Committee of Adjustment Application to Planning Department

Complete Application

A complete Committee of Adjustment application consists of the following:

1. A properly completed and signed application form (signature must on original version);
2. Supporting information adequate to illustrate your proposal as listed in **Section H** of this application form (plans are required in paper copy and digital PDF format);
3. Written authorization from all registered owners of the subject lands where the applicant is not the owner as per Section N; and,
4. Cash, debit or cheque payable to Norfolk County in the amount set out in the Norfolk County User Fees By-Law.
   Planning application development fees are not required with the submission of your completed and signed development application. Your planning application fee will be determined by the planner when your application has been verified and deemed complete. Prepayments will not be accepted.
5. Completed applications are to be mailed to the attention of **Secretary Treasurer – Committee of Adjustment:** 185 Robinson Street, Suite 200, Simcoe, ON N3Y 5L6 or email your application committee.of.adjustment@norfolkcounty.ca. Make sure submissions are clearly labelled including address, name, and application type. Failure to do so may impact the timing of your application.

The above listed items are required to ensure that your application is given full consideration. An incomplete or improperly prepared application will not be accepted and may result in delays during the processing of the application. This application must be typed or printed in ink and completed in full.

Please review all of the important information summarised below.

Before your Application is Submitted

A pre-consultation meeting is not usually required for Committee of Adjustment applications; however, discussion with Planning Department staff prior to the submission of an application is **strongly encouraged**. The purpose of communicating with a planner **before** you submit your application is: to review your proposal / application, to discuss potential issues; and to determine the required supporting information and materials to be submitted with your application before it can be considered complete by staff. You might find it helpful to retain the services of an independent professional (such as a registered professional planner) to help you with your application. Information about the Official Plan and Zoning By-law can be found on the County website: www.norfolkcounty.ca/planning

After Your Application is Submitted

Once your payment has been received and the application submitted, in order for your application to be deemed complete all of the components noted above are required.

Incomplete applications will be identified and returned to the applicant. The *Planning Act* permits up to 30 days to review and deem an application complete.

Once your application has been deemed complete by the Planning Department, it is then circulated to public agencies and County departments for review and comment. A sign is also provided that is required to be posted on the subject lands that summarizes the application and identifies the committee meeting date. The comments received from members of the community will be included in the planning report and will inform any recommendations in relation to the application.

If the subject lands are located in an area that is regulated by either the Long Point Region Conservation Authority or by the Grand River Conservation Authority an additional fee will be required if review by the applicable agency is deemed necessary. A separate cheque payable to the Long Point Region Conservation Authority or the Grand River Conservation Authority is required in accordance with their fee schedule at the same time your application is submitted.

Additional studies required as part of the complete application shall be at the sole expense of the applicant. In some instances peer reviews may be necessary to review particular studies and that the cost shall be at the expense of the applicant. The company to complete the peer review shall be selected by the County.

If the application is withdrawn prior to the circulation to commenting agencies, the entire original fee will be refunded. If withdrawn after the circulation to agencies, half the original fee will be refunded. No refund is available after the public meeting and/or approval of application.

Notification Sign Requirements

Planning Department staff may post a notification sign on your property in advance of the public meeting on your behalf. Please keep this sign posted until you have received a notice in the mail indicating that the Secretary Treasurer received no appeals. However, it is the applicant's responsibly to ensure that the sign is correctly posted within the statutory timeframes, according to the *Planning Act*. Failure to post a sign in advance of the public meeting in accordance with statutory requirements will impact the timing of your application at the Committee of Adjustment meeting. Applicants are responsible for removal of the sign following the appeal period. The signs are recyclable and can be placed in your blue box.

Contact Us

For additional information or assistance in completing this application, please contact a planner at 519-426-5870 ext. 1842 or Committee.of.Adjustment@NorfolkCounty.ca

For Office Use Only:

File Number _____
Related File Number _____
Pre-consultation Meeting _____
Application Submitted _____
Complete Application _____

Application Fee _____
Conservation Authority Fee _____
Well & Septic Info Provided _____
Planner _____
Public Notice Sign _____

Check the type of planning application(s) you are submitting.

☐ Consent/Severance/Boundary Adjustment
☐ Surplus Farm Dwelling Severance and Zoning By-law Amendment
☐ Minor Variance
☐ Easement/Right-of-Way

Property Assessment Roll Number: _____

A. Applicant Information

Name of Owner _____

It is the responsibility of the owner or applicant to notify the planner of any changes in ownership within 30 days of such a change.

Address _____
Town and Postal Code _____
Phone Number _____
Cell Number _____
Email _____

Name of Applicant _____
Address _____
Town and Postal Code _____
Phone Number _____
Cell Number _____
Email _____

Name of Agent _____

Address _____

Town and Postal Code _____

Phone Number _____

Cell Number _____

Email _____

Please specify to whom all communications should be sent. Unless otherwise directed, all correspondence and notices in respect of this application will be forwarded to the owner and agent noted above.

☐ Owner ☐ Agent ☐ Applicant

Names and addresses of any holder of any mortgagees, charges or other encumbrances on the subject lands:

_____

_____

B. Location, Legal Description and Property Information

1. Legal Description (include Geographic Township, Concession Number, Lot Number, Block Number and Urban Area or Hamlet):

   _____

   _____

   Municipal Civic Address: _____

   Present Official Plan Designation(s): _____

   Present Zoning: _____

2. Is there a special provision or site specific zone on the subject lands?

   ☐ Yes ☐ No If yes, please specify:

   _____

3. Present use of the subject lands:

   _____

   _____

   _____

4. Please describe **all existing** buildings or structures on the subject lands and whether they are to be retained, demolished or removed. If retaining the buildings or structures, please describe the type of buildings or structures, and illustrate the setback, in metric units, from front, rear and side lot lines, ground floor area, gross floor area, lot coverage, number of storeys, width, length, and height on your attached sketch which must be included with your application:

5. If an addition to an existing building is being proposed, please explain what it will be used for (for example a bedroom, kitchen, or bathroom). If new fixtures are proposed, please describe.

6. Please describe **all proposed** buildings or structures/additions on the subject lands. Describe the type of buildings or structures/additions, and illustrate the setback, in metric units, from front, rear and side lot lines, ground floor area, gross floor area, lot coverage, number of storeys, width, length, and height on your attached sketch which must be included with your application:

7. Are any existing buildings on the subject lands designated under the *Ontario Heritage Act* as being architecturally and/or historically significant? Yes ☐ No ☐

   If yes, identify and provide details of the building:

8. If known, the length of time the existing uses have continued on the subject lands:

9. Existing use of abutting properties:

10. Are there any easements or restrictive covenants affecting the subject lands?

    ☐ Yes ☐ No If yes, describe the easement or restrictive covenant and its effect:

C. Purpose of Development Application

Note: Please complete all that apply. **Failure to complete this section will result in an incomplete application.**

1. Site Information (Please refer to Zoning By-law to confirm permitted dimensions)

	Existing	Permitted	Provision	Proposed	Deficiency
Lot frontage					
Lot depth					
Lot width					
Lot area					
Lot coverage					
Front yard					
Rear yard					
Height					
Left Interior side yard					
Right Interior side yard					
Exterior side yard (corner lot)					
Parking Spaces (number)					
Aisle width					
Stall size					
Loading Spaces					
Other					

2. Please explain why it is not possible to comply with the provision(s) of the Zoning By-law:

_____

_____

_____

3. **Consent/Severance/Boundary Adjustment**: Description of land intended to be severed in metric units:

Frontage: _____

Depth: _____

Width: _____

Lot Area: _____

Present Use: _____

Proposed Use: _____

Proposed final lot size (if boundary adjustment): _____

If a boundary adjustment, identify the assessment roll number and property owner of the lands to which the parcel will be added: _____

_____

_____

Description of land intended to be retained in metric units:

Frontage: _____

Depth: _____

Width: _____

Lot Area: _____

Present Use: _____

Proposed Use: _____

Buildings on retained land: _____

4. **Easement/Right-of-Way:** Description of proposed right-of-way/easement in metric units:

Frontage: _____

Depth: _____

Width: _____

Area: _____

Proposed Use: _____

5. **Surplus Farm Dwelling Severances Only:** List all properties in Norfolk County, which are owned and farmed by the applicant and involved in the farm operation

Owners Name: _____

Roll Number: _____

Total Acreage: _____

Workable Acreage: _____

Existing Farm Type: (for example: corn, orchard, livestock) _____

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built _____

Date of Land Purchase: _____

Owners Name: _____

Roll Number: _____

Total Acreage: _____

Workable Acreage: _____

Existing Farm Type: (for example: corn, orchard, livestock) _____

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built _____

Date of Land Purchase: _____

Owners Name: _____

Roll Number: _____

Total Acreage: _____

Workable Acreage: _____

Existing Farm Type: (for example: corn, orchard, livestock) _____

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built _____

Date of Land Purchase: _____

Owners Name: _____

Roll Number: _____

Total Acreage: _____

Workable Acreage: _____

Existing Farm Type: (for example: corn, orchard, livestock) _____

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built _____

Date of Land Purchase: _____

Owners Name: _____

Roll Number: _____

Total Acreage: _____

Workable Acreage: _____

Existing Farm Type: (for example: corn, orchard, livestock) _____

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built _____

Date of Land Purchase: _____

Note: If additional space is needed please attach a separate sheet.

D. All Applications: Previous Use of the Property

1. Has there been an industrial or commercial use on the subject lands or adjacent lands? ☐ Yes ☐ No ☐ Unknown
   If yes, specify the uses (for example: gas station, or petroleum storage):
   _____
   _____
   _____

2. Is there reason to believe the subject lands may have been contaminated by former uses on the site or adjacent sites?☐ Yes ☐ No ☐ Unknown

3. Provide the information you used to determine the answers to the above questions:
   _____
   _____

4. If you answered yes to any of the above questions in Section D, a previous use inventory showing all known former uses of the subject lands, or if appropriate, the adjacent lands, is needed. Is the previous use inventory attached? ☐ Yes ☐ No

E. All Applications: Provincial Policy

1. Is the requested amendment consistent with the provincial policy statements issued under subsection 3(1) of the *Planning Act, R.S.O. 1990, c. P. 13*? ☐ Yes ☐ No

   If no, please explain:

   _____

   _____

2. It is owner's responsibility to be aware of and comply with all relevant federal or provincial legislation, municipal by-laws or other agency approvals, including the Endangered Species Act, 2007. Have the subject lands been screened to ensure that development or site alteration will not have any impact on the habitat for endangered or threatened species further to the provincial policy statement subsection 2.1.7? ☐ Yes ☐ No

   If no, please explain:

   _____

   _____

3. Have the subject lands been screened to ensure that development or site alteration will not have any impact on source water protection? ☐ Yes ☐ No

   If no, please explain:

   _____

   _____

   Note: If in an area of source water Wellhead Protection Area (WHPA) A, B or C please attach relevant information and approved mitigation measures from the Risk Manager Official.

4. All Applications: Are any of the following uses or features on the subject lands or within 500 metres of the subject lands, unless otherwise specified? Please check boxes, if applicable.

Livestock facility or stockyard (submit MDS Calculation with application)

☐ On the subject lands or ☐ within 500 meters – distance _____

Wooded area

☐ On the subject lands or ☐ within 500 meters – distance _____

Municipal Landfill

☐ On the subject lands or ☐ within 500 meters – distance _____

Sewage treatment plant or waste stabilization plant

☐ On the subject lands or ☐ within 500 meters – distance _____

Provincially significant wetland (class 1, 2 or 3) or other environmental feature

☐ On the subject lands or ☐ within 500 meters – distance _____

Floodplain

☐ On the subject lands or ☐ within 500 meters – distance _____

Rehabilitated mine site

☐ On the subject lands or ☐ within 500 meters – distance _____

Non-operating mine site within one kilometre

☐ On the subject lands or ☐ within 500 meters – distance _____

Active mine site within one kilometre

☐ On the subject lands or ☐ within 500 meters – distance _____

Industrial or commercial use (specify the use(s))

☐ On the subject lands or ☐ within 500 meters – distance _____

Active railway line

☐ On the subject lands or ☐ within 500 meters – distance _____

Seasonal wetness of lands

☐ On the subject lands or ☐ within 500 meters – distance _____

Erosion

☐ On the subject lands or ☐ within 500 meters – distance _____

Abandoned gas wells

☐ On the subject lands or ☐ within 500 meters – distance _____

F. All Applications: Servicing and Access

1. Indicate what services are available or proposed:

   Water Supply

   ☐ Municipal piped water ☐ Communal wells
   ☐ Individual wells ☐ Other (describe below)

   _____

   Sewage Treatment

   ☐ Municipal sewers ☐ Communal system
   ☐ Septic tank and tile bed in good working order ☐ Other (describe below)

   _____

   Storm Drainage

   ☐ Storm sewers ☐ Open ditches
   ☐ Other (describe below)

   _____

2. Existing or proposed access to subject lands:

   ☐ Municipal road ☐ Provincial highway
   ☐ Unopened road ☐ Other (describe below)

   Name of road/street:

_____

G. All Applications: Other Information

1. Does the application involve a local business? ☐ Yes ☐ No

   If yes, how many people are employed on the subject lands?

   _____

2. Is there any other information that you think may be useful in the review of this application? If so, explain below or attach on a separate page.

   _____
   _____
   _____

H. Supporting Material to be submitted by Applicant

In order for your application to be considered complete, folded hard copies (number of paper copies as directed by the planner) and an **electronic version (PDF) of the site plan drawings, additional plans, studies and reports** will be required, including but not limited to the following details:

1. Concept/Layout Plan
2. All measurements in metric
3. Existing and proposed easements and right of ways
4. Parking space totals – required and proposed
5. All dimensions of the subject lands
6. Dimensions and setbacks of all buildings and structures
7. Location and setbacks of septic system and well from all existing and proposed lot lines, and all existing and proposed structures
8. Names of adjacent streets
9. Natural features, watercourses and trees

In addition, the following additional plans, studies and reports, including but not limited to, **may** also be required as part of the complete application submission:

☐ On-Site Sewage Disposal System Evaluation Form (to verify location and condition)

☐ Environmental Impact Study

☐ Geotechnical Study / Hydrogeological Review

☐ Minimum Distance Separation Schedule

☐ Record of Site Condition

Your development approval might also be dependent on Ministry of Environment Conservation and Parks, Ministry of Transportation or other relevant federal or provincial legislation, municipal by-laws or other agency approvals.

All final plans must include the owner's signature as well as the engineer's signature and seal.

I. Transfers, Easements and Postponement of Interest

The owner acknowledges and agrees that if required it is their solicitor's responsibility on behalf of the owner for the registration of all transfer(s) of land to the County, and/or transfer(s) of easement in favour of the County and/or utilities. Also, the owner further acknowledges and agrees that it is their solicitor's responsibility on behalf of the owner for the registration of postponements of any charges in favour of the County.

Permission to Enter Subject Lands

Permission is hereby granted to Norfolk County officers, employees or agents, to enter the premises subject to this application for the purposes of making inspections associated with this application, during normal and reasonable working hours.

Freedom of Information

For the purposes of the *Municipal Freedom of Information and Protection of Privacy Act*, I authorize and consent to the use by or the disclosure to any person or public body any information that is collected under the authority of the *Planning Act, R.S.O. 1990, c. P. 13* for the purposes of processing this application.

_____ _____

Owner/Applicant/Agent Signature Date

J. Owner's Authorization

If the applicant/agent is not the registered owner of the lands that is the subject of this application, the owner must complete the authorization set out below.

I/We _____ am/are the registered owner(s) of the lands that is the subject of this application.

I/We authorize _____ to make this application on my/our behalf and to provide any of my/our personal information necessary for the processing of this application. Moreover, this shall be your good and sufficient authorization for so doing.

_____ _____

Owner Date

_____ _____

Owner Date

***Note:** **If property is owned by an Ontario Ltd. Corporation, Articles of Incorporation are required to be attached to the application**.

K. Declaration

I,_____of _____

solemnly declare that:

all of the above statements and the statements contained in all of the exhibits transmitted herewith are true and I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of *The Canada Evidence Act*.

Declared before me at:

_____ _____

Owner/Applicant/Agent Signature

In _____

This _____day of _____

A.D., 20____

_____

A Commissioner, etc.

I. Transfers, Easements and Postponement of Interest

The owner acknowledges and agrees that if required it is their solicitor's responsibility on behalf of the owner for the registration of all transfer(s) of land to the County, and/or transfer(s) of easement in favour of the County and/or utilities. Also, the owner further acknowledges and agrees that it is their solicitor's responsibility on behalf of the owner for the registration of postponements of any charges in favour of the County.

Permission to Enter Subject Lands

Permission is hereby granted to Norfolk County officers, employees or agents, to enter the premises subject to this application for the purposes of making inspections associated with this application, during normal and reasonable working hours.

Freedom of Information

For the purposes of the *Municipal Freedom of Information and Protection of Privacy Act*, I authorize and consent to the use by or the disclosure to any person or public body any information that is collected under the authority of the *Planning Act, R.S.O. 1990, c. P. 13* for the purposes of processing this application.

Owner/Applicant/Agent Signature — August 29 2025 (Date)

J. Owner's Authorization

If the applicant/agent is not the registered owner of the lands that is the subject of this application, the owner must complete the authorization set out below.

I/We Diane Luke am/are the registered owner(s) of the lands that is the subject of this application.

I/We authorize Kayla DeLeye to make this application on my/our behalf and to provide any of my/our personal information necessary for the processing of this application. Moreover, this shall be your good and sufficient authorization for so doing.

Owner — August 29 2025 (Date)

Owner — August 29 2025 (Date)

Note:** **If property is owned by an Ontario Ltd. Corporation, Articles of Incorporation are required to be attached to the application.

K. Declaration

I, WENDY DIANE LUKE of SIMCOE, NORFOLK COUNTY

solemnly declare that:

all of the above statements and the statements contained in all of the exhibits transmitted herewith are true and I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of *The Canada Evidence Act*.

Declared before me at:

Simcoe

In Norfolk County

This 2 day of September

A.D., 20 25

A Commissioner, etc.

Owner/Applicant/Agent Signature

Commissioner, etc., Province of Ontario, for the Corporation of Norfolk County. Expires May 23, 2027.

CHUNG & VANDER DOELEN
ENGINEERING LTD.

311 VICTORIA STREET NORTH
KITCHENER / ONTARIO / N2H 5E1
519-742-8979

June 2, 2025
File No.: G21306

Charlie and Diane Luke
Charles Luke
595 Hillcrest Road, RR2
Simcoe, ON
N3Y 3K1

Attention: Mr. and Mrs. Luke

RE: Slope Stability Assessment
Proposed Cottage
Part Lots 24, 25 and 26 Registered Plan 166
Hillside Avenue, Normandale, Ontario

1.0 INTRODUCTION

CHUNG & VANDER DOELEN ENGINEERING LTD. (CVD) has been retained by Mr. and Mrs. Luke to conduct a slope stability assessment to evaluate the feasibility of constructing a small cottage on their property located on Hillside Avenue in Normandale, Ontario.

The purpose of the investigation is to provide comprehensive assessment of the soil and groundwater conditions at the site and to determine the applicable setback from the top of the slope for the proposed cottage.

The methodology presented herein will be carried out in general accordance with the policies and the guidelines listed below:

- *Technical Guide – River and Stream Systems: Erosion Hazard Limit*, Ontario Ministry of Natural Resources, 2002
- "Technical Guide – Great Lakes – St. Lawrence River Shorelines" Ontario Ministry of Natural Resources, 2001
- *Policies for the Administration of the Prohibited Activities, Exemptions and Permits Regulation, Ontario Regulation 41/24*, Long Point Region Conservation Authority, Revised April 3, 2024

2.0 FIELD WORK

Two (2) boreholes designated as Boreholes 1 and 2 were advanced to depths ranging from 3.5 to 26.4 m below ground surface on April 15, 2025, to determine and assess the subsurface conditions at the site.

The borehole locations are illustrated on the Borehole and Slope Cross Section Location Plan, Drawing No. 1.

The field work was carried out under the supervision of a member of our engineering team, who logged the boreholes in the field, effected the subsurface sampling, and monitored the groundwater conditions.

The boreholes were advanced using a truck-mounted CME-75 drill rig, supplied, and operated by a specialist drilling contractor. The drill rig was equipped with continuous flight hollow stem augers and standard soil sampling equipment. Standard penetration tests (SPTs) in accordance with ASTM Specification D1586, were carried out at frequent intervals of depth, and the results are shown on the Borehole Logs as Penetration Resistance or "N"-values.

The boreholes were surveyed by CVD for the purpose of this report using a Network RTK Global Navigation Satellite System (GNSS) Receiver. The survey data was collected using the UTM Zone 17N Projection, NAD83(CSRS)v7-2010 datum and Canada Geoid Model HT2_2010v70 (CGVD28).

3.0 LABORATORY TESTING

Soil samples obtained from the in-situ tests were examined in the field and subsequently taken to our laboratory for detailed examination and laboratory testing. Geotechnical testing conducted at CVD's laboratory included natural moisture content determination of all retrieved samples and three (3) grain size distribution analyses.

4.0 EXISTING SITE AND SLOPE CONDITIONS

The site is located on the south side of Hillside Avenue in Normandale, Ontario, and comprises three part lots—Part Lots 24, 25, and 26—on Registered Plan 166. The property is perched atop a bluff that slopes down toward Lake Erie, with sloped terrain along its southern and eastern boundaries. An existing walk-out style residential dwelling is located immediately to the west.

Based on a review of the topographic survey by Michael W. Yeo Ontario Land Surveyor (Dwg Part1TOPO, dated February 2025), the eastern slope is approximately 14 to 16 m high, with an inclination of about 2.8±H:1V at the base, steepening to approximately 1.2±H:1V in the upper third of the slope. The southern slope ranges from 4 to 6 m in height and has an inclination of 1.8H:1V. The upper portion of the southern slope includes a 2 m high tier with a gentler inclination of 2.8±H:1V; however, it is anticipated that this section will be re-graded flatter to accommodate a walk-out style basement for the proposed cottage similar to the existing dwelling located to the west.

Existing residential dwellings are located between the toe of the eastern slope and the shoreline of Lake Erie. This area also includes shoreline protection features, and concrete retaining walls associated with these dwellings. At the toe of the southern slope, a landscaped area and driveway belonging to the residential dwelling to the southeast are also present.

A site reconnaissance was carried out on March 24, 2025, to document the condition of the existing slope and to complete the Ontario Ministry of Natural Resources & Forestry (MNRF) Slope Stability Rating Chart. Overall, the slope's topography appeared consistent with the contour data available from the topographic survey. The face of the slope is well vegetated with heavy shrubs, grasses, and mature trees. There were no signs of past or present landslide activity, nor were any indications of active erosion, seepage or instability observed at the top, along the faces, or at the toe of the slope.

The MNRF Slope Stability Rating Chart was completed based on the results of the site reconnaissance and is enclosed for reference in Appendix B. The MNRF Slope Stability Rating Chart classifies instability potential into three categories: "low potential," "slight potential," or "moderate potential". Based on the rating value of 38, the existing slope is assessed to have a "moderate potential" of instability, warranting the implementation of borehole drilling, installation of monitoring wells, laboratory testing, site surveying, and preparation of a detailed geotechnical report as part of this slope stability assessment.

Site photographs taken during the site reconnaissance are provided for reference in Appendix A.

5.0 SUBSURFACE CONDITIONS

5.1 General

The detailed subsurface conditions encountered in the boreholes advanced as part of this investigation are shown on the Borehole Log Sheets, Enclosures 1 and 2. The following sections provide descriptions of the major deposits encountered in the borehole. Enclosure A provides explanations of the various soil abbreviations and terms used on these borehole log sheets.

The stratigraphic boundaries shown on the borehole log are inferred from non-continuous sampling conducted during advancement of the borehole drilling procedures and, therefore, represent transitions between soil types rather than exact planes of geologic change. The subsurface conditions will vary beyond the borehole location.

5.2 Topsoil

Topsoil with a measured thickness of 50 mm was encountered at the ground surface at Boreholes 1 and 2.

5.3 Fill

Fill materials were encountered below the topsoil in Boreholes 1 and 2, extending to depths ranging from 3.1 to 3.2 m below existing grade. Hand-dug test pits revealed negligible amounts of fill were present beneath the topsoil at the top of the existing slope. The fill generally consisted of silty sand containing trace gravel and clay. Occasional organics, rootlets, and asphalt fragments were noted within the fill.

The Standard Penetration Test (SPT) "N"-values measured within the fill ranged from weight of hammer (advancement of the split-spoon sampler under the weight of the drill rods, anvil, and hammer) to 4 blows per 300 mm of penetration, indicating a very loose compactness condition.

The measured moisture contents of the samples collected from this layer ranged between 9 and 16%, thus indicating the material is moist to wet.

5.4 Sand

Fine sand, containing trace to some silt was encountered beneath the fill in both boreholes. In Borehole 1, this deposit extended to a depth of 15.3 m, while Borehole 2 was terminated within this layer at a depth of 3.5 m. This deposit contained occasional silt seams and layers. Additionally, a saturated sand and silt layer approximately 2.2 m thick was encountered interlayered within this deposit between 8.5 and 10.7 m depth. The results of one (1) grain size distribution analysis are shown graphically on Enclosure 3.

Standard Penetration Test (SPT) "N"-values recorded within this deposit ranged from 6 blows per 300 mm of penetration to over 50 blows per 150 mm of penetration, indicating a loose to very dense compactness condition. The upper portion of the deposit was typically compact, transitioning to a very dense condition with increasing depth of penetration.

The measured moisture contents of the samples collected from this deposit ranged between 3 and 14%, thus indicating the material is moist to wet. A higher moisture content of 30% was measured within the saturated sand and silt interlayer.

5.5 Sand and Silt to Silt, some Sand

A deposit ranging from sand and silt to silt with some sand was encountered beneath the sand in Borehole 1, extending until the borehole termination at a depth of 26.4 m. The results of two (2) grain size distribution analyses are shown graphically on Enclosures 4 and 5.

The Standard Penetration Test (SPT) "N"-values measured within this deposit ranged from 35 blows per 300 mm of penetration to greater than 50 blows per 150 mm penetration, indicating a dense to very dense compactness condition.

The measured moisture contents of the samples collected from this deposit ranged between 19 and 24%, thus indicating the material is saturated.

5.6 Groundwater

Following the completion of drilling, a 50 mm diameter groundwater monitoring well with a 3.0 m long screened interval was installed in Borehole 1 to a depth of 16.8 m below the existing grade. The following table presents the water level reading obtained by CVD on May 1, 2025:

Borehole No.	Existing Ground Surface Elevation (m)	Groundwater Measurement	
		May 1, 2025	
		Depth (m)	Elevation (m)
BH 1	194.58	15.60	178.98

Based on the water level measured in the monitoring well, the groundwater table at the borehole location is at a depth of 15.6± m below existing ground surface, corresponding to an elevation of 179.00± m. The groundwater table is expected to follow the slope contour with a downward hydraulic gradient towards Lake Erie. The water level in Lake Erie during the investigation period was at an approximate elevation of 174.50 m according to water level data recorded at the Port Dover gauging station operated by Fisheries and Oceans Canada.

It is noted that the observed groundwater table will fluctuate seasonally and in response to major weather events.

6.0 SLOPE STABILITY ANALYSES

Two (2) representative slope cross-sections (Sections A-A' and B-B') were generated based on a topographic survey completed by Michael W. Yeo, Ontario Land Surveyor (Dwg Part1TOPO, dated February 2025) in order to perform slope stability analyses which represent the varying soil conditions and slope inclinations across the site. The locations of these cross-sections are illustrated on the Borehole and Slope Cross Section Location Plan (Drawing 1), with detailed slope stability analysis results provided in Appendix C.

The soil parameters and groundwater levels used in the slope stability analyses were determined based on the field and laboratory test results from the current investigation, as well as our experience with similar soil types. The selected "effective stress - drained condition" soil parameters were used to perform the stability analyses with the use of the slope stability modeling software Slide by Rocscience Inc., applying the Morgenstern-Price method of analysis.

The following soil strength parameters were used in the stability analyses:

Soil Type	Unit Weight (kN/m^3)	Friction Angle (ϕ^0)	Cohesion (kPa)
Fill	17	28	0
Fine Sand (Upper)	19	33	0
Fine Sand (Lower)	21	38	0
Sand and Silt, to Silt, some Sand	21	32	0

A groundwater level of 15.6 m below the borehole locations was selected for the analysis, based on the results of the groundwater level recorded in the monitoring well. The groundwater table was modeled to follow the natural slope topography beyond the boreholes, ultimately aligning with the water level of Lake Erie.

The results of the slope stability analyses are presented graphically in Appendix C. The top and bottom elevations of the slopes, existing average slope inclinations and stable slope inclinations for each section are as follows:

Section	Top of Slope Elevation (m)	Bottom of Slope Elevation (m)	Existing Slope Inclination	Stable Slope Inclination
A-A’	193.60	178.80	2.4H:1V (lower) 1.2H:1V (upper)	2.0H:1V
B-B’	192.35*	187.80	1.8H:1V	1.8H:1V

*Top of slope assessed to be at elevation 192.35 m, as it is assumed that the “upper slope” in the fill soils will be re-graded to accommodate a walk out style cottage similar to the adjacent property to the west.

The Ontario Ministry of Natural Resources River and Stream Systems and Great Lakes Technical Guides specify a Factor of Safety of 1.3 to 1.5 for land uses classified as "Active". In our analyses, a minimum Factor of Safety of 1.4 was used.

The results of the analyses indicate that Section A-A has a Factor of Safety less than 1.4 and is therefore not considered stable at the current inclinations. Several iterations with flatter slope inclinations were conducted until the Factor of Safety was equal or greater than 1.4. These analyses showed that Section A-A’ is stable at an inclination of 2.0H:1V.

Section B-B’ was evaluated to have a Factor of Safety equal to or greater than 1.4, therefore the existing slope is considered stable at its current inclination of 1.8H:1V.

It is noted that the contribution of the existing shoreline protection features or existing concrete retaining walls at the base of Section A-A’ were not considered in the stability analysis.

6.1 Development Setback Requirements

Reference is made to Drawing 2 which outlines the Erosion Hazard Limits for Great Lakes and St. Lawrence River Shorelines.

In areas without flooding or dynamic beach hazards, the total development setback for Great Lakes and St. Lawrence River Shorelines is calculated as the sum of the Stable Slope Allowance plus 100 times the average annual recession rate (i.e., 100-year recession) measured landward from the toe of the shoreline cliff, bluff, or bank for shorelines where a minimum of 35 years of recession information is available. Where there is insufficient data to estimate an average annual recession rate, an erosion allowance equal to 30 m (100 feet) is used.

Toe Erosion Allowance

Based on initial consultation with the LPRCA, it is understood that this development qualifies as "infill," allowing for a reduced planning horizon from 100 years to 60 years. As such, an erosion allowance of 18 m has been applied to determine the required development setback, measured landward from the existing shoreline protection along Section A–A'.

No toe erosion allowance is required for Section B–B', as there are no identified erosion hazards at the base of the slope in this area.

Stable Slope Allowance

The stability analyses indicated that Section B-B' is stable at its present inclination of 1.8H:1V. These analyses also showed that Section A-A' would be stable at an inclination of 2.0H:1V.

It is therefore recommended that the stable slope allowance be based on a line inclined upwards from the landward limit of the Toe Erosion Allowance or from the toe of slope where no Toe Erosion Allowance is applicable.

Total Development Setback

The table below summarizes the total development setback for the proposed development:

Section	Toe Erosion Allowance (m)	Net Stable Slope Allowance (m)	Stable Top of Slope (Total Development Setback from Current Top of Slope) (m)
A-A'	18.0	18.1	18.1
B-B'	0.0	0.0	0.0

The above setback components are illustrated on the detailed slope stability analysis results provided in Appendix C. The Borehole and Slope Cross Section Location Plan, Drawing No. 1 shows the current top of slope and stable top of slope lines.

Future Retaining Wall Construction

It is assumed that retaining walls may be constructed near the toe of the south slope to create additional usable space for the installation of a septic system at the rear of the proposed cottage. It should be noted that any retaining wall construction in this area would be subject to approval from the Long Point Region Conservation Authority (LPRCA).

From a geotechnical perspective, if an adequately designed retaining wall is constructed in this location, the top of the stable slope may be considered as the top of the retaining wall, provided that the backslope does not exceed an inclination of 5H:1V.

Any future retaining walls must be designed by a Professional Engineer, and global stability analyses should be performed to ensure that the wall has an adequate factor of safety against deep-seated rotational failure. It is recommended that CVD be retained to review the details of any proposed retaining walls in this area.

7.0 RECOMMENDATIONS

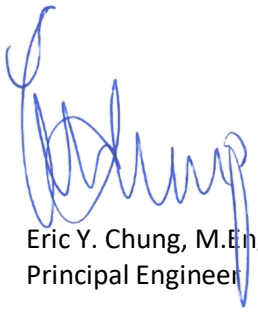
The following general recommendations should be considered during and following construction:

1. Ensure adequate erosion and sediment control measures are implemented prior to construction.
2. Avoid raising the grades at the top of the slope higher than the existing elevations.
3. Preserve existing vegetation to the greatest extent possible and restore as needed to enhance surficial stability and protect against erosion.
4. Apply temporary stabilization measures, such as erosion control blankets, geotextiles, hydroseeding, or mulching, on any exposed soil surfaces to prevent erosion. These measures should remain in place until permanent vegetation is established.
5. Continuously monitor the slope for signs of instability, such as cracking, slumping, or erosion and conduct regular visual inspections, especially after significant weather events.
6. Excavated soil and construction materials should not be stockpiled within 6 m of the existing top of slope.
7. Construction drainage should be directed away from the slope, and outlets should be equipped with adequate erosion and sediment control measures.
8. Grading and site drainage should be designed to minimize runoff and prevent concentrated flow over the slope.
9. Ensure rainwater leaders discharge to suitable outlets to minimize water flow over the slope.
10. Establish post-construction maintenance plans for slope vegetation and drainage systems.

If you have any questions or comments, please do not hesitate to contact the undersigned.

Yours truly,
CHUNG & VANDER DOELEN ENGINEERING LTD.

Andrew Dale, P.Eng.
Project Engineer



Eric Y. Chung, M.Eng., P.Eng.
Principal Engineer

Enclosures:

Enclosure A – Soil Abbreviations and Terms Used on Record of Borehole Log Sheets
Enclosures 1 and 2 – Borehole Log Sheets 1 and 2
Enclosures 3 to 5 – Grain Size Distribution Charts

Drawing 1 – Borehole and Slope Cross-section Location Plan
Drawing 2 – MNRF Erosion Hazard Limit Great Lakes - St. Lawrence River Shoreline

Appendix A – Site Photographs
Appendix B – Slope Stability Rating Chart
Appendix C – Slope Stability Analyses

ENCLOSURES

Soil Abbreviations and Terms Used on Record of Borehole Sheets

TERMINOLOGY DESCRIBING COMMON SOIL TYPES:

Topsoil	-	mixture of soil and humus capable of supporting vegetation
Peat	-	mixture of visible and invisible fragments of decayed organic matter
Till	-	unstratified glacial deposit which may range from clay to boulders
Fill	-	soil materials identified as being placed anthropologically

CLASSIFICATION (UNIFIED SYSTEM)

Clay	<0.002mm		
Silt	0.002 to .075mm		
Sand	0.075 to 4.75mm		
		Fine	0.075 to 0.425 mm
		Medium	0.425 to 2.0 mm
		Coarse	2.0 to 4.75 mm
Gravel	4.75 to 75mm		
		Fine	4.75 to 19 mm
		Coarse	19 to 75 mm
Cobbles	75 to 300mm		
Boulders	>300mm		

TERMINOLOGY

Soil Composition	**% by Weight**
"traces"	<10%
"some"(eg. some silt)	10-20%
Adjective (eg. sandy)	20-35%
"and"(eg. sand and gravel)	35-50%

Standard Penetration Resistance (SPT): Standard Penetration Resistance ('N' Values) refers to the number of blows required to advance a standard (ASTM D1586) 51 mm Ø (2 inch) split-spoon sampler by the use of a free falling, 63.5 Kg (140lbs) hammer. The number of blows from the drop weight is recorded for every 15 cm (6 inches). The hammer is dropped from a distance of 0.76m (30 inches) providing 474.5 Joules per blow. When the sampler is driven a total of 45 cm (18 inches) into the soil, the standard penetration index ('N' Value) is the total number of blows for the last 30 cm (12 inches).

Dynamic Cone Penetration Resistance (DCPT): Dynamic Cone Penetration Resistance is similar to a SPT with the 474.5 Joule/blow impulse provided by the free falling hammer where the split-spoon sampler is replaced by a 51 mm Ø, 60˚ conical point and the number of blows is recorded continuously for every 30 cm (12 inches).

COHESIVE SOILS CONSISTENCY

	(kPa)	**(P.S.F.)**	**Nominal 'N' Value**
Very Soft	<12	<250	0-2
Soft	12-25	250-500	2-4
Firm	25-50	500-1000	4-8
Stiff	50-100	1000-2000	8-15
Very Stiff	100-200	2000-4000	15-30
Hard	>200	>4000	>30

RELATIVE DENSITY OF COHESIONLESS SOIL

	'N' Value
Very Loose	0-4
Loose	4-10
Compact	10-30
Dense	30-50
Very Dense	>50

MOISTURE CONDITIONS:

Cohesive Soil
DTPL- Drier than plastic limit
APL- About plastic limit
WTPL- Wetter than plastic limit
MWTPL- Much wetter than plastic limit

Cohesionless Soil
Damp
Moist
Wet
Saturated

SAMPLE TYPES AND ADDITIONAL FIELD TESTS

SS	Split Spoon Sample (obtained from SPT)	**GS**	Grab Sample	**PP**	Pocket Penetrometer
		BS	Bulk Sample	**VANE**	Peak & Remolded shear
AS	Auger Sample	**TW**	Thin Wall Sample or Shelby Tube	**DMT**	Flat Plate Dilatometer

LABORATORY TESTS

SG	Specific Gravity	**S**	Sieve Analysis	**W**	Water Content
H	Hydrometer	**P**	Field Permeability	**K**	Lab Permeability
W_p	Plastic Limit	**W_l**	Liquid Limit	**I_p**	Plasticity Index
GSA	Grain Size Analysis	**C**	Consolidation	**UNC**	Unconfined compression

CHUNG & VANDER DOELEN
ENGINEERING LTD.

Enclosure A

FILE No: G21306

BOREHOLE No. 1

Client: **Mr. Charles Luke**

Project: **Slope Stability Assesment**

Location: **210 Hillside Ave, Vittoria, ON**

EQUIPMENT DATA

Machine: **CME 75 Truck**
Method: **Hollow Stem Auger**
Size: **108 mm I.D**
Date: **Apr 15 - 25** TO **Apr 15 - 25**

Ground Elevation: **194.58 m**

ELEV./ DEPTH (m)	DESCRIPTION	DEPTH (m)	SAMPLE ID	TYPE	N-VALUE
194.58 0.00	50 mm TOPSOIL	0.5	1	SS	3
	very loose dark brown / reddish brown FILL, silty sand trace gravel, trace clay moist to wet contains occ. rootlets and organics occ. asphalt / wood fragments	1.0	2	SS	3
		1.5	3	SS	1
		2.0			
		2.5	4	SS	2
191.38 3.20		3.0			
	loose to dense brown Fine SAND trace to some silt damp to moist occ. clayey seams	3.5	5	SS	6
		4.0	6	SS	11
		4.5			
		5.0	7	SS	11
		5.5			
		6.0			
		6.5	8	SS	24
		7.0			
		7.5			
		8.0	9	SS	34
186.08 8.50		8.5			
	compact brown SAND AND SILT saturated occ. silt seams	9.0			
		9.5	10	SS	16
		10.0			
183.88 10.70		10.5			
	very dense brown Fine SAND trace to some silt damp to wet occ. silt seams/layers	11.0	11	SS	50/ 125mm
		11.5			
		12.0			
		12.5	12	SS	88/ 250 mm
		13.0			
		13.5			
		14.0	13	SS	82/ 300 mm
		14.5			
		15.0			

SHEAR STRENGTH (kPa)
FIELD VANE: Peak ⊗ Rem. ×
LAB TEST: Unc. ■ P.P. □
50 100 150 200
PENETRATION RESISTANCE
STANDARD ● DYN. CONE ○
20 40 60 80

WATER CONTENT (%)
W_P W W_L
10 20 30

WELL DATA

DEPTH (m)	REMARKS
0.5	above grade stick up casing set in concrete
5.0	bentonite seal/50 mm I.D. PVC riser
14.0	3 m long, 50 mm I.D. PVC screen with sandpack

PROJECT MANAGER: **AD**

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Kitchener, Ontario N2H 5E1
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FILE No: G21306

BOREHOLE No. 1

Client: **Mr. Charles Luke**

Project: **Slope Stability Assesment**

Location: **210 Hillside Ave, Vittoria, ON**

EQUIPMENT DATA

Machine: **CME 75 Truck**
Method: **Hollow Stem Auger**
Size: **108 mm I.D**
Date: **Apr 15 - 25** TO **Apr 15 - 25**

ELEV./ DEPTH (m)	DESCRIPTION	DEPTH (m)	SAMPLE ID	TYPE	N-VALUE	REMARKS
179.28	*(continued)*					
15.30	dense to very dense brown SAND AND SILT to SILT, some sand trace clay saturated	15.5	14	SS	50/ 100 mm	water level in monitoring well at a depth of 15.6 m bgs on May 1, 2025.
		16.0				
		16.5				
		17.0	15	SS	39	
		17.5				
		18.0				
		18.5	16	SS	35	
		19.0				
		19.5				
	----- becoming grey	20.0	17	SS	38	
		20.5				
		21.0				
		21.5	18	SS	53	
		22.0				bentonite seal
		22.5				
		23.0	19	SS	49	
		23.5				
		24.0				
		24.5				
		25.0				
		25.5				
		26.0	20	SS	73	
168.18						
26.40	End of Borehole	26.5				
		27.0				
		27.5				
		28.0				
		28.5				
		29.0				
		29.5				
		30.0				

SHEAR STRENGTH (kPa)
FIELD VANE: Peak ⊗ Rem. ×
LAB TEST: Unc. ■ P.P. □
50 100 150 200
PENETRATION RESISTANCE
STANDARD ● DYN. CONE ○
20 40 60 80

WATER CONTENT (%)
W_P W W_L
10 20 30

WELL DATA

PROJECT MANAGER: **AD**

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Enclosure No.: 2
Sheet 1 of 1

FILE No: G21306

BOREHOLE No. 2

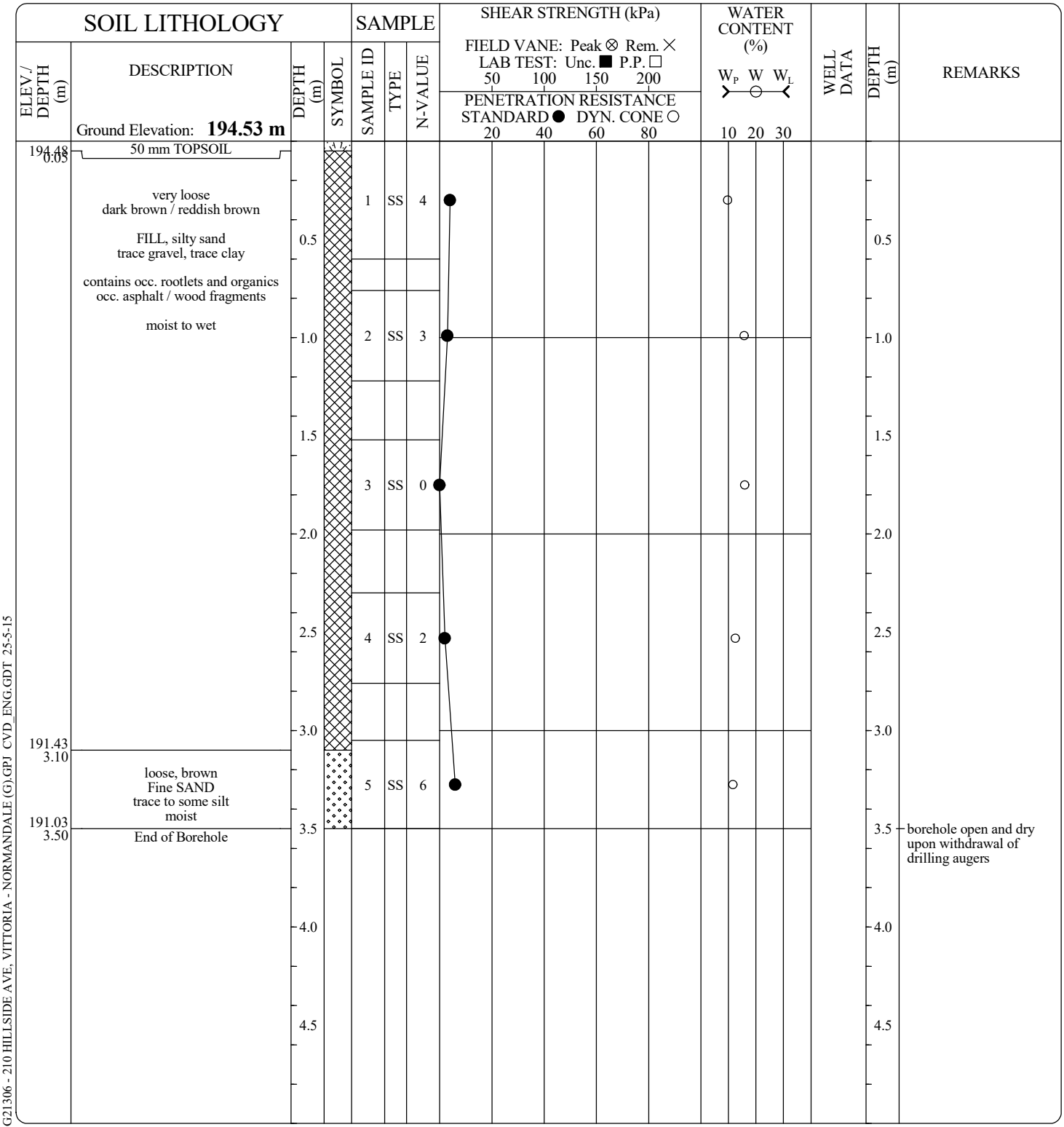
Client: **Mr. Charles Luke**

Project: **Slope Stability Assesment**

Location: **210 Hillside Ave, Vittoria, ON**

EQUIPMENT DATA

Machine: **CME 75 Truck**
Method: **Hollow Stem Auger**
Size: **108 mm I.D**
Date: **Apr 15 - 25** TO **Apr 15 - 25**



PROJECT MANAGER: **AD**

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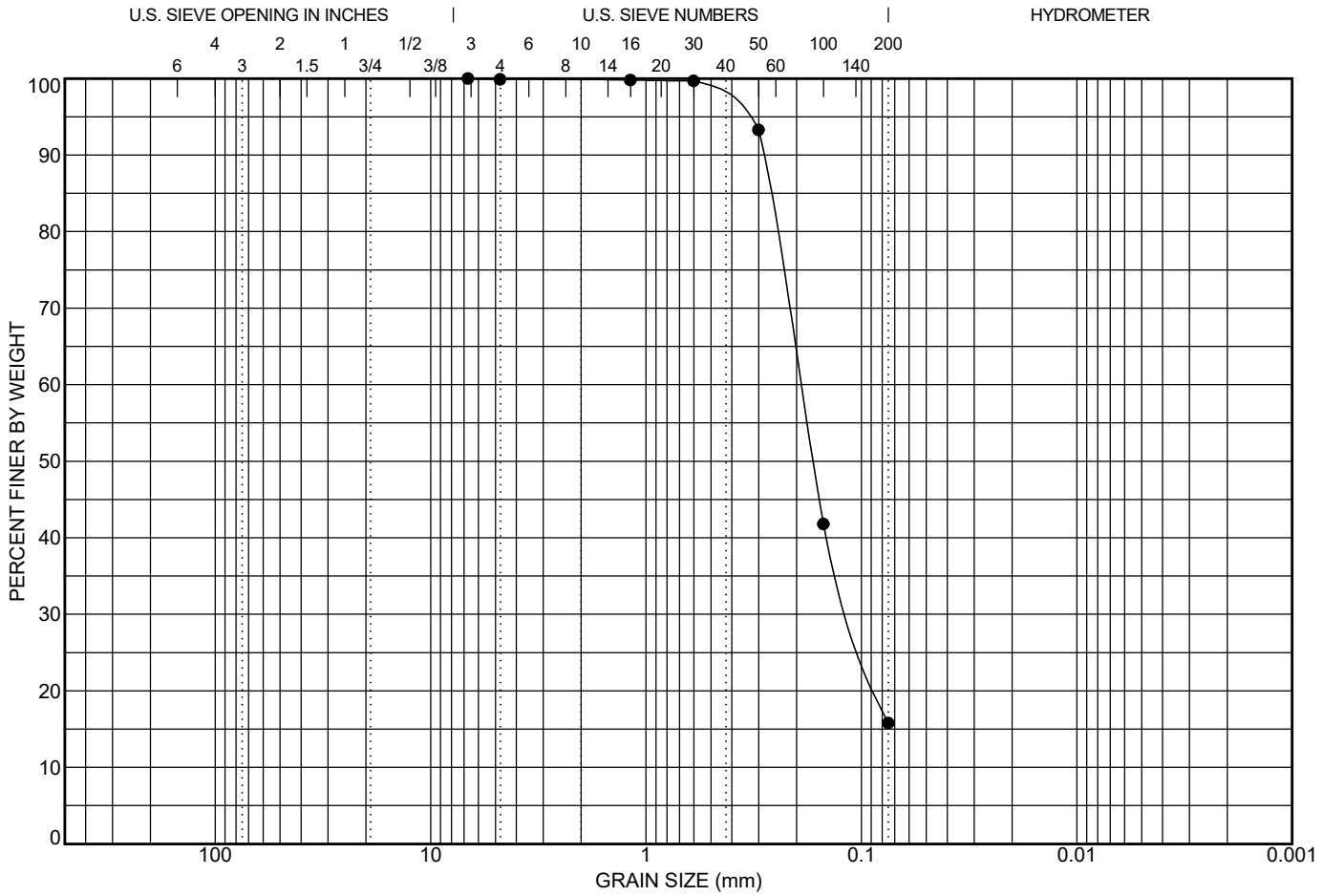


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

LL	PL	PI	Cc	Cu	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
					6.7	0.192	0.11		0.1	84.1	15.8	

Date: May. 05 - 2025
Client: Mr. Charles Luke
Contractor:
Source:
Sampled From: BH1 SS7; 4.57 to 5.03 m depth
Sample No.: 1-7
Date Sampled: Apr. 15 - 2025
Sampled By: DS
Lab No.: 337
Date Tested: Apr. 25 - 2025
Type of Material: Fine SAND, some Silt

Sieve Size (mm)	Percent Passing	No Specifications

CHUNG & VANDER DOELEN
ENGINEERING LTD.
311 Victoria Street North
Kitchener, Ontario N2H 5E1
Telephone: 519-742-8979
Fax: 519-742-7739
e-mail: info@cvdengineering.com

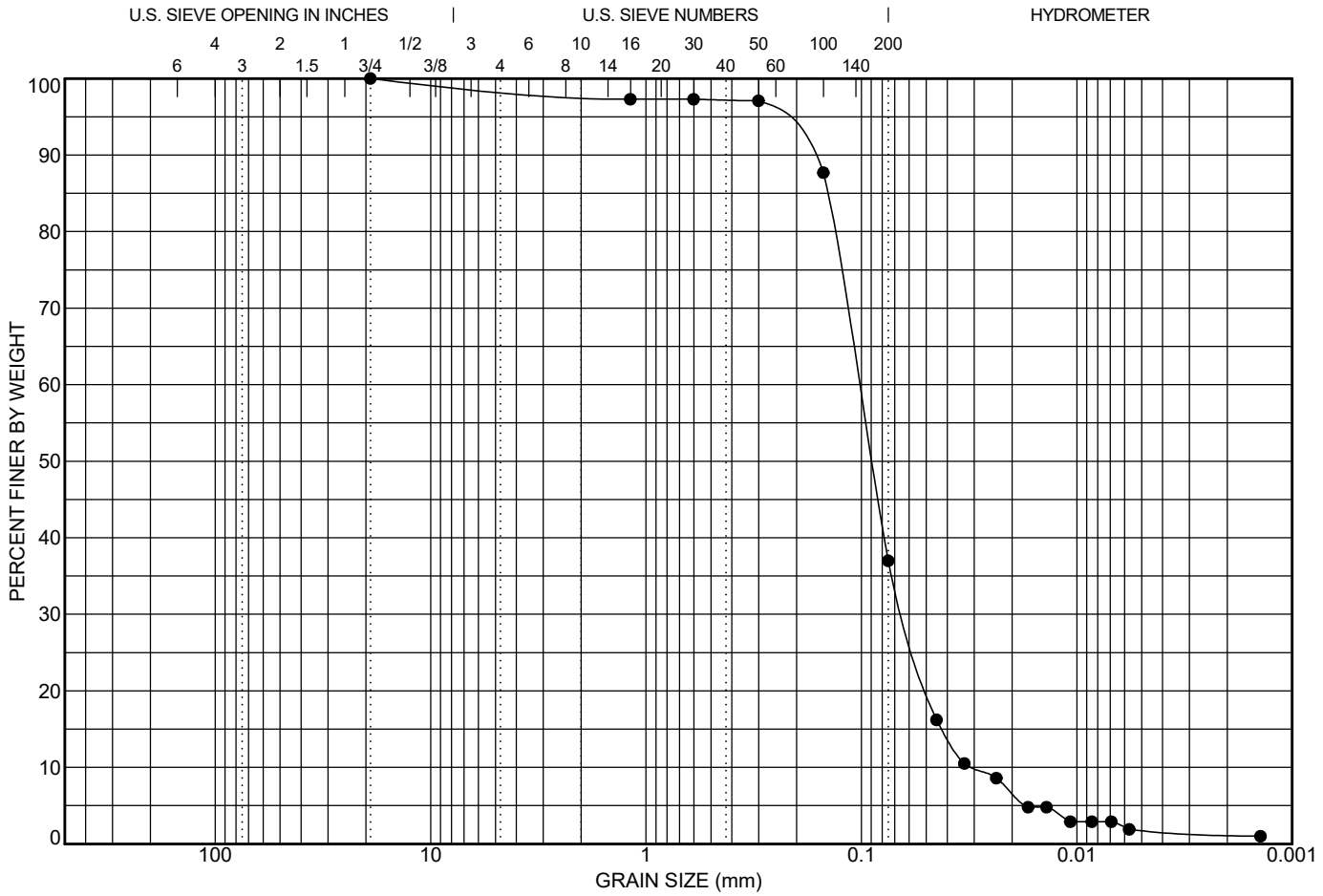
GRAIN SIZE DISTRIBUTION

Project: Slope Stability Assesment

Location: 210 Hillside Ave, Vittoria, ON

File No.: G21306

Enclosure No.: 3



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

LL	PL	PI	Cc	Cu	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
			1.27	3.38	19	0.103	0.063	0.03	1.3	61.7	37.0	

Date: May. 05 - 2025
Client: Mr. Charles Luke
Contractor:
Source:
Sampled From: BH1 SS15; 16.76 to 17.22 m depth
Sample No.: 1-15
Date Sampled: Apr. 15 - 2025
Sampled By: DS
Lab No.: 338
Date Tested: Apr. 28 - 2025
Type of Material: SAND AND SILT, trace Gravel

Sieve Size (mm)	Percent Passing	No Specifications

CHUNG & VANDER DOELEN
ENGINEERING LTD.
311 Victoria Street North
Kitchener, Ontario N2H 5E1
Telephone: 519-742-8979
Fax: 519-742-7739
e-mail: info@cvdengineering.com

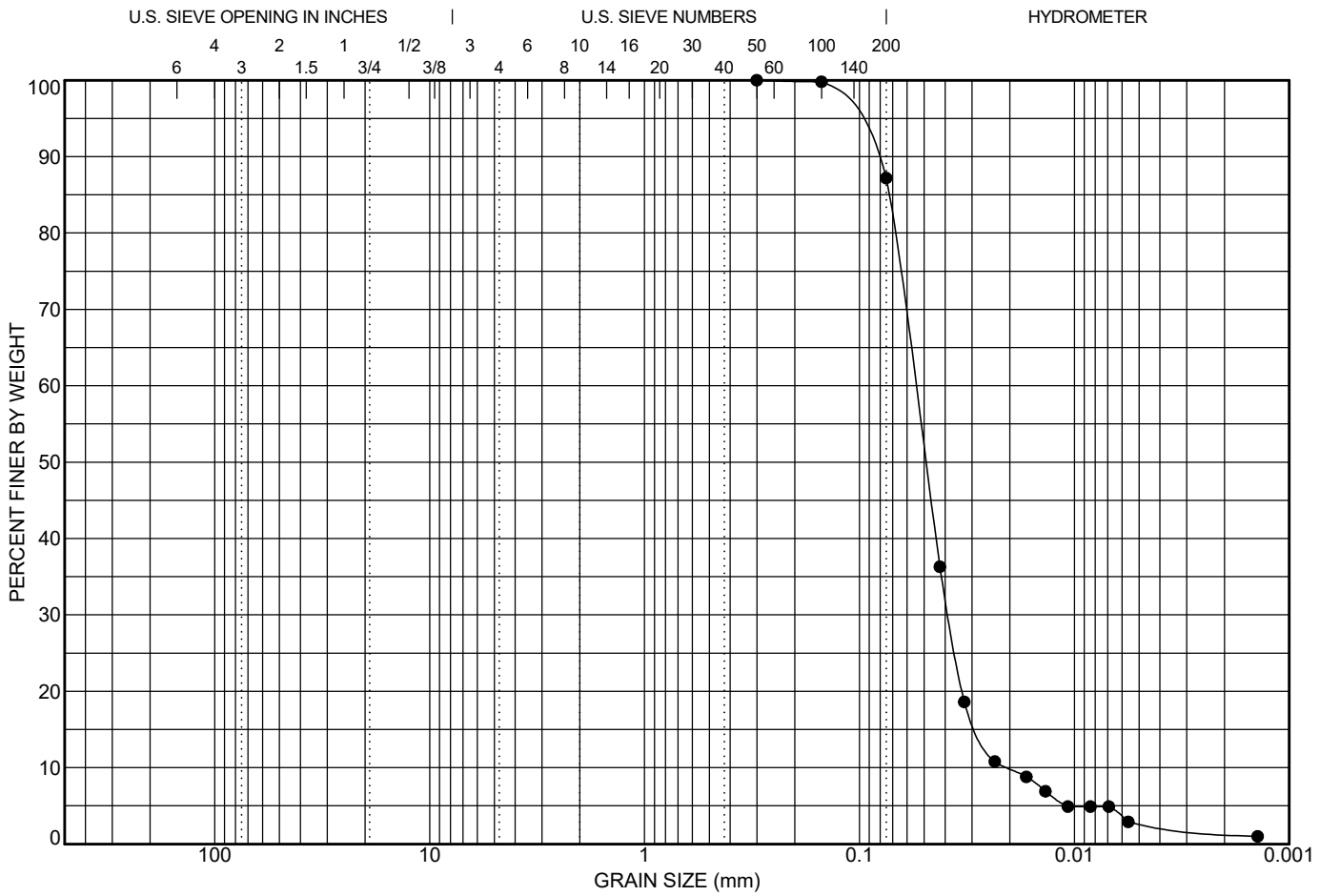
GRAIN SIZE DISTRIBUTION

Project: Slope Stability Assesment

Location: 210 Hillside Ave, Vittoria, ON

File No.: G21306

Enclosure No.: 4



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

LL	PL	PI	Cc	Cu	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
			1.31	2.70	0.3	0.055	0.038	0.02	0.0	12.8	87.2	

Date: May. 05 - 2025
Client: Mr. Charles Luke
Contractor:
Source:
Sampled From: BH1 SS20; 25.90 to 26.40 m depth
Sample No.: 1-20
Date Sampled: Apr. 15 - 2025
Sampled By: DS
Lab No.: 339
Date Tested: Apr. 28 - 2025
Type of Material: SILT, some Sand

Sieve Size (mm)	Percent Passing	No Specifications

CHUNG & VANDER DOELEN
ENGINEERING LTD.
311 Victoria Street North
Kitchener, Ontario N2H 5E1
Telephone: 519-742-8979
Fax: 519-742-7739
e-mail: info@cvdengineering.com

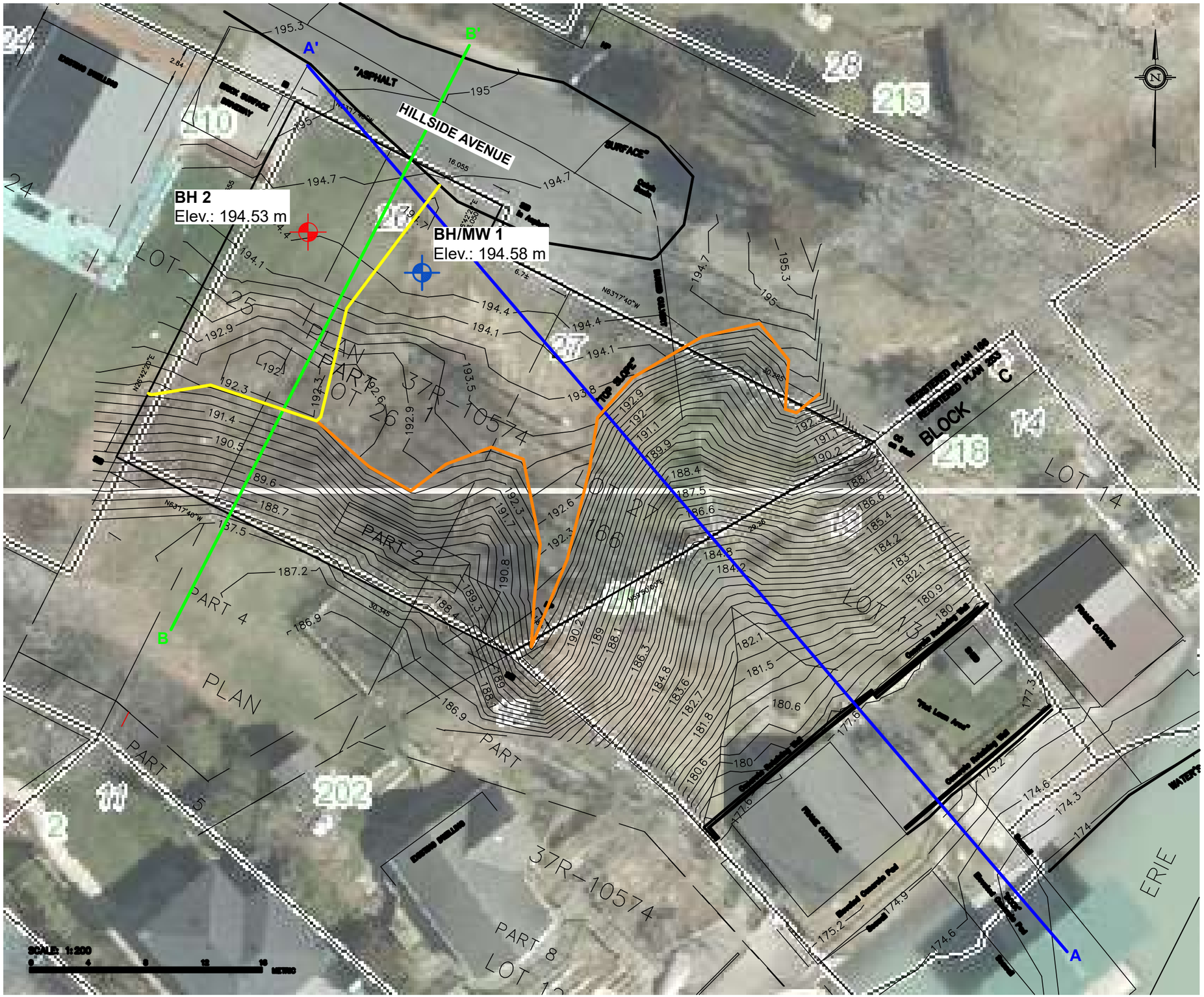
GRAIN SIZE DISTRIBUTION

Project: Slope Stability Assesment

Location: 210 Hillside Ave, Vittoria, ON

File No.: G21306

Enclosure No.: 5



KEY PLAN **SOURCE:** Google Earth

LEGEND

- Monitoring Well Location
- Borehole Location
- TOP OF SLOPE
- STABLE TOP OF SLOPE
- SECTION A-A'
- SECTION B-B'

Elev. Ref.: The borehole locations and associated ground surface elevations were surveyed using a Network RTK Global Navigation Satellite System (GNSS) Receiver. The survey data was collected using UTM Zone 17N Projection, NAD83(CSRS)v7-2010 datum and Canada Geoid Model HT2_2010v70 (CGVD28).

DWG. Ref.: Michael W. Yeo, Ontario Land Surveyor.; "Topographic Survey"; 210 Hillside Avenue, Vittoria, Ontario; DWG: Part1TOPO; Dated: February, 2025.

IMG. Ref.: Norfolk Community Web Map, Retrieved: 2025-04-23.

BOREHOLE AND SLOPE CROSS SECTION LOCATION PLAN

Slope Stability Assesment

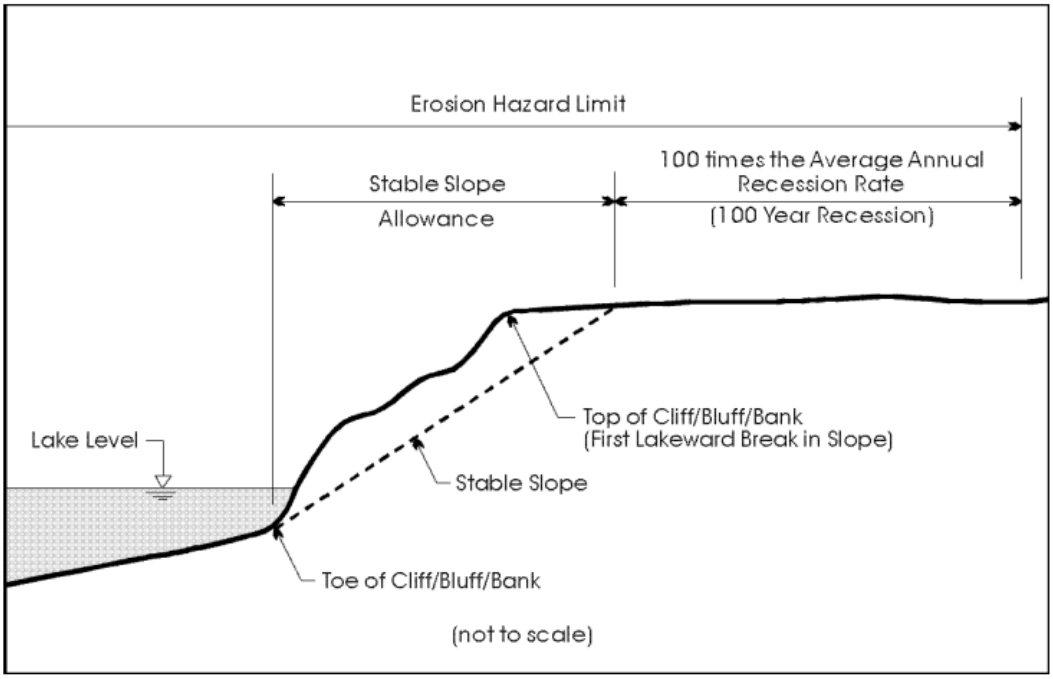
210 Hillside Avenue
Vittoria, Ontario

CHUNG & VANDER DOELEN ENGINEERING LTD.

311 VICTORIA STREET NORTH
KITCHENER / ONTARIO / N2H 5E1 / 519-742-8979

Drawn By: DS	Date: April 2025	File No.: G21306
Checked By: AD	Scale: As Shown	Drawing No.: 1

Figure 4.15 Erosion Hazard: Stable Slope Allowance plus 100 times the Average Annual Recession Rate



APPENDIX A

SITE PHOTOGRAPHS

Photo 1: Looking west at east slope towards the Site

Photo 2: Looking southwest from stairs towards east slope

Photo 3: Looking southeast from stairs towards existing dwellings at base of slope

Photo 4: Looking west towards location of proposed cottage and neighbouring dwelling

Photo 5: Looking northeast along rear south slope

APPENDIX B

SLOPE STABILITY RATING CHART

TABLE 4.2 - SLOPE STABILITY RATING CHART

Site Location: Hillside Avneue, Normandale, ON
File No. G21306
Property Owner: Charlie and Diane Luke
Inspection Date: March 24, 2025
Inspected By: Andrew Dale, P.Eng.
Weather: Overcast

1. SLOPE INCLINATION			
	degrees	**horiz. : vert.**	
a)	18 or less	3 : 1 or flatter	0 ○
b)	18 - 26	2 : 1 to more than 3 : 1	6 ○
c)	more than 26	steeper than 2 : 1	16 ◉
2. SOIL STRATIGRAPHY			
a)	Shale, Limestone, Granite (Bedrock)		0 ○
b)	Sand, Gravel		6 ◉
c)	Glacial Till		9 ○
d)	Clay, Silt		12 ○
e)	Fill		16 ○
f)	Leda Clay		24 ○
3. SEEPAGE FROM SLOPE FACE			
a)	None or Near bottom only		0 ◉
b)	Near mid-slope only		6 ○
c)	Near crest only or, From several levels		12 ○
4. SLOPE HEIGHT			
a)	2 m or less		0 ○
b)	2.1 to 5 m		2 ○
c)	5.1 to 10 m		4 ○
d)	more than 10 m		8 ◉
5. VEGETATION COVER ON SLOPE FACE			
a)	Well vegetated; heavy shrubs or forested with mature trees		0 ◉
b)	Light vegetation; Mostly grass, weeds, occasional trees, shrubs		4 ○
c)	No vegetation, bare		8 ○
6. TABLE LAND DRAINAGE			
a)	Table land flat, no apparent drainage over slope		0 ○
b)	Minor drainage over slope, no active erosion		2 ◉
c)	Drainage over slope, active erosion, gullies		4 ○
7. PROXIMITY OF WATERCOURSE TO SLOPE TOE			
a)	15 metres or more from slope toe		0 ○
b)	Less than 15 metres from slope toe		6 ◉
8. PREVIOUS LANDSLIDE ACTIVITY			
a)	No		0 ◉
b)	Yes		6 ○

SLOPE INSTABILITY RATING VALUES INVESTIGATION RATING SUMMARY **TOTAL** 38

SUMMARY OF RATING VALUES AND RESULTING INVESTIGATION REQUIREMENTS

1. Low potential	< 24	Site inspection only, confirmation, report letter.
2. Slight potential	25-35	Site inspection and surveying, preliminary study, detailed report.
3. Moderate potential	> 35	Boreholes, piezometers, lab tests, surveying, detailed report.

NOTES:

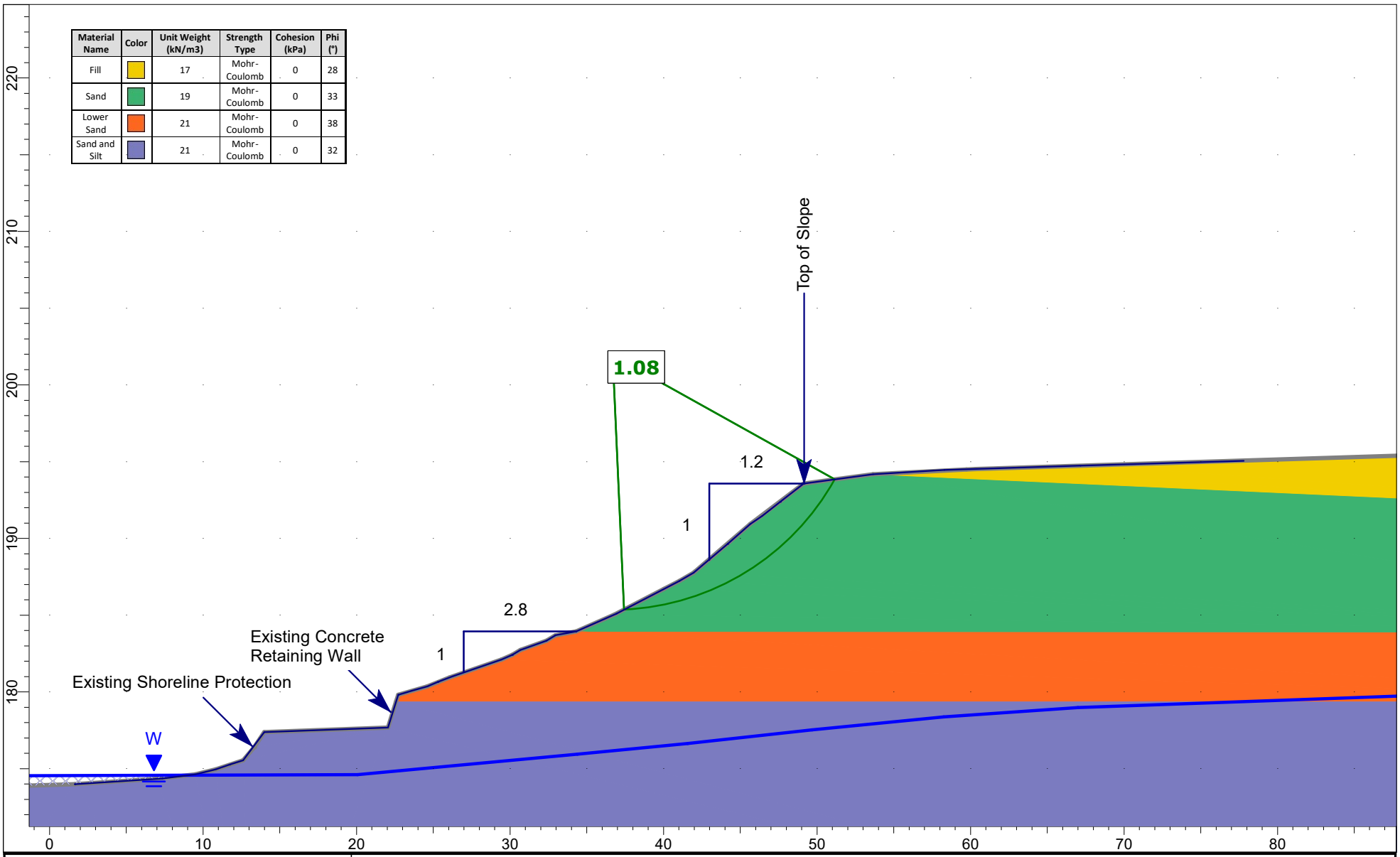
a) Choose only one from each category; compare total rating value with above requirements.

b)If there is a water body (stream, creek, river, pond, bay, lake) at the slope toe; the potential for toe erosion and undercutting should be evaluated in detail and, protection provided if required.

APPENDIX C

SLOPE STABILITY ANALYSES

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)
Fill		17	Mohr-Coulomb	0	28
Sand		19	Mohr-Coulomb	0	33
Lower Sand		21	Mohr-Coulomb	0	38
Sand and Silt		21	Mohr-Coulomb	0	32



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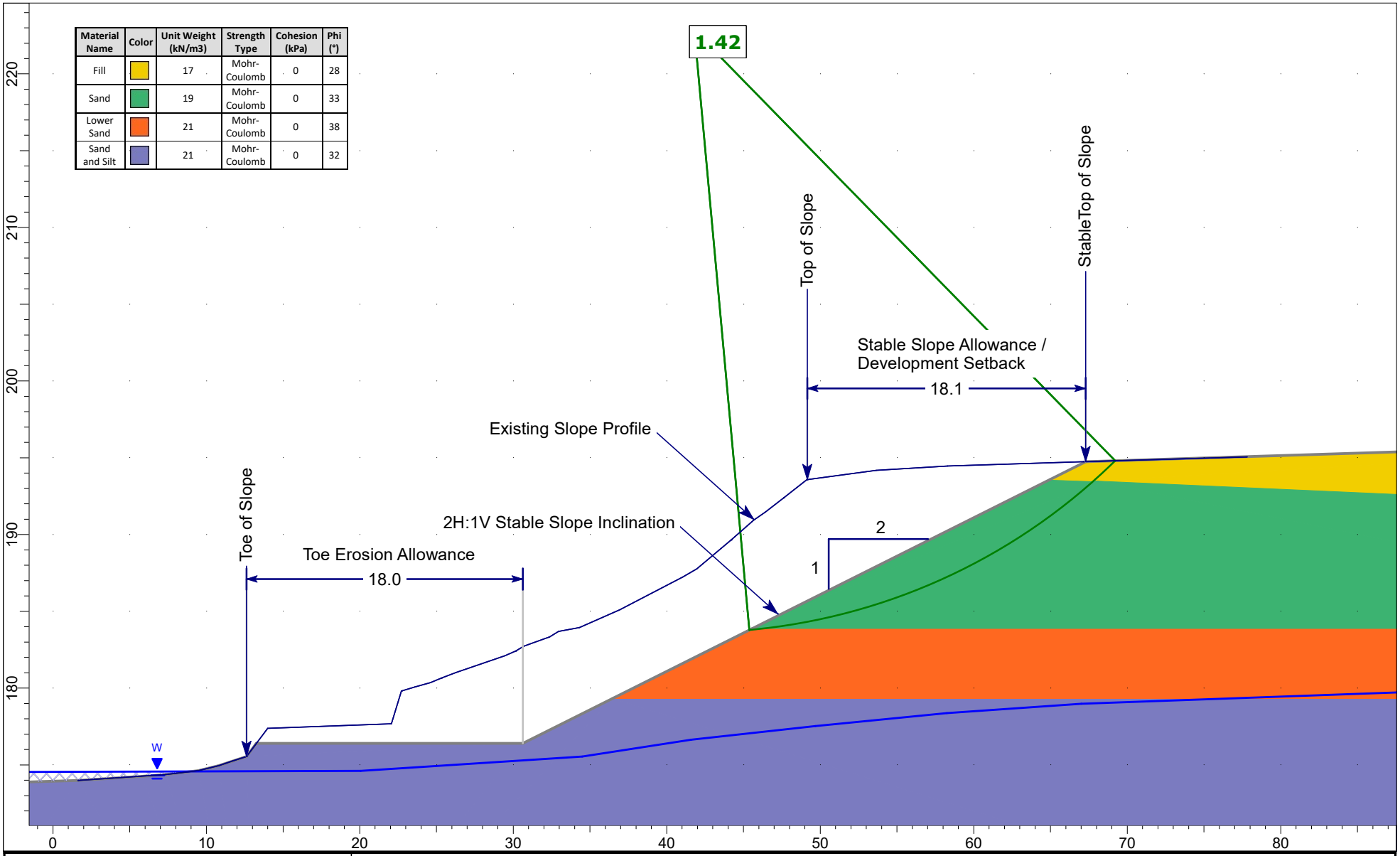
SLIDEINTERPRET 9.031

Project	Slide2 - An Interactive Slope Stability Program		
Group	A-A: Existing	*Scenario*	Master Scenario
Drawn By	A. Dale, P.Eng.	*Company*	CVD Engineering Ltd.
Date	2025-02-06, 4:27:20 PM	*File Name*	Slope Analysis.slmd

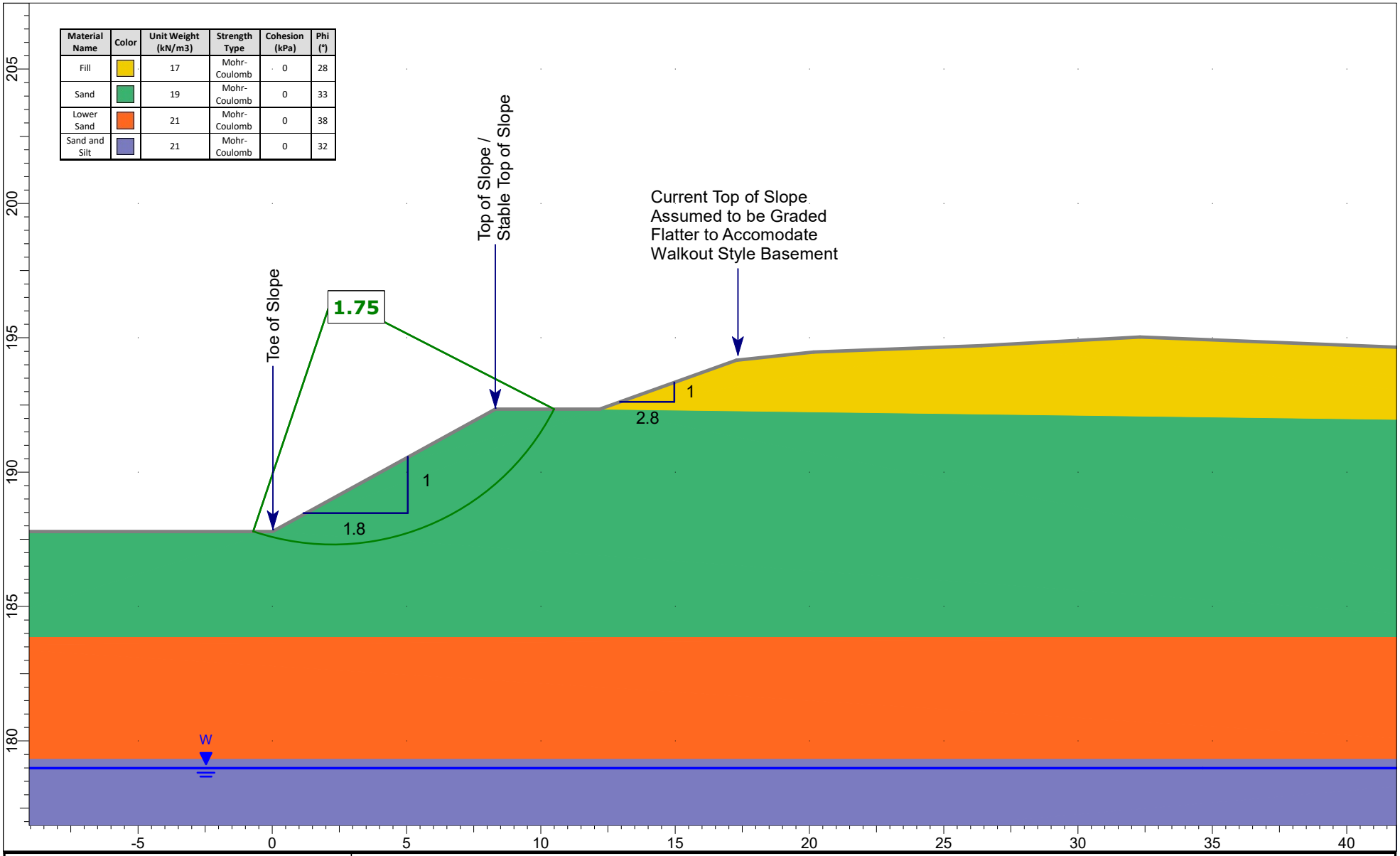
Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)
Fill		17	Mohr-Coulomb	0	28
Sand		19	Mohr-Coulomb	0	33
Lower Sand		21	Mohr-Coulomb	0	38
Sand and Silt		21	Mohr-Coulomb	0	32



CHUNG & VANDER DOELEN ENGINEERING LTD.

SLIDEINTERPRET 9.031

Project	Slide2 - An Interactive Slope Stability Program		
Group	A-A: Stable 2H:1V	*Scenario*	Master Scenario
Drawn By	A. Dale, P.Eng.	*Company*	CVD Engineering Ltd.
Date	2025-02-06, 4:27:20 PM	*File Name*	Slope Analysis.slmd



CHUNG & VANDER DOELEN ENGINEERING LTD.

SLIDEINTERPRET 9.031

Project	Slide2 - An Interactive Slope Stability Program		
Group	B-B: Existing	*Scenario*	Master Scenario
Drawn By	A. Dale, P.Eng.	*Company*	CVD Engineering Ltd.
Date	2025-02-06, 4:27:20 PM	*File Name*	Slope Analysis.slmd

Norfolk County
Operations
50 Colborne St. S., Simcoe, Ontario N3Y 4H1
519-426-5870
www.norfolkcounty.ca

March 12, 2025

Attention: Norfolk County Planning Department
Re: Review of Significant Woodland designation at Lots 25 to 27, Normandale

This letter is being provided in advance of an anticipated application for a Minor Variance affecting the lands described as Plan 166 PT Lots 25 to 27 located in Normandale, Norfolk County.

The Norfolk County Official Plan identifies approximately 0.12 acres of Significant Woodland on the subject lands, which is approximately half of the entire lot area. Significant Woodland is considered a Natural Heritage Feature in Norfolk County's Official Plan, and special consideration is required where development is proposed in or adjacent to any Natural Heritage Feature. Anticipated impacts to a Natural Heritage Feature are required to be evaluated through an Environmental Impact Study in accordance with Section 9.7.1 of the Official Plan.

I have had an opportunity to attend the site on Monday, March 10, 2024, for the purpose of evaluating the accuracy of the Significant Woodland mapping as it pertains to the subject lands.

The site is very sparsely treed, consisting of mostly Manitoba maple (*Acer negundo*) and Norway maple (*Acer platanoides*), which are both non-native species to the area and considered invasive. A portion of the area mapped as Significant Woodland contains only Staghorn Sumac (*Rhus typhina*), a native shrub which readily colonizes open areas when present.

In my opinion, the quantity and arrangement of trees on the subject lands does not constitute a woodland or natural area as intended through the designation of Significant Woodland in Norfolk County's Official Plan.

For this reason, in my opinion, an Environmental Impact Study would serve no valuable purpose in the context of evaluating the area mapped as Significant Woodland for the consideration of an application for Minor Variance, or any future change in use of the land. I would support Norfolk County waiving any requirement for the owner of the lands to undertake an Environmental Impact Study pursuant to Section 3.5.2 and 9.7.1 of the Norfolk County Official Plan for this purpose.

I can be contacted directly for any further information.

Sincerely,

Adam Biddle
Supervisor, Forestry
Operations Division
Simcoe, Ontario, Canada
519-426-5870 x. 2224

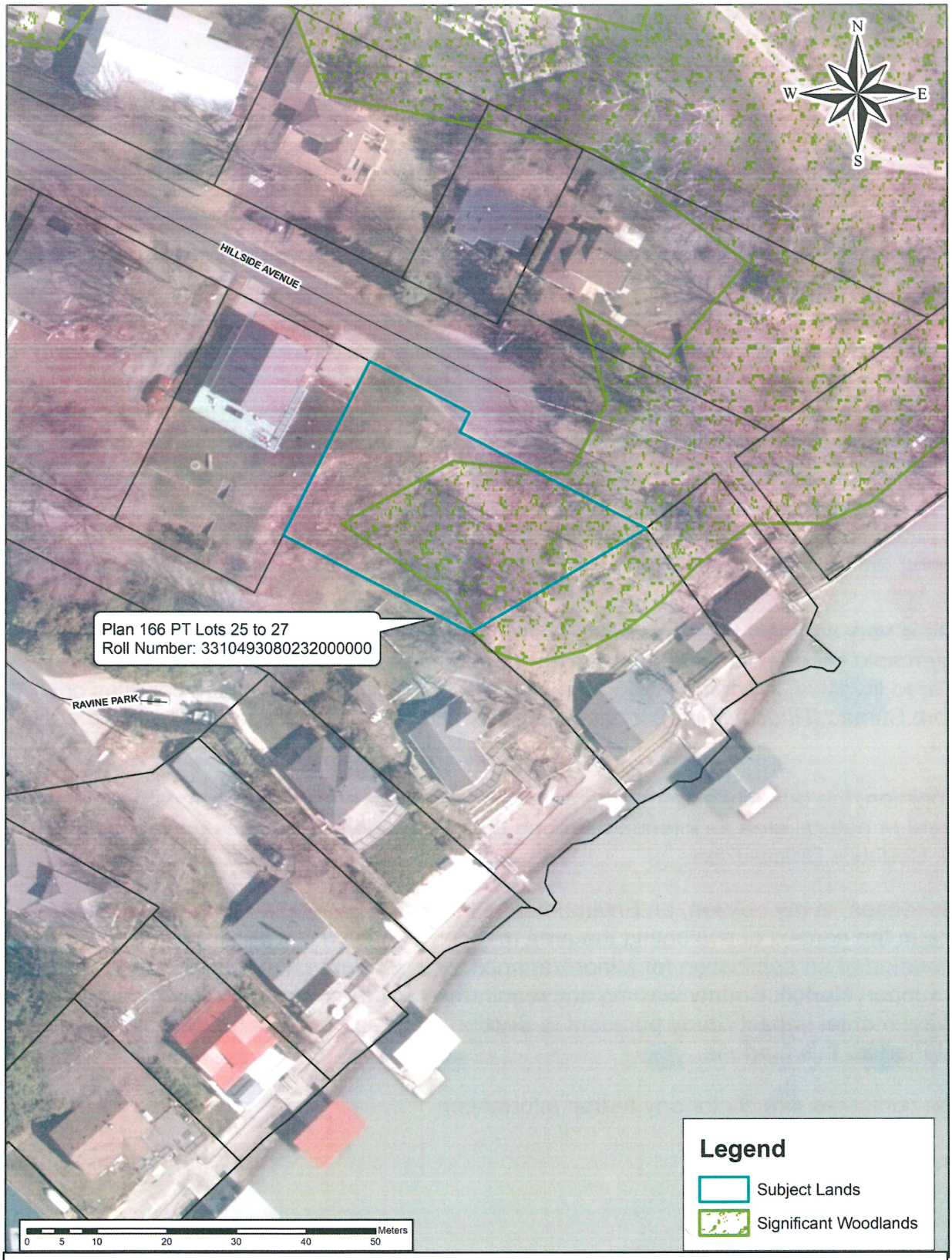


Figure 1.Map of subject lands with Significant Woodland overlay.

Figure 2. Photo of the subject lands, facing south towards the lake.

Figure 3. Photo of the subject lands, facing West.

Kayla DeLeye
DEVELOPMENT PLANNING

August 23, 2025

Committee of Adjustment
Norfolk County

Re: Planning Opinion Letter
Part Lots 24, 25 and 26 Registered Plan 166 Hillside Avenue, Normandale

Kayla DeLeye Development Planning has been retained by Charlie and Diane Luke, owners of Part Lots 24, 25 and 26 Registered Plan 166, Normandale, Norfolk County to provide a planning opinion regarding a minor variance application for a proposed cottage development area. This report outlines the application at hand and why the variance being requested meets the four tests required under Section 45(1) of the Planning Act, in order to be approved. In evaluating this application, the four tests can be satisfied and therefore the requested variance should be approved. Specifically, as this report outlines, the proposal does maintain the intent of the Official Plan and Zoning By-law, is minor in nature, and is desirable for the appropriate development of the area.

Background

The owners of Part Lots 24, 25 and 26 Registered Plan 166 Hillside Avenue, have submitted a Minor Variance application to the Norfolk County Committee of Adjustment to reduce the front yard setback from 6 metres to 2.63 metres to allow a proposed development envelope that has potential to facilitate the construction of a seasonal cottage. The proposal would result in a streetscape that is consistent with the established character of the area.

The intent of Charlie and Diane Luke's proposal is to simply take the existing lot of record that they have owned for many years and complete the technical studies and

requirements to ensure that the lot could receive a building permit, subject to further permits etc.

In anticipation of the planning act application, the Luke's have completed the following:

-Consultation with the LPRCA

-Consultation with the Norfolk County Planning and Building Department

-Consultation with Foresty Department and;

- A detailed Slope Stability Assessment completed by Chung & Associates (June 2, 2025) using borehole data to confirm a stable top of slope

As a result of the consultation process and technical reports, the sketch provided with the minor variance application (and sketches contained within the June 2nd Report) outline a 'Stable top of Slop' line in yellow.

Through the analysis of these technical studies, the Luke's development envelope respects the Engineering of the stable top of slope while proposing a front yard setback that was determined by taking the average of the abutting two cottages along the south side of Hillside Ave and proposing a complimentary front yard setback. The proposed setback of 2.63m allows for uniformity along the existing development form along Hillside ave, and furthermore, the consistency in the front yard setback respects and reinforces the existing character of the community and surrounding landscape which is noted within the Lakeshore Special Policy Area specific to Normandale

.

Kayla DeLeye
DEVELOPMENT PLANNING

Planning Analysis

Planning Act Analysis

Section 45 (1) of the Planning Act sets out criteria to be considered when reviewing Minor Variance Applications. In reviewing the application, I have analyzed the four tests as established in Section 45(1) of the Planning Act R.S.O 1990:

a) Shall be minor;

b) Shall be desirable for the appropriate development or land use of the land, building or structure;

c) Shall maintain the general intent and purpose of the Zoning By-Law 61-16;

d) Shall maintain the general intent and purpose of the Official Plan.

	Four Tests	Discussion
1.	That the general intent and purpose of the **Official Plan** is maintained.	The intent of the Official Plan is maintained as this Minor Variance request will facilitate a future development envelope which creates compatibly scaled infill development on private services and that conforms to the policies of the Resort Residential designation. Keeping the proposed front yard setback in line with the existing community ensures safe visibility for ingress and egress at the site. It is my professional opinion that this Minor Variance request maintains the general intent and purpose of the Official Plan.

Kayla DeLeye
DEVELOPMENT PLANNING

2.	That the intent and purpose of the **Zoning By-Law** is maintained	The intent of the reduced front yard setback is to maintain a similar setback to the well-established existing cottages along Hillside ave. The proposed setback will ensure similar building footprint in the area therefore minimizing the impact on surrounding properties. Due to the irregular shape and slope of the lot, a reduction in front yard setback is required to achieve an efficient cottage layout, parking and septic all while adequately placed to ensure the adjacent properties are not negatively impacted. It is my professional opinion that the minor variance maintains the general intent of the Zoning By-Law.
3.	That the variance is **desirable** for the appropriate development and use of the land, building or structure.	The proposed structure will be used for seasonal cottage/residential purposes. In support of the minor variance application, supporting studies (slope stability) have been submitted to ensure safe and adequate placement of the development envelope and private services. It is my professional opinion that the reduced setbacks will allow for desirable and appropriate development of the subject lands.
4.	That the requested variance is **minor** in nature.	As a result of the proposed minor variance, there is no visual impact at grade, for pedestrians or for the surrounding seasonal residential uses. At this time, all other zone provisions within the RR zone can be met based on the development envelope. It is my professional opinion that the application will not negatively impact the

		character of the neighborhood and that the proposed variance is minor in nature.

Conclusion

Based on the analysis provided, the proposed minor variance for Part Lots 24, 25 and 26 Registered Plan 166 Hillside Avenue, Normandale does satisfy the four tests under Section 45(1) of the Planning Act and should be approved. The variance maintains the general intent and purpose of the Official Plan, as it is consistent with the Resort Residential character policies within the Lakeshore Special Policy Area. It also maintains the general intent and purpose of the Zoning By-law. Furthermore, the variance is desirable for the appropriate development of the site. Lastly, the variance is minor in nature, as the scale of the reduction is not excessive and will not pose significant adverse impacts on the surrounding community.

Sincerely,

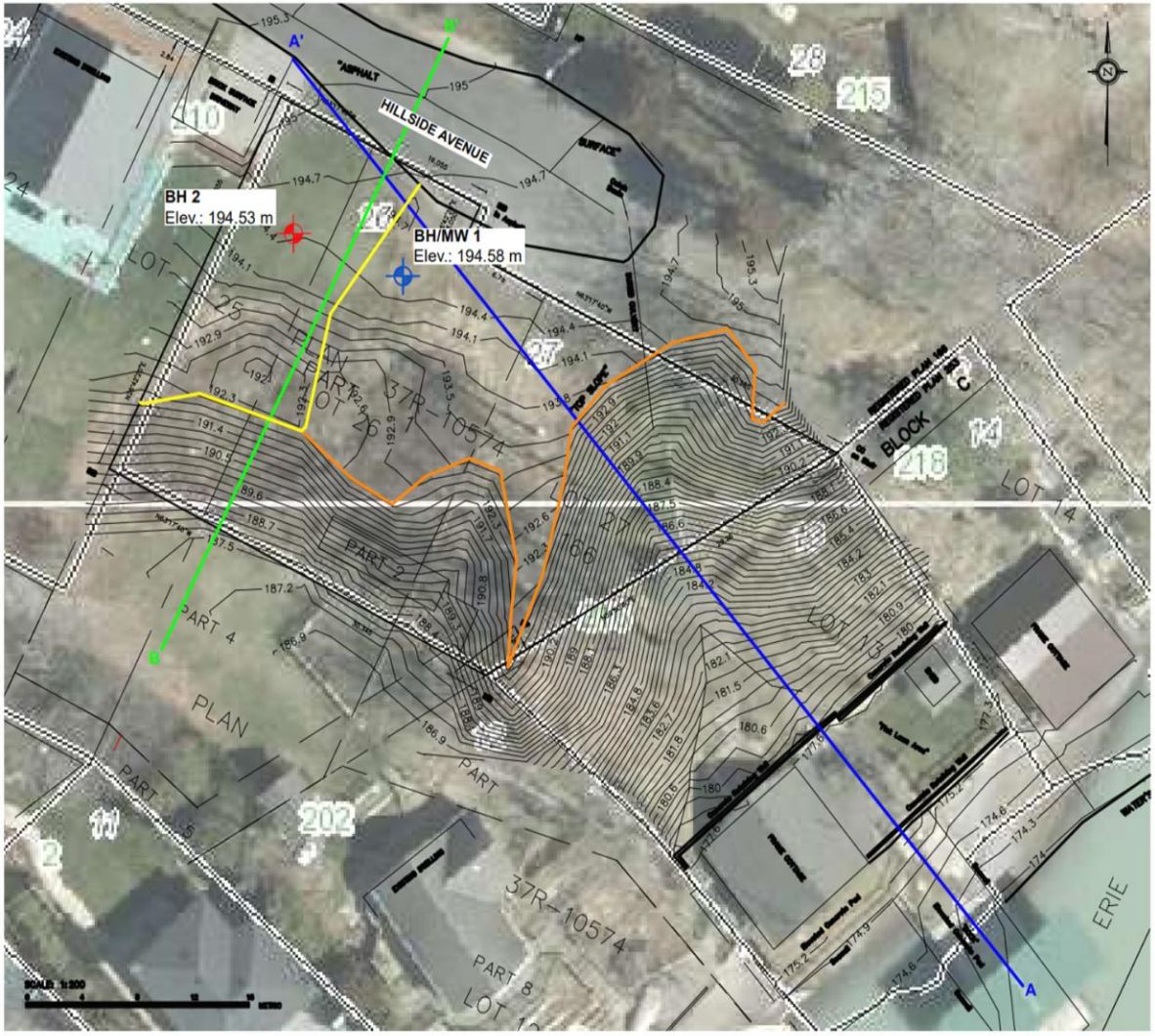
Kayla DeLeye B.A MA, Ec.D, MCIP, RPP

Principal Planner

519-909-9710

kayla.deleye@outlook.com

Kayla DeLeye
DEVELOPMENT PLANNING



KEY PLAN SOURCE: Google Earth

LEGEND

- Monitoring Well Location
- Borehole Location
- TOP OF SLOPE
- STABLE TOP OF SLOPE
- SECTION A-A'
- SECTION B-B'

Elev. Ref.: The borehole locations and associated ground surface elevations were surveyed using a Network RTK Global Navigation Satellite System (GNSS) Receiver. The survey data was collected using UTM Zone 17N Projection, NAD83(CSRS)v7-2010 datum and Canada Geoid Model HT2_2010v70 (CGVD28).

DWG. Ref.: Michael W. Yeo, Ontario Land Surveyor.; "Topographic Survey"; 210 Hillside Avenue, Vittoria, Ontario; DWG: Part1 TOPO; Dated: February, 2025.

IMG. Ref.: Norfolk Community Web Map, Retrieved: 2025-04-23.

BOREHOLE AND SLOPE CROSS SECTION LOCATION PLAN

Slope Stability Assesment

210 Hillside Avenue
Vittoria, Ontario

CHUNG & VANDER DOELEN ENGINEERING LTD.
311 VICTORIA STREET NORTH
KITCHENER / ONTARIO / N2H 5E1 / 519-742-8979

Drawn By: DS	Date: April 2025	File No.: G21306
Checked By: AD	Scale: As Shown	Drawing No.: 1

SCALE 1:200
Contour Interval= 0.300 Metres

METRIC:
ELEVATIONS AND DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

NOTE: THE ELEVATIONS SHOWN HEREON ARE BASED ON A GEODETIC VERTICAL DATUM.

TOPOGRAPHIC SURVEY SHOWING PROPOSED COTTAGE
PART LOTS 25, 26 AND 27
REGISTERED PLAN 166
BEING
PARTS 1 AND 2
PLAN 37R–10574
NORMANDALE
NORFOLK COUNTY

SCALE: 1:200
0 4 8 12 16 METRIC

HILLSIDE AVENUE
(REGISTERED PLAN 166)
"ASPHALT SURFACE"
Catch Basin
BRICK SURFACE DRIVEWAY
IB
N63°17'40"W
16.055
SIB (In Asphalt)
N26°42'20"E
0.305
BURIED CULVERT
N63°17'40"W
30.285
REGISTERED PLAN 166
REGISTERED PLAN 253
BLOCK C
253
LOT 14
CC on Stair
6.7±
"TOP OF SLOPE"
PLAN 37R–10574
29.38
N59°50'00"E
FRAME COTTAGE
LOT 13
Concrete Retaining Wall
SHED
"Flat Lawn Area"
WATER'S EDGE
ERIE
Seawall
"DOCK"
Elevated Concrete Pad
FRAME COTTAGE
Elevated Concrete Pad
LOT 27
166
OVERHEAD HYDRO LINE
"PROPOSED COTTAGE"
STABLE SLOPE
TOP OF STABLE SLOPE
27.555
10.67
5.80
5.80
3.00
3.00
P1
P2
1.20
(Zoning Setback)
6.10
General Location For Proposed Septic System
3.70
4.0±
1.20
9.00
(Zoning Setback)
14.20
9.00
(Zoning Setback)
N26°42'20"E
LOT 24
LOT 25
LOT 26
LOT 27
PART
LOT 25
LOT 26
HP
SIB
N63°17'40"W
30.345
SIB
PART 2
LOT 19
LOT 20
REGISTERED PLAN
LOT 21
LOT 22
LOT 23
LOT 24
PLAN
EXISTING BUILDING
1.15
1.18
6.10
6.21
EXISTING BUILDING
2.41
2.51
EXISTING DWELLING
2.75
2.84
EXISTING DWELLING
2.63
2.63
8.53
PART 3
RAVINE PARK
PLAN 37R–10574 PART 3
PART 4
LOT 26
PLAN
PART 5
PART PLAN 37R–10574 6
EXISTING DWELLING
PART 8
LOT 12
Steel Seawall
REGISTERED PLAN 166
REGISTERED PLAN 253
OVERHEAD HYDRO LINE
REGISTERED PLAN
LOT 11
RAVINE PARK
PLAN 166

DATED: AUGUST, 2025

MICHAEL W. YEO
ONTARIO LAND SURVEYOR

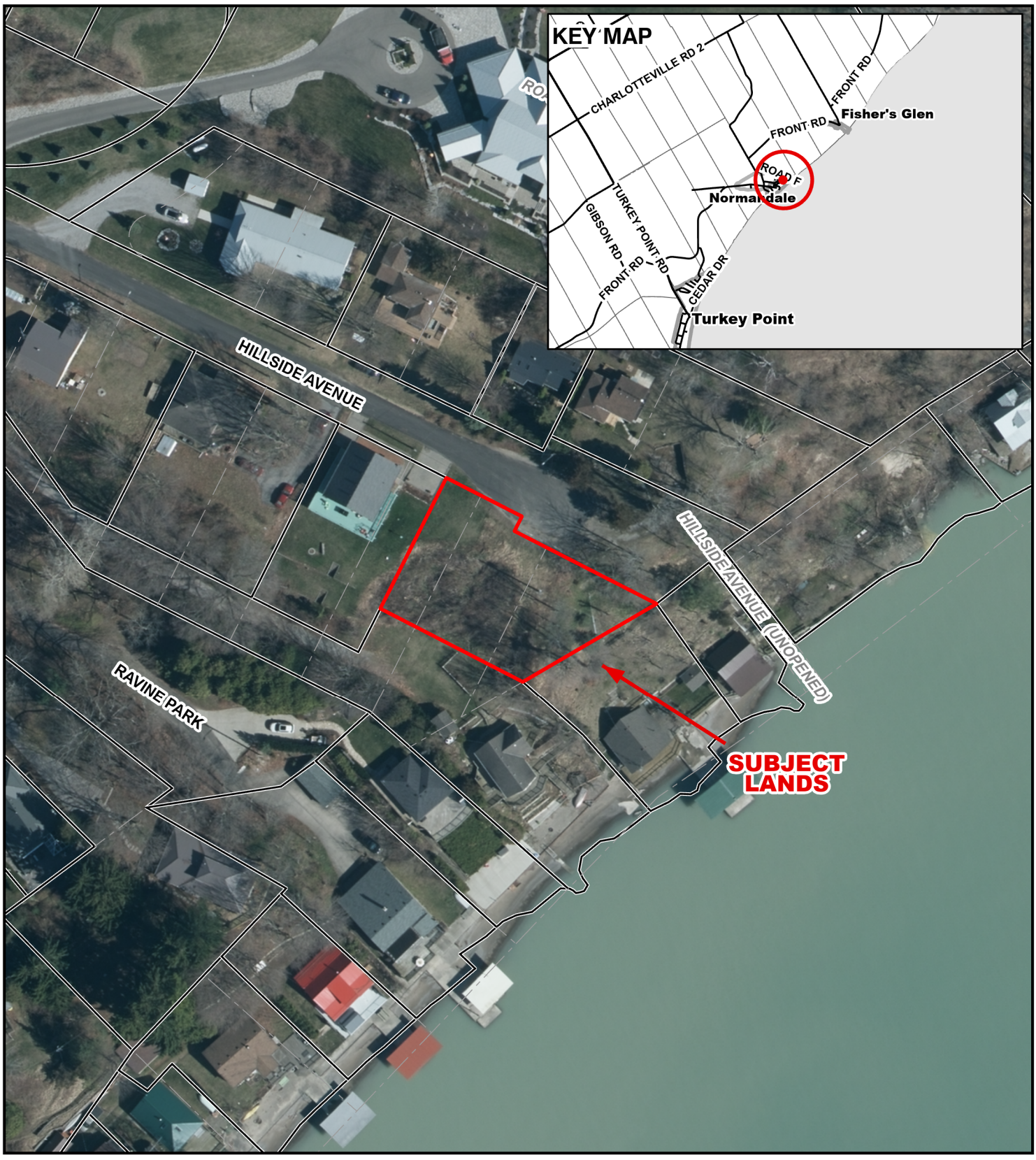
DRAWN BY: M.W.Y.		DWG: Part1TOPO
CHECKED BY: M.W.Y.	CLIENT: LUKE	

MAP A

ANPL2025285

CONTEXT MAP

Geographic Township of CHARLOTTEVILLE



Legend

Subject Lands

2020 Air Photo

9/4/2025

N

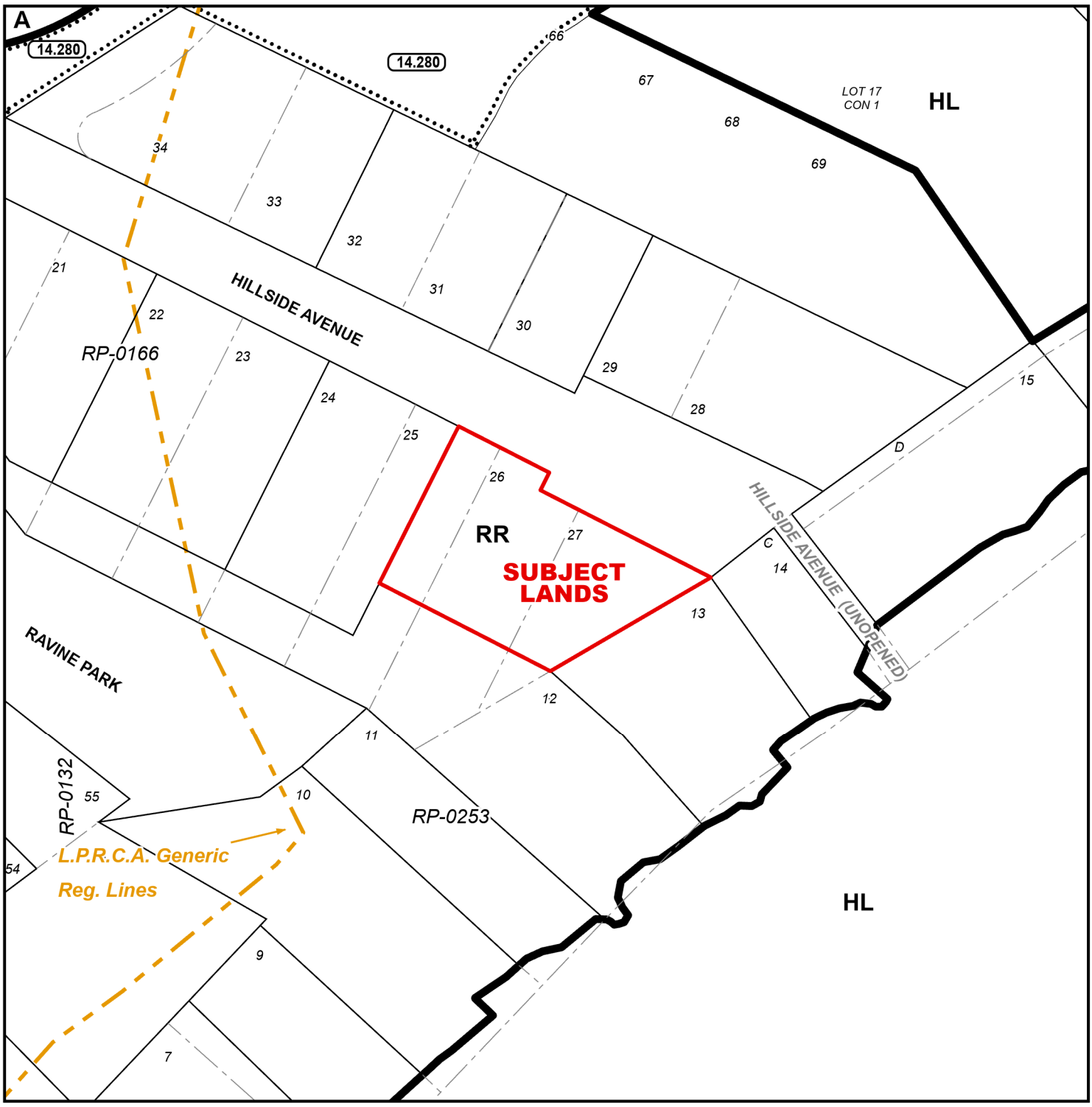
7.53.75 0 7.5 15 22.5 30 Meters

MAP B

ANPL2025285

ZONING BY-LAW MAP

Geographic Township of CHARLOTTEVILLE



LEGEND

- Subject Lands
- LPRCA Generic RegLines

ZONING BY-LAW 1-Z-2014

- (H) - Holding
- A - Agricultural Zone
- HL - Hazard Land Zone
- RR - Resort Residential Zone

9/4/2025

N

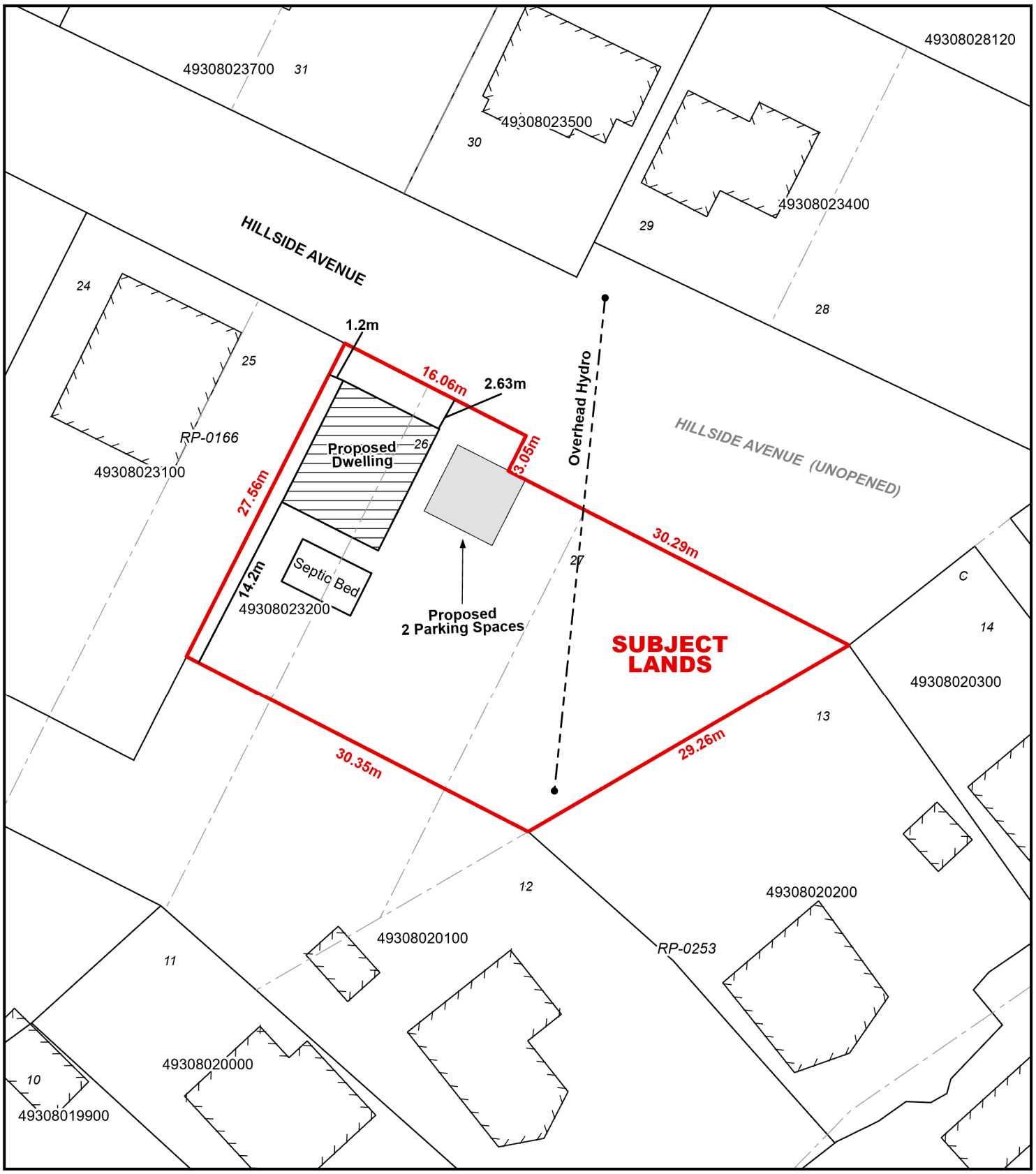
7 3.5 0 7 14 21 28 Meters

MAP C

ANPL2025285

CONCEPTUAL PLAN

Geographic Township of CHARLOTTEVILLE



Legend

Subject Lands

9/4/2025

N

3 1.5 0 3 6 9 12 Meters