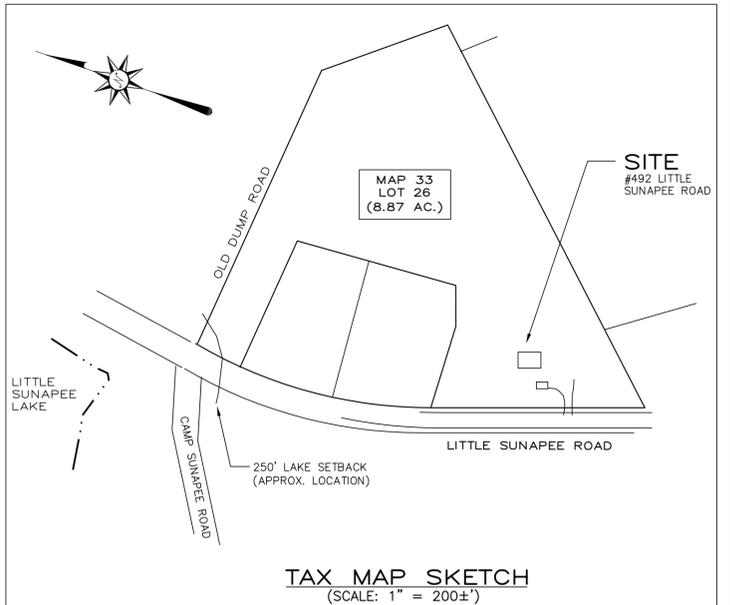


PROPOSED ENVIRO-SEPTIC DISPOSAL SYSTEM - 7 LINES, 40' LONG - WIDTH = 10'



LITTLE SUNAPEE ROAD

APPROXIMATE PROPERTY LINE (TYPICAL)

REFERENCE POINT - CORNER OF BUILDING

EXISTING WATER SERVICE MUNICIPAL WATER SUPPLY

**LOT LOADING CALCULATIONS:**  
 TOTAL LAND AREA: 8.87 AC.  
 WATER SUPPLY: OFF LOT MUNICIPAL WATER SUPPLY, GROUP 3 AND 5 SOILS.  
 TOTAL UPLAND < 35% SLOPES: APPROX. 7 AC; GROUP 3 SOIL, D SLOPE, F=2.08  
 $Z(2000) = 6730 \text{ GPD APPROX. } 2.08$   
 TOTAL PROPOSED = 5 BR = 750 GPD. OK

**WETLAND NOTE:**  
 1. AUDRA L. KLUMB, NH CERTIFIED WETLAND SC. #222, PERFORMED THE WETLAND MAPPING FOR THIS SITE ON SEPTEMBER 10, 2018 ACCORDING TO THE TECHNICAL CRITERIA OF THE US ARMY CORPS OF ENGINEERS REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH CENTRAL AND NORTHEAST REGION (VERSION 2), JANUARY 2012, AND NH STATUTE RSA 482-A:2X.

100' WETLAND SETBACK LINE  
 100' STREAM SETBACK LINE

DENOTES THE LIMITS OF NH JURISDICTIONAL WETLAND (POORLY DRAINED); AREA IS WITHIN THE NEW LONDON, WETLANDS CONSERVATION OVERLAY DISTRICT  
 ACTUAL STREAM LOCATION (AS REPRESENTED ON THE NEW LONDON STREAMS AND WETLANDS PROTECTION MAP (MARCH 2001))

TBM: ELEV. = 100.00 NAIL SET IN ROOT FLARE OF SUGAR MAPLE (SOUTH SIDE, AT GRADE)  
 PROPOSED 1500 GALLON SEPTIC TANK

PROPOSED BUILDING ADDITION INSIDE OF THE 100' WETLANDS AND STREAM CONSERVATION OVERLAY DISTRICTS, AND THE STEEP SLOPES OVERLAY DISTRICT

**PLAN NOTES**

1. THIS PLAN HAS BEEN PREPARED TO SUBMIT TO THE NH DEPT. OF ENVIRONMENTAL SERVICES AS PART OF AN APPLICATION FOR AN APPROVAL FOR CONSTRUCTION FOR A PROPOSED SUBSURFACE DISPOSAL SYSTEM, AND TO THE TOWN OF NEW LONDON.
2. THIS PROJECT INVOLVES A 20' X 30' ADDITION TO THE EXISTING HOUSE AND THE CONSTRUCTION OF A NEW SEPTIC SYSTEM. THE EXISTING SYSTEM IS APPROXIMATELY 30' FROM WETLAND, WHILE THE PROPOSED SYSTEM IS TO BE SET BACK GREATER THAN 100' FROM WETLAND.
3. THIS PROPERTY AND PROPOSED ADDITION IS WITHIN THE TOWN OF NEW LONDON, WETLANDS & STREAM CONSERVATION OVERLAY DISTRICTS. THE PROPOSED SEPTIC SYSTEM IS OUTSIDE OF THE DISTRICT.
4. THE EXISTING GROUND SLOPE AT THE PROPOSED BUILDING SITE IS 17%, AND IS WITHIN THE TOWN'S STEEP SLOPES OVERLAY DISTRICT.
5. THE EXISTING NUMBER OF BEDROOMS IS 3; 5 BEDROOMS ARE PROPOSED.
6. THE CONTRACTOR SHALL CONTACT DIG SAFE PRIOR TO THE START OF CONSTRUCTION.

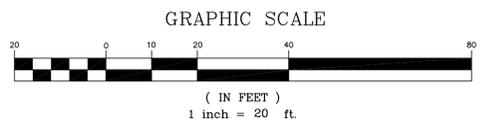
STREAM FLOW FROM AN APPARENT MANDATE SUBSURFACE DRAINAGE STRUCTURE (STONE DRAIN)

DENOTES THE LIMITS OF NH JURISDICTIONAL WETLAND (POORLY DRAINED); AREA IS WITHIN THE NEW LONDON, WETLANDS CONSERVATION OVERLAY DISTRICT

REMOVE OR FILL IN EXISTING SEPTIC TANK

EXISTING EFFLUENT DISPOSAL FIELD TO BE DISCONTINUED

100' WETLAND SETBACK LINE



NO.	DATE	DESCRIPTION	BY
1	9-25-18	DECK	MRM

**LEGEND**

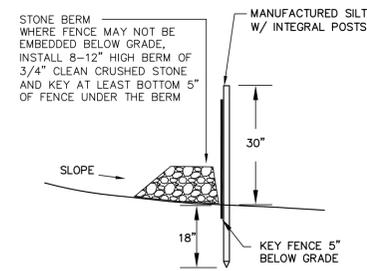
- DRAIN PIPE
- - - EXIST. CONTOUR
- - - F454
- - - PROP. CONTOUR
- - - WETLAND/STREAM
- STONE CHECK DAM
- PT TEST PIT & PERC TEST
- EXIST. UTILITY POLE
- x SILT FENCE

**MOSER ENGINEERING**  
 PLANNING DESIGN ENVIRONMENTAL CONSULTING  
 PO Box 2165 Henniker, NH 03242 603-428-6624

PREPARED FOR  
**TALBOT BUILDERS, LLC**  
 PO BOX 1077  
 NEW LONDON, NH 03257

PROPOSED SEPTIC SYSTEM  
 FOR  
 FOR TAX MAP 33, LOT 26  
 AT  
 NEW LONDON, NH

SCALE: 1" = 20'  
 DATE: SEPTEMBER 12, 2018  
 PROJECT: S18111  
**SHEET 1**



**NOTES**

1. SILT FENCE SHALL BE INSTALLED WHERE DEPICTED ON THE PLANS. PLACE FENCE AT APPROX. 6' FROM THE TOE OF SLOPE TO FACILITATE MAINTENANCE.
2. THE ENDS OF THE SILT FENCE SHALL BE TURNED UPHILL. INSTALL WITH A CURVED SHAPE TO PROVIDE EFFICIENT PONDING OF STORMWATER.
2. WHERE 2 SECTIONS OF FABRIC ARE TO BE MEET, OVERLAP BY 6", AND FOLD THE FABRIC.
3. SUPPORTS SHALL BE AT A MAXIMUM SPACING OF 6'.
4. INSTALL HAY BALES BEHIND THE FENCE AT LOCATIONS WHERE ADDITIONAL SUPPORT IS REQUIRED.



**DETAIL SILT FENCE**  
(NOT TO SCALE)

**CONSTRUCTION NOTES SEPTIC SYSTEM**

1. MATERIALS, INSTALLATION AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH THE "SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN RULES, CHAPTER ENV-WQ 1000, DATED 2008 BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, WATER DIVISION, AND REVISED TO 4-16-2011; AND THE NEW HAMPSHIRE DESIGN AND INSTALLATION MANUAL FOR ENVIRO-SEPTIC (ES), ADVANCED ES, AND SIMPLE-SEPTIC WASTEWATER TREATMENT SYSTEMS DATED SEPTEMBER 2013 BY PRESBY ENVIRONMENTAL, INC., WHITEFIELD, NH.
2. SEPTIC SYSTEM SAND SHALL BE A MEDIUM TO COARSE TEXTURED SAND WITH AN EFFECTIVE GRAIN SIZE OF .25 TO 2.0 MM, NO GREATER THAN 3% PASSING THE #200 SIEVE AND NO PARTICLES GREATER THAN 3/4", OR ASTM C-33 CONCRETE SAND.
3. CLEAN PERMEABLE FILL SHALL BE A CLEAN SAND, CONTAIN NO ORGANIC MATTER OR CONSTRUCTION DEBRIS, NO STONES GREATER THAN 6", AND NO MORE THAN 10% BY WEIGHT PASSING THE #200 SIEVE.
4. PIPE CONNECTIONS TO THE SEPTIC TANK AND DISTRIBUTION BOX SHALL BE MADE WITH A FLEXIBLE JOINT SUCH AS POLYLOK SEALS. THE FOUNDATION CONNECTION SHOULD BE SEALED WITH A NON-SHRINK MORTAR.
5. THE SEPTIC TANK SHALL BE CONSTRUCTED OF REINFORCED CONCRETE IN ACCORDANCE WITH THE RULES AND SHALL BE SEALED WATERTIGHT. THE MINIMUM TANK CAPACITY REQUIRED IS 1500 GALLONS; H-10 LOADING. A BITUMASTIC SEAL SHALL BE USED BETWEEN TANK SECTIONS. SEPTIC TANK SHALL BE MANUFACTURED BY LE WEED & SON OR EQUAL. THE SEPTIC TANK SHALL BE SET LEVEL ON A SUITABLE FOUNDATION AND BACKFILLED WITH A GRANULAR MATERIAL WITH NO STONES LARGER THAN 2". THE PIPE CONNECTIONS TO THE TANK ARE TO BE MADE WITH A FLEXIBLE JOINT. THE INLET Baffle SHALL DIVERT SEWAGE DOWNWARD AND EXTEND 8 TO 10 INCHES BELOW THE LIQUID LEVEL. THE OUTLET Baffle SHALL EXTEND DOWNWARD TO A DISTANCE EQUAL TO 40% OF THE LIQUID LEVEL. BOTH Baffles ARE TO BE CONSTRUCTED OF PLASTIC, SECURED TO THE RESPECTIVE PIPES USING STAINLESS STEEL SCREWS, AND VENTED TO A DISTANCE OF NOT LESS THAN 1" BELOW THE TOP INTERIOR OF THE TANK.
6. SEPTIC TANK ACCESS: EACH TANK COMPARTMENT SHALL BE ACCESSIBLE BY MEANS OF AT LEAST ONE REMOVABLE COVER THAT MEASURES BETWEEN 20-24" IN DIAMETER, AND IS AT, OR WITHIN 12" OF FINISH GRADE. IF AN EFFLUENT FILTER IS PRESENT IN THE TANK OUTLET, THE COVER SHALL BE AT FINISH GRADE, AND EITHER LOCKED, MECHANICALLY FASTENED, OR CONSTRUCTED OF A HEAVY MATERIAL SUCH AS CAST IRON. FOR RISERS GREATER THAN 24" IN HEIGHT, A 36" COVER IS TO BE PROVIDED.
7. NO DISTRIBUTION BOX FOR THIS DESIGN.
8. SOLID SEWER PIPE SHALL BE 4" INSIDE DIAMETER AND CONSTRUCTED OF SDR 35 PVC. PIPE BEDDING AND BACKFILL SHALL BE A GRANULAR MATERIAL WITH NO STONE LARGER THAN 2". GRANULAR MATERIAL SHALL EXTEND FROM 6" BELOW TO 6" RADIALLY AROUND THE PIPE. WHERE THE PIPE COVER IS LESS THAN 4" AND THE AREA IS TO BE PLOWED IN WINTER, THE PIPE SHALL BE INSULATED WITH 2" WIDE SHEETS OF 2" RIDGED POLYSTYRENE.
9. THERE SHALL BE NO VEHICULAR TRAFFIC OVER ANY PORTION OF THE SEPTIC SYSTEM UNLESS THE SYSTEM IS DESIGNED FOR LOADS. THIS SYSTEM IS NOT DESIGNED FOR VEHICULAR TRAFFIC.
10. THE SEPTIC SYSTEM SHALL BE REPLACED AT THE SAME LOCATION UNLESS OTHERWISE DEPICTED.
11. THE INSTALLER SHALL REPORT ANY DISCREPANCIES BETWEEN APPROVED PLANS AND FIELD CONDITIONS PRIOR TO CONSTRUCTION. INSTALLER TO LOCATE UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

**DESIGN INTENT**

SYSTEM TYPE: ENVIRO-SEPTIC BY PRESBY ENVIRONMENTAL, INC.  
ESHW TABLE @ 2.33' FEET  
50% RULE APPLIED: YES  
THE AVERAGE ELEVATION AT EDA = 99.25 - 2.33 + 2.5 = 99.42  
HIGH CORNER OF THE EDA: = 100.0; MAINTAIN A MIN 2' SEPARATION TO SHWT.  
PROPOSED BED BOTTOM ELEVATION = 99.70

THE BOTTOM OF THE EFFLUENT DISPOSAL AREA (EDA) SHALL BE CONSTRUCTED AT ELEVATION 99.7. THIS IS APPROXIMATELY 0.3' BELOW ORIGINAL GROUND ON THE HIGH CONTOUR (CORNER) OF THE EDA.

**DESIGN FLOW**

DESIGN FLOW IS 5 BEDROOMS = 750 GPD. (150 GPD/BEDROOM)  
PERCOLATION RATE = 12 MPI LINEAR FOOTAGE DESIGNED = 280 FEET; 280 FEET = 7 ROWS, 40 FEET LONG EACH ROW

**PLAN NOTES**

1. THIS PLAN HAS BEEN PREPARED TO TO SUBMIT TO THE NHDES, WATER DIVISION AS PART OF AN APPLICATION FOR AN APPROVAL FOR CONSTRUCTION OF AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM (ISDS) AND IS TO BE USED SOLELY FOR THIS PURPOSE. PROPOSED HOUSE AND DRIVEWAY LAYOUT AND FOUNDATION ELEVATION BY OTHERS.
  2. THE PROPERTY LINES DEPICTED ARE APPROXIMATE AND ARE NOT THE RESULT OF A PRECISE BOUNDARY SURVEY. THE DESIGNER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOT LINES SHOWN UNLESS THEY HAVE BEEN FIELD LOCATED BY A NH LAND SURVEYOR AT THE OWNER'S EXPENSE.
  3. IT IS THE OWNER'S RESPONSIBILITY TO RESTRICT DISCHARGES TO ORDINARY DOMESTIC SEWAGE, CHEMICALS, PAINTS, AND SOME CLEANERS WILL DEGRADE THE SEPTIC SYSTEM AND COULD RESULT IN GROUND WATER CONTAMINATION.
  4. THIS SYSTEM HAS NOT BEEN DESIGNED TO ACCEPT WASTE FROM GARBAGE DISPOSALS, OR WATER TREATMENT SYSTEMS.
  5. THE FOLLOWING IS A PARTIAL LIST OF THE MINIMUM SETBACK DISTANCES ESTABLISHED BY ENV-WQ 1008.04, AND MAY BE SUPERSEDED BY LOCAL REGULATIONS:
- | RECEPTOR      | SEPTIC TANK | EFFLUENT DISPOSAL AREA |
|---------------|-------------|------------------------|
| SURFACE WATER | 75'         | 75'                    |
| PRIVATE WELL  | 50'-75'     | 75'                    |
| OPEN DRAINAGE | 75'         | 75'                    |
| FOUNDATION    |             |                        |
| W/ DRAINS     | 5'          | 15'                    |
| W/O DRAINS    | 5'          | 10'                    |
| DRAIN OUTFALL | 25'         | 25'                    |

**WAIVERS PROPOSED**

RULE NUMBERS: 1021.04

**NRCS SOIL TYPE**

PERU FINE SANDY LOAM, VERY STONY, 8-15% SLOPES.

**EROSION & SEDIMENTATION CONTROL PLAN**

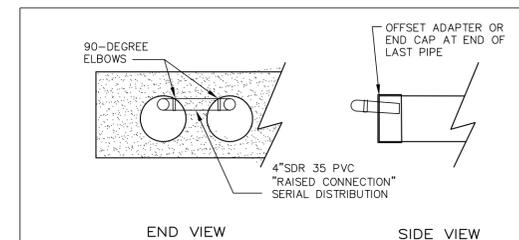
LAND DISTURBANCE INSIDE OF THE NEW LONDON, WETLANDS AND STREAM CONSERVATION OVERLAY DISTRICTS, 100' BUFFER IS REQUIRED FOR THIS PROJECT. PLAN SHEETS 1 & 2 ARE CONSIDERED TO BE A PART OF THIS PLAN.

**REQUIRED NARRATIVE:**

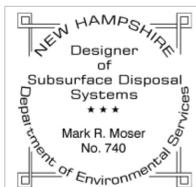
1. LAND DISTURBING ACTIVITY PURPOSE: THE PURPOSE IS TO CONSTRUCT AN ADDITION TO AN EXISTING HOUSE, AND A NEW SEPTIC SYSTEM TO CURRENT STATE STANDARDS.
2. AMOUNT OF GRADING: THE PROPOSED WORK WILL INVOLVE APPROXIMATELY 4,500 SF (0.1 AC) WITHIN THE WETLAND BUFFER.
3. DESCRIPTION OF SOILS: WITHIN THE BUFFER THE SOIL CONSISTS OF MODERATELY WELL DRAINED, SANDY LOAM, AND IS CLASSIFIED AS PERU BY THE USDA, NRCS. (REFER TO THE REPORT BY A & D KLUMB ENVIRONMENTAL, LLC, DATED 9-11-18, FOR THE WETLAND SOILS DESCRIPTION.)
4. TOPOGRAPHY: SLOPES AT THE SITE WITHIN THE BUFFER MEASURED 15-17%.
5. VEGETATION: THE AREA WITHIN THE BUFFER IS PRIMARILY A MAINTAINED LAWN.
6. DRAINAGE: STORMWATER RUNOFF AT THE WETLAND BUFFER IS VIA SHEET FLOW ACROSS THE LAWN, TOWARD THE WETLAND AREA.

**EROSION CONTROL NOTES**

1. SILT FENCE IS TO BE INSTALLED AS DEPICTED ON THE PLANS, PRIOR TO THE START OF CONSTRUCTION.
2. FILL MATERIAL IS TO BE FREE OF STUMPS AND ORGANIC MATTER.
3. SIDE SLOPES SHALL NOT EXCEED 2:1 (HORIZONTAL TO VERTICAL), AND SHALL BE MULCHED WITH HAY AT A RATE OF 2 TONS/ACRE, OR OTHERWISE STABILIZED.
4. ALL DISTURBED AREA SHALL BE LOAMED (4" MIN), SEEDED AND MULCHED.
5. TEMPORARY SEEDING AFTER OCT 15 SHALL BE WINTER RYE AT 2.6 LB/1000 SF.
6. STABILIZATION SHALL BE DEFINED AS FOLLOWS:  
A. WHEN 85% OF VEGETATED GROWTH IS ESTABLISHED.  
B. WHEN AT LEAST 3" OF STONE RIP RAP HAS BEEN PLACED.  
C. WHEN AREAS TO BE PAVED HAVE BEEN COVERED W/ 3" OF GRAVEL.  
D. WHEN EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
7. ALL PROPOSED VEGETATED AREAS WHICH ARE NOT STABLE BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER THIS DATE SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES STEEPER THAN 3:1, AND SEEDING AND PLACING 3-4 TONS PER ACRE OF MULCH SECURED WITH ANCHORED NETTING ELSEWHERE. BLANKETS, MULCH OR NETTING SHALL NOT BE INSTALLED OVER SNOW OR FROZEN GROUND.
8. ALL DITCHES AND SWALES WHICH ARE NOT STABLE BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER THIS DATE, SHALL BE STABILIZED WITH ROCK RIP RAP OR EROSION CONTROL BLANKETS.
9. AFTER NOVEMBER 15TH ALL UNFINISHED PAVED SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3" NON-EROSIVE MATERIAL.



**DETAIL ENVIRO-SEPTIC PIPE CONNECTION-SERIAL DISTRIBUTION**  
(NOT TO SCALE)

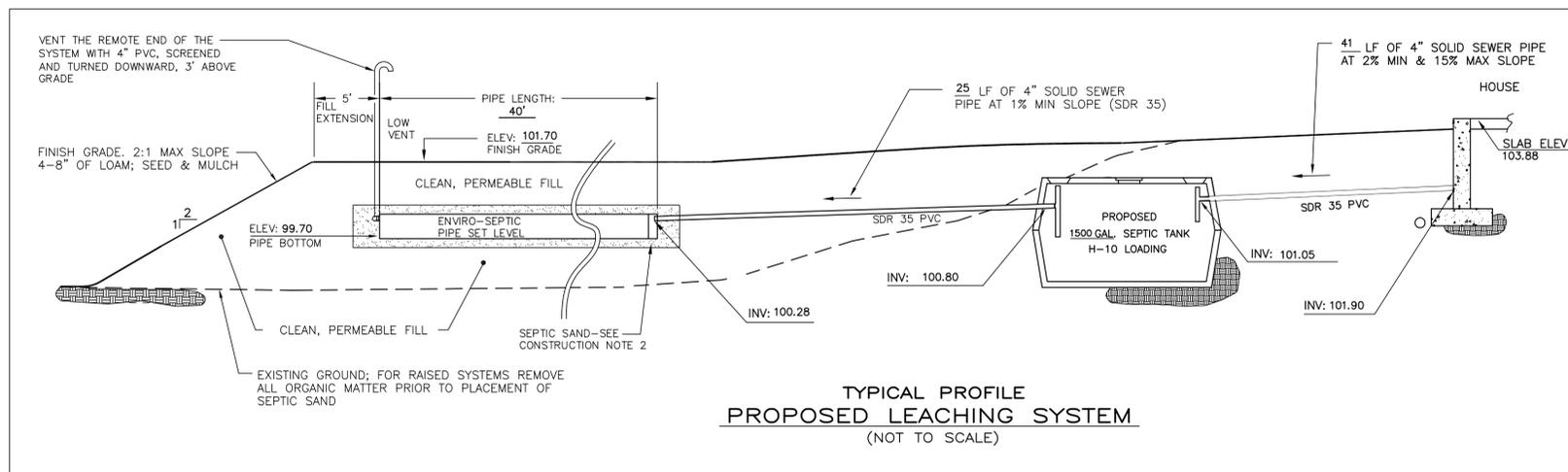
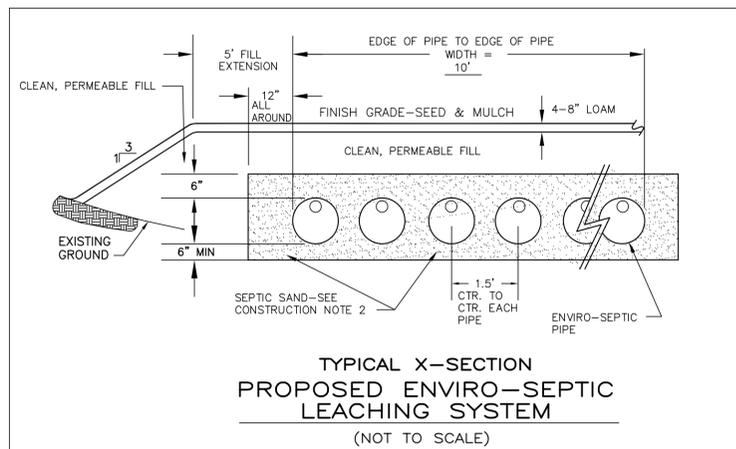


**TEST PIT INFORMATION**

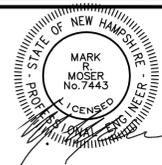
TEST PIT #: 1

0.83'	10 YR 3/1 LOAM LOOSE GRANULAR
1.17'	2.5 Y 4/4 SANDY LOAM LOOSE GRANULAR
2.17'	5 Y 4/3 LOAM FRIABLE GRANULAR
6.0'	5 Y 5/3 LOAM VERY FIRM, GRANULAR

TESTS CONDUCTED ON: 9-6-18  
OBSERVED WATER: NONE  
ROOTS TO: 2.4'  
REDOX FEATURES @: 2.33'  
ESHW TABLE: 2.33'  
LEDGE @: N/A  
PERC RATE: 12 MPI @ 3'



NO.	DATE	DESCRIPTION	BY



PLANNING  
DESIGN  
ENVIRONMENTAL  
CONSULTING

**MOSER**  
ENGINEERING

PO Box 2165  
Henriker, NH 03242  
603-428-6624

PREPARED FOR  
**TALBOT BUILDERS, LLC**  
PO BOX 1077  
NEW LONDON, NH 03257

PROPOSED SEPTIC SYSTEM  
FOR  
FOR TAX MAP 33, LOT 26  
AT  
NEW LONDON, NH

SCALE: 1" = 20'  
DATE: SEPTEMBER 14, 2018  
PROJECT: S18111