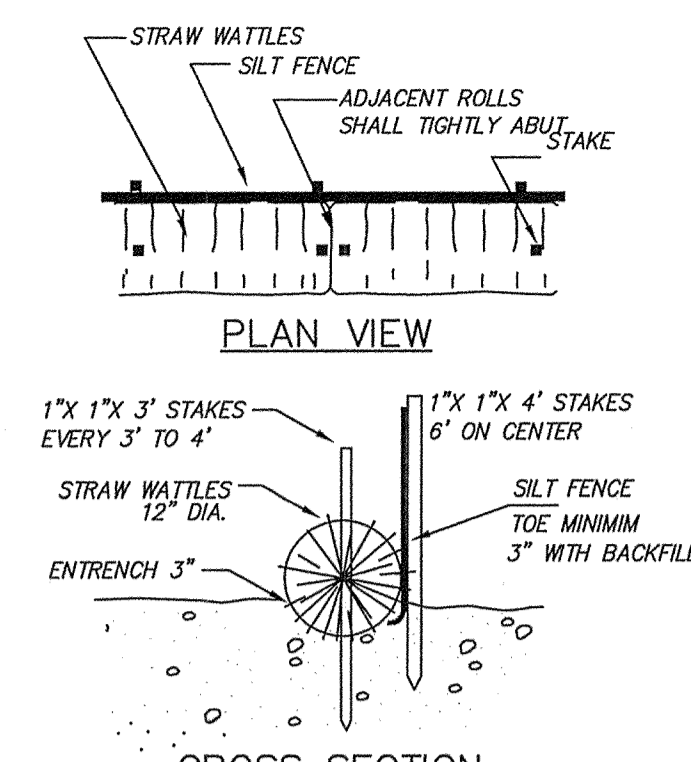
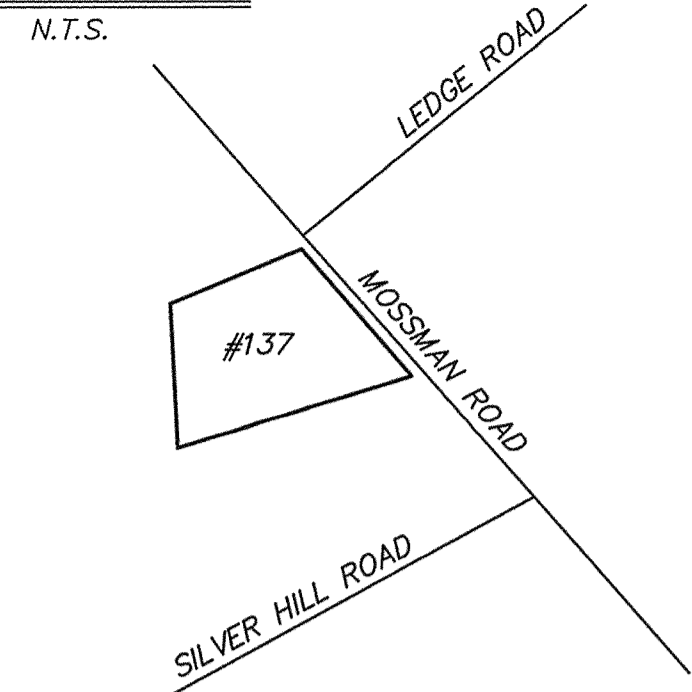


**LOCUS MAP**



STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL TO ENSURE RUNOFF DOES NOT RUN UNDER OR AROUND ROLL.

**SEDIMENT BARRIER DETAIL**

NOT TO SCALE

**ZONING REQUIREMENTS**  
 LOT AREA = 40,000 S.F.  
 FRONTAGE = 180'  
 FRONT SETBACK = 40'  
 SIDE SETBACK = 20'  
 REAR SETBACK = 30'  
 BUILDING HEIGHT = 35'

NOTE: THIS PLAN IS NOT FOR THE PURPOSE OF BUILDING HEIGHT COMPLIANCE.

**SCHEDULE OF ELEVATIONS**

TOP OF FOUNDATION T.C. =	198.0
BASEMENT FLOOR FIN. C.F. =	190.5
INVERT OF PIPE AT FOUNDATION =	195.6
INVERT AT SEPTIC TANK INLET =	194.9
INVERT AT SEPTIC TANK OUTLET =	194.7
INVERT AT DISTRIBUTION BOX INLET =	194.5
INVERT AT DISTRIBUTION BOX OUTLET =	194.3
INVERT AT LEACHING LINES (BEGINNING) =	194.1
INVERT AT LEACHING LINES (END) =	193.9
ELEVATION OF TRENCH BOTTOM =	191.9
FINISH GRADE OVER LEACHING AREA =	196±

**DESIGN CRITERIA**

- ESTIMATED FLOW = 4 BDRMS X 110 GPD/BR=440 GPD
- DESIGN PERCOLATION RATE = 15 MPI
- LEACHING AREA CALCULATION =  
 LOCAL BYLAWS 170 S.F. OF SIDEWALL AREA/BEDROOM = 680 S.F. REQ'D.  
 $SA = 8(2 \times 4 \times 3) = 688 \text{ SF} > 10.32 \text{ SF}(0.56 \text{ GPD/SF}) = 577 \text{ GPD}$   
 $BA = 4(2 \times 4 \times 3) = 344 \text{ SF}$

**SEDIMENTATION AND EROSION CONTROL NOTES:**

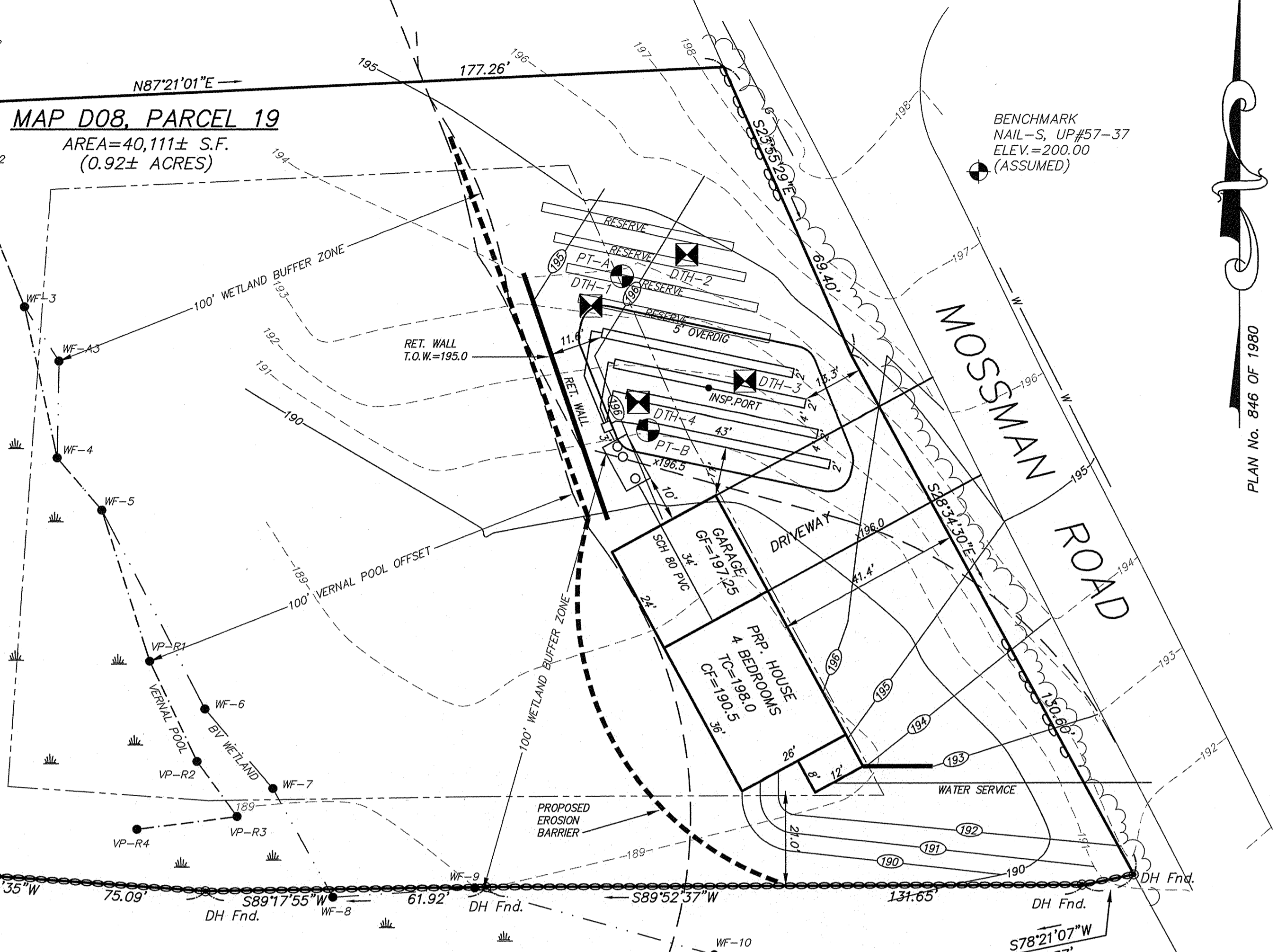
- ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWN OF SUDBURY STORMWATER MANAGEMENT BYLAW AND IMPLEMENTING REGULATIONS.
- PRIOR TO INITIATING CONSTRUCTION, ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND DETAIL DRAWINGS. THIS PLAN DEPICTS THE MINIMUM REQUIRED SEDIMENTATION AND EROSION CONTROLS. THE CONTRACTOR SHALL EMPLOY ADDITIONAL MEASURES AS NECESSITATED BY SITE CONDITIONS, OR AS DIRECTED BY THE OWNER, THE OWNER'S REPRESENTATIVE, OR THE CONSERVATION COMMISSION TO ENSURE PROTECTION OF ALL WETLAND RESOURCES AND CONTROL SEDIMENT TRANSPORT. IF SEDIMENTATION OCCURS, THE CONTRACTOR SHALL STOP WORK AND INSTALL ADDITIONAL SEDIMENTATION CONTROL DEVICES IMMEDIATELY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY AND PERMANENT SEDIMENTATION AND EROSION CONTROLS UNTIL WORK IS COMPLETE AND ALL AREAS HAVE BEEN PERMANENTLY STABILIZED. AT SUCH TIME THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SEDIMENTATION AND EROSION CONTROL MEASURES.
- THE CONTRACTOR SHALL INSPECT SEDIMENTATION AND EROSION CONTROLS ON A DAILY BASIS AND IMMEDIATELY AFTER EACH RAINFALL; REPAIRS SHALL BE MADE BY THE END OF THE WORKING DAY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR, AS REQUIRED BY THE CONSERVATION COMMISSION OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE PREPARED TO ALLOW WORK TO WAIT A DAY OR TWO AFTER RAIN EVENTS TO ALLOW SURFACE SOILS TO DRY.
- SOIL STOCKPILES SHALL BE STABILIZED TO PREVENT EROSION. A SEDIMENT BARRIER SHALL BE PLACED AROUND THE BASE OF THE PERIMETER. NO MATERIALS SUBJECT TO EROSION SHOULD BE STOCKPILED OVERNIGHT WITHIN 100 FEET OF A WETLAND UNLESS COVERED. EQUIPMENT SHALL NOT BE PARKED WITHIN WETLANDS OR BUFFER AREAS.
- DISTURBED AREAS SHALL BE STABILIZED BY LOAMING AND SEEDING, OR BY ANOTHER APPROVED METHOD, AS SOON AS POSSIBLE AFTER THE FINISHED GRADE HAS BEEN MET. DISTURBED AREAS WITH SLOPES 2:1 (H:V) OR GREATER SHALL BE STABILIZED WITH HYDROSEEDING AND SOIL TACKIFIER. IF FINAL GRADING DOES NOT OCCUR DURING THE GROWING SEASON, THESE AREAS SHALL BE MULCHED WITH HAY AND SECURED.
- DEWATERING OPERATIONS, IF REQUIRED, SHALL DISCHARGE ONTO STABILIZED AREAS AND ALL DISCHARGE WATER IS TO PASS THROUGH SEDIMENTATION CONTROL DEVICES TO PREVENT IMPACTS UPON WATER BODIES, BORDERING VEGETATED WETLANDS, DRAINAGE SYSTEMS AND ABUTTING PROPERTIES. NO DISCHARGES FROM DEWATERING OPERATIONS SHALL BE DISCHARGED DIRECTLY TO THE DRAINAGE SYSTEM.
- STREET SWEEPING IN THE VICINITY OF THE PROJECT AREA SHALL BE PERFORMED AS NEEDED UNTIL THE PROJECT LIMITS HAVE BEEN STABILIZED. ALL SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEEPED AT THE END OF EACH WORKING DAY.

**SOURCE CONTROL / POLLUTION PREVENTION MEASURES:**

- PER THE TOWN OF SUDBURY STORMWATER MANAGEMENT BYLAW REGULATIONS, THE FOLLOWING SOURCE CONTROL AND POLLUTION PREVENTION MEASURES SHALL BE EMPLOYED ON THE SITE TO PREVENT CONTAMINATION OF STORMWATER RUNOFF:
- STORE LAWN AND DEICING CHEMICALS UNDER COVER
  - APPLY FERTILIZERS AND PESTICIDES SPARINGLY TO PREVENT WASH-OFF
  - USE OF SLOW RELEASE NITROGEN AND LOW PHOSPHORUS FERTILIZERS IS ENCOURAGED
  - NO FERTILIZATION OR PESTICIDE APPLICATION IN OR NEAR ANY WETLAND RESOURCE AREA
  - DISPOSE OF PET WASTE PROPERLY
  - STORE, USE AND DISPOSE OF HOUSEHOLD HAZARDOUS WASTES PROPERLY
  - LIMIT EXTERIOR WASHING OF VEHICLES TO LOCATIONS THAT DRAIN TO PERVIOUS SURFACES AND AWAY FROM STORM DRAINS
  - MAINTAIN VEHICLES AND CLEAN UP FLUID SPILLS/DROPS FROM PAVEMENT AREAS
  - PUMP AND MAINTAIN SEPTIC SYSTEMS
  - USE ALTERNATIVE DEICERS SUCH AS CALCIUM CHLORIDE AND MAGNESIUM CHLORIDE IN LIEU OF SODIUM BASED DEICERS
  - NO COAL TAR-BASED PAVEMENT SEALANTS ARE TO BE USED ON ANY SITE SUBJECT TO THE GSPM.

**SITE PLAN**

SCALE: 1" = 20'



**GENERAL NOTES:**

- Contractor shall call Digsafe at (888) 344-7233 a minimum of 72 hours prior to commencing any construction activities on site.
- Inspections by Design Engineer and Board of Health are as required by the Board of Health.
- This plan was prepared for the design of the subsurface sewage disposal system only and is based on the subsurface explorations and percolation tests listed below.
- System was designed only to accommodate sanitary sewage associated with normal domestic usage, consisting of water carried putrescible waste, and for flows indicated in the design criteria.
- The system must be vented through the buildings plumbing in accordance with the state building code.
- Owner shall verify effective zoning regulations prior to construction.
- Plans show only features that were visually apparent on the date of the topographic survey, and the absence of subsurface structures, utilities, etc. is not guaranteed.
- Contractor to determine if site conditions are suitable for construction of proposed system, and must promptly notify the Design Engineer and Owner, in writing, of any plan deficiencies, unforeseen subsurface conditions, or required changes.
- There are no wells located within 100 feet of the proposed leaching area or within 100 feet of the proposed septic tank (except as shown).
- The subject property is not located within a Zone II of a public drinking water supply well.
- All construction is to conform to the requirements of the Massachusetts Environmental Code, Title V, and the town of Sudbury Board of Health regulations.
- There are no bordering vegetated wetlands, inland banks, or surface waters within 100' of the proposed system.
- There are no surface or subsurface drains which are used to lower the ground water.
- All elevations refer to TBM POLE 57-37 NAIL EL.=200.0
- For proper performance, septic tank should be pumped annually.
- System cannot be backfilled or concealed until design firm and board of health have inspected the system and permission to backfill has been given.
- Design firm must prepare and submit "As-Built" plan to Board of Health. This plan must certify that the system was installed in accordance with state and local regulations and that it complies with the proposed plan.
- Property lines are approximate and are not to be used for boundary survey purposes. Surface features and topography outside of work area are approximate.
- System is not designed to accommodate a garbage grinder.

**TECHNICAL NOTES:**

- Building sewer shall be in accordance with state plumbing code and have a minimum of 4" of cover in landscaped areas. A minimum of 12" of cover and/or appropriate sieving shall be used in areas subject to vehicular traffic.
- All tanks, including septic tanks, distribution boxes, cover chambers, and grease traps shall be either watertight through manufacturer's specification and warranty, or made watertight by the manufacturer or other individual by means and persons as approved in 310 CMR 15.223 through 310 CMR 15.228.
- Septic tanks shall have at least three (3) 20" manholes with at least one (1) of these manholes located no more than 6" below finish grade. (Systems over 1,000 gpd shall have access ports at both the inlet and outlet tees).
- Distribution box ("d-box") shall be of watertight construction, installed level on a firm base, and installed in accordance with 310 CMR 15.232.
- Septic tank covers and d-box are to be brought within 6" and 9" of finish grade respectively by the use of riser sections.
- When the soil absorption system (SAS) is to be dosed or the slope of the inlet pipe exceeds 0.08 feet per foot, an inlet tee, baffle or splash plate extending to one inch above the outlet invert elevation shall be provided to dissipate velocity of the influent.
- When the SAS is installed within the top and subsoil layers or above natural grade, all topsoil and subsoil shall be removed below and laterally a minimum of 5 feet surrounding the SAS. Removed material shall be replaced with clean granular material in accordance with 310 CMR 15.255(1).
- All disturbed areas shall be loamed, seeded, and maintained so as to prevent erosion.
- All native soil interfaces which will contact the SAS shall be scarified prior to placement of stone.

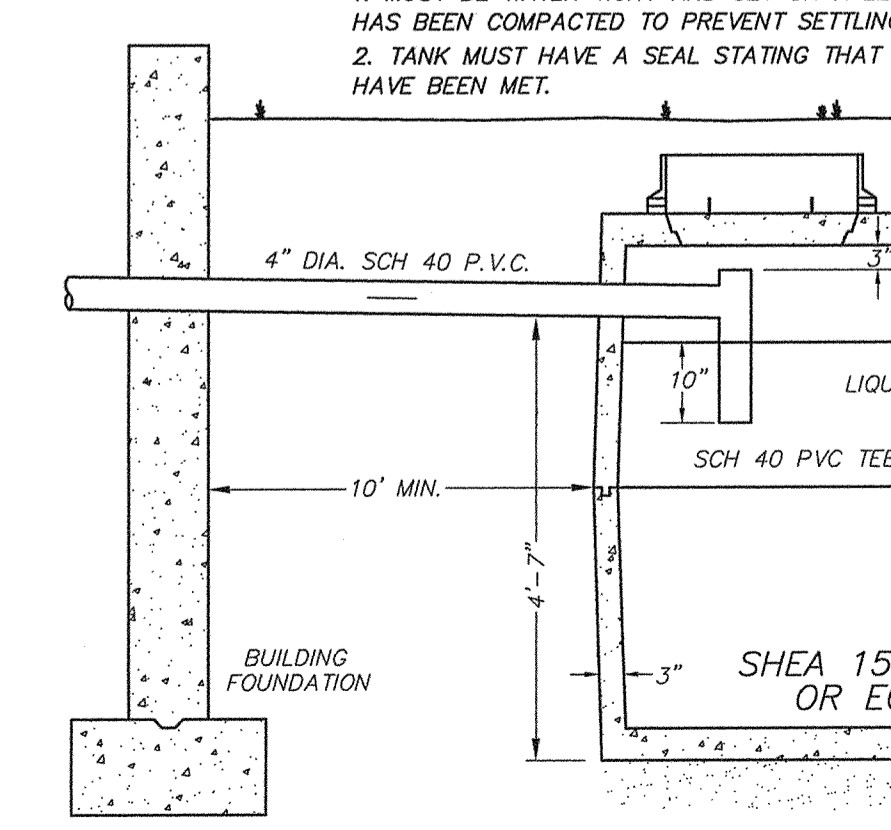
**PERCOLATION TESTS**

HOLE NO. & DATE	TOP ELEVATION	DEPTH (in.)	SATURATION (Min.)	12"-9" DROP (Min.)	9"-6" DROP (Min.)	PERC. RATE (Min./In.)
PT-A 8/24/17	183.5	61"	15 MIN	27 MIN	38 MIN	13 MIN/IN
PT-B 8/24/17	191.0	39"	15 MIN	16 MIN	25 MIN	9 MIN/IN

**DEEP OBSERVATION HOLE LOG**

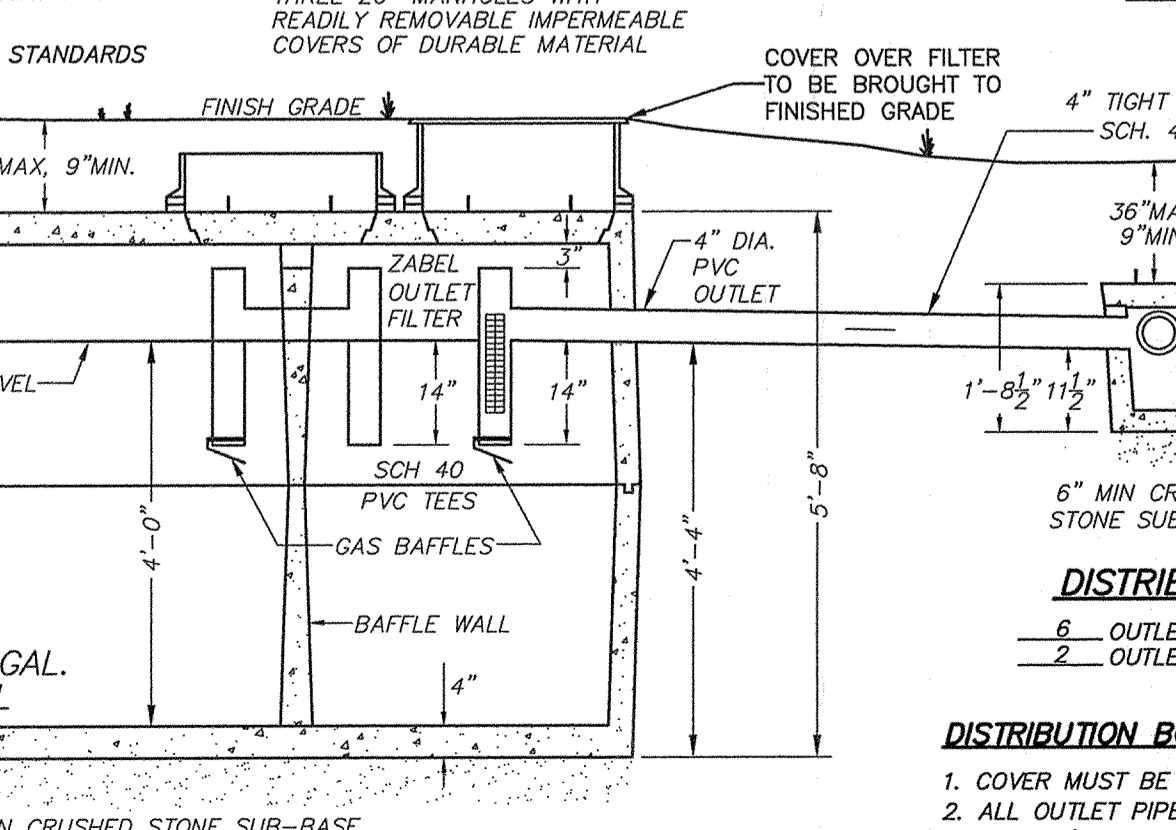
NO. & DATE	DEPTH (in.)	SOIL HORIZON	TEXTURE (USDA)	COLOR (MUNSELL)	SOIL MOTTLING	OTHER
DTH-1 8/24/17	0-14"	Ap	FLL			
	14-20"	Ap	SANDY LOAM	10YR3/2		
	20-36"	Bw	LOAMY SAND	10YR6/8		
DTH-2 8/24/17	0-15"	Ap	FLL			
	15-19"	Ap	SANDY LOAM	10YR3/2		
	19-34"	Bw	LOAMY SAND	10YR6/8	50"	
DTH-3 8/24/17	0-8"	Ap	SANDY LOAM	10YR3/2		
	8-37"	Bw	LOAMY SAND	10YR6/8		
	37-65"	C1	LOAMY SAND	10YR6/4	50"	
DTH-4 8/24/17	0-10"	Ap	SANDY LOAM	10YR3/2		
	10-31"	Bw	LOAMY SAND	10YR6/8		
	31-62"	C1	LOAMY SAND	10YR6/4	52"	

**SEPTIC TANK NOTES**



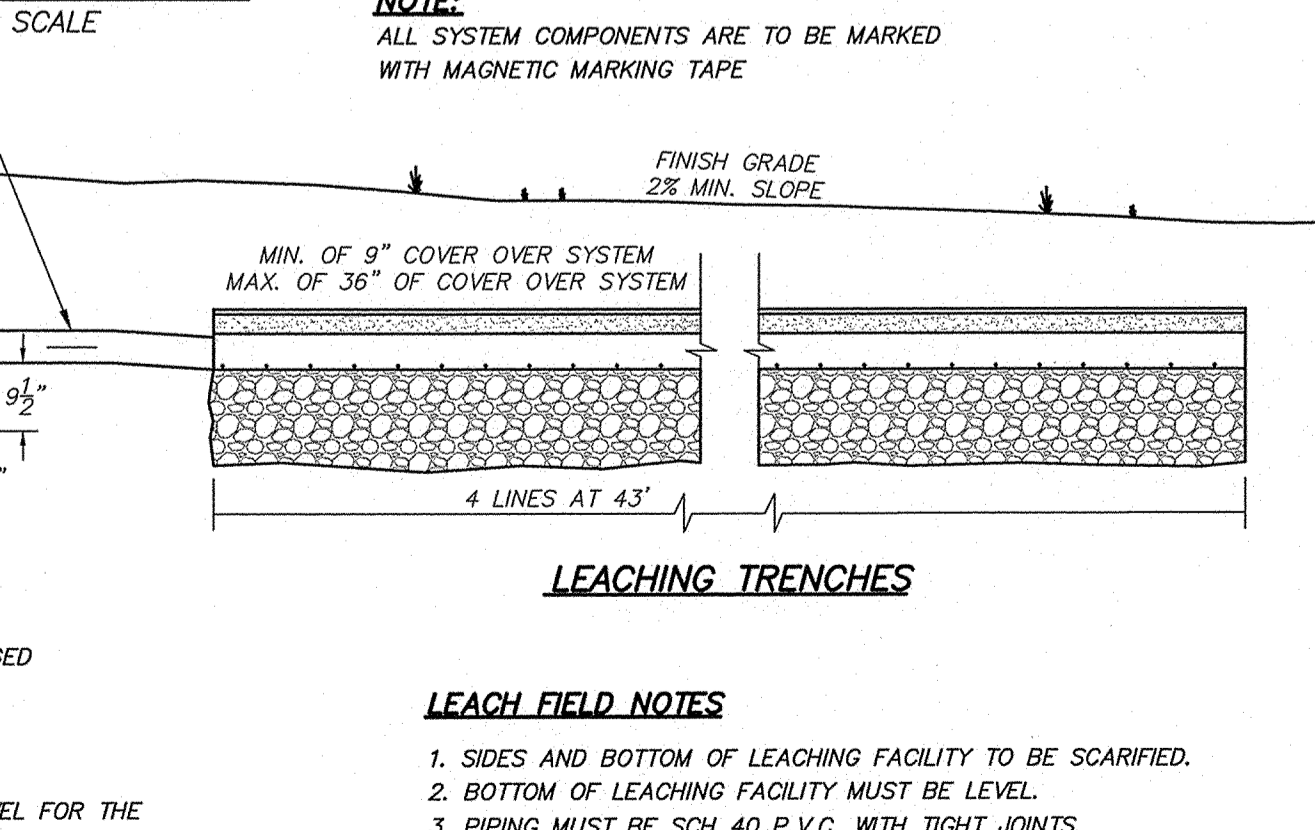
- BUILDING SEWER NOTES**
- SEWER LINE MUST BE LAID ON A FIRM COMPACTED BASE.
  - PIPE MUST BE SLOPED AT A MIN. OF 1% (2% PREFERRED).
  - PIPE MUST BE LAID ON A CONTINUOUS UNIFORM GRADIENT.

**SYSTEM PROFILE**



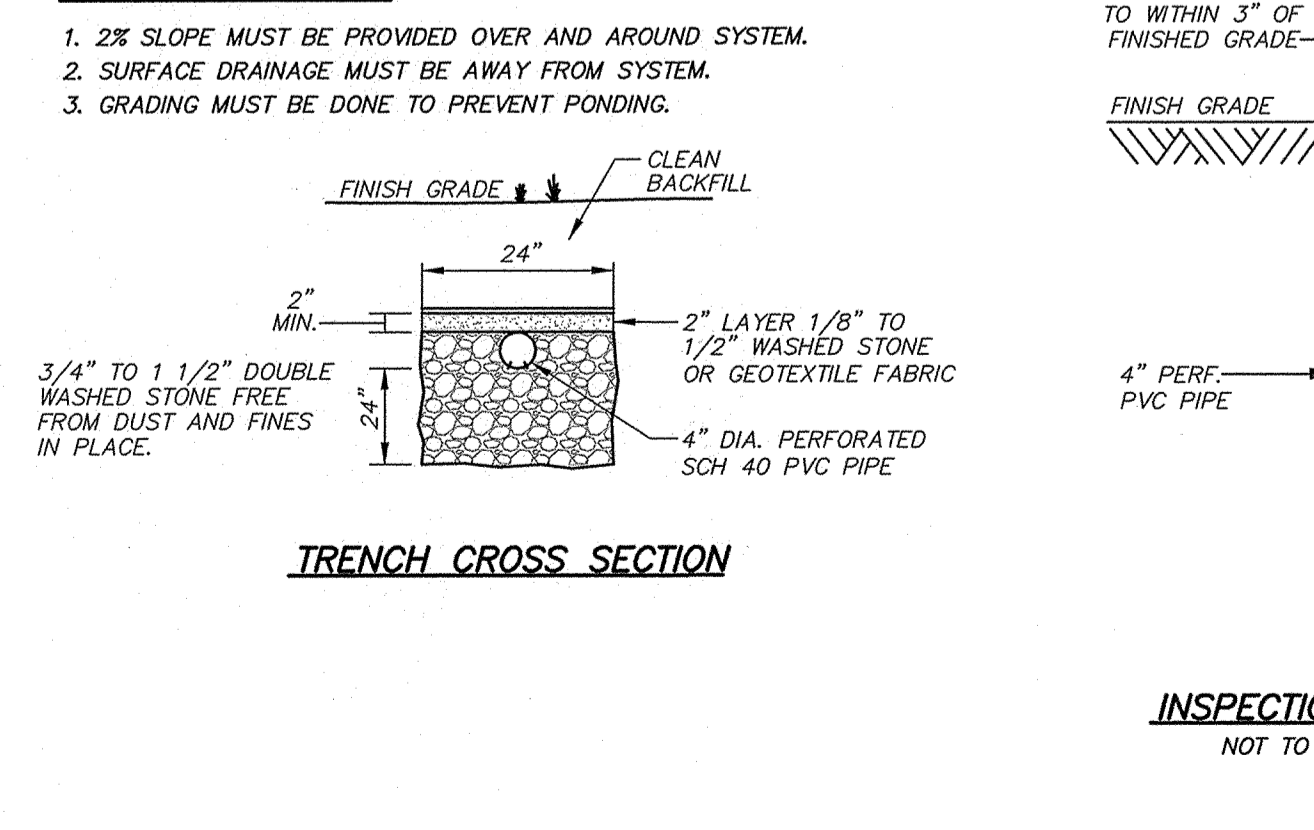
- DISTRIBUTION BOX NOTES**
- COVER MUST BE WATER TIGHT.
  - ALL OUTLET PIPES SHALL BE LEVEL FOR THE FIRST 2' OUT OF THE D-BOX. ALL OUTLET PIPES TO BE AT THE SAME ELEVATION.
  - SOIL MUST BE COMPACTED UNDER "D" BOX TO PREVENT SETTLING.

**LEACH FIELD NOTES**



- LEACH FIELD NOTES**
- SIDES AND BOTTOM OF LEACHING FACILITY TO BE SCARIFIED.
  - BOTTOM OF LEACHING FACILITY MUST BE LEVEL.
  - PIPING MUST BE SCH 40 P.V.C. WITH TIGHT JOINTS.
  - THE ORIFICES OF THE PIPE MUST BE 3/8" - 5/8".
  - VENT REQUIRED IF LEACH LINES ARE GREATER THAN 50'.

**FINAL GRADING NOTES**



- TRENCH CROSS SECTION**
- 2% SLOPE MUST BE PROVIDED OVER AND AROUND SYSTEM.
  - SURFACE DRAINAGE MUST BE AWAY FROM SYSTEM.
  - GRADING MUST BE DONE TO PREVENT PONDING.

I certify that I have passed the examination approved by the department of Environmental Protection and that the above analysis has been performed by me consistent with the required training, expertise, and experience described in 310 CMR 15.018(2).

**APPLICANT**  
DORIS SMITH

**LOCATION**  
137 MOSSMAN ROAD  
SUDBURY, MA  
ASSESSORS MAP 08 & PARCEL 19

**DIG SAFE**  
1-888-344-7233

NO.	DATE:	REVISION:	BY:
1.	5-29-18	VERNAL POOL, NEW HOUSE	RM

**PROPOSED SEWAGE DISPOSAL SYSTEM**

**SULLIVAN, CONNORS AND ASSOCIATES**  
 LAND SURVEYING AND CIVIL ENGINEERING  
 121 BOSTON POST RD. SUDBURY, MA. 01776  
 PHONE: 978-443-9566 FAX: 978-443-8915

DATE: 9/8/17 SHEET 1 OF 1