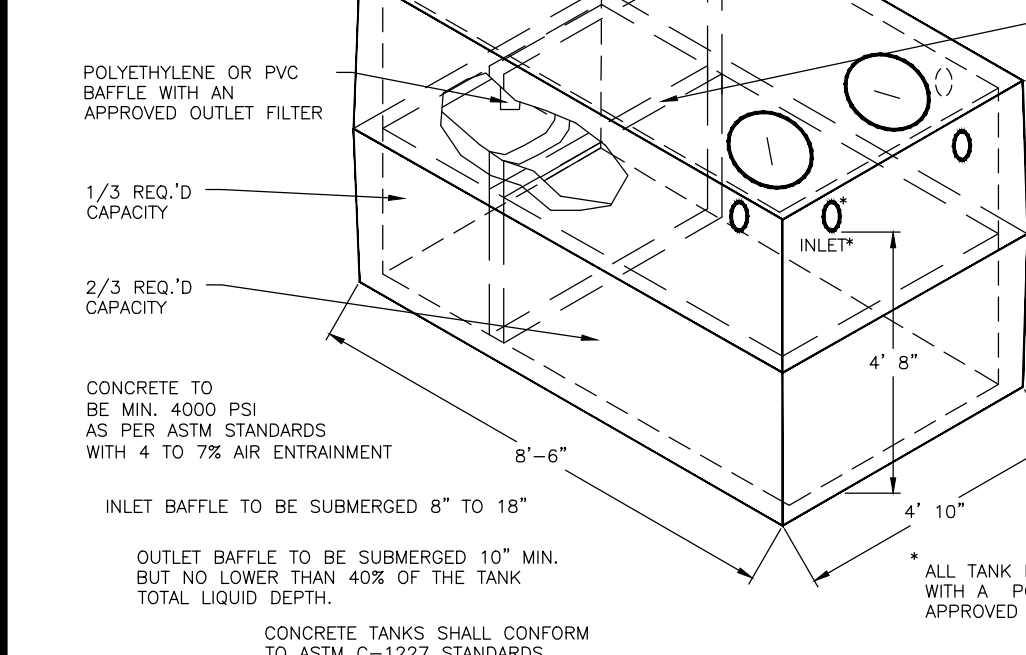
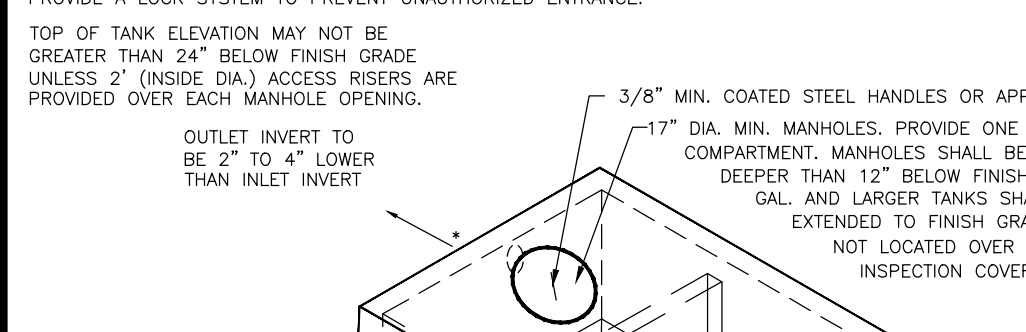


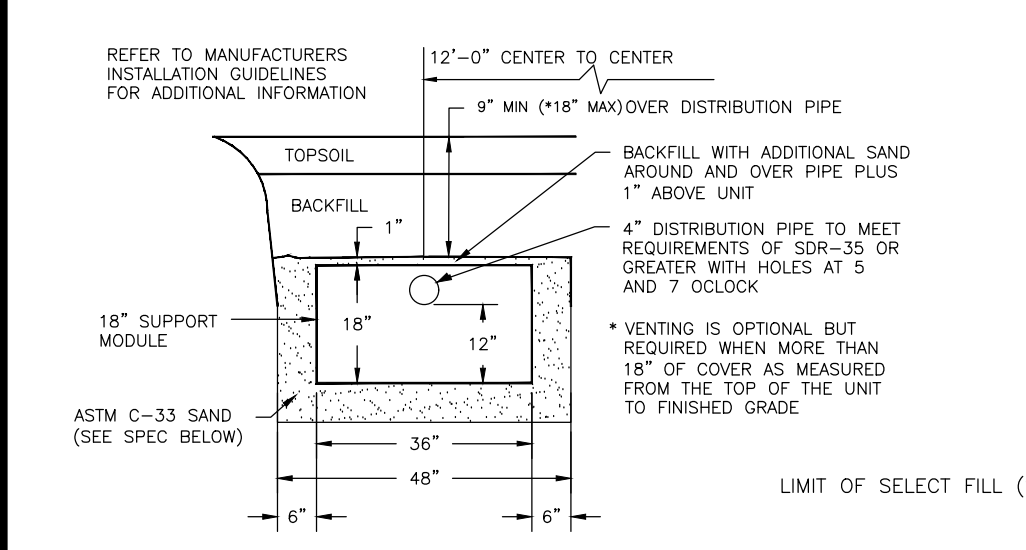
MANHOLES SHALL BE MANUFACTURED WHICH HAVE BEEN PLACARDED NOTING ITS TWO COMPARTMENT CONSTRUCTION AND A WARNING TO EVERYONE THAT ENTRANCE INTO THE TANK COULD BE FATAL.
SEPTIC TANK COVERS SHALL BE KEPT ON THE TANK WHEN RISER ASSEMBLIES ARE UTILIZED. UNLESS A SECONDARY SAFETY LID OR DEVICE IS PROVIDED BELOW THE RISER COVER OR THE RISER COVER WEIGHS MORE THAN 59 POUNDS.
WHERE COVERS ARE FLUSH OR ABOVE GRADE EITHER LID MUST WEIGH A MIN. OF 59 LBS. OR SHALL PROVIDE A LOCK SYSTEM TO PREVENT UNAUTHORIZED ENTRANCE.
TOP OF TANK ELEVATION MAY NOT BE GREATER THAN 24" BELOW FINISH GRADE
SEPTIC TANK COVERS SHALL BE KEPT ON THE TANK WHEN RISER ASSEMBLIES ARE UTILIZED. UNLESS A SECONDARY SAFETY LID OR DEVICE IS PROVIDED BELOW THE RISER COVER OR THE RISER COVER WEIGHS MORE THAN 59 POUNDS.

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WHEN A GARAGE GRINDER IS UTILIZED ADD 250 GALLONS TO THE REQUIRED CAPACITY OF THE SEPTIC TANK
WHEN A 100 TO 200 GALLON TUB IS UTILIZED ADD 250 GALLONS TO THE REQUIRED CAPACITY OF THE SEPTIC TANK
WHEN A TUB OVER 200 GALLONS IS UTILIZED ADD 500 GALLONS TO THE REQUIRED CAPACITY OF THE SEPTIC TANK

SEPTIC TANK (CT-1000-S) DETAIL
SCALE = N.T.S.



MANTIS 536-8 DETAIL
SCALE: N.T.S.

REFER TO MANUFACTURERS INSTALLATION GUIDELINES FOR ADDITIONAL INFORMATION

ASTM C-33 SAND FILL SPEC.

SIEVE SIZE	PERCENT PASSING	PERCENT PASSING DRY SIEVE
0.375"	100	100
#4	95 - 100	
#8	80 - 100	
#16	50 - 85	
#30	25 - 60	
#50	5 - 30	
#100	0 - 10	
#200	0 - 5	

NOTE: ELIEN MAY APPROVE THE MATERIAL UNDER CERTAIN CONDITIONS TO BE USED FOR THE SPECIFIED SAND ENVELOPE AROUND THE MANTIS UNITS.

REQUIRED NOTES ON DESIGN PLANS:

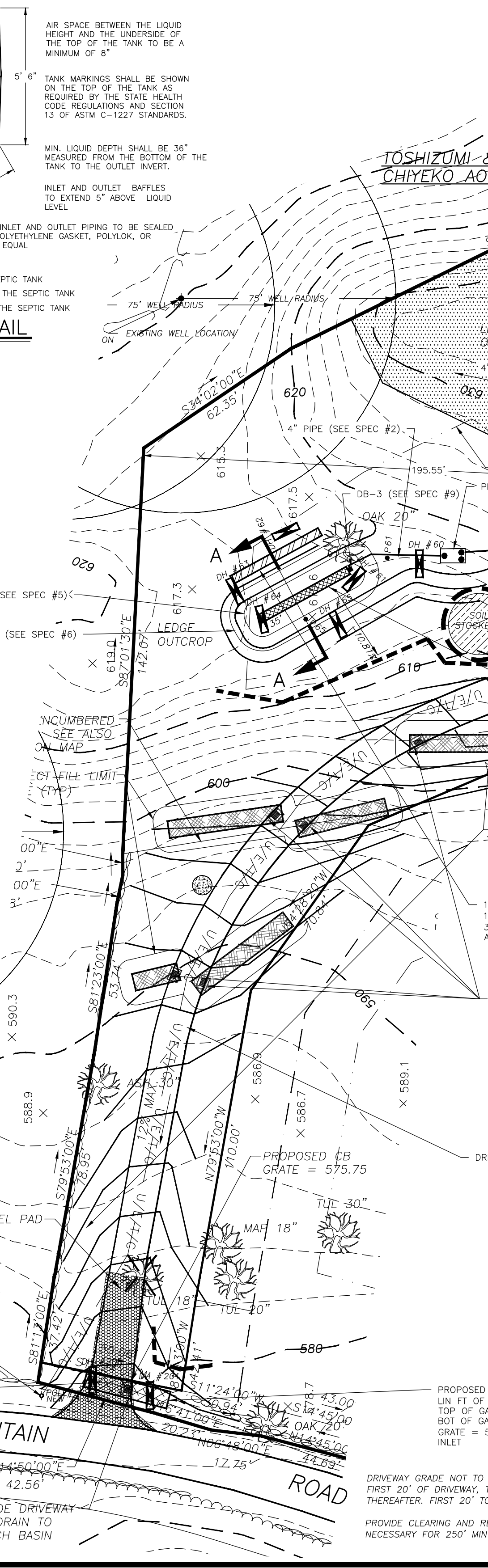
- *THIS SYSTEM IS NOT DESIGNED FOR BACKWASH FROM A WATER SOFTENER.
- *THE MANTIS SYSTEM IS NOT FOR USE UNDER VEHICULAR TRAFFIC OR FOR UNDER PAVING APPLICATIONS.
- *ORGANIC TOPSOIL LAYER MUST BE REMOVED FROM TRENCH AND SLOPE EXTENSION AREAS PRIOR TO SELECT FILL OR SPECIFIED SAND PLACEMENT.
- *SCAFFRY SUBSOIL PRIOR TO SELECT FILL OR SPECIFIED SAND PLACEMENT.
- *ALL MANTIS INSTALLATIONS UTILIZE A SPECIFIED SAND ENVELOPE AROUND THE MANTIS UNITS: 6" MINIMUM UNDERNEATH, 6" MINIMUM ON THE SIDES, 1" MINIMUM ON TOP, AND 3" BETWEEN THE SUPPORT MODULES OF THE MANTIS UNITS. THE MANTIS SPECIFIED SAND SPECIFICATION IS LISTED BELOW:
- *ELIEN CORPORATION REQUIRES THE USE OF AN APPROPRIATE SIZED SEPTIC TANK EFFLUENT FILTER FOR ALL MANTIS SYSTEMS.
- *PUMPED SYSTEMS SHALL HAVE AN OVERSIZED DISTRIBUTION BOX UTILIZING A VELOCITY REDUCTION TEE OR BAFFLE.
- *ELIEN MANDATES VENTING FOR THE MANTIS SERIES WHEN THE SYSTEM WILL HAVE MORE THAN 18" OF COVER MATERIAL AS MEASURED FROM THE TOP OF THE UNIT TO FINISHED GRADE.
- *AFTER BACKFILL, THERE SHOULD BE A MINIMUM OF 10" OF MATERIAL AS MEASURED FROM THE TOP OF THE MODULES TO THE FINISHED GRADE. THE FIRST INCH OF THAT FILL IS SPECIFIED SAND.
- *FOR PUMPED SYSTEMS, SET PUMP FLOATS OR PUMP CONTROL PANELS TO DELIVER A MAXIMUM OF 12 GALLONS PER MANTIS 536-8 UNIT OR 6 GALLONS PER MANTIS 536-8 LOWPWR PER DOSING CYCLE.
- *NON-RESIDENTIAL BUILDINGS AND RESIDENTIAL INSTITUTIONS SHALL BE DESIGNED USING DAILY DESIGN FLOW UNLESS SPECIFIC WATER USE DATA IS AVAILABLE FOR THE FACILITY. DESIGN FLOW BASED ON METERED FLOWS MUST USE A MINIMUM 1.5 SAFETY FACTOR APPLIED TO ALL METERED AVERAGE DAILY WATER USE. SEE CONNECTICUT PUBLIC HEALTH CODE, TABLES 4, 7 AND 8.

ZONING INFORMATION

PROPERTY LOCATED IN R-2 DISTRICT
PROPOSED USE - SINGLE FAMILY RESIDENTIAL
LOT AREA MINIMUM - 87,120 SF/2 ACRES EXISTING - 2.5 ACRES
MINIMUM RECTANGLE AREA - 50,000 SF (200'x250')
MINIMUM LOT & RECTANGLE WIDTH - 200'
MINIMUM LOT FRONTAGE
FRONT LOT - 50'
REAR LOT - 25'
SETBACKS
FRONT 50'
SIDE 40'
REAR 50'
MINIMUM BUILDING HEIGHT - 40'
MAX. BUILDING COV. - 10%
MAXIMUM IMPERVIOUS AREA - 20%

LEGEND

- DH # APPROX. LOC. OF TEST HOLES
- PH# APPROX. LOC. OF PERC TESTS
- APPROX. EXISTING GRADE CONTOURS TAKEN FROM SUBDIVISION MAPPING
- PROPOSED FINISH GRADING
- HAY BALES OR SILT FENCE
- EXIST. STONEWALL



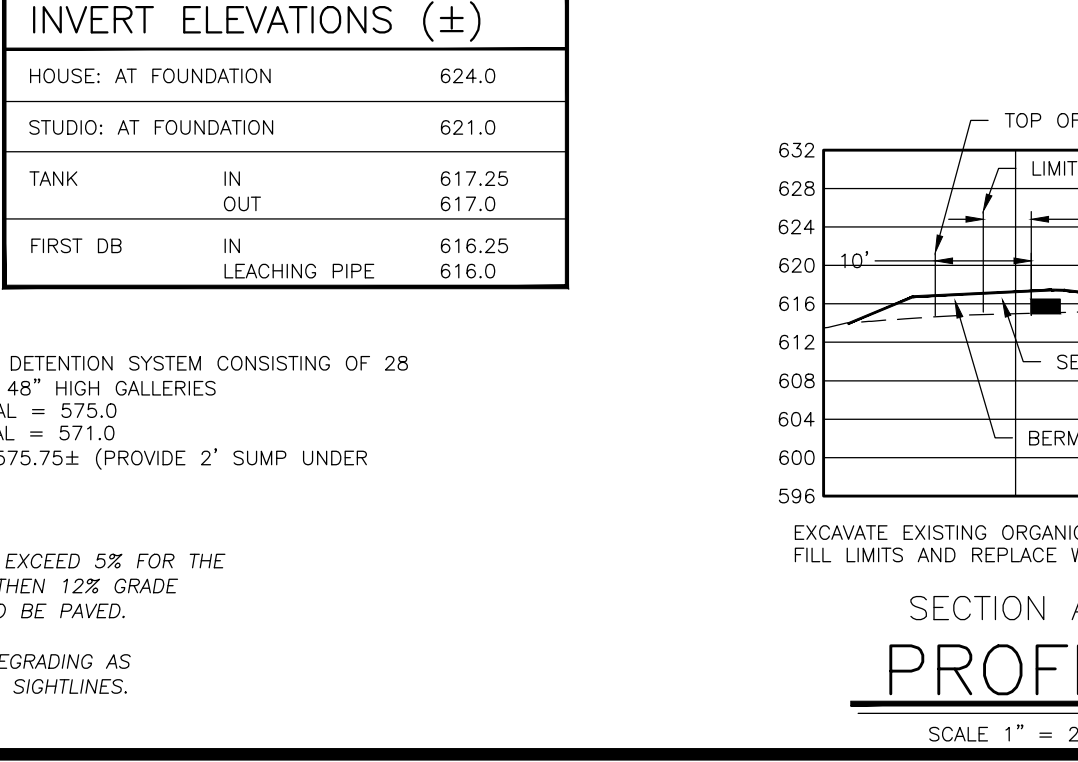
TEST DATA:

Time	Reading	Drop(Inches)	Perc Rate(1"/x Min.)
0	6.50		
10	10.00	3.50	2.86
20	12.00	2.00	5.00
30	13.38	1.38	7.25
40	14.75	1.37	7.30
50	16.00	1.25	8.00
60		dry	

PLAN
SCALE 1" = 30'

INVERT ELEVATIONS (±)

HOUSE: AT FOUNDATION	624.0
STUDIO: AT FOUNDATION	621.0
TANK IN	617.25
TANK OUT	617.0
FIRST DB IN	616.25
FIRST DB LEACHING PIPE	616.0



TEST DATA:

DH#	Time	Reading	Drop(Inches)	Perc Rate(1"/x Min.)
60	0-3"			
	-30"	Topsoil		
	-58"	Brown sandy loam		
		Tan gray medium-coarse sand, trace silt & very stony		
		No water	Ledge @ 36"	No Motting
DH#	0-4"	Topsoil		
	-24"	Brown sandy loam		
	-60"	Gray brown sand & gravel with stones to 6"		
		No water	Ledge @ 60"	No Motting or restrictive
DH#	0-4"	Topsoil		
	-30"	Tan sandy loam		
		No water	Ledge @ 30"	No Motting or restrictive
DH#	0-2"	Topsoil		
	-26"	Brown sandy loam		
	-48"	Tan fine-coarse sand		
		No water	Ledge @ 48"	No Motting or restrictive
DH#	0-3"	Topsoil		
	-30"	Brown sandy loam		
	-36"	Gray fine silty sand		
		No water	Ledge @ 36"	No Motting
DH#	0-6"	Topsoil		
	-40"	Orange brown sandy loam		
	-50"	Light gray fine silty sand		
		No water	Ledge @ 50"	No Motting
				Roots @ 44"
DH#	0-4"	Topsoil		
	-26"	Yellow brown sandy loam		
	-44"	Light gray fine silty sand		
		No water	Ledge @ 44"	No Motting
61	Time	Reading	Drop(Inches)	Perc Rate(1"/x Min.)
	0	5.00		
	10	8.25	3.25	3.08
	20	10.25	2.00	5.00
	30	11.75	1.50	6.67
	40	13.00	1.25	8.00
	50	14.13	1.13	8.00
	60			dry
65	Time	Reading	Drop(Inches)	Perc Rate(1"/x Min.)
	0	3.25		
	10	6.25	3.00	3.33
	20	8.00	1.75	5.71
	30	9.25	1.25	8.00
	40	10.50	1.25	8.00
	50	12.75	2.25	4.44
	60	14.00	1.25	8.00

SECTION A-A PROFILE
SCALE 1" = 20'

SPECIFICATIONS:

- PIPE: BUILDING TO SEPTIC TANK: TIGHT JOINT CAST IRON ASTM A74, SCHEDULE 40 PVC ASTM D1785, ANNA C-900 PVC; WITH ACCEPTABLE JOINTS OR APPROVED EQUAL. PROVIDE CLEANOUTS EVERY 75' OR AT BENS GREATER THAN 45'.
- PIPE: FROM SEPTIC TANK TO AND IN BETWEEN DISTRIBUTION BOXES: 4" DIAMETER PVC ASTM D3034 SDR 35 OR APPROVED EQUAL.
- PIPE: DISTRIBUTION PIPING: 4" PERFORATED PVC ASTM D2729 OR APPROVED EQUAL.
- PIPE: FORCE MAIN (IF REQUIRED): 2" SCHEDULE 40 ASTM 1785 PVC OR APPROVED EQUAL.
- FILL: SURFACE OR GROUNDWATER DRAIN CONSTRUCTED OF TIGHT PIPE WITHIN 25' OF SEPTIC EXCEPT TIGHT NO DRAIN SHALL BE LESS THAN 5'. USE ASTM D3034 SDR-35 WITH RUBBER COMPRESSION GASKETS OR TWO STEP PVC SOLVENT WELD PROCEDURE FOR FITTINGS OR APPROVED EQUAL. JOINT MUST MEET ASTM D3212-76 SPECIFICATIONS.
- FILL: SELECT (IF REQUIRED) APPROVED BY THE ENGINEER AND SIEVE TESTED PRIOR TO PLACEMENT. THE FILL SHALL MEET THE FOLLOWING REQUIREMENTS:
THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCH SIEVE, 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).
THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED. THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA

SIEVE SIZE	WET SIEVE	PERCENT PASSING DRY SIEVE
#4	100	
#10	70 - 100	70/100/100
#40	10 - 50*	10 - 75
#100	0 - 20*	0 - 5
#200	0 - 5*	0 - 2.5

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

GENERAL NOTES:

- PROPERTY LINES ARE TO BE STAKED, AS REQUIRED, PRIOR TO CONSTRUCTION OF THE BUILDING AND/OR SEPTIC SYSTEM.
- THE INSTALLER SHALL NOTIFY THE ENGINEER, PRIOR TO PREPARING THE SEPTIC AREA TO DISCUSS THE INTENT OF THE DESIGN AND THE REQUIREMENTS FOR SITE PREPARATION. SEE ALSO SPEC. #5.
- INSTALL THE LEACHING MEDIUM LEVEL. WHEN MEDIUM IS IN ORIGINAL CONDITION, INSTALL 6" OF SELECT FILL UNDER IT TO ADD IN LEVELING AND TO PROMOTE ABSORPTION.
- THE LAYOUT OF THE SEPTIC SYSTEM MAY BE REPOSITIONED SLIGHTLY IN THE FIELD TO BEST SUIT SITE CONDITIONS. THE ENGINEER IS TO BE NOTIFIED OF ANY DEVIATIONS TO THE APPROVED PLAN.
- DISTURBANCE TO THE PROPOSED SEPTIC SYSTEM AREA SHALL BE KEPT TO A MINIMUM. HEAVY EQUIPMENT IS TO BE KEPT OUT OF THE SYSTEM AREA AS MUCH AS POSSIBLE, PRIOR TO PREPARATION AND AFTER INSTALLATION OF THE SYSTEM.
- THE ENGINEER MAY REQUEST CHANGES IN FIELD CONDITIONS WARRANT. THE LACK OF COMPLIANCE WITH THE APPROVED DESIGN MAY RENDER THE APPROVED PLAN NULL AND VOID AND PERMISSIBLE BACKFILL THE SYSTEM SHALL BE WITHHELD UNTIL THE CONDITIONS FOR APPROVAL HAVE BEEN MET.
- GRADE SITE TO INTERCEPT AND DIVERT SURFACE WATER AWAY FROM THE SEPTIC AREA. USE A CURTAIN DRAIN, IF SHOWN OR DETERMINED TO BE REQUIRED IN THE FIELD, TO DRAIN GRADE WATER.
- LEAD ALL ROOF AND FOOTING DRAINS AWAY FROM THE SYSTEM AREA.
- PROPOSED FLOOR ELEVATIONS ARE NOT TO BE USED AS A BENCHMARK.
- INSTALL EMBANKMENTS, AS SHOWN ON THE PLAN AND PROFILE, TO PREVENT EFFLUENT BREAKOUT. USE GRASS OR PLANTINGS TO PREVENT EROSION.
- EXCAVATE THROUGH EXISTING TOPSOIL AND FILL WITH SELECT FILL TO THE PROPER ELEVATION FOR SYSTEMS CONSTRUCTED ENTIRELY IN FILL.
- KEY INTO EXISTING SOIL WHERE SELECT FILL MEETS BERM.
- RECORD DIMENSIONS ARE TO BE SUBMITTED BY THE ENGINEER TO THE DEPARTMENT OF HEALTH UPON COMPLETION, INSPECTION, AND FIELD APPROVAL OF THE SYSTEM.
- CONTRACTOR IS TO NOTIFY "CALL BEFORE YOU DIG" PRIOR TO ANY EXCAVATION 1-800-922-4455.
- THERE IS NO APPARENT INTERFERENCE OF WELLS AND/OR SEPTIC SYSTEMS ON ADJOINING PROPERTIES.
- ALL DRAINAGE PIPING SHALL BE 25' MINIMUM FROM ANY WELL.
- THE LEACHING AREA SHALL BE LOCATED BY FIELD STAKES OR MARKERS, PRIOR TO ANY SITE WORK, IN ORDER TO IDENTIFY THE LEACHING AREA AND TO PROTECT IT FROM ALL CONSTRUCTION TRAFFIC AND POTENTIAL DAMAGE.
- A SCARIFICATION INSPECTION BY THE HEALTH DEPT. SANITARIAN, DESIGN ENGINEER, AND THE LICENSED INSTALLER OF RECORD SHALL BE CONDUCTED PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OF FILL IN THE PRIMARY LEACHING AREA. IF THERE ARE ANY PROBLEMS DURING INSPECTION (BY THE SANITARIAN, ENGINEER, OR INSTALLER) FURTHER TESTING AND/OR PERMIT REVOCATION MAY TAKE PLACE IN ORDER TO CONFIRM CONFORMANCE WITH THE PROPOSED DESIGN CRITERIA OF THE SDDS.
- THE CONTRACTOR SHALL CONTACT THE ENGINEER & DEPT. 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.
- DISCHARGES FROM WATER TREATMENT SYSTEMS, IF REQUIRED, SHALL BE DESIGNED, PERMITTED, INSTALLED AND INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION X OF OF THE STATE OF CONNECTICUT DEPARTMENT OF HEALTH PUBLIC HEALTH CODE STANDARDS.

SITE SPECIFIC NOTES:

- PROPERTY LINE BEARINGS AND DISTANCES TAKEN FROM SURVEY MAP PREPARED BY RWK LAND SURVEYING
- PERCOLATION RATE FOR SUBJECT SITE EQUALS 1" IN 8.9 MINUTES. 375 SQ. FT. IS REQUIRED FOR 2 BEDROOMS. PROVIDE 3,562 SQ. FT. OF EFFECTIVE LEACHING AREA USING 35 LINEAL FEET OF 18" HIGH MANTIS 536-B LEACHING UNITS AND A 1,000 GALLON TANK.
- ARTESIAN WELL WATER SUPPLY WILL BE UTILIZED. NO WATER LINE SHALL BE WITHIN 10 FEET OF ANY PORTION OF THE SEPTIC SYSTEM.
- FILL REQUIREMENTS: APPROXIMATE AVERAGE DEPTH = 2.5'; SELECT FILL - 75± CUBIC YARDS BERM FILL - 75± CUBIC YARDS
- THIS PLAN MUST RECEIVE CENTRAL SYSTEM APPROVAL FROM THE STATE HEALTH DEPARTMENT.

M.L.S.S.

AREA	SLOPE (%)	DTR (")	HF	FF	PF	M.L.S.S.(')
PRIMARY	10.1-15	44	16	1.0	1.0	16

ASSESSOR'S PARCEL ID: MAP 41 LOT 65

MICHAEL J. MAZZUCCO, P.C.
(203) 744-0057 CIVIL ENGINEER (FAX) 744-0057
19A TA'AGAN POINT ROAD DANBURY, CONNECTICUT 06811

REVISIONS

PROJECT **52 MOUNTAIN ROAD REDDING, CT**

TITLE **SITE / SEPTIC PLAN** (KEATING)

SCALE **AS NOTED** DATE **8/25/20** DRAWING NO. **00028-52**

DRAWN BY **ACAD** APPROVED BY **M.M.**

The design of this system is based upon normal field testing procedures and accepted design practices. It has been designed based on applicable State and Local Health codes. It is not guaranteed against failure caused by improper site preparation, installation, site grading, adverse site conditions that may have been undetected using normal testing procedures, misuse, neglect, and future site conditions.