



TOWN OF ARLINGTON

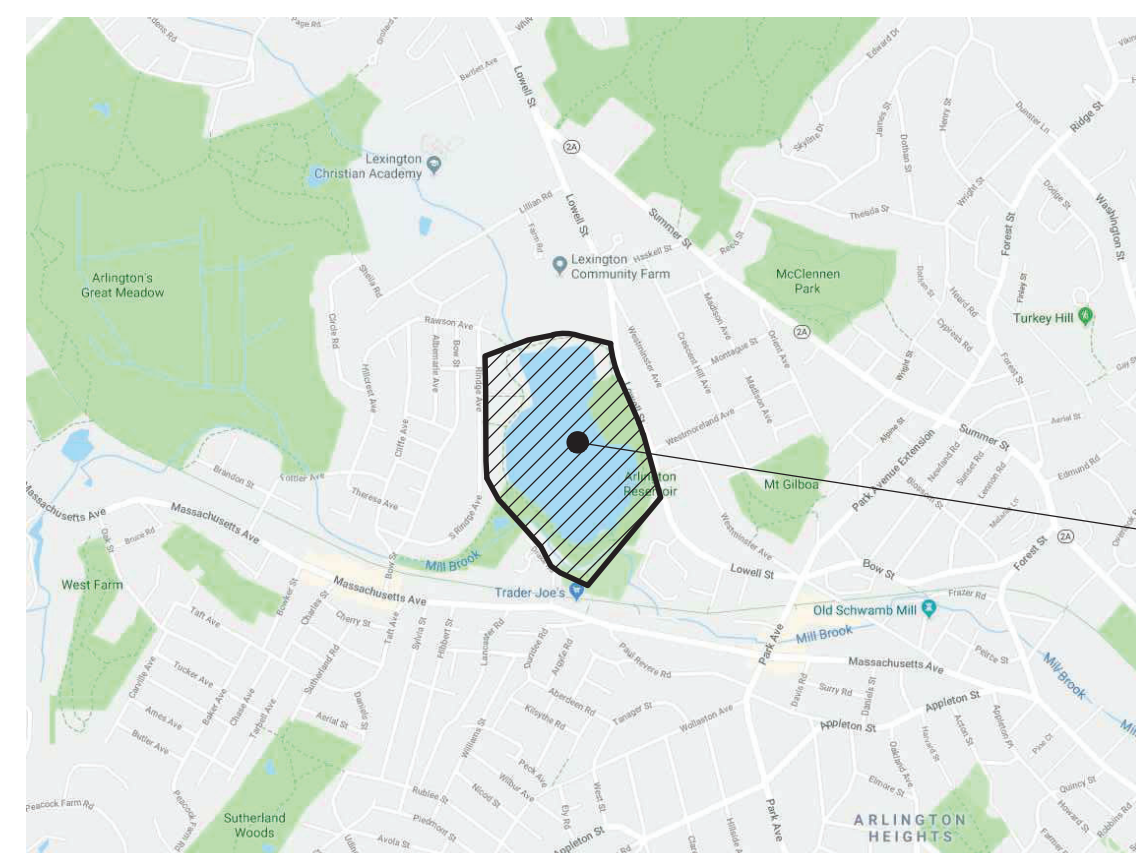
IMPROVEMENTS TO THE ARLINGTON RESERVOIR



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Locus Map



ARLINGTON RESERVOIR
210 LOWELL ST,
ARLINGTON, MA 02474

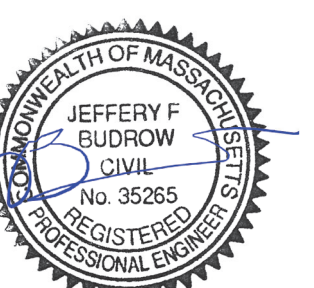
CONSTRUCTION DOCUMENTS

JANUARY 28, 2019

Prepared By



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GENERAL NOTES

- PROPERTY LINES, SITE SURVEY AND TOPOGRAPHICAL INFORMATION ON THE GROUND SURVEYS PERFORMED BY WESTON & SAMPSON IN DECEMBER 2017.
- BEARINGS REFER TO THE MASSACHUSETTS NAD 83 STATE PLANE COORDINATE SYSTEM (MAINLAND ZONE).
- ELEVATIONS REFER TO THE 1988 NORTH AMERICAN DATUM (NAVD 88)
- REFER TO THE SURVEY LEGEND FOR GENERAL SYMBOLS. ALL BIDDERS ARE REQUIRED TO INSPECT THE PROJECT SITE IN ITS ENTIRETY PRIOR TO SUBMITTING THEIR BID, AND BECOME FAMILIAR WITH ALL CONDITIONS AS THEY MAY AFFECT THEIR BID. CONTRACTOR AND SUB-CONTRACTOR SHALL BE FAMILIAR WITH ALL DRAWINGS AND SPECIFICATIONS PRIOR TO COMMENCING THE CONSTRUCTION.
- LOCATIONS OF ANY UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF SUCH UTILITIES, PROTECTING ALL EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE COORDINATION WITH UTILITY COMPANIES AND PUBLIC AGENCIES AND FOR OBTAINING ALL REQUIRED PERMITS AND PAYING ALL REQUIRED FEES. IN ACCORDANCE WITH M.G.L. CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING PRIOR TO EXCAVATION. CONTRACTOR SHALL ALSO CALL "DIG SAFE" AT (888) 344-7233 NO LESS THAN 72 HOURS, (EXCLUSIVE OF WEEKENDS AND HOLIDAYS), PRIOR TO SUCH EXCAVATION. DOCUMENTATION OF REQUESTS SHALL BE PROVIDED TO OWNER'S REPRESENTATIVE PRIOR TO EXCAVATION WORK.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE SITE IMPROVEMENTS.
- ANY DISCREPANCIES OR CONFLICTS BETWEEN THE DRAWINGS AND EXISTING CONDITIONS, EXISTING CONDITIONS TO REMAIN, TEMPORARY CONSTRUCTION AND PERMANENT CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING. ITEMS ENCOUNTERED IN AREAS OF EXCAVATION THAT ARE NOT INDICATED ON THE DRAWINGS, BUT ARE VISIBLE ON SURFACE, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
- ANY ALTERATIONS TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE GENERAL CONTRACTOR ON "AS BUILT" DRAWINGS.
- ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS OUTSIDE THE PROJECT LIMITS, SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST AND TO THE SATISFACTION OF THE OWNER.
- ALL WORK SHOWN ON THE PLANS AS BOLD SHALL REPRESENT PROPOSED WORK. THE TERM "PROPOSED (PROP)" INDICATES WORK TO BE CONSTRUCTED USING NEW MATERIALS.
- ALL KNOWN EXISTING STATE, COUNTY AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND ARE INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THEIR EMPLOYEES, AS WELL AS PUBLIC USERS FROM INJURY DURING THE ENTIRE CONSTRUCTION PERIOD USING ALL NECESSARY SAFEGUARDS, INCLUDING BUT NOT LIMITED TO, THE ERECTION OF TEMPORARY WALKS, STRUCTURES, PROTECTIVE BARRIERS, COVERING, OR FENCES AS NEEDED.
- THE CONTRACTOR SHALL SUPPLY THE OWNER WITH THE NAME OF THE OSHA "COMPETENT PERSON" PRIOR TO CONSTRUCTION.
- FILLING OF EXCAVATED AREAS SHALL NOT TAKE PLACE WITHOUT THE PRESENCE OR PERMISSION OF THE OWNER.
- EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. NO STOCKPILING OF MATERIAL, EQUIPMENT OR VEHICULAR TRAFFIC SHALL BE ALLOWED WITHIN THE DRIP LINE OF TREES TO REMAIN. NO GUYS SHALL BE ATTACHED TO ANY TREE TO REMAIN. WHEN NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL ERECT TEMPORARY BARRIERS FOR THE PROTECTION OF EXISTING TREES DURING CONSTRUCTION.
- TREES AND SHRUBS WITHIN THE LIMITS OF WORK SHALL BE REMOVED ONLY UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE OR AS NOTED ON THE PLANS.
- NO FILLING SHALL OCCUR AROUND EXISTING TREES TO REMAIN WITHOUT THE APPROVAL OF THE OWNER OR ENGINEER.
- TREES AND STUMPS SHALL BE REMOVED AND DISPOSED COMPLETE BY CONTRACTOR.
- ALL UNSUITABLE UNCONTAMINATED EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN. REMOVAL ACTIVITIES SHALL BE ACCORDANCE WITH STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE TOWN.
- CONTRACTOR IS RESPONSIBLE FOR STAKING CONSTRUCTION BASELINES IN FIELD WITH A MA, REGISTERED PROFESSIONAL LAND SURVEYOR. NO CONSTRUCTION WILL BE PERFORMED WITHOUT THE PROPOSED BASELINES AND LAYOUTS APPROVED BY THE OWNER'S REPRESENTATIVE.
- NO FILL SHALL CONTAIN HAZARDOUS MATERIALS.
- CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION FENCING IN THE LOCATIONS SHOWN ON THE PLANS.
- ANY QUANTITIES SHOWN ON PLANS ARE FOR COMPARATIVE BIDDING PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE PROJECT SITE TO VERIFY ALL QUANTITIES AND CONDITIONS PRIOR TO SUBMITTING BID.
- CONTRACTOR'S STAGING AREA MUST BE IN AREAS APPROVED BY OWNER. ANY OTHER AREAS THAT THE CONTRACTOR MAY WISH TO USE FOR STAGING MUST BE COORDINATED WITH THE OWNER.

- CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER.
- THE LIMIT OF WORK SHALL BE DELINEATED IN THE FIELD PRIOR TO THE START OF SITE CLEARING OR CONSTRUCTION AND AGREED UPON WITH THE ENGINEER.
- HAULING OF EARTH MATERIALS TO AND FROM THE SITE SHALL BE RESTRICTED TO THE HOURS OF 7 AM TO 5 PM.
- ANY BOULDERS 3 CY OR SMALLER SHALL BE CONSIDERED UNDOCUMENTED FILL AND SHALL BE DISPOSED OF AT NO ADDITIONAL COST TO THE TOWN.
- WORK ON WEEKENDS SHALL ONLY BE CONDUCTED IF PRIOR WRITTEN PERMISSION IS PROVIDED BY THE TOWN.
- NO TRUCKS LEFT IDLING ON TOWN STREETS DURING CONSTRUCTION. CONSTRUCTION TRAFFIC AT NO TIME SHALL IMPEDE FLOW OF RESIDENT TRAFFIC.

DESIGN CODE COMPLIANCE:

NATIONAL ELECTRICAL CODE(NFPA70).....	2011
MASSACHUSETTS BUILDING CODE - 9TH EDITION.....	2015
248 CMR 10, MASSACHUSETTS FUEL GAS AND PLUMBING CODE.....	2017
527 CMR 12, MASSACHUSETTS ELECTRICAL CODE.....	2017
VIRGINIA GRAEME BAKER POOL AND SPA SAFETY ACT.....	2008
AMERICAN NATIONAL STANDARDS FOR PUBLIC POOLS - ANS/NSPI-1.....	2014
105 CMR 435.00 MASSACHUSETTS MINIMUM STANDARDS FOR SWIMMING POOLS..	1998

ENGINEER SEAL:

- THESE DRAWINGS HAVE BEEN PREPARED FOR EXCLUSIVE USE FOR THE CLIENT AND ARE NOT INTENDED FOR ANY OTHER PURPOSE. TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS MEET THE REQUIREMENTS SET FORTH BY THE MASSACHUSETTS STATE CODES.
- THE FILTRATION AND RECIRCULATION SYSTEM THAT IS INCORPORATED INTO THESE DRAWINGS MUST BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE APPROVED DRAWINGS. ALL CHANGES MUST HAVE WRITTEN APPROVAL FROM WESTON & SAMPSON PRIOR TO SUCH CHANGE OR ALTERATION BEING IMPLEMENTED.
- ONLY DRAWINGS FROM WESTON & SAMPSON THAT ARE MARKED "FOR CONSTRUCTION" AND WITH THE DOH APPROVAL NUMBERS AND APPROVAL DATES AFFIXED SHALL BE USED FOR THE FILTRATION AND RECIRCULATION SYSTEM CONSTRUCTION IMPLEMENTATION.
- THE ENGINEER SEAL AFFIXED TO THESE DRAWINGS IS LIMITED TO HYDRAULICS.
- CONTRACTOR IS RESPONSIBLE FOR STAMPING BACKWASH TANKS BY A MASSACHUSETTS PROFESSIONAL ENGINEER.

GENERAL START UP REQUIREMENTS:

- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE BALANCING OF THE WATER, AND STARTING UP THE EQUIPMENT, UNTIL FORMAL ACCEPTANCE BY OWNER.
- CONTRACTOR SHALL PROVIDE DETAIL INSTRUCTIONS ON OPERATING THE EQUIPMENT, AND SHALL VIDEO TAPE THE ENTIRE TRAINING SESSION AND PROVIDE PERMANENT SIGNAGE ON VALVE, FILTER, AND SYSTEM OPERATION.

COORDINATION NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE FOLLOWING ISSUES WITH THE GENERAL CONTRACTOR:

- CONNECT ALL METALLIC ITEMS FOUND WITHIN THE BOUNDS OF THE EQUIPMENT BOND, INTO THE EQUIPOTENTIAL BOND.
- CONFIGURE PUMP, BACKWASH PUMP, CONTROLS, UV, AND ALL LINE VOLTAGE WITH ELECTRICAL CONTRACTOR.

PIPING INSTALLATION REQUIREMENTS:

- ALL PIPING SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE. ALL PIPING SHALL BE STAMPED WITH THE MANUFACTURER'S MARKING THAT IT IS APPROVED FOR USE WITH POTABLE WATER (NSF-PW). PLASTIC PIPE EXPOSED TO SUNLIGHT SHALL BE COATED WITH EPOXY PAINT FOR UV PROTECTION.
- THE PIPING DIAGRAMS AND SIZES SHOWN IN THESE DRAWINGS SHALL BE FOLLOWED WITHOUT EXCEPTION UNLESS WRITTEN AUTHORIZATION FROM THIS ENGINEER IS PROVIDED.
- THE PIPING SYSTEMS INDICATED IN THESE DRAWINGS ARE SHOWN IN A DIAGRAMMATIC VIEW ONLY. THE CONTRACTOR SHALL PROVIDE ALL PIPING AND FITTINGS REQUIRED FOR THE COMPLETE INSTALLATION.
- THE CONTRACTOR SHALL PROVIDE AND COMPLY WITH ALL PIPING INSPECTIONS THAT MAY BE REQUIRED BY ENGINEER AND OWNER.
- THE CONTRACTOR SHALL PROVIDE PIPE HANGER DETAILS TO THE ENGINEER FOR WRITTEN APPROVAL PRIOR TO THE INSTALLATION.
- PIPING PRESSURE TESTING SHALL BE COORDINATED BY THE SWIMMING AREA CONTRACTOR AND SHALL BE INCLUDED IN THE COST. THE ENGINEER SHALL BE ONSITE DURING PRESSURE TESTING. ALL PIPING SHALL CONFORM TO ACCEPTED WORKMANSHIP STANDARDS AND SHALL BE TESTED AS FOLLOWS:
 - ALL PIPING MUST BE TESTED BY MEANS OF WATER PRESSURE.
 - GRAVITY PIPING SHALL BE TESTED TO 10 PSI.
 - GRAVITY PIPING SHALL BE DEFINED AS DRAINAGE PIPING OR SENSING PIPING, OR ANY PIPING WHICH SHALL NOT HAVE FLOW VELOCITIES THAT EXCEED 3 FEET PER SECOND.
 - PRESSURE PIPING SHALL BE TESTED TO 50 PSI.
 - PRESSURE PIPING SHALL BE DEFINED AS PUMP SUCTION PIPING, AND ANY PIPING AFTER THE PUMP DISCHARGE, OR ANY PIPING WHICH WILL HAVE FLOW VELOCITIES EXCEEDING 3 FEET PER SECOND.
- EXTEND ALL PIPING TO ITS SPECIFIC FILTRATION SYSTEM. DO NOT CONNECT THE PIPING TO THE FILTRATION SYSTEM UNTIL THE PRESSURE-TEST IS COMPLETED, APPROVED, AND REMOVED FROM THE PIPING.

DEFINITIONS:

- CONTRACTOR:** PERSON OR ENTITY AUTHORIZED TO CONSTRUCT, INSTALL

AND OPERATE A COMMERCIAL POOL AND THEIR APPURTENANCES, AND MAINTAIN PROPER LICENSES TO DO SO.

- CRITICAL:** THIS WORD DESCRIBES DIMENSIONS THAT SHALL NOT BE SUBJECT TO DEVIATION OR ERRORS FOR ANY REASON. VIOLATION OF A CRITICAL DIMENSION MIGHT SUBJECT THE FOUNTAIN TO A POTENTIAL VARIANCE ACTION OR A PERMANENT WITHHOLDING OF A FUTURE OPERATING CERTIFICATE. WESTON & SAMPSON CONSIDERS ALL DIMENSIONS CONTAINED WITH THE DRAWINGS AS VITAL; HOWEVER, THE WORD CRITICAL IS ADDED TO ATTRACT THE ATTENTION OF THE CONTRACTOR.
- PROVIDE:** OBTAIN, PURCHASE, SUPPLY, INSTALL AND WARRANTY COMPLETELY IN ACCORDANCE WITH ALL CODES, RULES, REGULATIONS AND THE REQUIREMENTS OF THE DRAWINGS AND TECHNICAL SPECIFICATIONS.

ABBREVIATIONS

AC	ASBESTOS CEMENT PIPE
ACCMP	ASPHALT COATED
	ACORRUGATED METAL PIPE
ARV	AIR RELEASE VALVE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BC	BITUMINOUS CONCRETE
BIT	BITUMINOUS
BLDG	BUILDING
BM	BENCH MARK
BO	BLOW OFF
BV	BUTTERFLY VALVE
CATV	CABLE TELEVISION
CB	CATCH BASIN
CC	CONCRETE CURB
CI	CAST IRON
¢	CENTERLINE
CL	CEMENT LINED
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CU FT	CUBIC FEET
CY	CUBIC YARD
D	STORM DRAIN
DI	DROP INLET, DUCTILE IRON
DIA	DIAMETER
DMH	DRAIN MANHOLE
DWG	DRAWING
EA	EACH
EF	EACH FACE
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EW	EACH WAY
EXIST	EXISTING
FLG	FLANGE
FT	FEET, FOOT
G	NATURAL GAS
GR	GRANITE
GALV	GALVANIZED
HC	HOUSE CONNECTION
GC	GRANITE CURB
HORIZ	HORIZONTAL
HP	HIGH PRESSURE
HYD	FIRE HYDRANT
INV	INVERT
ID	INSIDE DIAMETER
IP	IRON PIPE
LB	POUND
LF	LINEAR FEET
LS	LUMP SUM
MAX	MAXIMUM
MB	MAIL BOX
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
N	NORTH
NE	NORTH EAST
NW	NORTH WEST
NF	NOT FOUND
NO OR #	NUMBER
OD	OUTSIDE DIAMETER
PCCP	PRESTRESSED CONCRETE
PE	PLAIN END, POLYETHYLENE
P	PROPERTY LINE
PL	PLATE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT-OF-WAY
RQD	ROCK QUALITY
S	SEWER
SE	SOUTH EAST
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SPEC	SPECIFICATIONS
SQ FT	SQUARE FEET
SS	SEWER SERVICE
STA	STATION
STL	STEEL
SW	SIDEWALK, SOUTH WEST
T	HYDROSTATIC THRUST, TELEPHONE
TBM	TEMPORARY BENCH MARK
TH	THRESHOLD
THK	THICK (NESS)
TYP	TYPICAL
UP	UTILITY POLE
VC	VITRIFIED CLAY
VERT	VERTICAL
W	WATER, WEST
W/	WITH
W/O	WITHOUT

Project:

IMPROVEMENTS TO THE ARLINGTON RESERVOIR



210 LOWELL ST,
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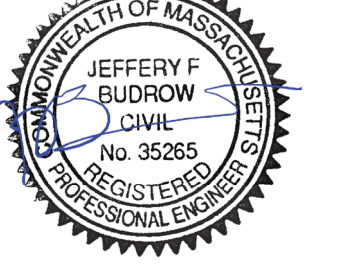
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Scale:

Date:	01/28/2019
Drawn By:	MES
Reviewed By:	SMB
Approved By:	JFB
W&S Project No:	2180615
W&S File No:	

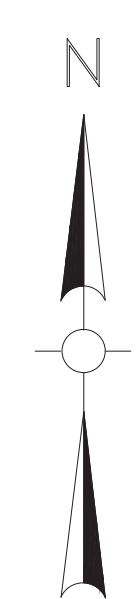
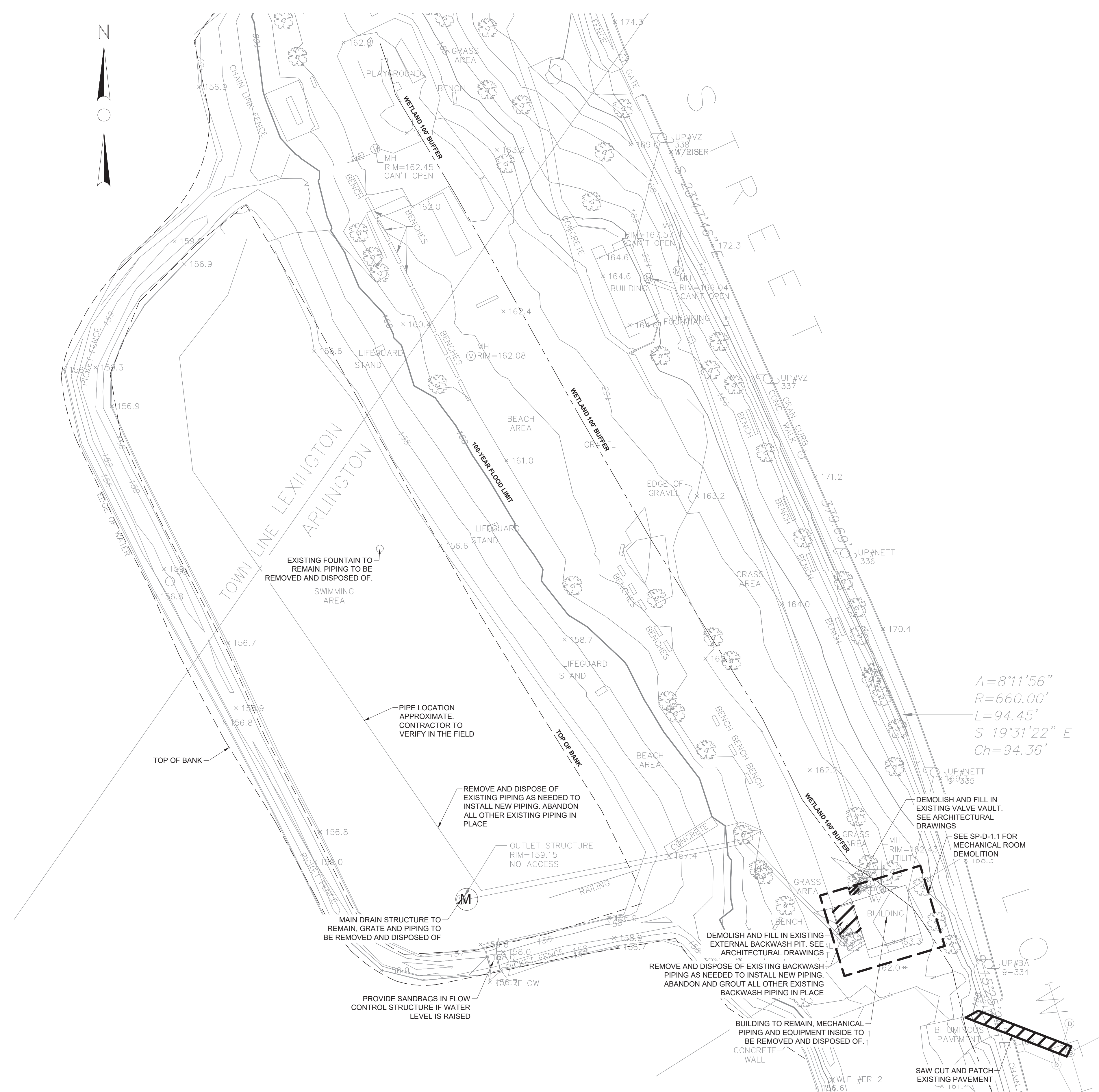
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GENERAL NOTES

Sheet Number:


SP-0.00

THE ELECTRICAL CONTRACTOR SHALL GROUND AND BOND ALL ELECTRICAL EQUIPMENT AND PIPING IN ACCORDANCE WITH NATIONAL ELECTRIC CODE REQUIREMENTS, ARTICLE 680. THE ELECTRICAL CONTRACTOR SHALL OBTAIN A COPY OF ALL APPLICABLE LOCAL STATE ELECTRICAL CODE REGULATIONS.



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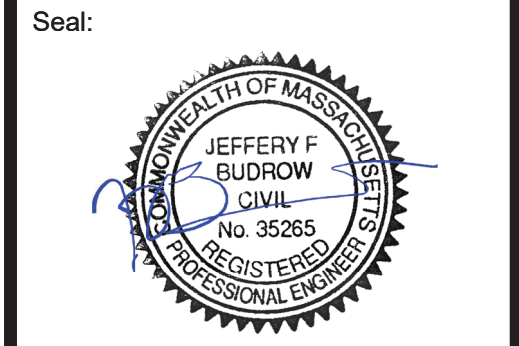
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Scale: 1"=30'-0"

Date: 01/28/2019

Drawn By: MES

Reviewed By: SMB

Approved By: JFB

W&S Project No: 2180615

W&S File No:

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SITE DEMOLITION

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SP-D-1.0

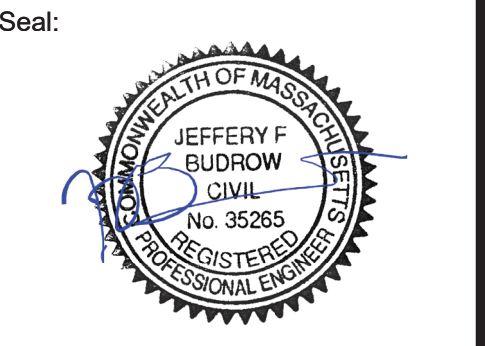
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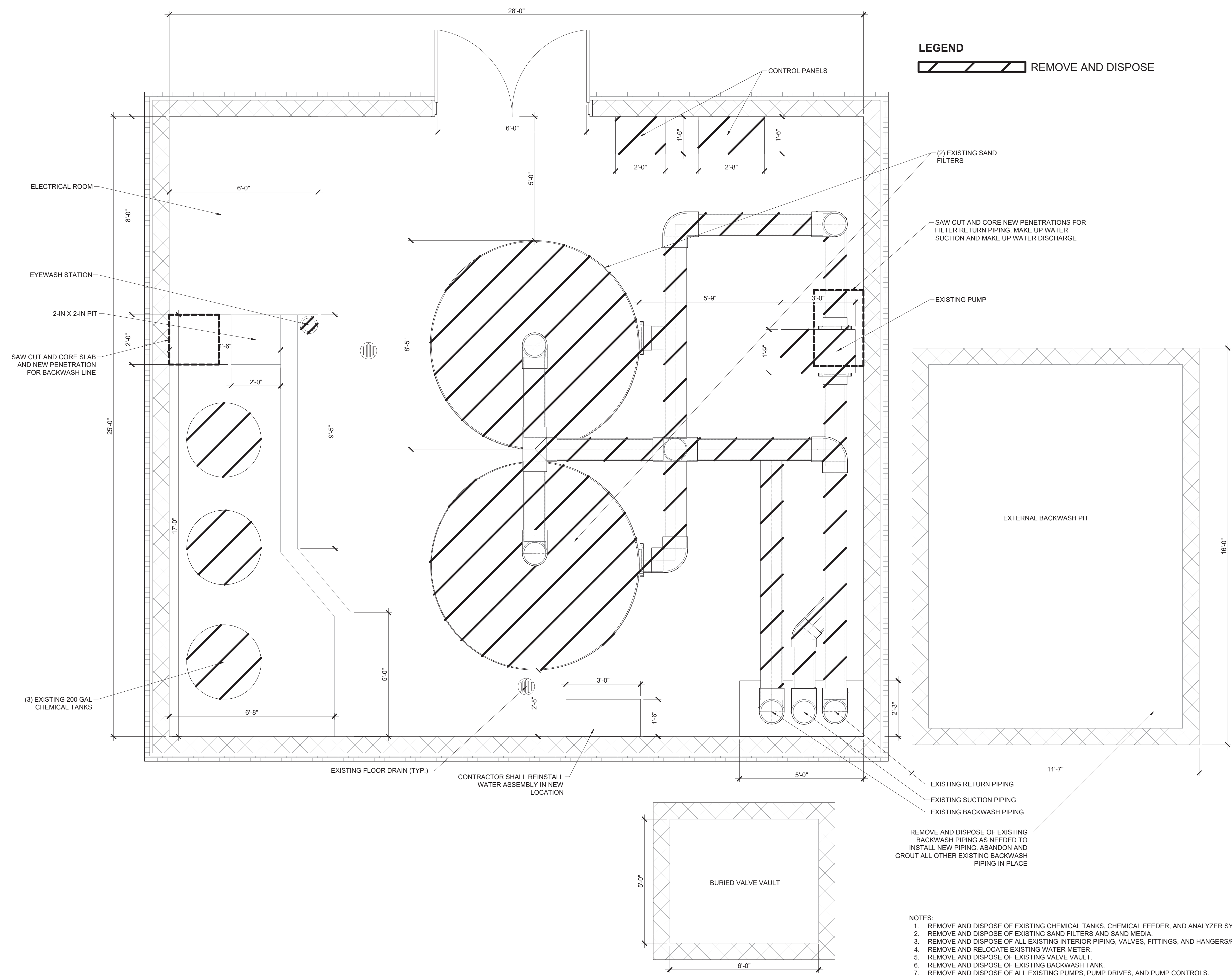
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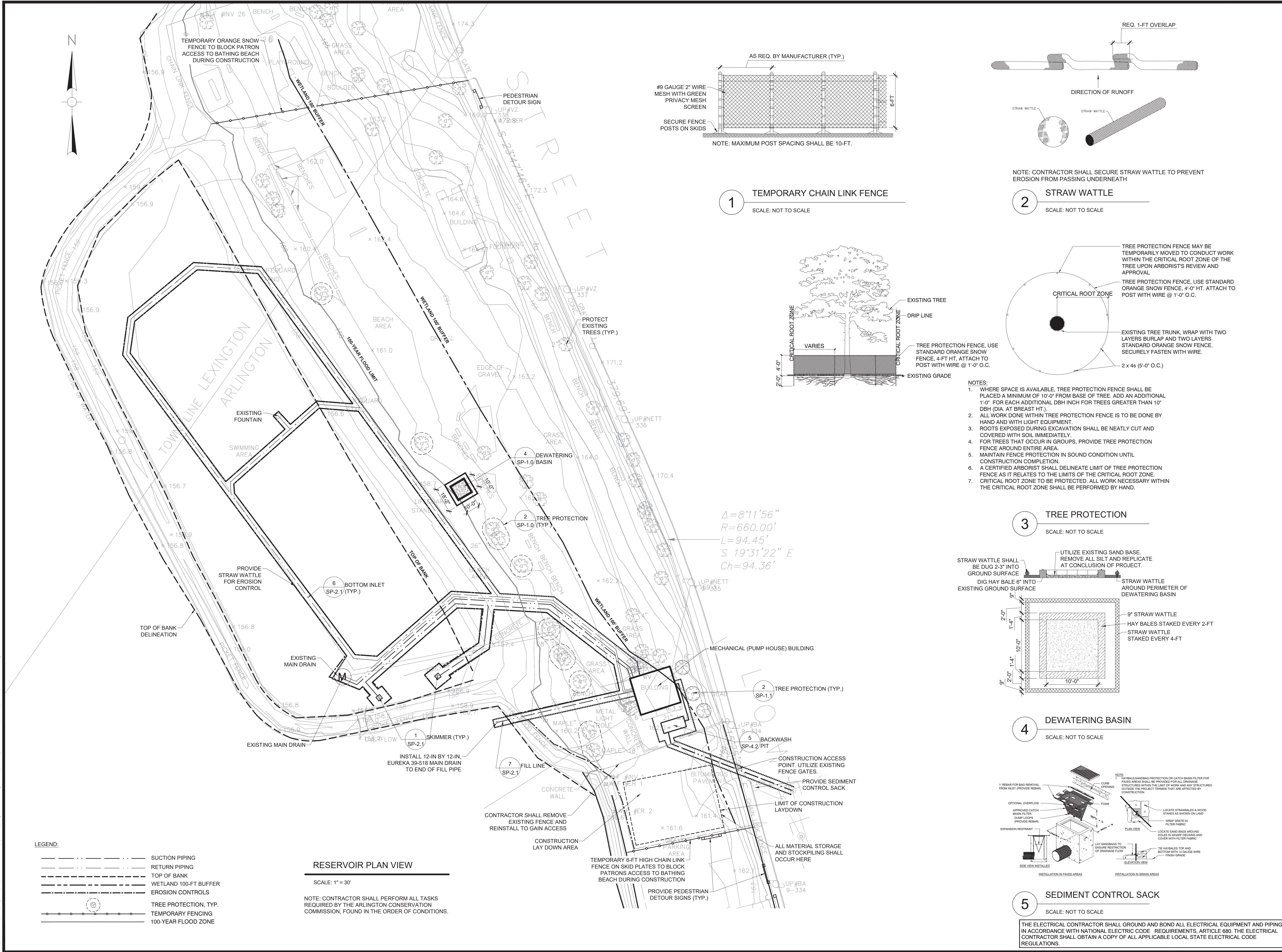
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MECHANICAL ROOM DEMOLITION

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SP-D-1.1

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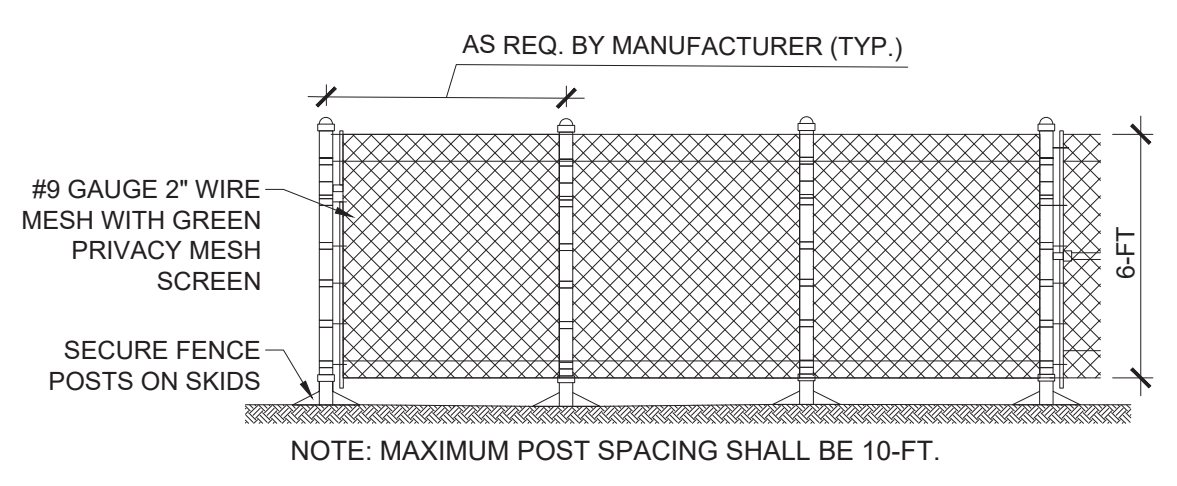


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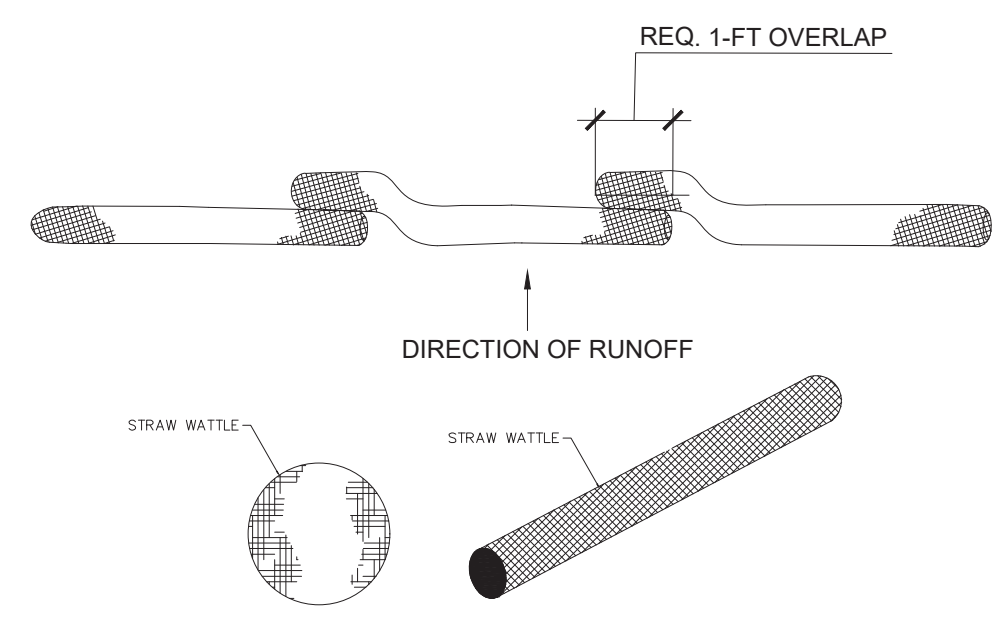
	SUCTION PIPING
	RETURN PIPING
	TOP OF BANK
	WETLAND 100-FT BUFFER
	EROSION CONTROLS
	TREE PROTECTION, TYP.
	TEMPORARY FENCING
	100-YEAR FLOOD ZONE

RESERVOIR PLAN VIEW

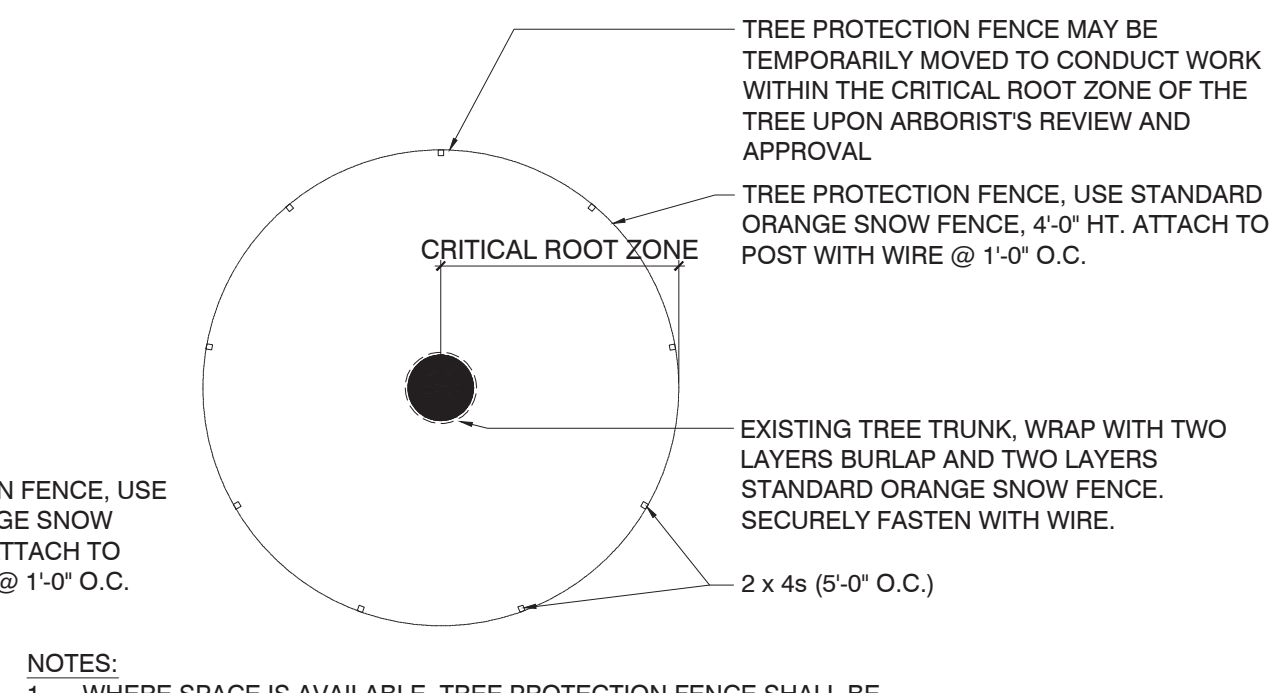
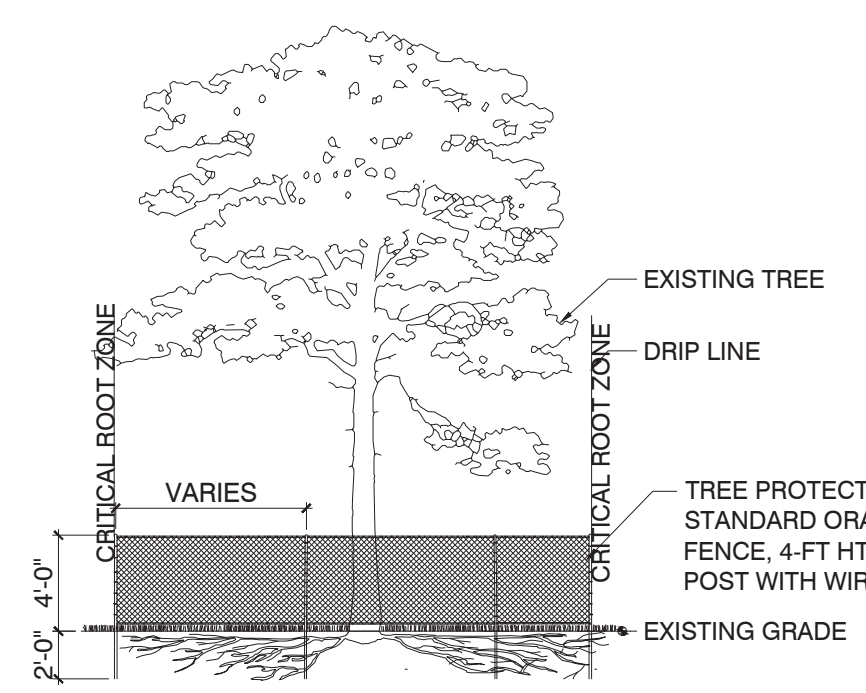
SCALE: 1" = 30'
 NOTE: CONTRACTOR SHALL PERFORM ALL TASKS REQUIRED BY THE ARLINGTON CONSERVATION COMMISSION, FOUND IN THE ORDER OF CONDITIONS.



1 TEMPORARY CHAIN LINK FENCE
 SCALE: NOT TO SCALE

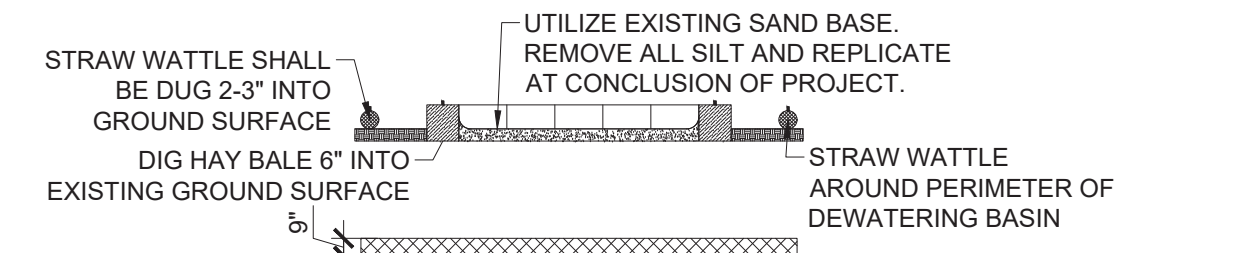


2 STRAW WATTLE
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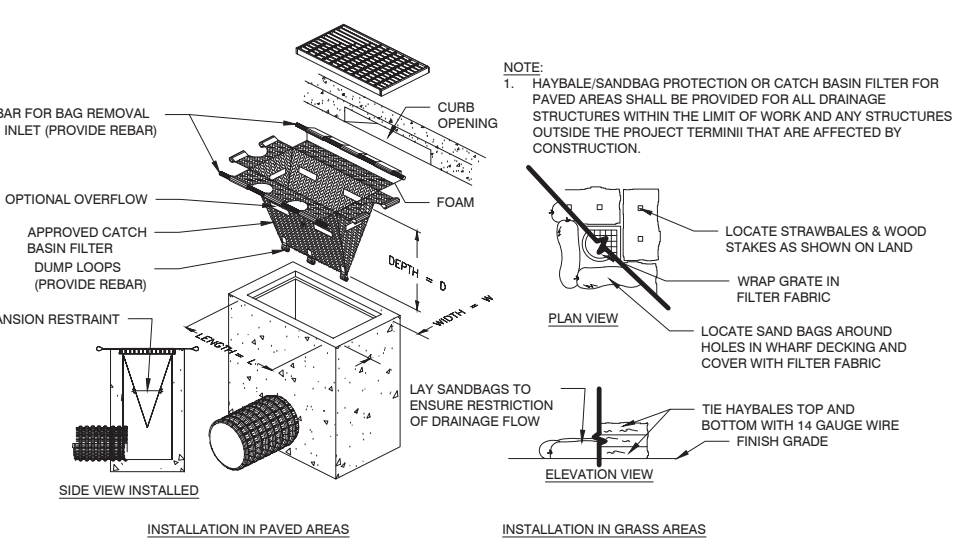


- NOTES:**
- WHERE SPACE IS AVAILABLE, TREE PROTECTION FENCE SHALL BE PLACED A MINIMUM OF 10'-0" FROM BASE OF TREE. ADD AN ADDITIONAL 1'-0" FOR EACH ADDITIONAL DBH INCH FOR TREES GREATER THAN 10" DBH (DIA. AT BREAST HT.).
 - ALL WORK DONE WITHIN TREE PROTECTION FENCE IS TO BE DONE BY HAND AND WITH LIGHT EQUIPMENT.
 - ROOTS EXPOSED DURING EXCAVATION SHALL BE NEATLY CUT AND COVERED WITH SOIL IMMEDIATELY.
 - FOR TREES THAT OCCUR IN GROUPS, PROVIDE TREE PROTECTION FENCE AROUND ENTIRE AREA.
 - MAINTAIN FENCE PROTECTION IN SOUND CONDITION UNTIL CONSTRUCTION COMPLETION.
 - A CERTIFIED ARBORIST SHALL DELINEATE LIMIT OF TREE PROTECTION FENCE AS IT RELATES TO THE LIMITS OF THE CRITICAL ROOT ZONE.
 - CRITICAL ROOT ZONE TO BE PROTECTED. ALL WORK NECESSARY WITHIN THE CRITICAL ROOT ZONE SHALL BE PERFORMED BY HAND.

3 TREE PROTECTION
 SCALE: NOT TO SCALE



4 DEWATERING BASIN
 SCALE: NOT TO SCALE



5 SEDIMENT CONTROL SACK
 SCALE: NOT TO SCALE

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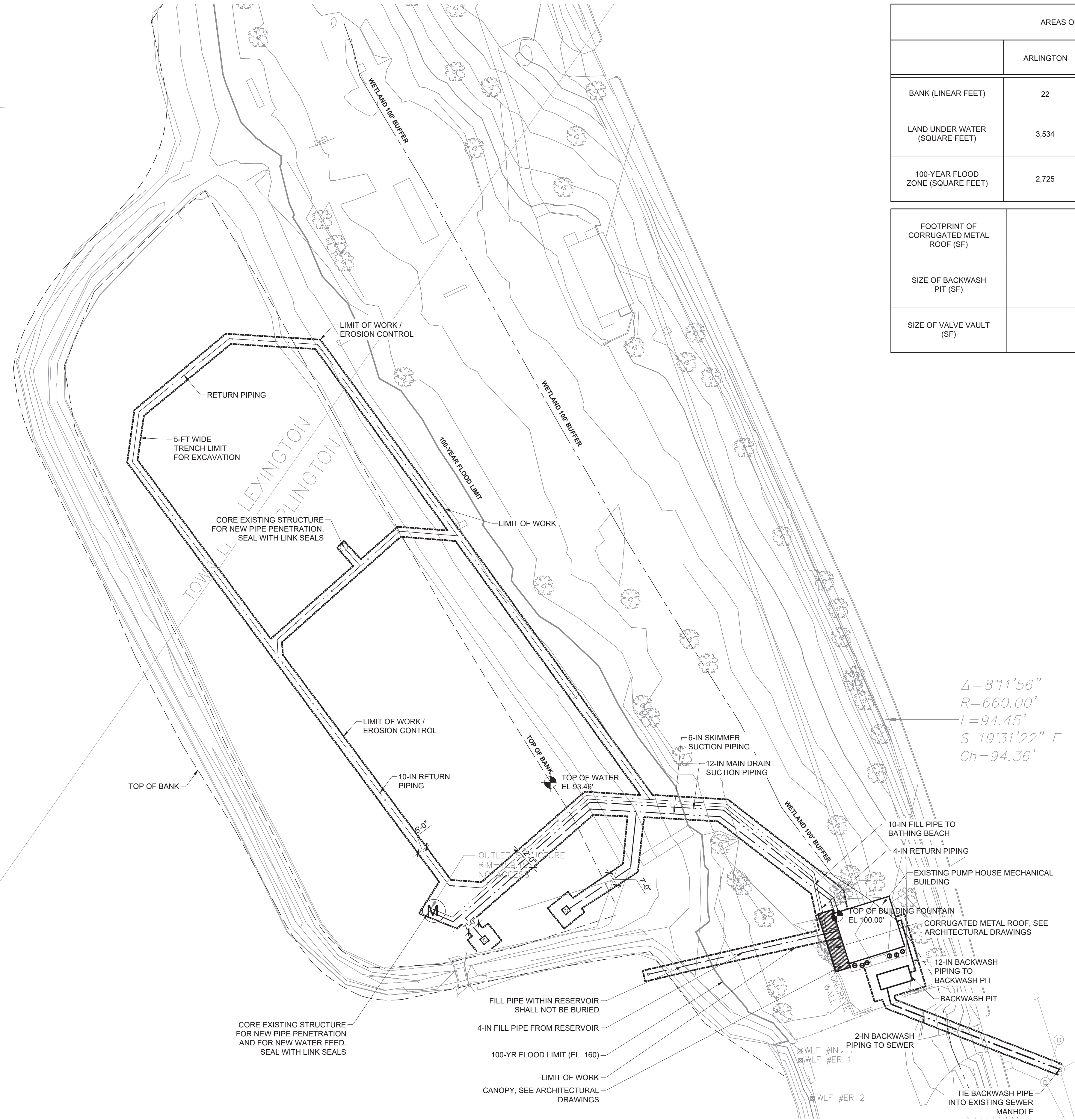
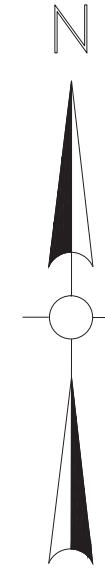
Scale:
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SITE LAYOUT AND TEMPORARY CONTROLS
 Sheet Number:
SP-1.0

- LEGEND:
- SUCTION PIPING
 - RETURN PIPING
 - LIMIT OF WORK
 - TOP OF BANK
 - WETLAND 100-FT BUFFER
 - 100-YEAR FLOOD ZONE

LAYOUT NOTES

1. CONTRACTOR SHALL HAVE ALL PIPING, INLETS, SKIMMERS AND OTHER PROPOSED EQUIPMENT LAID OUT BY A PROFESSIONAL LAND SURVEYOR FOR PROPER DIMENSIONS.
2. ALL WORK DONE WITHIN THE WETLAND AREA SHALL FOLLOW THE PIPE ALIGNMENT.



	AREAS OF IMPACT		
	ARLINGTON	LEXINGTON	ENTIRE PROJECT
BANK (LINEAR FEET)	22	5	27
LAND UNDER WATER (SQUARE FEET)	3,534	1,022	4,556
100-YEAR FLOOD ZONE (SQUARE FEET)	2,725	196	2,921
FOOTPRINT OF CORRUGATED METAL ROOF (SF)		252	
SIZE OF BACKWASH PIT (SF)		185	
SIZE OF VALVE VAULT (SF)		30	

Project:
IMPROVEMENTS TO THE ARLINGTON RESERVOIR



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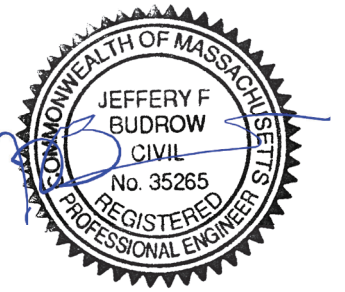
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Date: 01/28/2019

Drawn By: MES

Reviewed By: SMB

Approved By: JFB

W&S Project No: 2180615

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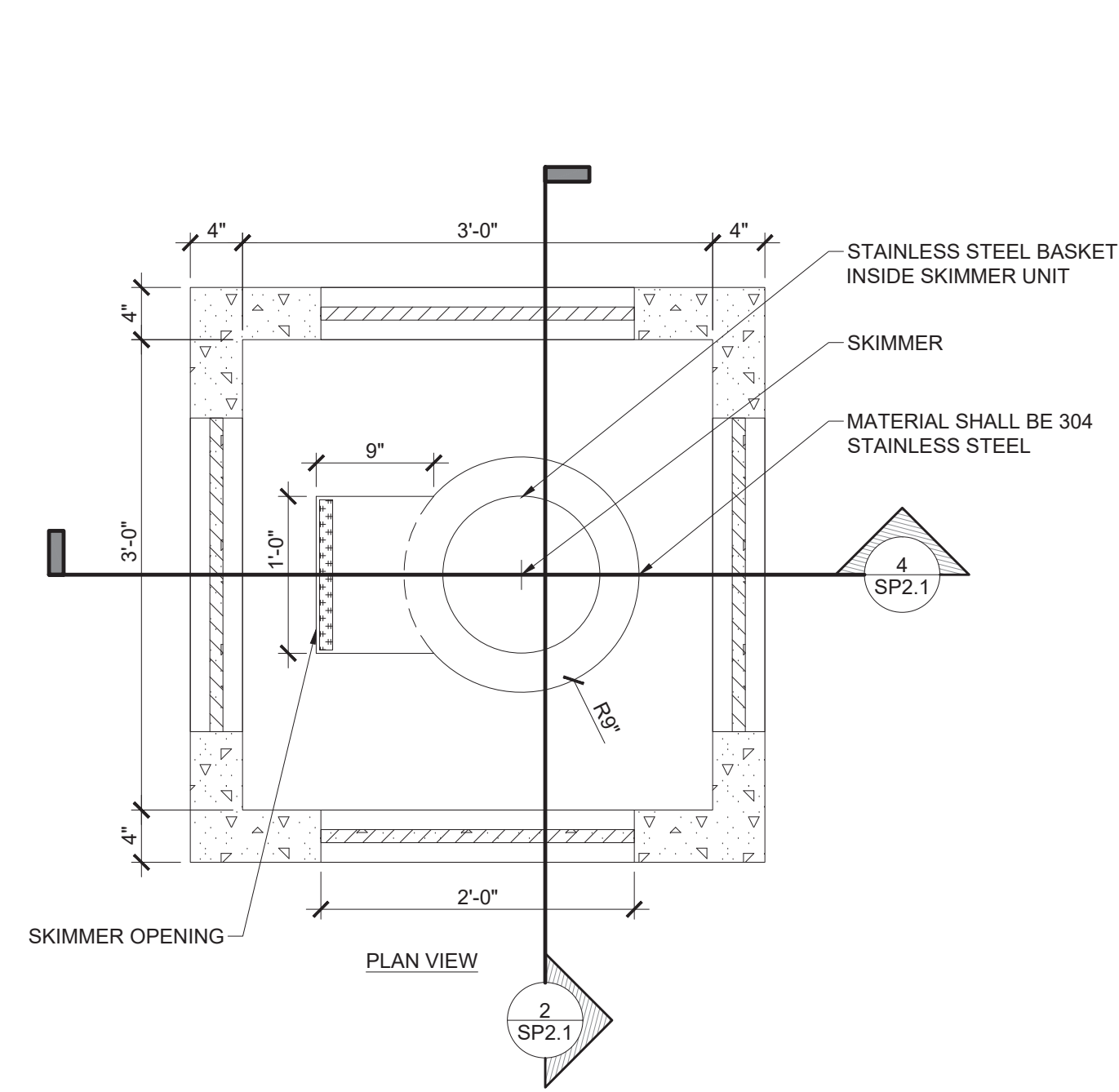
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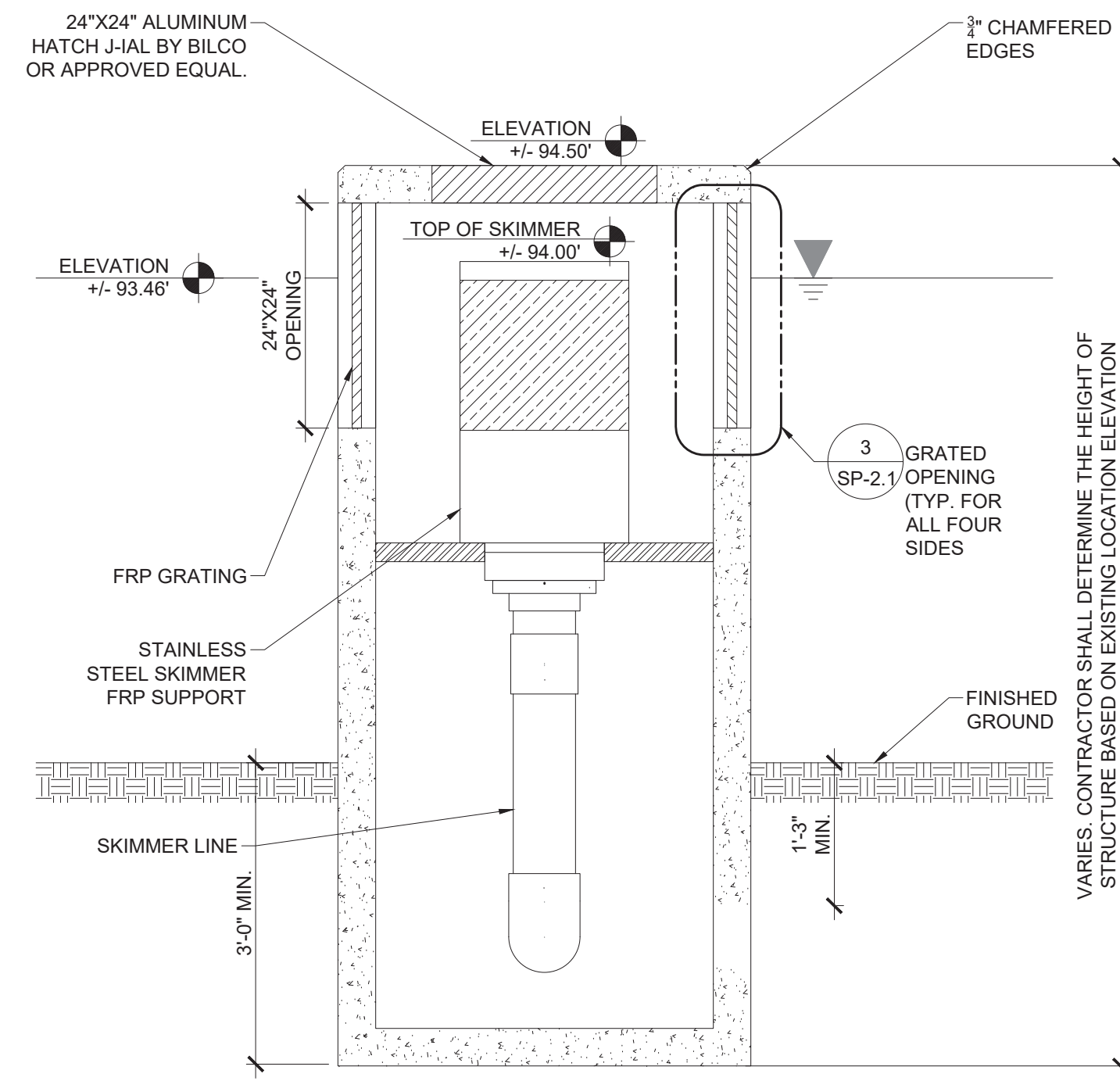
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SP-2.0

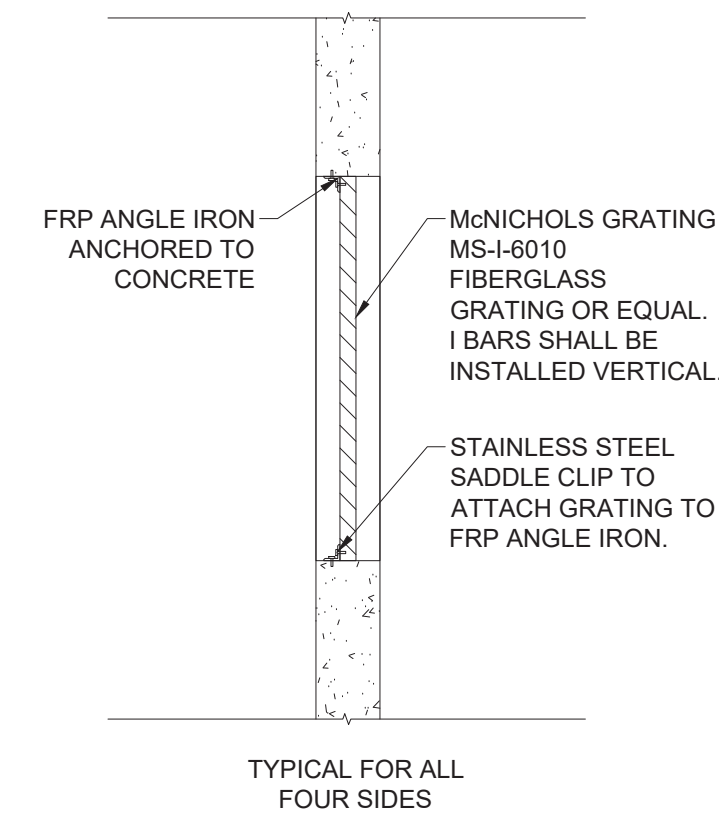
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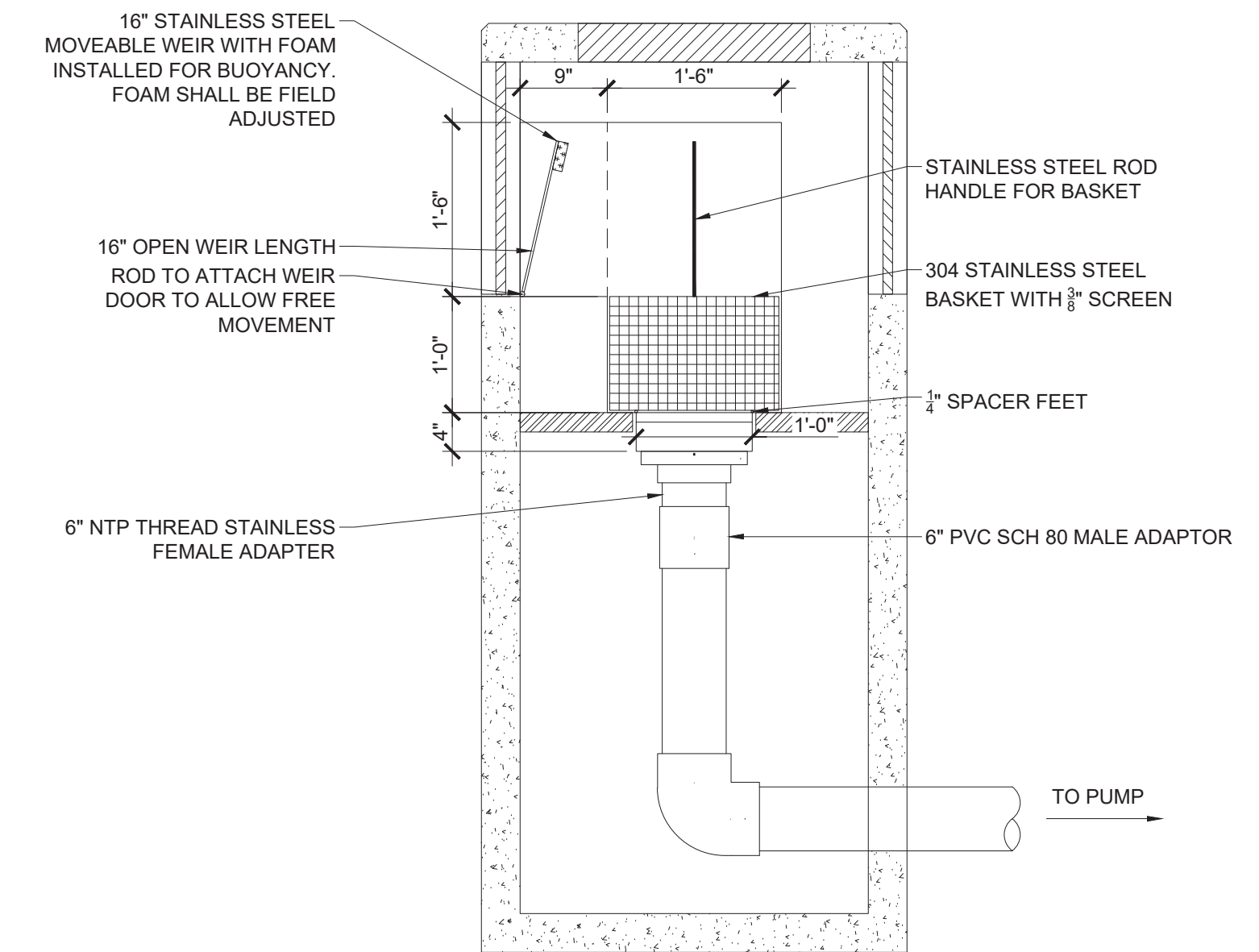
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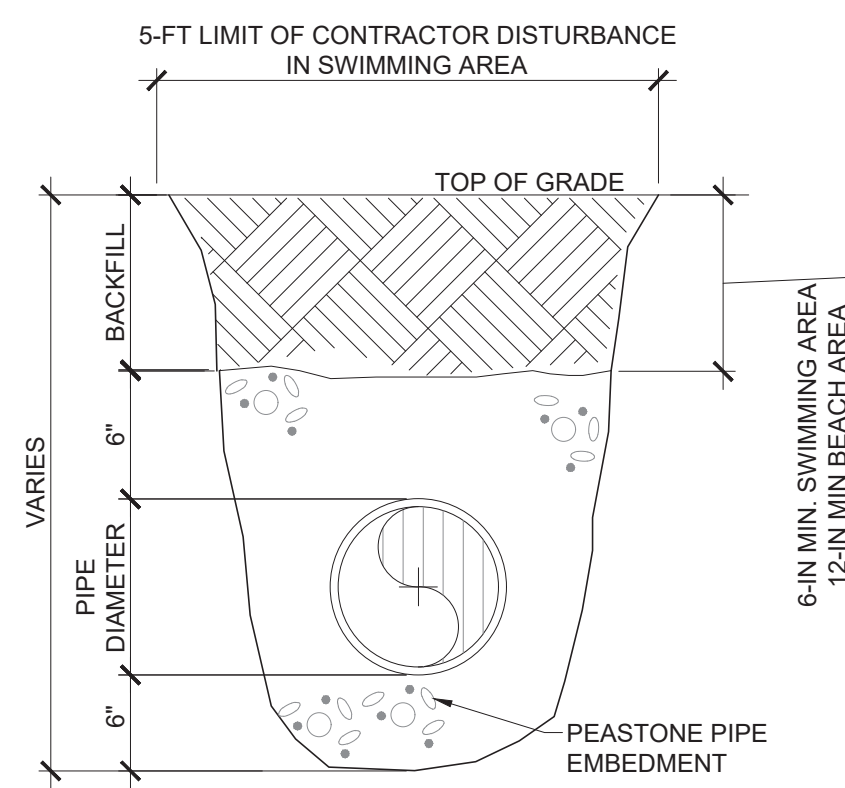
2 SKIMMER CROSS SECTION
SCALE: NOT TO SCALE



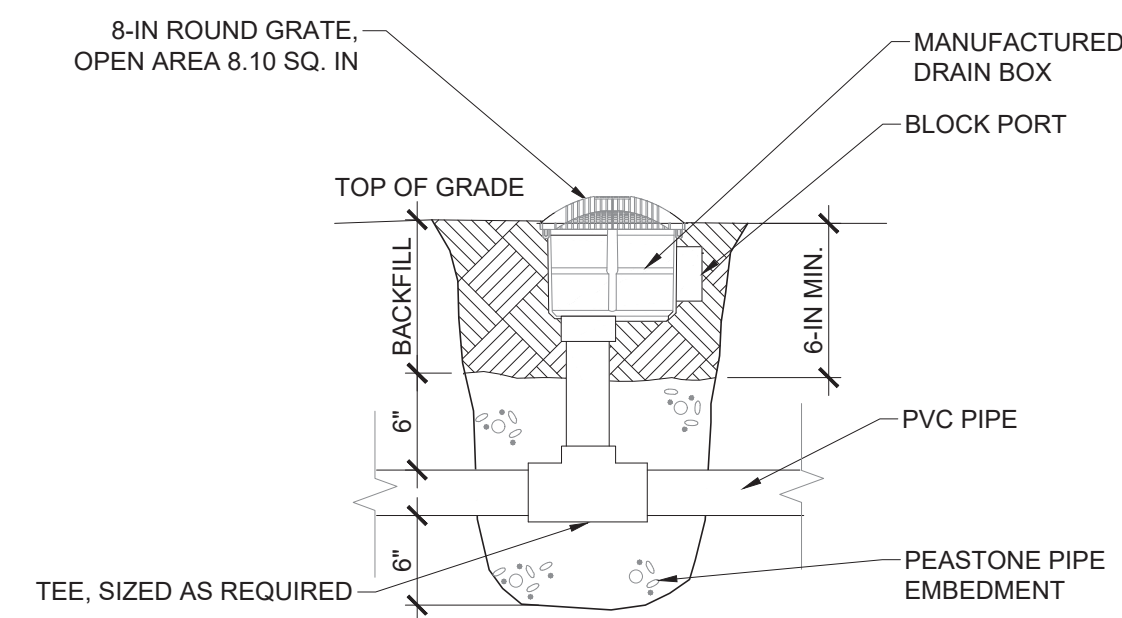
3 GRATED OPENING
SCALE: NOT TO SCALE



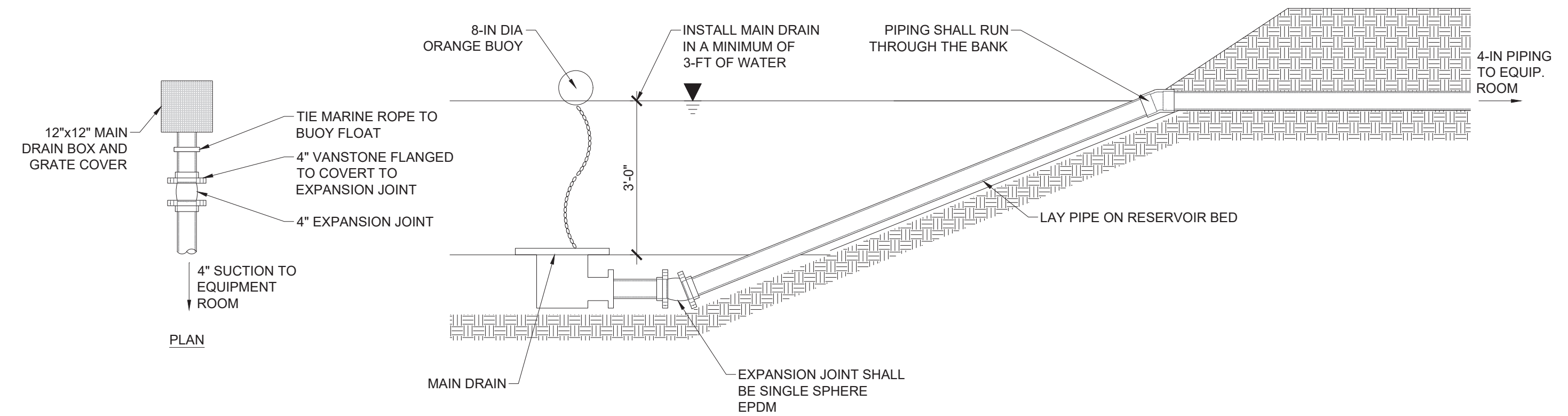
4 SKIMMER BASKET CROSS SECTION
SCALE: NOT TO SCALE



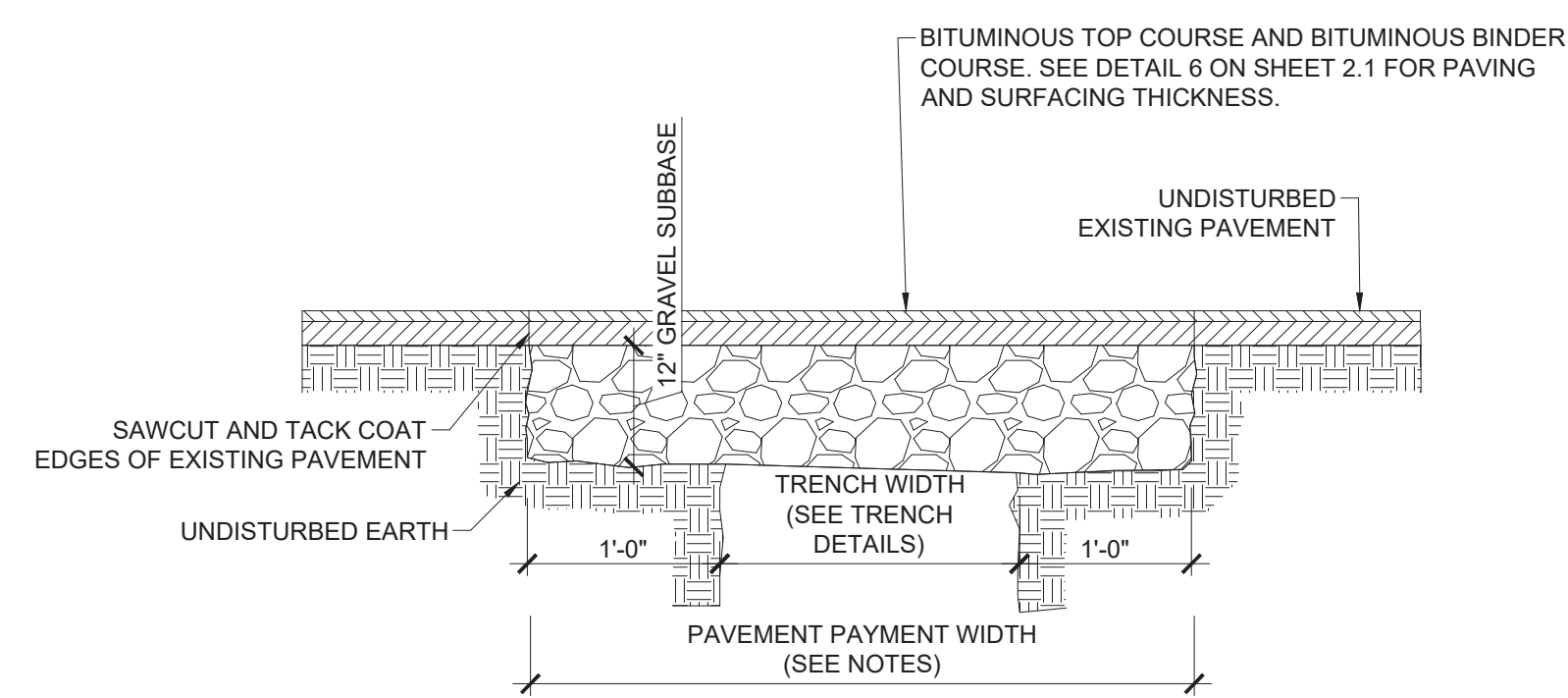
5 BURIED PIPE
SCALE: NOT TO SCALE



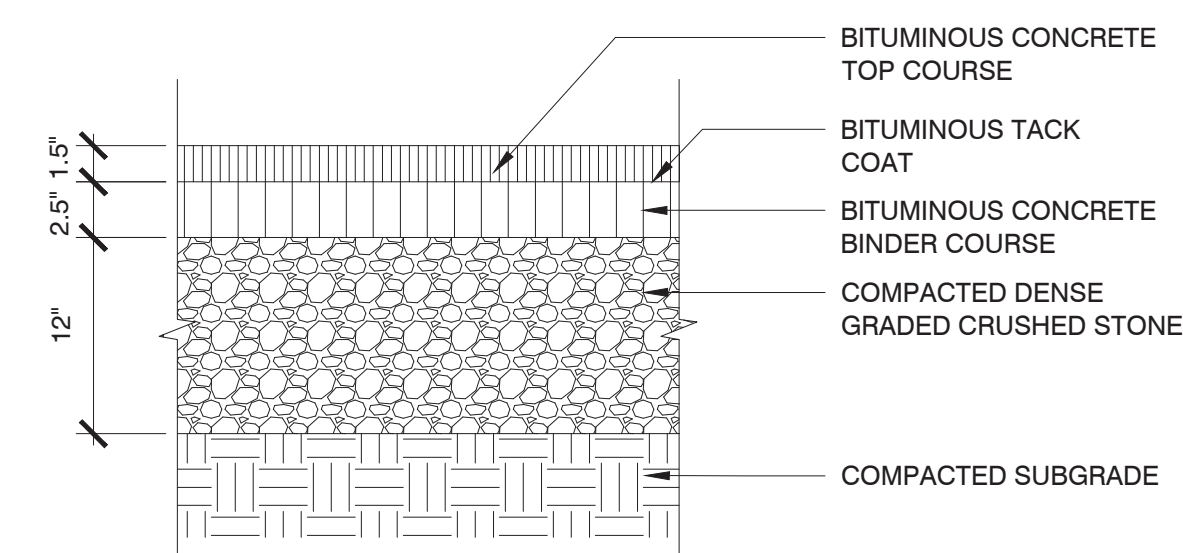
6 BOTTOM INLET
SCALE: NOT TO SCALE



7 FILL LINE
SCALE: NOT TO SCALE



8 TRENCH PAVEMENT DETAIL
SCALE: NOT TO SCALE



9 PAVEMENT
SCALE: NOT TO SCALE

- NOTES:**
1. PERMANENT TRENCH PAVEMENT PAYMENT WIDTH SHALL BE THE TRENCH PAY LIMIT PLUS 2 FEET
 2. TEMPORARY TRENCH PAVEMENT WIDTH SHALL BE EQUAL TO THE TRENCH PAYMENT LIMIT
 3. REMOVE AND DISPOSE ALL TEMPORARY PAVEMENT AS REQUIRED. RESTORE AND COMPACT SUBBASE AS REQUIRED PRIOR TO PERMANENT TRENCH PAVEMENT.

- NOTES:**
1. CONTRACTOR TO PROVIDE SMOOTH TRANSITION WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT, TYP.

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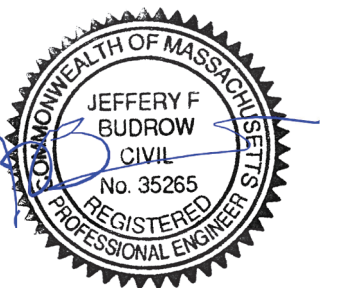
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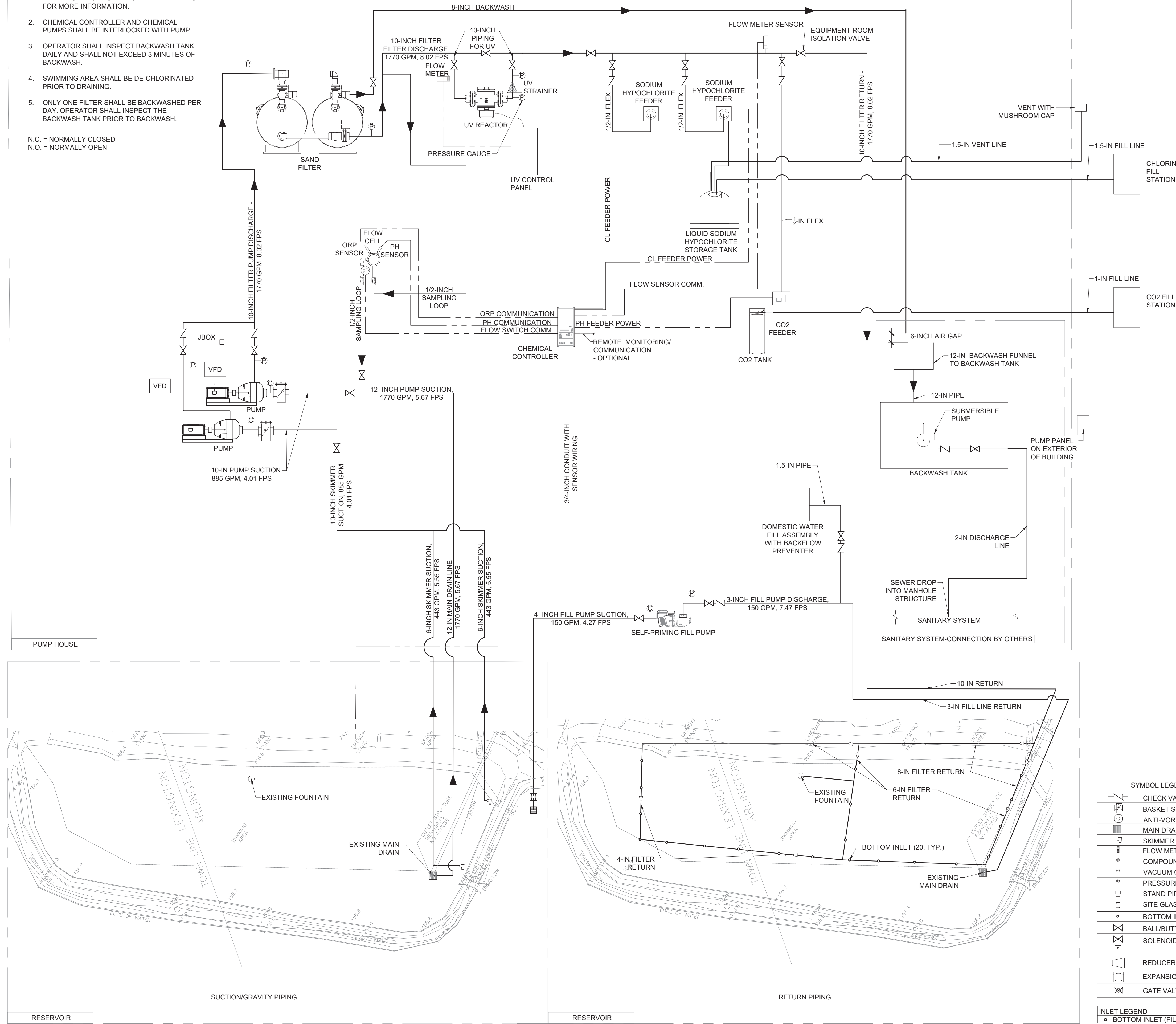
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PROPOSED PIPING / SITE DETAILS

Sheet Number:
SP-2.1

- NOTE:
- NO POWER WIRING IS SHOWN, ONLY CONTROL. REFER TO ELECTRICAL ENGINEER'S DRAWING FOR MORE INFORMATION.
 - CHEMICAL CONTROLLER AND CHEMICAL PUMPS SHALL BE INTERLOCKED WITH PUMP.
 - OPERATOR SHALL INSPECT BACKWASH TANK DAILY AND SHALL NOT EXCEED 3 MINUTES OF BACKWASH.
 - SWIMMING AREA SHALL BE DE-CHLORINATED PRIOR TO DRAINING.
 - ONLY ONE FILTER SHALL BE BACKWASHED PER DAY. OPERATOR SHALL INSPECT THE BACKWASH TANK PRIOR TO BACKWASH.

N.C. = NORMALLY CLOSED
N.O. = NORMALLY OPEN



SWIMMING AREA EQUIPMENT SCHEDULE				
RECIRCULATION SYSTEM				
MARK	QTY	ITEM	MANUFACTURER	CAT NO. DESCRIPTION
1	2	MAIN DRAIN GRATE	AQUASTAR	24xxx 24-IN X 24-IN SQUARE GRATE COMPLY WITH ANSI/ASPP 16-2011 AND NSF 50-2008 UNBLOCKABLE REQUIREMENTS. OPEN AREA PROVIDED 352 SQ. IN. PER ASSEMBLY. COLOR SELECTED BY OWNER
2	2	SKIMMER	CUSTOM	CUSTOM 316 STAINLESS STEEL CUSTOM SKIMMER. PROVIDE SPARE BASKET
3	20	INLETS	HAYWARD	WG1054VPAK2 8-IN ROUND GRATE COMPLY WITH ANSI/ASPP-16 MEET ALL CPSC REQUIREMENTS. OPEN AREA PROVIDED 8.10 SQ. IN. PER INLET. COLOR SELECTED BY OWNER
4	1	MAIN DRAIN GRATE	EUREKA MANUFACTURING CO.	39-518 12-IN X 12-IN SQUARE GRATE AND SUMP COMPLY WITH ANSI/ASPP 16-2011 AND NSF 50-2008 UNBLOCKABLE REQUIREMENTS.
5	1	BUOY	POLYFORM	A-SERIES 8-IN BUOY. ORANGE. CONTRACTOR SHALL SUPPLY 10-FT OF NYLON DOUBLE BRAID ROPE TO TIE BUOY TO MAIN DRAIN.
FILTER AREA MISCELLANEOUS EQUIPMENT				
MARK	QTY	ITEM	MANUFACTURER	CAT NO. DESCRIPTION
6	7	PRESSURE GAUGE	WEKSLER	UA254L 2-1/2-INCH DIA. FACE, 0-60 PSI
7	3	COMPOUND GAUGE	WEKSLER	UA25K4L 2-1/2-INCH DIA. FACE, 0-30 INCHES HG, 0-60 PSI
8	2	FLOW METER	GF SIGNET	2537 DIGITAL PADDLEWHEEL, 4-20mA SIGNAL CONNECT TO CHEMICAL CONTROLLER AND UV PANEL
9	1	EYE WASH STATION	HAWS	7500 16-GALLON CAPACITY PORTABLE EYE WASH STATION
10	1	SEWER INJECTOR PUMP	LIBERTY	LEH 103M LEH 100 SERIES, 1 HP, 208V, 3 PHASE, SUBMERSIBLE PUMP WITH 3-IN DISCHARGE
11	1	SEWER CONTROL PANEL	WEIL	SP1-SSC3B240 3 PHASE, 208V, SIMPLEX CONTROL PANEL WITH 3 MECHANICAL FLOAT SWITCHES. PANEL SHALL BE NEMA 3R OUTDOOR RATED WITH BEACON.
FILTRATION EQUIPMENT				
MARK	QTY	ITEM	MANUFACTURER	CAT NO. DESCRIPTION
12	2	FILTER PUMP	MARLOW	EL 6E2 30 HP, CENTRIFUGAL PUMP, 885 GPM AT 78 TDH, 208 VOLT, 3 PHASE.
13	1	FILL PUMP	PENTAIR	022018 XFK-12 WHISPERFLO SERIES 3 HP SELF-PRIMING WITH INTEGRAL STRAINER, 150 GPM AT 55 TDH, 3 PHASE, 208V, PROVIDE EXTRA STRAINER BASKET
14	2	STRAINER	NEPTUNE BENSON	150NBSTL10-M 4-IN STAINLESS STEEL STRAINER, PROVIDE SPARE STRAINER (2)
15	2	FILTER	NEPTUNE BENSON	60120SHFFG HIGH RATE SAND FILTER, SCHEDULE 80 PVC PIPING, PROVIDE 60.8 SF FOR FILTER AREA. HEADER PIPING SHALL BE 8"
16	2	VFD	SCHNEIDER ELECTRIC	SFD212MG2WD 07 30 HP, 3 PHASE, 208V, NEMA 4X ENCLOSURE
17	1	BACKWASH PIT	SHEA	8X17-40 PREFABRICATED CONCRETE, 4,000 GALLON BACKWASH TANK WITH HATCH COVER
CHEMICAL EQUIPMENT				
MARK	QTY	ITEM	MANUFACTURER	CAT NO. DESCRIPTION
18	1	CHEMICAL CONTROLLER	HAYWARD	CAT5000 CHEMICAL CONTROLLER WITH OPTIONS OF FILTER PUMP CONTROL, FLOW MONITORING, ETHERNET/INTERNET, REMOTE CONTROL AND WATER LEVEL CONTROL.
19	2	CHEMICAL FEEDER	STENNER	85M5 SINGLE HEAD ADJUSTABLE OUTPUT METERING PERISTALTIC PUMP, 85 GALLONS PER DAY
20	1	CHLORINE TANK	ASSMAN	ICT 550 550 GALLON POLYETHYLENE VERTICAL STORAGE TANK
21	1	CO ₂ FEEDER	HAYWARD	AC004 SINGLE TANK CARBON DIOXIDE FEEDER-20-200 SCFH
22	1	FILL STATION PANEL	CUSTOM	CUSTOM NaCl FILL STATION CONTROL PANEL
23	1	CO ₂ TANK	CARBO-MIZER	750 CARBON DIOXIDE BULK STORAGE TANK, 750 LBS WITH PRESSURE REGULATOR, AND EPOXY COATING, EXTERNAL REMOTE FILL BOX LOCATE PER ARCHITECT'S DRAWINGS AND PLUMBED TO TANK LOCATED ON FILTER ROOM FLOOR. PROVIDE FILL KIT
24	1	UV	ETS	ECF-430 12 V NEMA 4X CABINET- ULTRA VIOLET DISINFECTION WITH CONE STRAINER, 3 PHASE, 208V.

RESERVOIR DATA CHART	
DESCRIPTION	AMOUNT/RATE
TOTAL RESERVOIR SURFACE WATER AREA	45,400 S.F.
TOTAL RESERVOIR PERIMETER	965 L.F.
RESERVOIR AVERAGE DEPTH	2-FT 6-IN
TOTAL RESERVOIR VOLUME	113,500 CU. FT.
TOTAL RESERVOIR VOLUME	849,095 GALS
RESERVOIR TURNOVER (T.O.R.)	8 HRS AT 1770 GPM
FLOW RATE - RESERVOIR	1770 GPM
FILTER AREA	60.8 S.F. PER FILTER
FILTER APPLICATION RATE	14.56 GPM/S.F.

SYMBOL LEGEND	
	CHECK VALVE
	BASKET STRAINER
	ANTI-VORTEX PLATE
	MAIN DRAINS
	SKIMMER
	FLOW METER
	COMPOUND PRESSURE GAUGE
	VACUUM GAUGE
	PRESSURE GAUGE
	STAND PIPE/FILL FUNNEL
	SITE GLASS
	BOTTOM INLET
	BALL/BUTTERFLY VALVE
	SOLENOID VALVE
	REDUCER
	EXPANSION JOINT
	GATE VALVE

INLET LEGEND			
MARK	QTY	OPEN AREA	VEL.
•	BOTTOM INLET (FILTER)	88.5'	20 10.05 SQ. FT., 3.94 FPS

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Scale:

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Drawn By: MES

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W&S Project No: 2180615

W&S File No:

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Sheet Number:

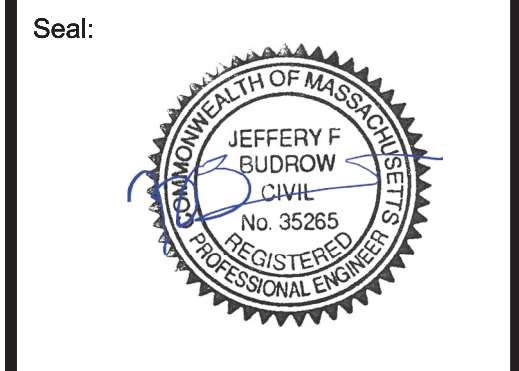
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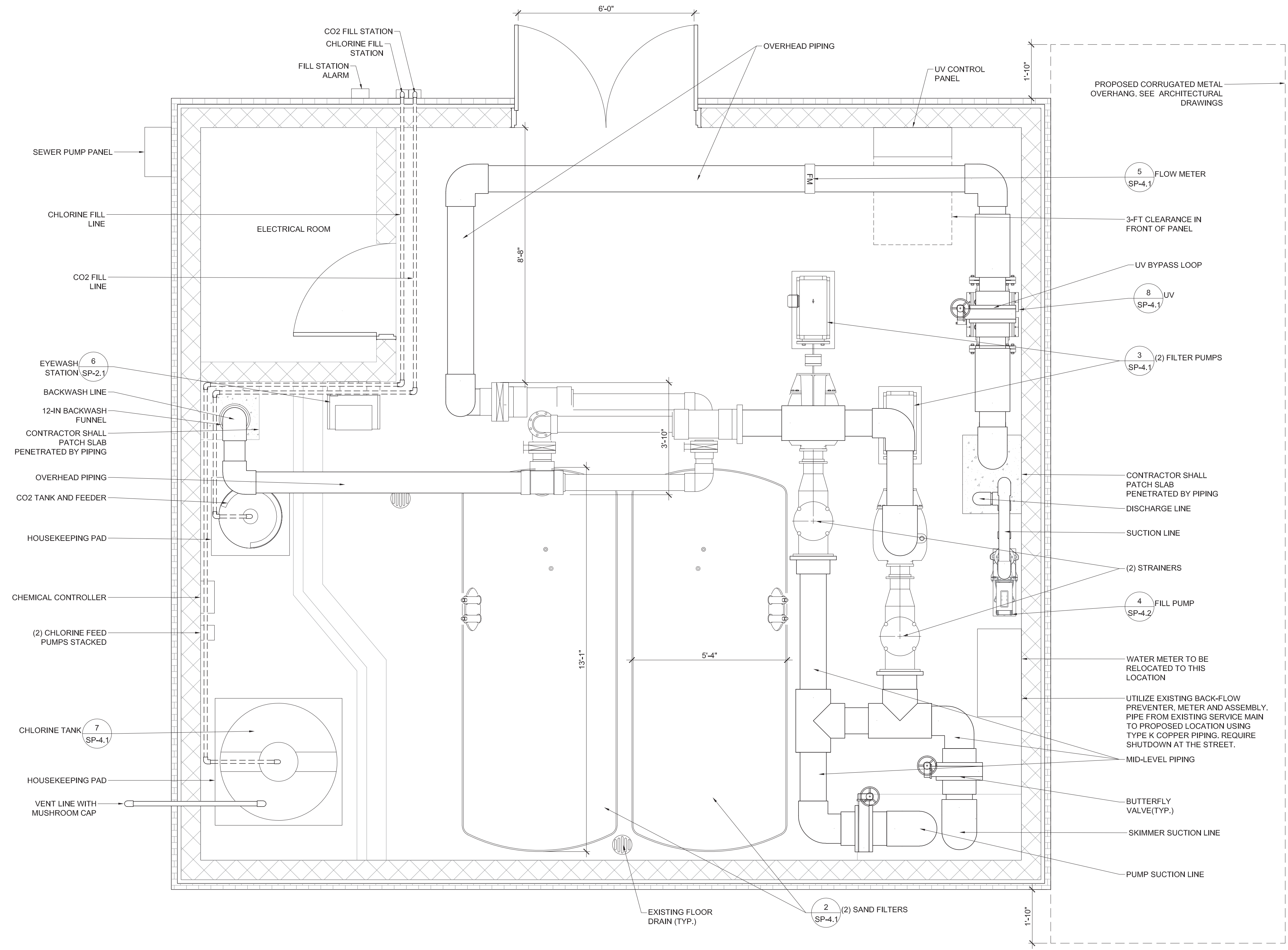


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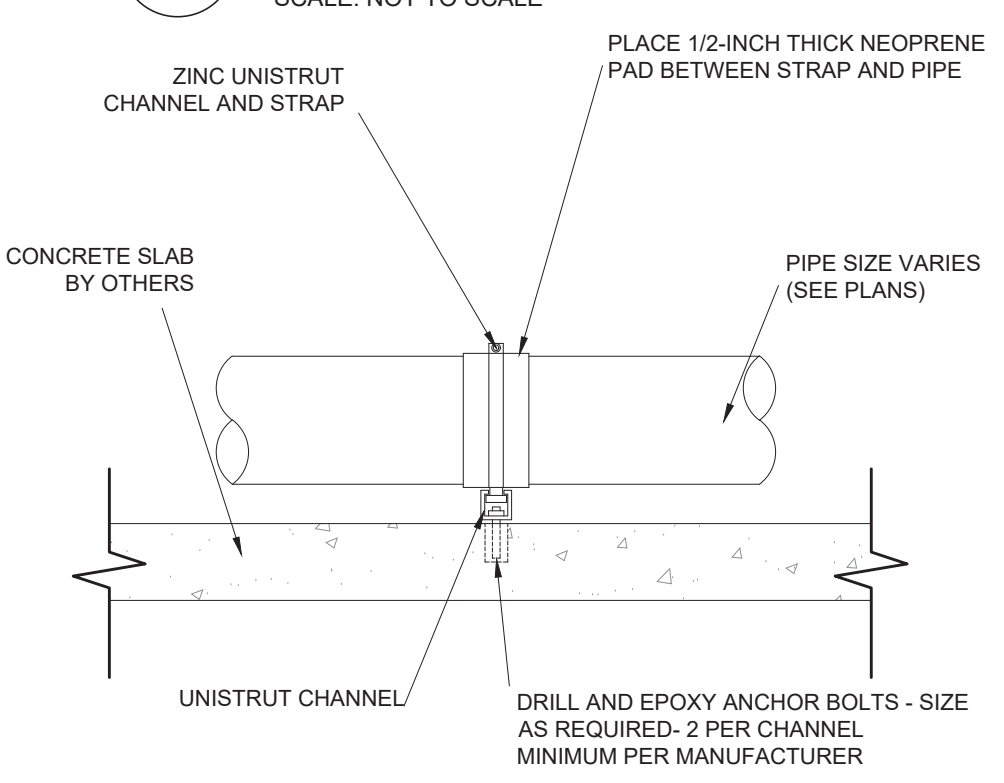
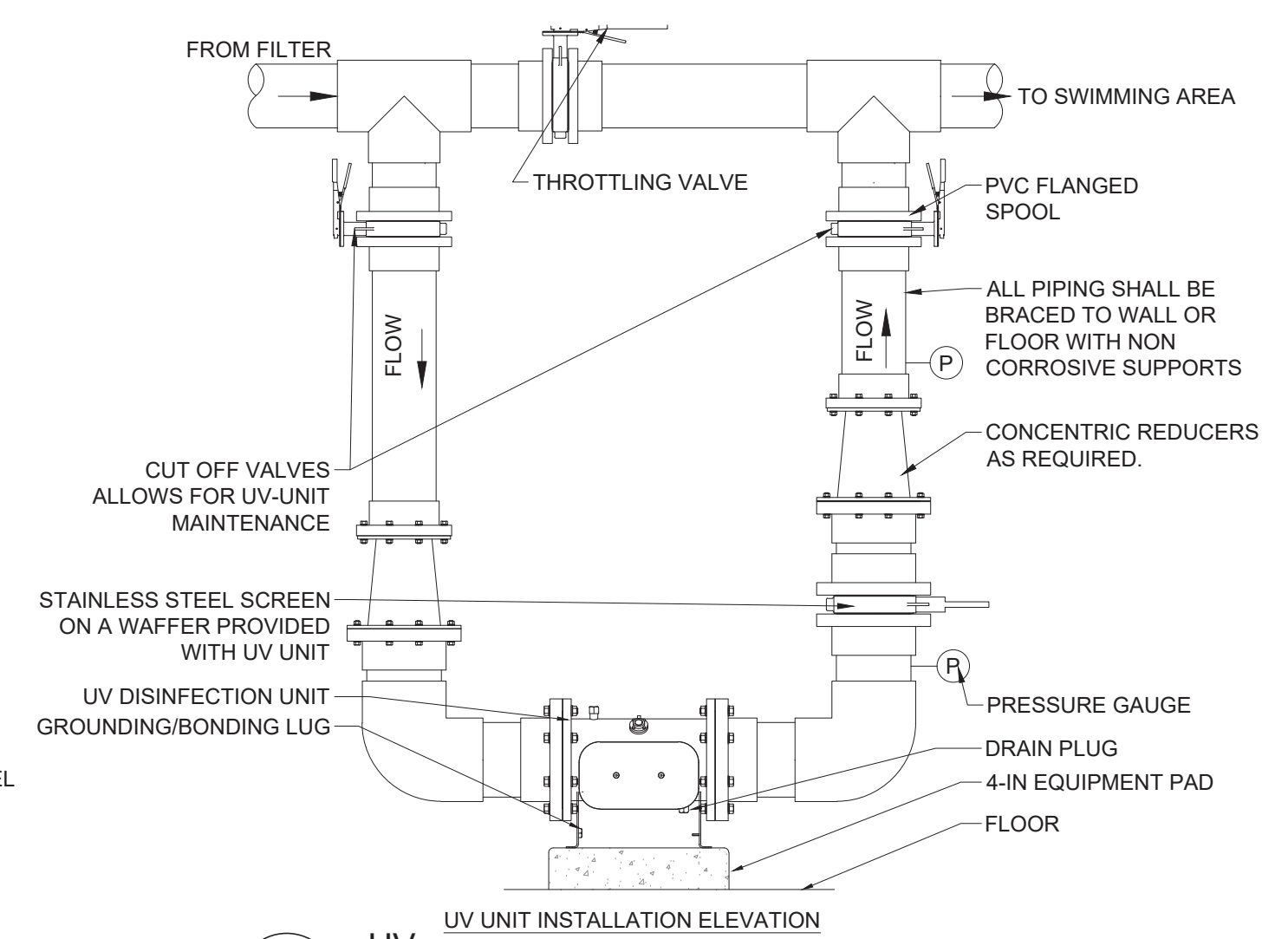
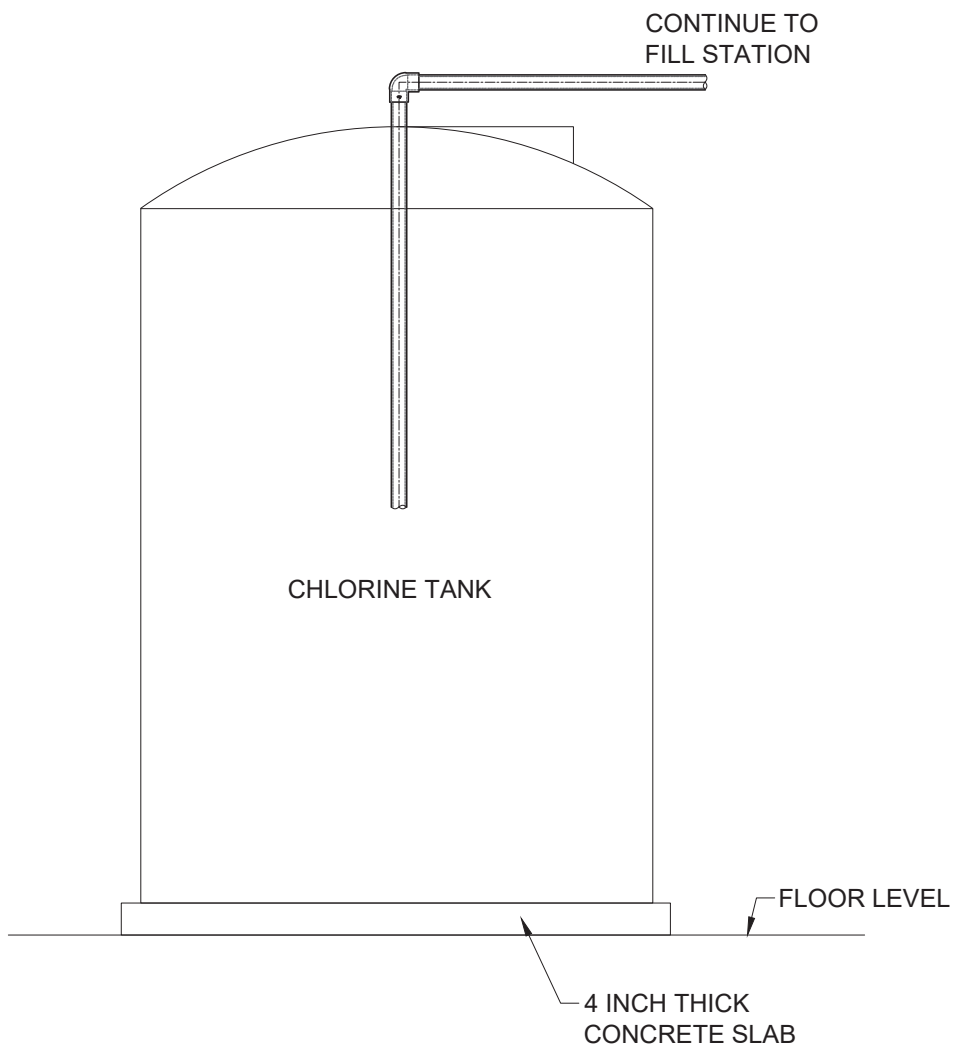
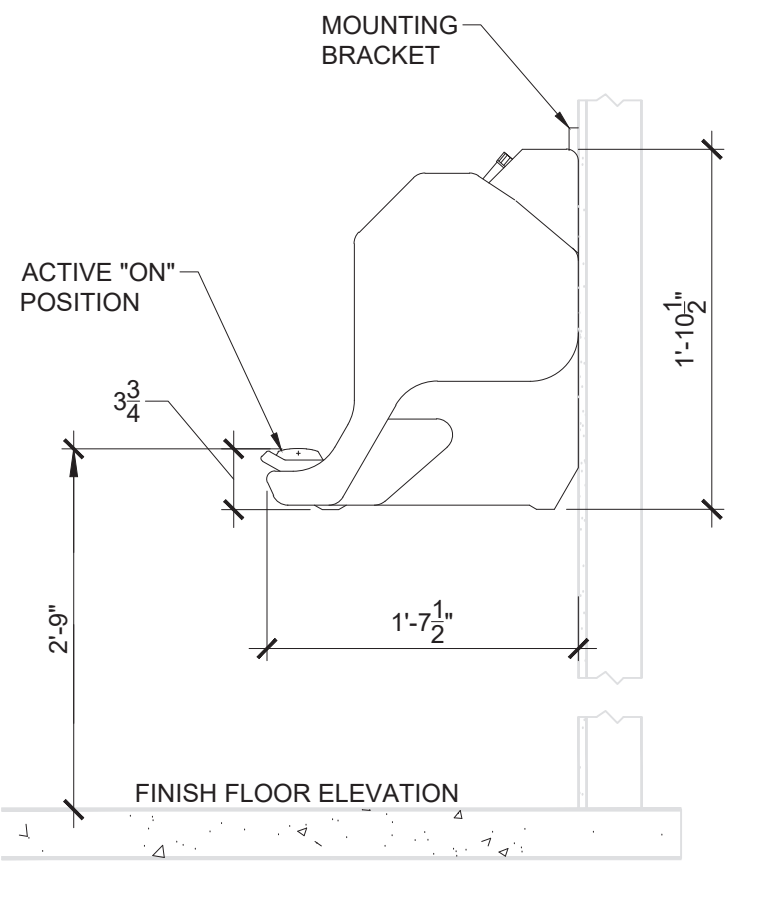
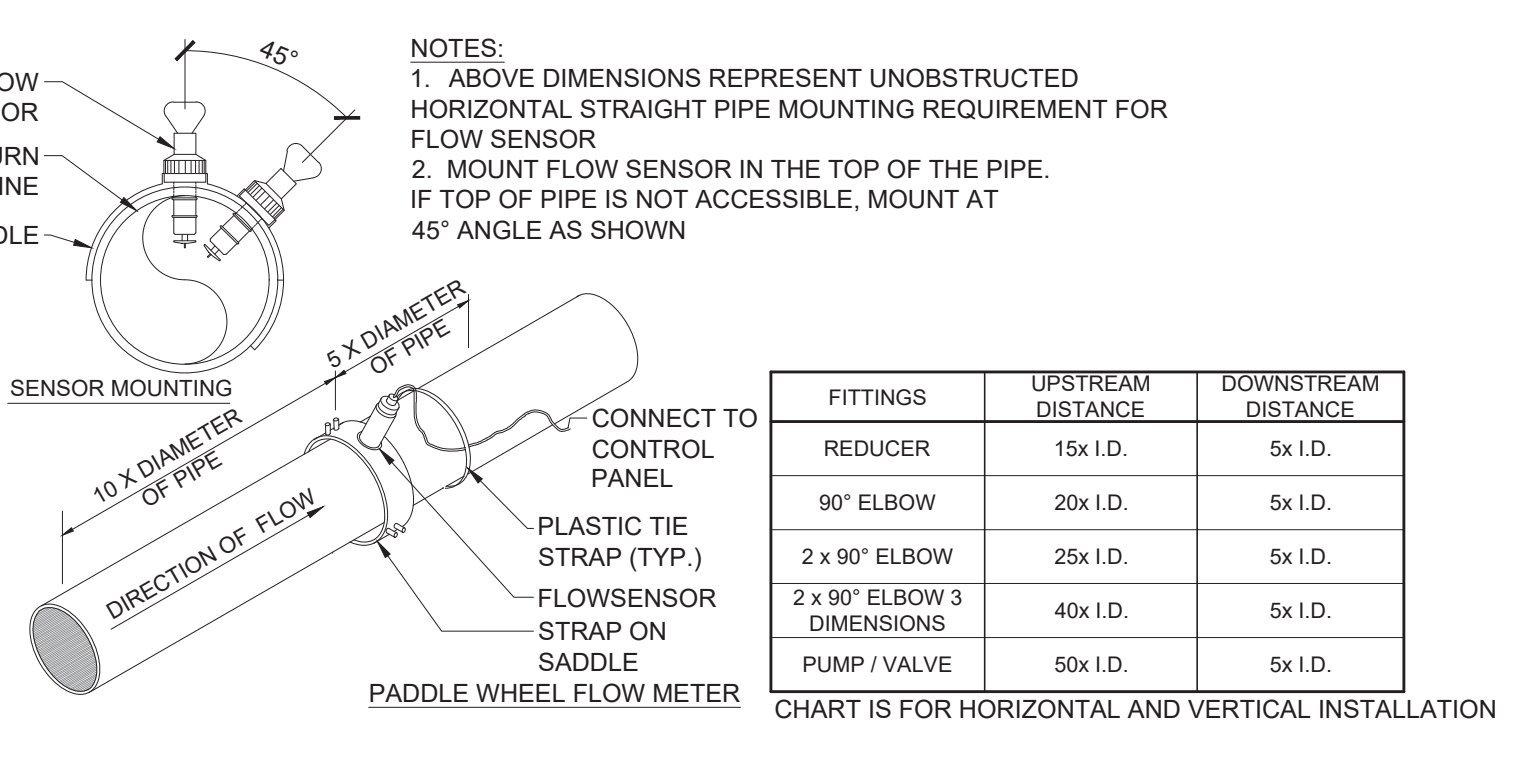
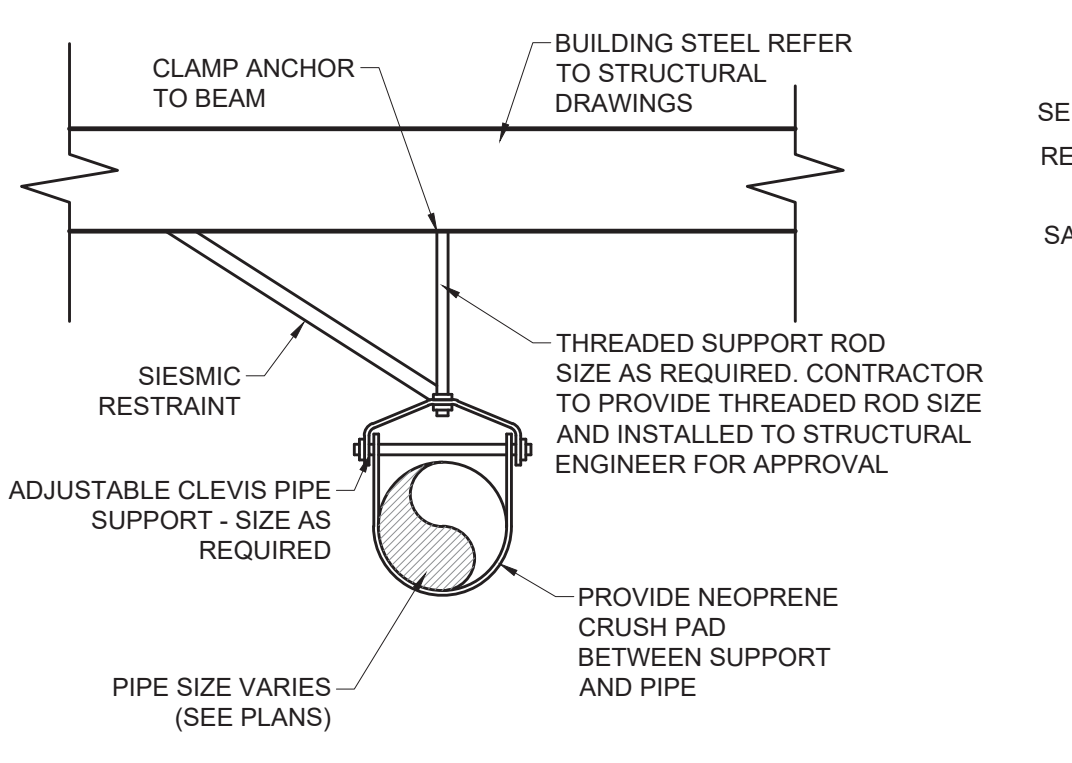
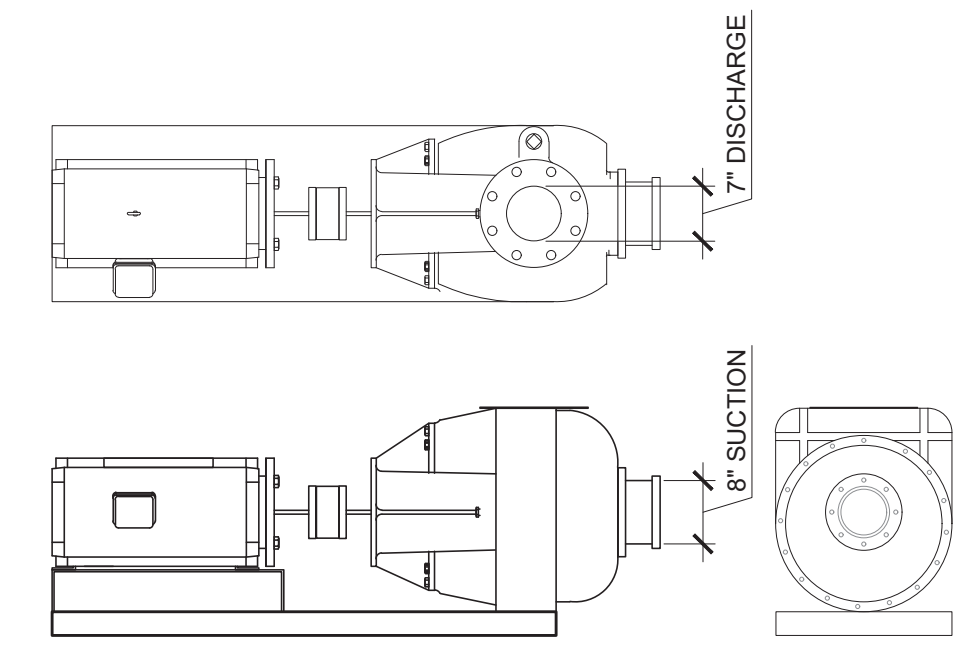
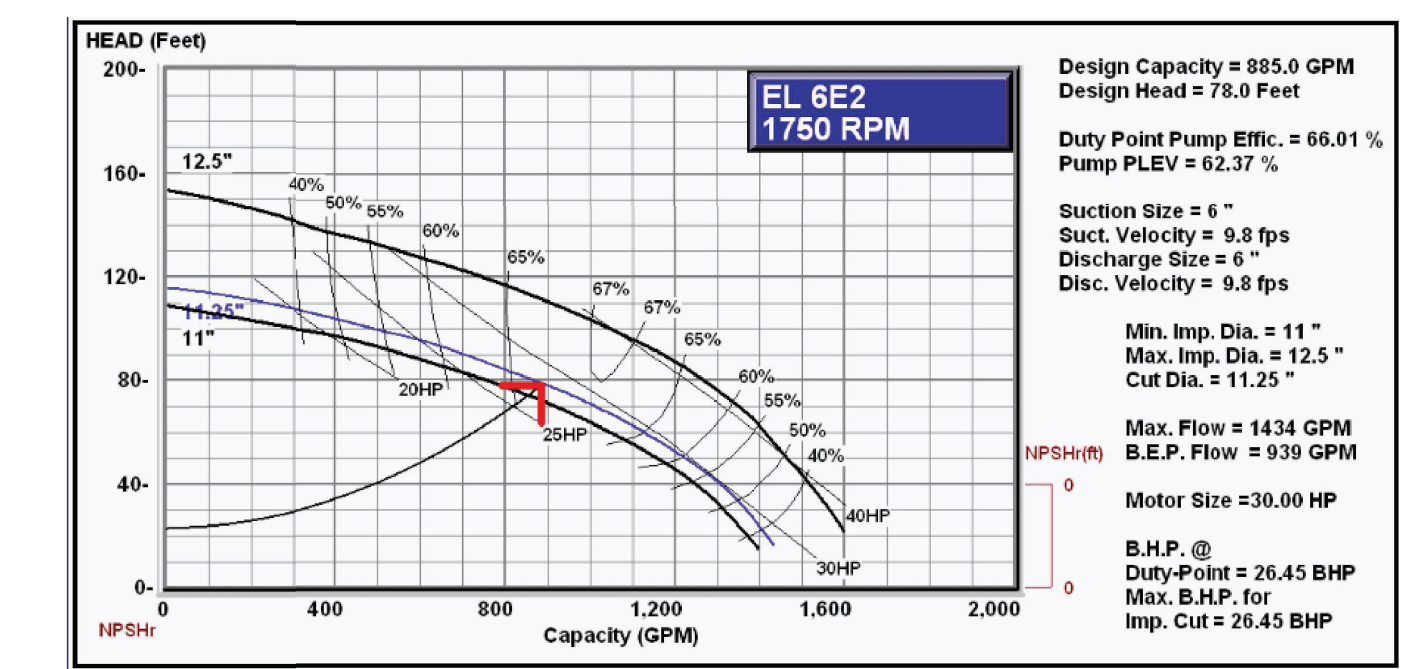
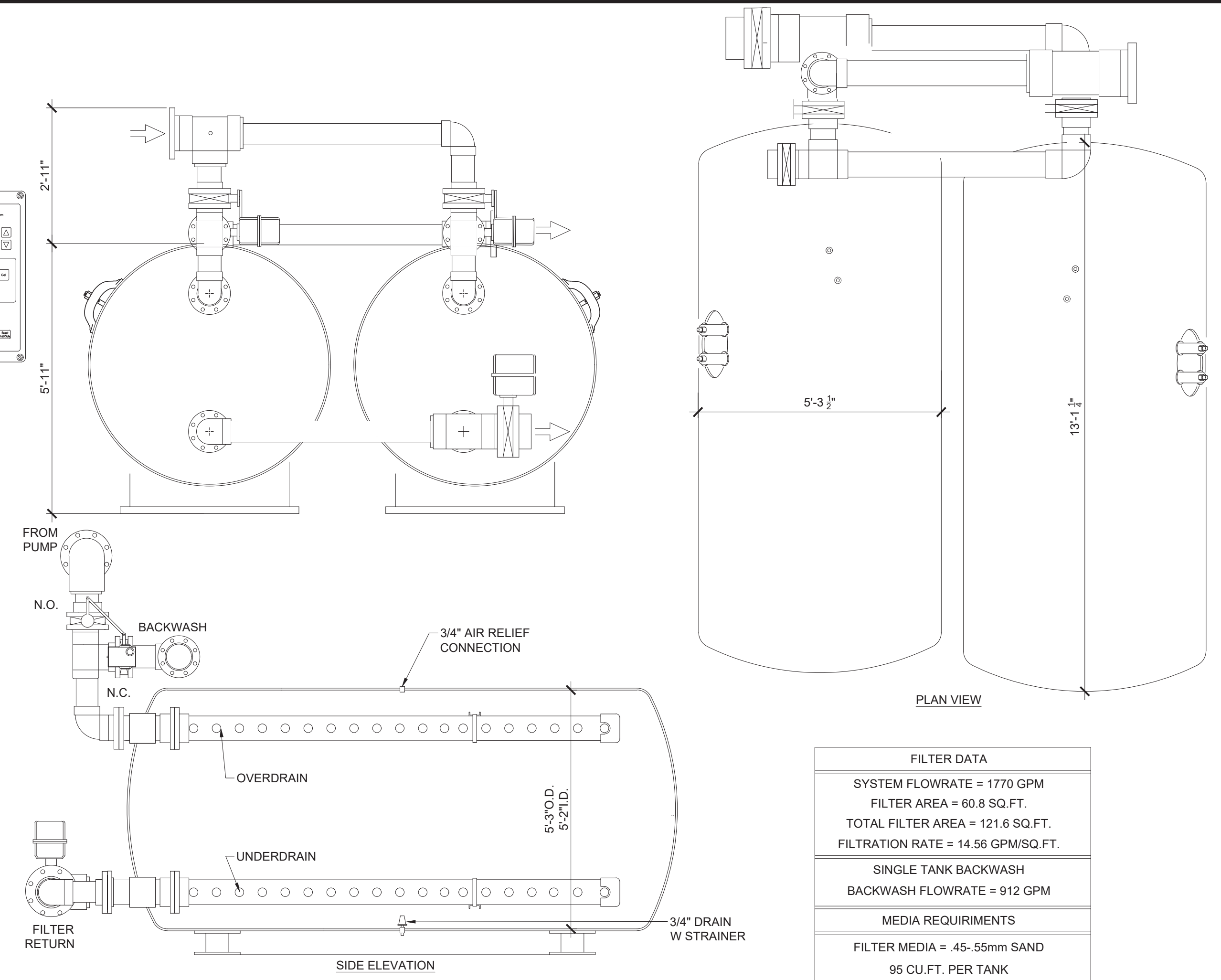
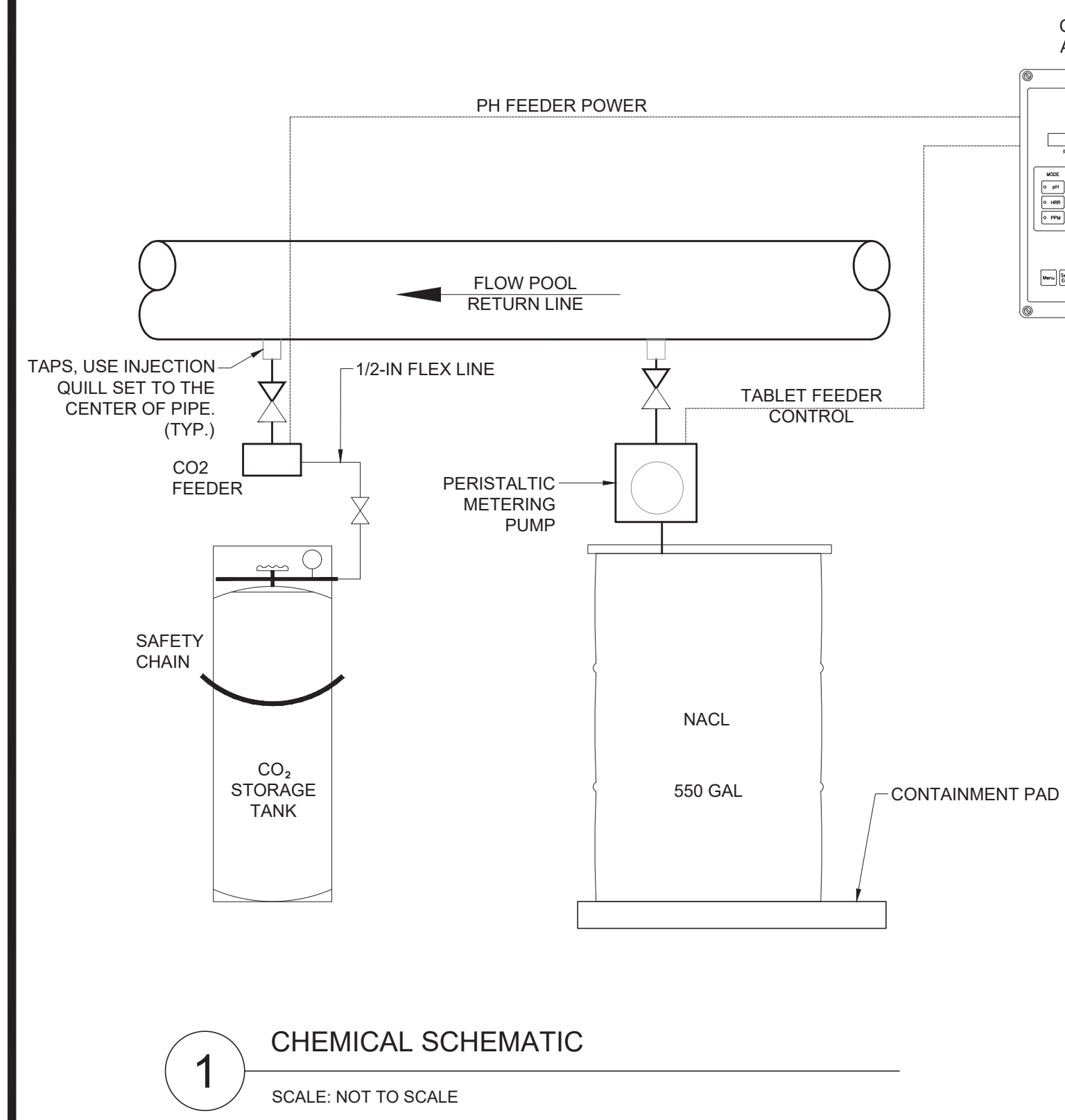
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**MECHANICAL
 ROOM
 RENOVATIONS**

Sheet Number:
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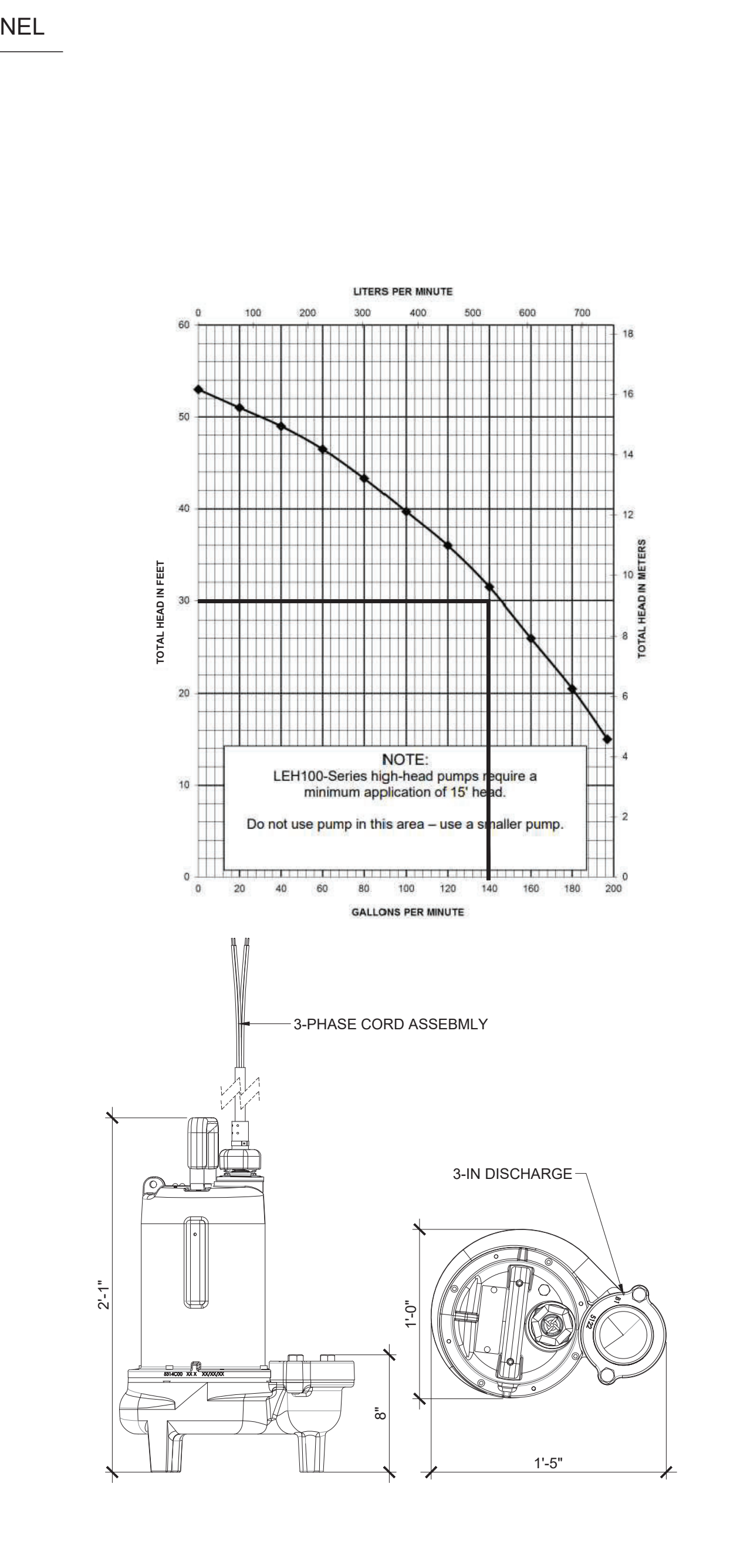
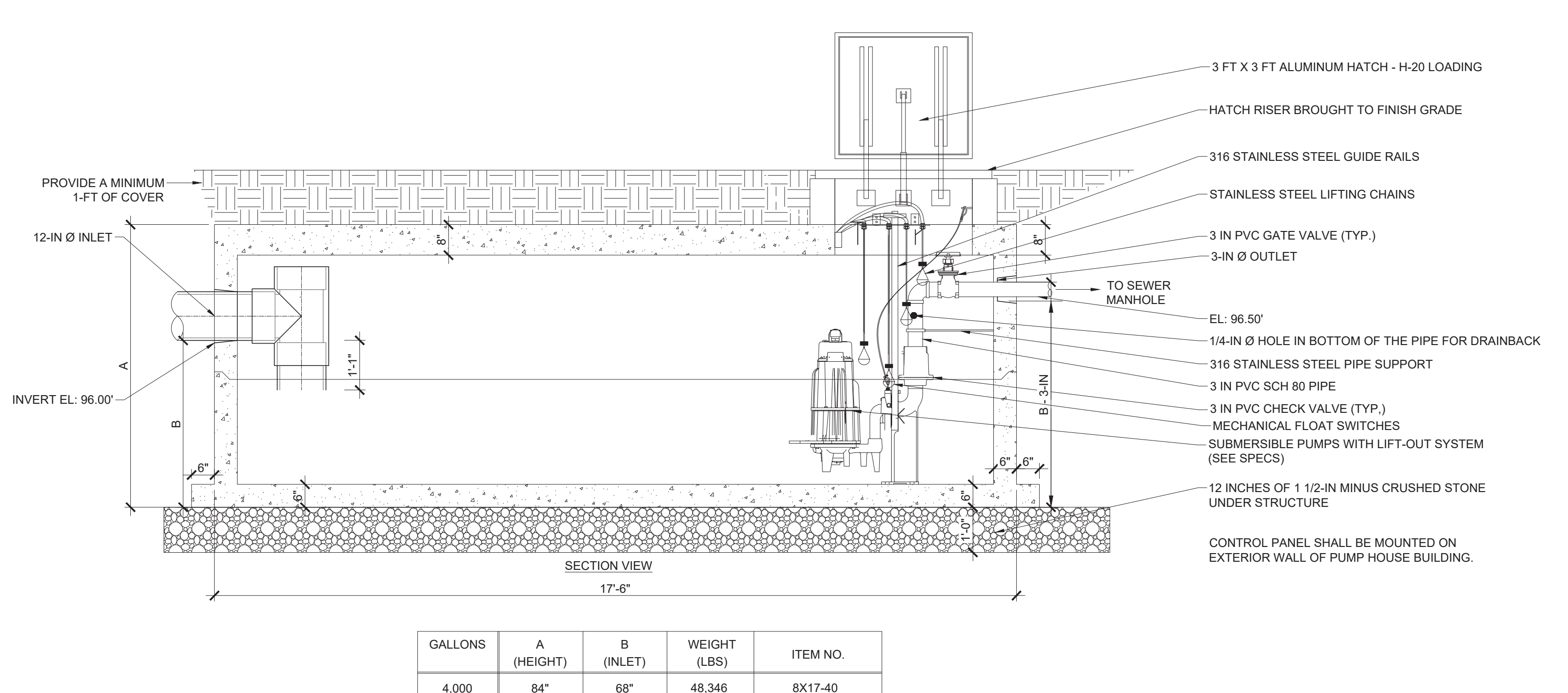
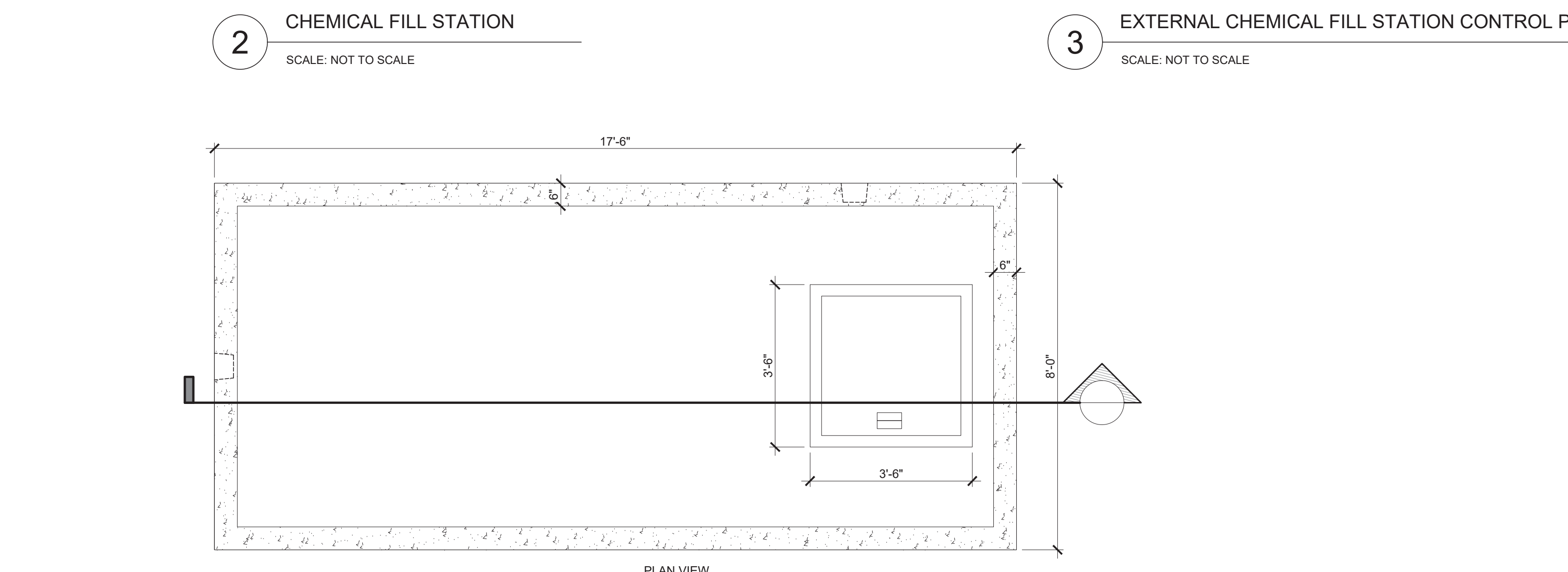
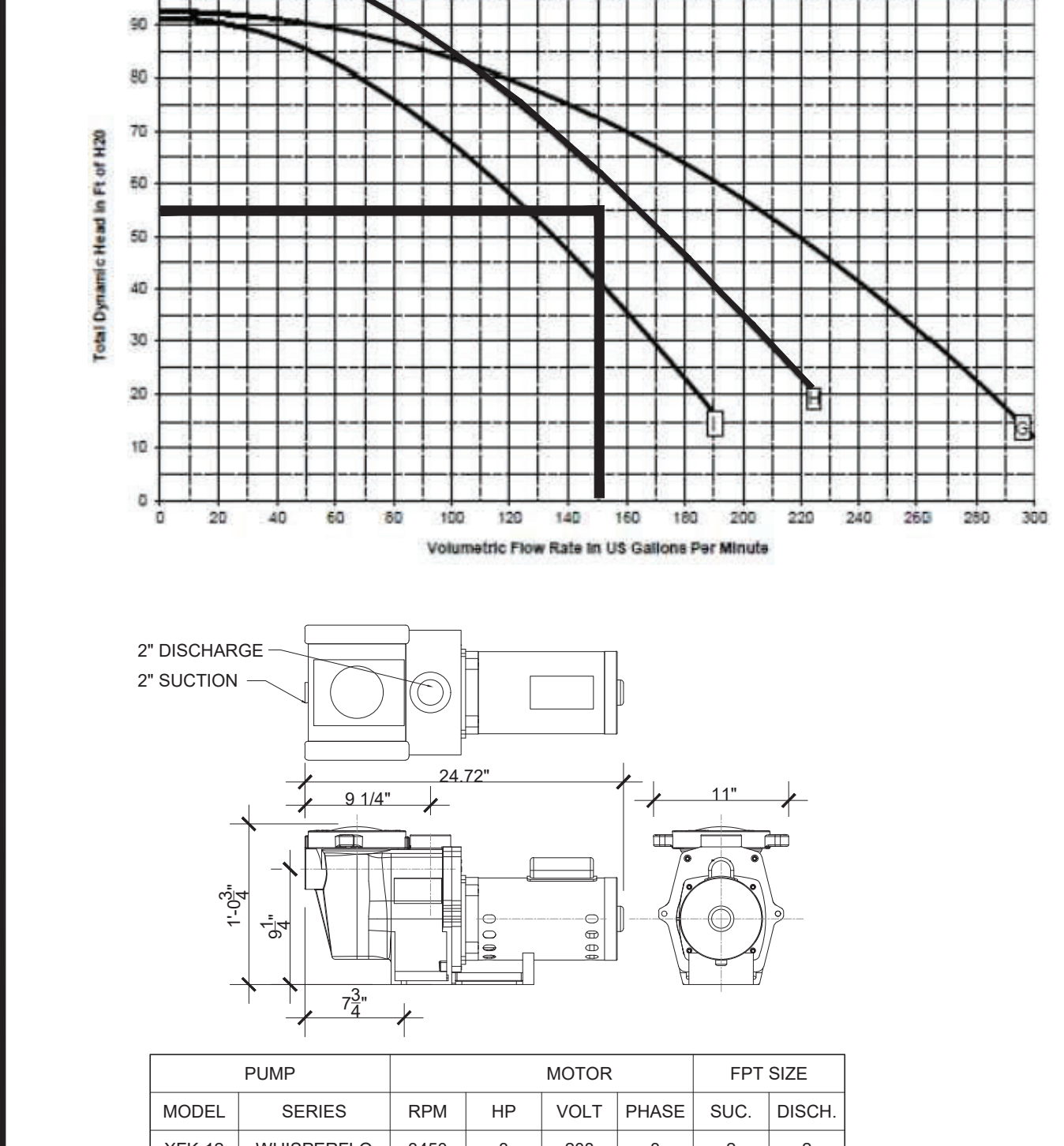
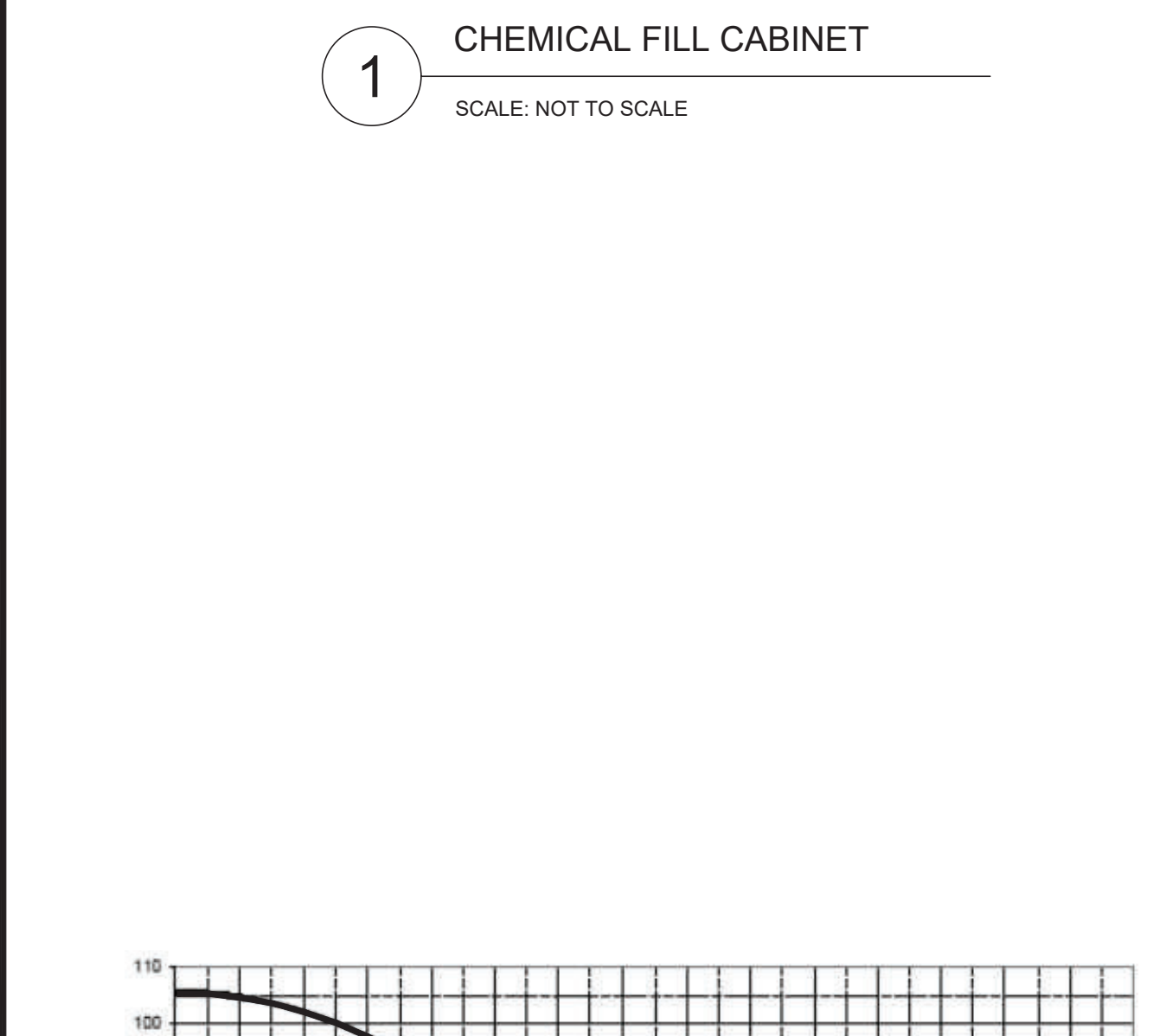
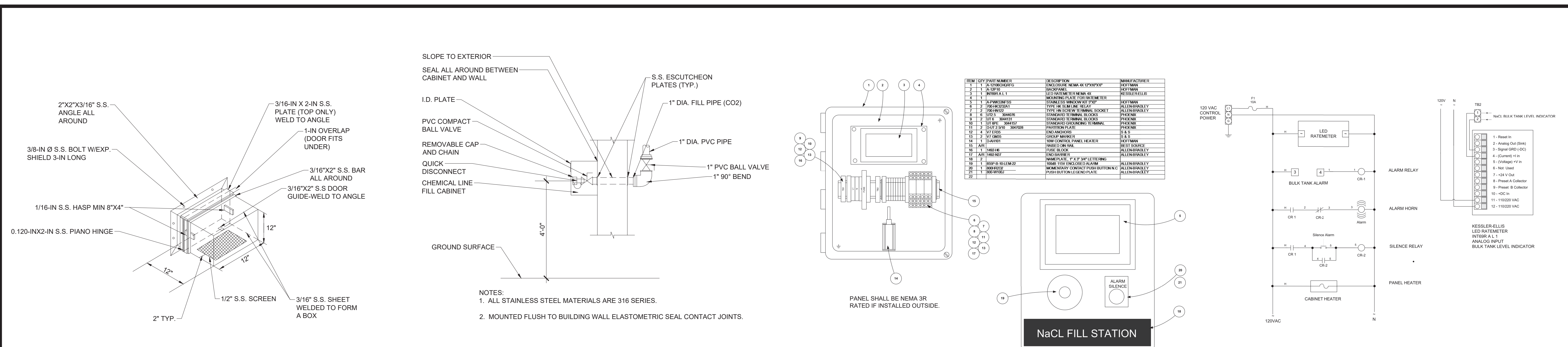


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JEFFERY F. BUDROW
CIVIL
No. 35265
REGISTERED PROFESSIONAL ENGINEER

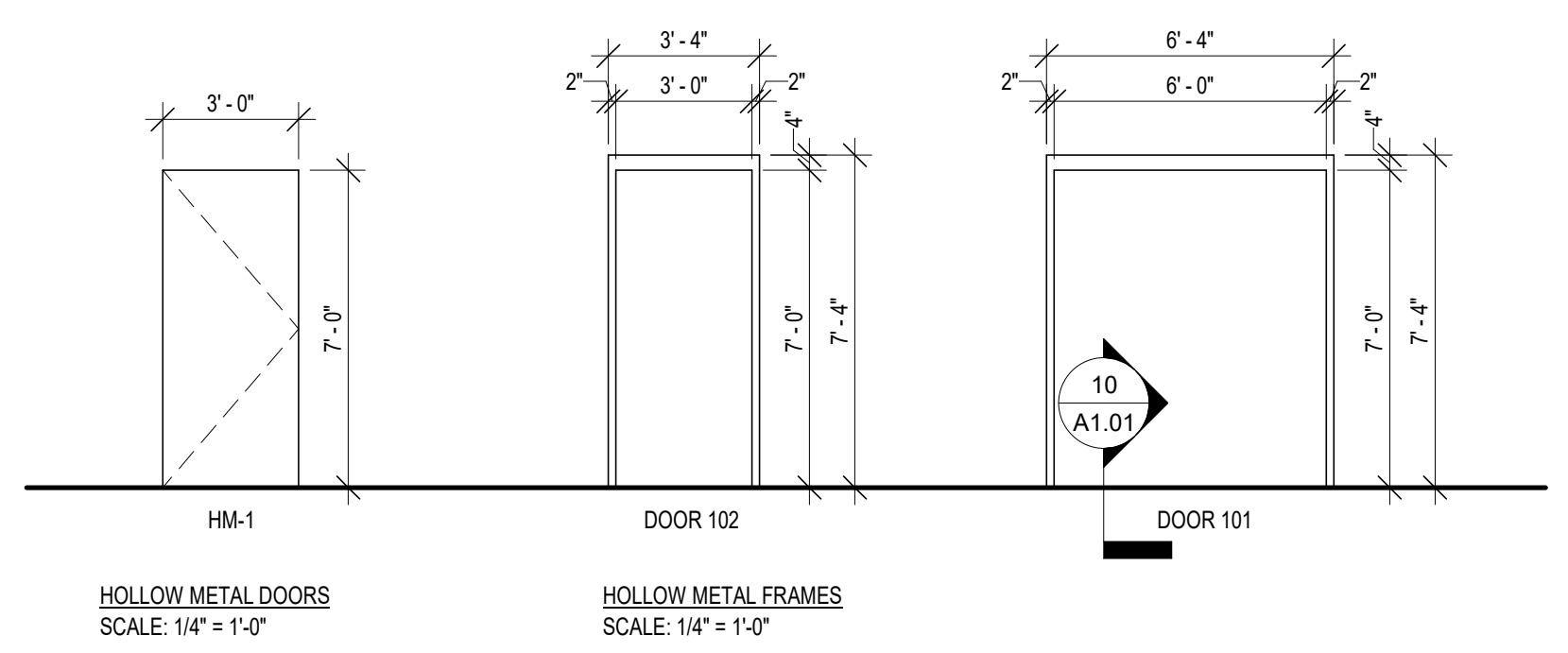
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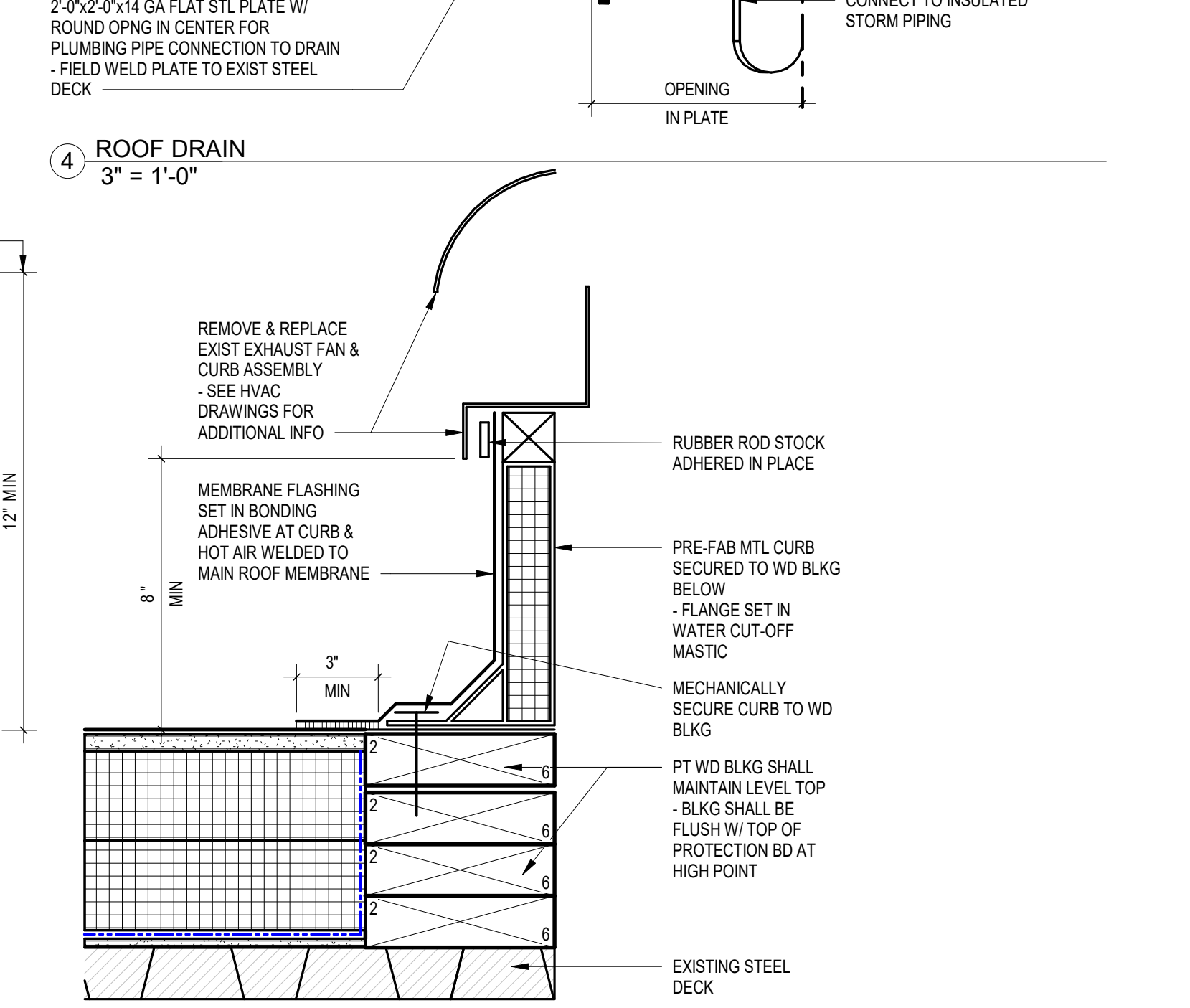
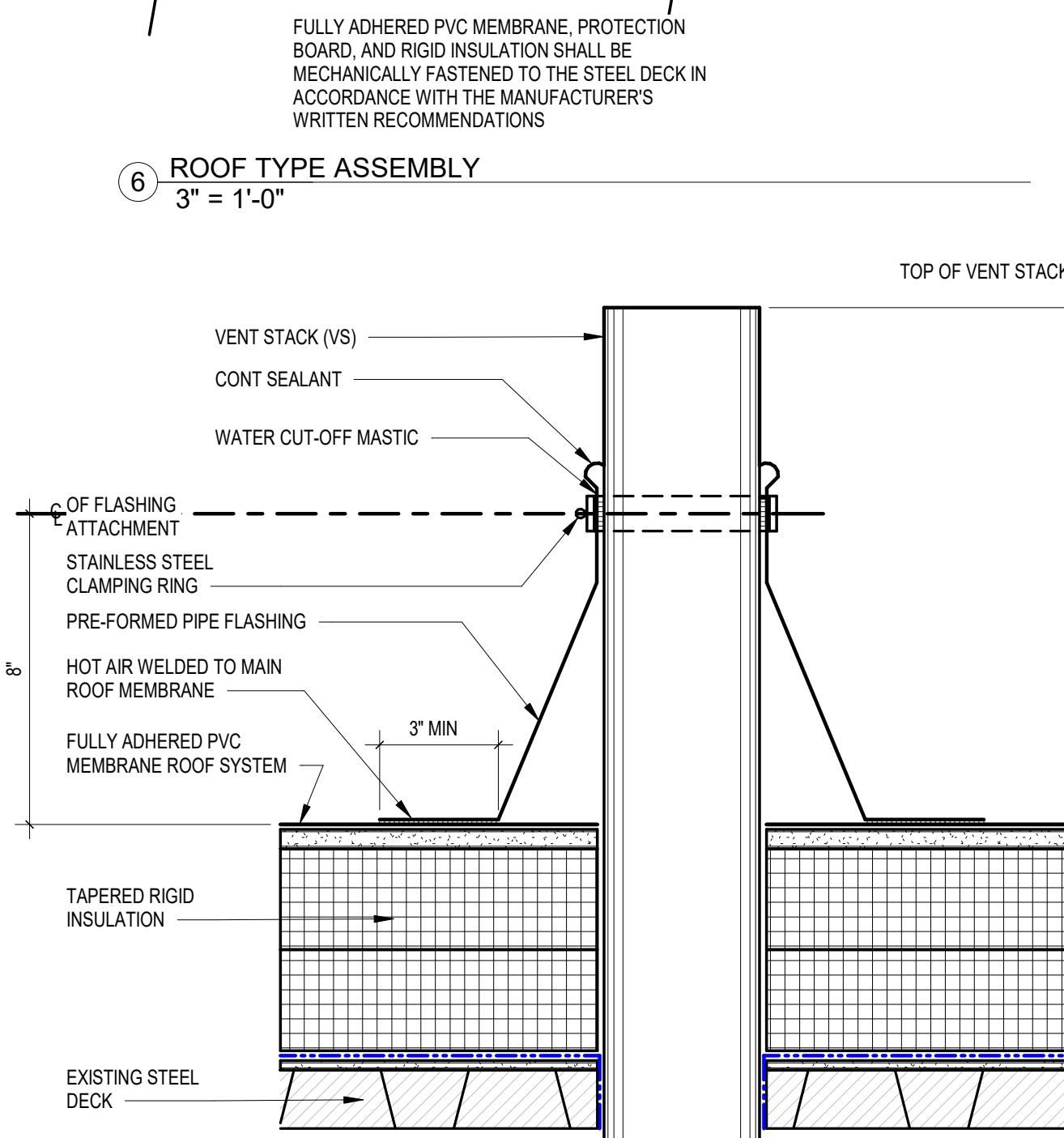
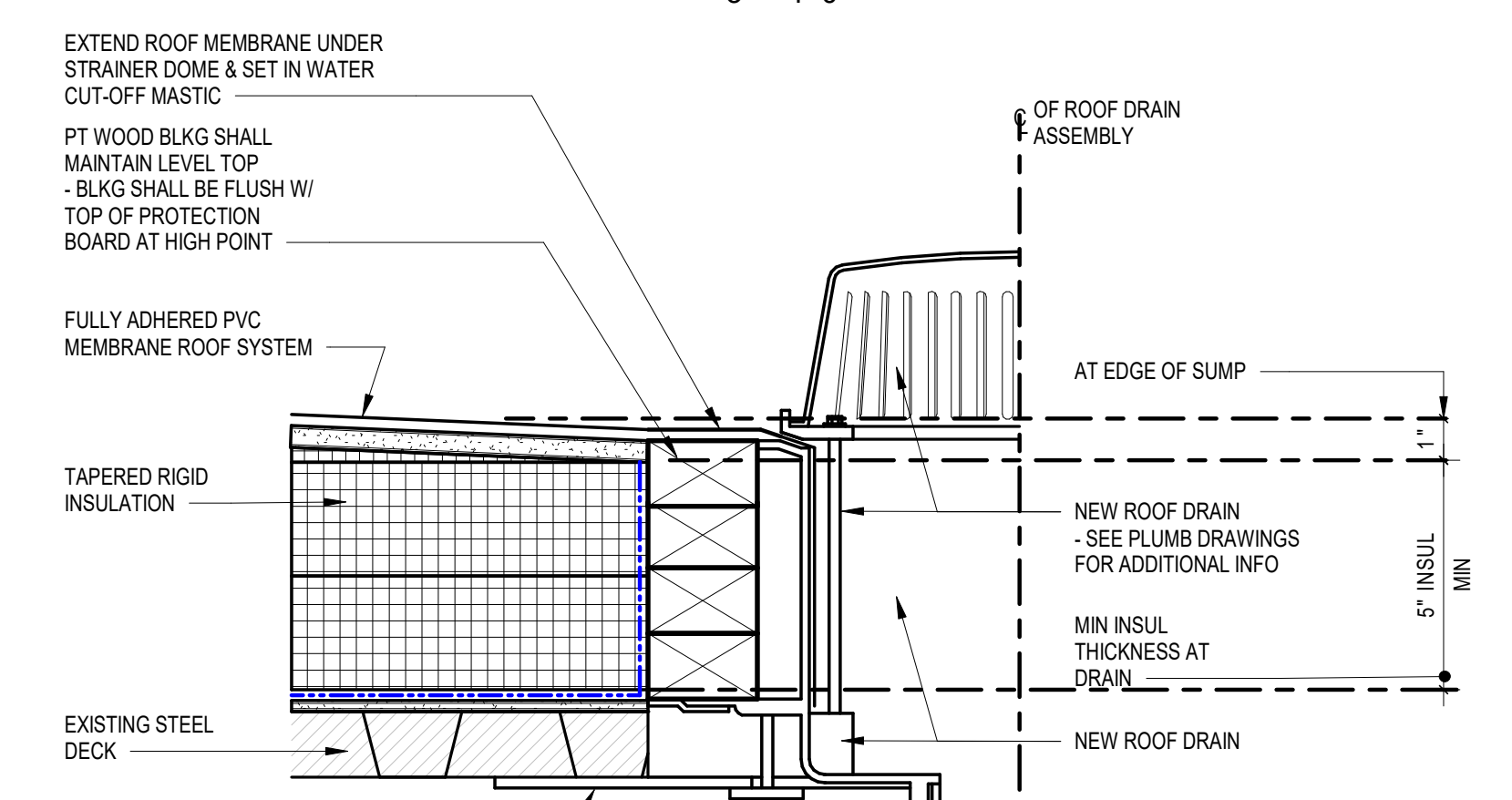
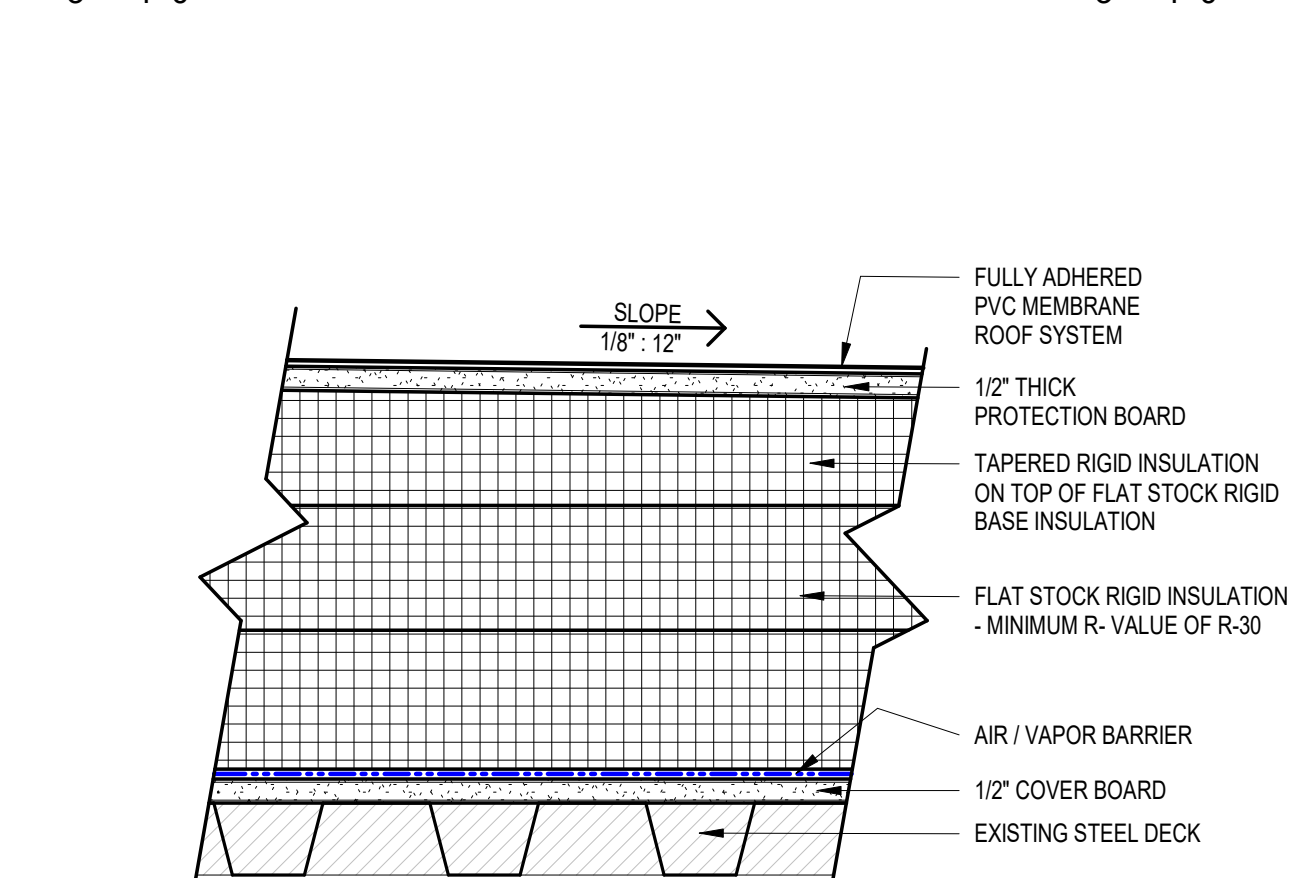
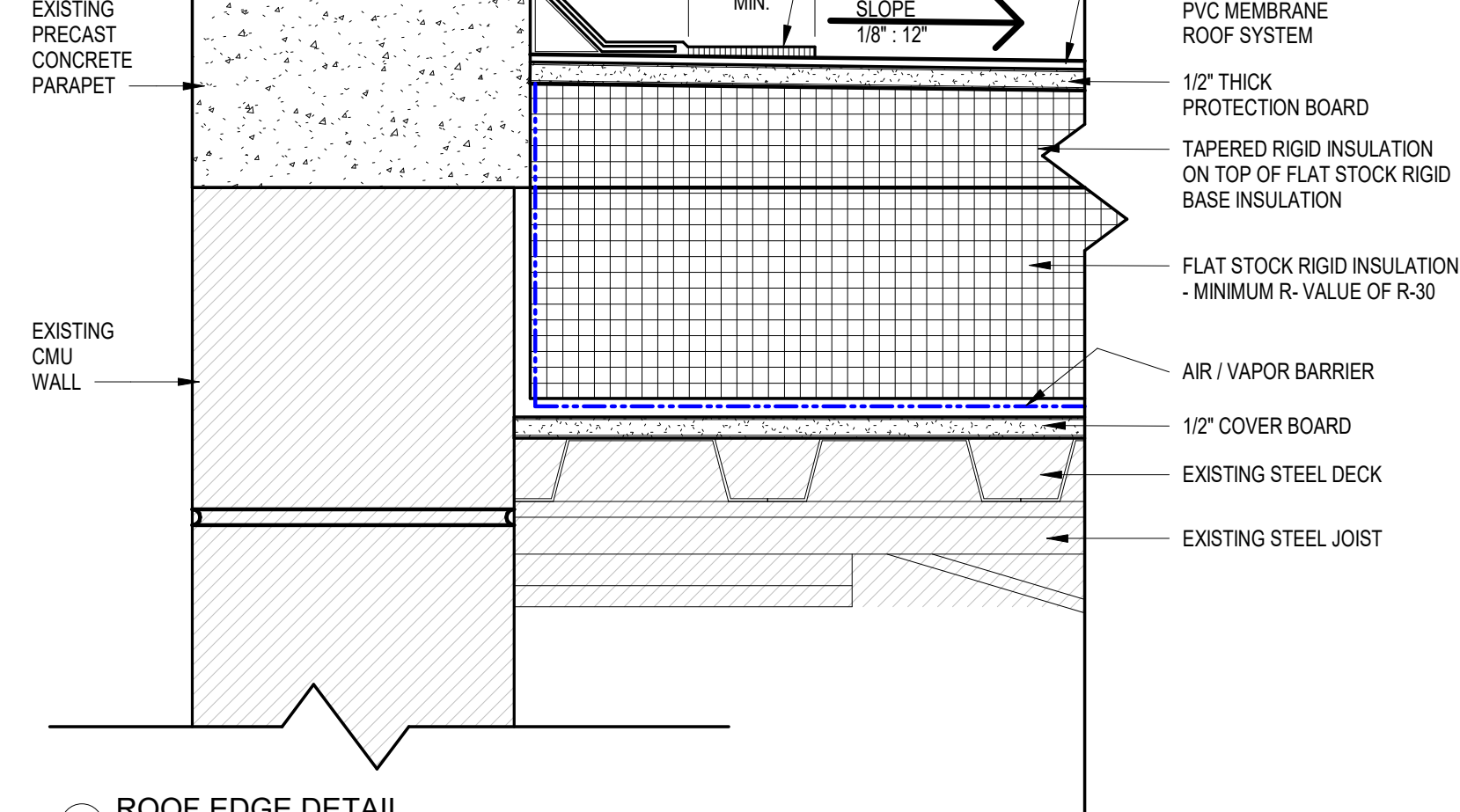
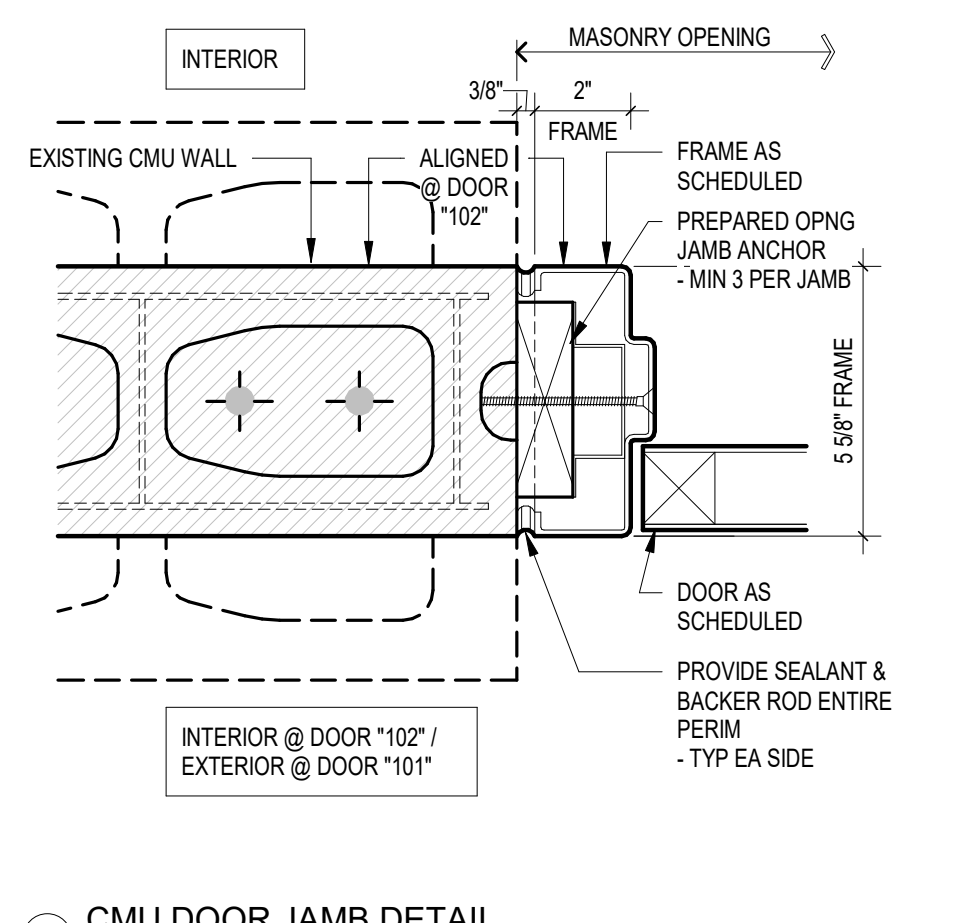
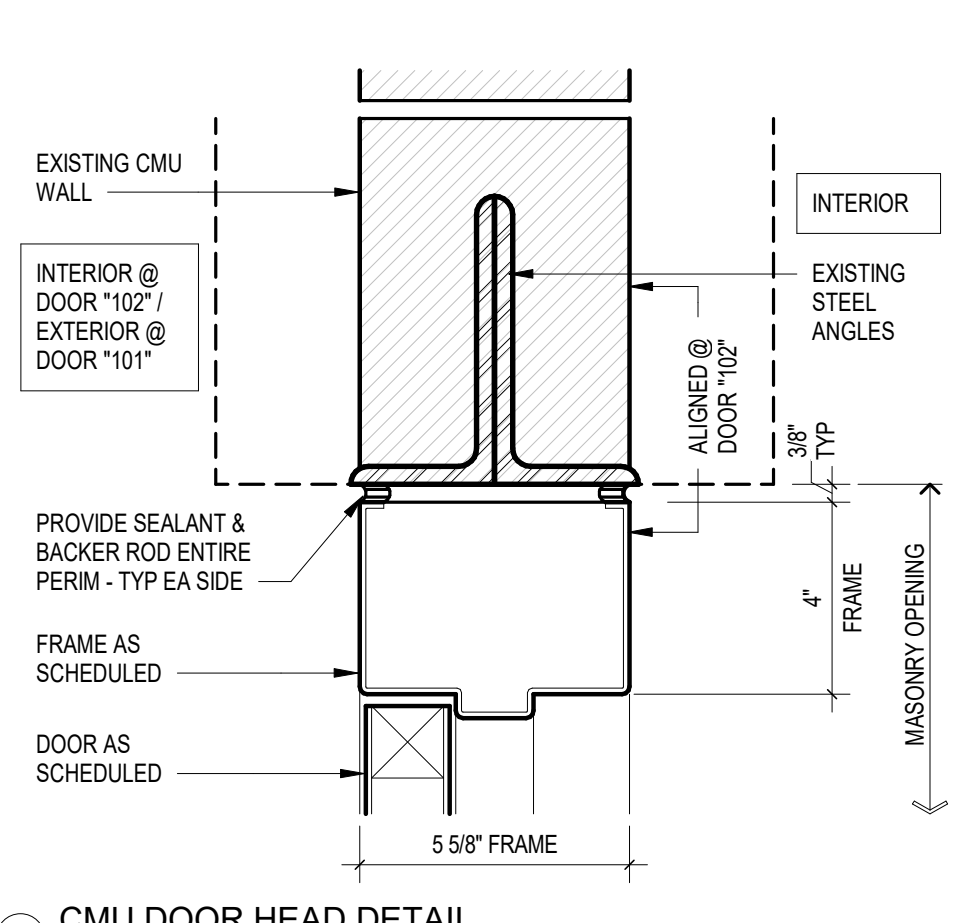
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Sheet Number:
SP-4.2

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DOOR ELEVATIONS & FRAMES SCHEDULE
1/4" = 1'-0"

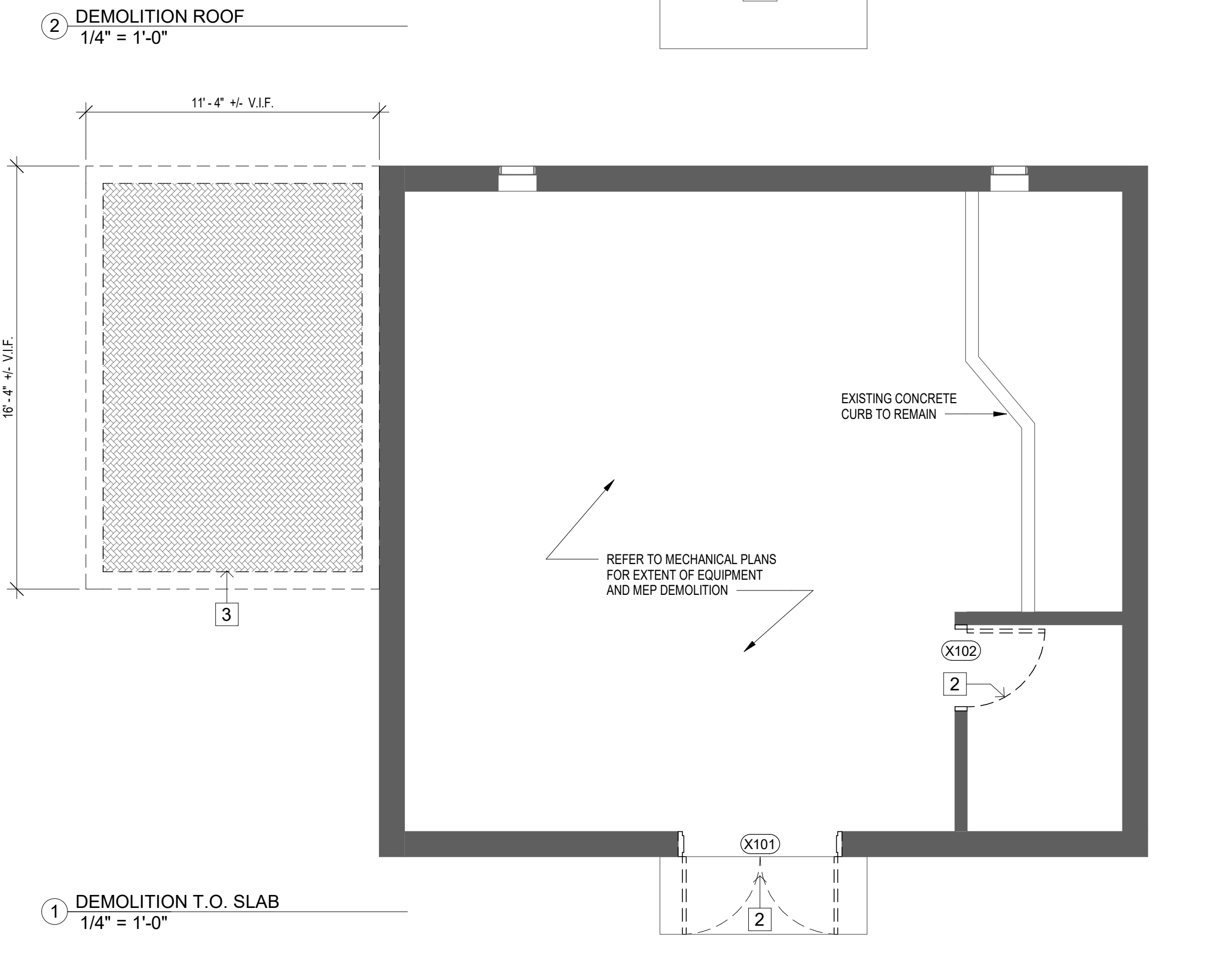
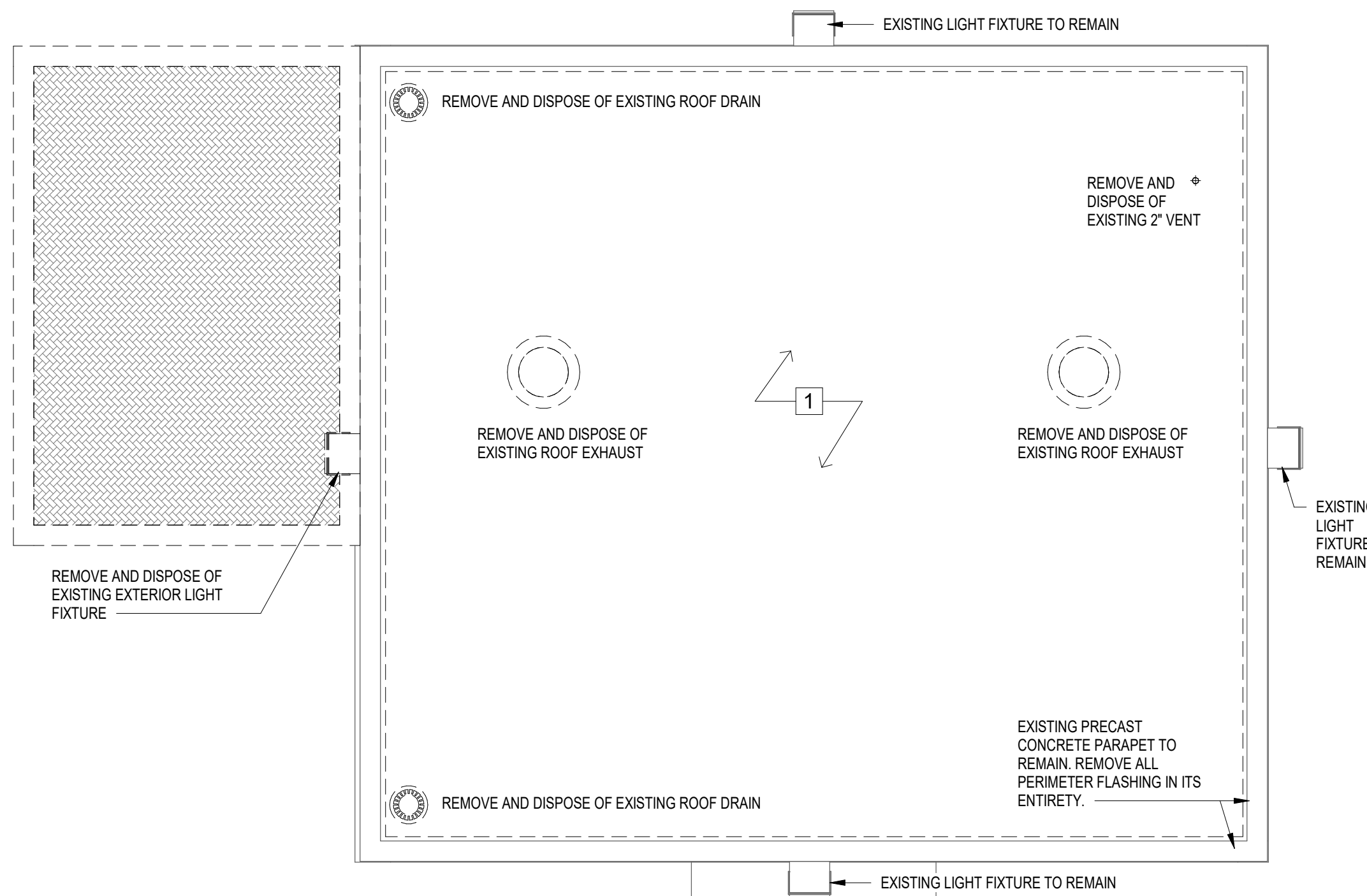


5 VENT STACK DETAIL
3" = 1'-0"

3 EXHAUST FAN CURB DETAIL
3" = 1'-0"

- SPECIFIC DEMOLITION NOTES**
- 1 REMOVE & DISPOSE OF EXISTING ROOF ASSEMBLY, ALL FLASHINGS, EXISTING RIGID INSULATION, AND COVER BOARD DOWN TO EXISTING METAL DECKING
 - 2 REMOVE AND DISPOSE OF DOOR AND FRAME IN ITS ENTIRETY
 - 3 REMOVE AND DISPOSE OF METAL GRATING & CONCRETE FOUNDATION WALLS OF EXISTING BACKWASH PIT TO DEPTH OF 2'-0" BELOW FINISH GRADE. FILL DEPRESSION WITH STRUCTURAL FILL.

- GENERAL DEMOLITION NOTES**
1. CONTRACTOR SHALL VISIT THE SITE TO VERIFY AND BE FULLY AWARE OF EXISTING CONDITIONS PRIOR TO START OF WORK. CONTRACTOR SHALL IDENTIFY ALL EXISTING ITEMS OF WORK SCHEDULED TO REMAIN OR SALVAGED FOR REUSE.
 2. ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED DEMOLITION PERMITS.
 3. COORDINATE ALL DEMOLITION OPERATIONS WITH OWNER FOR SHUTDOWN PERIODS AND SEQUENCE OF WORK. ARRANGE WITH OWNER AND/OR APPROPRIATE UTILITIES FOR SERVICE SHUTOFFS BEFORE BEGINNING DEMOLITION OPERATIONS. PROVIDE TEMPORARY DUST PARTITIONS, BARRICADES AND PROTECTIVE ENCLOSURES REQUIRED TO PROPERLY SECURE, ISOLATE AND WEATHERPROOF AREAS OF WORK AND EXISTING AREAS AND ELEMENTS TO REMAIN. THE CONTRACTOR SHALL PERFORM THE WORK OF THIS CONTRACT IN A MANNER THAT CAUSES NO DISRUPTION TO THE CONTINUOUS OCCUPATION OF THE BUILDING AND SITE FOR THEIR INTENDED PURPOSE.
 4. REMOVE ALL DEMOLISHED MATERIALS IN ACCORDANCE WITH LOCAL REGULATIONS.
 5. IT IS NOT THE INTENT TO SHOW EVERY PIECE OR ITEM TO BE REMOVED IN DEMOLITION WORK. PLUMBING, ELECTRICAL AND OTHER WORK RELATED TO A WALL, OR AREA SCHEDULED FOR DEMOLITION AND REMOVAL, SHALL BE PERFORMED WHETHER NOTED OR NOT.
 6. THE EXTENT OF ALL SPECIFIC DEMOLITION WORK SHALL BE COORDINATED WITH CONTRACT DOCUMENTS.
 7. CONTRACTOR TO PATCH/REPAIR/REFINISH, AS REQUIRED, ALL SURFACES EXPOSED BY DEMOLITION WORK WITH MATERIALS AND METHODS TO MATCH FINISH AND MAKE FLUSH WITH EXISTING ADJACENT SURFACES. WORK SHALL INCLUDE ALL LABOR AND MATERIALS ON ALL SURFACES REQUIRED TO RENDER SUBSTRATES ACCEPTABLE TO RECEIVE NEW FINISHES SPECIFIED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
 8. TERMINATE, CAP, AND REMOVE ALL ABANDONED ELECTRICAL, PLUMBING, MECHANICAL AND FIRE PROTECTION ITEMS BACK TO ITS SOURCE. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.
 9. WHERE EXISTING FINISHES ARE INDICATED TO REMAIN AS BASE MATERIAL SURFACES FOR INSTALLATION OF NEW FINISHES, REMOVE ALL PROJECTIONS AND VOIDS AND SECURE OR REMOVE AND REPLACE ANY EXISTING LOOSE OR OTHERWISE UNSUITABLE SUBSTRATE MATERIAL.
 10. CONTRACTOR TO PROTECT ALL ITEMS TO REMAIN DURING DEMOLITION. ALL ITEMS DAMAGED DURING DEMOLITION ARE TO BE REPLACED AT NO EXPENSE TO THE OWNER.
 11. CONTRACTOR IS RESPONSIBLE FOR MEANS & METHODS IN A SAFE MANNER FOR ALL DEMOLITION WORK.
 12. - ASBESTOS CONTAINING MATERIALS ARE PRESENT AND ARE TO BE DEMOLISHED UNDER THIS PROJECT. REFER TO SPECIFICATION, DIV 2, FOR HAZARDOUS MATERIALS AND QUANTITIES.



Project:
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Consultants:

Revisions:

Rev	Date	Description



Issued For:
CONSTRUCTION DOCUMENTS

SCALE: AS NOTED

Date: JANUARY 28, 2019

Drawn By: MMS

Reviewed By: JRC

Approved By: DGT

W&S Project No: 2180615

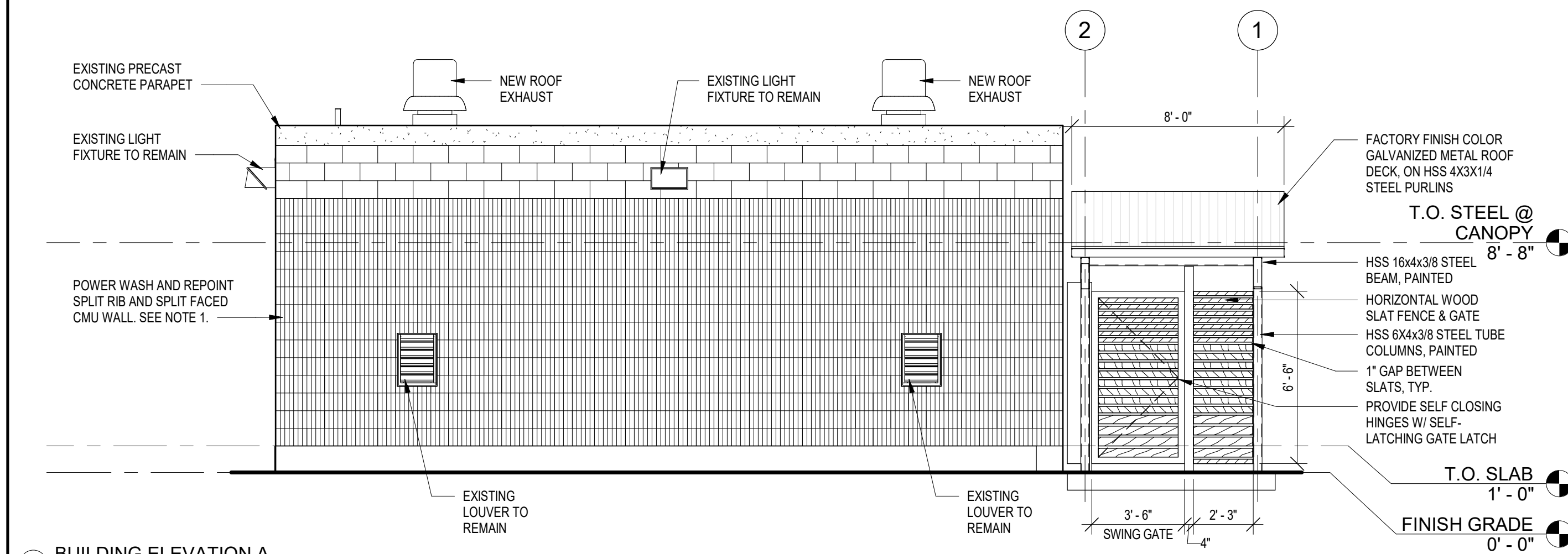
W&S File No:

Drawing Title:
PUMP HOUSE BUILDING DEMOLITION PLANS, NOTES AND DETAILS

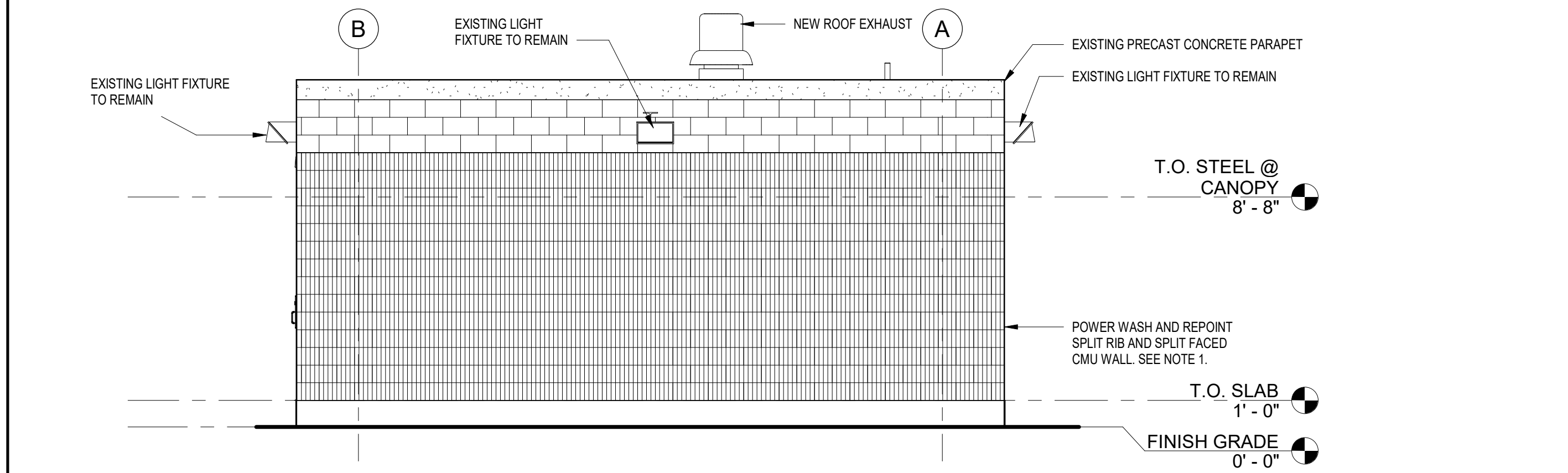
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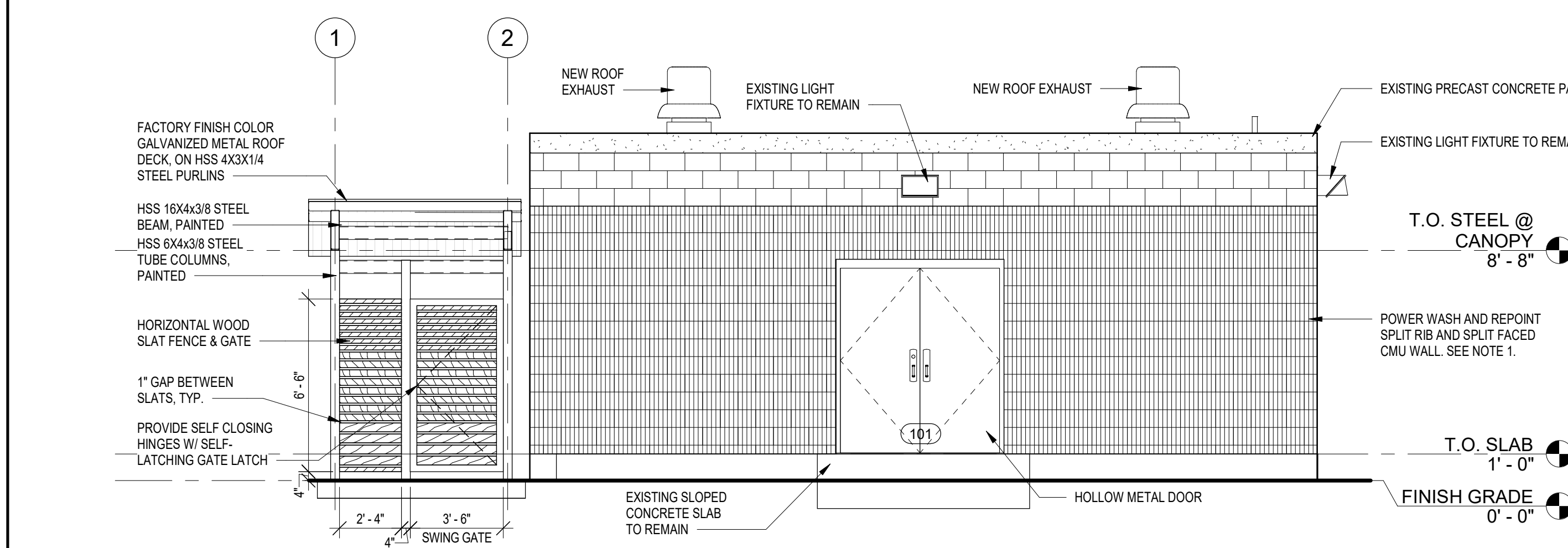
Rev	Date	Description



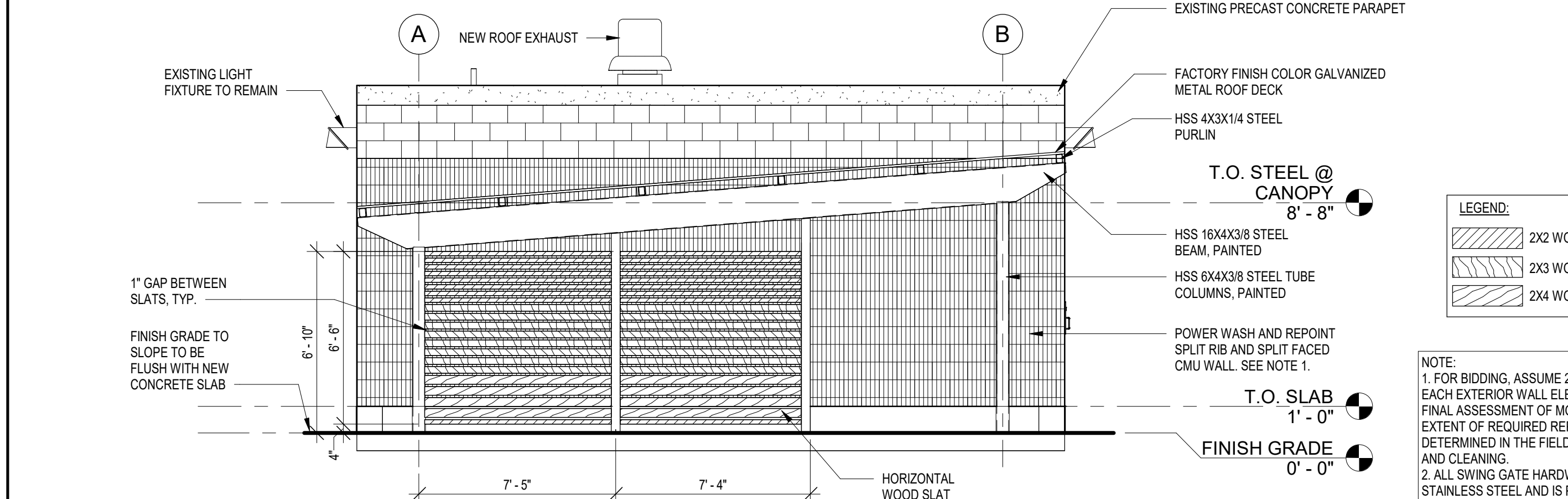
6 BUILDING ELEVATION A
1/4" = 1'-0"



5 BUILDING ELEVATION B
1/4" = 1'-0"



4 BUILDING ELEVATION C
1/4" = 1'-0"



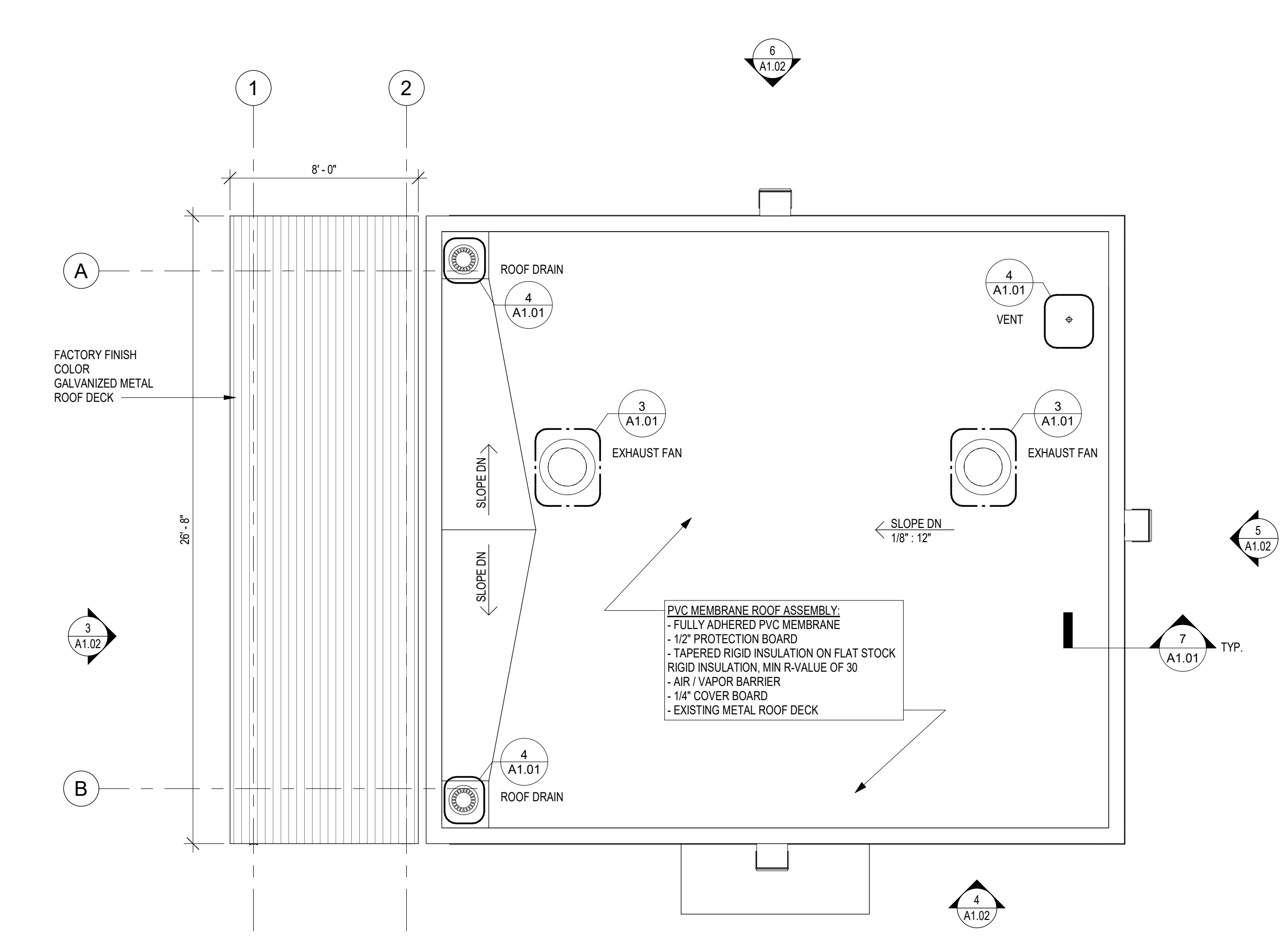
3 BUILDING ELEVATION D
1/4" = 1'-0"

LEGEND:

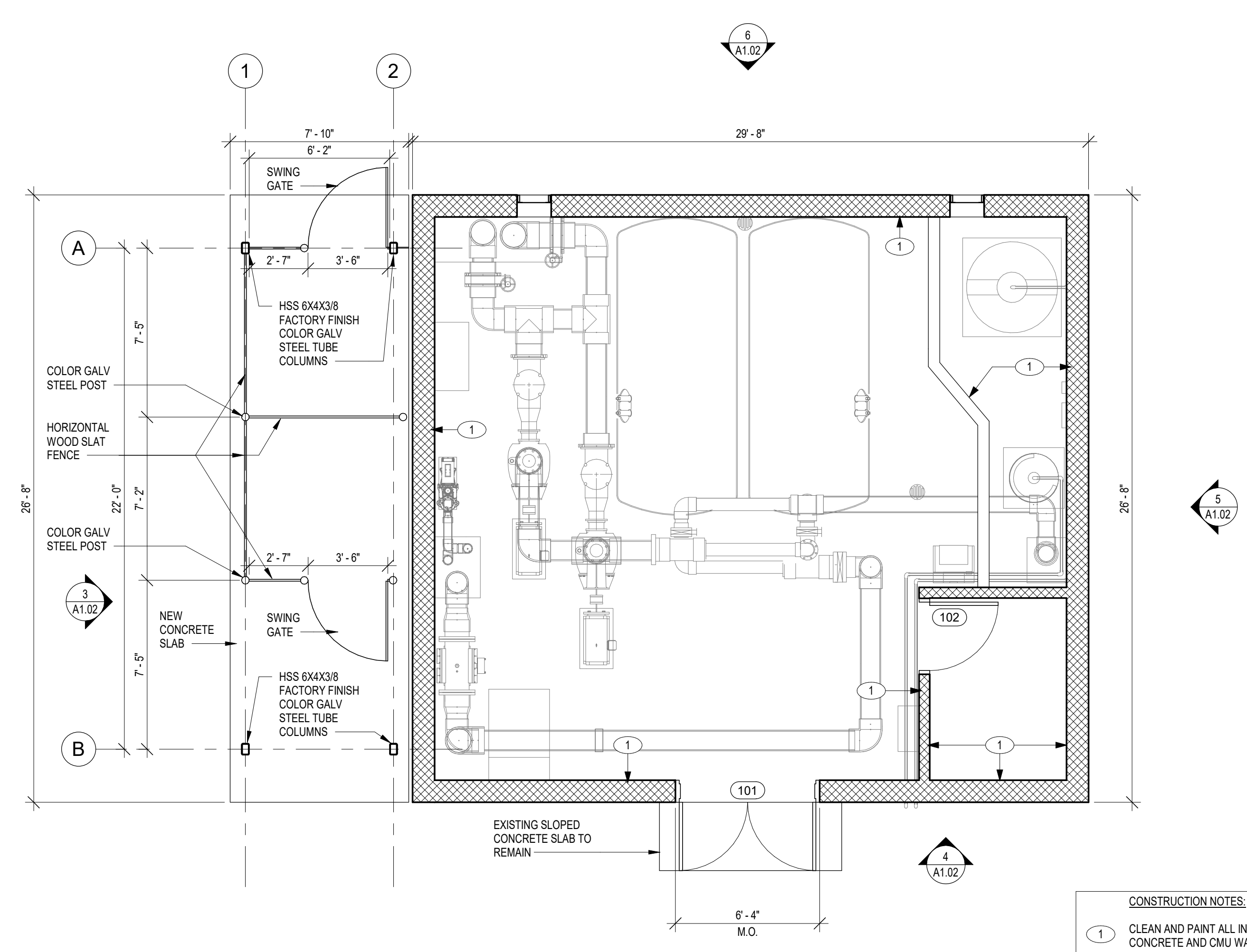
- 2X2 WOOD SLAT
- 2X3 WOOD SLAT
- 2X4 WOOD SLAT

NOTE:

- FOR BIDDING, ASSUME 25% SF REPOINTING OF EACH EXTERIOR WALL ELEVATION WILL BE REQUIRED. FINAL ASSESSMENT OF MORTAR CONDITION AND EXTENT OF REQUIRED REPOINTING WILL BE DETERMINED IN THE FIELD AFTER POWER WASHING AND CLEANING.
- ALL SWING GATE HARDWARE SHALL BE MADE OF STAINLESS STEEL AND IS POWDER-COATED BLACK.
- INSTALLATION OF SWING GATE HARDWARE SHALL BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- G.C. TO SUBMIT FULL SHOP DRAWINGS OF WOOD SLAT FENCE AND SWING GATE FOR APPROVAL.



2 ROOF
1/4" = 1'-0"



1 T.O. SLAB
1/4" = 1'-0"

CONSTRUCTION NOTES:

- CLEAN AND PAINT ALL INTERIOR CONCRETE AND CMU WALLS.

1.0 - GENERAL

- 1.01 THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS. REFER TO CIVIL, ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR LOCATION, DIMENSIONS, AND DETAILS OF OPENINGS, SLEEVES, EMBEDMENTS, INSERTS, PADS, CURBS, DEPRESSIONS, ANCHOR BOLTS, AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.
- 1.02 THE CONTRACTOR IS RESPONSIBLE FOR CHECKING, COORDINATING AND VERIFYING ALL DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY DISCREPANCY TO THE ARCHITECT AND ENGINEER AS A REQUEST FOR INFORMATION (RFI) BEFORE PROCEEDING WITH WORK.
- 1.03 THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING IN THE FIELD THE EXISTENCE AND LOCATION OF OVERHEAD, BURIED AND/OR EMBEDDED UTILITIES, AND DETERMINING LOCATIONS OF ALL EMBEDDED MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS AFFECTED BY THE WORK OF THIS CONTRACT.
- 1.04 ALL WORK IS TO CONFORM WITH THE FOLLOWING CODES AND STANDARDS:
 - (A) 780 CMR: MASSACHUSETTS AMENDMENTS MASSACHUSETTS STATE BUILDING CODE - 9TH EDITION (MSBC)
 - (B) INTERNATIONAL BUILDING CODE, (IBC 2015)
 - (C) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" - AMERICAN CONCRETE INSTITUTE (ACI 318)
 - (D) "MANUAL OF STEEL CONSTRUCTION" - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360)
 - (E) "STRUCTURAL WELDING CODE - STEEL" - AMERICAN WELDING SOCIETY (AWS D1.1)
 - (F) "SEISMIC PROVISION FOR STRUCTURAL STEEL BUILDINGS" - AMERICAN INSTITUTE OF STEEL CONSTRUCTION, (AISC)
 - (G) "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" - AMERICAN SOCIETY OF CIVIL ENGINEERS, (ASCE 7-05)

- FOR ADDITIONAL CODES AND STANDARDS REFER TO SPECIFICATIONS.
- 1.05 THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF UNFORSEEN CONDITIONS THAT MAY BE UNCOVERED DURING DEMOLITION AND CONSTRUCTION AS A REQUEST FOR INFORMATION (RFI) BEFORE PROCEEDING WITH WORK.
 - 1.06 IN ACCORDANCE WITH SPECIFICATION SECTION 01 45 00, TESTING AND INSPECTION OF STRUCTURAL WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COSTS FOR TESTING AND INSPECTIONS WILL BE PAID BY THE CONTRACTOR. PROVIDE TEST RESULTS TO THE ENGINEER IN A TIMELY MANNER.
 - 1.07 THE CONTRACTOR SHALL DESIGN AND PROVIDE ALL REQUIRED SHORING AND TEMPORARY BRACING TO RESIST FORCES ON THE STRUCTURE THROUGHOUT THE CONSTRUCTION PERIOD.
- 2.0 - CAST IN PLACE CONCRETE
- 2.01 CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301).
 - 2.02 CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED AND PLACED IN THE PRESENCE OF A REPRESENTATIVE OF AN APPROVED TESTING AGENCY.
 - 2.03 UNLESS NOTED OTHERWISE, CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI.
 - 2.04 ALL PERMANENTLY EXPOSED VERTICAL AND HORIZONTAL CONCRETE SURFACES SHALL BE TREATED OR SEALED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
 - 2.05 SEALANT FOR CONTROL/CONTRACTION JOINTS AND SAW CUT JOINTS SHALL BE SIKADUR 51 MANUFACTURED BY SIKA OR AN APPROVED EQUAL.
 - 2.06 CONCRETE EXPOSED TO WEATHER (FREEZE-THAW CONDITIONS) IN THE FINISHED PROJECT SHALL BE AIR ENTRAINED PER SPECIFICATIONS REQUIREMENTS.
 - 2.07 A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.
 - 2.08 CONCRETE SLABS SHALL BE PLACED SO THAT THE SLAB THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS.
 - 2.09 ALL CONCRETE SHALL BE WATER CURED UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

3.0 - CAST IN PLACE CONCRETE REINFORCEMENT

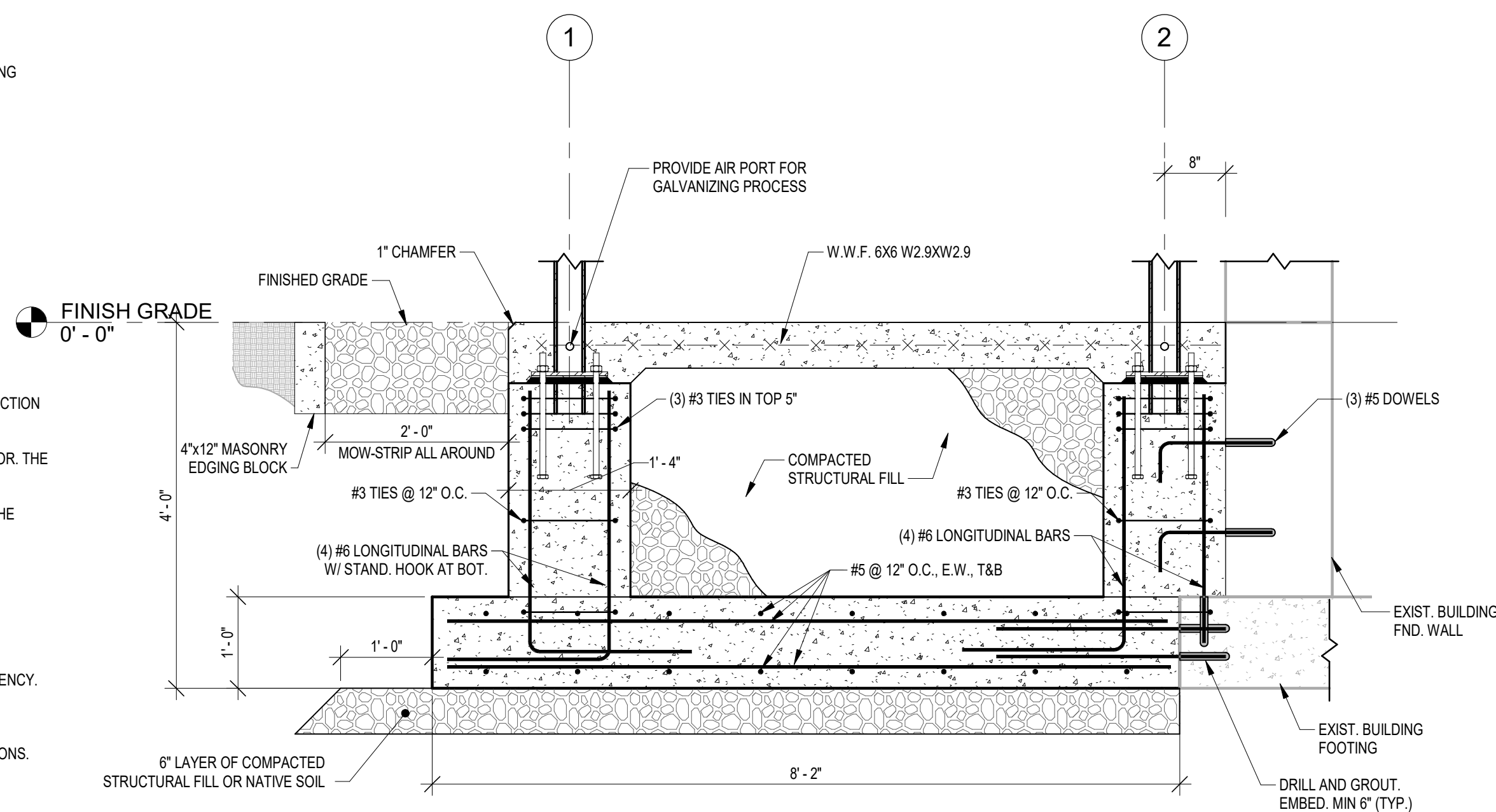
- 3.01 REINFORCEMENT DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO "ACI DETAILING MANUAL" - SP-66, "CRSI MANUAL OF STANDARD PRACTICE".
- 3.02 STEEL REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL CONFORM TO ASTM A615 GRADE 60.
- 3.03 REINFORCING STEEL SHALL BE UNCOATED AND DEFORMED.
- 3.04 MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE 3".
- 3.05 REINFORCING STEEL SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS, CORNERS, AND INTERSECTIONS UNLESS OTHERWISE NOTED. REINFORCING STEEL SHALL BE LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS, UNLESS OTHERWISE NOTED.
- 3.06 FOR REINFORCING STEEL SPLICE LAP LENGTHS REFER TO THE TABLE PROVIDED UNLESS OTHERWISE INDICATED.
- 3.07 MECHANICAL SPLICES SHALL BE PERMITTED SUBJECT TO APPROVAL BY THE ENGINEER. MECHANICAL SPLICES SHALL DEVELOP AT LEAST 125 PERCENT OF THE SPECIFIED YIELD STRENGTH OF THE BAR. NO WELDED CONNECTIONS ARE PERMITTED.
- 3.08 NOTIFY THE TESTING LAB AND ENGINEER A MINIMUM OF 48 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT IN ORDER TO ACCOMMODATE INSPECTION OF REINFORCEMENT AND CONCRETE TESTING. NO CONCRETE SHALL BE PLACED WITHIN 48 HOURS OF SUCH NOTIFICATION.
- 3.09 WHERE REINFORCEMENT IS REQUIRED IN SECTION, REINFORCEMENT IS CONSIDERED TYPICAL WHEREVER THE SECTIONS APPLIES.
- 3.10 DOWELS SHALL MATCH BAR SIZE, NUMBER AND SPACING, UNLESS NOTED OTHERWISE.

4.0 - STRUCTURAL STEEL

- 4.01 STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC "MANUAL OF STEEL CONSTRUCTION", STEEL BUILDING AND BRIDGES" (AISC MARCH 18, 2005).
- 4.02 STRUCTURAL STEEL SHALL BE NEW STEEL CONFORMING TO THE FOLLOWING:
 - (A) OTHER STEEL SHAPES, PLATES AND BARS, ASTM A572 OR ASTM A36.
 - (B) STRUCTURAL TUBING, ASTM A500 GR B.
- 4.03 ALL WELDED CONNECTIONS SHALL BE MADE BY APPROVED CERTIFIED WELDERS AND SHALL CONFORM TO A.W.S. SPECIFICATIONS AMENDED TO DATE. ELECTRODES SHALL BE E70XX.
- 4.04 BOLTS SHALL CONFORM TO ASTM A325 AND BE INSTALLED SNUG-TIGHT UNLESS NOTED OTHERWISE. BLIND BOLTS SHALL BE AS MANUFACTURED BY LINDAPTER OR APPROVED EQUAL.
- 4.05 STRUCTURAL STEEL FRAMING SHALL BE WITHIN TOLERANCE BEFORE CONNECTIONS ARE FINALLY BOLTED OR WELDED.
- 4.06 FIELD CUTTING OF STRUCTURAL STEEL OR ANY FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER FOR EACH SPECIFIC USE.
- 4.07 STRUCTURAL STEEL SHAPES AND PLATES EXPOSED TO WEATHER AND AT CANOPIES SHALL BE HOT-DIPPED GALVANIZED PER ASTM A123 U.N.O. FASTENERS SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153 U.N.O. HOT-DIPPED GALVANIZING SHALL ALSO CONFORM TO ASTM A385. THE GALVANIZER SHALL SUBMIT A CERTIFICATE OF CONFORMANCE FOR RECORD.
- 4.08 PROVIDE FIELD TOUCH-UP AND REPAIR OF GALVANIZING AS REQUIRED PER ASTM A780 USING AN INORGANIC ZINC-RICH PRIMER.
- 4.09 WHEN DISSIMILAR METALS ARE IN CONTACT (E.G. STAINLESS STEEL IN CONTACT WITH GALVANIZED STEEL), COAT SURFACE WITH COAL TAR EPOXY OR PROVIDE OTHER APPROVED MEANS TO PROVIDE A BARRIER.
- 4.10 WELDS SHALL BE 1/4" FILLET WELDS MINIMUM UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 4.11 PROVIDE TEMPORARY ERECTION BRACING AND SUPPORTS TO HOLD STRUCTURAL STEEL FRAMING SECURELY IN POSITION. SUCH TEMPORARY BRACING AND SUPPORTS SHALL NOT BE REMOVED UNTIL PERMANENT BRACING HAS BEEN INSTALLED.
- 4.12 PROVIDE 1/4" WELDED CAP PLATES AT HSS MEMBERS.
- 4.13 PROVIDE AIR PORTS IN HSS MEMBERS FOR GALVANIZING PROCESS.
- 4.14 SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR APPROVAL PRIOR TO FABRICATION.

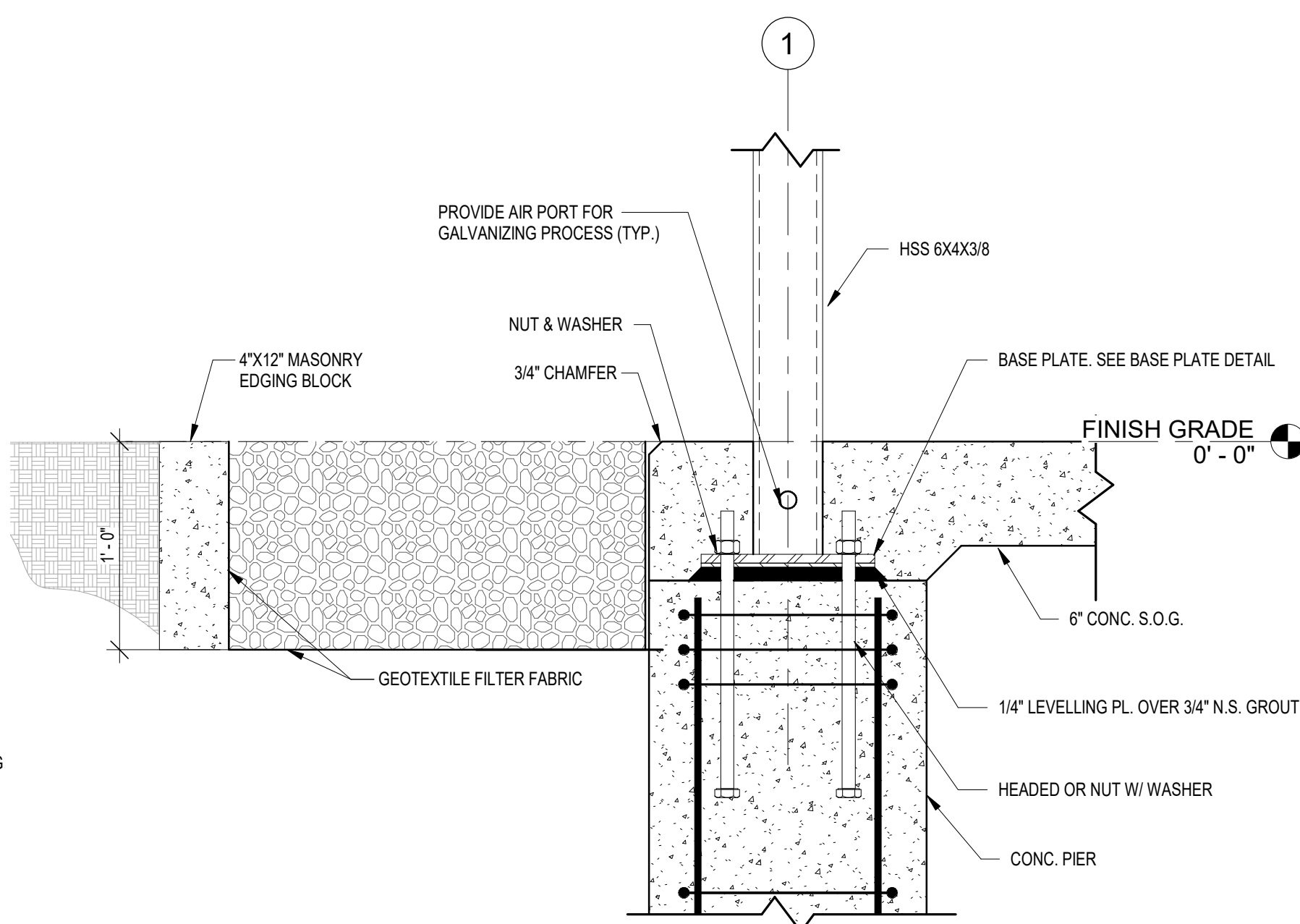
5.0 DESIGN LOADS

- LOADS, LOADING CONDITIONS AND COMBINATIONS SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE BUILDING CODE 8TH EDITION, IBC 2009 AND ASCE 7-10 AS APPLICABLE. LOADS DESIGNATED BY "PSF" ARE UNIFORM LOADS, THOSE DESIGNATED BY "LB" ARE CONCENTRATED LOADINGS AND SHALL BE APPLIED AS REQUIRED BY THE MSBC.
- BUILDING OCCUPANCY CATEGORY II
- 5.01 DEAD LOADS
 - (A) SELF-WEIGHT OF ALL ATTACHED AND SUSPENDED ELEMENTS, CONSULT APPLICABLE DRAWINGS AND TRADES FOR FURTHER INFORMATION
 - 5.02 LIVE LOADS
 - (A) ROOF LIVE LOADS
 - (1) CONSTRUCTION, 20 PSF, 300 LB
 - 5.03 ROOF SNOW LOAD
 - (A) GROUND SNOW LOAD, P_G, 40 PSF
 - (B) FLAT ROOF SNOW LOAD, P_F, 30 PSF
 - (C) SNOW EXPOSURE FACTOR, C_E, 1.0
 - (D) SNOW LOAD IMPORTANCE FACTOR, I, 1.0, II
 - (E) THERMAL FACTOR, C_T, 1.2
 - 5.04 WIND DESIGN DATA
 - (A) BASIC WIND SPEED, V, 127 MPH
 - (B) WIND IMPORTANCE FACTOR, I, 1.0, II
 - (C) WIND EXPOSURE, B



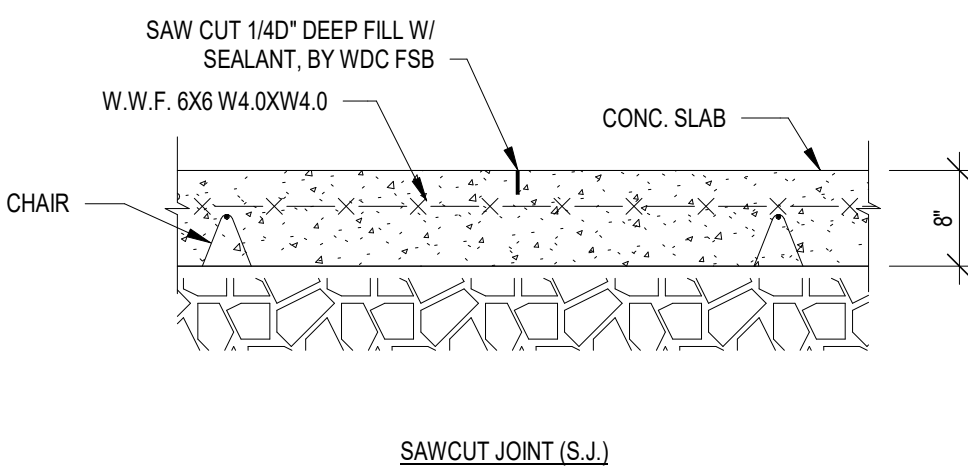
1 FOOTING DETAIL (TYPICAL)

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



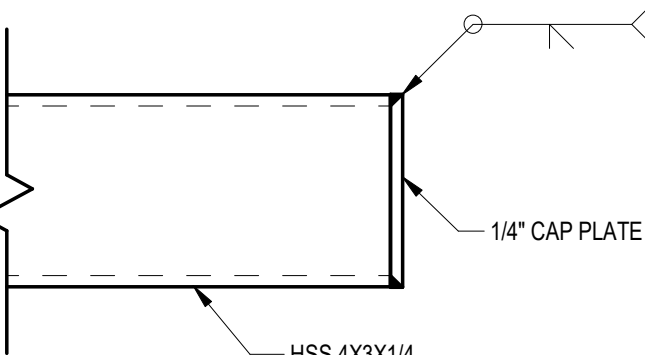
2 BASE PLATE DETAIL

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



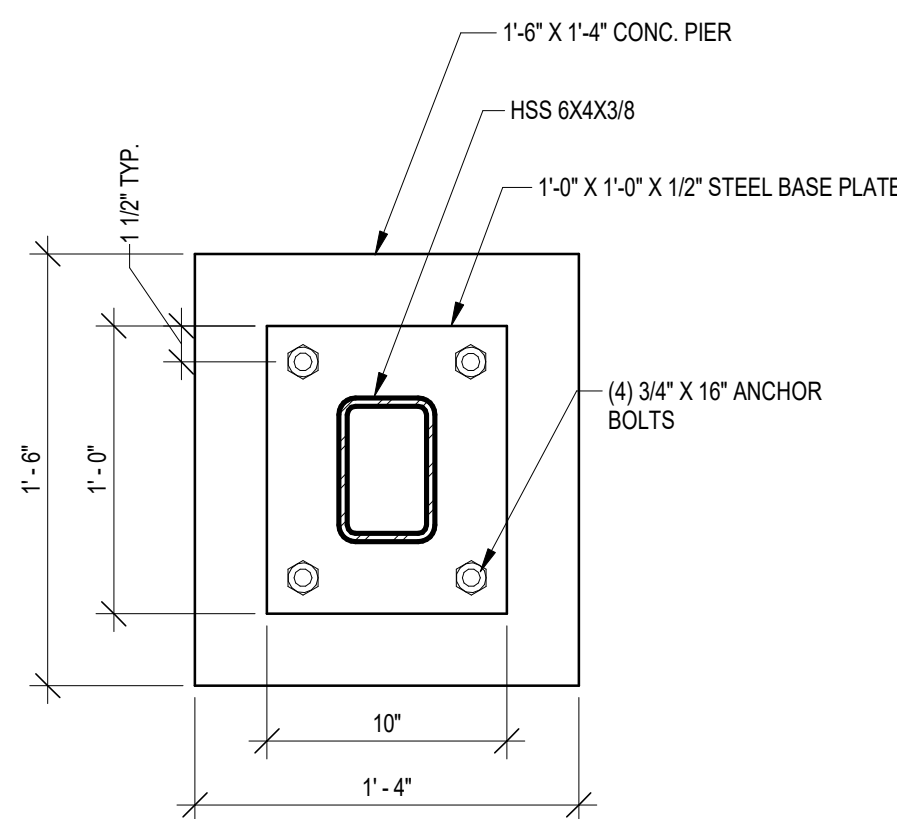
3 SLAB ON GRADE DETAIL

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



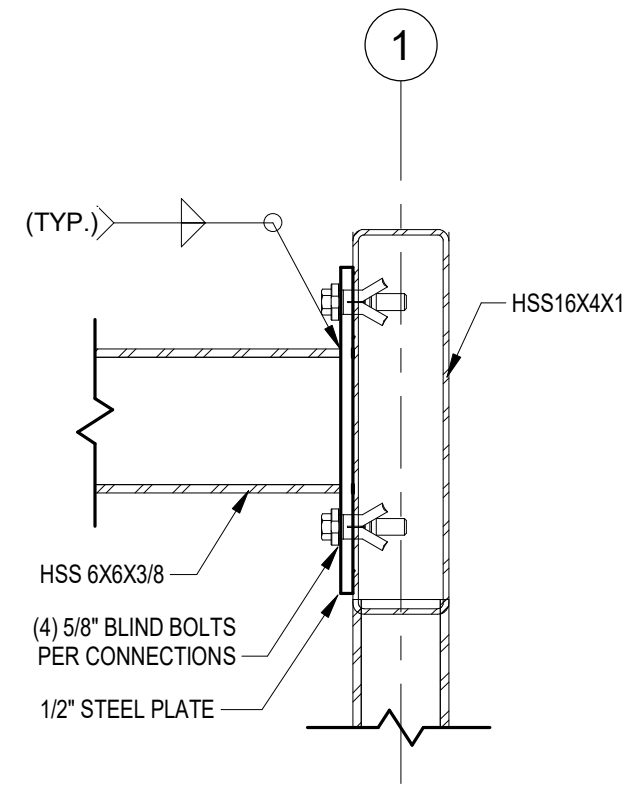
4 TYPICAL DETAIL AT PURLIN

SCALE: 3" = 1'-0"



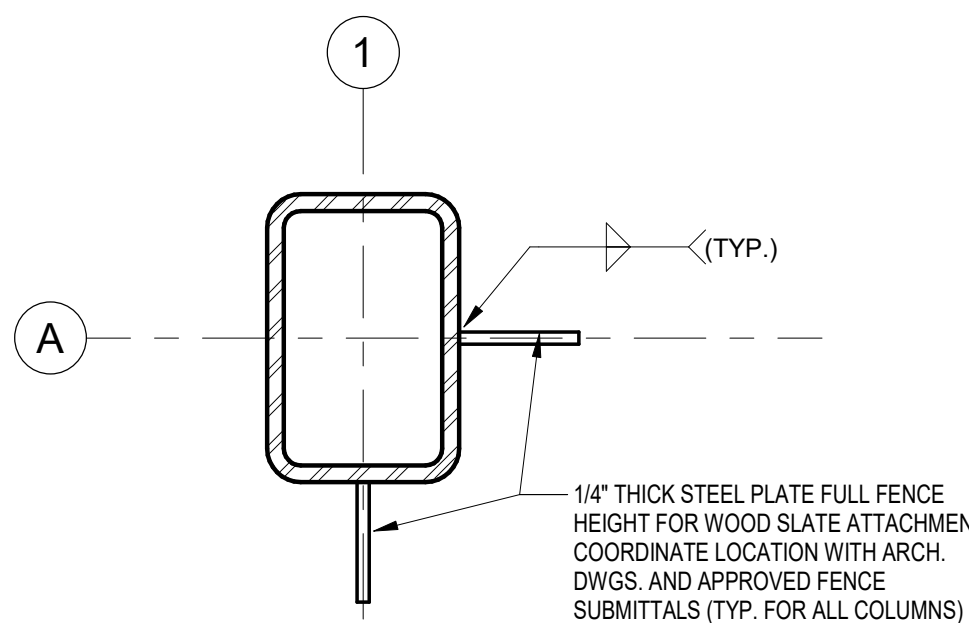
5 BASE PLATE DETAIL

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



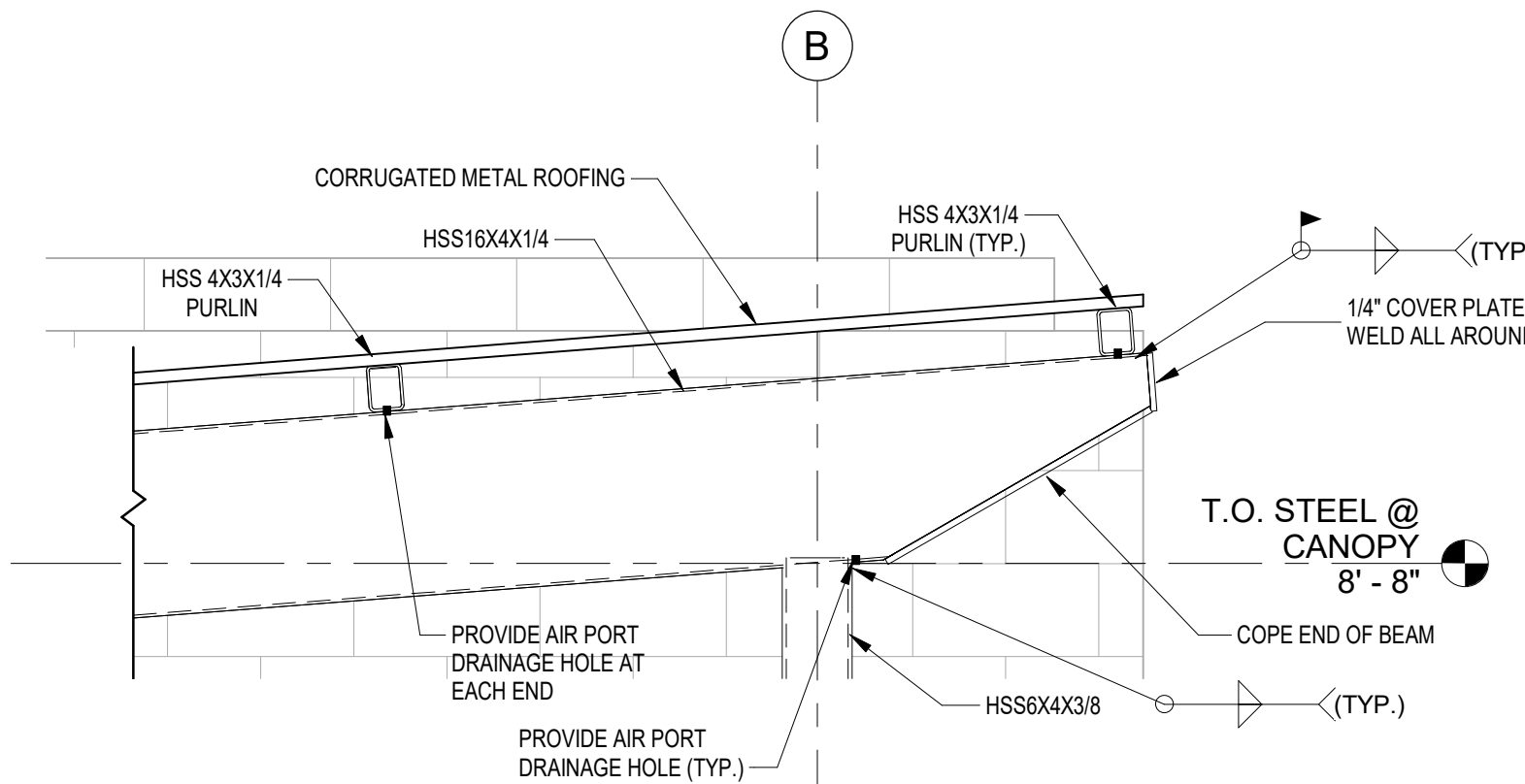
6 FRAME CONNECTION DETAIL

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



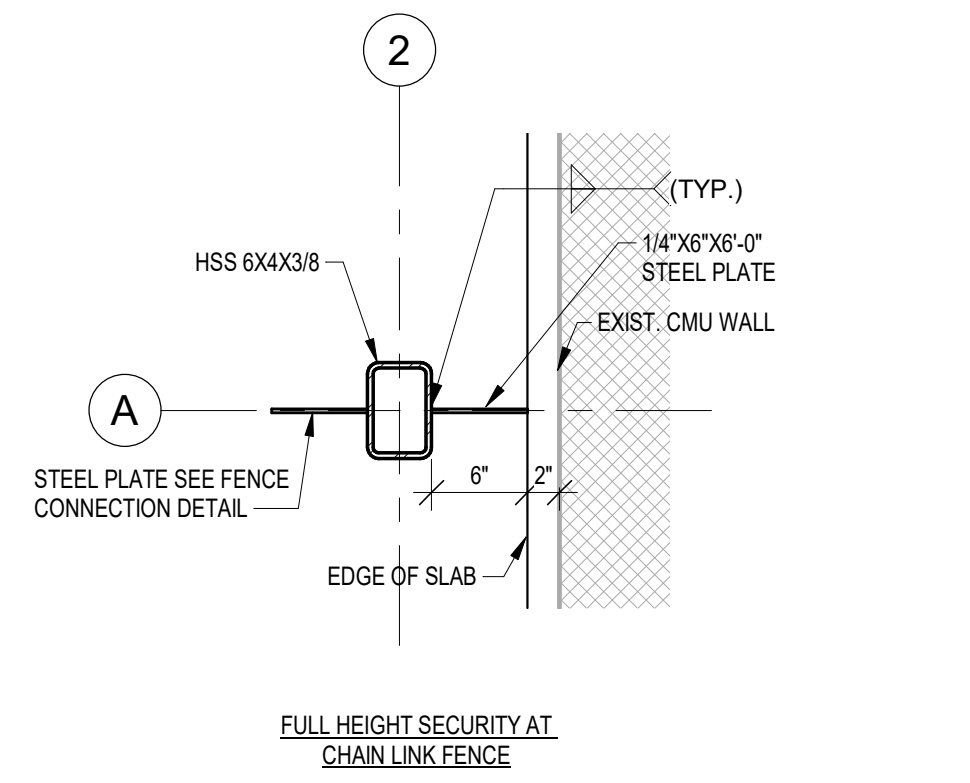
7 FENCE CONNECTION PLATE

SCALE: 3" = 1'-0"



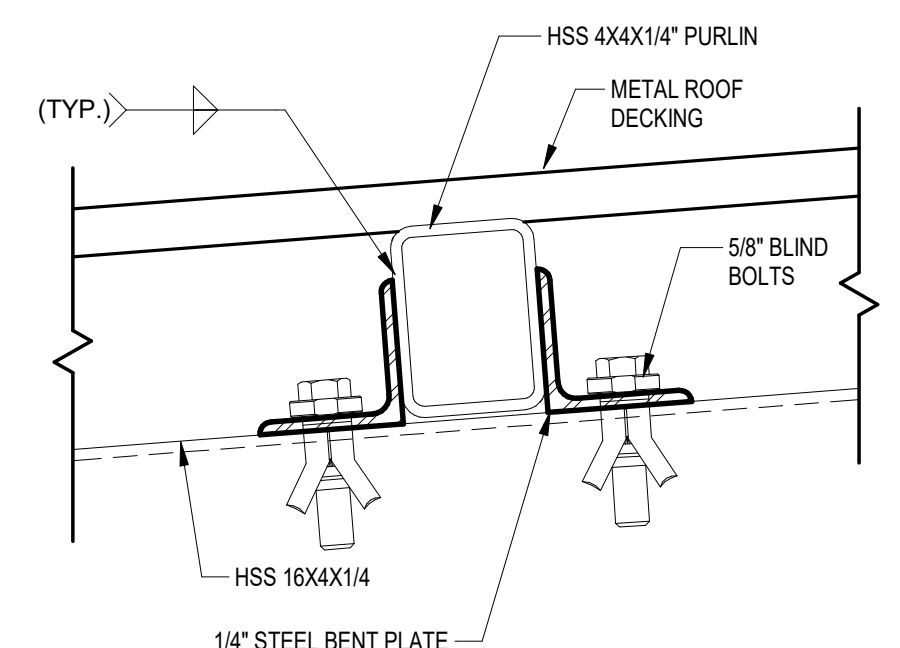
8 CONNECTION DETAIL

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



9 STEEL CLOSURE PLATE DETAIL

SCALE: 1" = 1'-0"



10 PURLIN CONNECTION

SCALE: 3" = 1'-0"

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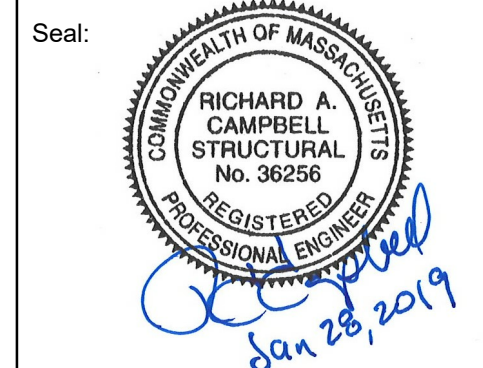
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Revisions:

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Issued For:
CONSTRUCTION DOCUMENTS

SCALE: AS NOTED

Date: JANUARY 28, 2019
Drawn By: NY
Reviewed By: CJW
Approved By: RAC
W&S Project No: 2180615
W&S File No:

Drawing Title:
STRUCTURAL GENERAL NOTES & TYPICAL DETAILS

Sheet Number:
S0.00

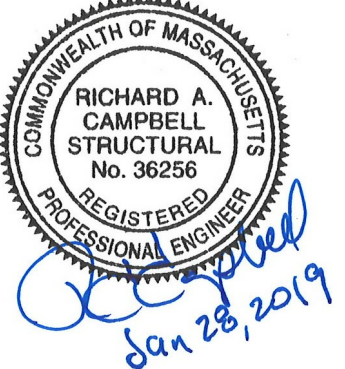


Consultants:

Revisions:

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Seal:



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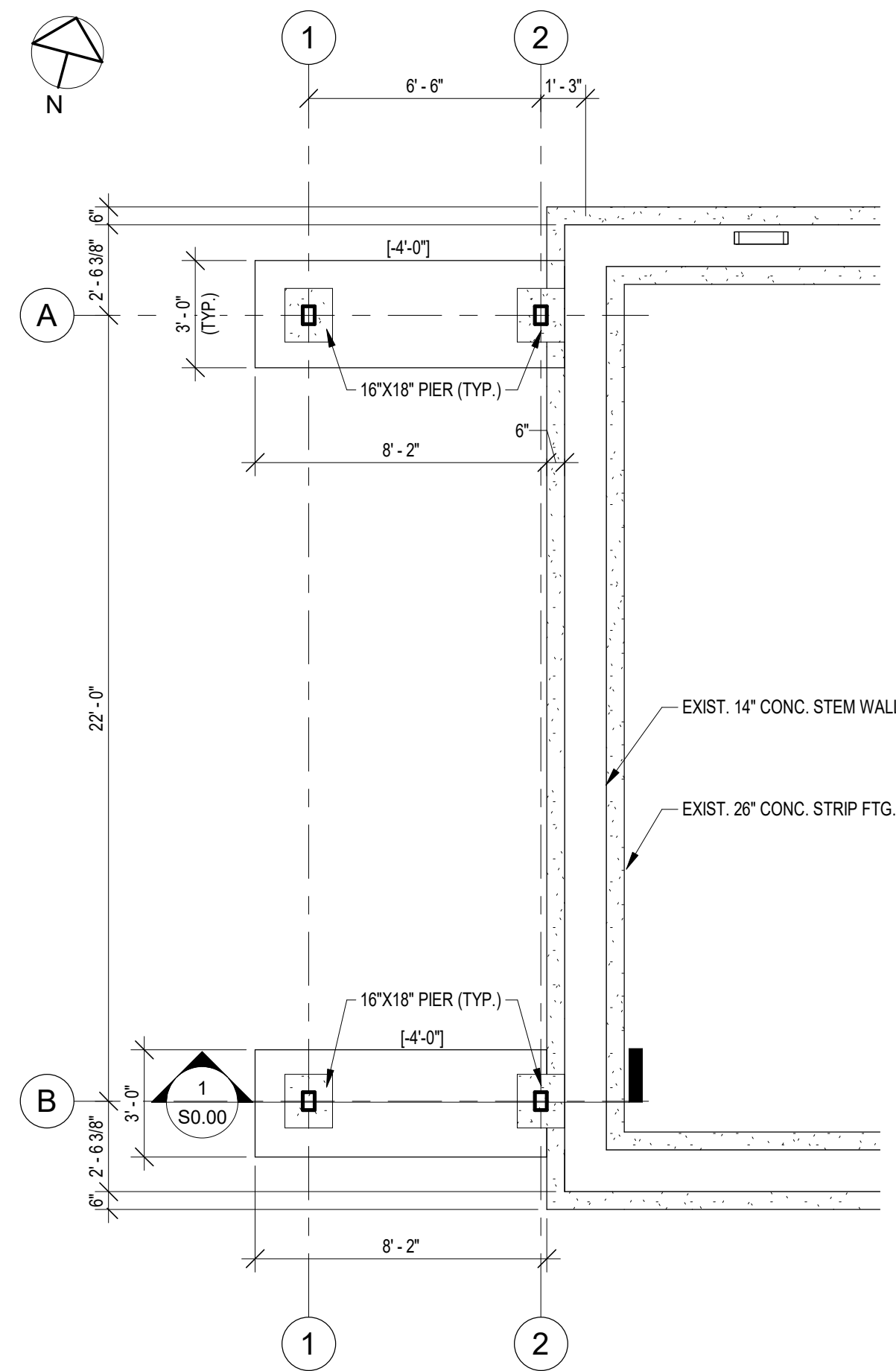
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Drawing Title:

PUMP HOUSE
CANOPY PLANS &
ELEVATIONS

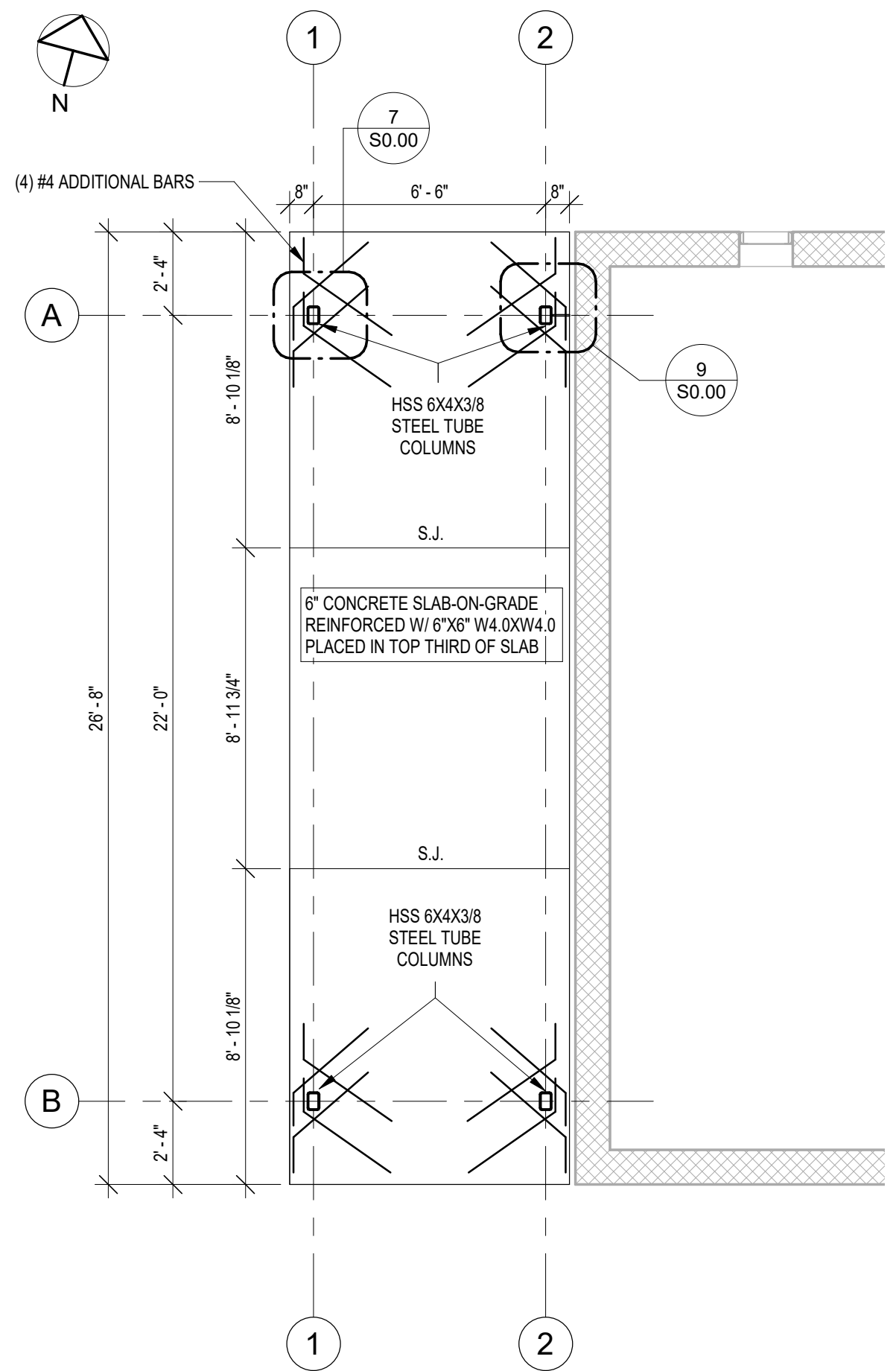
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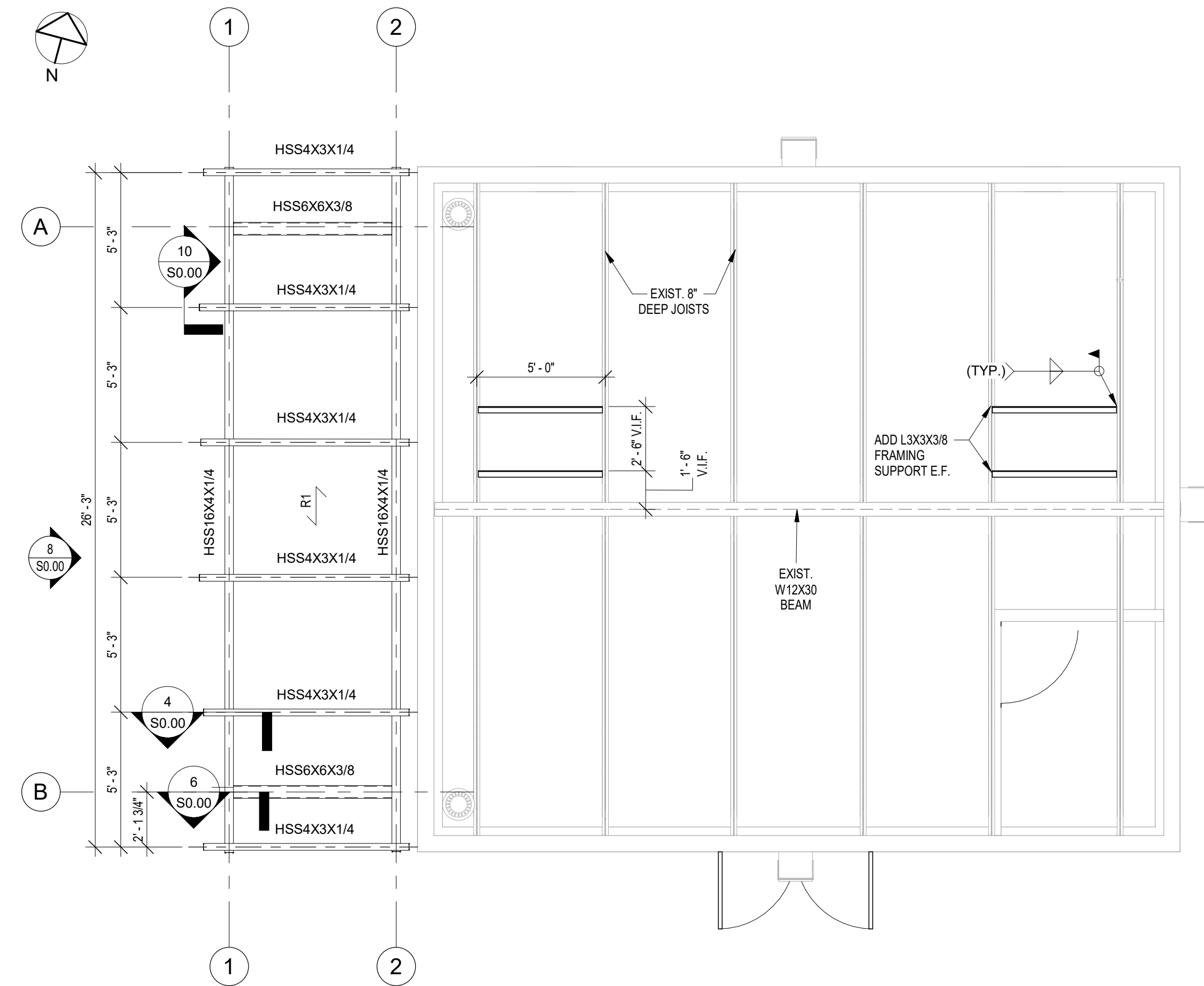
NOTES:
1. COORDINATE ALL WORK (INCLUDING FLOOR ELEVATIONS, DIMENSIONS, FINISH DETAILS, PENETRATIONS, ETC.) WITH THE ARCHITECTURAL, AND CIVIL DRAWINGS.
2. [XX-XX] INDICATES BOTTOM OF FOOTING ELEVATION. ALL EXTERIOR FOOTINGS SHALL BE LOCATED A MINIMUM OF 4'-0" BELOW FINISH GRADE.
3. A RELATIVE ELEVATION OF 0'-0" CORRELATES WITH A PROJECT ELEVATION OF

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



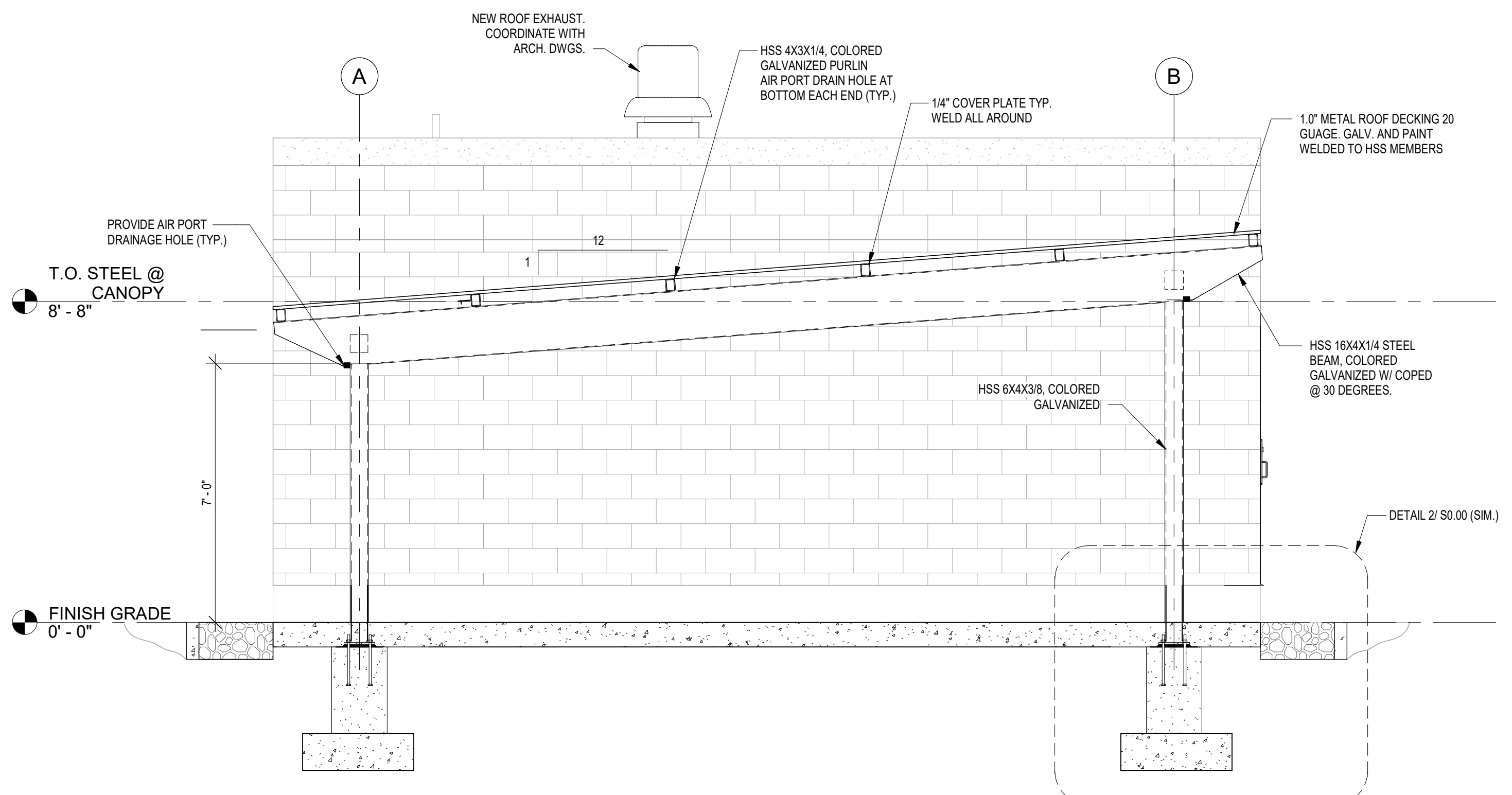
NOTES:
1. S.J. DENOTES SAWCUT JOINT. REFER TO SLAB-ON-GRADE DETAIL ON SHEET S0.00 FOR DETAILS

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

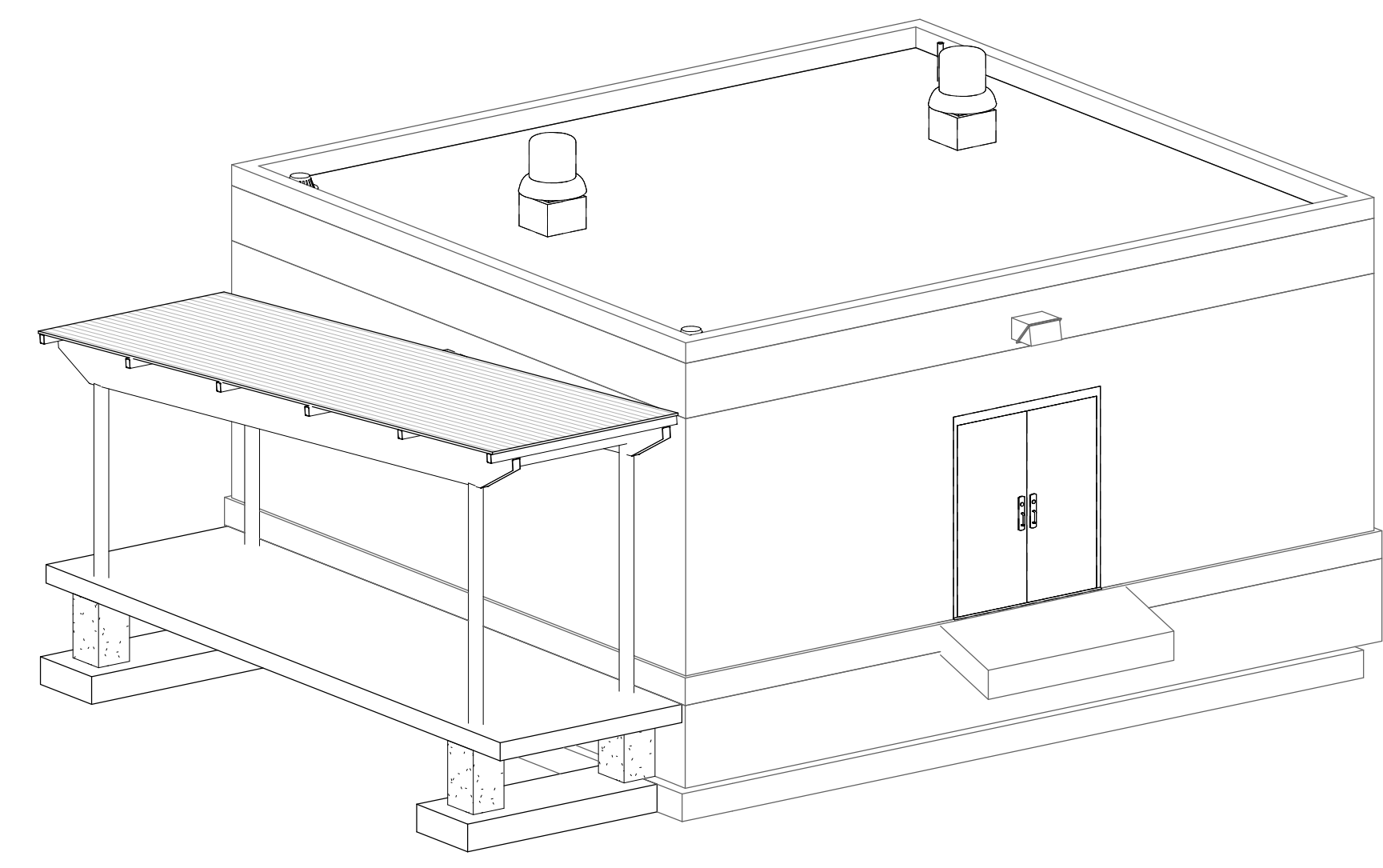


NOTES:
1. RT DENOTES SPAN OF 1" DEEP X 20 GA. METAL ROOF DECKING, GALV. AND PAINTED. FASTEN TO FRAMING WITH S.S. #12 SELF DRILLING SCREWS AT 6" O.C.
2. ALL STRUCTURAL STEEL TO BE COLOR GALVANIZED. L3X3X3/8 SUPPORT FRAMING TO BE GALV. (NO COLOR)

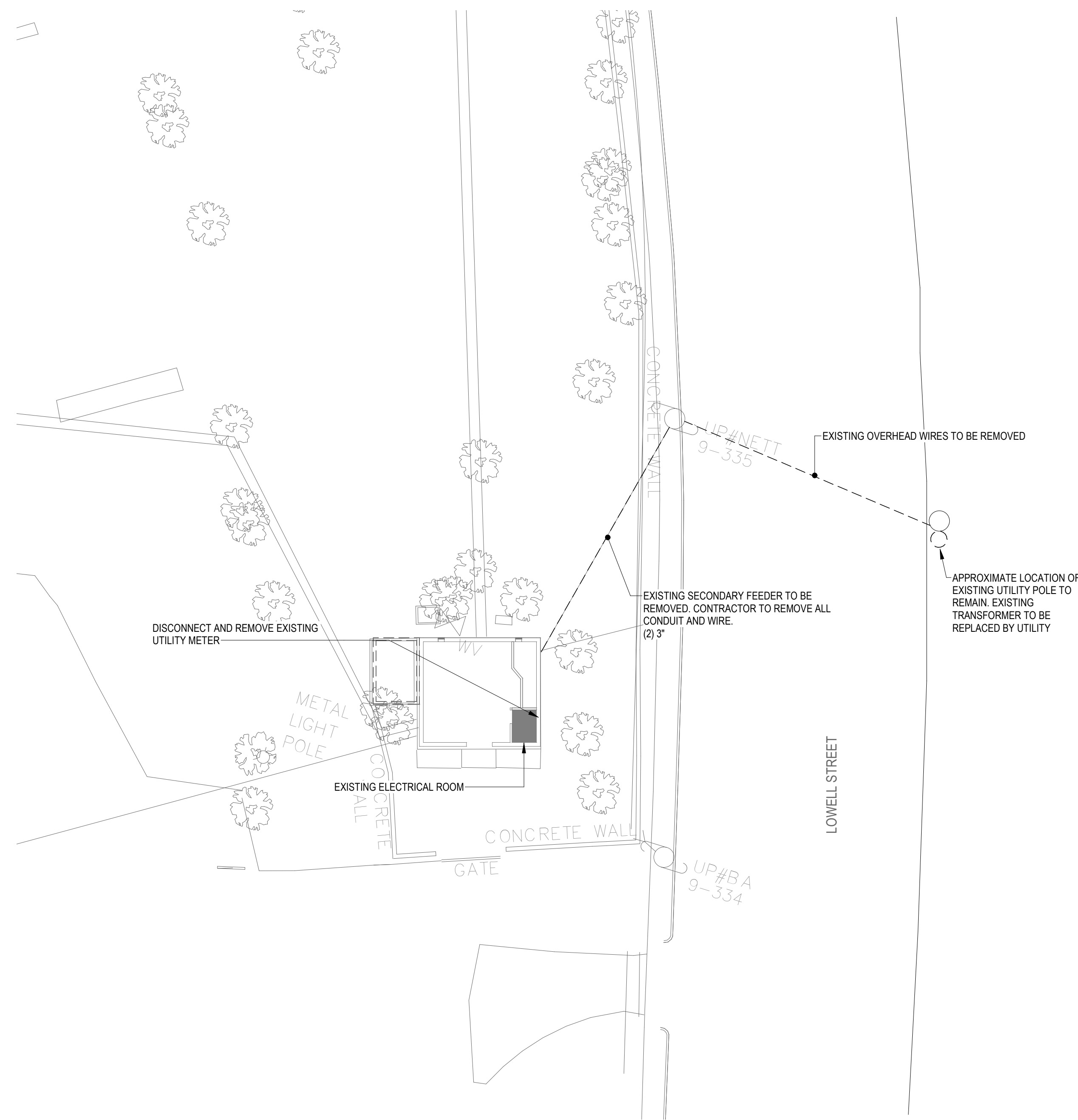
3 FRAMING PLAN
SCALE: 1/4" = 1'-0"



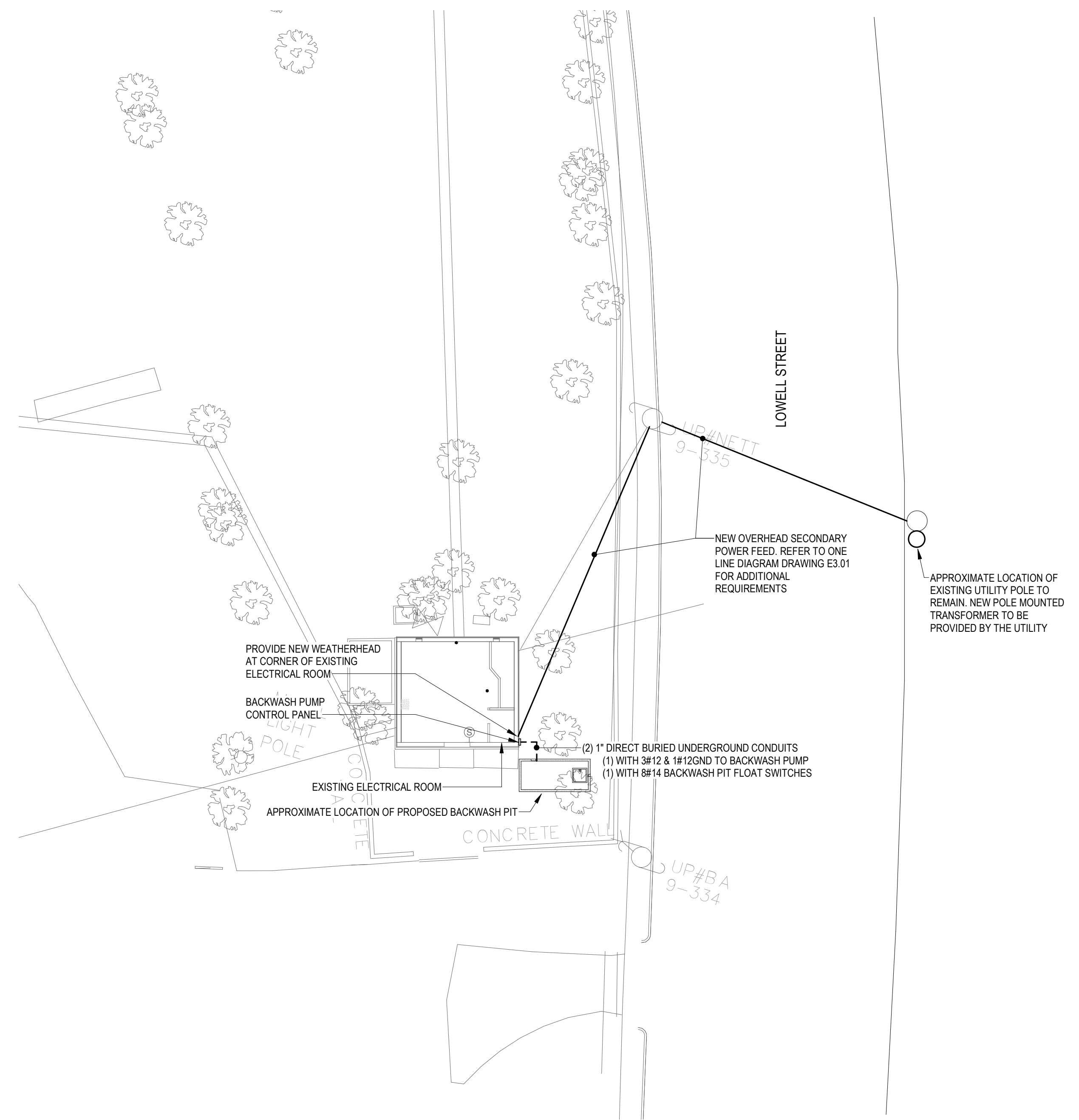
4 CANOPY ELEVATION
SCALE: 3/8" = 1'-0"



5 3D VIEW
N.T.S.



1 ELECTRICAL DEMOLITION SITE PLAN
1" = 20'-0"



2 ELECTRICAL NEW SITE PLAN
1" = 20'-0"

ELECTRICAL SITE PLAN NOTES

- 1 ALL LIGHTING AND POWER CONDUCTORS SHALL BE INSTALLED BETWEEN 24" (MINIMUM) AND 36" (MAXIMUM) BELOW FINISHED GRADE.
- 2 ALL COMMUNICATIONS CONDUIT AND CABLES SHALL BE INSTALLED 36" (MINIMUM) BELOW FINISHED GRADE.

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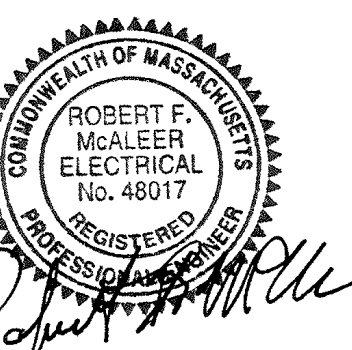
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Consultants:

Revisions:

Rev	Date	Description

Seal:



Issued For:

CONSTRUCTION
DOCUMENTS

SCALE: AS NOTED

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Drawn By: CAP

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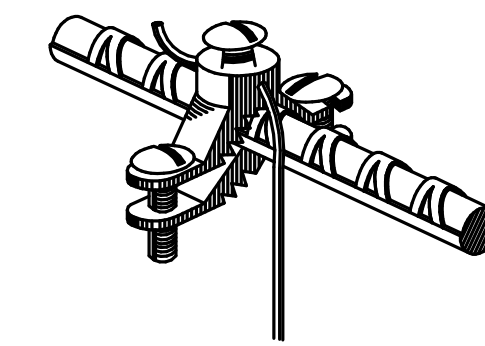
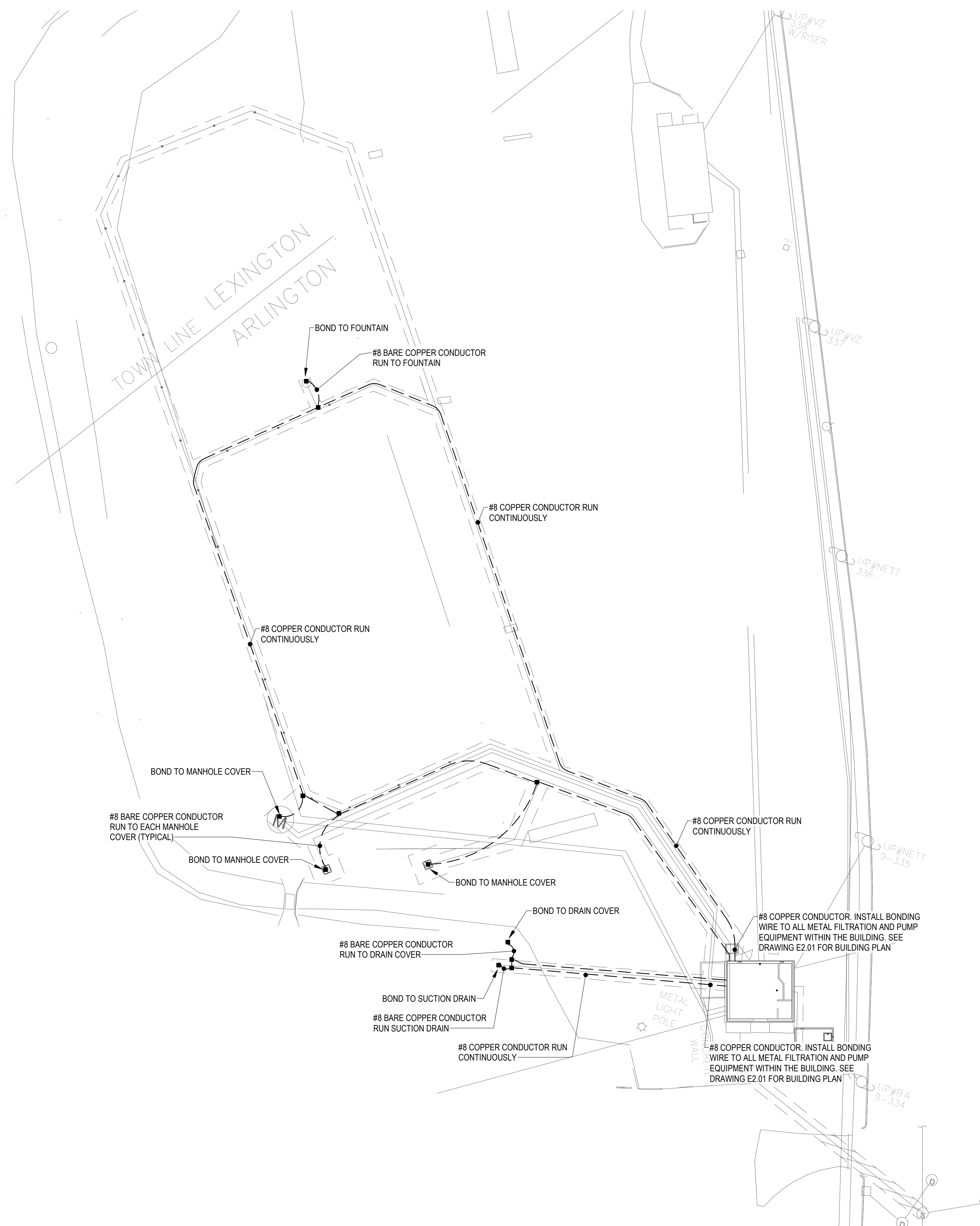
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Drawing Title:

**ELECTRICAL SITE
PLANS**

Sheet Number:

E1.01



BONDING DETAIL
NOT TO SCALE

EQUIPOTENTIAL BONDING GRID
REFER TO NEC ARTICLE 680.26

EQUIPOTENTIAL BONDING GRID TO RUN CONTINUOUSLY AROUND THE CONTOUR OF POOL EXTENDING 18" TO 24" FROM THE INSIDE WALLS OF THE POOL. THE 4"-6" BELOW GRADE GRID PATTERN SHALL BE SECURED WITHIN OR UNDER THE POOL DECK MEDIA. THE GRID SHALL BE CONSTRUCTED OF MINIMUM #8 AWG BARE SOLID COPPER CONDUCTORS.
EQUIPOTENTIAL BONDING CONDUCTOR SHALL COMPLY WITH FBC 2007 ALTERNATIVE AND EQUIVALENT METHOD TO NEC 2017 ARTICLE 680.26.

POOL BONDING NOTES:

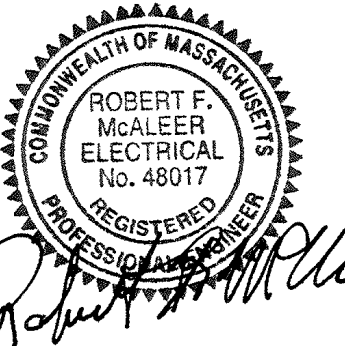
1. ALL METALLIC PARTS OF THE SWIMMING AREA, INCLUDING THE DRAINS, FOUNTAINS, AND ALL OTHER METALLIC COMPONENTS AS REQUIRED BY CODE SHALL BE BONDED PER THE REQUIREMENTS OF THE CURRENT ELECTRICAL CODE.
2. SOLID COPPER BONDING CONDUCTORS SHALL NOT BE SMALLER THAN NO. 8 AWG.
3. FURNISH AND INSTALL ANY REQUIRED GROUNDING RODS.
4. PROVIDE AND INSTALL BONDING CONDUCTORS THROUGHOUT THE BONDING SYSTEM WITH CONNECTION TO EACH ITEM OF THE SWIMMING AREA.
5. BONDING CONDUCTORS SHALL BE CONTINUOUS.
6. INSULATE ANY SPLICES WITH APPROVED INSULATION KIT AND MAKE WATER TIGHT TO PROTECT FROM CORROSION AND MAINTAIN THE INTEGRITY OF THE SPLICE.
7. PROVIDE RED MARKING TAPE BURIED 6" TO 10" BELOW SURFACE INDICATING ANY BURIED BOND WIRES BELOW THAT EXTEND BEYOND THE PERIMETER OF THE POOL DECK.

1 ELECTRICAL BONDING PLAN
1" = 30'-0"

Consultants:

Revisions:

Rev	Date	Description

Seal:

 Issued For:

CONSTRUCTION DOCUMENTS

SCALE: AS NOTED

Date: JANUARY 28, 2019
 Drawn By: Author
 Reviewed By: Checker
 Approved By: Approver

W&S Project No: 2180615
 W&S File No:

Drawing Title:

ELECTRICAL BONDING PLAN

Sheet Number:

E1.02

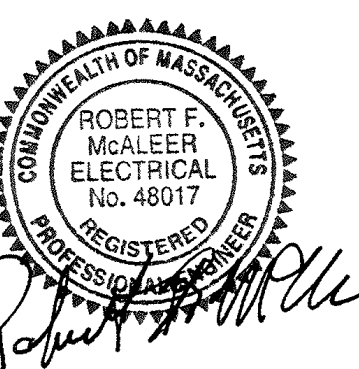


Consultants:

Revisions:

Rev	Date	Description

Seal:



Issued For:

CONSTRUCTION
DOCUMENTS

SCALE: AS NOTED

Date: JANUARY 28, 2019

Drawn By: CAP

Reviewed By: DNM

Approved By: RFM

W&S Project No: 2180615

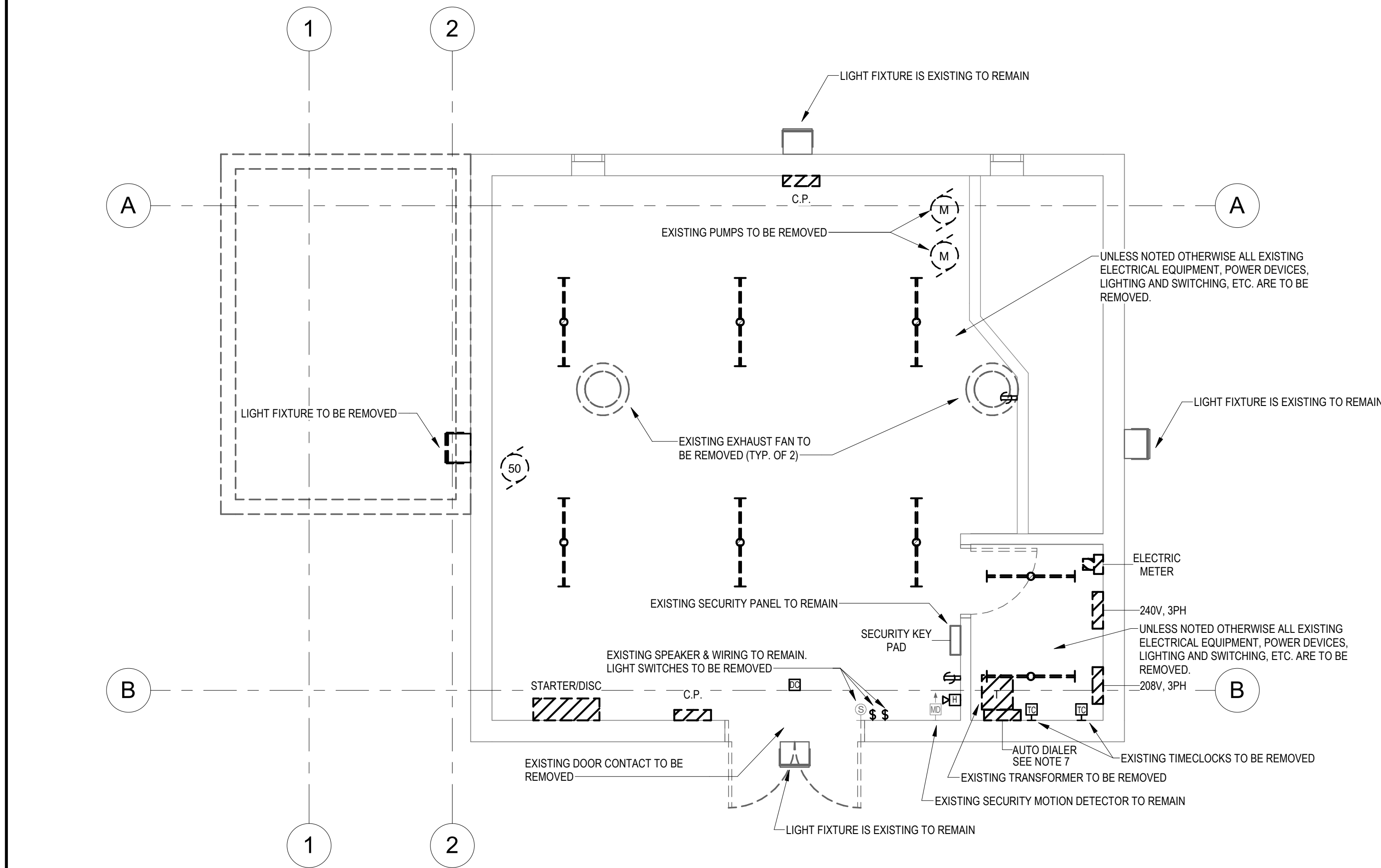
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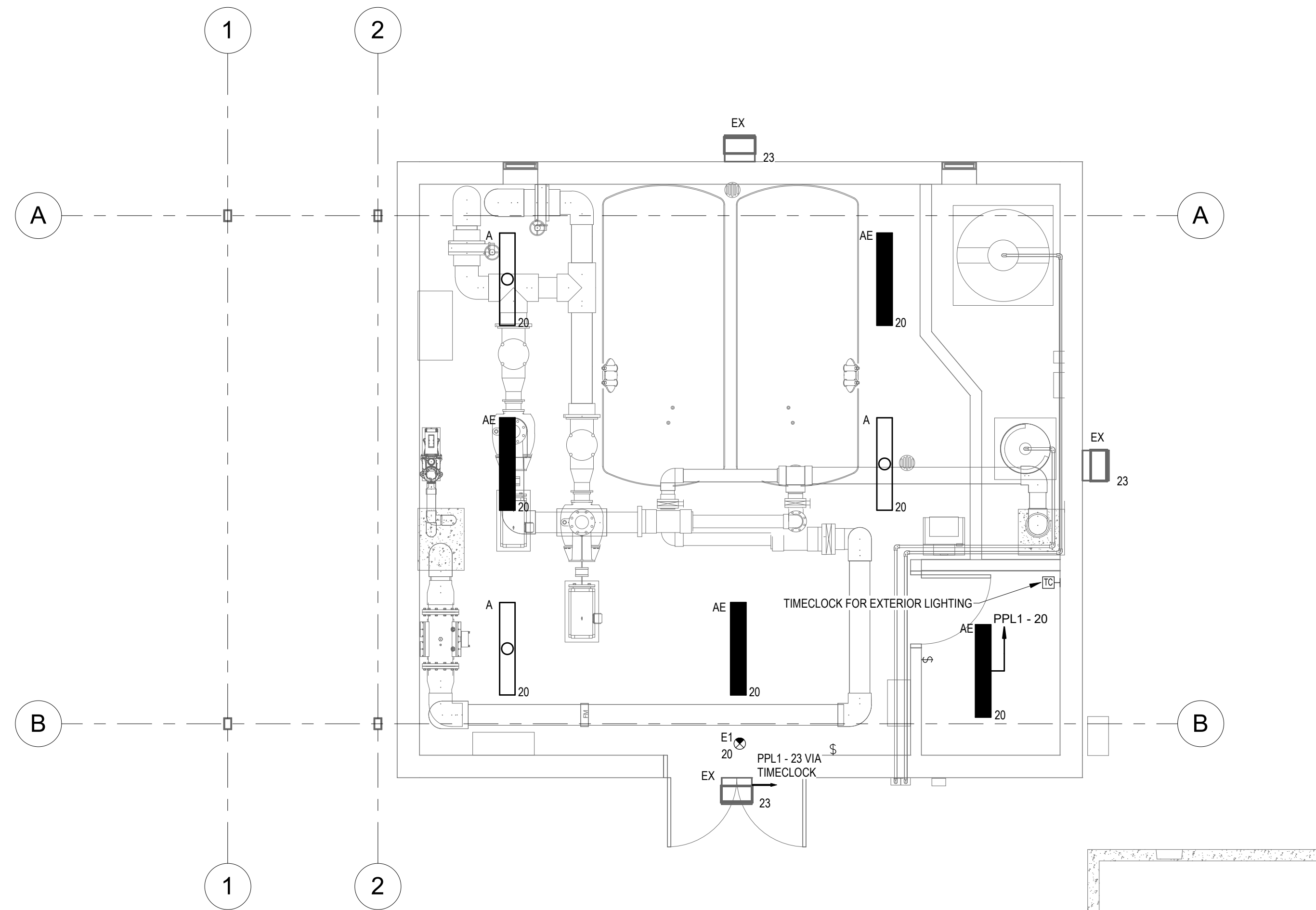
ELECTRICAL
PUMP HOUSE
PLANS

Sheet Number:

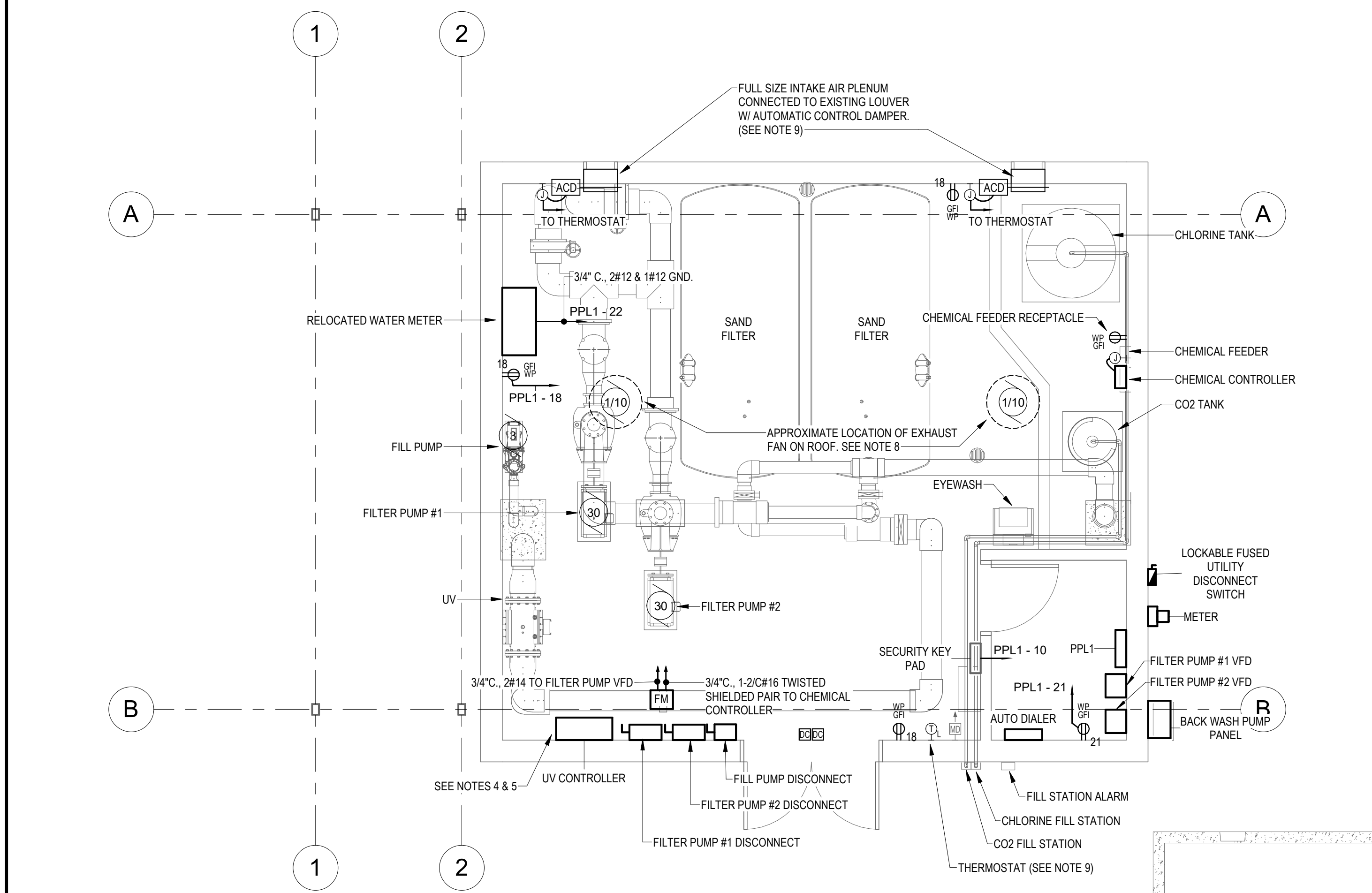
E2.01



1 ELECTRICAL DEMOLITION PLAN
1/4" = 1'-0"



2 LIGHTING PLAN
1/4" = 1'-0"



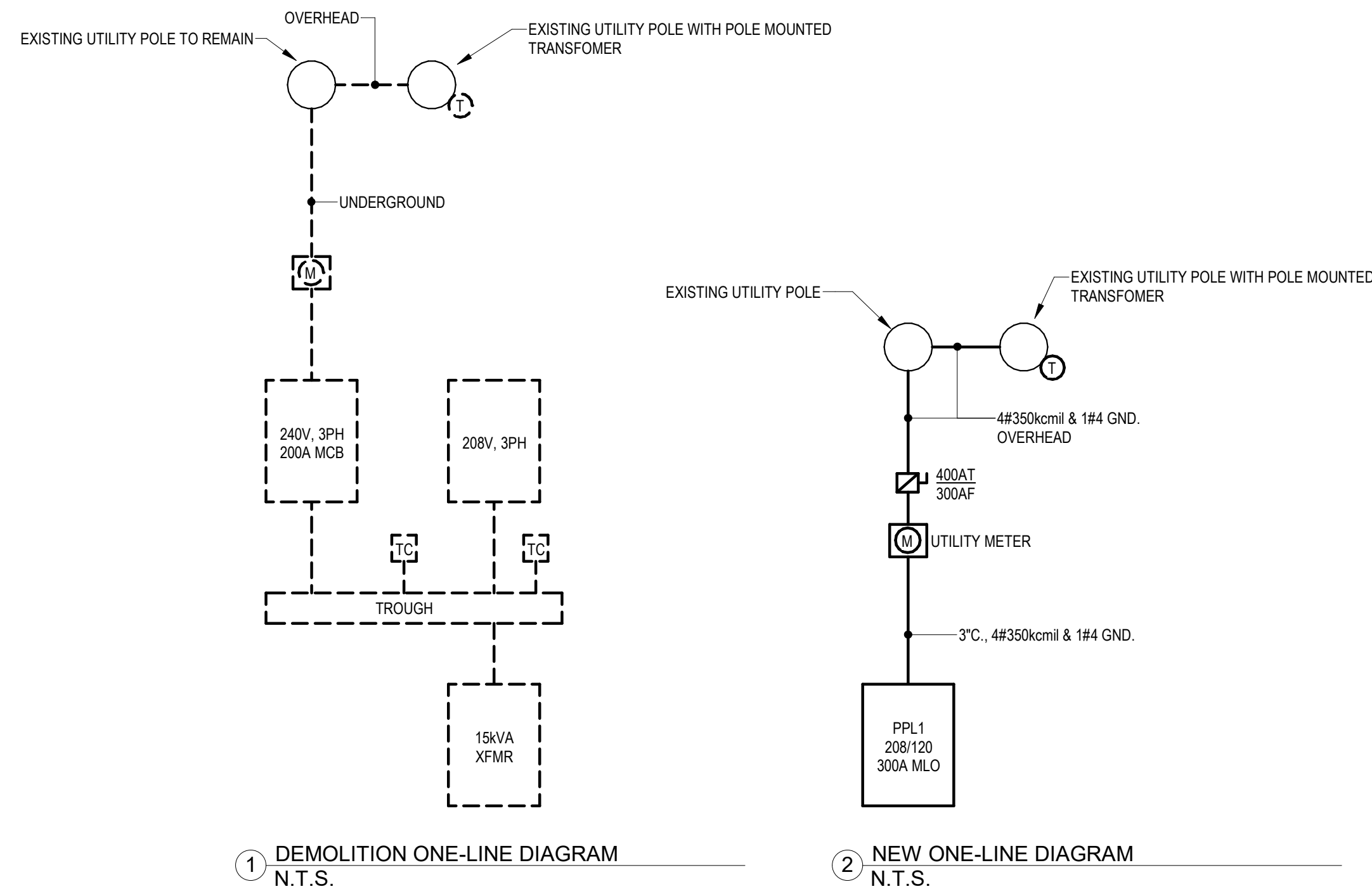
3 POWER PLAN
1/4" = 1'-0"

LIGHTING GENERAL NOTES

- REFERENCE DRAWING E0.01 FOR LEGEND AND ABBREVIATIONS.
- REFERENCE DRAWING E3.01 FOR LIGHT FIXTURE SCHEDULE.

POWER GENERAL NOTES

- REFER TO DRAWING E0.01 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
- REFER TO DRAWING E3.01 FOR ONE-LINE DIAGRAM AND ELECTRICAL SCHEDULES.
- UNLESS NOTED OTHERWISE, ALL EQUIPMENT AND DEVICES SHALL BE RATED NEMA 4X.
- CONTRACTOR SHALL RUN (2) 1-1/4" CONDUITS FROM THE UV CONTROL PANEL TO THE UV UNIT. CONTRACTOR SHALL INSTALL UV CONTROL PANEL FURNISHED POWER CABLE WITHIN (1) 1-1/4" CONDUIT AND UV CONTROL PANEL FURNISHED MONITORING AND CONTROL CABLE IN THE OTHER 1-1/4" CONDUIT. CONTRACTOR SHALL COORDINATE UPSIZING THE CONDUIT OR REMOVAL AND REINSTALLATION OF THE CABLE END CONNECTOR TO FACILITATE CABLE INSTALLATION WITHIN THE CONDUITS.
- FINAL CONNECTIONS TO THE UV UNIT SHALL BE BY QUALIFIED FACTORY TRAINED TECHNICIANS DURING THE SYSTEM STARTUP AND COMMISSIONING.
- UNLESS NOTED OTHERWISE, ALL EQUIPMENT AND DEVICES WITHIN THE ELECTRICAL ROOM SHALL BE RATED NEMA 1.
- EXISTING AUTODIALER SHALL BE SALVAGED INCLUDING EXISTING PHONE LINES AND REINSTALLED IN NEW CABINET AND RECONNECTED.
- PROVIDE (2) NEW ROOFTOP DOWNBLAST EXHAUST FANS AS MANUFACTURED BY GREEKHECK, MODEL G-090-VG, AIRFLOW: 650 CFM, ESP: 0.3 IN. WG, 1625 RPM, 1/10 HP, 115/160. PROVIDE GRAVITY DAMPER WITH EACH FAN. COORDINATE EXISTING ROOF CURB WITH NEW EXHAUST FAN SIZE AND PROVIDE ADAPTER/TRANSITION AS REQUIRED.
- AUTOMATIC CONTROL DAMPERS SHALL BE INTERLOCKED WITH EXHAUST FANS AND THERMOSTAT. EXHAUST FANS SHALL OPERATE WHEN THE SPACE TEMPERATURE EXCEEDS 80°F (ADJUSTABLE). UPON CALL FROM THE THERMOSTAT THE INTAKE DAMPERS SHALL OPEN AND THE EXHAUST FANS SHALL START.



Branch Panel: PPL1

Location: ELECTRICAL RM
Supply From:
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 208Y/120
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 AMPS SYMMETRICAL
Mains Type: MAIN CB
Mains Rating: 400.0 A
MCB Rating: 300.0 A

Notes: SERVICE ENTRANCE RATED.

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1				10.6...	10.6...					2
3	FILTER PUMP #1	200.0 A	3		10.6...	10.6...				4
5						10.6...	10.6...			6
7				1.3 kVA, 0.0 kVA					20.0 A	8
9	FILL PUMP	30.0 A	3		1.3 kVA, 0.0 kVA				20.0 A	10
11						1.3 kVA, 1.3 kVA				12
13				4.0 kVA, 1.3 kVA					30.0 A	14
15	UV CONTROLLER	50.0 A	3		4.0 kVA, 1.3 kVA					16
17						4.0 kVA, 0.5 kVA			20.0 A	18
19	CHEMICAL CONTROLLER	20.0 A	1	0.0 kVA, 0.3 kVA					20.0 A	20
21	RECPT ELEC RM	20.0 A	1		0.0 kVA, 0.0 kVA				20.0 A	22
23	EXTERIOR LIGHTING	20.0 A	1			0.0 kVA, 0.2 kVA			20.0 A	24
25	EF-1	20.0 A	1	0.2 kVA, 0.0 kVA					20.0 A	26
27					0.0 kVA, 0.0 kVA				20.0 A	28
29	SPARE	30.0 A	3			0.0 kVA, 0.0 kVA			20.0 A	30
31				0.0 kVA, 0.0 kVA					20.0 A	32
33	SPARE	20.0 A	1		0.0 kVA, 0.0 kVA				20.0 A	34
35	SPARE	20.0 A	1			0.0 kVA, 0.0 kVA			20.0 A	36
37	SPARE	20.0 A	1	0.0 kVA, 0.0 kVA					20.0 A	38
39	SPARE	20.0 A	1		0.0 kVA, 0.0 kVA				20.0 A	40
41	SPARE	20.0 A	1			0.0 kVA, 0.0 kVA			20.0 A	42
Total Load:				28.2 kVA	27.8 kVA	28.4 kVA				
Total Amps:				235.8 A	231.4 A	237.6 A				
Total Panel Load:				68 kVA						
Total Panel Amps:				190.1 A						

Notes:

EQUIPMENT SCHEDULE												
EQUIPMENT	LOAD	LOAD INFORMATION			BKR AMPS	PANEL	CKT #	WIRING	LOCAL DISC. SW	STARTER	REMARKS	
		VOLT	P	kVA								AMPS
HVAC												
EF-1	1/10	120 V	1	0.2 kVA	1.5 A	20.0 A	PPL1	25	3/4" C., 2#12 & 1#12 GND.	20A/1P	INTEGRAL	DISCONNECT PROVIDED WITH UNIT
EF-2	1/10	120 V	1	0.2 kVA	1.5 A	20.0 A	PPL1	24	3/4" C., 2#12 & 1#12 GND.	20A/1P	INTEGRAL	DISCONNECT PROVIDED WITH UNIT
PROCESS												
BACK WASH PUMP PANEL	3 HP	208 V	3	4.0 kVA	11.0 A	30.0 A	PPL1	12,14,16	3/4" C., 3#12 & 1#12 GND.	30A/3P	N/A	
CHEM FEED RECPT	-	120 V	1	0.0 kVA	0.0 A	20.0 A	PPL1	8	3/4" C., 2#12 & 1#12 GND.	5-20R RECEPTACLE	N/A	
CHEMICAL CONTROLLER	-	120 V	1	0.0 kVA	0.0 A	20.0 A	PPL1	19	3/4" C., 2#12 & 1#12 GND.	N/A	N/A	
FILL PUMP	3 HP	208 V	3	4.0 kVA	11.0 A	30.0 A	PPL1	7,9,11	3/4" C., 3#12 & 1#12 GND.	30A/3P	VFD	VFD PROVIDED WITH UNIT
FILTER PUMP #1	30 HP	208 V	3	31.7 kVA	88.0 A	200.0 A	PPL1	1,3,5	1 1/2" C., 3#1 & 1#6 GND.	125A/3P	VFD	VFD PROVIDED WITH UNIT
FILTER PUMP #2	30 HP	208 V	3	31.7 kVA	88.0 A	200.0 A	PPL1	2,4,6	1 1/2" C., 3#1 & 1#6 GND.	125A/3P	VFD	VFD PROVIDED WITH UNIT
UV CONTROLLER	12 KW	208 V	3	12.0 kVA	33.3 A	50.0 A	PPL1	13,15,17	1" C., 3#6 & 1#10 GND.	N/A	N/A	

LIGHTING FIXTURE SCHEDULE								
TYPE	DESCRIPTION	MFR	CATALOG NUMBER	LAMP	MOUNTING	VOLT	WATT	NOTE
A	1X4 ENCLOSED AND GASKETED LED FIXTURE	COOPER LIGHTING/METALUX	4V72-LD4-DR-UNV-L835-CD 1-WL-TEH	4000lm 3500K LED	SURFACE	120 V	38 W	
AE	1X4 ENCLOSED AND GASKETED LED FIXTURE. PROVIDE WITH EMERGENCY LED DRIVER	COOPER LIGHTING/METALUX	4V72-LD4-DR-UNV-EL10W-L 835-CD1-WL-TEH	4000lm 3500K LED	SURFACE	120 V	38 W	
E1	CEILING EXIT LIGHT. NUMBER OF FACES AND ARROWS AS SHOWN ON THE FLOOR PLAN	COOPER/SOLITE	RL-AC-R-WH-UN-SD	LED	UNIVERSAL	120 V	2 W	

Project:
IMPROVEMENTS TO THE ARLINGTON RESERVOIR



211 LOWEL ST.
ARLINGTON, MA 02474

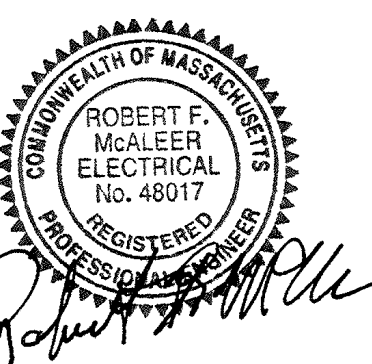
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Consultants:

Revisions:

Rev Date Description

Seal:



Issued For:

CONSTRUCTION DOCUMENTS

SCALE: AS NOTED

Date: JANUARY 28, 2019

Drawn By: CAP

Reviewed By: DNM

Approved By: RFM

W&S Project No: 2180615

W&S File No:

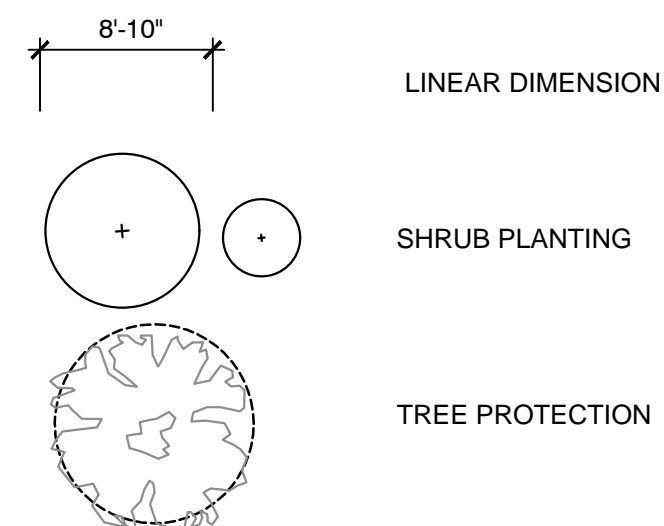
Drawing Title:

ELECTRICAL ONE-LINES, SCHEDULES & DETAILS

Sheet Number:

E3.01

LEGEND:



PLANTING SCHEDULE:

SHRUBS				
ABRV	QTY	BOTANICAL NAME	COMMON NAME	CONT.
CA	6	CORNUS ALTERNIFOLIA	PAGODA DOGWOOD	5' HT. B&B

DEMOLITION & SITE PREPARATION NOTES:

- THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION AND DEMOLITION REQUIREMENTS AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
- THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE TO A DESIGNATED MUNICIPAL PROPERTY AT NO ADDITIONAL COST. ALL GEOTECHNICALLY OR UNSUITABLE UNCONTAMINATED EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN. REMOVAL ACTIVITIES SHALL BE ACCORDANCE WITH STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE TOWN.
- UNLESS SPECIFICALLY NOTED TO BE REMOVED AND STOCKPILED (R&S) OR REUSED AND RELOCATED (R&R), ALL SITE FEATURES CALLED TO BE REMOVED AND DEMOLISHED (R&D) SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC. TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO ADDITIONAL COST TO THE OWNER.
- ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
- DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
- THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN. CONTRACTOR SHALL TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.
- THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

LAYOUT NOTES:

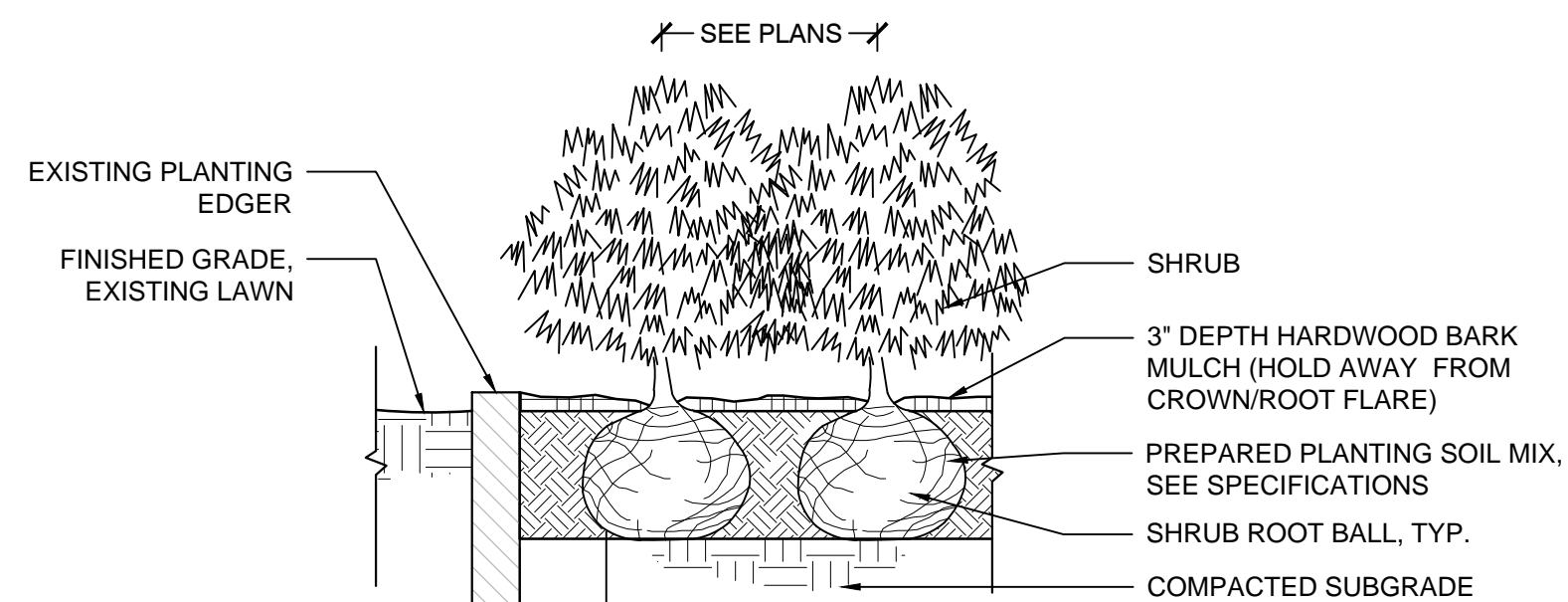
- COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, GRADING AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT. SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS REQUIRED BY THE OWNER'S REPRESENTATIVE.
- THE LAYOUT OF SITE AMENITIES AND FENCES MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- ALL PROPOSED SITE FEATURES SHALL BE LAID OUT AND STAKED FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF INSTALLATION. ANY REQUIRED ADJUSTMENTS TO THE LAYOUT SHALL BE UNDERTAKEN AS DIRECTED, AT NO ADDITIONAL COST TO THE OWNER.
- ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES AND SHALL BE TREATED WITH AN RS-1 TACK COAT AT POINT OF CONNECTION. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT AND MATERIALS PLAN.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS OF ALL PROPOSED FENCES, GATES.

PLANTING NOTES:

- COORDINATE ALL PLANTING ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY THE PLANS ENCOMPASSED BY THIS CONTRACT.
- ALL PLANT MATERIAL SHALL BE TAGGED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL IDENTIFY PROPOSED PLANT LOCATIONS PRIOR TO PLACEMENT WITH A STAKE AND COORDINATE WITH THE OWNER'S REPRESENTATIVE TO MAKE ANY NECESSARY ADJUSTMENTS BEFORE ACTUAL PLACEMENT. THE CONTRACTOR SHALL NOT PLACE NEW TREES DIRECTLY UNDER OVERHEAD WIRES OR ABOVE UTILITY LINES.
- ALL EXISTING TREES TO REMAIN AND BE PROTECTED ARE TO BE PRUNED FOR CROWN CLEANING AND DEADWOOD REMOVAL. SEE SPECS.
- PLANT LOCATIONS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY AND SHALL BE APPROVED IN THE FIELD BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

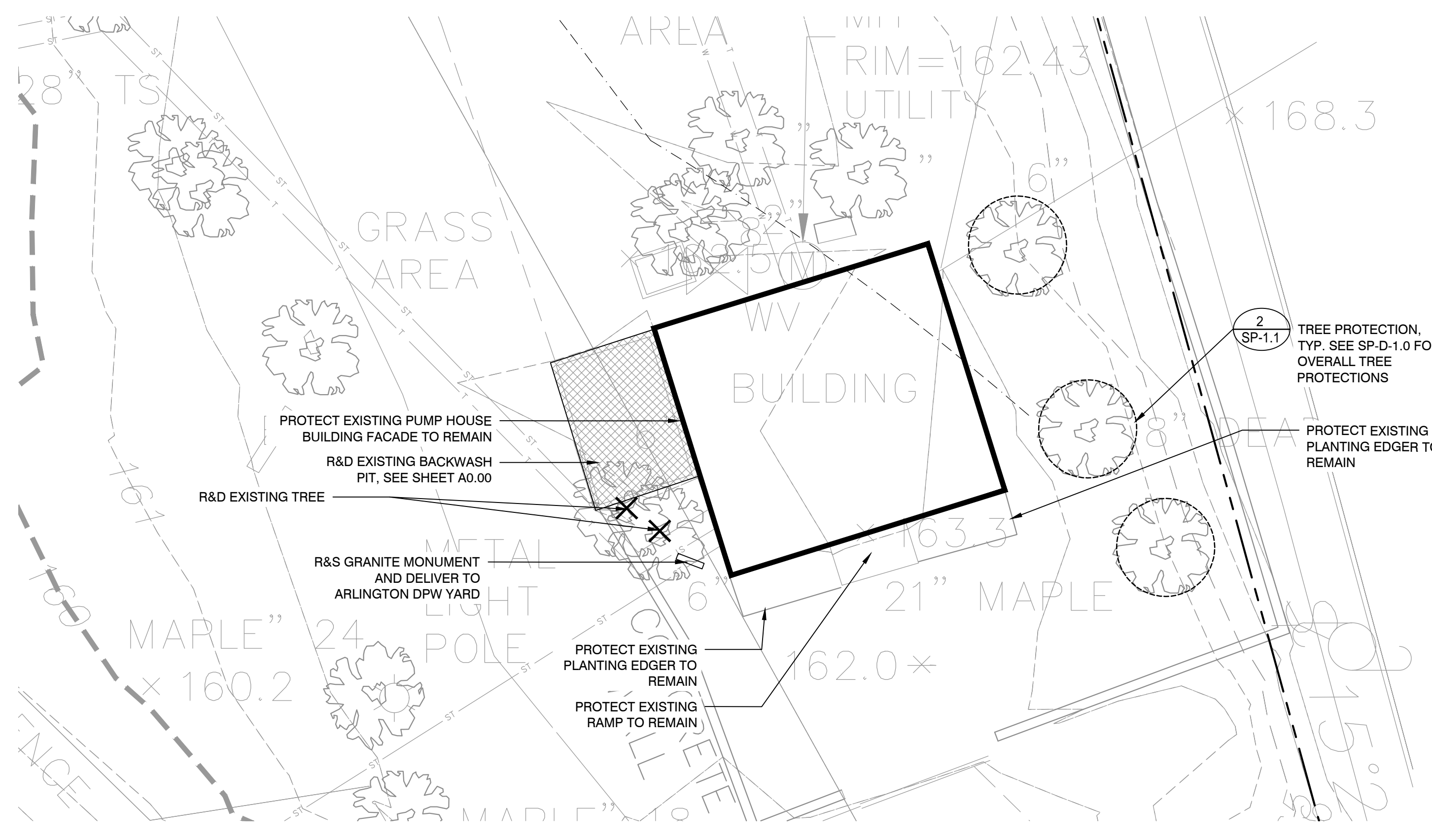
SPECIAL NOTES:

- THE CONTRACTOR SHALL FABRICATE AND INSTALL A METAL SIGN TO REPLACE THE LCWF-FUNDED GRANITE MONUMENT. THE SIGN SHALL BE AFFIXED TO THE EXISTING CHAIN LINK FENCE IN A LOCATION TO BE DETERMINED IN THE FIELD BY THE OWNER'S REPRESENTATIVE. SEE SPECIFICATIONS.

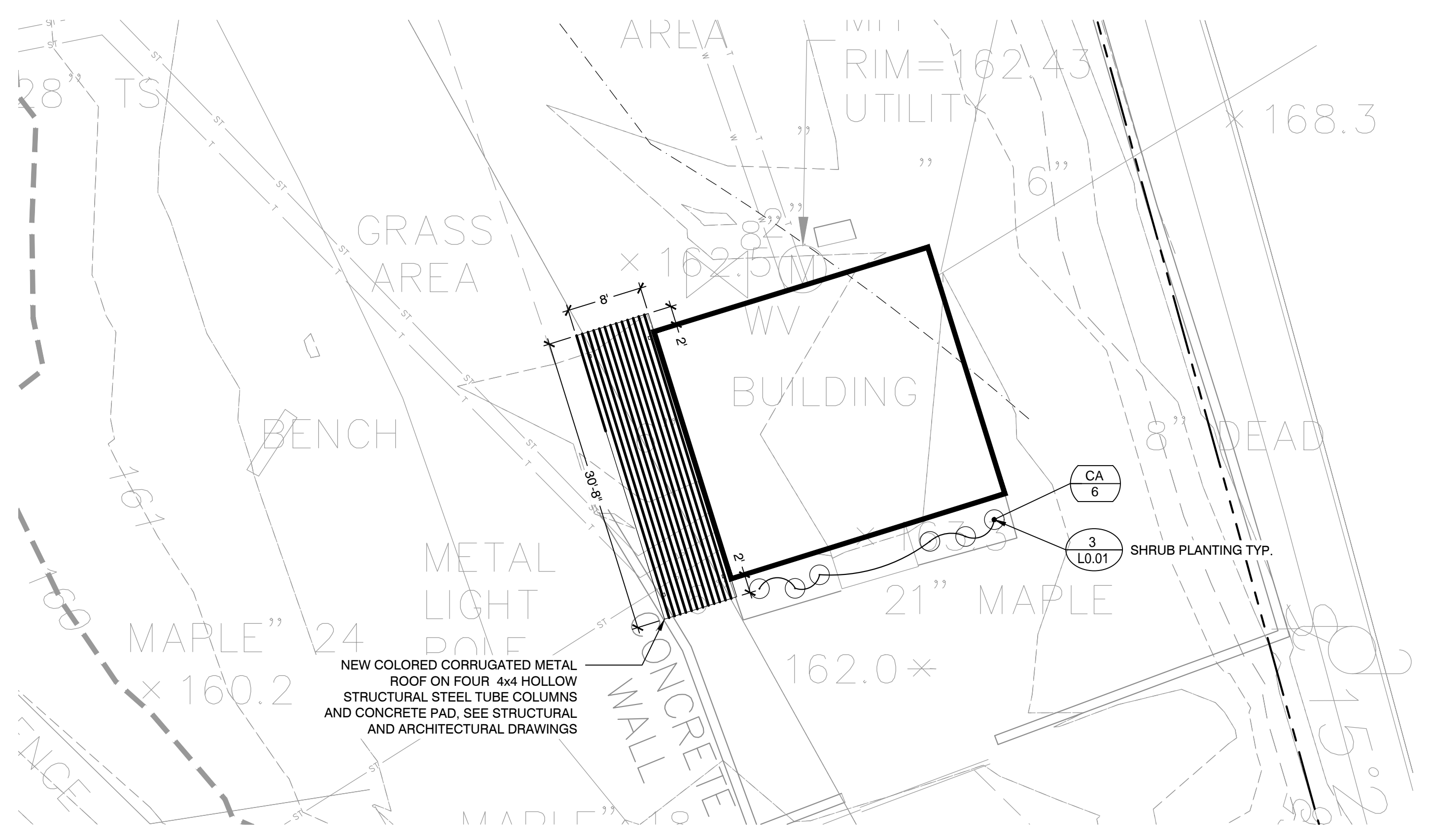


- NOTES:
- ALL MULCH MUST BE DARK IN COLOR. PROVIDE SAMPLE PRIOR TO INSTALLATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.

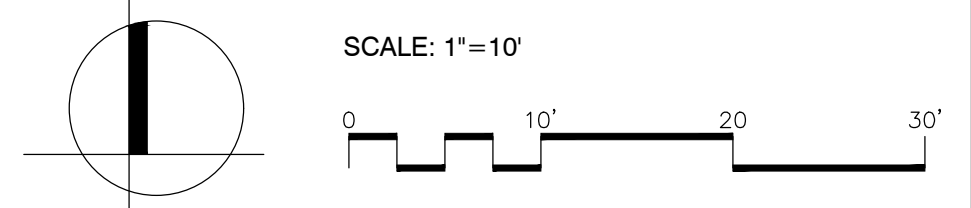
3 SHRUB PLANTING
SCALE: NTS



1 PUMP HOUSE SITE PREPARATION & DEMOLITION PLAN
SCALE: 1" = 10'-0"



2 PUMP HOUSE LAYOUT, MATERIALS & PLANTING PLAN
SCALE: 1" = 10'-0"



Project:
IMPROVEMENTS TO THE ARLINGTON RESERVOIR

210 LOWELL ST,
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Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:

Date: 01/28/2019
 Drawn By: CBB
 Reviewed By: CFR
 Approved By: CFR

W&S Project No: 2180615
 W&S File No:

Drawing Title:

PLANTING AT PUMP HOUSE BUILDING

Sheet Number:

L1.01

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