

**RAIN GARDEN TREATMENT**

Rain garden to be 8" deep with a 2 - 4 inch amended soil layer (50/50 mixture of the excavated native soils and mature organic compost) and a 2 - 3 inch layer of non-dyed aged shredded hardwood mulch.

**CONSTRUCTION**

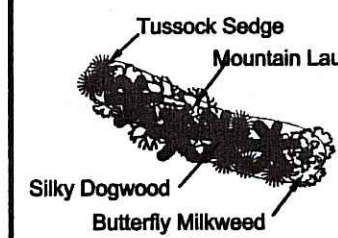
1. A crushed stone entrance should be installed at the inflow to prevent channeling.
2. A berm to detain stormwater should be constructed along the downhill side of the rain garden, perpendicular to the slope of the lawn
3. Be sure that the soil within the rain garden area does not become compacted by construction activities (i.e. heavy machinery). If soil becomes severely compacted it may need to be tilled and amended to maintain proper

**MAINTENANCE**

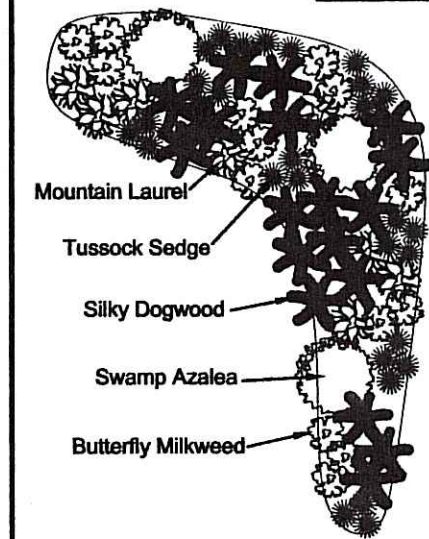
1. The rain garden shall be inspected following at least the first two precipitation events of at least 1.0 inch to ensure that the system is functioning properly. Thereafter, the rain garden shall be monitored and maintained to assure proper functioning, plant growth and survival. Plants shall be replaced on an as-needed basis during the growing season.
2. Silt/sediment shall be removed from the rain garden when the accumulation exceeds one inch, or when water ponds on the surface of the rain garden for more than 48 hours. The top few inches of material shall be removed and shall be replaced with fresh soil mixture and mulch.
3. Pruning or replacement of woody vegetation shall occur when dead or dying vegetation is observed.
4. Soil erosion gullies shall be repaired when they occur.
5. Fertilizer or pesticides shall not be applied to plants within rain gardens.
6. Perennial plants and ground covers shall be replaced as necessary to maintain an adequate vegetated ground cover. Annual plants may also be used to maintain ground cover.

**STORMWATER CONTROL RAIN GARDEN B**  
8" DEEP BASIN  
BOTTOM AREA: 288 SF  
(SEE NOTES AND DETAIL)

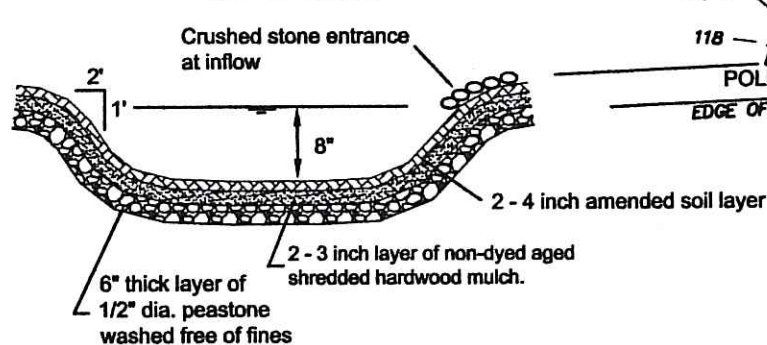
**RAIN GARDEN A PLANTING DETAIL**  
NOT TO SCALE  
AREA: 136 SF  
34 PLANTS



**RAIN GARDEN B PLANTING DETAIL**  
NOT TO SCALE  
AREA: 288 SF  
72 PLANTS

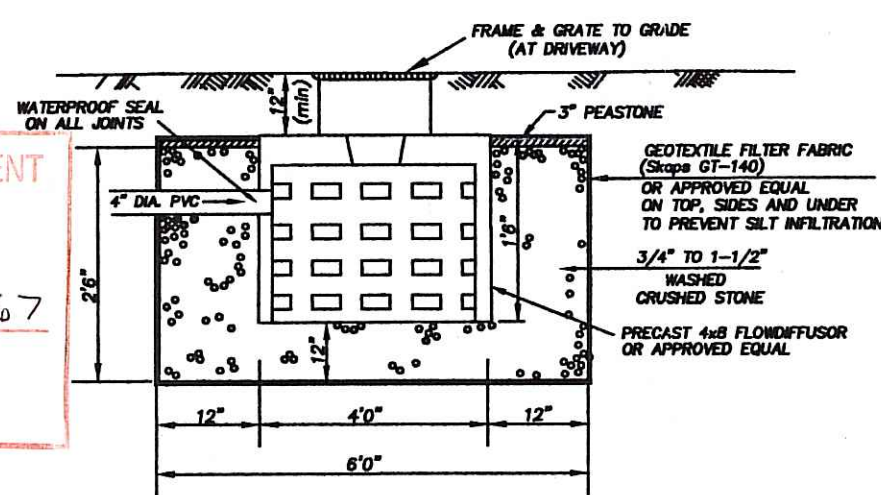


**RAIN GARDEN CROSS-SECTION I**  
NOT TO SCALE



**MATTITY ROAD**

**4'x8' DRY WELL FOR ROOF DRAINS**  
(NOT TO SCALE)



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 12-0167  
DATED NOV 14 2012  
SEE LETTER OF SAME DATE.

**LOCUS MAP**  
SCALE: 1"= 200'

**MATTITY ROAD**

Revised Per DEM:  
Extend Staked Haybales or Silt Fence to Property Line. Also represents the DEM reviewed Limit of Disturbance.

STAKED HAYBALES OR SILT FENCE AND LIMIT OF DISTURBANCE

PROP. WELL

PROP. WATERLINE

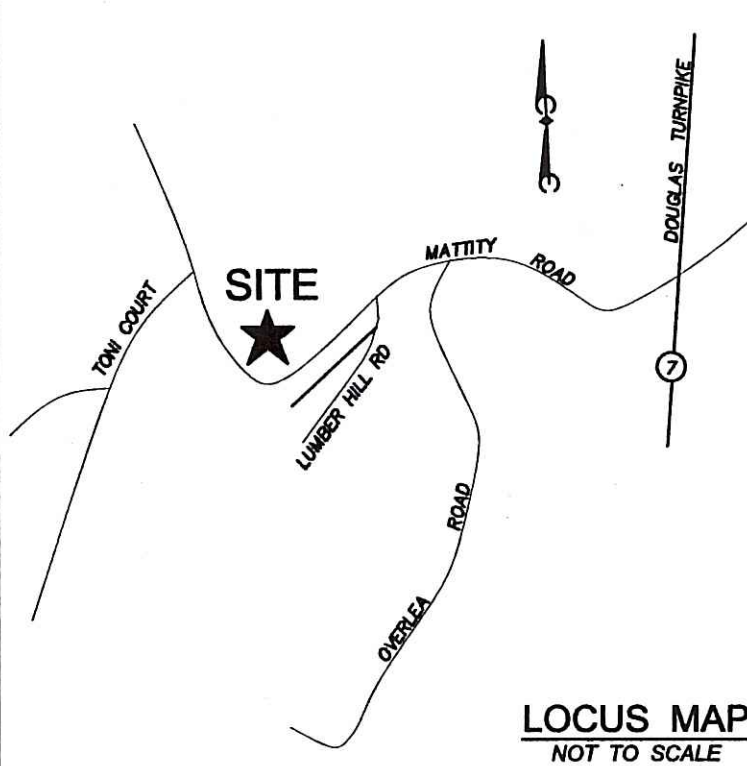
**PROPOSED 4 BEDROOM DWELLING**  
(NO FOUNDATION DRAIN ALLOWED)

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

**BENCH MARK #2**  
NAIL IN 18" PINE  
ELEV. 99.14

**BENCH MARK #1**  
NAIL IN PINE  
ELEV. 100.90

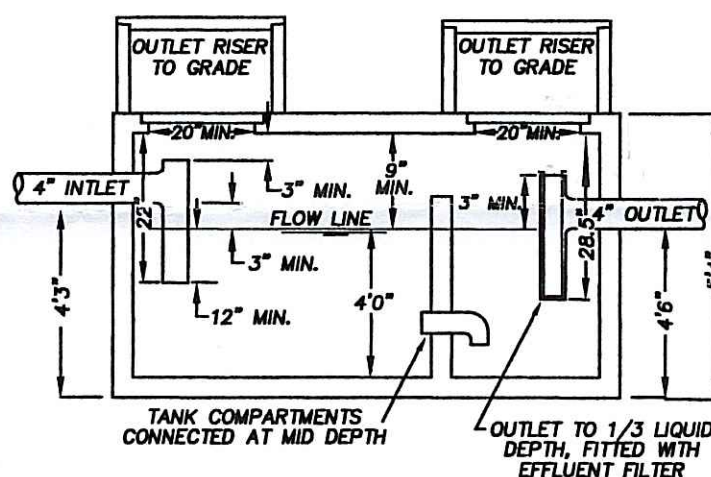
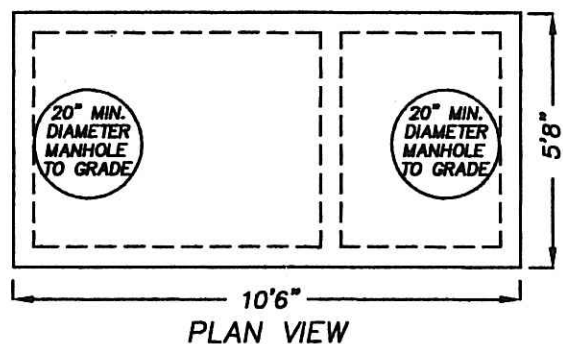
**FORESTED WETLAND**  
(NO REGULATORY SETBACK)



**LOCUS MAP**  
NOT TO SCALE

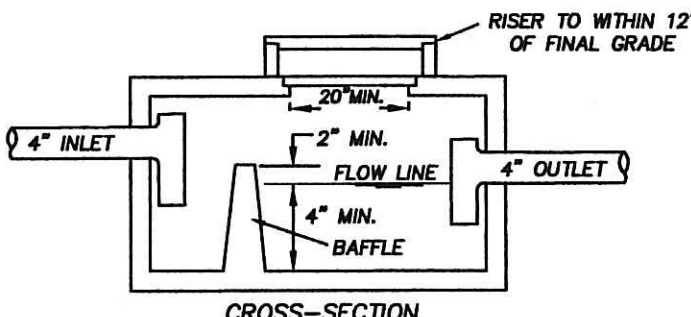
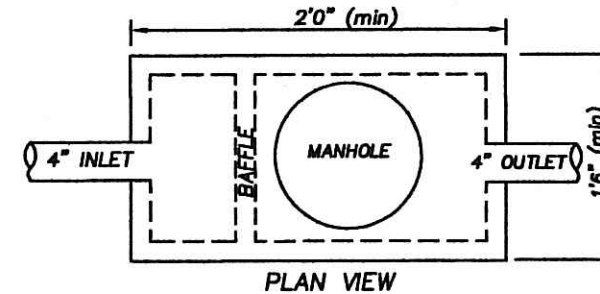
**1,500 GALLON TWO COMPARTMENT SEPTIC TANK**  
NOT TO SCALE

NOTE: GRADE TO DIVERT SURFACE RUNOFF.



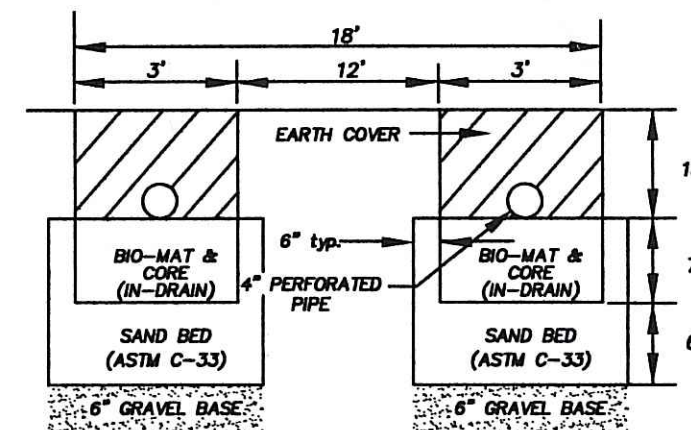
**CROSS-SECTION**

**DISTRIBUTION BOX**  
NOT TO SCALE



**CROSS-SECTION**

**LEACHING SYSTEM CROSS-SECTION**  
NOT TO SCALE



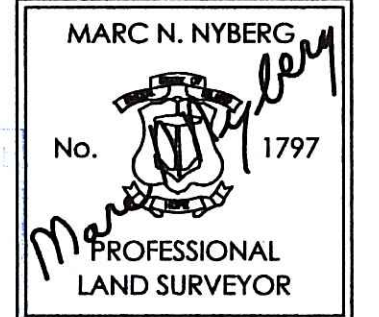
**PROPOSED ONSITE WASTEWATER TREATMENT DESIGN & WETLANDS PLAN FOR JOHN JOYAL**  
NORTH SMITHFIELD, RHODE ISLAND  
SEPTEMBER, 2012 SCALE 1"= 40'

ASSESSOR'S PLAT 10, LOT 151, AREA: 14.86±

LEACHING SYSTEM BY:

MARC N. NYBERG ASSOCIATES, INC.

LAND SURVEYORS and PLANNERS  
501 GREAT ROAD, UNIT 104  
NORTH SMITHFIELD, RHODE ISLAND 02896  
TEL: (401) 762-2870  
FAX: (401) 762-2871



OCT 11 2012

THIS SURVEY AND PLAN CONFORM TO CLASS IV STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

Marc N. Nyberg  
REG. PROFESSIONAL LAND SURVEYOR

**GENERAL NOTES**

- 1) LEACHING TRENCHES TO BE EXCAVATED IN ACCORDANCE WITH RIDEM REGULATION 32.9 FOR ONSITE WASTEWATER TREATMENT SYSTEMS. A 6 INCH GRAVEL BASE TO BE SET BELOW EACH TRENCH IN ACCORDANCE WITH REGULATION 32.12. TREES, BRUSH AND STUMPS WITHIN AND EXTENDING 10 FEET BEYOND LEACHFIELD TO BE REMOVED. THE TRENCHES SHALL BE STRIPPED OF ALL TOPSOIL (A HORIZONS). IN ORDER TO AVOID COMPACTION OF THE B SOIL HORIZON, ONLY TRACKED VEHICLES SHALL BE ALLOWED WITHIN THIS AREA.
- 2) USE SDR #35 PVC PIPING OR EQUIVALENT THROUGHOUT SYSTEM.
- 3) NO WELL EXISTS WITHIN 100' OF THE PROPOSED LEACHING SYSTEM.
- 4) ZABEL EFFLUENT FILTER TO BE INSTALLED AT SEPTIC TANK OUTLET.
- 5) NO WELLS, EXISTING OR PROPOSED, ARE WITHIN 200' FEET OF ISDS. NO PUBLIC WELLS, EXISTING OR PROPOSED, ARE WITHIN 500' OF THE ISDS UNLESS SHOWN.
- 6) BRING SEPTIC TANK MANHOLE TO GRADE AND D-BOX MANHOLE TO WITHIN 12" OF GRADE
- 7) SEPTIC TANK TO BE A MINIMUM OF 75' FROM ALL WELLS.
- 8) ENDS OF LINES IN TRENCH TO BE INTERCONNECTED.
- 9) D-BOX TO HAVE A MINIMUM BOTTOM AREA OF 3 SQUARE FEET AND MEET H-20 WHEEL LOADS WITH MARKER SET TO GRADE.
- 10) SANITARY TEES TO BE INSTALLED IN SEPTIC TANK.
- 11) NO DRAINS OF ANY KIND SHALL BE WITHIN 25' UPGRADIENT OR 50' DOWNGRADIENT OR SIDE GRADIENT OF THE PROPOSED LEACHING SYSTEM.
- 12) 10' FROM LEACHING AREA NOT TO BE LOWER THAN ELEV.: 97.58.
- 13) COVER OVER SEPTIC TANK TO BE GRADED TO DIVERT SURFACE RUNOFF.
- 14) SYSTEM INSTALLATION TO BE SUPERVISED BY THE DESIGNER.
- 15) WASHING MACHINE LINT FILTER IS STRONGLY RECOMMENDED TO PREVENT PREMATURE FAILURE OF ELJEN SYSTEM.
- 3) NO LEACHING SYSTEM EXISTS WITHIN 100' OF THE PROPOSED WELL.

**TEST HOLE DATA**  
DATE: 9/10/12

TH1  
0"-8" A, SIL, 10YR 3/3  
8"-20" Bw, SL, 10YR 5/6  
20"-120" C, CB, G, COS 10YR 6/3  
POCKETS OF MS, 2.5YR 6/3  
NO LEDGE AT 120"  
ESHW: 48"

TH2  
0"-8" A, SIL, 10YR 3/3  
8"-28" Bw, SL, 10YR 5/6  
28"-120" C, ST, CB, G, COS 10YR 6/3  
POCKETS OF MS, 2.5YR 6/3  
NO LEDGE AT 120"  
ESHW: 48"

**DESIGN DATA**

SOIL CATEGORY: 1  
DESIGN LOADING RATE: 0.70  
FIELD SIZE:  
ELJENS, TWO LINES  
24 TOTAL ELJEN UNITS  
672 SQUARE FEET

**SYSTEM PROFILE**  
NOT TO SCALE

