2"	1-1/2"	#6
150	4#1/0 & #6 GROUND	2"	2"	#6
175	4#2/0 & #6 GROUND	2"	2"	#4
200	4#3/0 & #6 GROUND	2-1/2"	2"	#4
225	4#4/0 & #4 GROUND	2-1/2"	2-1/2"	#2
250	4#250MCM & #4 GROUND	3"	2-1/2"	#2
300	4#350MCM & #3 GROUND	3"	3"	#2
380	4#500MCM & #3 GROUND	4"	4"	#1/0
420	4#600MCM & #2 GROUND	4"	4"	#1/0
460	(2 SETS) 4#4/0 & #2 GROUND	2-1/2"	2-1/2"	#1/0
500	(2 SETS) 4#250MCM & #2 GROUND	4"	3"	#1/0
600	(2 SETS) 4#350MCM & #1 GROUND	4"	3"	#2/0
700	(2 SETS) 4#500MCM & #1/0 GND	4"	4"	#2/0
800	(3 SETS) 4#300MCM & #1/0 GND	3"	3"	#2/0
1000	(3 SETS) 4#500MCM & #2/0 GND	4"	4"	#3/0
1200	(4 SETS) 4#350MCM & #3/0 GND	4"	4"	#3/0

###(N) = 3 PHASES, NO NEUTRAL WITH GROUND
###(2) = 2 PHASES AND NEUTRAL WITH GROUND
ALL CIRCUITS SHALL BE RUN IN PVC BELOW GROUND/PVC COATED RIGID ABOVE GROUND

Load Wiring Schedule		
	Copper Wire	
Type #:	Quantity and Wire Size	Conduit
20	3 #12's & #12 Ground	3/4"
30	3 #10's & #10 Ground	3/4"
50	3 #8's & #10 Ground	3/4"
60	3 #6's & #8 Ground	3/4"
80	3 #4's & #8 Ground	1"
100	3 #2's & #6 Ground	1.5"
125	3 #1's & #6 Ground	1.5"
150	3 - 2/0 & #6 Ground	2"
200	3 - 3/0 & #6 Ground	2"
225	3 - 4/0 & #4 Ground	2.5"
250	3 #250MCM & #4 Ground	3"
300	3 #350MCM & #3 Ground	3"
350	3 #500MCM & #3 Ground	4"
400	3 #500MCM & #3 Ground	4"

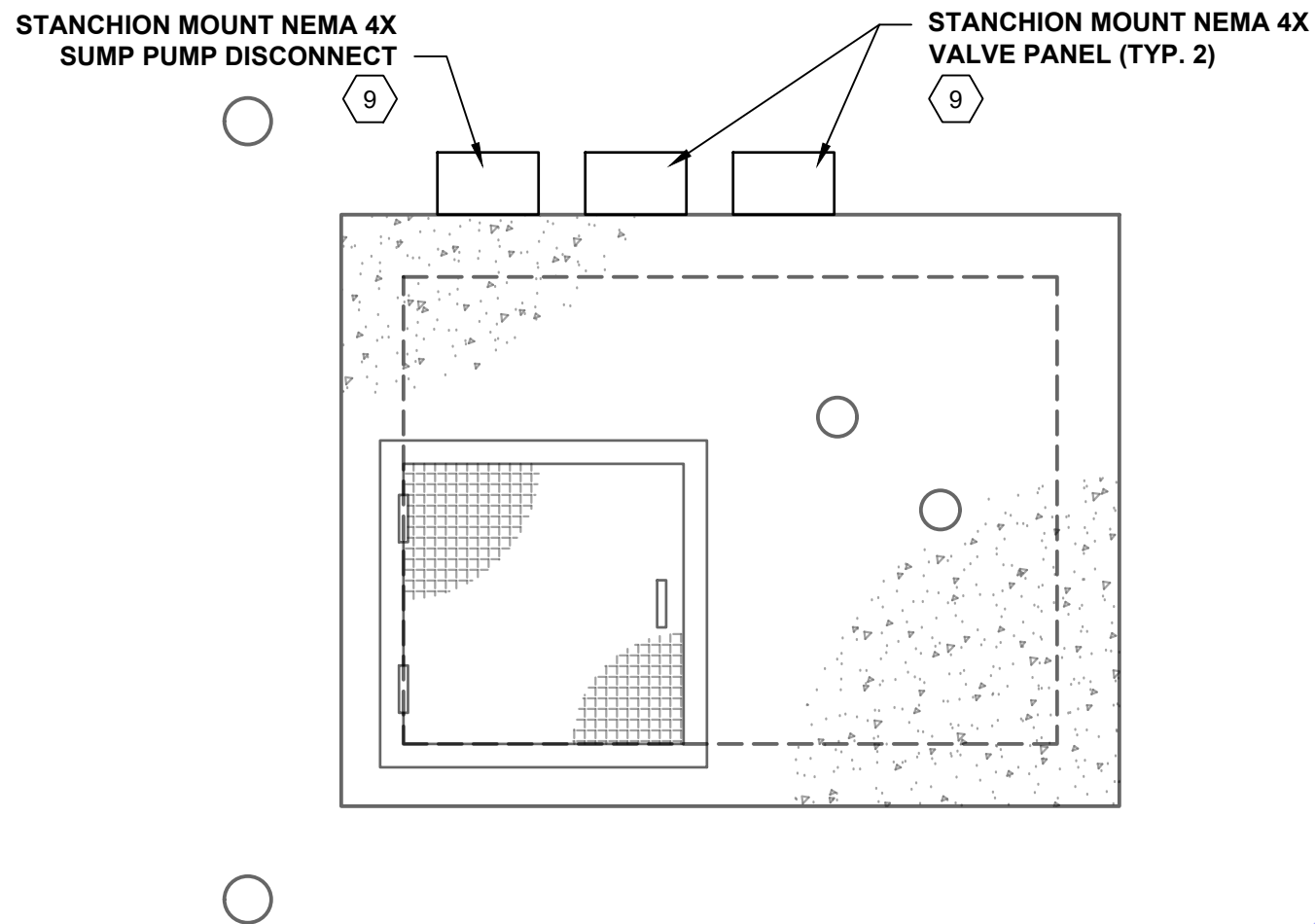
Panel Name:	PB-3	Panel Amperage:					100A			
Fed By:	MCC/X-3	Main Breaker Rating					100A			
Voltage & Phase:	120/208Y—3Ø	Panel A.I.C. Rating:					10kAIC			
Mounting:	Surface	Other:					MCB /			
Description		Brk	VA	Phase	VA	Brk	Description			
MCP-1		20/1	64	1 A	2	74	20/1	FM-1		
SHT HEAT TRACING		20/1	148	3 B	4	1440	20/1	FM-2, FM-3		
SHT HEAT TRACING		20/1	1260	5 C	6	-	20/1	INFLUENT SUMP PUMP		
SHT HEAT TRACING		20/1	880	7 A	8	-	20/1	EQ SUMP PUMP		
BLOWER NO.1 SOUND ENCLOSURE		20/1	-	9 B	10	-	20/1	SPARE		
BLOWER NO.2 SOUND ENCLOSURE		20/1	-	11 C	12	-	20/1	SPARE		
SPARE		20/1	-	13 A	14	-	20/1	SPARE		
SPARE		20/1	-	15 B	16	-	20/1	SPARE		
SPARE		20/1	-	17 C	18	-	20/1	SPARE		
SPARE		20/1	-	19 A	20	-	20/1	SPARE		
SPARE		20/1	-	21 B	22	-	20/1	SPARE		
SPARE		20/1	-	41 C	42	-	20/1	SPARE		

FILE Z:\SHARED\CLIENTS\TOWN OF WINDFALL\WASTEWATER AND WPD\UPDATES\DWG\MECH-ELECT\11 DRAWINGS\ELECTRICAL DRAWINGS.DWG
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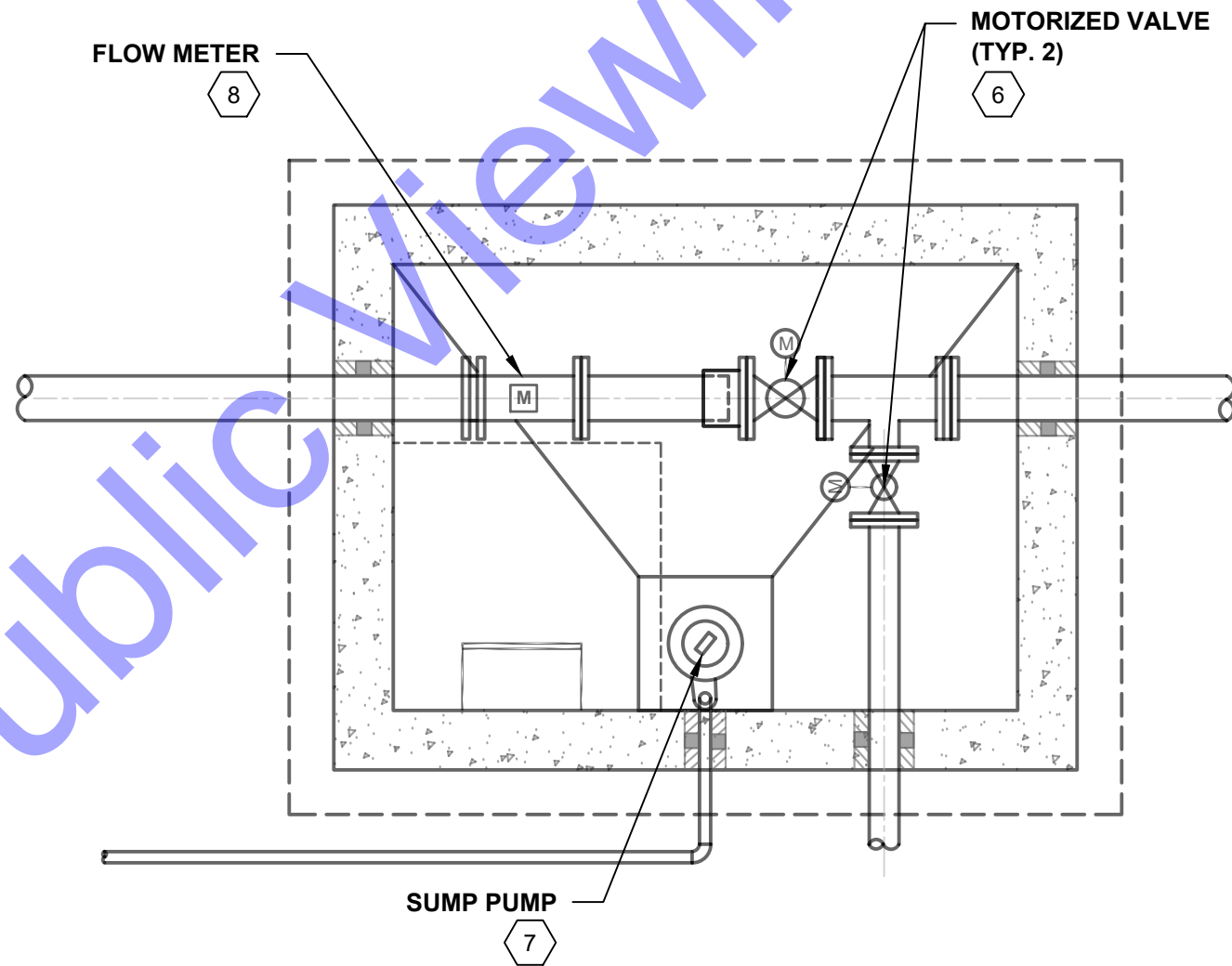
AERATED SLUDGE HOLDING TANK UPPER ELECTRICAL PLAN

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



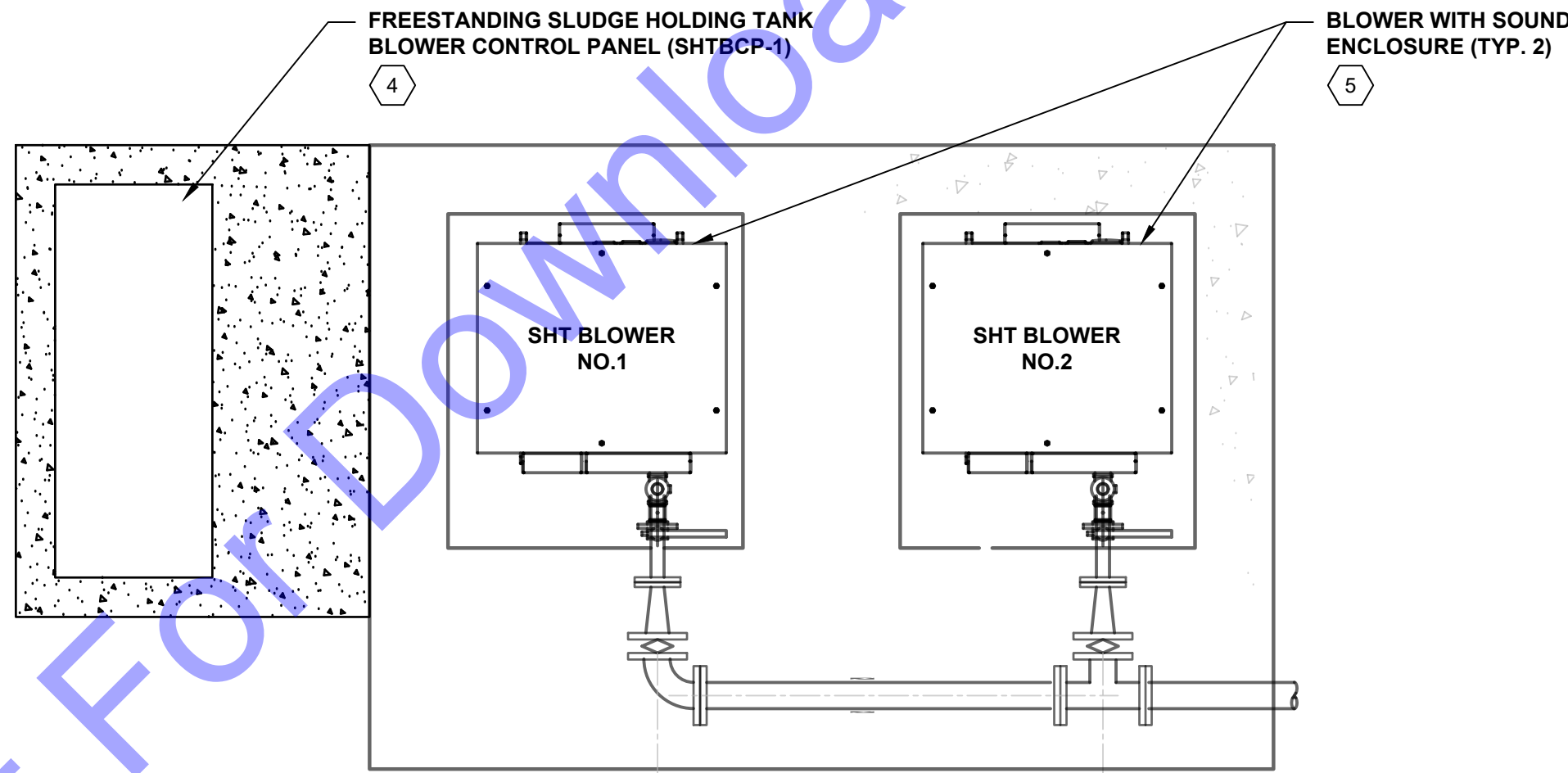
**INFLUENT METER VAULT
UPPER ELECTRICAL PLAN**

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



**INFLUENT METER VAULT
LOWER ELECTRICAL PLAN**

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



BLOWERS

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

GENERAL NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT, WIRE, AND HEAT TRACE FOR ALL FLUID PIPING ABOVE GRADE. HEAT TRACE TO BE COVERED WITH TWO INCH FIBERGLASS INSULATION AND WRAPPED WITH WEATHERPROOF STAINLESS STEEL JACKET. THE CONTRACTOR SHALL COORDINATE WITH HEAT TRACE SUPPLIER/MANUFACTURER DURING BIDDING AND CONSTRUCTION AND SHALL FURNISH ALL CONDUIT, WIRING, AND CIRCUITS REQUIRED. HEAT TRACE SHALL BE PROVIDED/INSTALLED COMPLETE.
2. SLUDGE HOLDING TANK (SHT) BASINS ARE CLASSIFIED SPACES. INTERIOR OF THE SHT TANK FROM THE MINIMUM OPERATING WATER SURFACE TO THE TOP OF THE TANK WALL; ENVELOPE 18" ABOVE THE TOP OF THE SHT TANK AND EXTENDING 18" BEYOND THE EXTERIOR WALL; ENVELOPE 18" ABOVE GRADE EXTENDING 10'-0" HORIZONTALLY FROM THE EXTERIOR SHT TANK WALLS. ALL ELECTRICAL DEVICES SHALL BE CLASS 1 DIV 2. RATED INCLUDING BUT NOT LIMITED TO LIGHTS, SWITCHES, CONDUIT, SEAL TIGHT, FITTINGS, AND DISCONNECT SWITCHES, ALL HARDWARE SHALL BE STAINLESS STEEL.
4. THE CONTRACTOR IS RESPONSIBLE FOR WIRE SIZE BASED UPON CONDUIT ROUTING AND LENGTH OF FINAL WIRE RUN. THE CONTRACTOR SHALL SIZE WIRE BASED UPON A MAXIMUM 3% VOLTAGE DROP. THE CONTRACTOR IS RESPONSIBLE FOR ANY COSTS INCURRED BY INCREASED WIRE SIZE.

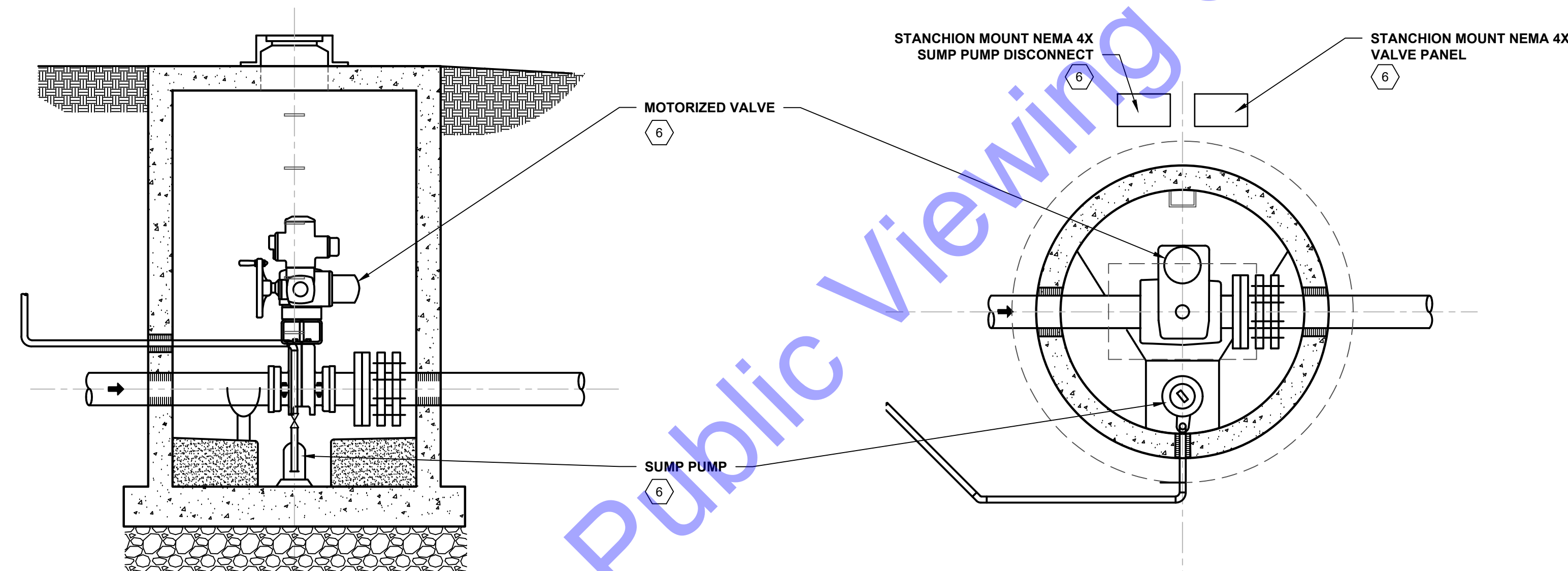
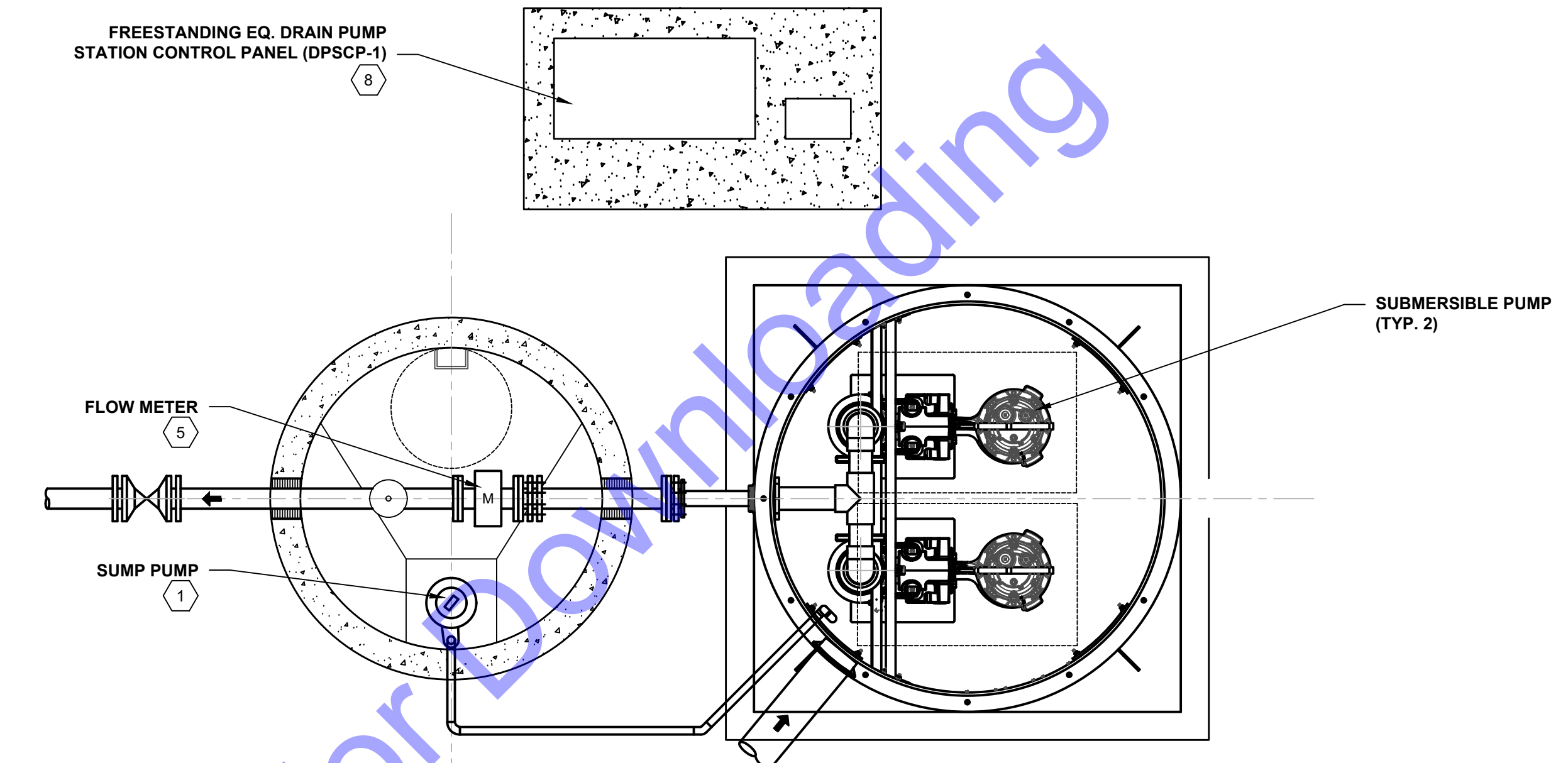
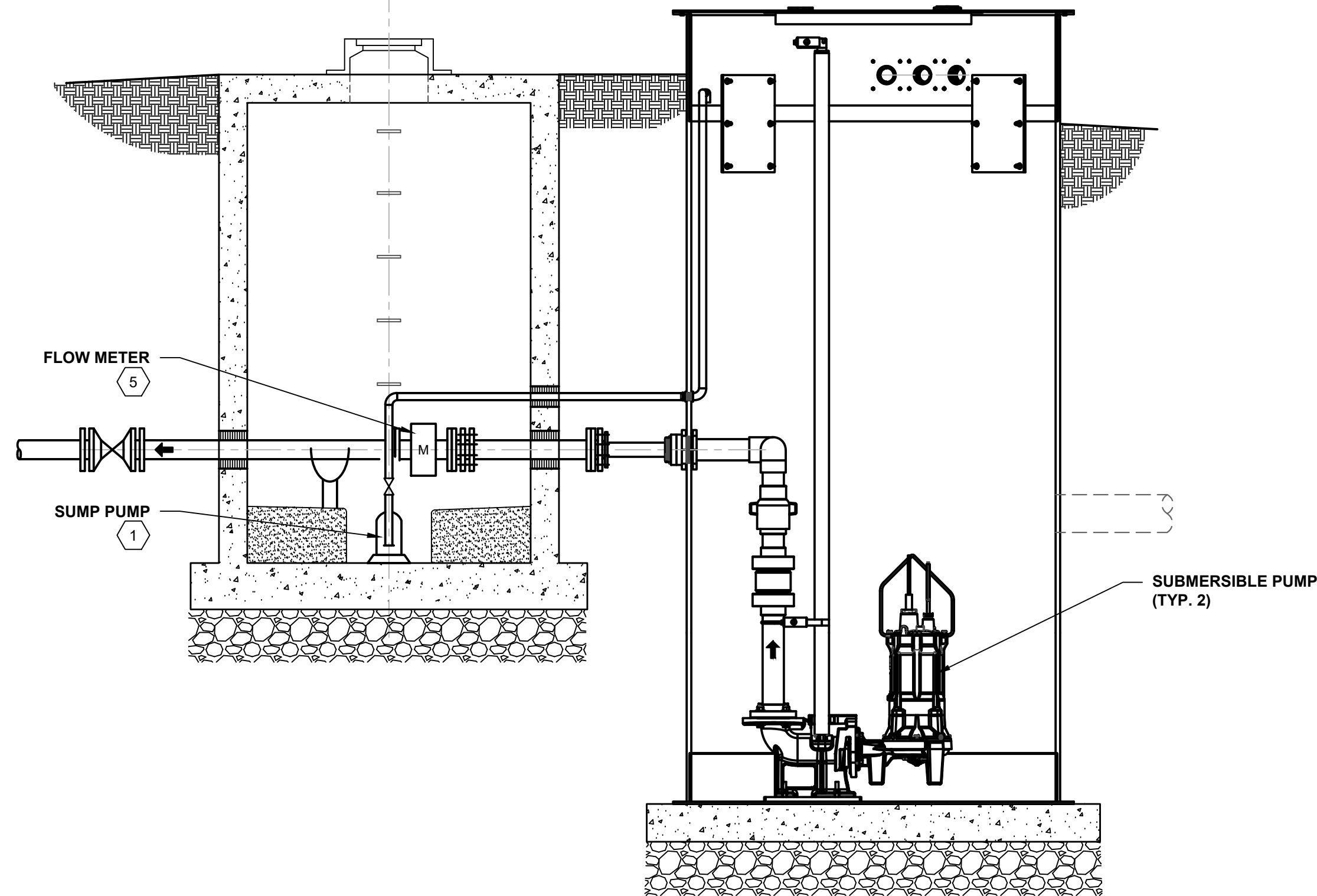
ELECTRICAL NOTES

- 1 THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 460V 3-PHASE 5HP SUBMERSIBLE PUMP AT THE SHT TANK. THE CONTRACTOR SHALL SHALL FURNISH AND INSTALL ALL POWER CONDUITS AND WIRE AS REQUIRED FROM NEW COMBINATION MOTOR STARTER TO FEED NEW WELL PUMP NO.2.
- 2 THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 460V 3-PHASE COMBINATION MOTOR STARTER SIZED AS REQUIRED FOR NEW SUBMERSIBLE PUMP. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL POWER CONDUITS AND WIRE AS REQUIRED TO FROM NEW BREAKER IN EX. MCC TO FEED COMBINATION MOTOR STARTER.
- 3 THE CONTRACTOR SHALL FURNISH AND INSTALL NEW LOW LEVEL SHUTOFF FLOAT SWITCH FOR NEW SUBMERSIBLE PUMP. FLOAT SWITCH SHALL BE TIED INTO THE NEW COMBINATION MOTOR STARTER. CONTRACTOR SHALL FURNISH AND INSTALL POWER/CONTROL CONDUITS AND WIRE AS REQUIRED.
- 4 THE CONTRACTOR SHALL INSTALL NEW NEMA 4X SLUDGE HOLDING TANK BLOWER CONTROL PANEL (SHTBCP-1). SHTBCP-1 TO BE PAD MOUNTED OUTSIDE NEAR NEW BLOWERS. SHTBCP-1 SHALL BE FURNISHED BY BLOWER MANUFACTURER.

THE CONTRACTOR SHALL COORDINATE WITH STRUCTURAL WHEN DETERMINING EXACT FINAL LOCATION AND SHALL ENSURE THERE IS ENOUGH SPACE PROVIDED FOR PROPER CLEARANCE PER NEC. THE CONTRACTOR SHALL FURNISH AND INSTALL CONCRETE PADS, UNISTRUT, MOUNTING HARDWARE, AND MISCELLANEOUS APPURTENANCES AS REQUIRED FOR PROPER INSTALLATION.
- 5 THE CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT AND WIRE FROM SHTBCP-1 VFD'S TO TWO (2) SLUDGE HOLDING TANK BLOWERS. EACH BLOWER REQUIRES THREE (3) #12 THWN CONDUCTORS AND ONE (1) #12 GROUND FOR THREE PHASE POWER.

EACH BLOWER SHALL HAVE A HIGH TEMPERATURE SWITCH WIRED BACK TO THE VFD TO STOP BLOWER ON HIGH TEMPERATURE CONDITION. CONTRACTOR TO FURNISH AND INSTALL CONDUIT AND WIRE. TWO (2) #12 THWN CONDUCTORS AND ONE (1) #12 THWN GROUND.

THE CONTRACTOR SHALL FURNISH AND INSTALL TWO (2) NEW 120V MOTORIZED VALVES. VALVES SHALL BE MODULATING TYPE. THE CONTRACTOR SHALL FURNISH AND INSTALL POWER CONDUIT AND WIRING FROM NEW DISCONNECT SWITCH.
- 6 THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 120V 1/3HP SUMP PUMP INSIDE INFLUENT METER VAULT. SUMP PUMP SHALL BE FED FROM NEW PB-3. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT AND WIRE AS REQUIRED.
- 7 THE CONTRACTOR SHALL FURNISH AND INSTALL NEW MAGNETIC FLOW METER INSIDE THE NEW INFLUENT METER VAULT. TRANSMITTER SHALL BE INSTALLED IN THE EXISTING LAB ROOM. CONTRACTOR SHALL COORDINATE WITH OWNER ON EXACT FINAL LOCATION. CONTRACTOR SHALL FURNISH AND INSTALL POWER/CONTROL CONDUITS AND WIRE AS REQUIRED TO FLOW METER AND FLOW METER TRANSMITTER. FLOW METER SHALL BE FED FROM NEW PANELBOARD PB-3.
- 9 CONTRACTOR SHALL FURNISH AND INSTALL ONE (1) NEW NEMA 4X DISCONNECT SWITCH STANCHION MOUNTED NEAR NEW INFLUENT METER VAULT FOR NEW SUMP PUMP AND TWO (2) NEW LOCAL CONTROL PANELS FOR MOTORIZED VALVES. DISCONNECTS SHALL BE SIZED AS REQUIRED FOR THE LOAD PER NEC.



- GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR WIRE SIZE BASED UPON CONDUIT ROUTING AND LENGTH OF FINAL WIRE RUN. THE CONTRACTOR SHALL SIZE WIRE BASED UPON A MAXIMUM 3% VOLTAGE DROP. THE CONTRACTOR IS RESPONSIBLE FOR ANY COSTS INCURRED BY INCREASED WIRE SIZE.

ELECTRICAL NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 120V 1/3HP SUMP PUMP INSIDE EQ PUMP STATION METER VAULT. SUMP PUMP SHALL BE FED FROM NEW PB-3. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT AND WIRE AS REQUIRED.
2. THE CONTRACTOR SHALL INSTALL NEW NEMA 4X EQ DRAIN PUMP STATION CONTROL PANEL (DPSCP-1). DPSCP-1 TO BE PAD MOUNTED OUTSIDE NEAR STATION. DPSCP-1 SHALL BE FURNISHED BY BLOWER MANUFACTURER.
3. THE CONTRACTOR SHALL COORDINATE WITH STRUCTURAL WHEN DETERMINING EXACT FINAL LOCATION AND SHALL ENSURE THERE IS ENOUGH SPACE PROVIDED FOR PROPER CLEARANCE PER NEC. THE CONTRACTOR SHALL FURNISH AND INSTALL CONCRETE PADS, UNISTRUT, MOUNTING HARDWARE, AND MISCELLANEOUS APPURTENANCES AS REQUIRED FOR PROPER INSTALLATION.
4. CONTRACTOR SHALL FURNISH AND INSTALL ONE (1) NEW NEMA 4X DISCONNECT SWITCH STANCHION MOUNTED NEAR NEW EQ DRAIN PUMP STATION FOR NEW SUMP PUMP. DISCONNECT SHALL BE SIZED AS REQUIRED FOR THE LOAD PER NEC.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW MAGNETIC FLOW METER INSIDE THE NEW INFLUENT METER VAULT. TRANSMITTER SHALL BE INSTALLED IN THE EXISTING LAB ROOM. CONTRACTOR SHALL COORDINATE WITH OWNER ON EXACT FINAL LOCATION. CONTRACTOR SHALL FURNISH AND INSTALL POWER/CONTROL CONDUITS AND WIRE AS REQUIRED TO FLOW METER AND FLOW METER TRANSMITTER. FLOW METER SHALL BE FED FROM NEW PANELBOARD PB-3.
6. MANDATORY ALTERNATE NO.1 (MA-1): IF TAKEN, THE NEW EQ DRAIN METER VAULT, THE NEW EQ DRAIN PUMP STATION, AND ASSOCIATED ELECTRICAL WORK ARE ELIMINATED. A NEW PALMER BOWLUS VALVE VAULT SHALL BE INSTALLED IN LIEU OF EQ DRAIN PUMP STATION. THE CONTRACTOR SHALL FURNISH AND INSTALL ONE (1) NEW 460V MOTOR-ACTUATED VALVE AND ONE (1) NEW 120V 1/3HP SUMP PUMP IN THE NEW PALMER BOWLUS VALVE VAULT. CONTRACTOR SHALL FURNISH AND INSTALL LOCAL PANEL FOR VALVE AND NEMA 4X DISCONNECT SWITCH FOR SUMP PUMP SIZED AS REQUIRED ADJACENT TO VALVE VAULT. VALVE AND SUMP PUMP SHALL BE FED FROM NEW PB-3. CONTRACTOR SHALL FURNISH AND INSTALL ALL, CONDUITS AND WIRE AS REQUIRED FEED EQUIPMENT.

