GENERAL NOTES

1. SWALE AND/OR GRADE SURFACE WATER, AND PIPE ROOF AND FOOTING DRAINS AWAY FROM THE SEPTIC SYSTEM AREA DOUBLE PIPE CURTAIN DRAIN IF ROOF OR FOOTING DRAINS ARE IN THE SAME TRENCH.
2. THE SEPTIC TANK AND LEACHING SYSTEM MAY BE REORIENTED IN THE FIELD TO ADJUST TO SITE CONDITIONS WITH THE APPROVAL OF THE ENGINEER AND THE HEALTH DEPARTMENT.
3. PRIOR TO THE START OF CONSTRUCTION OF THE DWELLING OR INSTALLATION OF THE SEPTIC SYSTEM, THE PROPERTY LINES SHALL BE CLEARLY LOCATED AND STAKED BY A SURVEYOR.
4. THE LEACHING AREA SHALL BE LOCATED BY FIELD STAKES OR MARKERS, PRIOR TO ANY SITE WORK, IN ORDER TO CLEARLY IDENTIFY THE LEACHING AREA AND TO PROTECT IT FROM ALL CONSTRUCTION TRAFFIC & POTENTIAL DAMAGE.
5. THE INSTALLER SHALL CONTACT THE ENGINEER & DEPARTMENT OF HEALTH AT LEAST 24-HOURS PRIOR TO THE START OF THE SCARIFICATION PROCESS FOR THE LEACHING AREA OR THE INSTALLATION WILL NOT BE APPROVED.
A SCARIFICATION INSPECTION BY THE HEALTH DEPARTMENT SANITARIAN, DESIGN ENGINEER, AND THE LICENSED INSTALLER OF RECORD SHALL BE CONDUCTED PRIOR TO THE PLACEMENT OF ANY "SELECT MATERIAL" OR FILL IN THE PRIMARY LEACHING AREA. IF THERE ARE ANY PROBLEMS NOTED DURING INSPECTION (BY THE SANITARIAN, ENGINEER, OR INSTALLER) FURTHER TESTING AND/OR PERMIT REVOCATING MAY TAKE PLACE IN ORDER TO CONFIRM CONFORMANCE WITH THE PROPOSED DESIGN CRITERIA AND PROTECTION OF THE SSDS. THE SYSTEM SHALL BE BACKFILLED WITHIN TWO (2) WORKING DAYS FOLLOWING APPROVAL.
6. THE HEALTH CODE OF THE STATE OF CONNECTICUT IS A PART OF THIS DESIGN, NOTHING HEREON SHALL BE INTERPRETED AS INTENDING TO REDUCE THE MINIMUM REQUIREMENTS OR DELETING ANY PART OF SAID CODE.
7. PRIOR TO EXCAVATION FOR ANY REASON, "CALL BEFORE YOU DIG" SHALL BE NOTIFIED. (IF ANY UTILITY INTERFERENCE IS ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED.)
8. THERE IS NO OBVIOUS INTERFERENCE REGARDING SEPARATION DISTANCES BETWEEN EXISTING AND PROPOSED SEPTIC SYSTEMS AND/OR WELLS TO THE BEST OF OUR KNOWLEDGE.
9. AS-BUILT PLANS ARE TO BE SUBMITTED BY THE ENGINEER TO THE HEALTH DEPARTMENT PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR CERTIFICATE TO DISCHARGE.
10. THIS SUBSURFACE SEWAGE DISPOSAL SYSTEM DESIGN CONFORMS WITH ACCEPTED ENGINEERING DESIGN PRINCIPLES: IT SHOULD NOT BE INTERPRETED AS A GUARANTEE AGAINST FAILURE DUE TO UNFORESEEN FUTURE CIRCUMSTANCES SUCH AS: IMPROPER INSTALLATION OF THE SYSTEM, IMPROPER SITE GRADING, EXCESSIVE WATER USAGE, LACK OF MAINTENANCE OR CHANGES IN SOIL OR GROUND WATER CHARACTERISTICS, BEYOND THE SCOPE OF NORMAL SITE INSPECTIONS OR SOIL TESTING.
11. THIS PLAN IS INTENDED TO DEPICT THE PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM AND EROSION & SEDIMENTATION CONTROL MEASURES ONLY. ADDITIONAL INFORMATION ON THIS PLAN IS THE RESULT OF SPECIFIC REQUEST BY THE CLIENT AND IS NOT INTENDED TO BE A DESIGN OF THE SAME.
12. THE SEPTIC TANK SHALL BE INSPECTED AT INTERVALS OF NO MORE THAN EVERY TWO YEARS TO DETERMINE A MAINTENANCE SCHEDULE.
13. THE DEPTH OF FILL SHOWN ON THE PROFILE AND IN THE DESIGN CRITERIA IS BASED UPON THE PROFILE SECTION LINE ONLY. MORE OR LESS FILL MAY BE REQUIRED IN OTHER AREAS OF THE SEPTIC SYSTEM.
14. REFER TO PROFILE FOR FINISHED GRADE REQUIREMENTS.
15. THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL PREPARED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION. 2002 AND AS AMENDED SHALL BE FOLLOWED. HAY BALES AND/OR SILT FENCE SHALL BE INSTALLED PRIOR TO FILLING OR CONSTRUCTION OF THE DWELLING, DRIVEWAY, WELL OR SEPTIC SYSTEM AS REQUIRED.
16. THE NEED TO INSTALL A CURTAIN DRAIN SHALL BE FIELD DETERMINED PRIOR TO THE INSTALLATION OF THE SEPTIC SYSTEM (REFER TO NOTE #5)
17. FUEL OIL TANKS MUST BE INSTALLED IN DWELLING BASEMENT
18. ALL SELECT FILL MUST BE PLACED ON THE PERIMETER OF THE SEPTIC SYSTEM AREA AND PUSHED TOWARDS THE MIDDLE TO PREVENT DRIVING/COMPACTING OF THE ORIGINAL SOIL. ALL FILL SHALL BE PERCOLATION TESTED BY THE ENGINEER PRIOR TO INSTALLATION OF THE SEPTIC SYSTEM.
19. CAREFULLY REMOVE THE ORGANIC (TOPSOIL) FROM THE SEPTIC SYSTEM PRIMARY AREA WITH AN EXCAVATOR. DO NOT DISTURB OR COMPACT THE SEPTIC SYSTEM AREA IN ANY MANNER OR THIS PLAN SHALL BE DEEMED VOID. THE SEPTIC SYSTEM AREA SHALL BE STAKED PRIOR TO FILLING.
20. PROPERTY LINES BEARINGS AND DISTANCES TAKEN FROM A-2 SURVEY PREPARED BY ROBERT W. GROSSENBACHER L.S. DATED 6/28/2000
21. EXISTING GRADE CONTOURS TAKEN FROM TOWN OF WASHINGTON GIS TOPOGRAPHIC MAP
22. A SEWAGE PUMPING STATION WILL BE REQUIRED IF THE BUILDING FIRST FLOOR CANNOT BE CONSTRUCTED HIGHER THAN THE LEACHING AREA.
23. THE LEACHING SYSTEM AREA MUST BE FILLED WITH SELECT COARSE SAND SEPTIC FILL AND RETESTED PRIOR TO THE INSTALLATION OF THE SEPTIC SYSTEM.
24. A BENCH MARK IS TO BE SET BY THE PROJECT SURVEYOR PRIOR TO THE START OF CONSTRUCTION.
25. THE RESPONSIBILITY FOR THE PREPARATION OF A LEACHING AREA UTILIZING "SELECT MATERIAL" IS THAT OF THE LICENSED INSTALLER. THE INSTALLER SHALL TAKE THE NECESSARY STEPS TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOILS FROM OVER COMPACTION AND SILTATION ONCE EXPOSED.

SPECIFICATIONS

1. THE SEPTIC TANK SHALL BE 1,250 GALLON PRECAST CONCRETE TYPE ST- 1,250 -2 AS MANUFACTURED BY EASTERN PRECAST CO. INC. OR APPROVED EQUAL. TANK SHALL BE REINFORCED FOR H-20 WHEEL LOADING IF LOCATED UNDER TRAFFIC AREAS. TANK SHALL HAVE PRECAST 2/3-1/3 BAFFLE.
2. DISTRIBUTION PIPE SHALL BE 3" DIA. PVC ASTM D2729 OR 4" DIA. PVC SDR-35 SOLID WALL TIGHT JOINT PIPE OR APPROVED EQUAL.
3. PIPE FROM DWELLING SHALL BE 4" ASTM D1785 PVC SCHEDULE 40, X.H.C.I. C-900 PVC W/ RUBBER GASKETS OR APPROVED EQUAL. SURFACE CLEAN-OUTS OR MANHOLES SHALL BE PROVIDED FOR EACH 75' OF LENGTH. PIPE SLOPE SHALL BE 1/4" PER FOOT MIN.
4. SELECT SEPTIC FILL SHALL CONFORM TO CONNECTICUT D.O.T. SPECIFICATIONS M.02.06-1B AND PLACED IN 8" TO 12" LIFTS WITH COMPACTION EQUAL TO PROCTER DENSITY OF 90% TO 95% FILL SHALL PERC AT A RATE EQUAL TO OR FASTER THAN THE ORIGINAL SOIL.
5. DISTRIBUTION BOXES SHALL BE DB-4 (OR STB-6 W/BAFFLE FOR PUMPED SYSTEM) PRECAST CONCRETE AS MANUFACTURED BY EASTERN PRECAST CO., INC. OR APPROVED EQUAL. (PLASTIC DISTRIBUTION BOXES ARE AN ACCEPTABLE ALTERNATE).
6. FORCE MAIN SHALL BE 2" DIA. PVC TIGHT JOINT PIPE C-900, ASTM 1785, ASTM D2241 OR APPROVED EQUAL (REQUIRED FOR PUMPING STATION DESIGN ONLY)
7. FILTER FABRIC SHALL BE NON-WOVEN FABRIC MEETING A MINIMUM AVERAGE ROLL VALUE OF 1.5OZ./YD AND PERMITTIVITY OF 1.0 SEC AND A TRAPEZOID TEAR OF 15 LBS.
8. "SELECT FILL MATERIAL" AND "SELECT BACKFILL MATERIAL" PLACED WITHIN AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR FOR USE WITHIN THE LEACHING AREA:
   A.) THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN (3) INCHES.
   B.) UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE).
   C.) THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
   D.) THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA:

SIEVE NO.	PERCENT PASSING	
	WET SIEVE	DRY SIEVE
#4	100%	100%
#10	70%-100%	70%-100%
#40	10%-50% (SEE NOTE BELOW)	10%-75%
#100	0%-20%	0%-5%
#200	0%-5%	0%-2.5%

NOTE: PERCENT PASSING THE #40 SIEVE CAN BR INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES DOES NOT EXCEED 5%.

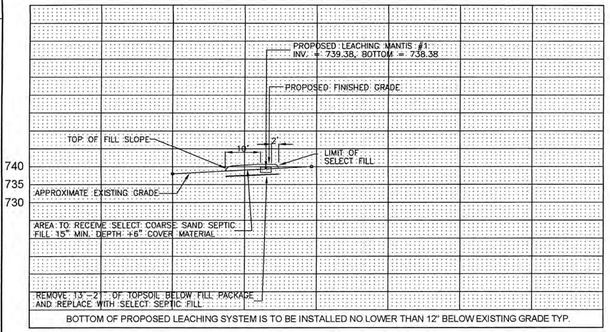
DEEP TEST DATA

DEEP TEST 1/26/2023

D.T. #A		D.T. #B	
0" - 8"	MISC FILL	0" - 12"	MISC FILL
8" - 13"	ORIGINAL TOP SOIL	12"- 21"	ORIGINAL TOP SOIL
13"- 32"	OXIDIZED SANDY LOAM WITH GRAVEL	21"- 36"	BRG
32"- 64"	GRAY COMPACKED SC AND HARDPAN	36"- 54"	HPSS & HP
	WATER @ 32"		WATER @ 26"
	LEDGE @ 64"		REST @ 36"-(12)-24"
	REST @ 32"-(6)-24"		

PERCOLATION TEST DATA

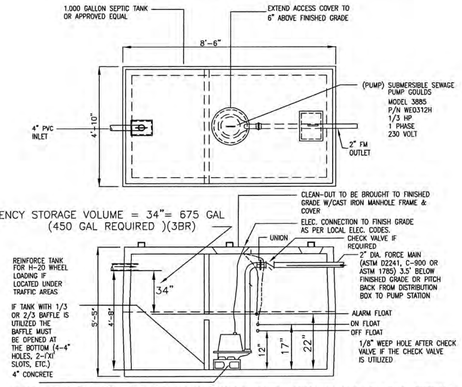
1" IN 10 MIN
BANKRUN GRAVEL
(ALL IN FILL)



BOTTOM OF PROPOSED LEACHING SYSTEM IS TO BE INSTALLED NO LOWER THAN 12" BELOW EXISTING GRADE TYP.

PROFILE SECTION A-A

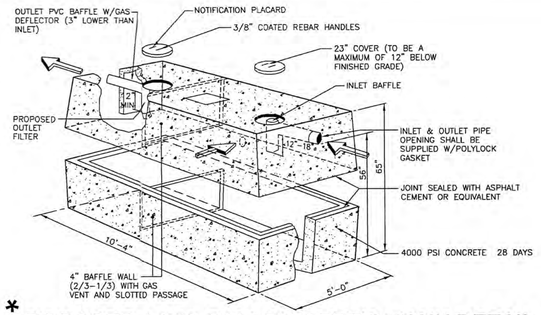
SCALE: 1"=20' HORIZONTAL AND VERTICAL



NOTE: "ALL ELECTRICAL WORK REQUIRES A SEPARATE PERMIT FROM THE LOCAL BUILDING OFFICIAL"

PUMPING STATION DETAIL

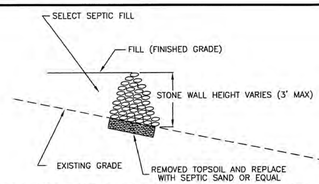
SCALE = N.T.S.



* PROPOSED 1,250 GALLON SEPTIC TANK DETAIL (H-20)

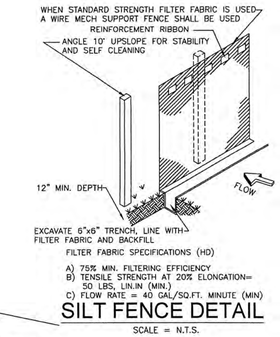
SCALE: N.T.S.

2 BEDROOM (300 GPD) PLUS 2 RETAIL STORES AT 4 EMPLOYEES @ 20 GPD / EMPLOYEE = 80 GPD
(380 GPD TOTAL)



POROUS STONE RETAINING WALL

SCALE = N.T.S.

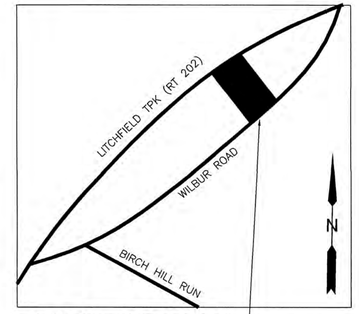


FILTER FABRIC SPECIFICATIONS (HD)

A) 75% MIN. FILTERING EFFICIENCY
B) TENSILE STRENGTH AT 20% ELONGATION= 50 LBS. LIN.IN (MIN.)
C) FLOW RATE = 40 GAL/SQ.FT. MINUTE (MIN)

SILT FENCE DETAIL

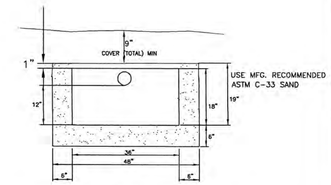
SCALE = N.T.S.



VICINITY SKETCH

N.T.S.

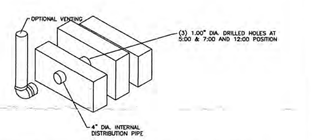
SITE LOCATION



SAND FILL CROSS SECTION

N.T.S.

INSTALLER TO COMPLY WITH ALL MANUFACTURES RECOMMENDED INSTALLATION REQUIREMENTS

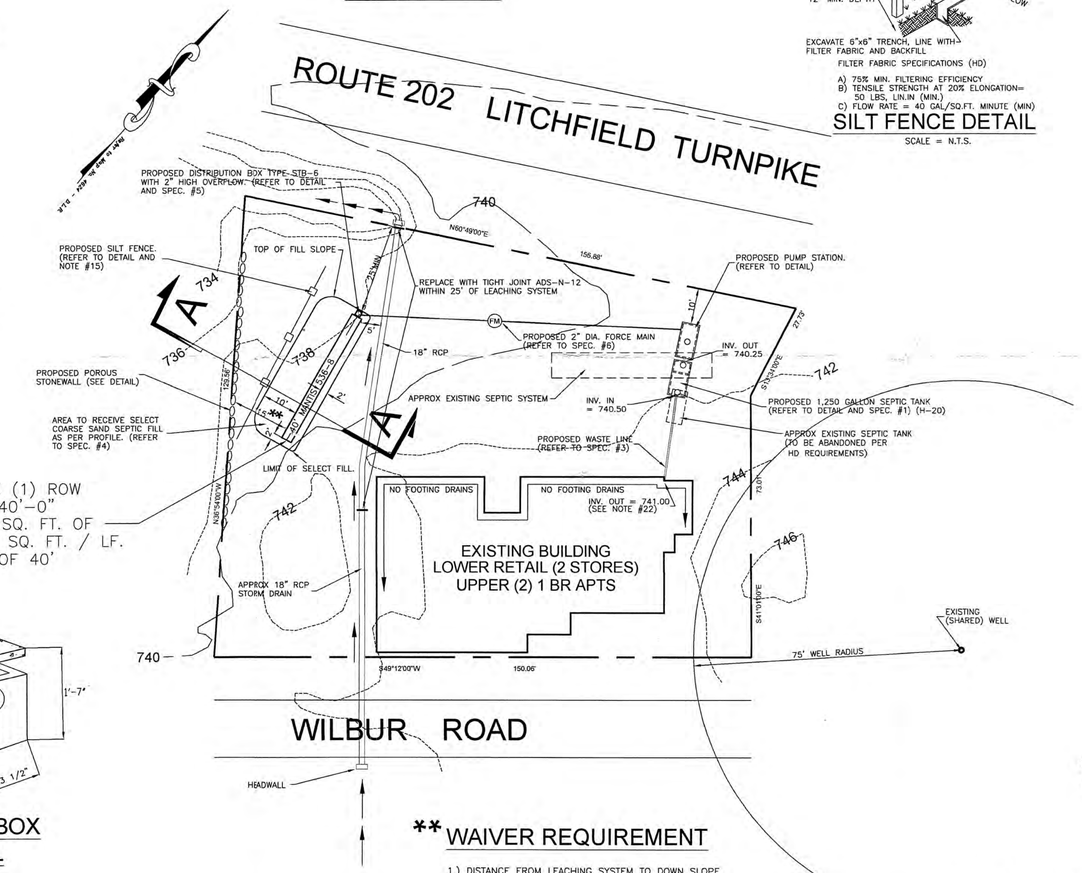


DISTRIBUTION PIPE CONNECTION

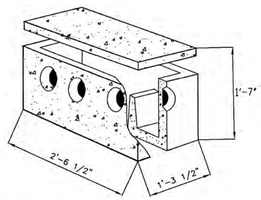
N.T.S.

MANTIS 536-8 LEACHING SYSTEM DETAIL

SCALE = N.T.S.



LEACHING SYSTEM AREA CONSISTING OF ONE (1) ROW OF MANTIS 536-8 LEACHING SYSTEM, 1 @ 40'-0" FOR A TOTAL OF 40 LINEAL FEET FOR 440 SQ. FT. OF EFFECTIVE LEACHING AREA. (BASED ON 11.0 SQ. FT. / LF. WITH A TOTAL TRENCH EXCAVATION LENGTH OF 40'



DISTRIBUTION BOX (STB-6) DETAIL

N.T.S.

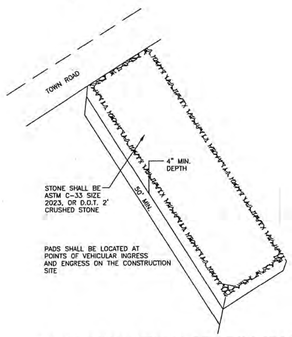
** WAIVER REQUIREMENT

1.) DISTANCE FROM LEACHING SYSTEM TO DOWN SLOPE PROPERTY LINE 25' TO 15'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 INCH = 20'-0"



CONSTRUCTION STABILIZING PAD DETAIL

SCALE = N.T.S.

LEGEND

APPROXIMATE DEEP TEST LOCATIONS ---------- DT#1
APPROXIMATE PERCOLATION TEST LOCATION---------- • PERC/1
APPROXIMATE EXISTING GRADE CONTOURS ~~~~~~~~ 200
PROPERTY LINES ---------- N06°12'05"E 27.00'
STONEWALLS ----------
PROPOSED FINISHED GRADE CONTOURS ~~~~~~~~ 200
PROPOSED SILT FENCE ----------
APPROXIMATE EXISTING SPOT ELEVATIONS -------- + 104.1

DESIGN FLOW = 300 GPD (2 BEDROOM)+(RETAIL)(80 GPD) = 380 GPD
FF = 380 / 300 = 1.27

2 BEDROOM DESIGN CRITERIA + 2 RETAIL STORES

FIELD PERCOLATION RATE: PRIMARY = 1" IN 8.0 MIN.
DESIGN PERCOLATION RATE: PRIMARY = 1" IN 1.0-10 MIN.
EXISTING BEDROOMS = 2 PROPOSED SEPTIC TANK SIZE = 1,250*
MINIMUM LEACHING SYSTEM SPREAD (M.L.S.S.)
DEPTH TO RESTRICTIVE LAYER = 24" HYDRAULIC GRADIENT = 6.4 % SLOPE
HF(30)xFF(1.27)xPF(1.0) = 38.1 REQUIRED 40 PROVIDED
TOTAL LINEAL FEET OF THE PRIMARY LEACHING SYSTEM = 40
TOTAL SQUARE FEET OF THE LEACHING SYSTEM = 440 PROVIDED 375 REQUIRED
SELECT COARSE SAND SEPTIC FILL 15" + FILL/TOPSOIL REPLACEMENT DEPTH +6" COVER MATERIAL OR APPROX. 50 CUBIC YARDS±

N°	REVISION	DATE	BY

R.J. GALLAGHER JR. & ASSOCIATES ENGINEERS
CIVIL
39 MILL PLAIN ROAD, SUITE #2 DANBURY, CONNECTICUT (203) 798-9640

PROJECT 233 LITCHFIELD TURNPIKE
WASHINGTON, CONNECTICUT
prepared for R. NICHOLS

TITLE SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN "REPAIR"

DRAWN BY:	SCALE:	DRAWING N°
T.K.	1"=20' OR AS NOTED	23015
APPROVED BY:	DATE:	
R.J.G. JR.	1/26/23	