

SOIL DATA

Test Hole "16-01"
Crude @ T.H. = 94'

0' - 8" (A) - 10% 4-20 FINE SANDY LOAM (granular, very friable)
 8" - 16" (BW1) - 10% 4-16, FINE SANDY LOAM (subangular blocky, very friable)
 16" - 36" (BW2) - 2.5% 5/16, GRAVELLY FINE SANDY LOAM (subangular blocky, friable)
 36" - 64" (C) - 2.5% 5/16 GRAVELLY SANDY LOAM (massive, friable)
 64" LEDGE

March 8, 2018 By: Susan Capasso Lic.# D4028 App.# 1813-0125
 ESTIMATED SEASONAL HIGH WATER TABLE 46" FROM ORIGINAL GRADE

SOIL DATA

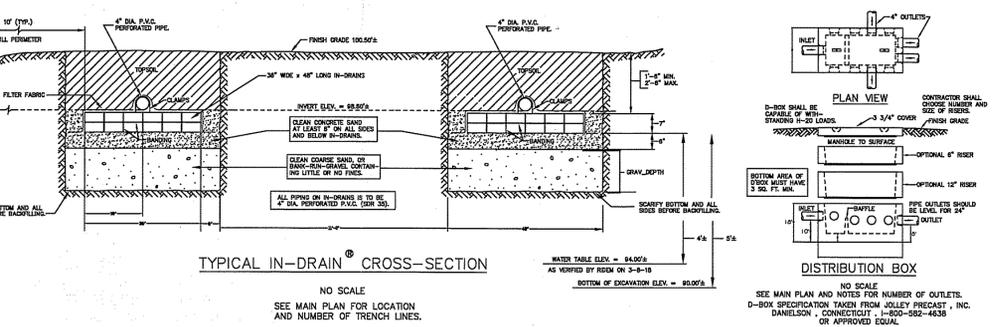
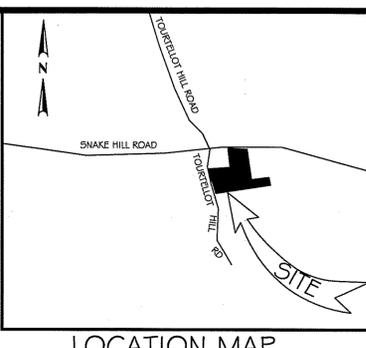
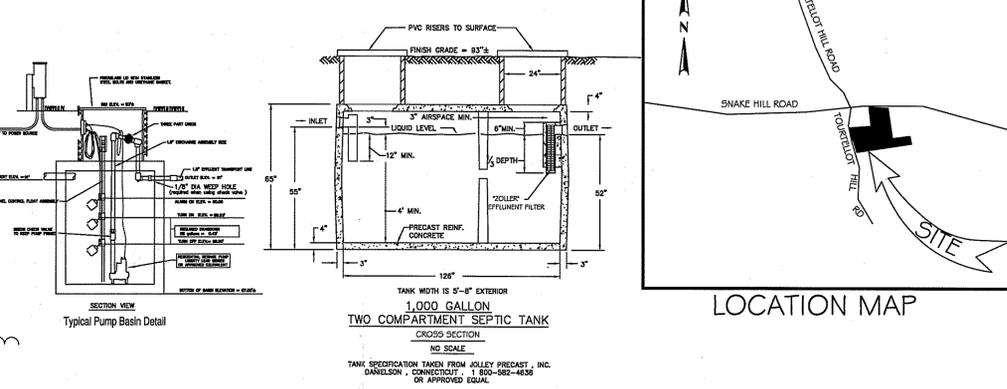
Test Hole "16-02"
Crude @ T.H. = 95'

0' - 8" (A) - 10% 4-20 FINE SANDY LOAM (granular, very friable)
 8" - 20" (BW1) - 10% 4-16, FINE SANDY LOAM (subangular blocky, very friable)
 20" - 32" (BW2) - 2.5% 5/16, GRAVELLY FINE SANDY LOAM (subangular blocky, friable)
 32" - 64" (C) - 2.5% 5/16 GRAVELLY SANDY LOAM (massive, friable)
 64" LEDGE

SOIL DATA

Test Hole "16-03"
Crude @ T.H. = 98'

0' - 8" (A) - 10% 4-20 FINE SANDY LOAM (granular, very friable)
 8" - 16" (BW1) - 10% 4-16, FINE SANDY LOAM (subangular blocky, very friable)
 16" - 30" (BW2) - 10% 5/16, GRAVELLY SANDY LOAM (subangular blocky, friable)
 30" - 96" (C) - 2.5% 5/16 COBBLES, GRAVELLY SANDY LOAM (massive, friable)



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 O.W.T.S. & FRESHWATER WETLANDS
 JOINT PERMIT APPROVAL

O.W.T.S. 1813-0125 P.W. 18-0002
 APPROVED: [Signature] DATE: 5/18/18
 No Changes Allowed Without RIDWP Approval

SYSTEM DESIGN

SOIL CATEGORY 4
 LOADING RATE per Table 32.2.2. = .61 gals/sqft/day

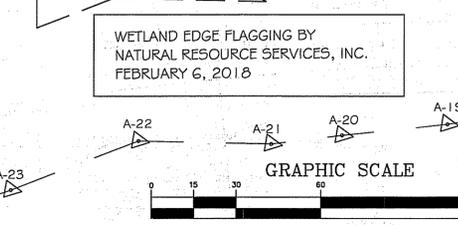
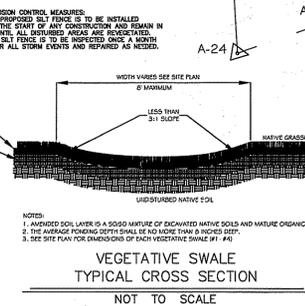
DWELLING HAS 3 BEDROOMS
 115 x 3 BEDROOMS = 345 Sq. Ft.
 345 / .61 = 566 Sq. Ft.
 DESIGN USING ELJEN INDRAINS
 566 / 7 (in-drain credit) = 81 linear feet
 81 / 4 (length of units) = 20.25 units
 SYSTEM NEEDS A MINIMUM OF 21 ELJEN UNITS
 SYSTEM DESIGNED WITH 22 ELJEN UNITS,
 HAVING A TOTAL OF 616 SQUARE FEET

SCHEDULE OF INVERTS

INVERT No.	LOCATION OF INVERT	INVERT ELEV.
1	PROP BUILDING SEWER	92.00±
2	SEPTIC TANK - INLET	91.50±
3	SEPTIC TANK - OUTLET	91.25±
4	PUMP CHAMBER - INLET	91.00±
5	PUMP CHAMBER - OUTLET	91.00±
6	DISTRIBUTION BOX - INLET	90.97
7	DISTRIBUTION BOX - OUTLET	90.80
8	END LATERAL	90.60

- NOTES: PROPERTY IS IN THE SCITUATE RESERVOIR CRITICAL RESOURCE AREA**
- ALL OTHER DESIGN, CONSTRUCTION AND MAINTENANCE REQUIREMENTS WHETHER NOTED HEREON, OR NOT, SHALL BE IN CONFORMANCE WITH RULES & REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ON-SITE WASTEWATER TREATMENT SYSTEMS, DATED: JUNE 2016.
 - A 1000 GALLON TWO COMPARTMENT SEPTIC TANK IS REQUIRED, AND A CONCRETE DISTRIBUTION BOX IS REQUIRED AND MUST BE CAPABLE OF WITHSTANDING H-20 WHEEL LOADS.
 - ALL SEWER PIPES A GRAVITY AND SHALL BE 4" DIAMETER, SCH 40 FROM HOUSE TO TANK AND TANK TO D-BOX ALL OTHER PIPING SHALL BE SDR35 UNLESS NOTED OTHERWISE.
 - THE SEPTIC TANK SHALL HAVE TWO WATER TIGHT MANHOLES BROUGHT TO GRADE.
 - A SEPTIC EFFLUENT FILTER IS REQUIRED AND SHALL BE PLACED IN THE SEPTIC TANK OUTLET TEE.
 - PROPOSED LEACHFIELD SYSTEM IS DESIGNED USING ELJEN INDRAINS, THERE ARE 22 UNITS ALL UNITS SHALL HAVE 6" OF CONCRETE SAND AROUND ALL SIDES AND 6" UNDER ALL UNITS THE LEACHFIELD AND FIVE FEET BEYOND SHALL BE STRIPPED OF ALL FILL AND TOPSOIL (A HORIZONTAL AND BACKFILL WITH GRAVEL THAT MEETS THE REQUIREMENTS OF RULE 32.12)
 - THE OWNER SHALL BE AWARE THAT SEPTIC SYSTEMS REQUIRE MAINTENANCE AND IT IS RECOMMENDED THAT A SYSTEM INSPECTION BE PERFORMED AT LEAST EVERY THREE YEARS TO ASSESS THE OPERATION AND INTEGRITY OF THE SYSTEM AND TO DETERMINE A SEPTIC PUMPING SCHEDULE.
 - THE SEPTIC TANK EFFLUENT FILTER SHOULD BE CLEANED ANNUALLY BY THE HOME OWNER OR A SEPTIC INSPECTOR CONTRACTOR.
 - THE PROPOSED STRUCTURE AS SHOWN IS A THREE BEDROOM DWELLING WITH A WALK-OUT FOUNDATION
 - DEM REQUIRES CLEARING OF ALL TREES AND STUMPS WITHIN 10' OF SYSTEM.
 - THERE SHALL BE NO SUBSURFACE, FOUNDATION OR STORM DRAINS WITHIN 25' OF THE SYSTEM.
 - UNLESS SHOWN THERE ARE NO KNOWN DRAINS WITHIN 200' OF PROPOSED LEACH FIELD.
 - PROPOSED WELL AREA AS SHOWN IS AT LEAST 50' OFF THE EDGE OF PAVEMENT. PROPOSED SERVICE LINE MUST MAINTAIN A MINIMUM OF 25' FROM PROPOSED SYSTEM.
 - THERE ARE NO EXISTING OR PROPOSED PRIVATE DRINKING WATER WELLS WITHIN 200' OF THE PROPOSED O.W.T.S. EXCEPT AS SHOWN ON THIS SITE PLAN.
 - THERE ARE NO KNOWN PUBLIC DRINKING WELLS WITHIN 500' OF PROPOSED O.W.T.S.
 - THE CONTRACTOR MUST FOLLOW ALL ITEMS CIRCLED IN THE LOWER RIGHT HAND AREA OF THE ISDS APPLICATION LABELS-IMPORTANT AND NOTIFY ENGINEER DURING THE DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS (AS REQUIRED BY DEM).
 - THE CONTRACTOR MUST NOTIFY LICENSED DESIGNER 48 HOURS PRIOR TO START OF CONSTRUCTION WITH VALID INSTALLERS LICENSE NUMBER. DESIGNER MUST NOTIFY DEM 24 HOURS PRIOR TO START OF CONSTRUCTION IN ACCORDANCE WITH SO 43.50.
 - IF CONTRACTOR ENCOUNTERS UNANTICIPATED CONDITIONS DURING CONSTRUCTION WHICH INDICATED THAT THE SYSTEM CANNOT BE INSTALLED IN ACCORDANCE WITH THE APPROVED DESIGN, INSTALLER SHALL STOP CONSTRUCTION AND NOTIFY THE LICENSED DESIGNER RESPONSIBLE FOR WITNESSING AND INSPECTING THE INSTALLATION IN ACCORDANCE WITH SO 27.00 (a).
 - THE LICENSED DESIGNER SHALL WITNESS AND INSPECT ALL ASPECTS OF THE INSTALLATION, RECORD, AND PREPARE THE CERTIFICATE OF COMPLETION.
 - THE DESIGNER IS NOT RESPONSIBLE FOR ANY NEGLIGENT ACT OF OMISSION OF A USER OF AN O.W.T.S. INCLUDING BUT NOT LIMITED TO, FAILURE TO PROPERLY USE AND MAINTAIN THE SYSTEM, WHICH CAUSES DAMAGE TO THE O.W.T.S.
 - THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
 - CONTRACTOR TO NOTIFY ENGINEER DURING THE DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS (AS REQUIRED BY DEM).
 - THE CONTRACTOR SHALL PROVIDE DESIGNER WITH MATERIAL RECEIPTS FOR ALL CONSTRUCTION MATERIALS PRIOR TO DESIGNER ISSUING CERTIFICATE OF CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLAN ON-SITE AT ALL TIMES.
 - LOT AREA: 11.65 AC.
 - PROPERTY LINE WAS OBTAINED FROM PLAN ENTITLED "CLASS 1 SURVEY PLAN" PREPARED BY ROBERT OLIVER JR. P.L.S. TOPOGRAPHY BASED UPON SITE SURVEY CONDUCTED IN FEBRUARY 2018.
 - SYSTEM ELEVATION OF 90.60 MUST BE MAINTAINED FOR 10' AROUND THE SEPTIC SYSTEM.

- STORMWATER MANAGEMENT PLAN:**
- THE RUN-OFF FROM THE PROPOSED 12-FOOT GRAVEL DRIVEWAY, DWELLING ROOF, AND GARAGE ROOF SHALL BE DIRECTED TO THE VEGETATIVE SWALE SHOWN.
 - REQUIRED SETBACKS FOR VEGETATIVE SWALES:
 PRIVATE DRINKING WATER WELLS = 50 FEET
 ON-SITE WASTEWATER TREATMENT SYSTEMS = 15 FEET
 BUILDING STRUCTURES = 10 FEET
 ANY CHANGES TO THE PROPOSED WELLINGS AND DRIVEWAY ARE TO REQUIRE A NEW STORMWATER MANAGEMENT PLAN.
- MAINTENANCE PLAN FOR THE VEGETATIVE SWALE:**
- THE OWNER IS RESPONSIBLE TO INSURE THAT THE STORMWATER MEASURES ON SITE ARE MAINTAINED PROPERLY AND FUNCTIONING AS DESIGNED.
 - THE STORMWATER MEASURES ON-SITE ARE TO BE INSPECTED ON AN ANNUAL BASIS OR AFTER ALL LARGE STORM EVENTS AND REPAIRED AS NEEDED.
 - THE INSPECTION OF THE STORMWATER MEASURES WILL INCLUDE:
 • CLOGGED GUTTERS AND DOWN SPOUTS
 • ERODED SLOPES AND BOTTOMS
 • ACCUMULATED SEDIMENT
 • ANY OTHER ITEMS THAT DO NOT ALLOW THE STORMWATER SYSTEMS TO OPERATE PROPERLY.
 - THE STORMWATER MEASURES ARE TO BE REPAIRED IF THE FOLLOWING IS ENCOUNTERED DURING THE INSPECTION PROCESS:
 • CLOGGED GUTTERS AND/OR DOWN SPOUTS ARE TO BE CLEANED.
 • IF THE SURFACE OF THE SWALE BECOMES CLOGGED TO THE POINT THAT STANDING WATER IS OBSERVED ON THE SURFACE 48 HOURS AFTER PRECIPITATION EVENTS, THE BOTTOM SHALL BE ROTO-TILLED OR CULTIVATED TO BREAK UP ANY HARD-PAKED SEDIMENT, AND THEN RESEDED.
 • ALL OTHER ISSUES THAT WILL NOT ALLOW THE STORMWATER SYSTEMS TO OPERATE PROPERLY ARE TO BE REPAIRED AS NEEDED.
 - GENERAL MAINTENANCE**
 VEGETATIVE SWALES SHALL BE MOWED AS REQUIRED TO MAINTAIN MINIMUM GRASS HEIGHTS IN THE 4-6 INCH RANGE.
 EVERY FIVE YEARS, THE CHANNEL BOTTOM OF DRY SWALES SHOULD BE SCRAPPED TO REMOVE SEDIMENT AND TO RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE, AND SHOULD BE SEEDED TO RESTORE GROUND COVER, WHERE NECESSARY.



- LEGEND**
- 99 - PROPOSED CONTOUR
 - 1.00' - EXISTING CONTOUR
 - — — — — PROPERTY LINE
 - — — — — — TEST HOLE 1
 - — — — — — WELL
 - — — — — PROPOSED SILT FENCE
 - — — — — — STONE WALL

- SEDIMENTATION CONTROL PROGRAM:**
- A TEMPORARY SILT FENCE, HAY BALES OR PROTECTIVE COVER SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE MAINTAINED ON A REGULAR BASIS. IN ADDITION TO THE LINE OF THE SILT FENCE AT THE LIMIT OF PERMANENT DISTURBANCE, TEMPORARY BARRIERS SHALL BE CONSTRUCTED AT THE TOE OF THE DISTURBED (CUT OR FILL) SLOPES UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED.
 - DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE FLOW DURING STORMS AND PERIODS OF RAINFALL.
 - SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
 - BANKS AND SLOPES NOT RECEIVING RIP RAP PROTECTION SHALL BE SEEDED AND PROTECTED WITH A FIBER MULCH.
- SLOPE STABILIZATION AND VEGETATION:**
- THE SILT FENCE OR HAY BALES SHALL BE PLACED AT THE TOE OF ALL DISTURBED SLOPES. THIS SHALL BE MAINTAINED AS A SEDIMENT BARRIER UNTIL THE SLOPES ARE STABILIZED WITH GRASS.
 - THE DISTURBED SLOPES (CUT OR FILL) SHALL BE IMMEDIATELY MULCHED AS AN EROSION PROTECTION MEASURE.
 - MAINTAIN MULCH UNTIL THE SLOPES ARE STABILIZED WITH A SATISFACTORY GROWTH OF GRASS.
 - VEGETATION REMOVED MAY BE SHREDDED AND CHIPPED ON SITE FOR USE AS MULCH, OR IT MAY BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
 - THE RESEEDING OF THE DISTURBED SLOPES SHALL BE CONDUCTED WITH SEED MATERIALS SELECTED FOR PRODUCTION OF A QUICK COVER AND HARDY STAND. PARTICULARLY A CONSERVATION GRASS SEED OR COMPARABLE. THE SEEDING SHALL BE IN ACCORDANCE WITH COMMON NURSERY PRACTICE IN THE RHODE ISLAND AREA.
 - PROVIDED THAT THE PROVISIONS OF THE SEDIMENTATION & EROSION CONTROL PLAN ARE IMPLEMENTED, THERE WILL BE NO ADVERSE ENVIRONMENTAL EFFECTS FROM THE PROPOSED CONSTRUCTION.

Designers Lic. D2104

MICHAEL C. GRAY
 No. 19457
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

TITLE: **PROPOSED O.W.T.S PLAN**

PROJECT: **NEIL & RACHEL ALBENESE**
A.P. 15, LOT 152
TOURTELLOT HILL ROAD
GLOCESTER, R.I.

PROJ. NO: 18-2
 DATE: 3-25-18

MICHAEL C. GRAY, PE
 146 DOUGLAS HOOK ROAD
 CHEPACHET, RI 02814

SCALE: AS SHOWN