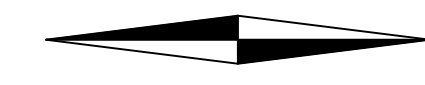
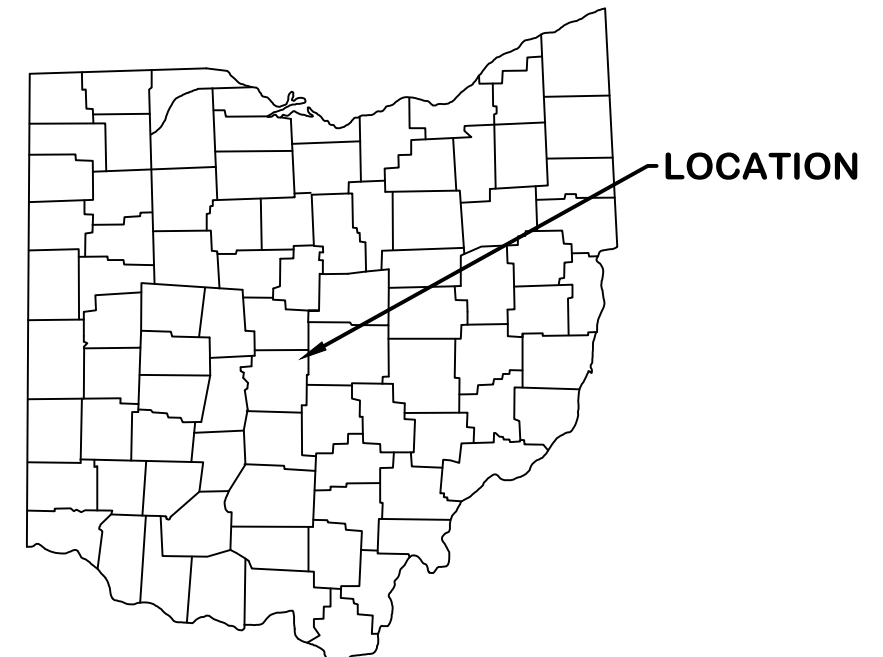




# CITY OF GAHANNA, OHIO WATER TOWER REHABILITATION ST-1106



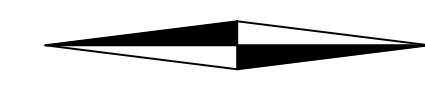
2023



LAURIE JADWIN - MAYOR

### MEMBERS OF COUNCIL

- STEPHEN A RENNER - PRESIDENT
- TRENTON I WEAVER - VICE PRESIDENT
- KAREN J ANGELOU
- NANCY R MCGREGOR
- MERISA K BOWERS
- KAYLEE PADOVA
- MICHAEL SCHNETZER



LOCATION MAP  
0 500 1000 2000  
SCALE IN FEET

ENGINEER:  
JONES & HENRY ENGINEERS, LTD.  
3103 EXECUTIVE PARKWAY  
SUITE 300  
TOLEDO, OHIO 43606

OWNER:  
CITY OF GAHANNA  
200 S. HAMILTON ROAD  
GAHANNA, OHIO 43230

NOTE:  
ROOF DRAINS, FOUNDATION DRAINS, AND ALL  
OTHER CLEAN WATER CONNECTIONS TO THE  
SANITARY SEWER ARE PROHIBITED.

APPROVED BY:

	Laurie A. Jadwin MAYOR	11/17/2023 DATE
	Daniel S. Anverse DIRECTOR OF PUBLIC SERVICE	DATE
	Joann Bury DIRECTOR OF FINANCE	DATE
	TOM KOMLANC, PE DIRECTOR OF ENGINEERING	11/14/2023 DATE
	Jim Turner SENIOR UTILITIES ENGINEER	DATE



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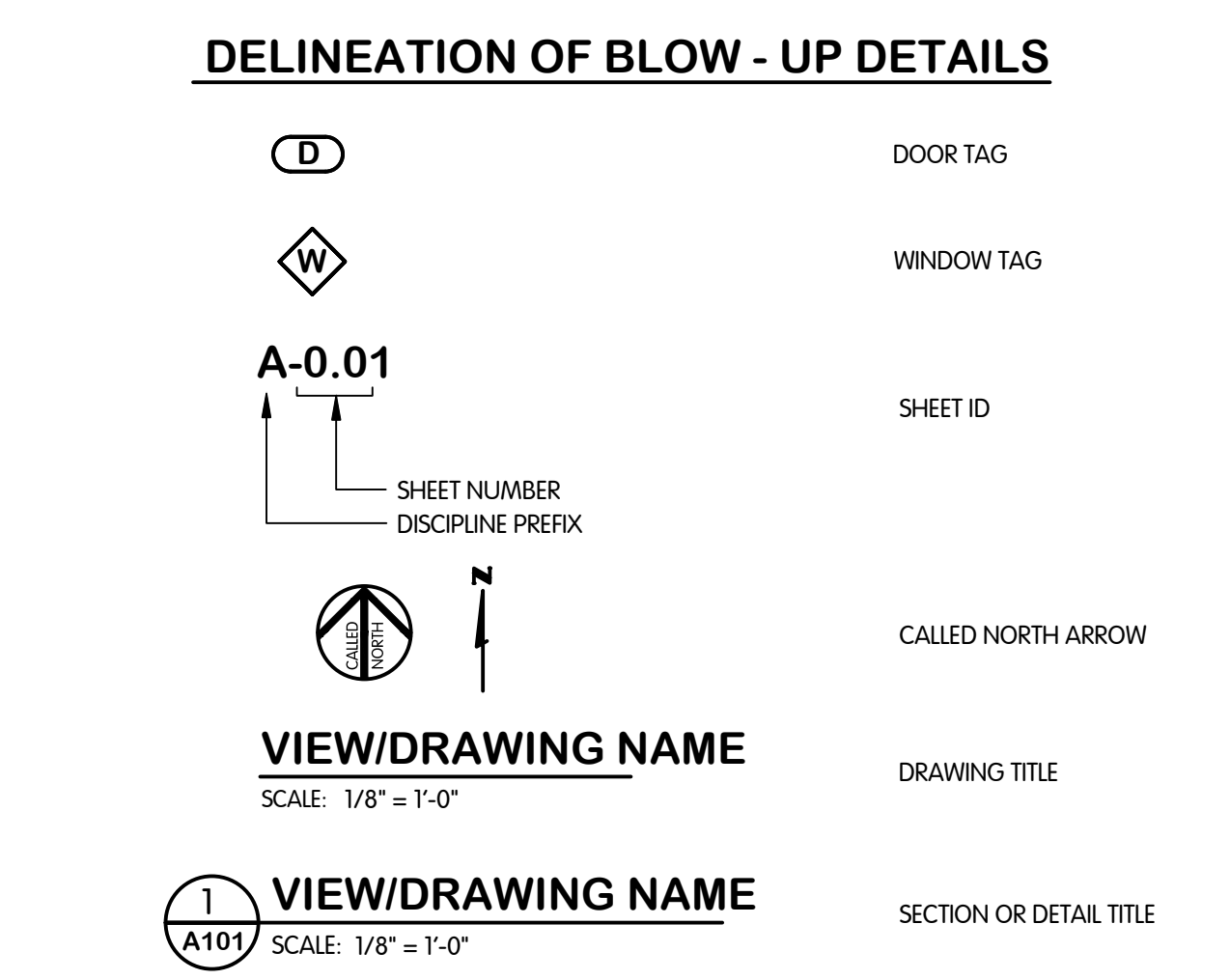
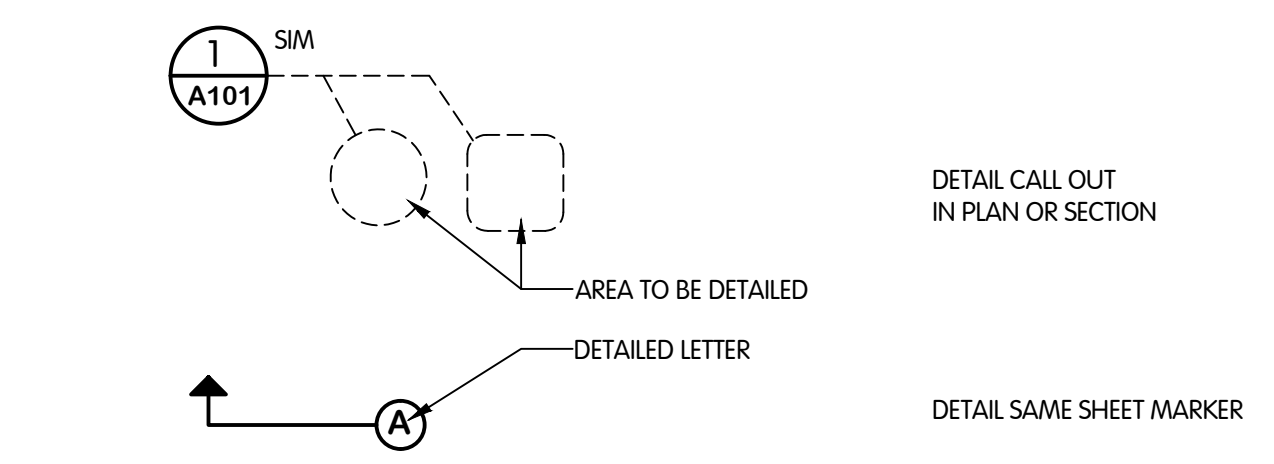
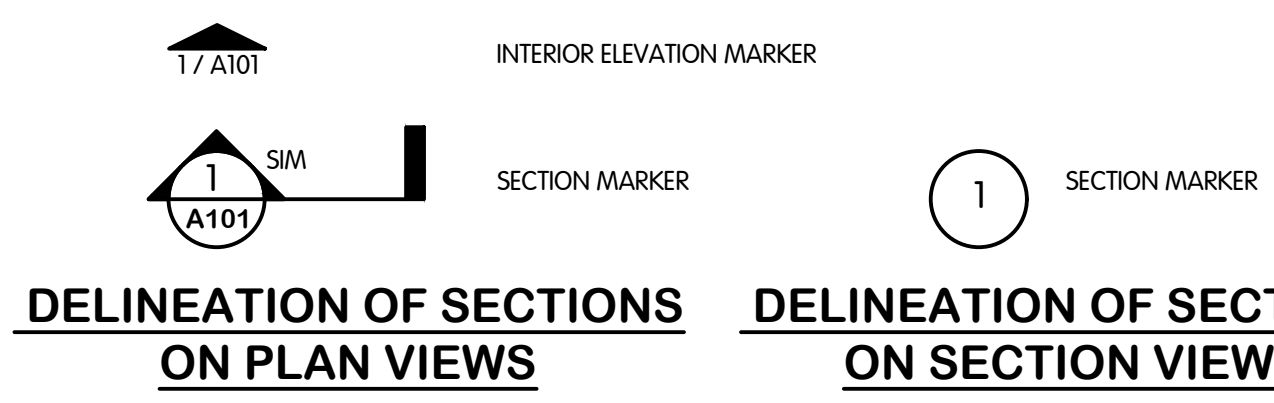
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JOB NO: 992-7902.002  
STATUS: ISSUED FOR BID  
DATE: AUGUST 2023

STANDARD ABBREVIATIONS			
ALUM.	ALUMINIUM	ID	INSIDE DIAMETER
AVE.	AVENUE	INV. EL.	INVERT ELEVATION
BM	BENCH MARK	MAX.	MAXIMUM
BF	BLIND FLANGE	MH	MANHOLE
BLDG.	BUILDING	MJ	MECHANICAL JOINT
C/C	CENTER TO CENTER	MIN.	MINIMUM
CK'D PL.	CHECKERED PLATE	N	NORTH
CONC.	CONCRETE	NTS	NOT TO SCALE
C.S.P.	COMPLETELY SELF PROTECTED	OC	ON CENTER
€	CENTER LINE	OD	OUTSIDE DIAMETER
DIA.	DIAMETER	PE	PLAIN END
DWG.	DRAWING	R	RADIUS
EMB.	EMBEDMENT	RR	RAILROAD
EW	EACH WAY	S	SOUTH
EF	EACH FACE	SCH.	SCHEDULE
ECC.	ECCENTRIC	SH.	SHEET
EL.	ELEVATION	SS	STAINLESS STEEL
E	EAST	ST.	STREET
EXIST.	EXISTING	STA.	STATION
F	FLANGE	T&B	TOP AND BOTTOM
* OR FT.	FEET OR FOOT	T/O	TOP OF
GAL.	GALLON	TYP.	TYPICAL
GR.	GRADE	VERT.	VERTICAL
HOR.	HORIZONTAL	W	WEST
* OR IN.	INCH	W/	WITH

\* SEE DISCIPLINE LEGEND SHEETS FOR ADDITIONAL ABBREVIATIONS.

PIPING ABBREVIATIONS			
MATERIAL		WTP SERVICE	
ABS	ABS ACRYLONITRILE-BUTADIENE-STYRENE	AA	AERATION AIR
ABSC	ABS COMPOSITE SEWER PIPE (TRUSS PIPE)	AL	ALUM
BSP	BLACK STEEL PIPE	AMM	AMMONIA
CIP	CAST IRON PIPE	BW	BACKWASH WASTE
CISP	CAST IRON SOIL PIPE	C	CABLE (UNDERGROUND)*
CMP	CORRUGATED METAL PIPE	CS	CARBON SLURRY
CPP	CONCRETE PRESSURE PIPE	CAS	CAUSTIC SODA
CPT	CORRUGATED POLYETHYLENE TUBING	CA	COMPRESSED AIR
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE	CD	CHLORINE DIOXIDE
CU	COPPER TUBING OR PIPING	CLG	CHLORINE GAS
DIP	DUCTILE IRON PIPE	CL	CHLORINE SOLUTION
FRP	FIBERGLASS REINFORCED PIPE	CO	COMBINED SEWER
GLDIP	GLASS-LINED DUCTILE IRON PIPE	DCW	DOMESTIC COLD WATER
GSP	GALVANIZED STEEL PIPE	DHW	DOMESTIC HOT WATER
HDPE	HIGH DENSITY POLYETHYLENE	DTW	DOMESTIC TEMPERED WATER
PCP	PLAIN CONCRETE PIPE	E	ELECTRICAL (UNDERGROUND)*
PE	POLYETHYLENE	ED	EQUIPMENT DRAIN
PP	POLYPROPYLENE	FO	FIBER OPTIC
PPVC	PERFORATED POLYVINYL CHLORIDE PIPE	FL	FLOURIDE
PVC	POLYVINYL CHLORIDE PIPE	FD	FOUNDATION DRAIN
PVCP	PERFORATED VITRIFIED CLAY PIPE	FU	FUEL OIL
PVDF	POLYVINYLIDENE FLUORIDE (KYNAR)	G	NATURAL GAS (OFF SITE)
RCP	REINFORCED CONCRETE PIPE	HWR	HOT WATER RETURN
SP	STEEL PIPE	HWS	HOT WATER SUPPLY
SSP	STAINLESS STEEL PIPE	LS	LIME SLURRY
SWS	SPIRAL WELDED STEEL	NG	NATURAL GAS (ON SITE)
UPVC	UNPLASTICIZED POLYVINYL CHLORIDE PIPE	OZ	OZONE
VCP	VITRIFIED CLAY PIPE	PH	PHOSPHATE COMPOUND
		P	POLYMER
		PP	POTASSIUM PERMANGANATE
		RCW	RAW CLARIFIED WATER
		RW	RAW WATER
		RD	ROOF DRAIN
		SA	SANITARY SEWER
		S	SIGNAL (UNDERGROUND)*
		SL	SLUDGE
		SOD	SODA ASH
		SPA	SPARE
		ST	STORM SEWER
		SM	STEAM
		SUD	SULFUR DIOXIDE
		SUL	SULFURIC ACID
		TD	TANK DRAIN
		T	TELEPHONE (UNDERGROUND)*
		W	CITY WATER



DRAWING INDEX		
CONST. NO.	SHEET NO.	DESCRIPTION
GENERAL		
0		COVER
1	G-0-1	GENERAL LEGENDS AND INDEX
2	G-0-2	GENERAL NOTES
3	G-0-3	SITE PLAN
4	G-0-4	WATER TOWER ELEVATION
REMOVALS		
5	R-1-1	TOWER ELEVATION
6	R-1-2	PLANS
7	R-1-3	PLANS
8	R-1-4	SECTIONS AND PROFILE
9	R-1-5	REMOVAL PHOTOS
10	R-1-6	REMOVAL PHOTOS
CIVIL		
11	C-1-1	YARD PIPING AND ENLARGED PLANS AND PROFILE
12	C-1-2	DETAILS
STRUCTURAL		
13	S-1-1	TOWER ELEVATION
14	S-1-2	TOWER PLAN AND SECTION
15	S-1-3	CLEANING AND PAINTING REFERENCE PHOTOS
PIPING AND EQUIPMENT		
16	PE-1-1	TOWER PLAN
17	PE-1-2	SECTION AND DETAILS
18	PE-1-3	CLEANING AND PAINTING REFERENCE PHOTOS
19	PE-1-4	CLEANING AND PAINTING REFERENCE PHOTOS



GENERAL  
SHEET INDEX AND LEGENDS

CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

REVISIONS AFTER ISSUED FOR BID

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JOB NO.	992-7902.002	
SCALE	NO SCALE	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
CM	CAL	PAL
STATUS: ISSUED FOR BID		
DATE: AUGUST 2023		
SHEET NO.		
G-0.1		
1 OF 19		

- NOTES:
- ACCURACY OF EXISTING ELEVATIONS AND DIMENSIONS IS NOT GUARANTEED. FIELD VERIFY BEFORE CONSTRUCTION.
  - ALL NOTES ON THE DRAWINGS BEAR THE SAME IMPORTANCE. SOME NOTES AND DIMENSIONS ARE BOLD TO AID IN READING THE DRAWINGS IN AREAS OF HIGH GRAPHIC DENSITY.



**CITY OF GAHANNA STANDARD  
PROJECT NOTES (CAPITAL  
PROJECTS) (JANUARY, 2023)**

**GENERAL NOTES:**

THE CURRENT CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) TOGETHER WITH THE REQUIREMENTS OF THE CITY OF GAHANNA, OHIO, SHALL GOVERN MATERIALS AND WORKMANSHIP INVOLVED IN IMPROVEMENTS SHOWN ON THESE PLANS, EXCEPT THOSE SPECIFICATIONS MODIFIED BY THE FOLLOWING SPECIFICATIONS OR CONSTRUCTION DETAILS SET FORTH HEREIN.

ALL WORK IS TO BE ACCEPTABLE TO CITY OF GAHANNA OFFICIALS. NO WORK IS TO COMMENCE UNTIL ARRANGEMENTS HAVE BEEN MADE WITH THE CITY OF GAHANNA ENGINEER FOR INSPECTION.

THE CONTRACTOR SHALL NOTIFY THE CITY OF GAHANNA ENGINEER AT LEAST TEN WORKING DAYS PRIOR TO CONSTRUCTION.

THE CONTRACTOR IS TO SCHEDULE A PRE-CONSTRUCTION MEETING ONE BUSINESS WEEK PRIOR TO CONSTRUCTION. THE MEETING SHALL TAKE PLACE AT LEAST ONE BUSINESS WEEK PRIOR TO THE FOLLOWING: SITE CLEARING, MATERIAL DELIVERED ON-SITE, EQUIPMENT ON-SITE AND FIELD OFFICE ON-SITE.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. THE CONTRACTOR SHALL EXERCISE PRECAUTION ALWAYS FOR THE PROTECTION OF PERSONS INCLUDING EMPLOYEES AND PROPERTY. IT SHALL ALSO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, INCLUDING THE REQUIREMENTS FOR CONFINED SPACES PER 29 CFR 1910.146.

THE PRICE(S) QUOTED SHALL INCLUDE ALL ITEMS OF LABOR, MATERIALS, TOOLS, EQUIPMENT, INSURANCE AND OTHER COSTS NECESSARY TO FULLY COMPLETE THE WORK PURSUANT TO THE CONTRACT DOCUMENTS. IT IS THE INTENTION OF THE CONTRACT DOCUMENTS TO PROVIDE AND REQUIRE A COMPLETED WORK PROJECT READY FOR OPERATION. ANY WORK ITEMS OMITTED FROM SUCH CONTRACT DOCUMENTS WHICH ARE CLEARLY NECESSARY FOR THE COMPLETION OF SUCH WORK AND ITS APPURTENANCES SHALL BE CONSIDERED A PART OF SUCH WORK ALTHOUGH NOT DIRECTLY SPECIFIED OR CALLED FOR IN THE CONTRACT DOCUMENTS.

ALL FIELD TILE BROKEN DURING EXCAVATION SHALL BE REPLACED WITH PERFORATED PIPE OR CONNECTED TO THE STORM SEWER SYSTEM. THE COST FOR THIS WORK SHALL BE INCLUDED IN PRICE BID FOR THE VARIOUS RELATED ITEMS.

NO NATURAL DRAINAGE COURSES SHALL BE ALTERED AND NO FILL, MATERIALS OR STRUCTURES SHALL BE PLACED IN IT UNLESS PROVISIONS ARE MADE FOR THE FLOW OF WATER IN A MANNER SATISFACTORY TO THE CITY ENGINEER. AN EASEMENT SHALL BE PROVIDED ON BOTH SIDES OF ANY EXISTING IMPORTANT SURFACE DRAINAGE COURSE ADEQUATE FOR THE PURPOSE OF PROTECTING, WIDENING, DEEPENING, ENCLOSING OR OTHERWISE IMPROVING SUCH STREAM FOR DRAINAGE PURPOSES.

DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE AND PROPER SOIL EROSION CONTROL MEASURES FOR PROTECTION OF ALL ADJACENT ROADS AND LANDS.

THE CONTRACTOR SHALL REPAIR OR REPLACE ANY OR ALL EXISTING SIGNS, SHRUBS, FENCES, OR OTHER PHYSICAL FEATURES DAMAGED DURING THE EXECUTION OF THIS CONTRACT AT THEIR OWN EXPENSE. ALL REPAIRS SHALL BE TO THE SATISFACTION OF THE CITY OF GAHANNA.

THE CONTRACTOR SHALL CONFINED ACTIVITIES TO THE PROJECT SITE, EXISTING RIGHT-OF-WAYS, TEMPORARY EASEMENTS AND PERMANENT EASEMENTS, AND SHALL NOT ENTER UPON OTHER PROPERTIES WITHOUT WRITTEN PERMISSION OF THE PROPERTY OWNER.

DUST CONTROL SHALL BE MAINTAINED THROUGHOUT THE ENTIRE SITE.

THE CONTRACTOR SHALL CLEAN ADJACENT STREETS ON A DAILY BASIS IF MUD IS TRACKED FROM VEHICLES VISITING THE SITE.

SHOULD WATER BE ENCOUNTERED, THE CONTRACTOR SHALL FURNISH AND OPERATE SUITABLE PUMPING EQUIPMENT OF SUCH CAPACITY ADEQUATE TO DEWATER THE TRENCH. THE TRENCH SHALL BE SUFFICIENTLY DEWATERED SO THAT THE PLACEMENT OF BEDDING AND LAYING AND JOINING OF THE PIPE IS MADE IN A TRENCH FREE OF STANDING WATER. THE CONTRACTOR SHALL CONVEY ALL TRENCH WATER TO A NATURAL DRAINAGE CHANNEL OR STORM SEWER WITHOUT CAUSING ANY PROPERTY DAMAGE. THE COST FOR DEWATERING ACTIVITIES SHALL BE INCLUDED IN PRICE BID FOR THE VARIOUS RELATED ITEMS.

THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO ENSURE CONSTRUCTION TO PLAN GRADE. THE CONTRACTOR SHALL ENSURE THERE IS A SURVEYOR'S LEVEL AND ROD ON THE PROJECT FOR USE IN PERFORMING GRADE CHECKS WHENEVER SEWER LINE STRUCTURES OR PIPES ARE BEING INSTALLED. THE CONTRACTOR SHALL MAKE THIS EQUIPMENT AVAILABLE FOR USE AND ASSIST THE CITY INSPECTOR IN PERFORMING GRADE CHECKS WHEN REQUESTED BY THE INSPECTOR. THE INSPECTOR WILL MAKE ALL REASONABLE ATTEMPTS TO CONFINE REQUESTS FOR ASSISTANCE IN PERFORMING GRADE CHECKS TO TIMES CONVENIENT TO THE CONTRACTOR. THESE CHECKS WILL BE PERFORMED TO ENSURE THAT CONSTRUCTION MATCHES PLAN GRADE, AND TO ENSURE THAT ALL EXISTING INVERTS ALONG WITH THE PROPOSED TOP OF CASTING ELEVATIONS ARE VERIFIED DURING CONSTRUCTION OF THE SEWER.

THE CONTRACTOR SHALL REFERENCE ALL IRON PINS OR MONUMENTS. IF ANY PINS OR MONUMENTS ARE DESTROYED OR DAMAGED BY THE CONTRACTOR, THEY SHALL BE ACCURATELY REPLACED BY A REGISTERED SURVEYOR IN THE STATE OF OHIO AT THE COMPLETION OF THE PROJECT.

VERTICAL CONTROL HAS BEEN ESTABLISHED FOR THE PROJECT AS SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED SURVEYS TO COMPLETE THE PROJECT INCLUDING REESTABLISHMENT OF CONTROL POINTS, PROJECT LAYOUT AND STAKING OF EASEMENTS.

ALL CURB RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990, INCLUDING ALL SUPPLEMENTS IN ACCORDANCE WITH THE CITY OF COLUMBUS STANDARD DRAWING 2319, INCLUDING ALL SUPPLEMENTS AND/OR REPLACEMENTS, CURRENT ON THE DATE OF THE START OF PROJECT CONSTRUCTION. SIDEWALKS SHALL BE CONSTRUCTED WITH A 3/16" PER FOOT (1.56%) CROSS SLOPE.

NO NON-RUBBER Tired VEHICLES SHALL BE MOVED ON CITY STREETS, EXISTING PRIVATE ROADWAYS, OR PARKING LOTS UNLESS WRITTEN APPROVAL IS GRANTED BY THE APPROPRIATE CITY AUTHORITY OR PROPERTY OWNER. ANY DAMAGE MUST BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF GAHANNA AT NO COST TO THE CITY OR PROPERTY OWNER.

ANY MODIFICATION TO THE WORK AS SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE CITY OF GAHANNA.

THE CONTRACTOR SHALL MAKE HIS OWN PROVISIONS TO PROVIDE A JOB TRAILER (IF REQUIRED) FOR THE PROJECT IMPROVEMENTS.

ORANGE CONSTRUCTION FENCING SHALL BE PLACED AROUND THE EXISTING TREES TO BE SAVED AND REMAIN IN PLACE DURING THE DEVELOPMENT CONSTRUCTION. THE LOCATION AND LIMITS OF THE FENCING AND ANY CLEARING NECESSARY SHALL BE AS PER THE APPROVED PLANS.

INCONVENIENCE TO THE ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC SHALL BE KEPT TO AN ABSOLUTE MINIMUM. ALL WORK IS TO CONTINUE ON A UNIFORM BASIS AND ON SCHEDULE, PARTICULARLY THE RESTORATION AND CLEAN UP OF DISTURBED AREAS AFTER CONSTRUCTION.

THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT SOIL TRANSPORT DURING CONSTRUCTION ONTO PUBLIC ROADS. THE CONTRACTOR SHALL CLEAN AND SWEEP STREETS AS DIRECTED BY THE CITY. THE COST FOR STREET SWEEPING AND CLEANINGS IS TO BE INCLUDED IN THE PRICE BID UNDER VARIOUS ITEMS.

THE COST OF RELOCATING AND/OR SECURING ANY POWER POLES AS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

ANY REQUIRED RELOCATION, SUPPORT, PROTECTION, RESTORATION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S ELECTRICAL OR STREET LIGHTING SYSTEMS IN THE CONSTRUCTION AREA IS TO BE PERFORMED SOLELY BY THE CITY AT THE EXPENSE OF THE PROJECT. THE CITY SHALL BE NOTIFIED PRIOR TO CONSTRUCTION TO ALLOW FOR ENGINEERING AND RELOCATION OF FACILITIES.

IF ANY ELECTRIC FACILITY BELONGING TO THE CITY IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, ITS AGENTS, SERVANTS, OR EMPLOYEES, THE CITY SHALL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE CITY.

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

**UTILITIES:**

THE CONTRACTOR SHALL GIVE NOTICE TO THE OHIO UTILITIES PROTECTION SERVICE (PHONE 1-800-362-2764) AND TO THE OWNERS OF THE UTILITY FACILITIES SHOWN ON THE PLAN WHO ARE NOT MEMBERS OF A REGISTERED UTILITY PROTECTION SERVICE. THE ABOVE-MENTIONED NOTICE SHALL BE GIVEN AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS RELATED ITEMS. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECTS ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL GIVE NOTICE TO OUPS AND OTHER UTILITY OWNERS PER THE GENERAL NOTES.

WHERE POTENTIAL GRADE CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE DEPTH OF THE EXISTING UTILITY IN ADVANCE OF THE PROPOSED CONSTRUCTION.

THE IDENTITY AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS AS ACCURATELY AS PROVIDED BY THE UTILITY OWNER. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTHS OF UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE.

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND ARE REGISTERED MEMBERS OF THE UNDERGROUND UTILITY PROTECTION SERVICE:

UTILITY	OWNER	TELEPHONE	FAX
WATER FACILITIES	CITY OF GAHANNA WATER DIVISION 200 S. HAMILTON TD. GAHANNA, OH 43230	(614) 342-4440	(614) 342-4100
SEWER FACILITIES	CITY OF GAHANNA WATER DIVISION 200 S. HAMILTON TD. GAHANNA, OH 43230	(614) 342-4440	(614) 342-4100
ELECTRIC FACILITIES	AMERICAN ELECTRIC POWER 850 TECH CENTER DR. GAHANNA, OH 43230	(614) 883-6811	(614) 883-6868
GAS	COLUMBIA GAS OF OHIO (DISTRIBUTION) ATT: ROB CALDWELL 3550 JOHNNY APPESEED COURT COLUMBUS, OH 43231	P: (614) 883-6811 C: (614) 370-1906 E-MAIL: rcaldwell@nisource.com	(614) 460-4265
TELEPHONE	AT&T 150 GAY ST. COLUMBUS, OH 43212	(800) 660-1000	(614) 223-6296

**WATER NOTES:**

ALL WATER LINE MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER AND THE DIRECTION OF THE CITY OF GAHANNA.

WATER MAINS AND FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE, CLASS 52 OR GREATER (AWWA C151) WITH CEMENT MORTAR LINING AND SEAL COAT (AWWA C104) OR PVC, CLASS 150 MEETING AWWA C900. JOINTS SHALL BE RUBBER GASKET PUSH-ON MECHANICAL (AWWA C110).

FIRE HYDRANTS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE AS SHOWN ON THE CITY OF COLUMBUS L-6409 AND L-6637 STANDARD CONSTRUCTION DRAWINGS. FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION 250 FIRE HYDRANT, AMERICAN DARLING 4-1/2 MK73 - 5, OR APPROVED EQUAL. PUBLIC HYDRANTS SHALL BE PAINTED RED FOR THE BONNET / CAPS AND SILVER FOR THE BARREL, FEATURE ONE (1) FOUR-INCH STEAMER NOZZLE PLUS TWO (2) 2.5-INCH HOSE NOZZLES AND SHALL OPEN TO THE LEFT (COUNTER-CLOCKWISE). DELIVER ANY ABANDONED PUBLIC HYDRANTS TO THE CITY OF GAHANNA AT ITS SERVICE FACILITY (152 OKLAHOMA AVE).

ALL WATER SERVICES SHALL BE INSTALLED IN ACCORDANCE AS SHOWN ON THE CITY OF COLUMBUS L-9901 STANDARD CONSTRUCTION DRAWING. STAINLESS STEEL SERVICE SADDLES SHALL BE PROVIDED FOR ALL WATER SERVICE TAPS.

ALL GATE VALVES SHALL BE RESILIENT SEAT TYPE MANUFACTURED TO MEET OR EXCEED TO REQUIREMENTS OF ANSI/AWWA C509 OR THE LATEST REVISION.

WATERLINES SHALL BE LAID WITH A MINIMUM OF 4'-0" OF COVER FROM THE FINISHED GRADE TO THE TOP OF THE WATER LINE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HORIZONTAL AND VERTICAL DEFLECTIONS OR BENDS OF THE WATER LINES IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DEFLECT WATER LINES TO PROVIDE A 1'-6" VERTICAL AND 10'-0" HORIZONTAL CLEARANCE WITH SEWERS.

ALL WATER LINES, INCLUDING MAINS AND SERVICES, SHALL BE TESTED UNDER A MINIMUM HYDROSTATIC TEST OF 150 PSI AND IN ACCORDANCE WITH AWWA C600 AND CITY OF COLUMBUS CMS ITEMS 801.13 AND 801.14. NO PRESSURE TEST SHALL BE PERFORMED IF THE TEMPERATURE IS BELOW FREEZING.

THE CONTRACTOR SHALL SUBMIT TWO (2) COPIES OF THE PLANS, RESULTS OF THE PRESSURE TEST AND A LETTER REQUESTING CHLORINATION TO THE CITY OF GAHANNA. COST OF CHLORINATION SHALL BE INCLUDED IN THE PRICE BID FOR THE WATER LINE ITEMS.

NO PERSON SHALL INSTALL OR MAINTAIN A WATER SERVICE CONNECTION WHERE A BOOSTER PUMP HAS BEEN INSTALLED.

ALL MECHANICAL JOINTS ARE REQUIRED TO BE MEGALIGGED, CONCRETE BACKING IS STILL REQUIRED. ALL MECHANICAL PIPE DEFLECTIONS ARE REQUIRED TO BE MEGALIGGED, CONCRETE BACKED, AND JOINT RESTRAINTS MAY BE REQUIRED BY THE ENGINEER. THE HYDRANT TEE IS TO BE ALL-THREADED TO THE MAINLINE VALVE FOR FUTURE EXPANSION. 1 FULL STICK OF PIPE (20') IS TO BE LAID BEFORE FOR THE PLUG.

ALL FITTINGS ARE TO BE GPS LOCATED PRIOR TO BACKFILL USING X, Y, AND Z COORDINATES.

ANY WATER USAGE FOR FILLING THE WATER MAIN AND CHLORINATION SHALL GO THROUGH A WATER METER. ANY UNMETERED WATER USE WILL BE CHARGED TO THE CONTRACTOR/DEVELOPER BASED ON FLOW RATE CALCULATIONS.

THE WATER LINE AND SEWER LINE TRENCH UNDER THE INFLUENCE OF PAVEMENT ARE TO BE COMPACTION TESTED.

INSTALL COPPER-HEAD® OR EQUAL 12-GAUGE HIGH STRENGTH 452LB BREAK STRENGTH 30 MIL HDPE JACKET, COPPER-CLAD, STEEL REINFORCED TRACER WIRE ON ALL WATER MAIN AND SERVICE LINES INSTALLED BY TRENCHING METHODS.

INSTALL COPPER-HEAD® OR EQUAL 12-GAUGE EXTRA HIGH STRENGTH 1150LB BREAK STRENGTH 45 MIL HDPE JACKET, COPPER-CLAD, STEEL REINFORCED TRACER WIRE ON ALL WATER MAIN AND SERVICE LINES INSTALLED BY BORING METHODS.

FASTEN WIRE TO PIPE IN TWO PLACES PER PIPE SECTION. EXTEND TRACER WIRE TO GROUND SURFACE AT ALL VALVES AND HYDRANTS. SPLICE WIRES USING BURNDY COPPER SPLIT BOLT KS-15. THOROUGHLY WRAP THE CONNECTOR AND BARE WIRES WITH 3M TEMFLEX 2155 RUBBER SPLICING TAPE, COVER ENTIRE CONNECTION WITH SCOTCH SUPER 88 HEAVY DUTY GRADE ELECTRICAL TAPE.

CONNECT ALL SERVICE LINE WIRES TO MAIN LINE WIRES USING BURNDY COPPER SPLIT BOLT KS-15. THOROUGHLY WRAP THE CONNECTOR AND BARE WIRES WITH 3M TEMFLEX 2155 RUBBER SPLICING TAPE, COVER ENTIRE CONNECTION WITH SCOTCH SUPER 88 HEAVY DUTY GRADE ELECTRICAL TAPE.

ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651.

THE NORMAL WORKING PRESSURE OF THE SYSTEM SHALL NOT DECREASE BELOW 35 PSI. ALL WATER MAIN IMPROVEMENTS HAVE BEEN DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI AT GROUND LEVEL AT ALL POINTS IN THE SYSTEM UNDER ALL CONDITIONS OF FLOW.

**SANITARY SEWER NOTES:**

SERVICE RISERS, ITEM 914, SHALL BE INSTALLED WHERE DEPTHS FROM THE WYES TO THE EXISTING OR PROPOSED ELEVATIONS EXCEED 10'. THE TOPS OF RISERS SHALL BE NO MORE THAN ±9" BELOW THE EXISTING OR PROPOSED SURFACE ELEVATION, WHICHEVER IS HIGHER.

A MINIMUM VERTICAL CLEARANCE OF 1.5' SHALL BE PROVIDED BETWEEN THE PROPOSED SANITARY SERVICE AND EXISTING UTILITIES OR STRUCTURES UNLESS OTHERWISE NOTED ON THESE PLANS.

ALL PVC SEWER LINES SHALL BE DEFLECTION TESTED AFTER INSTALLATION IN CONFORMANCE WITH THE REQUIREMENTS OF ITEM 901.21 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT VERSION.

ALL SANITARY SEWER AND SANITARY SERVICES ARE TO BE MANDREL TESTED, AIR TESTED, CLEANED AND CAMERA INSPECTED.

ALL SANITARY MANHOLES ARE REQUIRED TO PASS A VACUUM TEST PER CITY OF COLUMBUS ITEM 901.20 AND ASTM-C-1244.

PIPE FOR ALL 6" SANITARY SERVICES SHALL BE PVC SEWER PIPE ASTM D-3034, SDR-35. THE SERVICES SHALL BE FIELD TESTED BY THE INFILTRATION, EXFILTRATION OR AIR TEST.

ALL PIPES SHALL BE LAID WITH TYPE 1 GRANULAR MATERIAL BEDDING AND BACKFILL AS SHOWN ON STANDARD CONSTRUCTION CITY OF COLUMBUS AA-5151. INSTALLATION SHALL CONFORM TO CMS SECTION 900.

**STORM SEWER NOTES:**

ANY PLACEMENT OF STORM SEWERS BENEATH EXISTING OR PROPOSED PAVEMENT SHALL BE BACKFILLED IN ACCORDANCE WITH COLUMBUS CMS ITEM 912, COMPACTED GRANULAR BACKFILL.

ALL PIPES SHALL BE LAID WITH TYPE 1 GRANULAR MATERIAL BEDDING AND BACKFILL AS SHOWN ON STANDARD CONSTRUCTION CITY OF COLUMBUS AA-5151. INSTALLATION SHALL CONFORM TO CMS SECTION 901.

ALL CONCRETE PIPE AND STORM SEWER STRUCTURES SHALL BE STAMPED OR HAVE SUCH IDENTIFICATION NOTING THAT SAID PIPE AND/OR STORM STRUCTURES HAVE BEEN INSPECTED BY THE CITY OF COLUMBUS AND MEETS THEIR SPECIFICATIONS. PIPE AND STRUCTURES WITHOUT PROPER IDENTIFICATION WILL NOT BE PERMITTED FOR INSTALLATION.

ALL CURB INLETS AND MANHOLES SHALL BE CHANNLED AS DIRECTED. THE COST FOR THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR VARIOUS STORM SEWER ITEMS.

IN CASE OF CONFLICT IN GRADE BETWEEN WATER LINES AND STORM SEWERS, THE WATER LINES SHALL BE LOWERED DURING CONSTRUCTION.

ALL PLASTIC SEWER LINES SHALL BE DEFLECTION TESTED AFTER INSTALLATION IN CONFORMANCE WITH THE REQUIREMENTS OF COLUMBUS CMS ITEM 901.

ALL STORM SEWER IS TO BE MANDREL TESTED, CLEANED AND CAMERA INSPECTED.

**MAINTENANCE OF TRAFFIC:**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND AND AWAY FROM THE CONSTRUCTION SITE AS DESIGNATED IN SECTION 60.01 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD).

THE SAFETY OF PEDESTRIAN TRAFFIC SHALL BE CONSIDERED AT ALL TIMES IN THE PROVISION OF TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS AND NOTES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE LIGHTS, SIGNS, BARRICADES AND OTHER WARNINGS TO PHYSICALLY SEPARATE THE PEDESTRIAN FROM HAZARDS INCIDENTAL TO THE CONSTRUCTION OPERATIONS SUCH AS OPEN EXCAVATIONS, ETC.

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) FOR CONSTRUCTION AND MAINTENANCE OPERATIONS. ALL DEVICES SHALL MEET FP-85 REFLECTANCE STANDARDS AND IN FULL COMPLIANCE WITH "QUALITY STANDARDS FOR WORK ZONE TRAFFIC CONTROL DEVICES" PUBLISHED BY ATTSSA. ALL TRAFFIC CONTROL DEVICES MUST MEET NCHRP 350.

STEADY BURNING, TYPE "C" LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS AND SIMILAR TRAFFIC CONTROL DEVICES USE AT NIGHT. ALL SIGNS, NINE SQUARE FEET (36" X 36") AND OVER SHALL HAVE YELLOW TYPE "A" LOW INTENSITY FLASHING WARNING LIGHTS AND THREE FLAGS. CONES ARE NOT APPROVED FOR USE AT NIGHT.

THE ROADWAY SHALL NOT BE OPENED TO TRAFFIC UNTIL PERMANENT TRAFFIC CONTROLS ARE IN PLACE OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE INSPECTOR ARE INSTALLED. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING THE CONSTRUCTION. PERMANENT TRAFFIC CONTROLS NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROLS SHALL BE REPLACED IMMEDIATELY.

ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS SHALL BE MAINTAINED THROUGHOUT THE PROJECT BY THE CONTRACTOR. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, AND IMPROPERLY PLACED TRAFFIC CONTROL DEVICES.

ALL TRENCHES WITHIN THE ROAD RIGHT-OF-WAY SHALL BE BACKFILLED OR SECURELY PLATED DURING NON-WORKING HOURS.

ALL LANES SHALL BE FULLY OPEN TO TRAFFIC ON ALL PUBLIC STREETS AND ALLEYS UNLESS OTHERWISE APPROVED BY THE CITY OF GAHANNA.

ANY WORK DONE BY THE CITY INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF THE NEGLIGENCE OF THE CONTRACTOR SHALL BE AT THE EXPENSE OF THE CONTRACTOR.



**GENERAL NOTES**  
CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

BY \_\_\_\_\_ DATE \_\_\_\_\_  
REVISIONS AFTER ISSUED FOR BID

**Jones & Henry  
Engineers, Ltd.**

Fluid thinking®  
www.JHeng.com

JOB NO. **992-7902.002**

SCALE **NO SCALE**

THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE

DESIGNED CM	DRAWN CAL	CHECKED PAL
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STATUS: **ISSUED FOR BID**

DATE: **AUGUST 2023**

SHEET NO.  
**G-0.2**  
2 OF 19

TOL-790200IG-2 GENERAL NOTES  
8/17/2023 9:01 AM - CLENDER  
8/17/2023 9:05 AM





**GAHANNA WOODS  
CITY PARK**

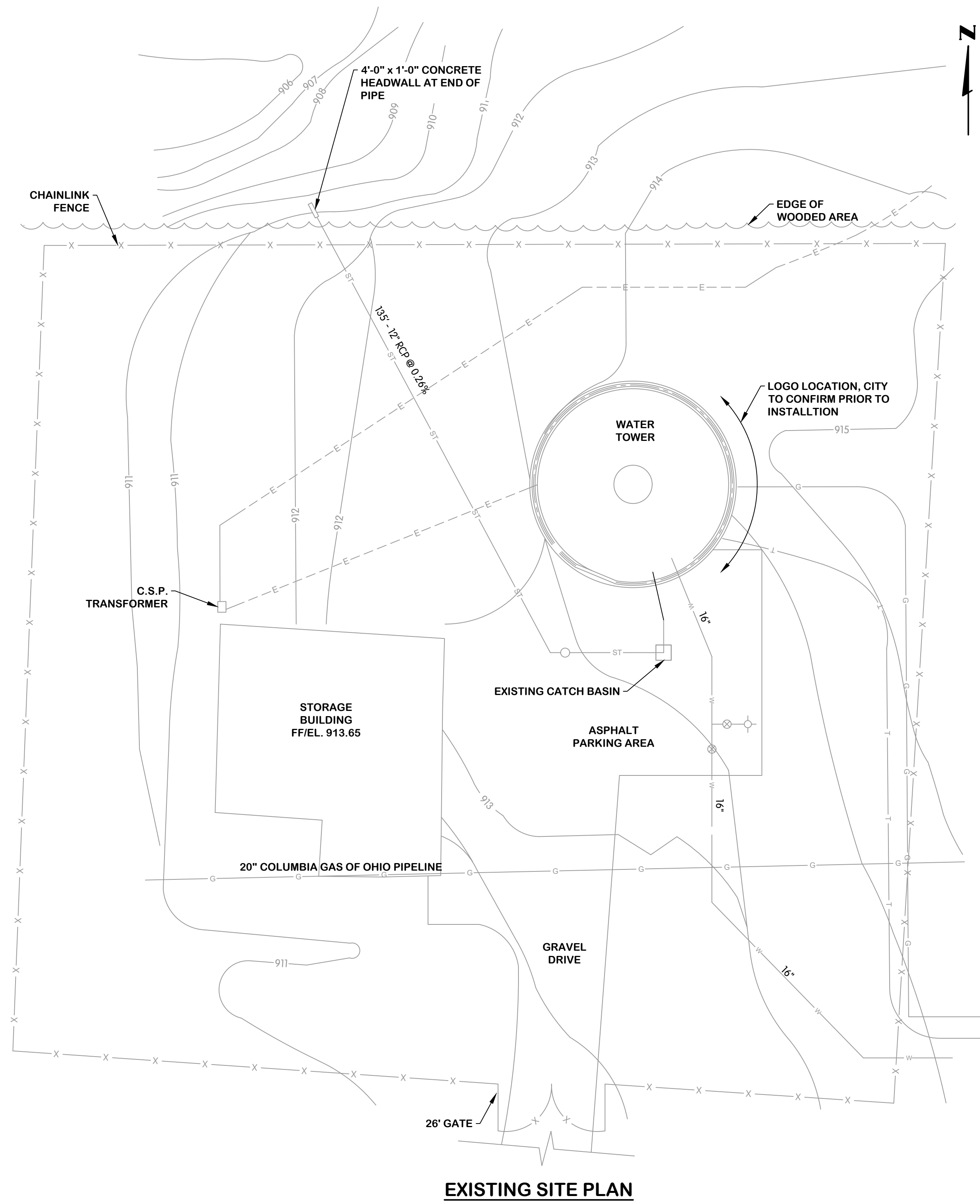
**AERIAL VIEW**  
NTS



**GAHANNA OHIO COLOR PALETTE**

Primary Palette

#A7A8A9	#75787B	#54752B	#AD940D	#5C788F	#C6DAE7
PMS Cool Gray 6	PMS Cool Gray 9	PMS 575	PMS 457	PMS 5415	PMS 545



TOL-7902001-3 SITE PLAN  
8/7/2023 9:02 AM - CLENDER  
8/7/2023 9:05 AM



**GENERAL  
SITE PLAN**

CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

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SCALE AS INDICATED

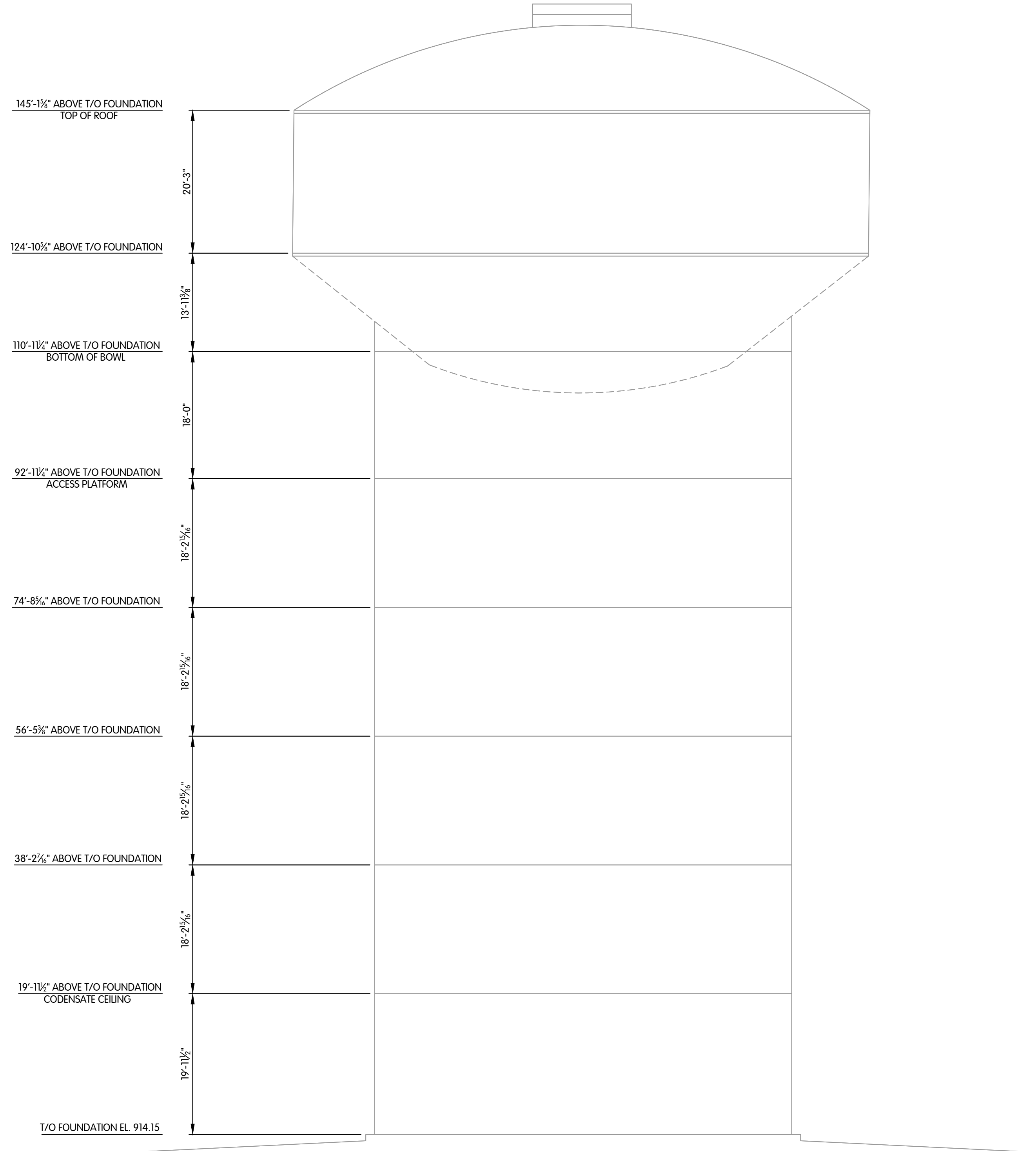
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
CM	CAL	PAL

STATUS: ISSUED FOR BID  
DATE: AUGUST 2023

SHEET NO.  
**G-0.3**  
3 OF 19





**TOWER ELEVATION**  
3/32" = 1'-0"

NOTE:  
ELEVATIONS FROM MANUFACTURER DRAWINGS.  
CONTRACTOR TO FIELD VERIFY.

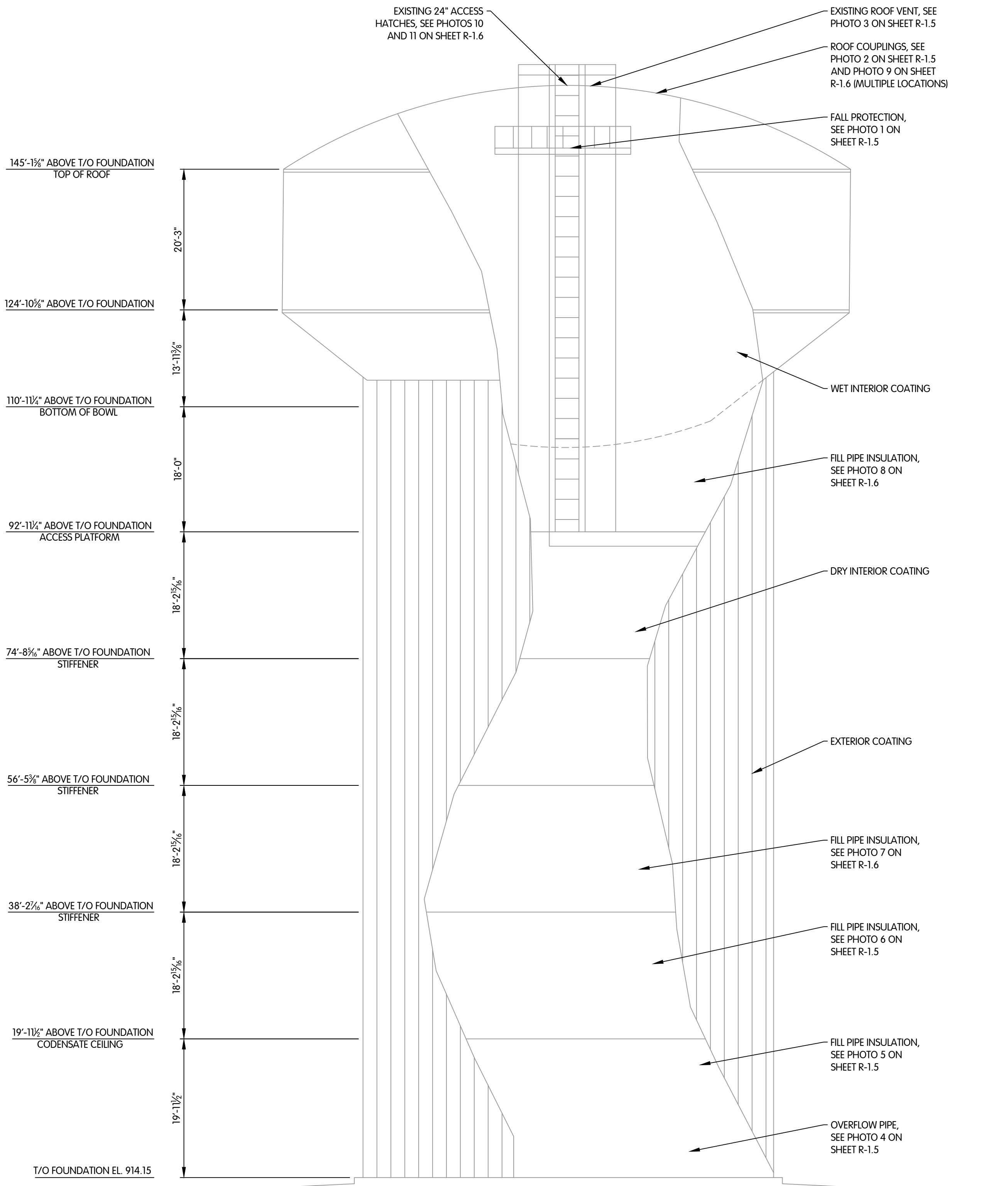
WATER TOWER  
 ELEVATION  
 CITY OF GAHANNA, OHIO  
 WATER TOWER REHABILITATION ST-1106

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JOB NO.	992-7902.002	
SCALE	AS INDICATED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
CM	CAL	PAL
STATUS: ISSUED FOR BID		
DATE: AUGUST 2023		
SHEET NO.		
G-0.4		
4 OF 19		

TOL-7902002-4, WATER TOWER ELEVATION  
 8/7/2023 9:03 AM - CLENDER  
 8/7/2023 9:06 AM





NOTES:  
 1. CALLOUT LOCATIONS ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY.  
 2. ALL COATING PER SPECIFICATION SECTION 09901.

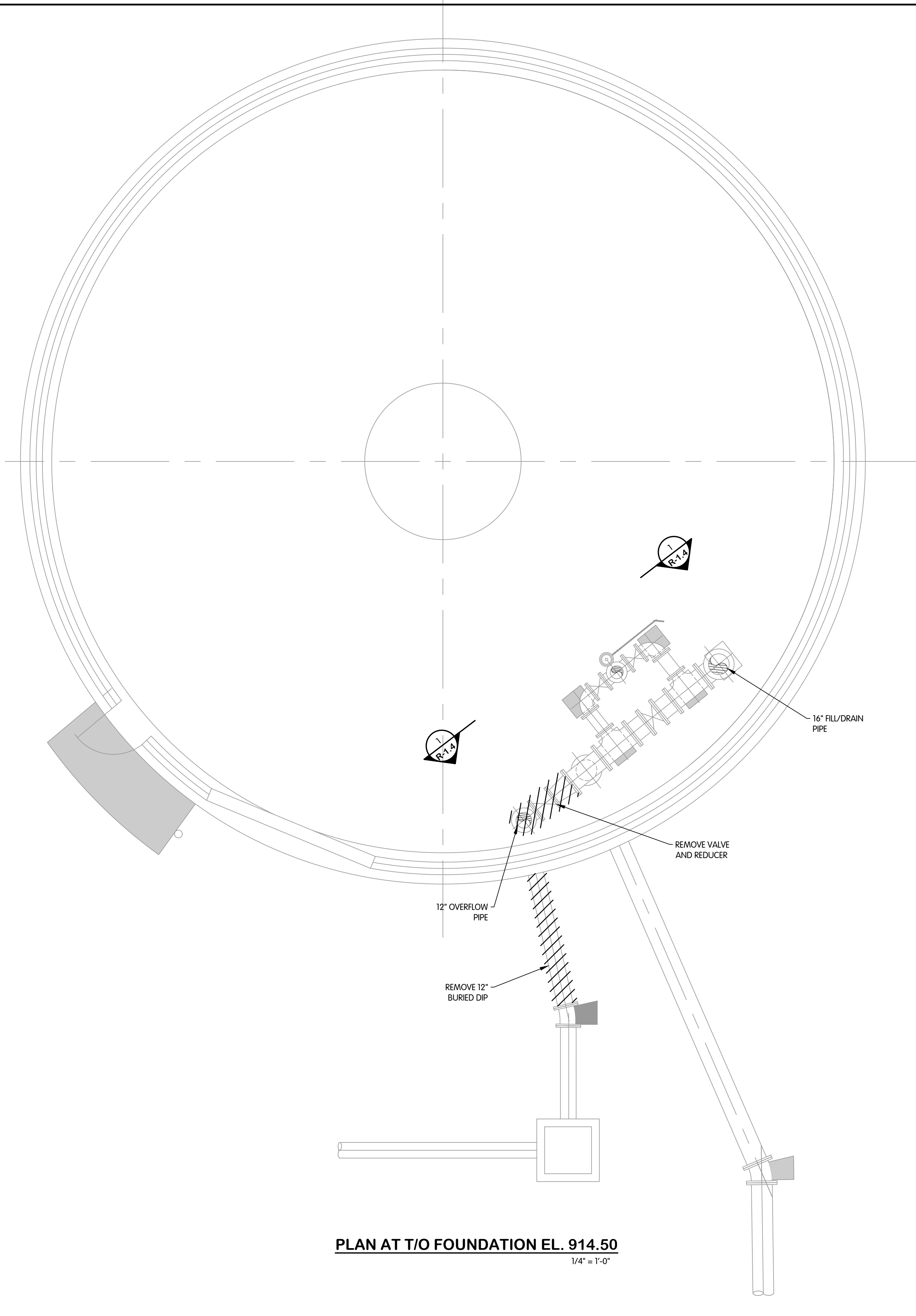
**TOWER ELEVATION**  
 3/32" = 1'-0"

TOL-790200R2-5 TOWER ELEVATION  
 8/15/2023 1:07 PM - CLENDER  
 8/17/2023 9:06 AM

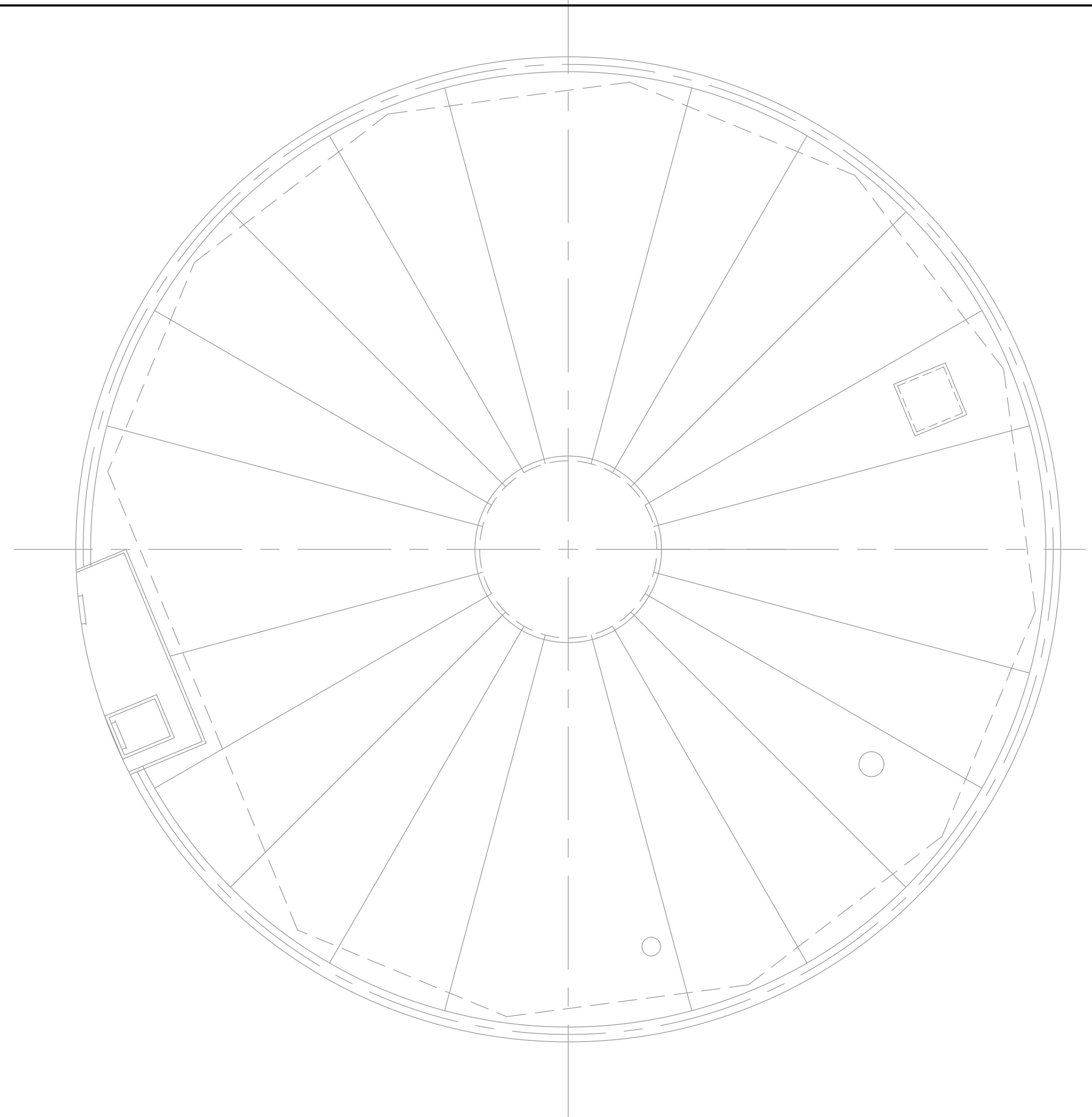
<b>REMOVALS TOWER ELEVATION</b> CITY OF GAHANNA, OHIO WATER TOWER REHABILITATION ST-1106				
Jones & Henry Engineers, Ltd.  Fluid thinking® www.JHeng.com	JOB NO. 992-7902.002 SCALE AS INDICATED <small>THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE</small> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">DESIGNED CM</td> <td style="width: 33%;">DRAWN CAL</td> <td style="width: 33%;">CHECKED PAL</td> </tr> </table> STATUS: ISSUED FOR BID DATE: AUGUST 2023 SHEET NO. <b>R-1.1</b> 5 OF 19	DESIGNED CM	DRAWN CAL	CHECKED PAL
DESIGNED CM	DRAWN CAL	CHECKED PAL		



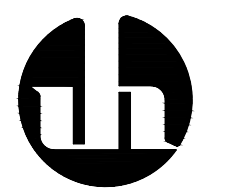
TOL-790200R2-6 PLANS  
 8/15/2023 1:07 PM - CLENDER  
 8/17/2023 9:06 AM



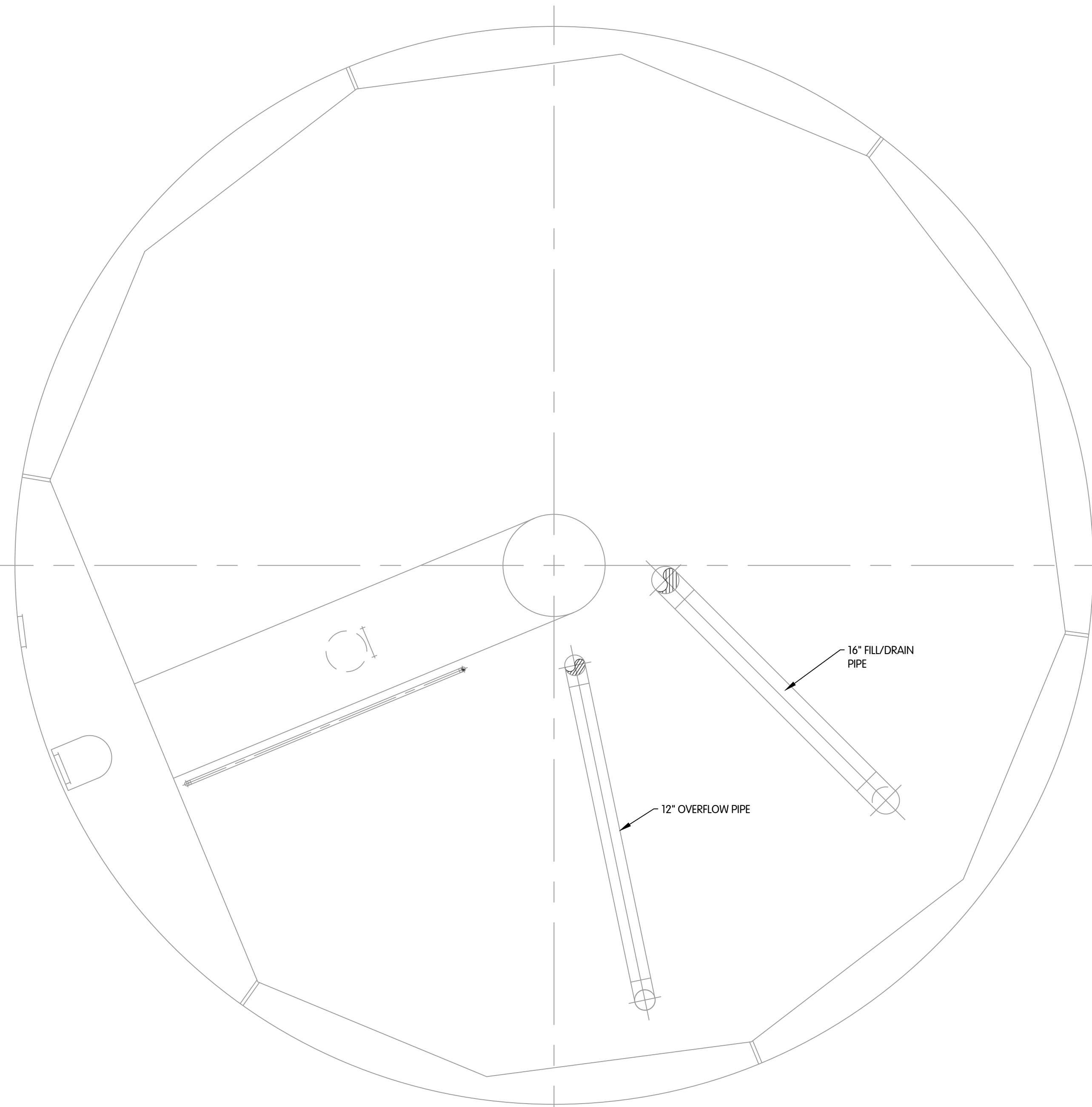
**PLAN AT T/O FOUNDATION EL. 914.50**  
 1/4" = 1'-0"



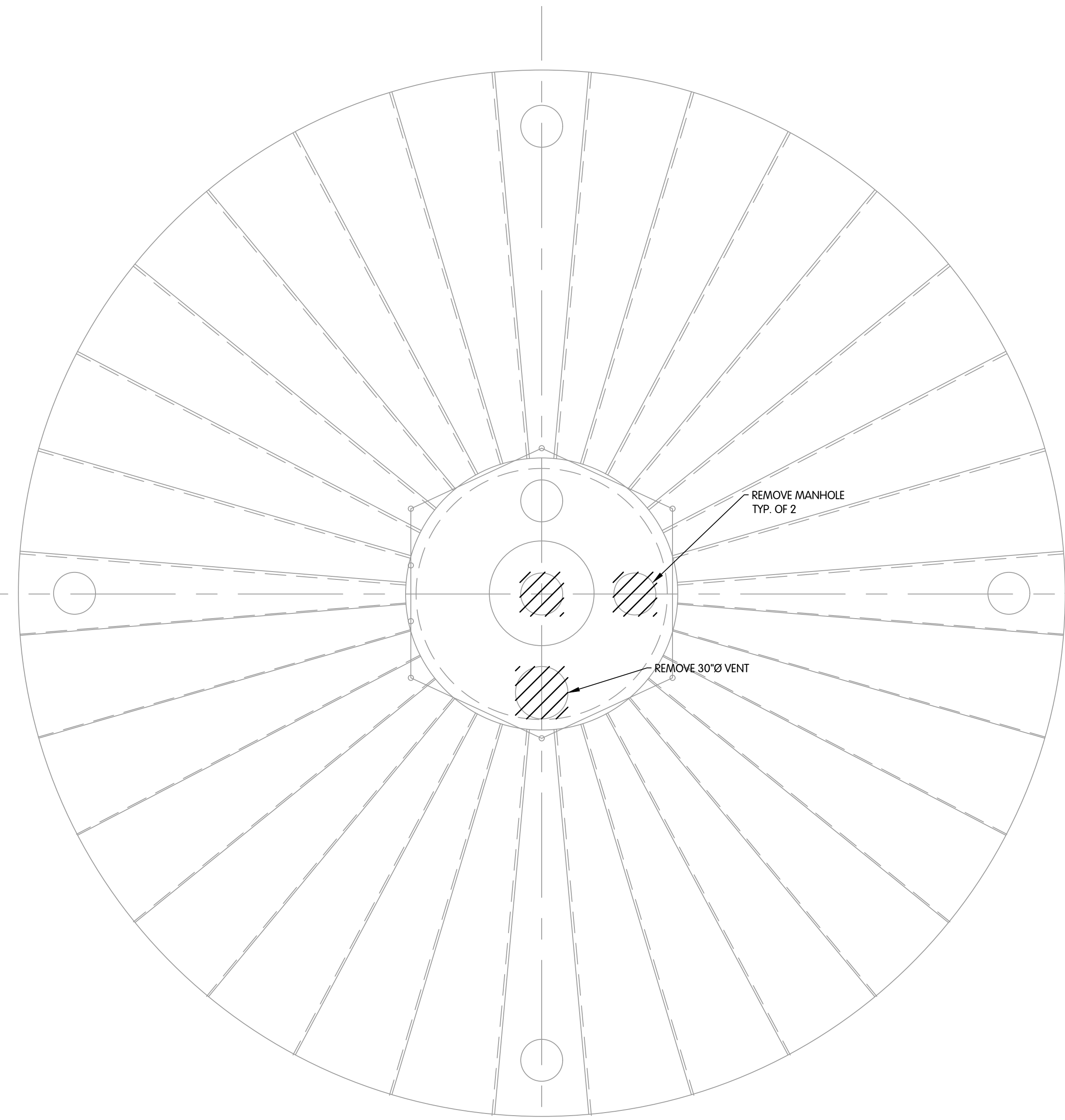
**PLAN AT 19'-11 1/2" ABOVE T/O FOUNDATION**  
 1/4" = 1'-0"

<b>REMOVAL PLANS</b>		
CITY OF GAHANNA, OHIO		
WATER TOWER REHABILITATION ST-1106		
NO.	DATE	BY
REVISIONS AFTER ISSUED FOR BID		
 <b>Jones &amp; Henry Engineers, Ltd.</b> Fluid thinking. <sup>®</sup> www.JHeng.com		
JOB NO. 992-7902.002		
SCALE AS INDICATED		
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED CM	DRAWN CAL	CHECKED PAL
STATUS: ISSUED FOR BID		
DATE: AUGUST 2023		
SHEET NO.		
R-1.2		
6 OF 19		





**PLAN AT 92'-11 1/4" FROM T/O FOUNDATION**  
1/4" = 1'-0"



**PLAN AT 157'-2 23/64" FROM T/O FOUNDATION**  
1/4" = 1'-0"

TOL-790200R2-7 PLANS  
8/15/2023 1:07 PM - CLENDER  
8/17/2023 9:06 AM

**REMOVAL  
PLANS**

CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

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JOB NO. 992-7902.002

SCALE AS INDICATED

THIS LINE SCALES IF WHEN  
PLOTTED TO NOTED SCALE

DESIGNED CM	DRAWN CAL	CHECKED PAL
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STATUS: ISSUED FOR BID

DATE: AUGUST 2023

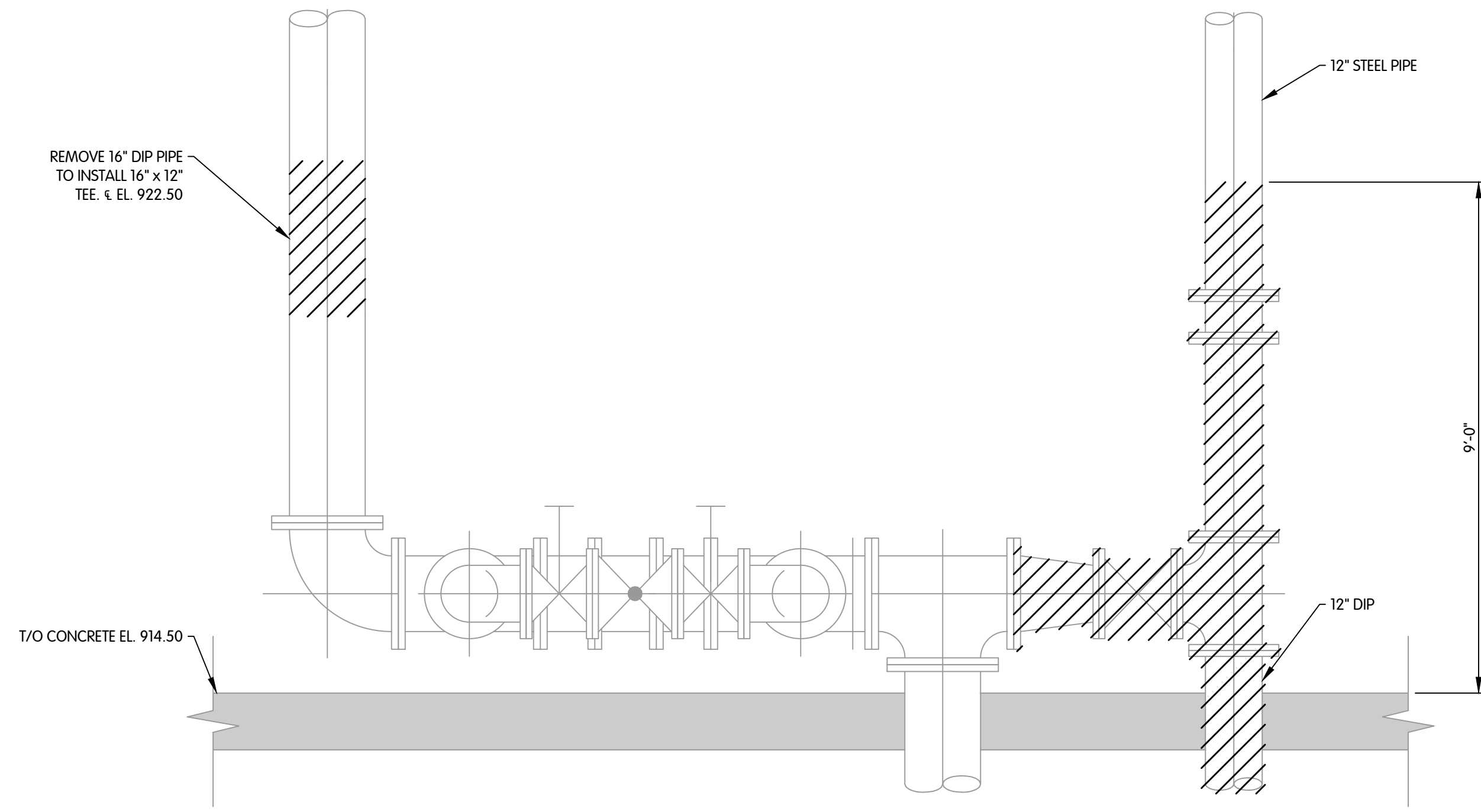
SHEET NO.

**R-1.3**

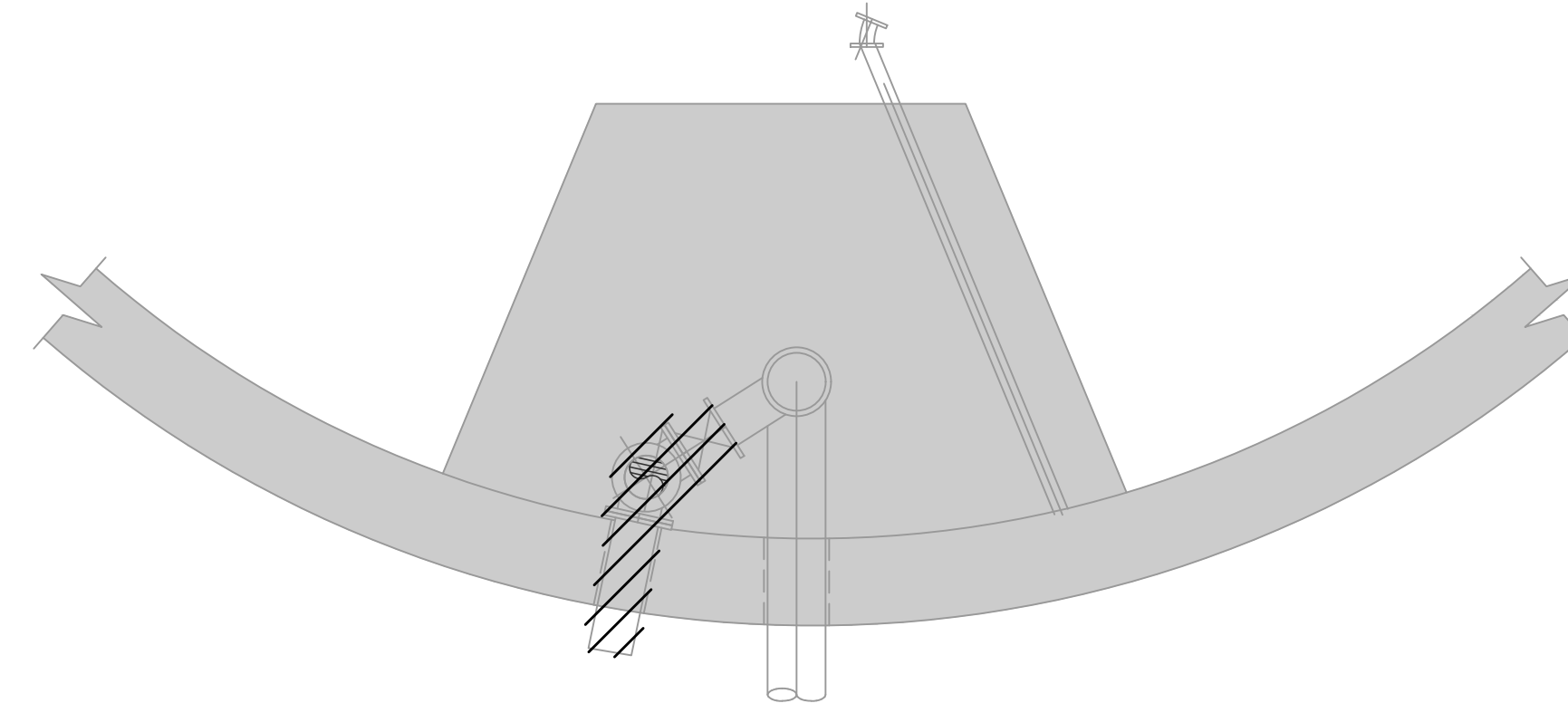
7 OF 19

REVISIONS AFTER ISSUED FOR BID BY DATE NO.

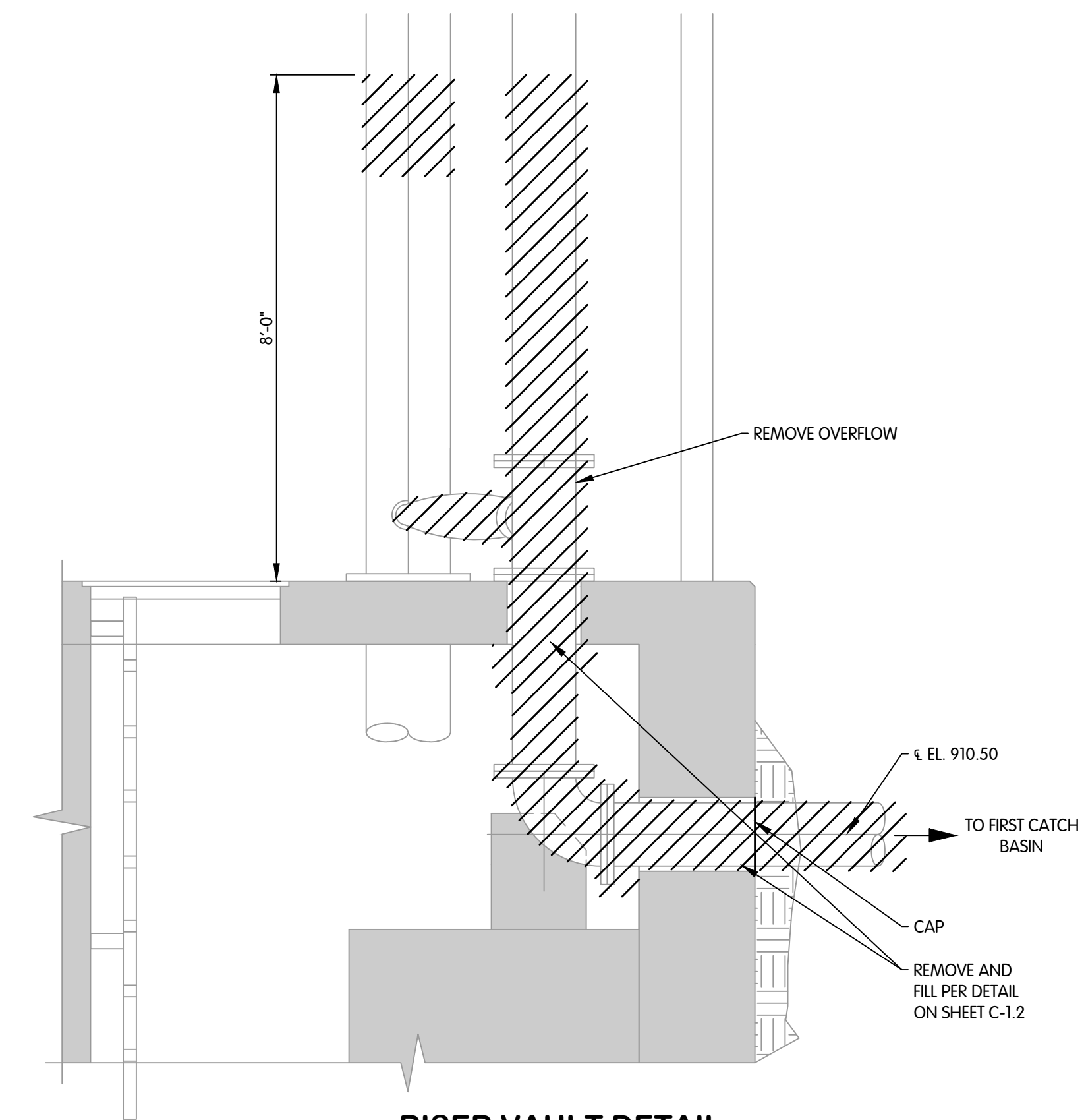




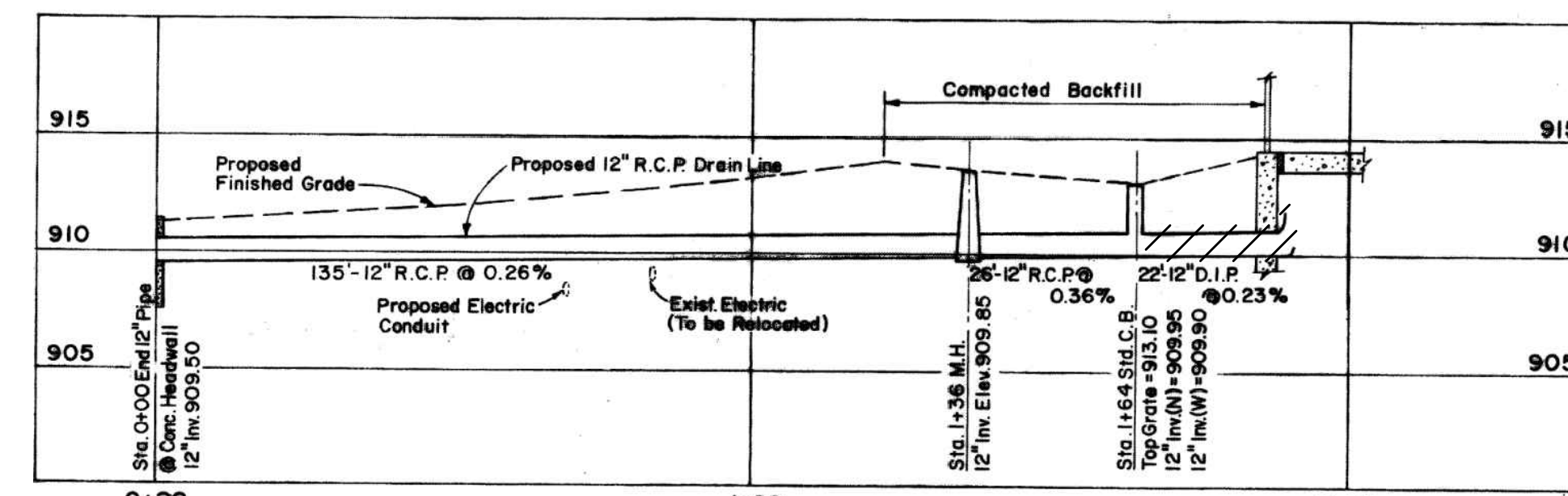
**SECTION 1**  
R-1.2  
1/2" = 1'-0"



**SECTIONAL PLAN**  
1/4" = 1'-0"



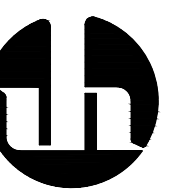
**RISER VAULT DETAIL**  
1/2" = 1'-0"



**PROFILE**  
NTS  
NOTE: PROFILE PROCURED FROM RECORD DRAWINGS AVAILABLE. CONTRACTOR TO VERIFY DIMENSIONS.

TOL-790200R2-8 SECTIONS AND PROFILE  
8/15/2023 1:07 PM - CLENDER  
8/17/2023 9:06 AM

**REMOVAL  
SECTIONS AND PROFILE**  
CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

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JOB NO.	992-7902.002
SCALE	AS INDICATED
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE	
DESIGNED	CHECKED
CM	PAL
DRAWN	CAL
STATUS	ISSUED FOR BID
DATE	AUGUST 2023
SHEET NO.	R-1.4

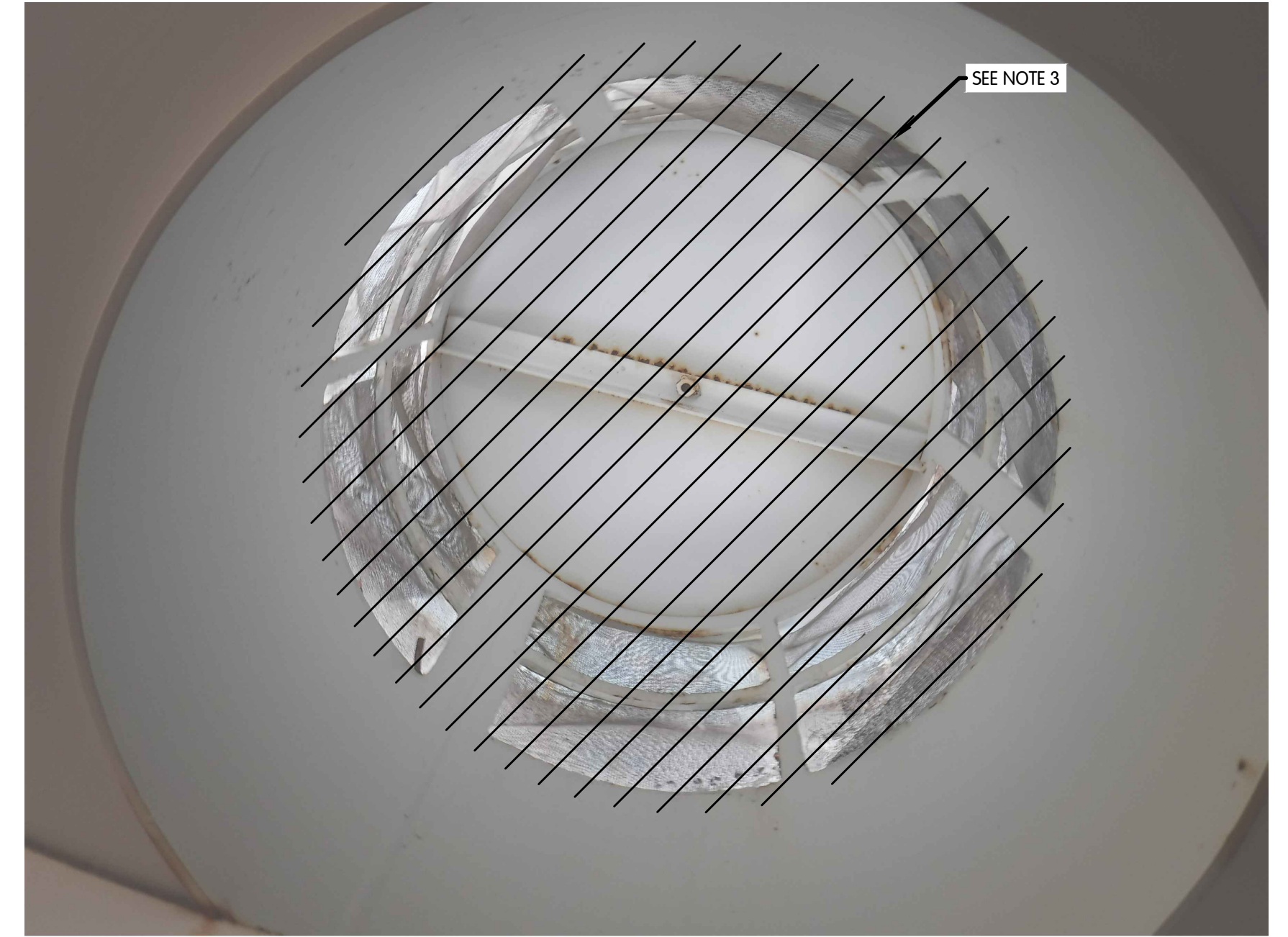




1



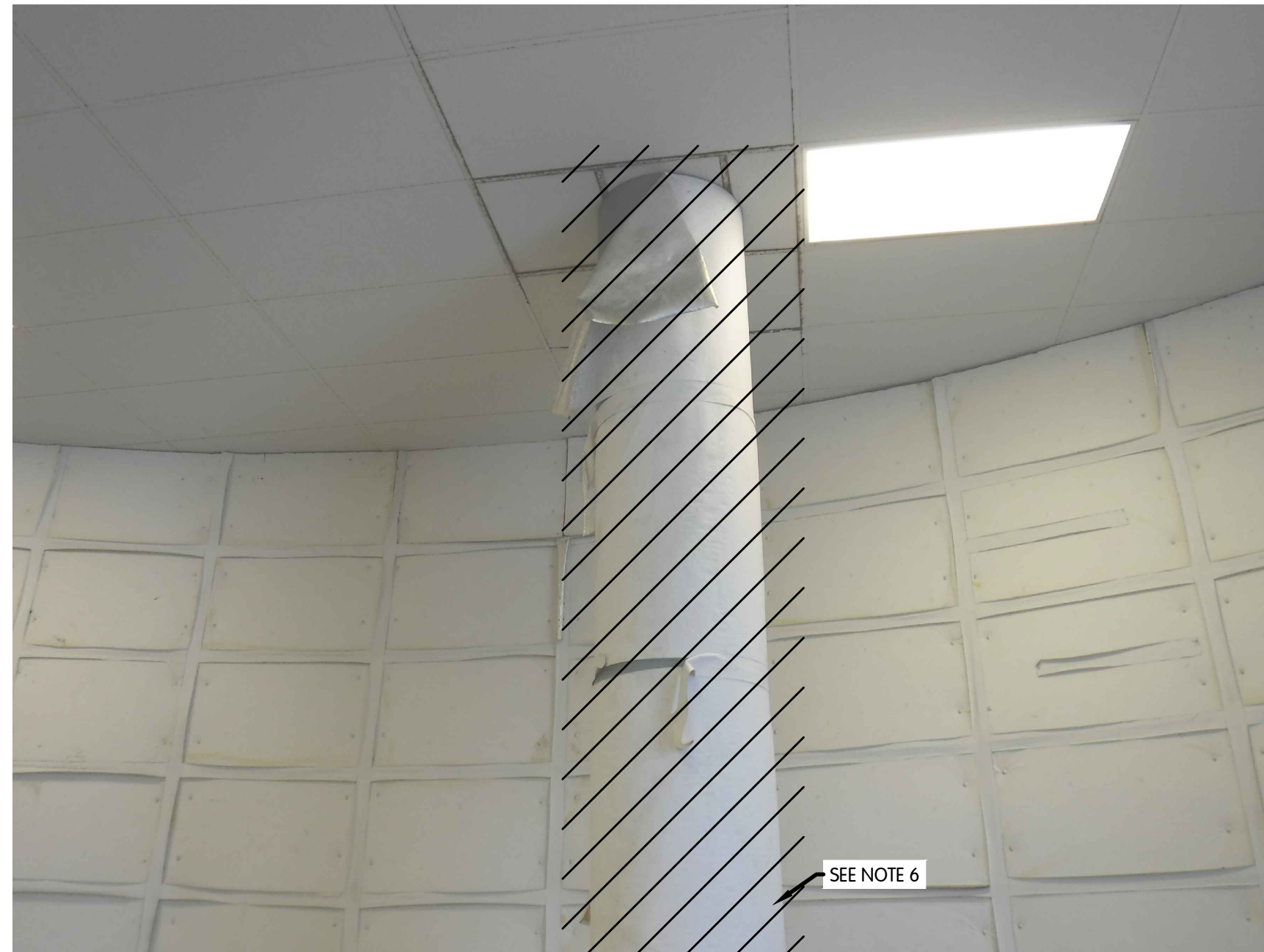
2



3



4



5



6

TOL-7902001R-9 REMOVAL PHOTOS  
8/15/2023 1:07 PM - CLENDER  
8/17/2023 9:06 AM

- NOTES:
1. REMOVE BOLT AT TOP OF FALL PROTECTION.
  2. REMOVE AND REPLACE THREADED CAPS TO ROOF AS NECESSARY.
  3. REMOVE AND REPLACE ROOF VENT WITH FROST FREE DESIGN.
  4. PIPE TO BE REMOVED AND RE-ROUTED.
  5. REMOVE AND REPLACE FILL PIPE INSULATION.

REMOVAL  
PHOTOS

CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

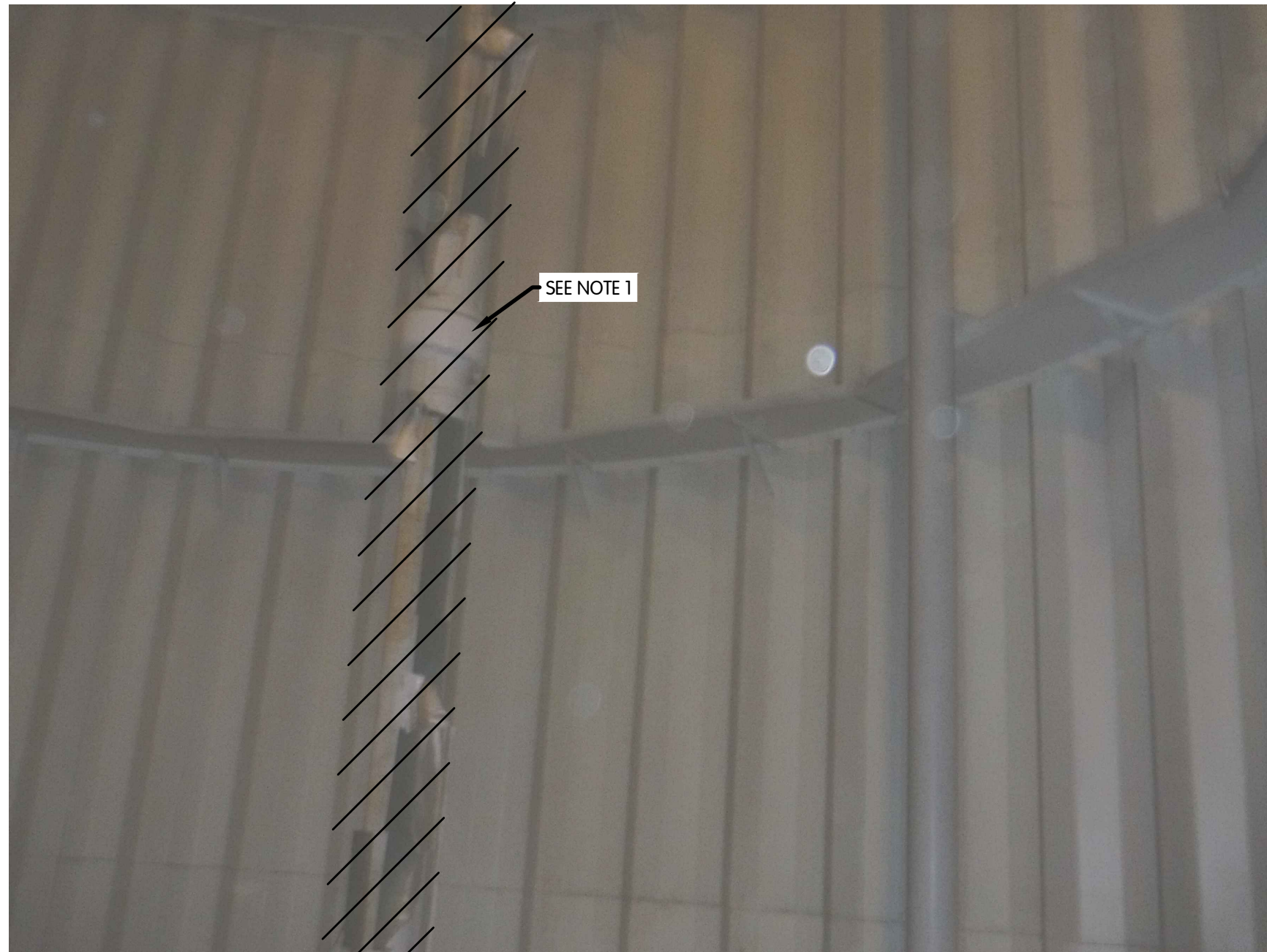
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JOB NO.	992-7902.002
SCALE	NO SCALE
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE	
DESIGNED	CAL
DRAWN	CAL
CHECKED	PAL
STATUS	ISSUED FOR BID
DATE	AUGUST 2023
SHEET NO.	R-1.5
	9 OF 19

NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100





7



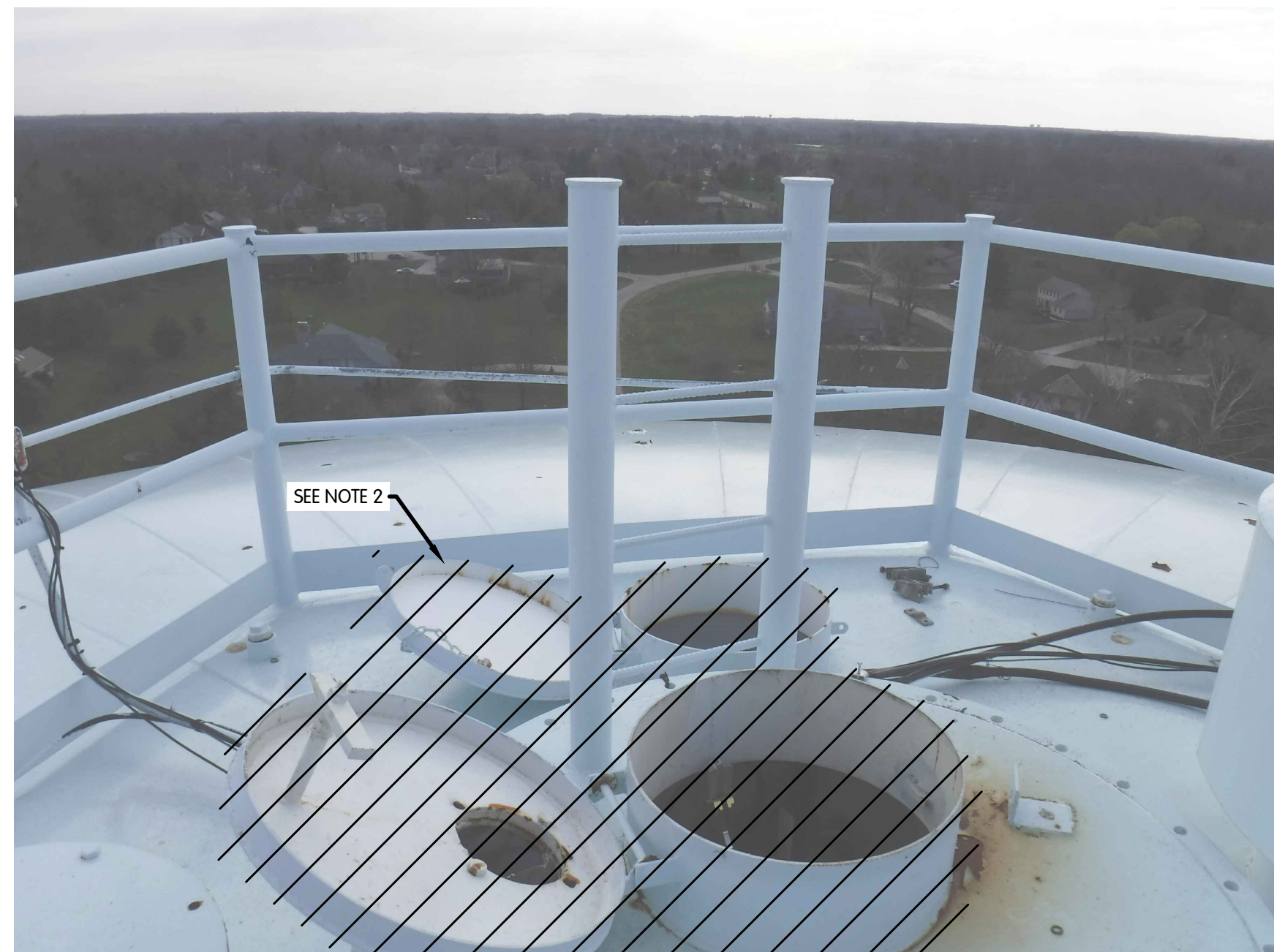
8



9



10




11

TOL-790200R-10 REMOVAL PHOTOS  
8/15/2023 1:07 PM - CLENDER  
8/17/2023 9:06 AM

- NOTES:
1. REMOVE AND REPLACE FILL PIPE INSULATION.
  2. REPLACE HATCHES WITH 30" HATCHES.
  3. REPAIR EXISTING GASKETS FOR CABLES AND ANTENNA.
  4. REMOVE AND REPLACE AS NECESSARY.

REMOVAL  
PHOTOS  
CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

NO. 10 9 8 7 6 5 4 3 2 1  
DATE  
REVISIONS AFTER ISSUED FOR BID  
BY

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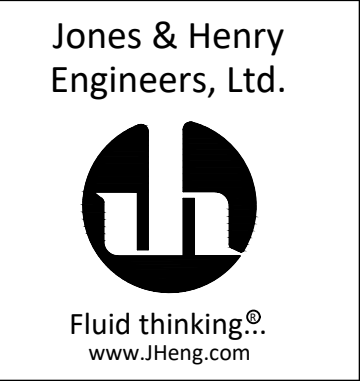
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STATUS: ISSUED FOR BID	
DATE: AUGUST 2023	
SHEET NO. <b>R-1.6</b> 10 OF 19	



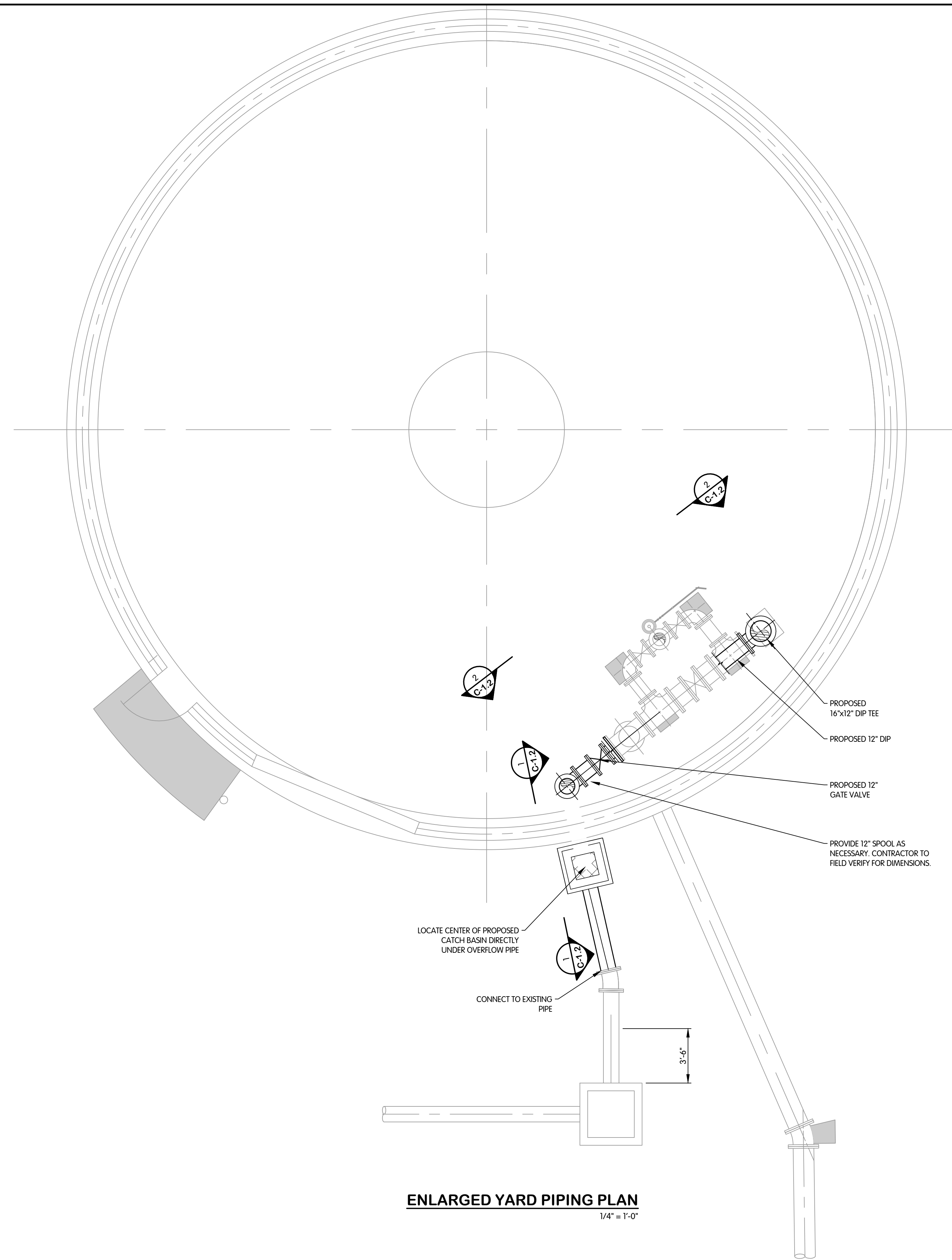


**CIVIL  
YARD PIPING AND ENLARGED  
PLANS AND PROFILE**  
CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

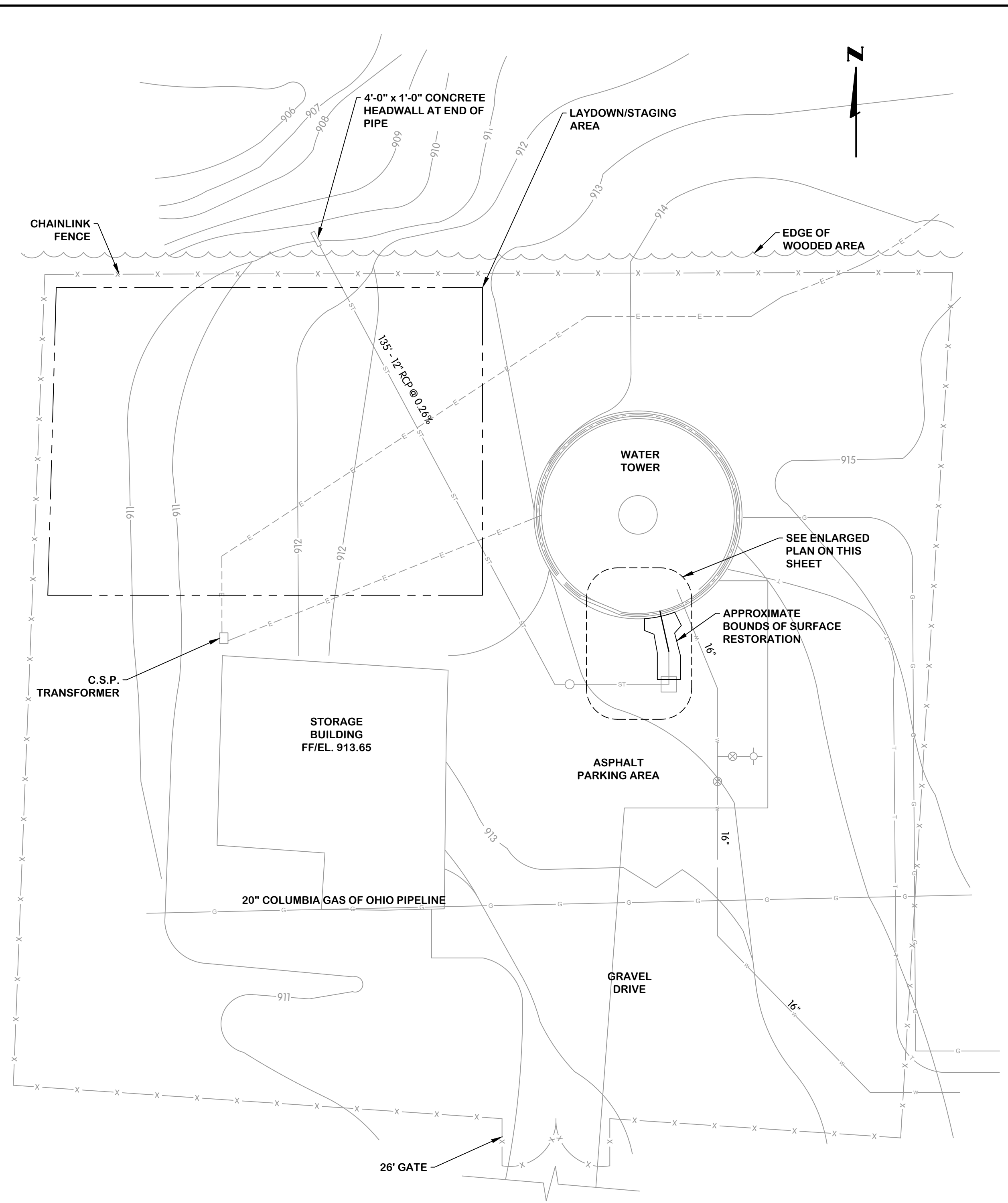
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DATE  
NO.



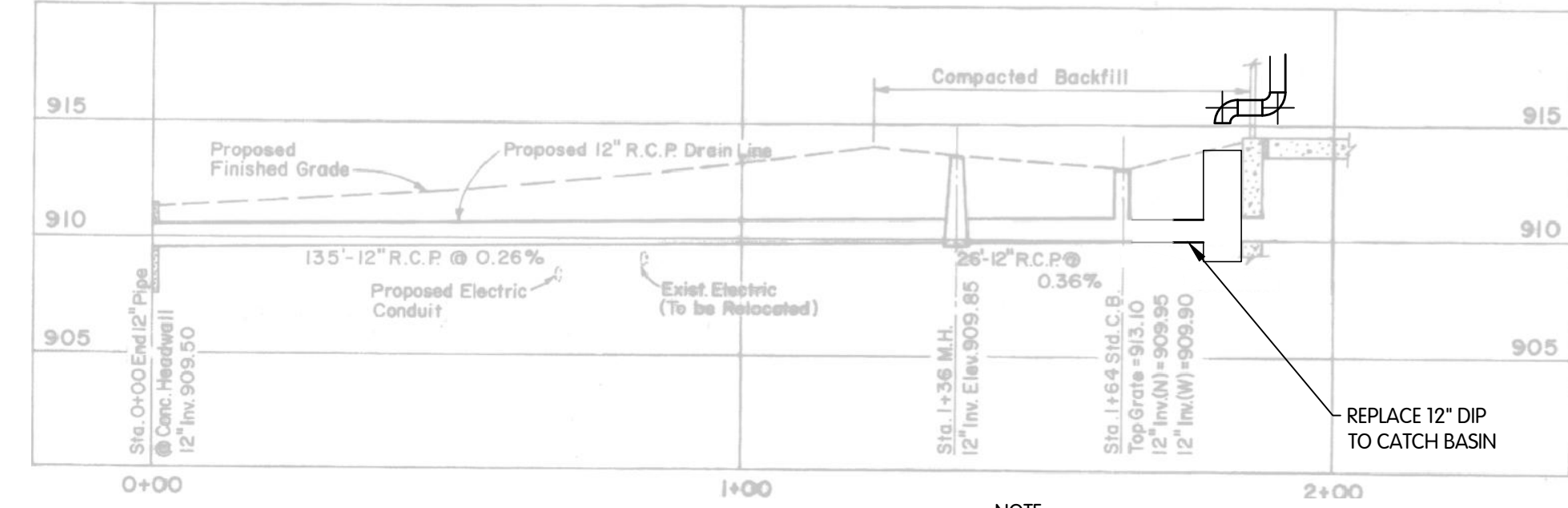
JOB NO. 992-7902.002  
SCALE AS INDICATED  
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE  
DESIGNED CM DRAWN CAL CHECKED PAL  
STATUS ISSUED FOR BID  
DATE AUGUST 2023  
SHEET NO.



**ENLARGED YARD PIPING PLAN**  
1/4" = 1'-0"



**YARD PIPING PLAN**  
NTS



**STORM SEWER PROFILE**  
NTS

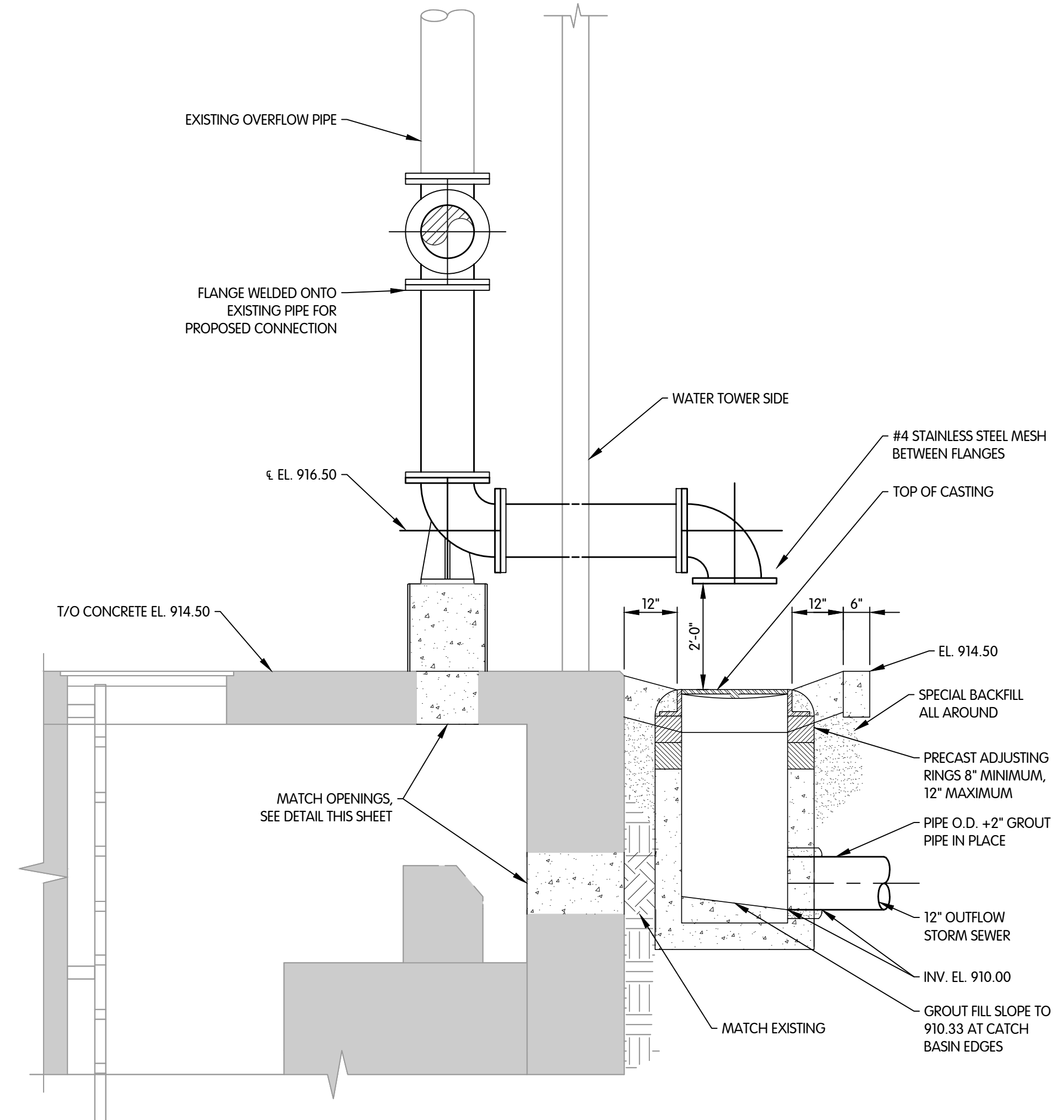
**NOTE:**  
PROFILE PROCURED FROM RECORD DRAWINGS AVAILABLE.  
CONTRACTOR TO VERIFY DIMENSIONS. CONTRACTOR TO  
FIELD VERIFY INFORMATION PROVIDED BY THIS PROFILE.

TOL-790200C3-11 YARD PIPING AND ENLARGED PLANS AND PROFILE  
8/17/2023 9:02 AM - CLENDER  
8/17/2023 9:06 AM

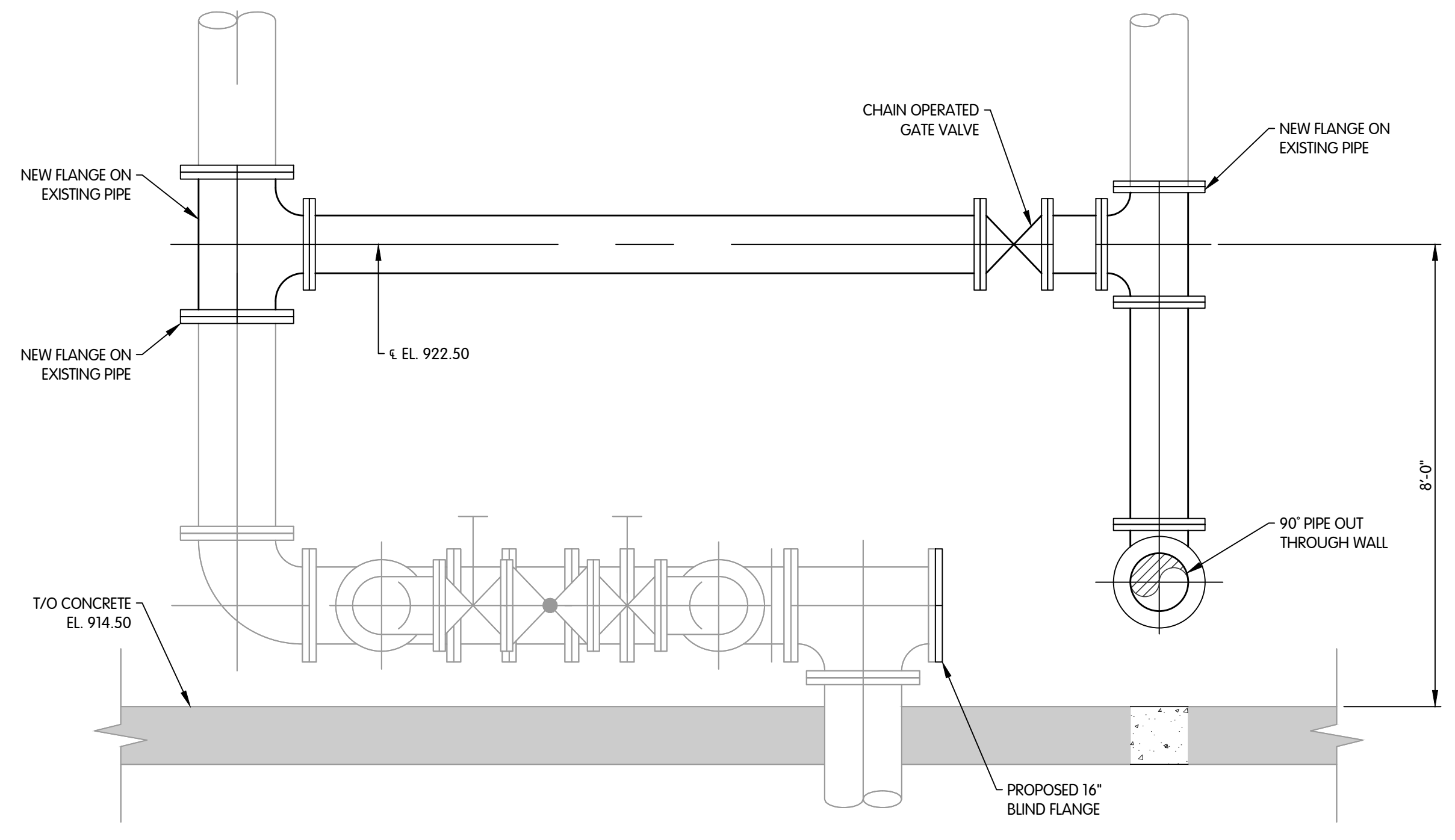




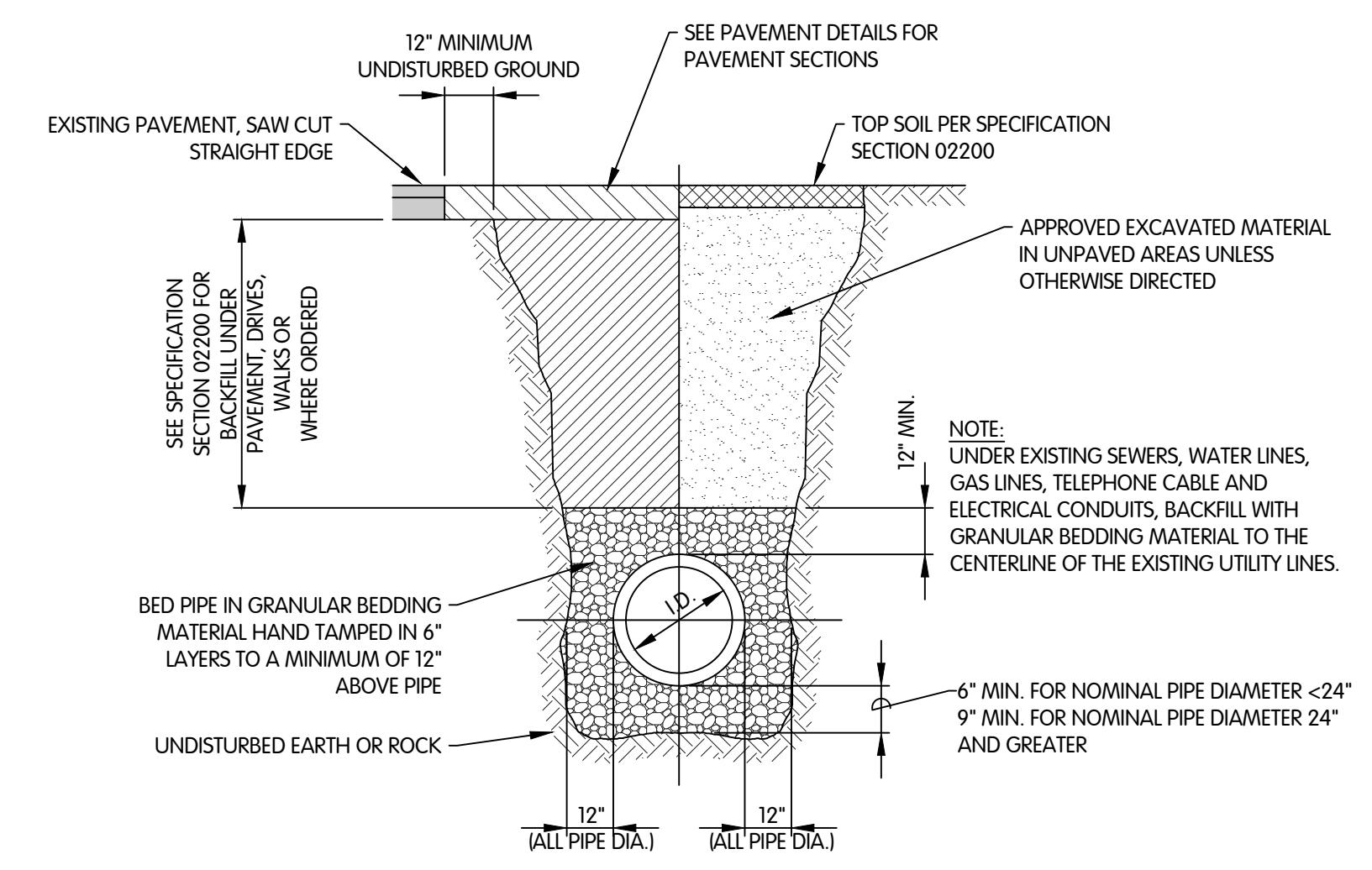
CIVIL  
 PROFILE AND DETAILS  
 CITY OF GAHANNA, OHIO  
 WATER TOWER REHABILITATION ST-1106



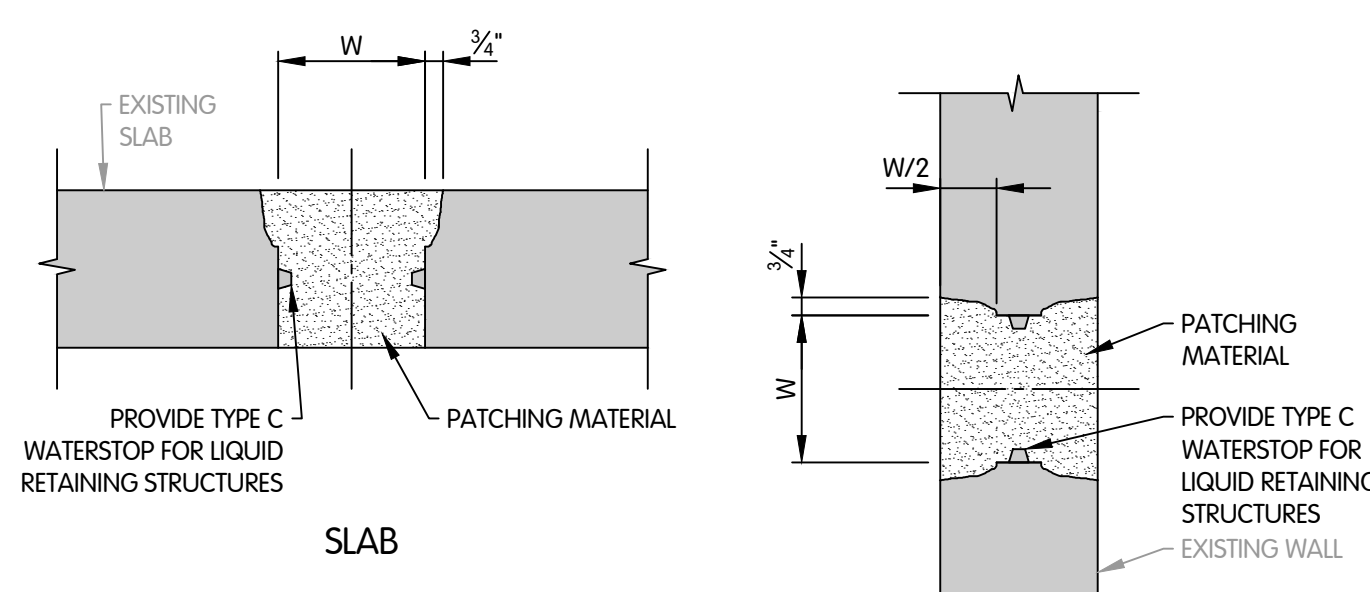
**SECTION 1**  
 C-1.1  
 1/2" = 1'-0"



**SECTION 2**  
 C-1.1  
 1/2" = 1'-0"

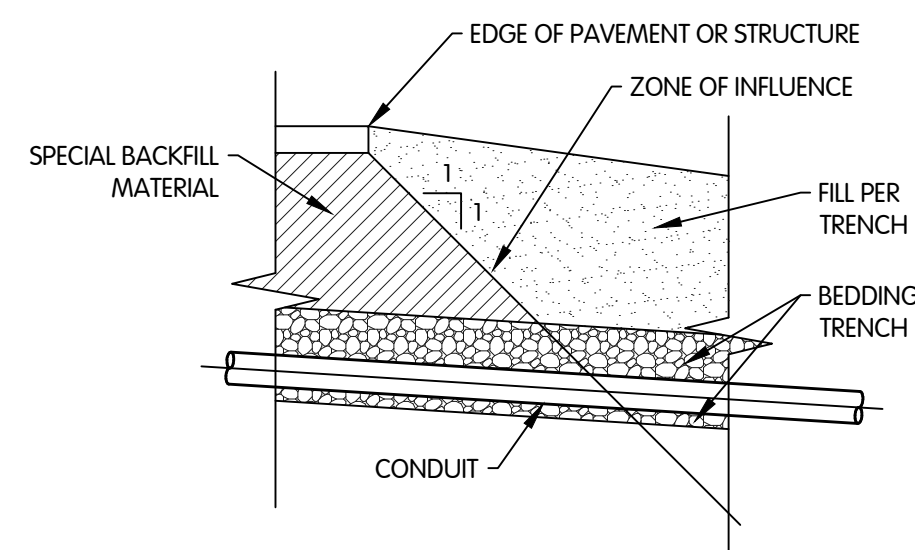


**TRENCH DETAIL FOR RIGID PIPE (RCP)**  
 NTS

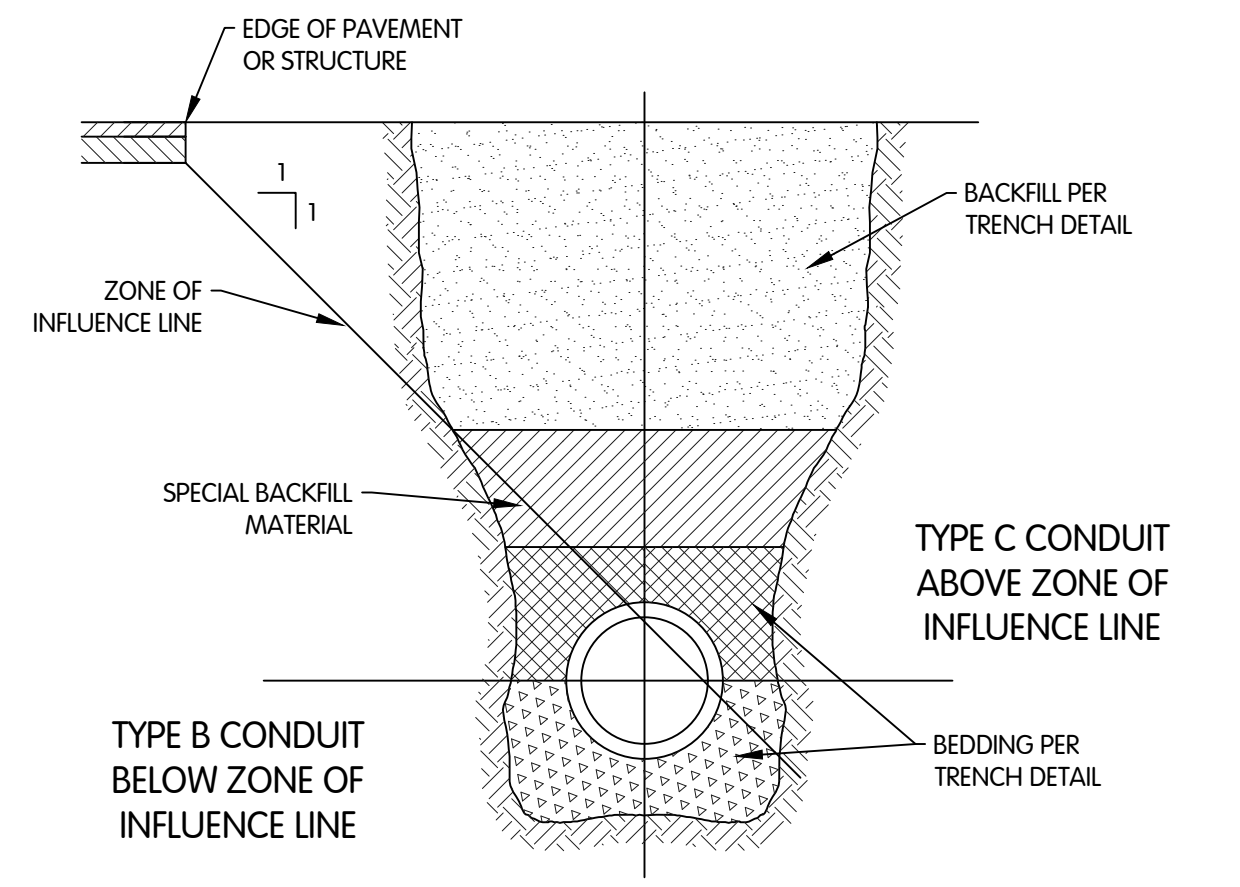


- NOTES:**
1. "W" SHALL BE 18" OR LESS.
  2. CHIP SURFACES OF OPENING TO DIMENSIONS SHOWN. FILL OPENING WITH POLYMER-MODIFIED CEMENTITIOUS PATCHING MATERIAL.

**TYPICAL DETAILS FOR PATCHING OF ABANDONED OPENINGS**  
 1/2" = 1'-0"



**TRANSVERSE ZONE OF INFLUENCE**  
 NTS



**PARALLEL ZONE OF INFLUENCE DETAIL**  
 NTS

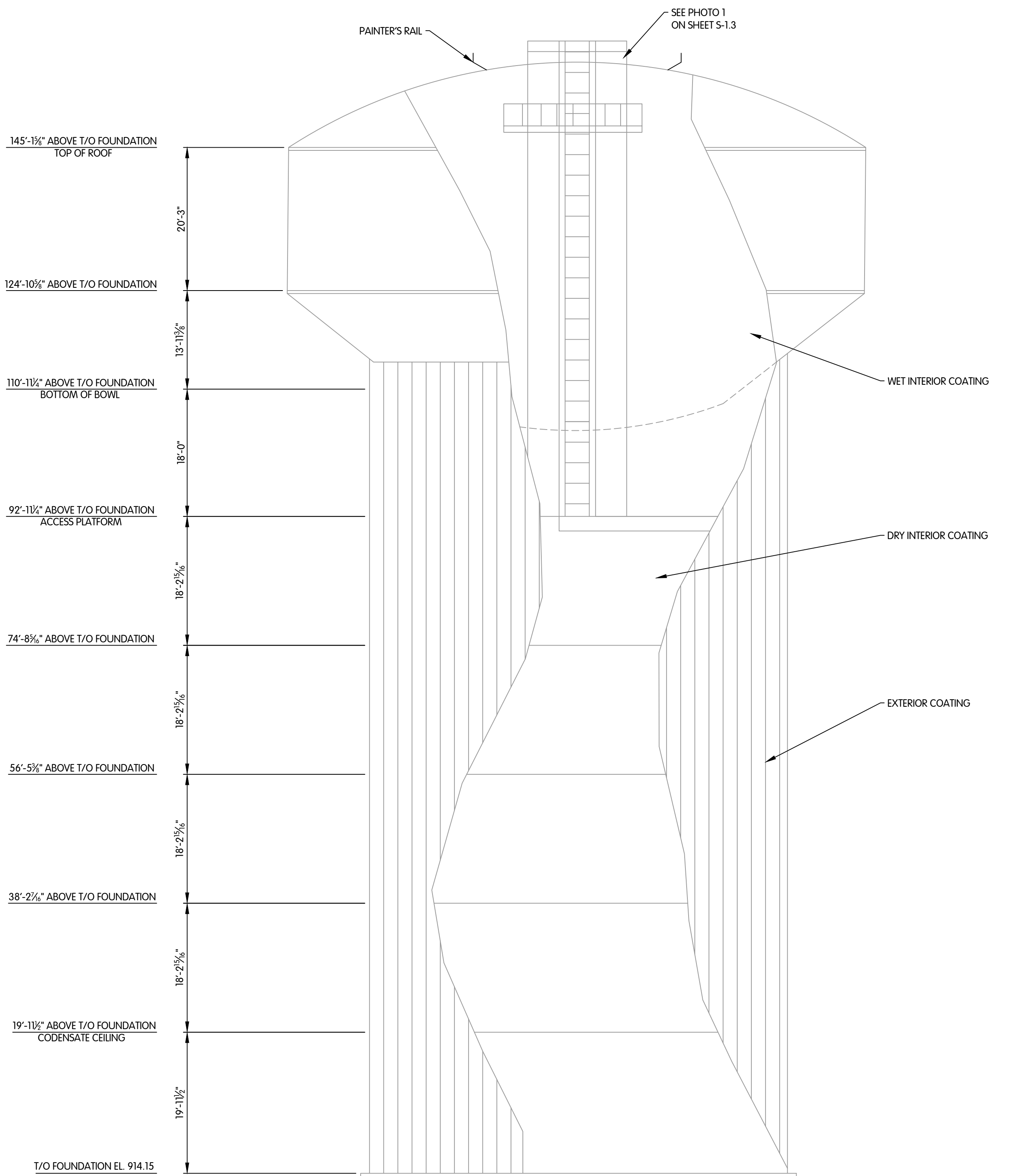
TOL-7902001C2-12 DETAILS  
 8/17/2023 9:03 AM - CLENDER  
 8/17/2023 9:06 AM

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DESIGNED	CHECKED
CM	PAL
DRAWN	CAL
STATUS	ISSUED FOR BID
DATE	AUGUST 2023
SHEET NO.	C-1.2
	12 OF 19





**TOWER ELEVATION**

3/32" = 1'-0"

- NOTES:**
1. CALLOUT LOCATIONS ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY.
  2. ALL COATING PER SPECIFICATION SECTION 09901.

TOL-7902001501-15 TOWER ELEVATION  
8/15/2023 1:09 PM - CLENDER  
8/17/2023 9:06 AM

**STRUCTURAL  
TOWER ELEVATION**  
CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

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SCALE AS INDICATED  
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DESIGNED CM DRAWN CAL CHECKED PAL  
STATUS ISSUED FOR BID  
DATE AUGUST 2023  
SHEET NO. S-1.1  
13 OF 19

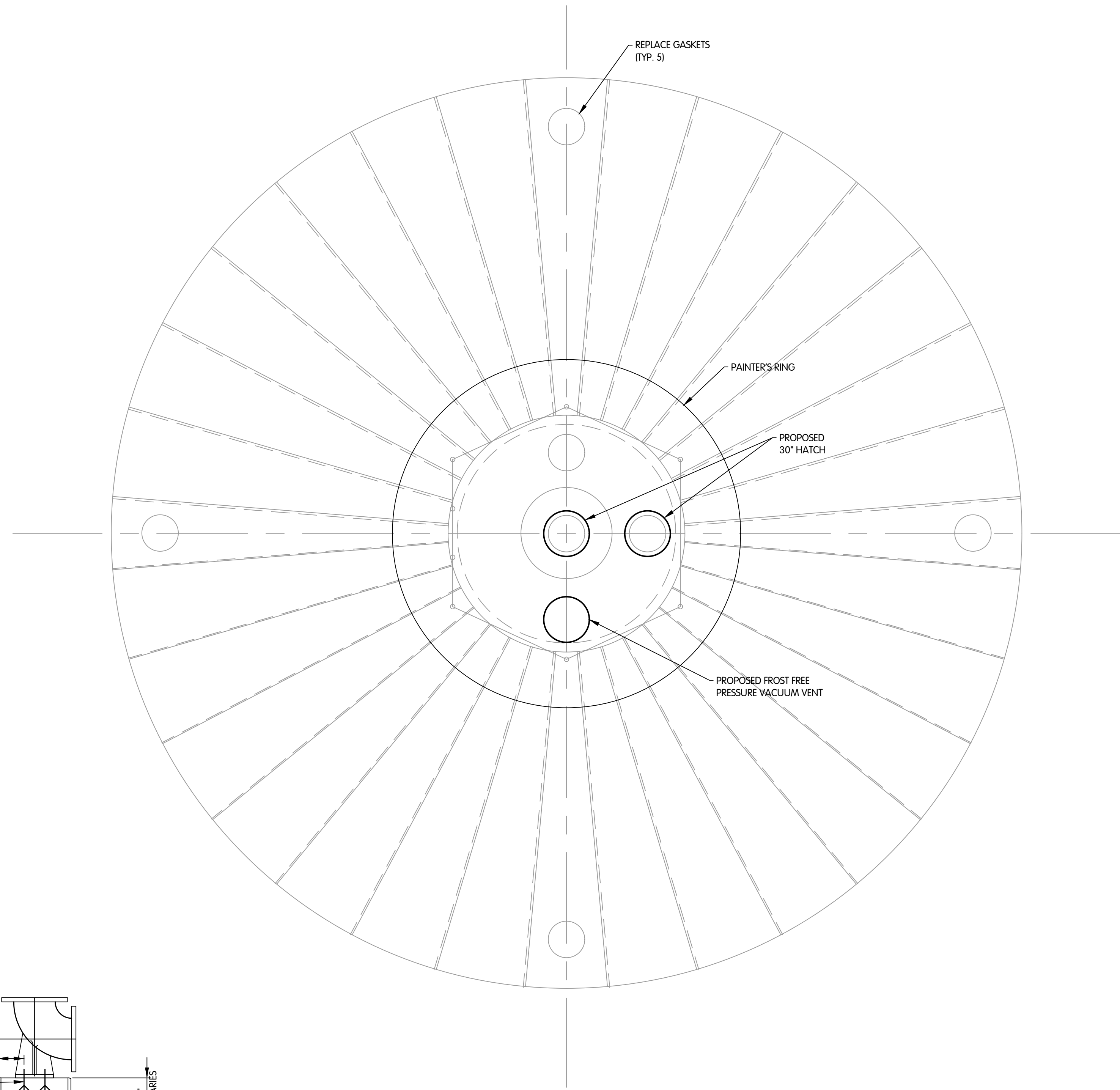
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REVISIONS AFTER ISSUED FOR BID

DATE

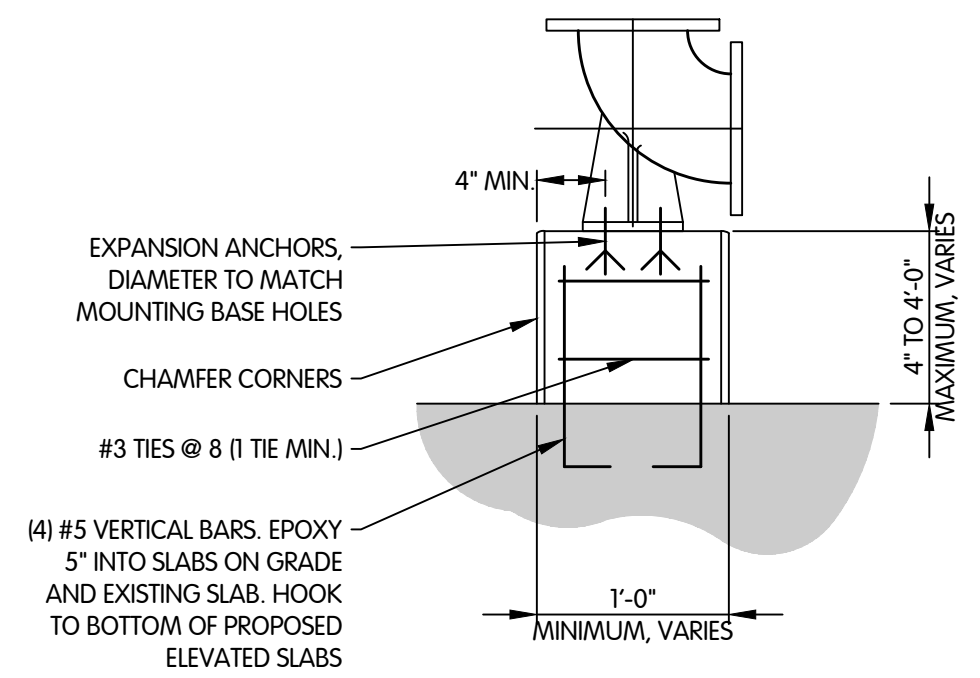


TOL-7902001001-14 TOWER PLAN AND SECTION  
 8/15/2023 1:09 PM - CLENDER  
 8/17/2023 9:06 AM



**PLAN AT 157'-2 23/64" FROM T/O FOUNDATION**

1/4" = 1'-0"



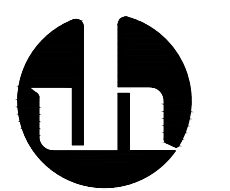
**NOTES:**

1. FOR HEIGHTS LESS THAN 4", USE UNREINFORCED NON-SHRINK GROUT AND EMBED ANCHORS THE MINIMUM DEPTH INTO SLAB.
2. FOR EXISTING ELEVATED SLABS, LOCATE EXISTING BARS WITH REBAR FINDER. LOCATE SUPPORTS SO DOWELS MISS EXISTING BARS.

**CONCRETE PIPE SUPPORT**

NTS

**STRUCTURAL  
 TOWER  
 PLAN AND DETAIL**  
 CITY OF GAHANNA, OHIO  
 WATER TOWER REHABILITATION ST-1106

Jones & Henry  
 Engineers, Ltd.  
  
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JOB NO.	992-7902.002	
SCALE	AS INDICATED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
CM	CAL	PAL
STATUS:	ISSUED FOR BID	
DATE:	AUGUST 2023	
SHEET NO.	S-1.2	
	14 OF 19	

REVISIONS AFTER ISSUED FOR BID

DATE

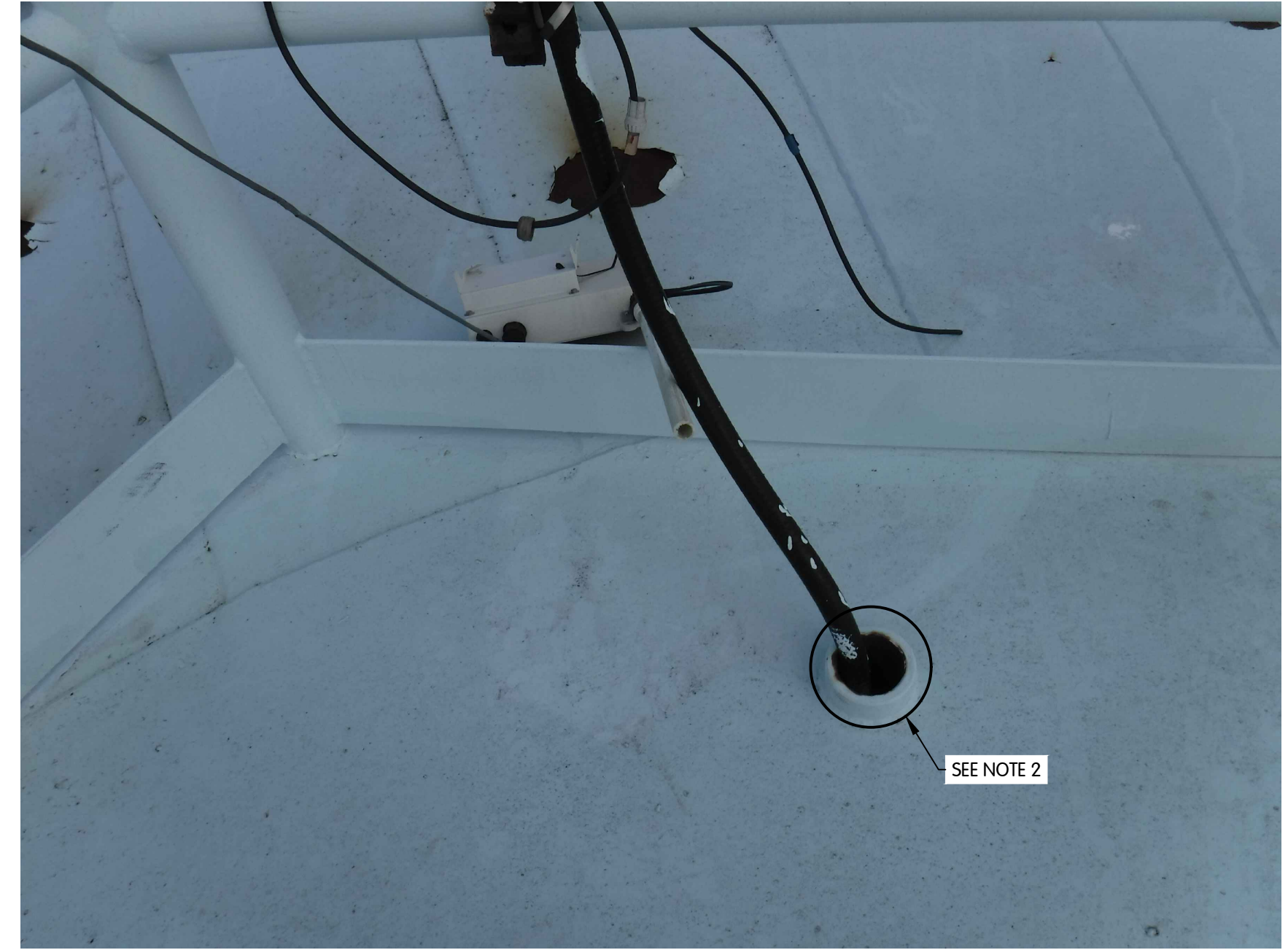
NO.

BY





SEE NOTE 1  
**1**



SEE NOTE 3  
**2**




**3**

- NOTES:
1. SPOT BLAST, BRUSH BLAST AND RE-COAT DRY INTERIOR.
  2. REPAIR GASKETS FOR CABLES AND ANTENNA.
  3. ABRASIVE BLAST CLEAN AND RE-COAT EXTERIOR.

STRUCTURAL  
 CLEANING AND PAINTING  
 REFERENCE PHOTOS

CITY OF GAHANNA, OHIO  
 WATER TOWER REHABILITATION ST-1106

NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
 REVISIONS AFTER ISSUED FOR BID BY  
 DATE

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SCALE NO SCALE

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DESIGNED	DRAWN	CHECKED
CM	CAL	PAL

STATUS: ISSUED FOR BID  
 DATE: AUGUST 2023

SHEET NO.  
**S-1.3**  
 15 OF 19



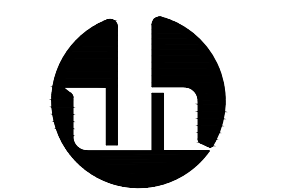


**PIPING AND EQUIPMENT  
TOWER  
PLAN**

CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

REVISIONS AFTER ISSUED FOR BID  
DATE NO.

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JOB NO. 992-7902.002

SCALE AS INDICATED

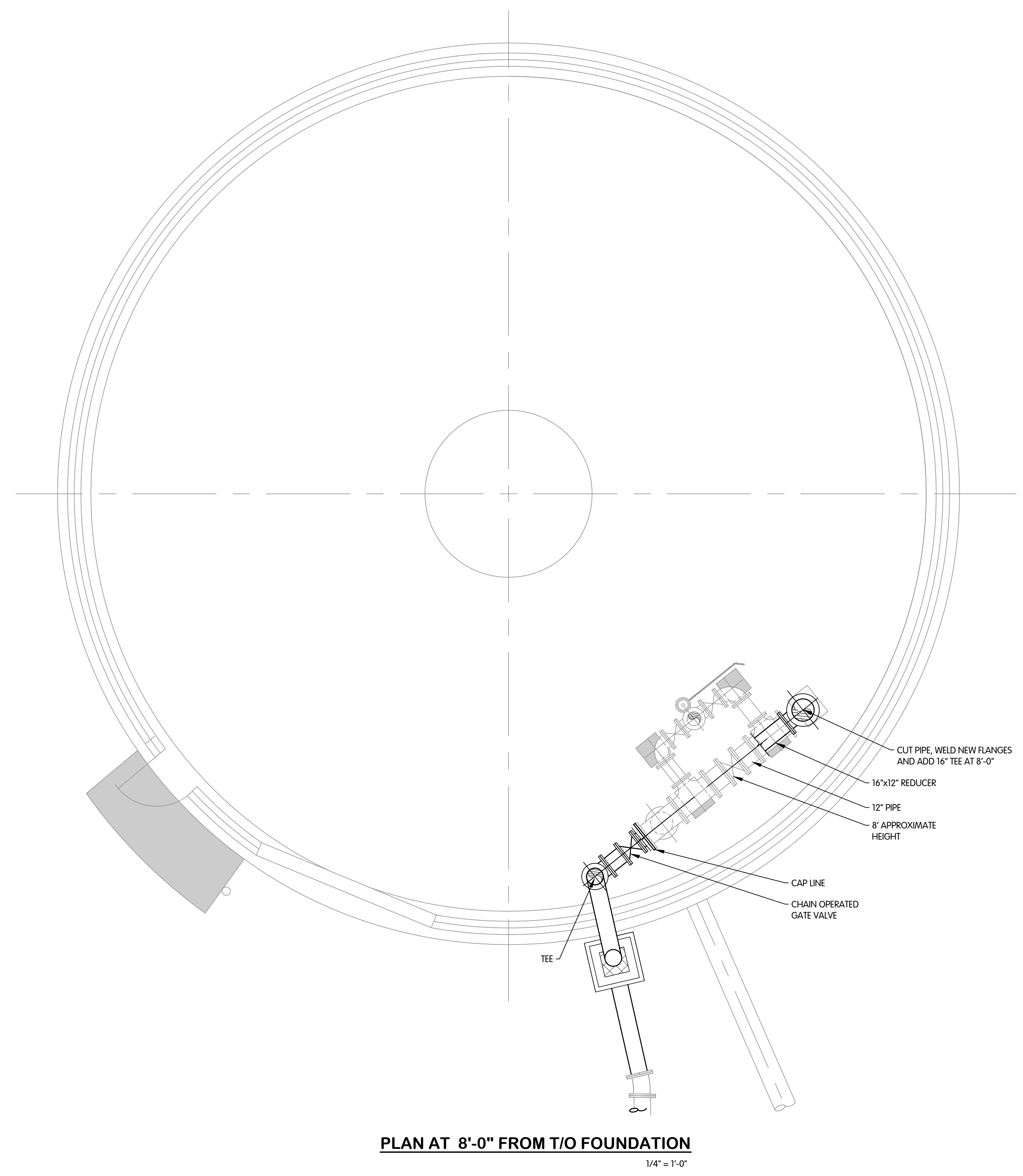
THIS LINE SCALES IF WHEN  
PLOTTED TO NOTED SCALE

DESIGNED CM	DRAWN CAL	CHECKED PAL
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STATUS: ISSUED FOR BID  
DATE: AUGUST 2023

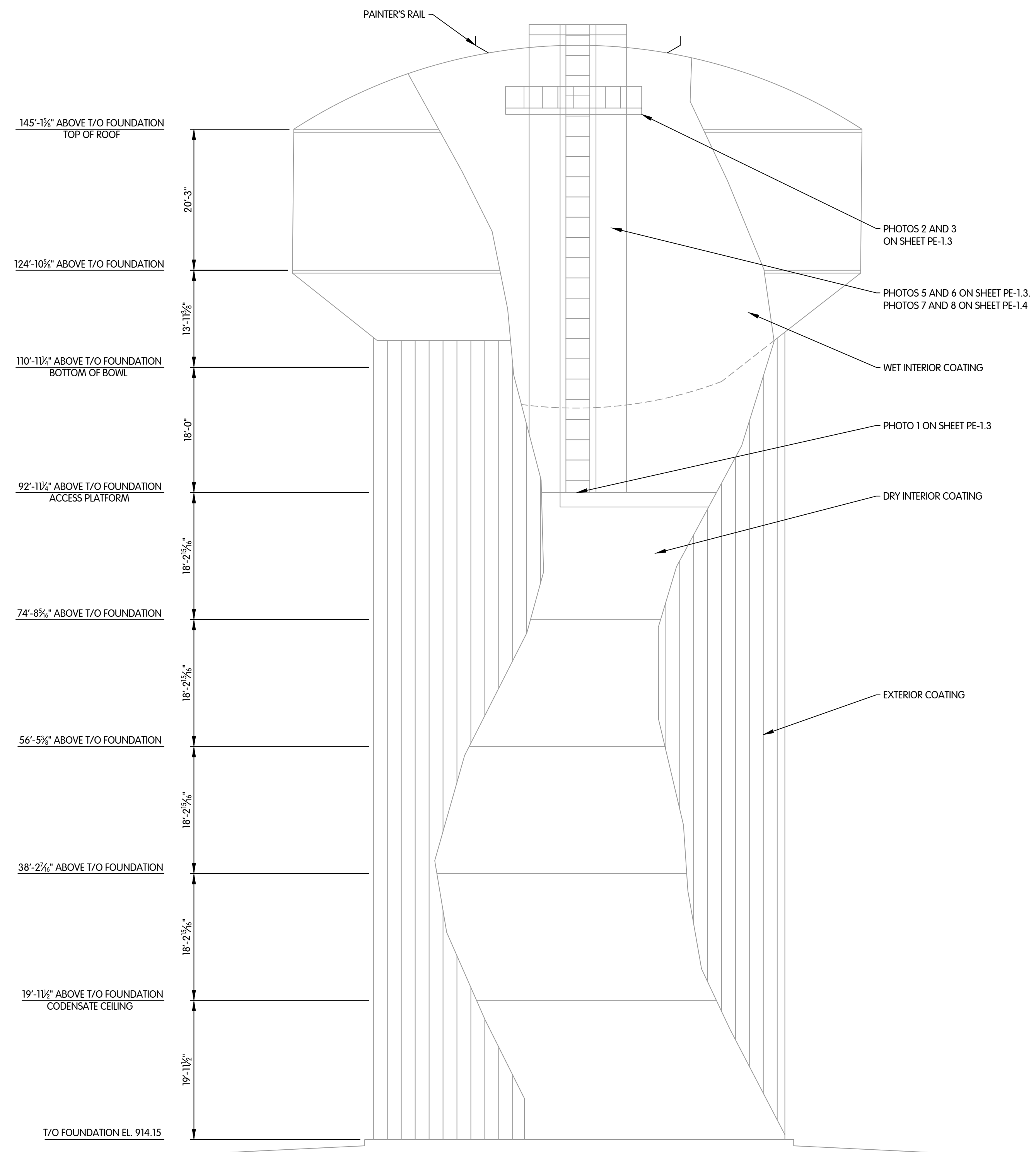
SHEET NO.  
**PE-1.1**

16 OF 19



**PLAN AT 8'-0" FROM T/O FOUNDATION**

1/4" = 1'-0"



**TOWER ELEVATION**

3/32" = 1'-0"

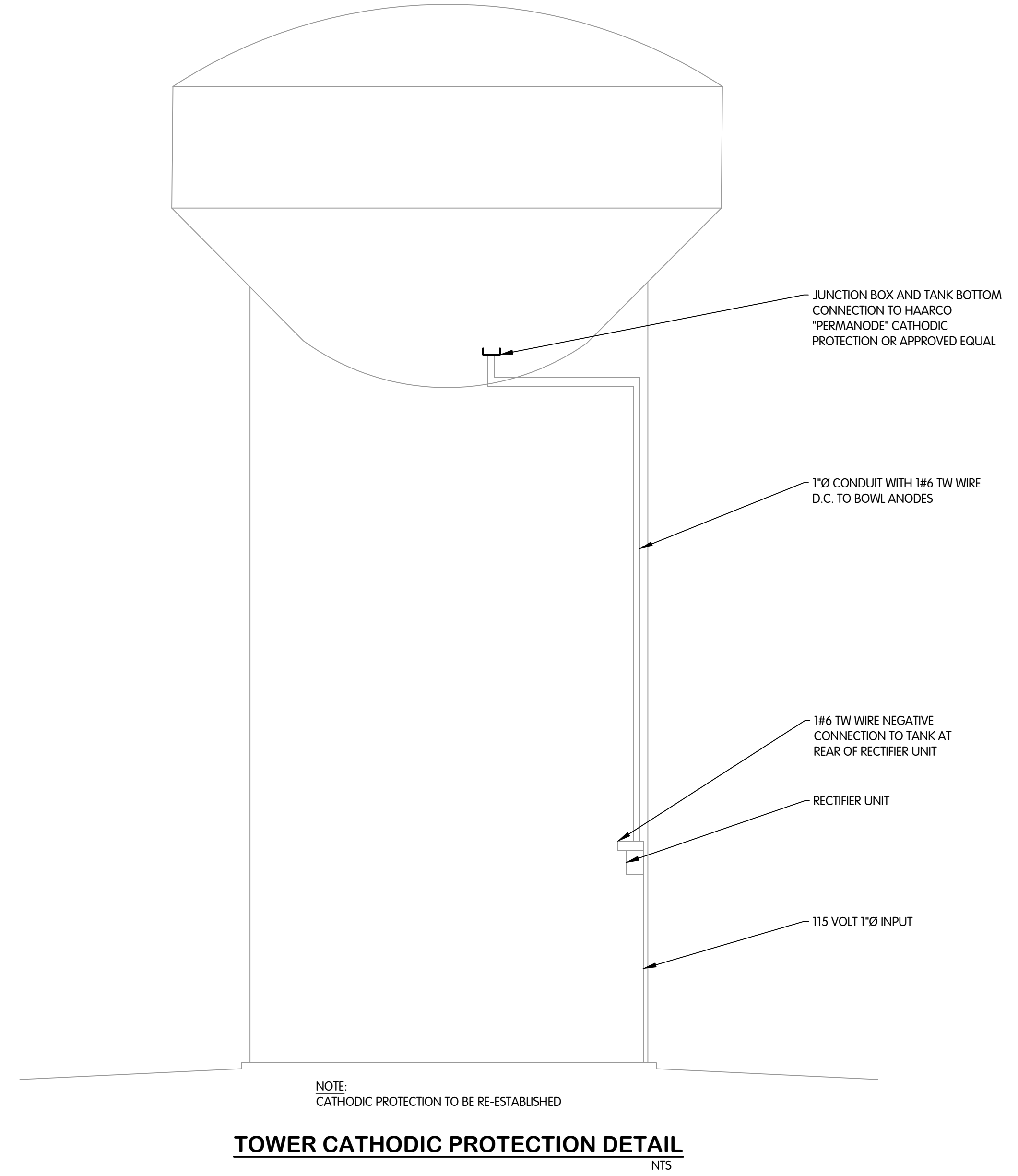
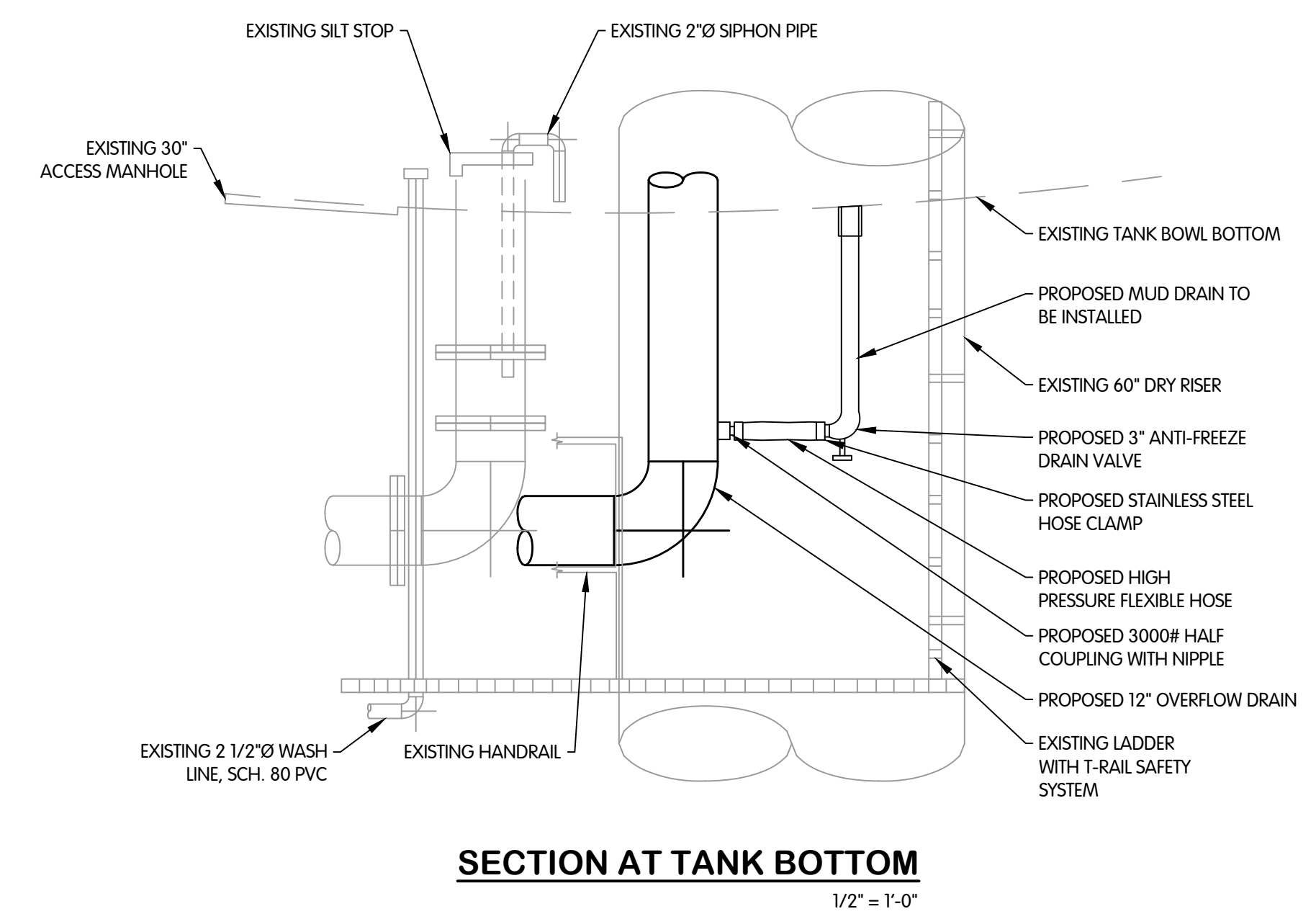
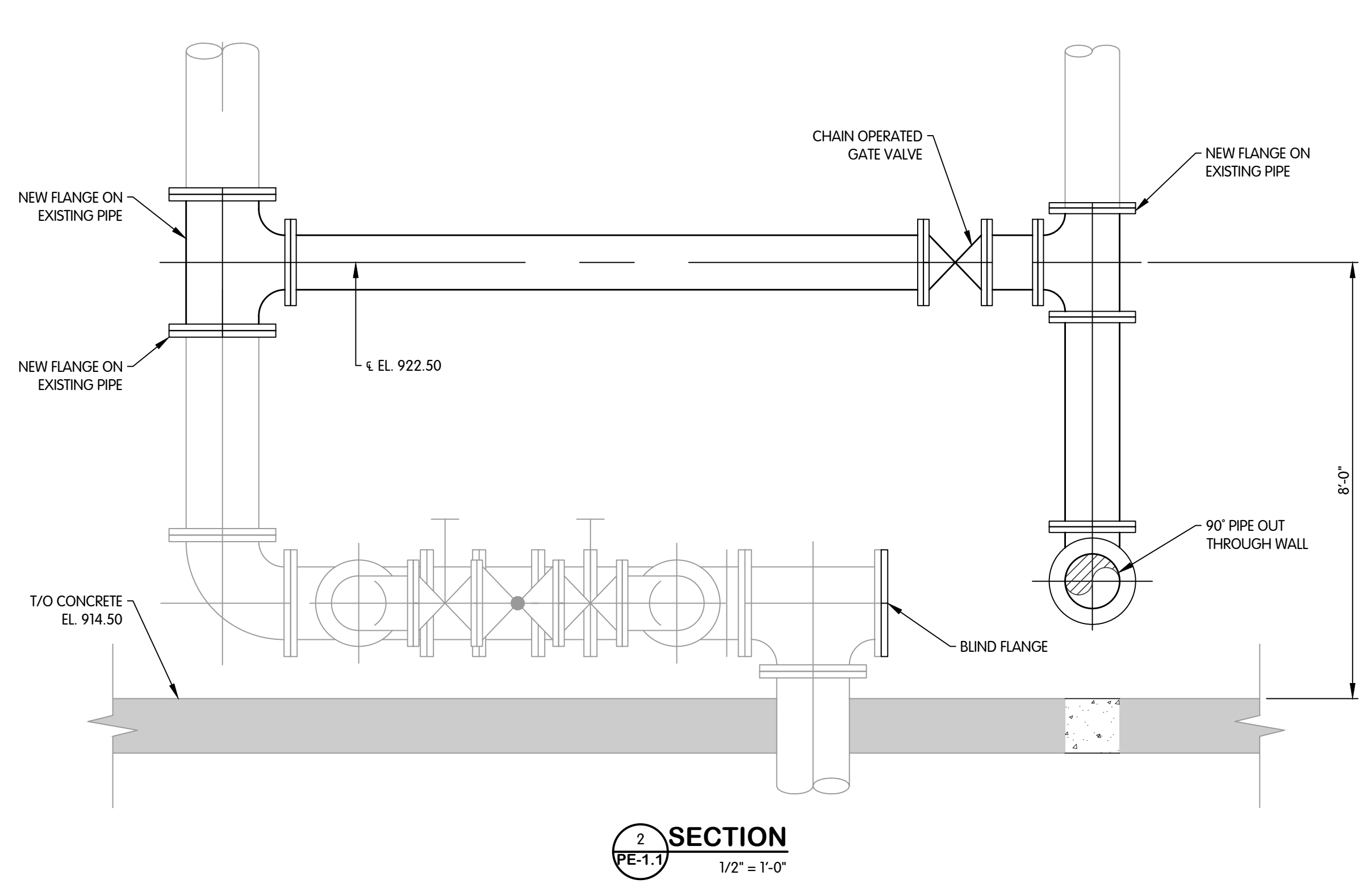
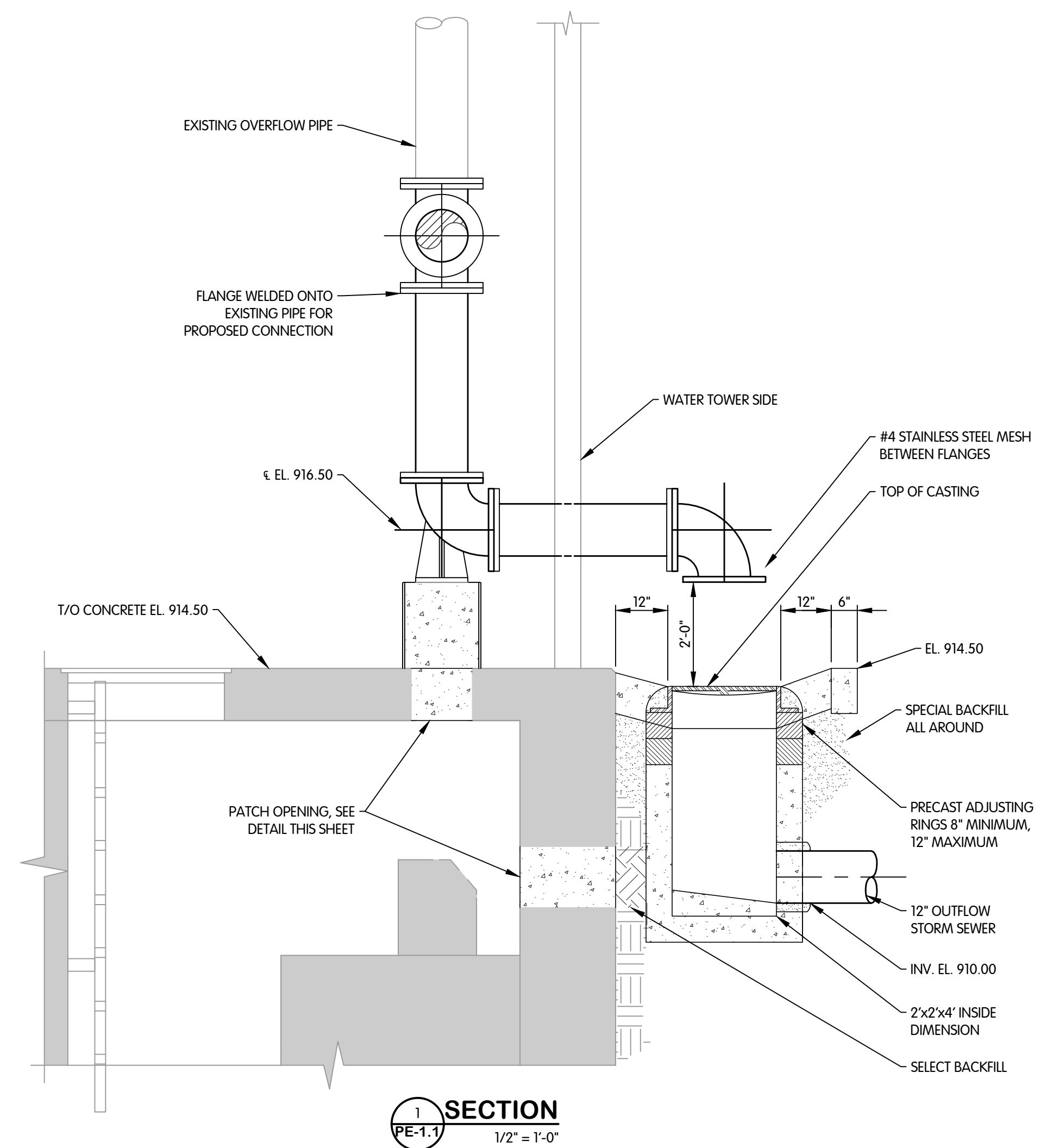
- NOTES:
1. CALLOUT LOCATIONS ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY.
  2. ALL COATING PER SPECIFICATION SECTION 09901.

TOL-790200PE-1.1 TOWER PLAN  
8/17/2023 9:03 AM - CLENDER  
8/17/2023 9:06 AM





**PIPING AND EQUIPMENT  
TOWER  
SECTION AND DETAILS**  
 CITY OF GAHANNA, OHIO  
 WATER TOWER REHABILITATION ST-1106



TOL-790200PE-1.7 SECTION AND DETAILS  
 8/17/2023 9:03 AM - CLENDER  
 8/17/2023 9:06 AM

REVISIONS AFTER ISSUED FOR BID  
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JOB NO. 992-7902.002  
 SCALE AS INDICATED  
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE  

DESIGNED	DRAWN	CHECKED
CM	CAL	PAL

 STATUS: ISSUED FOR BID  
 DATE: AUGUST 2023  
 SHEET NO.  
**PE-1.2**  
 17 OF 19

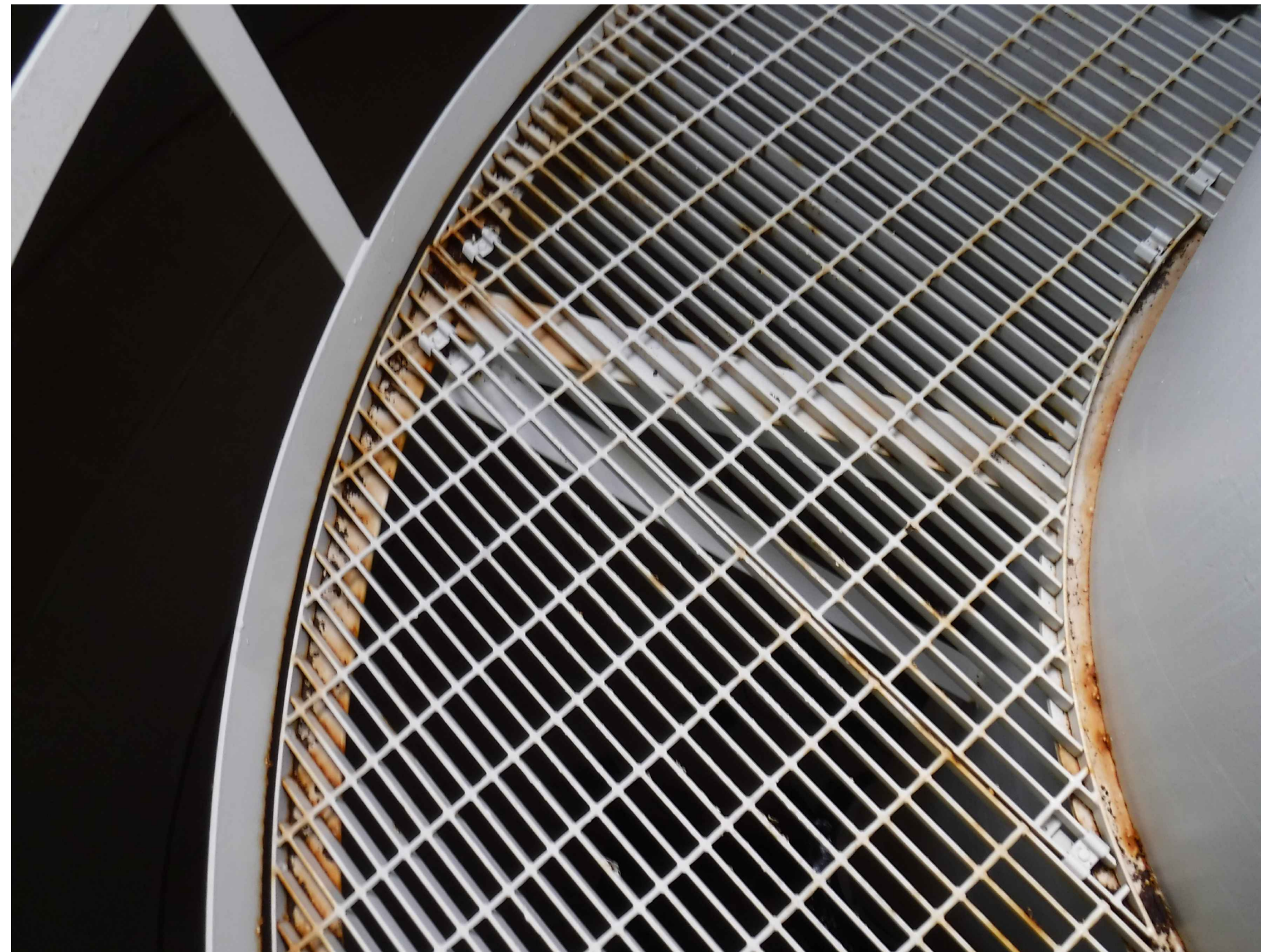
NOTE:  
CATHODIC PROTECTION TO BE RE-ESTABLISHED





SEE NOTE 1

1



SEE NOTE 1

2



SEE NOTE 1

3



SEE NOTE 1

4



SEE NOTE 1

5



SEE NOTE 1

6

PIPING AND EQUIPMENT  
CLEANING AND PAINTING  
REFERENCE PHOTOS  
CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

NO. 1 2 3 4 5 6  
DATE  
REVISIONS AFTER ISSUED FOR BID

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JOB NO. 992-7902.002

SCALE NO SCALE

THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE

DESIGNED CM	DRAWN CAL	CHECKED PAL
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STATUS: ISSUED FOR BID

DATE: AUGUST 2023

SHEET NO.

PE-1.3

18 OF 19

NOTES:  
1. SPOT BLAST, BRUSH BLAST AND RE-COAT DRY INTERIOR

TOL-790200PEP-18 CLEANING AND PAINTING REFERENCE PHOTOS  
8/17/2023 9:04 AM - CLENDER  
8/17/2023 9:07 AM



TOL-790200PEP-19 CLEANING AND PAINTING REFERENCE PHOTOS  
8/7/2023 9:04 AM - CLENDER  
8/7/2023 9:07 AM



SEE NOTE 1

7



SEE NOTE 1

8



PIPING AND EQUIPMENT  
CLEANING AND PAINTING  
REFERENCE PHOTOS

CITY OF GAHANNA, OHIO  
WATER TOWER REHABILITATION ST-1106

NO.	1	DATE	REVISIONS AFTER ISSUED FOR BID	BY

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SCALE NO SCALE

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DESIGNED	DRAWN	CHECKED
CM	CAL	PAL

STATUS: ISSUED FOR BID

DATE: AUGUST 2023

SHEET NO.

PE-1.4

19 OF 19

NOTES:  
1. SPOT BLAST, BRUSH BLAST AND RE-COAT DRY INTERIOR