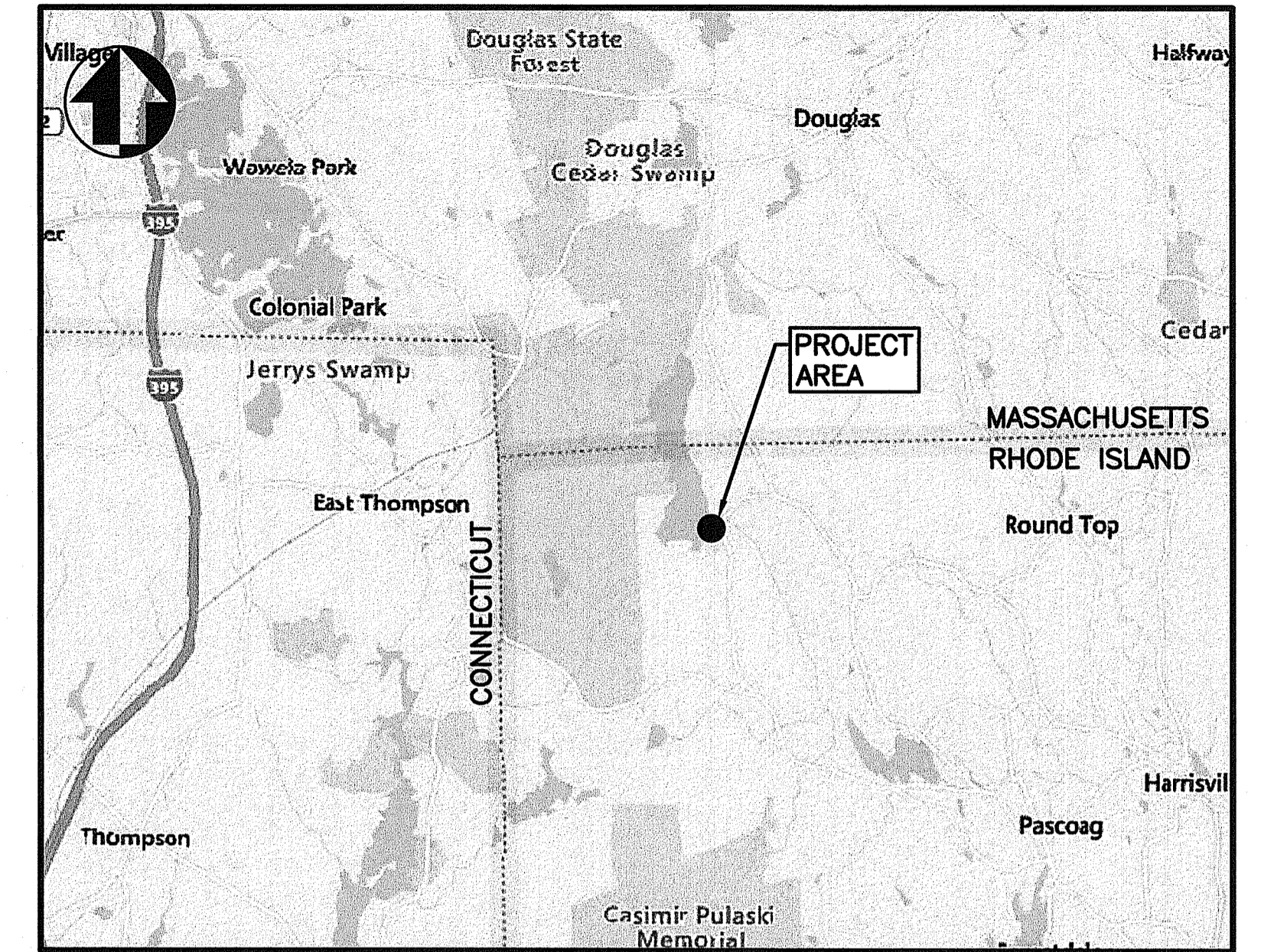


LOCATION MAP

Scale: 1" = 200'



VICINITY MAP

Scale: 1" = 7000'

STATE OF RHODE ISLAND
 DEPARTMENT OF ADMINISTRATION
 DIVISION OF CAPITAL ASSET MANAGEMENT AND MAINTENANCE

INDEX OF DRAWINGS

DRAWING NUMBER	DRAWING TITLE
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C-2	EXISTING CONDITIONS SITE PLAN
C-3	PHASE 1 TEMPORARY BYPASS AND TREATMENT PLAN
C-3A	PHASE 1 CHEMICAL FEED BUILDING PLAN
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C-5	PHASE 3 TEMPORARY BYPASS AND TREATMENT PLAN
C-6	SEDIMENT AND EROSION CONTROL PLAN 1
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C-8	PROPOSED CONDITIONS SITE PLAN
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ZAMBARANO CAMPUS WASTEWATER
 TREATMENT FACILITY UPGRADES

ELEANOR SLATER HOSPITAL
 ZAMBARANO UNIT
 PASCOAG, RHODE ISLAND

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM

NOTE PER DEM:

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED: SEP 12 2024 FILE #: 21-0297
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Argentin D. Senese

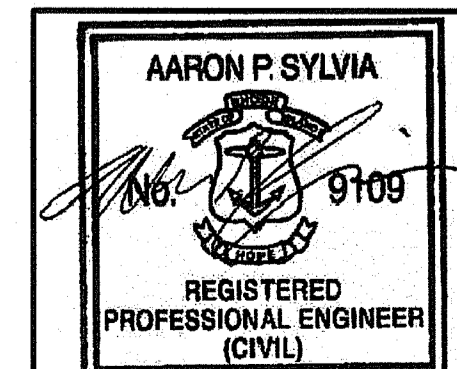
JUL 18 2024
 Office of Water Resources

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NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

JULY 2024

166 Valley Street, Building 5
 Providence, Rhode Island 02909
 p 401.521.5980
 www.wsp.com



AARON P. SYLVIA, P.E.
 REGISTERED PROFESSIONAL ENGINEER
 07/12/2024
 DATE

GENERAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL STRUCTURES AND PIPING, AS SHOWN IN THE DRAWINGS, AGAINST FLOODING, FLOTATION, AND OTHER DAMAGE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT DAMAGE TO ADJACENT AND NEARBY STRUCTURES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROTECT WALLUM LAKE ROAD AT ALL TIMES TO MAINTAIN SAFE PASSAGE OF VEHICULAR TRAFFIC. ALL DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE ENGINEER.
- UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE RECORD DRAWINGS PROVIDED BY RIDOA; AND, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES, THE EXISTENCE OF WHICH ARE PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND AVOID DAMAGE THERETO.
- ALL AREAS AND UTILITIES DISTURBED BY THE CONTRACTOR BEYOND THE LIMITS OF DISTURBANCE SHALL REQUIRE PRIOR AUTHORIZATION FROM THE ENGINEER AND SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
- UTILITIES WHICH ARE EXPOSED DURING EXCAVATION AND THAT ARE NOT TO BE RELOCATED, ABANDONED, OR DEMOLISHED SHALL BE SUPPORTED IN PLACE, BRACED, OR OTHERWISE PROTECTED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING MATERIAL STORAGE AND EQUIPMENT AREAS, FIELD OFFICES (IF NECESSARY), AND EARTHEN MATERIAL HANDLING AREAS, ALL WITHIN THE DESIGNATED LIMIT OF WORK AREA AND APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION ACTIVITIES WITHIN THE LIMIT OF WORK AREAS INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL SECURE THE WORK SITE FROM UNAUTHORIZED PERSONNEL WITH TEMPORARY CONSTRUCTION FENCING.
- THE CONTRACTOR SHALL COVER AND SECURE WORK AREA AND EXCAVATIONS DURING PERIODS OF NON-WORK.
- THE CONTRACTOR SHALL FURNISH AND INSTALL AN EIGHT (8) FOOT BY FOUR (4) FOOT PROJECT SIGN WHICH, AT A MINIMUM, INCLUDES THE FOLLOWING:
 - PROJECT TITLE: WASTE WATER TREATMENT FACILITY UPGRADES;
 - PROJECT LOCATION: ELEANOR SLATER HOSPITAL, ZAMBARANO UNIT;
 - OWNER: RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF CAPITAL ASSET MANAGEMENT AND MAINTENANCE;
 - GOVERNOR: DANIEL MCKEE;
 - DIRECTOR OF ADMINISTRATION: LAMMIS J. VARGAS; AND
 - STATE LOGO: TO BE PROVIDED BY OWNER.

PLAN REFERENCES

- REFERENCE IS MADE TO THE FOLLOWING MAPS AND PLANS OF RECORD:
 - RHODE ISLAND HIGHWAY PLAT NO. 922, 922X
 - PLAN ENTITLED "PLAT OF HOUSE LOTS AT WALLUM LAKE, R.I., SYLVESTER ANGELL ESTATE, SURVEYED AND PLATTED MAY 1825 BY ROSCOE W. BAKER, SURVEYOR, SCALE: 1" = 40'."
 - PLAN ENTITLED "MAP OF LAND IN THE TOWN OF BURRILLVILLE, R.I. BELONGING TO SYLVESTER ANGELL UPON WHICH IT IS PROPOSED TO LOCATE A STATE SANATORIUM MADE BY ORDER OF C. ALVIN POTTER, HARRY C. CURTIS, FRANK T. EASTON, EOWIN A. PERRIN AND THEODORE S. HUGHES, COMMISSIONERS APPOINTED BY HIS EXCELLENCY, THE GOVERNOR, AT THE JAN'Y SESSION, A.D. 1902 BY J.A. LATHAM, DEC., 1902."
- REFERENCE IS MADE TO THE FOLLOWING BURRILLVILLE LAND EVIDENCE RECORDS REGARDING RECORDED TITLE TO THE PREMISES SURVEYED:
 - A.P. 51, LOT 14 ~ STATE OF RHODE ISLAND ~ VOLUME 29, PAGE 355

UTILITY NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH LOCAL UTILITIES AND RHODE ISLAND DEPARTMENT OF ADMINISTRATION (RIDOA) FACILITIES MANAGEMENT TO DECOMMISSION FACILITIES PRIOR TO DEMOLITION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PAYMENT TO UTILITY COMPANIES AS REQUIRED TO ABANDON SERVICE AS PER CONTRACT DOCUMENTS.
- THE UTILITY SERVICES SHOULD BE DISCONNECTED AT MAINS IN ACCORDANCE WITH REQUIREMENTS GOVERNING THE UTILITY INVOLVED. UTILITY SERVICES AND ALL OTHER UTILITIES OR PORTIONS OF RELATED APPURTENANCES SUCH AS MANHOLES AND OTHER SERVICE LINES SUCH AS WIRES, CABLES, CONDUITS, DUCTS, AND THE LIKE SHALL BE ENTIRELY REMOVED WITHIN 3- FEET OF FINISHED GRADE.
- THE CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888-344-7233) A MINIMUM OF 72 HOURS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY RIDOA FACILITIES MANAGEMENT AT 401-222-6200 A MINIMUM OF 72 HOURS PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PROVIDING TEMPORARY ELECTRIC, WATER SERVICES, AND SANITARY FACILITIES AS REQUIRED TO EXECUTE THE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING TEMPORARY POWER BY USE OF ON-SITE GENERATOR. NO ELECTRICAL POWER WILL BE MADE AVAILABLE TO THE CONTRACTOR. ANY SCHEDULED POWER OUTAGES SHALL BE COORDINATED AND APPROVED BY THE DIVISION OF CAPITAL ASSET MANAGEMENT AND MAINTENANCE (DCAMM).
- STORM DRAINS, DRAINAGE MANHOLES, AND CATCH BASINS THAT SHALL REMAIN FOLLOWING DEMOLITION. THE CONTRACTOR SHALL PROTECT THE STRUCTURES DURING DEMOLITION ACTIVITIES.
- CONTRACTOR RESPONSIBLE FOR OBTAINING ALL REGULATORY PERMITS FROM STATE AND LOCAL AGENCIES INCLUDING BUT NOT LIMITED TO BUILDING, ELECTRICAL, MECHANICAL, FIRE MARSHAL, AND ENVIRONMENTAL.
- ANY AND ALL ELECTRICAL WORK SHALL BE PERFORMED BY A RHODE ISLAND LICENSED ELECTRICIAN.

EROSION CONTROL NOTES

- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT FOR ACCEPTANCE, A GENERAL WORK SCHEDULE AND PLAN THAT INDICATES PLANNED IMPLEMENTATION OF TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
- SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. SEDIMENTATION DEVICES SHALL BE FURNISHED, INSTALLED AND MAINTAINED AS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PREVENT THE DISCHARGE AND MIGRATION OF SEDIMENT FROM THE SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM DEWATERING OPERATION DISCHARGES IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH PROPOSED METHODS FOR SEDIMENT REMOVAL FOR REVIEW BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE DUST CONTROL (E.G., CALCIUM CHLORIDE OR WATER) TO MINIMIZE DUST ON SITE DURING DEMOLITION. THE FREQUENCY AND APPLICATION RATES FOR DUST CONTROL SHALL BE COORDINATED BY THE CONTRACTOR AND ENGINEER.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL THROUGHOUT THE WORK AREA.
- SEDIMENTATION DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY BY THE CONTRACTOR.
- UPON COMPLETION OF SITE RESTORATION, THE CONTRACTOR SHALL CLEAN AND FLUSH ALL CATCH BASINS, AND DISCHARGE STRUCTURES IMPACTED BY THIS PROJECT.
- BALED HAY EROSION CHECKS SHALL BE INSTALLED AT ALL CATCH BASINS AND INLETS TO TRAP SEDIMENT FROM ENTERING THE SYSTEM. CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE ADJUTING GROUND SURFACES ARE STABILIZED.
- WHERE BALED HAY EROSIONS CHECKS AND SILT FENCES ARE USED AT CATCH BASINS, THEY SHALL BE REMOVED AT THE END OF WORK AT THAT SITE OR AS DIRECTED BY THE ENGINEER IN ORDER TO PREVENT CLOGGING OF THE INLET.
- THE CONTRACTOR SHALL BE RESPONSIBLE ON A DAILY BASIS FOR SWEEPING OF ALL STREETS IMPACTED FROM DISPERSED SEDIMENT.
- THE CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ACCESS/EGRESS AT ALL VEHICULAR POINTS OF EXIT FROM WORK SITE.

ABBREVIATIONS

ABDN	ABANDONED	LF	LINEAR FEET
ACCU	AIR-COOLED CONDENSING UNIT	L	LENGTH
ACU	AIR CONDITIONING UNIT	LB	POUNDS
AD	AREA DRAIN	LB/D	POUNDS PER DAY
ADDL	ADDITIONAL	LG	LONG
AHU	AIR HANDLING UNIT	LONG	LONGITUDINAL
ALUM	ALUMINUM	LR	LONG RADIUS
ALTN	ALTERNATE	LT	LIGHT
AMP	AMPERE	MATL	MATERIAL
ANOD	ANODIZED	MAX	MAXIMUM
APPROX	APPROXIMATE	MCC	MOTOR CONTROL CENTER
ARCH	ARCHITECTURAL	MD	MOTORIZED DAMPER
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MECH	MECHANICAL
AVG	AVERAGE	MFR	MANUFACTURER
		MGD	MILLION GALLONS PER DAY
		MG/L	MILLIGRAMS PER LITER
B	BASLINE	MH	MANHOLE
BLDG	BUILDING	MIN	MINIMUM
BOD 5	BIOCHEMICAL OXYGEN DEMAND (5 DAY TEST)	MISC	MISCELLANEOUS
		M&P	MAINTAIN AND PROTECT
BOT	BOTTOM	MTL	METAL
BRG	BEARING	MTRG	METERING
		N	NORTH
CAB.	CABINET	NIC	NOT IN CONTRACT
CB	CATCH BASIN	NO	NUMBER
CC	CONCRETE CURB	NOM	NOMINAL
CHEM	CHEMICAL	NPW	NON-POTABLE WATER
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
CI	CAST IRON		
CIP	CAST IN PLACE	OC	ON CENTER
CISP	CAST IRON SOIL PIPE	OD	OUTSIDE DIAMETER
CJ	CONSTRUCTION JOINT	OF	OVERFLOW
CL	CENTER LINE	O/H	OVERHEAD
CL 2	CHLORINE	OPNG	OPENING
CLF	CHAIN LINK FENCE	OPP	OPPOSITE
CLP	CLAY PIPE	ORP	OXIDATION REDUCTION POTENTIAL
CL	CLEAR		
CLSM	CONTROLLED LOW STRENGTH MATERIAL	PC	POINT OF CURVATURE
CMP	CORRUGATED METAL PIPE	PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
CMU	CONCRETE MASONRY UNITS	PCF	POUNDS PER CUBIC FOOT
C.O.	CLEAN OUT	PI	POINT OF INTERSECTION
COL	COLUMN	PJF	PREMOLDED JOINT FILLER
CONC	CONCRETE	R	PROPERTY LINE
CONN	CONNECTION	PLYWD	PLYWOOD
CONST	CONSTRUCTION	POT	POINT ON TANGENT
CONT	CONTINUOUS	PVC	PVC PIPE
COR	CORNER	PS	PUMP STATION
CPLG	COUPLING	PSF	POUNDS PER SQUARE FOOT
C TO C	CENTER TO CENTER	PSI	POUNDS PER SQUARE INCH
CTR	CENTER	PT	POINT OF TANGENCY
CS	COMBINED SEWER	PVC	POLYVINYL CHLORIDE
CU FT	CUBIC FEET	PVI	POINT OF VERTICAL INTERSECTION
		PVMT	PAVEMENT
		PVT	POINT OF VERTICAL TANGENCY
DEG	DEGREE	RAD	RADIUS
DET	DETAIL	RAS	RETURN ACTIVATED SLUDGE
DIA	DIAMETER	RC	REINFORCED CONCRETE
DIAG	DIAGONAL	RCP	REINFORCED CONCRETE PIPE
DIP	DIMENSION	RD	ROOF DRAIN
DIR	DIRECTION	R&D	REMOVE AND DISPOSE
DISCH	DISCHARGE	REDUC	REDUCER
DISCH	DISSOLVED OXYGEN	REHAB	REHABILITATION/REHABILITATED
DS	DOWNSPOUT	REINF	REINFORCEMENT
DWG	DRAWING	REQ'D	REQUIRED
DWL	DOWEL	RM	ROOM
		RO	ROUGH OPENING
EA	EACH		
EOP	EDGE OF PAVEMENT	S	SOUTH
ELB	ELBOW	SCH	SCHEDULE
ECC	ECCENTRIC	SECT	SECTION
EF	EACH FACE	SHT	SHEET
EFL	EFFLUENT	SIM	SIMILAR
EL	ELEVATION	S	SPRING LINE
ELEC	ELECTRICAL	SMH	SANITARY MANHOLE
EQ	EQUAL	S.O.	SHUTOFF
EQ SP	EQUALLY SPACED	SPECS	SPECIFICATIONS
EW	EACH WAY	SP	SPACING
EXP JT	EXPANSION JOINT	SQ	SQUARE
EXT	EXTERIOR	SS	STAINLESS STEEL
EXIST/EX	EXISTING	STA	STATION
		STD	STANDARD
FAB	FABRICATION	STOR	STORAGE
FACIL	FACILITY	STR	STRAIGHT
F.H.	FIRE HYDRANT	STRUCT	STRUCTURAL
FDN	FOUNDATION	STL	STEEL
FD	FLOOR DRAIN	SYMM	SYMMETRICAL
FCA	FLANGED COUPLING ADAPTER		
FLEX	FLEXIBLE	T	TANGENT LENGTH
FLG	FLANGE	TOC	TOP OF CONCRETE
FLR	FLOOR	TCU	TERMINAL CONTROL UNIT
		TELE	TELEPHONE
G	GAS	TF	TOP FACE
GAL	GALVE	THK	THICK
GALV	GALVANIZED	THRD	THREADED
GALVS	GALVANIZED STEEL	TPD	TONS PER DAY
GD	GALLONS PER DAY	TPI	TURNOUT POINT OF INTERSECTION
GCR	GROUND	TSS	TOTAL SUSPENDED SOLIDS
		TOS	TOP OF STEEL
HDR	HEADER	TYP	TYPICAL
HGT	HEIGHT	UH	UNIT HEATER
HORIZ	HORIZONTAL	UV	ULTRAVIOLET
HM	HOLLOW METAL		
HR	HOUR	VERT	VERTICAL
HV	HOSE VALVE	VCP	VITRIFIED CLAY PIPE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	V	VOLT
		WWTP	WASTEWATER TREATMENT PLANT
I&C	INSTRUMENTATION AND CONTROL	W/	WITH
I.D.	INSIDE DIAMETER	WD	WOOD
KVA	KILO-VOLT-AMPERE		

LEGEND

NF	NOW OR FORMERLY	---	PROPERTY LINE
A.P.	ASSESSORS PLAT	---	ZONING SETBACK LINE
S.F.	SQUARE FEET	---	EXISTING CONTOUR
AC	ACRES	---	NEW CONTOUR
±	PLUS OR MINUS	---	STONE WALL
STY	STORY	X	EXISTING FENCE
WF	WOOD FRAMED	□	PROPOSED FENCE
SHP	STATE HIGHWAY PLAT	S	SEWER LINE
RET.	RETAINING WALL	D	DRAIN LINE
PED.	PEDESTRIAN	W	WATER LINE
(FND.)	FOUND	G	GAS LINE
RHB	RI HIGHWAY BOUND	E	ELECTRIC LINE
MASONRY NAIL	MASONRY NAIL	PWL	50' PERIMETER WETLAND
FLARED END	FLARED END	200 RA	200' RIVERFRONT AREA
REINFORCED CONCRETE PIPE	REINFORCED CONCRETE PIPE	---	SAW CUT LINE
CHAIN LINK FENCE	CHAIN LINK FENCE	---	STRAW WATTLE
INVERT	INVERT	---	LIMIT OF DISTURBANCE
EXISTING SPOT GRADE	EXISTING SPOT GRADE	---	LIMITS OF DISTURBANCE/CLEARING/AND SEDIMENT CONTROL COMBINED
NEW SPOT GRADE	NEW SPOT GRADE	---	SANITARY SEWER MANHOLE
DRILL HOLE	DRILL HOLE	⊙	CATCH BASIN
IRON PIPE	IRON PIPE	⊙	STORM DRAIN MANHOLE
GRANITE BOUND	GRANITE BOUND	⊙	WATER GATE
		⊙	GAS VALVE
		⊙	ELECTRIC MANHOLE

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
Providence, Rhode Island 02909
p 401.521.5980
www.wsp.com

AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
(CIVIL)

AARON P. SYLVIA, PE
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

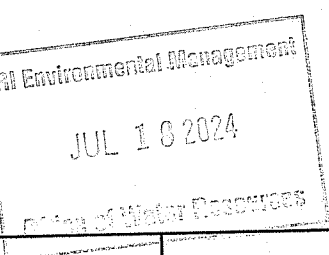
DRAWN BY: JD
DEPT CHECK: WM
PROJECT CHECK: AS

ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES

INDEX OF DRAWINGS, GENERAL NOTES, & ABBREVIATIONS

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

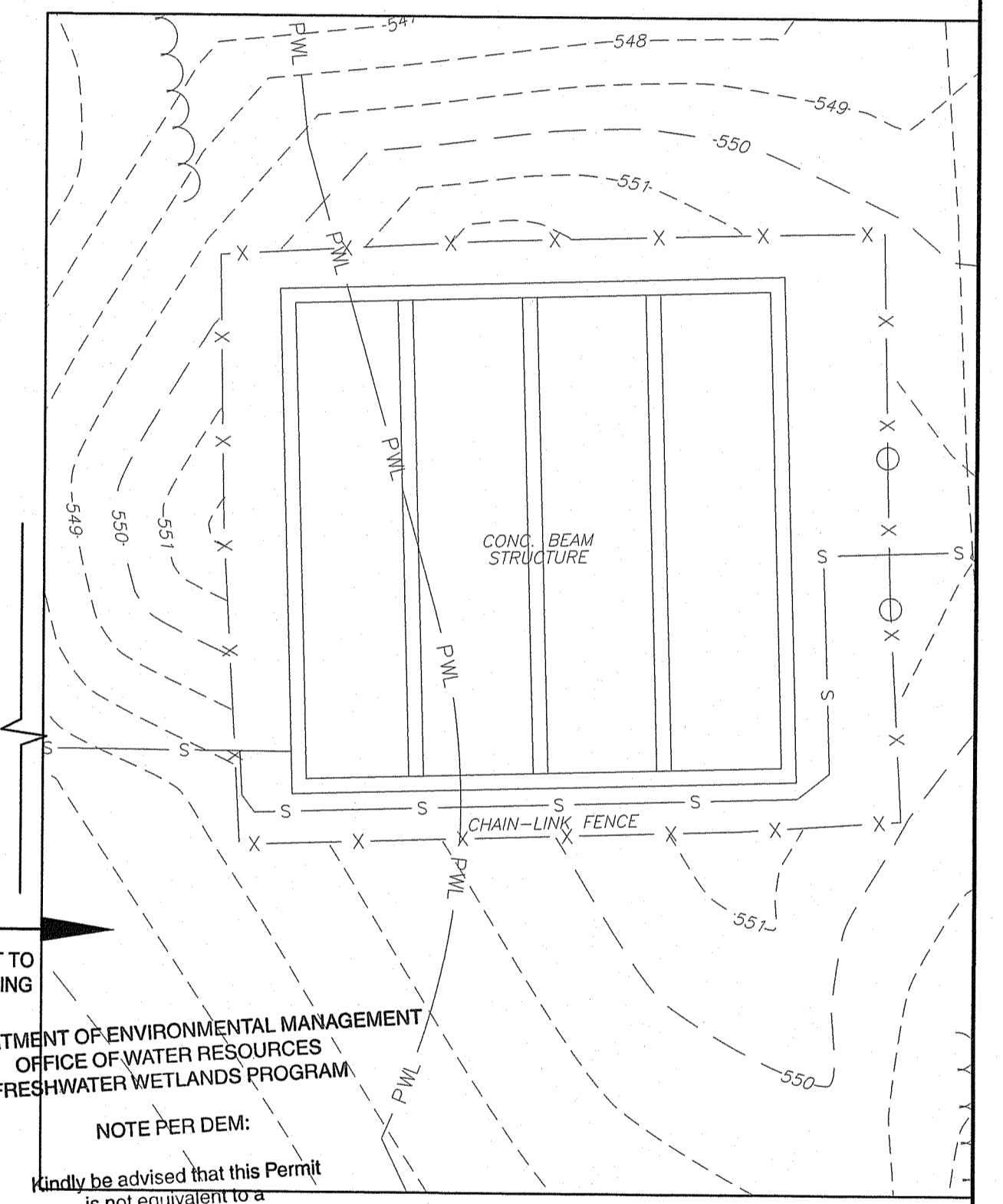
PROJECT No.	C-1
SHEET	1 OF 20





NOTES:

- EXISTING CONDITIONS SURVEY PROVIDED BY WATERMAN ENGINEERING COMPANY ON JULY 29, 2021.
- THE HORIZONTAL DATUM FOR THIS PROJECT IS R.I.S.P.C.S. (NAD 83) AND THE VERTICAL DATUM FOR THIS PROJECT IS NAVD 88. THE PROJECT DATUMS WERE ESTABLISHED FROM REFERENCE STATIONS AND GNSS CORRECTIONS RECEIVED FROM THE LEICA SMARTNET NORTH AMERICA RTK NETWORK VIA CARLSON BRX6 GNSS ANTENNAS / RECEIVERS.
- THE VERTICAL DATUM SHOWN HEREON REFERENCES NAVD88.
- ADDITIONAL SITE FEATURES AND VERIFICATION OF EQUIPMENT ARRANGEMENTS WERE ADDED TO THE PLANS BASED ON OBSERVATIONS MADE BY WSP PERSONNEL ON APRIL 1-3, 2019. SPECIFICATIONS AND THE GENERAL ALIGNMENT OF THE NEWLY INSTALLED PRIMARY ELECTRICAL SERVICE IN THE AREA OF THE PROPOSED WORK WERE PROVIDED BY FUSS & O'NEILL, INC. PROVIDENCE RI ON APRIL 10, 2019.
- UTILITY LOCATIONS SHOWN SHALL BE CONSIDERED APPROXIMATE.
- THE BOILER PLANT AND FUEL STORAGE BUILDINGS ARE ACTIVE FACILITIES. THESE FACILITIES SHALL REMAIN OPERATIONAL FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL COORDINATE ACCESS TO THE FACILITIES WITH THE RI DEPARTMENT OF ADMINISTRATION.
- CONTRACTOR IS ADVISED OF A RECENTLY INSTALLED UNDERGROUND THREE-PHASE PRIMARY DUCT BANK INSTALLED IN THE DRIVEWAY BETWEEN THE SAND FILTER AND UV DISINFECTION BUILDINGS. LOCATION SHOWN ON THIS DRAWING IS APPROXIMATE AND CORRESPONDS TO ROAD CUT. DRAWING DOES NOT SHOW THE COMPLETE EXTENT OF RECENT UNDERGROUND ELECTRIC INSTALLATION. THIS INSTALLATION IS BY OWNER AND NOT NATIONAL GRID.



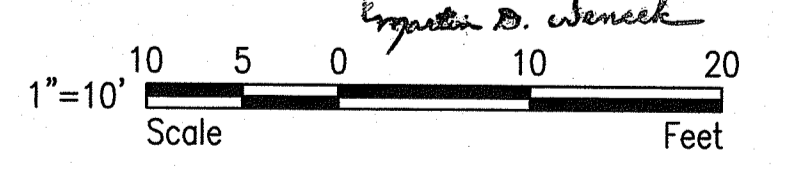
APPROX. 90 FT TO EXISTING DOSING TANK

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

NOTE PER DEM:
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

EXISTING DOSING TANK

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: SEP 12 2024 FILE #: 21027
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
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p 401.521.5980
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AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

AARON P. SYLVIA, PE
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

DRAWN BY:
JD
DEPT CHECK:
WM
PROJECT CHECK:
AS

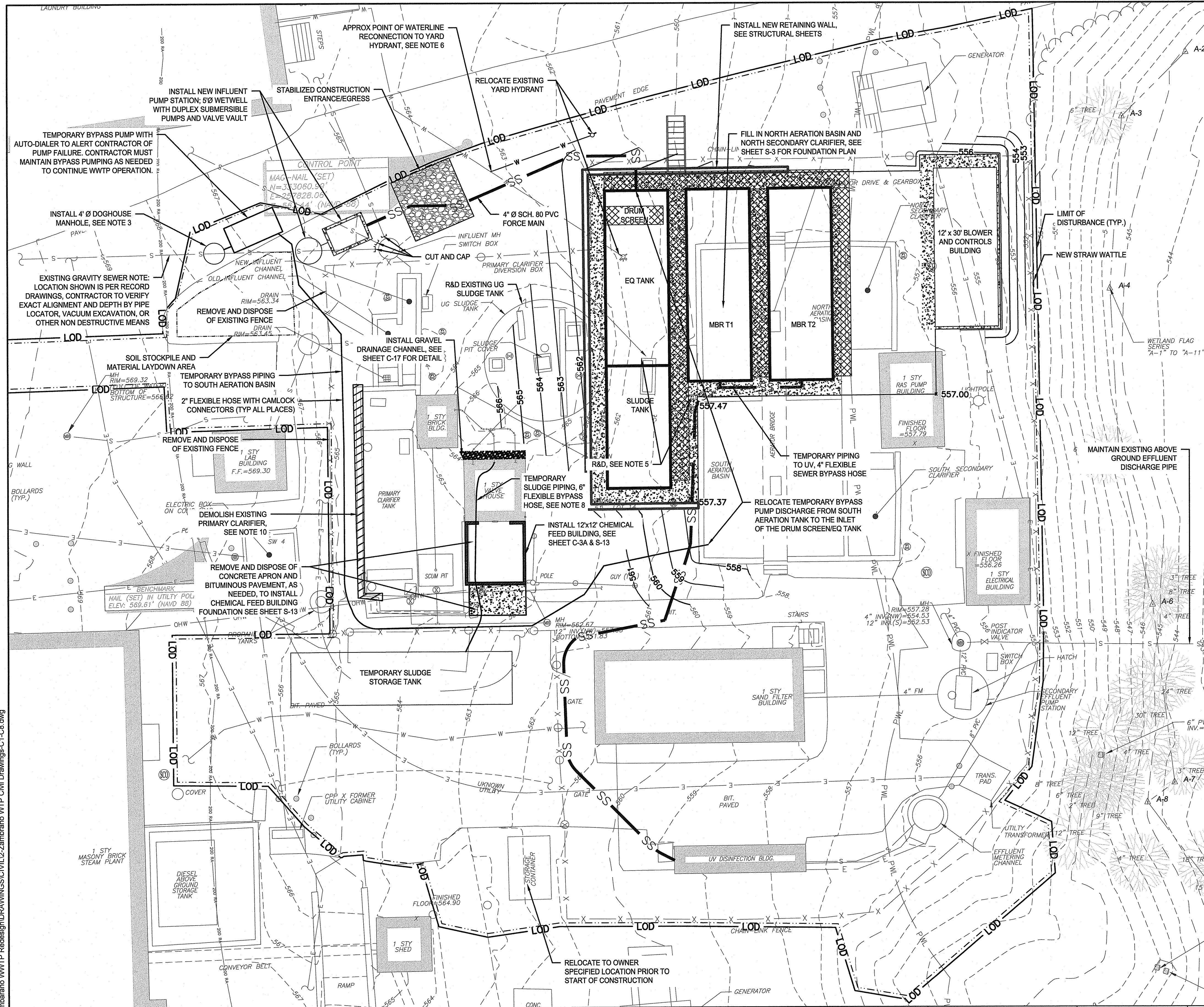
ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES

EXISTING CONDITIONS SITE PLAN

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT-No. **C-2**
SHEET **2** OF **20**

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- LEGEND:**
- / — / — SAW CUT LINE
 - LOD — LIMITS OF DISTURBANCE/CLEARING/AND STRAW WATTLE COMBINED
 - — — STRAW WATTLE COMBINED
 - ▢ EXISTING ASPHALT TO BE REMOVED

- NOTES:**
1. ALIGNMENT OF TEMPORARY BYPASS PIPING MAY BE ADJUSTED TO SUIT FIELD CONDITIONS. FINAL ARRANGEMENT TO BE APPROVED BY THE ENGINEER PRIOR TO TAKING EXISTING TREATMENT SYSTEM OFFLINE.

PHASE 1 SEQUENCE OF TEMPORARY BYPASS AND TREATMENT:

1. INSTALL ALL SEDIMENT AND EROSION CONTROL BMPs.
2. INSTALL NEW 12'x12' CHEMICAL FEED BUILDING, SEE SHEET C-3A.
3. INSTALL 4" DOGHOUSE MANHOLE ON EXISTING GRAVITY SEWER COMING FROM THE HOSPITAL CAMPUS. CONTRACTOR TO LOCATE AND FIELD VERIFY THE LOCATION OF THE EXISTING 10" SEWER MAIN TO BE INTERCEPTED.
4. ESTABLISH BYPASS PUMPING FROM NEW 4" BYPASS MANHOLE TO SOUTH AERATION TANK WITH FLEXIBLE PIPING. TEMPORARILY SHUT OFF WATER SERVICE VALVE TO LAB BUILDING.
5. INSTALL NEW INFLUENT PUMP STATION WITH 5" WETWELL, DUPLEX SUBMERSIBLE PUMPS, AND VALVE VAULT. TREATMENT SHALL BE TEMPORARILY CONDUCTED USING ONLY THE SOUTH AERATION BASIN UNTIL THE MBR SYSTEM IS OPERATIONAL.
6. REMOVE AND DISPOSE OF PRIMARY CLARIFIER DIVERSION BOX AND OLD PIPING AND VALVES. COMPACT SOIL FOR FOUNDATION.
7. RELOCATE EXISTING YARD HYDRANT TO THE LOCATION SHOWN ON THE DRAWINGS. EXISTING UNDERGROUND WATER UTILITY LOCATION IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY THE LOCATION OF THE EXISTING WATERLINE AND CONFIRM FINAL POINT OF CONNECTION WITH THE ENGINEER PRIOR TO STARTING WATER UTILITY WORK.
8. FURNISH AND INSTALL TEMPORARY SLUDGE STORAGE CONTAINER BAKER TYPE SVL OR APPROVED EQUAL WITH MINIMUM 18,400 GALLONS OF STORAGE VOLUME. PROVIDE TEMPORARY FLEXIBLE PIPING TO CONNECT THE TEMPORARY STORAGE CONTAINER TO THE EXISTING SLUDGE PUMPS.
9. DEMOLISH AND REMOVE THE EXISTING UNDERGROUND SLUDGE STORAGE TANK AND ALL HATCHES/ASSOCIATED STRUCTURES. CUT AND CAP ALL PIPING TO THE EXISTING TANK.
10. DEMOLISH THE EXISTING PRIMARY CLARIFIER. DEMOLISH AND REMOVE THE WEST WALL, CONTRACTOR TO PUNCH HOLES IN THE BOTTOM OF THE SLAB AND FILL WITH COMMON BORROW AND LOAM AND SEED TO MATCH FINAL GRADE. REMOVE AND DISPOSE OF PRIMARY CLARIFIER FIBERGLASS COVER. CUT/CAP OR PLUG ALL PIPING CONNECTED TO THE PRIMARY CLARIFIER.
11. PERFORM GRADING TO PERMIT INSTALLATION OF FOUNDATIONS FOR THE EQ/SLUDGE TANK, MBR T1, MBR T2, AND THE BLOWER AND CONTROLS BUILDING.
12. FILL IN NORTH AERATION TANK AND NORTH SECONDARY CLARIFIER AND INSTALL NEW FOUNDATION AND RETAINING WALL.
13. INSTALL CONCRETE FOUNDATION AND CONSTRUCT 12' x 30' FRP BLOWER AND CONTROLS BUILDING. PROVIDE ALL MECHANICAL EQUIPMENT AND ELECTRICAL CONNECTIONS NECESSARY FOR COMPLETE OPERATION.
14. INSTALL NEW MBR T1 AND MBR T2 AND EQ/SLUDGE TANKS.
15. INSTALL TEMPORARY PIPING FROM THE MBR T1 AND MBR T2 OUTLETS TO THE EXISTING UV BUILDING.
16. COMPLETE INSTALLATION OF FORCE MAIN TO DRUM SCREEN/EQ TANK.
17. BRING NEW INFLUENT PUMP STATION ONLINE.
18. TEST AND COMMISSION MBR SYSTEM AND BLOWERS AND CONTROLS BUILDING AND CHEMICAL FEED.
19. ONCE MBR SYSTEM IS OPERATIONAL, CHEMICAL FEED SYSTEM FROM CHEMICAL FEED BUILDING CAN BE TAKEN OFFLINE.
20. REMOVE TEMPORARY SLUDGE STORAGE TANK AND PIPING. REMOVE TEMPORARY BYPASS PUMP SYSTEM AND FLEXIBLE PIPING.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

NOTE PER DEM:
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: **SEP 12 2024** FILE #: **21-0297**

NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Gregory D. Wenczek

1" = 10'
Scale

JUL 13 2024

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NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
Providence, Rhode Island 02909
p 401.521.5980
www.wsp.com

AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
(CIVIL)

AARON P. SYLVIA, PE
REGISTERED PROFESSIONAL ENGINEER

07/12/2024
DATE

DRAWN BY:
JD

DEPT CHECK:
WM

PROJECT CHECK:
AS

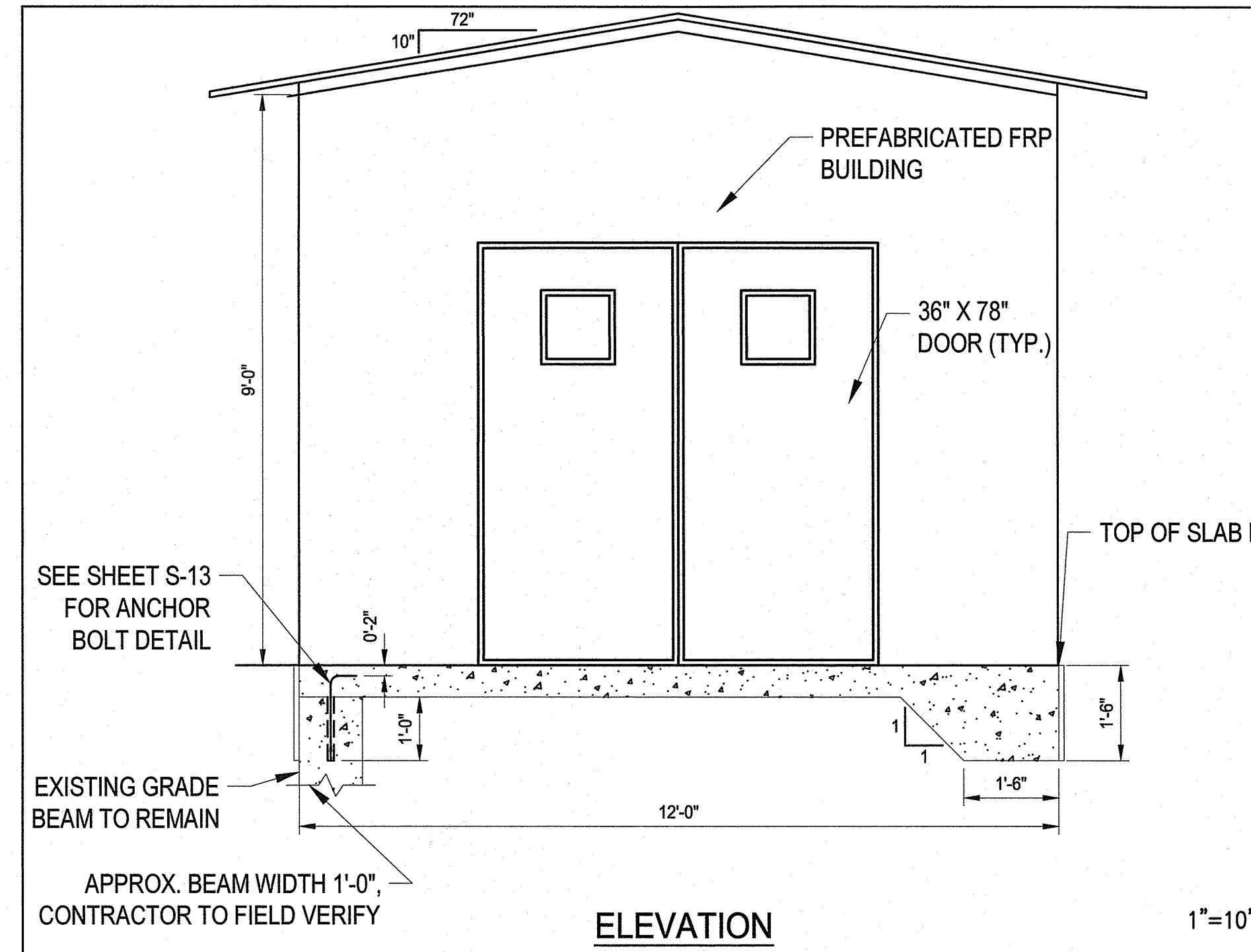
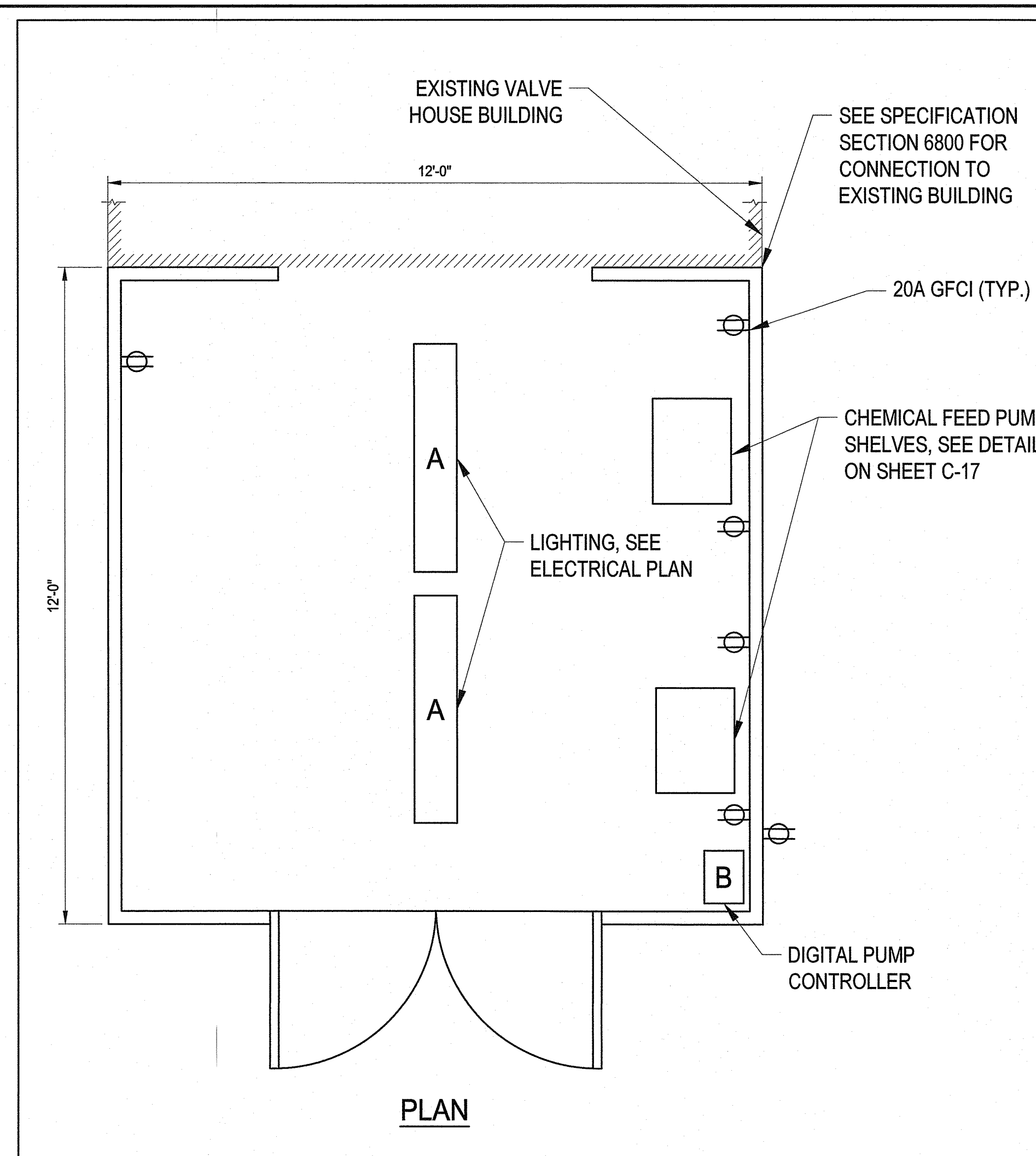
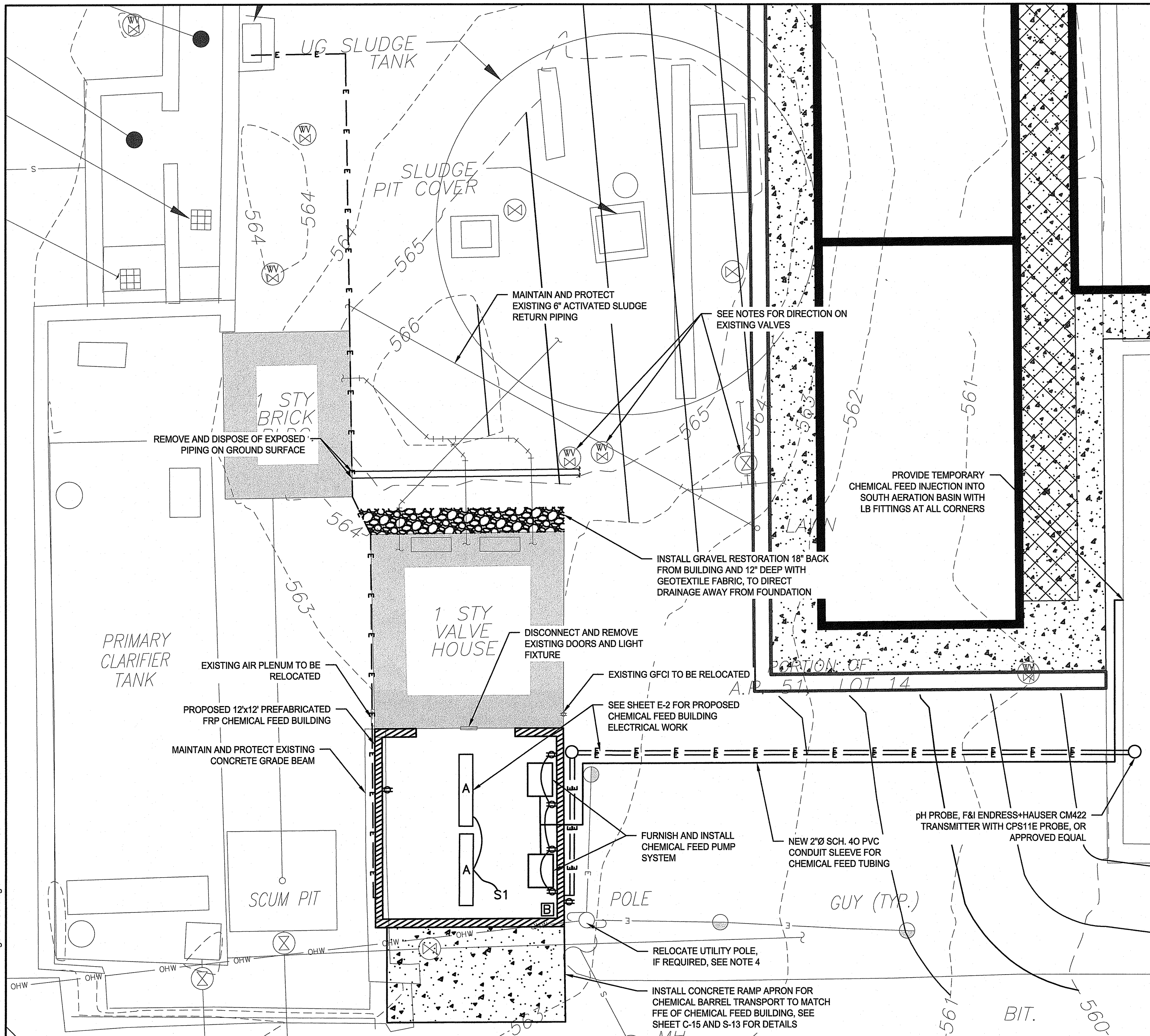
ZABARANO CAMPUS WASTEWATER
TREATMENT FACILITY UPGRADES

**PHASE 1 TEMPORARY BYPASS
AND TREATMENT PLAN**

ELEANOR SLATER HOSPITAL
ZABARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
C-3

SHEET
3 OF 20



- PHASE 1 CHEMICAL FEED BUILDING NOTES:**
- SCOPE OF WORK INCLUDES: REMOVE AND DISPOSE OF THE EXPOSED PIPING ON THE GROUND SURFACE, FURNISH AND INSTALL A 12'x12' PREFABRICATED FIBERGLASS STRUCTURE INCLUDING FOUNDATION AND ELECTRICAL AND MECHANICAL COMPONENTS AS NOTED ON THE DRAWINGS, AND INSTALL NEW ELECTRICAL AND CONTROL WIRING AND pH INDICATING INSTRUMENTATION.
 - CONTRACTOR SHALL FIELD VERIFY, AND COORDINATE WITH RIDOA, ALL VALVE NOTES ON THE DRAWINGS. IF A VALVE IS FOUND TO BE ABANDONED, THE CONTRACTOR SHALL CUT AND CAP THE PIPE ON EITHER SIDE OF THE VALVE AND COMPLETELY REMOVE AND DISPOSE OF THE ABANDONED VALVE.
 - THE PROPOSED CHEMICAL FEED EQUIPMENT, TO BE INJECTED INTO THE SOUTH AERATION BASIN, IS TEMPORARY. ONCE THE NEW MBR SYSTEM IS OPERATIONAL, THE TEMPORARY CHEMICAL FEED EQUIPMENT SHALL BE TAKEN OFFLINE.
 - FOR UTILITY POLE CONTACT INFORMATION SEE BELOW:
PASCOAG UTILITY DISTRICT
253 PASCOAG MAIN STREET
P.O. BOX 107
PASCOAG, RI 02859
TEL: (401) 568-6222
MORGAN WILLIAMS, PROJECT COORDINATOR

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

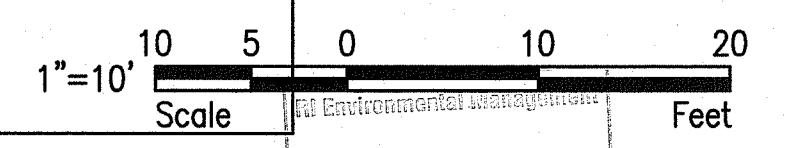
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FRESHWATER WETLANDS PROGRAM

APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL DATED: **SEP 12 2024** FILE # **21-0879**

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Signature



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AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER

07/12/2024
DATE

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JD

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PROJECT CHECK:
AS

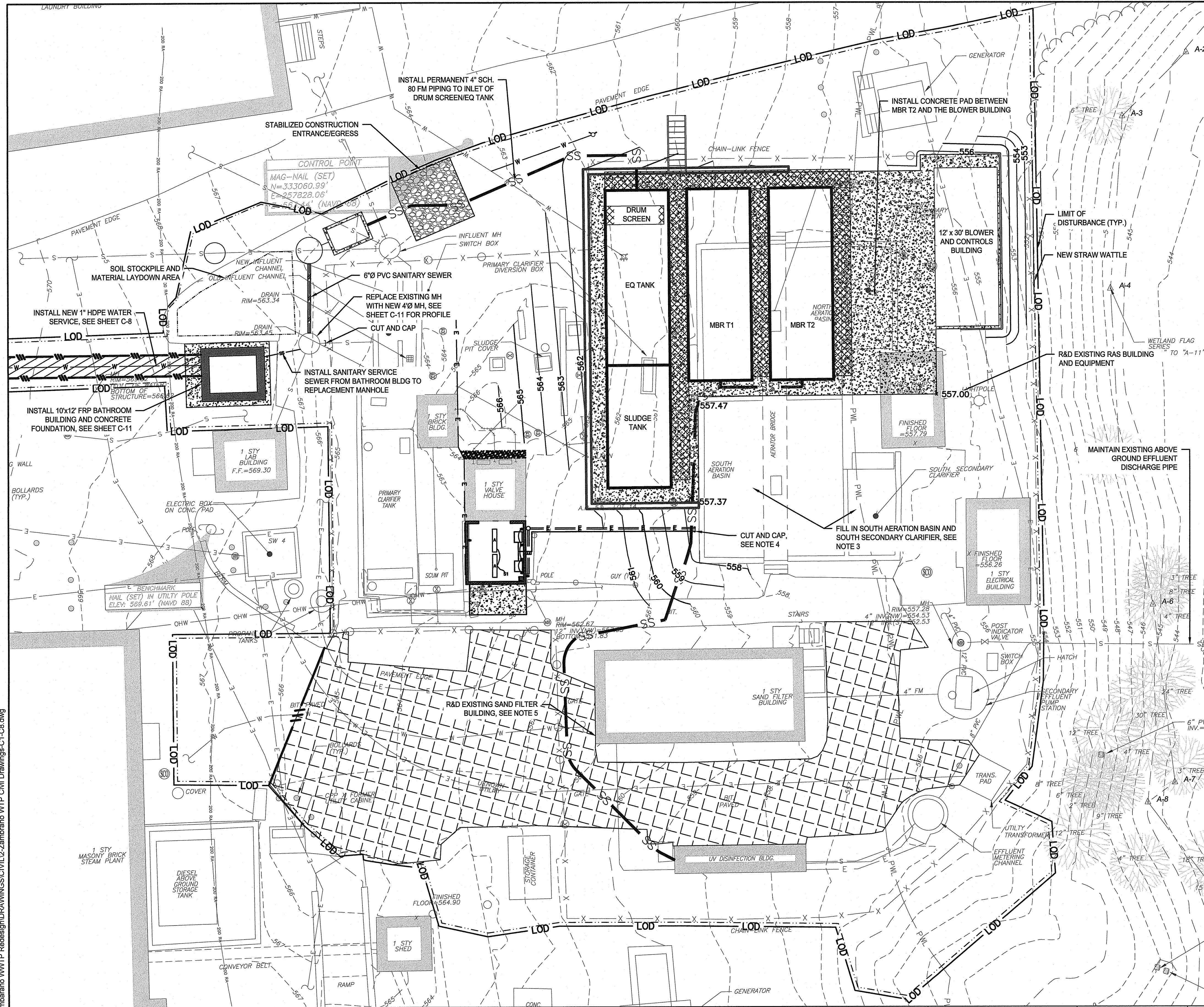
ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES
PHASE 1 - CHEMICAL FEED BUILDING PLAN & DETAILS

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
C-3A

SHEET
4 OF 20

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- LEGEND:**
- SAW CUT LINE
 - LIMITS OF DISTURBANCE/CLEARING/AND STRAW WATTLE COMBINED
 - STRAW WATTLE COMBINED
 - EXISTING ASPHALT TO BE REMOVED

PHASE 2 SEQUENCE OF TEMPORARY BYPASS AND TREATMENT:

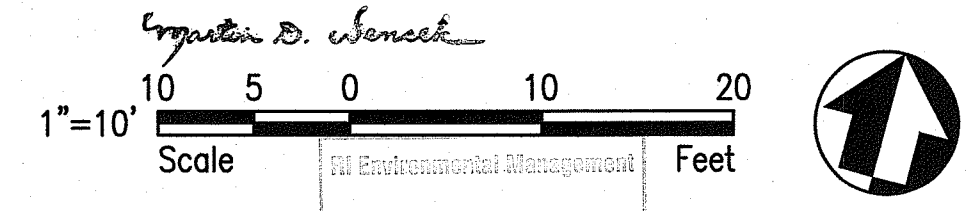
1. DEMOLISH AND REMOVE THE EXISTING RAS BUILDING AND EQUIPMENT.
2. INSTALL CONCRETE PAD BETWEEN MBR T2 AND THE BLOWER BUILDING.
3. DEMOLISH AND REMOVE SOUTH AERATION BASIN TO THE LIMITS SHOWN ON SHEET S-6. CONTRACTOR TO PUNCH HOLES IN THE BOTTOM OF THE SLAB AND FILL WITH COMMON BORROW AND LOAM AND SEED TO GRADES SHOWN.
4. CUT AND CAP CHEMICAL FEED AND ELECTRICAL LINES AT SOUTH AERATION BASIN TO BE DEMOLISHED.
5. REMOVE AND DISPOSE OF THE SAND FILTER BUILDING FIBERGLASS STRUCTURE, PIPING, ELECTRICAL/MECHANICAL EQUIPMENT, SAND/ANTHRACITE MEDIA, AND TANKAGE. RETAIN BARE FOUNDATION, OUTSIDE STAIRS, AND WATER CONNECTION TO BUILDING. REFER TO SHEET C-9 FOR DEMOLITION PLAN.
6. INSTALL NEW 4" REPLACEMENT MANHOLE AND 6-INCH SANITARY SEWER LINE TO PROPOSED WETWELL MANHOLE.
7. INSTALL BATHROOM BUILDING, CONNECT SANITARY SERVICE AND EXISTING LAB BUILDING DRAIN TO THE NEWLY INSTALLED REPLACEMENT 4" MANHOLE. OPEN WATER SERVICE VALVE TO BRING LAB BUILDING PLUMBING BACK ONLINE.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: SEP 12 2024 FILE #: 21-027
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DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
Providence, Rhode Island 02909
p 401.521.5980
www.wsp.com

AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

DRAWN BY:
JD

DEPT CHECK:
WM

PROJECT CHECK:
AS

ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES

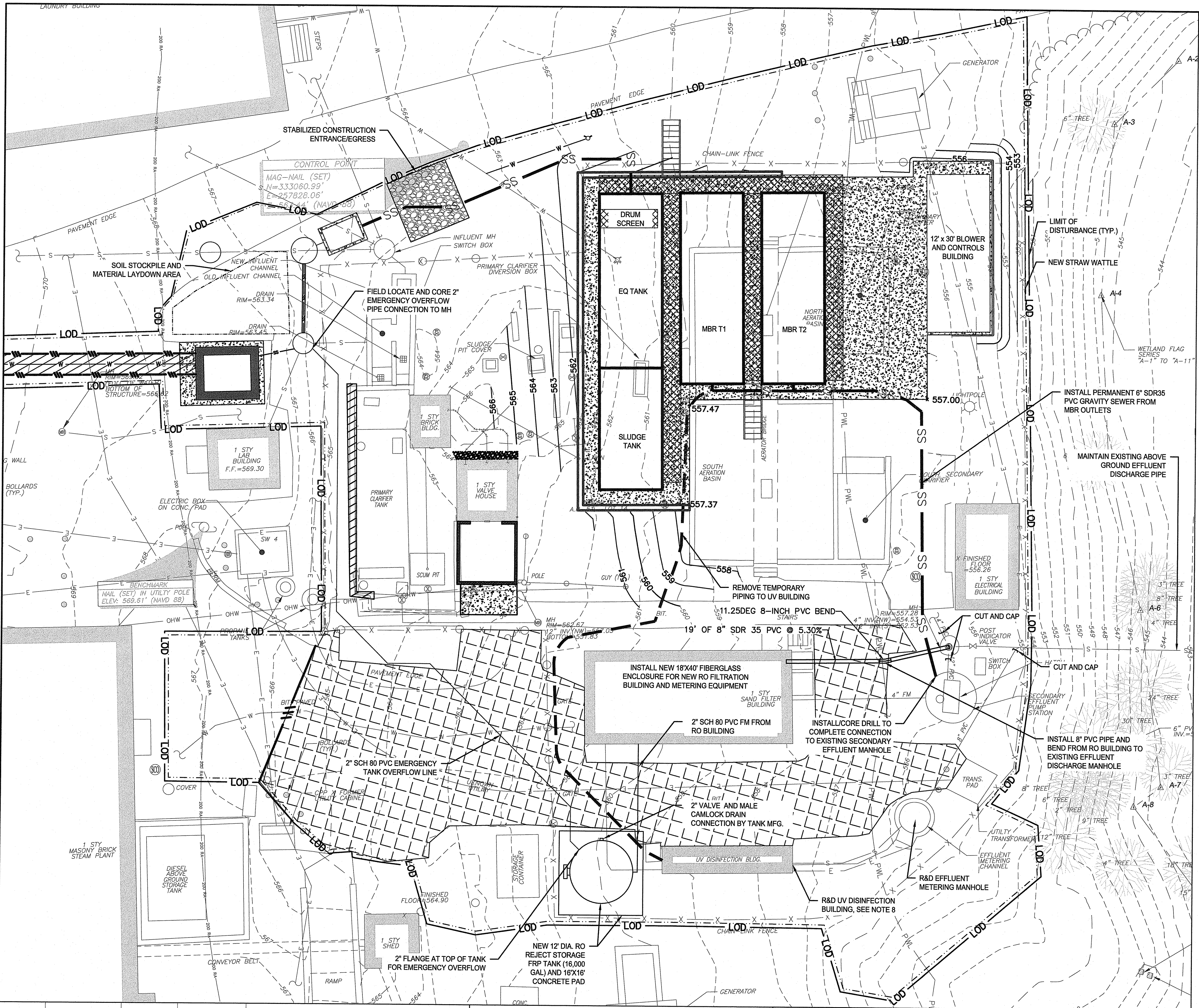
PHASE 2 TEMPORARY BYPASS AND TREATMENT PLAN

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
C-4

SHEET
5 OF 20

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- LEGEND:**
- SAW CUT LINE
 - LIMITS OF DISTURBANCE/CLEARING/AND STRAW WATTLE COMBINED
 - STRAW WATTLE COMBINED
 - EXISTING ASPHALT TO BE REMOVED

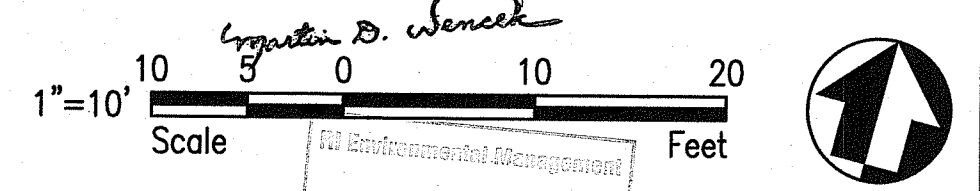
PHASE 3 SEQUENCE OF TEMPORARY BYPASS AND TREATMENT:

1. INSTALL RO REJECT TANK CONCRETE FOUNDATION, PIPING, AND TANK. CONNECT RO REJECT TANK 2" EMERGENCY OVERFLOW PIPE TO REPLACEMENT 4" MANHOLE AS SHOWN.
2. INSTALL RO BUILDING, ELECTRICAL/MECHANICAL EQUIPMENT, AND STRUCTURE.
3. INSTALL PERMANENT PIPING FROM OUTLET OF MBR TANKS TO SECONDARY EFFLUENT PUMP STATION. PROVIDE WATER-TIGHT CONNECTION TO EXISTING MANHOLE.
4. INSTALL NEW FINAL EFFLUENT GRAVITY DISCHARGE PIPING FROM THE RO BUILDING TO THE EXISTING MANHOLE AS NOTED ON THE DRAWINGS, REFER TO SHEET C-10 FOR PROFILE.
5. CUT AND CAP EXISTING EFFLUENT DISCHARGE PIPE AS NOTED ON THE DRAWINGS.
6. TEST AND COMMISSION RO SYSTEM.
7. REMOVE TEMPORARY PIPING FROM MBR TANKS TO THE UV BUILDING AND COMPLETE FINAL CONNECTIONS FROM MBR TANK OUTLETS (2 TOTAL) TO PERMANENT PROCESS PIPING PREVIOUSLY INSTALLED/CONNECTED TO THE SECONDARY EFFLUENT MANHOLE.
8. DEMOLISH AND REMOVE THE EXISTING UV CHANNEL BUILDING AND EQUIPMENT.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: SEP 12 2024 FILE # 21-0291
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AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

DRAWN BY:
JD

DEPT CHECK:
WM

PROJECT CHECK:
AS

ZAMBARANO CAMPUS WASTEWATER
TREATMENT FACILITY UPGRADES

**PHASE 3 TEMPORARY BYPASS
AND TREATMENT PLAN**

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
C-5

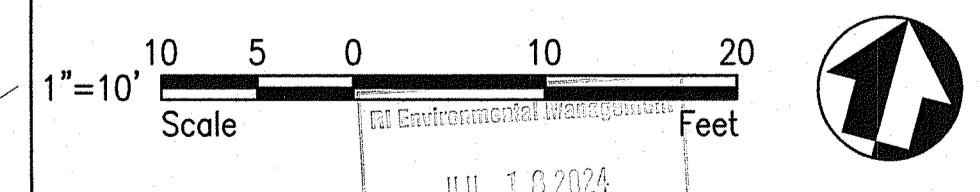
SHEET
6 OF 20

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MATCH LINE - SEE SHEET C-7



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AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

DESIGNED BY: AARON P. SYLVIA, PE
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL CHECKED: [Signature]

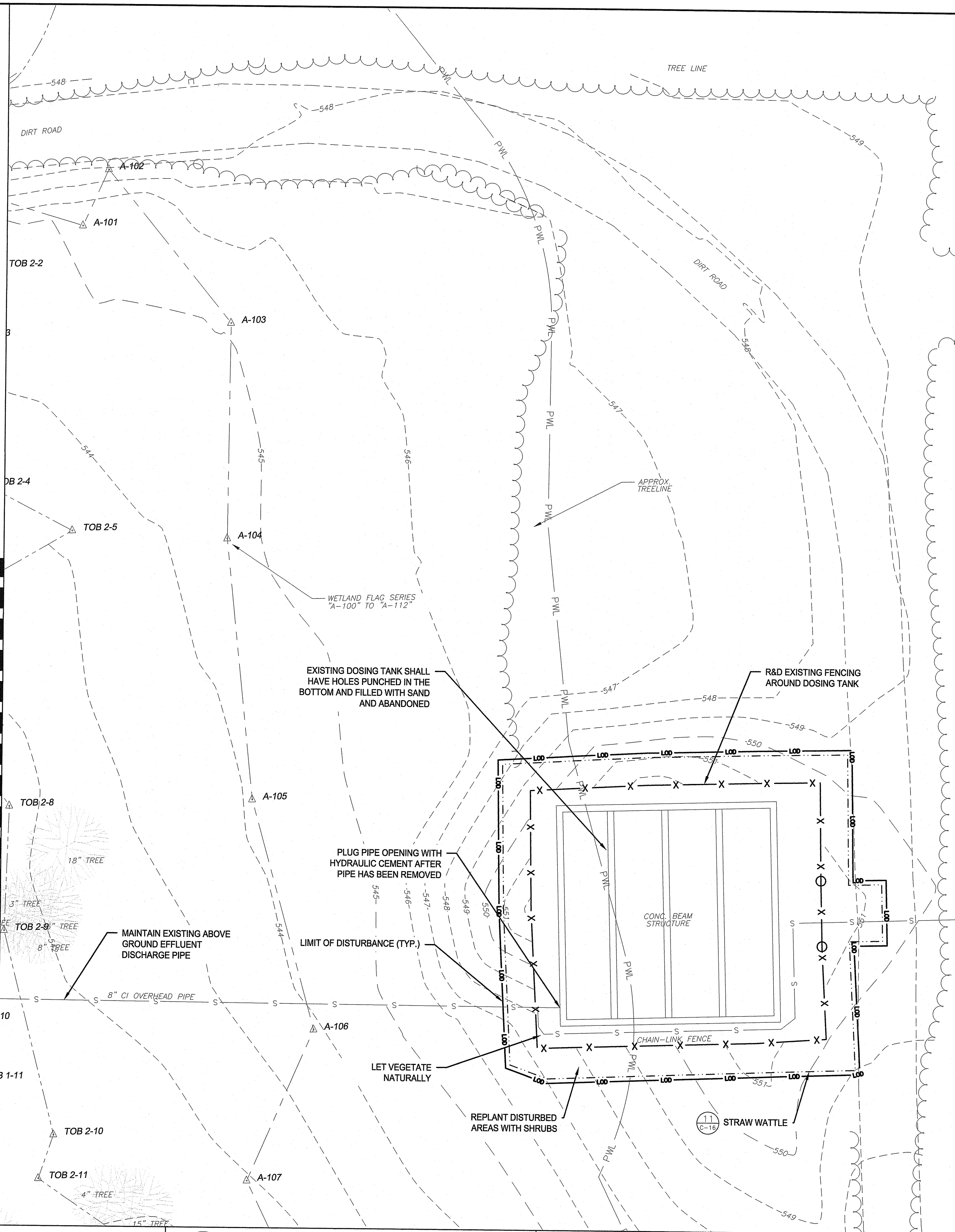
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ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES

SEDIMENT AND EROSION CONTROL PLAN 1
ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No. **C-6**
SHEET 7 OF 20

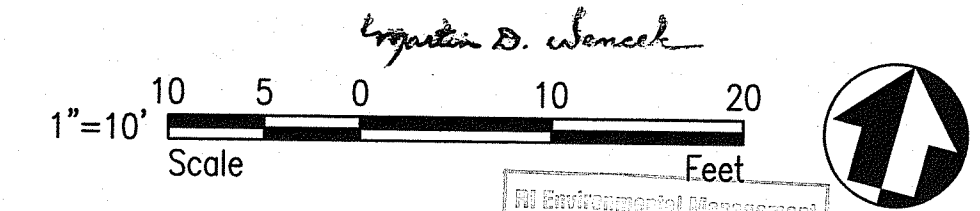
MATCHLINE - SEE SHEET C-6



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OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

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OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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DATED: SEP 12 2024 FILE #: 21-0097
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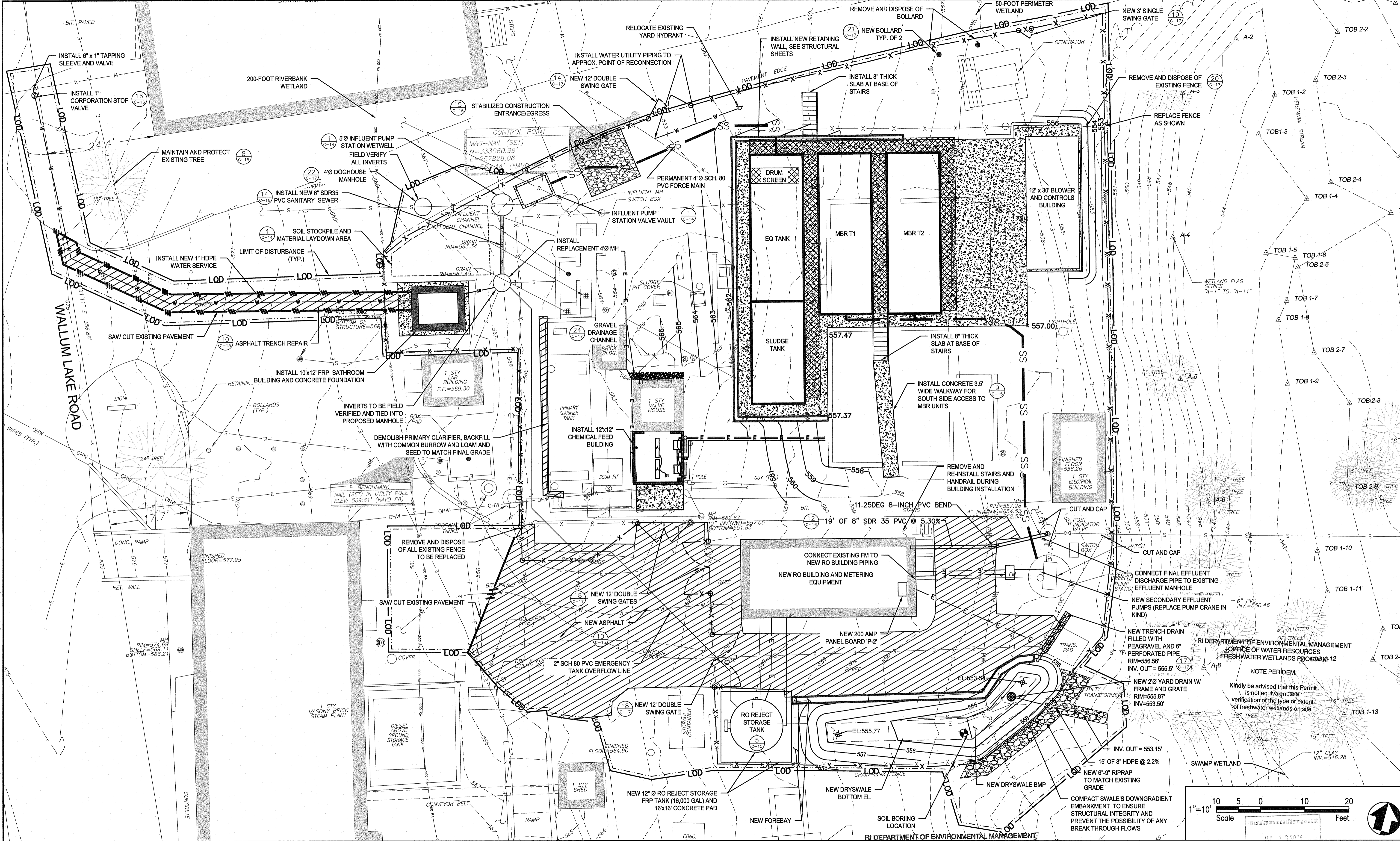
AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

AARON P. SYLVIA, PE
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

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JD
DEPT CHECK:
WM
PROJECT CHECK:
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ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES
SEDIMENT AND EROSION CONTROL PLAN 2
ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
C-7
SHEET
8 OF 20



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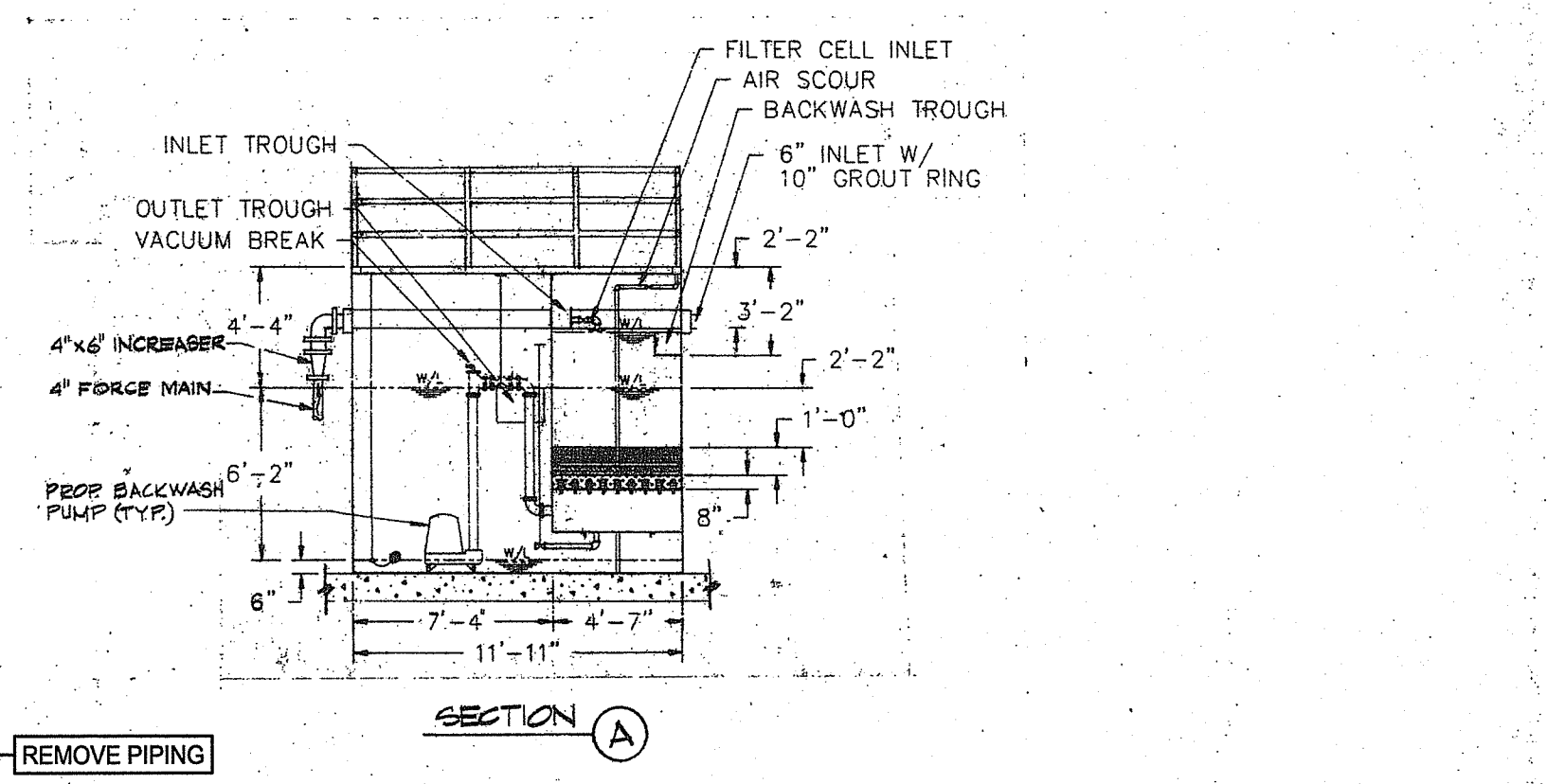
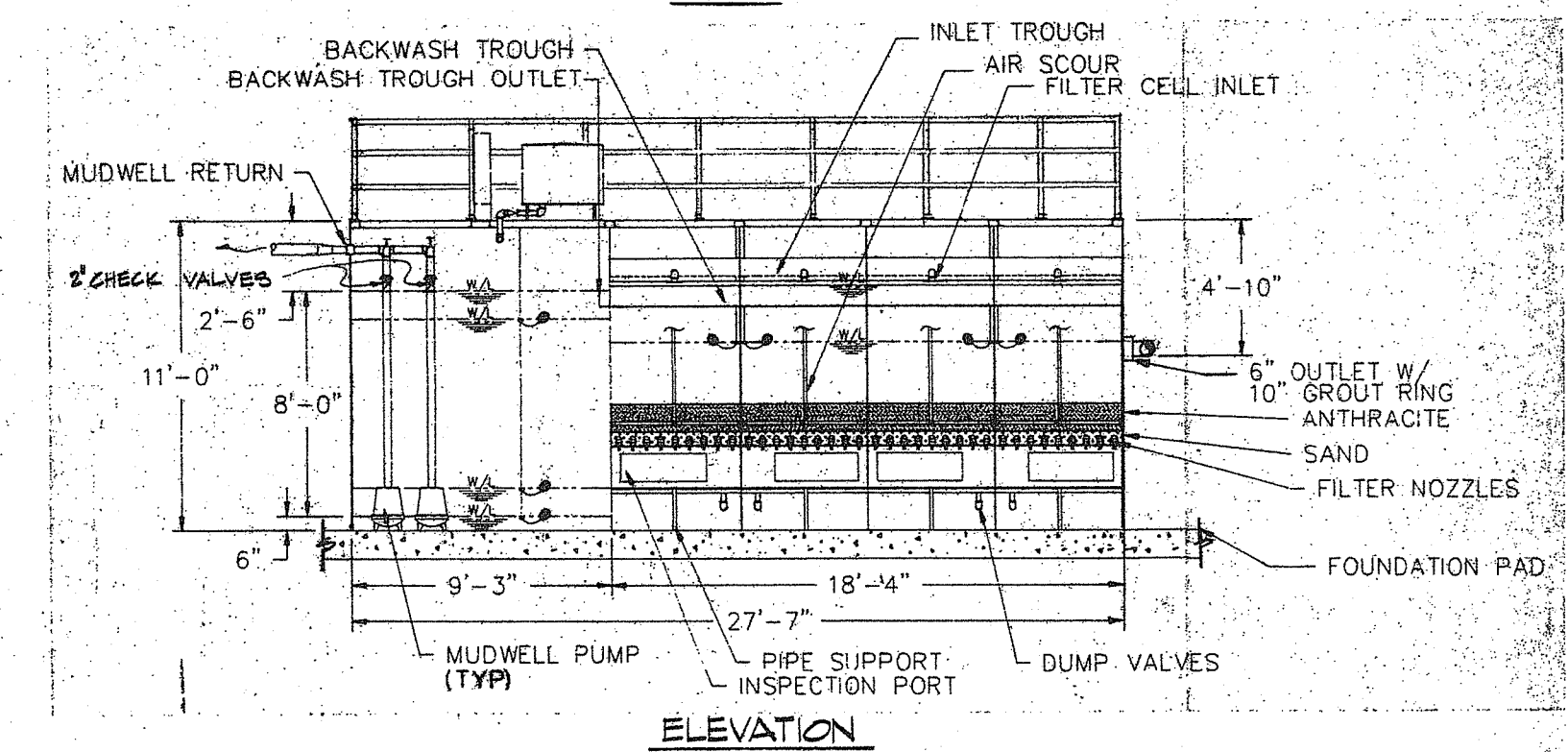
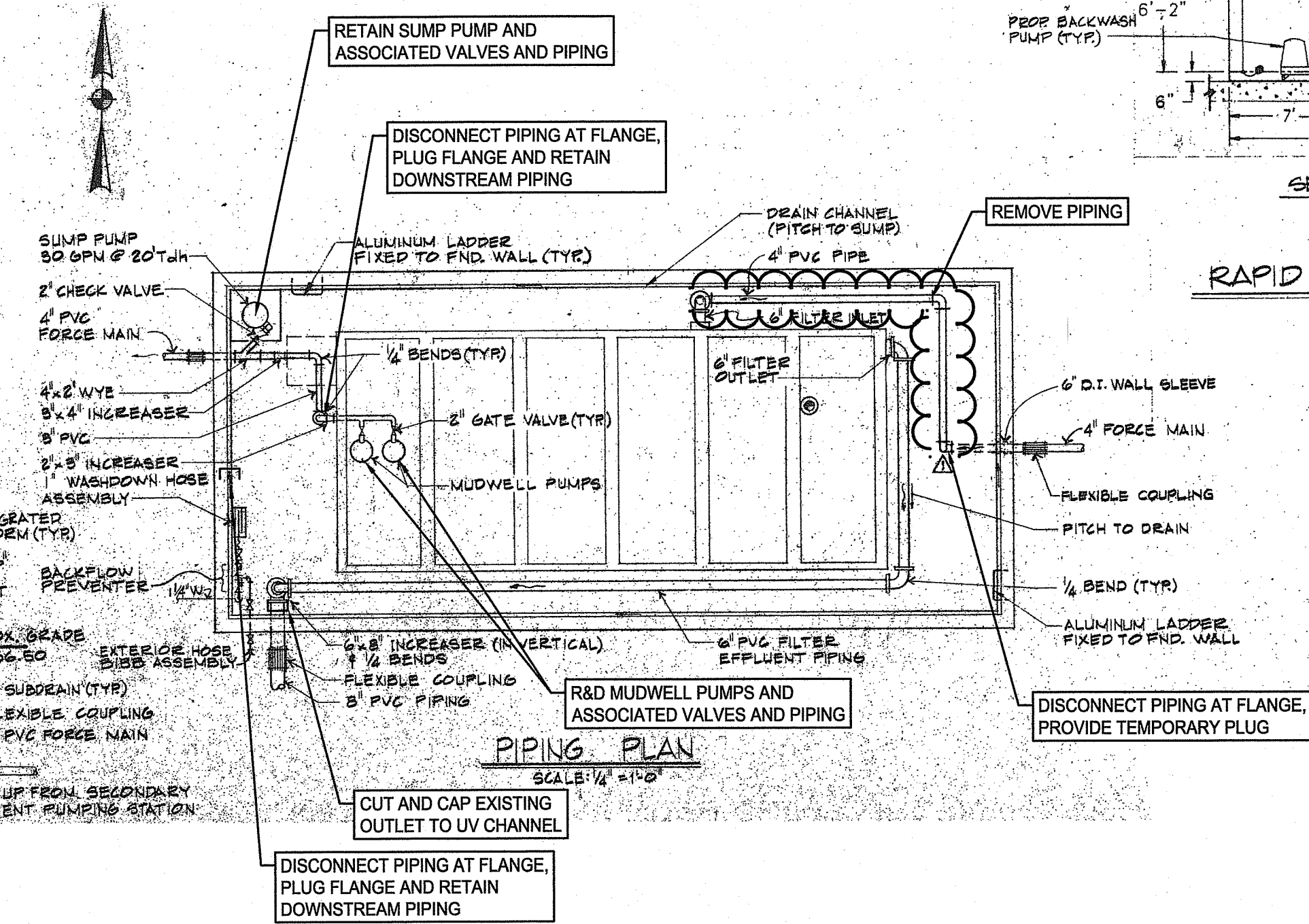
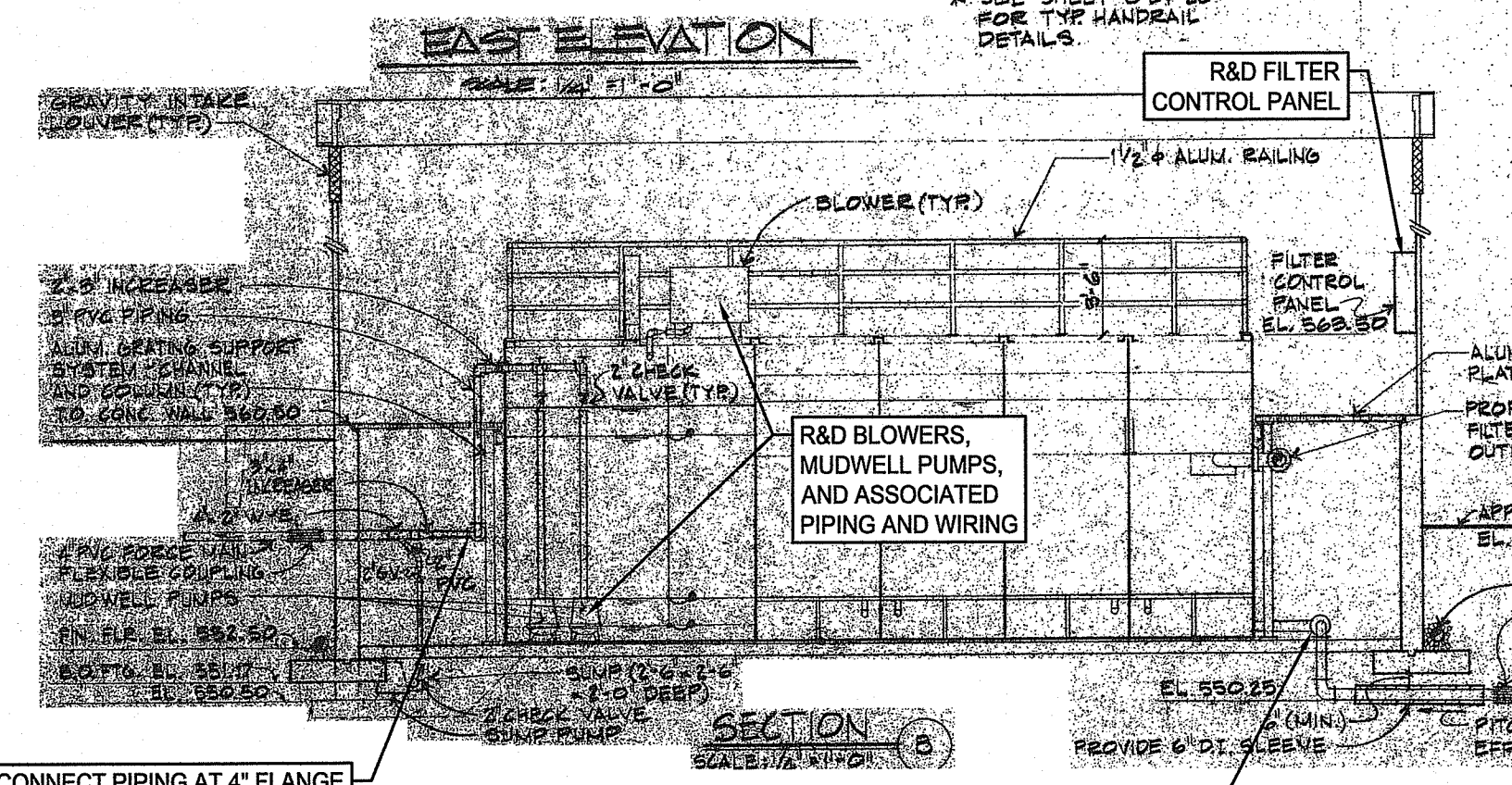
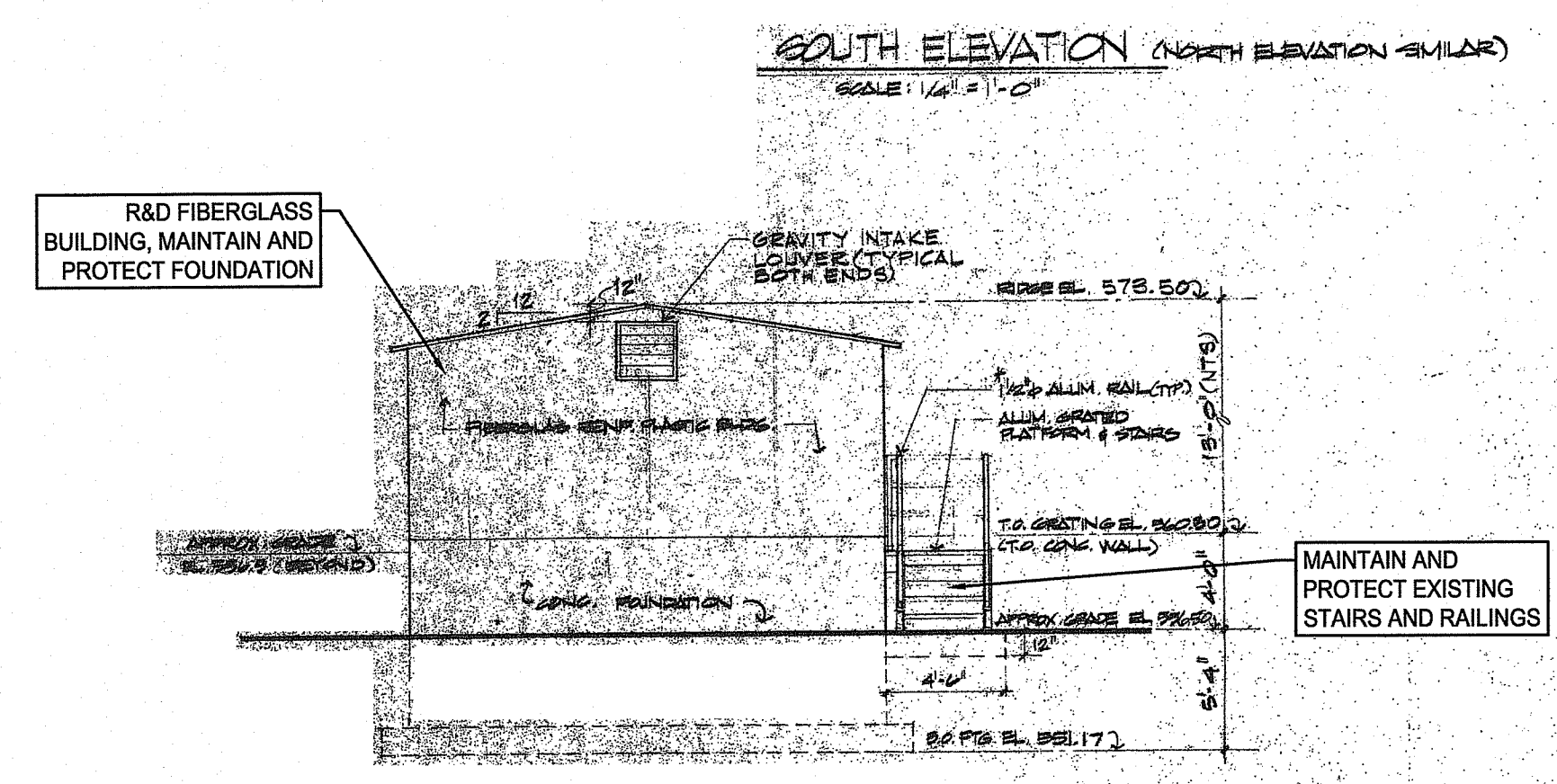
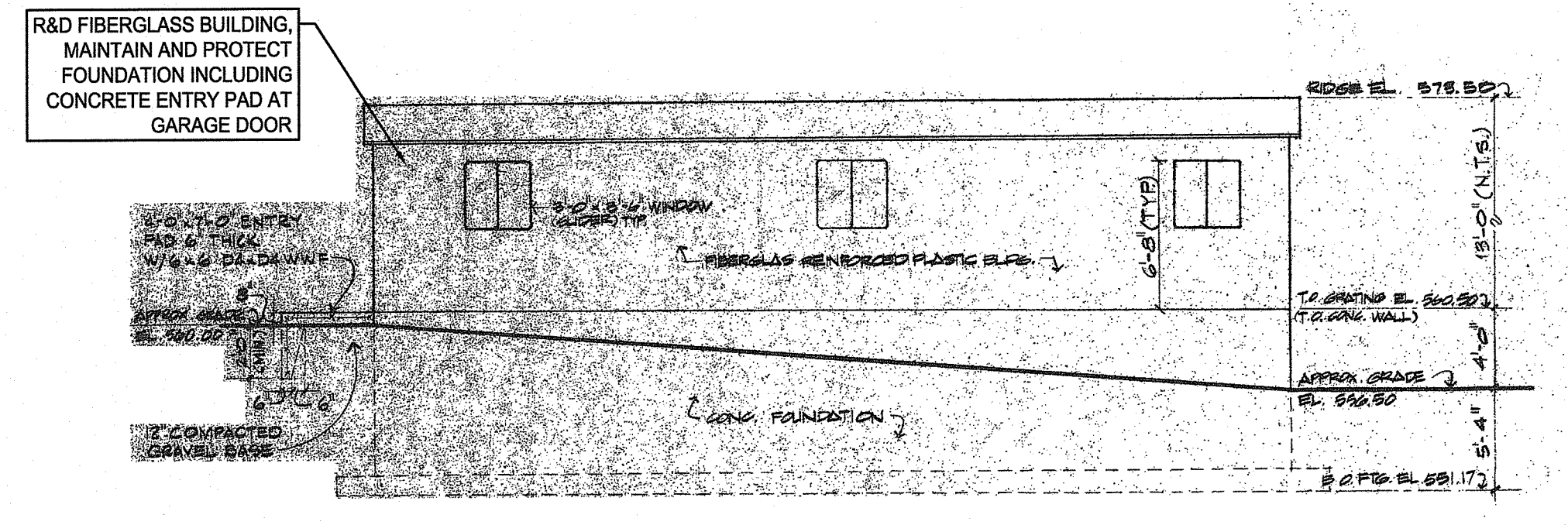
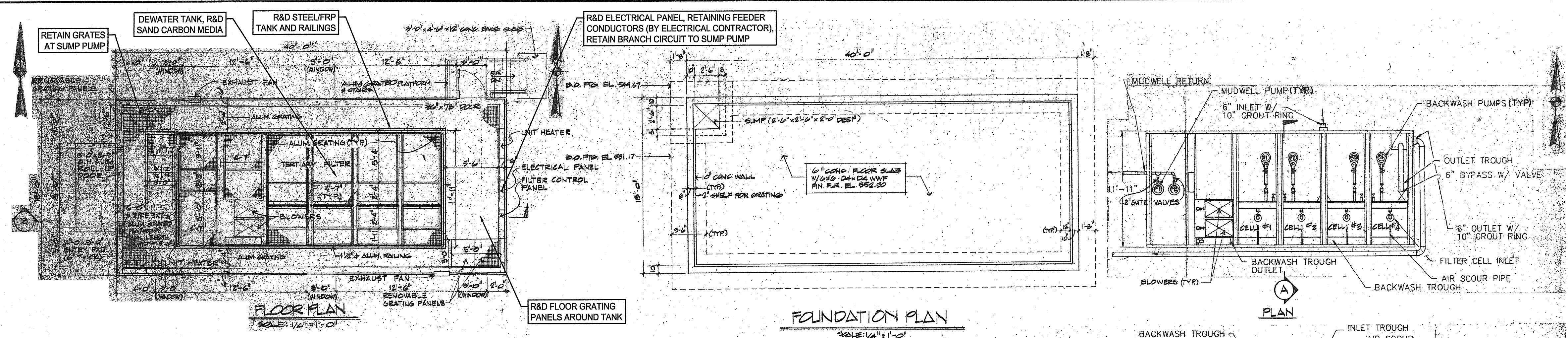
STATE OF RHODE ISLAND
 DEPARTMENT OF ADMINISTRATION
 166 Valley Street, Building 5
 Providence, Rhode Island 02909
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 www.wsp.com

AARON P. SYLVIA
 REGISTERED PROFESSIONAL ENGINEER
 07/12/2024
 DATE

OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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 DATED: SEP 17 2024 FILE # WM 24-009
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ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES
PROPOSED CONDITIONS SITE PLAN
 ELEANOR SLATER HOSPITAL
 ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
 A.P. 51 LOT 14

PROJECT No.
C-8
 SHEET
 9 OF 20



RAPID SAND TERTIARY FILTER SYSTEM DETAILS
SCALE: 1/4" = 1'-0"

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

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DATED SEP 17 2024 FILE # 21-0297
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Matthew D. Senecker
JUL 16 2024
Office of Water Resources

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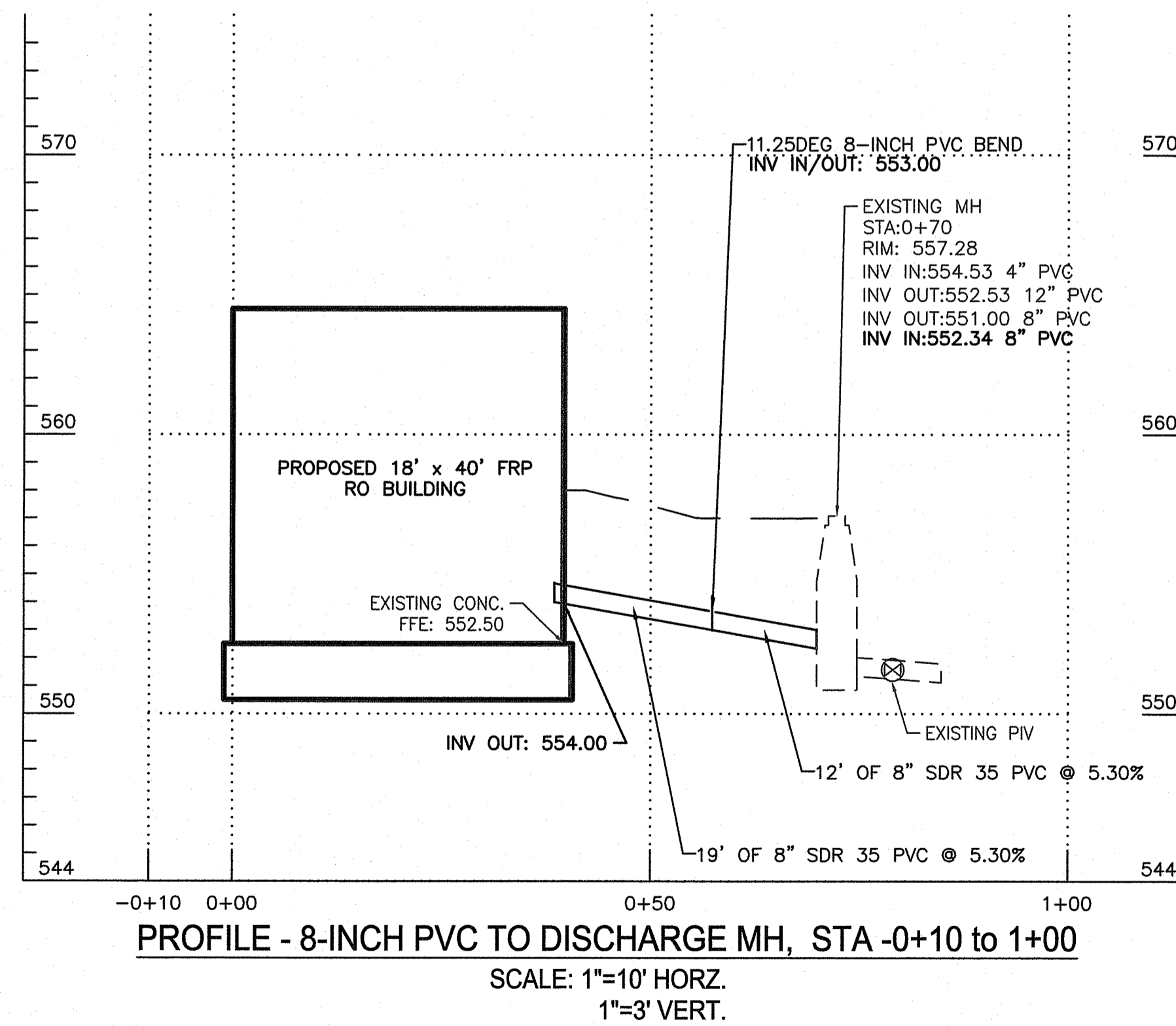
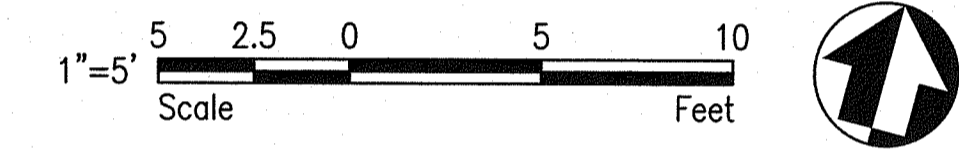
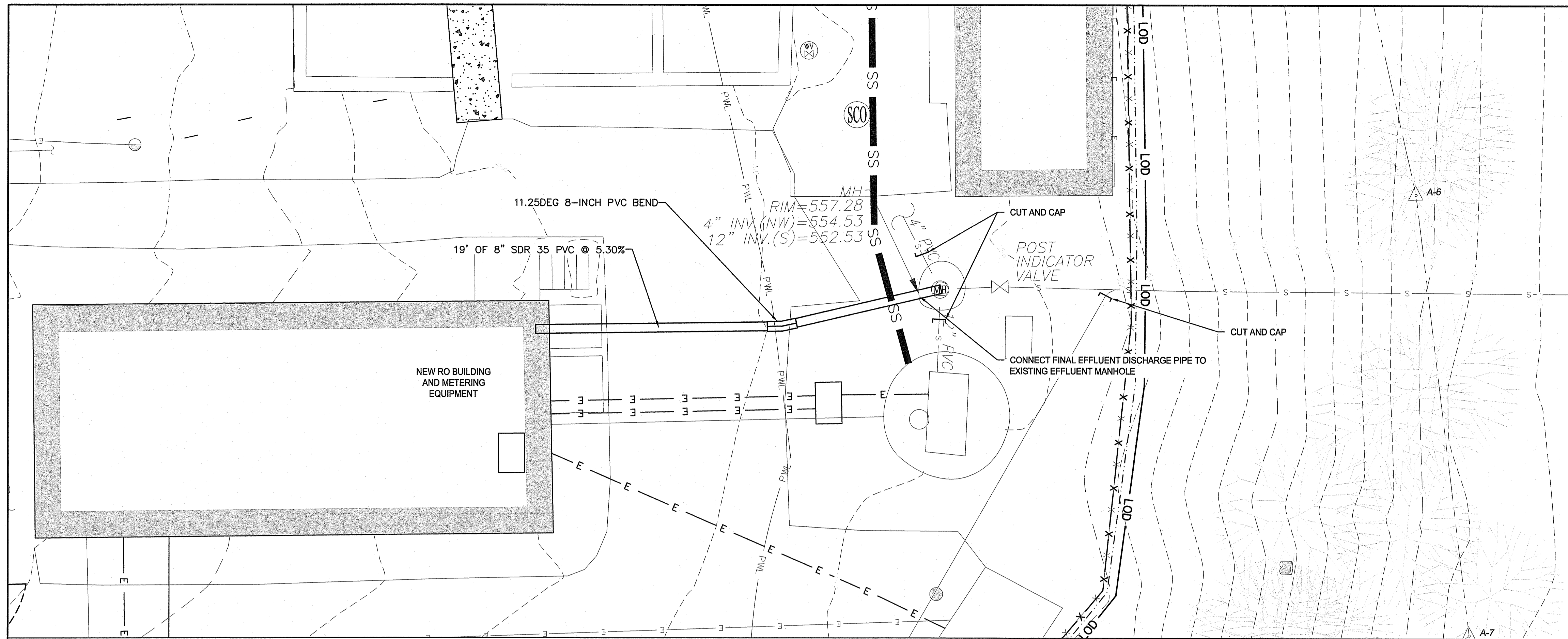
ZAMBARANO CAMPUS WASTEWATER
TREATMENT FACILITY UPGRADES

**SAND FILTER BUILDING
DEMOLITION PLAN**

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
C-9

SHEET
10 OF 20

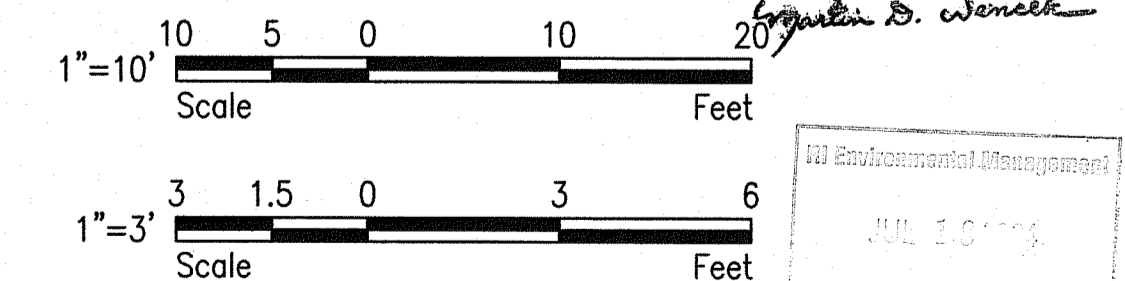


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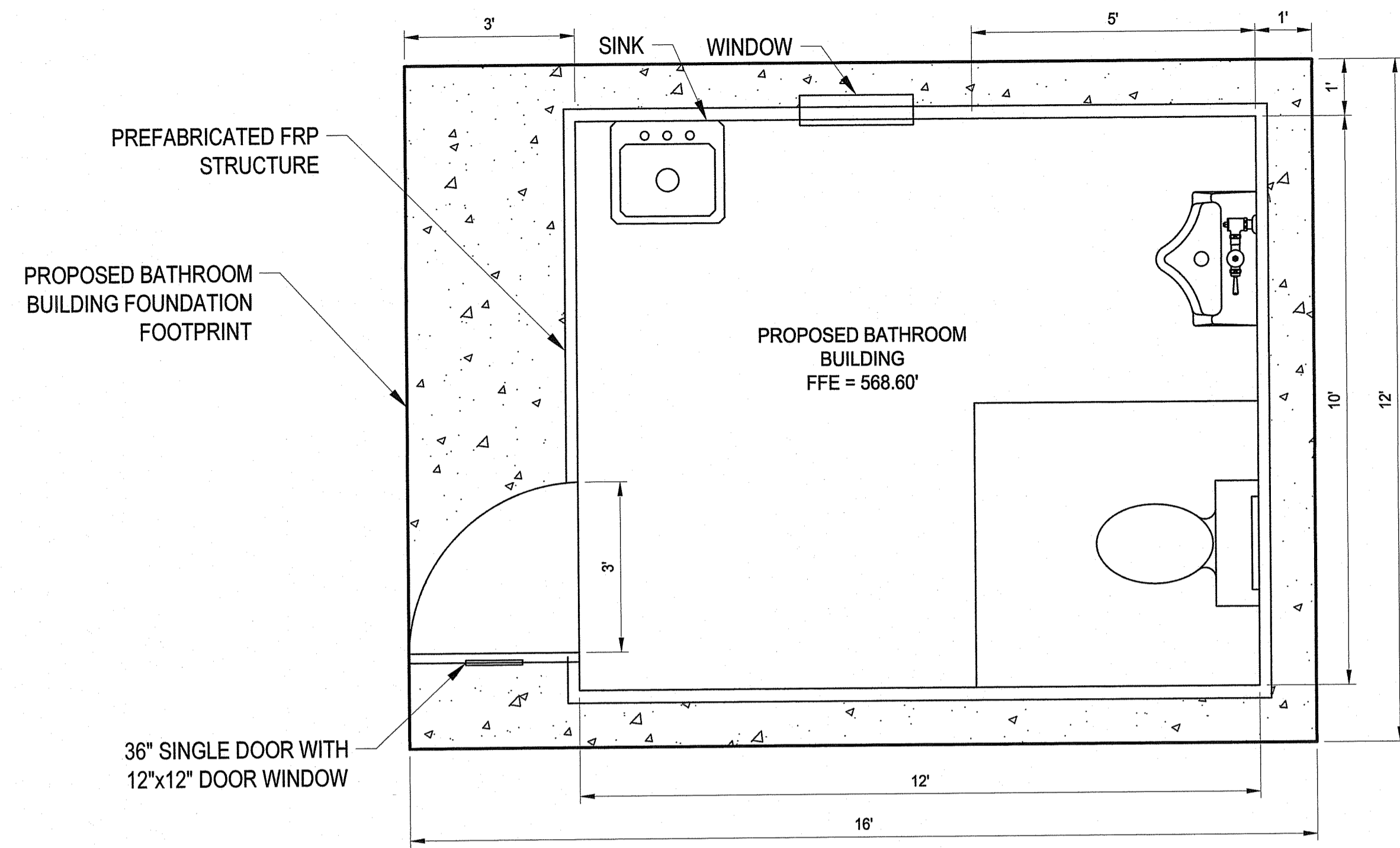
AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

AARON P. SYLVIA, PE
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

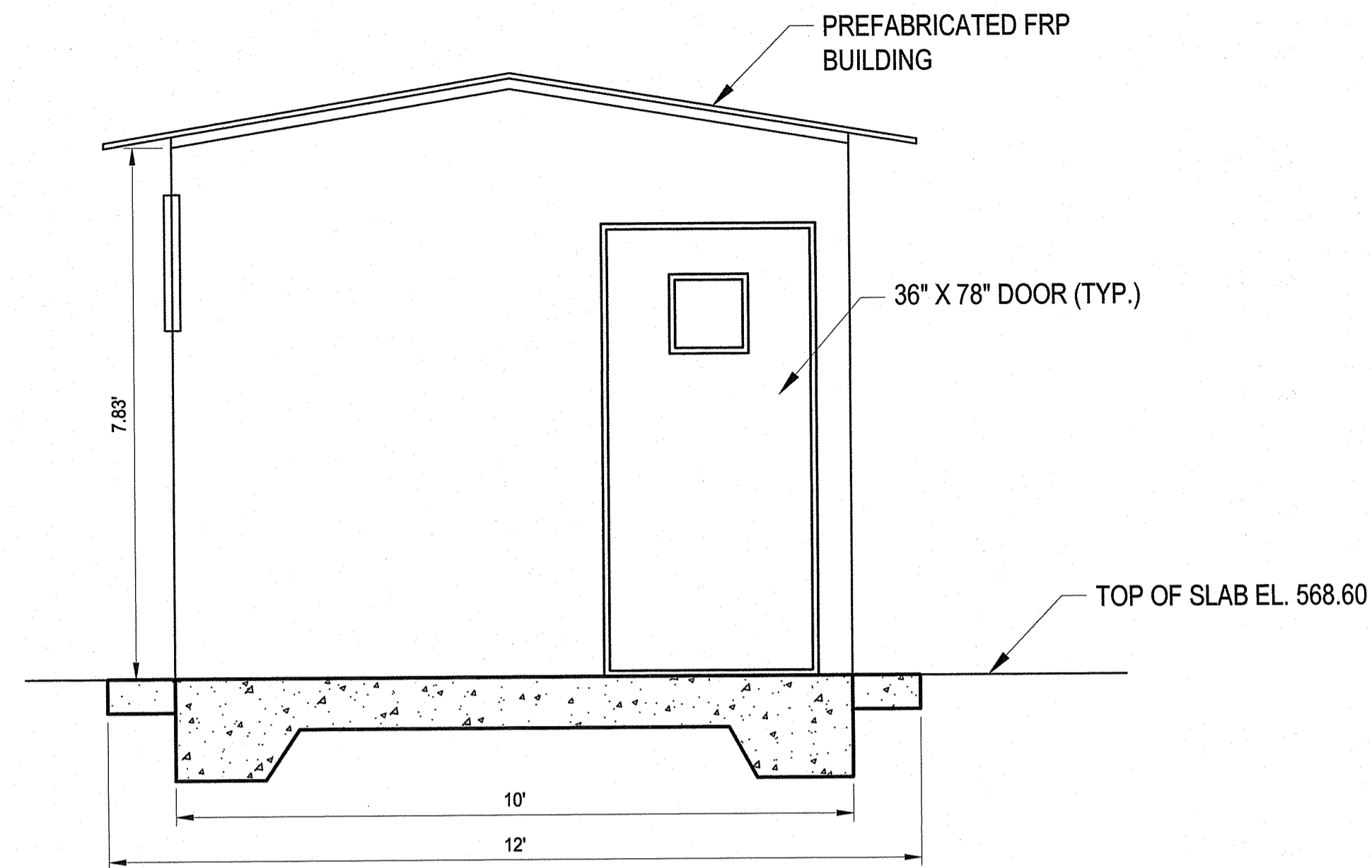
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AS

ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES
EFFLUENT DISCHARGE PIPING PLAN & PROFILE
ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

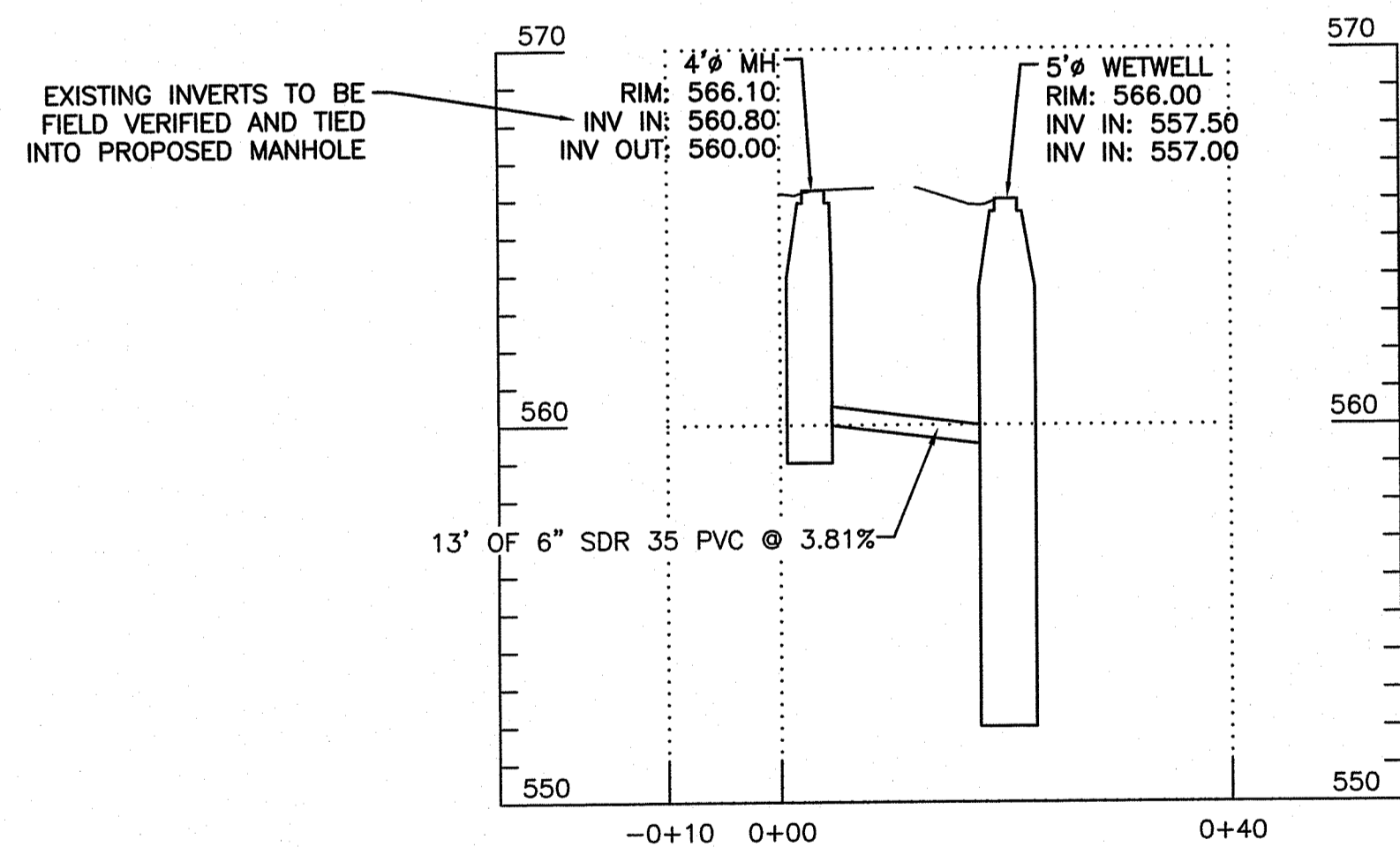
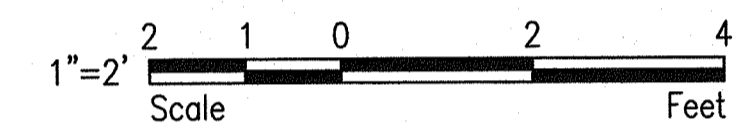
PROJECT No.
C-10
SHEET
11 OF 20



PLAN

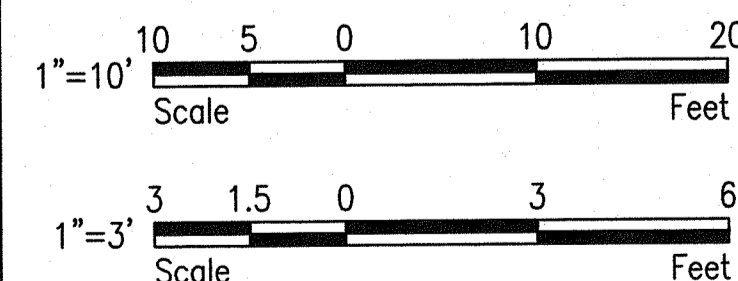


SECTION



PROFILE - 6-INCH SANITARY SEWER TO PROPOSED WETWELL, STA -0+10 TO 0+40

SCALE: 1"=10' HORZ.
1"=3' VERT.



RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

NOTE PER DEM:

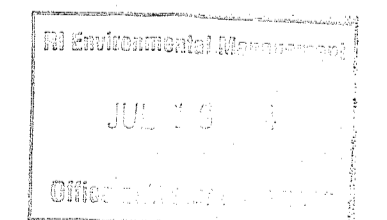
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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL

DATED: SEP 12 2024 FILE #: 21-0097
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Logan D. Senack



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
Providence, Rhode Island 02909
p 401.521.5980
www.wsp.com

AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER

07/12/2024
DATE

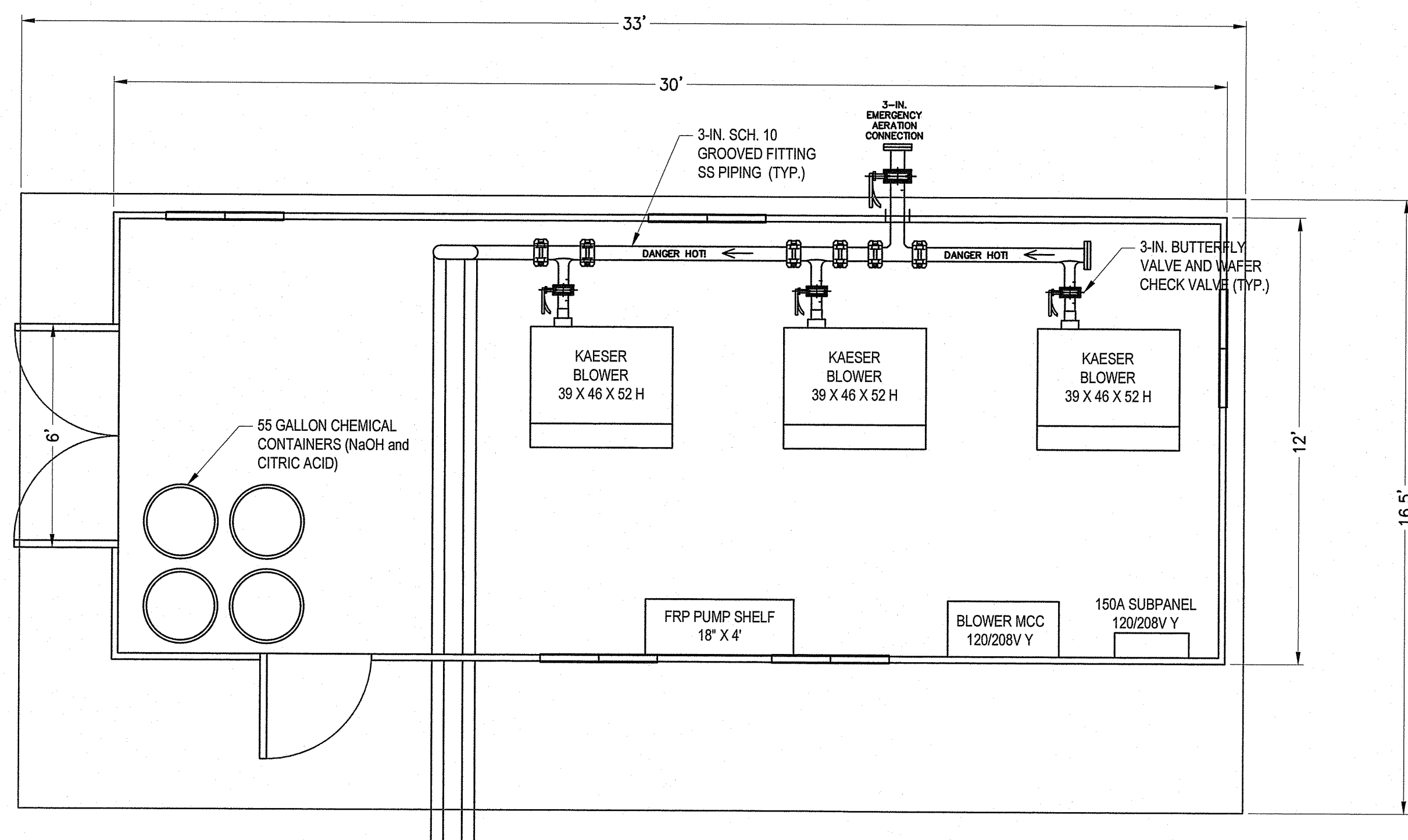
DRAWN BY:	JD
DEPT CHECK:	WM
PROJECT CHECK:	AS

ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES

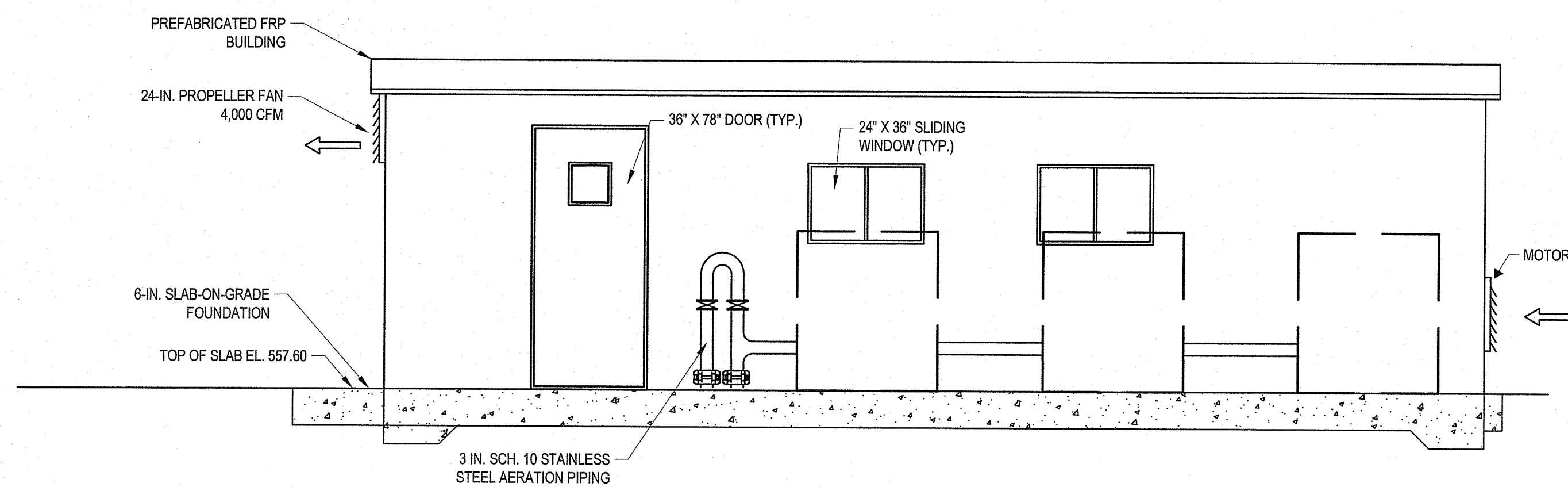
BATHROOM BUILDING AND PROFILE

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

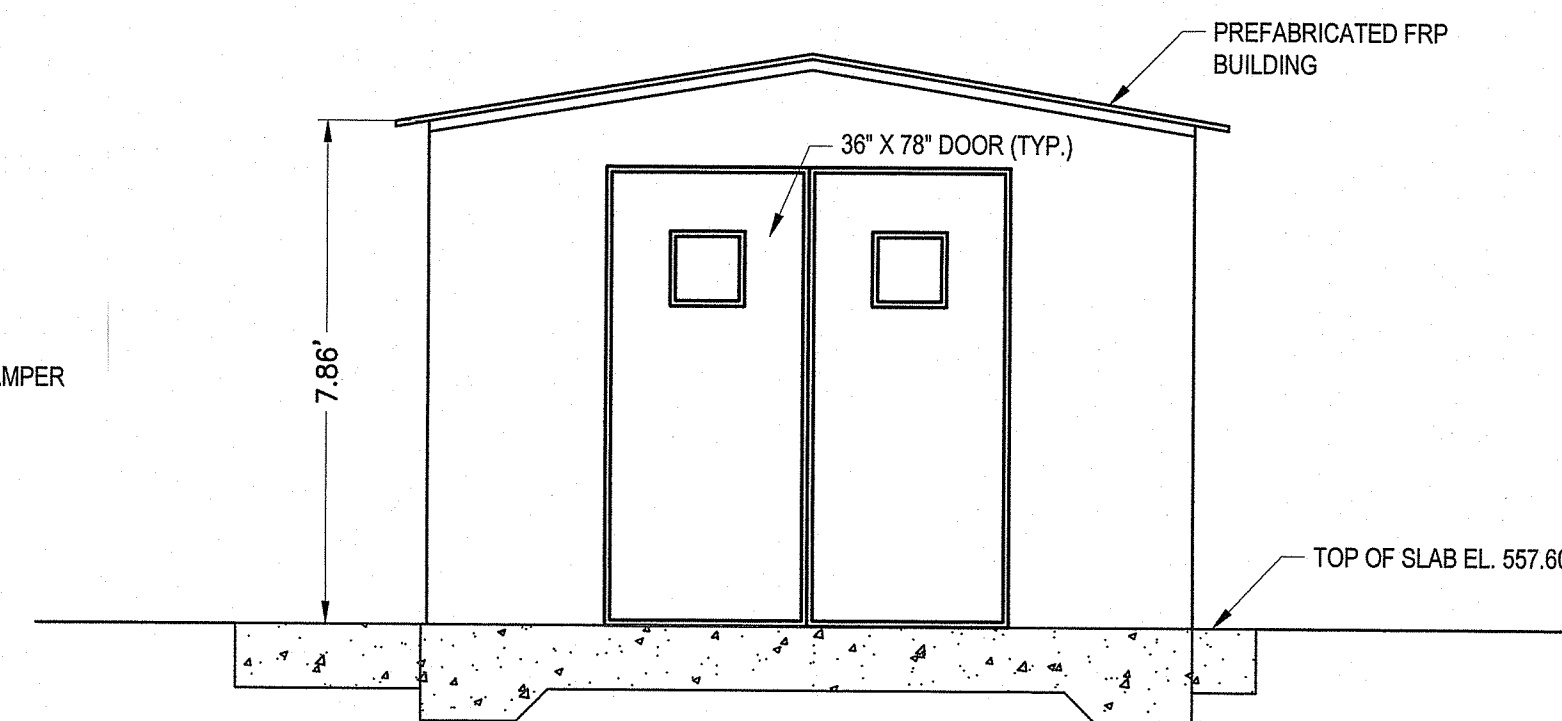
PROJECT No.	C-11
SHEET	12 OF 20



PLAN



PROFILE



SECTION

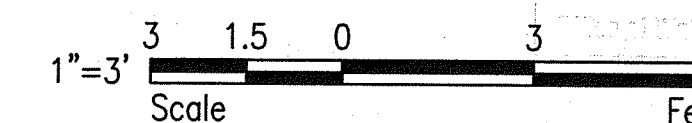
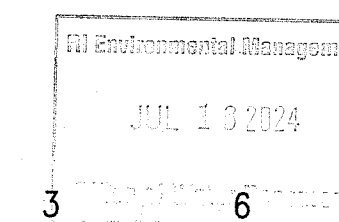
BLOWER AND CONTROLS BUILDING

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OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

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F:\PROJECTS\1406483.003 Zambrano WWTP Redesign\DRAWINGS\CIVIL\2-Zambrano WTP Civil Drawings-C1-C8.dwg

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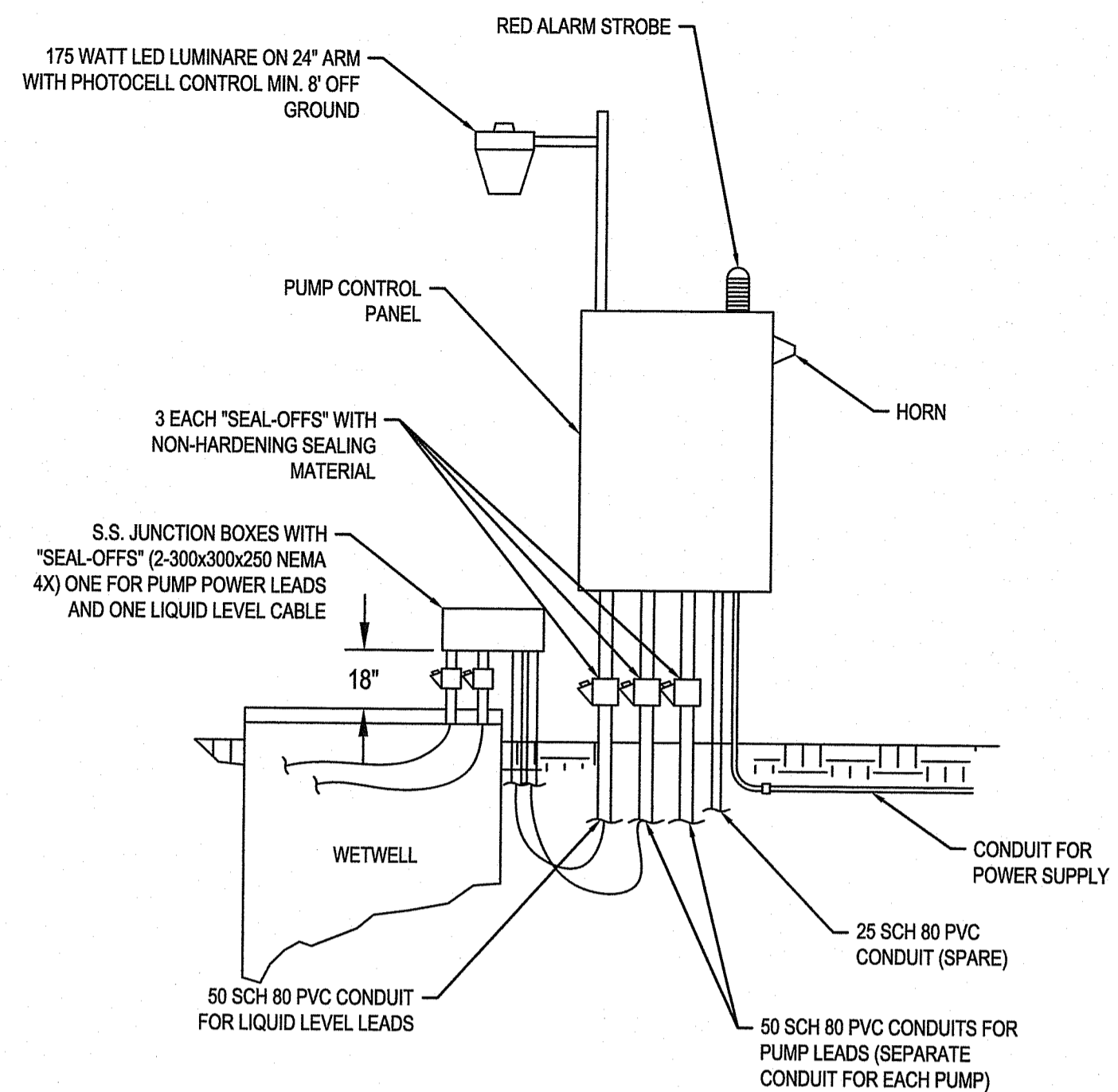
AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

AARON P. SYLVIA, PE
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

DRAWN BY:
JD
DEPT CHECK:
WM
PROJECT CHECK:
AS

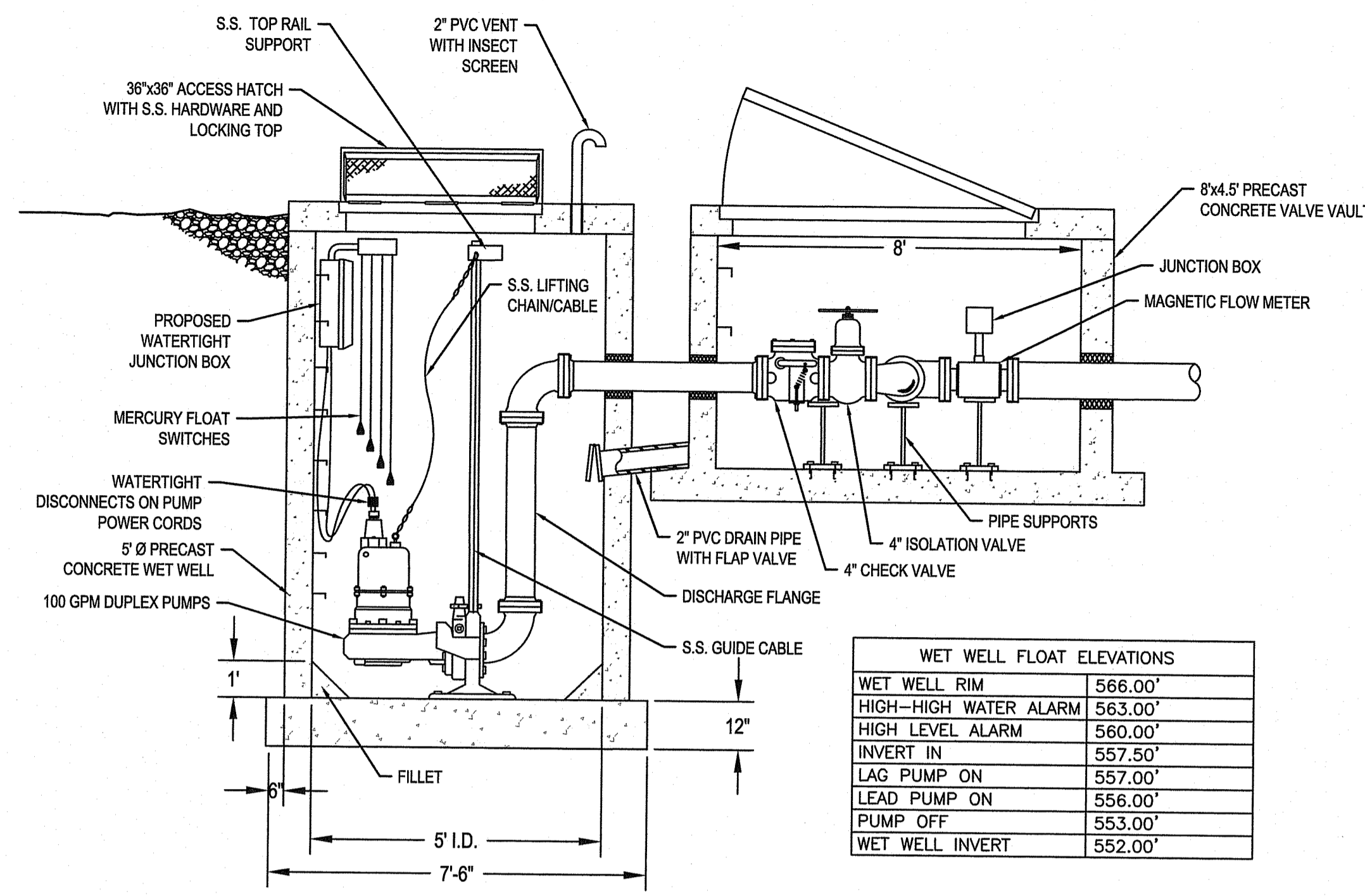
ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES
BLOWER AND CONTROLS BUILDING FLOOR PLAN
ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
C-13
SHEET
14 OF 20



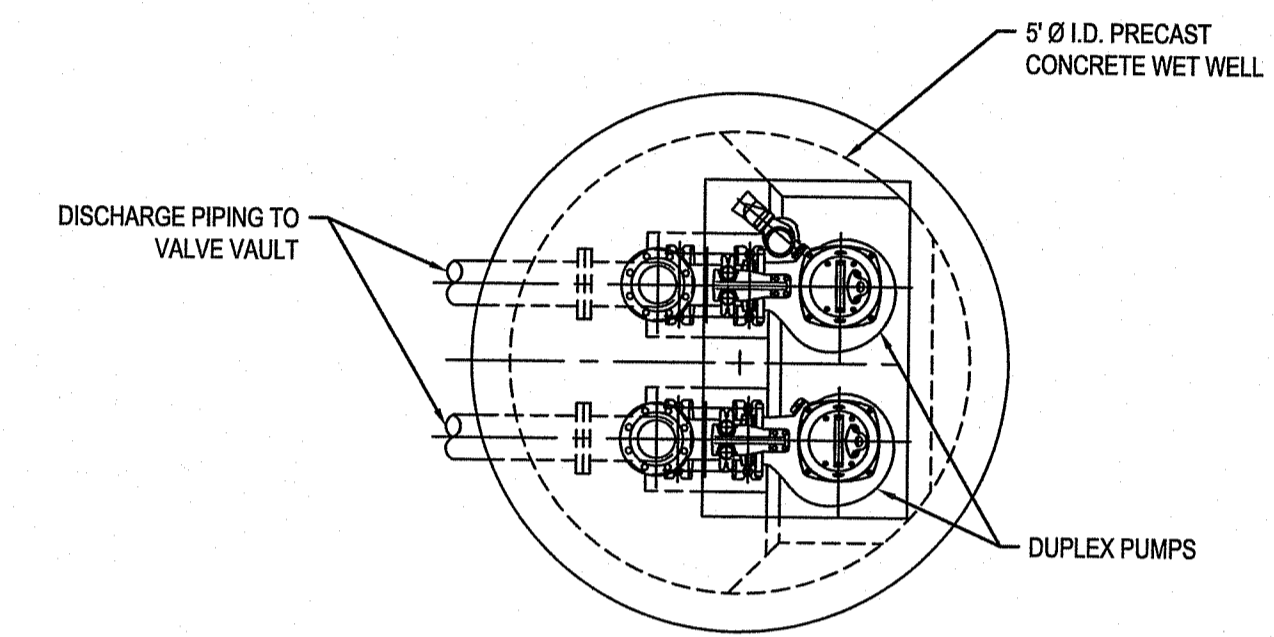
- NOTES:
- PUMP VOLTAGE TO BE 120/208 VOLTS, 3 PHASE, 4 WIRE
 - USE COPPER CONDUCTORS W/ 600 VOLT "THWN-THHN" INSULATION.

PUMP STATION CONTROL PANEL
N.T.S.



WET WELL FLOAT ELEVATIONS	
WET WELL RIM	566.00'
HIGH-HIGH WATER ALARM	563.00'
HIGH LEVEL ALARM	560.00'
INVERT IN	557.50'
LAG PUMP ON	557.00'
LEAD PUMP ON	556.00'
PUMP OFF	553.00'
WET WELL INVERT	552.00'

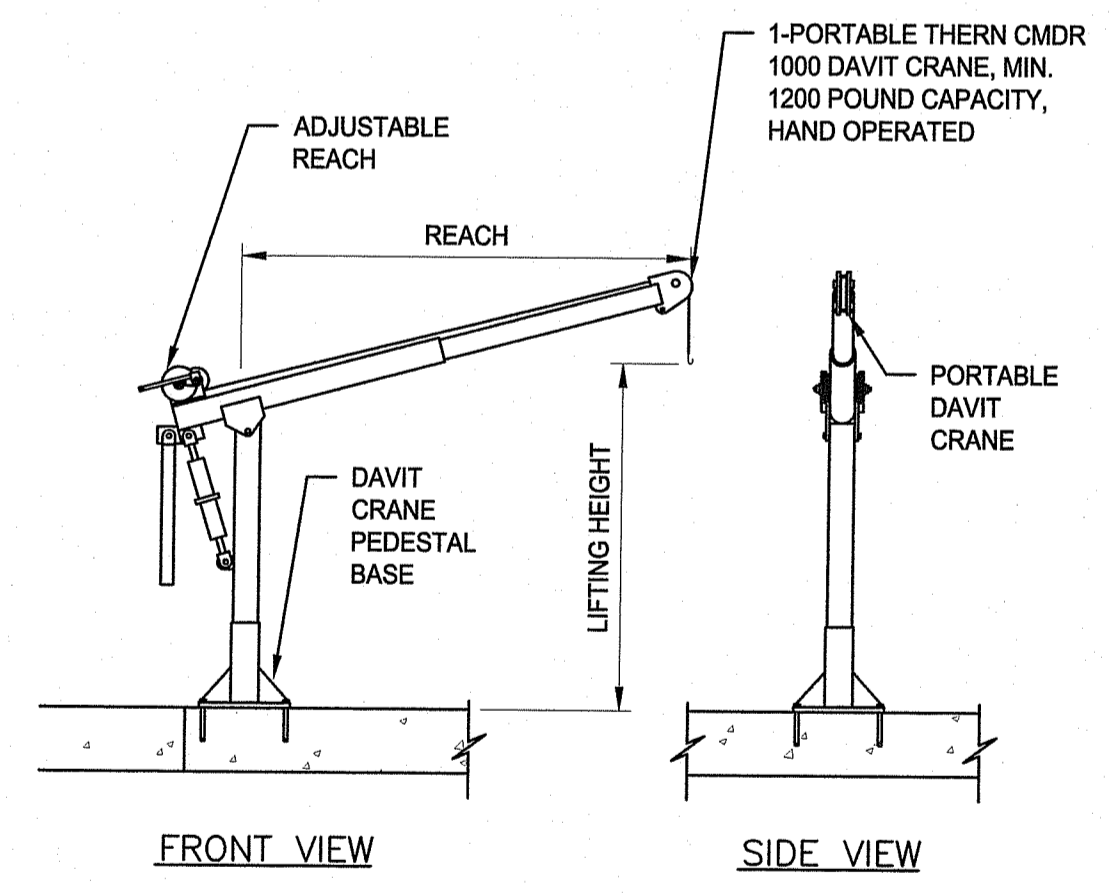
WET WELL & VALVE VAULT
N.T.S.



DUPLEX PUMP STATION CONFIGURATION
N.T.S.

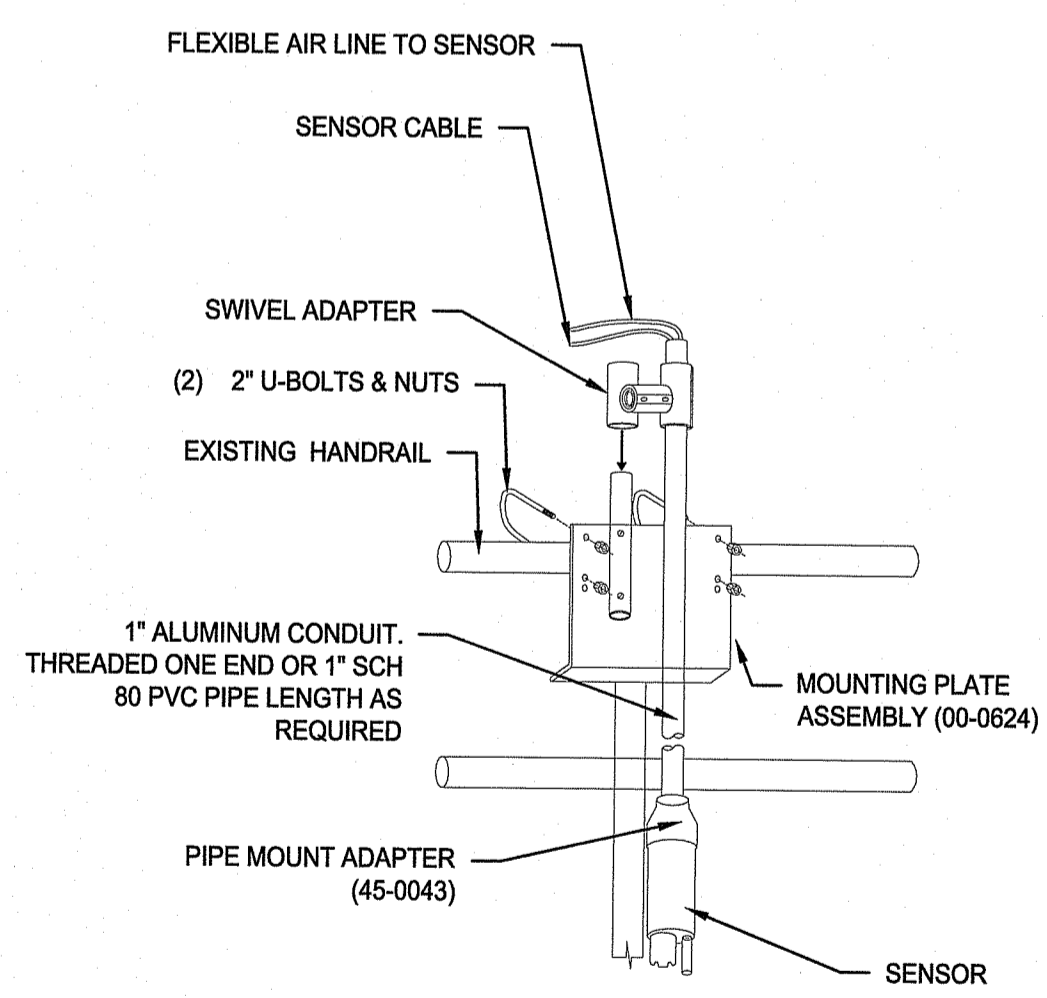
1 DUPLEX PUMP STATION WETWELL AND VALVE VAULT DETAILS

C-14 N.T.S.



- NOTES:
- CAST CRANE MOUNTING BOLTS INTO SLAB. TYPE AND ARRANGEMENT SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

2 PORTABLE HOIST
C-14 N.T.S.

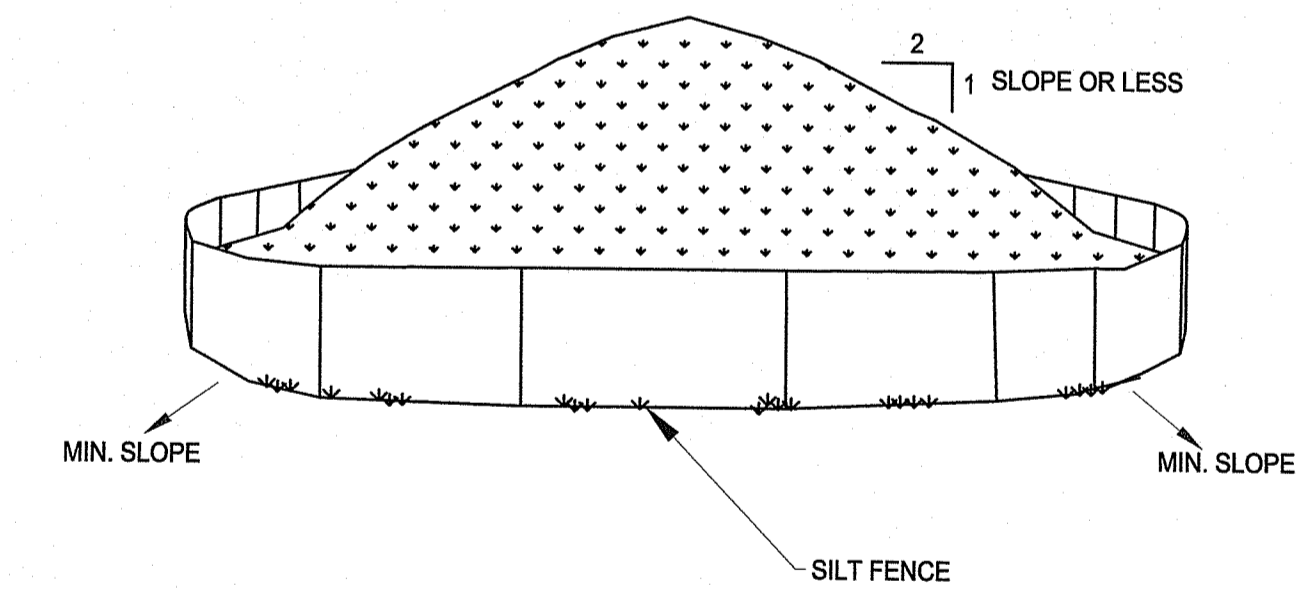


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3 TEMPORARY SENSOR MOUNTING AT AERATION BASIN

C-14 N.T.S.



- NOTES:
- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 - MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
 - UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
 - SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
 - SEE GENERAL NOTE 5 REGARDING STOCKPILE LOCATION AND HEIGHT.

4 STOCKPILE AND LAYDOWN

C-14 N.T.S.

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www.wsp.com

AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER

07/12/2024
DATE

DRAWN BY: JD
DEPT CHECK: WM
PROJECT CHECK: AS

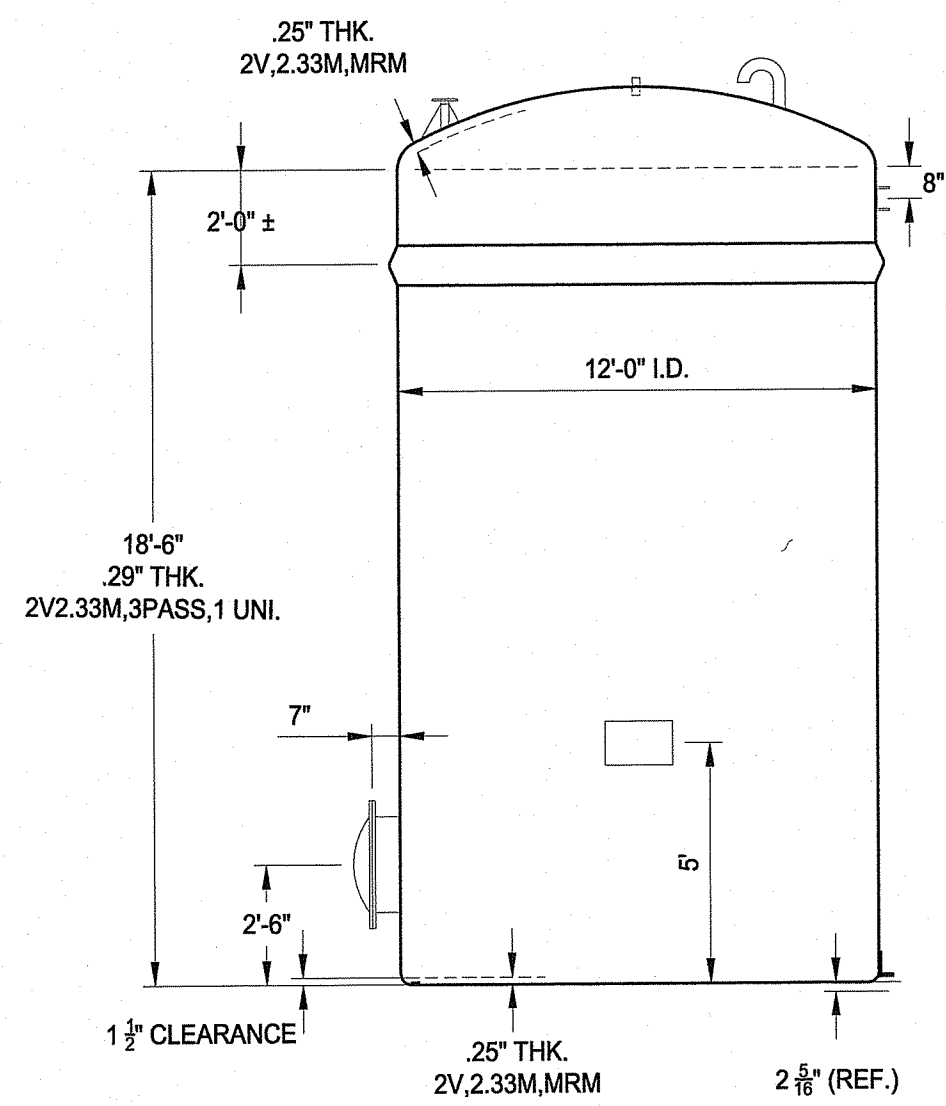
ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES

CIVIL DETAILS 1

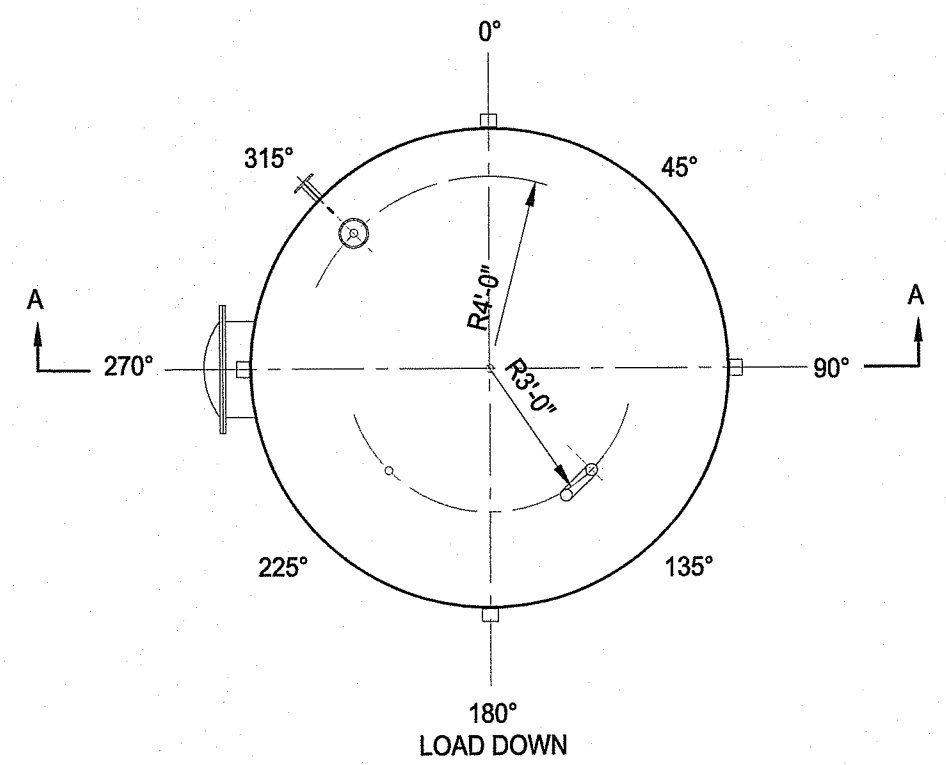
ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

JUL 13 2024
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PROJECT No.	C-14
SHEET	15 OF 20

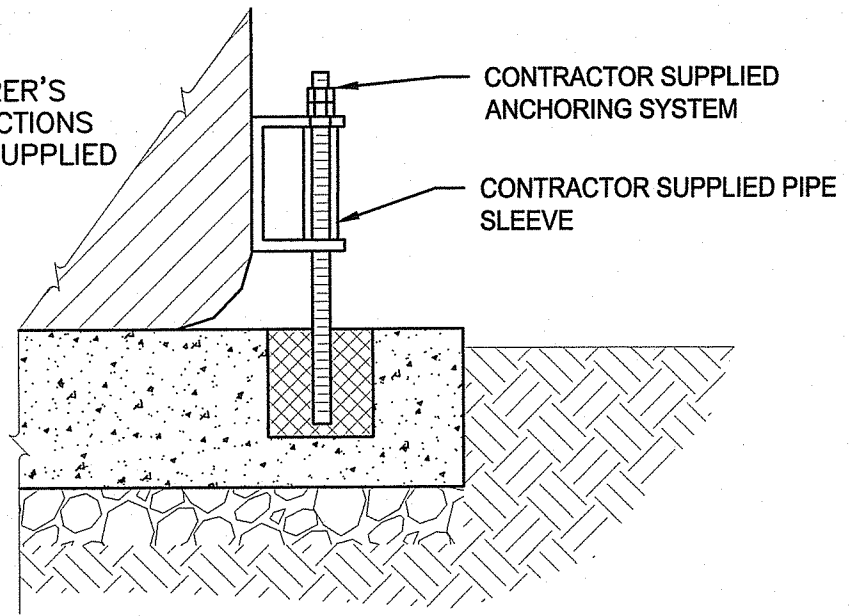


ELEVATION A-A



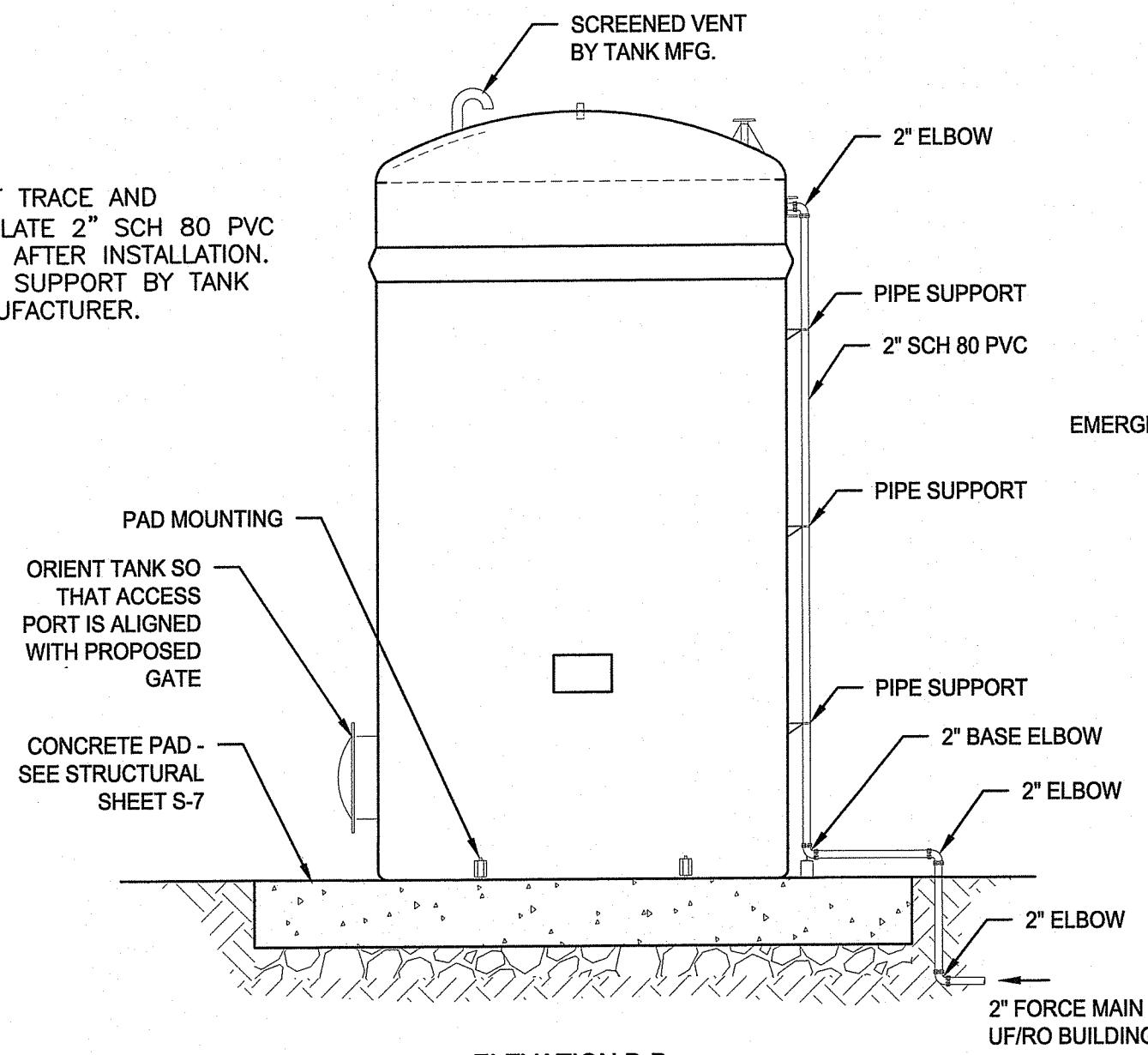
PLAN VIEW

NOTES:
1. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DRAWINGS AS SUPPLIED WITH TANK.

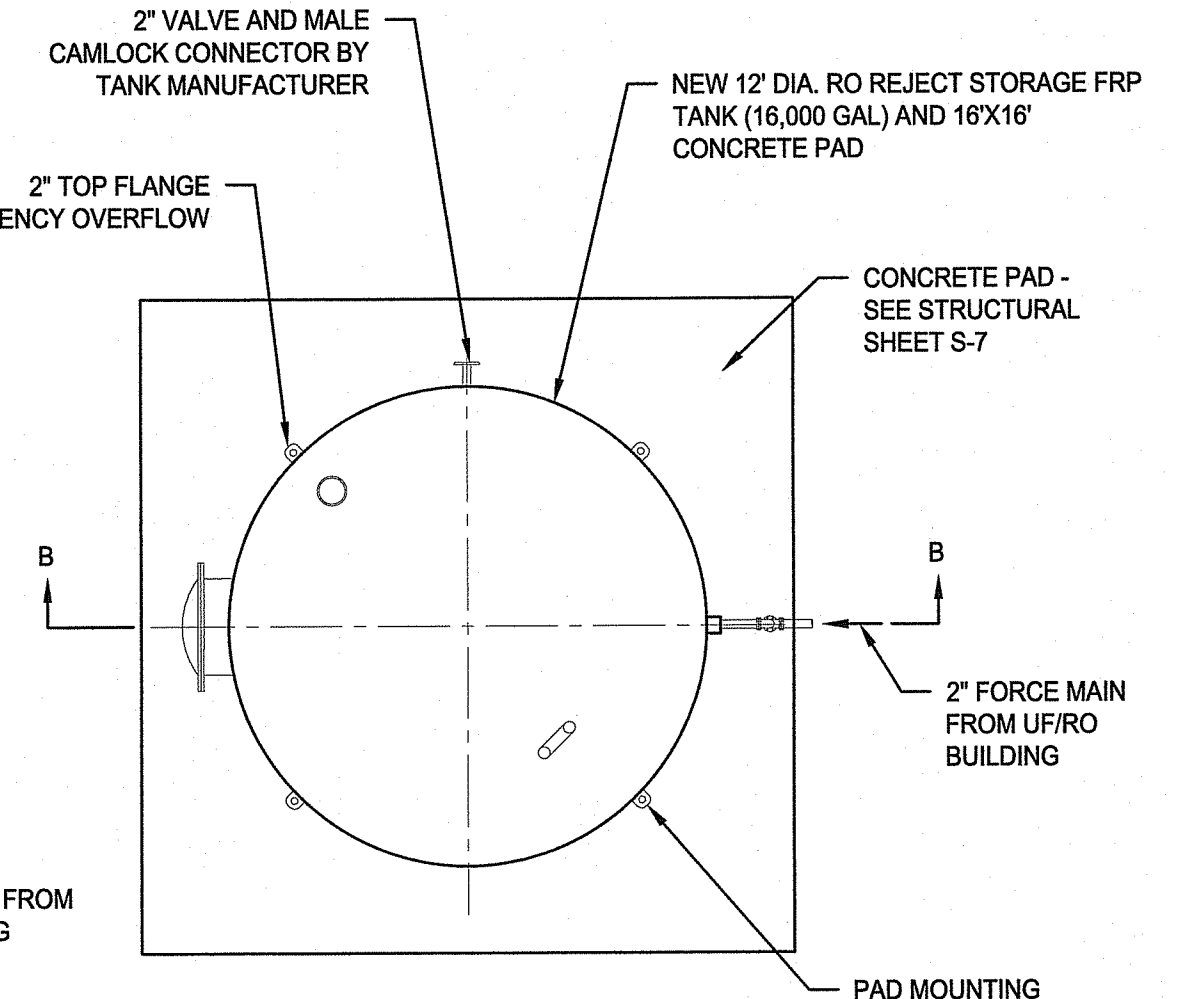


PAD MOUNTING DETAIL

NOTES:
1. HEAT TRACE AND INSULATE 2" SCH 80 PVC PIPE AFTER INSTALLATION.
2. PIPE SUPPORT BY TANK MANUFACTURER.

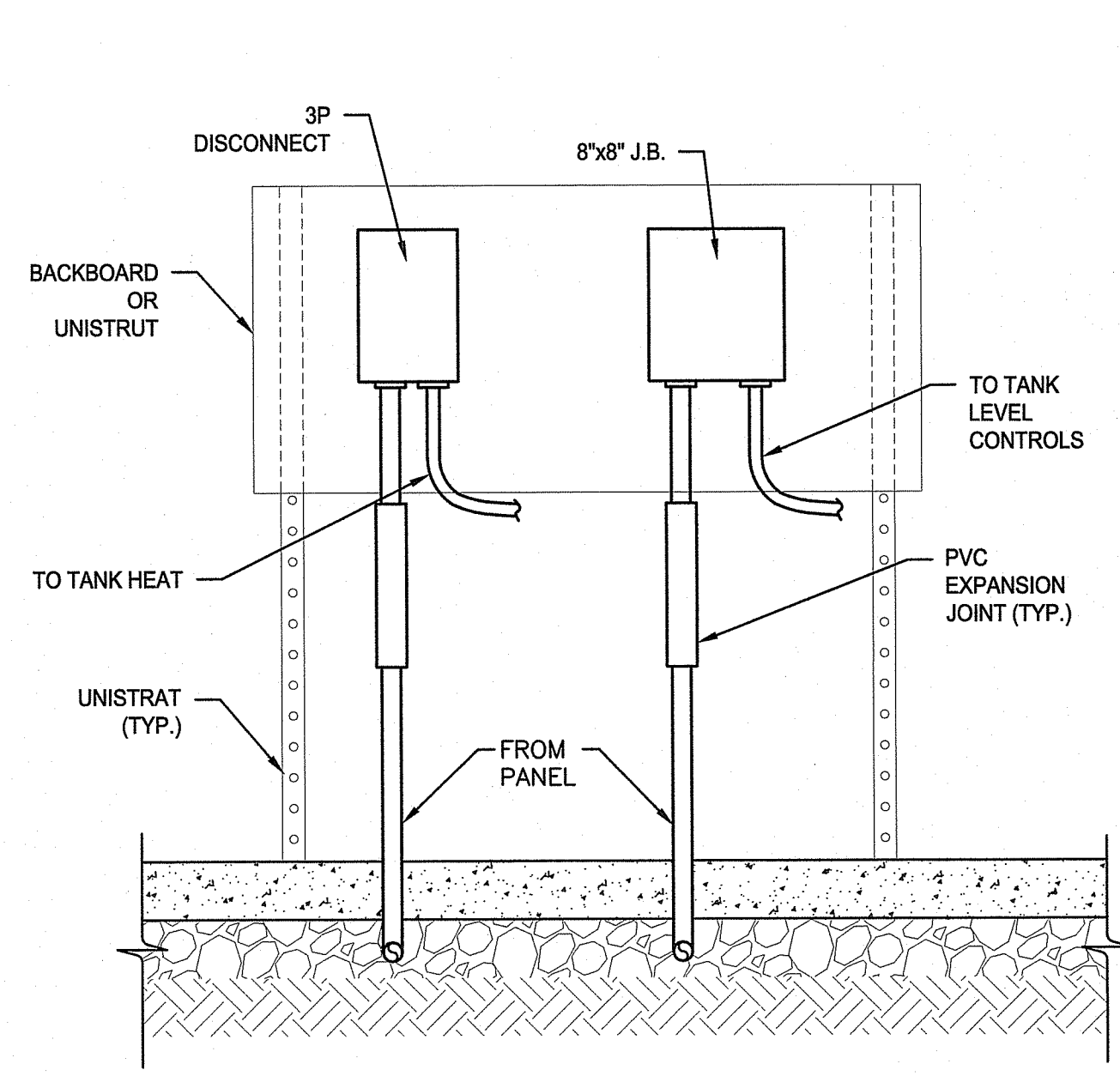


ELEVATION B-B



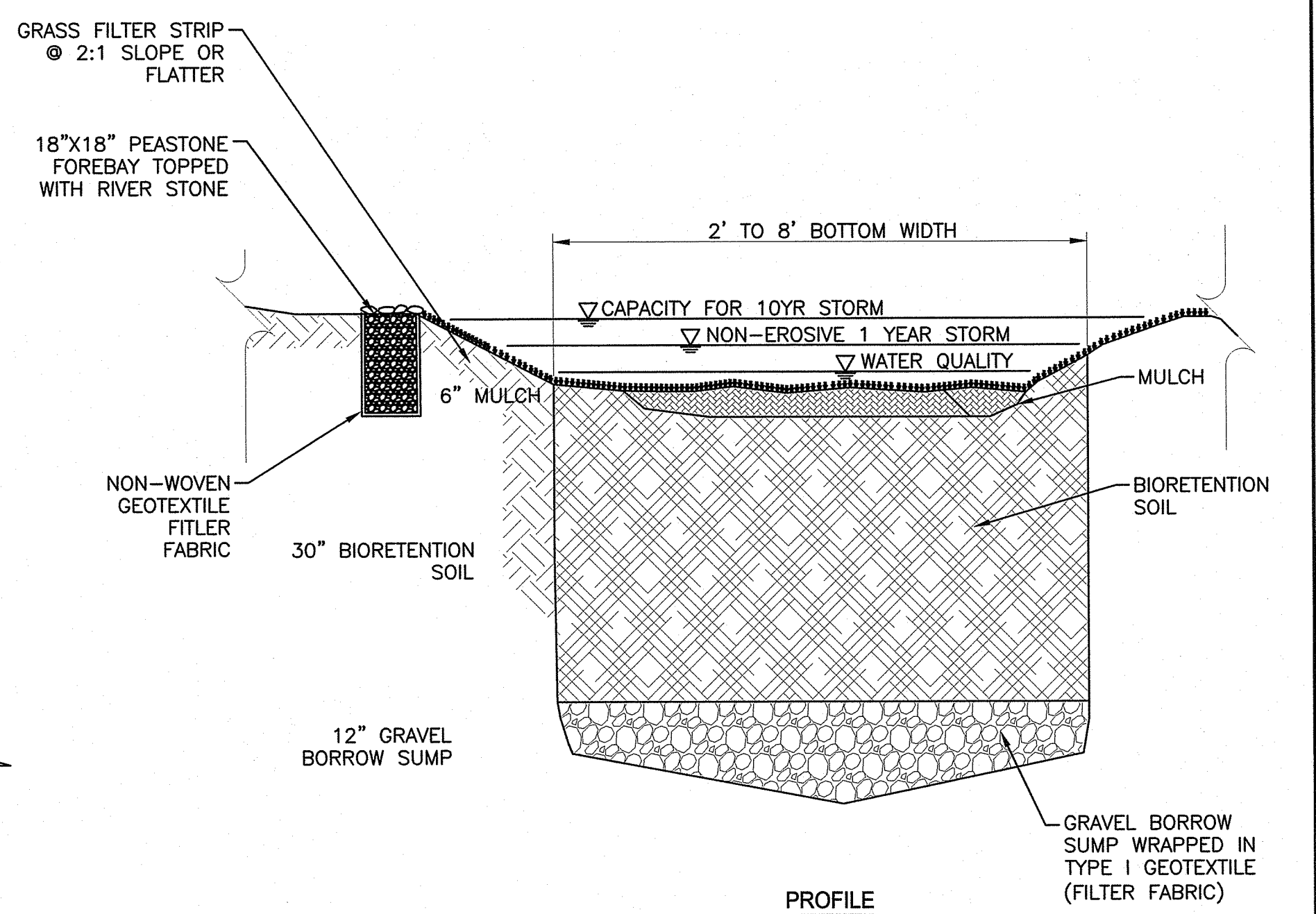
PLAN VIEW

5 FRP RO REJECT TANK
C-15 N.T.S.



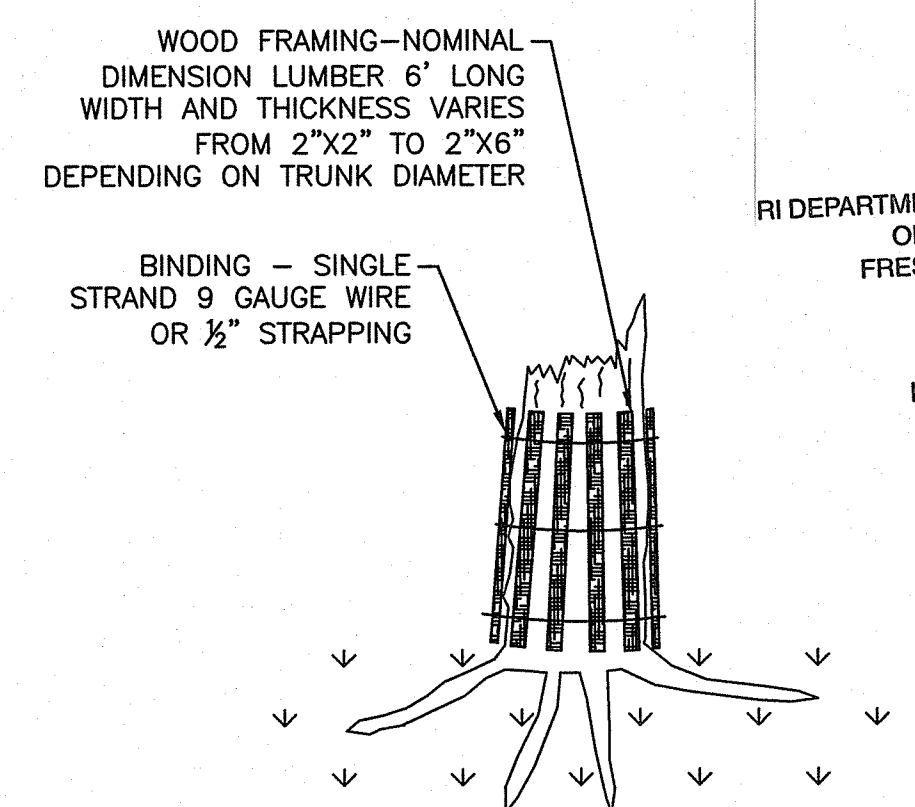
NOTES:
1. COORDINATE FINAL CONNECTIONS TO ALL TANK EQUIPMENT WITH EQUIPMENT PROVIDER.

6 ELECTRICAL EQUIPMENT MOUNTING DETAIL
C-15 N.T.S.



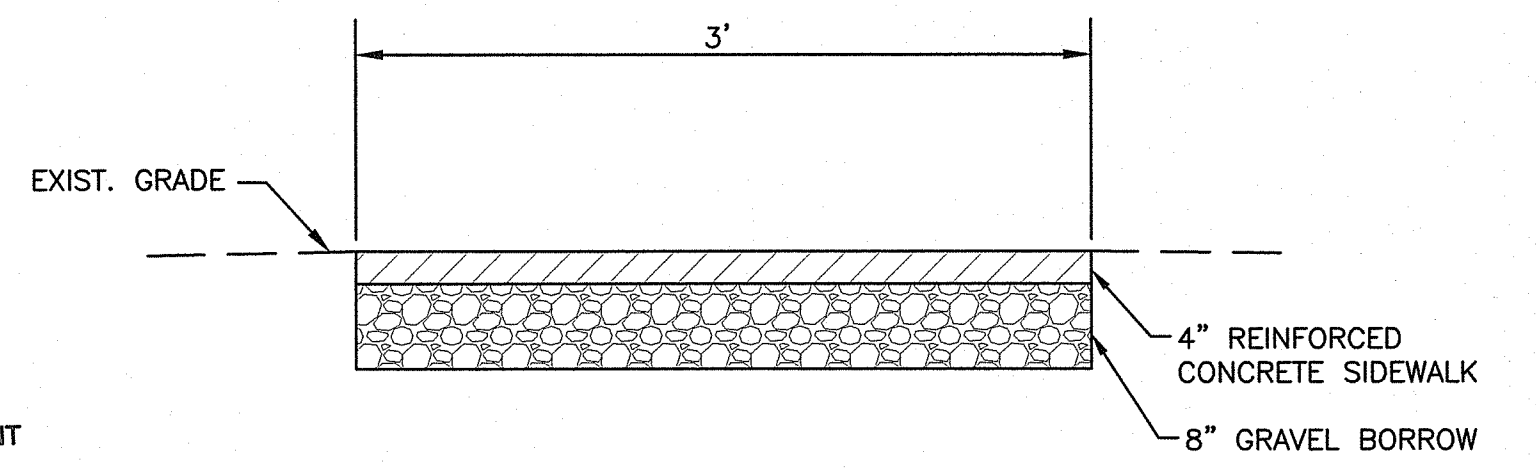
PROFILE

7 GRASS SWALE DETAIL
C-15 N.T.S.



NOTE:
1. THIS WORK SHALL CONSIST OF APPLYING WOOD FRAMING AROUND THE TRUNKS OF THE TREE FROM THE GROUND LEVEL TO THE HEIGHT OF 6- FEET AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

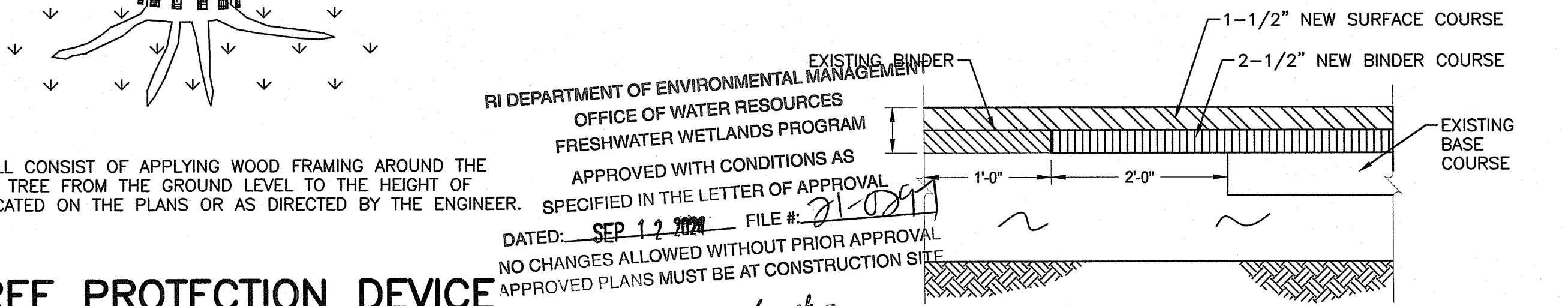
8 TREE PROTECTION DEVICE
C-15 N.T.S.



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RI STANDARD SPECIFICATION.

9 CONCRETE WALKWAY DETAIL
C-15 N.T.S.

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10 ASPHALT REPLACEMENT DETAIL
C-15 N.T.S.

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DEPARTMENT OF ADMINISTRATION

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AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
(CIVIL)

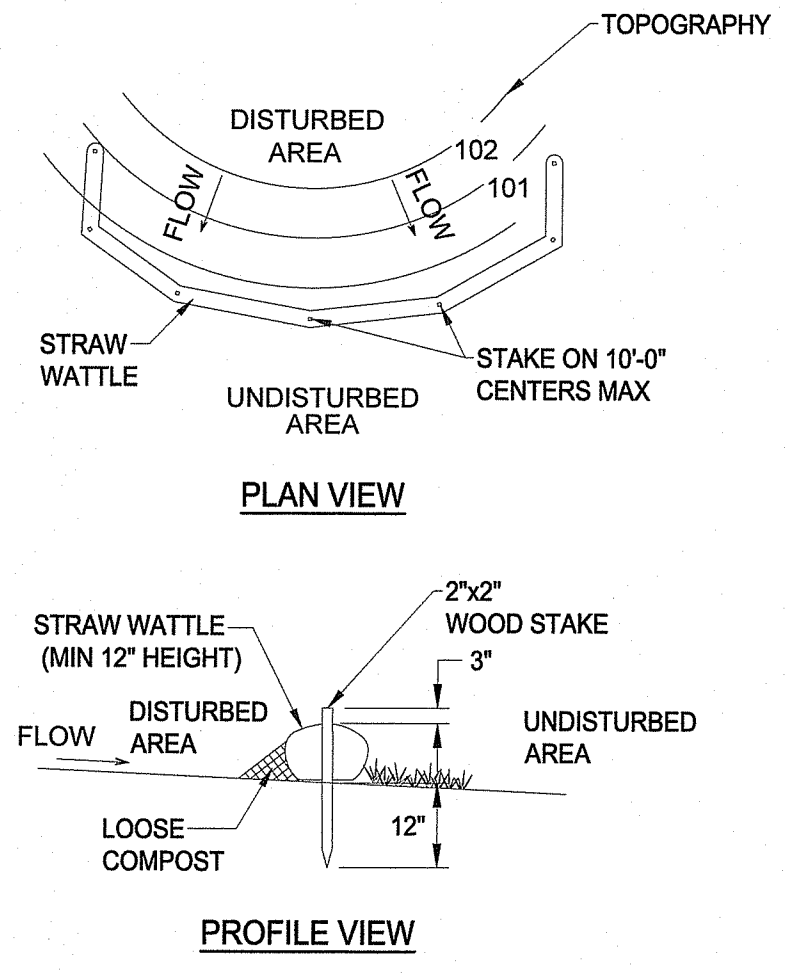
AARON P. SYLVIA, PE
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

DRAWN BY:
JD
DEPT CHECK:
WM
PROJECT CHECK:
AS

ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES
CIVIL DETAILS 2
ELEANOR SLATER HOSPITAL ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND A.P. 51 LOT 14

PROJECT No.
C-15
SHEET
16 OF 20

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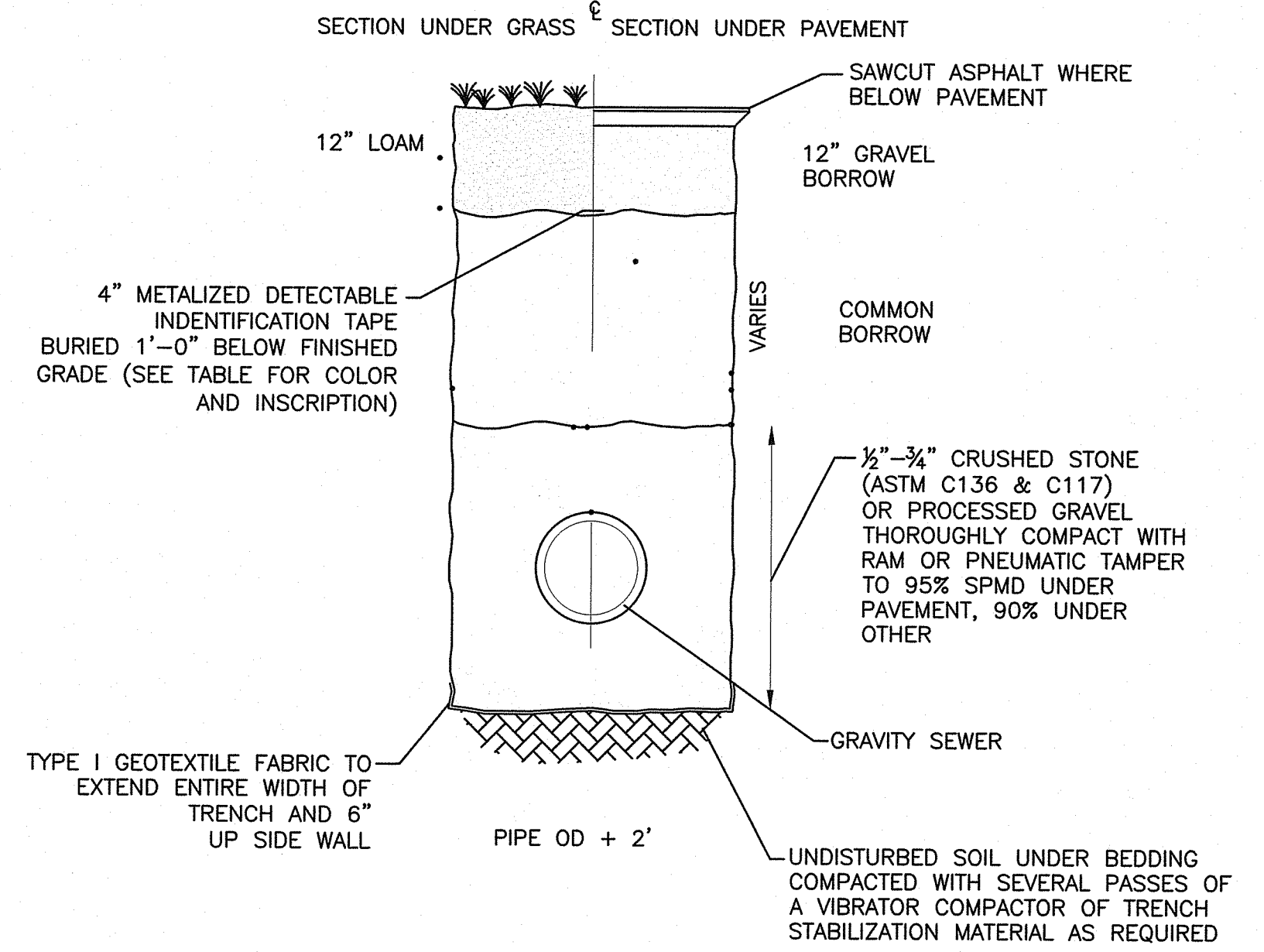


- NOTES**
1. REMOVE DEPOSITS WHEN SEDIMENT ACCUMULATION REACHES ONE-HALF OF THE EXPOSED STRAW WATTLE.
 2. PLACE STRAW WATTLE ON LEVEL GRADE. EXTEND BOTH ENDS OF THE STRAW WATTLE AT LEAST 8'-0" UPSLOPE AT 45 DEGREES TO THE MAIN ALIGNMENT.
 3. REPLACE STRAW WATTLE AFTER 6 MONTHS.
 4. STRAW WATTLE SHALL BE COMPLETELY COMPRISED OF BIO-DEGRADABLE MATERIALS.
 5. STRAW WATTLE SHALL BE FILTREXX PERIMETER CONTROL SILTSOXX WITH NATURAL FIBER MESH (COTTON), OR AS APPROVED BY THE PROJECT REPRESENTATIVE.

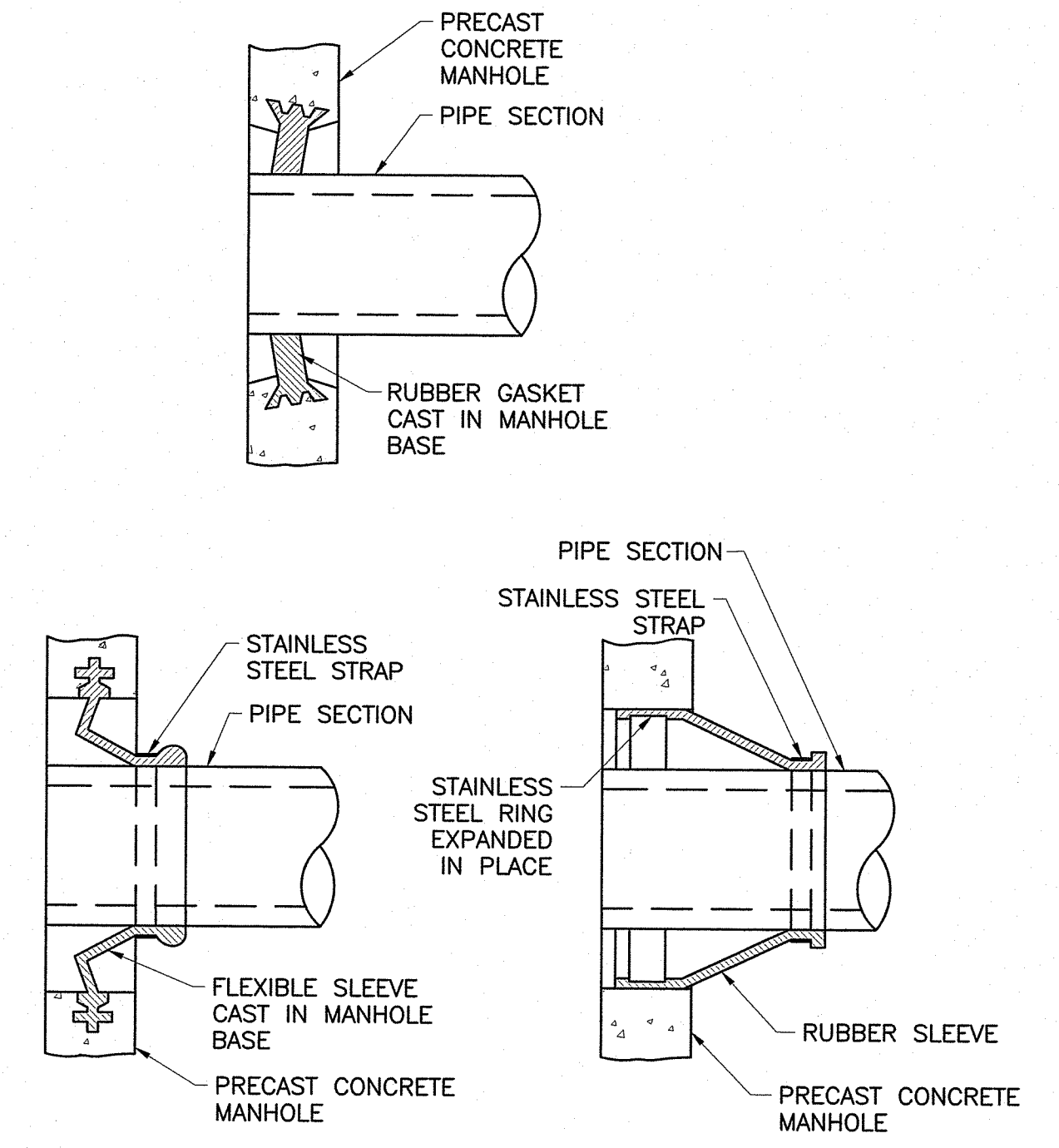
11 STRAW WATTLE DETAIL
C-16 N.T.S.

DETECTABLE IDENTIFICATION TAPE TABLE

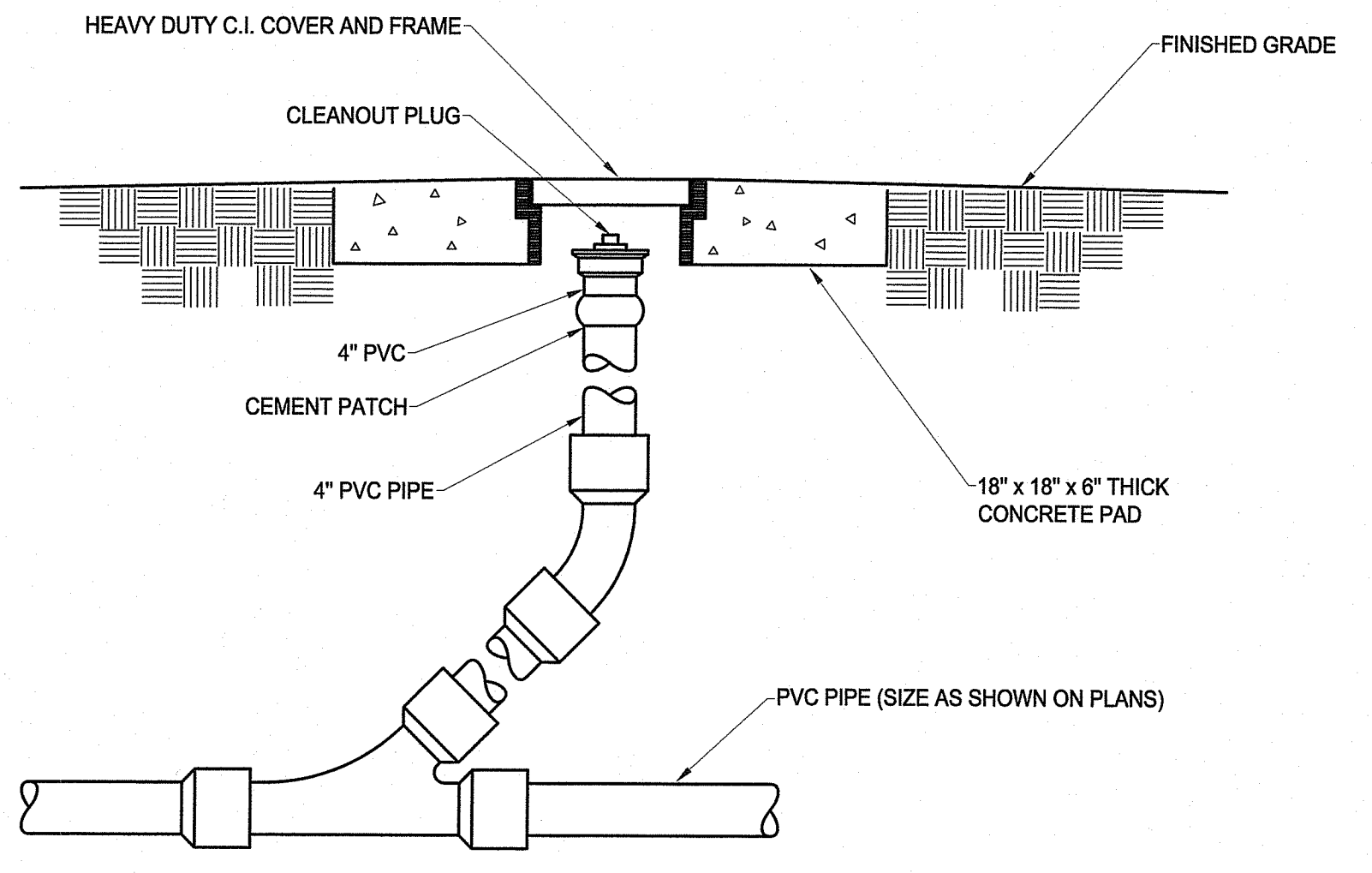
TAPE COLOR	INSCRIPTION
GREEN	'CAUTION SEWER LINE BURIED BELOW'
BLUE	'CAUTION WATER LINE BURIED BELOW'
PURPLE	'CAUTION NON-POTABLE WATER LINE BURIED BELOW'



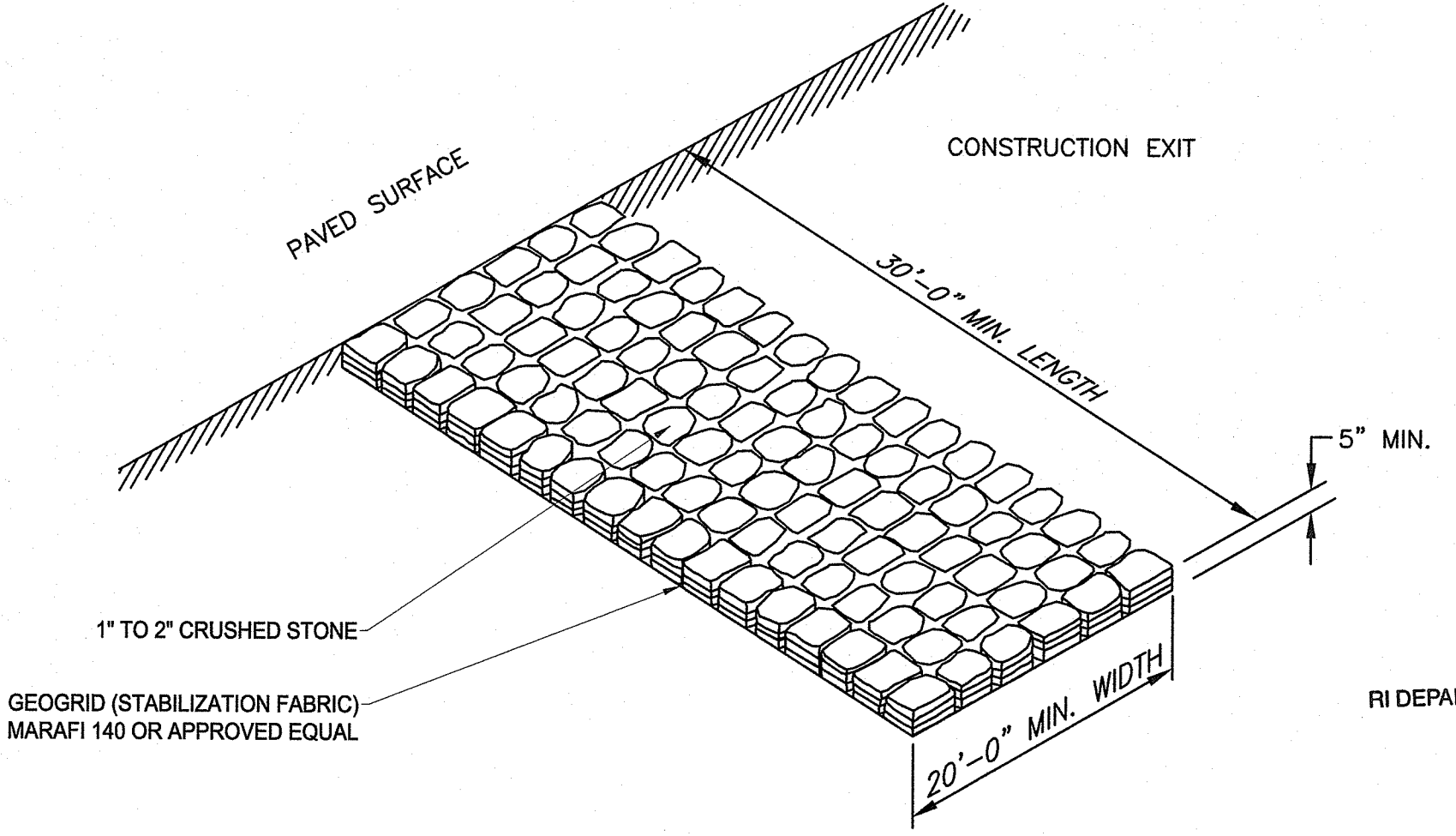
12 SEWER TRENCH DETAIL
C-16 N.T.S.



13 MANHOLE SEAL DETAILS
C-16 N.T.S.

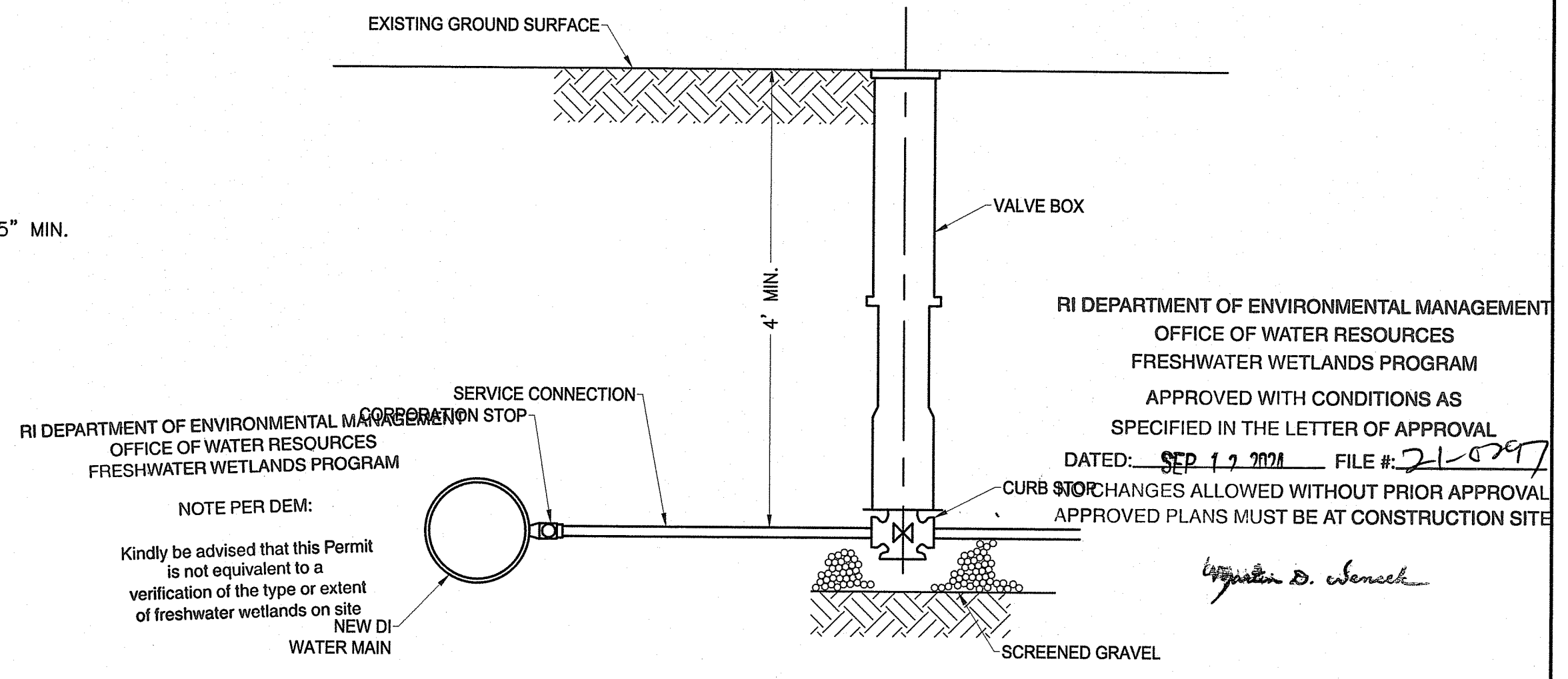


14 SERVICE SEWER CLEANOUT DETAIL
C-16 N.T.S.



- NOTES**
1. IN PAVED AREAS, THE CONTRACTOR SHALL ELIMINATE STONE FABRIC, AND SURROUND STABILIZED CONSTRUCTION ACCESS AREA WITH BALED HAY TO CONFINE SEDIMENT TO THE WORK AREA

15 STABILIZED CONSTRUCTION ACCESS/EGRESS
C-16 N.T.S.



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FRESHWATER WETLANDS PROGRAM

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DATED: SEP 17 2024 FILE #: 24-0297

Signature

16 WATER SERVICE CONNECTION DETAIL
C-16 N.T.S.

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AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER

07/12/2024
DATE

DRAWN BY:
JD

DEPT CHECK:
WM

PROJECT CHECK:
AS

ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES

CIVIL DETAILS 3

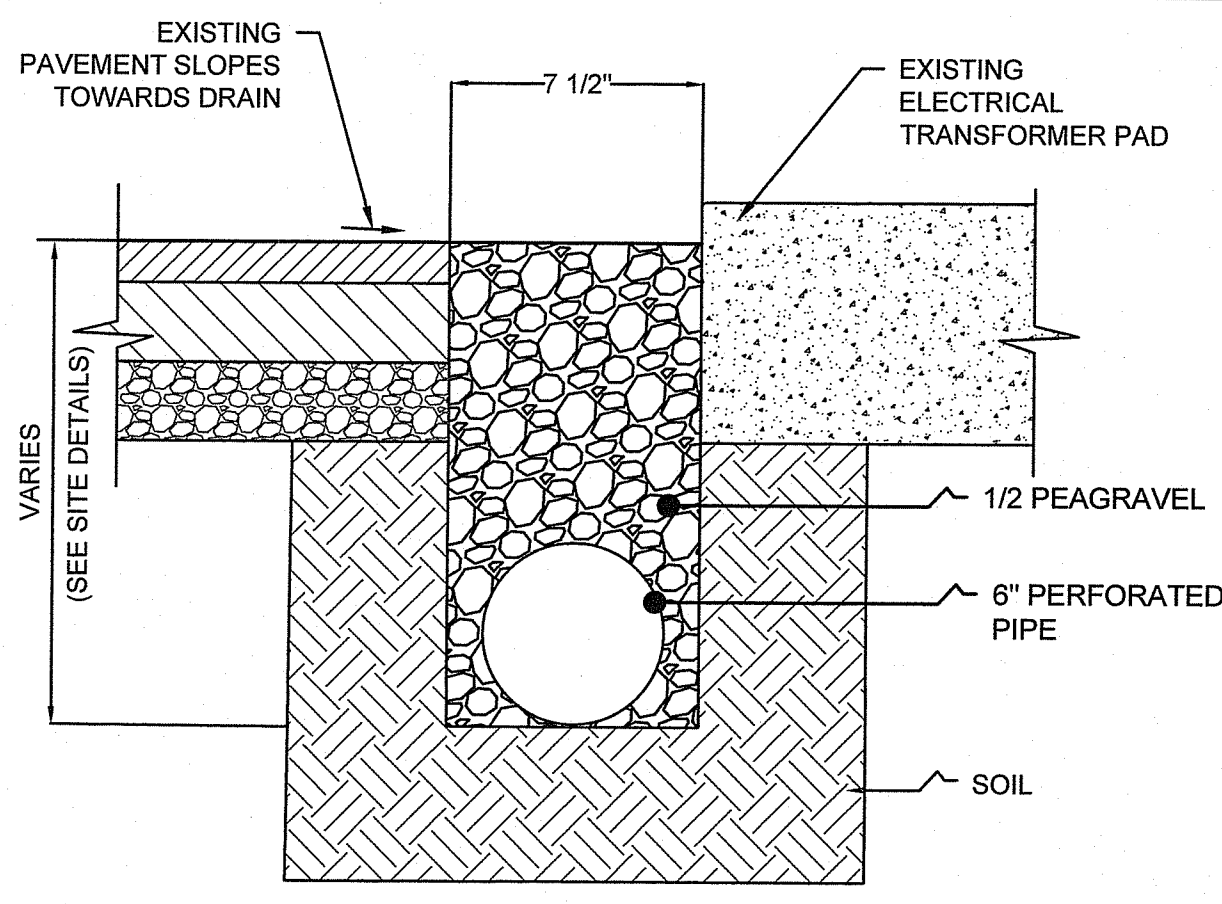
ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

JUL 18 2024

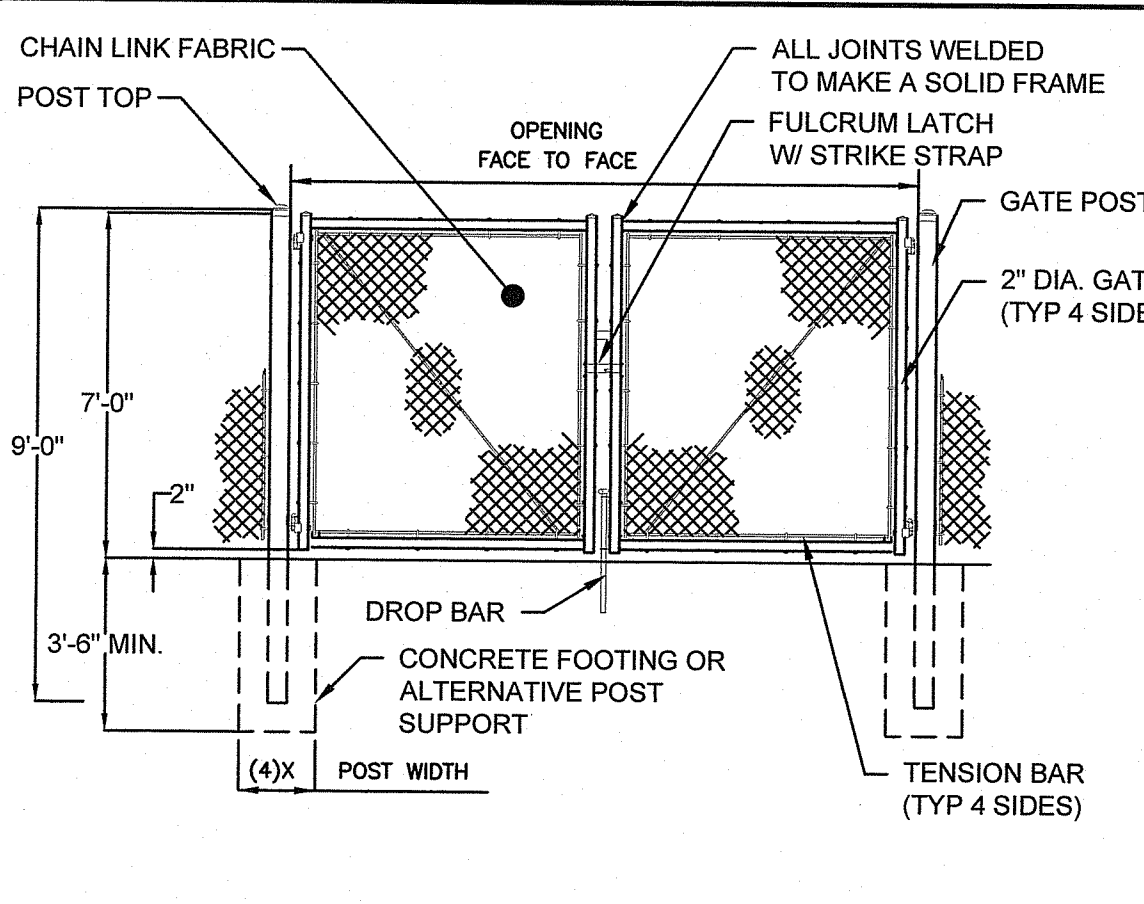
PROJECT No.
C-16

SHEET
17 OF 20

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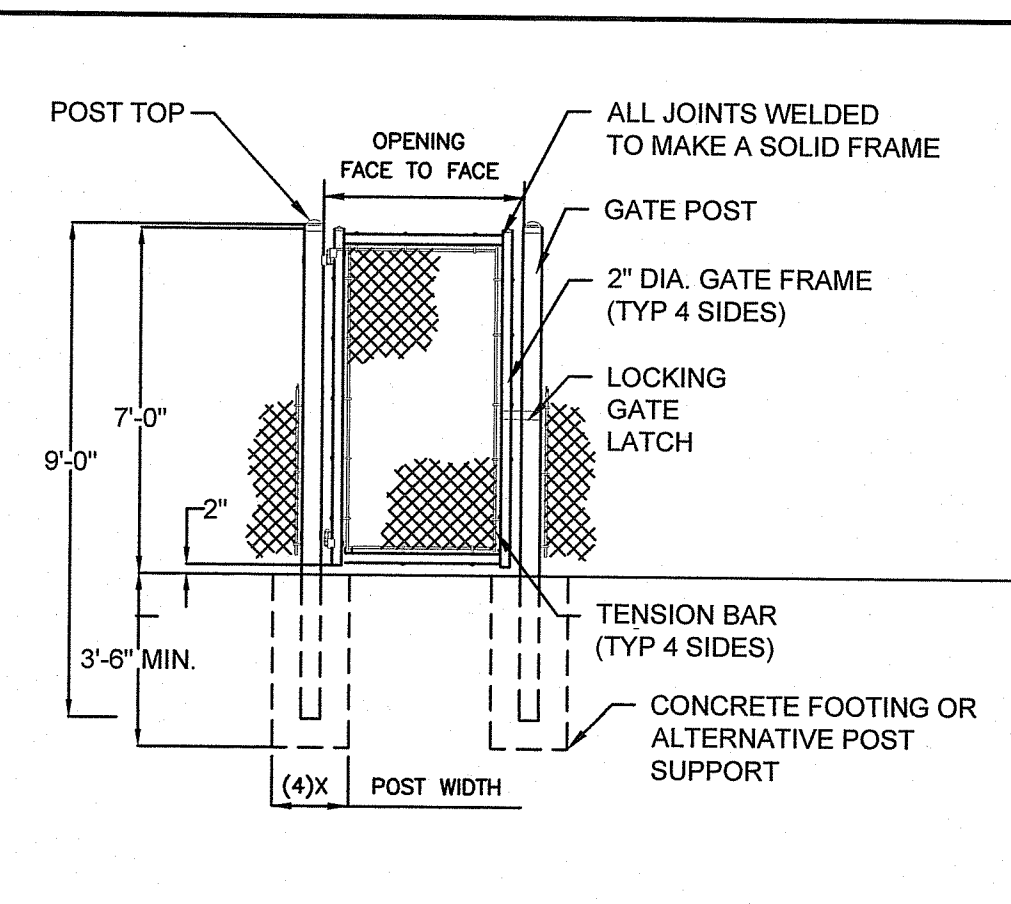


17 TRENCH DRAIN DETAIL
C-17 N.T.S.

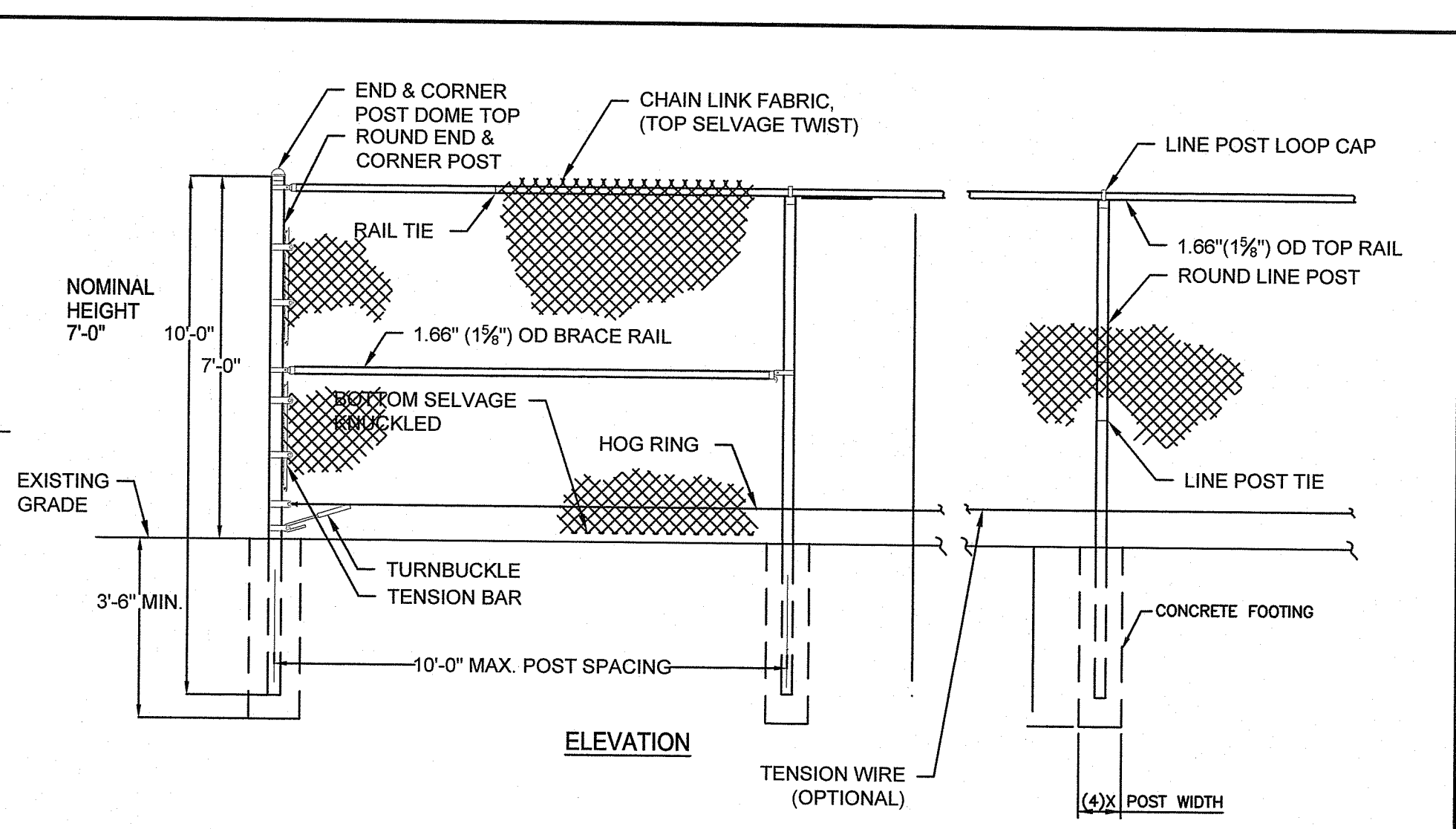


18 DOUBLE SWING GATE
C-17 N.T.S.

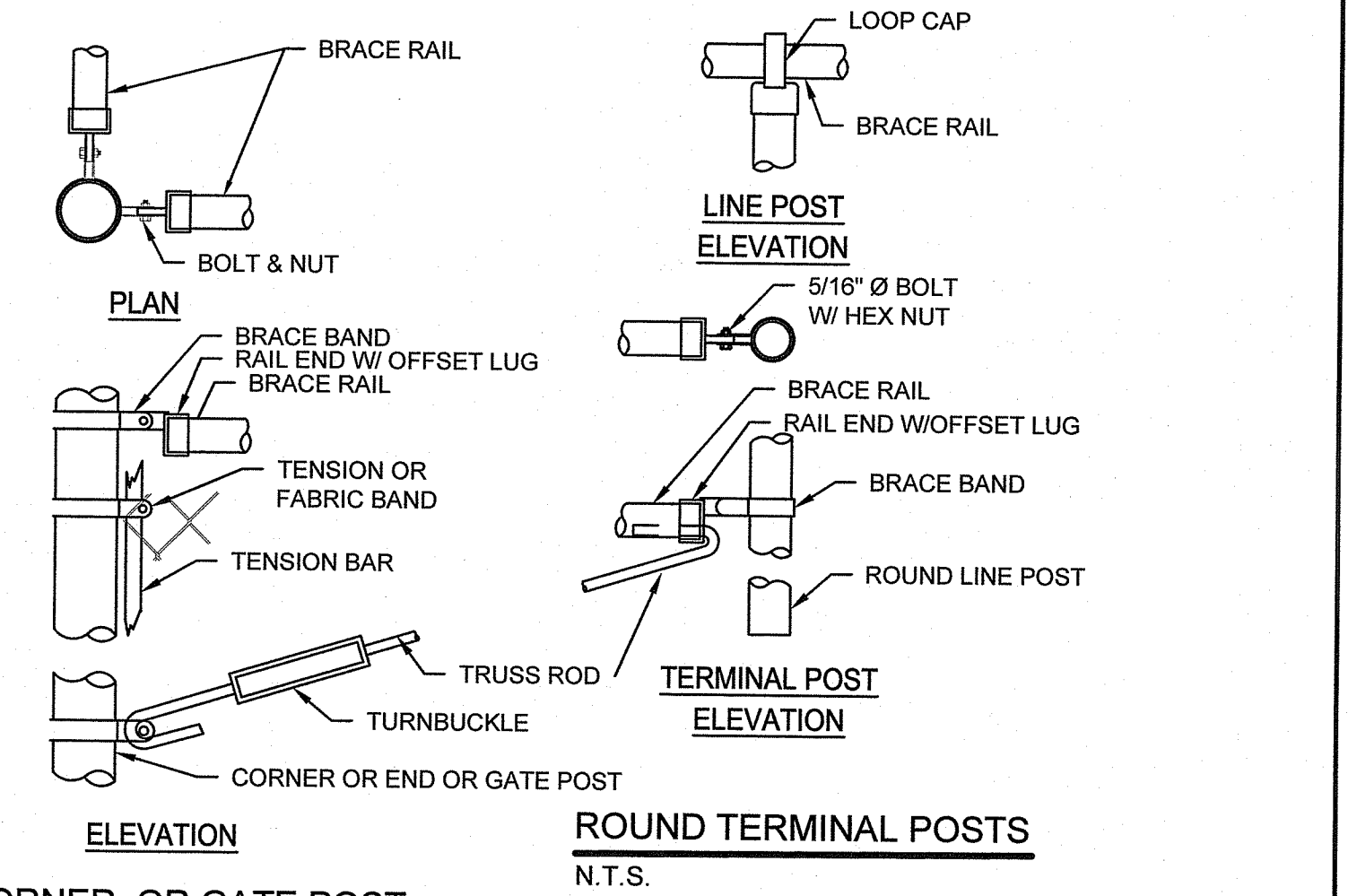
- GATE NOTES:**
- FENCE FABRIC SHALL BE NO MORE THAN 2" ABOVE FINISHED GRADE
 - FABRIC - 11.5 GAUGE, 2" MESH; GALVANIZED ASTM A392, CLASS 1; TWISTED SELVAGE ON BOTTOM, KNUCKLED SELVAGE ON TOP.
 - POSTS - STEEL PIPE, ASTM F1083 STANDARD WEIGHT (SCHEDULE 40).
 - GATE POSTS SHALL BE 2 7/8" O.D. PIPE, 5.79 # PER FT.



19 SINGLE SWING GATE
C-17 N.T.S.

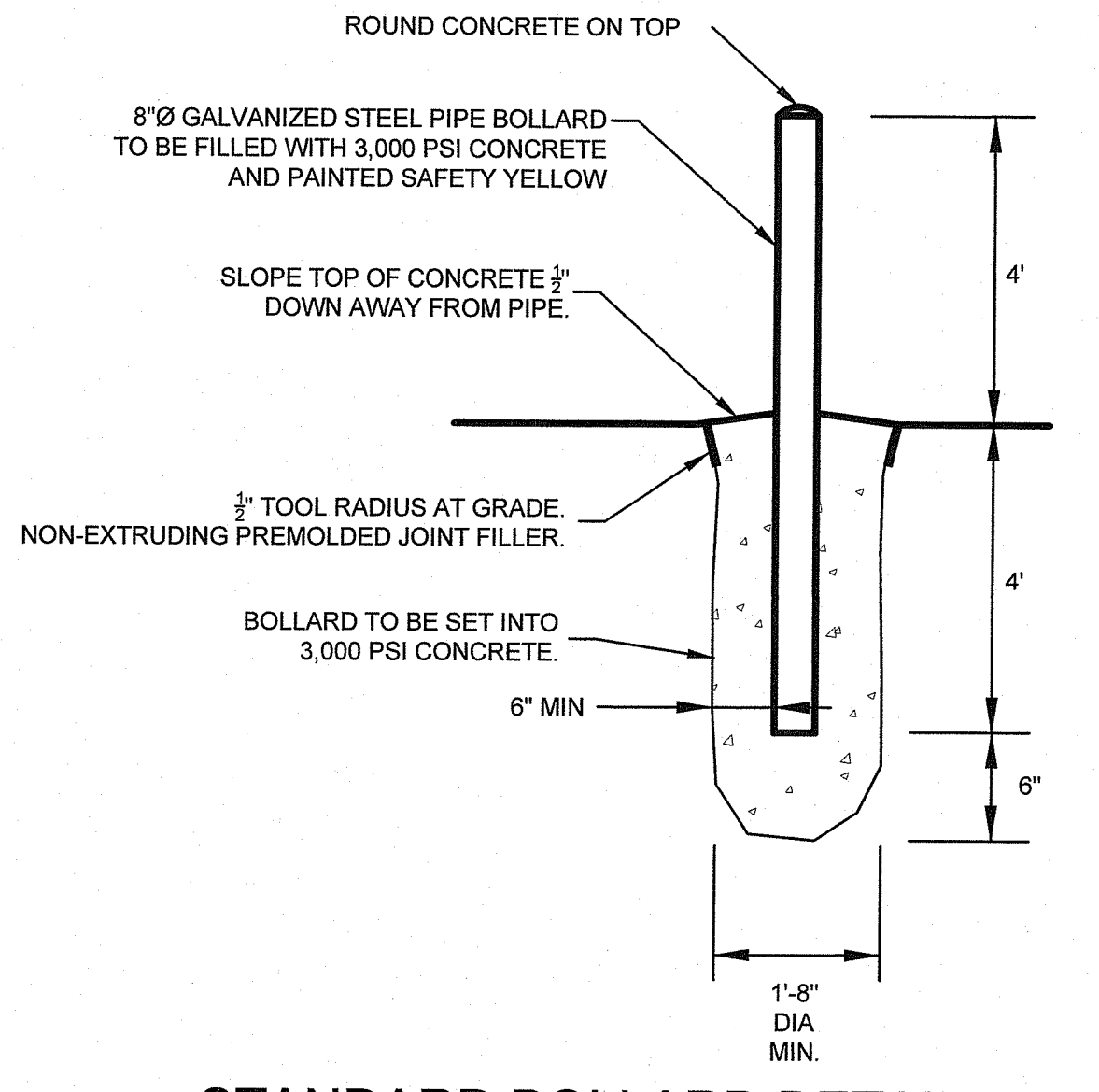


- NOTES:**
- FENCE FABRIC SHALL BE NO MORE THAN 2" ABOVE FINISHED GRADE
 - FABRIC - 11.5 GAUGE, 2" MESH; GALVANIZED ASTM A392, CLASS 1; TWISTED SELVAGE ON BOTTOM, KNUCKLED SELVAGE ON TOP.
 - POSTS - STEEL PIPE, ASTM F1083 STANDARD WEIGHT (SCHEDULE 40).
 - LINE POSTS SHALL BE 2 3/8" O.D. PIPE, 3.65 # PER FT.
 - TERMINAL OR GATE POSTS SHALL BE 2 7/8" O.D. PIPE, 5.79 # PER FT.
 - BRACE PANEL MINIMUM SPACING AND LOCATION SHALL BE PER FENCE MANUFACTURER SPECIFICATIONS.

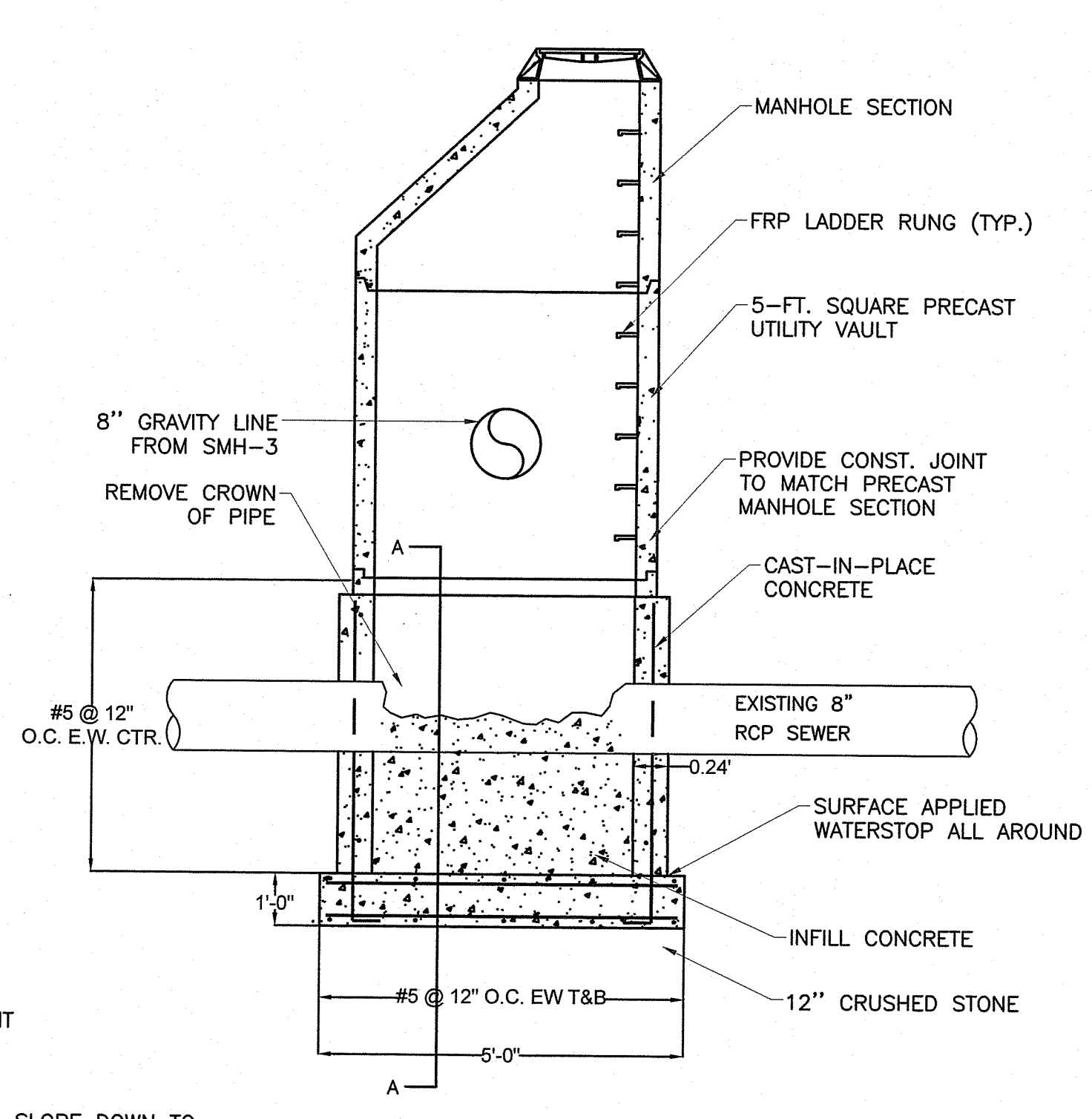


END, CORNER, OR GATE POST
N.T.S.

20 CHAINLINK FENCE SECTION DETAIL
C-17 N.T.S.

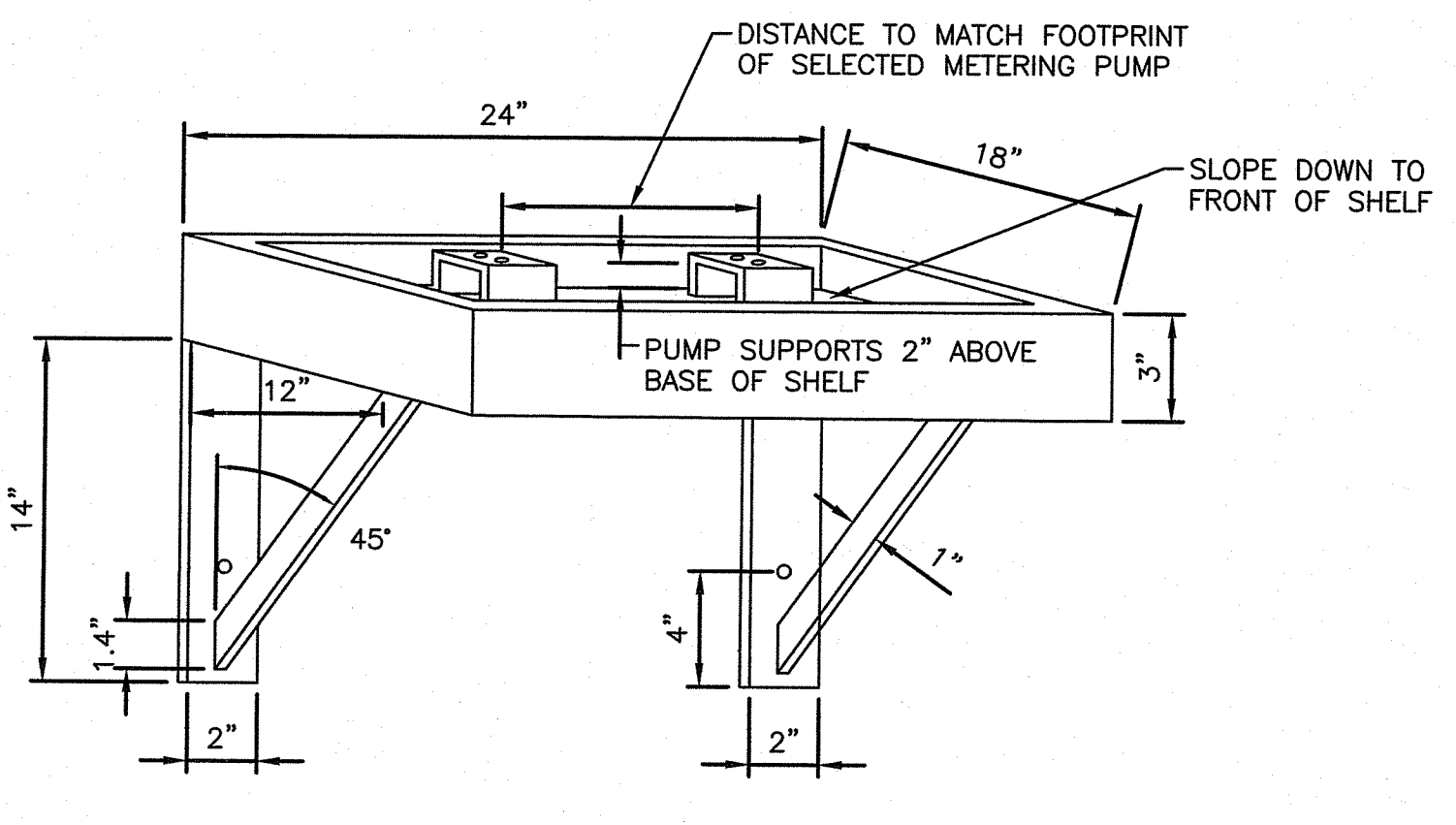


21 STANDARD BOLLARD DETAIL
C-17 N.T.S.

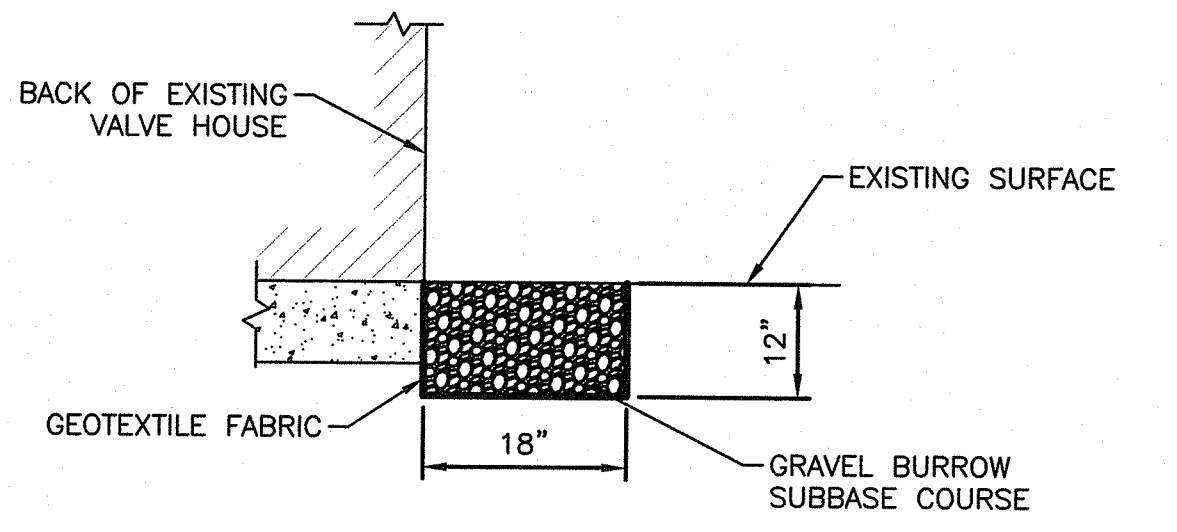


- NOTES:**
- THE CONTRACTOR SHALL VERIFY THE LOCATION, DIAMETER, AND ELEVATION OF THE EXISTING GRAVITY SEWER FROM THE SANITARY MANHOLE. THIS INFORMATION SHALL BE DETERMINED PRIOR TO SUBMITTAL OF THE DOGHOUSE MANHOLE SHOP DRAWINGS.
 - GENERAL ELEVATIONS OF THE DOGHOUSE MANHOLE ARE SHOWN. FINAL ELEVATIONS WILL BE DETERMINED BY THE ENGINEER UPON VERIFICATION OF EXISTING SEWER ELEVATIONS.
 - THE DOGHOUSE MANHOLE AND ASSOCIATED MANHOLE COVER SHALL BE RATED FOR H2O LOADING.

22 DOGHOUSE MANHOLE DETAIL
C-17 N.T.S.



23 CHEMICAL PUMP CONTAINMENT SHELF
C-17 N.T.S.



24 GRAVEL RESTORATION DETAIL
C-17 N.T.S.

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OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

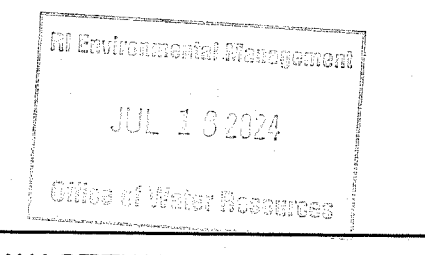
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DATED: SEP 17 2024 FILE #: 21-10217

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Signature



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STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
Providence, Rhode Island 02909
p 401.521.5980
www.wsp.com

AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER

07/12/2024
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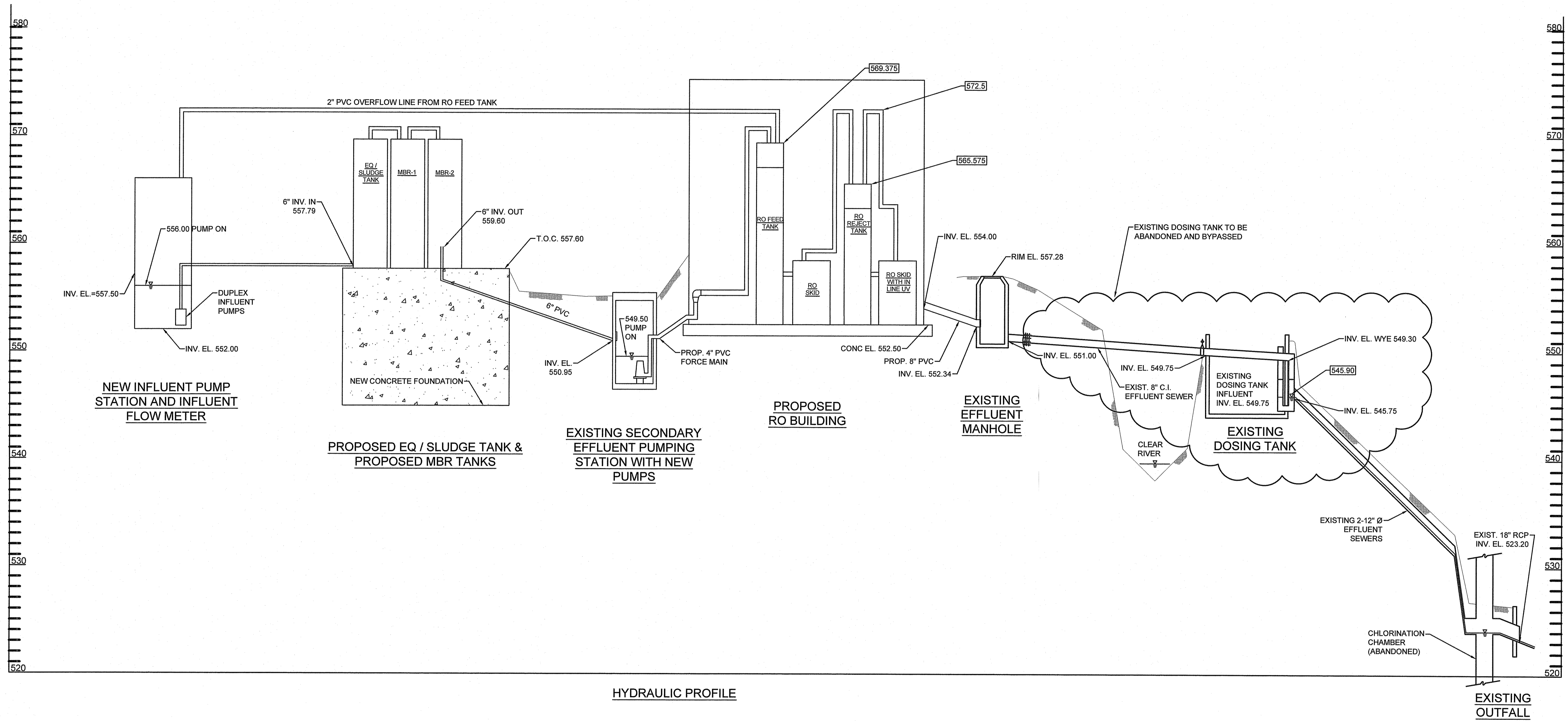
ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES

CIVIL DETAILS 4

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
C-17

SHEET
18 OF 20



HYDRAULIC PROFILE

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

NOTE PER DEM:
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: SEP 12 2024 FILE #: 21-001
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RI Department of Environmental Management
JUL 10 2024
Office of Water Resources

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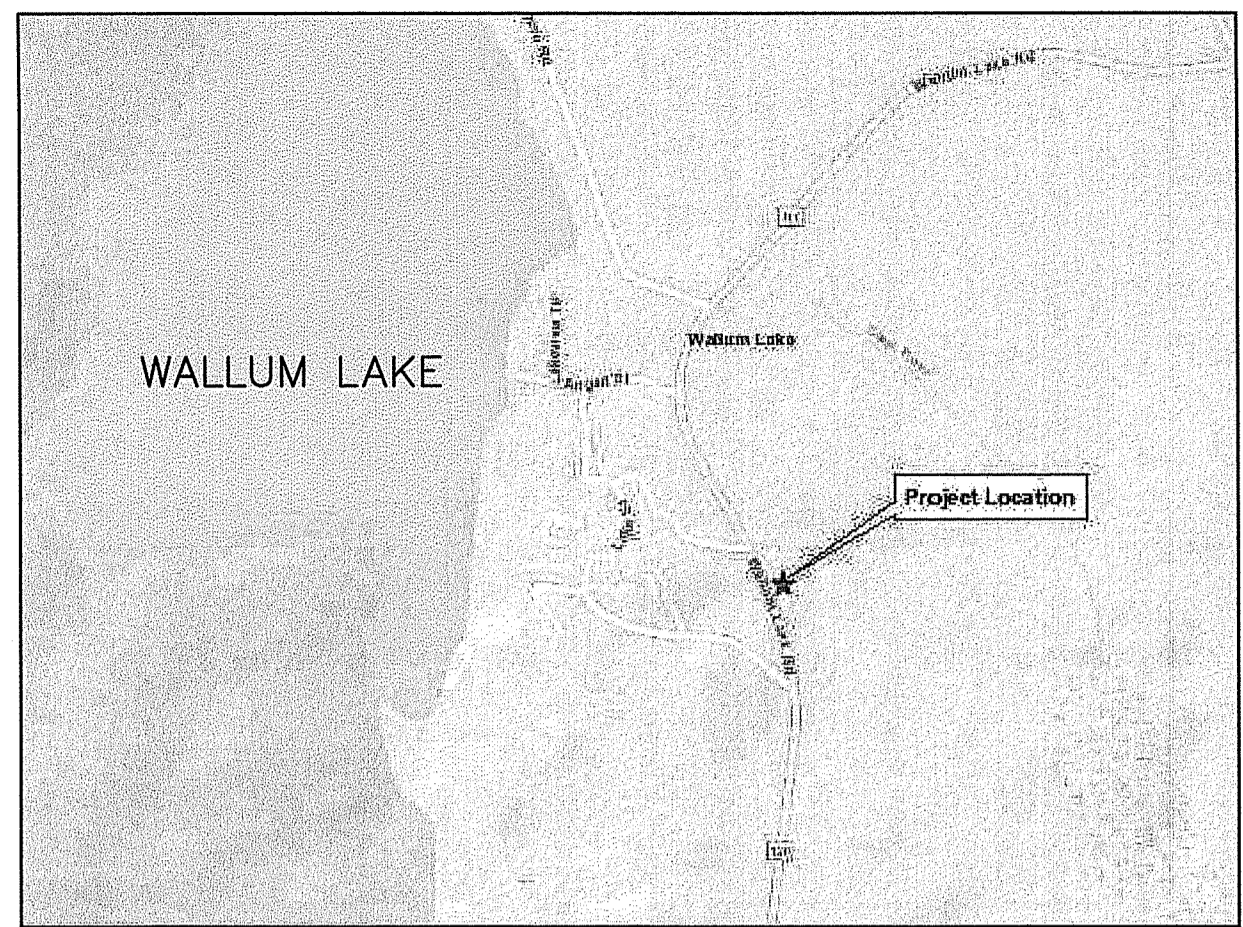
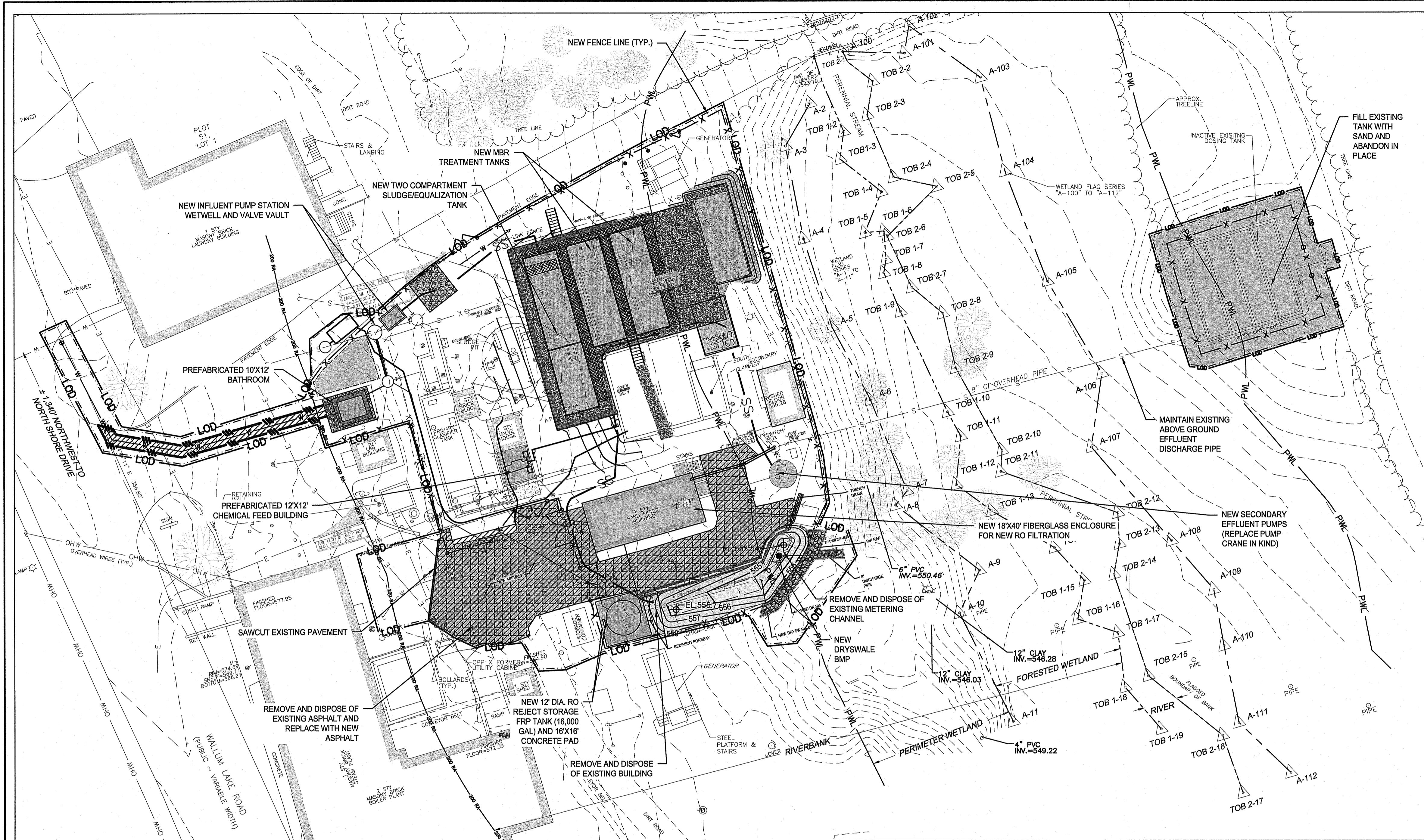
AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

AARON P. SYLVIA, PE
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

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ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES
HYDRAULIC PROFILE
ELEANOR SLATER HOSPITAL ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
C-18
SHEET
19 OF 20



VINCITY MAP

BMP-DRYSWALE MAINTENANCE SCHEDULE

INSPECT THE SYSTEM FOR THE SIX MONTHS AFTER CONSTRUCTION AND THEREAFTER QUARTERLY TO ENSURE IT IS FUNCTIONING AS DESIGNED AND IS FREE OF SEDIMENT AND DEBRIS. REMOVE ANY OBSTRUCTIONS TO FLOW, INCLUDING ACCUMULATED SEDIMENTS, TRASH, DEBRIS, AND VEGETATED GROWTH AT THE TIME OF INSPECTION. THE SYSTEM SHALL BE MOWED AT LEAST TWICE A YEAR AND MINIMALLY ORGANIC-FERTILIZED. IN ADDITION, IT SHOULD BE VISUALLY INSPECTED FOR PONDING AND TO IDENTIFY AREAS OF SOFT AND/OR SATURATED CONDITIONS. WOODY VEGETATION GROWING MUST ALSO BE REMOVED. VEGETATION SHOULD NOT BE REMOVED BY APPLICATION OF HERBICIDES. REPAIR SLUMPING SIDE SLOPES AS SOON AS PRACTICABLE. CORRECT EROSION OCCURRING AT THE CHANNEL BOTTOM OR ALONG THE CHANNEL SIDE SLOPES.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

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LEGEND

- TEMPORARY IMPACT
- PERMANENT IMPACT (NEW BUILDINGS/ IMPERVIOUS SURFACES)
- PERMANENT IMPACT (BMP-DRYSWALE)
- LIMITS OF DISTURBANCE/CLEARING/AND SEDIMENT CONTROL COMBINED
- FORESTED WETLAND
- PWL WETLAND PERIMETER
- RIVERBANK
- RIVERFRONT AREA
- NEW FENCE

SITE INFORMATION FROM SURVEY PERFORMED BY WATERMEN ENGINEERING COMPANY ON 6/14/2021

	WETLAND IMPACT TABLE		
	NEW PERMANENT (SF)		TEMPORARY (SF)
	NEW IMPERVIOUS	BMP	
RIVERBANK	3347.0	712.0	4317.0
PERIMETER WETLAND	1483.0	230.0	1250.0
FORESTED WETLAND	0.0	0.0	0.0
RIVER	0.0	0.0	0.0

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

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DATED: SEP 12 2024 FILE #: 21-007
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Signature
1"=20'
Scale 0 10 20 40 Feet

JUL 13 2024
Gifts of Water Resources

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DEPARTMENT OF ADMINISTRATION

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Providence, Rhode Island 02909
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AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER
07/12/2024
DATE

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ZAMBARANO CAMPUS WASTEWATER TREATMENT FACILITY UPGRADES
RESOURCE IMPACT PLAN
ELEANOR SLATER HOSPITAL, ZAMBARANO UNIT
WALLUM LAKE RD, BURRILLVILLE, RHODE ISLAND

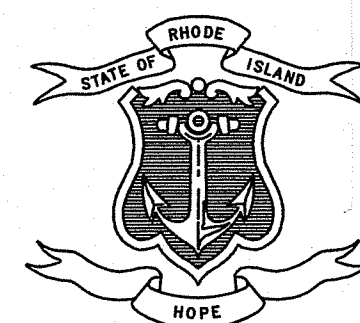
PROJECT No.
W-1
SHEET
20 OF 20

WASTE WATER TREATMENT FACILITY IMPROVEMENTS

ELEANOR SLATER HOSPITAL ZAMBARANO UNIT BURRILLVILLE, RHODE ISLAND

INDEX OF DRAWINGS

<u>DRAWING NUMBER</u>	<u>DRAWING TITLE</u>
<u>CIVIL</u>	
C-1	INDEX OF DRAWINGS, GENERAL NOTES, AND ABBREVIATIONS
C-2	EXISTING CONDITIONS SITE PLAN
C-3	TEMPORARY BYPASS, DEMO & SEDIMENT AND EROSION CONTROL PLAN 1
C-4	TEMPORARY BYPASS, DEMO & SEDIMENT AND EROSION CONTROL PLAN 2
C-5	PROPOSED CONDITIONS SITE PLAN
C-6	EFFLUENT DISCHARGE PIPING PLAN AND PROFILE
C-7	CHEMICAL FEED BUILDING
C-8	RETURN ACTIVATED SLUDGE BUILDING
C-9	CIVIL DETAILS 1
C-10	CIVIL DETAILS 2
C-11	CIVIL DETAILS 3
C-12	CIVIL DETAILS 4
W-1	RESOURCE IMPACT PLAN



STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION



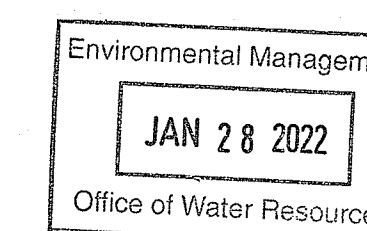
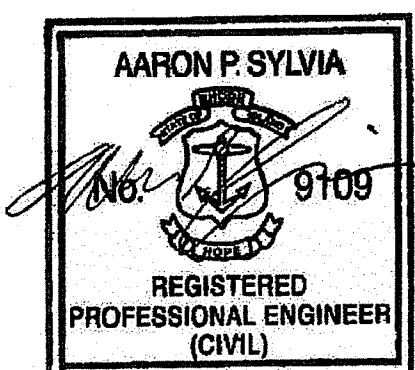
LOCATION MAP

Scale: NTS

JANUARY 2022

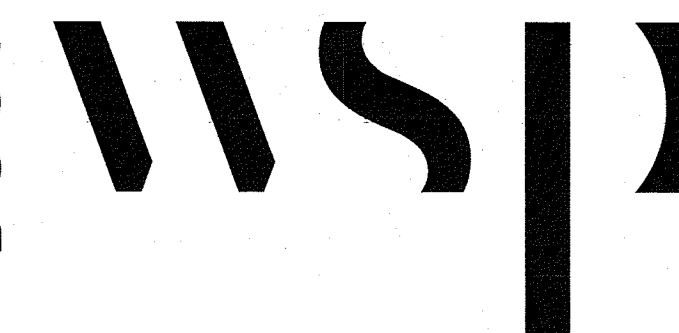
75% DESIGN - NOT FOR CONSTRUCTION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 1/2/22 FILE # 21-0297
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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Aaron P. Sylvia



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Providence, Rhode Island 02909
p 401.521.5980
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AARON P. SYLVIA, P.E.
REGISTERED PROFESSIONAL ENGINEER

DATE

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

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GENERAL NOTES

- HORIZONTAL DATUM IS BASED ON THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD 83).
- VERTICAL DATUM IS UNKNOWN. BENCHMARK INFORMATION WAS ESTABLISHED FROM PLAN TITLED "WASTEWATER TREATMENT FACILITY IMPROVEMENT" PREPARED BY DOMENIC V. TUTELA P.E. DATED NOVEMBER 1993 AND PROVIDED PROVIDED BY THE RHODE ISLAND DEPARTMENT OF ADMINISTRATION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL STRUCTURES AND PIPING, AS SHOWN IN THE DRAWINGS, AGAINST FLOODING, FLOTATION, AND OTHER DAMAGE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT DAMAGE TO ADJACENT AND NEARBY STRUCTURES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROTECT WALLUM LAKE ROAD AT ALL TIMES TO MAINTAIN SAFE PASSAGE OF VEHICULAR TRAFFIC. ALL DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE ENGINEER.
- UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE RECORD DRAWINGS PROVIDED BY RIDOA; AND, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES, THE EXISTENCE OF WHICH ARE PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND AVOID DAMAGE THERETO.
- ALL AREAS AND UTILITIES DISTURBED BY THE CONTRACTOR BEYOND THE LIMITS OF DISTURBANCE SHALL REQUIRE PRIOR AUTHORIZATION FROM THE ENGINEER AND SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
- UTILITIES WHICH ARE EXPOSED DURING EXCAVATION AND THAT ARE NOT TO BE RELOCATED, ABANDONED, OR DEMOLISHED SHALL BE SUPPORTED IN PLACE, BRACED, OR OTHERWISE PROTECTED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING MATERIAL STORAGE AND EQUIPMENT AREAS, FIELD OFFICES (IF NECESSARY), AND EARTHEN MATERIAL HANDLING AREAS, ALL WITHIN THE DESIGNATED LIMIT OF WORK AREA AND APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION ACTIVITIES WITHIN THE LIMIT OF WORK AREAS INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL SECURE THE WORK SITE FROM UNAUTHORIZED PERSONNEL WITH TEMPORARY CONSTRUCTION FENCING.
- THE CONTRACTOR SHALL COVER AND SECURE WORK AREA AND EXCAVATIONS DURING PERIODS OF NON-WORK.
- THE CONTRACTOR SHALL FURNISH AND INSTALL AN EIGHT (8) FOOT BY FOUR (4) FOOT PROJECT SIGN WHICH, AT A MINIMUM, INCLUDES THE FOLLOWING:
 - PROJECT TITLE: WASTE WATER TREATMENT FACILITY IMPROVEMENTS;
 - PROJECT LOCATION: ELEANOR SLATER HOSPITAL, ZAMBARANO UNIT;
 - OWNER: RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF CAPITAL ASSET MANAGEMENT AND MAINTENANCE;
 - GOVERNOR: DANIEL MCKEE;
 - DIRECTOR OF ADMINISTRATION: JAMES E. THORSEN; AND
 - STATE LOGO: TO BE PROVIDED BY OWNER.

UTILITY NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH LOCAL UTILITIES AND RIDOA FACILITIES MANAGEMENT TO DECOMMISSION FACILITIES PRIOR TO DEMOLITION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PAYMENT TO UTILITY COMPANIES AS REQUIRED TO ABANDON SERVICE AS PER CONTRACT DOCUMENTS.
- THE UTILITY SERVICES SHOULD BE DISCONNECTED AT MAINS IN ACCORDANCE WITH REQUIREMENTS GOVERNING THE UTILITY INVOLVED. UTILITY SERVICES AND ALL OTHER UTILITIES OR PORTIONS OF RELATED APPURTENANCES SUCH AS MANHOLES AND OTHER SERVICE LINES SUCH AS WIRES, CABLES, CONDUITS, DUCTS, AND THE LIKE SHALL BE ENTIRELY REMOVED WITHIN 3- FEET OF FINISHED GRADE.
- THE CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888-344-7233) A MINIMUM OF 72 HOURS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY FACILITIES MANAGEMENT AT 401-222-6200 A MINIMUM OF 72 HOURS PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PROVIDING TEMPORARY ELECTRIC, WATER SERVICES, AND SANITARY FACILITIES AS REQUIRED TO EXECUTE THE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING TEMPORARY POWER BY USE OF ON-SITE GENERATOR. NO ELECTRICAL POWER WILL BE MADE AVAILABLE TO THE CONTRACTOR. ANY SCHEDULED POWER OUTAGES SHALL BE COORDINATED AND APPROVED BY DCAMM.
- STORM DRAINS, DRAINAGE MANHOLES, AND CATCH BASINS THAT SHALL REMAIN FOLLOWING DEMOLITION. THE CONTRACTOR SHALL PROTECT THE STRUCTURES DURING DEMOLITION ACTIVITIES.
- CONTRACTOR RESPONSIBLE FOR OBTAINING ALL REGULATORY PERMITS FROM STATE AND LOCAL AGENCIES INCLUDING BUT NOT LIMITED TO BUILDING, ELECTRICAL, MECHANICAL, FIRE MARSHAL, AND ENVIRONMENTAL.
- ANY AND ALL ELECTRICAL WORK SHALL BE PERFORMED BY A RHODE ISLAND LICENSED ELECTRICIAN.

EROSION CONTROL NOTES

- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT FOR ACCEPTANCE, A GENERAL WORK SCHEDULE AND PLAN THAT INDICATES PLANNED IMPLEMENTATION OF TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
- SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. SEDIMENTATION DEVICES SHALL BE FURNISHED, INSTALLED AND MAINTAINED AS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PREVENT THE DISCHARGE AND MIGRATION OF SEDIMENT FROM THE SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM DEWATERING OPERATION DISCHARGES IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH PROPOSED METHODS FOR SEDIMENT REMOVAL FOR REVIEW BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE DUST CONTROL (E.G., CALCIUM CHLORIDE OR WATER) TO MINIMIZE DUST ON SITE DURING DEMOLITION. THE FREQUENCY AND APPLICATION RATES FOR DUST CONTROL SHALL BE COORDINATED BY THE CONTRACTOR AND ENGINEER.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL THROUGHOUT THE WORK AREA.
- SEDIMENTATION DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY BY THE CONTRACTOR.
- UPON COMPLETION OF SITE RESTORATION, THE CONTRACTOR SHALL CLEAN AND FLUSH ALL CATCH BASINS, AND DISCHARGE STRUCTURES IMPACTED BY THIS PROJECT.
- BALED HAY EROSION CHECKS SHALL BE INSTALLED AT ALL CATCH BASINS AND INLETS TO TRAP SEDIMENT FROM ENTERING THE SYSTEM. CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE ADJUTING GROUND SURFACES ARE STABILIZED.
- WHERE BALED HAY EROSIONS CHECKS AND SILT FENCES ARE USED AT CATCH BASINS, THEY SHALL BE REMOVED AT THE END OF WORK AT THAT SITE OR AS DIRECTED BY THE ENGINEER IN ORDER TO PREVENT CLOGGING OF THE INLET.
- THE CONTRACTOR SHALL BE RESPONSIBLE ON A DAILY BASIS FOR SWEEPING OF ALL STREETS IMPACTED FROM DISPERSED SEDIMENT.
- THE CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ACCESS/EGRESS AT ALL VEHICULAR POINTS OF EXIT FROM WORK SITE.

ABBREVIATIONS

ABDN	AT	LF	LINEAR FEET
ACCU	ABANDONED	L	LENGTH
ACU	AIR-COOLED CONDENSING UNIT	LB	POUNDS
AD	AIR-CONDITIONING UNIT	LB/D	POUNDS PER DAY
ADDL	ADDITIONAL	LG	LONG
AHU	AIR HANDLING UNIT	LONG	LONGITUDINAL
ALUM	ALUMINUM	LR	LONG RADIUS
ALTN	ALTERNATE	LT	LIGHT
AMP	AMPERE		
ANOD	ANODIZED		
APPROX	APPROXIMATE	MATL	MATERIAL
ARCH	ARCHITECTURAL	MAX	MAXIMUM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MCC	MOTOR CONTROL CENTER
	AVERAGE	MD	MOTORIZED DAMPER
AVG	AVERAGE	MECH	MECHANICAL
		MFR	MANUFACTURER
B	BASLINE	MGD	MILLION GALLONS PER DAY
BLDG	BUILDING	MG/L	MILLIGRAMS PER LITER
BOD 5	BIOCHEMICAL OXYGEN DEMAND (5 DAY TEST)	MH	MANHOLE
		MIN	MINIMUM
BOT	BOTTOM	MISC	MISCELLANEOUS
BRG	BEARING	M&P	MAINTAIN AND PROTECT
		MTL	METAL
		MTRG	METERING
CAB.	CABINET	N.	NORTH
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CC	CONCRETE CURB	NO.	NUMBER
CHEM	CHEMICAL	NOM	NOMINAL
CFM	CUBIC FEET PER MINUTE	NPW	NON-POTABLE WATER
CI	CAST IRON	NTS	NOT TO SCALE
CIP	CAST IN PLACE		
CISP	CAST IRON SOIL PIPE	OC	ON CENTER
CJ	CONSTRUCTION JOINT	OD	OUTSIDE DIAMETER
C	CENTER LINE	OF	OVERFLOW
CL 2	CHLORINE	O/H	OVERHEAD
CLF	CHAIN LINK FENCE	OPNG	OPENING
CLP	CLAY PIPE	OP	OPPOSITE
CL	CLEAR	ORP	OXIDATION REDUCTION POTENTIAL
CLSM	CONTROLLED LOW STRENGTH MATERIAL		
CMP	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE
CMU	CONCRETE MASONRY UNITS	PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
C.O.	CLEAN OUT	PCF	POUNDS PER CUBIC FOOT
COL	COLUMN	PI	POINT OF INTERSECTION
CONC	CONCRETE	PJF	PREMOLDED JOINT FILLER
CONN	CONNECTION	P	PROPERTY LINE
CONST	CONSTRUCTION	PLYWOOD	PLYWOOD
CONT	CONTINUOUS	POC	POINT ON CURVE
COR	CORNER	POT	POINT ON TANGENT
CPLG	COUPLING	PP	PVC PIPE
C TO C	CENTER TO CENTER	PS	PUMP STATION
CTR	CENTER	PSF	POUNDS PER SQUARE FOOT
CS	COMBINED SEWER	PSI	POUNDS PER SQUARE INCH
CU FT	CUBIC FEET	PT	POINT OF TANGENCY
		PVC	POLYVINYL CHLORIDE
DEG	DEGREE	PVI	POINT OF VERTICAL INTERSECTION
DET	DETAIL	PVMT	PAVEMENT
DIA	DIAMETER	PVT	POINT OF VERTICAL TANGENCY
DIAG	DIAGONAL		
DIM	DIMENSION	RAD	RADIUS
DIP	DUCTILE IRON PIPE	RAS	RETURN ACTIVATED SLUDGE
DIR	DIRECTION	RAS	REINFORCED CONCRETE
DISCH	DISCHARGE	RCP	REINFORCED CONCRETE PIPE
DISCH	DISSOLVED OXYGEN	RD	ROOF DRAIN
DS	DOWNSPOUT	R&D	REMOVE AND DISPOSE
DWG	DRAWING	RDCR	REDUCER
DWL	DWELL	REHAB	REHABILITATION/REHABILITATED
		REINF	REINFORCEMENT
EA	EACH	REQ'D	REQUIRED
EOP	EDGE OF PAVEMENT	RM	ROOM
ELB	ELBOW	RO	ROUGH OPENING
ECC	ECCENTRIC		
EF	EACH FACE	S	SOUTH
EFL	EFFLUENT	SCH	SCHEDULE
ELE	ELEVATION	SECT	SECTION
ELEC	ELECTRICAL	SHT	SHEET
EQ	EQUAL	SIM	SIMILAR
EQ SP	EQUALLY SPACED	\$	SPRING LINE
EW	EACH WAY	SMH	SANITARY MANHOLE
EXP JT	EXPANSION JOINT	S.O.	SHUTOFF
EXT	EXTERIOR	SPECS	SPECIFICATIONS
EXIST/EX	EXISTING	SP	SPACING
		SO	SQUARE
FAB	FABRICATION	SS	STAINLESS STEEL
FACIL	FACILITY	STA	STATION
F.H.	FIRE HYDRANT	STD	STANDARD
FDN	FOUNDATION	STOR	STORAGE
FD	FLOOR DRAIN	STR	STRAIGHT
FCA	FLANGED COUPLING ADAPTER	STRUCT	STRUCTURAL
FLEX	FLEXIBLE	STL	STEEL
FLG	FLANGE	SYMM	SYMMETRICAL
FLR	FLOOR		
G	GAS	T	TANGENT LENGTH
GA	GAGE	TOC	TOP OF CONCRETE
GAL	GALLON	TCU	TERMINAL CONTROL UNIT
GALV	GALVANIZED	TELE	TELEPHONE
GALVS	GALVANIZED STEEL	TF	TOP FACE
GPD	GALLONS PER DAY	THK	THICK
GCR	GROUND	THRD	THREADED
		TPD	TONS PER DAY
HDR	HEADER	TPI	TURNOUT POINT OF INTERSECTION
HGT	HEIGHT	TSS	TOTAL SUSPENDED SOLIDS
HORIZ	HORIZONTAL	TOS	TOP OF STEEL
HM	HOLLOW METAL	TYP	TYPICAL
HR	HOUR		
HV	HOSE VALVE	UH	UNIT HEATER
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	UV	ULTRAVIOLET
I&C	INSTRUMENTATION AND CONTROL	VERT	VERTICAL
I.D.	INSIDE DIAMETER	VCP	VITRIFIED CLAY PIPE
		V	VOLT
KVA	KILO-VOLT-AMPERE	WWTP	WASTEWATER TREATMENT PLANT
		W/W	WITH
		WD	WOOD

LEGEND

NF	NOW OR FORMERLY	---	PROPERTY LINE
A.P.	ASSESSORS PLAT	---	ZONING SETBACK LINE
S.F.	SQUARE FEET	---	EXISTING CONTOUR
AC.	ACRES	---	NEW CONTOUR
±	PLUS OR MINUS	---	STONE WALL
STY	STORY	X	EXISTING FENCE
WF	WOOD FRAMED	□	PROPOSED FENCE
SHF	STATE HIGHWAY PLAT	S	SEWER LINE
RET.	RETAINING WALL	D	DRAIN LINE
(PED.)	PEDESTRIAN	W	WATER LINE
(FND.)	FOUND	G	GAS LINE
RHIB	RI HIGHWAY BOUND	E	ELECTRIC LINE
PK NAIL	MASONRY NAIL	PWL	50' PERIMETER WETLAND
FE	FLARED END	200 RA	200' RIVERFRONT AREA
RCP	REINFORCED CONCRETE PIPE	---	SAW CUT LINE
CLF	CHAIN LINK FENCE	---	STRAW WATTLE
INV.	INVERT	LOD	LIMIT OF DISTURBANCE
x 10.80	EXISTING SPOT GRADE	DCS	LIMITS OF DISTURBANCE/CLEARING/AND SEDIMENT CONTROL COMBINED
x 10.20	NEW SPOT GRADE	⊙	SANITARY SEWER MANHOLE
⊙	DRILL HOLE	⊙	CATCH BASIN
⊙	IRON PIPE	⊙	STORM DRAIN MANHOLE
⊙	GRANITE BOUND	⊙	WATER GATE
		⊙	GAS VALVE
		⊙	ELECTRIC MANHOLE

RI Environmental Management
Office of Water Resources
JAN 28 2022


DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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AS SPECIFIED IN THE LETTER OF APPROVAL
DATED WAR - 2 2022 FILE # 21-0297
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Douglas L. Freeman

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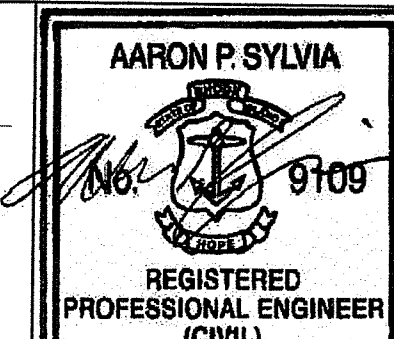
STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
Providence, Rhode Island 02909
p 401.521.5980
www.wsp.com



AARON P. SYLVIA, P.E.
REGISTERED PROFESSIONAL ENGINEER

06/30/23
DATE



DRAWN BY:
JZ

DEPT CHECK:
WM

PROJECT CHECK:
AS

75% NOT FOR CONSTRUCTION

WASTE WATER TREATMENT FACILITY IMPROVEMENTS

INDEX OF DRAWINGS, GENERAL NOTES, & ABBREVIATIONS

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
3526313

C-1

SHEET
1 OF 13

1/26/2022 9:33 PM - PLOT DATE

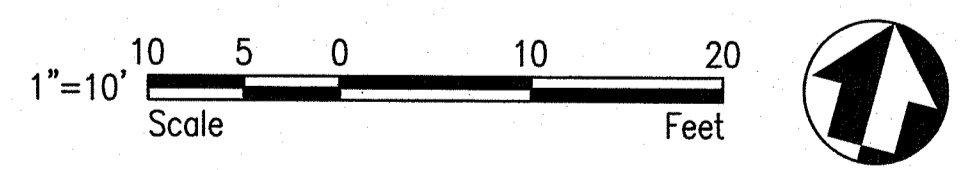
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- NOTES:**
- EXISTING UTILITY DATA HAS BEEN PROVIDED BY THE RI DEPARTMENT OF ADMINISTRATION. IT IS BASED ON THE UTILITY SURVEY PLAN TITLED "GP185MJ2-ZAMBARANO BOILER PLANT REV2.DWG" BY GROUND PENETRATING RADAR SYSTEMS, INC AND DATED SEPTEMBER 18, 2015.
 - ADDITIONAL SITE FEATURES AND VERIFICATION OF EQUIPMENT ARRANGEMENTS WERE ADDED TO THE PLANS BASED ON OBSERVATIONS MADE BY WSP PERSONNEL ON APRIL 1-8, 2019. SPECIFICATIONS AND THE GENERAL ALIGNMENT OF THE NEWLY INSTALLED PRIMARY ELECTRICAL SERVICE IN THE AREA OF THE PROPOSED WORK WERE PROVIDED BY FUSS & O'NEILL, INC. PROVIDENCE RI ON APRIL 10, 2019. EXISTING CONDITIONS SURVEY PROVIDED BY WATERMAN ENGINEERING COMPANY ON JULY 29, 2021.
 - UTILITY LOCATIONS SHOWN SHALL BE CONSIDERED APPROXIMATE.
 - GEOGRAPHIC FEATURES ARE LOCATED BASED ON NAD83FT RHODE ISLAND STATE PLANE, US FEET.
 - BENCHMARK INFORMATION WAS ESTABLISHED FROM PLAN TITLED "WASTEWATER TREATMENT FACILITY IMPROVEMENT" PREPARED BY DOMENIC V. TUTELA P.E. DATED NOVEMBER 1993.
 - THE BOILER PLANT AND FUEL STORAGE BUILDINGS ARE ACTIVE FACILITIES. THESE FACILITIES SHALL REMAIN OPERATIONAL FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL COORDINATE ACCESS TO THE FACILITIES WITH THE RI DEPARTMENT OF ADMINISTRATION.
 - CONTRACTOR IS ADVISED OF A RECENTLY INSTALLED UNDERGROUND THREE-PHASE PRIMARY DUCT BANK INSTALLED IN THE DRIVEWAY BETWEEN THE SAND FILTER AND UV DISINFECTION BUILDINGS. LOCATION SHOWN ON THIS DRAWING IS APPROXIMATE AND CORRESPONDS TO ROAD CUT. DRAWING DOES NOT SHOW THE COMPLETE EXTENT OF RECENT UNDERGROUND ELECTRIC INSTALLATION. THIS INSTALLATION IS BY OWNER AND NOT NATIONAL GRID.

RI Environmental Management
 JAN 28 2022
 Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED **MAR - 2 2022** FILE # **21-0297**
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Walter J. Freeman



75% NOT FOR CONSTRUCTION

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

STATE OF RHODE ISLAND
 DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
 Providence, Rhode Island 02909
 p 401.521.5980
 www.wsp.com

AARON P. SYLVIA, P.E.
 REGISTERED PROFESSIONAL ENGINEER

06/30/23
 DATE

DRAWN BY: JZ
DEPT CHECK: WM
PROJECT CHECK: AS

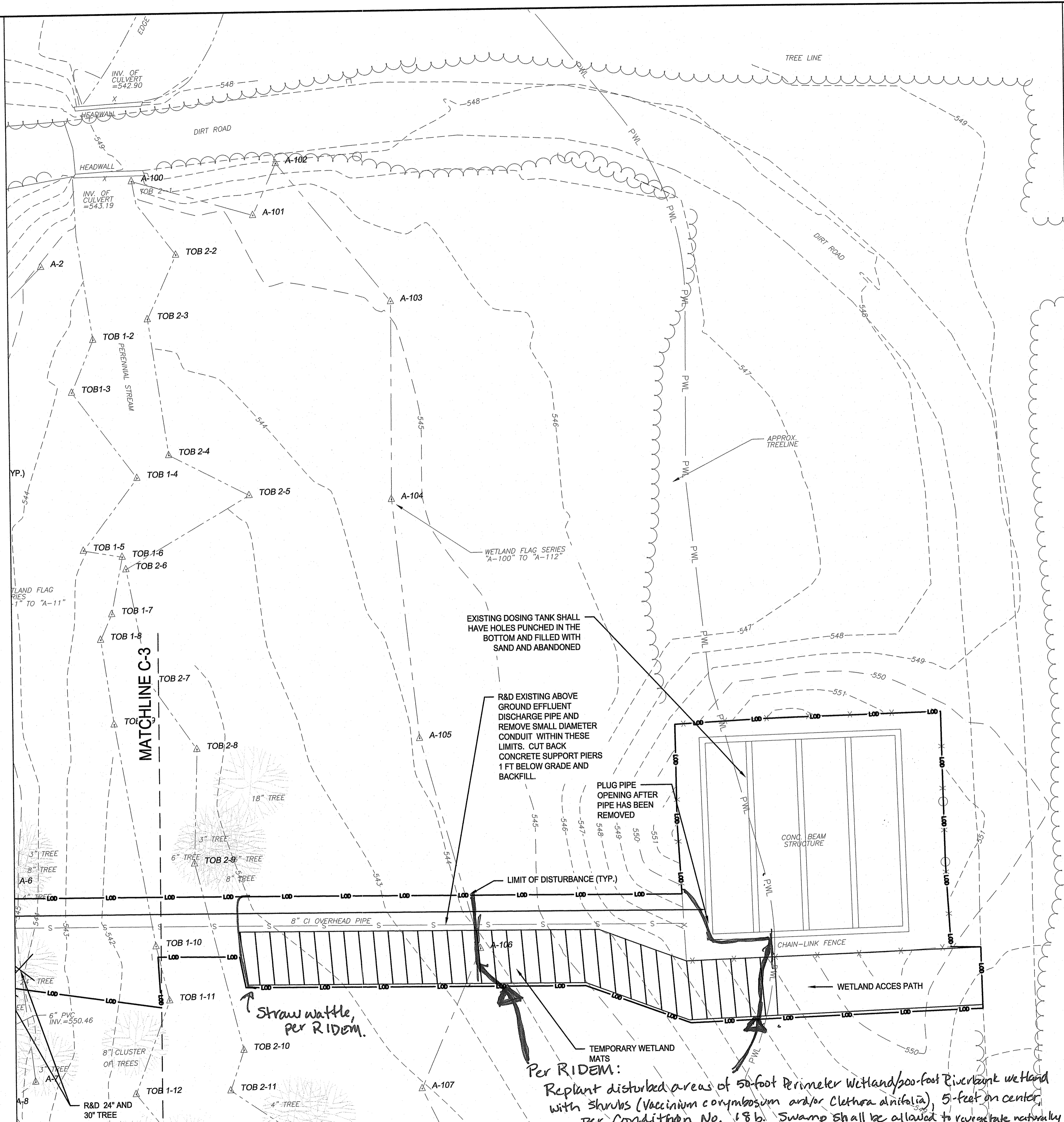
WASTE WATER TREATMENT FACILITY IMPROVEMENTS
 PROJECT No. 3526313

EXISTING CONDITIONS SITE PLAN
 SHEET 2 OF 13

ELEANOR SLATER HOSPITAL
 ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
 A.P. 51 LOT 14

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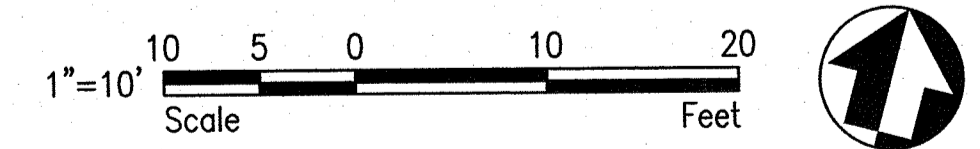


SEQUENCE OF DEMOLITION OF ABOVE GROUND PIPE AND PIERS:

- ACCESS**
1. ALL EQUIPMENT SHALL ENTER THE WETLAND FROM THE DIRT ACCESS ROAD SOUTH OF THE EXISTING DOSING TANK.
 2. WETLAND MATS SHALL BE INSTALLED TO PROTECT WETLAND AS SHOWN ON THE DRAWINGS.
 3. FOR ACCESS TO CONCRETE PIERS ON WESTSIDE OF STREAM USE SAME ACCESS AS USED TO INSTALL NEW DISCHARGE PIPE.
 4. IF CUTTING OF WETLAND VEGETATION CANNOT BE AVOIDED, COMPLETE THE WORK BY HAND (CHAIN OR HAND SAW) INSTEAD OF USING LARGE EQUIPMENT.
 5. USE WIDE-TIRED VEHICLES WHEN WORKING IN OR NEAR WETLANDS TO CAUSE LESS RUTTING AND SOIL DISTURBANCE.
- RESTORATION**
1. BACKFILL TO EXISTING GRADE WITH CLEAN GRAVEL BORROW.
 2. RESTORE WETLAND SOILS AND HYDROLOGY TO EXISTING CONDITIONS OR GRADES.
 3. UTILIZE A WILDLIFE CONSERVATION SEED MIX ON ALL DISTURBED SURFACES WITHIN WETLANDS.
 4. All disturbed areas within Swamp will not be planted but shall be allowed to revegetate to a natural condition, per Condition No. 18c.
 5. Replant shrubs in Perimeter Wetland as shown below, per Condition 18b.

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Straw wattle, per RIDEM.

Per RIDEM:
Replant disturbed areas of 50-foot Perimeter Wetland/500-foot Riverbank wetland with shrubs (*Vaccinium corymbosum* and/or *Clethra alnifolia*), 5-feet on center, per Condition No. 18b. Swamp shall be allowed to revegetate naturally.

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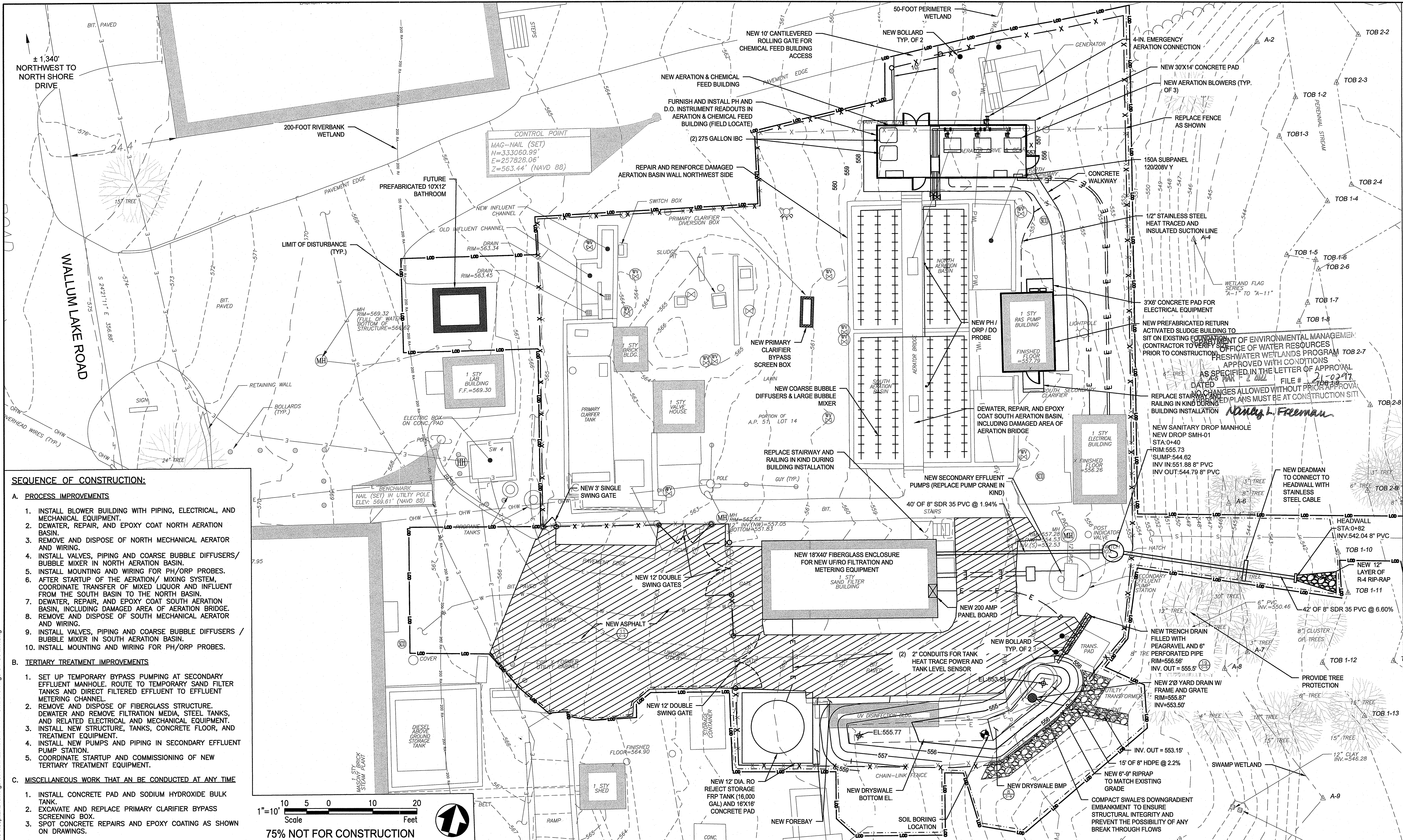
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REGISTERED PROFESSIONAL ENGINEER
06/30/23
DATE

AARON P. SYLVIA
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

DRAWN BY:
JZ
DEPT CHECK:
WM
PROJECT CHECK:
AS

WASTE WATER TREATMENT FACILITY IMPROVEMENTS
TEMPORARY BYPASS, DEMO & SEDIMENT AND EROSION CONTROL PLAN 2
ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
3526313
C-4
SHEET
4 OF 13



SEQUENCE OF CONSTRUCTION:

A. PROCESS IMPROVEMENTS

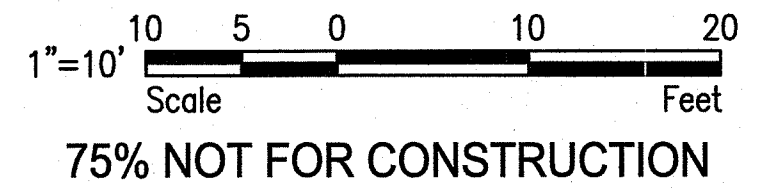
1. INSTALL BLOWER BUILDING WITH PIPING, ELECTRICAL, AND MECHANICAL EQUIPMENT.
2. DEWATER, REPAIR, AND EPOXY COAT NORTH AERATION BASIN.
3. REMOVE AND DISPOSE OF NORTH MECHANICAL AERATOR AND WIRING.
4. INSTALL VALVES, PIPING AND COARSE BUBBLE DIFFUSERS/ BUBBLE MIXER IN NORTH AERATION BASIN.
5. INSTALL MOUNTING AND WIRING FOR PH/ORP PROBES.
6. AFTER STARTUP OF THE AERATION/ MIXING SYSTEM, COORDINATE TRANSFER OF MIXED LIQUOR AND INFLUENT FROM THE SOUTH BASIN TO THE NORTH BASIN.
7. DEWATER, REPAIR, AND EPOXY COAT SOUTH AERATION BASIN, INCLUDING DAMAGED AREA OF AERATION BRIDGE.
8. REMOVE AND DISPOSE OF SOUTH MECHANICAL AERATOR AND WIRING.
9. INSTALL VALVES, PIPING AND COARSE BUBBLE DIFFUSERS / BUBBLE MIXER IN SOUTH AERATION BASIN.
10. INSTALL MOUNTING AND WIRING FOR PH/ORP PROBES.

B. TERTIARY TREATMENT IMPROVEMENTS

1. SET UP TEMPORARY BYPASS PUMPING AT SECONDARY EFFLUENT MANHOLE. ROUTE TO TEMPORARY SAND FILTER TANKS AND DIRECT FILTERED EFFLUENT TO EFFLUENT METERING CHANNEL.
2. REMOVE AND DISPOSE OF FIBERGLASS STRUCTURE. DEWATER AND REMOVE FILTRATION MEDIA, STEEL TANKS, AND RELATED ELECTRICAL AND MECHANICAL EQUIPMENT.
3. INSTALL NEW STRUCTURE, TANKS, CONCRETE FLOOR, AND TREATMENT EQUIPMENT.
4. INSTALL NEW PUMPS AND PIPING IN SECONDARY EFFLUENT PUMP STATION.
5. COORDINATE STARTUP AND COMMISSIONING OF NEW TERTIARY TREATMENT EQUIPMENT.

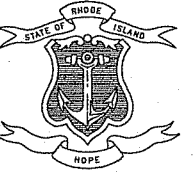
C. MISCELLANEOUS WORK THAT CAN BE CONDUCTED AT ANY TIME


1. INSTALL CONCRETE PAD AND SODIUM HYDROXIDE BULK TANK.
2. EXCAVATE AND REPLACE PRIMARY CLARIFIER BYPASS SCREENING BOX.
3. SPOT CONCRETE REPAIRS AND EPOXY COATING AS SHOWN ON DRAWINGS.



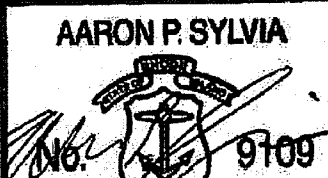
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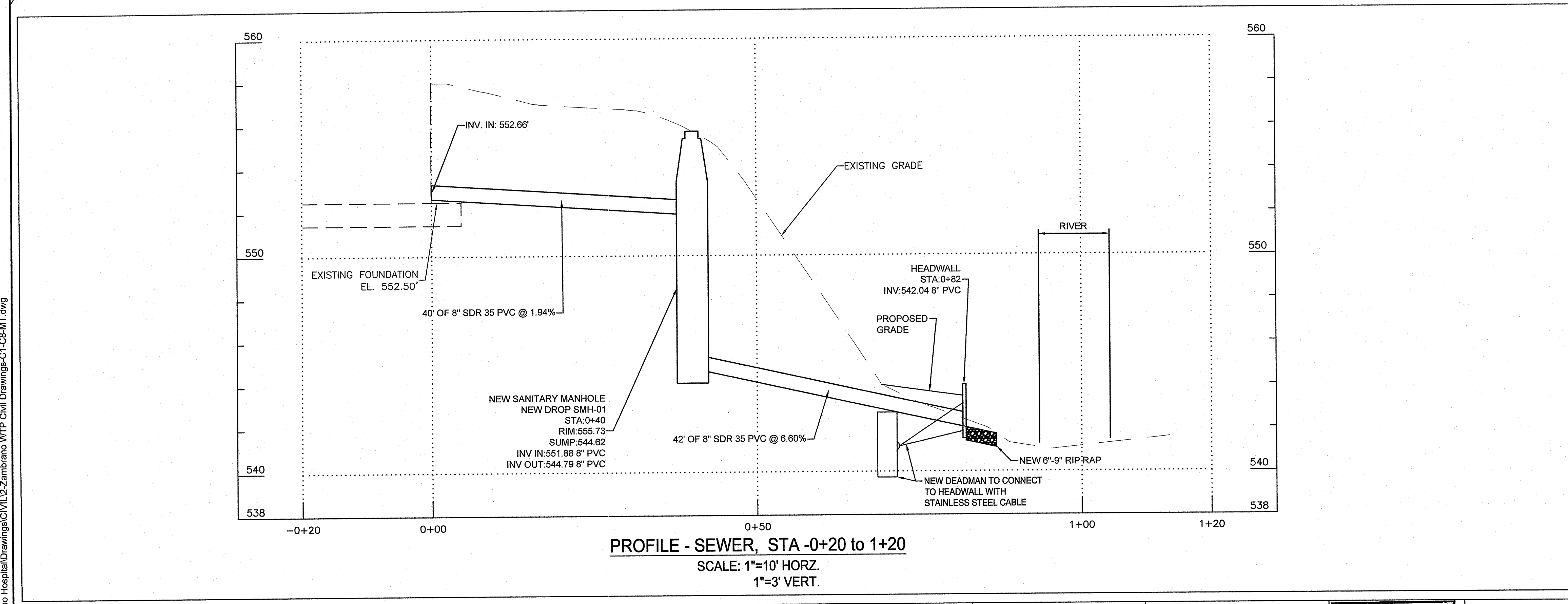
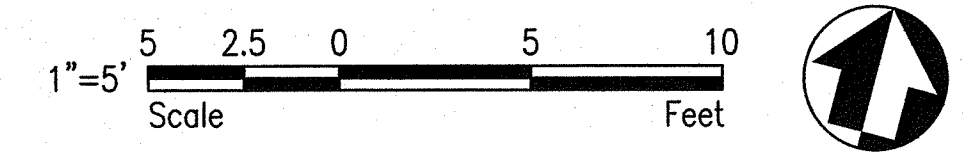
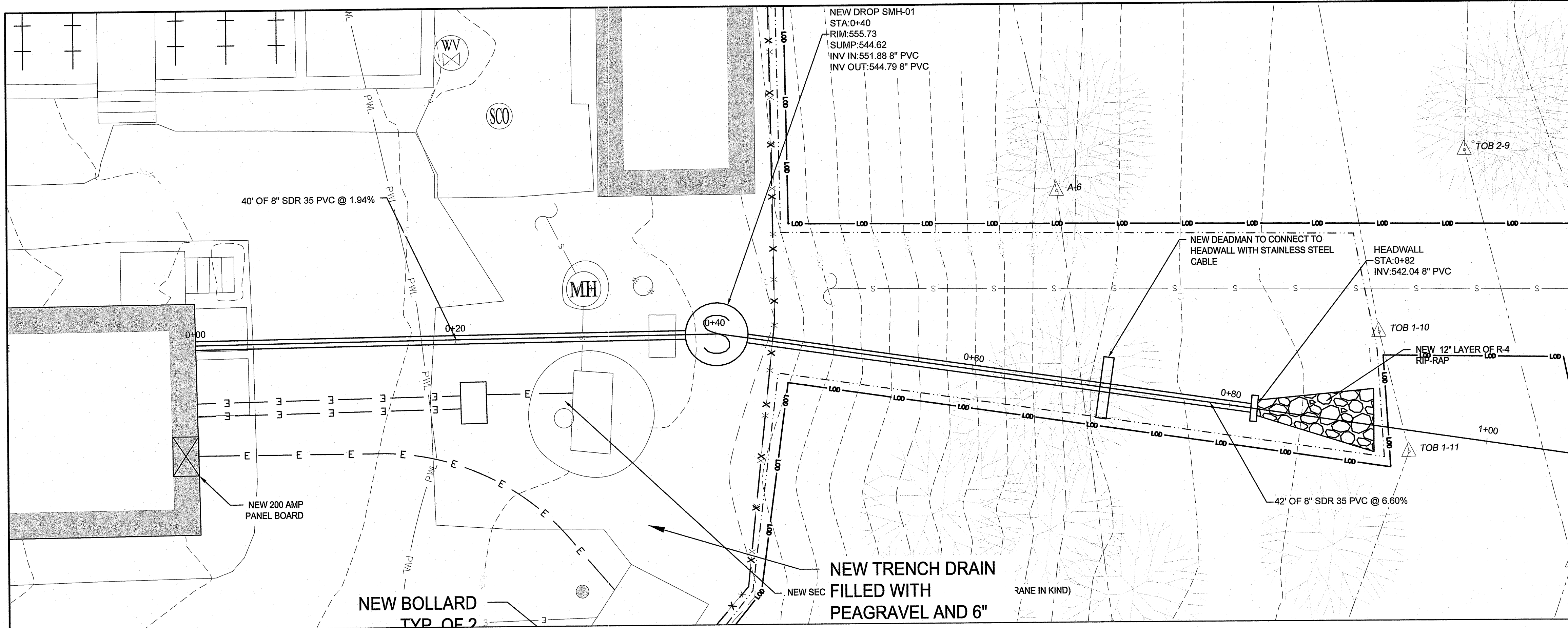
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 REGISTERED PROFESSIONAL ENGINEER
 06/30/23
 DATE

AARON P. SYLVIA

 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

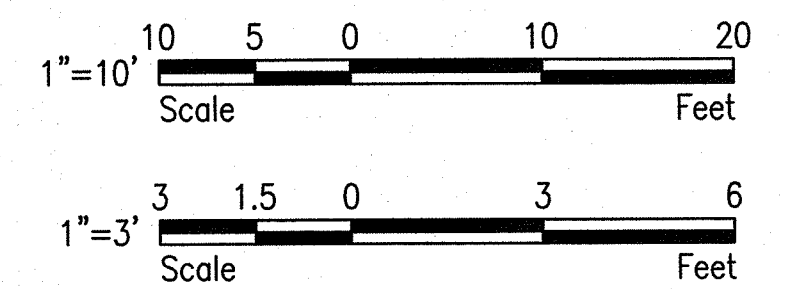
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 PROJECT CHECK:
 AS

WASTE WATER TREATMENT FACILITY IMPROVEMENTS
PROPOSED CONDITIONS
SITE PLAN
 ELEANOR SLATER HOSPITAL
 ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
 A.P. 51 LOT 14

PROJECT No.
 3526313
 Environmental Management
 JAN 28 2022
 Office of Water Resources
C-5
 SHEET
 5 OF 13



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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DATED MAR - 2 2022 FILE # 21-0297
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Aaron P. Sylvia



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WASTE WATER TREATMENT FACILITY IMPROVEMENTS
PROJECT No. 3526313

EFFLUENT DISCHARGE
PIPING PLAN & PROFILE

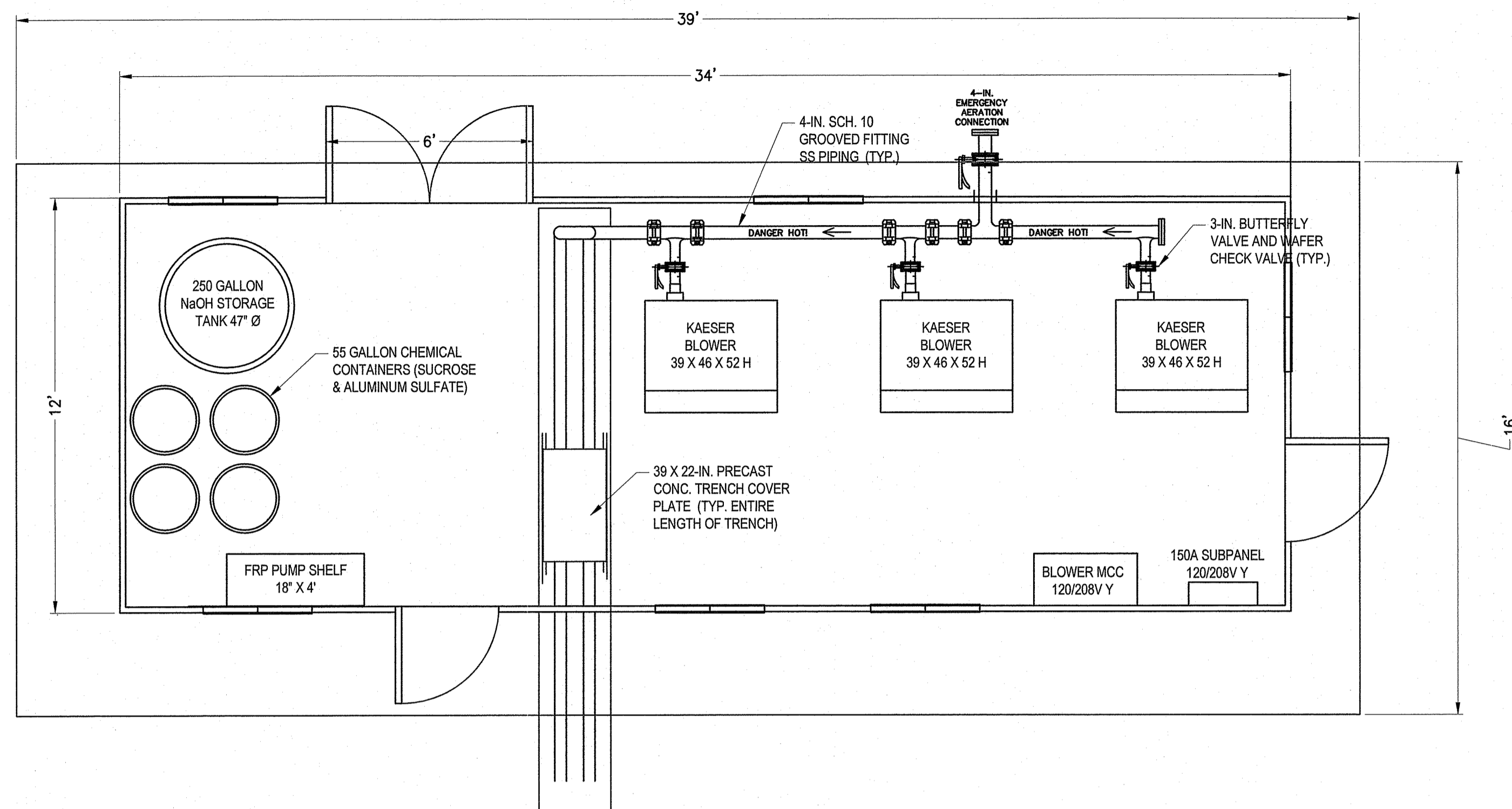
ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

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Office of Water Resources

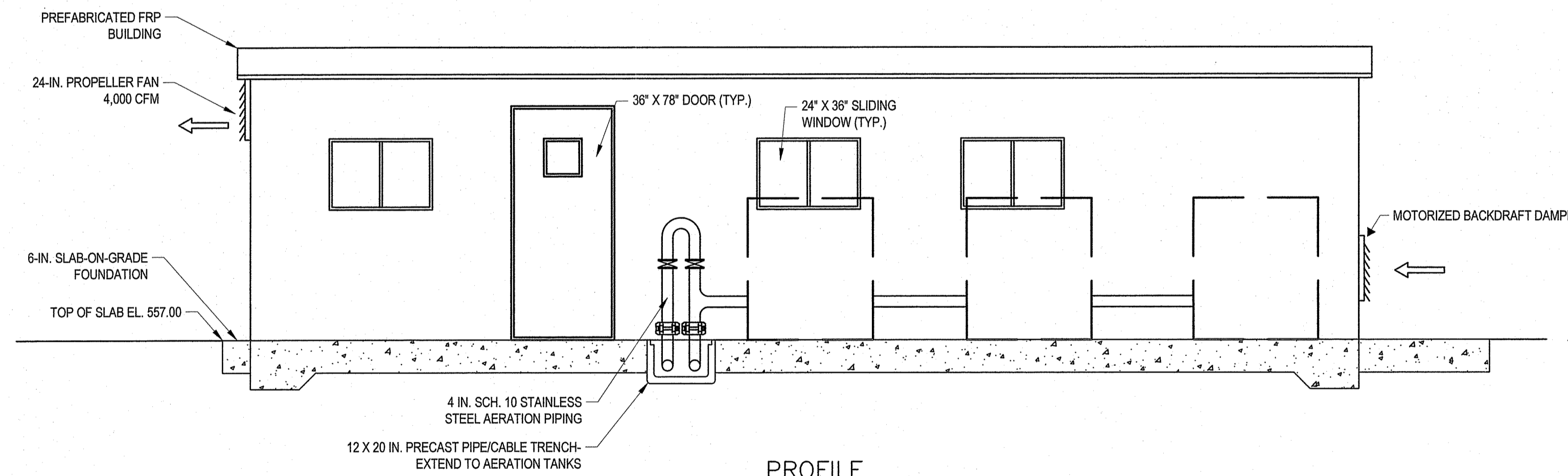
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SHEET 6 OF 13

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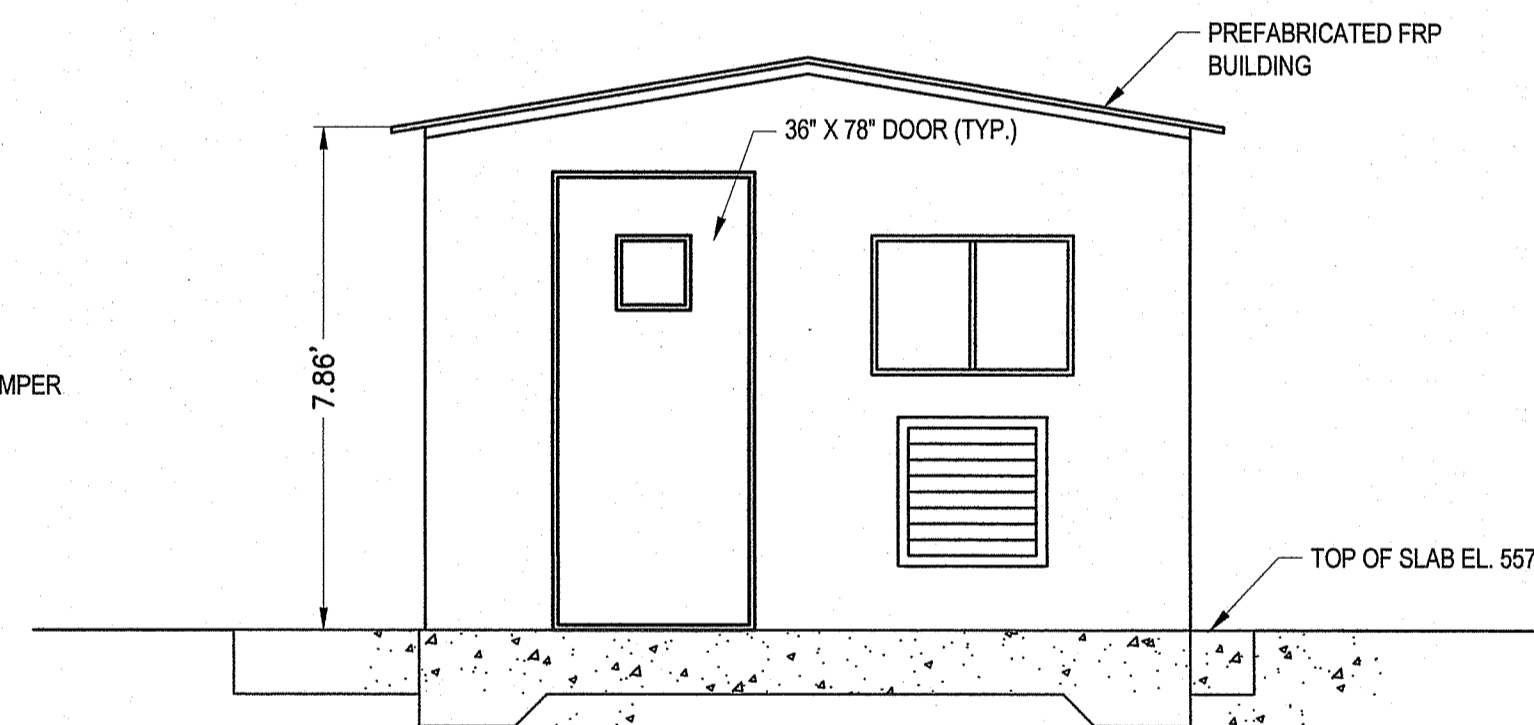
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PLAN



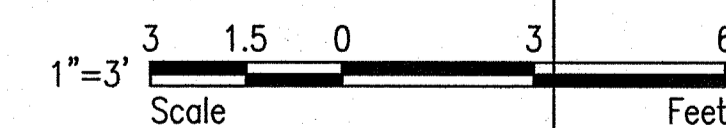
PROFILE



SECTION

CHEMICAL FEED BUILDING

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Nancy L. Freeman

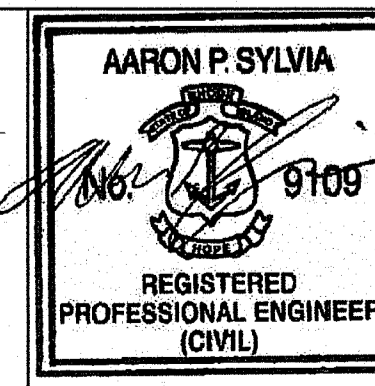


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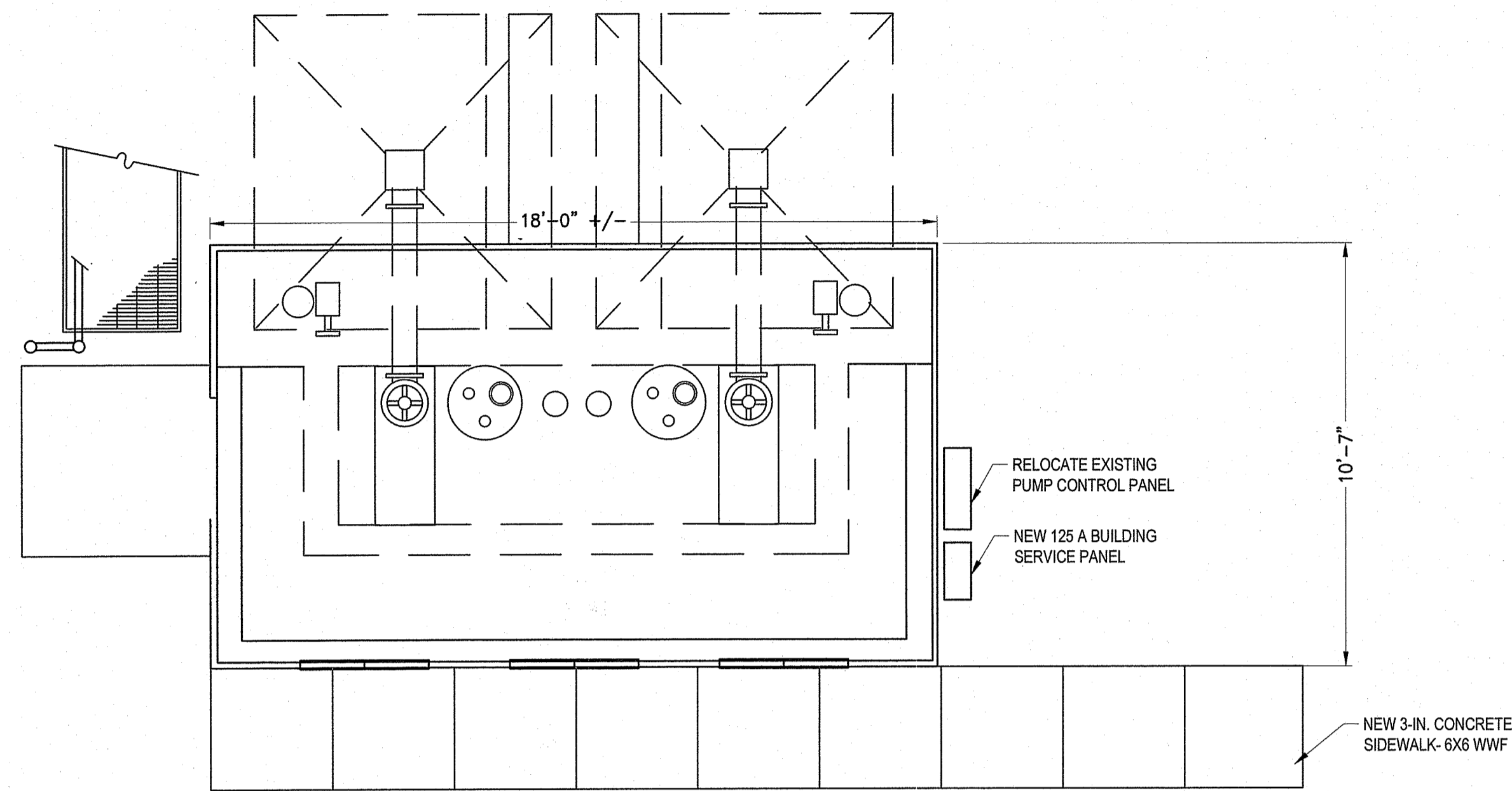


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WASTE WATER TREATMENT FACILITY IMPROVEMENTS
CHEMICAL FEED BUILDING
 ELEANOR SLATER HOSPITAL
 ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
 A.P. 51 LOT 14

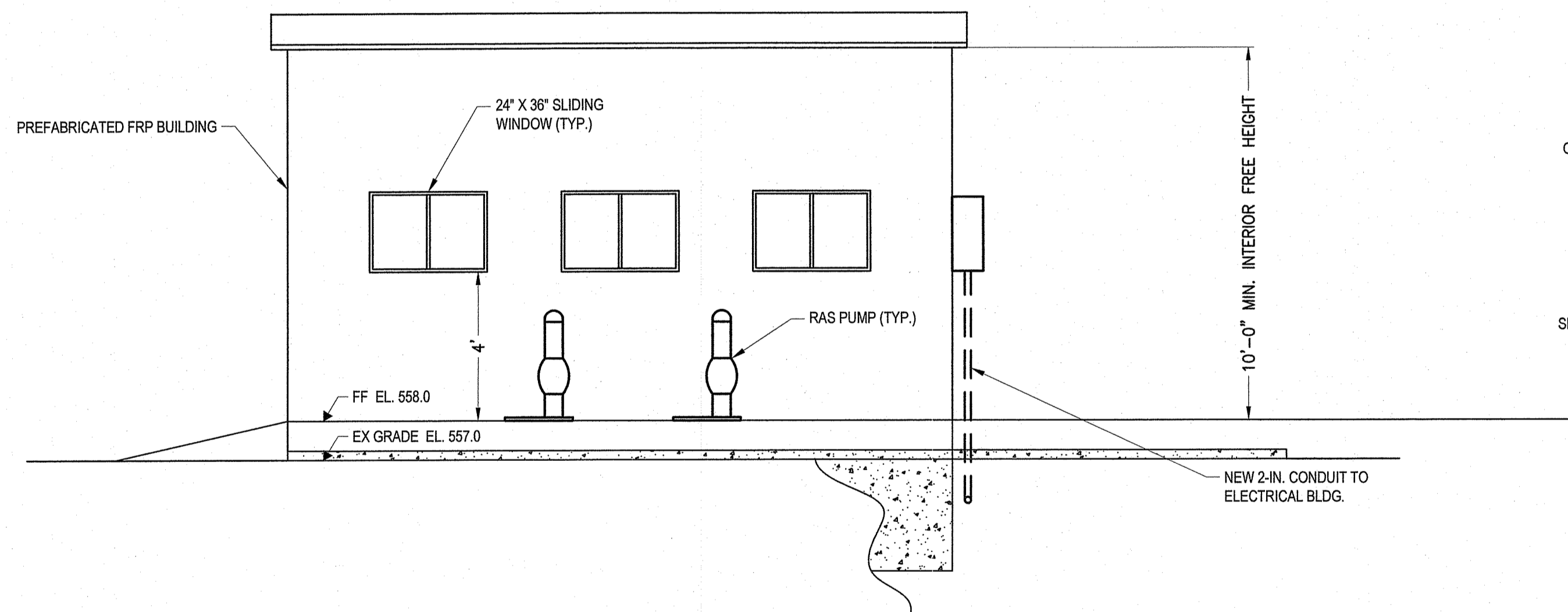
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 PROJECT No. 3526313
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 SHEET 7 OF 13

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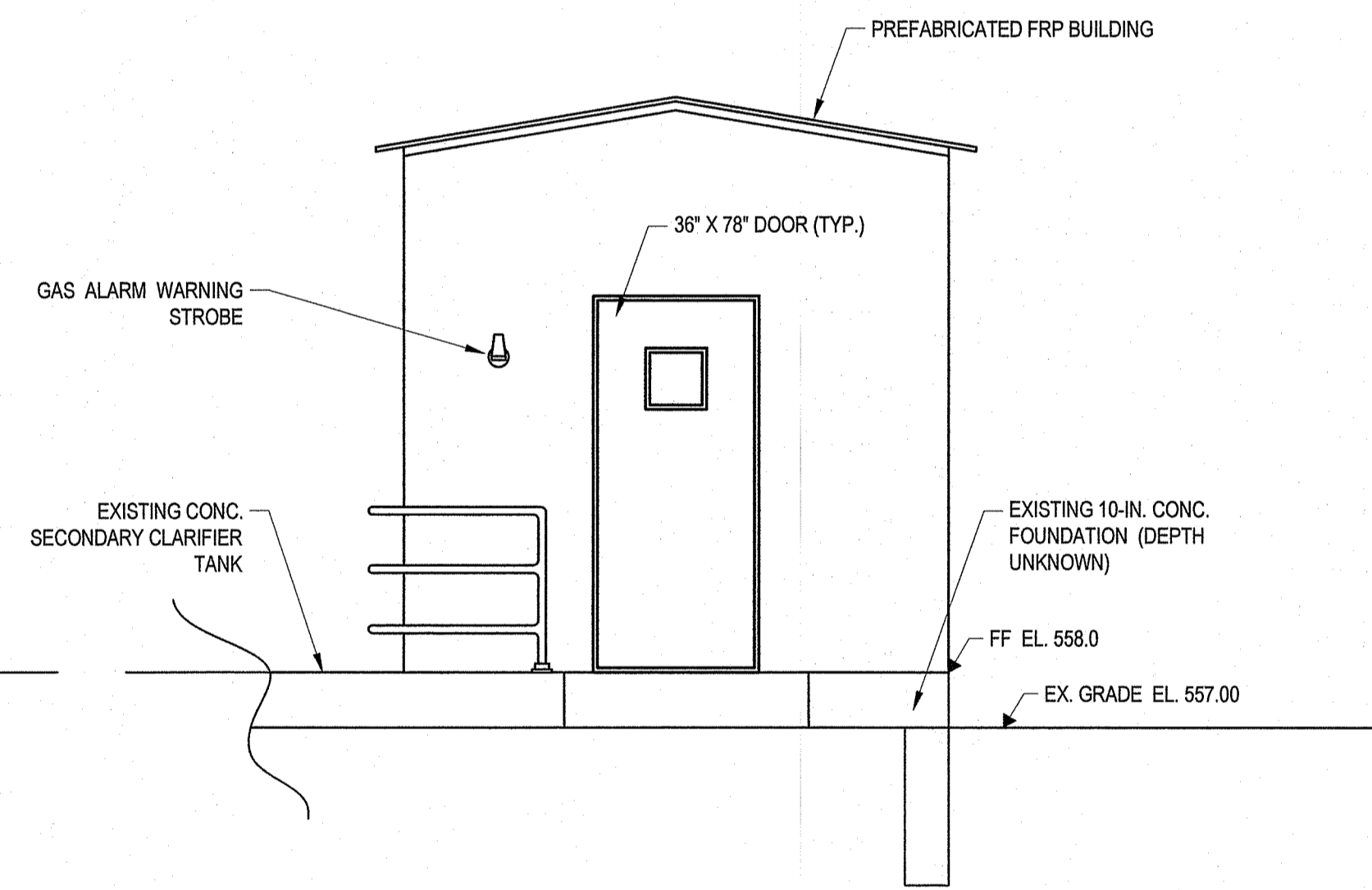


PLAN

- NOTES:
1. CONTRACTOR TO VERIFY EXACT DIMENSIONS OF EXISTING RAS BUILDING FOUNDATION AND COORDINATE WITH BUILDING MANUFACTURER.
 2. INTERIOR OF RAS BUILDING IS A CLASS 1, DIVISION 2 GROUP D LOCATION. CONTROL PANEL SECTION IS A NON-CLASSIFIED LOCATION.
 3. EXISTING FOUNDATION, STAIRS AND RAILINGS TO REMAIN.



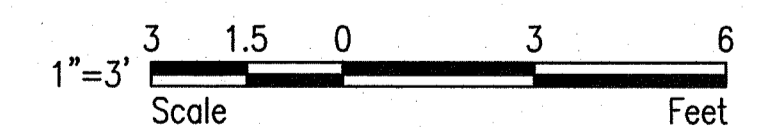
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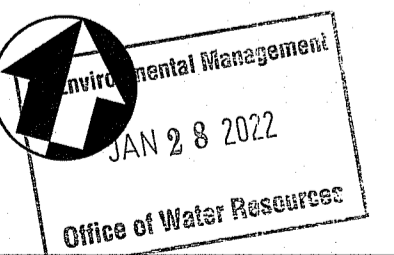
SECTION

RETURN ACTIVATED SLUDGE (RAS) BUILDING

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 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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Nancy L. Freeman



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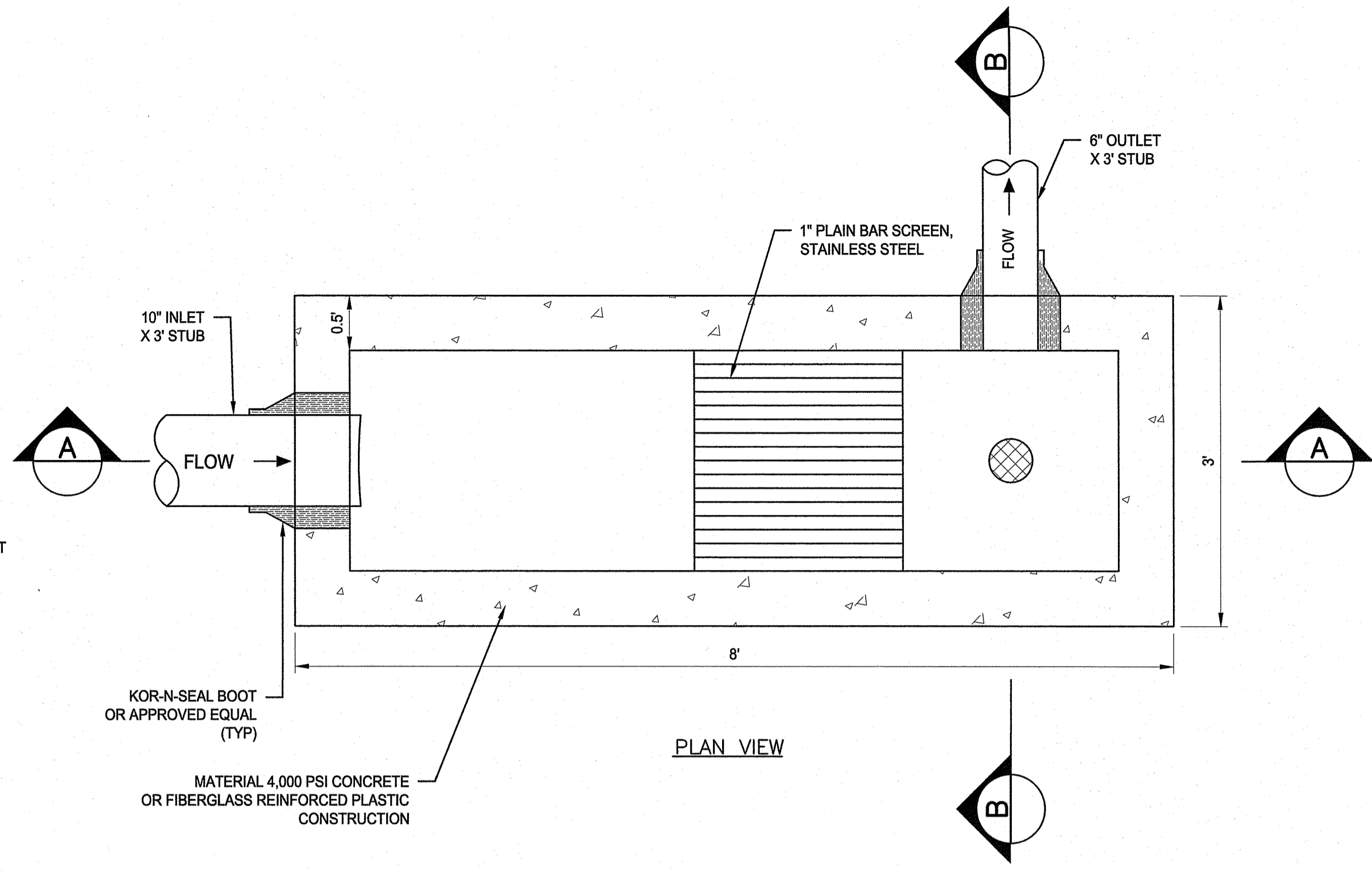
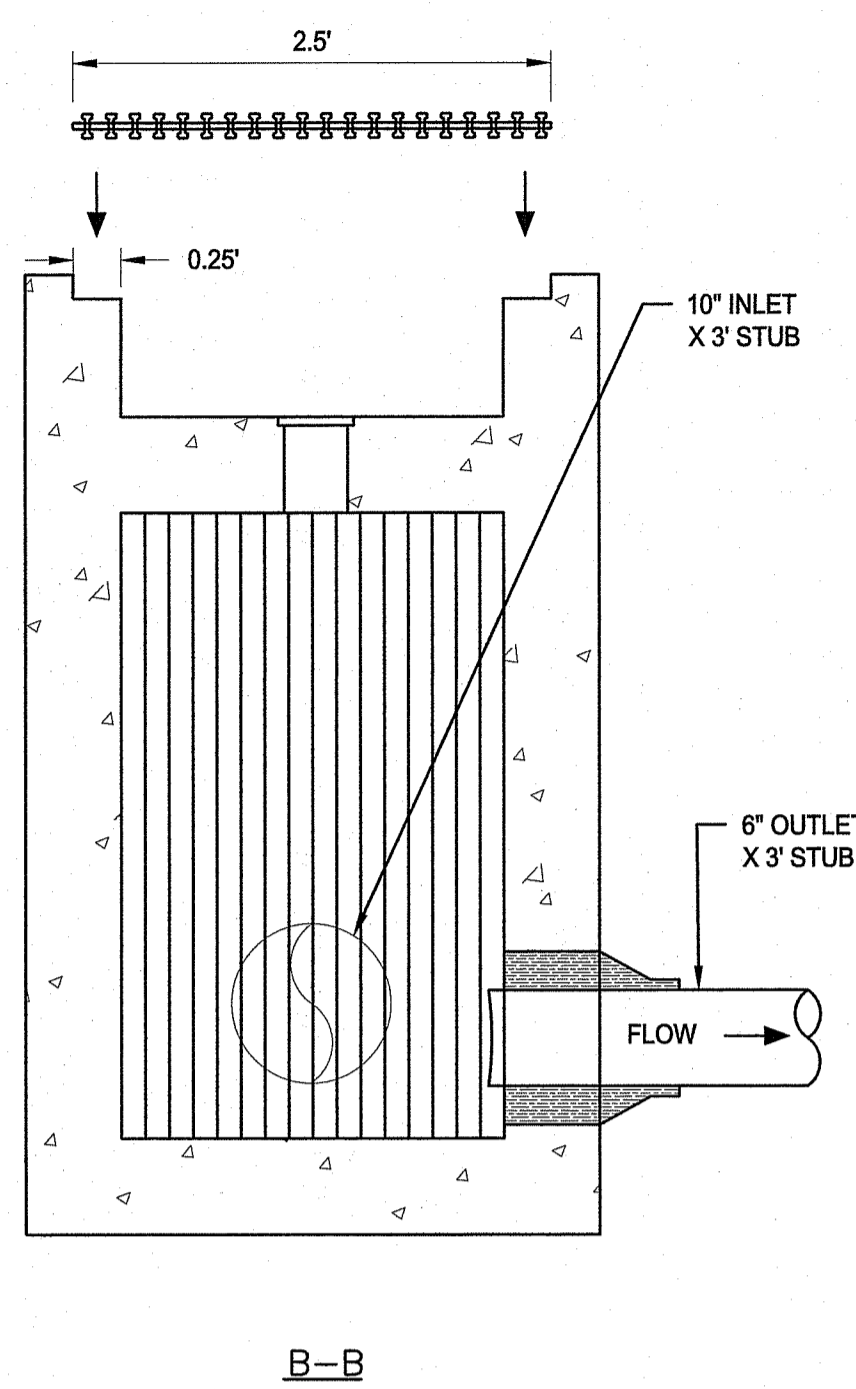
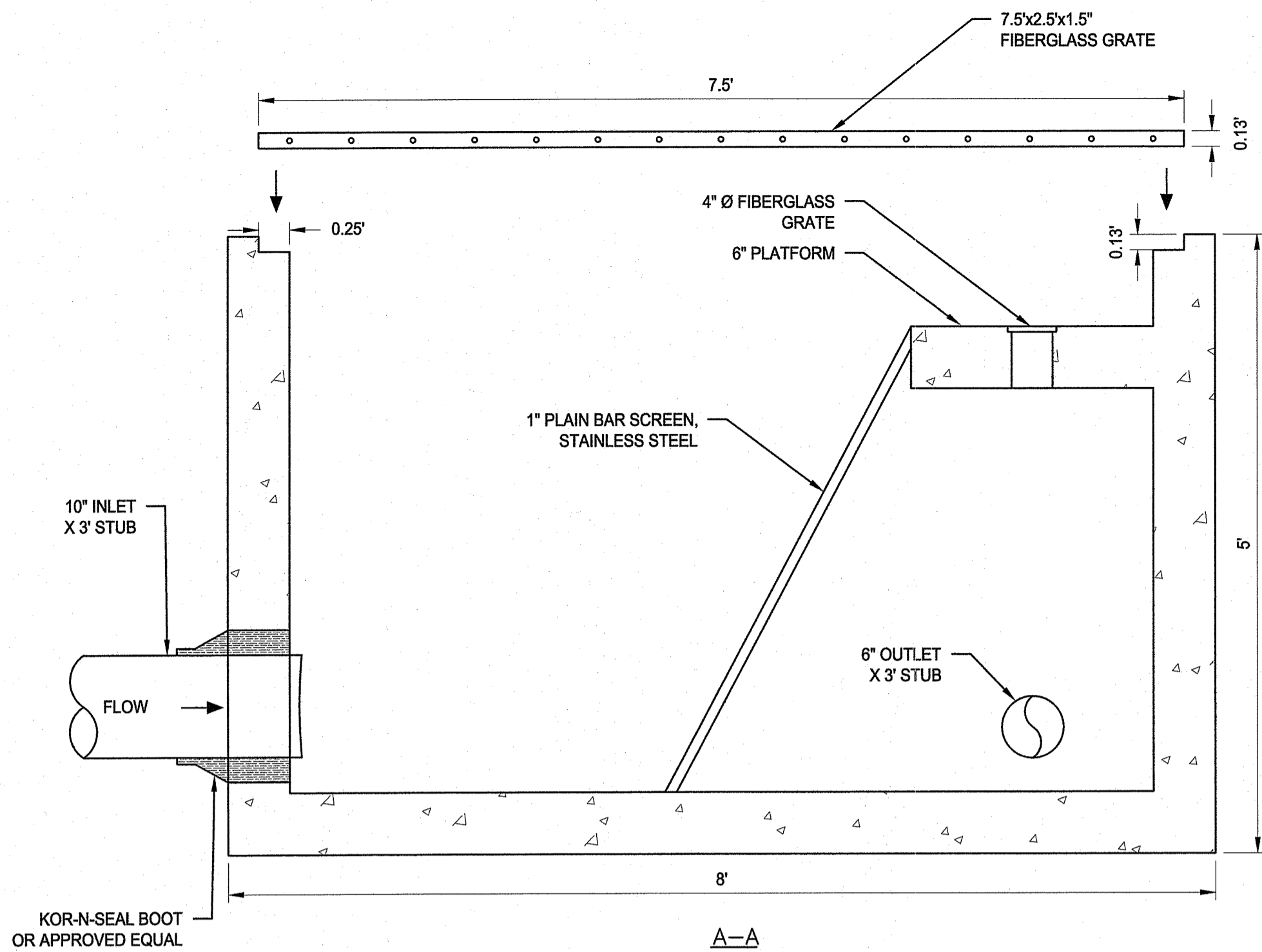
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WASTE WATER TREATMENT FACILITY IMPROVEMENTS
RETURN ACTIVATED SLUDGE BUILDING
 ELEANOR SLATER HOSPITAL
 ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
 A.P. 51 LOT 14

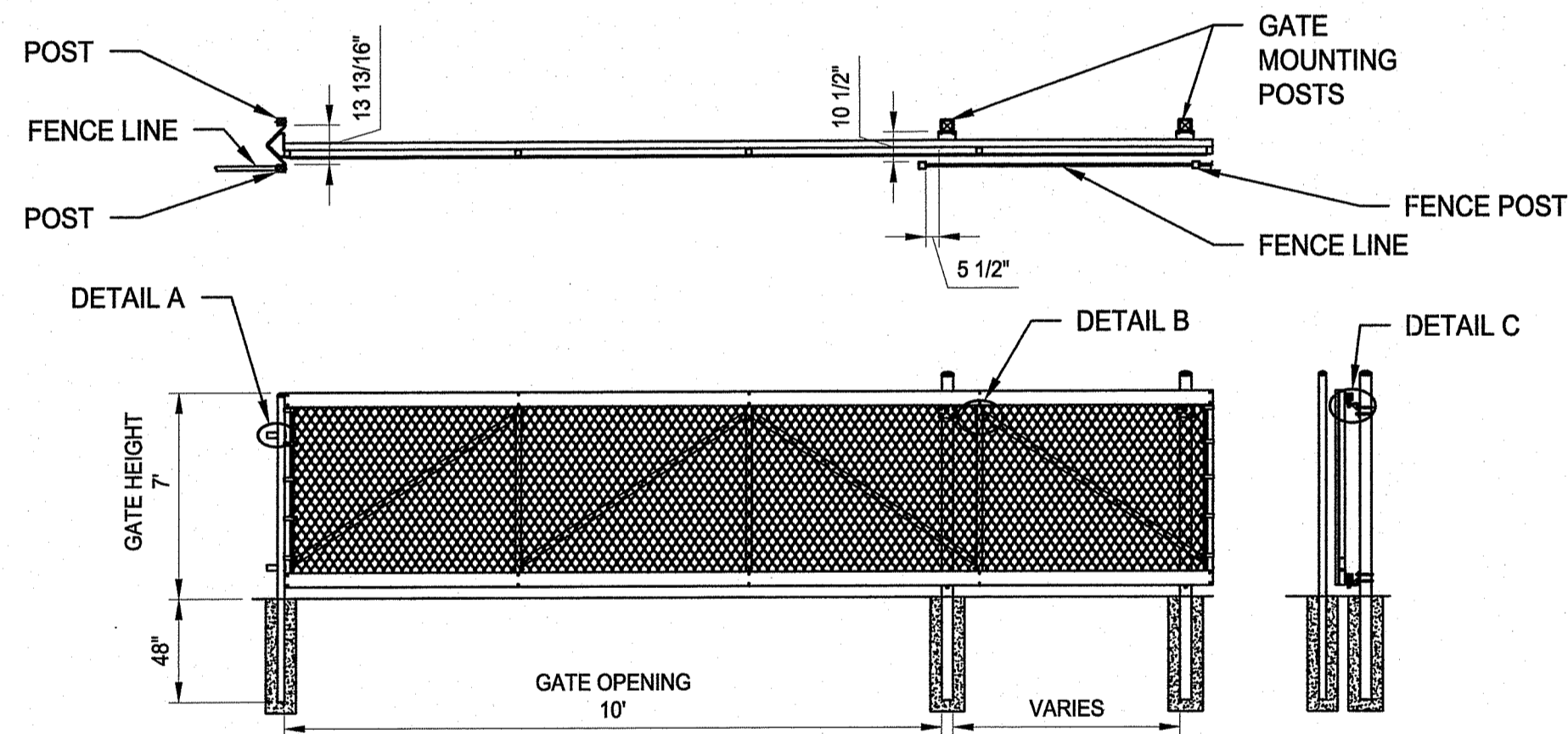
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C-8
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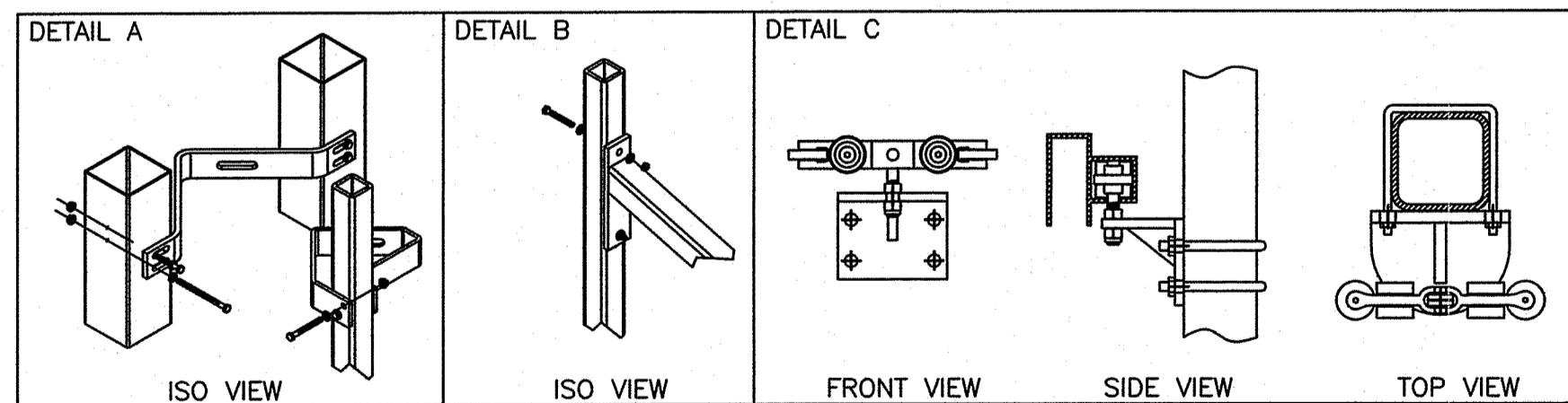


1 PRIMARY SETTLING TANK BYPASS CHAMBER
C-5 N.T.S.

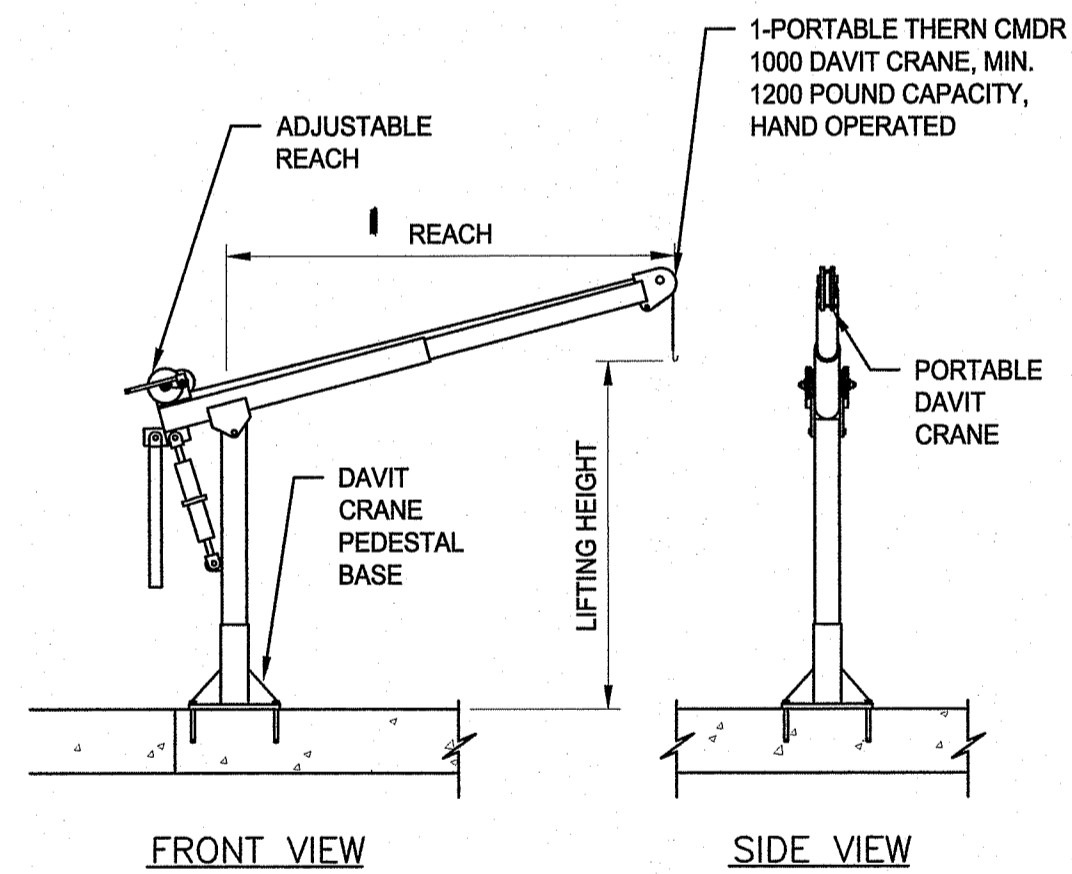
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Mindy Filman



VALUES SHOWN ARE NOMINAL AND NOT TO BE USED FOR INSTALLATION PURPOSES. SEE PRODUCT SPECIFICATION FOR INSTALLATION REQUIREMENTS.

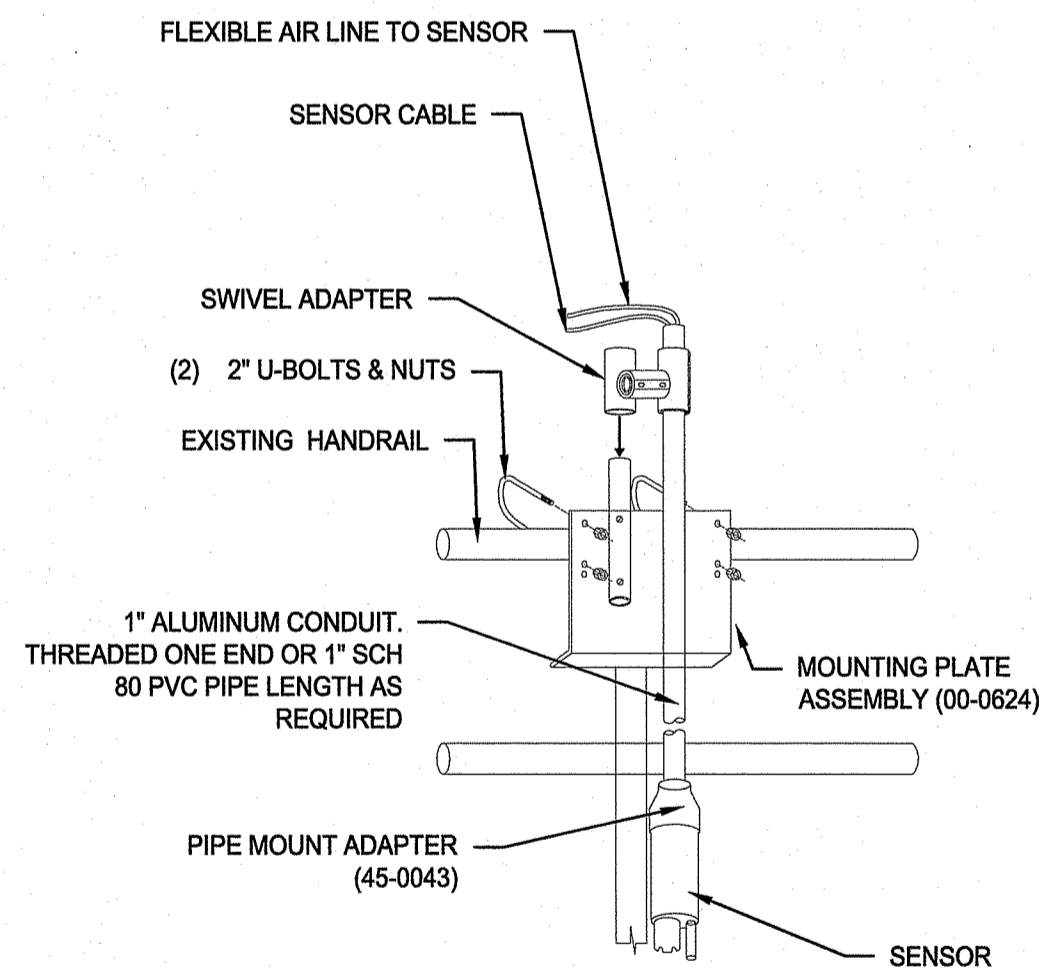


2 CANTILEVERED ROLLING GATE
C-5 N.T.S.

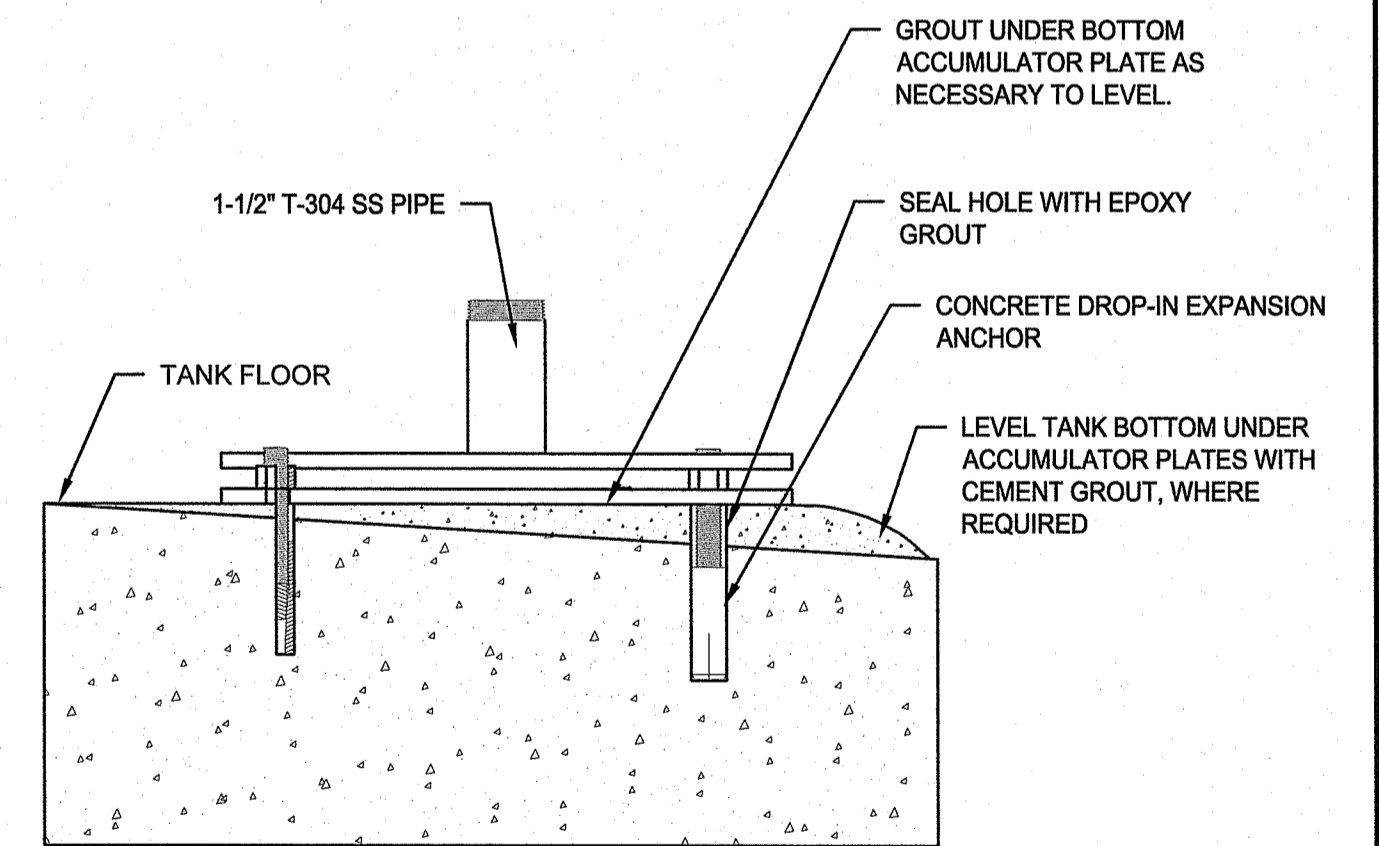


NOTES:
1. CAST CRANE MOUNTING BOLTS INTO SLAB. TYPE AND ARRANGEMENT SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

3 PORTABLE HOIST
C-5 N.T.S.



4 SENSOR MOUNTING DETAIL
C-5 N.T.S.



5 BUBBLE PLATE INSTALLATION DETAIL
C-8 N.T.S.

RI Environmental Management
JAN 28 2022
Office of Water Resources

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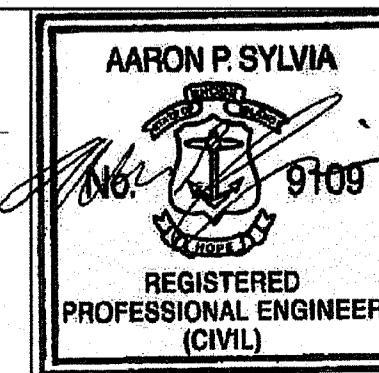
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AARON P. SYLVIA, P.E.
REGISTERED PROFESSIONAL ENGINEER

06/30/23
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WASTE WATER TREATMENT FACILITY IMPROVEMENTS

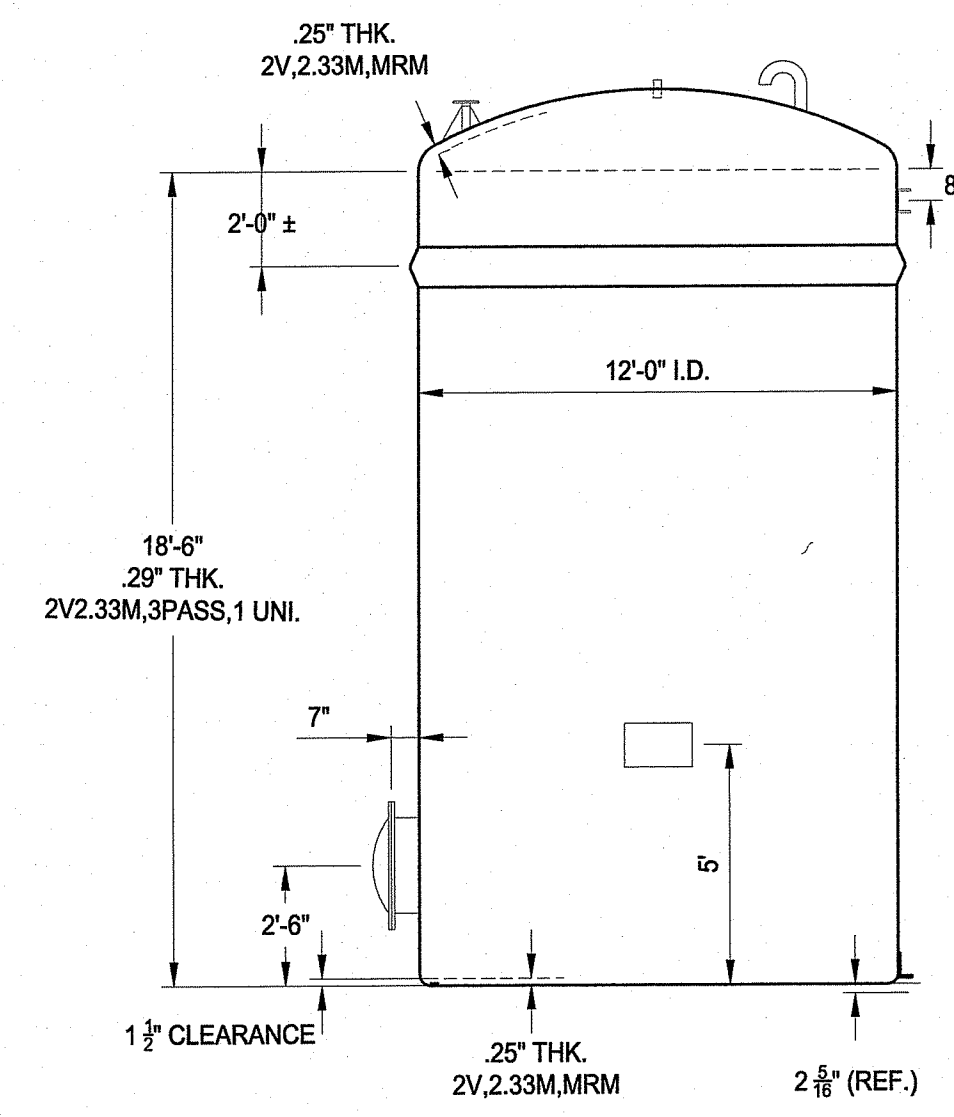
CIVIL DETAILS 1

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

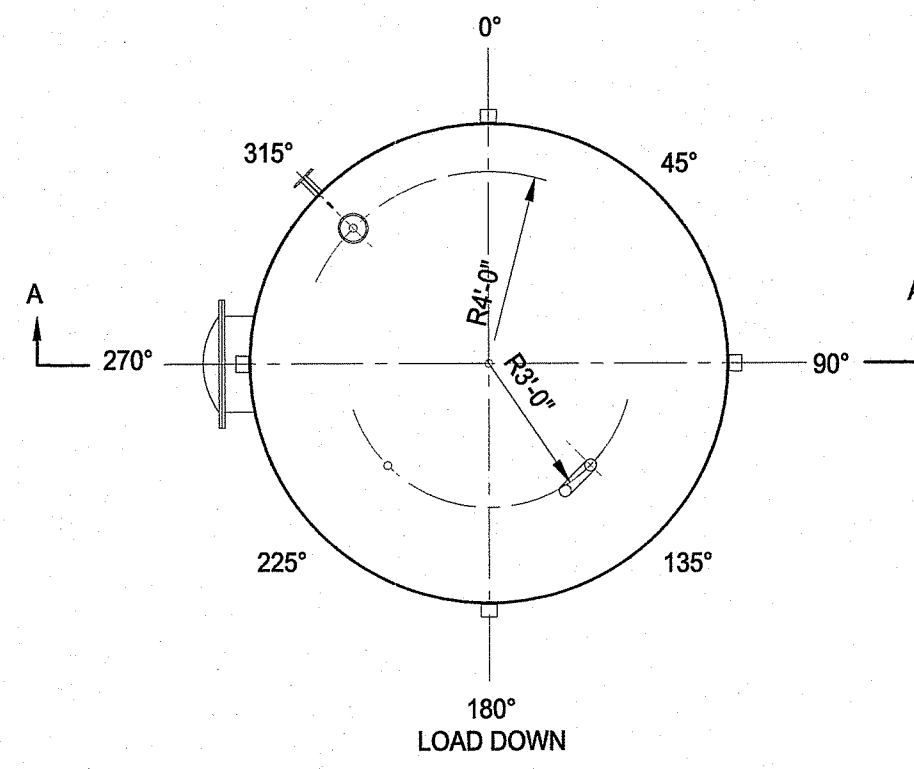
PROJECT No.
3526313

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SHEET
9 OF 13

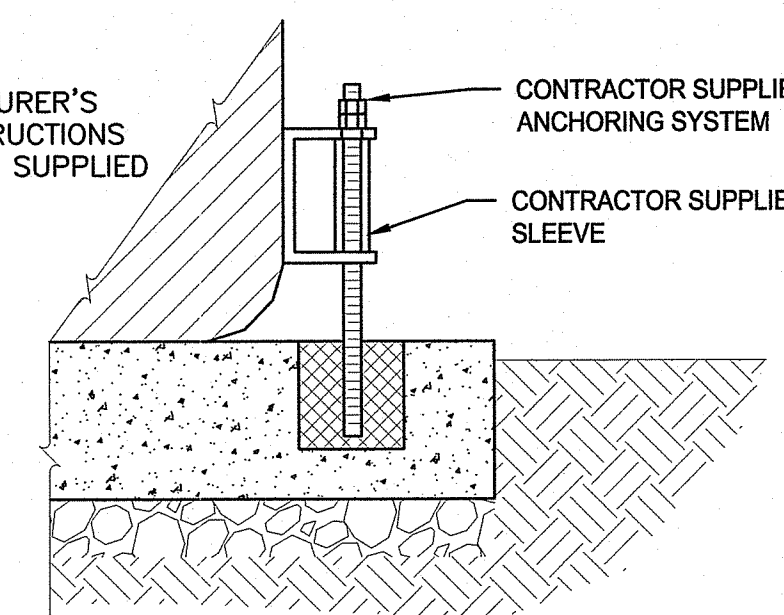


ELEVATION A-A



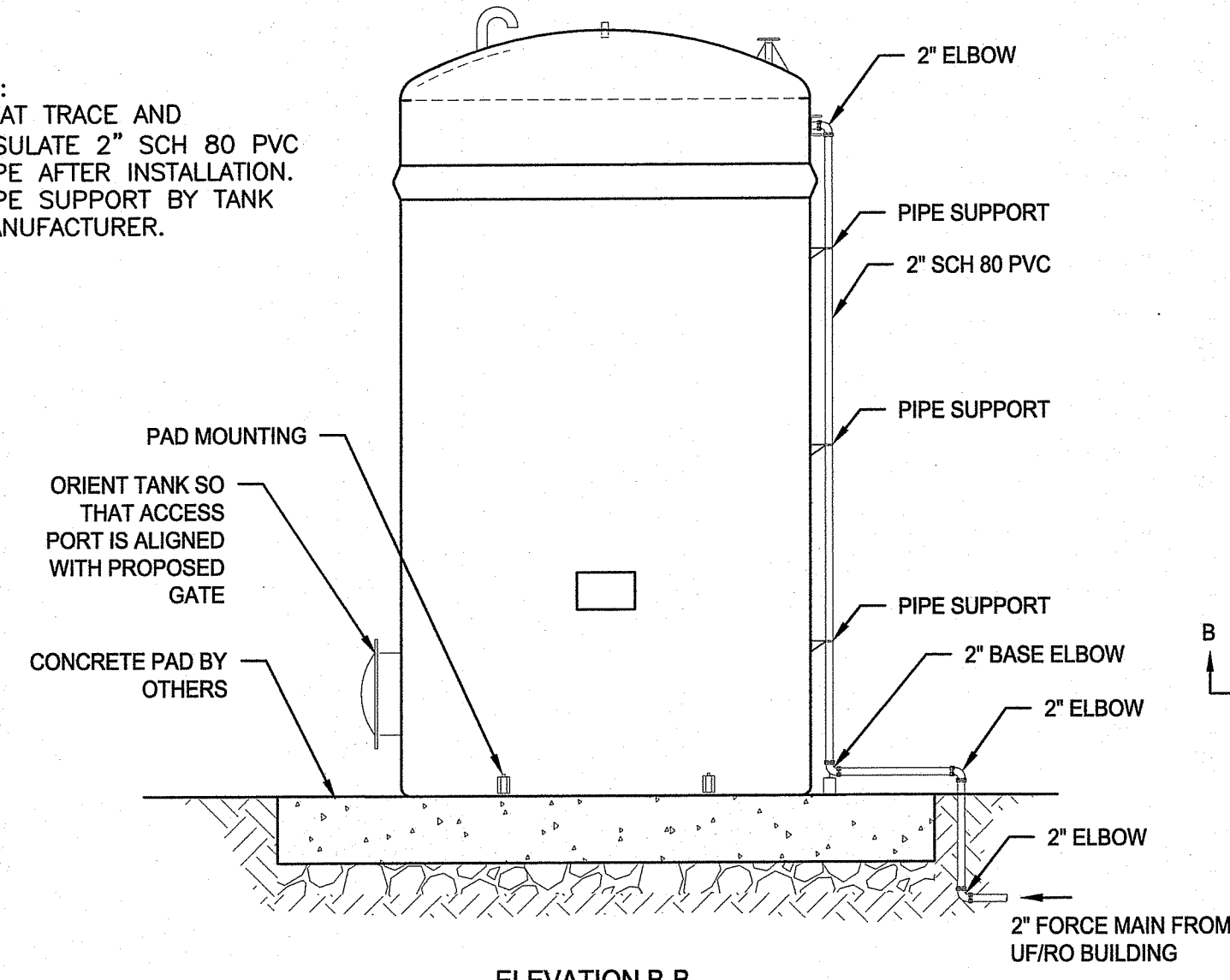
PLAN VIEW

NOTES:
1. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DRAWINGS AS SUPPLIED WITH TANK.

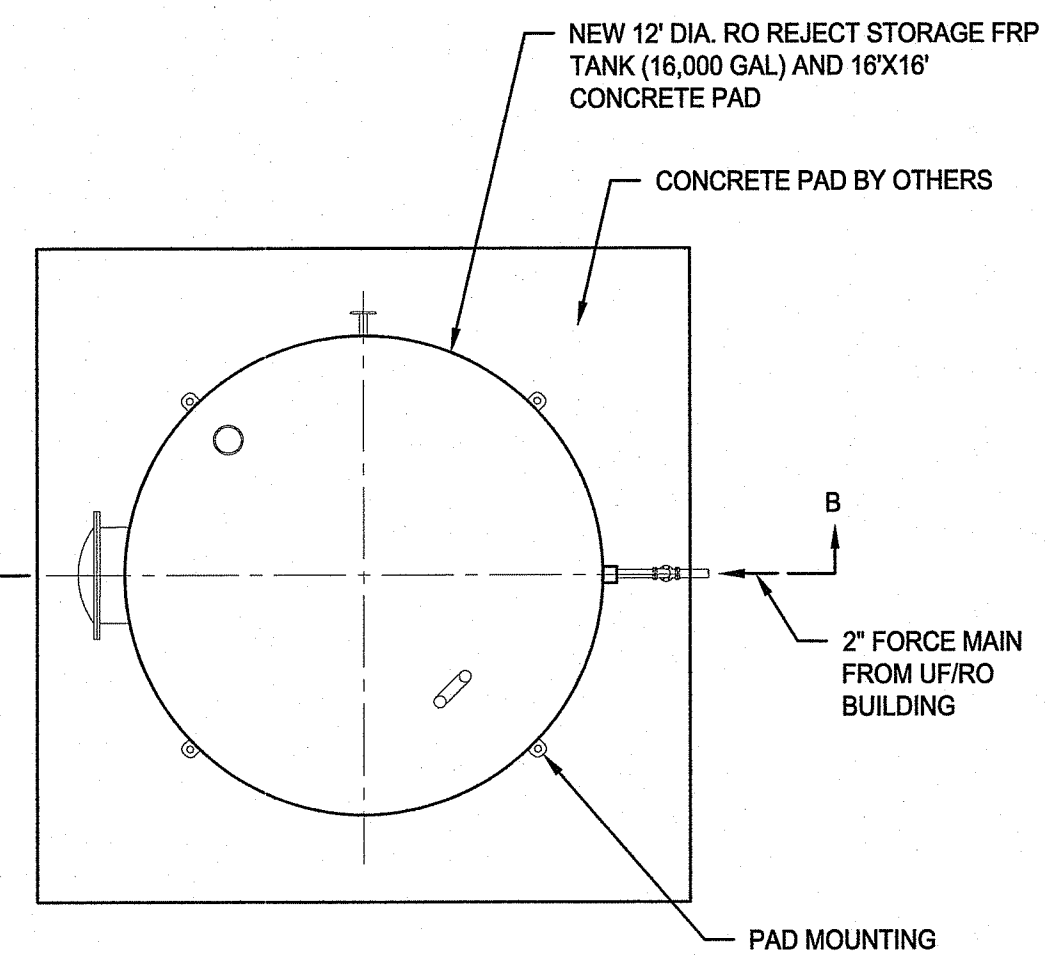


PAD MOUNTING DETAIL

NOTES:
1. HEAT TRACE AND INSULATE 2\"/>

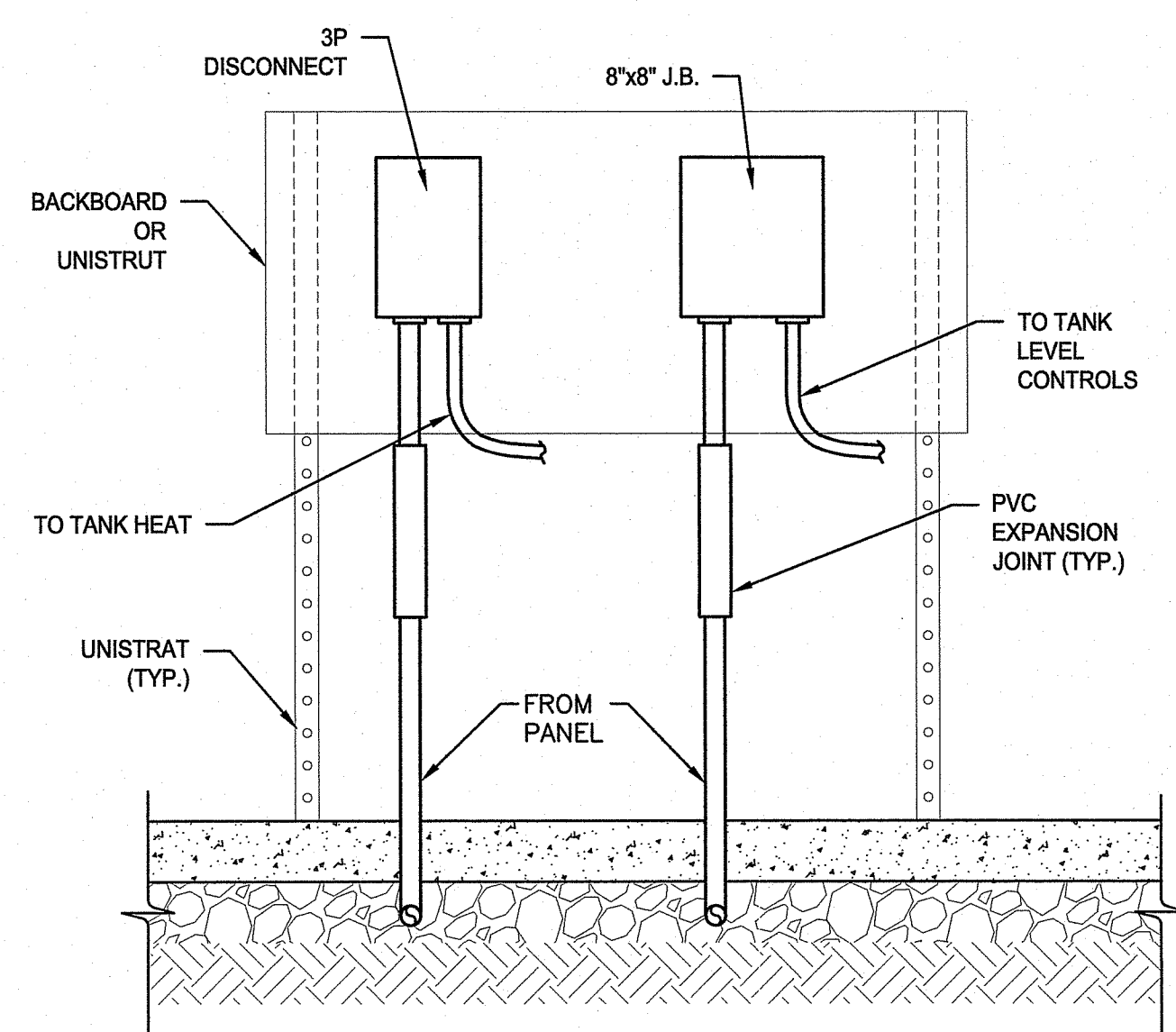


ELEVATION B-B



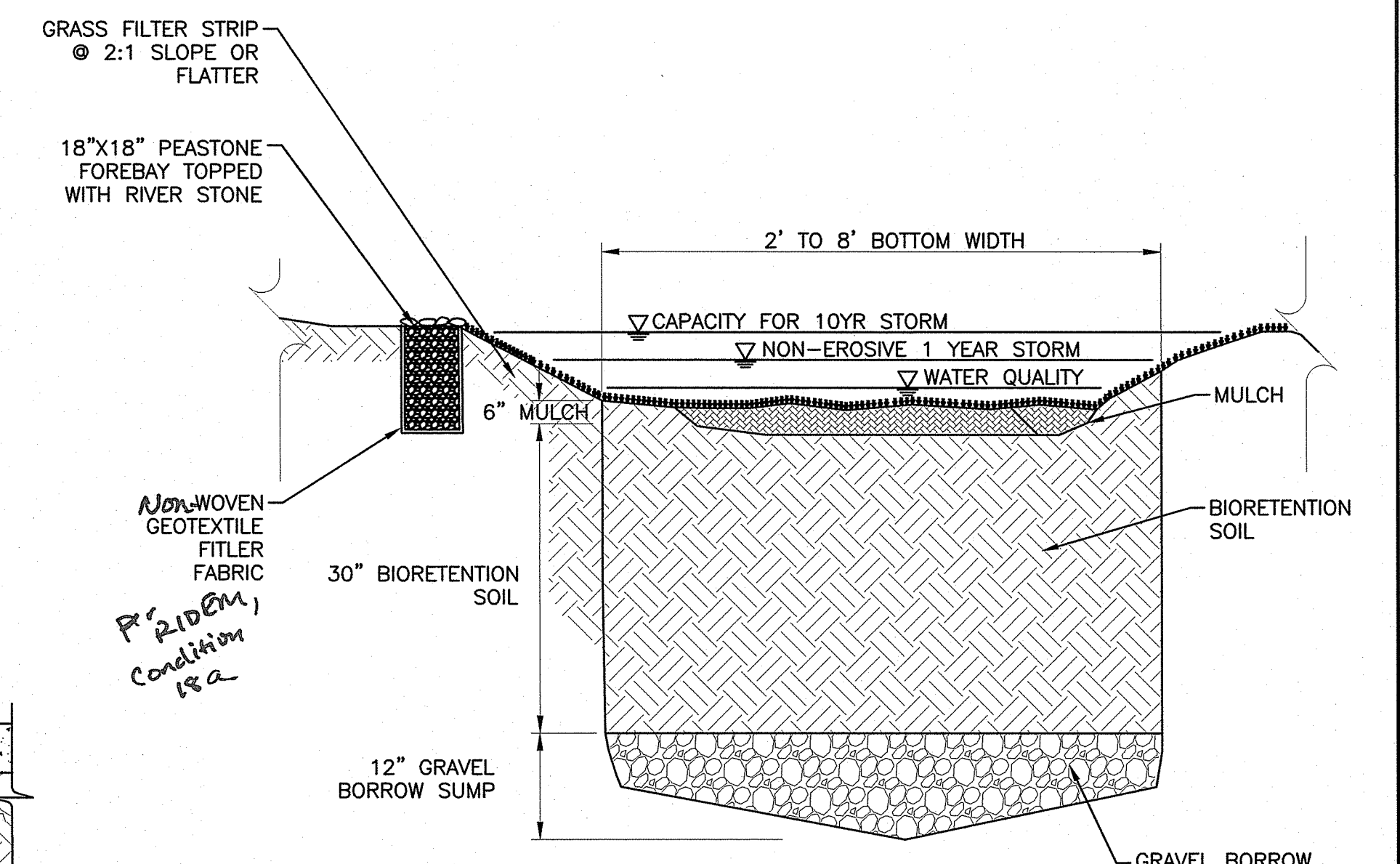
PLAN VIEW

6 FRP RO REJECT TANK
C-5 N.T.S.



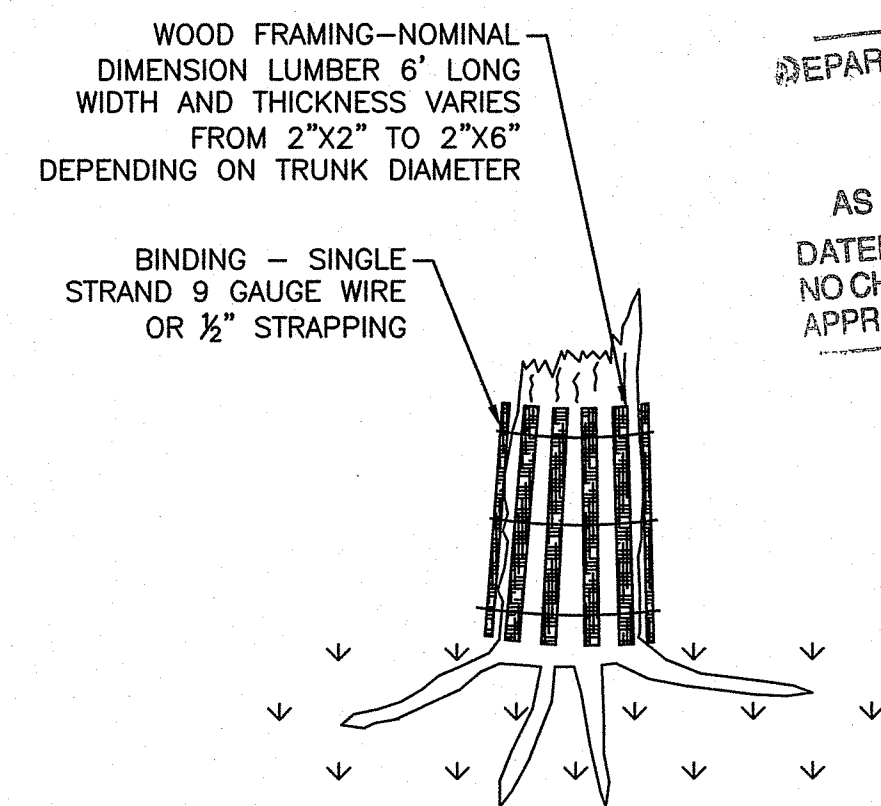
NOTES:
1. COORDINATE FINAL CONNECTIONS TO ALL TANK EQUIPMENT WITH EQUIPMENT PROVIDER.

7 ELECTRICAL EQUIPMENT MOUNTING DETAIL
C-9 N.T.S.



PROFILE
Non-erosive Type I Geotextile (Filter Fabric) Condition 1FA
GRASS FILTER STRIP @ 2:1 SLOPE OR FLATTER
18\"/>

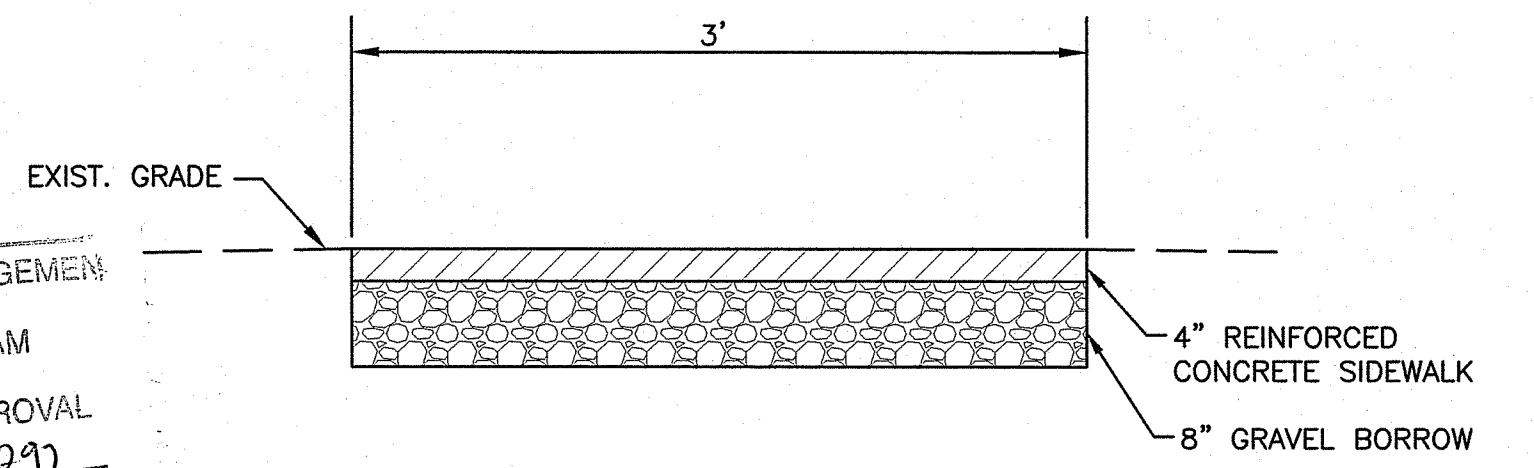
8 GRASS SWALE DETAIL
C-5 N.T.S.



NOTE:
1. THIS WORK SHALL CONSIST OF APPLYING WOOD FRAMING AROUND THE TRUNKS OF THE TREE FROM THE GROUND LEVEL TO THE HEIGHT OF 6- FEET AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

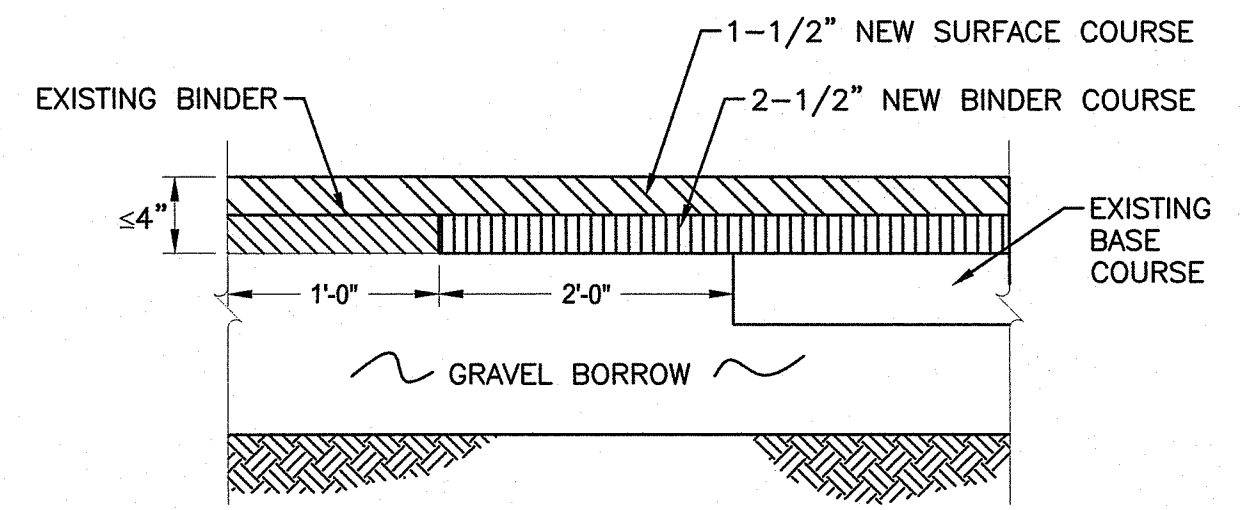
9 TREE PROTECTION DEVICE
C-5 N.T.S.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR - 2 2022 FILE # 21-0297
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RI STANDARD SPECIFICATION.

10 CONCRETE WALKWAY DETAIL
C-5 N.T.S.



11 ASPHALT REPLACEMENT DETAIL
C-5 N.T.S.

75% NOT FOR CONSTRUCTION

JAN 28 2022
Office of Water Resources

F:\PROJECT\2024\24342_Zambarano Hospital\Drawings\CIVIL\2-Zambarano WTP_Civil Drawings-C1-C8-MT.dwg

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
Providence, Rhode Island 02909
p 401.521.5980
www.wsp.com

AARON P. SYLVIA, P.E.
REGISTERED PROFESSIONAL ENGINEER

06/30/23
DATE

DRAWN BY:
JZ

DEPT CHECK:
WM

PROJECT CHECK:
AS

WASTE WATER TREATMENT FACILITY IMPROVEMENTS

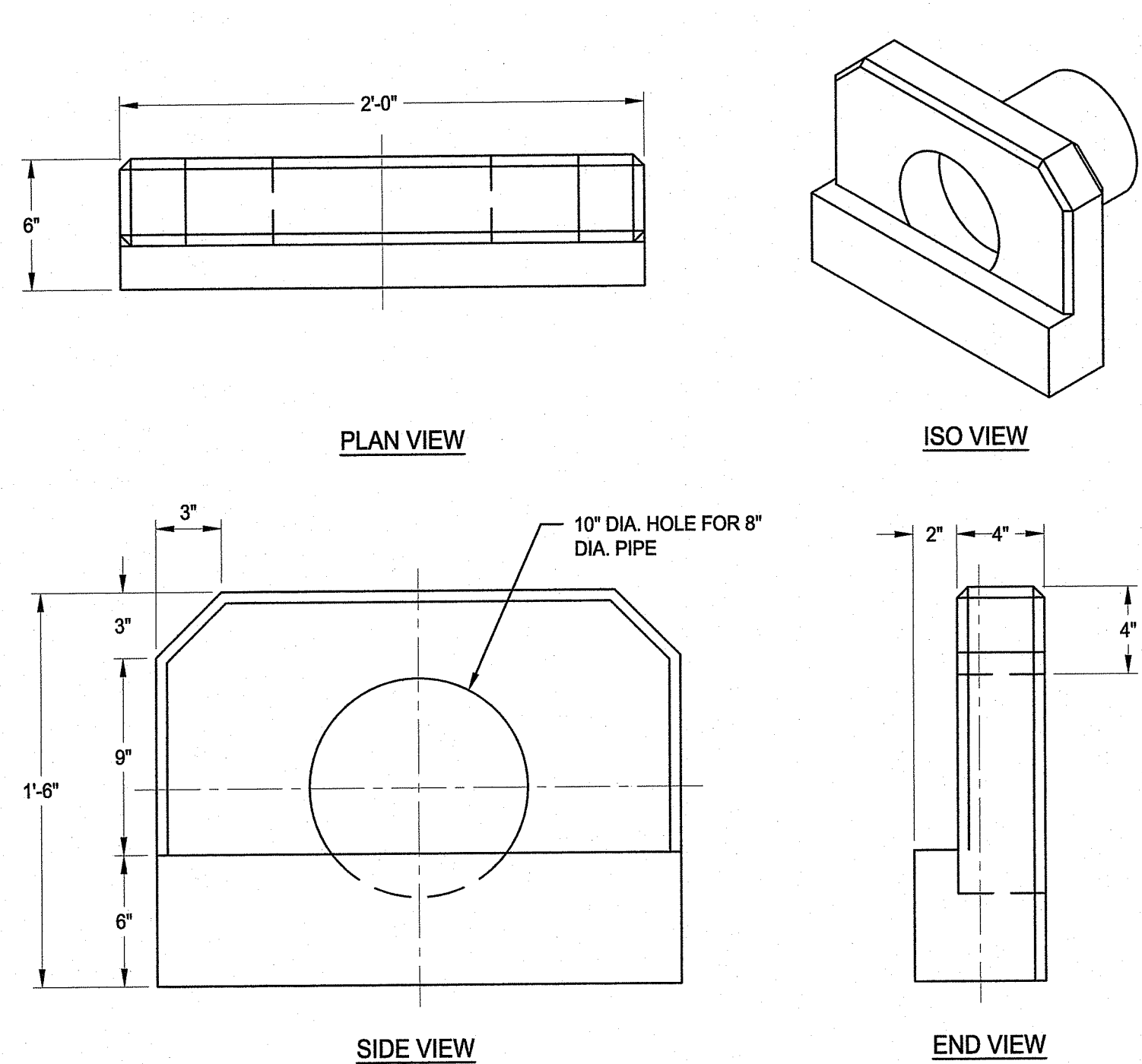
CIVIL DETAILS 2

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
3526313

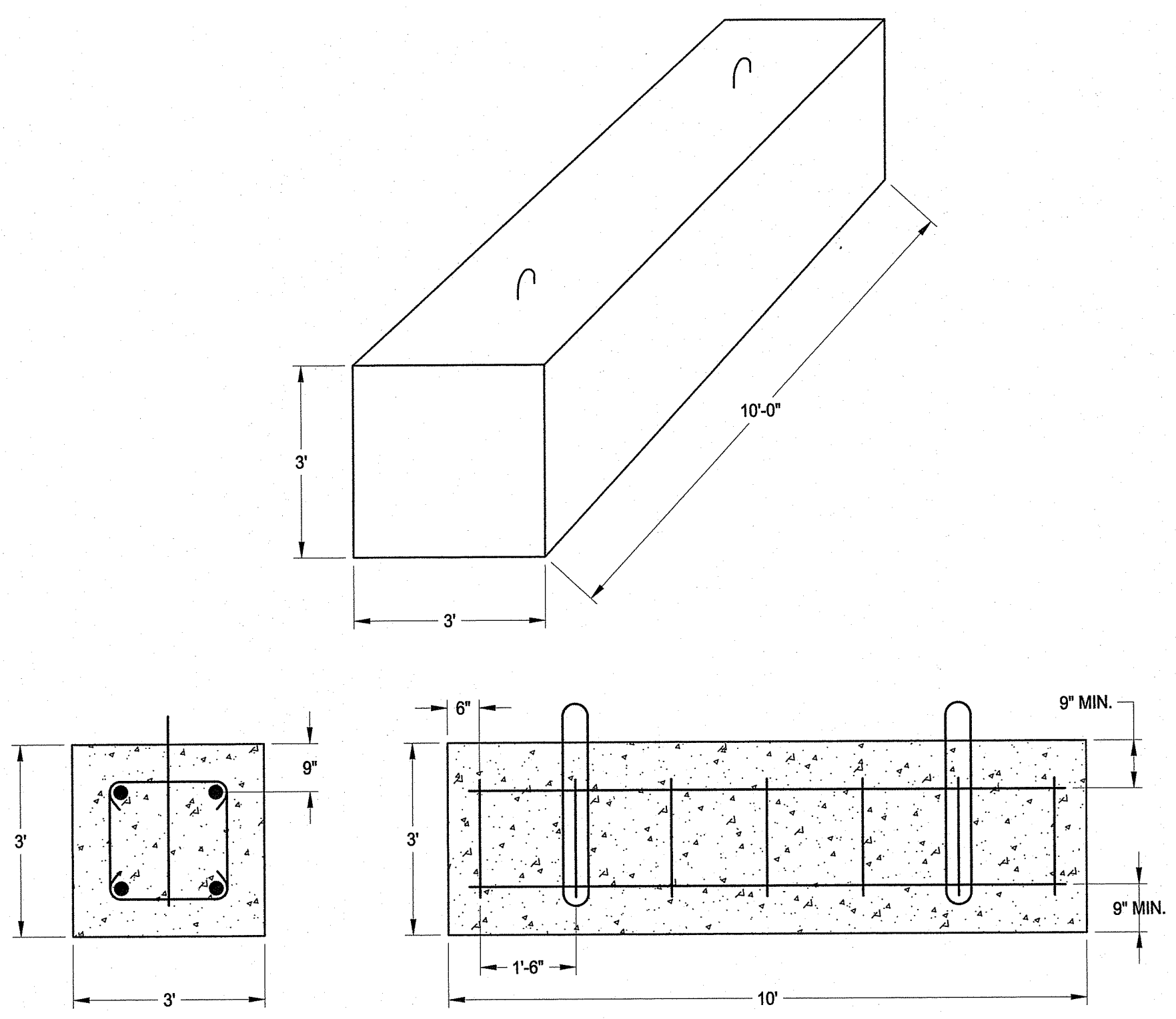
C-10

SHEET
10 OF 13

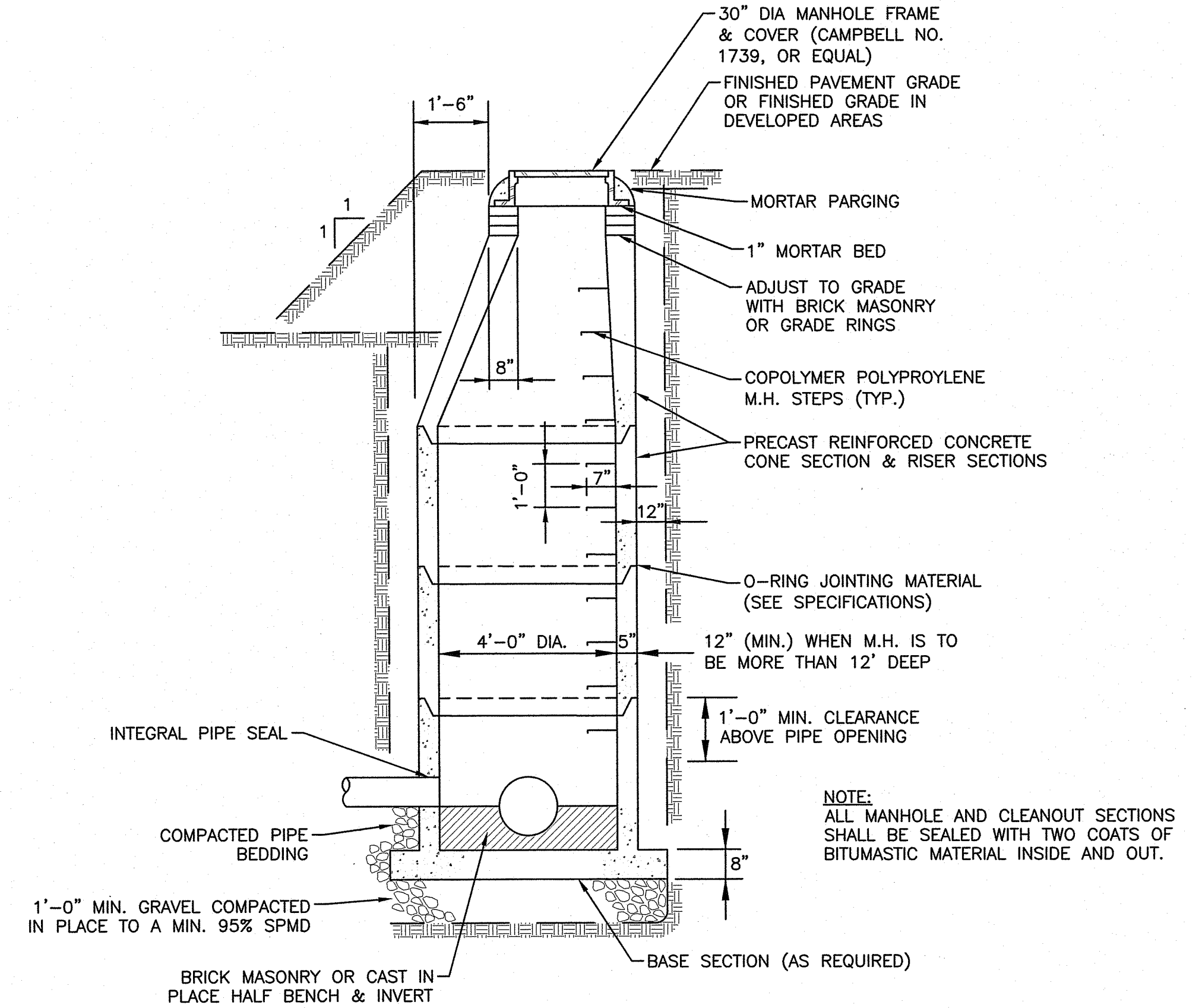


NOTE:
1. CONTRACTOR SHALL EXCAVATE 5 FEET BENEATH HEADWALL BOTTOM ELEVATION AND REPLACE WITH 3/4 INCH CRUSHED STONE. CRUSHED STONE SHALL BE COMPACTED AGGRESSIVELY TO SHEAR INTO EXISTING SUBGRADE.

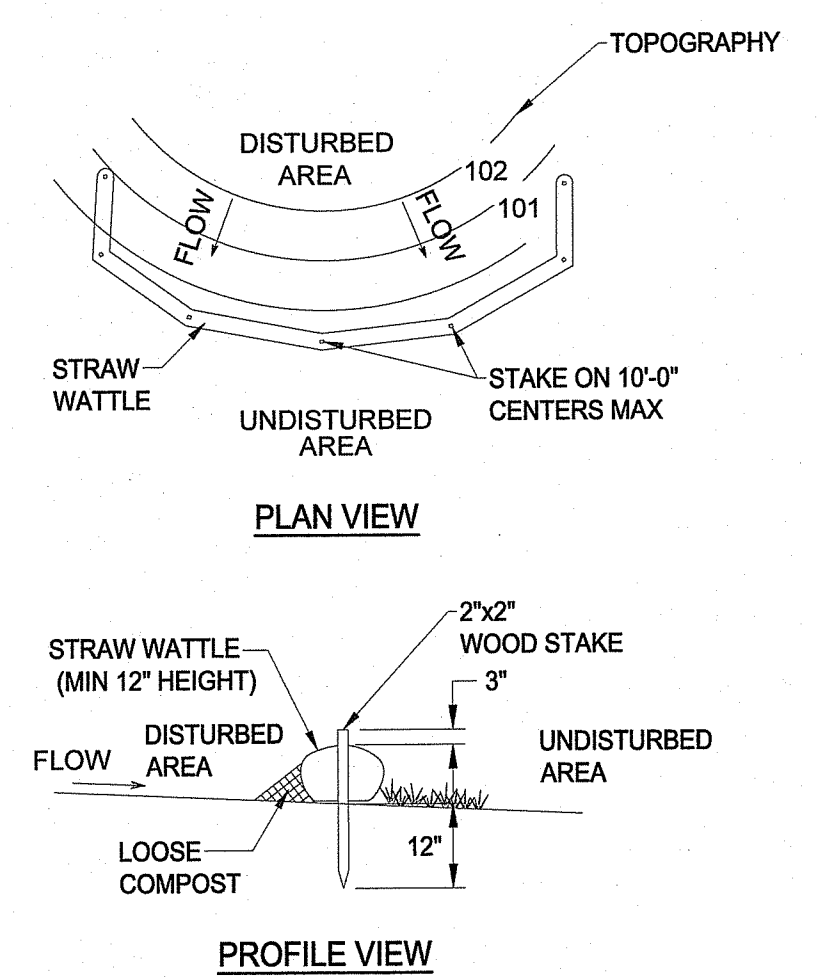
12 HEADWALL DETAIL
C-6 N.T.S.



13 PRECAST DEADMAN DETAIL
C-6 N.T.S.



14 PRECAST MANHOLE W/ PRECAST BASE
C-6 N.T.S.

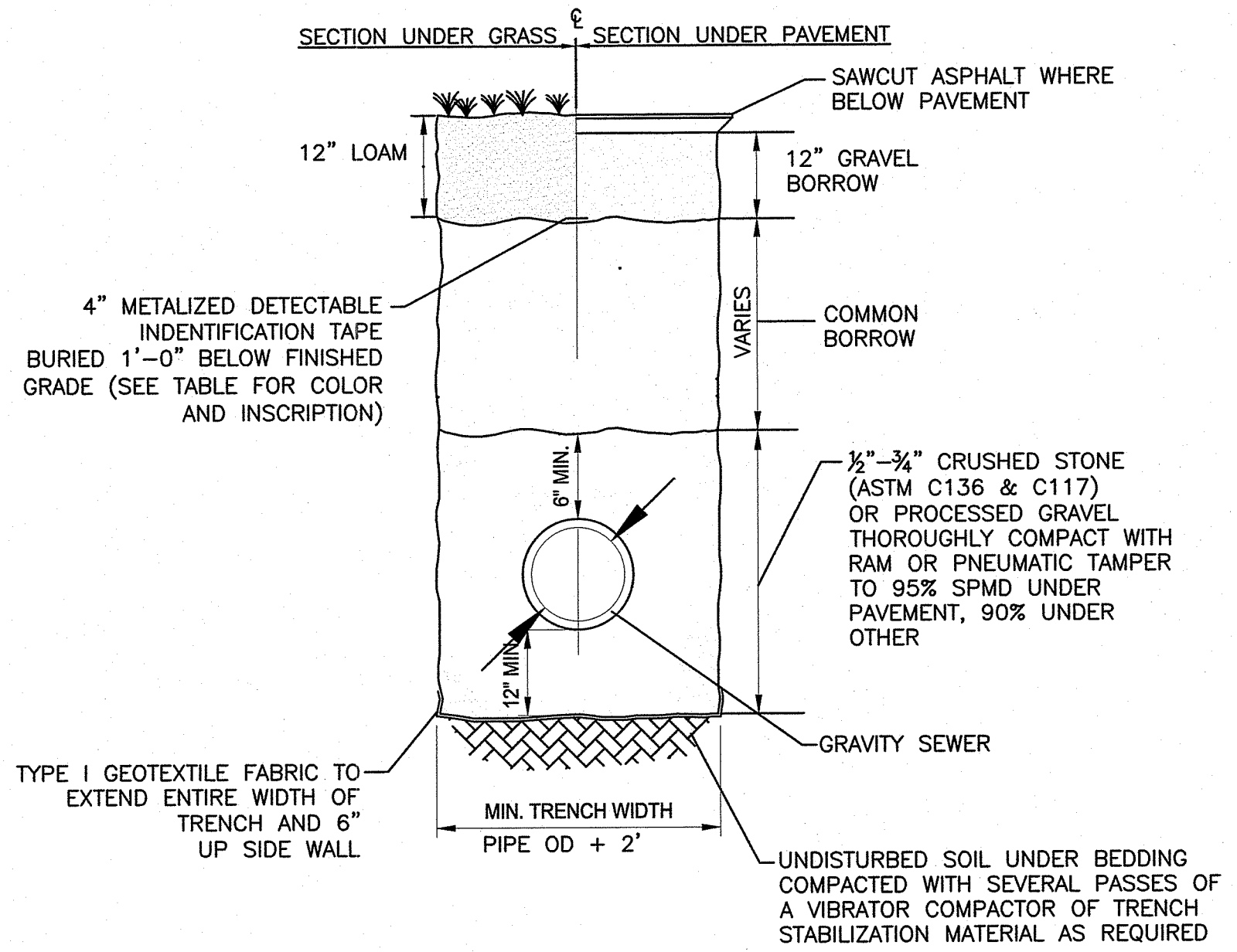


NOTES
1. REMOVE DEPOSITS WHEN SEDIMENT ACCUMULATION REACHES ONE-HALF OF THE EXPOSED STRAW WATTLE.
2. PLACE STRAW WATTLE ON LEVEL GRADE. EXTEND BOTH ENDS OF THE STRAW WATTLE AT LEAST 8'-0" UPSLOPE AT 45 DEGREES TO THE MAIN ALIGNMENT.
3. REPLACE STRAW WATTLE AFTER 6 MONTHS.
4. STRAW WATTLE SHALL BE COMPLETELY COMPRISED OF BIO-DEGRADABLE MATERIALS.
5. STRAW WATTLE SHALL BE FILTREXX PERIMETER CONTROL SILTSOXX WITH NATURAL FIBER MESH (COTTON), OR AS APPROVED BY THE PROJECT REPRESENTATIVE.

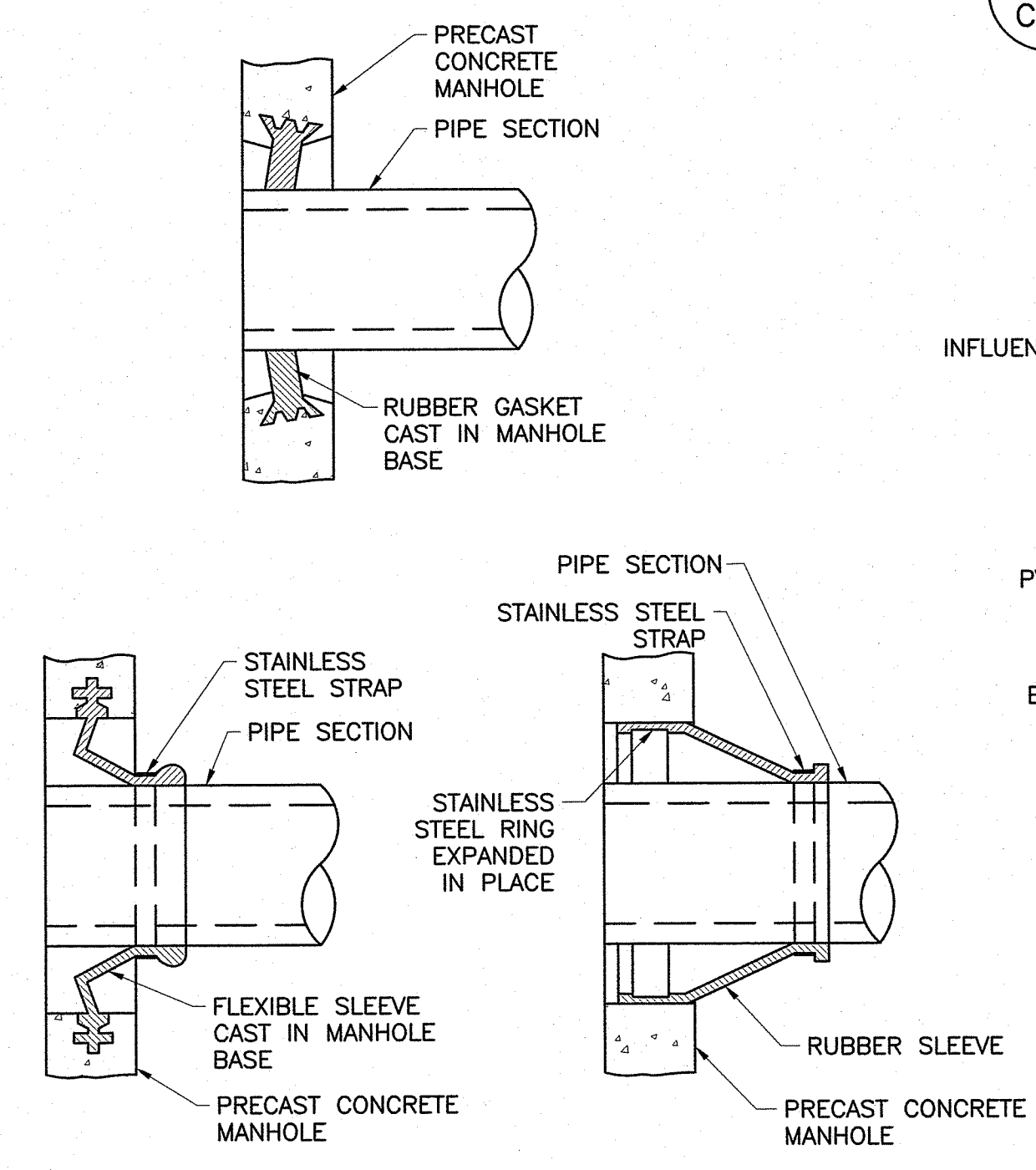
15 STRAW WATTLE DETAIL
C-4 N.T.S.

DETECTABLE IDENTIFICATION TAPE TABLE

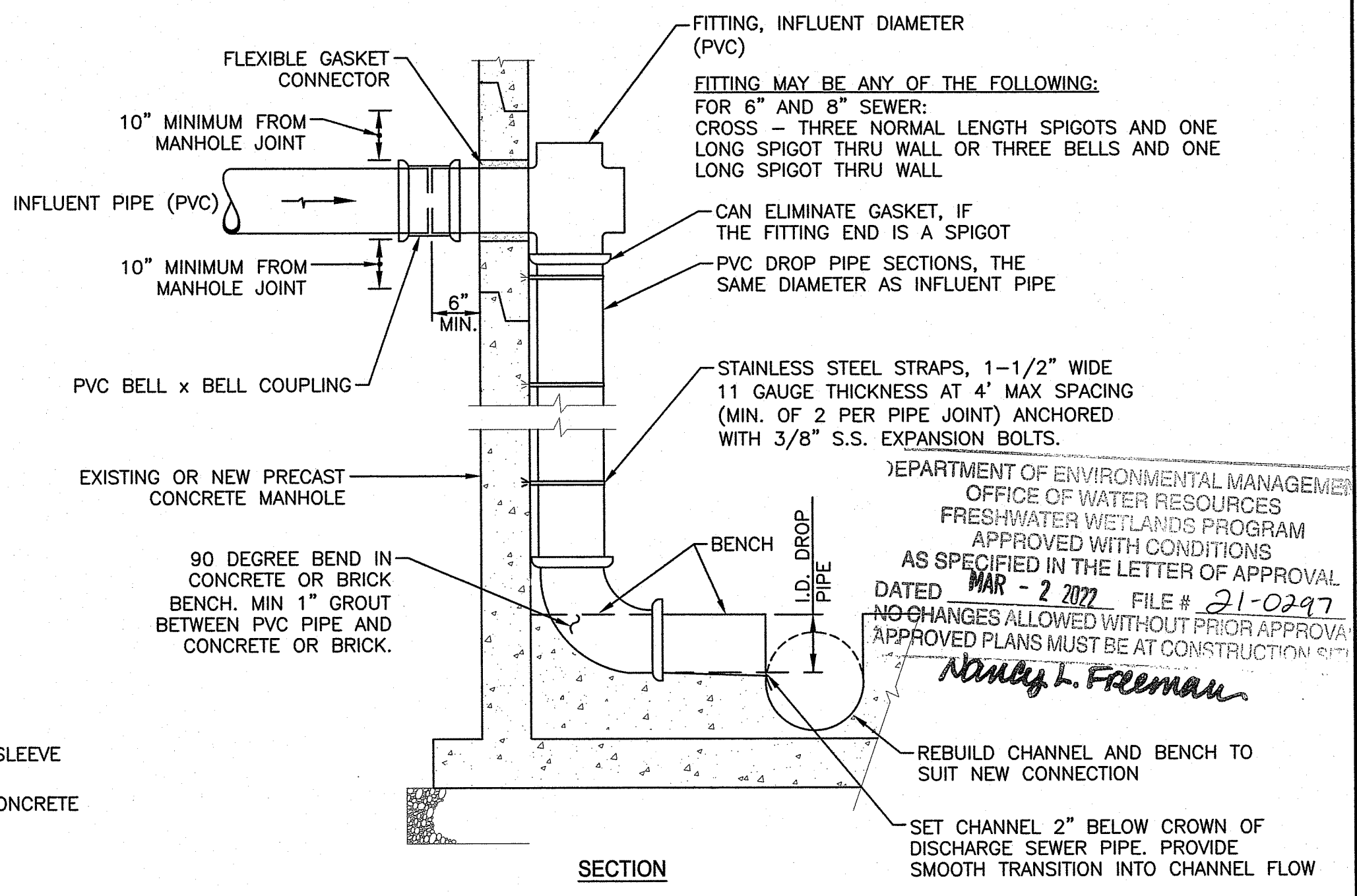
FORCE MAIN & SEWER	TAPE COLOR	INSCRIPTION
POTABLE WATER	GREEN	'CAUTION SEWER LINE BURIED BELOW'
POTABLE WATER	BLUE	'CAUTION WATER LINE BURIED BELOW'
NON-POTABLE WATER	PURPLE	'CAUTION NON-POTABLE WATER LINE BURIED BELOW'



16 SEWER TRENCH DETAIL
C-10 N.T.S.



17 MANHOLE SEAL DETAILS
C-10 N.T.S.



18 DROP MANHOLE DETAIL
C-10 N.T.S.

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NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION

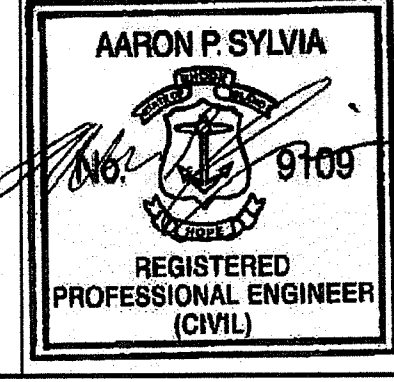
STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION

166 Valley Street, Building 5
Providence, Rhode Island 02909
p 401.521.5980
www.wsp.com

AARON P. SYLVIA, P.E.
REGISTERED PROFESSIONAL ENGINEER

06/30/23

DATE



DRAWN BY:
JZ

DEPT CHECK:
WM

PROJECT CHECK:
AS

75% NOT FOR CONSTRUCTION

WASTE WATER TREATMENT FACILITY IMPROVEMENTS

CIVIL DETAILS 3

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

RI Environmental Management

JAN 28 2022

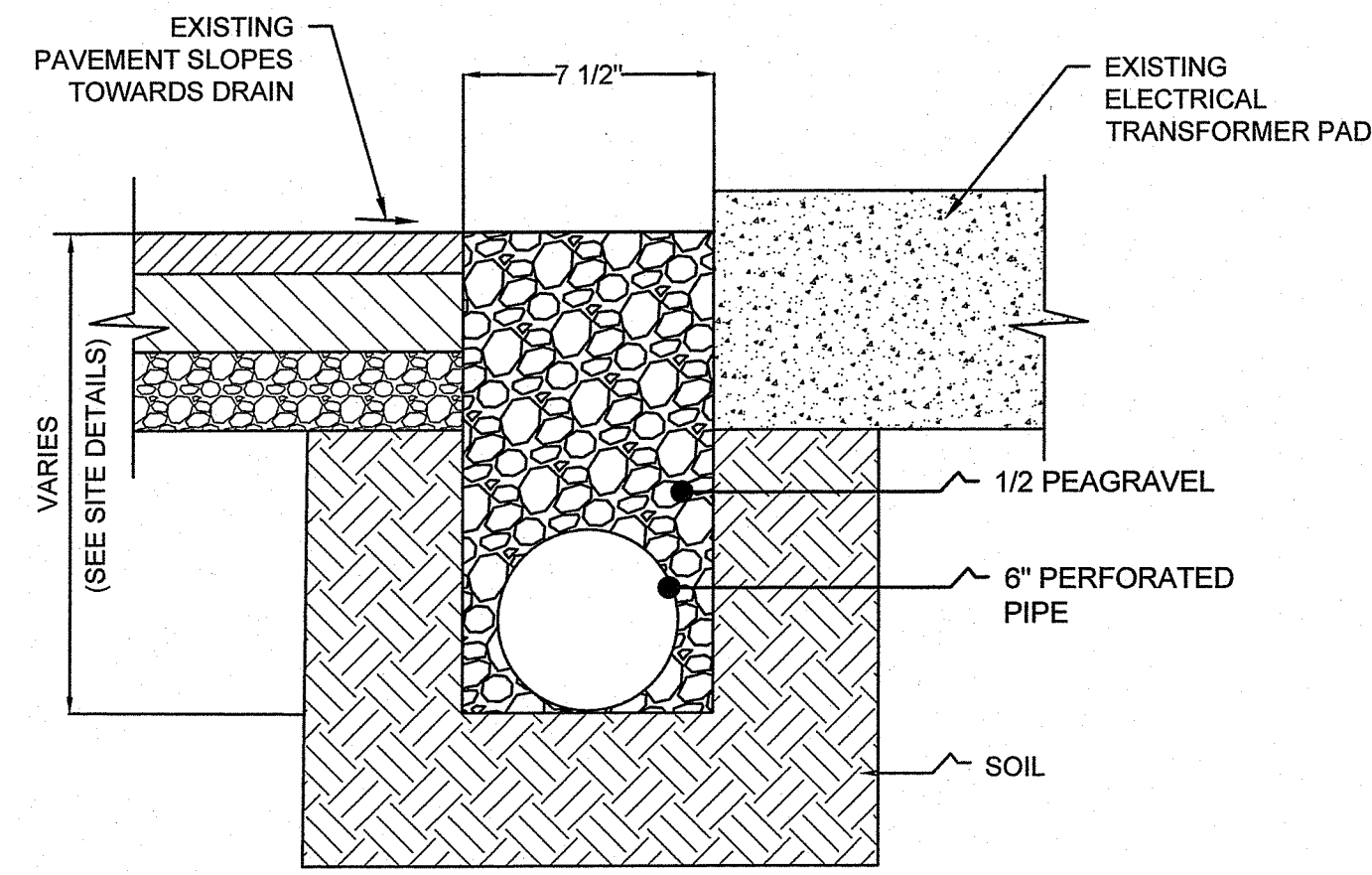
Office of Water Resources

PROJECT No.
3526313

C-11

SHEET
11 OF 13

1/26/2022 9:33 PM - PLOT DATE



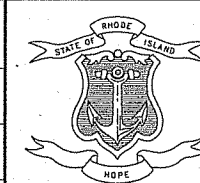
19 TRENCH DRAIN DETAIL
C-05 N.T.S.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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DATED MAR - 2 2022 FILE # 21-0297
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Nancy L. Freeman

RI Environmental Management
JAN 28 2022
Office of Water Resources

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STATE OF RHODE ISLAND
DEPARTMENT OF ADMINISTRATION

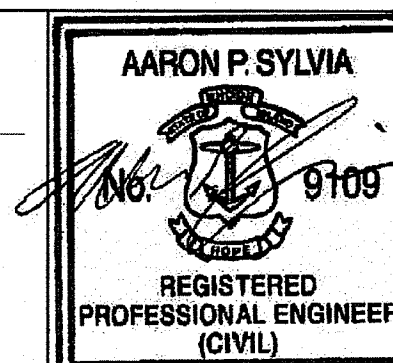
166 Valley Street, Building 5
Providence, Rhode Island 02909
p 401.521.5980
www.wsp.com



AARON P. SYLVIA, P.E.
REGISTERED PROFESSIONAL
ENGINEER

06/30/23

DATE



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WM

PROJECT CHECK:

AS

WASTE WATER TREATMENT FACILITY IMPROVEMENTS

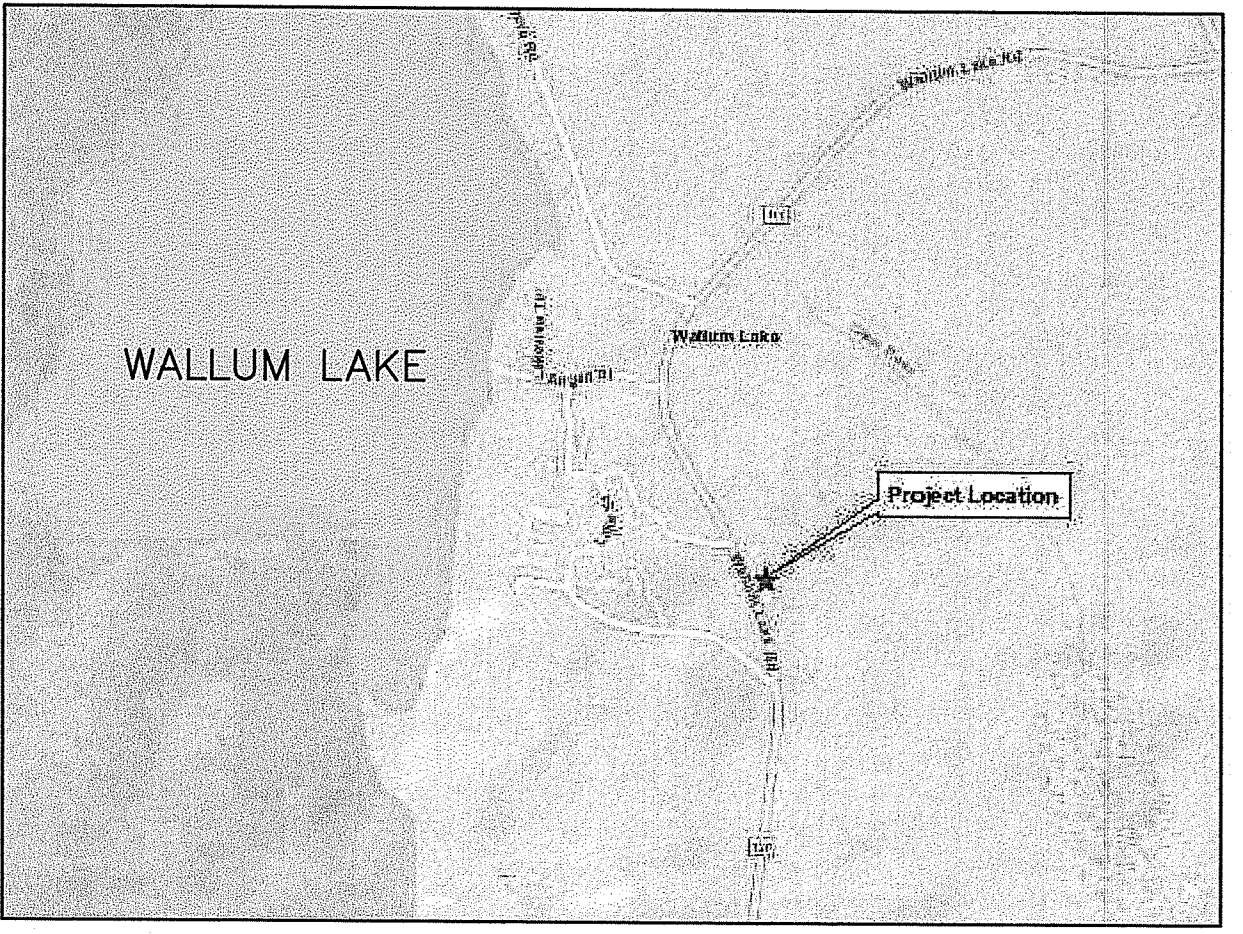
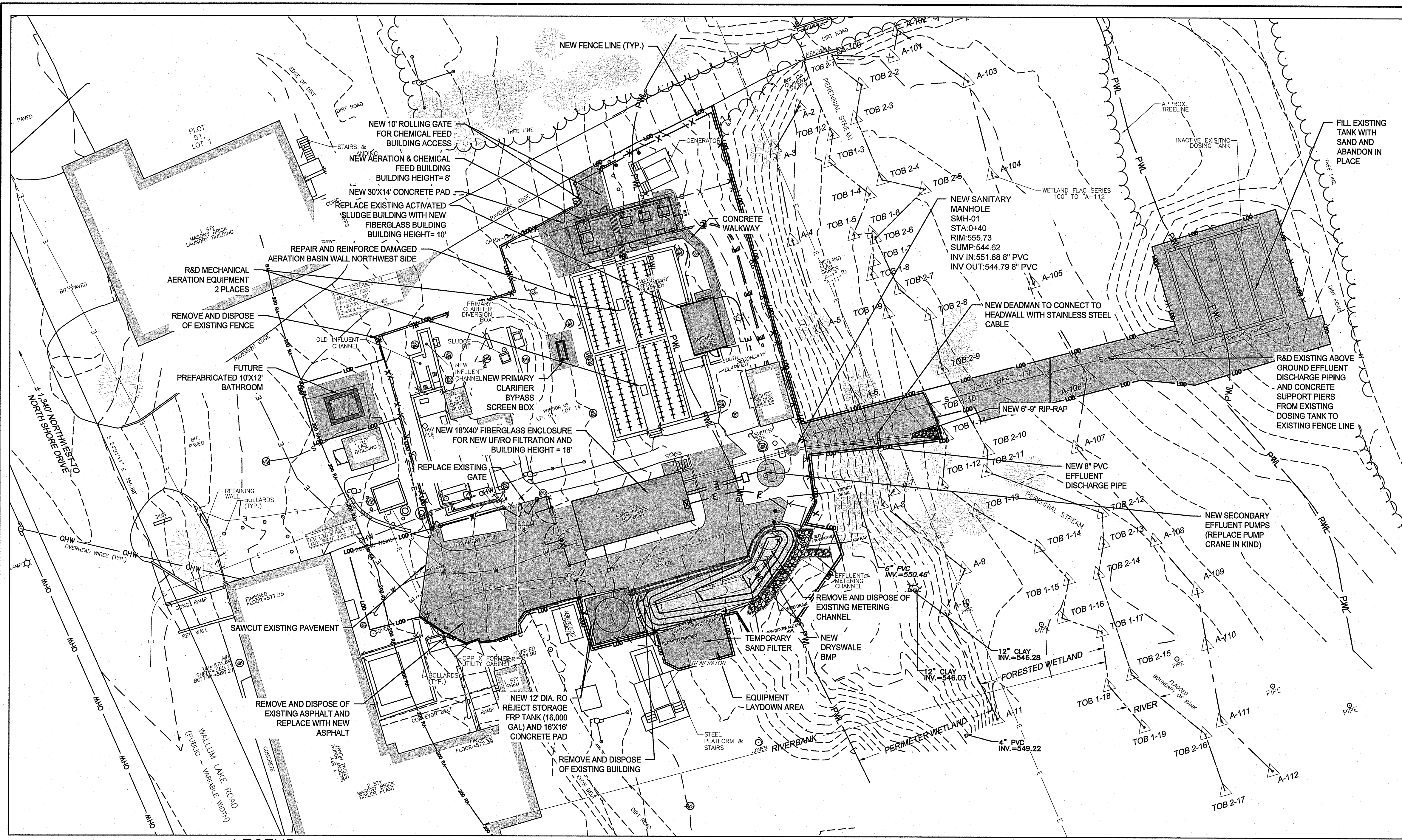
CIVIL DETAILS 4

ELEANOR SLATER HOSPITAL
ZAMBARANO UNIT, BURRILLVILLE, RHODE ISLAND
A.P. 51 LOT 14

PROJECT No.
3526313

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VINCITY MAP

BMP-DRYSWALE MAINTENANCE SCHEDULE

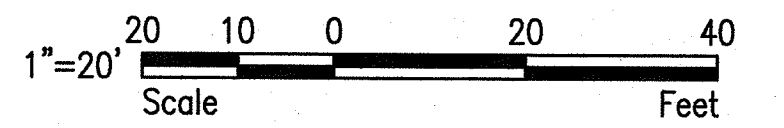
INSPECT THE SYSTEM FOR THE SIX MONTHS AFTER CONSTRUCTION AND THEREAFTER QUARTERLY TO ENSURE IT IS FUNCTIONING AS DESIGNED AND IS FREE OF SEDIMENT AND DEBRIS. REMOVE ANY OBSTRUCTIONS TO FLOW, INCLUDING ACCUMULATED SEDIMENTS, TRASH, DEBRIS, AND VEGETATED GROWTH AT THE TIME OF INSPECTION. THE SYSTEM SHALL BE MOWED AT LEAST TWICE A YEAR AND MINIMALLY ORGANIC-FERTILIZED. IN ADDITION, IT SHOULD BE VISUALLY INSPECTED FOR PONDING AND TO IDENTIFY AREAS OF SOFT AND/OR SATURATED CONDITIONS. WOODY VEGETATION GROWING MUST ALSO BE REMOVED. VEGETATION SHOULD NOT BE REMOVED BY APPLICATION OF HERBICIDES. REPAIR SLUMPING SIDE SLOPES AS SOON AS PRACTICABLE. CORRECT EROSION OCCURRING AT THE CHANNEL BOTTOM OR ALONG THE CHANNEL SIDE SLOPES.

LEGEND

- TEMPORARY IMPACT
- PERMANENT IMPACT (NEW BUILDINGS/ IMPERVIOUS SURFACES)
- PERMANENT IMPACT (BMP-DRYSWALE)
- LOD — LIMITS OF DISTURBANCE/CLEARING/AND SEDIMENT CONTROL COMBINED
- — — FORESTED WETLAND
- PWL — WETLAND PERIMETER
- — — RIVERBANK
- 200 RA — RIVERFRONT AREA
- X — X — NEW FENCE

	WETLAND IMPACT TABLE		
	NEW PERMANENT (SF)	BMP	TEMPORARY (SF)
RIVERBANK	1293.0	712.0	6440.0
PERIMETER WETLAND	769.0	230.0	2047.0
FORESTED WETLAND	26.0	0.0	1029.0
RIVER	0.0	0.0	

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
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Anthony J. Freeman



SITE INFORMATION FROM SURVEY PERFORMED BY WATERMEN ENGINEERING COMPANY ON 6/14/2021

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION
	10/23/21			

STATE OF RHODE ISLAND
 DEPARTMENT OF ADMINISTRATION
 (Division of Capital Asset Management and Maintenance)

166 Valley Street, Building 5
 Providence, Rhode Island 02909
 p 401.521.5980
 www.wsp.com

AARON P. SYLVIA
 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

AARON P. SYLVIA, P.E.
 REGISTERED PROFESSIONAL ENGINEER
 06/30/23
 DATE

DRAWN BY:
 JZ
 DEPT CHECK:
 WM
 PROJECT CHECK:
 AS

RI Environmental Management
 JAN 28 2022

WASTE WATER TREATMENT FACILITY IMPROVEMENTS

RESOURCE IMPACT PLAN

ELEANOR SLATER HOSPITAL, ZAMBARANO UNIT
 WALLUM LAKE RD, BURRILLVILLE, RHODE ISLAND

PROJECT No.
 3526313

W-1

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 13 OF 13