



- LEGEND**
- A.P. ASSESSOR'S PLAT
  - N/F NOW OR FORMERLY
  - IR IRON ROD WITH CAP SET
  - ODH DRILL HOLE SET
  - IP IRON PIPE FOUND
  - GB GRANITE BOUND FOUND
  - RHFB RHODE ISLAND HIGHWAY BOUND FOUND
  - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - EXISTING SPOT ELEVATION
  - STONE WALL
  - STOCKADE FENCE
  - CONCRETE RETAINING WALL
  - U UTILITY POLE
  - C CATCH BASIN
  - SL SPOT LIGHT
  - EXISTING/PROPOSED WELL
  - SE SOIL EVALUATION TEST HOLE
  - PROPOSED SPOT ELEVATION
  - ps PROP. ROOF DOWN SPOUT & DRAIN
  - ps PROP. ROOF DOWN SPOUT & SPLASH BLOCK
  - ps PROP. SURFACE FLOW DIRECTION
  - LIMIT OF DISTURBANCE AND PERIMETER EROSION CONTROL

A.P. 16 LOT 74  
N/F SAH REAL ESTATE INVESTMENTS, LLC

BENCHMARK: NORTHEAST CORNER  
TOP OF RETAINING WALL  
ELEVATION: 309.45 NAVD 88 DATUM

BENCHMARK:  
NAIL SET IN POLE 1  
ELEVATION=324.53'  
NAVD 88 DATUM

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JAN 04 2015 FILE # 15-0233  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

REVISION

DATE 10-20-15

PLANTINGS

SCOTT F. MOOREHEAD  
REGISTERED PROFESSIONAL ENGINEER

OWNER & APPLICANT  
WINFIELD & SONS, INC.  
571 WEST GREENVILLE ROAD  
NORTH SCITUATE, RI 02857  
401-847-5421

WINFIELD FUNERAL HOME  
ASSESSOR'S PLAT 16 LOT 11  
571-573 WEST GREENVILLE ROAD  
NORTH SCITUATE, RI

SITE GRADING AND DRAINAGE PLAN

S.F.M. ENGINEERING ASSOCIATES  
410 TIOGUE AVENUE  
COVENTRY, RI 02816  
PHONE: 401-826-3736  
FAX: 401-826-1711  
SCOTT@SFM.NECCOMAIL.COM

**SFM**

DRN. BY: SFM  
CHK. BY: JZL  
SCALE: 1"=20'  
DATE: SEPT. 18, 2015  
DWG: SFMB30-SP  
SHEET 2 OF 5  
PERMITTING SUBMISSION

Environmental Management  
OCT 27 2015  
Office of Water Resources

C2

- GRADING & DRAINAGE NOTES**
1. ALL SITE WORK SHALL BE COMPLETED IN CONFORMANCE WITH THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS AND STANDARD DETAILS UNLESS SPECIFICALLY NOTED OTHERWISE.
  2. BITUMINOUS BERMS ARE RI STD. 7.5.1 WITH 3" REVEAL.
  3. SEE EROSION CONTROL NOTES AND DETAILS ON SHEET 4.
  4. STORM DRAINS AND STRUCTURES SHALL BE PROTECTED FROM SILTATION AT ALL TIMES.
  5. SEE ARCHITECT'S PLANS FOR LOCATION OF ROOF DOWNSPOUTS & DRAIN CONNECTIONS.
  6. STORM DRAINS SHALL BE HDPE, ADS N-12 OR SDR-35 PVC.
  7. ALL DRAINAGE AND UTILITY STRUCTURES TO REMAIN SHALL HAVE THEIR FRAMES, COVERS AND GRATES RAISED TO BE FLUSH WITH THE NEW FINISH GRADE.
  8. WHERE SHEET FLOW IS INTENDED TO OCCUR FROM PAVED SURFACES, THE ADJOINING LANDSCAPE AREA SHALL BE GRADED AWAY AT A 2% MIN. & 5% MAX. SLOPE.

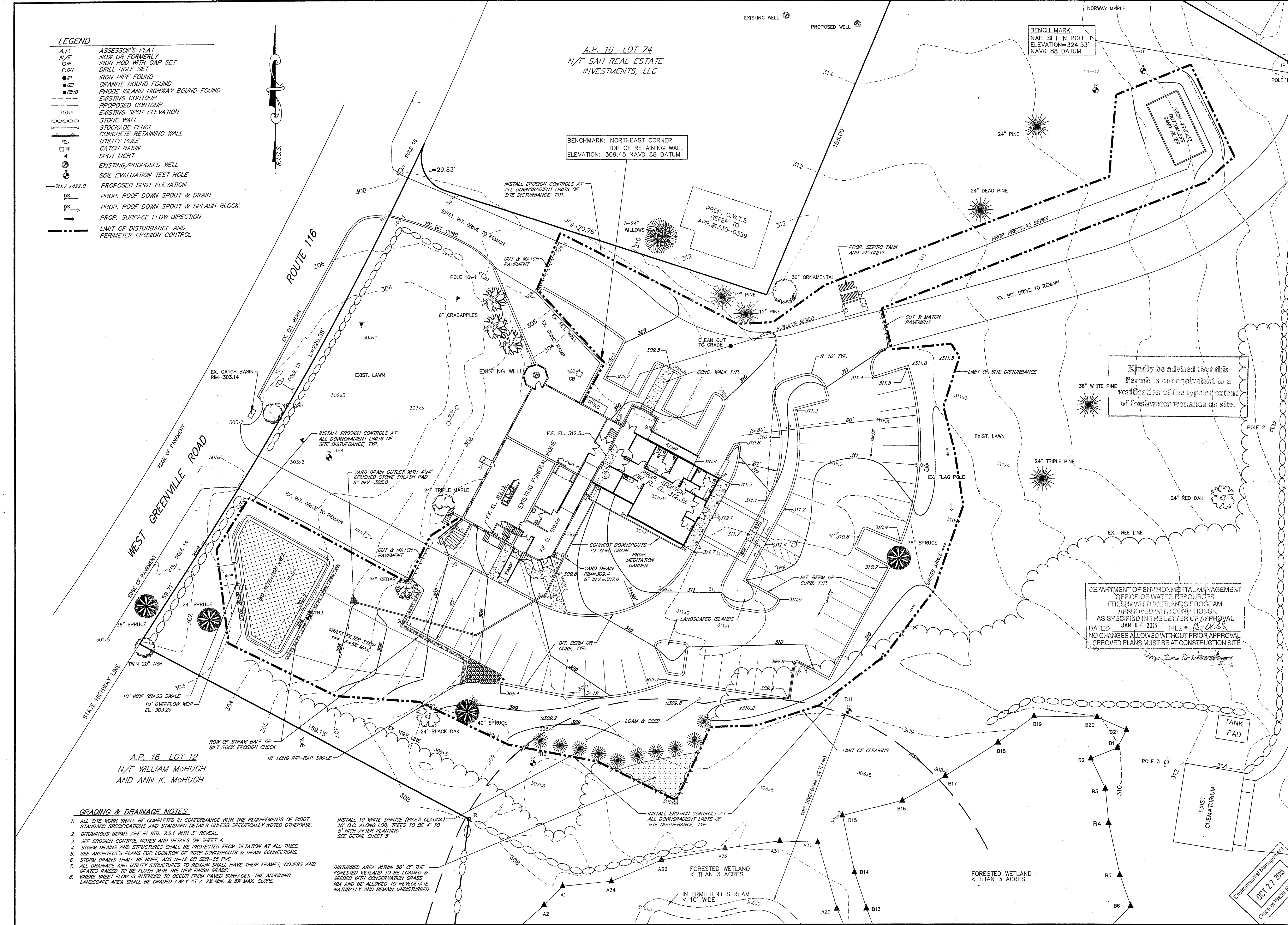
INSTALL 10 WHITE SPRUCE (PICEA GLAUCA)  
10' O.C. ALONG LOD, TREES TO BE 4" TO 8" HIGH AFTER PLANTING  
SEE DETAIL SHEET 5

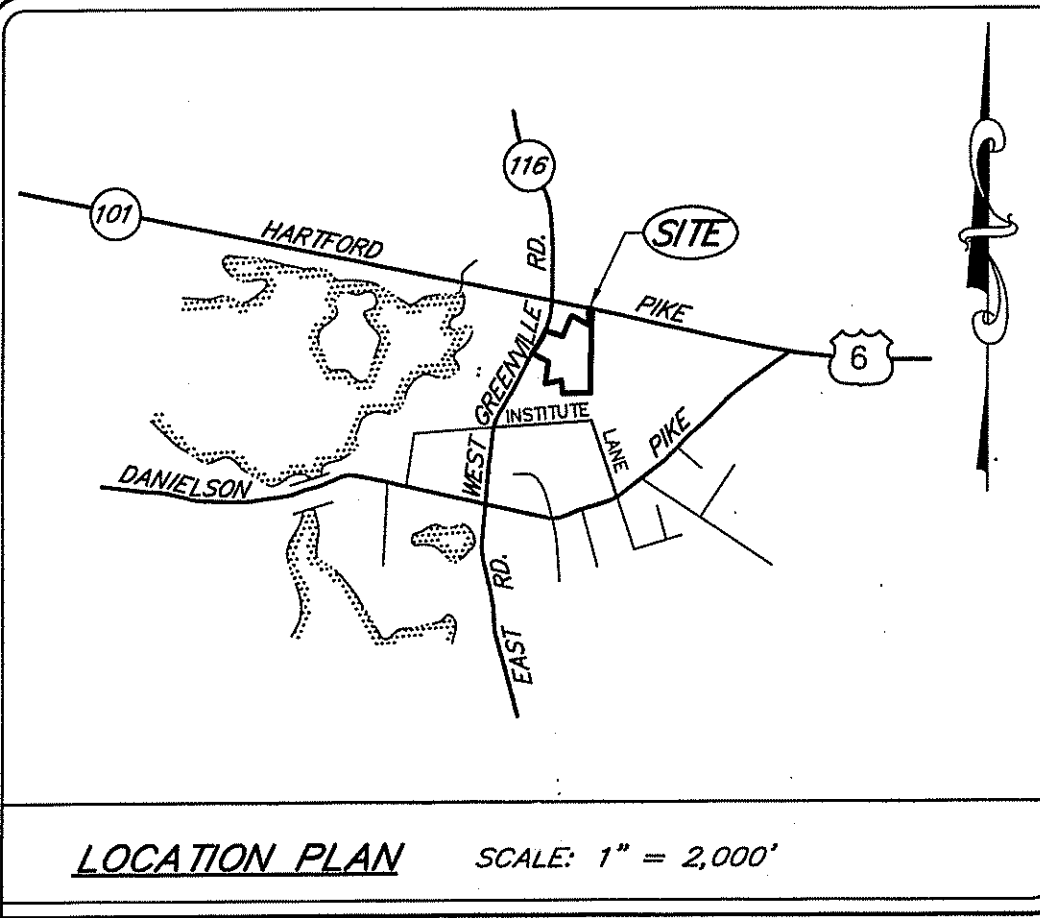
DISTURBED AREA WITHIN 50' OF THE FORESTED WETLAND TO BE LOAMED & SEEDED WITH CONSERVATION GRASS MIX AND BE ALLOWED TO REVEGETATE NATURALLY AND REMAIN UNDISTURBED

INSTALL EROSION CONTROLS AT ALL DOWNGRADIENT LIMITS OF SITE DISTURBANCE, TYP.

FORESTED WETLAND < THAN 3 ACRES

INTERMITTENT STREAM < 10' WIDE



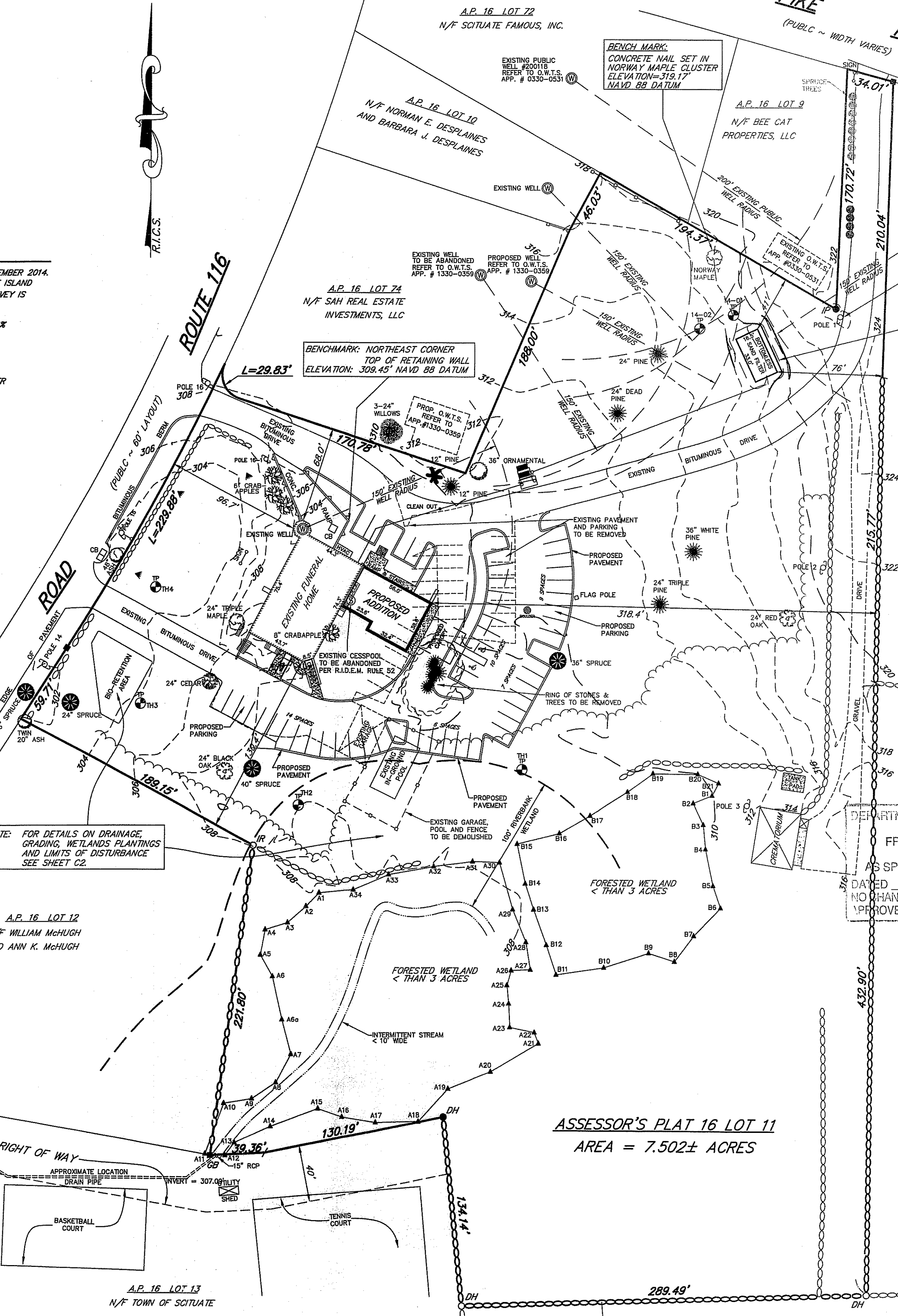


**GROUNDWATER DEPTH & LEDGE DEPTH TABLE**

TEST HOLE	GROUNDWATER DEPTH	GROUNDWATER ELEVATION	LEDGE DEPTH	LEDGE ELEVATION
14-01	6.0'	312.0'	8.0'	310.0'
14-02	4.0'	311.2'	8.0'	307.2'

**GENERAL NOTES**

1. TOPOGRAPHY AND ELEVATIONS SHOWN ARE FROM AN ON-SITE SURVEY PERFORMED IN DECEMBER 2014. LEVELING WAS CONDUCTED TO A CLASS II VERTICAL STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THE DATUM FOR THE SURVEY IS NAVD 88 AND WAS ESTABLISHED USING GLOBAL POSITIONING TECHNOLOGY.
2. THE SITE LIES WITHIN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). REFERENCE F.I.R.M. MAP NUMBER 44009020802 DATED MARCH 2, 2009.
3. WETLANDS EDGE DELINEATED BY NATURAL RESOURCE SERVICES, INC. IN NOVEMBER, 2014.
4. REFER TO SOIL EVALUATION APPLICATION #1430-1528 DATED DECEMBER 2, 2014 FOR WATER TABLE DATA.
5. EXCEPT WHERE INDICATED SITE IS ENTIRELY DEVELOPED.
6. STRAW BALE EROSION CHECK (R.I. STANDARD 9.1.0) AND/OR SILT FENCE SHALL BE INSTALLED AT ALL LIMITS OF DISTURBANCE PRIOR TO EARTH DISTURBING ACTIVITIES AND SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
7. ALL IMPROVEMENTS SHALL BE ACCURATELY LOCATED AND STAKED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. ALL DISTURBED AREAS SHALL BE STABILIZED WITH 4" LOAM AND SEED OR SOD. PROPOSED SLOPES SHALL BE 3:1 (TYPICAL), 2:1 IN WETLANDS.
9. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. DIG SAFE AND APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED PRIOR TO ANY CONSTRUCTION FOR ACCURATE UTILITY LOCATIONS.
10. ALL WORK SHALL BE PERFORMED IN STRICT CONFORMANCE WITH THE REQUIREMENTS OF THE R.I.D.E.M. O.W.T.S. PERMIT, AND IN COMPLIANCE WITH ALL TOWN REGULATIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
12. ALL EXCESS SOIL, STUMPS, TREES, ROCKS, BouldERS AND OTHER REFUSE SHALL BE DISCARDED OFF SITE OUTSIDE OF ALL WETLANDS AND WETLANDS SETBACK AREAS UNLESS OTHERWISE SPECIFIED.
13. THE SITE IS WITHIN THE SCITUATE RESERVOIR WATERSHED CRITICAL RESOURCE AREA.
14. PER RULES 24.2 AND 27.2 WHEN ANY PORTION OF THE BUILDING SEWER OR EFFLUENT PIPE IS SUBJECT TO VEHICULAR TRAFFIC IT SHALL BE CONSTRUCTED OF SCHEDULE 40 PVC PIPE.



**DESIGN CRITERIA**

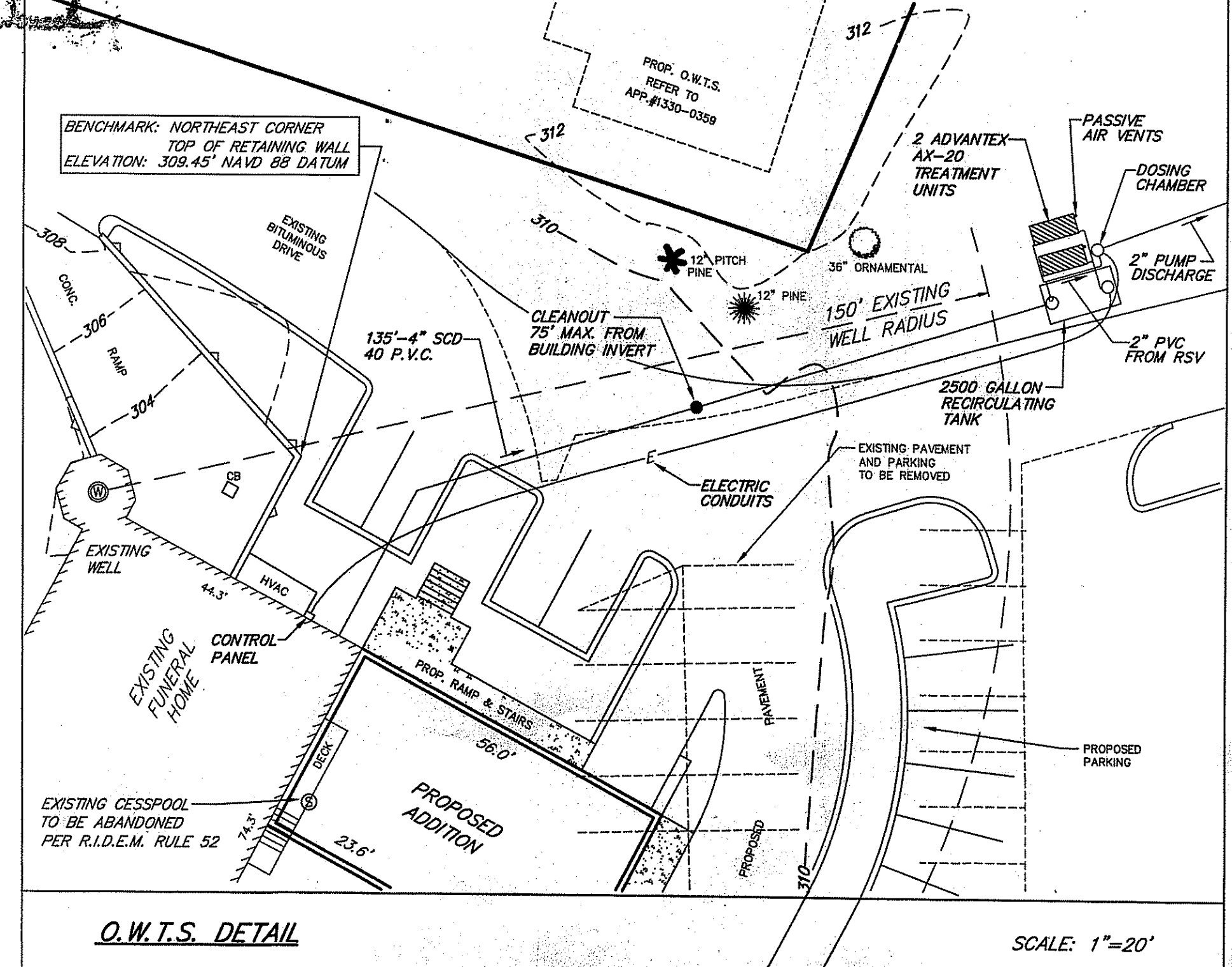
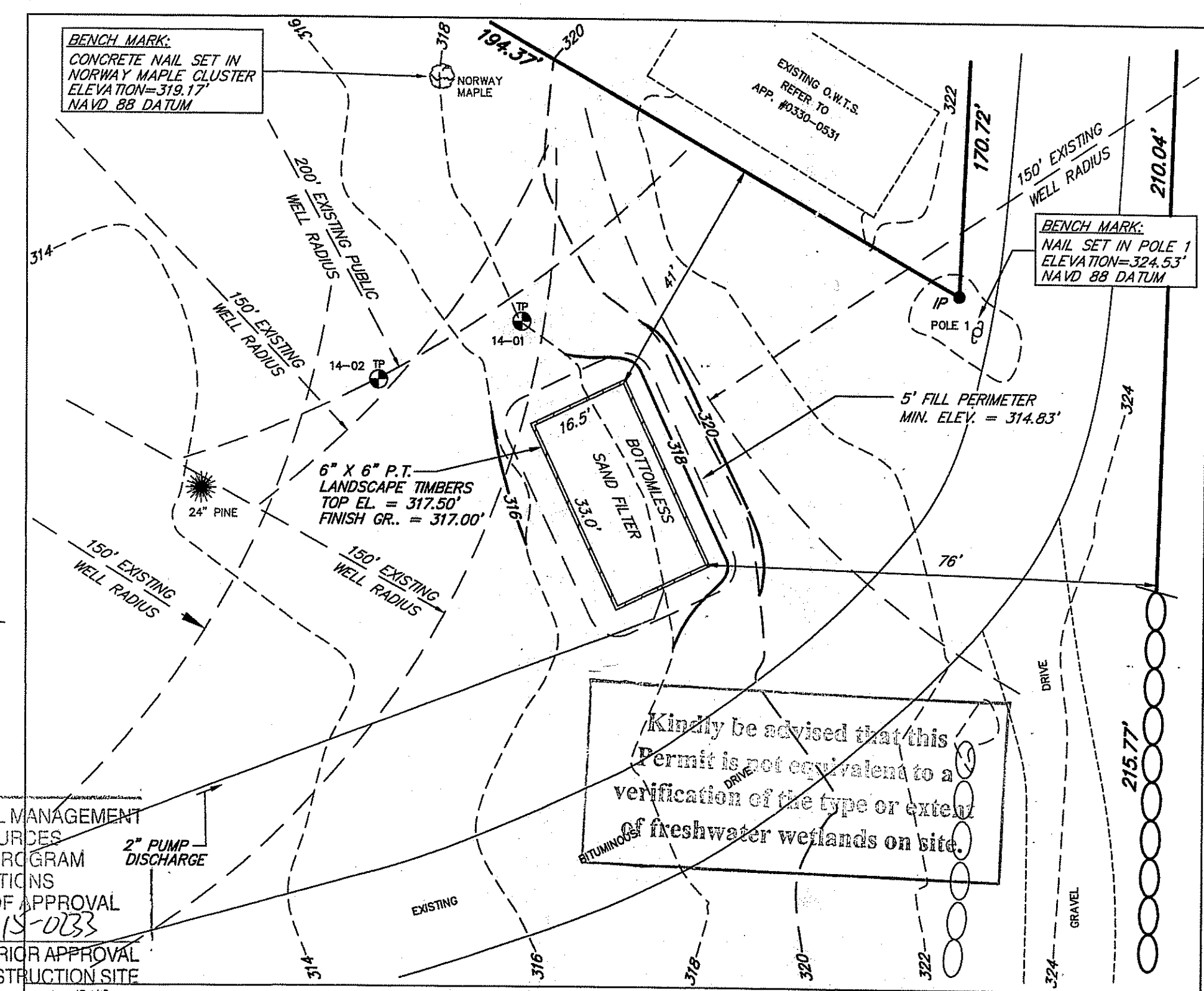
SEWAGE FLOW: 2 BEDROOMS - 115 GALLONS PER BEDROOM UNIT  
 115 GALLONS/DAY/BEDROOM - 115 x 2 = 230 GALLONS PER DAY  
 TOTAL DAILY FLOW: 2 PARLORS - 300 GALLONS PER PARLOR  
 300 GALLONS/DAY/PARLOR - 300 x 2 = 1,000 GALLONS PER DAY  
 TOTAL FLOW = 1,230 GALLONS PER DAY

MINIMUM REQUIRED LEACH FIELD AREA:  
 APPLICATION RATE - SOIL CATEGORY 1 - 2.3 GALLONS/SQ. FT./DAY  
 1,230 GALLONS PER DAY (MAX.) ÷ 2.3 GALS./SQ. FT./DAY = 534.8 SQ. FT. REQUIRED  
 LEACH FIELD AREA PROVIDED: 16.5 x 33.0' BOTTOMLESS SAND FILTER = 544.5 SQ. FT.  
 LEACH FIELD DESIGN POINT: ELEVATION 316.0'

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  - GB GRANITE BOUND FOUND
  - RHB RHODE ISLAND HIGHWAY BOUND FOUND
  - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - EXISTING SPOT ELEVATION
  - STONE WALL
  - STOCKADE FENCE
  - CONCRETE RETAINING WALL
  - UTILITY POLE
  - CATCH BASIN
  - SPOT LIGHT
  - EXISTING/PROPOSED WELL
  - SOIL EVALUATION TEST HOLE

**DESIGN AND CONSTRUCTION NOTES:**

1. ALL WORK SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT RULES AND REGULATIONS, AS AMENDED.
2. FOUNDATION ELEVATION SHOWN HAS BEEN DESIGNED FOR O.W.T.S. PURPOSES ONLY. THE OWNER AND/OR CONTRACTOR IS ADVISED TO DETERMINE WHETHER THE BASEMENT FLOOR OF THE PROPOSED DWELLING IS 1' OR BELOW THE GROUND WATER TABLE AND, IF SO, RAISE THE FOUNDATION ACCORDINGLY.
3. THE CONTRACTOR SHALL NOTIFY THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THIS SITE PLAN. THE DESIGNER MUST PERFORM ALL NECESSARY INSPECTIONS, BOTH DURING AND AFTER INSTALLATION, BEFORE ANY COMPONENT OF THE SYSTEM IS COVERED.
4. THE PROPERTY BOUNDARIES SHOWN HEREON HAVE BEEN COMPILED FROM MAPS, DEEDS, AND OTHER SOURCES OF INFORMATION, AND ARE SUBJECT TO SUCH MODIFICATIONS AS AN ACTUAL BOUNDARY SURVEY MAY DISCLOSE. TO THE EXTENT THAT SUCH BOUNDARIES ARE CRITICAL TO THE O.W.T.S. LOCATION, THEY MUST BE ESTABLISHED PRIOR TO CONSTRUCTION.
5. A MINIMUM BUFFER OF 10' SHOULD BE MAINTAINED BETWEEN THE BOTTOMLESS SAND FILTER AND NEIGHBORING TREES AND SHRUBS. IF THE BUFFER CANNOT BE MAINTAINED THEN A ROOT BARRIER FABRIC SHALL BE PLACED BETWEEN THE TREES/SHRUBS AND THE SAND FILTER.
6. THE EXCAVATION SHALL BE LEVEL AND SCARIFIED.
7. ALL TOPSOIL AND SUBSOIL WITHIN 4'-6" PERIMETER OF THE SYSTEM SHALL BE STRIPPED AND BACKFILLED WITH FILTER SAND. EXCAVATION INTO IMPERVIOUS MATERIAL IS PROHIBITED UNLESS OTHERWISE APPROVED BY THE DIRECTOR.
8. MAINTAIN TRENCH INVERT ELEVATION FOR 5' BEYOND THE PERIMETER OF THE LEACHING FIELD. MAINTAIN 5' TO PROPERTY LINE FROM TOE OF 3:1 SIDE SLOPE.
9. INSTALL CAST IRON PIPE OR EQUIVALENT FROM THE FOUNDATION TO THE SEPTIC TANK. ALL OTHER PIPES MUST BE SDR 35 P.V.C. OR EQUIVALENT. ALL PIPING SHALL BE INSTALLED AT CONTINUOUS SLOPE WITH NO SAGS OR HIGH POINTS. ALL MANHOLES TO GRADE SHALL HAVE GASKETED WATER TIGHT COVERS AND THE SURFACE SHALL BE GRADED TO DRAIN AWAY FROM THE MANHOLES.
10. SUBSURFACE DRAINS AND WATER SUPPLY LINE TO BE INSTALLED IN CONFORMANCE WITH DISTANCES SPECIFIED IN TABLE 22.1.
11. ALL KNOWN EXISTING AND PROPOSED PUBLIC WATER SUPPLY WELLS WITHIN 500' OF THE SYSTEM ARE SHOWN; ALL KNOWN EXISTING AND PROPOSED PRIVATE WELLS WITHIN 200' OF THE SYSTEM ARE SHOWN; ALL KNOWN EXISTING AND PROPOSED SEPTIC SYSTEMS WITHIN 100' OF THE WELL ARE SHOWN.
12. ALL WORK MUST CONFORM TO THE REQUIREMENTS OF OTHER EXISTING PERMITS, IF ANY.
13. WITH RESPECT TO MUNICIPAL ZONING REQUIREMENTS, THE DESIGNER HAS MADE A REASONABLE EFFORT TO ASCERTAIN THE APPLICABLE DIMENSIONAL SETBACKS AND OTHER CONSTRAINTS TO DEVELOPMENT. DUE, HOWEVER, TO THE POSSIBILITY OF UNRECORDED VARIANCES, NON-CONFORMING USES, AND OTHER RELEVANT DOCUMENTS, IT REMAINS THE RESPONSIBILITY OF THE OWNER TO VERIFY THAT THIS DESIGN SATISFIES LOCAL CODES.
14. ALL STAGES OF CONSTRUCTION MUST BE SUPERVISED BY THE DESIGNER OF RECORD, UNLESS WAIVED BY THE DESIGNER. ALL IMPROVEMENTS MUST BE STAKED BY THE DESIGNER OR HIS AGENTS PRIOR TO CONSTRUCTION. THESE INCLUDE THE O.W.T.S., FOUNDATION, WELL, EROSION CONTROLS, CLEARING LIMITS AND ANY OTHER FEATURES DEEMED CRITICAL TO THE DESIGN.
15. THE AREA OF THE BOTTOMLESS SAND FILTER SHALL BE TREATED AS A WASTEWATER UTILITY. TO PREVENT PUBLIC HEALTH RISK THE BOTTOMLESS SAND FILTER SHALL BE ACCESSED AND SERVICED BY TRAINED PROFESSIONALS ONLY.



**SCITUATE SURVEYS, INC.**  
 410 TROSCOE AVENUE  
 COVENTRY, RHODE ISLAND 02816  
 401-821-8101  
 LAND SURVEYING / MAPPING / SITE PLANNING

FOR STREET AND ROAD INDEX FILE UNDER:  
**WEST GREENVILLE ROAD**

THIS PLAN IS DESIGNED TO BE VIEWED AT THE STATED SCALE, AND MUST CONTAIN THE ORIGINAL SIGNATURE OF THE SURVEYOR AND A "NET" STAMP. ANY OTHER COPY OF THIS MAP IS NOT AN AUTHENTICATED VERSION.

THIS DATA COLLECTION SURVEY AND PLAN CONFORM TO A CLASS III MEASUREMENT STANDARD AS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

BY: *Angelo M. Raimondi*  
**ANGELO M. RAIMONDI, PROFESSIONAL LAND SURVEYOR NO. 1762**

10/20/15 PERIMETER WETLANDS

ANGELO M. RAIMONDI  
 No. 1762  
 PROFESSIONAL  
 LAND SURVEYOR

**PLAN OF PROPOSED ON-SITE WASTE-WATER TREATMENT SYSTEM**

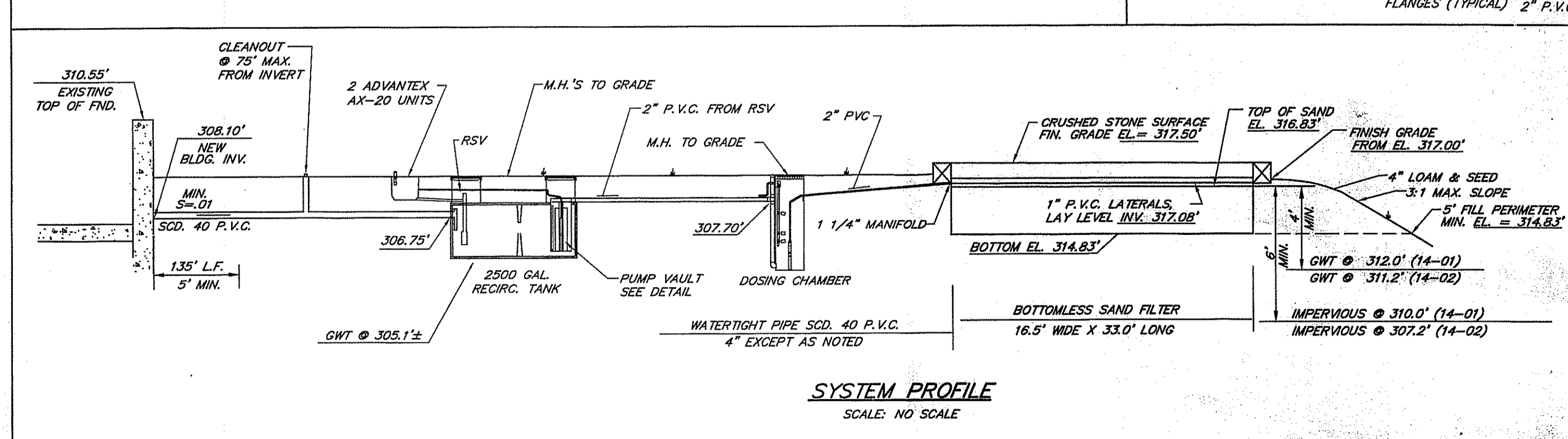
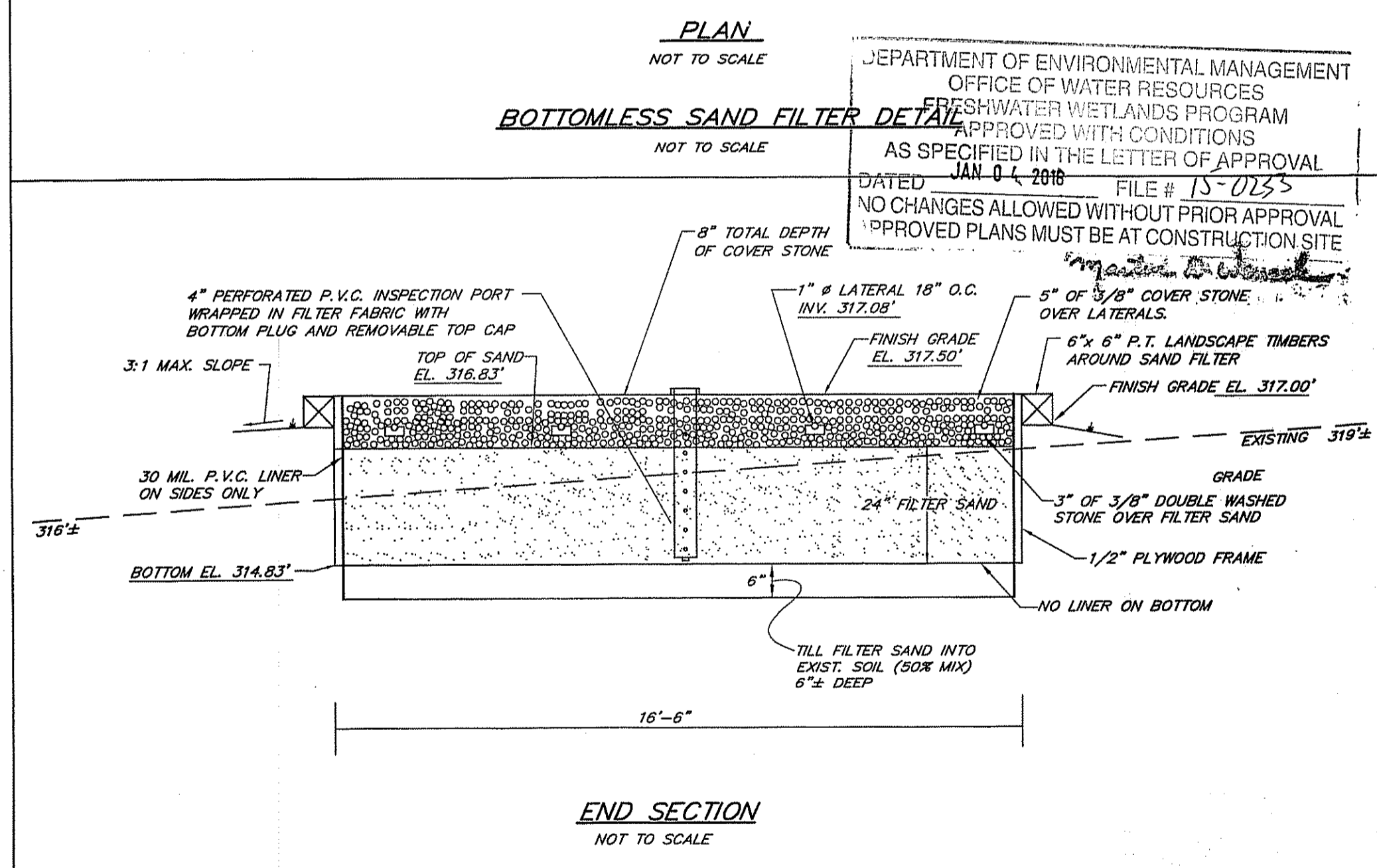
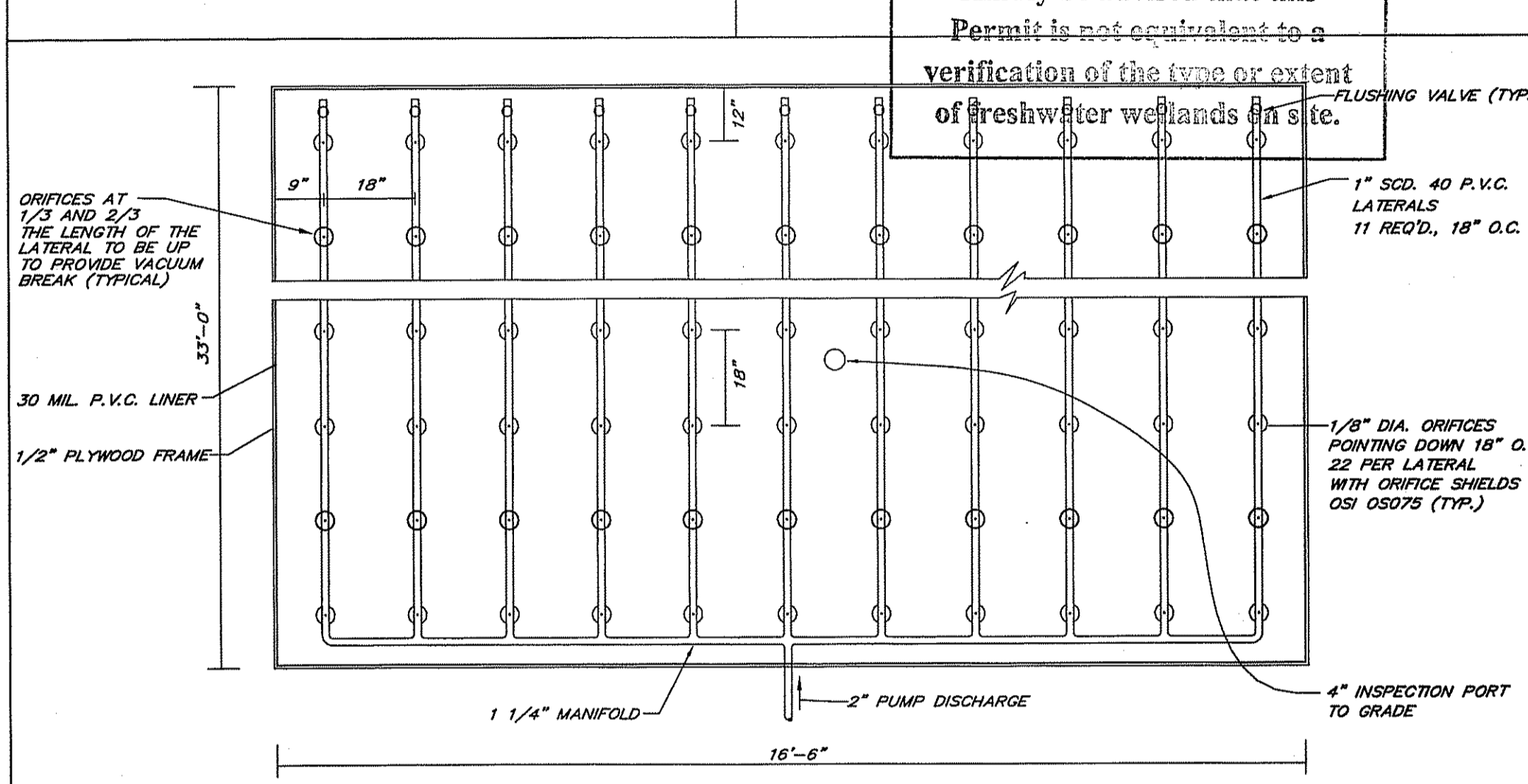
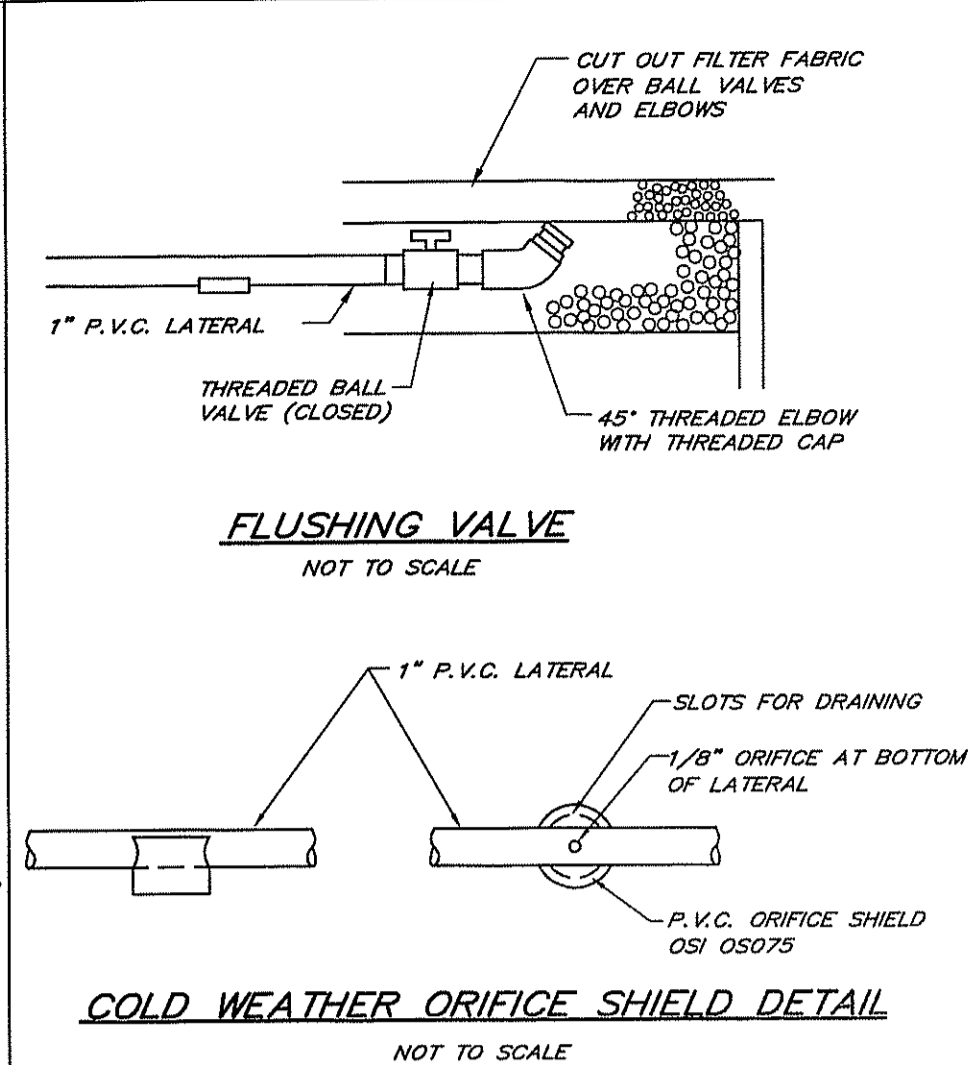
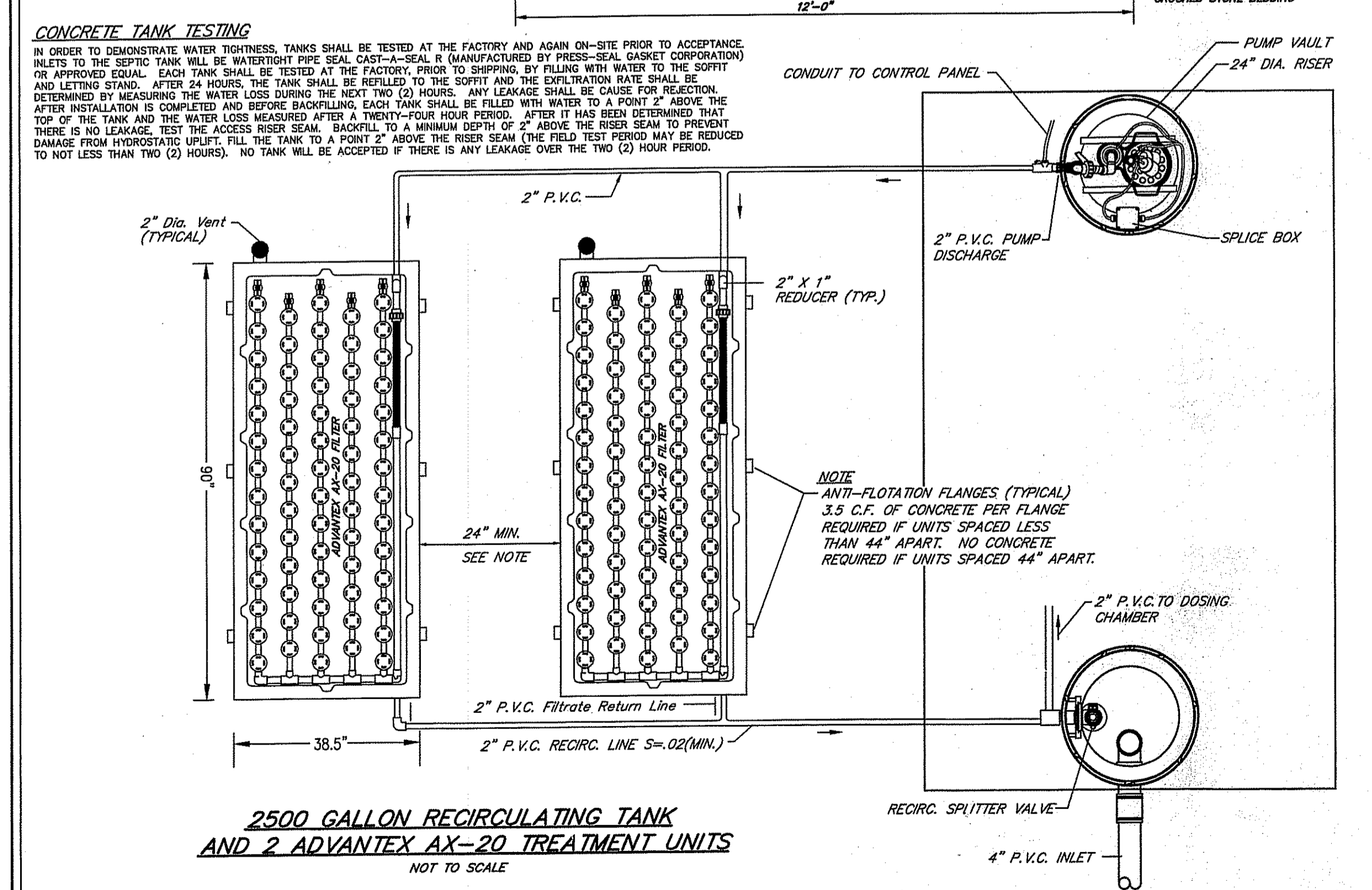
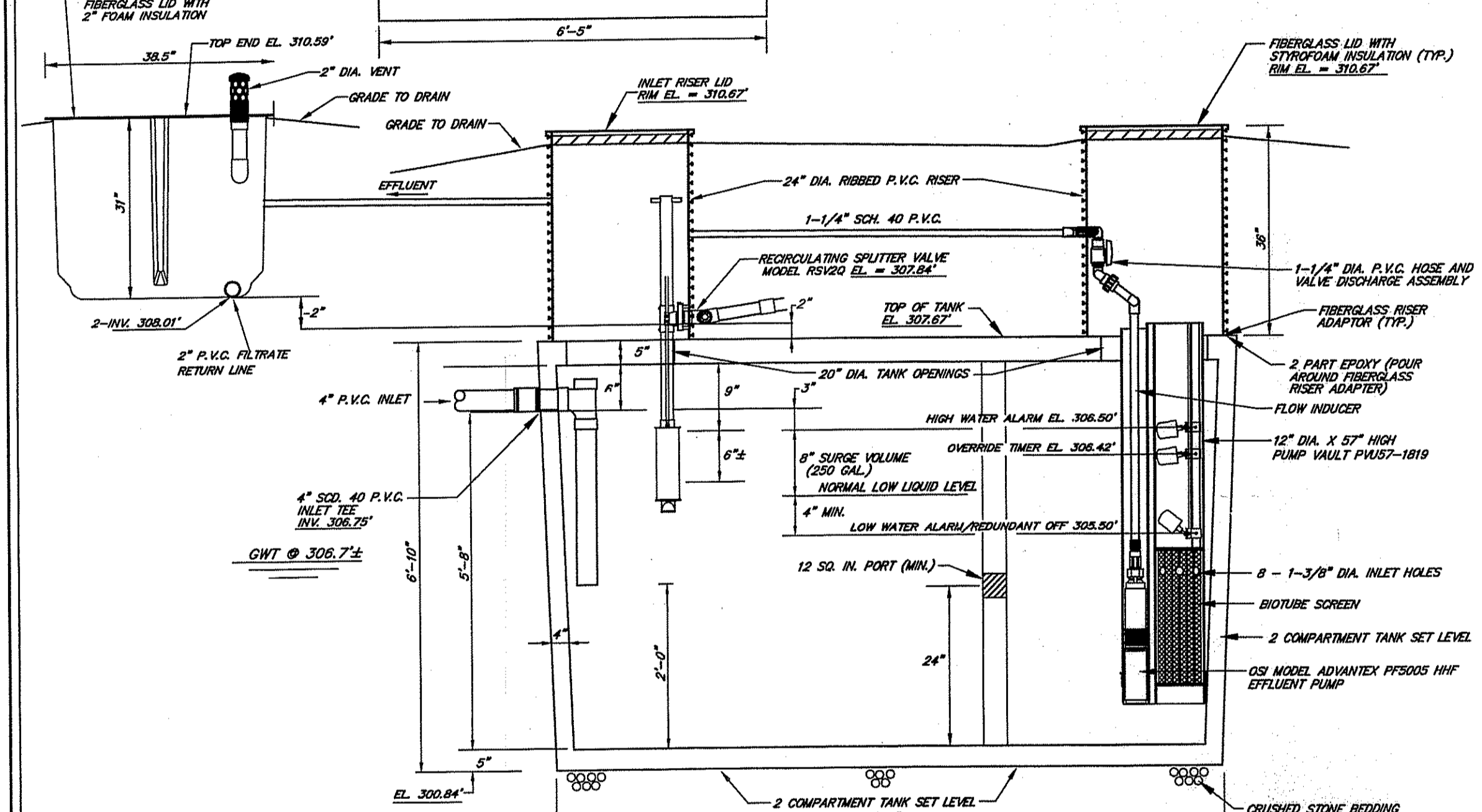
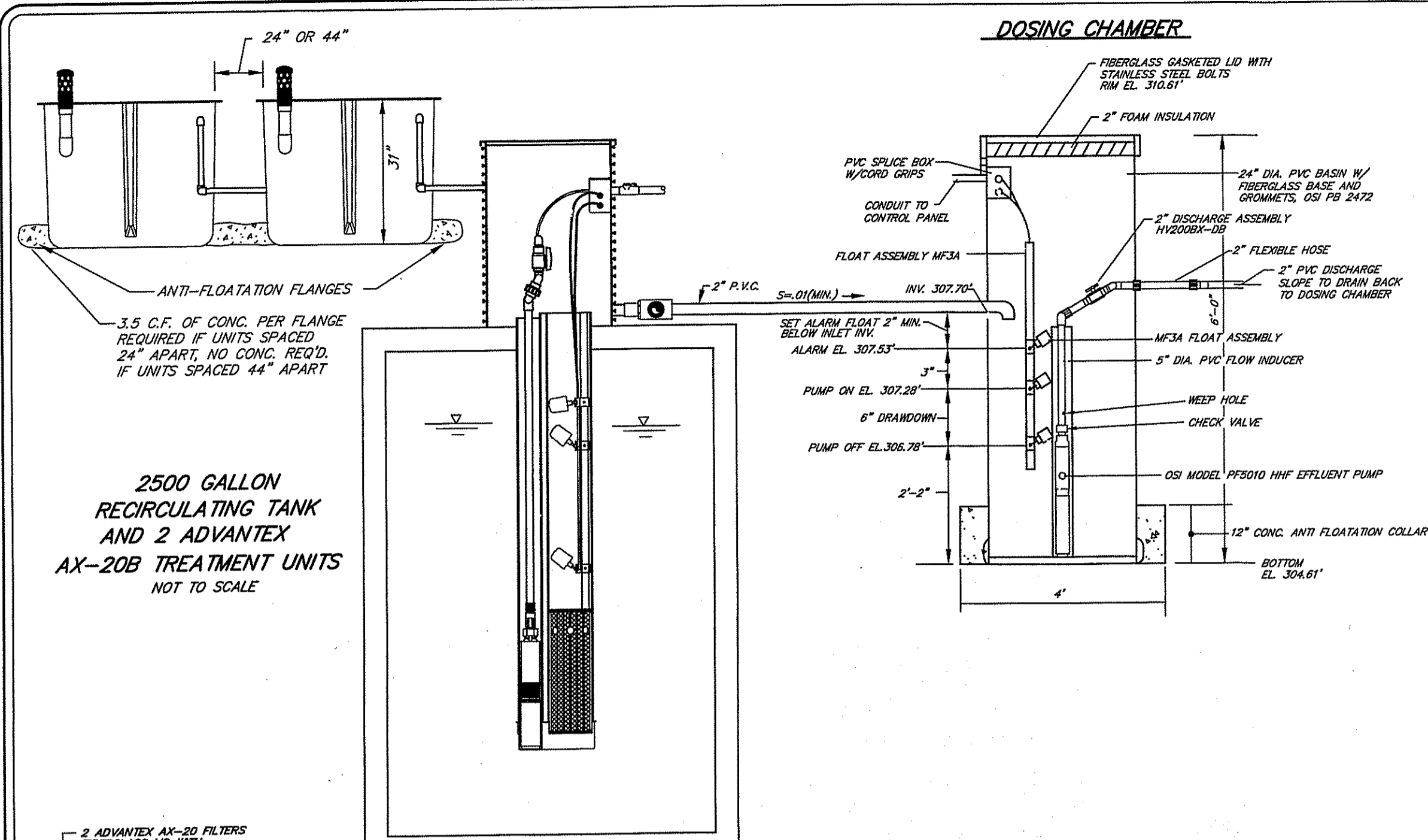
**ASSESSOR'S PLAT 16 LOT 11**  
 Environmental Measurements  
 571-573 WEST GREENVILLE ROAD  
 NORTH-SCITUATE, RHODE ISLAND  
 PREPARED FOR: WINFIELD & SONS, INC.

DEC 7 2015  
 Department of Water Resources

PROJECT NO.: SS2683  
 DRAWING NO.: SS4140

SHEET 3 OF 5

SCALE: 1"=50'  
 DATE: SEPTEMBER 14, 2015  
 REVISION: OCTOBER 20, 2015



- ADVANTEX AX-20 NOTES**
- SEPTIC TANK SHALL BE 2500 GALLON TWO COMPARTMENT PRECAST CONCRETE TANK TESTED AND CERTIFIED WATER TIGHT BY THE MANUFACTURER.
  - PUMP VAULT SHALL BE ORENCO SYSTEMS MODEL PVJ 57-1819 BIOTUBE PUMP VAULT.
  - EFFLUENT PUMP SHALL BE ORENCO SYSTEMS MODEL PFS005 HHF.
  - DISCHARGE ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL HV200 BX-D8.
  - FLOAT ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL MF3A.
  - RECIRCULATING SPLITTER VALVE SHALL BE ORENCO RSV20.
  - S1 OR S190 CONTROL PANEL AND ALARM SHALL BE ORENCO SYSTEMS MODEL MYP OR VERICOM ADVANTEX RXB WITH ELAPSED TIME METER, EVENT COUNTER AND PROGRAMMABLE TIMER OPTIONS.
  - P.V.C. RISER MANHOLES SHALL BE ORENCO SYSTEMS MODEL RR24 RISERS, MODEL FL24-G LIDS WITH 2" FOAM INSULATION AND MODEL PR124H TANK ADAPTERS.
  - RECIRCULATING SPLITTER VALVE AND ADVANTEX AX-20 SHALL BE SUPPLIED BY ORENCO SYSTEMS.
  - ALL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THESE PLANS.
  - PROGRAMMABLE TIMER SHALL BE SET FOR PUMP ON TIME OF 30 SECONDS AND PUMP OFF TIME OF 12 MINUTES.
  - HIGH WATER TIMER OVERRIDE SETTINGS SHALL BE: PUMP ON: 30 SEC. PUMP OFF: 6 MIN.
  - ALL COMPONENTS AND INSTALLATION MUST BE INSPECTED AND APPROVED BY SCITUATE SURVEYS, INC. ANY COMPONENT SUBSTITUTION MUST BE PRE-APPROVED BY SCITUATE SURVEYS, INC.
  - THE CONTROL PANEL, SPLITTER VALVE AND PUMP FLOATS SHALL BE SET BY THE DESIGNATED REPRESENTATIVE OF ORENCO SYSTEMS, INC.

- MAINTENANCE NOTES**
- THE SEPTIC TANK, ADVANTEX SYSTEM, SAND FILTER AND PUMP SYSTEMS SHALL BE INSPECTED AND MAINTAINED AT A MINIMUM TWICE ANNUALLY.
  - INSPECTION AND MAINTENANCE SHALL BE PERFORMED IN CONFORMANCE WITH THE PROCEDURES SPECIFIED IN THE SYSTEM OPERATION AND MAINTENANCE MANUAL.
  - SAND FILTER AND ADVANTEX PIPING SHALL BE FLUSHED AND CLEANED AS REQUIRED. ORIFICES SHALL BE CHECKED FOR PLUGGING AND SQUIRT HEIGHT MEASURED. SQUIRT HEIGHT SHOULD BE 2' MINIMUM FOR THE BOTTOMLESS SAND FILTER AND 5' MIN. FOR THE ADVANTEX.
  - PUMP VAULT SCREEN SHALL BE RAISED AND CLEANED BY FLUSHING WITH A HOSE INTO THE TANK.
  - PUMP, FLOAT ASSEMBLY AND CONTROL PANEL SHALL BE CHECKED FOR PROPER OPERATION AND CYCLE TIMING.
  - DATE, ELAPSED TIME AND EVENT COUNTER METER READINGS SHALL BE RECORDED. AVERAGE DAILY PUMP RUNS SHALL BE CALCULATED AND CHECKED FOR CONFORMANCE TO DESIGN PROGRAM. TIMER ADJUSTMENTS SHALL BE MADE AS REQUIRED.
  - SCUM AND SLUDGE DEPTHS IN THE TANK SHALL BE MEASURED AND RECORDED ANNUALLY. THE TANK SHALL BE PUMPED IF THE SCUM DEPTH EXCEEDS 6" OR THE SLUDGE DEPTH EXCEEDS 12".
  - ALL MAINTENANCE SHALL BE PERFORMED BY A QUALIFIED SAND FILTER AND ADVANTEX MAINTENANCE CONTRACTOR.

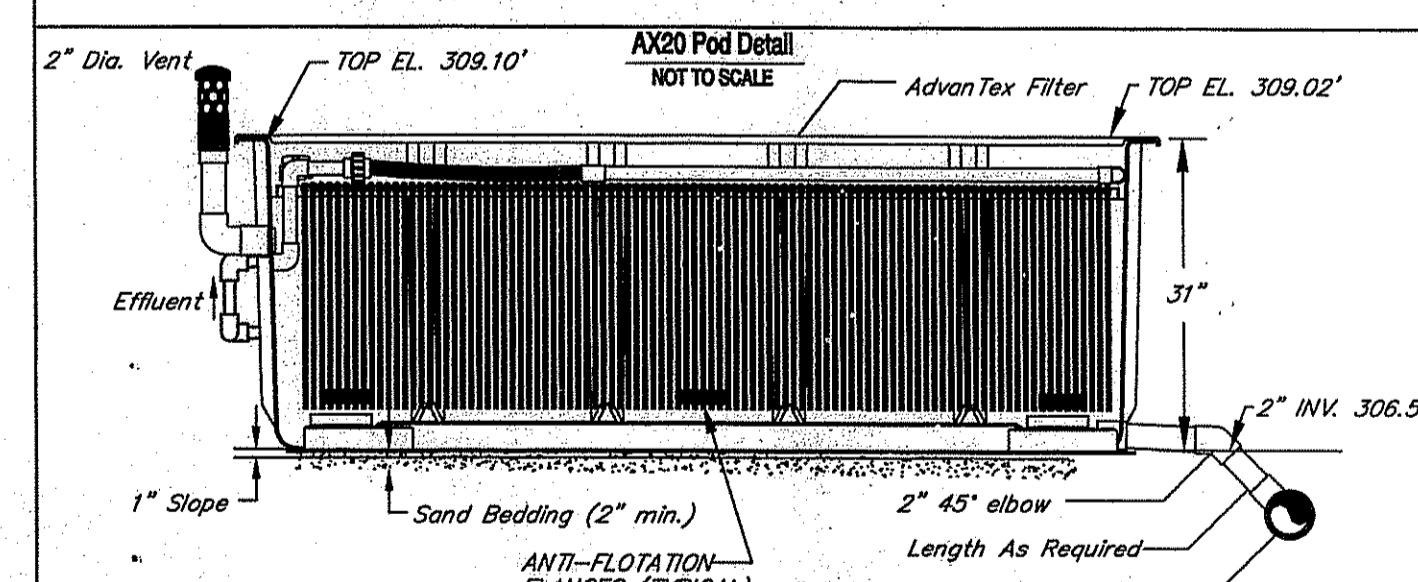
- BOTTOMLESS SAND FILTER NOTES**
- ALL DISTRIBUTION PIPING AND FITTINGS SHALL BE SCD. 40 P.V.C. PRESSURE PIPE OR EQUAL.
  - COVER STONE SHALL BE 3/8" ROUND OR SUB-ROUNDED DOUBLE WASHED STONE CONTAINING NO FINES.
  - FILTER SAND SHALL BE ASTM C-33 SAND WITH AN EFFECTIVE SIZE (D10) OF 0.3 mm AND A UNIFORMITY COEFFICIENT (CU) BETWEEN 3.0 AND 4.0 (SAND) TO BE SUPPLIED BY HOLLISTON SAND CO.
  - FILTER SAND SHALL BE SIEVE TESTED AND CERTIFIED PRIOR TO DELIVERY TO THE SITE.
  - FILTER SAND SHALL BE PLACED DAMP IN 8" LIFTS AND LIGHTLY COMPACTED.
  - THE AREA OF THE BOTTOMLESS SAND FILTER SHALL BE TREATED AS A WASTEWATER UTILITY. TO PREVENT PUBLIC HEALTH RISK THE BOTTOMLESS SAND FILTER SHALL BE ACCESSED AND SERVICED BY TRAINED PROFESSIONALS ONLY.
  - ORIFICE SHIELDS TO BE UP AT 1/3 AND 2/3 POINTS TO PROVIDE VACUUM BREAK.
  - DOSING CHAMBER PUMP SHALL BE ORENCO MODEL PFS010.
  - REFERENCE THE R.I.D.E.M. NOV. 2013 GUIDELINES FOR THE DESIGN AND USE OF BOTTOMLESS SAND FILTERS FOR INSTALLATION PROCEDURES.
  - ALL MATERIALS AND COMPONENTS MUST BE INSPECTED AND APPROVED BY SCITUATE SURVEYS, INC. AT THE SITE PRIOR TO INSTALLATION.

**DESIGN FLOW**

2 BEDROOMS X 115 GPD/BEDROOM = 230 GPD (MAXIMUM DAILY FLOW)  
 TWO PARLOURS: 500 GPD/PER PARLOUR = 1000 GPD (MAXIMUM FLOW)  
 TOTAL FLOW: 1,230 GPD

**INFLUENT CHARACTERISTICS**

CHARACTERISTIC	AVERAGE (mg/l)	WEEKLY PEAK (mg/l)	RARELY EXCEEDS (mg/l)
BOD	150	250	300
TSS	40	75	150
TKN	65	75	150
FOG	20	25	30



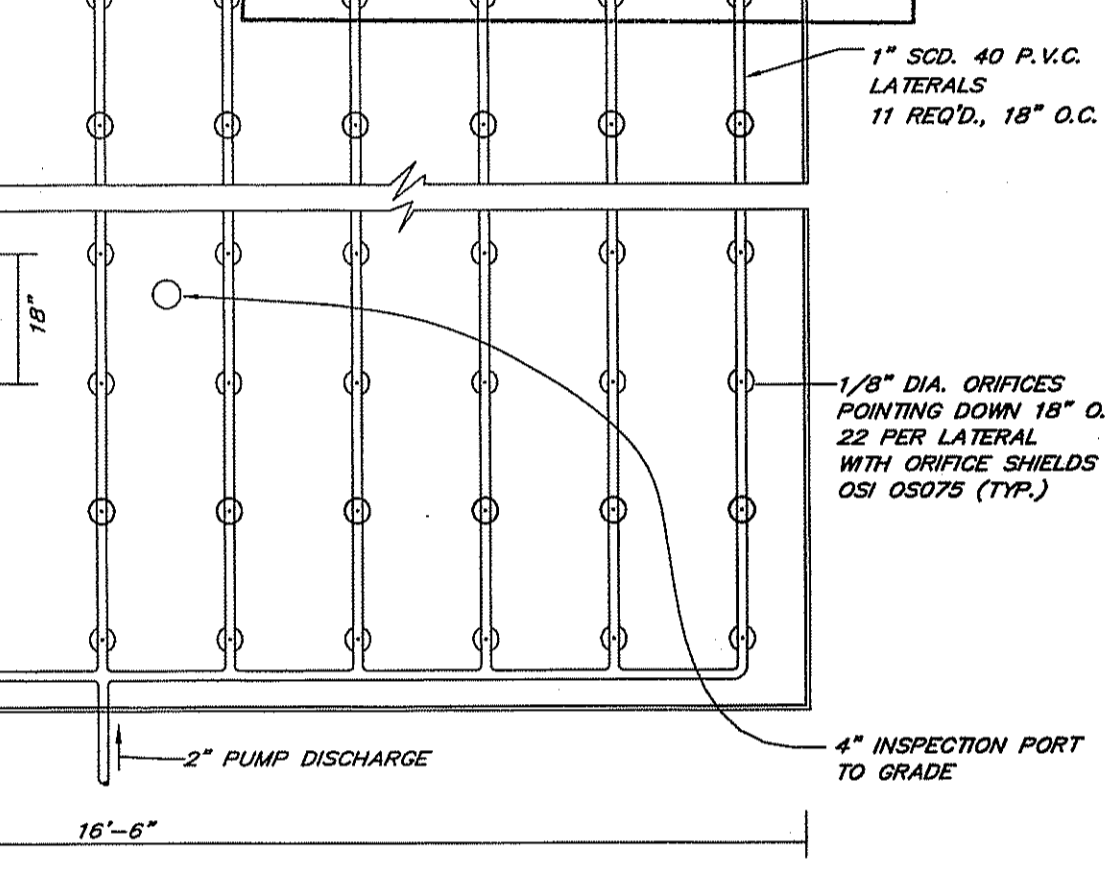
**ORENCO DISTRIBUTOR ATLANTIC SOLUTIONS, INC.**  
 2417 EAST MAIN ROAD  
 PORTSMOUTH, R.I. 02871  
 401-849-2837

**HOLLISTON SAND CO., INC.**  
 TIFT ROAD P.O. BOX 393  
 SLATERSVILLE, R.I. 02876  
 401-766-5010

**ORENCO DISTRIBUTOR WASTEWATER TECHNOLOGIES, INC.**  
 80 KILVERT STREET  
 WARWICK, RHODE ISLAND 02886  
 401-737-7810

**ORENCO SYSTEMS, INC.**  
 814 AIRWAY AVE.  
 SUTHERLIN OR. 97479  
 800-348-9843

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



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JAN 04 2016 FILE # 15-0135  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**SCITUATE SURVEYS, INC.**  
 410 TIPOGUE AVENUE  
 COVENTRY, RHODE ISLAND 02816  
 401-821-8101  
 LAND SURVEYING/MAPPING/SITE PLANNING

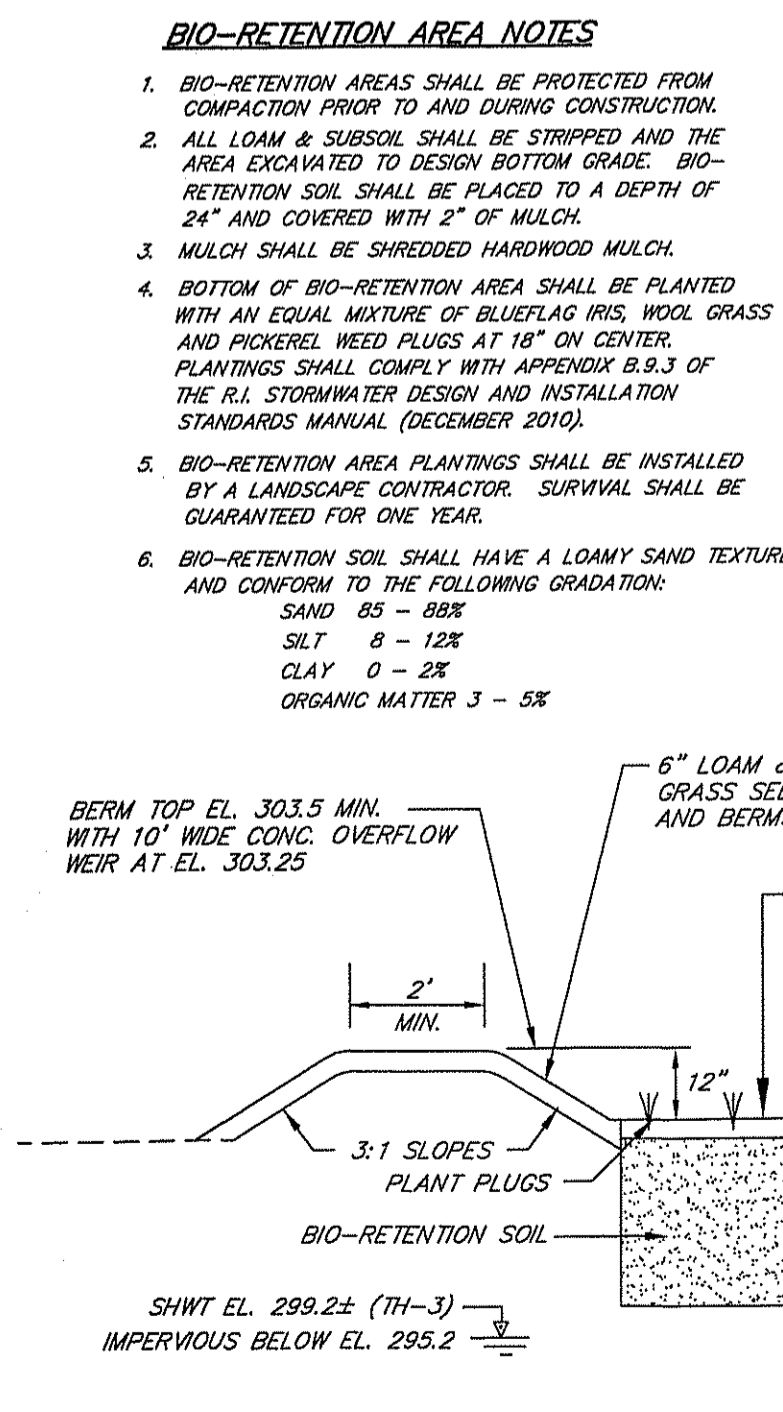
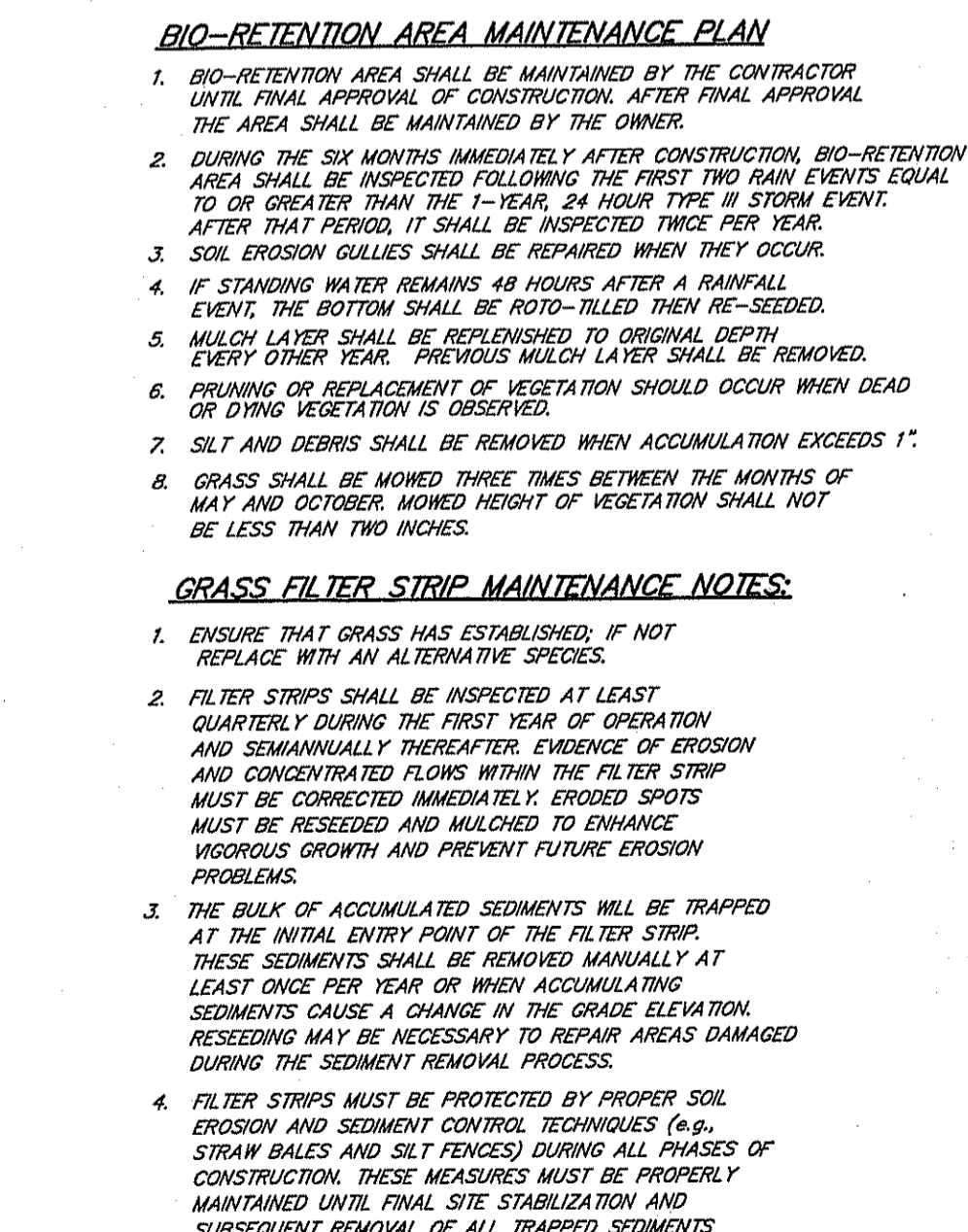
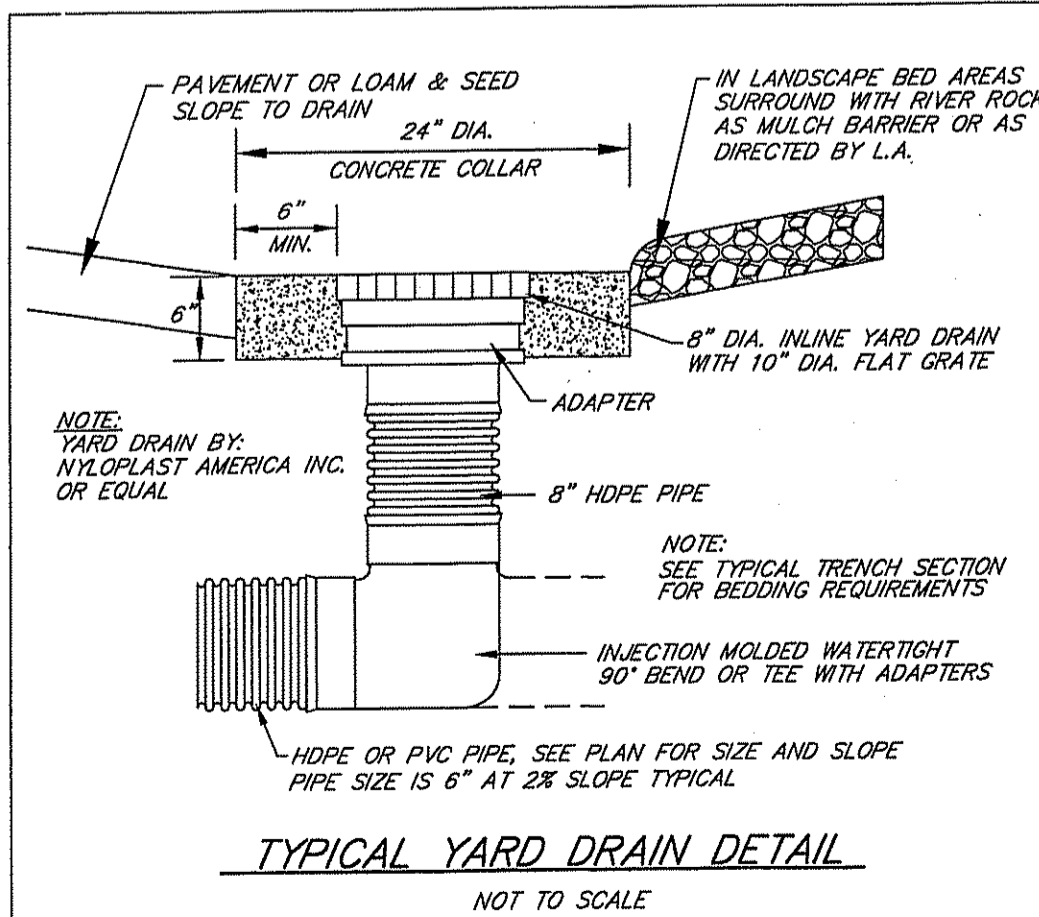
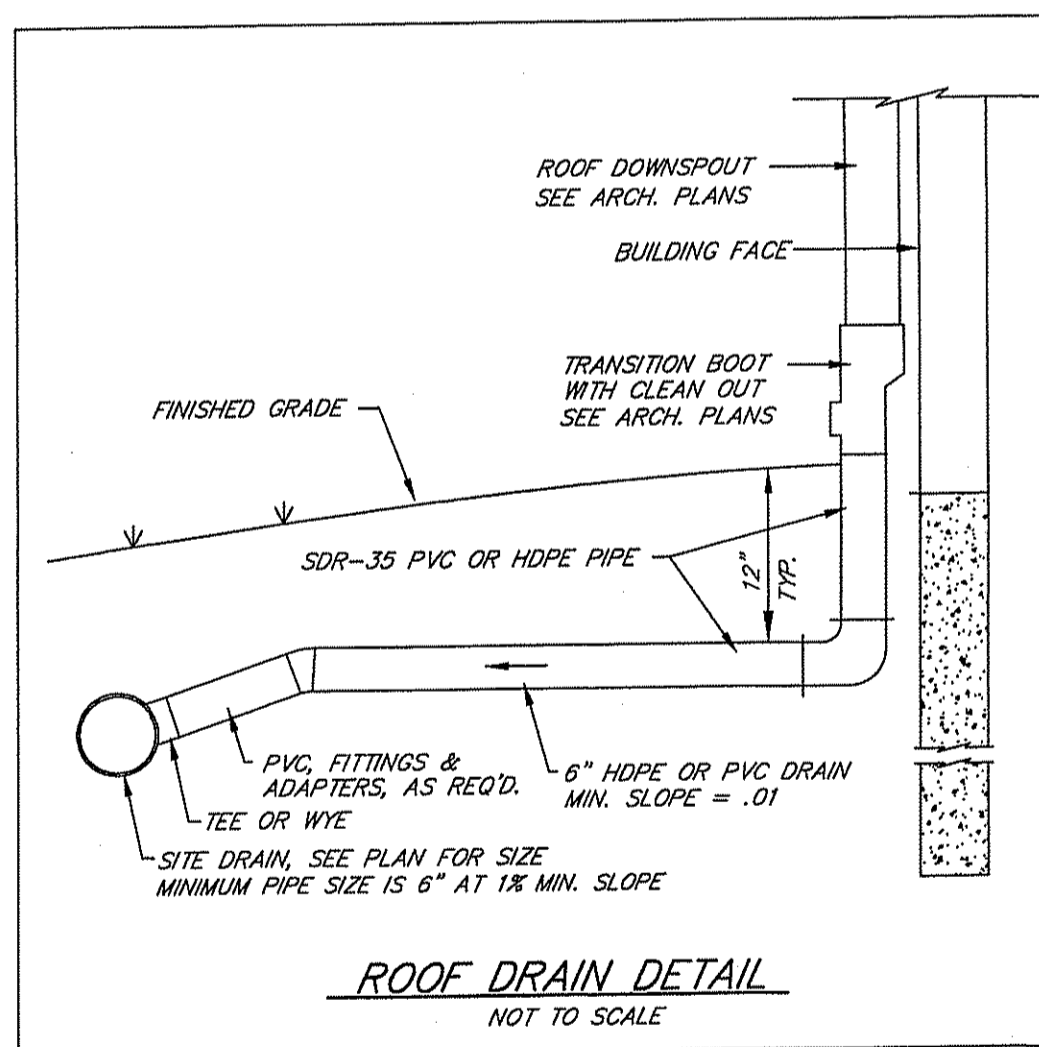
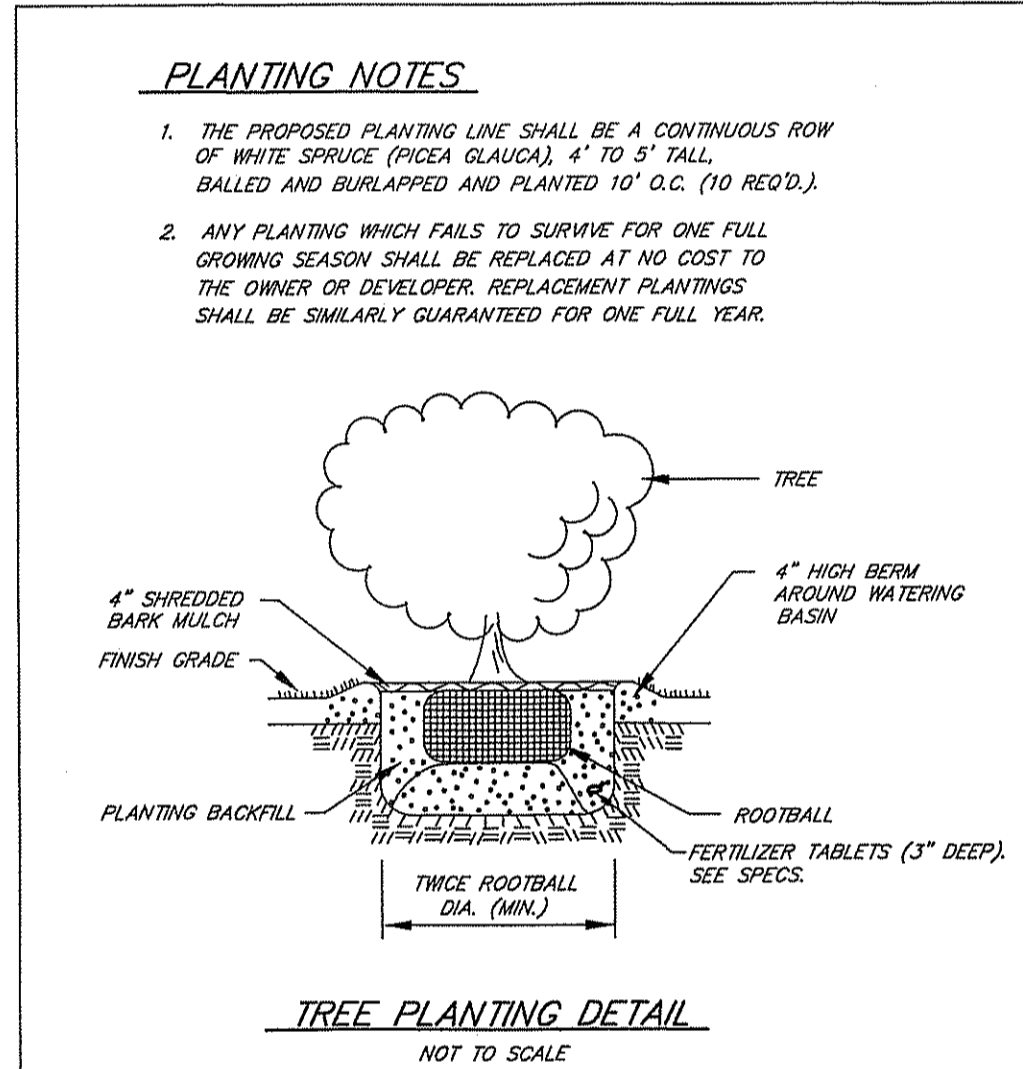
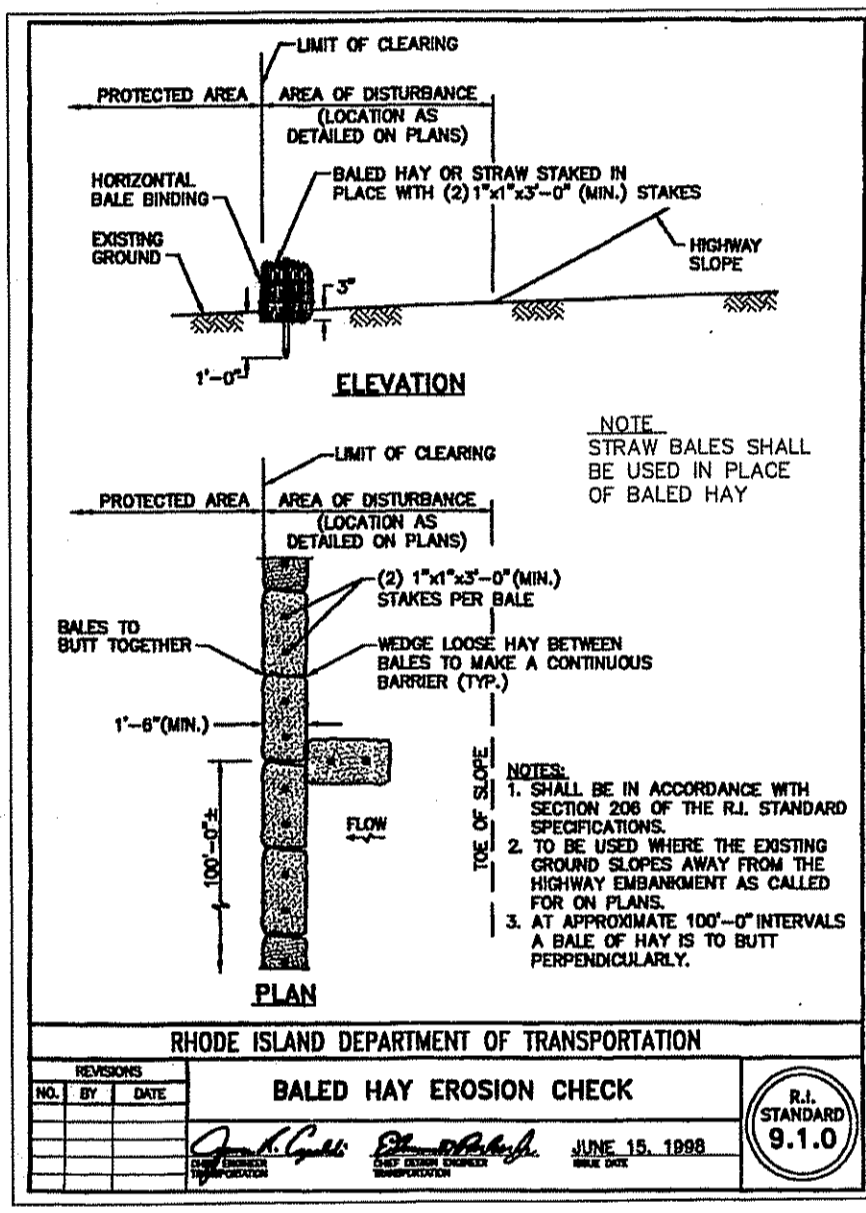
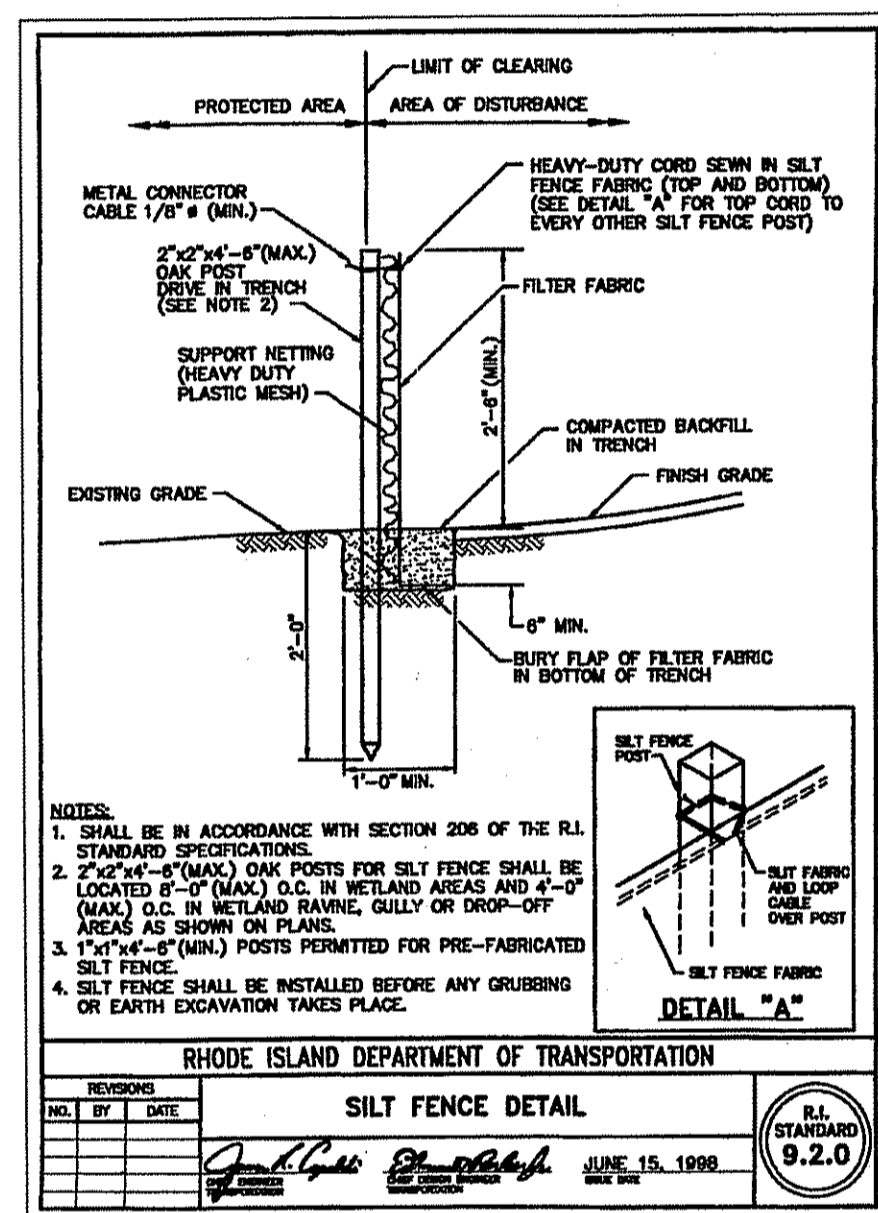
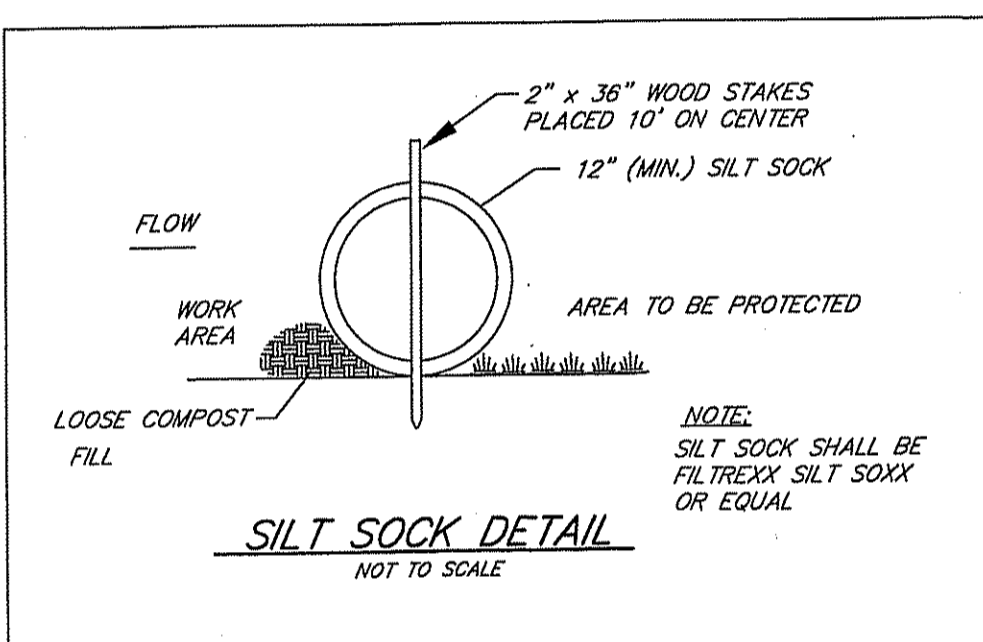
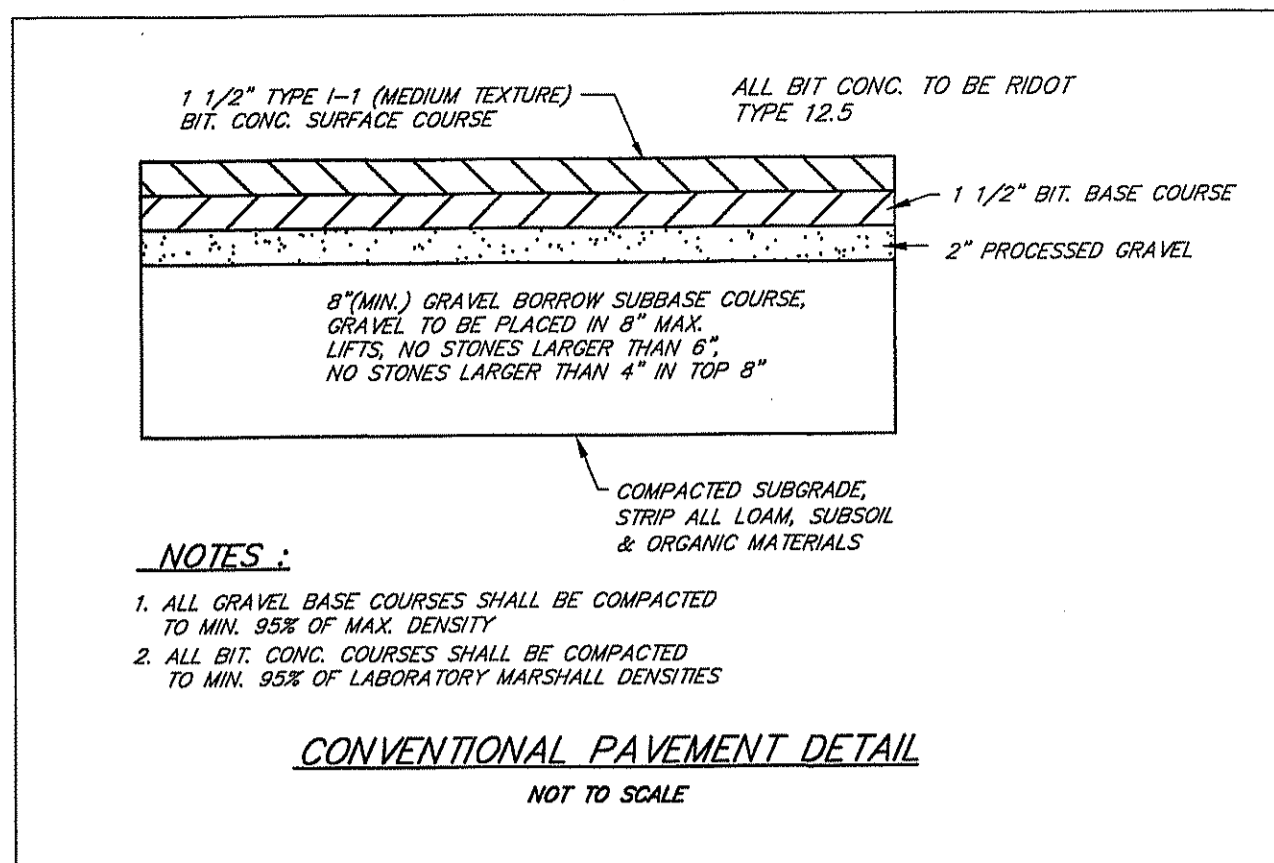
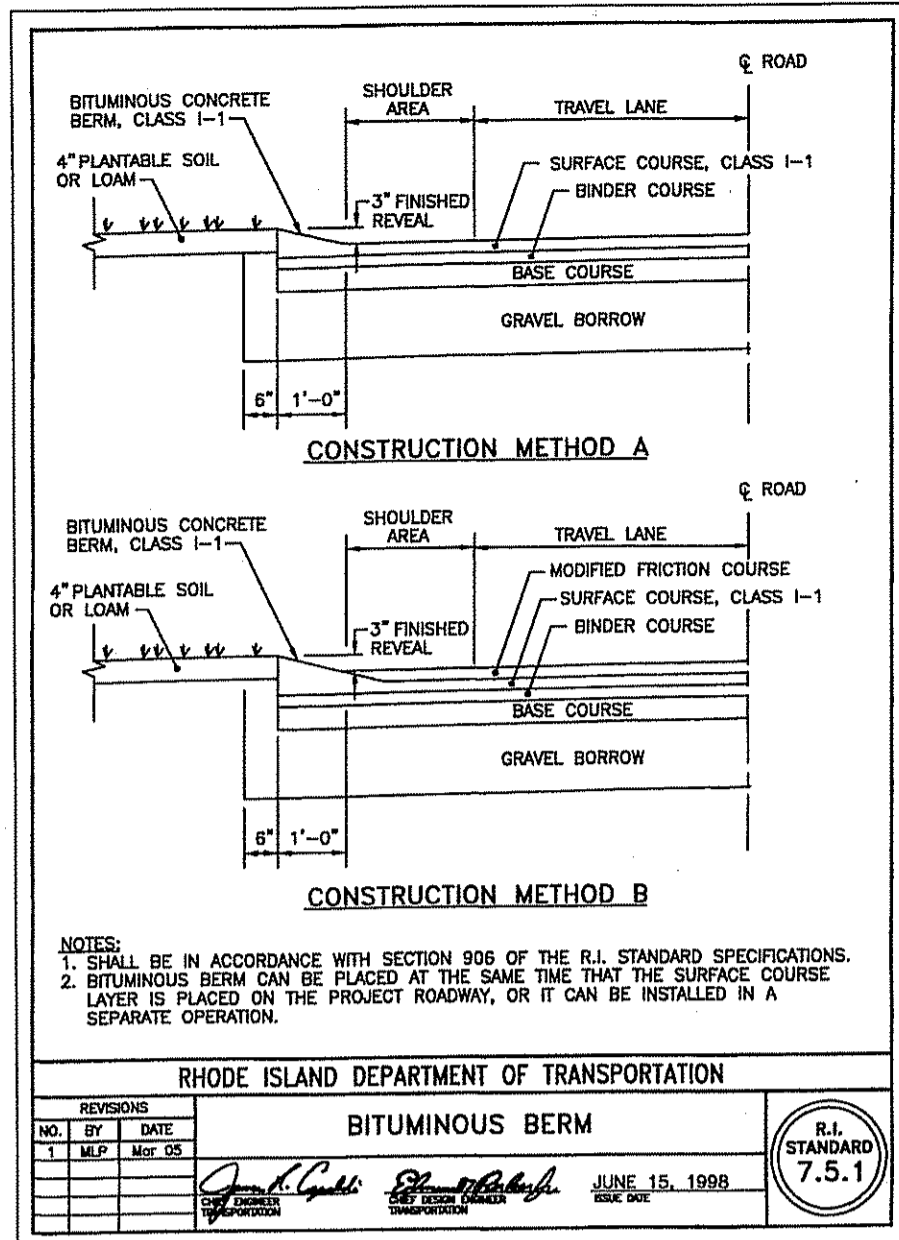
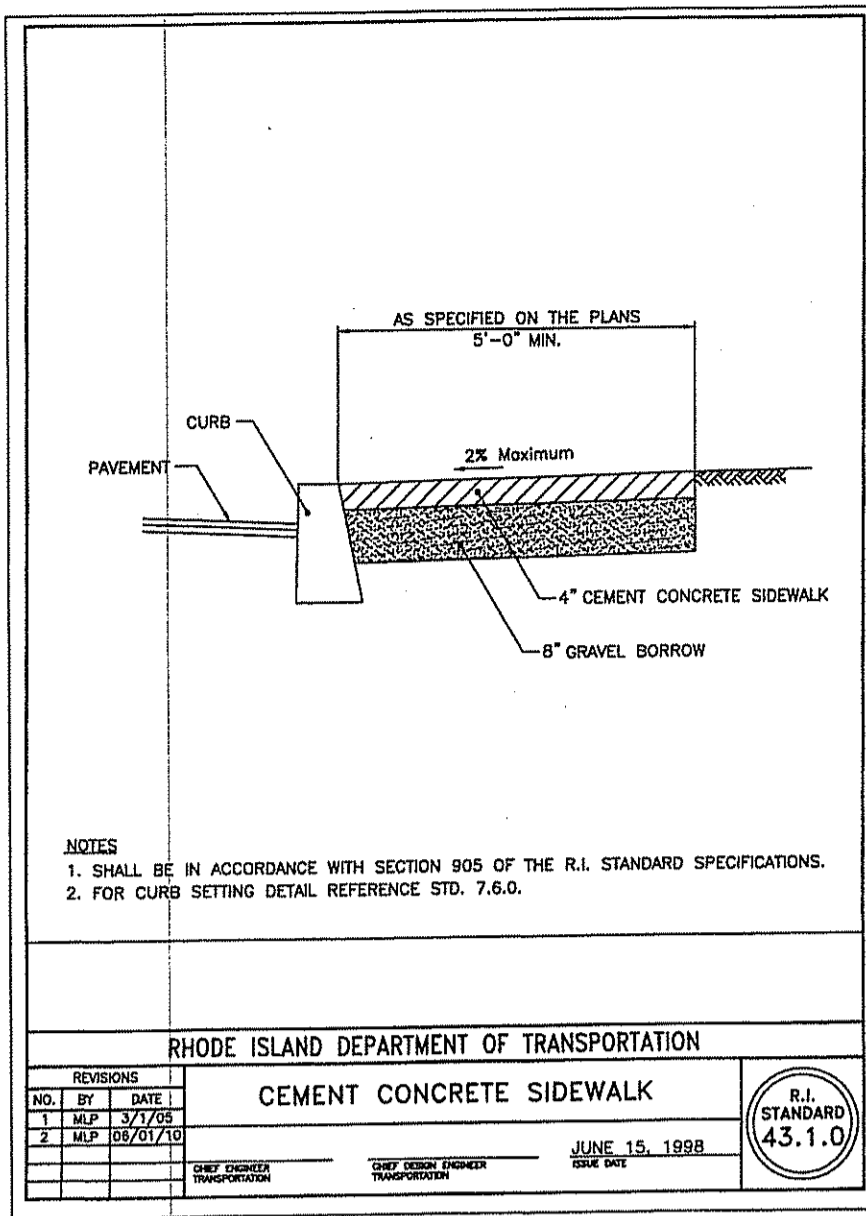
**FOR STREET AND ROAD INDEX FILE NUMBER**  
 WEST GREENVILLE ROAD

**ANGELO M. RAIMONDI**  
 No. 1762  
 PROFESSIONAL LAND SURVEYOR

**PLAN OF PROPOSED ON-SITE WASTEWATER TREATMENT SYSTEM**  
**ASSESSOR'S PLAT 16 LOT 11**  
 571-573 WEST GREENVILLE ROAD  
 NORTH SCITUATE, RHODE ISLAND  
 Environmental Mapping  
 Office of Water Resources  
 PREPARED FOR: WINFIELD & SONS, INC.

**DATE: SEPTEMBER 14, 2015 REVISION:**  
 SCALE: AS NOTED

**PROJECT NO.: SS2683 SHEET 4 OF 5**  
**DRAWING NO.: SS4140**



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

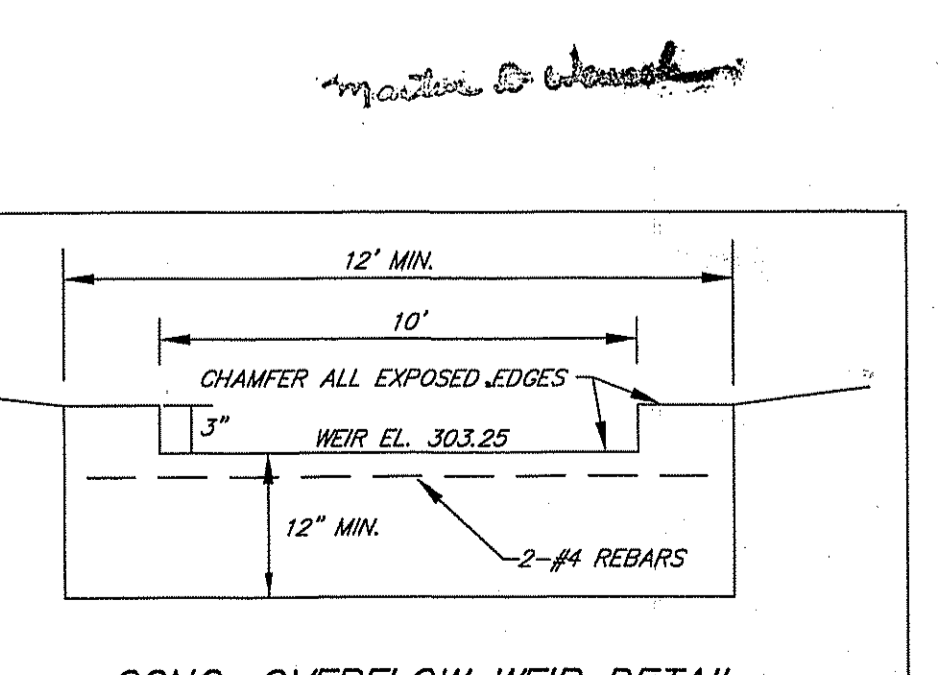
- GENERAL NOTES
- ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (REVISION OF 12-2010) WITH ALL CORRECTIONS AND ADDENDA AND THE 12-1-2010 R.I. STANDARD DETAILS WITH ALL CORRECTIONS AND ADDENDA.
  - EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE 4" OF TOPSOIL AND SEEDED. SEE EROSION CONTROL PROGRAM.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
  - IN ALL EXCAVATION AND REPLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE R.I. STANDARD SPECIFICATION SECTION 202.
  - ALL EXCESS SOIL, STUMPS, TREES, ROCKS, BOULDERS AND OTHER REFUSE SHALL BE DISCARDED OFF SITE OUTSIDE OF ALL WETLANDS AND WETLANDS SETBACK AREAS UNLESS OTHERWISE SPECIFIED.
  - CONSTRUCTION WASTE SHALL BE COLLECTED, REMOVED AND DISPOSED OF OFFSITE IN ACCORDANCE WITH ALL STATE AND TOWN REQUIREMENTS. TRASH SHALL BE COLLECTED ROUTINELY AND REMOVED FROM SITE FOR DISPOSAL.
  - A SOIL AND EROSION CONTROL PERMIT WILL BE REQUIRED FROM THE TOWN OF SCITUATE. INSPECTIONS SHALL BE SCHEDULED AS REQUIRED.
  - ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF ALL RI DEM AND TOWN REGULATIONS AND PERMITS.

- SEDIMENTATION CONTROL PROGRAM
- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY SEDIMENTS FROM ENTERING THE WETLANDS OR ADJOINING PROPERTIES.
  - BANKS OR SLOPES OVER 5 PERCENT SHALL BE SEEDED AS SOON AS POSSIBLE AND SHALL BE PROTECTED WITH A HAY, STRAW OR FIBER MULCH.
  - DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
  - SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
  - CARE SHALL BE TAKEN SO NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECTED TO STORM WATER FLOW.
  - ADDITIONAL STRAW BALES, SILT FENCE OR SILT SOCKS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
  - REFERENCE THE "R.I. EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE RI STATE CONSERVATION COMMITTEE, ISSUED 1989 REVISED 2014, AS A GUIDE.

- ORDER OF PROCEDURE
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OR EXCAVATION, THE SITE CONTRACTOR SHALL PHYSICALLY MARK THE ENTIRE LIMIT OF DISTURBANCE. EROSION CHECKS SHALL BE ESTABLISHED AT ALL DOWN GRADIENT LIMITS OF DISTURBANCE AS DEPICTED ON THE SITE PLANS. TEMPORARY EROSION CHECKS SHALL BE INSTALLED AT LIMIT OF WORK ACTIVITY IF CONSTRUCTION IS TO BE DONE IN PHASES. EROSION CHECKS CONSIST OF STRAW BALES, SILT FENCE OR SILT SOCKS.
  - SITE CONTRACTOR SHALL PHYSICALLY MARK THE BOTTOM AREAS OF THE BIO-RETENTION AREA, INFILTRATION AREA AND STORMWATER BASIN TO PREVENT SOIL COMPACTION OF THE BOTTOMS.
  - ONLY AREAS THAT CAN BE REASONABLY EXPECTED TO HAVE ACTIVE CONSTRUCTION WORK BEING PERFORMED WITHIN 14 DAYS OF DISTURBANCE SHALL BE CLEARED AND GRUBBED AT ONE TIME. IF CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED FOR MORE THAN 14 DAYS, STABILIZATION PRACTICES SHALL BE INITIATED. REFERENCE THE EROSION CONTROL & SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROLS.
  - ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS FOR TEMPORARY CONTROL.
  - EROSION CHECKS ALONG AND AT THE ENDS OF ROADWAYS MAY ALSO BE REMOVED AFTER FINAL SOIL STABILIZATION HAS BEEN ACHIEVED AND APPROVED.
  - EROSION CHECKS LOCATED AT DRAINAGE INLETS OR OUTLETS MUST REMAIN UNTIL SUCH TIME THAT A DESIRABLE STAND OF GRASS OR GROUND COVER HAS BEEN ESTABLISHED AND THE PROJECT RECEIVES A FAVORABLE APPROVAL FOR FINAL ACCEPTANCE FROM THE ENGINEER.

- DRAINAGE STRUCTURE SEDIMENTATION TRAPS
- AT NO TIME DURING CONSTRUCTION SHALL THE PAVEMENT SUBGRADE OR SURROUNDING AREA BE SUCH THAT SURFACE RUNOFF WILL BE PERMITTED TO DIRECTLY ENTER ANY DRAINAGE STRUCTURE, INCLUDING CATCH BASINS, YARD DRAINS, GALLEYS AND INLET PIPES. A TEMPORARY DEPRESSED AREA AROUND THE STRUCTURE SHALL BE INCORPORATED AS A SEDIMENTATION TRAP. THE MOUTH OF THE TRAP SHALL BE LINED WITH STRAW BALES AROUND THE COMPLETE PERIMETER, SIMILAR TO R.I. STD. DETAIL 9.8.0. DURING ALL PRELIMINARY STAGES THE TOP OF THE STRUCTURE SHALL ALWAYS BE HIGHER THAN THE SUBGRADE.
  - SILT SOCKS SHALL REPLACE BALED STRAW EROSION CHECKS FOR INLET PROTECTION ONCE ROAD IS PAVED.
  - EROSION CHECKS SHALL BE MAINTAINED AROUND ALL NEW AND EXISTING CATCH BASINS UNTIL ALL UPGRADIENT DISTURBED AREAS ARE STABILIZED BY PAVEMENT OR VEGETATION.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JAN 04 2016 FILE # 15-0232  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
CONSTRUCTION SHALL BE AT CONTRACTOR'S OWN RISK



- EROSION CONTROL & SOIL STABILIZATION PROGRAM
- DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
  - ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEEDED OR PROTECTED BY THAT DATE FOR ANY WORK COMPLETED DURING EACH CONSTRUCTION YEAR.
  - THE TOP SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH R.I. STANDARD SPECIFICATION M. 20.
  - THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
  - SEEDING SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S PLANS. FOR AREAS NOT DESIGNATED BY THE L.A., THE DESIGN MIX SHALL COMPLY WITH THE FOLLOWING:
    - MOWED AREA (ALL FLATS OR SLOPES LESS THAN 3:1)
 

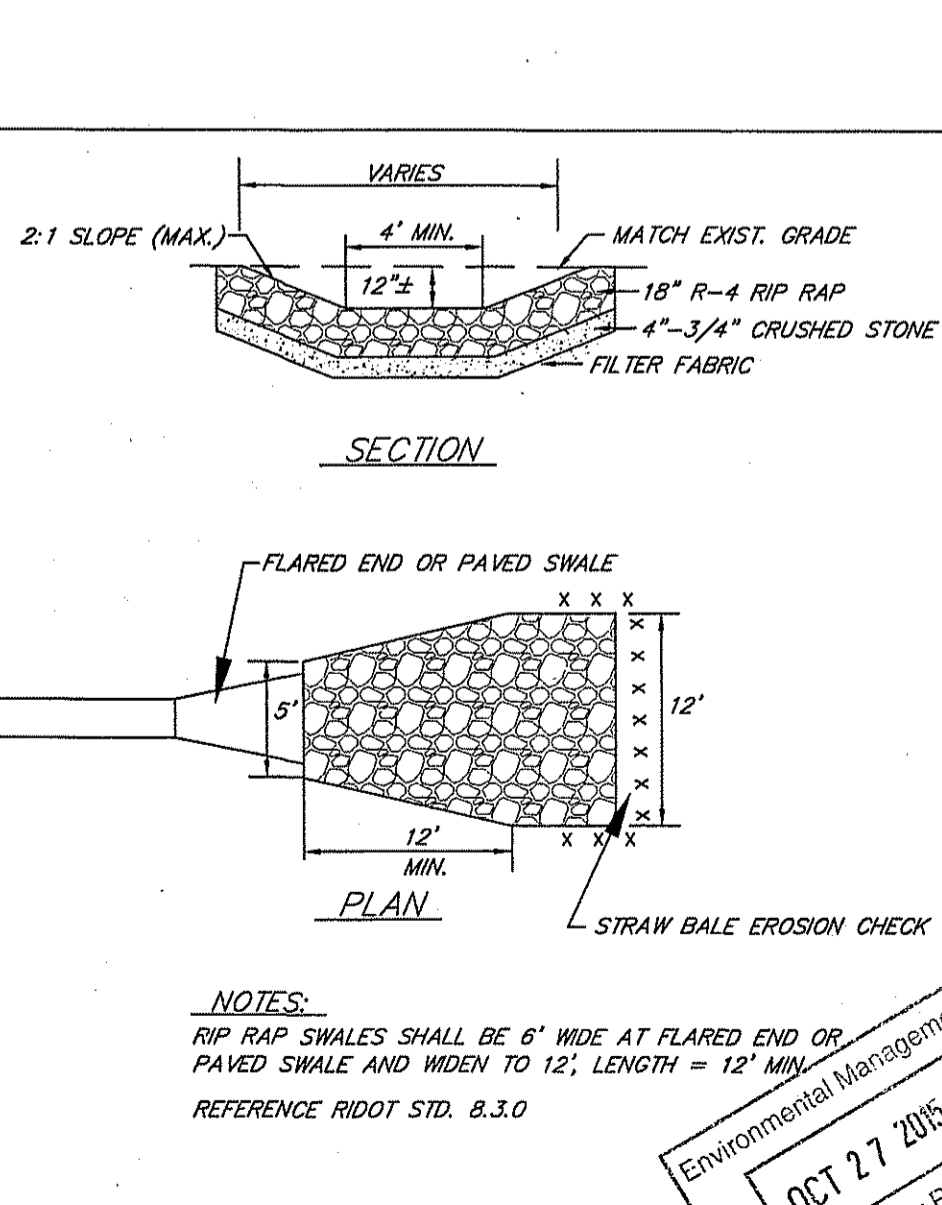
MIXTURE	% BY WT.	SEEDING DATES
CREeping RED FESCUE	70	APRIL 1-MAY 31
KENTUCKY BLUEGRASS	15	APRIL 1-MAY 31
COLONIAL BENTGRASS	5	AUG. 15-OCT. 15
PERENNIAL RYEGRASS	10	
TOTAL	150 LBS/AC	
    - UNMOWED AREA OR INFREQUENTLY MOWED (FLAT OR SLOPES GREATER THAN 3:1)
 

MIXTURE	% BY WT.	SEEDING DATES
CREeping RED FESCUE	60	APRIL 1-MAY 31
COLONIAL BENTGRASS	5	APRIL 1-MAY 31
PERENNIAL RYEGRASS	10	AUG. 15-OCT. 15
BIRDSEED TREFOIL	15	
TOTAL	150 LBS/AC	

- OR NEW ENGLAND CONSERVATION/WILDLIFE MIX (FOR DRY OR WET SITES AS APPROPRIATE) BY NEW ENGLAND WETLAND PLANTS, INC.
- CONSERVATION SEEDING AREAS
- | MIXTURE            | % BY WT.  | SEEDING DATES   |
|--------------------|-----------|-----------------|
| SWITCH GRASS       | 20        | APRIL 1-MAY 31  |
| LITTLE BLUE STEM   | 20        | APRIL 1-MAY 31  |
| PERENNIAL RYEGRASS | 20        | AUG. 15-OCT. 15 |
| WILDFLOWER MIX     | 20        |                 |
| HARD FESCUE        | 20        |                 |
| TOTAL              | 60 LBS/AC |                 |
- OR NEW ENGLAND CONSERVATION/WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC.
- TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCISOR BLANKETS) THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
  - HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3,000-4,000 LBS/AC.
  - ALL STRAW BALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP TO MINIMIZE EROSION. A TEMPORARY SEEDING GUIDE MUST BE INCLUDED AS A REFERENCE. THE FOLLOWING SPECIES ARE RECOMMENDED:
 

SPECIES	LBS./1,000 S.F.	LBS./AC.	SEEDING DATES
ANNUAL RYEGRASS	1.0 - 1.5	40 - 60	3/1 - 6/1
PERENNIAL RYEGRASS	1.0 - 1.5	40 - 60	3/1 - 6/1
SUDAN GRASS	0.7 - 1.0	30 - 40	5/15 - 8/15
MILLET	0.7 - 1.0	30 - 40	5/15 - 8/15
WINTER RYE	3.0	120	4/15 - 6/15

- OR NEW ENGLAND CONSERVATION/WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC.
- THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE.
  - THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1 - OCTOBER 15.
  - ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE R.I.D.P.W. STD. SPECIFICATIONS IN SECTION 202.
  - STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 15 DAYS OF FINAL GRADING.
  - STOCKPILES OF TOPSOILS SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES SHALL ALSO BE SEEDED AND/OR STABILIZED.
  - ON BOTH STEEP AND LONG SLOPES, CONSIDERATION SHOULD BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.
  - REFERENCE THE SEDIMENTATION CONTROL PROGRAM AND ORDER OF PROCEDURE FOR PROPER COORDINATION.



REVISION  
DATE: 10-20-15  
PLANTING DETAIL

SCOTT F. MOOREHEAD  
REGISTERED PROFESSIONAL ENGINEER

OWNER & APPLICANT  
WINFIELD & SONS, INC.  
571 WEST GREENVILLE ROAD  
NORTH SCITUATE, RI 02857  
401-647-5421

WINFIELD FUNERAL HOME  
ASSESSOR'S PLAT 16 LOT 11  
571-573 WEST GREENVILLE ROAD  
NORTH SCITUATE, RI

SITE CONSTRUCTION DETAILS

S.F.M. ENGINEERING ASSOCIATES  
410 TIOGUE AVENUE  
COVENTRY, RI 02816  
PHONE: 401-826-3726  
FAX: 401-828-1711  
SCOTT@SFM.NECCOMAIL.COM

SFM

DRN. BY: SFM  
CHK. BY: JZL  
SCALE: AS NOTED  
DATE: SEPT. 18, 2015  
DWG: SFM830-CD  
SHEET 5 OF 5  
PERMITTING SUBMISSION

OCT 27 2015  
Office of Water Resources

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