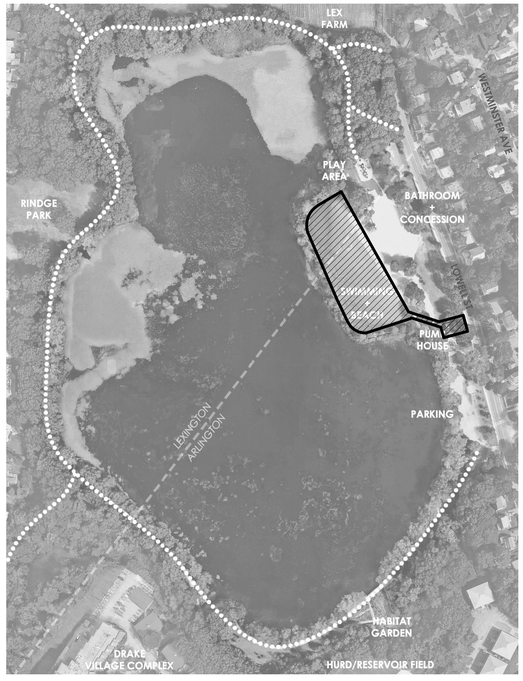
TOWN OF ARLINGTON

IMPROVEMENTS TO THE ARLINGTON RESERVOIR



SHEET INDEX

Locus Map

ARLINGTON RESERVOIR
210 LOWELL ST,
ARLINGTON, MA 02474

CONSTRUCTION DOCUMENTS

MAY 29, 2019

Prepared By

Weston & Sampson℠

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COMMONWEALTH OF MASSACHUSETTS
JEFFERY P. DUDROW
CIVIL
No. 35265
REGISTERED PROFESSIONAL ENGINEER

GENERAL NOTES

1. PROPERTY LINES, SITE SURVEY AND TOPOGRAPHICAL INFORMATION ON THE GROUND SURVEYS PERFORMED BY WESTON & SAMPSON IN DECEMBER 2017.

2. BEARINGS REFER TO THE MASSACHUSETTS NAD 83 STATE PLANE COORDINATE SYSTEM (MAINLAND ZONE).

3. ELEVATIONS REFER TO THE 1988 NORTH AMERICAN DATUM (NAVD 88)

4. REFER TO THE SURVEY LEGEND FOR GENERAL SYMBOLS. ALL BIDDERS ARE REQUIRED TO INSPECT THE PROJECT SITE IN ITS ENTIRETY PRIOR TO SUBMITTING THEIR BID, AND BECOME FAMILIAR WITH ALL CONDITIONS AS THEY MAY AFFECT THEIR BID. CONTRACTOR AND SUB-CONTRACTOR SHALL BE FAMILIAR WITH ALL DRAWINGS AND SPECIFICATIONS PRIOR TO COMMENCING THE CONSTRUCTION.

5. LOCATIONS OF ANY UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF SUCH UTILITIES, PROTECTING ALL EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE COORDINATION WITH UTILITY COMPANIES AND PUBLIC AGENCIES AND FOR OBTAINING ALL REQUIRED PERMITS AND PAYING ALL REQUIRED FEES. IN ACCORDANCE WITH M.G.L. CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING PRIOR TO EXCAVATION. CONTRACTOR SHALL ALSO CALL "DIG SAFE" AT (888) 344-7233 NO LESS THAN 72 HOURS, (EXCLUSIVE OF WEEKENDS AND HOLIDAYS), PRIOR TO SUCH EXCAVATION. DOCUMENTATION OF REQUESTS SHALL BE PROVIDED TO OWNER'S REPRESENTATIVE PRIOR TO EXCAVATION WORK.

6. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE SITE IMPROVEMENTS.

8. ANY DISCREPANCIES OR CONFLICTS BETWEEN THE DRAWINGS AND EXISTING CONDITIONS, EXISTING CONDITIONS TO REMAIN, TEMPORARY CONSTRUCTION AND PERMANENT CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING. ITEMS ENCOUNTERED IN AREAS OF EXCAVATION THAT ARE NOT INDICATED ON THE DRAWINGS, BUT ARE VISIBLE ON SURFACE, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.

9. ANY ALTERATIONS TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE GENERAL CONTRACTOR ON "AS BUILT" DRAWINGS.

10. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS OUTSIDE THE PROJECT LIMITS, SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST AND TO THE SATISFACTION OF THE OWNER.

11. ALL WORK SHOWN ON THE PLANS AS BOLD SHALL REPRESENT PROPOSED WORK. THE TERM "PROPOSED (PROP)" INDICATES WORK TO BE CONSTRUCTED USING NEW MATERIALS.

12. ALL KNOWN EXISTING STATE, COUNTY AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND ARE INDICATED ON THE PLANS.

13. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THEIR EMPLOYEES, AS WELL AS PUBLIC USERS FROM INJURY DURING THE ENTIRE CONSTRUCTION PERIOD USING ALL NECESSARY SAFEGUARDS, INCLUDING BUT NOT LIMITED TO, THE ERECTION OF TEMPORARY WALKS, STRUCTURES, PROTECTIVE BARRIERS, COVERING, OR FENCES AS NEEDED.

14. THE CONTRACTOR SHALL SUPPLY THE OWNER WITH THE NAME OF THE OSHA "COMPETENT PERSON" PRIOR TO CONSTRUCTION.

15. FILLING OF EXCAVATED AREAS SHALL NOT TAKE PLACE WITHOUT THE PRESENCE OR PERMISSION OF THE OWNER.

16. EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. NO STOCKPILING OF MATERIAL, EQUIPMENT OR VEHICULAR TRAFFIC SHALL BE ALLOWED WITHIN THE DRIP LINE OF TREES TO REMAIN. NO GUYS SHALL BE ATTACHED TO ANY TREE TO REMAIN. WHEN NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL ERECT TEMPORARY BARRIERS FOR THE PROTECTION OF EXISTING TREES DURING CONSTRUCTION.

17. TREES AND SHRUBS WITHIN THE LIMITS OF WORK SHALL BE REMOVED ONLY UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE OR AS NOTED ON THE PLANS.

18. NO FILLING SHALL OCCUR AROUND EXISTING TREES TO REMAIN WITHOUT THE APPROVAL OF THE OWNER OR ENGINEER.

19. TREES AND STUMPS SHALL BE REMOVED AND DISPOSED COMPLETE BY CONTRACTOR.

20. ALL UNSUITABLE UNCONTAMINATED EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN. REMOVAL ACTIVITIES SHALL BE ACCORDANCE WITH STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE TOWN.

21. CONTRACTOR IS RESPONSIBLE FOR STAKING CONSTRUCTION BASELINES IN FIELD WITH A MA. REGISTERED PROFESSIONAL LAND SURVEYOR. NO CONSTRUCTION WILL BE PERFORMED WITHOUT THE PROPOSED BASELINES AND LAYOUTS APPROVED BY THE OWNER'S REPRESENTATIVE.

22. NO FILL SHALL CONTAIN HAZARDOUS MATERIALS.

23. CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION FENCING IN THE LOCATIONS SHOWN ON THE PLANS.

24. ANY QUANTITIES SHOWN ON PLANS ARE FOR COMPARATIVE BIDDING PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE PROJECT SITE TO VERIFY ALL QUANTITIES AND CONDITIONS PRIOR TO SUBMITTING BID.

25. CONTRACTOR'S STAGING AREA MUST BE IN AREAS APPROVED BY OWNER. ANY OTHER AREAS THAT THE CONTRACTOR MAY WISH TO USE FOR STAGING MUST BE COORDINATED WITH THE OWNER.

26. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER.

27. THE LIMIT OF WORK SHALL BE DELINEATED IN THE FIELD PRIOR TO THE START OF SITE CLEARING OR CONSTRUCTION AND AGREED UPON WITH THE ENGINEER.

28. HAULING OF EARTH MATERIALS TO AND FROM THE SITE SHALL BE RESTRICTED TO THE HOURS OF 7 AM TO 5 PM.

29. ANY BOULDERS 3 CY OR SMALLER SHALL BE CONSIDERED UNDOCUMENTED FILL AND SHALL BE DISPOSED OF AT NO ADDITIONAL COST TO THE TOWN.

30. WORK ON WEEKENDS SHALL ONLY BE CONDUCTED IF PRIOR WRITTEN PERMISSION IS PROVIDED BY THE TOWN.

31. NO TRUCKS LEFT IDLING ON TOWN STREETS DURING CONSTRUCTION. CONSTRUCTION TRAFFIC AT NO TIME SHALL IMPEDE FLOW OF RESIDENT TRAFFIC.

DESIGN CODE COMPLIANCE:

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

ENGINEER SEAL:

1. THESE DRAWINGS HAVE BEEN PREPARED FOR EXCLUSIVE USE FOR THE CLIENT AND ARE NOT INTENDED FOR ANY OTHER PURPOSE. TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS MEET THE REQUIREMENTS SET FORTH BY THE MASSACHUSETTS STATE CODES.

2. THE FILTRATION AND RECIRCULATION SYSTEM THAT IS INCORPORATED INTO THESE DRAWINGS MUST BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE APPROVED DRAWINGS. ALL CHANGES MUST HAVE WRITTEN APPROVAL FROM WESTON & SAMPSON PRIOR TO SUCH CHANGE OR ALTERATION BEING IMPLEMENTED.

3. ONLY DRAWINGS FROM WESTON & SAMPSON THAT ARE MARKED "FOR CONSTRUCTION" AND WITH THE DOH APPROVAL NUMBERS AND APPROVAL DATES AFFIXED SHALL BE USED FOR THE FILTRATION AND RECIRCULATION SYSTEM CONSTRUCTION IMPLEMENTATION.

4. THE ENGINEER SEAL AFFIXED TO THESE DRAWINGS IS LIMITED TO HYDRAULICS.

5. CONTRACTOR IS RESPONSIBLE FOR STAMPING BACKWASH TANKS BY A MASSACHUSETTS PROFESSIONAL ENGINEER.

GENERAL START UP REQUIREMENTS:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE BALANCING OF THE WATER, AND STARTING UP THE EQUIPMENT, UNTIL FORMAL ACCEPTANCE BY OWNER.

2. CONTRACTOR SHALL PROVIDE DETAIL INSTRUCTIONS ON OPERATING THE EQUIPMENT, AND SHALL VIDEO TAPE THE ENTIRE TRAINING SESSION AND PROVIDE PERMANENT SIGNAGE ON VALVE, FILTER, AND SYSTEM OPERATION.

COORDINATION NOTES:

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

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

PIPING INSTALLATION REQUIREMENTS:

1. ALL PIPING SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE. ALL PIPING SHALL BE STAMPED WITH THE MANUFACTURER'S MARKING THAT IT IS APPROVED FOR USE WITH POTABLE WATER (NSF-PW). PLASTIC PIPE EXPOSED TO SUNLIGHT SHALL BE COATED WITH EPOXY PAINT FOR UV PROTECTION.

2. THE PIPING DIAGRAMS AND SIZES SHOWN IN THESE DRAWINGS SHALL BE FOLLOWED WITHOUT EXCEPTION UNLESS WRITTEN AUTHORIZATION FROM THIS ENGINEER IS PROVIDED.

3. THE PIPING SYSTEMS INDICATED IN THESE DRAWINGS ARE SHOWN IN A DIAGRAMMATIC VIEW ONLY. THE CONTRACTOR SHALL PROVIDE ALL PIPING AND FITTINGS REQUIRED FOR THE COMPLETE INSTALLATION.

4. THE CONTRACTOR SHALL PROVIDE AND COMPLY WITH ALL PIPING INSPECTIONS THAT MAY BE REQUIRED BY ENGINEER AND OWNER.

5. THE CONTRACTOR SHALL PROVIDE PIPE HANGER DETAILS TO THE ENGINEER FOR WRITTEN APPROVAL PRIOR TO THE INSTALLATION.

9. PIPING PRESSURE TESTING SHALL BE COORDINATED BY THE SWIMMING AREA CONTRACTOR AND SHALL BE INCLUDED IN THE COST. THE ENGINEER SHALL BE ONSITE DURING PRESSURE TESTING. ALL PIPING SHALL CONFORM TO ACCEPTED WORKMANSHIP STANDARDS AND SHALL BE TESTED AS FOLLOWS:
   i. ALL PIPING MUST BE TESTED BY MEANS OF WATER PRESSURE.
   ii. GRAVITY PIPING SHALL BE TESTED TO 10 PSI.
   iii. GRAVITY PIPING SHALL BE DEFINED AS DRAINAGE PIPING OR SENSING PIPING, OR ANY PIPING WHICH SHALL NOT HAVE FLOW VELOCITIES THAT EXCEED 3 FEET PER SECOND.
   iv. PRESSURE PIPING SHALL BE TESTED TO 50 PSI.
   v. PRESSURE PIPING SHALL BE DEFINED AS PUMP SUCTION PIPING, AND ANY PIPING AFTER THE PUMP DISCHARGE, OR ANY PIPING WHICH WILL HAVE FLOW VELOCITIES EXCEEDING 3 FEET PER SECOND.

10. EXTEND ALL PIPING TO ITS SPECIFIC FILTRATION SYSTEM. DO NOT CONNECT THE PIPING TO THE FILTRATION SYSTEM UNTIL THE PRESSURE-TEST IS COMPLETED, APPROVED, AND REMOVED FROM THE PIPING.

DEFINITIONS:

1. CONTRACTOR: PERSON OR ENTITY AUTHORIZED TO CONSTRUCT, INSTALL AND OPERATE A COMMERCIAL POOL AND THEIR APPURTENANCES, AND MAINTAIN PROPER LICENSES TO DO SO.

2. CRITICAL: THIS WORD DESCRIBES DIMENSIONS THAT SHALL NOT BE SUBJECT TO DEVIATION OR ERRORS FOR ANY REASON. VIOLATION OF A CRITICAL DIMENSION MIGHT SUBJECT THE FOUNTAIN TO A POTENTIAL VARIANCE ACTION OR A PERMANENT WITHHOLDING OF A FUTURE OPERATING CERTIFICATE. WESTON & SAMPSON CONSIDERS ALL DIMENSIONS CONTAINED WITH THE DRAWINGS AS VITAL; HOWEVER, THE WORD CRITICAL IS ADDED TO ATTRACT THE ATTENTION OF THE CONTRACTOR.

3. PROVIDE: OBTAIN, PURCHASE, SUPPLY, INSTALL AND WARRANTY COMPLETELY IN ACCORDANCE WITH ALL CODES, RULES, REGULATIONS AND THE REQUIREMENTS OF THE DRAWINGS AND TECHNICAL SPECIFICATIONS.

ABBREVIATIONS

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

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

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Revisions:

No.	Date	Description

Seal:
COMMONWEALTH OF MASSACHUSETTS
JEFFERY F BUDROW
CIVIL
No. 35265
REGISTERED PROFESSIONAL ENGINEER

Issued For:
CONSTRUCTION DOCUMENTS

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W&S Project No:	2180615
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GENERAL NOTES

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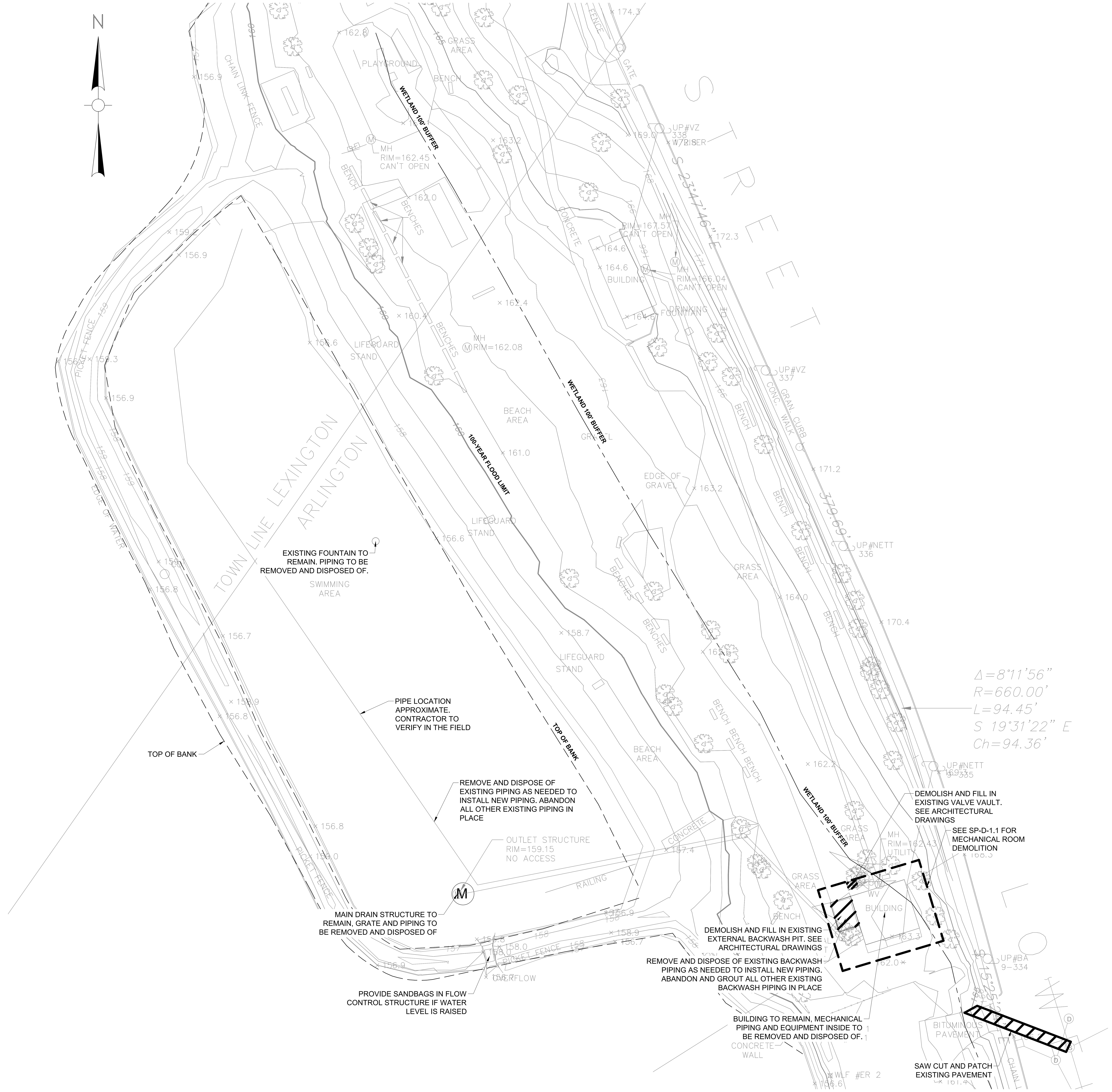

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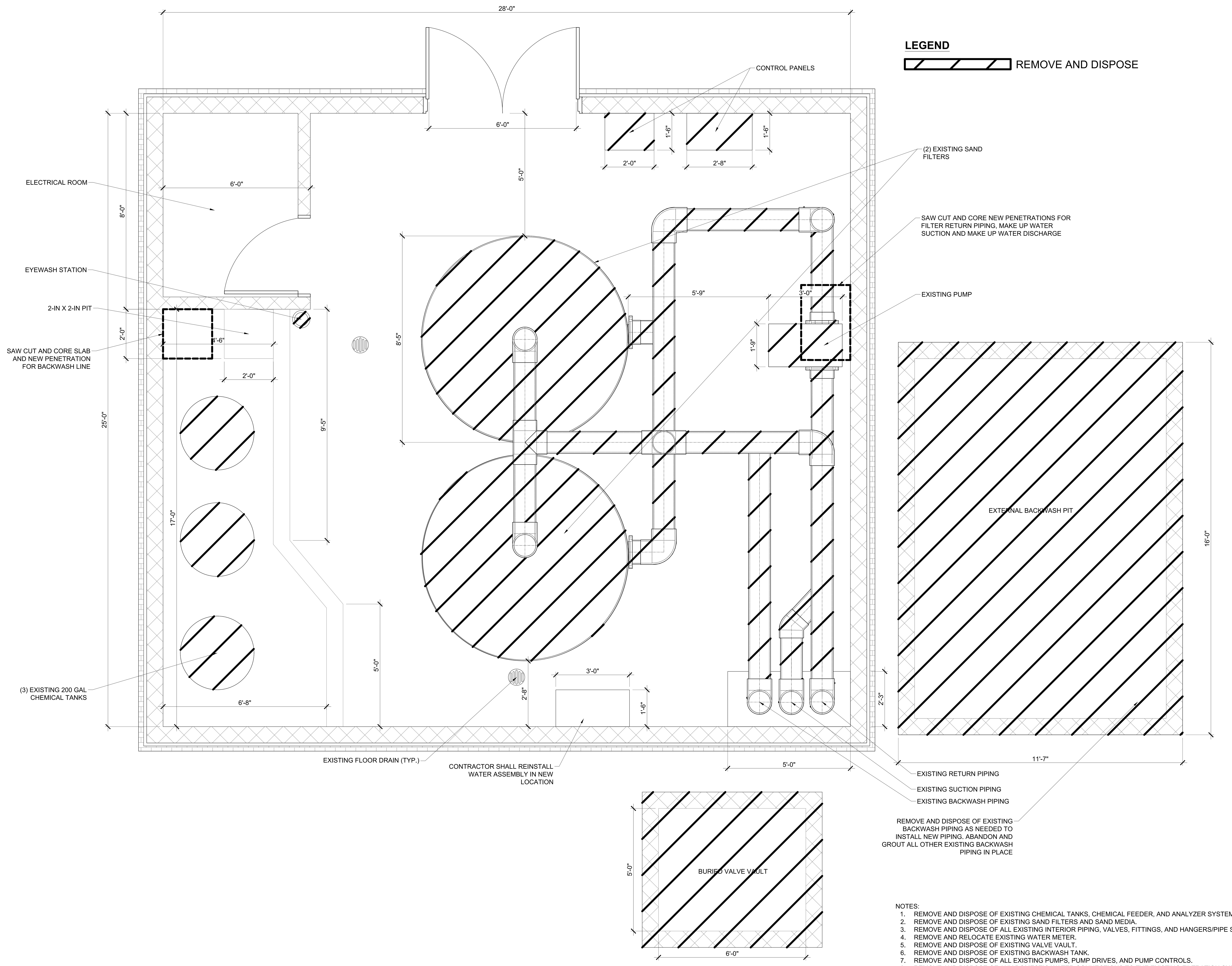
SITE DEMOLITION

Sheet Number:

SP-D-1.0



NOTES:

1. REMOVE AND DISPOSE OF EXISTING CHEMICAL TANKS, CHEMICAL FEEDER, AND ANALYZER SYSTEM.
2. REMOVE AND DISPOSE OF EXISTING SAND FILTERS AND SAND MEDIA.
3. REMOVE AND DISPOSE OF ALL EXISTING INTERIOR PIPING, VALVES, FITTINGS, AND HANGERS/PIPE SUPPORTS.
4. REMOVE AND RELOCATE EXISTING WATER METER.
5. REMOVE AND DISPOSE OF EXISTING VALVE VAULT.
6. REMOVE AND DISPOSE OF EXISTING BACKWASH TANK.
7. REMOVE AND DISPOSE OF ALL EXISTING PUMPS, PUMP DRIVES, AND PUMP CONTROLS.
8. REMOVE AND DISPOSE OF ANY DOMESTIC WATER CONNECTIONS TO THE EXISTING FILTRATION SYSTEM.
9. REMOVE AND DISPOSE OF ANY CONCRETE PUMP PEDESTALS OR HOUSE KEEPING PADS UTILIZED BY EXISTING EQUIPMENT.
10. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL DEMOLITION.
11. SAW CUT AND CORE EXISTING FLOOR AND FOUNDATION NECESSARY TO BRING NEW PIPING TO AND FROM THE BUILDING.
12. PROTECT EXISTING FLOOR SLAB IN BUILDING.

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MECHANICAL ROOM DEMOLITION

Sheet Number:

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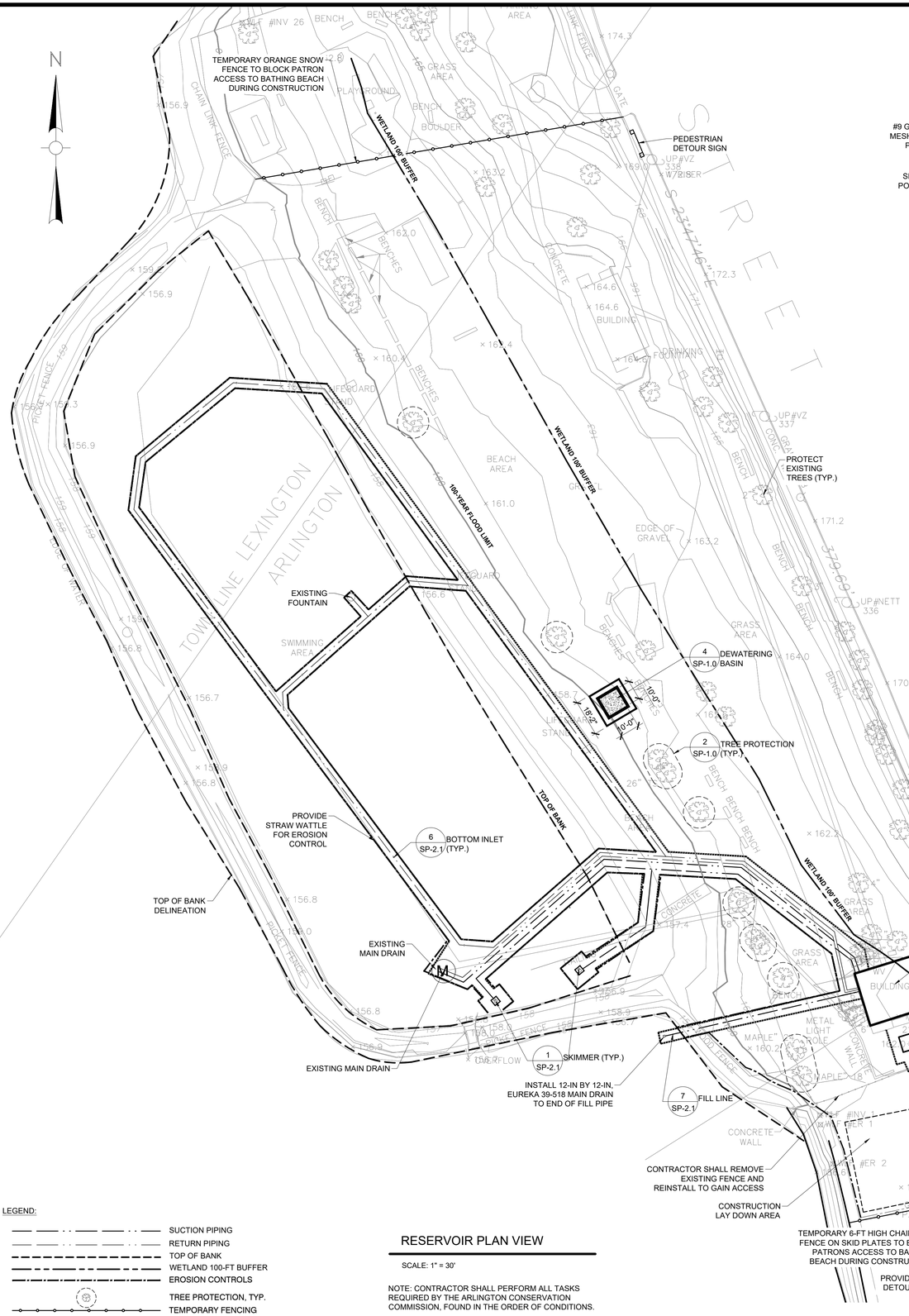

LEGEND:

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

RESERVOIR PLAN VIEW

SCALE: 1" = 30'

NOTE: CONTRACTOR SHALL PERFORM ALL TASKS REQUIRED BY THE ARLINGTON CONSERVATION COMMISSION, FOUND IN THE ORDER OF CONDITIONS.

NOTE: MAXIMUM POST SPACING SHALL BE 10-FT.

1 TEMPORARY CHAIN LINK FENCE

SCALE: NOT TO SCALE

NOTE: CONTRACTOR SHALL SECURE STRAW WATTLE TO PREVENT EROSION FROM PASSING UNDERNEATH

2 STRAW WATTLE

SCALE: NOT TO SCALE

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

3 TREE PROTECTION

SCALE: NOT TO SCALE

4 DEWATERING BASIN

SCALE: NOT TO SCALE

NOTE:
1. HAYBALE/SANDBAG PROTECTION OR CATCH BASIN FILTER FOR PAVED AREAS SHALL BE PROVIDED FOR ALL DRAINAGE STRUCTURES WITHIN THE LIMIT OF WORK AND ANY STRUCTURES OUTSIDE THE PROJECT TERMINII THAT ARE AFFECTED BY CONSTRUCTION.

5 SEDIMENT CONTROL SACK

SCALE: NOT TO SCALE

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SITE LAYOUT AND TEMPORARY CONTROLS

Sheet Number:

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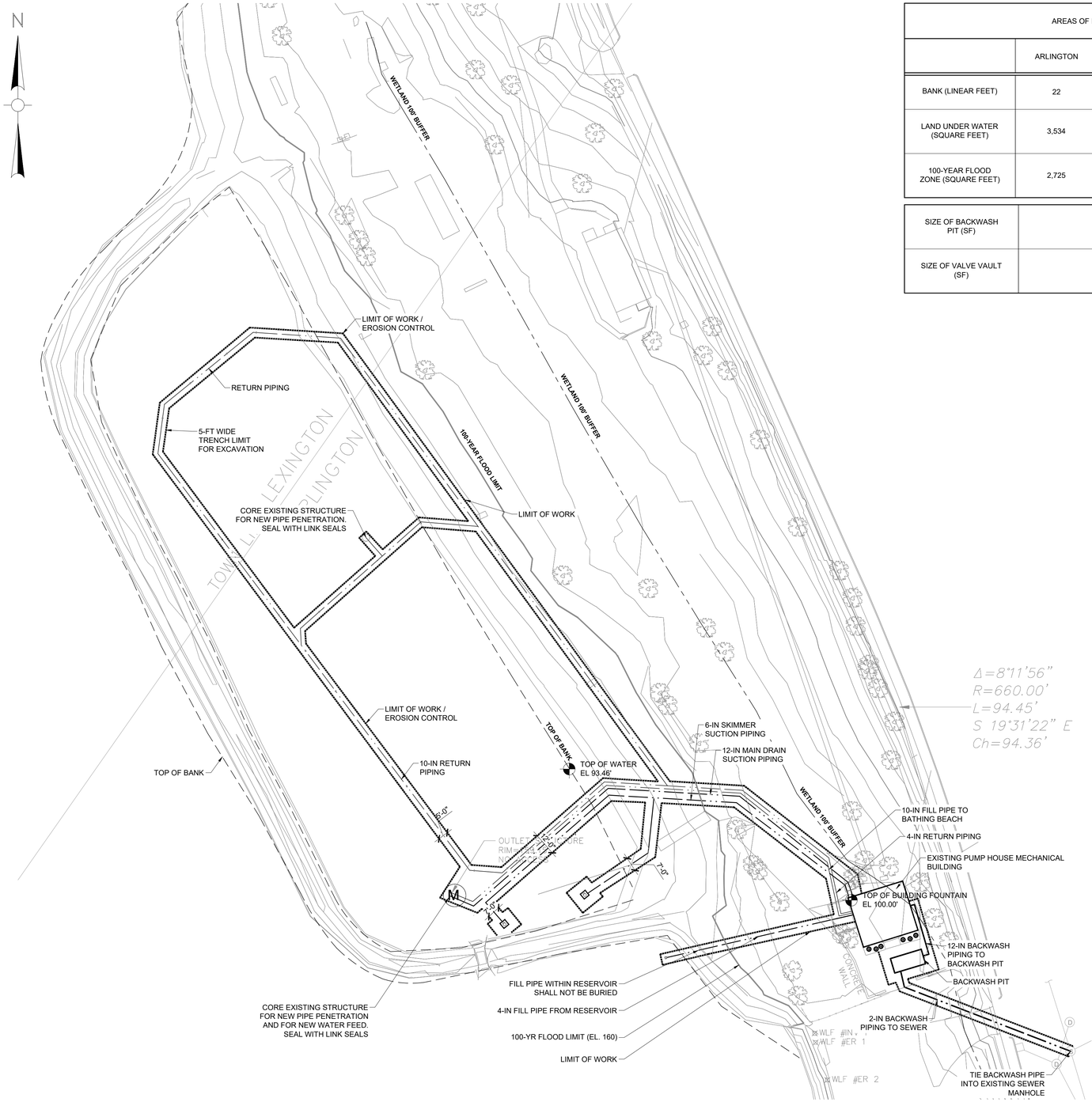
LEGEND:

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

LAYOUT NOTES

1. CONTRACTOR SHALL HAVE ALL PIPING, INLETS, SKIMMERS AND OTHER PROPOSED EQUIPMENT LAID OUT BY A PROFESSIONAL LAND SURVEYOR FOR PROPER DIMENSIONS.
2. ALL WORK DONE WITHIN THE WETLAND AREA SHALL FOLLOW THE PIPE ALIGNMENT.
3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS WITH LOAM AND SEED OR SAND. SEE SPECIFICATIONS.



AREAS OF IMPACT			
	ARLINGTON	LEXINGTON	ENTIRE PROJECT
BANK (LINEAR FEET)	22	5	27
LAND UNDER WATER (SQUARE FEET)	3,534	1,022	4,556
100-YEAR FLOOD ZONE (SQUARE FEET)	2,725	196	2,921

SIZE OF BACKWASH PIT (SF)	185
SIZE OF VALVE VAULT (SF)	30

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Reviewed By:	SMB
Approved By:	JFB
W&S Project No:	2180615
W&S File No:	

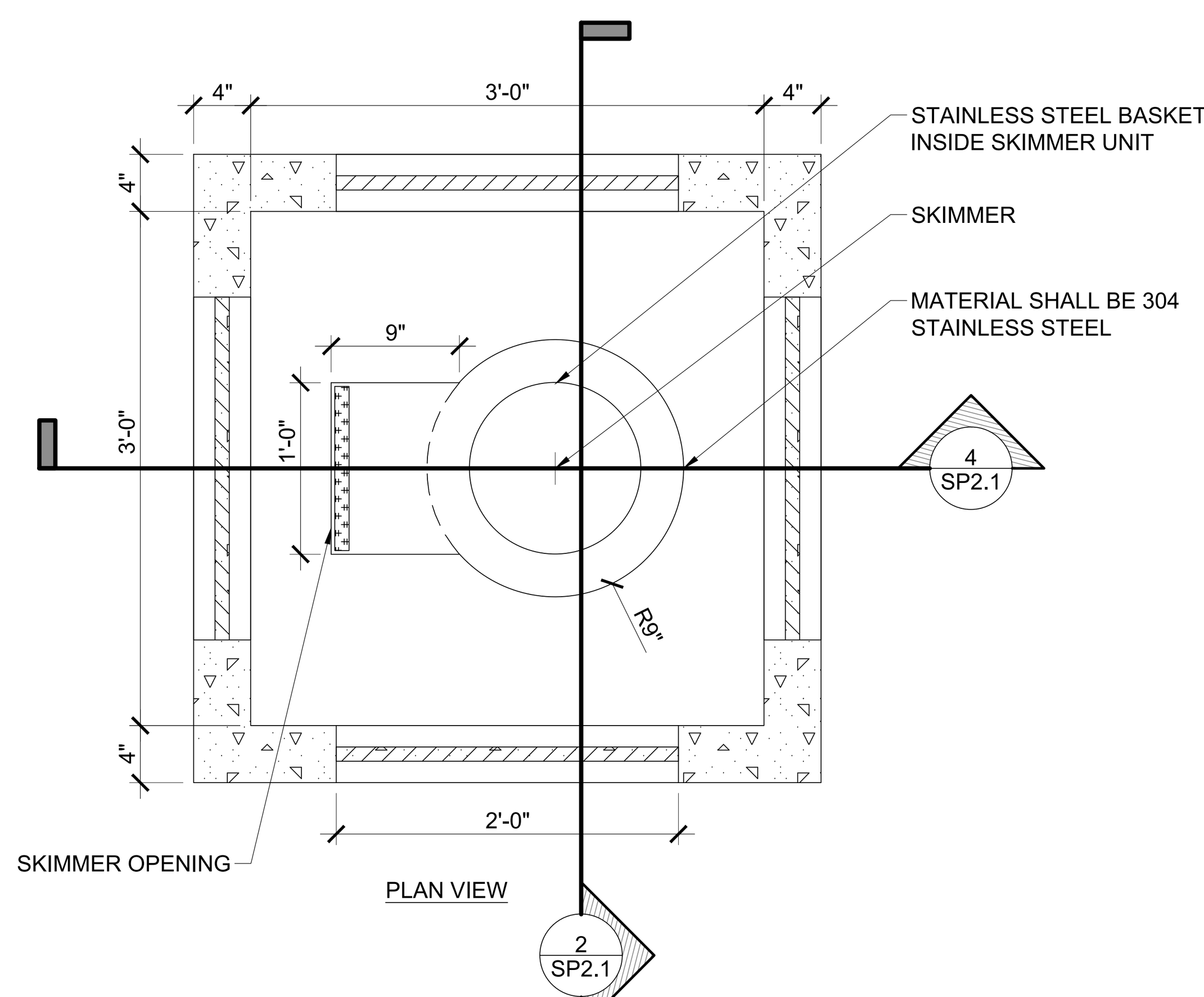
Drawing Title:

PROPOSED PIPING PLAN

Sheet Number:

SP-2.0

P:\MA_BostonOldServer\Aquatics\Arlington - Bathing Beach\CADART\0-Current_Set\Sheets\SP-2.0 PROPOSED PIPING PLAN.dwg



1 SKIMMER

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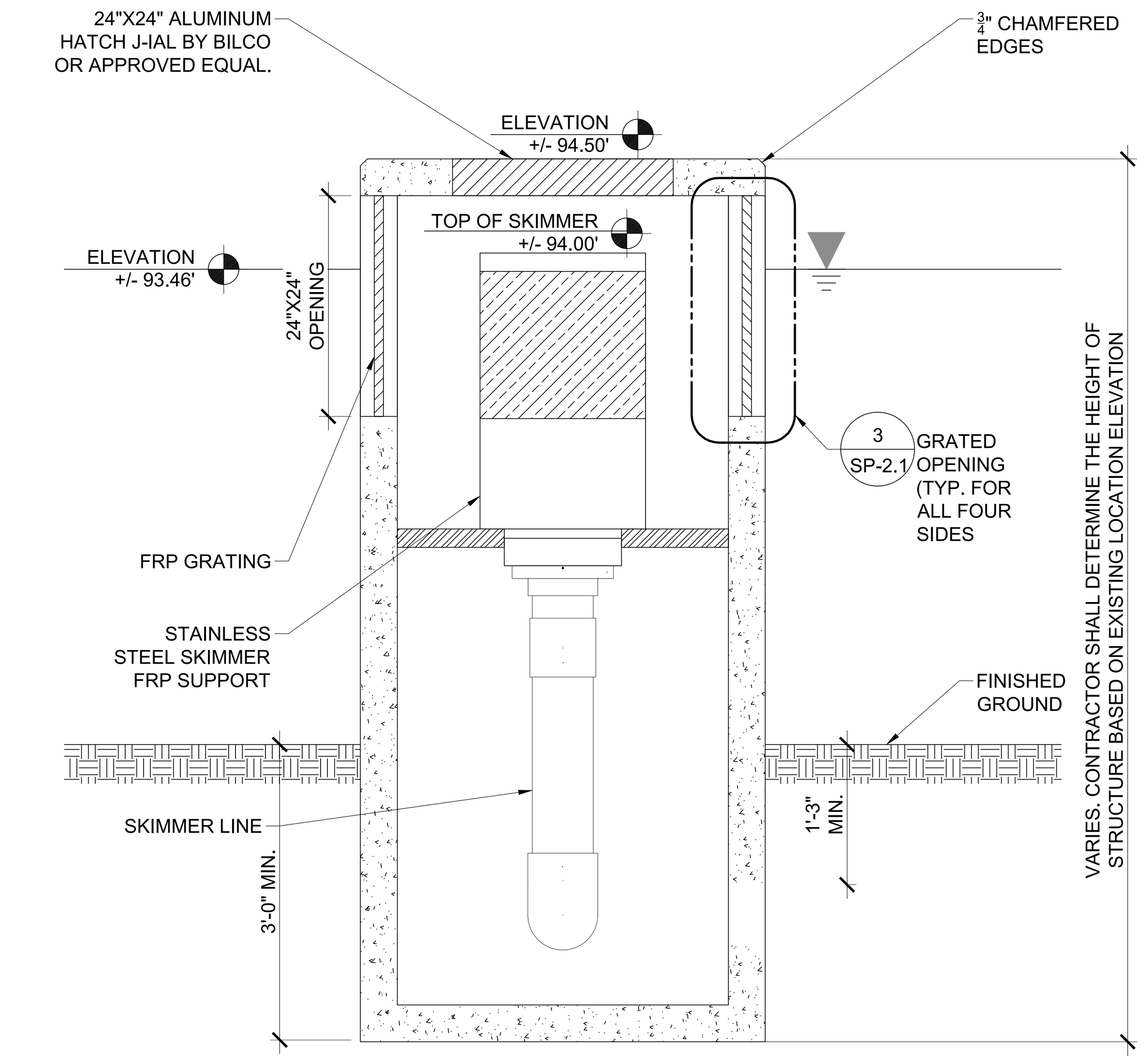

2 SKIMMER CROSS SECTION

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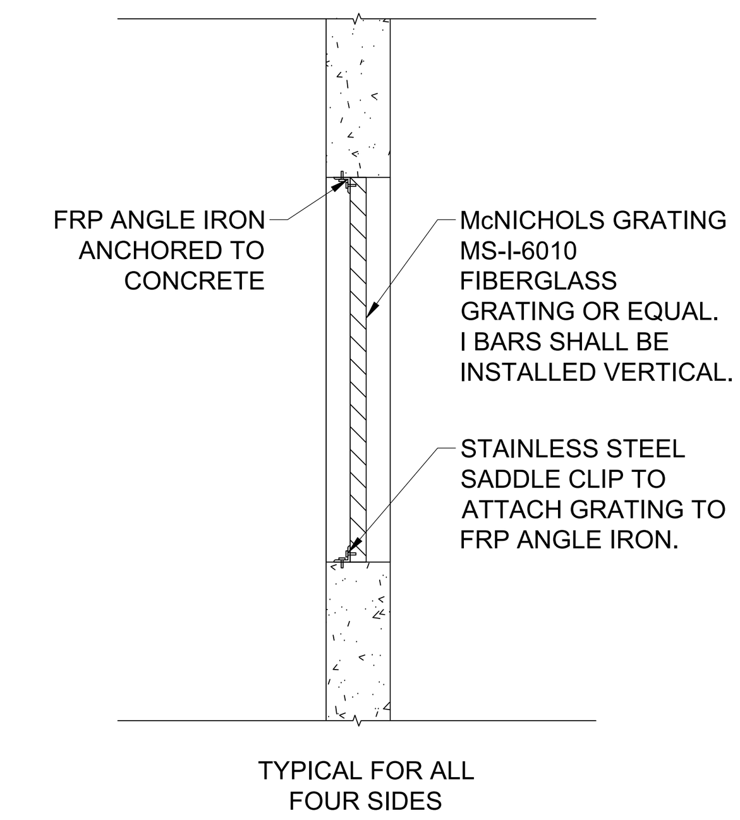
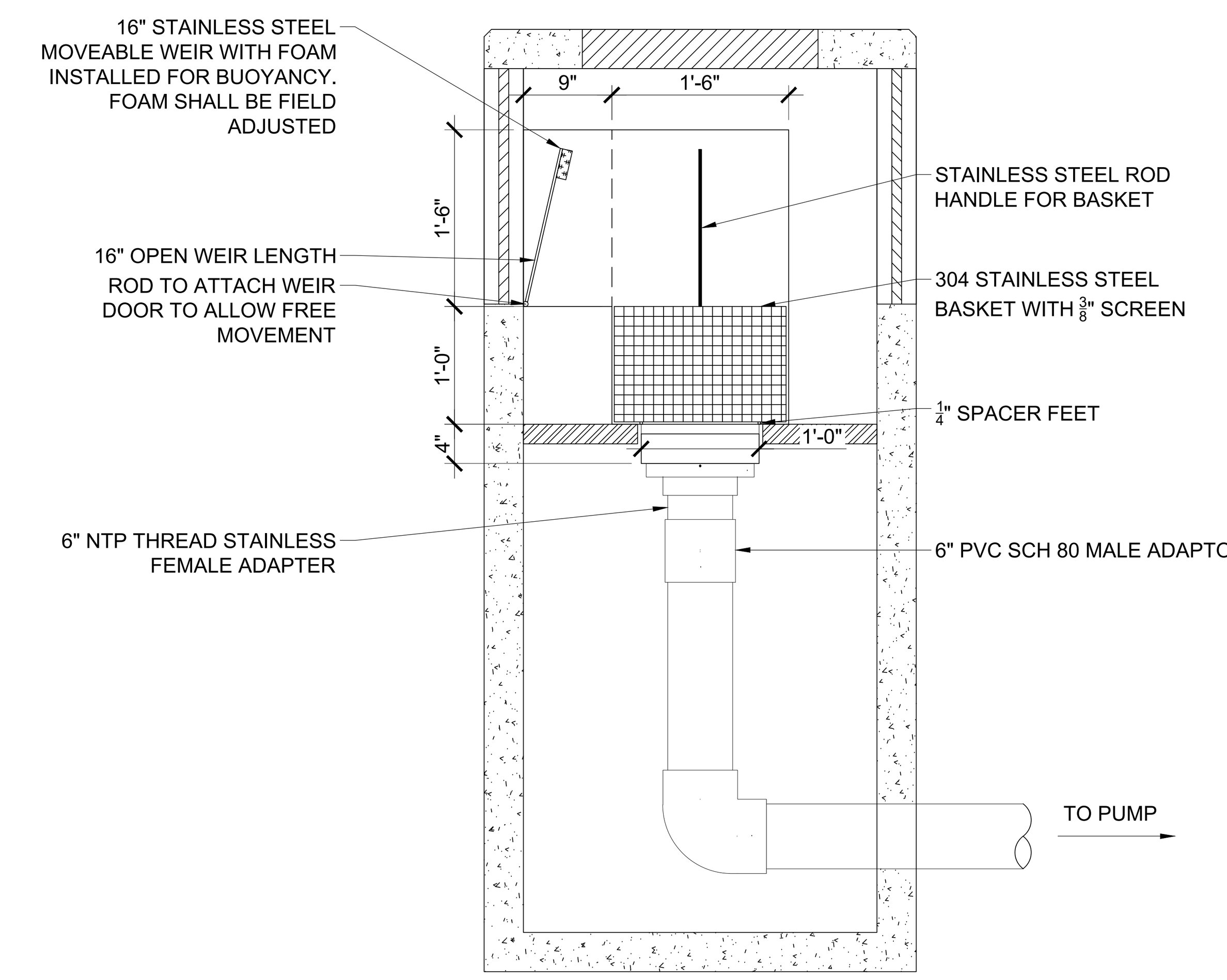


3 GRATED OPENING

SCALE: NOT TO SCALE



4 SKIMMER BASKET CROSS SECTION

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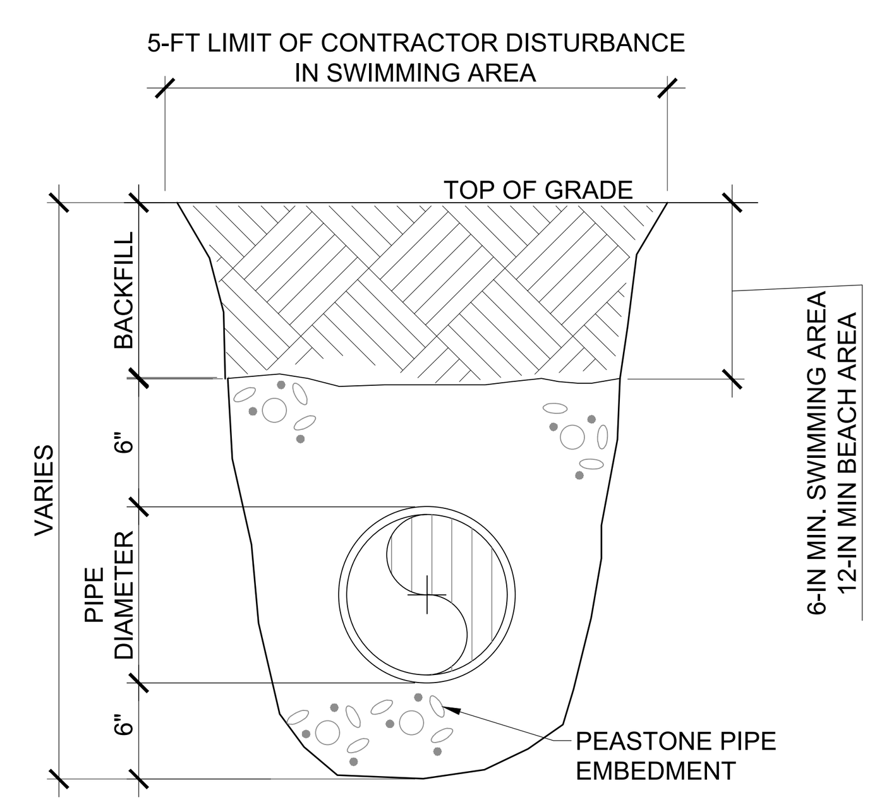
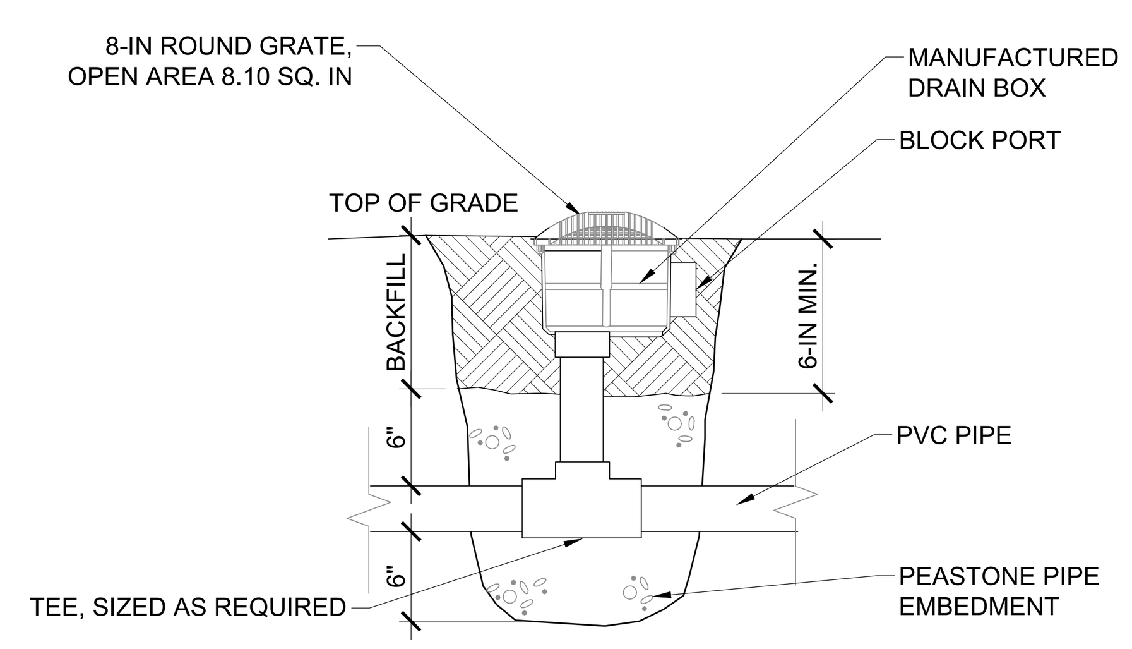


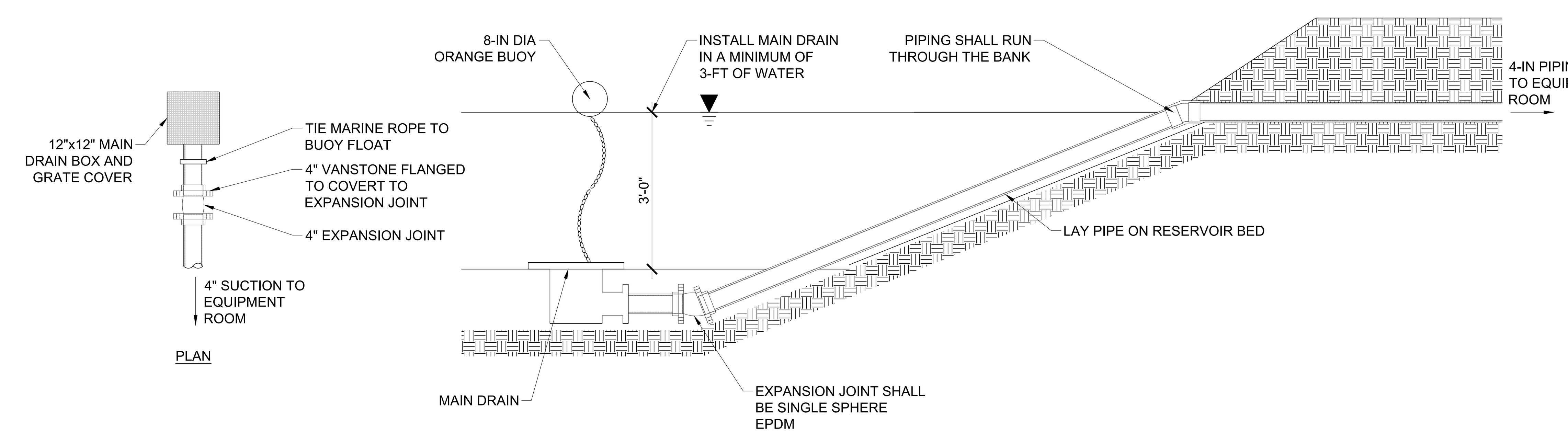
5 BURIED PIPE

SCALE: NOT TO SCALE



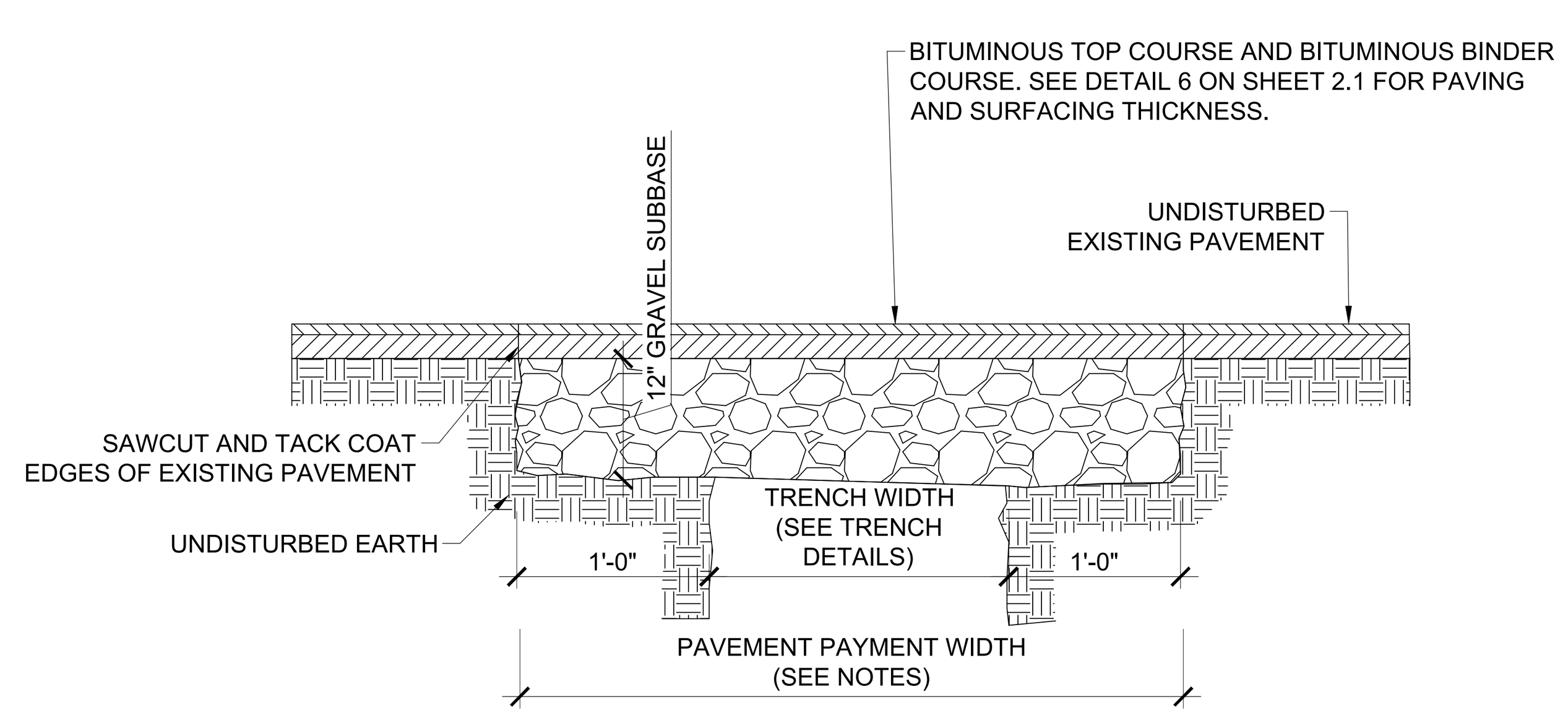
6 BOTTOM INLET

SCALE: NOT TO SCALE



7 FILL LINE

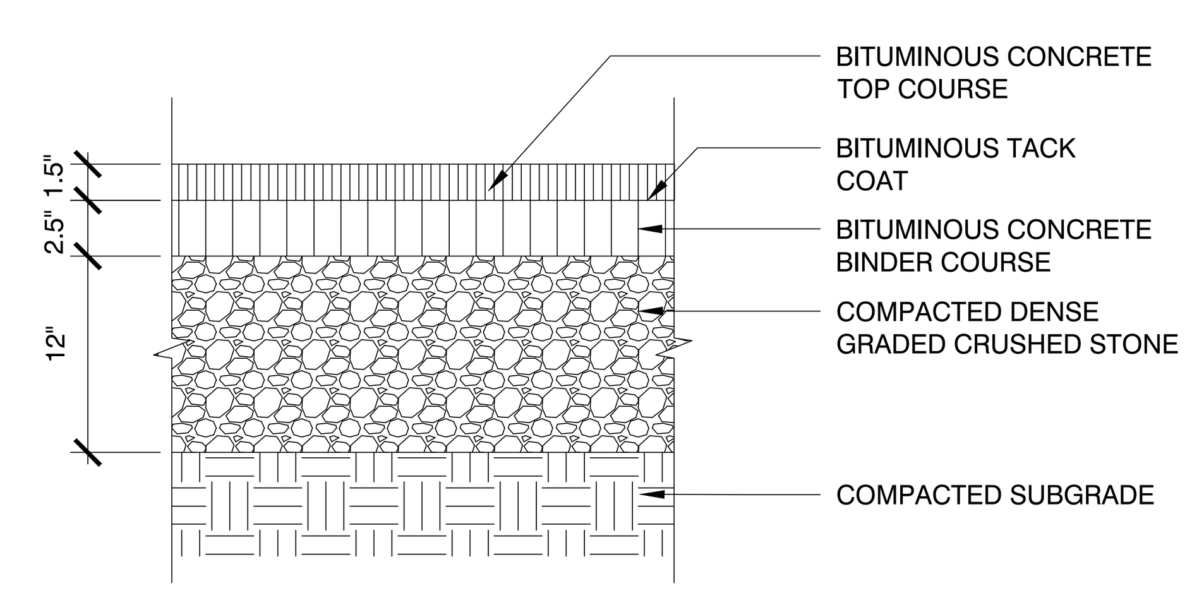
SCALE: NOT TO SCALE



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

8 TRENCH PAVEMENT DETAIL

SCALE: NOT TO SCALE



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

9 PAVEMENT

SCALE: NOT TO SCALE

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Project:

IMPROVEMENTS TO THE ARLINGTON RESERVOIR

210 LOWELL ST, ARLINGTON, MA 02474

Weston & Sampson
85 Devonshire Street, 3rd Floor, Boston, MA 02109
617-412-4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal: JEFFERY F. BUDROW CIVIL No. 35265 REGISTERED PROFESSIONAL ENGINEER

Issued For:

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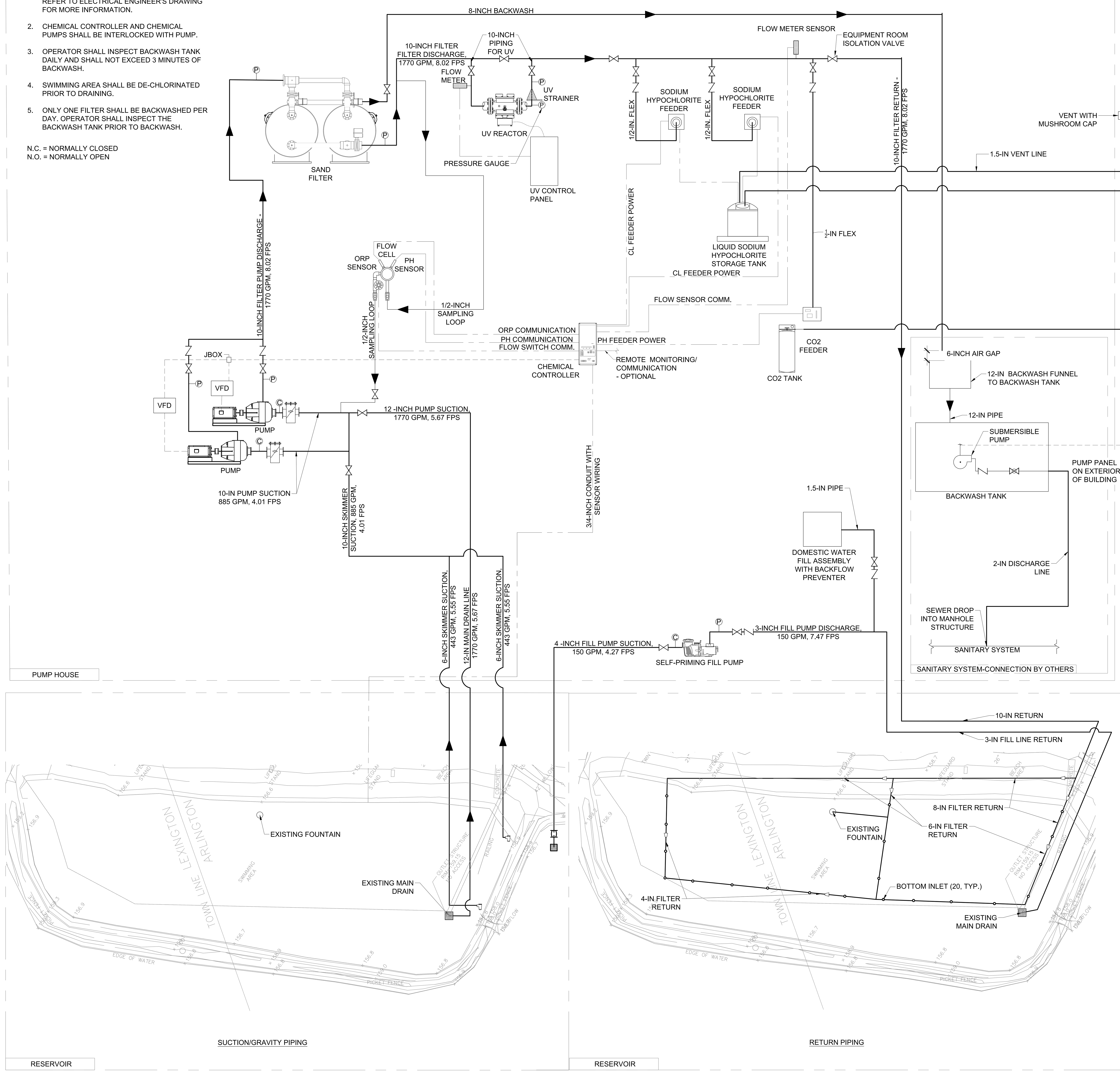
PROPOSED PIPING / SITE DETAILS

Sheet Number:

SP-2.1

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

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



SWIMMING AREA EQUIPMENT SCHEDULE

RECIRCULATION SYSTEM

MARK	QTY	ITEM	MANUFACTURER	CAT NO.	DESCRIPTION
1	2	MAIN DRAIN GRATE	AQUASTAR	24xxx	24-IN X 24-IN SQUARE GRATE COMPLY WITH ANSI/APSP 16-2011 AND NSF 50-2008 UNBLOCKABLE REQUIREMENTS. OPEN AREA PROVIDED 352 SQ. IN. PER ASSEMBLY. COLOR SELECTED BY OWNER
2	2	SKIMMER	CUSTOM	CUSTOM	316 STAINLESS STEEL CUSTOM SKIMMER. PROVIDE SPARE BASKET
3	20	INLETS	HAYWARD	WG1054AVPAK2	8-IN ROUND GRATE COMPLY WITH ANSI/APSP-16 MEET ALL CPSC REQUIREMENTS. OPEN AREA PROVIDED 8.10 SQ. IN. PER INLET. COLOR SELECTED BY OWNER.
4	1	MAIN DRAIN GRATE	EUREKA MANUFACTURING CO.	39-518	12-IN X 12-IN SQUARE GRATE AND SUMP COMPLY WITH ANSI/APSP 16-2011 AND NSF 50-2008 UNBLOCKABLE REQUIREMENTS.
5	1	BUOY	POLYFORM	A-SERIES	8-IN BUOY, ORANGE. CONTRACTOR SHALL SUPPLY 10-FT OF NYLON DOUBLE BRAID ROPE TO TIE BUOY TO MAIN DRAIN.

FILTER AREA MISCELLANEOUS EQUIPMENT

MARK	QTY	ITEM	MANUFACTURER	CAT NO.	DESCRIPTION
6	7	PRESSURE GAUGE	WEKSLER	UA25B4L	2-1/2-INCH DIA. FACE, 0-60 PSI
7	3	COMPOUND GAUGE	WEKSLER	UA25K4L	2-1/2-INCH DIA. FACE, 0-30 INCHES HG, 0-60 PSI
8	2	FLOW METER	GF SIGNET	2537	DIGITAL PADDLEWHEEL, 4-20mA SIGNAL CONNECT TO CHEMICAL CONTROLLER AND UV PANEL
9	1	EYE WASH STATION	HAWS	7500	16-GALLON CAPACITY PORTABLE EYE WASH STATION
10	1	SEWER INJECTOR PUMP	LIBERTY	LEH 103M	LEH 100 SERIES, 1 HP, 208V, 3 PHASE. SUBMERSIBLE PUMP WITH 3-IN DISCHARGE.
11	1	SEWER CONTROL PANEL	WEIL	SP1-SSC3B240	3 PHASE, 208V. SIMPLEX CONTROL PANEL WITH 3 MECHANICAL FLOAT SWITCHES. PANEL SHALL BE NEMA 3R OUTDOOR RATED WITH BEACON.

FILTRATION EQUIPMENT

MARK	QTY	ITEM	MANUFACTURER	CAT NO.	DESCRIPTION
12	2	FILTER PUMP	MARLOW	EL 6E2	30 HP, CENTRIFUGAL PUMP, 885 GPM AT 78 TDH, 208 VOLT, 3 PHASE.
13	1	FILL PUMP	PENTAIR	022018	XFK-12 WHISPERFLO SERIES 3 HP SELF-PRIMING WITH INTEGRAL STRAINER, 150 GPM AT 55 TDH, 3 PHASE, 208V. PROVIDE EXTRA STRAINER BASKET
14	2	STRAINER	NEPTUNE BENSON	150NBSTL10-M	4-IN STAINLESS STEEL STRAINER,PROVIDE SPARE STRAINER (2).
15	2	FILTER	NEPTUNE BENSON	60120SHFFG	HIGH RATE SAND FILTER, SCHEDULE 80 PVC PIPING. PROVIDE 60.8 SF FOR FILTER AREA. HEADER PIPING SHALL BE 8".
16	2	VFD	SCHNEIDER ELECTRIC	SFD212MG2WD 07	30 HP, 3 PHASE, 208V. NEMA 12 ENCLOSURE
17	1	BACKWASH PIT	SHEA	8X17-40	PREFABRICATED CONCRETE, 4,000 GALLON BACKWASH TANK WITH HATCH COVER

CHEMICAL EQUIPMENT

MARK	QTY	ITEM	MANUFACTURER	CAT NO.	DESCRIPTION
18	1	CHEMICAL CONTROLLER	HAYWARD	CAT5000	CHEMICAL CONTROLLER WITH OPTIONS OF FILTER PUMP CONTROL, FLOW MONITORING, ETHERNET/INTERNET, REMOTE CONTROL AND WATER LEVEL CONTROL.
19	2	CHEMICAL FEEDER	STENNER	85M5	SINGLE HEAD ADJUSTABLE OUTPUT METERING PERISTALTIC PUMP, 85 GALLONS PER DAY
20	1	CHLORINE TANK	ASSMAN	ICT 550	550 GALLON POLYETHYLENE VERTICAL STORAGE TANK
21	1	CO_2 FEEDER	HAYWARD	AC004	SINGLE TANK CARBON DIOXIDE FEEDER-20-200 SCFH
22	1	FILL STATION PANEL	CUSTOM	CUSTOM	NaCL FILL STATION CONTROL PANEL
23	1	CO_2 TANK	CARBO-MIZER	750	CARBON DIOXIDE BULK STORAGE TANK, 750 LBS WITH PRESSURE REGULATOR, AND EPOXY COATING, EXTERNAL REMOTE FILL BOX LOCATE PER ARCHITECT'S DRAWINGS AND PLUMBED TO TANK LOCATED ON FILTER ROOM PLAN. PROVIDE FILL KIT
24	1	UV	ETS	ECF-430 12 V	NEMA 12 CABINET- ULTRA VIOLET DISINFECTION WITH CONE STRAINER, 3 PHASE, 208V.

SYMBOL LEGEND

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

INLET LEGEND	GPM	QTY	OPEN AREA	VEL.
∘ BOTTOM INLET (FILTER)	88.5	20	0.05 SQ. FT.	3.94 FPS

RESERVOIR DATA CHART

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

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Consultants:

Revisions:

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COMMONWEALTH OF MASSACHUSETTS JEFFERY F BUDROW CIVIL No. 35265 REGISTERED PROFESSIONAL ENGINEER

Issued For:
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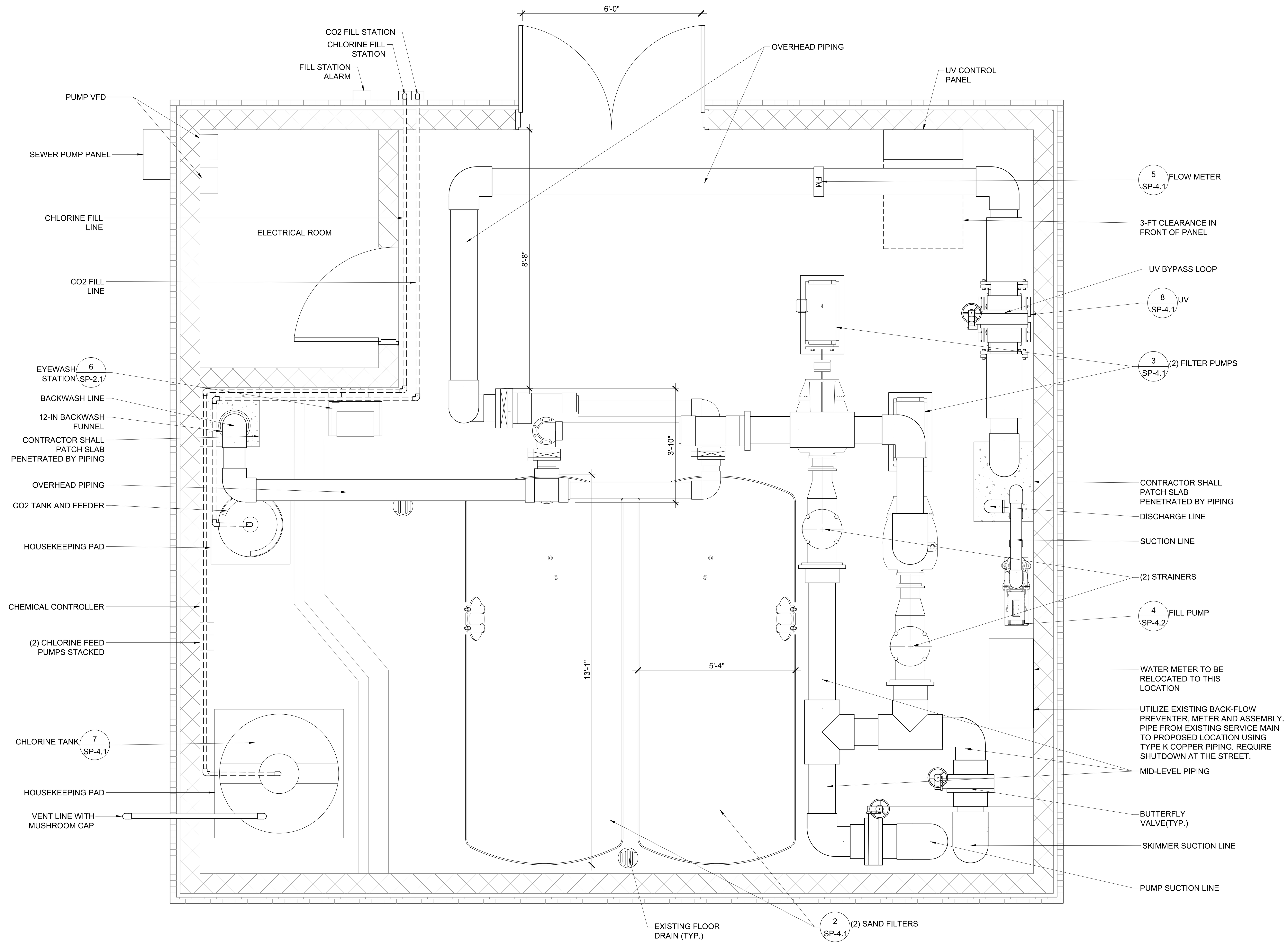
Drawing Title:
PIPING SCHEMATIC

Sheet Number:
SP-3.0



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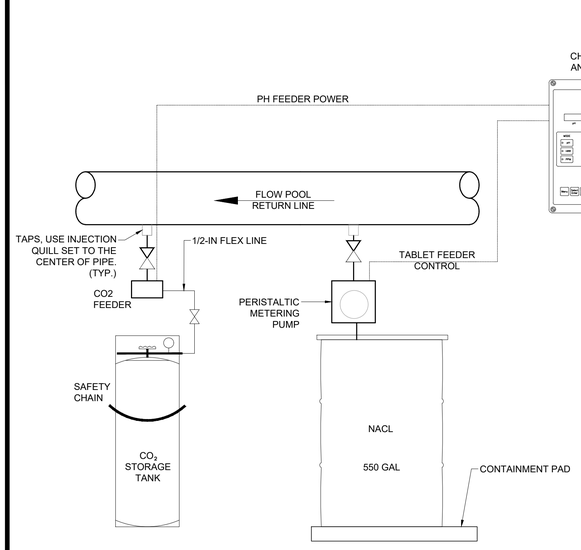
MECHANICAL ROOM RENOVATIONS

Sheet Number:

SP-4.0



1 CHEMICAL SCHEMATIC

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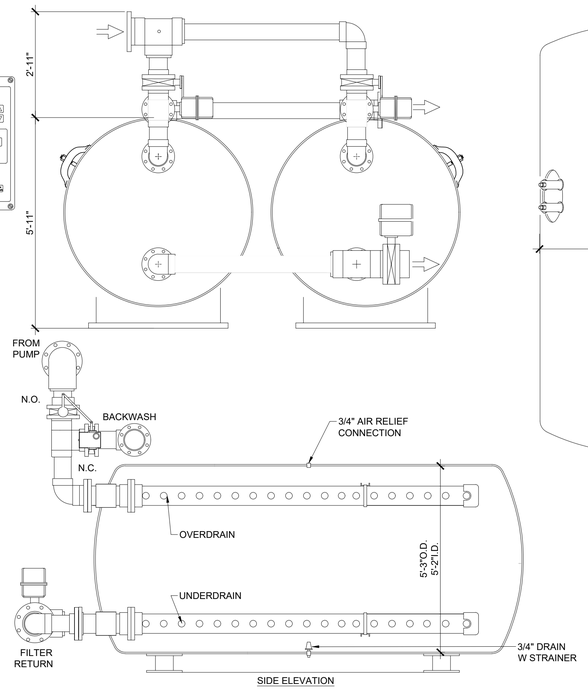
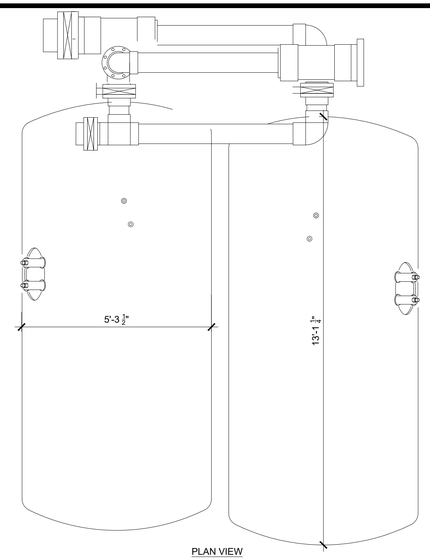


SIDE ELEVATION

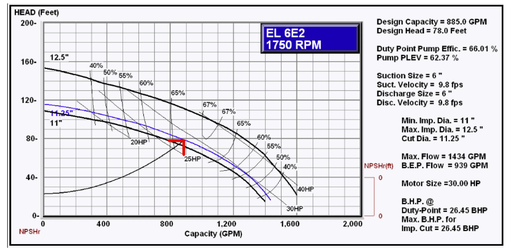


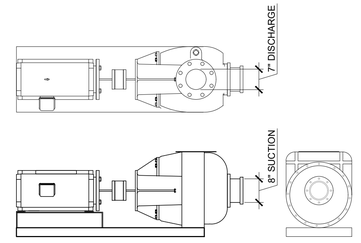
PLAN VIEW

2 SAND FILTER

SCALE: NOT TO SCALE

FILTER DATA
SYSTEM FLOWRATE = 1770 GPM FILTER AREA = 60.8 SQ.FT. TOTAL FILTER AREA = 121.6 SQ.FT. FILTRATION RATE = 14.56 GPM/SQ.FT.
SINGLE TANK BACKWASH BACKWASH FLOWRATE = 912 GPM
MEDIA REQUIRIMENTS
FILTER MEDIA = .45-.55mm SAND 95 CU.FT. PER TANK
GRAVEL 25 CU.FT. PER TANK





3 FILTER PUMP

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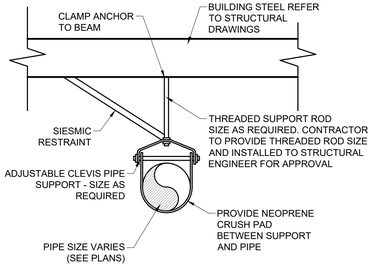

4 PIPE HANGER

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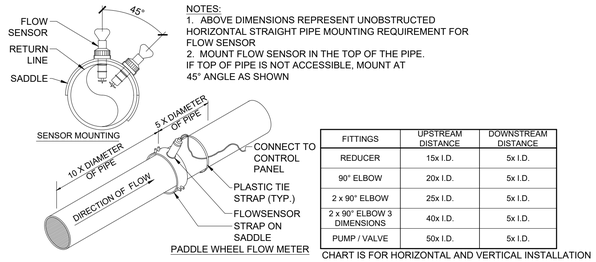


PADDLE WHEEL FLOW METER

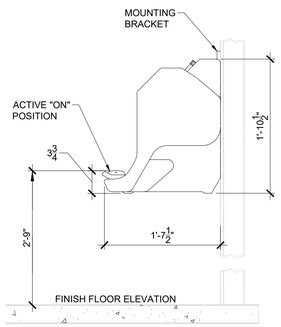
NOTES:
1. ABOVE DIMENSIONS REPRESENT UNOBSTRUCTED HORIZONTAL STRAIGHT PIPE MOUNTING REQUIREMENT FOR FLOW SENSOR
2. MOUNT FLOW SENSOR IN THE TOP OF THE PIPE. IF TOP OF PIPE IS NOT ACCESSIBLE, MOUNT AT 45° ANGLE AS SHOWN

FITTINGS	UPSTREAM DISTANCE	DOWNSTREAM DISTANCE
REDUCER	15x I.D.	5x I.D.
90° ELBOW	20x I.D.	5x I.D.
2 x 90° ELBOW	25x I.D.	5x I.D.
2 x 90° ELBOW 3 DIMENSIONS	40x I.D.	5x I.D.
PUMP / VALVE	50x I.D.	5x I.D.

CHART IS FOR HORIZONTAL AND VERTICAL INSTALLATION

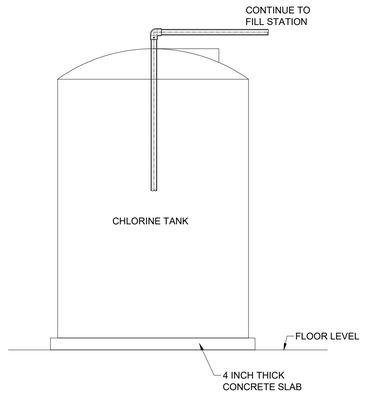
5 FLOW METER

SCALE: NOT TO SCALE



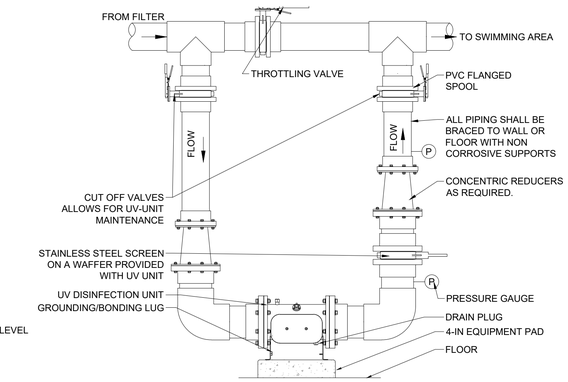
6 EYEWASH STATION

SCALE: NOT TO SCALE



7 CHLORINE TANK

SCALE: NOT TO SCALE



UV UNIT INSTALLATION ELEVATION

8 UV

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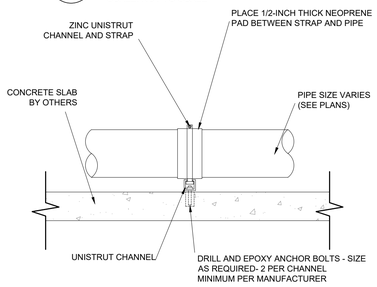

9 WALL AND FLOOR SUPPORTS

SCALE: NOT TO SCALE

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MECHANICAL ROOM DETAILS

Sheet Number:

SP-4.1

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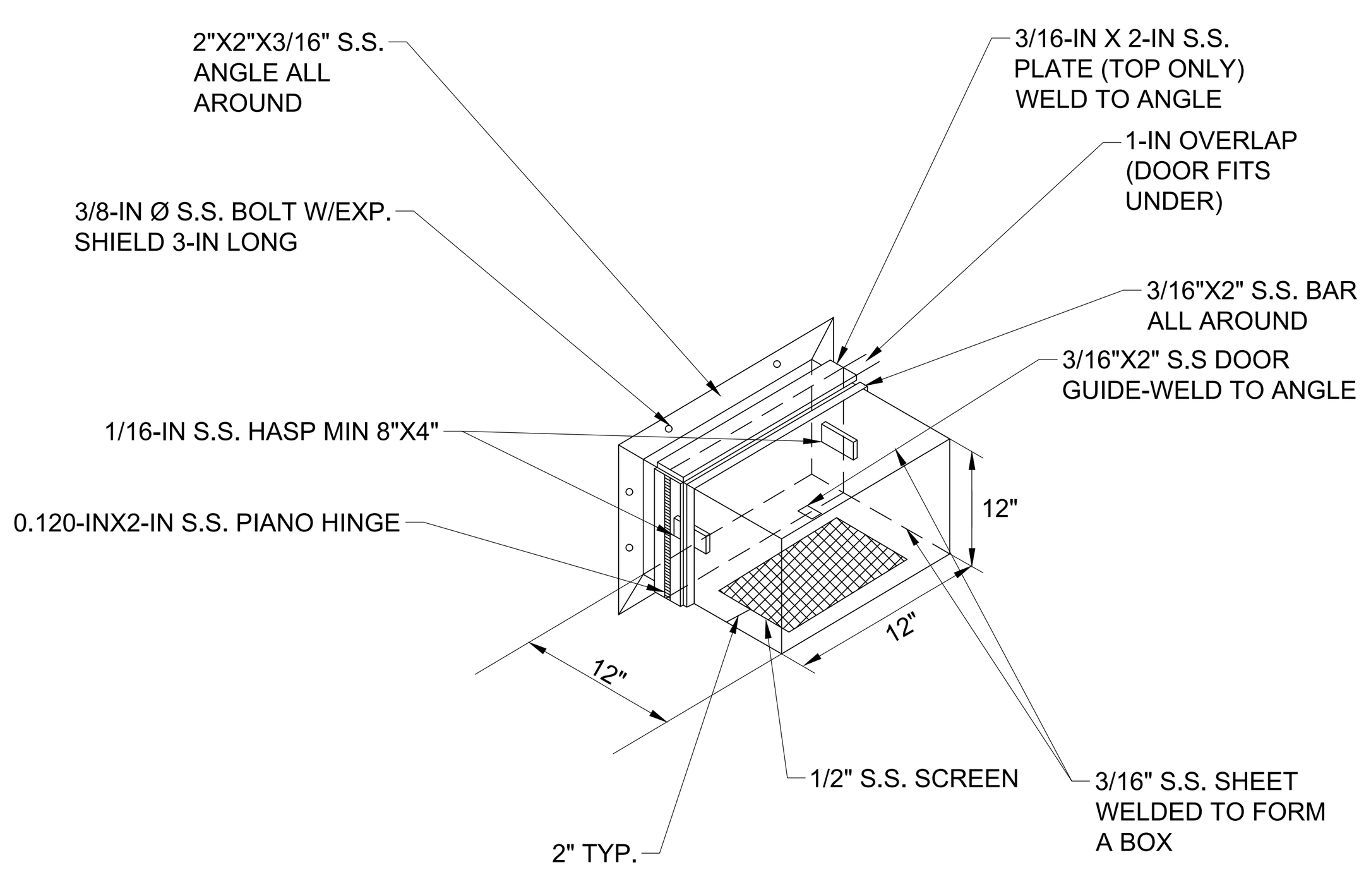
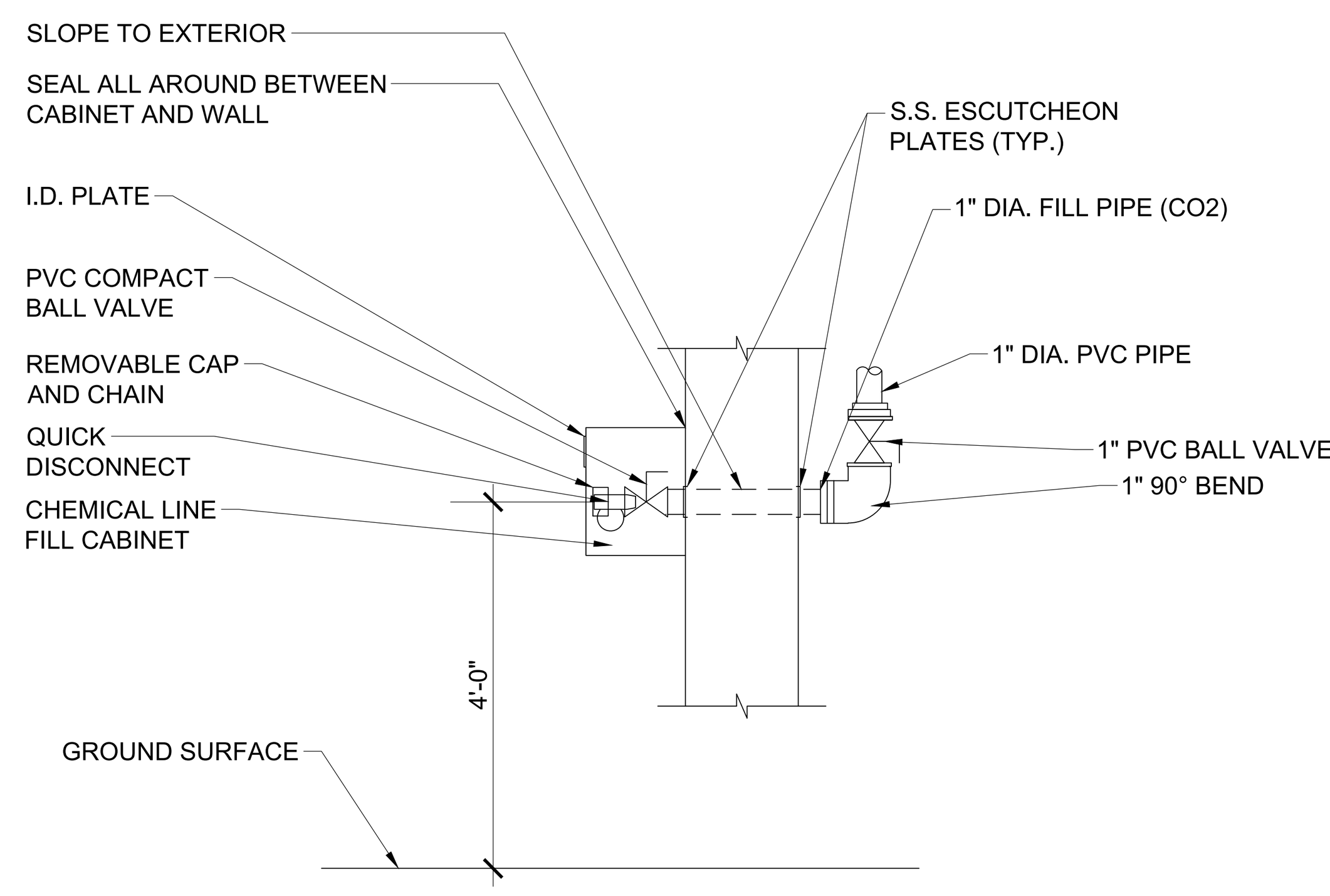


1 CHEMICAL FILL CABINET

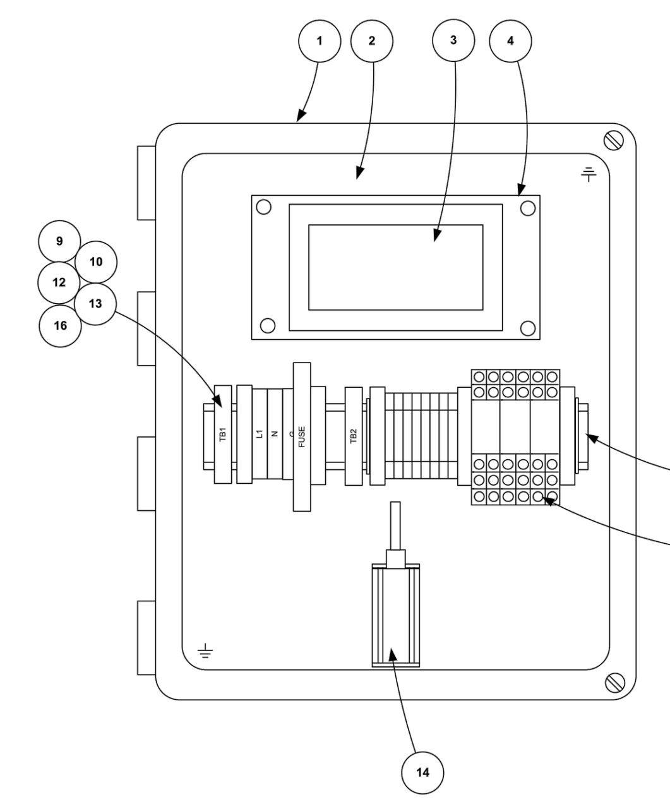
SCALE: NOT TO SCALE



NOTES:
1. ALL STAINLESS STEEL MATERIALS ARE 316 SERIES.
2. MOUNTED FLUSH TO BUILDING WALL ELASTOMETRIC SEAL CONTACT JOINTS.

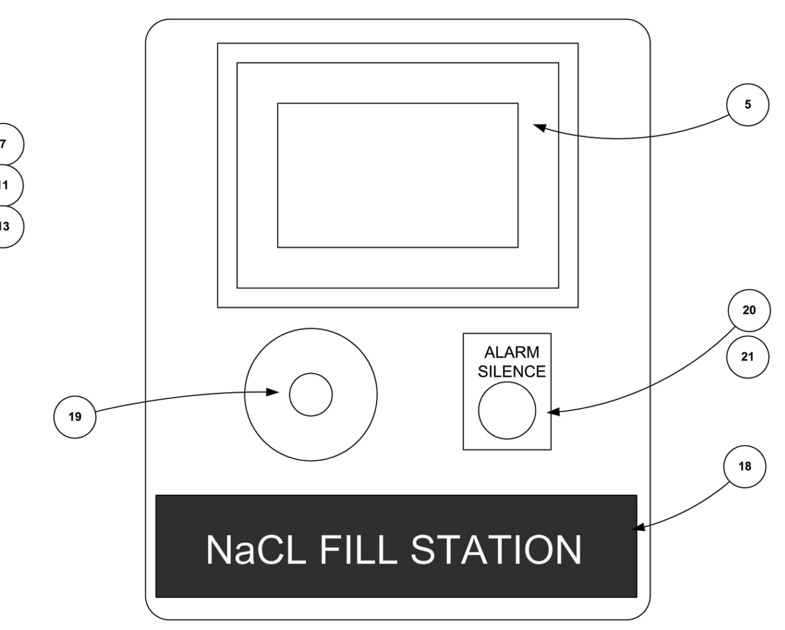
2 CHEMICAL FILL STATION

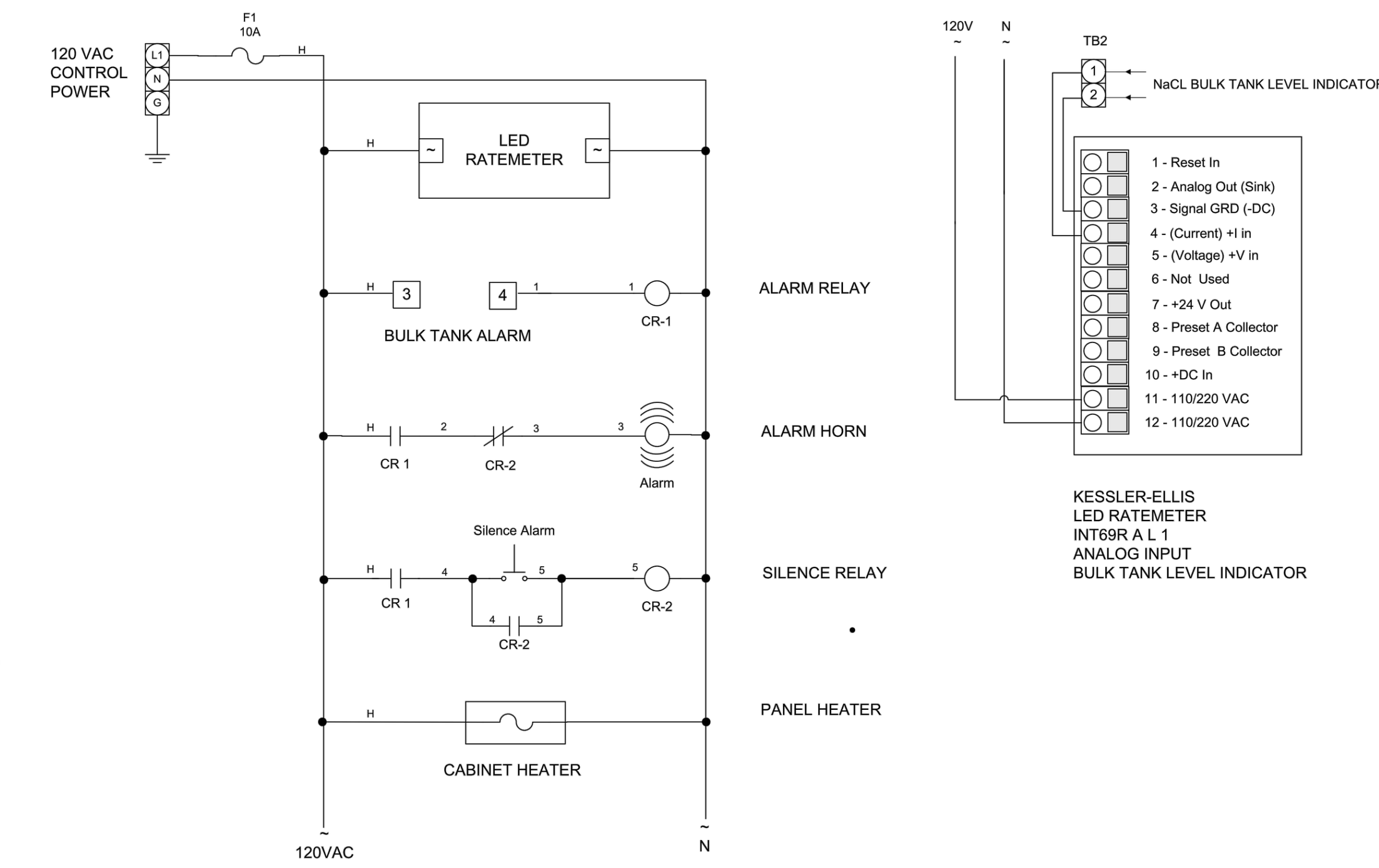
SCALE: NOT TO SCALE



PANEL SHALL BE NEMA 3R RATED IF INSTALLED OUTSIDE.

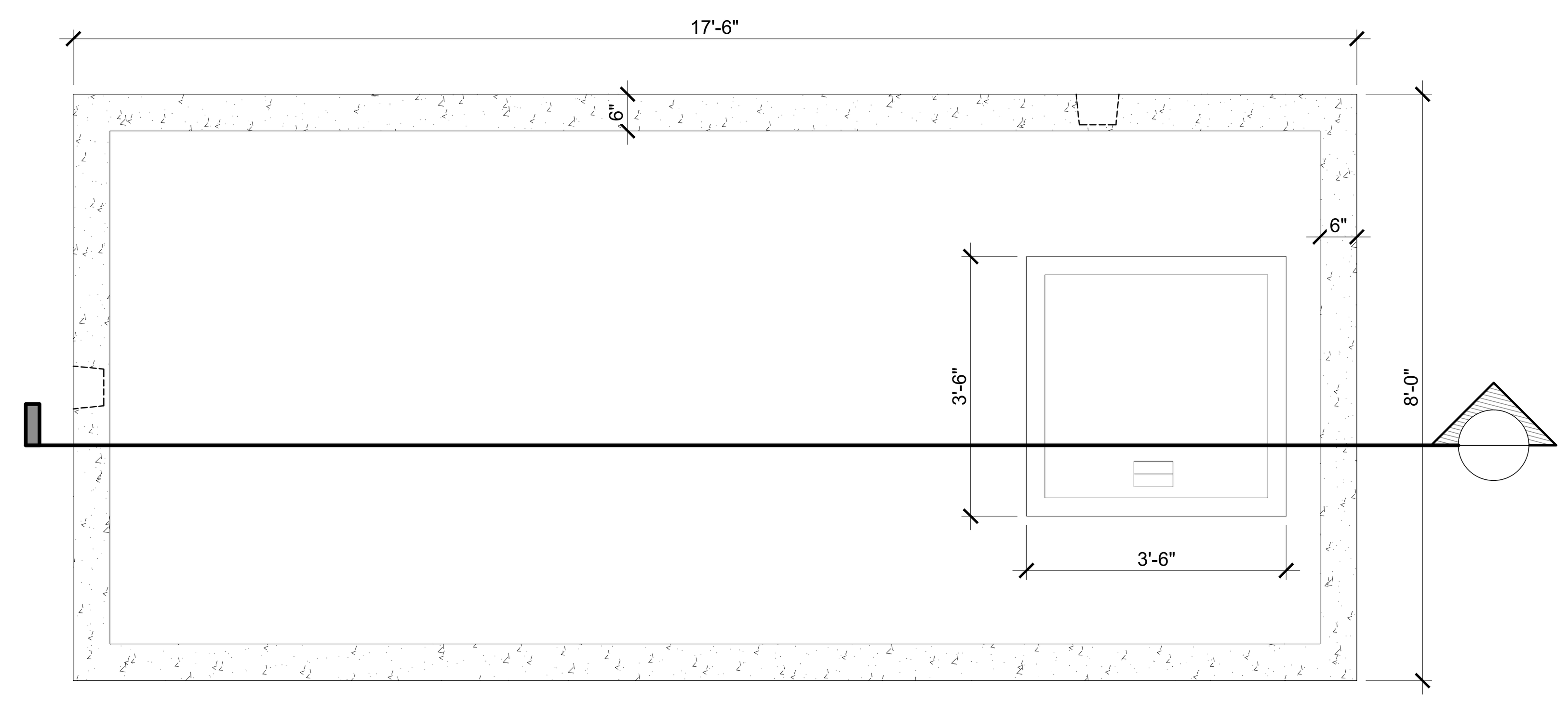
ITEM	QTY	PART NUMBER	DESCRIPTION	MANUFACTURER
1	1	A-12106CHQRFG	ENCLOSURE NEMA 4X 12"X10"X6"	HOFFMAN
2	1	A-12P10	BACKPANEL	HOFFMAN
3	1	INT69R A L 1	LED RATEMETER NEMA 4X	KESSLER-ELLIS
4	1		MOUNTING PLATE FOR RATEMETER	
5	1	A-PWK53NFSS	STAINLESS WINDOW KIT 5"X3"	HOFFMAN
6	2	700-HK3232A1	TYPE HK SLIM LINE RELAY	ALLEN-BRADLEY
7	2	700-HN122	TYPE HN SCREW TERMINAL SOCKET	ALLEN-BRADLEY
8	6	UT2.5 3044076	STANDARD TERMINAL BLOCKS	PHOENIX
9	2	UT 6 3044131	STANDARD TERMINAL BLOCKS	PHOENIX
10	1	UT 6PE 3044157	STANDARD GROUNDING TERMINAL	PHOENIX
11	2	D-UT 2.5/10 3047028	PARTITION PLATE	PHOENIX
12	4	V7 ER35	END ANCHORS	S & S
13	2	V7 GM35	GROUP MARKER	S & S
14	1	D-AH101	10W CONTROL PANEL HEATER	HOFFMAN
15	A/R		RAISED DIN RAIL	BEST SOURCE
16	1	1492-H6	FUSE BLOCK	ALLEN-BRADLEY
17	A/R	1492-N37	END BARRIER	ALLEN-BRADLEY
18	2		NAMEPLATE, 1" X 3" 3/4" LETTERING	
19	1	855P-B-10-LEM-22	100dB 115V ENCLOSED ALARM	ALLEN-BRADLEY
20	1	800HR2D2	MOMENTARY CONTACT PUSH BUTTON N.C	ALLEN-BRADLEY
21	1	800-W100J	PUSH BUTTON LEGEND PLATE	ALLEN-BRADLEY
22				



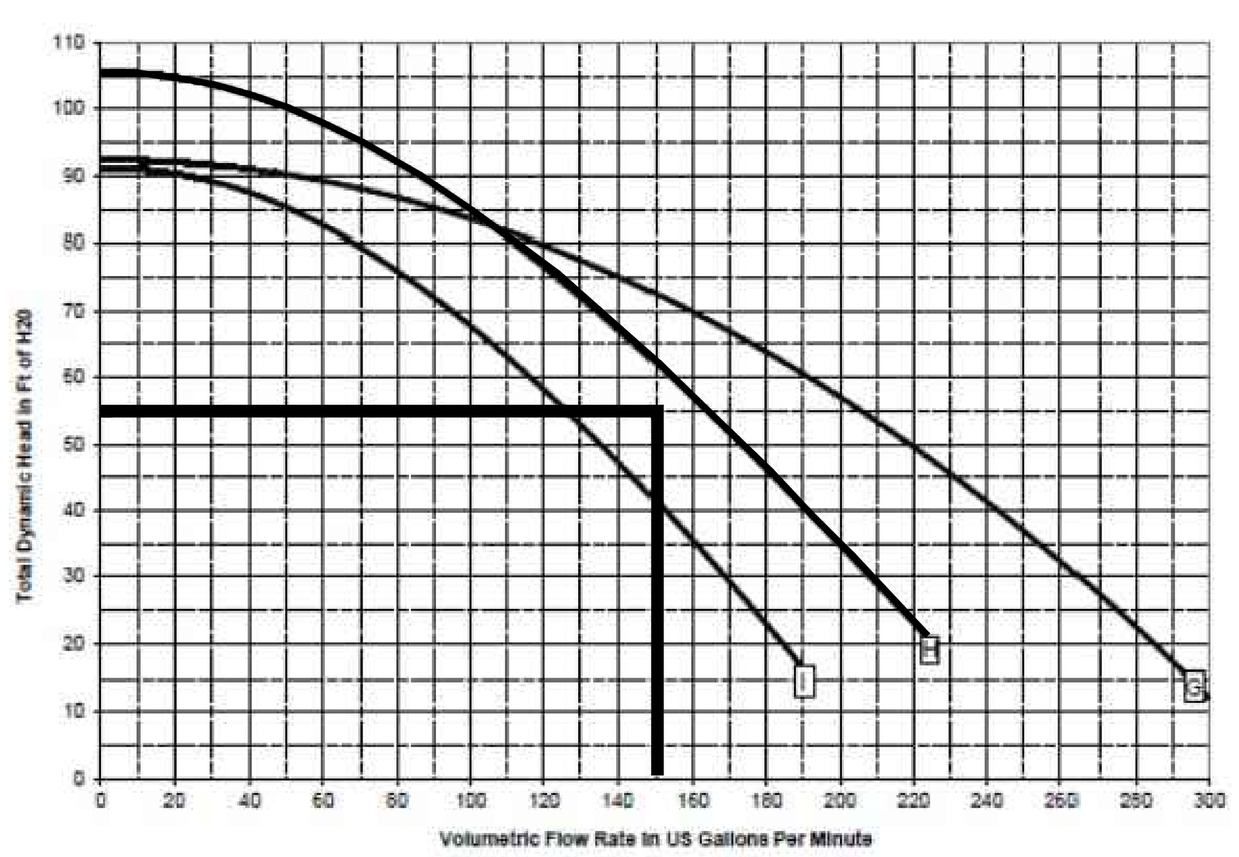


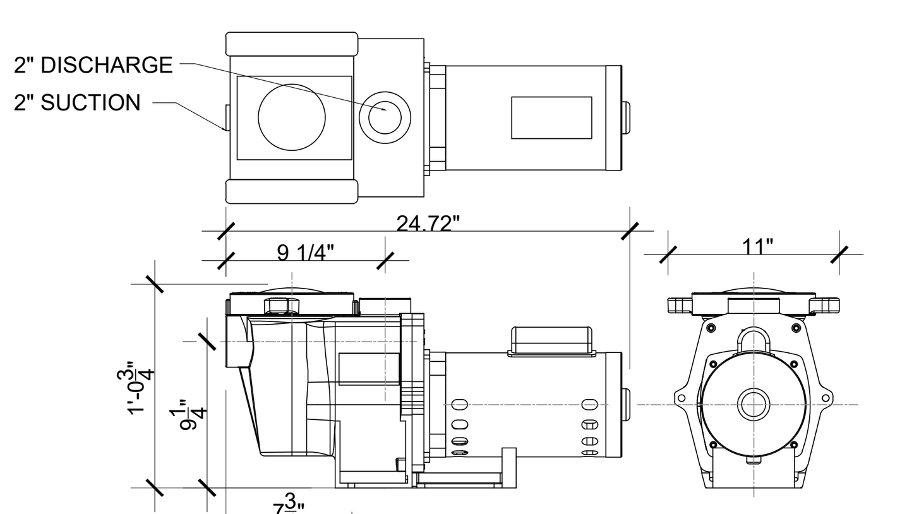
3 EXTERNAL CHEMICAL FILL STATION CONTROL PANEL

SCALE: NOT TO SCALE



PLAN VIEW

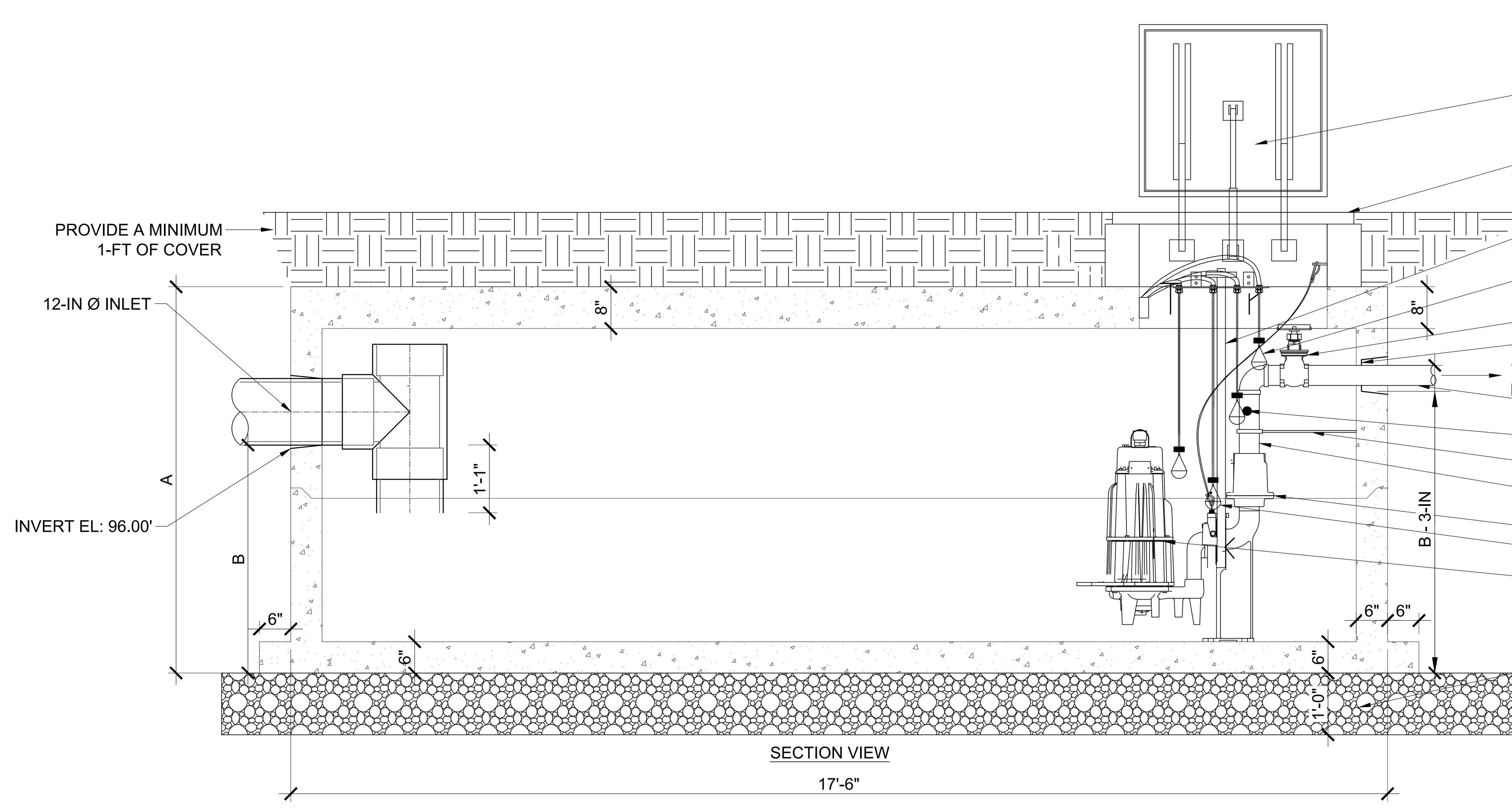




PUMP		MOTOR				FPT SIZE	
MODEL	SERIES	RPM	HP	VOLT	PHASE	SUC.	DISCH.
XFK-12	WHISPERFLO	3450	3	208	3	2	2

4 FILL PUMP

SCALE: NOT TO SCALE

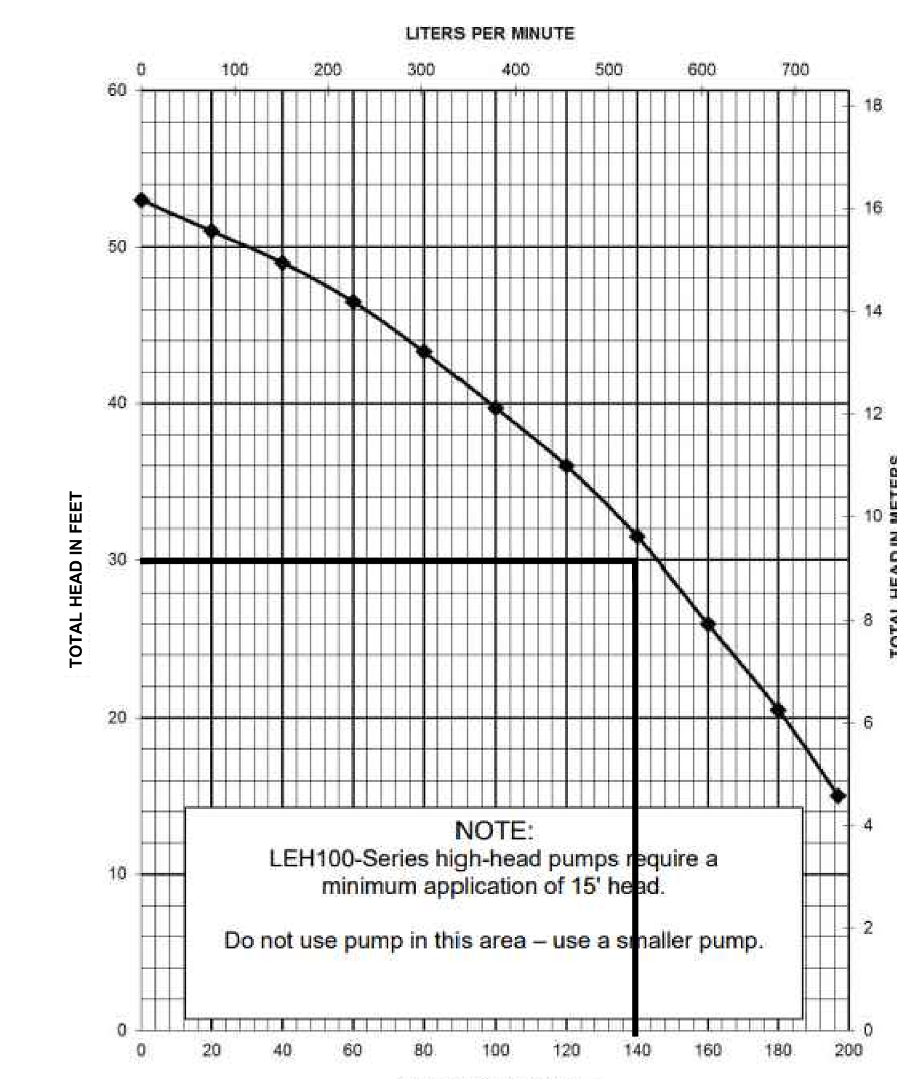


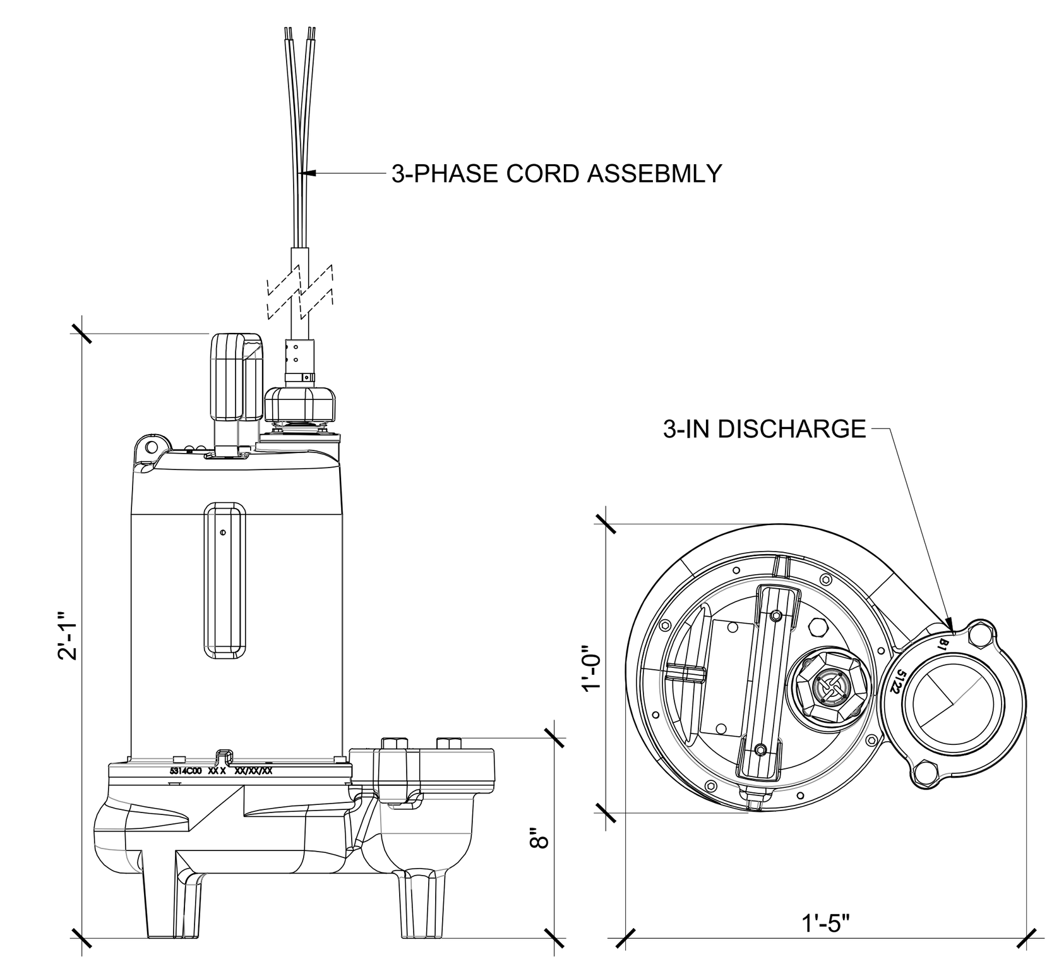
CONTROL PANEL SHALL BE MOUNTED ON EXTERIOR WALL OF PUMP HOUSE BUILDING.

GALLONS	A (HEIGHT)	B (INLET)	WEIGHT (LBS)	ITEM NO.
4,000	84"	68"	48,346	8X17-40

5 BACKWASH TANK

SCALE: NOT TO SCALE





6 SEWER PUMP

SCALE: NOT TO SCALE

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

Project:

IMPROVEMENTS TO THE ARLINGTON RESERVOIR

210 LOWELL ST, ARLINGTON, MA 02474

Weston & Sampson

85 Devonshire Street, 3rd Floor, Boston, MA 02109
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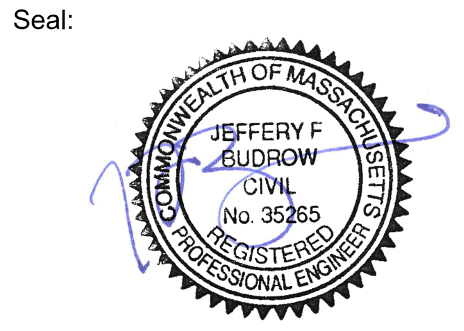
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:



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Date:	05/29/2019
Drawn By:	MES
Reviewed By:	SMB
Approved By:	JFB
W&S Project No:	2180615
W&S File No:	

Drawing Title:

MECHANICAL ROOM DETAILS (CONT.)

Sheet Number:

SP-4.2

ABBREVIATIONS:

A	
A/C	AIR CONDITION
AC	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ANC BLT	ANCHOR BOLT
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECT
ARGB	ABUSE RESISTANT GYPSUM BOARD
ASPH	ASPHALT
AVB	AIR VAPOR BARRIER
B	
BC	BASE CABINET
BD	BOARD
BF	BRACE FRAME
BITUM	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCH MARK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STEEL
BOTT	BOTTOM
BPL	BEARING PLATE
BRG	BEARING
BRK	BRICK
BS	BRICK SHELF
BSMT	BASEMENT
BVL	BEVELED
C	
CAB	CABINET
CB	CEMENT BOARD / CATCH BASIN
CDM	CAVITY DRAINAGE MATERIAL
CF	CUBIC FEET
CH	CEILING HEIGHT
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CL	CENTER LINE / COLUMN LINE
CL	CLOSET / CHAIN LINK
CLG	CEILING
CLOS	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
CO	CASED OPENING
COL	COLUMN
COMP	COMPOSITION
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTC	CONTRACTOR
CONV	CONVECTOR
COORD	COORDINATE
CORR	CORRIDOR
CPET	COMMON PATH OF EGRESS TRAVEL
CPT	CARPET
CT	CERAMIC TILE
CTR	CENTER
CW	COLD WATER
CWT	CERAMIC WALL TILE
CY	CUBIC YARD
D	
D	DRYER
D-PART	DEMOUNTABLE PARTITION
DBL	DOUBLE
DEMO	DEMOLITION
DF	DRINKING FOUNTAIN
DH	DOUBLE HUNG
DI	DRAIN INLET
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DL	DRAIN LEADER
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DTL	DETAIL
DW	DISHWASHER
DWG	DRAWING
E	
EA	EACH
EF	EACH FACE
EIFS	EXTERIOR INSULATED FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
EOC	EDGE OF CONCRETE
EP	ELECTRICAL PANEL
EQ	EQUAL
EQUIP	EQUIPMENT
ER	EXISTING TO REMAIN
ES	EXPOSED STRUCTURE
EW	EACH WAY
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR

F	
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FAK	FIRST AID KIT
FB	FIRE BLANKET
FC	FILE CABINET
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FG	FIBERGLASS
FIN	FINISH
FLASH	FLASHING
FLR	FLOOR
FLUOR	FLUORESCENT
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOUND	FOUNDATION
FP	FIREPROOF(ING)
FR	FIRE RETARDANT
FRP	FIBERGLASS REINFORCED WALL PANEL
FRTW	FIRE RETARDANT TREATED WOOD
FSB	FILED SUB BID
FT	FEET
FTG	FOOTING
FUR	FURRING
G	
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GDRL	GUARD RAIL
GL	GLASS
GLAZ	GLAZED BLOCK
GLB	GLASS BLOCK
GN	GOOSENECK
GRT	GROUT
GWB	GYPSUM WALL BOARD
H	
HB	HOSE BIB
HC	HANDICAP
HD	HEAVY DUTY
HDWR	HARDWARE
HM	HOLLOW METAL
HOR	HORIZONTAL
HP	HIGH POINT
HT	HEIGHT
HTR	HEATER
HVAC	HEATING, VENTILATING, & AIR CONDITIONING
HW	HOT WATER
I	
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDED
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
IRGWB	IMPACT-RESISTANT GWB
J	
JAN	JANITOR
JST	JOIST
JT	JOINT
K	
KD	KNOCK-DOWN
KIP	1,000 LBS
KO	KNOCKOUT
KPLT	KICKPLATE
L	
L	LENGTH
LAM	LAMINATE
LAV	LAVATORY
LBL	LABEL
LC	LEAD COATED
LCC	LEAD COATED COPPER
LGMF	LIGHT-GAUGE METAL FRAMING
LIN	LINOLEUM
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
LSC	LIFE SAFETY CODE
LT	LIGHT
M	
M	METER
MANUF	MANUFACTURER
MAS	MASONRY
MAT	MATERIAL
MAX	MAXIMUM
MB	MOSITURE BARRIER
MBL	MARBLE
MBR	MEMBER
MC	MEDICINE CABINET
MDF	MEDIUM DENSITY FIBERBOARD
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE

MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
ML	MATCH LINE
MLDG	MOULDING
MO	MASONRY OPENING
MOD	MODULAR
MR	MOISTURE RESISTANT
MRGB	MOISTURE RESISTANT GYPSUM BOARD
MS	METAL STUD
MTD	MOUNTED
MTL	METAL
MTP	METAL TOILET PARTITION
N	
N/A	NOT APPLICABLE
NAT	NATURAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
NUM	NUMBER
NW	NEW
O	
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD DOOR
OPNG	OPENING
OPP	OPPOSITE
OPPHAND	OPPOSITE HAND
OSB	ORIENTED STRAND BOARD
OTS	OPEN TO STRUCTURE
OW	OPERABLE WALL
OZ	OUNCE
P	
PART BD	PARTICLE BOARD
PAV	PAVING
PCP	PRECAST CONCRETE PLANK
PERIM	PERIMETER
PL	PROPERTY LINE / PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTIC
PLY	PLYWOOD
PMJF	PREMOLDED JOINT FILLER
PNT	PAINT
PR	PAIR
PREFIN	PREFINISHED
PRFB	POURED RESIN FLOOR BASE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PTD	PAINTED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
Q	
QT	QUARRY TILE
R	
R	RISER
R & D	REMOVE & DISPOSE
R & R	REMOVE AND REPLACE
R & S	REMOVE AND SALVAGE
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFRIGERATOR
REFURB	REFURBISH
REINF	REINFORCEMENT
RELOC	RELOCATED
REM	REMOTE
REQ'D	REQUIRED
RES	RESILIENT
REV	REVISION
RFG	ROOFING
RFI	RIGID FOAM INSULATION
RFS	RESINOUS FLOOR SYSTEM
RH	RIGHT HAND
RL	ROOF LADDER
RM	RUBBER MAT
RM	ROOM
RO	ROUGH OPENING
RT	RUBBER TILE
RTU	ROOF TOP UNIT
RUB	RUBBER
S	
S	SEALANT
S.L.	STRUCTURAL LINE
SACI	SPRAY-APPLIED CELLULOSE INSULATION
SACP	SECURITY ALARM CONTROL PANEL
SAFI	SPRAY-APPLIED FOAM INSULATION
SCHED	SCHEDULE
SCR	SHOWER CURTAIN ROD
SCW	SOLID CORE WOOD
SD	SOAP DISPENSER
SECT	SECTION
SF	SQUARE FEET
SH	SINGLE HUNG
SHR	SHOWER
SIM	SIMILAR
SND	SANITARY NAPKIN DISPENSER
SNV	SANITARY NAPIKIN VENDOR
SOLSUR	SOLID SURFACE (COUNTER)

SPC	SPECIAL
SPEC	SPECIFICATION
SQ	SQUARE
SR	SHEET RUBBER
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURE or STRUCTURAL
SUSP	SUSPENDED or SUSPENSION
SV	SHEET VINYL
SYS	SYSTEM(S)
T	
T & B	TOP AND BOTTOM
T & G	TONGUE AND GROOVE
TB	TRASH BARREL
TBA	TO BE ABANDONED
TBB	TILE BACKER BOARD
TBD	TO BE DETERMINED
TBOC	TOP BACK OF CURB
TEL	TELEPHONE
TEMP	TEMPORARY
THK	THICK(NESS)
THRESH	THRESHOLD
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOL	TOP OF LANDING
TOP	TOP OF PLATE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TP	TRANSLUCENT PANEL
TR	TREAD
TS	TUBULAR STEEL
TTD	TOILET TISSUE DISPENSER
TW	TO WEATHER
TYP	TYPICAL
U	
UC	UNDERCUT
UG	UNDERGROUND
UND	UNDERSIDE (OF DECK)
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UV	UNIT VENTILATOR
V	
VB	VINYL BASE / VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VPD	VENEER PLASTER BASE
VS	VENT STACK
VT	VINYL TREAD
VTS	VINYL TRANSITION STRIP
VWB	VINYL WALL BASE
VWC	VINYL WALL COVERING
W	
W	WASHER
W/	WITH
W/O	WITHOUT
WB	WOOD BASE
WC	WALL CABINET
WD	WOOD
WDC	WATERPROOFING, DAMPPROOFING, & CAULKING CONTRACTOR
WF	WIRE FABRIC
WG	WIRE GLASS
WH	WALL HUNG
WIN	WINDOW
WP	WATER PROTECTION
WP'G	WATERPROOF(ING)
WR	WATER RESISTANT
WS	WATER STOP
WT	WEIGHT
WWF	WELDED WIRE FABRIC

SYMBOLS

EXTERIOR ELEVATION

INTERIOR ELEVATION

BUILDING SECTION

DETAIL

WALL TYPE
(HEIGHT OF WALL IF APPLICABLE, IF NO DIMENSIONS, THEN WALL IS TO UNDERSIDE OF DECK)

EXTERIOR WALL TYPE

DOOR TYPE or VISION PANEL (VP)

WINDOW TYPE

ROOF TYPE

SPECIFIC DEMOLITION NOTE

SPECIFIC CONSTRUCTION NOTE

CHANGE IN ELEVATION

CONTROL JOINT

ELEVATION or WORK POINT (WP)

COLUMN GRID

EXISTING COLUMN GRID

ALIGN SURFACES

REVISION MARKER

ROOM TAG

DRAWING TITLE

MATCHLINE

CENTER LINE

CHANGE IN PLANE

LEADER

DIMENSION

BATT INSULATION / SOUND ATTENUATION BLANKET

RIGID/SEMI-RIGID INSULATION

CONCRETE

SAND / P.C. CONCRETE

PARTICLE BOARD/MDF

PLYWOOD/MDO

FINISH WOOD

ALUMINUM

STEEL

PVC

CONCRETE MASONRY UNIT

EARTH

GRAVEL

WOOD STUDS/FRAMING (DIMENSIONAL LUMBER)

WOOD BLOCKING

GENERAL NOTES

1. COORDINATE THE ARCHITECTURAL DRAWINGS WITH STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR THE VERIFICATION OF ALL PROJECT REQUIREMENTS.

2. FINISH FIRST FLOOR SLAB ELEVATION HIGH POINT IS 1'-0" FOR THIS PROJECT.

3. ALL INTERIOR DIMENSIONS ARE TAKEN FROM FACE OF STUD TO FACE OF STUD / FACE OF MASONRY UNLESS SPECIFICALLY NOTED OTHERWISE. DO NOT SCALE DRAWINGS. REFER TO ENLARGED PLANS AND DETAILS FOR FURTHER DIMENSIONING INFORMATION. ALL WORK LINES AND LEVELS SHALL BE LAID OUT BY WRITTEN DIMENSIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER. ALL DEVIATIONS AND DISCREPANCIES SHALL BE CORRECTED BY THE CONTRACTOR BEFORE HE BEGINS HIS PORTION OF THE WORK.

4. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & CONDITIONS PRIOR TO THE WORK AND SHALL NOTIFY THE DESIGNER REGARDING ANY DISCREPANCIES.

5. THE CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS, SAMPLES, CATALOG CUTS ECT., INCLUDING COLOR CHARTS FOR PAINTS, FOR ALL INTERIOR FINISHES, TO THE DESIGNER FOR SELECTION, REVIEW AND APPROVAL PRIOR TO FABRICATION OR INSTALLATION.

6. PERFORM ALL WORK IN ACCORDANCE WITH THE STATE BUILDING CODE, AS WELL AS LOCAL CODES AND ORDINANCES.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, BACKCHARGES AND FEES AS REQUIRED BY THE TOWN.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY REMOVAL AND LEGAL DISPOSAL OF ALL DEBRIS OFF SITE.

9. THE CONTRACTOR SHALL SEAL ALL THROUGH-WALL & FLOOR PENETRATIONS WITH 3M BARRIER CAULK (O.A.E.) AND SEALANT ON USG SAFING 2500 PSI GROUT. U.N.O. INSTALL ANY REQUIRED FIRE RATED PARTITIONS TO UNDERSIDE OF FLOOR AND ROOF DECK, INCLUDING DEFLECTION HEAD FIRE SAFING.

10. INSTALL A CONTINUOUS SEALANT BEAD ON BACKER ROD AT ALL JUNCTURES OF DISSIMILAR MATERIALS (E.G.: METAL TO CMU, STEEL TO ALUMINUM) AND ALL MATERIAL JOINTS AS REQUIRED BY THE MANUFACTURER'S SPECIFICATION AND RECOMMENDATIONS, INDUSTRY STANDARDS AND GOOD PRACTICE.

11. THE CONTRACTOR SHALL INSTALL ALL INTERIOR FINISHES AT ALL SURFACES INDICATED ON THE DRAWINGS IN CONFORMANCE TO STATE BUILDING CODE. ALL DOORS SHALL HAVE LEVER HARDWARE TO CONFORM TO 521 CMR.

12. ALL STRUCTURAL ELEMENTS SHOWN ON THE ARCHITECTURAL DRAWINGS ARE FOR INFORMATION ONLY. REFER TO STRUCTURAL DRAWINGS FOR EXACT SIZES AND LOCATION OF STRUCTURAL ELEMENTS.

13. THE CONTRACTOR SHALL PROVIDE SUPPLEMENTAL FRAMING AND OR BLOCKING AS NECESSARY TO SUPPORT ALL EXTERIOR WALL MOUNTED ELEMENTS.

14. ALL OPENINGS IN EXTERIOR WALLS FOR PLUMBING, FIRE PROTECTION, MECHANICAL, AND ELECTRICAL / FIRE ALARM SYSTEMS SHALL BE SEALED WEATHER-TIGHT BY THE CONTRACTOR. CONTRACTOR TO PROVIDE FIRE RATED SEALANTS AS REQUIRED AT FIRE RATED WALL, FLOOR, CEILING, AND ROOF ASSEMBLIES.

15. ALL EXPOSED SURFACES (INCLUDING, BUT NOT LIMITED TO; WALLS, UNDERSIDE OF EXPOSED ROOF AND FLOOR DECK, STRUCTURAL STEEL, MISCELLANEOUS METALS, DOORS/FRAMES, DUCTWORK, CONDUIT, AND PIPING) SHALL BE PRIMED AND PAINTED.

16. BLOCKING SHALL BE PROVIDED FOR ALL WALL MOUNTED EQUIPMENT (INCLUDING, BUT NOT LIMITED TO; PLUMBING FIXTURES, TOILET ACCESSORIES, UTILITY SINKS, FIRE EXTINGUISHER CABINETS, SHELVING, COUNTERS, CASEWORK, CABINETS, MEDIA EQUIPMENT, AND WINDOW TREATMENTS). PROVIDE ADDITIONAL METAL STUD FRAMING AS REQUIRED TO SUPPORT BLOCKING.

17. ALL WALL/PARAPET FLASHING SHALL TERMINATE WITH A MINIMUM 8" VERTICAL LEG TO ALLOW FOR PROPER INTERFACE WITH THE ABM. ABM SHALL BE INSTALLED BEHIND FLASHING AND THE FLASHING SHALL BE INTEGRATED INTO THE ABM SYSTEM USING A SELF-ADHERED MEMBRANE FLASHING WITH MINIMUM OVERLAP REQUIREMENTS PER MANUFACTURER.

18. ALL EXTERIOR AND INTERIOR MATERIAL SURFACE COLOR AND TEXTURES SHALL BE SELECTED BY THE DESIGNER FROM THE MANUFACTURES STANDARD FINISH / COLOR SELECTIONS.

19. DETAILS AND NOTES SHOWN ON THE ARCHITECTURAL DRAWINGS SHALL BE APPLICABLE TO ALL PARTS OF THE ARCHITECTURAL WORK EXCEPT WHERE SPECIFICALLY REQUIRED OTHERWISE BY THE CONTRACT DOCUMENTS. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO THOSE SHOWN FOR LIKE CONDITIONS AS DETERMINED BY THE DESIGNER.

20. PROVIDE ALL ACCESSIBLE FIXTURES, CONTROLS & ACCESSORIES, AND APPROPRIATE CLEARANCES, AS REQUIRED FOR COMPLIANCE W/ STATE BUILDING CODE W/ ALL AMENDMENTS, TYP.

21. SEALANT DEPTH AT ALL EXTERIOR OPENINGS SHALL BE EQUAL TO THE WIDTH OF THE JOINT.

22. ALL DIMENSIONS ARE TO FACE OF MASONRY, FACE OF METAL STUD, AND TO THE CENTERLINE OF COLUMN, UNLESS OTHERWISE NOTED.

23. FOR ROOF DETAILS, REFER TO DRAWING A1.02.

24. ALL NOTES AND DIMENSIONS DESIGNATED "TYPICAL" APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PROJECT.

25. CONTRACTOR(S) TO TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND BE RESPONSIBLE FOR COORDINATION OF THE SAME. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.

Project:

IMPROVEMENTS TO THE ARLINGTON RESERVOIR

210 LOWELL ST,
ARLINGTON, MA 02474

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Consultants:

Revisions:

Rev	Date	Description

Seal:

REGISTERED ARCHITECT — DANIEL G. TENNEN — No. 9688 — CAMBRIDGE MA — COMMONWEALTH OF MASSACHUSETTS

Issued For:

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Date:	05/29/2019
Drawn By:	MMS
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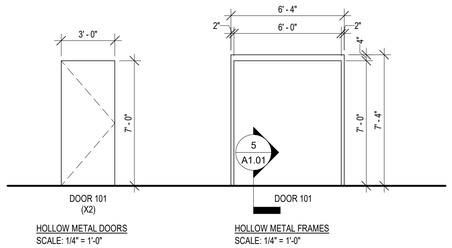
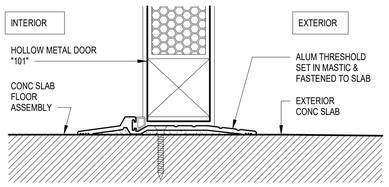
ARCHITECTURAL GENERAL NOTES

Sheet Number:

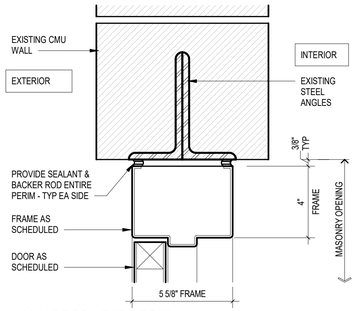
A0.00



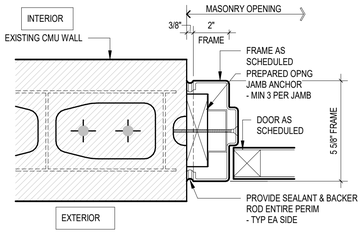
DOOR ELEVATIONS & FRAMES SCHEDULE
1/4" = 1'-0"



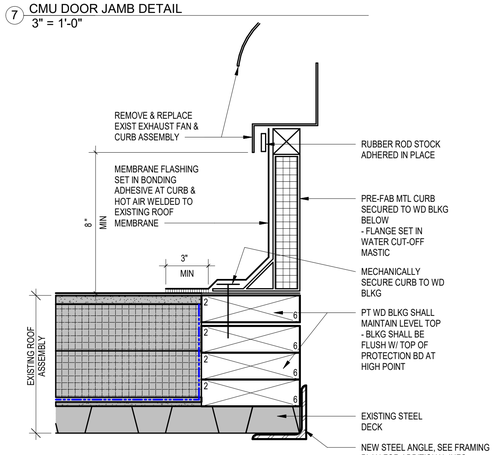
5 EXTERIOR DOOR SILL DETAIL
6" = 1'-0"



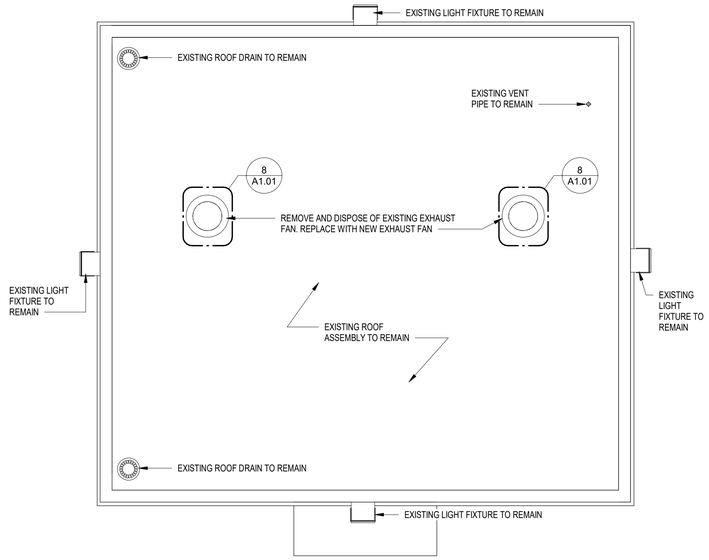
6 CMU DOOR HEAD DETAIL
3" = 1'-0"



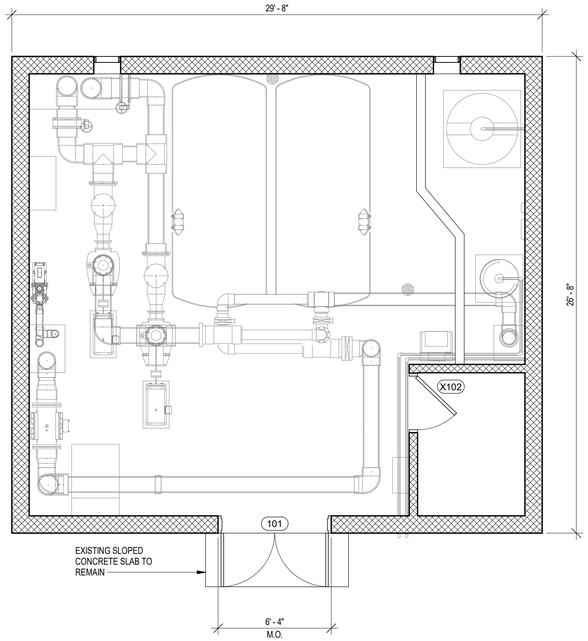
7 CMU DOOR JAMB DETAIL
3" = 1'-0"



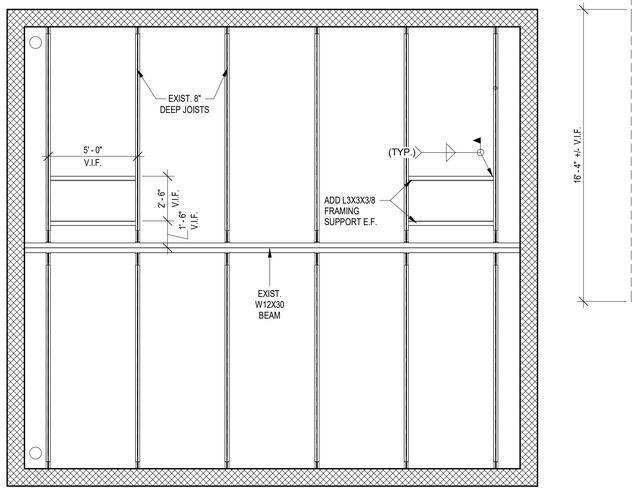
8 EXHAUST FAN CURB DETAIL
3" = 1'-0"



3 ROOF - BASE BID
1/4" = 1'-0"

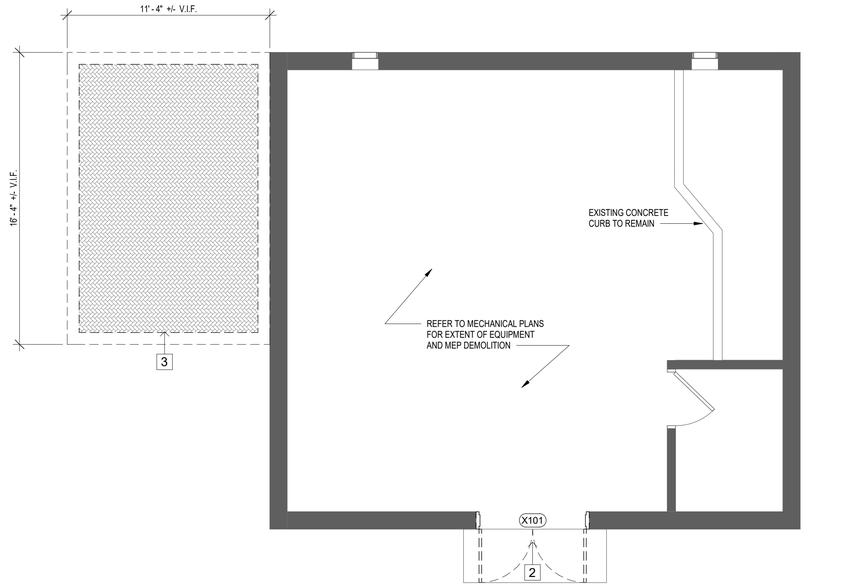


2 T.O. SLAB
1/4" = 1'-0"



4 FRAMING PLAN
1/4" = 1'-0"

NOTES:
1. STEEL SHALL CONFORM TO AISC "MANUAL OF STEEL CONSTRUCTION" (ACI 360-10).
2. STEEL SHALL CONFORM TO ASTM A36.
3. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED PER ASTM A123.
4. WELDS SHALL BE 1/4" FILLET WELD MIN. ALL WELDED CONNECTIONS SHALL CONFORM TO A.W.S. SPECIFICATIONS. ELECTRODES TO BE E70XX.
5. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR APPROVAL PRIOR TO FABRICATION.



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

SPECIFIC DEMOLITION NOTES

2	REMOVE AND DISPOSE OF DOOR AND FRAME IN ITS ENTIRETY
3	REMOVE AND DISPOSE OF METAL GRATING & CONCRETE FOUNDATION WALLS OF EXISTING BACKWASH PIT TO DEPTH OF 2'-0" BELOW FINISH GRADE. FILL DEPRESSION WITH STRUCTURAL FILL.

*SEE SHEET A1.02 FOR ADDITIONAL GENERAL DEMOLITION NOTES

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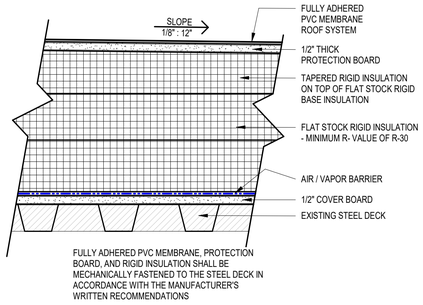
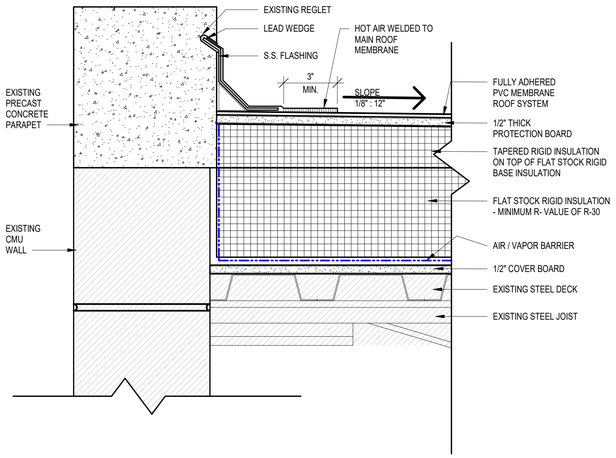
PLANS, NOTES AND DETAILS

Sheet Number:

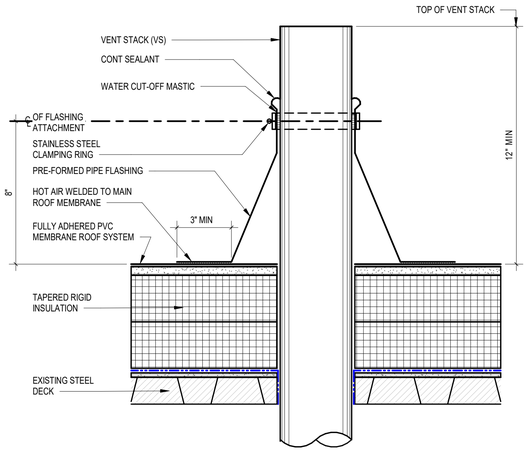
A1.01



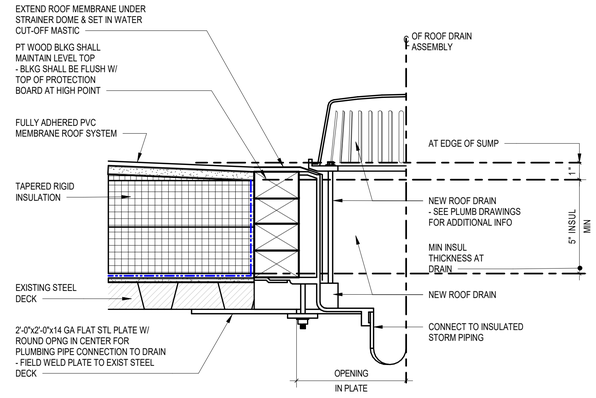
3 ROOF TYPE ASSEMBLY - ALTERNATE #1
3" = 1'-0"



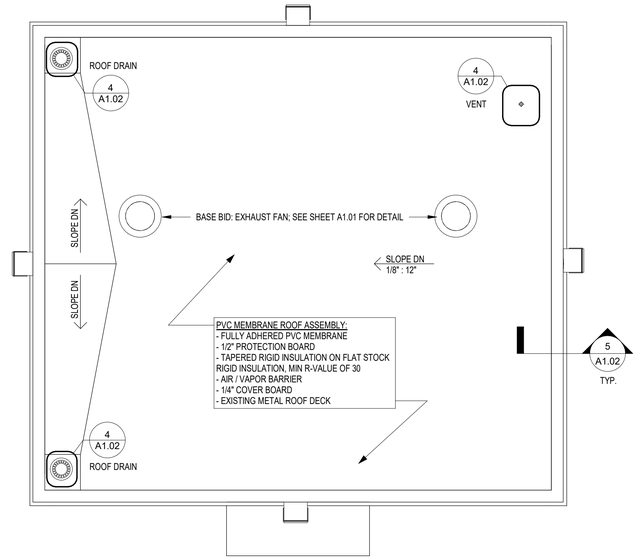
5 ROOF EDGE DETAIL- ALTERNATE #1
3" = 1'-0"



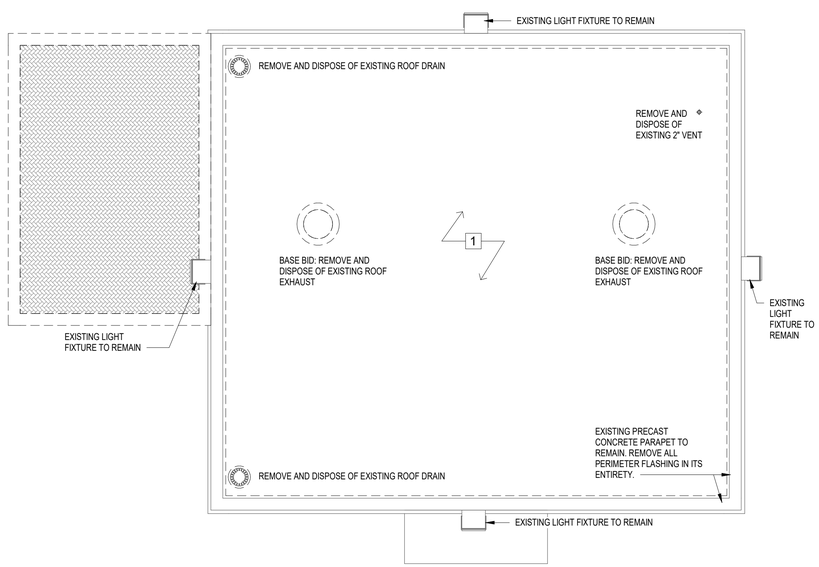
7 VENT STACK DETAIL - ALTERNATE #1
3" = 1'-0"



4 ROOF DRAIN - ALTERNTE #1
3" = 1'-0"



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



1 DEMOLITION ROOF - ALTERNATE #1
1/4" = 1'-0"

GENERAL DEMOLITION NOTES

1. CONTRACTOR SHALL VISIT THE SITE TO VERIFY AND BE FULLY AWARE OF EXISTING CONDITIONS PRIOR TO START OF WORK. CONTRACTOR SHALL IDENTIFY ALL EXISTING ITEMS OF WORK SCHEDULED TO REMAIN OR SALVAGED FOR REUSE.

2. ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED DEMOLITION PERMITS.

3. COORDINATE ALL DEMOLITION OPERATIONS WITH OWNER FOR SHUTDOWN PERIODS AND SEQUENCE OF WORK. ARRANGE WITH OWNER AND/OR APPROPRIATE UTILITIES FOR SERVICE SHUTOFFS BEFORE BEGINNING DEMOLITION OPERATIONS. PROVIDE TEMPORARY DUST PARTITIONS, BARRICADES AND PROTECTIVE ENCLOSURES REQUIRED TO PROPERLY SECURE, ISOLATE AND WEATHERPROOF AREAS OF WORK AND EXISTING AREAS AND ELEMENTS TO REMAIN. THE CONTRACTOR SHALL PERFORM THE WORK OF THIS CONTRACT IN A MANNER THAT CAUSES NO DISRUPTION TO THE CONTINUOUS OCCUPATION OF THE BUILDING AND SITE FOR THEIR INTENDED PURPOSE.

4. REMOVE ALL DEMOLISHED MATERIALS IN ACCORDANCE WITH LOCAL REGULATIONS.

5. IT IS NOT THE INTENT TO SHOW EVERY PIECE OR ITEM TO BE REMOVED IN DEMOLITION WORK. PLUMBING, ELECTRICAL AND OTHER WORK RELATED TO A WALL, OR AREA SCHEDULED FOR DEMOLITION AND REMOVAL, SHALL BE PERFORMED WHETHER NOTED OR NOT.

6. THE EXTENT OF ALL SPECIFIC DEMOLITION WORK SHALL BE COORDINATED WITH CONTRACT DOCUMENTS.

7. CONTRACTOR TO PATCH/REPAIR/REFINISH, AS REQUIRED, ALL SURFACES EXPOSED BY DEMOLITION WORK WITH MATERIALS AND METHODS TO MATCH FINISH AND MAKE FLUSH WITH EXISTING ADJACENT SURFACES. WORK SHALL INCLUDE ALL LABOR AND MATERIALS ON ALL SURFACES REQUIRED TO RENDER SUBSTRATES ACCEPTABLE TO RECEIVE NEW FINISHES SPECIFIED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.

8. TERMINATE, CAP, AND REMOVE ALL ABANDONED ELECTRICAL, PLUMBING, MECHANICAL AND FIRE PROTECTION ITEMS BACK TO ITS SOURCE. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.

9. WHERE EXISTING FINISHES ARE INDICATED TO REMAIN AS BASE MATERIAL SURFACES FOR INSTALLATION OF NEW FINISHES, REMOVE ALL PROJECTIONS AND VOIDS AND SECURE OR REMOVE AND REPLACE ANY EXISTING LOOSE OR OTHERWISE UNSUITABLE SUBSTRATE MATERIAL.

10. CONTRACTOR TO PROTECT ALL ITEMS TO REMAIN DURING DEMOLITION. ALL ITEMS DAMAGED DURING DEMOLITION ARE TO BE REPLACED AT NO EXPENSE TO THE OWNER.

11. CONTRACTOR IS RESPONSIBLE FOR MEANS & METHODS IN A SAFE MANNER FOR ALL DEMOLITION WORK.

12. - ASBESTOS CONTAINING MATERIALS ARE PRESENT AND ARE TO BE DEMOLISHED UNDER THIS PROJECT. REFER TO SPECIFICATION, DIV 2, FOR HAZARDOUS MATERIALS AND QUANTITIES.

SPECIFIC DEMOLITION NOTES

1	ALTERNATE #1 - REMOVE & DISPOSE OF EXISTING ROOF ASSEMBLY, ALL FLASHINGS, EXISTING RIGID INSULATION, AND COVER BOARD DOWN TO EXISTING METAL DECKING

Project:

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ALTERNATE #1 - ROOF PLAN, NOTES AND DETAILS

Sheet Number:

A1.02

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	SURFACE LIGHT (TYPE DENOTED)
	SURFACE LINEAR LIGHT (TYPE DENOTED)
	STRIP LIGHT (TYPE DENOTED)
	EMERGENCY BATTERY LIGHT (TYPE DENOTED)
	EXIT SIGN (TYPE DENOTED)
	LIGHT FIXTURE ON (EM) LIFE SAFETY BRANCH
	SINGLE POLE SW.
	2 POLE SINGLE THROW SW.
	3-WAY SW.
	TIMER SWITCH
	DUPLEX RECEPT.
	FOURPLEX RECEPT.
	UTILITY SERVICE POWER POLE (SITE)
	JUNCTION BOX
	PULL BOX
	CIRCUIT BREAKER PANEL
	POWER OR DISTRIBUTION PANEL
T	TRANSFORMER (TYPE DENOTED)
XX-1	MOTOR (SEE SCHEDULE)
	SAFETY DISC. SW. (NON-FUSED)
	SAFETY DISC. SW. (FUSED)
	PHOTOCELL
	HALFTONE SYMBOL INDICATES EXISTING
	DASHED SYMBOL INDICATES REMOVED
	TELEPHONE OUTLET (TYPE DENOTED)
	WALL TELEPHONE OUTLET (TYPE DENOTED)
	INFORMATION OUTLET (TYPE DENOTED)
	MAGNETIC LOCK
	DOOR CONTACTS
	CARD READER
	KEYPAD
1	KEYED NOTE (SEE SCHEDULE)
ACD	AUTOMATIC CONTROL DAMPER

ELECTRICAL SYMBOL NOTES

A2 / 12b — THE LIGHTING FIXTURE TYPE IS INDICATED BY AN UPPER CASE LETTER. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER.

EXAMPLE: LIGHTING FIXTURE TYPE "A2" IS CONNECTED TO CIRCUIT 12 AND CONTROLLED BY SWITCH "b".

E / 14 — EXIT LIGHTS. STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S). THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER.
EXAMPLE: THE WALL MOUNTED EXIT LIGHT TYPE "E" WITH SINGLE FACE AND DIRECTIONAL ARROW IS CONNECTED TO CIRCUIT 14.

d — THE CONTROL DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SINGLE POLE SWITCH "d" TO CONTROL LIGHTING FIXTURES INDICATED BY "d".

D600 / e — WALL BOX DIMMER WITH SIZE AS INDICATED AT DEVICE. EXAMPLE: 600 WATT WALL BOX DIMMER TO CONTROL LIGHTING FIXTURES INDICATED BY "e". SEE SPECIFICATIONS FOR WATTAGE IF NOT INDICATED.

SF-1 / 2,4,6 — MOTOR CONNECTIONS. THE MOTOR IS INDICATED BY A NUMBER WITHIN OR CHARACTERS ADJACENT TO THE MOTOR SYMBOL. SEE THE MOTOR AND EQUIPMENT SCHEDULE FOR THE MOTOR DESCRIPTION AND ELECTRICAL REQUIREMENTS. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER(S) ADJACENT TO THE SYMBOL.EXAMPLE: MOTOR SF-1; 3 PHASE CONNECTION TO CIRCUITS 2, 4, 6.

T1 — TRANSFORMERS. THE TRANSFORMER TYPE IS INDICATED BY A NUMBER FOLLOWING THE UPPER CASE LETTER "T". SEE THE TRANSFORMER SCHEDULE OR THE SINGLE LINE DIAGRAM FOR THE TRANSFORMER DESCRIPTION AND REQUIREMENTS. EXAMPLE: TRANSFORMER TYPE "T1".

LPN-102 — PANELBOARDS. PANELBOARD DOORS MAY BE SHOWN TO INDICATE OPENING SIDE OF RECESSED PANELBOARDS.

1 — SPECIAL NOTE. SEE THE SPECIAL NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE HEXAGON.

LPN-102-1,3,5 — HOME RUN TO BRANCH CIRCUIT PANELBOARD. THE PANELBOARD DESIGNATION IS SHOWN ADJACENT TO THE HOME RUN ARROW AS A NUMERATOR AND THE CIRCUIT DESIGNATION IS SHOWN AS THE DENOMINATOR. CIRCUIT BREAKER SIZES (AMPS/NUMBER OF POLES) ARE SHOWN IN THE PANELBOARD SCHEDULE WITH THE CORRESPONDING PANELBOARD AND CIRCUIT DESIGNATION. EXAMPLE: HOME RUN TO PANELBOARD LPN-102; CIRCUITS 1, 3, 5. CONDUIT SHOWN WITHOUT SLASH MARKS SHALL CONTAIN 2 # 12 CONDUCTORS IN 3/4" CONDUIT UNLESS SPECIFIC EQUIPMENT REQUIRES A DIFFERENT SIZE.

GENERAL ELECTRICAL NOTES

1. DRAWINGS ARE DIAGRAMMATIC ONLY. THE EXACT LOCATION, MOUNTING HEIGHTS, SIZE OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED AND DETERMINED IN THE FIELD.

2. ALL STRAIGHT FEEDER, BRANCH CIRCUIT AND AUXILIARY SYSTEM CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 150 FEET. EXACT SIZES OF PULL BOXES AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ELECTRICAL CONTRACTOR.

3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS APPLICABLE AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT; THE POWER WIRING, CONTROL WIRING AND ALL ELECTRICAL CONNECTIONS AND CONDUIT TURN-UPS SHALL BE COORDINATED WITH THE RESPECTIVE CONTRACTORS BEFORE THE START OF CONSTRUCTION IN THE FIELD.

4. SLEEVES ARE TO BE UTILIZED FOR PASSAGE OF CONDUITS THROUGH FLOORS OR WALLS. CONDUITS AND BOXES ARE TO BE SUPPORTED BY THE USE OF PRESET FASTENERS INSTALLED IN FLOORS, WALLS OR COLUMNS. CONDUITS AND BOXES ARE TO BE INSTALLED CONCEALED IN MASONRY WALLS AND ABOVE HUNG CEILINGS. ALL SLEEVES ARE TO BE SEALED.

5. ALL LIGHTING FIXTURES, ELECTRICAL DEVICES, CABLES AND RACEWAYS ARE TO BE INDEPENDENTLY SUPPORTED. FIXTURES ARE TO BE SUPPORTED FROM THE STRUCTURE BY THE USE OF JACK CHAIN, THREADED ROD OR OTHER MEANS APPROVED BY THE ENGINEER. APPROVED SUPPORTS, HANGERS, CLIPS, ETC. ARE TO BE UTILIZED.

6. COMBINED HOMERUNS OF TWO (2) OR THREE (3) CIRCUITS MAY BE UTILIZED. HOWEVER, THE NEUTRAL CONDUCTOR IS TO BE INCREASED TO #10AWG. COMBINED HOMERUNS ARE TO BE LIMITED TO 20A, LIGHTING AND POWER CIRCUITS.

7. WORK SHALL CONFORM TO THE MASSACHUSETTS ELECTRICAL CODE, MASACHUSETTS BUILDING CODE, NFPA AND REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.

8. THE WORD "CONTRACTOR" AS USED IN THE "ELECTRICAL WORK" SHALL MEAN THE ELECTRICAL SUBCONTRACTOR.

9. CONTRACTOR SHALL PAY FOR ALL PERMITS, INSURANCE AND TESTS, AND SHALL PROVIDE LABOR AND MATERIAL TO COMPLETE THE ELECTRICAL WORK SHOWN.

10. EXCEPT AS OTHERWISE NOTED, THE ELECTRICAL WORK SHALL INCLUDE DEMOLITION, PANELBOARDS, CIRCUIT BREAKERS, FEEDERS, WIRING, RACEWAYS, LIGHTING FIXTURES, DEVICES, TELEPHONE AND DATA OUTLETS, SAFETY SWITCHES, TRANSFORMERS AND CONNECTIONS NECESSARY TO OPERATE MOTORS AND OTHER EQUIPMENT.

11. THE G.C. SHALL PROVIDE ALL TEMPORARY LIGHTING AND POWER AND PAY ALL ENERGY CHARGES.

12. DURING CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL KEEP HIS PORTION OF THE WORK NEAT, CLEAN AND ORDERLY.

13. ALL SYSTEMS SHALL BE TESTED FOR SHORT CIRCUIT AND GROUNDS PRIOR TO ENERGIZING AND ANY DEFECTS SHALL BE CORRECTED.

14. ALL CUTTING AND PATCHING REQUIRED FOR ELECTRICAL WORK SHALL BE INCLUDED AS PART OF THIS SECTION.

15. COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR ELECTRICAL EQUIPMENT. WHERE SPECIFIED ELECTRICAL EQUIPMENT IS SUBSTITUTED, THE ELECTRICAL CONTRACTOR SHALL SUBMIT COMPLETE SPECIFICATIONS ON THE SUBSTITUTE AS WELL AS THE ITEM ORIGINALLY SPECIFIED.

16. MATERIALS SHALL BE SPECIFICATION GRADE AND UL LISTED.

17. WHERE MATERIAL IS CALLED OUT IN THE LEGEND BY MANUFACTURER, TYPE OR CATALOG NUMBER, SUCH DESIGNATIONS ARE TO ESTABLISH STANDARDS OR DESIRED QUALITY. ACCEPTANCE OR REJECTIONS OF PROPOSED SUBSTITUTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER.

18. WORK SHALL BE COORDINATED WITH THAT OF OTHER TRADES TO ELIMINATE INTERFERENCES.

19. EXACT LOCATIONS OF MECHANICAL EQUIPMENT, DEVICES, ETC. SHALL BE VERIFIED IN THE FIELD PRIOR TO ROUGHING FOR SAME.

20. ELECTRICAL CONTRACTOR SHALL OBTAIN SHOP DRAWINGS/SPECIFICATIONS OF ALL EQUIPMENT FROM THE GENERAL CONTRACTOR PRIOR TO PURCHASING AND INSTALLING ELECTRICAL EQUIPMENT FOR SAME. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN ACTUAL EQUIPMENT INSTALLED AND CONTRACT DOCUMENTS.

21. ELECTRICAL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF WHICH SYSTEM IS PUT INTO SERVICE.

22. WORK SHALL BE GROUNDED IN ACCORDANCE WITH CODE REQUIREMENTS. COMPLETE EQUIPMENT (INSULATED GREEN WIRE) GROUNDING SYSTEM SHALL BE INSTALLED.

23. FURNISH AND INSTALL SLEEVES IN FLOORS, BEAMS, WALLS, ETC. REQUIRED FOR INSTALLING THIS WORK.

24. LIGHTING FIXTURES SHALL BE INDIVIDUALLY SUPPORTED FROM THE STRUCTURAL SLAB OR STRUCTURAL BUILDING MEMBER. FIXTURES WILL NOT BE PERMITTED TO BE SUPPORTED FROM SUSPENDED CEILING OR ROOF DECK.

25. FEEDER TAPS WILL NOT BE ALLOWED IN PANELBOARD GUTTERS.

26. CONDUIT RUNS AS SHOWN ON THE PLANS ARE DIAGRAMMATIC ONLY; EXACT LOCATION AND METHOD OF SUPPORT SHALL BE DETERMINED IN THE FIELD.

27. CONTRACTOR SHALL CHECK EXISTING CONDITIONS TO DETERMINE EXACT EXTENT OF WORK TO BE PERFORMED PRIOR TO BIDDING. DIMENSIONS RELEVANT TO EXISTING WORK SHALL BE VERIFIED IN THE FIELD.

28. ELECTRICAL SHUTDOWN SHALL BE AT A TIME AND DATE APPROVED BY THE OWNER.

29. PROVIDE AS-BUILT "CADD" DRAWINGS AT THE COMPLETION OF THE PROJECT.

ELECTRICAL ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)
A	AMPERE
AC	ABOVE COUNTER OR AIR CONDITIONER
ACLG	ABOVE CEILING
ADO	AUTOMATIC DOOR OPENER
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT CIRCUIT INTERRUPTER
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ALT	ALTERNATE
AMP	AMPERE
AMPL	AMPLIFIER
ANNUN	ANNUNCIATOR
APPROX	APPROXIMATELY
AQ-STAT	AQUASTAT
ARCH	ARCHITECT, ARCHITECTURAL
AS	AMP SWITCH
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BD	BOARD
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CAB	CABINET
CAT	CATALOG
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
COMB	COMBINATION
CMPR	COMPRESSOR
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUATION OR CONTINUOUS
CONTR	CONTRACTOR
CONV	CONVECTOR
CP	CIRCULATING PUMP
CRT	CATHODE-RAY TUBE
CT	CURRENT TRANSFORMER
CTR	CENTER
CU	COPPER
DCP	DOMESTIC WATER CIRCULATING PUMP
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DN	DOWN
DPR	DAMPER
DS	SAFETY DISCONNECT SWITCH
DT	DOUBLE THROW
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EP	ELECTRIC PNEUMATIC
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXH	EXHAUST
EXP	EXPLOSION PROOF
FA	FIRE ALARM
FABP	FIRE ALARM BOOSTER POWER SUPPLY PANEL
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FIXT	FIXTURE
FLR	FLOOR
FLUOR	FLUORESCENT
FU	FUSE
FUDS	FUSED SAFETY DISCONNECT SWITCH
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTOR
GND	GROUND
GRS	GALVANIZED RIGID STEEL (CONDUIT)
GYP BD	GYPSUM BOARD
HOA	HANDS-OFF-AUTOMATIC SWITCH
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPF	HIGH POWER FACTOR
HT	HEIGHT
HTG	HEATING
HTR	HEATER
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HWP	HYDRONIC WATER PUMP
IC	INTERRUPTING CAPACITY
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
INCAND	INCANDESCENT
IR	INFRARED
IW	INTERLOCK WITH
J-BOX	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KVAR	KILOVOLT-AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LOC	LOCATE OR LOCATION
LT	LIGHT
LTG	LIGHTING
LTNG	LIGHTNING
LV	LOW VOLTAGE
MAX	MAXIMUM
MAG.S	MAGNETIC STARTER
MC	MOMENTARY CONTACT
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDC	MAIN DISTRIBUTION CENTER
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MFS	MAIN FUSED DISCONNECT SWITCH
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MMS	MANUAL MOTOR STARTER
MOA	MULTIOUTLET ASSEMBLY
MSP	MOTOR STARTER PANELBOARD
MSBD	MAIN SWITCHBOARD
MT	MOUNT
MT.C	EMPTY CONDUIT
MTS	MANUAL TRANSFER SWITCH
MTR	MOTOR, MOTORIZED
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NFDS	NON-FUSED SAFETY DISCONNECT SWITCH
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
N.O.	NORMALLY OPEN
NPF	NORMAL POWER FACTOR
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOADS
PA	PUBLIC ADDRESS
PB	PULL BOX OR PUSHBUTTON
PE	PNEUMATIC ELECTRIC
PED	PEDESTAL
PF	POWER FACTOR
PH	PHASE
PIV	POST INDICATING VALVE
PNL	PANEL
PP	POWER POLE
PR	PAIR
PRI	PRIMARY
PROJ	PROJECTION
PRV	POWER ROOF VENTILATOR
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (CONDUIT)
PWR	POWER
QUAN	QUANTITY
RCPT	RECEPTACLE
REQD	REQUIRED
RM	ROOM
RSC	RIGID STEEL CONDUIT
RTU	ROOF TOP UNIT
SC	SURFACE CONDUIT
SEC	SECONDARY
SHT	SHEET
SIM	SIMILAR
S/N	SOLID NEUTRAL
SPEC	SPECIFICATION
SPKR	SPEAKER
SP	SPARE
SR	SURFACE RACEWAY
SS	STAINLESS STEEL
SSW	SELECTOR SWITCH
S/S	STOP/START PUSHBUTTONS
STA	STATION
STD	STANDARD
SURF	SURFACE MOUNTED
SW	SWITCH
SWBD	SWITCHBOARD
SYM	SYMMETRICAL
SYS	SYSTEM
TEL	TELEPHONE
TEL/DATA	TELEPHONE/DATA
TERM	TERMINAL
TL	TWIST LOCK
TR	TAMPER RESISTANT
T-STAT	THERMOSTAT
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TVTC	TELEVISION TERMINAL CABINET
TYP	TYPICAL
UC	UNDER COUNTER
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UH	UNIT HEATER
UT	UNDERGROUND TELEPHONE
UTIL	UTILITY
UV	UNIT VENTILATOR OR ULTRAVIOLET
V	VOLT
VA	VOLT-AMPERES
VDT	VIDEO DISPLAY TERMINAL
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WATT
W/	WITH
WG	WIRE GUARD
WH	WATER HEATER
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER
XFR	TRANSFER
	ANGLE
@	AT
'	DELTA
"	FEET
#	INCHES
Ø	NUMBER
C	PHASE
P	CENTER LINE
	PLATE

ELECTRICAL DRAWINGS

Project:

IMPROVEMENTS TO THE ARLINGTON RESERVOIR

210 LOWELL ST,
ARLINGTON, MA 02474

Weston & Sampson Engineers, Inc.
85 Devonshire Street, 3rd Floor
Boston, MA 02109
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Consultants:

Revisions:

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COMMONWEALTH OF MASSACHUSETTS — ROBERT F. McALEER — ELECTRICAL — No. 48017 — REGISTERED PROFESSIONAL ENGINEER

Issued For:

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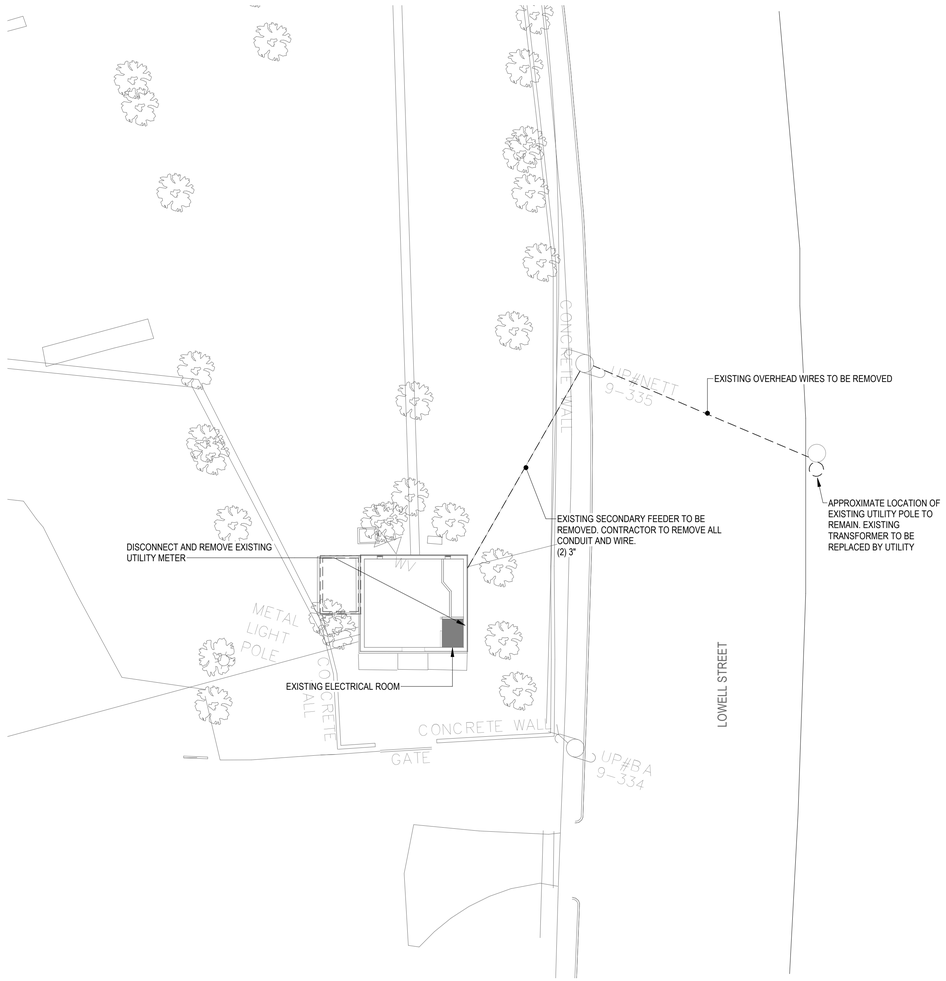
Drawing Title:

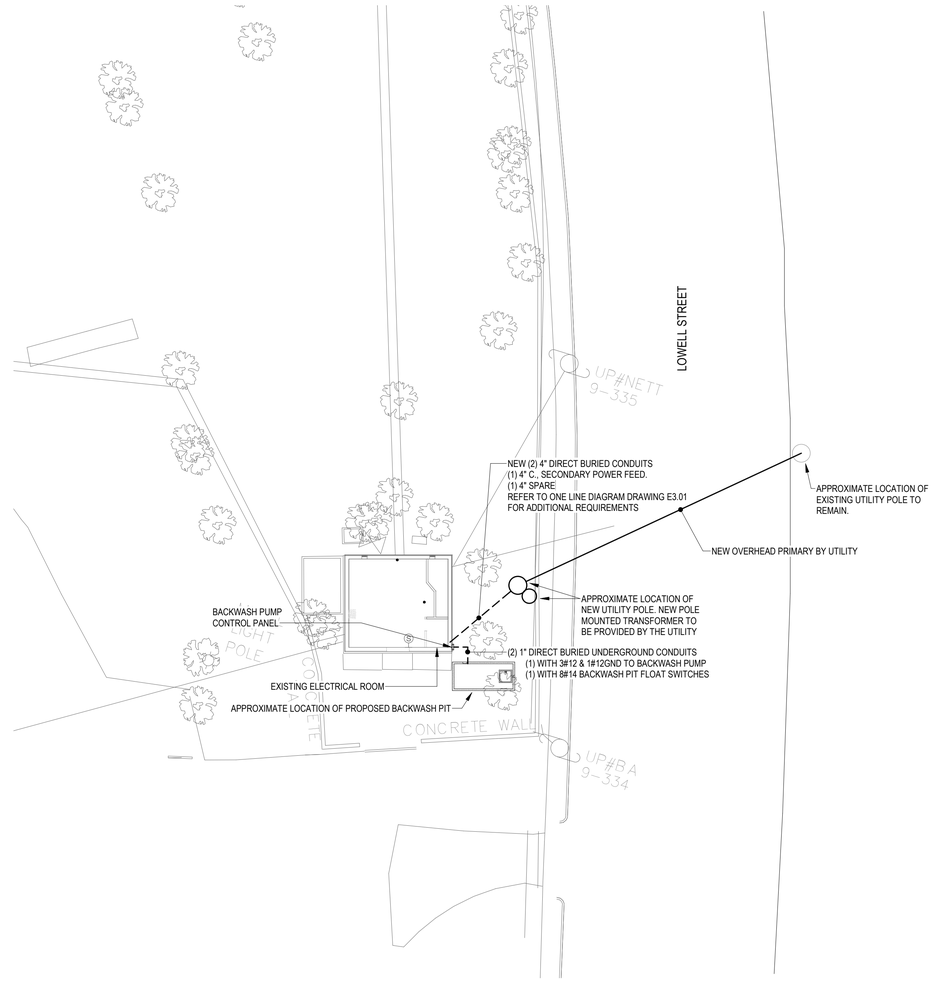
ELECTRICAL ABBREVIATIONS, SYMBOLS, LEGEND AND GENERAL NOTES

Sheet Number:

E0.00



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



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

ELECTRICAL SITE PLAN NOTES

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

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ELECTRICAL SITE PLANS

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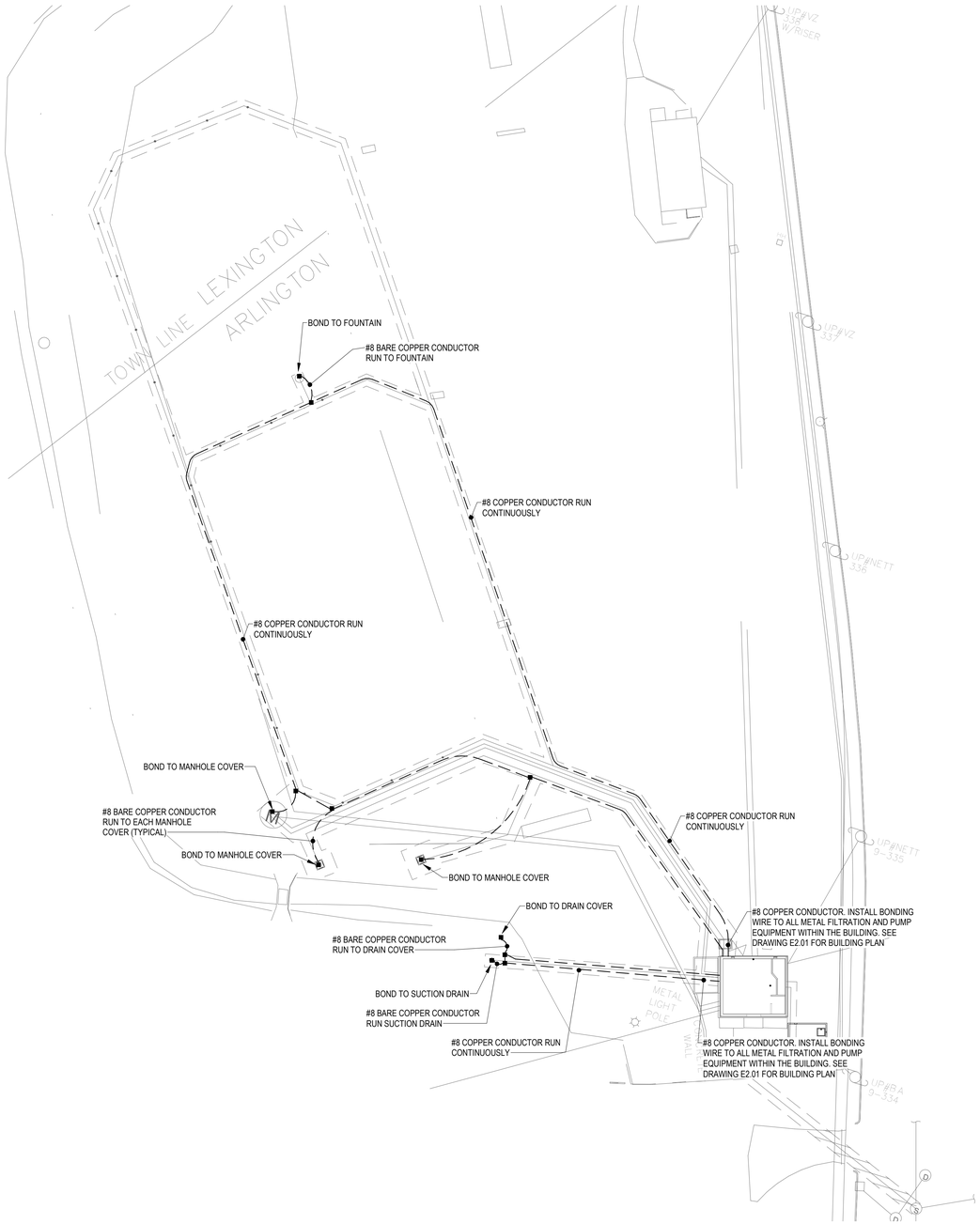
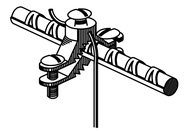
E1.01



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



BONDING DETAIL

NOT TO SCALE

EQUIPOTENTIAL BONDING GRID

REFER TO NEC ARTICLE 680.26

EQUIPOTENTIAL BONDING GRID TO RUN CONTINUOSULY AROUND THE CONTOUR OF POOL EXTENDING 18" TO 24" FROM THE INSIDE WALLS OF THE POOL. THE 4"-6" BELOW GRADE GRID PATTERN SHALL BE SECURED WITHIN OR UNDER THE POOL DECK MEDIA. THE GRID SHALL BE CONSTRUCTED OF MINIMUM #8 AWG BARE SOLID COPPER CONDUCTORS.

EQUIPOTENTIAL BONDING CONDUCTOR SHALL COMPLY WITH FBC 2007 ALTERNATIVE AND EQUIVALENT METHOD TO NEC 2017 ARTICLE 680.26.

POOL BONDING NOTES:

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

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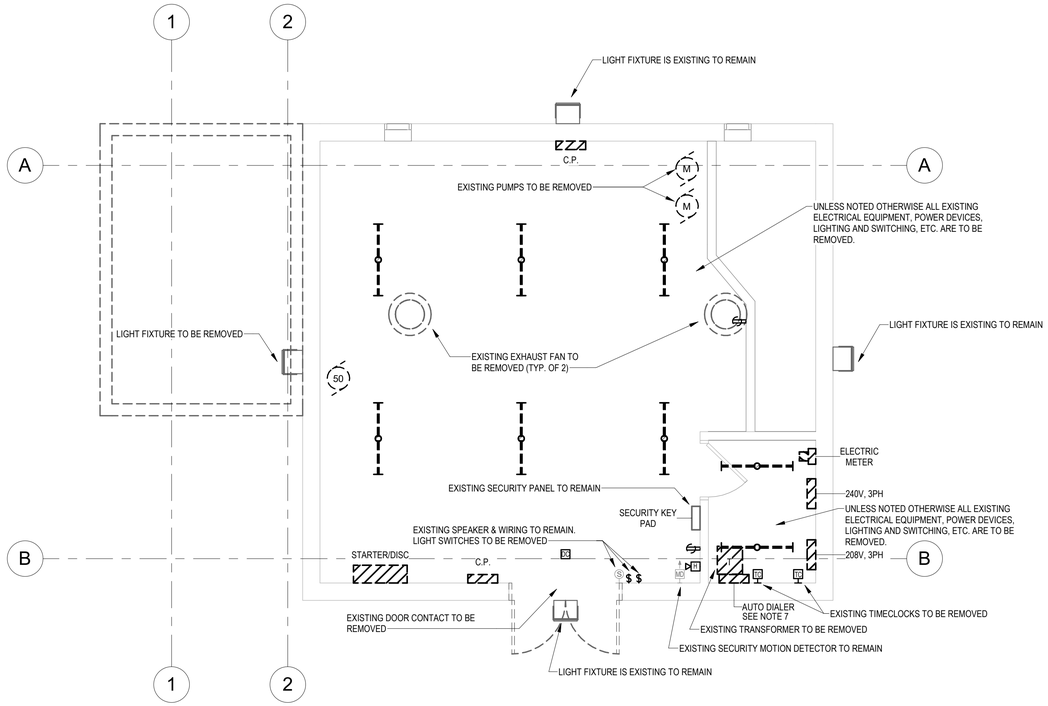
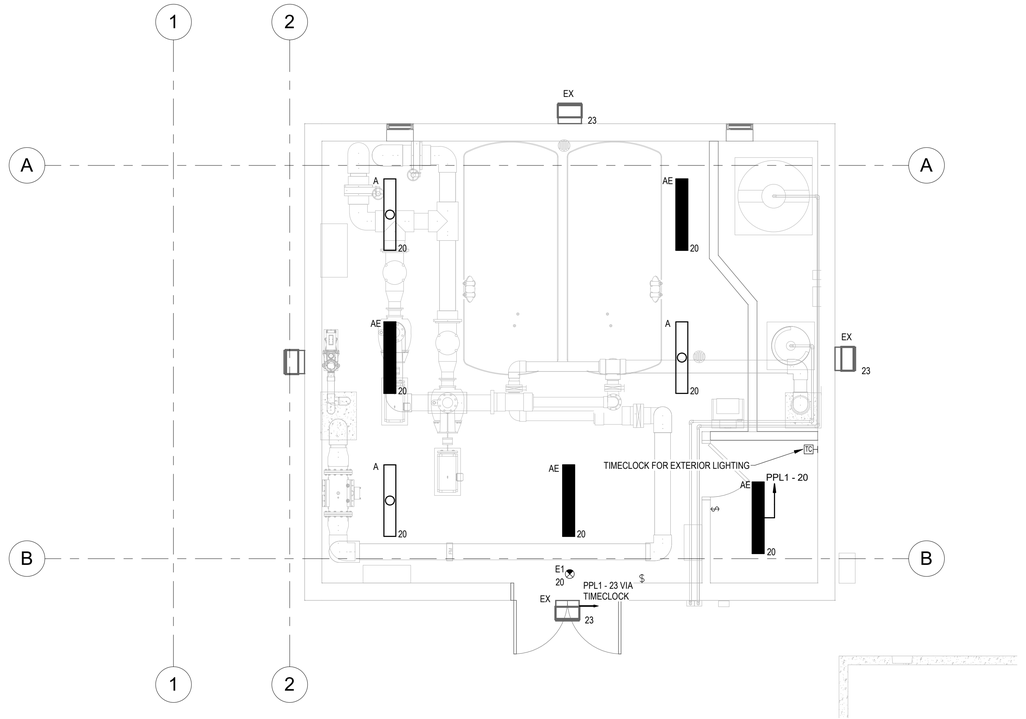
ELECTRICAL BONDING PLAN

Sheet Number:

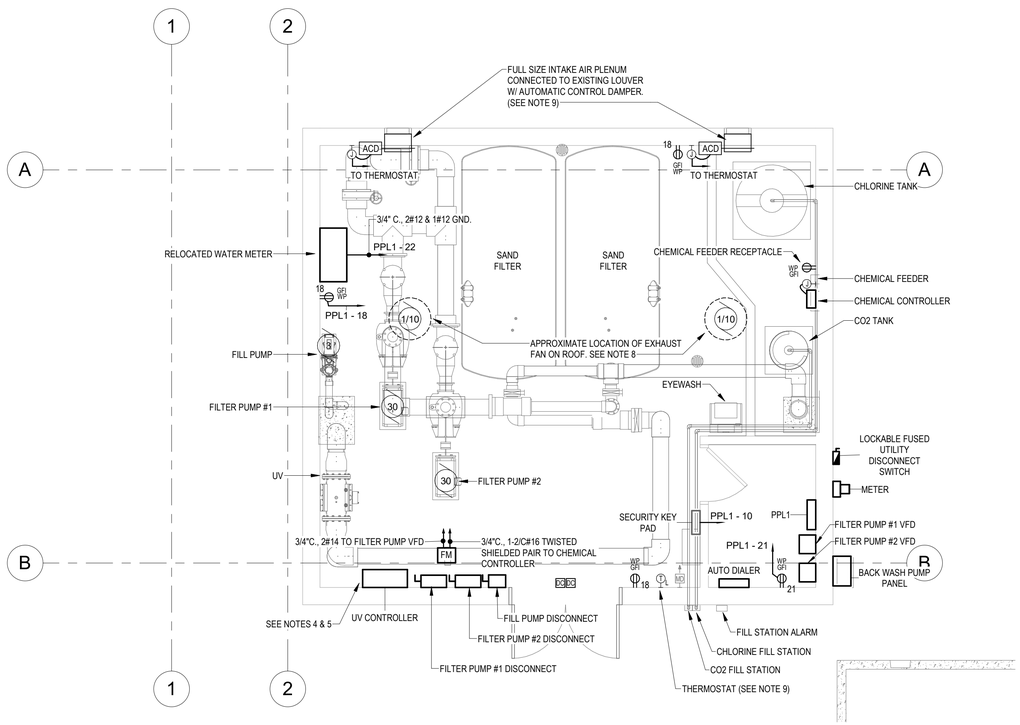
E1.02



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



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



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

LIGHTING GENERAL NOTES

1 REFERENCE DRAWING E0.01 FOR LEGEND AND ABBREVIATIONS.
2 AREFERENCE DRAWING E3.01 FOR LIGHT FIXTURE SCHEDULE.

POWER GENERAL NOTES

1 REFER TO DRAWING E0.01 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2 REFER TO DRAWING E3.01 FOR ONE-LINE DIAGRAM AND ELECTRICAL SCHEDULES.
3 UNLESS NOTED OTHERWISE, ALL EQUIPMENT AND DEVICES SHALL BE RATED NEMA 4X.
4 CONTRACTOR SHALL RUN (2) 1-1/4" CONDUITS FROM THE UV CONTROL PANEL TO THE UV UNIT. CONTRACTOR SHALL INSTALL UV CONTROL PANEL FURNISHED POWER CABLE WITHIN (1) 1-1/4" CONDUIT AND UV CONTROL PANEL FURNISHED MONITORING AND CONTROL CABLE IN THE OTHER 1-1/4" CONDUIT. CONTRACTOR SHALL COORDINATE UPSIZING THE CONDUIT OR REMOVAL AND REINSTALLATION OF THE CABLE END CONNECTOR TO FACILITATE CABLE INSTALLATION WITHIN THE CONDUITS.
5 FINAL CONNECTIONS TO THE UV UNIT SHALL BE BY QUALIFIED FACTORY TRAINED TECHNICIANS DURING THE SYSTEM STARTUP AND COMMISSIONING.
6 UNLESS NOTED OTHERWISE, ALL EQUIPMENT AND DEVICES WITHIN THE ELECTRICAL ROOM SHALL BE RATED NEMA 1.
7 EXISTING AUTODIALER SHALL BE SALVAGED INCLUDING EXISTING PHONE LINES AND REINSTALLED IN NEW CABINET AND RECONNECTED.
8 PROVIDE (2) NEW ROOFTOP DOWNBLAST EXHAUST FANS AS MANUFACTURED BY GREENHECK, MODEL G-090-VG. AIRFLOW: 650 CFM, ESP: 0.3 IN. WG, 1625 RPM, 1/10 HP, 115/1/60 OR APPROVED EQUAL. PROVIDE GRAVITY DAMPER WITH EACH FAN. COORDINATE EXISTING ROOF CURB WITH NEW EXHAUST FAN SIZE AND PROVIDE ADAPTER/TRANSITION AS REQUIRED.
9 AUTOMATIC CONTROL DAMPERS SHALL BE INTERLOCKED WITH EXHAUST FANS AND THERMOSTAT. EXHAUST FANS SHALL OPERATE WHEN THE SPACE TEMPERAUTRE EXCEEDS 80°F (ADJUSTABLE). UPON CALL FROM THE THERMOSTAT THE INTAKE DAMPERS SHALL OPEN AND THE EXHAUST FANS SHALL START.

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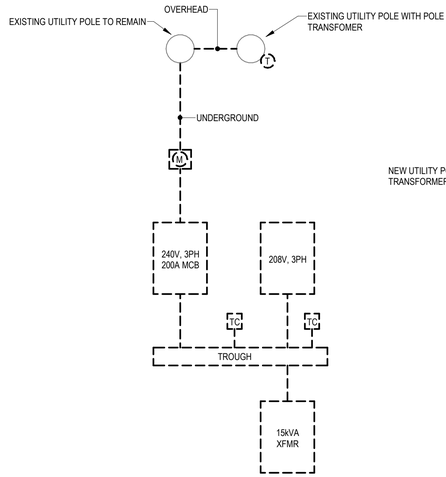
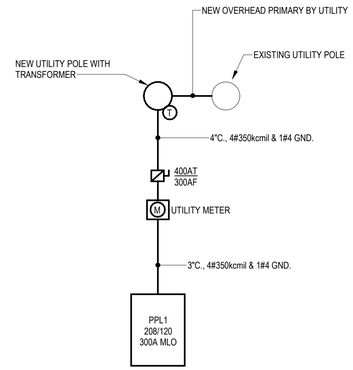
ELECTRICAL PUMP HOUSE PLANS

Sheet Number:

E2.01



1 DEMOLITION ONE-LINE DIAGRAM
N.T.S.



2 NEW ONE-LINE DIAGRAM
N.T.S.

Branch Panel: PPL1

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

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

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

Notes: SERVICE ENTRANCE RATED.

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1				10.6...	10.6...								2
3	FILTER PUMP #1	200.0 A	3			10.6...	10.6...			3	200.0 A	FILTER PUMP #2	4
5								10.6...	10.6...				6
7				1.3 kVA	0.0 kVA					1	20.0 A	CHEM FEED RECPT	8
9	FILL PUMP	30.0 A	3			1.3 kVA	0.0 kVA			1	20.0 A	SECURITY KEY PAD	10
11								1.3 kVA	1.3 kVA				12
13				4.0 kVA	1.3 kVA					3	30.0 A	BACK WASH PUMP PANEL	14
15	UV CONTROLLER	50.0 A	3			4.0 kVA	1.3 kVA						16
17								4.0 kVA	0.5 kVA	1	20.0 A	GEN PUR RECPTS	18
19	CHEMICAL CONTROLLER	20.0 A	1	0.0 kVA	0.3 kVA					1	20.0 A	LITES Room 207, 206	20
21	RECPT ELEC RM	20.0 A	1			0.0 kVA	0.0 kVA			1	20.0 A	FLOW METER	22
23	EXTERIOR LIGHTING	20.0 A	1					0.0 kVA	0.2 kVA	1	20.0 A	EF-2	24
25	EF-1	20.0 A	1	0.2 kVA	0.0 kVA					1	20.0 A	HVAC CONTROLS	26
27						0.0 kVA	0.0 kVA			1	20.0 A	SPARE	28
29	SPARE	30.0 A	3					0.0 kVA	0.0 kVA	1	20.0 A	SPARE	30
31				0.0 kVA	0.0 kVA					1	20.0 A	SPARE	32
33	SPARE	20.0 A	1			0.0 kVA	0.0 kVA			1	20.0 A	SPARE	34
35	SPARE	20.0 A	1					0.0 kVA	0.0 kVA	1	20.0 A	SPARE	36
37	SPARE	20.0 A	1	0.0 kVA	0.0 kVA					1	20.0 A	SPARE	38
39	SPARE	20.0 A	1			0.0 kVA	0.0 kVA			1	20.0 A	SPARE	40
41	SPARE	20.0 A	1					0.0 kVA	0.0 kVA	1	20.0 A	SPARE	42
		Total Load:		28.2 kVA		27.8 kVA		28.4 kVA					
		Total Amps:		235.8 A		231.4 A		237.6 A					

Total Panel Load: **68 kVA**
Total Panel Amps: **190.1 A**

Notes:

EQUIPMENT SCHEDULE

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

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MFR	CATALOG NUMBER	LAMP	MOUNTING	VOLT	WATT	NOTE
A	1X4 ENCLOSED AND GASKETED LED FIXTURE	COOPER LIGHTING/METALUX	4VT2-LD4-4-DR-UNV-L835-CD 1-WL-TEH	4000lm 3500K LED	SURFACE	120 V	38 W	
AE	1X4 ENCLOSED AND GASKETED LED FIXTURE. PROVIDE WITH EMERGENCY LED DRIVER	COOPER LIGHTING/METALUX	4VT2-LD4-4-DR-UNV-EL10W-L 835-CD1-WL-TEH	4000lm 3500K LED	SURFACE	120 V	38 W	
E1	CEILING EXIT LIGHT. NUMBER OF FACES AND ARROWS AS SHOWN ON THE FLOOR PLAN	COOPER/ISOLITE	RL-AC-R-WH-UN-SD	LED	UNIVERSAL	120 V	2 W	

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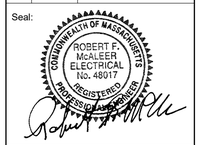

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ELECTRICAL ONE-LINES, SCHEDULES & DETAILS

Sheet Number:

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