

TOTAL LOT AREA=71,761± S.F.

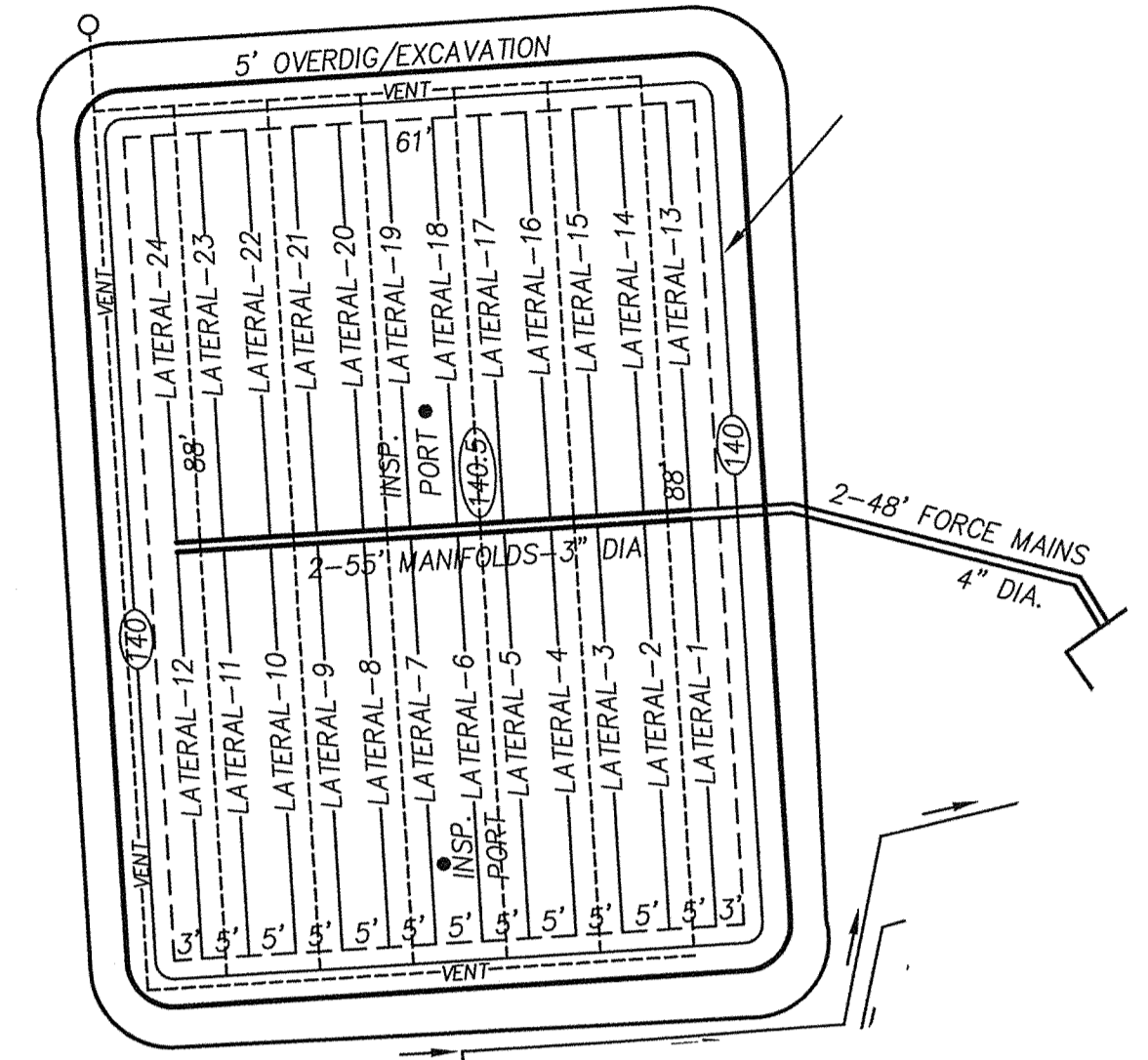
WETLANDS

WETLANDS

WETLANDS

LOTUS BLOSSOM RESTAURANT EXISTING BUILDING #394

BOSTON POST ROAD



LEACH AREA DETAIL: 1"=20'

NOTE: EXISTING LEACH FIELD TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH BOARD OF HEALTH REGULATIONS.

REPLACE PAVEMENT TO MATCH EXISTING LIMITS AND ELEVATIONS.

NOTE: EXISTING PUMP CHAMBER MAY BE RE-USED AFTER INSPECTED AND CAPACITY CONFIRMED TO BE ADEQUATE. EXISTING PUMPS MAY BE RE-USED AFTER INSPECTION AND CONFIRMATION OF THEIR ABILITY TO DISCHARGE AT THE REQUIRED HEAD AND FLOW RATE BY THE PUMP MANUFACTURER.

THE RESULTS OF BOTH INSPECTIONS ARE TO BE PROVIDED TO THE DESIGN ENGINEER AND BOARD OF HEALTH FOR FINAL APPROVAL.

PL-625 GREASE FILTERS ON OUTLET OF GREASE INTERCEPTORS

CONTRACTOR TO CONFIRM EXISTING INVERTS AND CONFIRM. NEW INVERTS TO BE CORED WILL FUNCTION/FLOW PROPERLY.

- NOTES:
1. THE INTENT OF THIS DESIGN IS TO RECONFIGURE TANK FLOW, INTRODUCE EQUALIZER TANK AND REPLACE LEACH FIELD.
 2. FAST CHAMBERS ARE TO BE PUMPED AND RECONSTRUCTED AND APPROVED FOR CONTINUED USE BY MANUFACTURER.
 3. CONTRACTOR TO CONFIRM TANK SIZES/VOLUMES PRIOR TO CONSTRUCTION AND REPORT ANY CHANGES OR DISCREPANCIES TO THE DESIGN ENGINEER PRIOR TO INSTALLING THE LEACH FIELD.
 5. THE DESIGN BY SULLIVAN CONNORS, INC. IS LIMITED TO THE PUMP CHAMBER AND LEACH FIELD. SULLIVAN CONNORS, INC. DOES NOT WARRANT THE CONDITIONS OR CODE COMPLIANCE OF EXISTING SYSTEM COMPONENTS TO REMAIN IN SERVICE.

VARIANCE REQUIRED FOR NEW TANKS.

1. TANK SEPARATION TO BUILDING LESS THAN 10 FEET.

REPAIR DESIGN VARIANCES GRANTED ON PREVIOUS PLAN BY SULLIVAN, CONNORS & ASSOC.

- DATED: JUNE 16, 2009
1. LEACH FIELD LOCATED LESS THAN 100' TO WETLANDS.
 2. FLOW RATES FOR RESTAURANT NOT DOUBLED (200%).
 3. LEACH BED SIZED GREATER THAN 3000 S.F.
 4. BED SEPERATION LESS THAN 10 FEET.
 5. LEACH FIELD LOCATED LESS THAN 100' TO WETLANDS.
 6. LEACH FIELD SEPERATION TO GROUNDWATER LESS THAN 5 FEET.

ORIGINAL DESIGN VARIANCES GRANTED ON PLAN BY: THE JILLSON CO., INC.

DATED : MARCH 3, 2000

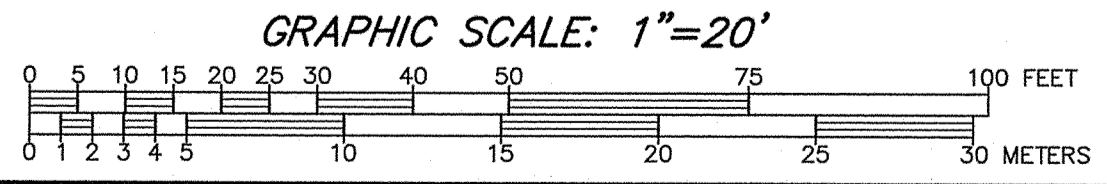
SECTION III. LEACHING AREA REQUIREMENTS.

THE DESIGN REQUIREMENTS FOR FULL SERVICE RESTAURANTS ARE TO BE 200% OF TITLE 5 REQUIREMENTS.

INCLUDING THE SIZE OF THE SEPTIC TANKS, GREASE TRAPS, AND THE LEACHING FACILITY. FURTHERMORE, ALTERNATING PIMPS MUST BE PROVIDED AND THE EFFLUENT EFFLUENT MUST BE DISCHARGED TO TWO SEPERATE DISPOSAL AREAS OF EQUAL SIZE. ALARMS MUST BE PROVIDED IN ACCORDANCE WITH TITLE 5. DESIGN CAPACITY SHALL BE BASED UPON THE TOTAL INDOOR AND OUTDOOR SEATING.

MODULAR FAST REMEDIAL USE APPROVAL:

IN APPROVING DESIGN AND INSTALLATION OF THE SYSTEM BY A PARTICULAR OWNER/OPERATOR, THE LOCAL APPROVING AUTHORITY MAY ALLOW A REDUCTION, NO GREATER THAN 50% IN THE AREA OF THE SOIL ABSORPTION SYSTEM REQUIRED BY 310 CMR 15.242.



SULLIVAN, CONNORS
and ASSOCIATES
LAND SURVEYING AND
CIVIL ENGINEERING
121 BOSTON POST ROAD
SUDBURY, MASSACHUSETTS 01776

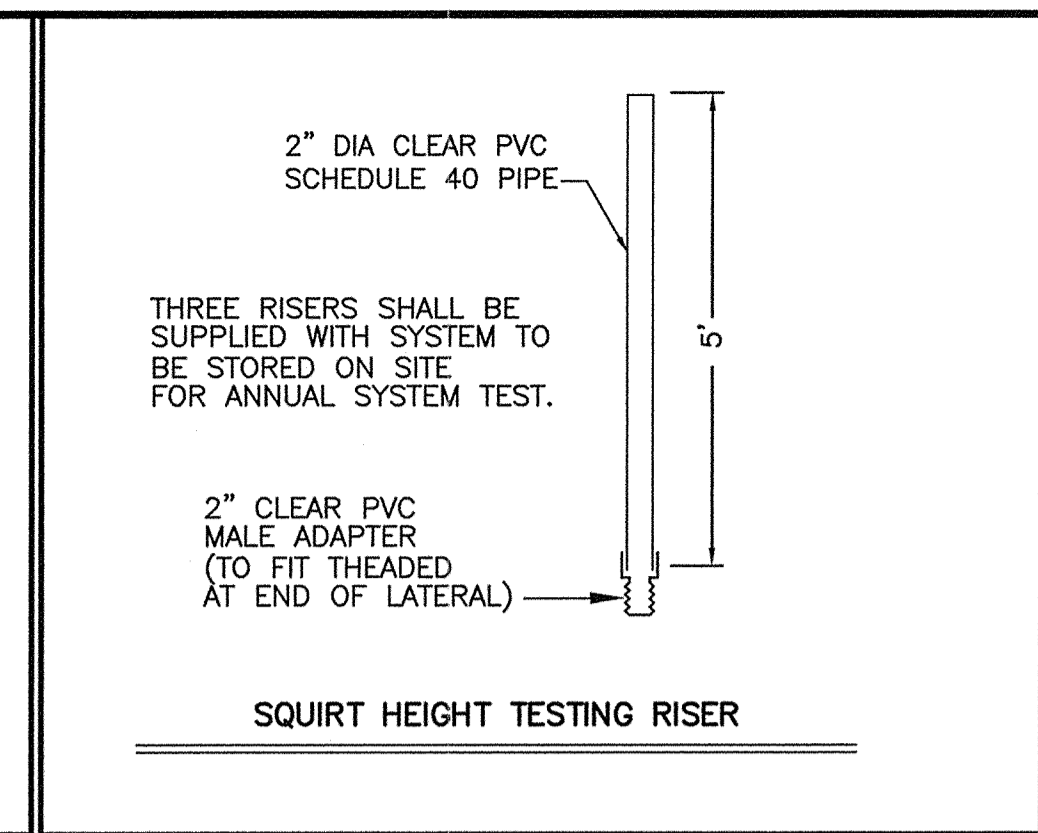
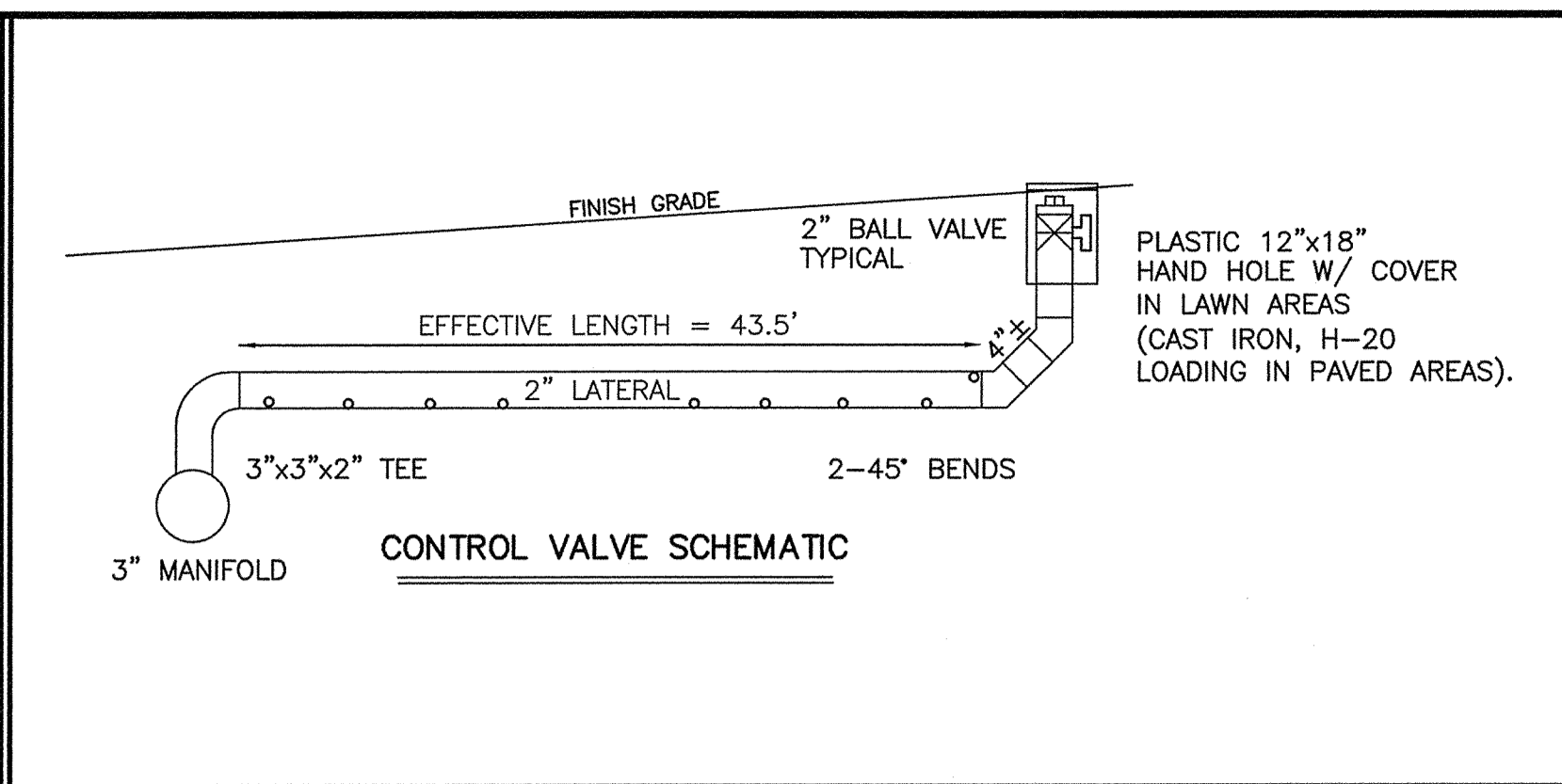
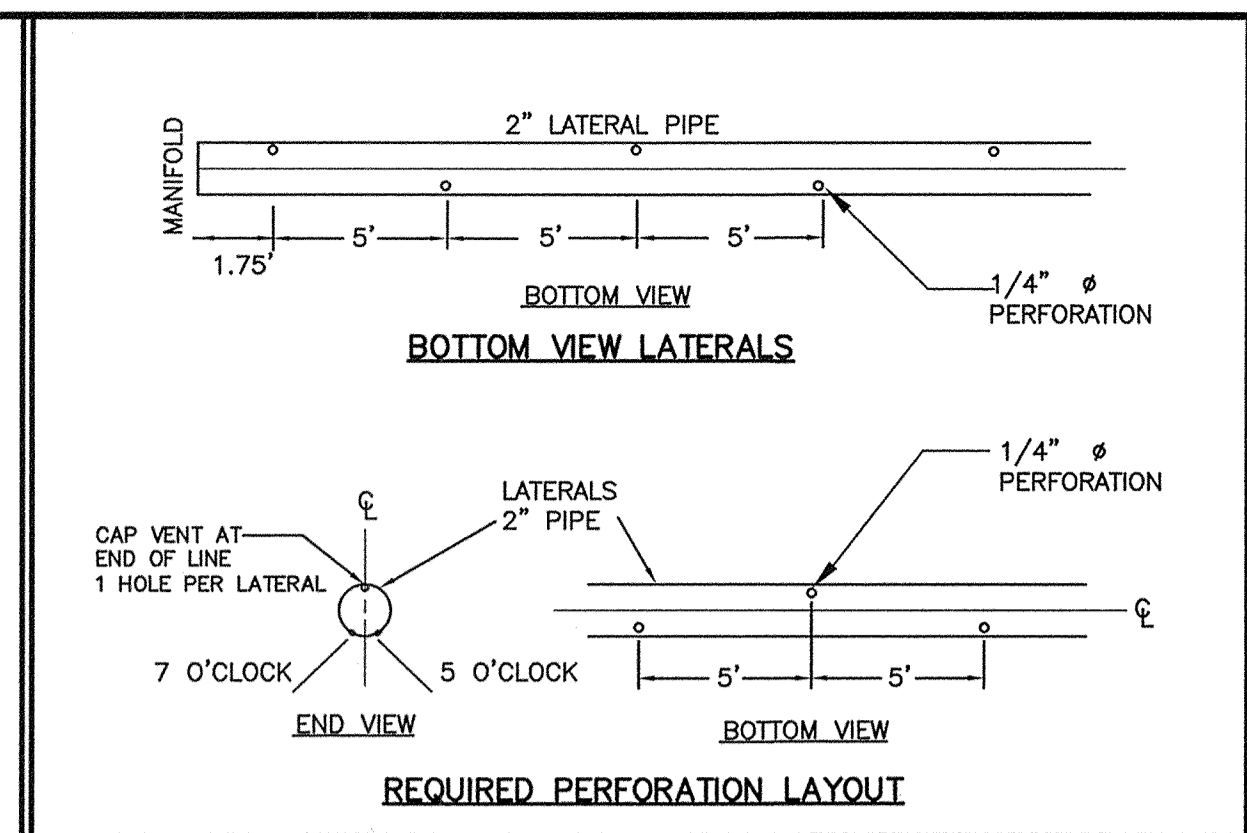
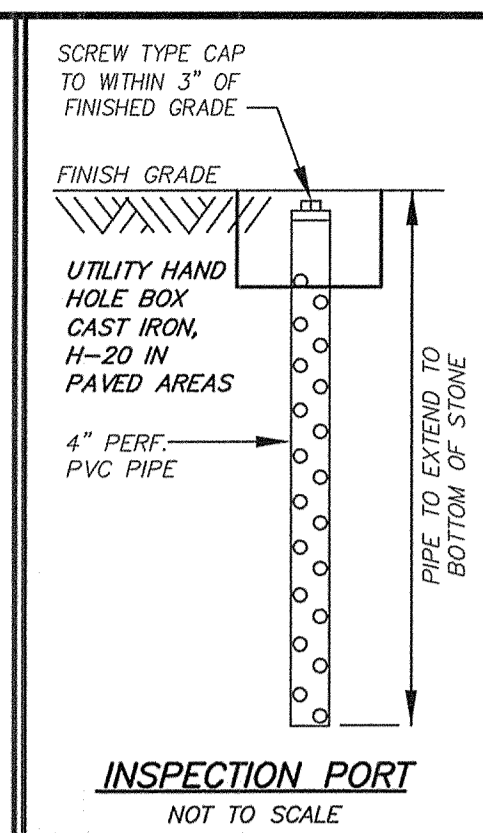
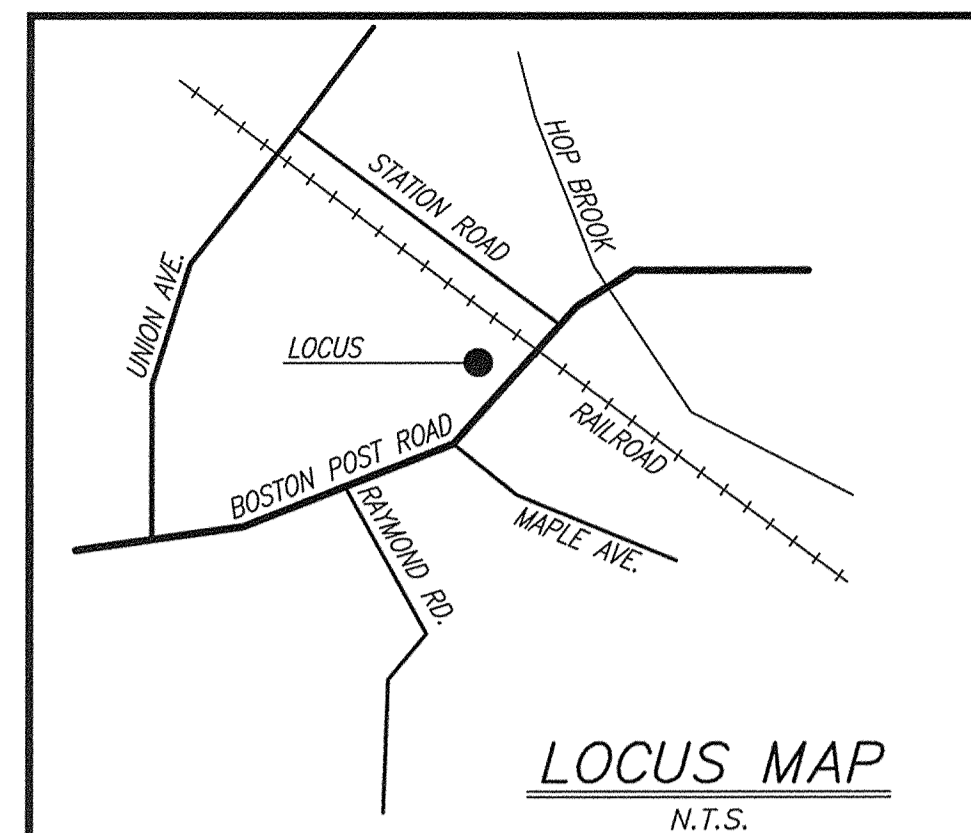
DESIGNED BY: MJS
CHECKED BY: TDP
COMPUTED BY:
FIELD SURVEY: VHH
DRAWN BY: REM
SCALE: 1"=20'
SHEET 1 OF 2.

OWNER/APPLICANT:
LOTUS BLOSSOM RESTAURANT
394 BOSTON POST ROAD
SUDBURY, MA.

PROPOSED SEWAGE DISPOSAL SYSTEM
OF
394 BOSTON POST ROAD
IN
SUDBURY, MA.



REVISIONS
DATE: JUNE 4, 2019

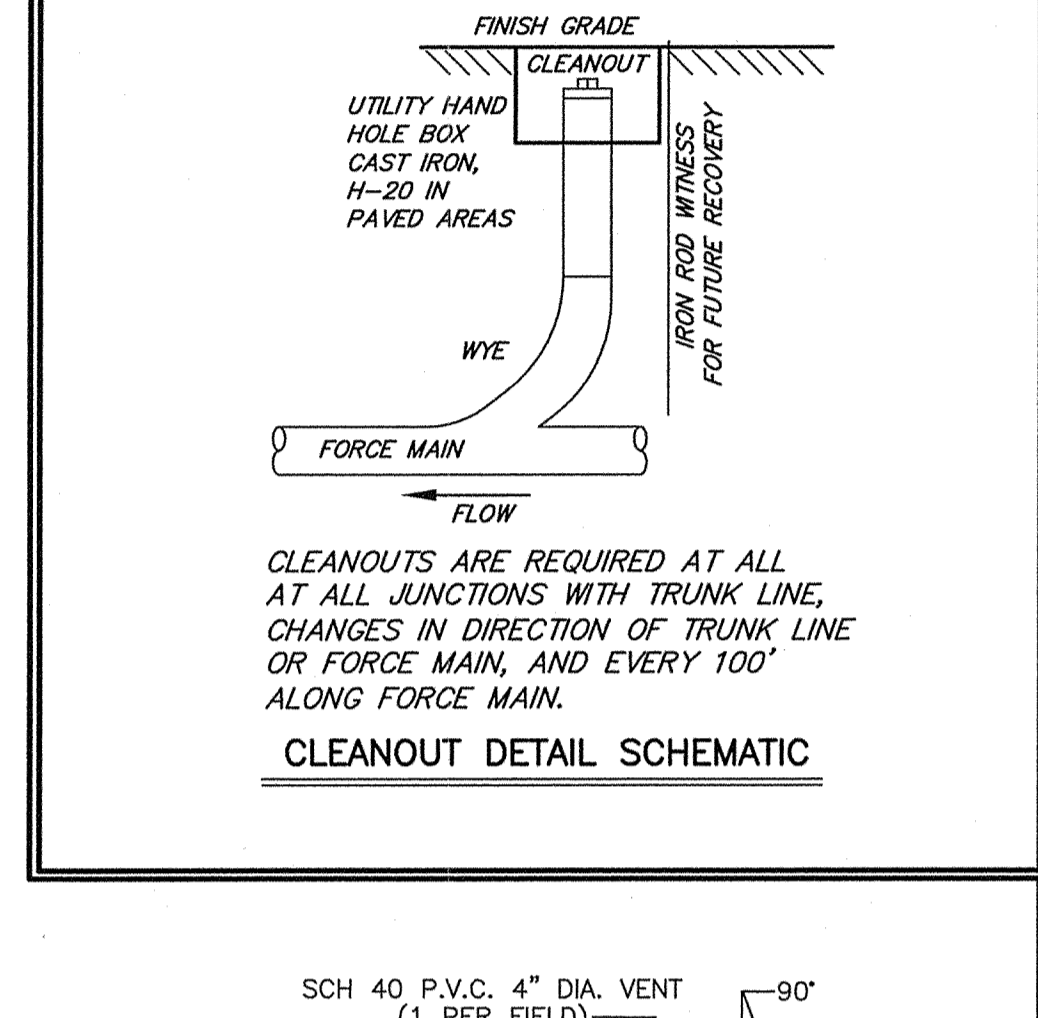
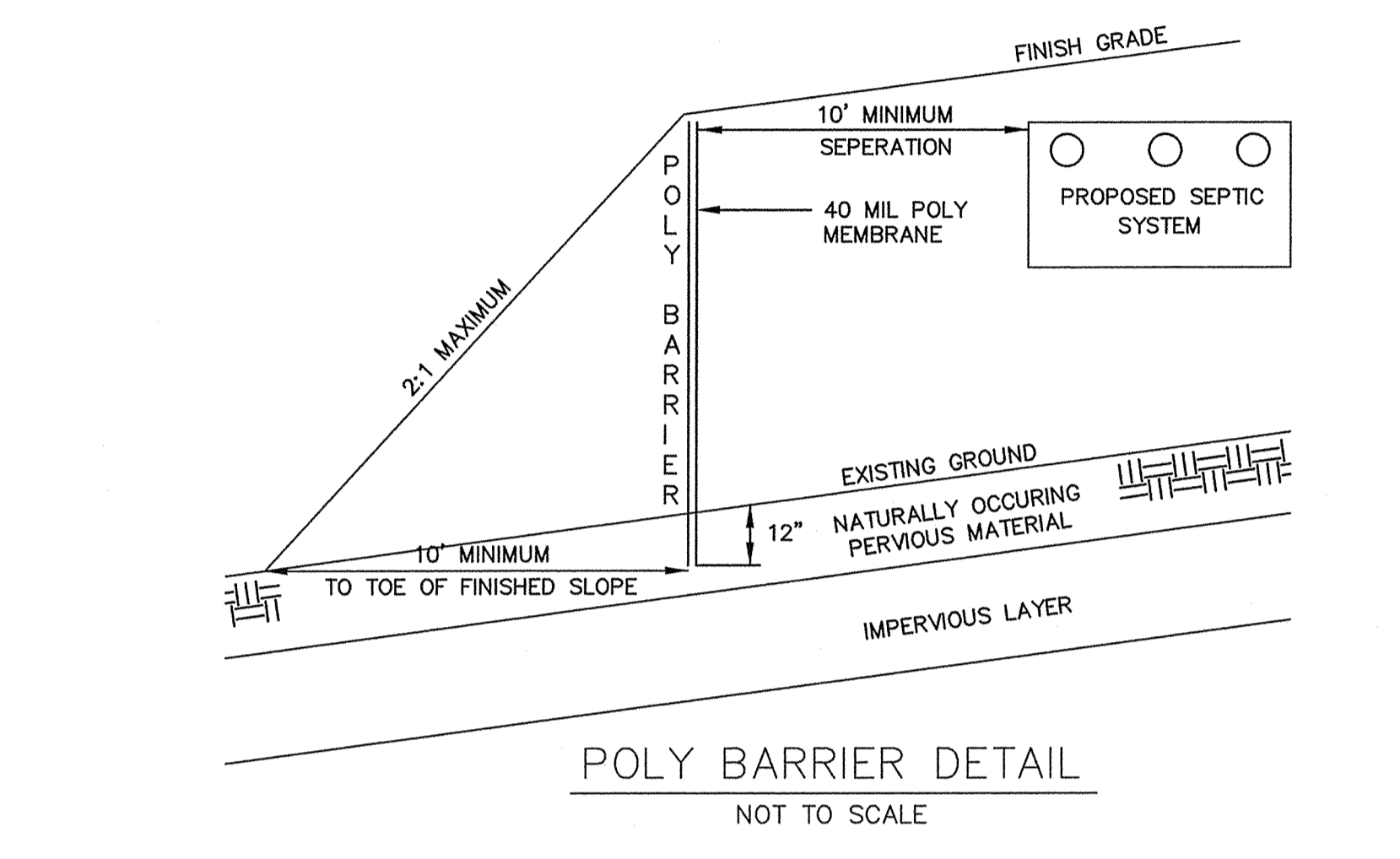


GENERAL NOTES:

- 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 T.M. B.A.S.E. OF CATCHBASIN EL=133.05
- 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.

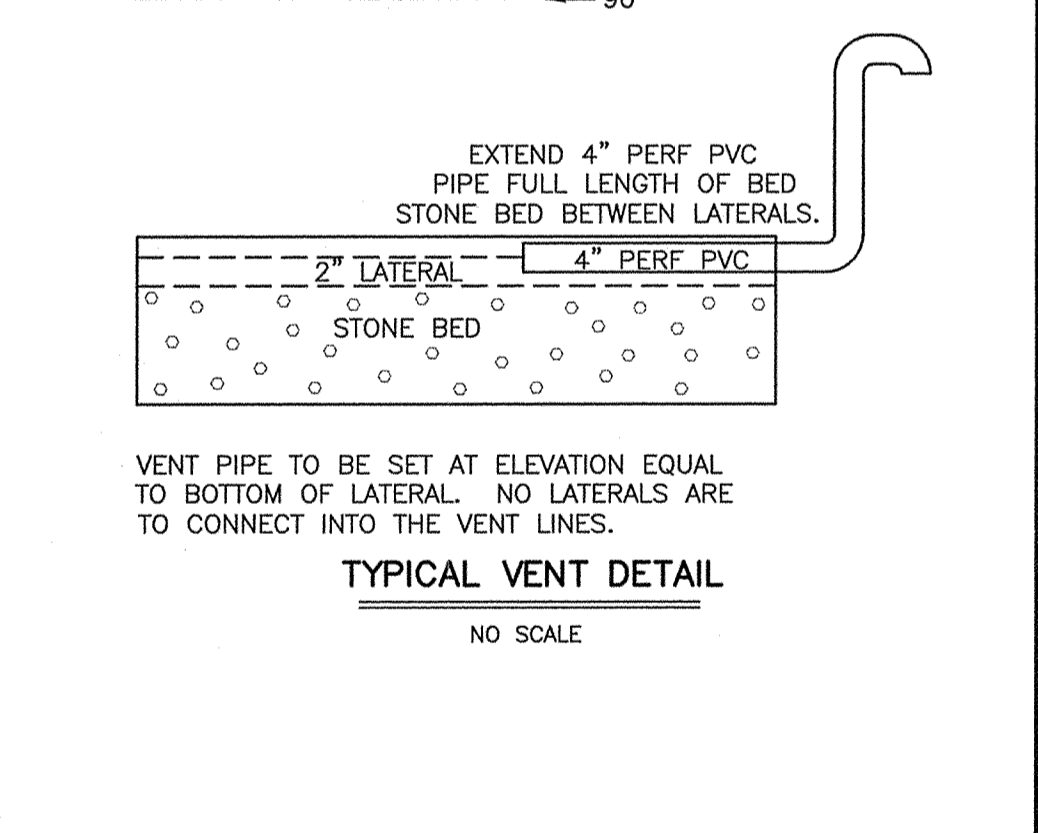
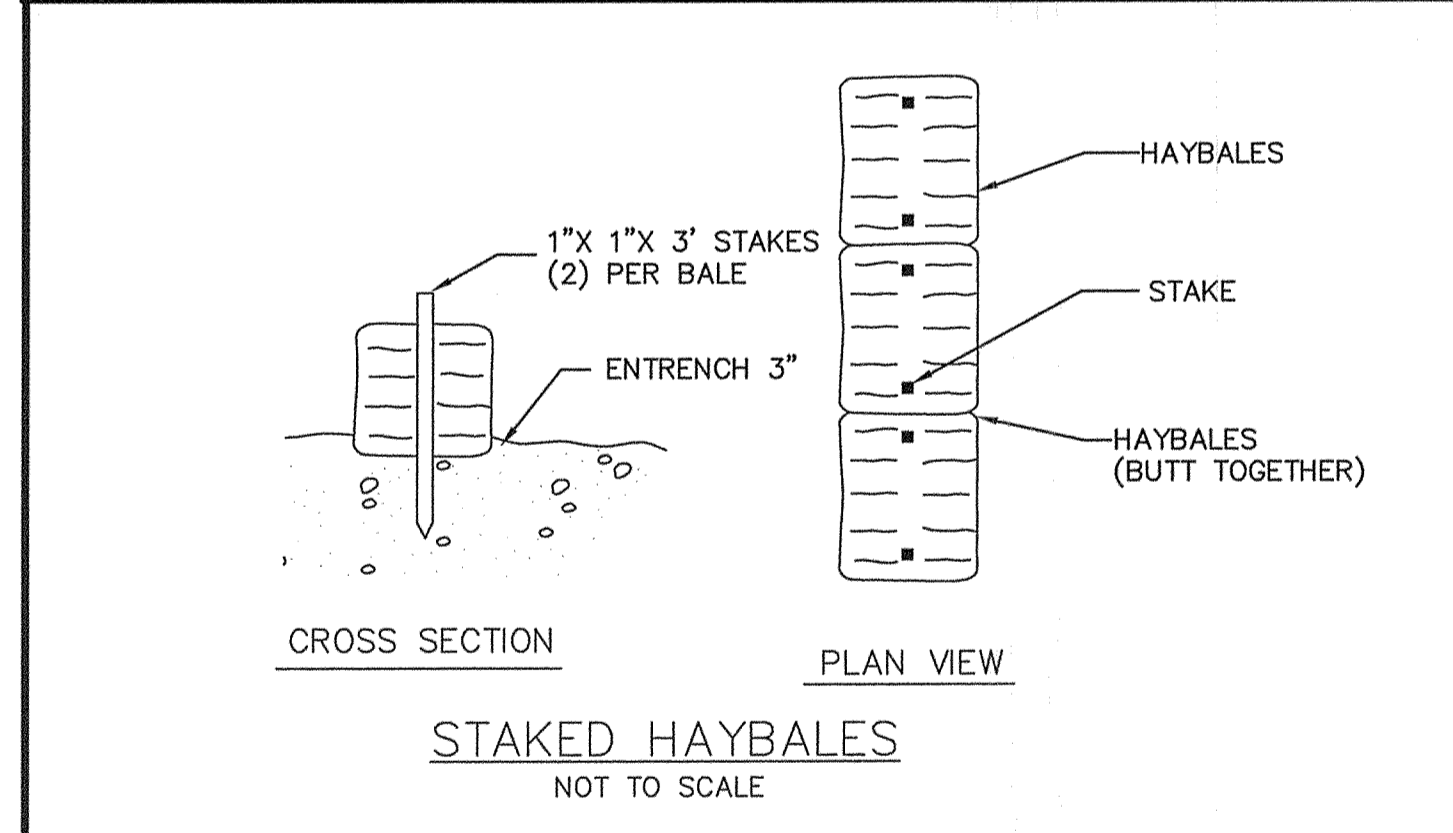
PUMP NOTES:

- THE PUMP CHAMBER SHALL BE A 7,000 GALLON SEPTIC TANK AS PRODUCED BY: E.F. SHEA INC. OR ITS APPROVED EQUAL. ALL JOINTS SHALL BE MORTARED, AND THE TANK WATER TIGHT.
- THE PUMP SHALL BE A MYERS 3V OR EQUAL WITH A 2" INCH DISCHARGE LINE AND SHALL BE EQUIPPED WITH 115 VOLT SINGLE PHASE POWER, SM 15NO FLOATS, AND A CE 115 CONTROL PANEL THAT IS EQUIPPED WITH AN AUDIBLE ALARM.
- HIGH WATER ALARM TO CONSIST OF A MERCURY FLOAT SWITCH (CE 115 ALARM CONTROL) WITH A POWER CIRCUIT SEPARATE OF THE PUMP POWER CIRCUIT, SET TO ACTIVATE ALARM IN THE HOUSE WHEN WATER REACHES THE ELEVATION OF 125.1
- ALL WIRING TO BE PLACED OUTSIDE OF HOUSE TO BE WATERPROOF AND INSTALLED ACCORDING TO APPLICABLE CODES.
- THE DISTRIBUTION BOX SHALL BE EQUIPPED WITH A TEE.
- ANY BAFFLE OR TEE THAT OBSTRUCTS THE DISCHARGE LINE SHALL BE REMOVED.
- THE ALARM IS TO HAVE AN ALTERNATIVE SUPPLY IN CASE OF POWER FAILURE.
- WEEPHOLE MUST BE IN 2" INCH FORCE MAIN. THE HOLE SHOULD BE LOCATED BETWEEN THE CHECK VALVE AND INSIDE OF TANK.
- CONTROL PANEL TO BE EQUIPPED WITH ON-OFF AND MANUAL SWITCHING POSITIONS.
- CHECK VALVE SHALL BE OF BALL TYPE, INSTALLED VERTICALLY WITH A 3/8" WEEP LOCATED ON THE DISCHARGE SIDE OF THE CHECK VALVE BETWEEN VALVE AND INSIDE WALL OF TANK.
- ALL PRESSURE PIPING SHALL BE SECURED AND SHIELDED FROM ABRASION, AND SHALL BE COUPLED WITH HIGH PRESSURE PVC COUPLINGS.



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 sleeving shall be used in areas subject to vehicular traffic.
- All tanks, including septic tanks, distribution boxes, dosing 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 15.221. Septic tank shall be constructed and placed in accordance with 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 12" 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(3).
- 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

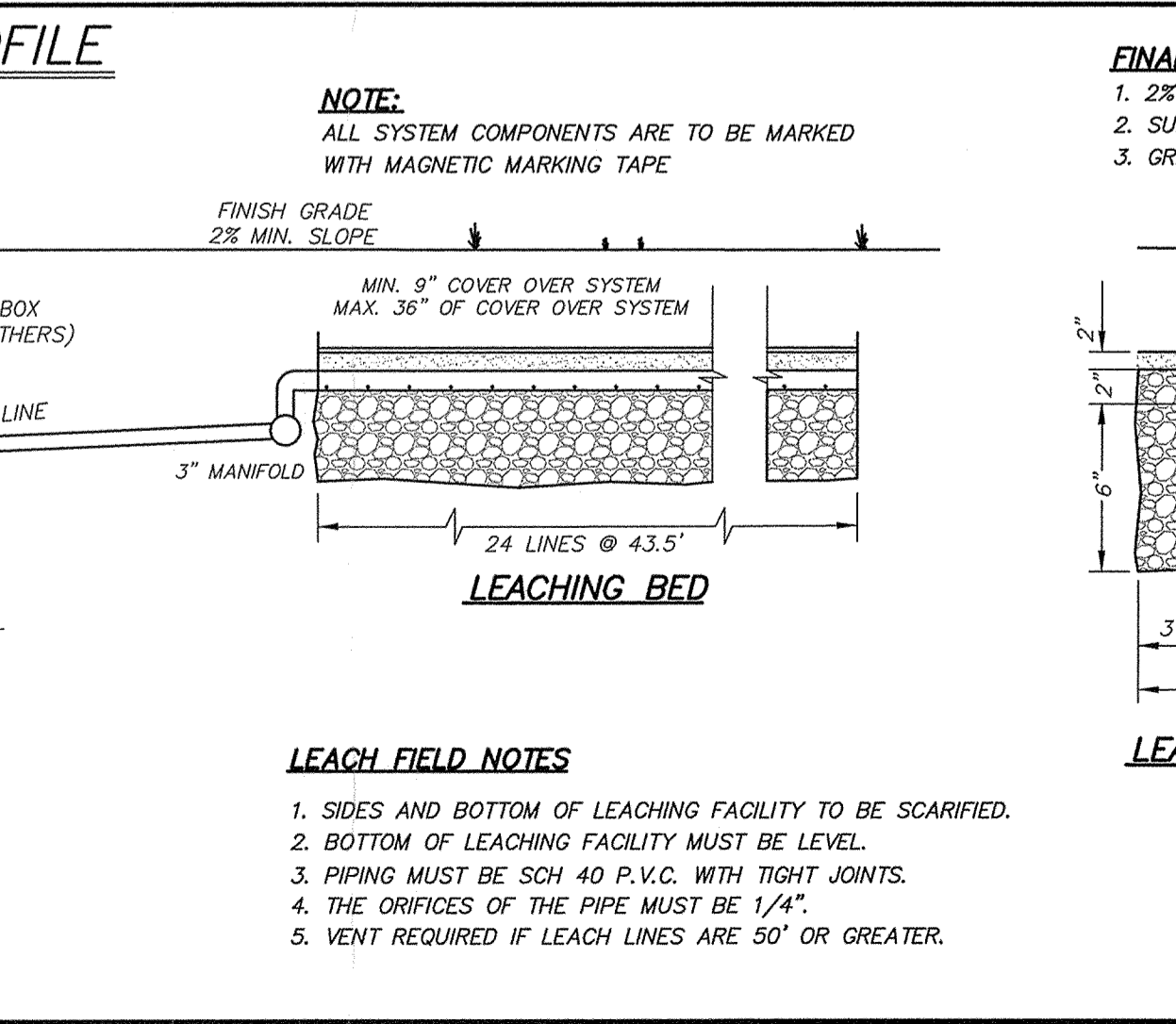
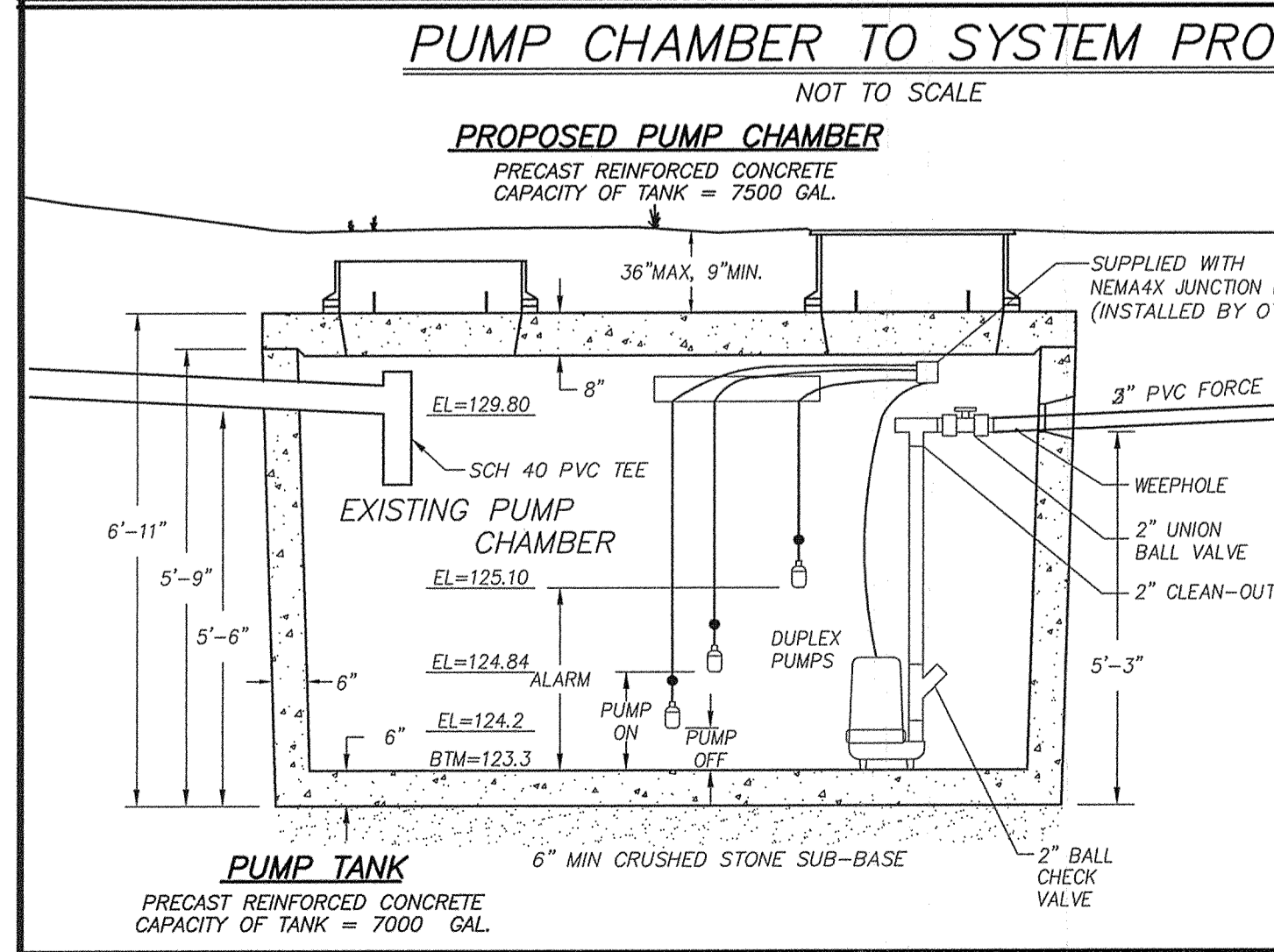
HOLE NO. & DATE	TOP ELEVATION	DEPTH (In.)	SATURATION (Min.)	12"-9" DROP (Min.)	9"-6" DROP (Min.)	PERC. RATE (Min./In.)
PT-1 8/10/99	135.6	48"	15 MIN			<2 MIN/IN

DEEP OBSERVATION HOLE LOG

NO. & DATE & ELEV.	DEPTH (In.)	SOIL HORIZON	TEXTURE (USDA)	COLOR (MUNSELL)	SOIL MOTTLING	OTHER
DTH-1 8/10/99	0-12"	Ap	LOAM	10YR3/4		
	12-36"	Bw	LOAMY SAND	10YR6/4		
	36-78"	C1	MED. SAND	10YR5/8		
	78-96"	C2	SILT LOAM	2.5YR6/3		

PARENT MATERIAL: GLACIAL TILL DEPTH TO BEDROCK: - STANDING WATER: 7.5' WEEPING FROM PIT FACE: 6.0' ESHWT: 133.1

TESTS CONDUCTED BY: THE JILLSON CO., INC.
TESTS OBSERVED BY: BOB LEUPOLD DATE: 8/10/99



FINAL GRADING NOTES

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

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 1/4".
- VENT REQUIRED IF LEACH LINES ARE 50' OR GREATER.

DESIGN CRITERIA

- ESTIMATED FLOW = 5000 GPD - BASED ON METER READINGS
25% REDUCTION = 3750 GPD
- DESIGN PERCOLATION RATE = 2.0 MPI
- LEACHING AREA CALCULATION = 88' x 61' BED = 5368 SF x (0.74 GPD/SF) = 3,972 GPD
- GROUNDWATER MOUNDING CALCULATION = 0.67' + 133.1 = 133.77

SCHEDULE OF LEACH FIELD ELEVATIONS

INVERT AT EXISTING PUMP TANK INLET =	129.87
INVERT AT EXISTING PUMP TANK OUTLET =	129.59
INVERT OF DISTRIBUTION MANIFOLD =	138.0
INVERT AT LEACHING LINES (BEGINNING) =	138.6
INVERT AT LEACHING LINES (END) =	138.6
ELEVATION OF LEACH BED BOTTOM =	138.1
ELEVATION OF GROUNDWATER MOUND =	133.77
FINISH GRADE OVER LEACHING AREA =	140

APPLICANT
LOTUS BLOSSOM RESTAURANT

LOCATION
394 BOSTON POST ROAD
SUDBURY, MA

DIGSAFE
888-344-7233

PROPOSED SEWAGE DISPOSAL SYSTEM

SULLIVAN, CONNORS & ASSOCIATES
LAND SURVEYING AND CIVIL ENGINEERING
121 BOSTON POST RD. SUDBURY, MA. 01776

DATE: 06/4/19 SHEET 2 OF 2

FILE #: