DEEP TEST PIT DATA

TP #101
0 - 4" DARK BROWN TOPSOIL
4 - 29" FILL MATERIAL
29 - 33" DARK BROWN ORIGINAL TOPSOIL
33 - 79" ORANGE BROWN FINE TO MEDIUM SANDY LOAM, DAMP
47 - 79" (POCKET ON LAWN SIDE) ORANGE BROWN MEDIUM SAND WITH SOME GRAVEL, DAMP, MOTTLED
MOTTLES: 47" - GW: NONE - LEDGE: NONE - ROOTS: 50" - RESTRICTIVE: 47"

TP #102
0 - 5" DARK BROWN TOPSOIL
5 - 29" FILL MATERIAL
29 - 34" DARK BROWN ORIGINAL TOPSOIL
34 - 74" MEDIUM BROWN FINE TO MEDIUM SANDY LOAM, WET, MOTTLED
MOTTLES: 57" - GW: NONE - LEDGE: NONE - ROOTS: 51" - RESTRICTIVE: 57"

TP #103
0 - 11" PROCESSED GRAVEL
11 - 16" FILL MATERIAL
16 - 26" ORIGINAL TOPSOIL
26 - 75" ORANGE BROWN/ BROWN/GREY SILTY LOAM, MODERATELY COMPACT TO FIRM, MOTTLED
MOTTLES: 45" - GW: 75" - LEDGE: NONE - ROOTS: 60" - RESTRICTIVE: 45"
(29" FILL SUBTRACTED)

TEST PITS AS WITNESSED AND DESCRIBED BY ZAC JEZEK, R.S. AND LIZ DAVIDSON, MPH, RS. TP'S 101 & 102 11/2/21; TP 103 12/2/21

PERCOLATION TEST DATA

PT #1
DEPTH: 29"
DATE: 11/15/21
PRESOAK: 8:37 11/15/21
REF. NAIL: 1"

TIME:	READING:
10:44	16.00"
10:54	17.75"
11:04	18.25"
11:14	18.75"
11:24	19.25"
11:34	19.75"
11:44	20.25"
11:54	20.75"
12:04	21.25"
12:14	21.75"
12:24	22.25"

PERCOLATION RATE: 20.0 MIN. IN.

PERCOLATION TEST CONDUCTED BY DUTCH & ASSOCIATES

HYDRAULIC FACTORS (HF)

Hydraulic Gradient (% Slope)

Receiving Soil Depth (inches)	0.0	2.50 - 5.00	5.01 - 7.50	7.51 - 10.00	10.01 - 12.50	12.51 - 15.00	15.01 - 17.50	17.51+
24.1 - 27.1	See Comment in Section VIII A							
21.1 - 24.0	55	52	50	48	46	44	42	40
18.1 - 21.0	50	48	45	43	41	39	37	35
15.1 - 18.0	45	43	41	39	37	35	33	31
12.1 - 15.0	40	38	36	34	32	30	28	26
9.1 - 12.0	35	33	31	29	27	25	23	21
6.1 - 9.0	30	28	26	24	22	20	18	16
3.1 - 6.0	25	23	21	19	17	15	13	11
0.0 - 3.0	NLSS Need Not be Considered							

EROSION CONTROL NOTES

GENERAL REQUIREMENTS FOR EROSION CONTROL:

A SCHEDULE OF OPERATIONS TO INCLUDE STARTING AND COMPLETION DATES FOR MAJOR DEVELOPMENT PHASES, SUCH AS LAND CLEARING AND GRADING, STREET, SIDEWALK, AND STORM SEWAGE INSTALLATION, ETC.

SEEDING, SODDING, OR REVEGETATION PLANS AND SPECIFICATIONS FOR ALL UNPROTECTED OR UNVEGETATED AREAS SHALL BE IMPLEMENTED AS SOON AS POSSIBLE.

EXCAVATIONS , FILLS AND GRADING :

CUT AND FILL SLOPES SHALL NOT BE STEEPER THAN 3:1 UNLESS STABILIZED BY A RETAINING WALL OR CRIBBING, EXCEPT AS APPROVED BY THE COMMISSION UNDER SPECIAL CONDITIONS.

ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATER FROM DAMAGING THE CUT FACE OF EXCAVATION OR THE SLOPING SURFACES OF FILLS.

CUT AND FILLS SHALL NOT ENDANGER ADJOINING PROPERTY.

FILL SHALL BE PLACED AND COMPACTED SO AS TO MINIMIZE SLIDING OR EROSION OF THE SOIL.

GRADING SHALL NOT BE DONE IN SUCH A WAY SO AS TO DIVERT WATER ONTO THE PROPERTY OF ANOTHER LANDOWNER WITHOUT THE EXPRESSED CONSENT OF THAT LANDOWNER AND THE COMMISSION.

FILLS SHALL NOT ENCROACH ON THE NATURAL WATERCOURSES OR CONSTRUCTED CHANNELS.
DURING GRADING OPERATIONS, NECESSARY MEASURES FOR DUST CONTROL SHALL BE EXERCIZED.

GRADING EQUIPMENT WILL NOT BE ALLOWED TO CROSS LIVE STREAMS EXCEPT BY MEANS OF BRIDGES AND CULVERTS OR OTHER METHODS AS APPROVED BY THE COMMISSION.

IMPLEMENTATION PROCEDURES:

WHEREVER FEASIBLE, NATURAL VEGETATION SHOULD BE RETAINED AND PROTECTED.

ONLY THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT.

WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME.

WHERE NECESSARY, TEMPORARY VEGETATION AND/OR MULCHING SHOULD BE USED TO PROTECT AREAS EXPOSED DURING DEVELOPMENT.

THE PERMANENT FINAL VEGETATION AND STRUCTURES SHOULD BE INSTALLED AS SOON AS PRACTICAL IN THE DEVELOPMENT.

REFERENCE NOTE

THIS SURVEY AND MAP HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THROUGH 20-300B-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" ADOPTED FOR USE BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

THE TYPE OF SURVEY IS "ZONING LOCATION SURVEY".

THE BOUNDARY DETERMINATION CATEGORY IS "DEPENDENT RESURVEY".

THE HORIZONTAL ACCURACY CONFORMS TO "A-2" STANDARDS.

BASIS OF SANITARY DESIGN

4 BEDROOM HOUSE - 20.0 Min/in PERC RATE
787.5 SQ. FT. OF LEACHING AREA REQUIRED
USE 2 TRENCHES 62"WIDE @ 13' CTRS @ LENGTHS SHOWN
868 SQ. FT. OF LEACHING AREA PROVIDED
USE MINIMUM 1,250 GALLON SEPTIC TANK.
HF 28 x FF 1.75 x PF 1.25 = MLSS 61.25'

USE 2 ROWS OF GST 6218 @ 14.0 FT² OF LEACHING PER LINEAR FT X 62 TOTAL FT OF TRENCH = 868 FT² OF LEACHING PROVIDED (787.5 FT² REQUIRED)

STANDARD SEPTIC NOTES:

AN AS-BUILT SHALL BE SUBMITTED (A-2 WITH TIES FOR ENGINEERED PLAN AND TIES PLAN FOR NON-ENGINEERED) TO THE HEALTH DEPARTMENT WITH DISTANCES TO FLOW LINE AT HOUSE, INLET AND OUTLET COVER OF TANK, D-BOX(S), CLEANOUTS AND ENDS OF LEACHING ROWS, FILL, FOOTING/CURTAIN DRAINS AND BETWEEN THE POINTS. IN ADDITION, PROVIDE THE NAME OF THE INSTALLER, DATE, HOUSE LOCATION AND STREET/DIRECTIONAL ARROW.

ALL TANKS REQUIRING RISERS SHALL MAINTAIN THE ORIGINAL COVERS ON THE TANKS. HAVE RISER COVERS THAT WEIGH AT LEAST 19 LBS. AND/OR INSTALL A SAFETY DEVICE BELOW THE RISER TO PREVENT INDIVIDUALS FROM FALLING INTO TANK. ALL BELOW GRADE TANK OR RISER COVER HANDLES SHALL CONTAIN OR BE FITTED WITH A MATERIAL THAT CAN BE LOCATED WITH A METAL DETECTOR.

THE HEALTH DEPARTMENT SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO ANY INSPECTIONS AND THE FOLLOWING INSPECTIONS WILL BE REQUIRED: A.1 SYSTEM STAKE/BENCHMARK INSPECTION: WELL SITE STAKE VERIFICATION B.) SEPTIC LEACHING STRIP INSPECTION. C.) SEPTIC FINAL INSPECTION (WHICH MAY ALSO REQUIRE OTHER INSPECTIONS INCLUDING, BUT NOT LIMITED TO FILL INSPECTIONS/ PERCING OF FILL, PUMP/PUMP CHAMBER, GREASE TRAP, CURTAIN DRAIN, FOOTING DRAIN DISCHARGE, COVER INSPECTIONS, BUILDING WALKTHROUGH, WATER TREATMENT/WASTEWATER DISPOSAL SYSTEM LOCATION VERIFICATION, WELL CASTING AND CAP VERIFICATIONS)

THOUGH NOT REQUIRED, ALL PROPOSED WELL ARCS SHOULD BE KEPT ON THE PROPERTY THEY SERVE (TO ALLOW NEIGHBORS FULL USE OF THEIR PROPERTIES) AND ALL WELL CASTINGS SHOULD BE LOCATED AT LEAST 10' FROM DRIVING SURFACES AND/OR STRUCTURES TO PREVENT FUTURE DAMAGE AND ALLOW FOR MAINTENANCE OF THE WELLS.

IT IS STRONGLY ENCOURAGED TO KEEP THE ORIGINAL TANK COVERS ON ALL TANKS REQUIRING RISERS TO PREVENT THE ESCAPE OF SEWER GASES AND PREVENT INDIVIDUALS FROM FALLING INTO TANKS.

THE DESIGNER SHOULD TAKE INTO CONSIDERATION THE LOCATION OF POTENTIAL FUTURE WATER TREATMENT DISCHARGE SYSTEMS, RAIN GARDENS AND FOOTING/CURTAIN DRAIN DISCHARGE LOCATIONS.

"THE CONNECTICUT PUBLIC HEALTH CODE - ON-SITE SEWAGE DISPOSAL REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS" ARE PART OF THIS PLAN. ALL WORK SHALL BE SUBJECT TO THESE REGULATIONS.

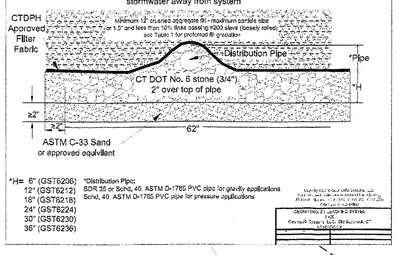
SEPTIC NOTES:

EXISTING SEPTIC SYSTEM SHOWN PER INSTALLER'S AS-BUILT

EXISTING SYSTEM TO BE PROPERLY ABANDONED (PUMPED CRUSHED & FILLED)

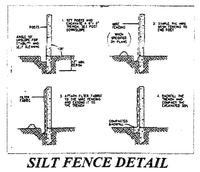
EXISTING HOUSE AND PROPOSED ADDITION TO NOT HAVE FOUNDATION DRAINS WITHING 25' OF SYSTEM AND/OR 50' DOWN GRADE OF SYSTEM

GEOMATRIX GST 62" LEACHING SYSTEM
H-20
Finished Grade shall be pitched to sheet flow stormwater away from system



*H= 6" (GST6206)
12" (GST6212)
18" (GST6218)
24" (GST6224)
30" (GST6230)
36" (GST6236)

*Distribution Pipe:
SDR 35 or Sch40, 40, ASTM D-1785 PVC pipe for gravity applications
Sch40, 40, ASTM D-1785 PVC pipe for pressure applications



SILT FENCE DETAIL

ASTM C-33 SIEVE SPECS
(PER DAVE POTTS OF GEOMATRIX SYSTEMS, LLC (860) 510-0730)

SIEVE SIZE	% PASSING (DRY)
3/8"	100
#4	95 - 100
#8	80 - 100
#16	50 - 85
#30	25 - 60
#50	10 - 30
#100	2 - 10
#200	0 - 3

LEGEND
- UTILITY POLE
- I.P. AS NOTED
- WELL
- PERCOLATION TEST
- DEEP HOLE TEST
- SILT FENCE
- RETAINING WALL
- 264 PROPOSED CONTOUR

MAP REFERENCE

PLAN 4 - LAKE HAYWARD CLUB PROPERTY IN THE TOWN OF EAST HADDAM, CONN. - SHORE AND LAKE CORPORATION, OWNERS. - SCALE: 1" = 100 - DATED JULY 30, 1954 - BY DABOLL & CRANDALL, ENG'RS

SANITARY SEWER PUMP CALCULATIONS

TOTAL FLOW = 150 GPD / BEDROOM X 4 BEDROOM = 525GPD
PEAK FLOWS = GPM (WELL PUMP PEAK)

PUMP: GRINDER EFFLUENT

	HEAD
PUMP ELEVATION = 253.8 RECEIVING ELEVATION = 262.9	9.1 FT
MISC. ELEVATION CHANGES = (ESTIMATED)	0.9 FT
TOTAL STATIC HEAD	10 FT

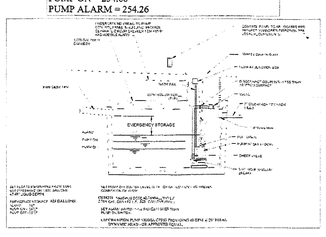
66 LF 2" PE PIPE
2 GATE VALVES = 3 FT LENGTH
2 90 DEG. = 10 FT LENGTH
1 CHECK VALVES = 17 FT LENGTH
96 LF TOTAL @ 10 GPM @ 30 GPM @ 50 GPM @ 70 GPM
DYNAMIC HEAD / 100': 1 6 14 ____
X 100 LF TOTAL / 100': 1 6 14 ____
PUMP CURVE TDH: 11 15 24 ____

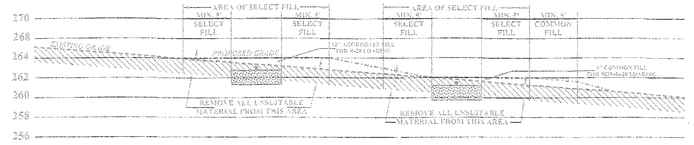
PUMP PER PLAN: 40 GPM @ 20 ' HEAD
(VELOCITY IN 2" PIPE @ 40 GPM = 3.8 FPS)
USE: CHAMPION PUMP MODEL CPES3
OR APPROVED EQUAL

TANK & PUMP ELEVATIONS

OUTSIDE BOTTOM PUMP CHAMBER ELEV. = 253.05
INSIDE BOTTOM PUMP CHAMBER ELEV. = 253.30
BOTTOM OF PUMP ELEV. = 253.80

PUMP FLOAT ELEVATIONS:
PUMP OFF = 254.80
PUMP ON = 254.68
PUMP ALARM = 254.26





TRENCHES TO BE INSTALLED NO DEEPER THAN 27" INTO EXISTING GRADE

TRENCH SECTION B-B

NO SCALE

"TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON."

CHARLES R. DUTCH, L.S. 15776 LICENSE NUMBER

B110a SEPTIC PLAN

PREPARED FOR

ARTHUR KELLY JR.

34 GLIMMER GLEN - EAST HADDAM, CONNECTICUT
SCALE 1" = 10' - DECEMBER 29, 2021

0 10' 20'

DUTCH & ASSOCIATES
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JOB NO. 21-208

Traverse PC