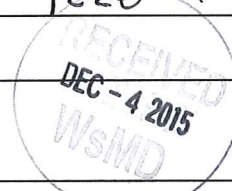


Shoreland Permit Applicationfor a **Shoreland Protection Permit** under
Chapter 49A of Title 10, § 1441 *et seq.***For Shoreland Permit Program Use Only**Application Number: **234**VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
**WATERSHED
MANAGEMENT DIVISION**
LAKES & PONDS PROGRAM**Public Notice:** At the same time this application is filed with the Shoreland Permit Program, a copy of this application must be provided to the municipal clerk for posting in the municipality in which the project is located.Submission of this application constitutes notice that the person in Section A intends to create impervious surface and/or cleared area within the Protected Shoreland Area, and certifies that the project will comply with Chapter 49A of Title 10, § 1441 *et seq.* All information required on this form must be provided, and the requisite fees (Section G) must be submitted made payable to the State of Vermont, to be deemed complete. Refer to *The Vermont Shoreland Protection Act - A Handbook for Shoreland Development* and related instructions for guidance in completing this application.**A. Parcel Information**

1. Landowner's Name: **EDWARD O. & EILEEN E. BRENNAN**
- 2a. Physical Address (911 Address): **209 RUSSELL LANE**
- 2b. Municipality: **PANTON** 2c. Zip: **05491** 3. SPAN*: **462-146-10294**
4. Phone: **214-354-5714** 5. Email: **EEMCB@AOL.COM**
6. Name of lake/pond: **CHAMPLAIN** 7. Total shore frontage: **1226** (feet)
8. Was the parcel of land created before July 1, 2014? Yes No
9. Are there wetlands associated with this parcel? Yes No
Contact the Wetlands Program: (802) 828-1535 or www.anr.state.vt.us/dec/waterq/wetlands.htm.
10. Is there a lake encroachment permit associated with this project? Yes No Permit #: _____
Contact the Lake Encroachment Program: (802) 490-6165 or www.anr.state.vt.us/dec/waterq/permits/htm/pm_encroachment.htm
11. What is the surface area of your parcel within the Protected Shoreland Area (PSA): **306,500** (square feet)
See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix C, Determining Lakeside Zone & PSA
12. What is the surface area of existing impervious surface on your parcel within the PSA: **5093** (square feet)
See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix F, Calculating Percent Impervious Surface
13. What is the surface area of existing cleared area on your parcel within the PSA: **50,000** (square feet)
See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix E, Calculating Percent Clearing

**B. Applicant Contact Information** (Check box if address is the same as above in Section A:)

1. Name: **EDWARD O. BRENNAN**
- 2a. Mailing Address: **6210 GEORGIAN COURT**
- 2b. Municipality: **DALLAS** 2c. State: **TX** 2d. Zip: **75254**

C. Application Preparer Information (If the individual preparing the application is not the landowner.)

1. Name: **LANDOWNER**
- 2a. Mailing Address:
- 2b. Municipality: 2c. State: 2d. Zip:
3. Phone: 4. Email:

*SPAN: The "School Parcel Account Number" is required for your application to be deemed complete. It can be obtained from your property tax bill. If you cannot locate your property tax bill, please obtain this information from your Town Clerk. SPAN is a unique identification number for each parcel of property in the State of Vermont consisting of eleven digits. The first three digits identify the town; the next three digits identify the school district; and the last five digits represent the unique parcel or property.

D. Project Description

1. Describe the proposed project and on separate pages attach site plans, photos, calculations of impervious surface and cleared area, and any other relevant supporting documents:

SEE ATTACHED

SIX BUILDINGS OF VARYING
DISTANCES - 20 FT ± 200 FT

2. How far is existing cleared area or impervious surface from Mean Water Level _____ (feet), and how far will new cleared area or impervious surface be from MWL ~~20~~ (feet)? *10 feet

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix A – Estimating Mean Water Level

3. Can all new cleared area or impervious surface be set back at least 100 feet from MWL? Yes No
If no, explain why below (attach support information as needed):

THIS IS A BANK STABILIZATION PROJECT. THE AREA TO BE STABILIZED IS WITHIN 100 FEET OF MWL.

- 4a. What is the slope of the project site area: 60 %

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix B, Determining Slope

- 4b. Is the slope of the project area less than 20%?

Yes No If yes, skip 4c.

- 4c. If no above (4b), describe the measures taken to ensure the slope is stable, resulting in minimal erosion and impacts to water quality (attach support information as needed):

THE ATTACHED DRAWINGS DESCRIBE THE PROPOSED BANK STABILIZATION.
NOTE IN THE DESCRIPTION OF PROJECT THAT WE HAVE ADDED A LOW CONCRETE WALL TO STABILIZE THE ADDED CRUSHED ROCK.

- 5a. What is the surface area of new impervious surface associated with this project: 200 (square feet)

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix F Calculating Percent Impervious Surface

- 5b. What is the total resulting impervious surface after completion of the project: 5293 (square feet) and is that 20% or less of the parcel area within the PSA? Yes No If yes, skip 5c.

- 5c. If no above (5b), describe the best management practices used to manage, treat and control erosion from stormwater from the portion of impervious that exceeds 20% (attach support information as needed).

N.A. THIS IS AN EROSION CONTROL PROJECT.

6a. What is the surface area of new cleared area associated with this project: 850 (square feet)
 See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix E, Calculating Percent Clearing

6b. What is the total resulting cleared area* after completion of the project: 50850 (square feet) and is that 40% or less of the parcel area within the PSA? Yes No If yes, skip 6c. (LESS THAN 2%)
 *Total cleared area includes impervious surface area.

6c. If no above (6b), describe the best management practices used to provide erosion control, bank stability, and wildlife habitat functionally equivalent to clearing less than 40% (attach support information as needed).
N.A.

E. Landowner Certification
 As APPLICANT, I hereby certify that the statements presented on this application are true and accurate; guarantee to hold the State of Vermont harmless from all suits, claims, or causes of action that arise from the permitted activity; and recognize that by signing this application, I agree to complete all aspects of the project as authorized. I understand that failure to comply with the foregoing may result in violation of the Shoreland Protection Act, 10 V.S.A. Chapter 49A, and the Vermont Agency of Natural Resources may bring an enforcement action for violations of the Act pursuant to 10 V.S.A. chapter 201.
 Applicant/Landowner Signature: [Signature] Date: 11-29-15

F. Application Preparer Certification (if applicable)
 As APPLICATION PREPARER, I hereby certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
 Application Preparer Signature: _____ Date: _____

G. Permit Application Fees

Administrative Fee: \$125.00		125.00
Impervious Area Fee: \$0.50 per square foot	New impervious area (5a.) <u>200</u> x .5	100.00
Total:		\$ 225.00

Submit this form and application fee to:
Vermont Department of Environmental Conservation
Watershed Management Division
Shoreland Permit Program
1 National Life Drive, Main 2
Montpelier, VT 05620-3522

Direct all correspondence or questions to the Shoreland Permit Program at:
 ANR.WSMDSHoreland@state.vt.us or (802) 490-6196

For additional information visit: www.watershedmanagement.vt.gov

Brennan Stabilization Project Description

209 Russell Lane, Panton

Approximately 125 feet of soft clay bank on the Parcel has collapsed and fallen into Lake Champlain, creating a hazardous situation. Without stabilization, the area is subject to further collapse and erosion. The erosion occurred prior to our ownership of the property.

The attached drawings detail the proposed stabilization plan which essentially removes the unstable soft clay and replaces it with crushed rock of varying sizes. To achieve a stable slope, it also will be necessary to grade back two portions of the upper bank which will require removing a few trees (shown on the drawings) which are currently on the collapse line or very near to the collapse line. The collapse caused the roots of several of these trees to be exposed, and , as a result, the trees are in poor health and in danger of falling into the lake.

The lower level of the area is a solid, impervious, shale shelf which slopes from about 10 feet above the MWL to MWL on a line parallel to the water line. The proposed project involves building a low (about 18 inches high by 24 inches wide) concrete wall along this impervious shale shelf to anchor the crushed rock above. All other approaches to stabilize the rock slope above involve digging into the shale shelf which will compromise the shelf, particularly on the down or lake side. Any disturbance of the shelf integrity will result in a more rapid erosion of the shelf in the resulting freeze-thaw cycles of a normal winter. This approach will also avoid the use of the large concrete blocks as proposed in the drawings on one edge of the slope, thereby improving the aesthetics. This wall provides the greatest amount of stabilization for the long term. For aesthetic purposes, this concrete wall will be covered with large rock pieces, making it invisible from above or from the lake. This wall is not included in the attached drawings, prepared by Knight Engineering of Williston.

The project will not increase the impervious surfaces, since the concrete wall will be placed on the existing impervious shale shelf. The cleared area will increase by approximately 850 square feet, but remain well under 40% within the PSA.

In addition to the drawings, photographs of the collapsed area are attached. We encourage you to send a representative to view the site. The pictures, although helpful to understand the situation, cannot substitute for an actual visit.

From: EEMCB@aol.com
Sent: Monday, January 11, 2016 2:06 PM
To: Cetner, Misha
Subject: Re: Shoreline Stabilization Project in Panton

Misha:

The concrete blocks on the Knight drawings will not be used; the concrete wall will provide the stabilization function of the blocks. The concrete wall will be at least 10 feet from the mean water level. This wall will be covered with large stone pieces and be invisible from land or lake.

Grading will still be as per the Knight drawings.

The large natural stones at the bottom (covering the wall) will be in the one to two foot diameter range.

Beyond the lower area the stone size will return to the sizes recommended on the Knight drawings which is a mix of type 1 at lower levels and crushed graded stone at higher levels.

There is no plan to put smaller stone under the large stone because the larger stone will largely be resting on the shale shelf. We will fill in with smaller stone around the larger stone on the land side of the concrete wall to further stabilize the slope.

There is no plan to use filter fabric on the slope. This was discussed with Knight and they were concerned about the fabric creating a slide plane for the fill stone, thus weakening the slope stability.

Hope this answers your questions.

Ed Brennan

In a message dated 1/11/2016 9:30:21 A.M. Central Standard Time, Misha.Cetner@vermont.gov writes:

Edward,

To clarify some pieces of the proposed shoreline stabilization project, could you confirm the following:

The site plans produced by Knight Consulting Engineers (page C3) will not be followed in regards to what will be installed (the 2'x2'x4' pre-cast concrete blocks will not be used).

A 100' long by 2' wide and 18" high concrete wall will be installed 10 feet from mean water level.

This wall will be covered with large natural stone.

Here are some questions:

Will the proposed grading still occur?

What will the approximate diameter of the large natural stones be?

Will these large stones go to the top of the bank?

Will there be a bed of smaller crushed stone underneath the large natural stone?

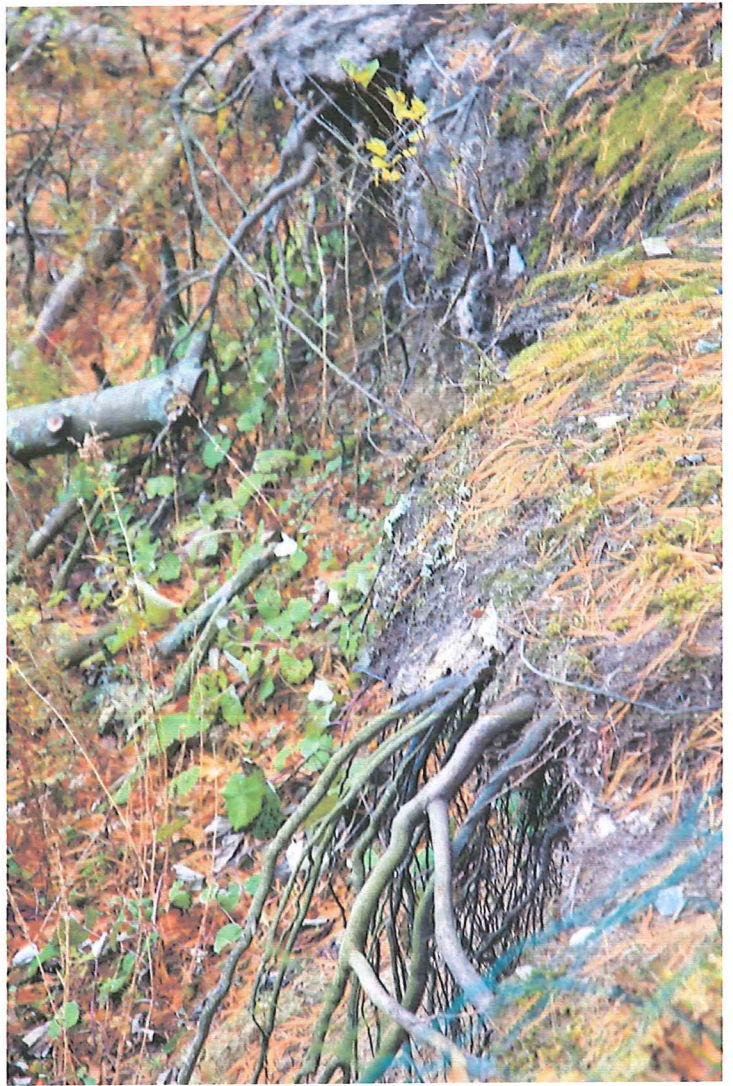
Will a layer of filter fabric be set against the soil underneath the loose stone?

Attached is a copy of your shoreland application as a reference.

Let me know if you have any questions.

Thanks,
Misha

①





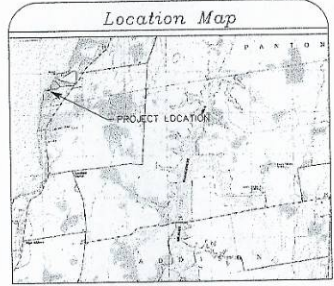






NOTE:

STAIRS TO BE REMOVED AS PART OF
THIS PROJECT.



Legend

- 5' Contours
 - 1' Contours
 - Slide Break Area
 - Existing Leachfield
 - Tie Line
 - Survey Traverse Point
 - Coniferous Tree
 - Deciduous Tree
- Tree Abbreviations:
- POP ... Poplar Tree
 - OAK ... Oak Tree
 - HEM ... Hemlock Tree
 - PINE ... Pine Tree
 - WT PINE ... White Pine Tree
 - BEECH ... Beech Tree
 - CED ... Cedar Tree

Survey by Summit Engineering, Inc.
 The purpose of this plan is to show the slide area at this site.
 This plan is based upon a field survey performed on 08/05/13. Elevations are based upon the lake elevation at 97.1' based on USGS gauges at Whitehall, NY and Burlington, VT and adjusted to NAVD 88.

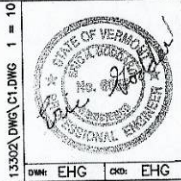
SUMMIT ENGINEERING, INC.
 Engineers - Surveyors - Planners - Landscape Architects
 1233 Shelburne Road, 2nd Floor
 South Burlington, VT 05403
 (802) 888-8888

NO.	DATE	REVISION

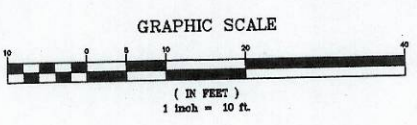
SITE PLAN
PROPOSED SLOPE STABILIZATION
207 RUSSELL LANE
 PANTON, VT

PROJ. NO. **C1**
 13302

KCE KNIGHT CONSULTING ENGINEERS, INC. DATE: 10/18/13
 61 KNIGHT LANE, WILLISTON, VT, 05495 - TEL. 879-8345 SCALE: 1" = 10'



13302.DWG, C1.DWG 1 = 10
 DWG: EHG GRD: EHG



NOTES:
 1. For general sequence refer to the specifications on sheet C3.
 2. For construction of the seawall at Section A, work shall be performed when the lake level is below elevation 99'. In order to provide proper clearance for access and silt containment, construction of the seawall should start once the lake level is near or below elevation 95.5'.

RETAINING WALL
106 FT.

INSTALL SILT FENCE (DET 1/02) OR PLACE SAND BAGS ALONG LIMITS OF CONSTRUCTION (ELEV. 95.0')

APPROXIMATE LIMITS OF NEW SEAWALL

LAKE CHAMPLAIN
 97.1'
 8/5/13

Shed

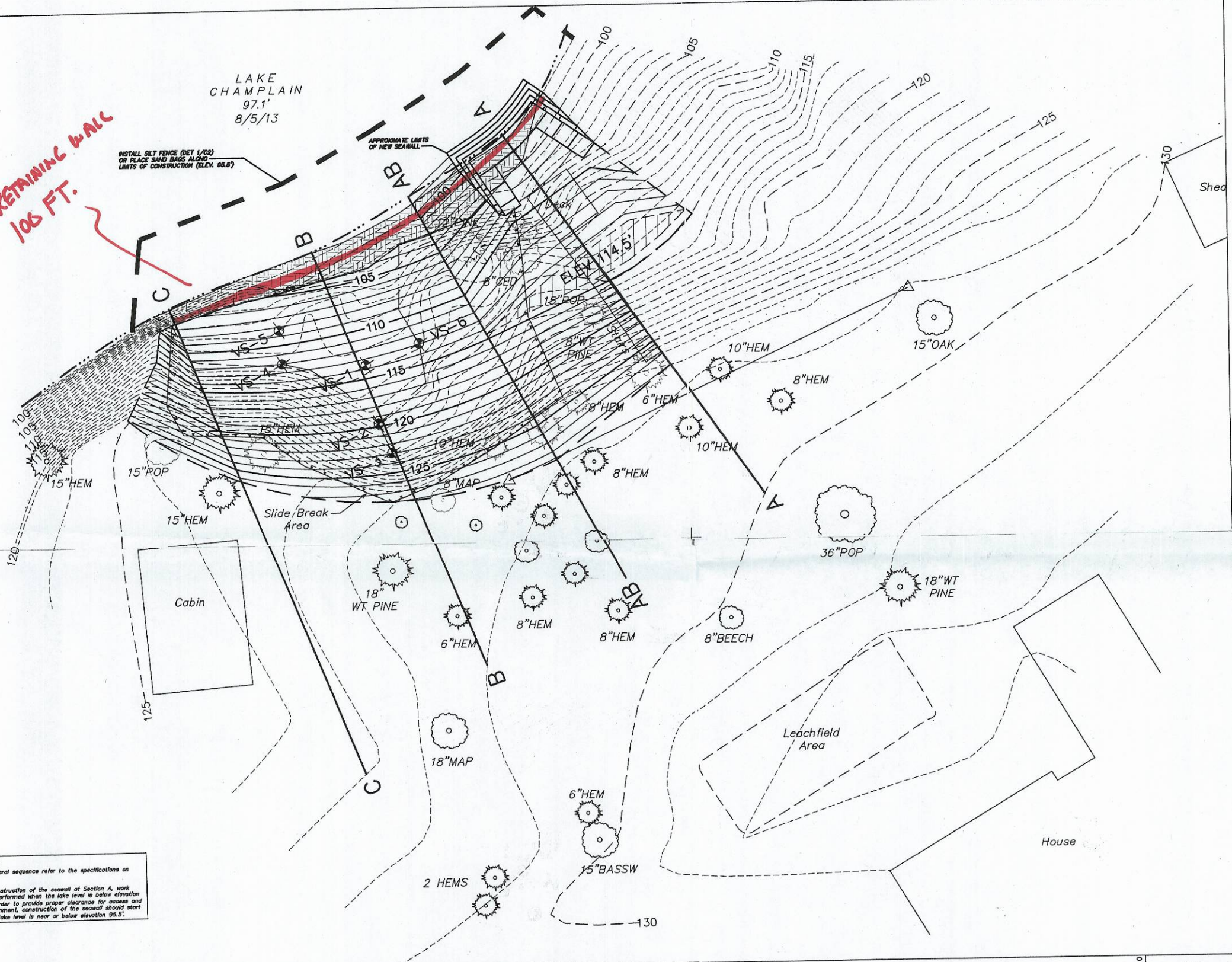
House

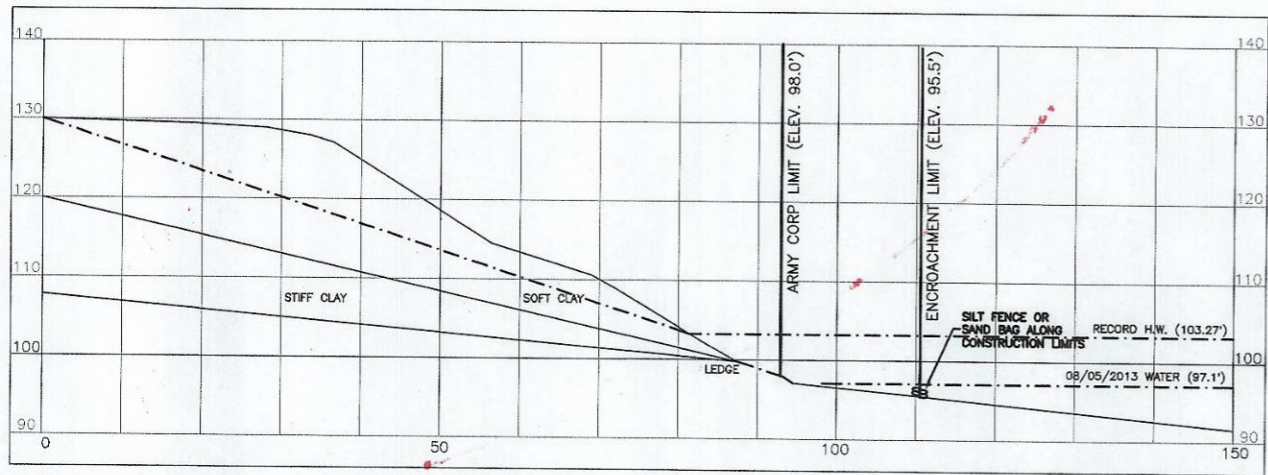
Leach field Area

Cabin

Slide/Break Area

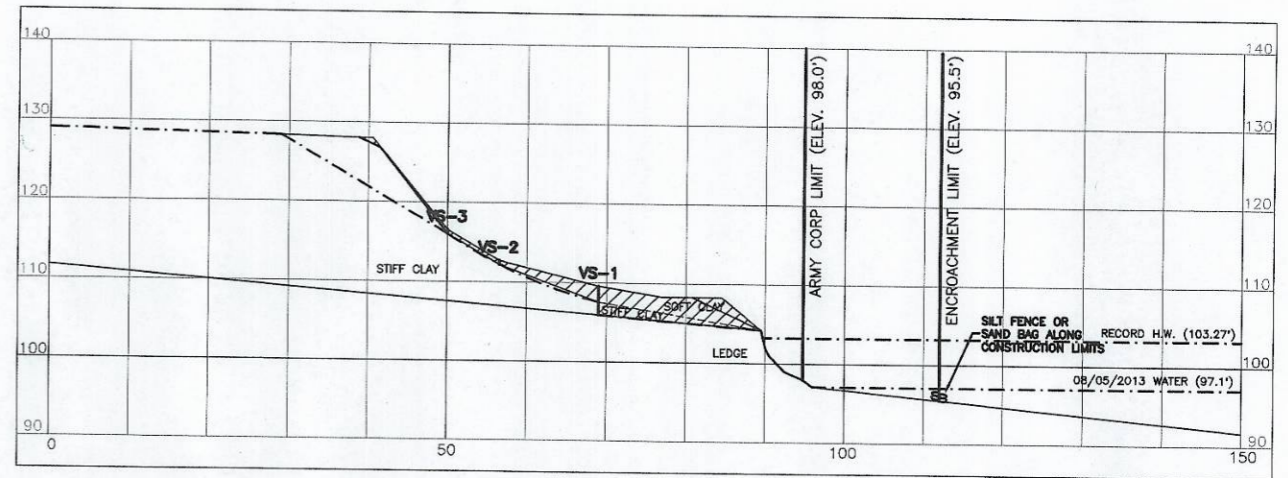
ELEV. 114.5'





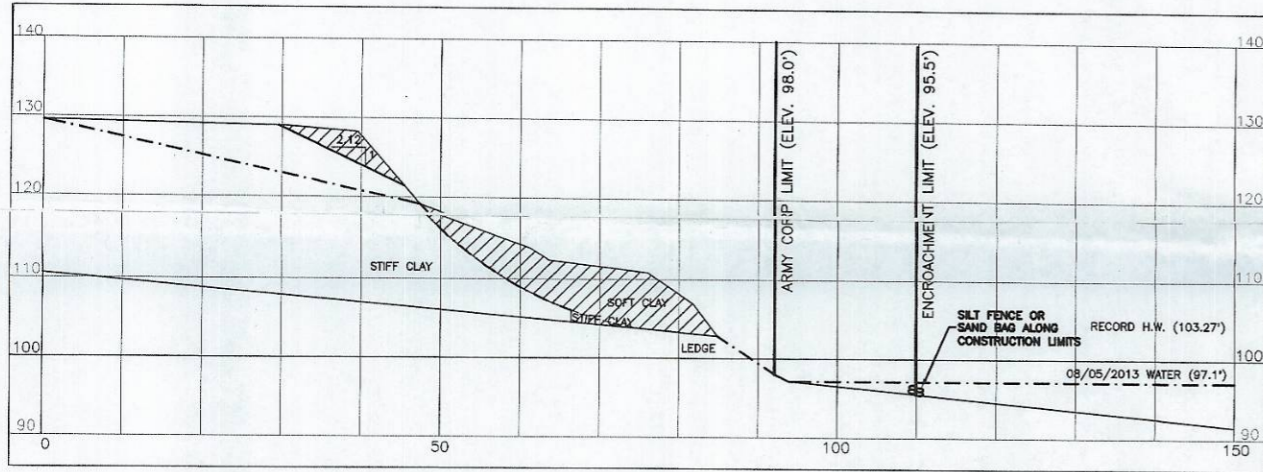
SECTION (A)

SCALE: 1" = 10' HOR.
1" = 10' VERT.



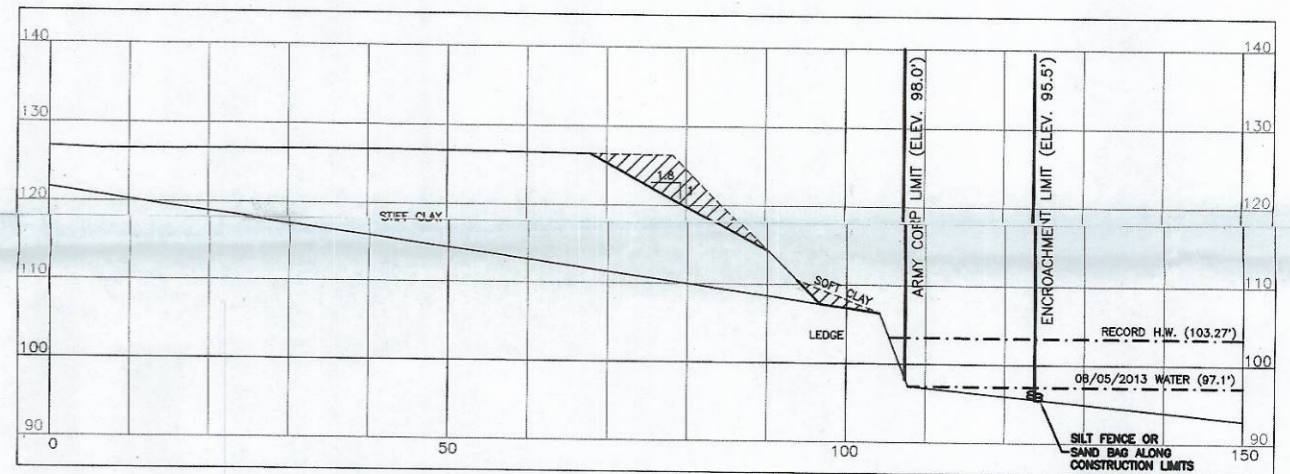
SECTION (B)

SCALE: 1" = 10' HOR.
1" = 10' VERT.



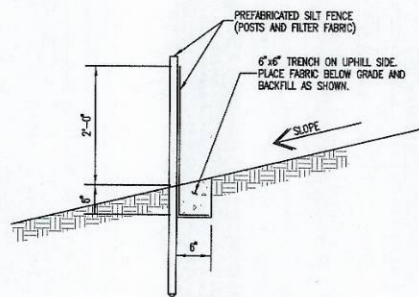
SECTION (AB)

SCALE: 1" = 10' HOR.
1" = 10' VERT.



SECTION (C)

SCALE: 1" = 10' HOR.
1" = 10' VERT.



1
C2
DETAIL - SILT FENCE
N.T.S.

	NO.	DATE	REVISION	DWG. NO.
	SLOPE CUT SECTIONS			C2
	PROPOSED SLOPE STABILIZATION 207 RUSSELL LANE PANTON, VT			PROJ. NO. 13302
	KNIGHT CONSULTING ENGINEERS, INC. 51 KNIGHT LANE, WILLISTON, VT., 05405 - TEL. 879-6343			DATE: 10/18/13 SCALE: 1" = 10'