

NOTES

1. THE SOLID 4" ROOF DRAIN DISCHARGE PIPE SHALL BE SLOPED AT A MINIMUM 1%.
2. ROOF DOWNSPOUTS SHALL BE CONNECTED INTO THE 4" RD PIPE AND DISCHARGE INTO PROPOSED RAIN GARDEN.
3. TOPOGRAPHIC CONDITIONS WERE SURVEYED BY CROSSMAN ENGINEERING IN JUNE 2019.
4. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE & UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY THE R.I. LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY MUNICIPALITY, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
5. THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.
6. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR CALL-OUTS, DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE, AND THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR CALL-OUT, DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND MUST BE ACCEPTABLE TO THE ENGINEER.
7. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.
8. THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL AN INSTALLATION INSPECTION SCHEDULE IS COORDINATED, IN WRITING, WITH THE SYSTEM DESIGNER.
9. PROVIDE A 8" CRUSHED STONE BASE LAYER BENEATH THE SEPTIC TANK AND DISTRIBUTION BOX.
10. THE INLET AND OUTLET OPENING ON THE SEPTIC TANK SHALL HAVE A WATERTIGHT CAST-IN-PLACE RUBBER BOOT WITH A STAINLESS STEEL CLAMP.
11. THE SEPTIC TANK, AND DISTRIBUTION BOX SHALL HAVE MANHOLE COVERS AND RISERS TO GRADE DESIGNED FOR AN H2O LOADING (HEAVY DUTY USE).
12. THERE IS NO FOUNDATION DRAIN PROPOSED FOR THIS SITE.

FLOOD ZONE NOTE

THE SITE IS WITHIN FLOOD ZONE X, OTHER FLOOD AREAS, ACCORDING TO FLOOD INSURANCE RATE MAP, NEWPORT COUNTY, RHODE ISLAND, PANEL 113 OF 226, MAP NUMBER 44005C0113J, EFFECTIVE DATE SEPTEMBER 4, 2013.

ORENCO SYSTEM NOTES

1. THE SYSTEM SHALL BE EQUIPPED WITH AN HOUR METER AND AUDIBLE & VISUAL ALARMS TO INDICATE POWER INTERRUPTION TO THE SYSTEM. THE INDICATORS SHALL BE MOUNTED ON A N.E.P.A. APPROVED CABINET ON A POST EXTERIOR TO THE BUILDING AT A LOCATION APPROVED BY OWNER AND ALARMS (AUDIBLE & VISUAL) SHALL BE LOCATED WITHIN THE HOUSE.
2. A PUBLIC OR PRIVATE ENTITY SHALL BE RETAINED CONTINUOUSLY FOR THE LIFE OF THE SYSTEM AND BE AVAILABLE TO PERFORM NEEDED MAINTENANCE AND REPAIRS. SUCH ENTITY SHALL PERFORM AN INSPECTION OF THE SYSTEM AT LEAST TWICE ANNUALLY. THE ENTITY MUST BE APPROVED BY R.I.D.E.M. AND ADHERE TO ALL R.I.D.E.M. RECOMMENDED REPORTING REQUIREMENTS.
3. ABILITY TO CONNECT TO STANDBY POWER SUPPLY IS RECOMMENDED.
4. THE SEPTIC TANK AND PUMP CHAMBERS SHALL BE WATER-TIGHT. CONCRETE ANTI-FLOTATION COLLARS SHALL BE REQUIRED DUE TO FLUCTUATING GROUNDWATER LEVELS. A MINIMUM 8" LAYER OF GRAVEL SHALL BE SET LEVEL TO FORM A STABLE BASE.
5. A HIGH LEVEL WATER ALARM (VISUAL AND AUDIBLE) POWERED BY A CIRCUIT SEPARATE FROM THE PUMP SHALL BE LOCATED IN THE HOUSE.
6. ALL PLUMBING AND ELECTRICAL WORK AND MATERIALS SHALL CONFORM TO ALL STATE, FEDERAL AND LOCAL CODES.
7. ALL PROCEDURES AND MATERIALS MUST ALSO CONFORM TO THE RECOMMENDATIONS AND REQUIREMENTS OF ORENCO SYSTEMS INCORPORATED AND ATLANTIC SOLUTIONS, LTD.
8. BOTTOMLESS SAND FILTER SHALL FOLLOW A TIMED DOSED ORENCO AX-20 ADVANCED TREATMENT SYSTEM.
9. THE CONTRACTOR AND SITE OWNER MUST BE FAMILIAR WITH AND MUST FULLY CONFORM TO THE R.I.D.E.M. "GUIDELINES FOR THE DESIGN AND USE AND MAINTENANCE OF PRESSURIZED DRAINFIELDS", NOVEMBER 2013 INCLUDING ADDENDA.
10. FILTER SAND MEDIA TO CONFORM TO ASTM 33 SAND WITH AN EFFECTIVE SIZE (D10) OF 0.3 mm AND UNIFORMITY COEF. (D60/D10) OF 3.0-4.0. MAXIMUM ALLOWABLE PERCENTAGE OF FINES PASSING NO. 200 SIEVE = 1% (ASTM D-136 AND ASTM C-117). TEST DATA SHALL BE PROVIDED TO DESIGNER PRIOR TO PURCHASE.
11. CONTROL PANEL PLACEMENT SHALL BE COORDINATED WITH THE OWNER.
12. ALL PUMP SYSTEMS, DISTRIBUTION SYSTEMS AND ADVANCED TREATMENT COMPONENTS SHALL BE MANUFACTURED BY ORENCO SYSTEMS, INC.
13. ALL PVC GRAVITY FLOW PIPING TO BE SOLID SCH. 35 OR SCH. 40 UNLESS OTHERWISE NOTED.
14. THE CONTRACTOR SHALL RETAIN THE SERVICES OF ORENCO - ADVANTEX TO INSTALL THE ADVANTEX SYSTEM INCLUDING THE TANKS, PIPING, PUMPS, WIRING AND CONTROL PANELS. CERTIFICATIONS FROM THE MANUFACTURER SHALL BE PROVIDED TO THE DESIGN ENGINEER THAT THE SYSTEM HAS BEEN INSTALLED CORRECTLY AND WILL OPERATE IN ACCORDANCE WITH RIDEM REGULATIONS AND THE MANUFACTURER'S OPERATION REQUIREMENTS.
15. TRAINING OF THE ORENCO - ADVANTEX COMPONENTS AND OPERATION REQUIREMENTS SHALL BE PROVIDED TO THE OWNER BY THE MANUFACTURER'S REPRESENTATIVE UPON INSTALLATION COMPLETION.

OWTS NOTES

1. THE EXISTING PROPERTY LINES REFERENCED ON THIS PLAN ARE APPROXIMATE. PRIOR TO CONSTRUCTION A CLASS-I SURVEY SHOULD BE CONDUCTED. THE HOUSE AND OWTS SHALL BE STAKED IN THE FIELD BY A RHODE ISLAND LICENSED PROFESSIONAL LAND SURVEYOR.
2. REMOVE TREES, BRUSH, TOP SOIL AND SUBSOIL AND ANY UNDESIRABLES WITHIN 10' THE BOTTOMLESS SAND FILTER.
3. THE CONTRACTOR SHALL CONTACT CROSSMAN ENGINEERING AND R.I.D.E.M. TO INSPECT ALL STAGES OF CONSTRUCTION INCLUDING BOTTOM BED INSPECTIONS AND BOTTOMLESS SAND FILTER INSTALLATION.
4. DUE TO THE PRESENCE OF GROUNDWATER IN THE VICINITY OF THE SEPTIC TANK, AND THE PUMP CHAMBER, THE MANUFACTURER SHALL PROVIDE A CERTIFICATION TO THE ENGINEER TO CONFIRM THE STRUCTURE'S EMPTY BUOYANCY RESISTANCE. THE STRUCTURE SHALL NOT BE ORDERED UNTIL APPROVED BY THE ENGINEER. CONTRACTOR SHALL PROVIDE A WATER TIGHT CERTIFICATE.

GRADING NOTES

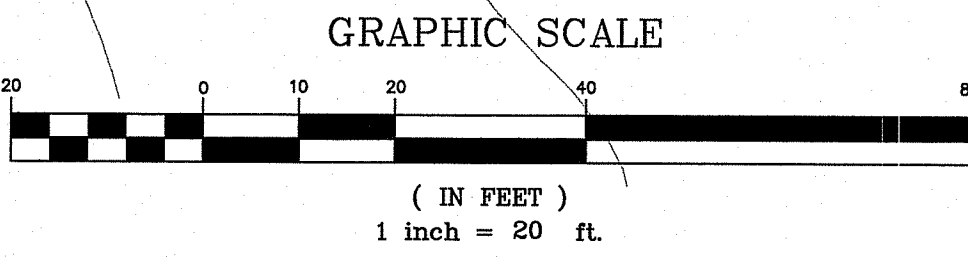
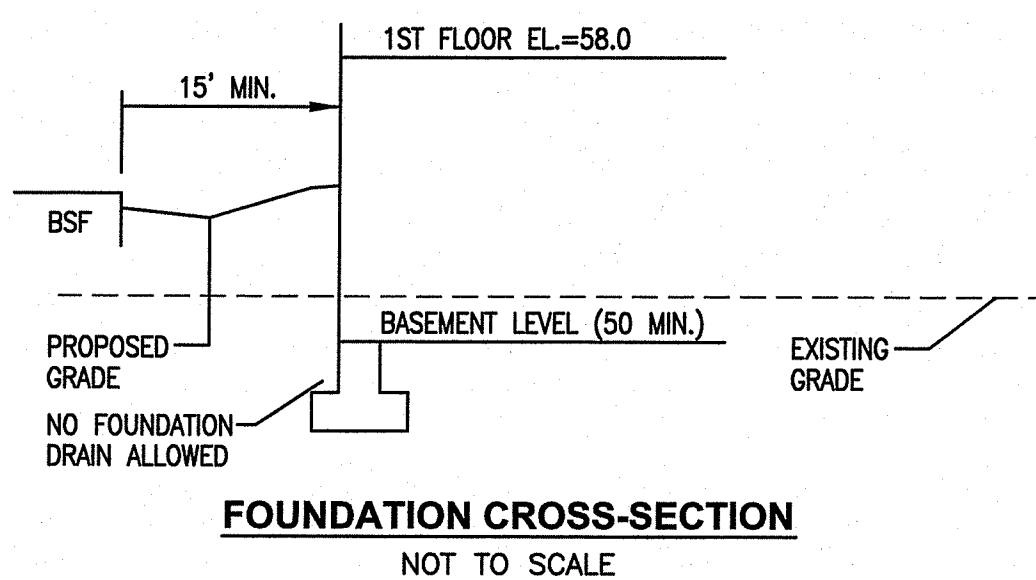
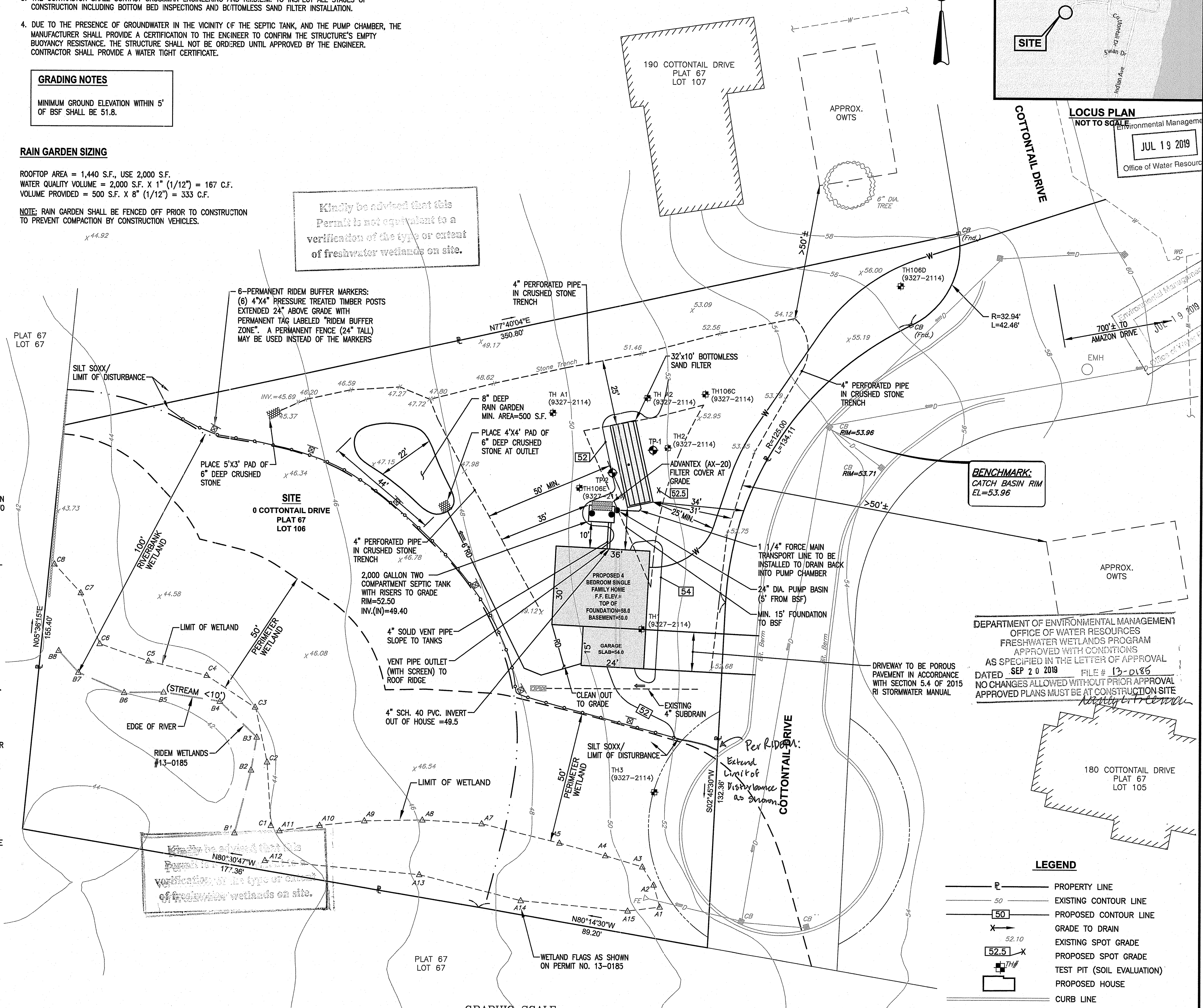
MINIMUM GROUND ELEVATION WITHIN 5' OF BSF SHALL BE 51.8.

RAIN GARDEN SIZING

ROOFTOP AREA = 1,440 S.F., USE 2,000 S.F.
 WATER QUALITY VOLUME = 2,000 S.F. X 1" (1/12") = 167 C.F.
 VOLUME PROVIDED = 500 S.F. X 8" (1/12") = 333 C.F.

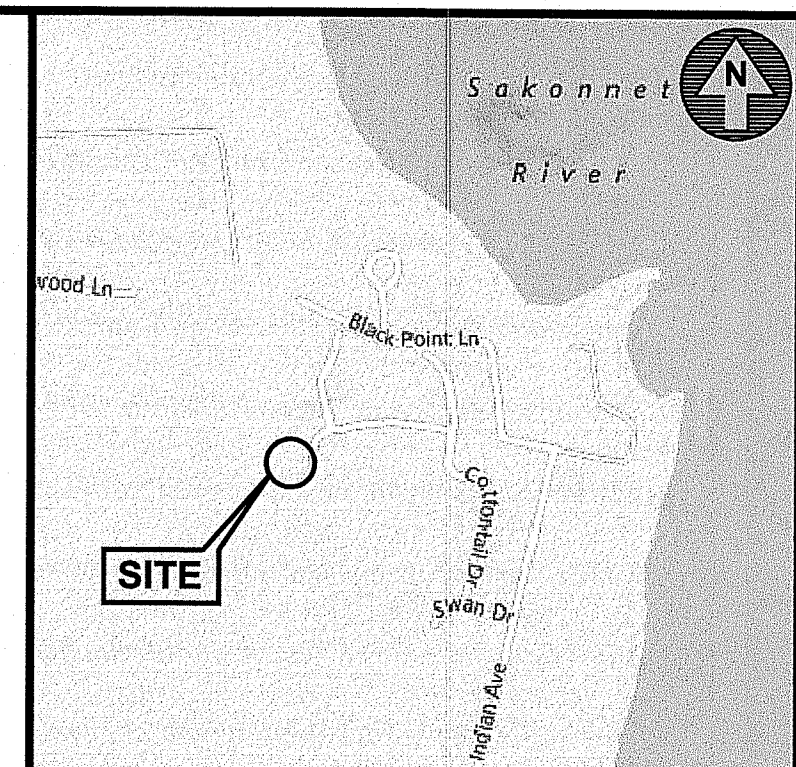
NOTE: RAIN GARDEN SHALL BE FENCED OFF PRIOR TO CONSTRUCTION TO PREVENT COMPACTION BY CONSTRUCTION VEHICLES.

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



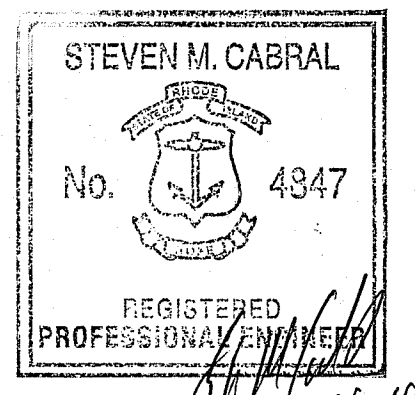
LEGEND

— P —	PROPERTY LINE
- - - 50 - - -	EXISTING CONTOUR LINE
- - - 50 - - -	PROPOSED CONTOUR LINE
X	GRADE TO DRAIN
52.10	EXISTING SPOT GRADE
52.5 X	PROPOSED SPOT GRADE
TH#	TEST PIT (SOIL EVALUATION)
[]	PROPOSED HOUSE
—	CURB LINE
—	DRIVEWAY LINE
- - -	LIMIT OF DISTURBANCE
- - - W - - -	WATER LINE
- - - W - - -	PROPOSED WATER SERVICE
- - - RD - - -	ROOD DRAIN (SOLID PVC SCH. 40)



CROSSMAN ENGINEERING
 Rhode Island: 151 Centerville Road, Warwick, RI 02886
 Massachusetts: 103 Commonwealth Avenue, North Attleboro, MA 02763
 Phone: (401) 738-5660, (508) 695-1700
 Email: col@grossmaneng.com

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KEY PLAN

PROJECT TITLE:
WETLANDS PERMIT MODIFICATION PLAN No. 13-0185
 PLAT MAP 67, LOT 106
 ZONING DISTRICT R-40
 RESIDENTIAL DISTRICT 40,000 S.F.
 0 COTTONTAIL DRIVE
 PORTSMOUTH, RI

PREPARED FOR:
 DAVID D. and NANCY A. ROSENBERG
 180 COTTONTAIL DRIVE
 PORTSMOUTH, RI 02871-5155

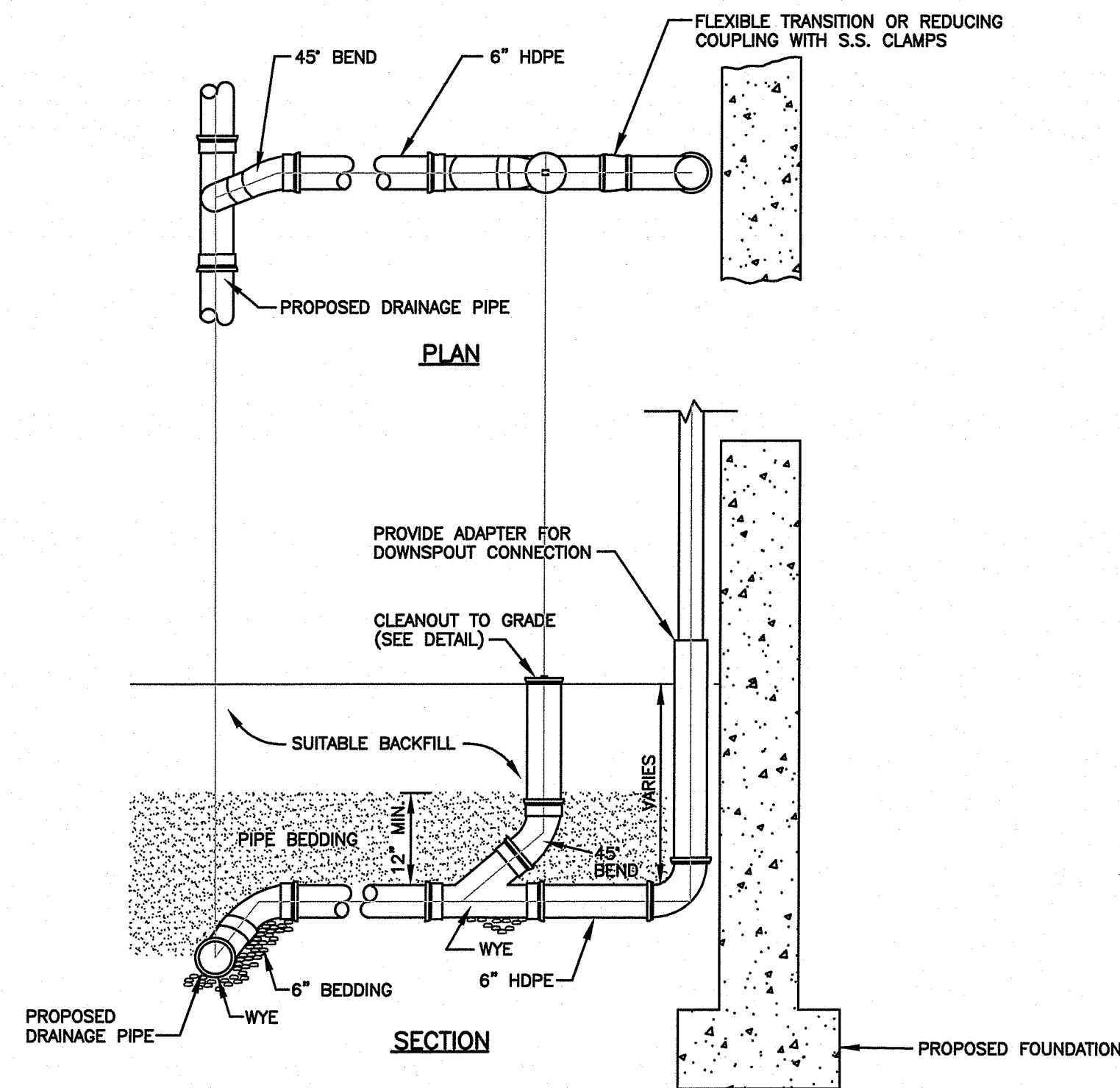
DRAWING TITLE:
ONSITE WASTEWATER TREATMENT SYSTEM PLAN

DATE: JULY 17, 2019
SCALE: 1"=20'
DWG. NAME: 2372-C01-OWTS.dwg

REVISIONS

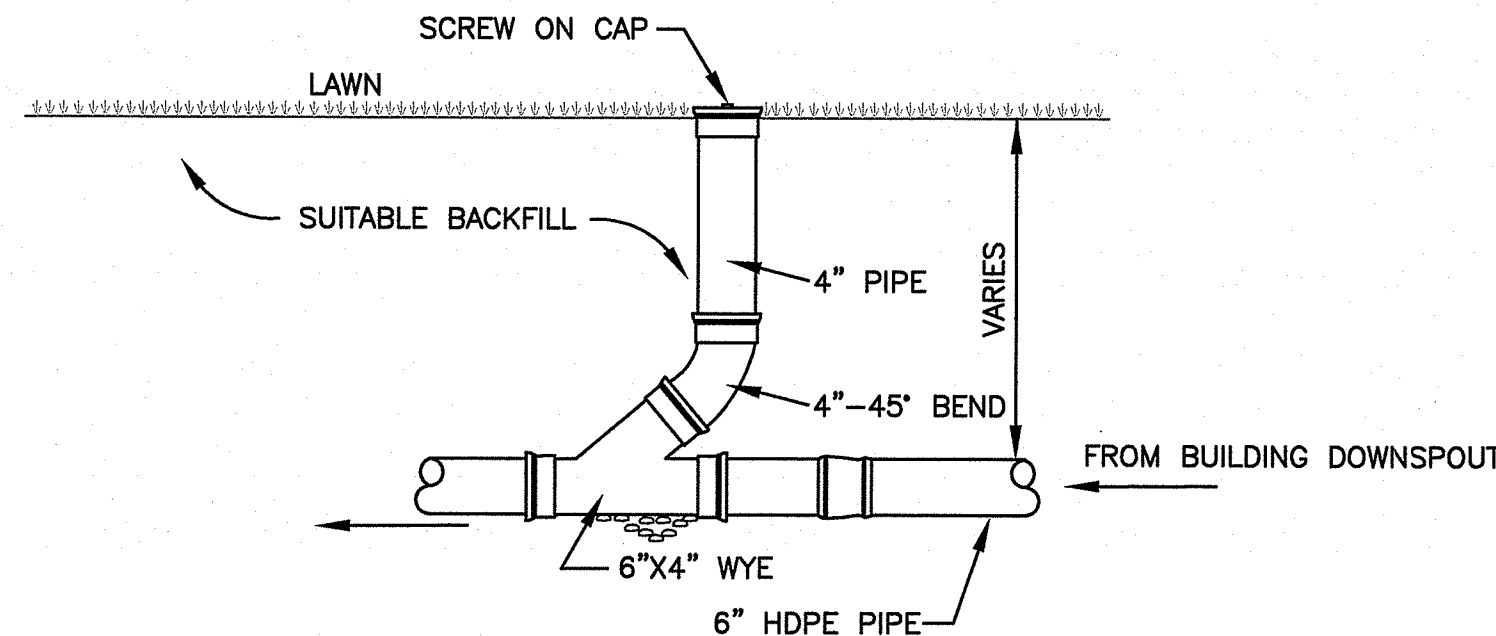
NUMBER	REMARKS	DATE

DRAWING NUMBER:
C1
 SHEET: 1 OF 3

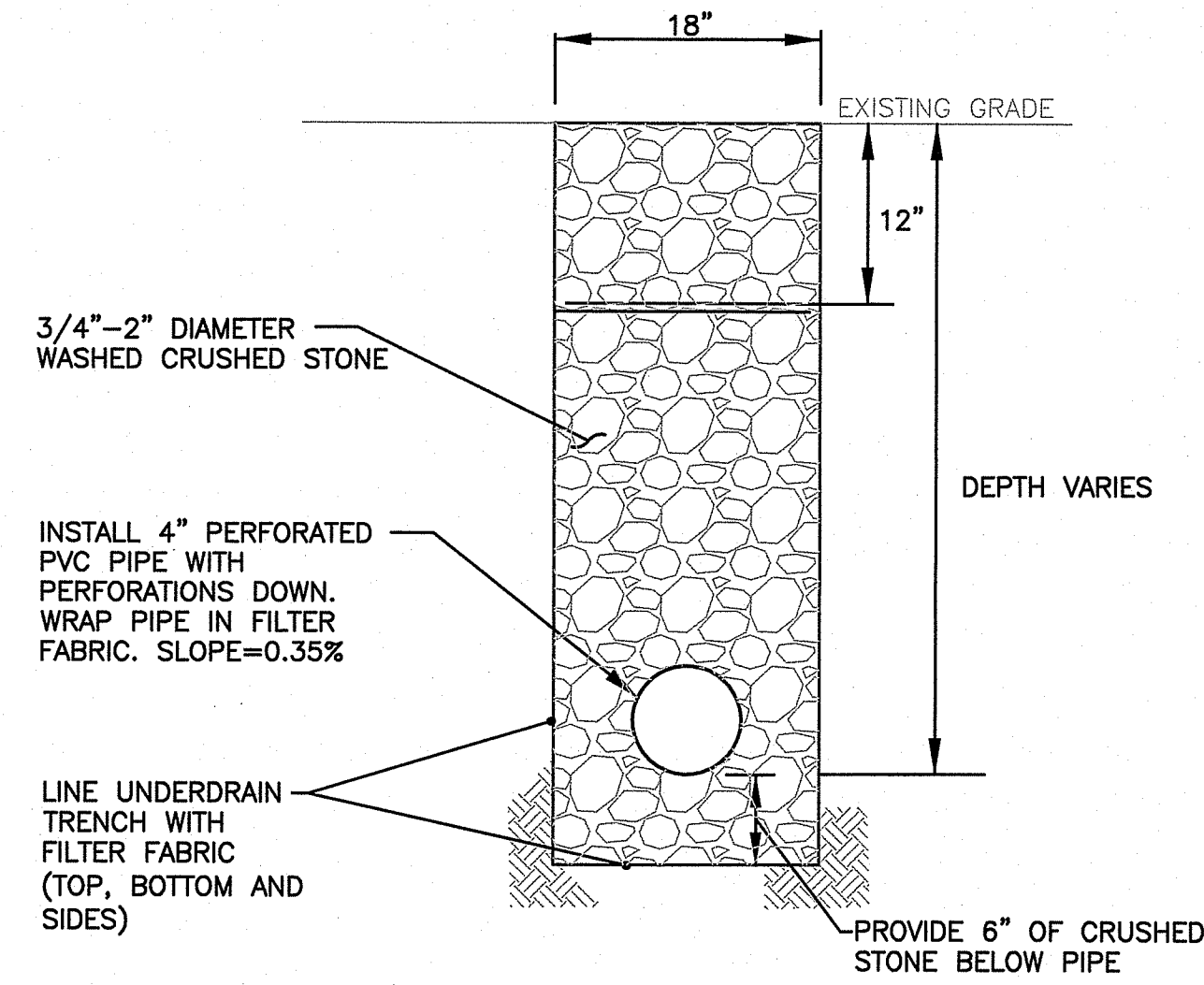


NOTE:
ROOF DRAINS SHALL BE HDPE OR SCHEDULE 40 PVC PIPE.

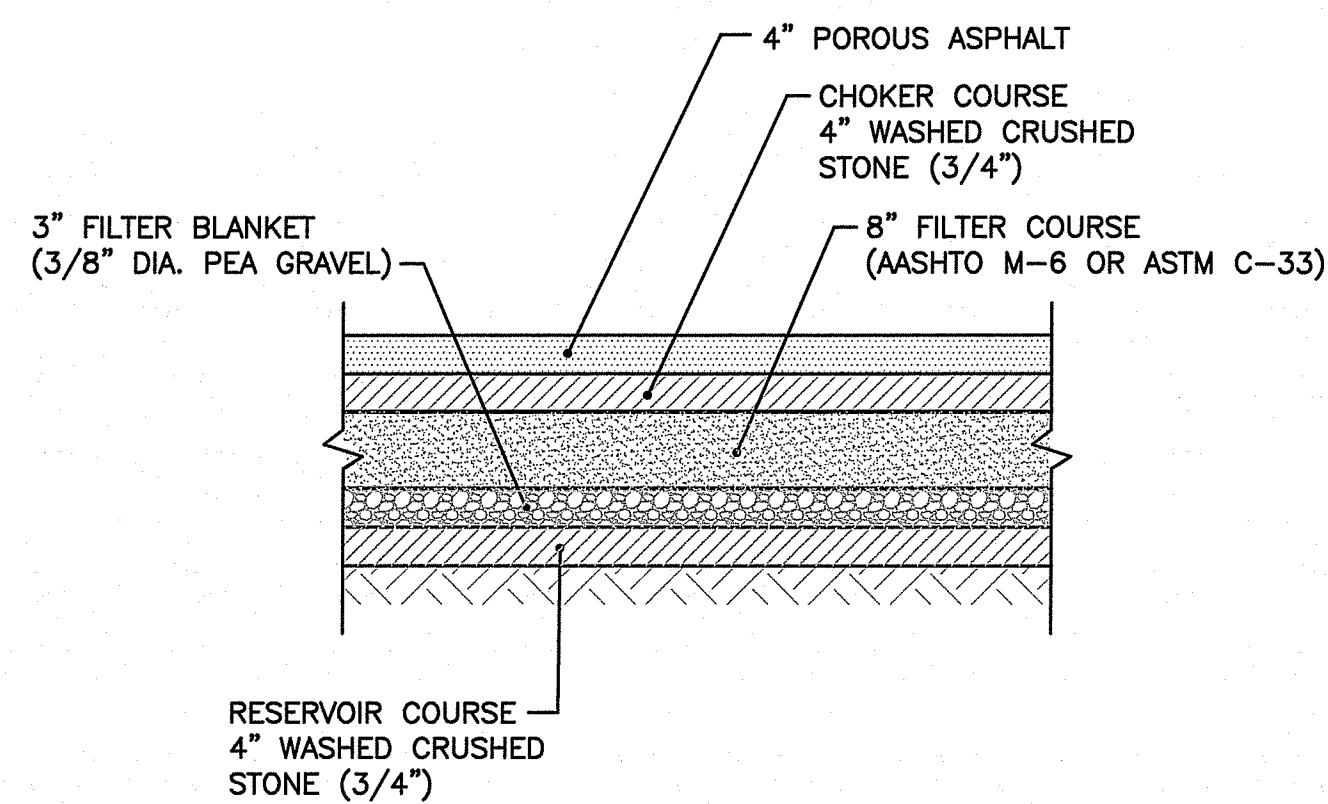
ROOF DRAIN CONNECTION DETAIL
NOT TO SCALE



ROOF DRAIN CLEAN-OUT DETAIL
NOT TO SCALE

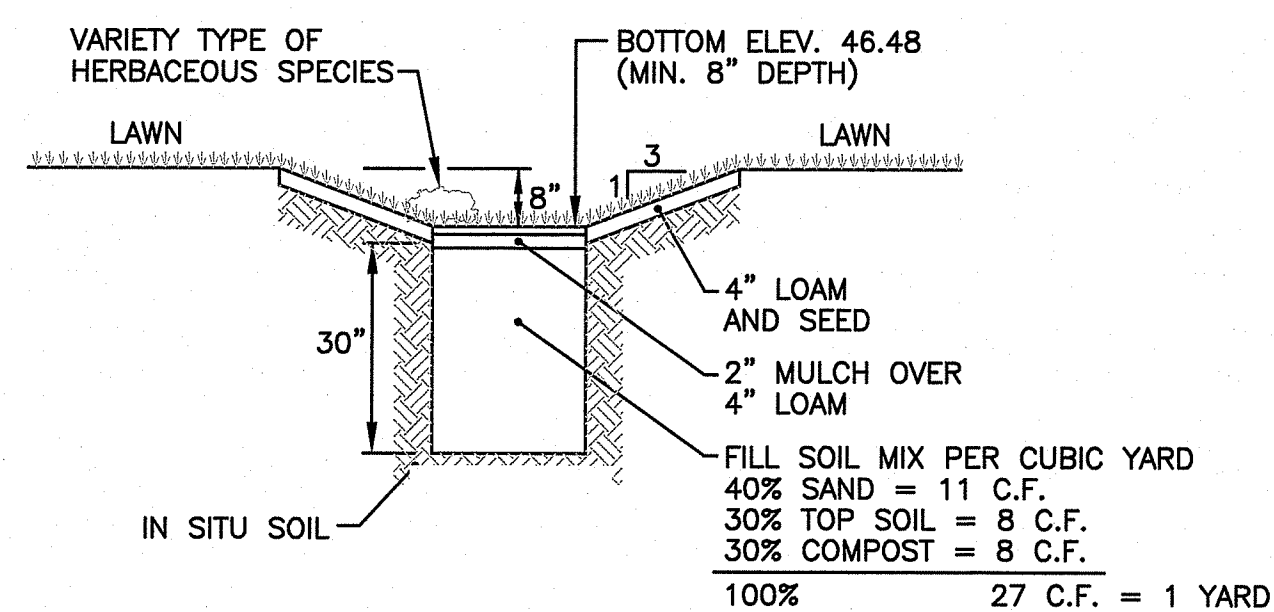


UNDERDRAIN TYPICAL DETAIL
NOT TO SCALE



NOTE:
CONSTRUCTION MUST CONFORM TO APPENDIX F OF THE R.I. STORMWATER MANUAL.

TYPICAL POROUS PAVEMENT
STRUCTURE DETAIL
NOT TO SCALE



NOTE:
DETAIL AS APPROVED IN PERMIT NO. 13-0185.

TYPICAL RAIN GARDEN DETAIL
NOT TO SCALE

DUST CONTROL NOTES

ON AN AS-NEEDED BASIS OR AS DIRECTED BY THE OWNER OR ENGINEER, THE CONTRACTOR SHALL UTILIZE ONE OF THE FOLLOWING METHODS (AS RECOMMENDED BY THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK", REVISED 2016) TO CONTROL DUST:

- A. THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.
- B. CALCIUM CHLORIDE SHOULD BE EITHER LOOSE DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH A SPREADER AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE.

THE METHODS SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

INSPECTION/MAINTENANCE NOTES

1. PRIOR TO COMMENCING GRUBBING OPERATIONS OR EARTHWORK, EROSION CONTROLS SHALL BE PLACED TO PREVENT SEDIMENT FROM ENTERING WETLAND AREAS, DRAINAGE SYSTEMS, ABUTTING PROPERTIES AND AREAS OUTSIDE THE LIMIT OF WORK.
2. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING WETLAND AREAS, ABUTTING PROPERTIES AND THE DRAINAGE SYSTEMS.
3. ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION - SUCH AS RIP-RAP.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL. THE CONTRACTOR IS REQUIRED TO PROTECT HIS/HER WORK FROM DAMAGE DURING ALL STORM EVENTS. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPAIRING ALL STORM DAMAGE.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT / REPLACE DAILY DURING CONSTRUCTION, FOLLOWING RAINFALL AND WEEKLY DURING NON CONSTRUCTION PERIODS.
6. ADDITIONAL EROSION CONTROLS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE TOWN OR ENGINEER.
7. THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE R.I. STATE CONSERVATION COMMITTEE, REVISED 2016, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT-DOWN PERIODS, MUST MONITOR AND REPAIR, AS NEEDED, ALL SLOPES TO ENSURE A STABLE PRODUCT.
9. AFTER CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH THE INSPECTION REPORTS THAT WERE TAKEN DURING THE CONSTRUCTION ACTIVITIES. THE OWNER IS TO RETAIN THE INSPECTION REPORTS FOR 5 YEARS FROM THE DATE ON THE REPORT OR APPLICATION.

GENERAL PROJECT WIDE NOTES

1. EROSION CONTROLS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY, DRAINAGE SYSTEMS AND WETLANDS.
2. THE CONTRACTOR MUST REPLACE AND/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE/SHE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. ALL EROSION CONTROLS OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
4. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHENEVER FEASIBLE; THE AREA BEYOND THE DRIPLINE SHALL BE FENCED OR ROPED OFF TO PROTECT TREES FROM CONSTRUCTION EQUIPMENT.
5. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDDED, OR OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR IS RESPONSIBLE TO KEEP THE SITE CLEAN OF TRASH. RECOMMENDED DAILY PATROL OF THE CONSTRUCTION SHOULD BE CONDUCTED TO PICK-UP TRASH. THE OPERATOR SHALL REQUIRE THE CONTRACTOR TO HAVE PORTABLE SANITARY FACILITIES ON SITE. ROUTINE CLEANING AND WASTE DISPOSAL OF THESE PORTABLE SANITARY FACILITIES IS REQUIRED.

EROSION CONTROL AND SOIL STABILIZATION PROGRAM

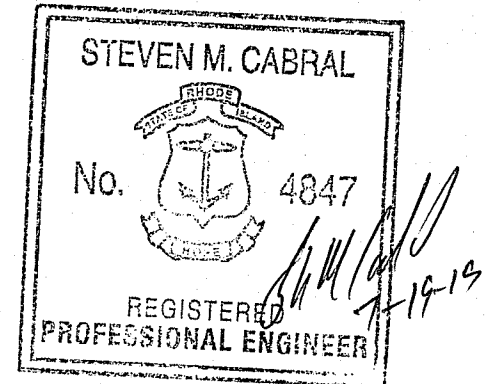
1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE ROADWAY DRAINAGE SYSTEM, WETLAND AREAS, ADJACENT PROPERTY AND OUTSIDE THE LIMIT OF WORK.
2. ALL PERIMETER EROSION CONTROLS SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. PERIMETER EROSION CONTROLS ARE BOTH SILT FENCE AND FILTREXX FILTER SOXX.
3. DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME.
4. ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEEDDED OR PROTECTED BY THAT DATE.
5. 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, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
6. STOCKPILES SHALL BE SURROUNDED WITH FILTREXX FILTER SOXX.
7. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
8. ALL SILT FENCE AND FILTREXX FILTER SOXX SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED. ONCE THE AREAS HAVE AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER, AND AFTER APPROVAL OF THE OWNER, THE CONTRACTOR SHALL REMOVE ALL SILT FENCE AND FILTREXX FILTER SOXX.
9. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
10. ADDITIONAL SILT FENCE AND FILTREXX FILTER SOXX SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER OR TOWN REPRESENTATIVES.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST.
12. CATCH BASINS SHALL BE PROTECTED USING SILT SACKS WHERE NOTED ON THE PLANS.
13. TEMPORARY DEWATERING BASINS SHALL BE UTILIZED AS REQUIRED. THE NUMBER AND SIZE OF DEWATERING BASINS REQUIRED WILL VARY DEPENDING ON SITE CONDITIONS.
14. THE CONTRACTOR SHALL REFERENCE THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE R.I. STATE CONSERVATION COMMITTEE, REVISED 2016, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.



CROSSMAN ENGINEERING

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KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESH WATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED SEP 20 2019 FILE # 13-0185
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Angie L. Freeman

PROJECT TITLE:

**WETLANDS PERMIT
 MODIFICATION PLAN
 No. 13-0185**
 PLAT MAP 67, LOT 106
 ZONING DISTRICT R-40
 RESIDENTIAL DISTRICT 40,000 S.F.
 0 COTTONTAIL DRIVE
 PORTSMOUTH, RI

PREPARED FOR:

DAVID D. and NANCY A. ROSENBERG
 180 COTTONTAIL DRIVE
 PORTSMOUTH, RI 02871-5155

DRAWING TITLE:

**MISCELLANEOUS
 DETAILS PLAN**

DATE: JULY 17, 2019 SCALE: AS SHOWN

DWG. NAME: 2372-C03-DETAIL_2.dwg

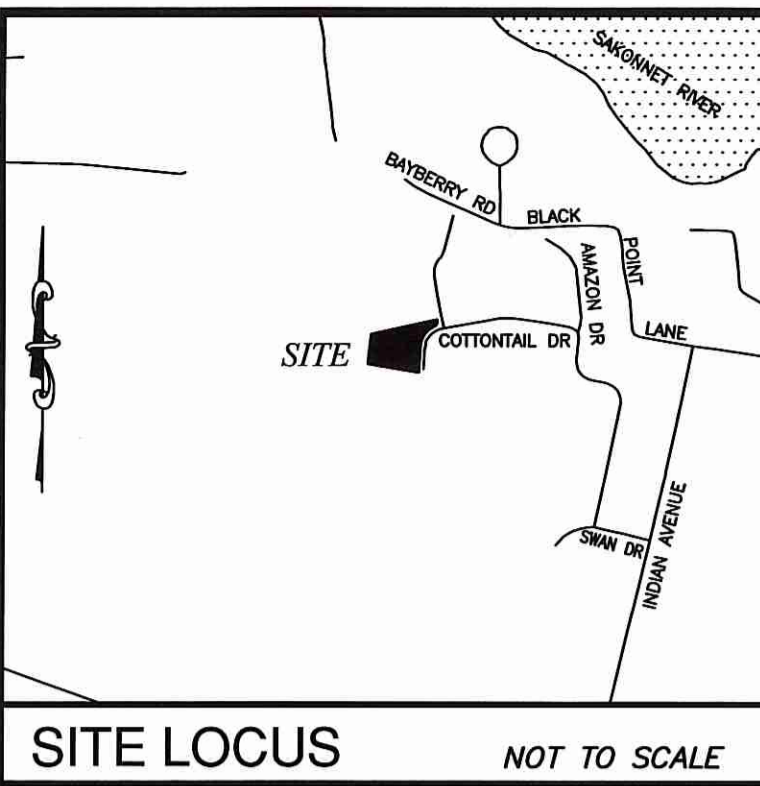
REVISIONS

NUMBER	REMARKS	DATE

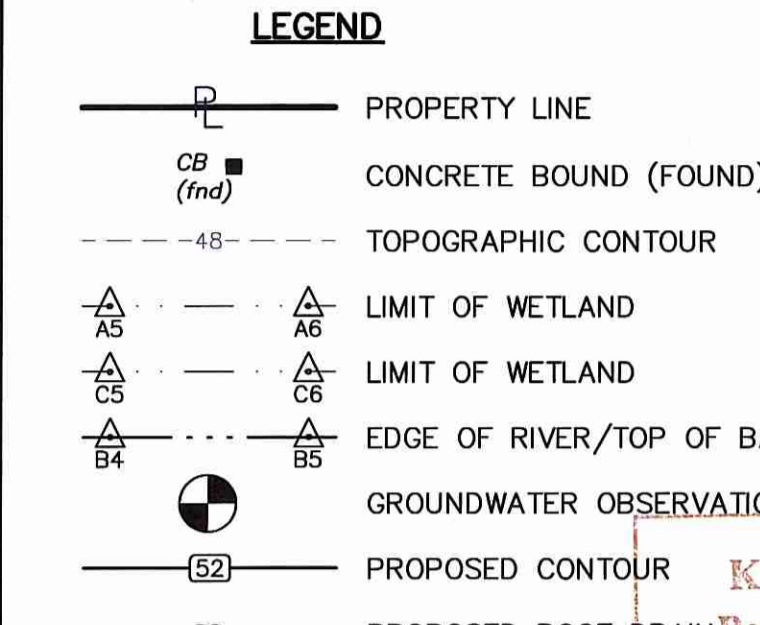
DRAWING NUMBER

C3

SHEET: 3 OF 3



SITE LOCUS NOT TO SCALE



NOTES

- TOPOGRAPHIC INFORMATION HAS BEEN COMPILED FROM AN ACTUAL ON THE GROUND SURVEY PERFORMED BY LAND DEVELOPMENT ENGINEERING & CONSULTING, LLC ON OCTOBER 24, 2013.
- EXISTING RESOURCE AREAS WERE DELINEATED BY LDEC IN OCTOBER, 2013.
- ELEVATIONS ARE REFERENCED TO NAVD88.
- THE SITE IS NOT LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREAS AS DETERMINED FROM THE TOWN OF PORTSMOUTH FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 445405 0113 J (EFFECTIVE DATE SEPTEMBER 4, 2013).
- EXISTING UTILITY LINES SHOWN ON THIS DRAWING ARE FROM AVAILABLE INFORMATION AND ARE APPROXIMATE LOCATIONS. THERE MAY BE EXISTING LINES OTHER THAN THOSE INDICATED. LAND DEVELOPMENT ENGINEERING & CONSULTING, LLC ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS, THE PROPER PUBLIC UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED.
- THIS IS A CONCEPT PLAN ONLY AND DOES NOT CONSTITUTE AN APPROVED OWTS APPLICATION. OWNER MUST HAVE AN APPROVED SOIL EVALUATION, OWTS APPLICATION AND BUILDING PERMIT PRIOR TO ANY SITE CONSTRUCTION.

CURRENT OWNER

DAVID D. & NANCY A. ROSENBERG
180 COTTONTAIL DRIVE
PORTSMOUTH, RI 02871

TITLE REFERENCE:

DEED BOOK 1057, PAGE 83

LOCUS PLAN REFERENCE:

PLAT INDEX #79 (LOT 4)

SITE LOCATION:

160 COTTONTAIL DRIVE
PORTSMOUTH, RHODE ISLAND

ASSESSORS REFERENCE:

MAP 67, LOT 106

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

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- PRIOR TO INITIATING CONSTRUCTION, ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS, AS DIRECTED BY THE ENGINEER AND/OR AS NECESSITATED BY FIELD CONDITIONS. THE CONTRACTOR SHALL MAINTAIN THESE MEASURES UNTIL ALL WORK IS COMPLETED AND ALL AREAS HAVE BEEN STABILIZED.
- ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR OR AS DIRECTED BY THE ENGINEER.
- AFTER THE INSTALLATION OF DRAINAGE STRUCTURES, HAYBALES OR OTHER APPROVED MATERIALS SHALL BE PLACED TO PROTECT THE INTEGRITY OF THE STRUCTURES.
- DISTURBED AREAS SHALL BE STABILIZED WITH THE APPLICATION OF A MINIMUM OF FOUR INCHES (4") OF LOAM AND SHALL BE SEEDED WITH AN APPROVED GRASS MIX OR SHALL BE RIPRAPPED AS SOON AS POSSIBLE AFTER THE FINISHED GRADE HAS BEEN MET. IF FINAL GRADING DOES NOT OCCUR DURING THE GROWING SEASON, THESE AREAS SHALL BE MULCHED WITH HAY AND SECURED BY JUTE NETTING WITH STAPLES. SLOPES EXCEEDING 2:1 SHALL BE LOAMED AND STABILIZED WITH PEGGED SOO OR APPROVED EROSION CONTROL BLANKETS UNLESS OTHERWISE NOTED.
- WHERE APPLICABLE, PROPER DUST CONTROL MEASURES SHALL APPLY TO REDUCE THE SURFACE AND AIR TRANSPORT OF DUST GENERATED DURING CONSTRUCTION. THE FOLLOWING METHODS SHALL BE USED:
 - WET SUPPRESSION WITHOUT WETTING AGENT SHALL BE APPLIED DURING LOAD IN / LOAD OUT AND EARTH MOVING CONSTRUCTION ACTIVITIES, SPECIALLY ON STOCKPILES.
 - INACTIVE STOCKPILES SHALL BE STABILIZED THROUGH APPLICATION OF SOIL STABILIZERS OR SEEDING.
 - WIND SCREENS OR BARRIERS AND PLASTIC TARP COVERS SHALL BE SECURED TO PREVENT WIND DISLODGE AND DAMAGE. ANY DAMAGES SHALL BE REPAIRED OR REPLACED IMMEDIATELY.
- CONTRACTOR SHALL CONSTRUCT A TEMPORARY CRUSHED STONE CONSTRUCTION ENTRANCE APPROXIMATELY 12' WIDE BY 50' LONG BY 6" DEEP FOR USE DURING CONSTRUCTION ACTIVITIES AS NECESSARY TO REMOVE SEDIMENT FROM VEHICLES. THE CONSTRUCTION ENTRANCE IS TO BE LOCATED AT THE ENTRANCE TO THE SITE FROM WEST MAIN ROAD.
- DEWATERING OPERATIONS SHALL BE PROVIDED, IF REQUIRED; ALL DISCHARGE SHALL PASS THROUGH SEDIMENTATION CONTROL DEVICES TO PREVENT IMPACTS UPON WATER BODIES, BORDERING VEGETATED WETLANDS, DRAINAGE SYSTEMS AND ADJUTING PROPERTIES.

IMPERVIOUS AREA

DWELLING = 900 SF
GARAGE = 300 SF
DRIVEWAY = 440 SF

WATER QUALITY VOLUME (WQV)

TOTAL IMPERVIOUS AREA x 1" (1/12) = WQV (CF)
GARAGE & DWELLING 1,200 SF x .083 FT = 100 CF
DRIVEWAY = 440 SF x .083 FT = 37 CF
TOTAL WATER QUALITY VOLUME = 137 CF

STORMWATER BMP'S

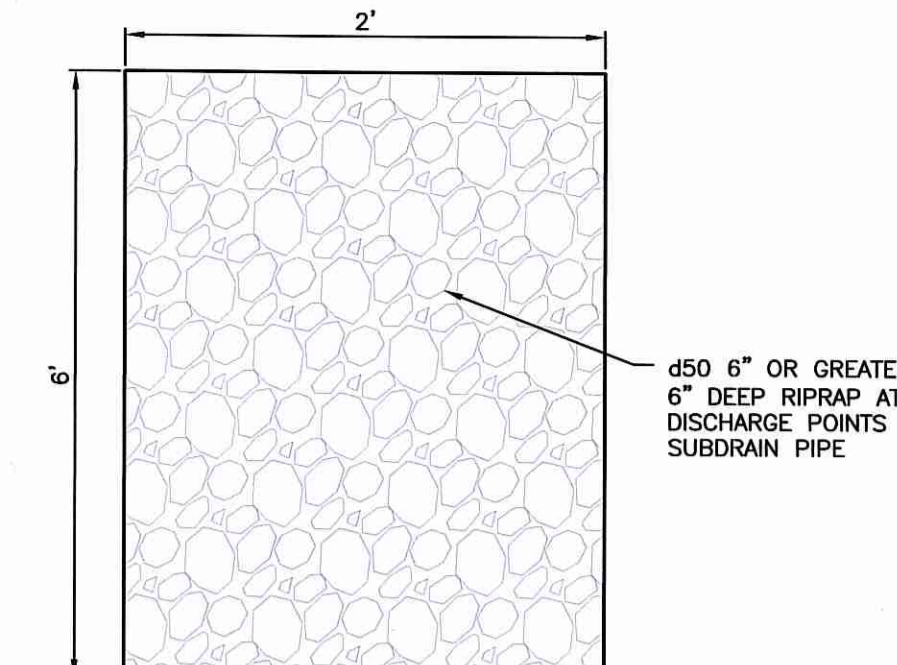
- RAIN GARDENS
- INFILTRATION TRENCH

WATER QUALITY VOLUME PROVIDED PER BMP

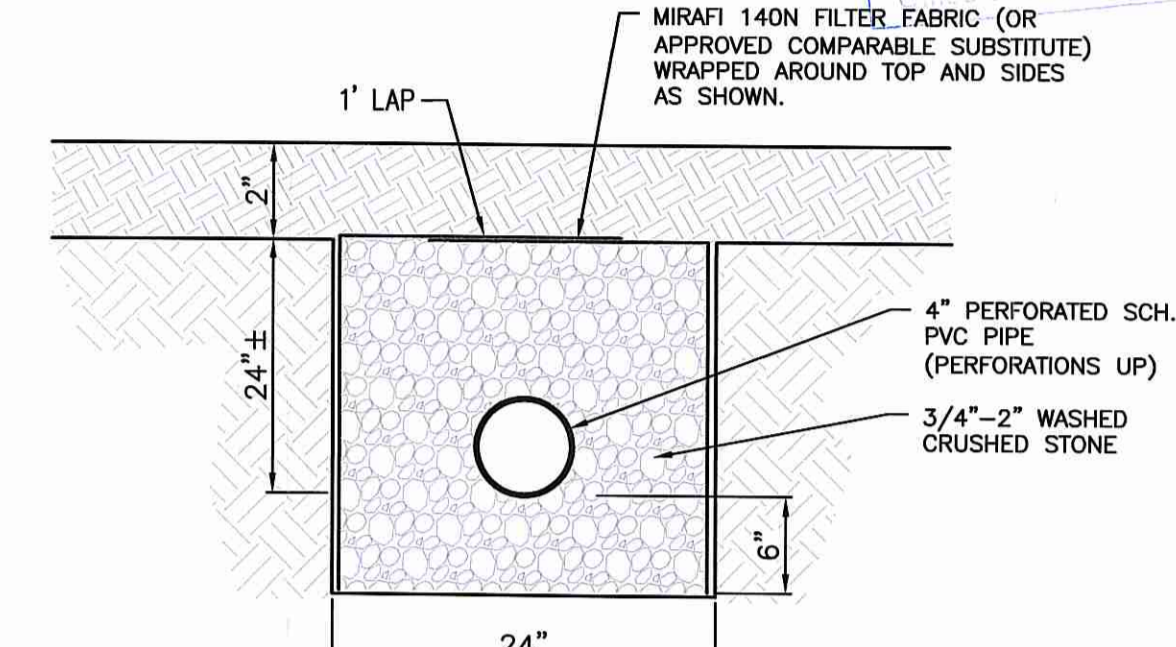
PER SECTION 300.6 RICRMP SIZING GUIDELINE

- DRIVEWAY = 440 SF
INFILTRATION TRENCH REQUIRED FOR LOAMS & SILT LOAMS (24" DEPTH) = 57 SF
60 SF X 2 FT X 0.33 = 39.6 CF PROVIDED
- DWELLING = 900 SF
RAIN GARDEN REQUIRED FOR LOAMS & SILT LOAMS (6" DEPTH) = 225 SF
230 SF X 0.5 FT = 115 CF PROVIDED
- GARAGE = 300 SF
RAIN GARDEN REQUIRED FOR LOAMS & SILT LOAMS (6" DEPTH) = 75 SF
75 SF X 0.5 FT = 37.5 CF PROVIDED

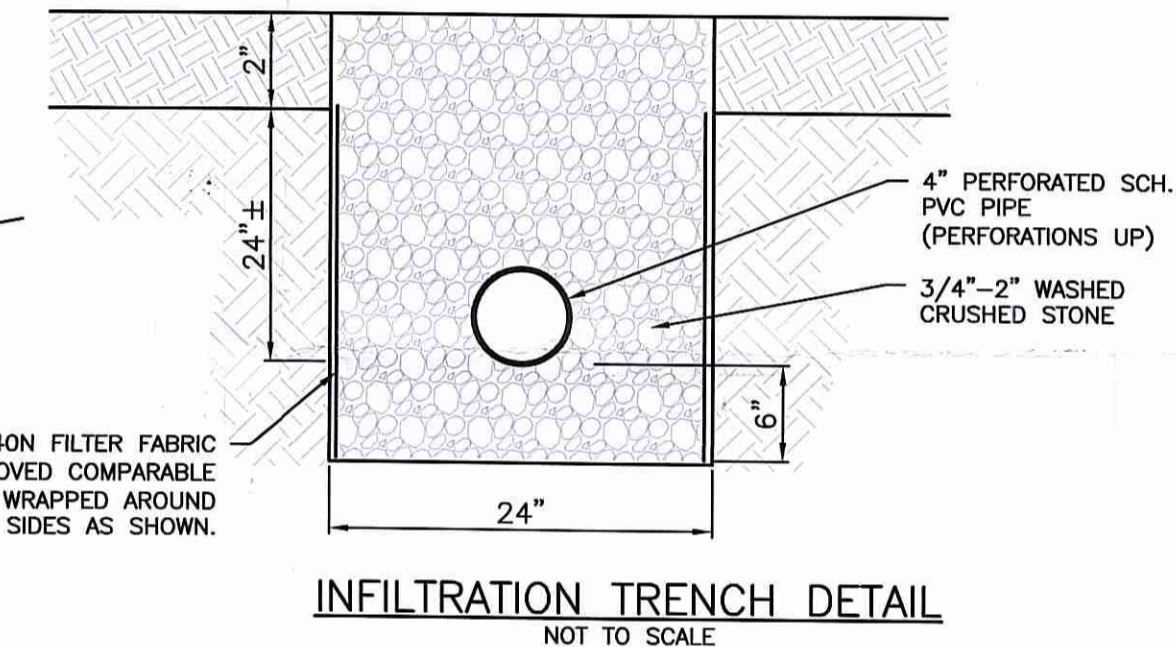
TOTAL WQV PROVIDED = 192 CF



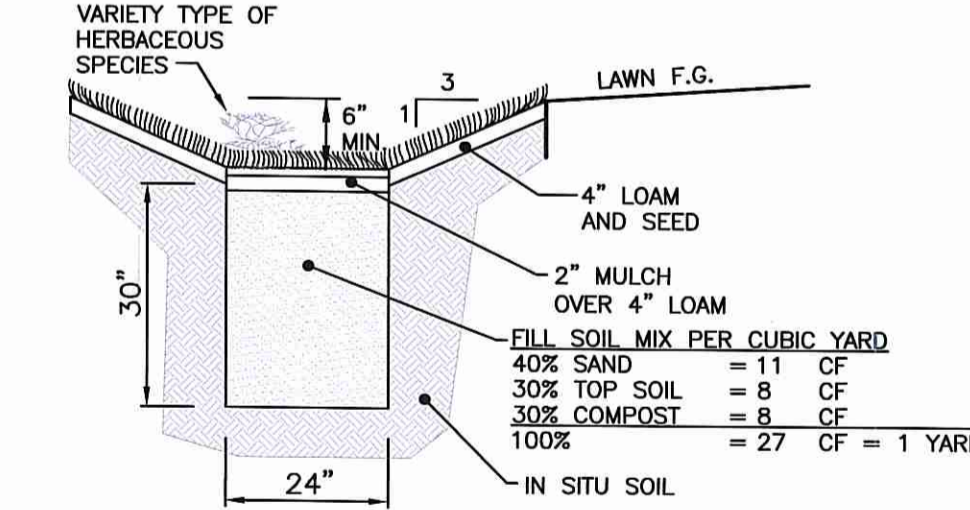
RIPRAP PAD DETAIL NOT TO SCALE



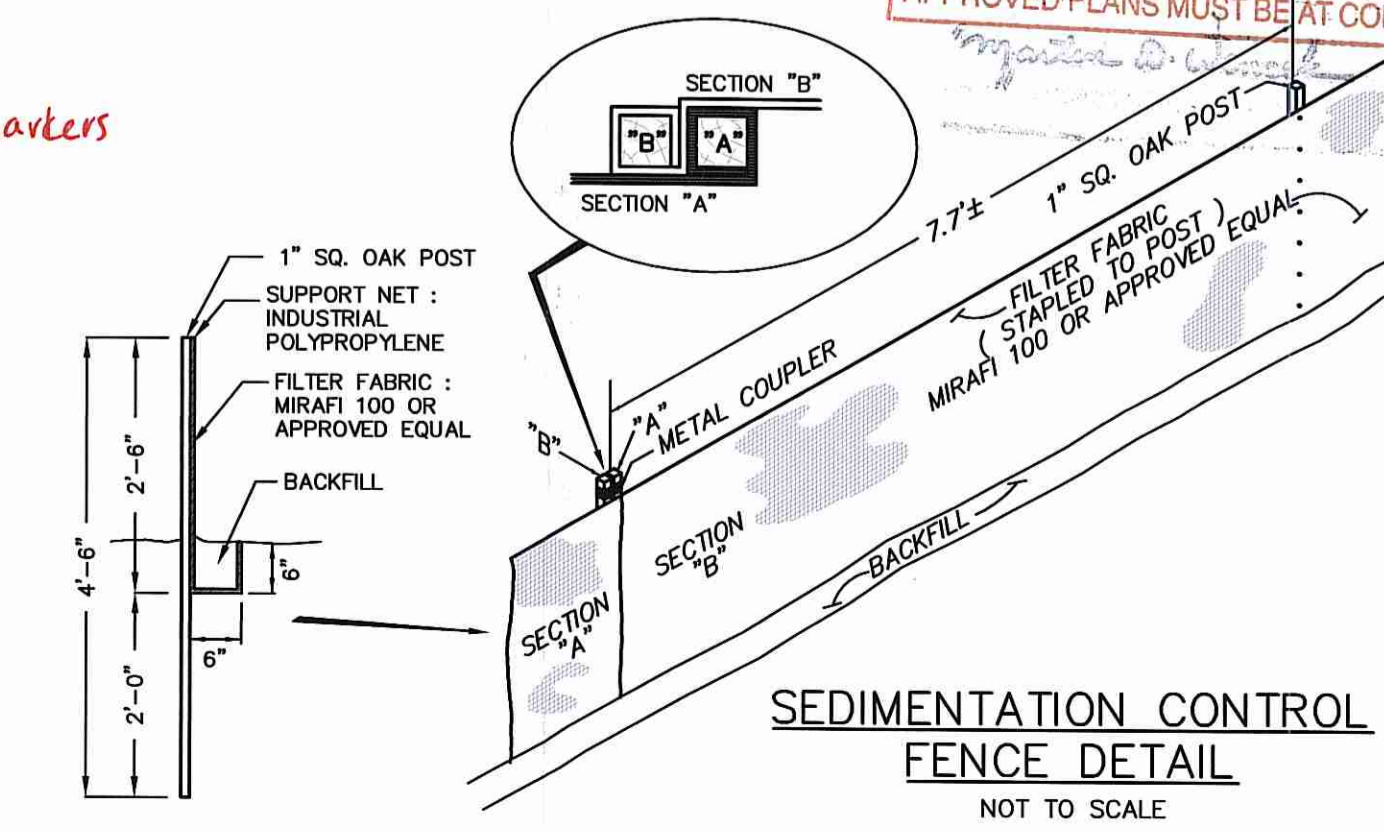
SUBDRAIN TRENCH DETAIL NOT TO SCALE



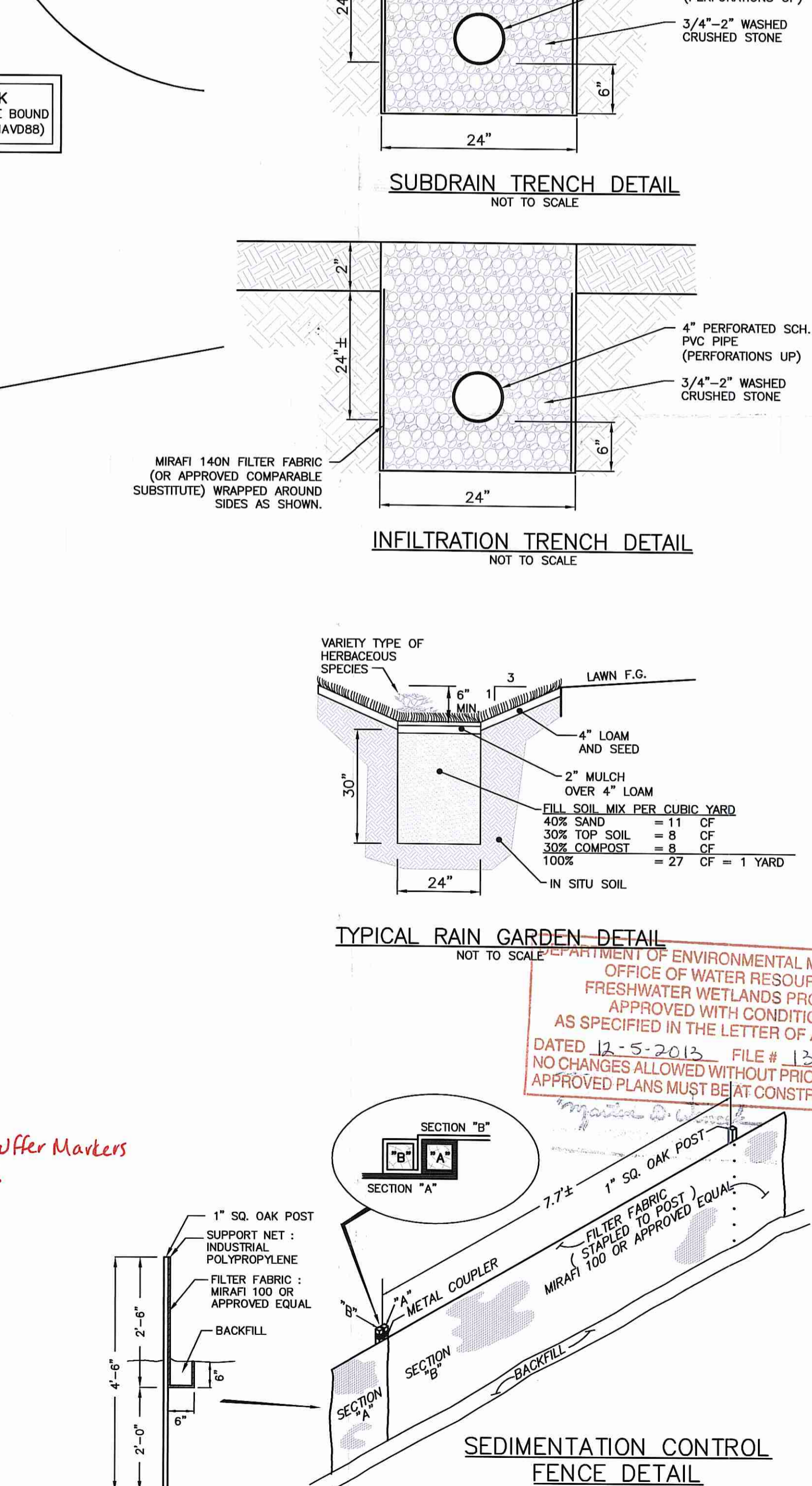
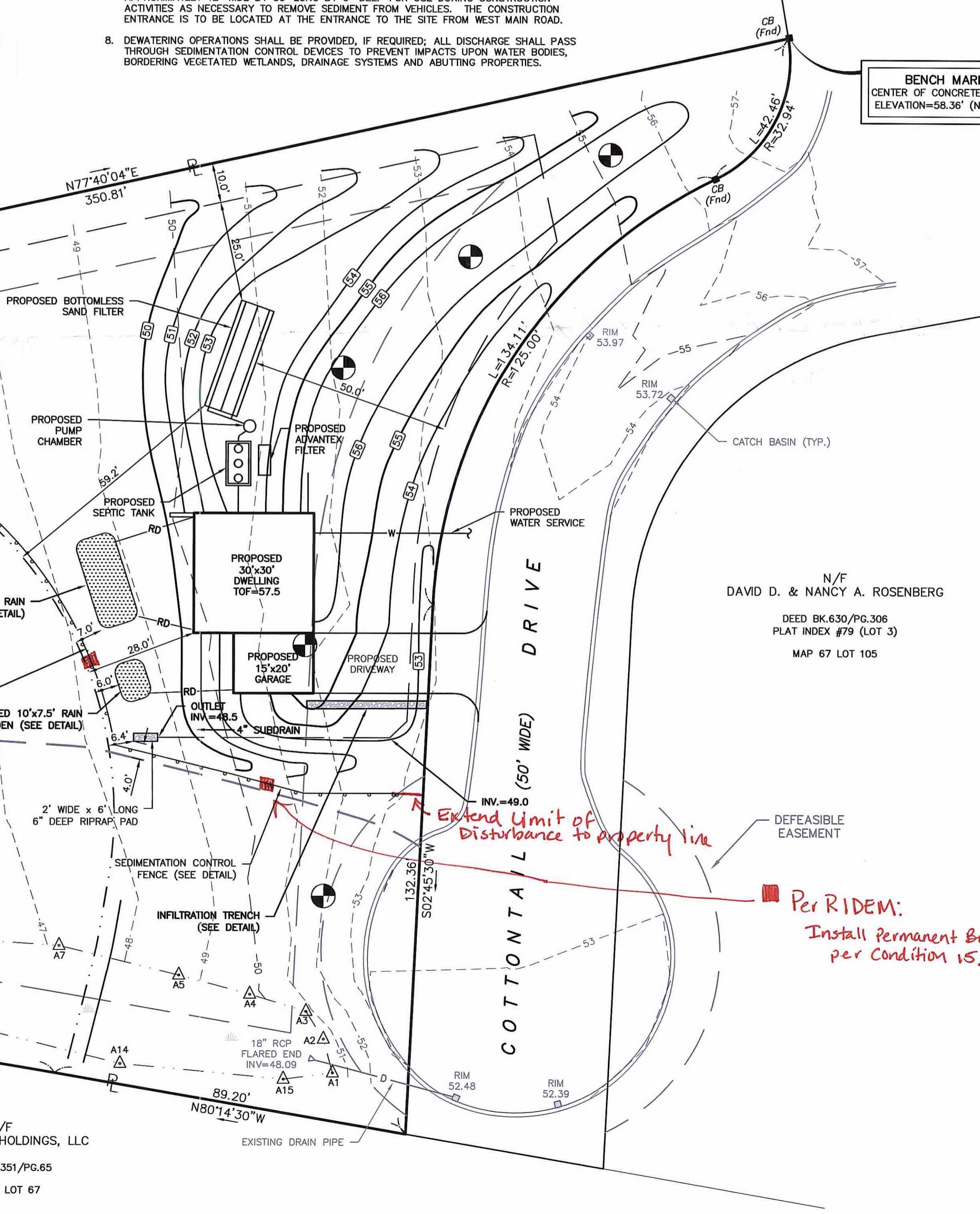
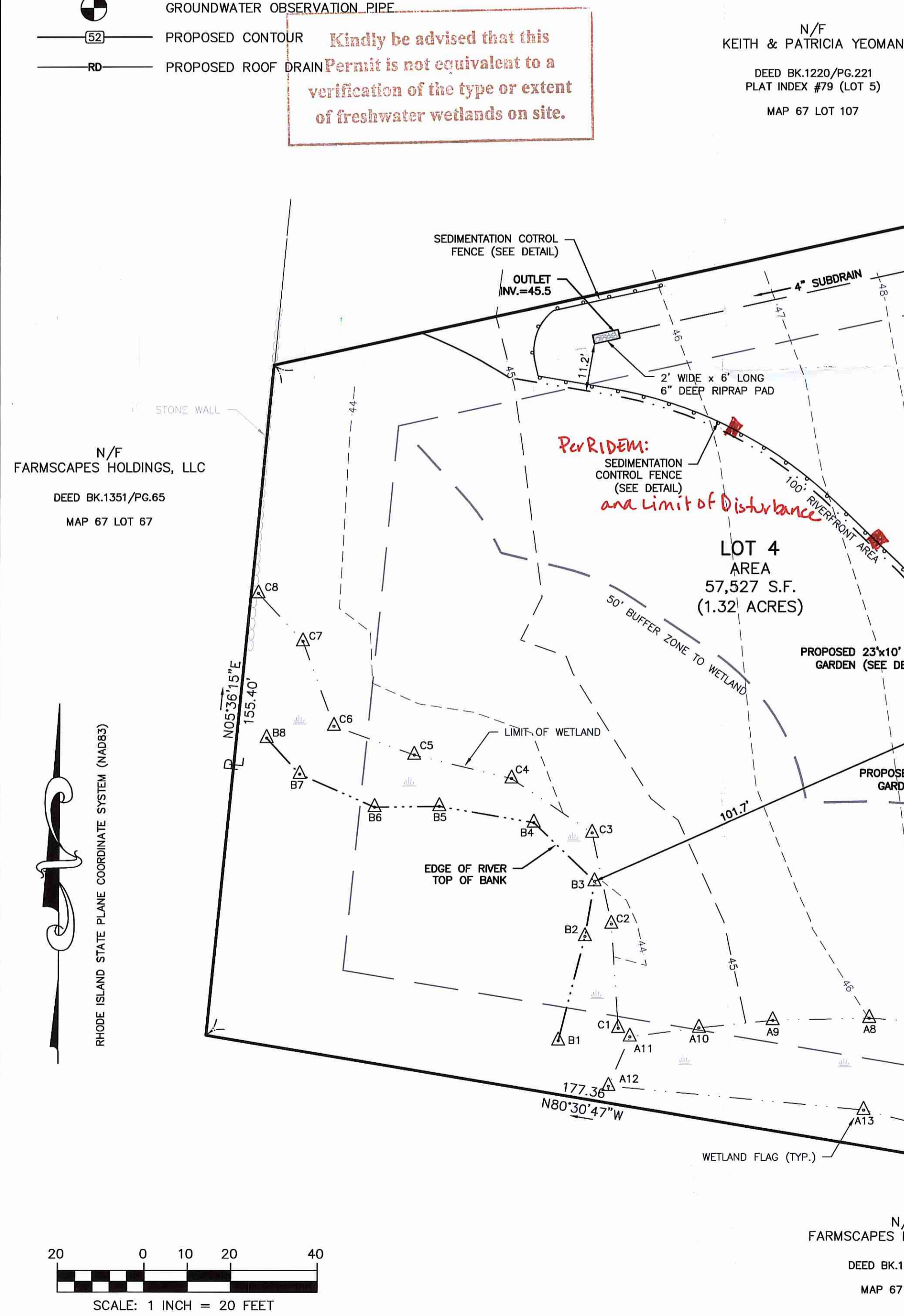
INFILTRATION TRENCH DETAIL NOT TO SCALE



TYPICAL RAIN GARDEN DETAIL NOT TO SCALE



SEDIMENTATION CONTROL FENCE DETAIL NOT TO SCALE



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NO.	DATE	DESCRIPTION
2.	11-27-13	GENERAL REVISIONS PER RIDEM
1.	11-12-13	GENERAL REVISIONS PER RIDEM

DATE: NOVEMBER 1, 2013
DRAWN BY: SKD/RLM COMPS BY: SKD/RLM CHECK BY: RLM/MER

PROJECT NO. 12104
ISSUED FOR:

MICHAEL E. RUSSELL
No. 17956
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

CONCEPTUAL SITE PLAN
160 COTTONTAIL DRIVE
PORTSMOUTH, RHODE ISLAND
PREPARED FOR
DAVID D. & NANCY A. ROSENBERG

DRAWING TITLE:
SITE PLAN
SCALE: 1" = 20'
SHEET NO.
1 OF 1