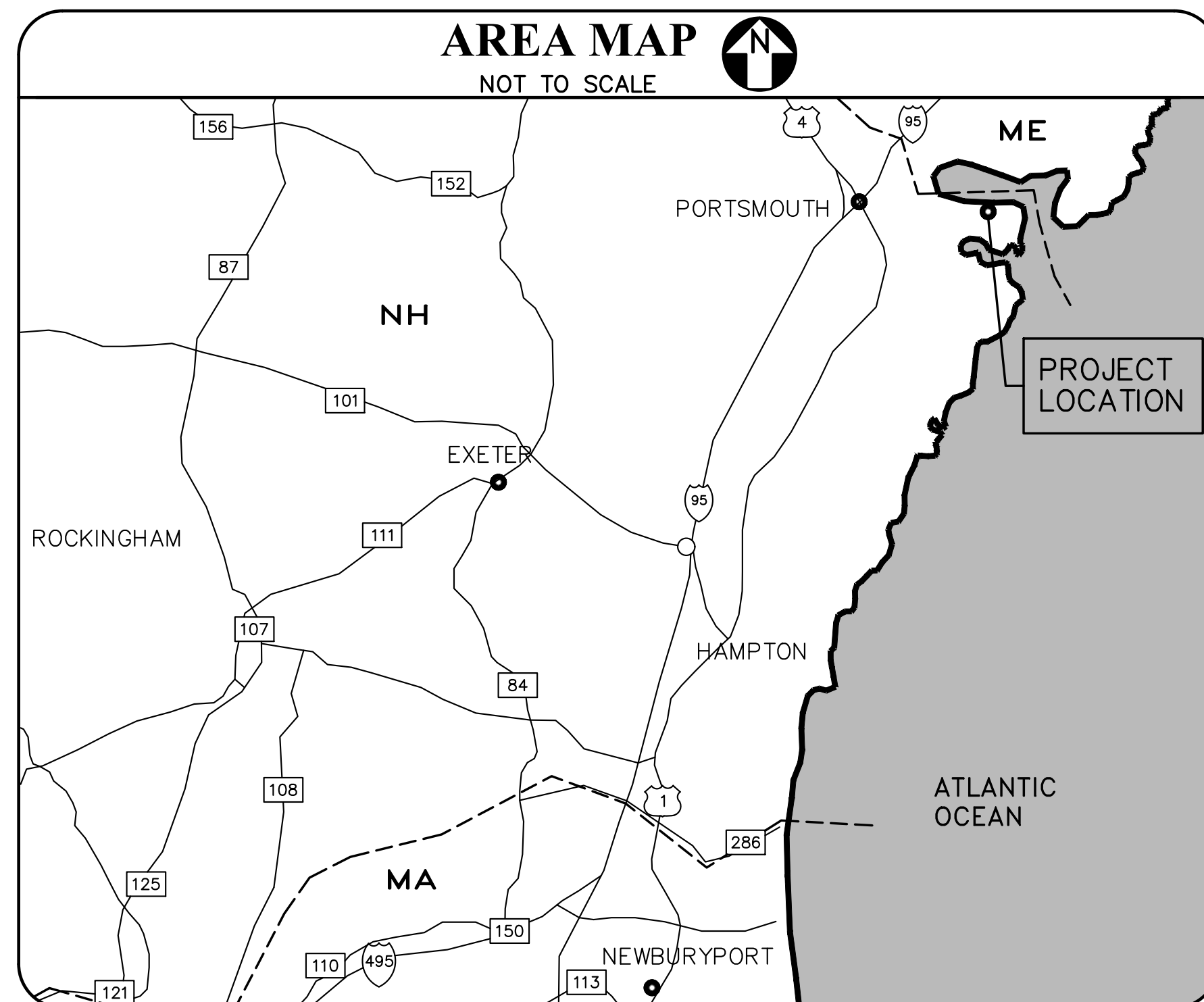


PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION

PEIRCE ISLAND ROAD, PORTSMOUTH, NH
FINAL SUBMISSION 06/17/2022



WATER TECHNOLOGY INC.
World Leaders in Aquatic Planning, Design and Engineering
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DESIGNED BY: CAM
DRAWN BY: CAM
CHECKED BY: PNM
PROJECT: 21904.14

CITY OF PORTSMOUTH
1 Junkins Avenue
Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE
AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

COVER SHEET

SCALE: AS NOTED
DATE: 06/17/2022

DWG.: **G-001**

NO.	DATE	DESCRIPTION	BY
REVISIONS			

SHEET: 1 OF 72

17 Jun, 2022 - 9:09am
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ABBREVIATIONS

%	PERCENT	EWC	ELECTRIC WATER COOLER
&	AND	EXT	EXTERIOR
±	PLUS OR MINUS	FBO	FURNISHED BY OWNER
⊙	AT	FD	FLOOR DRAIN
AFF	ABOVE FINISH FLOOR	FDN	FOUNDATION
ALUM	ALUMINUM	FE	FIRE EXTINGUISHER
APA	AMERICAN PLYWOOD ASSOCIATION	FEC	FIRE EXTINGUISHER CABINET
APPROX	APPROXIMATELY	FF	FINISH FLOOR
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	GA	GAUGE
BF OR ⚙	BARRIER FREE	GALV	GALVANIZED
BOT	BOTTOM	GYP BD	GYPSPUM BOARD
⊕	CENTERLINE	H,HGT	HEIGHT
CJ	CONTROL JOINT	HD	HIGH DENSITY
CLG	CEILING	HM	HOLLOW METAL
CLR	CLEAR	HORIZ	HORIZONTAL
COL	COLUMN	HYD	HYDRANT
CONC	CONCRETE	IN	INCHES
CONT	CONTINUOUS	INSUL	INSULATION
CPT	CARPET	MAT	MAT (WALK OFF)
CT	CERAMIC TILE	MAX	MAXIMUM
CWT	CERAMIC WALL TILE	MECH	MECHANICAL
DIA	DIAMETER	MFR	MANUFACTURER
DS	DOWNSPOUT	MIN	MINIMUM
DWG	DRAWING	MIR	MIRROR
EA	EACH	MO	MASONRY OPENING
EJ	EXPANSION JOINT	MTL	METAL
ELEC	ELECTRIC	NAT	NATURAL FINISH
ELEV,EL	ELEVATION	NIC	NOT IN CONTRACT
EQ	EQUAL	OC	ON CENTER
		OD	OUTSIDE DIAMETER
		OH	OPPOSITE HAND

GENERAL CONSTRUCTION NOTES

- CONFORM TO LOCAL, STATE, NATIONAL, AND OTHER CODES AND ORDINANCES WHICH APPLY TO THIS PROJECT.
- OBTAIN PERMITS WHICH ARE REQUIRED FOR THE SATISFACTORY COMPLETION OF THE WORK.
- COORDINATE THE TIMING AND SEQUENCE OF WORK WITH THE OWNER PRIOR TO COMMENCING WORK.
- MOBILIZATION, LAY DOWN, AND DUMPSTER LOCATIONS: COORDINATE LOCATION AND USE OF PROPOSED CONTRACTOR LAYDOWN AND STAGING AREAS WITH OWNER PRIOR TO MOBILIZATION.
- NOTIFY THE OWNER A MINIMUM OF 72 HOURS PRIOR TO INTERRUPTING UTILITY SERVICES.
- FIELD VERIFY EXISTING CONDITIONS AND REPORT DISCREPANCIES TO THE OWNER. PROCEED WITH THE WORK ONLY AFTER THE DISCREPANCY(IES) HAS(HAVE) BEEN RESOLVED.
- WORK FROM GIVEN DIMENSIONS AND LARGE SCALE DETAILS ONLY. DO NOT SCALE DRAWINGS.
- PROVIDE WORK, ITEMS, AND COMPONENTS SHOWN ON THE DRAWINGS AS NEW UNLESS INDICATED AS EXISTING, NOT IN CONTRACT (NIC), OR FURNISHED BY OWNER (FBO).
- DURING THE ENTIRE CONTRACT PERIOD, MAINTAIN THE CONSTRUCTION SITE IN A SECURE, WEATHER TIGHT, NEAT, CLEAN AND SAFE MANNER.
- CONFORM TO OSHA WORK PRACTICES, EQUIPMENT, AND PERSONNEL PROTECTION MEASURES STANDARDS.
- DISPOSE OF AND/OR RECYCLE CONSTRUCTION DEBRIS FROM THE PROJECT SITE AS REQUIRED BY THE STATE OF NEW HAMPSHIRE. OBTAIN DISPOSAL PERMITS WHICH ARE REQUIRED. DISPOSE OF CONSTRUCTION DEBRIS FROM THE PROJECT SITE IN A STATE APPROVED MANNER.

HAZARDOUS MATERIALS NOTES

- OBTAIN PERMITS AND LICENSES REQUIRED FOR THE REMOVAL, TRANSPORT, AND DISPOSAL OF HAZARDOUS MATERIALS AND DEBRIS AT NO ADDITIONAL COST TO THE OWNER.
- EXISTING PAINT IS ASSUMED TO CONTAIN LEAD. REMOVE AND DISPOSE OF INCIDENTAL EXISTING LOOSE PAINT AND PAINT DUST, AND LOOSE PAINT AND PAINT DUST CAUSED BY CONSTRUCTION ACTIVITIES.
- MANAGE LEAD PAINT IN AREAS INDICATED FOR REMOVAL SEPARATE FROM THE SUBSTRATE AND TREAT THE REMOVED LEAD PAINT AS HAZARDOUS MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS. LEAD MUST BE MANAGED, REMOVED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
- EXISTING LIGHT FIXTURE BALLASTS ARE ASSUMED TO CONTAIN PCBs AND EXISTING LAMPS ARE ASSUMED TO CONTAIN MERCURY. SEE ELECTRICAL DRAWINGS FOR EXTENT OF REMOVALS. REMOVE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

PNT	PAINT, PAINTED
PL	PLASTIC LAMINATE
PLF	POUNDS PER LINEAR FOOT
PLY	PLYWOOD
PT	PRESSURE PRESERVATIVE TREATED
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCB	RUBBER COVE BASE
REINF	REINFORCED
RO	ROUGH OPENING
RM	ROOM
SAT	SUSPENDED ACOUSTICAL TILE
SIM	SIMILAR
SF	SQUARE FEET
ST	STAIN
STC	SOUND TRANSMISSION CLASS
STL	STEEL
T	TRANSFORMER
T&G	TONGUE AND GROOVE
TOS	TOP OF SLAB, TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VTR	VENT THROUGH ROOF
W/	WITH
WB	WOOD BASE
WD	WOOD

DRAWING LIST

SHEET SHEET NO DRAWING TITLE

GENERAL

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CD101	7 OF 72	REMOVALS SITE PLAN
CS101	8 OF 72	SITE PLAN
CU101	9 OF 72	SITE UTILITY PLAN
CG101	10 OF 72	GRADING AND DRAINAGE PLAN
C-501	11 OF 72	EROSION AND SEDIMENT CONTROL DETAILS
C-502	12 OF 72	SITE DETAILS 1
C-503	13 OF 72	SITE DETAILS 2
C-504	14 OF 72	SITE DETAILS 3
C-505	15 OF 72	SITE DETAILS 4
C-506	16 OF 72	SITE DETAILS 5
B-001	17 OF 72	BORING LOGS

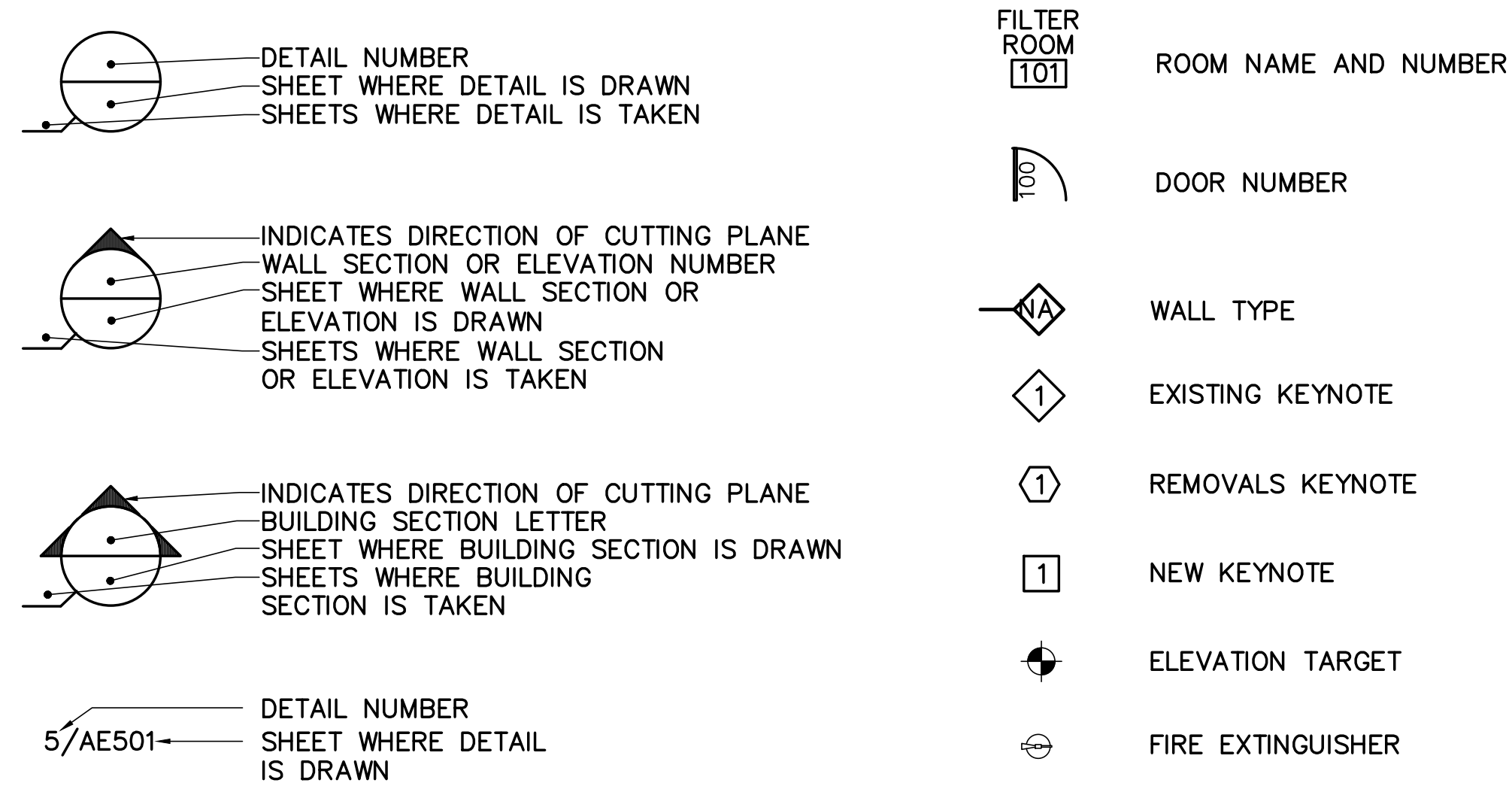
STRUCTURAL

S-001	18 OF 72	STRUCTURAL NOTES, ABBREVIATIONS, AND DESIGN LOADS
SD101	19 OF 72	EXISTING PUMP HOUSE FOUNDATION AND ROOF FRAMING REMOVALS PLANS
SB101	20 OF 72	PUMP HOUSE FOUNDATION PLAN
SB102	21 OF 72	PUMP HOUSE SLAB PLAN
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SB502	23 OF 72	FOUNDATION DETAILS 2
SF101	24 OF 72	PUMP HOUSE ROOF AND CEILING FRAMING PLANS
SF201	25 OF 72	PUMP HOUSE SHEAR WALL ELEVATIONS
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ARCHITECTURAL

AD101	27 OF 72	EXISTING PUMP HOUSE REMOVALS PLAN AND ELEVATIONS
AE101	28 OF 72	PUMP HOUSE FLOOR PLANS AND WALL TYPE DETAILS
AE120	29 OF 72	PUMP HOUSE ROOF PLAN AND DETAILS
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AE220	31 OF 72	PUMP HOUSE SECTIONS
AE301	32 OF 72	WALL SECTIONS AND DETAILS
AE401	33 OF 72	STAIR PLANS, SECTIONS, AND DETAILS
AE601	34 OF 72	DOOR AND ROOM FINISH SCHEDULES AND DOOR TYPES AND DETAILS
AE701	35 OF 72	PUMP HOUSE REFLECTED CEILING PLANS AND SIGNAGE DETAILS

LEGEND



SHEET SHEET NO DRAWING TITLE

MECHANICAL

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M-101	37 OF 72	PUMP HOUSE MECHANICAL PLANS AND SCHEDULES

PLUMBING

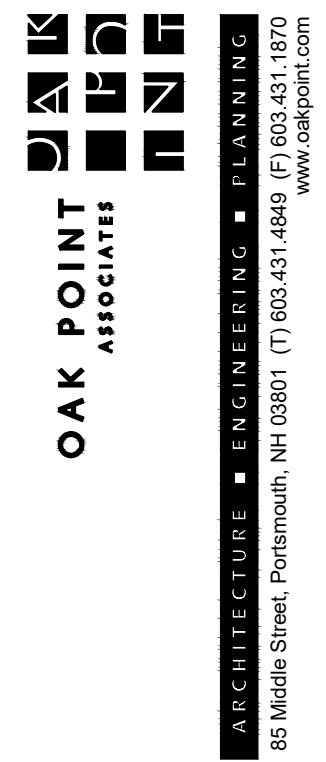
P-001	38 OF 72	PLUMBING GENERAL NOTES, ABBREVIATIONS, LEGENDS, AND SCHEDULES
P-101	39 OF 72	PUMP HOUSE PLUMBING PLANS

ELECTRICAL

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PL110	47 OF 72	POOL A – LEISURE POOL PLAN
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PL113	50 OF 72	POOL A – LEISURE POOL DETAILS 1
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PL115	52 OF 72	POOL A – SURGE TANK PLAN AND SECTIONS
PL200	53 OF 72	STRUCTURAL NOTES, PLAN(S) AND SCHEDULE
PL210	54 OF 72	STRUCTURAL GENERAL DETAILS
PL211	55 OF 72	STRUCTURAL DETAILS – 1
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PL300	57 OF 72	OVERALL PIPING PLAN
PL301	58 OF 72	GENERAL NOTES
PL302	59 OF 72	GENERAL DETAILS
PL310	60 OF 72	POOL A – PIPING PLAN (NORTHERN END)
PL311	61 OF 72	POOL A – PIPING PLAN (SOUTHERN END)
PL400	62 OF 72	MECHANICAL EQUIPMENT PLAN
PL401	63 OF 72	MECHANICAL DETAILS 1
PL402	64 OF 72	MECHANICAL DETAILS 2
PL403	65 OF 72	MECHANICAL DETAILS 3
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PL405	67 OF 72	DEFENDER SCHEMATIC
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PL500	69 OF 72	MECHANICAL SCHEMATIC
PL501	70 OF 72	ELECTRICAL SCHEMATIC
PL600	71 OF 72	MECHANICAL ROOM PIPE PENETRATIONS
PL601	72 OF 72	PIPE PENETRATION SECTIONS



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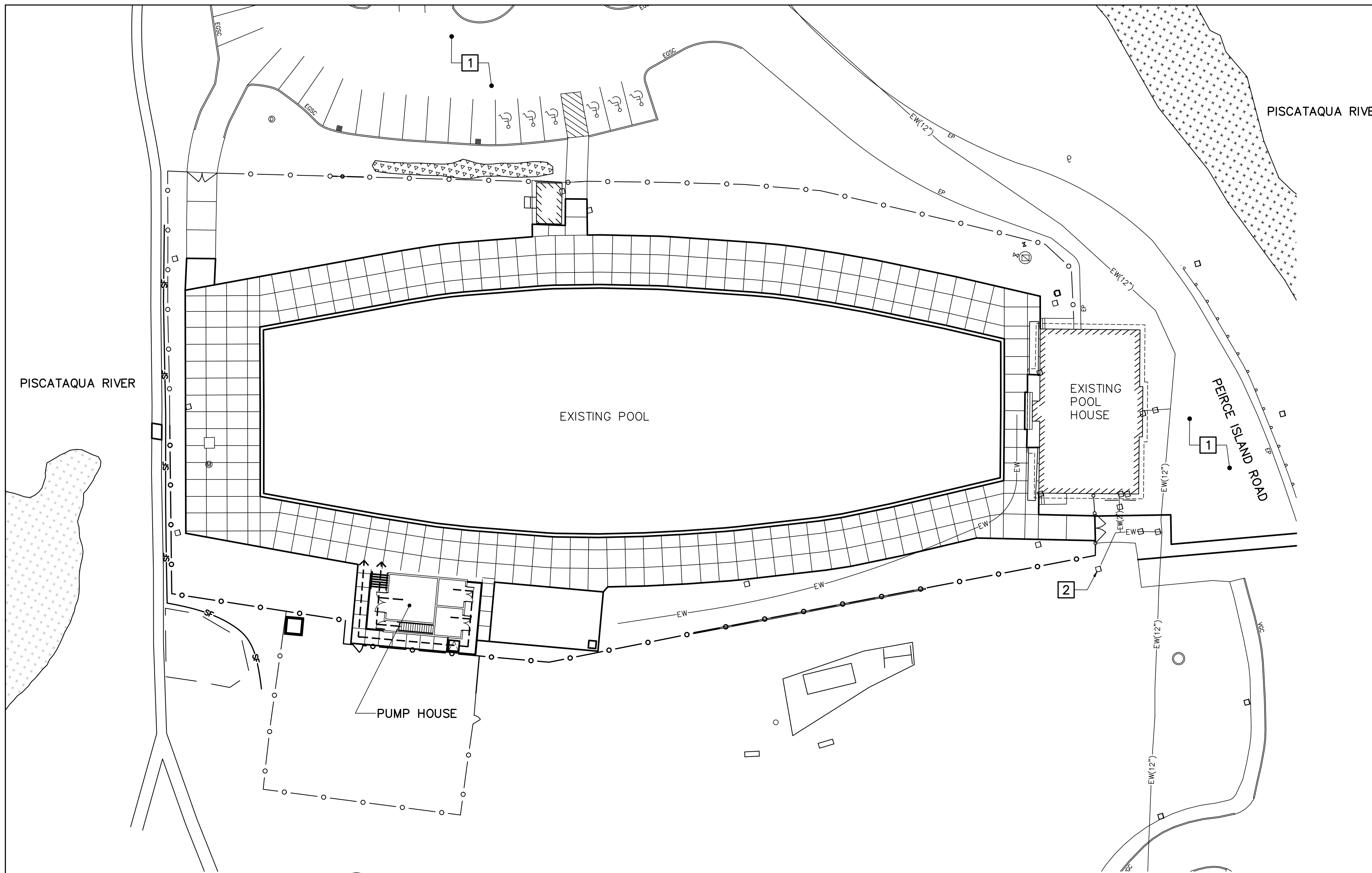
ABBREVIATIONS,
 LEGEND, GENERAL
 CONSTRUCTION
 NOTES, AND LIST
 OF DRAWINGS

SCALE: AS NOTED
 DATE: 06/17/2022

DWG: **G-002**

SHEET: **2** OF **72**

NO.	DATE	DESCRIPTION	BY



GENERAL FIRE PROTECTION CODE INFORMATION

APPLICABLE LIFE SAFETY/BUILDING CODES:
 New Hampshire Building Code; which incorporates:
 2015 International Building Code with New Hampshire
 and Portsmouth City amendments
 2015 International Swimming Pool and Spa Code.

New Hampshire State Fire Code (Saf-C 6000); which
 incorporates:
 2015 National Fire Protection Association (NFPA) 1,
 The Fire Prevention Code
 2015 International Fire Code
 2015 NFPA 101, The Life Safety Code

2013 NFPA 10, Standard for Portable Fire Extinguishers

2017 NFPA 70, National Electric Code with New
 Hampshire amendments

NOTE:
 The building will not be provided with a fire alarm or
 sprinkler system.

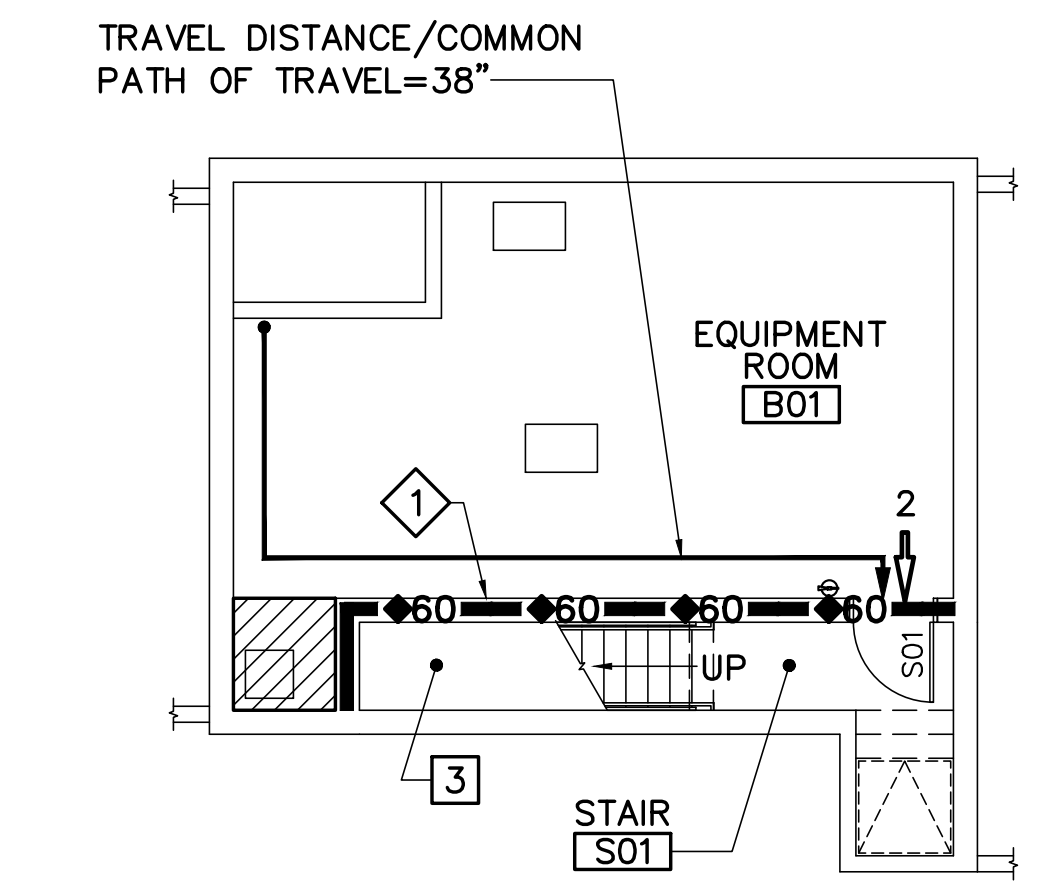
KEYNOTES (THIS SHEET ONLY)

- 1 EXISTING FIRE DEPARTMENT ACCESS.
- 2 EXISTING FIRE HYDRANT.
- 3 DO NOT PENETRATE THE STAIR ENCLOSURE WITH THE EXCEPTION OF CONDUIT FOR LIGHTING SERVING THE STAIR.

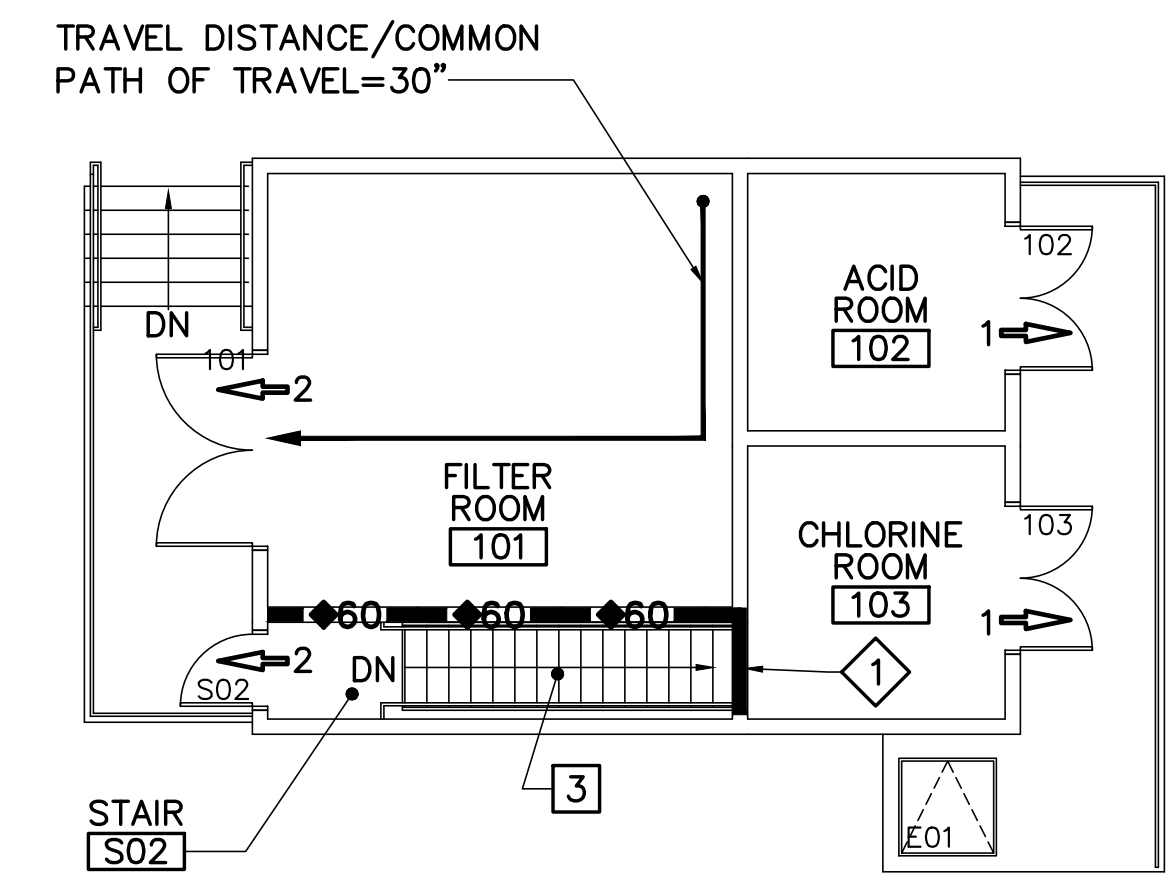
LEGEND

- ◆60◆60 OR ◇ 1-HOUR FIRE BARRIER WITH 1-HOUR FIRESTOPPING AT PENETRATIONS AND JOINTS AND 60-MINUTE FIRE RESISTANT RATED, SELF-CLOSING AND SELF-LATCHING DOORS, WITH MINIMUM 60 MINUTE DOOR FRAMES.
- ▨ 1-HOUR FIRE RESISTANCE RATE FLOOR ASSEMBLY ABOVE
- TRAVEL PATH
- XXX → NUMBER OF OCCUPANTS UTILIZING EXIT
- - - - - EXIT DISCHARGE PATH

1 SITE LAYOUT PLAN
 G-101 NOT TO SCALE



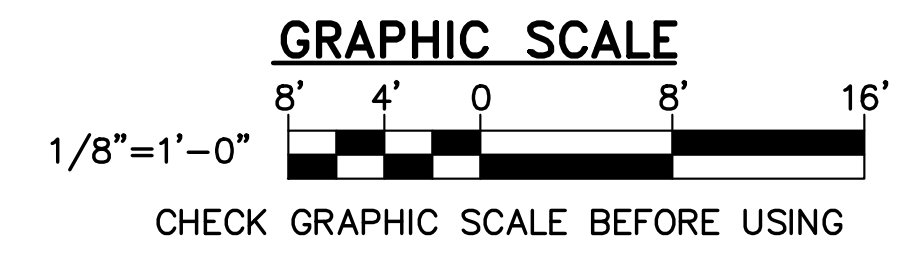
2 BASEMENT LIFE SAFETY PLAN
 G-101 1/8" = 1'-0"



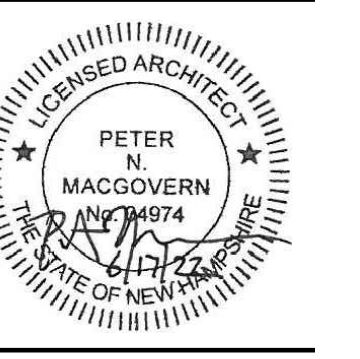
3 FIRST FLOOR LIFE SAFETY PLAN
 G-102 1/8" = 1'-0"



CALCULATED OCCUPANT LOAD AND EGRESS CAPACITY						
ROOM/SPACE	USE	FLOOR AREA (SF)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD (PEOPLE)		
EQUIPMENT ROOM	MECHANICAL	544	300 GROSS SF/OCCUPANT	2		
FILTER ROOM	MECHANICAL	349	300 GROSS SF/OCCUPANT	2		
ACID ROOM	STORAGE	115	300 GROSS SF/OCCUPANT	1		
CHLORINE ROOM	STORAGE	122	300 GROSS SF/OCCUPANT	1		
TOTAL		1,130		6		
EXIT/MEANS OF EGRESS	DOOR CLEAR WIDTH (INCHES)	DOOR CAPACITY (PEOPLE)	STAIR CLEAR WIDTH (INCHES)	STAIR CAPACITY (PEOPLE)	LIMITING CAPACITY (PEOPLE)	USE (PEOPLE)
EXTERIOR DOOR 101	92	460	77	256	256	2
EXTERIOR DOOR 102	66	330	NA	-	330	1
EXTERIOR DOOR 103	66	330	NA	-	330	1
EXTERIOR DOOR S02	32	160	44	146	146	2
					1,062	6



NO.	DATE	DESCRIPTION	BY
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PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

CODE INFORMATION 1

SCALE: AS NOTED
 DATE: 06/17/2022

DWG: **G-101**

BUILDING CODE SUMMARY (IBC)

BUILDING FEATURE	REQUIRED/ALLOWED	PROVIDED	REFERENCE
OCCUPANCY CLASSIFICATION	NOT APPLICABLE	F-1 (MODERATE HAZARD FACTORY INDUSTRIAL)	IBC, SECTION 306.2
TYPE OF CONSTRUCTION	NOT APPLICABLE	TYPE III-B	IBC, TABLE 601 AND SECTION 602.3
BUILDING HEIGHT	55 FEET ABOVE GRADE PLANE	20 FEET	IBC, TABLE 504.3
BUILDING NUMBER OF STORIES	2 ABOVE GRADE PLANE	1 PLUS BASEMENT	IBC, TABLE 504.4
BUILDING FOOTPRINT AREA	12,000 SQUARE FEET	768 SQUARE FEET	IBC, TABLE 506.2
EXTERIOR WALL FIRE-RESISTANCE RATING (FIRE SEPARATION DISTANCE = >30 FEET)	0	2-HOUR	IBC, TABLE 602
INTERIOR FIRE-RESISTANCE RATINGS	OCCUPANCY SEPARATIONS: NOT APPLICABLE - SINGLE OCCUPANCY CORRIDORS: NOT APPLICABLE STAIRWAYS: 1-HOUR	STAIRWAYS: 1-HOUR	IBC, SECTION 1023.2
STRUCTURAL ELEMENTS FIRE-RESISTANCE RATINGS	EXTERIOR LOAD BEARING WALLS: 2-HOURS ALL OTHERS: 0	EXTERIOR LOAD BEARING WALLS: 2-HOURS ALL OTHERS: 0	IBC, TABLE 601
USE/OCCUPANT LOAD FACTORS	MECHANICAL: 300 GROSS SF/OCCUPANT STORAGE: 300 GROSS SF/OCCUPANT	SEE CALCULATED OCCUPANT LOAD TABLE, SHEET G-101	IBC, TABLE 1004.1.2
NUMBER OF EXITS	BASEMENT: 1 FIRST FLOOR: 3 (1 FROM EACH SPACE)	BASEMENT: 1 FIRST FLOOR: 3 (1 FROM EACH SPACE)	IBC, SECTION 1006.3.2, CONDITIONS 1 AND 2
EXIT CAPACITY (CLEAR WIDTH)	DOORS: 0.2 INCHES/PERSON STAIRS: 0.3 INCHES/PERSON	SEE CALCULATED OCCUPANT LOAD TABLE, SHEET G-101	IBC, SECTION 1005.3.2 IBC, SECTION 1005.3.1
MINIMUM DOOR CLEAR WIDTH	32 INCHES	>32 INCHES	IBC, SECTION 1010.1.1
MINIMUM STAIR CLEAR WIDTH	44 INCHES	44 INCHES	IBC, SECTION 1011.2
TRAVEL DISTANCE	75 FEET MAXIMUM (DUE TO SINGLE EXIT)	38 FEET	IBC, SECTIONS 1006.3.2(2) AND 1017.2
COMMON PATH OF TRAVEL	75 FEET MAXIMUM	38 FEET	IBC, SECTION 1006.2.1
DEAD END CORRIDOR LENGTH	NOT APPLICABLE	NOT APPLICABLE	IBC, SECTION 1020.4
ACCESSIBLE MEANS OF EGRESS	NOT REQUIRED	0	IBC, SECTION 1103.2.9
DISCHARGE FROM EXITS	DIRECTLY TO THE EXTERIOR AND THE PUBLIC WAY	DIRECTLY TO THE EXTERIOR AND THE PUBLIC WAY	IBC, SECTION 1022.2.2
INTERIOR FINISHES	EXIT STAIRWAYS: CLASS B MIN OTHER SPACES: CLASS C MIN	EXIT STAIRWAYS: CLASS B MIN OTHER SPACES: CLASS C MIN	IBC, TABLE 803.11
FIRE ALARM SYSTEM	NOT REQUIRED	NOT PROVIDED	IBC, SECTION 907.2.4
AUTOMATIC SPRINKLER SYSTEM	NOT REQUIRED	NOT PROVIDED	IBC, SECTION 903.2.4

LIFE SAFETY CODE SUMMARY (NFPA)

BUILDING FEATURE	REQUIRED/ALLOWED	PROVIDED	REFERENCE
OCCUPANCY CLASSIFICATION	NOT APPLICABLE	INDUSTRIAL	NFPA 101, SECTION 6.1.12.1
TYPE OF CONSTRUCTION	NOT APPLICABLE	TYPE III (200)	NFPA 220, SECTION 4.4.1
USE/OCCUPANT LOAD FACTORS	MECHANICAL: NOT APPLICABLE STORAGE: 500 GROSS SF/OCCUPANT	SEE CALCULATED OCCUPANT LOAD TABLE, SHEET G-101	NFPA 101, TABLE 7.3.1.2
NUMBER OF EXITS	1, PROVIDED COMMON PATH OF TRAVEL LIMITATIONS ARE MET	1 PER AREA	NFPA 101, SECTIONS 7.4.1 AND 40.2.4.1.2
EXIT CAPACITY	DOORS: 0.2 IN/PERSON STAIRWAYS: 0.3 IN/PERSON	SEE CALCULATED OCCUPANT LOAD TABLE, SHEET G-101	NFPA 101, TABLE 7.3.3.1
MINIMUM DOOR CLEAR WIDTH	32 INCHES	32 INCHES	NFPA 101, SECTION 7.2.1.2.3.2
MINIMUM STAIR CLEAR WIDTH	36 INCHES	44 INCHES	NFPA 101, SECTION 7.2.2.2.1.2(A)
REMOVEDNESS OF EGRESS	NOT APPLICABLE	NOT APPLICABLE	NFPA 101, SECTION 7.5.1.3.2
TRAVEL DISTANCE	50 FEET MAXIMUM (DUE TO SINGLE EXIT)	38 FEET	NFPA 101, TABLES A.7.6 AND 40.2.6.1
COMMON PATH OF TRAVEL	50 FEET MAXIMUM	38 FEET	NFPA 101, TABLES A.7.6 AND 40.2.5.1
DEAD END CORRIDOR LENGTH	NOT APPLICABLE	NOT APPLICABLE	NFPA 101, TABLES A.7.6 AND 40.2.5.1
ACCESSIBLE MEANS OF EGRESS	NOT APPLICABLE	NOT APPLICABLE	NFPA 101, SECTION 7.5.4.1
DISCHARGE FROM EXITS	DIRECTLY TO THE EXTERIOR AND THE PUBLIC WAY	DIRECTLY TO THE EXTERIOR AND THE PUBLIC WAY	NFPA 101, SECTION 7.7.1
INTERIOR FINISHES	EXIT STAIRWAYS: CLASS B MIN OTHER SPACES: CLASS C MIN	EXIT STAIRWAYS: CLASS B MIN OTHER SPACES: CLASS C MIN	NFPA 101, TABLE A.10.2.2
FIRE ALARM SYSTEM	NOT REQUIRED	NOT PROVIDED	NFPA 101, SECTION 40.3.4.1
AUTOMATIC SPRINKLER SYSTEM	NOT REQUIRED	NOT PROVIDED	NFPA 101, SECTION 4.3.5
EMERGENCY LIGHTING	REQUIRED	PROVIDED, SEE ELECTRICAL SHEETS	NFPA 101, SECTIONS 7.9 AND 40.2.9.1
EXIT SIGNAGE	REQUIRED	PROVIDED, SEE ELECTRICAL SHEETS	NFPA 101, SECTION 7.10
FIRE FLOW	1,500 GPM AT 20 PSI	EXISTING TO REMAIN	NFPA 1, TABLE 18.4.5.2.1
DISTANCE TO FIRE HYDRANT	400 FEET MAX FROM CLOSEST POINT OF BUILDING TO HYDRANT	275 FEET	NFPA 1, SECTION 18.5.3(1)



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DRAWN BY:
CHECKED BY:
PROJECT:
21904.14

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Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
Peirce Island Road
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CODE INFORMATION 2

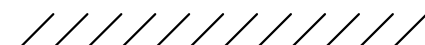
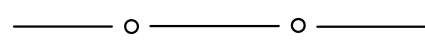
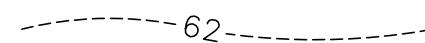





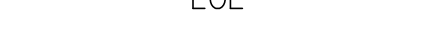

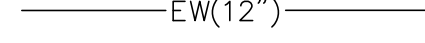

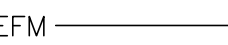
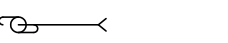













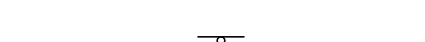






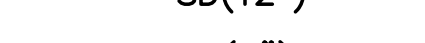
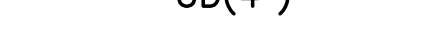




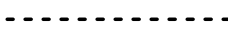
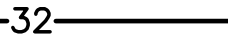



SCALE: AS NOTED
DATE: 06/17/2022

DWG.: **G-102**

SHEET: **4** OF **72**

NO.	DATE	DESCRIPTION	BY

CIVIL LEGEND

	EXISTING BUILDING
	EXISTING CHAIN LINK FENCE
	EXISTING GRADE CONTOUR LINE
	EXISTING STORM DRAIN LINE (SIZE AND TYPE)
	EXISTING SANITARY SEWER LINE (SIZE AND TYPE)
	EXISTING UNDERGROUND NATURAL GAS LINE
	EXISTING OVERHEAD UTILITIES
	EXISTING OVERHEAD ELECTRIC
	EXISTING UNDERGROUND TELEPHONE LINE
	EXISTING WATER LINE (SIZE AND TYPE)
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING SEWER FORCE MAIN
	EXISTING UTILITY POLE WITH GUY
	EXISTING LIGHT POLE
	EXISTING CATCH BASIN
	EXISTING LANDSCAPE DRAIN
	EXISTING TREE
	EXISTING SOIL BORING LOCATION
	EXISTING SURVEY CONTROL POINT
	EXISTING WATER VALVE
	EXISTING WATER SHUTOFF
	EXISTING FIRE HYDRANT
	EXISTING GAS VALVE
	EXISTING SEWER MANHOLE
	EXISTING ELECTRIC MANHOLE
	EXISTING SIGN
	BUILDING LINE
	EXISTING GRANITE SLOPE CURB
	EXISTING GRANITE CURB
	EXISTING EDGE OF PAVEMENT
	SILT FENCE
	DRAIN LINE (PIPE SIZE AS NOTED)
	UNDERDRAIN LINE (PIPE SIZE AS NOTED)
	ROOF DRAIN (PIPE SIZE AS NOTED)
	SANITARY SEWER FORCE MAIN LINE (PIPE SIZE AS NOTED)
	UNDERGROUND ELECTRIC LINE (CONDUIT SIZE AS NOTED)
	WATER LINE (PIPE SIZE AS NOTED)
	SAWCUT PAVEMENT
	FINISH GRADE CONTOUR LINE
	FINISH GRADE SPOT ELEVATION
	ELECTRIC HANDHOLE
	SIGN
	JOINT RESTRAINT
	WATER VALVE
	DRAINAGE FLOW DIRECTION

CIVIL NOTES

- VERIFY EXISTING CONDITIONS AND DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE OWNER. PROCEED WITH THE WORK ONLY AFTER THE DISCREPANCY(IES) HAS(HAVE) BEEN RESOLVED BY THE OWNER.
- THE DEPICTED LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE BASED ON RECORD DRAWINGS AND/OR FIELD SURVEY AND ARE APPROXIMATE. DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK. CONTACT "DIG SAFE" AT 1-888-344-7233 AND OBTAIN A "DIG SAFE" PERMIT PRIOR TO COMMENCING EXCAVATION OPERATIONS ON THE SITE.
- PROTECT EXISTING SYSTEMS AND SURFACES TO REMAIN. DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS MUST BE REPAIRED OR REPLACED AS APPROVED BY THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- PROVIDE A MINIMUM OF 6 INCHES OF PLANTING SOIL, SEED, AND MULCH FOR DISTURBED AREAS NOT OTHERWISE SPECIFIED.
- PROVIDE A PAVEMENT SURFACE THAT IS FREE OF LOW SPOTS AND PONDING AREAS.
- EXISTING CONDITIONS ARE BASED ON A TOPOGRAPHIC SURVEY COMPLETED BY OAK POINT ASSOCIATES DECEMBER 2018 AND JUNE 2021, CITY OF PORTSMOUTH GIS MAPS, AND TOPOGRAPHIC SURVEY BY DOUCET SURVEY JULY 2013.
- HORIZONTAL CONTROL IS BASED ON NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM, NAD83. VERTICAL CONTROL IS BASED ON NAVD88.
- GIVEN DIMENSIONS ARE FROM FACE OF CURB, FACE OF WALL, FACE OF BUILDING AND CENTERLINE OF MARKINGS UNLESS INDICATED OR NOTED OTHERWISE.
- GROUNDWATER CONDITIONS ARE AFFECTED BY TIDAL CONDITIONS AND FLUCTUATE. FOR DEWATERING WORK, EXCAVATION, AND OTHER ASPECTS OF THIS PROJECT, PLAN UNDER THE ASSUMPTION THAT GROUNDWATER WILL BE ENCOUNTERED AT ELEVATION 3.0 FEET. HIGHER ELEVATIONS MAY BE ENCOUNTERED DUE TO TIDAL FLUCTUATIONS AND WEATHER EVENTS. OBTAIN APPROVAL AND DRAINAGE PERMIT FROM THE OWNER FOR DEWATERING DISCHARGES TO CITY DRAINAGE SYSTEMS.
- COORDINATE WORK ASSOCIATED WITH ELECTRIC SERVICE WITH EVERSOURCE. PROVIDE UTILITY SERVICES IN ACCORDANCE WITH UTILITY COMPANY STANDARDS AND REQUIREMENTS. PAY UTILITY FEES FOR SERVICE CONNECTION.
- ESTABLISH AND MAINTAIN SURVEY CONTROL AND LAYOUT BY A SURVEYOR OR ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE.
- THE FOLLOWING PERMITS WILL BE OBTAINED BY THE OWNER TO ALLOW FOR THE COMPLETION OF WORK. ALL KNOWN CONDITIONS THAT WILL AFFECT THE CONTRACT HAVE BEEN INCLUDED IN THE SCOPE OF WORK IDENTIFIED ON THE DRAWINGS AND SPECIFICATIONS. ABIDE BY ALL CONDITIONS AND REQUIREMENTS OF EACH PERMIT.
 - NHDES STANDARD WETLANDS PERMIT.
 - NHDES SHORELAND PERMIT BY NOTIFICATION (PBN).
 - CITY OF PORTSMOUTH CONSERVATION COMMISSION REVIEW.
- MEET THE REQUIREMENTS AND INTENT OF NEW HAMPSHIRE INVASIVE SPECIES REGULATIONS (RSA 430:53 AND AGR 3800).
- WETLAND BOUNDARIES WERE DELINEATED BY NORMANDEAU ASSOCIATES, INC. ON JUNE 25, 2021, AND WERE DETERMINED USING THE US ARMY CORPS OF ENGINEERS NORTHCENTRAL/NORTHEAST REGIONAL SUPPLEMENT (VERSION 2, JANUARY 2013) TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (1987) AND NHDES WETLAND RULES ENV-WT 101.48.
- UTILITY PROVIDERS:
 - WATER: CITY OF PORTSMOUTH
 - SEWER: CITY OF PORTSMOUTH
 - POWER: EVERSOURCE
 - COMMUNICATIONS: BAYRING COMMUNICATIONS
- SUBSURFACE CONDITIONS BASED ON A REPORT OF GEOTECHNICAL EVALUATION PREPARED BY R.W. GILLESPIE & ASSOCIATES, DATED MAY 5, 2022.

CIVIL ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS
ABAN	ABANDONED
AC	ASBESTOS CEMENT
ADA	AMERICANS WITH DISABILITIES ACT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWG	AMERICAN WIRE GAUGE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BOTTOM OF CURB (AT PAVEMENT SURFACE)
BLDG	BUILDING
BMPs	BEST MANAGEMENT PRACTICES
CL	CENTERLINE
CJ	CONTROL JOINT
CONC	CONCRETE
CY	CUBIC YARD
DI	DUCTILE IRON
DIA	DIAMETER
E	EASTING
EJ	EXPANSION JOINT
ELEV	ELEVATION
EQ	EQUAL
EW	EACH WAY
EXIST	EXISTING
FD	FOUNDATION DRAIN
FFE	FINISH FLOOR ELEVATION
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FT	FEET
GAL	GALLON
GALV	GALVANIZED
HORIZ	HORIZONTAL
HDPE	HIGH DENSITY POLYETHYLENE
ID	IDENTIFICATION
INV	INVERT
L	LENGTH
LB/LBS	POUND/POUNDS
LF	LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM OR MINUTE
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTHING
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NHDES	NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
NHDOT	NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
NOI	NOTICE OF INTENT
NPDES	NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PC	POINT OF CURVATURE
PE	POLYETHYLENE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REINF	REINFORCED
RGS	RIGID GALVANIZED STEEL
SCH	SCHEDULE
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FOOT
SIM	SIMILAR
SY	SQUARE YARDS
T	THICKNESS
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TYP	TYPICAL
USDOT	UNITED STATES DEPARTMENT OF TRANSPORTATION
VERT	VERTICAL
W/	WITH
WWF	WELDED WIRE FABRIC

PARCEL INFORMATION

OWNER OF RECORD:
CITY OF PORTSMOUTH
PO BOX 628
PORTSMOUTH, NH 03802

PARCEL SIZE: 38.0 ACRES

CITY OF PORTSMOUTH MAP-LOT: 208-1

ZONE: MUNICIPAL (M)

DIMENSIONAL REQUIREMENTS: LOTS AND BUILDINGS IN THE MUNICIPAL DISTRICT ARE EXEMPT FROM ALL DIMENSIONAL AND INTENSITY REGULATIONS.

SUBJECT PARCEL IS LOCATED WITHIN A FEDERALLY DESIGNATED FLOOD HAZARD AREA ZONE AE (COMMUNITY PANEL NUMBER 330139 0278 F, EFFECTIVE DATE: JANUARY 29, 2021)

ABUTTERS:
PEASE DEVELOPMENT AUTHORITY
C/O PORTS FISH CO OP
ONE PIERCE ISLAND RD
PORTSMOUTH, NH 03801
LOT: 208-1A
ZONE: WATERFRONT BUSINESS (WB)

CITY OF PORTSMOUTH
PO BOX 628
PORTSMOUTH, NH 03802
LOT: 208-2
ZONE: MUNICIPAL (M)

PLAN REFERENCES

SWIMMING FACILITIES RESTORATION, JUNE 1978, BY WHITMAN AND HOWARD, INC.

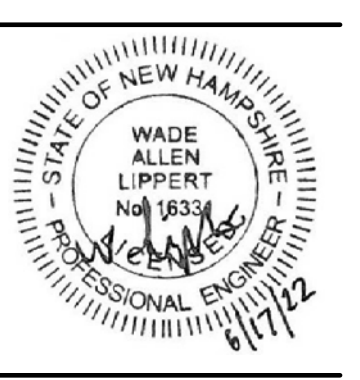
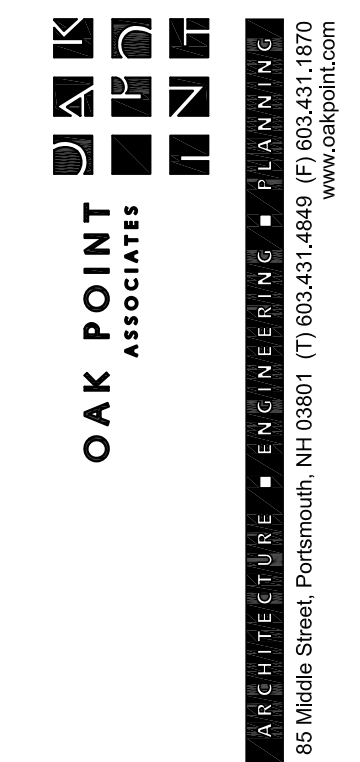
PEIRCE ISLAND POOL GUTTER IMPROVEMENTS, FEBRUARY 10, 1996, BY KIMBALL CHASE.

PARKING IMPROVEMENTS PEIRCE ISLAND, NOVEMBER 4, 2000, BY OAK POINT ASSOCIATES.

EXISTING CONDITIONS SURVEY BY DOUCET SURVEY, LLC, JULY 2003.

PEIRCE ISLAND WWTF UPGRADE, NOVEMBER 2015, BY AECOM.

CITY OF PORTSMOUTH PUBLIC WORKS EXISTING CONDITIONS GIS MAP



DESIGNED BY: WAL
DRAWN BY: WAL
CHECKED BY: PJM
PROJECT: 21904.14

CITY OF PORTSMOUTH
1 Junkins Avenue
Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

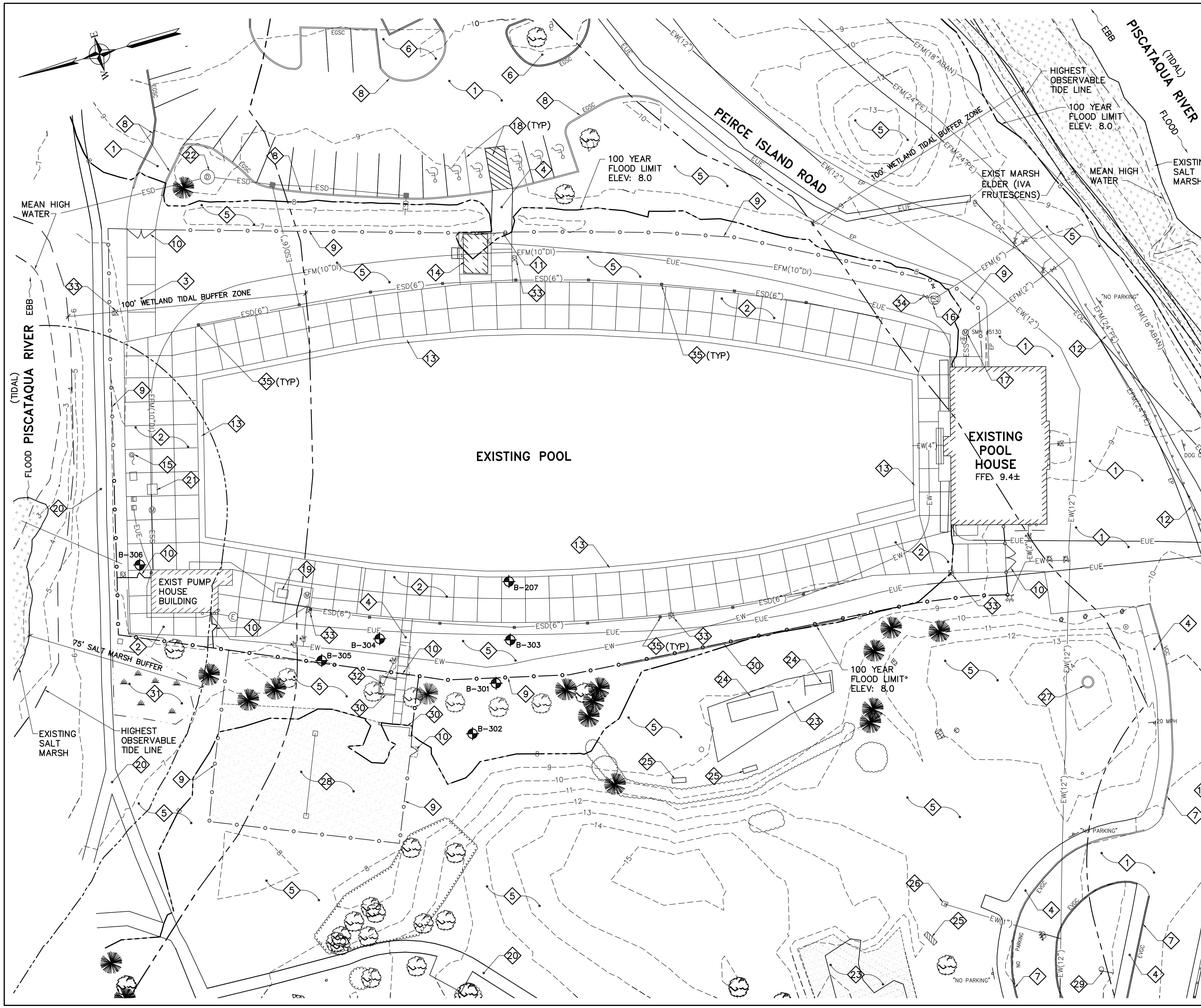
CIVIL LEGEND, NOTES, AND ABBREVIATIONS

SCALE: AS NOTED
DATE: 06/17/2022

DWG.: **C-001**

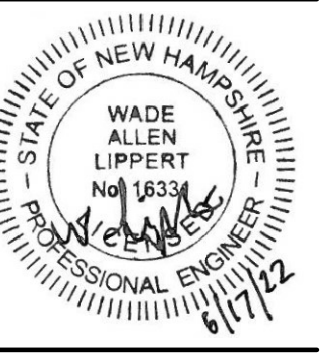
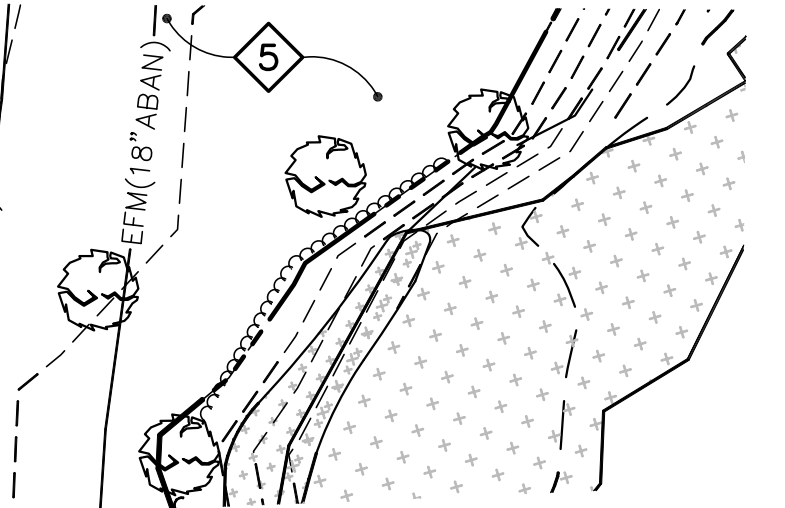
SHEET: **5** OF **72**

NO.	DATE	DESCRIPTION	BY
REVISIONS			



KEYNOTES (THIS SHEET ONLY)

- 1 EXISTING ASPHALT CONCRETE PAVEMENT.
- 2 EXISTING CONCRETE POOL DECK.
- 3 EXISTING CONCRETE PAVEMENT (4"± THICK).
- 4 EXISTING CONCRETE WALK (4"± THICK).
- 5 EXISTING TURF.
- 6 EXISTING MULCH LANDSCAPE AREA.
- 7 EXISTING VERTICAL GRANITE CURB.
- 8 EXISTING GRANITE SLOPE CURB.
- 9 EXISTING 6"± HIGH CHAIN LINK FENCE.
- 10 EXISTING 6"± HIGH CHAIN LINK SWING GATE.
- 11 EXISTING 6"± HIGH CHAIN LINK SLIDING GATE.
- 12 EXISTING WOOD GUARD RAIL.
- 13 EXISTING POOL GUTTER AND 2"± WIDE CONCRETE CAP.
- 14 EXISTING 16'x10'± PORTABLE WOOD FRAME TICKET BOOTH BUILDING.
- 15 EXISTING FLAG POLE.
- 16 EXISTING CHECK VALVE VAULT.
- 17 EXISTING SUBMERSIBLE SEWER GRINDER PUMP STATION.
- 18 EXISTING PAVEMENT MARKING.
- 19 EXISTING SURGE TANK.
- 20 EXISTING STONE DUST PATH.
- 21 EXISTING POOL FILTER BACKWASH PUMP VAULT.
- 22 EXISTING STORMWATER TREATMENT SYSTEM MANHOLE.
- 23 EXISTING MULCH PLAYGROUND SURFACE.
- 24 EXISTING PLAYGROUND EQUIPMENT.
- 25 EXISTING BENCH.
- 26 EXISTING WATER FOUNTAIN.
- 27 EXISTING CONCRETE PLANTER.
- 28 EXISTING SAND VOLLEYBALL COURT.
- 29 EXISTING PEIRCE ISLAND PLAYGROUND AND MUNICIPAL POOL SIGN.
- 30 EXISTING LANDSCAPE TIMBER.
- 31 EXISTING WETLAND.
- 32 EXISTING OUTDOOR SHOWER.
- 33 EXISTING IRRIGATION VALVE PIT.
- 34 EXISTING FORCE MAIN VALVE.
- 35 EXISTING LANDSCAPE DRAIN.



DESIGNED BY: WAL
 DRAWN BY: WAL
 CHECKED BY: PJM
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

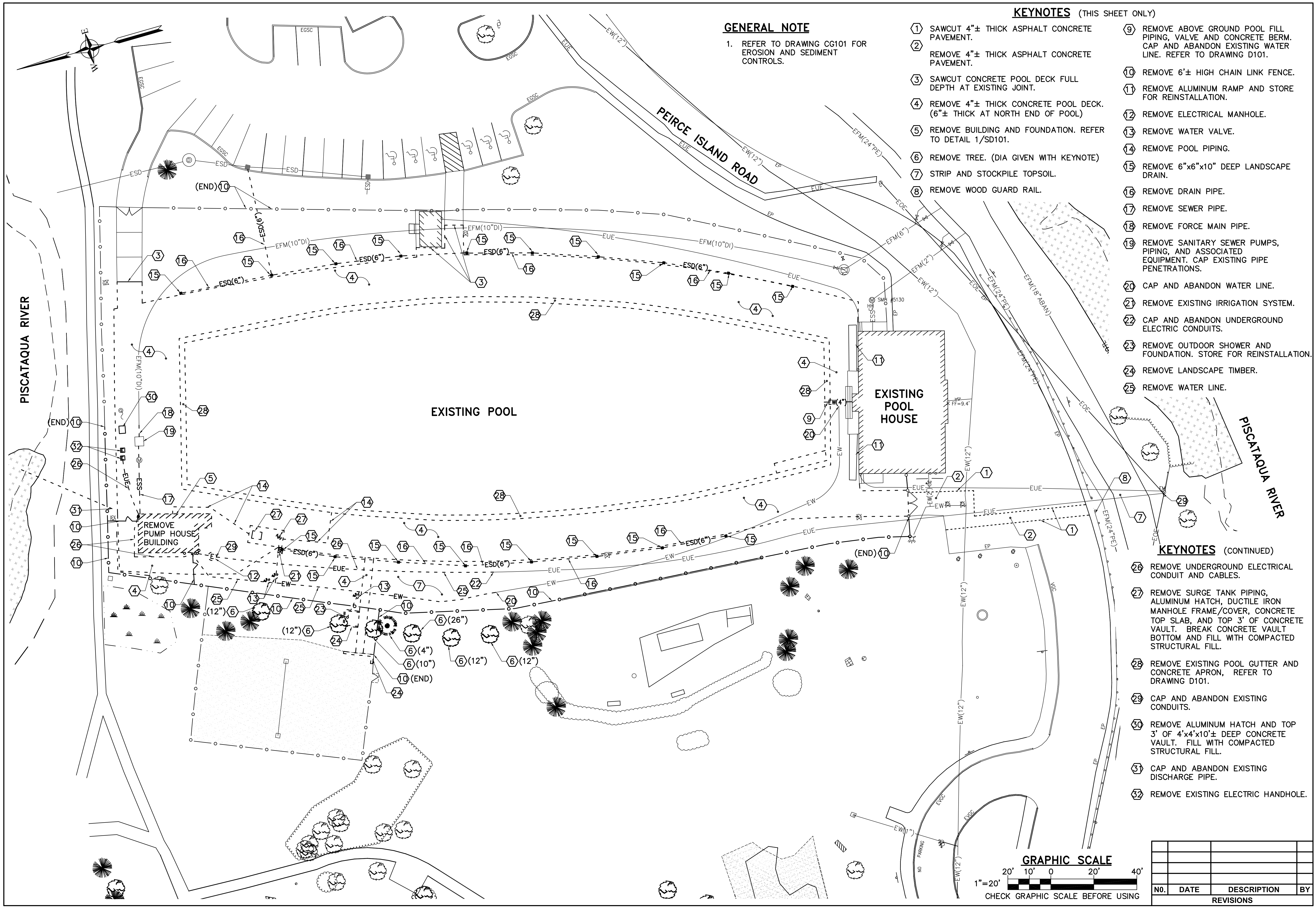
EXISTING CONDITIONS SITE PLAN

SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: **CX101**

SHEET: **6** OF **72**

NO.	DATE	DESCRIPTION	BY



GENERAL NOTE

1. REFER TO DRAWING CG101 FOR EROSION AND SEDIMENT CONTROLS.

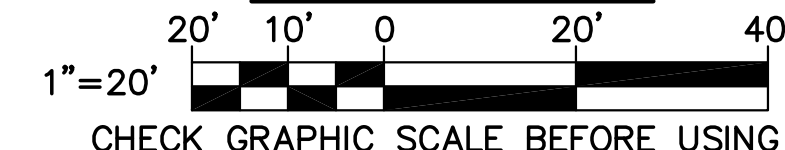
KEYNOTES (THIS SHEET ONLY)

- ① SAWCUT 4"± THICK ASPHALT CONCRETE PAVEMENT.
- ② REMOVE 4"± THICK ASPHALT CONCRETE PAVEMENT.
- ③ SAWCUT CONCRETE POOL DECK FULL DEPTH AT EXISTING JOINT.
- ④ REMOVE 4"± THICK CONCRETE POOL DECK. (6"± THICK AT NORTH END OF POOL)
- ⑤ REMOVE BUILDING AND FOUNDATION. REFER TO DETAIL 1/SD101.
- ⑥ REMOVE TREE. (DIA GIVEN WITH KEYNOTE)
- ⑦ STRIP AND STOCKPILE TOPSOIL.
- ⑧ REMOVE WOOD GUARD RAIL.
- ⑨ REMOVE ABOVE GROUND POOL FILL PIPING, VALVE AND CONCRETE BERM. CAP AND ABANDON EXISTING WATER LINE. REFER TO DRAWING D101.
- ⑩ REMOVE 6'± HIGH CHAIN LINK FENCE.
- ⑪ REMOVE ALUMINUM RAMP AND STORE FOR REINSTALLATION.
- ⑫ REMOVE ELECTRICAL MANHOLE.
- ⑬ REMOVE WATER VALVE.
- ⑭ REMOVE POOL PIPING.
- ⑮ REMOVE 6"x6"x10" DEEP LANDSCAPE DRAIN.
- ⑯ REMOVE DRAIN PIPE.
- ⑰ REMOVE SEWER PIPE.
- ⑱ REMOVE FORCE MAIN PIPE.
- ⑲ REMOVE SANITARY SEWER PUMPS, PIPING, AND ASSOCIATED EQUIPMENT. CAP EXISTING PIPE PENETRATIONS.
- ⑳ CAP AND ABANDON WATER LINE.
- ㉑ REMOVE EXISTING IRRIGATION SYSTEM.
- ㉒ CAP AND ABANDON UNDERGROUND ELECTRIC CONDUITS.
- ㉓ REMOVE OUTDOOR SHOWER AND FOUNDATION. STORE FOR REINSTALLATION.
- ㉔ REMOVE LANDSCAPE TIMBER.
- ㉕ REMOVE WATER LINE.

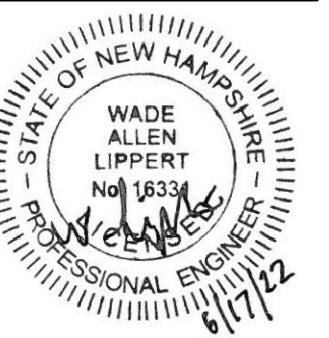
KEYNOTES (CONTINUED)

- ㉖ REMOVE UNDERGROUND ELECTRICAL CONDUIT AND CABLES.
- ㉗ REMOVE SURGE TANK PIPING, ALUMINUM HATCH, DUCTILE IRON MANHOLE FRAME/COVER, CONCRETE TOP SLAB, AND TOP 3' OF CONCRETE VAULT. BREAK CONCRETE VAULT BOTTOM AND FILL WITH COMPACTED STRUCTURAL FILL.
- ㉘ REMOVE EXISTING POOL GUTTER AND CONCRETE APRON. REFER TO DRAWING D101.
- ㉙ CAP AND ABANDON EXISTING CONDUITS.
- ㉚ REMOVE ALUMINUM HATCH AND TOP 3' OF 4'x4'x10'± DEEP CONCRETE VAULT. FILL WITH COMPACTED STRUCTURAL FILL.
- ㉛ CAP AND ABANDON EXISTING DISCHARGE PIPE.
- ㉜ REMOVE EXISTING ELECTRIC HANDHOLE.

GRAPHIC SCALE



NO.	DATE	DESCRIPTION	BY

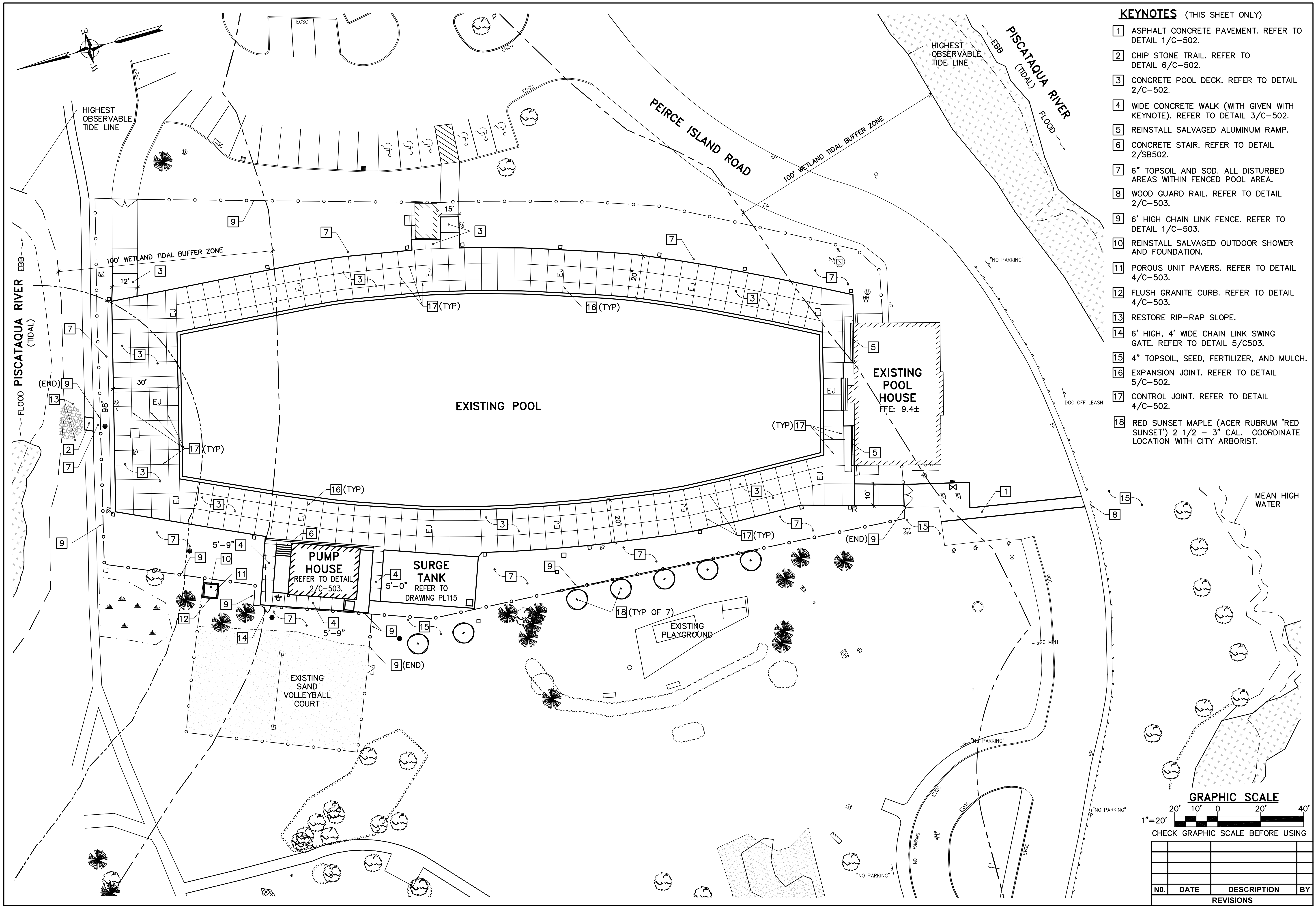


DESIGNED BY: WAL
 DRAWN BY: WAL
 CHECKED BY: PUM
 PROJECT: 21904.14

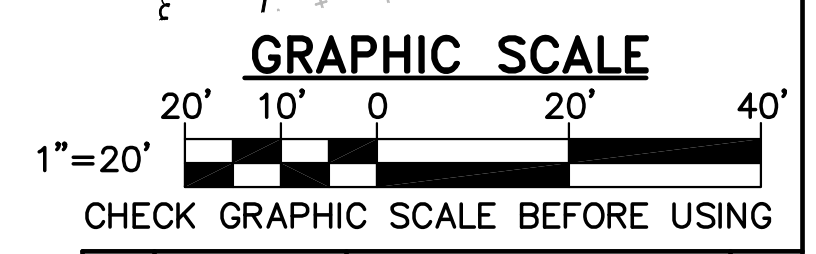
CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

REMOVALS SITE PLAN

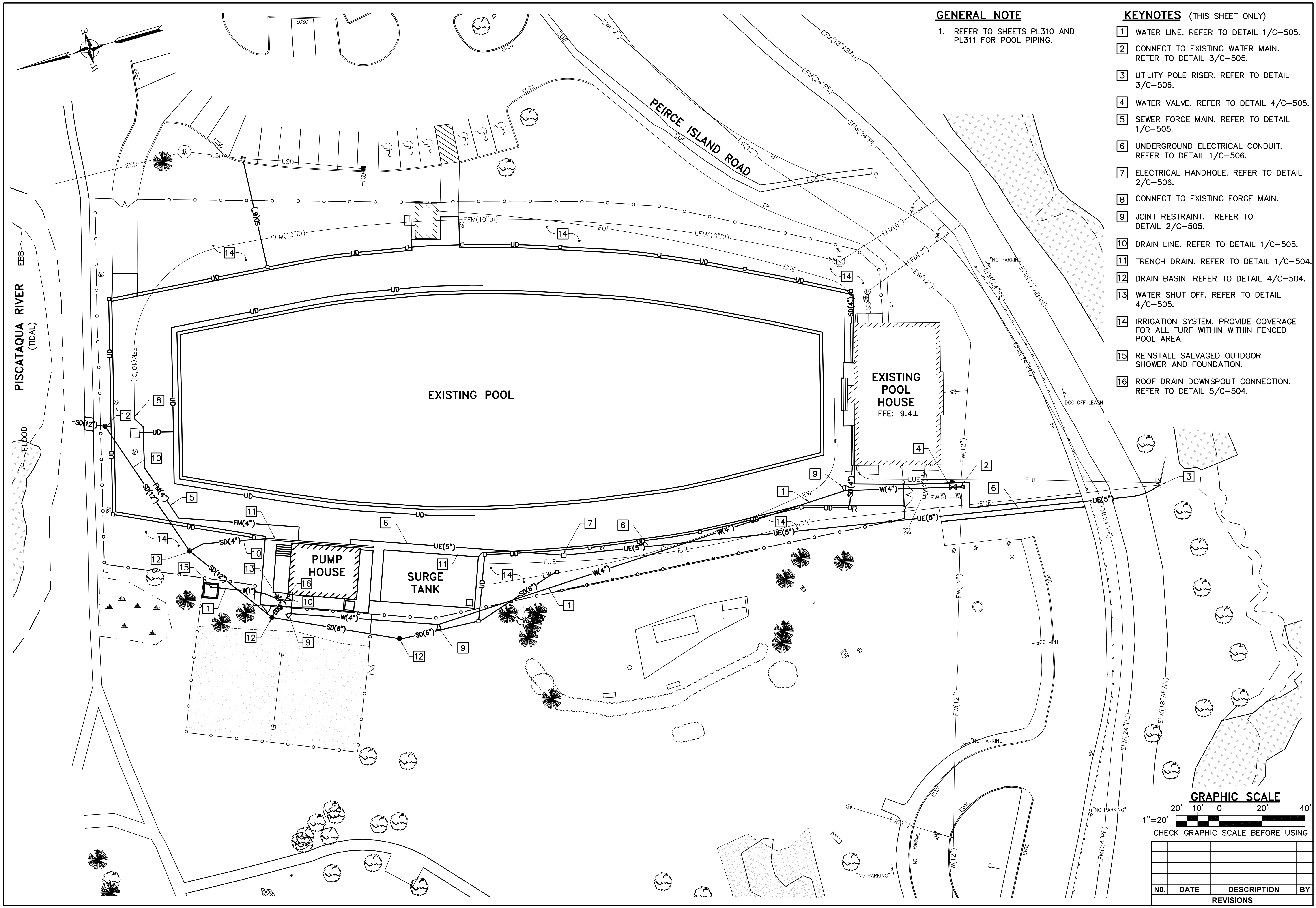


- KEYNOTES (THIS SHEET ONLY)**
- 1 ASPHALT CONCRETE PAVEMENT. REFER TO DETAIL 1/C-502.
 - 2 CHIP STONE TRAIL. REFER TO DETAIL 6/C-502.
 - 3 CONCRETE POOL DECK. REFER TO DETAIL 2/C-502.
 - 4 WIDE CONCRETE WALK (WITH GIVEN WITH KEYNOTE). REFER TO DETAIL 3/C-502.
 - 5 REINSTALL SALVAGED ALUMINUM RAMP.
 - 6 CONCRETE STAIR. REFER TO DETAIL 2/SB502.
 - 7 6" TOPSOIL AND SOD. ALL DISTURBED AREAS WITHIN FENCED POOL AREA.
 - 8 WOOD GUARD RAIL. REFER TO DETAIL 2/C-503.
 - 9 6' HIGH CHAIN LINK FENCE. REFER TO DETAIL 1/C-503.
 - 10 REINSTALL SALVAGED OUTDOOR SHOWER AND FOUNDATION.
 - 11 POROUS UNIT PAVERS. REFER TO DETAIL 4/C-503.
 - 12 FLUSH GRANITE CURB. REFER TO DETAIL 4/C-503.
 - 13 RESTORE RIP-RAP SLOPE.
 - 14 6' HIGH, 4' WIDE CHAIN LINK SWING GATE. REFER TO DETAIL 5/C503.
 - 15 4" TOPSOIL, SEED, FERTILIZER, AND MULCH.
 - 16 EXPANSION JOINT. REFER TO DETAIL 5/C-502.
 - 17 CONTROL JOINT. REFER TO DETAIL 4/C-502.
 - 18 RED SUNSET MAPLE (ACER RUBRUM 'RED SUNSET') 2 1/2 - 3" CAL. COORDINATE LOCATION WITH CITY ARBORIST.



NO.	DATE	DESCRIPTION	BY

REVISIONS

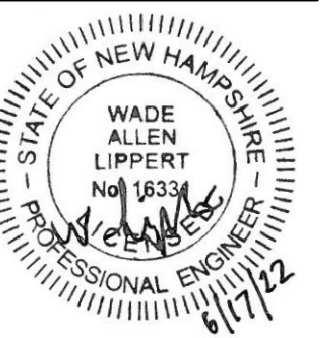


GENERAL NOTE

1. REFER TO SHEETS PL310 AND PL311 FOR POOL PIPING.

KEYNOTES (THIS SHEET ONLY)

- 1 WATER LINE. REFER TO DETAIL 1/C-505.
- 2 CONNECT TO EXISTING WATER MAIN. REFER TO DETAIL 3/C-505.
- 3 UTILITY POLE RISER. REFER TO DETAIL 3/C-506.
- 4 WATER VALVE. REFER TO DETAIL 4/C-505.
- 5 SEWER FORCE MAIN. REFER TO DETAIL 1/C-505.
- 6 UNDERGROUND ELECTRICAL CONDUIT. REFER TO DETAIL 1/C-506.
- 7 ELECTRICAL HANDHOLE. REFER TO DETAIL 2/C-506.
- 8 CONNECT TO EXISTING FORCE MAIN.
- 9 JOINT RESTRAINT. REFER TO DETAIL 2/C-505.
- 10 DRAIN LINE. REFER TO DETAIL 1/C-505.
- 11 TRENCH DRAIN. REFER TO DETAIL 1/C-504.
- 12 DRAIN BASIN. REFER TO DETAIL 4/C-504.
- 13 WATER SHUT OFF. REFER TO DETAIL 4/C-505.
- 14 IRRIGATION SYSTEM. PROVIDE COVERAGE FOR ALL TURF WITHIN FENCED POOL AREA.
- 15 REINSTALL SALVAGED OUTDOOR SHOWER AND FOUNDATION.
- 16 ROOF DRAIN DOWNSPOUT CONNECTION. REFER TO DETAIL 5/C-504.

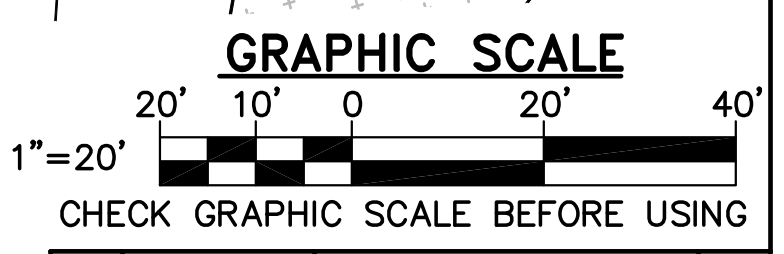


DESIGNED BY: WAL
 DRAWN BY: WAL
 CHECKED BY: PJM
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

SITE UTILITY PLAN

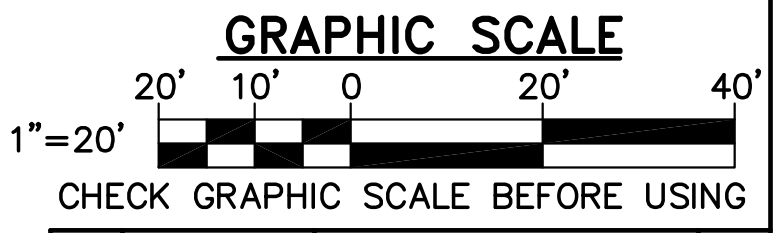
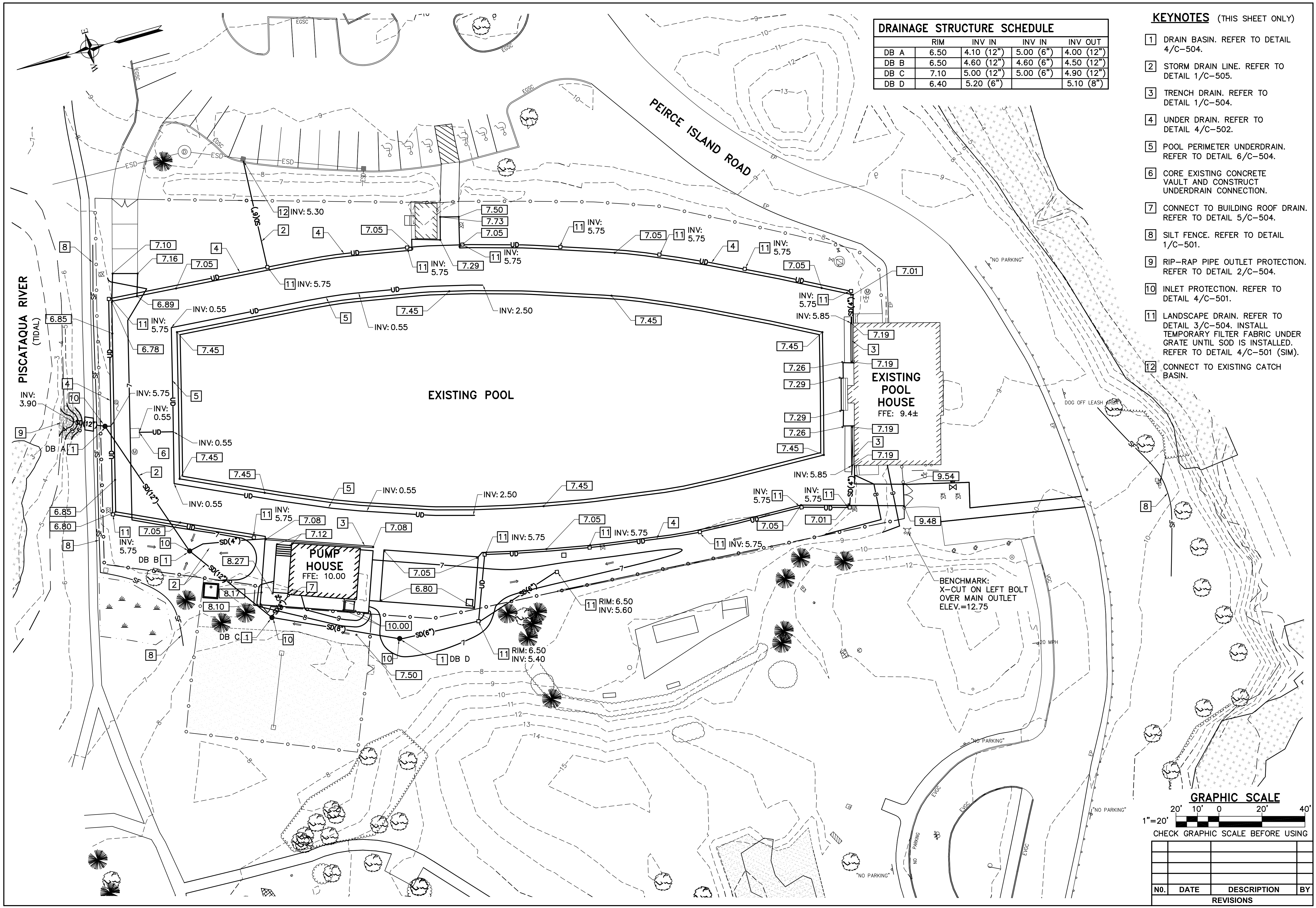


NO.	DATE	DESCRIPTION	BY

SCALE: AS NOTED
 DATE: 06/17/2022
 DWG.: **CU101**
 SHEET: **9** OF **72**

DRAINAGE STRUCTURE SCHEDULE				
	RIM	INV IN	INV IN	INV OUT
DB A	6.50	4.10 (12")	5.00 (6")	4.00 (12")
DB B	6.50	4.60 (12")	4.60 (6")	4.50 (12")
DB C	7.10	5.00 (12")	5.00 (6")	4.90 (12")
DB D	6.40	5.20 (6")		5.10 (8")

- KEYNOTES (THIS SHEET ONLY)**
- 1 DRAIN BASIN. REFER TO DETAIL 4/C-504.
 - 2 STORM DRAIN LINE. REFER TO DETAIL 1/C-505.
 - 3 TRENCH DRAIN. REFER TO DETAIL 1/C-504.
 - 4 UNDER DRAIN. REFER TO DETAIL 4/C-502.
 - 5 POOL PERIMETER UNDERDRAIN. REFER TO DETAIL 6/C-504.
 - 6 CORE EXISTING CONCRETE VAULT AND CONSTRUCT UNDERDRAIN CONNECTION.
 - 7 CONNECT TO BUILDING ROOF DRAIN. REFER TO DETAIL 5/C-504.
 - 8 SILT FENCE. REFER TO DETAIL 1/C-501.
 - 9 RIP-RAP PIPE OUTLET PROTECTION. REFER TO DETAIL 2/C-504.
 - 10 INLET PROTECTION. REFER TO DETAIL 4/C-501.
 - 11 LANDSCAPE DRAIN. REFER TO DETAIL 3/C-504. INSTALL TEMPORARY FILTER FABRIC UNDER GRATE UNTIL SOD IS INSTALLED. REFER TO DETAIL 4/C-501 (SIM).
 - 12 CONNECT TO EXISTING CATCH BASIN.



NO.	DATE	DESCRIPTION	BY

EROSION AND SEDIMENT CONTROL NOTES

A. GENERAL NOTES

- DURING CONSTRUCTION AND THEREAFTER, PROVIDE EROSION CONTROL MEASURES AS INDICATED AND SPECIFIED. EROSION CONTROL MEASURES MUST BE IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORM WATER MANUAL".
- TEMPORARY EROSION CONTROL MEASURES INCLUDE THE USE OF EROSION CONTROL DEVICES, TEMPORARY SEEDING AND MULCHING, AND PROVISIONS FOR STABILIZING INACTIVE AREAS. PERMANENT EROSION CONTROL MEASURES INCLUDE PERMANENT SEEDING AND MULCHING.
- INSTALL PERIMETER EROSION CONTROLS PRIOR TO BEGINNING EARTH MOVING OPERATIONS.
- PROVIDE INLET PROTECTION FOR EACH CATCH BASIN ON THE SAME DAY THAT BACKFILL IS PLACED AROUND THE CATCH BASIN.
- PROVIDE 6-INCHES PLANTING SOIL, SEED AND MULCH ON DISTURBED AREAS NOT OTHERWISE SPECIFIED. COMPLETE PERMANENT SEEDING BETWEEN THE DATES OF APRIL 1 AND OCTOBER 14. WATER VEGETATED AREAS AS NECESSARY TO ESTABLISH A VIGOROUS TURF.
- PROVIDE EROSION CONTROL MEASURES TO CONTROL EROSION AND SEDIMENTATION FROM THE PROJECT SITE. THE MEASURES INDICATED ON THE DRAWINGS ARE THE MINIMUM TO BE PROVIDED. PROVIDE ADDITIONAL MEASURES AS NECESSARY AND APPLICABLE TO CONTROL EROSION AND SEDIMENTATION FROM LEAVING THE SITE.
- LIMIT AREAS OF EXPOSED SOILS TO THOSE AREAS THAT WILL ACTIVELY BE WORKED. TEMPORARILY STABILIZE AREAS OF DISTURBED SOIL THAT REMAIN UNWORKED FOR MORE THAN 14 DAYS USING TEMPORARY MULCHING (IF THE SOIL WILL BE PERMANENTLY STABILIZED WITHIN 30 DAYS) OR TEMPORARY SEEDING AND MULCHING (IF THE SOIL WILL NOT BE PERMANENTLY STABILIZED WITHIN 30 DAYS). PERMANENTLY STABILIZE ANY AREA OF DISTURBED SOIL BROUGHT TO FINAL GRADE WITHIN 7 DAYS. DISTURBED SOILS DO NOT INCLUDE COMPACTED BASE COURSES OR STRUCTURAL FILLS USED FOR ROADS AND PARKING LOTS. UNSTABILIZED AREA MUST NOT EXCEED 1 ACRE AT ANY ONE TIME.
- AN AREA WILL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
 - B. A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED.
 - C. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED.
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- STABILIZE ROADWAYS AND PARKING LOTS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. SEED AND LOAM CUT AND FILL SLOPES WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- INSTALL SWALES EARLY IN THE CONSTRUCTION SEQUENCE. PERMANENTLY STABILIZE SWALES PRIOR TO DIRECTING FLOW TO THEM.
- INSTALL STABILIZED CONSTRUCTION EXIT AT VEHICULAR ACCESS POINT TO THE SITE TO PREVENT TRACKING ONTO ADJACENT EXISTING PAVEMENT SURFACES. REFER TO DETAIL 3/C-501.

B. INSPECTION AND MAINTENANCE

- INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE PROJECT AREA DAILY AND BEFORE AND AFTER EACH STORM EVENT WITH PRECIPITATION GREATER THAN 0.1" AND PRIOR TO COMPLETION OF PERMANENT STABILIZATION. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE NPDES STANDARDS MUST CONDUCT THE INSPECTION. THIS PERSON MUST BE IDENTIFIED IN THE INSPECTION LOG. IF BEST MANAGEMENT PRACTICES (BMPs) NEED TO BE MODIFIED OR IF ADDITIONAL BMPs ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
- KEEP AND MAINTAIN A LOG (REPORT) SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, AND MAJOR OBSERVATIONS RELATING TO OPERATION OF EROSION AND SEDIMENTATION CONTROLS AND POLLUTION PREVENTION MEASURES. MAJOR OBSERVATIONS MUST INCLUDE: BMPs THAT NEED TO BE MAINTAINED; LOCATION(S) OF BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION; AND LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION. FOLLOW-UP TO CORRECT DEFICIENCIES OR ENHANCE CONTROLS MUST ALSO BE INDICATED IN THE LOG AND DATED, INCLUDING WHAT ACTION WAS TAKEN AND WHEN.
- MAINTAIN EROSION CONTROL MEASURES FOR THE LIFE OF THE PROJECT AND UNTIL PERMANENT STABILIZATION OF THE ENTIRE SITE IS ESTABLISHED. PERMANENT STABILIZATION MUST CONSIST OF AT LEAST 90-PERCENT VEGETATION OR PAVEMENT.
- PROTECT STABILIZED AREAS FROM EROSION AND IMMEDIATELY REPAIR/REVEGETATE ERODED AREAS.
- SEDIMENT ACCUMULATIONS MUST BE REMOVED FROM HAY BALE BARRIERS AND SILT FENCES WHEN THE SEDIMENT DEPTH REACHES 6 INCHES.
- REMOVE TEMPORARY EROSION CONTROL MEASURES WITHIN 30 DAYS AFTER THE TRIBUTARY AREA HAS BEEN PERMANENTLY STABILIZED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

C. SEQUENCE OF CONSTRUCTION

- INITIAL OPERATIONS INCLUDE INSTALLATION OF EROSION CONTROL DEVICES.
- CLEAR TREES, GRUB OUT STUMPS AND STRIP TOPSOIL AND STOCKPILE. PROVIDE SILT FENCE DOWNGRADIENT OF STOCKPILES AND COVER STOCKPILES WITH MULCH.
- COMMENCE LARGE-SCALE EARTH EXCAVATION MOVING OPERATIONS. CONSTRUCT STORM DRAINAGE SYSTEM BEGINNING AT THE LOW POINT OF THE SYSTEM.
- CONTINUE WITH OTHER UTILITY AND PAVEMENT CONSTRUCTION.
- COMPLETE PAVEMENT CONSTRUCTION. PROVIDE PERMANENT SEEDING, MULCHING, OR OTHER SURFACE TREATMENTS AS INDICATED IMMEDIATELY UPON ESTABLISHMENT OF FINISH GRADES.

D. SOIL STOCKPILE STABILIZATION

- COVER SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 30 DAYS WITH HAY MULCH (90 LBS HAY/1000 SF) OR COVERED WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
- SEED SOIL AND FILL STOCKPILES EXPECTED TO REMAIN LONGER THAN 30 DAYS WITH A CONSERVATION MIX OF ANNUAL RYE GRASS (0.9 LB/1000 SF) AND HAY MULCHED (90 LBS. HAY/1000 SF) WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
- INSTALL SEDIMENT BARRIER (E.G. SILT FENCE) INSTALLED AROUND THE DOWNHILL EDGE OF THE SOIL STOCKPILES TO TRAP SEDIMENTS.

E. TEMPORARY SEEDING

- BEDDING - REMOVE STONES AND TRASH THAT WILL INTERFERE WITH SEEDING THE AREA. WHERE FEASIBLE, TILL THE SOIL TO A DEPTH OF ABOUT 4" TO PREPARE SEED BED AND MIX THE FERTILIZER INTO THE SOIL.
- FERTILIZER - UNIFORMLY SPREAD FERTILIZER MUST OVER THE AREA PRIOR TO BEING TILLED INTO THE SOIL. APPLY A 10-10-10 MIX OF ORGANIC FERTILIZER AT A RATE OF 300 LBS PER ACRE.
- SEED MIXTURE - USE ANY OF THE FOLLOWING IN UPLAND AREAS:

SPECIES	ACRE	SEEDING RATES	DATES	DEPTH
WINTER RYE	112 LBS	1,000 SF 2.5 LBS	8/15 - 9/15	1 INCH
OATS	80 LBS	2.0 LBS	SPRING - 5/15	1 INCH
ANNUAL RYEGRASS	40 LBS	1.0 LBS WITH MULCH	4/15 - 9/15	0.25 INCH

- MULCHING FOR TEMPORARY SEEDING - WHERE IT IS IMPRACTICAL TO INCORPORATE FERTILIZER AND SEED INTO MOIST SOIL, MULCH THE SEED TO FACILITATE GERMINATION. APPLY MULCH IN THE FORM OF HAY OR STRAW MUST BE APPLIED AT A RATE OF 70 TO 40 90 LBS PER 1,000 SF.
- REMOVE TEMPORARY GROWTH FROM TEMPORARY SEEDING PRIOR TO PERMANENT SEEDING.

F. MULCHING

PROVIDE TEMPORARY MULCHING ON SLOPES, CHANNELS, OTHER EROSION PRONE AREAS, AND EXPOSED SOILS THAT CANNOT RECEIVE PERMANENT COVER WITHIN 14 DAYS OF DISTURBANCE. ALSO PROVIDE MULCH FOLLOWING TEMPORARY AND PERMANENT SEEDING AS SPECIFIED. MULCH ANCHORS MUST BE USED ON SLOPES GREATER THAN 5% IN FALL (PAST OCTOBER 1, AND OVER WINTER TO APRIL 1).

MULCH TYPE	RATE PER 1000 SF
HAY OR STRAW	70 TO 40 90 LBS
WOOD CHIPS OR BARK MULCH	480 TO 920 LBS
JUTE AND FIBROUS MATTING	AS PER MANUFACTURERS' SPECIFICATIONS
CRUSHED STONE	SPREAD MORE THAN 1/4" TO 1-1/2" 1/2" THICK

G. TEMPORARY EROSION CONTROL MAT SPECIFICATIONS

- PROVIDE STRAW EROSION CONTROL MAT CONSISTING OF A MACHINE PRODUCED MAT OF 100 PERCENT AGRICULTURAL STRAW FIBER, MINIMUM WEIGHT: 0.5 LBS/SY. NETTINGS MUST BE LIGHTWEIGHT BIO OR PHOTO DEGRADABLE, TOP SIDE ONLY, MINIMUM WEIGHT: 1.5 LBS/1000 SF. MINIMUM WIDTH: 48", MINIMUM THICKNESS: 0.39 INCH. THE MINIMUM FUNCTIONAL LONGEVITY OF THE EROSION CONTROL MAT MUST BE 45 DAYS.

H. EXTENDED USE EROSION CONTROL BLANKET SPECIFICATION

- PROVIDE STRAW EROSION CONTROL MAT CONSISTING OF A MACHINE PRODUCED MAT OF 100 PERCENT AGRICULTURAL STRAW FIBER, MINIMUM WEIGHT: 0.5 LBS/SY. NETTINGS MUST BE 100 PERCENT BIO OR PHOTO DEGRADABLE WOVEN NATURAL ORGANIC FIBER, TOP SIDE ONLY, MINIMUM WEIGHT: 9.3 LB/1000 SF. MINIMUM WIDTH: 6.7 FT, MINIMUM THICKNESS: 0.24 INCH. THE MINIMUM FUNCTIONAL LONGEVITY OF THE EROSION CONTROL MAT MUST BE 12 MONTHS.

I. WINTER STABILIZATION

THE WINTER CONSTRUCTION PERIOD IS FROM OCTOBER 15 THROUGH APRIL 1. IF THE SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 85% MATURE VEGETATION COVER, OR RIPRAP BY OCTOBER 15 THEN PROTECT THE SITE WITH OVER-WINTER STABILIZATION.

- PROVIDE STABILIZATION AS FOLLOWS WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS:

- PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH MUST BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING, OR 2 INCHES OF EROSION CONTROL MIX.
- PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHOULD BE SEEDED AND COVERED WITH A PROPERLY INSTALLED AND ANCHORED EROSION CONTROL BLANKET OR WITH A MINIMUM OF 4 INCH THICKNESS OF EROSION CONTROL MIX, UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. NOTE THAT COMPOST BLANKETS SHOULD NOT EXCEED 2 INCHES IN THICKNESS OR THEY MAY OVERHEAT.
- DO NOT INSTALL ANCHORED HAY MULCH OR EROSION CONTROL MIX OVER ACCUMULATED SNOW OR FROZEN GROUND. INSTALLATION MUST BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ANCHOR MULCH APPLIED DURING WINTER (E.G. BY NETTING, TRACKING, WOOD CELLULOSE FIBER).
- MULCH STOCKPILES OF SOIL MATERIALS FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. MULCHING MUST BE DONE WITHIN 24 HOURS OF STOCKING, AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. NO SOIL STOCKPILE MUST BE PLACED (EVEN COVERED WITH MULCH) WITHIN 100 FEET FROM ANY WETLAND OR OTHER WATER RESOURCE AREA.
- CONSTRUCT GRASS LINED DITCHES AND CHANNELS AND STABILIZE BY SEPTEMBER 1. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH MUST BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15TH, PROTECT INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON WITH A MINIMUM 3 INCH LAYER OF BASE COURSE (NHDOT ITEM 304.3).
- DO NOT EXPOSE MORE THAN ONE ACRE OF THE SITE (WITHOUT STABILIZATION) AT ANY ONE TIME. GENERALLY THE EXPOSED AREA SHOULD BE LIMITED TO ONLY THOSE AREAS IN WHICH WORK WILL OCCUR DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW OR RAINFALL EVENT.

J. PERMANENT SEEDING

- REFER TO TURF AND GRASSES SPECIFICATION.

K. OFF-SITE VEHICLE TRACKING

- SWEEP ADJACENT PAVED AREAS AND ROADS AS NECESSARY AND AS DIRECTED BY THE OWNER TO KEEP THEM FREE OF SEDIMENTS RESULTING FROM CONSTRUCTION ACTIVITIES.
- PROVIDE A STABILIZED CONSTRUCTION EXIT AT LOCATIONS USED FOR EXITING THE CONSTRUCTION SITE AS DETAILED ON THE DRAWINGS.

L. HOUSEKEEPING

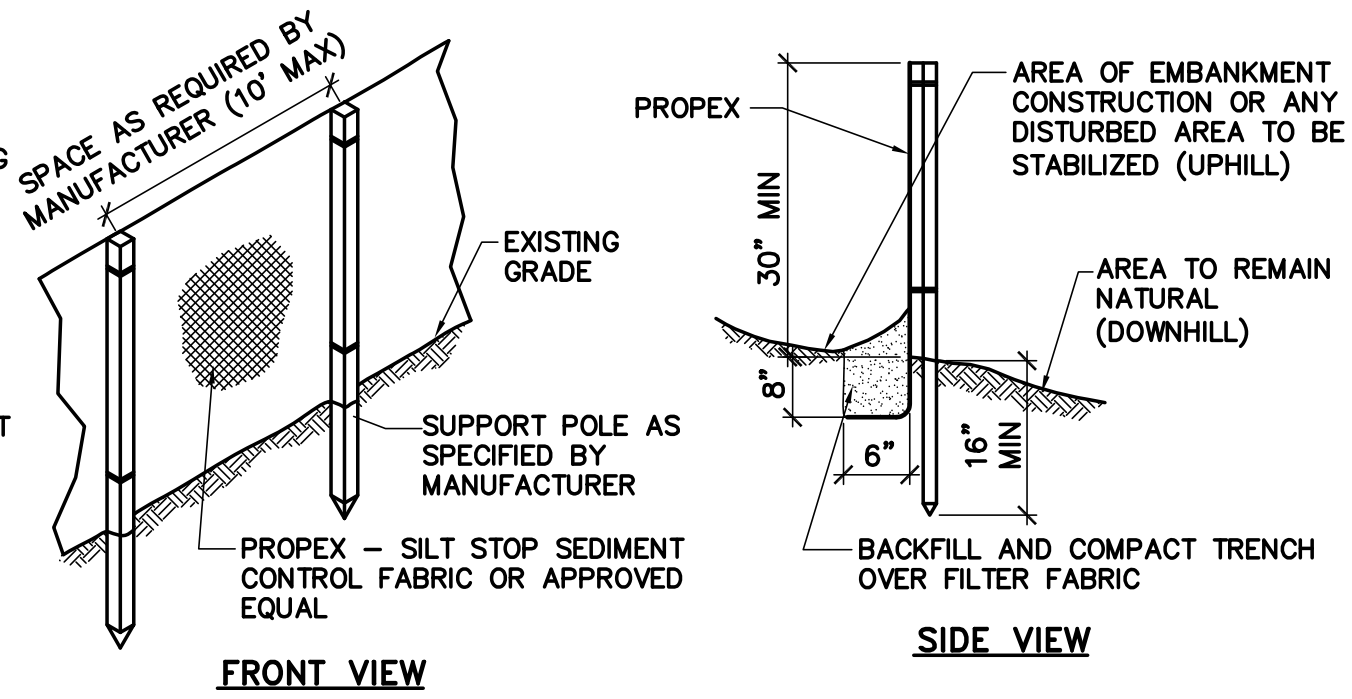
- COLLECT AND STORE WASTE MATERIALS IN SECURELY LIDDED RECEPTACLES. TRASH AND CONSTRUCTION DEBRIS FROM THE SITE MUST BE DEPOSITED IN A DUMPSTER PROVIDED BY THE CONTRACTOR. CONSTRUCTION WASTE MATERIALS MUST NOT BE BURIED ON SITE.
- DISPOSE OF HAZARDOUS WASTE MATERIALS IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS OR BY THE MANUFACTURER.
- STORE MATERIALS ON SITE IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINER AND IF POSSIBLE UNDER A ROOF OR OTHER ENCLOSURE. STORE ONLY SUFFICIENT AMOUNTS OF MATERIALS TO COMPLETE THE JOB.
- DISPOSE OF SURPLUS MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, LOCAL, STATE AND FEDERAL CODES.
- MONITOR CONSTRUCTION RELATED EQUIPMENT AND VEHICLES FOR LEAKS AND PROVIDE REGULAR PREVENTATIVE MAINTENANCE TO AVOID LEAKAGE.
- EQUIPMENT SHALL BE STAGED AND REFUELED IN ACCORDANCE TO ENV-WT 307.15.

M. DUST CONTROL

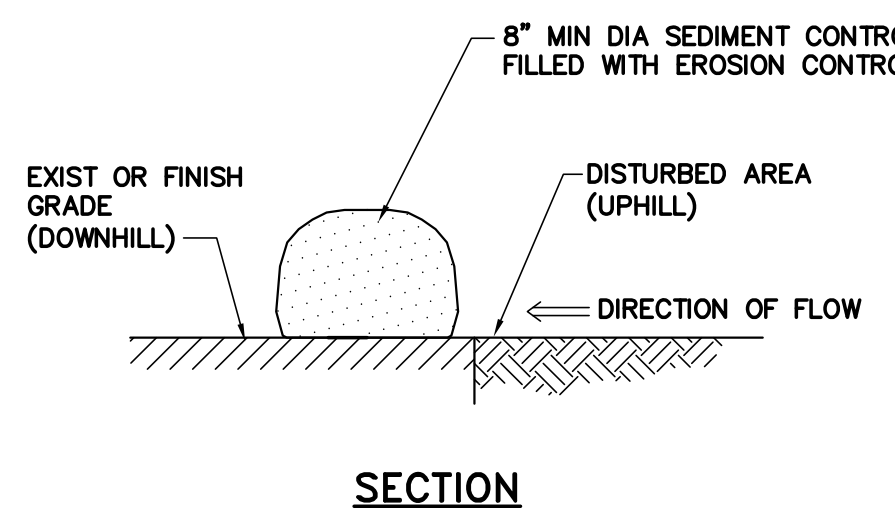
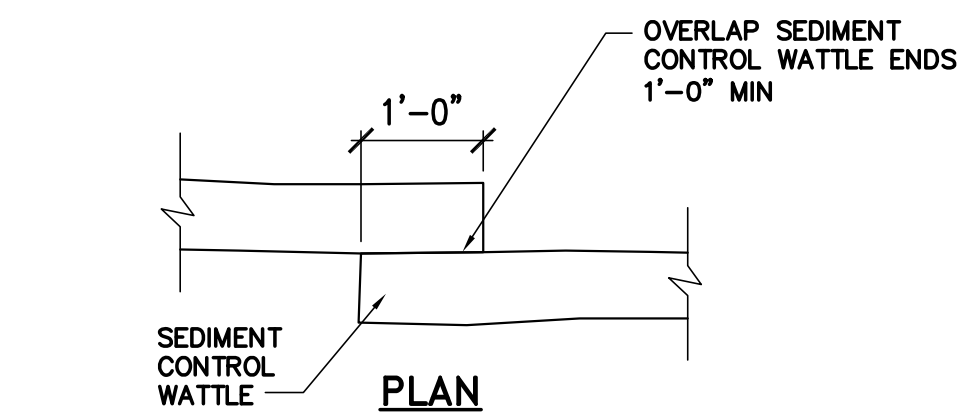
- CONTROL DUST WITH PERIODIC WATERING OF THE EXPOSED SOIL SURFACES WITH ADEQUATE WATER TO CONTROL DUST FROM BECOMING AIRBORNE. APPLY REPETITIVE TREATMENTS AS NEEDED TO CONTROL DUST THROUGHOUT CONSTRUCTION UNTIL AREAS HAVE BEEN STABILIZED.
- OTHER METHODS TO CONTROL DUST MAY BE ALLOWED WITH APPROVAL BY THE OWNER.

N. RIPRAP SPECIFICATION

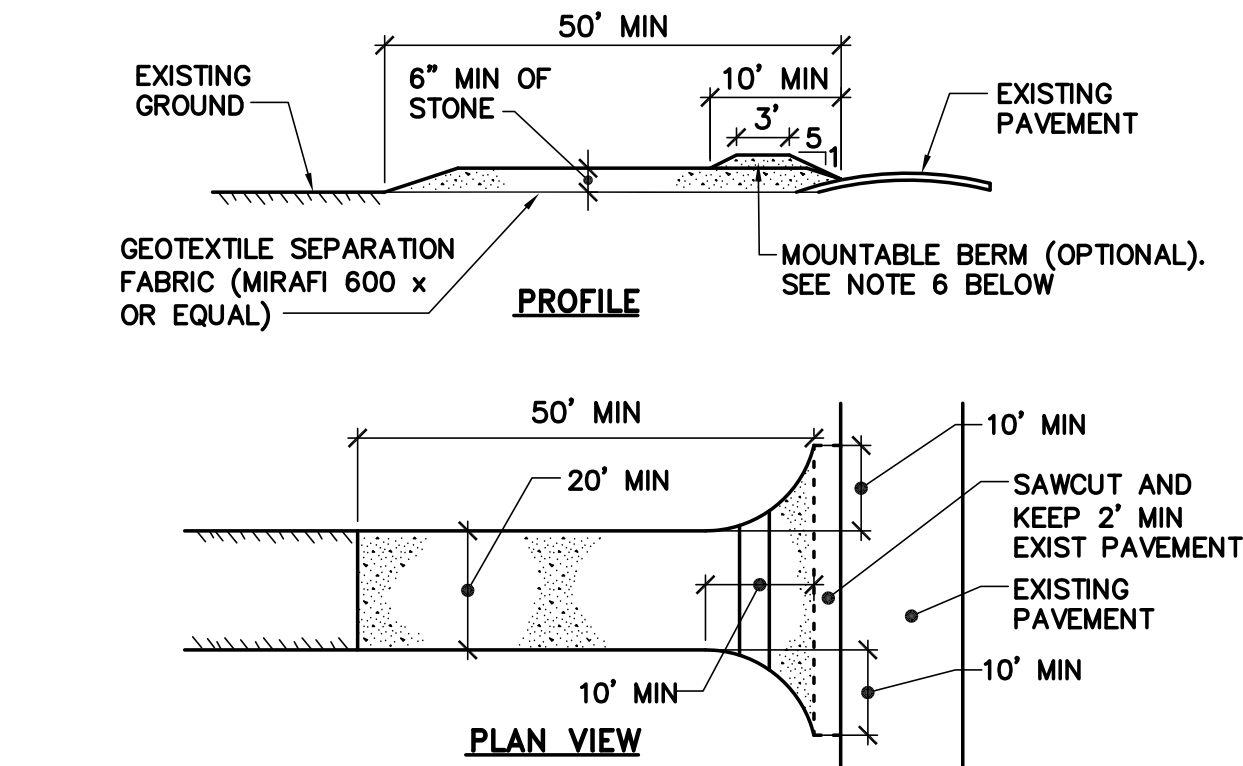
- PROVIDE RIPRAP CONSISTING OF SOUND, DURABLE ROCK WHICH WILL NOT DISINTEGRATE BY EXPOSURE TO WATER OR WEATHER. ANGULAR FIELD STONE, ROUGH QUARRY STONE OR BLASTED LEDGE ROCK MAY BE USED. THE MEDIAN STONE SIZE MUST BE AS INDICATED. THE MAXIMUM STONE SIZE MUST BE TWICE THE MEDIAN SIZE. PROVIDE SMALLER STONES TO FILL THE VOIDS IN THE LARGER STONES.



1 SILT FENCE
CG101 C-501 NOT TO SCALE

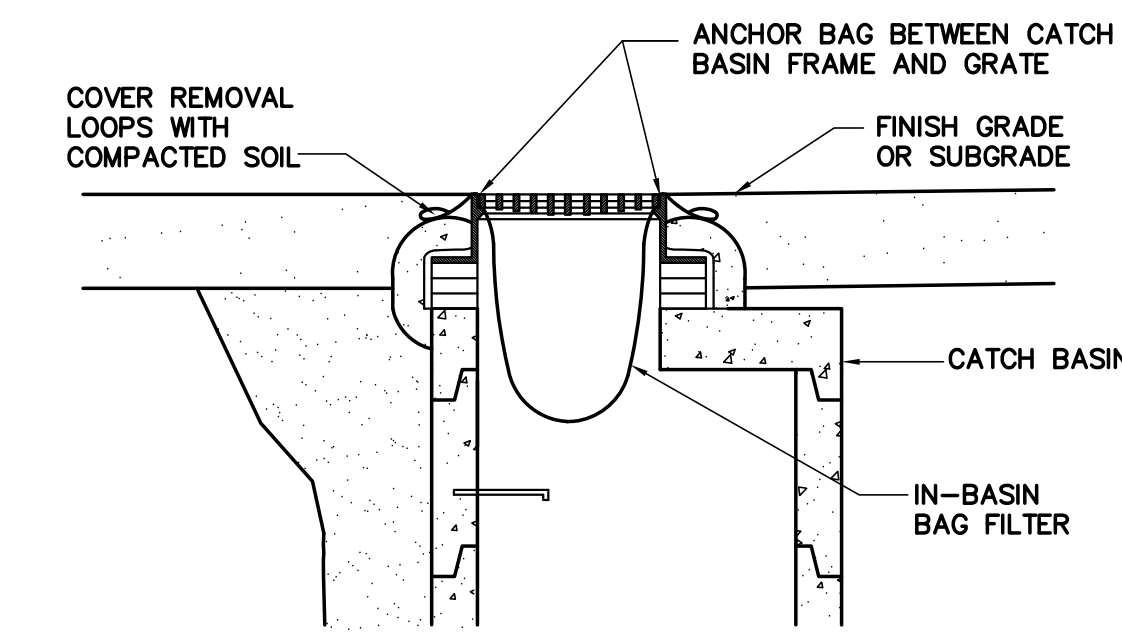


2 SEDIMENT CONTROL WATTLE DETAIL
C-501 C-501 NOT TO SCALE



- NOTES:
- PROVIDE 2 TO 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
 - THE LENGTH OF THE STABILIZED ENTRANCE MUST NOT BE LESS THAN 50 FEET.
 - THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE MUST NOT BE LESS THAN 6 INCHES.
 - THE WIDTH OF THE ENTRANCE MUST NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 20 FEET, WHICHEVER IS GREATER.
 - PLACE GEOTEXTILE SEPARATION FILTER FABRIC OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
 - PIPE SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM MUST HAVE 5:1 SLOPES AND THICKNESS REQUIRED TO DIVERT FLOW WHILE MAINTAINING ACCESS THAT CAN BE CROSSED BY VEHICLES.
 - MAINTAIN THE ENTRANCE IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ADJACENT PAVED AREAS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. SEDIMENT SPILLED, WASHED, OR TRACKED ONTO ADJACENT PAVED AREAS MUST BE REMOVED IMMEDIATELY.
 - CLEAN WHEELS TO REMOVE MUD PRIOR TO ENTRANCE ONTO ADJACENT PAVED AREAS. WHEN WASHING IS REQUIRED, IT MUST BE PERFORMED ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

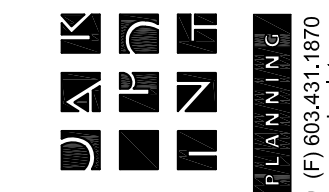
3 STABILIZED CONSTRUCTION EXIT
C-501 C-501 NOT TO SCALE



4 INLET PROTECTION
CG101 C-501 NOT TO SCALE

- NOTES:
- WHEN JOINTS ARE NECESSARY, FILTER FABRIC MUST BE SPLICED TOGETHER ONLY AT SUPPORT POST, WITH A MINIMUM 6" OVERLAP, AND SECURELY SEALED.
 - INSPECT SILT FENCES AFTER EACH RAINFALL AND REPAIRS/REPLACEMENT MUST BE MADE IMMEDIATELY.
 - REMOVE SEDIMENT DEPOSITS AFTER EACH STORM EVENT.
 - REMOVE SILT FENCES AFTER SATISFACTORY VEGETATIVE COVER IS ESTABLISHED OR DISTURBED AREAS ARE OTHERWISE STABILIZED. PROVIDE PLANTING SOIL, FINISH GRADE, SEED AND MULCH DISTURBED AREAS.
 - EROSION CONTROL WATTLES BE USED IN LIEU OF SILT FENCE WHERE APPROVED BY THE OWNER OR TO SUPPLEMENT EROSION CONTROL MEASURES. SEE DETAIL 2/C-501.

- NOTES:
- SEDIMENT CONTROL WATTLES SHALL BE MANUFACTURED FOR THE PURPOSE OF TEMPORARY SEDIMENT CONTROL AND INSTALLED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.
 - REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 2" IN DEPTH.
 - SEDIMENT CONTROL WATTLES SHALL REMAIN IN PLACE UNTIL AREAS ARE STABILIZED.
 - SECURE SEDIMENT CONTROL WATTLES WITH CONCRETE BLOCKS OR WOOD STAKES IN LOCATIONS WHERE WATTLE FAILS TO REMAIN IN PLACE DUE TO HYDRAULIC FORCE.
 - EROSION CONTROL MIX SHALL CONSIST PRIMARILY OF WELL GRADED ORGANIC MATERIAL AND SHALL INCLUDE SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR OTHER PRODUCTS BASED ON A SIMILAR RAW SOURCE. SILT, CLAY, OR FINE SAND ARE NOT ACCEPTABLE IN THE MIX.



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PERICE ISLAND PUMP HOUSE
AND POOL RENOVATION
Peirce Island Road
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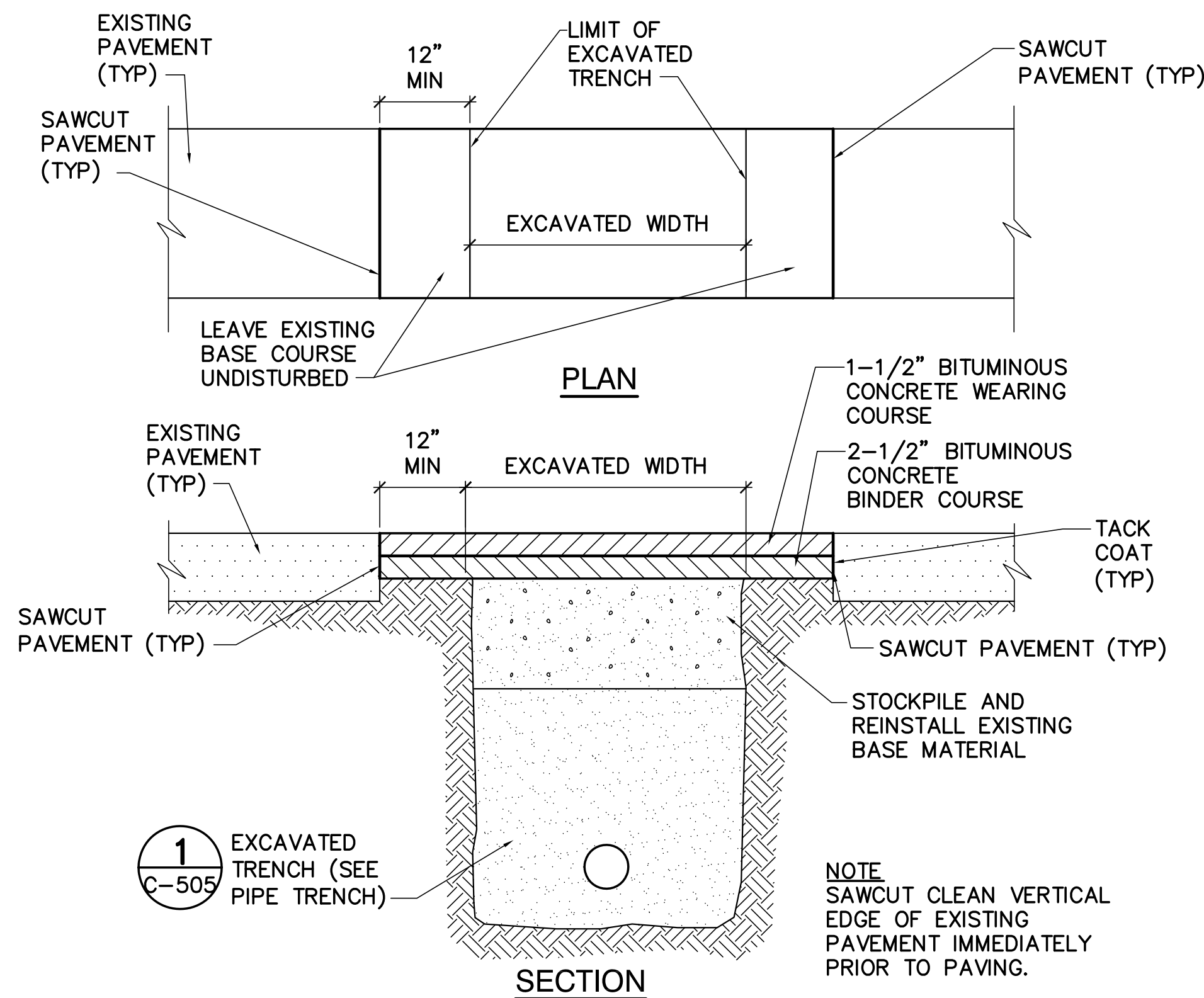
EROSION AND SEDIMENT CONTROL DETAILS

SCALE: AS NOTED
DATE: 06/17/2022

DWG.: C-501

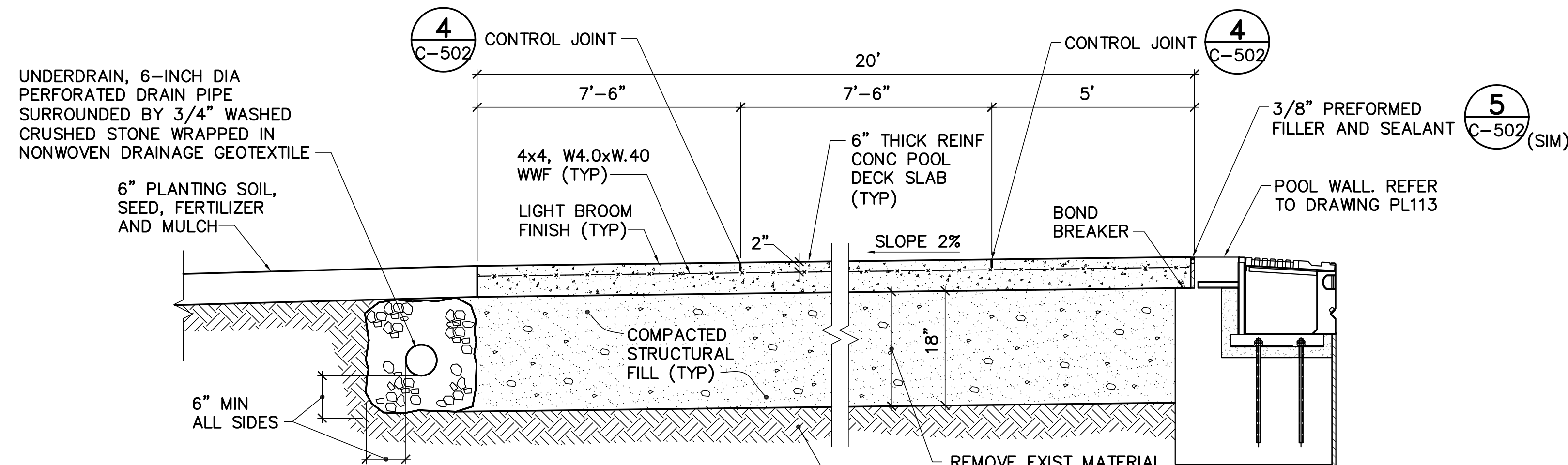
SHEET: 11 OF 72

NO.	DATE	DESCRIPTION	BY
REVISIONS			



1 ASPHALT CONCRETE TRENCH REPAIR

CS101, C-505, C-502 NOT TO SCALE

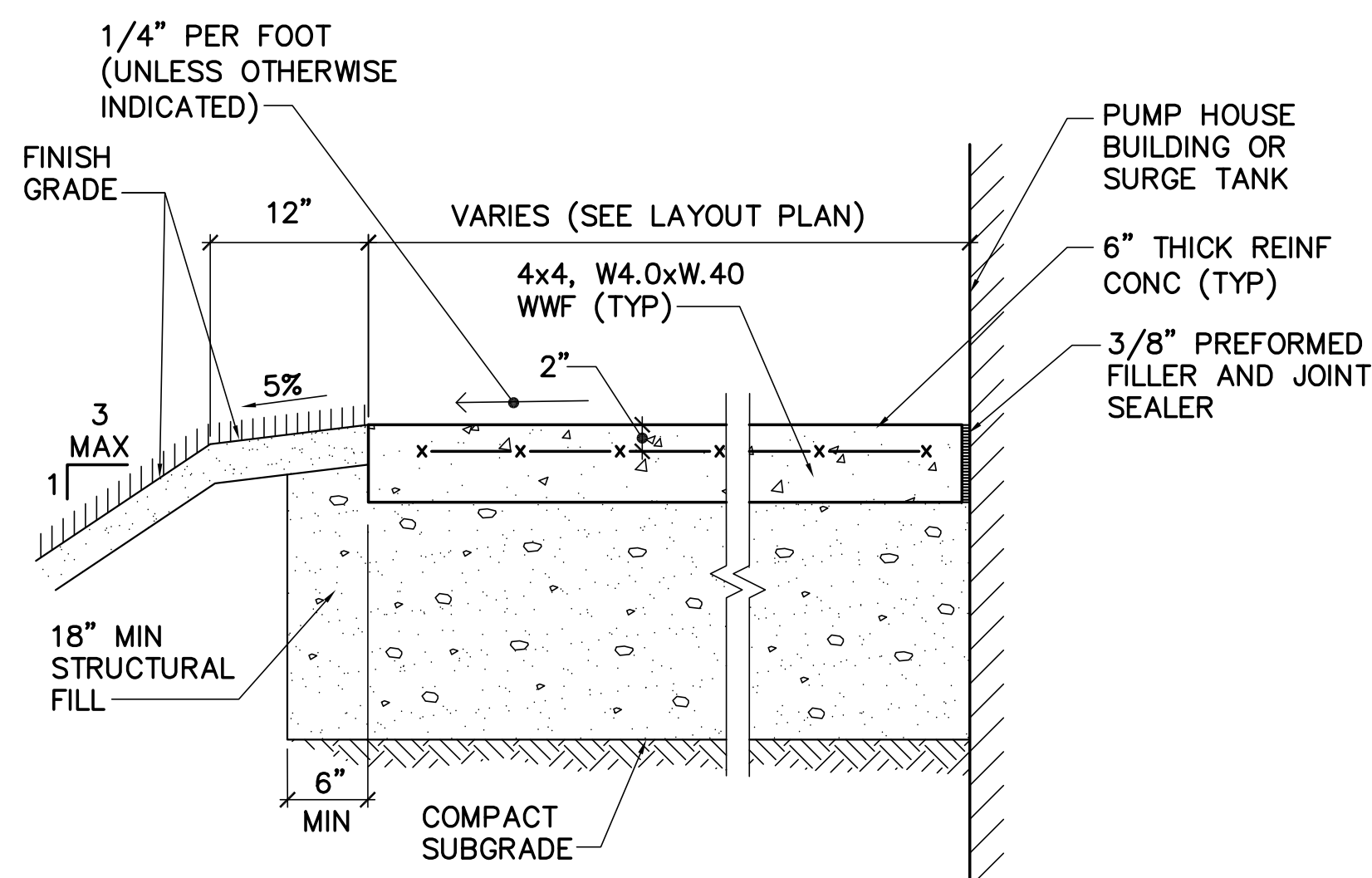


NOTES

- REFER TO DETAIL 2/PL200 FOR GROUNDING REQUIREMENTS FOR WELDED WIRE FABRIC REINFORCEMENT.
- PROVIDE CONTROL JOINTS AT 7'-6" MAX ON CENTER, EQUALLY SPACED, UNLESS INDICATED OTHERWISE. REFER TO DETAIL 4/C-502
- PROVIDE EXPANSION JOINTS AT 60'-0" MAX ON CENTER, EQUALLY SPACED, UNLESS INDICATED OTHERWISE. REFER TO DETAIL 5/C-502.
- PROVIDE 3/8" PREFORMED FILLER AND JOINT SEALANT WHERE POOL DECK ABUTS THE TRENCH DRAIN, BUILDING FOUNDATION, OR STRUCTURES.
- AFTER REMOVAL OF EXISTING FILL AND ORGANIC MATERIAL, AND PRIOR TO STRUCTURAL FILL BASE PLACEMENT, COMPACT THE EXPOSED SUBGRADE WITH A MINIMUM OF TWO PASSES OF A 5-TON, OR LARGER, STATIC ROLLER TO IMPROVE DENSITY OF THE SUBGRADE SOILS. EXCAVATE AREAS WHERE SOFT AND/OR LOOSE SOILS ARE ENCOUNTERED OR THAT WEAVE AND/OR RUT IN EXCESS OF 1-INCH IN DEPTH AND REPLACE WITH COMPACTED STRUCTURAL FILL. THE COMPACTION PROCESS MUST BE PERFORMED UNDER THE OBSERVATION OF A QUALIFIED GEOTECHNICAL ENGINEER.

2 CONCRETE POOL DECK

CS101, SB502, C-504, C-502 NOT TO SCALE

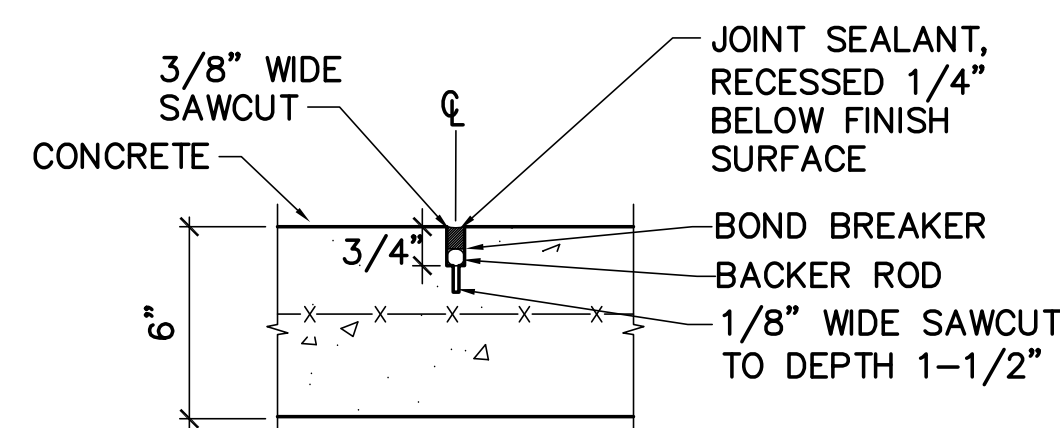


NOTES

- PROVIDE FINE BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAVEL.
- PROVIDE CONTROL JOINTS AT 6'-0" MAX ON CENTER, EQUALLY SPACED, UNLESS INDICATED OTHERWISE.
- PROVIDE 3/8" PREFORMED FILLER AND JOINT SEALANT WHERE WALK ABUTS THE SURGE TANK OR BUILDING FOUNDATION.

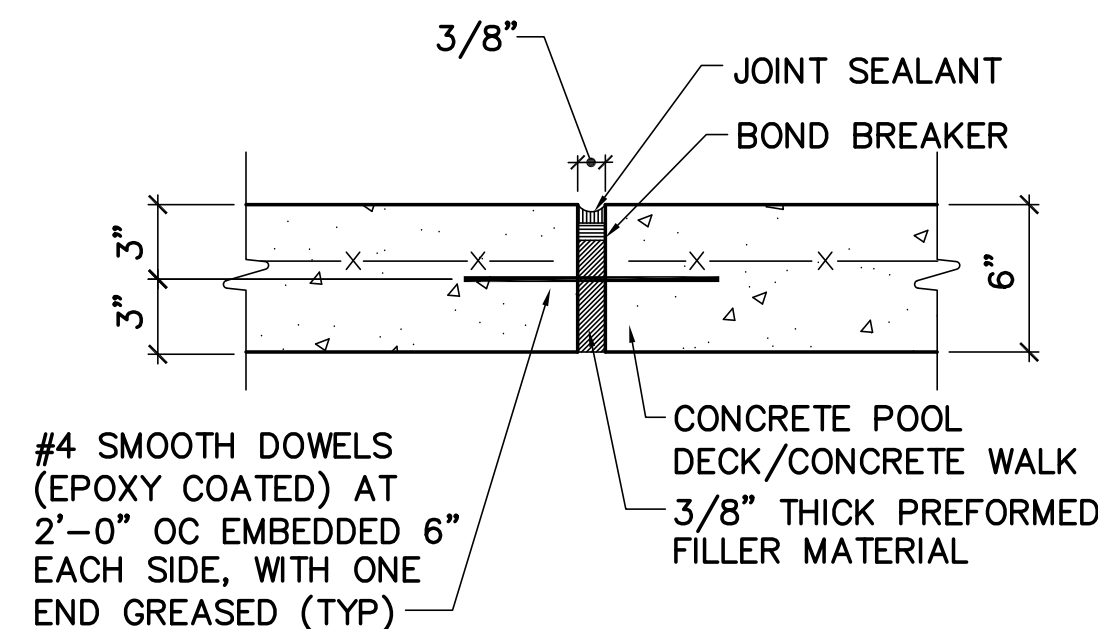
3 CONCRETE WALK

CS101, C-505, C-502 NOT TO SCALE



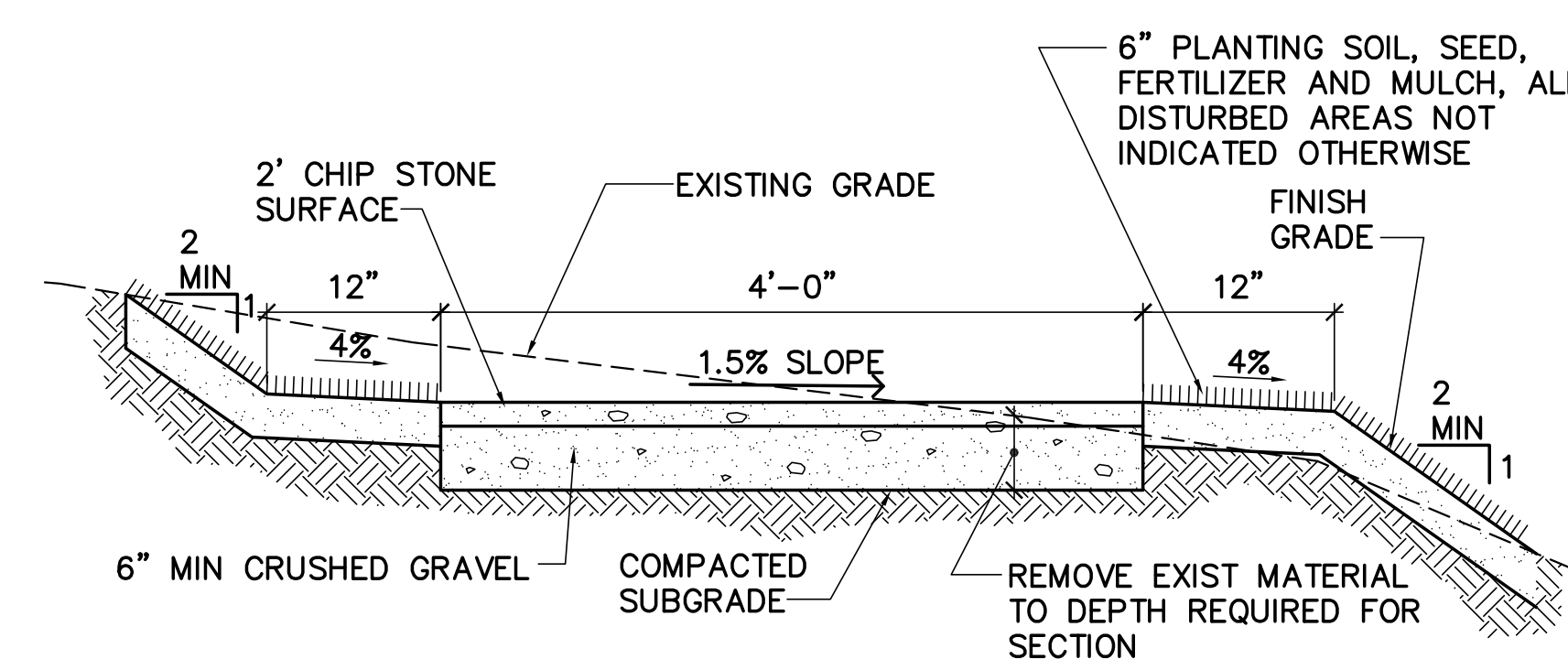
4 CONTROL JOINT

C-502, CS101, CS101, C-502 NOT TO SCALE



5 EXPANSION JOINT

C-502, C-504, CS101, C-502 NOT TO SCALE



NOTES

- CRUSHED GRAVEL MUST CONFORM TO THE FOLLOWING GRADATION:

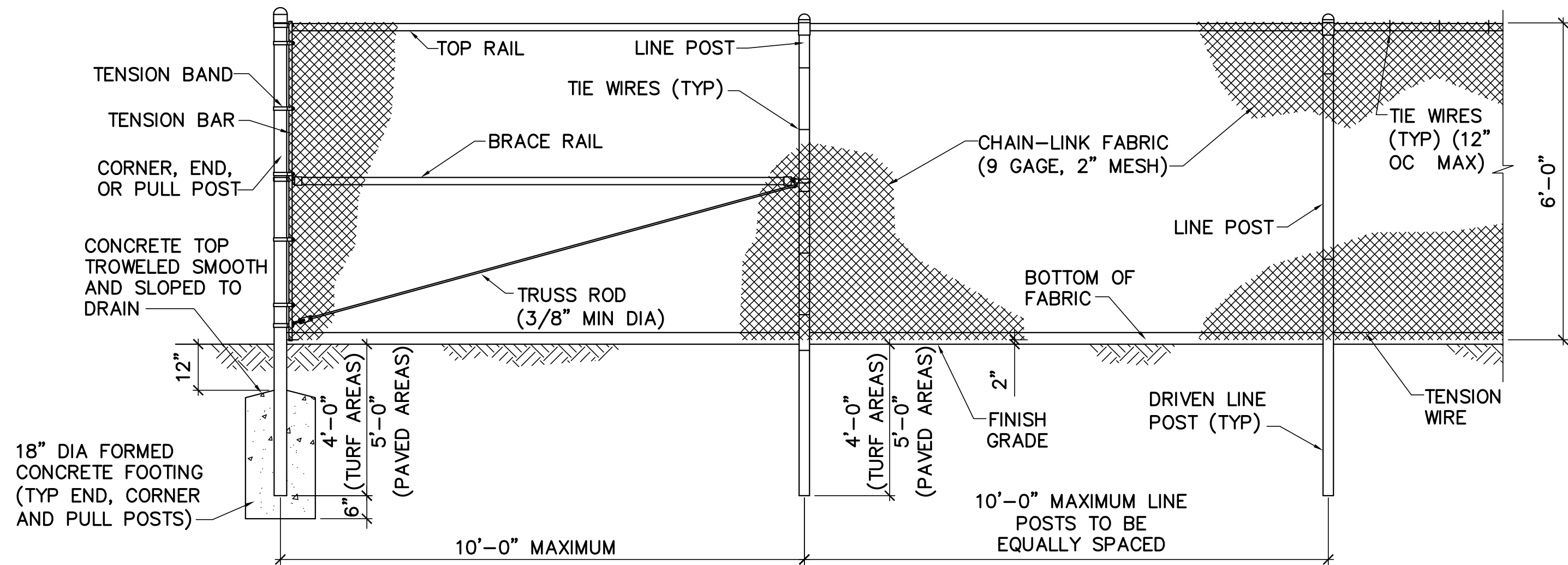
SIEVE SIZE	PERCENT FINE BY WEIGHT
1-1/2 INCH	100
1 INCH	90-100
NO. 4	27-52
NO. 200	0-10
- CHIP STONE SURFACE MUST CONFORM TO THE FOLLOWING GRADATION:

SIEVE SIZE	PERCENT FINE BY WEIGHT
1/2 INCH	90-100
3/8 INCH	75-90
1/4 INCH	60-75
NO. 30	40-60
NO. 100	20-40
NO. 200	10-20
- CHIP STONE MUST BE MADE OF HARD, DURABLE, SHARP EDGED ROCK FRAGMENTS, FREE FROM SILT, ORGANIC, OR OTHER DELETERIOUS MATERIAL.
- SEE GRADING PLAN FOR FINISH GRADES.

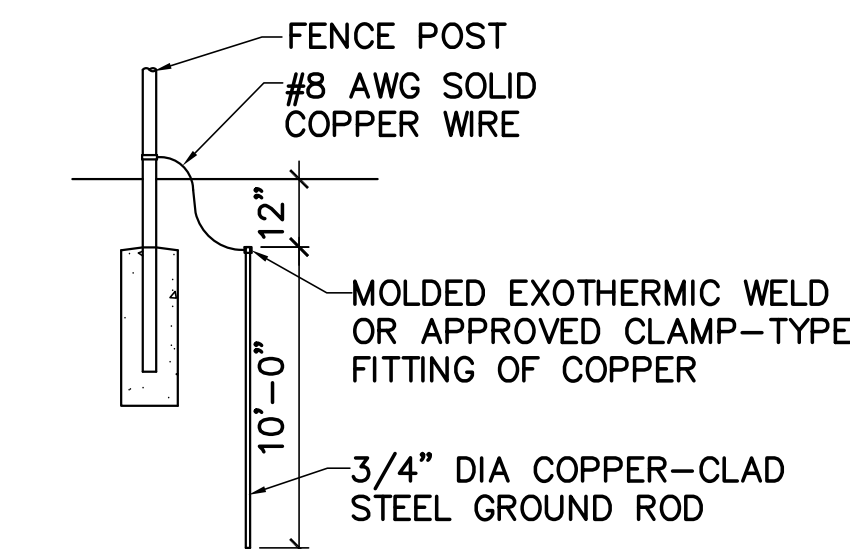
6 CHIP STONE TRAIL SECTION

CS101, C-502 NOT TO SCALE

NO.	DATE	DESCRIPTION	BY
REVISIONS			



FENCE DETAIL



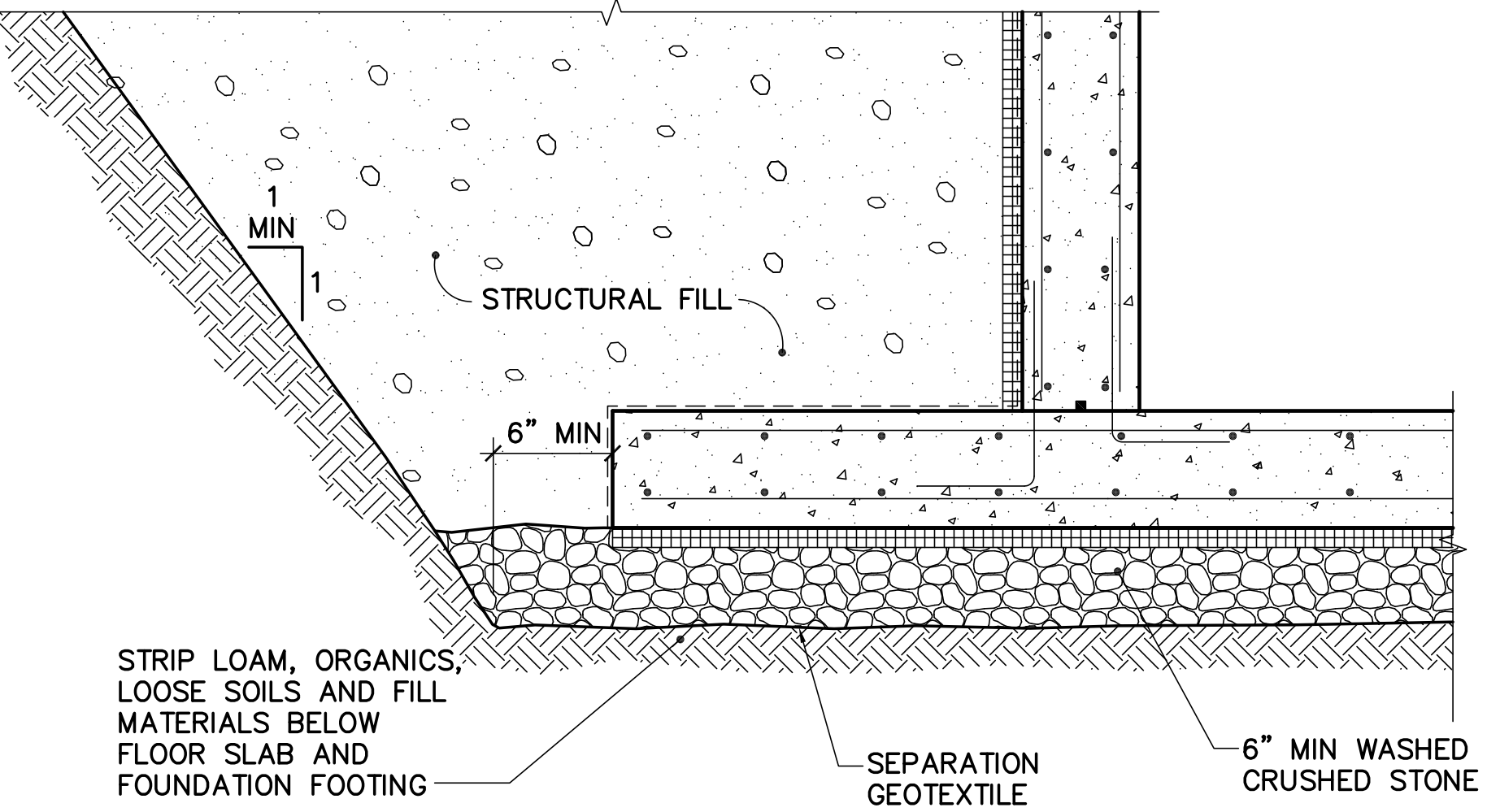
GROUNDING DETAIL

STEEL POST SCHEDULE	
USE AND SECTION	MINIMUM OUTSIDE DIMENSIONS (NOMINAL)
CORNER, END & PULL POSTS TUBULAR - ROUND	2.875" OD
LINE POSTS TUBULAR - ROUND	2.375" OD
TOP, BOTTOM & BRACE RAILS TUBULAR - ROUND	1.66" OD

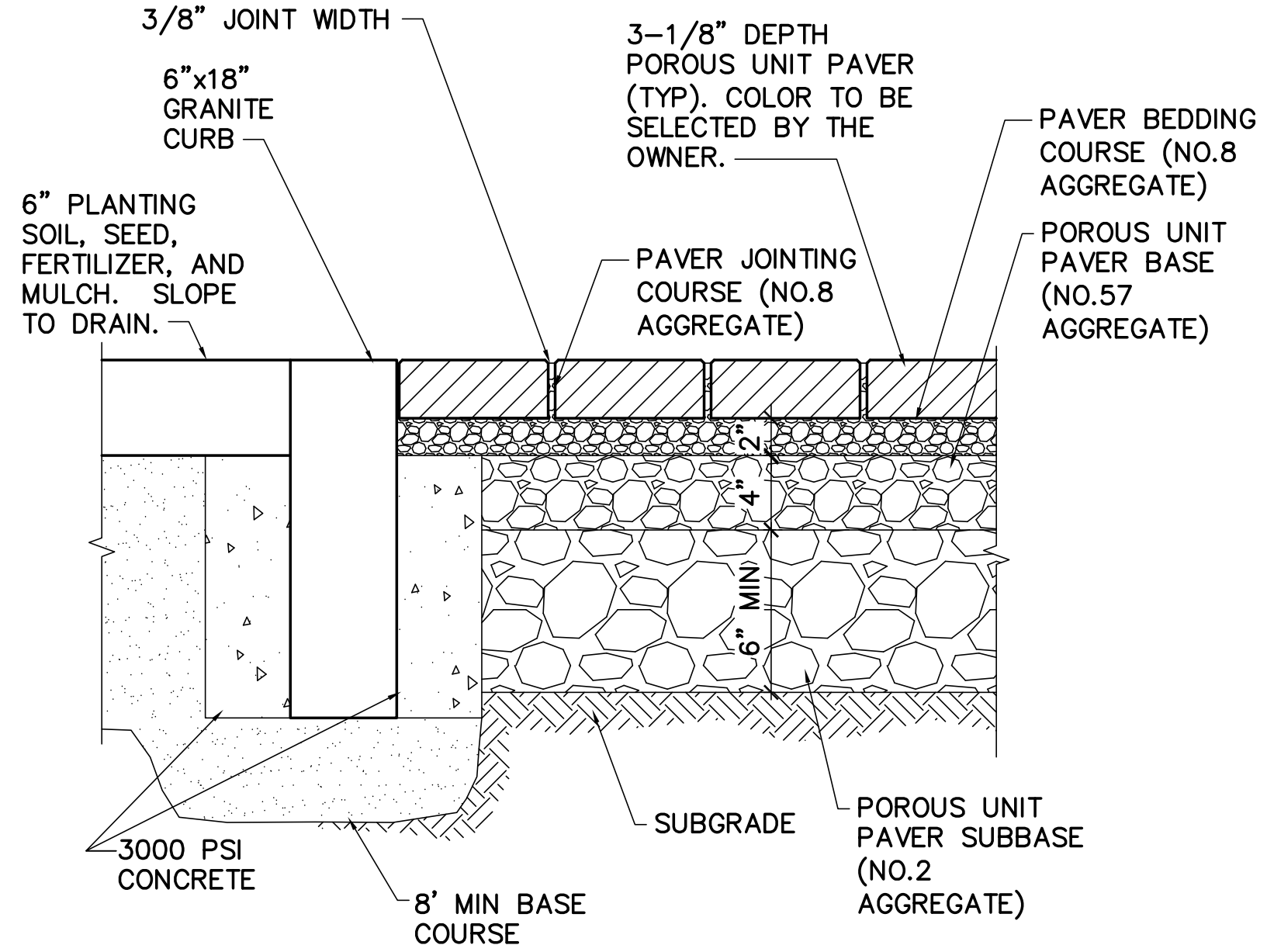
- NOTES**
- INSTALL WIRE TIES, RAILS, POSTS, AND BRACES ON THE SECURE SIDE OF THE FENCE ALIGNMENT. INSTALL CHAIN-LINK FABRIC ON THE SIDE OPPOSITE THE SECURE AREA.
 - PROVIDE 9-GAGE GALVANIZED STEEL TIE WIRES FOR FASTENING THE FENCE FABRIC TO FENCE POSTS AND RAILS. PROVIDE 16-GAGE STAINLESS STEEL TIE WIRES FOR FASTENING FENCE FABRIC TO TENSION WIRES.

1 CHAIN LINK FENCE
CS101 C-503 NOT TO SCALE

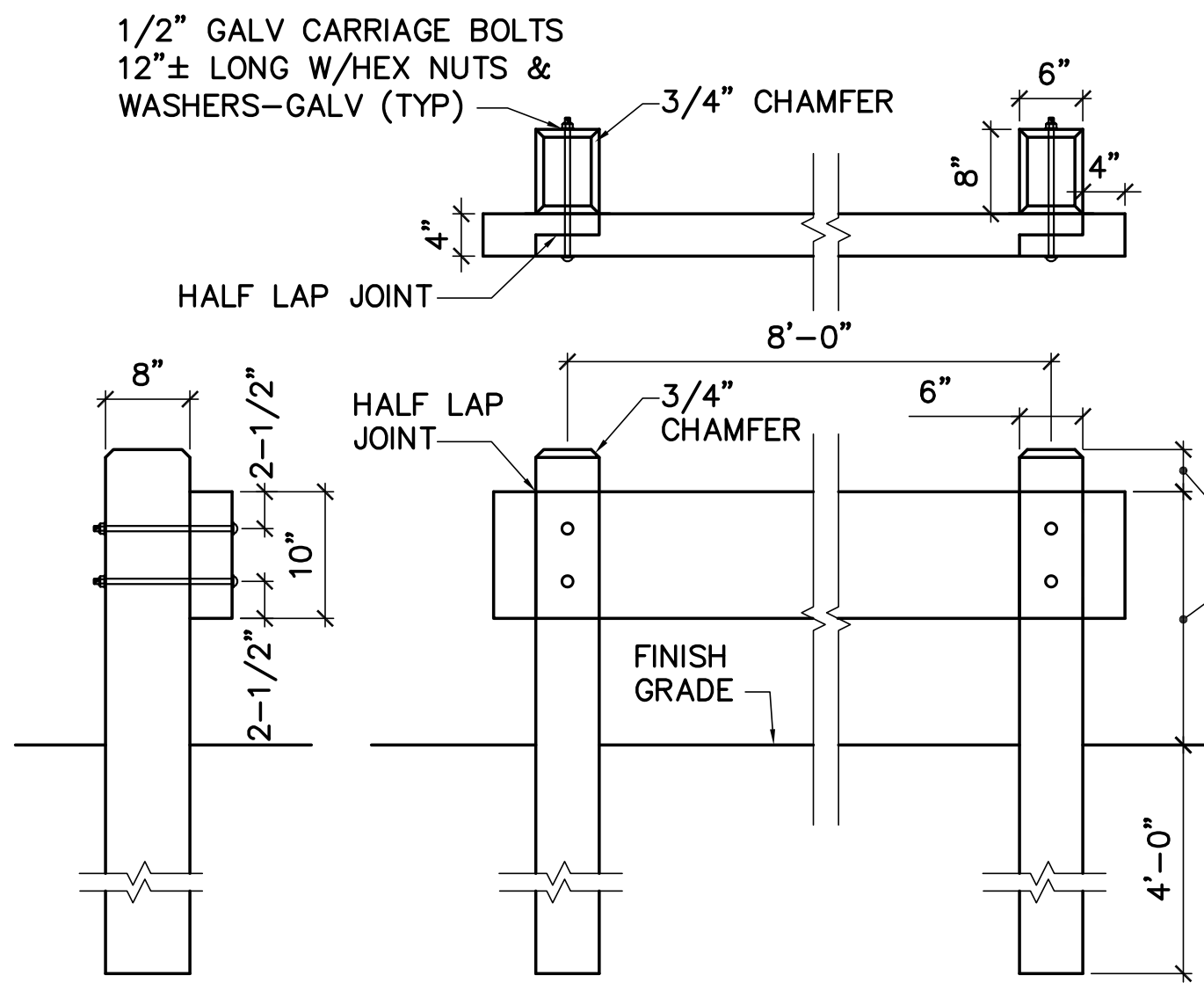
- NOTES**
- PROVIDE STRUCTURAL FILL WITHIN 4 FEET OF FOOTINGS AND FOUNDATION WALLS.
 - WHERE BEDROCK IS ENCOUNTERED, REMOVE ROCK TO ONE FOOT BELOW BOTTOM OF FOOTING AND REPLACE WITH COMPACTED CRUSHED STONE.
 - SEE SHEET SB101 FOR FOUNDATION DETAILS, INCLUDING SLAB, FOOTING, INSULATION, AND VAPOR BARRIER INFORMATION.
 - PROTECT PREPARED SUBGRADES AND FOUNDATION SOILS FROM FREEZING, EXCESSIVE MOISTURE, AND CONSTRUCTION ACTIVITIES. DO NOT ALLOW SURFACE WATER TO ACCUMULATE ON PREPARED SUBGRADES OR FOUNDATION SOILS. RECONSTRUCT SUBGRADE/FOUNDATION SOILS DAMAGED BY FREEZING TEMPERATURES, FROST, RAIN, ACCUMULATED WATER, OR CONSTRUCTION ACTIVITIES, AS DIRECTED BY QUALIFIED GEOTECHNICAL ENGINEER AND AS APPROVED BY THE OWNER, AT NO ADDITIONAL COST TO THE OWNER.
 - REFER TO SPECIFICATION SECTION 312000, "EARTHMOVING" FOR ADDITIONAL REQUIREMENTS.



2 FOUNDATION PREPARATION DETAIL
CS101 C-503 NOT TO SCALE

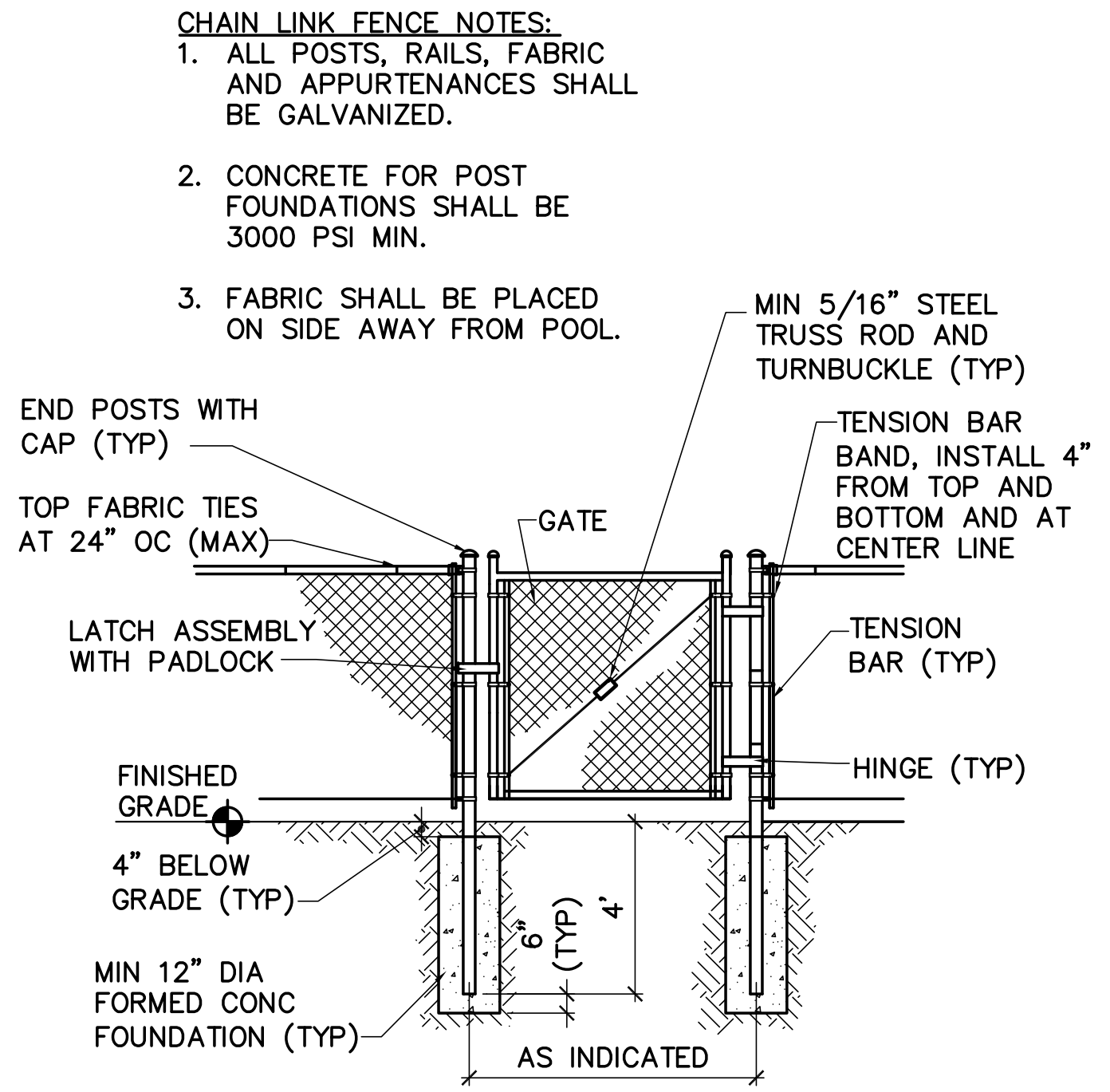


4 POROUS UNIT PAVER
CS101 C-503 NOT TO SCALE



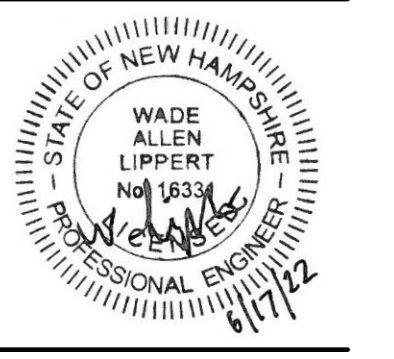
2 WOOD GUARD RAIL
CS101 C-503 NOT TO SCALE

- NOTES**
- MATCH EXISTING ADJACENT WOOD GUARD RAIL TO REMAIN.
 - WOOD RAILS TO BE LONGLEAF YELLOW PINE OR DOUGLAS FIR-STRUCTURAL GRADE OR BETTER.
 - POSTS TO BE DOUGLAS FIR, OR SPRUCE STRUCTURAL GRADE OR BETTER.
 - ALL TIMBERS SHALL BE PRESSURE TREATED.



5 CHAIN LINK GATE
CS101 C-503 NOT TO SCALE

- CHAIN LINK FENCE NOTES:**
- ALL POSTS, RAILS, FABRIC AND APPURTENANCES SHALL BE GALVANIZED.
 - CONCRETE FOR POST FOUNDATIONS SHALL BE 3000 PSI MIN.
 - FABRIC SHALL BE PLACED ON SIDE AWAY FROM POOL.



DESIGNED BY: WAL
DRAWN BY: WAL
CHECKED BY: PJM
PROJECT: 21904.14

CITY OF PORTSMOUTH
1 Junkins Avenue
Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

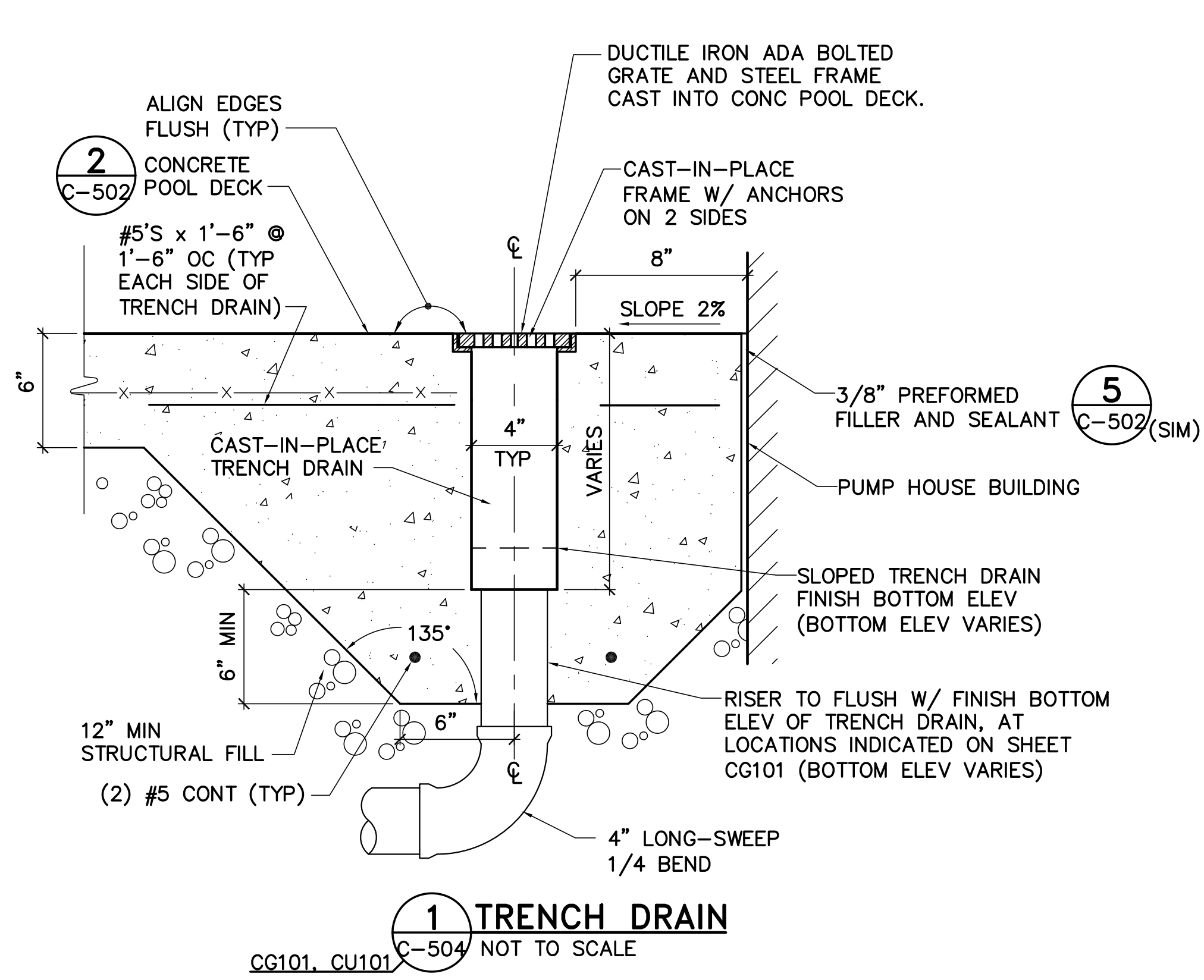
SITE DETAILS 2

SCALE: AS NOTED
DATE: 06/17/2022

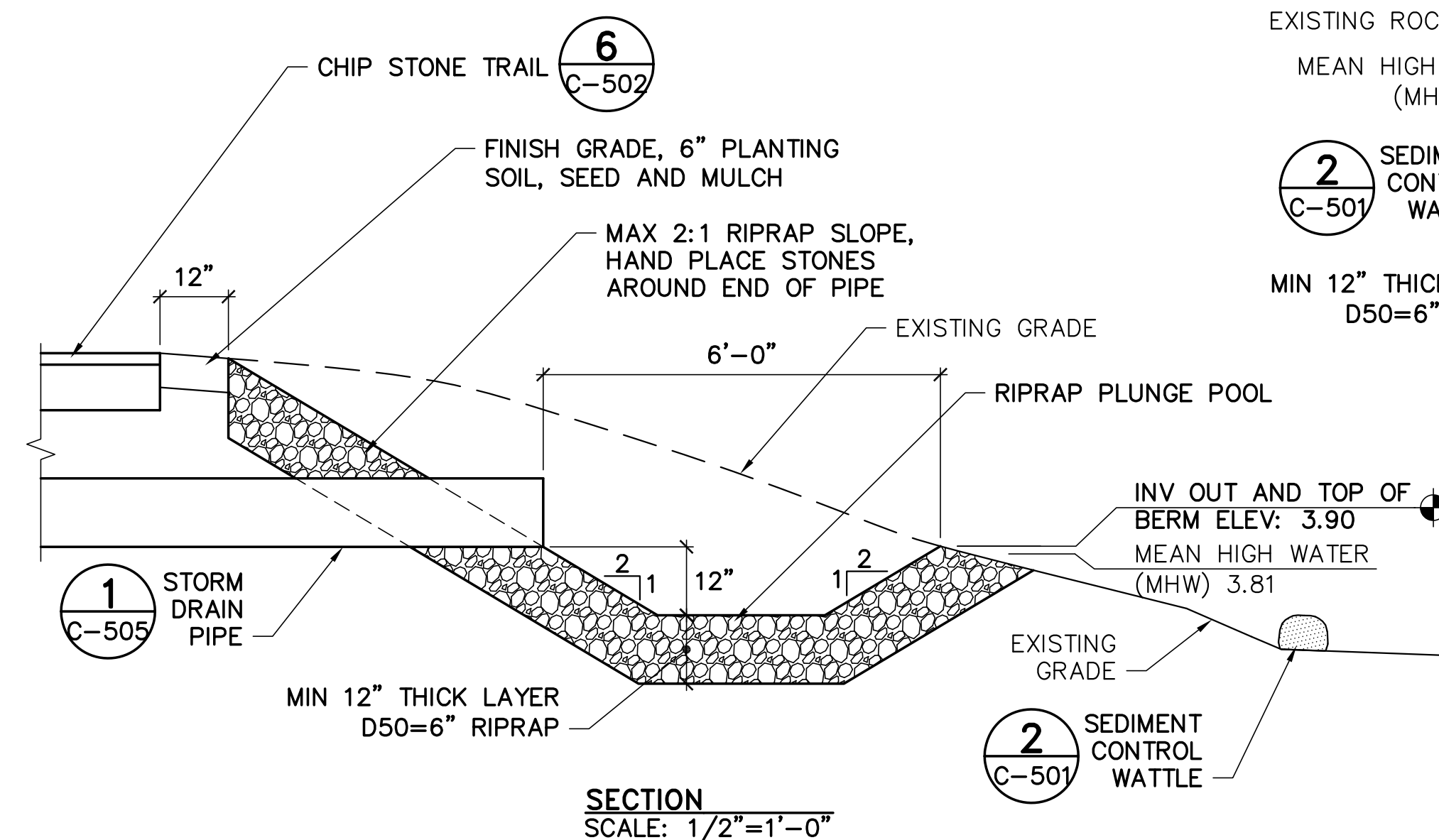
DWG.: **C-503**

SHEET: 13 OF 72

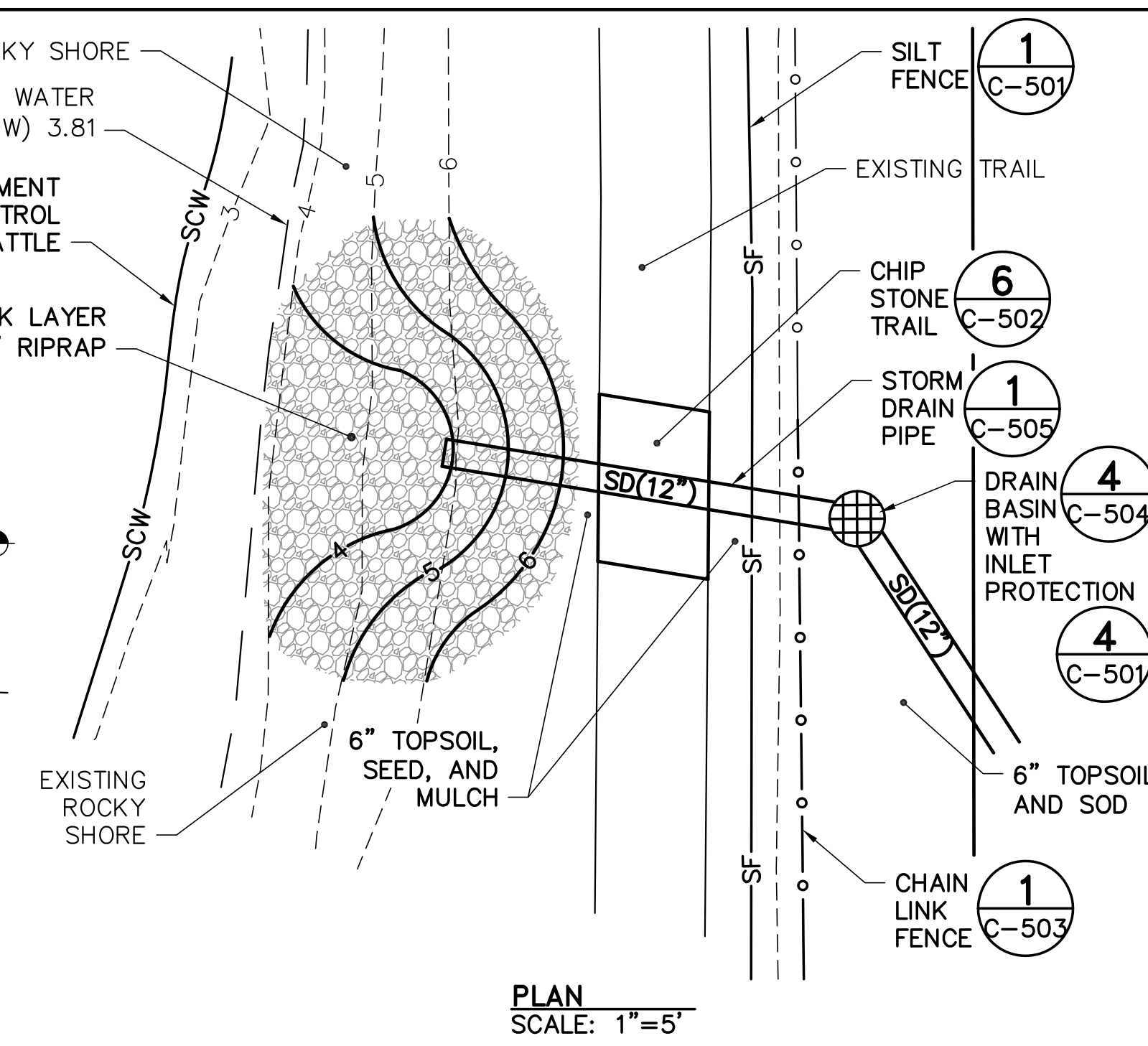
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1 TRENCH DRAIN
CG101, CU101, C-504 NOT TO SCALE

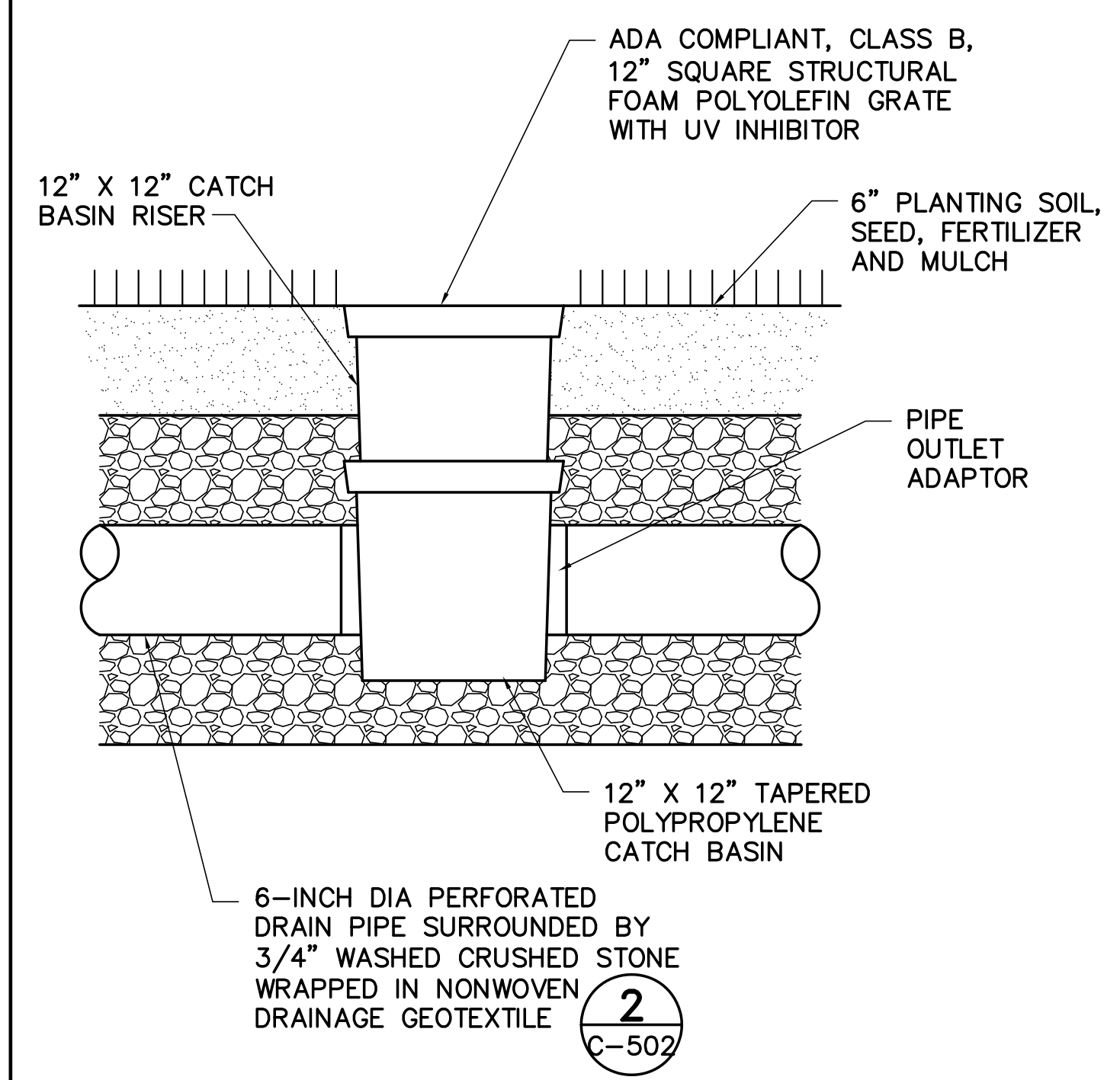


2 RIP RAP OUTLET PROTECTION DETAIL
CG101, C-504 SCALE: AS NOTED

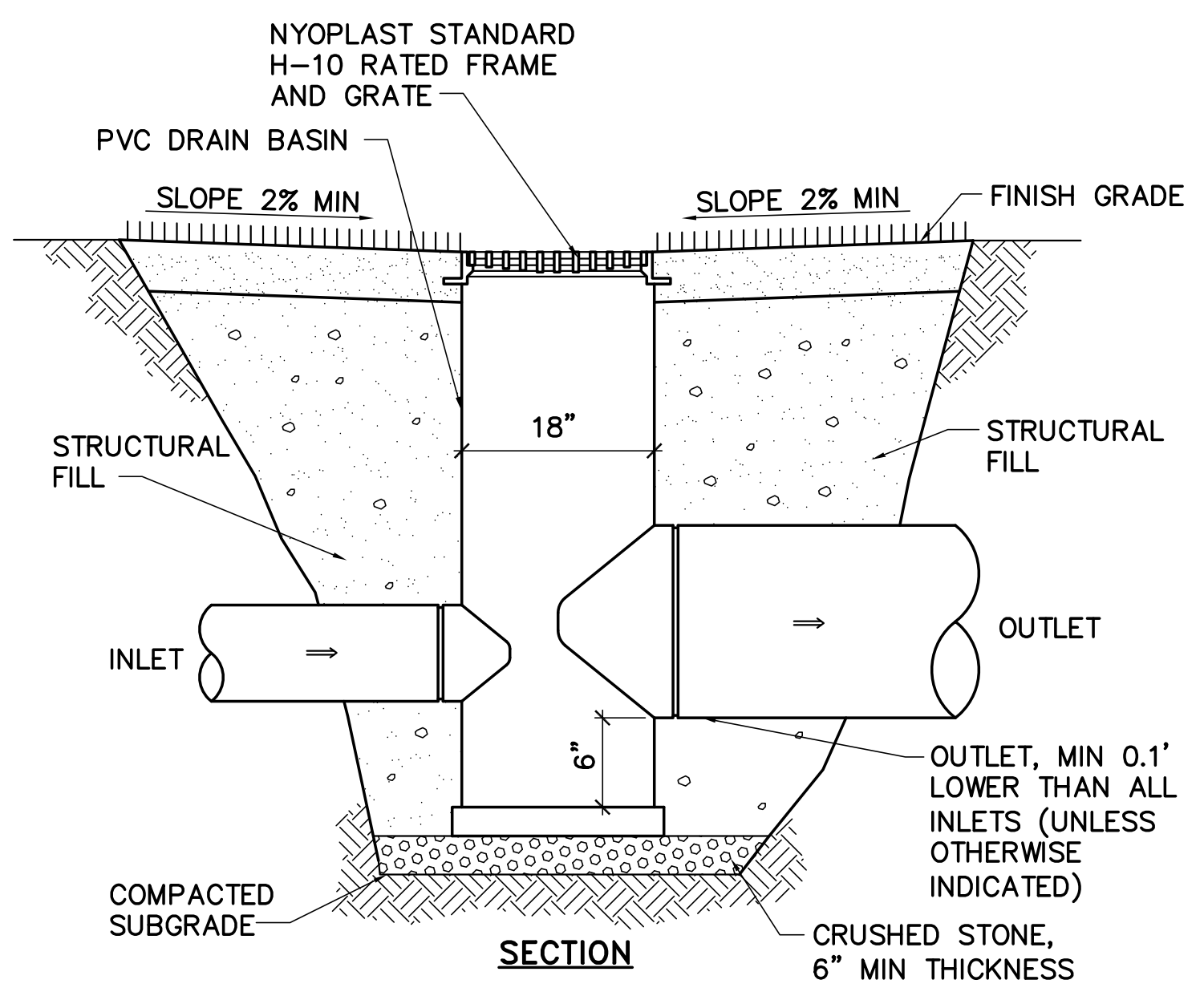


PLAN
SCALE: 1\"/>

- NOTES**
1. PIPE OUTLET CONSTRUCTION MUST OCCUR DURING LOW TIDE CONDITIONS.
 2. TEMPORARY EROSION CONTROL MEASURES MUST BE INSTALLED PRIOR TO CONSTRUCTION AND REMOVED ONCE THE OUTLET HAS BEEN STABILIZED.
 3. OUTLET CONSTRUCTION AND PERMANENT STABILIZATION MUST BE COMPLETED IN ONE WORKING DAY PRIOR TO HIGH TIDE CONDITIONS.

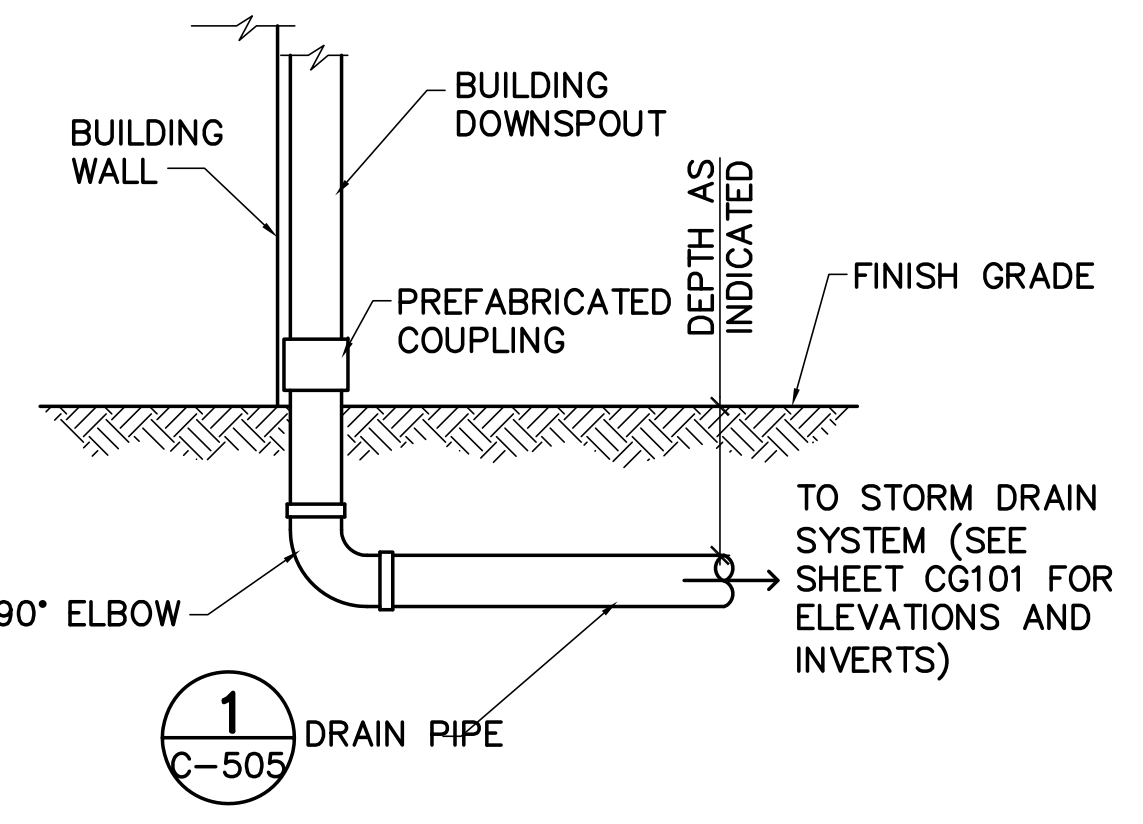


3 LANDSCAPE DRAIN
CG101, C-504 NOT TO SCALE

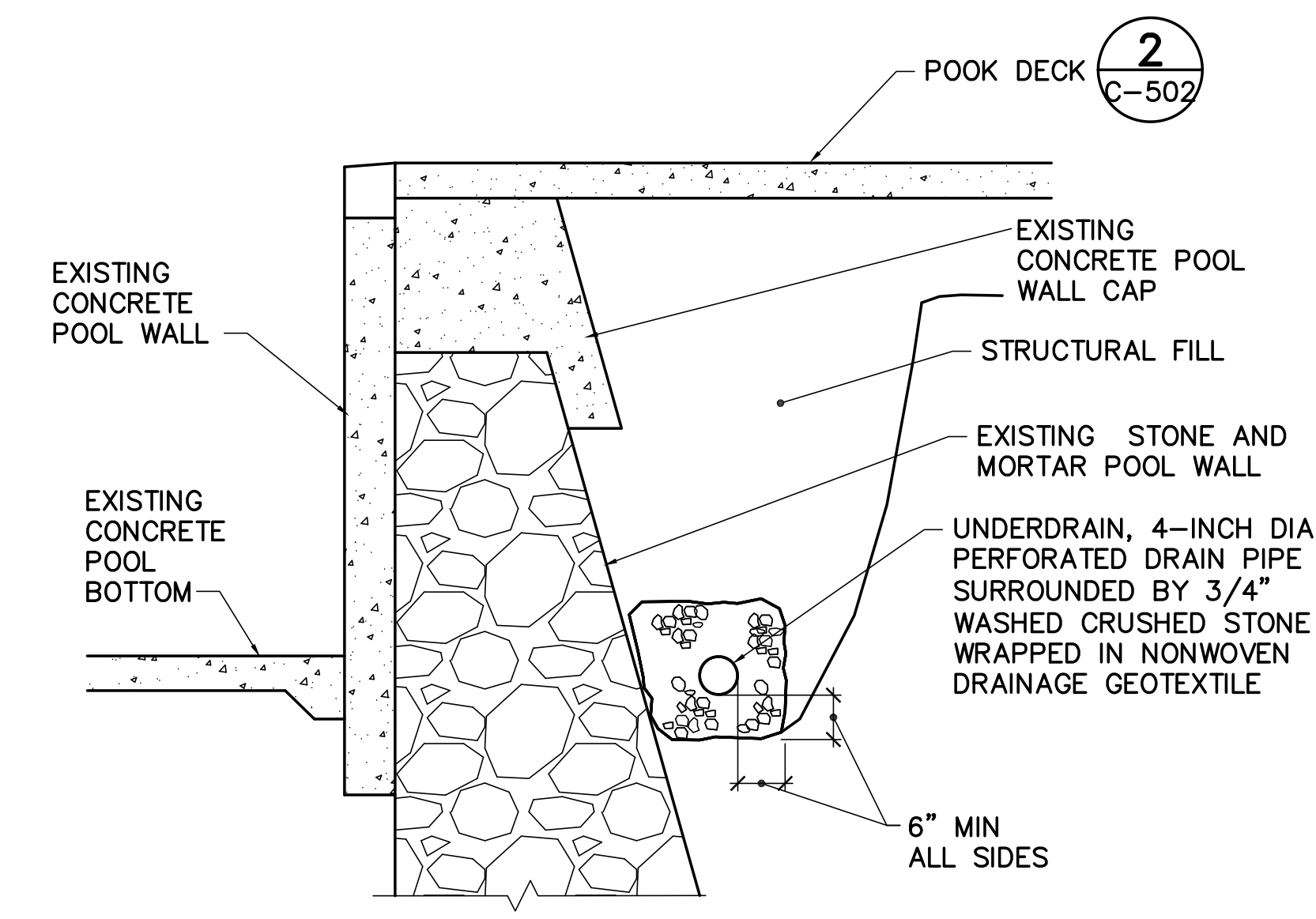


- NOTES**
1. PROVIDE PIPE PENETRATION AS INDICATED ON SHEET CG101.
 2. PVC CATCH BASIN MUST BE NYOPLAST DRAIN BASIN, H-10 RATED OR APPROVED EQUAL.

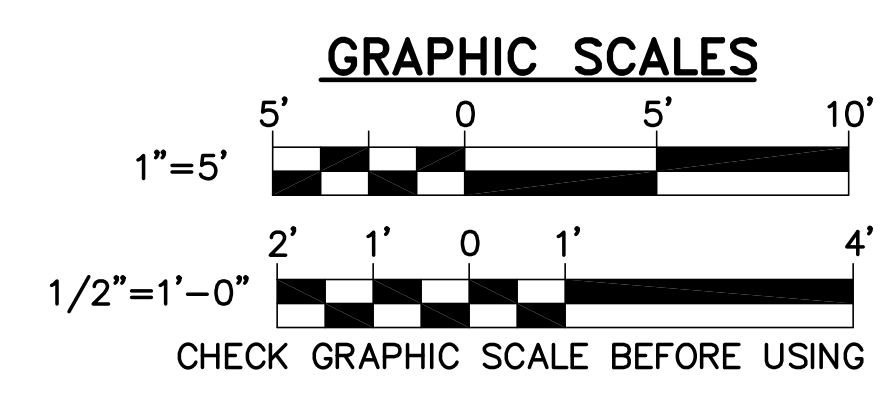
4 DRAIN BASIN
CU101, CG101, C-504 NOT TO SCALE



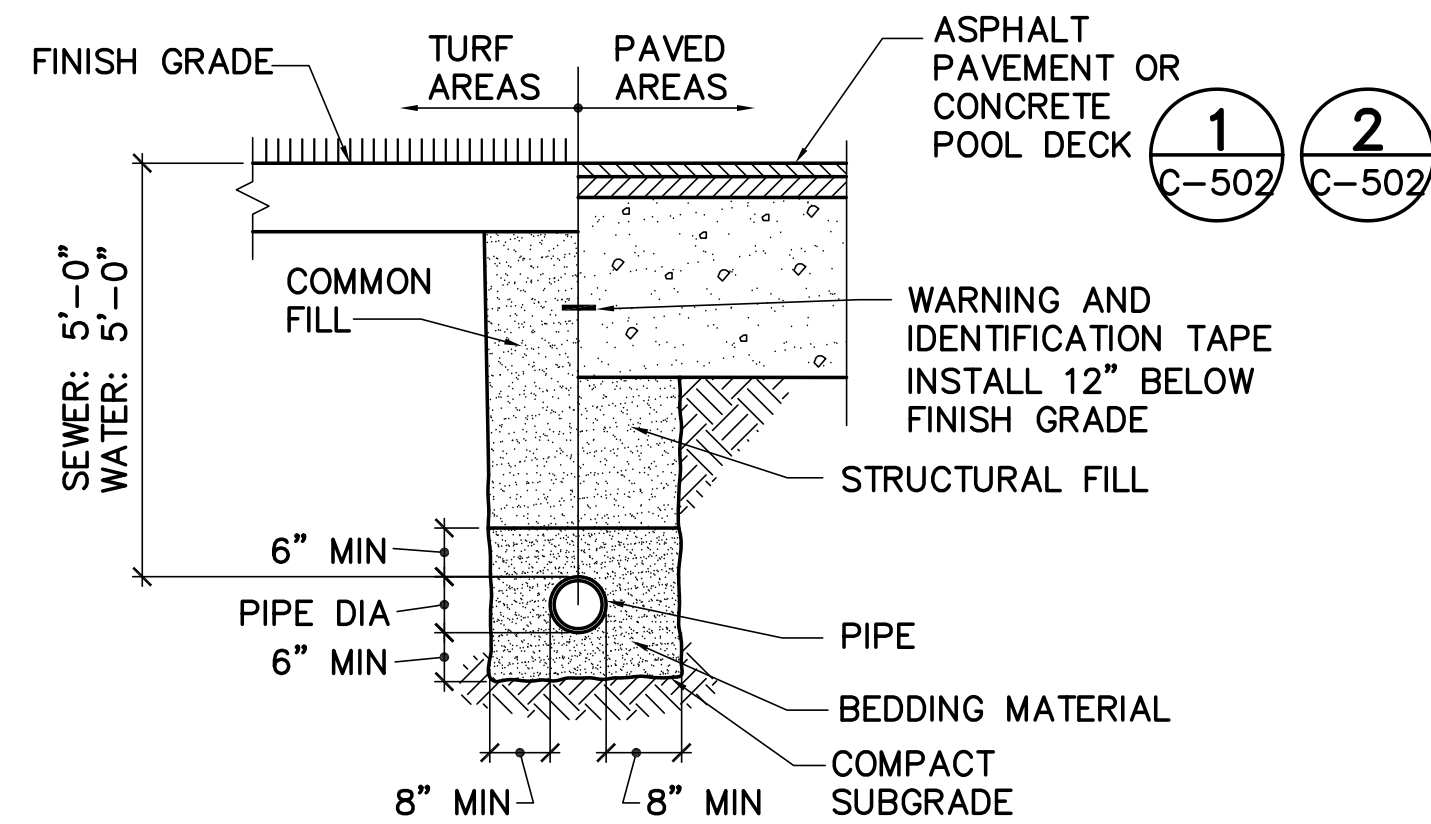
5 ROOF DRAIN RISER
CU101, CG101, C-504 NOT TO SCALE



6 POOL UNDERDRAIN DETAIL
CG101, C-504 NOT TO SCALE



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NOTES

- EXCAVATION WORK MUST COMPLY WITH OSHA STANDARDS. TRENCH SIDEWALLS MUST BE VERTICAL FROM TRENCH BOTTOM TO 12" ABOVE TOP OF PIPE.
- PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN CROSSING PIPES.
- PROVIDE 10' HORIZONTAL CLEARANCE BETWEEN WATER AND SEWER LINE.
- WHERE 5'-0" MIN COVER OVER SEWER LINE CANNOT BE ACHIEVED PROVIDE 4' WIDE, 4" THICK RIGID FOAM BOARD INSULATION OVER BLANKET MATERIAL. (2-2" LAYERS WITH JOINTS STAGGERED)
- PROVIDE A SEPARATION OF AT LEAST 18 INCHES BETWEEN THE BOTTOM OF THE WATER PIPING AND THE TOP OF THE SEWER PIPING IN CASES WHERE WATER PIPING CROSSES ABOVE SEWER PIPING. IF SEPARATION CANNOT BE ACHIEVED PROVIDE 6" MIN CONCRETE ENCASEMENT OF WATER PIPE FOR A DISTANCE OF 10' ON EITHER SIDE OF THE CROSSING.

1 PIPE TRENCH

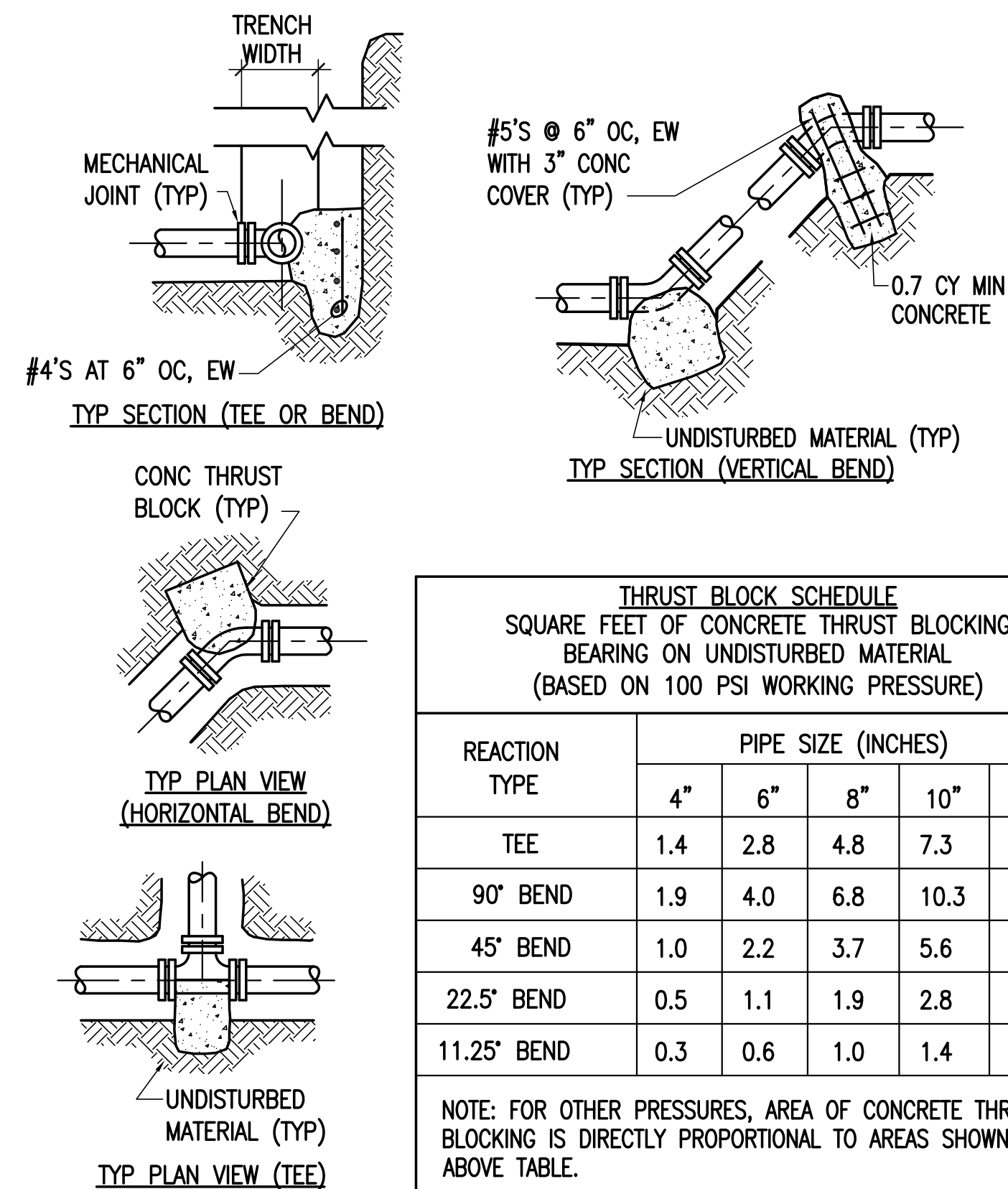
CU101, CG101, C-502, C-504, C-505 NOT TO SCALE

NOTES

- PROVIDE JOINT RESTRAINT FOR TEES, BENDS, AND PLUGS. FOR DUCTILE IRON PIPE PROVIDE CONCRETE THRUST BLOCKS AND WEDGE-ACTION TYPE RETAINER GLANDS. FOR POLYETHYLENE PIPE PROVIDE CONCRETE THRUST BLOCKS.
- WRAP DI PIPE FITTINGS IN POLYETHYLENE OR BUILDING PAPER PRIOR TO INSTALLATION OF CONCRETE THRUST BLOCKING.
- PLACE CONCRETE PAVERS OR BRICKS IN FRONT OF PLUGS BEFORE PLACING THRUST BLOCKS.
- PLACE THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND CONCRETE THRUST BLOCK TO UNDISTURBED MATERIAL. AREA OF THRUST BLOCKS SHOWN ARE BASED ON A MINIMUM SOIL BEARING CAPACITY OF 1,500 POUNDS PER SQUARE FOOT AND 1.5 SAFETY FACTOR. BEARING CAPACITY MAY BE ALTERED BASED ON CONDITIONS ENCOUNTERED WITH APPROVAL BY THE OWNER.
- EXTEND CONCRETE THRUST BLOCKING THE ENTIRE LENGTH OF THE FITTING. DO NOT COVER ANY PART OF THE JOINT WITH CONCRETE.
- PROVIDE LIFT HOOKS INTO THRUST BLOCKS AT END CAPS AND PLUGS.
- CONCRETE THRUST BLOCKS MUST BE 3,000 PSI (MIN) PORTLAND CEMENT CONCRETE.
- PROVIDE CONCRETE THRUST BLOCKING IN ACCORDANCE WITH NFPA 24 AND CITY OF PORTSMOUTH WATER DIVISION CONSTRUCTION MANUAL.
- PROVIDE WEDGE-ACTION TYPE RETAINER GLANDS ACCORDING TO THE MANUFACTURERS INSTRUCTIONS.

2 JOINT RESTRAINT

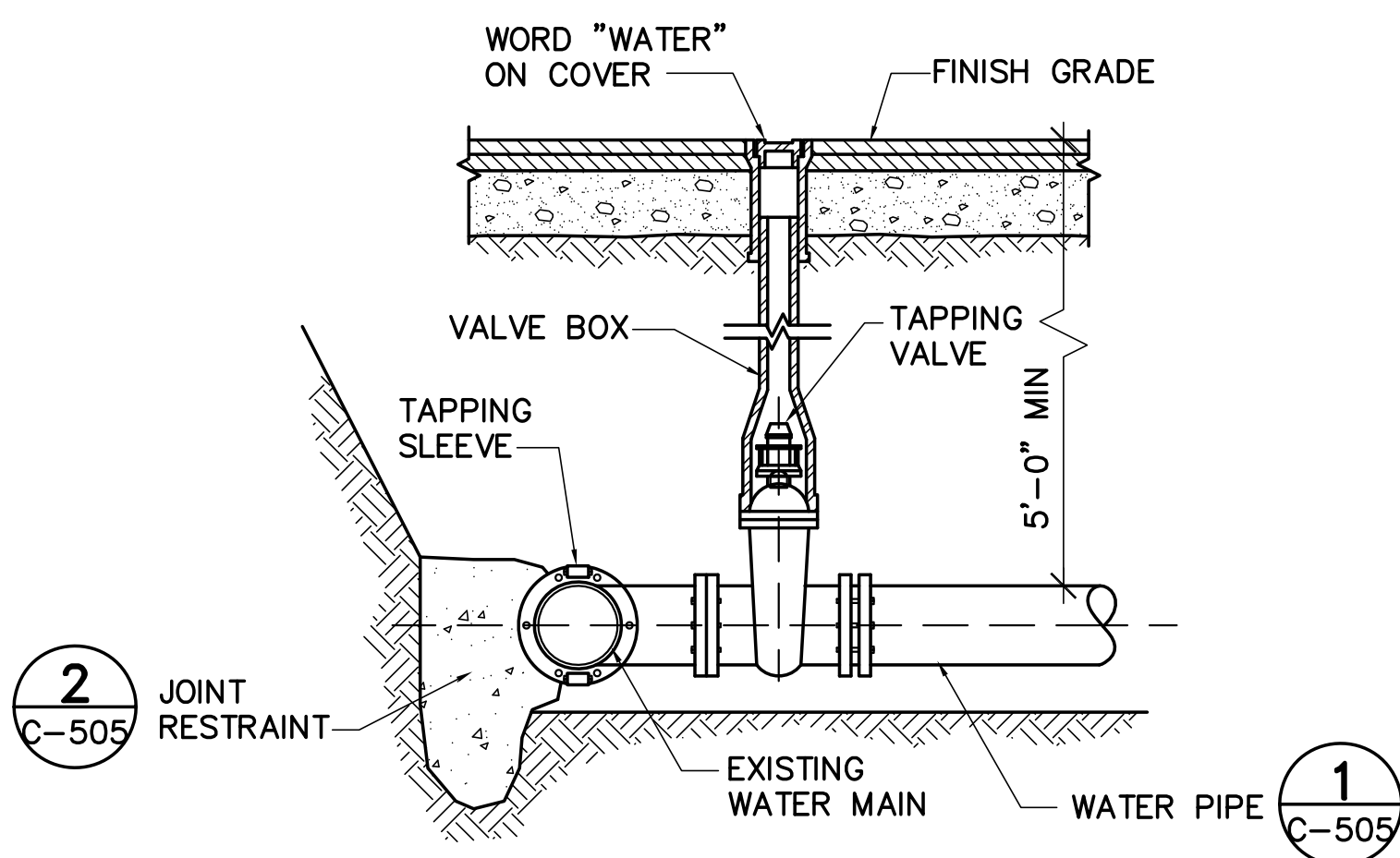
CU101, C-505 NOT TO SCALE



THRUST BLOCK SCHEDULE
 SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL (BASED ON 100 PSI WORKING PRESSURE)

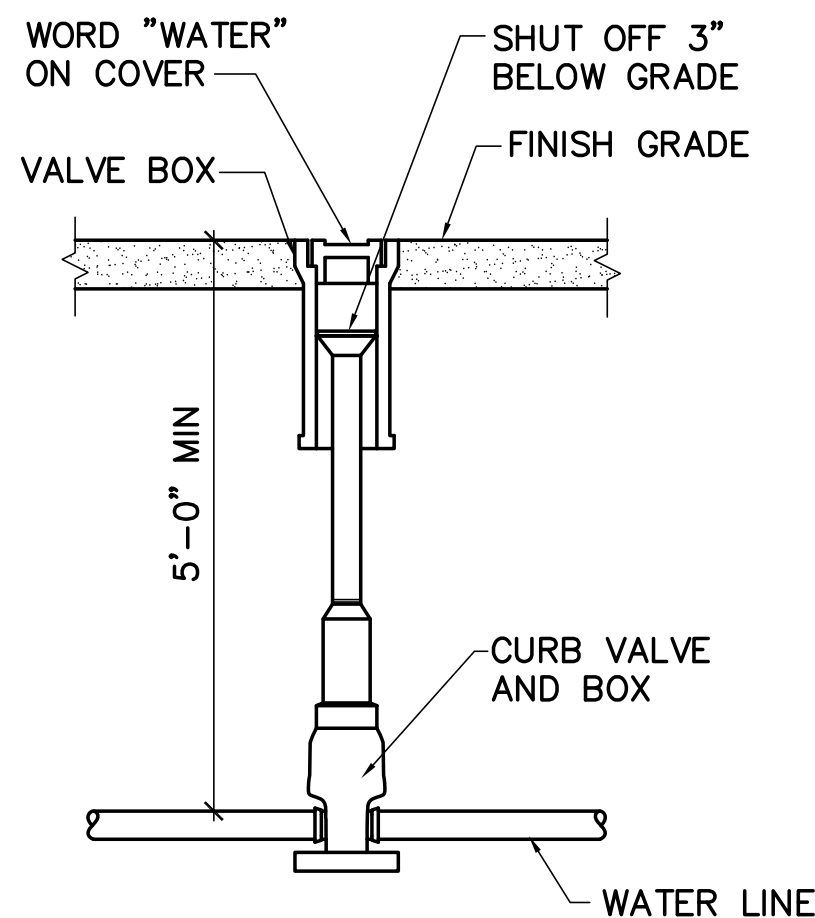
REACTION TYPE	PIPE SIZE (INCHES)				
	4"	6"	8"	10"	12"
TEE	1.4	2.8	4.8	7.3	10.3
90° BEND	1.9	4.0	6.8	10.3	14.5
45° BEND	1.0	2.2	3.7	5.6	7.9
22.5° BEND	0.5	1.1	1.9	2.8	4.0
11.25° BEND	0.3	0.6	1.0	1.4	2.0

NOTE: FOR OTHER PRESSURES, AREA OF CONCRETE THRUST BLOCKING IS DIRECTLY PROPORTIONAL TO AREAS SHOWN IN ABOVE TABLE.



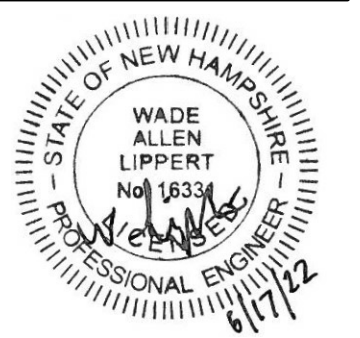
3 WATER SERVICE CONNECTION

CU101, C-505 NOT TO SCALE



4 WATER SHUT OFF VALVE

CU101, C-505 NOT TO SCALE



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 DRAWN BY: WAL
 CHECKED BY: PJM
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Junkins Avenue
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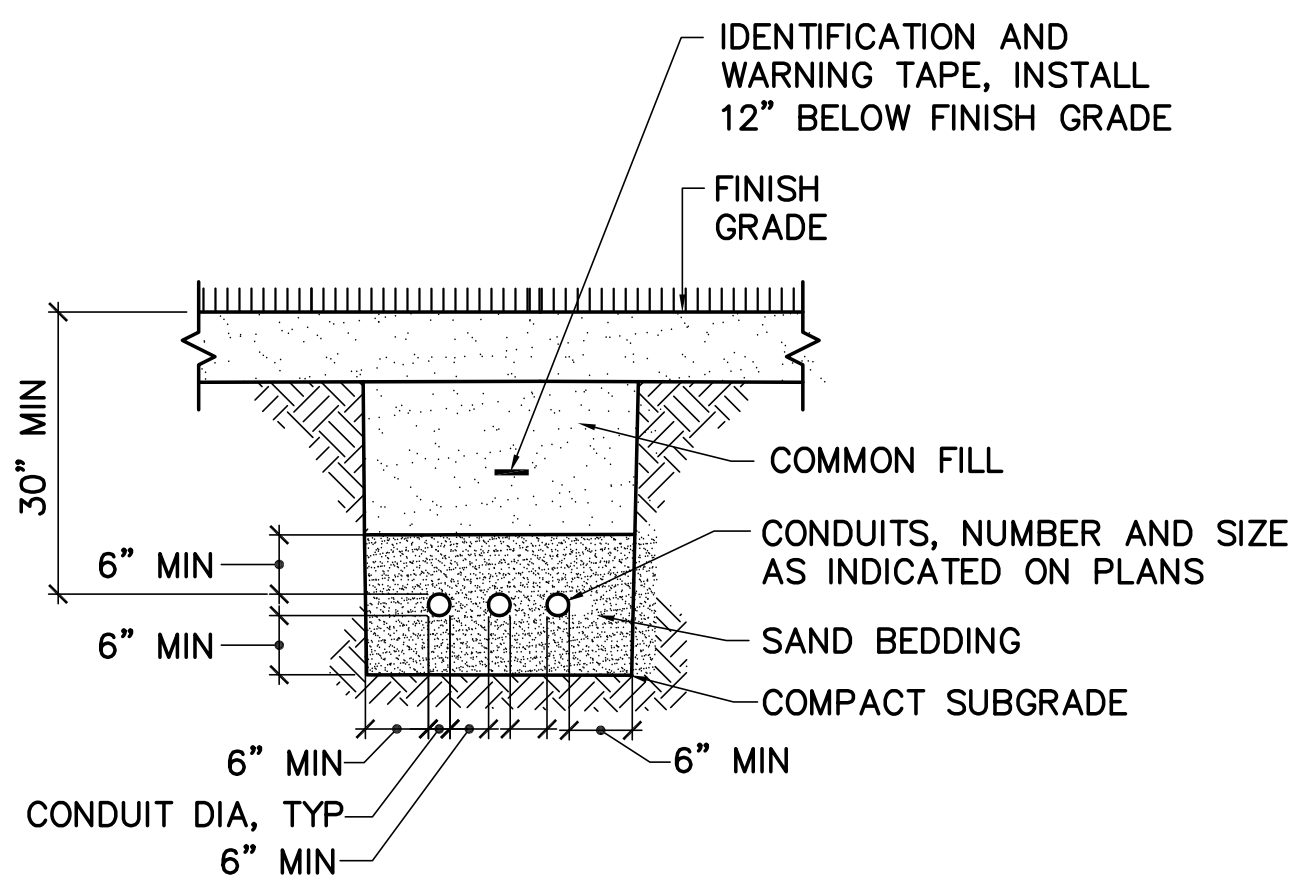
SITE DETAILS 4

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 DATE: 06/17/2022

DWG.: **C-505**

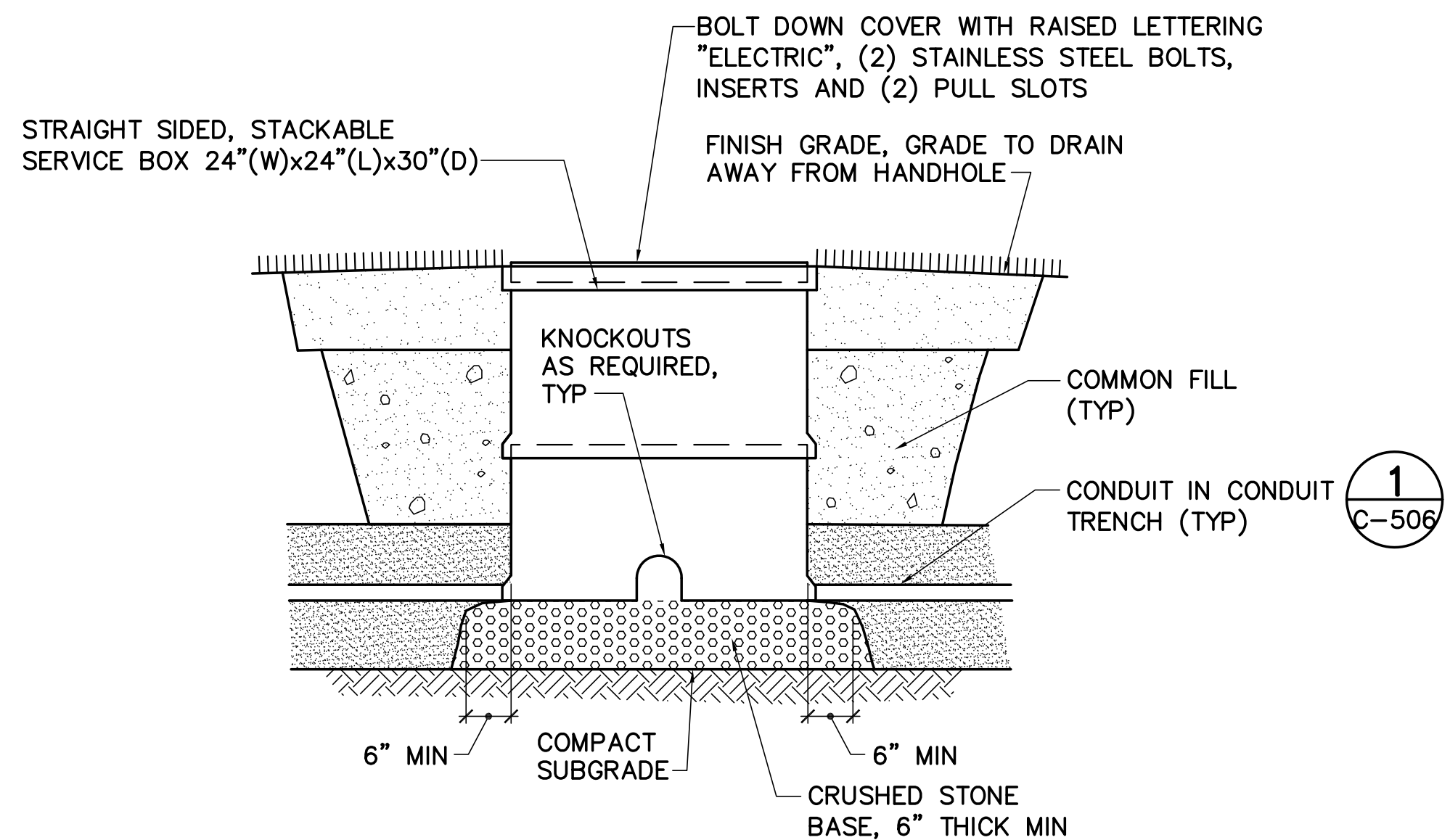
SHEET: 15 OF 72

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REVISIONS			



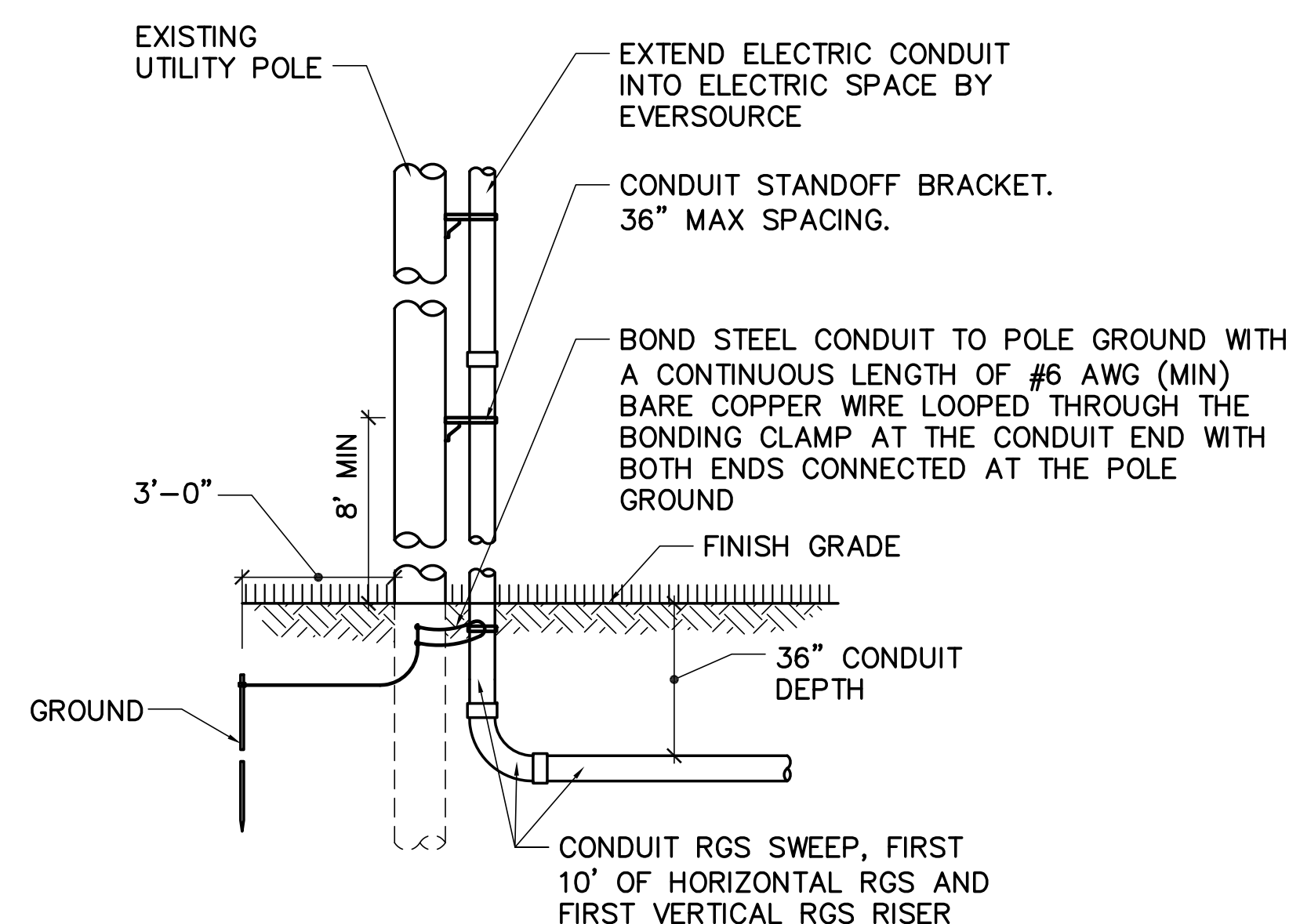
- NOTES**
- ELECTRIC SERVICE TRENCH MUST CONFORM TO EVERSOURCE CONSTRUCTION STANDARDS.
 - PROVIDE 18" MIN SEPARATION TO WATER LINES.

1 ELECTRIC SERVICE TRENCH
 CU101, C-506 NOT TO SCALE



- NOTES**
- HOUSING AND COVER MUST BE POLYMER CONCRETE REINFORCED WITH A HEAVY WEAVE FIBERGLASS REINFORCING WITH A COMPRESSIVE STRENGTH NO LESS THAN 10,000 PSI AND ABLE TO SUPPORT A SERVICE LOAD OF NO LESS THAN 20,800 POUNDS OVER A 10"x10" AREA.
 - HANDHOLE BOX AND COVER MUST BE LISTED BY UNDERWRITERS LABORATORIES.

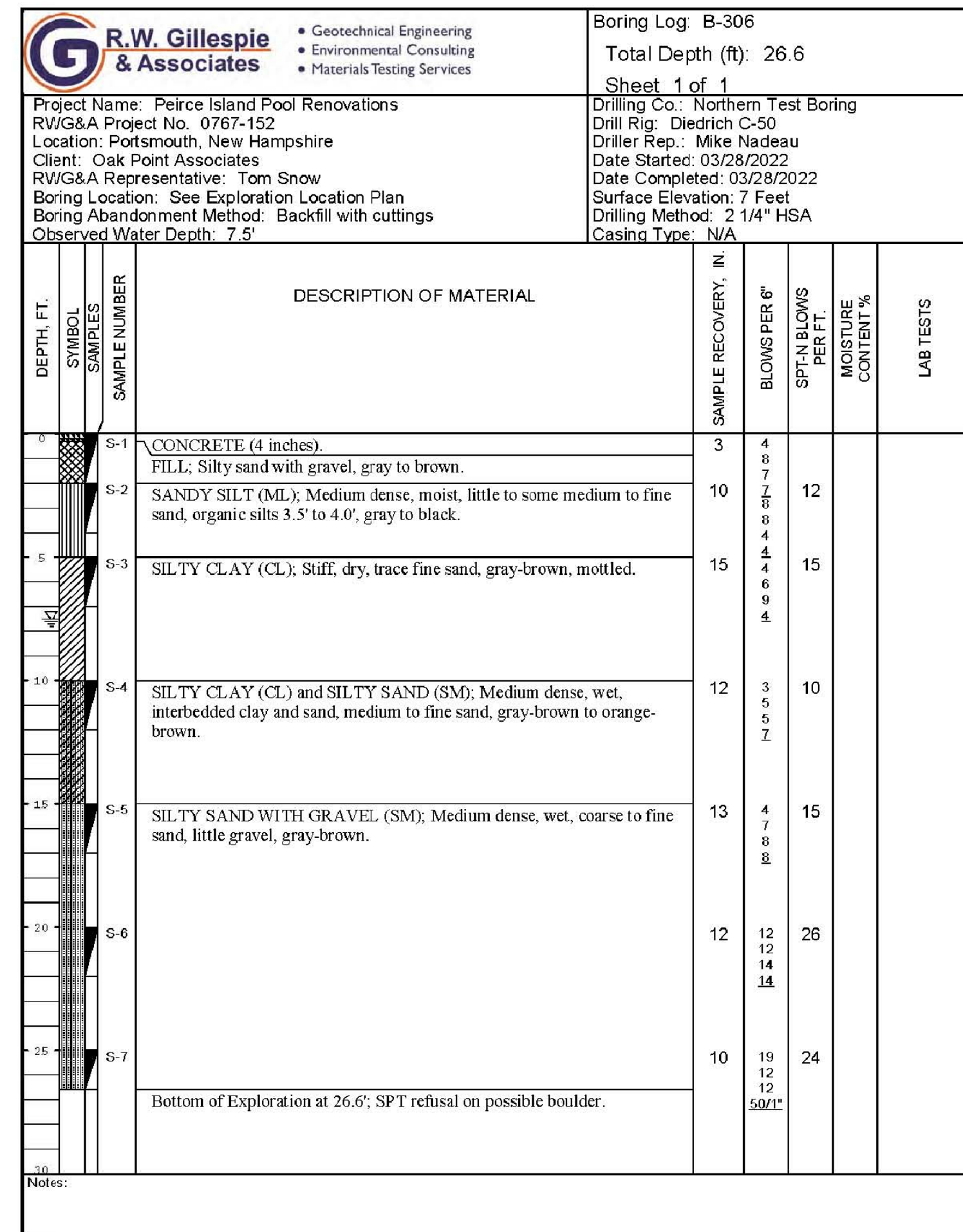
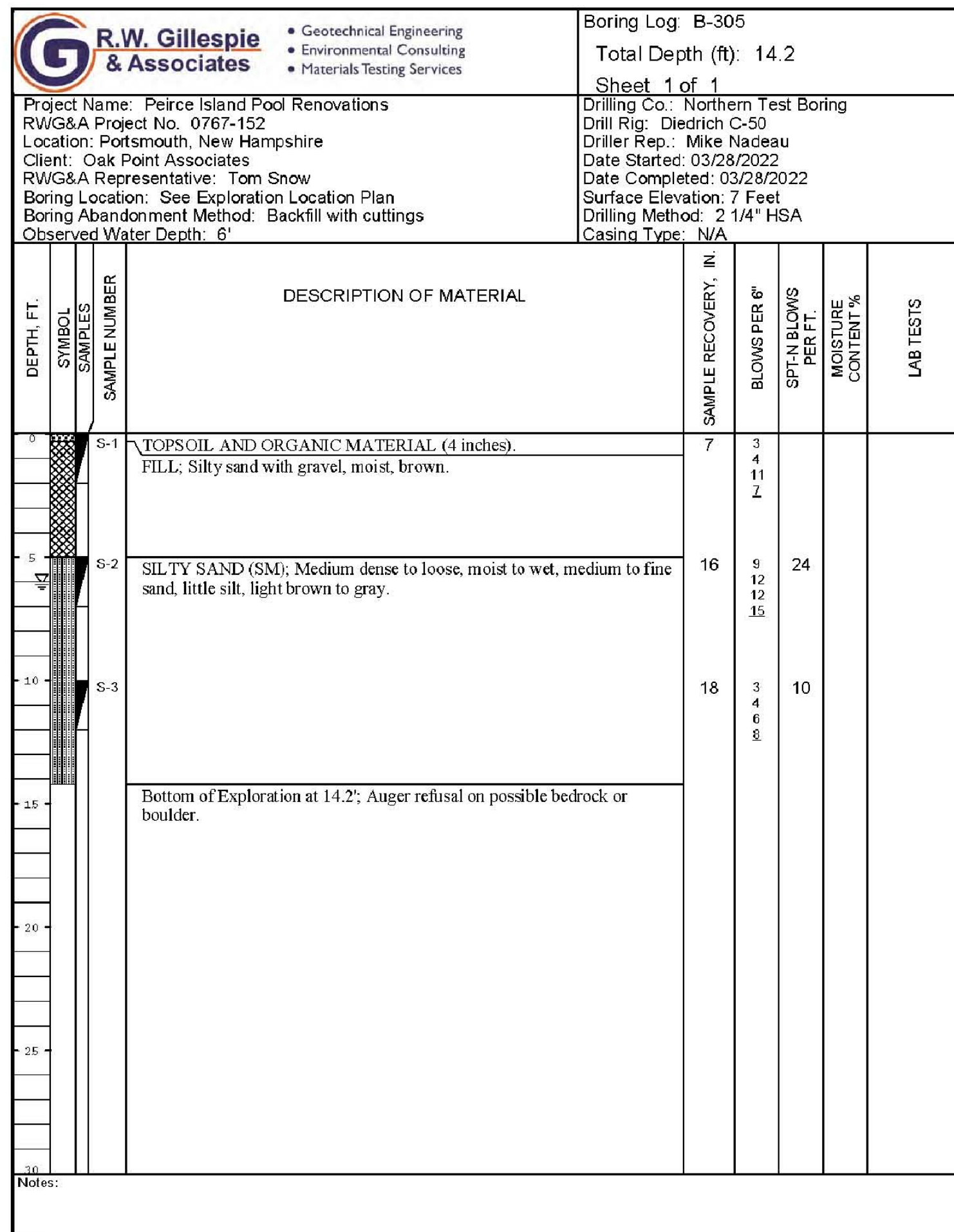
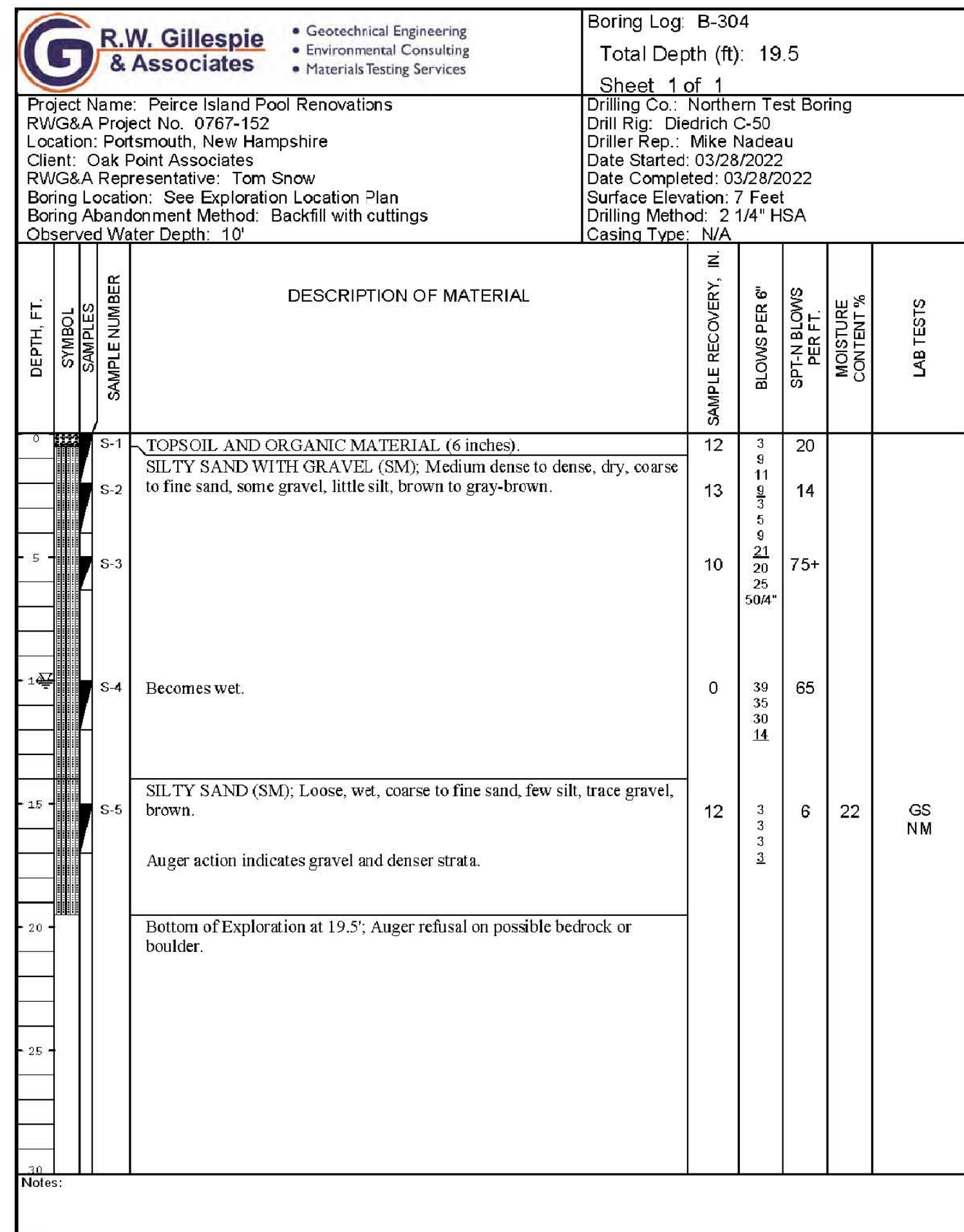
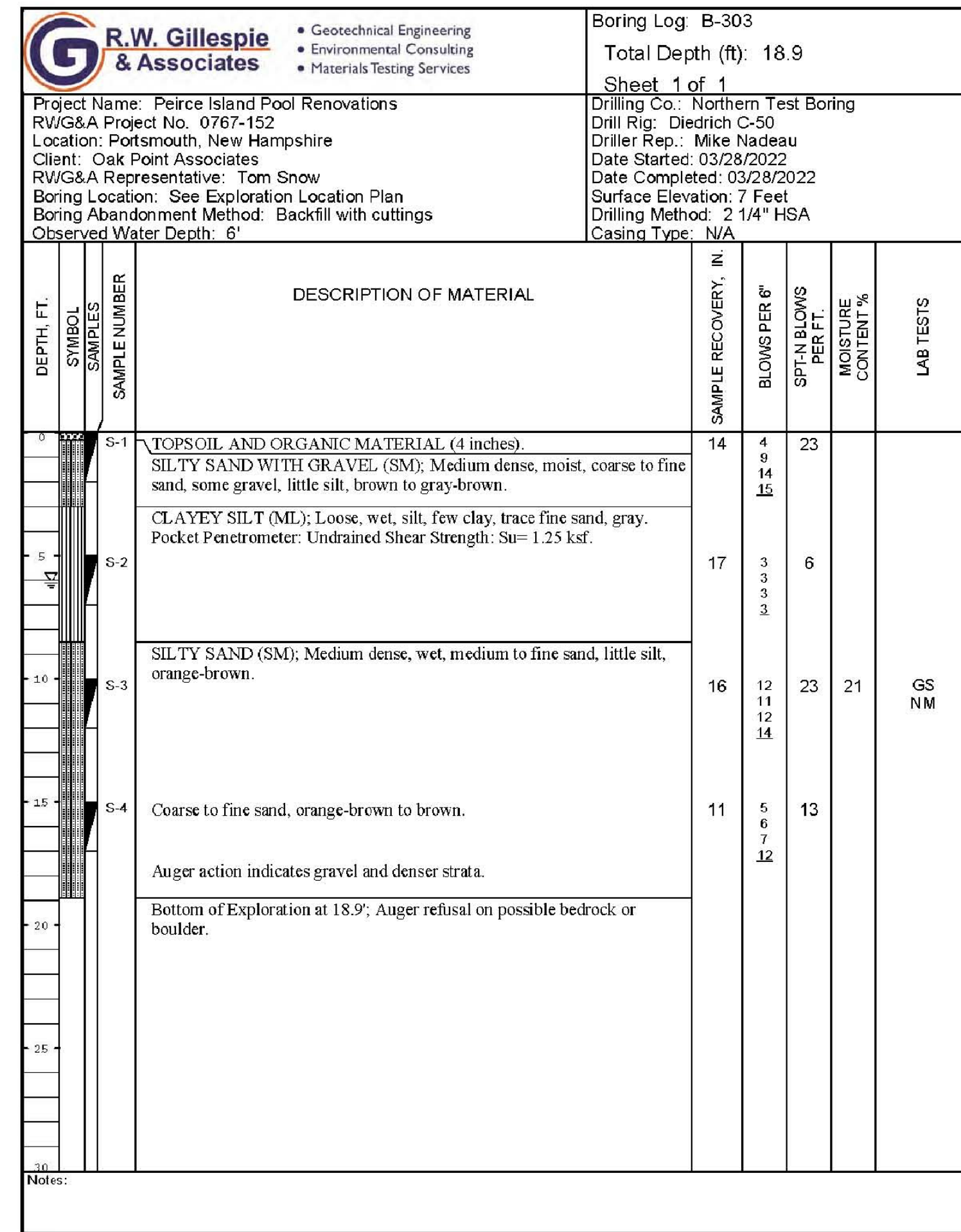
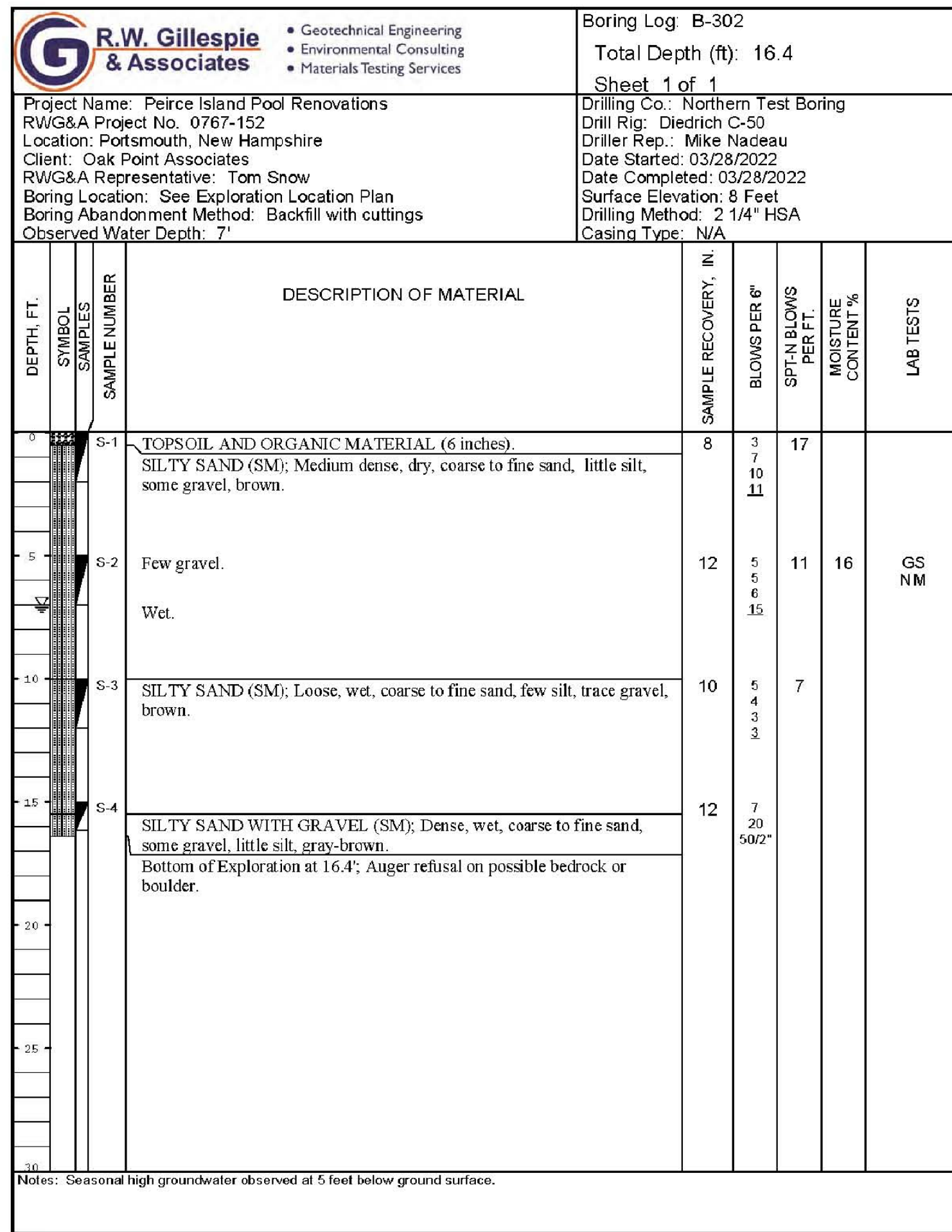
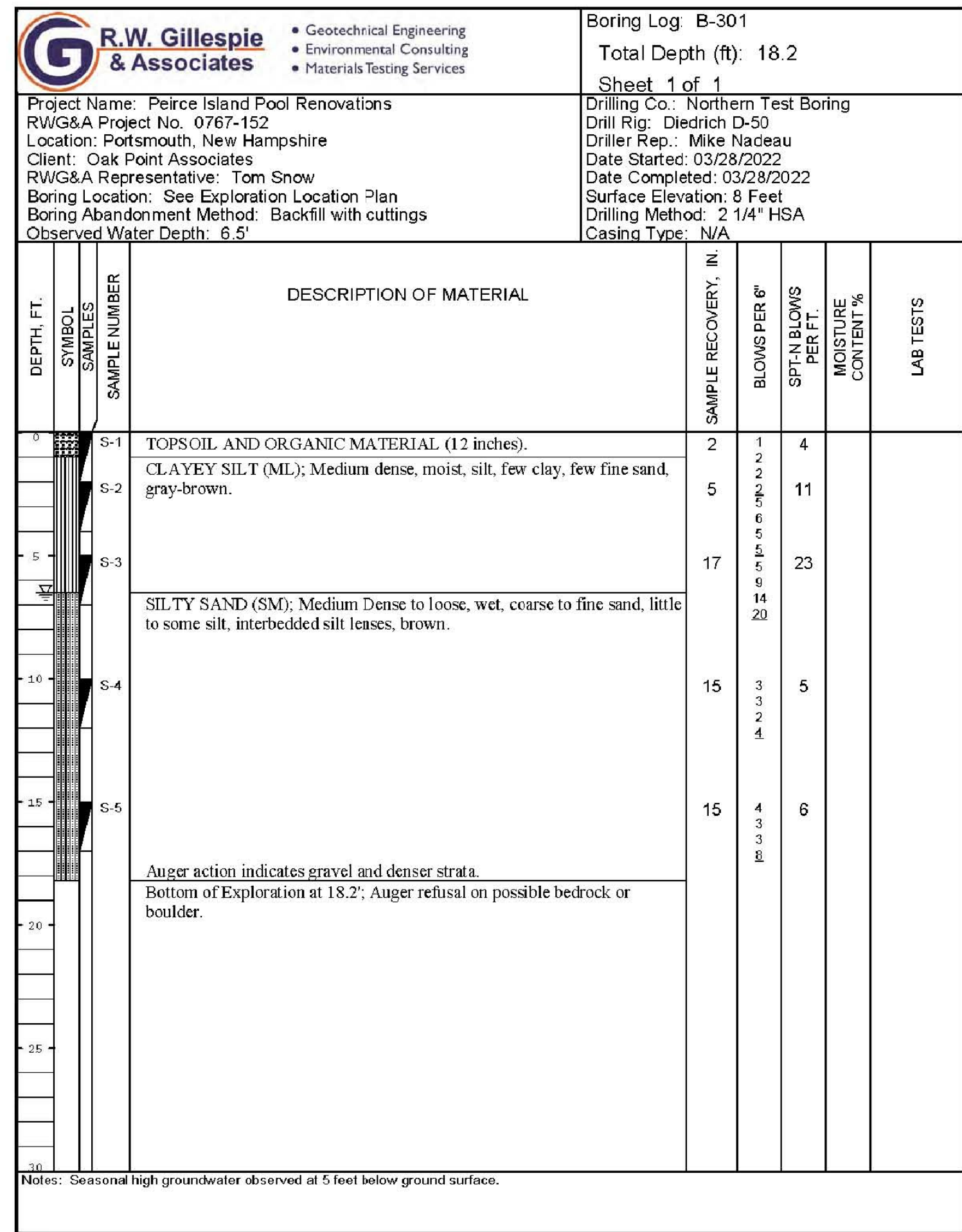
2 ELECTRIC HANDHOLE
 CU101, C-506 NOT TO SCALE



- NOTES**
- ELECTRIC CONDUIT AND SPARE CONDUIT RISER MUST BE IN ACCORDANCE WITH EVERSOURCE STANDARD.
 - COMMUNICATION CONDUIT RISER MUST BE IN ACCORDANCE WITH FAIRPOINT COMMUNICATIONS STANDARDS AND SPECIFICATIONS. PROVIDE SWEEP AND FIRST SECTION OF VERTICAL CONDUIT SIMILAR TO ELECTRIC RISER INSTALLATION.
 - WEATHER SEAL TOP END OF VERTICAL RISER CONDUITS AFTER INSTALLATION OF CABLES. TEMPORARILY CAP THE TOP END OF THE VERTICAL RISER CONDUIT UNTIL CABLES ARE INSTALLED.

3 UTILITY POLE CONDUIT RISER
 CU101, EP101, C-506 NOT TO SCALE

NO.	DATE	DESCRIPTION	BY
REVISIONS			



NO.	DATE	DESCRIPTION	BY

STRUCTURAL NOTES

CONCRETE

- CONFORM WITH ACI 117 (EXCEPT AS NOTED BELOW), ACI 201, ACI 211.1, ACI 301, ACI 302.1R, ACI 305R, ACI 306.1, ACI 308.1, ACI 309R, ACI 315, ACI 318, ACI 330 AND ACI 347R. CONCRETE TOLERANCES FOR FOUNDATION WALL VERTICAL, LATERAL, AND LEVEL ALIGNMENT MUST NOT EXCEED 1/2 INCH.
- CONCRETE EXPOSED TO WEATHER: NORMAL WEIGHT, $F'c=4000$ PSI WITH A MAXIMUM WATER/CEMENT RATIO=0.45. CONCRETE FOR FOUNDATION WALLS, MAT FOOTING AND ELEVATED SLAB: NORMAL WEIGHT, $F'c=3000$ PSI WITH A MAXIMUM WATER/CEMENT RATIO=0.50.
- COMPACT THE EXISTING SUBGRADE BENEATH MAT FOOTING PRIOR TO CONCRETE PLACEMENT. COMPACT IN ACCORDANCE WITH THE SPECIFICATIONS.
- DO NOT PLACE MAT FOOTING ON FROZEN SUBGRADE.
- PROTECT FOOTING SUBGRADE FROM FREEZING PRIOR TO, DURING, AND POST FOOTING INSTALLATION UNTIL THE PROPER FROST PROTECTION IS PROVIDED VIA BACKFILL AND COMPACTION.
- DEFORMED REINFORCING BARS: ASTM A615/A615M (GRADE 60).
- WELDED WIRE FABRIC: ASTM A1064 (PLAIN), ASTM A1060 (GALVANIZED), ASTM A884 (EPOXY COATED). PROVIDE AS INDICATED.
- LAP SPLICE CONCRETE REINFORCEMENT 2'-7" UNLESS NOTED OTHERWISE. WELDING OF STEEL REINFORCEMENT IS NOT PERMITTED.
- MINIMUM REINFORCING STEEL COVER: FOOTINGS 3", WALLS 2", ELEVATED SLABS 1-1/2", UNLESS INDICATED OTHERWISE.
- SUPPORT STEEL REINFORCEMENT AND WELDED WIRE FABRIC BY APPROVED MATERIALS.
- CURE CONCRETE AS SPECIFIED. CONCRETE NOT CURED WILL NOT BE ACCEPTED.
- NON-SHRINK GROUT: ASTM C1107, GRADE C.
- EPOXY GROUT: ASTM C881, TYPE IV OR V.
- EPOXY BONDING ADHESIVE: ASTM C881, TYPE I.
- PROVIDE CONCRETE SLAB PROTECTION (BEYOND THE 7-DAY CURING PERIOD) UNTIL THE BUILDING ENVELOPE IS COMPLETELY ENCLOSED AND PROTECTS THE SLAB FROM WIND, SUN AND PRECIPITATION.
- PROVIDE POWER TROWELED FINISH ON TOP SURFACE OF MAT FOOTING.
- PROVIDE PENETRATING LIQUID FLOOR TREATMENT TO TOP SURFACE OF MAT FOOTING AND ELEVATED SLAB.

MASONRY

- CONFORM TO TMS 402/602-11.
- CONCRETE MASONRY UNITS AND DECORATIVE CONCRETE MASONRY UNITS: ASTM C90, TYPE 1, NORMAL WEIGHT, WITH A MINIMUM NET COMPRESSIVE CMU BLOCK STRENGTH OF 3250 PSI. MORTAR: ASTM C270, TYPE S. GROUT: ASTM C476 FINE, $Fg = 2500$ PSI. DEFORMED REINFORCEMENT: ASTM A615/A615M, GRADE 60.
- CONCRETE MASONRY ASSEMBLIES MUST HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH: $F'm = 2500$ PSI.
- PERFORM DAILY MASONRY INSPECTIONS AS SPECIFIED. SUBMIT DAILY MASONRY INSPECTION REPORTS TO THE OWNER WITHIN 24 HOURS AFTER DAY OF INSPECTION. MASONRY CONSTRUCTED WITHOUT THE COMPLETION OF DAILY MASONRY INSPECTIONS WILL NOT BE ACCEPTED AND MUST BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- REINFORCE CONCRETE MASONRY WALLS AND PARTITIONS AS INDICATED WITH CELLS GROUTED SOLID UNLESS NOTED OTHERWISE.
- DO NOT MAKE HOLES OR PENETRATIONS THROUGH CMU BOND BEAMS.
- LAP SPLICE REINFORCING AS INDICATED ON FOUNDATION DETAILS AND MASONRY WALL ELEVATION SHEET SF201.
- BRACE INTERIOR CMU PARTITION WALLS TO ROOF AS INDICATED IN DETAIL 3/AE101.

POST INSTALLED ANCHORS

- INSTALL POST INSTALLED ANCHORS IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. BASIS OF DESIGN PRODUCT IS THE HILTI KWIK BOLT 3 (STAINLESS STEEL). ANCHORS FROM OTHER MANUFACTURERS ARE ACCEPTABLE PROVIDED THEY MEET OR EXCEED INDICATED LOAD CAPACITIES BELOW.
- 1/2" DIAMETER ANCHORS/EXPANSION BOLTS ATTACHED TO GROUT FILLED CMU TO HAVE THE FOLLOWING MINIMUM ALLOWABLE CAPACITIES. CAPACITIES INDICATED ARE PRIOR TO APPLICATION OF ADJUSTMENT FACTORS:
 - SHEAR = 1080 LBS
 - TENSION = 905 LBS

WOOD

- WOOD FRAMING AND FASTENERS TO BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AND THE AMERICAN FOREST AND PAPER ASSOCIATION NATIONAL DESIGN SPECIFICATION (2015) (AFPA NDS).
- EACH PIECE OF LUMBER MUST BE "S-DRY" AND BEAR THE GRADE STAMP OF A GRADING RULES AGENCY APPROVED BY THE PS-20 "AMERICAN SOFTWOOD LUMBER STANDARDS COMMITTEE".
- MINIMUM STRUCTURAL PROPERTIES OF WOOD FRAMING ARE AS FOLLOWS:
BLOCKING AND BRACING:
SPRUCE-PINE-FIR NO. 2 OR BETTER WITH MINIMUM DESIGN VALUES:
 $Fb=875$ PSI, $Fv=135$ PSI, $Ft=450$ PSI, $Fc_{II}=1,150$ PSI AND $E=1,400,000$ PSI.
- MINIMUM ALLOWABLE STRESSES OF LAMINATED VENEER LUMBER (LVL) ARE AS FOLLOWS:
JOISTS: BENDING $Fb = 3,100$ PSI
SHEAR $Fv = 285$ PSI
TENSION $Ft = 2,150$ PSI
COMPRESSION (PERPENDICULAR TO GRAIN) $Fc_{I} = 750$ PSI
COMPRESSION (PARALLEL TO GRAIN) $Fc_{II} = 3,000$ PSI
MODULUS OF ELASTICITY $E = 2,000,000$ PSI
NOTE: PARALLEL STRAND LUMBER WILL NOT BE AN ACCEPTABLE SUBSTITUTE IF IT DOES NOT MEET THE ABOVE MINIMUM DESIGN PROPERTIES.
- ROOF SHEATHING IS DESIGNED TO ACT AS A ROOF DIAPHRAGM. LAY SHEATHING WITH LONG DIMENSION PERPENDICULAR TO SUPPORTS. NAIL AT PANEL EDGES WITH 8d NAILS AT 6" ON-CENTER AND 12" ON-CENTER AT OTHER LOCATIONS UNLESS NOTED OTHERWISE.
- PROVIDE NAILING (OTHER THAN ROOF DIAPHRAGM) IN ACCORDANCE WITH TABLE 2304.10.1 OF THE 2015 INTERNATIONAL BUILDING CODE UNLESS NOTED OTHERWISE.
- CONNECTION HARDWARE TO HAVE MINIMUM ALLOWABLE CAPACITIES AS INDICATED. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. DESIGN BASED ON SIMPSON STRONG TIE PRODUCTS. ALTERNATE DESIGNS OR PRODUCTS THAT MEET OR EXCEED THE REQUIRED DESIGN CAPACITIES ARE PERMITTED.
- PROVIDE STANDARD CUT WASHERS FOR BOLT HEADS AND NUTS BEARING ON WOOD. DRILL BOLT HOLES 1/32-INCH IN DIAMETER LARGER THAN BOLT DIAMETER.

GENERAL NOTES

- FIELD VERIFY DIMENSIONS AND ELEVATIONS OF CONCRETE, MASONRY, AND WOOD MEMBERS PRIOR TO FABRICATION OF ANY MEMBERS. REPORT DISCREPANCIES TO THE OWNER PRIOR TO FABRICATION OF MEMBERS.
- PROVIDE TEMPORARY SUPPORT OF FRAMING DURING CONSTRUCTION TO PREVENT FAILURE AND DAMAGE.
- DO NOT BACKFILL BASEMENT FOUNDATION WALLS UNTIL THE REINFORCED CONCRETE STRUCTURAL SLAB IS PLACED AND HAS REACHED A MINIMUM OF 75% OF THE SPECIFIED 28-DAY DESIGN COMPRESSIVE STRENGTH.
- COORDINATE THE LOCATION OF CONCRETE AND MASONRY MEMBERS WITH ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL PLANS AND DETAILS.
- REQUIRED TESTS AND INSPECTIONS MUST BE COMPLETED AND SUBMITTED TO THE OWNER PRIOR TO ACCEPTANCE OF COMPLETED WORK. MATERIAL PLACED WITHOUT THE REQUIRED CONTRACTOR QUALITY CONTROL TESTS OR REQUIRED INSPECTIONS BEING PERFORMED WILL NOT BE ACCEPTED.
- CONSTRUCTION IS SUBJECT TO SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF IBC 2015. NOTIFY THE OWNER OF DEFICIENCIES AND AFTER DEFICIENCIES HAVE BEEN CORRECTED.
- NO DEVIATIONS IN CONTRACT DRAWINGS ARE PERMITTED.

STRUCTURAL ABBREVIATIONS

±	PLUS OR MINUS	Fg	GROUT COMPRESSIVE STRENGTH
∠	ANGLE	FND	FOUNDATION
ACI	AMERICAN CONCRETE INSTITUTE	FT	FOOT
ALT	ALTERNATE	FTG	FOOTING
ALUM	ALUMINUM	GA	GAUGE
APA	AMERICAN PLYWOOD ASSOCIATION	GALV	GALVANIZED
APPROX	APPROXIMATELY	HORIZ	HORIZONTAL
ARCH	ARCHITECTURAL	IBC	INTERNATIONAL BUILDING CODE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	INSUL	INSULATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LBS	POUNDS
BFE	BOTTOM OF FOOTING ELEVATION	MAX	MAXIMUM
CJ	CONTROL JOINT	MIN	MINIMUM
☺	CENTERLINE	MO	MASONRY OPENING
CMU	CONCRETE MASONRY UNIT	MPH	MILES PER HOUR
CONC	CONCRETE	MTL	METAL
CONN	CONNECTION	#, NO	NUMBER
CONT	CONTINUOUS	OC	ON CENTER
DIA	DIAMETER	OPNG	OPENING
DN	DOWN	PSF	POUNDS PER SQUARE FOOT
DWG	DRAWING	PSI	POUNDS PER SQUARE INCH
EA	EACH	PT	PRESERVATIVE TREATED
ELEV	ELEVATION	REINF	REINFORCED
EQ	EQUAL	SS	STAINLESS STEEL
EXIST	EXISTING	STL	STEEL
EXP	EXPANSION	TMS	THE MASONRY SOCIETY
F'c	CONCRETE COMPRESSIVE STRENGTH	TWE	TOP OF WALL ELEVATION
F'm	MASONRY COMPRESSIVE STRENGTH	TYP	TYPICAL
FD	FLOOR DRAIN	VERT	VERTICAL
		W/	WITH

BUILDING DESIGN LOADS

ROOF SNOW LOAD (ROOF LIVE LOAD) ASCE 7-10/IBC 2015

GROUND SNOW LOAD (P_g) = 49 PSF
 SNOW EXPOSURE FACTOR (C_e) = 0.9
 SNOW LOAD ROOF SLOPE FACTOR (C_s) = 1.0
 SNOW LOAD THERMAL FACTOR (C_t) = 1.2
 SNOW LOAD RISK CATEGORY = II
 BALANCED ROOF SNOW LOAD (P_f) = 36 PSF
 SNOW LOAD IMPORTANCE FACTOR (I) = 1.0

ROOF DEAD LOAD:
 TOP CHORD = 15 PSF + SELF WEIGHT + EXHAUST FANS
 BOTTOM CHORD = 15 PSF + SELF WEIGHT
 ROOF LIVE LOAD:
 TOP CHORD = 20 PSF
 BOTTOM CHORD = 0 PSF

CONSTRUCTION LIVE LOAD = 20 PSF

ELEVATED SLAB FLOOR DEAD LOAD = 140 PSF
 FLOOR LIVE LOAD:
 1ST FLOOR = 100 PSF
 BASEMENT = 100 PSF

WIND LOAD ASCE 7-10/IBC 2015

BASIC WIND SPEED = 115 MPH
 WIND LOAD RISK CATEGORY = II
 WIND EXPOSURE = EXPOSURE D
 BUILDING TYPE = "ENCLOSED"
 WIND DESIGN PRESSURE:
 MAIN WIND FORCE RESISTING SYSTEM = 34 PSF
 (MAXIMUM PRESSURE)

SEISMIC DESIGN DATA ASCE 7-10/IBC 2015

SHORT PERIOD SPECTRAL RESPONSE ACCELERATION (S_s) = 0.33
 ONE SECOND SPECTRAL RESPONSE ACCELERATION (S_1) = 0.08
 SEISMIC RISK CATEGORY = II
 SEISMIC DESIGN CATEGORY = B
 SEISMIC IMPORTANCE FACTOR = 1.0
 SITE CLASS = C
 TOTAL BASE SHEAR = 8 KIPS

BASIC STRUCTURAL SYSTEM

INTERMEDIATE REINFORCED CONCRETE MASONRY SHEAR WALLS
 RESPONSE MODIFICATION COEFFICIENT (R) = 3.50
 DEFLECTION AMPLIFICATION FACTOR (C_d) = 2.25
 SYSTEM OVER STRENGTH FACTOR (Ω_o) = 2.50

ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE

DESIGN SOIL BEARING PRESSURE = 1500 PSF

NOTES

- SEISMIC LOAD RESISTING SYSTEM CONSISTS OF THE FOLLOWING:
 - VERTICAL ELEMENTS – INTERMEDIATE REINFORCED CONCRETE MASONRY SHEAR WALLS.
 - HORIZONTAL ELEMENTS – PLYWOOD SHEATHING DIAPHRAGMS.
 - COLLECTOR ELEMENTS – CMU BOND BEAMS.

NO.	DATE	DESCRIPTION	BY
REVISIONS			



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 CHECKED BY: DNM
 PROJECT: 21904.14

CITY OF PORTSMOUTH

1 Jinkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE
 AND POOL RENOVATION

Peirce Island Road
 Portsmouth, NH 03801

STRUCTURAL NOTES, ABBREVIATIONS, AND DESIGN LOADS

SCALE: AS NOTED

DATE: 06/17/2022

DWG.: **S-001**

SHEET: 18 OF 72



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 MJC
 DNM
 21904.14
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 DRAWN BY:
 CHECKED BY:
 PROJECT:

CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

**PEIRCE ISLAND PUMP HOUSE
 AND POOL RENOVATION**
 Peirce Island Road
 Portsmouth, NH 03801

**EXISTING PUMPHOUSE
 FOUNDATION AND
 ROOF FRAMING
 REMOVALS
 PLANS**

SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: **SD101**

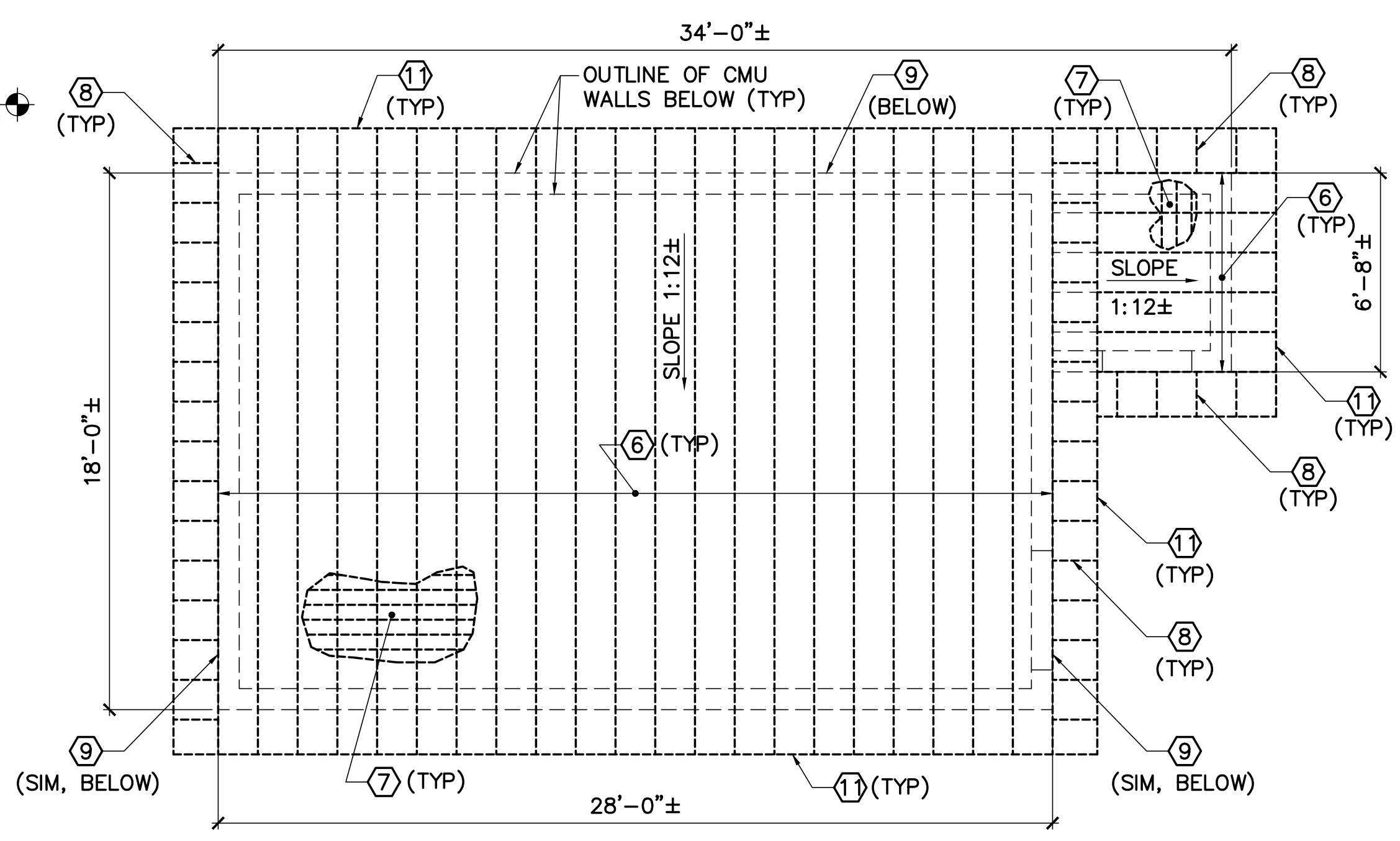
SHEET: **19** of **72**

GENERAL REMOVALS NOTES

- EXISTING PAINT IS ASSUMED TO CONTAIN LEAD. HANDLE IN ACCORDANCE WITH LEAD REMEDIATION REQUIREMENTS.
- SEE CIVIL, ARCHITECTURAL, AND ELECTRICAL SHEETS FOR ADDITIONAL REMOVALS.
- INTENT IS TO REMOVE THE EXISTING BUILDING IN ITS ENTIRETY.

REMOVALS KEYNOTES (THIS SHEET ONLY)

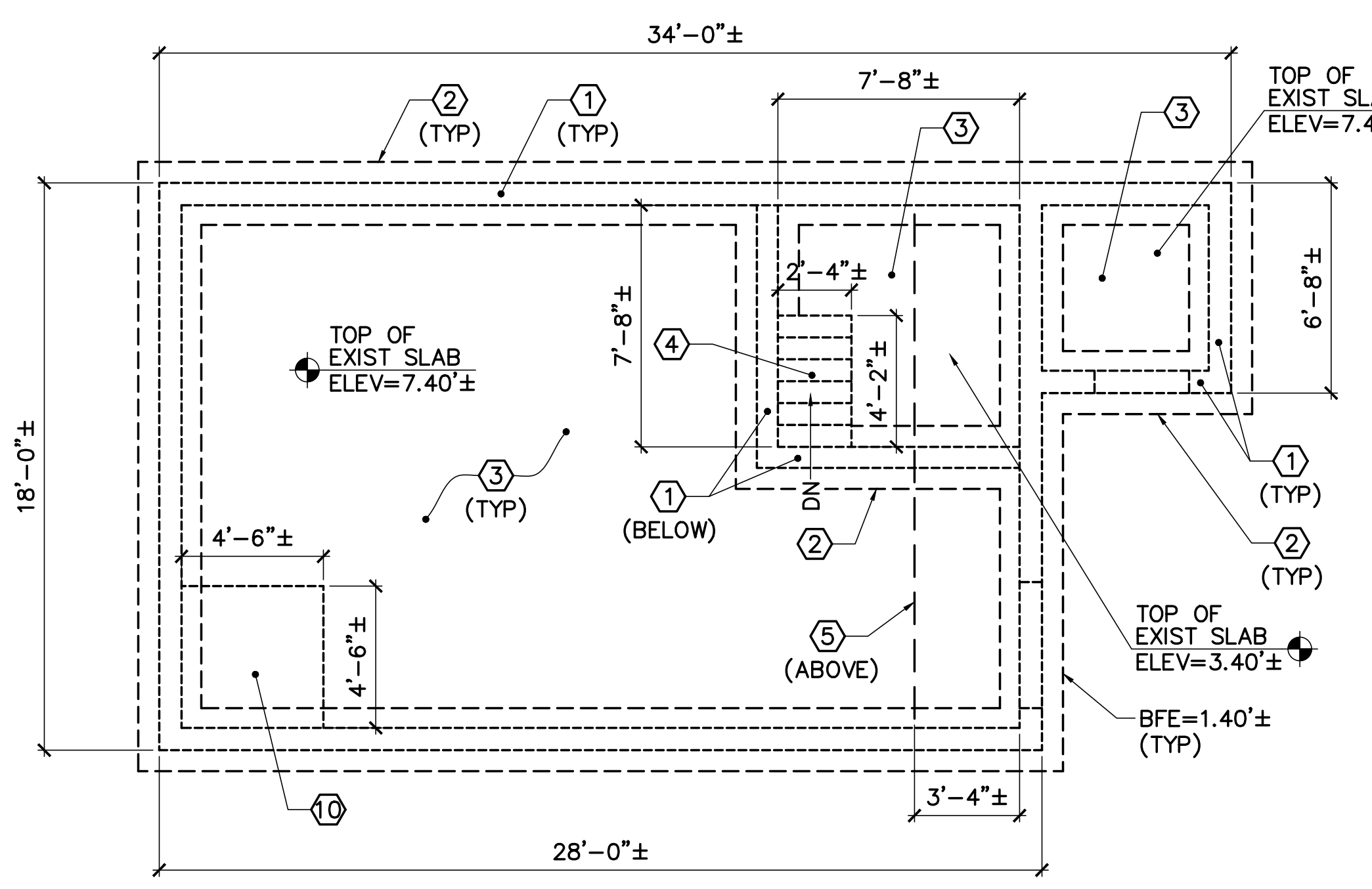
- REMOVE EXISTING 8"± REINFORCED CONCRETE FOUNDATION WALL.
- REMOVE EXISTING 1'-0"± x 2'-0"± CONTINUOUS REINFORCED CONCRETE FOOTING.
- REMOVE EXISTING 6"± THICK REINFORCED CONCRETE SLAB-ON-GRADE.
- REMOVE EXISTING REINFORCED CONCRETE MONOLITHIC STAIRS.
- REMOVE EXISTING 8"± STEEL BEAM AND HOIST SYSTEM BOLTED TO FACE OF EXISTING CMU WALL.
- REMOVE EXISTING 2x12± WOOD ROOF JOISTS SPACED 1'-4"± ON-CENTER AND MIDSPAN WOOD DIAGONAL BRIDGING.
- REMOVE EXISTING 1x6± TONGUE AND GROOVE WOOD BOARD SHEATHING.
- REMOVE EXISTING 2x12± WOOD FRAMED RAKE.
- REMOVE EXISTING 2'-0"± TALL WOOD FRAMED 2x4± KNEEWALL AND WOOD BOARD EXTERIOR SHEATHING.
- REMOVE EXISTING 5"± THICK REINFORCED CONCRETE HOUSEKEEPING PAD.
- REMOVE CONTINUOUS 2x12± RIM BOARD.



2 EXISTING PUMP HOUSE ROOF FRAMING REMOVALS PLAN

 PLAN NORTH

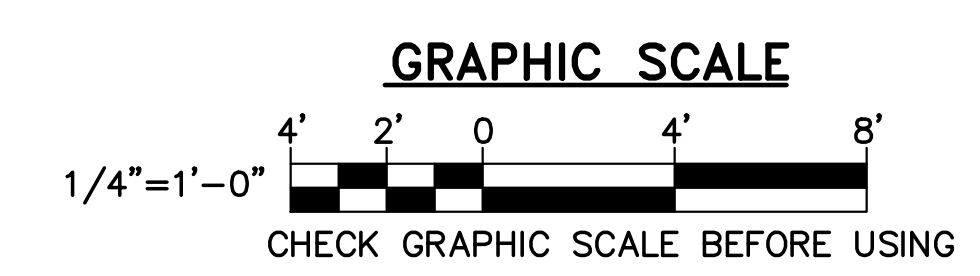
 AD101 SCALE: 1/4"=1'-0"



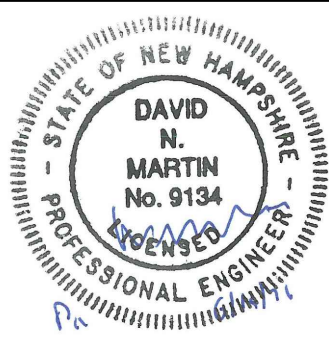
1 EXISTING PUMP HOUSE FOUNDATION REMOVALS PLAN

 PLAN NORTH

 CD101 SCALE: 1/4"=1'-0"



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CITY OF PORTSMOUTH
1 Junkins Avenue
Portsmouth, NH 03801

**PEIRCE ISLAND PUMP HOUSE
AND POOL RENOVATION**
Peirce Island Road
Portsmouth, NH 03801

**PUMP HOUSE
FOUNDATION
PLAN**

SCALE: AS NOTED

DATE: 06/17/2022

DWG.: **SB101**

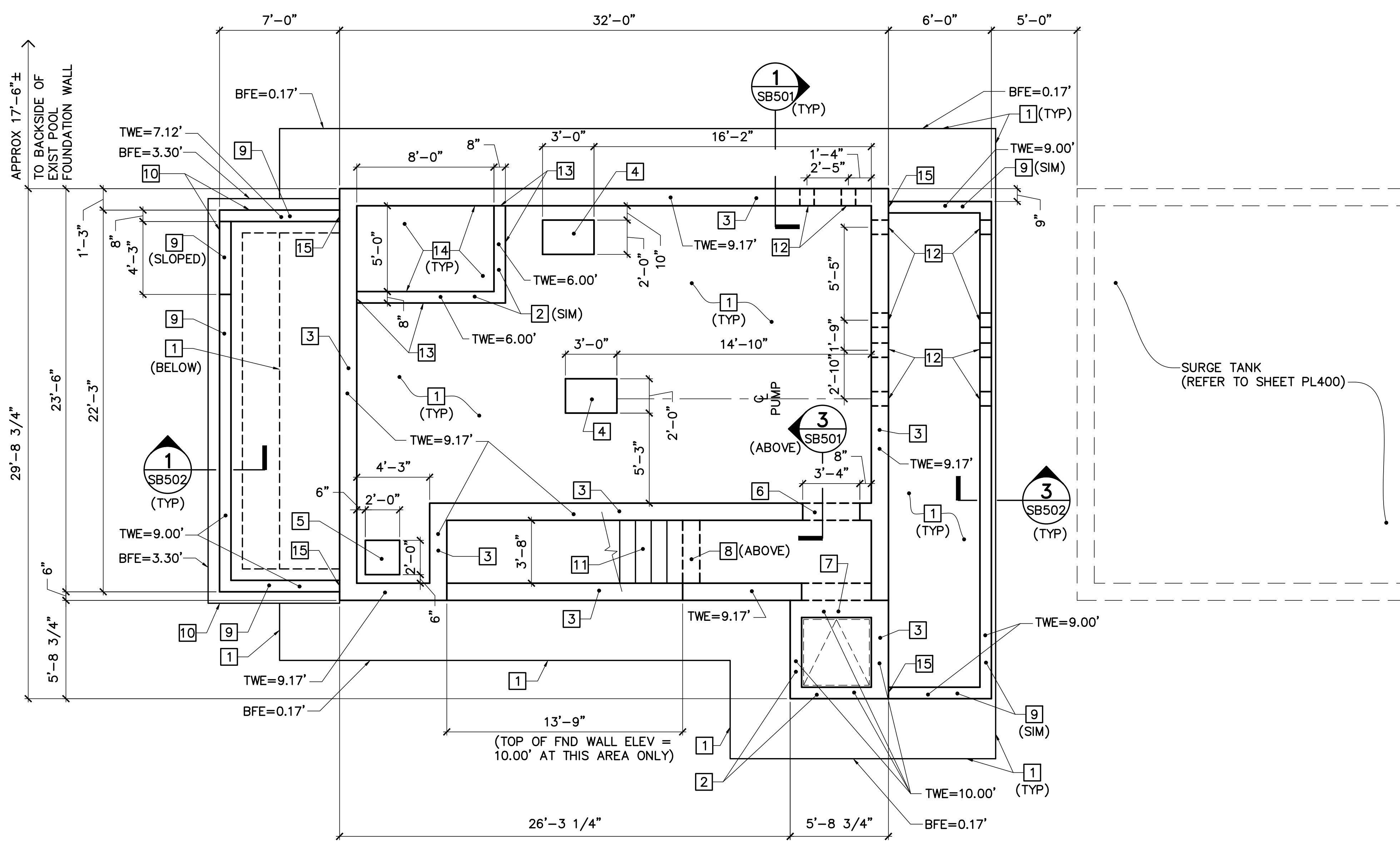
SHEET: **20** OF **72**

GENERAL NOTES

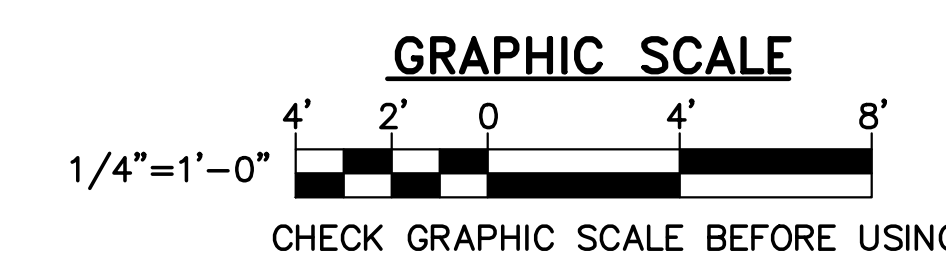
- REFER TO SHEET SB102 FOR STRUCTURAL ELEVATED SLAB INFORMATION.
- PROVIDE RIGID INSULATION AROUND PERIMETER OF BASEMENT, STAIRWELL, AND HATCH ACCESS FOUNDATION WALLS.
- REFER TO SHEET C-503 FOR FOUNDATION PREPARATION DETAILS.
- PROVIDE STEEL POWER TROWEL SLAB FINISH ON TOP SURFACE OF REINFORCED CONCRETE MAT FOOTING.
- COORDINATE EXACT PUMP HOUSEKEEPING PAD LOCATION WITH THE AQUATIC DRAWING PIPING LAYOUT REQUIREMENTS.
- THE WATERPROOF MEMBRANE MUST BE CONTINUOUS UNDER THE ENTIRE MAT FOOTING AND CONTIGUOUS WITH THE FOUNDATION WALLS AROUND THE BASEMENT.

KEYNOTES (THIS SHEET ONLY)

- 1'-0" THICK REINFORCED CONCRETE MAT FOOTING. REFER TO DETAIL 1/SB501 AND DRAWING NOTE 4.
- 8" REINFORCED CONCRETE FOUNDATION WALL. REFER TO DETAIL 6/SB501.
- 1'-0" REINFORCED CONCRETE FOUNDATION WALL. REFER TO DETAILS 1/SB501 AND 2/SB501.
- REINFORCED CONCRETE PUMP PAD. REFER TO DETAIL 2/PL401 AND DRAWING NOTE 5.
- 2'-0"x2'-0"x2'-0" SUMP PIT. REFER TO DETAIL 4/SB501.
- OPENING IN FOUNDATION WALL BELOW. REFER TO DETAIL 3/SB501.
- 1'-0"x1'-4" REINFORCED CONCRETE BEAM. REFER TO DETAIL 6/SB501.
- 12" WIDE REINFORCED CONCRETE BEAM. REFER TO DETAIL 3/SB501 (SIMILAR).
- 8" REINFORCED CONCRETE FOUNDATION WALL. REFER TO DETAIL 1/SB502.
- 1'-0"x2'-0" CONTINUOUS REINFORCED CONCRETE FOOTING. REFER TO DETAIL 1/SB502.
- GALVANIZED STEEL BASEMENT STAIRS. REFER TO DETAIL 8/SB501.
- PIPE SLEEVE WITH LINK SEAL. REFER TO SCHEDULE ON SHEET PL600 AND DETAIL 3/PL403. COORDINATE SLEEVE SIZE AND ELEVATION WITH PIPE LOCATIONS SHOWN ON DETAILS 2/PL600 AND 3/PL600.
- PROVIDE WATERSTOP ALONG HORIZONTAL AND VERTICAL EDGES OF CONCRETE TANK WALLS ABUTTING MAT FOUNDATION AND BASEMENT FOUNDATION WALLS.
- APPLY SHEET WATERPROOFING TO INTERIOR TANK VERTICAL AND HORIZONTAL SURFACES.
- DRILL AND EPOXY GROUT #5 DOWELS, 2'-0" LONG, 4" INTO BASEMENT FOUNDATION WALL. SPACE DOWELS 1'-4" ON-CENTER.



1 PUMP HOUSE FOUNDATION PLAN
SB101 SCALE: 1/4"=1'-0"
PLAN NORTH

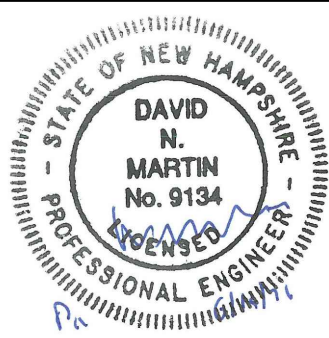


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PROJECT: 21904.14

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1 Junkins Avenue
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PEIRCE ISLAND PUMP HOUSE
AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

PUMP HOUSE
SLAB
PLAN

SCALE: AS NOTED

DATE: 06/17/2022

DWG.: SB102

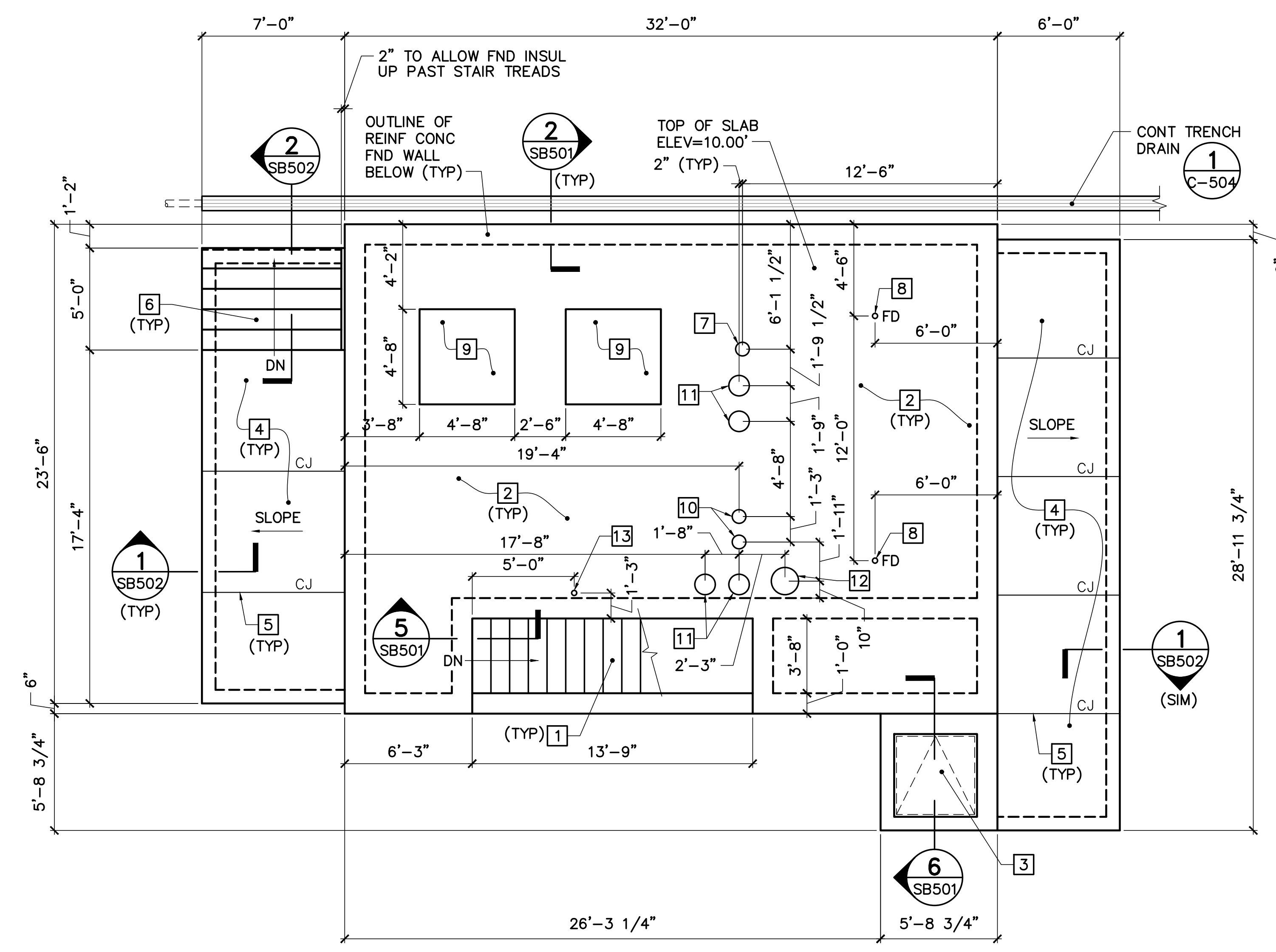
SHEET: 21 OF 72

GENERAL NOTES

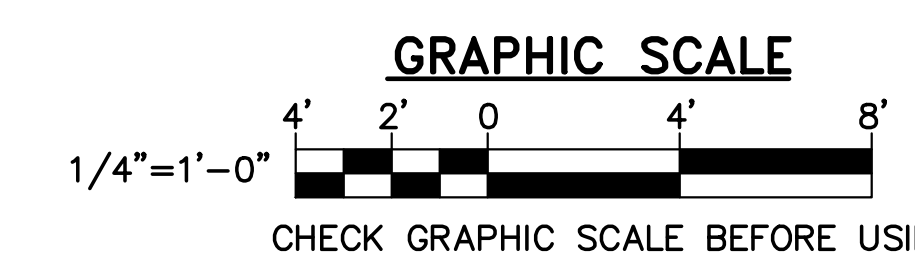
- REFER TO SHEET SB101 FOR MAT FOOTING AND FOUNDATION WALL INFORMATION.
- VERIFY VERTICAL REINFORCING DOWEL LAYOUT MATCHES CMU CELL LAYOUT PRIOR TO PLACING SLAB. REFER TO "GENERAL NOTE" ON SHEET SB501.
- RAILINGS ARE NOT SHOWN FOR CLARITY. REFER TO SHEET AE101 FOR RAILING LOCATIONS AND REQUIREMENTS.
- REFER TO DETAIL 7/SB501 FOR ADDITIONAL REINFORCING REQUIREMENTS AT SLAB PENETRATIONS LARGER THAN 4" DIAMETER.
- REFER TO SHEET CU101 FOR CONTINUOUS TRENCH DRAIN LOCATION AND LAYOUT.

KEYNOTES (THIS SHEET ONLY)

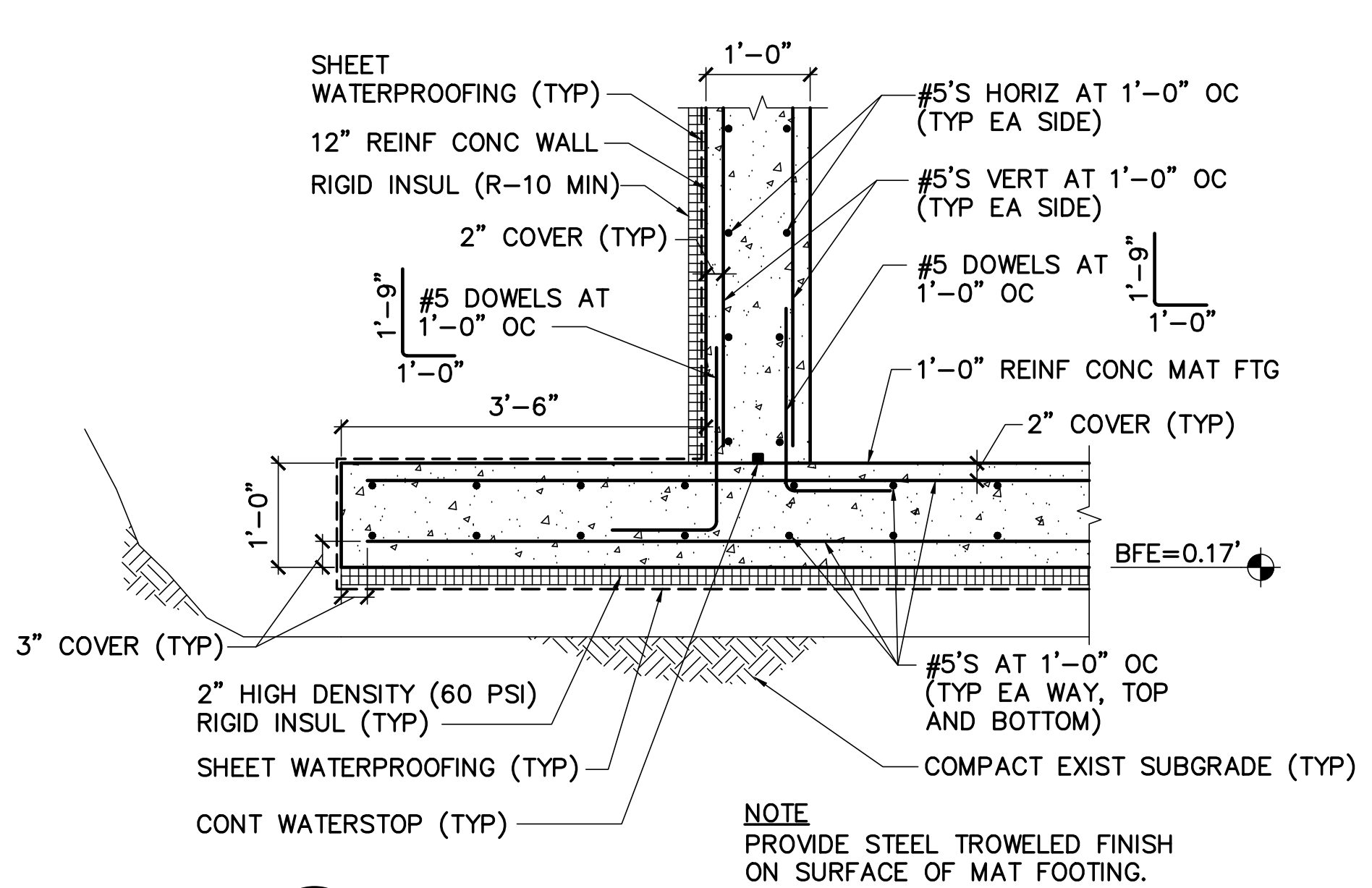
- GALVANIZED STEEL BASEMENT STAIRS. REFER TO DETAIL 5/SB501.
- 10" REINFORCED CONCRETE STRUCTURAL SLAB. REFER TO DETAIL 2/SB501. TOP OF SLAB ELEVATION = 10.00'.
- ACCESS HATCH COVER. REFER TO DETAIL 6/SB501.
- 6" REINFORCED CONCRETE SLAB-ON-GRADE WITH BROOM FINISH. TOP OF SLAB ELEVATION = 10.00'.
- SAWCUT CONTROL JOINT (1-1/2" DEEP), EQUALLY SPACED.
- REINFORCED CONCRETE STAIRS. REFER TO DETAIL 2/SB502.
- 8" DIAMETER HOLE IN SLAB FOR INDIRECT WASTE LINE WITH 12" FUNNEL (DETAIL 1/P-001). ADJUST SLAB REINFORCING AROUND OPENING.
- FLOOR DRAIN BODY CAST INTO SLAB.
- 4" HIGH CONCRETE HOUSEKEEPING PAD. REFER TO DETAIL 3/PL406. COORDINATE EXACT SIZE WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS.
- 8" DIAMETER SLEEVE CAST IN SLAB FOR POOL PIPING. FILL ANGULAR SPACE BETWEEN SLEEVE AND POOL PIPING WITH NON-SHRINK GROUT AFTER PIPE INSTALLATION IS APPROVED.
- 12" DIAMETER SLEEVE CAST IN SLAB FOR POOL PIPING. FILL ANGULAR SPACE BETWEEN SLEEVE AND POOL PIPING WITH NON-SHRINK GROUT AFTER PIPE INSTALLATION IS APPROVED.
- 16" DIAMETER HOLE IN SLAB FOR EXHAUST FAN DUCT. ADJUST SLAB REINFORCING AROUND OPENING.
- 3" DIAMETER HOLE IN SLAB FOR COLD WATER LINE.



1 PUMP HOUSE SLAB PLAN
SB102 SCALE: 1/4"=1'-0"
PLAN NORTH

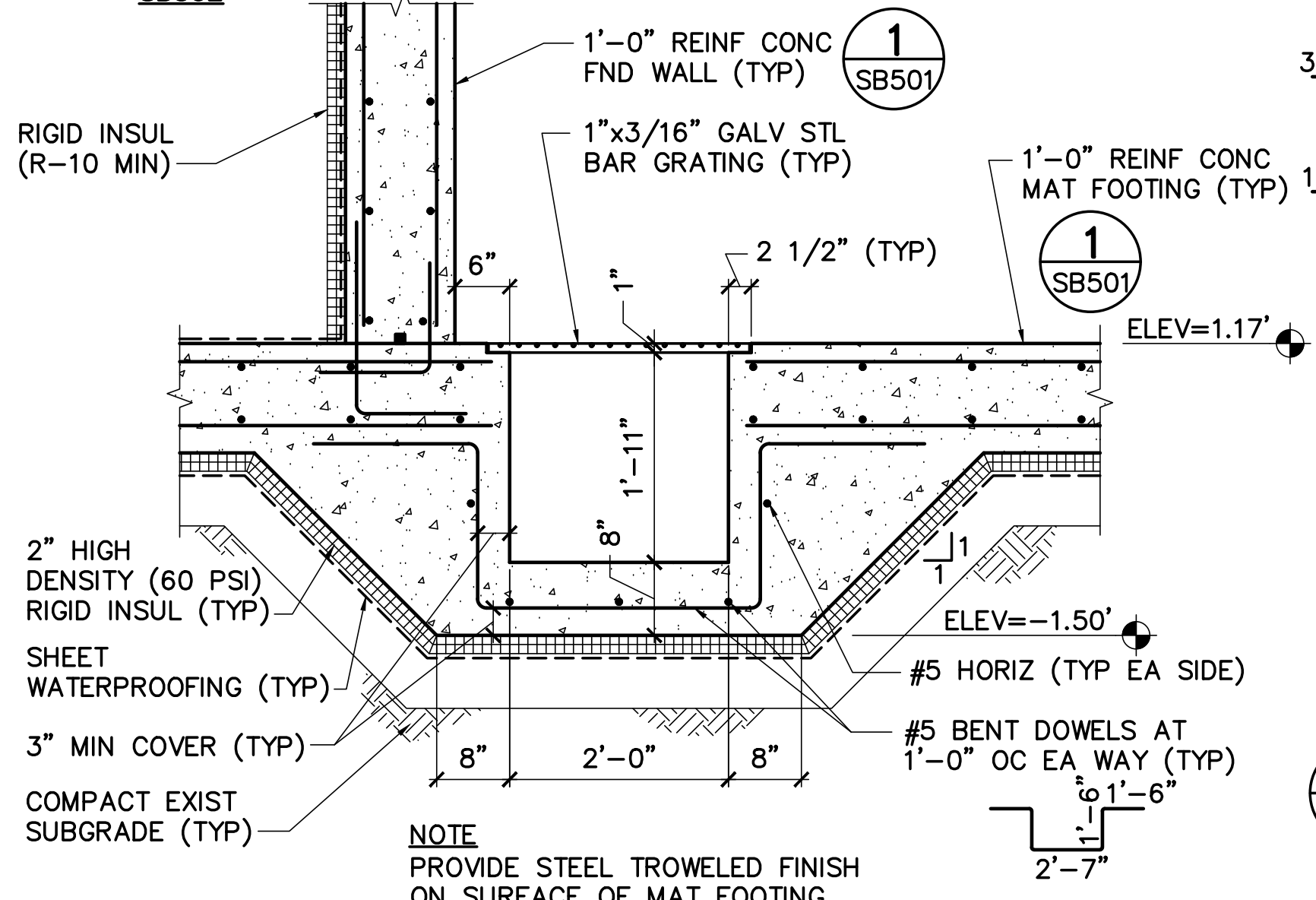


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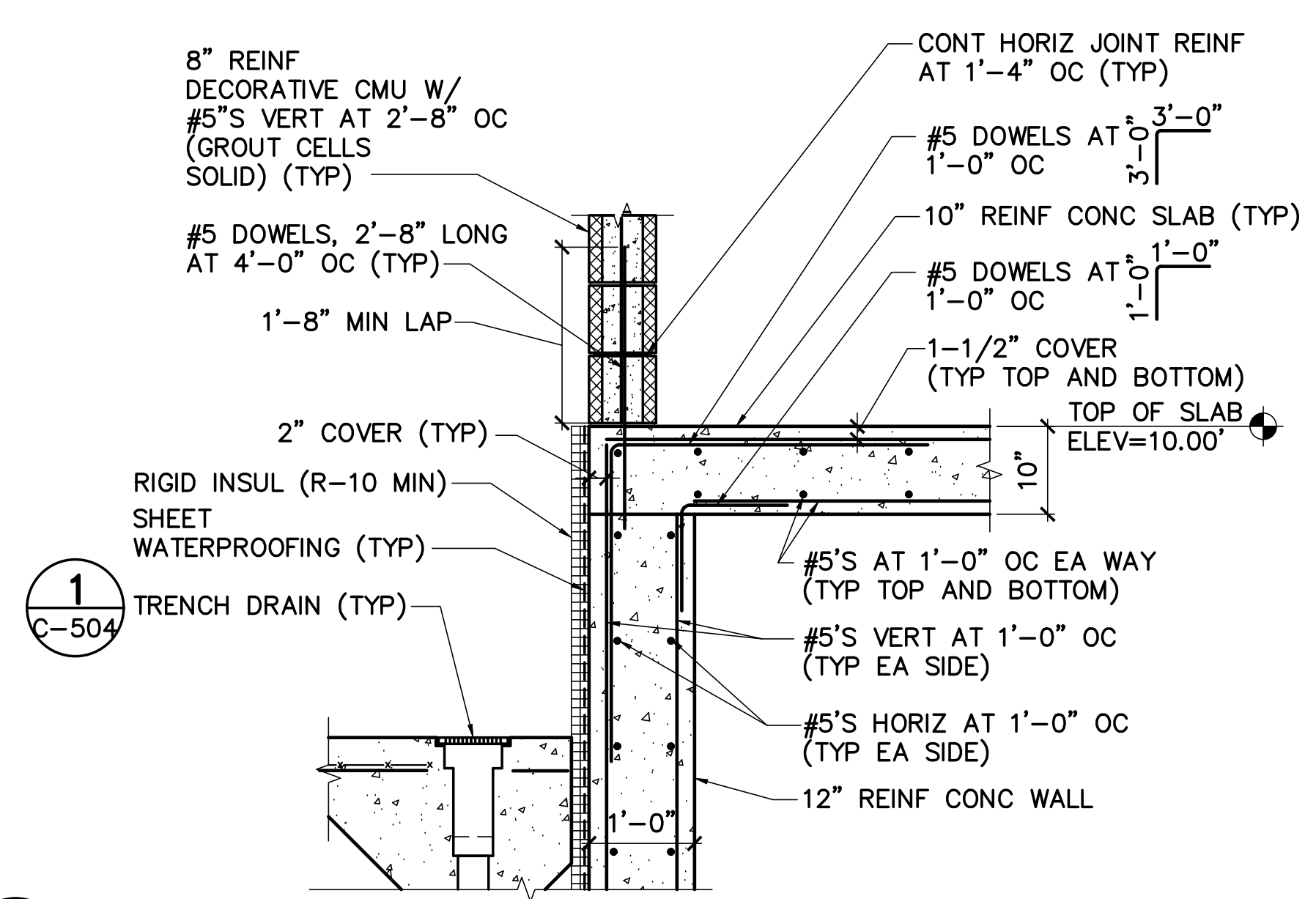
1 REINFC CONC WALL/MAT FOOTING DETAIL
SB501 SCALE: 3/4"=1'-0"

SB101, SB501, SB502



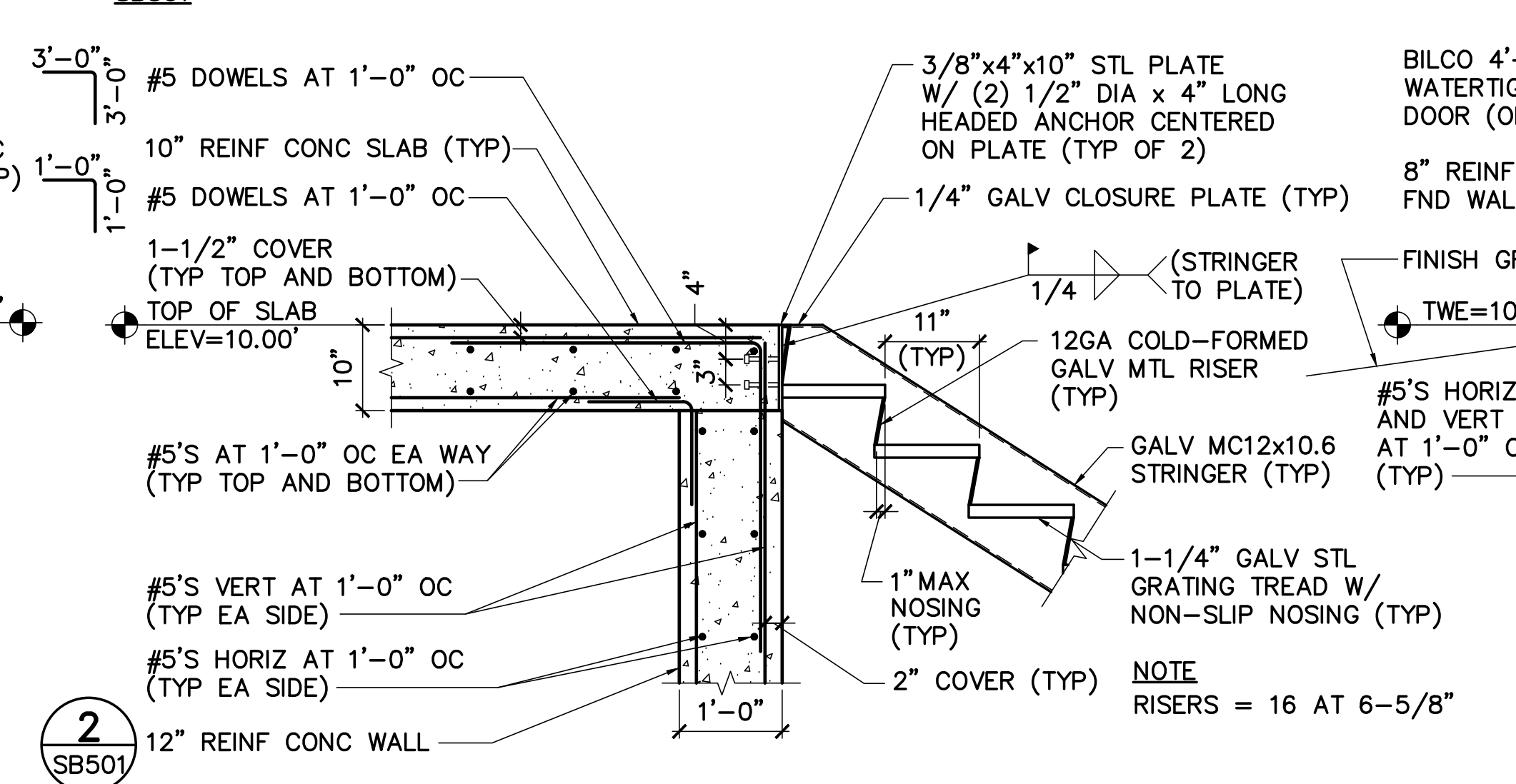
4 TYP SUMP PIT DETAIL
SB501 SCALE: 3/4"=1'-0"

SB101



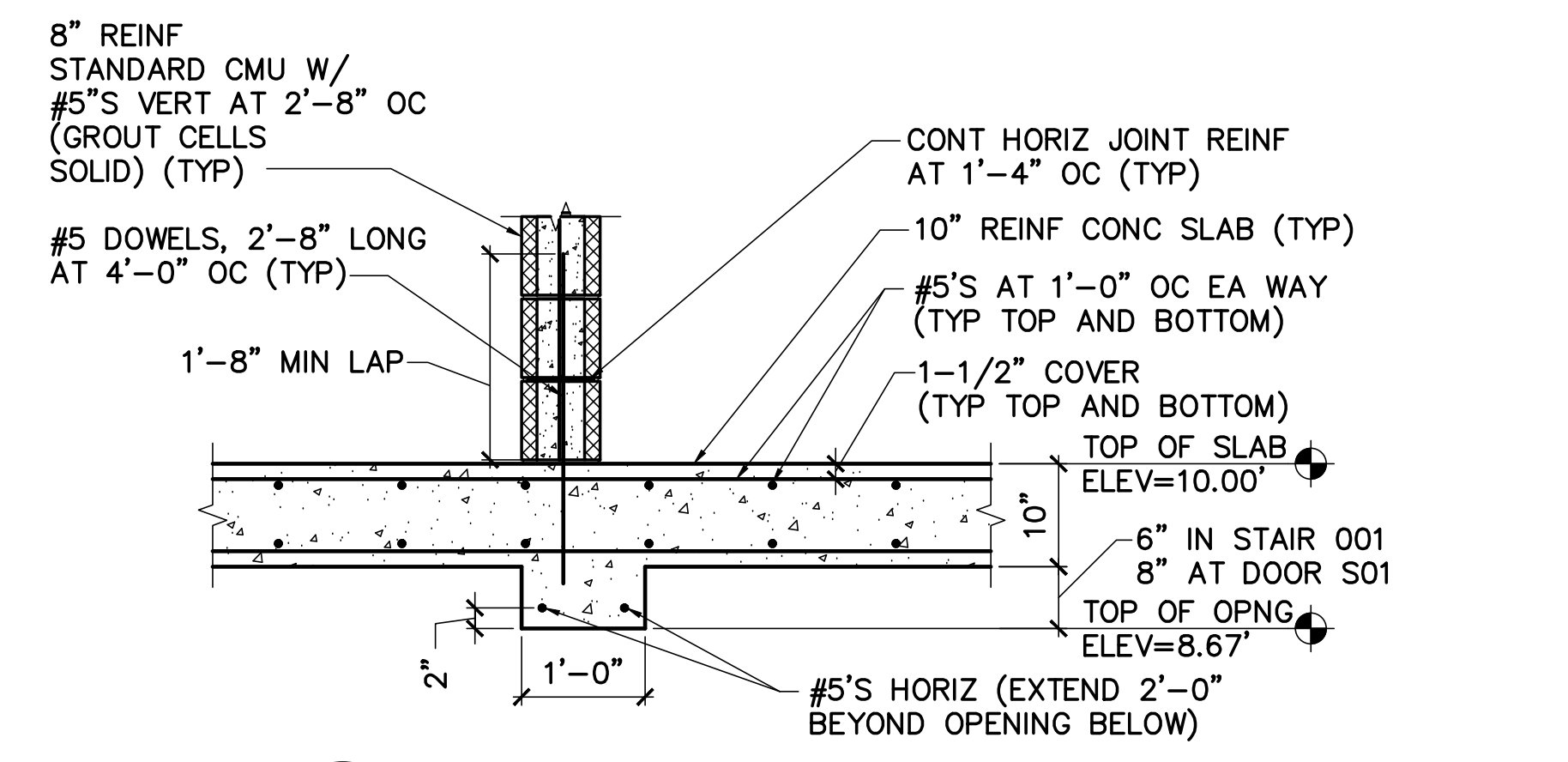
2 REINFC CONC STRUCTURAL SLAB/REINFC CONC WALL DETAIL
SB501 SCALE: 3/4"=1'-0"

SB101, SB102, SB501



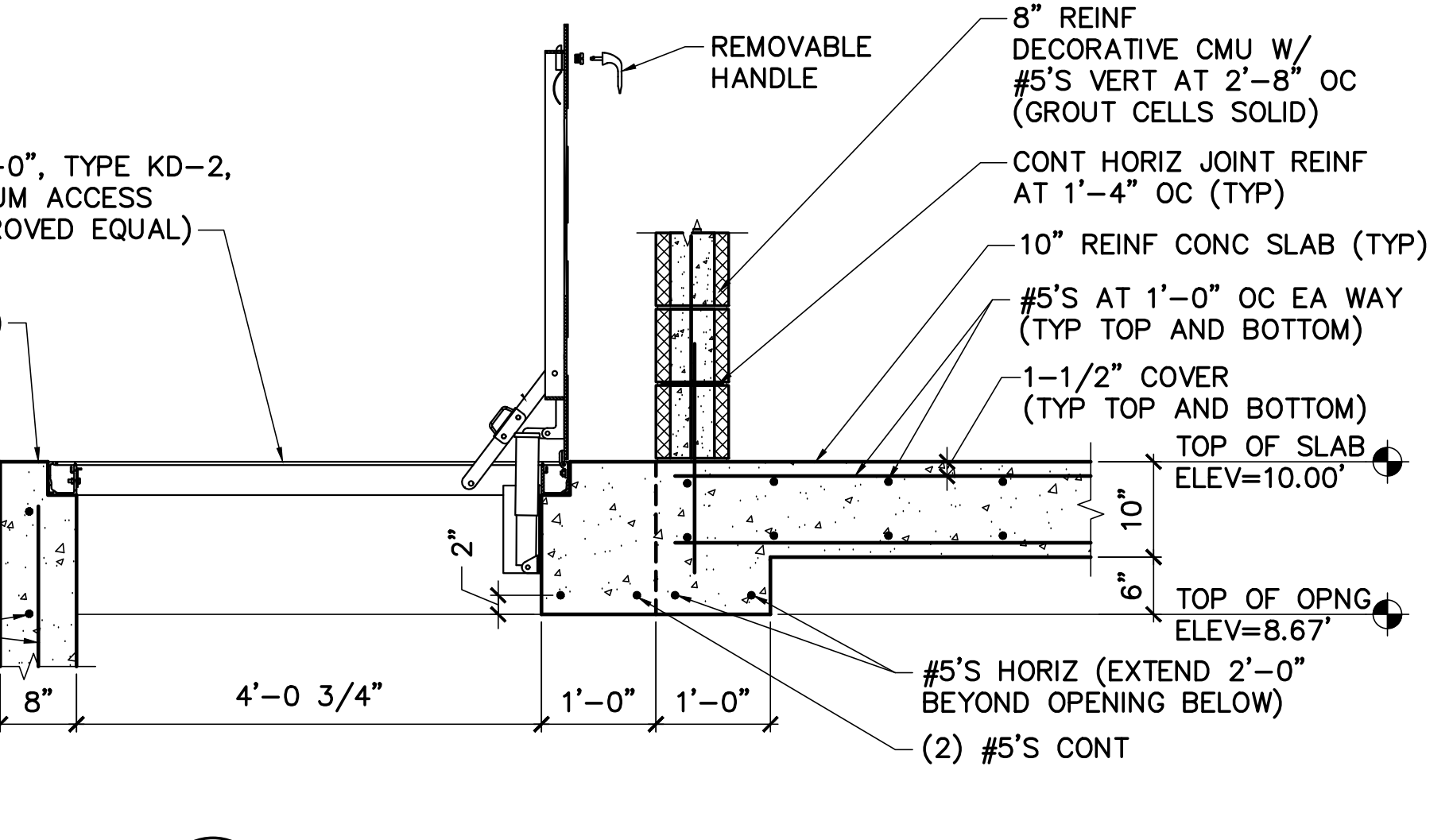
5 BASEMENT STAIR STRINGER CONN DETAIL
SB501 SCALE: 3/4"=1'-0"

SB101, SB102, SB501 (SIM)



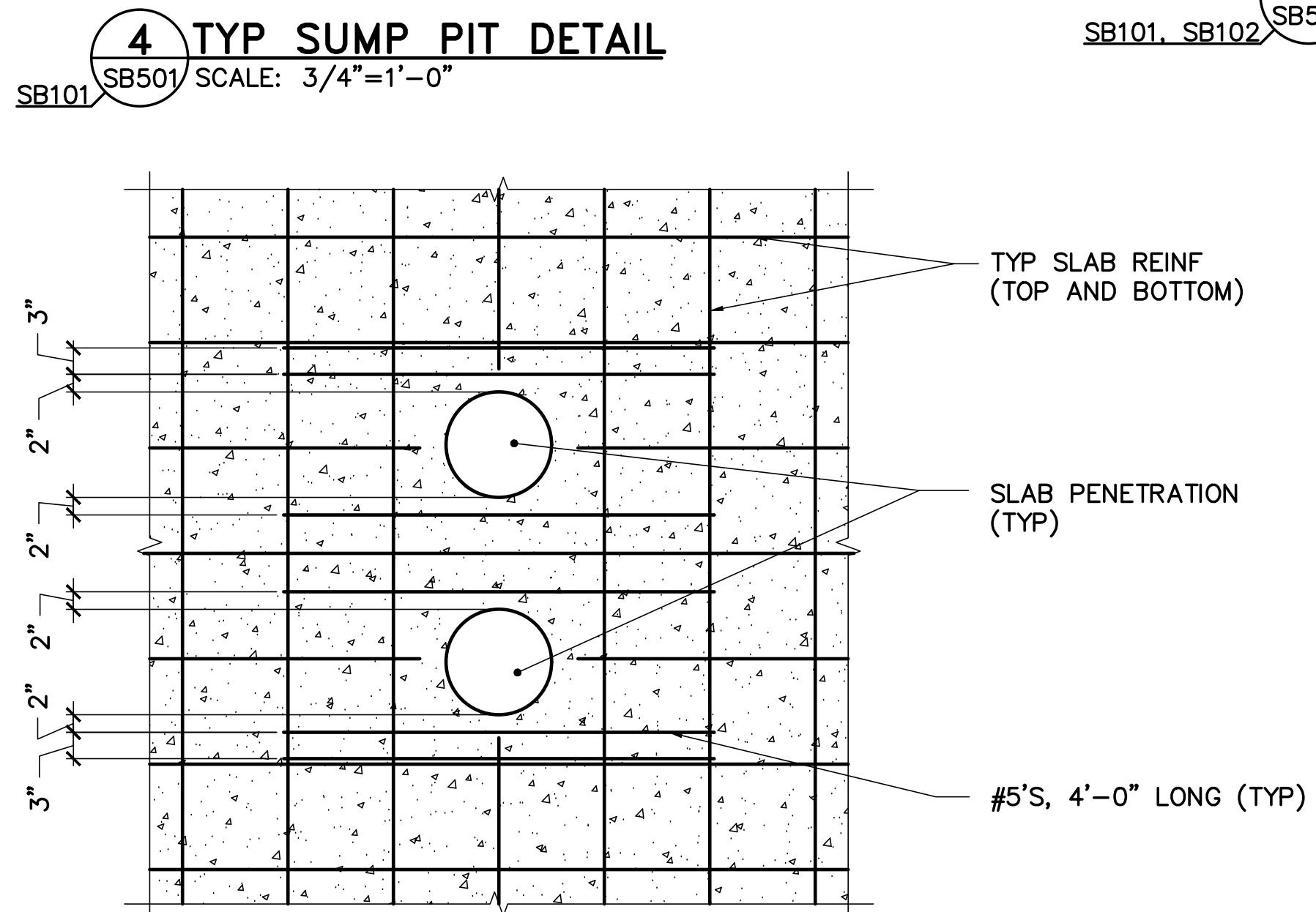
3 TYP WALL OPENING HEAD DETAIL
SB501 SCALE: 3/4"=1'-0"

SB101



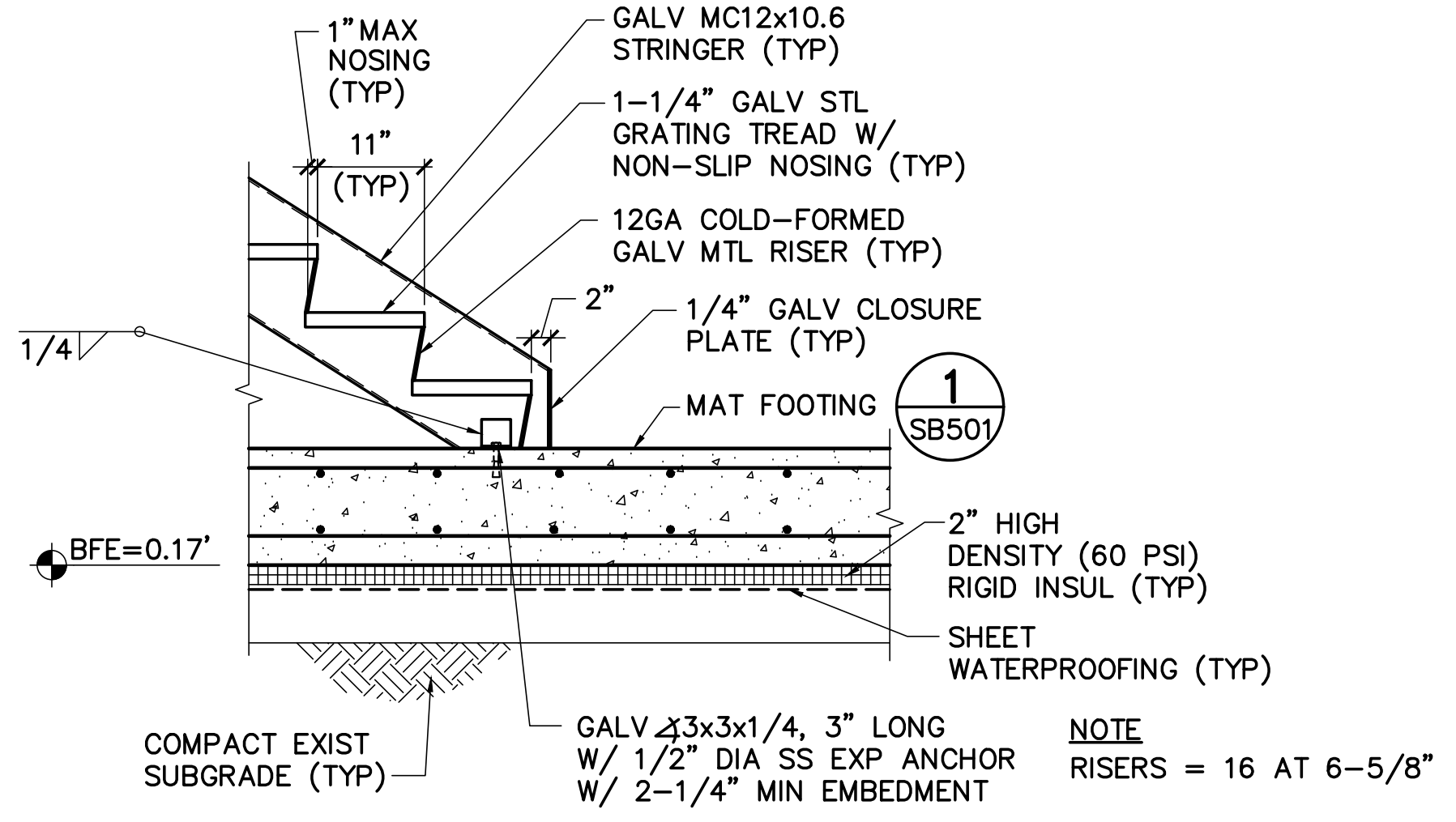
6 EXTERIOR ACCESS DOOR DETAIL
SB501 SCALE: 3/4"=1'-0"

SB101, SB102, AE220, AE401



7 TYP REINFC LAYOUT AT SLAB PENETRATIONS
SB501 SCALE: 3/4"=1'-0"

SB102

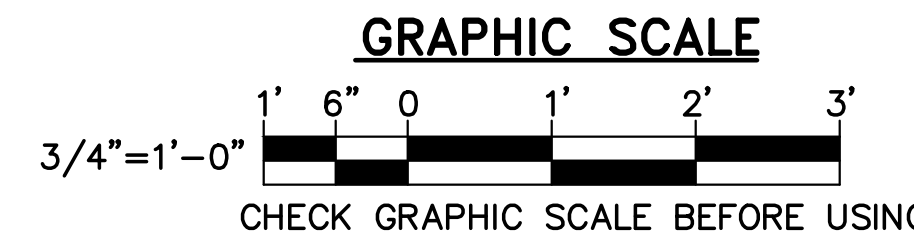


8 BASEMENT STAIR STRINGER CONN TO MAT FTG DETAIL
SB501 SCALE: 3/4"=1'-0"

SB101, SB102, SB501

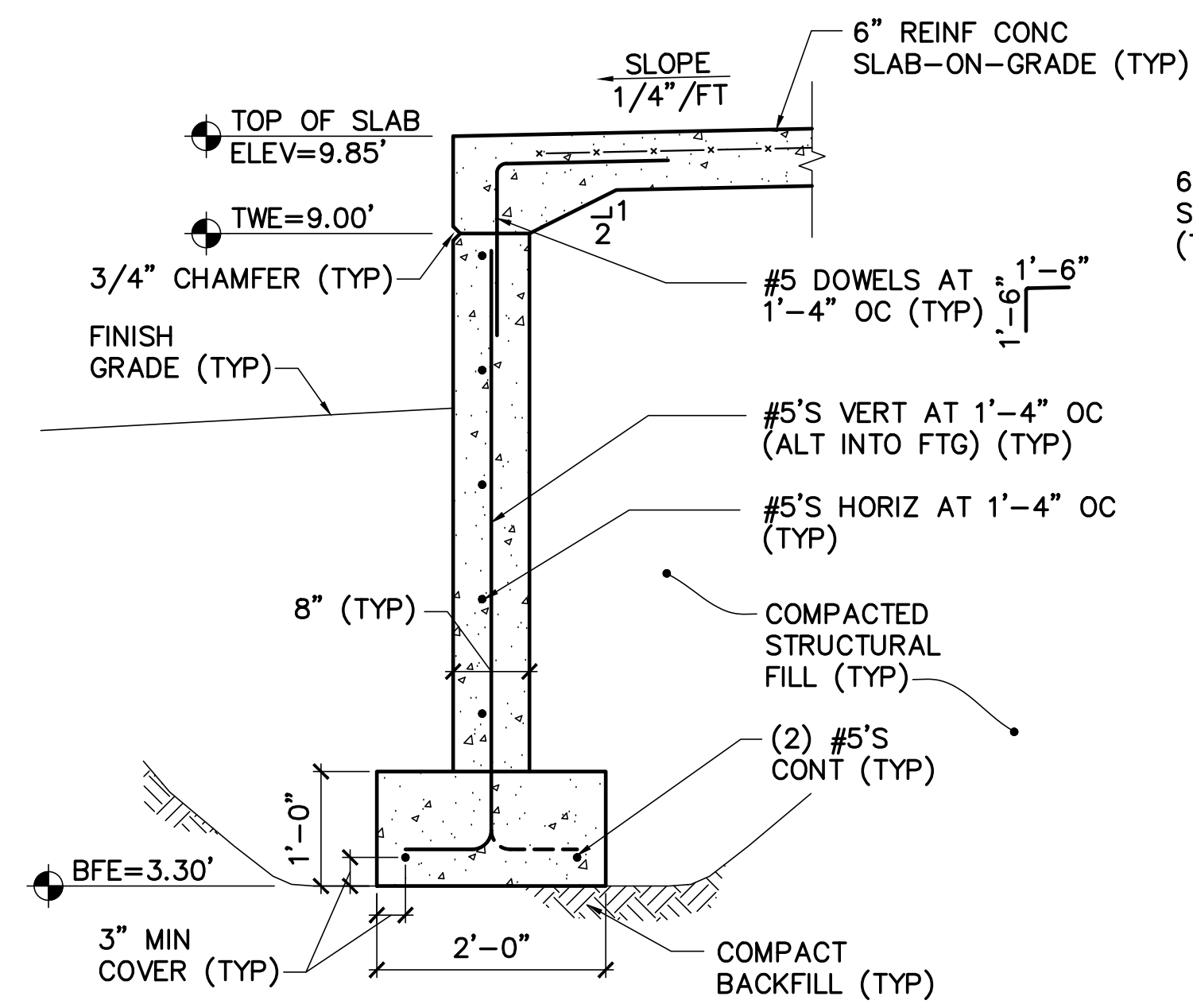
GENERAL NOTE

AT CONTRACTOR'S OPTION, THE VERTICAL REINFORCING DOWELS TYING THE CMU WALL TO THE SUPPORTED SLAB/FOUNDATION WALL MAY BE DRILLED AND EPOXY GROUTED IN PLACE AFTER SLAB PLACEMENT USING A MINIMUM 1'-0" EMBEDMENT DEPTH.

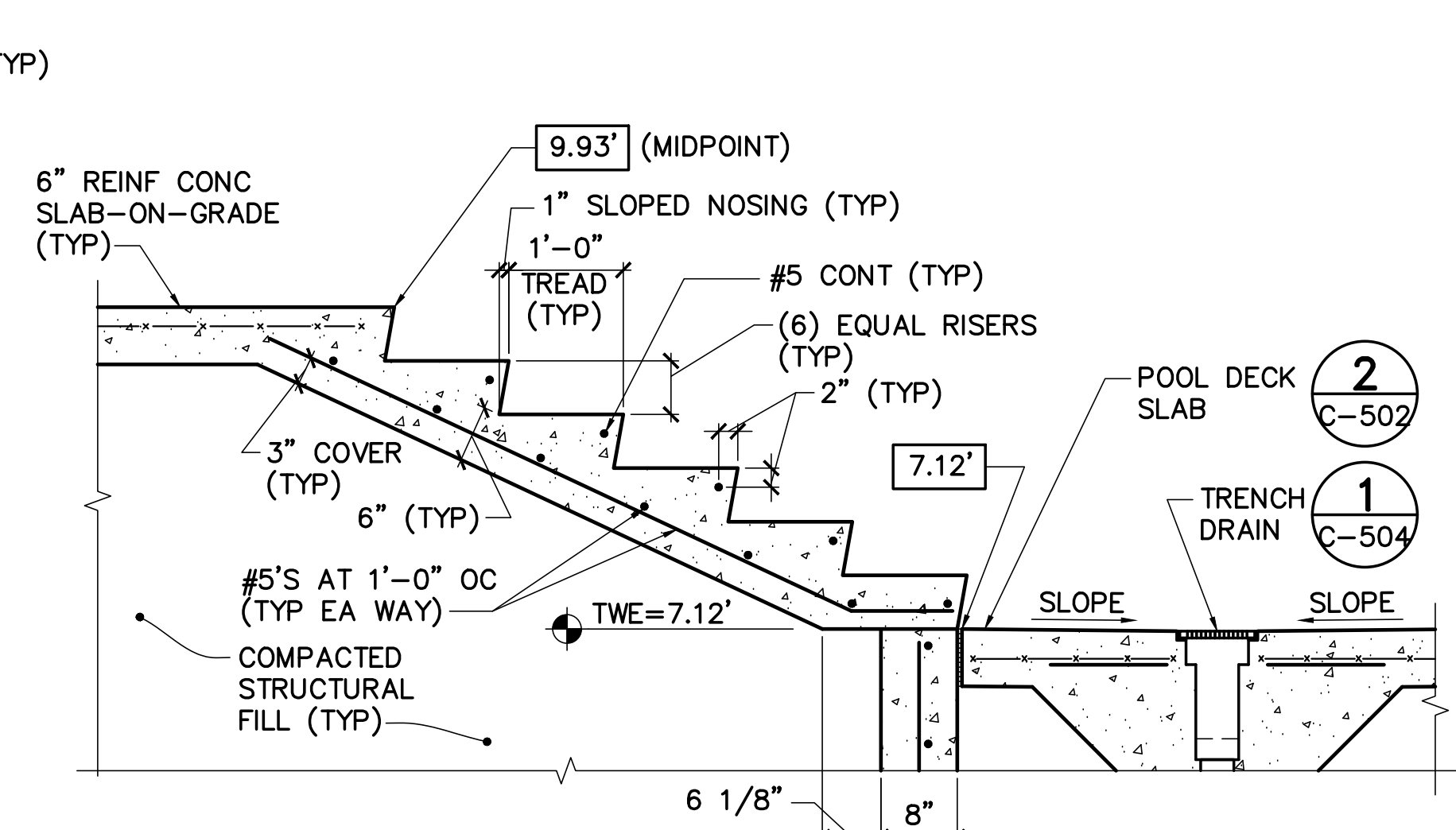


NO.	DATE	DESCRIPTION	BY
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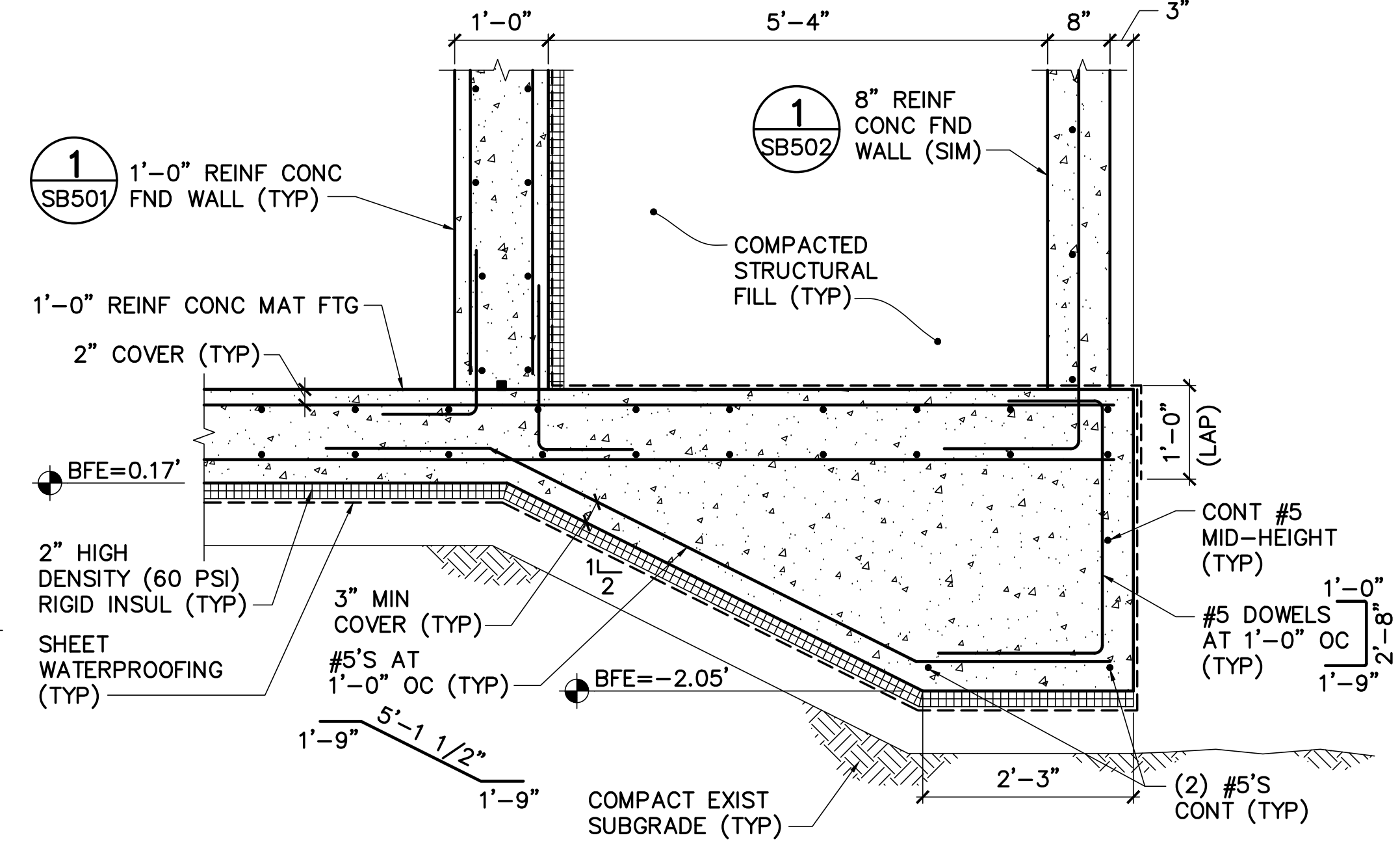


1 TYP REINF CONC STOOP WALL DETAIL
 SB502 SCALE: 3/4"=1'-0"
 SB101, SB102, SB502

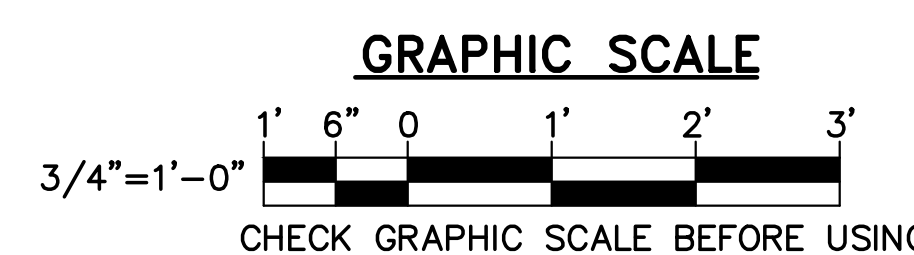


2 REINF CONC STAIRS DETAIL
 SB502 SCALE: 3/4"=1'-0"
 SB102

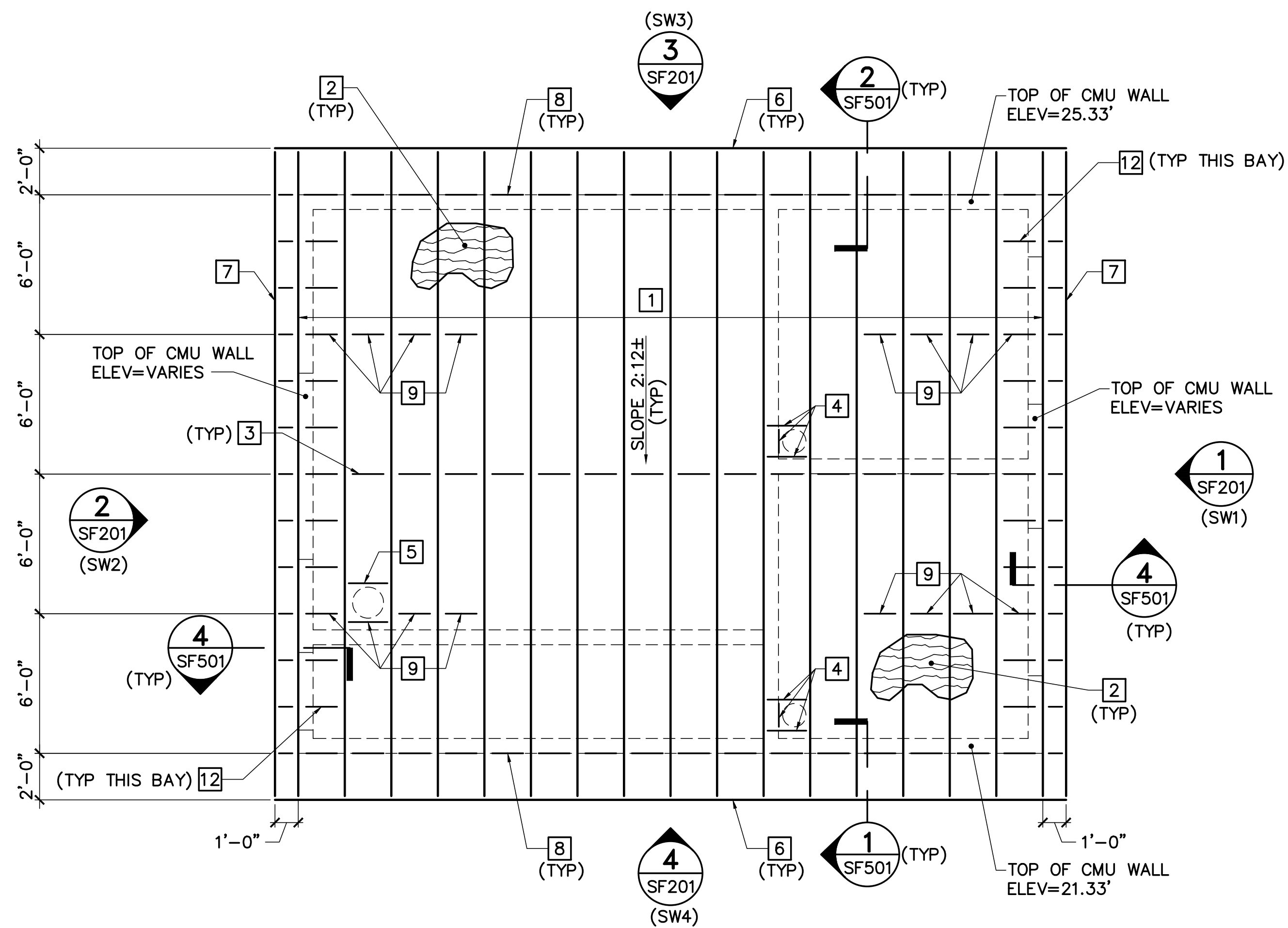
NOTES
 1. PROVIDE LIGHT BROOM FINISH ON EACH STAIR TREAD.
 2. PROVIDE SMOOTH RUBBED FINISH ON EACH STAIR RISER.
 3. RAILINGS NOT SHOWN FOR CLARITY.



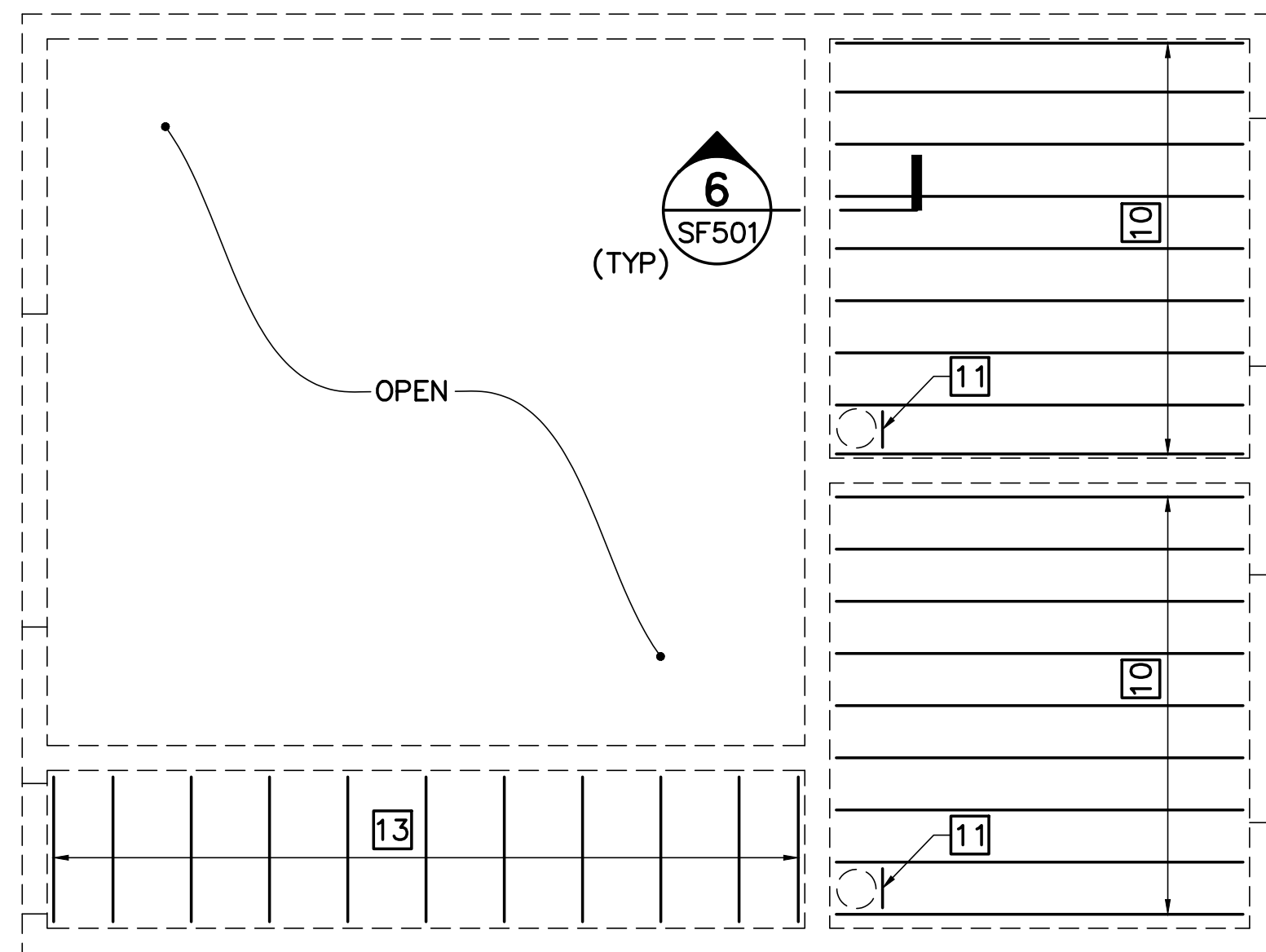
3 SOUTH EDGE MAT FOOTING EDGE DETAIL
 SB502 SCALE: 3/4"=1'-0"
 SB101, SB501



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1 PUMP HOUSE ROOF FRAMING PLAN
SF101 SCALE: 1/4"=1'-0"



2 PUMP HOUSE CEILING FRAMING PLAN
SF101 SCALE: 1/4"=1'-0"

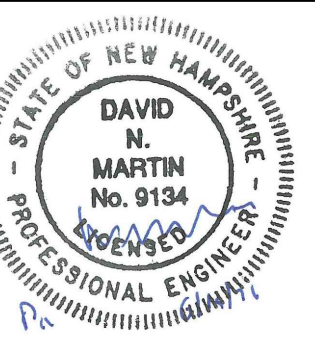


GENERAL NOTES

1. ROOF SHEATHING IS DESIGNED TO ACT AS A DIAPHRAGM. FASTEN ROOF SHEATHING AS INDICATED ON SHEET S-001.
2. DO NOT PROVIDE WOOD PLATE TO TOP OF INTERIOR CMU WALLS. JOISTS MUST NOT BEAR ON INTERIOR CMU WALLS.

KEYNOTES (THIS SHEET ONLY)

- 1 1-3/4"x11-7/8" LVL SLOPED JOISTS (WITH TAPERED ENDS) AT 2'-0" ON-CENTER.
- 2 19/32" APA RATED PLYWOOD ROOF SHEATHING.
- 3 1-3/4"x11-7/8" LVL BLOCKING AT MID SPAN OF JOISTS. FASTEN ROOF SHEATHING TO BLOCKING WITH 8d NAILS SPACED 6" ON-CENTER.
- 4 2x8 BLOCKING AT JOISTS TO ACCOMMODATE A 12-INCH DIAMETER ROOF EXHAUST DUCT. COORDINATE EXACT LOCATION WITH MECHANICAL DRAWINGS.
- 5 2x8 BLOCKING AT JOISTS TO ACCOMMODATE A 16-INCH DIAMETER ROOF EXHAUST DUCT. COORDINATE EXACT LOCATION WITH MECHANICAL DRAWINGS.
- 6 CONTINUOUS 2x10 RIM JOIST.
- 7 1-3/4"x11-7/8" LVL SLOPED JOIST (WITH TAPERED ENDS) AT OVERHANG.
- 8 1-3/4"x11-7/8" LVL BLOCKING AT OUTSIDE FACE OF CMU WALL BELOW. SEE DETAILS 1/SF501 AND 3/SF501.
- 9 1-3/4"x11-7/8" LVL BLOCKING AT QUARTER POINTS OF JOISTS. FASTEN ROOF SHEATHING TO BLOCKING WITH 8d NAILS SPACED 6" ON-CENTER.
- 10 2x6 CEILING JOISTS SPACED 1'-4" ON-CENTER. COORDINATE JOIST HEIGHT WITH ARCHITECTURAL DRAWINGS.
- 11 2x6 BLOCKING AT JOIST TO ACCOMMODATE A 12-INCH DIAMETER ROOF EXHAUST DUCT. COORDINATE EXACT LOCATION WITH MECHANICAL DRAWINGS.
- 12 1-3/4"x11-7/8" LVL BLOCKING AT 2'-0" ON-CENTER.
- 13 400 CH 20-34 COLD-FORMED STEEL SHAFT WALL CEILING JOISTS AT 2'-0" ON-CENTER. FASTEN JOISTS TO CMU WALL WITH SIMPSON STRONG-TIE GALVANIZED SSC2.25 CONNECTORS AT EACH END.



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CHECKED BY: DNM
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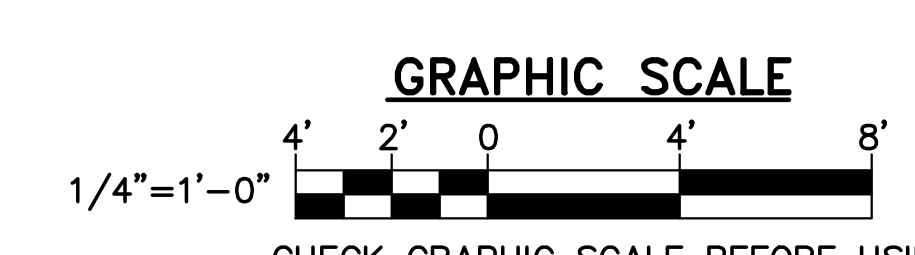
PEIRCE ISLAND PUMP HOUSE
AND POOL RENOVATION
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PUMP HOUSE
ROOF AND
CEILING
FRAMING
PLANS

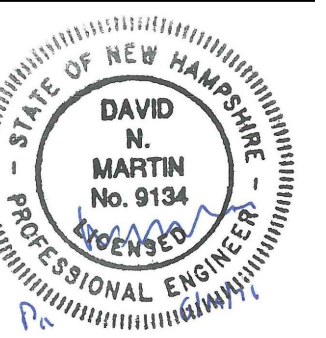
SCALE: AS NOTED
DATE: 06/17/2022

DWG.: SF101

SHEET: 24 OF 72



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CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE
 AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

PUMP HOUSE
 SHEAR
 WALL
 ELEVATIONS

SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: SF201

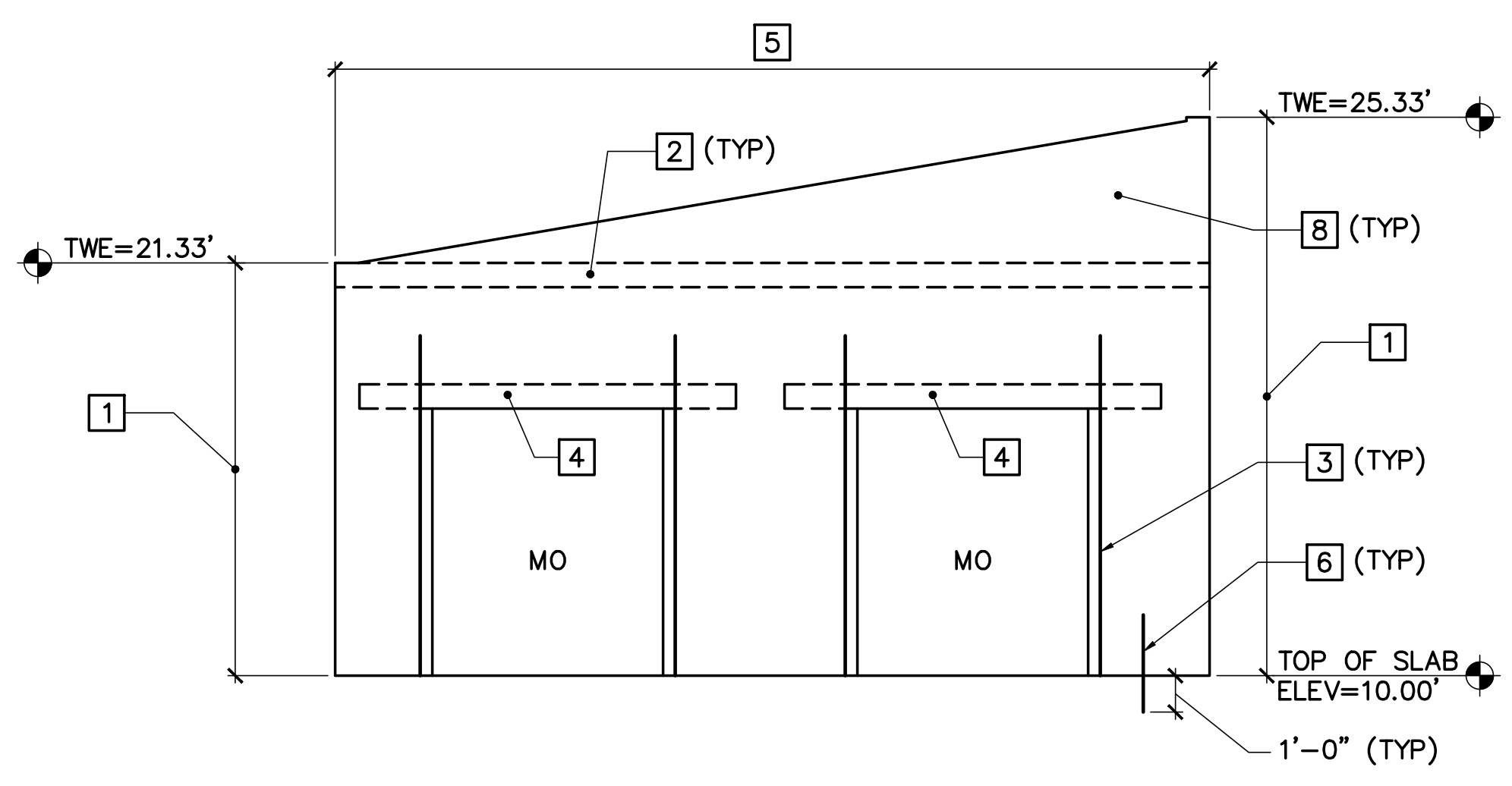
SHEET: 25 OF 72

GENERAL NOTES

- LAP SPLICE #5 = 1'-6".
- COORDINATE EXACT SIZE AND LOCATION OF MASONRY OPENINGS WITH ARCHITECTURAL DRAWINGS.
- EXTERIOR MASONRY WALLS ARE DECORATIVE CMU UNITS (A COMBINATION OF SPLIT FACE AND SMOOTH FACE). SEE ARCHITECTURAL DRAWINGS FOR PATTERN.
- INTERIOR MASONRY WALLS (NOT SHOWN) ARE STANDARD CMU UNITS.

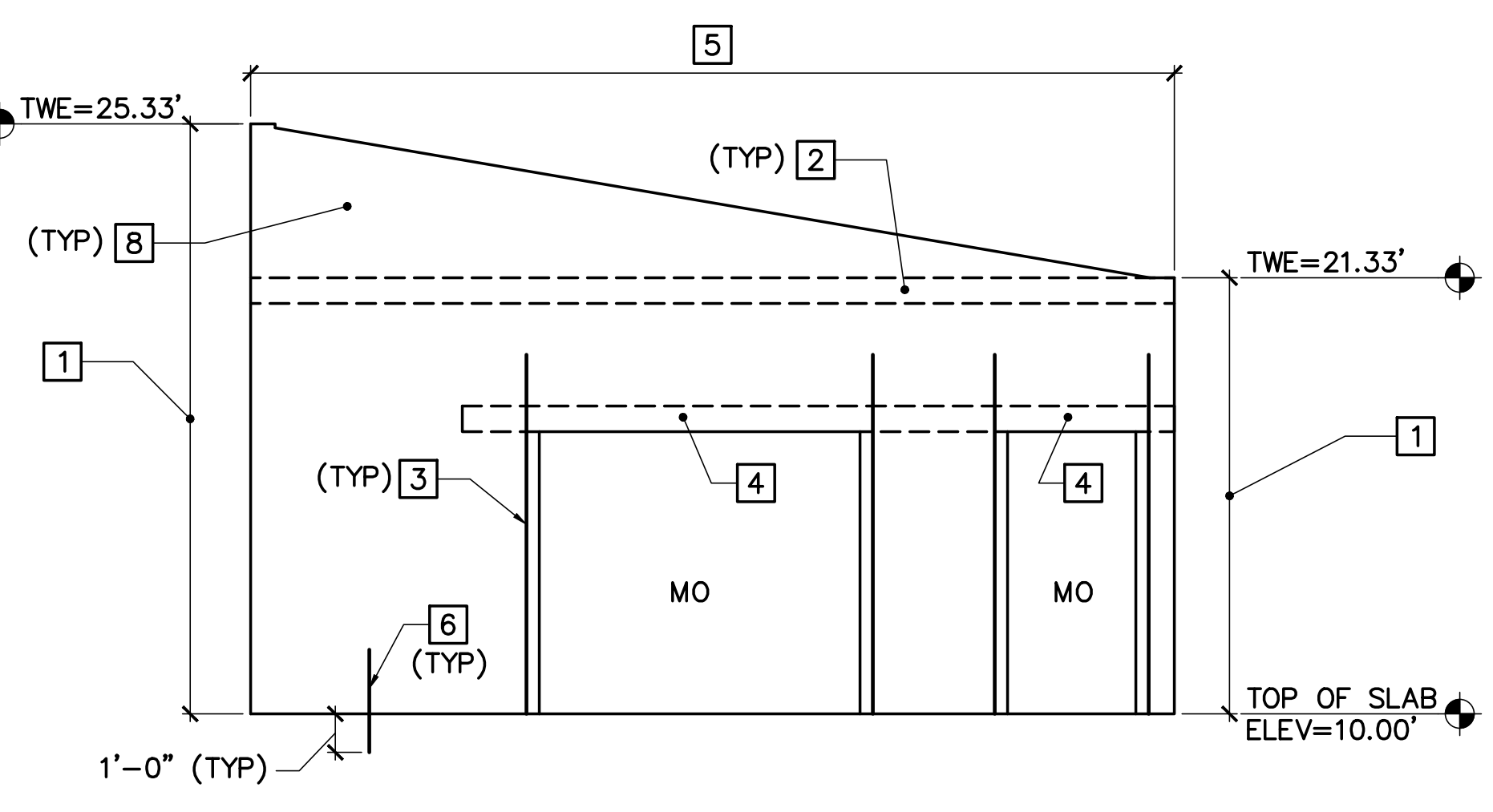
KEYNOTES (THIS SHEET ONLY)

- CONTINUOUS HORIZONTAL JOINT REINFORCEMENT AT 1'-4" ON-CENTER VERTICALLY.
- CONTINUOUS 8" CMU BOND BEAM WITH (1) CONTINUOUS #5, GROUDED SOLID.
- (1) #5 VERTICAL IN JAMB CELL, GROUDED SOLID. EXTEND REINFORCING 2'-0" PAST OPENING.
- 8" REINFORCED CMU LINTEL WITH (1) #5, GROUDED SOLID. EXTEND REINFORCING 2'-0" PAST OPENING.
- #5'S VERTICAL AT 2'-8" ON-CENTER. GROUT CELLS WITH REINFORCING SOLID.
- #5 DOWELS, 2'-8" LONG, SPACED TO MATCH VERTICAL WALL REINFORCING.
- FULLY GROUT ALL CELLS.
- FULLY GROUT ALL CELLS ABOVE BOND BEAM.
- JIB CRANE WALL BRACKET. SEE DETAIL 5/SF501.



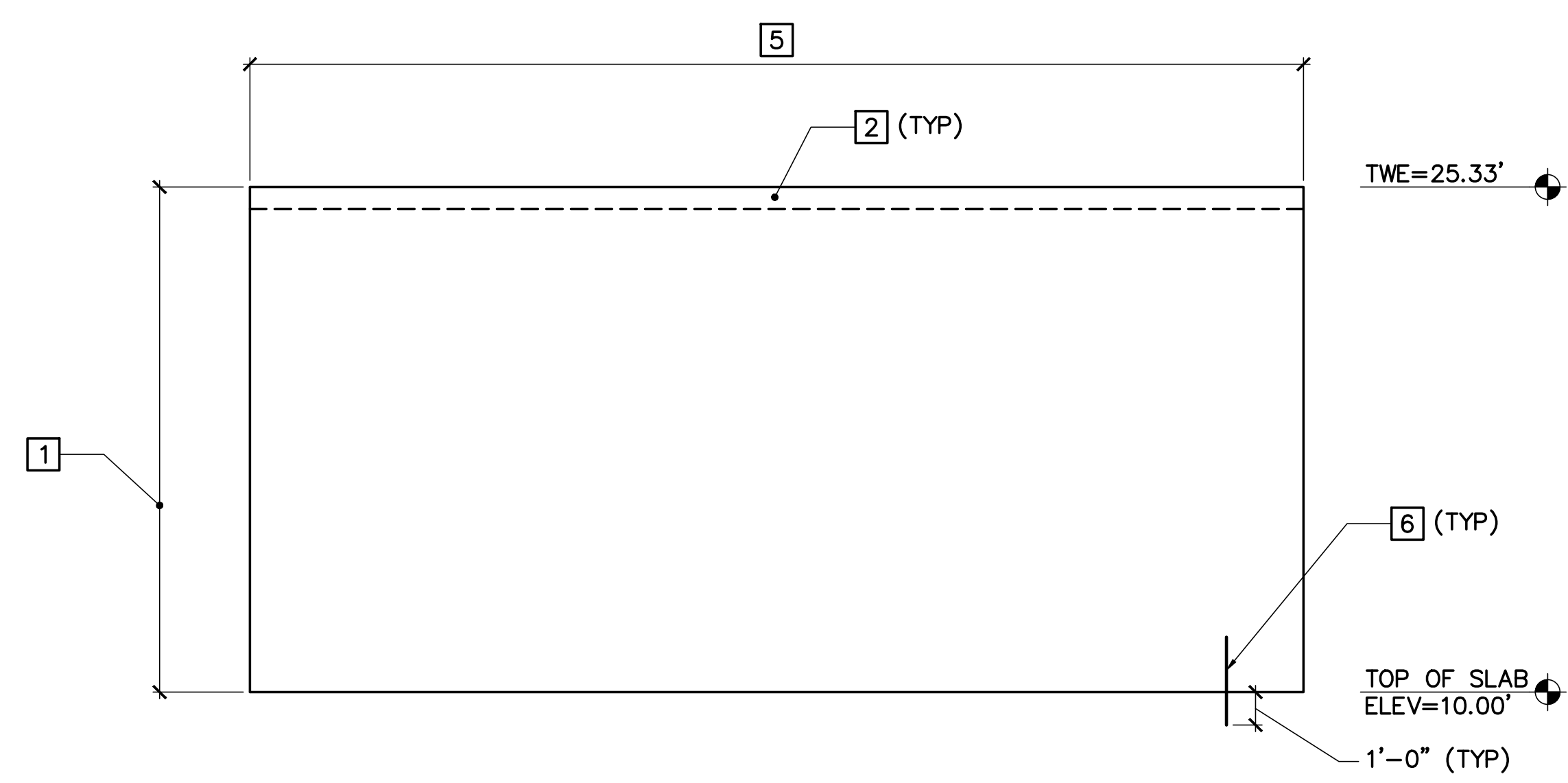
1 SHEAR WALL 1 ELEVATION (SW1)

SF101, SF501, SF201 SCALE: 1/4"=1'-0"



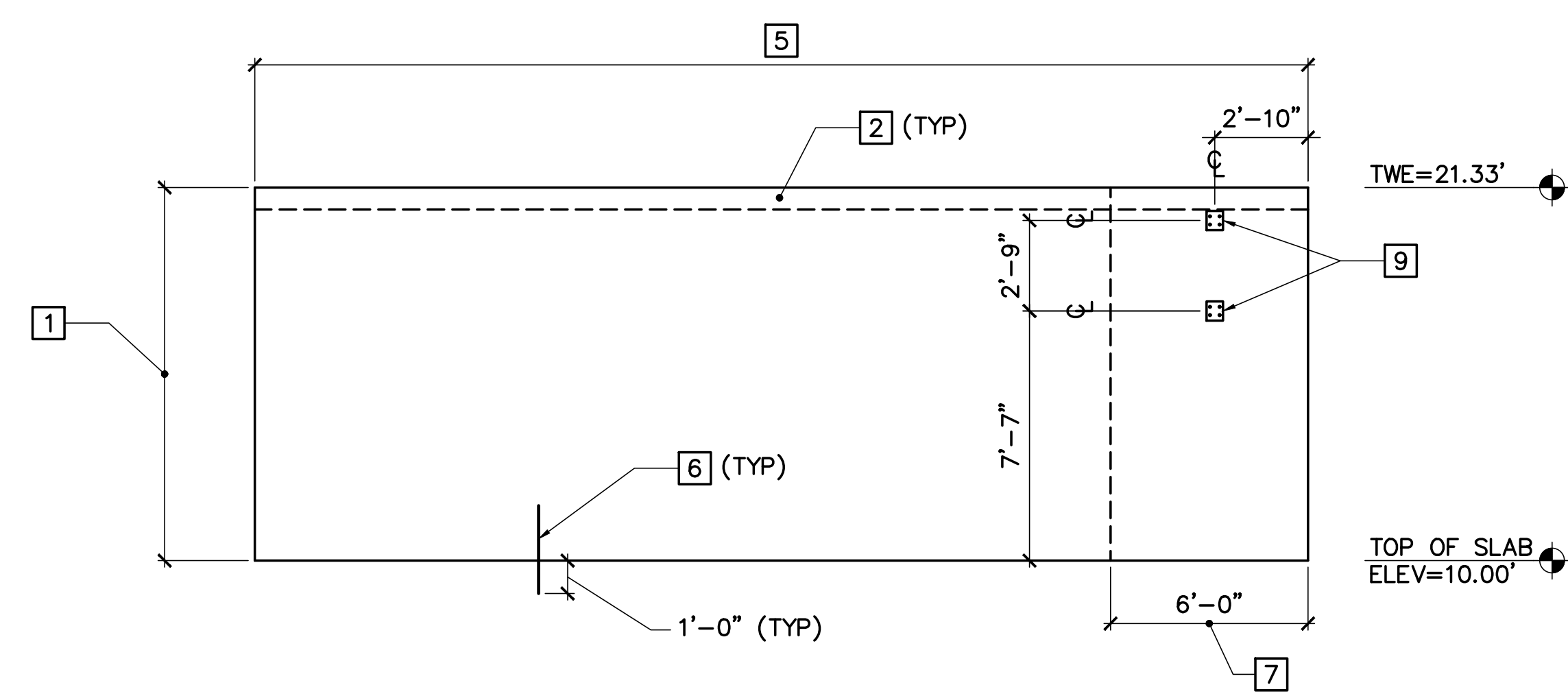
2 SHEAR WALL 2 ELEVATION (SW2)

SF101, SF501, SF201 SCALE: 1/4"=1'-0"



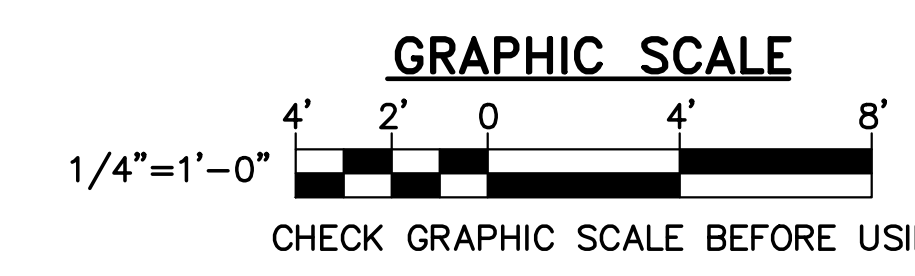
3 SHEAR WALL 3 ELEVATION (SW3)

SF101, SF501, SF201 SCALE: 1/4"=1'-0"

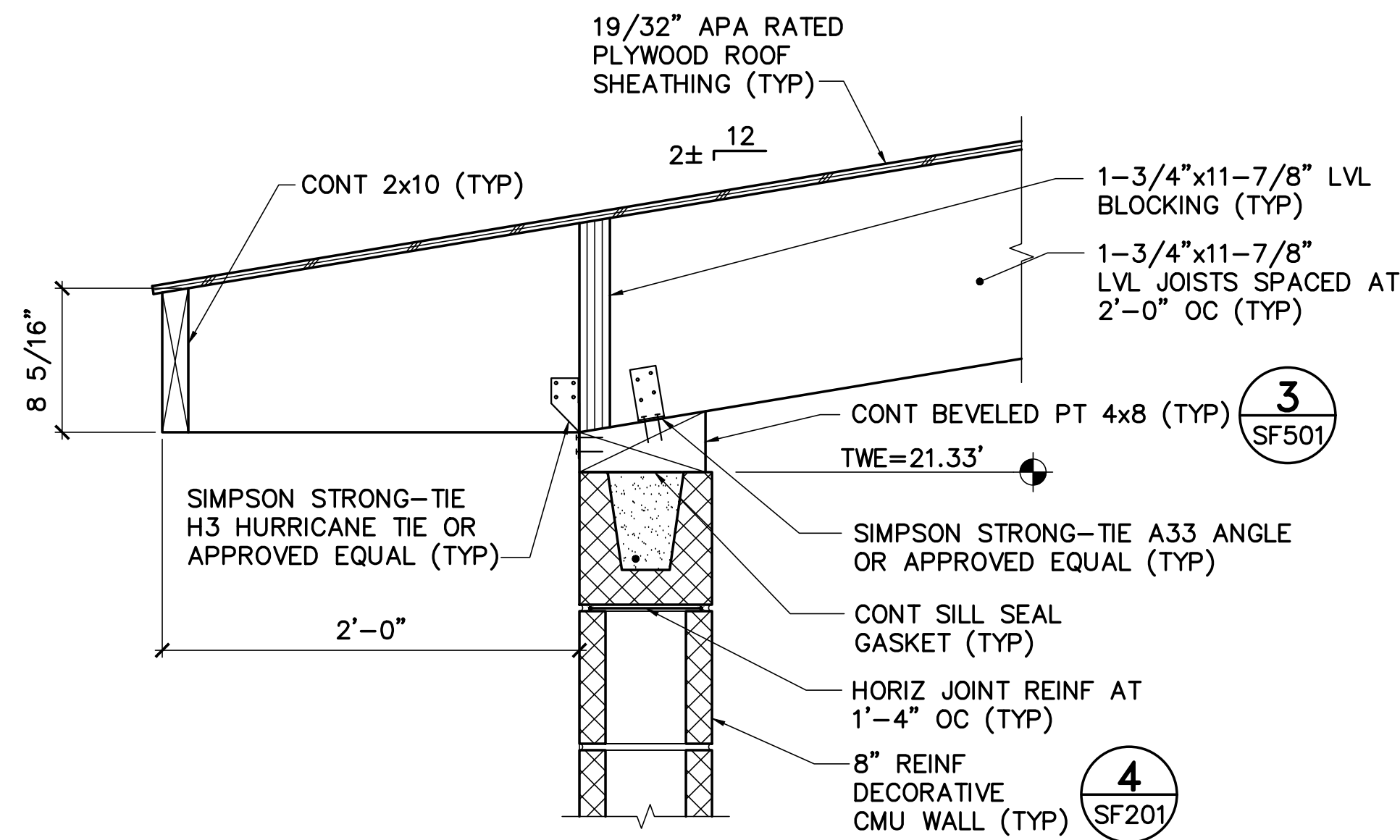


4 SHEAR WALL 4 ELEVATION (SW4)

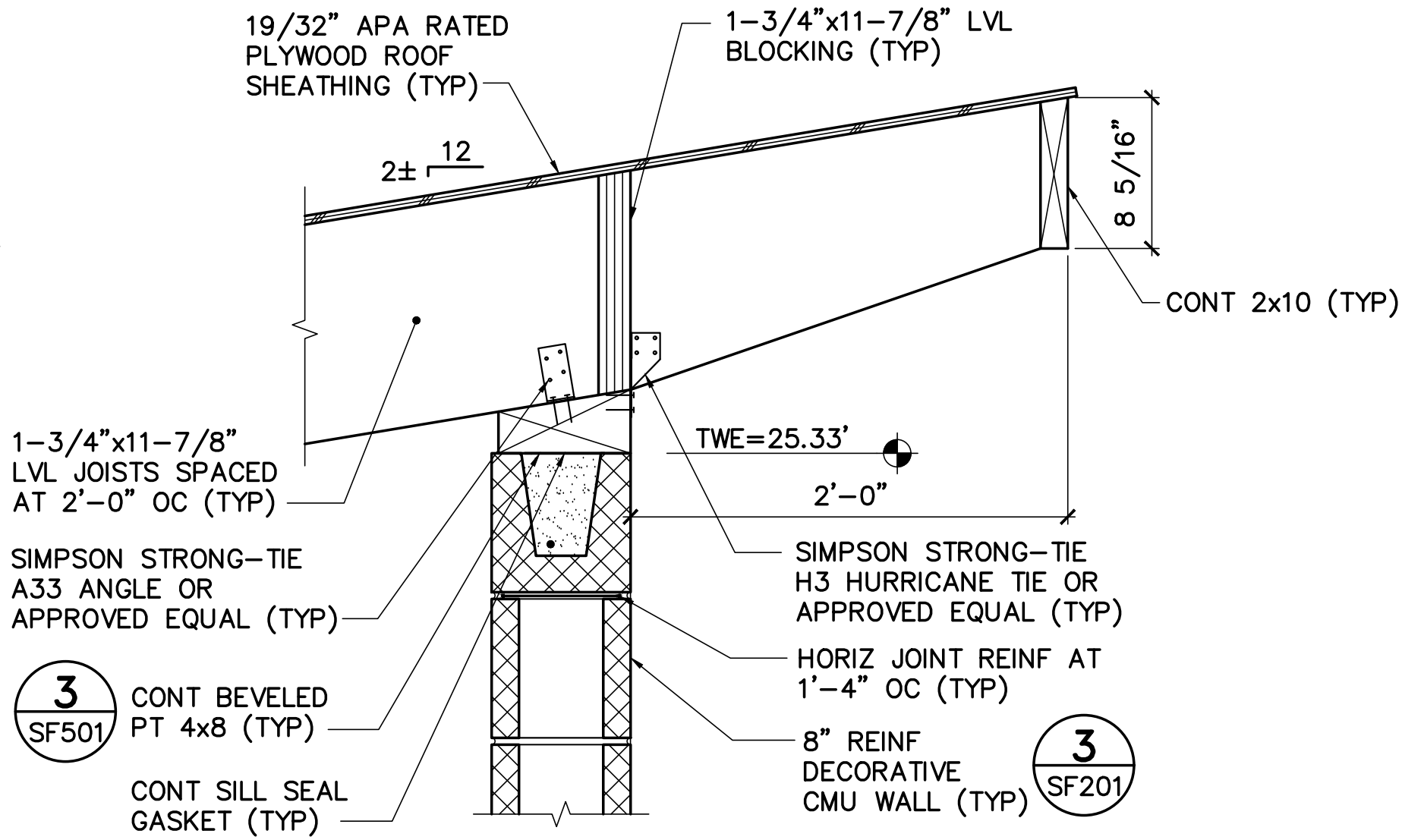
SF101, SF501, SF201 SCALE: 1/4"=1'-0"



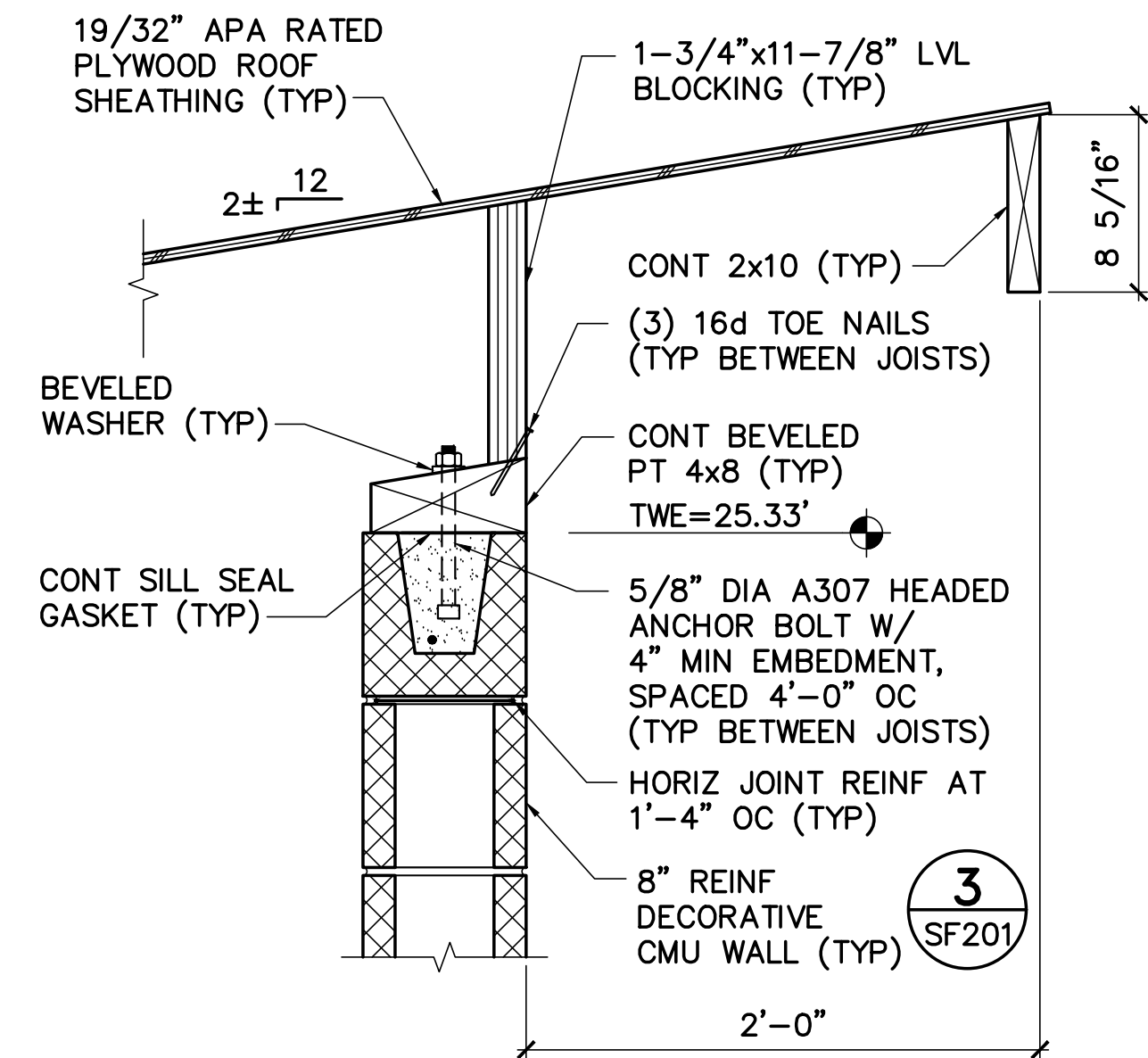
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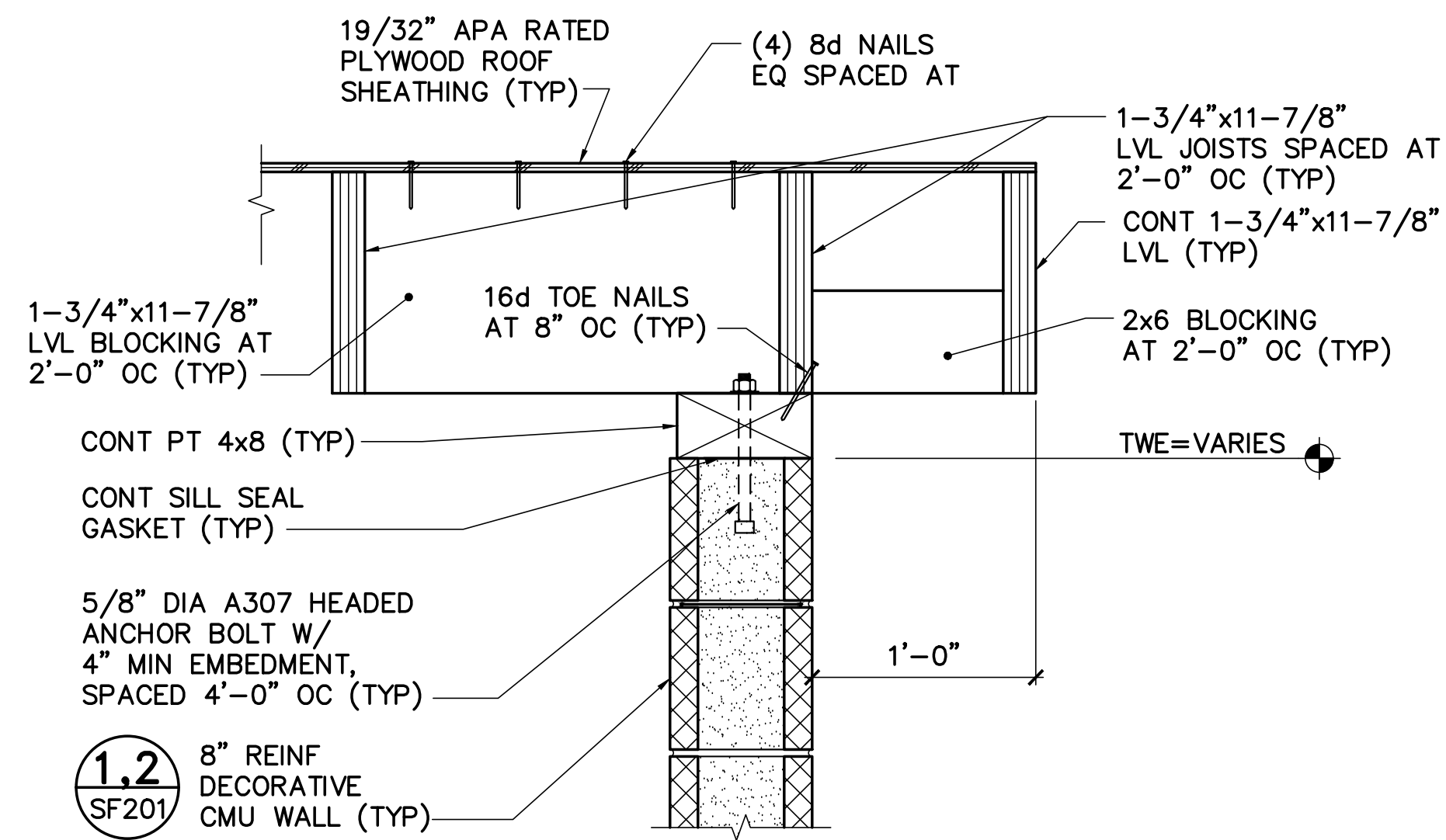
1 TYP 1-3/4"x11-7/8" LVL JOIST TO 8" REINF CMU WALL CONN DETAIL
 SF101, SF501 SCALE: 1-1/2"=1'-0"



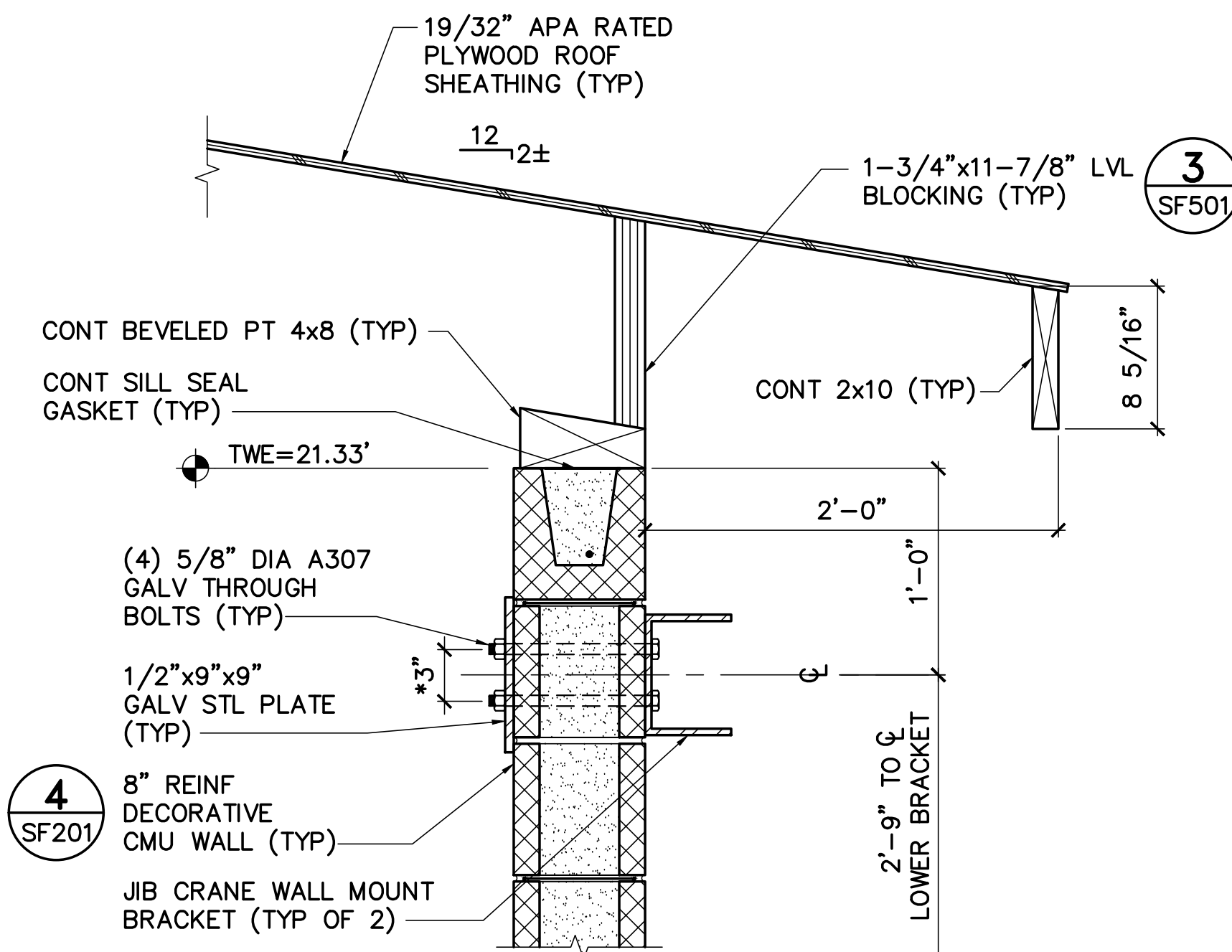
2 TYP 1-3/4"x11-7/8" LVL JOIST TO 8" REINF CMU WALL CONN DETAIL
 SF101, SF501 SCALE: 1-1/2"=1'-0"



3 TYP BEVELED PT 4x8 BLOCKING TO 8" REINF CMU WALL CONN DETAIL
 SF101, SF501 SCALE: 1-1/2"=1'-0"

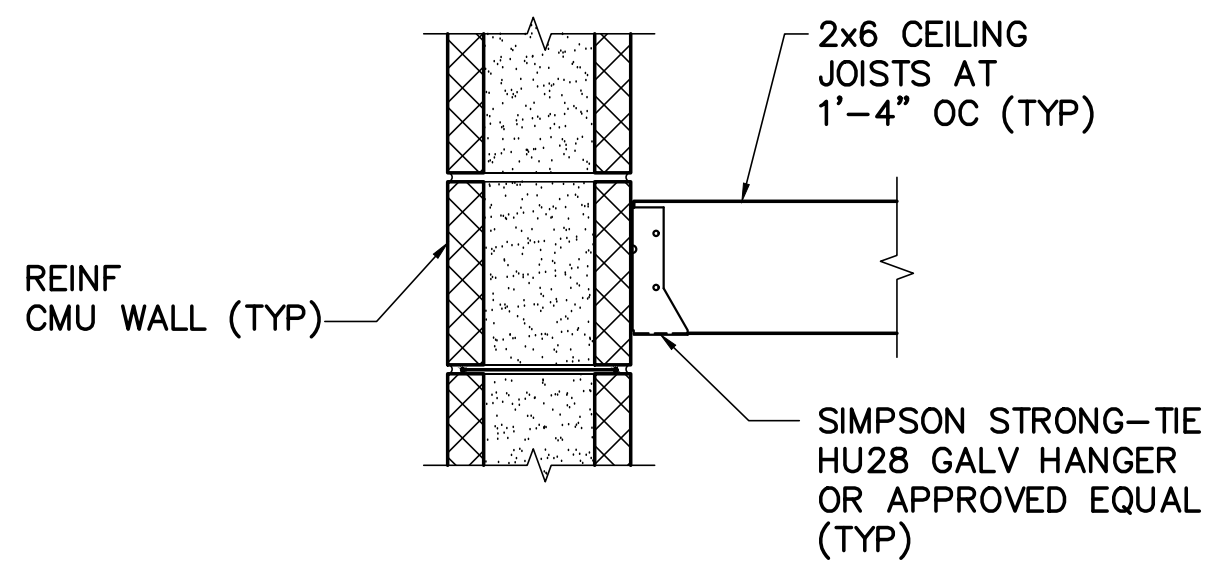


1.2 TYP RAKE DETAIL
 SF101, SF501 SCALE: 1-1/2"=1'-0"

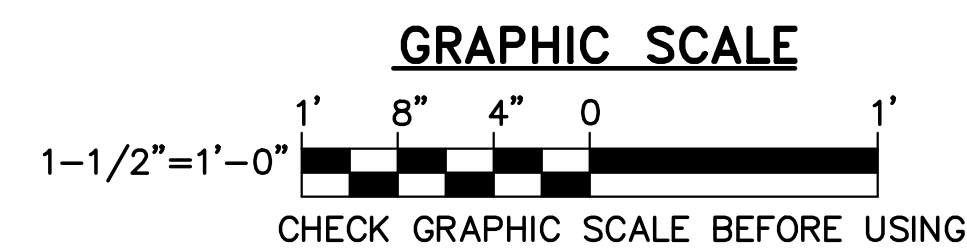


4 TYP JIB CRANE WALL MOUNT BRACKET CONN DETAIL
 SF201 SCALE: 1-1/2"=1'-0"

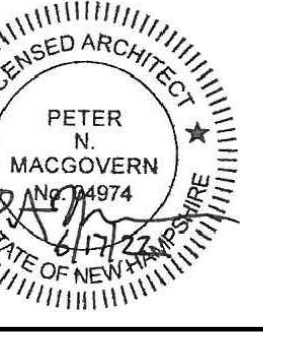
NOTE
 * COORDINATE EXACT DIMENSION WITH JIB CRANE MANUFACTURER'S REQUIREMENTS.



6 TYP CEILING JOIST CONN DETAIL
 SF101, SF501 SCALE: 1-1/2"=1'-0"



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CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

EXISTING PUMP HOUSE REMOVALS PLAN AND ELEVATIONS

SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: **AD101**

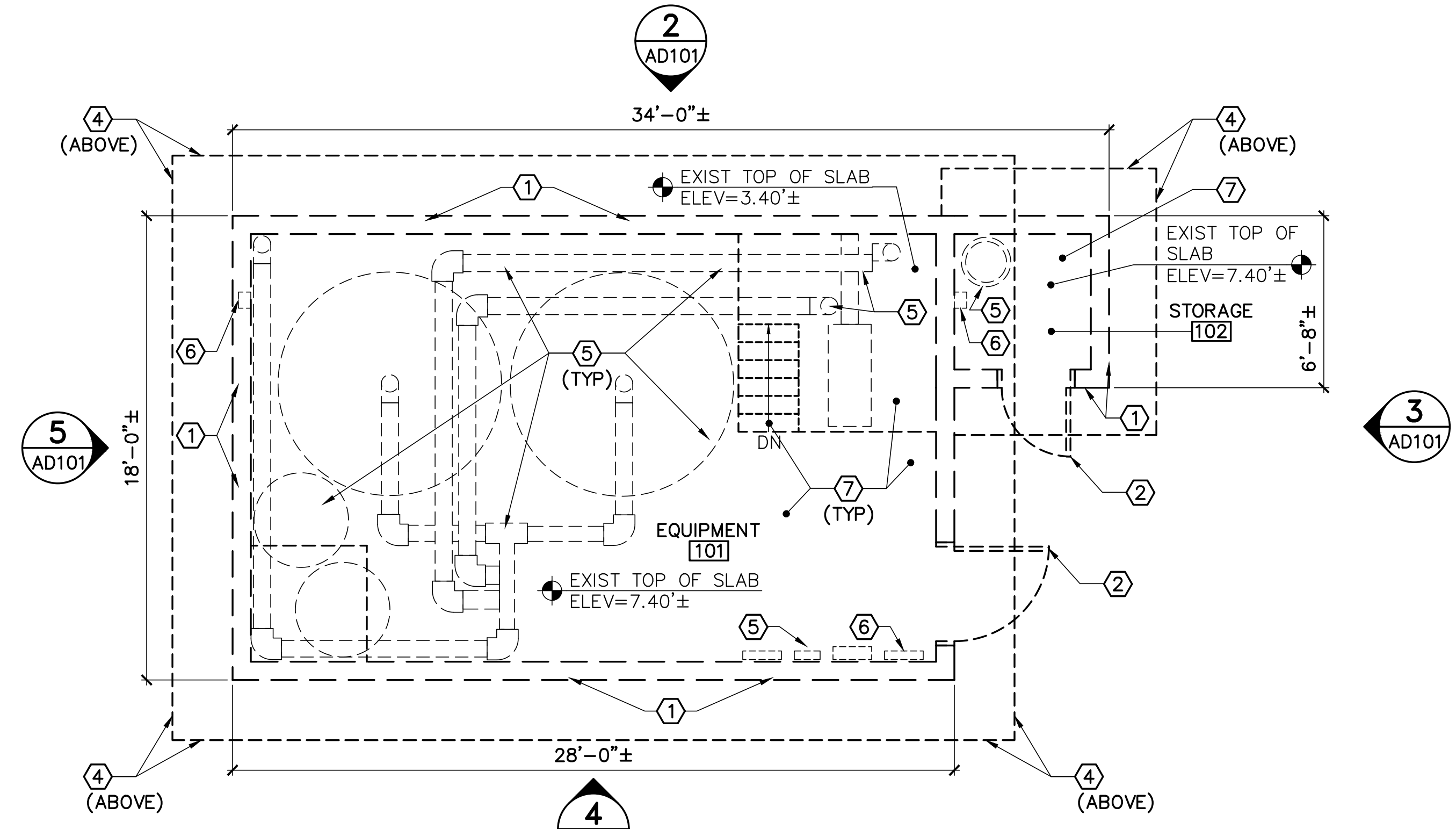
SHEET: **27** OF **72**

GENERAL REMOVALS NOTES

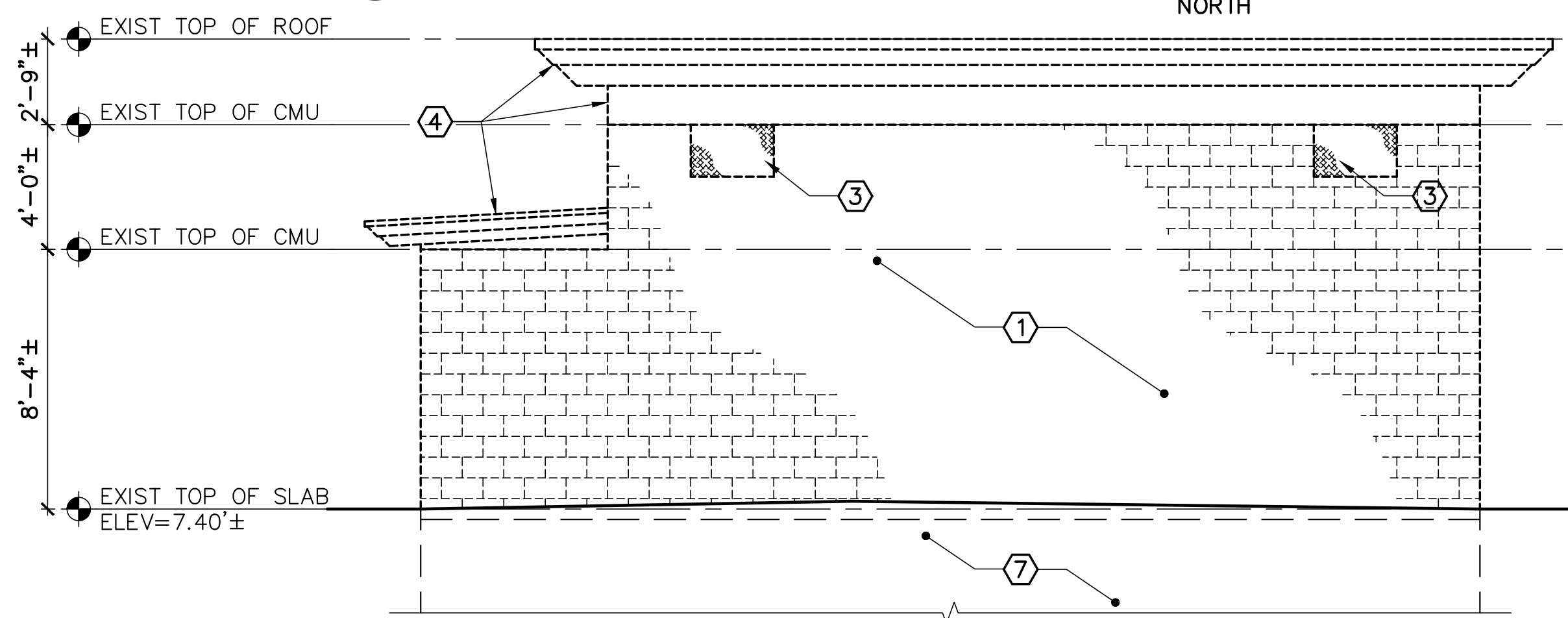
1. INTENT IS TO REMOVE THE BUILDING IN ITS ENTIRETY. SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL SHEETS FOR ADDITIONAL REMOVALS.
2. EXISTING PAINT IS ASSUMED TO CONTAIN LEAD. HANDLE IN ACCORDANCE WITH LEAD REMEDIATION REQUIREMENTS AND SPECIFICATION SECTION 028313 - LEAD PAINT RELATED WORK.

REMOVALS KEYNOTES (THIS SHEET ONLY)

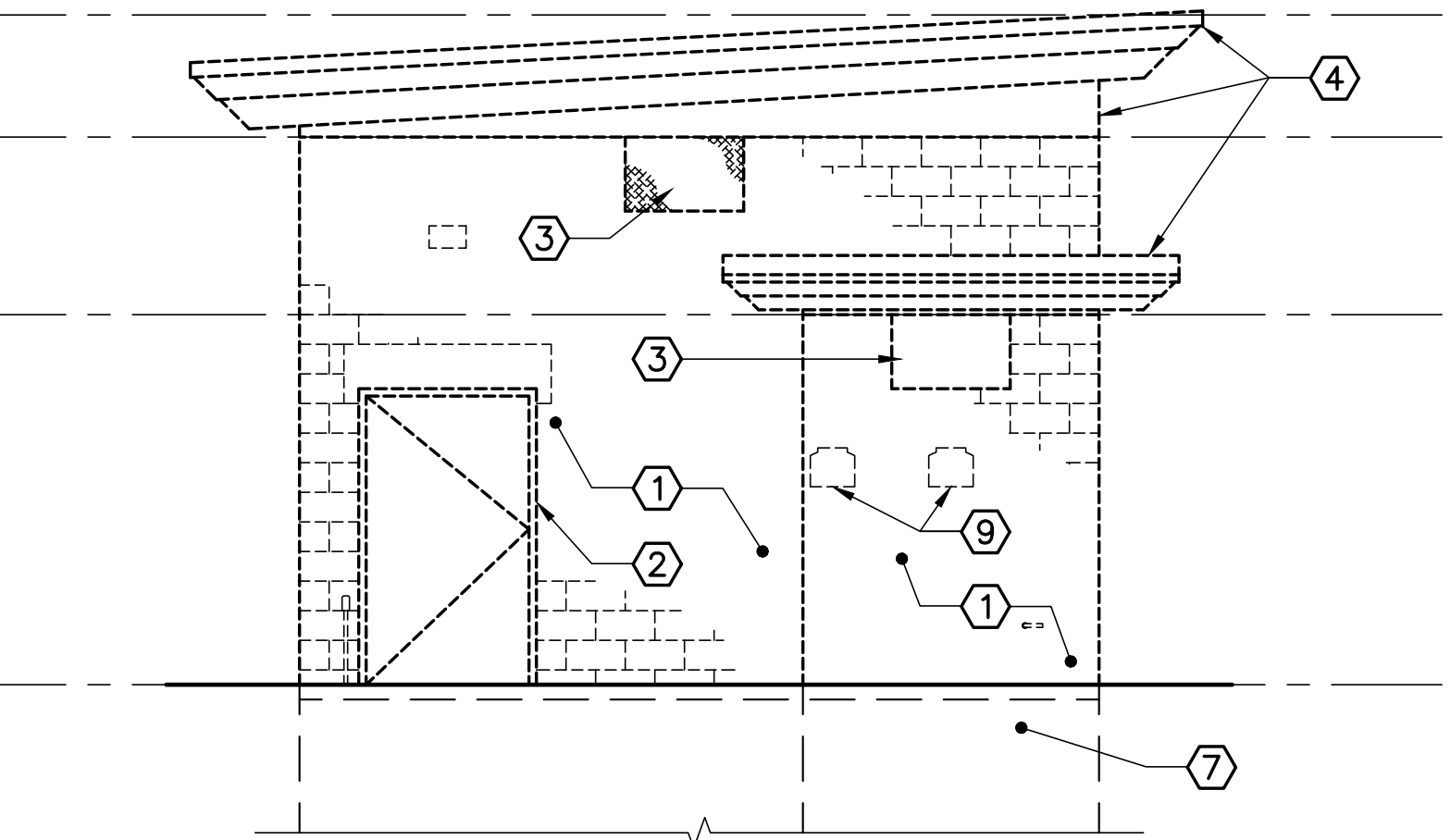
- 1 REMOVE 8"± PAINTED REINFORCED CMU WALL.
- 2 REMOVE PAINTED HOLLOW METAL DOOR, FRAME, AND HARDWARE.
- 3 REMOVE PAINTED METAL LOUVER.
- 4 REMOVE MEMBRANE ROOF SYSTEM, WOOD DECKING, 2x WOOD RAFTERS, AND PAINTED WOOD FASCIA. SEE DETAIL 2/SD101 FOR ROOF FRAMING REMOVALS.
- 5 REMOVE POOL EQUIPMENT AND PIPING.
- 6 REMOVE ELECTRICAL PANEL AND CONDUITS. SEE ELECTRICAL SHEETS.
- 7 REMOVE REINFORCED CONCRETE FOUNDATION, SLAB, AND STAIRS. SEE STRUCTURAL REMOVALS SHEETS.
- 8 REMOVE ABANDONED PVC PIPE.
- 9 REMOVE WALL MOUNTED HOSE HANGER.



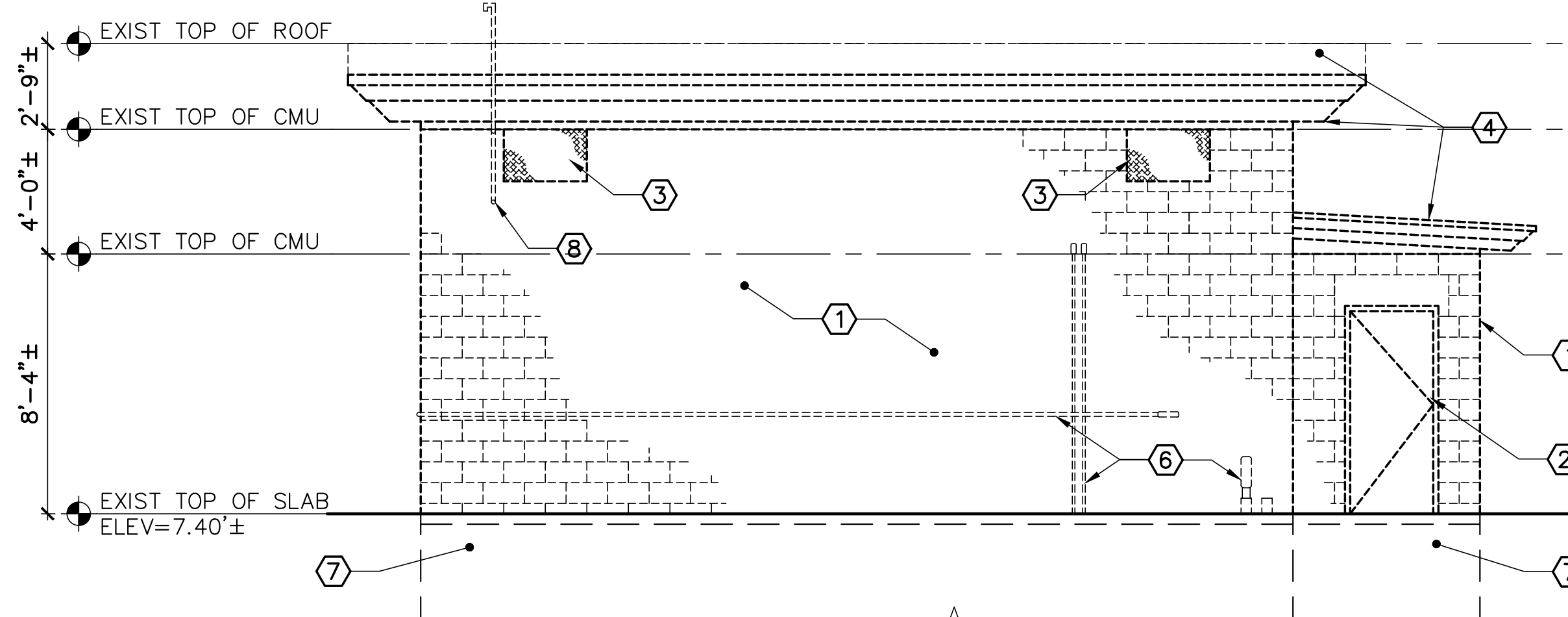
1 PUMP HOUSE REMOVALS FLOOR PLAN
 AD101 SCALE: 1/4"=1'-0"
 PLAN NORTH



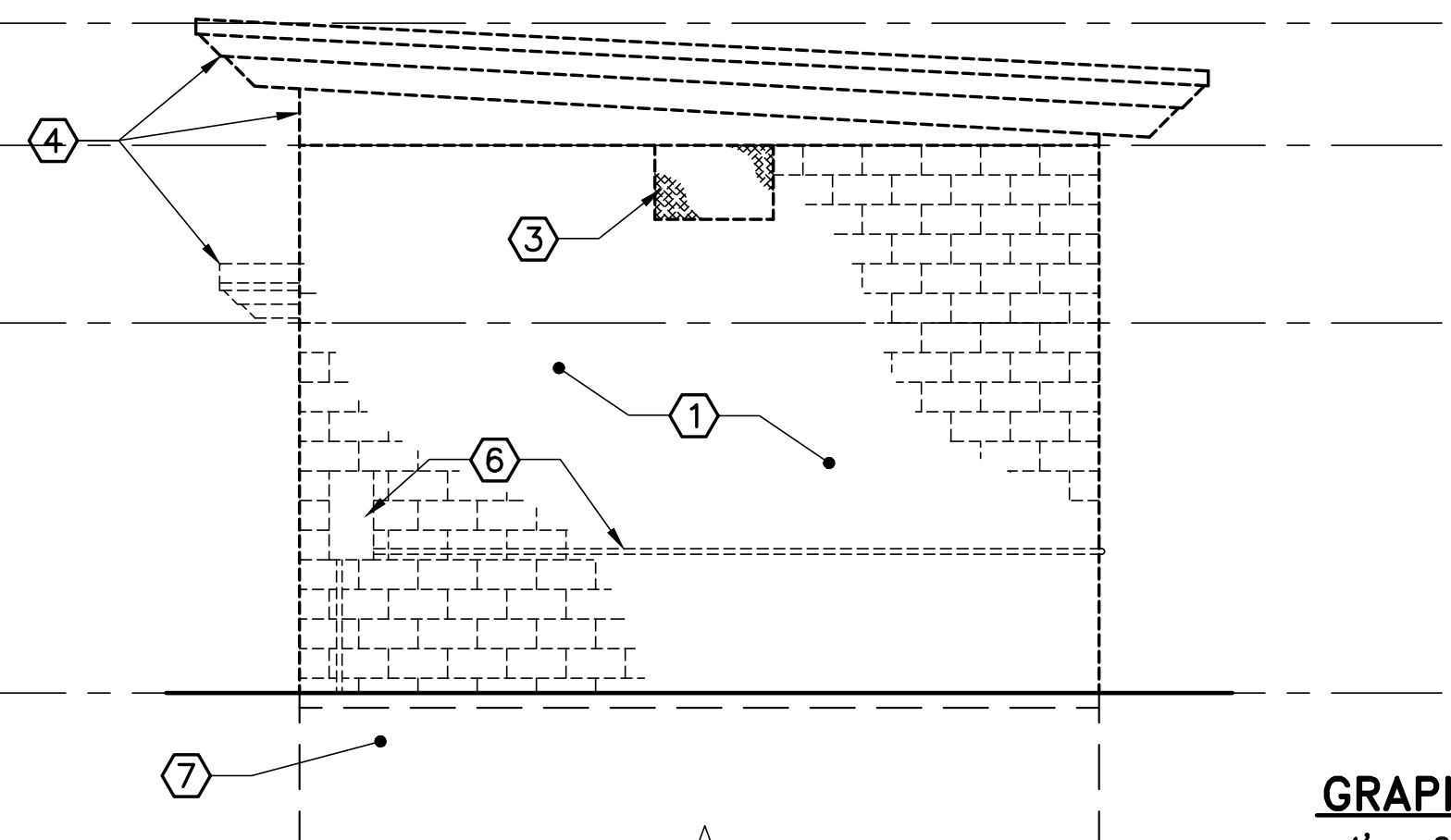
2 EAST ELEVATION REMOVALS
 AD101 SCALE: 1/4"=1'-0"



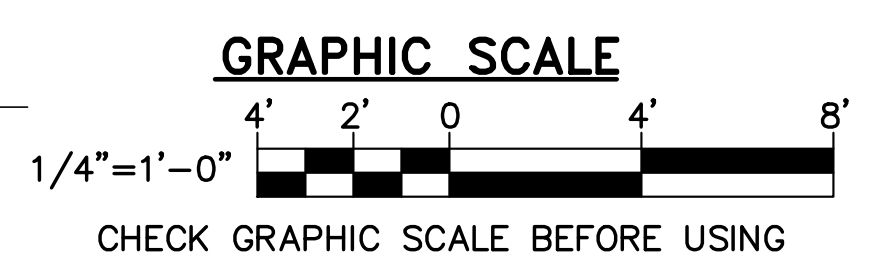
3 SOUTH ELEVATION REMOVALS
 AD101 SCALE: 1/4"=1'-0"



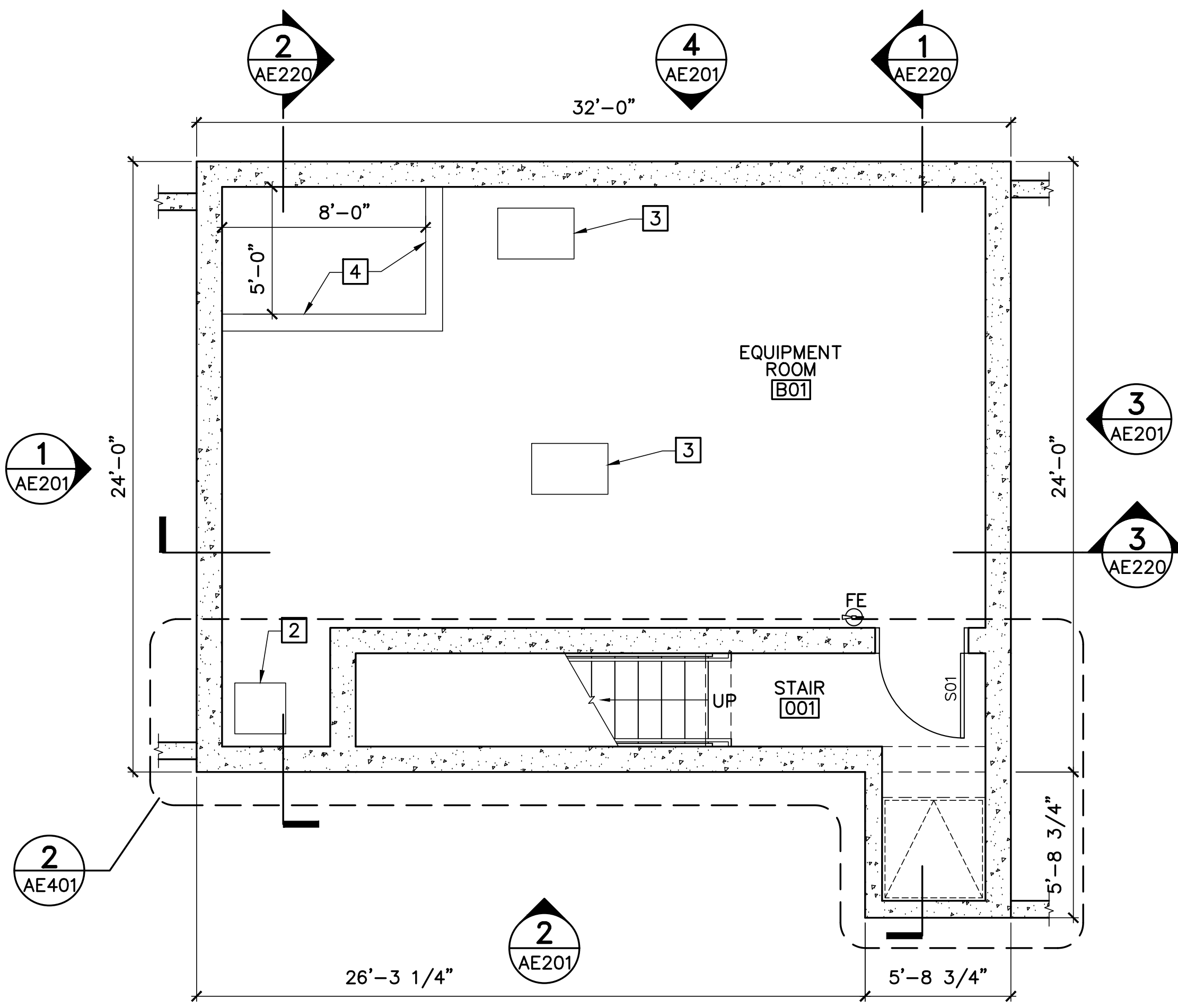
4 WEST ELEVATION REMOVALS
 AD101 SCALE: 1/4"=1'-0"



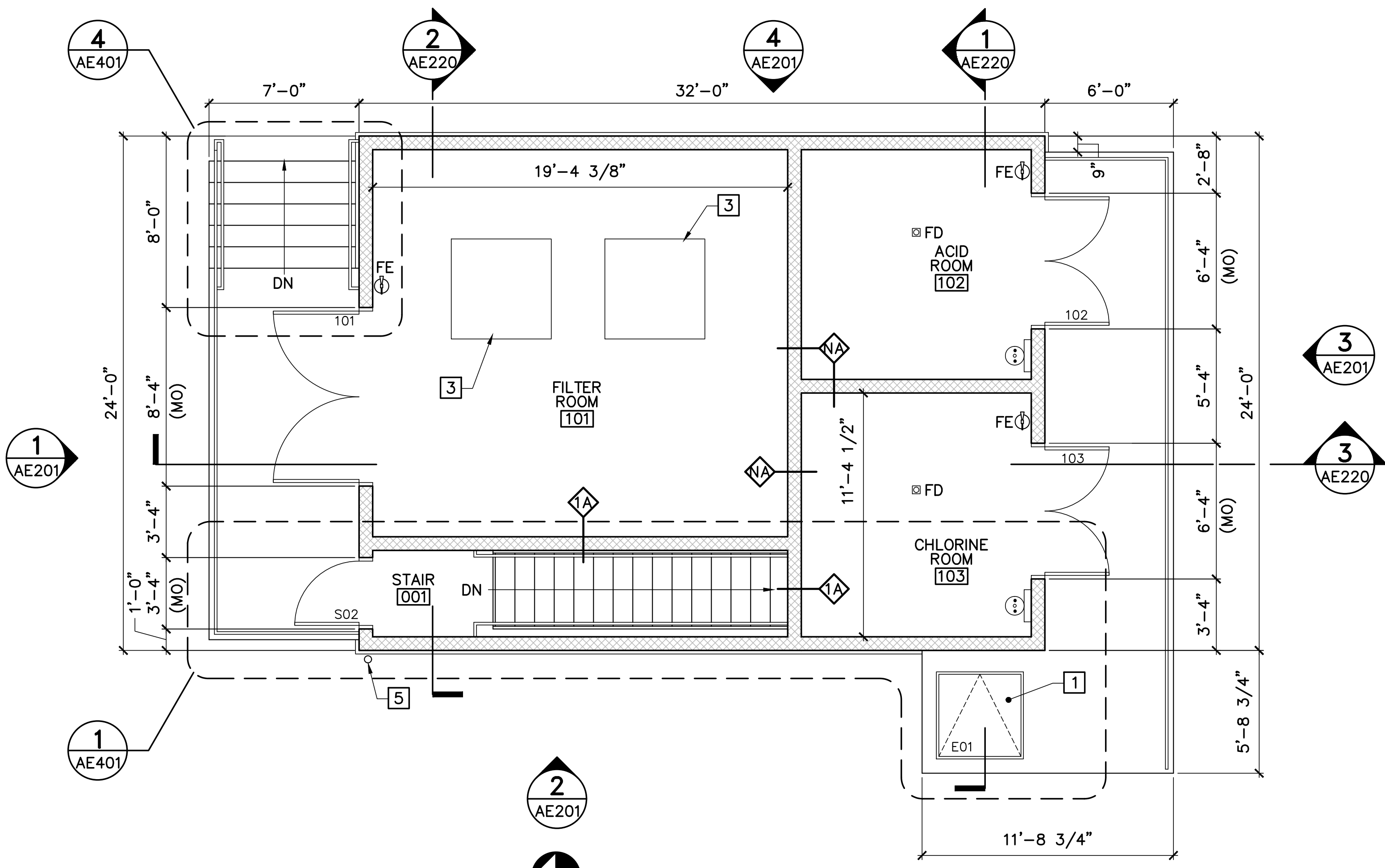
5 NORTH ELEVATION REMOVALS
 AD101 SCALE: 1/4"=1'-0"



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1 BASEMENT FLOOR PLAN
 AE101 SCALE: 1/4"=1'-0"
 PLAN NORTH



2 FIRST FLOOR PLAN
 AE101 SCALE: 1/4"=1'-0"
 PLAN NORTH

GENERAL NOTES

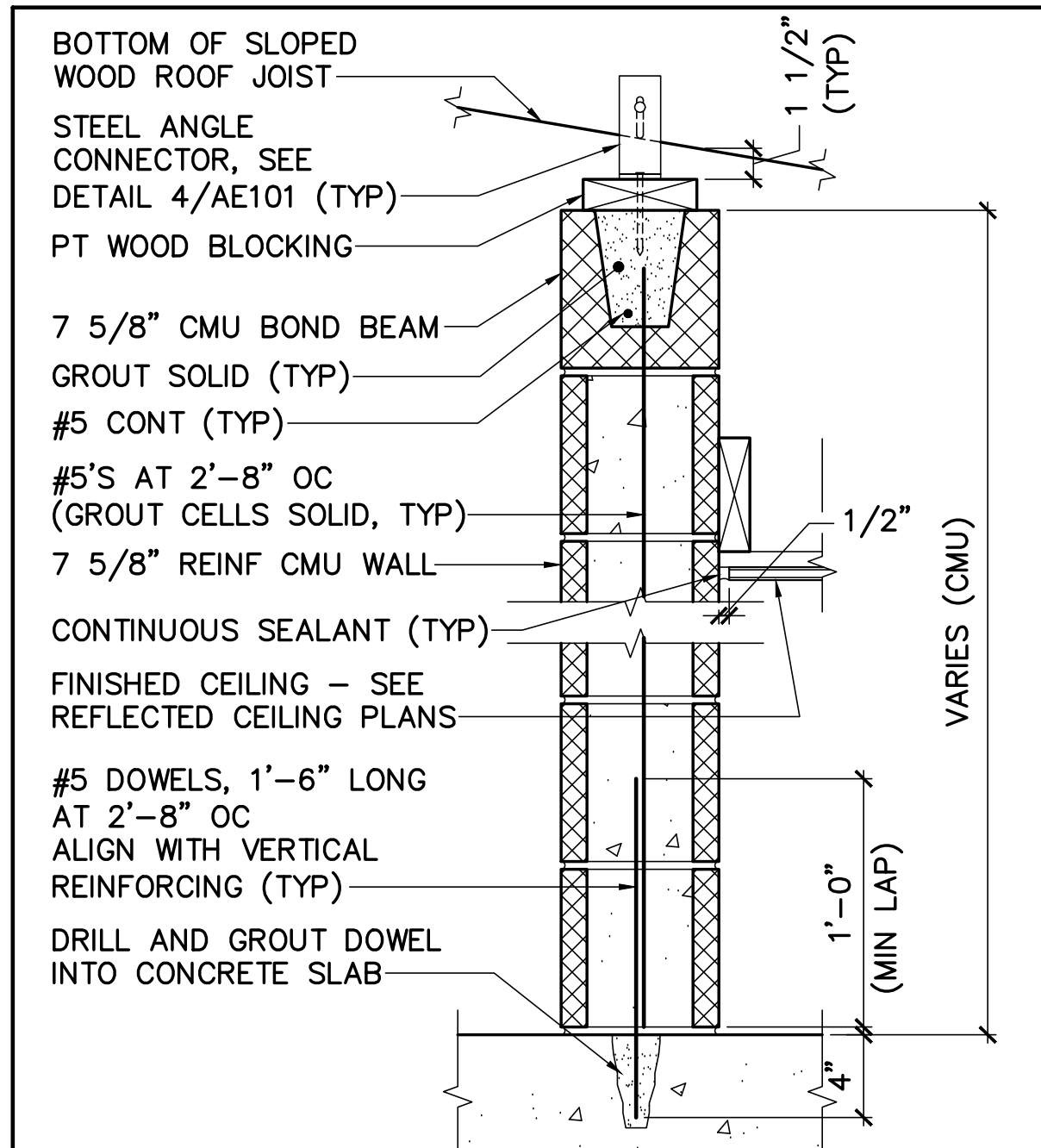
- SEE SHEET AE601 FOR DOOR AND FINISH SCHEDULES.
- SEE SHEET AE701 FOR REFLECTED CEILING PLANS.
- SEE SHEET AE701 FOR SIGNAGE SCHEDULE AND DETAILS.

KEYNOTES (THIS SHEET ONLY)

- 4'-0" x 4'-0" WATERTIGHT ALUMINUM ACCESS DOOR. COORDINATE LOCATION WITH STRUCTURAL DRAWINGS.
- SUMP PIT AND PUMP, SEE STRUCTURAL AND PLUMBING DRAWINGS.
- REINFORCED CONCRETE EQUIPMENT PAD, SEE STRUCTURAL AND AQUATIC DRAWINGS.
- 4'-10" (HIGH) 8" REINFORCED CONCRETE WALL. SEE STRUCTURAL DRAWINGS.
- METAL DOWNSPOUT TO ROOF DRAIN RISER. SEE DETAIL 5/C504.

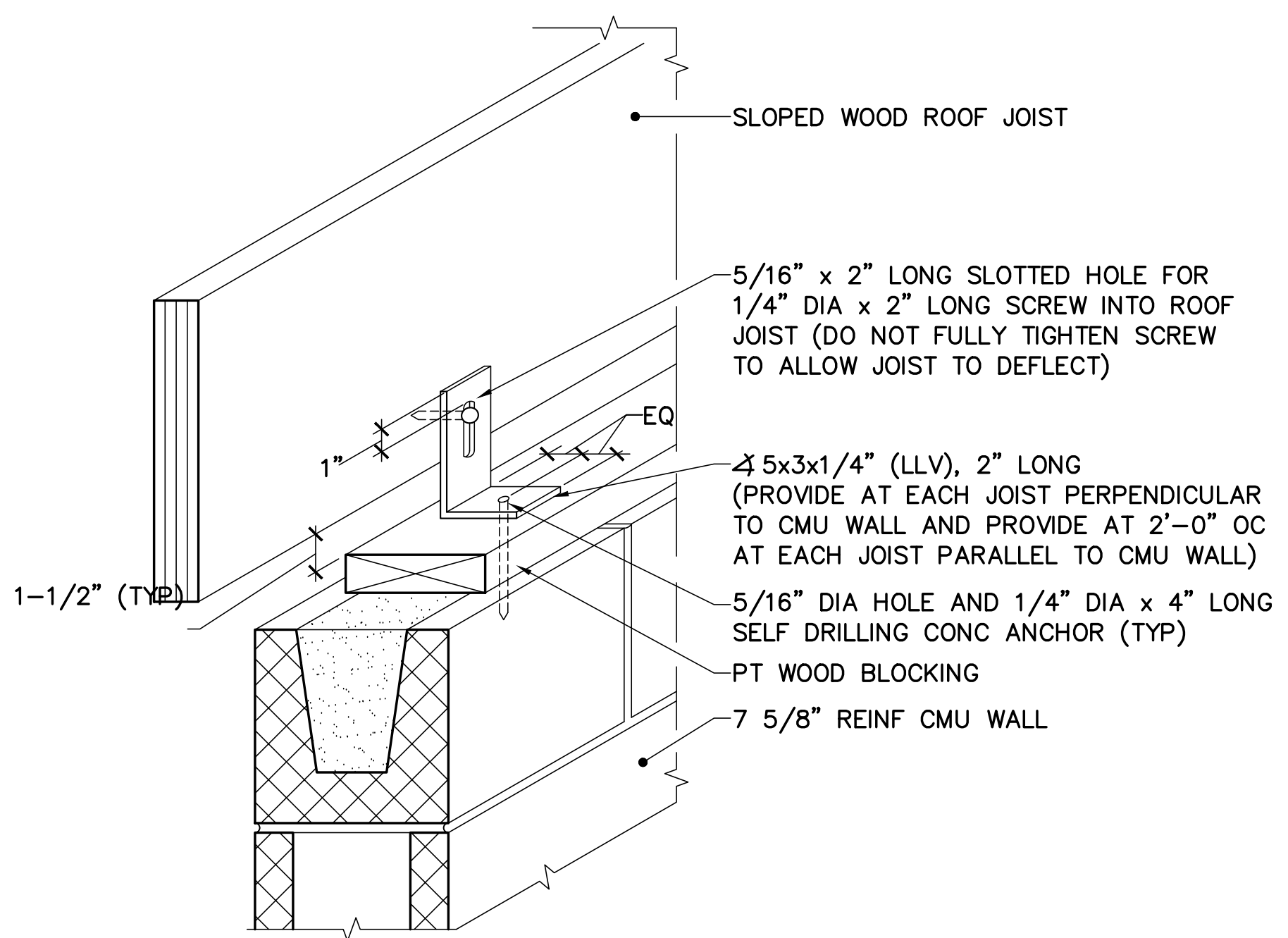
WALL TYPE GENERAL NOTES

- SEE STRUCTURAL SHEETS FOR EXTERIOR AND FOUNDATION WALLS.
- SEE SHEET G-101 FOR FIRE-RESISTANT RATED WALL LOCATIONS.
- FIRESTOP PENETRATIONS THROUGH FIRE-RESISTANT RATED WALL AND FLOOR ASSEMBLIES ON EACH SIDE OF THE WALL AND FLOOR IN ACCORDANCE WITH THE FIRESTOPPING MANUFACTURER'S PRINTED INSTRUCTIONS.
- SEE REFLECTED CEILING PLANS AND/OR ROOM FINISH SCHEDULE FOR CEILING FINISH HEIGHT.
- MAINTAIN 1/2" GAP BETWEEN INTERSECTION OF GYPSUM BOARD AND CMU WALL. PROVIDE CONTINUOUS SEALANT AT INTERSECTION PRIOR TO FINISH INSTALLATION. PROVIDE FIRE-RESISTANT RATED SEALANT AT RATED CEILING ASSEMBLIES.
- SEAL PENETRATIONS THROUGH WALLS.

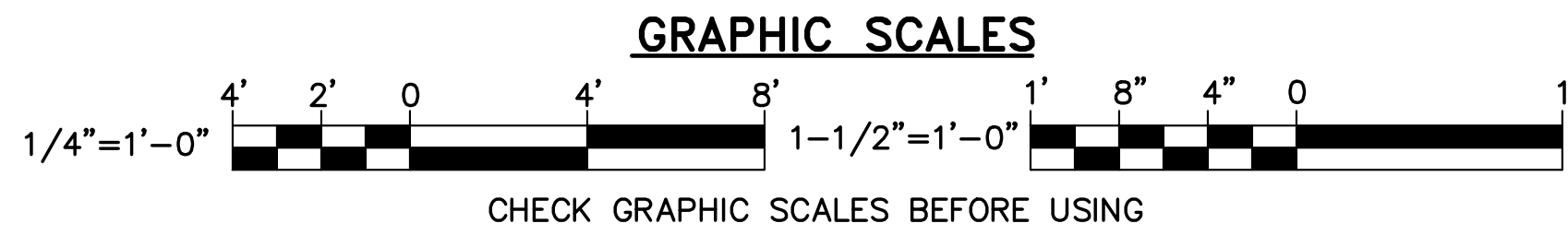


7 5/8" REINF CMU	1A
WIDTH = 7 5/8"	STC: N/A
NON-FIRE RATED	
7 5/8" REINF CMU	1A
WIDTH = 7 5/8"	STC: N/A
1 HR FIRE RATED, UL WALL ASSEMBLY #J905	

3 WALL TYPE
 AE101 SCALE: 1-1/2"=1'-0"



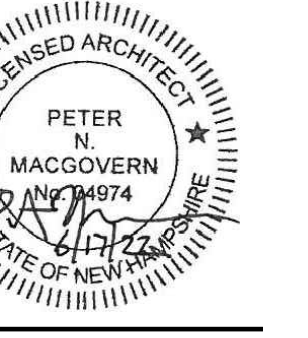
4 SLOPED JOIST TO CMU INTERIOR WALL
 AE101 NOT TO SCALE



GRAPHIC SCALES

CHECK GRAPHIC SCALES BEFORE USING

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 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE
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 Peirce Island Road
 Portsmouth, NH 03801

PUMP HOUSE
 ROOF PLAN
 AND DETAILS

SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: AE120

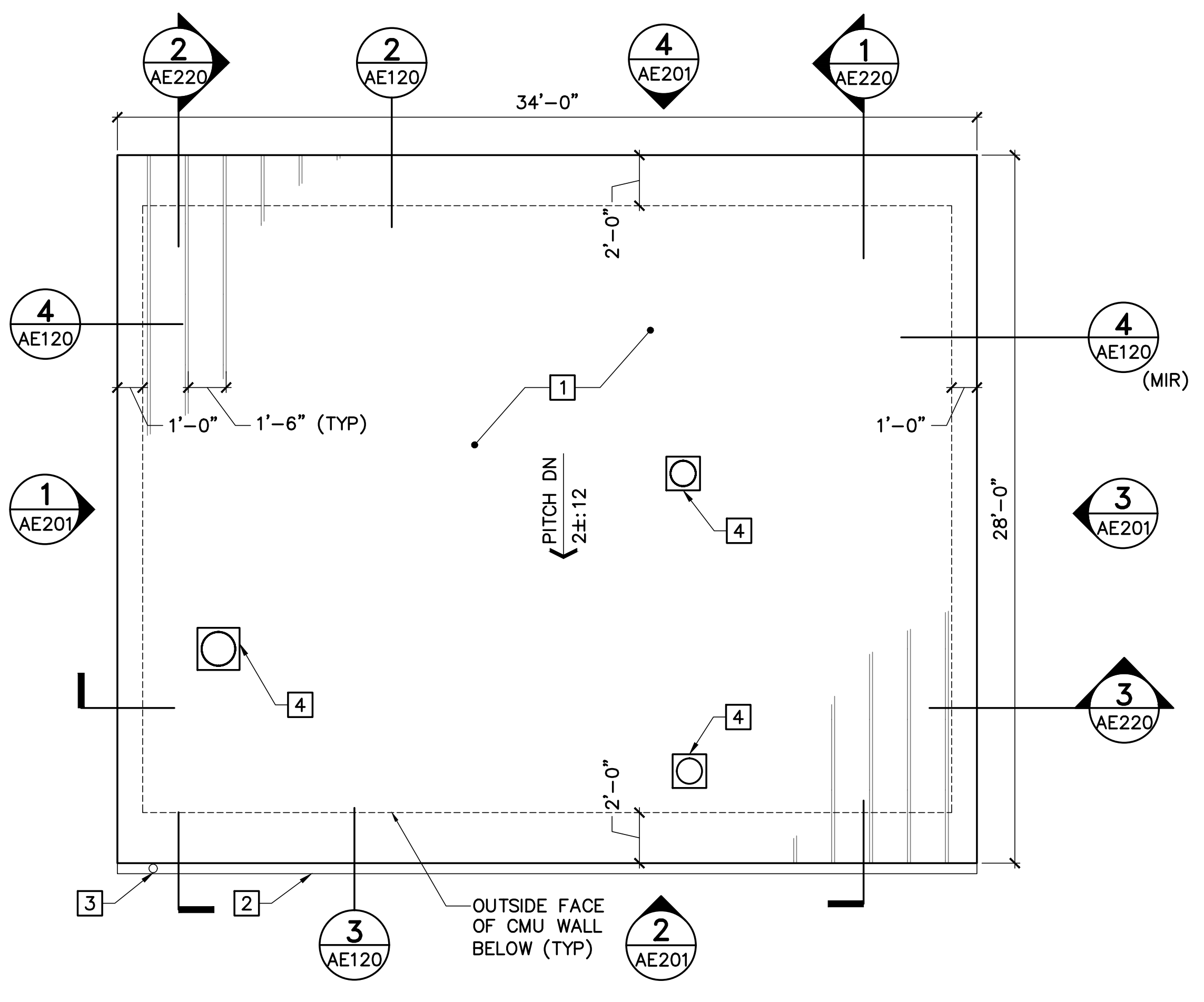
SHEET: 29 OF 72

GENERAL NOTE

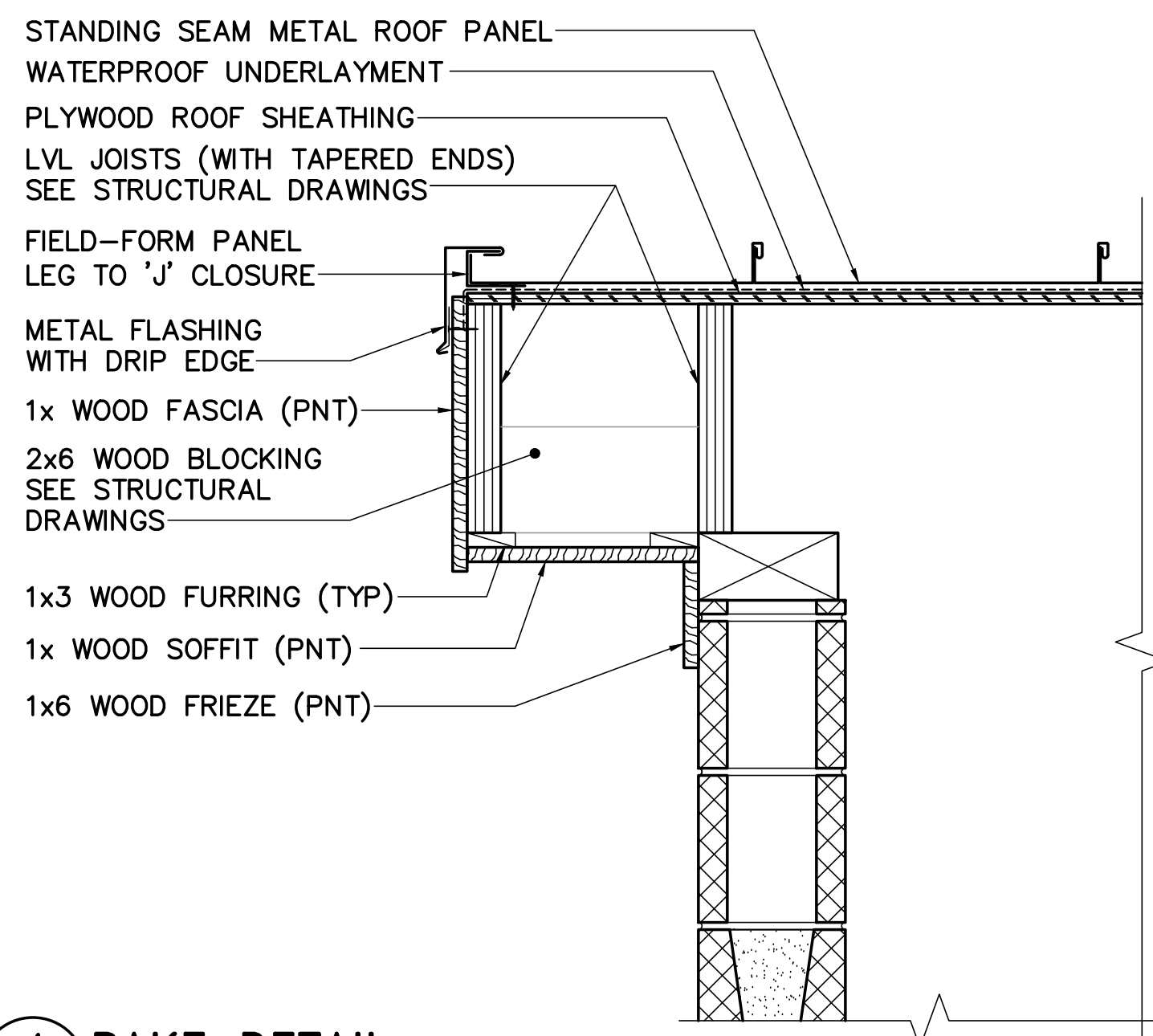
1. SEE SHEET AE601 FOR FINISH SCHEDULES.

KEYNOTES (THIS SHEET ONLY)

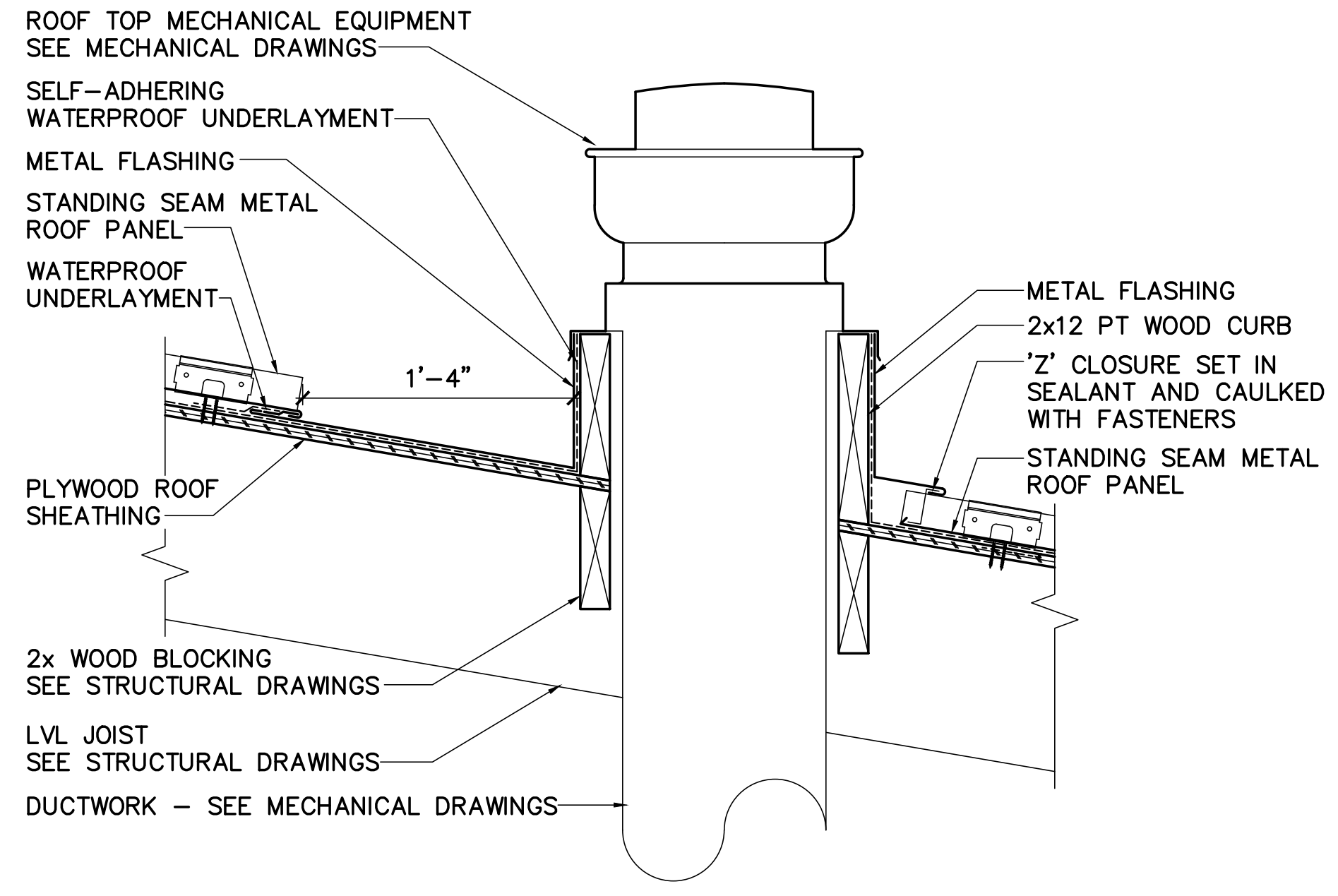
- 1 STANDING SEAM METAL ROOF SYSTEM.
- 2 METAL GUTTER.
- 3 METAL DOWNSPOUT TO ROOF DRAIN RISER, SEE DETAIL 5/C-504.
- 4 EXHAUST FAN, SEE DETAIL 5/AE120. COORDINATE LOCATION WITH MECHANICAL DRAWINGS.



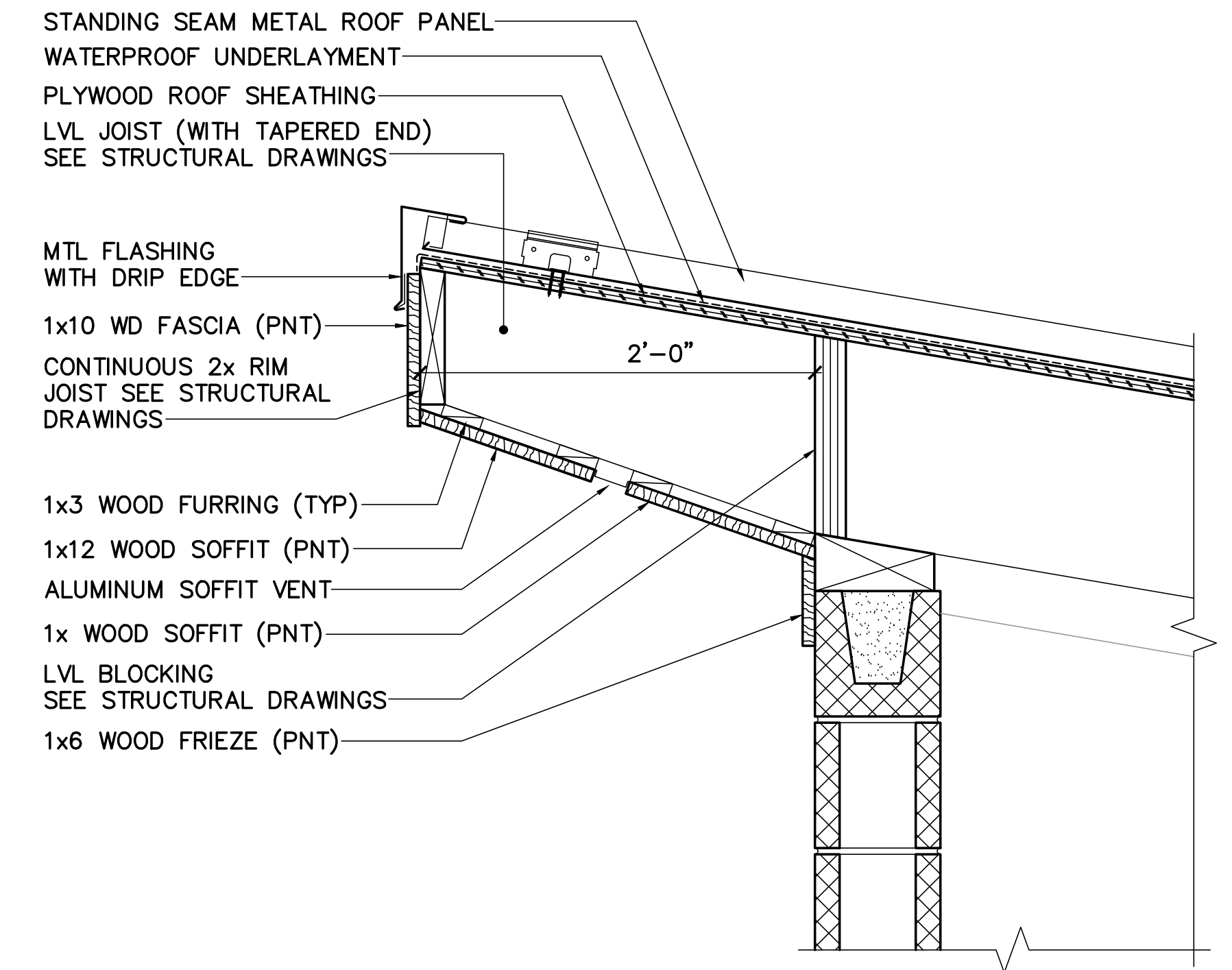
1 ROOF PLAN
 AE120 SCALE: 1/4"=1'-0"
 PLAN NORTH



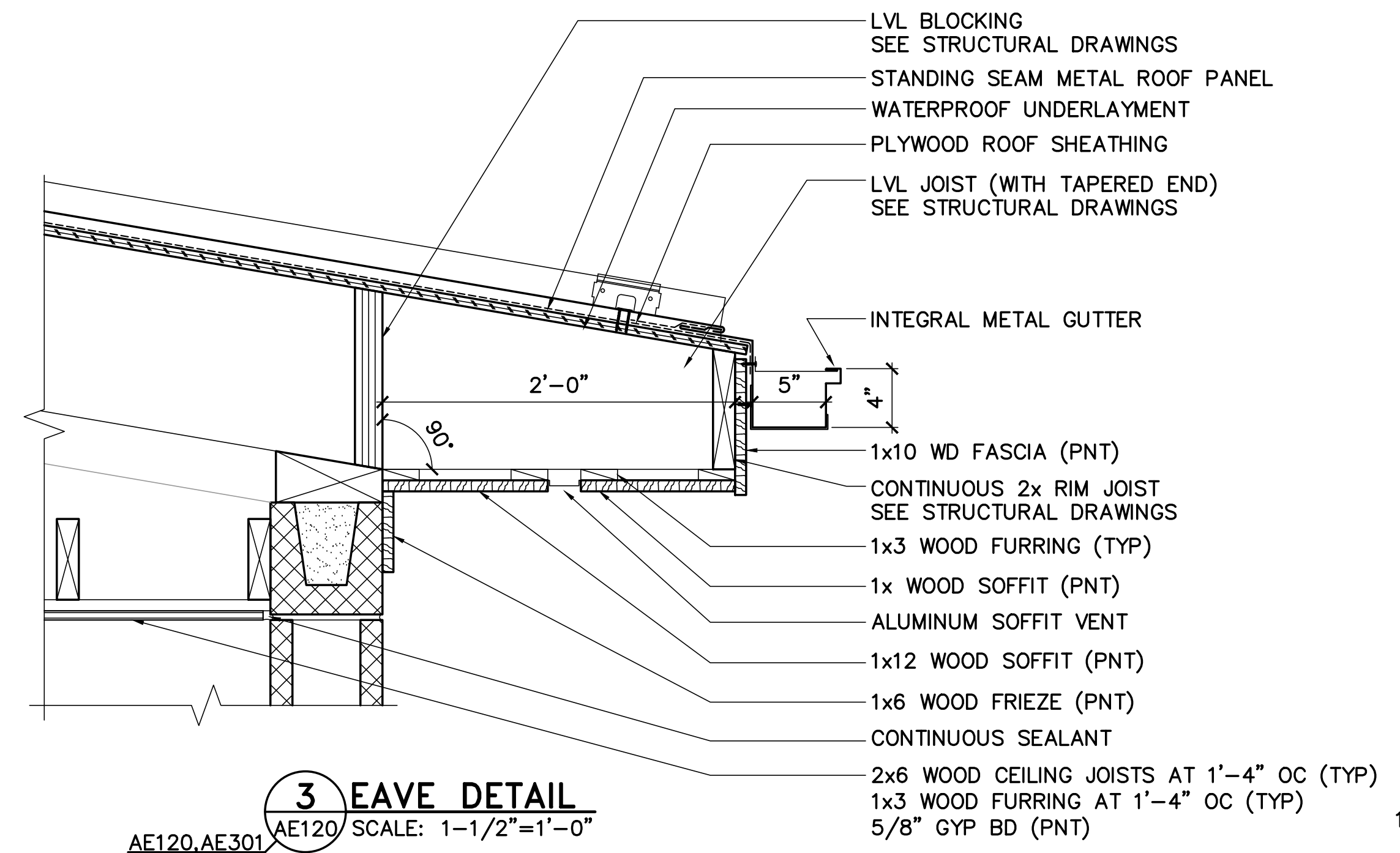
4 RAKE DETAIL
 AE120, AE301 SCALE: 1-1/2"=1'-0"



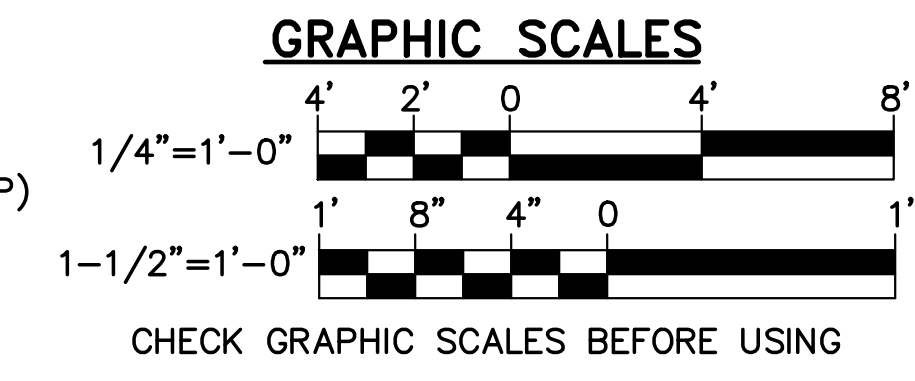
5 EQUIPMENT CURB DETAIL
 AE120 SCALE: 1-1/2"=1'-0"



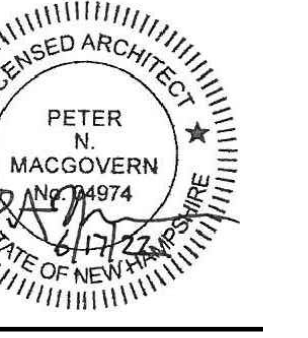
2 EAVE DETAIL
 AE120, AE301 SCALE: 1-1/2"=1'-0"



3 EAVE DETAIL
 AE120, AE301 SCALE: 1-1/2"=1'-0"



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PEIRCE ISLAND PUMP HOUSE
 AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

PUMP HOUSE
 ELEVATIONS

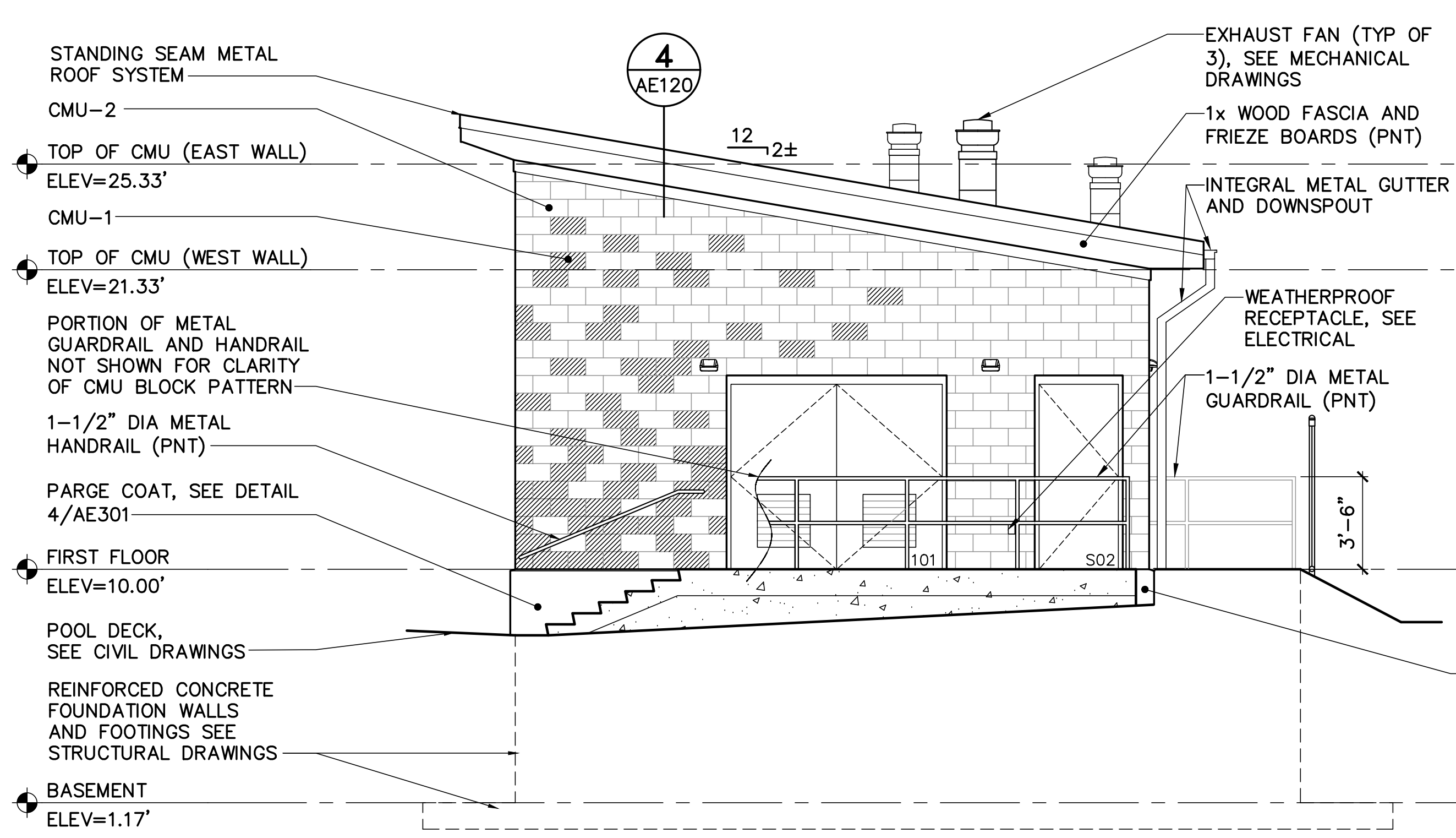
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DWG.: AE201

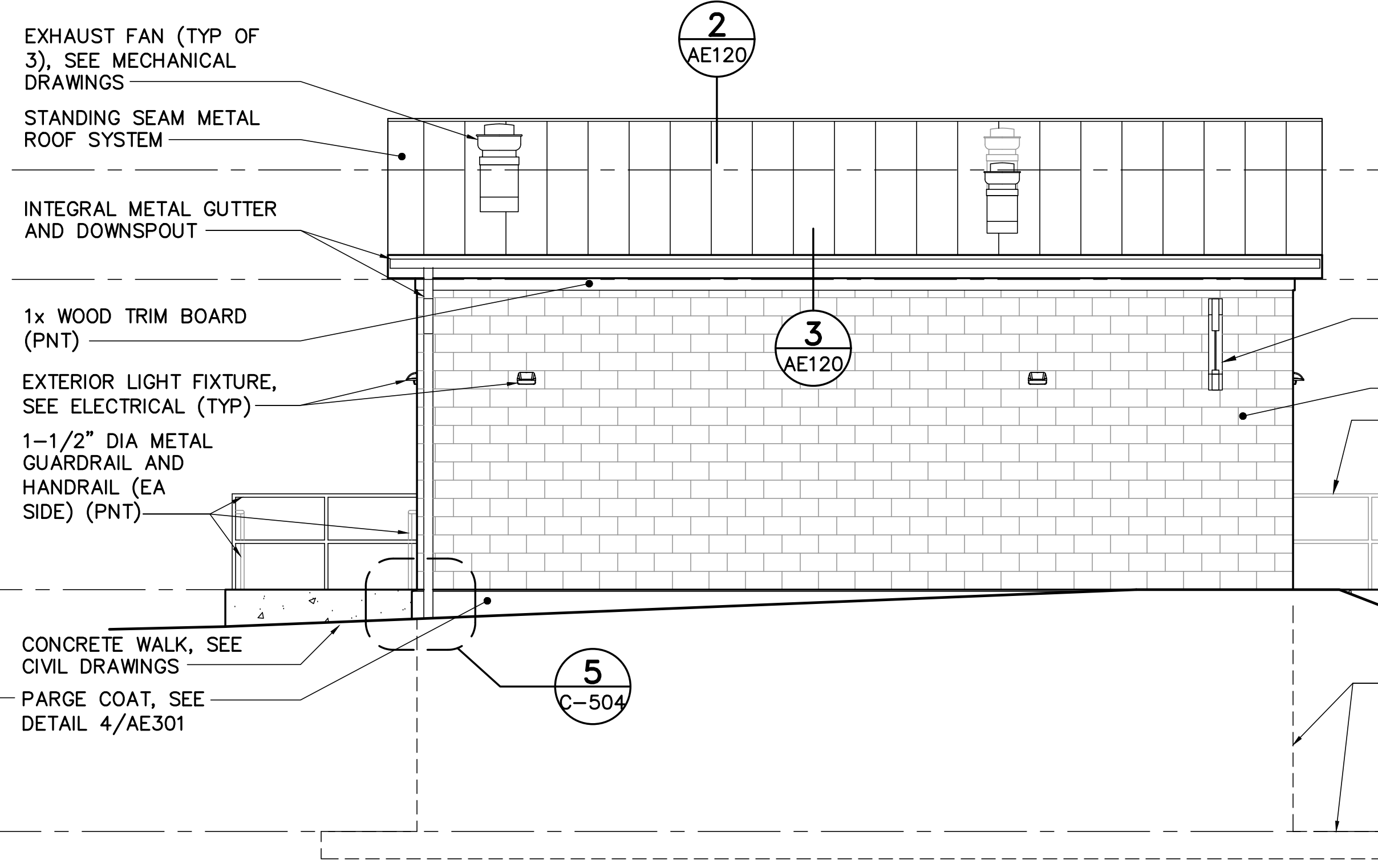
SHEET: 30 OF 72

GENERAL NOTES

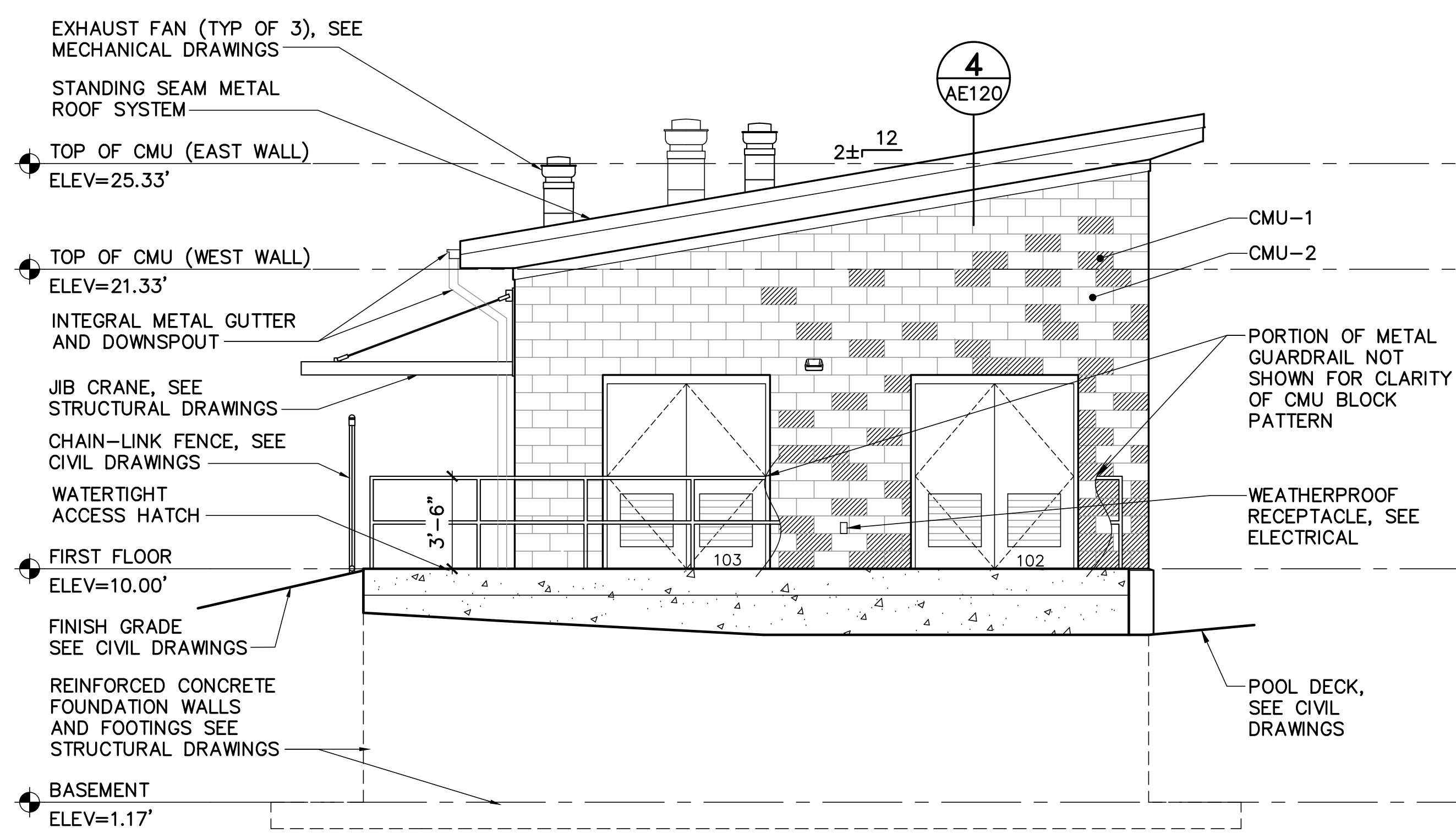
- SEE SHEET AE601 FOR DOOR AND FINISH SCHEDULES.
- PORTION OF GUARDRAIL NOT SHOWN AT NORTH AND SOUTH ELEVATIONS FOR CLARITY OF CMU BLOCK PATTERN.



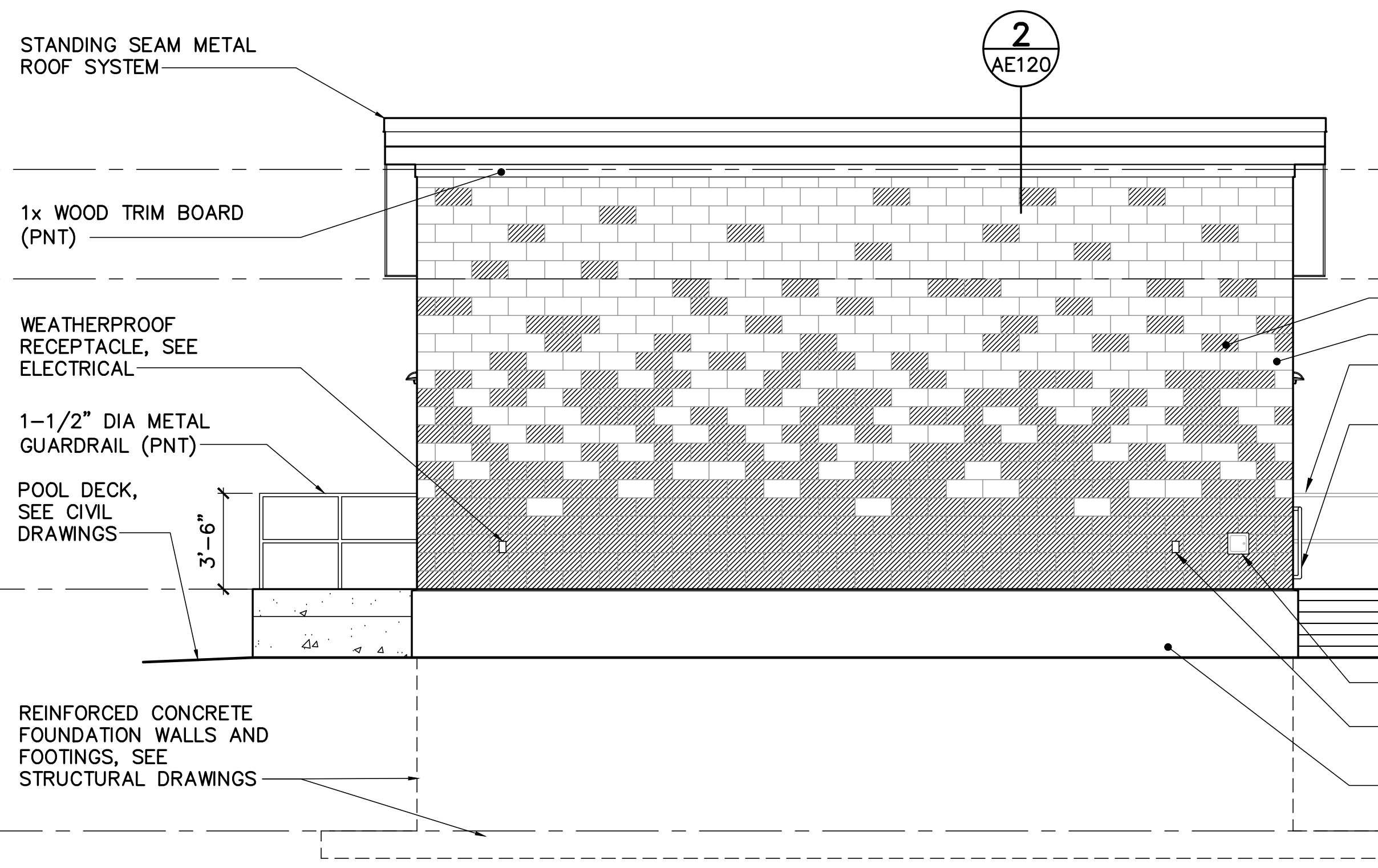
1 NORTH ELEVATION
 AE101, AE120, AE201 SCALE: 1/4"=1'-0"



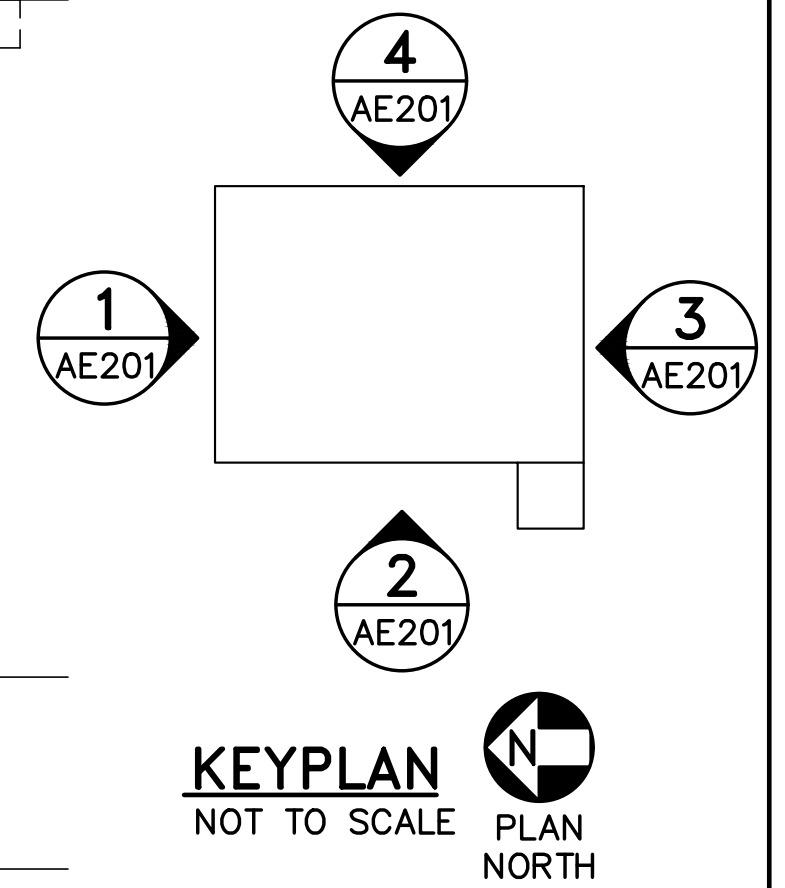
2 WEST ELEVATION
 AE101, AE120, AE201 SCALE: 1/4"=1'-0"



3 SOUTH ELEVATION
 AE101, AE120, AE201 SCALE: 1/4"=1'-0"

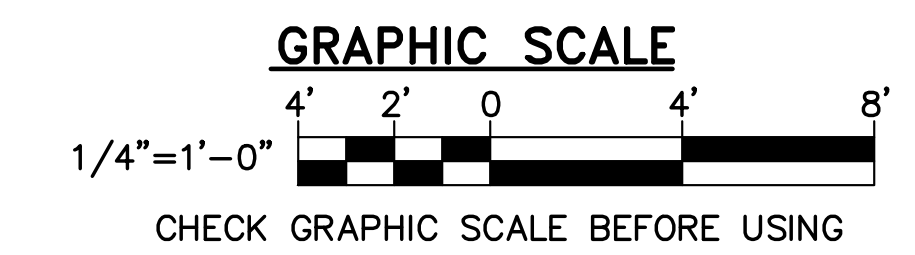


4 EAST ELEVATION
 AE101, AE120, AE201 SCALE: 1/4"=1'-0"



LEGEND

- CMU 1
- CMU 2
- EXTERIOR LIGHT FIXTURE, SEE ELECTRICAL



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OAK POINT ASSOCIATES
 ARCHITECTURE ■ ENGINEERING ■ PLANNING
 85 Middle Street, Portsmouth, NH 03801 (T) 603.431.4849 (F) 603.431.1870
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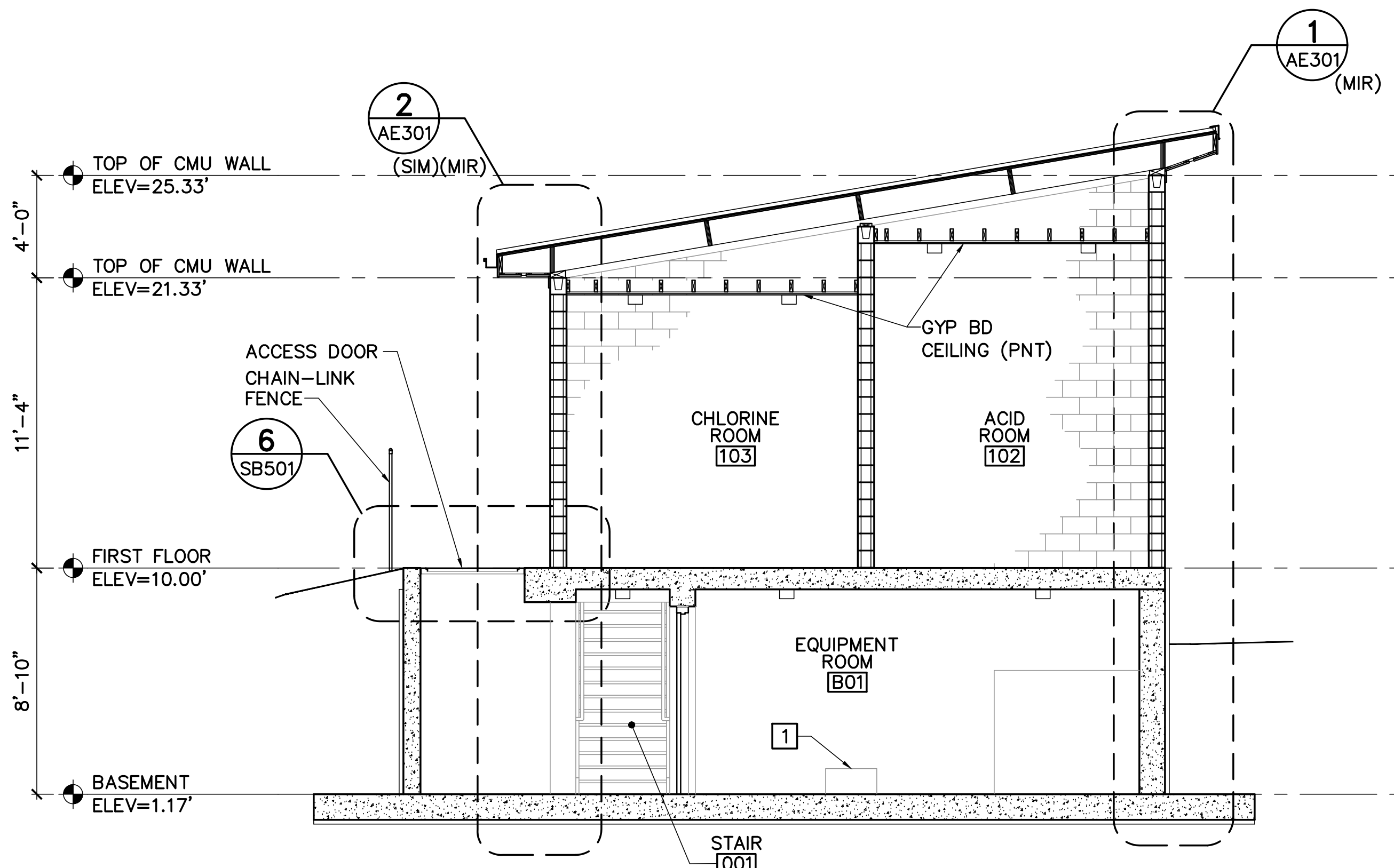
PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

PUMP HOUSE SECTIONS

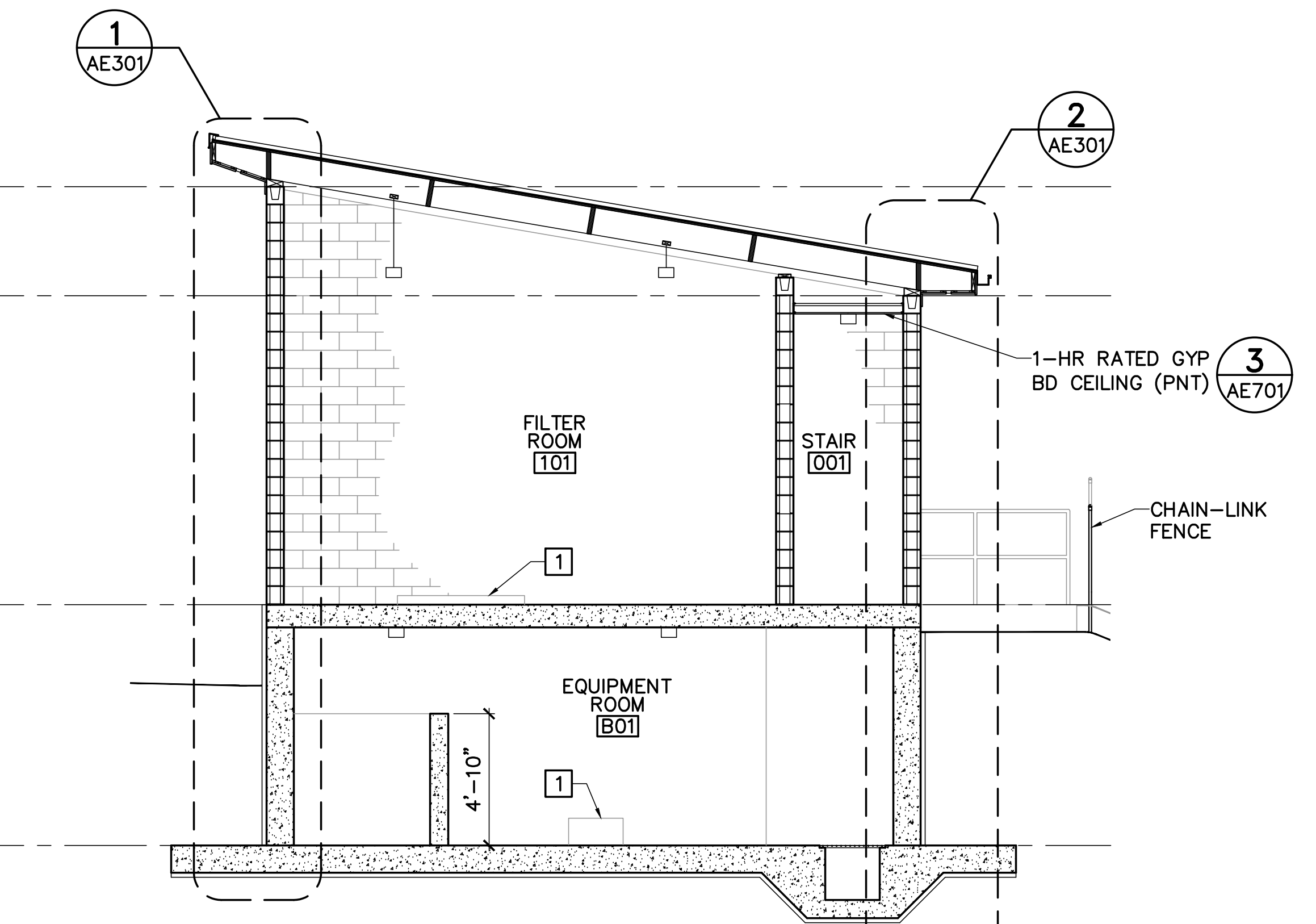
SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: **AE220**

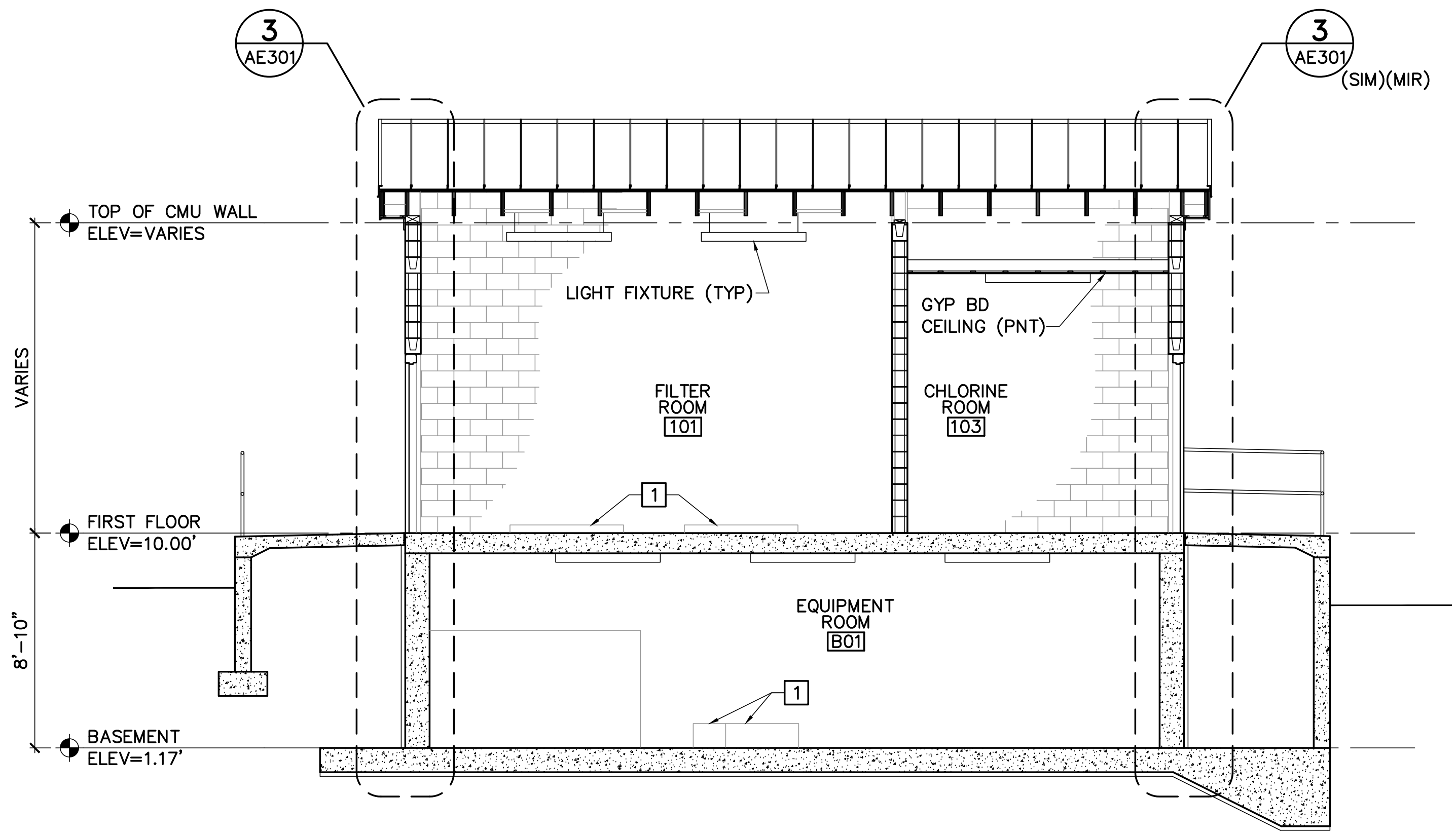
SHEET: **31** OF **72**



1 BUILDING SECTION
 AE101.AE120.AE220 SCALE: 1/4"=1'-0"



2 BUILDING SECTION
 AE101.AE120.AE220 SCALE: 1/4"=1'-0"



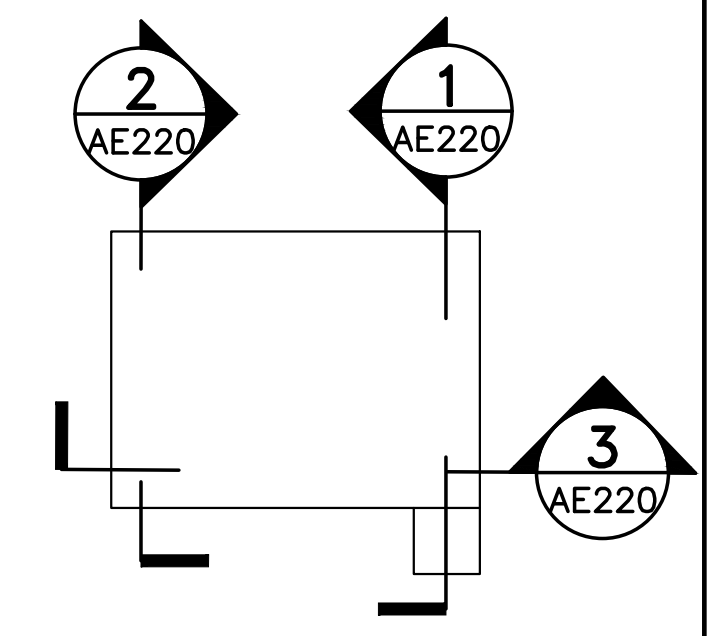
3 BUILDING SECTION
 AE101.AE120.AE220 SCALE: 1/4"=1'-0"

GENERAL NOTES

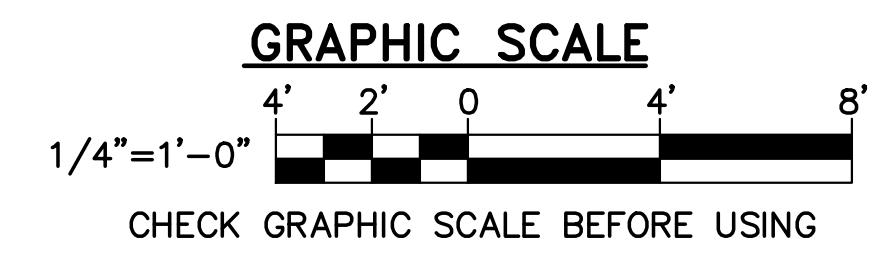
- SEE SHEET AE601 FOR DOOR SCHEDULE AND FINISH SCHEDULES.
- POOL AND MECHANICAL EQUIPMENT NOT SHOWN FOR CLARITY.

KEYNOTES (THIS SHEET ONLY)

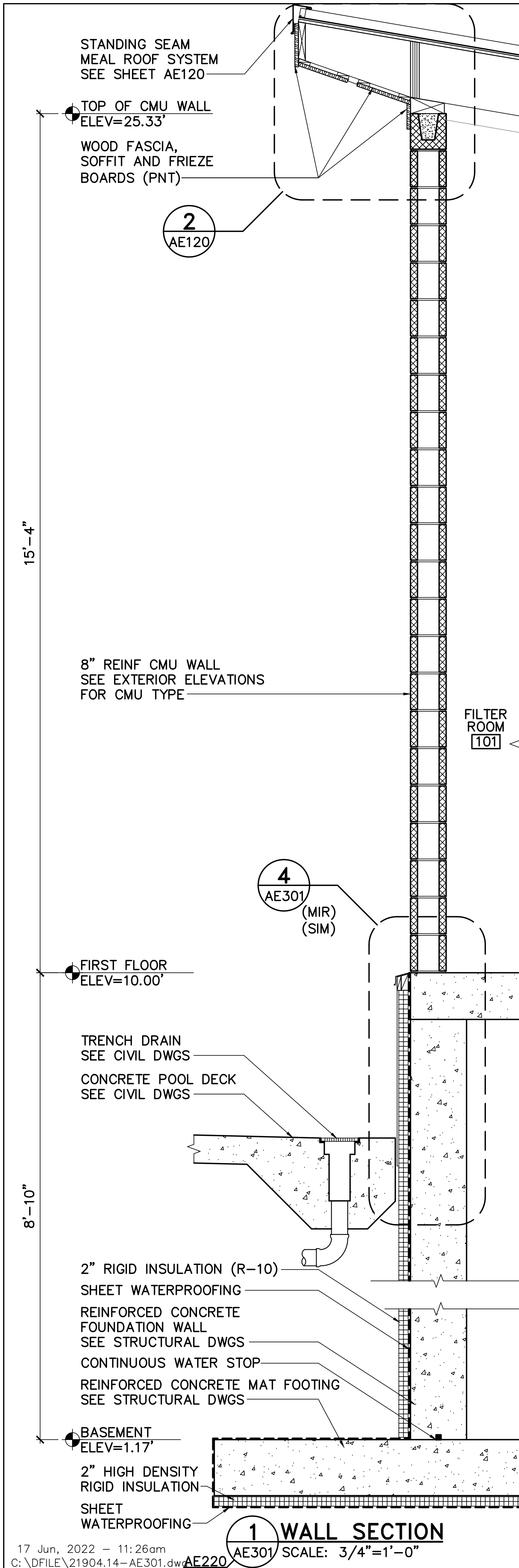
- REINFORCED CONCRETE EQUIPMENT PAD. SEE STRUCTURAL AND AQUATIC DRAWINGS.



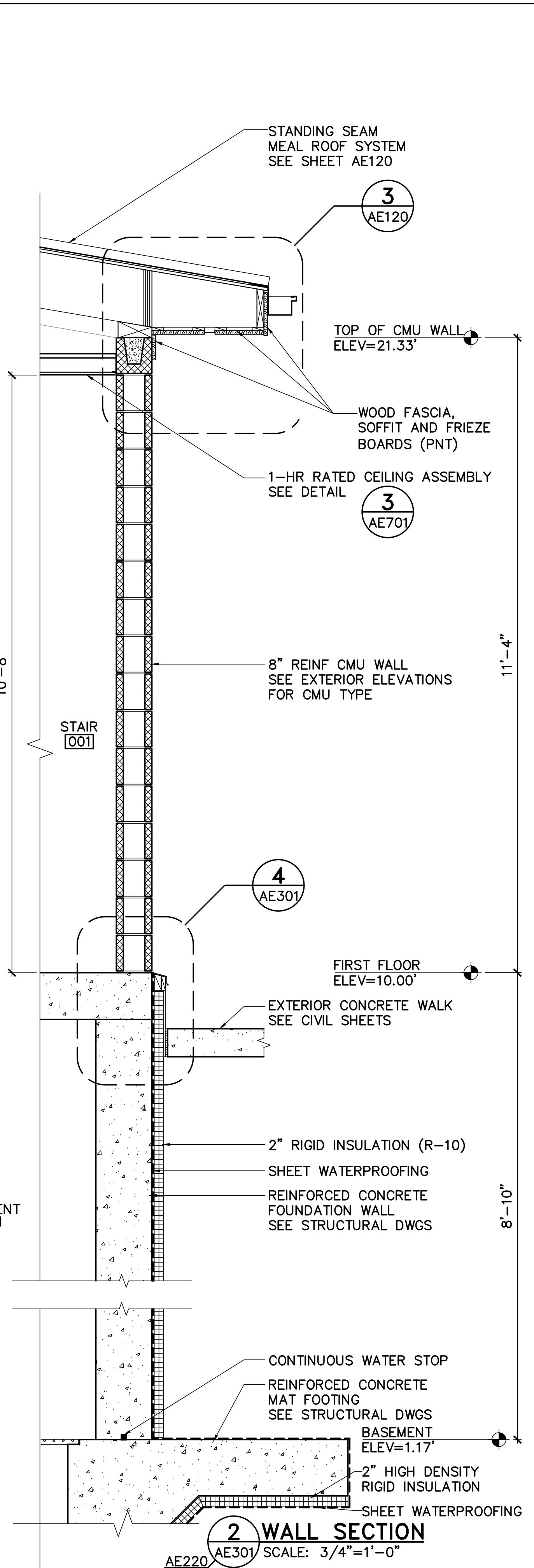
KEYPLAN
 NOT TO SCALE
 PLAN NORTH



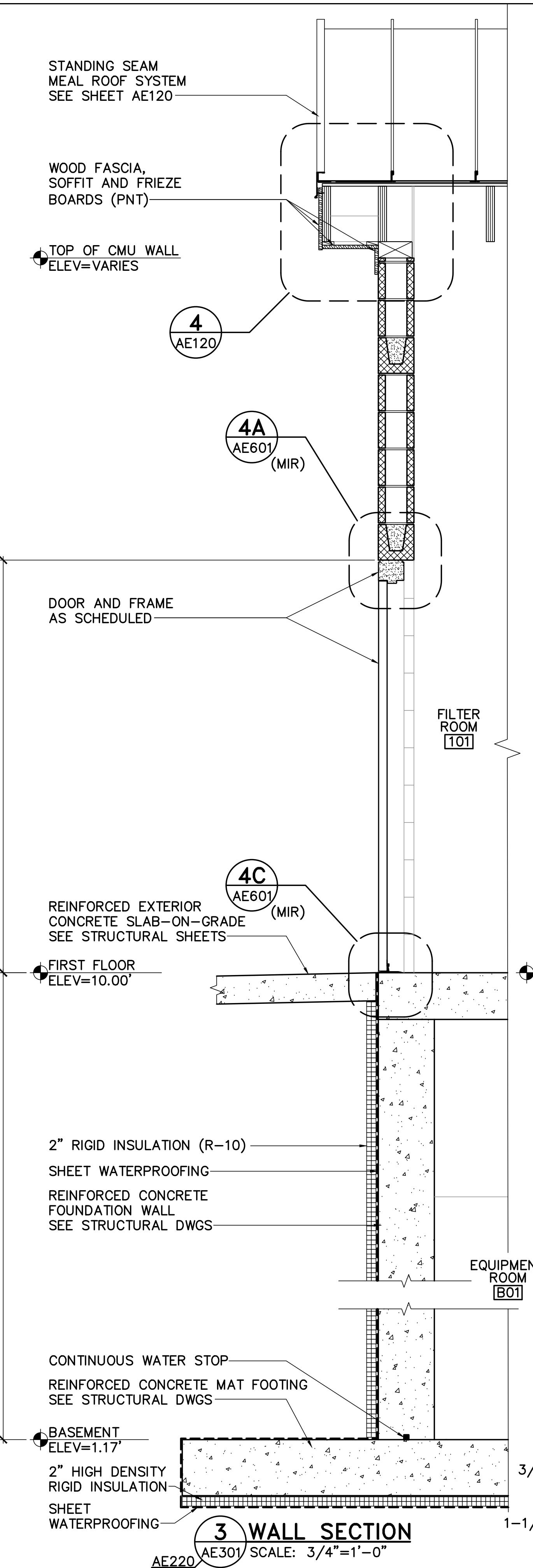
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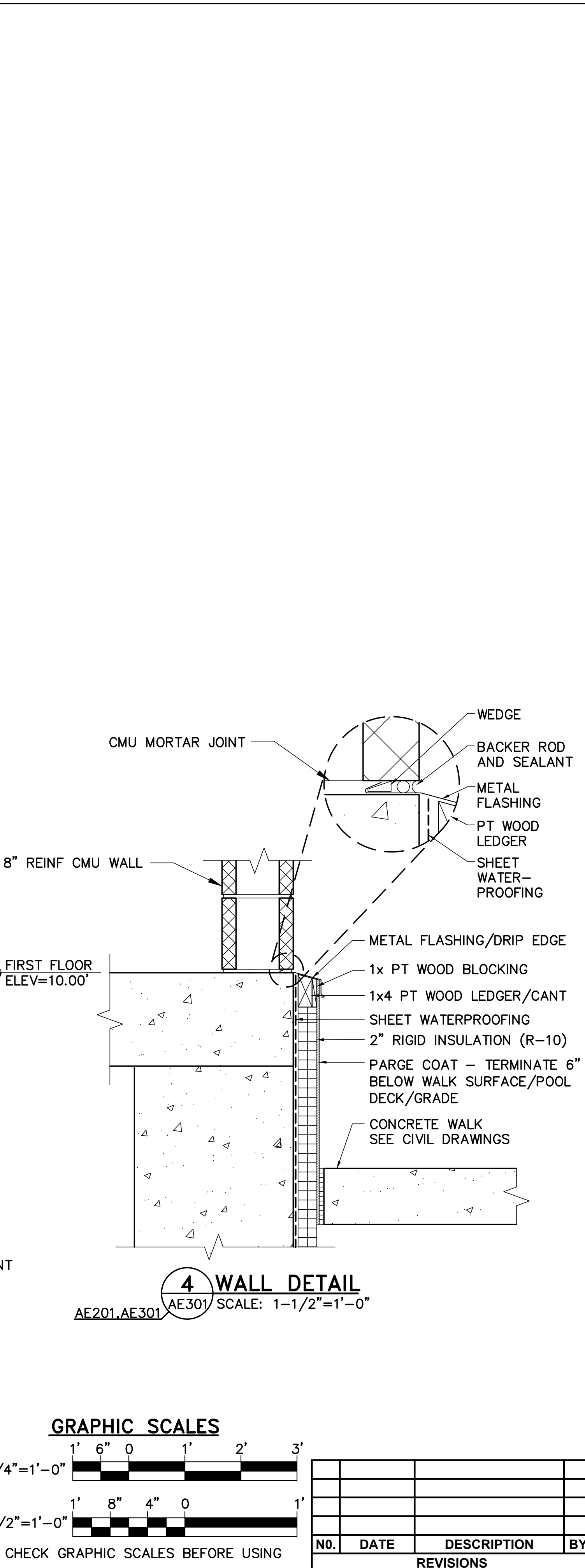
1 WALL SECTION
AE301 SCALE: 3/4"=1'-0"



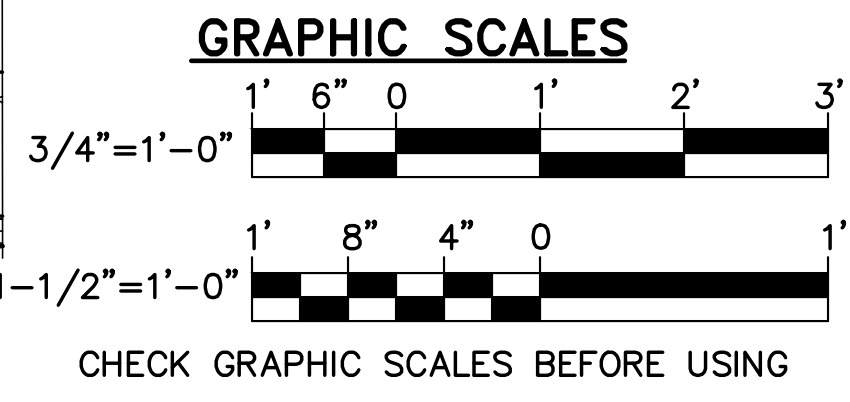
2 WALL SECTION
AE301 SCALE: 3/4"=1'-0"



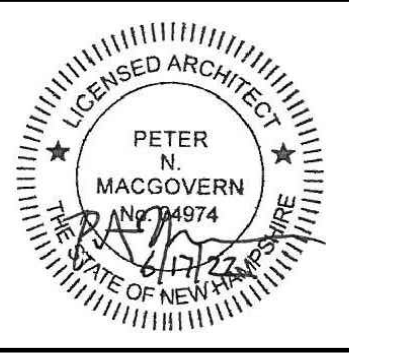
3 WALL SECTION
AE301 SCALE: 3/4"=1'-0"



4 WALL DETAIL
AE201, AE301 SCALE: 1-1/2"=1'-0"



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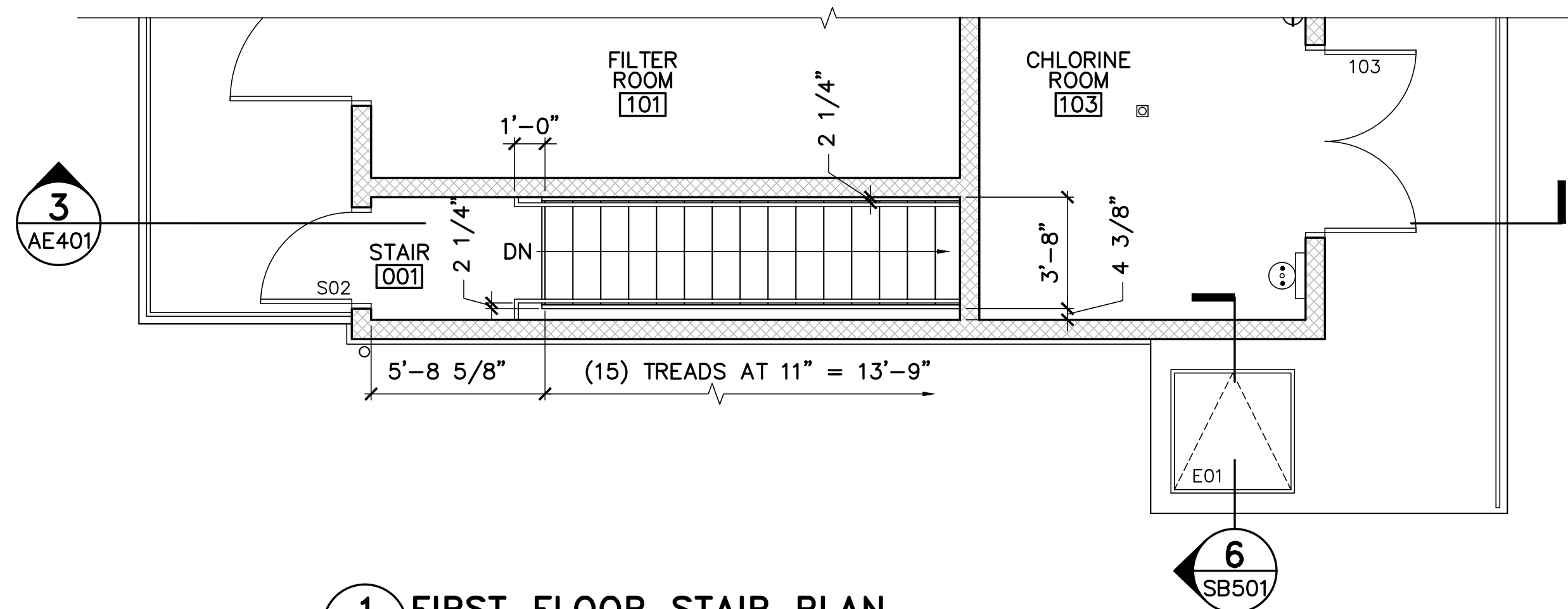
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PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
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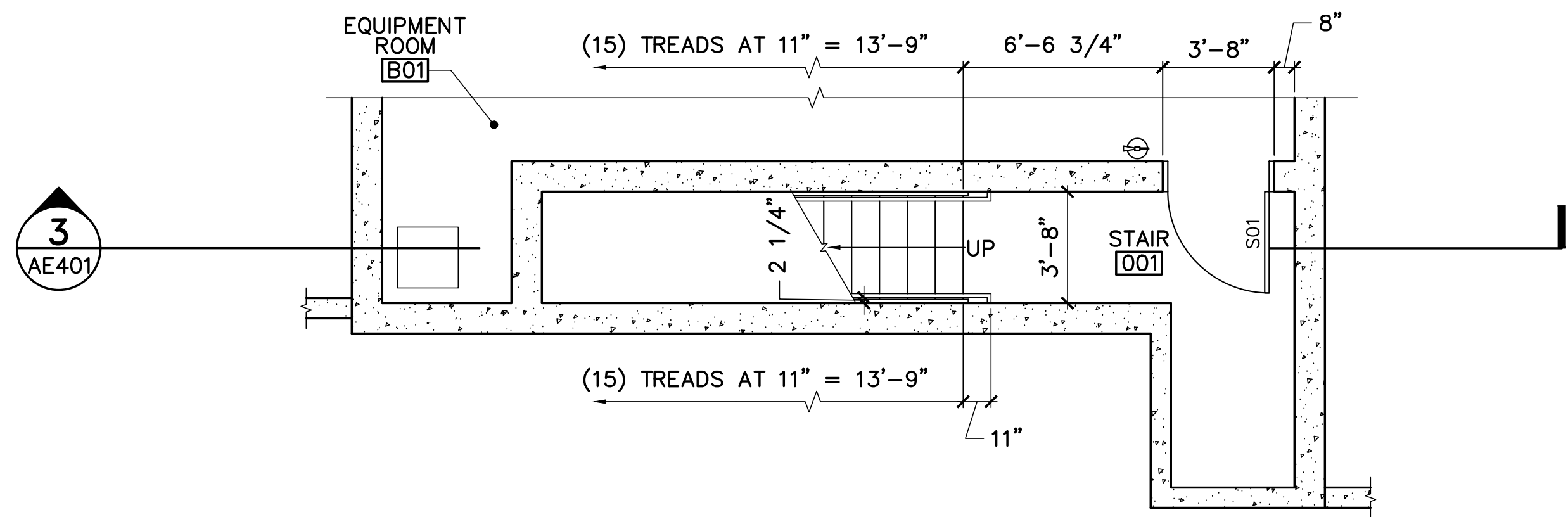
WALL SECTIONS AND DETAILS

SCALE: AS NOTED
DATE: 06/17/2022

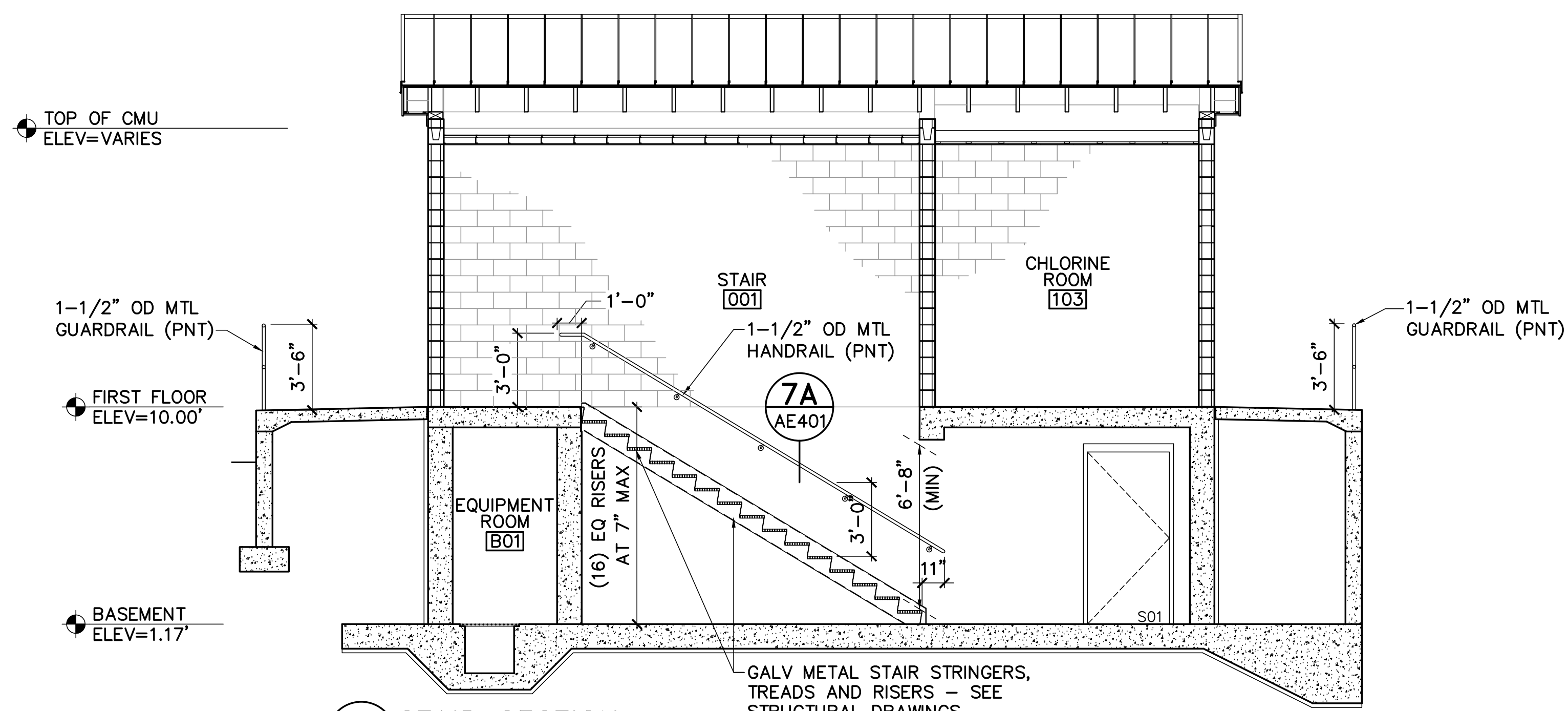
DWG.: **AE301**



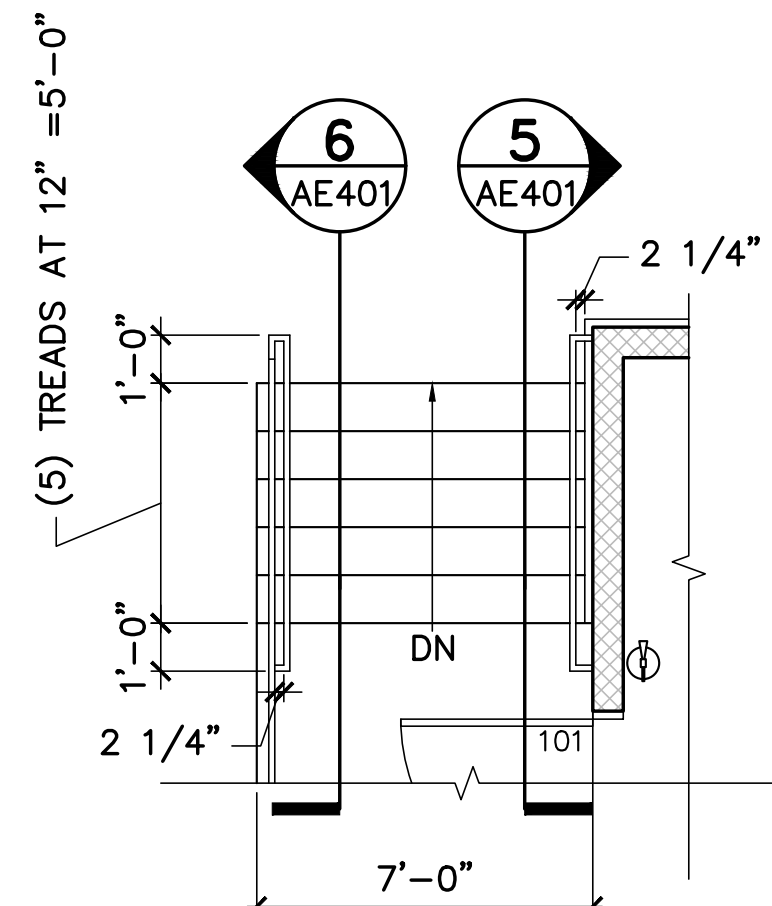
1 FIRST FLOOR STAIR PLAN
 AE101, AE401 SCALE: 1/4"=1'-0"



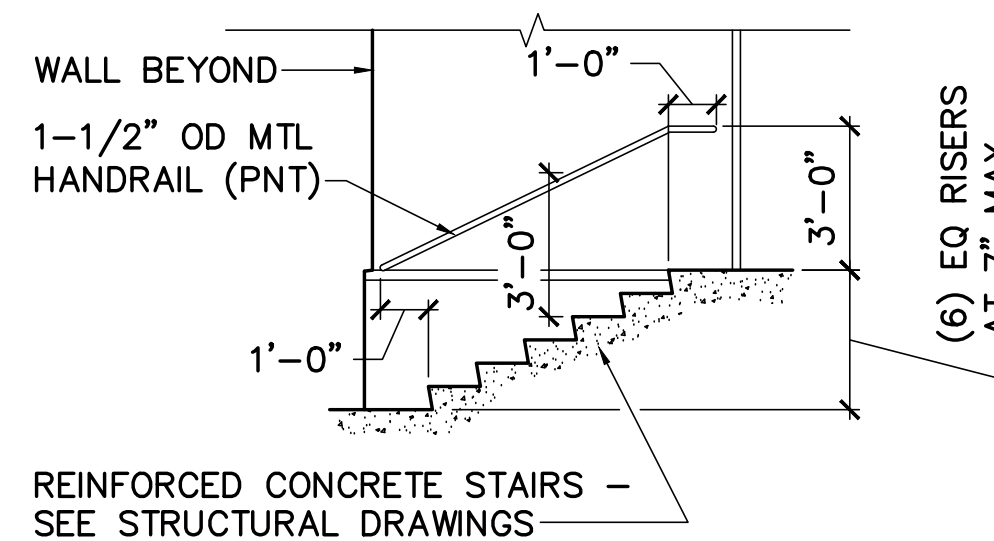
2 BASEMENT STAIR PLAN
 AE101, AE401 SCALE: 1/4"=1'-0"



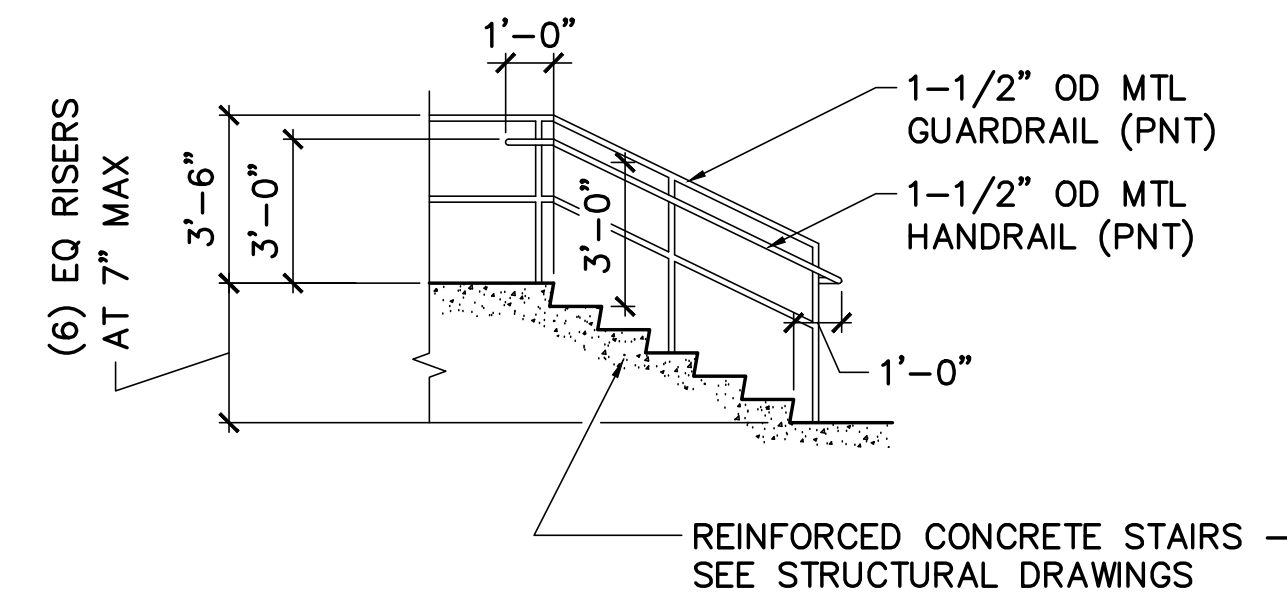
3 STAIR SECTION
 AE401 SCALE: 1/4"=1'-0"



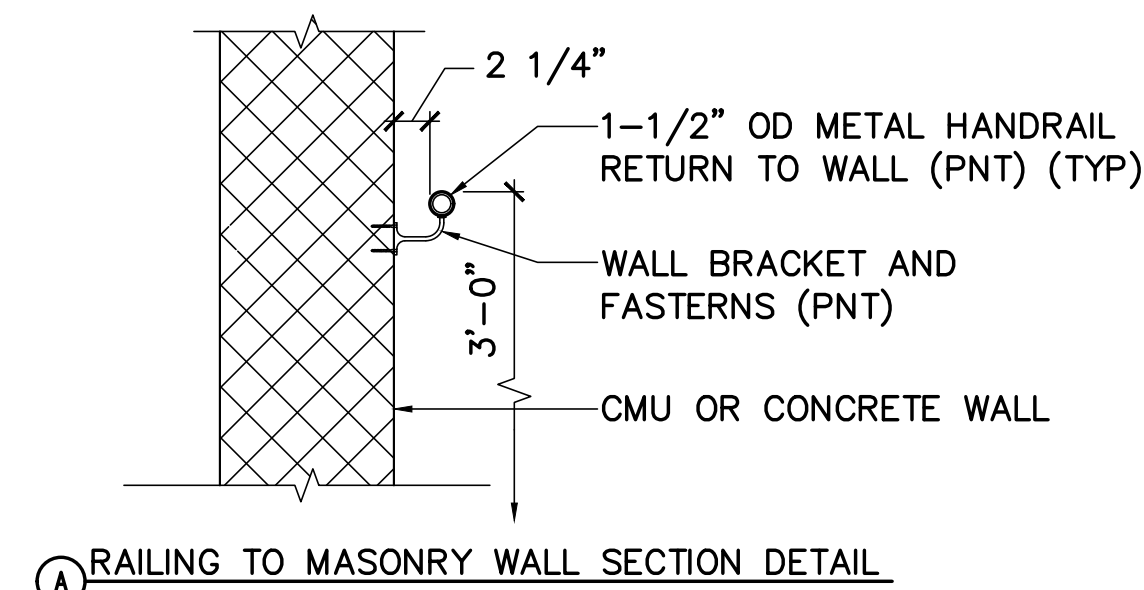
4 EXTERIOR STAIR PLAN
 AE401 SCALE: 1/4"=1'-0"



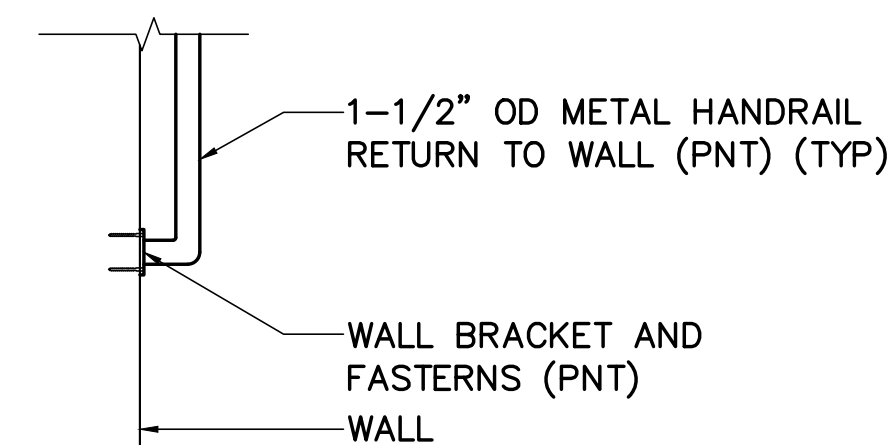
5 EXTERIOR STAIR SECTION
 AE401 SCALE: 1/4"=1'-0"



6 EXTERIOR STAIR SECTION
 AE401 SCALE: 1/4"=1'-0"



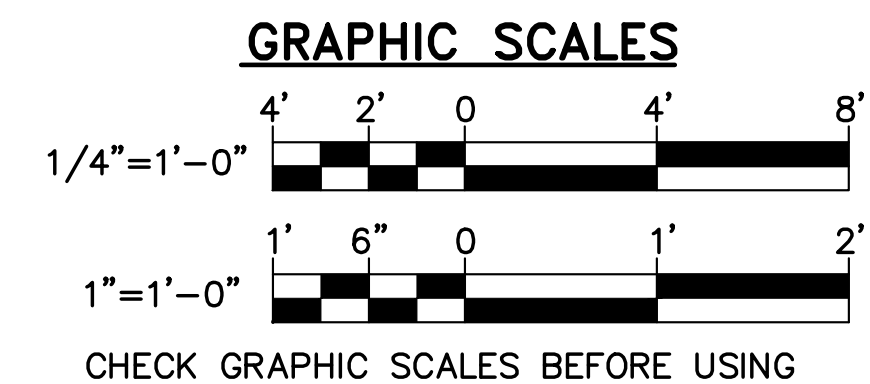
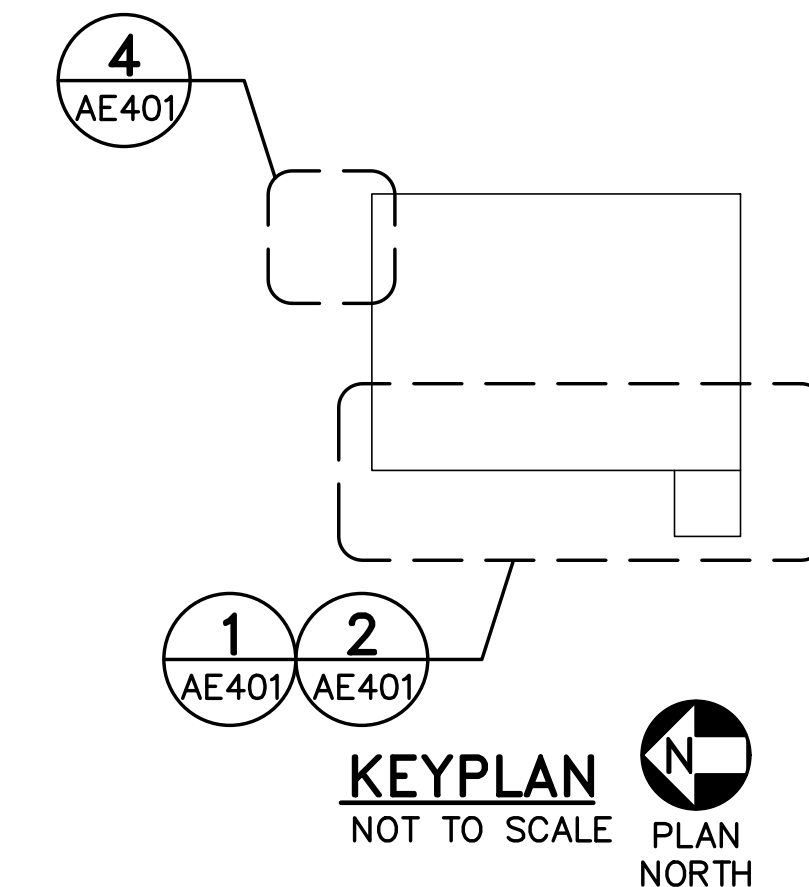
A RAILING TO MASONRY WALL SECTION DETAIL



B RAILING TO WALL PLAN DETAIL

7 RAILING DETAILS
 AE401 SCALE: 1"=1'-0"

GENERAL NOTE
 1. SEE SHEET AE601 FOR DOOR SCHEDULE AND FINISH SCHEDULES.



NO.	DATE	DESCRIPTION	BY
REVISIONS			



DESIGNED BY: CAM
 DRAWN BY: RMB
 CHECKED BY: PNM
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

STAIR PLANS, SECTIONS, AND DETAILS

SCALE: AS NOTED
 DATE: 06/17/2022
 DWG.: **AE401**
 SHEET: **33** OF **72**

DOOR SCHEDULE																	
NO.	QTY	DOOR			FRAME			DETAILS			HDWR SET	FIRE RATING	NOTES				
		W	H	THK	TYPE	MAT	FINISH	TYPE	MAT	WIDTH				FINISH	HEAD	JAMB	SILL
E01	1	—	—	—	—	—	—	—	—	—	—	—	—	A			
S01	1	3'-0"	7'-0"	1-3/4"	F	HM	PNT	1	HM	3'-4"	PNT	3A/AE601	3B/AE601	—	1	60-MIN	—
S02	1	3'-0"	7'-0"	1-3/4"	F	FRP	PNT	1	FRP	3'-4"	PNT	4A/AE601	4B/AE601	4C/AE601	2	60-MIN	—
101	2	4'-0"	7'-0"	1-3/4"	L	FRP	PNT	1	FRP	8'-4"	PNT	4A/AE601	4B/AE601	4C/AE601	3	—	—
102	2	3'-0"	7'-0"	1-3/4"	L	FRP	PNT	1	FRP	6'-4"	PNT	4A/AE601	4B/AE601	4C/AE601	3	—	—
103	2	3'-0"	7'-0"	1-3/4"	L	FRP	PNT	1	FRP	6'-4"	PNT	4A/AE601	4B/AE601	4C/AE601	3	—	—

DOOR SCHEDULE GENERAL NOTES					DOOR SCHEDULE NOTES				
1. PROVIDE DOORS WITH CONSTRUCTION CORES.					A. 4'-0" x 4'-0" ALUMINUM WATERTIGHT ACCESS HATCH. PROVIDE BILCO MODEL KD-2 OR APPROVED EQUIVALENT.				
DOOR SCHEDULE LEGEND									
FRP	FIBER-REINFORCED POLYMER	NO.	NUMBER						
H	HEIGHT	PNT	PAINT						
HDWR	HARDWARE	QTY	QUANTITY						
HM	HOLLOW METAL	THK	THICKNESS						
MAT	MATERIAL	W	WIDTH						
MIN	MINUTE								

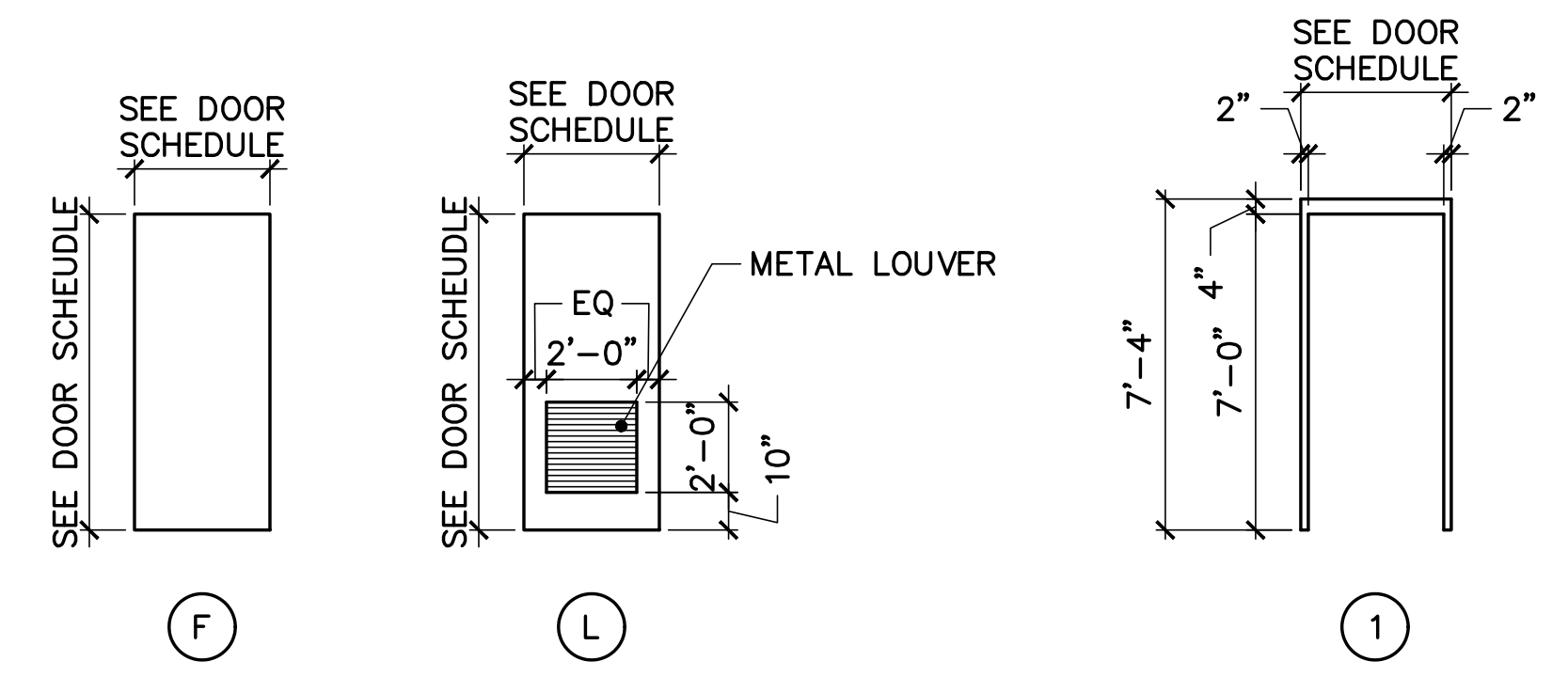
ROOM FINISH SCHEDULE											
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING			NOTES
				NORTH	EAST	SOUTH	WEST	MATERIAL	HEIGHT		
BASEMENT											
B01	EQUIPMENT ROOM	CONC	—	SEAL	SEAL	SEAL	SEAL	OPEN TO ABOVE	8'-0"	A	
001	STAIR	CONC	—	—	—	—	—	—	—	—	
FIRST FLOOR											
001	STAIR	CONC	—	—	—	—	—	GYP BD, P-1	10'-8"	B	
101	FILTER ROOM	CONC	—	—	—	—	—	OPEN TO ABOVE	VARIES	—	
102	ACID ROOM	CONC	—	—	—	—	—	GYP BD, P-1	12'-8"	—	
103	CHLORINE ROOM	CONC	—	—	—	—	—	GYP BD, P-1	10'-8"	—	

ROOM FINISH LEGEND			ROOM FINISH NOTES		
FLOOR FINISHES: CONC = SEALED CONCRETE WALL FINISHES: P- = PAINT SEAL = INTERIOR CONCRETE SEALER CEILING FINISHES: GYP BD = GYPSUM BOARD, PAINTED			A. PROVIDE INTERIOR CONCRETE SEALER AT UNDERSIDE OF CONCRETE SLAB ABOVE. B. 1-HOUR FIRE RATED CEILING ASSEMBLY, SEE DETAIL 3/AE701.		

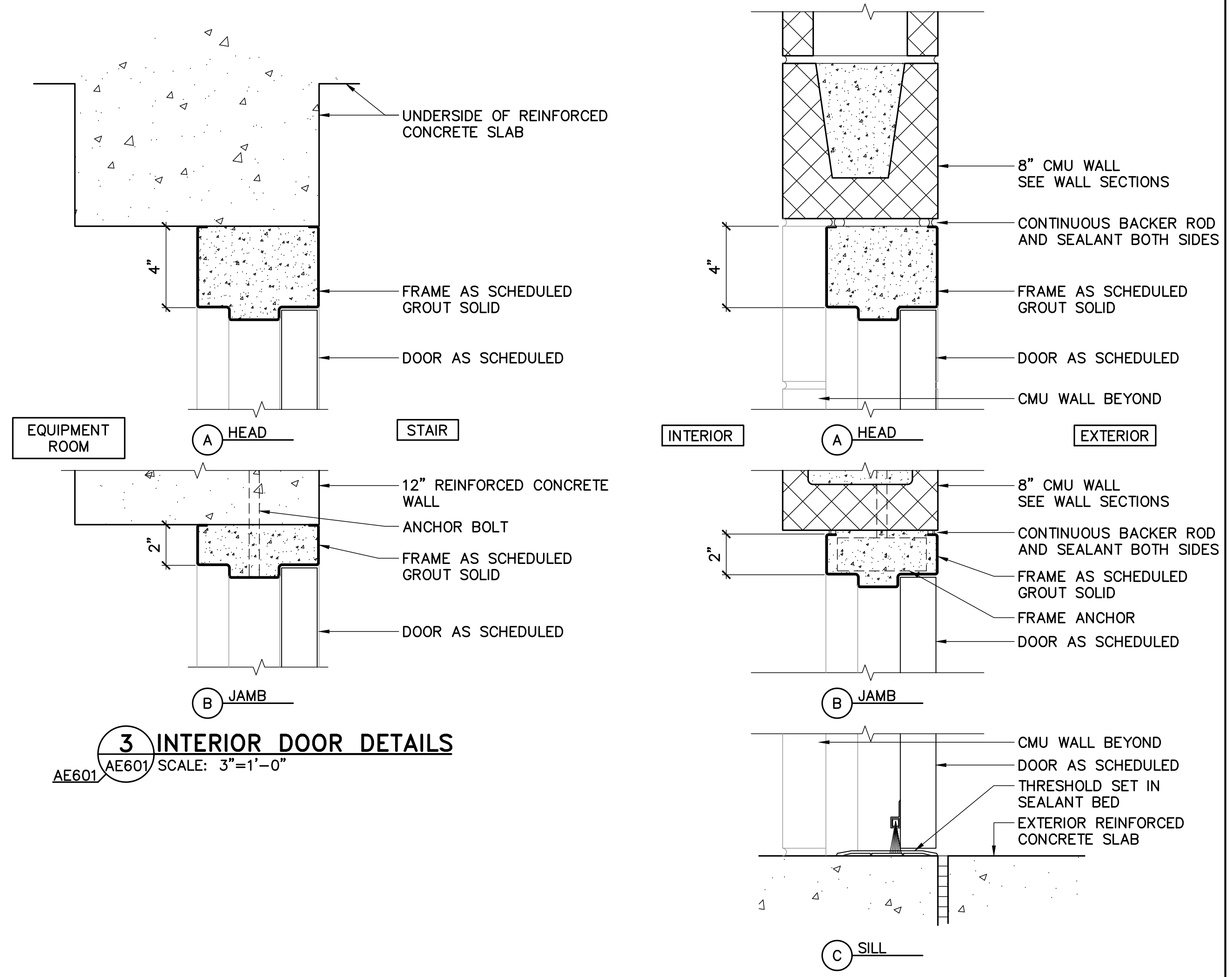
COLOR KEY/MANUFACTURER GUIDE		
MATERIAL	MANUFACTURER MODEL/TYPE	COLOR AND FINISH
CEILINGS		
P-1	BENJAMIN MOORE, WATERBORNE CEILING PAINT	SUPER WHITE (OC-152), EGGSHELL
EXTERIOR FINISHES		
TRIM	WOOD, PAINTED	TO BE SELECTED
STANDING SEAM METAL ROOFING	PAC-CLAD, TITE-LOC PLUS	TO BE SELECTED
SPLIT FACE CMU BLOCK (CMU 1)	YORK BUILDING PRODUCTS, SPLIT FACE	TO BE SELECTED
SMOOTH FACE CMU BLOCK (CMU 2)	YORK BUILDING PRODUCTS, GEMSTONE	TO BE SELECTED
PARGE COAT	NUDURA PARGE COAT	TO BE SELECTED
HANDRAILS/GUARDRAILS	METAL, PAINTED	TO BE SELECTED

GENERAL FINISH NOTE

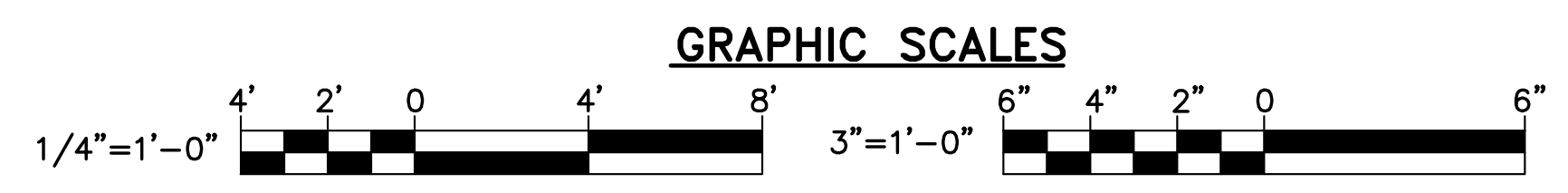
- MANUFACTURER'S NAMES AND COLOR/PATTERN IDENTIFICATIONS ARE USED FOR THE PURPOSE OF AESTHETIC COORDINATION ONLY. APPROVED PRODUCTS FROM OTHER MANUFACTURERS ARE ACCEPTABLE IF THE COLOR/PATTERN IS EQUIVALENT TO THE COLOR/PATTERN INDICATED AND THE PRODUCT CONFORMS TO THE SPECIFICATIONS.



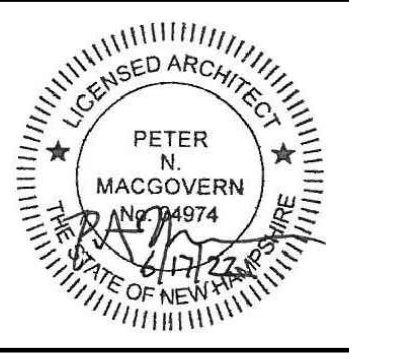
1 DOOR TYPES AE601 SCALE: 1/4"=1'-0"
2 FRAME TYPE AE601 SCALE: 1/4"=1'-0"



3 INTERIOR DOOR DETAILS AE601 SCALE: 3"=1'-0"
4 EXTERIOR DOOR DETAILS AE301, AE601 SCALE: 3"=1'-0"



NO.	DATE	DESCRIPTION	BY
REVISIONS			



CAM CAM PNM
 DESIGNED BY: CAM PNM
 DRAWN BY: PNM
 CHECKED BY: PNM
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

DOOR AND ROOM FINISH SCHEDULES AND DOOR TYPES AND DETAILS

SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: **AE601**

SHEET: **34** OF **72**



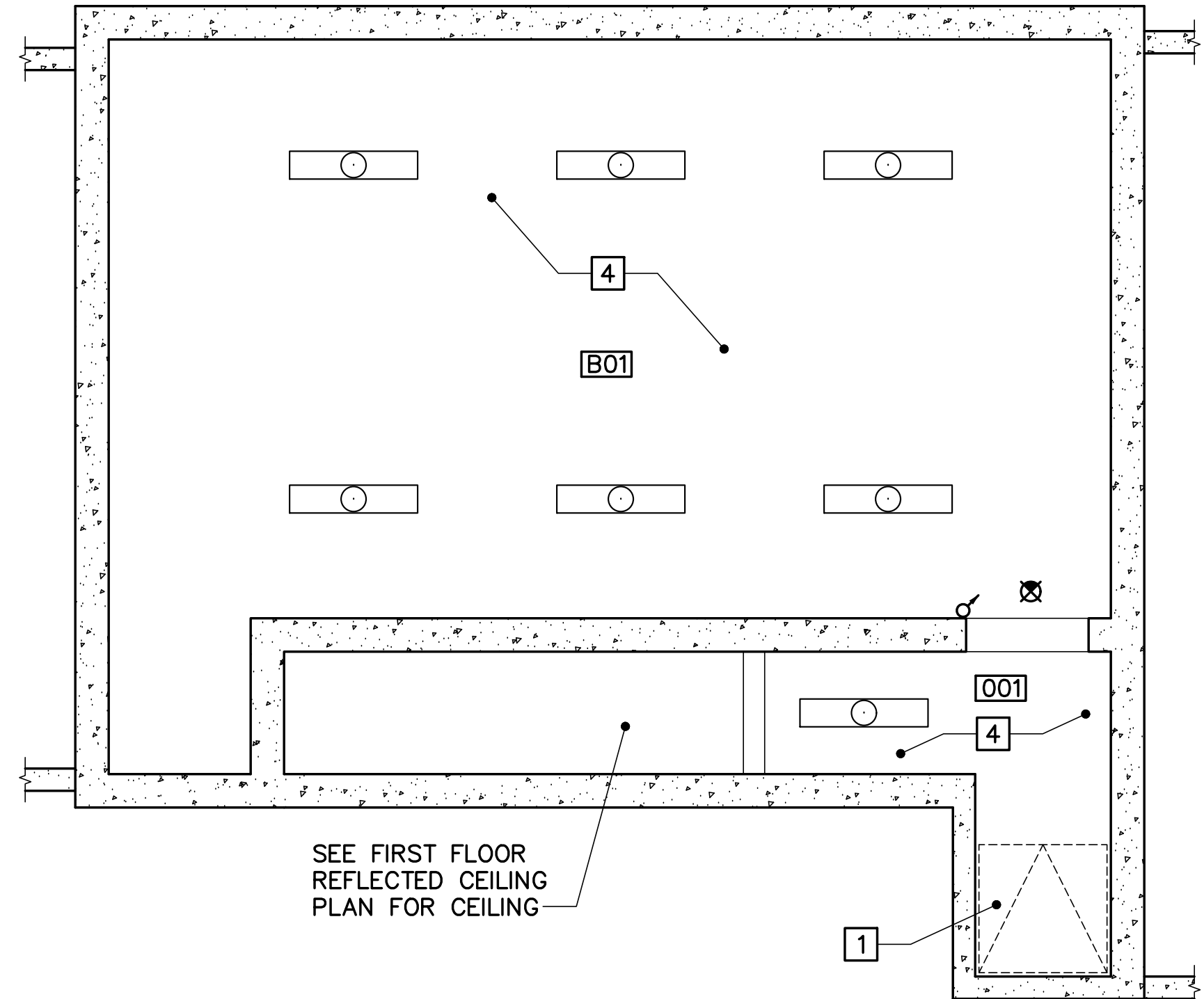
CAM RMB PNM
 DESIGNED BY:
 DRAWN BY:
 CHECKED BY:
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

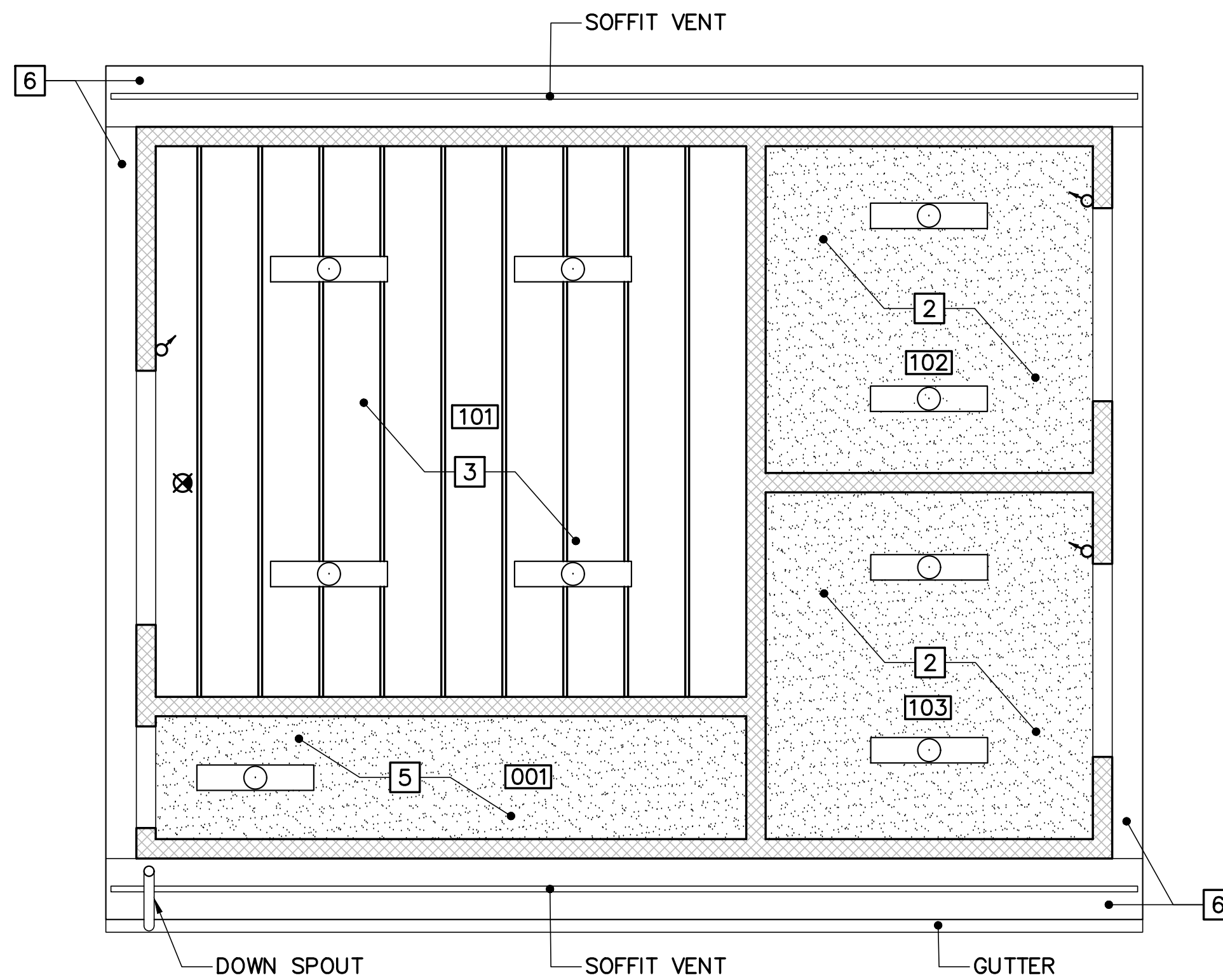
PUMP HOUSE REFLECTED CEILING PLANS AND SIGNAGE DETAILS

SCALE: AS NOTED
 DATE: 06/17/2022
 DWG: **AE701**
 SHEET: **35** OF **72**



1 BASEMENT REFLECTED CEILING PLAN
 AE701 SCALE: 1/4"=1'-0"

SEE FIRST FLOOR REFLECTED CEILING PLAN FOR CEILING



2 FIRST FLOOR REFLECTED CEILING PLAN
 AE701 SCALE: 1/4"=1'-0"

GENERAL NOTES

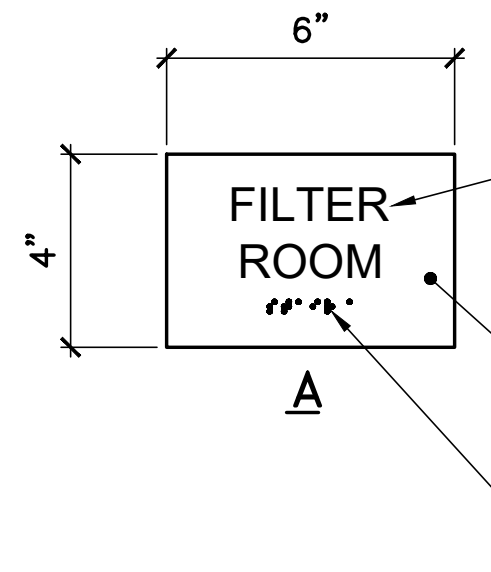
- SEE SHEET AE601 FOR FINISH SCHEDULE.
- CEILING MOUNTED ELECTRICAL EQUIPMENT SHOWN FOR COORDINATION PURPOSES ONLY. SEE ELECTRICAL SHEETS FOR SPECIFIC EQUIPMENT INFORMATION.
- MECHANICAL EQUIPMENT AND PENETRATIONS NOT SHOWN FOR CLARITY. SEE MECHANICAL SHEETS.

KEYNOTES (THIS SHEET ONLY)

- BASEMENT ACCESS HATCH, SEE FLOOR PLANS.
- 5/8" GYP BD (PNT) ON 1x3 WOOD FURRING AT 1'-4" OC (TYP) ON 2x6 WOOD CEILING JOISTS AT 1'-4" OC (TYP). SEE PUMP HOUSE CEILING FRAMING PLAN 2/SF101.
- OPEN TO UNDERSIDE OF WOOD STRUCTURE ABOVE.
- OPEN TO UNDERSIDE OF CONCRETE STRUCTURE ABOVE.
- 1-HR RATED CEILING ASSEMBLY, SEE DETAIL 3/AE701. (PNT).
- WOOD SOFFIT (PNT).

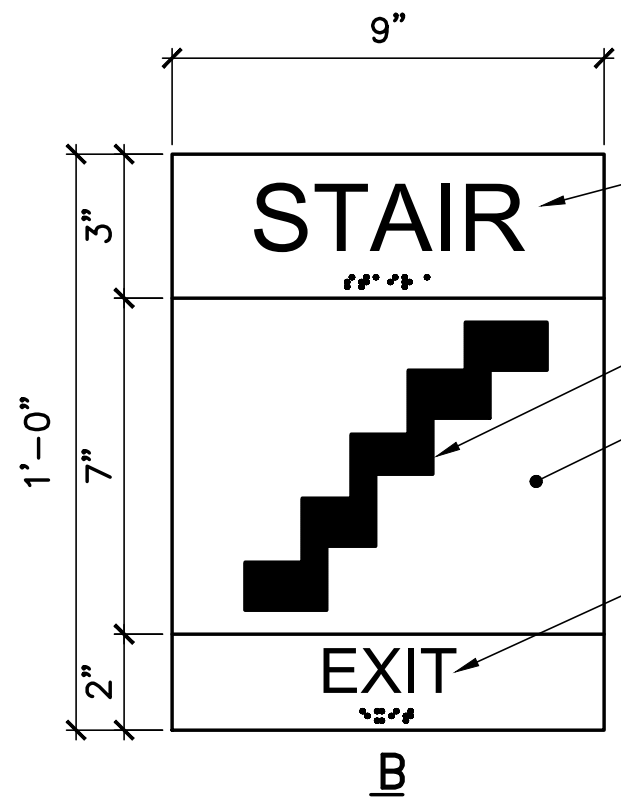
CEILING LEGEND

- GYPSTUM BOARD CEILING SYSTEM
- 1'-0"x4'-0" LED LIGHT FIXTURE
- EXIT SIGN
- OCCUPANCY SENSOR

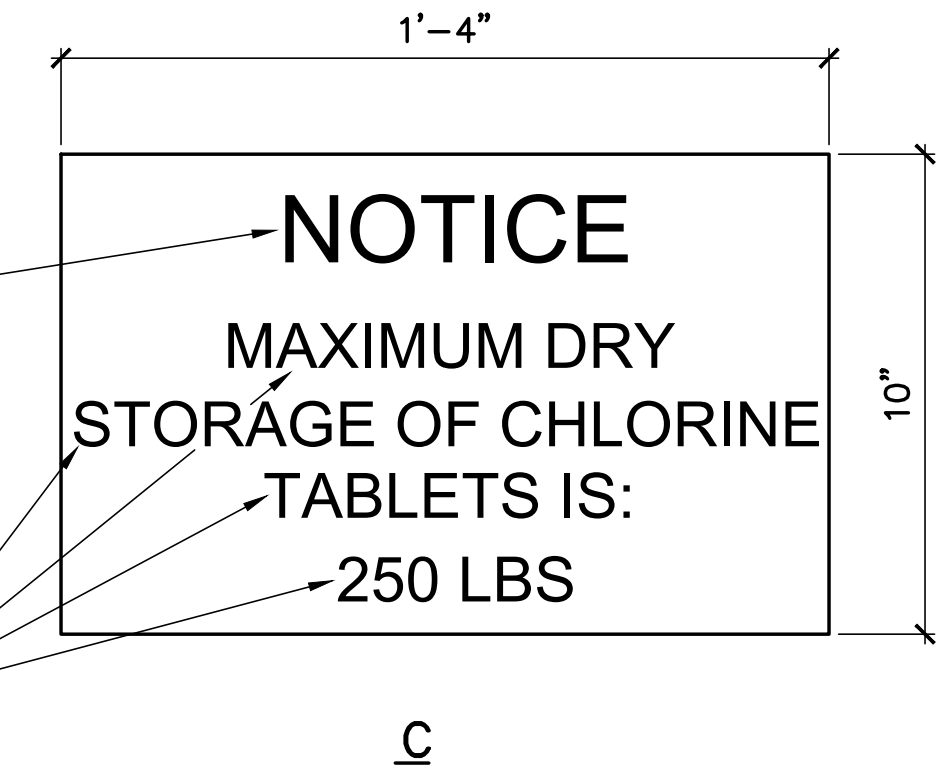


4 SIGN TYPES
 AE701 NOT TO SCALE

FUTURA MEDIUM; 3/4" CAPITAL LETTER HEIGHT (PANTONE 648); APPLIED TACTILE, 1/32"
 1/8" BACK-PAINTED ACRYLIC W/ CLEAR MATTE FACE (PANTONE 648)
 GRADE II BRAILLE (TYP)



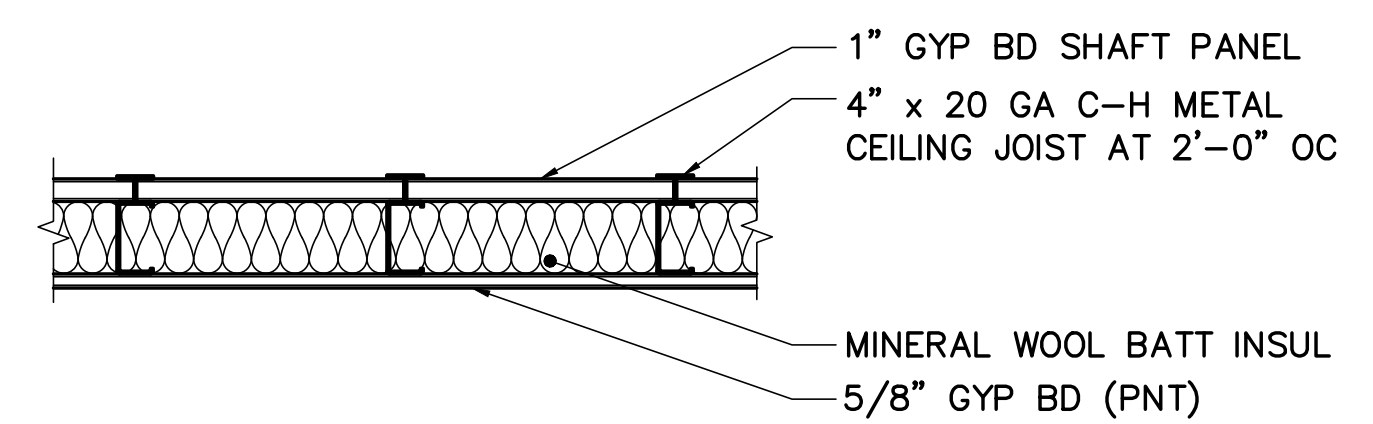
FUTURA MEDIUM; 1 1/2" CAPITAL LETTER HEIGHT (PANTONE 648); APPLIED TACTILE, 1/32"
 6" SYMBOL
 1/8" BACK-PAINTED ACRYLIC W/ CLEAR MATTE FACE (PANTONE 648)
 FUTURA MEDIUM; 1" CAPITAL LETTER HEIGHT (PANTONE 648); APPLIED TACTILE, 1/32"



NOTICE
 MAXIMUM DRY STORAGE OF CHLORINE TABLETS IS:
 250 LBS

GENERAL SIGNAGE NOTES

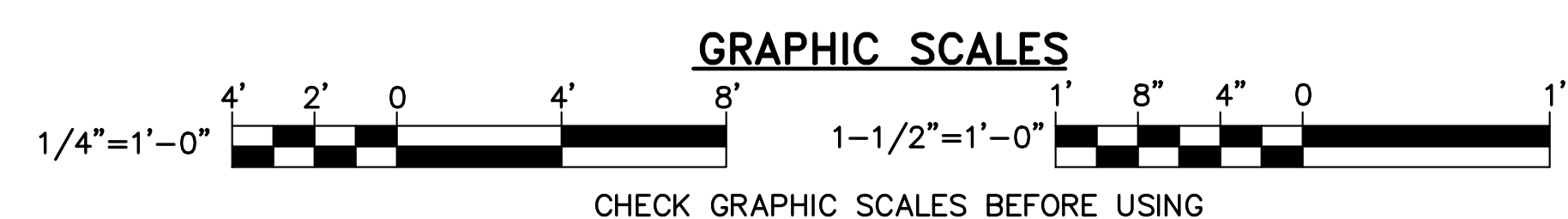
- CONFIRM FINAL SIGNAGE TEXT WITH OWNER PRIOR TO FABRICATION OF SIGNS.
- UNLESS OTHERWISE NOTED, MOUNT SIGN ON WALL ON LATCH SIDE OF THE DOOR, 9" FROM DOOR FRAME TO THE CENTERLINE OF SIGN, AND 4'-0" FROM FINISHED FLOOR TO THE BASELINE OF THE LOWEST TACTILE LETTER.



UL ASSEMBLY DESIGN NO U415 SYSTEM A.
3 1-HR FIRE RATED CEILING ASSEMBLY
 AE701 SCALE: 1-1/2"=1'-0"

220.AE301.AE601.AE701

SIGNAGE SCHEDULE			
ROOM NO.	SIGN TEXT	SIGN TYPE	NOTES
BASEMENT			
B01	[SEE SIGN TYPE]	B	MOUNT OUTSIDE STAIRWELL AT DOOR S01.
001	EQUIPMENT ROOM	A	MOUNT INSIDE STAIRWELL AT DOOR S01.
FIRST FLOOR			
101	FILTER ROOM	A	MOUNT ON EXTERIOR SIDE OF INACTIVE LEAF OF DOOR 101.
102	ACID ROOM	A	MOUNT ON EXTERIOR SIDE OF INACTIVE LEAF OF DOOR 102.
103	CHLORINE ROOM	A	MOUNT ON EXTERIOR SIDE OF INACTIVE LEAF OF DOOR 103.
103	[SEE SIGN TYPE]	C	MOUNT ON NORTH WALL IN A CONSPICUOUS SPOT.
001	EQUIPMENT ROOM	A	MOUNT ON EXTERIOR SIDE OF LEAF OF DOOR S02.



NO.	DATE	DESCRIPTION	BY
REVISIONS			

MECHANICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER
APPROX	APPROXIMATELY	MIN	MINIMUM
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	MTG	MOUNTING
ASS'Y	ASSEMBLY	N/A	NOT APPLICABLE
BLDG	BUILDING	N/C	NOT IN CONTRACT
CAP	CAPACITY	NC	NOISE CRITERIA, NORMALLY CLOSED
CFM	CUBIC FEET/MINUTE	NO	NUMBER, NORMALLY OPEN
CL	CHLORINE	NTS	NOT TO SCALE
CL	CENTERLINE	OC	ON CENTER
CLG	CEILING	OD	OUTSIDE DIAMETER
CONN	CONNECTION	PD	PRESSURE DIFFERENCE
COND	CONDITIONS	POS	POSITIVE
D	DEPTH, DAMPER	PRESS	PRESSURE
Ø, DIA	DIAMETER	QTY	QUANTITY
DN	DOWN	R	RETURN
DWG	DRAWING	RA	RETURN AIR
E	EXISTING, EXHAUST	REQ'D	REQUIRED
EA	EXHAUST AIR, EACH	RM	ROOM
ELEV	ELEVATION	RO	RETURN/TRANSFER OPENING
EQUIP	EQUIPMENT	S	SUPPLY
EXIST	EXISTING	SA	SUPPLY AIR
FBG	FURNISHED BY GOVERNMENT	SAT	SUPPLY AIR TEMPERATURE, SUSPENDED ACOUSTICAL TILE
FC	FLEX CONNECTOR, FAN COIL	SF	SQUARE FOOT
FLR	FLOOR	SIM	SIMILAR
FT	FOOT/FEET	SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION
GYP	GYPSONUM WALLBOARD	SP	STATIC PRESSURE
H	HEIGHT	SQ	SQUARE
H2O	WATER	T	THERMOSTAT, TRANSFER
HGT	HEIGHT, HIGH	TA	TRANSFER AIR
HORIZ	HORIZONTAL	TEMP	TEMPERATURE
HR	HOUR	TS	TEMPERATURE SENSOR
HZ	HERTZ	TSP	TOTAL STATIC PRESSURE
ID	INSIDE DIAMETER	TYP	TYPICAL
IN	INCHES	VAV	VARIABLE AIR VOLUME
L	LENGTH	VEL	VELOCITY
LBS	POUNDS	W	WIDTH, WIDE
LF	LINEAR FEET	W/	WITH
LOC	LOCATION/LOCATED	WC	WATER COLUMN
MAX	MAXIMUM	WG	WATER GAUGE
MAX PD	MAXIMUM PRESSURE DROP	WPD	WATER PRESSURE DROP
MECH	MECHANICAL		

MECHANICAL SYMBOLS LEGEND

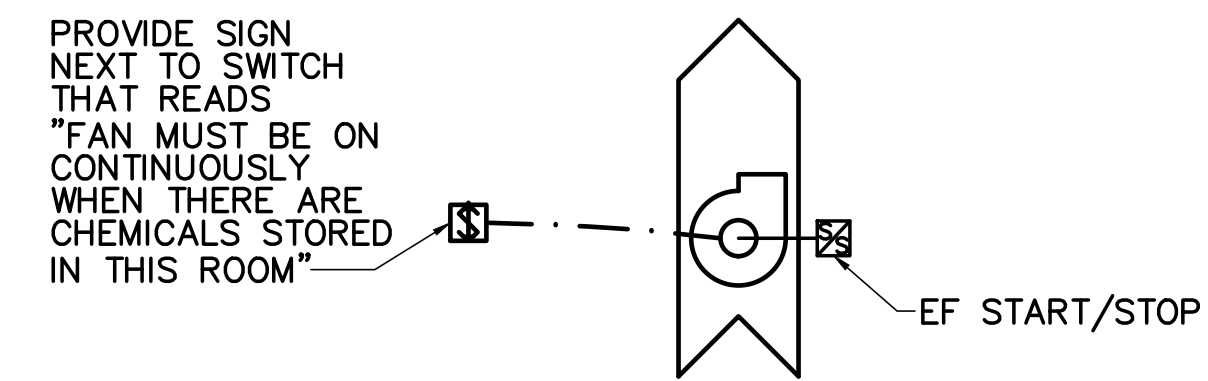
	ANNOTATION		EQUIPMENT
	SYMBOL PER ABBREVIATION LIST		TERMINAL UNIT, VARIABLE VOLUME
	EQUIPMENT SEQUENCE NUMBER		CONTROLS AND METERING
			WALL MOUNTED TEMPERATURE SENSOR (REFER TO CONTROL DIAGRAMS FOR VARYING SPECIFIC REQUIREMENTS)
	KEYNOTE		WALL MOUNTED THERMOSTAT WITH INTEGRAL CONTACTORS, USER-ADJUSTABLE
	DIRECTION OF AIR FLOW		OCCUPANCY SENSOR
	CONNECT TO EXISTING		CARBON MONOXIDE SENSOR
			CHLORINE SENSOR
			CHLORINE ALARM LIGHT
			ELECTRICAL
			MANUAL SWITCH
	DUCTWORK		
	SIDEWALL REGISTER/GRILLE		
	ACCESS DOOR ON BOTTOM OF DUCT		
	DUCT		
	MANUAL BALANCING DAMPER IN DUCT		
	EXHAUST DUCT UP		

MECHANICAL GENERAL NOTES

- MECHANICAL WORK MUST BE PERFORMED IN ACCORDANCE WITH STATE AND LOCAL CODES, THE INTERNATIONAL MECHANICAL CODE (I.M.C.), 2015, AND THE INTERNATIONAL ENERGY AND CONSERVATION CODE (IECC), 2015.
- DUCTWORK IS SHOWN DIAGRAMMATICALLY, EXACT LOCATIONS MUST BE DETERMINED IN THE FIELD.
- COORDINATE LOCATION OF HVAC WORK WITH OTHER TRADES. PERFORM CUTTING WORK ASSOCIATED WITH MECHANICAL SYSTEMS.
- HVAC WORK MUST BE SUPPORTED FROM BUILDING STRUCTURE. DO NOT CUT STRUCTURAL MEMBERS.

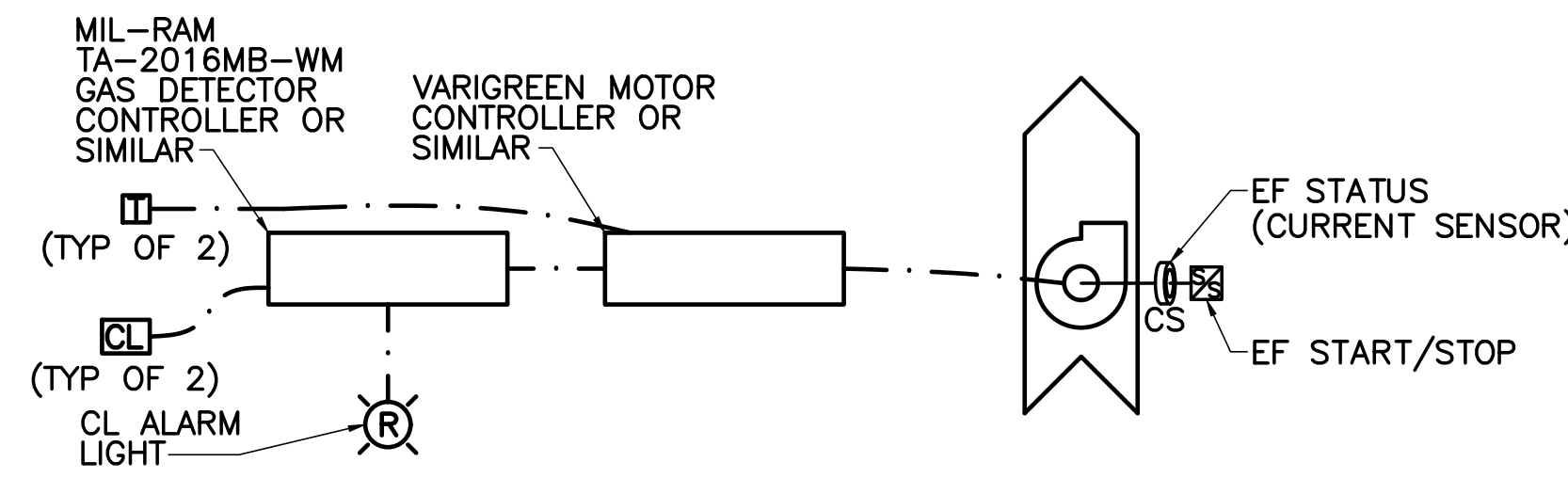
LINE TYPE LEGEND

	REMOVE ITEMS
	EXIST ITEMS TO REMAIN
	PROVIDE ITEMS
	CONTROL WIRING
	PNEUMATIC CONTROL TUBING



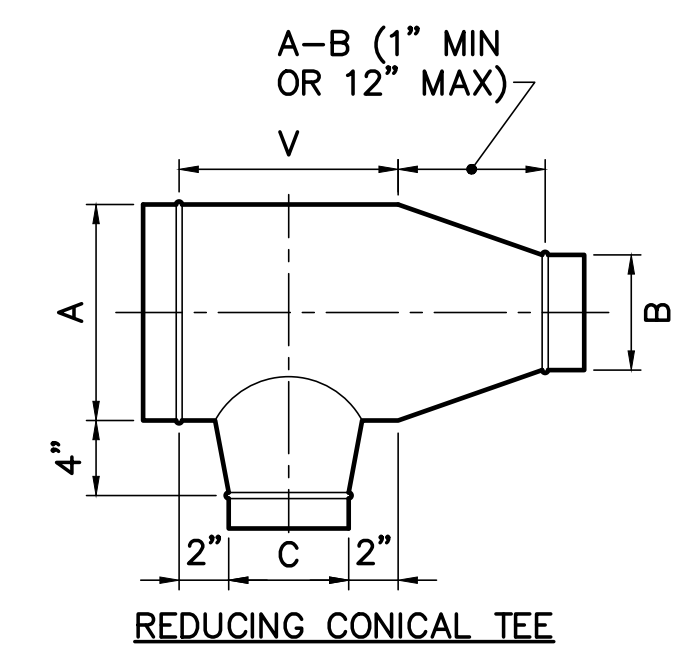
SEQUENCE OF OPERATION
EF-2 AND EF-3 SHALL RUN CONTINUOUSLY.

1 EF-2 AND EF-3 EXHAUST FAN CONTROL DIAGRAM
M-001 NOT TO SCALE

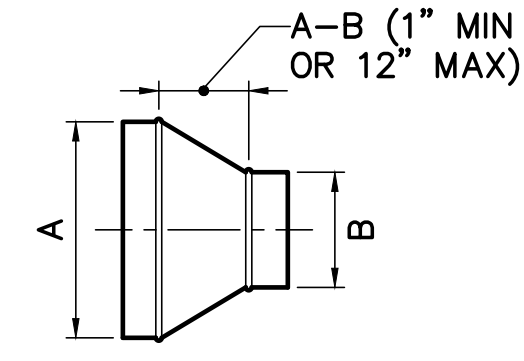


SEQUENCE OF OPERATION
EF SHALL BE ENABLED AND THE EXTERIOR EMERGENCY ALARM SHALL TURN ON IF THE CHLORINE LEVELS REACH 1 PPM. EF AND THE EXTERIOR EMERGENCY LIGHT SHALL REMAIN ON UNTIL THE CHLORINE LEVELS LOWER TO 0.5 PPM. EF-1 SHALL REMAIN ON IF TEMPERATURE RISES ABOVE 80°F.

2 EF-1 EXHAUST FAN CONTROL DIAGRAM
M-001 NOT TO SCALE

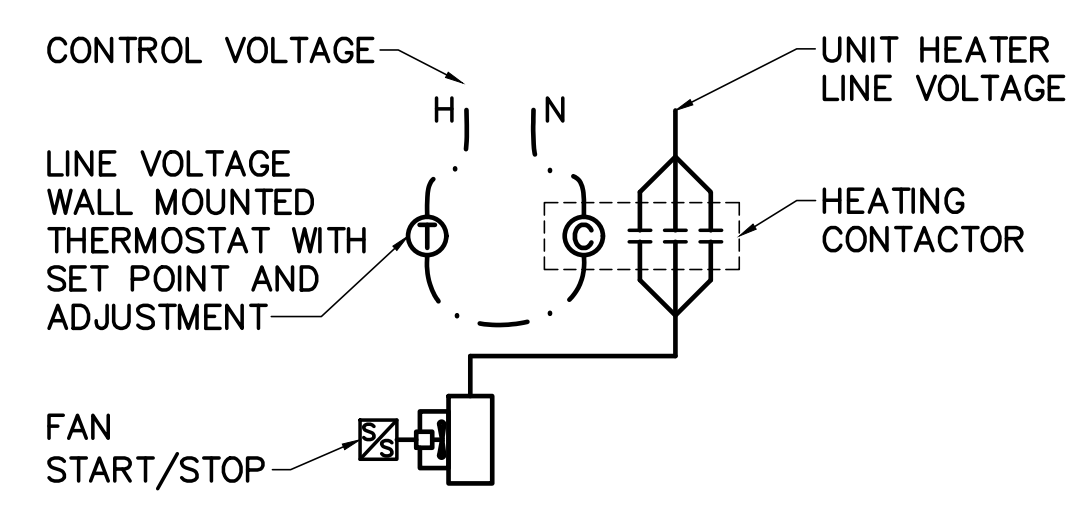


REDUCING CONICAL TEE



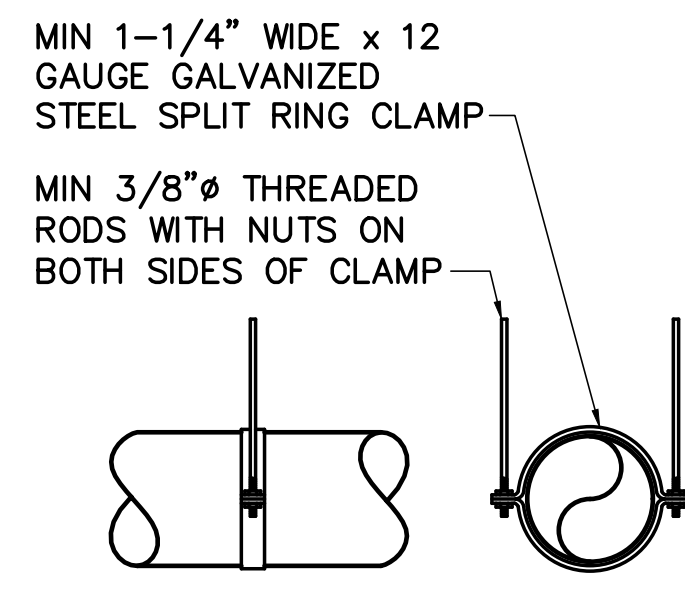
CONCENTRIC REDUCER

3 TYPICAL ROUND DUCT FITTINGS DETAIL
M-001 NOT TO SCALE

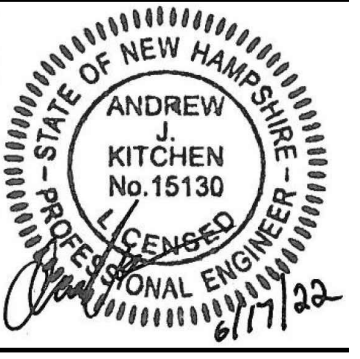


SEQUENCE OF OPERATION
IF THE ROOM TEMPERATURE FALLS 2°F BELOW THE ROOM SET POINT (50°F, ADJUSTABLE) THE ELECTRIC HEAT SHALL TURN ON AND THE FAN SHALL START. WHEN THE ROOM SET POINT IS SATISFIED THE FAN SHALL STOP.

4 UNIT HEATER EUH-1 AND EUH-2 CONTROL DIAGRAM
M-001 NOT TO SCALE



5 ROUND DUCT HANGER DETAIL
M-001 NOT TO SCALE



DESIGNED BY: AJK
DRAWN BY: KLG
CHECKED BY: MSA
PROJECT: 21904.14

CITY OF PORTSMOUTH
1 Junkins Avenue
Portsmouth, NH 03801

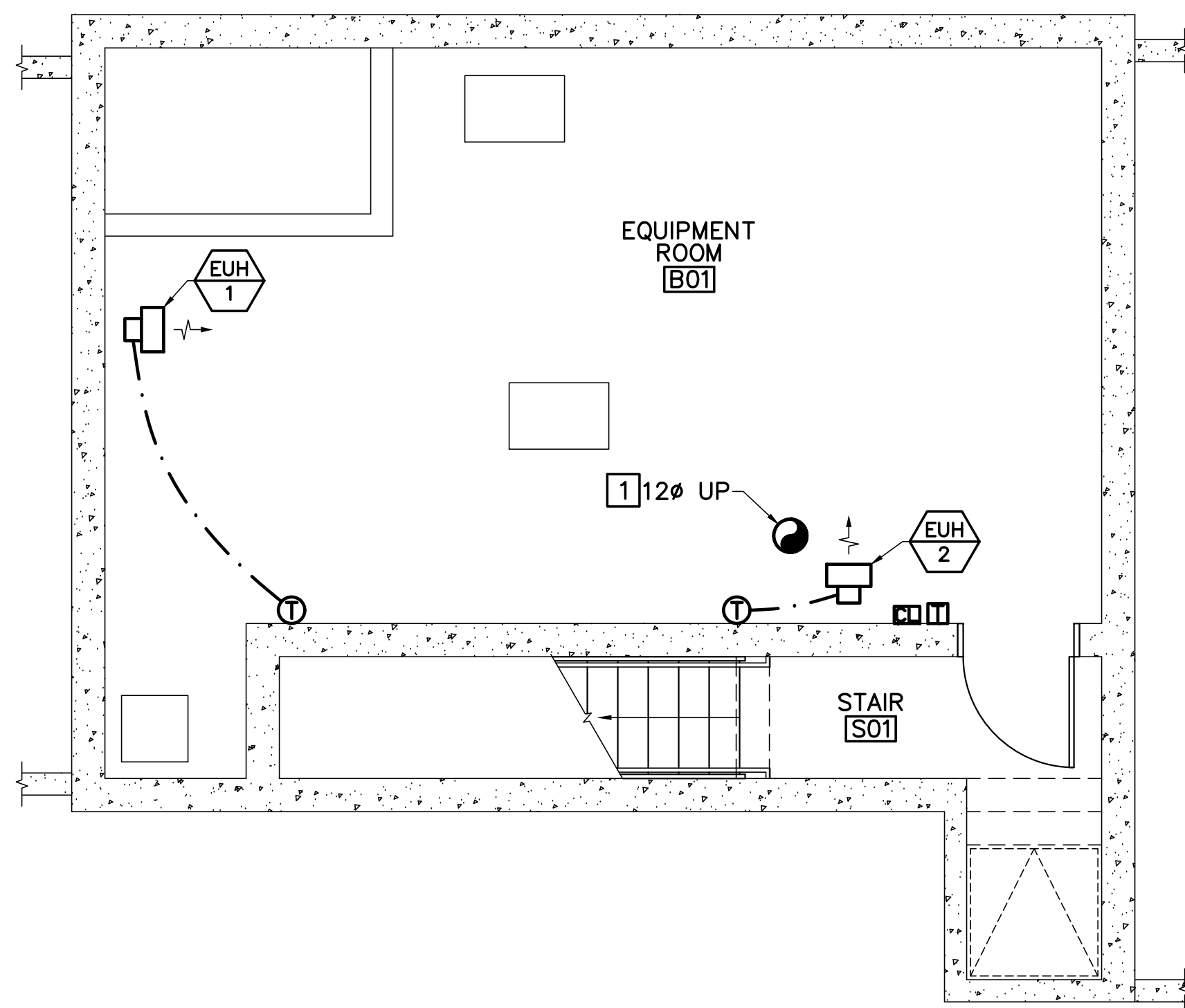
PEIRCE ISLAND PUMP HOUSE
AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

MECHANICAL DETAILS, LEGENDS, AND NOTES

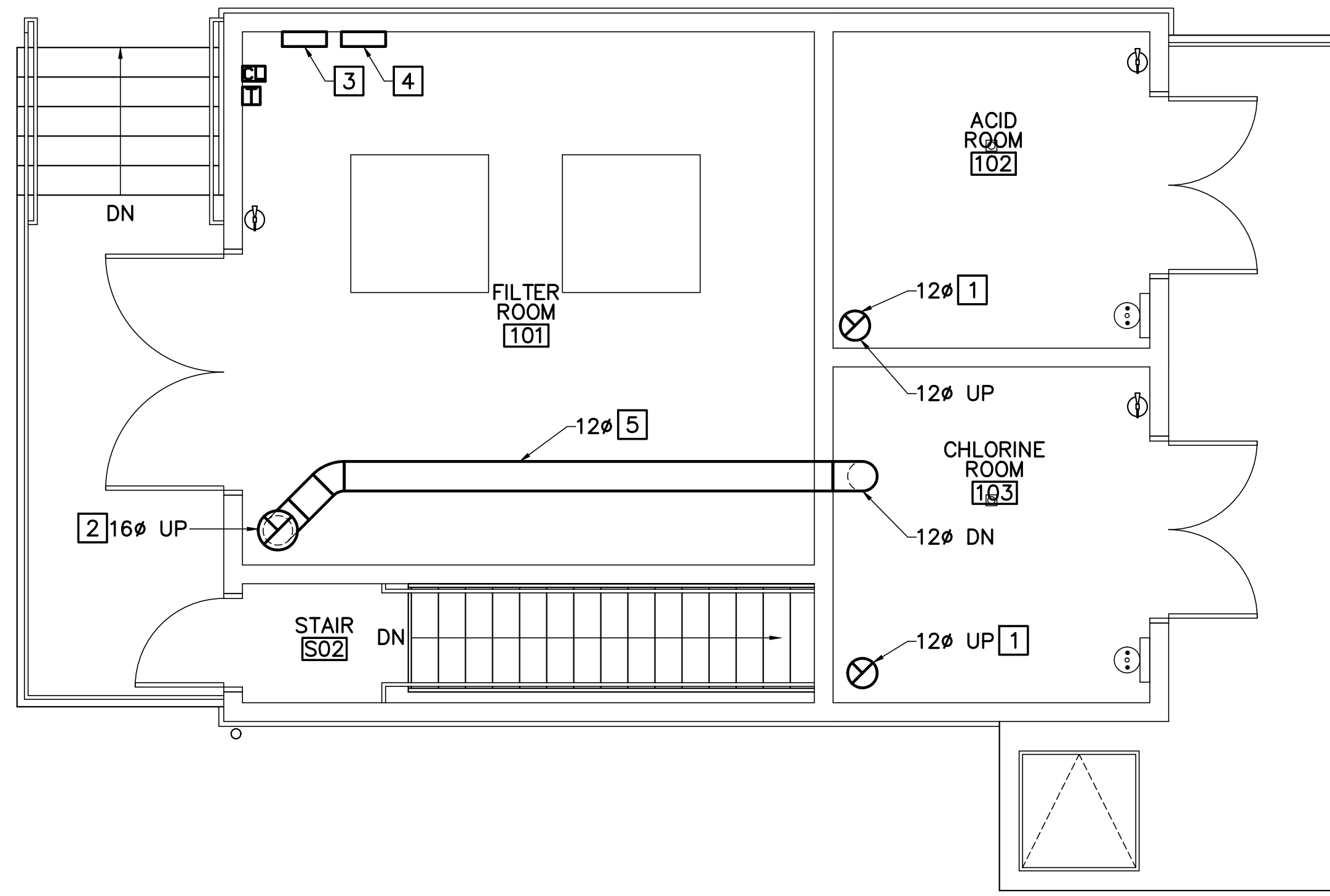
SCALE: AS NOTED
DATE: 06/17/2022

DWG: M-001

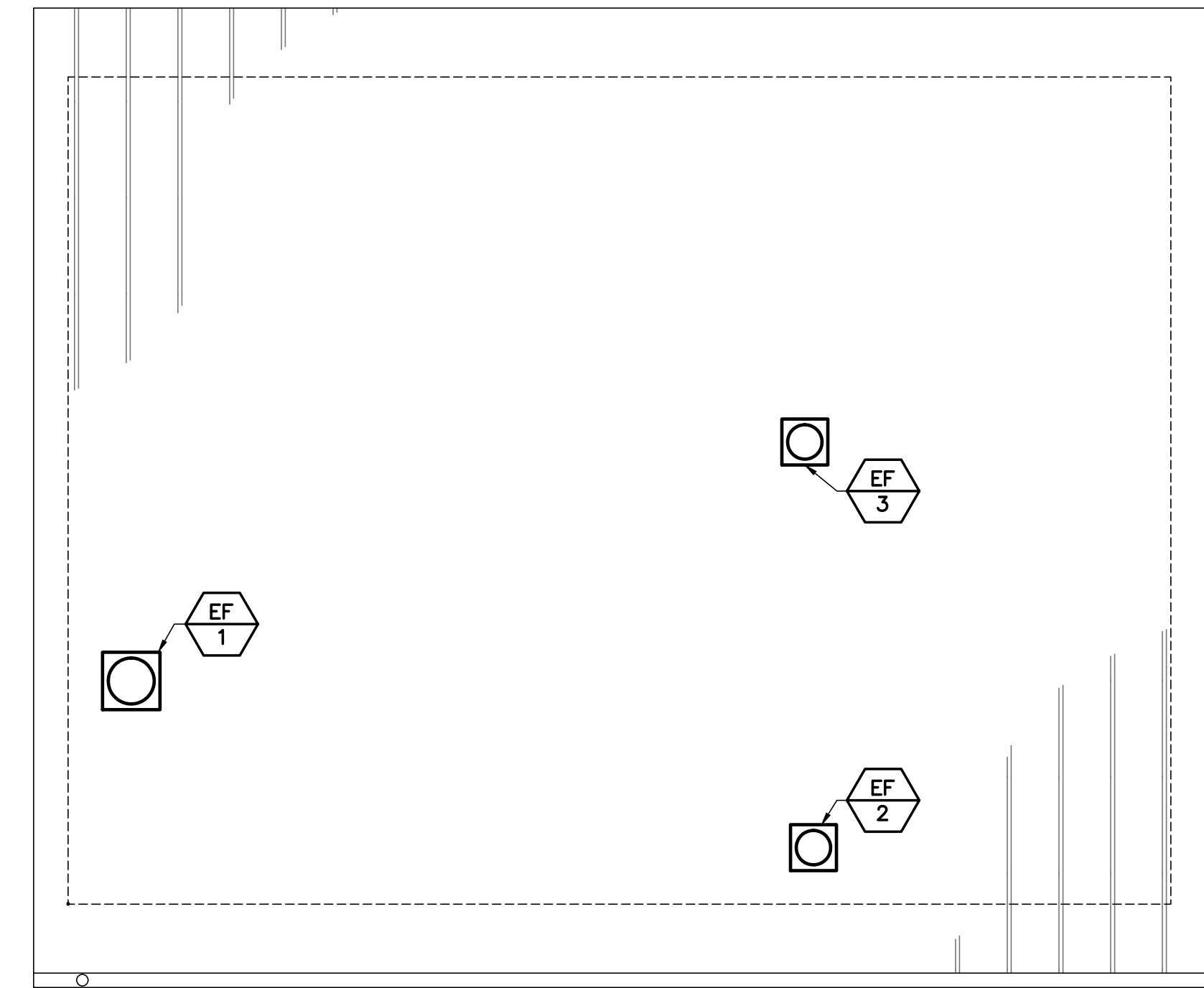
NO.	DATE	DESCRIPTION	BY
REVISIONS			



1 BASEMENT MECHANICAL PLAN
M-101 SCALE: 1/4"=1'-0"
PLAN NORTH



2 FIRST FLOOR MECHANICAL PLAN
M-101 SCALE: 1/4"=1'-0"
PLAN NORTH



3 ROOF MECHANICAL PLAN
M-101 SCALE: 1/4"=1'-0"
PLAN NORTH

ELECTRIC UNIT HEATER SCHEDULE

UNIT NO	LOCATION	CFM	HEATING KW	VOLTS/PHASE	MBH	BASIS OF DESIGN	NOTES
EUH-1	EQUIPMENT B01	1100	15	408/3	50	TRANE UHEC	1
EUH-2	EQUIPMENT B01	1100	15	408/3	50	TRANE UHEC	1

NOTES: 1. PROVIDE WALL MOUNTED THERMOSTAT AND CONTROL DEVICES.

FAN SCHEDULE

UNIT NO	SERVES	CFM	ESP IN WC	DRIVE TYPE	FAN TYPE	FAN RPM	HP	VOLTS/PHASE	BASIS OF DESIGN	ACCESSORIES
EF-1	FILTER AND EQUIPMENT ROOM	1000	0.75	DIRECT	UPBLAST	1550	0.75	115/1	GREENHECK CUEQ	A,B,C,D
EF-2	CHLORINE ROOM	500	0.50	DIRECT	UPBLAST	1550	0.75	115/1	GREENHECK CUEQ	A,B,C,D
EF-3	ACID ROOM	500	0.50	DIRECT	UPBLAST	1550	0.75	115/1	GREENHECK CUEQ	A,B,C,D

ACCESSORIES:
 A. GRAVITY BACKDRAFT DAMPER. C. PROVIDE CHLORINE RESISTANT COATING. E. NEOPRENE VIBRATION ISOLATORS.
 B. MFR FAN MOUNTED DISCONNECT SWITCH. D. PROVIDE ACID RESISTANT COATING.

SPECIFICATIONS:

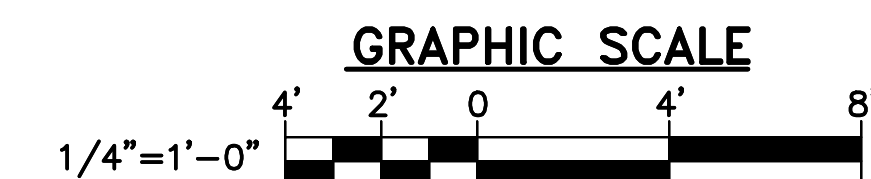
ELECTRIC UNIT HEATERS:
 HEATERS SHALL BE INSTALLED AND WIRED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE NATIONAL AND LOCAL CODES. CASING CASINGS FABRICATED OF DIE-FORMED, HEAVY GAUGE STEEL AND FINISHED IN HIGH GLOSS, BAKED ENAMEL. ADJUSTABLE DISCHARGE LOUVERS SHALL BE PROVIDED TO CONTROL THE DIRECTION OF AIRFLOW. A LARGE, HINGED ACCESS DOOR SHALL EXTEND THE WIDTH OF THE HEATER AND LOCKED IN POSITION BY QUARTER-TURN FASTENERS. HEATER AND SUPPLY WIRING DIAGRAM SHALL BE PERMANENTLY ATTACHED TO THE INSIDE OF THE ACCESS DOOR. ELEMENTS SHALL BE HIGH MASS, ALL STEEL TUBULAR FINNED TYPE, COPPER BRAZED. CENTRALLY LOCATED AND INSTALLED IN FIXED ELEMENT BANKS. MOTORS SHALL BE TOTALLY ENCLOSED, ALL ANGLE INDUSTRIAL RATED. PROVIDE SEALED BEARINGS TO ASSURE PERMANENT LUBRICATION. FAN BLADES FAN BLADES SHALL BE OF THE AXIAL FLOW TYPE DESIGNED FOR QUIET EFFICIENT OPERATION. HEATERS SHALL BE A SINGLE CIRCUIT, WITH ELEMENTS, MOTOR AND CONTROL CIRCUITS SUBDIVIDED WITH FACTORY WIRED FUSES TO CONFORM TO THE NATIONAL ELECTRIC CODE AND UNDERWRITER'S LABORATORY, INC., STANDARD 1278. THREE-PHASE HEATERS SHALL HAVE BALANCED PHASES. ALL HEATERS SHALL BE EQUIPPED WITH AUTOMATIC RESET THERMAL OVERLOADS WHICH SHUT DOWN THE ELEMENT AND MOTOR IF SAFE OPERATING TEMPERATURES ARE EXCEEDED. FUSING ELEMENT, MOTOR AND TRANSFORMER PRIMARY FUSING ARE FACTORY INSTALLED AND WIRED WHERE REQUIRED BY NEC. CONTROL CONTACTORS AND CONTROL CIRCUIT TRANSFORMERS WHERE REQUIRED ARE FACTORY INSTALLED AND WIRED. ONLY DIRECT LINE SUPPLY AND THERMOSTAT CONNECTIONS IN THE FIELD ARE REQUIRED. BUILT-IN FAN OVERRIDE IS TO BE PROVIDED TO PURGE UNIT CASING OF EXCESS HEAT AFTER UNIT SHUTDOWN. THE UNITS ARE LISTED UNDER THE REEXAMINATION SERVICE OF UNDERWRITER'S LABORATORIES, INC. UNITS SHALL BE WARRANTED TO BE FREE FROM DEFECTIVE MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR WITH THE EXCEPTION OF THE HEATING ELEMENTS WHICH SHALL BE WARRANTED FOR FIVE YEARS.

DUCTWORK: PROVIDE SUBMITTAL FOR DUCTWORK. DUE TO THE CHLORINE ENVIRONMENT, METALLIC DUCTWORK IS NOT TO BE USED. DUCTWORK SHALL BE PVC OR PVS SPIRAL DUCTWORK SUITABLE FOR CHLORINE ENVIRONMENTS.

EXHAUST FANS, EF-1, 2 AND 3. PROVIDE SUBMITTALS FOR FANS EF-1, EF-2 AND EF-3. FANS SHALL BE ROOF CURB MOUNTED. PROVIDE CORROSIVE RESISTANT COATING, BASIS OF DESIGN GREENHECK, HI-PRO POLYESTER OR HI-PRO-Z.

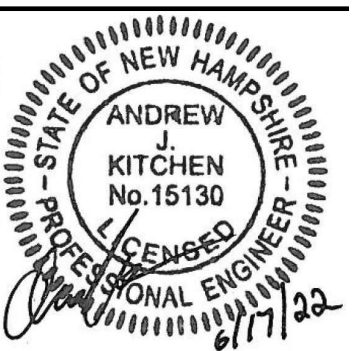
DRAWING KEYNOTES (THIS SHEET ONLY)

- 12" DROP TO 6" AFF. EXHAUST AIR INTAKE AT BOTTOM OF DUCT. PROVIDE PLASTIC MESH INSECT SCREEN ON DUCT OPENING.
- 16" UP THROUGH ROOF, DROP 16" DUCT TO 6" AFF AND PROVIDE BALANCE DAMPER IN VERTICAL. EXHAUST AIR INTAKE FOR ROOM 101 AT BOTTOM OF DUCT, PROVIDE PLASTIC MESH INSECT SCREEN ON DUCT OPENING.
- MOTOR CONTROLLER.
- GAS DETECTOR CONTROLLER.
- INSTALL DUCT UNDER POOL PIPING, AS CLOSE TO CEILING AS POSSIBLE TO PRESERVE MAXIMUM HEAD CLEARANCE.



CHECK GRAPHIC SCALES BEFORE USING

NO.	DATE	DESCRIPTION	BY
REVISIONS			



DESIGNED BY: AJK
 DRAWN BY: RDA
 CHECKED BY: MSA
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Jenkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

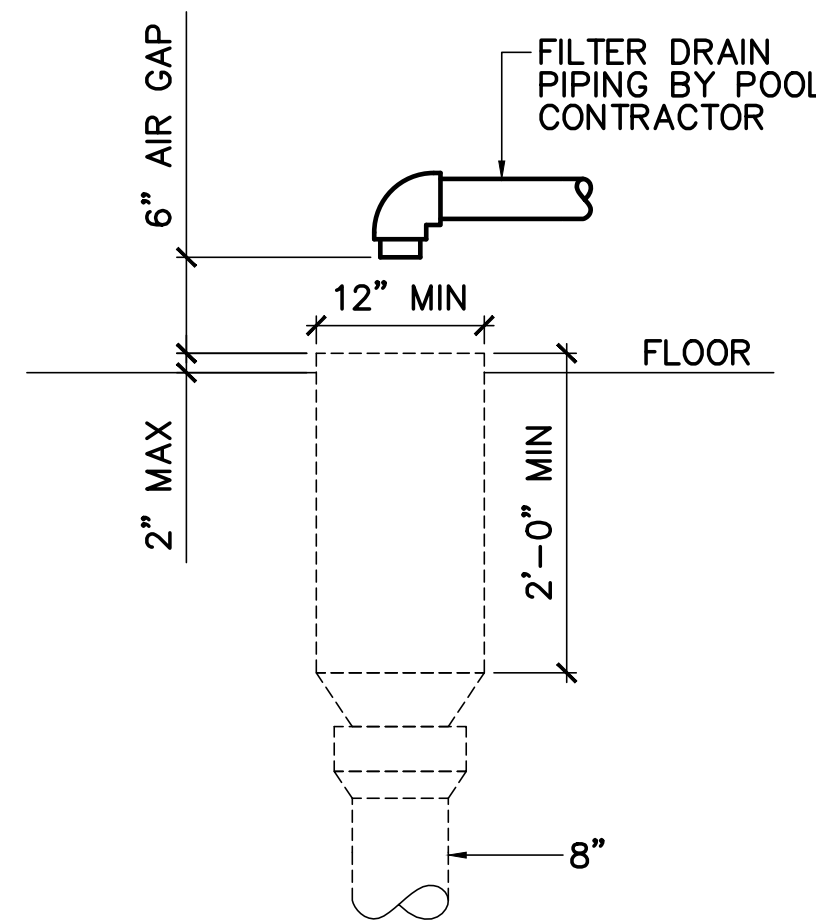
PUMP HOUSE MECHANICAL PLANS AND SCHEDULES

SCALE: AS NOTED

DATE: 06/17/2022

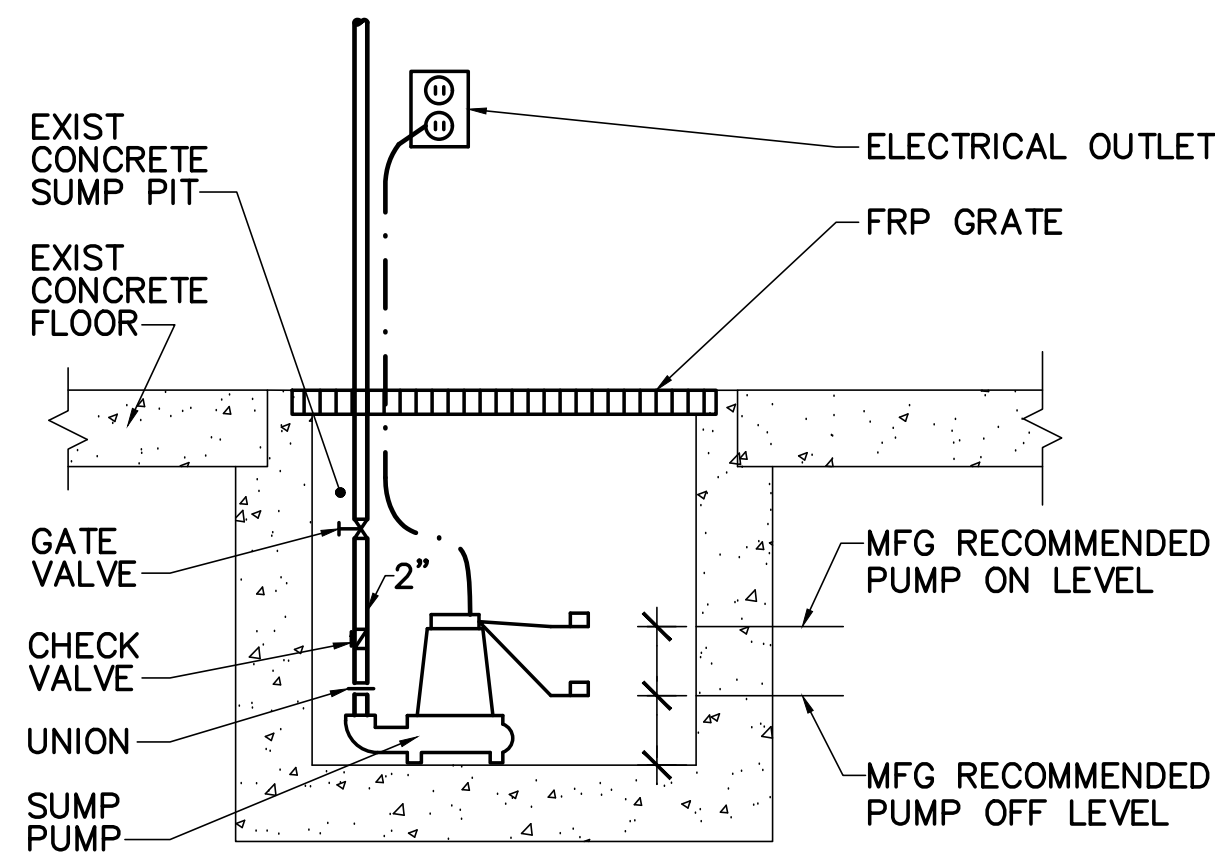
DWG: **M-101**

SHEET: **37** OF **72**



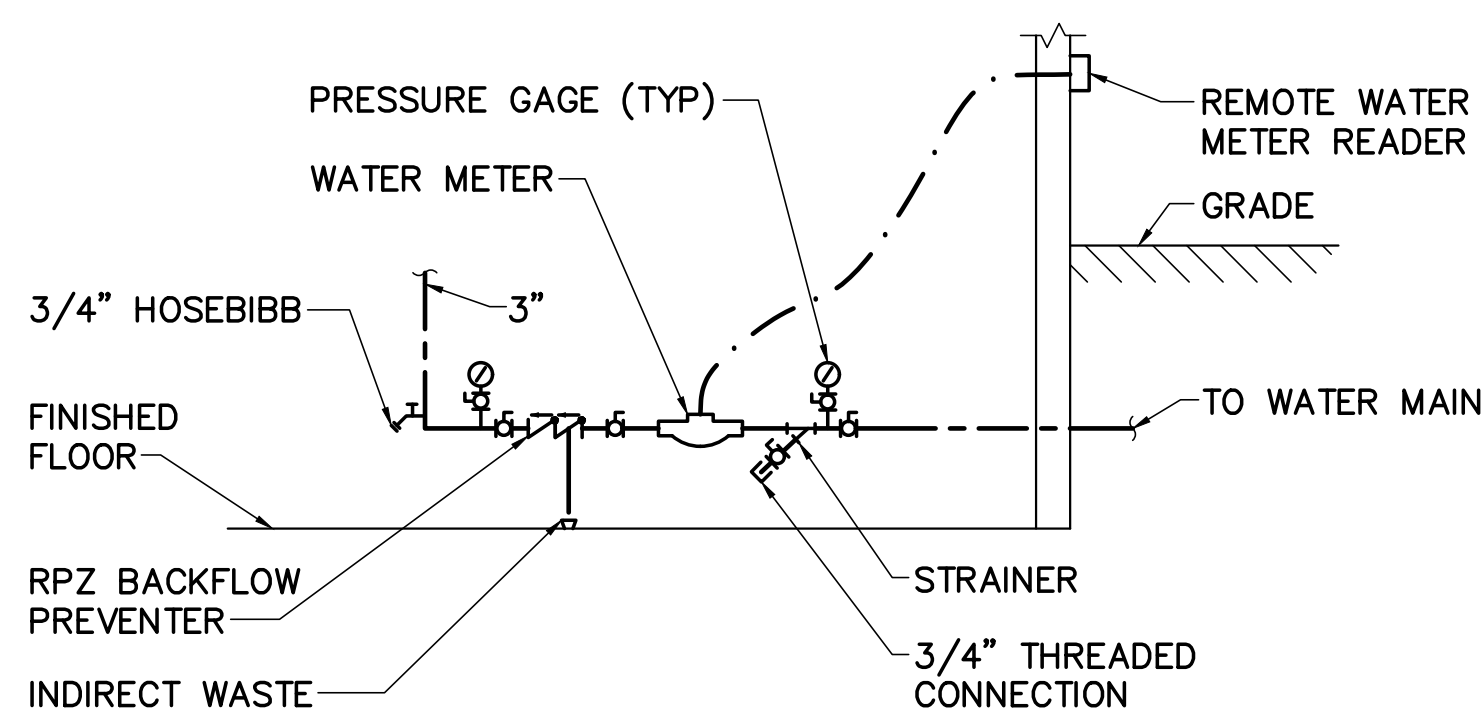
1 INDIRECT WASTE DETAIL
P-001 NOT TO SCALE

SB102



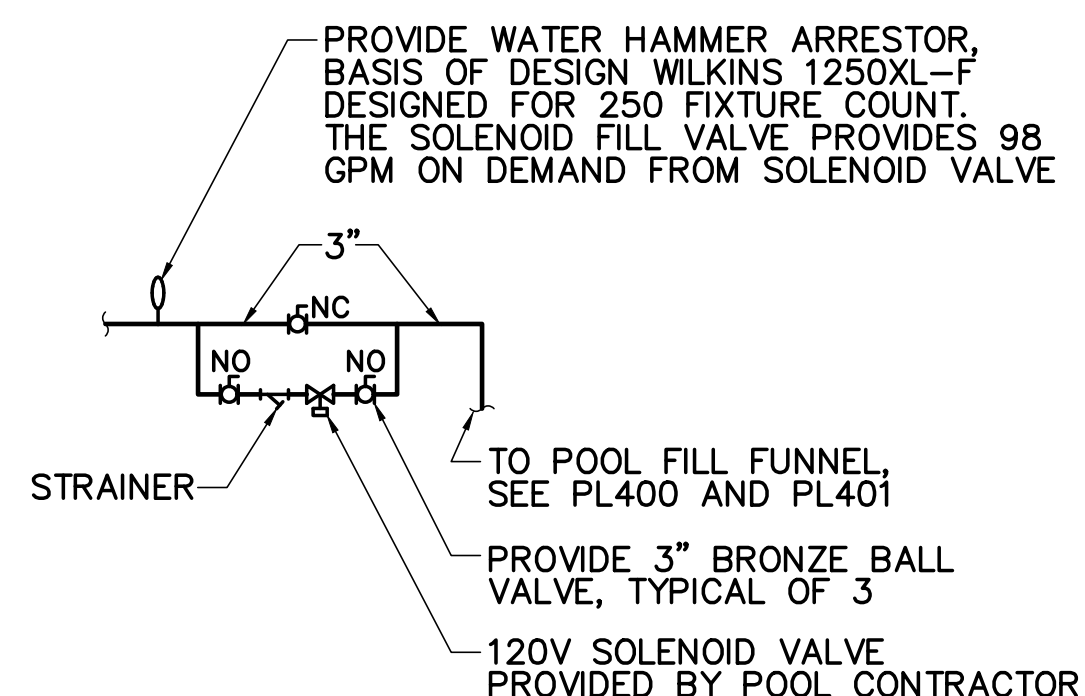
2 SUMP PUMP SP-1 DETAIL
P-101 NOT TO SCALE

P-101



3 WATER SUPPLY ENTRANCE DETAIL
P-001 NOT TO SCALE

P-001



NOTE:
INSTALL PIPING WITH MINIMUM 1/8" PER FOOT SLOPE FOR OFF SEASON DRAINING FREEZE PROTECTION. THIS DETAIL SHOWS THE ARRANGEMENT OF THE BYPASS IN VERTICAL, HOWEVER INSTALL THE BYPASS IN THE HORIZONTAL PLANE TO ENSURE THERE ARE NOT LOW SPOTS.

4 POOL FILL DETAIL
P-001 NOT TO SCALE

PL401

PLUMBING FIXTURE ROUGH-IN SCHEDULE							
UNIT NO	DESCRIPTION	WASTE	VENT	HW	CW	REMARKS	NOTES
EM-1	EMERGENCY EYEWASH	-	-	-	-	EMERGENCY EYE WASH	1

NOTE: 1. PROVIDE SELF CONTAINED, STORAGE TYPE EMERGENCY EYE WASH CAPABLE OF PROVIDING 0.4 GPM FOR 15 MINUTES, WITH VALVES THAT REMAIN OPEN HANDS FREE AFTER ACTIVATION AND HAVE A MAXIMUM VALVE RESPONSE TIME OF 1 SECOND.

SUMP PUMP SCHEDULE										
UNIT NO	SERVES	TYPE	GPM	TOTAL HEAD FT	MOTOR DATA			SUCTION/ DISCHARGE (IN)	BASIS OF DESIGN	NOTES
					HP	RPM	VOLTS/PHASE			
SP-1	BASEMENT	SUMP	20	17	4/10		115/1	2"	STANCOR SV-40A FS	1
SP-2	BASEMENT	SUMP	300	190	25		480/3	4"	WEIL 2525	

NOTE: 1. PROVIDE WITH 15 FOOT POWER CORD.

GENERAL NOTE

NOTE ON BASIS OF DESIGN
PRODUCTS OF OTHER MANUFACTURERS ARE ACCEPTABLE IF THEY MEET THE OPERATIONAL REQUIREMENTS INDICATED. ANY ADJUSTMENTS TO DUCTING, PIPING, WIRING OR CONFIGURATION DUE TO THE SELECTION OF A MANUFACTURER OTHER THAN THAT LISTED AS THE BASIS OF DESIGN WILL BE ACCOMPLISHED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE GOVERNMENT.

PLUMBING SYMBOLS LEGEND

ANNOTATION

- SYMBOL PER ABBREVIATION LIST
- EQUIPMENT SEQUENCE NUMBER
- KEY NOTE

FIXTURES

- EMERGENCY EYE WASH

EQUIPMENT & SPECIALTIES

- FD FLOOR DRAIN
- WATER METER
- REDUCED PRESSURE ZONE BACKFLOW PREVENTOR
- HOSE BIBB OR HYDRANT

PLUMBING ABBREVIATIONS

- BFP BACKFLOW PREVENTOR
- CW COLD WATER
- DN DOWN
- EM EMERGENCY PLUMBING FIXTURE
- FCO FLOOR CLEANOUT
- FD FLOOR DRAIN
- GPH GALLONS PER HOUR
- GPM GALLONS PER MINUTE
- HP HORSEPOWER
- HW HOT WATER
- IN INCHES
- KW KILOWATT
- NFWH NON-FREEZE WALL HYDRANT
- RPM REVOLUTIONS PER MINUTE
- RPZ REDUCED PRESSURE ZONE
- SAN SANITARY
- SP STATIC PRESSURE, SUMP PUMP
- SS STAINLESS STEEL
- TEMP TEMPERATURE
- TYP TYPICAL
- W WASTE
- WC WATER COLUMN, WATER CLOSET
- WCO WALL CLEANOUT
- WH WALL HYDRANT/WATER HEATER
- W&T WASTE & TRAP

PLUMBING LINE TYPE LEGEND

- REMOVE ITEMS
- PROVIDE ITEMS
- VENT
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- SAN SANITARY SEWER
- SAN SANITARY SEWER BELOW FLOOR OR GRADE
- W WASTE PIPE

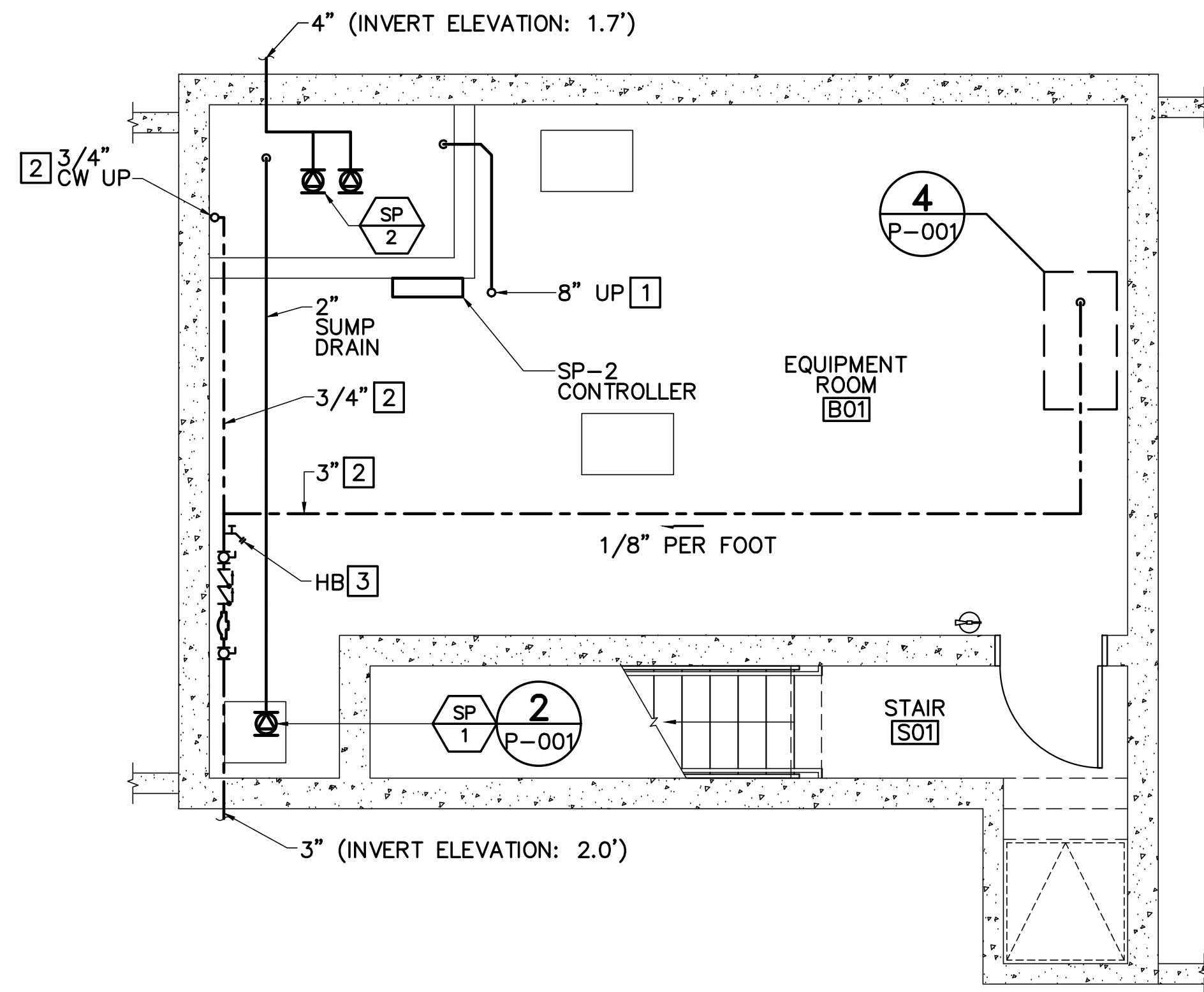
PIPING & VALVES

- ELBOW DOWN
- PIPE TEE UP OR UP AND DOWN
- ELBOW UP OR UP AND DOWN
- PIPE TEE DOWN
- STRAINER
- BALL VALVE
- UNION
- WCO WALL CLEANOUT
- FCO FLOOR CLEANOUT
- PRESSURE GAUGE AND COCK
- CHECK VALVE, SWING
- PIPE PITCH DOWN
- PRESSURE RELIEF VALVE
- CAP

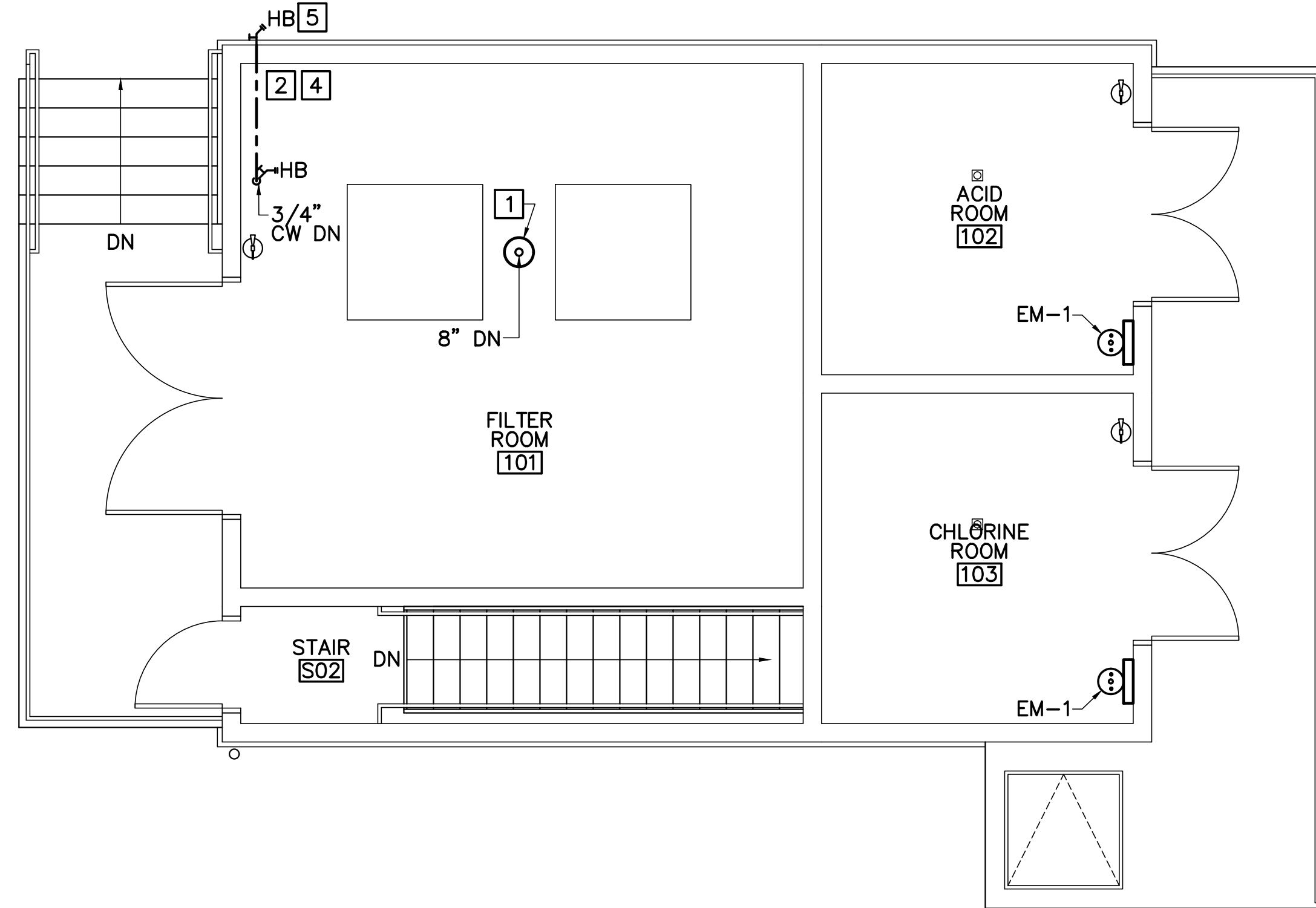
GENERAL PLUMBING NOTES

- DUE TO THE USE OF CHLORINE, ALL PIPING MUST BE CPVC, SCHEDULE 40.
- PLUMBING MUST BE DONE IN ACCORDANCE WITH INTERNATIONAL PLUMBING CODE (IPC) 2015 AND THE NEW HAMPSHIRE AMENDMENTS TO THE CODE, AND THE INTERNATIONAL ENERGY AND CONSERVATION CODE (IECC), 2015.
- INSTALL SANITARY DRAINAGE WITH A PITCH OF 1/4 INCH PER FOOT FOR BUILDING SANITARY PIPING 3 INCHES AND SMALLER AND A PITCH OF 1/8 INCH PER FOOT FOR BUILDING SANITARY PIPING 4 INCHES AND LARGER.
- FOR PIPE SIZES NOT SHOWN ON PLANS REFER TO APPROPRIATE PART PLANS AND RISER DIAGRAMS.
- PIPING IS SHOWN DIAGRAMMATICALLY, EXACT LOCATION MUST BE DETERMINED IN THE FIELD.
- PIPING MUST BE SUPPORTED FROM BUILDING STRUCTURE. DO NOT CUT STRUCTURAL MEMBERS.
- PROVIDE ACCESSIBLE CLEANOUTS AT THE BASE OF STACKS, AT HORIZONTAL CHANGES OF DIRECTION GREATER THAN 45°, AND WHERE SHOWN ON DRAWINGS.
- PIPING DROPS TO FIXTURES MUST BE ANCHORED SOLID TO WALL WITH CORROSION RESISTANT SUPPORT BRACKET WITH ADJUSTABLE CLIP.
- PITCH WATER SUPPLY PIPING AS INDICATED TO GRAVITY DRAIN SYSTEM IN THE WALL.

NO.	DATE	DESCRIPTION	BY
REVISIONS			



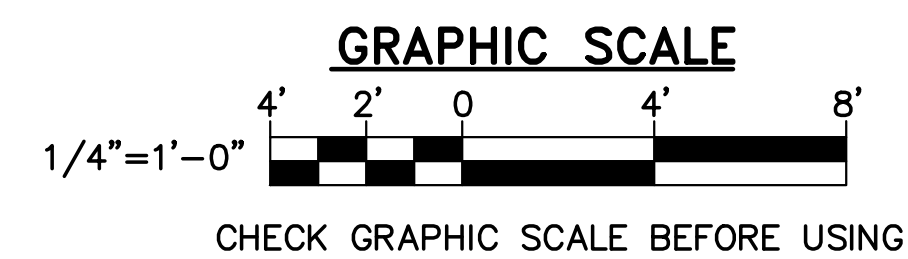
1 BASEMENT AND UNDERSLAB PLUMBING PLAN
 P-101 SCALE: 1/4"=1'-0" PLAN NORTH



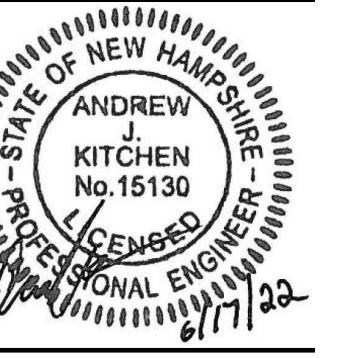
2 FIRST FLOOR PLUMBING PLAN
 P-101 SCALE: 1/4"=1'-0" PLAN NORTH

DRAWING KEYNOTES (THIS SHEET ONLY)

- 1 COORDINATE EXACT LOCATION OF DRAIN WITH DETAIL 5/PL401 AND DRAIN DETAIL 1/P-001.
- 2 INSTALL PIPING WITH 1/8" PER FOOT MINIMUM PITCH FOR OFF SEASON DRAINING.
- 3 HOSE BIBB FOR OFF SEASON FREEZE PROTECTION DRAINING, SLOPE ALL PIPE TO THIS POINT.
- 4 INSTALL PIPING LOW ON WALL UNDER VFD AND EQUIPMENT.
- 5 INSTALL BRASS HOSE BIBB WITH INTEGRAL WALL ESCUTCHEON AND REMOVABLE LEVER HANDLE.



NO.	DATE	DESCRIPTION	BY
REVISIONS			



DESIGNED BY: AJK
 DRAWN BY: RDA
 CHECKED BY: MSA
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

PLUMBING PLANS

SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: **P-101**

ELECTRICAL SYMBOLS

LIGHTING

NOTE: UPPER CASE SUBSCRIPTS INDICATE FIXTURE TYPE. REFER TO LIGHTING FIXTURE SCHEDULE.

- S 120/277V, 20A LIGHT SWITCH, SPECIFICATION GRADE
- S₃ 120/277V, 20A 3-WAY LIGHT SWITCH, SPECIFICATION GRADE
- A □ LED LIGHT FIXTURES
- A □ WALL MOUNTED FIXTURE
- ⊕ OCCUPANCY SENSOR – DUAL TECHNOLOGY
W=WALL SWITCH SENSOR
- ⊗ ILLUMINATED EXIT SIGN, LED TYPE SINGLE FACE OR DOUBLE FACE, ARROW INDICATES DIRECTION OF FLOW FOR THE FACE
- ⊕ WALL MOUNTED EMERGENCY LIGHT

RECEPTACLES

- ⊕ DUPLEX RECEPTACLE, 120V, 20A, SPECIFICATION GRADE, NEMA 5-20 R
- ⊕G DUPLEX RECEPTACLE, 120V, 20A SPECIFICATION GRADE, NEMA 5-20 R SUBSCRIPT "G" INDICATES GROUND FAULT INTERRUPT, "WP" INDICATES WEATHERPROOF GROUND FAULT INTERRUPT WITH WEATHERPROOF WHILE IN USE COVER.

GROUNDING

- G — GROUND WIRE, BARE
- ⊙ GROUND ROD, COPPER CLAD.

SINGLE LINE DIAGRAM

- ⊕ METER
- ⊕ GROUND CONNECTION
- ⊕ TRANSFORMER

GENERAL

- ⊕ MOTOR
- ⊕ TRANSFORMER
- ⊕ FUSED DISCONNECT SWITCH
- ⊕ COMBINATION MOTOR STARTER/DISCONNECT
- A-1 BRANCH CIRCUIT HOMERUN, A-1 INDICATES PANEL DESIGNATION AND CIRCUIT NUMBER
- PANELBOARD
- ▨ EXISTING PANELBOARD
- ⊕ SPD SURGE PROTECTIVE DEVICE

LINE TYPE LEGEND

- REMOVE EXISTING ITEMS
- _____ EXIST ITEMS TO REMAIN
- _____ PROVIDE ITEMS

ELECTRICAL GENERAL NOTES

- ELECTRICAL INSTALLATION MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), NFPA, AND STATE AND LOCAL CODES.
- COORDINATE WORK WITH ARCHITECTURAL, CIVIL, STRUCTURAL, PLUMBING, AND MECHANICAL TRADES.
- ELECTRICAL EQUIPMENT AND WIRING MUST BE NEW AND UL LISTED UNLESS OTHERWISE NOTED.
- COORDINATE LIGHT FIXTURES AND OTHER CEILING MOUNTED ELECTRICAL EQUIPMENT WITH ARCHITECTURAL, STRUCTURAL, PLUMBING, AND MECHANICAL WORK TO AVOID INTERFERENCE.
- A SEPARATE GREEN GROUNDING CONDUCTOR MUST BE PROVIDED FOR EACH INDIVIDUAL CIRCUIT. METAL CONDUIT MUST BE GROUNDED BUT MUST NOT BE USED AS THE EQUIPMENT GROUNDING CONDUCTOR.
- VERIFY EXISTING CONDITIONS AND DIMENSIONS AND REPORT DISCREPANCIES TO THE OWNER. PROCEED WITH THE WORK ONLY AFTER THE DISCREPANCIES HAVE BEEN RESOLVED BY THE OWNER.
- CONDUCTORS MUST BE MINIMUM #12 AWG UNLESS NOTED OTHERWISE.
- CONDUIT MUST BE MINIMUM 1/2" UNLESS OTHERWISE NOTED.
- UNLESS OTHERWISE INDICATED, WIRE AND CONDUIT SIZE FOR EACH 15A 1P, 15A 2P, 20A 1P AND 20A 2P BRANCH CIRCUIT MUST BE 2 #12 + #12G, IN 3/4"C.
- PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH INDIVIDUAL 120V CIRCUIT.
- EXTERIOR MUST BE CONCEALED.

MOUNTING HEIGHT SCHEDULE

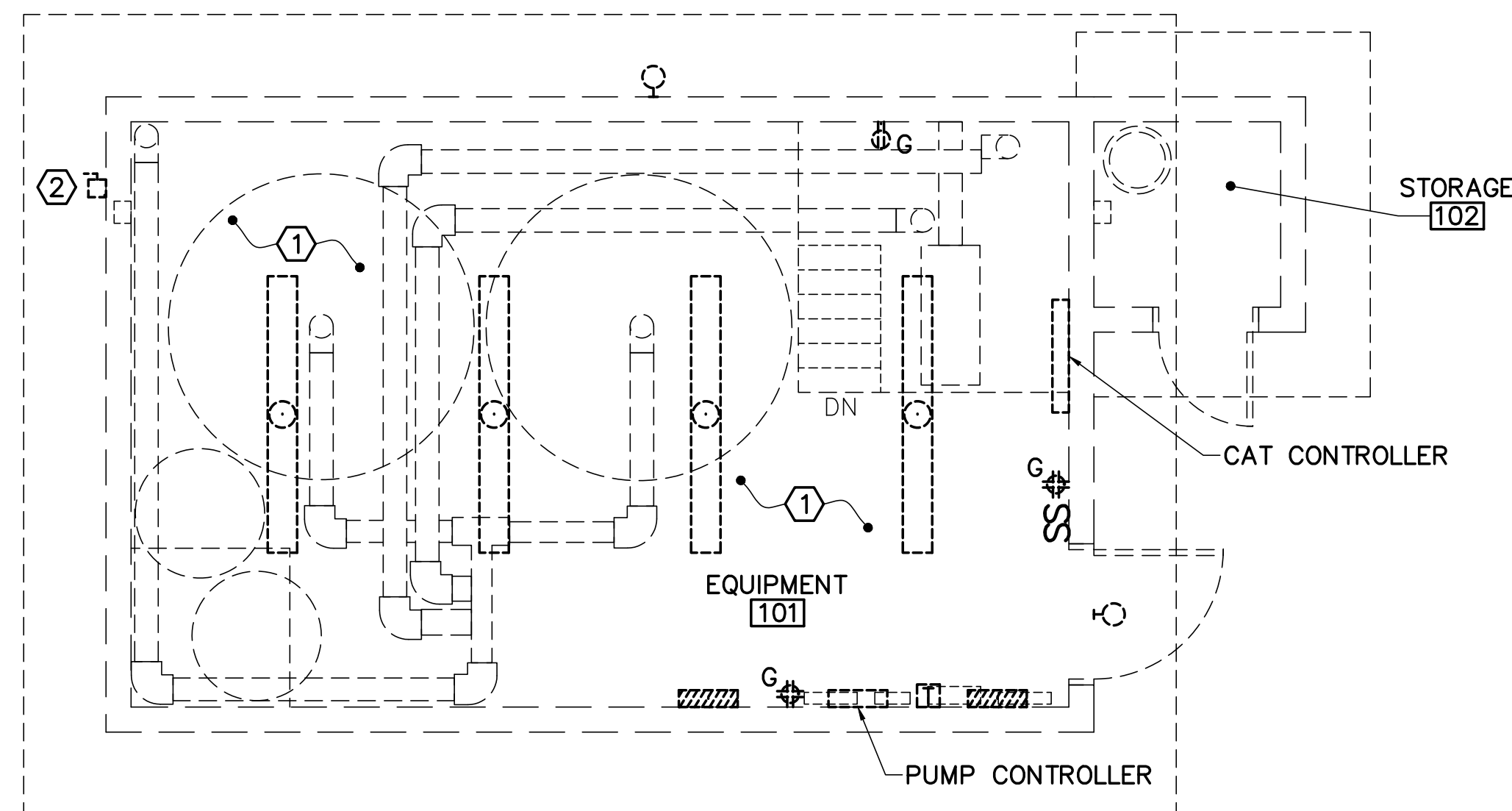
- RECEPTACLES: 36" AFF UNLESS NOTED OTHERWISE.
- SWITCHES: 48" AFF.

ELECTRICAL ABBREVIATIONS

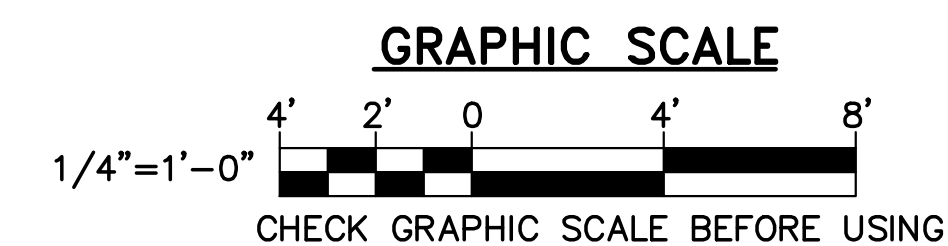
- A, AMP AMPERE
- A3P AMPERES, 3-POLE
- AC ALTERNATING CURRENT
- AFF ABOVE FINISHED FLOOR
- AIC AMPERE INTERRUPTING CAPACITY
- AVG AVERAGE
- AWG AMERICAN WIRE GAUGE
- BKR BREAKER
- C CONDUCTOR, CONDUIT
- CAT CATALOG, CATEGORY
- CB CIRCUIT BREAKER
- CKT CIRCUIT
- CU COPPER
- DWG DRAWING
- EF EXHAUST FAN
- EMT ELECTRICAL METALLIC TUBING
- G GROUND; GROUND FAULT CIRCUIT INTERRUPTER
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- H HEATING LOAD TYPE FOR PANEL SCHEDULE
- HVAC HEATING, VENTILATION, AND AIR CONDITIONING
- KCMIL KILO-CIRCULAR MILS
- KVA KILO-VOLT-AMPERE
- KW KILO-WATT
- L LIGHTING LOAD TYPE FOR PANEL SCHEDULE
- LED LIGHT EMITTING DIODE
- LTG LIGHTING
- M MOTOR LOAD TYPE FOR PANEL SCHEDULE
- MAX MAXIMUM
- MCB MAIN CIRCUIT BREAKER
- MDP MAIN DISTRIBUTION PANELBOARD
- MIN MINIMUM
- MLO MAIN LUG ONLY
- N NEUTRAL
- NEC NATIONAL ELECTRIC CODE
- NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
- NFPA NATIONAL FIRE PROTECTION ASSOCIATION
- NO, # NUMBER
- OCC OCCUPANCY
- ∅ PHASE
- P POLE
- P/O PART OF
- R RECEPTACLE LOAD TYPE FOR PANEL SCHEDULE
- REC RECEPTACLE
- RGS RIGID GALVANIZED STEEL
- RM ROOM
- RMC RIGID METAL CONDUIT
- SPD SURGE PROTECTIVE DEVICE
- SW SWITCH
- THHN HEAT RESISTANT THERMOPLASTIC WIRE WITH NYLON JACKET
- THWN MOISTURE & HEAT RESISTANT THERMOPLASTIC WIRE WITH NYLON JACKET
- TYP TYPICAL
- UE UNDERGROUND ELECTRIC
- UH UNIT HEATER
- UL UNDERWRITERS LABORATORIES
- V VOLT
- VA VOLT AMPERE
- W WATT, WIRE
- W/ WITH
- WP WEATHERPROOF

REMOVALS KEYNOTES (THIS SHEET ONLY)

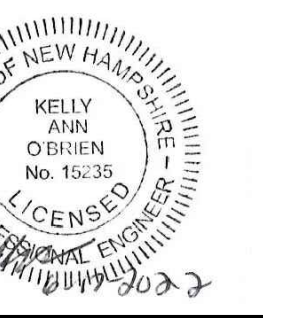
- REMOVE AND DISPOSE (12) FLUORESCENT LAMPS AND (6) BALLASTS.
- REMOVE UNDERGROUND CONNECTION TO THE BUILDING. PULL BACK WIRE FROM POLE. REFER TO SHEET CD101 FOR LOCATIONS.



1 EXISTING PUMP HOUSE ELECTRICAL REMOVALS PLAN
E-001 SCALE: 1/4"=1'-0"
PLAN NORTH



NO.	DATE	DESCRIPTION	BY
REVISIONS			



DESIGNED BY: KAO
DRAWN BY: RSW
CHECKED BY: KAO
PROJECT: 21904.14

CITY OF PORTSMOUTH
1 Jenkins Avenue
Portsmouth, NH 03801

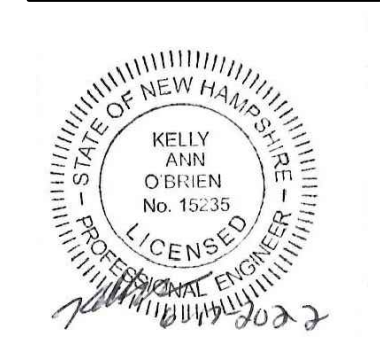
PEIRCE ISLAND PUMP HOUSE
AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL NOTES, AND REMOVALS

SCALE: AS NOTED
DATE: 06/17/2022

DWG.: E-001

SHEET: 40 OF 72



DESIGNED BY: KOA
 DRAWN BY: RSW
 CHECKED BY: KAO
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

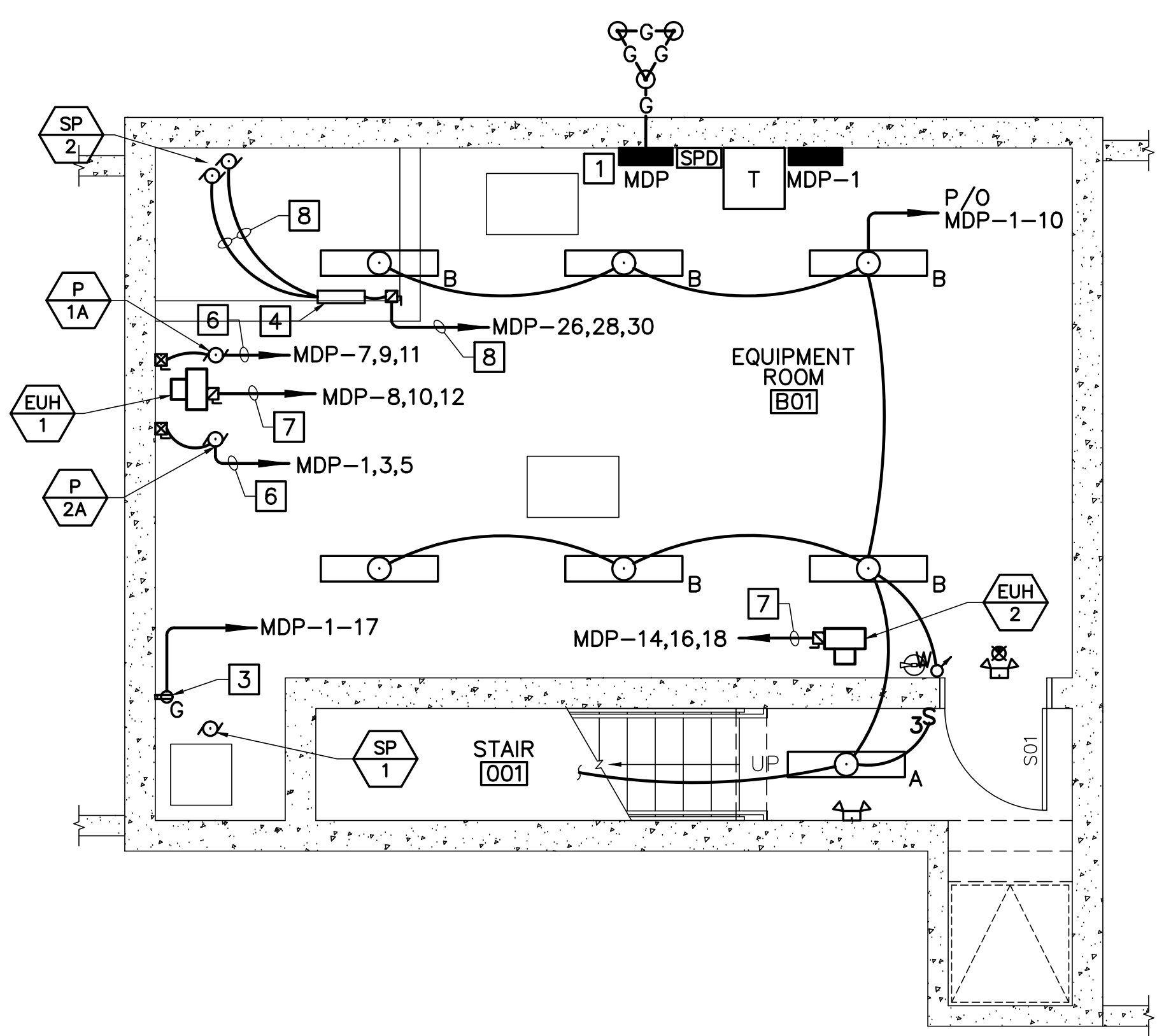
PEIRCE ISLAND PUMP HOUSE
 AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

PUMP HOUSE
 ELECTRICAL
 PLANS,
 SCHEDULE AND
 DIAGRAM

SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: **EP101**

SHEET: **41** OF **72**



1 BASEMENT ELECTRICAL PLAN
 EP101 SCALE: 1/4"=1'-0"



GENERAL NOTES (THIS SHEET ONLY)

- REFER TO SHEET E-001 FOR ELECTRICAL SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES.
- REFER TO SHEET EP601 FOR PANELBOARD SCHEDULES.
- BOND METALLIC POOL EQUIPMENT, ACCESSORIES, AND REINFORCING BARS.
- PROVIDE COPPER CONDUCTOR GRID. PROVIDE MINIMUM 8 AWG BARE SOLID COPPER CONDUCTORS BONDED TO EACH OTHER AT ALL POINTS OF CROSSING. WHEN CONNECTING TO REBAR, USE REBAR CLAMPS. THE GRID MUST CONFORM TO THE CONTOUR OF THE POOL IN A 12" BY 12" UNIFORMLY SPACED. SECURE WITHIN OR UNDER THE POOL NO MORE THAN 6 INCHES FROM THE OUTER CONTOUR OF THE POOL SHELL.
- CONNECT EXIT SIGNS AND EMERGENCY FIXTURES TO LOCAL LIGHTING CIRCUITS AHEAD OF ANY SWITCHES, OCCUPANCY SENSORS, ETC.

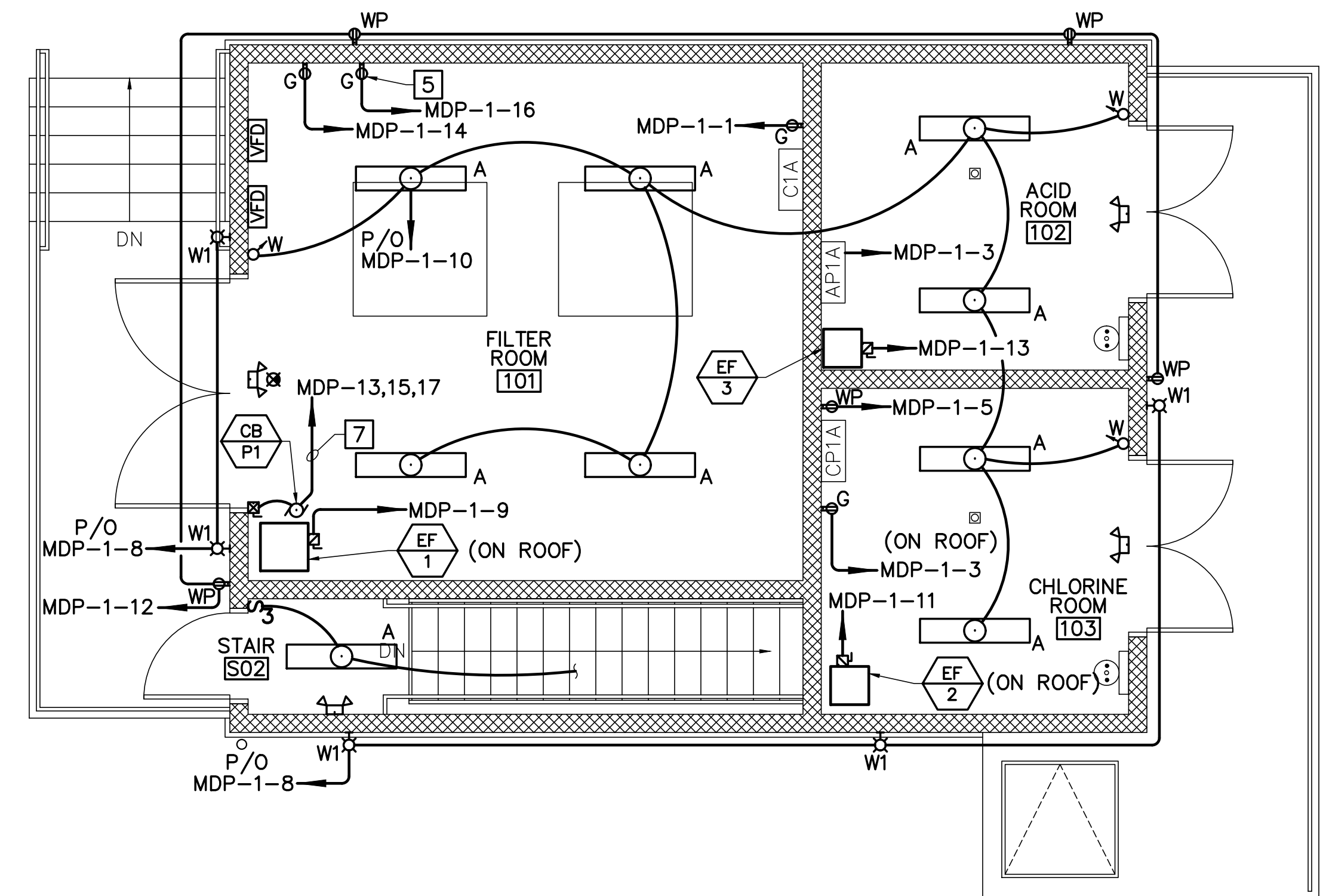
DRAWING KEYNOTES (THIS SHEET ONLY)

- WALL MOUNT REMOTE INVERTER FOR EXTERIOR FIXTURES, CONNECT TO TYPE W1 FIXTURES.
- REFER TO SHEET EP601 FOR GROUNDING DETAILS.
- COORDINATE LOCATION WITH SUMP PUMP.
- PROVIDE CONNECTIONS FROM SUMP PUMP TO WALL MOUNTED PUMP CONTROLLER PANEL.
- PROVIDE CONNECTIONS FROM EF-1 TO CONTROLLER PANEL.
- 3 #4, #8G-1"C.
- 3 #10, #12G-3/4"C.
- 3 #8, #8G-1"C.
- UTILITY METER. COMPLY WITH EVERSOURCE STANDARDS. COORDINATE WITH EVERSOURCE FOR LOCATION AND INSTALLATION.

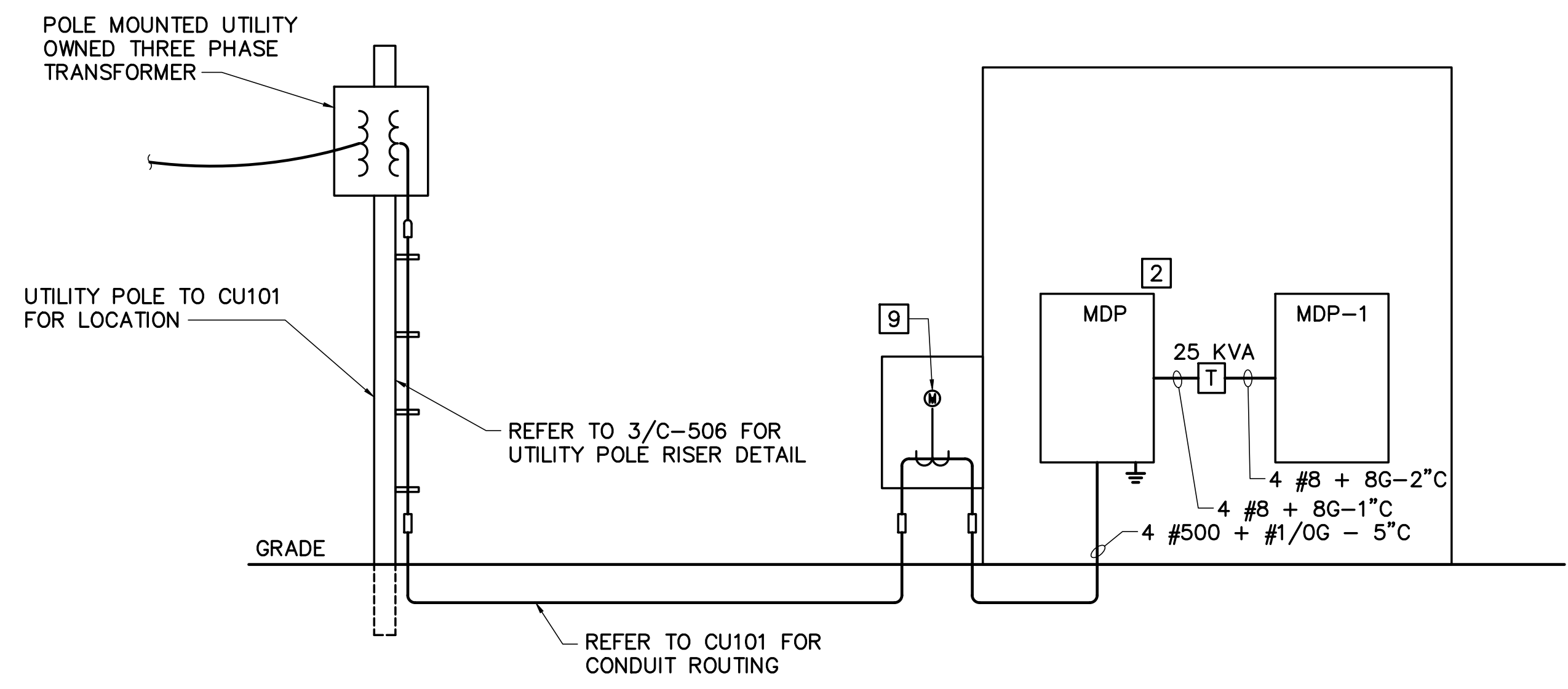
TYPE	DESCRIPTION	SOURCE	LUMENS	VOLTS	WATTS	MOUNTING	NOTES	MANUFACTURER	CATALOG NUMBER
A	ENCLOSED GASKETED FIXTURE	LED	4184	120	33.3	CHAIN	1	COLUMBIA	LXEM4-35LW-RFA-EDU
B	ENCLOSED GASKETED FIXTURE	LED	3150	120	24.5	CHAIN	1	COLUMBIA	LXEM4-35VW-RFA-EDU
W1	WALL MOUNTED FULL CUTOFF EXTERIOR FIXTURE	LED	1272	120	17	WALL	2,3	HUBBELL	LNC-7LU-3K-2
⊠	EXIT SIGN - SINGLE FACE	LED'S (2)	-	120	17	UNIVERSAL	-	DUAL LITE	EVE-U-R-W-E
⌞	DUAL HEAD EMERGENCY LIGHT W/BATTERY	LED	-	12	10.8	WALL	-	HUBBELL	LM-16-12-1205L

FIXTURE SCHEDULE NOTES:

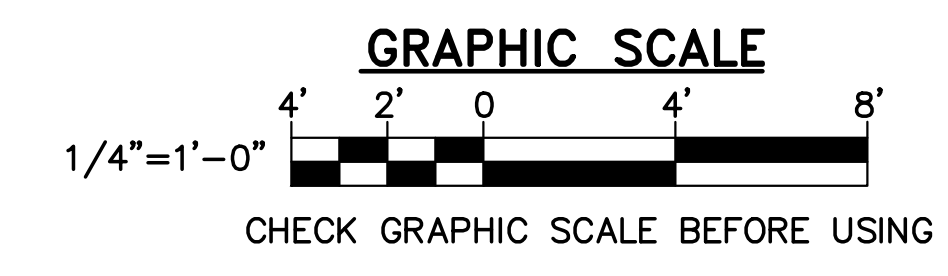
- COORDINATE MOUNTING WITH ARCHITECTURAL TRADE.
- PROVIDE REMOTE MOUNTED EMERGENCY INVERTER TO OPERATE. SIZE FOR CONNECTED LOAD. BASIS OF DESIGN: DUALLITE LITEGEAR LG125.
- PROVIDE PHOTOCELL AND TIME CLOCK FOR BUILDING MOUNTED LIGHTING CONTROL. PHOTOCELL SHALL TURN FIXTURES ON AT 3FC. COORDINATE TIMECLOCK ON/OFF SCHEDULE WITH BUILDING OWNER.



2 FIRST FLOOR ELECTRICAL PLAN
 EP101 SCALE: 1/4"=1'-0"



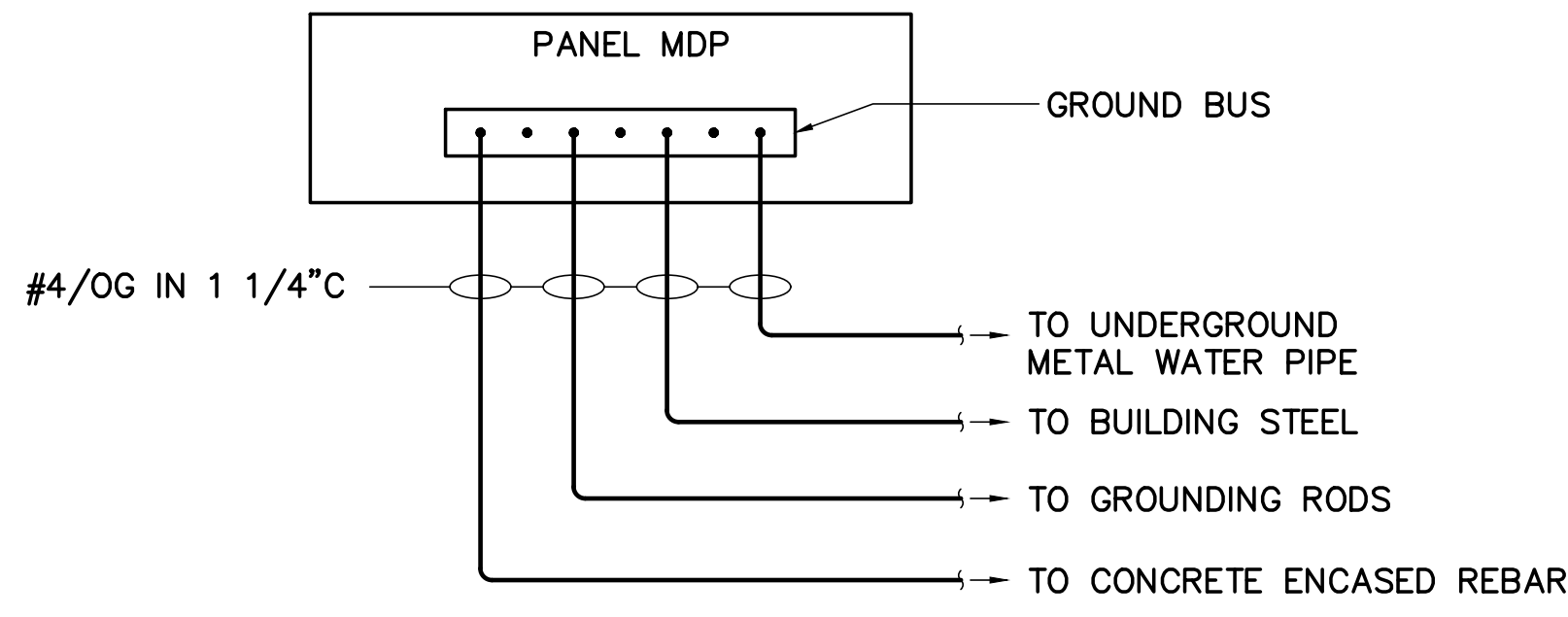
3 ONE-LINE DIAGRAM
 EP101 NOT TO SCALE



NO.	DATE	DESCRIPTION	BY
REVISIONS			

PANELBOARD SCHEDULE MDP													SERVICE ENTRANCE RATED PROVIDE SURGE PROTECTIVE DEVICE		
CKT NO	AMPS PER PHASE			DESCRIPTION	LOAD TYPE	CKT TRIP	BKR POLE	CKT TRIP	BKR POLE	LOAD TYPE	DESCRIPTION	AMPS PER PHASE			CKT NO
	A	B	C									A	B	C	
1	65			2A (50 HP)	M	100	3	40	3	-	PANEL MDP-1 VIA TRANSFORMER	22.9			2
3		65											15		4
5			65											13	6
7	65			1A (50 HP)	M	100	3	25	3	H	EUH-1 (15KW)	18			8
9		65											18		10
11			65											18	12
13	3.4			CBP1 (2 HP)	M	15	3	25	3	H	EUH-2 (15KW)	18			14
15		3.4												18	16
17			3.4											18	18
19				-	-	20	1	20	1	-	-				20
21				-	-	20	1	20	1	-	-				22
23				-	-	20	1	20	1	-	-				24
25				-	-	20	1	20	1	-	-				26
27				-	-	20	1	80	3	M	SP-2 (30 HP)		40		28
29				-	-	20	1							40	30
31				-	-	20	1						40		32
33				-	-	20	1	20	1	-	-				34
35				-	-	20	1	20	1	-	-				36
37				-	-	20	1	20	1	-	-				38
39				-	-	20	1	20	1	-	-				40
41				-	-	20	1	20	1	-	-				42
230.7				224.4	222.4	TOTAL/PHASE		VOLTS: 480/277, 3 PHASE, 4 WIRE				DESIGNATION: MDP			
								MCB: <input checked="" type="checkbox"/>				MCB AMPS: 400			
								MLO: <input type="checkbox"/>				BUS AMPS: 400			
								FAULT AMPS: 24,000				LOCATION: B01			
												MOUNTING: SURFACE			

PANELBOARD SCHEDULE MDP-1															
CKT NO	AMPS PER PHASE			DESCRIPTION	LOAD TYPE	CKT TRIP	BKR POLE	CKT TRIP	BKR POLE	LOAD TYPE	DESCRIPTION	AMPS PER PHASE			CKT NO
	A	B	C									A	B	C	
1	5			C1A	R	20	1	50	1	M	AC-1 AIR COMPRESSOR 2 HP	24			2
3		5		AP1A	R	20	1	20	1	R	AF1A WATER LEVEL CONTROL		5		4
5				CP1A	R	20	1	20	1	-	-				6
7				-	-	20	1	20	1	L	EXTERIOR LIGHTING	5			8
9		13.8		EF-1 (3/4 HP)	M	20	1	20	1	L	INTERIOR LIGHTING		5		10
11			13.8	EF-2 (3/4 HP)	M	20	1	20	1	R	EXTERIOR REC			3	12
13	13.8			EF-3 (3/4 HP)	M	20	1	20	1	R	MOTOR CONTROLLER	5			14
15				-	-	20	1	20	1	R	GAS CONTROLLER		5		16
17			9.8	SP-1 (2/5 HP)	M	20	1	20	1	R	SUMP PUMP 2 CONTROLLER			5	18
19				-	-	20	1	20	1	-	-				20
21				-	-	20	1	20	1	-	-				22
23				-	-	20	1	20	1	-	-				24
52.8				33.8	31.6	TOTAL/PHASE		VOLTS: 120/208, 3 PHASE, 4 WIRE				DESIGNATION: MDP-1			
								MCB: <input checked="" type="checkbox"/>				MCB AMPS: 100			
								MLO: <input type="checkbox"/>				BUS AMPS: 100			
								FAULT AMPS: 24,000				LOCATION: B01			
												MOUNTING: SURFACE			

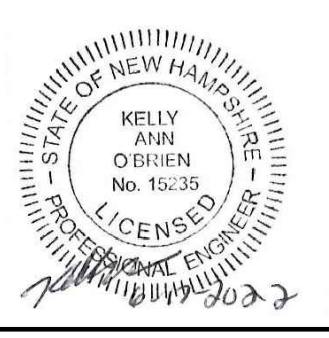


- ELECTRIC SERVICE GROUNDING DETAIL NOTES:**
1. COMPLY WITH NEC, SPECIFICALLY NEC 250.50 AND 250.52.
 2. PROVIDE THERMAL WELDED OR IRREVERSIBLE COMPRESSION CONNECTIONS.
 3. MINIMUM CONDUCTOR SIZE TO GROUND RODS MUST BE #1/0 COPPER.
 4. MINIMUM CONDUCTOR SIZE TO OTHER GROUNDING ELECTRODES MUST BE #4/0 COPPER.
 5. GROUND ROD CONNECTION MUST BE UL LISTED, SUITABLE FOR DIRECT BURIAL, THERMAL WELD.
 6. CONDUCTORS AND CONDUIT MUST BE CONCEALED.

1 GROUNDING ELECTRODE SYSTEM DETAIL
EP601 NOT TO SCALE

GENERAL NOTE
1. REFER TO SHEET E-001 FOR ELECTRICAL SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES.

NO.	DATE	DESCRIPTION	BY
REVISIONS			



DESIGNED BY: KAO
DRAWN BY: RSW
CHECKED BY: KAO
PROJECT: 21904.14

CITY OF PORTSMOUTH
1 Junkins Avenue
Portsmouth, NH 03801

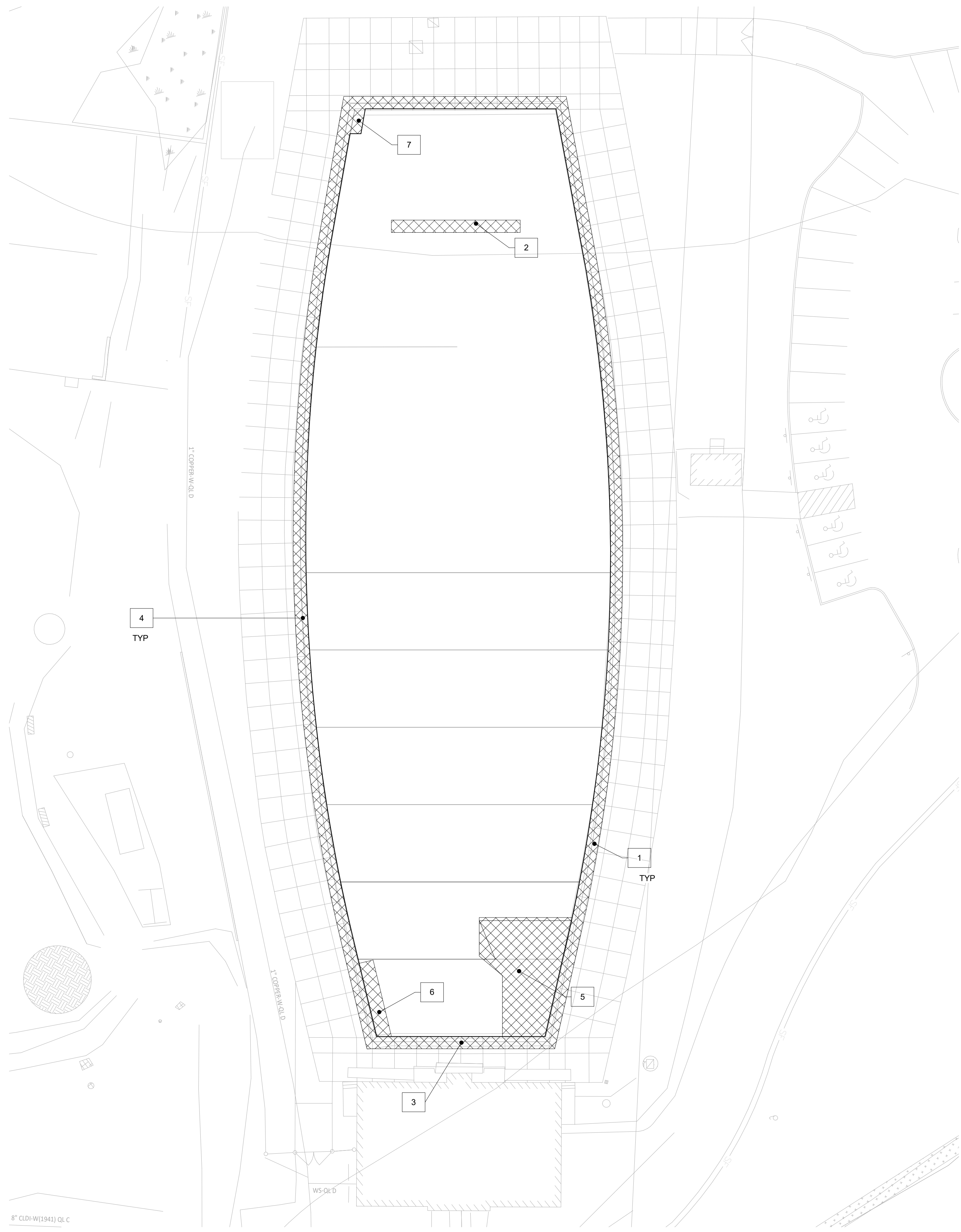
PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

PANELBOARD SCHEDULES AND DETAILS

SCALE: AS NOTED
DATE: 06/17/2022

DWG.: **EP601**

SHEET: **42** OF **72**



SCHEDULE - SHEET LIST

SHEET NO.	SHEET NAME
D100	DEMOLITION PLAN
D101	DEMOLITION IMAGES AND DETAILS
PL100	OVERALL AQUATIC PLAN
PL101	GENERAL DETAILS AND SCHEDULES
PL110	POOL A - LEISURE POOL PLAN
PL111	POOL A - LEISURE POOL DIMENSION PLAN
PL112	POOL A - LEISURE POOL SECTIONS AND DETAILS
PL113	POOL A - LEISURE POOL DETAILS - 1
PL114	POOL A - LEISURE POOL DETAILS - 2
PL115	POOL A - SURGE TANK PLAN AND SECTIONS
PL200	STRUCTURAL NOTES, PLAN(S) AND SCHEDULE
PL210	STRUCTURAL GENERAL DETAILS
PL211	STRUCTURAL DETAILS - 1
PL212	STRUCTURAL DETAILS - 2
PL300	OVERALL PIPING PLAN
PL301	GENERAL NOTES
PL302	GENERAL DETAILS
PL310	POOL A - PIPING PLAN (NORTHERN END)
PL311	POOL A - PIPING PLAN (SOUTHERN END)
PL400	MECHANICAL EQUIPMENT PLAN
PL401	MECHANICAL DETAILS 1
PL402	MECHANICAL DETAILS 2
PL403	MECHANICAL DETAILS 3
PL404	MECHANICAL DETAILS 4
PL405	DEFENDER SCHEMATIC
PL406	DEFENDER DETAILS
PL500	MECHANICAL SCHEMATIC
PL501	ELECTRICAL SCHEMATIC
PL600	MECHANICAL ROOM PIPE PENETRATIONS
PL601	PIPE PENETRATION SECTIONS

GENERAL DEMOLITION NOTES:

- ALL CONDITIONS SHOWN ON THIS DRAWING ARE EXISTING. OWNER AND ARCHITECT ASSUME NO RESPONSIBILITY FOR ACCURACY OR COMPLETENESS OF INFORMATION SHOWN. CONTRACTORS ARE RESPONSIBLE TO VISIT THE SITE AND REVIEW ALL DOCUMENTS PRIOR TO SUBMITTING THEIR BID TO COMPLETELY FAMILIARIZE THEMSELVES WITH ALL CONDITIONS.
- DEMOLITION DRAWINGS ARE INTENDED TO BE SCHEMATIC IN NATURE, AND MAY NOT DESCRIBE ALL MISCELLANEOUS WORK NECESSARY TO COMPLETE THE DEMOLITION AND NEW WORK. CONTRACTOR MUST INCLUDE THIS MISCELLANEOUS NECESSARY WORK IN BASE BID.
- CONTRACTOR MUST DISCONNECT AND REMOVE ALL EXISTING POOL EQUIPMENT WITHIN THE LIMITS INDICATED WITH HATCHING (XXXXXX). SEE DRAWING NOTES FOR EQUIPMENT THAT MUST BE REUSED IN PLACE AND EQUIPMENT THAT MUST BE RELOCATED AND REUSED.
- CONTRACTOR MUST DISCONNECT AND REMOVE ALL EXISTING ABOVE GRADE POOL RECIRCULATION SYSTEM PIPING, VALVES, FITTINGS, PIPING SUPPORTS, AND SUPPORT FASTENING HARDWARE. THIS SYSTEM PIPING TO INCLUDE BUT IS NOT LIMITED TO: POOL FILTRATION SUPPLY AND RETURN, POOL CHEMICAL TREATMENT SUPPLY AND RETURN.
- CONTRACTOR MUST DISCONNECT AND REMOVE ALL FILTRATION PUMP SUCTION PIPING, VALVES, FITTINGS, PIPING SUPPORTS, AND SUPPORT FASTENING HARDWARE LOCATED INSIDE THE EXISTING SURGE TANK. FOLLOW ALL HEALTH AND SAFETY WORK RELATED REQUIREMENTS FOR CONFINED SPACE ENTRY.
- UNLESS NOTED OTHERWISE ON THE PLAN, CONTRACTOR SHALL DISPOSE OF ALL REMOVED EQUIPMENT AND MATERIALS IN A LEGAL MANNER OFF SITE. COPIES OF ALL MANIFESTS SHALL BE GIVEN TO THE OWNER SHOWING FINAL DISPOSAL LOCATION OF ALL MATERIALS.
- CONTRACTOR MUST MAINTAIN DUST CONTROL AT ALL TIMES.
- CONTRACTOR MUST PROTECT ALL CATCH BASINS, SEWER INLETS, ETC., FROM DEBRIS AND SEDIMENTATION DURING DEMOLITION.
- CONTRACTOR MUST LIMIT THE EXTENT OF HIS DISRUPTION TO THE INDICATED WORK AREA, AND TAKE CARE NOT TO DISRUPT THE SURROUNDING AREA.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND TERMINATING EXISTING ELECTRICAL POWER, WATER, AND GAS LINES WITH LOCAL UTILITIES.
- REFER TO STRUCTURAL SD SERIES DRAWINGS, MECHANICAL MD SERIES DRAWINGS, ELECTRICAL ED SERIES DRAWINGS, AND PLUMBING PD SERIES DRAWINGS FOR ADDITIONAL DEMOLITION SCOPE OF WORK.
- REFER TO ALL OTHER DRAWINGS FOR FURTHER DETAIL ON NEW CONSTRUCTION REQUIREMENTS.

DEFINITIONS:

- REMOVE:** REMOVE AND LEGALLY DISPOSE OF ITEMS EXCEPT THOSE INDICATED TO BE REINSTALLED, SALVAGED, OR TO REMAIN THE OWNER'S PROPERTY.
- REMOVE AND SALVAGE:** ITEMS INDICATED TO BE REMOVED AND SALVAGED REMAIN THE OWNER'S PROPERTY. REMOVE, CLEAN, AND PACK OR CRATE ITEMS TO PROTECT AGAINST DAMAGE. IDENTIFY CONTENTS OF CONTAINERS AND DELIVER TO OWNER'S DESIGNATED STORAGE AREA.
- REMOVE AND REINSTALL:** REMOVE ITEMS INDICATED; CLEAN, SERVICE, AND OTHERWISE PREPARE THEM FOR REUSE; STORE AND PROTECT AGAINST DAMAGE. REINSTALL ITEMS IN THE SAME LOCATIONS OR IN LOCATIONS INDICATED.
- EXISTING TO REMAIN:** PROTECT CONSTRUCTION INDICATED TO REMAIN AGAINST DAMAGE AND SOILING DURING SELECTIVE DEMOLITION. WHEN PERMITTED BY THE OWNER OR ARCHITECT, ITEMS MAY BE REMOVED TO A SUITABLE PROTECTED STORAGE LOCATION DURING SELECTIVE DEMOLITION AND THEN CLEANED AND REINSTALLED IN THEIR ORIGINAL LOCATIONS.

KEYNOTE	DESCRIPTION
1	REMOVE EXISTING CONCRETE GUTTER. REFER TO DETAIL 5 / PL113 FOR DEPTH AND EXTENT OF CUT
2	REMOVE EXISTING POOL MAIN DRAINS.
3	REMOVE EXISTING MANUAL FILL, VALVES AND ABOVE GRADE PIPING. CAP PIPING BELOW GRADE AND ABANDON
4	REMOVE EXISTING CONCRETE APRON FOR INSTALLATION OF NEW SS GUTTER
5	REMOVE EXISTING FINISH AND CONCRETE AS NEEDED FOR INSTALLATION OF NEW RAMPED ENTRY.
6	REMOVE EXISTING RAMPED ENTRY, HANDRAILS AND ASSOCIATED HARDWARE.
7	REMOVE EXISTING BUMP OUT IN POOL WALL.

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 t 920.887.7375 | #18176

NO.	DATE	DESCRIPTION	BY
REVISIONS			

1 | DEMOLITION PLAN
 D100 | PLAN VIEW
 1" = 20'-0"



APP: MJC
 MJC: WRB
 WRB: WRB
 DESIGNED BY: MJC
 DRAWN BY: WRB
 CHECKED BY: WRB
 PROJECT: 21904.14

CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

DEMOLITION PLAN

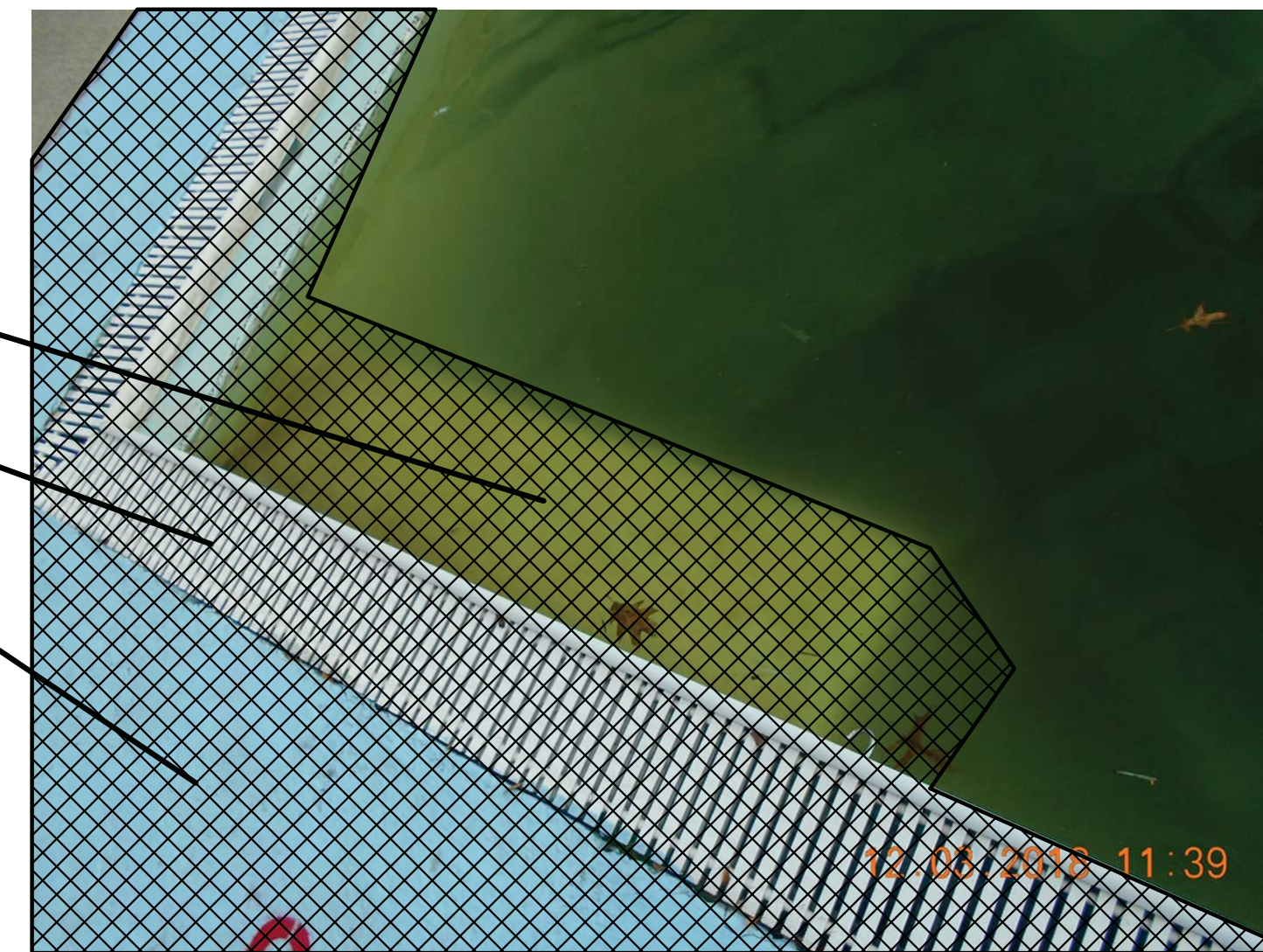
SCALE: AS NOTED
 DATE: 06/17/2022
 DWG.: D100
 SHEET: 43 OF 72



6 | EXISTING APRON/GUTTER DEMOLITION
DETAIL VIEW
NOT TO SCALE



3 | EXISTING RAMP DEMO
DETAIL VIEW
NOT TO SCALE



1 | EXISTING BUMP OUT DEMO
DETAIL VIEW
NOT TO SCALE



7 | EXISTING GUTTER DEMO
DETAIL VIEW
NOT TO SCALE



4 | EXISTING GUTTER DEMO
DETAIL VIEW
NOT TO SCALE



2 | CONCRETE APRON DEMOLITION
DETAIL VIEW
NOT TO SCALE

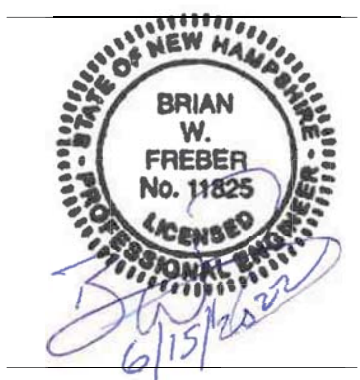


5 | EXISTING MANUAL FILL DEMOLITION
DETAIL VIEW
NOT TO SCALE

KEYNOTE	DESCRIPTION
1	REMOVE EXISTING CONCRETE GUTTER. REFER TO DETAIL 5 / PL113 FOR DEPTH AND EXTENT OF CUT
2	REMOVE EXISTING POOL MAIN DRAINS.
3	REMOVE EXISTING MANUAL FILL, VALVES AND ABOVE GRADE PIPING. CAP PIPING BELOW GRADE AND ABANDON
4	REMOVE EXISTING CONCRETE APRON FOR INSTALLATION OF NEW SS GUTTER
5	REMOVE EXISTING FINISH AND CONCRETE AS NEEDED FOR INSTALLATION OF NEW RAMPED ENTRY.
6	REMOVE EXISTING RAMPED ENTRY, HANDRAILS AND ASSOCIATED HARDWARE.
7	REMOVE EXISTING BUMP OUT IN POOL WALL.

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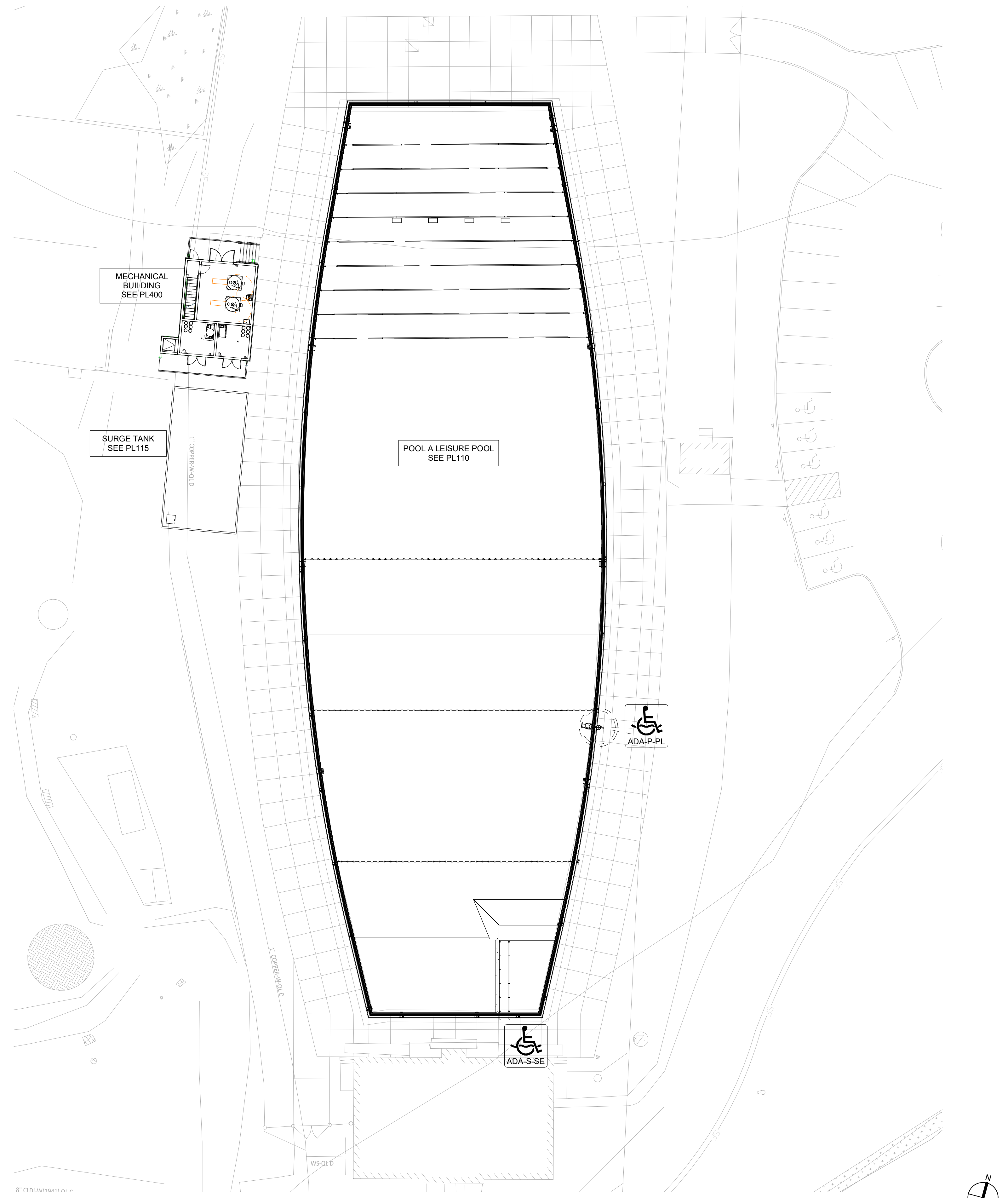
APP: MJC, WRB
DESIGNED BY: MJC
DRAWN BY: WRB
CHECKED BY: [Signature]
PROJECT: 21904.14

CITY OF PORTSMOUTH
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Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

DEMOLITION IMAGES AND DETAILS

SCALE: AS NOTED
DATE: 06/17/2022
DWG.: D101
SHEET: 44 OF 72



GENERAL NOTES:

1. LOCATE LIFEGUARD CHAIRS AS REQUIRED PER STATE AND LOCAL CODES AND PER OWNER'S SAFETY CONSULTANT.
2. SCHEDULE QUANTITIES ARE SHOWN FOR VALUE ENGINEERING PURPOSES. IT IS THE INSTALLING CONTRACTORS RESPONSIBILITY TO VERIFY QUANTITIES REQUIRED.
3. CONTRACTOR MUST CONTACT ENGINEER FOR ELECTRONIC DRAWING FILES PRIOR TO COMMENCING POOL STAKING WORK.
4. ENGINEER WILL PROVIDE ELECTRONIC PLAN VIEW OF ALL POOLS IN AUTOCAD DRAWING FORMAT FOR CONTRACTOR'S USE TO LOCATE STRUCTURES AND RELATED POOL DECK EQUIPMENT.
5. REFER TO PL100 SERIES DRAWINGS FOR ALL POOL PLAN INFORMATION, RELATED EQUIPMENT, AND DETAILS.
6. REFER TO PL200 SERIES DRAWINGS FOR ALL POOL STRUCTURAL PLANS, RELATED INFORMATION, AND DETAILS.
7. REFER TO PL300 SERIES DRAWINGS FOR ALL POOL AND DRAIN PIPING AND RELATED INFORMATION AND DETAILS.
8. REFER TO PL400 SERIES DRAWINGS FOR ALL MECHANICAL EQUIPMENT INFORMATION AND RELATED DETAILS.
9. REFER TO PL500 SERIES DRAWINGS FOR ELECTRICAL SCHEMATICS AND P&IDs.
10. REFER TO PL600 SERIES DRAWINGS FOR PIPE PENETRATIONS.

CODES, STANDARDS AND REGULATIONS:

CONTRACTOR MUST BE FAMILIAR WITH ALL CODES AND STANDARDS LISTED BELOW AND ALERT THE ARCHITECT/ENGINEER TO CONFLICTS IN THE DRAWINGS
PORTSMOUTH, NH

CODE JURISDICTION

PORTSMOUTH, NH

HEALTH & SAFETY CODE:

STATE HEALTH CODE: NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES, CHAPTER ENV-W5 1100

MODEL CODES:

2015 INTERNATIONAL SWIMMING POOL AND SPA CODE

ACCESSIBILITY STANDARDS AND REGULATIONS:

UNITED STATES: 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

1 | OVERALL AQUATIC CENTER
PLAN VIEW
1" = 20'-0"

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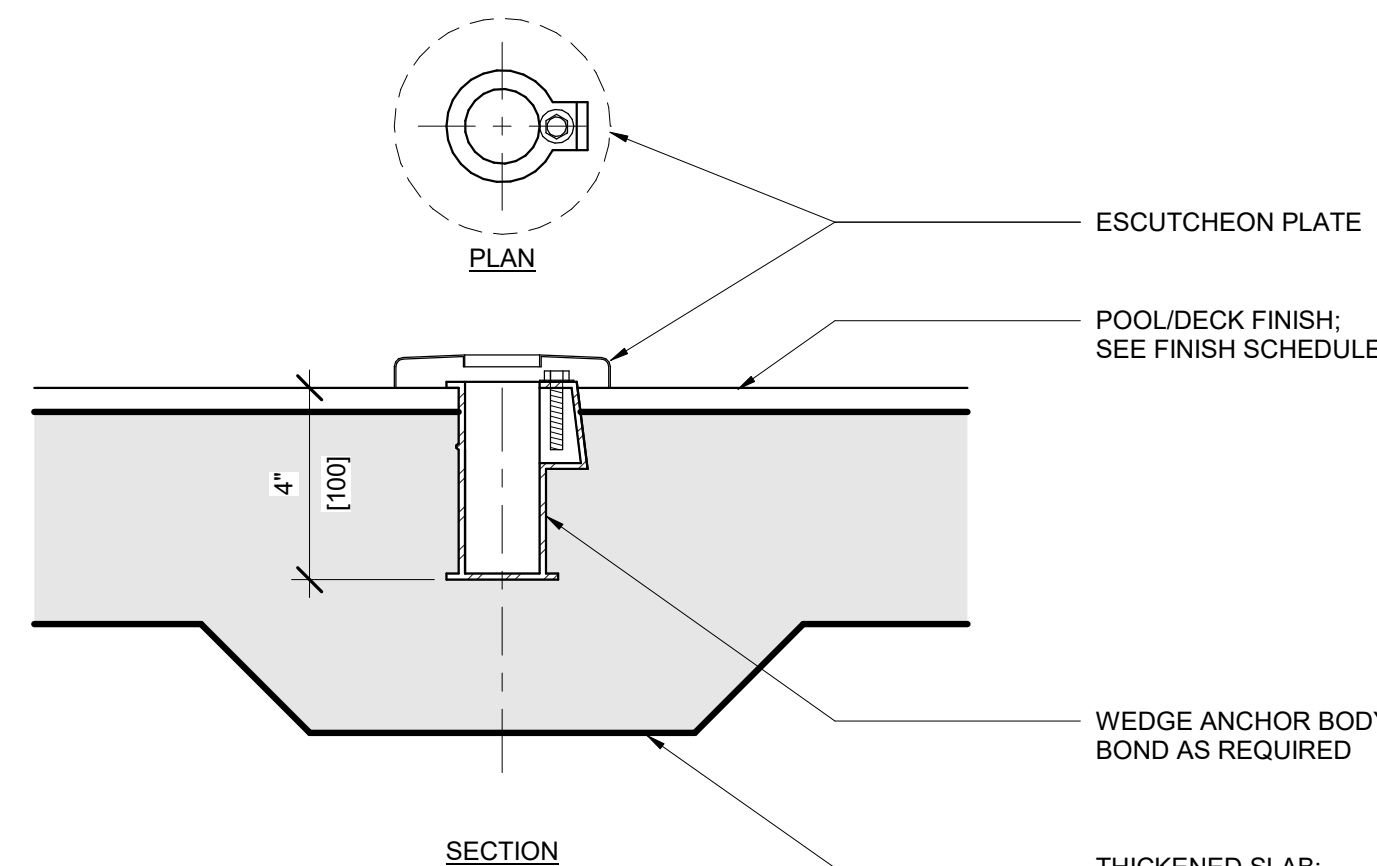
APP: MJC
MJC
WRB
DESIGNED BY:
DRAWN BY:
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PROJECT: 21904.14

CITY OF PORTSMOUTH
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Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

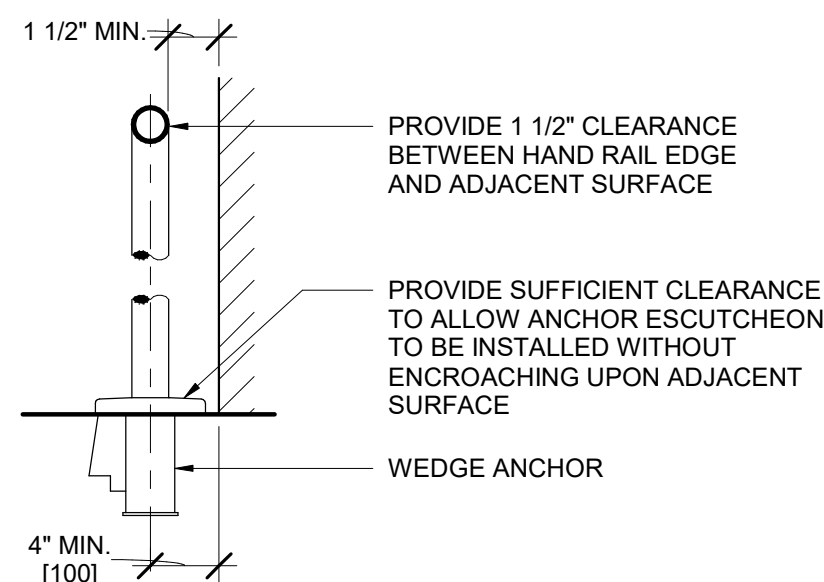
OVERALL AQUATIC PLAN

SCALE: AS NOTED
DATE: 06/17/2022
DWG.: PL100
SHEET: 45 OF 72



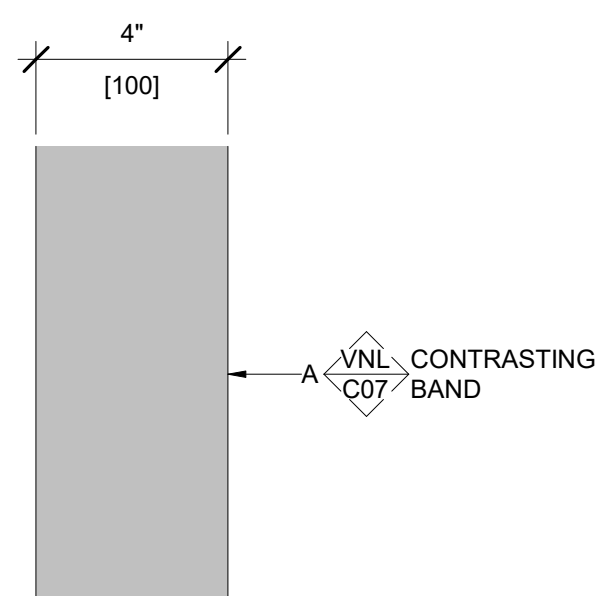
- NOTES:**
- INSTALL ANCHORS IN LINE WITH RAIL.
 - CONCRETE CLEAR COVER AT ANCHOR SHALL BE 3" MINIMUM. THICKEN SLAB IF NECESSARY TO ACHIEVE MINIMUM COVER.
 - WHEN SECOND LAYER OF CONCRETE IS LOCATED DIRECTLY BELOW SLAB IN WHICH ANCHOR IS PLACED (I.E. STAIRS), CLEAR COVER OF CONCRETE AT ANCHOR IN UPPER SLAB SHALL BE 2" MINIMUM.

2 | ANCHOR DETAIL - WEDGE
 PL101
 DETAIL VIEW
 3/4" = 1'-0"



- NOTES:**
- CONTRACTOR TO PURCHASE AND INSTALL RAIL GOODS IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS OF PARTIES HAVING JURISDICTION.
 - CONTRACTOR TO VERIFY HANDRAIL DIMENSIONS PRIOR TO FABRICATION.

3 | RAILING OFFSET TO ADJACENT SURFACE
 PL101
 DETAIL VIEW
 3/4" = 1'-0"

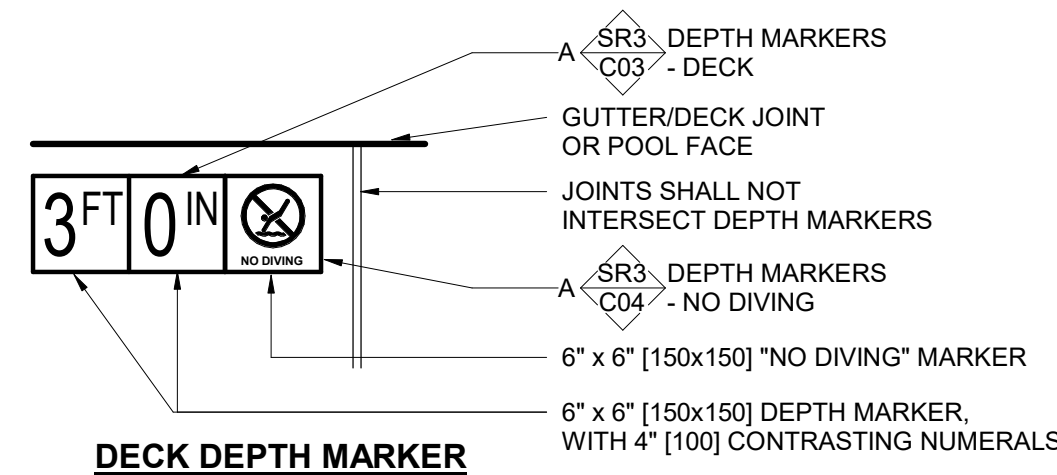


- NOTES:**
- 4" CONTRASTING BAND @ 5'-0" WD CONTINUOUS ON POOL FLOOR AND WALLS; COLOR CONTRASTING TO POOL FINISH.

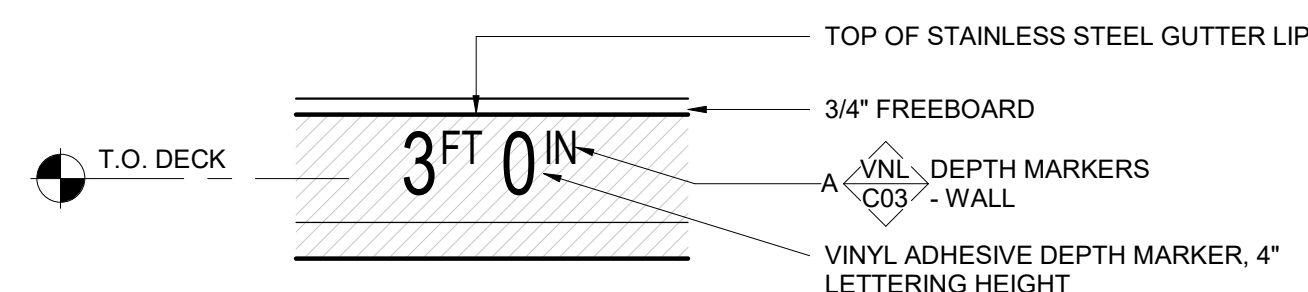
4 | CONTRASTING BAND
 PL101
 DETAIL VIEW
 3/4" = 1'-0"

LEGEND - FINISHES & COLOR CODES - POOL A					
AREA	FINISHES		COLORS		NOTES
	FINISH ID	FINISH	COLOR ID	COLOR	
CONTRASTING BAND	VNL	VINYL	C07	CONTRASTING TO POOL FINISH	
DECK BAND	LB	LIGHT BROOM	C01	AS SELECTED BY ARCHITECT	
DEPTH MARKERS - DECK	SR3	6"x6" SLIP RESISTANT TILE	C03	BLACK ON WHITE	
DEPTH MARKERS - NO DIVING	SR3	6"x6" SLIP RESISTANT TILE	C04	BLACK AND RED ON WHITE	
DEPTH MARKERS - WALL	VNL	VINYL	C03	BLACK ON WHITE	
HORIZONTAL SURFACE (WET)	PL	PVC LINER	C06	LIGHT COLOR	SLIP RESISTANT
INTERMEDIATE STEGMEIER EDGE	LB	LIGHT BROOM	C01	AS SELECTED BY ARCHITECT	
TILE - WATERLINE	KT1	1"x1" KEYSTONE TILE	C01	AS SELECTED BY ARCHITECT	
VERTICAL SURFACE (WET)	PL	PVC LINER	C06	LIGHT COLOR	

- FINISH NOTES:**
- FINISHES PER SCHEDULE UNLESS OTHERWISE INDICATED.
 - VERTICAL SURFACE (WET) AND HORIZONTAL SURFACE (WET) SHALL BE AT LEAST 6.5 ON THE MUNSELL COLOR VALUE SCALE.
 - ALL HORIZONTAL SURFACES MUST BE SLIP RESISTANT AND COMPLY WITH THE ANSI A137.1 STANDARD USING THE DCOF ACUTEST METHODOLOGY:
 - ON WET LEVEL SURFACES, PROVIDE DYNAMIC COEFFICIENT OF FRICTION OF ≥ 0.42 .
 - ON WET SLOPED SURFACES, PROVIDE DYNAMIC COEFFICIENT OF FRICTION OF ≥ 0.65 .
 - DESIGN WATERLINE SHALL HAVE A MAXIMUM CONSTRUCTION TOLERANCE WHEN FINISHED OF $\pm 1/4"$ FOR POOLS AND SPAS WITH ADJUSTABLE SURFACE SKIMMING, AND $\pm 1/8"$ FOR POOLS AND SPAS WITH NONADJUSTABLE SURFACE SKIMMING.



DECK DEPTH MARKER



S.S. GUTTER WALL DEPTH MARKER

- NOTES:**
- WALL DEPTH MARKER AT LOCATIONS AS INDICATED ON PLAN BY THIS SYMBOL.
 - EXCLUDE "NO DIVING" MARKER TILES AT POOL WALL DEPTH MARKER LOCATIONS AND AT POOL DEPTHS GREATER THAN 5'-0".
 - DEPTH MARKERS SHALL BE LEGIBLE FROM INSIDE THE POOL AND FROM THE POOL DECK.
 - DEPTH MARKER TEXT SHALL INDICATE THE ACTUAL POOL DEPTH WITHIN 3" AT NORMAL OPERATING WATER LEVEL WHEN MEASURED 3'-0" FROM POOL WALL. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING PROPER TEXT FOR EACH MARKER LOCATION.
 - MARKINGS SHALL BE INSTALLED FLUSH WITH SURROUNDING SURFACES AND RECESSED IF NECESSARY.
 - ALL MARKINGS INSTALLED ON HORIZONTAL SURFACES SHALL HAVE A SLIP RESISTANT FINISH.
 - DECK DEPTH MARKERS SHALL BE INSTALLED WITHIN 18" OF THE WATER'S EDGE.

1 | FINISH DETAIL - DEPTH MARKER DECK & S.S. GUTTER WALL
 PL101
 DETAIL VIEW
 1" = 1'-0"

TAG LEGEND	
PIPE TAG LINE TYPE IDENTIFIER SYSTEM IDENTIFIER PIPE IDENTIFIER POOL IDENTIFIER	POOL EQUIPMENT TAG POOL IDENTIFIER EQUIPMENT IDENTIFIER
MECHANICAL EQUIPMENT TAG EQUIPMENT IDENTIFIER SYSTEM IDENTIFIER POOL IDENTIFIER	DIMENSION TAG POINT LOCATION POINT IDENTIFIER
WATER FEATURE TAG FEATURE DESIGNATOR EQUIPMENT IDENTIFIER	ELEVATION TAG ELEVATION LOCATION
CUSTOM RAILGOODS TAG POOL IDENTIFIER RAILGOODS IDENTIFIER	POOL STRUCTURAL TAG POOL IDENTIFIER WALL TYPE IDENTIFIER
POOL FIXTURE TAG POOL IDENTIFIER POOL FIXTURE DESIGNATOR EQUIPMENT IDENTIFIER	REVISION TAG REVISION NUMBER
POOL FINISH TAG FINISH TYPE ID POOL IDENTIFIER FINISH COLOR ID FINISH DESCRIPTION	DIMENSIONAL UNITS IMPERIAL UNITS METRIC UNITS (mm)
POOL ACCESSIBILITY TAG P = PRIMARY S = SECONDARY MEANS OF ACCESS	POOL FLOOR ELEVATION RELATIVE TO (SWL) ELEVATION

EQUIPMENT IDENTIFIER KEY	
AC - AIR COMPRESSOR	HX - HEAT EXCHANGER
AF - AUTOFILL	P - PUMP
AHJ - AUTHORITY HAVING JURISDICTION	PV - PNEUMATIC MAIN DRAIN VALVE
AOP - ADVANCED OXIDATION PROCESS	S - STRAINER
AP - pH CONTROL PUMP	SC - CONTAINMENT PALLETTE
AS - pH CONTROL STORAGE	SV - SURGE TANK FAN
BP - BOOSTER PUMP	UV - ULTRA-VIOLET DISINFECTION
C - CHEMICAL CONTROLLER	V - VARIABLE FREQUENCY DRIVE
CP - CHLORINE FEED PUMP	WC - WATER CHILLER
CS - CHLORINE STORAGE	WD - WATER DEPTH
EV - ELECTRONIC MAIN DRAIN VALVE	
F - FILTER	
FM - FLOW METER	
FP - FLOW METER POWER SUPPLY	
H - HEATER	

ABBREVIATIONS	
BO - BOTTOM OF	P&ID - PIPING & INSTRUMENTATION DIAGRAM
CJ - CONTROL JOINT	PL - POOL LIFT
DIA - DIAMETER	PS - POOL STAIRS
EJ - EXPANSION JOINT	SCH - SCHEDULE
EW - EACH WAY	SE - SLOPED ENTRY
FFE - FINISH FLOOR ELEVATION	SS - STAINLESS STEEL
ID - INSIDE DIAMETER	SWL - STATIC WATER LEVEL
MAX - MAXIMUM	TO - TOP OF
MIN - MINIMUM	TS - TRANSFER SYSTEM
NC - NORMALLY CLOSED	TUBC - TRUE UNION CHECK VALVE
NO - NORMALLY OPEN	TUBV - TRUE UNION BALL VALVE
NPS - NOMINAL PIPE SIZE	TW - TRANSFER WALL
OC - ON CENTER	TYP - TYPICAL
OD - OUTSIDE DIAMETER	WD - WATER DEPTH
OWE - OPERATING WATER ELEVATION	

SCHEDULE - SAFETY & MAINTENANCE EQUIPMENT			
QTY	PRODUCT NAME	MANUFACTURER	NOTES
1	25 PERSON AQUATIC FIRST AID KIT	WATER SAFETY PRODUCTS	25 PERSON OSHA FIRST AID KIT TO INCLUDE BIOHAZARD COMPLIANCE RESPONSE AND CPR MICROMASK WITH NITRILE GLOVES
1	AUTOMATIC VACUUM CLEANING SYSTEM	AQUAPRODUCTS ULTRAMAX GEMINI	AUTOMATIC CLEANER, RADIO REMOTE CONTROL, ULTRAKART CADDY, DIGITAL TIMER DISPLAY, 120 FT CORD
1	LIFE BUOY	WATER SAFETY PRODUCTS	30" DIA, MADE OF UNICELL SOFT FOAM WITH HARD SHELL COVERING
1	LIFE HOOK & RESCUE POLE	WATER SAFETY PRODUCTS	ANODIZED ALUMINUM POLE, WITH DOUBLE LIFE HOOK. 2 - 8 FEET SECTIONS WITH CONNECTOR & RUBBER END CAP
1	MANUAL VACUUM CLEANING SYSTEM	WILDCAT E.1	SELF CONTAINED, PORTABLE SWIMMING POOL VACUUM SYSTEM. PROVIDE WITH LARGE MARINE BATTERY BOX, STANDARD DEBRIS BAG, SUPERFINE DEBRIS BAG (HH1508) MK POWER DEEP CYCLE, VLRA MARINE GEL BATTERY, SERIES SIZE 27. PROVIDE NOCO G7200 BATTERY CHARGER (HH1900)
12	RESCUE TUBE	WATER SAFETY PRODUCTS	50" LONG x 6" WIDE x 4" THICK. NO CLIPS, NO RINGS. 2" WIDE ADJUSTABLE SHOULDER STRAP. CONNECTED TO TUBE BY 1" STRAPPING. STRAPPING EXTENDS COMPLETELY THROUGH LENGTH OF TUBE.
1	SPINEBOARD W/ HEAD IMMOBILIZER	WATER SAFETY PRODUCTS	X-RAY TRANSLUCENT BACKBOARD WITH HEAD IMMOBILIZER AND BODY STRAPS
1	THROW LINE	WATER SAFETY PRODUCTS	60' MARINE POLYPRO LINE, WITH 3" x 5" LEMON FLOAT
1	WATER TEST KIT	TAYLOR "SERVICE COMPLETE"	FAS DPD CHLORINE KIT

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CHECKED BY: WRB
PROJECT: 21904-14

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AND POOL RENOVATION
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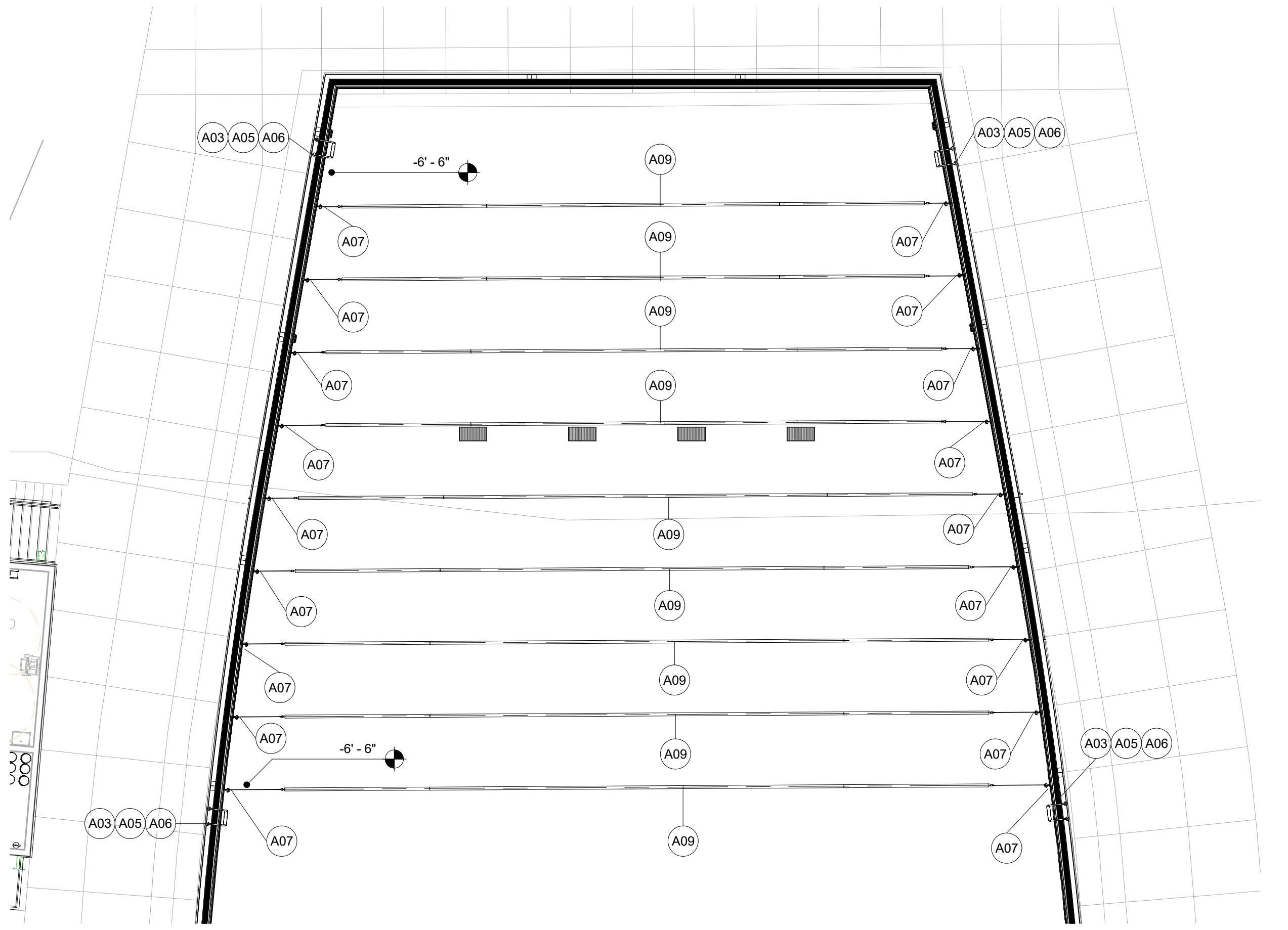
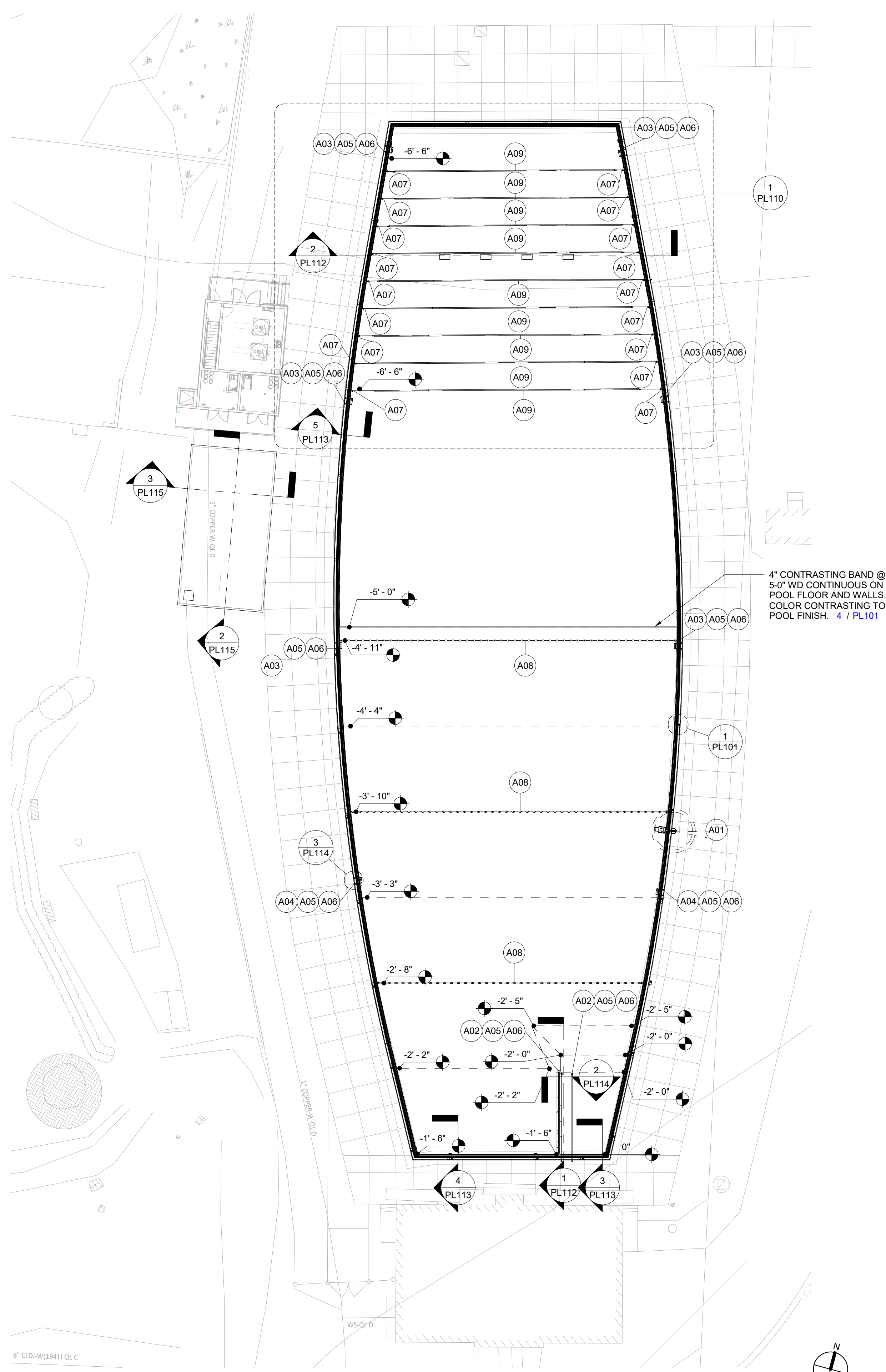
POOL A - LEISURE POOL PLAN

SCALE: AS NOTED
DATE: 06/17/2022
DWG.: PL110
SHEET: 47 OF 72

POOL A-LEISURE POOL DATA			
DESCRIPTION	QTY	UNITS	
POOL PERIMETER	722	FEET	
WATER SURFACE AREA	25,287	SQUARE FEET	
POOL VOLUME	894,615	GALLONS	
SURGE TANK - POOL SURGE VOLUME	25,344	GALLONS	
SURGE FACTOR	1.0	GAL/SFT	
CIRCULATION RATE	2,982	GPM	
TURNOVER/VOLUME/FLOW	300 MIN.	894,615 GAL.	2,982 GPM
FILTRATION RATE	1.23	GPM/FT ²	
BACKWASH RATE	300	GPM	
PATRON LOAD	937	PERSONS	

SCHEDULE - BASIS OF DESIGN - POOL A

POOL ID	EQUIPMENT ID	EQUIPMENT	QTY	MANUFACTURER	DESCRIPTION
A	01	POOL LIFT	1	S.R. SMITH OR EQUAL	SPLASH ER EXTENDED REACH CALIFORNIA LIFT PACKAGE. INCLUDES ARM REST PACKAGE AND SPINE BOARD MUST BE ADA COMPLIANT WITH A MINIMUM LIFTING CAPACITY OF 400 LBS. INCLUDE SPLASH CADDY, BATTERY CHARGER AND EXTRA BATTERY AND TOTAL COVER. PROVIDE ANCHOR AND COORDINATE ANCHOR LOCATION WITH GENERAL CONTRACTOR AND STRUCTURAL DRAWINGS.
A	02	HAND RAILS	2	PARAGON AQUATICS, SPECTRUM AQUATICS, SR SMITH OR EQUAL	CUSTOM FABRICATED, 316L SS, 1.50" OD x .120 WALL THICKNESS, 500 GRIT FINISH MIN.
A	03	POOL LADDER	6	PARAGON AQUATICS, SPECTRUM AQUATICS, SR SMITH OR EQUAL	CROSS BRACED, HEAVY DUTY, 18" WIDTH, 4 STEPS 316L SS, 1.50" OD x .120 WALL THICKNESS, 500 GRIT FINISH MIN.
A	04	POOL LADDER	2	PARAGON AQUATICS, SPECTRUM AQUATICS, SR SMITH OR EQUAL	CROSS BRACED, HEAVY DUTY, 18" WIDTH, 3 STEPS 316L SS, 1.50" OD x .120 WALL THICKNESS, 500 GRIT FINISH MIN.
A	05	ESCUTCHEON PLATE	28	PARAGON AQUATICS, SPECTRUM AQUATICS, SR SMITH OR EQUAL	STAINLESS STEEL ROUND ESCUTCHEON FOR 1.50" O.D. RAILS
A	06	WEDGE ANCHOR	28	PARAGON AQUATICS, SPECTRUM AQUATICS, SR SMITH OR EQUAL	CAST BRONZE, 4-1/4" LONG, ACCEPTS 1.500" OD TUBING
A	07	CUP ANCHOR	24	PADDOCK	STAINLESS STEEL CUP ANCHOR INTEGRAL WITH STAINLESS STEEL GUTTER
A	08	SAFETY ROPE	3	PARAGON AQUATICS	3/4" POLYETHYLENE ROPE WITH 5"x9" HANDI-LOCK FLOAT, VERIFY LENGTH WITH PLANS
A	09	LANE DIVIDERS	9	COMPETITOR SWIM PRODUCTS	4" WAVE QUELLING RACING LANE LINE, COLORS BY OWNER / ARCHITECT



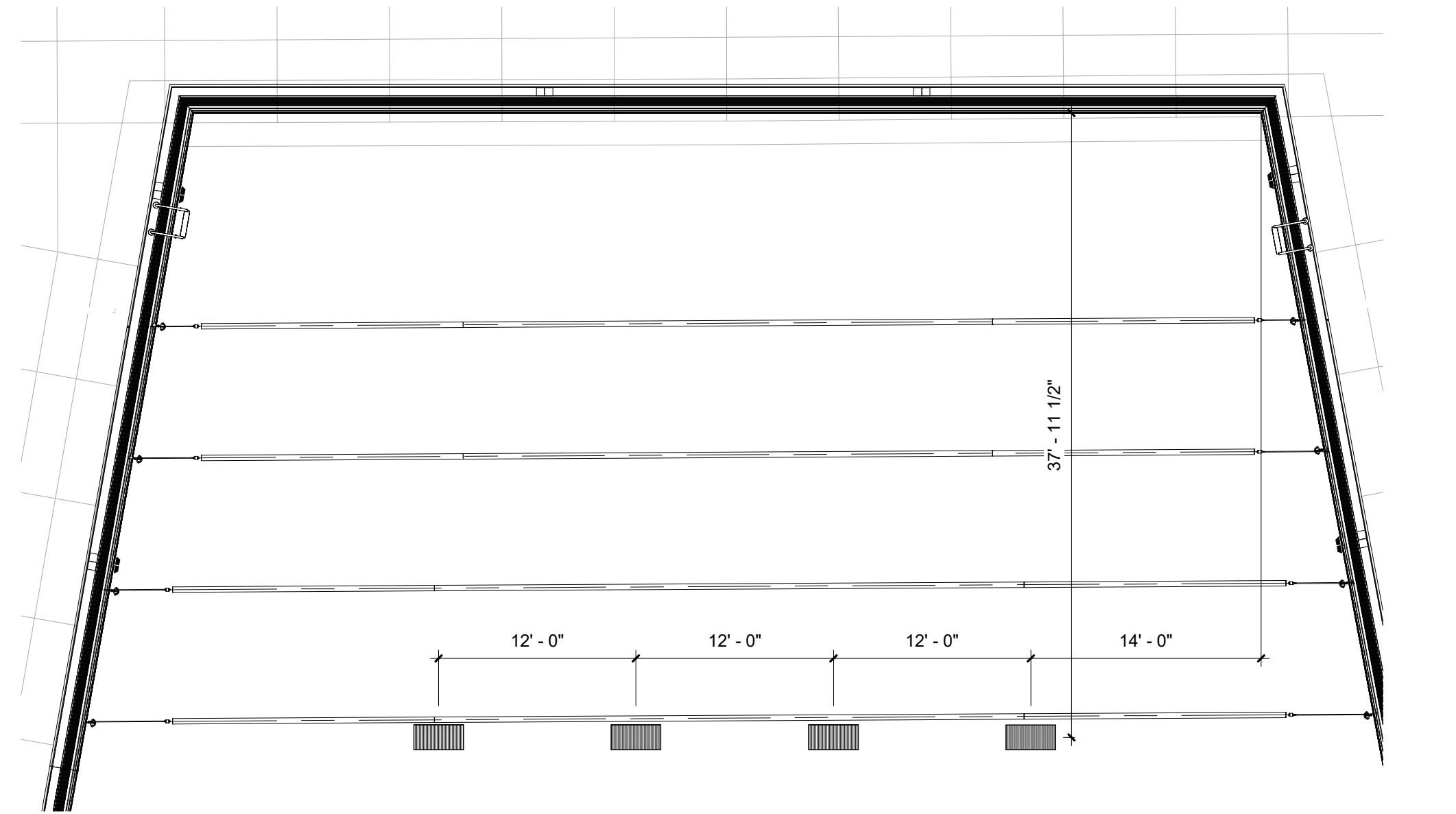
1 POOL A - LEISURE POOL ENLARGED EQUIPMENT PLAN
PLAN VIEW
3/32" = 1'-0"

2 POOL A - LEISURE POOL PLAN
PLAN VIEW
1" = 20'-0"

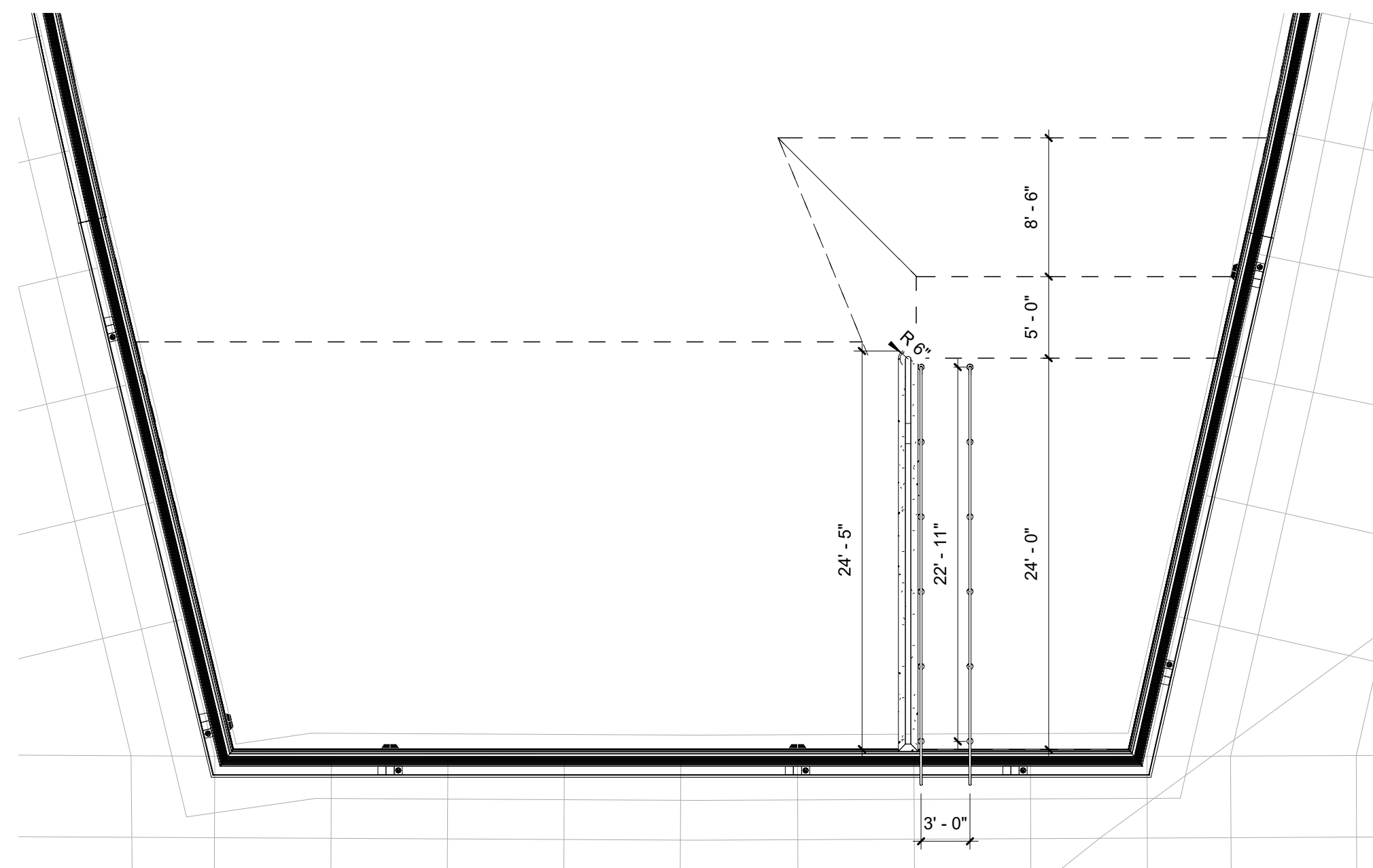
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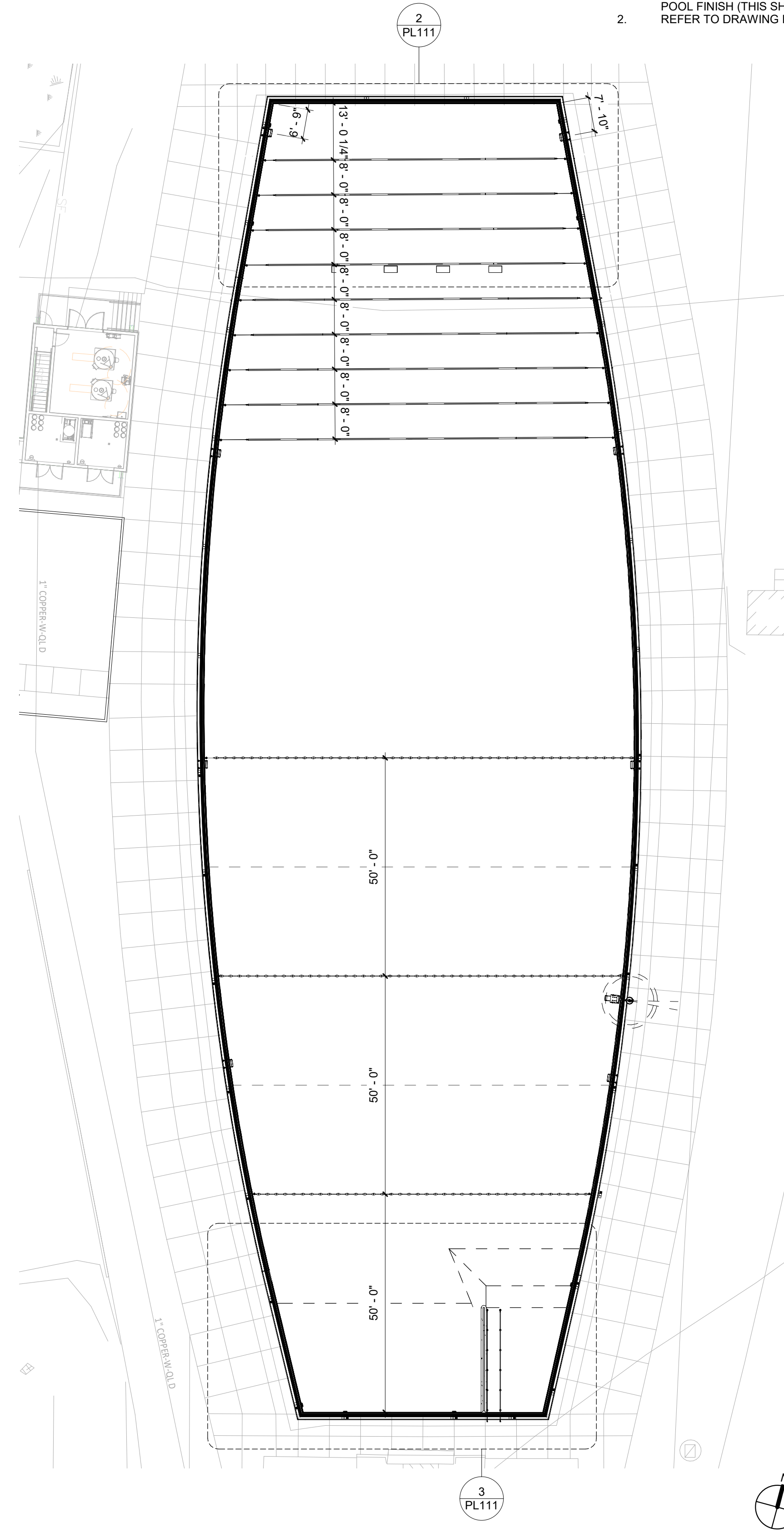
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2 POOL A - LEISURE POOL OUTLET ENLARGED DIMENSION
 PLAN VIEW
 1/8" = 1'-0"



3 POOL A - LEISURE POOL RAMP ENLARGED DIMENSION
 PLAN VIEW
 1/8" = 1'-0"



1 POOL A - LEISURE POOL DIMENSION
 PLAN VIEW
 1" = 20'-0"

- DIMENSIONING NOTES:**
- ALL DIMENSIONS ARE SHOWN FROM POOL FINISH TO POOL FINISH (THIS SHEET)
 - REFER TO DRAWING PL110 FOR WATER DEPTHS.

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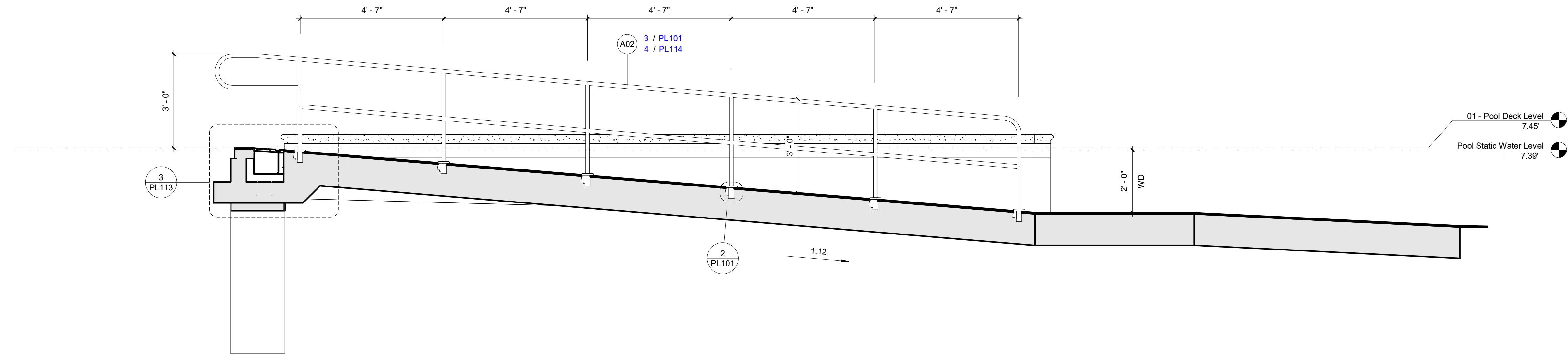
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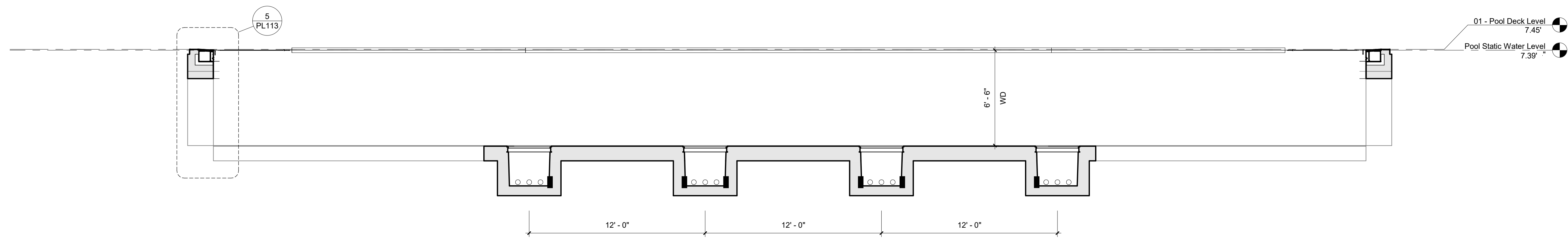
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POOL A - LEISURE POOL DIMENSION PLAN

SCALE: AS NOTED
 DATE: 06/17/2022
 DWG.: PL111
 SHEET: 48 OF 72



1 POOL A - LEISURE POOL - RAMP
SECTION VIEW
1/2" = 1'-0"



2 POOL A - LEISURE POOL - DRAINS
SECTION VIEW
1/4" = 1'-0"



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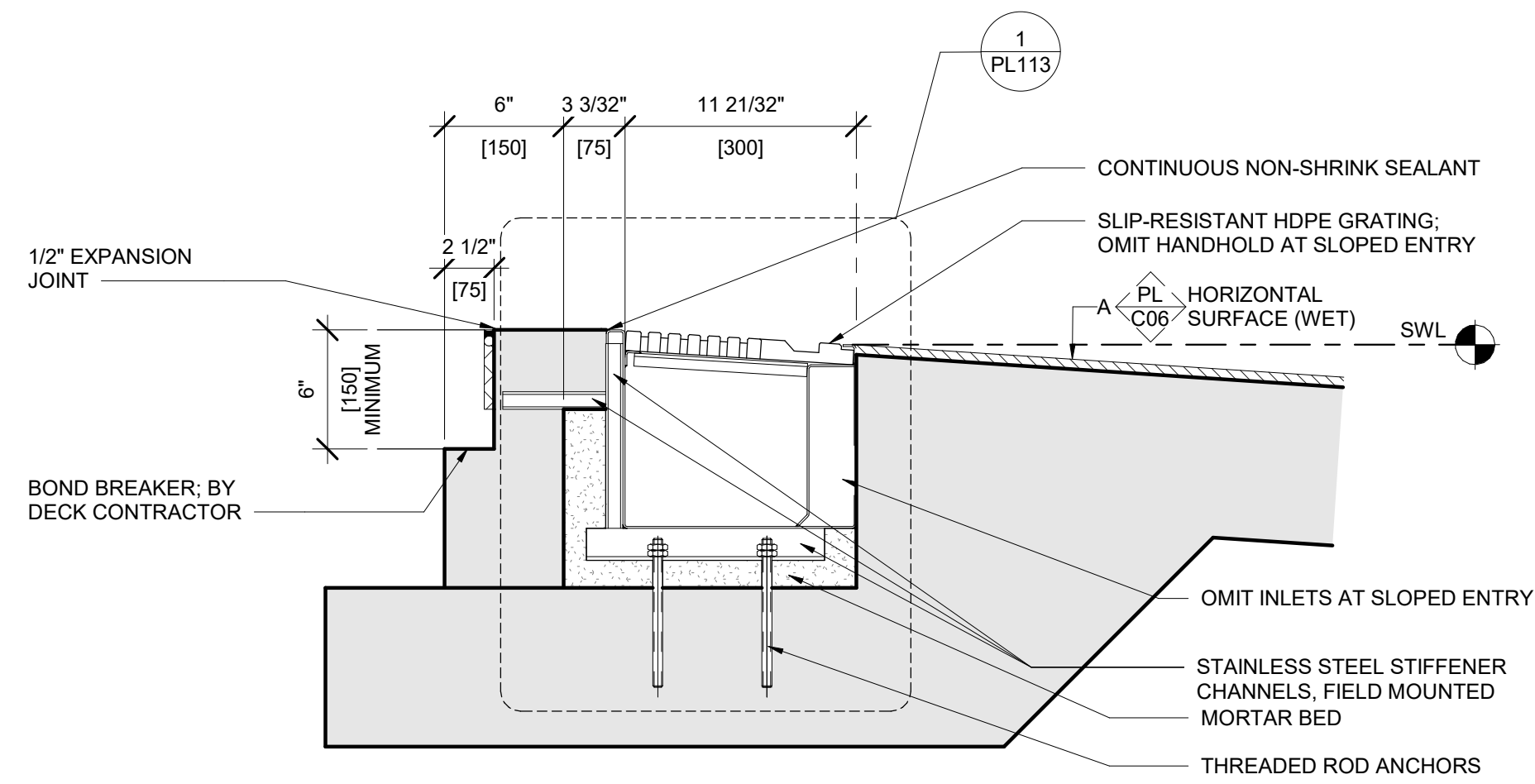
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POOL A - LEISURE POOL SECTIONS AND DETAILS

SCALE: AS NOTED
DATE: 06/17/2022
DWG.: PL112
SHEET: 49 OF 72

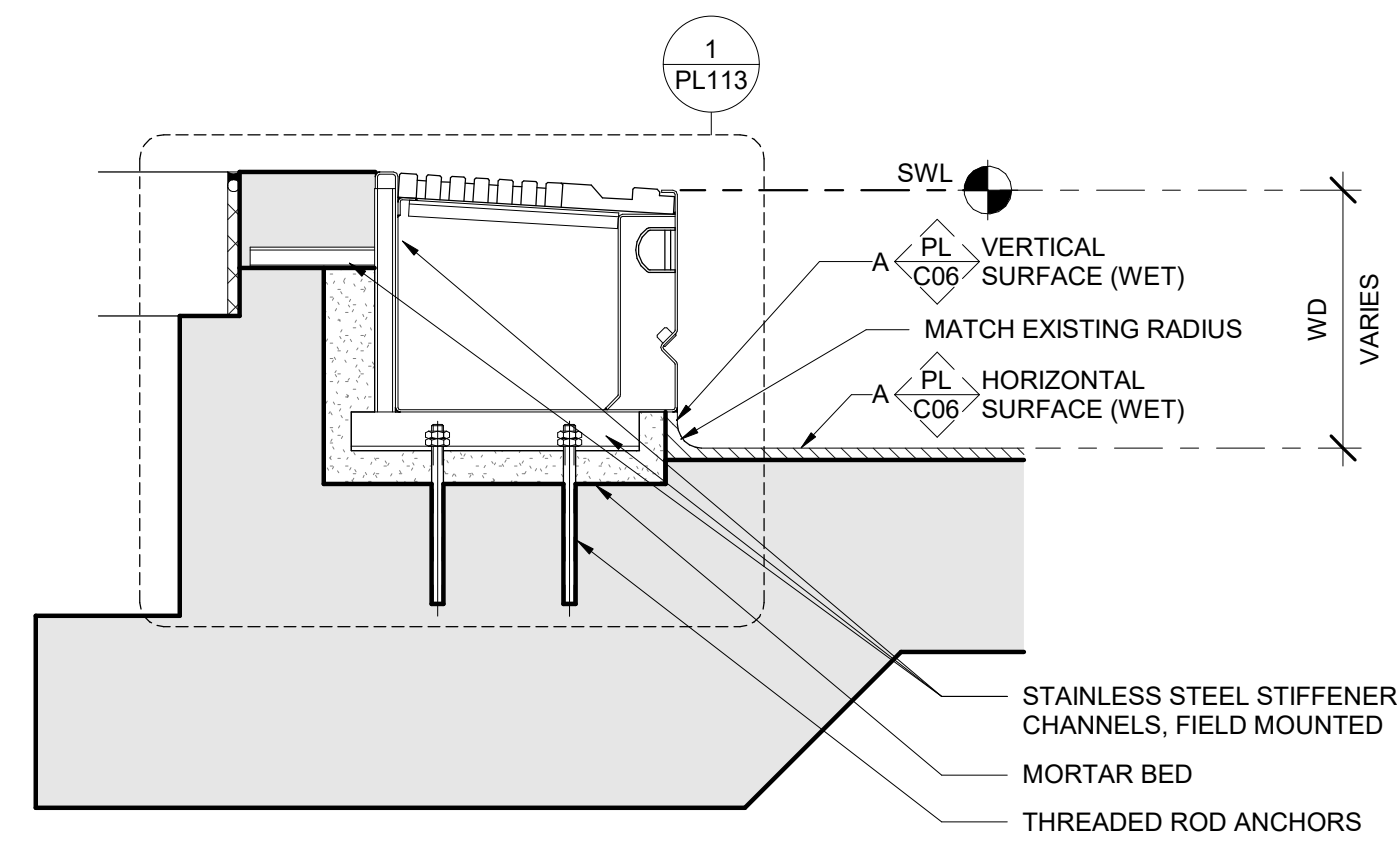
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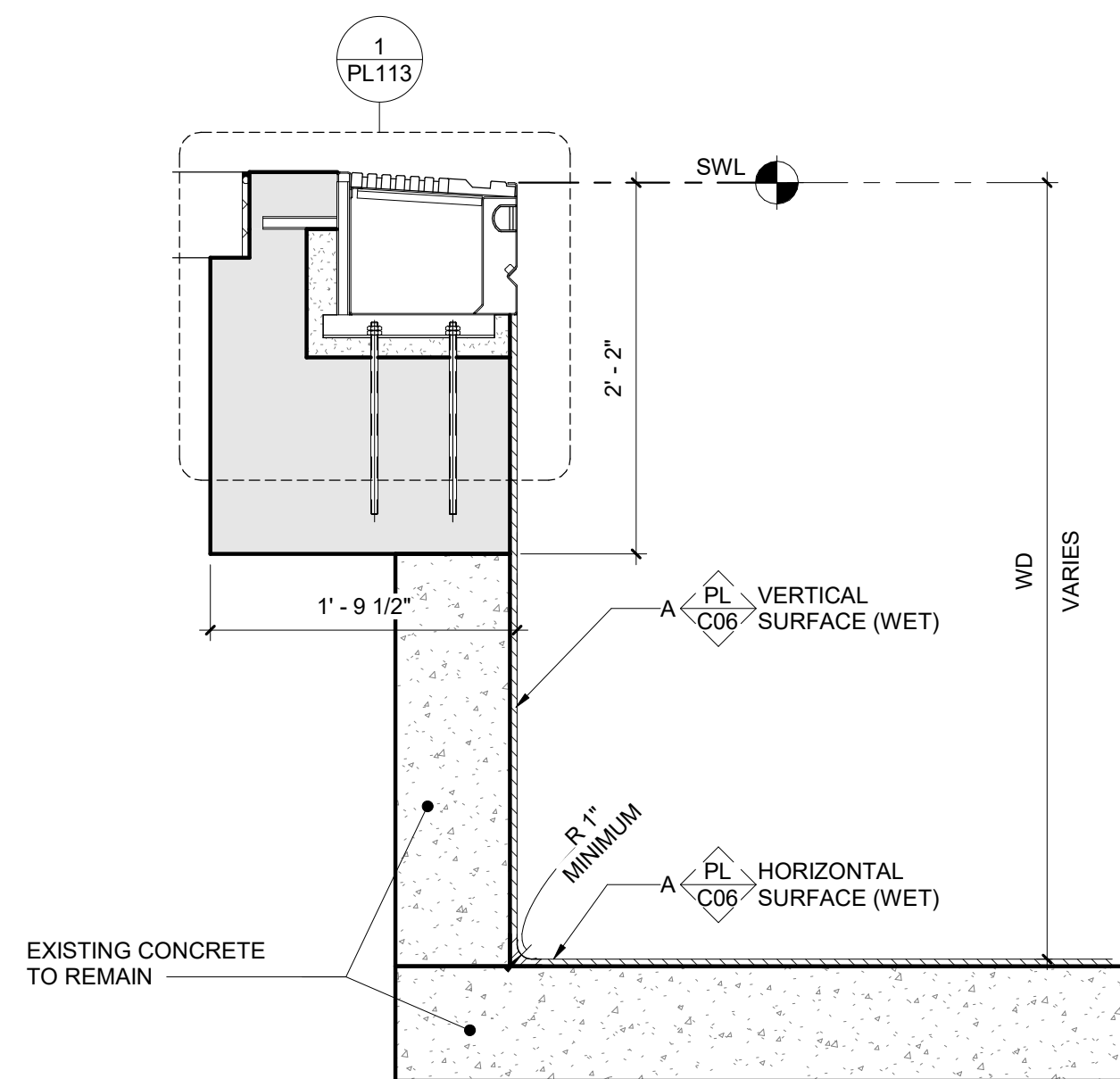
NOTE:
SECURE GRATING ON EACH SIDE WITH SS ANCHORS @ 1'-0" [300mm] INTERVALS.

3 | POOL WALL - 0" WD
DETAIL VIEW
1 1/2" = 1'-0"

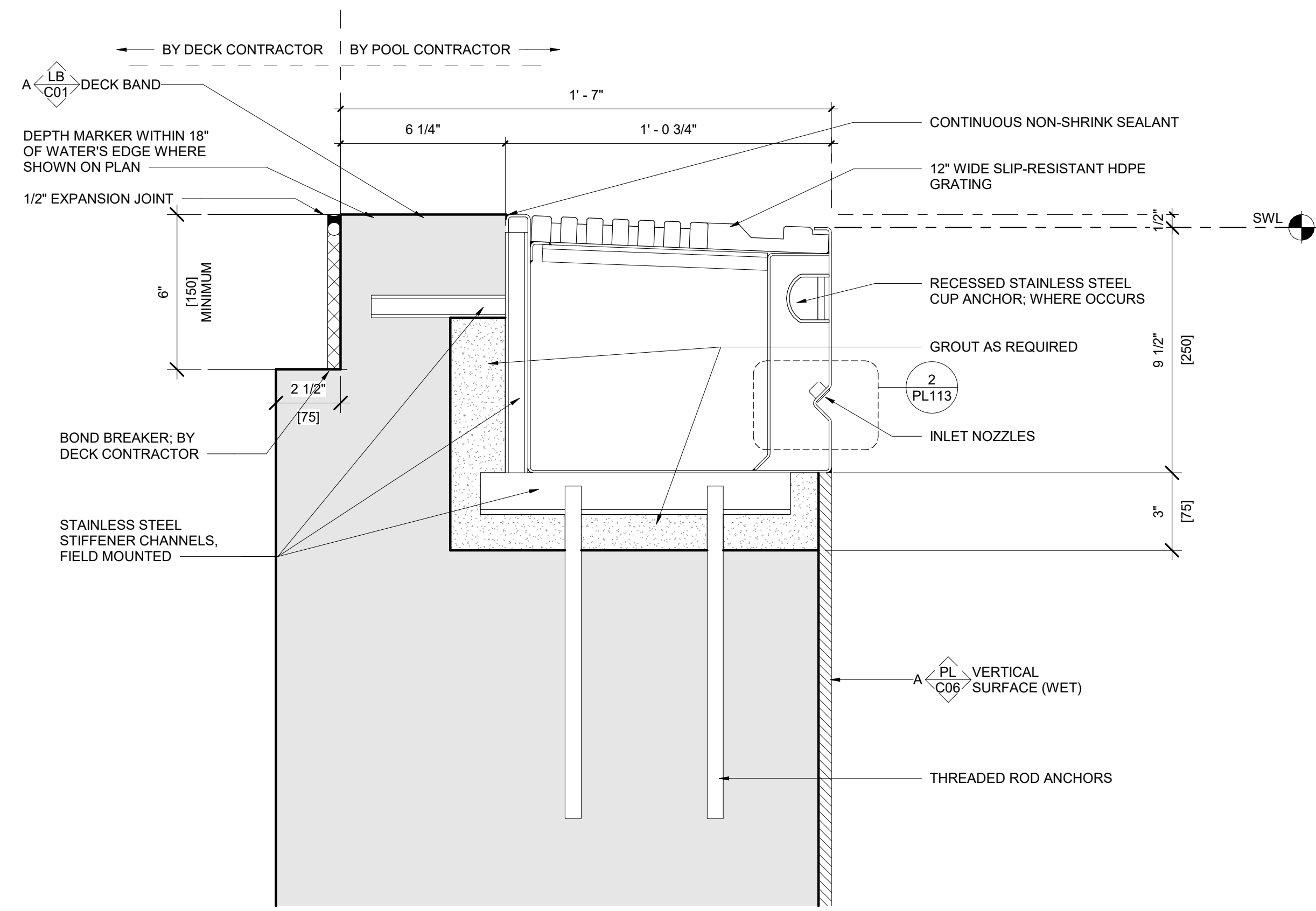


NOTE:
SECURE GRATING ON EACH SIDE WITH SS ANCHORS @ 1'-0" [300mm] INTERVALS.

4 | POOL WALL
DETAIL VIEW
1 1/2" = 1'-0"

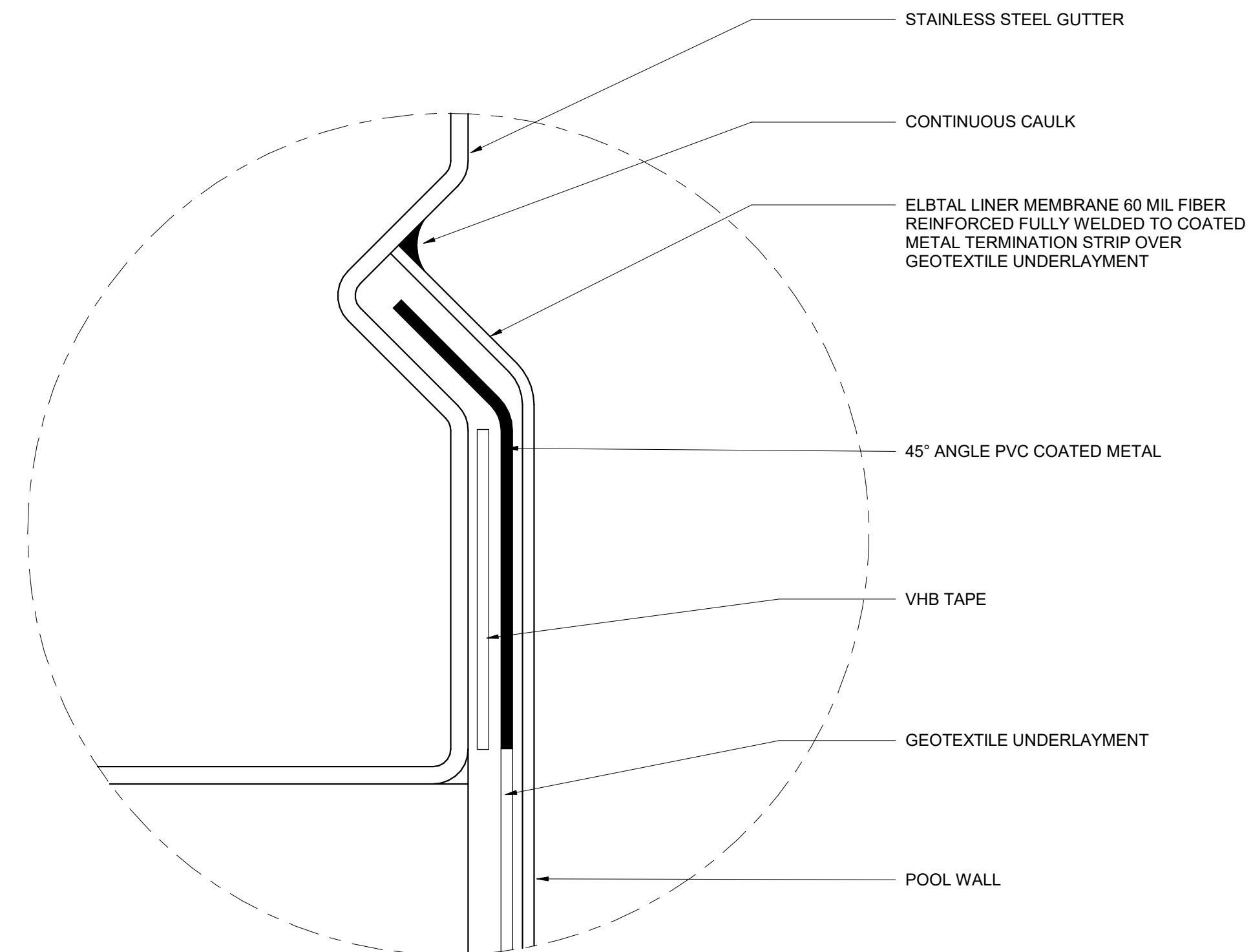


5 | POOL WALL DETAIL AT EXISTING WALL
DETAIL VIEW
1" = 1'-0"



NOTE:
SECURE GRATING ON EACH SIDE WITH SS ANCHORS @ 1'-0" [300mm] INTERVALS.

1 | POOL WALL DETAIL - FINISH
DETAIL VIEW
3" = 1'-0"



2 | ENLARGED POOL LINER DETAIL
DETAIL VIEW
6" = 1'-0"



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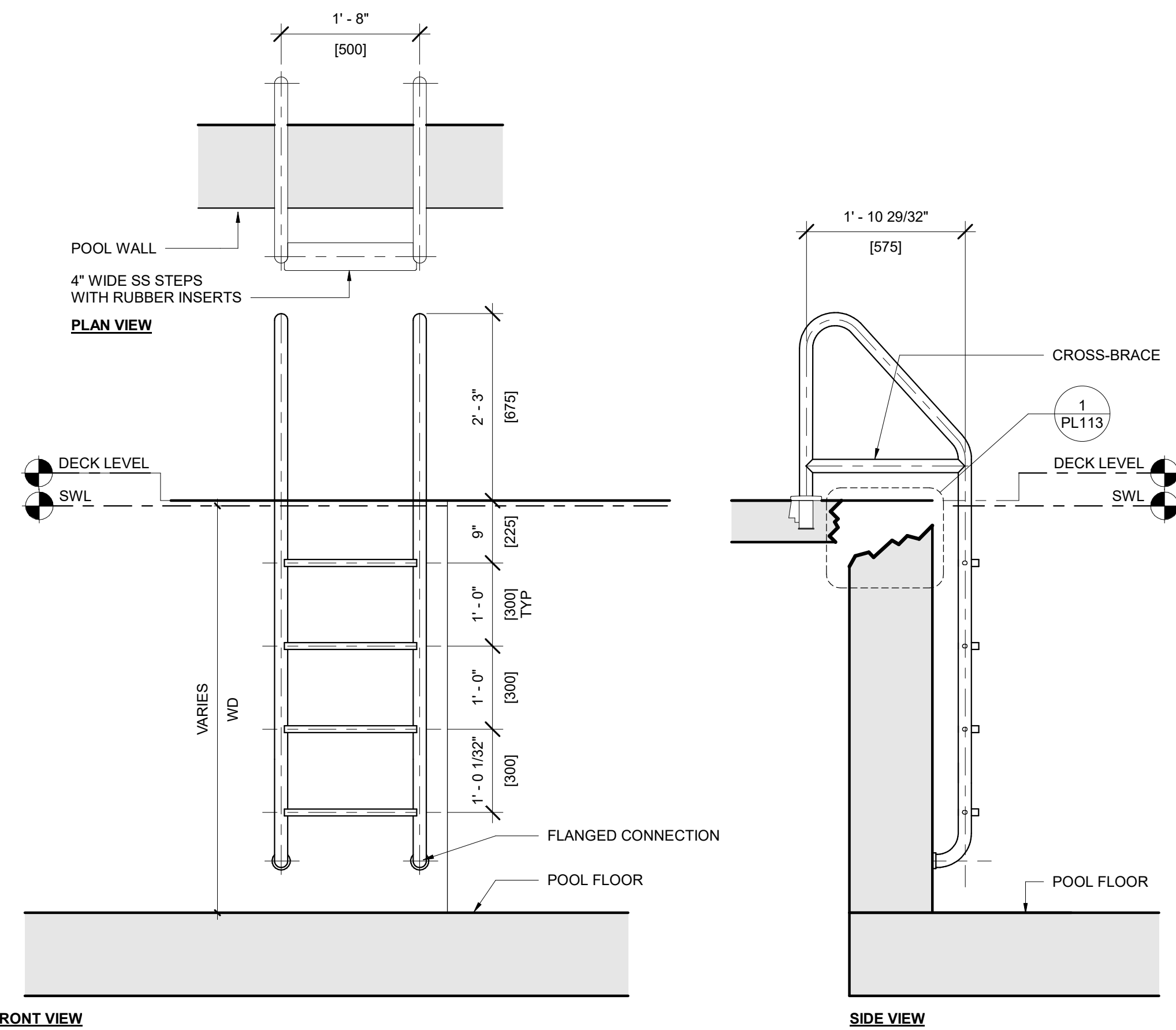
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POOL A - LEISURE POOL
DETAILS - 1

SCALE: AS NOTED
DATE: 06/17/2022

DWG.: PL113

SHEET: 50 OF 72

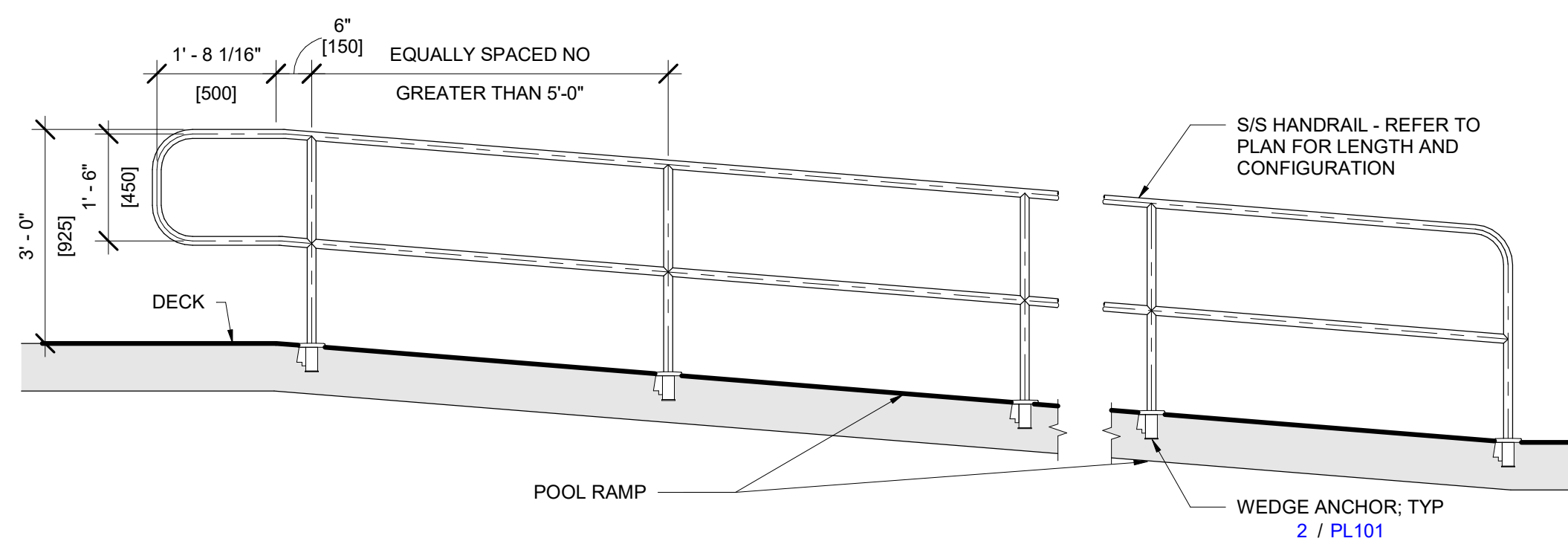


FRONT VIEW

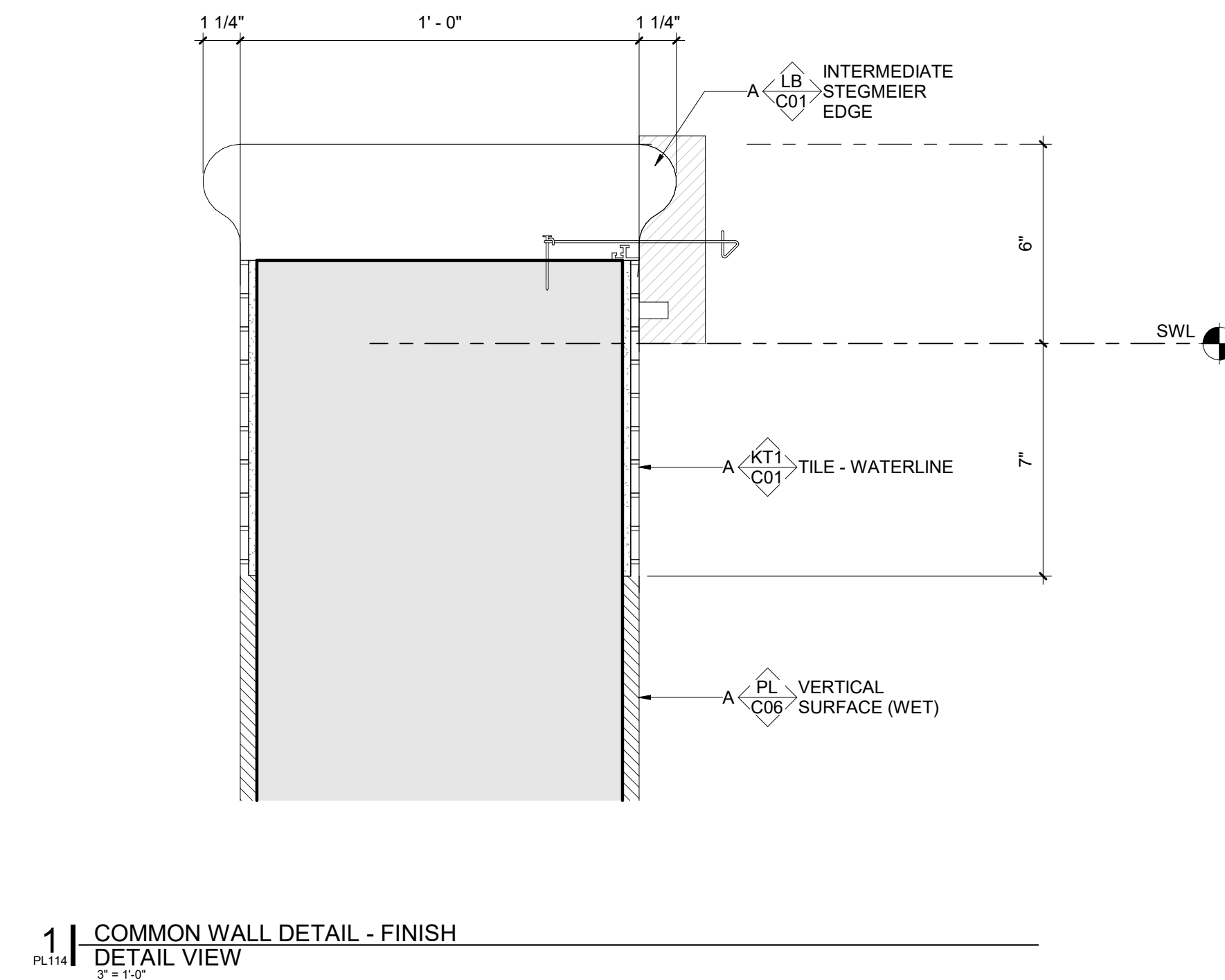
SIDE VIEW

SPECIFICATIONS
 LADDER FRAMES MUST BE FABRICATED WITH SMOOTH, WRINKLE-FREE BENDS. THE PIPE MUST BE 1.900" OD X .109" WALL THICKNESS, TYPE 316L, POLISHED TO 500 GRIT. STEPS SHALL BE SS, 4" WIDE, WITH RAISED NON-SKID RUBBER INSERT TREADS. THE ENDS OF ALL STEPS SHALL BE CURVED TO FIT THE OD OF THE LADDER FRAMES. THE BOLTS FOR ATTACHING THE LADDER STEPS MUST HAVE SMOOTH, ROUNDED HEADS AND THE UNDERSIDE OF THE HEAD MUST BE CURVED TO FIT THE OD OF THE TUBING. ALL LADDERS MUST HAVE FLANGED CONNECTIONS AT THEIR LOWER ENDS. ANCHOR TO POOL WALL WITH 316 SS ANCHORS 4" MIN FROM POOL FLOOR. CROSS-BRACE SHALL BE NOTCHED AND WELDED TO THE LADDER FRAMES. JOINTS MUST BE CLEANED AND BLENDED TO MATCH THE FINISH OF THE PIPE.

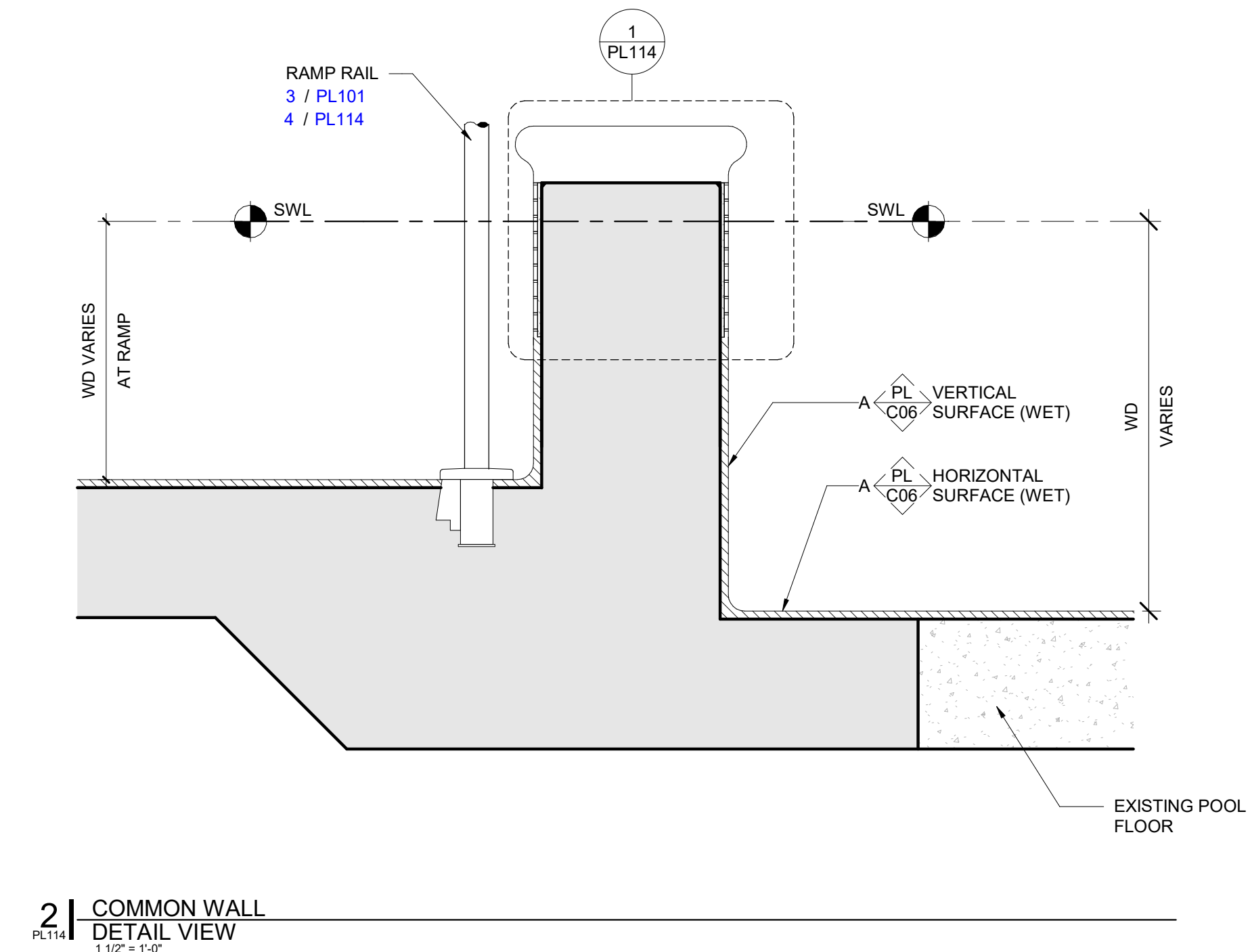
**3 POOL LADDER
 DETAIL VIEW**
 3/4" = 1'-0"



**4 RAIL DETAIL - RAMP
 DETAIL VIEW**
 1/2" = 1'-0"



**1 COMMON WALL DETAIL - FINISH
 DETAIL VIEW**
 3" = 1'-0"



**2 COMMON WALL
 DETAIL VIEW**
 1 1/2" = 1'-0"

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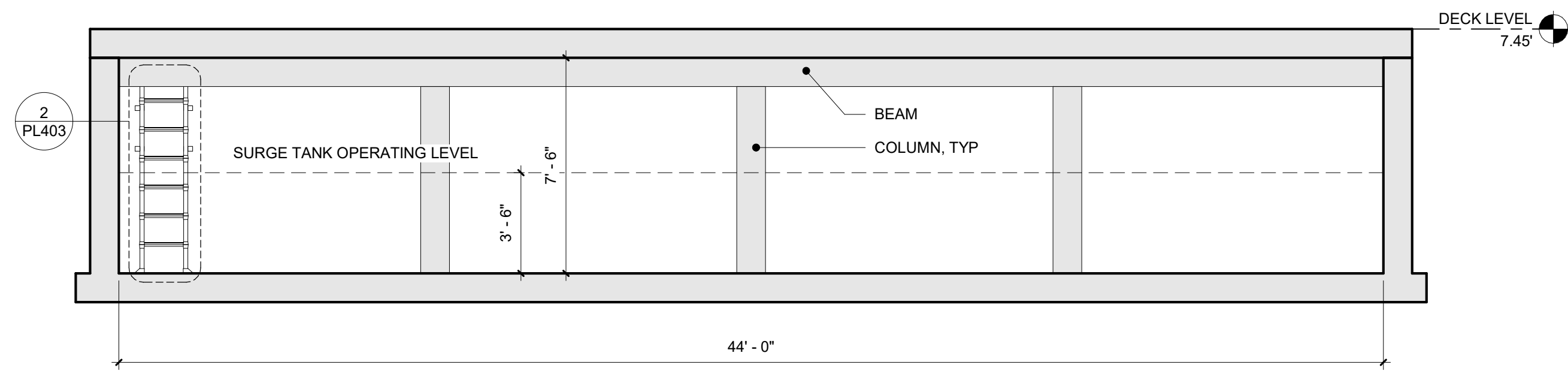
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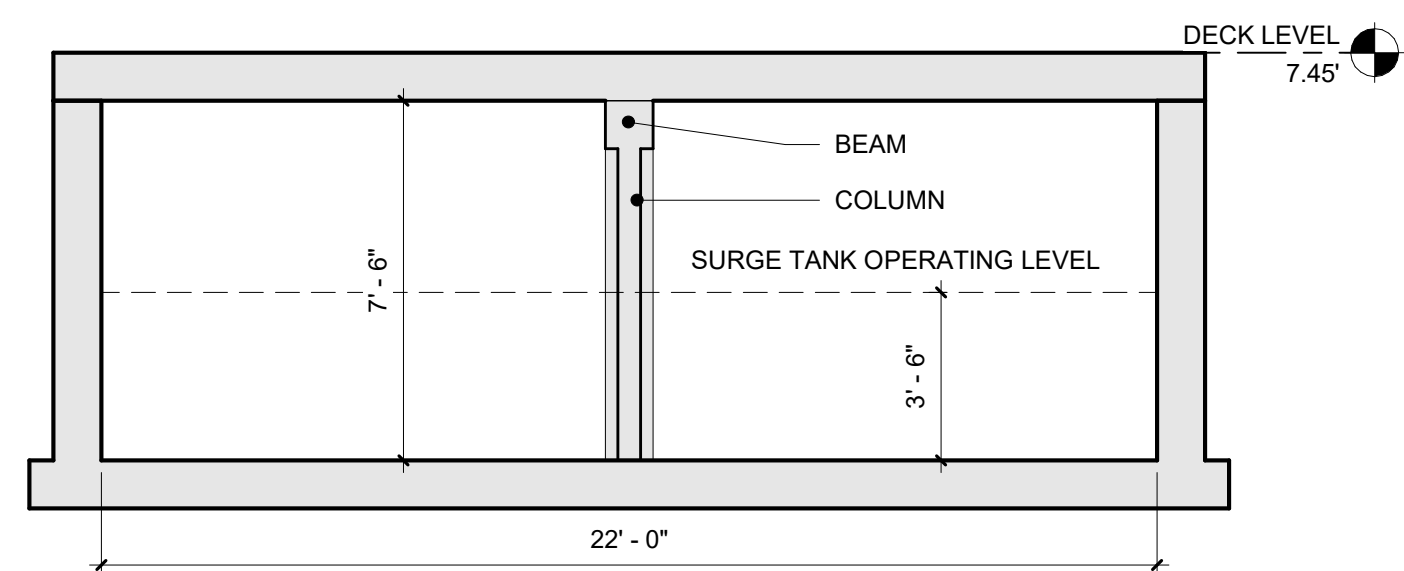
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**POOL A - LEISURE POOL
 DETAILS - 2**

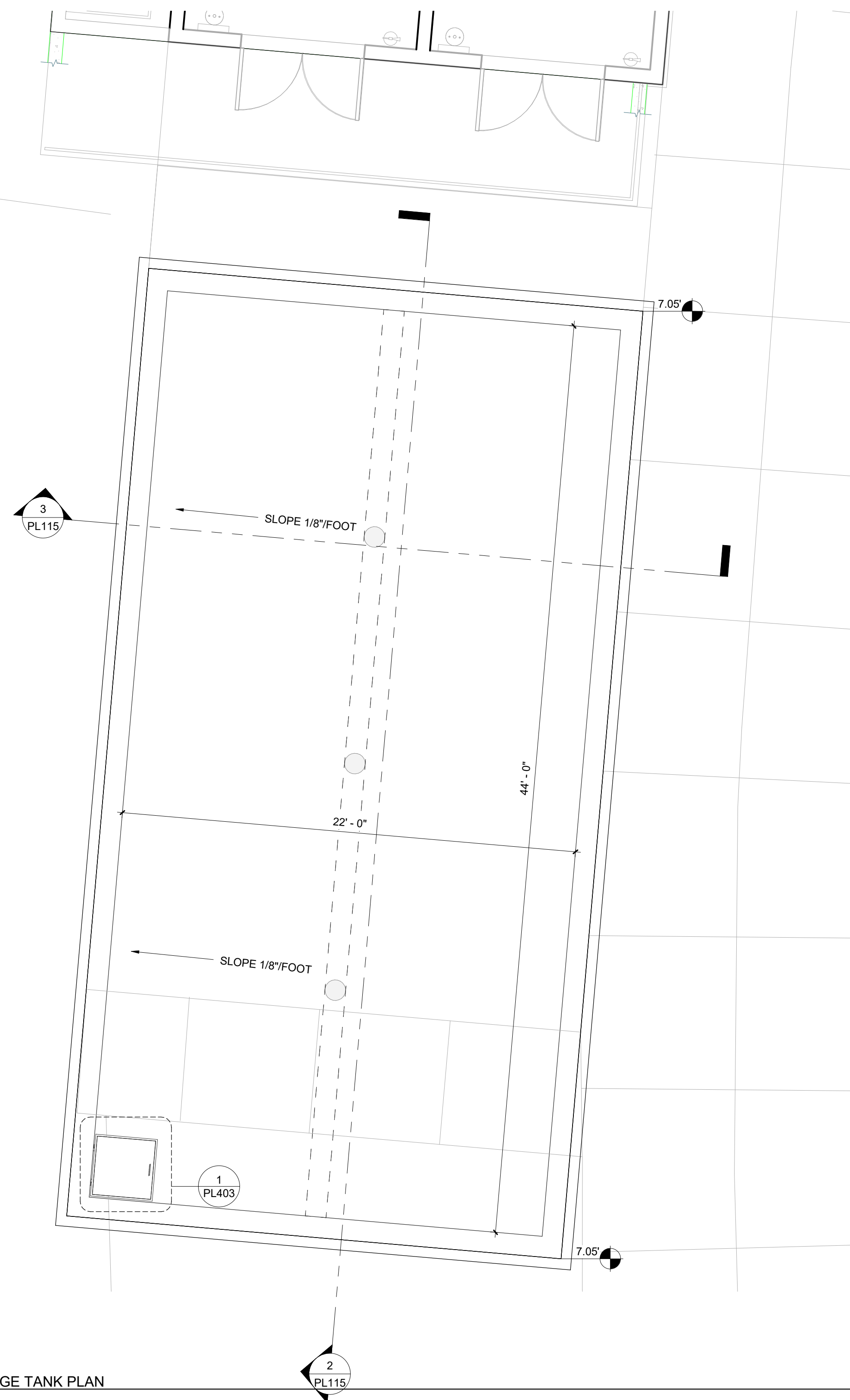
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 DWG.: PL114
 SHEET: 51 OF 72



2 POOL A - SURGE TANK
SECTION VIEW
1/4" = 1'-0"



3 POOL A - SURGE TANK
SECTION VIEW
1/4" = 1'-0"



1 POOL A - SURGE TANK PLAN
PLAN VIEW
1/4" = 1'-0"

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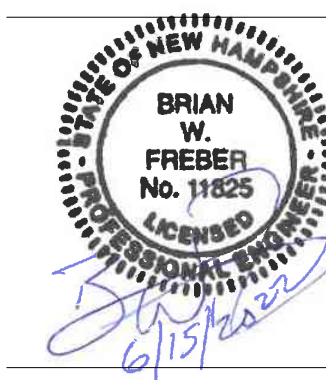
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POOL A - SURGE TANK PLAN AND SECTIONS

DESIGN IS IN ACCORDANCE WITH THE BUILDING CODE 2015 OF NEW HAMPSHIRE AS AMENDED TO DATE.

NOTE

STRUCTURAL DRAWINGS AND POOL DRAWINGS **MUST** BE USED IN CONJUNCTION WITH EACH OTHER. POOL DRAWINGS DICTATE ALL FINAL CONDITIONS OF POOL, FEATURES, AND DIMENSIONS OF POOL SHELL, INCLUDING POOL FINISH. UNLESS OTHERWISE INDICATED, STRUCTURAL DIMENSIONS ARE CONCRETE TO CONCRETE, AND DICTATE REQUIRED THICKNESSES FOR STRUCTURAL INTEGRITY ONLY.

GEOTECHNICAL PARAMETERS

SOIL PARAMETERS FOR POOL STRUCTURAL DESIGN

1. POOL DESIGNED FOR THE EMPTY CONDITION (CONTROLLING CASE)
2. ALL SOIL PARAMETERS FOR THE POOL STRUCTURAL DESIGN ARE BASED UPON RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT BY R.W. GILLESPE & ASSOCIATES, INC. DATED MAY 5, 2022. POOL SUBGRADE AND SOIL PREPARATION SHALL BE EXECUTED IN ACCORDANCE WITH THE RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT. OVER EXCAVATION OF FILL SOIL MAY BE REQUIRED PER THE GEOTECHNICAL ENGINEER.
- STATED NET ALLOWABLE SOIL BEARING CAPACITY= 2000 PSF
- STATED EQUIVALENT FLUID PRESSURE= 95 PSF/FT
- GROUND WATER ASSUMED TO BE LOCATED 5'-0" BELOW GROUND SURFACE.

DESIGN LIVE LOAD SURCHARGE = 250 PSF

STRUCTURAL AND REINFORCEMENT NOTES

- STRUCTURAL NOTES**
1. REINFORCEMENT AT WALL CORNERS AND WALL BENDS MUST BE DETAILED PER THE ASSOCIATED TYPICAL DETAILS. CORNER AND BEND BARS MUST BE THE SAME SIZE AND SPACING AS THE TYPICAL HORIZONTAL WALL REINFORCING OF THE ASSOCIATED WALLS.
 2. UNLESS OTHERWISE INDICATED, ALL WALL REINFORCEMENT BARS MUST BE CONTINUOUS AROUND CORNERS. REINFORCEMENT MUST BE EXTENDED INTO CONNECTING WALLS. UNLESS OTHERWISE INDICATED, CONTRACTOR MAY SPLICE CONTINUOUS SLAB BARS AT LOCATIONS OF THEIR CHOOSING, EXCEPT THAT TOP BAR SPLICES MUST BE LOCATED AT MID-SPAN AND BOTTOM BAR SPLICES MUST BE LOCATED AT SUPPORTS. ALL REINFORCEMENT BENDS AND LAPS, UNLESS OTHERWISE INDICATED, MUST SATISFY THE MINIMUM REQUIREMENTS IN LAP SCHEDULE.
 3. FOR REINFORCEMENT AT WALL OR FLOOR SLAB PENETRATIONS, 3 / PL200
 4. MINIMUM POURED CONCRETE DESIGN STRENGTH = 4500 PSI. MINIMUM SHOTCRETE DESIGN STRENGTH = 5000 PSI.
 5. TANK CONCRETE SHALL CONTAIN CRYSTALLINE WATERPROOFING ADDITIVE PER SPECIFICATIONS.
 6. POOL CONCRETE SHALL CONTAIN SHRINKAGE REDUCING ADMIXTURE PER SPECIFICATIONS.

- REINFORCEMENT NOTES**
1. REINFORCEMENT MUST BE DETAILED AND PLACED IN ACCORDANCE WITH ACI "MANUAL OF CONCRETE PRACTICE", LATEST EDITION, UNLESS OTHERWISE NOTED.
 2. ALL LAPS MUST BE CLASS "B" PER ACI 318 UNLESS OTHERWISE NOTES ON THE DESIGN DRAWINGS OR UNLESS THE DETAILER TAKES SPECIAL CARE TO PROVIDE STAGGERED LAPS. USE TOP BAR LAP LENGTHS FOR ALL HORIZONTAL WALL BARS AND FOR TOP BARS IN SLABS AND BEAMS OVER 14" DEEP.
 3. LAP LENGTH MUST BE SPECIFICALLY NOTED ON PLACING DRAWINGS WHERE MORE THAN ONE BAR MAKES UP A CONTINUOUS STRING.
 4. TIE POOL REINFORCING STEEL WITH 18-GAUGE ANNEALED WIRE AS SPECIFIED IN THE CRSI 63 RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS. ALL TIE WIRES MUST BE "MADE TIGHT" FOR ELECTRICAL BONDING PURPOSES, AS REQUIRED BY NEC, ARTICLE 680.
 5. ALL HOOKS MUST BE STANDARD HOOKS UNLESS NOTED OTHERWISE.

MILD REINFORCING STEEL MINIMUM CLEAR COVER REQUIREMENTS
COORDINATE WITH REINFORCEMENT STEEL PLACING REQUIREMENTS

3" FOR CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH
2" TYPICAL ALL ELSE, UNLESS NOTED OTHERWISE ON DETAILS

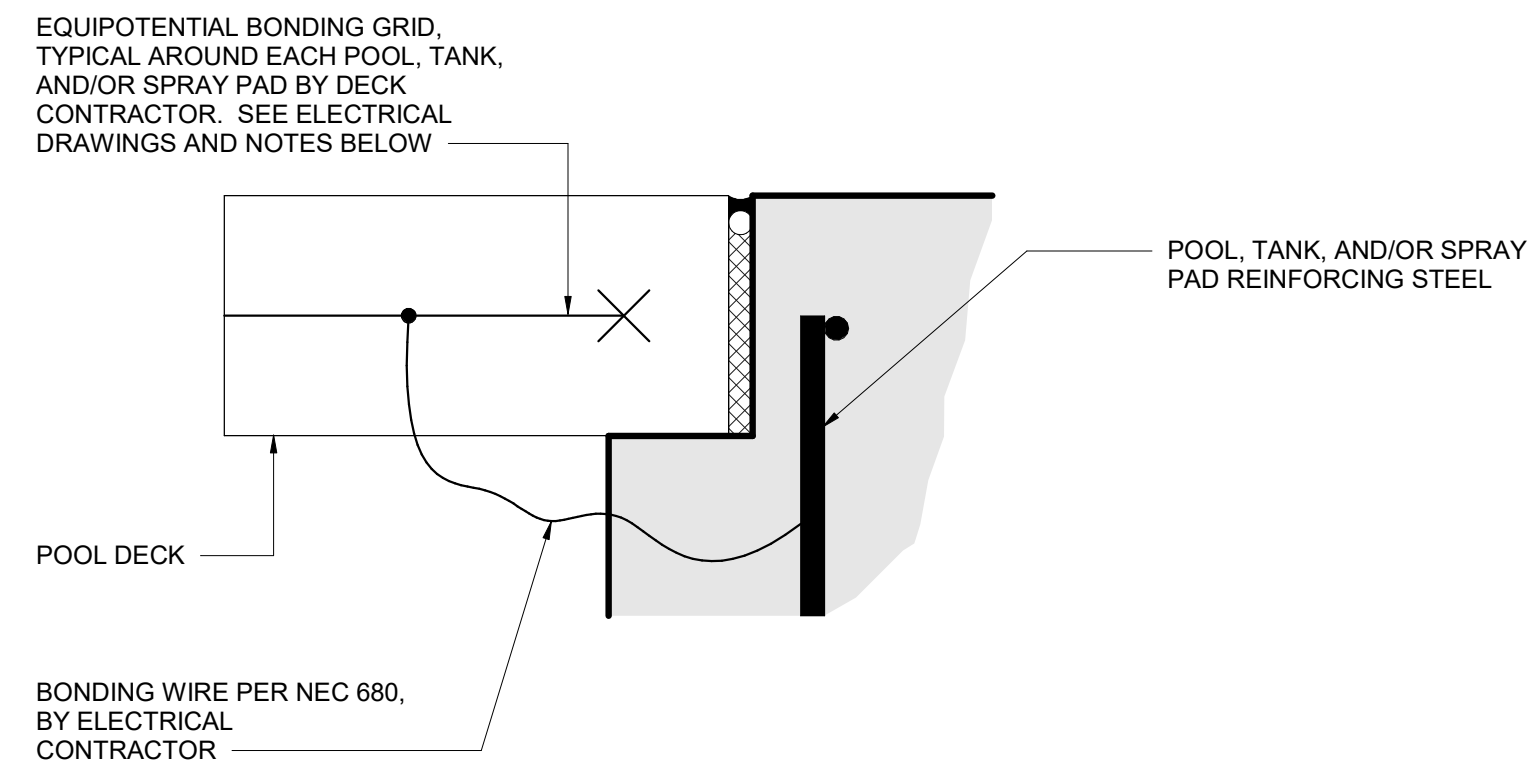
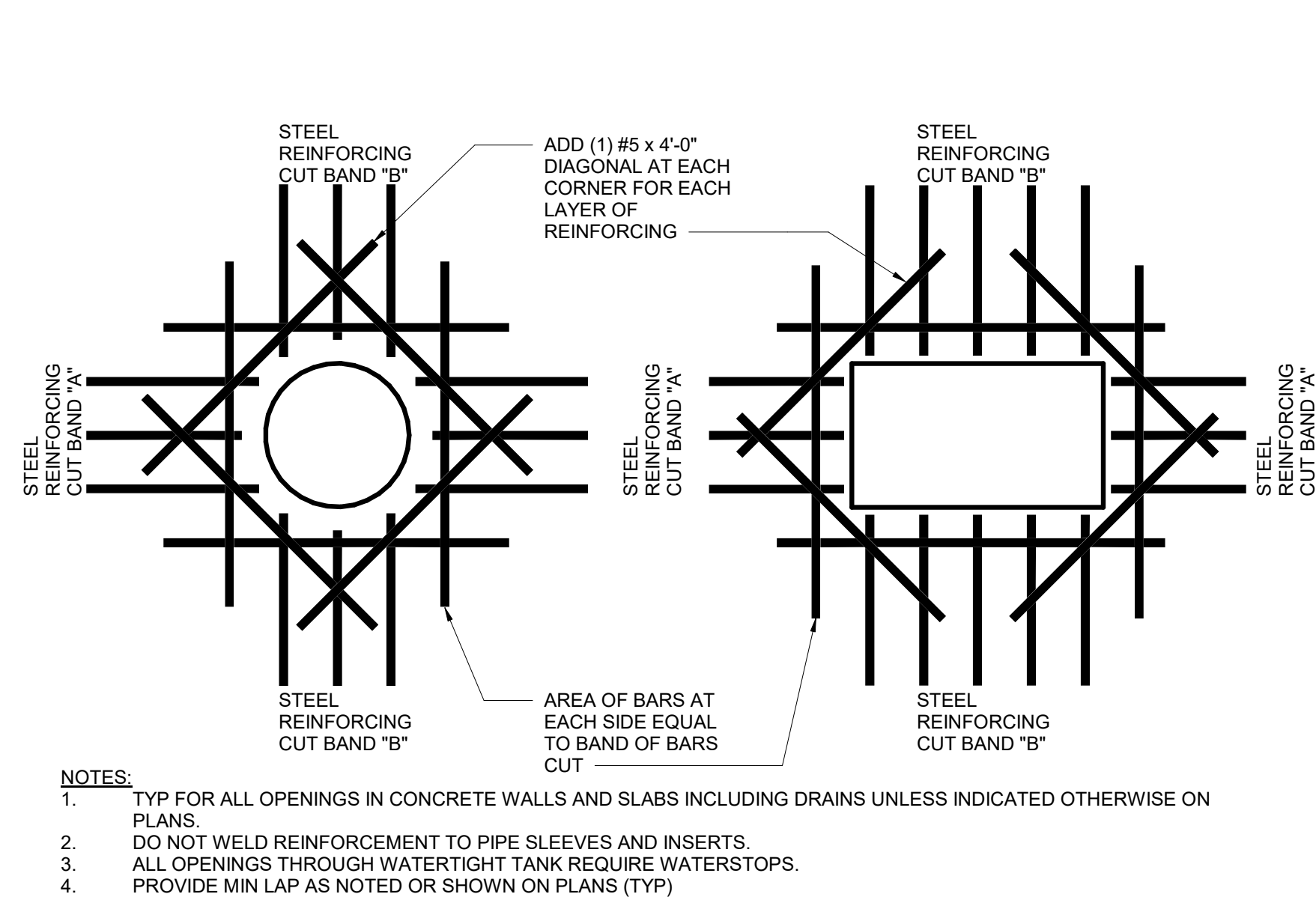
REINFORCEMENT CLASS "B" LAP LENGTHS
TABLE BASED UPON 4500 PSI CONCRETE AND 60 KSI REINFORCING STEEL

BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11
GR-60 TOP BAR	1'-11" [584]	2'-7" [787]	3'-2" [965]	3'-10" [1168]	5'-7" [1702]	6'-4" [1930]	7'-1" [2159]	7'-11" [2413]	8'-8" [2642]
GR-60 OTHER BAR	1'-6" [457]	2'-0" [610]	2'-6" [762]	2'-11" [889]	4'-3" [1295]	4'-11" [1499]	5'-6" [1676]	6'-1" [1854]	6'-8" [2032]

STANDARD HOOK DIMENSION

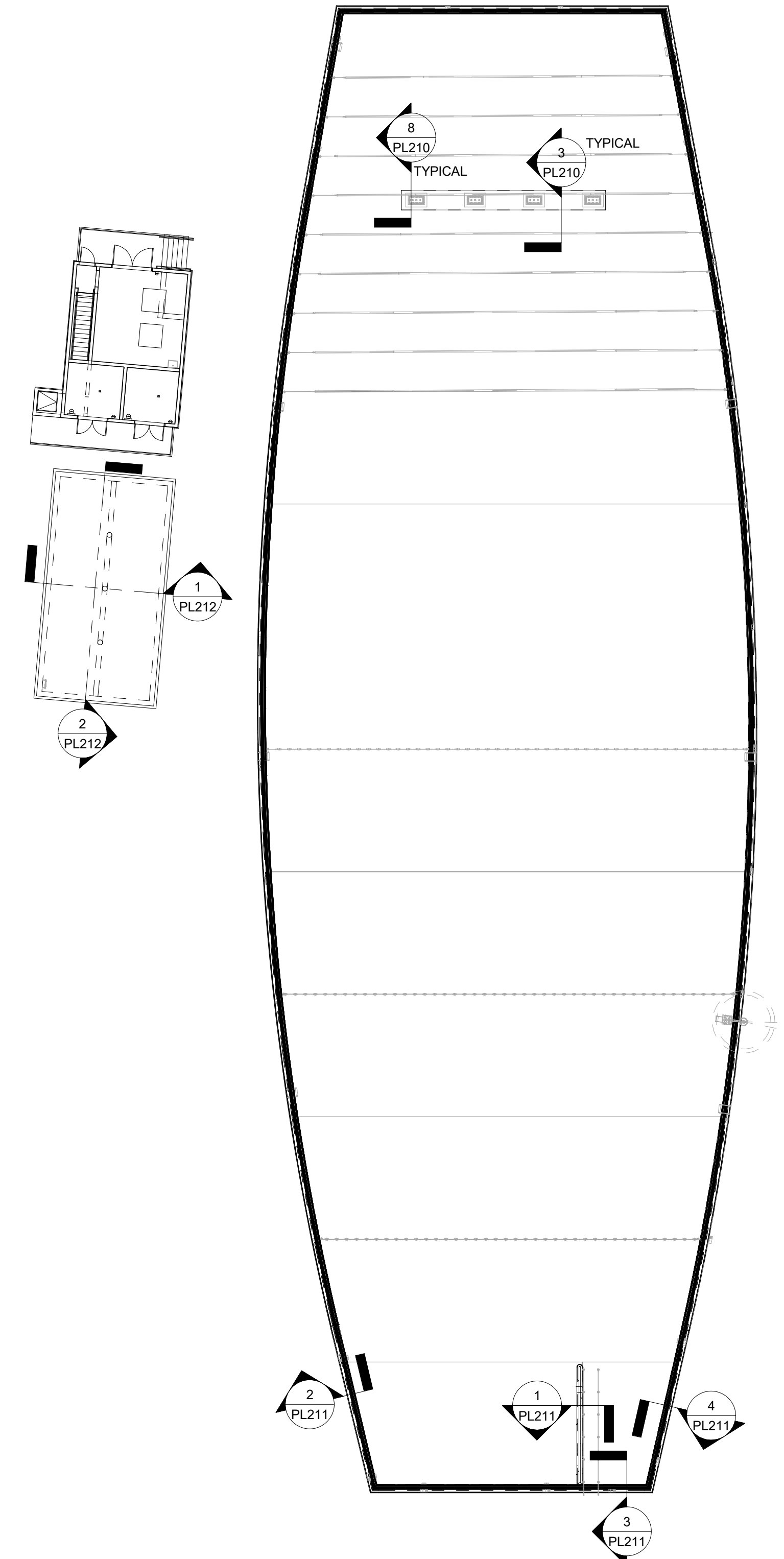
BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11
HOOK LENGTH	7" [178]	9" [229]	1'-0" [305]	1'-2" [356]	1'-4" [406]	1'-6" [457]	1'-11" [587]	2'-2" [661]	2'-5" [736]

TYPICAL STANDARD DETAILS



- NOTES:**
1. THIS DETAIL IS INTENDED TO ILLUSTRATE THE EQUIPOTENTIAL BONDING GRID AROUND EACH POOL, TANK, AND/OR SPRAY PAD AS REQUIRED BY NEC 680.
 2. THE GRID MUST CONFORM TO ALL NEC 680 REQUIREMENTS.
 3. PER NEC 680, THE GRID SHALL:
 - 3.a. COMPLETELY SURROUND THE PERIMETER OF THE POOL, TANK, AND/OR SPRAY PAD AND EXTEND 3 FEET HORIZONTALLY FROM THE INSIDE WALLS OF THE POOL, AND/OR TANK, OR PERIMETER EXPANSION JOINT AT SPRAY PADS.
 - 3.b. BE ARRANGED IN A 12" X 12" (OR LESS) NETWORK OF CONDUCTORS IN A UNIFORMLY SPACED PATTERN.
 - 3.c. BE BONDED TO THE POOL, TANK, AND/OR SPRAY PAD REINFORCING STEEL.
 4. THIS DETAIL IS NOT INTENDED TO DETAIL THE WALLS, SLABS, OR THE DECK. THE ABOVE DETAIL IS SCHEMATIC. SEE POOL, TANK, AND/OR SPRAY PAD SECTIONS AND DECK SECTIONS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.
 5. SEE POOL, TANK, AND/OR SPRAY PAD ELECTRICAL DRAWINGS FOR ADDITIONAL BONDING & GROUNDING REQUIREMENTS.

**2 | EQUIPOTENTIAL BONDING GRID
DETAIL VIEW**
NOT TO SCALE



**1 | POOL A - LEISURE POOL PLAN STRUCTURAL
PLAN VIEW**
1" = 20'-0"

**3 | REINFORCING - REINFORCEMENT AT OPENINGS
DETAIL VIEW**
NTS

GRAEF
Project Number: 2022-2000.XX
Phone 920 / 592 9440

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World Leaders in Aquatic Planning, Design and Engineering
100 Park Avenue | Beaver Dam, WI 53916
t 920.887.7375 | #18176
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REVISIONS			



DESIGNED BY: GRAEF
DRAWN BY: GRAEF
CHECKED BY: GRAEF
PROJECT: 21904.14

CITY OF PORTSMOUTH
1 Jenkins Avenue
Portsmouth, NH 03801

**PEIRCE ISLAND PUMP HOUSE
AND POOL RENOVATION**
Peirce Island Road
Portsmouth, NH 03801

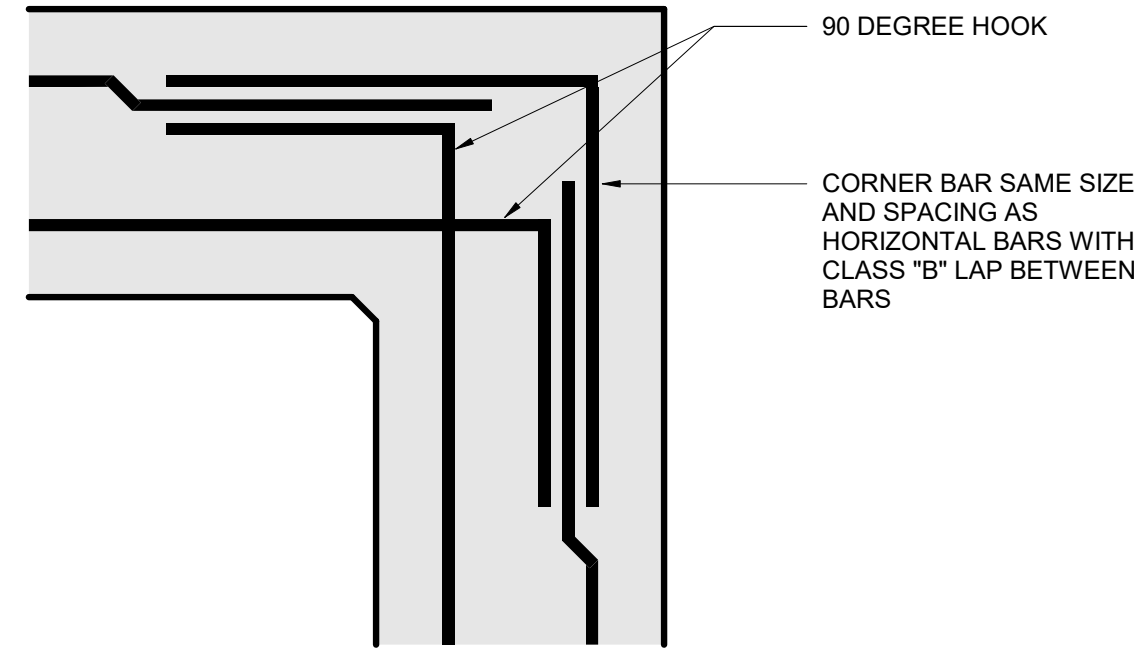
**STRUCTURAL
NOTES,
PLAN(S) AND
SCHEDULE**

SCALE: AS NOTED

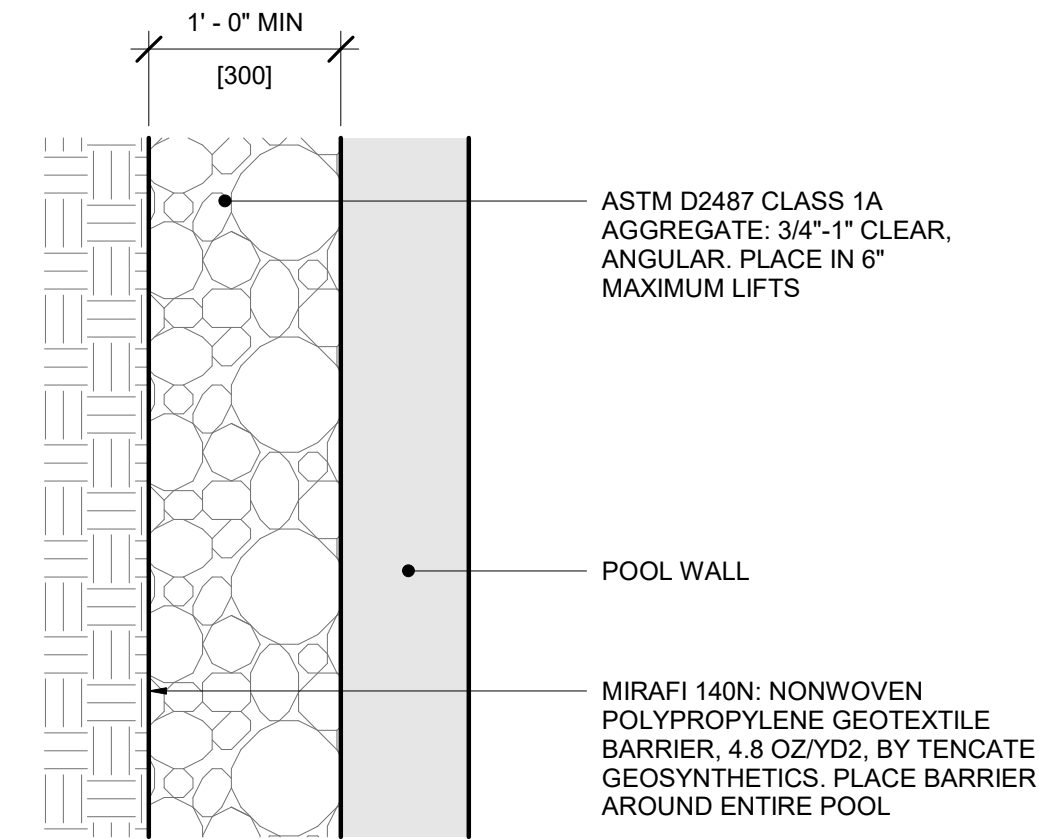
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DWG.: PL200

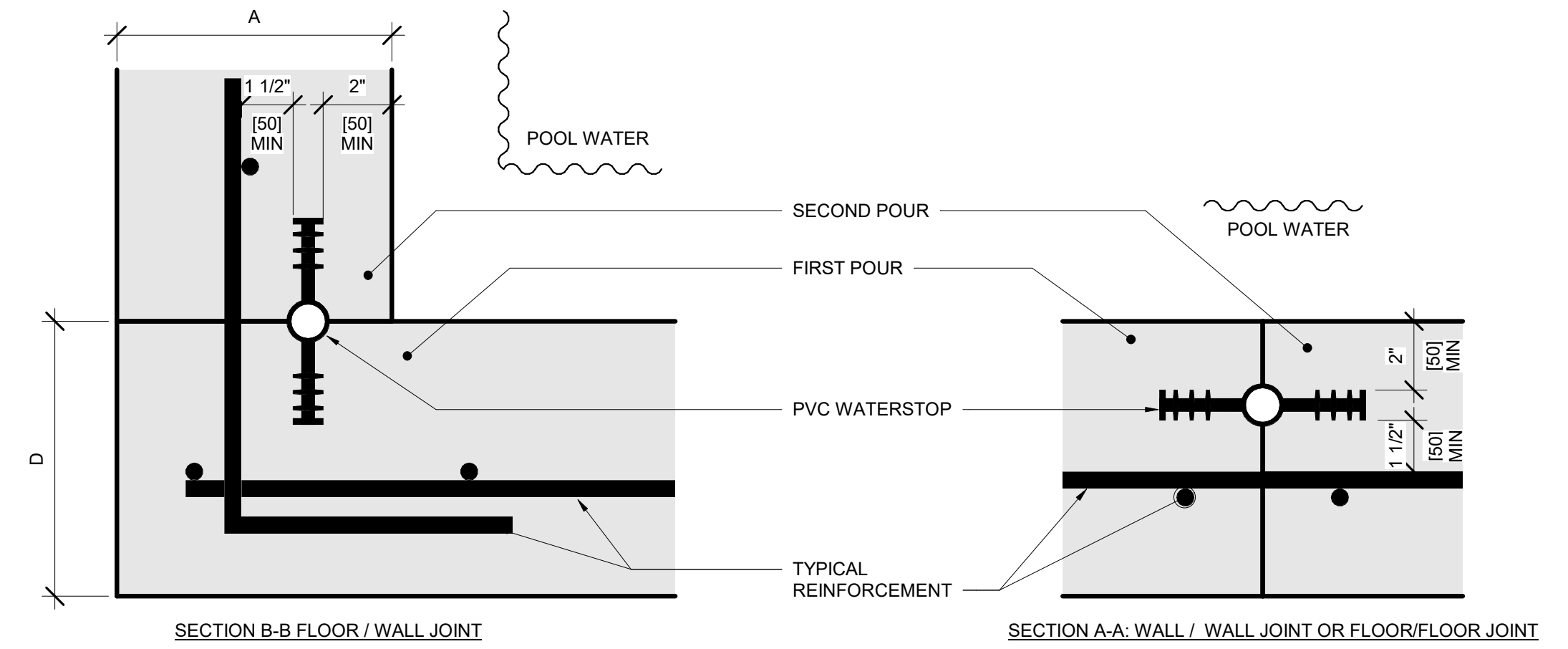
SHEET: 53 OF 72



7 REINFORCING - DOUBLE MAT REINFORCING AT CORNER
DETAIL VIEW
NOT TO SCALE

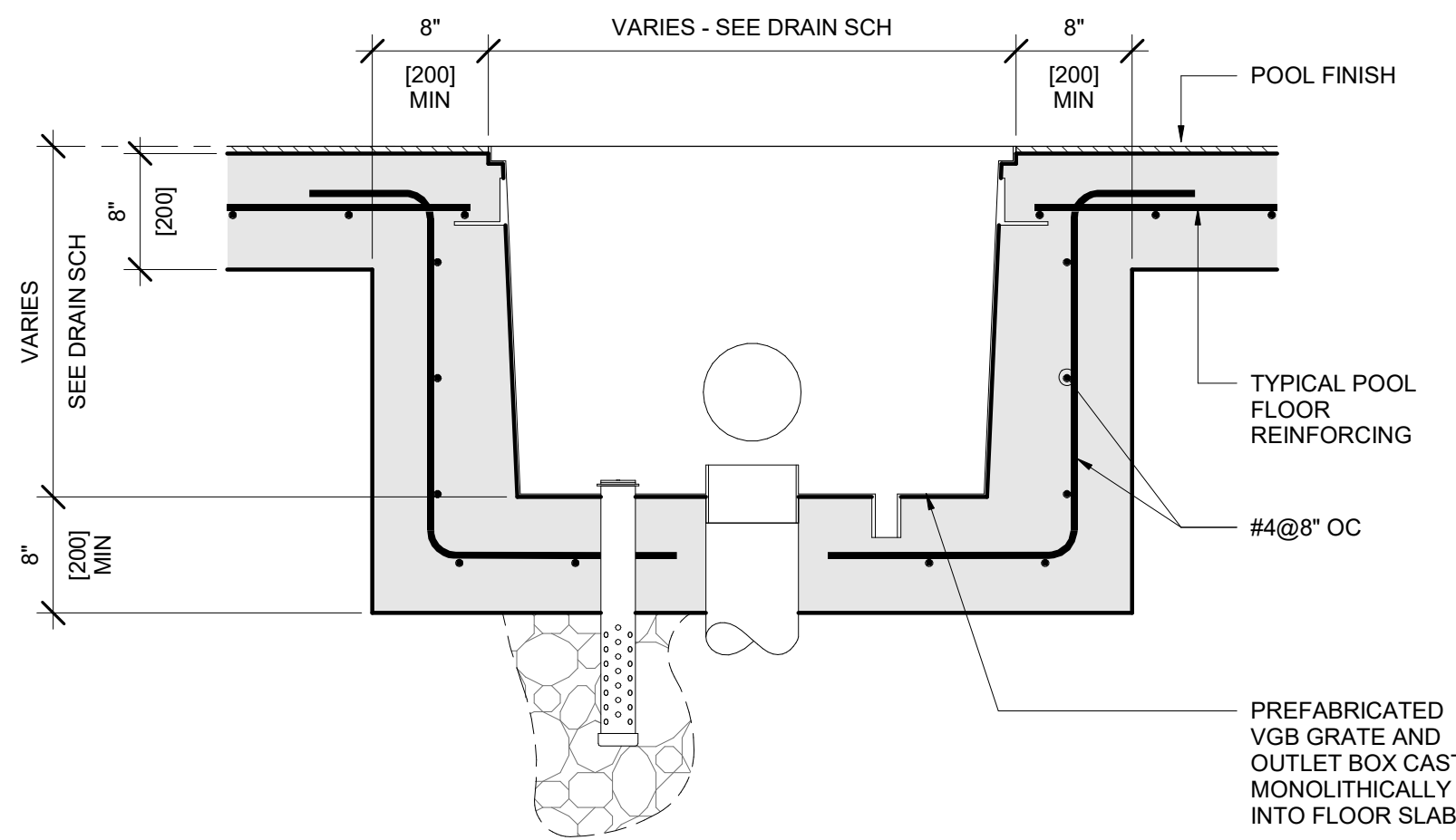


4 POOL WALL BACKFILL
DETAIL VIEW
NOT TO SCALE

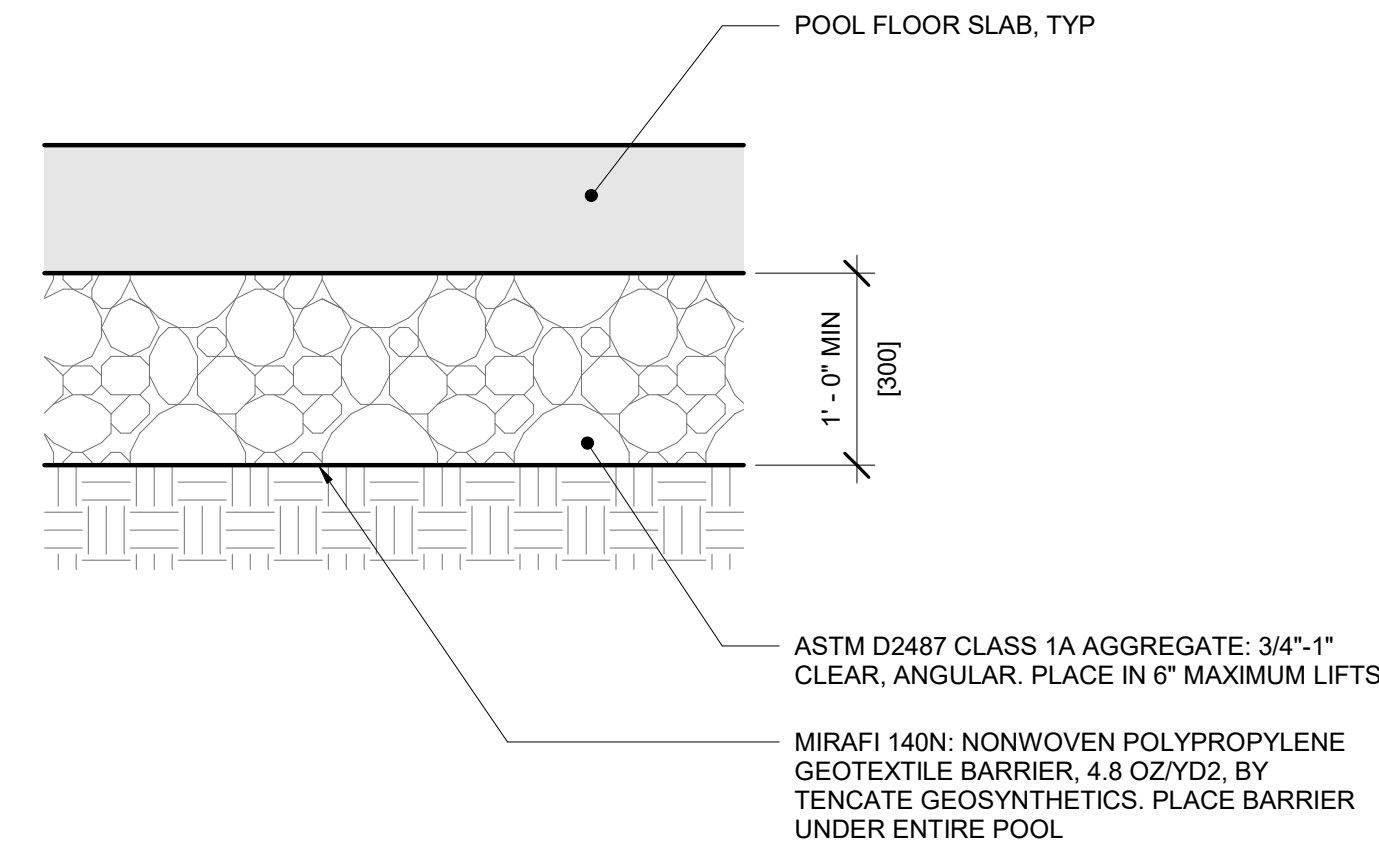


- NOTES:**
1. DETAIL IS SCHEMATIC AND INDICATES CLEARANCES AND INSTALLATION INFORMATION ONLY. FOR APPLICABLE INSTALLATION LOCATIONS SEE POOL STRUCTURAL DETAILS.
 2. WATERSTOP SHALL BE 6" PVC RIBBED WITH 1" DIA CENTERBULB UNLESS NOTED OTHERWISE.
 3. INSTALL WATERSTOP ON WET SIDE(S) OF REINFORCEMENT.
 4. ALL WATERSTOPS SHALL BE WELDED PER MANUFACTURER'S REQUIREMENTS.
 5. SPACING BETWEEN REINFORCING STEEL AND WATERSTOP SHALL BE NO LESS THAN 1.5 X DIA OF THE LARGEST AGGREGATE IN THE APPROVED CONCRETE MIX.
 6. SEE SPECIFICATION SECTION 131120 FOR ADDITIONAL WATERSTOP REQUIREMENTS.

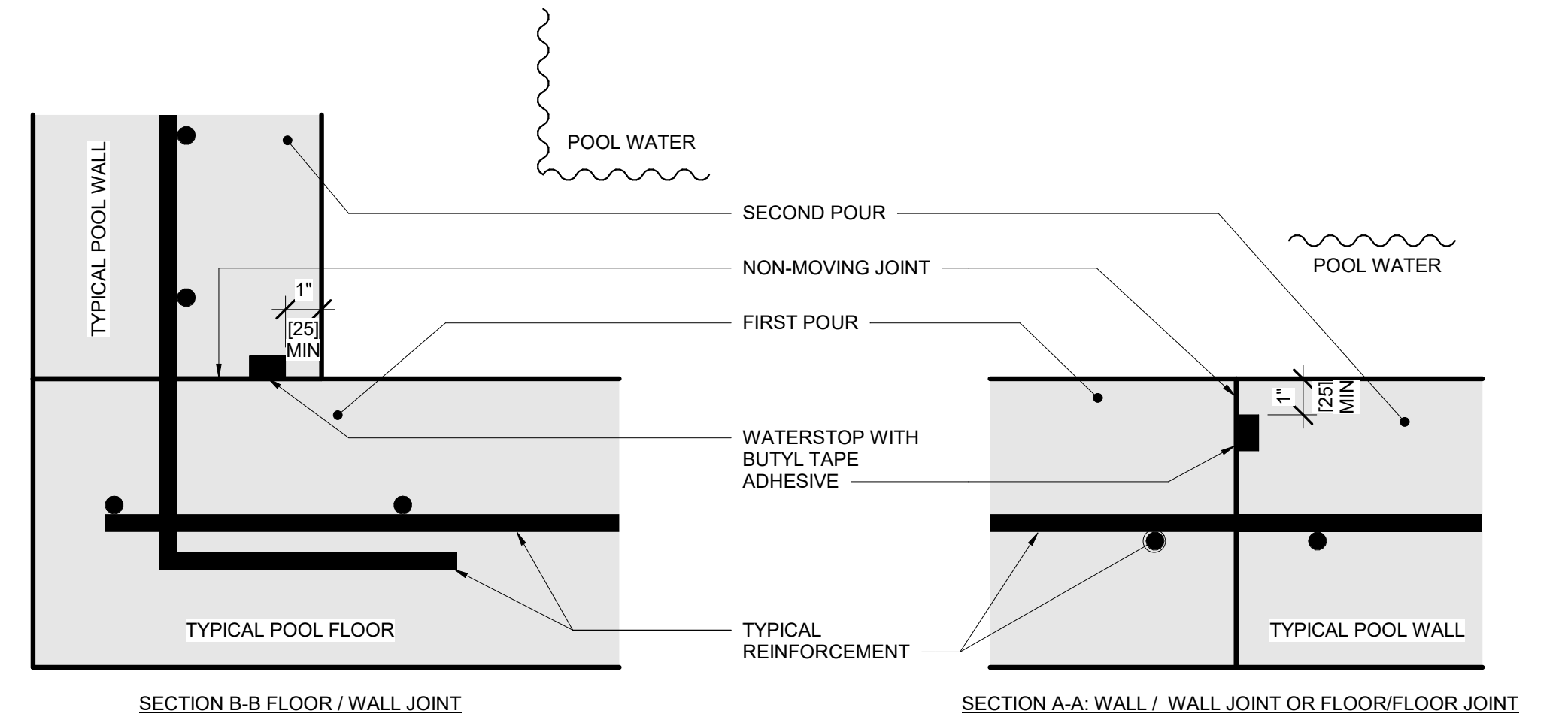
1 WATERSTOP - PVC
DETAIL VIEW
NOT TO SCALE



8 REINFORCING - FLOOR OUTLET
DETAIL VIEW
NOT TO SCALE

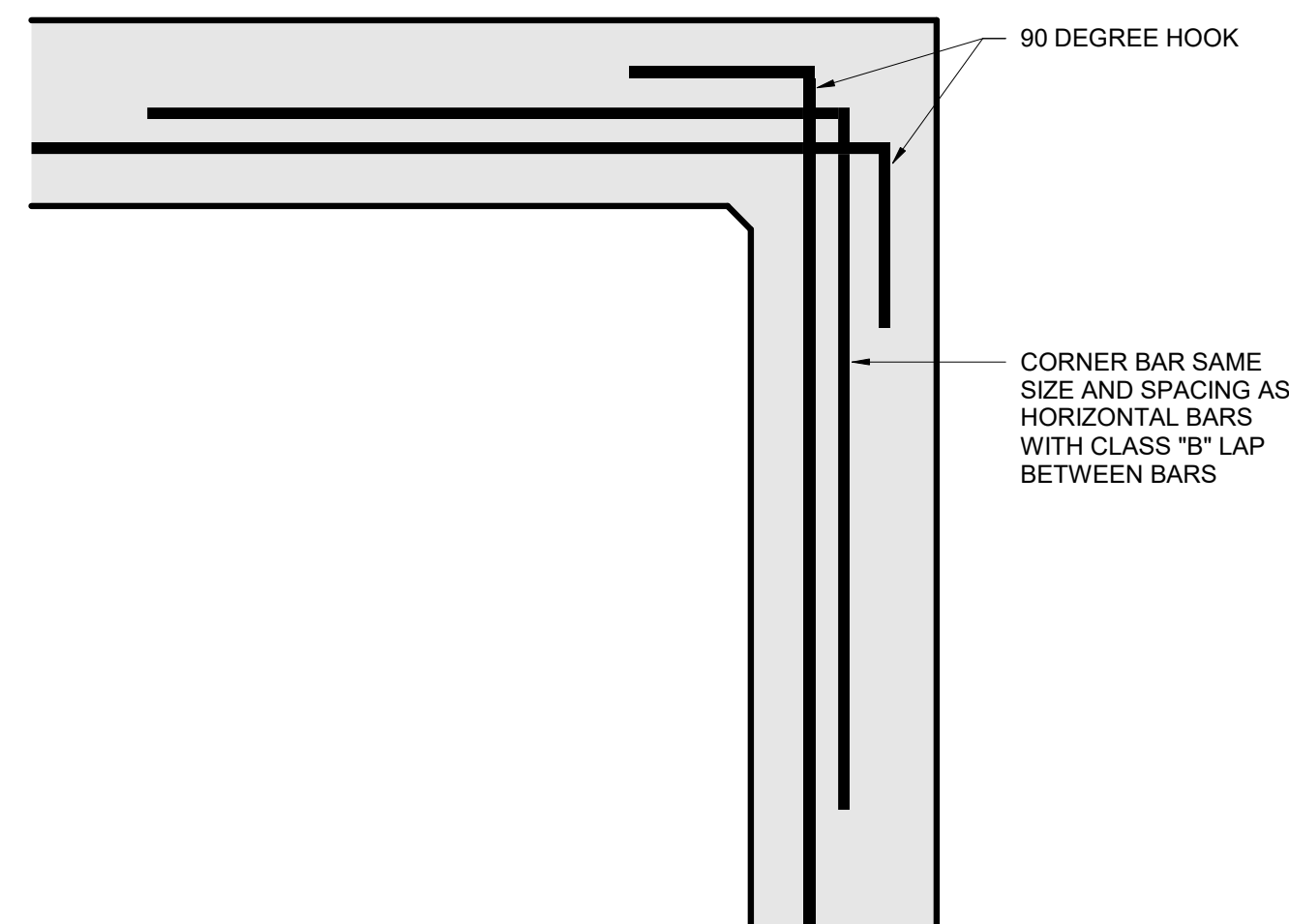


5 FLOOR SUB BASE
DETAIL VIEW
NOT TO SCALE

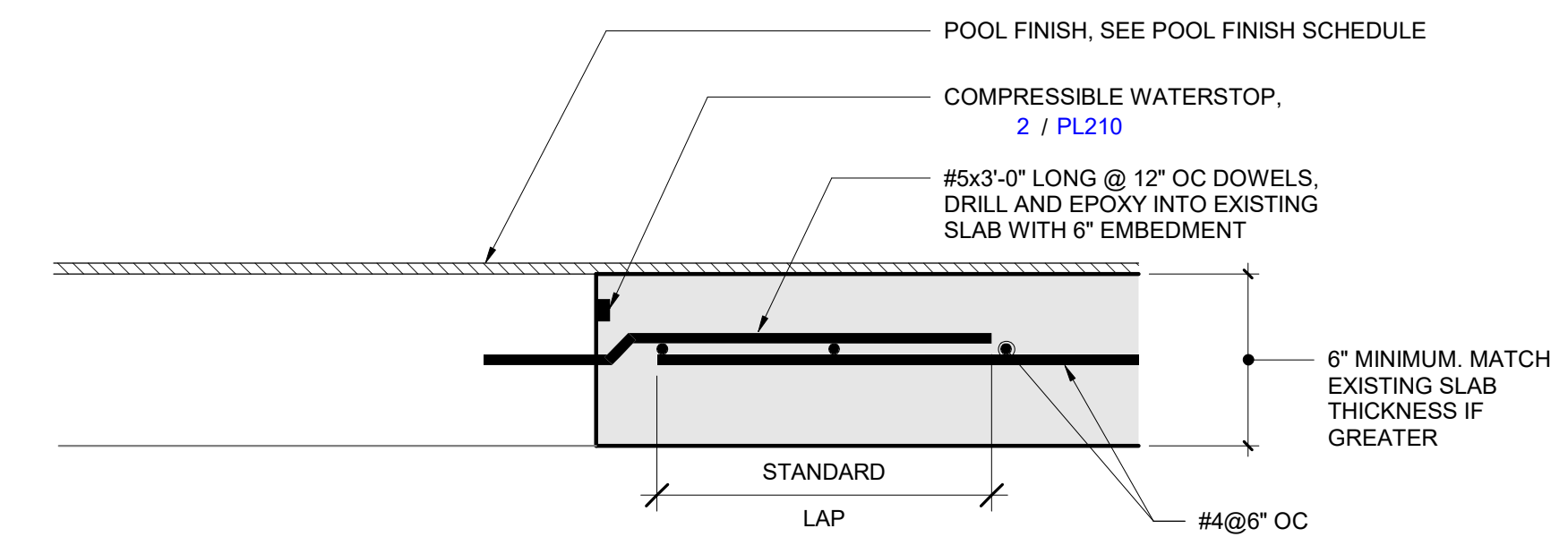


- NOTE:**
1. DETAIL IS SCHEMATIC AND INDICATES CLEARANCES AND INSTALLATION INFORMATION ONLY. FOR APPLICABLE INSTALLATION LOCATIONS SEE POOL STRUCTURAL DETAILS.
 2. BASIS OF DESIGN IS TYPE KBA-1510FP WATERSTOP BY ADEKA. SUBSTITUTIONS MUST BE APPROVED BY ENGINEER. NOTE THAT CLEARANCES FOR SUBSTITUTIONS MAY DIFFER. REFER TO MANUFACTURER REQUIREMENTS.
 3. INSTALL WATERSTOP ON WET SIDE(S) OF REINFORCEMENT.
 4. DIMENSION ABOVE IS A MIN FOR CONCRETE COVERAGE AND DOES NOT INCLUDE THE POOL FINISH. PROVIDE ADDITIONAL CONCRETE COVERAGE IF POSSIBLE.
 5. PROTECT WATERSTOP FROM WATER, DIRT, DEBRIS, AND DAMAGE PRIOR TO COVERING WITH CONCRETE.
 6. SEE SPECIFICATION SECTION 131120 FOR ADDITIONAL WATERSTOP REQUIREMENTS.

2 WATERSTOP - COMPRESSIBLE NON-MOVING JOINT - ADEKA
DETAIL VIEW
NOT TO SCALE



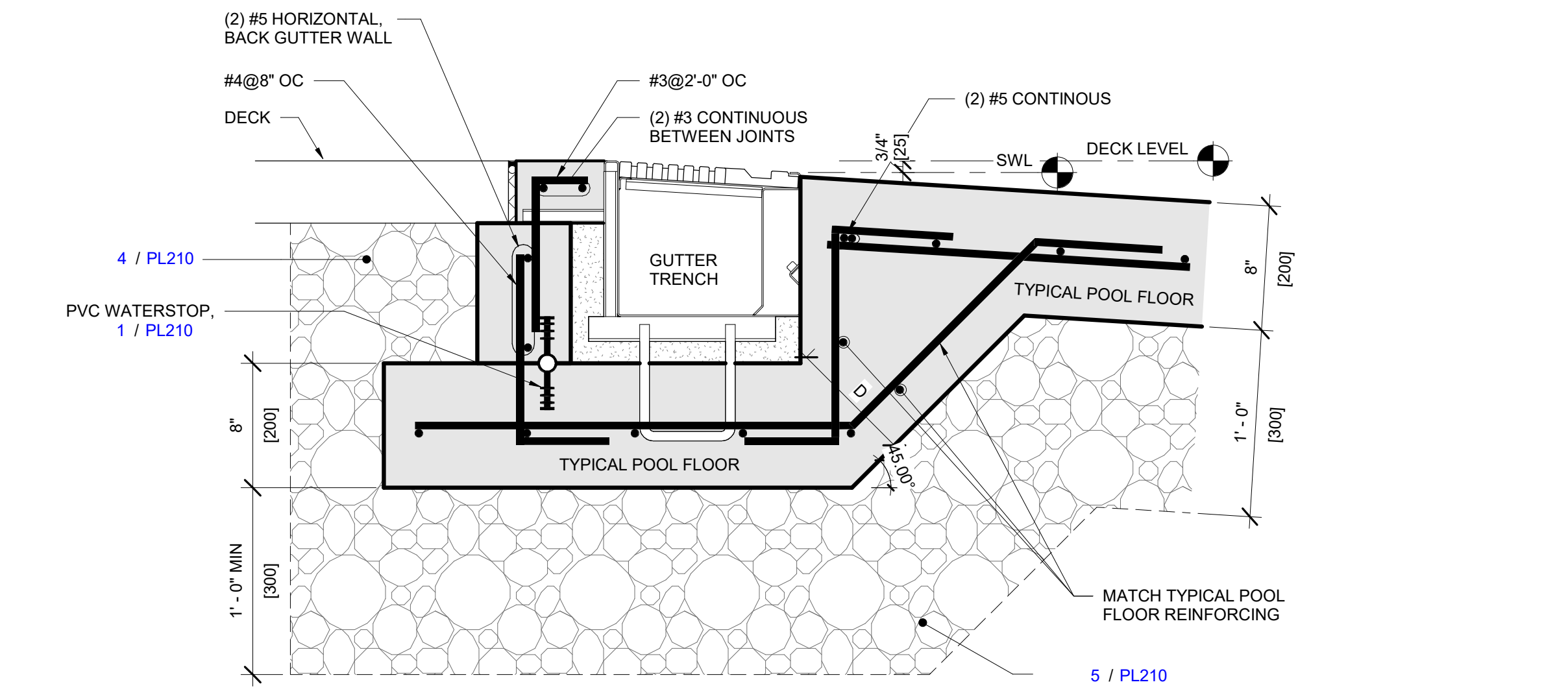
6 REINFORCING - SINGLE MAT REINFORCING AT CORNER
DETAIL VIEW
NOT TO SCALE



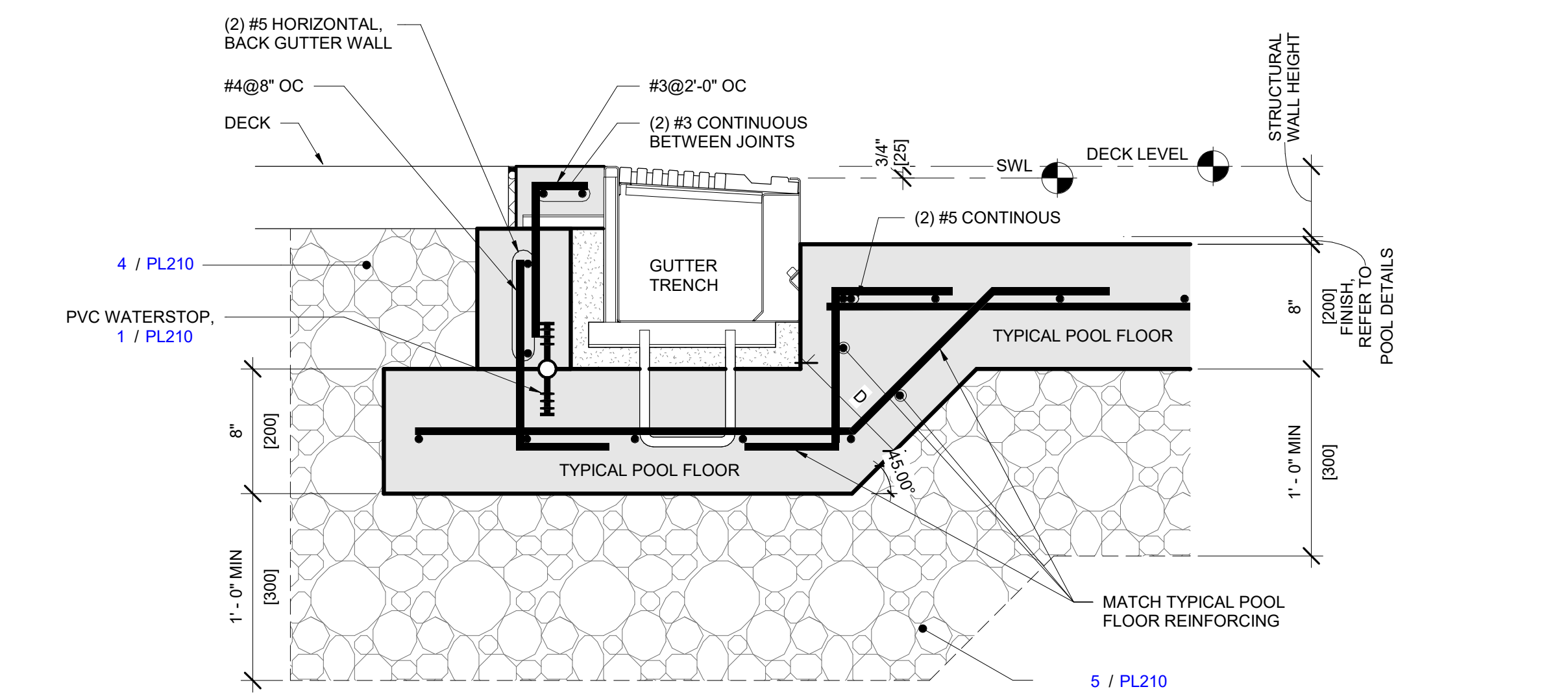
3 REINFORCING - CONSTRUCTION JOINT
DETAIL VIEW
NOT TO SCALE

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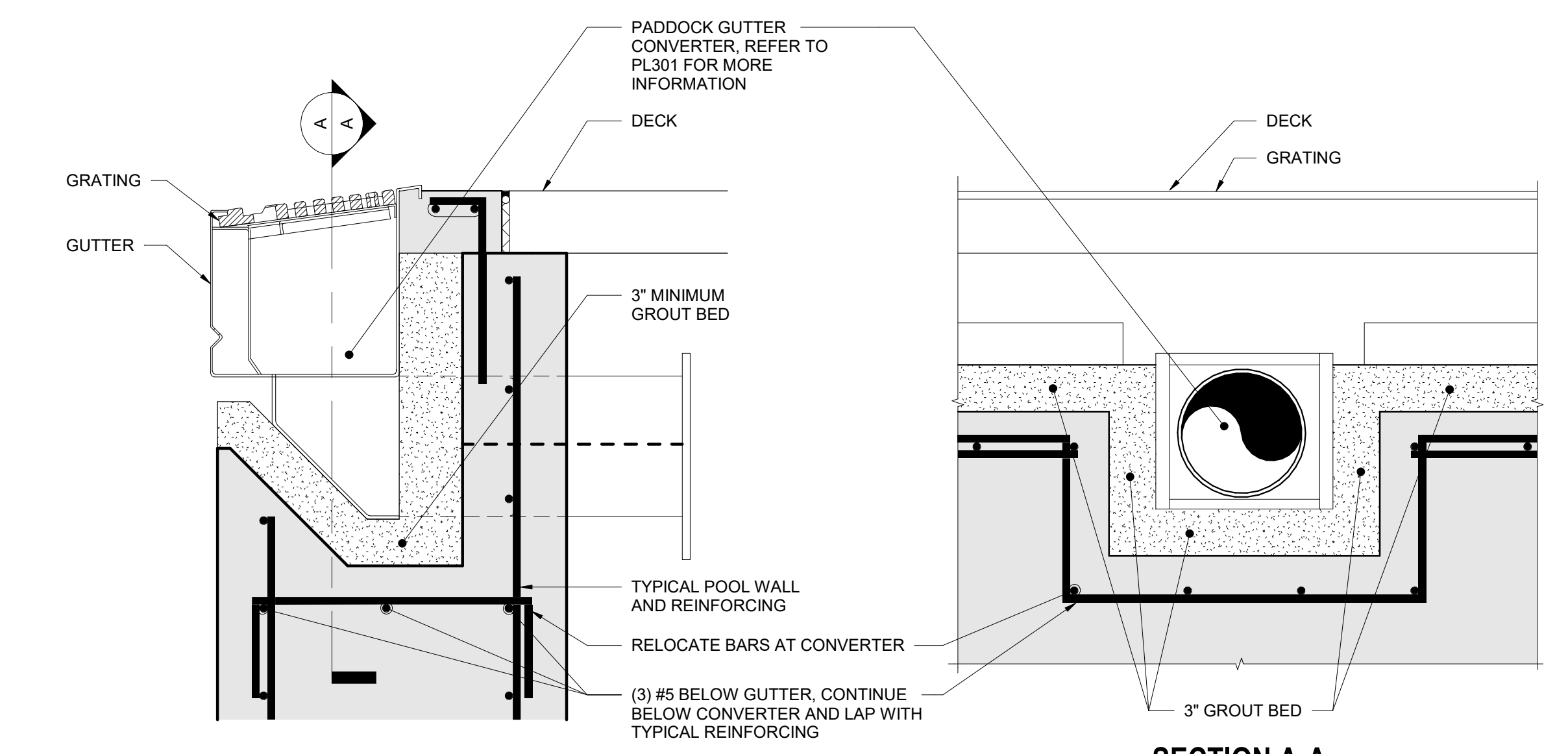
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3 REINFORCING - ZERO DEPTH GUTTER
SECTION VIEW
1 1/2" = 1'-0"

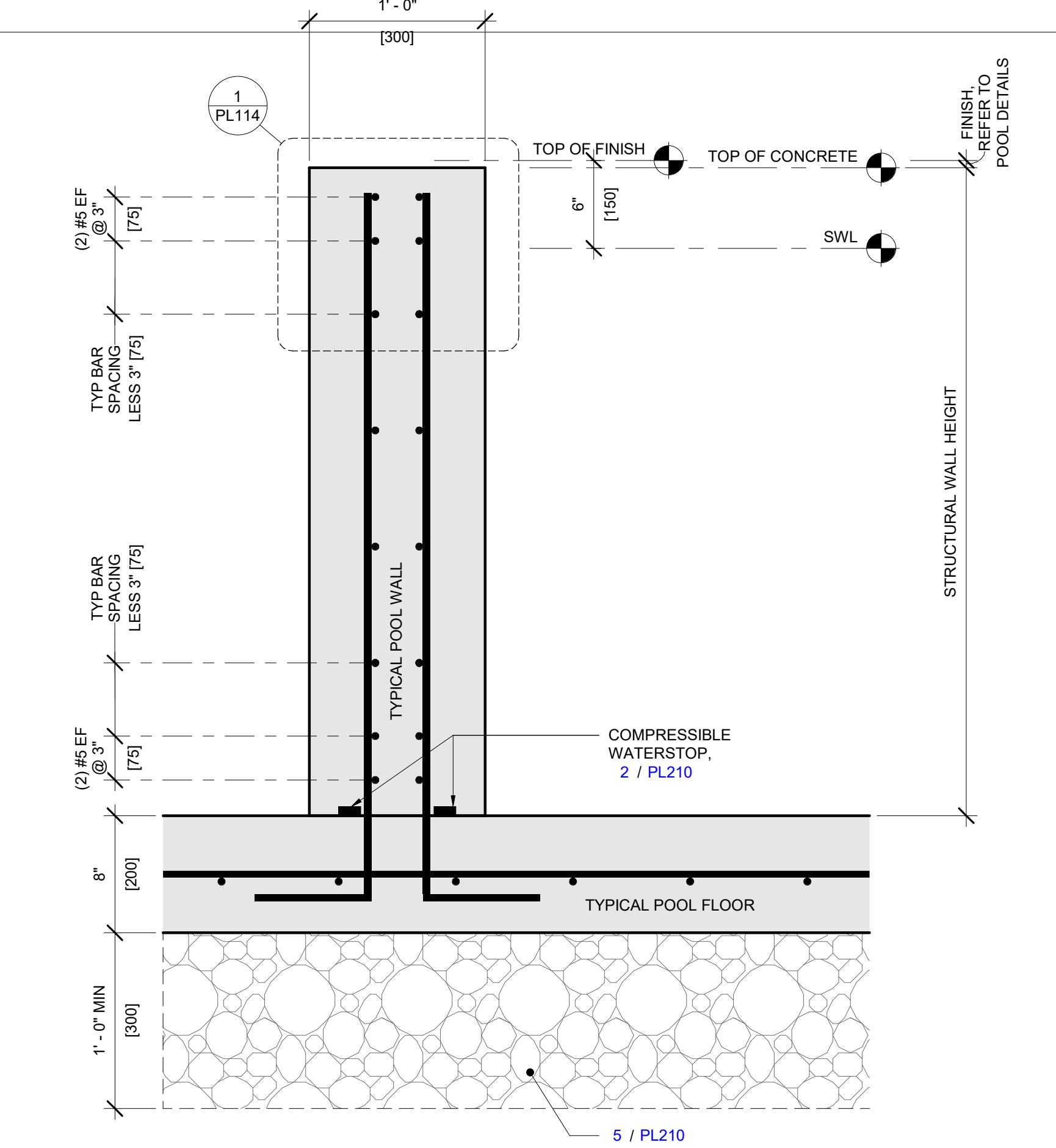


4 REINFORCING - ZERO DEPTH TRANSITION TO WALL
SECTION VIEW
1 1/2" = 1'-0"

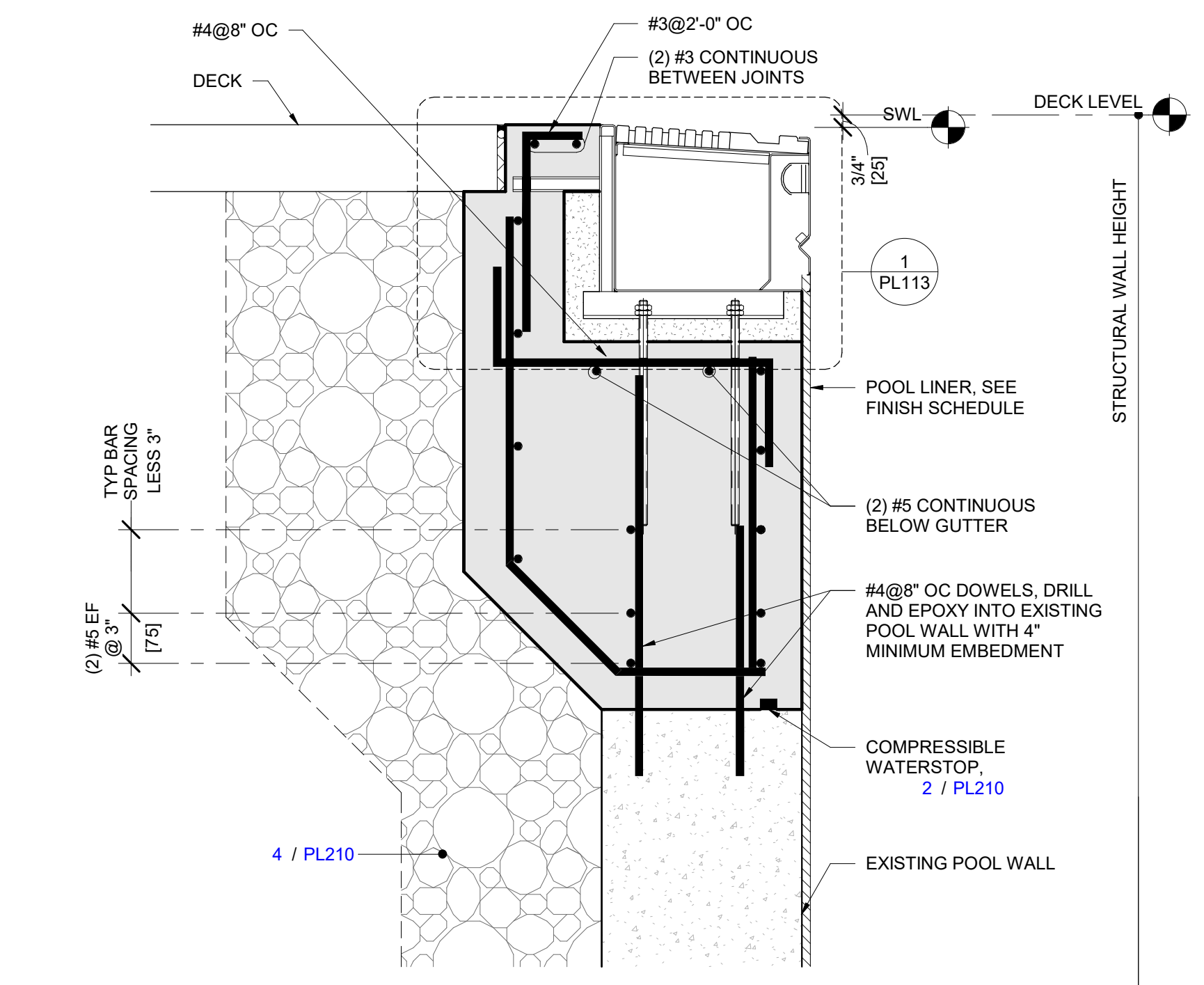


SECTION A-A

5 REINFORCING - GUTTER CONVERTER
DETAIL VIEW
NOT TO SCALE



1 REINFORCING - TYPICAL COMMON WALL
SECTION VIEW
1 1/2" = 1'-0"



2 REINFORCING - NEW WALL AT EXISTING
SECTION VIEW
1 1/2" = 1'-0"

GRAEF
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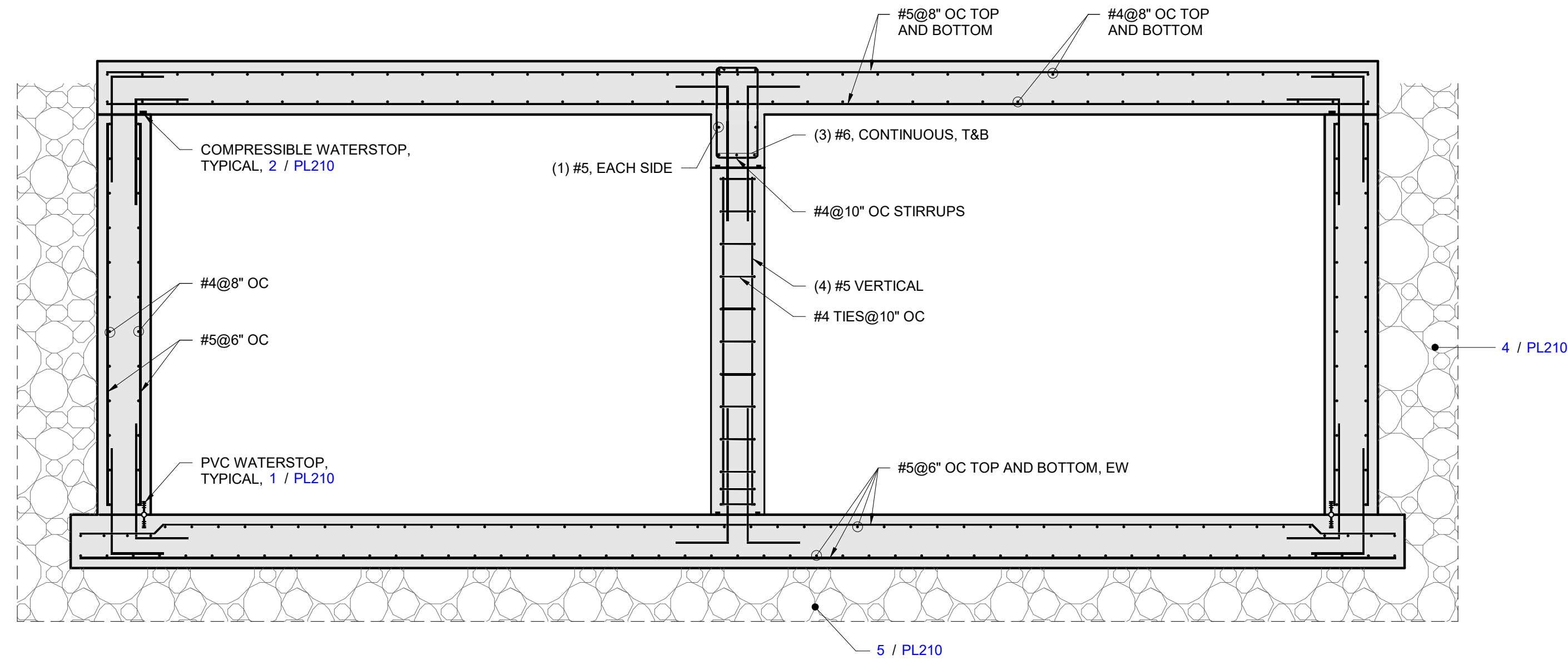
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CHECKED BY: GRAEF
PROJECT: 21904-14

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1 Junkins Avenue
Portsmouth, NH 03801

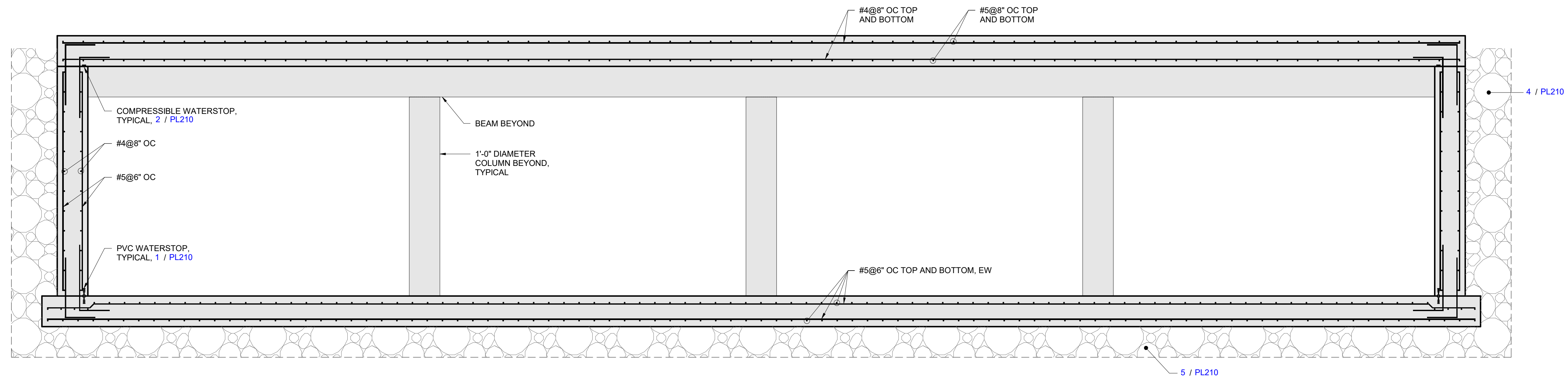
PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

STRUCTURAL DETAILS - 1

SCALE: AS NOTED
DATE: 06/17/2022
DWG.: PL211
SHEET: 55 OF 72



1 REINFORCING - SURGE TANK
SECTION VIEW
1/2" = 1'-0"



2 REINFORCING - SURGE TANK
SECTION VIEW
1/2" = 1'-0"



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PEIRCE ISLAND PUMP HOUSE
AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

STRUCTURAL
DETAILS - 2

SCALE: AS NOTED
DATE: 06/17/2022

DWG.: PL212

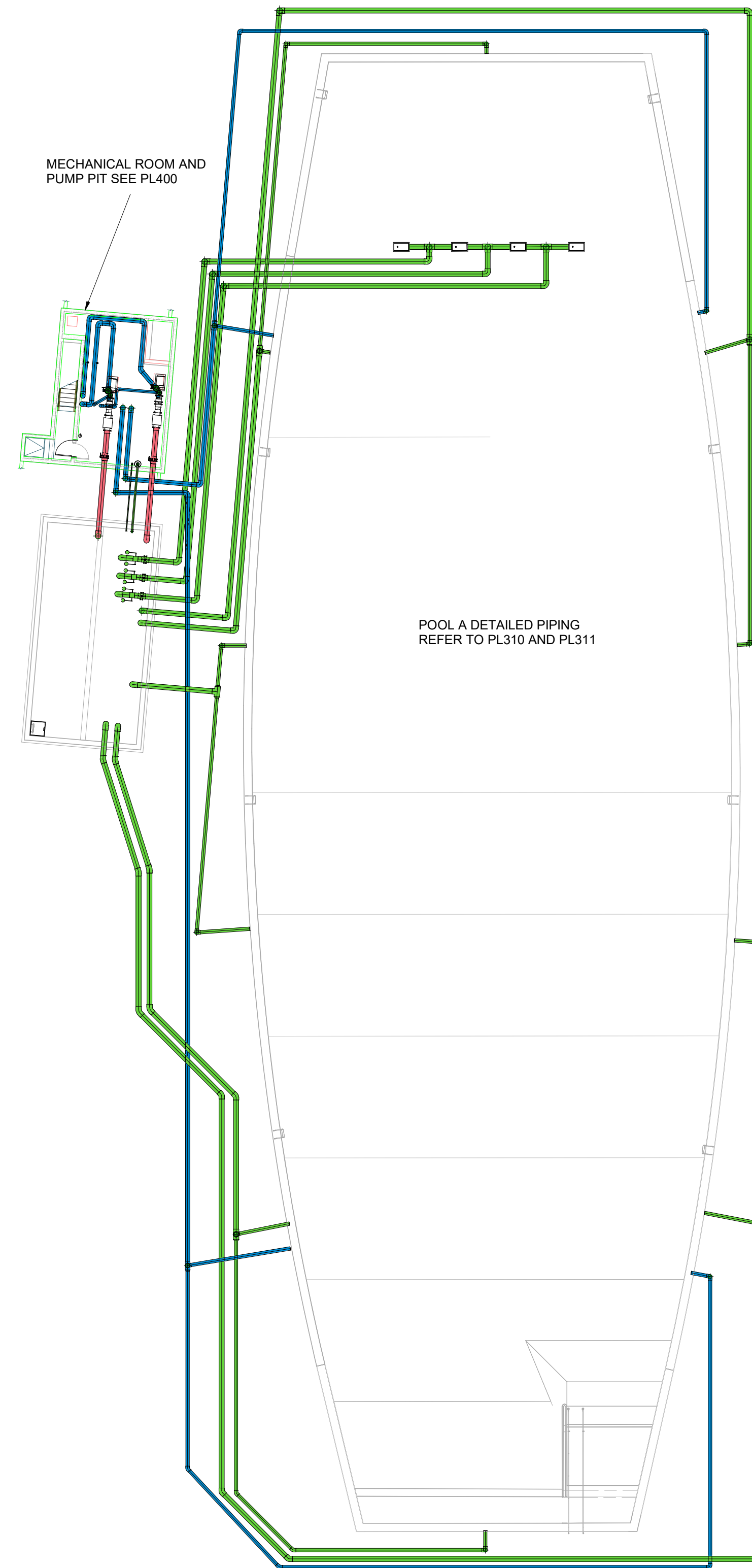
SHEET: 56 OF 72



NO.	DATE	DESCRIPTION	BY
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NOTES:

1. THIS DRAWING SHEET MUST BE PRINTED/COPIED IN COLOR.



1 | POOL A - OVERALL PIPING PLAN
 PL300 | PLAN VIEW
 1" = 20'-0"

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 MDR
 WRB
 21904-14
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CITY OF PORTSMOUTH
 1 Junkins Avenue
 Portsmouth, NH 03801

PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

OVERALL PIPING PLAN

SCALE: AS NOTED
 DATE: 06/17/2022

DWG.: PL300

SHEET: 57 OF 72

MECHANICAL P&ID SYMBOL LEGEND		
EQUIPMENT TYPE	SECTION VIEW	PLAN VIEW
PUMP		
PUMP WITH INTEGRAL STRAINER		
STRAINER		
REGENERATIVE MEDIA FILTER		
HIGH RATE SAND FILTER (HORIZONTAL)		
HIGH RATE SAND FILTER (VERTICAL)		
POOL HEATER		
HEAT EXCHANGER		
UV UNIT		
CHEMICAL CONTROLLER		
CHEMICAL FEED PUMP		
PULSAR CHLORINE FEEDER		
AXIALL CHLORINE FEEDER		
AXIALL ACID FEEDER (ACID RITE)		
CO2 FEEDER		
CHEMICAL STORAGE TANK		
CO2 STORAGE TANK		
AUTO FILL WITH SENSOR		
SURGE TANK VENTILATION FAN		
GEAR OPERATED BUTTERFLY VALVE		
LEVER OPERATED BUTTERFLY VALVE		
PNEUMATIC BUTTERFLY VALVE		
TRUE UNION BALL VALVE		
TRUE UNION CHECK VALVE		
ELECTRONIC MODULATING VALVE		
ELECTRO-PNEUMATIC MODULATING VALVE		
MODULATING FLOAT VALVE		
VENTURI		
SOLENOID VALVE		
CHECK VALVE		
WYE STRAINER		
CONCENTRIC REDUCER		
ECCENTRIC REDUCER		
FLANGED BREAK		
COMPOUND GAUGE		
THERMOMETER		
EXPANSION JOINT		
FLOW METER (SENSOR)		
FLOW SWITCH		

GENERAL POOL PIPING AND EQUIPMENT PLAN NOTES

PIPING

1. THE PIPING LAYOUTS ON THESE DRAWINGS ARE SCHEMATIC AND FOR REFERENCE ONLY. PIPING AS SHOWN IS SPREAD OUT FOR CLARITY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING FINAL PIPE ROUTING AND ELEVATIONS. REDUCE THE USE OF FITTINGS AND LONG PIPE RUNS TO MINIMIZE HEAD LOSS IN THE SYSTEM.
2. ALL OUTDOOR PIPING MUST BE INSTALLED IN A PIPE TRENCH WITH BEDDING AND COVER MATERIALS PER SPECIFICATIONS. PIPING MAY BE STACKED IN THE PIPE TRENCH.
3. ARROWS DENOTE DIRECTION OF FLOW.
4. REFER TO ALL DISCIPLINES DOCUMENTATION AND COORDINATE ALL PIPING AND EMBEDMENTS WITH AFFECTED TRADES.
5. ALL GRAVITY PIPING MUST BE INSTALLED AT A MINIMUM SLOPE OF 1/2" DROP PER 10' LENGTH. ALL OUTDOOR PIPING MUST BE INSTALLED WITH A SLOPE TO ALLOW COMPLETE DRAINING. PROVIDE WINTERIZING/DRAINING INSTRUCTIONS AND SCHEMATICS TO OWNER.
6. SUPPORT PIPES PER PL404-1 THRU 8.
7. ALL SUPPORTS, BRACING, FASTENERS AND HARDWARE IN THE SURGE TANK(S) MUST BE STAINLESS STEEL.
8. THE INTENT OF THESE DRAWINGS IS NOT TO BE INCLUSIVE OF ALL VALVES OR FITTINGS REQUIRED FOR THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ALL VALVES AND FITTINGS REQUIRED.

PIPE PENETRATIONS

1. SEE BUILDING STRUCTURAL DRAWINGS FOR ALL WALL DIMENSIONS AND WALL/REINFORCING STEEL DIMENSIONS AND DETAILS, INCLUDING REINFORCING REQUIREMENTS AROUND ALL PIPE PENETRATIONS.
2. THE POOL CONTRACTOR MUST FURNISH ALL SLEEVES FOR THE PENETRATIONS SHOWN ON THE POOL DRAWINGS.
3. THE SLEEVES MUST BE INSTALLED BY THE BUILDING CONTRACTOR DURING THE STEEL AND FORMWORK PLACEMENT. BUILDING CONTRACTOR MUST COORDINATE WITH THE POOL CONTRACTOR DURING PLACEMENT AND OBTAIN SLEEVE LOCATION APPROVAL FROM THE POOL CONTRACTOR PRIOR TO POURING THE WALLS.
4. THE POOL CONTRACTOR MUST PROVIDE ALL LINK-SEALS REQUIRED IN THE PIPE PENETRATIONS.
5. ALL PIPE PENETRATION DRAWINGS AND DIMENSIONS ARE SPECIFIC TO THE WTI BASIS OF DESIGN POOL EQUIPMENT AND LAYOUTS AS SHOWN. CONTRACTOR IS RESPONSIBLE FOR PROVIDING FINAL PENETRATION LOCATIONS AND SIZES BASED ON ENGINEER APPROVED EQUIPMENT SELECTIONS AND ACTUAL SITE CONDITIONS. PROVIDE SHOP DRAWINGS TO POOL ENGINEER.
6. REFER TO PL200-3 FOR REINFORCEMENT AT PIPE PENETRATIONS.
7. SEE PENETRATION SCHEDULE FOR ALL PIPE PENETRATIONS SHOWN IN THE ELEVATION DETAILS ON PL600.

MECHANICAL EQUIPMENT

1. CONTRACTOR MUST PROVIDE EQUIPMENT LAYOUTS PER PLANS. IF ALTERNATE LAYOUT IS REQUESTED, CONTRACTOR MUST PROVIDE SCALED DRAWING LAYOUT FOR REVIEW INDICATING POOL EQUIPMENT, PIPING, PIPE SUPPORTS, REQUIRED CLEARANCES, AND SERVICE ACCESS.
2. REFER TO ARCHITECTURAL PLANS FOR ACTUAL ROOM DIMENSIONS AND FINISHED FLOOR ELEVATIONS.
3. VERIFY EQUIPMENT PAD HEIGHT REQUIREMENTS FROM MANUFACTURER AND PROVIDE SHOP DRAWINGS TO POOL ENGINEER.
4. PROVIDE MINIMUM 30" SERVICE ACCESS BETWEEN PUMPS. CONTRACTOR MUST PROVIDE THE GREATER OF MANUFACTURER OR CODE REQUIRED CLEARANCES AROUND AND ABOVE ALL OTHER POOL EQUIPMENT.

POOL CHEMICAL STORAGE AND PIPING NOTES

1. ALL CHEMICAL ROOM DOORS AND CONTAINERS MUST BE PROVIDED WITH SIGNAGE AS REQUIRED BY FIRE CODE. SEE ARCHITECTURAL DRAWING FOR THE DOOR LABEL REQUIREMENTS.
2. DO NOT LOCATE CHEMICAL INJECTION POINTS ABOVE DOORWAY, CHEMICAL FEED PUMPS, OR ELECTRICAL OUTLETS.
3. THE DIRECTION OF FLOW FOR THE RECIRCULATION EQUIPMENT MUST BE LABELED CLEARLY WITH DIRECTIONAL SYMBOLS SUCH AS ARROWS ON ALL PIPING IN THE EQUIPMENT AREA PER REQUIREMENTS OF 13 11 20 SPECIFICATIONS.
4. PLUMBING LINES MUST BE LABELED CLEARLY WITH THE SOURCE OR DESTINATION DESCRIPTIONS PER REQUIREMENTS OF 13 11 20 SPECIFICATIONS.
5. EACH VALVE MUST BE INSTALLED IN THE EQUIPMENT AREA AND LABELED AS TO ITS PURPOSE PER REQUIREMENTS OF 13 11 20 SPECIFICATIONS.
6. PER SPECIFICATIONS SECTION 13 11 13, SUBMIT AN ELECTRONIC VERSION OF THE PIPE AND VALVE CHART FOR EACH PIPING SYSTEM TO THE ARCHITECT/ENGINEER FOR APPROVAL. CHART TO CONSIST OF ISOMETRIC DRAWINGS OR PIPING LAYOUTS SHOWING AND IDENTIFYING EACH VALVE AND DESCRIBING ITS FUNCTION. UPON COMPLETION OF THE WORK HANG IN A CONSPICUOUS LOCATION IN THE EQUIPMENT ROOM ONE (1) COPY OF EACH CHART TO A RIGID BACKBOARD WITH CLEAR LACQUER PLACED UNDER GLASS AND FRAMED.

NOTE:

THIS DRAWING SHEET MUST BE PRINTED/COPIED IN COLOR

PIPING NOTES

REFER TO DIVISION 13 SPECIFICATIONS FOR DETAILS

PIPING

ALL PIPING MUST BE IN ACCORDANCE WITH THE NEW HAMPSHIRE STATE PLUMBING CODE AND NEW HAMPSHIRE DEPARTMENT OF PUBLIC HEALTH CODE. THE A.S.T.M. DESIGNATION NUMBER D-1785, AND THE NSF SEAL FOR POTABLE WATER.

ALL PIPING DESIGNED FOR 6"/SECOND MAX SUCTION, 10"/SECOND MAX PRESSURE, AND 3"/SECOND MAX GRAVITY.

MAIN DRAIN PIPING SHALL CARRY 100% OF RECIRCULATION RATE AT A VELOCITY NOT TO EXCEED 3"/SECOND.

- a. ALL ZERO DEPTH GUTTER, GUTTER AND INLET SUPPLY PIPING MUST BE LAID ON A GRADE SO IT WILL DRAIN TO THE SURGE TANK COMPLETELY BY GRAVITY. MAIN DRAIN LINE PIPING MUST BE LAID ON A GRADE SO: (A) ALL PIPING FROM BENEATH THE POOL TO THE ELEVATION CHANGE SHALL PITCH TO DRAIN TO THE POOL MAIN DRAIN SUMPS AND; (B) ALL PIPING FROM THE ELEVATION CHANGE TO THE SURGE TANK MUST PITCH TO DRAIN TO THE SURGE TANK. IN ALL INSTANCES WHERE GRAVITY DRAINAGE IS NOT PROVIDED, THE CONTRACTOR SHALL INSTALL DRAIN VALVES SO THAT ALL LINES CAN BE DRAINED COMPLETELY TO SURGE TANK OR ANOTHER APPROVED LOCATION. DRAINAGE PLUGS SHALL BE PROVIDED IN THE PIPING SYSTEM TO ALLOW FOR DRAINING OF POOL PIPING. CONTRACTOR SHALL PROVIDE OPERATION AND DRAINING INSTRUCTIONS TO OWNER.
- b. ALL ELEVATIONS TO BE FIELD VERIFIED TO ALLOW FOR PROPER PITCH AND DRAINAGE. PITCH APPROXIMATE 1"/10'-0". POOL CONTRACTOR SHALL MAKE EVERY EFFORT TO CURTAIL THE USE OF FITTINGS TO REDUCE HEAD.
- c. ALL DRAWINGS ARE INTENDED FOR SCHEMATIC USE ONLY!! FINAL LOCATIONS MUST BE FIELD VERIFIED WITH ALL OTHER TRADES. BY CONTRACTOR.
- d. CONTRACTOR MUST COORDINATE ALL WORK WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS.

DRAINS

- a. ALL DRAIN FITTINGS TO CARRY 100% OF RECIRCULATION RATE AT A VELOCITY NOT TO EXCEED 1.5"/SECOND THROUGH THE CLEAR AREA OF THE GRATE.
- b. FILTER DRAIN LINE TO DISCHARGE TO SEWER WITH MIN 6" AIR GAP.
- c. ALL DRAINS AND OUTLETS MUST CONFORM WITH ANSI/APSP-16 2011 OR ANY SUCCESSOR STANDARD.

PRESSURE GAUGES

- a. PRESSURE GAUGES TO BE INSTALLED ON ALL PUMP SUCTION AND DISCHARGE LINES.

VALVES

- a. EACH VALVE MUST HAVE A PERMANENT IDENTIFYING LABEL OR TAG ATTACHED TO IT. THE SEQUENCE OF OPERATION, BRIEFLY STATED, MUST BE PROMINENTLY DISPLAYED.

FLOWMETERS

- a. FLOWMETER MUST BE PROVIDED IN THE FILTRATION PUMP DISCHARGE LINE AND IN EACH INLET RETURN LINE AS INDICATED ON THE DRAWINGS. FLOWMETERS MUST BE INSTALLED ON A STRAIGHT LENGTH OF PIPE WITHOUT ANY VALVE, ELBOW OR OTHER SOURCE OF TURBULENCE (UNINTERRUPTED FLOW). PROVIDE A MIN OF 10 PIPE DIA UPSTREAM AND 5 PIPE DIA DOWNSTREAM FROM THE FLOWMETER OF UNINTERRUPTED FLOW OR INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- b. MAIN FLOWMETER MUST BE USED TO MONITOR BACKWASH RATE.

FILTERS

- a. FILTER MUST BE PROVIDED WITH THE FOLLOWING APPROPRIATELY LOCATED ACCESSORIES: PRESSURE GAUGES, SIGHT GLASS ON PRE-COAT LINE, AN AIR RELIEF VALVE AT THE HIGH POINT OF THE FILTER AND A VALVED TANK DRAIN.

PIPING LEGEND

PIPE DESCRIPTION	PIPE COLOR
AIR:	
ACTIVITY SUPPLY:	
CHEMICAL:	
INLET SUPPLY:	
GRAVITY:	
JET SUPPLY:	
PROPULSION SUPPLY:	
AUTOFILL SENSOR:	
SKIMMER SUCTION:	
SLIDE SUPPLY:	
SUCTION:	



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DRAWN BY: Checker
CHECKED BY:
PROJECT: 21904-14

CITY OF PORTSMOUTH
1 Junkins Avenue
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PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

GENERAL NOTES

SCALE: AS NOTED

DATE: 06/17/2022

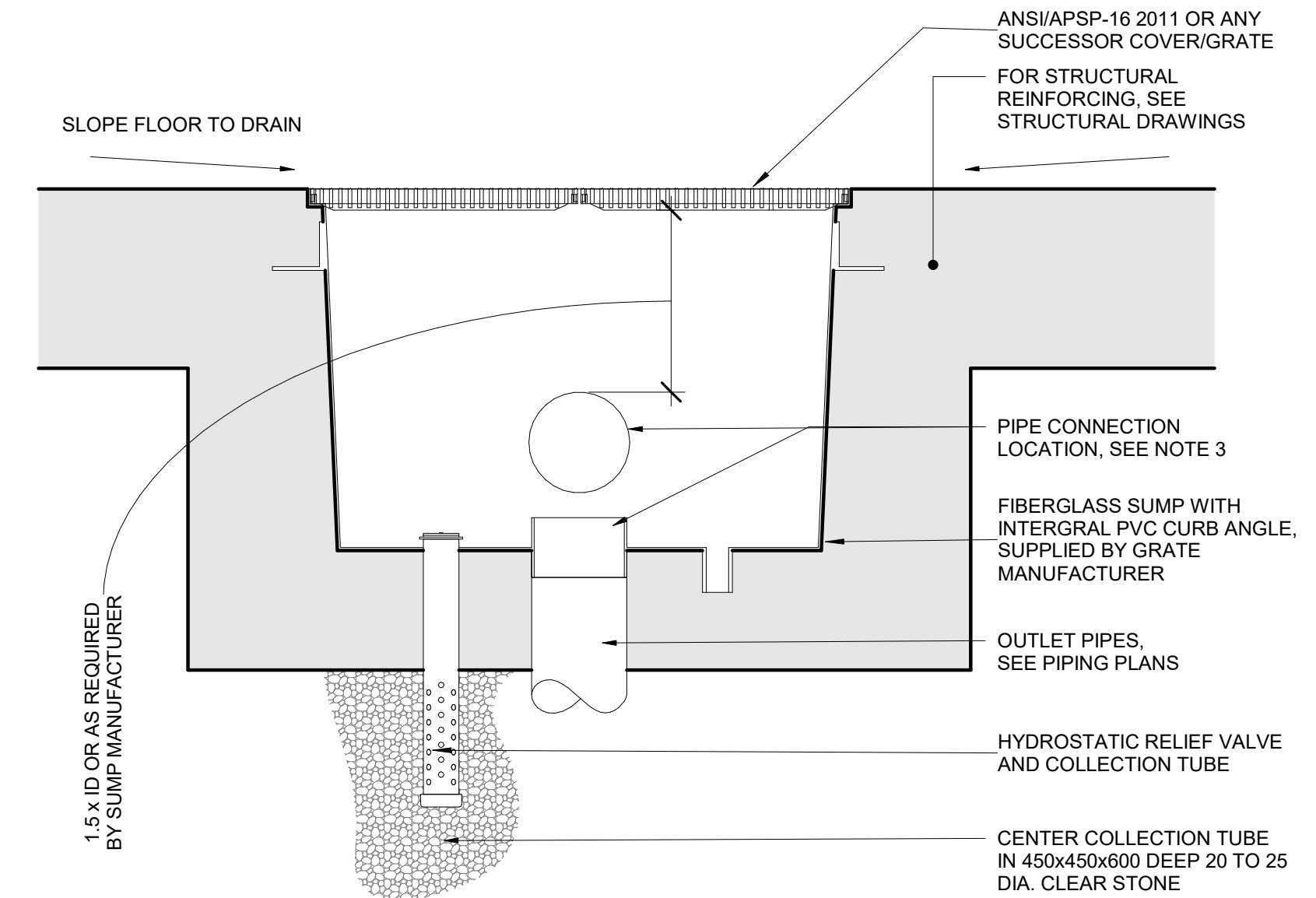
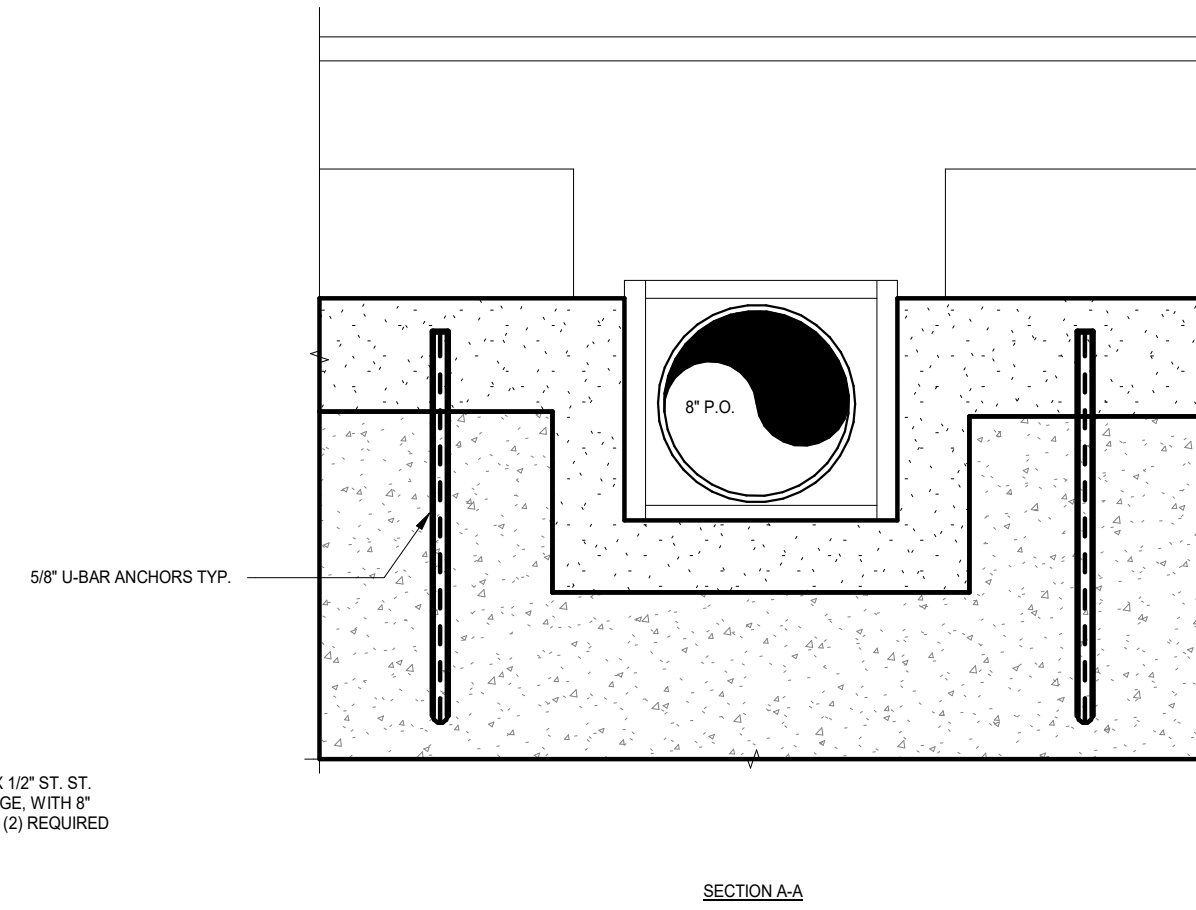
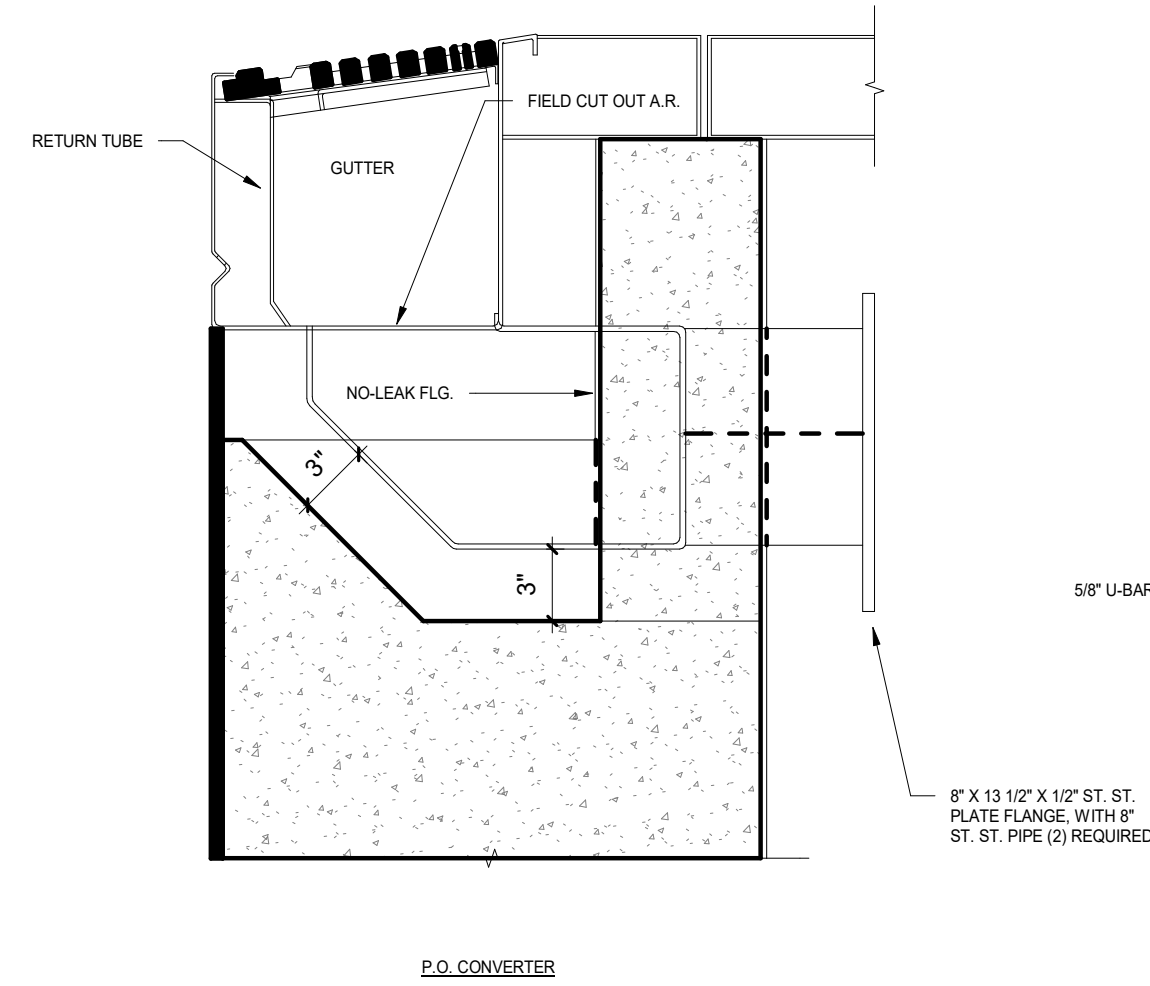
DWG.: **PL301**

SHEET: **58** OF **72**

DRAIN SCHEDULE

DRAIN / GRATE ID	DETAIL #	MFR & MODEL #	DRAIN/GRATE MFR SPECIFICATIONS				DESIGN DATA							
			DIMENSIONS		OPEN AREA		MAX ALLOWABLE FLOW PER GRATE	CONNECTED PUMPS	SYSTEM TOTAL DESIGN FLOW	DRAIN / GRATE QTY	FLOW PER GRATE	VELOCITY	SYSTEM MAXIMUM	
			WIDTH (ft)	LENGTH (ft)	PER GRATE (in ²)	TOTAL (in ²)							FLOW PER GRATE (gpm)	VELOCITY (fps)
A-PF1	1/PL301	DALDORADO: DaIMAX-SG-183634	1.5	3.0	401	802	2869	P1A	1491	2	746	0.60	1181	0.94
A-PF2	1/PL301	DALDORADO: DaIMAX-SG-183634	1.5	3.0	401	802	2869	P2A	1491	2	746	0.60	1181	0.94

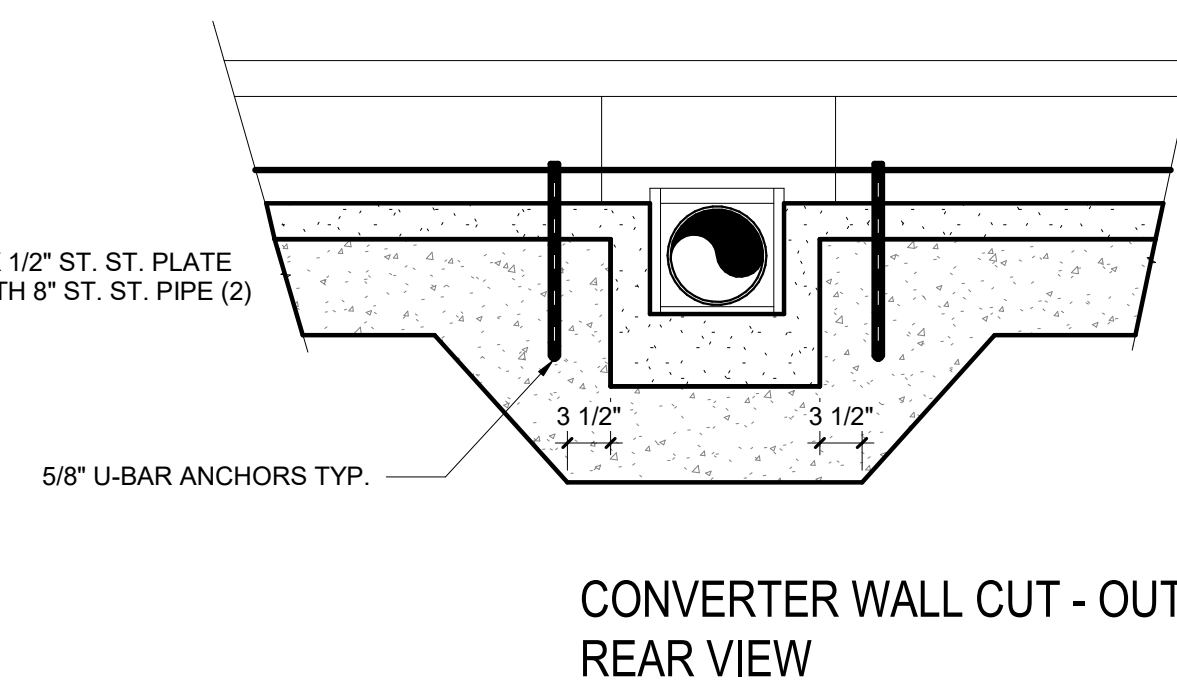
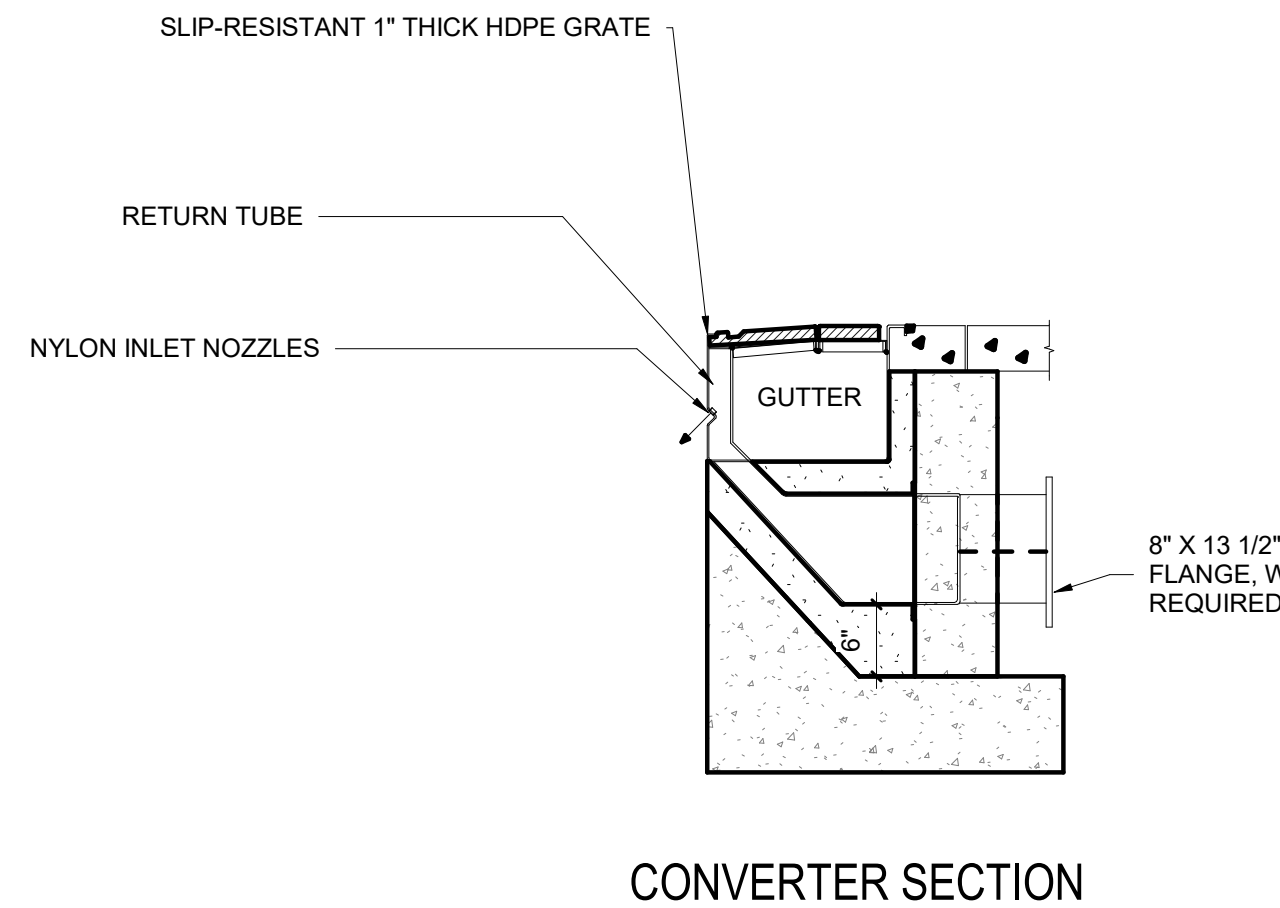
NOTE: THE SYSTEM MAXIMUM FLOW RATE AND VELOCITY HAS BEEN DETERMINED BY USING THE FLOW RATE AT THE END OF THE PUMP MANUFACTURER'S PUMP CURVE.



NOTES:

- SUMP AND GRATE COVER SHALL CONFORM WITH CURRENT ANSI/APSP-16 STANDARD. VERIFY GRATE DIMENSIONS AND OUTLET REQUIREMENTS WITH GRATE/SUMP MANUFACTURER PRIOR TO SUBMITTING SHOP DRAWINGS.
- THE FIBERGLASS SUMP SHALL BE SUPPLIED WITH THE GRATE AS INDICATED IN THE DRAIN SCH. SUMP MATERIALS SHALL MEET OR EXCEED THE SCHEDULED MANUFACTURER'S SPECIFICATION: 225 GRAM FIBERGLASS MAT WITH MARINE GRADE WHITE GELCOAT AND 50mm MINIMUM FRP WATERSTOP AROUND THE OUTSIDE PERIMETER.
- AT CONTRACTOR'S OPTION, SUMP MAY HAVE BOTTOM OR SIDE OUTLET PIPE CONNECTION.
- CONTRACTOR SHALL INCLUDE ALL POOL DRAIN/WINTERIZATION PIPE CONNECTIONS AS SHOWN ON PIPING DRAWINGS.
- ALL SUMPS REQUIRE A MINIMUM OF ONE HYDROSTATIC RELIEF PORT AND 50od VALVE. (HAYWARD MODEL SP1056) WITH COLLECTION TUBE PER SUMP, UNLESS OTHERWISE NOTED. VERTICALLY INSTALLED SUMPS, ELEVATED POOLS AND/OR POOLS CONSTRUCTED ON A VOID FORM DO NOT REQUIRE A HYDROSTATIC RELIEF VALVE SYSTEM. UNUSED HYDROSTATIC PORTS SHALL BE PLUGGED.
- SEE DRAIN SCHEDULE AND PIPE PLANS.
- SECURE ALL GRATING TO DRAIN SUMP WITH CORROSION RESISTANT FASTENERS IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS. FASTENERS SHALL NOT BE REMOVABLE WITHOUT THE USE OF A TOOL AND SHALL MEET ALL CURRENT ANSI/APSP/CC-16 REQUIREMENTS. INSPECT ALL GRATING AND EACH FASTENER TO ASSURE THEY ARE IN PLACE AND PROPERLY SECURED PRIOR TO OPENING THE POOL FOR PUBLIC USE.
- PROTECT DRAIN FROM EXTERNAL PRESSURE DURING INSTALLATION.
- PROVIDE A REMOVABLE PLYWOOD AND A REUSABLE 6mm PVC TOP COVER PROTECTOR WITH STAINLESS STEEL HARDWARE TO SHIELD THE INTERNALS OF EACH DRAIN SUMP FROM DEBRIS DURING CONSTRUCTION AND FOR FUTURE OWNER USE DURING WINTERIZATION AND/OR SHUTDOWN.
- SUPPLY EACH SUMP CONNECTION PORT WITH A THREADED OR FLANGED ADAPTOR CONNECTION INSIDE THE SUMP. INCLUDE CORRESPONDING THREADED/FLANGED ADAPTOR PLUGS/FITTINGS AND STAINLESS STEEL HARDWARE FOR THE PURPOSES OF 345 kPa PRESSURE TESTING AND FUTURE WINTERIZATION AND/OR SHUTDOWN.

2 PADDOCK GUTTER CONVERTER
DETAIL VIEW
NOT TO SCALE



3 PADDOCK INLET CONVERTER
DETAIL VIEW
NOT TO SCALE

1 MAIN DRAIN
DETAIL VIEW
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DRAWN BY: WRB
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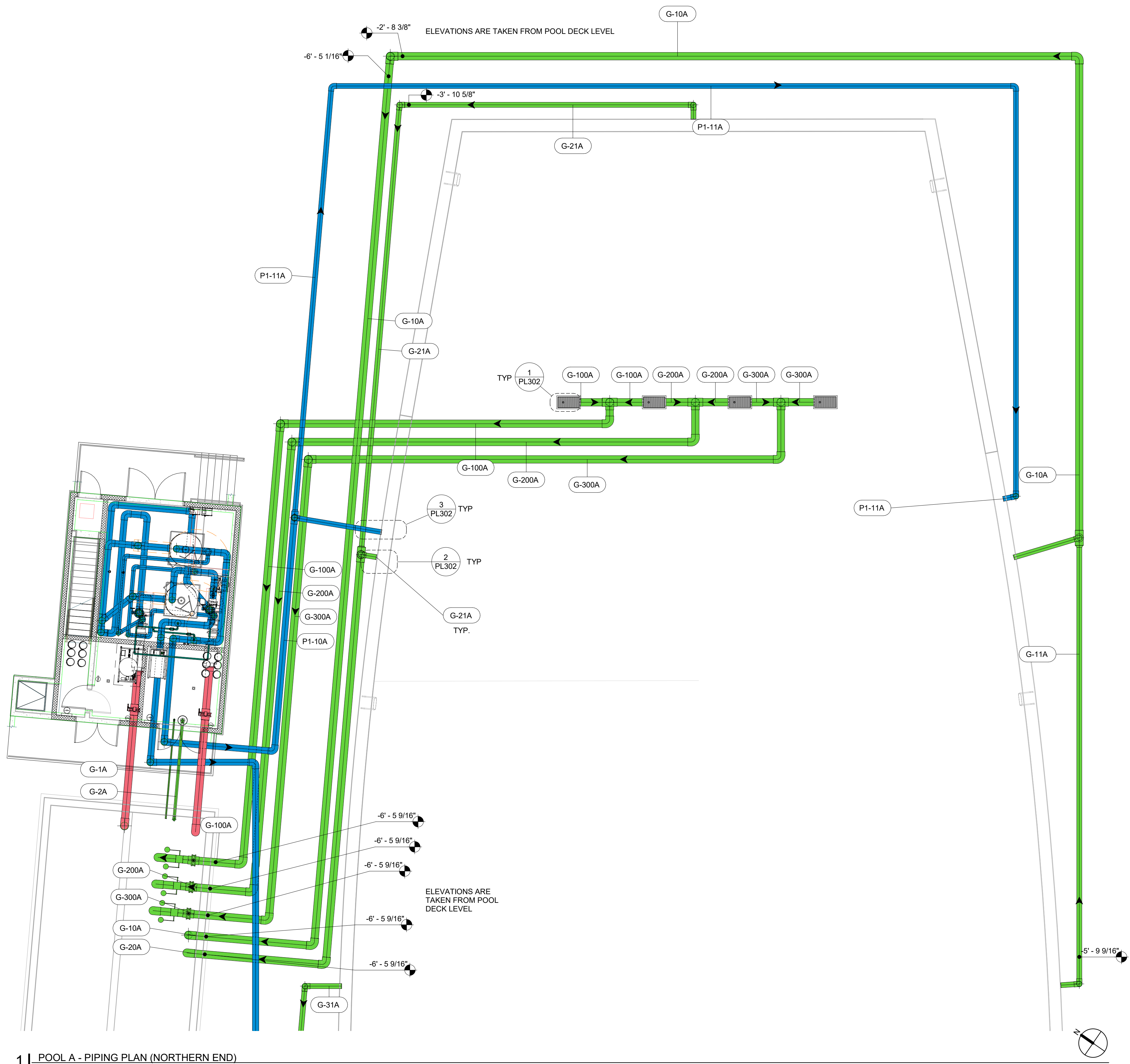
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PEIRCE ISLAND PUMP HOUSE AND POOL RENOVATION
Peirce Island Road
Portsmouth, NH 03801

GENERAL DETAILS

SCALE: AS NOTED
DATE: 06/17/2022
DWG.: PL302
SHEET: 59 OF 72

NO.	DATE	DESCRIPTION	BY
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1 | POOL A - PIPING PLAN (NORTHERN END)
 PLAN VIEW
 1/8" = 1'-0"

NOTES:

1. THIS DRAWING SHEET MUST BE PRINTED/COPIED IN COLOR.

POOL A - LEISURE POOL PIPE SCHEDULE						
PIPE ID	TYPE	NPS	FLOW	VELOCITY	DESCRIPTION	
		(in)	(gpm)	(fps)		
S1-10A	PVC SCH 80	12	1,491	4.8	FILTRATION PUMP SUCTION - SURGE TANK	
P1-10A	PVC SCH 80	10	1,491	6.8	INLET SUPPLY	
P1-11A	PVC SCH 80	8	746	5.3	INLET SUPPLY	
G-10A	PVC SCH 40	12	746	2.2	GUTTER	
G-11A	PVC SCH 40	8	373	2.4	GUTTER	
G-20A	PVC SCH 40	12	746	2.2	GUTTER	
G-21A	PVC SCH 40	8	373	2.4	GUTTER	
G-30A	PVC SCH 40	12	746	2.2	GUTTER	
G-31A	PVC SCH 40	8	373	2.4	GUTTER	
G-100A	PVC SCH 40	12	994	2.9	GRAVITY MAIN DRAIN	
G-200A	PVC SCH 40	12	994	2.9	GRAVITY MAIN DRAIN	
G-300A	PVC SCH 40	12	994	2.9	GRAVITY MAIN DRAIN	
G-1A	PVC SCH 40	2	0	0.0	SENSOR STAND PIPE	
G-2A	PVC SCH 40	4	88	2.2	FILL LINE	



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DWG.: PL310

SHEET: 60 OF 72



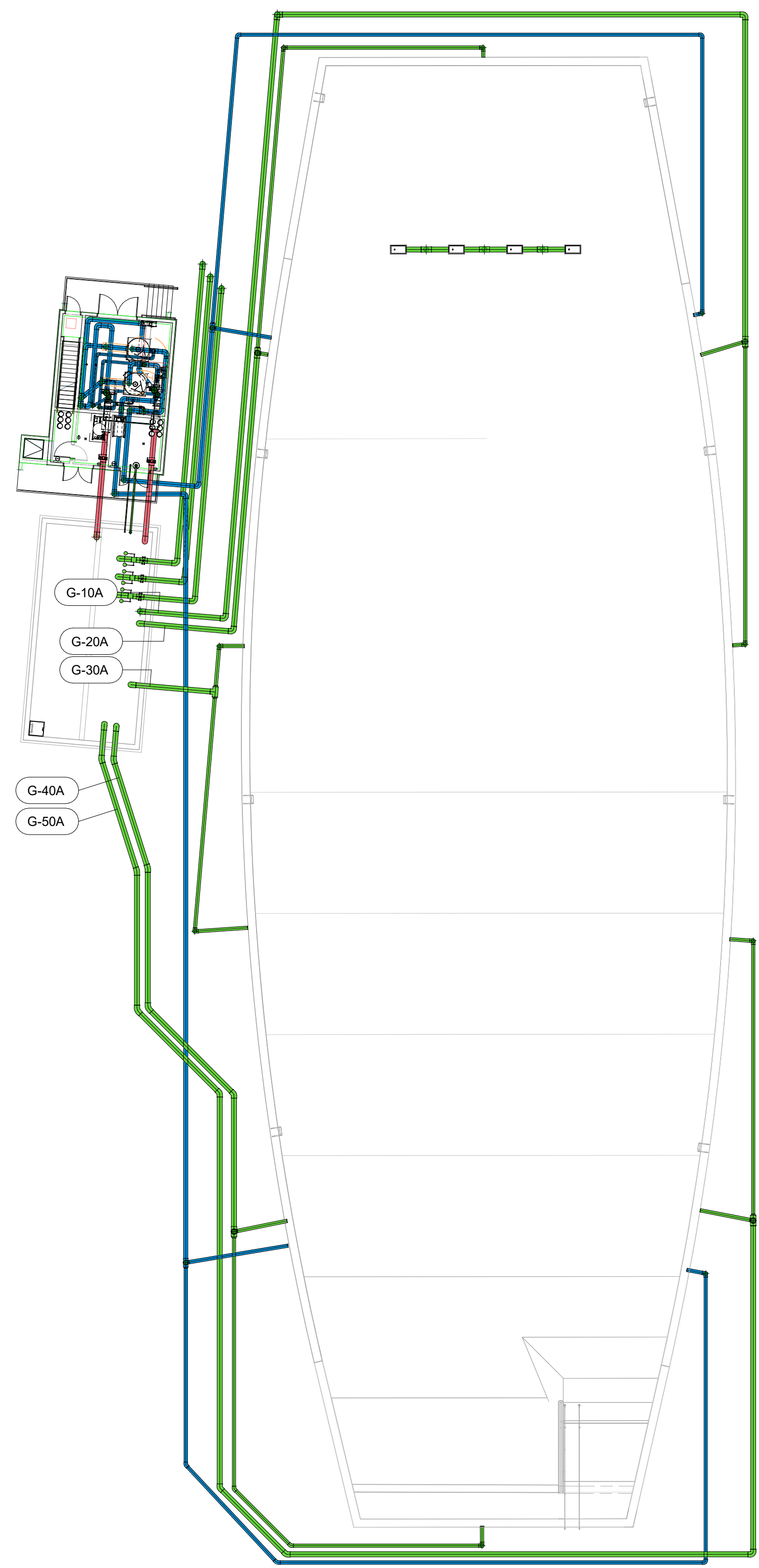
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POOL A - LEISURE POOL PIPE SCHEDULE					
PIPE ID	TYPE	NPS (in)	FLOW (gpm)	VELOCITY (fps)	DESCRIPTION
P2-20A	PVC SCH 80	10	1,491	6.8	INLET SUPPLY
P2-21A	PVC SCH 80	8	746	5.3	INLET SUPPLY
G-30A	PVC SCH 40	12	746	2.2	GUTTER
G-31A	PVC SCH 40	8	373	2.4	GUTTER
G-40A	PVC SCH 40	12	746	2.2	GUTTER
G-41A	PVC SCH 40	8	373	2.4	GUTTER
G-50A	PVC SCH 40	12	746	2.2	GUTTER
G-51A	PVC SCH 40	8	373	2.4	GUTTER

NOTES:

1. THIS DRAWING SHEET MUST BE PRINTED/COPIED IN COLOR.



1 | POOL A - PIPING PLAN (SOUTHERN END)
PLAN VIEW
1" = 20'-0"

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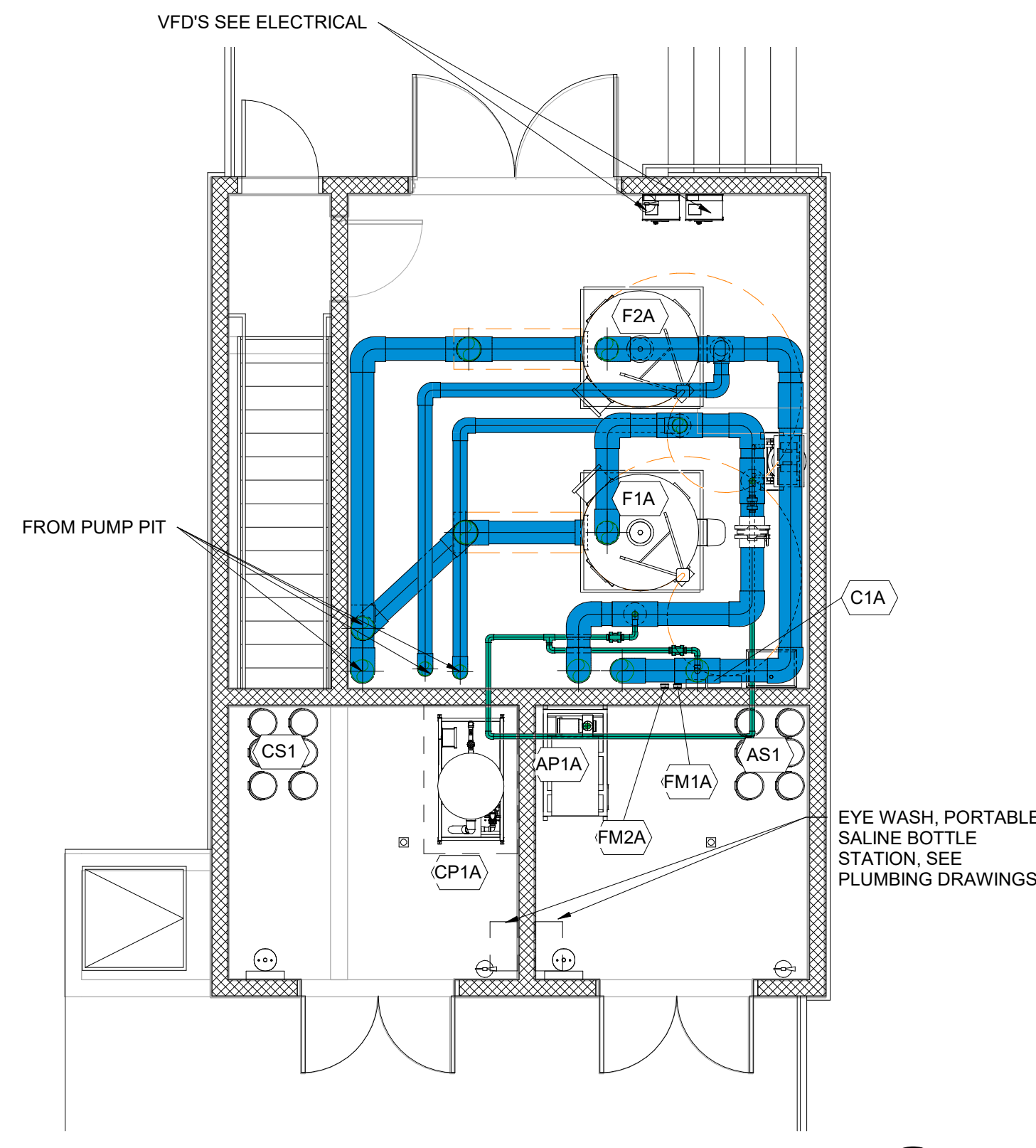
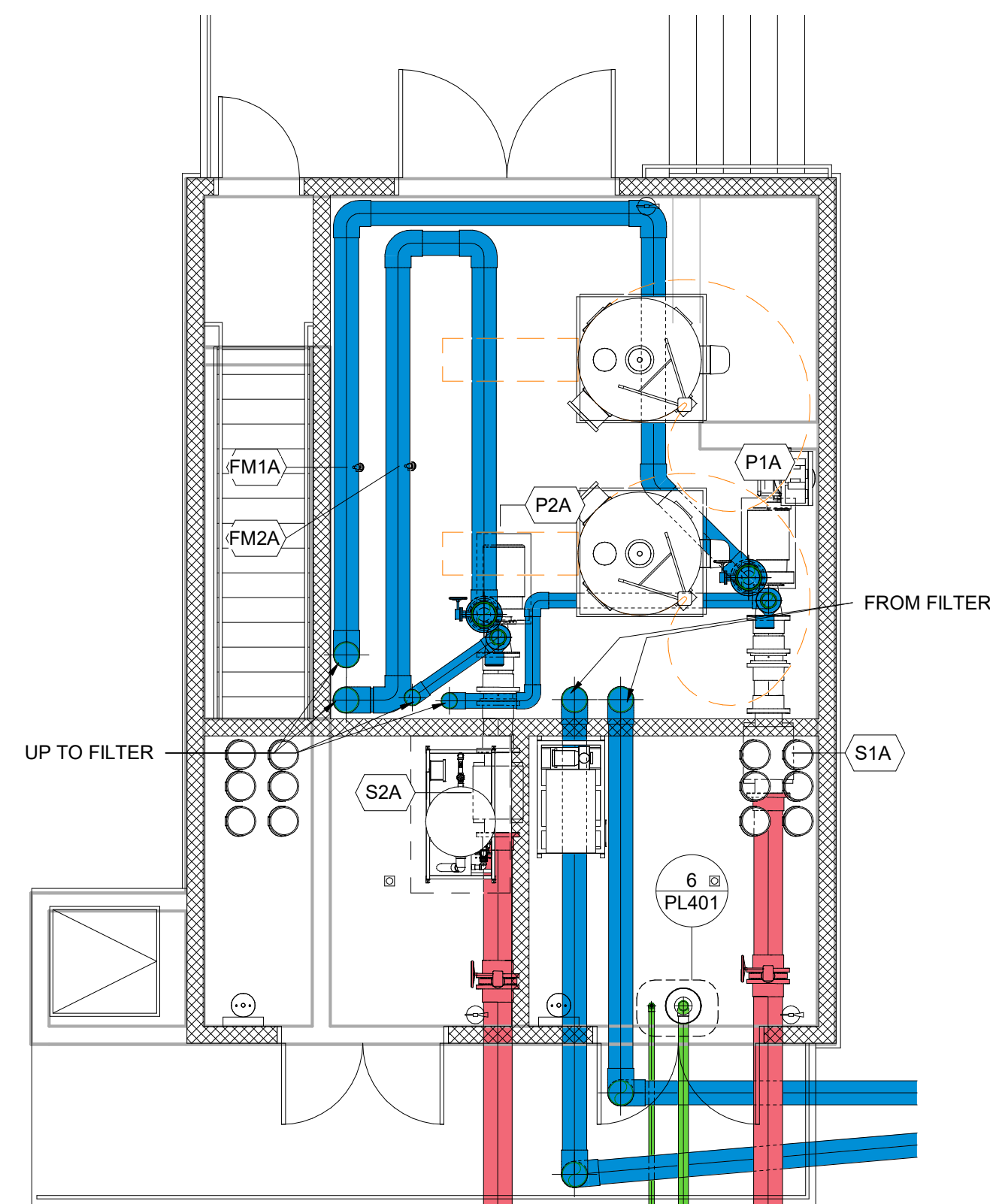
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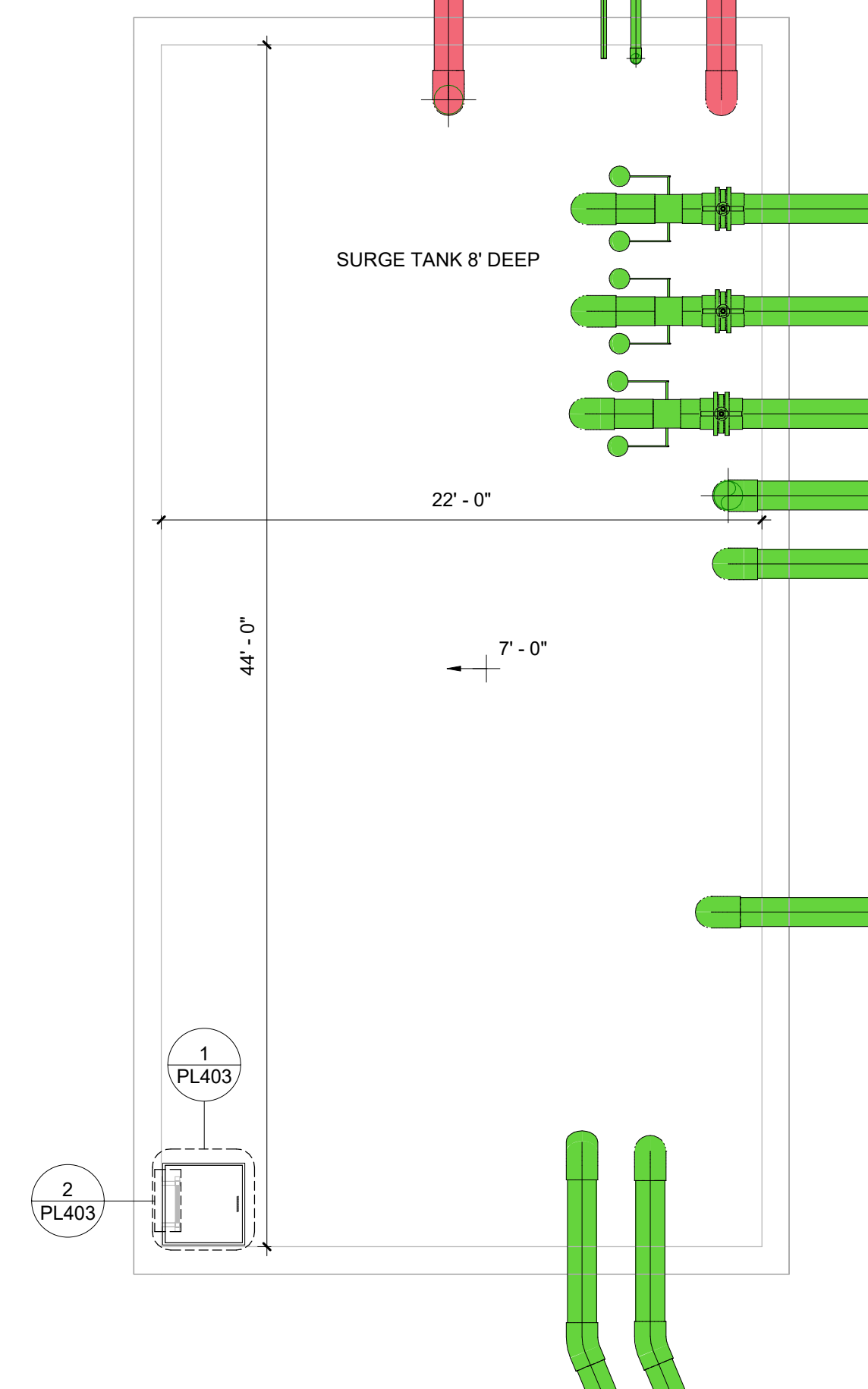
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POOL A - PIPING PLAN (SOUTHERN END)

SCALE: AS NOTED
DATE: 06/17/2022
DWG.: PL311
SHEET: 61 OF 72



1 MECHANICAL ROOM EQUIPMENT LAYOUT
PLAN VIEW
3/16" = 1'-0"



2 PUMP PIT EQUIPMENT LAYOUT
PLAN VIEW
3/16" = 1'-0"

NOTES:

- THIS DRAWING SHEET MUST BE PRINTED/COPIED IN COLOR.

POOL A-LEISURE POOL DATA		
DESCRIPTION	QTY	UNITS
POOL PERIMETER	722	FEET
WATER SURFACE AREA	25,287	SQUARE FEET
POOL VOLUME	894,615	GALLONS
SURGE TANK - POOL SURGE VOLUME	25,344	GALLONS
SURGE FACTOR	1.0	GAL/SFT
CIRCULATION RATE	2,982	GPM
TURNOVER/VOLUME/FLOW	300 MIN.	894,615 GAL. 2,982 GPM
FILTRATION RATE	1.23	GPM/FT ²
BACKWASH RATE	300	GPM
PATRON LOAD	937	PERSONS

EQUIPMENT SCHEDULE				
ID	ITEM	QTY.	MANUFACTURER	BASIS OF DESIGN
P1A, P2A	FILTRATION PUMP	2	AURORA PUMP	3801, 6x8x13.5, 50 HP, 230/460 VOLT, 3 PHASE, 1200 RPM, 1491 GPM @ 80' TDH, TEFC MOTOR, END SUCTION, CLOSE COUPLED, 316 STAINLESS STEEL IMPELLOR AND FITTED (SF), EPOXY COATED VOLUTE
S1A, S2A	STRAINER	2	NEPTUNE BENSON, INC.	PRO STRAINER, MODEL PSV1212SC, STAINLESS STEEL HAIR AND LINT STRAINER, STAINLESS STEEL BASKET. PROVIDE WITH EXTRA STAINLESS STEEL BASKET.
F1A, F2A	FILTER	2	NEPTUNE BENSON, INC.	REGENERATIVE MEDIA FILTER, MODEL SP4948-1548, 1211.0 SQUARE FEET OF FILTER AREA, 1.24 GPM/SF (FILTER MEDIA RATE), PROVIDE WITH PERLITE MEDIA OR APPROVED EQUAL
C1A	CHEMICAL CONTROLLER (EXISTING)	1	BECS TECHNOLOGY	BECSys7 CONTROLLER
CP1A	CHLORINE FEEDER (EXISTING)	1	AXIALL	ACCUTAB CHLORINATION SYSTEM, POWERBASE 3500 CHLORINATOR, FEEDS UP TO 36.4 LBS/HR CALCIUM HYPOCHLORITE, 500 LBS TABLET STORAGE, 120V, 2" CONNECTIONS. USE ACCU-TAB BLUE S1 TABLETS (CALCIUM HYPOCHLORITE) FOR DISINFECTANT.
CS1	CHEMICAL STORAGE	-	CHEMICAL SUPPLIER	BUCKETS OF CALCIUM HYPOCHLORITE PROVIDED BY OWNER'S CHEMICAL SUPPLIER. MAXIMUM STORAGE = 250 POUNDS.
AP1A	ACID FEEDER	1	AXIAL	ACID-RITE, MODEL 2500 pH ADJUSTMENT SYSTEM, FEEDS UP TO 37.5 LBS/HR SODIUM BISULFATE. PROVIDE WITH INJECTION PUMP, BALANCE TANK, FLOWMETER, SOLENOID, ALUMINUM FRAME, PRE-PLUMBED AND PRE-WIRED.
AS1	CHEMICAL STORAGE	-	CHEMICAL SUPPLIER	BUCKETS OF ACID-RITE SODIUM BISULFATE PROVIDED BY OWNER'S CHEMICAL SUPPLIER.
AF1A	WATER LEVEL CONTROL	1	BECS TECHNOLOGY	BECSys SLS SURGE LEVEL SENSOR WITH SUBMERSIBLE CABLE, MODEL #BECSysSLS-4-S-A. PROVIDE WITH ASCO 8221 1.5" SLOW CLOSING SOLENOID VALVE, BRASS BODY, BUNA "N" DISC, 110 V, NORMALLY CLOSED, WATERTIGHT ENCLOSURE. NOTE: ONE LOOP POWER SUPPLY IS REQUIRED IN THE BECSys7 CONTROLLER FOR THIS 4-20 mA INPUT.
AC1	AIR COMPRESSOR	1	NEPTUNE BENSON, INC.	DEFENDER COMPRESSOR AND WATER SEPARATOR, 2HP, 1 PHASE, 120V, 135 PSI MAXIMUM PRESSURE, 30 GALLON TANK, CAST IRON TWIN CYLINDER COMPRESSOR PUMP, PART #12213, WATER SEPARATOR MODEL AMG350, 1/2" PORT SIZE.
FM1A, FM2A	FLOW METER	1	SIGNET	2551 MAG METER, INSERTION STYLE MAGNETIC FLOW SENSOR, MODEL #3-2551-P2-12. FLOW TO BE DISPLAYED ON VFD, PROVIDE WITH IRON STRAP-ON SADDLE MODEL NUMBER IR8S120 (12").

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Portsmouth, NH 03801

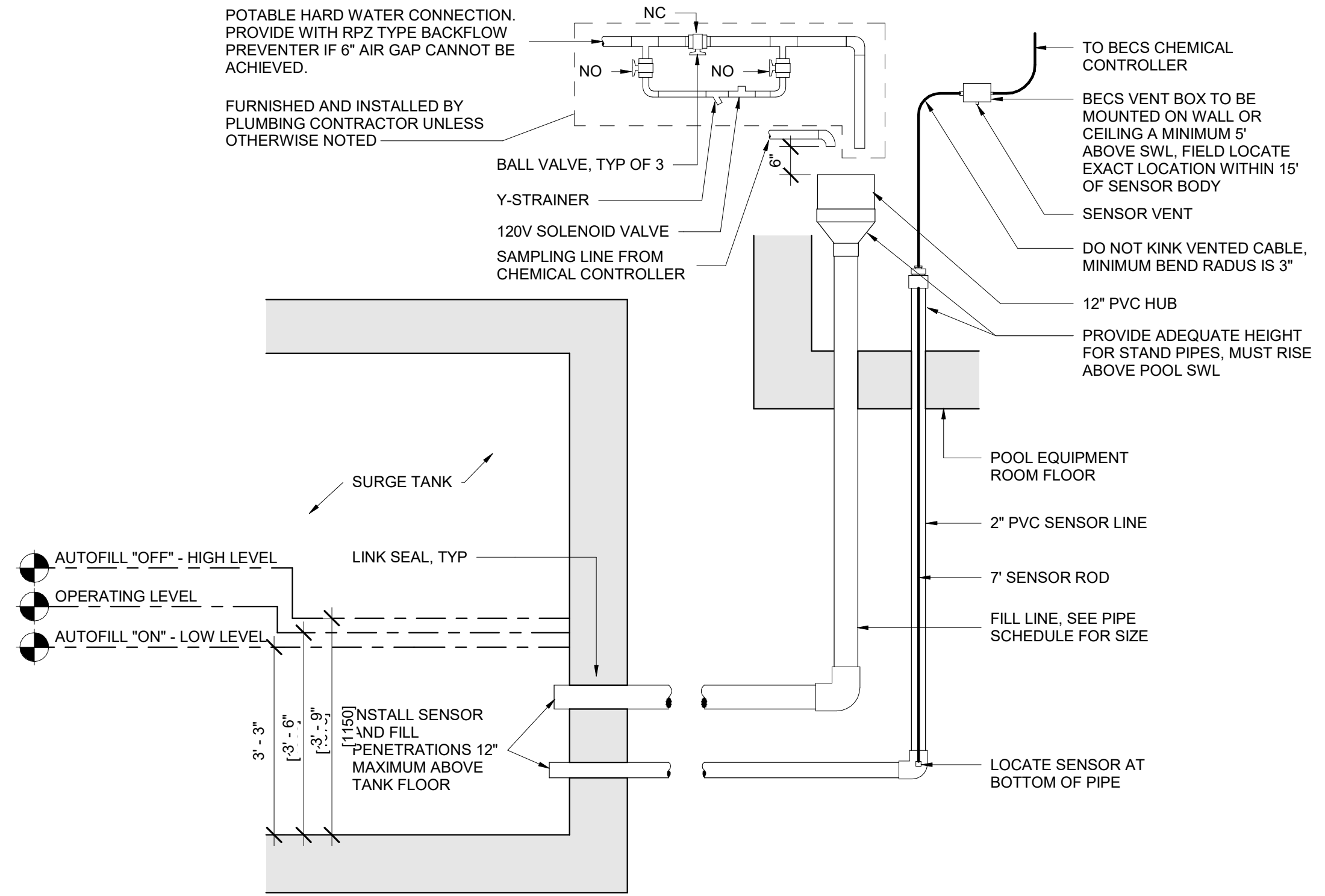
MECHANICAL
EQUIPMENT
PLAN

SCALE: AS NOTED

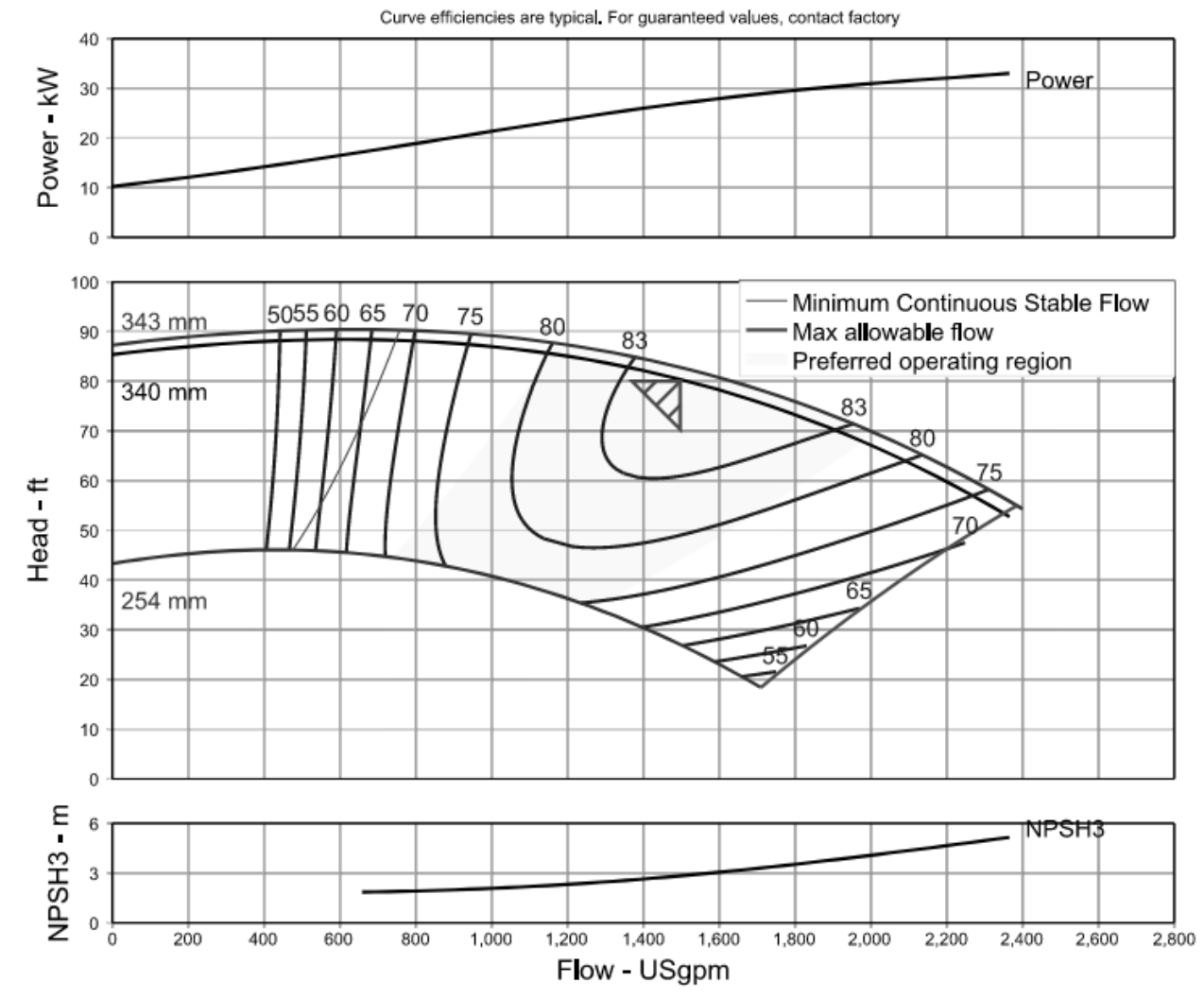
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DWG.: PL400

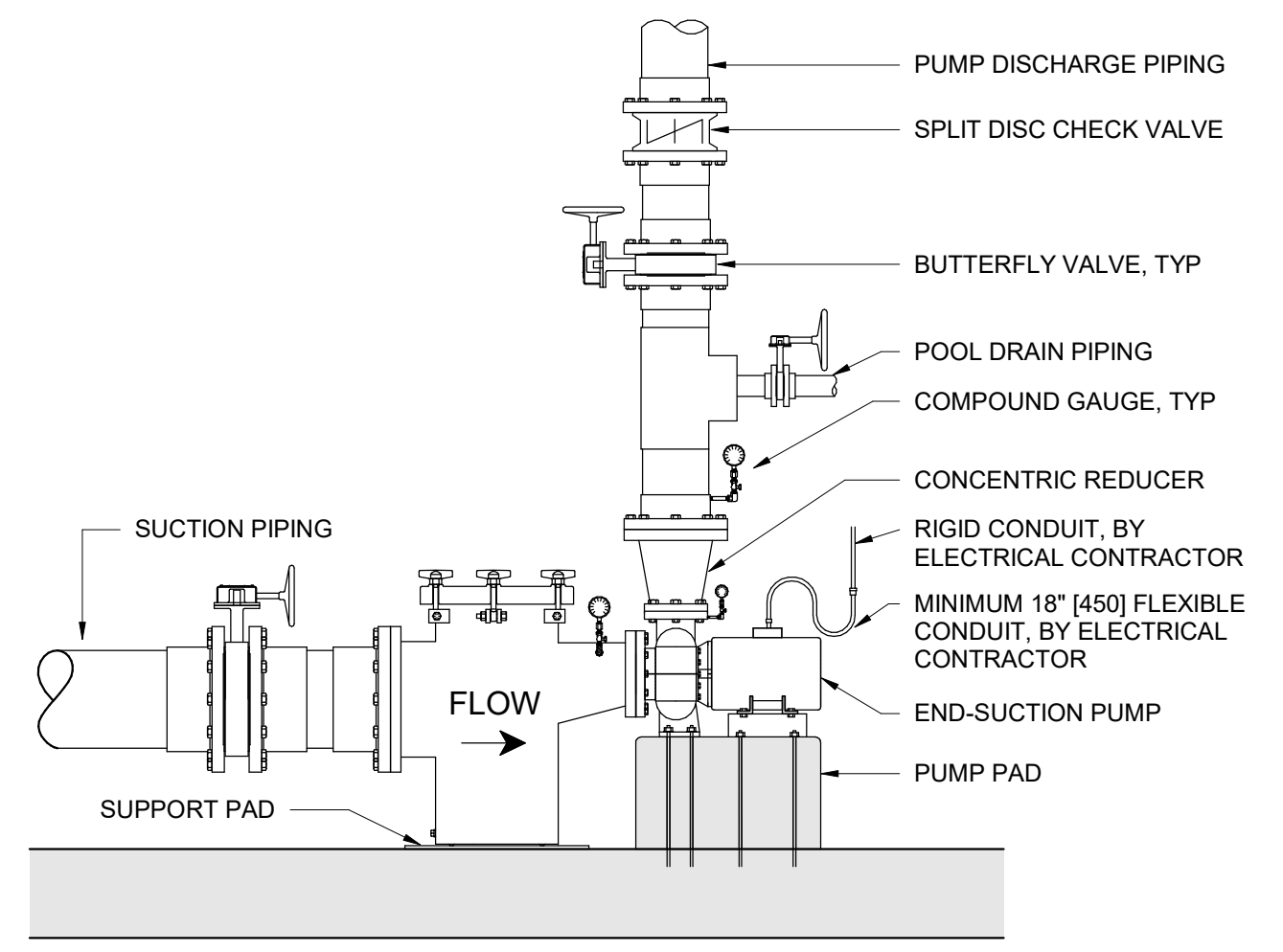
SHEET: 62 OF 72



6 | AUTOFILL WATER LEVEL CONTROL
FL401
DETAIL VIEW
NOT TO SCALE

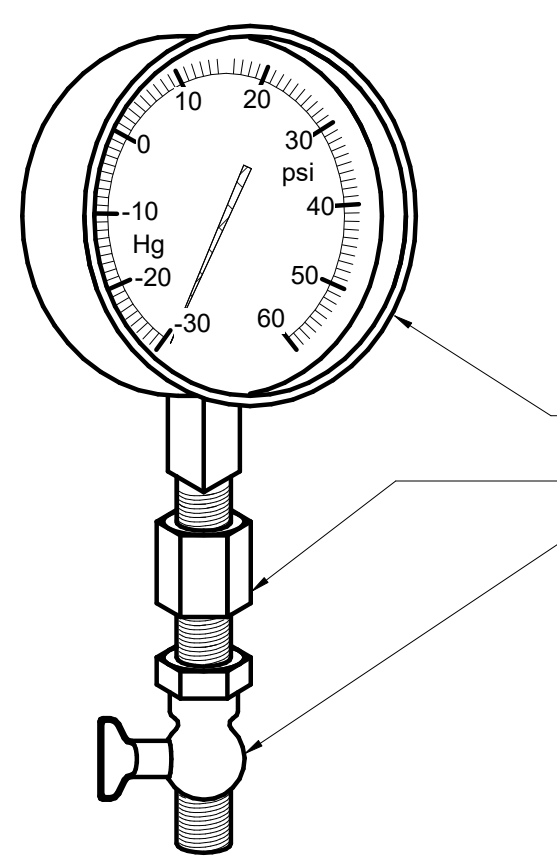


3 | P1A, P2A PUMP CURVE
FL401
DETAIL VIEW
NOT TO SCALE



- NOTES:
- REFER TO EQUIPMENT SCHEDULES FOR A STRAINER TYPE AND SIZE. SUPPLY AND INSTALL ECCENTRIC REDUCER ON SUCTION SIDE AS NECESSARY.
 - INSTALL STRAINER OR REDUCER WITH 1/4" [6] FPT GAUGE CONNECTION AS CLOSE TO PUMP AS POSSIBLE.
 - INSTALL CHECK VALVE PER MANUFACTURER'S RECOMMENDATIONS.

1 | PUMP INSTALLATION - SAND FILTER
FL401
DETAIL VIEW
NOT TO SCALE



PRESSURE GAUGES SHALL BE INSTALLED BY MEANS OF DRILLING & TAPPING PIPE TO BE MONITORED. THE GAUGE SHALL THEN BE THREADED INTO THE PIPE. PROVIDE WITH SNUBBER & PET COCK.

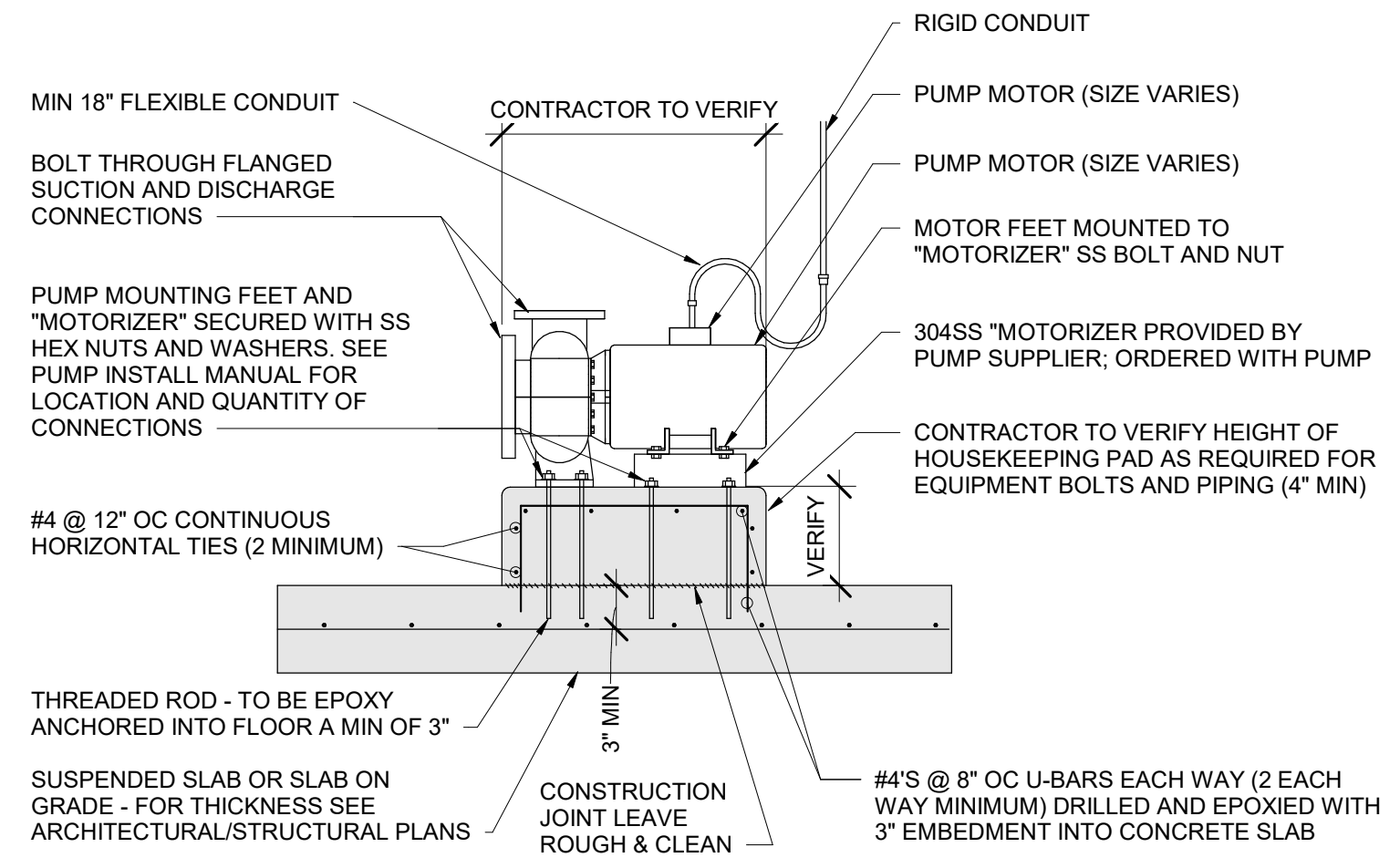
GAUGE MAY BE USED WHEREVER CRUCIAL VACUUM OR PRESSURE READINGS ARE ESSENTIAL.

GAUGE
SNUBBER
PETCOCK MODEL #A10, BRASS

4 1/2" SS CASED LIQUID FILLED PRESSURE GAUGES

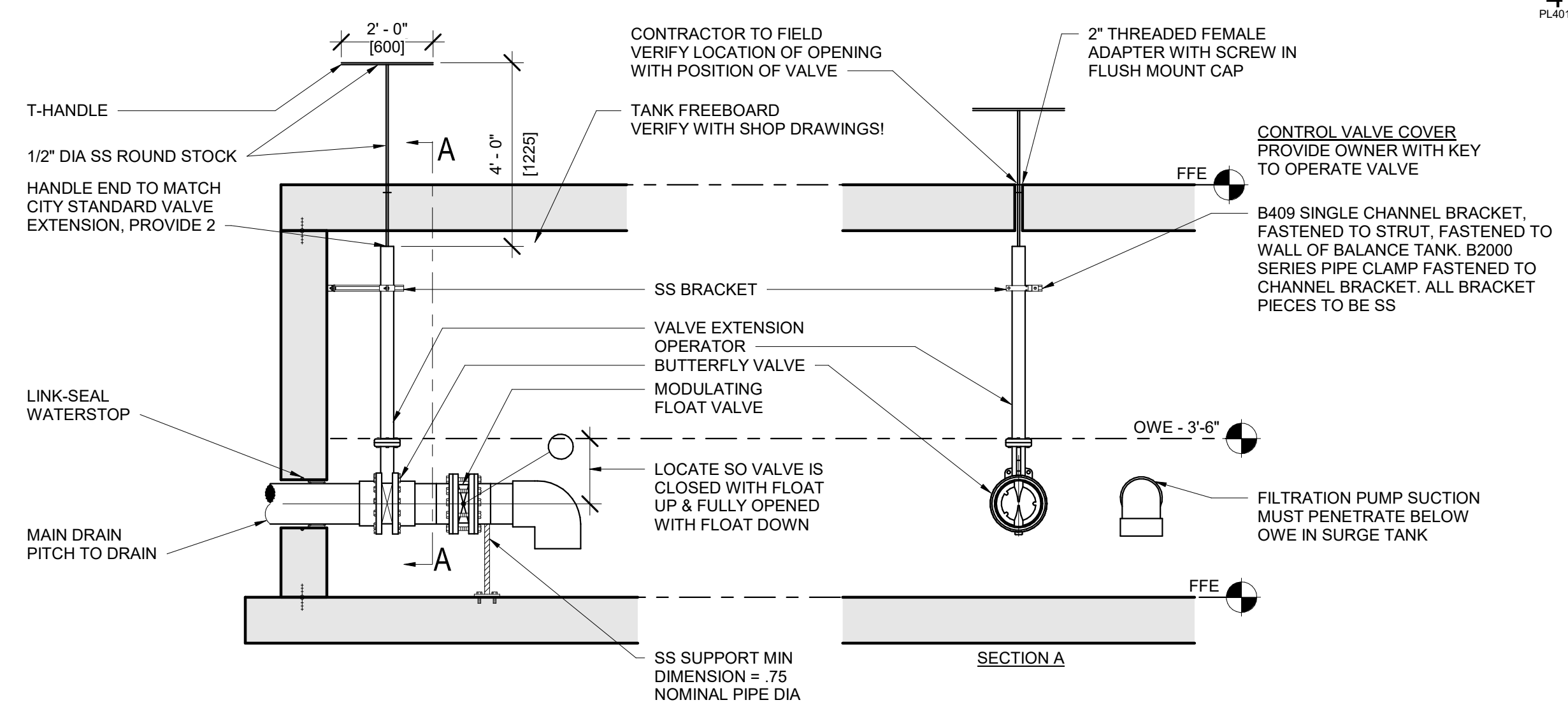
SHALL HAVE A DIAL RANGE PRESSURE OF 60psi & VACUUM RANGE OF 30" Hg THE MINOR GRADUATIONS SHALL HAVE A PRESSURE OF 2psi & VACUUM OF 2"Hg, 1/4" NPT AS MANUFACTURED BY WEKSLER, MARSH, WINTERS OR APPROVED EQUAL.

4 | COMPOUND GAUGE
FL401
DETAIL VIEW
NOT TO SCALE



- NOTES:
- PAD SIZE SHALL BE MIN INDICATED OR AS SHOWN ON THE PLANS OR AS INDICATED BY THE MANUFACTURER. THE SIZE, NUMBER, TYPE, LOCATION, AND THREAD PROJECTION OF THE ALL THREAD ROD SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER / INSTALLING CONTRACTOR. ALL THREAD ROD SHALL BE HELD IN POSITION WITH A TEMPLATE WHILE PAD IS BEING POURED.
 - EQUIPMENT BASES SHALL BE INSTALLED LEVEL UNLESS SPECIFIED OTHERWISE. EQUIPMENT BASES SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR. SIZES AND LOCATIONS TO BE VERIFIED BY CONTRACTOR. PROVIDE SUPPORT FOR PUMP SUCTION AND DISCHARGE PIPING WHILE ALLOWING FOR PUMP REMOVAL.

2 | PUMP PAD
FL401
DETAIL VIEW
NOT TO SCALE



5 | MAIN DRAIN PENETRATION
FL401
DETAIL VIEW
NOT TO SCALE



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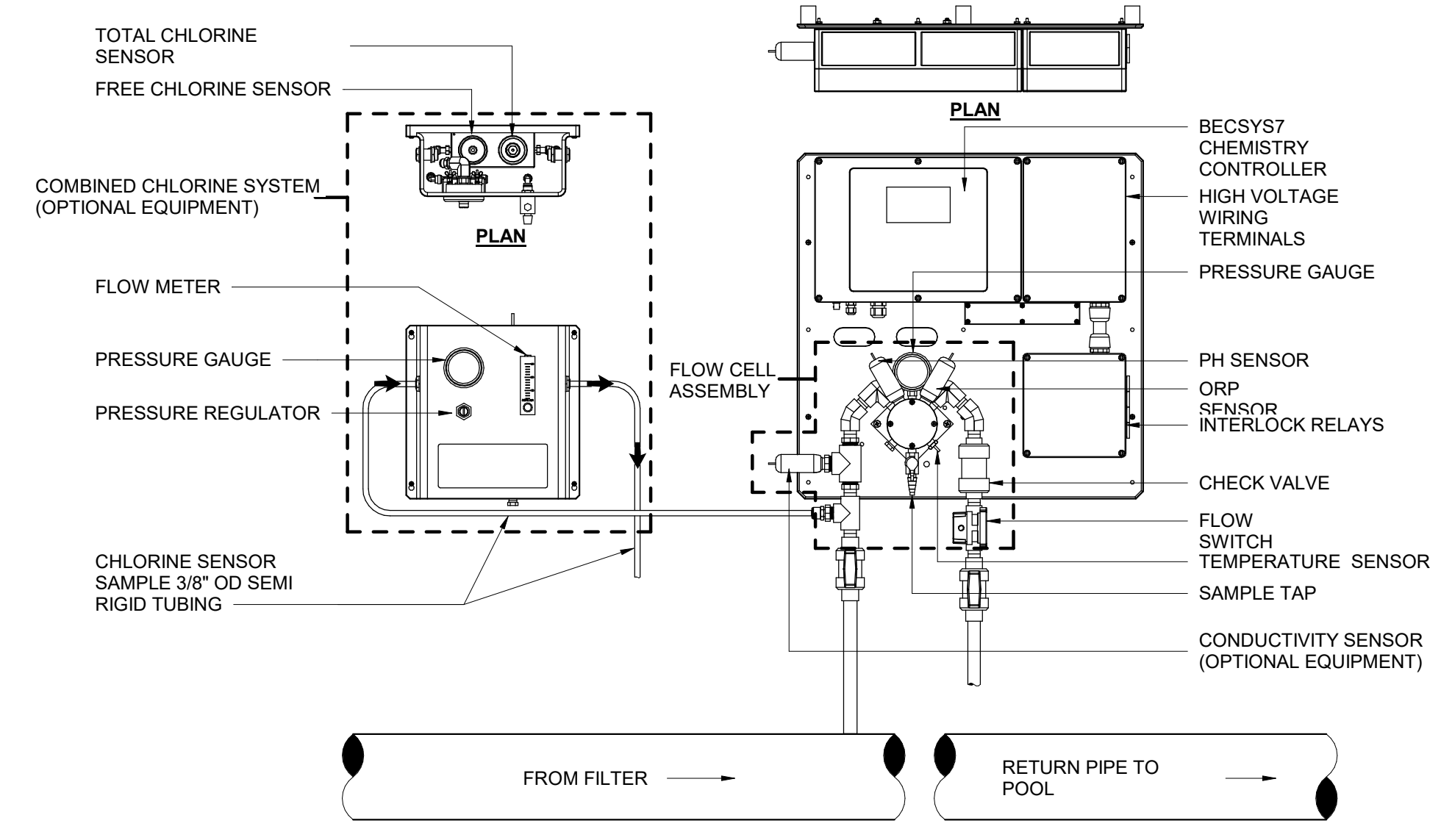
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MECHANICAL
DETAILS 1

SCALE: AS NOTED
DATE: 06/17/2022
DWG.: PL401
SHEET: 63 OF 72

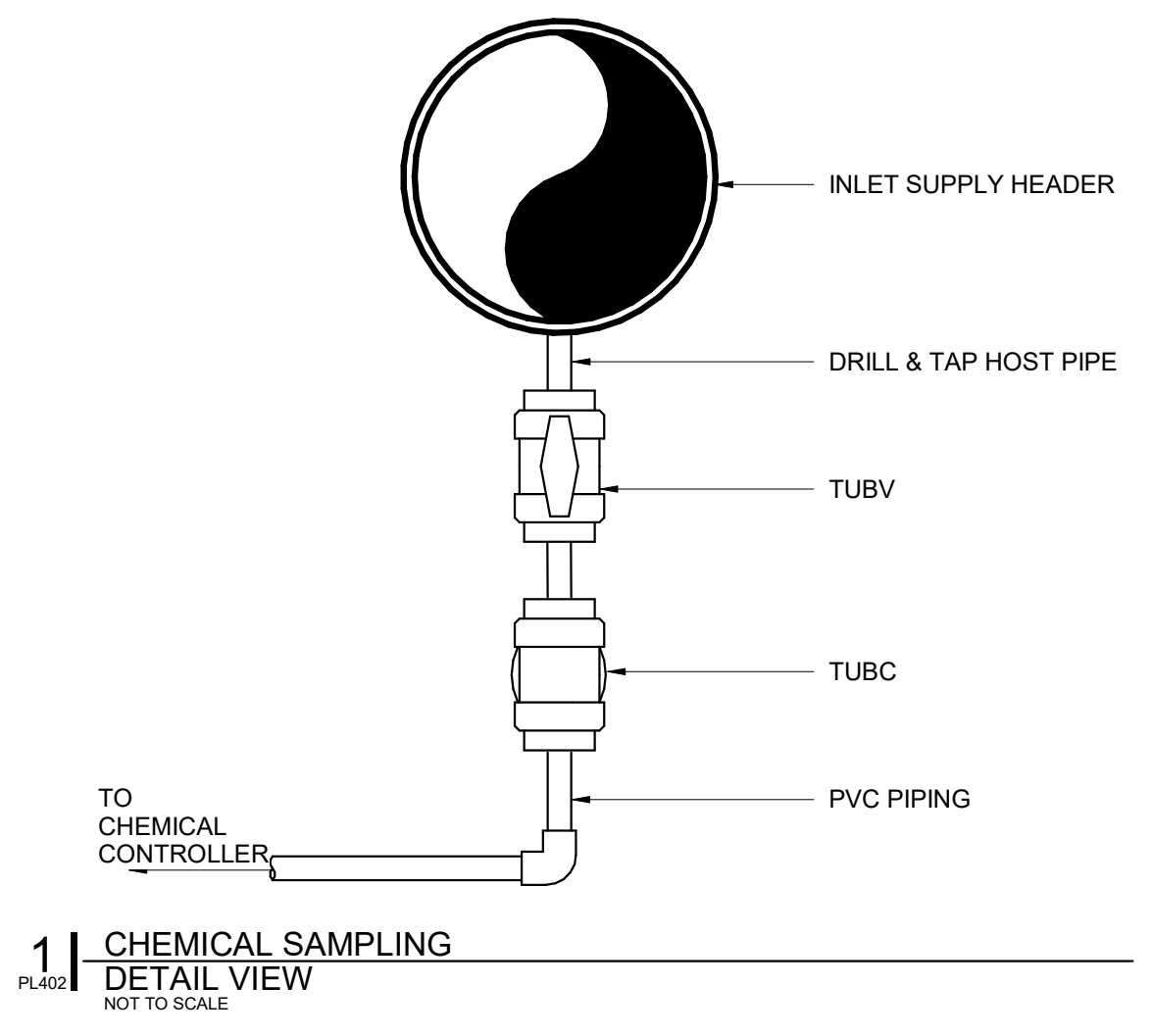
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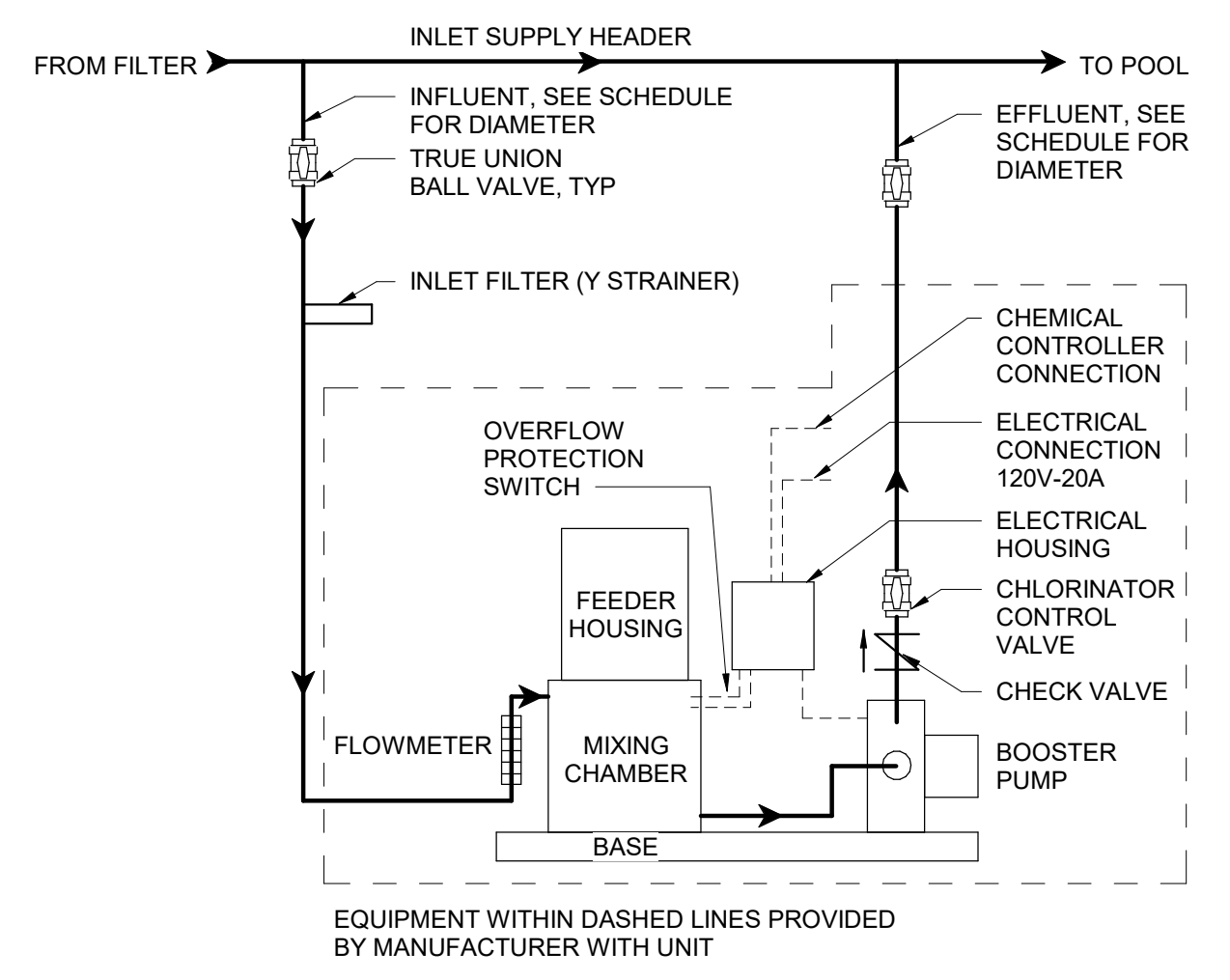


- NOTES:**
1. PROVIDE STAINLESS STEEL MOUNTING HARDWARE AS REQUIRED FOR WALL TYPE.
 2. INTERLOCK CHEMICAL CONTROL RELAYS WITH FILTRATION PUMP.
 3. SEE CHEMICAL CONTROLLER SPECIFICATIONS FOR REQUIRED OPTIONAL EQUIPMENT.
 4. RIGIDLY SECURE BACK PANEL TO BUILDING WALL, APPROXIMATELY 5'-8" ABOVE FINISHED FLOOR, IN LOCATION INDICATED IN PLAN.
 5. CHEMICAL SAMPLING STREAMS SHALL TERMINATE AT THE AUTOFILL WITH 6" AIR GAP.

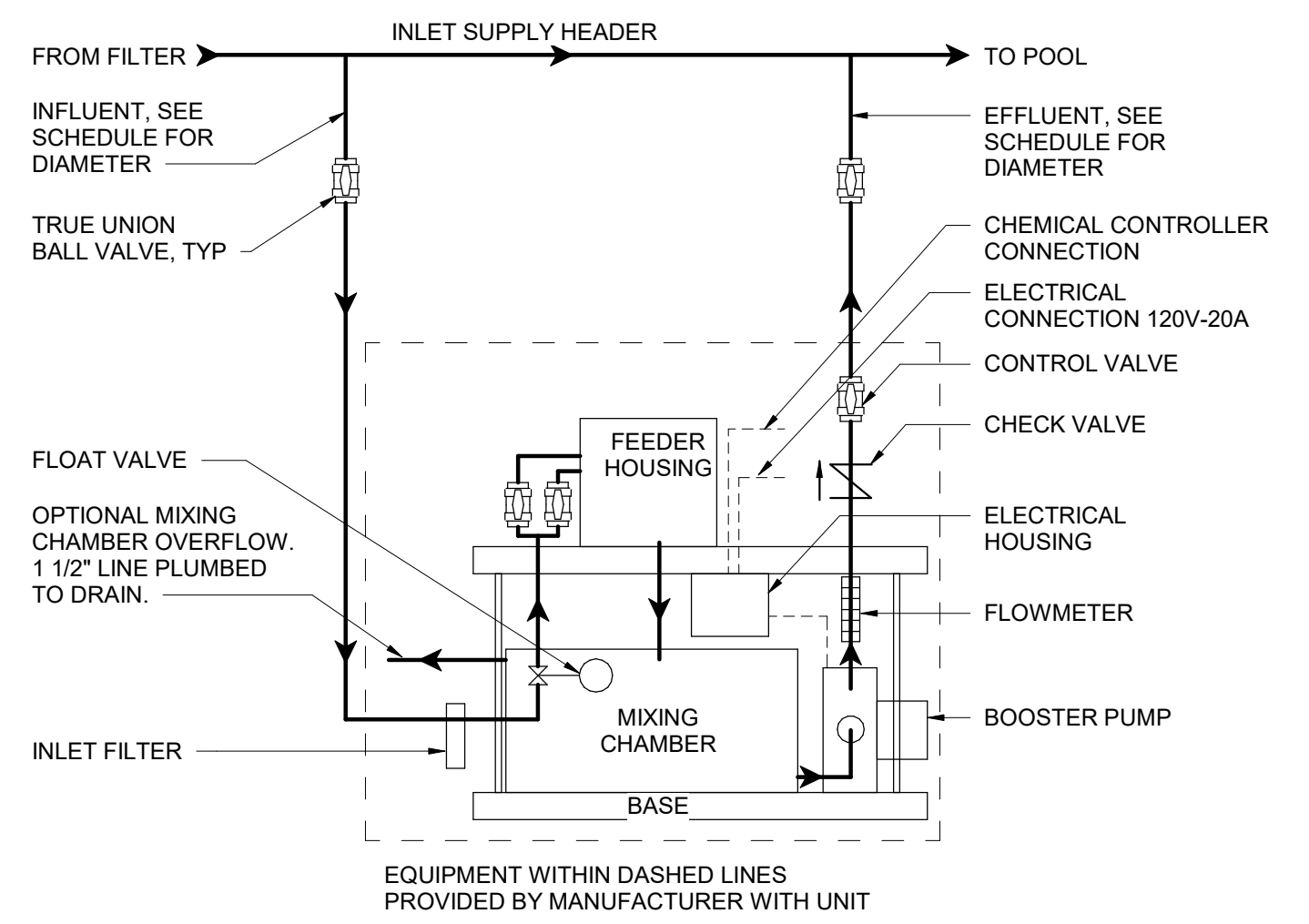
4 | CHEMICAL CONTROLLER
 PL402
 DETAIL VIEW
 NOT TO SCALE



1 | CHEMICAL SAMPLING
 PL402
 DETAIL VIEW
 NOT TO SCALE



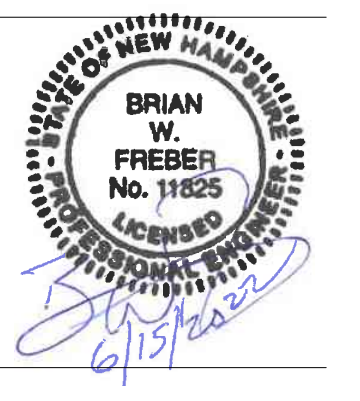
2 | CHLORINATOR - ACCUTAB
 PL402
 DETAIL VIEW
 NOT TO SCALE



3 | pH TREATMENT - ACID RITE
 PL402
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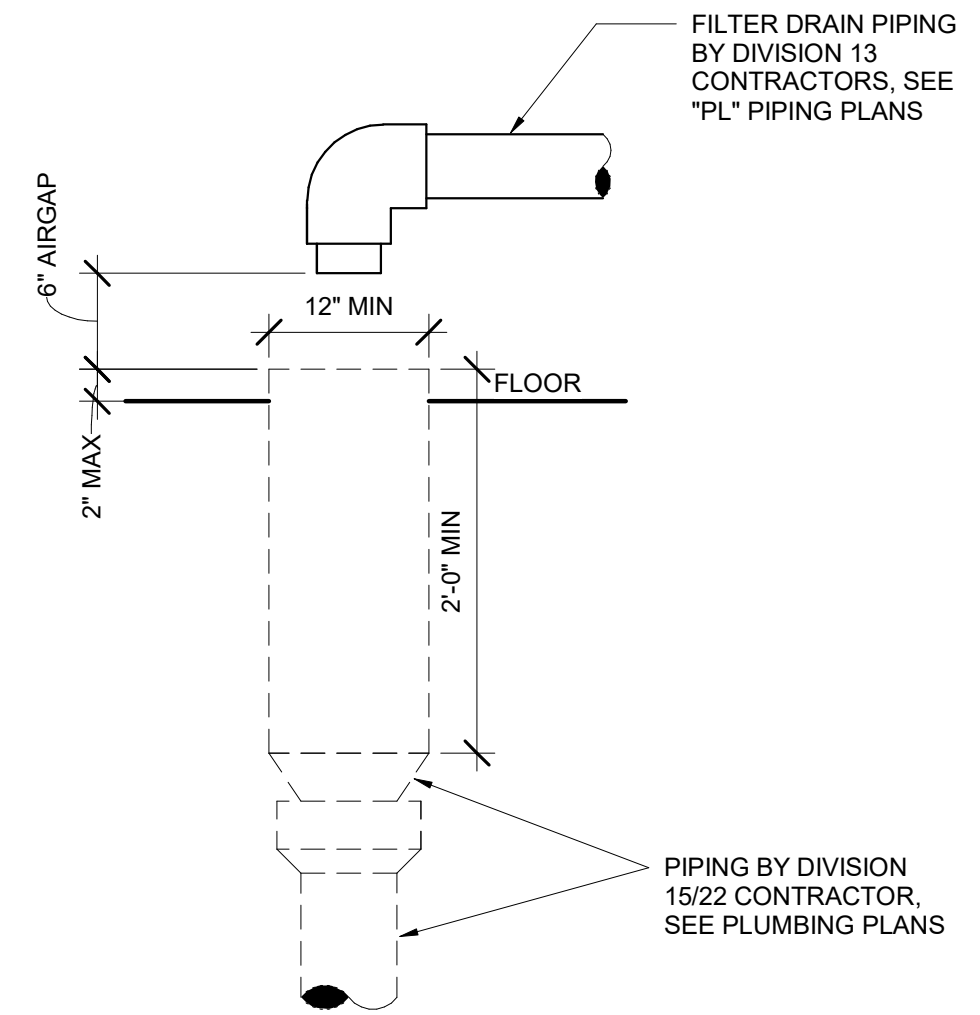
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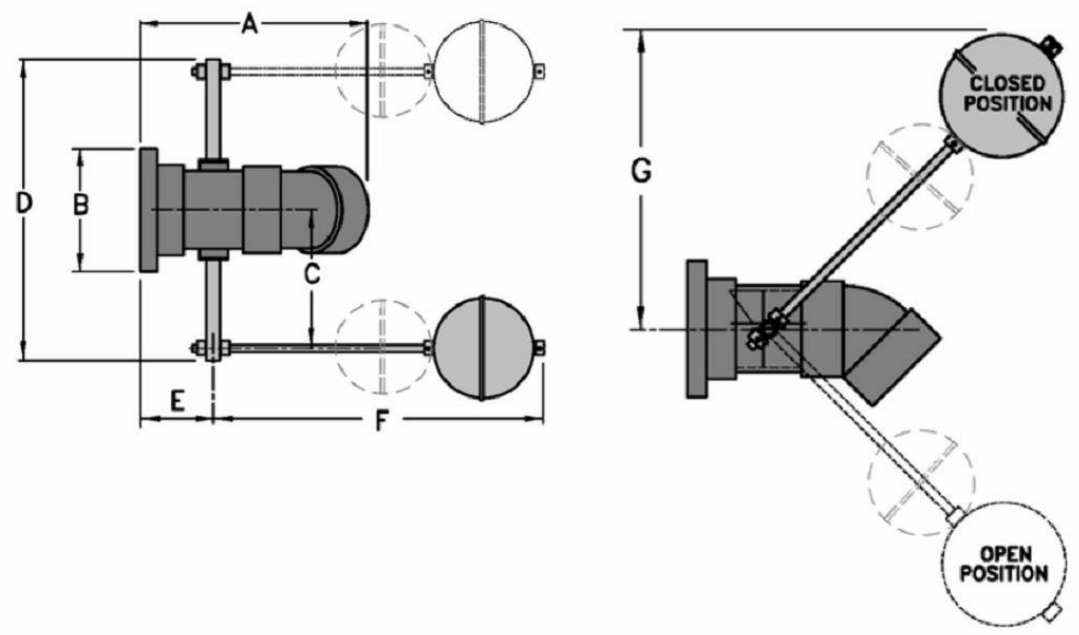
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MECHANICAL DETAILS 2

SCALE: AS NOTED
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5 REGENERATIVE MEDIA FILTER DRAIN HUB
 PL403 DETAIL VIEW
 NOT TO SCALE

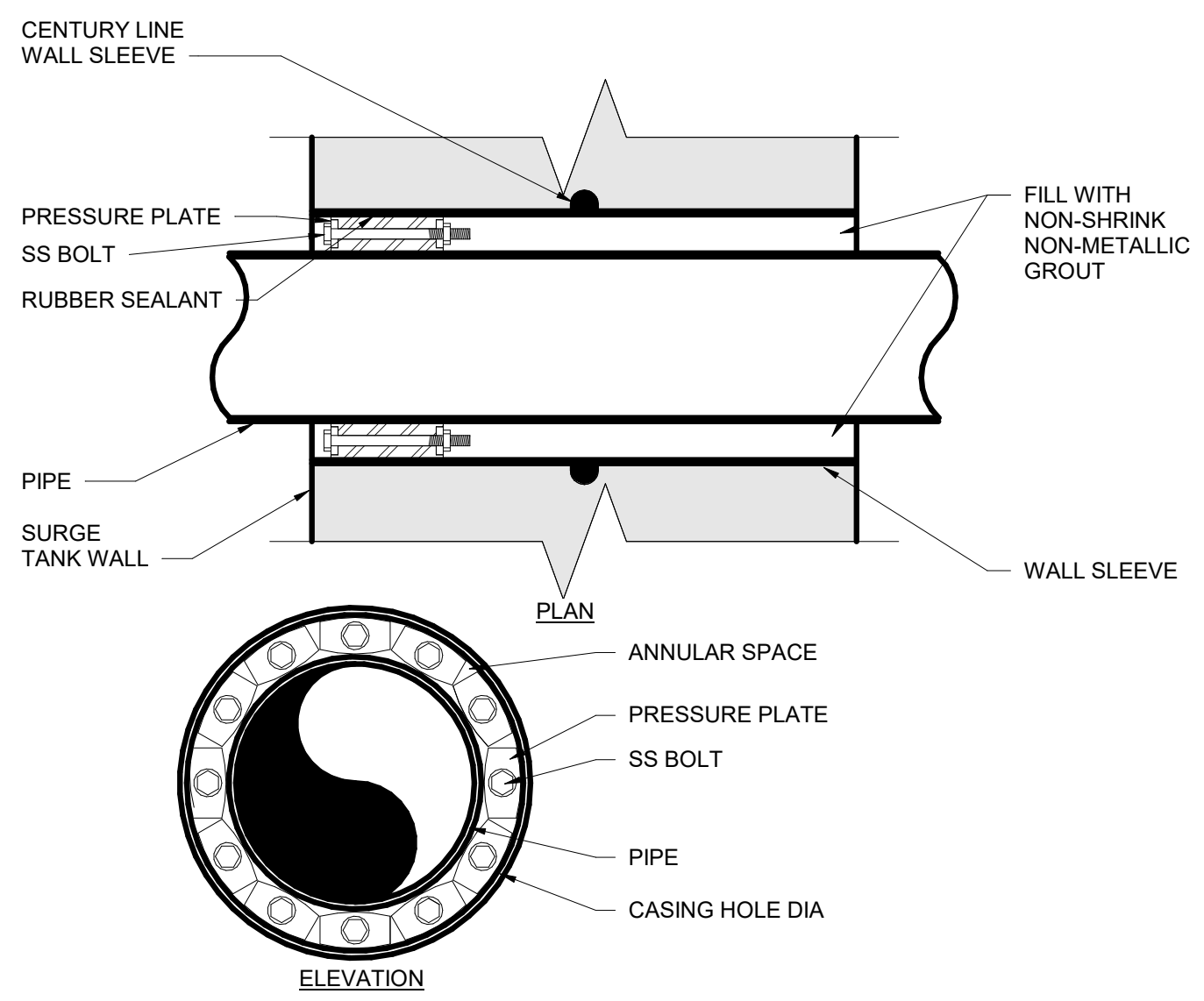


SIZE IPS	A	B	C	D	E	F	G
4"	13"	9"	8 1/2"	18 1/2"	4"	29"	21"
6"	19 5/8"	11"	9 1/2"	20 1/2"	6"	29"	21"
8"	26 1/4"	13 1/2"	10 3/4"	23"	8"	29"	21"
10"	32 1/2"	16"	12"	25 1/2"	10"	35"	25"
12"	39"	19"	13 1/2"	28 1/2"	12"	35"	25"
14"	51"	21"	15"	31 1/2"	18"	37"	33 1/4"
16"	54"	23 1/2"	16 1/4"	34"	18"	37"	33 1/4"

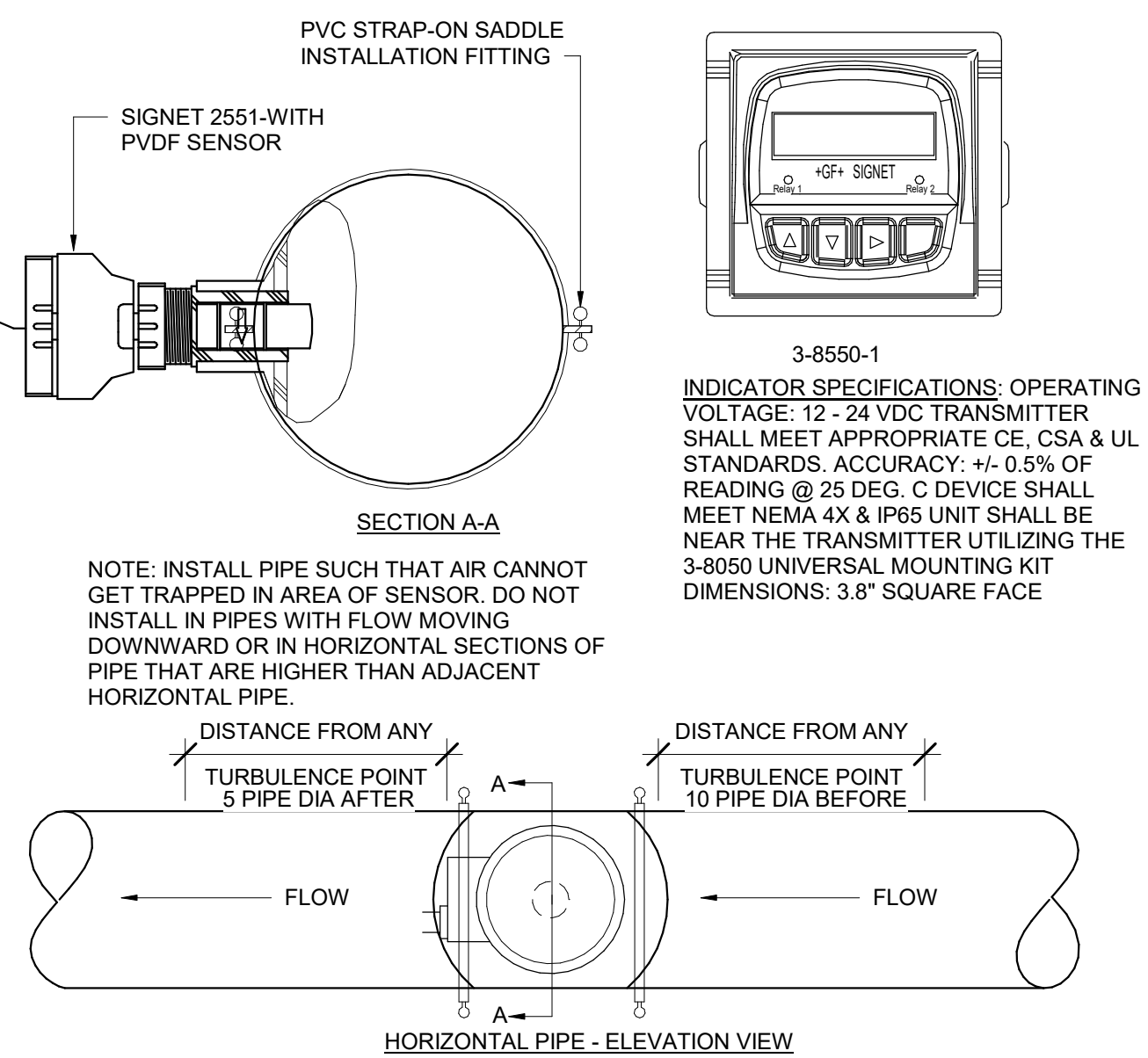
NOTES:

- ON-SITE ADJUSTMENT OF FLOATS SHALL BE POOL CONTRACTOR'S RESPONSIBILITY.
- DIMENSIONS ARE BASED ON VALVE AS SPECIFIED.
- CONTRACTOR SHALL CUR ARM IN FIELD AS REQUIRED TO ACCOMMODATE ACTUAL "G" DIMENSIONS.

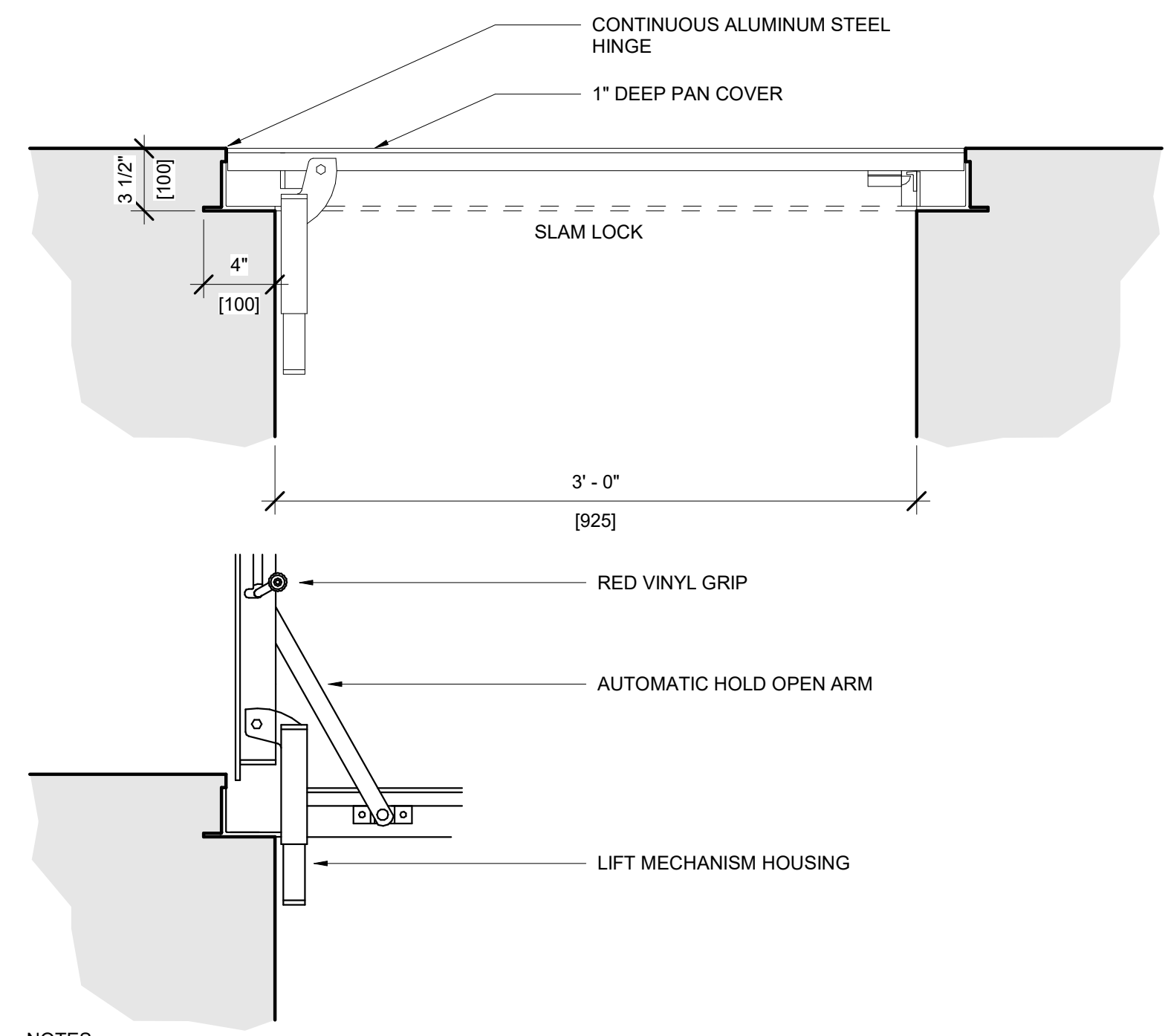
6 MAIN DRAIN FLOAT VALVE
 PL403 DETAIL VIEW
 NOT TO SCALE



3 WALL SLEEVE / LINK SEAL
 PL403 DETAIL VIEW
 NOT TO SCALE



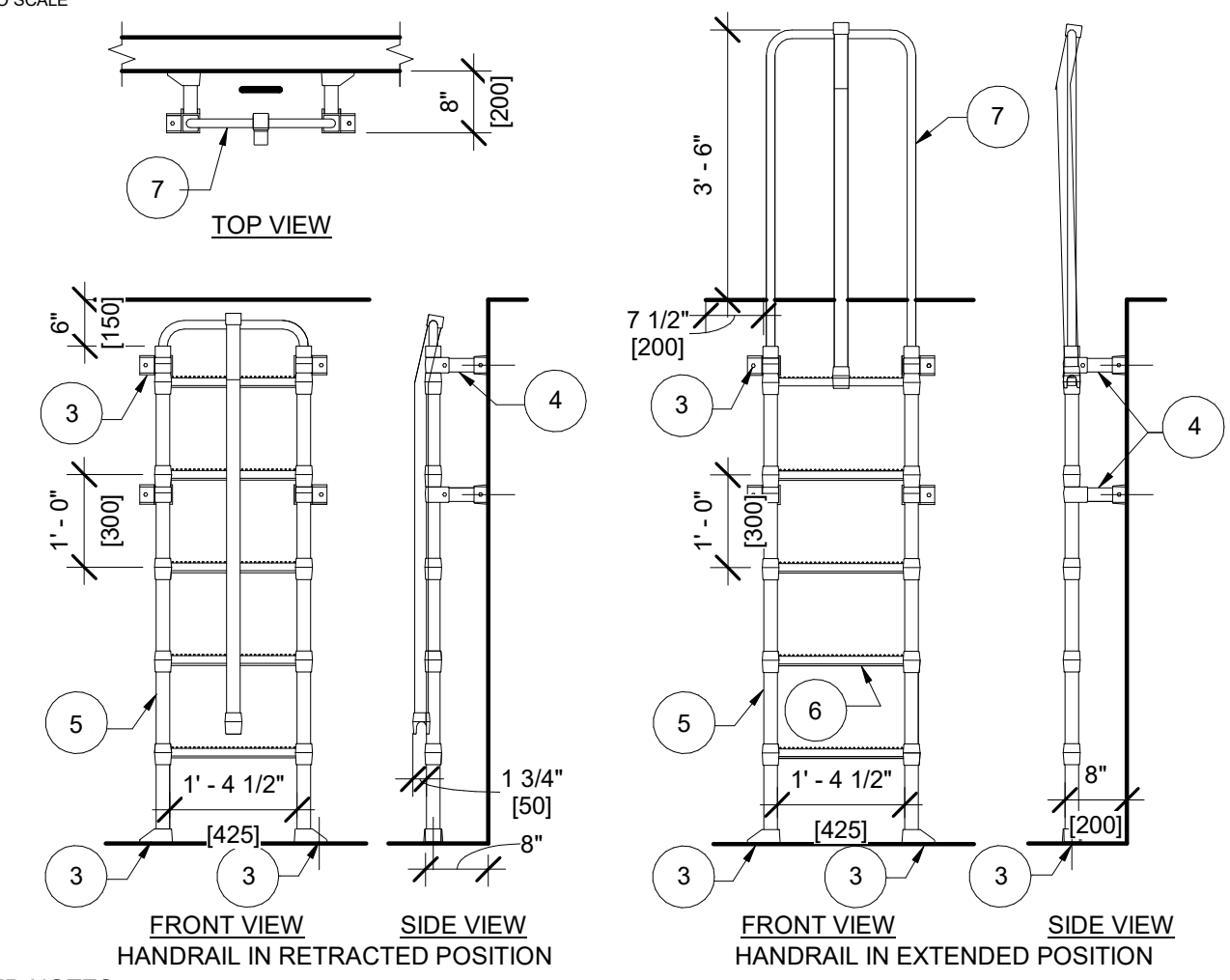
4 FLOW METER
 PL403 DETAIL VIEW
 NOT TO SCALE



NOTES:

- FLOOR ACCESS DOOR, SIZE 36" X 36" AS MANUFACTURED BY BILCO (MODEL TER) OR NYSTROM (MODEL FDPPA)
- PROVIDED WITH 1" FILLABLE PAN TO RECEIVE FILL MATERIAL.
- FRAME SHALL BE 1/4" EXTRUDED ALUMINUM WITH BUILT-IN NEOPRENE CUSHION AND CONTINUOUS ANCHOR FLANGE.
- DOOR SHALL BE 1/4" ALUMINUM PLATE REINFORCED WITH ALUMINUM STIFFENERS AS REQUIRED.
- CAST STEEL HINGES SHALL BE BOLTED TO UNDERSIDE AND PIVOT ON TORSION BARS THAT COUNTERBALANCE THE DOOR FOR EASY OPERATION.
- DOOR SHALL OPEN 90 DEGREES AND LOCK AUTOMATICALLY IN THAT POSITION. A VINYL GRIP HANDLE SHALL BE PROVIDED TO RELEASE THE COVER FOR CLOSING.
- DOOR SHALL BE BUILT TO WITHSTAND A LIVE LOAD OF 300 PSF AND EQUIPPED WITH A LOCK THAT REQUIRES A REMOVABLE SQUARE KEY WRENCH.
- ALUMINUM SHALL BE MILL FINISH WITH BITUMINOUS COATING TO BE APPLIED TO EXTERIOR OF FRAME BY MANUFACTURER.
- HARDWARE SHALL BE SS.
- INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- MANUFACTURER SHALL GUARANTEE AGAINST DEFECTS IN MATERIAL OR WORKMANSHIP FOR A PERIOD OF FIVE YEARS.

1 ACCESS HATCH
 PL403 DETAIL VIEW
 NOT TO SCALE



KEYED NOTES:

- LADDERS WITH PULL-UP HANDRAIL, AVAILABLE IN 5 RUNG THROUGH 25 RUNG.
- POLYPROPYLENE CONFORMS TO ASTM D-4101. LADDERS MEET ALL ASTM C-497 LOAD REQUIREMENTS & OSHA 1910.26 & 1910.27 SPECIFICATIONS.
- FASTEN LADDER TO FLOOR & WALL WITH 316L SS 1/2" X 3-3/4" ANCHORS. ANCHORS TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
- STANDARD ADJUSTABLE MOUNTING BRACKET - 8" OD
- ALUMINUM REINFORCED COPOLYMER POLYPROPYLENE RAIL 1-3/4" x 1-3/4" DIA
- STEEL REINFORCED COPOLYMER POLYPROPYLENE RUNG 1-5/8" x 1-1/4" DIA WITH MOLDED FINGER GRIPS, 12" CC
- ALUMINUM & STEEL REINFORCED COPOLYMER POLYPROPYLENE PULL-UP HANDRAIL. LADDER MANUFACTURED BY LANE INTERNATIONAL CORPORATION, P.O. BOX 925, TUALATIN, OREGON 800-666-0076

2 ACCESS LADDER
 PL403 DETAIL VIEW
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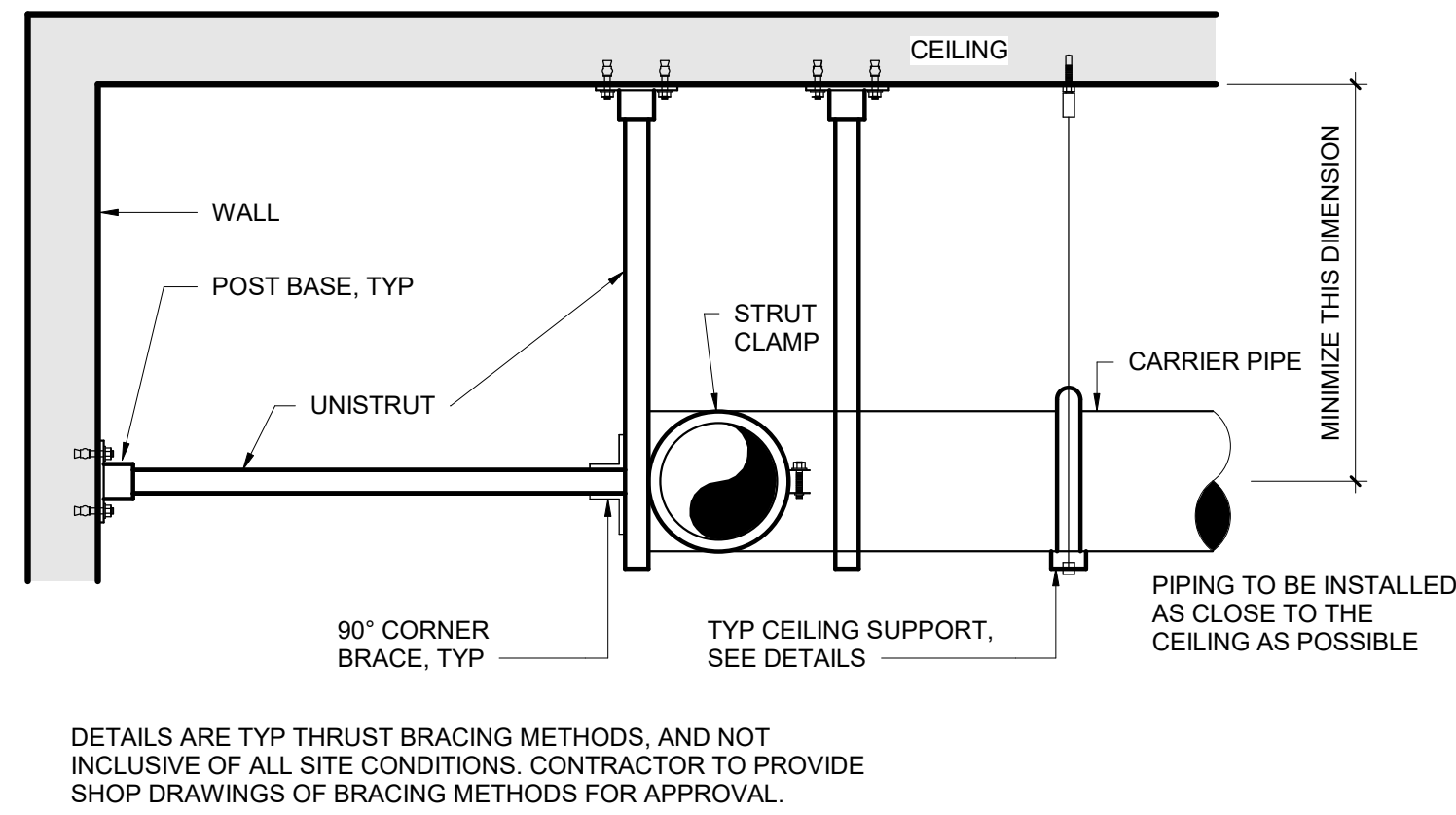
PEIRCE ISLAND PUMP HOUSE
 AND POOL RENOVATION
 Peirce Island Road
 Portsmouth, NH 03801

MECHANICAL DETAILS 3

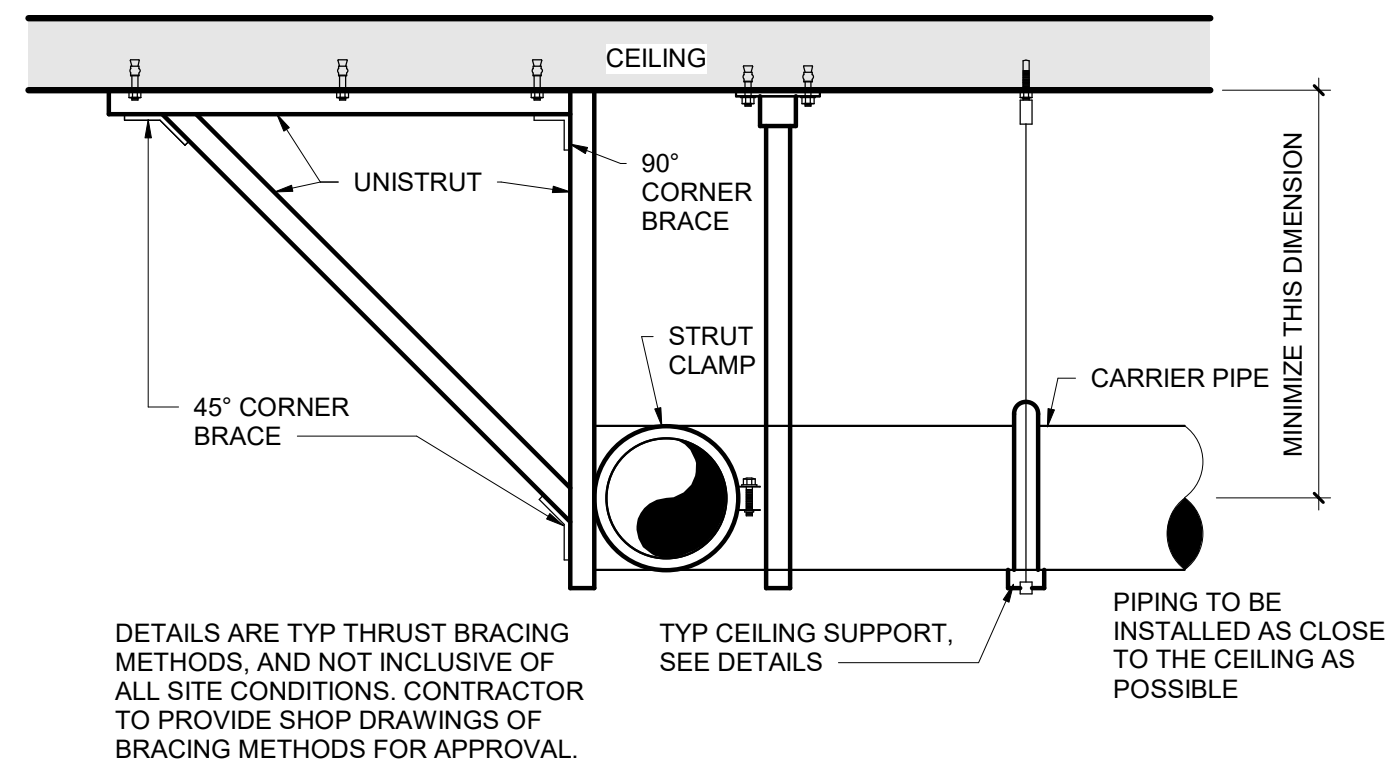
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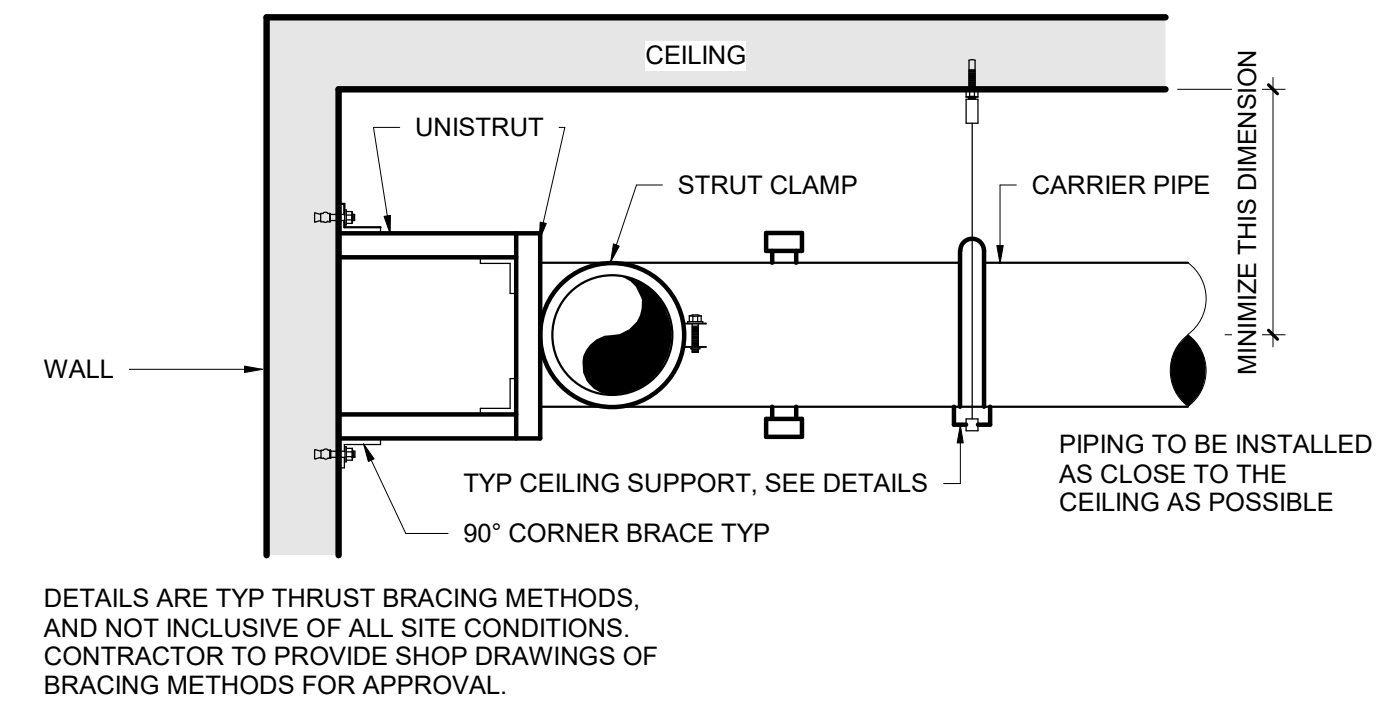
SHEET: 65 OF 72



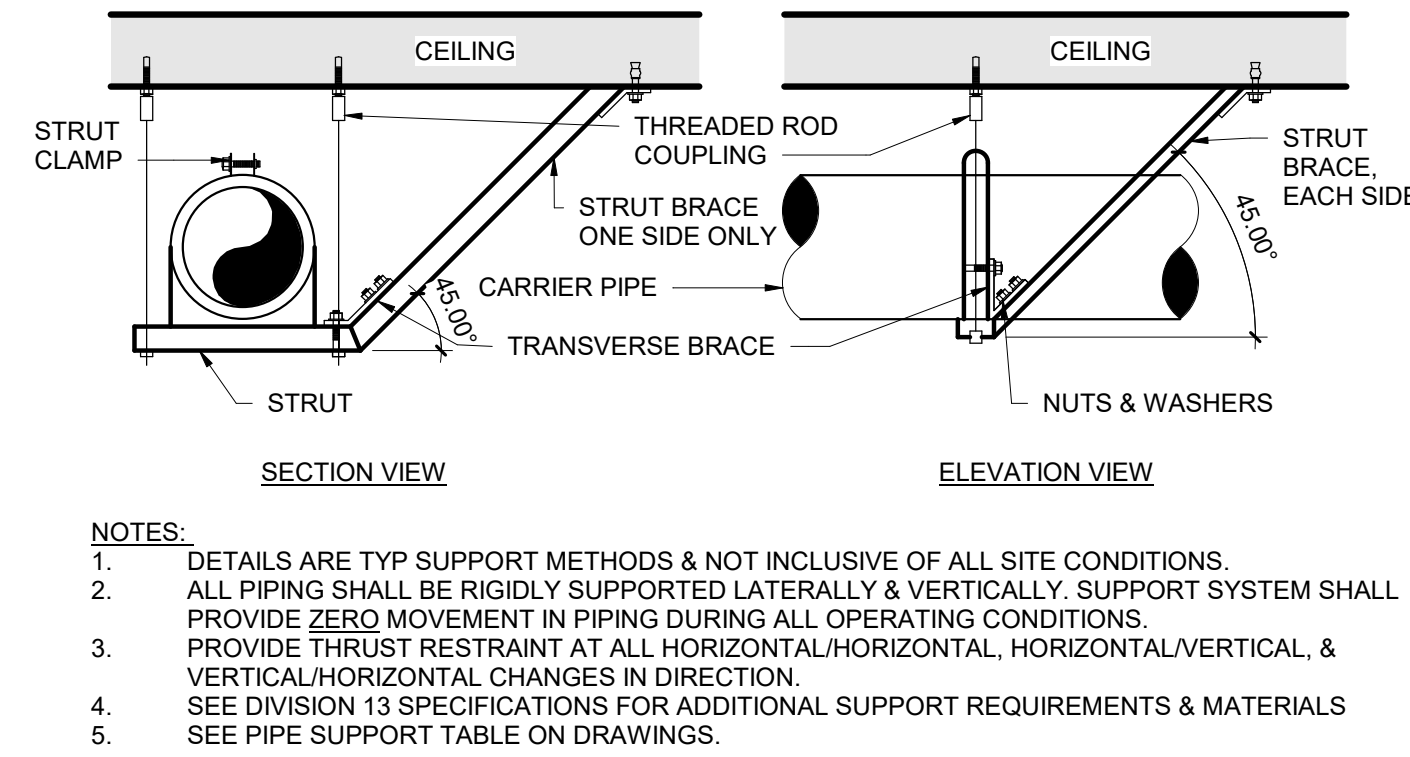
6 | PIPE THRUST BRACING
DETAIL VIEW
NOT TO SCALE



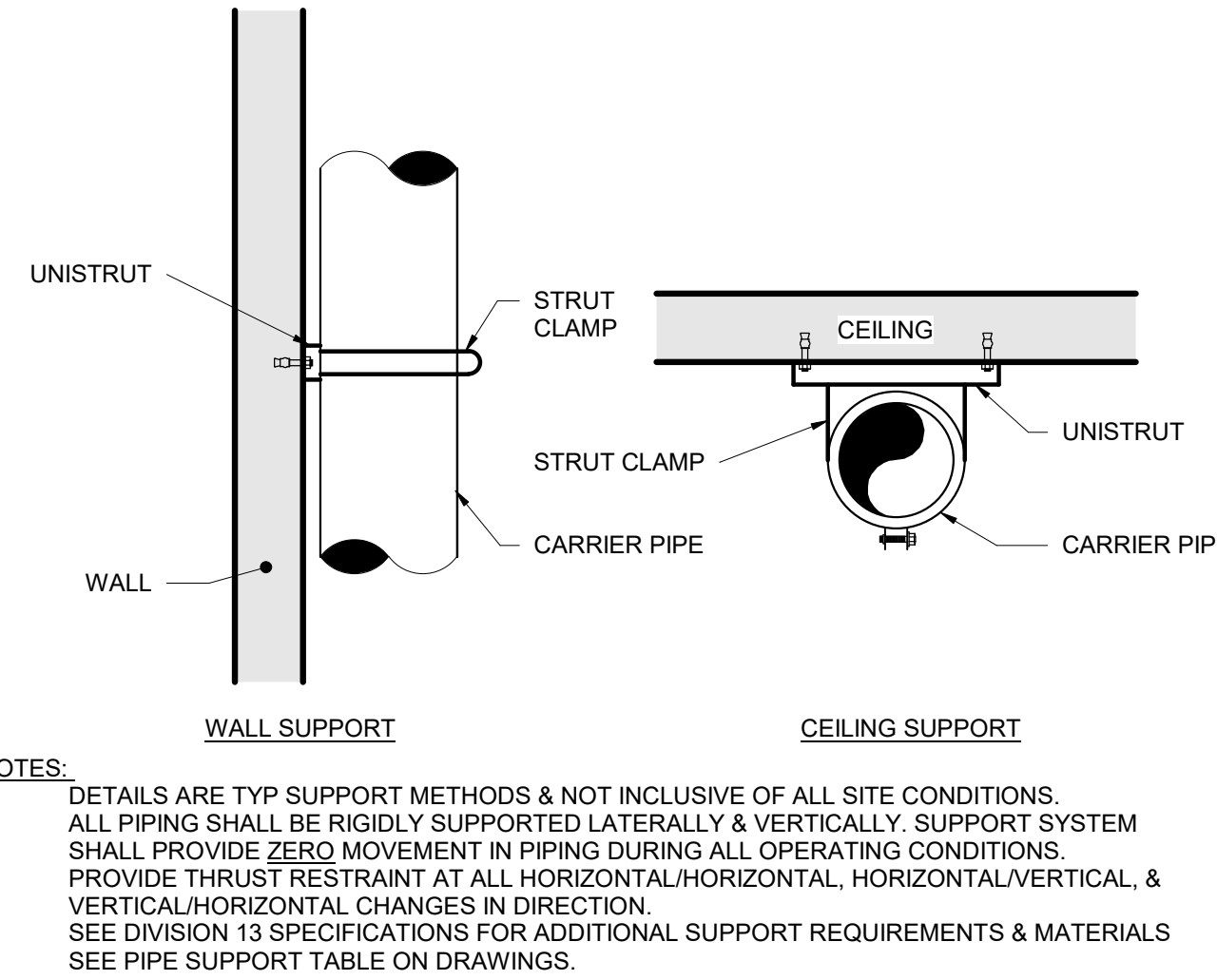
7 | PIPE THRUST BRACING
DETAIL VIEW
NOT TO SCALE



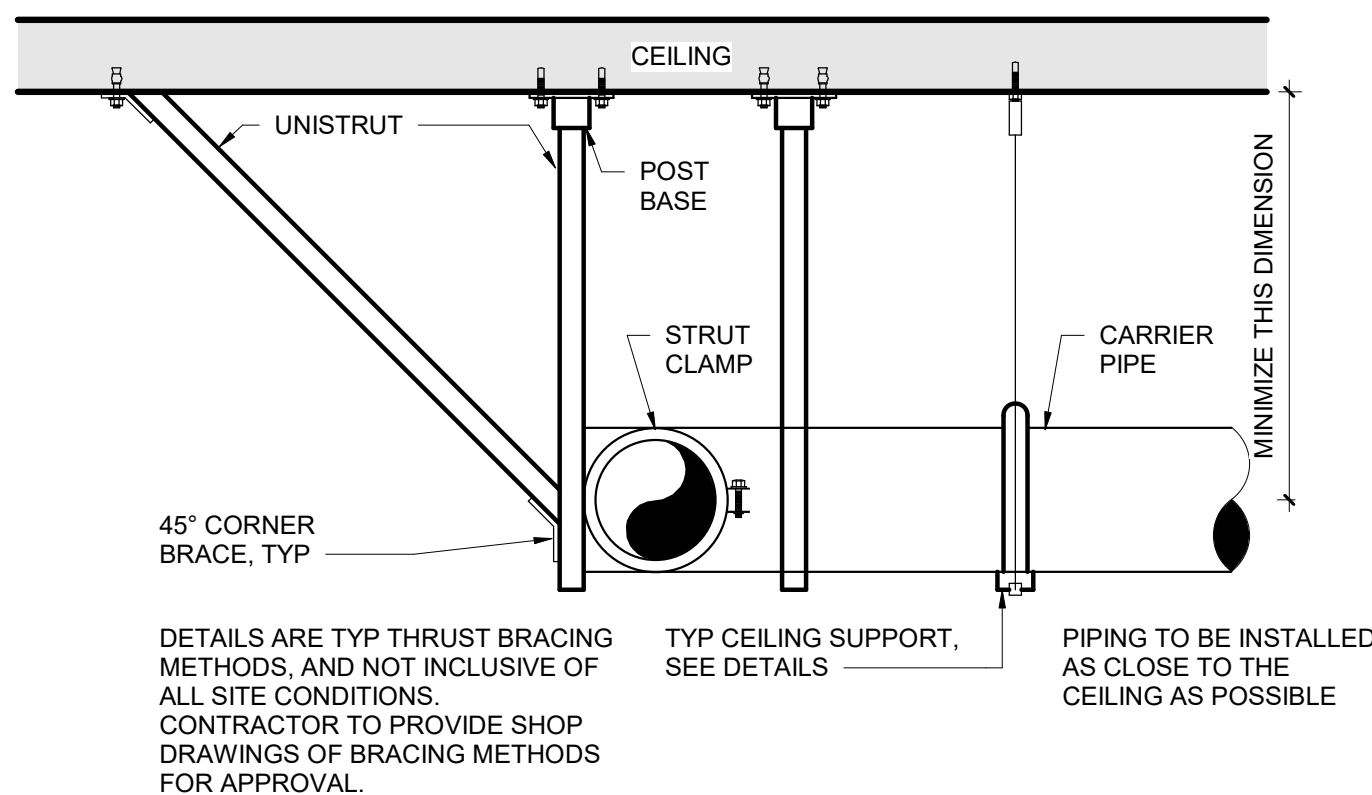
8 | PIPE THRUST BRACING
DETAIL VIEW
NOT TO SCALE



3 | PIPE SUPPORT
DETAIL VIEW
NOT TO SCALE



4 | PIPE SUPPORT
DETAIL VIEW
NOT TO SCALE

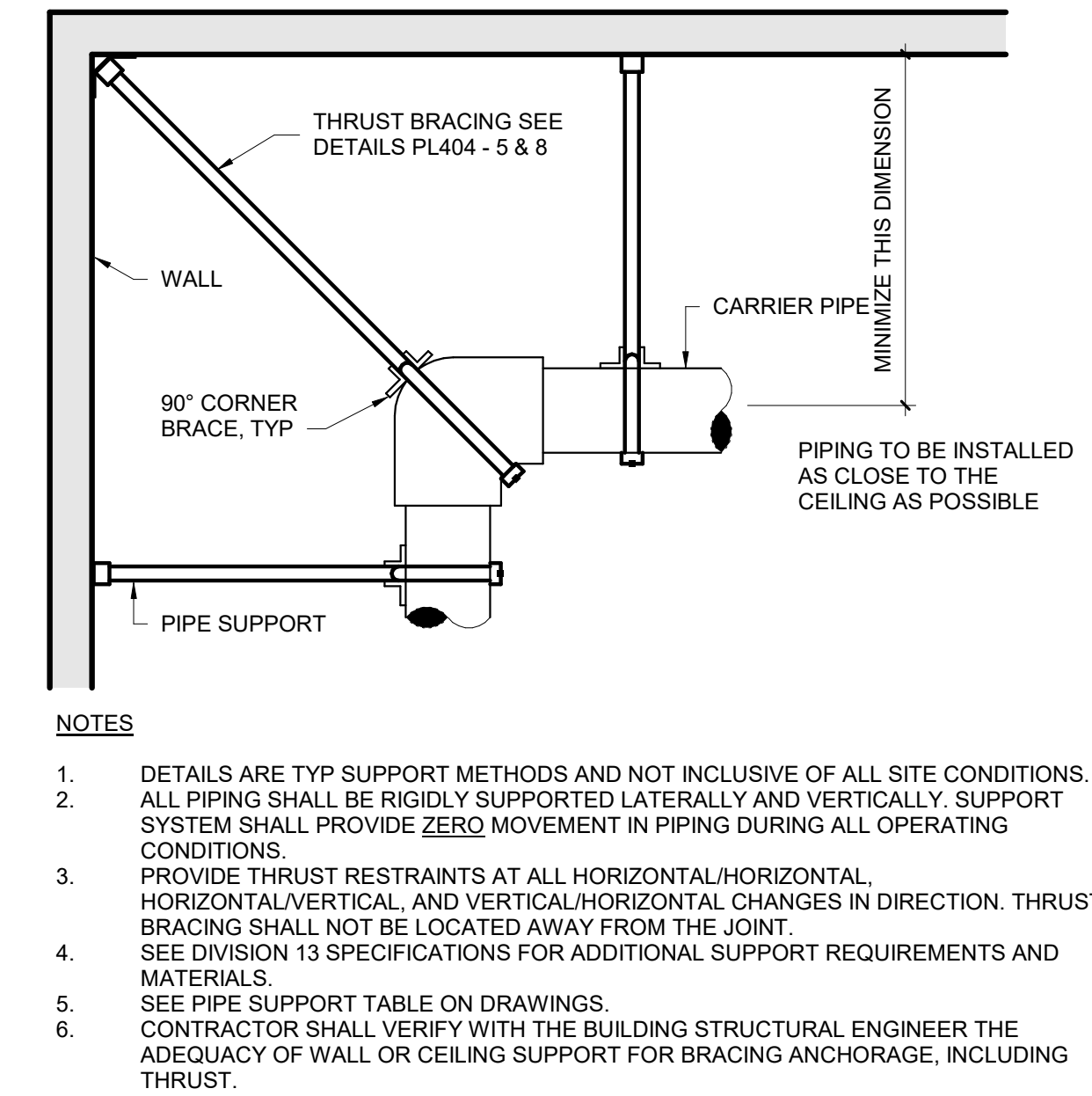


5 | PIPE THRUST BRACING
DETAIL VIEW
NOT TO SCALE

BASIS OF DESIGN FOR SUPPORT OF PIPING:
2016 CALIFORNIA BUILDING CODE, CHAPTER 16; ASCE 7-10, CHAPTER 13 - SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS

NOMINAL PIPE SIZE	MAX ALLOWABLE SUPPORT SPACING FOR PVC PIPE (IN FT)									
	SCHEDULE 40					SCHEDULE 80				
	TEMPERATURE (°F)					TEMPERATURE (°F)				
1/2"	4.5	4.5	4	2.5	2.5	5	4.5	4.5	3	2.5
3/4"	5	4.5	4	2.5	2.5	5.5	5	4	3	2.5
1"	5.5	5	4.5	3	2.5	6	5.5	5	3.5	3
1 1/4"	5.5	5.5	5	3	3	6	6	5.5	3.5	3
1 1/2"	6	5.5	5	3.5	3	6.5	6	5.5	3.5	3.5
2"	6	5.5	5	3.5	3	7	6.5	6	4	3.5
2 1/2"	7	6.5	6	4	3.5	7.5	7.5	6.5	4.5	4
3"	7	7	6	4	3.5	8	7.5	7	4.5	4
4"	7.5	7	6.5	4.5	4	9	8	7.5	5	4.5
6"	8.5	8	7.5	5	4.5	10	9.5	9	6	5
8"	9	8.5	8	5	4.5	11	10.5	9.5	6.5	5.5
10"	10	9	8.5	5.5	5	12	11	10	7	6
12"	11.5	10.5	9.5	6.5	5.5	12	11	10	7	6

1 | PIPE SUPPORT SCHEDULE
DETAIL VIEW
NOT TO SCALE

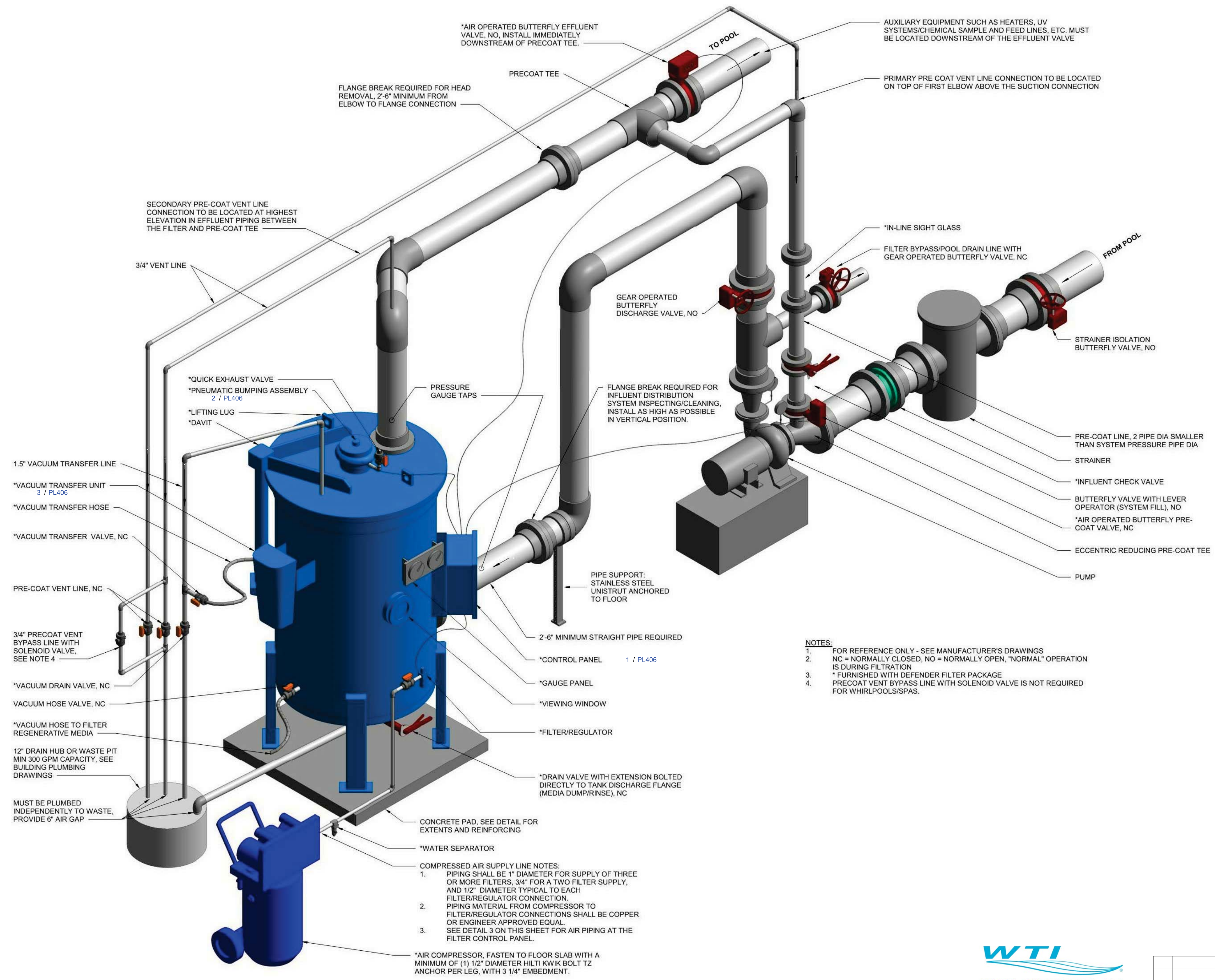


2 | PIPE SUPPORT
DETAIL VIEW
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*AIR OPERATED BUTTERFLY EFFLUENT VALVE, NO, INSTALL IMMEDIATELY DOWNSTREAM OF PRECOAT TEE.

FLANGE BREAK REQUIRED FOR HEAD REMOVAL, 2'-6" MINIMUM FROM ELBOW TO FLANGE CONNECTION

PRECOAT TEE

AUXILIARY EQUIPMENT SUCH AS HEATERS, UV SYSTEMS/CHEMICAL SAMPLE AND FEED LINES, ETC. MUST BE LOCATED DOWNSTREAM OF THE EFFLUENT VALVE

PRIMARY PRE COAT VENT LINE CONNECTION TO BE LOCATED ON TOP OF FIRST ELBOW ABOVE THE SUCTION CONNECTION

SECONDARY PRE-COAT VENT LINE CONNECTION TO BE LOCATED AT HIGHEST ELEVATION IN EFFLUENT PIPING BETWEEN THE FILTER AND PRE-COAT TEE

3/4" VENT LINE

*IN-LINE SIGHT GLASS

FILTER BYPASS/POOL DRAIN LINE WITH GEAR OPERATED BUTTERFLY VALVE, NC

GEAR OPERATED BUTTERFLY DISCHARGE VALVE, NO

FLANGE BREAK REQUIRED FOR INFLUENT DISTRIBUTION SYSTEM INSPECTING/CLEANING, INSTALL AS HIGH AS POSSIBLE IN VERTICAL POSITION.

*QUICK EXHAUST VALVE

*PNEUMATIC BUMPING ASSEMBLY 2 / PL406

*LIFTING LUG

*DAVIT

1.5" VACUUM TRANSFER LINE

*VACUUM TRANSFER UNIT 3 / PL406

*VACUUM TRANSFER HOSE

*VACUUM TRANSFER VALVE, NC

PRE-COAT VENT LINE, NC

3/4" PRECOAT VENT BYPASS LINE WITH SOLENOID VALVE, SEE NOTE 4

*VACUUM DRAIN VALVE, NC

VACUUM HOSE VALVE, NC

*VACUUM HOSE TO FILTER REGENERATIVE MEDIA

12" DRAIN HUB OR WASTE PIT MIN 300 GPM CAPACITY, SEE BUILDING PLUMBING DRAWINGS

MUST BE PLUMBED INDEPENDENTLY TO WASTE, PROVIDE 6" AIR GAP

CONCRETE PAD, SEE DETAIL FOR EXTENTS AND REINFORCING

*WATER SEPARATOR

COMPRESSED AIR SUPPLY LINE NOTES:

1. PIPING SHALL BE 1" DIAMETER FOR SUPPLY OF THREE OR MORE FILTERS, 3/4" FOR A TWO FILTER SUPPLY, AND 1/2" DIAMETER TYPICAL TO EACH FILTER/REGULATOR CONNECTION.
2. PIPING MATERIAL FROM COMPRESSOR TO FILTER/REGULATOR CONNECTIONS SHALL BE COPPER OR ENGINEER APPROVED EQUAL.
3. SEE DETAIL 3 ON THIS SHEET FOR AIR PIPING AT THE FILTER CONTROL PANEL.

*AIR COMPRESSOR, FASTEN TO FLOOR SLAB WITH A MINIMUM OF (1) 1/2" DIAMETER HILTI KWIK BOLT TZ ANCHOR PER LEG, WITH 3 1/4" EMBEDMENT.

PIPE SUPPORT: STAINLESS STEEL UNISTRUT ANCHORED TO FLOOR

2'-6" MINIMUM STRAIGHT PIPE REQUIRED

*CONTROL PANEL 1 / PL406

*GAUGE PANEL

*VIEWING WINDOW

*FILTER/REGULATOR

*DRAIN VALVE WITH EXTENSION BOLTED DIRECTLY TO TANK DISCHARGE FLANGE (MEDIA DUMP/RINSE), NC

FLANGE BREAK REQUIRED FOR HEAD REMOVAL, 2'-6" MINIMUM FROM ELBOW TO FLANGE CONNECTION

STRAINER ISOLATION BUTTERFLY VALVE, NO

PRE-COAT LINE, 2 PIPE DIA SMALLER THAN SYSTEM PRESSURE PIPE DIA

STRAINER

*INFLUENT CHECK VALVE

BUTTERFLY VALVE WITH LEVER OPERATOR (SYSTEM FILL), NO

*AIR OPERATED BUTTERFLY PRE-COAT VALVE, NC

ECCENTRIC REDUCING PRE-COAT TEE

PUMP

NOTES:

1. FOR REFERENCE ONLY - SEE MANUFACTURER'S DRAWINGS
2. NC = NORMALLY CLOSED, NO = NORMALLY OPEN, "NORMAL" OPERATION IS DURING FILTRATION
3. * FURNISHED WITH DEFENDER FILTER PACKAGE
4. PRECOAT VENT BYPASS LINE WITH SOLENOID VALVE IS NOT REQUIRED FOR WHIRLPOOLS/SPAS.

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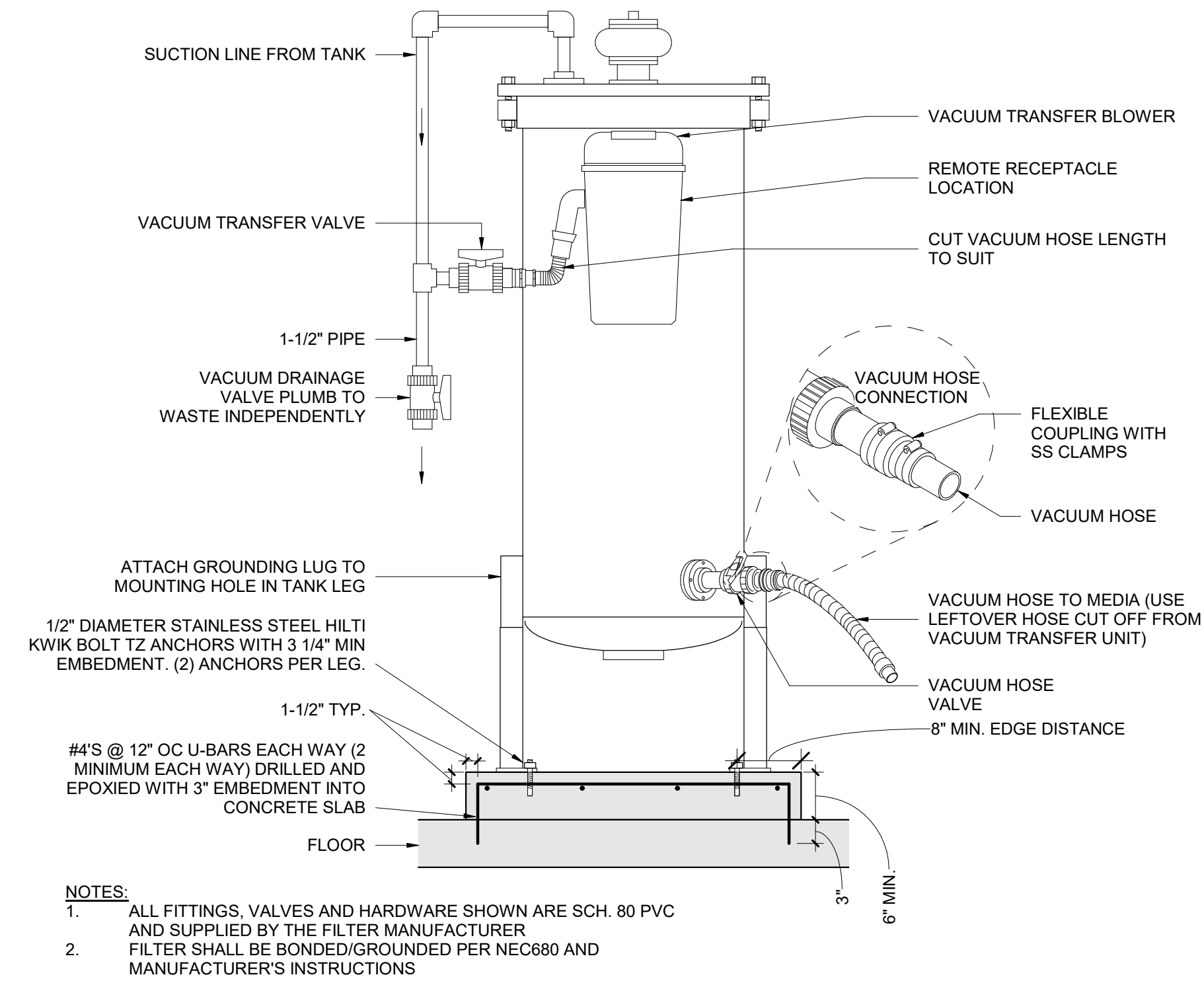
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DEFENDER SCHEMATIC

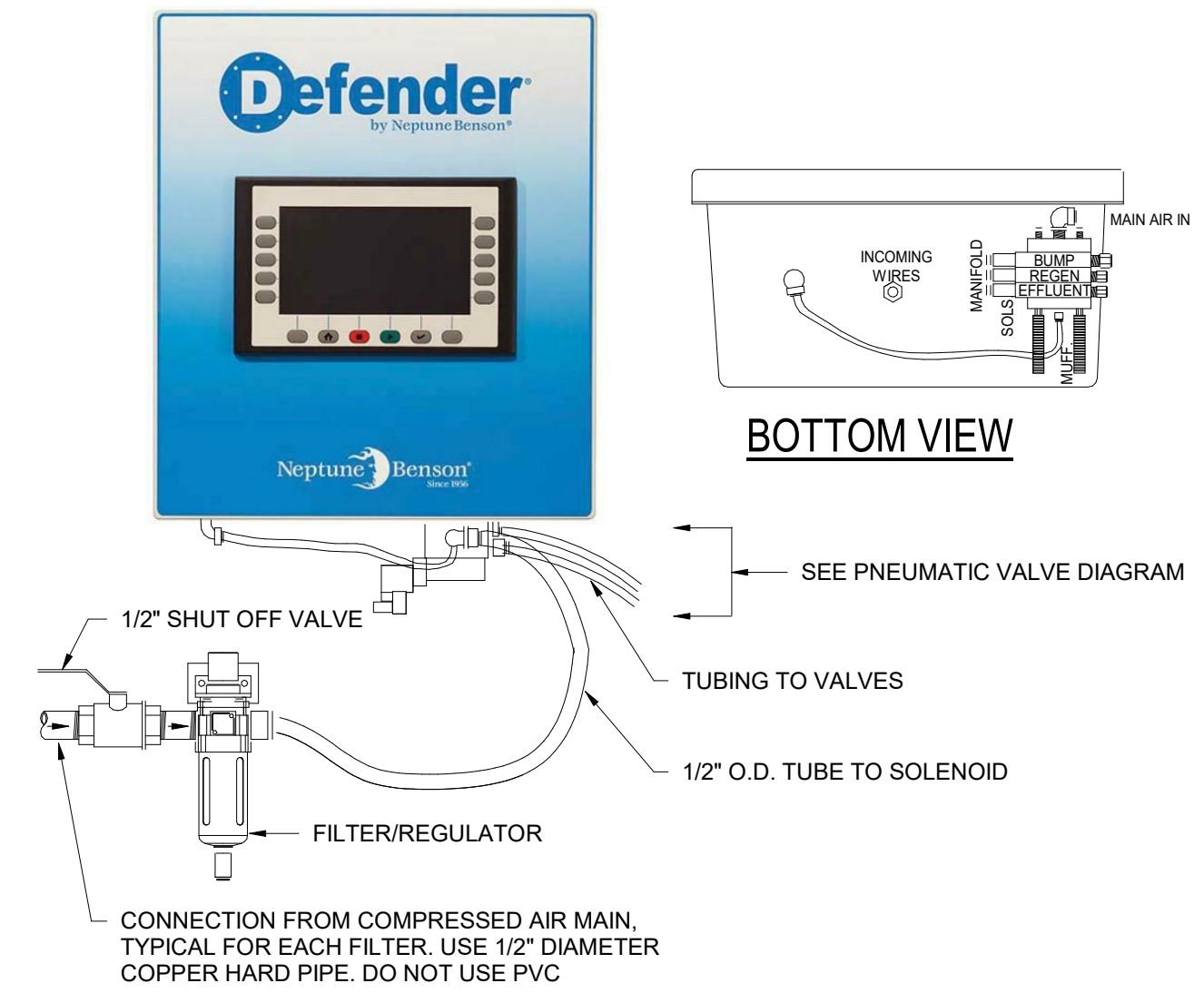
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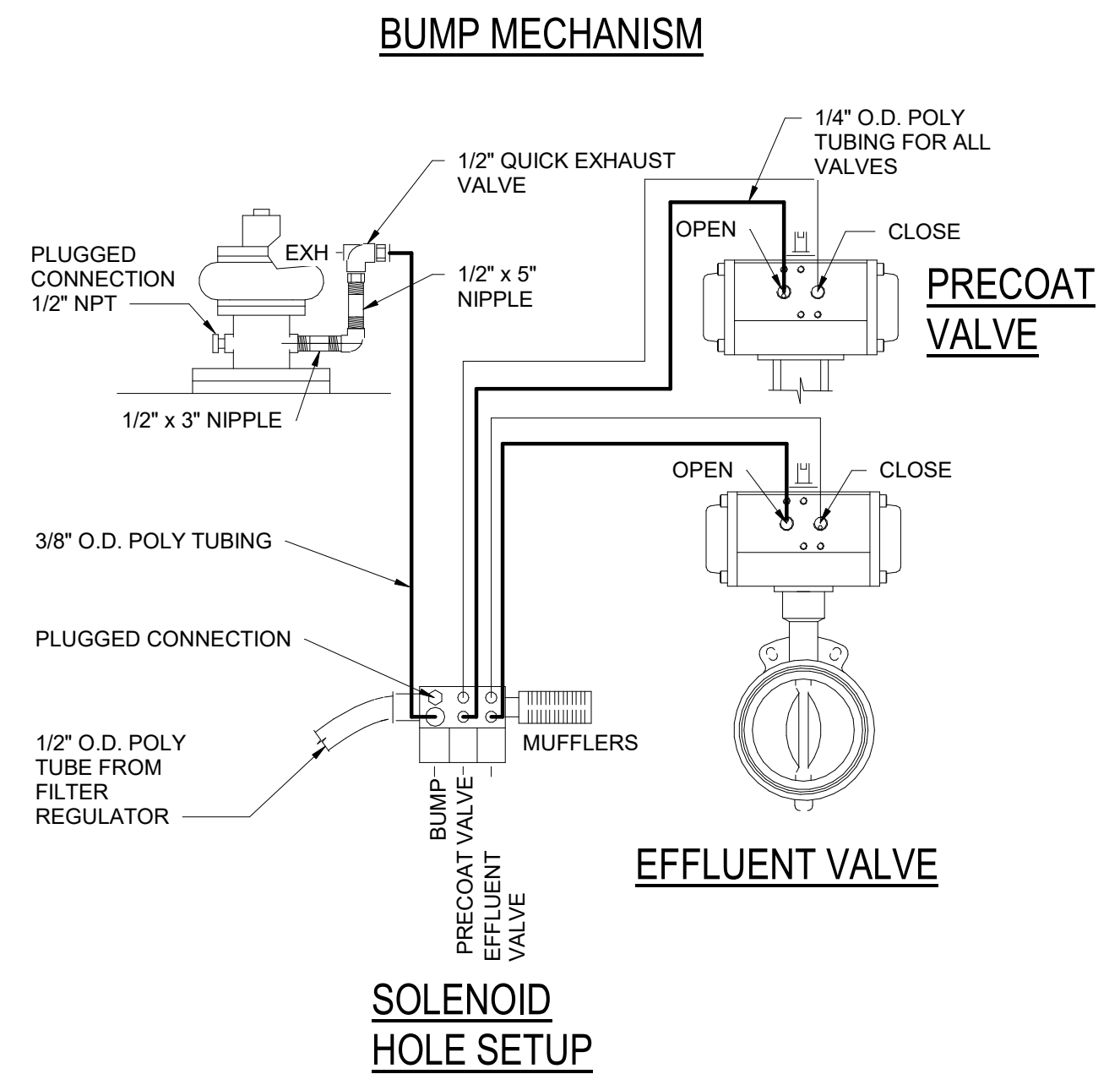
SHEET: 67 OF 72



3 VACUUM TRANSFER SYSTEM AND FILTER PAD DETAIL
 PL406
 DETAIL VIEW
 NOT TO SCALE



1 FILTER CONTROL PANEL
 PL406
 DETAIL VIEW
 NOT TO SCALE



2 PNEUMATIC VALVE DIAGRAM
 PL406
 DETAIL VIEW
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DEFENDER
 DETAILS

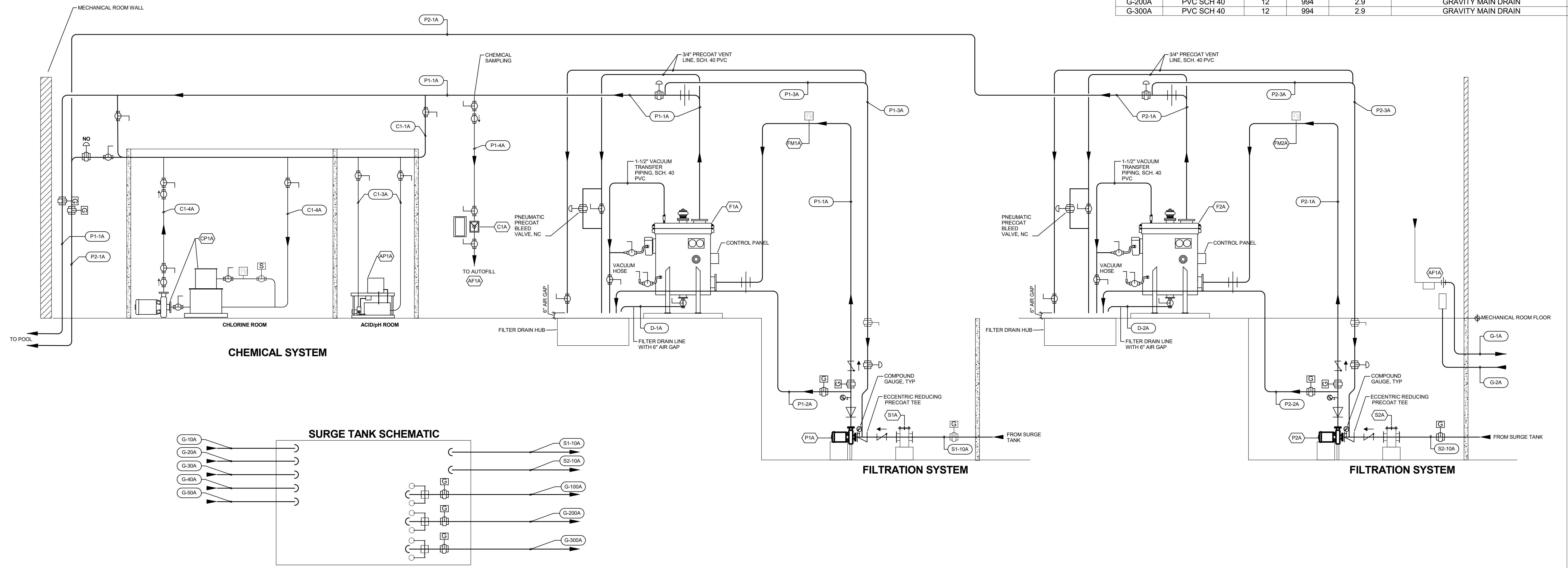
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POOL A - LEISURE POOL PIPE SCHEDULE

PIPE ID	TYPE	NPS	FLOW (in)	VELOCITY (gpm)	VELOCITY (fps)	DESCRIPTION
S1-10A	PVC SCH 80	12	1,491	4.8	-	FILTRATION PUMP SUCTION - SURGE TANK
S2-1A	PVC SCH 80	12	1,491	4.8	-	FILTRATION PUMP SUCTION - MAIN DRAIN
S2-10A	PVC SCH 80	12	1,491	4.8	-	FILTRATION PUMP SUCTION - SURGE TANK
P1-1A	PVC SCH 80	10	1,491	6.8	-	FILTRATION SUPPLY
P1-2A	PVC SCH 80	4	68	1.9	-	POOL DRAIN LINE
P1-3A	PVC SCH 80	6	300	3.8	-	FILTER PRECOAT
P2-1A	PVC SCH 80	10	1,491	6.8	-	FILTRATION SUPPLY
P2-2A	PVC SCH 80	2	68	7.6	-	POOL DRAIN LINE
P2-3A	PVC SCH 80	6	300	3.8	-	FILTER PRECOAT
P1-4A	PVC SCH 80	0.75	2	1.8	-	CHEMICAL SAMPLING
C1-1A	PVC SCH 80	2.5	18	-	-	CHEMICAL LOOP
C1-3A	PVC SCH 80	2	0	-	-	ACID RITE PIPING
C1-4A	PVC SCH 80	2	0	-	-	ACCUTAB PIPING
D-1A	PVC SCH 80	4	0	-	-	FILTER DRAIN
D-2A	PVC SCH 80	4	0	-	-	FILTER DRAIN
P1-10A	PVC SCH 80	10	1,491	6.8	-	INLET SUPPLY
P2-20A	PVC SCH 80	10	1,491	6.8	-	INLET SUPPLY
G-1A	PVC SCH 40	2	0	0.0	-	SENSOR STAND PIPE
G-2A	PVC SCH 40	4	88	2.2	-	FILL LINE
G-10A	PVC SCH 40	12	746	2.2	-	GUTTER
G-20A	PVC SCH 40	12	746	2.2	-	GUTTER
G-30A	PVC SCH 40	12	746	2.2	-	GUTTER
G-40A	PVC SCH 40	12	746	2.2	-	GUTTER
G-50A	PVC SCH 40	12	746	2.2	-	GUTTER
G-100A	PVC SCH 40	12	994	2.9	-	GRAVITY MAIN DRAIN
G-200A	PVC SCH 40	12	994	2.9	-	GRAVITY MAIN DRAIN
G-300A	PVC SCH 40	12	994	2.9	-	GRAVITY MAIN DRAIN



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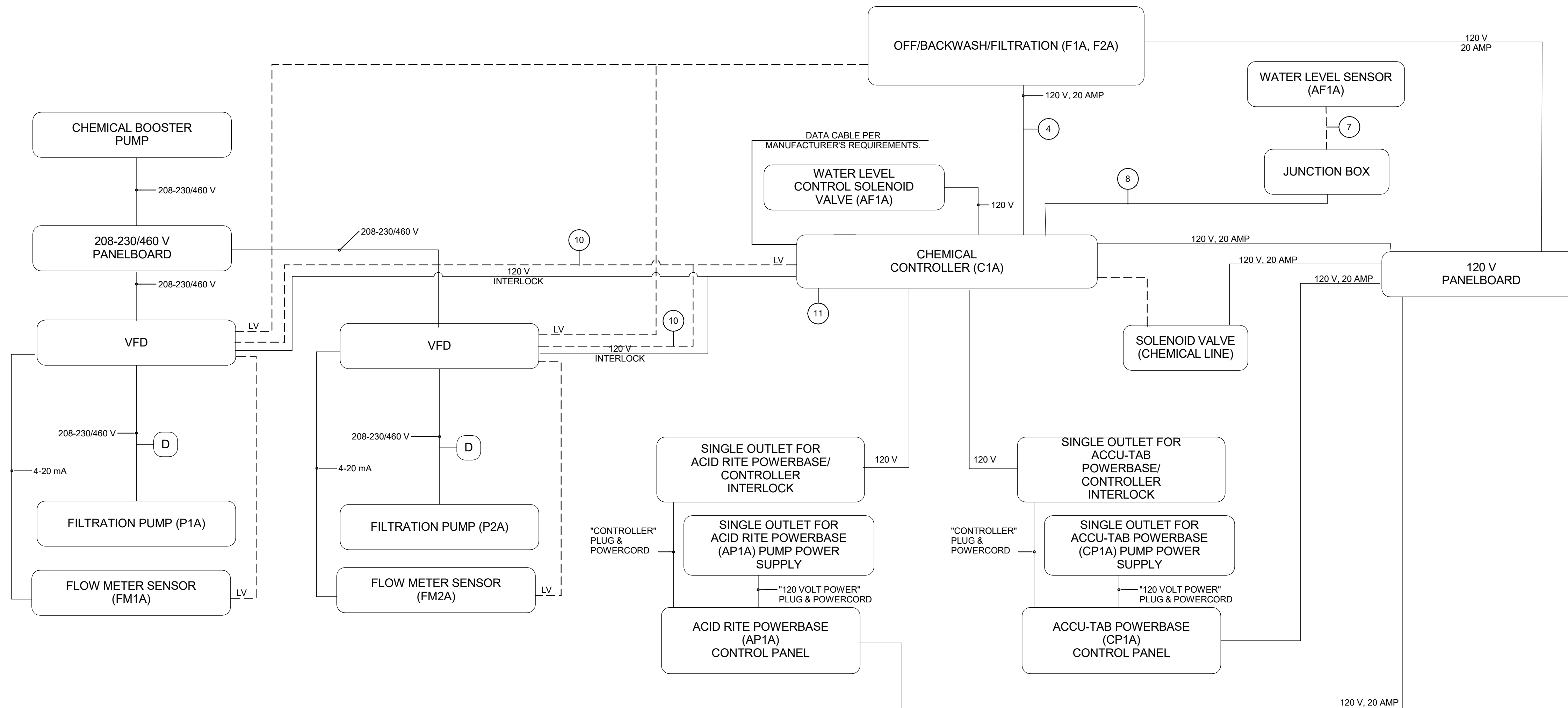
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MECHANICAL SCHEMATIC

SCALE: AS NOTED
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 DWG.: PL500
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SEQUENCE OF OPERATIONS - SWIMMING POOL WITH MANUAL BACKWASH SAND FILTER SYSTEM

FILTRATION PUMP MOTOR STARTER SELECTOR SWITCH ("OFF/BACKWASH/FILTRATION"):

- A THREE POSITION SELECTOR SWITCH SHALL BE PROVIDED FOR THE MOTOR STARTER/VFD WITH POSITIONS LABELED "OFF", "BACKWASH", AND "FILTRATION".

"FILTRATION" POSITION:

- PLACE THE SWITCH IN THE "FILTRATION" POSITION FOR THE NORMAL FILTRATION OPERATING MODE OF THE SYSTEM.
- WITH THE FILTRATION PUMP SELECTOR SWITCH IN THE "FILTRATION" POSITION, THE FILTRATION PUMP SHALL RUN AT DESIGN FLOW (FREQUENCY) AND THE CHEMICAL CONTROLLER SHALL BE CAPABLE OF ENERGIZING THE CHEMICAL FEED SYSTEM OUTLETS.
- THE ACTUAL FLOW INFORMATION SHALL BE PROVIDED TO THE VFD BY THE FM TRANSMITTER. THE VFD SHALL ADJUST FREQUENCY AS REQUIRED TO ACHIEVE SYSTEM DESIGN FLOW.
- THE CHEMICAL CONTROLLER SHALL BE WIRED TO THE CHEMICAL FEED OUTLETS AND SHALL ENERGIZE/DE-ENERGIZE THESE OUTLETS BASED UPON POOL WATER CHEMISTRY.
- THE ACID FEED PUMP IS POWERED ON/OFF BY THE CHEMICAL CONTROLLER PH FEED OUTLET.
- IF THE FILTRATION PUMP LOSES POWER WHILE IN THE "FILTRATION" MODE THE CHEMICAL CONTROLLER SHALL NOT BE CAPABLE OF ENERGIZING THE CHEMICAL FEED OUTLETS AND THE POOL HEATER SHALL BE INACTIVE.

"BACKWASH" POSITION:

- PLACE THE SWITCH IN THE "BACKWASH" POSITION WHEN BACKWASHING THE FILTERS. WITH THE FILTRATION PUMP SELECTOR SWITCH IN THE "BACKWASH" POSITION, THE FILTRATION PUMP SHALL RUN, BUT THE CHEMICAL CONTROLLER SHALL NOT BE CAPABLE OF ENERGIZING THE CHEMICAL FEED SYSTEM OUTLETS.

"OFF" POSITION:

- PLACE THE SWITCH IN THE "OFF" POSITION TO TURN THE PUMP AND FILTRATION SYSTEM OFF.
- WITH THE FILTRATION PUMP SELECTOR SWITCH IN THE "OFF" POSITION, THE FILTRATION PUMP SHALL BE OFF AND THE CHEMICAL CONTROLLER SHALL NOT BE CAPABLE OF ENERGIZING THE CHEMICAL FEED SYSTEM OUTLETS AND THE POOL HEATER SHALL BE INACTIVE.

CHEMICAL CONTROLLER & CHEMICAL FEED OUTLETS:

- THE CHEMICAL CONTROLLER CPU SHALL BE POWERED AT ALL TIMES.
- THE CHEMICAL FEED OUTLETS SHALL BE INTERLOCKED SUCH THAT IF THE FILTRATION PUMP LOSES POWER WHILE IN THE "FILTRATION" MODE, THE IN-LINE FLOW SWITCH IS NOT MADE OR THE SELECTOR SWITCH IS IN THE OFF OR BACKWASH POSITIONS; THE FEED OUTLETS ARE INACTIVE.
- CHEMICAL CONTROLLER FEED OUTLETS ENERGIZES / DE-ENERGIZES SANITIZER AND pH FEED BASED UPON POOL WATER CHEMISTRY.
- CHEMICAL CONTROLLER ACTIVATES CHEMICAL LINE SOLENOID VALVE TO CLOSE WHEN THERE IS NO FLOW.

CHEMICAL FEED PUMPS

- THE CHEMICAL FEED PUMPS ARE ENERGIZED BY THE CHEMICAL FEED OUTLETS.

FLOW METER:

- WHEN FLOW METER POWER SUPPLY IS ENERGIZED, THE FLOW METER SENSOR SHALL PROVIDE THE FLOW READOUT IN GPM.
- THE FLOW METER SHALL PROVIDE FLOW DATA TO THE INDICATED VFD AND CONTROL SPEED OF THE VFD BASED ON FLOW.

POOL EQUIPMENT OPERATING MODES

FILTRATION SELECTOR SWITCH POSITION	FILTRATION PUMP	CHEMICAL CONTROLLER	CHLORINE FEED	ACID FEED
OFF	O	X	O	O
BACKWASH	X	X	O	O
FILTRATION	X	X	X	X

"X" INDICATES THE EQUIPMENT IS ENERGIZED/RUNNING.
"O" INDICATES THE EQUIPMENT IS NOT ENERGIZED.

NOTES:

- LOW VOLTAGE <=24V. ALL LOW VOLTAGE WIRING IS SUPPLIED, INSTALLED AND CONNECTED BY THE POOL CONTRACTOR.
- IF CONDUIT IS REQUIRED BY CODE FOR LOW VOLTAGE WIRING, THEN THIS MUST BE SPECIFIED BY THE ELECTRICAL CONSULTANT AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- IF CODE REQUIRES THAT LOW VOLTAGE WIRING IS INSTALLED BY A LICENSED ELECTRICAL CONTRACTOR THEN THIS MUST BE SPECIFIED BY THE ELECTRICAL CONSULTANT.
- CONDUIT, WIRE SIZES, AND SHIELDING REQUIREMENTS SHALL BE DETERMINED & SPECIFIED BY THE ELECTRICAL CONSULTANT AS NEEDED PER LOCAL BUILDING AND ELECTRICAL CODE REQUIREMENTS.
- THIS SCHEMATIC DRAWING IS NOT AN ELECTRICAL INSTALLATION DIAGRAM AND IS FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE POOL CONTRACTOR TO COORDINATE ALL INTERLOCKS WITH THE ELECTRICAL CONTRACTOR. THE POOL CONTRACTOR IS RESPONSIBLE TO PROVIDE AN OPERATING SYSTEM PER THE SEQUENCE OF OPERATIONS.

KEYNOTES: #

- NOT USED.
- NOT USED.
- NOT USED.
- POWER FOR THE CHEMICAL FEEDERS. WHEN FILTER SELECTOR SWITCH POSITION IS OFF, BACKWASH, OR THE FILTRATION PUMP LOSES POWER WHILE IN FILTRATION MODE, THIS CONNECTION SHALL INACTIVE CHEMICAL FEED TO THE SYSTEM.
- NOT USED.
- NOT USED.
- SENSOR CABLE FROM WATER LEVEL SENSOR. FURNISHED WITH WATER LEVEL SENSOR AND INSTALLED BY POOL CONTRACTOR.
- CONDUCTOR CABLE CONTAINS POWER AND SIGNAL CABLES. COORDINATE REQUIREMENTS WITH WATER LEVEL SENSOR AND CHEMICAL CONTROLLER MANUFACTURERS.
- NOT USED.
- VFD ANALOG OUTPUT REPEAT FLOW METER DATA TO CHEMICAL CONTROLLER.
- A FLOW CELL WITH SHUT-OFF SWITCH SHALL COME PREASSEMBLED AND WIRED TO THE CHEMICAL CONTROLLER. POOL CONTRACTOR SHALL ASSURE CHEMICAL CONTROLLER FLOW CELL ASSEMBLY IS WORKING PROPERLY AND DEACTIVATES CHEMICAL FEED UNDER A NO FLOW CONDITION.

LEGEND:

- LOW VOLTAGE
- LINE VOLTAGE
- DATA - CONTRACTOR TO COORDINATE WITH EQUIPMENT REQUIREMENTS
- DISCONNECT - LOCATE AT EQUIPMENT PER CODE REQUIREMENTS



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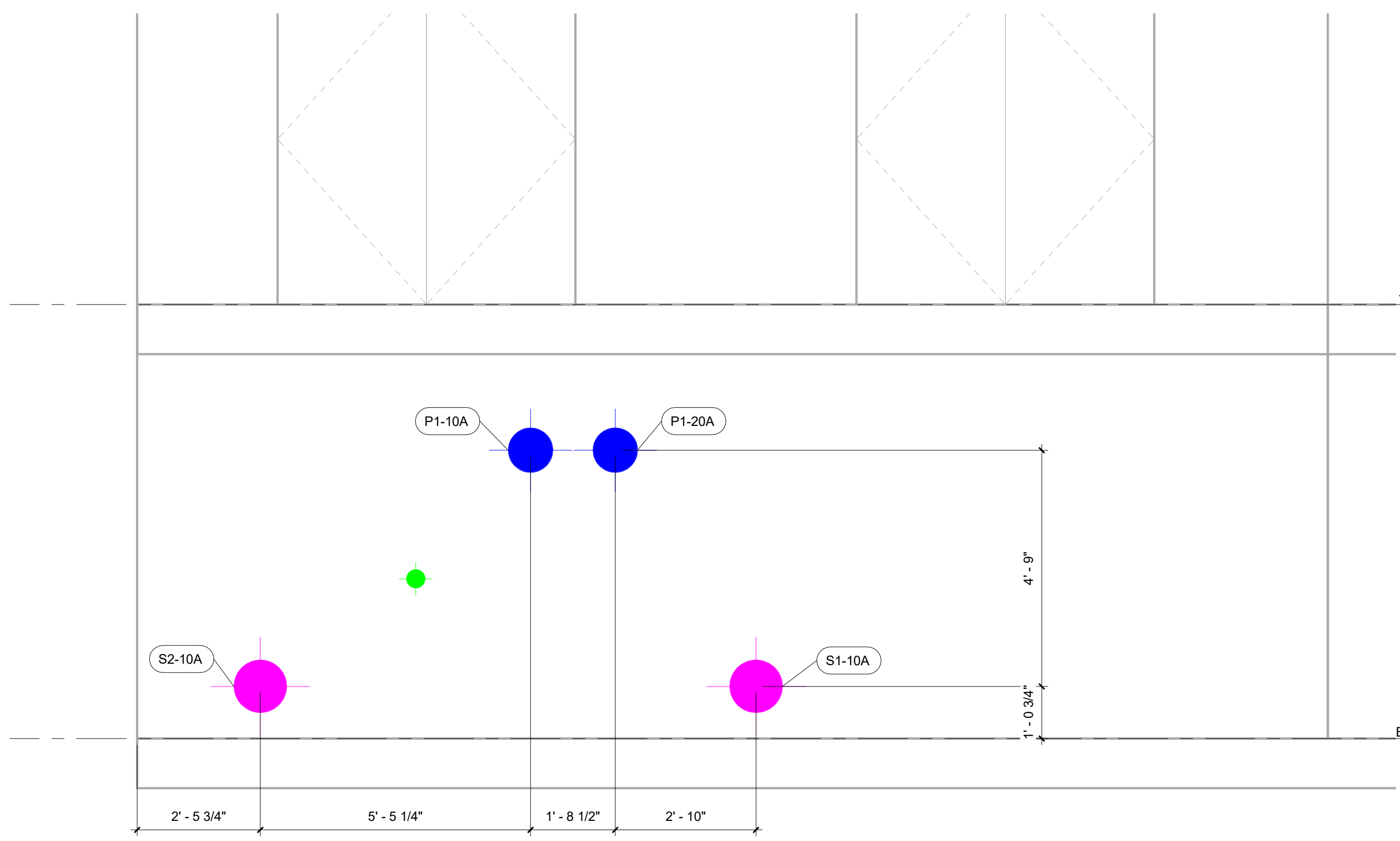
MECHANICAL ROOM PIPE PENETRATIONS

SCALE: AS NOTED
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 DWG.: PL600
 SHEET: 71 OF 72

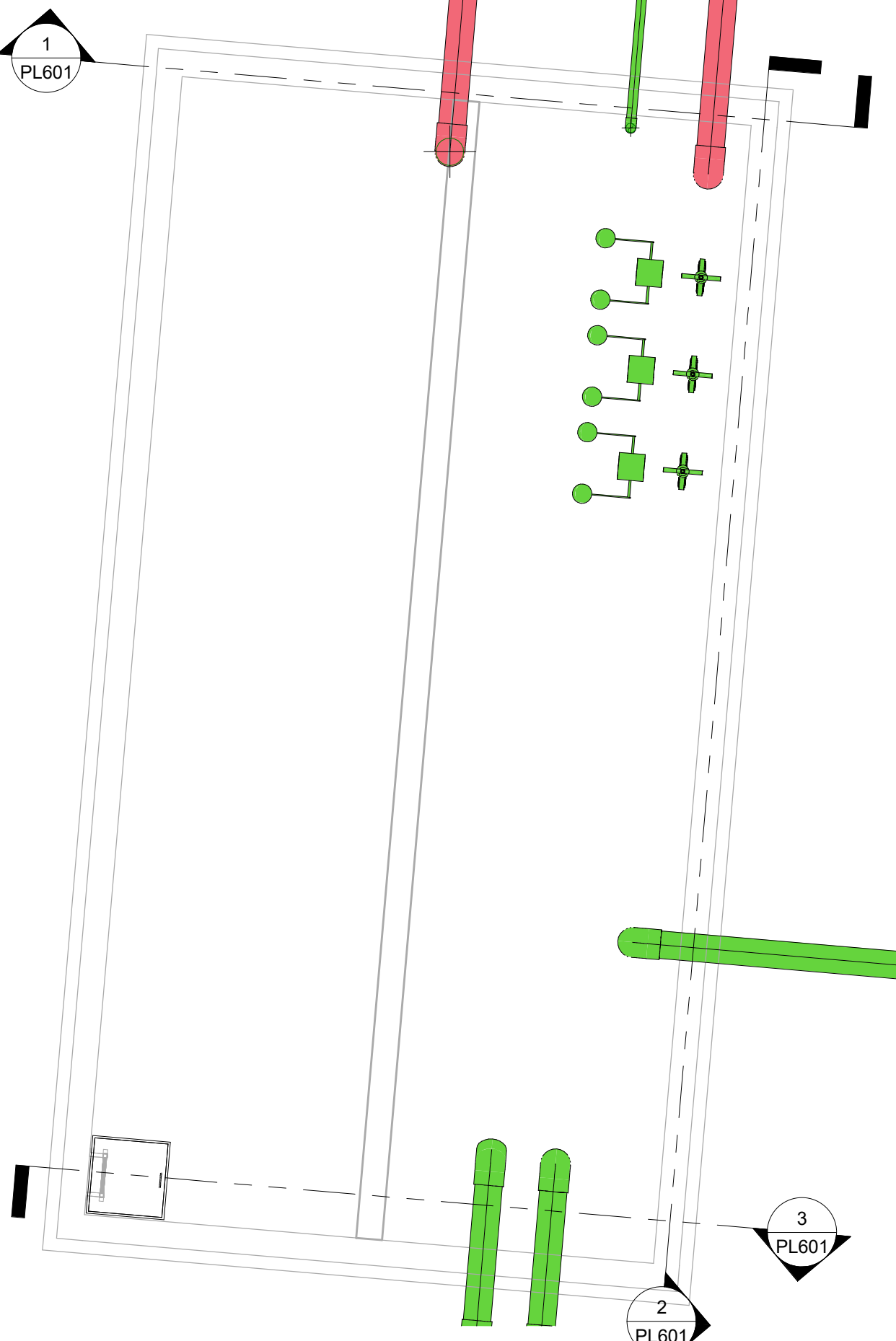
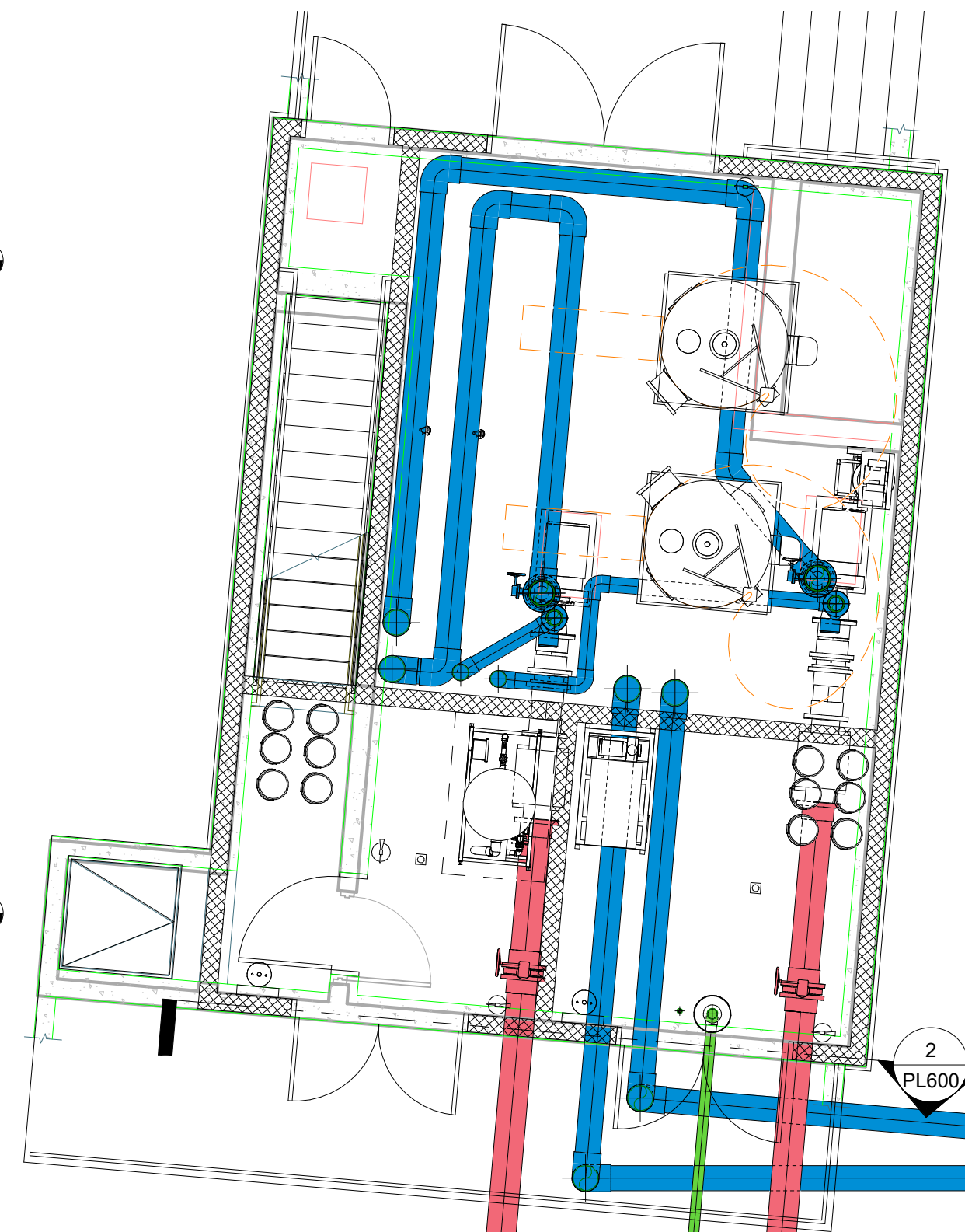
NOTES:

- THIS DRAWING SHEET MUST BE PRINTED/COPIED IN COLOR.

POOL A PENETRATION SCHEDULE				
PIPE ID	DETAIL	NPS (in)	SLEEVE MODE...	DESCRIPTION
S1-10A	2/PL403	12	CS-16	FILTRATION PUMP SUCTION - SURGE TANK
S2-10A	2/PL403	12	CS-16	FILTRATION PUMP SUCTION - SURGE TANK
P1-10A	2/PL403	10	CS-14	INLET SUPPLY
P2-20A	2/PL403	10	CS-14	INLET SUPPLY



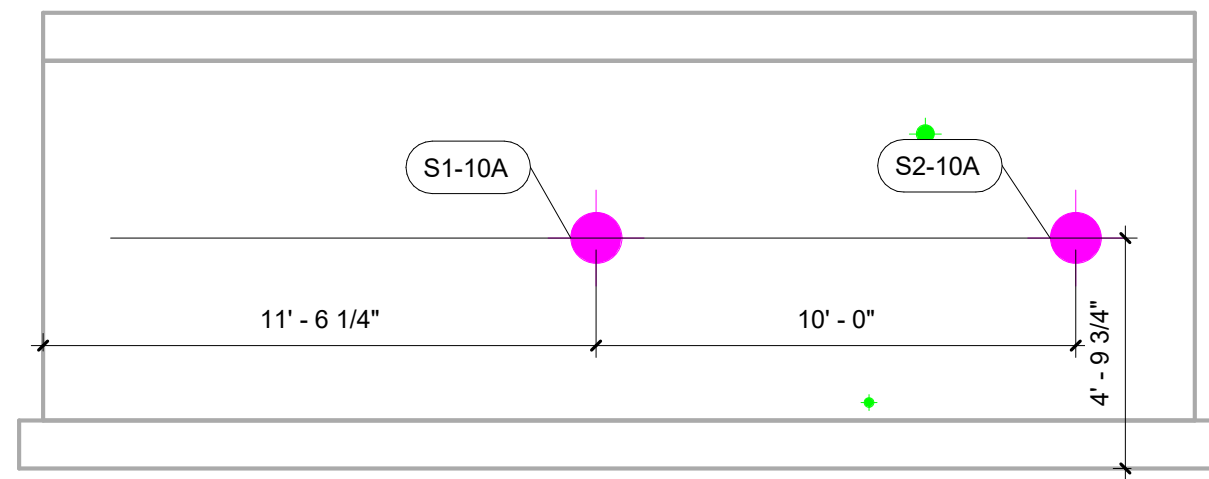
2 MECHANICAL ROOM PIPE PENETRATION (PLAN SOUTH WALL)
 SECTION VIEW
 NOT TO SCALE



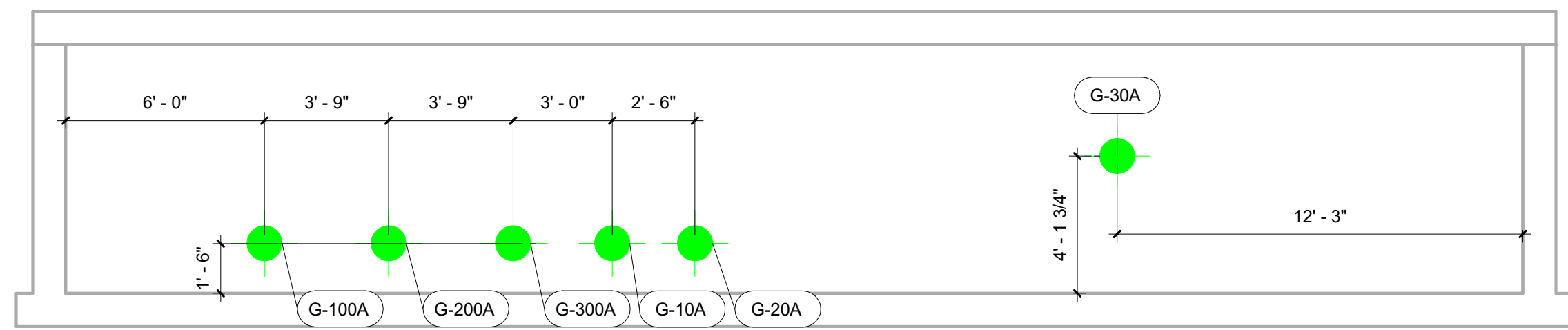
1 STAGE 1 PIPING PLAN
 PLAN VIEW
 3/16" = 1'-0"

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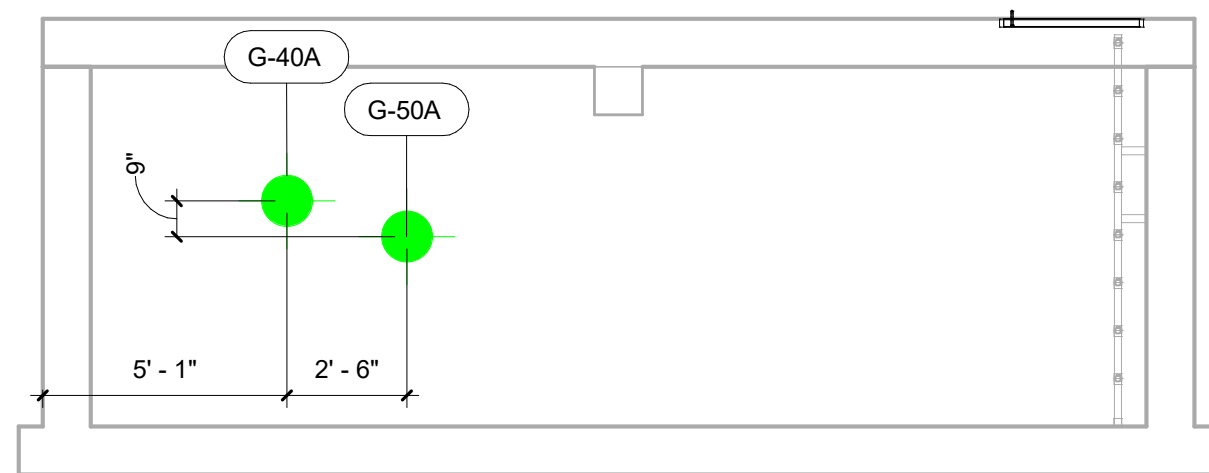
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1 SURGE TANK PIPE PENETRATIONS (PLAN NORTH WALL)
SECTION VIEW
1/4" = 1'-0"



2 SURGE TANK PIPE PENETRATIONS (PLAN EAST WALL)
SECTION VIEW
1/4" = 1'-0"

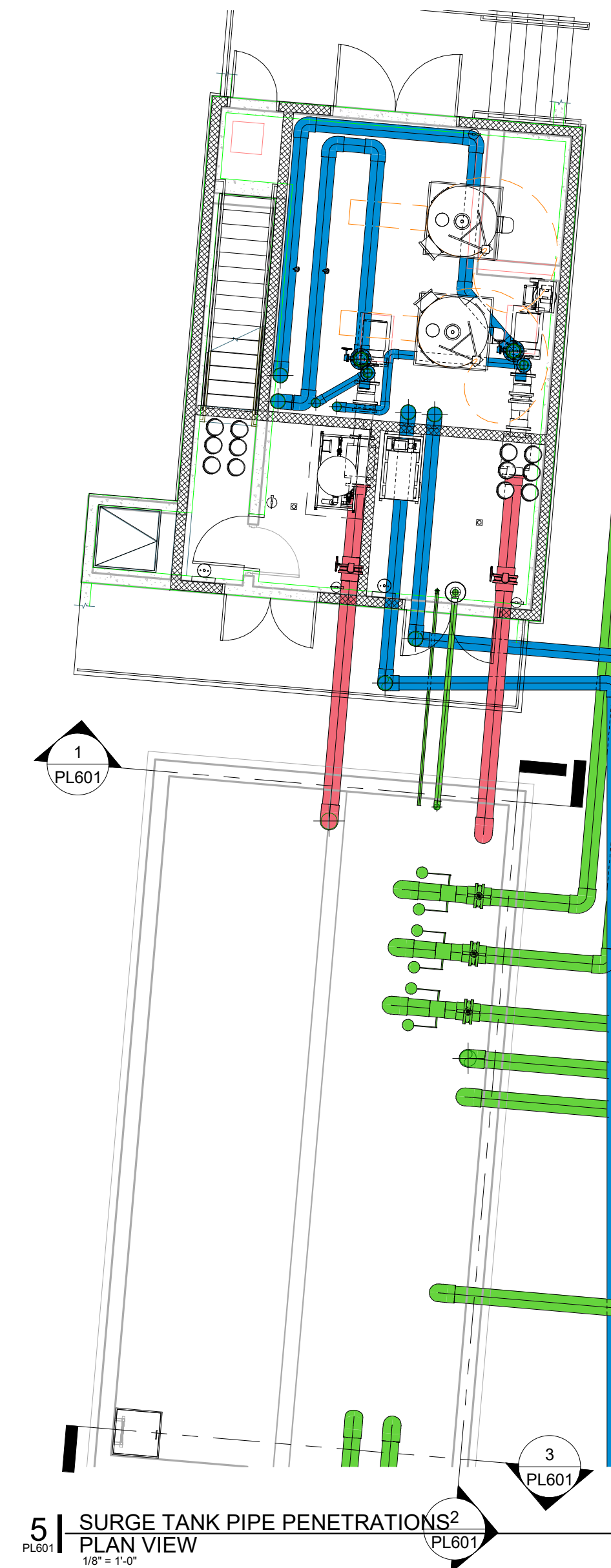


3 SURGE TANK PIPE PENETRATIONS (PLAN SOUTH WALL)
SECTION VIEW
1/4" = 1'-0"

NOTES:

- THIS DRAWING SHEET MUST BE PRINTED/COPIED IN COLOR.

POOL A PENETRATION SCHEDULE				
PIPE ID	DETAIL	NPS	SLEEVE MODE...	DESCRIPTION
S1-10A	3/PL403	12	CS-16	FILTRATION PUMP SUCTION - SURGE TANK
S2-10A	3/PL403	12	CS-16	FILTRATION PUMP SUCTION - SURGE TANK
G-10A	3/PL403	12	CS-16	GUTTER
G-20A	3/PL403	12	CS-16	GUTTER
G-30A	3/PL403	12	CS-16	GUTTER
G-40A	3/PL403	12	CS-16	GUTTER
G-50A	3/PL403	12	CS-16	GUTTER
G-100A	-	12	CS-16	GRAVITY MAIN DRAIN
G-200A	-	12	CS-16	GRAVITY MAIN DRAIN
G-300A	-	12	CS-16	GRAVITY MAIN DRAIN



5 SURGE TANK PIPE PENETRATIONS²
PLAN VIEW
1/8" = 1'-0"

WTI
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NO.	DATE	DESCRIPTION	BY
REVISIONS			



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PEIRCE ISLAND PUMP HOUSE
AND POOL RENOVATION
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PIPE PENETRATION SECTIONS

SCALE: AS NOTED
DATE: 06/17/2022

DWG.: PL601

SHEET: 72 OF 72