

WAUKESHA WATER UTILITY GREAT LAKES WATER SUPPLY PROGRAM



SERVING WAUKESHA SINCE
1886

MAYOR

SHAWN N. REILLY

WATER UTILITY COMMISSION

JOSEPH J. PIATT	COMMISSION PRESIDENT
JOAN FRANCOEUR	COMMISSION SECRETARY
ALDERMAN PETER BARTELS	COMMISSIONER
GERALD COURI	COMMISSIONER
TERRY THIEME	COMMISSIONER
PAUL YBARRA	COMMISSIONER

WATER UTILITY GENERAL MANAGER

DAN DUCHNIAK, PE

WATER OPERATIONS MANAGER

KELLY ZYLSTRA, PE

TECHNICAL SERVICES MANAGER

CHRIS WALTER, PE



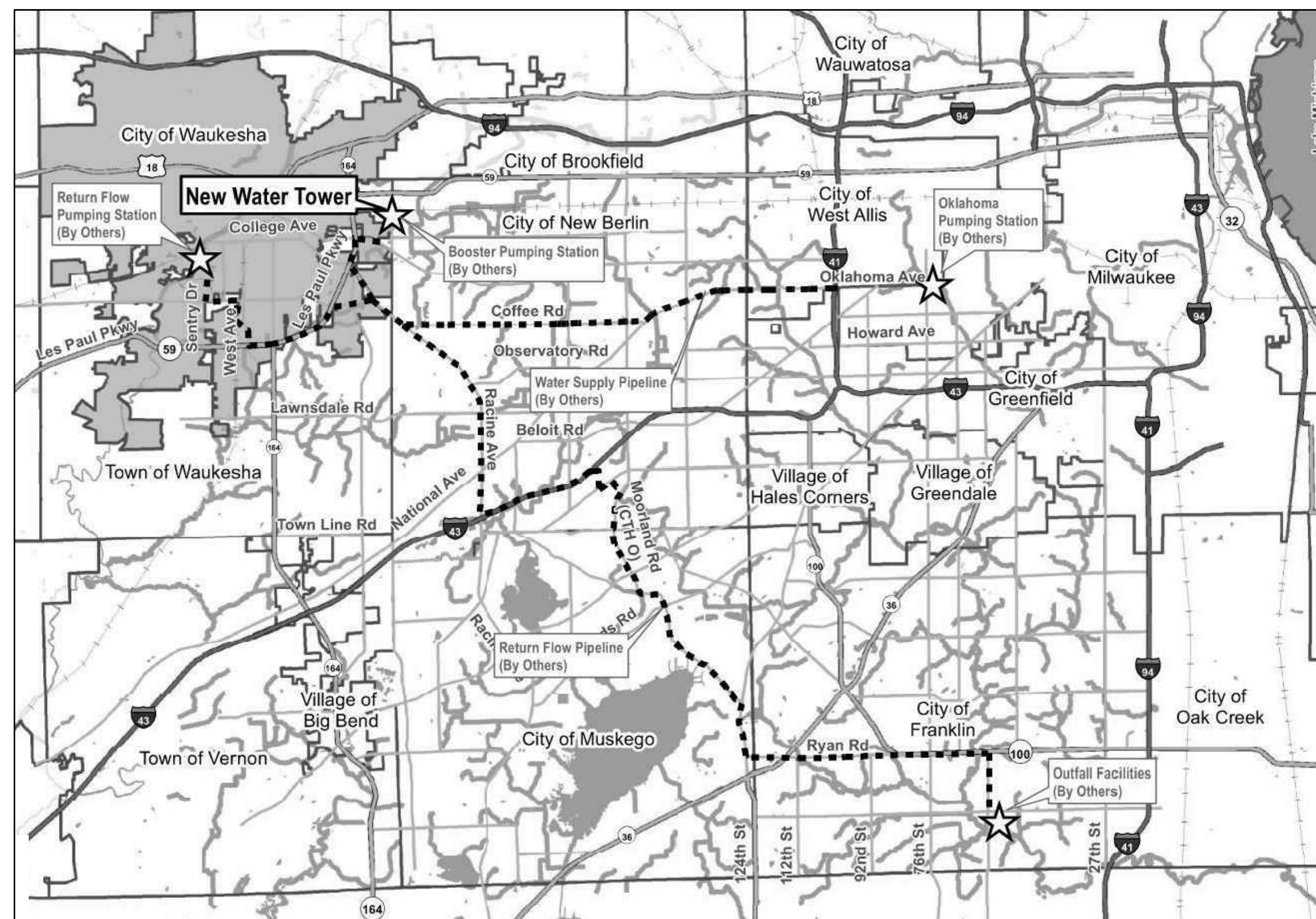
741 N. GRAND AVE, SUITE 308
WAUKESHA, WI 53186



Dial 811 or (800) 242-8511
www.DiggersHotline.com

CONTRACT DRAWINGS:

CONTRACT PACKAGE 3A WATER TOWER



VICINITY MAP
NOT TO SCALE

ENGINEER SEALS AND SIGNATURES

SHEET 1 OF 1

 <p>EXP DATE: 07/31/22</p> <p><i>Andrew J. Martin</i> SIGNATURE: _____ DATE: 09/18/20 PRINCIPAL TITLE: _____ GREELEY AND HANSEN LLC FIRM: _____</p>	 <p>EXP DATE: 7/31/2022</p> <p><i>Paul R. Eiring</i> SIGNATURE: _____ DATE: 09/18/20 VICE PRESIDENT TITLE: _____ GRAEF FIRM: _____</p>	 <p>EXP DATE: 07/31/22</p> <p><i>John Lenti</i> SIGNATURE: _____ DATE: 09/18/20 ASSOCIATE TITLE: _____ GREELEY AND HANSEN LLC FIRM: _____</p>	 <p>EXP DATE: 07/31/22</p> <p><i>Brian R. Goldman</i> SIGNATURE: _____ DATE: 09/18/20 ASSOCIATE TITLE: _____ GREELEY AND HANSEN LLC FIRM: _____</p>	 <p>EXP DATE: 07/31/22</p> <p><i>Thomas H. Powell</i> SIGNATURE: _____ DATE: 09/18/20 ASSOCIATE TITLE: _____ GREELEY AND HANSEN LLC FIRM: _____</p>
<p>DRAWING LIST: G1 G2</p>	<p>DRAWING LIST: C1 C2</p>	<p>DRAWING LIST: A1</p>	<p>DRAWING LIST: E1</p>	<p>DRAWING LIST: N1</p>

THE DRAWINGS LISTED AND BOUND HEREIN ARE PART OF THE CONTRACT FOR:

**WAUKESHA WATER UTILITY
GREAT LAKES WATER SUPPLY PROGRAM
CONTRACT PACKAGE 3A
WATER TOWER**

SEPTEMBER 2020

INDEX

Table with 3 columns: SHEET NUMBER, DRAWING NUMBER, DESCRIPTION. Rows include GENERAL (1-4), CIVIL (5-6), ARCHITECTURAL (7), ELECTRICAL (8), and INSTRUMENTATION (9).

ABBREVIATIONS

Table with 2 columns: Abbreviation (AIT, AN, BN, BPS, CL EL, CN, CP, DN, EUH, FD, FFE, HWL, I & C, INV EL, LF, LWL, NO, PLC, SF) and Description (ANALYZER INDICATOR TRANSMITTER, PHASE A TO NEUTRAL, etc.).

CITY OF WAUKESHA NOTES:

- 1. ALL SITE IMPROVEMENTS AND CONSTRUCTION SHOWN ON THE DRAWINGS SHALL CONFORM TO THE CURRENT CITY OF WAUKESHA DESIGN AND CONSTRUCTION MANUAL. WHERE THE DRAWINGS DO NOT COMPLY, IT SHALL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE CONTRACTOR TO MAKE REVISIONS TO THE DRAWINGS AND/OR CONSTRUCTED INFRASTRUCTURE TO COMPLY.

GENERAL NOTES:

- 1. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY, OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.
2. THE INFORMATION PROVIDED IN THESE DRAWINGS PERTAINING TO EXISTING CONDITIONS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS, WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK.
3. SECTIONS AND DETAILS ARE IDENTIFIED WITH A FRACTION. THE NUMERATOR IS THE SECTION OR DETAIL NUMBER AND THE DENOMINATOR IS THE DRAWING NUMBER ON WHICH THE SECTION IS CUT OR SHOWN OR THE DETAIL IS SHOWN.
...
18. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS.

DRAFT 95% PROGRESS DRAWINGS
SEPTEMBER 2020

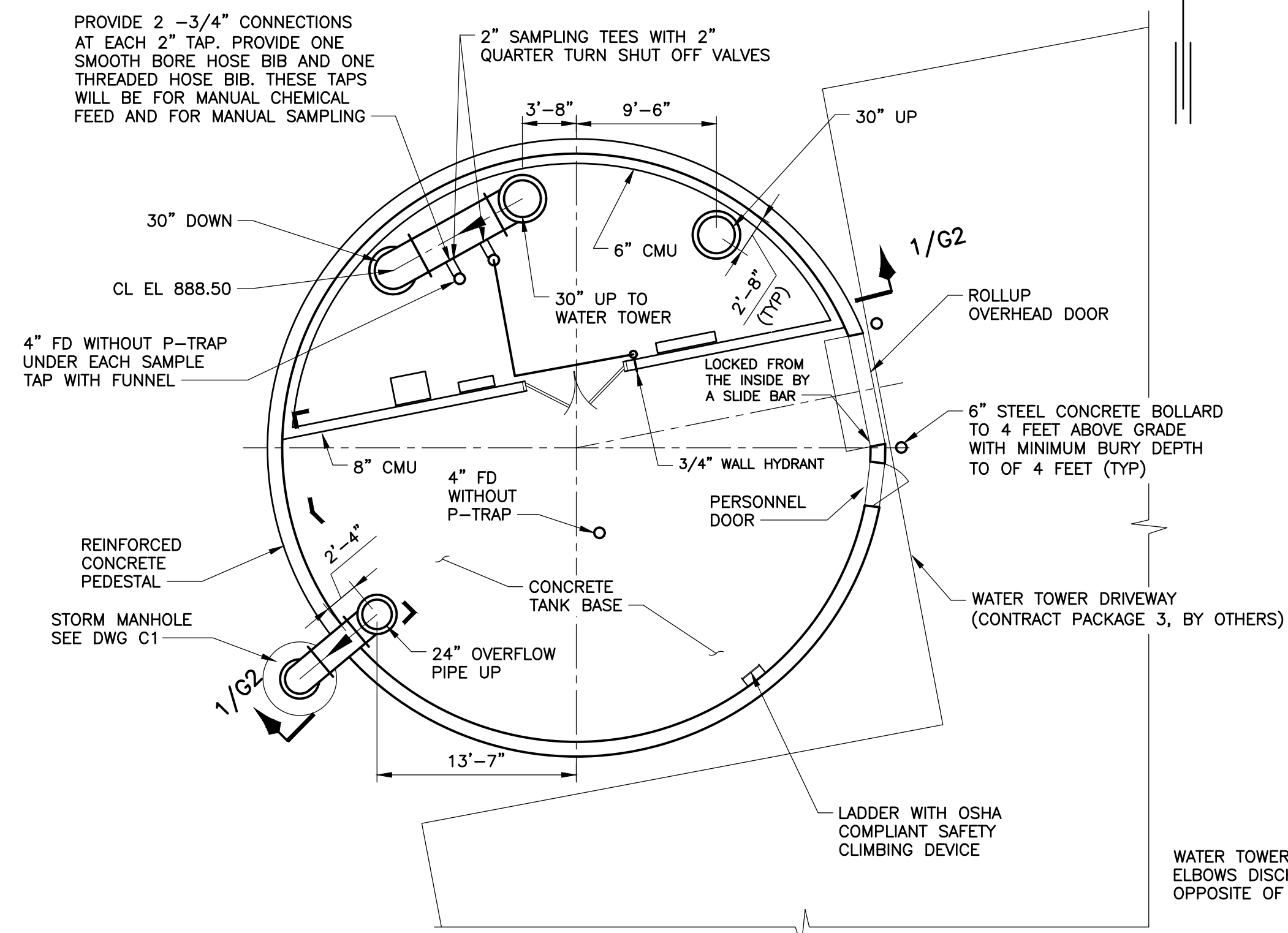
Table with 2 columns: NO., DATE, APPD, REVISION.

Logos for Waukesha Water Utility and GREELEY and HANSEN with address: 741 N. GRAND AVE. SUITE 308, WAUKESHA, WI 53186.

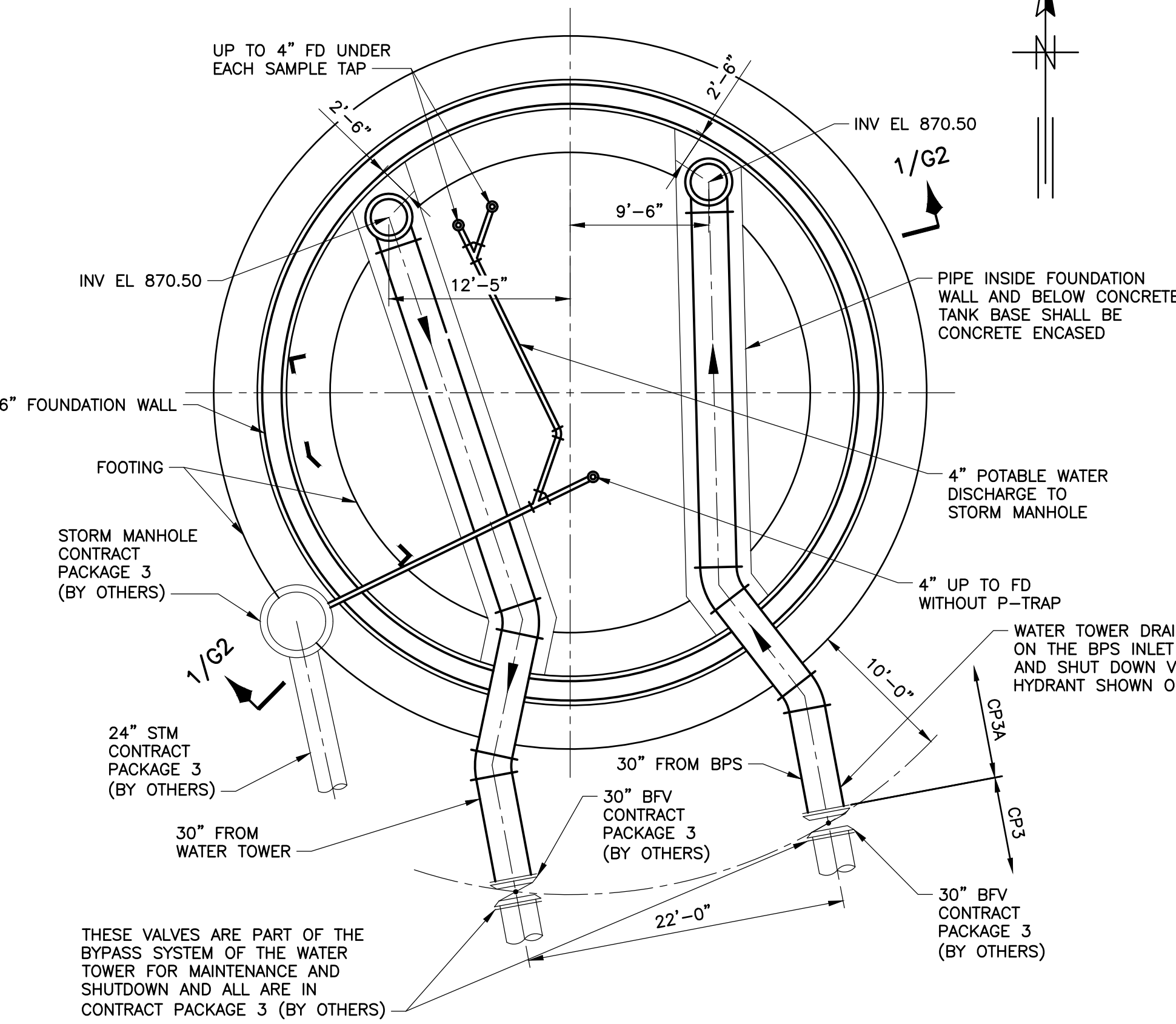
GREAT WATER ALLIANCE logo and text: CONTRACT PACKAGE 3A: WATER TOWER, INDEX: ABBREVIATIONS AND GENERAL NOTES.

APPROVED stamp area with date: SEPTEMBER 2020, JOB NO.: 15310, and drawing number: G1.

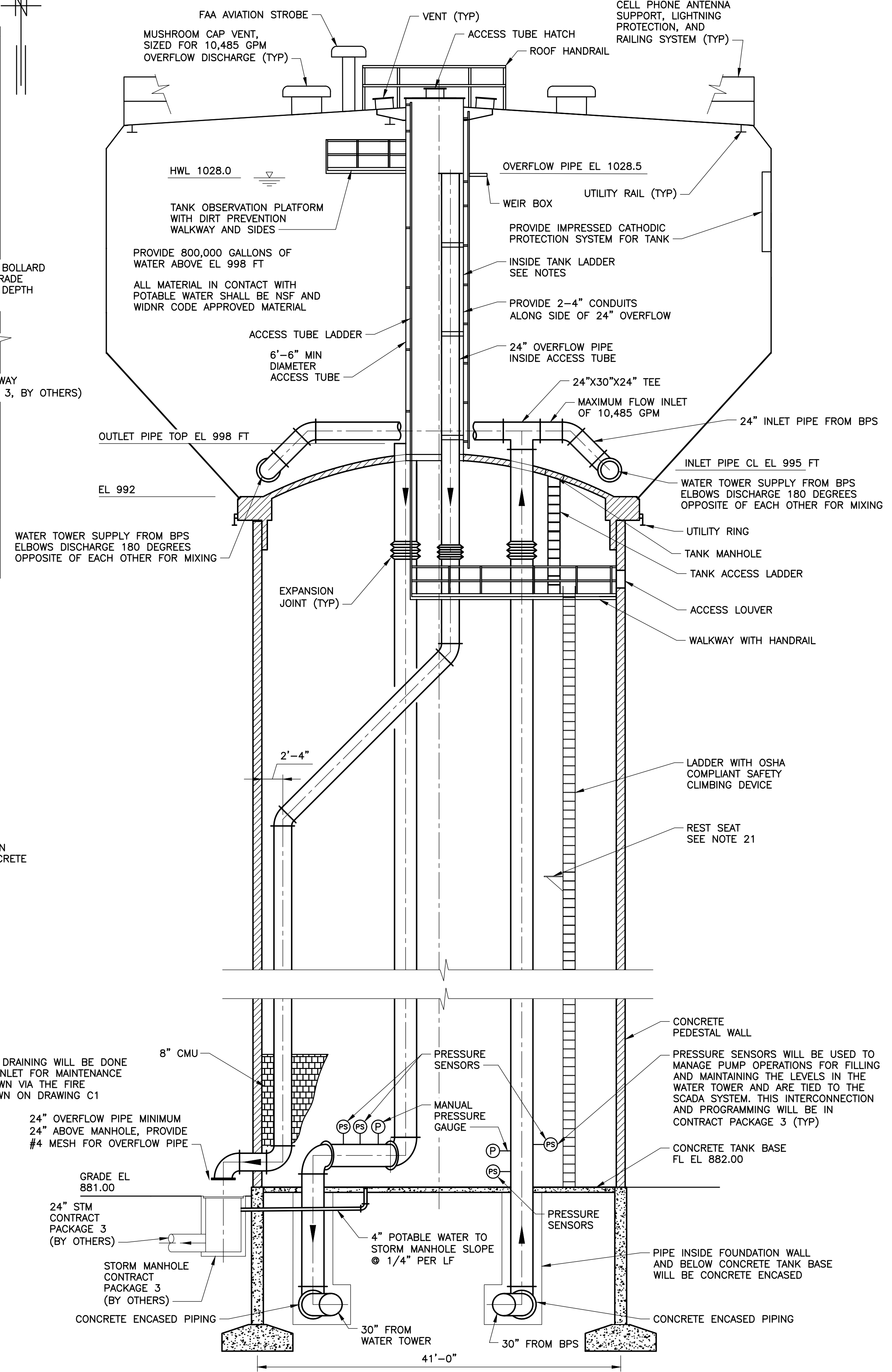
09/19/2020 12:44:23 PM
 09/19/2020 12:44:23 PM
 FILE: G:\15310-WAUKESHA GREAT LAKES WATER SUPPLY PM-CM121.05 WORKING DWGS\CONTRACT PACKAGE 3A - WTGLWSP-P3A-WT-G02.DWG



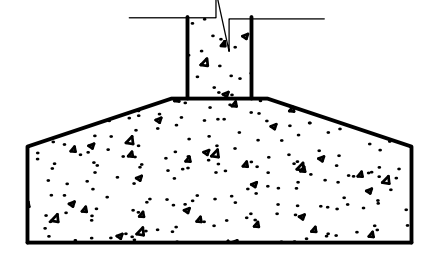
PLAN AT EL 900.00
SCALE: 1/8" = 1'-0"



FOUNDATION FLOOR PLAN AT EL 880.00
SCALE: 1/8" = 1'-0"



SECTION 1/G2
SCALE: 1/8" = 1'-0"



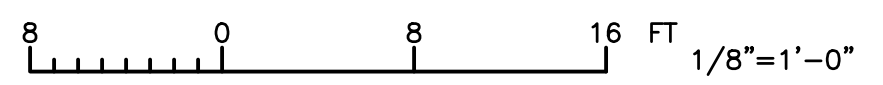
THE DESIGN AND DIMENSIONS OF FOOTING WILL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF WISCONSIN AND IS THE RESPONSIBILITY OF THE WATER TOWER CONTRACTOR

EXAMPLE FOOTING SECTION
NOT TO SCALE

NOTES:

1. THE FINAL DESIGN OF ALL ASPECTS OF THE WORK SHOWN HERE IS THE RESPONSIBILITY OF THE WATER TOWER CONTRACTOR INCLUDING FREEZE PROOF VENT SIZING, LOCATING AND SIZING HATCHES AND VENTS, LOCATING AND SIZING THE ANTENNA AND RAIL SUPPORTS, LADDERS AND REST PLATFORMS, CODE COMPLIANT OBSERVATION PLATFORMS AND THE FAA STROBE SIGNAL.
2. THE OVERFLOW PIPE WILL BE INSIDE OF THE ACCESS TUBE, FINAL DIMENSIONS WILL BE DETERMINED BY THE WATER TOWER CONTRACTOR.
3. EXPANSION JOINTS WILL BE PROVIDED BY THE WATER TOWER CONTRACTOR IN A LOCATION THAT IS ACCESSIBLE FOR INSPECTION, REPLACEMENT AND REPAIR.
4. FOUNDATION CONSTRUCTION SHALL COMPLY WITH A.C.I. 318-99, A.C.I. 301-96, AWWA D100-96, AND APPLICABLE SECTIONS OF THE CONTRACT SPECIFICATIONS AND THE SOILS REPORT. GEOTECHNICAL SOILS REPORT IS INCLUDED FOR INFORMATION ONLY.
5. FOOTING, BASE, AND FOUNDATION DESIGN ARE THE RESPONSIBILITY OF THE WATER TOWER CONTRACTOR.
6. PEDESTAL AND FOOTING DIMENSIONS AND CONCRETE REINFORCEMENT SHALL BE DETERMINED BY THE WATER TOWER CONTRACTOR.
7. MINIMUM FOUNDATION CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000 P.S.I. AT 28 DAYS. REINFORCEMENT SHALL CONFORM TO ASTM A615 GR. 60.
8. CONSTRUCTION JOINTS SHALL BE ROUGHENED ACROSS ENTIRE FACE WITH 1/4" MINIMUM DEPTH INDENTATIONS.
9. THE TOP OF THE RINGWALL SHALL BE LEVEL WITHIN (±) 1/8" IN 30 FEET WITH A MAXIMUM DIFFERENTIAL OF (±) 1/4" BETWEEN ANY TWO POINTS ON THE CIRCUMFERENCE.
10. PROVIDE 1/2" THICK EXPANSION JOINT MATERIAL BETWEEN FLOOR AND WALL AND AT ALL PIPING PENETRATIONS.
11. ALL MATERIAL IN CONTACT WITH THE WATER SHALL BE NSF 61 APPROVED.
12. ALL PLATFORMS AND LADDERS INSIDE WATER TOWER TO HAVE DIRT PREVENTION FLOORS AND LEDGES ON THE EDGE TO PREVENT DIRT FROM ENTERING THE WATER.
13. THE TANK AND CONCRETE SUPPORT PEDESTAL SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AWWA D100-96, A.C.I. 318-99, A.C.I. 301-96 AND CONTRACT SPECIFICATIONS.

WIND SPEED (ZONE III = 200 MPH) 90 MPH BASIC WIND SPEED
SNOW LOAD: 40 PSF PLUS DRIFT
SEISMIC ZONE: A
14. THE EXTERIOR OF THE CONCRETE PEDESTAL SHALL INCORPORATE VERTICAL AND HORIZONTAL RUSTICATION TO CREATE AN ARCHITECTURAL PATTERN.
15. THE INTERIOR SURFACES SHALL HAVE A SMOOTH AS-CAST FINISH.
16. ACCESSORIES SHOWN ON SECTION ARE ROTATED FOR CLARITY.
17. ALL LADDERS, LANDINGS AND ASSOCIATED COMPONENTS INSTALLED INSIDE THE CONCRETE PEDESTAL SHALL BE HOT-DIP GALVANIZED STEEL.
18. SEE PROJECT SPECIFICATIONS FOR SHOP AND FIELD PAINT REQUIREMENTS FOR THE STEEL TANK.
19. DISINFECT TANK IN ACCORDANCE WITH AWWA C652-92 AND CONTRACT SPECIFICATIONS.
20. ALL HANDRAILS, PLATFORM LANDINGS, WALKWAYS, LADDERS AND SAFETY CLIMB DEVICES SHALL CONFORM WITH CURRENT OSHA STANDARDS.
21. LADDERS SHALL HAVE SWING-OUT REST SEATS AT 50'-0" MAXIMUM SPACING.
22. DESIGN AND PROVIDE IMPRESSED CATHODIC PROTECTION SYSTEM FOR THE TANK. SPACE HAS BEEN RESERVED IN THE SAMPLING ROOM FOR THE SYSTEM COMPONENTS.
23. DESIGN AND PROVIDE A LIGHTNING PROTECTION SYSTEM.



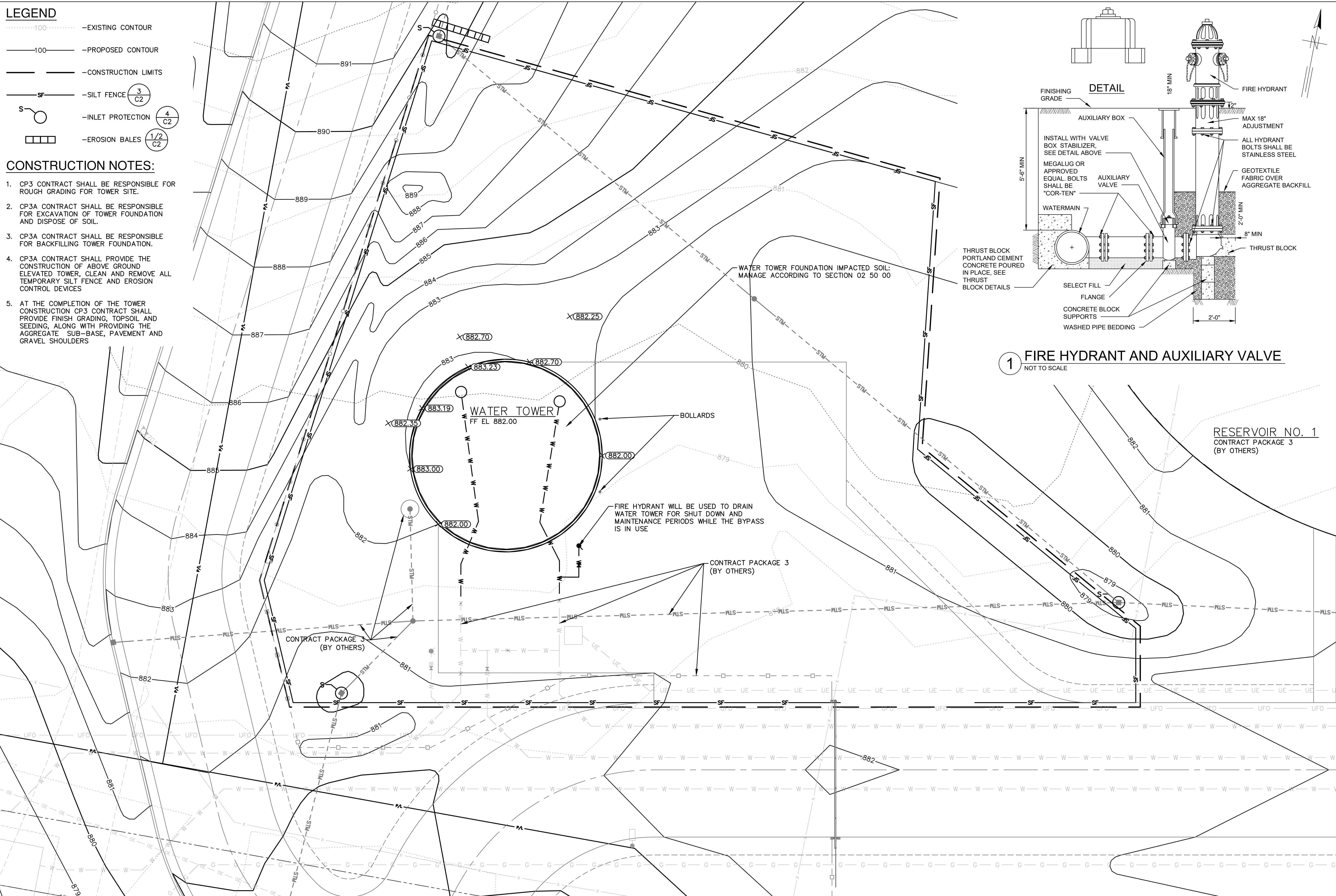
 GREAT WATER ALLIANCE	Greeley and Hansen <small>7411 N. GRAND AVE. SUITE 308 WAUKESHA, WI 53186</small>
CONTRACT PACKAGE 3A: WATER TOWER	PLANS, SECTIONS, AND NOTES
APPROVED _____	
SEAL AFFIXED MONTH / DAY / YEAR SEPTEMBER 2020	
JOB NO.: 15310 DESGN GJ CHCK CRV APPRV AJM DRWN TK	
SCALE: AS SHOWN DRAWING NUMBER <div style="font-size: 2em; font-weight: bold; margin-top: 5px;">G2</div>	
SHEET 4 OF 9 REV 0	

LEGEND

- 100- -EXISTING CONTOUR
- 100- -PROPOSED CONTOUR
- -CONSTRUCTION LIMITS
- SF -SILT FENCE (3/C2)
- S -INLET PROTECTION (4/C2)
- EROSION BALES (1/2/C2)

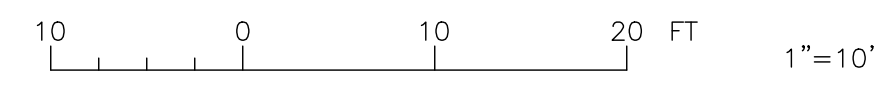
CONSTRUCTION NOTES:

1. CP3 CONTRACT SHALL BE RESPONSIBLE FOR ROUGH GRADING FOR TOWER SITE.
2. CP3A CONTRACT SHALL BE RESPONSIBLE FOR EXCAVATION OF TOWER FOUNDATION AND DISPOSE OF SOIL.
3. CP3A CONTRACT SHALL BE RESPONSIBLE FOR BACKFILLING TOWER FOUNDATION.
4. CP3A CONTRACT SHALL PROVIDE THE CONSTRUCTION OF ABOVE GROUND ELEVATED TOWER, CLEAN AND REMOVE ALL TEMPORARY SILT FENCE AND EROSION CONTROL DEVICES
5. AT THE COMPLETION OF THE TOWER CONSTRUCTION CP3 CONTRACT SHALL PROVIDE FINISH GRADING, TOPSOIL AND SEEDING, ALONG WITH PROVIDING THE AGGREGATE SUB-BASE, PAVEMENT AND GRAVEL SHOULDERS



1 FIRE HYDRANT AND AUXILIARY VALVE
NOT TO SCALE

SITE PLAN AND GRADING
SCALE: 1"=10'



NO.	DATE	APPD	REVISION

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

GREELEY AND HANSEN
741 N. GRAND AVE. SUITE 308
WAUKESHA, WI 53186

GREAT WATER ALLIANCE

CONTRACT PACKAGE 3A: WATER TOWER

SITE PLAN AND GRADING

APPROVED

SEAL AFFIXED
MONTH / DAY / YEAR

SEPTEMBER 2020

JOB NO.: 15310

DESIGN	DD	DB	CHK	PRE
APPROV	MNP	DRWN	TRY	

SCALE: AS SHOWN

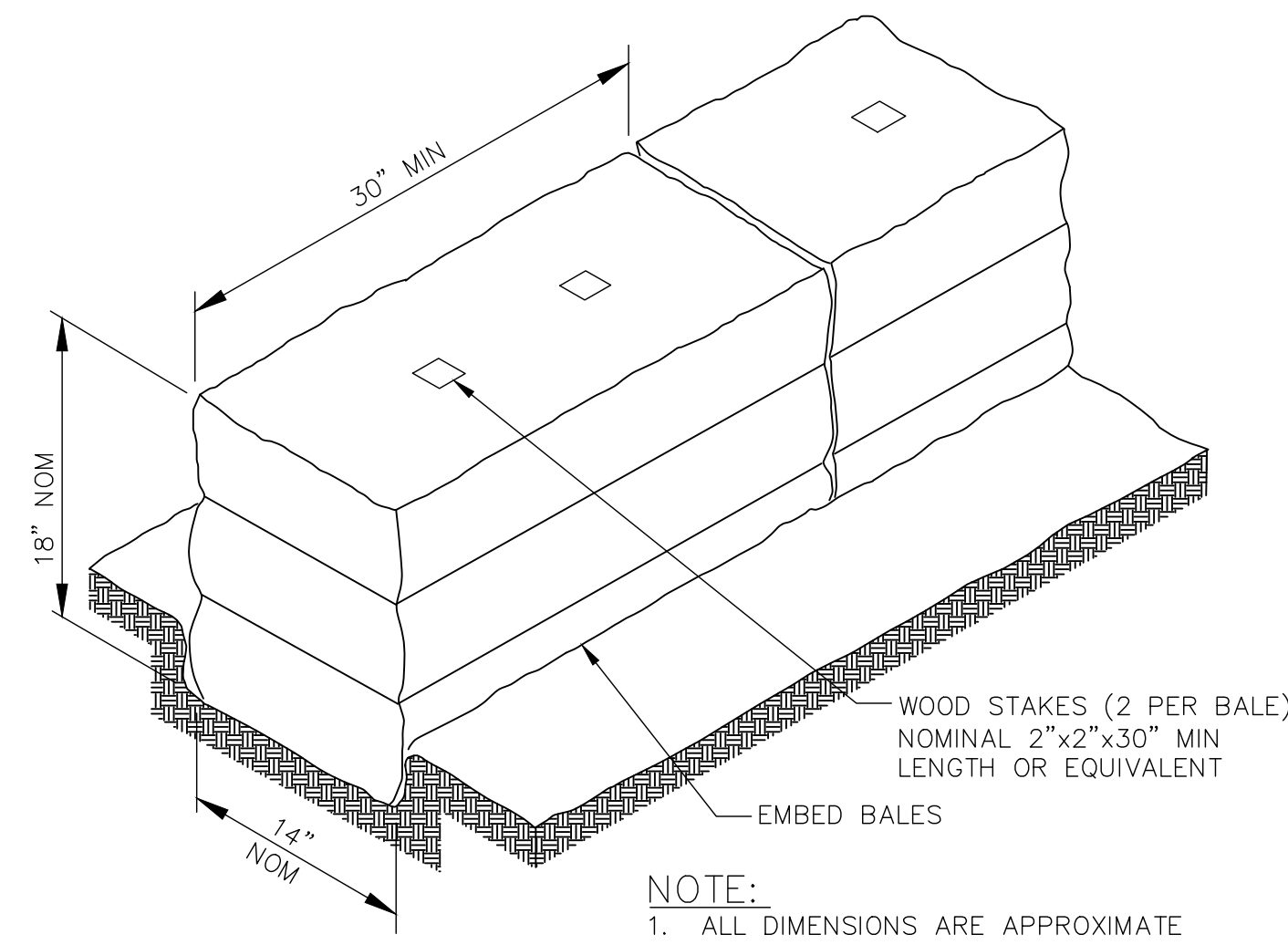
DRAWING NUMBER

C1

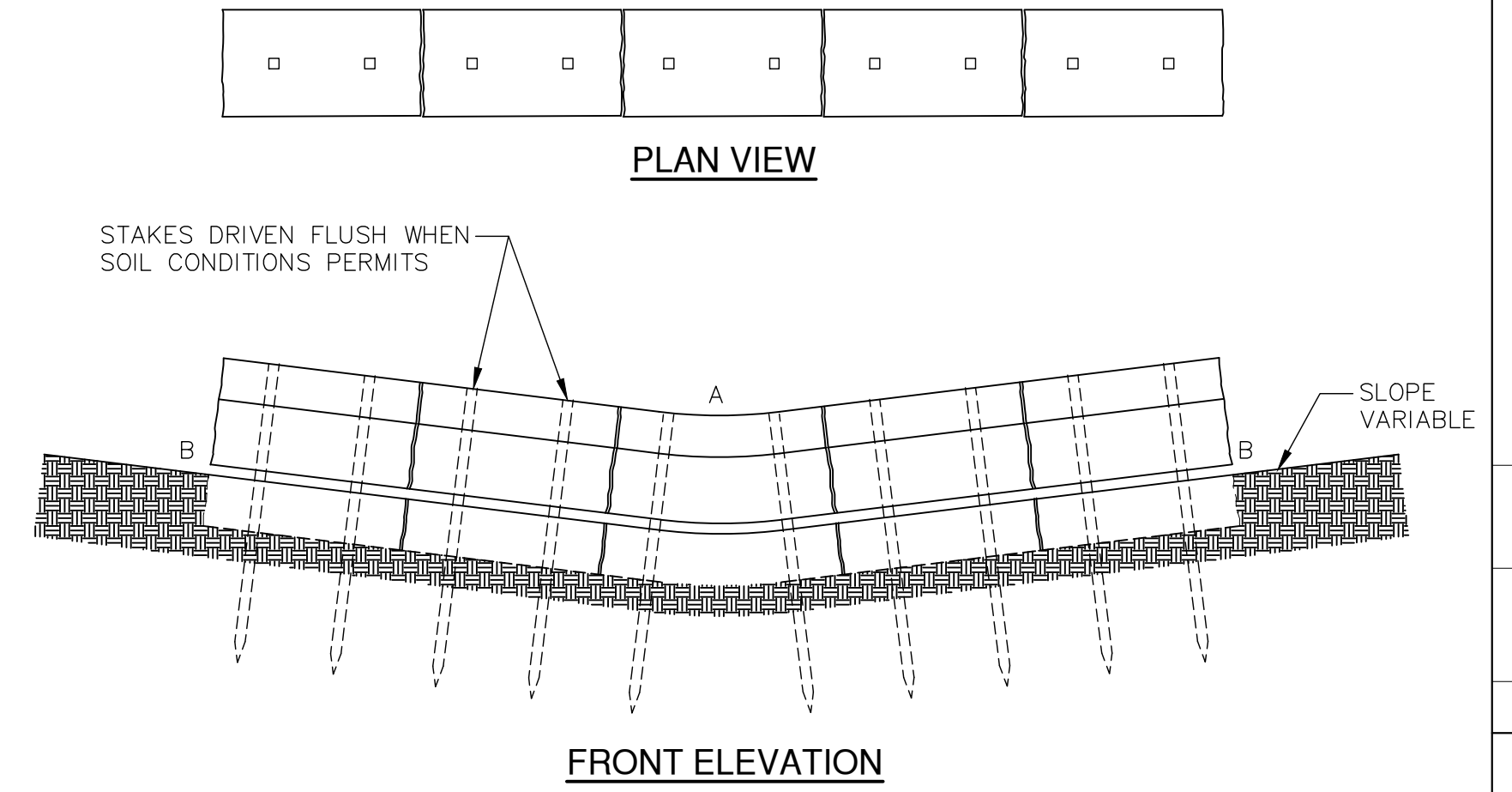
SHEET 5 OF 9 REV 0

EROSION CONTROL NOTES:

- CONFORM CONSTRUCTION SITE EROSION CONTROL AND SEDIMENTATION CONTROL TO THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION, AND EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) "CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS".
- ADJUST EROSION CONTROL MEASURES TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, INCLUDING ADJUSTING THE LOCATION OF SILT FENCE TO AVOID TREE AREAS OR OTHER AREAS OF CONFLICT. INSTALL EROSION CONTROL MEASURES PRIOR TO GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE EXCEPT THOSE ITEMS USED FOR STABILIZATION POST CONSTRUCTION.
- INSPECT EROSION AND SEDIMENT CONTROL MEASURES FOR STABILITY AND OPERATION AT LEAST EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE IN A 24 HOUR PERIOD. PROVIDE MAINTENANCE OF EROSION CONTROL STRUCTURES TO MAINTAIN FUNCTIONALITY. COMPLETE REPAIRS AND MAINTENANCE WITHIN 24 HOURS OF INSPECTION. CLEANUP AND REMOVE SEDIMENT WHEN LEAVING PROPERTY. EROSION CONTROL MEASURES MUST BE IN WORKING CONDITION AT END OF EACH WORK DAY.
- REMOVE SEDIMENT DEPOSITS FROM BEHIND THE SILT FENCE WHEN DEPOSITS REACH A DEPTH OF 6 INCHES. REPAIR OR REPLACE THE SILT FENCE AS NECESSARY TO MAINTAIN A BARRIER.
- INSTALL FILTER FABRIC BENEATH INLET COVERS TO TRAP SEDIMENT AT INLET LOCATIONS WITHIN THE LIMITS OF CONSTRUCTION OR AS SHOWN. INLET PROTECTION TO FOLLOW WDNR TECHNICAL STANDARD 1060.
- MAINTAIN CRUSHED STONE TRACKING PAD BY TURNING OVER THE STONE OR BY PLACING NEW STONE ONCE THE SURFACE BECOMES CLOGGED WITH SEDIMENT.
- MAINTAIN EROSION CONTROL MEASURES ON A CONTINUAL BASIS UNTIL SITE IS FULLY STABILIZED. FULLY STABILIZED MEANS THAT ALL LAND-DISTURBING CONSTRUCTION ACTIVITIES AT THE CONSTRUCTION SITE HAVE BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% OF THE COVER FOR THE UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES.
- SWEEP OR SHOVEL CLEAN STREETS AT THE END OF EACH WORKING DAY TO MAINTAIN THE PUBLIC STREET FREE OF DUST AND DIRT. DO NOT WASH STREETS WITH WATER.
- INSTALL SILT FENCE ON THE DOWN-SLOPE SIDE IN A HORSESHOE FASHION AROUND TOPSOIL AND FILL STOCKPILES.
- CONSTRUCTION SEQUENCE FOR EROSION CONTROL INCLUDES:
 - INSTALL STABILIZED CONSTRUCTION ENTRANCE.
 - INSTALL SILT FENCE AND INLET PROTECTION.
 - STRIP TOPSOIL AND INSTALL TEMPORARY DIVERSIONS TO DIVERT RUNOFF AWAY FROM WORK ZONE.
 - INSTALL PIPELINE AND APPURTENANCES.
 - BACKFILL PIPELINE.
 - STABILIZE THE SITE.
 - INSTALL FINAL SITE STABILIZATION IMMEDIATELY WHEN LAND DISTURBING ACTIVITIES CEASE AND FINAL GRADE HAS BEEN REACHED ON ANY PORTION OF THE SITE.
 - VERIFY STABILIZATION, INCLUDING CONFIRMING VEGETATIVE COVER IS FULLY ESTABLISHED.
 - REMOVE EROSION CONTROL MEASURES ONLY WHEN SITE IS FULLY STABILIZED.
 - COMPLIANCE WITH INSPECTIONS AND OTHER PERMIT REQUIREMENTS MUST CONTINUE UNTIL WDNR CONFIRMS TERMINATION IN WRITING.
- PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. REMOVE SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD BY STREET CLEANING, TO THE SATISFACTION OF THE RESIDENT PROJECT REPRESENTATIVE, BEFORE THE END OF EACH WORKDAY. FLUSHING MAY NOT BE USED UNLESS SEDIMENT WILL BE CONTROLLED BY A SEDIMENT BASIN OR OTHER APPROPRIATE BEST MANAGEMENT PRACTICE SPECIFIED IN THE WDNR "CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS". NOTIFY THE RESIDENT PROJECT REPRESENTATIVE OF CHANGES IN STABILIZED CONSTRUCTION ENTRANCE LOCATION.
- CLEAN OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT BY THE END OF THE NEXT WORK DAY. CLEAN OTHER OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES BY THE END OF THE THE WORK DAY.
- STABILIZE DISTURBED GROUND LEFT INACTIVE FOR SEVEN OR MORE DAYS BY TEMPORARY OR PERMANENT SEEDING, MULCHING, SODDING, COVERING WITH TARPS, OR EQUIVALENT BEST MANAGEMENT PRACTICES. IF TEMPORARY SEEDING IS USED, A PERMANENT COVER WILL ALSO BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION. SEEDING OR SODDING WILL BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION.
- PROVIDE PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATION SECTION 32 90 00 - LANDSCAPING WORK AND WDNR TECHNICAL STANDARD 1059.
- PROVIDE TEMPORARY SEED MIX IN ACCORDANCE WITH SPECIFICATION SECTION 32 90 00 - LANDSCAPING WORK. IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. BETWEEN SEPTEMBER 15 AND OCTOBER 15: STABILIZE WITH MULCH, TACKIFIER, AND A PERENNIAL SEED MIXED WITH WINTER WHEAT, ANNUAL OATS, OR ANNUAL RYE, AS APPROPRIATE FOR REGION AND SOIL TYPE. FROM OCTOBER 15 THROUGH COLD WEATHER: STABILIZE WITH A POLYMER AND DORMANT SEED MIX, AS APPROPRIATE FOR REGION AND SOIL TYPE. CLASS 1 TYPE B MATTING ON SLOPES 4:1 OR STEEPER CAN BE USED. WDNR UPDATED EROSION CONTROL NOTES DOC 3800-2019-01.
- LOCATE SOIL OR DIRT STORAGE PILES A MINIMUM OF TWENTY-FIVE FEET FROM A DOWNSLOPE LAKE, STREAM, WETLAND, OR DRAINAGE CHANNEL. PLACE FILTER FABRIC FENCES ON THE DOWN SLOPE SIDE OF THE STOCKPILE. IMMEDIATELY INSTALL SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILE WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER. IMMEDIATELY STABILIZE STOCKPILES THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. SEE EC NOTE 15 FOR STABILIZATION OPTIONS.
- WHEN THE DISTURBED AREA HAS BEEN FULLY STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, REMOVE TEMPORARY BEST MANAGEMENT PRACTICES SUCH AS FILTER FABRIC FENCES, STRAW BALES, SEDIMENT AND SEDIMENT TRAPS.
- NOTIFY THE RESIDENT PROJECT REPRESENTATIVE OF COMPLETION OF BEST MANAGEMENT PRACTICES WITHIN THE NEXT WORKING DAY AFTER THEIR INSTALLATION.
- OBTAIN PERMISSION IN WRITING FROM THE RESIDENT PROJECT REPRESENTATIVE PRIOR TO MODIFYING THE EROSION CONTROL PLAN. NOTIFY WDNR AT LEAST FIVE WORKING DAYS PRIOR TO IMPLEMENTING CHANGES TO THE EROSION CONTROL PLAN.
- REPAIR SILTATION OR EROSION DAMAGE TO ADJOINING SURFACES AND DRAINAGE WAYS RESULTING FROM LAND DEVELOPMENT OR LAND DISTURBING ACTIVITIES.
- KEEP AND MAINTAIN A COPY OF THE EROSION CONTROL PLAN AND THE STORMWATER MANAGEMENT PLAN AT ACTIVE CONSTRUCTION SITES.

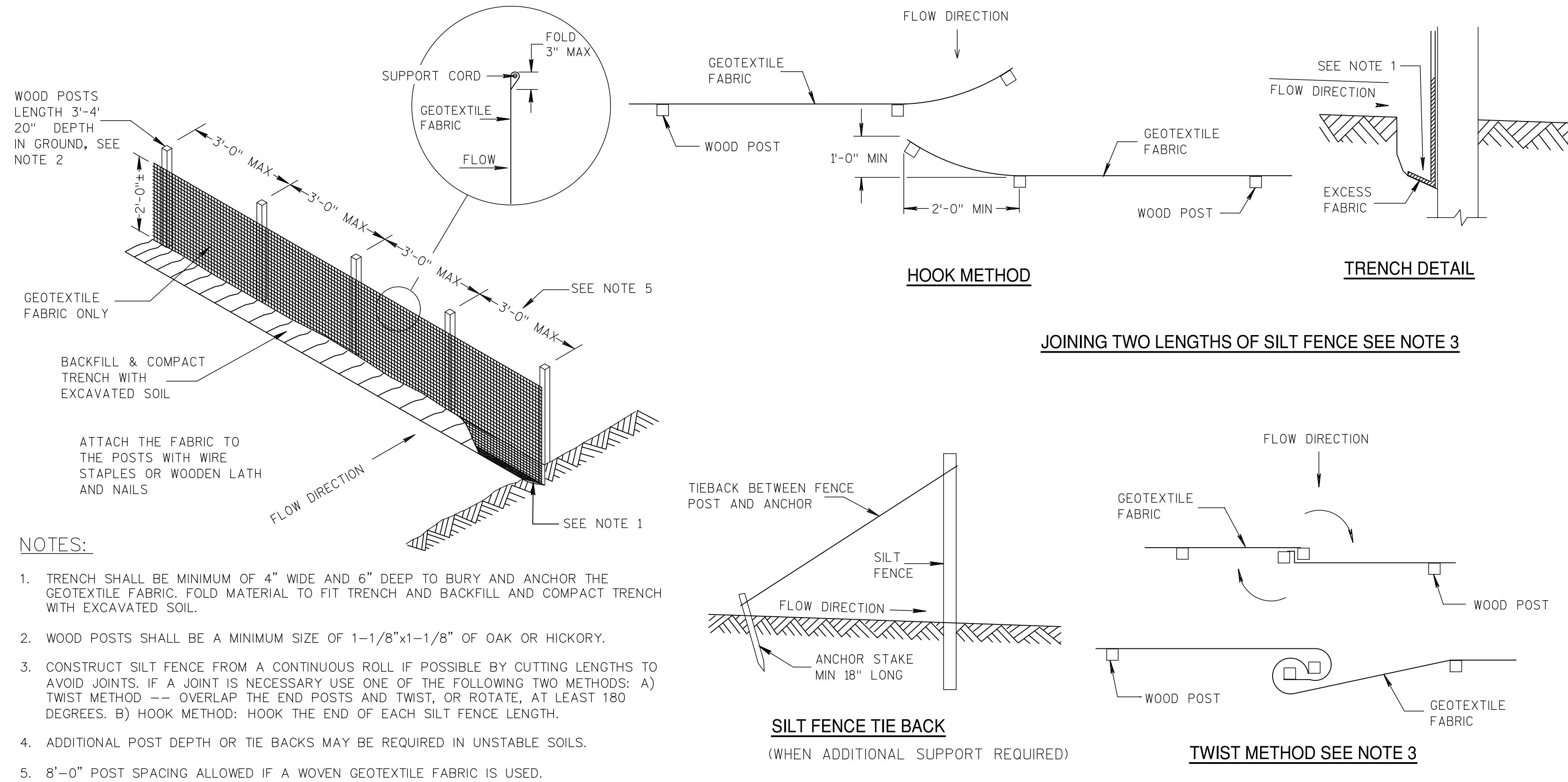


1 DETAIL OF EROSION BALE INSTALLATION
 NOT TO SCALE

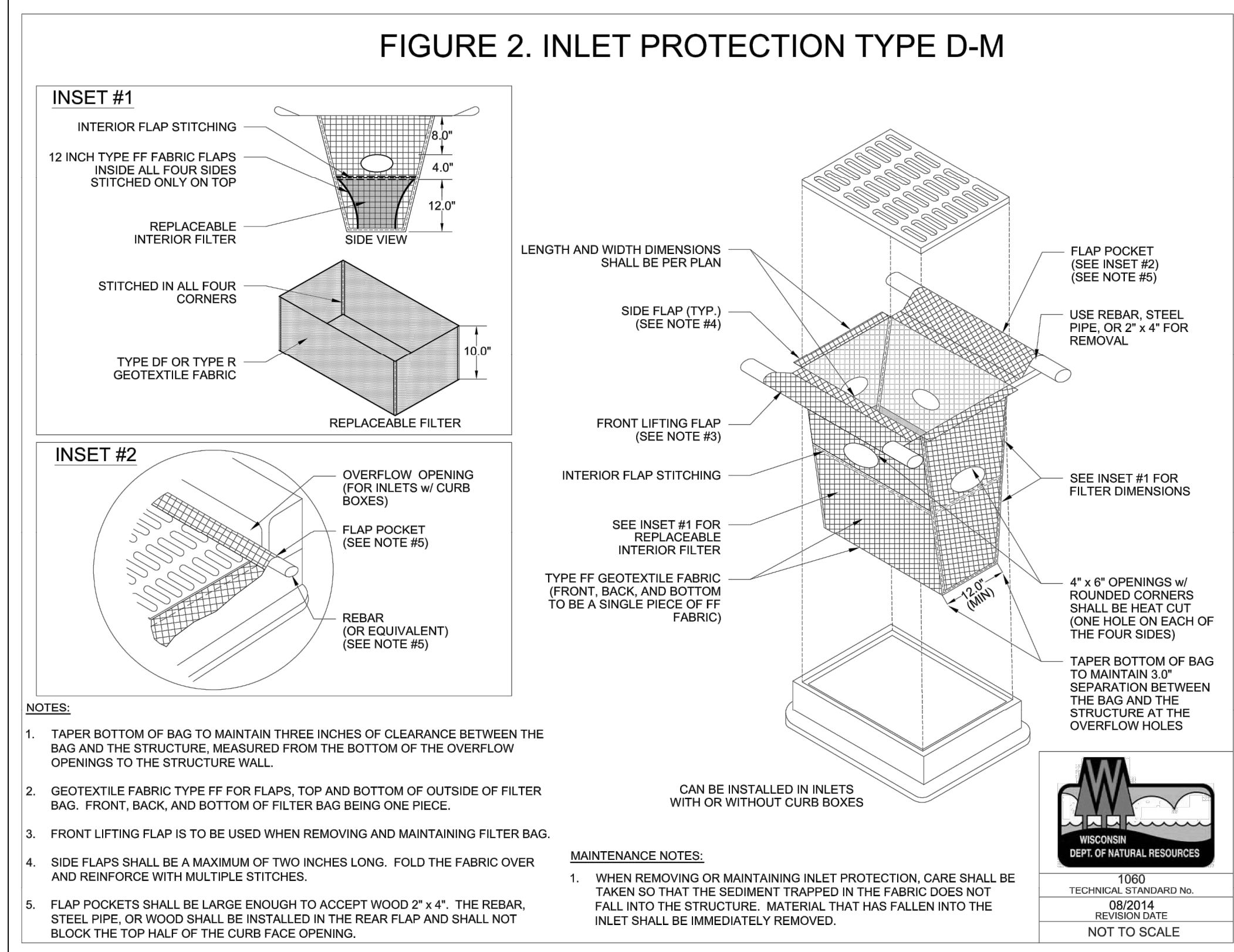


- NOTES:**
- POINT "B" SHALL BE HIGHER THAN POINT "A"
 - IF REQUIRED TWO ROWS MAY BE USED WITH STAGGERED JOINTS.

2 EROSION BALES ACROSS DITCH BOTTOM
 NOT TO SCALE



3 SILT FENCE
 NOT TO SCALE



- NOTES:**
- TAPER BOTTOM OF BAG TO MAINTAIN THREE INCHES OF CLEARANCE BETWEEN THE BAG AND THE STRUCTURE, MEASURED FROM THE BOTTOM OF THE OVERFLOW OPENINGS TO THE STRUCTURE WALL.
 - GEOTEXTILE FABRIC TYPE FF FOR FLAPS, TOP AND BOTTOM OF OUTSIDE OF FILTER BAG. FRONT, BACK, AND BOTTOM OF FILTER BAG BEING ONE PIECE.
 - FRONT LIFTING FLAP IS TO BE USED WHEN REMOVING AND MAINTAINING FILTER BAG.
 - SIDE FLAPS SHALL BE A MAXIMUM OF TWO INCHES LONG. FOLD THE FABRIC OVER AND REINFORCE WITH MULTIPLE STITCHES.
 - FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2" x 4". THE REBAR, STEEL PIPE, OR WOOD SHALL BE INSTALLED IN THE REAR FLAP AND SHALL NOT BLOCK THE TOP HALF OF THE CURB FACE OPENING.
- MAINTENANCE NOTES:**
- WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED IN THE FABRIC DOES NOT FALL INTO THE STRUCTURE. MATERIAL THAT HAS FALLEN INTO THE INLET SHALL BE IMMEDIATELY REMOVED.

4 INLET PROTECTION
 SCALE: NOT TO SCALE

NO.	DATE	APPD	REVISION

Waukesha Water Utility
 SERVING WAUKESHA SINCE 1896

GREELEY AND HANSEN
 741 N. GRAND AVE. SUITE 308
 WAUKESHA, WI 53186

GREAT WATER ALLIANCE

CONTRACT PACKAGE 9A: WATER TOWER

GRADING AND EROSION CONTROL NOTES AND DETAILS

APPROVED

SEAL AFFIXED
 MONTH / DAY / YEAR

SEPTEMBER 2020

JOB NO: 15310

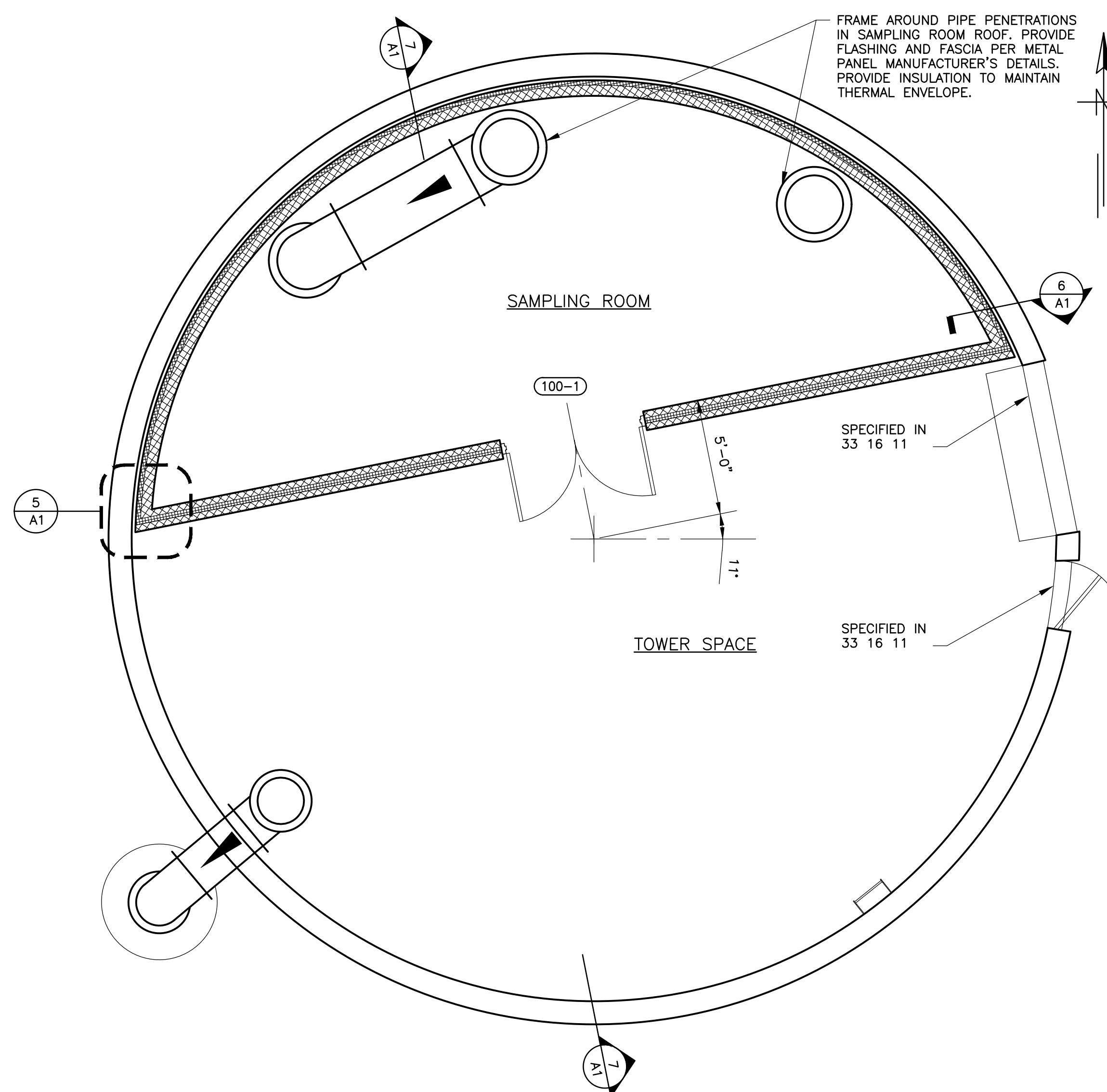
DESIGN	DDB	CHK	PRE
APPROV	MNP	DRWN	TRY

SCALE: AS SHOWN

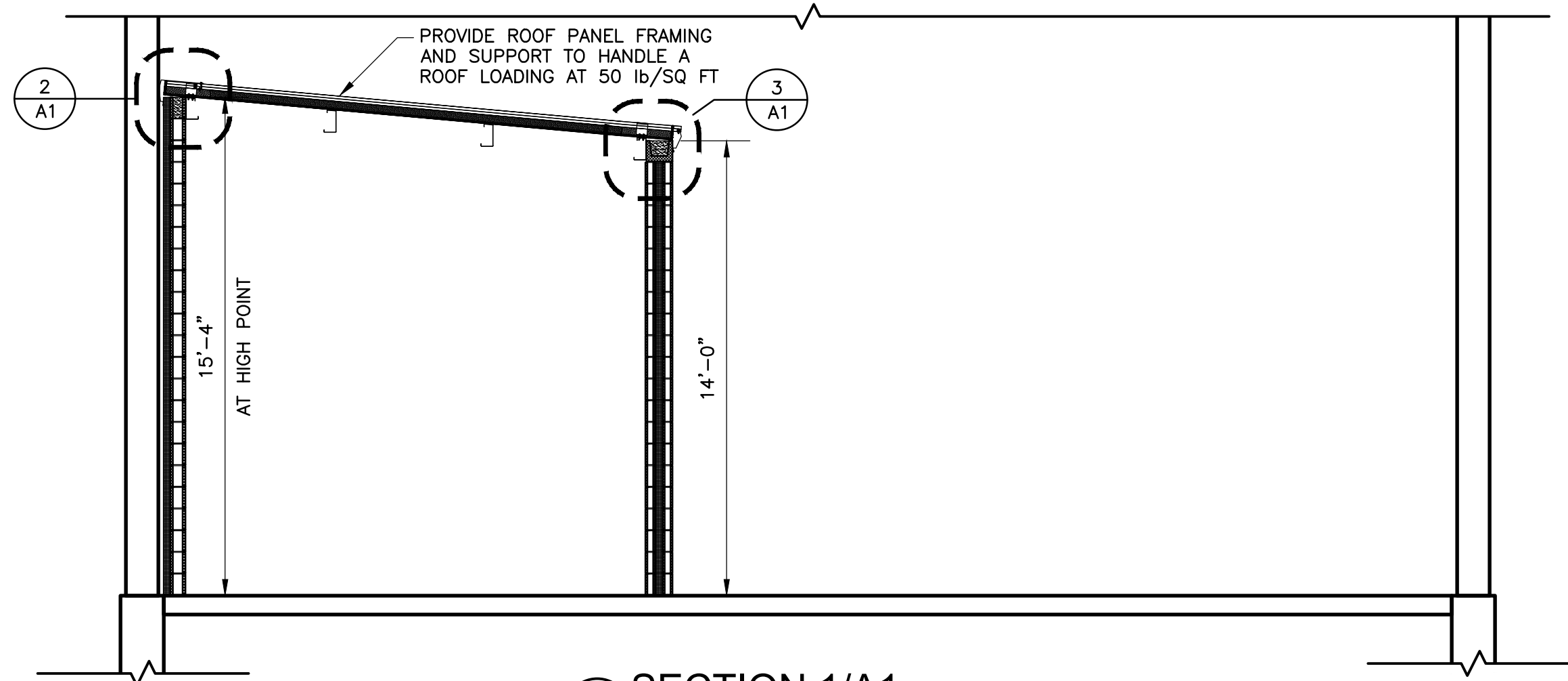
DRAWING NUMBER

C2

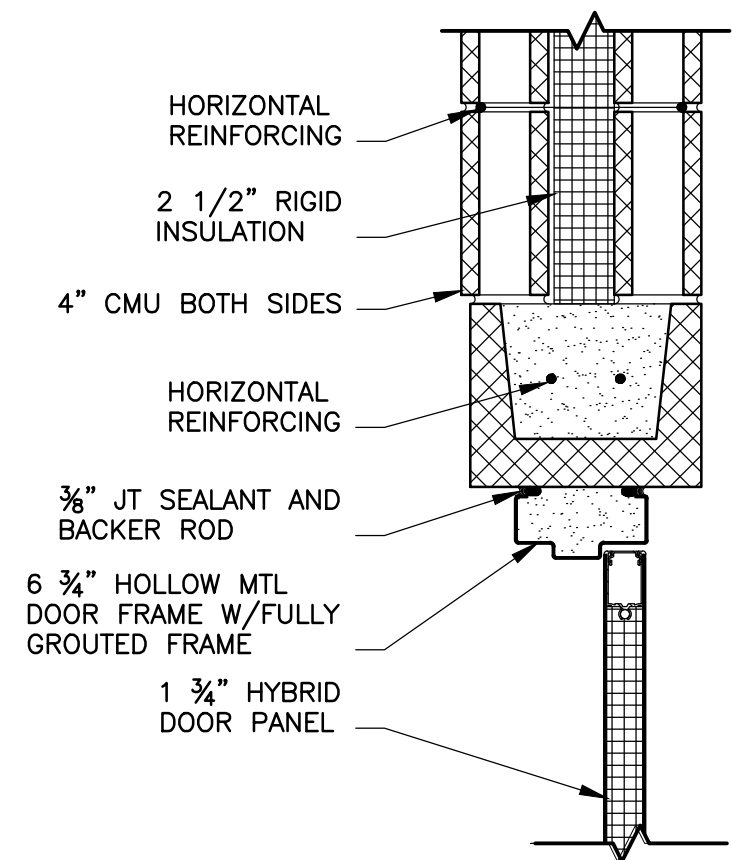
SHEET 6 OF 9 REV 0



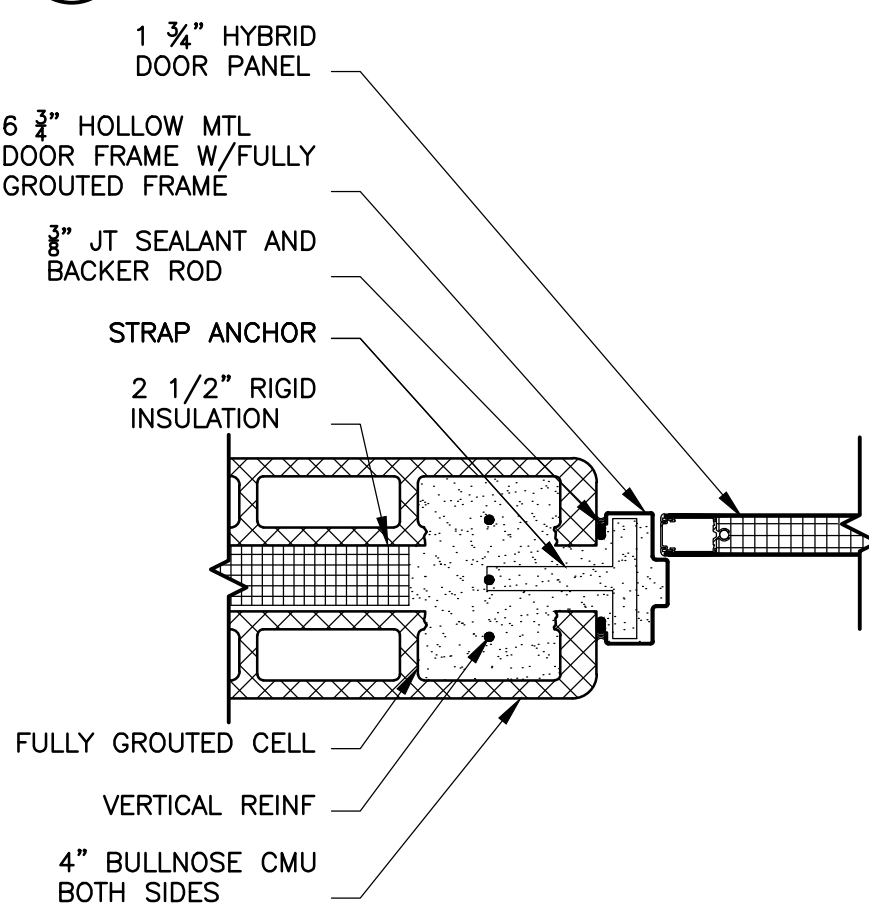
FLOOR PLAN
SCALE: 1/4" = 1'-0"



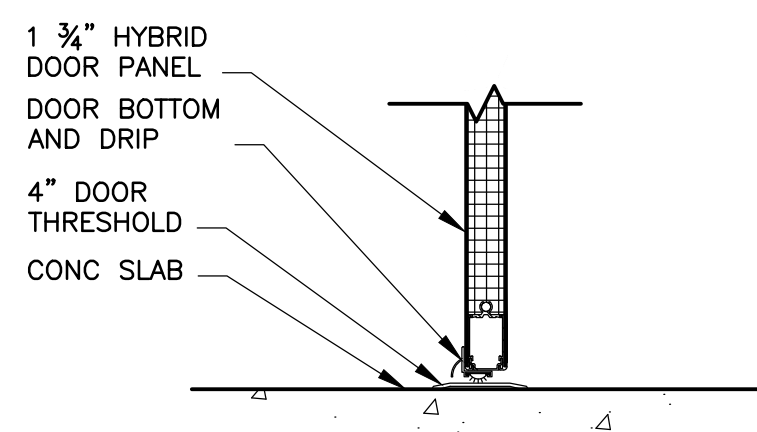
SECTION 1/A1
SCALE: 1/4" = 1'-0"



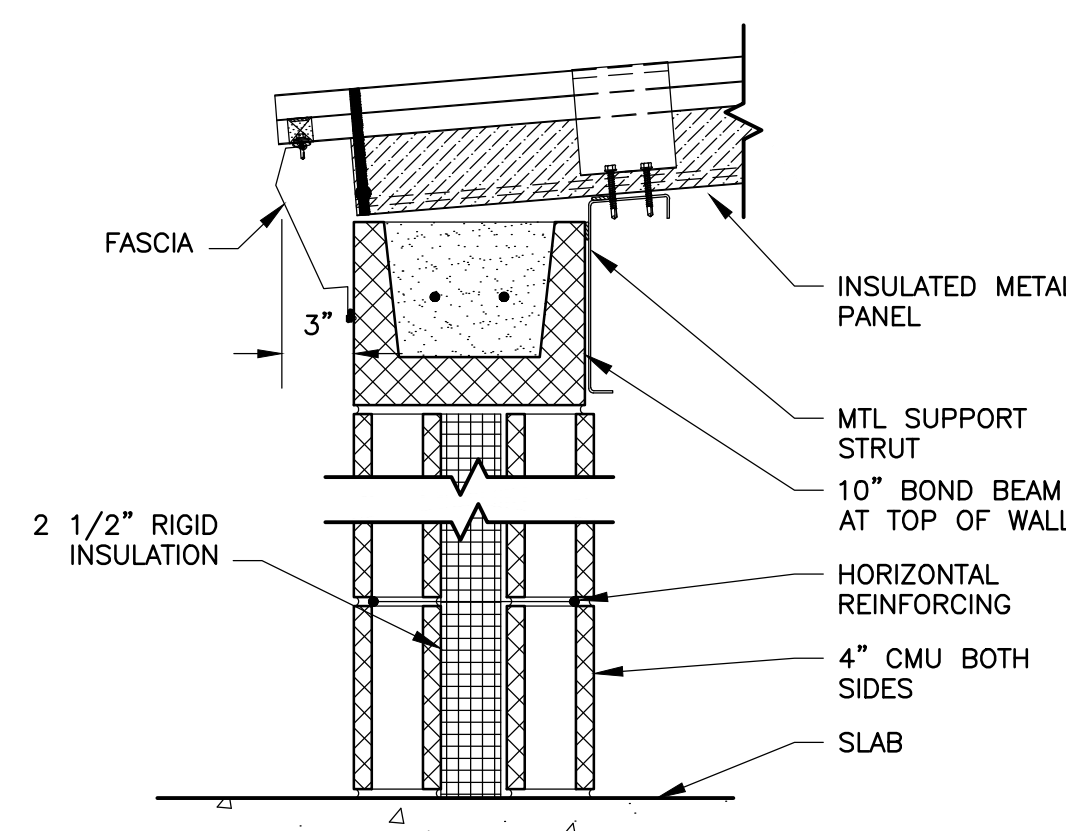
1 DOOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



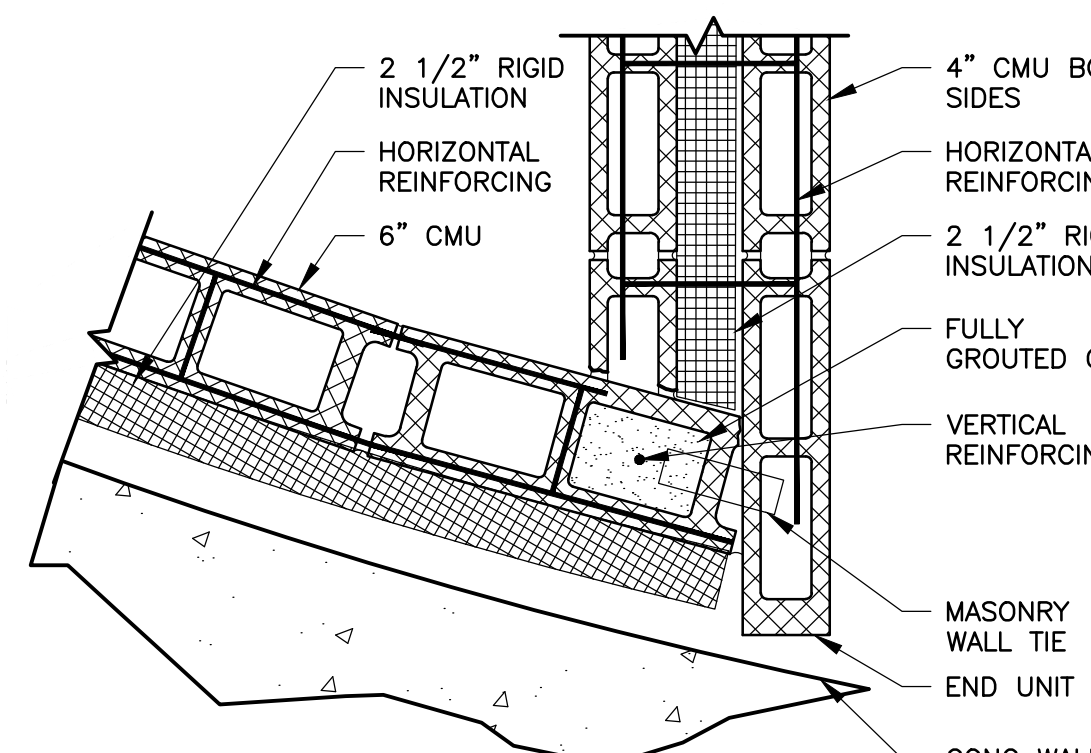
4 DOOR JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



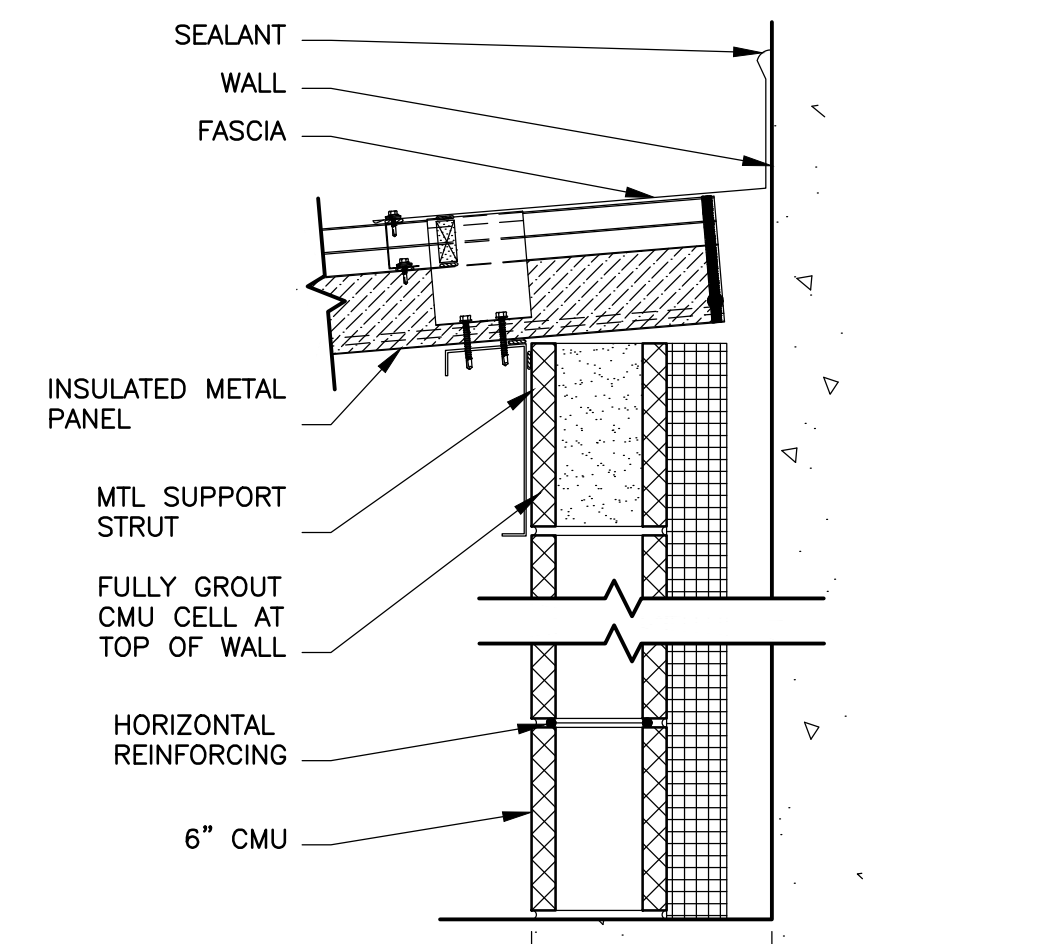
8 DOOR SILL DETAIL
SCALE: 1 1/2" = 1'-0"



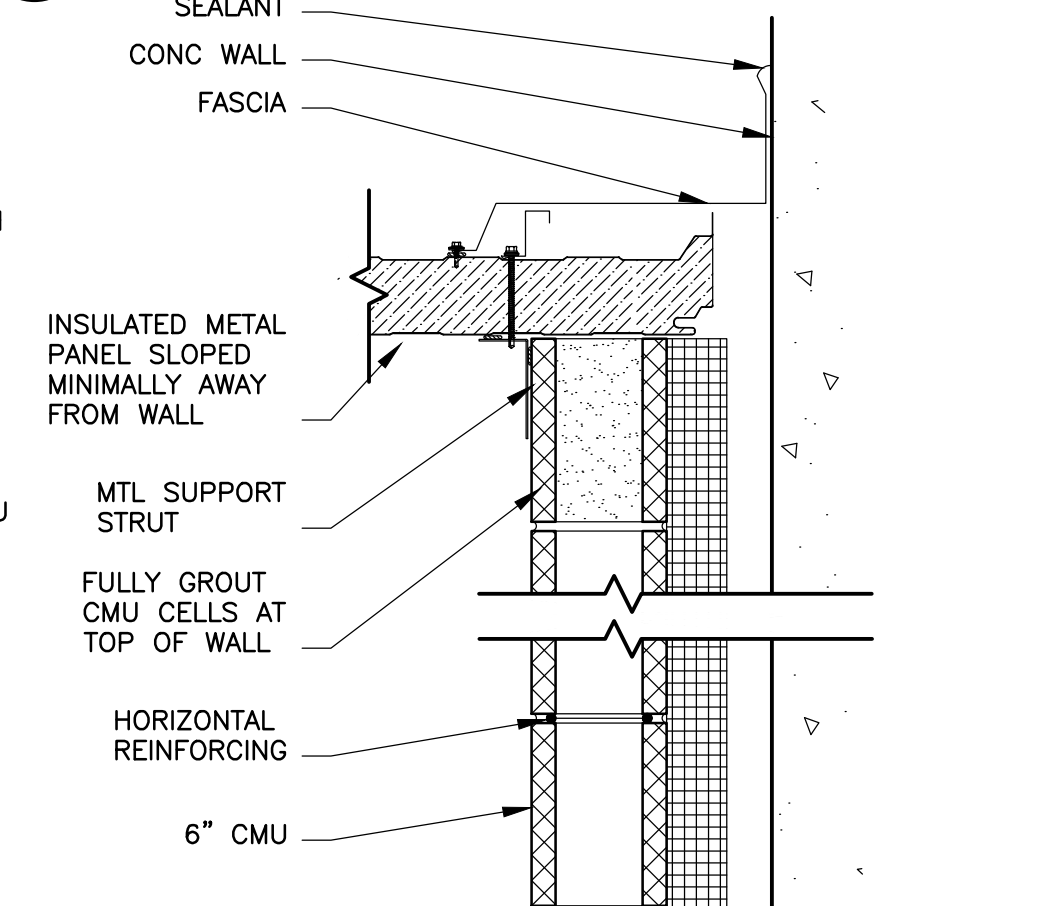
2 INTERIOR WALL HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



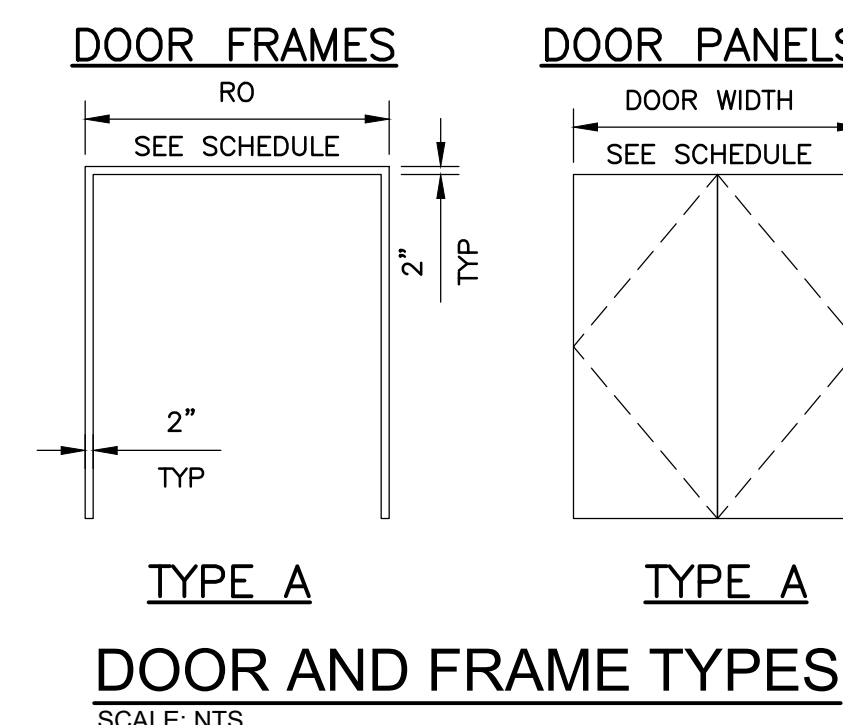
5 WALL END DETAIL
SCALE: 1 1/2" = 1'-0"



3 PERIMETER WALL HEAD DETAIL 1
SCALE: 1 1/2" = 1'-0"



6 PERIMETER WALL HEAD DETAIL 2
SCALE: 1 1/2" = 1'-0"



DOOR AND FRAME TYPES
SCALE: NTS

NOTES

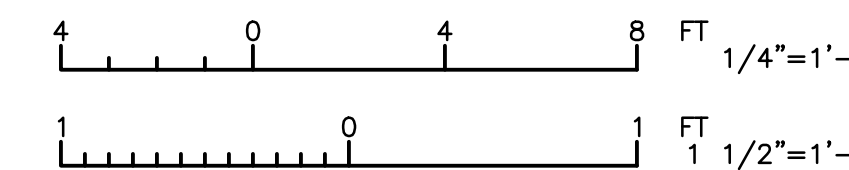
1. WALL LAYOUT AND COMPOSITION ARE PROVIDED FOR CONVENIENCE. CONTRACTOR TO DESIGN ALL WALL AND ROOF REINFORCING, ANCHORAGE, AND SUPPORT DETAILS. COMPLY WITH ALL APPLICABLE LOCAL RULES, STANDARDS, AND CODES.
2. COORDINATE WALL PIPE, DOOR, AND EQUIPMENT CLEARANCES PRIOR TO CONSTRUCTING SAMPLING ROOM.
3. PAINT ALL CMU EXPOSED TO VIEW PER SPECIFICATION 09 96 00.

GENERAL NOTES

1. **CONDITIONS AFFECTING THE WORK:** BEFORE PROCEEDING WITH THE WORK THOROUGHLY EXAMINE CONDITIONS AT THE PROJECT SITE TO ENSURE THAT THE WORK CAN PROCEED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. REPORT CONDITIONS FOUND WHICH WILL ADVERSELY AFFECT THE WORK TO THE OWNER AND THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
2. **DISSIMILAR METALS:** ISOLATE DISSIMILAR METALS TO PREVENT GALVANIC ACTION.
3. **ADJACENT WORK:** WHERE MATERIALS ARE APPLIED TO, OR ARE IN DIRECT CONTACT WITH WORK INSTALLED BY ANOTHER SUBCONTRACTOR, COMMENCEMENT OF WORK IMPLIES ACCEPTANCE OF THE SUBSTRATES AS SUITABLE FOR THE APPLICATION INTENDED.

DOOR SCHEDULE

DOOR NO.	ROUGH OPENING		TYPE	GLAZING	DESCRIPTION	DOOR				FRAME				LOCKSET	FIRE RATING (HR)	NOTES
	WIDTH	HEIGHT				THICKNESS	UNDER CUT	MTL	HEAD	JAMB	SILL	MTL				
100-1	6'-4"	7'-4"	A	NA	--	1 3/4"	NA	HYBRID	1/A1	4/A1	8/A1	AL	1	NA	INSULATED, DBL DOOR	



NO.	DATE	APPD	REVISION

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

GREELEY AND HANSEN
7411 N. GRAND AVE. SUITE 308
WAUKESHA, WI 53186

GREAT WATER ALLIANCE

CONTRACT PACKAGE 3A: WATER TOWER

ARCHITECTURAL PLAN, SECTION, AND DETAILS

APPROVED

SEAL AFFIXED
MONTH / DAY / YEAR

SEPTEMBER 2020

JOB NO.: 15310

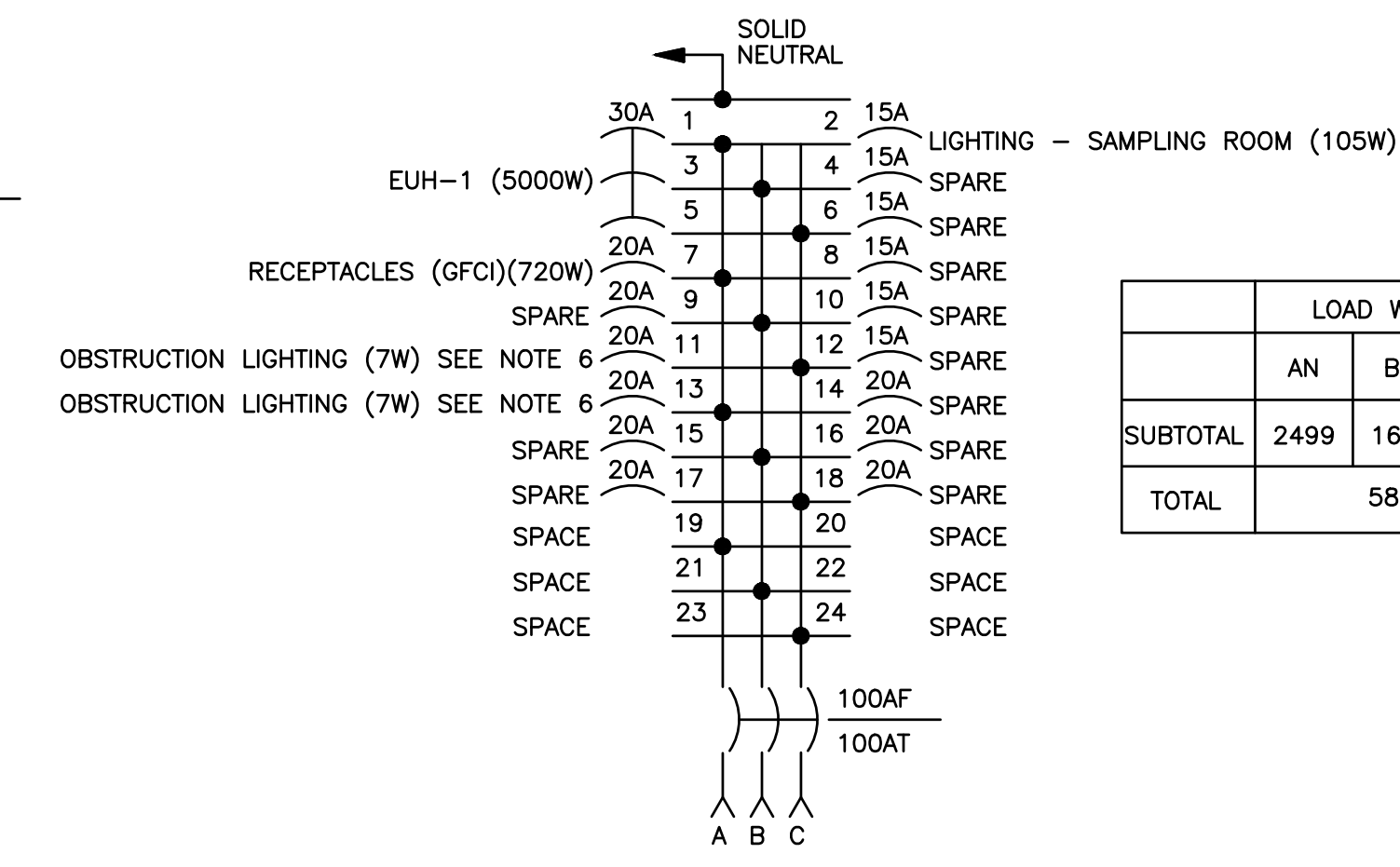
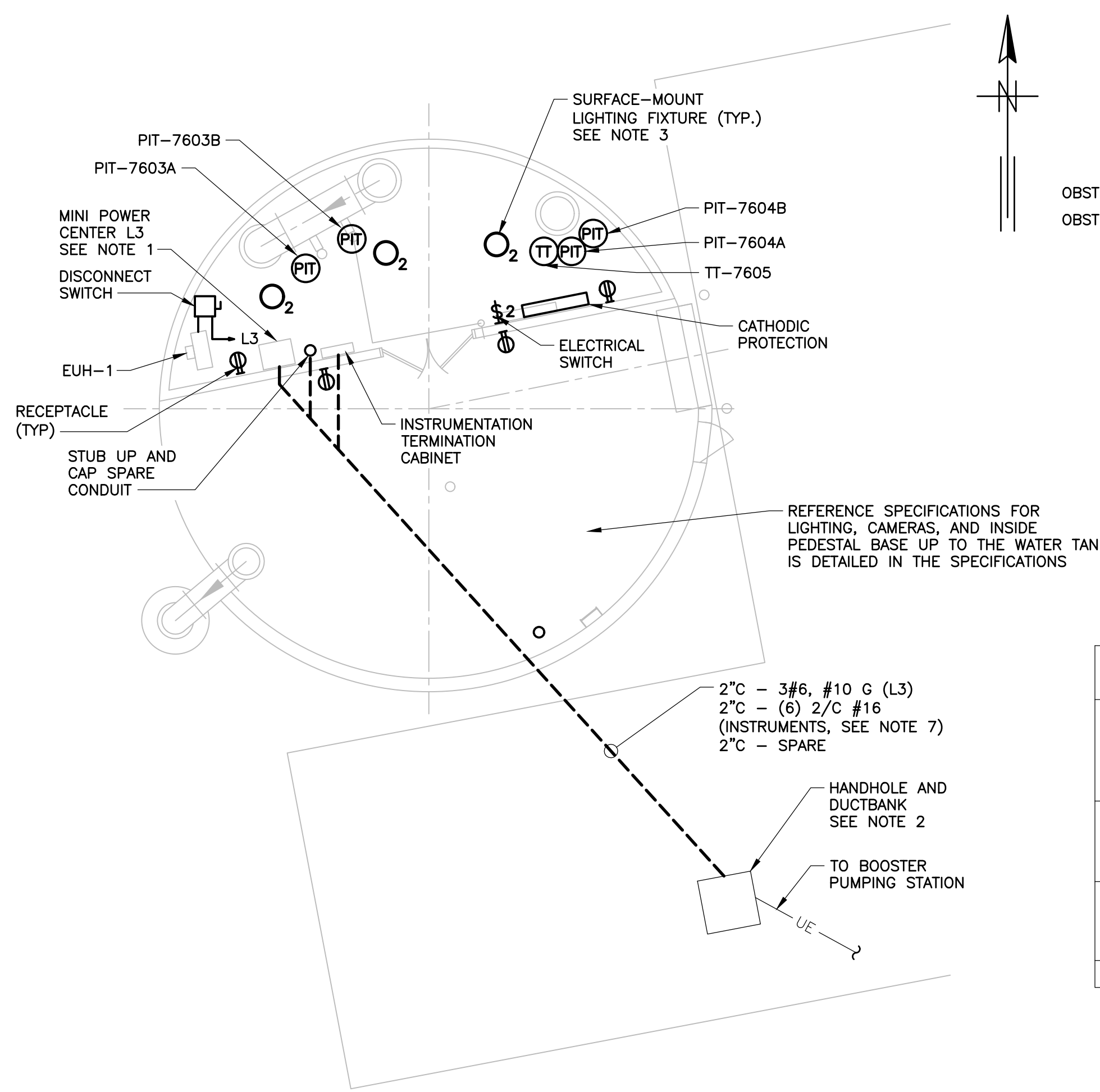
DESIGN	JAW	CHCK	GJ
APPRV	JL	DRWN	JAW

SCALE: AS SHOWN

DRAWING NUMBER

A1

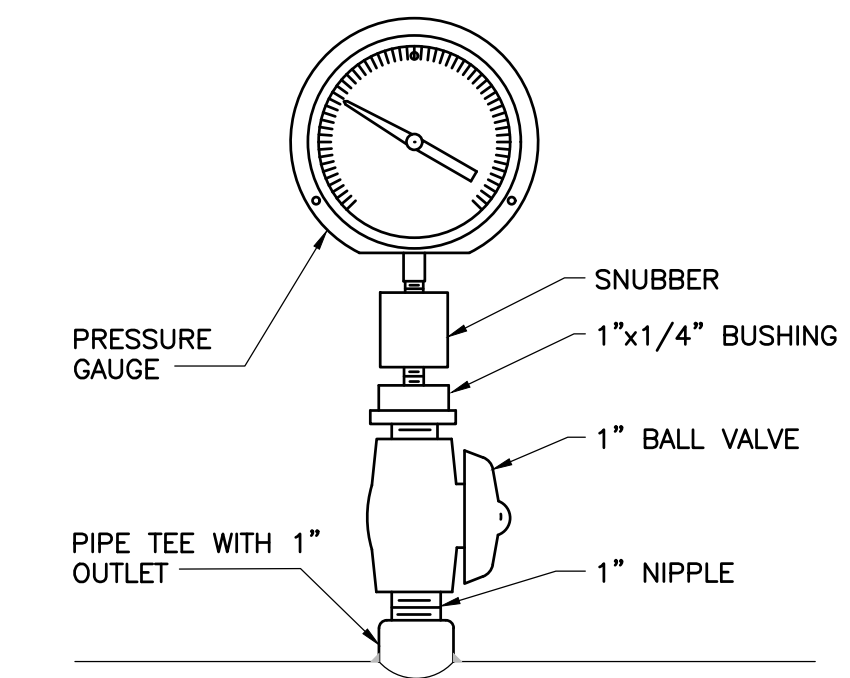
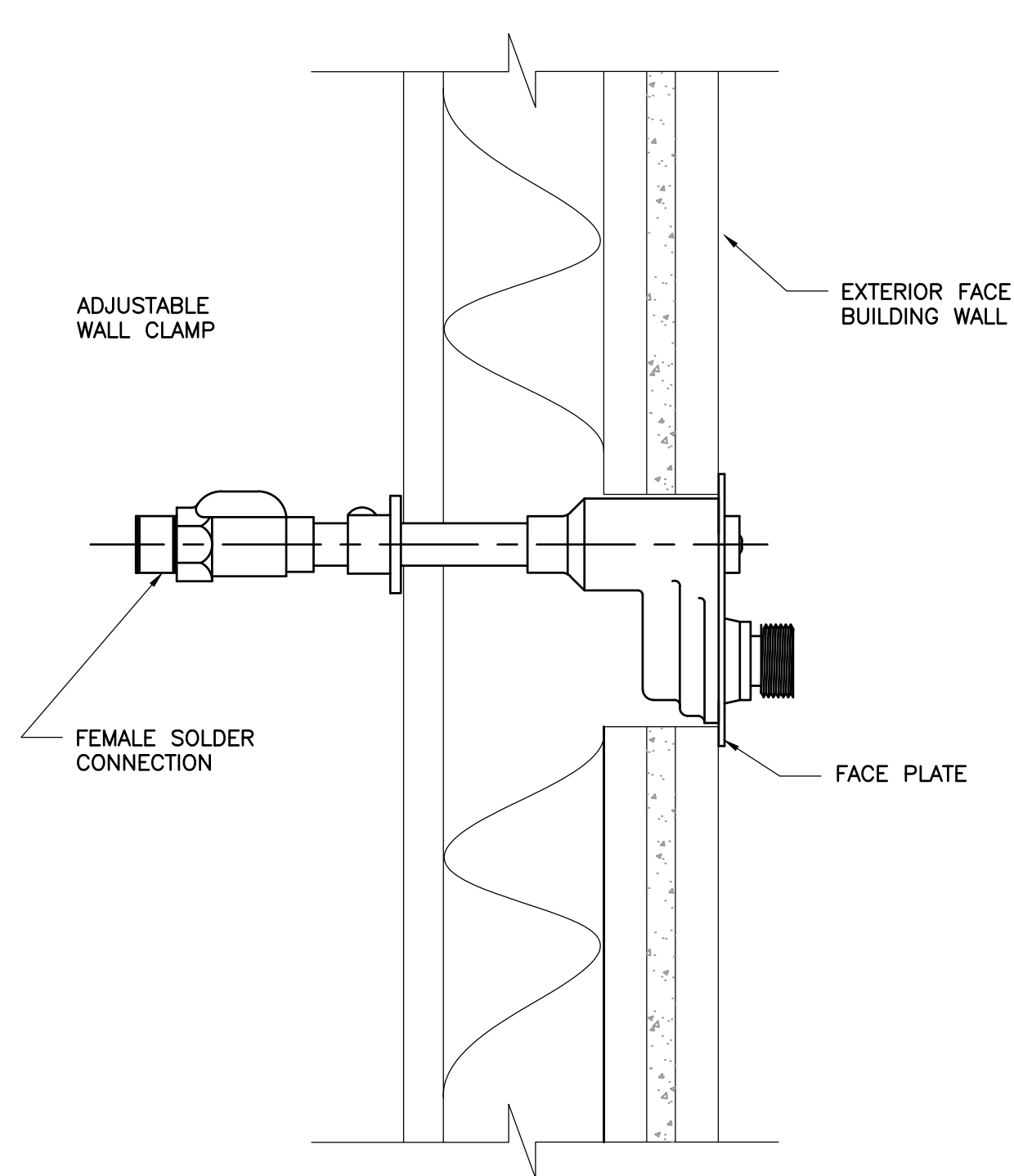
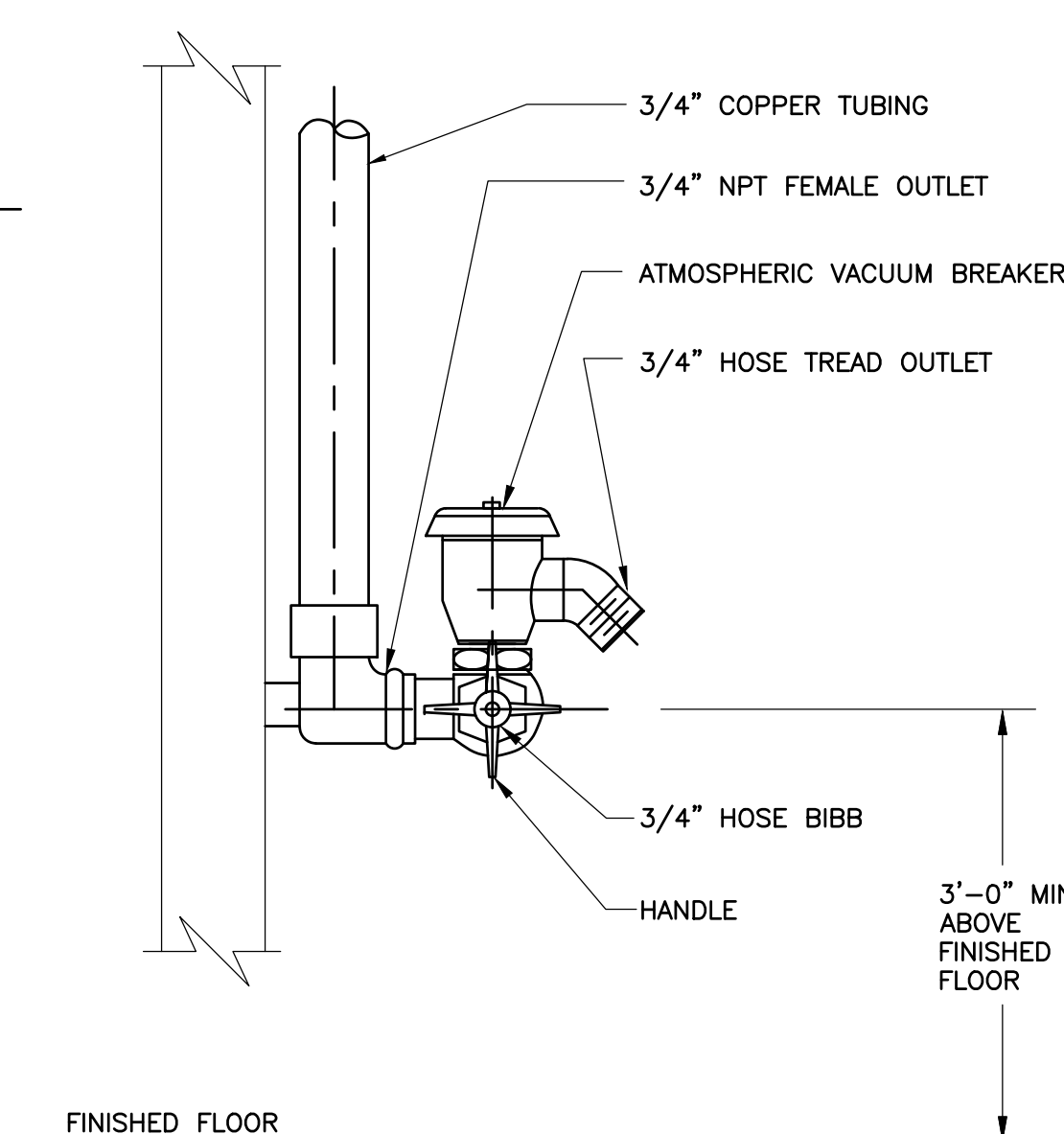
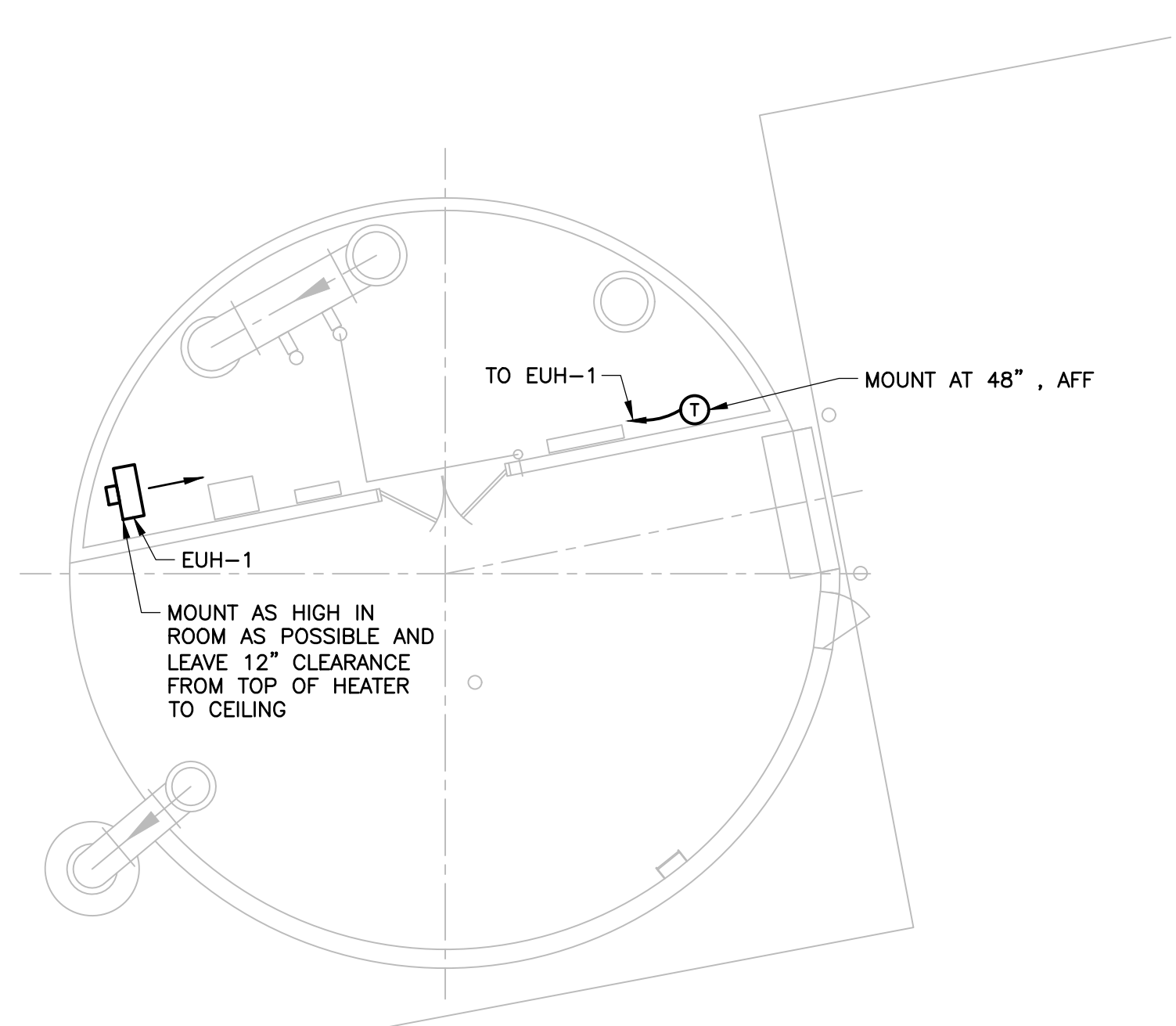
SHEET 7 OF 9 REV 0



PANELBOARD SCHEDULE L3
SCALE: NONE
SEE NOTE 5

- NOTES:**
- PROVIDE 480V, 3-PHASE MINI POWER CENTER WITH 30 KVA, 480V-208Y/120V TRANSFORMER, PRIMARY AND SECONDARY CIRCUIT BREAKERS, AND 24-CIRCUIT PANELBOARD WITH BOLT-ON BRANCH CIRCUIT BREAKERS AS SCHEDULED.
 - HANDHOLE AND DUCTBANK INSTALLED UNDER CONTRACT CP3. EXTEND POWER AND INSTRUMENTATION CONDUITS BELOW SLAB FROM HANDHOLE TO SAMPLING ROOM.
 - PROVIDE DAMP-LOCATION LISTED LED LOW-BAY LIGHTING FIXTURES, NOMINAL 5,000 LUMEN OUTPUT, DLC LISTED, MEDIUM DISTRIBUTION GLASS LENS. HOLOPHANE PXLH-5000LM-MD0-120-40K OR APPROVED EQUAL. COORDINATE LOCATIONS AND MOUNTING TYPE WITH CEILING SYSTEM, MECHANICAL EQUIPMENT, AND PIPING LAYOUT.
 - CONNECT ALL LIGHTING AND RECEPTACLES TO MINI POWER CENTER PANELBOARD L3 ON INDICATED CIRCUITS.
 - CONNECT GENERAL RECEPTACLES AND LIGHTING ON INTERIOR AND EXTERIOR OF WATER TOWER TO PANELBOARD CIRCUITS INDICATED AS "SPARE". SEE SPECIFICATION FOR REQUIRED LIGHTING.
 - CONNECTION AVIATION OBSTRUCTION LIGHTING AND RELATED CONTROLS TO CIRCUITS ON PANELBOARD. COORDINATE WIRING REQUIREMENT WITH OBSTRUCTION LIGHTING EQUIPMENT MANUFACTURER.
 - CONNECT TROUBLE SIGNAL FROM OBSTRUCTION LIGHTING CONTROLLER AND ALL INSTRUMENTS SHOWN ON PLAN TO PLC-BPS. COORDINATE WIRING REQUIREMENT WITH OBSTRUCTION LIGHTING EQUIPMENT MANUFACTURER.

UNIT I.D.	LOCATION	TYPE	MOUNTING HEIGHT (FT)	HEATER			FAN			MANUFACTURER	REMARKS/NOTES	
				MBH	TEMP RISE	ELEC.	HP	CFM	RPM			ELEC.
				KW	DEG F	V/PH/HZ						V/PH/HZ
EUH-1	WATER TOWER	HORIZONTAL	10	17.10	40	208/1/60	1/125	400	1550	208/1/60	TRANE	
	SAMPLING ROOM			5							UHEC-052A0CO	

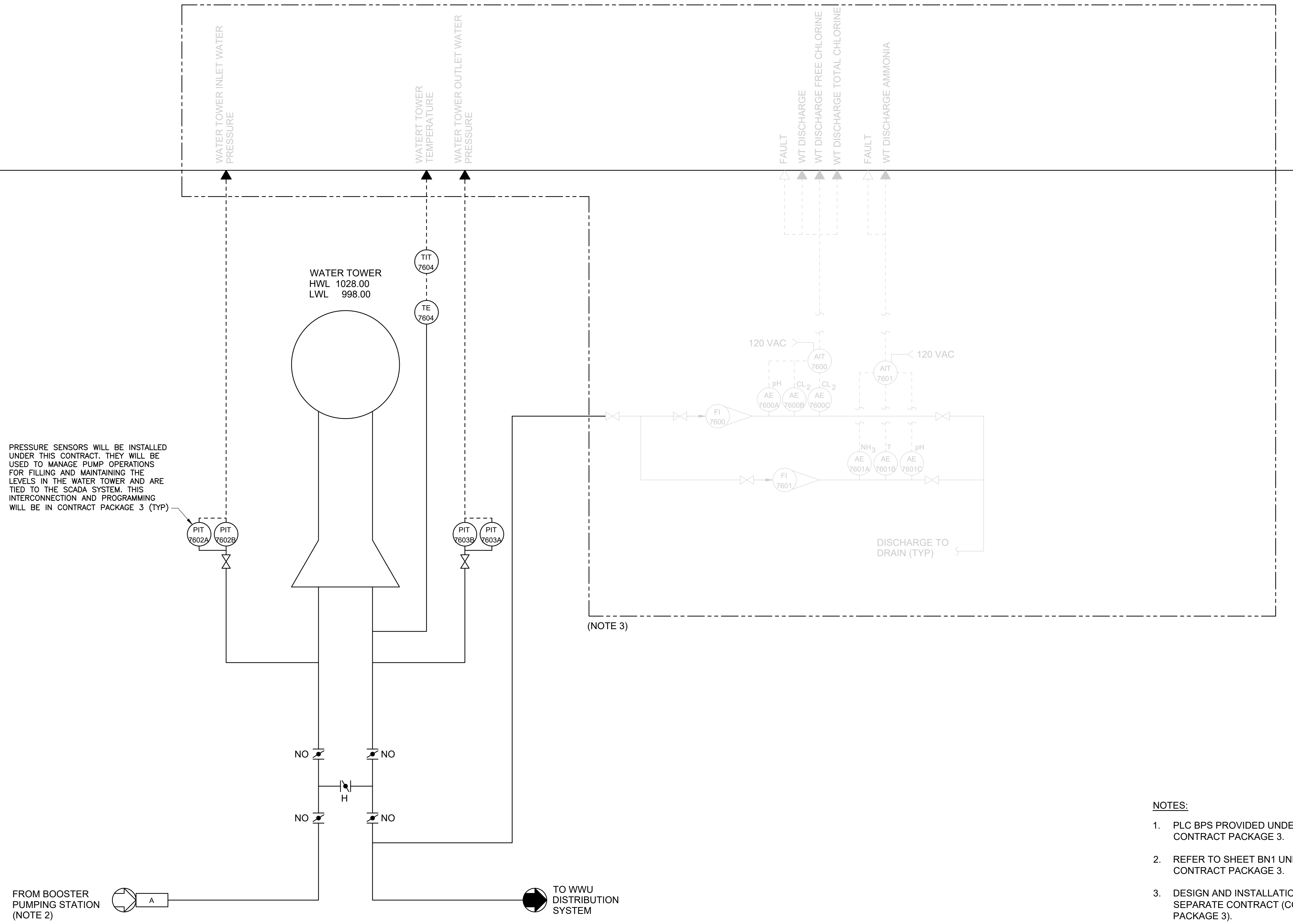


 Waukesha Water Utility <small>SERVING WAUKESHA SINCE 1886</small>	 GREELEY AND HANSEN <small>7411 N. GRAND AVE. SUITE 308 WAUKESHA, WI 53186</small>
 GREAT WATER ALLIANCE <small>CONTRACT PACKAGE 3A: WATER TOWER</small>	
ELECTRICAL AND MECHANICAL PLANS, SCHEDULES AND DETAILS	
APPROVED	
SEAL AFFIXED MONTH / DAY / YEAR	
SEPTEMBER 2020	
JOB NO.: 15310	
DESIGN: GJ/TK	CHECK: GJ
APPROVE: NV	DRAWN: TK
SCALE: AS SHOWN	
DRAWING NUMBER	
E1	
SHEET 8 OF 9	REV 0

PLC BPS

(NOTE 1)

PRESSURE SENSORS WILL BE INSTALLED UNDER THIS CONTRACT. THEY WILL BE USED TO MANAGE PUMP OPERATIONS FOR FILLING AND MAINTAINING THE LEVELS IN THE WATER TOWER AND ARE TIED TO THE SCADA SYSTEM. THIS INTERCONNECTION AND PROGRAMMING WILL BE IN CONTRACT PACKAGE 3 (TYP)



(NOTE 3)

ELEVATED WATER TOWER STORAGE TANK - P&ID
NO SCALE

- NOTES:**
1. PLC BPS PROVIDED UNDER CONTRACT PACKAGE 3.
 2. REFER TO SHEET BN1 UNDER CONTRACT PACKAGE 3.
 3. DESIGN AND INSTALLATION UNDER SEPARATE CONTRACT (CONTRACT PACKAGE 3).
 4. CONTRACTOR TO PROVIDE APPROPRIATE CABLE AND CONDUIT NECESSARY TO PROVIDE POWER TO FAA STROBE LIGHT AND RELAY FAULT SIGNAL TO BPS PLC"

DRAFT 95% PROGRESS DRAWINGS
SEPTEMBER 2020

Waukesha Water Utility <small>SERVING WAUKESHA SINCE 1896</small>		GREELEY AND HANSEN <small>7411 N. GRAND AVE. SUITE 308 WAUKESHA, WI 53186</small>	
		CONTRACT PACKAGE 3A: WATER TOWER WATER TOWER - P&ID	
APPROVED			
SEAL AFFIXED MONTH / DAY / YEAR			
SEPTEMBER 2020			
JOB NO.: 15310			
DESIGN	AG	CHK	THP
APPRV	THP	DRWN	MV
SCALE: AS SHOWN			
DRAWING NUMBER			
<h1>N1</h1>			
SHEET 9 OF 9		REV 0	