

TOWN OF NEW HARTFORD
INLAND WETLANDS AND WATER COURSE COMMISSION
APPLICATION FOR PERMIT

1. Applicant(s) Name: Karen Smith
Home Address: 39 Aquatic Lane, New Hartford, CT 06057
Business Address: 131 West 86th Street, New York, NY 10024
Phone - Home: 917 846 9925 Business: 212 879 6354
Email Address: gegen@aol.com ksmith@smithschool.org
Applicant(s) interest in land (owner, lessee, option holder, etc.) owner

**if applicant is not the owner, then the owner's consent, duly acknowledged, to the proposed activity, must be attached to the application.

2. Owner(s) If same as applicant, so state.
Owner(s) Name: Karen Gegenheimer
Home Address: 39 Aquatic Lane, New Hartford, CT 06057
Business Address: _____
Phone - Home: _____ Business: _____
Email Address: _____

3. Location of Proposed Activity: 53 Aquatic Lane, New Hartford, CT 06057
Assessor's Map #: _____ Block #: 14 Tax Parcel #: 827424 Zone: R-4
**Detailed description or plot plan may be submitted. Parcel: 09A-105-045

Area (acres): .33 Square Feet, if less than 2 acres: _____
Total acreage of wetlands on property: .33

4. Description of the proposed activity: rebuild boathouse + Septic Repair

5. Alternatives considered by the applicant and why the proposal to alter wetlands set forth in the application was chosen: rebuild boathouse on existing footprint

6. Names and addresses of adjacent property owners within 100 feet. **Information can be obtained at
the Assessor's Office. John Sansone - plot #13 - 49 Aquatic Lane, New Hartford, CT 06057
Skip and Jo Sly- plot #15- 57 Aquatic Lane, New Hartford, CT 06057

7. Any other information: existing piers left in lake after demolition so footprint is obvious.

YOU MUST ALSO SUBMIT:

- 9 Copies of a Site Plan showing existing and proposed conditions in relation to wetlands and watercourses.
- 9 Copies of all other documents pertaining to the application.
- \$120.00 Application Fee.
- Completed DEP Inland Wetlands Activity Report.

The undersigned warrants the truth of all statements made in conjunction with this application and consents to inspections of the site.

Karen Smith
Applicant's Signature

Karen Smith
Print or Type Name

The undersigned owner(s) of record consent to the submission of this application and to inspections of the site.

Bryan Burk
Owner's Signature

Bryan and Janice Burk
Print or Type Name

.....
FOR COMMISSION USE:

Receipt Number: _____ Date Received: _____

Amount Paid: _____

Order ID: 6741049

GROSS PRICE * : \$105.90

PACKAGE NAME: Legal Notice Zoned Daily

Product(s): Hartford Courant, Affidavits, MyPublicNotices.com

AdSize(s): 1 Column

Run Date(s): Friday, August 21, 2020, Friday, August 28, 2020

Color Spec. B/W

Preview

**NOTICE OF PUBLIC HEARING
TOWN OF NEW HARTFORD
INLAND WETLANDS COMMISSION**

The Inland Wetlands Commission will meet on Wednesday, September 2, 2020 at 7:00PM in New Hartford Town Hall, 530 Main Street, New Hartford, CT to conduct the following public hearing(s):

A. Karen Smith/Applicant – Karen Gegenheimer/Owner – Map 09A – Block 105 – Lot 045 – 53 Aquatic Road – Rebuild Boathouse on Existing Footprint.

At this public hearing, interested persons may appear and be heard and written communications received. Copies of the application are available for inspection in the Land Use Office in New Hartford Town Hall, 530 Main Street, New Hartford, CT.

Dated this 11th day August, 2020
By James Hall, Chairman
Inland Wetlands Commission
8/21, 8/28/20 6741049

BASIS OF DESIGN SUSURFACE SEWAGE DISPOSAL SYSTEM

SSDS Design Data:
 Lot 3A
 Number of bedrooms = 3
 Percolation Rate = 13.3 min/inch
 Design Percolation Rate 10.1-20 min/inch
 Depth to Restrictive Layer = (28"+19"+28"+29")/4 = 26"±
 Hydraulic Gradient = 11%
 Hydraulic Factor = 26
 Flow factor = 3(150)/300 = 1.5
 Percolation factor = 1.25
 MLSS Req'd. = 45 lf
 MLSS Provided = 52 lf
 Leaching Area Req'd. = 520 sf
 Leaching Area Provided = 520 sf = 52lf * 10.0 lf/sf
 USING GST 6212 LEACHING SYSTEM

PERC TEST DATA							
PERC TEST NO. 1			PERC TEST NO. 2				
TIME	WATER DEPTH	WATER DROP	TIME	WATER DEPTH	WATER DROP		
10:50	END PRESOAK	19"	N/A	2:35	END PRESOAK	20"	N/A
11:00	0"	0"	3:32	0"	0"		
11:10	4 3/4"	4 3/4"	3:37	4 3/4"	4 3/4"		
11:20	6"	3/4"	3:42	6"	1 1/2"		
11:30	6 3/4"	3/4"	3:47	6 3/4"	3/4"		
11:40	7 1/2"	3/4"	3:52	7 1/2"	3/4"		
11:50	7 3/4"	3/4"	3:57	8 1/4"	3/4"		

PERC RATE: 13.3 MIN. / INCH

SOIL TEST DATA	
IN ATTENDANCE: P. Gigliotti Reg. Sen. FVHD K. Mahon Backhoe Op. M. Sherman, Laurel Engineering	
TEST PIT NO. 1	
0" TO 11"	FOREST LITTER / TOPSOIL
11" TO 25"	ORANGE FINE SANDY LOAM, TR. SILT
25" TO 80"	BROWN SILT LOAM
ROOT DEPTH	NONE
MOTTLES	NONE
REFUSAL	NONE
WATER	28"
TEST PIT NO. 2	
0" TO 11"	FOREST LITTER / TOPSOIL
11" TO 26"	ORANGE BROWN FINE SANDY LOAM
26" TO 73"	BROWN SILTY LOAM
ROOT DEPTH	26"
MOTTLES	19"
REFUSAL	NONE
WATER	24"
TEST PIT NO. 3	
0" TO 11"	FOREST LITTER / TOPSOIL
11" TO 28"	ORANGE BROWN FINE SANDY LOAM
28" TO 73"	BROWN SILTY LOAM
ROOT DEPTH	26"
MOTTLES	NONE
REFUSAL	NONE
WATER	28"
TEST PIT NO. 4	
0" TO 8"	FOREST LITTER / TOPSOIL
8" TO 29"	ORANGE BROWN FINE SANDY LOAM, TR. SILT
29" TO 78"	GREY FINE SANDY TILL W/ SILT
ROOT DEPTH	35"
MOTTLES	NONE
REFUSAL	NONE
WATER	29"

PLAN revised 08-04-20 for Wetlands Application

SITE PLAN

SUBSURFACE SEWAGE DISPOSAL SYSTEM REPAIR AND BOAT HOUSE REBUILD

53 Aquatic Road

Prepared For
Karen Smith

New Hartford Connecticut

LAUREL ENGINEERING, LLC

Civil, Seismic, Structural Consultants
48 Center Street - Winsted, Connecticut 06098

Phone (860) 379-6698 E-Mail laureleng@earthlink.net

Scale: 1" = 20'	Project No.: 20-104	Drawing No. 1
Drawn By: MGS	File Name: 20-104-SMI.dwg	
Revised Through: 08/12/20	Submitted: 08/04/20	

COLOR SHADING LEGEND

- PROPOSED BOAT HOUSE
- PROPOSED SEPTIC SYSTEM
- EXISTING WOODS
- REGULATED AREA
- PROPOSED LAWN AREA
- RELOCATED GRAVEL DRIVEWAY
- LAKE AREA
- EXISTING HOUSE AND DECKS
- FILL IN REGULATED AREA

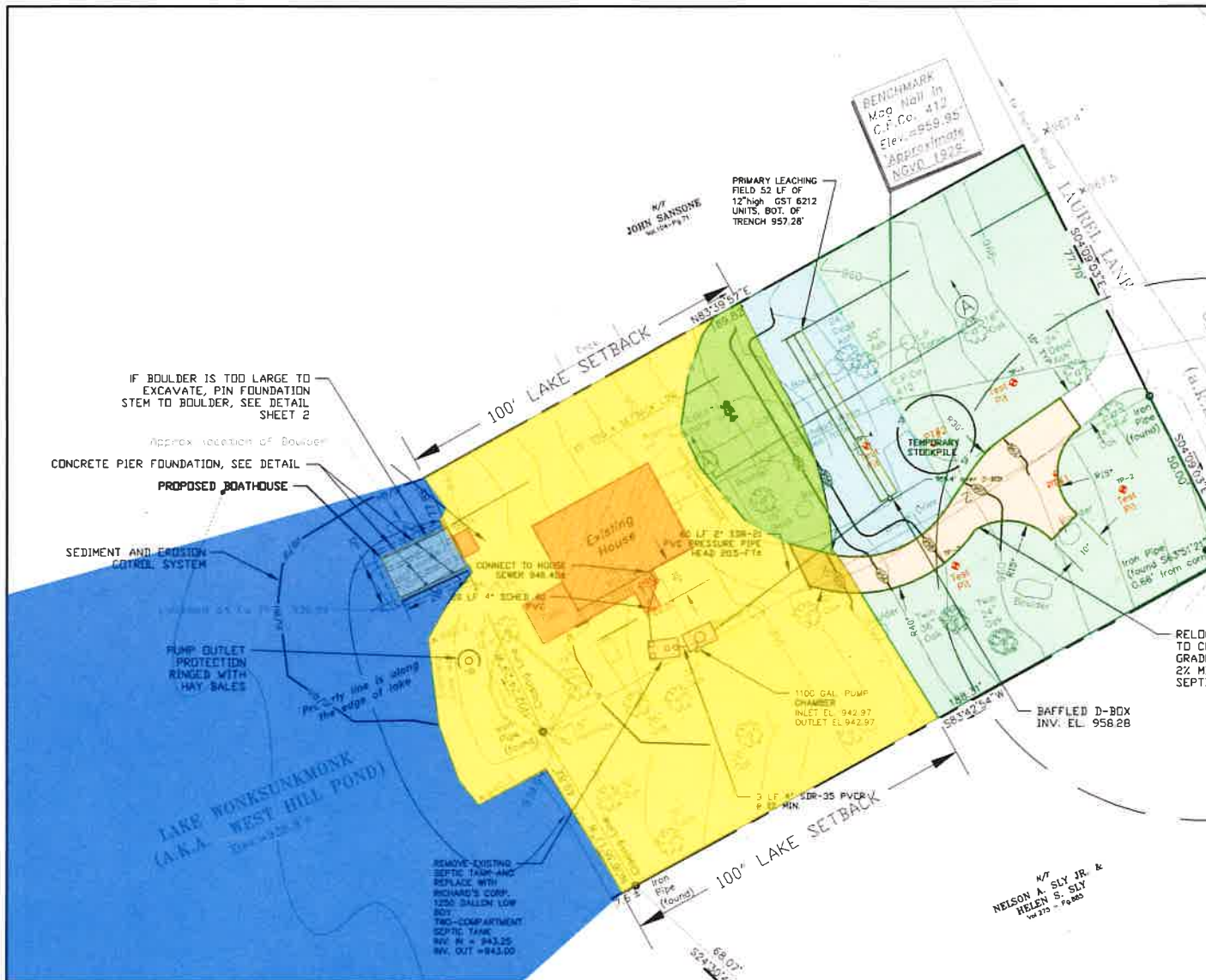
WETLANDS INFORMATION TABLE

WETLAND ACTIVITY (372 SF)	REGULATED ACTIVITY (6632 SF)	NON-REGULATED ACTIVITY
Boat House 372 SF	Septic Tank and Pump Chamber 176 SF	Install Leaching Field 1472 SF
	Sewer Line 250 lf	Relocated Driveway 1643 SF
	Temporary Stockpiles 380 SF	
	Misc Grading 4,980 SF	
	Install Erosion Control Measures 515 lf	Misc Grading 617 SF

LEGEND

EX. 2 FT. CONTOUR	EROSION CONTROL	CLEARING LIMIT
PR. 2 FT. CONTOUR	PRIMARY LEACHING TRENCH	PERC TEST LOCATION
PROPERTY LINE	RESERVE LEACHING TRENCH	ED. EDGE OF PMNT.
SETBACK LINE	PROPOSED SEPTIC TANK	PROPOSED SLOPE LIMIT
EXISTING WELL	DISTRIBUTION BOX	
DEEP HOLE LOCATION		

License No. 20338



- Notes:
- All construction activities are outside wetland or watercourse areas.
 - Leaching field is outside the regulated watercourse setback areas.
 - The soil profile is consistent throughout the site.
 - All activities on this site shall follow procedures set forth in the current Sediment and Erosion Control Guidelines (DEEP Bulletin 34) prepared by the Connecticut Council on Soil and Water Conservation in cooperation with the Connecticut Department of Energy and Environmental Protection as amended.
 - All erosion control devices shall be in-place prior to commencement of work.
 - No jurisdictional wetlands onsite per review of teh soil types per NRCS Web Soil Survey. Soils on site are predominantly Canton and Chariton fine sandy loams.
 - All necessary modifications arising from the Town's initial visit to the site shall be addressed prior to commencement of work.
 - Inspection of sediment and erosion control devices shall be performed weekly and within 24 hrs of a precipitation event greater than 0.5".
 - If any sediment and erosion control devices are deficient or require maintenance all construction operations shall be suspended and recommence upon repair of such devices.
 - Once final grade is completed, any excess materials shall be removed from the site.
 - Owner is prohibited from discharging any future water system to the septic system
 - Driveways shall be installed per town of New Hartford Driveway Ordinance 2B.

- Notes: Con't.
- Select Fill Source shall be approved only if sieve test is less than two weeks old. Engineer shall perform a minimum of two percolation test on the in-situ select fill and field verify system location prior to installing leaching system.
 - All adjacent property wells are further than 75-ft from proposed system.
 - All adjacent septic systems are further than 75-ft of proposed well location.
 - Construction of the leaching trenches is based on maintaining a minimum distance of 18-inches above the restrictive layer. If Contractor finds conditions differ, then the design engineer shall be so informed prior to proceeding with trench layout.
 - septic system shall be staked out by Licensed Surveyor.
 - Prior to installation contractor shall provide a test pits in the septic tank area. If Ledge is encountered Contractor shall contact the engineer to coordinate the relocation of tank and pump chamber if necessary.
 - Topographic survey performed by Timothy G. Willie Jr. L.S. Licensed Land Surveyor, 122 Old North Road, Barkhamsted CT 06063. Lake bed Elevations determined by Laurel Engineering using water depth measurements in field. 100 yr flood elevation = 939.9-ft (ngvd 1929) as published in FEMA LOMA for 640 West Hill Road.

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 25" TO 80" BROWN SILT LOAM

ROOT DEPTH 28"
 MOTTLES NONE
 REFUSAL NONE
 WATER 28"

TEST PIT NO. 2

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Prepared For
 Karen Smith

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Connecticut

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Phone (860) 379-6898

E-Mail laureleng@earthlink.net

Scale: 1" = 20'

Project No.: 20-104

Drawing No.

Drawn By: MGS

File Name: 20-104-SMI.dwg

1

Revised Through: 08/04/20

Submitted: 08/04/20

License No. 20338



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SETBACK LINE	PROPOSED SEPTIC TANK DISTRIBUTION BOX	PROPOSED SLOPE LIMIT	
EXISTING WELL			
DEEP HOLE LOCATION			

IF BOULDER IS TOO LARGE TO EXCAVATE, PIN FOUNDATION STEM TO BOULDER, SEE DETAIL SHEET 2

Approx location of Boulder

CONCRETE PIER FOUNDATION, SEE DETAIL

PROPOSED BOATHOUSE

SEDIMENT AND EROSION CONTROL SYSTEM

PUMP OUTLET PROTECTION RINGED WITH HAY BALES

LAKE WOKSUNKMONK (A.K.A. WEST HILL POND)
 Elev. 935.8 ±

REMOVE EXISTING SEPTIC TANK AND REPLACE WITH RICHARD'S CORP. 1250 GALLON LOW BOY TWO-COMPARTMENT SEPTIC TANK
 INV. IN = 943.25
 INV. OUT = 943.00

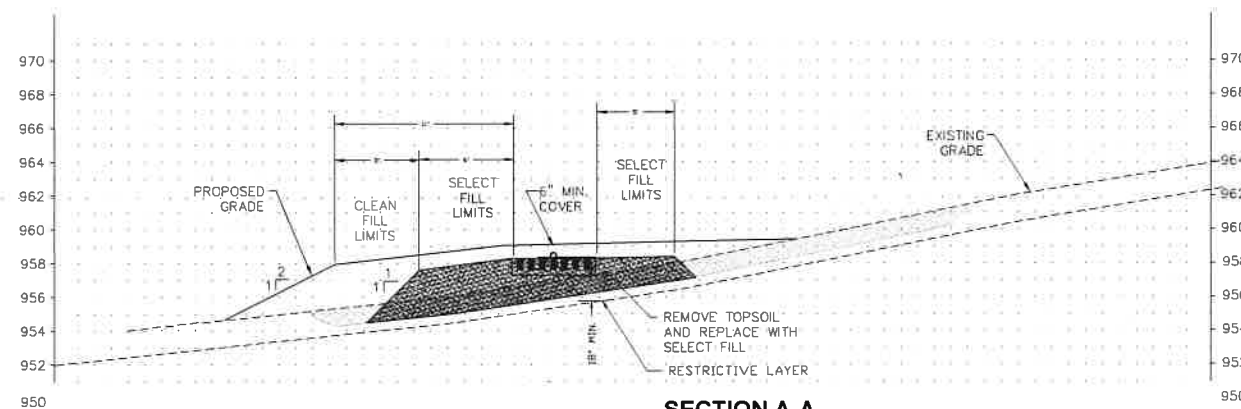


Notes:

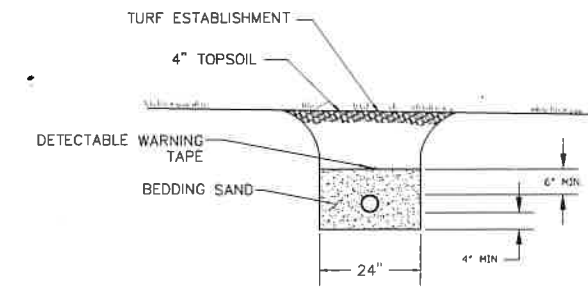
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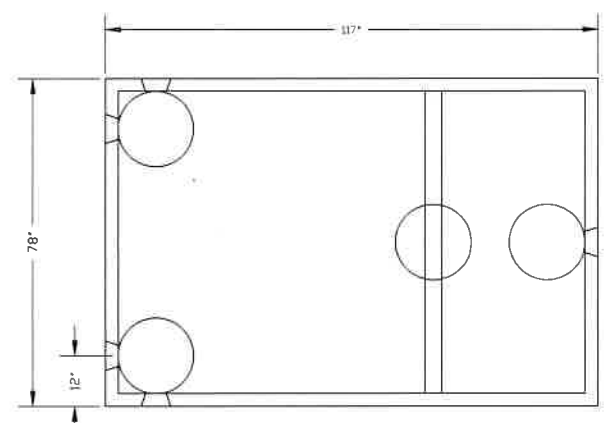
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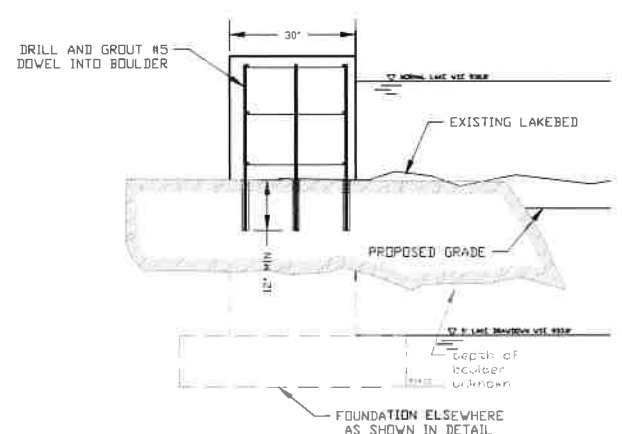
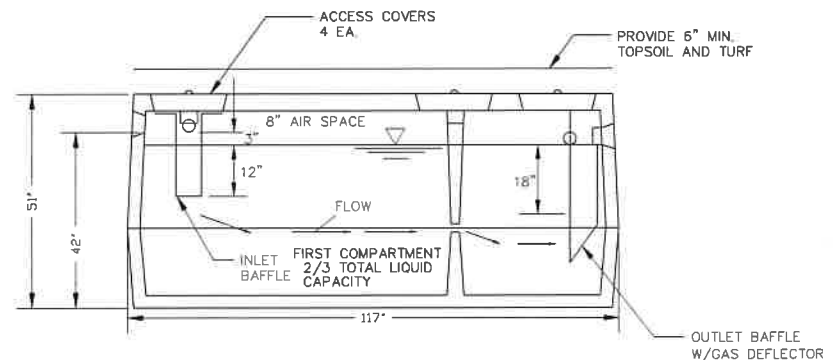
**SECTION A-A
ELEVATION LEACHING FIELD**
1"=5'



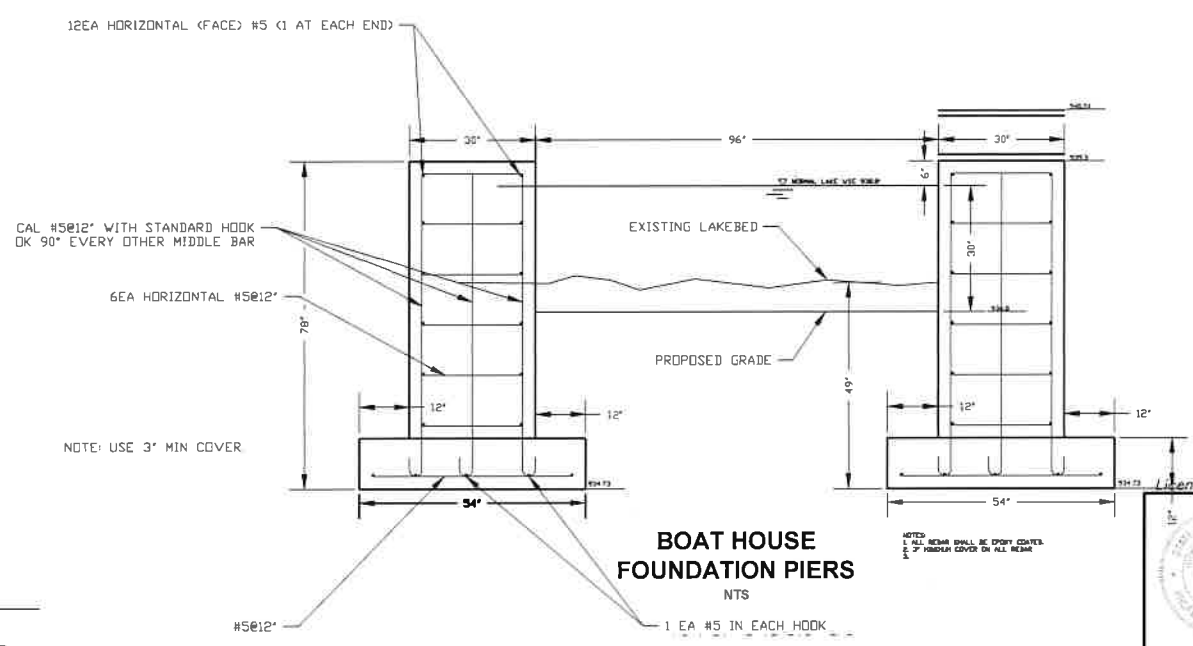
TYPICAL SEWER TRENCH DETAIL
NTS



**1250 GAL. STLB
SEPTIC TANK DETAIL**
NTS



**BOAT HOUSE
FOUNDATION PIER PINNED ON ROCK**
NTS



**BOAT HOUSE
FOUNDATION PIERS**
NTS

SPECIFICATIONS AND DETAILS

**SUBSURFACE SEWAGE DISPOSAL
SYSTEM REPAIR**
53 Aquatic Road
Prepared For
Karen Smith
New Hartford, Connecticut

LAUREL ENGINEERING, LLC
48 Center Street - Winsted, Connecticut 06098
Phone (860) 379-6898 E-Mail laureleng@earthlink.net

Scale: as noted	Project No.: 18-111	2
Drawn By: MGS	File Name: 20-104-ASmith-53 aquat....dwg	
Revised Through: 06/30/20	Submitted: 07/01/20	

**SUBSURFACE SEWAGE DISPOSAL SYSTEM
TECHNICAL SPECIFICATIONS**

Site Preparation:

Clear and grub areas reaching field to the clearing limits shown on the plan. The contractor shall exercise extreme care in removing surface boulders and topsoil within the area of the leaching field. Topsoil shall be stockpiled (in a convenient area) and protected from erosion. Erosion control measures shall be installed as shown on the plan.

House Location:

The contractor shall verify the benchmarks and control points shown on the plan prior to the layout of leaching field. The house and leaching field should be staked-out by a Licensed Land Surveyor.

Select Fill (If needed):

The following steps should be taken to insure proper placement of the select fill:

1. Provide 24-hr notice to engineer for inspection prior to scarifying the leaching area.
2. Obtain approval of the fill material from the Sanitarian.
3. Provide a gradation test if required by the Sanitarian.
4. First layer of fill shall be laid in a 12" lift on the scarified ground before compaction. Thereafter, compact fill in six-inch lifts. Improper compaction operations can cause system failure.
5. Field density requirements for fill material shall be 90% Standard Proctor Density.
6. Extend fill a minimum of 10 (ten) feet beyond the last trench before tapering off.

The select fill shall meet the following specifications:

1. The select fill shall not contain any material larger than the three (3) inch sieve.
2. Up to 45% of the dry weight of the representative sample may be retained on the #4 sieve. Note: This is the gravel portion of the sample. (Gravel is defined as material between the No. 4 and 3-inch sieves)
3. The material that passes the #4 sieve is then re-weighted and the sieve analysis is started.
4. The remaining sample shall meet the following gradation criteria.

Gradation of Fill Less Gravel:

Sieve No.	Wet Sieve Percent Passing by Weight	Dry Sieve Percent Passing by Weight
No. 4	100%	100%
No. 10	70 - 100%	70 - 100%
No. 40	10 - 50% *	10 - 75%
No. 100	0 - 20%	0 - 5%
No. 200	0 - 5%	0 - 2.5%

* Percent passing the #40 sieve can be increased to no greater than 25% if the percent passing the #100 sieve does not exceed 10% and the #200 sieve does not exceed 5%.

Septic Tank:

The septic tank shall be a 1,250 gallon two compartment pre-cast concrete septic tank meeting all the latest specifications defined in the Connecticut Public Health Code with particular reference to baffles, compartments, manhole access and concrete. The tank shall be properly baffled at the inlet and outlet, and shall be watertight with joints sealed with a butyl sealant or equal. The tank shall be constructed and installed to support AASHTO HS-10 design loading. Note depth of tank and the need for risers on access holes.

House Sewer:

The sewer pipe connecting the house with the septic tank shall be four-inch diameter SCH 40 PVC water pipe in conformance with ASTM D-1785 w/ rubber compression gasket joints (ASTM D 3139) or solvent weld couplings/fittings using proper two step PVC solvent solution procedure. The slope of the sewer shall be a minimum of 0.25 inches per foot (1/4" per ft.). The inverts and pipe length shown on the plan should be used for this project. The contractor shall install the pipe in an even trench and on a continuous slope. Bedding Sand shall be fine sandy loam 100% passing the #4" sieve and 7-15% passing the #200 sieve. Detectable Underground Warning Tape shall be 2" wide, made from 5 mil, triple layer lamination of aluminum foil core encased in 100% virgin polyethylene.

Other Sewers:

The sewage distribution pipe from the tank to the pump chamber shall be four-inch diameter solid SDR-35 PVC in conformance with ASTM D-3034 w/ compression gasket joints, the pipe from the pump chamber to the distribution box shall be sdr-21 pvc in accordance with ASTM D-2241. The pipe shall be laid with a minimum of cover of 2'-ft underneath the drive section and a minimum cover of 1'-ft elsewhere. The pipe from the distribution box over the GSTM leaching units shall be perforated SDR-35 in accordance with ASTM-D3034. Bedding Sand shall be fine sandy loam 100% passing the #4" sieve and 7-15% passing the #200 sieve.

Distribution Boxes:

Distribution boxes shall be pre-cast concrete. Distribution boxes shall be set on a 12" layer of crushed stone to prevent differential settlement or heaving from frost. The D-box shall be oriented to provide for high-level overflow as shown by inverts on the plan.

Leaching Field:

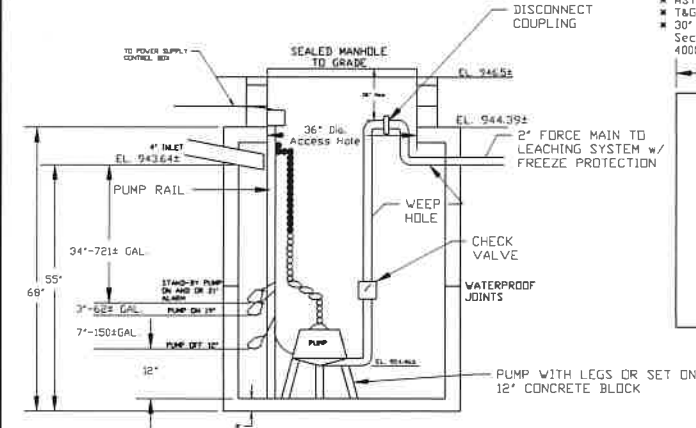
The bottom of each trench and the distribution pipes shall be level throughout the trench. The maximum deviation from level permitted for this operation is one-inch in seventy-five feet.

Stone used for the leaching field shall be one-inch (nominal) washed crushed or bank-run stone.

Sewage pipe used in the leaching field shall be four-inch diameter perforated SDR-38 PVC in conformance with ASTM D-3350. The pipe shall be laid straight and all inverts shall be level and set to the elevations shown on the plan.

Leaching chambers shall be 12" H x 46" W x 96" L Lo-Pro as manufactured by Richards Septic Systems, Inc. or equal. The pre-cast chambers shall be manufactured and installed with a minimum of 6-inch of cover. Distribution pipes must have a minimum four-inch diameter.

A layer of filter fabric must be placed to cover the entire width and length of each trench.



**1100 GALLON PUMP STATION
W/ SINGLE PUMP AND ALARM
NTS**

The filter fabric provided shall be in conformance with the Connecticut Public Health Code, Regulations and Technical Standards for Subsurface Sewage Disposal Systems, Revised January 1, 2007 as indicated in Appendix C.

In accordance with the manufacturer's recommendations all inlets and outlets shall be mortared or sealed with an appropriate seal or gasket. The opening of the house shall be mortared once the pipes have been installed.

All drains shall be a minimum of 25 feet from any septic system component.

Loom, Seed and Mulch:

The following operations should be completed as soon as possible upon the completion of the fill slopes, septic system, and yard grading:

1. Cover the entire area with a minimum of 4" of topsoil and rake to smooth entire area.
2. Spread lime at the rate of 90lbs. per 1,000 sq. ft.
3. Spread 10-10-10 fertilizer at the rate of 7.5lbs. per 1,000 sq. ft.
4. Spread grass seed at the rate of 5lbs. per 1,000 sq. ft.
5. Spread mulch hay at the rate of 75-90lbs. per 1,000 sq. ft.

Miscellaneous:

Water restrictive measures should be implemented (i.e. water saver toilet and shower head.)

Plumbing in the basement exits through the basement wall therefore plumbing for interior appliances etc. shall be limited to a washing machine.

Roof gutters shall not be tied into any part of the septic system or the footing drain discharge piping.

A benchmark shall be set and the leaching system and house shall be staked out by a Licensed Land Surveyor, prior to any work of this site. A Licensed Land Surveyor shall set any required pins prior to commencement of work.

Any future water treatment systems shall not discharge to the subsurface sewage disposal system.

Pump, Basin and Force Main:

Basin:

Use a simplex or duplex pump basin in conformance with the following:

1. The pump basin shall be an 1100 gallon pump chamber as manufactured by Richards Corp.
2. The basin shall be constructed of precast concrete.
3. The basin shall have a minimum wall thickness of 3".
4. The basin shall have a cover made of steel or cast iron manhole risers to grade.
5. The cover shall be attached to the basin by cap screws mated to threaded inserts molded into the basin rims.
6. The basin, cover, pumps, piping, and controls (if any) shall be compatible and pre-assembled to insure a proper fit.
7. Location of basin shall be prepared early during the initial site-work phase.
8. Locate placement area, excavate to the proper depth and backfill with sand while foundation work is in progress.
9. The sand should remain until the piping and basin is installed.
10. The depth of the hole should allow for the depth of the basin plus additional depth for base material (8" of one-inch stone and 6" of Type N mortar).

Basin Installation:

1. Dig last pit to determine if ground water level. If high ground water is encountered inform Engineer. Excavation must be dewatered using pump inlet and outlet protection as outlined in ConnDEEP 2002 Section and Erosion Control Guidelines (DEP Bulletin 34).
2. Remove sand fill down to undisturbed soil.
3. Place an 8" layer of one inch stone 6" below the bottom of proposed basin.
4. Place a 6" layer of Type N mortar and set basin in wet mortar just as mortar is about to set.
5. The stone, mortar and basin shall be set below the finished floor elevation.
6. Adjust basin so that it is level.
7. After the mortar has set, attach inlet piping and fill tank to the level of the inlet pipe.
8. Pour concrete anti-bucyency cap on top of chamber if Engineer specifies.

Pump:

The pump shall be a centrifugal type with a minimum capacity of 33 gallons / min. at 21.02 ft. head as supplied by Litec Supply (Torrington, CT) or equal.

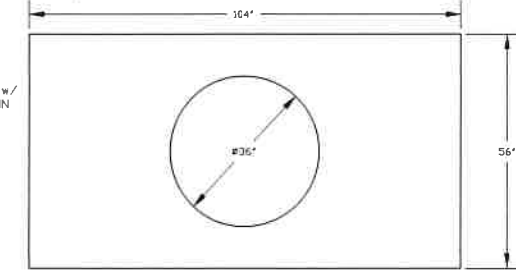
Pump turn-on and turn-off level shall be adjusted by the contractor so that not less than 120.00 gallons nor more than 150 gallons are pumped during one complete cycle.

Force Main:

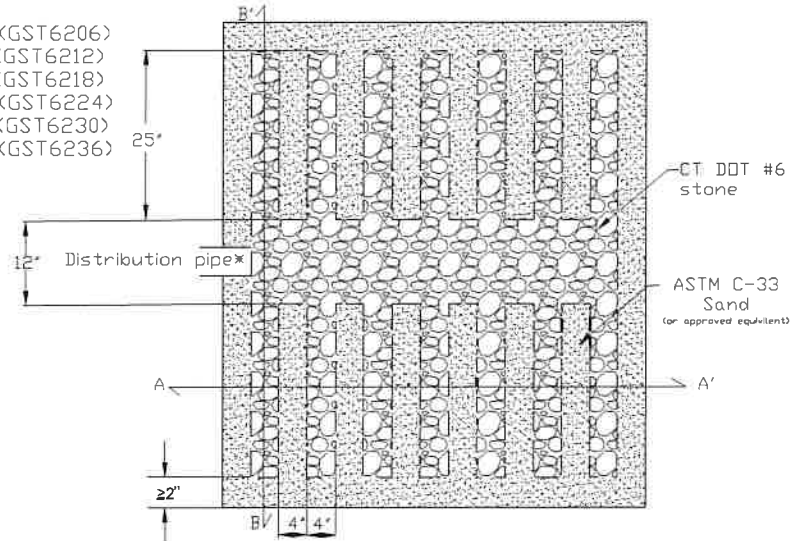
The force main shall be a coated 2.00 inch diameter polyethylene plastic flexible pressure pipe (180psi min.) in conformance with the State Health Code. No joints are permitted within 75 feet of a well or within 25 feet of an open watercourse or groundwater drains. Either a baffle or an elbow (pointing downward) shall be installed on the force main discharge in the D-box at the end of the force main. Force main shall be insulated above frost depth.

NOTES:

- 1000 gallon capacity below inlets
- 4 Self sealing inlets for 4 inch pipe
- Fiber reinforcement throughout
- Concrete: 5000psi min
- ASTM C 1227
- T&G joint sealed with butyl sealant
- 30" dia access with 36" cover ■ Weight Top Section: 4300 lbs. ■ Weight Bottom Section: 4000 lbs.



- 6" (GST6206)
- 12" (GST6212)
- 18" (GST6218)
- 24" (GST6224)
- 30" (GST6230)
- 36" (GST6236)



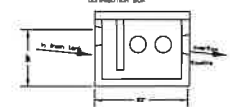
■ 3" min. I.D., ASTM D-3034, SDR 35 pipe for gravity applications
 ■ 0.75" min. I.D., ASTM D-2665, SCH 40 PVC pipe for pressure applications

**GEMATRIX GST LEACHING SYSTEM
Plan View**

DISTRIBUTION BOX DATA

D-BOX NO. 1 (RAFFLED)

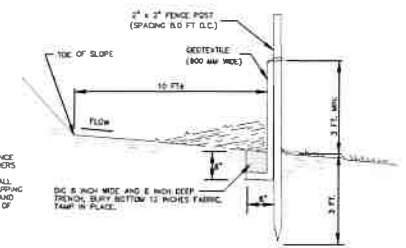
INV. IN 490.43



D-BOX NO.1

D-BOX DETAIL

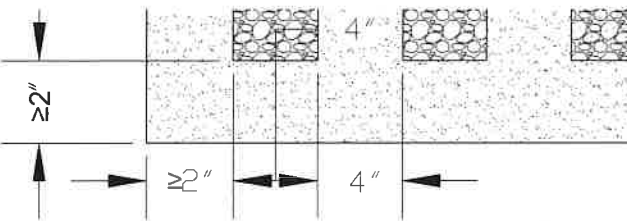
NTS



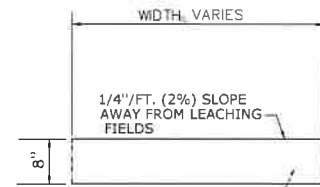
- NOTES:**
1. GEOTEXTILE FABRIC TO BE FASTENED SECURELY TO FENCE POST BY USE OF WIRE TIES OR HOG RINGS. FASTENERS PER POST.
 2. ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE FABRIC SHALL BE SECURELY FASTENED TO A COMMON POST BY WRAPPING EACH END OF THE FABRIC AROUND THE POST TWICE AND ATTACHING AS SPECIFIED IN NOTE 1 ABOVE. JOINTS OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT LOW POINTS.

EROSION CONTROL (FILTER FABRIC)

NTS



- H* UNIT**
- 6" (GST6
 - 12" (GST62
 - 18" (GST62
 - 24" (GST6
 - 30" (GST62



PROCESSED AGGRAGATE BASE SHALL BE 8" IN DEPTH AFTER COMPACTION PLACED IN TWO COURSES

**TYPICAL SECTION
GRAVEL
SIDEWALK AND DRIVE
NTS**

License No. 20338



SPECIFICATIONS AND DETAILS

**SUBSURFACE SEWAGE DISPOSAL
SYSTEM REPAIR
53 AQUATIC Road**

Prepared For
Karen Smith

New Hartford

Connecticut

LAUREL ENGINEERING, LLC

48 Center Street - Winsted, Connecticut 06098

Phone (860) 379-6898

E-Mail laureleng@earthlink.net

Scale:	as noted	Project No.:	20-104	Drawing No. 3
Drawn By:	MGS	File Name:	20-104-ASmi.dwg	
Revised Through:	08/04/20	Submitted:	08/04/20	

SOIL EROSION AND SEDIMENT CONTROL PLAN NOTES
1. INTRODUCTION AND PERMIT COMPLIANCE

This narrative describes the minimum measures required to control soil erosion during and after construction of the site work shown on this plan. The soil erosion and sediment control measures shown on this plan are in accordance with a current version of the document entitled "2002 Connecticut Guidelines for Soil Erosion and Sediment Control" published by the Connecticut Council on Soil and Water Conservation as amended. The contractor may be required to implement additional measures to prevent site erosion and sedimentation of downstream waterways.

The contractor is required to obtain copies of, and comply with the conditions of all permits for this project, including but not limited to:

- * Municipal Inland Wetlands Permit
- * Municipal Planning & Zoning Permit

The contractor's activities and operations include all site work and work incidental to the project including, but not limited to haul roads, waste and disposal areas, staging areas, and field offices. If any of his activities require approvals above and beyond those already accounted for by the Owner's permits, the contractor shall apply for and obtain such permits prior to conducting those operations.

2. PROJECT DESCRIPTION AND SITE CHARACTERISTICS

- * Single family - Residential Construction
- * Construction activity will include:
 - * Earth excavation
 - * Jacking existing house, demolition and removal of existing foundation
 - * Foundation, driveway construction
- * Total site area = 10,009 sf = 0.23 acres
- * Total site disturbance is approximately 4,802 SF = 0.11 Acres
- * Contractor must comply with inland wetlands permit conditions.

3. CONSTRUCTION SEQUENCING

The construction sequence is as follows:

1. Prepare site for activity
2. Install erosion and sediment control measures
3. Relocate Gravel drive outside grading limits of new leaching field. Strip and stockpile topsoil.
5. Excavate for for septic system
6. Foundation pier construction for the Bathhouse should be scheduled during the deep (5-ft) draw down period of West Hill Lake, excavated for bathhouse foundation, remove all large boulders and concrete rubble from lake bed inside footprint of Bathhouse. Dewater foundation excavation using pump inlet and outlet protection measures detailed on this plan, construct bathhouse foundation piers and Bost House. Remove sediment and erosion control in lakebed before end of scheduled draw down period.
7. Construct septic system.
9. Furnish / install topsoil and establish turf.

Erosion control measures shall remain in-place until turf has been established in all disturbed areas.

4. RESPONSIBILITY

4.1 RESPONSIBILITIES OF OWNER

The Owner is: Karen Smith The Owner shall:
 A. Provide the contractor with copies of land-use permits that owner has acquired.

B. Inform all parties involved with the proposed site work of this plan's objectives and requirements.

4.2 RESPONSIBILITIES OF CONTRACTOR

The contractor is responsible for preventing erosion of the site and for protecting adjacent waterways from sedimentation.

The contractor shall:

- A. Install, monitor, and maintain of the soil erosion and sediment control measures as shown on this plan.
- B. Comply with all permit requirements.
- C. Provide the Owner, Engineer, and the municipality with 24 hour phone numbers in the event of an emergency at the site.

5. DESCRIPTION AND MAINTENANCE OF EROSION CONTROL MEASURES

5.1 TEMPORARY STABILIZATION MEASURES

Silt Fence / Straw Bales:

Install silt fence as shown on the plans and details. Embed the silt fence into the ground and firmly anchor it as shown in the details. Remove sediment once levels have reached 1/4 of the effective fence-height or straw bales. Repair and/or replace silt fence immediately if damaged or deteriorated. See straw bale detail for proper installation.

Stockpiling or Storage of Excavated Materials:

Completely surround all temporary (2-4 weeks) material stockpiles with straw bales or silt fence to prevent transportation of sediment. Seed stockpiles that will remain for a longer duration with a quick-growing rye grass.

5.2 PERMANENT STABILIZATION MEASURES

Implement stabilization measure within three days of final grading.

Loom, Seed and Mulch:

Immediately following rough grading activities, bring all disturbed areas to final grade with four inches of loam.

Loom shall be free of large stones and roots and other deleterious materials such as wood, pieces of pavement, metals, trash, etc. and shall be of such quality as to readily promote germination of grass seed.

Prior to seeding, lime and fertilize according to soil test or, at a minimum, apply lime at a rate of 100 lbs./1000 sq. ft. and 10-10-10 fertilizer at a rate of 6 lbs./1000 sq. ft. Work lime and fertilizer into soil.

Unless specified otherwise by an expert, apply grass seed at the following rates:

MIXTURE 1 LBS./1000 SF

Kentucky Bluegrass	2.25
Creeping Red Fescue	2.25
Perennial Ryegrass	.50
	5.00

MIXTURE 2 LBS./1000 SF

Creeping Red Fescue	2.25
Redtop	.25
Tall Fescue or	
Smooth Bromegrass	2.25
	4.75

Immediately after seeding operations, cover the seedbed with hay or straw mulch at a rate of 100 lbs./1000 sq. ft. Mulch must be free of weeds and coarse matter. Spread mulch by hand or by mulch blower. Mulch anchoring is required by tractor drawn anchoring device along contour, or by tracking with a bulldozer (cleats parallel to contour) on slopes flatter than 3H:1V. If not specifically required herein, anchored jute mesh or equal is preferred by the engineer but not required on slopes steeper than 3H:1V.

The contractor shall irrigate all seeded areas until a stand of grass, acceptable to the Owner, is established.

The contractor shall be responsible for all seeded areas. If topsoil, seed, and/or mulch is washed away by rainfall, the contractor shall restore the area.

Sunny areas 1 1
 Shady areas 5 5

6. GENERAL CONDITIONS

6.1 If erosion control measures are damaged by construction vehicles, acts of vandalism, or severe weather conditions, the contractor shall immediately remove sediment in the vicinity of the erosion control measures and repair these measures to a functional condition.

6.2 If, during or after construction, it becomes apparent that existing erosion control measures are incapable of controlling erosion, the owner, the engineer, or the municipality may require additional control measures including, but not limited to; additional hay bales, silt fence, sediment basins, or mechanically anchored mulch.

6.3 Refueling of equipment or machinery within 25 feet of any wetland or watercourse is prohibited.

6.4 No materials resulting from construction activities shall be placed in or allowed to contribute to the degradation of an adjacent wetland or watercourse. Disposal of any material shall be in accordance with Connecticut General Statutes, including, but not limited to, Sections 22a-207 through 22a-209.

6.5 Stabilize all temporary fill to prevent erosion and to prevent sediment or other particulate matter from reentering a wetland or watercourse. Restore and revegetate all areas affected by temporary fills to their original contours or as directed by the Owner. Confine the extent of temporary fill or excavation to that area necessary to perform the work, as approved by the Owner.

6.6 Dumping of oil, chemicals or other deleterious materials on the ground is forbidden. The contractor shall provide a means of catching, retaining, and properly disposing of drained oil, removed oil filters, or other deleterious material. All spills of such materials shall be reported immediately by the Contractor to the DEP.

7. EXCAVATION DEWATERING

Definition

Structures or other protective devices into which or on which intake and discharge hoses are placed during pumping operations.

Purpose

- To reduce the amount of sediment taken up by a pump during dewatering operations.
- To prevent soil erosion due to scouring and the resuspension of eroded sediments at the point of pump discharge. Applicability: Whenever dewatering is required by means of pumping such as cofferdams, building foundations, utility line installation (or repair) and pond construction or rehabilitation.

Planning Considerations

There is no specific design for this measure. The pump intake protection shown in Figure PuP-1 and Figure PuP-3 illustrate basic design concepts which when implemented during dewatering operations reduce sediment uptake.

Typically, pump intakes are installed in sumps that have been excavated below the grade such that water drains away from the active construction area. The location and size of sumps are dependent upon the field conditions found at the time of construction and dewatering operations. The expected conditions and potential sump needs should be noted on the plans. The sumps may require relocation as work progresses.

The pump outlet protection shown in Figure PuP-3 illustrate basic design concepts which when implemented during dewatering operations reduce soil erosion and resuspension of sediments.

Installation

1. Determine if a sump is needed and the appropriate method of pump intake and outlet protection.
2. Where standing water is encountered in the area of a proposed sump, begin dewatering the site by floating the pump intake at the water's surface. Carefully monitor water levels to prevent the uptake of bottom sediments.
3. Excavate the sump within or adjacent to the area to be dewatered. Install pump intake and outlet protection before pumping begins.

4. Installation of the pump intake protection should conform to pumping rates and the general design concepts. Figure PuP-1 shows a typical sump and intake constructed of stone imbedded with a perforated stand pipe. It is generally used where there is no need to frequently move the pumping sump or where the stone can be used on site for bedding material. In some instances the prefiltration of discharge waters may be enough to reduce or eliminate the need for a dewatering basin or portable sediment.
5. The pump outlet protection shall adequately dissipate the energy of the discharge so as to prevent erosion and the resuspension of sediments at the point of discharge. Figure PuP-3 illustrates an example of pump outlet protection. Pump outlet protection is required even if the discharge is to a pumping settling basin.

Operation

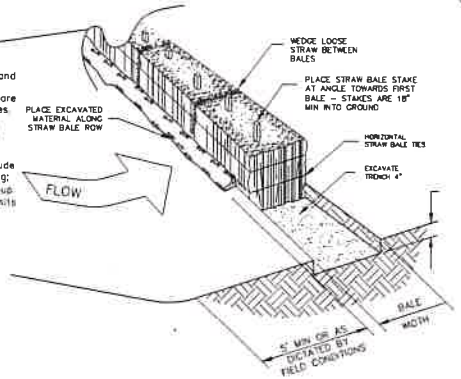
Monitor pumping operations and adjust pumping rates as needed to keep the construction area dewatered, and minimize pumping sediment.

Maintenance

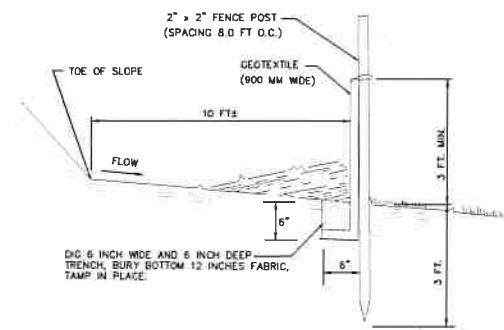
Inspect the pumping sump, pump intake protection and pump discharge conditions frequently during dewatering operations for proper functioning of equipment.

NOTES:

1. Place straw bales on contour and wing last straw bales upslope so that the top of last straw bales are higher than the line of straw bales.
2. Stake all straw bales.
3. Maintain and remove sediment deposits as required during construction.
4. Regular maintenance shall include but not be limited to the following:
 - a.) Removal of sediment build-up
 - b.) Replacement of damaged units
 - c.) Minimum inspection requirements include at least once per week or within 24hrs of a precipitation event greater than 0.5"



SEDIMENTATION AND EROSION CONTROL (STRAW-BALE SYSTEM) NTS



SEDIMENTATION AND EROSION CONTROL (STRAW BALE SILT FENCE COMBO SYSTEM) NTS

License No. 20338

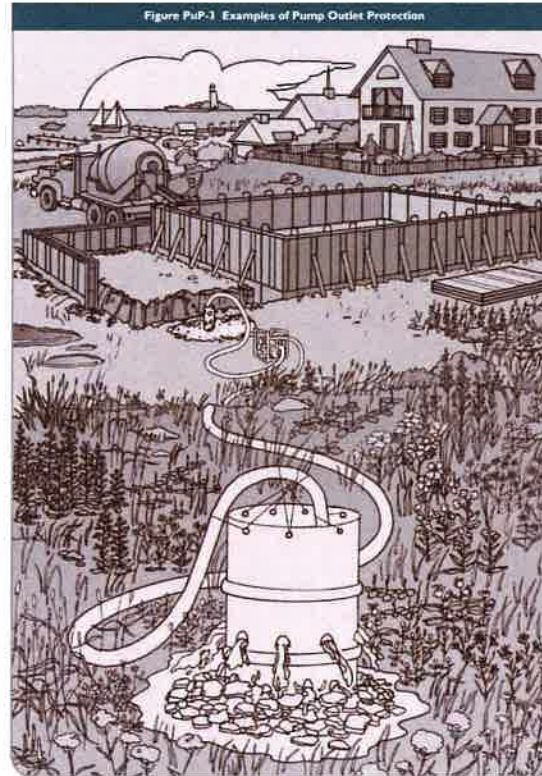


1	XXX	XXXX
No.	Revision/Issue	Date

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 Phone (860) 378-8888 E-Mail lauren@laureneng.com

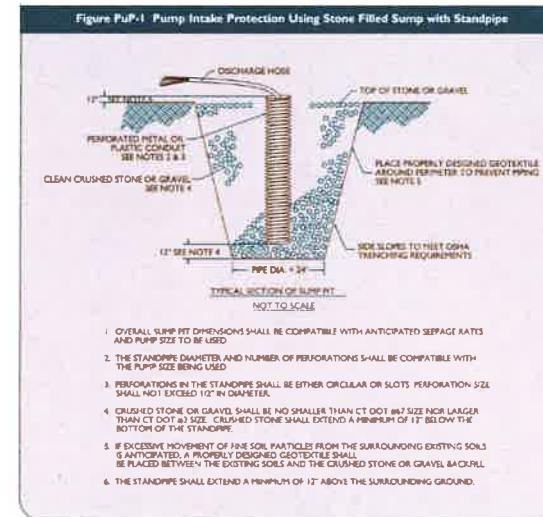
S&E DETAILS
 SITE WORK RELATED TO SEPTIC REPAIR AND BATHHOUSE REBUILD
 53 Aquatic Road
 Prepared For
Karen Smith
 New Hartford, Connecticut

Project	20-114	Sheet	4
Date	08/4/20		
Scale	AS NOTED		



NOTES:

1. GEOTEXTILE FABRIC TO BE FASTENED SECURELY TO FENCE POST BY USE OF WIRE TIES OR HOG RINGS. 3 FASTENERS PER POST.
2. ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE FABRIC SHALL BE SECURELY FASTENED TO A COMMON POST BY WRAPPING EACH END OF THE FABRIC AROUND THE POST TWICE AND ATTACHING AS SPECIFIED IN NOTE 1 ABOVE. SPLICING OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT LOW POINTS.



1. OVERALL SUMP PIT DIMENSIONS SHALL BE COMPATIBLE WITH ANTICIPATED SEEPAGE RATES AND PUMP SIZE TO BE USED.
2. THE STANDPIPE DIAMETER AND NUMBER OF PERFORATIONS SHALL BE COMPATIBLE WITH THE PUMP SIZE BEING USED.
3. PERFORATIONS IN THE STANDPIPE SHALL BE EITHER CIRCULAR OR SLOTS. PERFORATION SIZE SHALL NOT EXCEED 1/2" IN DIAMETER.
4. CRUSHED STONE OR GRAVEL SHALL BE NO SMALLER THAN CT DOT #67 SIZE NOR LARGER THAN CT DOT #10 SIZE. CRUSHED STONE SHALL EXTEND A MINIMUM OF 12" BELOW THE BOTTOM OF THE STANDPIPE.
5. IF EXCESSIVE MOVEMENT OF FINE SOIL PARTICLES FROM THE SURROUNDING EXISTING SOILS IS ANTICIPATED, A PROPERLY DESIGNED GEOTEXTILE SHALL BE PLACED BETWEEN THE EXISTING SOILS AND THE CRUSHED STONE OR GRAVEL BACKFILL.
6. THE STANDPIPE SHALL EXTEND A MINIMUM OF 12" ABOVE THE SURROUNDING GROUND.

Scale: 1/4" = 1'-0"

SD-4