



**AGENDA
PUBLIC MEETING**

Tuesday, February 22, 2022, 6:00 PM

**Corporation of The Township of Edwardsburgh Cardinal
Council Chambers, Spencerville Ontario**

- 1. Call Meeting to Order**
by the Community Development Coordinator
- 2. Welcome and Introductions**
- 3. Proposal Details**
Unaddressed property on County Road 2, in Part Lot 8, Concession 1

Application by VanVeldhuisen on behalf of Leeder
- 4. Public Comment**
- 5. Adjournment**

**TOWNSHIP OF EDWARDSBURGH CARDINAL
NOTICE OF PUBLIC MEETING CONCERNING
PROPOSED ZONING BY-LAW AMENDMENT**

**Richard Van Veldheusen o/b Laura Leeder
Part of Lot 8, Concession 1
County Road 2**

TAKE NOTICE that the Township of Edwardsburgh Cardinal has received a zoning by-law amendment application which was deemed to be a complete application on December 16, 2021;

AND TAKE NOTICE that the Council of the Corporation of the Township of Edwardsburgh Cardinal will hold a public meeting at **6 p.m. on February 22, 2022** in the Council Chambers of the Township Office at 18 Centre St. in Spencerville to consider the following item:

- A proposed site-specific amendment to Comprehensive Zoning By-law No. 2012-35, as amended, under the *Planning Act*, R.S.O., 1990, Chapter P.13, Section 34, for approximately 0.67 ha of land, located in Part of Lot 8, Concession 1, former Geographic Township of Edwardsburgh at an unaddressed property on County Road 2. The purpose of the amendment is to rezone the subject lands from “Residential Second Density – Holding (R2-h)” to “Residential Second Density – Special Exception (R2-x)”. The amendment would reduce the required street and waterbody setbacks from County Road No. 2 and the St. Lawrence River, respectively, and also remove the holding provision that currently applies to the property. The effect of the amendment would be to accommodate the construction of a single dwelling on private services.

ANY PERSON may attend the public meeting and/or make written or verbal representation either in support of or in opposition to the above item. In the event that you are unable to attend the meeting but wish to submit written comments, please ensure that your comments are delivered to the Community Development Coordinator’s office prior to the day of the meeting. Additional information and material about the proposed by-law will be available to the public for inspection during regular business hours by contacting the Community Development Coordinator’s office.

IF A PERSON OR PUBLIC BODY would otherwise have an ability to appeal the decision of the Township of Edwardsburgh Cardinal to the Ontario Land Tribunal but the person or public body does not make oral submissions at a public meeting or make written submissions to the Township of Edwardsburgh Cardinal before the by-law is passed, the person or public body is not entitled to appeal the decision.

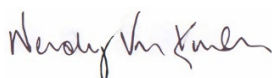
IF A PERSON OR PUBLIC BODY does not make oral submissions at a public meeting or make written submissions to the Township of Edwardsburgh Cardinal before the by-law is passed, the person or public body may not be added as a party to a hearing of an appeal before the Ontario Land Tribunal unless, in the opinion of the Tribunal, there are reasonable grounds to do so.

THE SUBJECT LANDS are not the subject of any related *Planning Act* application.

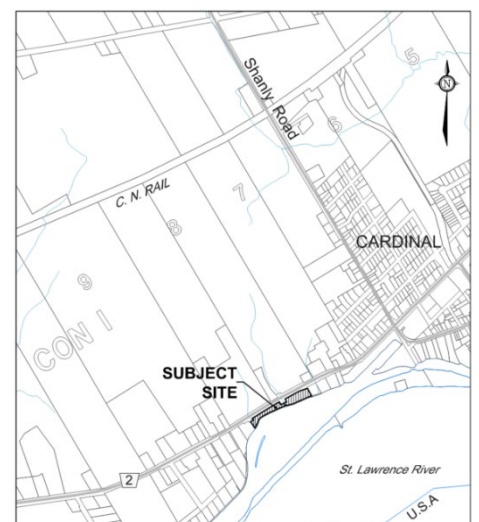
IF YOU WISH TO BE NOTIFIED of the decision of the Township of Edwardsburgh Cardinal on the proposed zoning by-law amendment, you must make a written request to the Township of Edwardsburgh Cardinal at the address indicated below.

FOR MORE INFORMATION about this matter, including information about appeal rights and information on how to register for and participate in the public meeting, contact the Community Development Coordinator’s office during regular business hours from Monday to Friday (tel: 613-658-3055 ext. 101; email wvankeulen@twpec.ca), or at the address below.

DATED AT THE TOWNSHIP OF EDWARDSBURGH CARDINAL
THIS 16th DAY OF DECEMBER, 2021.



WENDY VAN KEULEN,
COMMUNITY DEVELOPMENT COORDINATOR
TOWNSHIP OF EDWARDSBURGH CARDINAL
BOX 129, 18 CENTRE ST.
SPENCERVILLE, ONTARIO K0E 1X0



MEMORANDUM

DATE: FEBRUARY 1, 2022

TO: TOWNSHIP OF EDWARDSBURGH CARDINAL – COMMUNITY
DEVELOPMENT COMMITTEE OF THE WHOLE

FROM: NOVATECH

RE: COUNTY ROAD 2 - LEEDER ZONING BY-LAW AMENDMENT

Background & Applicant's Proposal

A Zoning By-law amendment application has been received for an unaddressed property on County Road 2, located in Part Lot 8, Concession 1. The application has been filed to remove the holding symbol from the subject lands and to amend the zoning on the property to establish development setbacks to accommodate future residential development.

The subject property is located on the south side of County Road 2 adjacent to the Old Galop Canal on the St. Lawrence River. There is also a watercourse which transects the centre of the subject property. The property is located approximately 40m west of the Village of Cardinal Settlement Area. The property is relatively narrow in shape as the property has a lot area of approximately 0.67 ha with an approximate road frontage of 265m and a lot depth ranging from approximately 10m to 37m. Surrounding uses are primarily rural residential uses on varying lot sizes and agricultural uses north of County Road 2.

The subject lands are designated Rural on Schedule A of the Township's Official Plan. There are also flood plain hazard constraints identified on the property as noted on Schedule B of the Township's Official Plan. The lands are zoned Residential Second Density – Holding (R2-h) on Schedule D of the Township's Comprehensive Zoning By-law No. 2012-35.

The applicant has filed a Zoning By-law amendment application to rezone the lands from "Residential Second Density – Holding (R2-h)" to "Residential Second Density – Special Exception (R2-x)". The amendment would reduce the required street and waterbody setbacks from County Road No. 2 and the St. Lawrence River, respectively, and also remove the holding provision that currently applies to the property. The purpose of the amendment is to accommodate the construction of a single dwelling on private services (well and septic) on an eastern portion of the subject lands.

In support of the application, the applicant submitted the following reports and drawings:

- Site Plan, prepared by Richard Van Veldhuisen
- Geotechnical Subsurface Investigation, prepared by St. Lawrence Testing & Inspection Co. Ltd.
- Environment Impact Study, prepared by Greer Galloway Consulting Engineers
- Stage 1 & 2 Archaeological Assessment, prepared by Parslow Heritage Consultancy Ltd.
- Lot Servicing Study, prepared by Eastern Engineering Group Inc.
- Partial Topographic Survey

The Township has requested the South Nation Conservation Authority review and provide comments on the Geotechnical Subsurface Investigation and Environmental Impact Study submitted with the application. A satisfactory review of these reports is important to the review of this Zoning By-law amendment application as the application proposes to reduce setbacks to the water and there are slope stability concerns on the property.

Next Steps & Recommendation

A Public Meeting has been scheduled for February 22, 2022 at 6:00 pm in the Council Chambers to receive any comments on the proposed zoning by-law amendment application. It is recommended that this report be received for information purposes. A final report providing a planning analysis of the application, summary of comments received, and a recommendation will be provided for Committee and Council's consideration following the public meeting.

Sincerely,

NOVATECH



Jordan Jackson, RPP, MCIP
Project Planner



Richard VanVeldhuisen <rvanveldhuisen@gmail.com>

80-812 County Road 2 Edwardsburgh, Cardinal

Richard VanVeldhuisen

Fri, Nov 19, 2021 at 9:42 AM

<rvanveldhuisen@gmail.com>

To: Wendy Van Keulen <Wvankeulen@twpec.ca>

Cc: bobbieleeder bobbieleeder <bobbieleeder@sympatico.ca>, jason.drummond@uclg.on.ca, Elmer Covill <elmersconstruction@jcis.ca>, Colin Jardine <cjardine@easteng.com>, ben.macneil@healthunit.org, "Andrew Melchers, P.Eng - IN Engineering" <andrew.melchers@ineng.ca>, Carla Parslow <cparslow@phcgroup.ca>, James Holland <jholland@nation.on.ca>, Laura Crites <lcrites@nation.on.ca>, "St. Lawrence Testing" <slt@ontarioeast.net>, Rob Wells <welco.mechanical@gmail.com>

Wendy:

I will be filing with your office the Application to Amend the Zoning By-Law. for the subject property.

In summary, the proposal is to construct a +/- 1,000 SF bungalow to be serviced by a private septic system and a drilled well, which you mentioned is consistent with the Township OP, and PPS.

We secured a driveway permit from the County, and Elmer Construction has submitted a septic design to the County Health Department, which design was approved and it is expected that a permit will be issued with the submission of a building permit application. The South Nation Conservation Authority permit application has been filed with the Conservation office. Eastern Engineering has completed a Servicing Report, and St Lawrence Testing has prepared a Geotechnical Report..IN Engineering has prepared a Topographical Report. I have updated the site plan and included a Zone Table

In addition, Carla Parslow recently completed two reports which dealt with Archaeological Assessment (AA), Environmental Impact Assessment (EIA), and Species At Risk (SAR), which reports were forwarded to you by Carla. I trust that this site research, studies and plans satisfies the Township property development requirements.

I have asked St Lawrence Testing to provide additional information that you mentioned in your 4th paragraph of your November 15th email. In my opinion, there are gentle slopes in the development area. The house will have a

walkout basement, taking advantage of the slope, similarly as the adjacent house. Steeper slopes are located near the western storm sewer outlet, and further west.

Looking forward to working with you to get this process to the building permit application stage.

PS. I am out of the country from December 10, 2021 till late February 2022. Hopefully we can meet personally before December 10th, otherwise we can connect via Zoom.

The application will include a cheque of \$2,000 as a deposit fee.

Thank you for your help in getting this application to this stage.

Richard

Dick Van Veldhuisen P Eng.

Home Phone 613-342-2450

Cell Phone 613-340-3912

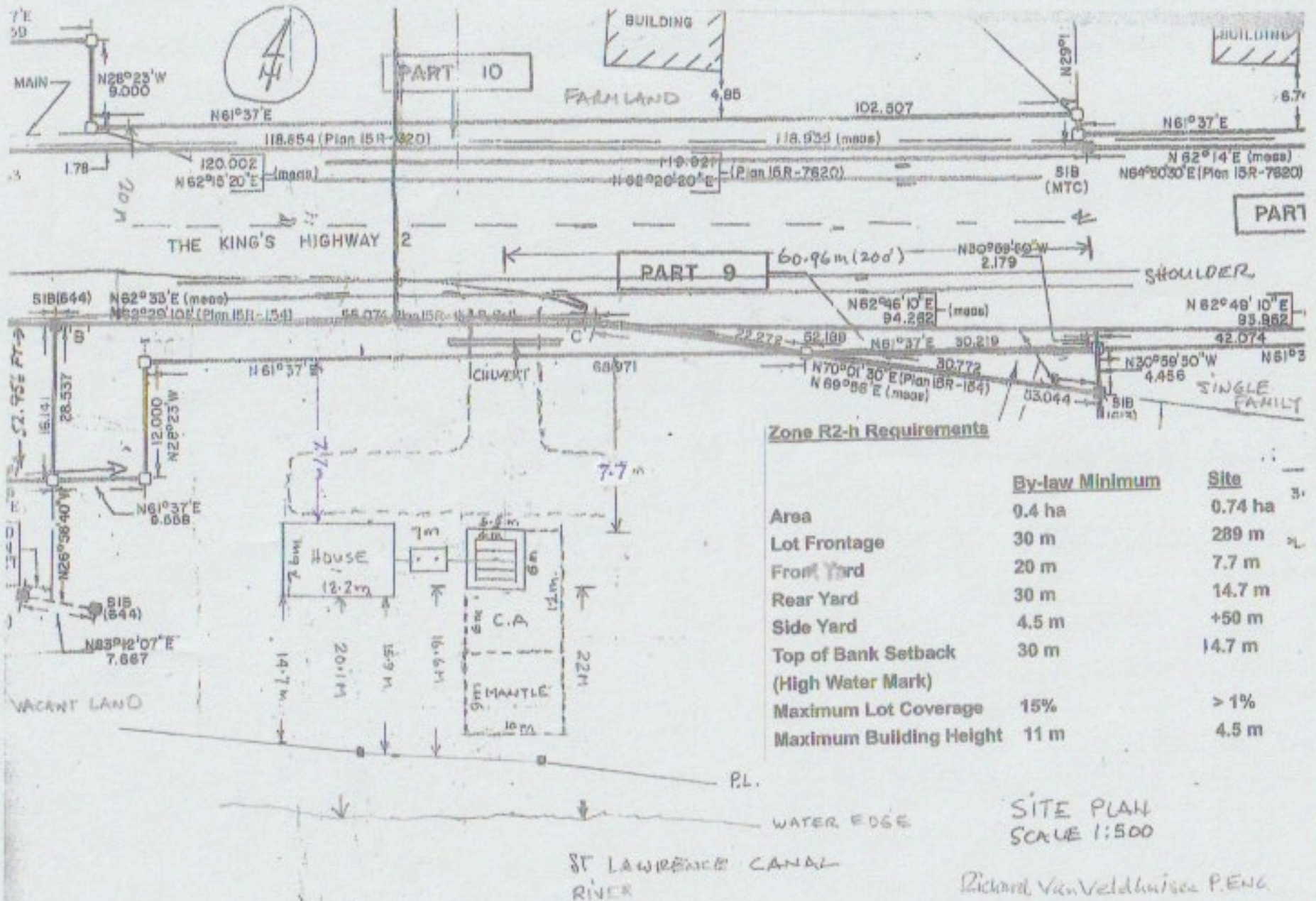
rvanveldhuisen@gmail.com

2 attachments



Cardinal Topographic Survey P;an 001.jpg
485K

Cardinal Updated Site Plan 11.19.21 001.jpg
464K





**St. Lawrence Testing
& Inspection Co. Ltd.**

P.O. Box 997, Cornwall, ON, Canada K6H 5V1
814 Second Street W., Phone (613) 938-2521
E-mail: slt@ontarioeast.net Fax (613) 938-7395

January 7, 2022

Mr. Laura Leeder
c/o Mr. Richard Van Veldhuisen, P.Eng.
Marguerita Residence Corporation
48 Church St.
Brockville, ON
K6V 6L3

**RE: Bobby Leeder Property, Cardinal, ON
Additional Geotechnical Data
Report No. 22C004**

Dear Mr. Van Veldhuisen:

Further to your email of December 24, 2021, our email geotechnical report of December 31, 2021, and Ms. Wendy Van Keulen's email of January 5, 2022, following is our updated report for the Bobbie Leeder property in Cardinal, ON.

We read the 134 page document "Understanding Natural Hazards" put out by the Province of Ontario. This was taken into account when preparing out initial Report No. 21C067 and our email of December 31, 2021.

The soil conditions at this site are not suitable to build a building with standard foundations. The recommendation we provided was to use auger piles to support the house. The weight of the house gets transferred to the piles which go down vertically to the glacial till. We did not go into detail on the number and direction of the piles since this would be part of the structural design of the house. Typically, we should get a call during the final design stage. We would expect that some battered piles would be required on the South side of the house to deal with potential downward pressure of the soil towards the

Report No. 22C004
Continued

Page 2

former canal. There was no evidence of soil movement at this site during the approximate 100 years of fill placement at this site, which would have included some minor earthquakes over the years.

We calculated that the septic bed could have a mantle thickness of 0.75 m based on the Standard Penetration data at Borehole 3. This was noted in our December 31, 2021 email.

As noted in Ms. Wendy Van Keulen's email of January 5, 2022, we would be pleased to discuss any geotechnical concerns with Mr. James Holland of the SNC. Mr. Holland can call us at any time for a discussion.

Respectfully submitted

ST. LAWRENCE TESTING & INSPECTION CO. LTD.



G.G. McIntee, P. Eng.

GGM:mm

c.c. Wendy Van Keulen, Richard Van Veldhuisen, Bobbie Leeder, James Holland

Attachments





**St. Lawrence Testing
& Inspection Co. Ltd.**

P.O. Box 997, Cornwall, ON, Canada K6H 5V1
814 Second Street W., Phone (613) 938-2521
E-mail: slt@ontarioeast.net Fax (613) 938-7395

January 31, 2021

Ms. Laura Leeder
c/o Mr. Richard Van Veldhuisen, P. Eng.
Marguerita Residence Corporation
48 Church Street
Brockville, ON
K6V 6L3

**RE: Bobbie Leeder Property, Cardinal, ON
Geotechnical Subsurface Investigation
Report No. 21C067**

Dear Mr. Van Veldhuisen:

In accordance with e-mail and verbal instructions received from you, this report is submitted, outlining the results of a geotechnical subsurface investigation carried out at the site slightly West of Cardinal on the South side of County Rd. 2 on Lot 8, Concession 1 in the Township of Edwardsburgh Cardinal.

A) DESCRIPTION OF FIELD WORK

Prior to starting the field work, we drove to the site to note the access and the location. We then called for service locates.

Drilling and sampling were carried out on January 14, 2021 using a CME 55 track mounted drill from Eastern Ontario Diamond Drilling of Hawkesbury, ON. Supervision was by the undersigned geotechnical engineer.

The site had been layed out as far as the proposed house and septic bed. We started the boreholes at the house location. The boreholes were advanced by split spoon sampling. Standard Penetration tests were conducted along with the split spoon sampling. The recovered samples were placed in glass jars for later detailed lab classification washed gradation analyses, and moisture contents. The results are found in the borehole logs, gradation data sheets and moisture content data sheet attached at the end of the report.

A sketch showing the proposed house and septic bed location is attached to this report.

B) STRATIGRAPHY

The site has a significant thickness of fill going South from the entrance off of County Rd. 2.

The fill was thin at Borehole 1 at the North West corner of the proposed house but was thick at the South East corner of the proposed house.

The fill at Borehole 1 was a grey, moist, loose sand and gravel with silt that extended to 0.61 m. Below the fill was a brown, moist, stiff silty clay that become firm below 2.3 m. and grey, very moist and soft below 4.5 m.

The fill at Borehole 2 was the same sand and gravel with silt fill as noted at Borehole 1. However, it extended to 2.28 m. Below 2.28 m. was a brown, very moist loose silt with sand and clay fill that extended to 3.60 m. Below 3.60 m. was a grey, moist, firm silty clay that became wet and soft below 7.5 m. We advanced the borehole by driving down a penetration cone to the top

of the silty sand till. We then took Standard Penetration tests in order to note the depth where the silty sand till becomes dense to very dense.

We then put down another borehole South of Borehole 2 to note the amount of fill and the depths of the fill and silty clay. This was Borehole 3 and was 11.3 m. South of Borehole 2. This was 4.6 m. North of the rounded slope leading down to the canal.

The upper fill is the same loose sand and gravel with silt as at Borehole 2 and extended to 3.0 m. below the surface. Below the sand and gravel with silt fill is a grey, very moist, loose sandy silt fill to 4.34 m. Below the sandy silt fill was the grey, moist, firm silty clay.

For the specific stratigraphy at each borehole, the borehole logs should be referred to.

C) SITE ELEVATIONS

We did not bring any survey equipment with us but made notes on the approximate differences in elevation at the boreholes. We can return to take elevations if requested.

From a visual assessment, Borehole 3 is approximately 1.0 m. lower than Borehole 2 and is approximately 3.0 m. above the water surface in the canal.

There was major snow cover over the property. We didn't want to risk walking down the canal bank slope to obtain measurements. If need be, we can return to do this in the Spring.

D) GEOTECHNICAL DISCUSSION

1) General

It is our understanding that it is planned to sell this property to build a house, such as shown on the sketch.

2) Foundations

Because of the amount of fill and underlying soft to firm silty clay, it is not possible to support a house on normal spread footings. Assuming it is permissible to build a house at the location shown, the house will need to be supported on piles.

The best piling system to use is auger piles. Auger piles are pushed down vertically. When the top of the silty sand till stratum is reached, the piles are then augered to refusal. Typically refusal is reached within 1.0 m. of the top of the glacial till. The data at Borehole 2 would indicate a depth of 9.5 to 10.0 m. It would likely be close this at Borehole 1.

The auger pile companies have different size piles with varying capacities. The design would need to incorporate the number of piles with the structural design of the foundation walls supporting the house.

3) Slab

Given the height above the canal and river, it would appear that the house could incorporate a basement.

Because of the silty clay at Borehole 1 at 0.61 m., the depth should not exceed 2.3 m. This is a reasonable depth for a basement.

The gravel below the slab can be the typical clear stone used for basement slabs. The thickness should be 150 mm.

4) Driveway

Any surface topsoil should be removed.

The existing sand and gravel fill has a high silt content. As such, new gravel should be used to construct the driveway. This should consist of 300 mm. of Granular "B" Type 2 subbase and 150 mm. of Granular "A" base, each compacted to 100% Standard Proctor Density.

The asphalt should consist of 50 mm of HL3 compacted to 96% Marshall Density.

E) CONSTRUCTION CONTROL

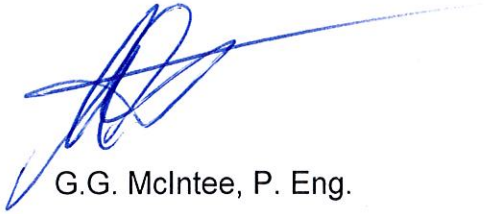
If permission is granted to build a house at this location, there is a requirement that our firm be engaged to inspect the installation of the piling on a full time basis. This is to approve the final driving depths of the piles and to record the length of each driven pile. Piling firms have a fixed price for the number and length of piles and have a credit and debit based on the differences from the stated amount in the tender.

Report No. 21C067
Continued

Page 6

Respectfully submitted

ST. LAWRENCE TESTING & INSPECTION CO. LTD.



G.G. McIntee, P. Eng.

GGM:njw



Attachments



**St. Lawrence Testing
& Inspection Co. Ltd.**

OFFICE BOREHOLE RECORD

REPORT NO. 21C067

CLIENT Richard Van Veldhuisen

BOREHOLE NO. 1

LOCATION Bobbie Leeder, Lot 8, Concession 1, CR2, Cardinal, ON

CASING HF Auger

DATE OF BORING January 14, 2021

DATE OF WL READING _____

DATUM _____

SOIL PROFILE				SAMPLES				LABORATORY TESTS PERFORMED	LAB TEST RESULTS			
DEPTH ELEVATION DEPTH	SOIL DESCRIPTION	STRAT. PLOT	WATER CONDITIONS	CONDITION	TYPE	NUMBER	RECOVERY		N - VALUE	WATER CONTENT & ATTERBERG LIMITS.		
										WP	W	WL
0	Sand & Gravel Fill Grey, moist, loose, with silt									DYNAMIC PENETRATION TEST BLOWS PER FOOT. . K ...		
.61	Silty Clay Brown, moist, stiff, becoming firm below 2.3 m. and grey, very moist and soft below 4.5 m.											
1					SS	1	60	5				
					SS	2	70	5				
2					SS	3	85	3				
3					SS	4	100	2				
4					SS	5	100	1				
5												
5.18	Termination of borehole											
										APPENDIX		

OFFICE BOREHOLE RECORD

REPORT NO. 21C067

CLIENT Richard Van Veldhuisen

BOREHOLE NO. 2

LOCATION Bobbie Leeder, Lot 8, Concession 1, CR2, Cardinal, ON

CASING HF Auger

DATE OF BORING January 14, 2021

DATE OF WL READING

DATUM

SOIL PROFILE				SAMPLES							LAB		TEST	RESULTS			
DEPTH	ELEVATION	DEPTH	SOIL DESCRIPTION	STRAT. PLOT	WATER CONDITIONS	CONDITION	TYPE	NUMBER	RECOVERY	N - VALUE	LABORATORY TESTS PERFORMED	WATER CONTENT & ATTERBERG LIMITS. WP W WL					
												DYNAMIC PENETRATION TEST BLOWS PER FOOT. . . K . . .					
0			<u>Sand & Gravel Fill</u> Brown, moist, loose with silt									0	20	40	60	80	
-1								SS	1	50	8						
								SS	2	30	5						
2			<u>Silt Fill</u> Brown, very moist, loose, with sand and clay														
								SS	3	70	3						
								SS	4	90	3						
3			<u>Silty Clay</u> Grey, moist, firm, becoming wet and soft below 7.5 m.														
								SS	5	100	4						
								SS	6	100	3						
								SS	7	100	2						
6			<u>Silty Sand Till</u> Compact to 10.6 m. Dense below														
								C			25						
								C			27						
								C			31						
9.14			Termination of borehole				C			50 +							
11.15																	
12												APPENDIX					

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REPORT NO. 21C067

CLIENT Richard Van Veldhuisen

BOREHOLE NO. 3

LOCATION Bobbie Leeder, Lot 8, Concession 1, CR2, Cardinal, ON

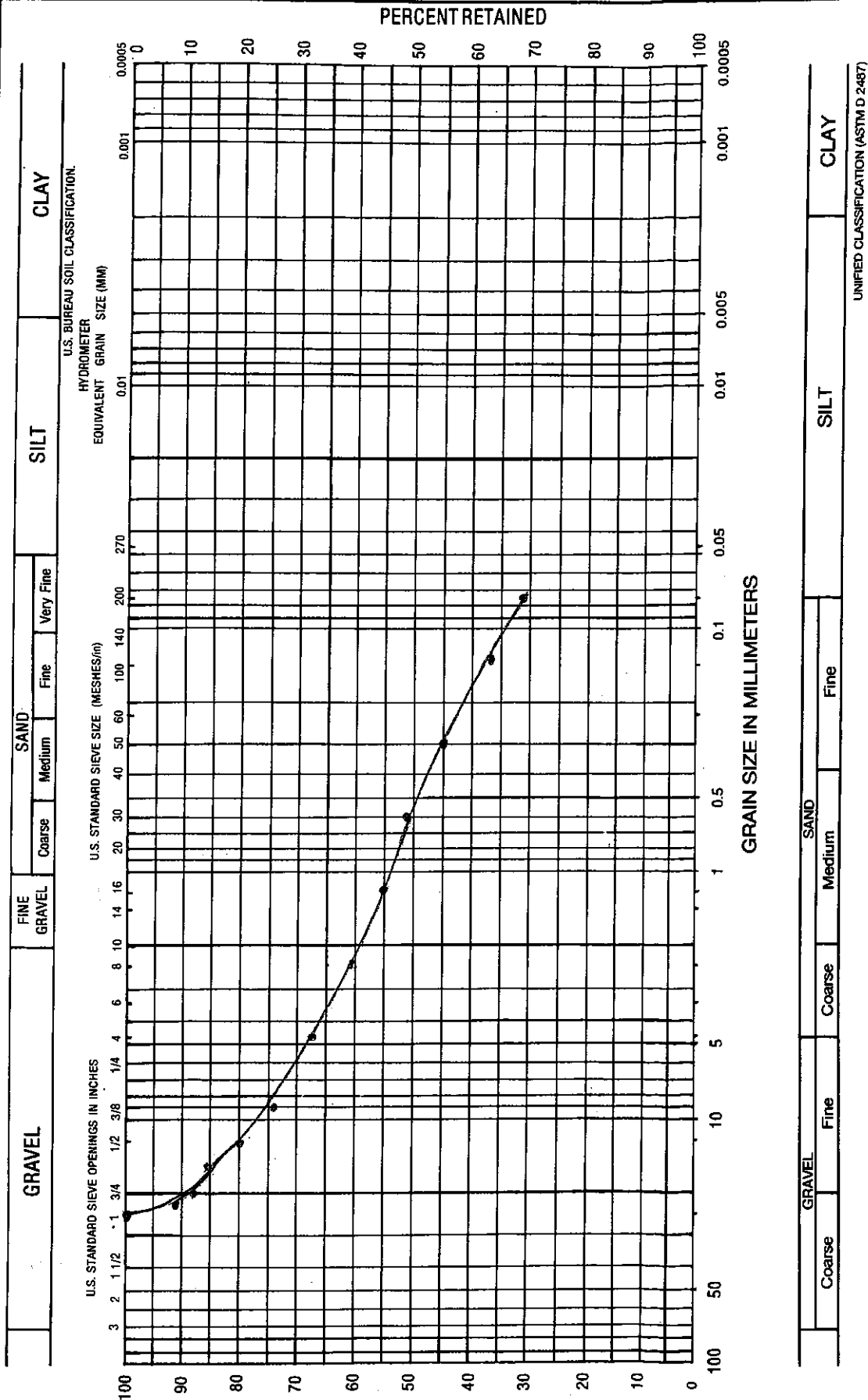
CASING HF Auger

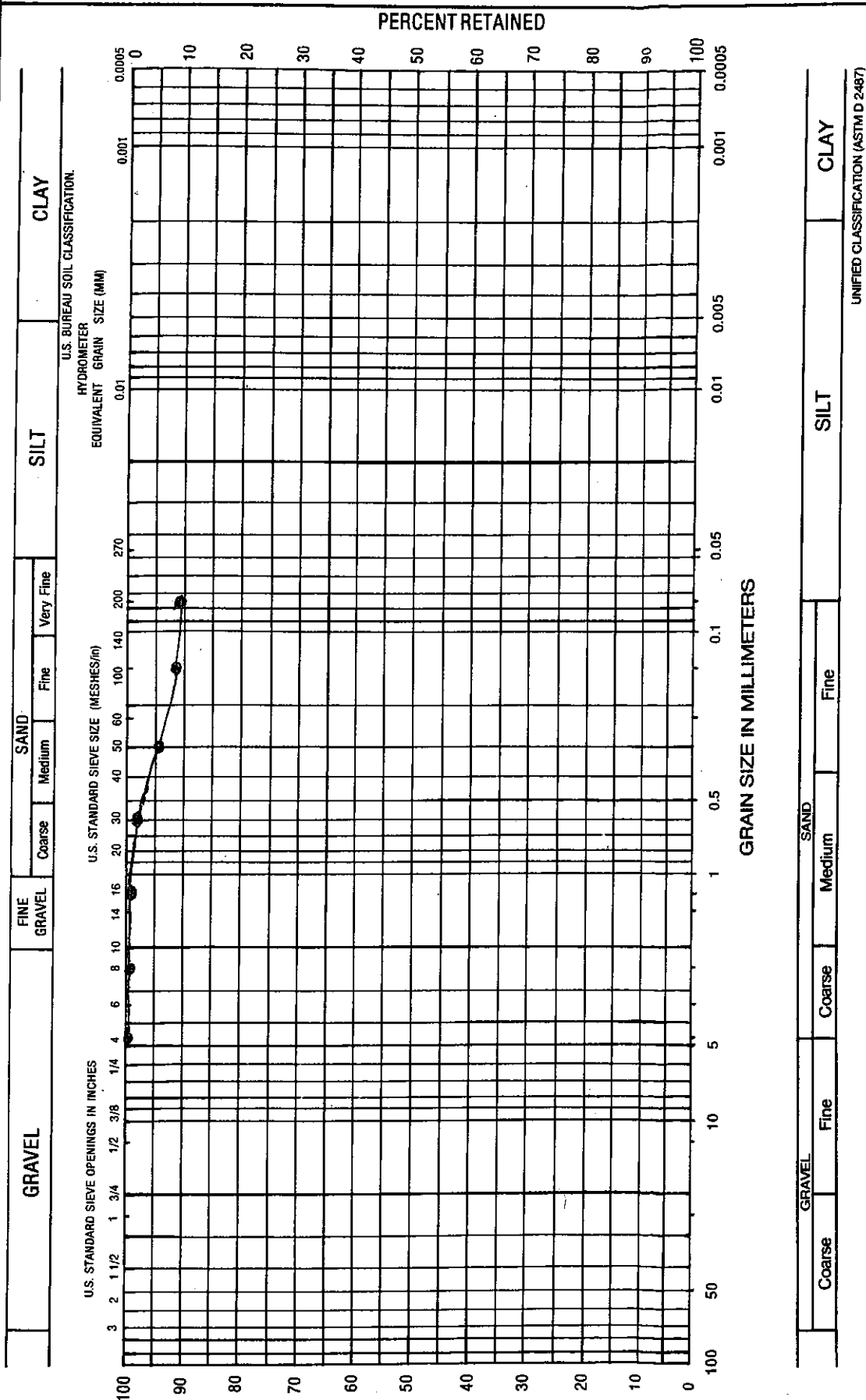
DATE OF BORING January 14, 2021

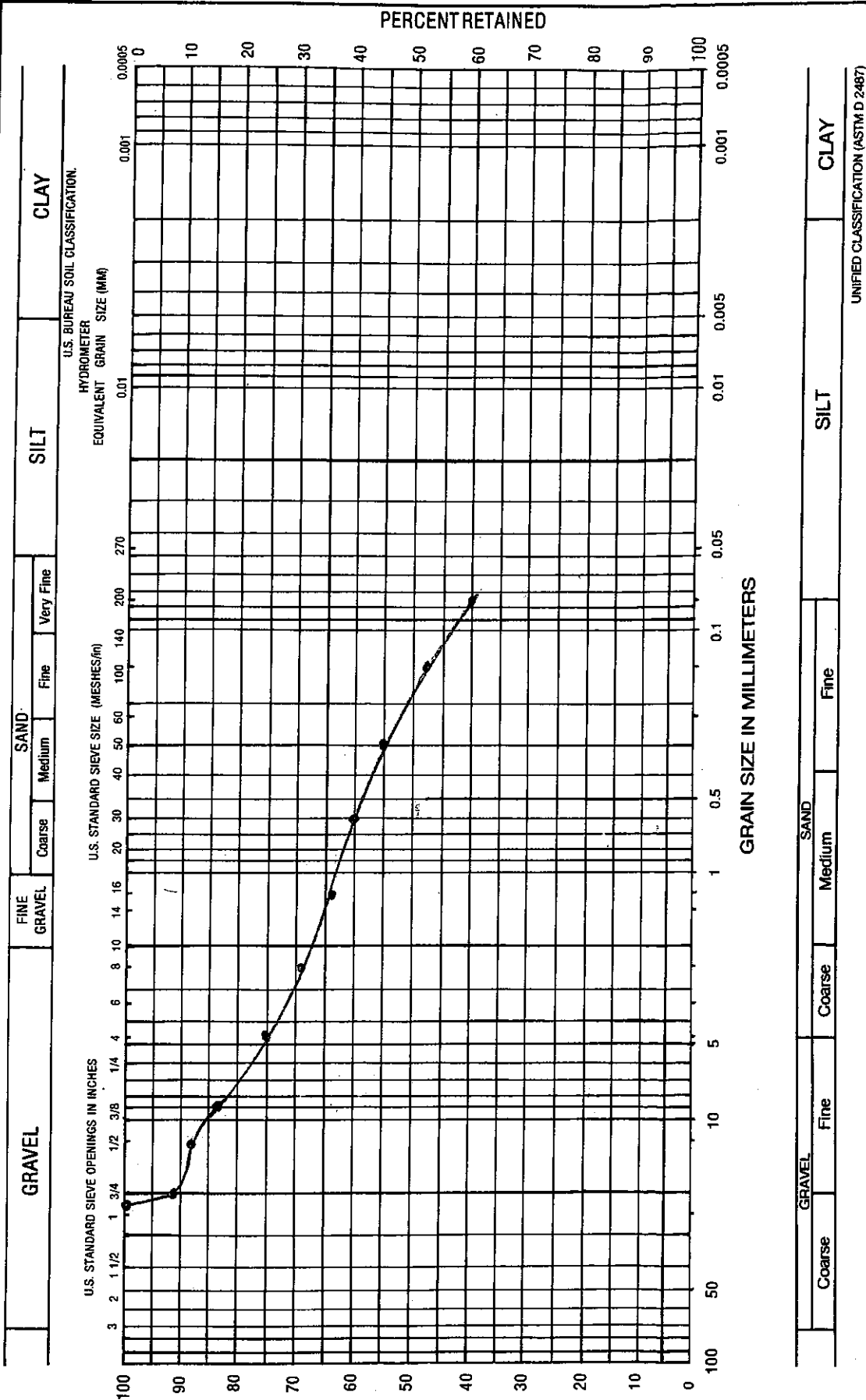
DATE OF WL READING _____

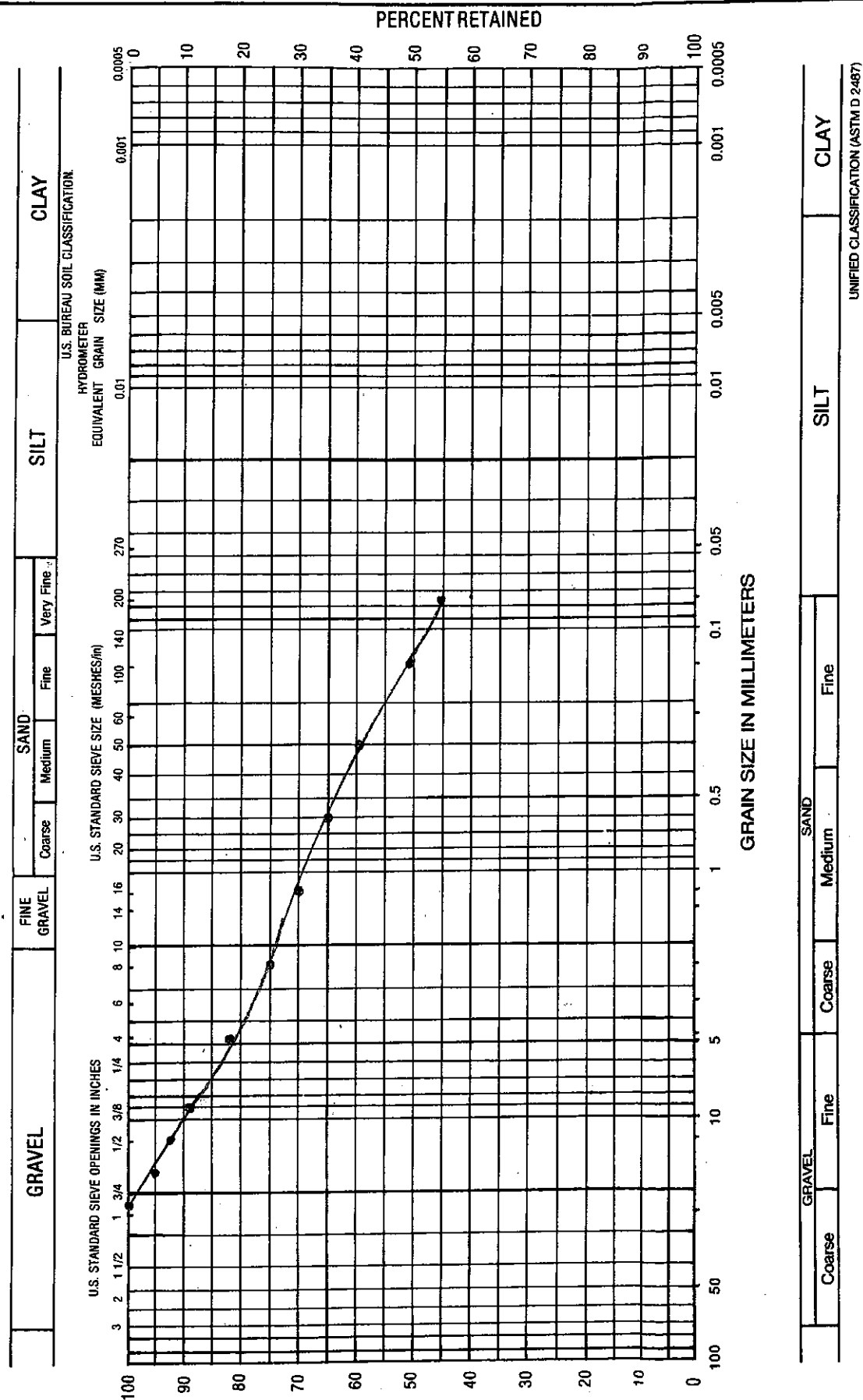
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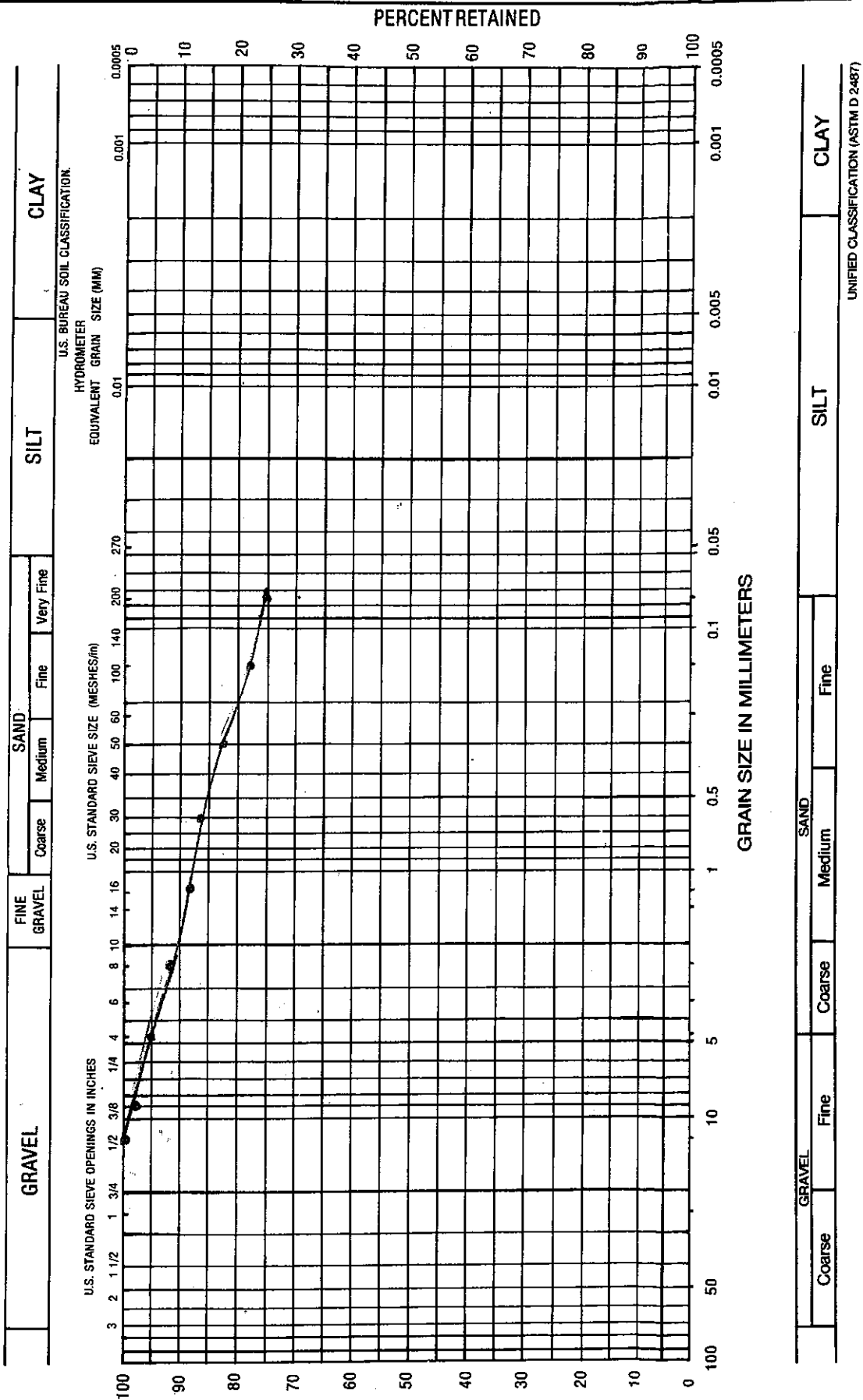
SOIL PROFILE				SAMPLES				LABORATORY TESTS PERFORMED	LAB	TEST	RESULTS	
DEPTH ELEVATION DEPTH	SOIL DESCRIPTION	STRAT. PLOT	WATER CONDITIONS	CONDITION	TYPE	NUMBER	RECOVERY		N - VALUE	WATER CONTENT & ATTERBERG LIMITS.		
										WP	W	WL
0	<u>Sand & Gravel Fill</u> Brown, moist, loose, with silt, becoming very moist below 1.5 m. and grey below 2.3 m.					SS 1	55	4	DYNAMIC PENETRATION TEST BLOWS PER FOOT. . . K. . . 0 20 40 60 80			
1												
2												
3												
4												
3.0	<u>Sandy Silt Fill</u> Grey, very moist, loose					SS 4	50	3				
4												
4.34												
4.34	<u>Silty Clay</u> Grey, moist, firm					SS 6	100	3				
5												
5.18	Termination of borehole								APPENDIX			











Moisture Content

<u>Borehole #</u>	<u>Sample #</u>	<u>Depth</u>	<u>Moisture Content</u>
2	2	1.5 m. to 2.1 m.	13.1%
2	3	2.3 m. to 2.9 m.	27.8%
2	5	3.8 m. to 4.4 m.	39.1%
3	2	1.5 m. to 2.1 m.	19.5%
3	3	2.3 m. to 2.9 m.	8.1%
3	4	3.1 m. to 3.7 m.	19.5%
3	6	4.6 m. to 5.2 m.	42.7%

Gib McIntee

From: Gib McIntee
Sent: December 31, 2021 9:49 AM
To: Richard VanVeldhuisen
Cc: Wendy Van Keulen; bobbieleeder bobbieleeder
Subject: RE: Cardinal Soil Report

I drove to the site on December 30, 2021 and walked down South to the edge of the bank adjacent to the former Galop canal.

Visually, the southern 30 ft. is approximately 10 ft. high from the water's edge. This is a 3 to 1 slope. The next 30 ft. going North is approximately 6 ft. high for a slope of 5 to 1. The elevation going further North has a very mild slope going up to the road embankment. Based on my many years of experience of working on the Galop canal, I would guess that the fill has been in place for about 100 years, which means that it is stable.

Our report 21C067 specifies that the house is to be supported on piles. This is because of the loose fill which gets very thick going from the North side to the South side of the house. Below the fill is a very moist to wet, firm to soft silty clay. It was necessary to specify piles because of the sharp angle of the fill over the silty clay going down from the North to South.

In checking my field notes after writing the above, I had a notation that Borehole 3, as shown on the plan, was approximately 10 ft. above the canal level. Borehole 3 was noted to be approximately 15 ft. North of the rounded top of slope going down to the canal.

There was a notation that the water depth at the edge of the slope was approximately 3 ft. deep. The soil went South in a fairly flat manner, dropping about 2 feet over a 20 ft. length from the edge of the bank.

From the point of view of measurements, 10 ft. can be considered 3.0 m, 20 ft. can be considered 6.0 m and 30 ft. can be considered 9.0 m.

The issue of slope stability is dealt by the piling for the house. The land South of the house is stable with a slope stability between 3 to 1 on the canal bank and 5 to 1 North of the canal bank. The 9 by 10 m mantle East of Borehole 3 can have a mantle thickness up to 0.75 m based on the Standard Penetration test data at Borehole 3.

Best regards,

Gib McIntee, P.Eng.
St. Lawrence Testing & Inspection Co. Ltd.
P.O. Box 997
814 Second St. West
Cornwall, ON CANADA K6H 5V1
Tel: (613) 938-2521
Fax: (613) 938-7395
E-mail: gib@stlawrencetesting.com

From: Richard VanVeldhuisen <rvanveldhuisen@gmail.com>
Sent: December 24, 2021 2:28 PM
To: Gib McIntee <gib@stlawrencetesting.com>
Cc: Wendy Van Keulen <Wvankeulen@twpec.ca>; bobbieleeder bobbieleeder <bobbieleeder@sympatico.ca>
Subject: Cardinal Soil Report

Gib:

Wendy Van Keulen of the Township has asked for additional information about soil stability. See her statement below.

"The Geotechnical Report was to support the location of the building envelope due to the steep slopes on the property. The report does not appear to address the slope stability concern to confirm a safe setback from the top of the slope. The Township has asked the South Nation Conservation Authority to review this report on our behalf. They will require this additional information to review. You/your engineer could reach out to SNC directly by contacting James Holland at jholland@nation.on.ca to confirm the information that is needed."

Can you respond to her inquiry, and connect with the Conservation, and keep us in the loop?

Thanks and enjoy your holiday time off

Richard

Dick Van Veldhuisen P Eng.

Home Phone 613-342-2450

Cell Phone 613-340-3912

rvanveldhuisen@gmail.com

Gib McIntee

From: Wendy Van Keulen <wvankeulen@twpec.ca>
Sent: January 5, 2022 12:03 PM
To: Gib McIntee; Richard VanVeldhuisen
Cc: bobbieleeder bobbieleeder; James Holland
Subject: RE: Cardinal Soil Report

Hello Gib and Richard,

Thank you for sending these additional comments by email. A stamped report or technical letter is required, that provides analysis following the Provinces' technical guidelines.

<https://www.scrca.on.ca/wp-content/uploads/2018/09/MNR-Understanding-Natural-Hazards.pdf>

<https://www.scrca.on.ca/wp-content/uploads/2018/09/MNR-Technical-Guide-River-and-Stream-Erosion-Hazard.pdf>

The analysis would typically determine a stable top of slope, plus a toe erosion analysis and an access allowance. This results in a safe setback requirement from the top of slope, and a description of what can be permitted within the setback. If a specific design is being considered to mitigate the unstable slope, it must be acknowledged and confirmed in the engineering report.

As the Township has asked the Conservation Authority to review the report on our behalf, I think it would be helpful for Gib to discuss directly with SNC. James Holland (cc'd here) is the Planner that has been managing the file on SNC's end and could arrange a call with the reviewer.

With Kind Regards,

Wendy Van Keulen
Community Development Coordinator
613.658.3055 x101

From: Gib McIntee <gib@stlawrencetesting.com>
Sent: December 31, 2021 9:49 AM
To: Richard VanVeldhuisen <rvanveldhuisen@gmail.com>
Cc: Wendy Van Keulen <wvankeulen@twpec.ca>; bobbieleeder bobbieleeder <bobbieleeder@sympatico.ca>
Subject: RE: Cardinal Soil Report

I drove to the site on December 30, 2021 and walked down South to the edge of the bank adjacent to the former Galop canal.

Visually, the southern 30 ft. is approximately 10 ft. high from the water's edge. This is a 3 to 1 slope. The next 30 ft. going North is approximately 6 ft. high for a slope of 5 to 1. The elevation going further North has a very mild slope going up to the road embankment. Based on my many years of experience of working on the Galop canal, I would guess that the fill has been in place for about 100 years, which means that it is stable.

Our report 21C067 specifies that the house is to be supported on piles. This is because of the loose fill which gets very thick going from the North side to the South side of the house. Below the fill is a very moist to wet, firm to soft silty clay. It was necessary to specify piles because of the sharp angle of the fill over the silty clay going down from the North to South.

In checking my field notes after writing the above, I had a notation that Borehole 3, as shown on the plan, was approximately 10 ft. above the canal level. Borehole 3 was noted to be approximately 15 ft. North of the rounded top of slope going down to the canal.

There was a notation that the water depth at the edge of the slope was approximately 3 ft. deep. The soil went South in a fairly flat manner, dropping about 2 feet over a 20 ft. length from the edge of the bank.

From the point of view of measurements, 10 ft. can be considered 3.0 m, 20 ft. can be considered 6.0 m and 30 ft. can be considered 9.0 m.

The issue of slope stability is dealt by the piling for the house. The land South of the house is stable with a slope stability between 3 to 1 on the canal bank and 5 to 1 North of the canal bank. The 9 by 10 m mantle East of Borehole 3 can have a mantle thickness up to 0.75 m based on the Standard Penetration test data at Borehole 3.

Best regards,

Gib McIntee, P.Eng.
St. Lawrence Testing & Inspection Co. Ltd.
P.O. Box 997
814 Second St. West
Cornwall, ON CANADA K6H 5V1
Tel: (613) 938-2521
Fax: (613) 938-7395
E-mail: gib@stlawrencetesting.com

From: Richard VanVeldhuisen <rvanveldhuisen@gmail.com>
Sent: December 24, 2021 2:28 PM
To: Gib McIntee <gib@stlawrencetesting.com>
Cc: Wendy Van Keulen <Wvankeulen@twpec.ca>; bobbieleeder bobbieleeder <bobbieleeder@sympatico.ca>
Subject: Cardinal Soil Report

Gib:
Wendy Van Keulen of the Township has asked for additional information about soil stability. See her statement below.

"The Geotechnical Report was to support the location of the building envelope due to the steep slopes on the property. The report does not appear to address the slope stability concern to confirm a safe setback from the top of the slope. The Township has asked the South Nation Conservation Authority to review this report on our behalf. They will require this additional information to review. You/your engineer could reach out to SNC directly by contacting James Holland at jholland@nation.on.ca to confirm the information that is needed."

Can you respond to her inquiry, and connect with the Conservation, and keep us in the loop?
Thanks and enjoy your holiday time off
Richard

Dick Van Veldhuisen P Eng.
Home Phone 613-342-2450
Cell Phone 613-340-3912
rvanveldhuisen@gmail.com

File: 9579

October 8, 2021

Richard VanVeldhuisen
rvanveldhuisen@gmail.com

Re: Part of Lot 8, Conc 1, County Road 2
Village of Cardinal
Township of Edwardsburg/Cardinal
Lot Servicing Study

Mr. VanVeldhuisen,

Eastern Engineering Group Inc. (EEG) was retained to review the servicing options for a vacant land parcel located at Part of Lot 8, Conc 1, County Road 2, in Cardinal, Ontario. The site just west of 801 CR2. This site is currently undeveloped on the south side of CR2.

The Township of Edwardsburg Cardinal has requested a servicing feasibility study to determine the cost feasibility of connecting the vacant lot to municipal sanitary sewers and the municipal water main.

Water Servicing

The lot is currently not serviced for drinking water source. The owner has two options for the site. The first option would be to connect to the existing municipal water service which is available on the north side of County Road 2. The second option would be to investigate a well on the property.

The owner is going to choose the option of connecting to the municipal water main on the north side of Highway 2 which is the preferred method of servicing the lot with potable water.

The owner would require a new water service to be installed across CR2 from the property line to the existing main which is approximately 3m from the north edge of pavement. There are no entrances that would be affected on the north side of the road where the live tap connection would be required. The water service could be installed by directional drilling from the north side to the south side with little to no disruption to the traffic on CR2. A new curb stop would be required at the property line to the subject lot, and a new main line saddle on the watermain.

The cost of this would be borne by the owner of the lot. All necessary designs and standards would be followed for the connection and new service installation.

Recommendations:

It is our opinion that installing a new residential water service is the best option for the lot.

Sanitary Servicing

The lot is currently not serviced for sanitary sewer. The owner has two options for servicing the lot.

Option 1: Septic System

The preferred option for the owner is to construct an on-site septic system on the lot to service the new home via gravity. There would be no need for a pump or any mechanical/electrical connections to allow the house to be serviced.

The owner has had a contractor complete a design, and submit this design to the Leeds, Grenville & Lanark Health Unit which has been approved. The Health Unit will issue the permit at the time of issuance of the Building Permit.

The option for a septic system would be a very large cost savings over Option 2. The expected costs for an onsite residential septic system would be between \$8,000 and \$10,000 for this site.

Option 2: Connection to Municipal Sanitary Sewers

There are currently no municipal sanitary services near the subject lot on County Road 2. The distance from the closest sanitary sewer on CR2 to the lot is approximately 330 m. This would be the required distance if a single 50mm forcemain was installed from an onsite pumping station to the manhole. If a gravity sewer is extended from the end of the existing line, it would require 250m approximately before the forcemain would be able to tie in at an additional 80m.

The current cost of sanitary main installation and manholes is as follows:

Forcemain – 330 m x \$200/m = \$ 66,000.00

Manholes – 2 x \$8,000/each = \$ 16,000.00

Excavation and Reinstatement – 330 m x \$ 250/m (granulars, asphalt, driveways) = \$ 82,500.00

Pump Station – Approximately \$50,000.00

Engineering Fees/Inspection/Permits = \$ 40,000.00

Total Estimated Cost for Forcemain

\$ 254,500.00 (+/- 15%)

There are plans on file for a pumping station and sanitary lines to flow to the west and forced back to the east that would be constructed by the Township in the future. If this was installed, the owner could then connect to the new sanitary main if there was ever problems with the septic bed.


Recommendations:

It is my engineering opinion that a septic system (as approved) would satisfy the lot for sanitary service and should be approved by the Township. The LGLHU has approved the design and location of the septic.



Yours very truly,

EASTERN ENGINEERING GROUP INC.


Colin A. Jardine, P. Eng.

PARTIAL SITE PLAN
PLAN OF SURVEY
PART OF LOT 8
CONCESSION 1
GEOGRAPHIC TOWNSHIP OF EDWARDSBURGH
TOWNSHIP OF
EDWARDSBURGH - CARDINAL
COUNTY OF GRENVILLE

SCALE = 1 : 200
0 1 2 3 4 5 10 15m

IN SURVEYING LTD., 2020



PLAN ID. BEARING ROTATION DIRECTION		
P1	0°12'15"	CLOCKWISE
P2	1°15'05"	CLOCKWISE

ALL COORDINATES ARE IN METRES, AND RELATED TO UTM ZONE 18 (7°W LONGITUDE) NAD83 DATA AND HAVE A RELATIVE ACCURACY TO MEET THE REQUIREMENTS OF A RURAL AREA AT A 95% CONFIDENCE LEVEL. OBSERVED REFERENCE POINT (RIP) OR ADJUDICATED CONTROL POINT (ACP)

POINT NO.	POINT DESC.	NORTHING (N)	EASTING (E)
URP #1	SBIM(TC)	4859084.807	486008.000
URP #2	SBIM(TC)	4859097.745	486137.380

THE COORDINATES ILLUSTRATED CANNOT, THEMSELVES, BE USED TO RECONSTRUCT THE CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

LEGEND

PLANED MONUMENT	ROCK BAR
REINFORCED CONCRETE MONUMENT	CHISEL POINT
STANDARD IRON BAR	IRON PIPE
SHORT STANDARD IRON BAR	WITNESS
IRON BAR	WITNESS
CONCRETE MONUMENT	WITNESS
MONUMENT DIRECTION (NORTH, EAST, SOUTH & WEST)	WITNESS
PLAN 15R 7964	WITNESS
PLAN 15R 154	WITNESS
WOOD STAKE FOUND	WITNESS

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

- THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEY ACT, THE REGULATION ACT AND THE REGULATIONS MADE UNDER THEM.
- THIS SURVEY WAS COMPLETED ON THE 11TH DAY OF DECEMBER, 2020.

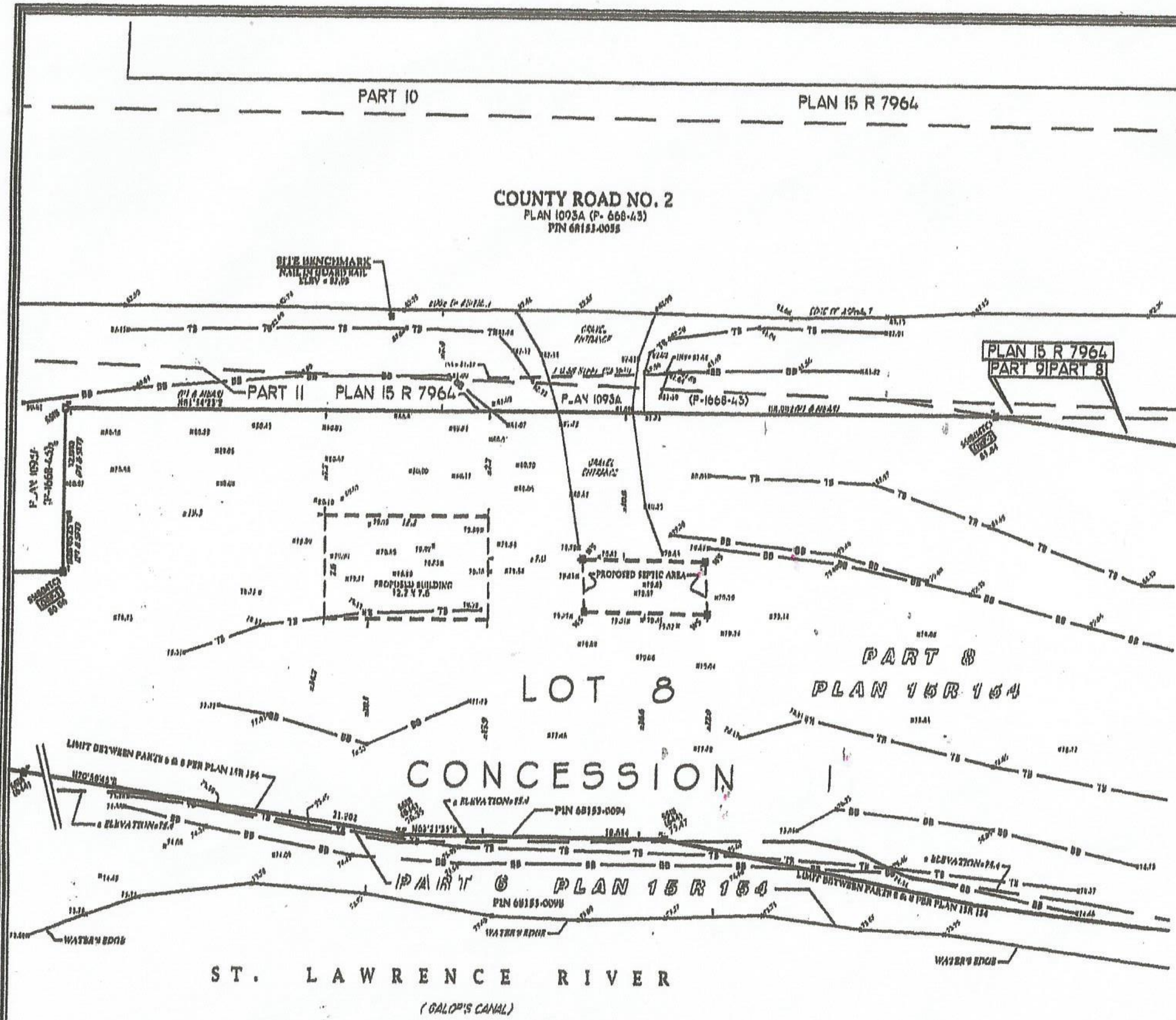
2020.

W. D. COLLETT
ONTARIO LAND SURVEYOR

IN ENGINEERING + SURVEYING
SUITE 205, 1100 ST. JAMES ST. E. EDWARDSBURGH, ONT. L6A 1A8
TEL: (519) 237-2033 OR 1-800-367-7475
FAX: (519) 237-7475
www.in-engineering.ca

THIS PLAN IS NOT A VALID COPY UNLESS EMBOSSED WITH SURVEYOR'S SEAL

COMPLETION DATE DECEMBER 22, 2020	PIV. CH. N.S.	DRA. BY J.S.	FILE NO. 10203 HSP1
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SURVEY INTEGRATION NOTES:

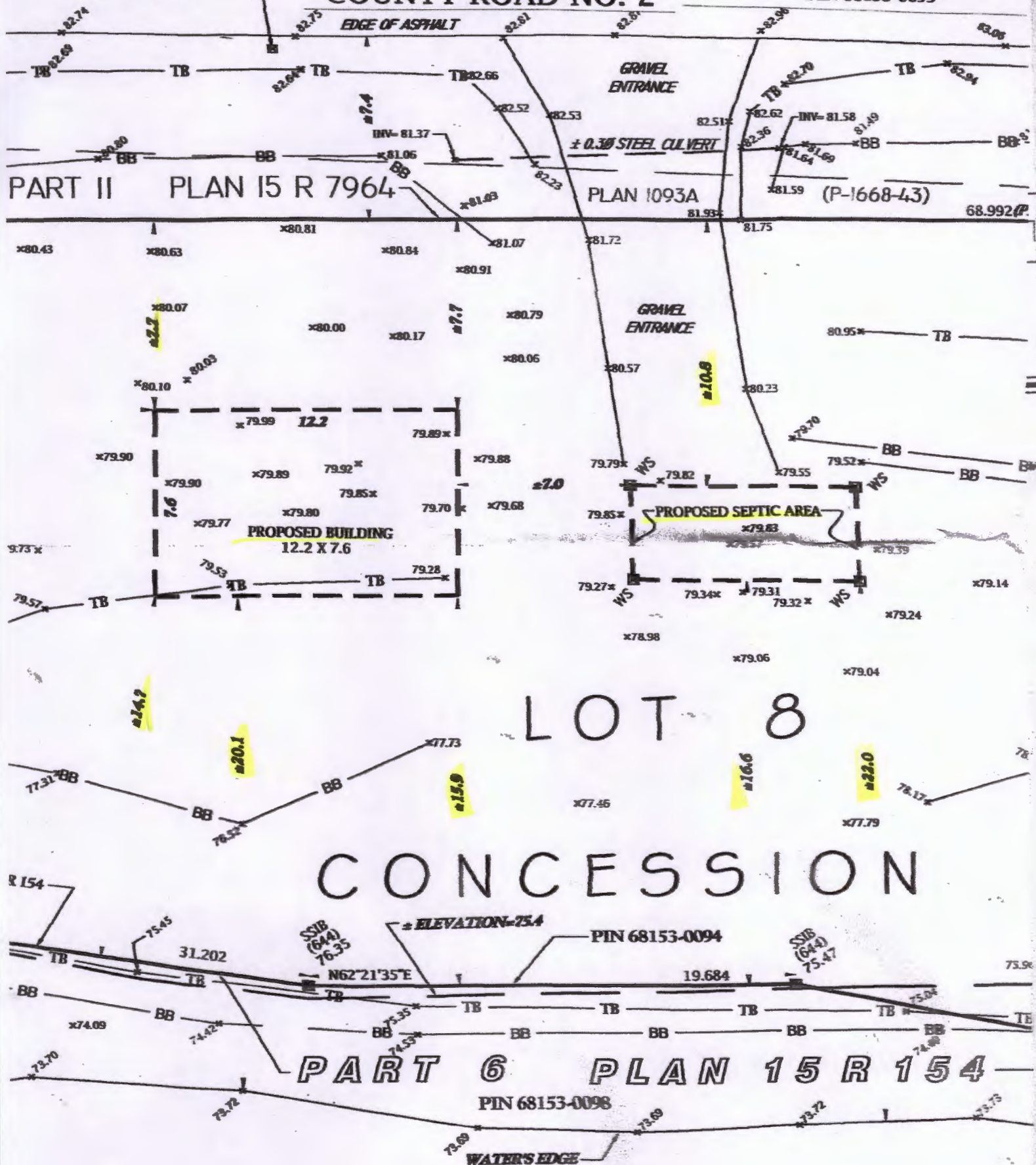
- THE INFORMATION PROVIDED ON THIS SURVEY COMPLIES WITH SECTION 14(1) & (2) SUCH THAT THE COORDINATES ARE ACCURATE, AT THE 95% CONFIDENCE LEVEL, TO 0.2 METRES IN RURAL AREA.
- COORDINATES HAVE BEEN DIRECTLY OBTAINED USING GPS.
- REAL TIME NETWORK (RTN) COORDINATES FROM TORONTO NETWORK
- DISTANCES ON THIS PLAN ARE HORIZONTAL GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY THE AVERAGE CORNER SCALE FACTOR OF 0.99996879.

SURVEY NOTES:

- STAKES ARE UTM GRID DISTANCE FROM GPS - REAL TIME NETWORK (RTN) OBSERVATIONS ON MONUMENTS ORP-1 AND ORP-2, HAVING A GRID BEARING OF N12°07'35"E, NAD83 (EPS 1997.0) AND ARE REFERRED TO THE CENTRAL MERIDIAN IN UTM ZONE 18 (7°W).
- SHORT STANDARD IRON BARS (SSIB) WERE USED DUE TO INSUFFICIENT CIRCUMFERENCE.
- DISTANCES AND COORDINATES ILLUSTRATED ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

SITE BENCHMARK

- SITE BENCHMARK IS NAIL IN QUARRAIL WEST OF THE EXISTING ENTRANCE TO SUBJECT PROPERTY HAVING A BENCHMARK ELEVATION OF 82.94.
- ELEVATIONS ARE ODDSIDE AND HAVE BEEN OBTAINED USING GPS, NAD 83 (EPS 1997.0).



SCALE 1:200

L A W R E N C E R I V E R

From: [Land ROW East](#)
To: [Wendy Van Keulen](#)
Subject: RE: TWPEC, Notice of Public Meeting for Zoning Amendment (Leeder)
Date: December 16, 2021 3:12:16 PM
Attachments: [image001.png](#)
[image003.png](#)
[image004.png](#)

Thank you for contacting Trans-Northern Pipelines Inc. (TNPI)
We can confirm that TNPI has NO infrastructure in the mentioned area.
Kind Regards,

Renée Flowerday

Property and Right of Way Administrator/ Administrateur de propriété et de droit de passage
Trans-Northern Pipelines Inc. | 45 Vogell Road, Suite 310, Richmond Hill, ON L4B 3P6 |
landroweast@tnpi.ca



From: Wendy Van Keulen <wvankeulen@twpec.ca>
Sent: December 16, 2021 2:42 PM
Subject: TWPEC, Notice of Public Meeting for Zoning Amendment (Leeder)

CAUTION: This email originated from outside of the TNPI organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Municipal Partners,

The Township of Edwardsburgh Cardinal has received a zoning bylaw amendment application for approximately 0.67 ha of land on County Road 2, in Part of Lot 8, Concession 1. Please see the attached Notice of a Public Meeting on February 22, 2022 at 6:00pm in the Council Chambers of our Township Office at 18 Centre St., Spencerville.

Please contact me for any of the below documents included in the application, or if you require additional information. Comments are welcome at any time before the bylaw is passed, but appreciated by February 1st, 2022.

- Application Form & Cover Letter
- Stage 1 & 2 Archaeological Assessment
- Environmental Impact Study
- Lot Servicing Study
- Geotechnical Subsurface Investigation
- Site Plan
- Topographic Survey

With Kind Regards,

Wendy Van Keulen
Community Development Coordinator



PO Box 129, 18 Centre Street
Spencerville, ON K0E 1X0
T: 613.658.3055 x101
www.twpec.ca

Sent Via E-Mail

January 17, 2022

File: ZBA Notice – L Leeder

Dear Sir/Madam:

Re: Rezoning of property, Part Lot 8, Con 1, former Geographic Township of Edwardsburgh, Province of Ontario.

Location: PIN # 68153-0094, no known municipal address

Ontario Power Generation ("OPG") received notification of the above-noted planning application for the property known as PIN # 68153-0094 dated December 16, 2021.

Please be advised that we have no concerns with the subject application provided that:

1. OPG's rights as the owner in 'fee-simple' of the lands known as PIN # 68153-0098 and adjoining PIN 68153-0094, are not affected.
2. The adjacent owner of PIN 68153-0094 applies for an OPG Waterfront Licence if they wish to access OPG's adjoining lands and install a 'removeable' dock.

We would like to be notified as to when a decision is made on this application.

Sincerely,



Vicky Bennett
Real Estate Associate
Real Estate Services

January 26, 2022

Wendy VanKeulen
Community Development Coordinator
Township of Edwardsburgh-Cardinal
Box 129, 18 Centre St
Spencerville ON K0E 1X0

Dear Ms. VanKeulen:

Re: Proposed Zoning By-law Amendment
Applicant: Richard Van Veldhuisen / Laura Leeder
Location: Part of Lot 8, Concession 1, County Road 2
Our File: 14269

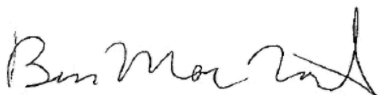
I am writing to provide comments regarding the proposed Zoning By-Law amendment for Laura Leeder's property at Part of Lot 8, Concession 1 County Road 2.

An application for a Permit to Construct a Sewage System was received by our office on October 21, 2020. The application was submitted by Dick VanVeldhuisen and Elmer Covill (Licensed Septic Installer) on behalf of Laura Leeder. I attended a site meeting with E. Covill, D. Vanveldhuisen, L. Leeder, and a proposed buyer named Rob Wells on October 23, 2020. The purpose of the site meeting was to review the proposed design for the septic system submitted by E. Covill. The design submitted with the Permit Application was for a 3-bedroom, 2-bathroom dwelling with 92.9 square metres of finished floor area. The site plan showed a filter media bed with extended contact area and imported sand mantle. The site plan showed a clearance distance of 17 metres to the St. Lawrence River for the Filter Media bed. At the time, I advised the parties in attendance that the design would satisfy the requirements of the OBC but, they would also be required to meet setbacks determined by the Township and South Nation Conservation Authority before we would issue a permit for the septic system. While on-site R. Wells proposed changes to the site plan and the addition of a walkout basement. I advised him the application would need to be amended and re-evaluated.

No Permit has been issued by the Leeds, Grenville and Lanark District Health Unit at this point.

The Leeds, Grenville and Lanark District Health Unit has no objection to the proposed Zoning By-Law Amendment.

Your Partner in Public Health,



Ben MacNeil, BSc, B TECH, CPHI(C)
Public Health Inspector
(613) 345-5685 – Office
(613) 345-7148 – Fax

BMN/lm



Via E-mail (wvankeulen@twpec.ca)

January 27, 2022

Ms. Wendy Van Keulen
Community Development Coordinator
18 Centre St, Spencerville, ON K0E 1X0

Subject: Zoning Bylaw Amendment Review
Lot 8, Concession 1 (Edwardsburgh)
Roll Number: 070170101008901
Applicant: Laura Roberta Leeder

Dear Ms. Van Keulen,

South Nation Conservation (SNC) has reviewed the following documents concerning a Zoning Bylaw Amendment for the above-noted property. The Amendment will lift a holding provision to permit the construction of a single-family dwelling on private services. The following documents were included in the review.

- i. Zoning Bylaw Amendment Application. Prepared by Richard Van Veldhuisen. Dated November 19, 2021.
- ii. Topographic Survey Plan. Prepared by IN Engineering and Surveying. Dated December 22, 2020.
- iii. Environmental Impact Study. Prepared by The Greer Galloway Group Inc. Dated November 2021.
- iv. Geotechnical Subsurface Investigation. Prepared by St. Lawrence Testing and Inspection Co. Ltd. Dated January 31, 2021. Signed and stamped.
- v. Additional Geotechnical Data. Letter from G.G. McIntee, P. Eng., St. Lawrence Testing and Inspection Co. Ltd. Dated January 7, 2022. Signed and stamped.

In addition, an application has been received by South Nation Conservation under O. Reg. 170/06 to construct a dwelling and septic system on the property.

We have considered the environmental impacts of the application, as outlined under Sections 2.1 (Natural Heritage), 2.2 (Water) and 3.1 (Natural Hazards) of the Provincial Policy Statement (May 1, 2020) issued under Section 3 of the *Planning Act*. Our review also considers the Source Water Protection Agreement between the Township of Edwardsburgh-Cardinal and SNC.



Natural Heritage Features

The property is situated along the St. Lawrence River and contains several intermittent watercourses. A natural wooded area is present at the west end, and a small marsh is present where the west watercourse meets the St. Lawrence River.

The EIS provides mitigation for potential impacts, including vegetation removal windows to protect breeding birds, sediment and erosion control recommendations, wildlife exclusion fencing, minimal disturbance to riparian vegetation and the shoreline, and others. The EIS notes that the residence will be located 18.4 m inland from the river edge / top-of-bank of the St. Lawrence River and 20 m east of the closest intermittent watercourse. We offer the following comments on the proposed mitigation:

1. The EIS requires a figure that illustrates the following:
 - a. The area on the property that is to be cleared of natural vegetation for construction of the residence (i.e., the building envelope). No site disturbance should take place outside this area, and natural vegetation should remain along the shoreline as recommended by the EIS.
 - b. The figure should clearly show measurable setbacks to natural heritage features, riparian buffers where vegetation is to be retained or improved, and distances to any other features to be retained/protected. Riparian buffers and setback widths must be of appropriate width to protect the natural heritage features identified on site and/or those with the potential to be on site.
2. The EIS discusses mitigation measures for working in water and the installation of docks and boathouses. Any in-water work or work along the shoreline may require a permit from South Nation Conservation and may require review by Fisheries and Oceans Canada (DFO).
3. The mitigation requirements should be communicated to future landowners and implemented using planning and/or legal mechanisms.

Natural Hazards

Floodplain

In cooperation with local municipalities and the Province, Conservation Authorities operate flood control programs to minimize flood risk to residents, homes and businesses.



In eastern Ontario, the regulatory flood level is the 100-year flood, calculated as having a 1% chance of being equalled or exceeded in any given year, or having an annual return period of 100 years on average.

Specifically, the 100-year flood level at the Property has been determined to be 75.4 metres above sea level.

Slope Stability

The engineering consultant's letter states that "the soil conditions of the site are not suitable to build a building with standard foundations." The letter does not include an analysis of the erosion rates or slope stability, and consequently, the factor of safety for the slope along the property is unknown. Instead, the consultant provides an engineering recommendation that could be pursued at the detail design stage. The feasibility and cost of this approach could not be confirmed with the information provided.

O. Reg. 170/06

SNC implements Ontario Regulation 170/06, Development Interference with Wetlands and Alterations to Shorelines and Watercourses, developed under Section 28 of the Conservation Authorities Act.

Currently, the area within and 20 m adjacent to the 1:100-year floodplain is regulated under Ontario Regulation 170/06. Based on a site visit by SNC staff and the geotechnical brief provided, it has been confirmed that the regulation limit is 15-30m from the top-of-slope rather than the 100-year floodplain limit as the regulation limit is based on the greatest of all applicable hazards.

As the site does not have significant depth the whole property is regulated under O. Reg. 170/06 for any development activity as defined under Section 28 of the CA Act. Therefore, any proposed development within the property boundary will require a permit from SNC and restrictions may apply.

An application was received by South Nation Conservation under O. Reg. 170/06 to construct a dwelling and septic system on the property. The application did not provide sufficient detail to be considered a complete application (i.e., necessary plans and reports etc. were not provided) to issue the permit and is currently on hold.



To obtain a permit, the submission must include a geotechnical report that describes the factor of safety of the slope related to the entire development proposal location and dimensions. The report should also provide proposed remedial measures to allow for development if feasible. Once the geotechnical report is completed and accepted by SNC a detailed structural design for the dwelling foundation and septic system including remedial measures as appropriate, prepared and stamped by a qualified professional will also be required for SNC to issue a permit for development. The MNRF guidelines and comments from SNC engineering team are paraphrased below:

It is important that a Geotech include the following to ensure that a property and proposed project is protected from any potential failures. Specifically, it is important that all three factors (Toe Erosion Allowance, Stable Slope Allowance, and Access Allowance) are considered with respect to riverine erosion hazards and apparent slopes, as defined by Erosion Hazard Limit (MNRF 2002).

- Identify the active erosion interface
- Identify the valley toe/toe of slope
- Identify the top of slope
- Factor 1: Define the Toe Erosion Allowance,
- Factor 2: Define the Stable Slope Allowance (Geotechnical Study and Modeling or assumed 5:1 (assumed leda clay or sand) or assumed 3:1 Slope (Other consolidated soils, till etc.)
 - This should be defined in saturated conditions
 - Static having a factor of safety of 1.5 or greater (drained and potentially undrained depending on soil conditions) and
 - Dynamic having a factor of safety of 1.1 or greater (seismic)
- Factor 3: Define the Access Allowance.

It is also important that the report provide site specific instructions for construction procedures so that the proposed project is protected over the long-term. As well, the report should define any setback from the “Top of slope”, since this is the most verifiable and identifiable setback reference point.

Recommendations

It is recommended that the Geotechnical Investigation and subsequent report be completed and reviewed by SNC before the Zoning Bylaw Amendment is approved. The study should include a full slope stability analysis, as per the notes above.



SOUTH NATION
CONSERVATION
DE LA NATION SUD

Further, should the municipality wish to lift the holding provision, it is recommended that a development agreement be registered on title that notifies transferees of the environmental constraints and approval process associated with the property.

Please note that this review has not confirmed that a permit can be issued for the property.
Kind regards,

A handwritten signature in black ink, reading "James Holland".

James Holland, MSc RPP
Watershed Planner
South Nation Conservation

SNC-2463-2022



**St. Lawrence Testing
& Inspection Co. Ltd.**

P.O. Box 997, Cornwall, ON, Canada K6H 5V1
814 Second Street W., Phone (613) 938-2521
E-mail: slt@ontarioeast.net Fax (613) 938-7395

February 10, 2022

Mr. Richard VanVeldhuisen, P.Eng.
Marguerita Residence Corporation
48 Church St.
Brockville, ON
K6V 6L3

**RE: Bobbie Leeder Property, Cardinal, ON
Report No. 22C024**

Dear Mr. VanVeldhuisen:

This report is submitted in response to the January 27, 2022 letter from Mr. James Holland to Ms. Wendy Van Keulen. .

With regard to slope stability, this is based on the boreholes put down and the measurements taken on the horizontal and vertical distances of the property. We concluded that a standard house with footings could not be built since it would extend vertical and horizontal loads towards the edge of the Galop canal. That is the reasoning for supporting the house with auger piles. The auger piles transfer the loads down vertically to the glacial till.

We measured the side slopes on the property. From the water's edge going North, the side slope is 3 to 1 up to 9 m North of the water's edge. For the next 9 m going North, the side slop ratio is 5 to 1. Going further North the land has a very mild slope, rising in the order of 10 to 1, if not flatter.

Our experience in this area goes back to the mid 1960's when we did surveying in the Iroquois to North Channel area which also included Cardinal.

Our geotechnical experience in this area started in the mid 1970's. We completed many projects in the Cardinal area, along the St. Lawrence River and along the Galop canal during this period. We've been working regularly at the Ingredion plant in Cardinal since the late 1970's.

With regard to this site, one factor to consider is that there is very minimal wave action against the edge of the slope. There are very few small boats that travel in this area, mainly since it is an old canal. The Seaway ships travel along the St. Lawrence River.

The static factor of safety is greater than 1.5 to 1 over the entire slope, from the edge of the canal and going North.

The dynamic factor of safety is 1 to 1 or greater.

In addition, the house is supported on piles. We have also suggested battered piles to provide additional safety to the house. Basically the house is self supporting and has no effect on the slope and slope stability.

Respectfully submitted

ST. LAWRENCE TESTING & INSPECTION CO. LTD.


G.G. McIntee, P. Eng.
GGM:mm



From: [Wendy Van Keulen](#)
To: [Richard VanVeldhuisen](#)
Cc: [James Holland](#)
Bcc: [CBO](#); [Dave Grant](#); [Jordan Jackson](#)
Subject: RE: Cardinal Project Bobbie Leeder
Date: February 11, 2022 12:17:00 PM
Attachments: [ZBA Comments from SNC 01272022 Leeder.pdf](#)
[DOC021022-02102022111929.pdf](#)

Dear Mr. VanVeldhuisen;

The Zoning Bylaw amendment application proposes to establish zone standards to support future development on the property. It is important that the geotechnical investigation demonstrate the lands can be built upon through this amendment. All development constraints must be addressed through this amendment to ensure development can proceed responsibly, and the developer will be able to obtain the necessary permits from the appropriate approval authorities. We rely on the Conservation Authority's review of the geotechnical investigation to ensure it is consistent with MNRF guidelines and that a permit from the Conservation Authority is obtainable.

The Township's Planning Fees Bylaw 2019-75 provides that where the cost of processing an application exceeds the amount of the deposit fee, the Township may issue an invoice to recover these costs. It is anticipated that the cost of processing the application, including consulting and technical review fees, will exceed the cost of processing the application. Multiple reviews can become costly, and add time to processing an application.

Please advise if you would like to submit any additional information or revised comments from your engineer prior to SNC's review. If you have any questions about SNC's comments or information is requested, it may be helpful to arrange a call with the reviewer by contacting Mr. Holland.

Thank you,

Wendy Van Keulen
Community Development Coordinator
613.658.3055 x101

From: James Holland <jholland@nation.on.ca>
Sent: February 10, 2022 4:07 PM
To: Richard VanVeldhuisen <rvanveldhuisen@gmail.com>; Wendy Van Keulen <wvankeulen@twpec.ca>
Subject: RE: Cardinal Project Bobbie Leeder

Dear Ms. Van Keulen,

South Nation Conservation provided detailed comments in our review of the zoning amendment for the slope stability analysis. I can invoice and circulate to our engineers for review, but the letter has not provided the requested analysis, and I anticipate we will reiterate our comments from the zoning review. Please confirm whether the Township requests a technical review at this time.

Kind regards,
James

From: Richard VanVeldhuisen <rvanveldhuisen@gmail.com>
Sent: Thursday, February 10, 2022 2:45 PM
To: James Holland <jholland@nation.on.ca>
Cc: Wvankeulen@twpec.ca; bobbieleeder@sympatico.ca; slt@ontarioeast.net
Subject: Cardinal Project Bobbie Leeder

External email - if you don't know or can't confirm the identity of the sender, please exercise caution and do not open links or attachments.

James:

Please see St Lawrence Testing third geotechnical report responding to your recent response letter inquiries.

I trust that this response satisfies your soil inquiries, and that you can sign off with the Township in order that we can move forward to file a building permit for the 1,000 sf house.

Richard Van Veldhuisen P. Eng



James Holland | M.Sc. RPP, Watershed Planner

38 Victoria Street, Box 29, Finch, ON K0C 1K0
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MISE À JOUR COVID-19: Nos bureaux sont ouverts au public sur rendez-vous, veuillez envoyer un courriel à info@nation.on.ca. Nos aires de conservation restent ouvertes pour les loisirs passifs. Plus d'informations sur : www.nation.on.ca/coronavirus.

From: [Mallory, Elaine](#)
To: [Wendy Van Keulen](#)
Cc: [Kester, Rick](#); [Guy, Bill](#)
Subject: FW: ZBA Application for County Rd 2 Property (Leeder) 070170101008901
Date: February 17, 2022 9:59:52 AM
Attachments: [ZBA Site Plan 11192021 Leeder.pdf](#)

Thank you for the opportunity to comment on this rezoning request. It is understood the application is seeking a 7.7 m front yard setback to allow construction of a residential dwelling. On behalf of the Director of Public works, the Counties would respectfully request that the dwelling be moved back 0.8-1 m further from the road allowance. The rationale for this is that if the County Road is widened to its anticipated maximum of 30.5 m, a 6 m clear zone is required between the guard rails/edge of allowance and any structure. This would not be met at the proposed setback. As such, allowing the dwelling in the proposed location could impede road work in the future.

Thank you for your consideration of these comments.

Sincerely,
Elaine M. Mallory, Planner I
United Counties of Leeds and Grenville
Tel: 613-342-3840 / 1-800-770-2170 ext. 2422

From: Wendy Van Keulen <wvankeulen@twpec.ca>
Sent: December 16, 2021 12:13 PM
To: Mallory, Elaine <Elaine.Mallory@uclg.on.ca>
Subject: ZBA Application for County Rd 2 Property (Leeder)

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Good Afternoon Elaine,

TWPEC has received an application for a zoning bylaw amendment for a property on County Rd 2 (070170101008901). The application requests to lift a holding zone on the property, but there are some setbacks to the water and County road that also need to be addressed. We have scheduled the public meeting for February 22, understanding that some additional time may be needed to review the large application, and there may be some additional questions for the applicant.

I will include you on the circulation for the public meeting notice later today, but it is included here with the full application for your review. Please let me know if there is any additional information you need.

Thank you,

Wendy Van Keulen
Community Development Coordinator



PO Box 129, 18 Centre Street

Spencerville, ON K0E 1X0

T: 613.658.3055 x101

www.twpec.ca

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