Office Copy

TOWN OF EAST HADDAM
ZONING BOARD OF APPEALS VARIANCE/APPEAL/OTHER APPLICATION

For Internal Use Only:
MEETING DATE: 11/12/2020 APPLICATION NO. #1127 paid $160.00 #3228
CONTINUED DATE: _____ Date Granted/Denied: _____

*For this application to be heard at the next Zoning Board of Appeals regularly scheduled meeting, it needs to be filled out completely.

*All of the items noted below in Paragraphs 1 through 4 must be filled out completely, regardless.

*The Zoning Board of Appeals' Secretary will review your application and contact you if your application is missing pertinent information. If she cannot get in touch with you before the deadline for the submission of the legal notice, your application will be denied without prejudice because it is incomplete. You may resubmit your new application after completing the missing information for the next regularly scheduled meeting with the Zoning Board of Appeals' Secretary. This will require the standard fee and waiting period.

If help is needed in any part for the completion of this application, please call the Land Use Office at 860-873-5031.

****

1. Please check below which applies to your reason for submitting this application:

I (we) hereby apply to the Zoning Board of Appeals for the following:

✓ A Variance for the following sections of the Zoning Regulation: SECTION 10.1.5 HOUSE 30' WHERE 50' REQUIRED SETBACK FROM WATER; DECK 12' WHERE 50' REQ'D. *OR*

_____ To Appeal a ruling/action of the Zoning Enforcement Officer relating to: _____

_____ *OR*

_____ Other: _____

_____

56 Laurel Cove Rd + lot 47

2. ***This section needs to be filled out completely:*** **LOCATION OF AFFECTED PREMISES:**

Assessor's Map No. 48 **Lot No.** 46 & 47 **Deed Reference: Volume** 1090 **Page** 069 0164

Location on the EAST **side of** LAUREL COVE ROAD **Street/Road/etc**

500 **feet distance from the intersection of** LAUREL COVE RD. & LAUREL COVE BEACH RD.

Section of Town: BASHAN LAKE EAST HADDAM **Zone:** L **Owner/Applicant Phone#** 203.915.8949

Owner CHARLES BEILMAN **Address** 826 NORTH FARMS RD. WALLINGFORD CT 06492

Appellant(s) _____ Address _____

Lessee _____ Address _____

Agent ROGER NEMERGUT Address NEMERGUT CONSULTING P.O. BOX 666 235 ROUTE 80 KILLINGWORTH, CT 06419

_____

3. If no previous appeals have been made to this property, please mark *N/A* here: N/A.

But if a PREVIOUS APPEAL(S) has been made with respect to this property, please supply the Application No. _____ and the Date that it was Approved/Denied: _____.

4. Describe the nature of the variances as it relates to the zoning regulations (this must be filled out so the Board understands the purpose of the application): CONSTRUCTION OF A YEAR ROUND SINGLE FAMILY RESIDENCE WITHIN 30 FEET OF THE LAKE WHERE 50 FEET IS REQUIRED AND CONSTRUCTION OF A DECK WITHIN 12' OF THE LAKE WHERE 50' IS REQUIRED.

5. This application relates to:

_____area; _____number of family units; _____signs; _____street frontage; ✓yard dimension ;

or other (please explain): SEPARATION OF PROPOSED HOUSE AND DECK FROM WATER (BASHAN LAKE) HOUSE 30 FEET WHERE 50 FEET IS REQUIRED DECK 12 FEET WHERE 50 FEET IS REQUIRED.

6. Please state any deed restrictions (if there are none, please write N/A): THERE ARE DEED RESTRICTIONS. HOWEVER THE RESTRICTIONS HAVE NO BEARING ON THIS APPLICATION.

7. Is this property within 500 feet of Colchester, Salem, Old Lyme, Haddam or East Hampton?

If yes, which town(s) (if not, write N/A) : N/A

8. With respect to any VARIANCE of the Zoning Regulations, which is requested, please complete the (a), (b) and (c) below:

(a) Strict application of the regulations would produce a UNDUE HARDSHIP because:

SEE ATTACHMENT

(b) The hardship created is UNIQUE and not shared by all other properties alike in the neighborhood because: SEE ATTACHMENT

(c) The variance would not change the CHARACTER OF THE NEIGHBORHOOD because:

SEE ATTACHMENT

ATTACHMENT TO ZONING BOARD OF APPEALS VARIANCE APPLICATION
PROPERTY OF CHARLES BEILMAN 56 LAUREL COVE ROAD EAST HADDAM, CT
OCTOBER 20, 2020

8.

a. The lot suffers from extreme slope and ledge outcroppings such that the only viable area for construction is the site of the present cottage. The survey accompanying the application depicts not only the areas of severe slope but the exposed ledge, as well. Grades on the lot west of the proposed house location are in excess of 50% slope.

b. Other properties in the neighborhood are not burdened by the duel conditions of severe slope and ledge which affect this property. As a waterfront community, all properties slope to the lake but not to the degree of subject premises. The exposed ledge between the cottage and street, in combination with the severe slope (50+ %), prevent the proposed year round home from being relocated to another area on the site.

c. The application seeks to convert an existing single family seasonal cottage to a year round home. The community in which this property is located, Laurel Cove Association, is already a mature and developed neighborhood with mixed seasonal and year round homes. Upon information and belief, all are single family. The grant of this application will result in no change to the neighborhood.

13. Submit this completed application with <u>Site Plan drawn to A-2 standard</u> (but not required to be surveyor or engineer certified) **<u>and Application/Appeal fee of $160.00</u>** to the Zoning Board of Appeals mailbox located in the Land Use Office at least 17 days before the next scheduled public hearing in order to be placed on the agenda for that hearing. Failure to submit your application, map, and payment will be a cause for the application to be incomplete. See the chart below to make sure you have your application in on time.

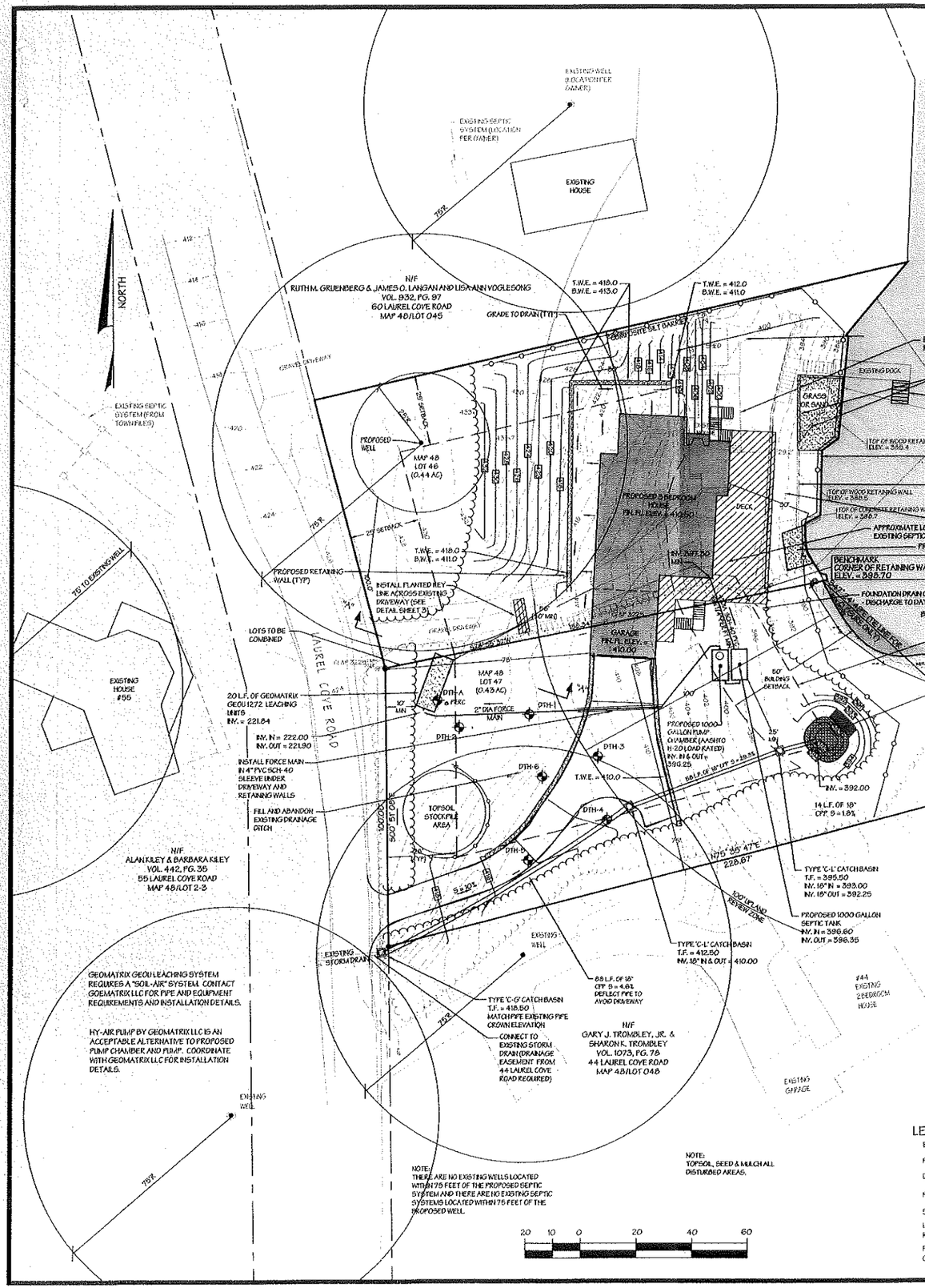
Date Filed: 10.20.20

Signed by Property Owner(s)

Signed by Appellant(s) or Agent
ROGER NEMERGUT, P.E.

Application Fee: $_____ Date Received/Paid:_____

This form adopted by East Haddam Zoning Board of Appeals by resolution dated 12/28/06. _____



GENERAL NOTES:

1. THE TOTAL AREA OF THE COMBINED TWO PARCELS IS 0.87 ACRES.
2. THE PARCEL IS LOCATED WITHIN THE "L" LAKE DISTRICT ZONING DISTRICT.
3. THE PARCELS ARE IDENTIFIED ON THE TAX ASSESSOR'S MAPS AS MAP 48 LOTS 46 & 47.
4. PROPERTY LINE AND TOPOGRAPHIC SURVEY INFORMATION FOR LOT 47 TAKEN FROM A MAP ENTITLED "PROPERTY OF FESTA LAUREL COVE ROAD EAST HADDAM, CONNECTICUT EXISTING CONDITIONS" DATED 2-15-13 AS PREPARED BY WARREN SURVEYING, HIGGANUM, CONNECTICUT.
5. TOPOGRAPHIC SURVEY INFORMATION FOR LOT 46 TAKEN FROM MAP ENTITLED "TOPOGRAPHIC SURVEY LAND NOW OR FORMERLY GERALD T. AND NANCY M. BELLMAN 56 LAUREL COVE ROAD EAST HADDAM, CONNECTICUT, DATED JUNE 15, 2020 AS PREPARED BY BENNETT & SMILAS ASSOCIATES, INC. HIGGANUM, CONNECTICUT.
6. THE PARCEL IS NOT LOCATED WITHIN A PUBLIC DRINKING WATER SUPPLY WATERSHED.
7. LOT WILL BE SERVICED BY A PRIVATE DRILLED WELLS AND ON SITE SUBSURFACE SEWAGE DISPOSAL (SEPTIC) SYSTEMS.
8. WETLAND BOUNDARY INFORMATION TAKEN FROM MAP REFERENCED IN NOTE 4 ABOVE.
9. BUILDING SETBACK VARIANCES WILL BE REQUIRED FROM THE ZONING BOARD OF APPEALS - SEE BELOW.
10. THIS PROJECT IS FOR THE CONVERSION OF A SEASONAL COTTAGE TO YEAR ROUND RESIDENCE - RESERVE LEACHING AREA NOT REQUIRED.
11. LOTS 47 & 46 WILL BE MERGED UPON OBTAINING ALL LAND USE PERMITS TO CONSTRUCT A YEAR ROUND SINGLE FAMILY RESIDENCE AS SHOWN ON THIS PLAN.

NOTE:
EXISTING WATER SUPPLY IS FROM BASHAN LAKE

* THE EXISTING SEPTIC SYSTEM SHALL BE REMOVED AND DISPOSED OF OFFSITE AS DIRECTED BY THE HEALTH DISTRICT.

EXISTING COTTAGE TO BE RAZED

RE-ALIGN RETAINING WALL

PROPOSED 6' WIDE BY 8' LONG DOCK ADDITION
EDGE OF WATER, 13.3'± ELEV. = 384.6

NOTE: ZONING SETBACK VARIANCE REQUIRED FOR HOUSE AND DECK.

	REQUIRED SETBACK FROM LAKE	PROPOSED
HOUSE	80'	30'
DECK	60'	12'

(NOTE EXISTING SEASONAL COTTAGE TO BE RAZED IS 29.2' FROM THE LAKE)

REPLACE EXISTING WOOD RETAINING WALL WITH STONE AND MORTAR RETAINING WALL

REPLACE EXISTING RETAINING WALL WITH EITHER A CONCRETE RETAINING WALL WITH A FIELD STONE VENEER OR A TREATED TIMBER RETAINING WALL. (TOP OF WALL ELEVATION = 388.0)

SEE PLANTING PLAN FOR PROPOSED PLANTINGS

BASHAN LAKE
ELEV. 386±

NOTE:
PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE PROJECT SURVEYOR BENNET & SMILAS ASSOCIATES TO SET A PROJECT BENCHMARK ADJACENT TO THE PROPOSED SEPTIC SYSTEM.

CONNECT AND DISCHARGE ALL ROOF LEADERS INTO STILLING BASIN - MAINTAIN 5' MINIMUM FROM SEPTIC SYSTEM. USE "TIGHT" JOINT PIPE WHERE LESS THAN 25' FROM THE SEPTIC SYSTEM

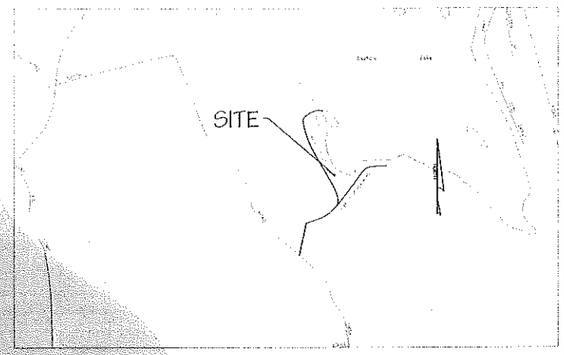
PROPOSED LEVEL SPREADER AND RIPRAP STILLING BASIN

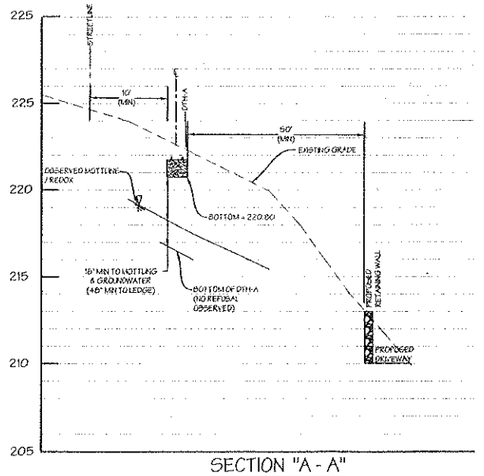
PROPOSED LANDSCAPE PLANTING AREA ALONG LAKE - REMOVE INVASIVE SPECIES AND REPLANT WITH NATIVE SPECIES

LEGEND:

EXISTING CONTOUR
PROPOSED CONTOUR
DEEP TEST HOLE
PERCOLATION TEST
SILT FENCE/WOOD CHIP BERM
LIMIT OF UPLAND REVIEW ZONE
PROPOSED LIMIT OF CLEARING

LOCATION MAP
SCALE: 1"= 1000'





SECTION "A - A"
SCALE: 1"= 20' H. & 1"= 4' V.

NEMERGUT CONSULTING
335 ROUTE 80 - P.O. BOX 666
KILLINGWORTH, CONNECTICUT
06419
PHONE: 860.663.2384
NEMERGUTCONSULTING.COM

STATE OF CONNECTICUT
ROGER D. NEMERGUT
No. 10008
REGISTERED
PROFESSIONAL ENGINEER

ROGER D. NEMERGUT
PROFESSIONAL ENGINEER
LIC. NO. 10008

JASON A. NEMERGUT
PROFESSIONAL ENGINEER
LIC. NO. 26088

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THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS THE DESIGN ENGINEER'S RAISED PROFESSIONAL SEAL APPEARS ON THE PLAN; AND THE OWNER/CONTRACTOR HAS CONTACTED THE DESIGN ENGINEER TO VERIFY THAT THEY ARE IN POSSESSION OF THE LATEST APPROVED DESIGN PLANS.

SITE PLAN & EROSION AND SEDIMENT CONTROL PLAN

CHARLES BIELMAN
LAUREL COVE ROAD
EAST HADDAM CONNECTICUT
MAP: 48 LOT: 46 & 47

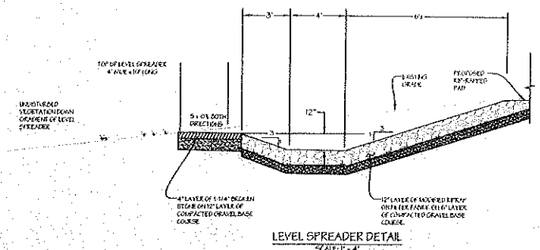
DATE: 9/10/20
DESIGNED BY: J.A.N.
CHECKED BY: R.D.N.
SCALE: 1" = 20'

CAD FILE: 423-20-06

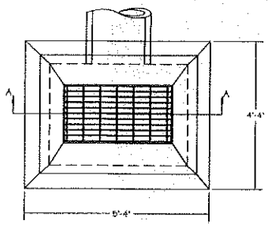
NO.	DATE	REVISIONS
1	10/2/20	
2	10/19/20	
3	10/20/20	

SHEET

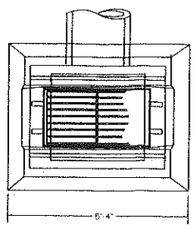
1 OF 3



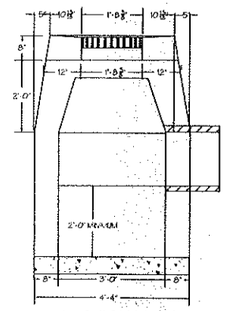
LEVEL SPREADER DETAIL
SCALE: 1" = 4'



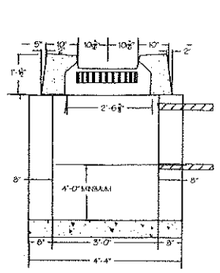
TYPE "C-L" CATCH BASIN
NOT TO SCALE



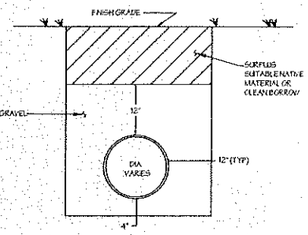
PLAN
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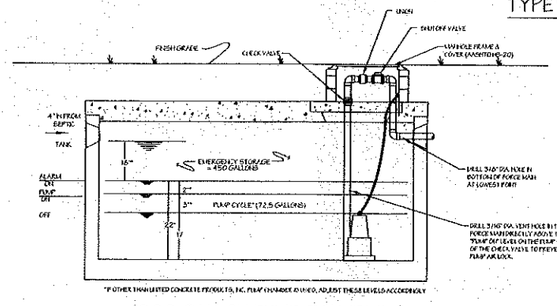
SECTION 'A-A'
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SECTION 'A-A'
NOT TO SCALE



TYPICAL TRENCH SECTION
NOT TO SCALE



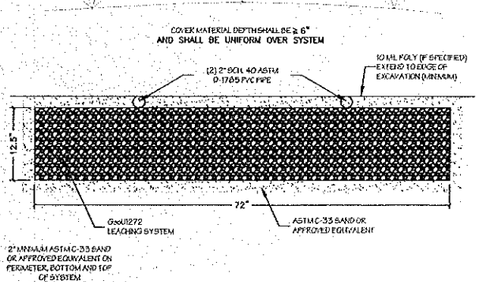
*FOTHER THAN LISTED CONCRETE PRODUCTS, INC. PUMP CHAMBER IS USED, ADJUST THESE LEVELS ACCORDINGLY

1000 GALLON PUMP CHAMBER

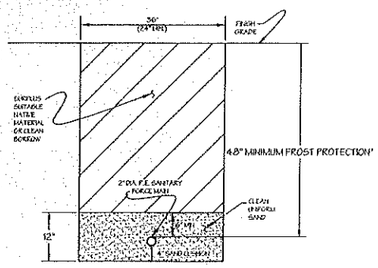
5'-2 3/4" HIGH X 6'-2" WIDE X 8'-6" LONG PRECAST CONCRETE (MONOLITHIC) PUMP CHAMBER WITH BUTYL RUBBER MASTIC TYPE SEAL (AASHTO M-198) AND POLYLOCK II PIPE SEALS AS MANUFACTURED BY UNITED CONCRETE PRODUCTS, INC. YALESVILLE, CT (203-269-3119)

PUMP CHAMBER NOTES:

1. SEPTIC EFFLUENT PUMP SHALL BE SIMPLEX SUBMERSIBLE EFFLUENT PUMP, MODEL #SEG50, 1/2 H.P., 230 VOLT SINGLE PHASE PUMP AS MANUFACTURED BY GOULD PUMPS INC., SENECA FALLS, NEW YORK, OR APPROVED EQUAL.
2. FORCE MAIN SHALL BE 2" DIAMETER P.E. PRESSURE PIPE (ASTM D2239) 100 P.S.I. RATING (UNLESS NOTED OTHERWISE ON THE PLAN). MAIN LAID OVER/OVER FORCE MAIN SHALL BE 45°.
3. MERCURY-FREE LEVEL CONTROL SWITCHES, HIGH LEVEL LIQUID ALARM AND CHECK VALVE SHALL BE AS MANUFACTURED BY GOULD PUMPS, INC. OR APPROVED EQUAL.
4. PUMP ALARM SHALL BE WIRED ON A SEPARATE BRANCH CIRCUIT FROM THE PUMP CIRCUIT. THE PUMP CIRCUIT SHALL BE PROTECTED WITH A GROUND FAULT CIRCUIT INTERRUPTOR (G.F.C.I.). ELECTRICAL WORK RELATING TO PUMP INSTALLATION SHALL REQUIRE A SEPARATE BUILDING (ELECTRICAL) PERMIT.
5. PUMP CHAMBER AND SEPTIC TANK SHALL BE PRECAST CONCRETE UNITS OF THE SIZE INDICATED ON THE DESIGN PLANS AND SHALL BE TESTED FOR WATER TIGHTNESS OF JOINTS AND OTHER OPENINGS PRIOR TO BACKFILLING.
6. THE MANUFACTURER SHALL SEAL ALL CHAMBERS AT P.S. JOINTS WITH A BUTYL JOINT SEALER. PIPE FITTINGS THROUGH THE WALLS SHALL BE RUBBER BOOT TYPE SEALS SECURED WITH STAINLESS STEEL CLAMPS.
7. IT SHALL BE THE INSTALLER'S RESPONSIBILITY TO PROVIDE A WATER TIGHT INSTALLATION TO ENSURE THAT GROUNDWATER INFILTRATION DOES NOT GET PUMPED INTO THE LEACHING SYSTEM.
8. UNIT DOSING VOLUME TO EQUAL OR LESS OF TOTAL LEACHING SYSTEM STORAGE VOLUME = 72.5 GALLONS (MAX. ALLOWABLE = 0.4 DOSES X 2 x 7 GAL/MIN/LE X 22% = 74.1 GALLONS)
9. THROTTLE PUMP DISCHARGE TO ALLOW FOR 2 MIN CYCLE RUN TIME MINIMUM.



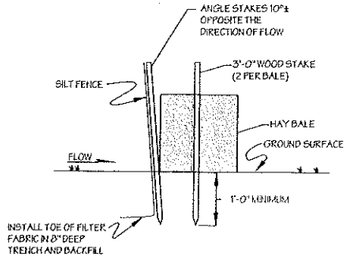
GEOMATRIX GeoU 1272
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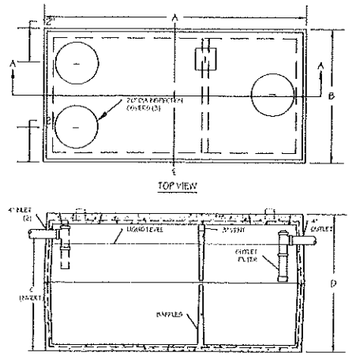
SANITARY SEWER FORCEMAIN
TYPICAL TRENCH DETAIL
NOT TO SCALE

REMOVE VEGETATION ROOTS, ORGANIC MATTER OR OTHER UNSUITABLE MATERIAL PRIOR TO PLACING FILTER FABRIC.

ANTI-TRACKING PAD
NOT TO SCALE"



COMPOSITE SILT BARRIER
NOT TO SCALE"



SEPTIC TANK DETAIL
UNITED CONCRETE PRODUCTS, INC.
NOT TO SCALE

LIQUID CAPACITY	A LENGTH	B WIDTH	C INVERT	D HEIGHT
1000 Gal.	6'-2"	4'-6"	3'-2"	5'-11"
1000 Gal. Low Boy	8'-5 3/4"	5'-5 1/2"	3'-3 1/2"	4'-10"
1250 Gal.	9'-5 1/2"	5'-5 1/2"	4'-7"	5'-9"
1250 Gal. Heavy Duty	10'-1"	7'-7"	3'-5"	4'-7"
1500 Gal.	11'-7"	5'-6 3/4"	5'-6 3/8"	6'-3"
1500 Gal. Heavy Duty	10'-1"	7'-7"	4'-2"	5'-4"

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

THE PROJECT CONSISTS OF THE CONSTRUCTION OF A YEAR ROUND SINGLE FAMILY RESIDENCE TO REPLACE AN EXISTING SEASONAL COTTAGE ON BASHAN LAKE. THE EXISTING SEPTIC SYSTEM FOR THE COTTAGE IS LOCATED APPROXIMATELY 25 FEET OFF THE LAKE AND WILL BE REPLACED WITH A CODE COMPLIANT SEPTIC SYSTEM TO BE LOCATED 100 FEET ± FROM BASHAN LAKE. ADDITIONAL DECKING AND THE REPLACEMENT OF THE EXISTING LAKE SIDE WALL WITH A CONCRETE WALL IS PLANNED. FINALLY, A SMALL BEACH AREA AT THE LAKE EDGE IS PROPOSED.

THE PROJECT AREA IS COMPOSED OF TWO EXISTING LOTS THAT WILL BE MERGED UPON RECEIPT OF ALL NECESSARY LAND USE PERMITS FOR THE NEW HOUSE. MAP 48 LOT 47 (NO 51 FEET ADDRESS) IS 0.43 ACRES AND IS CURRENTLY VACANT. A FEASIBILITY STUDY PREPARED BY NEMERGUT CONSULTING SHOWED THAT IT IS CAPABLE OF SUPPORTING A YEAR ROUND SINGLE FAMILY RESIDENCE BUT WILL NOT BE BUILT UPON IF THE LOTS ARE MERGED. MAP 48 LOT 46 (56 LAUREL COVE ROAD) IS 0.44 ACRES AND CURRENTLY HAS A SEASONAL COTTAGE ON THE PROPERTY.

DESCRIPTION OF EXISTING SITE CONDITIONS:

THE TOTAL PARCEL AREA OF THE TWO MERGED LOTS, LOCATED ON WEST SHORE OF BASHAN LAKE, WILL BE 0.87 ACRES. THE PARCEL SLOPES STEEPLY TO MODERATELY FROM WEST TO EAST (FROM LAUREL COVE ROAD DOWN TO BASHAN LAKE), WITH THE EXCEPTION OF THE PORTION OF THE PROPERTY IN THE AREA OF THE EXISTING SEASONAL COTTAGE. THE SITE IS LIGHTLY WOODED. A SEVERELY ERODED DRAINAGE DITCH RUNS ACROSS THE VACANT LOT TO THE LAKE AND IS FED FROM EXISTING DRAINAGE IN LAUREL COVE ROAD. THIS EROSION PROBLEM WILL BE CORRECTED AS PART OF THE PROPOSED WORK.

CONSTRUCTION SCHEDULE:

CONSTRUCTION WOULD COMMENCE LATER THIS YEAR OR IN EARLY 2021 (DEPENDING ON THE DATE OF FINAL LAND USE APPROVALS) AND BE COMPLETED BY THE FALL OF 2021.

RECOMMENDED SEQUENCE OF CONSTRUCTION

1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE APPROVED SITE PLAN.
2. THE CONTRACTOR SHALL NOTIFY THE WETLAND ENFORCEMENT OFFICER AFTER THE EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
3. COMMENCE CLEARING AND GRUBBING OPERATIONS AND STOCKPILE TOPSOIL. STUMPS ARE TO BE DISPOSED OF OFF SITE.
4. RAZE EXISTING BUILDING AND DISPOSE OF MATERIALS OFF SITE.
5. CONSTRUCT LAKE EDGE RETAINING WALL TO REPLACE EXISTING WALL. THIS WORK IS TO BE CARRIED OUT DURING THE LATE FALL OR WINTER WHEN THE LAKE IS SEASONALLY DRAWN DOWN BY THE LAKE ASSOCIATION FOR WEED CONTROL.
6. COMMENCE FOUNDATION EXCAVATION
7. POUR HOUSE FOUNDATION AND RETAINING WALL.
8. INSTALL FOOTING DRAINS AND BACKFILL FOUNDATION.
9. COMMENCE HOUSE CONSTRUCTION.
10. INSTALL UNDERGROUND UTILITY SERVICES.
11. INSTALL SEPTIC SYSTEM
12. DRILL WELL.
13. COMPLETE HOUSE CONSTRUCTION.
14. FINISH GRADE YARD.
15. INSTALL BUFFER SHRUB PLANTINGS ALONG LAKE EDGE.
16. TOPSOIL SEED AND MULCH YARD.
17. PLACE FINAL WEARING COURSE ON DRIVEWAY.
18. REMOVE EROSION CONTROL MEASURES IMMEDIATELY AFTER A PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED ON DISTURBED AREAS.

DESIGN CRITERIA AND CONSTRUCTION DETAILS:

SEE THIS SHEET FOR CONSTRUCTION DETAILS.

FILTER FABRIC SILT FENCE IS TO BE USED TO INTERCEPT AND CONTAIN SOIL EROSION RESULTING FROM SURFACE RUNOFF OVER TEMPORARILY DISTURBED AREAS. WOOD CHIP BERMS UTILIZING WOOD CHIPS CREATED DURING THE CLEARING AND GRUBBING STAGE OF THE CONSTRUCTION WILL BE UTILIZED IN CONJUNCTION WITH THE SILT FENCE TO IMPROVE SEDIMENT CONTROL EFFICIENCY.

ANTI-TRACKING PAD (BROKEN STONE WHEEL CLEANER) IS TO BE INSTALLED AT TEMPORARY CONSTRUCTION ENTRANCE TO SHAKE SILT OFF OF CONSTRUCTION VEHICLE TIRES AND MINIMIZE THE AMOUNT OF SILT TRACKED ONTO THE TOWN ROAD.

MAINTENANCE PROGRAM:

FILTER FABRIC SILT FENCE/WOOD CHIP BERMS ARE TO BE INSPECTED WEEKLY AND IMMEDIATELY AFTER A RAINFALL EVENT OF 1" OR MORE IN A 24 HOUR PERIOD AND DURING A MAJOR STORM EVENT. (A MAJOR STORM EVENT IS DEFINED AS A STORM PREDICTED BY THE NATIONAL OFFICE OF ATMOSPHERIC ADMINISTRATION WEATHER SERVICE WITH WARNINGS OF FLOODING, SEVERE THUNDERSTORMS, OR SIMILARLY SEVERE WEATHER CONDITIONS).
REPAIR OR REPLACE SILT FENCE AS NECESSARY. CLEAN ACCUMULATED SILT AWAY FROM SILT FENCE/WOOD CHIP BERM WHEN A DEPTH OF 4" IS REACHED OR AS NECESSARY TO MAINTAIN STRUCTURAL INTEGRITY AND EFFECTIVENESS.

ANTI-TRACKING PAD SHALL BE INSPECTED DAILY AND REVIEWED WITH ADDITIONAL LAYERS OF BROKEN STONE AS REQUIRED TO MAINTAIN ITS EFFECTIVENESS.

THE PERSON RESPONSIBLE FOR OVERSEEING AND MONITORING OF THE EROSION AND SEDIMENT CONTROL MEASURES IS THE OWNER, CHARLES BEILMAN (203-915-7949).

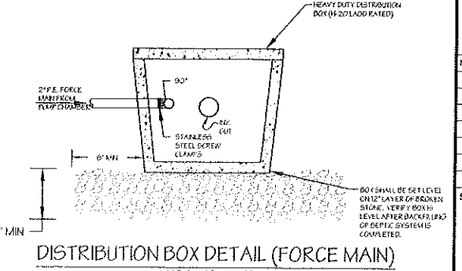
GENERAL NOTES:

1. PROPOSED CONSTRUCTION SHALL CONFORM TO THE 2018 STATE OF CONNECTICUT PUBLIC HEALTH CODE AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL AS AMENDED.
2. ELEVATIONS AND CONTOURS ARE BASED ON AN ASSUMED DATUM.
3. ELEVATIONS SHOWN REFER TO THE INVERT (FLOW LINE) OF THE PROPOSED LEACHING SYSTEM UNLESS NOTED OTHERWISE.
4. PERCOLATION RATE FOR DESIGN = 0 - 10.0 MINUTES PER INCH.
5. THE MINIMUM DISTANCE FROM WELL (POTABLE, GEOTHERMAL, OR IRRIGATION) TO SEPTIC IS 75 FEET.
6. LEACHING SYSTEM AREA SHALL BE LIMED, FERTILIZED, SEEDED AND MULCHED UPON COMPLETION OF THE PROJECT.
7. SEPTIC TANK CONSTRUCTION JOINTS SHALL BE SEALED WITH ASPHALT CEMENT. ALL PIPE CONNECTIONS TO THE SEPTIC TANK AND ANY DISTRIBUTION BOXES SHALL BE SEALED WITH A POLYETHYLENE GASKET "POLY-LOK" OR APPROVED EQUAL.
8. SEPTIC TANK BAFFLES SHALL CONFORM TO SECTION 19-13-A-1 TECHNICAL STANDARDS OF THE STATE HEALTH CODE.
9. IF FIELD CONDITIONS, (LEDGE, GROUNDWATER, MOTTLING) ARE ENCOUNTERED AT A SHALLOWER DEPTHS THAN SHOWN IN THE DEEP TEST HOLE RESULTS, CONSTRUCTION SHALL BE HALTED AND THE ENGINEER CONTACTED IMMEDIATELY.
10. SOIL TEST RESULTS SERVING AS THE BASIS FOR THIS DESIGN WERE CONDUCTED BY THE CHATHAM HEALTH DISTRICT AND NEMERGUT CONSULTING.
11. NO DEVIATIONS FROM THE APPROVED DESIGN PLAN SHALL BE ALLOWED WITHOUT THE PRIOR APPROVAL OF THE HEALTH DISTRICT OR THE DESIGN ENGINEER.
12. EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO FIELD MODIFICATION, AS NECESSARY, AS REQUIRED BY THE DESIGN ENGINEER OR TOWN OFFICIALS.
13. STRIP AND STOCKPILE EXISTING TOPSOIL LAYER FROM WITHIN THE PROPOSED LEACHING SYSTEM IN THOSE AREAS WHERE THE BOTTOM OF THE PROPOSED LEACHING SYSTEM IS AT, OR ABOVE, THE BOTTOM OF THE EXISTING TOPSOIL LAYER OR IN THOSE AREAS WHERE SEPTIC SYSTEM FILL IS REQUIRED.
14. SPECIAL FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:
    A. THE FILL MATERIAL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
    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 REVIEWED AND THE SIEVE ANALYSIS STARTED.
    D. THE REMAINING SAMPLES SHALL MEET THE FOLLOWING GRADATION CRITERIA:

SIEVE SIZE	PERCENT PASSING WET SIEVE	PERCENT PASSING DRY SIEVE
#4	100	100
#10	70-100	70-100
#40	10-90*	10-75
#100	0-20	0-5
#200	0-5	0-2.5

    * PERCENT PASSING THE #40 SIEVE MAY 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%.

    THE FILL SHALL BE PLACED IN 12" MAXIMUM LIFTS AFTER THE STRIPPED LEACHING SYSTEM AREA HAS BEEN SCARIFIED. TRUCKS OR OTHER CONSTRUCTION EQUIPMENT SHALL NOT BE DRIVEN OVER THE SCARIFIED AREA PRIOR TO FILL PLACEMENT. PRIOR TO FILL PLACEMENT ANY SMEARED FILL AREAS SHALL BE RE-SCARIFIED.
15. PRIOR TO PLACEMENT, FILL MATERIAL SHALL BE INSPECTED AND APPROVED BY THE HEALTH DISTRICT AND THE DESIGN ENGINEER
16. SEPTIC TANKS SHALL BE TWO COMPARTMENT TANKS WITH HEAVY DUTY STEEL HANDLES FOR MANHOLE ACCESS COVERS AND EFFLUENT FILTERS INSTALLED ON OUTLET BAFFLES
17. ALL PIPE DOWNSTREAM OF THE OF THE SEPTIC TANK (EXCEPT FOR LEACHING TRENCHES) SHALL BE 4" DIAMETER P.V.C. ASTM D3034 SDR 35 OR APPROVED EQUAL UNLESS NOTED OTHERWISE ON THE PLAN.
18. THE SITE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 1-800-922-4455 PRIOR TO CONSTRUCTION TO VERIFY THE EXTENT AND LOCATION OF EXISTING UNDERGROUND UTILITIES.
19. THE LEACHING SYSTEM SHALL BE PROPERLY COVERED BY THE LICENSED SYSTEM INSTALLER WITHIN TWO (2) WORKING DAYS FOLLOWING THE LOCAL HEALTH DISTRICT'S FINAL INSPECTION AND APPROVAL.
20. IMMEDIATELY UPON COMPLETION OF THE SEPTIC SYSTEM INSTALLATION AND FINAL APPROVAL BY THE HEALTH DISTRICT, THE SEPTIC SYSTEM SHALL BE BACKFILLED, TOPSOILED, SEEDED AND MULCHED. THE FINAL GRADING SHALL CONFORM TO THE DESIGN PLAN AND SHALL ENSURE THAT SURFACE RUNOFF IS DIRECTED AWAY FROM THE THE LEACHING SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED IN DISTURBED AREAS.
21. THE DESIGN ENGINEER SHALL BE CONTACTED PRIOR TO BACKFILLING THE SEPTIC SYSTEM TO ALLOW FOR TAKING THE NECESSARY FIELD MEASUREMENTS FOR THE PREPARATION OF AN "AS-BUILT" SEPTIC SYSTEM PLAN AS REQUIRED BY THE LOCAL HEALTH DISTRICT PRIOR TO THE ISSUANCE OF A PERMIT TO DISCHARGE OR A CERTIFICATE OF OCCUPANCY.
22. NO GRADING OR OTHER DISTURBANCE OF THE AREA OF THE PROPOSED SEPTIC SYSTEM WILL BE ALLOWED PRIOR TO THE INSTALLATION. NO PARKING, EQUIPMENT STORAGE OR TRAFFIC IN THE AREA OF THE SEPTIC SYSTEM WILL BE ALLOWED.
23. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, THE SEPTIC SYSTEM SHALL BE STAKED OUT BY THE PROJECT SURVEYOR.
24. THE DISTRICT SANITARIAN AND THE ENGINEER SHALL BE CONTACTED AT LEAST 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION. NO PORTION OF THE SYSTEM SHALL BE COVERED WITHOUT INSPECTION AND APPROVAL OF THE SANITARIAN AND THE ENGINEER.
25. THE MINIMUM DISTANCE FROM UTILITY TRENCH (GAS/ELECTRIC/CABLE T.V./TELEPHONE) TO SEPTIC SYSTEM IS 5 FEET.
26. CONSTRUCT STORM WATER SWALES, AS REQUIRED, TO DIRECT SURFACE RUNOFF AWAY FROM THE SEPTIC SYSTEM.
27. IF A LARGE CAPACITY BATHTUB IS INSTALLED THE SEPTIC TANK SHALL BE INCREASED AS FOLLOWS:
    - 100 - 200 GALLON TUB CAPACITY - ADD 250 GALLONS TO SEPTIC TANK CAPACITY
    - OVER 200 GALLON TUB CAPACITY - ADD 500 GALLONS TO SEPTIC TANK CAPACITY
28. IF A GARBAGE DISPOSAL IS INSTALLED, THE SEPTIC TANK SHALL BE INCREASED INSTALLER BY 250 GALLONS. GARBAGE DISPOSALS ARE NOT RECOMMENDED SINCE THEY INCREASE THE SOLIDS LOADING ON THE SEPTIC TANK AND MAY PREMATURELY CLOG EFFLUENT FILTER.



DISTRIBUTION BOX DETAIL (FORCE MAIN)
NOT TO SCALE

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STATE OF CONNECTICUT ROGER D. NEMERGUT NO. 10008 REGISTERED PROFESSIONAL ENGINEER

ROGER D. NEMERGUT
PROFESSIONAL ENGINEER
LIC. NO. 10008

JASON A. NEMERGUT
PROFESSIONAL ENGINEER
LIC. NO. 26088

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DETAILS & NOTES

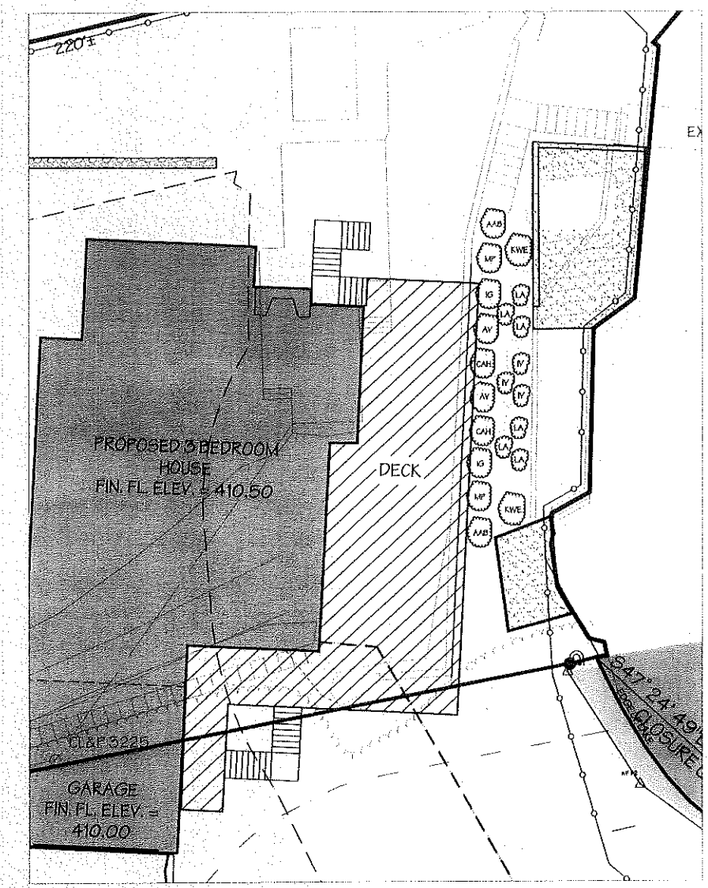
CHARLES BEILMAN
56 LAUREL COVE ROAD
EAST HADDAM CONNECTICUT
MAP: 48 LOTS: 46&47

DATE: 9/10/20
DESIGNED BY: J.A.N.
CHECKED BY: R.D.N.
AS NOTED

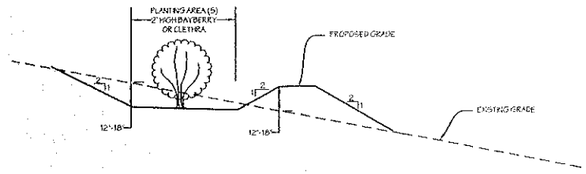
NO.	DATE	REVISIONS
1	10/20/20	

SHEET

2 OF 3



PLANTING PLAN
SCALE: 1" = 10'



KEY LINE SECTION DETAIL
SCALE: 1" = 4'

PLANTING PLAN

SYMBOL	QUANTITY	SPECIES	COMMON NAME
AAB	2	AMELANCHIER AUTUMN BRILLANCE	SHADBLOW
AV	2	AZALEA VISCOSUM	SWAMP AZALEA
CAH	2	CLETHRA ANIFOLIA "HUMMING BIRD"	SUMMERSWEET
IG	2	ILEX GLABRA	INKBERRY
IV	3	ITEA VIRGINICA "HENRY'S GARNET"	VIRGINA SWEETSPIRE
KWE	2	KALMIA "WHITE ELF"	DWARF LAUREL
LA	6	LEUCOTHOE AXILLARIS	COASTAL LEVCOTHOE
MP	2	MYRICA PENNSYLVANICA	BAYBERRY

PROPOSED PLANTING PROTOCOL IN THE STEEP SLOPE LAKE SHORE AREA NORTH AND SOUTH
OF THE LAKE EDGE WALL

1. LEAVE EXISTING CLETHRA AND LAUREL IN PLACE.
2. SUPPLEMENT WITH ADDITIONAL CLETHRA AND LAUREL IN BETWEEN EXISTING PLANTS.
   2 CLETHRA AND 3 KALMIA IN THE NORTH AREA AND
   4 CLETHRA AND 15 KALMIA IN THE SOUTH AREA
3. MULCH WITH FINELY GROUND ORGANIC MULCH.
4. REMOVE EXISTING MULTIFLORA ROSE, BITTERSWEET AND DEAD AND DISEASED TREES.
   LEAVE EXISTING ROOT SYSTEM INTACT FOR REMOVED TREES.

20 10 0 20 40 60

PERCOLATION TEST
SEPTEMBER 25, 2020
HOLE DEPTH = 18"

TIME	READING	CHANGE
11:30	5 4/8	---
11:35	10 7/8	5 3/8
11:40	14 2/8	3 3/8
11:45	16 6/8	2 4/8
11:50	10 4/8	REFILL
11:56	13 4/8	3
12:00	15 6/8	2 2/8
12:05	17 6/8	2
12:10	HOLE	DRY

PERCOLATION RATE =
2.5 MINUTES PER INCH

SOIL TEST RESULTS (10-02-18)
CONDUCTED BY THE STEVE KNAUF, CHATHAM HEALTH DISTRICT
AND NEMERGUT CONSULTING

LAUREL COVE ROAD EAST HADDAM
MAP 48 LOT 47

DEEP TEST HOLE 1
0" - 8" FOREST LITTER AND LOAMY FILL
18" - 19" TOPSOIL (ORIGINAL)
19" - 48" ORANGE BROWN LOAMY SAND
48" - 68" FIRM LOAMY SAND WITH ROCKS
REFUSAL AT 68"
NO GROUNDWATER
NO MOTTLING/REDOX
ROOTS TO 52"

DEEP TEST HOLE 2
0" - 9" FOREST LITTER AND LOAMY FILL
9" - 21" TOPSOIL (ORIGINAL)
21" - 79" ORANGE BROWN LOAMY SAND
NO REFUSAL
GROUNDWATER (SEEPAGE) AT HOLE BOTTOM
NO MOTTLING/REDOX
ROOTS TO 65"

DEEP TEST HOLE 3
0" - 3" FOREST LITTER AND TOPSOIL
3" - 42" ORANGE BROWN SANDY LOAM
42" - 60" BROWN FINE SANDY SILT
REFUSAL AT 60"
GROUNDWATER (SEEPAGE) AT 53"
MOTTLING/REDOX AT 49"
ROOTS TO 47"

DEEP TEST HOLE 4
0" - 4" FOREST LITTER AND TOPSOIL
4" - 37" ORANGE BROWN SANDY LOAM
37" - 68" SAND AND SILT WITH ROCKS
REFUSAL AT 68"
GROUNDWATER (SEEPAGE) AT 55"
MOTTLING/REDOX AT 37"
ROOTS TO 37"

DEEP TEST HOLE 5
0" - 8" FOREST LITTER AND TOPSOIL
8" - 41" ORANGE BROWN SANDY LOAM
41" - 70" BROWN LOAMY SAND
NO REFUSAL
GROUNDWATER AT 49"
MOTTLING/REDOX AT 33"
ROOTS TO 37"

DEEP TEST HOLE 6
0" - 6" FOREST LITTER AND TOPSOIL
6" - 42" ORANGE BROWN SANDY LOAM
42" - 68" BROWN FINE SANDY SILT
NO REFUSAL
GROUNDWATER (SEEPAGE) AT 48"
MOTTLING/REDOX AT 42"
ROOTS TO 48"

SOIL TEST RESULTS (6-10-15)
CONDUCTED BY THE STEVE KNAUF, CHATHAM HEALTH DISTRICT
AND NEMERGUT CONSULTING

LAUREL COVE ROAD EAST HADDAM
MAP 48 LOT 47

DEEP TEST HOLE A
0" - 4" TOPSOIL
4" - 34" ORANGE BROWN FINE SANDY LOAM
34" - 72" LIGHT BROWN/BROWN DECOMPOSED ROCK,
SAND AND SILT
NO REFUSAL
NO GROUNDWATER
MOTTLING/REDOX AT 54"
ROOTS TO 48"

BASIS FOR SEPTIC SYSTEM DESIGN
EFFECTIVE LEACHING SYSTEM AREA REQUIRED BY THE STATE HEALTH CODE
TECHNICAL STANDARDS FOR A 3 BEDROOM HOUSE AND 0.1 - 10.0 MINUTES PER INCH PERCOLATION RATE = 495 S.F. EFFECTIVE LEACHING SYSTEM AREA
PROVIDED 20 L.F. OF GEOMATRIX LLC GEOU 1272 LEACHING UNITS AT 28.8 S.F./L.F.
= 576.0 S.F.

MINIMUM LEACHING SYSTEM SPREAD (MLSS)
MLSS = HYDRAULIC FACTOR X FLOW FACTOR X PERCOLATION FACTOR
HYDRAULIC FACTOR = 10
(RECEIVING SOIL DEPTH = (48.1" - 60.0")
(HYDRAULIC GRADIENT = (>15%)
FLOW FACTOR = 1.5 (3 BEDROOMS)
PERCOLATION FACTOR = 1.0 (0.1 TO 10.0 MINUTES PER INCH)

MLSS = 10 X 1.5 X 1.0 = 15 L.F.

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STATE OF CONNECTICUT
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DETAILS & NOTES

CHARLES BIELMAN
LAUREL COVE ROAD
EAST HADDAM CONNECTICUT

MAP: 48 LOT: 47

DATE: 10/20/20
DESIGNED BY: J.A.N.
CHECKED BY: R.D.N.
SCALE: AS NOTED

CAD FILE: 423-20-06

NO.	DATE	REVISIONS

SHEET

3 OF 3