



July 25, 2012

Mr. Thomas Mansfield, Zoning Administrator
Mr. Spencer Harris, Septic Consultant
P.O. Box 119
Charlotte, VT 05445

RE: Jonathan Couture Property, Lot 21 Sheehan East, 85 Valley View Drive, WW-4-2704-Relocate building envelope, disposal system components and well

Dear Tom and Spencer:

As you will remember, Jonathan Couture and I visited with you awhile back to review an error related to the location of the shared Silverstein/Lot 21 primary and replacement mound disposal areas. Somehow the subject mounds were mislocated relative to the eastern Lot 21 property line that moved +/- 75' to the east in early 1994. It appears that the mound locations transferred with relocated line rather than staying where they were initially permitted. The attached Figure 1 Site Plan now properly shows the location of the mounds as well as a relocated building envelope, a possible 3 bedroom building well and septic system components including the septic tank, pump station and force main. You will note that I set up the building envelope to show where the future residence can go whether it has a full basement with drainage or a pier or slab foundation without drainage.

Regarding the disposal system, Lot 21 will continue to connect to the shared 2 residence system via the 3" stubbed out force main that is shown. I have done the hydraulic analysis which is attached that indicates that a 2" connection can be made from the proposed pump station to the stubbed out 3" force main. The analysis indicate an effluent pump capable of pumping 22.67 gpm versus 33.95 feet of total dry main head is required. I've attached a pump specification for an effluent pump that meets that specification.

Regarding that proposed well, I moved it up the hill a bit and revised the well isolation zone. In this regard, the shield continues to mildly overshadow the Silverstein-Froeliger property but no more than it previously did. You will note that I've attached the Act 145 notification information and the cover letter to the Silverstein-Froeliger notification package. Act 145 notifications have not been carried out relative to the shared disposal areas since they were permitted long ago and nothing has changed relative to them and the primary area is being actively used.

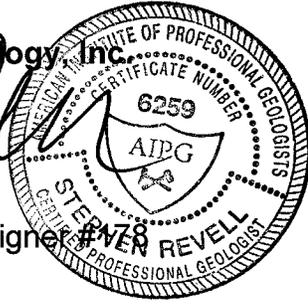
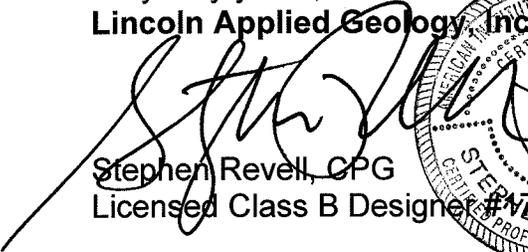
I believe the amendment application is complete with a signed application and Act 145 notification form, a \$250.00 permit fee payable to the Town of Charlotte, 2 copies of Figure 1, one 11"x17" copy of Figure 1, one CD of the application package and one

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Mr. Spencer Harris
Page 2 of 2

copy of this letter and the attachments which include Act 145 related materials. Mr. Couture and I look forward to your concurrence and issuance of the requested permit.

If you have any questions, please do not hesitate to contact our office at 453-4384.

Very truly yours,
Lincoln Applied Geology, Inc.



Stephen Revell, CPG
Licensed Class B Designer #V78

SR/ih

Enclosures

CC: Jonathan Couture
Robert S. Silverstein and Eunice H. Froeliger

F:\CLIENTS\OLD PROJECTS\00266.7\Submittal Letter to the Town of Charlotte



Lincoln Applied Geology, Inc.
Environmental Consultants

163 Revell Drive • Lincoln, VT 05443 • (802) 453-4384 • FAX (802) 453-5399

Drinking Water & Groundwater Protection Division - Permit Application Wastewater System & Potable Water Supply



For Office Use Only:

Application#	PIN#	Date Complete Application Received
<input type="text"/>	<input type="text"/>	<input type="text"/>

Authority:

10 V.S.A. Chapter 64, the Environmental Protection Rules, Chapter 1, Wastewater System & Potable Water Supply Rules, and Chapter 21, Water Supply Rules, Appendix A. Part 11 - Small Scale Water Systems.

General Information:

The organization and/or content of this form may not be altered, however, the form is designed to expand to allow additional information to be entered. Changes in the organization and/or content of the form may result in an invalid application or permit.

In most cases a licensed designer will be required for your project and to help complete this application form. There are also line-by-line instructions available to assist with completing this form.

NOTE: We strongly suggest referring to the application instructions while completing this application form.

Part I Applicant (Landowner) & Project Contact Information

Section A - Applicant Details (if Landowner is an Individual or Individuals)

1 Last Name Couture		2 First Name (and Middle Initial if appropriate) Jonathan	
3 Mailing Address Line 1 240 Vineyard View Dr.		4 Mailing Address Line 2	
5 Town/City Charlotte	6 State/Province VT	7 Country United States	8 Zip/Postal Code 05445
9 Email Address			10 Telephone

Remove This Applicant

Add Another Applicant

Section B - Applicant Details (if Landowner is other than an Individual or Individuals, e.g. Corporations, Homeowner's Associations, etc.)

1 Registered Legal Entity or Organization Name			2 Telephone
3 Mailing Address Line 1		4 Mailing Address Line 2	
5 Town/City	6 State/Province	7 Country United States	8 Zip/Postal Code

Certifying Official

The Certifying Official must be a person who has signatory authority for the legal entity or organization that is the Applicant. A copy of the document authorizing this person to act as a signatory authority must be attached to this application.

9 Certifying Official Last Name		10 Certifying Official First Name (and MI if appropriate)	
11 Certifying Official Title			
12 Certifying Official Email Address			13 Telephone

Remove This Applicant

Add Another Applicant

Section C - Primary Contact Information (if other than Applicant)			
1 Last Name		2 First Name (and Middle Initial if appropriate)	
3 Mailing Address Line 1		4 Mailing Address Line 2	
5 Town/City	6 State/Province	7 Country	8 Zip/Postal Code
		United States	
9 Email Address			10 Telephone

Section D - Building/Business Owner Information			
1 Last Name		2 First Name (and Middle Initial if appropriate)	
3 Mailing Address Line 1		4 Mailing Address Line 2	
5 Town/City	6 State/Province	7 Country	8 Zip/Postal Code
		United States	
9 Email Address			10 Telephone

Part II Certifying Designer(s) Information			
1 Designer Last Name		2 Designer First Name (and Middle Initial if appropriate)	
Revell		Stephen	
3 Designer License#	4 Company Name		
178	Lincoln Applied Geology, Inc.		
5 Mailing Address Line 1		6 Mailing Address Line 2	
163 Revell Drive			
7 Town/City	8 State/Province	9 Country	10 Zip/Postal Code
Lincoln	VT	United States	05443
11 Email Address			12 Telephone
srevell@lagvt.com			453-4384
13 Designer Role(s) (check all that apply)			
<input checked="" type="checkbox"/> Water Supply Designer			
<input checked="" type="checkbox"/> Wastewater Disposal System Designer			
Remove This Designer			

Add Another Designer

Part III Property Location Information	
Section A - Property Location	
1 Please provide the property Town and the property address or a brief description of the location.	
(a) Town or City	(b) Street or Road Location
Charlotte	85 Valley View Drive

Section B - Center of Property GPS Coordinates

1 Enter the approximate center of property coordinates using GPS set for NAD83 or as derived from a map (map must be based on NAD83).

(a) Latitude (in decimal degrees to five decimal places, ex. 44.38181°) (b) Longitude (in decimal degrees to five decimal places, ex. -72.31392°)

N ° W (-) °

Part IV Project Information

Section A - General Project Information & Questions

1 Project Name (if applicable) 2 Total Acreage of Property

3 Business Name (if applicable)

4 Detailed Project Description

5 (a) Were all existing buildings or structures, campgrounds, and their associated potable water supplies and wastewater systems substantially completed before January 1, 2007? Yes No

(b) Were all existing improved and unimproved lots in existence before January 1, 2007? Yes No

6 Does this application include subdividing the property? Yes No

7 Has anyone from the Drinking Water & Groundwater Protection Division's Regional Office been to the property? Yes No

If Yes, enter the staff person's name and the date of the visit.

(a) Name of Staff Person (b) Date of Visit (m/d/yyyy)

8 Will any construction occur within 50 feet of a wetland boundary, mapped or designated? Yes No

If Yes, contact the Wetlands Program of the Watershed Management Division at (802) 338-4835.

9 Will more than one acre be disturbed during the entire course of construction, including all lots and phases? Yes No

If Yes, contact the Stormwater Program of the Watershed Management Division at (802) 241-4320.

10 Will there be any stream crossings by roads, utilities, or other construction? Yes No

If Yes, contact the River Corridor Mgmt. Program of the Watershed Management Division at:

Central & Northwest Vermont (802) 879-5631
 Southern Vermont (802) 786-5906
 Northeastern Vermont (802) 751-0129

11 Is the project located in a special flood hazard area as designated on the flood insurance maps prepared for a municipality by the Federal Emergency Management Agency? Yes No

If Yes, show the special flood hazard area limits on the site plan.

12 Act 250: Has the Applicant (Landowner) subdivided any other lots of any size within a five mile radius of this subdivision, or within the environmental district within the last five years? Yes No

If Yes, enter the town(s) and the associated number of lots in the table below:

	(a) Town	(b) Number of Lots
X	<input type="text"/>	<input type="text"/>

13 Is there any prior Act 250 jurisdiction on the tract of land? Yes No

If Yes, enter the Act 250 permit number:

(a) Act 250 Permit Number

Section B - Project Deed Reference

1 Please provide the Town, Parcel ID, Book, and Page reference for the current landowner's deed(s) to this property:

	(a) Town	(b) Parcel ID	(c) Book	(d) Page(s)
X	Charlotte	00238-0085	83	521

Add Another Deed Reference

Section C - Project Plan Reference

1 Please provide the following information for all water supply and wastewater disposal system plans being submitted.

	(a) Sheet#	(b) Title	(c) Plan Date	(d) Plan Revision Date
X	Figure 1	Site Plan	7/18/2012	

Add Another Plan Reference

Section D - Existing Project Lot/Building Details

Please provide the existing project details. This section is used to describe what is existing for the project. For example, if you are subdividing an undeveloped 21-acre parcel, you would list the existing parcel. If you are revising the boundary lines of two commercial lots in an industrial park, and constructing an addition to an existing building you would list the existing lot numbers, existing acres, existing buildings, existing uses, construction date(s), prior permits, and answer the compliance questions.

1 Lot#	2 Lot Size (acres)	3 Existing Use of the Lot
21	3.61	Undeveloped

4 Provide the following information for each building on the lot:

	(a) Building ID	(b) Existing Use	(c) Date Construction of Building Substantially Complete	(d) Prior Permits	(e) In compliance with existing permits?
X	1	Undeveloped		WW-4-2704	<input checked="" type="radio"/> Yes <input type="radio"/> No

Add Another Building

Remove This Lot

Add Another Lot

Section E - Proposed Project Lot/Building Details

This section is used to describe what you are proposing to do in this project. For example, if you were going to create 4 lots for construction of single family residences, you would list each lot, proposed acreage, proposed buildings, and proposed use.

1 Lot#	2 Lot Size (acres)	3 Proposed Use of the Lot
21	3.61	Single Family Residence

4 Is the lot being created as part of a subdivision? Yes No

5 Are you requesting that the Blood, Marriage, or Civil Union special fee be applied to this lot? Yes No

6 If the lot is exempt, please indicate the specific exemption from the Wastewater System and Potable Water Supply Rules?

7 Provide the following information for each building on the lot:

	(a) Building ID	(b) If building is exempt, indicate exemption	(c) Construction or increased flow?	(d) Proposed Use
X	1		<input checked="" type="checkbox"/>	3 Bedroom Residence

Add Another Building

Remove This Lot

Add Another Lot

Part V Water Supply Information

Section A - Water Supply Screening Questions

1 Are you proposing a new water supply or water service line or changes to a permitted but not constructed water supply or water service line for this project? Yes No

2 Are you proposing changes to an existing water supply or water service for this project (including changes to location, design flows, or operational change)? Yes No

3 Is there an existing connection to a water supply or water service line for this project? Yes No

Complete Part V if you answered Yes to any of the above questions. A project with no existing or proposed water supply may skip to Part VI.

Section B - General Water Supply Questions

1 Does this project involve a failed water supply? Yes No

2 Will any of the proposed water sources serve 25 or more people or have 15 or more service connections? Yes No

If Yes, the applicant must contact the Drinking Water & Groundwater Protection Division at (802) 241-3400 for source, construction and an operating permit.

3 Are any of the existing or proposed water sources located within a special flood hazard area? Yes No

4 Are any of the existing or proposed water sources located within a floodway? Yes No

5 Are any of the proposed water sources located within 1 mile of a hazardous waste site as designated by the Waste Management Division and identified on the Agency mapping website? Yes No

If Yes, please submit additional information on the site. The Waste Management Division can be reached at (802) 241-3888.

6 Does this project require an approval letter from the Drinking Water & Groundwater Protection Division for the construction of a public water system, municipal water line extension over 500 feet, or hydrants or sprinkler systems? Yes No

If Yes, please submit a copy of the approval letter from the Drinking Water & Groundwater Protection Division.

7 Does the proposed or existing water supply(ies) use a water treatment device to obtain compliance with the quality requirements in the Water Supply Rule? Yes No

If Yes, please submit additional information regarding the constituent(s) that exceeds the standards and plans, details, and specifications of the treatment device.

8 Is any portion of the proposed water supply located in or near a Water Source Protection Area as designated by the Drinking Water & Groundwater Protection Division? Yes No

If in areas of known interference issues, contact the Drinking Water & Groundwater Protection Division at (802) 241-3400.

Section C - Individual Water Supply Details

Please provide the following information for each of the existing and proposed water supply(ies) serving a building or structure, or campground on the property.

1 Water Supply Name/Identifier Lot 21 Well	2 Water Supply Owner (if not Applicant)
3 Water Source Type Non-Public Drilled Bedrock Well	4 Type of Change to Supply New System

5 Lots/Buildings Served by this Water Supply System

	(a) Lot#	(b) Building ID	(c) Type of Change to the Building's Supply	Design Flows (Gallons Per Day)			(g) Rule or Meter Based Flows
				(d) Existing	(e) Change	(f) Total	
X	21	1	Connection to New System	420		420	Rule-based
	Add Another Lot/Building Served by this Supply			6 420	7	8 420	

9 Is this water supply located off-lot? Yes No

10 Is this water supply shared? Yes No
If the water supply is located off-lot or shared, submit a copy of the agreement to provide an easement prior to construction.

11 Is a variance being requested for this water supply? Yes No
If Yes, please submit additional details related to the variance request.

Remove This Water Supply

Add Another Water Supply

Section D - Water Supply Design Flows Summary Table

1 If the project includes more than one water supply, please list each water supply system and provide the total water supply design flows for the project. **IMPORTANT:** Please don't include systems that were identified in this Part on Section C, Line 4 as a "Replacement Area Designation" in this summary table.

(a) Water Supply Name/Identifier	Design Flows (Gallons Per Day)		
	(b) Existing	(c) Change	(d) Total
X Lot 21 Well	420	0	420
Add Another Water Supply	2 420	3 0	4 420

Part VI Wastewater Disposal System Information

Section A - Wastewater Disposal System Screening Questions

1 Are you proposing a new or replacement wastewater disposal system, a new wastewater service line, or changes to a permitted but not constructed wastewater disposal system or wastewater service line for this project? Yes No

2 Are you proposing changes to an existing wastewater disposal system, replacement wastewater disposal system, replacement area, or wastewater service line for this project (including changes to location, design flows, or operational change)? Yes No

3 Is there an existing connection to a wastewater disposal system or wastewater service line for this project? Yes No

*Complete Part VI if you answered Yes to any of the above questions.
 A project with no existing or proposed wastewater disposal systems may skip to Part VII.*

Section B - General Wastewater Disposal System Questions

1 Does this project involve a failed wastewater disposal system? Yes No

2 Do any of the systems require a curtain or dewatering drain as part of the design? Yes No

3 Is a hydrogeologic study required for this project? Yes No

4 For projects using soil-based wastewater systems having a total design flow that exceeds 1,000 gpd, is this project located in a Class A Watershed? Yes No NA
 If Yes, indicate the Class A Watershed in which the system(s) is located:
 (a) Class A Watershed Name

5 Are there any existing or proposed floor drains as part of this project? Yes No
 If Yes, indicate where the floor drains will discharge:
 (a) Floor Drain Discharge Point

6 If the project utilizes an Innovative/Alternative System or Product, has the applicant received a copy of the Drinking Water & Groundwater Protection Division's approval letter? Yes No NA

7 Is any portion of the proposed wastewater disposal system located in or near a Water Source Protection Area as designated by the Drinking Water & Groundwater Protection Division? Yes No
If Yes, contact the Drinking Water & Groundwater Protection Division at (802) 241-3400.

Section C - Individual Wastewater Disposal System Details

Please provide the following information for each of the existing and proposed wastewater disposal systems serving a building or structure, or campground on the property.

1 Wastewater Disposal System Name/Identifier <input style="width:95%;" type="text" value="Mound Shared w/Silverstein"/>	2 Wastewater Disposal System Owner (if not Applicant) <input style="width:95%;" type="text"/>
3 Wastewater Disposal System Type <input style="width:95%;" type="text" value="Mound"/>	4 Type of Change to System <input style="width:95%;" type="text" value="New Connection or Increased Flow"/>

5 Lots/Buildings Served by this Wastewater Disposal System

	Design Flows (Gallons Per Day)						(h) Rule or Meter Based Flows	
	(a) Lot#	(b) Building ID	(c) Type of Change to the Building's System	(d) Existing	(e) Change	(f) Infiltration		(g) Total
<input checked="" type="checkbox"/>	<input style="width: 40px;" type="text" value="1"/>	<input style="width: 40px;" type="text" value="1"/>	<input style="width: 100px;" type="text" value="Connection to New System"/>	<input style="width: 40px;" type="text" value="420"/>	<input style="width: 40px;" type="text" value="0"/>	<input style="width: 40px;" type="text" value="0"/>	<input style="width: 40px;" type="text" value="420"/>	<input style="width: 60px;" type="text" value="Rule-based"/>
<input style="width: 100%; background-color: black; color: white;" type="button" value="Add Another Lot/Building Served by this System"/>				6	7	8	9	
				<input style="width: 40px;" type="text" value="420"/>	<input style="width: 40px;" type="text" value="0"/>	<input style="width: 40px;" type="text" value="0"/>	<input style="width: 40px;" type="text" value="420"/>	

10 Is this wastewater disposal system located off-lot? Yes No

11 Is this wastewater disposal system shared? Yes No

If the wastewater disposal system is located off-lot or shared, submit a copy of the agreement to provide an easement prior to initiation of construction.

12 Is a variance being requested for this wastewater disposal system? Yes No

If Yes, please submit additional details related to the variance request.

13 If this wastewater disposal system type is a connection to an Indirect Discharge System, please provide the Indirect Discharge System ID number.

Indirect Discharge System ID Number

14 If this wastewater disposal system type is a connection to a municipal system, please select the town.

Town

15 If this wastewater disposal system is a soil-based system, please select the design approach used.

Design Approach Used

16 For soil-based systems, please check all that apply (Note: Store and dose does not apply to standard pump/pump chamber systems).

Storage and Dose Filtrate Constructed Wetlands

17 If this is an Innovative/Alternative soil-based system, please select the system use type.

Innovative/Alternative System Use Type

18 If this is an Innovative/Alternative soil-based system, please select the Innovative/Alternative system or product.

Innovative/Alternative System or Product

Section D - Wastewater Disposal Systems Design Flows Summary Table

1 If the project includes more than one wastewater disposal system, please list each system on this page and provide the total wastewater disposal design flows for the project. **IMPORTANT:** Please don't include systems that were identified in this Part on Section C, Line 4 as a "Replacement Area Designation" in this summary table.

(a) Wastewater Disposal System Name/Identifier	Design Flows (Gallons Per Day)			
	(b) Existing	(c) Change	(d) Infiltration	(e) Total
X Mound Shared w/Silverstein	420	0	0	420
Add Another Wastewater System	2 420	3 0	4 0	5 420

Part VII Application Fees

1 Fee Amount \$250.00

2 Fee Calculation Details

Water/Wastewater System Alteration/Amendment= \$250.00

Part VIII Designer Certification & Copyright License

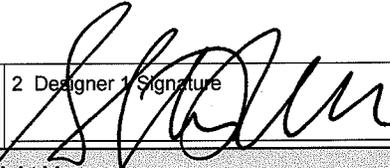
Section A - Certifying Designer 1 Certification & Copyright License

"I hereby certify that in the exercise of my reasonable professional judgment, the design-related information submitted with this application is true and correct, and that the design included in this application for a permit complies with the Vermont Wastewater System and Potable Water Supply Rules and the Vermont Water Supply Rules.

As the individual who prepared this application, including all documents that are marked as copyrighted, I hereby grant a non-exclusive, limited license to the State to allow the documents to be made available for public review and copying in order to properly implement and operate the permitting programs for Wastewater Systems and Potable Water Supplies, and for no other purposes. As a condition to this license, the State agrees that it will not make any changes to such documents, nor will the State delete any copyright notices on such documents."

1 Check the design(s) you are certifying. This should be the same as the Designer Role(s) you selected in Part II, Section A, Line 13.

- Water Supply Designer
- Wastewater Disposal System Designer

1 Designer 1 Name Stephen Revell	2 Designer 1 Signature 	3 Signature Date July 25, 2012
-------------------------------------	--	-----------------------------------

Section B - Certifying Designer 2 Certification & Copyright License

"I hereby certify that in the exercise of my reasonable professional judgment, the design-related information submitted with this application is true and correct, and that the design included in this application for a permit complies with the Vermont Wastewater System and Potable Water Supply Rules and the Vermont Water Supply Rules.

As the individual who prepared this application, including all documents that are marked as copyrighted, I hereby grant a non-exclusive, limited license to the State to allow the documents to be made available for public review and copying in order to properly implement and operate the permitting programs for Wastewater Systems and Potable Water Supplies, and for no other purposes. As a condition to this license, the State agrees that it will not make any changes to such documents, nor will the State delete any copyright notices on such documents."

1 Check the design(s) you are certifying. This should be the same as the Designer Role(s) you selected in Part II, Section B, Line 13.

- Water Supply Designer
- Wastewater Disposal System Designer

1 Designer 2 Name	2 Designer 2 Signature	3 Signature Date

Part IX Applicant(s) Signature & Acknowledgements

In order to insure compliance with the requirements of the regulations administered by the Department of Environmental Conservation, Drinking Water & Groundwater Protection Division, it may be necessary to visit the property. As this would involve a Department employee entering private property, we request your approval to do so.

1 If we do visit your property, do you have any special instructions?

"As landowner of the property for which I am requesting a permit from the Department of Environmental Conservation, I understand that by signing this application I am granting permission for the Department employees to enter the property, during normal working hours, to insure compliance of the property with the applicable rules of the Department.

I also understand that I am not allowed to commence any site work or construction on this project without written approval from the Department of Environmental Conservation.

If my project utilizes an Innovative/Alternative System or Product, I have received a copy of the Drinking Water & Groundwater Protection Division's approval letter and agree to abide by the conditions of the approval.

I also certify that to the best of my knowledge and belief the information submitted above is true, accurate and complete."

<input checked="" type="checkbox"/>	2 Print Applicant Name	3 Applicant Signature	4 Signature Date
	Jonathan Couture		
<input type="button" value="Add Applicant Signature Block"/>			

First Revision Issued 6-18-2010

Certification Statement for use in compliance with Act 145 of the 2010 Legislative Session

One of the two following certification statements shall be included with any application for a Wastewater System and Potable Water Supply Permit that is filed on or after June 2, 2010

Note: When the property subject to the permit application is owned by more than one person, only one of the landowners must sign the certification statement even though all landowners must sign the permit application itself.

When there are affected property owners, the applicant shall use this statement:

I hereby certify that the attached list of names and addresses includes all those whose property may be affected by the proposed water and wastewater systems, and their associated isolation distances and zones, and that all those listed have been sent a copy of the application and any associated plans.

Signature _____

Name (Printed) Jonathan Courure

Date of this certification _____

Note: It will be helpful for future property transfer work if the physical address of the property or property tax ID number is included with the certification.

Couture Property
Act 145 Notifications
List of Affected Property Owners

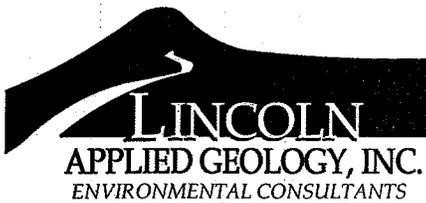
1. Robert S. Silverstein
Eunice H. Froeliger
193 Valley View Drive
Charlotte, VT 05445

F:\CLIENTS\OLD PROJECTS\00266.7\Act 145 Notifications



Lincoln Applied Geology, Inc.
Environmental Consultants

163 Revell Drive • Lincoln, VT 05443 • (802) 453-4384 • FAX (802) 453-5399



July 25, 2012

Robert S. Silverstein
Eunice H. Froeliger
193 Valley View Drive
Charlotte, VT 05445

RE: Jonathan Couture Property, Water & Wastewater Permitting Amendment, 85
Valley View Drive, Charlotte, VT

Dear Mr. Silverstein & Ms. Froeliger:

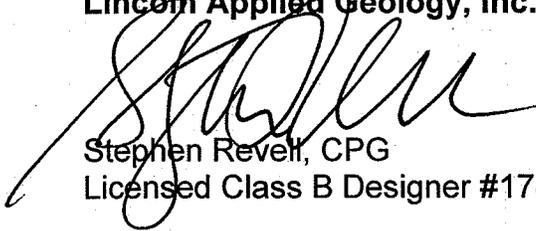
I am currently preparing an amendment application for a State of Vermont Wastewater System and Potable Water Supply Permit on behalf of your neighbor Jonathan Couture. The permit application requests approval to relocate a building envelope and well in a location adjacent to your property.

Recent changes to State Statue (Act 145) require me to notify you that the isolation zone related to the relocated well mildly extends onto your land. Although I do not believe this affects you (because the amount of the zone overshadowing your property has essentially not changed since the original permitting in 2006), this isolation distance limits your ability to place a disposal area in this area in the future. The Statue change does not create any right other than notification.

As required by law, I have enclosed a copy of the permit application, the associated plans and all associated documents. The plans show the isolation zone on your property surrounding the proposed well.

If you have any questions, please contact me at 802-453-4384.

Very truly yours,
Lincoln Applied Geology, Inc.



Stephen Revell, CPG
Licensed Class B Designer #178

SR/ih
Enclosures

CC: Town of Charlotte

F:\CLIENTS\OLD PROJECTS\00266.7\Letter of notification to neighbors

PRESSURE DISTRIBUTION & MOUND DIMENSION DETAILS

CLIENT'S NAME: Couture Lot 21- Shared Mound
 DATE: 7/25/2012 PERFORMED BY: S. Revell LAG Project #: 00266.7

Design Flow Rate		420	GPD
Width of Distribution Stone Bed/Trench		12	FEET
Length of Distribution Stone Bed/Trench		42	FEET
Thickness of Sand Beneath Distribution Stone Bed/Trench		1	FEET
Thickness of Stone Beneath Laterals		6	INCHES
Soil Cover Thickness at Edge of Level Area		12	INCHES
Front Slope of Finished Mound		33	PERCENT
Side and Rear Slope of Finished Mound		33	PERCENT
Percolation Rate		30	MPI
Natural Ground Slope		17	PERCENT
Thickness of Sand on Upper Side of Level Area		1.58	FEET
Thickness of Sand on Lower Side of Level Area		3.96	FEET
Width of Level Area		14	FEET
Length of Level Area		44	FEET
Area of Distribution Stone Bed/Trench		504	SQUARE FT
Volume of Stone Required		12	CUBIC YARDS
Proposed Basal Area		1670	SQUARE FEET
Volume of Mound Sand Required		331.2	CUBIC YARDS
Number of Laterals		4	
Length of Each Lateral		20	FEET
Number of Orifices in the Manifold		0	
Number of Orifices in Each Lateral		3	
Distance Between Manifold and First Orifice		4	FEET
Distance Between Orifices (on center)		8	FEET
Distribution Area per Orifice		42.00	SQ. FT.
Design Pressure Head		2.31	FEET
Diameter of Orifices (enter as fraction)		0.375	INCHES
Elevation From Pump Intake to Laterals (0 if siphon)		26	FEET
Diameter of Force Main		2	INCHES
Length of Force Main		300	FEET
Length of Manifold to Lateral		4	FEET
Diameter of Manifold Pipe		3	INCH
Diameter of Lateral Pipe		2	INCH
Friction Loss in Force Main		5.59	FEET
Friction Loss in Manifold		0.00	FEET
Friction Loss in Section 1		0.00	FEET
Friction Loss in Entire Lateral		0.01	FEET
Discharge Rate at First Orifice		2.52	GPM
Discharge Rate at Last Orifice		2.52	GPM
Percent Difference in Flow Rate First to Last Orifice		0.11	PERCENT
Total Dynamic Head Loss		33.946	FEET
Total Distribution System Flow		22.67	GPM
Volume of Distribution System		13.06	GALLONS
Pump Capacity	22.67 GPM vs	33.946	FEET OF HEAD
Volume per Dose		105	GALLONS
On/Off Float Swing (1,000 gal. Tank)		3.5	INCHES



Submersible Effluent Pump

MODEL 3885

WE Series

PROSURANCE AVAILABLE FOR RESIDENTIAL APPLICATIONS.

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Farms
- Trailer courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent systems

SPECIFICATIONS

Pump

- Solids handling capabilities: 3/4" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

FEATURES

- **Impeller:** Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.
- **Casing:** Cast iron volute type for maximum efficiency. 2" NPT discharge.
- **Mechanical Seal: SILICON CARBIDE VS. SILICON CARBIDE** sealing faces. Stainless steel metal parts, BUNA-N elastomers.

■ **Shaft:** Corrosion-resistant, stainless steel. Threaded design. Locknut on all models to guard against component damage on accidental reverse rotation.

■ **Fasteners:** 300 series stainless steel.

■ Capable of running dry without damage to components.

■ Designed for continuous operation when fully submerged.

MOTORS

■ Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.

■ Class B insulation on 1/3-1 1/2 HP models.

■ Class F insulation on 2 HP models.

Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SJTOW or STOW severe duty oil and water resistant power cords.
- 1/3 and 1/2 HP models have NEMA three prong grounding plugs.
- 3/4 HP and larger units have bare lead cord ends.

Three phase (60 Hz):

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

■ **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits,

can be operated continuously without damage when fully submerged.

■ **Bearings:** Upper and lower heavy duty ball bearing construction.

■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.

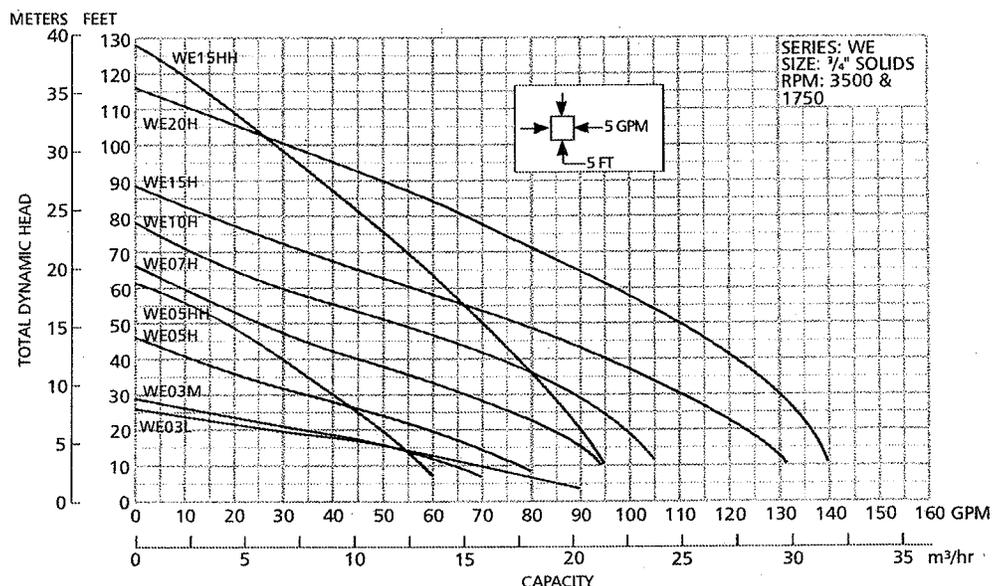
■ **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS



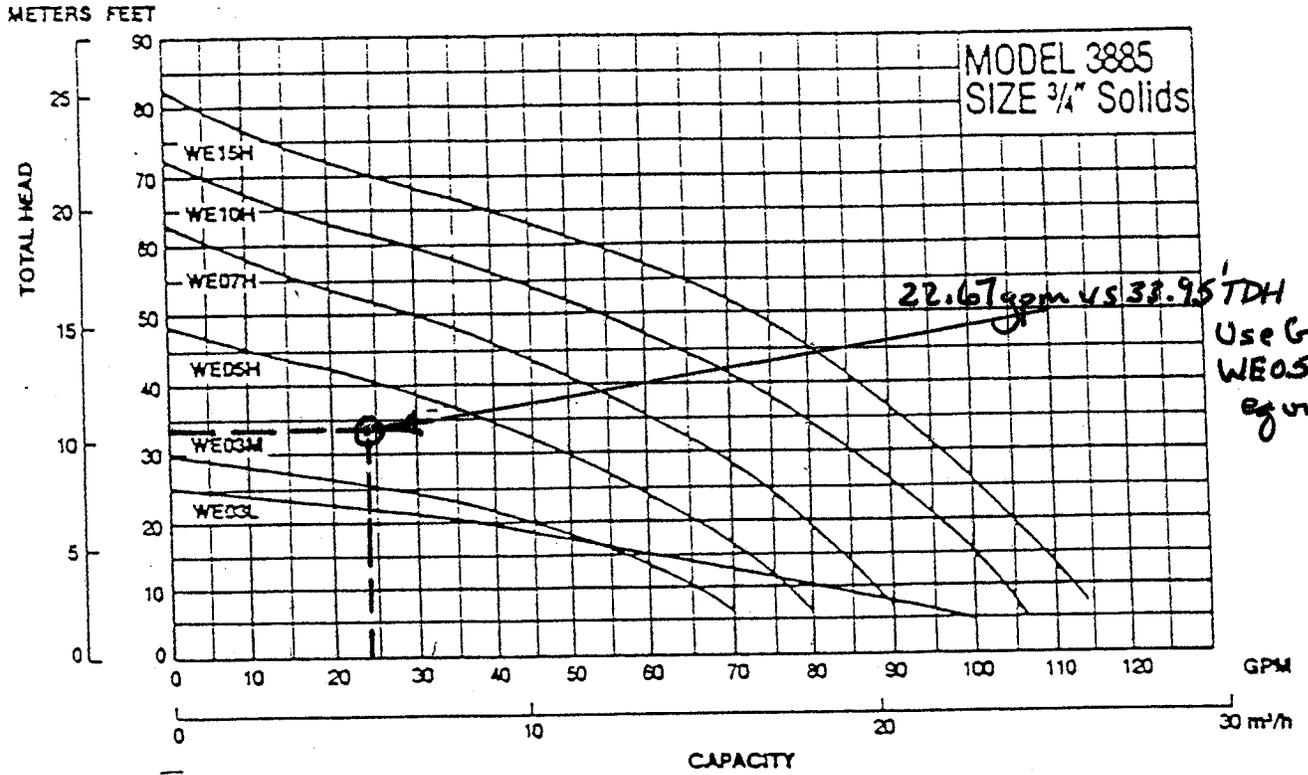
Tested to UL 778 and CSA 22.2 108 Standards By Canadian Standards Association File #LR38549

Goulds Pumps is ISO 9001 Registered.



Performance Curves

Pumps



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