West Lincoln
Your Future Naturally

THE CORPORATION OF THE TOWNSHIP OF WEST LINCOLN
COMMITTEE OF ADJUSTMENT
AGENDA

Wednesday, August 28, 2024, 7:00 p.m.
Township Administration Building
318 Canborough Street, Smithville, Ontario

Pages

1. **CHAIR**
   The Chair will call to Order the evening's proceedings.

2. **DISCLOSURE OF PECUNIARY INTEREST AND/OR CONFLICT OF INTEREST**

3. **REQUEST FOR WITHDRAWAL AND/OR ADJOURNMENT**

4. **APPLICATIONS**

   a. B05/2024WL –Vandenberg (5324 Canborough Road) — 4
   A consent application has been applied for to permit a severance within the Hamlet Settlement Area of Wellandport. The land being severed with the dwelling and accessory building (Part 1 on the attached sketch) is proposed to be 1 acre (4,047 square metres) in size, and Part 2 is proposed to be 1.80 acres (7,299 metres squared) in size, following the severance.

   A Minor Variance Application has been applied for in conjunction with this consent application (A18/2024WL) which is requesting relief from the Townships Zoning Bylaw for both Part 1 and Part 2.

   b. B06/2024WL – Fernick Investments Inc. (131 St. Catharines Street) — 88
   A consent application for a minor boundary adjustment has been applied by Fernick Investments Inc. to sever off ±2,378.5 square metres of land, referenced as Parcel 1 on the survey sketch from 131 St. Catharines Street, referenced as Parcel 2, being the retained parcel.

   The proposed severed lands will be consolidated with the abutting lands to the rear known as 132 College Street for a future residential development.

   c. B07/2024WL – Gillian Mary Han and Theodore Yuag-Ti Han (141 Mill Street) — 103

A consent application for a minor boundary adjustment and partial discharge of mortgage has been applied by Mr. and Mrs. Han who reside at 141 Mill Street referenced as Parcel 1 and 2 on the survey sketch. This proposal is to sever ±735.7 square metres of land referenced as Parcel 2 and consolidate with 135 Mill Street referenced as Parcel 3, which is the adjoining parcel to the west.

The purpose of the boundary adjustment is to allow for the continued long term maintenance of the natural heritage features and floodplain along Twenty Mile Creek by the owners of 135 Mill Street. The partial discharge of mortgage is required for the proposed lands to be severed (Parcel 2) prior to the benefitting lands (Parcel 3) merging the lands. Site alteration and development is prohibited on Parcel 2.

d. A17/2024WL – Henley Heights Construction Inc. Lecki Developments Inc., –Agent (Canborough Road, 2602020007129020000) 117
A Minor Variance application has been applied for to permit the construction of a new single detached dwelling with the proposed attached private garage projecting 5.79 metres closer to the front lot line than the main wall, whereas, Part 3.12.7 Private Garages of the Township's Zoning By-Law identifies the maximum projection for an attached private garage as 1.5 metres closer to the front lot line than the main front wall of the dwelling on the same lot.

The private garage would have a front yard setback of 10.7 metres, whereas the main front wall of the dwelling would have a front yard setback of 15.5 metres.

e. A18/2024WL –Vandenberg (5324 Canborough Road) 129
A Minor Variance application has been applied for in conjunction with consent application B05/2024WL to permit a severance which will create two new parcels. Part 1 is proposed to be 4,047 metres squared and Part 2 is proposed to be 7,299 metres squared.

Relief is being requested for the existing dwelling on Part 1 to have a front yard setback of 4.5. metres whereas 7.5 metres is the required minimum setback in Table 14 of the Township's Zoning Bylaw 2017-70. Relief is also being requested for the existing accessory garage to allow an interior side yard setback of 1.1 metres whereas 1.2 metres is required.

Relief is also being requested for Part 2 which will require a Minor Variance to the required lot frontage for a lot within a Residential Low Density Zone (R1A), the proposed lot frontage is 12.88 metres where 45 metres is required in Table 14 of the Township's Zoning Bylaw.

5. MINUTES FOR APPROVAL

6. NEW BUSINESS

7. ADJOURNMENT

That, this Committee does now adjourn at the hour of _____ pm

REPORT
COMMITTEE OF ADJUSTMENT

DATE: August 28, 2024

REPORT NO: COA-27-2024

SUBJECT: **Recommendation Report – Application for Consent, 5324 Canborough Road – Mark and Lauren Vandenberg – File No (B052024WL)**

CONTACT: Stephanie Pouliot, Secretary Treasurer of the Committee of Adjustment

OVERVIEW:

- A consent application has been submitted by Mark and Lauren Vandenberg, property owners of 5324 Canborough Road.
- The consent application has been submitted for a lot creation which will create one additional lot within the Hamlet Settlement Area of Wellandport.
- 5324 Canborough Road currently has a total lot size of 2.80 acres (1.13 hectares). Following this lot creation Part 1, which contains the existing dwelling and accessory building is proposed to be 1 acre in size, Part 2 which will be a vacant lot is proposed to be 1.80 acres in size.
- If approved, a condition of a Minor Variance Application will be required to recognize the zoning deficiencies on both Part 1 and Part 2 regarding the existing dwelling, the existing accessory building and lot frontage. The applicants have applied for a variance application as well which is presented in a following Committee of Adjustment report.
- This application has been reviewed against Provincial, Regional and Township Policy and the application has been deemed to meet these criteria.
- Planning staff recommend approval of this application, with the appropriate conditions.

RECOMMENDATION:

THAT, the application for Consent made by Mark and Lauren Vandenberg as outlined in Report COA-027-2024, to permit a lot creation at 5324 Canborough Road, BE APPROVED, subject to the following conditions:

1. That the approval applies to the transaction as applied for.
2. That all municipal requirements be met to the satisfaction of the municipality

including servicing connections if required, cash-in-lieu of park land dedication, property maintenance, compliance with Zoning By-Law provisions for structures, and any related requirements, financial or otherwise.

3. That a Minor Variance application is approved to recognize any zoning deficiencies on the severed and retained lots.
4. That the applicant submits the required cash-in-lieu of parkland dedication fee, payable to the Township of West Lincoln, be submitted to the Secretary-Treasurer.
5. That the applicant provide documentation indicating compliance with Part 8 (Sewage Systems) of the Ontario Building Code, to the satisfaction of the Township's Septic Inspector and Building Department.
6. That the applicant makes an application for a sewage system approval for the lands located on Part 2, to the satisfaction of the Township of West Lincoln building department.
7. That the applicant submits the Stage 1 Archaeological Assessment, (prepared by AS & G Archaeological consulting, dated July 16, 20264) and acknowledgement letter from Ministry of Citizenship and Multiculturalism (copied to Niagara Region) confirming that all archaeological resource concerns have met licensing and resource conservation requirements prior to any development on the site. No demolition, grading, or other soil disturbances shall take place on the subject property prior to the issuance of a latter form the Ministry through Niagara Region confirming that all archaeological resource concerns have met licensing an resource conservation requirements.
8. That the applicant submits the required Stage 2 Archaeological Assessment, prepared by a licensed archaeologist (and any required subsequent archaeological assessments), to the Ministry of Citizenship and Multiculturalism (MCM) and received an acknowledgement letter from MCM (copied to Niagara Region) confirming that all archaeological resource concerns have met licensing and resource conservation requirements prior to any development on the site. No demolition, grading or other soil disturbances shall take place on the subject property prior to the issuance of a letter from the Ministry through Niagara Region confirming that al archaeological resource concerns have met licensing and resource conservation requirements.
9. That the applicant obtains an entrance permit from the Region of Niagara for the vacant lot and that the entrance is constructed to the satisfaction of the Region of Niagara.
10. That the applicant enters into a development agreement with the Township to implement the recommendations of the Hydrogeological Study completed by Terra-Dynamics Consulting, dated June 26, 2024.
11. That the applicant provides the Secretary-Treasurer with a copy of the transfer documents for the conveyance of the subject parcel, or a legal description of the subject parcel to be registered, together with a copy of the deposited reference plan, for use in the issuance of the Certificate of Consent.
12. That any unused wells be decommissioned to the satisfaction of the Director of Planning and Building, or designate, if required.
13. That a final certification fee, payable to the Township of West Lincoln, be

submitted to the Secretary-Treasurer.

14. That all of these conditions shall be fulfilled within a period of two years after the giving of the Notice of Decision of the Committee of Adjustment, pursuant to Subsection 53(41) of the Planning Act, failing which this consent shall be deemed to be refused**.**

BACKGROUND:

A consent application has been submitted by Mark and Lauren Vandenberg for the property located at 5324 Canborough Road. This application proposes to create a new residential lot within the Hamlet Settlement Area of Wellandport. The first lot (Part 1 on the attached survey sketch) will include the existing dwelling and accessory building and is proposed to be one acre in size. The second lot, (Part 2 on the attached survey sketch) will be 1.80 acres in size and is proposed to be where the applicants will build a single detached dwelling in the future.

The applicants attended a Pre-consultation meeting with Township Staff, the Region, and the Niagara Peninsula Conservation Authority (NPCA) in February 2024. Following the meeting the applicants were provided with comments from the Niagara Peninsula Conservation Authority, The Niagara Region and Township Staff.

The applicant retained Terra-Dynamics Consulting Inc. to complete a hydrogeological Assessment to assess the risk to groundwater supplies from the reduction in the size of Part 1 and its existing infrastructure, as well as the new private sewage system that is proposed for Parcel 2. This assessment is required by both the Niagara Region and the Township of West Lincoln as the lots are proposed to be smaller than 1 hectare.

The applicant also completed a Stage 1 Archaeological Assessment that was competed by AS & G Archaeological Consulting Inc. The Stage 1 Archaeological Study found that there is potential for the recovery of archaeologically significant materials within the property. The report that was submitted recommends that further archaeological assessment of the property is required in the form of a Stage 2 Assessment.

CURRENT SITUATION:

Planning Staff have completed an analysis of the proposed consent and can provide the following evaluation:

Provincial Policy Statement and A Place to Grow: Growth Plan for the Greater Golden Horseshoe

The Provincial Policy Statement (PPS) provides guidance on all land use planning matters in Ontario. All planning decisions must conform to the policies of the PPS. The subject property is located within a Rural Settlement Area in accordance with the Provincial Policy Statement and a Place to Grow: A Growth Plan for the Greater Golden Horseshoe. Policies outlining Rural Settlement Areas are outlined in Section 1.1.3 and 1.1.5 of the PPS. The PPS states that settlement areas shall be the focus of growth and development within the province. Further, rural settlement areas should provide an appropriate range and mix of housing. Policies state that development that is compatible with the rural landscape and can

be sustained with rural service levels should be promoted, and that al development should be appropriate to the infrastructure which is available on the lots. Overall, Planning staff feel that the proposed lot creation application meets the policies outlined in the PPS.

Niagara Official Plan

The Niagara Official Plan designates the property as being within the Rural Settlement Area of Wellandport. Rural settlements are the focus of rural development outside of urban area boundaries and should be planned to encourage residential infill development that builds on the rural character and characteristics of the surrounding area and ensure there is adequate amenities to serve the needs of rural residents, area businesses and the surrounding agricultural community.

Section 2.2.3 of the Niagara Official Plan outlines policies for Rural Settlement Areas. Policies state that Development in rural settlements should be planned to:

a) Encourage residential infill development that builds on the rural character and characteristics of the surrounding area;
b) Ensure there is adequate amenities to serve the needs of rural residents, area businesses and the surrounding nearby agricultural community
c) consider the inclusion of active transportation infrastructure;
d) protect the Region's natural environment system in accordance with the policies in Section 3.1; and
e) e. encourages reduced energy consumption, improved air quality, reduced greenhouse gas emissions, and increased resilience to climate change in accordance with the policies in Section 3.5.

Section 2.2.3.5 states that rural settlements will be serviced by sustainable private water and wastewater treatment systems in accordance with Section 5.2.

Based on staff's review, the proposed lot creation application meets the intent of the policies outlined in the Niagara Official Plan.,

Township of West Lincoln Official Plan

The subject property is designated as within the Hamlet Settlement Area of Wellandport. The purpose of the Townships Hamlet Settlement areas are to provide residential and associated commercial, institutional, and open space land uses within an existing and established hamlet settlement area of the Township. All recognized hamlet areas are designated as Hamlets in the Township Official Plan are consistent with the Niagara Official Plan. Residential uses and accessory residential uses are permitted within the Hamlet Settlement Areas.

Section 18.13.5 of the Township's Official Plan speaks to policy in regards to a lot creation in a Hamlet Settlement Area, consent for conveyance will be granted in accordance with the following policies.

a) The minimum lot size for lots created in a Hamlet designation shall be approximately 1.0 hectare as required to satisfy the Township Building Department

and Part 8 of the Ontario Building Code for long term operation of a waste disposal system, unless a hydrological assessment determines that a smaller lot size will be adequate to accommodate private water and sewage treatment facilities.

b) Where lands are proposed for severance along the Hamlet Settlement Area boundary, the remnant parcel outside the Hamlet Settlement Area boundary shall be rezoned APO (Agricultural Purposes Only).
c) Severances for correcting or adjusting lot boundaries or for conveying land to an abutting lot for land assembly purposes may be granted provided:
    i. The conveyance does not lead to the creation of an undersized or irregularly shaped lot unsuited for its intended purpose and contrary to the requirements of the Zoning B-law.
    ii. The lands being conveyed will be registered in the same name and title as the lands with which they are being merged.
    iii. Severances may be granted for the conveyance of land to public bodies or agencies engaged in the protection, re-establishment or management of the natural environment.
    iv. Creation of lots for industrial, commercial, or public uses may be undertaken by registered plan of subdivision or the consent of the Committee of Adjustment subject to the policies of the Official Plan and the provisions of the Zoning By-law.

The applicant submitted a hydrogeological study completed by Terra-Dynamics Consulting Inc. that confirms that part 1 of the severance sketch, the 1-acre parcel can be adequately serviced.

Section 7.2.3b) of the Townships Official Plan states that lands will be designated Hamlet on the land use schedule and will be zoned to recognize current uses, where appropriate. The Township Zoning By-law will regulate the uses that are permitted in the hamlets. This lot creation will continue to be zoned Low Density Residential (R1A)

Section 7.2.3 c) states that the protection of residential uses within Hamlets will be given priority over other uses, especially in the case of neighbouring uses which are deemed not compatible. The onus will be on the new non-residential use to ensure compatibility with adjacent residential uses.

7.2.3. g) states that all development within the Hamlet designation shall be supported by private waste sewage disposal systems and private water supply in accordance with the requirements of Township of West Lincoln and/or the applicable Ministry.

The subject property also contains a small portion of Natural Heritage System on the south west portion of the subject lands. The specific portion of the Natural Heritage System that exists on this subject property is Environmental Conservation Area (Valley Shoreline and Significant Woodlands) The Core Natural Heritage System contains environmental features and functions of special importance to the character of the Township and to its ecological health and integrity. The Core Natural Areas within the System are significant in the context of the surrounding landscape because of their size, location, outstanding quality or ecological functions. Based on the proposed lot creation, the lot lines do not

appear to intersect with the Natural Heritage Feature.

Additionally, A Development Agreement will be required as a condition of consent. Development Agreements in rural settlement areas are required to ensure that development take place outside of any regulated features, and within the area which an archaeological study has been or needs to be completed. Tit would also regulate servicing limitations as per the Hydrogeological study.

Based on staff's review, the application outlined meets the required criteria outlined in the Townships Official Plan.

Township of West Lincoln Zoning Bylaw
The subject property is currently zoned Low Density Residential 'R1A 'in the Township's Zoning Bylaw. Following this consent application, the two parcels will remain zoned Low Density Residential 'R1A', however, there are a number of zoning deficiencies that need to be recognized and permitted. The applicant has applied for a Minor Variance application which is listed as condition of consent in this report. The Minor Variance application will recognize deficiencies on both Part 1 and Part 2 of the attached severance sketch. Part 1 will recognize a deficient front yard setback to the existing house of 4.7 metres where 7.5 metres is required as well as a deficient interior side yard setback to the existing accessory building of 1.1 metres where 1.2 metres is required. The variance application will also recognize a deficient lot frontage on Parcel 2 of the attached severance sketch of 12.88 metres where 45 metres is required according to The Townships Zoning Bylaw 2017-70 as mended.

Below are the proposed variance requests for Part 1 of the attached severance sketch:

Regulation 'R1A'	Requirement	Proposed
Min Front Yard Setback	7.5 metres	4.5 metres
Min Interior Side Yard Setback	1.2 metres	1.1 metres

Below are the proposed variance requests for Part 2 of the attached severance sketch:

Regulation 'R1A'	Requirement	Proposed
Min lot frontage	45 metres	12.88 metres

The applicant plans to eventually build a single detached dwelling on the newly created lot for his growing family and plans to eventually sell the existing dwelling. Based on staff's review, other than the required variances, the application outlined conforms to the Township's Zoning Bylaw 2017-70.

INTER-DEPARTMENTAL & AGENCY COMMENTS:

Notification was mailed to all applicable agencies and departments on August 6th 2024.

Township Septic Inspector has added asked committee to consider the following as a

condition. “that the applicant makes an application for a sewage system for Part 2, to the satisfaction of the Township of West Lincoln Building Department.

Township Public Works Department has no objections to the proposed consent application.

Regional Planning and Development Services provided comments on August 14th 2024. Staff do not object to the request for consent, subject to the Townships satisfaction and to the conditions outlined in Attachment 4 to this report,

The Niagara Peninsula Conservation Authority provided comments on August 14th 2024. NPCA staff has stated that they have no objections to the proposed application. Full agency comments can be found in Attachment 4 to this report.

PUBLIC COMMENTS:
Circulation by way of mail was given to property owners within a 120-meter radius of the subject property on August 2nd 2024. A yellow sing was posted on the property a minimum of 14 days before the hearing. Staff have not received any public comments at the time of writing this report.

CONCLUSION:
Based on the above analysis, Planning Staff recommend APPROVAL of the proposed consent application (B05/2024WL) as outlined in Report COA-027-24, submitted by Mark and Lauren Vandenberg, property owners at 5324 Canborough Road to permit a lot creation within the Hamlet Settlement Area of Wellandport, subject to the conditions of approval as indicated.

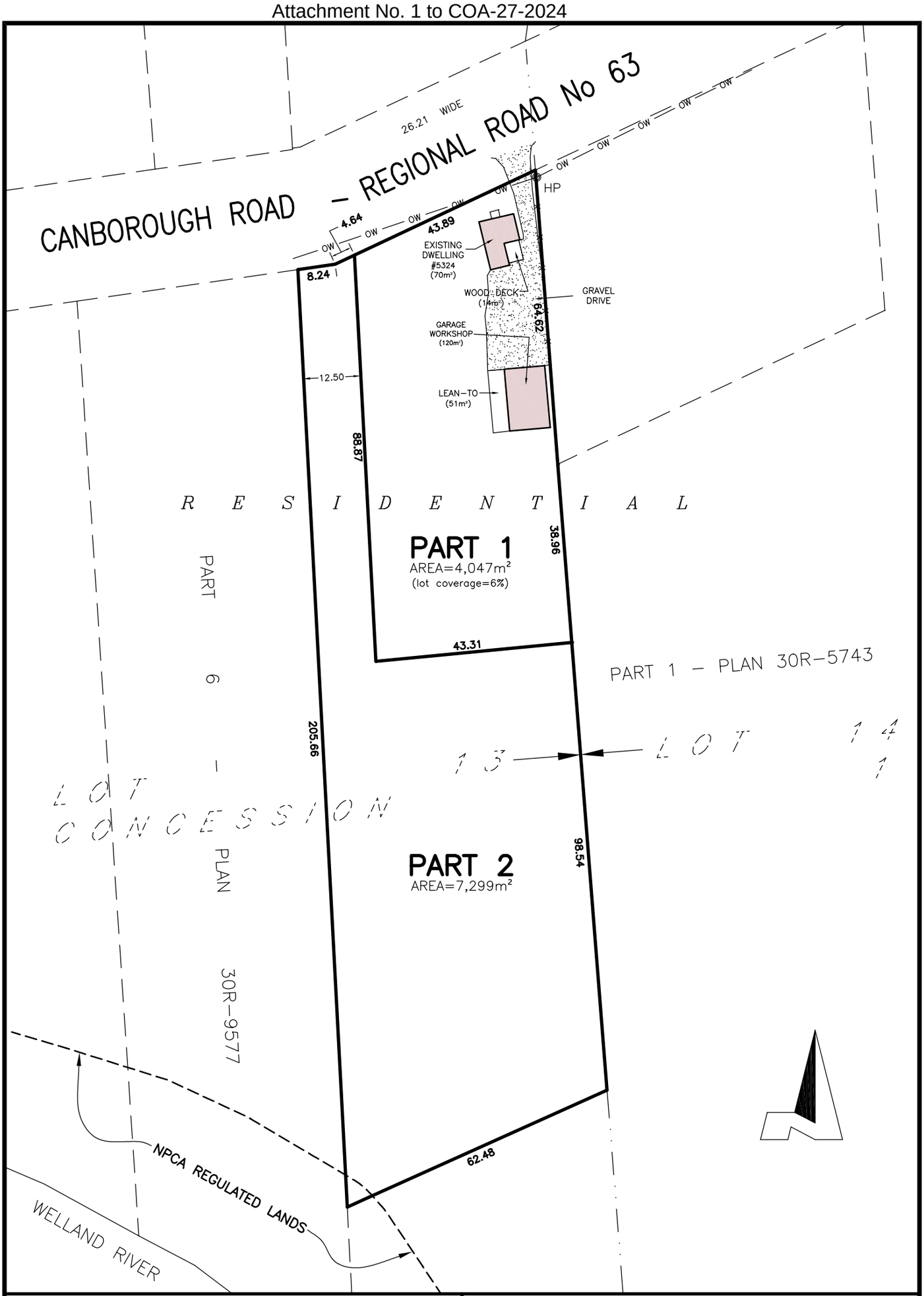
ATTACHMENTS:
1. Severance Sketch
2. Hydrogeological Study
3. Archaeological Study
4. Agency Comments

Prepared & Submitted by:

Madyson Etzl
Senior Planner

Approved by:

Gerrit Boerema, RPP, MCIP
Manager of Planning



SKETCH

PREPARED FOR SEVERANCE APPLICATION

PART OF LOT 13, CONCESSION 1

GEOGRAPHIC TOWNSHIP OF GAINSBOROUGH

IN THE

TOWNSHIP OF WEST LINCOLN

REGIONAL MUNICIPALITY OF NIAGARA

SCALE 1 : 1000 (METRIC)

NOTE: THIS SKETCH IS PREPARED FROM COMPILED AND CALCULATED INFORMATION, NOT FROM AN ACTUAL SURVEY.
ALL MEASUREMENTS ARE +/– MEASUREMENTS.
DO NOT SCALE FROM THIS DRAWING.

CAUTION: THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE INDICATED IN THE TITLE BLOCK.

"THIS IS NOT AN ORIGINAL COPY UNLESS EMBOSSED WITH SEAL"

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DATE MARCH 21, 2024 FILE No 24–11 (24011_SEV)

Terra-Dynamics Consulting Inc.
432 Niagara Street, Unit 2 St. Catharines, ON L2M 4W3

June 26, 2024

Mr. Mark VandenBerg
5324 Canborough Road
Wellandport, Ontario
L0R 2J0

Re: Hydrogeological Assessment, Consent (Severance), 5324 Canborough Road, Wellandport, Township of West Lincoln, Ontario

Dear Mr. VandenBerg,

1.0 Introduction, Background Information and Purpose

Mr. VandenBerg retained Terra-Dynamics Consulting Inc. (Terra-Dynamics) to complete a Hydrogeological Assessment to assess sewage impacts for a proposed residential consent (land severance) from 5324 Canborough located in the Hamlet of Wellandport, Township of West Lincoln (referred to herein as the Site) (Township, 2024) (refer to Figure 1). The consents consist of Part 1 which contains the existing dwelling with a lot size of 0.40 hectares (1.0 acre) and Part 2 which is approximately 0.73 hectares (1.8 acre) in size (refer to Appendix A, Russel Technical Services, 2024). This assessment's purpose is to assess the risk to groundwater supplies from the reduction in the size of Part 1 and its existing infrastructure, as well as the new private sewage system proposed for Parcel 2. The hydrogeological assessment is required by the Township of West Lincoln (Township), and Niagara Region, as the proposed lots are smaller than 1 hectare (Township, 2019, Niagara Region, 2022, respectively). The purpose of the assessment is to satisfy relevant municipal policies including:

1. Township of West Lincoln policy 18.13.5 Hamlet Settlement Area

   "The minimum lot size for lots created in a Hamlet designation shall be approximately 1.0 hectare as required to satisfy the Township Building Department and Part 8 of the Ontario Building Code for long term operation of a waste disposal system, unless a hydrological assessment determines that a smaller lot size will be adequate to accommodate private water and sewage treatment facilities."

2. Niagara Region Official Plan 2022 policy 4.1.9.2(b):

   " ...the minimum size of the proposed and retained lots shall each be 1 hectare unless it is determined through a hydrogeological study, that considers potential cumulative impacts, that a smaller size lot will adequately accommodate private water and sewage treatment facilities for long-term operation but not be less than 0.4 hectares..."

2.0 Methodology

Terra-Dynamics began the assessment once confirmation of the appropriateness of the Terms of Reference was received from Niagara Region (Niagara Region, 2024) and the Township of West Lincoln

(Township of West Lincoln, 2024). Our work program (as per the Terms of Reference) included the following components, described below.

2.1 Description of Geologic and Hydrogeologic Setting

The Site's geologic and hydrogeologic settings were described using published information to assess the aquifer's vulnerability and sensitivity, which included the following:

i. MECP water well records (refer to Figure 2, Appendix B);
ii. Ontario Geological Survey (OGS) nearby continuous boreholes (Figure 1, Burt, 2020, Appendix D);
iii. Available soil mapping and geologic golden spike boreholes (refer to Figure 1 and Appendix D); and
iv. Niagara Peninsula Source Protection Area Assessment Report (NPCA, 2013).

2.2 Water Well and Sewage System Survey

A water well and sewage system survey questionnaire, and explanation letter pertaining to the need for the survey, was mailed to neighbouring properties in March of 2024. A total of eight developed properties were identified within 100 metres of the Site that could receive a survey by mail. A copy of the questionnaire and information letter is provided in Appendix C.

2.3 Site Visit

The Site was visited by Terra-Dynamics on April 9, 2024, to assess site conditions and to complete the following (i) evaluation of any on-site or nearby private water supply wells, (ii) hand-augering at two locations to determine shallow soil conditions on-site, and (iii) submission of one representative soil sample for laboratory grain-size analyses.

2.4 Water Well Record Search and Documentation

Water well records located within 500 metres of the Site were mapped out using the Ministry of the Environment Conservation and Parks (MECP) water well records database. The locations of these water well records are provided on a map (refer to Figure 2) and well log information is summarized in Section 3.1 and included in Appendix B.

2.5 Assessment of Impact on Water Resources

The potential sewage effluent impacts to the groundwater flow regime and private wells were assessed using the provincial procedure D-5-4 (MECP, 1996a). As the new lot development will be provided potable water via cistern, this report does not include a water supply assessment (MECP, 1996b), and it is recommended that a development agreement be implemented that will indicate water supply by cistern only. There is currently an existing cistern and septic at the existing property on Parcel 1 (refer to Figure 4).

3.0 Hydrogeological Assessment

3.1 Ministry of Environment, Conservation and Parks (MECP) Water Well Records

MECP water well records located within 500 m of the Site were reviewed and three records were identified (refer to Figure 2 and Appendix B). The well records indicate that water is taken from the bedrock aquifer which is identified in the records as limestone, although it is Salina Formation dolostone, shale and gypsum (refer to Section 4.2). The thickness of the overlying clay is recorded as between 25.3 and 33.5 metres below ground surface (83 to 110 feet) (refer to Figure 3). The closest water well record is located approximately 100 m to the east (Water Well Record (WWR) #3800419).

The well records date from 1961 to 2020 and indicate that the wells were constructed primarily for domestic or farm water supply purposes. All the water well records indicate that the well casings extended to bedrock, and general water quality observations by the water well contractors described the water as fresh and/or sulphurous (refer to Appendix B).

3.2 Water Well and Sewage System Results

A water use and septic system survey was mailed in March, 2024 to the eight developed parcels located within 100 m of the Site (refer to Figure 2, Table 1, and Appendix C). No responses were received as of June 12, 2024, which is over 2 months since the mail-out. A low response rate is not uncommon in this type of assessment and does not impact the efficacy of the findings.

Table 1: Summary of Water Well Survey Results

Address	Comments
5340 Canborough Road	No response received
5336 Canborough Road	No response received
5316 Canborough Road	No response received
5294 Canborough Road	No response received
5298 Beavercreek Crescent	No response received
5304 Beavercreek Crescent	No response received
5335 Canborough Road	No response received
5344 Canborough Road	No response received

4.0 Physical Setting

The Site topography is classified by Agriculture Canda (2024) as slope class A (little or no slope) to the south towards the Welland River, with a ground surface elevation ranging between 179 and 177 metres above sea level (m ASL) (refer to Figure 2). The Site is within the Welland River watershed, however, there are no mapped watercourses on the Site (refer to Figure 2). There are also no tile drains mapped for the Site (OMAFRA, 2024). No watercourses or waterbodies were observed during the site visit on April 9, 2024. The site plan (refer to Appendix A) displays "NPCA Regulated Lands" in the southwest portion of the property on the proposed Parcel 2, the available online mapping from the NPCA

Watershed Explorer indicates that this line designates a "Top of Slope Allowance" as noted in Appendix A.

4.1 Soils

The Site is located on the Haldimand Clay Plain physiographic region (Chapman and Putnam, 1984). The soil for the Site is mapped as Brantford soil (i.e mainly lacustrine silty clay) and the adjacent lands immediately to the south are mapped as modern alluvium (i.e. fine-textured floodplain deposits) (OMAFRA, 2024) (refer to Appendix D). Brantford soils are classified as moderately to poorly drained silty clay overlying glaciolacustrine silty clay parent material (OMAFRA, 1989). Brantford soils are associated with Beverly Soils and are depicted as such below in Figure 5 (OMAFRA, 1989).

The soils on the Site have been assigned a Hydrologic Soil Group C characterized as moderately fine to fine textured with slow infiltration rates (OMAFRA, 2024) (refer to Appendix D).

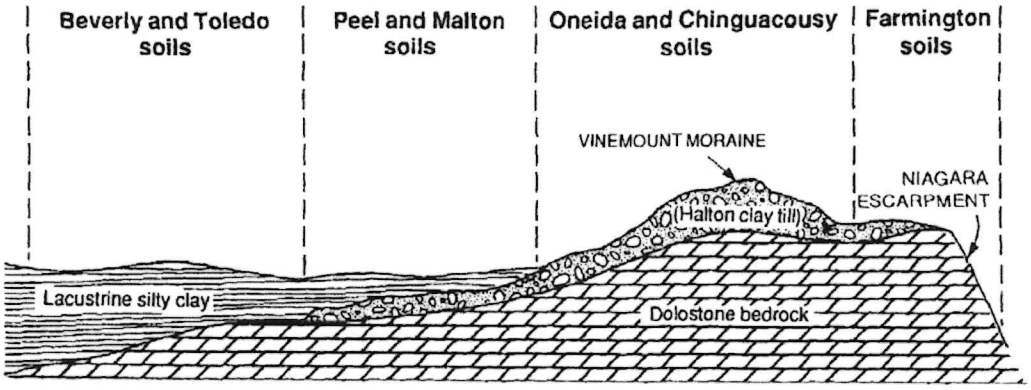


Figure 5 – Schematic cross-section showing the relationship of soils on the Haldimand Clay Plain (OMAFRA, 1989)

Soil samples were collected by hand-auger at each of the two Parts (Figure 2) on April 9, 2024, and one representative sample, HA-1 was submitted for laboratory grain-size analyses (Appendix D). This sample was collected from below 80 cm depth and is compared to Horizon C values for the mapped soil types (Table 2).

Table 2 – Horizon C Grain-size Analyses Summary

Soil Name/Location	Gravel%	Sand%	Silt%	Clay%	Texture[1]
Brantford Soil[2]	0	6	45	49	Silty Clay
HA-1	0	3	35	65	Silty Clay

Note: [1] - Texture as per Fetter (1994), [2] - Kingston and Presant, 1989

4.2 Overburden geology

The surficial geology of the Site is mapped as clay and silt associated with fine-textured glaciolacustrine deep water deposits (refer to Figure 2) (OGS, 2003), and the overburden was regionally mapped as 28 metres thick at the Site (NPCA, 2013). This correlates well with the hydrogeologic section provided on Figure 3, as the depth to bedrock at the Site was approximately between 25.3 and 33.5 metres based on previously mentioned nearby water well records (refer to Section 3.1).

4.3 Bedrock Geology

The underlying bedrock is mapped as the Salina Formation shale, dolostone and gypsum (Armstrong and Dodge, 2007). The bedrock topography dips regionally to the south (NPCA, 2013), and is at approximately 152 m ASL beneath the Site based on available mapping and nearby water well records (refer to Section 3.1, Appendix B, and Figure 3).

4.4 Hydrogeologic Setting

4.4.1 Overburden Aquitard and Water Table

The Site is in mid-way between Ontario Geological Survey (OGS) boreholes BH07-NP-2014, BH29-NP-2014, BH34-NP-2014, and BH90-NP-2014 (Burt, 2020, Appendix D) (refer to Figure 1). These boreholes identify the uppermost clay and silt as the Upper Whittlesey Aquitard overlying the silt/clay diamicton of the Upper Halton, Lower Whittlesey, and Wentworth Aquitards (Burt, 2020) (refer to Appendix D). This is consistent with the classification of this upper glaciolacustrine unit as an overburden aquitard by Gartner Lee Limited (GLL), with the hydraulic conductivity of this silty clay aquitard expected to be $7x10^{-7}$ m/s or less (GLL, 1987).

Two shallow soil samples were collected from the Site using a hand-auger during the April 9, 2024 site visit (Section 4.1) One of these samples, HA-1, which was collected from a depth of 0.80 m BGS, was submitted for laboratory grain-size analyses (Appendix D). The Excel-tool HydrogeoSieveXL (Devlin, 2015) was used to process the grain-size analyses to provide a shallow soil hydraulic conductivity estimate of $6x10^{-11}$ m/s for HA-1 (Appendix D). This result is within published ranges for clay (Fetter, 1995).

Gartner Lee Limited (1987) provides a good description of the expected water table conditions within the overburden aquitard:

> *"Detailed studies indicate that the water table fluctuates over the weathered/fractured upper two to three metres of the glaciolacustrine silts and clays comprising the overburden aquitard...flow in this shallow zone responds to daily climatic changes such that, during precipitation, the open fractures from weathering will quickly fill with water. The bulk of the discharge will then occur locally in swales that carry intermittent surface water .... The remainder will go to depth to recharge the ground water system."*

Groundwater flow in the overburden aquitard is expected to follow topography to the southeast (refer to Figure 2) while being limited in velocity by the low hydraulic conductivity (Haitjema and Mitchell-Bruker, 2005).

This overburden aquitard is protecting the underlying bedrock aquifer. The thickness of the low permeability overburden materials has been mapped between 25.3 and 33.5 metres at and around the Site as summarized in the hydrogeologic section provided on Figure 3 and in the OGS borehole information provided in Appendix D (Burt, 2020), which shows this overburden aquitard protecting the bedrock (Salina Formation) aquifer from land use activities (i.e. private sewage disposal) at ground surface.

4.4.2 Bedrock Aquifer and Groundwater Flow

The uppermost part of the bedrock is an aquifer where weathered, having "*...a higher hydraulic conductivity than the same formation at depth...attributed to weathering of the bedrock surface...*" (GLL, 1987). The potentiometric surface of the bedrock aquifer is approximately 175-173.6 m ASL (refer to Figure 3) with regional flow towards the northwest (NPCA, 2013). Water quality in the Salina Formation bedrock aquifer has been measured to have several water quality treatment challenges including hydrogen sulphide, sodium, sulphate, chloride, iron and manganese above Ontario Drinking Water Quality Aesthetic Objectives (Campbell and Burt, 2016).

4.4.3 Confined Bedrock Aquifer Conceptual Model

The Section 4.0 information is summarized in the schematic below, as a conceptual model for the assessment of potential sewage system impacts to groundwater and private wells (refer to Figure 5).

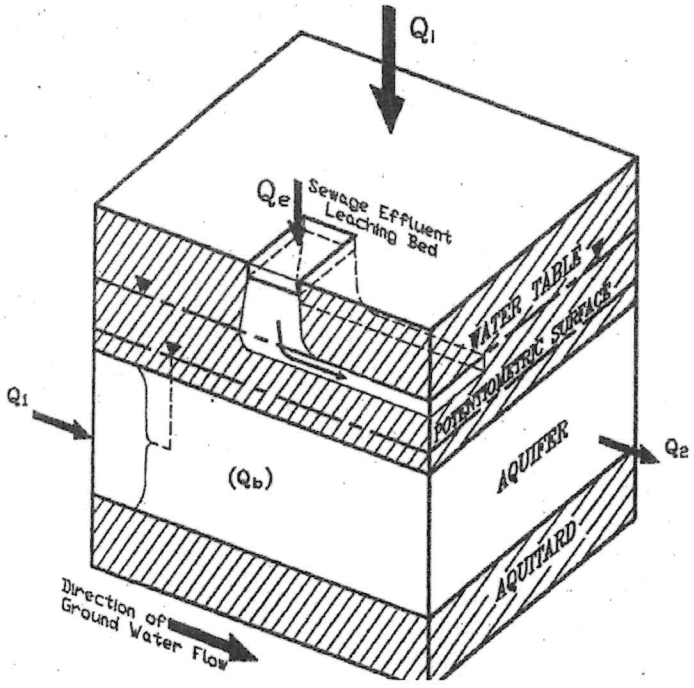


Figure 6 - Confined Aquifer Impact Assessment Subsurface Sewage System (MECP, 1995)

5.0 Assessment of Potential Sewage Impacts

Provincial Procedure D-5-4 (MECP, 1996) provides an assessment process for assessing the groundwater impact potential of private sewage systems. The purpose of the assessment process "*is to ensure that the combined effluent discharges from all the individual on-site sewage systems in a development will have a minimal effect on the groundwater and the present or potential use of the adjacent property*" (MECP, 1996).

This assessment process involves two main steps: (i) consideration of system isolation and (ii) contaminant attenuation, as visualized below in Figure 7.

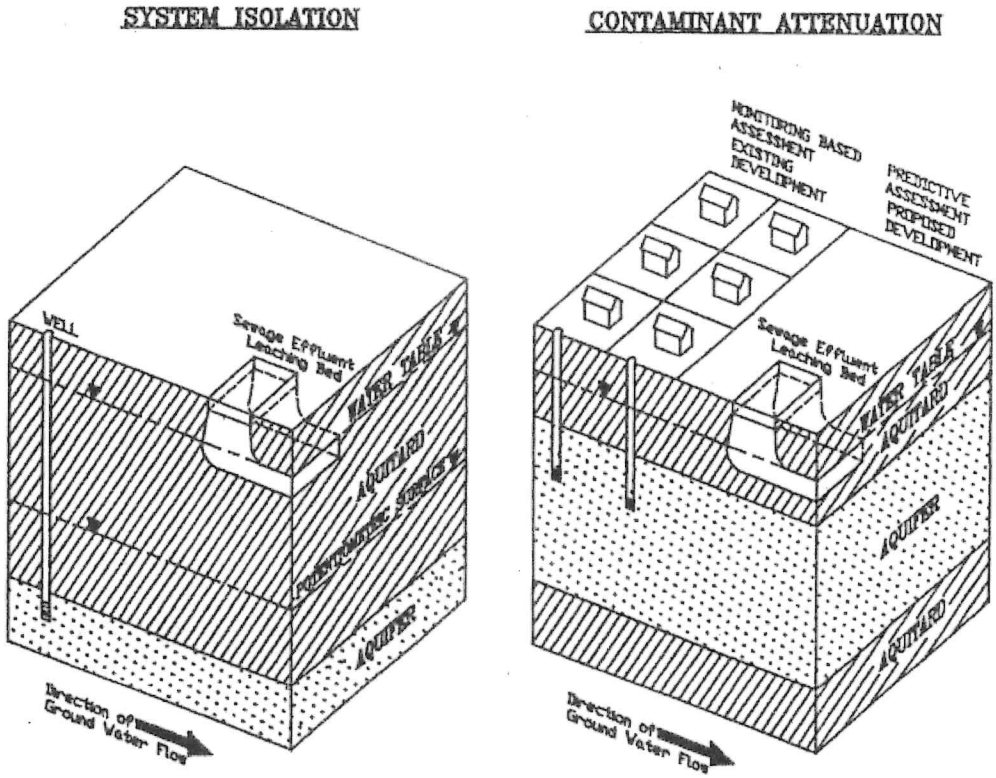


Figure 7– Water Quality Assessment Process (MECP, 1995)

5.1 System Isolation

As stated in Provincial Procedure D-5-4:

> *"Developments will normally be considered as low risk where it can be demonstrated that sewage effluent is hydrogeologically isolated from ... supply aquifer(s)"* (MECP, 1996).

The Design Guidelines for Sewage Works (MECP, 2008) provide criteria for evaluation of sewage system isolation from the underlying bedrock aquifer:

> *"Where it can be shown that the uppermost subsurface unit(s) at an infiltration facility have a vertical hydraulic conductivity of 10^{-5} cm/sec* (10^{-7} m/sec) *or less, is at least 10 metres (33 feet) thick and extends at least 100 m (330 ft) downgradient of the infiltration area, attenuation calculations may not be required."*

The surficial aquitard has a sufficiently low hydraulic conductivity (Section 4.3.1), and mapping of the aquitard thickness shows over 10 metres of material at the Site (refer to Section 4.1 and Figure 3).

Consequently, private sewage servicing of the proposed severance is (i) a low risk to the water supply aquifer, and (ii) nearby water supply wells, because the Site is hydrogeologically isolated from the bedrock aquifer. This conclusion is based upon the following:

- The bedrock aquifer has been mapped as having low intrinsic susceptibility (WHI, 2005); and
- The thickness and extent of the underlying aquitard is greater than the 10 m MECP criterion for hydrogeologic isolation.

As there is considerable consistent documentation confirming these conditions at the Site, no new collection of geologic information is required.

Further responding to the guidance of Provincial Procedure D-5-4 under Step 2, it is worth noting that the effluent will infiltrate into the surficial clay and silt soils, become anaerobic, and consequently denitrify (Robertson et al, 1996). No sewage effluent will enter the water supply aquifer, hence *"the lot density of the proposed development may be dictated by... the need for sewage system replacement areas... and by the minimum distances... as defined by Ontario Regulations..."* (MECP, 1996).

Consequently, no Step 3 contamination attenuation calculations are required to be completed, because:

> *"...where it has been demonstrated that the sewage effluent will not enter supply aquifers, the lot density of the proposed development may be dictated by factors such as the need for sewage system replacement areas, and by the minimum distances between individual on-site beds and wells* (or cisterns)*, as defined by Ontario Regulations..."* (MECP, 1996)

5.2 Sewage System Effluent Disposal Location Considerations

Future sewage system effluent disposal locations (e.g. raised leaching or filter bed) are constrained by a series of Part 8 Ontario Building Code set-backs including at least 15 metres from a cistern (referred to as a reservoir in the code) (Refer to Figure 4). In addition, the current septic bed for the dwelling on Part 1 exerts a set-back for the future cistern on Part 2.

No water supplies have been identified outside of the Site within 30 metres. Therefore, there is no reason to exert external building code set-backs on the proposed severances.

6.0 Conclusions and Recommendations

6.1 Conclusions

The following conclusions are provided:

1. The existing residence (Part 1) and the proposed consent (severance, Part 2) are isolated from the underlying water supply aquifer; and

2. There are no hydrogeological-based impediments to site development as long as the following recommendations are implemented.

6.2 Recommendations

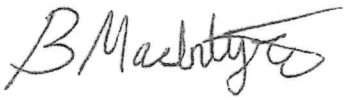
The following recommendations are provided for your consideration:

1. A private sewage system and cistern may be sustainability created on the consent area (Part 2) of 0.73 ha (1.8 acre) as long as Ontario Building Code set-backs are met; and

2. A development agreement should be completed indicating that the water supplies will be by cistern.

We trust this information is sufficient for your present needs. Please do not hesitate to contact the undersigned if you have any questions.

Yours truly,
TERRA-DYNAMICS CONSULTING INC.



Briar MacIntyre, B.Sc., P.Geo.
Environmental Geologist

Attachments
Figure 1 - Location of Site
Figure 2 – Regional Details
Figure 3 – Hydrogeologic Cross-Section
Figure 4 - Site Details
Appendix A – Site Plan
Appendix B – MECP Water Well Records
Appendix C – Water Use and Septic System Survey
Appendix D – Supporting Information

7.0 References

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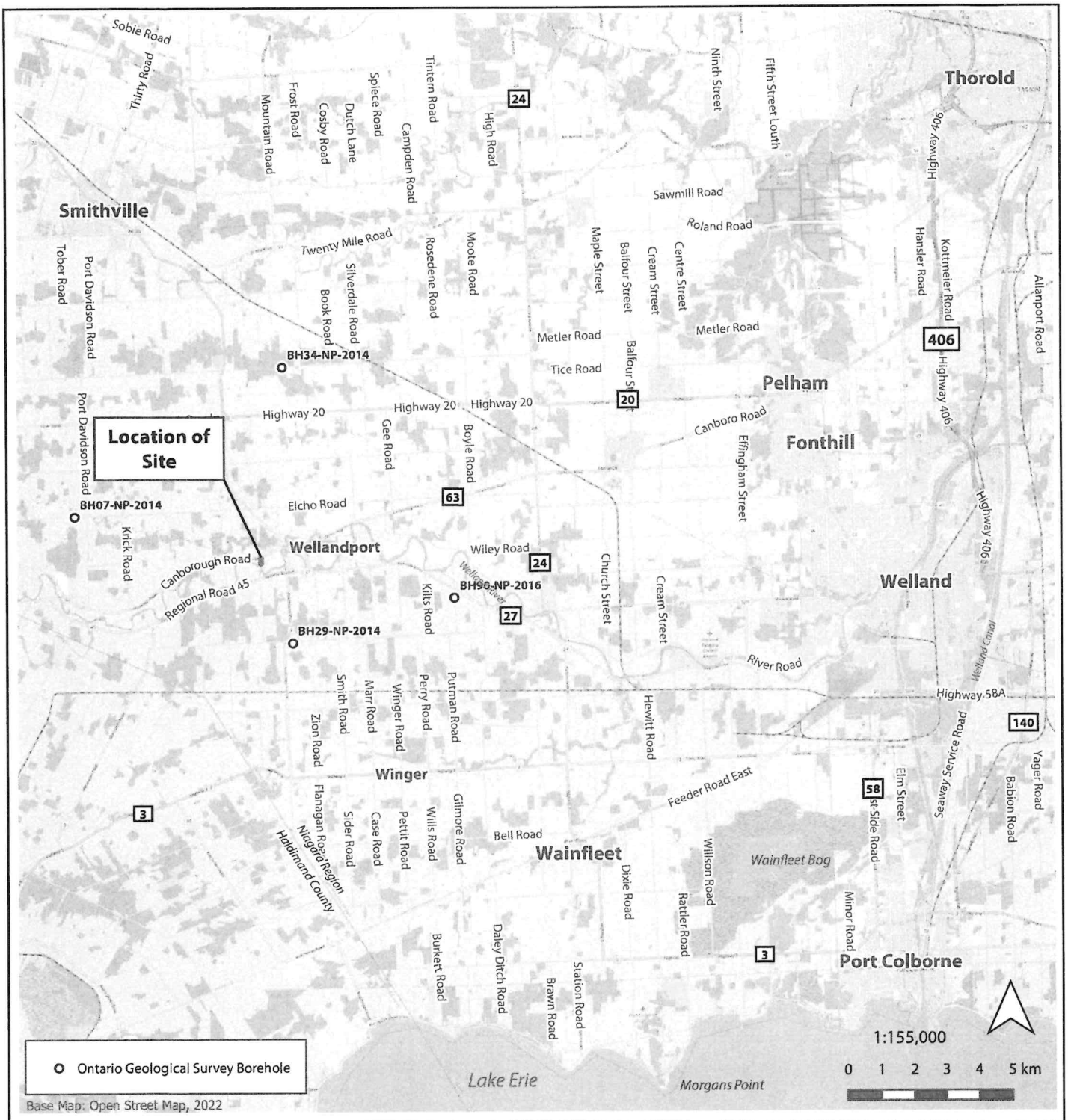
Figures



Location of Subject Lands

5324 Canborough Road, Wellandport, ON
Hydrogeological Assessment

Terra-Dynamics Consulting Inc.

Prepared for:
Mark VandenBerg

Figure 1

MECP Water Well Records Within 500m of Site

Hand Auger Locations

Contour (1m)

Line Of Hydrogeologic Cross-Section A-A'

Site

Proposed Consents

100m Buffer for Water Well Survey

Watercourse

Waterbody

Subwatershed Boundary

Surficial Geology

Clay and silt

Clay, silt, sand and gravel, with organic matter

Regional Setting

5324 Canborough Road, Wellandport, ON
Hydrogeological Assessment

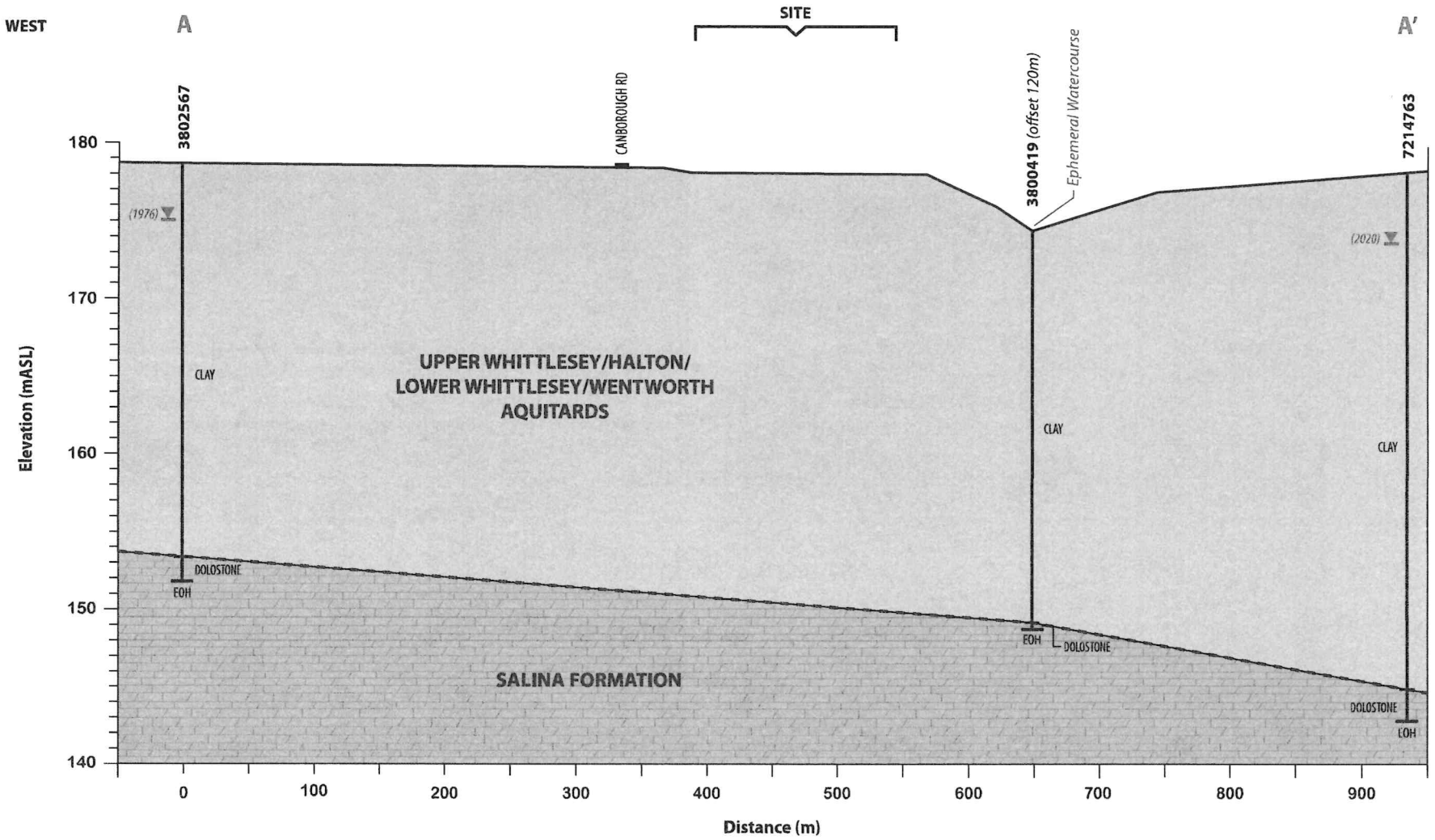
TDC **Terra-Dynamics Consulting Inc.**

Prepared for:
Mark VandenBerg

Figure 2

References: Niagara Peninsula Conservation Authority: Contemporary Mapping of Watercourses, 2018; Subwatersheds. Ontario Geological Survey: Surficial Geology. Ministry of the Environment, Conservation and Parks: Water Well Information System Records 2022.

Map Date: 2024-06-24 D:\TerraDynamics\Projects\5324 Canborough Rd\ProjectFiles\Figure 2 - Regional Setting.qgz



▼ Well Water Level on date as noted

EOH End of Hole

See Figure 2 for line of cross-section

Hydrogeologic Cross-Section A-A'	
5324 Canborough Road, Wellandport, ON Hydrogeological Assessment	
TDC Terra-Dynamics Consulting Inc.	
Prepared For: Mark VandenBerg	Figure 3

D:\TerraDynamics\Projects\5324 Canborough Rd\ProjectFiles\Figure 3 - Cross Section A-A'ai June 11, 2024

MECP Water Well Record Within 100m of Site

Hand Auger Locations

Contour (1m)

Watercourse

Approximate Location of Septic Bed and Mantle

Septic Bed

Mantle

15m Buffer of Existing Septic

Existing Cistern

15m Buffer of Cistern

Site

Proposed Consents

100m Buffer for Water Well Survey

Site Details

5324 Canborough Road, Wellandport, ON
Hydrogeological Assessment

Terra-Dynamics Consulting Inc.

Prepared for:
Mark VandenBerg

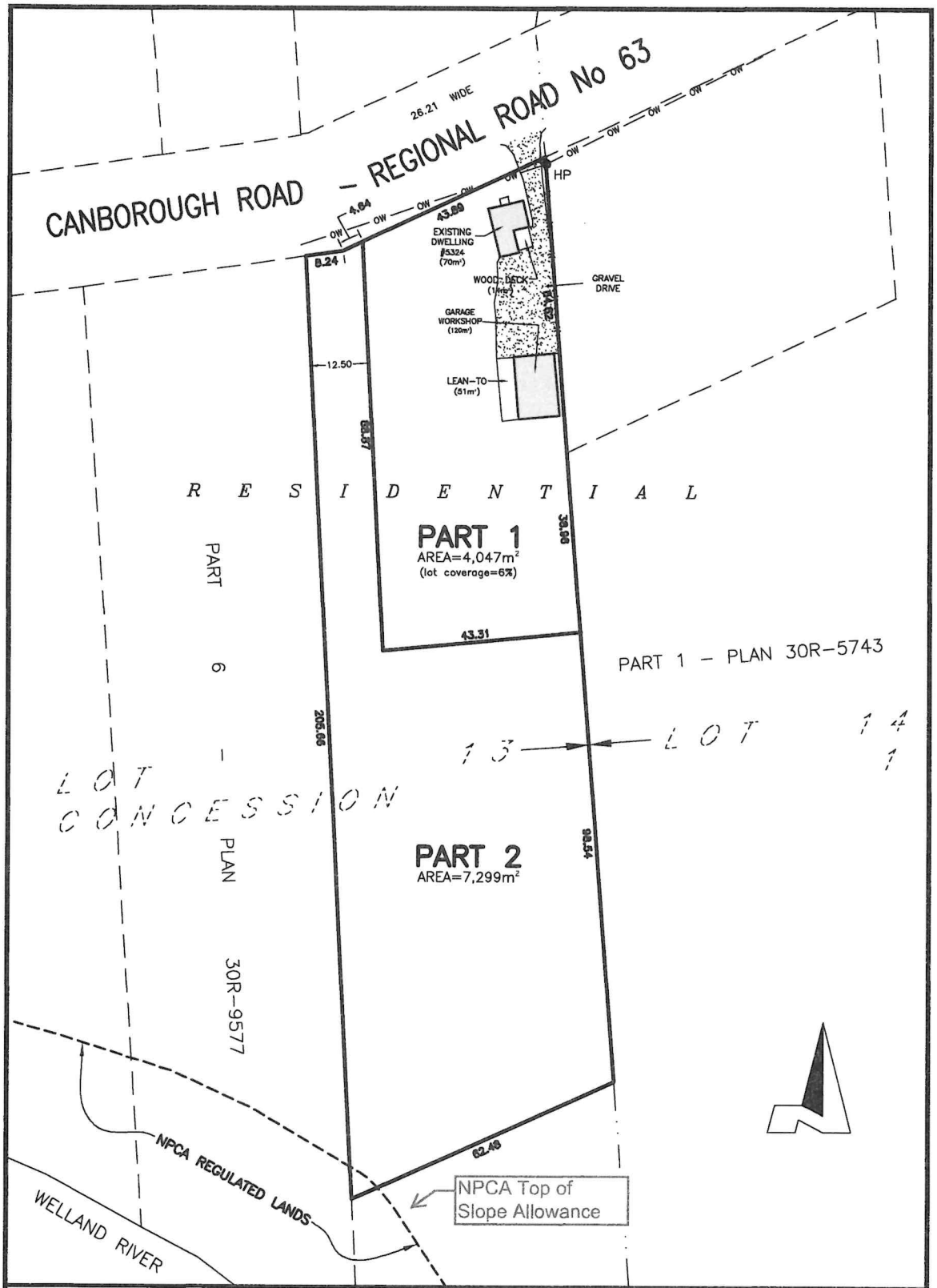
Figure 4

References: Niagara Peninsula Conservation Authority: Contemporary Mapping of Watercourses, 2018; Subwatersheds Ontario Geological Survey: Surficial Geology. Ministry of the Environment, Conservation and Parks: Water Well Information System Database. 2022.

Map Date: 2024-06-25 D:\TerraDynamics\Projects\5324 Canborough Rd\ProjectFiles\Figure 4 - Site Details.qgz

Appendix A

Preliminary Site Plan



SKETCH

PREPARED FOR SEVERANCE APPLICATION

PART OF LOT 13, CONCESSION 1

GEOGRAPHIC TOWNSHIP OF GAINSBOROUGH

IN THE

TOWNSHIP OF WEST LINCOLN

REGIONAL MUNICIPALITY OF NIAGARA

SCALE 1 : 1000 (METRIC)

NOTE: THIS SKETCH IS PREPARED FROM COMPILED AND CALCULATED INFORMATION, NOT FROM AN ACTUAL SURVEY.
ALL MEASUREMENTS ARE +/- MEASUREMENTS.
DO NOT SCALE FROM THIS DRAWING.

CAUTION: THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE INDICATED IN THE TITLE BLOCK.

"THIS IS NOT AN ORIGINAL COPY UNLESS EMBOSSED WITH SEAL"

D.G. Chambers

DONALD G. CHAMBERS, B. Sc., O.L.S.

CHAMBERS AND ASSOCIATES SURVEYING LTD
12 THOROLD ROAD EAST
WELLAND ONTARIO
L3C 3T2
(905) 735-7841 / 735-7844
FAX (905) 735-7333
www.casl-surveying.com

DATE MARCH 21, 2024 FILE No 24-11 (24011_SEV)

Appendix B

Water Well Records

UTM Z E
R N
Elev. F
Basin 24

Con 1
Lot 14

The Ontario Water Resources Commission Act, 1957

GROUND WATER BRANCH
38 No. 419
JAN 5 1961
ONTARIO WATER RESOURCES COMMISSION

WATER WELL RECORD

WEST LINCOLN

County or District Lincoln Township, Village, ~~Town or City~~ Gainsboro

[redacted] te completed 20 (day) Dec. (month) 60 (year)

[redacted] dress Wellandport

Casing and Screen Record

Inside diameter of casing 5"
Total length of casing 83'
Type of screen —
Length of screen —
Depth to top of screen —
Diameter of finished hole 5"

Pumping Test

Static level Flows
Test-pumping rate 10 G.P.M.
Pumping level 5"
Duration of test pumping 30 min
Water clear or cloudy at end of test Clear
Recommended pumping rate 10 G.P.M.
with pumping level of 5"

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
Clay	0'	83'			
Limestone	83'	84'	84'	84'	some sulphur

Water Record

For what purpose(s) is the water to be used?

Farm purposes

Is well on upland, in valley, or on hillside?

valley

Drilling Firm Frank Merritt

Address R. R. 1, Smithville, Ont.

Licence Number 443

Name of Driller Frank Merritt

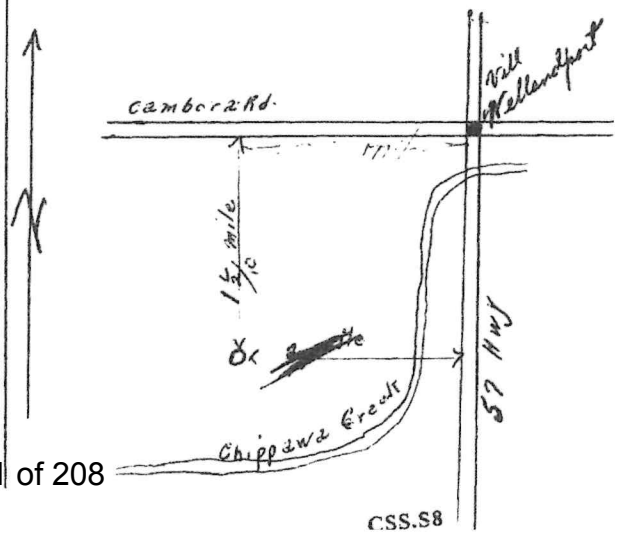
Address R. R. 1, Smithville, Ont.

Date Dec 31 / 60

Frank Merritt
(Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 5

CSS.S8

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

30m/30

Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 3802567 | MUNICIP. 38003 | CON. CON | 01

COUNTY OR DISTRICT: Niagara (Co. Lincoln) | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Cairnsborough | CON., BLOCK, TRACT, SURVEY, ETC.: Con 1 | LOT: 013

OWNER (SURNAME FIRST): B.M.C Construction | ADDRESS: 8 Greenwood Ave St. Catherines | DATE COMPLETED: DAY 30 MO 09 YR 76

21 | ZONE 17 | EASTING 622540 | NORTHING 4761980 | ELEVATION 05586 | BASIN CODE 4 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	clay		packed	0	20
grey	clay		dense	20	60
brown	clay	gravel	packed	60	83
grey	shale		layered	83	86-6"
grey	limestone			86-6"	87

31 | 0020605791 | 0060205661 | 0083605111791 | 0087217174 | 0087215

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0086-87	1 FRESH 3 SULPHUR ☒ MINERAL; 2 SALTY
	1 FRESH 3 SULPHUR; 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR; 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR; 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR; 2 SALTY 4 MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6	1 ☒ STEEL; 2 GALVANIZED; 3 CONCRETE; 4 OPEN HOLE	.188	0	86-6
				0087
6	1 STEEL; 2 GALVANIZED; 3 CONCRETE; 4 ☒ OPEN HOLE		86-6	87
	1 STEEL; 2 GALVANIZED; 3 CONCRETE; 4 OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER (INCHES)	LENGTH (FEET)

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN (FEET)

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER | PUMPING RATE: 0014 GPM | DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
012 FEET	030 FEET	012 FEET	012 FEET	012 FEET	012 FEET

1 ☐ PUMPING 2 ☒ RECOVERY

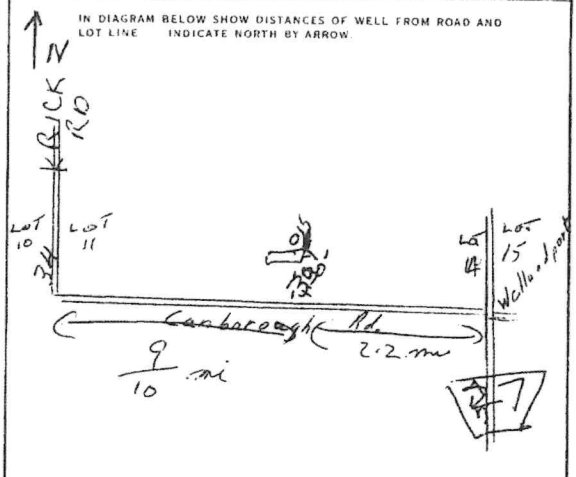
IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP | RECOMMENDED PUMP SETTING: 060 FEET | RECOMMENDED PUMPING RATE: 0012 GPM

GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL: 1

1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED INSUFFICIENT SUPPLY; 6 ☐ ABANDONED POOR QUALITY; 7 ☐ UNFINISHED

WATER USE: 01

1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; ☐ OTHER; 9 ☐ NOT USED

METHOD OF DRILLING: 1

1 ☒ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☐ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Donald Merritt | LICENCE NUMBER: 3640

ADDRESS: RR#1 Smithville

NAME OF DRILLER OR BORER: Donald Merritt | LICENCE NUMBER: 3640

SIGNATURE OF CONTRACTOR: Donald Merritt | SUBMISSION DATE: DAY 4 MO Oct YR 1976

OFFICE USE ONLY

DATA SOURCE: 1 | CONTRACTOR: 3640 | DATE RECEIVED: 13 10 76

DATE OF INSPECTION: Aug 16/77 | INSPECTOR: MT

REMARKS:

P

WI

CSS.S8

FORM 7

MINISTRY OF THE ENVIRONMENT COPY

Ontario — Ministry of the Environment, Conservation and Parks

Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag No. *(Place Sticker and/or Print Below)* Tag#:A268408

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name): 5274 Canborough Rd

Township: West Lincoln

Lot: \ Concession: \

County/District/Municipality: Niagara Region

City/Town/Village: Wellandport

Province: Ontario

Postal Code: L0R2J0

UTM Coordinates: NAD | Zone: 17 | Easting: 606284 | Northing: 4780179

Municipal Plan and Sublot Number: UTM 4762257

Other:

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BROWN	clay			0	4
GREY	clay			4	20
Red	clay			20	110
GREY	limestone		Bedrock	110	116.7

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	21	Bensee1	5 BAGS

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☒ Air percussion ☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, specify FARM

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
6"	steel	188	0	110

Status of Well

☒ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Abandoned, other, specify FARM ☐ Other, specify

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Water Details

Water found at Depth (m/ft)	Kind of Water	Gas	Other, specify
108	☐ Fresh ☒ Untested	☐	
	☐ Fresh ☐ Untested	☐	
	☐ Fresh ☐ Untested	☐	

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	20	10"
20	116.7	6"

Results of Well Yield Testing

After test of well yield, water was: ☒ Clear and sand free ☐ Other, specify

If pumping discontinued, give reason: ~

Pump intake set at (m/ft): 65

Pumping rate (l/min / GPM): 10

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 25.1

If flowing give rate (l/min / GPM): ~

Recommended pump depth (m/ft): 65

Recommended pump rate (l/min / GPM): 10

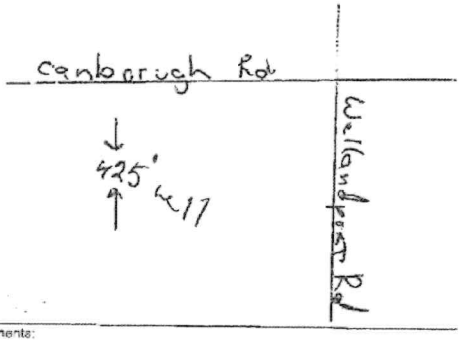
Well production (l/min / GPM): 20

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	15.6		25.1
1	20.1	1	19.2
2	21.9	2	16.2
3	22.5	3	15.6
4	23.0	4	15.6
5	23.2	5	15.6
10	23.8	10	15.6
15	24.1	15	15.6
20	24.3	20	15.6
25	24.5	25	15.6
30	24.6	30	15.6
40	24.9	40	15.6
50	25.0	50	15.6
60	25.1	60	15.6

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor: FIELDWELL DRILLING INC

Well Contractor's Licence No.: 7713

Business Address (Street Number/Name): 4622 SPRING Creek Rd

Municipality: VINELAND

Province: ONT

Postal Code: L0R2C0

Business E-mail Address: fieldwelldrilling@gmail.com

Bus. Telephone No. (inc. area code): 9059941341

Name of Well Technician (Last Name, First Name): FIELD MARSHALL

Well Technician's Licence No.: TO 365

Signature of Technician and/or Contractor

Date Submitted: 2020/07/14

Well owner's information package delivered ☑ Yes ☐ No

Date Package Delivered: 2020/07/14

Date Work Completed: 2020/06/30

Ministry Use Only

Audit No. Z329623

Received JUL 23 2020

0506E (2018/12)

Ministry's Copy

Appendix C

Well Use & Septic System Survey

Terra-Dynamics Consulting Inc.
432 Niagara Street, Unit 2 St. Catharines, ON L2M 4W3

March 8, 2024

Dear Resident:

On behalf of Mr. Mark VandenBerg Terra-Dynamics Consulting Inc. is completing a water well and septic system survey as part of a Hydrogeological Study of 5324 Canborough Road. This is a survey of properties in the vicinity of 5324 Canborough Road, as shown on the attached map (Site). We are seeking to map nearby private wells in order to ensure protection of water quantity and quality as part of future residential development. This well and septic system survey is a recommended part of a hydrogeologic, or groundwater, study of the subject lands which informs water supplies and septic system designs and locations. This is a standard questionnaire for properties on private services.

The purpose of this survey is to collect information on private or residential water wells, cisterns and septic systems within approximately 100 metres of the Site (as shown by the outline on the attached map). **Participation is voluntary.** Participation involves completing the attached questionnaire on municipal, well and/or cistern use, groundwater quantity, quality and your septic system. Please complete it as best as you can. Please fill out the questionnaire and mail it back to Terra-Dynamics Consulting Inc. in the self-addressed and stamped envelope. The information you provide will be summarized in our report and personal information (e.g. name, address, etc.) will be kept confidential and will not be included in our report.

If you have any questions about the questionnaire, please contact Briar MacIntyre at 905-906-2311 or via email at bmacintyre@terra-dynamics.com.

Thank you in advance for your assistance.

Yours truly,

TERRA-DYNAMICS CONSULTING INC.

B MacIntyre

Briar MacIntyre, P.Geo.
Environmental Geologist

Legend

100m Buffer

Address Points

Water Well and Septic System Survey Area- 100m from 5324 Canborough Rd

0.04 0.08 0.16 0.24 0.32 km

Date: 2024-03-08 Time: 10:06 AM

Terra-Dynamics Consulting Inc.
432 Niagara Street, Unit 2 St. Catharines, ON L2M 4W3

WATER WELL SURVEY FORM

Date:_____

Contact Person:_____

Property Address:_____

Telephone: _____

Email (if further information requested): _____

1.0 GENERAL QUESTIONS

Do you know your drinking water source? Please circle one or more of the following three options:

1.Well (20+ feet casing) 2.Shallow Well (less than 20 feet of casing)
3.Cistern 4. Municipal

Further comments:

_____

_____

Use page 3 or a separate sheet of paper for additional comments.

If your water supply is from a cistern, the rest of the questions do not apply. If you have both a cistern and a well, please complete the well questionnaire (Section 2.0 or 3.0). Please let us know where your place is located either on the supplied map or the area for a sketch on the second last page of this form. Please mail the completed form back to Terra-Dynamics in the provided envelope. Thank you for your assistance.

- If you have a drilled deep well (20+ feet of casing) please complete Sections 2 & 4
- If you have a shallow well (less than 20 feet of casing), please complete Sections 3&4

2.0 DRILLED WELL (greater than 20 feet of casing)

How deep is your well?_____

Is your well drilled into rock?_____What is the well casing diameter?_____

Do you know when your well was drilled?_____

Do you know the name of the well driller?_____

905-646-7931 Fax: 905-935-0397 www.terra-dynamics.com

Do you have a well log? (i.e. a description of the geology encountered when drilling your well and if yes, can you supply a copy or write down the information in the Comments Section).

_____

What is the use of your well water? (i.e. drinking water for house, garden irrigation, etc.)

_____

Has your well ever run dry? _____

Do you experience problems with taste, colour or odour? (if yes, please explain).

_____

Do you have any water purification systems for your well water? (i.e. water softeners, UV Light for bacteria, Sulphur/Iron Filter for odour or staining, etc.).

_____

Do you perform regular maintenance on your well? (i.e. pump service, silt removal, etc.)

_____

3.0 SHALLOW WELL (less than 20 feet of casing)

What is the well casing material and diameter? _____

What is the expected age of the well? _____

How deep is the well? _____

Does you utilize a jet pump or a submersible pump?_____

Is there problems with water quality (colour, odour, etc.)? Yes_____ No_____

If yes, please explain_____

Do you have any water purification systems for your dug well water? (i.e. water softeners, UV Light for bacteria, Sulphur/Iron Filter for odour or staining, etc.).

_____

Have you ever experienced freeze-up during the winter?_____

What is the use of your shallow dug well water? (i.e. drinking water for house, irrigation, etc.)

_____

Has your dug well ever run dry?

Do you perform regular maintenance on your pump? (i.e. pump service, silt removal)

Additional comments:

4.0 LOCATION MAP

Can you please draw a sketch map of the location of your well(s), septic tank and sewage bed on your property (please show the location relative to buildings and roads).

SKETCH MAP OF WELL(S) and SEWAGE SYSTEM LOCATIONS

Other Comments: (Use a separate sheet, if required)

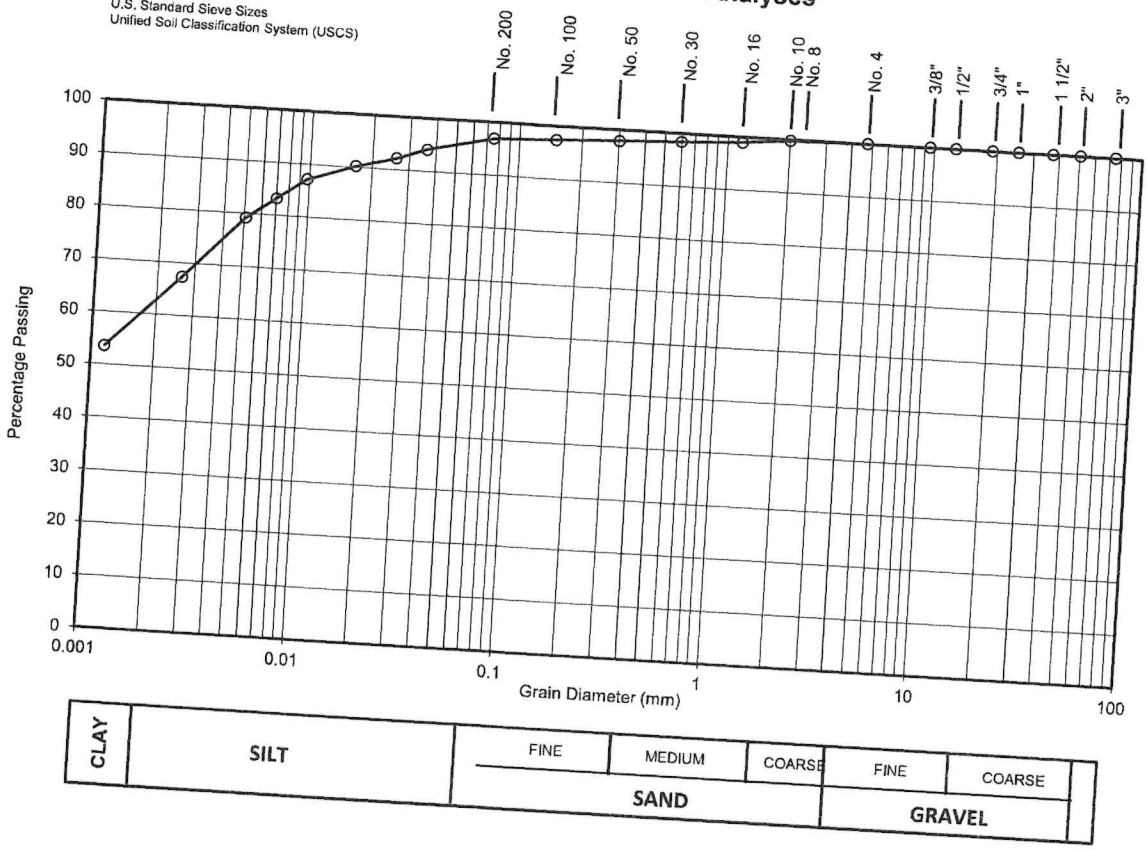
Please mail the completed form back to Terra-Dynamics in the provided envelope.
Thank you for your help.

Briar MacIntyre, P. Geo., Environmental Geologist
432 Niagara Street, Unit 2, St. Catharines, ON L2M 4W3
905-906-2311

Appendix D

Supporting Information

Mechanical & Hydrometer Analyses



Lab No.:	24-156
Borehole No.:	
Sample No.:	HA-1
CLAY [%]:	62
SILT [%]:	35
SAND [%]:	3
GRAVEL [%]:	0
D_{10} (Effective Diam. in mm):	0.0001

Notes: Sampled on April 9, 2024. Sample obtained from the south half of the property. Sample was taken at a depth of 80 cm.

Soil Description: **Brown Silty Clay w/ a trace of Sand**
C.L. - Silty clays, inorganic clays of low to medium plasticity to M.L. - Inorganic silts and very fine sands

Estimated Infiltration Rate [mm/hr] :	< 5	Estimated Permeability, k [cm/s]	10^{-8}
Coefficient of Uniformity C_U:	18.0	Coefficient of Curvature C_C:	0.5

SOIL-MAT ENGINEERS & CONSULTANTS LTD.

5324 Canborough Road, Wellandport ON

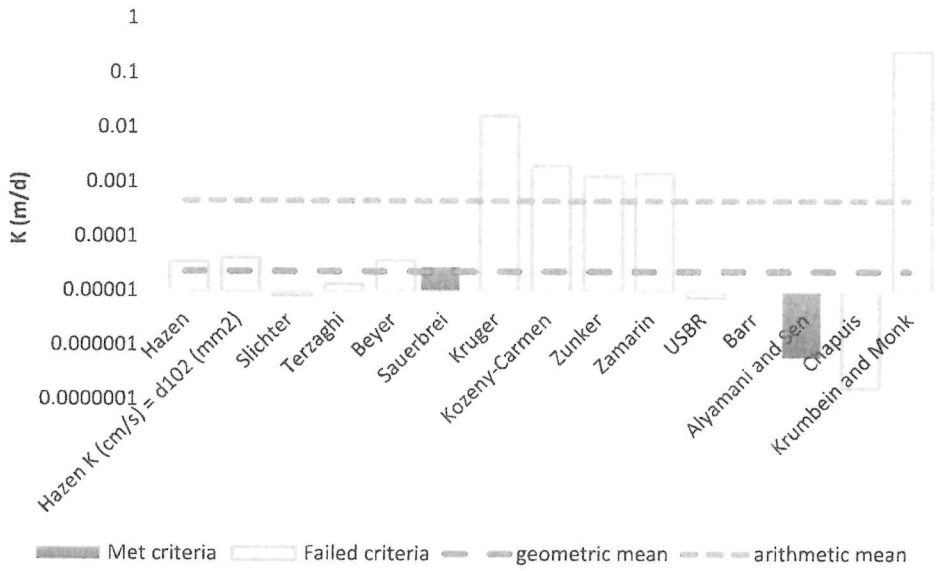
April 2024	Grain Size Analysis No. 1	Project No.: SM 230001-T

K from Grain Size Analysis Report Date: 09-Apr-24

Sample Name: HA-1, 0.80 m, 5324 Canborough

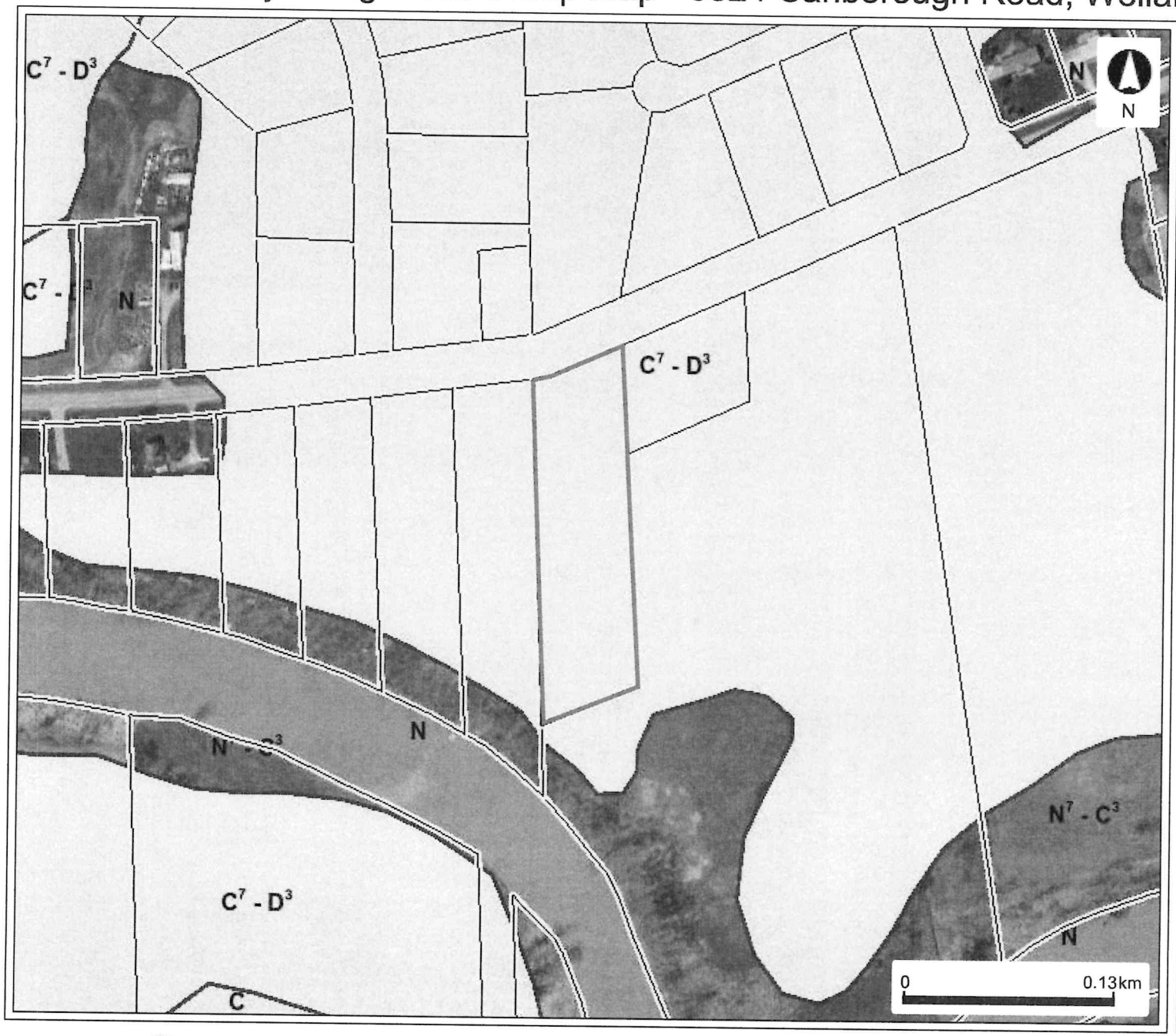
Mass Sample (g): 242.2 T (oC) 20

Poorly sorted clay with fines



Estimation of Hydraulic Conductivity	cm/s	m/s	m/d	de
Hazen	.409E-07	.409E-09	0.00	
Hazen K (cm/s) = d_{10} (mm)	.467E-07	.467E-09	0.00	
Slichter	.956E-08	.956E-10	0.00	
Terzaghi	.156E-07	.156E-09	0.00	
Beyer	.426E-07	.426E-09	0.00	
Sauerbrei	.319E-07	.319E-09	0.00	
Kruger	.192E-04	.192E-06	0.02	
Kozeny-Carmen	.237E-05	.237E-07	0.00	
Zunker	.148E-05	.148E-07	0.00	
Zamarin	.172E-05	.172E-07	0.00	
USBR	.871E-08	.871E-10	0.00	
Barr	.112E-07	.112E-09	0.00	
Alyamani and Sen	.702E-09	.702E-11	0.00	
Chapuis	.191E-09	.191E-11	0.00	
Krumbein and Monk	.292E-03	.292E-05	0.25	
Shepherd	.211E-05	.211E-07	0.00	
geometric mean	6.E-09	6.E-11	0.00	
arithmetic mean	1.E-08	1.E-10	0.00	

Hydrologic Soil Group Map - 5324 Canborough Road, Wellandport



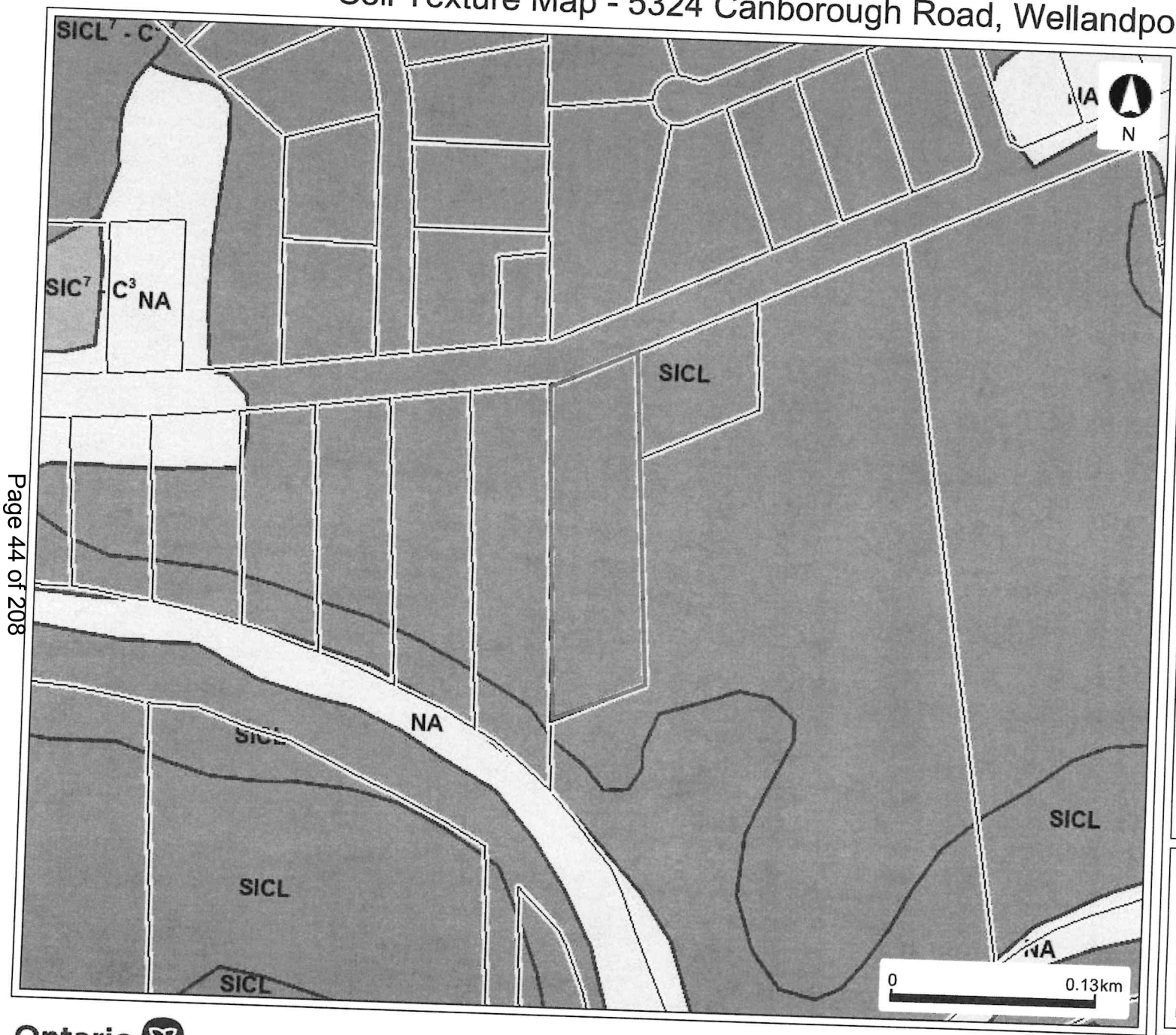
Legend

- Assessment Parcel
- Hydrologic Soil Group
  - A - High
  - B - Moderate
  - C - Slow
  - D - Very Slow
- Site

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) shall not be liable in any way for the use or any information on this map. of, or reliance upon, this map.

Map Created: 6/7/2024
Map Center: 43.00171 N, -79.4899 W

Soil Texture Map - 5324 Canborough Road, Wellandport



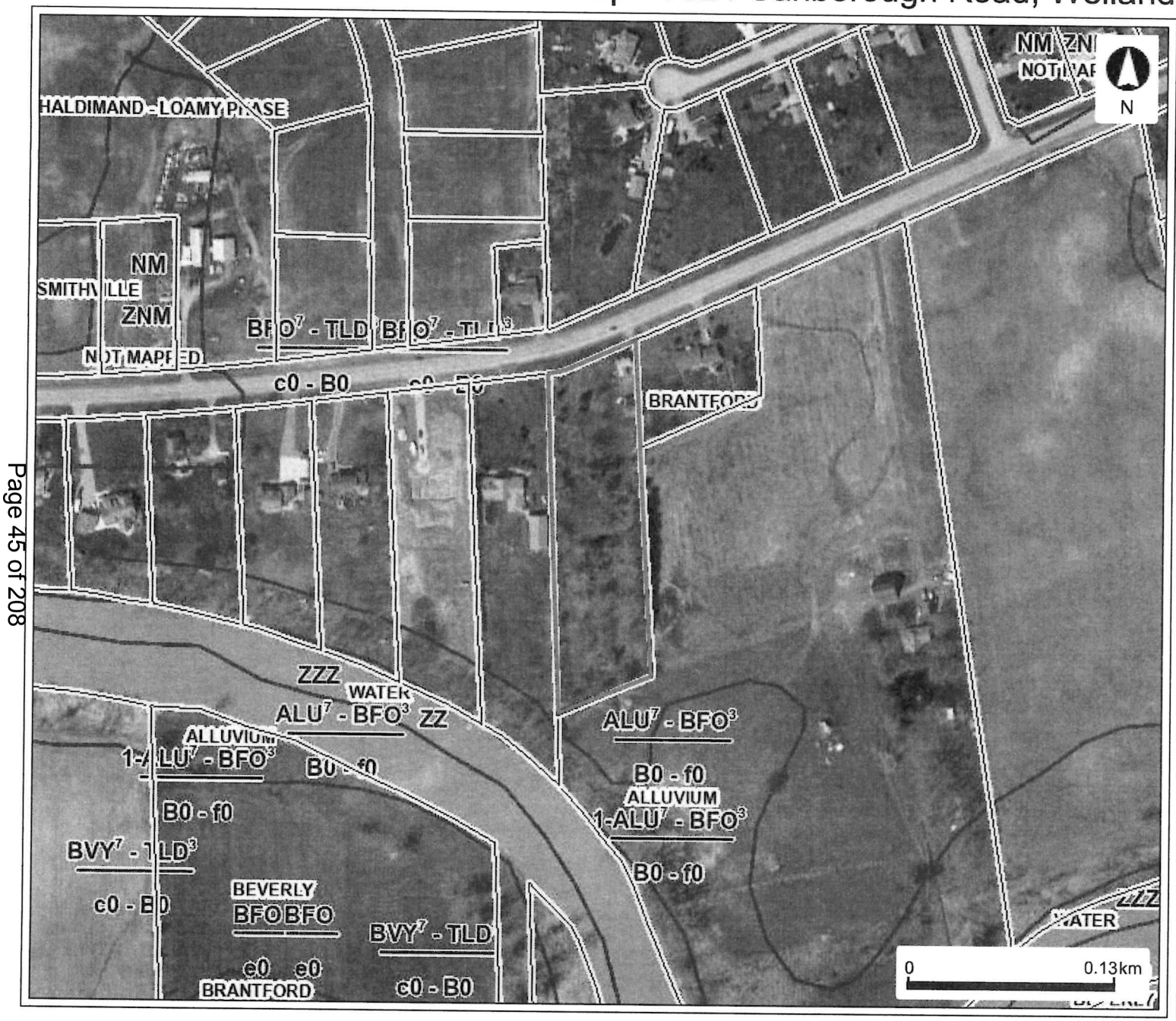
Legend

- Assessment Parcel
- Surface Texture
  - <Null>
  - C
  - CL
  - CSL
  - FSL
  - GL
  - GLS
  - GRAV
  - GS
  - GSL
  - L
  - LCS
  - LFS
  - LS
  - FS
  - LVFS
  - ORG
  - R
  - S
  - SIC
  - SICL
  - SIL
  - SL
  - VAR
  - VFSL
  - VSFL
- Site

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) shall not be liable in any way for the use or any information on this map. of, or reliance upon, this map.

Map Created: 6/7/2024
Map Center: 43.00171 N, -79.48995 W

Soil Classification Map - 5324 Canborough Road, Wellandport

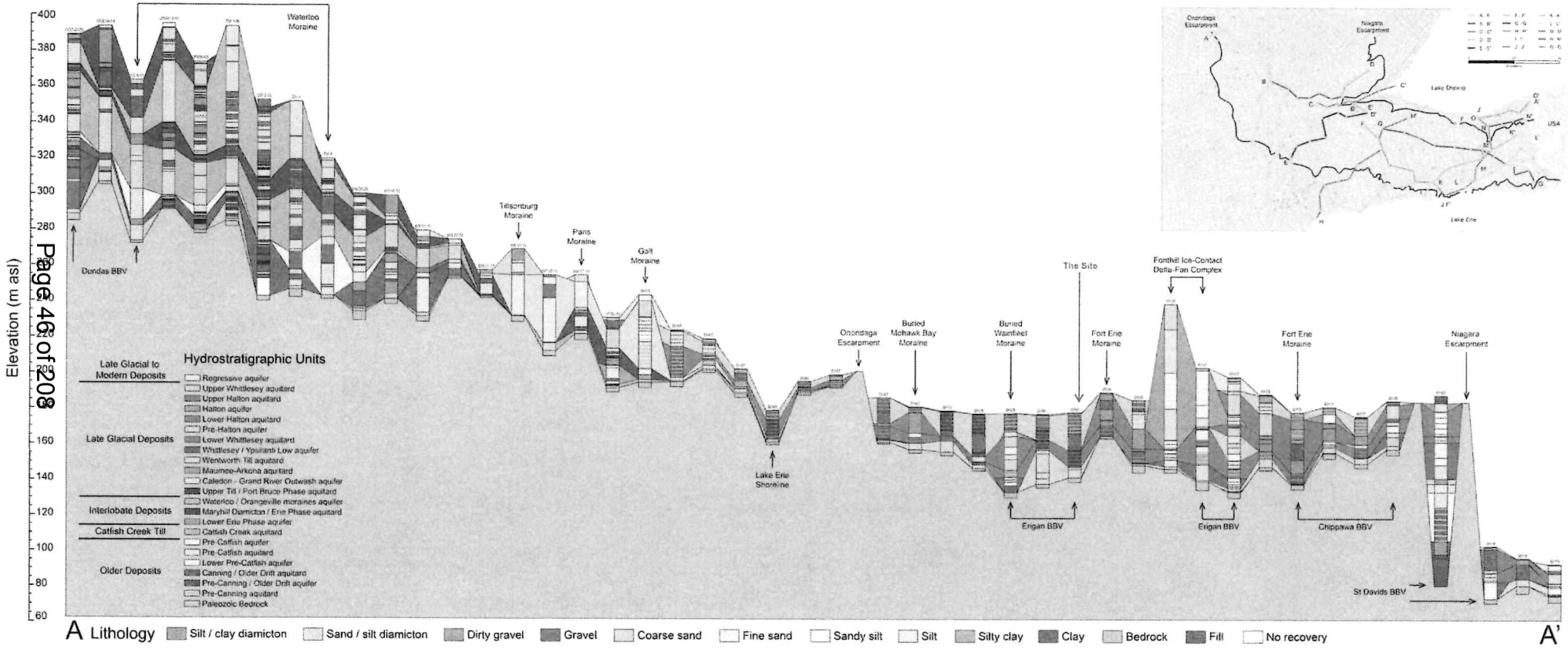


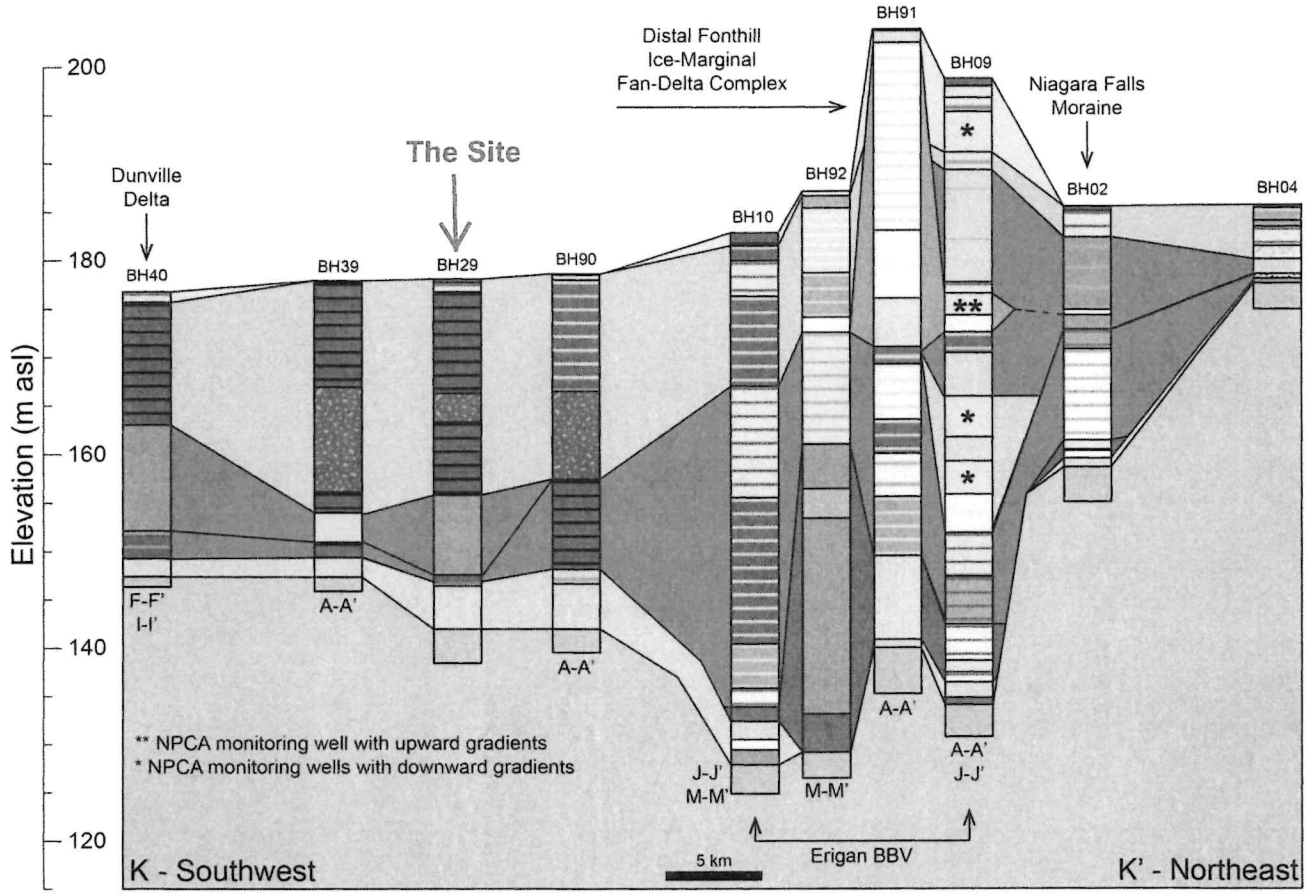
Legend

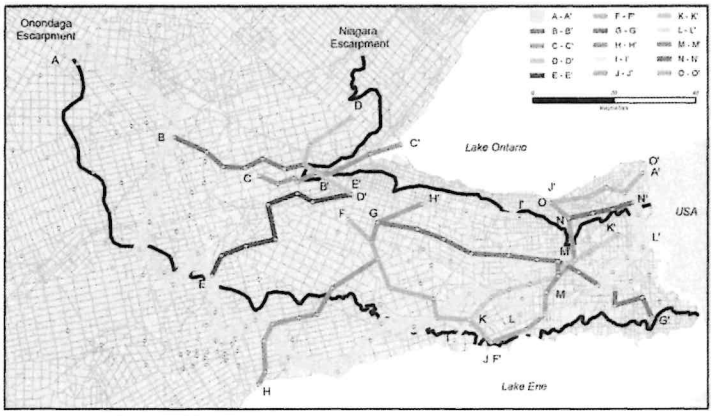
- Assessment Parcel
- Soil Name Label
- Soil Code
- Soil Symbol
- Site

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) shall not be liable in any way for the use or any information on this map. of, or reliance upon, this map.

Map Created: 6/7/2024
Map Center: 43.00171 N, -79.48995 W


Elevation (m asl)
400
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
Waterloo Moraine
Dundas BBV
Tillsonburg Moraine
Paris Moraine
Galt Moraine
Lake Erie Shoreline
Onondaga Escarpment
Buried Mohawk Bay Moraine
Buried Waterloo Moraine
The Site
Fort Erie Moraine
Fonthill Ice-Contact Delta-Fan Complex
Erigan BBV
Erigan BBV
Fort Erie Moraine
Chippawa BBV
Niagara Escarpment
St Davids BBV
Hydrostratigraphic Units
Late Glacial to Modern Deposits
Regressive aquifer
Upper Whittlesey aquitard
Upper Halton aquitard
Halton aquifer
Lower Halton aquitard
Pre-Halton aquifer
Late Glacial Deposits
Lower Whittlesey aquitard
Whittlesey / Ypsilanti Low aquifer
Wentworth Till aquitard
Maumee-Arkona aquitard
Caledon - Grand River Outwash aquifer
Upper Till / Port Bruce Phase aquitard
Waterloo / Orangeville moraines aquifer
Interlobate Deposits
Maryhill Diamicton / Erie Phase aquitard
Lower Erie Phase aquifer
Catfish Creek Till
Catfish Creek aquitard
Pre-Catfish aquifer
Pre-Catfish aquitard
Lower Pre-Catfish aquifer
Older Deposits
Canning / Older Drift aquitard
Pre-Canning / Older Drift aquifer
Pre-Canning aquitard
Paleozoic Bedrock
Onondaga Escarpment
Niagara Escarpment
Lake Ontario
USA
Lake Erie
A
A'
Lithology
Silt / clay diamicton
Sand / silt diamicton
Dirty gravel
Gravel
Coarse sand
Fine sand
Sandy silt
Silt
Silty clay
Clay
Bedrock
Fill
No recovery





Hydrostratigraphic Units

- Regressive aquifer
- Upper Whittlesey aquitard
- Upper Halton aquitard
- Halton aquifer
- Lower Halton aquitard
- Pre-Halton aquifer
- Lower Whittlesey aquitard
- Whittlesey / Ypsilanti Low aquifer
- Wentworth Till aquitard
- Maumee-Arkona aquitard
- Caledon - Grand River Outwash aquifer
- Upper Till / Port Bruce Phase aquitard
- Waterloo / Orangeville moraines aquifer
- Maryhill Diamicton / Erie Phase aquitard
- Lower Erie Phase aquifer
- Catfish Creek aquitard
- Pre-Catfish aquifer
- Pre-Catfish aquitard
- Lower Pre-Catfish aquifer
- Canning / Older Drift aquitard
- Pre-Canning / Older Drift aquifer
- Pre-Canning aquitard
- Paleozoic Bedrock

Lithology

- Silt / clay diamicton
- Sand / silt diamicton
- Dirty gravel
- Gravel
- Coarse sand
- Fine sand
- Sandy silt
- Silt
- Silty clay
- Clay
- Ice-rafted debris
- Rhythmic bedding
- Bedrock
- Fill
- No recovery

Stage 1 Archaeological Assessment

5324 Canborough Road,
(Formerly Part of Lot 13, Concession 1,
Geographic Township of Gainsborough, Lincoln County),
Now in the Township of West Lincoln, Regional Municipality of Niagara, Ontario

Prepared by:

AS&G Archaeological Consulting

16-Jul-24

MCM Archaeological Consulting License # P354 (Mr. Jason Seguin)
MCM P.I.F. # P354-0088-2024

ORIGINAL REPORT

EXECUTIVE SUMMARY

AS&G Archaeological Consulting Inc. was contracted to conduct a Stage 1 Archaeological Assessment of 5324 Canborough Road, (Formerly Part of Lot 13, Concession 1, Geographic Township of Gainsborough, Lincoln County), Now in the Township of West Lincoln, Regional Municipality of Niagara, Ontario. The proposed development project was triggered by the *Planning Act* and the Archaeological Assessment was performed in advance of a severance application.

The property includes an existing dwelling with a wood deck, a gravel driveway, a garage workshop and grassed lawn areas. The property is roughly rectangular in shape and measures approximately 206 m north-south by 63 m east-west (~1.15 hectares in size). The property is bound on the north by Canborough Road (Regional Road No. 63), and by residential lands to the west, east and south.

The Stage 1 archaeological background study established there is potential for the recovery of archaeologically significant materials within the property. To determine if the archaeological potential classification of the property is relevant, a site inspection and desktop review of ground conditions was undertaken using contemporary satellite imagery and historical atlas maps.

The Stage 1 desktop review identified that portions of the property retain archaeological potential. **Therefore, the report recommends that further archaeological assessment of the property is required in the form of a Stage 2 archaeological assessment.**

TABLE OF CONTENTS

PROJECT PERSONNEL

Project Manager:	Mr. Jason Seqguin (P354)
Project Director:	Mr. Norbert Stanchly (R149)
Field Director:	Mr. Norbert Stanchly
Report Preparation:	Mr. Norbert Stanchly Mr. Pete Demarte (R1073)
Graphics:	Mr. Pete Demarte Mr. Norbert Stanchly

INTRODUCTION

The *Ontario Heritage Act*, R.S.O. 1990 c. O.18, requires anyone wishing to carry out archaeological fieldwork in Ontario to have a license from the Ministry of Citizenship and Multiculturalism (MCM). All licensees are to file a report with the MCM containing details of the fieldwork that has been done for each project. Following standards and guidelines set out by the MCM is a condition of a licence to conduct archaeological fieldwork in Ontario. **AS&G Archaeological Consulting Inc. (AS&G)** confirms that this report meets ministry report requirements as set out in the *2011 Standards and Guidelines for Consultant Archaeologists* (MCM 2011) and is filed in fulfillment of the terms and conditions an archaeological license.

1.0 PROJECT CONTEXT

This section of the report will provide the context for the archaeological fieldwork, including the development context, the historical context, and the archaeological context.

1.1 Development Context

AS&G was contracted to conduct a Stage 1 Archaeological Assessment of 5324 Canborough Road, (Formerly Part of Lot 13, Concession 1, Geographic Township of Gainsborough, Lincoln County), Now in the Township of West Lincoln, Regional Municipality of Niagara, Ontario. The proposed development project was triggered by the *Planning Act* and the Archaeological Assessment was performed in advance of a severance application.

The property includes an existing dwelling with a wood deck, a gravel driveway, a garage workshop and grassed lawn areas. The property is roughly rectangular in shape and measures approximately 206 m north-south by 63 m east-west (~1.15 hectares in size). The property is bound on the north by Canborough Road (Regional Road No. 63), and by residential lands to the west, east and south.

1.2 Historical Context

Several sources were referenced to determine if features or characteristics indicating archaeological potential for Pre-Contact and Post-Contact resources exist within the property. These included contemporary satellite imagery and historical atlas maps.

1.3 Archaeological Context

1.3.1 Known Archaeological Sites

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (O.A.S.D.), an inventory of the documented archaeological record in Ontario. Summary information on the known archaeological sites in the vicinity of the property was obtained from the MCM site database (MCM 2024).

There are ten (10) known archaeological sites within a one-kilometre radius of the property, two (2) of which are located within 300 metres of the property limits (Table 1).

Table 1: Known Archaeological Sites within 1-Km of Property

Borden Number	Site Name	Time Period	Affinity	Site Type	Current Development Review Status
AgGv-136		Pre-Contact	Aboriginal	Findspot	No Further CHVI
AgGu-43*	Beaver Creek 1-3	Pre-Contact	Aboriginal	Findspot	
AgGu-221	SE21-3				
AfGv-99*	Putnam Farm	Archaic; Post-Contact	Aboriginal; Euro-Canadian	Agricultural; Manufacturing	No Further CHVI
AfGv-150	NRWC 52	Archaic Late	Aboriginal	Scatter	Further CHVI
AfGv-146	SE3(1H)-5				
AfGv-132	SE3(1H)-2	Pre-Contact	Aboriginal	Scatter	Further CHVI
AfGv-131	SE3(1H)-1	Archaic Late		Scatter	Further CHVI
AfGu-63	NRWC-50	Pre-Contact	Aboriginal	Processing; Scatter	Further CHVI

Borden Number	Site Name	Time Period	Affinity	Site Type	Current Development Review Status
AfGu-62		Pre-Contact	Aboriginal	Scatter	Further CHVI

* Sites Located within 300 metres of the property limits.

The following is a brief description of the two (2) known archaeological site located within 300 metres of the property limits, based on the available information provided by the MCM archaeological sites database:

The Beaver Creek 1-3 (AgGu-43) Site

The Beaver Creek 1-3 (AgGu-43) Site is a Pre-Contact aboriginal findspot site. The site was first identified during a project carried out by the Museum of Indian Archaeology in August of 1988. The AgGu-43 site is located north of Canboro Road, south of Beaver Creek along the western edge of Wellandport in an agricultural field. The site consists of three isolated findspots. Locations 1 and 2 included utilized chert flakes and one fire-cracked rock within a 5 metre area, while Location 3 consisted of a single chert flake. There is no other information or reports available regarding this site in the MCM archaeological sites database.

The Putnam Farm (AfGv-99) Site

The Putnam Farm (AfGv-99) Site is a multi-component site with both Archaic Period and early Euro-Canadian cultural affiliations. The site was first identified in May 1999, by Jon Jouppien during a Stage 1-3 archaeological assessment consisting of a pedestrian survey and test unit excavations. The AfGv-99 site is located along the north shore of the Welland River, south of the former Putnam Farm farmhouse and approximately 1.6 km west of the Village of Wellandport in a former agricultural field. Approximately 488 artifacts were recovered from area spanning 100 x 40 metres. The aboriginal component of the site, consisting of 462 lithics (primary debitage) dates to approximately 4,500-3,000 BP, with an inferred date of 4,500 BP, while the early Euro-Canadian Post-Contact affiliation and artifact assemblage consisting of 26 glass, ceramic and metal fragments ranges from c.1850-1950, with an inferred date of c.1870s. The results of the assessment determined that the integrity of the site has been lost due to agricultural activities and looting in the area. There is no other information or reports available regarding this site in the MCM archaeological sites database.

1.3.2 Environmental Conditions

The property is situated within the Haldimand Clay Plain physiographic region of southern Ontario (Chapman and Putnam 1984:156-159). The Haldimand Clay Plain is among the largest of the 53 defined physiographic regions in southern Ontario, comprising approximately 3,500 square kilometres. Generally, this region is flat and poorly drained, although it includes several distinctive landforms including dunes, cobble, clay, and sand beaches, limestone pavements, and backshore wetland basins. Soils within the subject property consist primarily of fine-textured glaciolacustrine deposits of silt and clay, minor and sand gravel.

The property includes an existing dwelling with a wood deck, a gravel driveway, a garage workshop and grassed lawn areas. The property is roughly rectangular in shape and measures approximately 206 m north-south by 63 m east-west (~1.15 hectares in size). The property is bound on the north by Canborough Road (Regional Road No. 63), and by residential lands to the west, east and south.

AS&G is unaware of any previous findings and recommendations relevant to the current stage of work with the exception of those discussed above. There are no unusual physical features that may have affected fieldwork strategy decisions or the identification of artifacts or cultural features. There is no additional archaeological information that may be relevant to understanding the choice of fieldwork techniques or the recommendations of this report.

2.0 BACKGROUND STUDY

A Stage 1 Archaeological Assessment is a systematic qualitative process executed to assess the archaeological potential of a property based on its historical use and its potential for early Euro-Canadian (early settler) and pre-contact Indigenous occupation. The objectives of a Stage 1 Background Study are: 1) to provide information about the property's geography, history, previous archaeological fieldwork and current land condition; 2) to evaluate in detail the property's archaeological potential, which will support recommendations for Stage 2 Property Assessment for all or parts of the property if warranted; and 3) to recommend appropriate strategies for Stage 2 property assessment if warranted.

This Stage 1 Background Study was conducted in accordance with the *Standards and Guidelines for Consultant Archaeologists,* set out by the MCM (2011) pursuant to the Ontario Heritage Act, R.S.O. 1990, c.0.18.

The scope of work for the Stage 1 Background Study consisted of the following tasks:

- **AS&G** requested a Project Information Number (PIF) from the MCM VIA PastPort.
- Contacted the MCM to determine if recorded archaeological sites exist in the vicinity (1-km radius) of the property, through a search of the Ontario Archaeological Sites Database maintained by the MCM.
- Contacted the MCM to determine if there are any known reports of previous archaeological fieldwork within a 50 m radius of the property.
- Conducted a desktop review of the property's physical setting to determine its potential for both historic and pre-contact human occupation, including its topography, hydrology, soils, and proximity to important resources and historical transportation routes and settlements.
- Reviewed the potential for historic period occupation as documented in historical atlases.
- Prepared a report of findings with recommendations regarding the need for further archaeological work if deemed necessary.

In Ontario, the framework for determining the presence of archaeological potential is taken from the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011, Sections 1.3.1 & 1.3.2). Characteristics indicating archaeological potential include the near-by presence of previously identified archaeological sites, primary and secondary water sources, features indicating past water sources, accessible or inaccessible shoreline, pockets of well-drained sandy soil, distinctive land formations that might have special or spiritual places (such as waterfalls, rock outcrops, caverns, mounds, promontories and their bases, as well as resource areas that include food or medicinal plants, or scarce raw materials), early Euro-Canadian industry, areas of early Euro-Canadian settlement, early historical transportation routes, properties listed on a municipal register or designated under the *Ontario Heritage Act* as a federal, provincial, or municipal historic landmark or site; as well as properties that local histories or informants have identified as important locations for historical events, activities, and/or occupations.

Archaeological potential can be determined not to be present for the entire property or a part of it when the area under consideration has been subjected to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly

referred to as 'disturbed' or 'disturbance', and it may include quarrying, major landscaping involving grading below topsoil, building footprints, and sewage or infrastructure development. Archaeological potential is not removed where there is documented potential for deeply buried intact archaeological resources beneath land alterations, or where it cannot be clearly demonstrated through background research and property inspection that there has been complete and intensive disturbance of an area. When complete disturbance cannot be demonstrated in Stage 1, it will be necessary to undertake a Stage 2 Assessment.

The Background Study determined that the following features or characteristics indicate archaeological potential for the property:

- The property is located within an area of early Euro-Canadian settlement.
- The property is located in close proximity to historic transportation routes.
- The property is located in close to a primary water source (Welland River).
- There are ten (10) known archaeological sites within a one-kilometre radius of the property.
- There are two (2) of which are located within 300 metres of the property limits (Table 1).

2.1 Indigenous Settlement History

The property is situated in an area of Ontario that has a rich and diverse cultural history that extends back at least 11,000 years ago. To provide context for this report, the settlement history is summarized below.

2.1.1 Pre-Contact Indigenous Period

Drawn from Ellis and Ferris (1990), Table 2 provides a general outline of the pre- and post-contact cultural history of Northumberland County, Ontario. The Study Area is situated in an area of Ontario that has evidence of extended periods of human settlement, dating back at least 11,000 years.

Table 2: General Archaeological Chronology for South-Central Ontario

Period	Archeological/Material Culture	Date Range	Comments
PALEO			
Early	Gainey, Barnes, Crowfield, Fluted Points	11,000-10,500 BP	Big game hunters, i.e., caribou
Late	Holcombe, Hi-Lo, Lanceolate	10,500-9,500 BP	Paleo Point Technology
ARCHAIC			
Early	Bifurcate-base, Nettling, Side Notched	9,800-8,000 BP	Nomadic hunters/gathers
Middle	Stanley, Kirk, Brewerton, Laurentian	8,000-4,000 BP	Focused seasonal resource areas
Late	Lamoka, Genesee, Innes, Crawford Knoll	4,500-2,500 BP	Polished/ground stone tools
	Hind	3,000-2,600 BP	Burial ceremonialism
WOODLAND			
Early	Meadowood, Middlesex	2,800-2,000 BP	Introduction of pottery, elaborate burials
Middle	Princess Point, Saugeen, Point Peninsula	2,000-950 BP	Long-distance trade, burial mounds, horticulture
Late	Pickering, Uren, Middleport (Anishinabek/Iroquois), Algonkian-Wendat Alliance	950-300 BP	Emergence of agricultural villages Large, palisaded villages Trade, alliances, and warfare
HISTORIC			
	Huron, Neutral, Petun, Odawa, Ojibwa Six Nations Iroquois, Ojibwa, Mississauga	350 BP-Present	Mission villages and Reserves
	Euro-Canadian		European settlement

2.1.1.1 Paleo

Archaeological evidence demonstrates that people inhabited South-central Ontario just after the end of the Wisconsin Glacial Period, approximately 11,000 years ago. This early settlement period is known as the Paleo Period (Ellis and Deller 1990). Based upon current archaeological knowledge, Indigenous groups originally living south of the Great Lakes migrated to the area. The settlement patterns of Early Paleo peoples consisting of small bands, i.e., less than 35 individuals, maintained a seasonal pattern of mobility over vast territories. For example, the most studied groups appeared to migrate seasonally between Chatham, Ontario, to the Horseshoe Valley north of Barrie, Ontario (Ellis and Deller 1990).

These Early Paleo sites are typically located in elevated locations, with well-drained loamy soils, with many known sites found on former beach ridges,

associated with glacial lakes (Ellis and Deller 1990). These sites were likely formed when they were occupied for short increments, over the course of many years, possibly as communal hunting camps. Their locations appear conducive to hunting migratory mammals, such as caribou (Ellis and Deller 1990).

During the Late Paleo Period (10,500-9,500 BP), the south-central Ontario environment started to become dominated by closed coniferous forests, with only some minor deciduous elements. The hunting landscape had also changed, as many of the large game species that had been hunted in the early part of the Paleo Period either migrated further north, or in some cases, had become extinct, i.e., mastodons and mammoths (Ellis and Deller 1990). Comparable to the early Paleo peoples, late Paleo peoples covered large territories as a response to seasonal resource fluctuations. In Ontario, Late Paleo Period inhabitation appears more frequently in the archaeological record, comparable to the Early Paleo Period. Thus, it has been suggested that migratory populations had increased in size (Ellis and Deller 1990).

2.1.1.2 Archaic Period

During the Early Archaic Period (9,800-8,000 BP), the jack and red pine forests that characterized the Late Paleo environment, were replaced by forests of white pine, with a few correlated deciduous trees (Ellis et al. 1990). Based on material culture, the Early Archaic Period is recognized by the shift to side and corner-notched projectile points (Ellis et al. 1990). Other notable innovations, include the introduction of ground stone tools such as celts and axes. These tools suggest that there was a woodworking industry. Additionally, the presence of these, often large and not easily portable tools, suggests that there may have been a reduction in seasonal movement. However, the current understanding of the Period suspects that population densities were still low, and seasonal territories were still large (Ellis et al. 1990).

During the Middle Archaic Period (8,000-4,000 BP), it is speculated that there was an increase in regional population growth, which precipitated a decrease in overall seasonal migration territory. Additionally, as a consequence of population growth, a shift in subsistence patterns occurred, as more people needed to be supported from the resources contained within the smaller area (Ellis et al 1990). Thus, the Middle Archaic is characterized by the diversification of toolkits and diets, with the introduction of net-sinkers and bannerstones, as well as stone tools specifically designed for the preparation of wild plant foods. The appearance of net-sinkers suggests that fishing was becoming an

important aspect of the subsistence economy. In contrast, bannerstones were carefully crafted ground stone devices that served as a counterbalance for *atlatls* or spear-throwers, used in hunting game (Ellis et al 1990).

Another characteristic of the Middle Archaic Period is an increased reliance on local, often poor-quality chert resources, for the manufacturing of projectile points. Unlike earlier periods, when nomadic groups occupied vast territories, at least once in their seasonal migration it was possible for them to visit a primary outcrop of high-quality chert. However, during the Middle Archaic Period, groups inhabited smaller territories, which usually did not contain a source of high-quality raw material, and were forced to use the locally sourced, poorer quality resources (Ellis et al. 1990). It was also during the latter part of the Middle Archaic Period, that long-distance trade routes began to develop, which spanned the northeastern part of the continent. For instance, copper tools, which were manufactured from a source located northwest of Lake Superior, were being widely traded (Ellis et al. 1990).

The trend towards a decreasing territory size and a broadening subsistence economy continued during the Late Archaic Period (4,500-2,500 BP). Similarly, archaeologically Late Archaic sites are more numerous than Early or Middle Archaic sites, which is correlated to an increasing population (Ellis et al. 1990). With the trend towards larger groups, the first cemeteries have also been dated to the Late Archaic Period. Prior to this, individuals were interred close to the location where they died. Furthermore, during the Late Archaic Period, if an individual died while away from their home territory, the bones would be kept until they could be placed in the group cemetery. Therefore, it is not unusual to find disarticulated skeletons, and/or skeletons lacking minor elements, i.e., fingers, toes and/or ribs (Ellis et al. 1990).

The appearance of cemeteries during the Late Archaic Period has been interpreted as a response to increased population densities. The increased populations also demonstrated evidence of regionalized variation in Late Archaic projectile point styles (Ellis et al. 1990). The differences were likely indicative of the different relationships the people had to the land and waters they inhabited. Additionally, trade networks established during the Middle Archaic continued to flourish. For instance, copper native to northern Ontario and marine shell artifacts from as far away as the Mid-Atlantic coast, are frequently encountered as grave goods. Other artifacts such as polished stone pipes and banded slate gorgets, also appear on Late Archaic sites. One of the more unusual and interesting of the Late Archaic artifacts is the *birdstone*. Birdstones are small, bird-like effigies usually manufactured from green banded slate (Ellis et al. 1990).

2.1.1.3 Woodland Period

For archaeologists, the Early Woodland Period (2,000-2,000 BP) is distinguished from the Late Archaic Period primarily by the addition of ceramic technology. The first pots were crudely constructed, had undecorated thick walls, and were friable. Spence et al. (1990) suggests they were used in the processing of nut oils, which required boiling crushed nut fragments in water and skimming off the oil. As these vessels were not easily portable, individual pots were likely not used for extended periods of time. Additionally, as there are many Early Woodland sites where no pottery was recovered, it has been suggested that these poorly constructed vessels were not utilized by all Early Woodland peoples (Spence et al. 1990).

Other than the limited use of ceramics, there were other subtle differences between the Late Archaic and the Early Woodland Periods. For example, 'pop-eyes', a protrusion from the side of the head, was added to birdstones. Similarly, a slight modification was made to the thin, well-made projectile points made during the Archaic Period, i.e. Early Woodland variants were side-notched rather than corner-notched (Spence et al. 1990). The trade networks which were established in the Middle and Late Archaic Periods, continued to flourish; however, there appeared to be a decrease in the trade of marine shell during the Early Woodland Period. Projectile points crafted from high quality American Midwest materials, began to be found on southwestern Ontario sites, dated towards the end of the Early Woodland Period (Spence et al. 1990).

The Middle Woodland (2,000-950 BP) is characterized by rich, densely occupied sites, which are usually found bordering major rivers and lakes. While these locations were inhabited periodically by earlier peoples, Middle Woodland sites are significant as they represent long periods of continuous occupations, i.e., hundreds of years (Spence et al. 1990). The shift in settlement pattern created large deposits of artifacts, as the sites appear to have functioned as home bases that were occupied throughout the year. Numerous smaller Middle Woodland sites have been found inland, and likely functioned as specialized camps, for the exploitation of local resources (Spence et al. 1990).

The shift to a more sedentary lifestyle also resulted in a shift in subsistence patterns, comparable to the Early Woodland Period. Although they still relied on hunting and gathering, fish became a predominant diet staple, to meet their growing subsistence needs (Spence et al. 1990). Additionally, the people of the Middle Woodland relied more on ceramic technology, with many being heavily decorated with impressed designs covering the

entire exterior surface, and the upper portion of the interior of vessels (Spence at al. 1990).

Material culture changes that occurred in the early portion of the Late Woodland (950-300 BP), include the appearance of triangular projectile point styles, first seen with the Levanna form, and a change to more intricate design patterns on ceramics. Designs included cord-wrapped stick decorated ceramics, which were created using the paddle and anvil forming technique (Bursey 1995; Ferris and Spence 1995; Spence et al. 1990; Williamson 1990).

The Late Woodland Period is marked by an increasing reliance on corn (*Zea mays*) horticulture (Crawford et al. 1997; Fox 1990; Martin 2004; Smith 1990; Williamson 1990). Although corn was possibly introduced into southwestern Ontario from the American Midwest as early as 2,500 BP, it was not considered a dietary staple until at three to four hundred years later. From there, corn cultivation gradually spread into south-central and southeastern Ontario. Thus, the Late Woodland Period is widely accepted as the beginning of a reliance on agriculture, for subsistence. Researchers have suggested that a warming trend, which increased the number of frost-free days, was likely a catalyst for the spread of maize into southern Ontario (Stothers and Yarnell 1977). Additionally, sites have been identified in a wider variety of environments, including riverine, lacustrine and wetlands (Dieterman 2001).

In southern Ontario, the first agricultural villages have been dated to approximately 1,200 BP to 700 BP. These sites are typically found on elevated areas, with well-drained sandy soils. These early villages share many characteristics with Iroquoian settlements that were recorded at the time European contact, including longhouses and/or palisades (Dodd et al. 1990; Williamson 1990). However, the scale is much smaller, with early longhouses only averaging 12.4 m in length. Furthermore, the excavation and exposure of cultural features archaeologically indicate that there were possibly overlapping structures. This has been interpreted as evidence of long-term occupation, as it indicates that the structures were present long enough to require them to be re-built (Dodd et al. 1990; Williamson 1990).

Due to soil depletion resulting from farming, and the scarcity of easily accessible firewood, the Jesuits reported that the Huron moved their villages every 10-15 years (Pearce 2010). Since the more sedentary sites were occupied for considerably longer amounts of time, it is hypothesized that the Indigenous communities relied less heavily on corn. Furthermore, small seasonally occupied sites have been documented, which relate specifically to nut collection, deer procurement, and fishing activities. Thus,

the smaller demand on resources within close proximity to the settlement, coupled with the smaller reliance on crops, indicates that they maintained a considerably smaller population size (Pearce 2010).

Around 700-600 BP, the size of villages increased from approximately 0.6 hectares, to approximately 1 to 2 hectares. Correspondingly, the size of longhouses also significantly increased in size to an average of 30 m, with some longhouses being documented as 45 m in length (Dodd et al. 1990; Smith 1990). Although the increase in longhouse size can be explained by the significant increase in overall population within villages, other possible hypotheses include changes to the socio-political and economic structure of the communities (Dodd et al. 1990). For instance, Dodd et al. (1990) has suggested that several smaller communities may have merged to increase protection and defense from neighboring tribes. This hypothesis is supported by the presence of a few sites with up to seven rows of palisades, which indicates the potential need for strong protective measures (Dodd et al. 1990).

With the increase in population and village sizes, it is postulated that there was increased community planning and organization. Whereas longhouses were originally haphazardly placed, the increase in population required more organization. For instance, archaeologists have documented the organization of two or more discrete groups of parallel, tightly spaced longhouses on several sites. It has been hypothesized that the organization and grouping of different habitations may indicate the initial development of clans, a characteristic historically attributed to the Iroquoian peoples (Dodd et al. 1990).

Towards the end of the Late Woodland (approximately 600 BP), village sizes continued to increase, as did longhouse lengths i.e., an average length of 62 m. However, around approximately 500 BP, longhouse lengths become significantly shorter, with an average length of only 30 m (Lennox and Fitzgerald 1990). The significant decrease in the overall length of longhouses in a short amount of time, is not well understood; however, it has been hypothesized that it is directly correlated to introduction of European diseases, i.e., smallpox, which caused a steep reduction in Indigenous population sizes (Lennox and Fitzgerald 1990).

Even with the decrease in the length of longhouses, archaeologists have noted that some village populations continued to grow, with periodic expansions visually documented. With an increase in disease and subsequently a rise in warfare between communities, it is postulated that the expansion was the result of the amalgamation of smaller villages. These sites also appeared to be heavily fortified with many rows of wooden

palisades, again supporting the hypothesis that smaller villages united for defensive purposes (Anderson 2009).

2.2 Post-Contact Settlement History

2.2.1 Early Euro-Canadian History

At the end of the 17th and beginning of the 18th century, the dispersal of several Iroquoian-speaking peoples by the New York State Iroquois, coupled with the return of the Algonkian-speaking groups from Northern Ontario, formed the post-contact Indigenous occupation landscape of southern Ontario (Schmalz 1991). As European settlers encroached on traditional Indigenous territories, settlement sizes, populations, and material culture shifted. Despite this shift, there remains a continuity from ancient Indigenous groups to the communities written about in historical accounts (Ferris and Spence 2009). Thus, it should be noted that the Indigenous peoples of southern Ontario have deposited archaeologically significant resources throughout the province, demonstrating a shared traditional and continuing history, regardless of whether their presence is recorded in historic Euro-Canadian documents.

Lincoln County and Gainsborough Township History

In 1792, Lieutenant Governor John Graves Simcoe issued a proclamation dividing Upper Canada into nineteen counties. Lincoln County was one of the original nineteen (Lincoln County Council 1956). The townships were given the names of British towns in Lincoln County, England. Lincoln County was established though a Provincial Act in 1798, which stated that "the township of Clinton, Grimsby, Saltfleet, Barton, Ancaster, Glanford, Binbrook, Gainsborough and Caistor do form and constitute the first riding of the county of Lincoln…" (Lincoln County Council 1956).

People had already been living in Gainsborough (or Gainsboro) Township since the early 1780s, many of them Loyalists who left the United States during the Revolutionary War. John Dochstader was the first European settler to arrive in Gainsborough in 1783. Dochstader settled on Lots 1 and 2, along Concessions 1 and 2, although the township wasn't officially surveyed until 1789 by Augustus Jones (Lincoln County Council 1956). The surrounding land was settled in the following years by members of the Heaslip, Henry, Hodges, Reese, Comfort, Gee, and Hutt families, among others (Lincoln County Council 1956).

Schoolhouses were constructed near Gee Bridge and in St. Anns prior to 1800 and the first log church was constructed on Lot 13, Concession 6 in

1799. Settlement of Gainsborough Township was slower than others in the region due to its "inland" location (Lincoln County Council 1956). Despite the lack of infrastructure, several small communities developed in the 18th and 19th century which still survive today, including St. Anns, Wellandport, and Bismark. In general, land-use in Gainsborough Township remains largely agricultural.

In 1970, Gainsborough joined with the neighbouring townships of Caistor and South Grimsby to form the new township or municipality of West Lincoln in the newly formed Regional Municipality of Niagara.

2.3 Past Land Use of the Property

The property is located within Part of Historic Lot 13, Concession 1, Geographic Township of Gainsborough, Lincoln County, Ontario.

2.3.1 Historic Atlas Maps

Tremaine's 1862 Historical Atlas Map of the County of Lincoln, indicates that Lot 13, Concession 1 were owned by a "John Wilson", and does not depict any structures within the limits of the property.

According to the *Walker & Miles 1876 Illustrated Historical Atlas of the County of York, Ontario*, indicates that Lot 13, Concession 1 were owned by a "Abram Henslip", and although it does not depict any structures or features within the limits of the property, the property is in close proximity to a former homestead and orchard.

In discussing 19th century mapping, it must be remembered that historical county atlases were produced primarily to identify factories, offices, residences, and landholdings of subscribers, and were funded by subscription fees. Landowners who did not subscribe were not always listed on the maps. As such, all structures were not necessarily depicted or placed accurately. Regardless of these limitations, the property depicted on these maps was illustrated directly adjacent to historical transportation routes.

2.3.2 Current Conditions

The property includes an existing dwelling with a wood deck, a gravel driveway, a garage workshop and grassed lawn areas. The property is roughly rectangular in shape and measures approximately 206 m north-south by 63 m east-west (~1.15 hectares in size). The property is bound on the north by Canborough Road (Regional Road No. 63), and by residential lands to the west, east and south.

In summary, the Stage 1 background study indicates that there is potential for the recovery of Pre-Contact or Post-Contact early Euro-Canadian archaeological resources within the property associated with the current development project.

An inventory of the documentary record generated is provided in Table 3.

Table 3: Inventory of the Documentary Record

Document Type	Description
Field Notes	• This report constitutes the field notes for this project
Maps	• The report figures represent all of the maps generated in the field.

3.0 ANALYSIS AND CONCLUSIONS

Section 1.3.1 of the *2011 MCM Standards and Guidelines for Consultant Archaeologists* outlines features and characteristics of a property which indicate archaeological potential. Based on the research outlined in the preceding sections of this report, these criteria are addressed as follows:

Previously identified archaeological sites: No previously identified archaeological sites are recorded in the MCM Archaeological Sites Database within the property limits, however there are 10 known sites within a one-kilometre radius of the property, and two located within 300 metres of the property limits.

Water sources: A primary water source (Welland River) is located within 300 metres of its limits.

Elevated topography: The property does not contain any examples of elevated topography.

Pockets of well-drained sandy soil: The soils of the property belong to the Bevelled Till Plains loam variety and are of excellent quality for farming.

Distinctive land formations: No distinctive land formations are identified within the property.

Resource areas: No resource areas are identified within the property.

Areas of early Euro-Canadian settlement: The property is within an area of early Euro-Canadian settlement.

Property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations: We are not aware of any such property.

In summary, the archaeological potential of the property is supported by the following factors:

- The property is located within an area of early Euro-Canadian settlement.
- The property is located in close proximity to historic transportation routes.
- The property is located in close to a primary water source (Welland River).
- There are ten (10) known archaeological sites within a one-kilometre radius of the property.
- There are two (2) of which are located within 300 metres of the property limits (Table 1).

Section 1.3.2 of the 2011 MCM Standards and Guidelines for Consultant Archaeologists outlines features that may indicate the removal or disturbance of archaeological potential. Such features may include quarrying, major landscaping involving grading below topsoil, building footprints, sewage and infrastructure development, etc.

According to the desktop study, portions of the property contain features which indicate the removal or disturbance of archaeological potential. These include the existing structures and gravel driveway. These areas must be subject to Stage 2 assessment to confirm disturbance to be excluded from further archaeological investigation.

The Stage 1 background study concluded that the property exhibits archaeological potential.

4.0 RECOMMENDATIONS

The report makes recommendations only regarding archaeological matters.

The Stage 1 archaeological background study determined there is potential for the recovery of archaeologically significant materials within portions of the property proposed for development. **Therefore, the report recommends that further archaeological assessment of the property is required in the form of a Stage 2 archaeological assessment.**

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

Section 7.5.9, Standard 1a
This report is submitted to the Minister of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

Section 7.5.9, Standard 1b
It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Section 7.5.9, Standard 1c
Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site

immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

Section 7.5.9, Standard 1d

The *Cemeteries Act*, R.S.O, 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Section 7.5.9, Standard 2

Not applicable.

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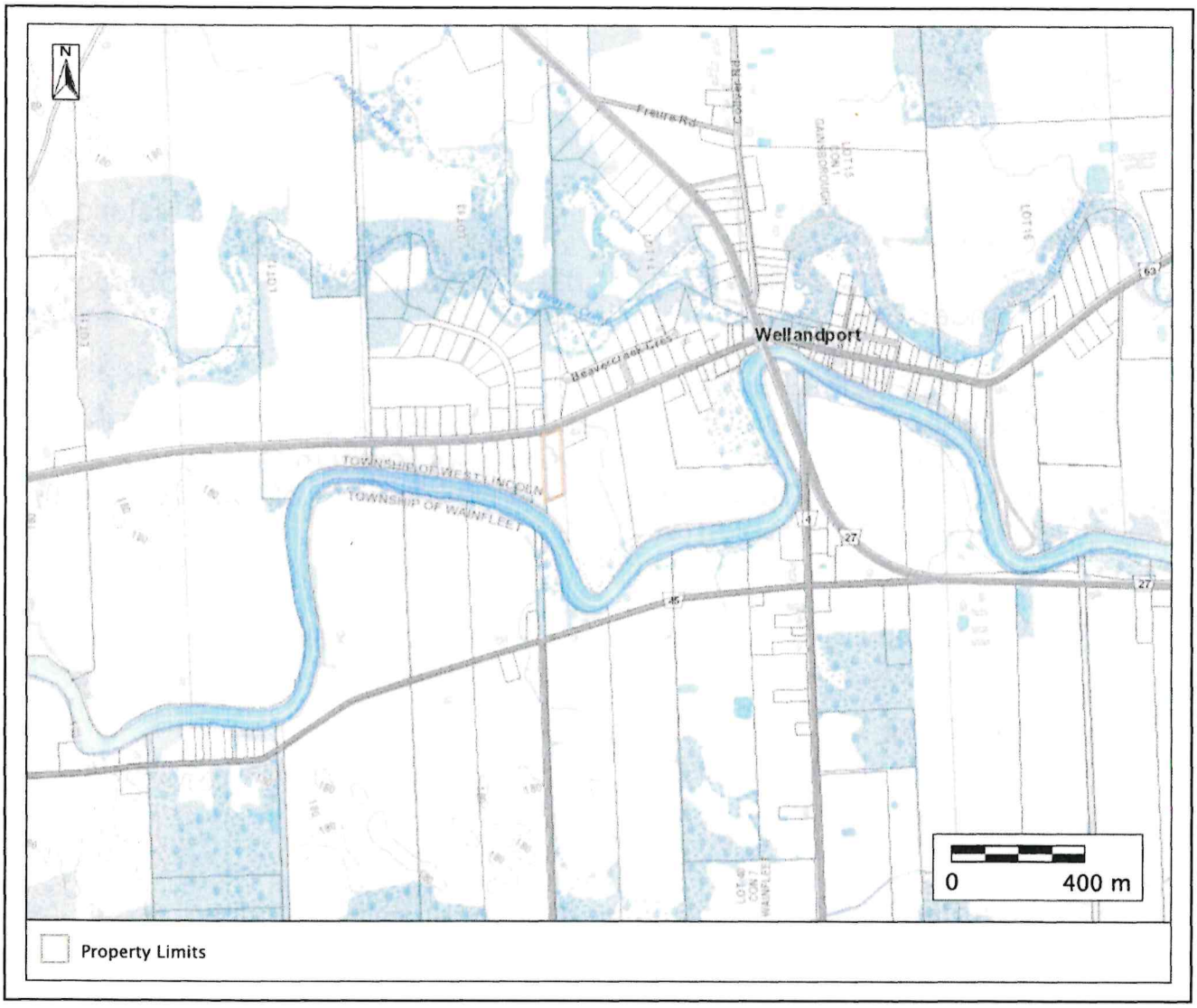
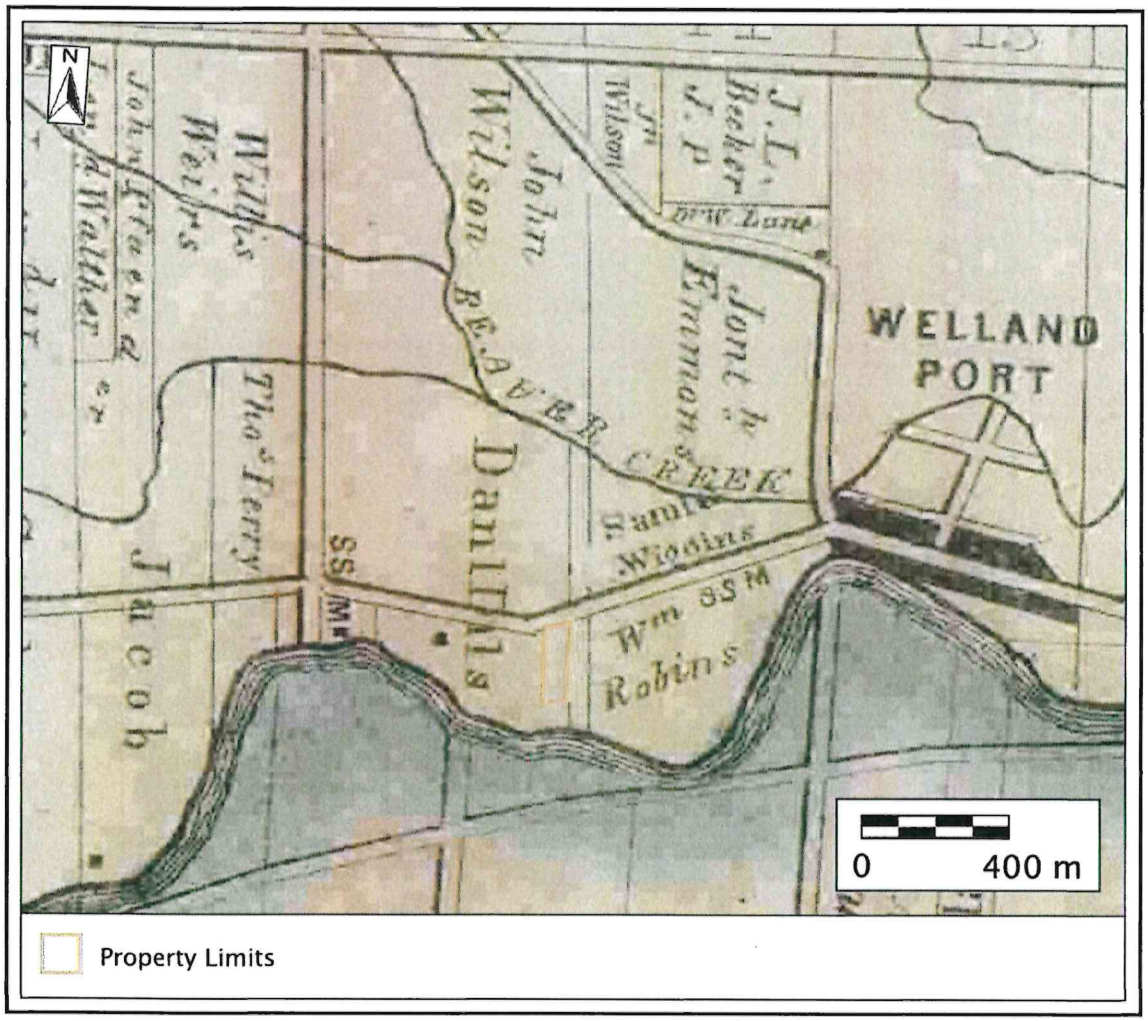
7.0 MAPS

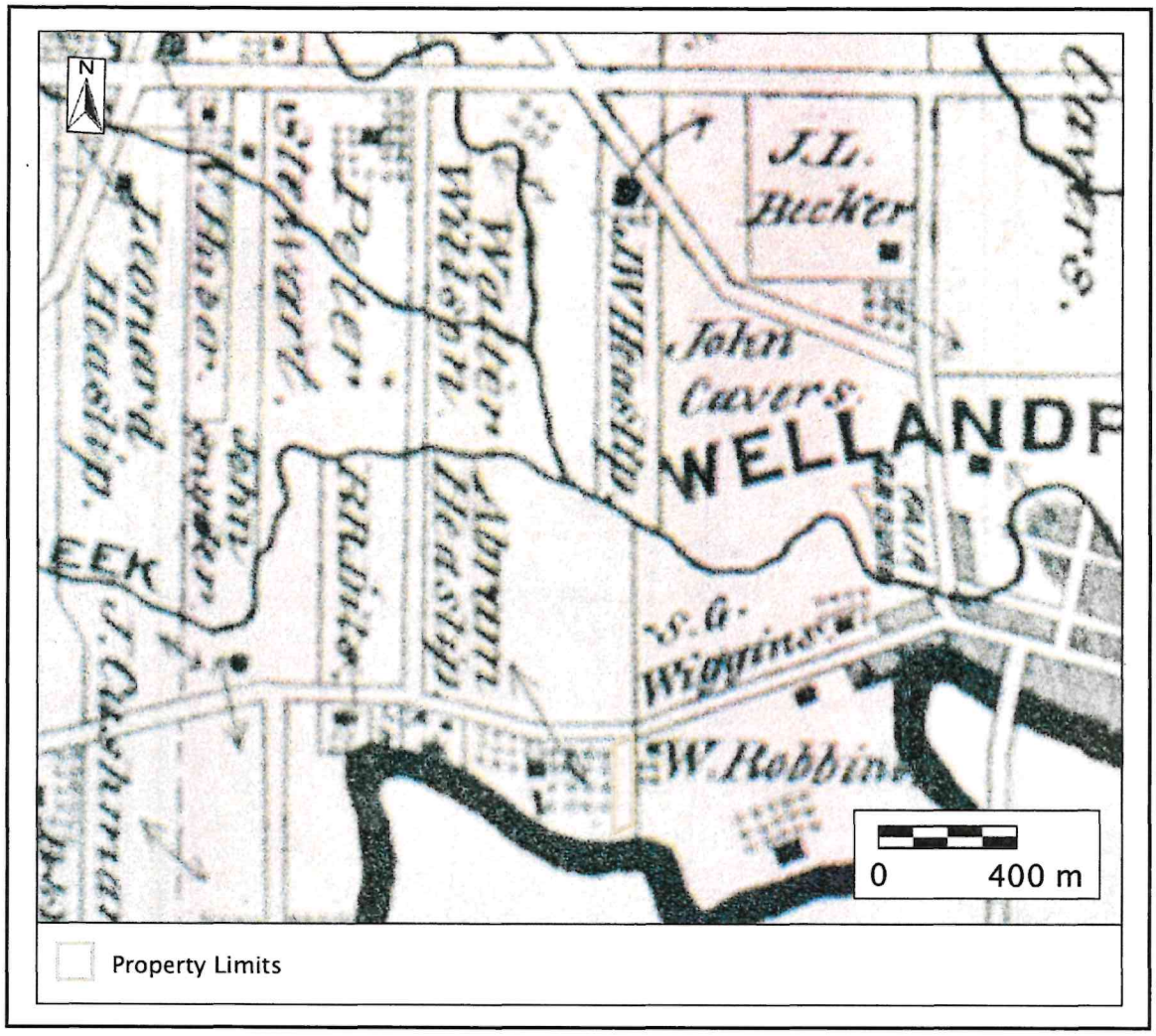


Map 1: General Location of Property Limits (MNRF 2024).

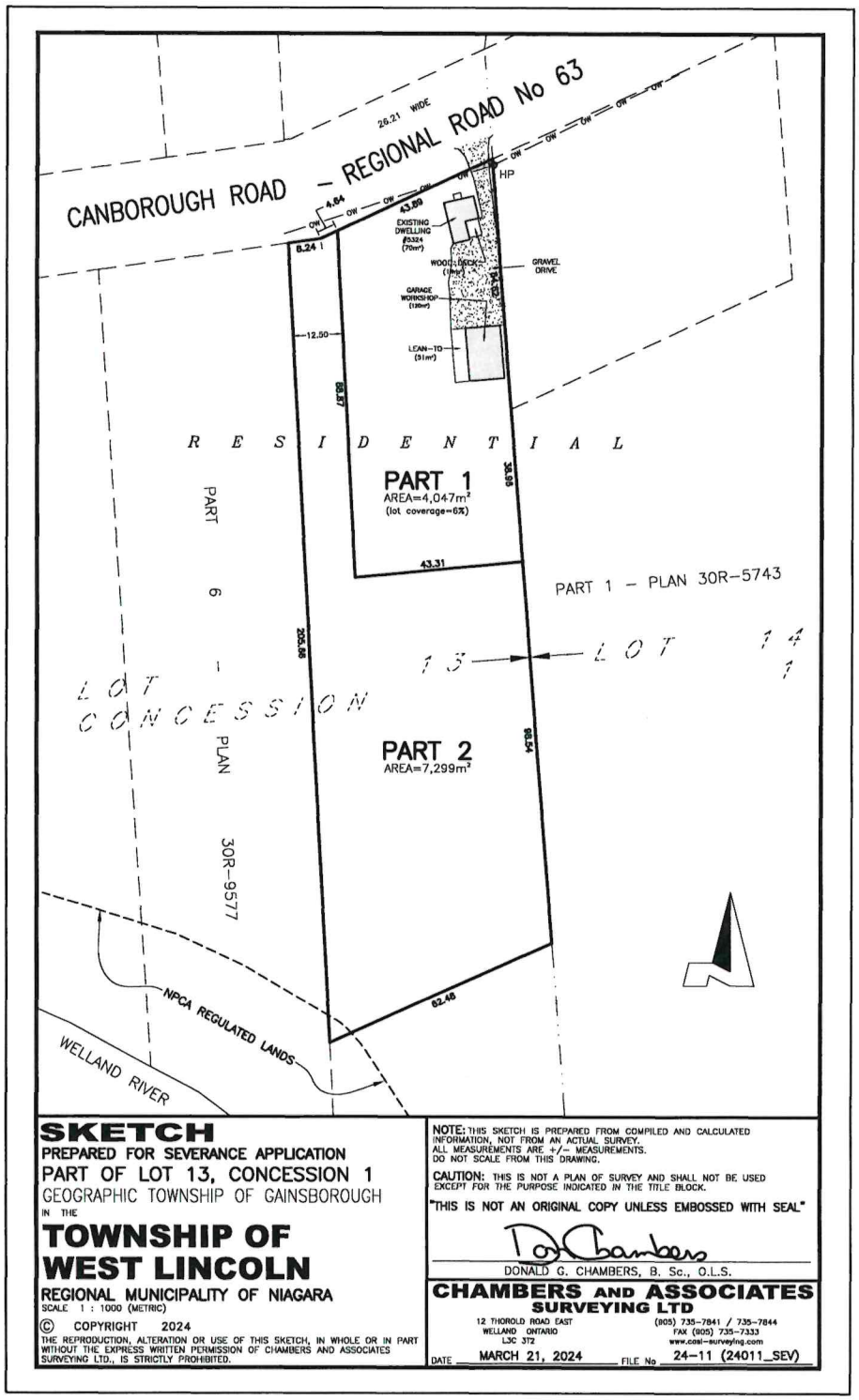
Map 2: Property Limits Overlaid on Recent Aerial Imagery (MNRF 2024).



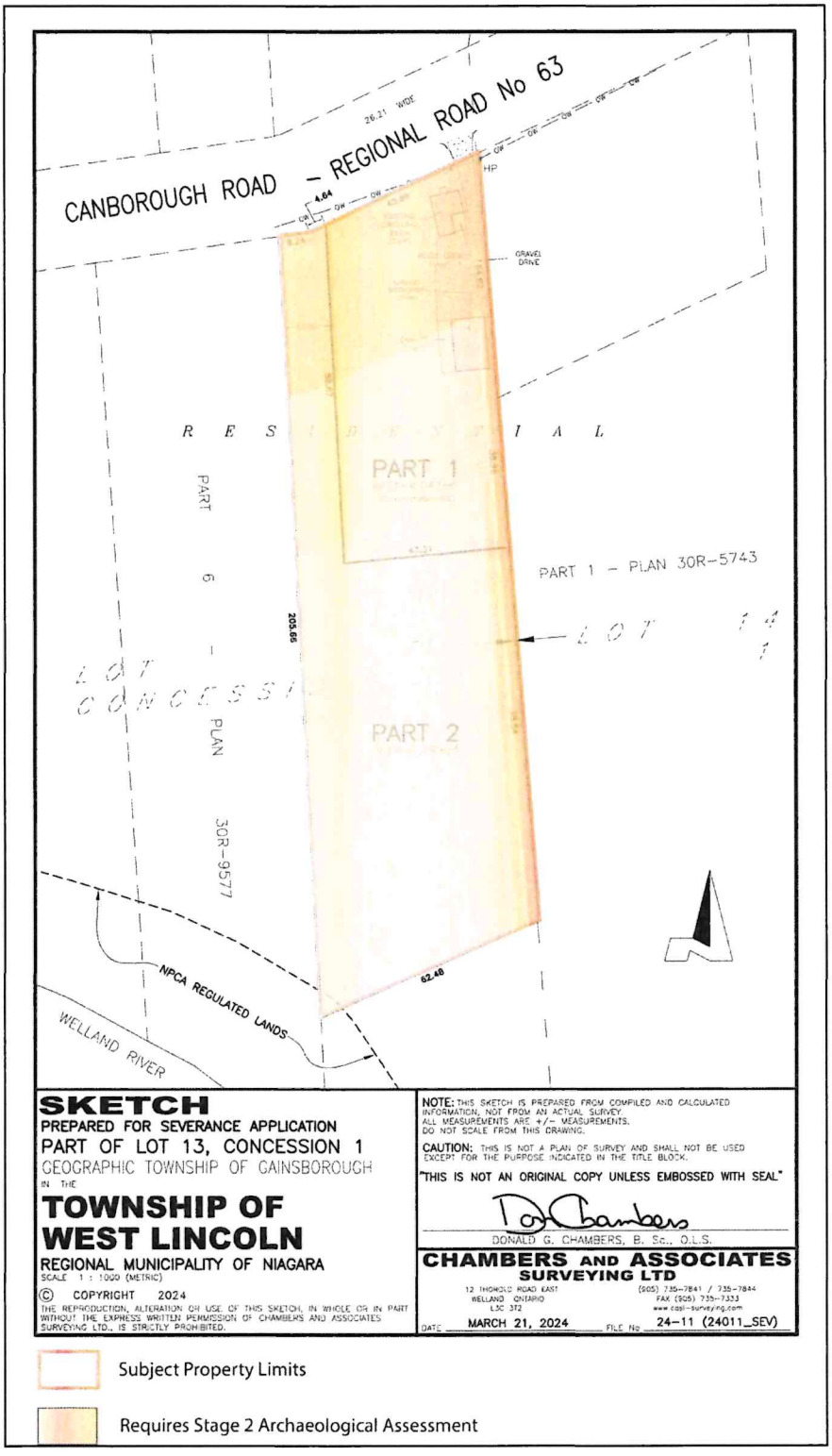
Map 3: Property Limits Overlaid on 1862 Historical Atlas Map (Tremaine 1862).



Map 4: Property Limits Overlaid on 1879 Historical Atlas Map (Walker & Miles 1879).



Map 5: Copy of Sketch Prepared for Severance Application.



Map 6: Results of the Stage 1 Archaeological Assessment.

Stephanie Pouliot

From: Paige Pearson <ppearson@npca.ca>
Sent: August 14, 2024 1:50 PM
To: Stephanie Pouliot
Subject: NPCA CoA Letters: File numbers A182024WL (MV) and B052024WL (Consent)
Attachments: 1. Notice of Hearing -A182024WL .pdf; Full Package- A182024WL.PDF; 1. Notice of Hearing B052024WL.PDF; Full Package B052024WL.PDF; NPCA CoA Letter_A182024WL_Minor Variance.pdf; NPCA CoA Letter_B052024WL_Consent.pdf; Payment Receipt (B052024WL)_NPCA PLCON202401040.pdf

Hi Stephanie,

Please accept the following Committee of Adjustment letters (2) pertaining to the Application for Consent (B05/2024WL) and Minor Variance (A18/2024WL) for the subject property located at 5324 Canborough Road, West Lincoln. Required fees were successfully obtained and a receipt attachment has been provided.

Please let me know if there are any questions.

Thank you,

Paige Pearson **(She/Her)**
Watershed Planner
Niagara Peninsula Conservation Authority (NPCA)
3350 Merrittville Highway, Unit 9, Thorold, Ontario L2V 4Y6

(O) 905.788.3135 Ext 205
www.npca.ca
ppearson@npca.ca

From: Stephanie Pouliot <spouliot@westlincoln.ca>
Sent: Tuesday, August 6, 2024 2:43 PM
To: Paige Pearson <ppearson@npca.ca>
Subject: FW: Notice of Hearing and Full Package -Wednesday August 28th CofA Hearing

Hi Paige,

Please see below circulation for the upcoming Committee of Adjustment hearing on August 28th.

If you can please provide your comments by the date noted in the notice that would be greatly appreciated.

Kind regards,
Stephanie

Our working hours may be different. Please do not feel obligated to reply outside of your working hours. Let's work together to help foster healthy work-life boundaries.

Stephanie Pouliot

Planner

Tel: 905-957-3346 ext. 5140
Email: spouliot@westlincoln.ca
Web: www.westlincoln.ca

From: Stephanie Pouliot
Sent: August 2, 2024 5:01 PM
To: 'Pat.busnello@niagararegion.ca' <Pat.busnello@niagararegion.ca>; 'devtplanningapplications@niagararegion.ca' <devtplanningapplications@niagararegion.ca>; 'susan.dunsmore@niagararegion.ca' <susan.dunsmore@niagararegion.ca>; 'Connor.Wilson@niagararegion.ca' <Connor.Wilson@niagararegion.ca>; 'mbirbeck@npca.ca' <mbirbeck@npca.ca>; Mike DiPaola <mdipaola@westlincoln.ca>; Jennifer Bernard <jbernard@westlincoln.ca>; Taf Tsuro <ttsuro@westlincoln.ca>; 'Lyle Killins' <lkillins@live.com>; Barb Behring <bbehring@westlincoln.ca>; Ray Vachon <rvachon@westlincoln.ca>; DL-Council Members <DL-CouncilMembers@westlincoln.ca>
Cc: Gerrit Boerema <gboerema@westlincoln.ca>; Susan Smyth <ssmyth@westlincoln.ca>; Jeni Fisher <jfisher@westlincoln.ca>; Madyson Etzl <metzl@westlincoln.ca>; Justin Paylove <jpaylove@westlincoln.ca>
Subject: Notice of Hearing and Full Package -Wednesday August 28th CofA Hearing

Good afternoon,

Please find attached the notice of hearing and full package for the below applications going forward at the August 28th Committee of Adjustment hearing.

- Consent B05/2024WL –Vandenberg for the property located at 5324 Canborough Road
- Consent B06/2024WL – Fernick Investments Inc. for the property located at 131 St. Catharines Street (Plan M90, Lot 44)
- Consent B07/2024WL – Gillian Mary Han and Theodore Yuag-Ti Han for the property located at 141 Mill Street (Plan M89, Lot 47)
- Minor variance A17/2024WL – Henley Heights Construction Inc. (Lecki Developments Inc. / Thomas Chmielecki., –Agent) for the property located at Canborough Road, 2602020007129020000 (GAINSBOROUGH CON 1 BF PT LOT;14 RP 30R16006 PART 2)
- Minor variance A18/2024WL –Vandenberg for the property located at 5324 Canborough Road

Please note, I will be sending a separate email with the full package and notice for B05/2024WL.

If you have any comments or questions, please let me know.

Kind regards,
Stephanie

IMPORTANT NOTICE

Effective April 15, 2024 the Niagara Peninsula Conservation Authority head office has moved to 3350 Merrittville Highway, Thorold Ontario L2V 4Y6

Niagara Region
Growth Strategy and Economic Development
1815 Sir Isaac Brock Way, Thorold, ON L2V 4T7
905-980-6000 Toll-free:1-800-263-7215

Via Email Only

August 14, 2024

File Number: PLCS202400987

Stephanie Pouliot – Planner I
Secretary Treasurer - Committee of Adjustment
Township of West Lincoln
318 Canborough St., P.O. Box 400
Smithville, ON L0R 2A0

Dear Ms. Pouliot:

Re: Regional and Provincial Comments
Application Type: Consent
Township File Number: B05/2024WL
Applicant: Mark Vandenberg
Location: 5324 Canborough Road
Township of West Lincoln

Staff of the Regional Growth Strategy and Economic Development Department has reviewed this application to permit a severance for the property municipally known as 5324 Canborough Road in the Township of West Lincoln. The application proposes to sever 1.80 acres of land for residential purposes (construction of a new dwelling) and retain 1 acre of land containing an existing dwelling and accessory building. Regional staff received notice of this application on August 2, 2024.

A pre-consultation meeting for the proposal was held on February 1, 2024, with the applicant, Township, and Region in attendance.

The following comments are provided to assist the Township of West Lincoln with their review of the proposed Severance Application; Regional staff offer no comments regarding the concurrent Minor Variance application.

Provincial and Regional Policies

The subject property is located within a ‘Rural Settlement Area’ under the Provincial Policy Statement, 2020 (“PPS”) and A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2020 Consolidation (“Growth Plan”). The property is designated

‘Rural Settlements’ in the Niagara Official Plan, 2022 (“NOP”).

Regional policy identifies that a limited amount of development will occur outside of urban areas and rural settlements shall be the focus of development outside of urban area boundaries. Additionally, development in rural settlements should be planned to encourage residential infill development that builds on the rural character and characteristics of the surrounding area, and to be serviced by sustainable private water and wastewater treatment systems in accordance with the NOP.

Regional policy states that Rural settlements are to be serviced by sustainable private water and wastewater treatment systems. The Township is responsible for reviewing private servicing and should be satisfied that there are no servicing constraints associated with the proposed development.

Archaeological Potential

Staff note that the property is mapped within an area of archaeological potential on Schedule K of the NOP. The PPS and NOP provide direction for the conservation of significant cultural heritage and archaeological resources. Specifically, Section 2.6.2 of the PPS and Policy 6.4.2.1 of the NOP state that development and site alteration is not permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.

During the pre-consultation meeting held on February 1, 2024, Regional staff required that a Stage 1 Archaeological Assessment be completed as the site exhibits the potential for the discovery of archaeological resources.

Regional staff has reviewed the Stage 1 Archaeological Assessment conducted by AS&G Archaeological Consulting (Dated July 16, 2024). The Stage 1 Archaeological Assessment determined that the study area exhibited potential for the identification and recovery of archaeological resources. As such, a Stage 2 Archaeological Assessment was recommended for these areas.

The Stage 1 and 2 Archaeological Assessments (and any additional assessment work if required) are to be submitted to the Ministry of Citizenship and Multiculturalism (“MCM”). Regional staff will require copies of the reports and MCM acknowledgement letter(s) confirming that the licensed consultant archaeologist has met the terms and conditions of their license and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario. Appropriate conditions of consent approval and an archaeological advisory clause have been included in the Appendix to address these requirements.

Regional staff will also require that the Stage 2 Archaeological Assessment and MCM acknowledgement letter be provided to the Region.

Regional staff note that, in accordance with Section 48 (1) of the Ontario Heritage Act, no site alteration or development is permitted on the subject lands until the required archaeological assessments have been completed and Ministry acknowledgement letters have been issued.

Conditions to implement these requirements are included in the Appendix.

Natural Heritage

The subject property is impacted by the Region's Natural Environment System (NES), consisting of Significant Woodland. The woodland is within 120 metres but outside of the proposed lot severance. As the proposed severance will not bisect the woodland or its buffer, staff offer no objection to the application from an environmental perspective.

It should be noted that any future development or site alteration applications may require an Environmental Impact Study or similar environmental study, as per NOP policies.

Conclusion

Staff of the Regional Growth Strategy and Economic Development Department does not object to the request for a consent, subject to the Township's satisfaction and to the conditions outlined in the Appendix.

Please send copies of the staff report and notice of the Township's decision on this application. If you have any questions related to the above comments, please contact me at connor.wilson@niagararegion.ca.

Kind regards,

Connor Wilson
Development Planner

cc: Pat Busnello, MCIP, RPP, Manager of Development Planning, Niagara Region
Adam Boudens, Senior Environmental Planner, Niagara Region

Appendix

1. That the Applicant submits the Stage 1 Archaeological Assessment, (prepared by AS & G Archaeological Consulting, dated July 16, 2024) and acknowledgement letter from Ministry of Citizenship and Multiculturalism (copied to Niagara Region) confirming that all archaeological resource concerns have met licensing and resource conservation requirements prior to any development on the site. No demolition, grading or other soil disturbances shall take place on the subject property prior to the issuance of a letter from the Ministry through Niagara Region confirming that all archaeological resource concerns have met licensing and resource conservation requirements.

2. That the Applicant submits the required Stage 2 Archaeological Assessment, prepared by a licensed archaeologist (and any required subsequent archaeological assessments), to the Ministry of Citizenship and Multiculturalism (MCM) and receive an acknowledgement letter from MCM (copied to Niagara Region) confirming that all archaeological resource concerns have met licensing and resource conservation requirements prior to any development on the site. No demolition, grading or other soil disturbances shall take place on the subject property prior to the issuance of a letter from the Ministry through Niagara Region confirming that all archaeological resource concerns have met licensing and resource conservation requirements.

3. That the Owner be advised of the following warning clause:

   "*If deeply buried or previously undiscovered archaeological remains/resources are found during development activities on the subject lands, all activities must stop immediately. If the discovery is human remains, contact the Niagara Regional Police Service and coroner to secure the site. If the discovery is not human remains, the area must be secured to prevent site disturbance. The project proponent must then follow the steps outlined in the Niagara Region Archaeological Management Plan: Appendix C. https://www.niagararegion.ca/projects/archaeological-management-plan/default.aspx*"

West Lincoln
Your Future Naturally

Planning Application Review

Application Number:	B05/2024WL, A182024WL
Date:	August 14th, 2022
Property Address:	5324 Canborough road
Project:	Mark and Lauren Vandenberg

Planning Staff,

Please be advised Terra-Dynamics Consulting Inc. has submitted a Hydrogeological Report prepared by Ms. Briar MacIntyre. The submitted report addressed concerns relating to the feasibility of an on-site sewage system servicing a single detached dwelling. Upon review, it would appear that the site is adequate to allow the installation of an on-site sewage system which would comply with the requirements of Part 8 (Sewage Systems) Ontario Building Code.

To ensure that this process continues this department would ask the Committee to consider the following as a condition of severance for file 'B052024WL'.

"That the applicant makes an application for sewage system approval to the satisfaction of the Township of West Lincoln Building Department.

Be further advised that the right is reserved to make additional comment with regard to this application should any additional information be made available. Any further requests of this office should be directed to the undersigned.

Respectfully,

Lyle Killins, C.P.H.I.(c)
Part 8, O.B.C., Septic System Inspector Manager
Building and Bylaw Enforcement Services Department

REPORT
COMMITTEE OF ADJUSTMENT

DATE: August 28, 2024

REPORT NO: COA-28-2024

SUBJECT: **Recommendation Report – Application for Consent – Fernick Investments Inc. – 131 St. Catharines Street B06/2024WL**

CONTACT: Stephanie Pouliot, Secretary Treasurer of the Committee of Adjustment

OVERVIEW:

- A Consent Application for a minor boundary adjustment has been applied by the owner of 131 St. Catharines Street being Fernick Investments Inc. to sever off a ±2,378.5 square metres portion of land, referenced as Parcel 1 on the survey sketch, referenced as Parcel 2, being the retained parcel.
- The proposed severed lands will be consolidated with the abutting lands to the north known as 132 College Street and planned for future residential development.

RECOMMENDATION:

THAT, the Application for Consent made by Fernick Investments Inc. as outlined in Report COA-28-24, to permit a minor boundary adjustment where a portion of 131 St. Catharines Street being Parcel 1 (±2,378.5 square metres) will be severed and merged to 132 College Street, BE APPROVED, subject to the following conditions:

1. That the approval applies to the transaction as applied for.
2. That all municipal requirements be met to the satisfaction of the municipality including servicing connections if required, cash-in-lieu of park land dedication, property maintenance, compliance with Zoning By-Law provisions for structures, and any related requirements, financial or otherwise.
3. That an undertaking be provided and certified by a solicitor that the ownership for Parcel 1 on the attached sketch will the PIN consolidation with the abutting lands to the north following consent approval to the satisfaction of the Township of West Lincoln.
4. That Parcel 1 is zoned to Medium Density Residential to permit multiple housing types. That Parcel 2 is rezoned to recognize the deficient front yard setback.
5. That a Tree Preservation Plan be completed at the time of the zoning by-law amendment application stage.

6. That the applicant provides the Secretary-Treasurer with a copy of the transfer documents for the conveyance of the subject parcel, or a legal description of the subject parcel to be registered, together with a copy of the deposited reference plan, if applicable, for use in the issuance of the Certificate of Consent.
7. That a final certification fee, payable to the Township of West Lincoln, be submitted to the Secretary-Treasurer.
8. That all of these conditions shall be fulfilled within a period of two years after the giving of the Notice of Decision of the Committee of Adjustment, pursuant to Subsection 53(41) of the Planning Act, failing which this consent shall be deemed to be refused.

BACKGROUND:

The subject lands (131 St. Catharines Street) are located on the north side of the St. Catharines Street east of College Street, in Smithville's urban boundary area limits. Currently the lands are approximately ±4,017.3 square metres (0.40 hectares) in size. The lot is configured in an awkward backward "Z" shape and the front portion of the site is being utilized for the single detached dwelling and an accessory structure with the balance of the lands are underutilized.

The lands are designated as 'Medium Density Residential' in the Township's Official Plan. The surrounding land uses are designated as 'Commercial Core' to the west and south, 'Medium Density Residential' to the north and south, and 'Low Density Residential' to the east. The lands are zoned as 'Residential Low Density – R1B' in the Township's zoning bylaw. The lands are intended to be consolidated with the former school site to the north (132 College Street) and planned for future medium density residential as per a redevelopment plan completed by the Township a number of years ago.

CURRENT SITUATION:

Planning Staff have completed an analysis of the proposed consent and can provide the following evaluation:

Provincial Policy Statement and A Place to Grow: Growth Plan for the Greater Golden Horseshoe

The Provincial Policy Statement (PPS) (2020), provides guidance on all land use planning matters in Ontario. All planning decisions must conform to the policies of the PPS. The PPS promotes building and sustaining strong, healthy communities through efficient development and land use patterns. This includes providing a mix and range of housing, employment, institutional, recreational, park, and open space land uses to meet the long-term needs of residents in the province. The PPS states that development should generally take place where municipal infrastructure and services currently exist, or are planned and to avoid the unnecessary expansion of services. Development should be planned to protect and preserve natural and cultural heritage features, and should avoid

natural and man-made hazards.

The proposed lot boundary adjustment will help to facilitate future medium density residential development in the settlement area and keep development away from significant or sensitive resources – specifically the Township's agricultural land – and areas that may pose a risk to public health and safety. Additionally, the proposed lot boundary adjustment will make more efficient use of the underutilized lands through intensification and redevelopment, further contributing to meeting the long-term needs of residents by providing more housing opportunities. Lastly, the lands are located with access to municipal infrastructure and services and public open space areas. As such, the proposed boundary adjustment is consistent with the PPS.

The Growth Plan (2020 Consolidation) provides policies for where and how to grow with a focus on directing population growth to urban areas and rural settlement areas. The subject lands are located within the built boundary and settlement area of Smithville where the Growth Plan encourages infill and intensification to make efficient use of the infrastructure and services that are available.

The Growth Plan prioritizes intensification as a part of complete communities. The Growth Plan also provides policy direction that a minimum density target of 50 residents and jobs combined per hectare shall be provided in built up and Greenfield designated areas in the Niagara Region. The proposed lot boundary adjustment would be intensifying land for more housing units located in the built up area and help reach the Niagara Region's intensification target is 50%, with the Township of West Lincoln's contribution is 13%, or 1,130 units between the years 2021-2051.

This boundary adjustment generally meets the intent of Provincial Policy, however, any future development on these lands and the abutting lands to which they will merge will require further review and evaluation against provincial policy.

Niagara Official Plan

The Niagara Official Plan (NOP) (2022), provides the general policy direction for planning in the Niagara Region.

The NOP designates the subject lands as "Delineated Built-Up Area". A full range of residential, commercial and industrial uses are permitted generally within the urban area designation, subject to the availability of adequate municipal services and infrastructure and other policies relative to land use compatibility, archaeological resource interests and environmental conservation among other matters.

The NOP also provides direction for managing forecasted growth in urban areas to support, among other growth management objectives, such as:

- Minimum residential intensification target (minimum 13%) of residential development within West Lincoln to occur within the built-up area;
- Compact built form;

- Mix of land uses to support the creation of complete communities including a diverse range and mix of housing types, unit sizes, and densities to accommodate current and future market-based and affordable housing needs;
- Providing opportunities for intensification, including infilling development.

The proposed lot boundary adjustment will add vacant land to an abutting future land development that is designated and zoned for medium density residential (e.g., townhouses and low rise apartment units). These are housing forms that encourage a compact built form with smaller building footprints although with a variety of unit types and sizes that can accommodate different lifestyles and can complement the existing neighbourhood. Accordingly, the proposed lot boundary adjustment is consistent with and conforms to Regional policies.

Township of West Lincoln Official Plan
Official Plan Designation: Medium Density Residential

The Township's Official Plan (OP) (2021 Consolidation) designates the subject lands as "Medium Density Residential" (e.g., townhouse and low rise apartment units) and falls within the urban boundary of Smithville. Section 6.1.2 of the OP provides objectives of the urban settlement areas which are to protect and enhance the character and image of the urban settlement area, to promote higher density residential development, to provide mixed use development/redevelopment in appropriate locations, and to encourage and facilitate the production of a range of dwelling types and ownership forms, including housing that is more affordable to the existing and future residents of West Lincoln.

Additionally, Policy 6.1.2(d) encourages high quality design which is environmentally sustainable and is compatible with the character and image of the adjacent buildings. The proposed lot boundary adjustment will allow for additional lands to be consolidated with a larger residential infill development designated for multiple dwelling units such as townhouses and low rise apartments.

Policy 6.3.3 provides the general policies for Medium Density Residential development in Smithville of which includes a density threshold of 40 units per hectare. The proposed lot boundary adjustment will be able to provide more land that can help with the future residential development to the north achieve the minimum requirement. This will be separately evaluated by staff through additional applications and submissions.

In the context of urban design, Section 6.6.1 and objectives for urban design include but not limited to the livable space and physical appeal of the development needs to be enhanced with quality layout and attractiveness of the public streetscape and private spaces and buildings; that development meets Township design criteria; well-defined public realm, including an interconnected open space network; good transportation access and pedestrian oriented development patterns. The proposed lot boundary adjustment is intended to provide additional land area that can contribute to the proper positioning of the buildings, provide area for visitor parking, provide an interconnected

private road system to join with the adjacent public road system, and to public pedestrian linkages to nearby public open spaces and parks.
Policy 18.13.4 specifically addresses policies for consents in Smithville, the proposed lot boundary adjustment is to add the severed lands (Parcel 1 as shown on the survey sketch) to the north which is intended to be redeveloped. Considering Smithville is the urban settlement area in the Township and is the focus for development on full municipal services, the lands to be severed is currently not being utilized and the addition will assist the proposed development with increasing the density yield and help the Township meet the dentistry target for residential intensification. For these reasons, the proposed lot boundary adjustment is consistent with the Township's Official Plan, subject to the conditions of approval as indicated.

Township of West Lincoln Zoning By-law

The subject lands to be severed (Parcel 1) are currently zoned Residential Low Density 'R1B' in the Township's Zoning By-law 2017-70, as amended. Considering the intent of the boundary adjustment is to add land to the future residential development slated for medium density residential use (e.g., townhouse or low rise apartment units), the severed lands will need to be rezoned for such purpose and to be consistent with the zoning of 132 College Street. The retained lands (Parcel 2) will meet the zoning regulations of the Residential Low Density R1B zone except the minimum lot frontage of 7.5 metres is required and the existing dwelling has a front yard setback of ±3.2 metres. The deficient front yard setback will be captured under the required zoning by-law amendment application.

INTER-DEPARTMENTAL & AGENCY COMMENTS:

Building Department: At the time of writing this report, no comments have been received.

Public Works: There is an easement through the property for a sanitary sewer however the proposed severance will have no impact as the easement is located solely on the retained parcel (referenced as Parcel 2 on survey sketch).

Septic System Inspection Manager: No comments or objections to provide on this application.

Niagara Peninsula Conservation Authority (NPCA): The subject lands do not have any regulated features therefore no objections to the application.

Niagara Region:
Regional staff note the subject property is identified as containing Archaeological Potential. As no development is proposed for the retained lands (Parcel 2) an archaeological warning clause is provided. Please note that any future development applications may require an archaeological assessment.

The subject property is impacted by the Region's Natural Environment System (NES),

consisting of an 'other woodland' located adjacent to the property. However, the woodland is located more than 50 metres from the location of the proposed lot severance. As the proposed severance will not bisect the woodland or its buffer, staff offer no objection to the application. It should be noted that any future development or site alteration applications may require an Environmental Impact Study or similar environmental study, as per Niagara Official Plan policies.

PUBLIC COMMENTS:

A public comment was received indicating that the proposed survey sketch map drawing was not provided with the notice of hearing and concerned that the proper data for abutting landowners was not provided. Planning Staff provided the survey sketch to the individual as well as all the adjacent landowners.

Another public comment was received with concerns for the removal of trees and impacts of the views from the house and back yard. Additionally, the property value will be negatively affected if these trees are cut. These trees can be seen from several points in the area and are mature and if they were cut would be reducing the natural appeal. Furthermore, there are several bird species and habitat that would be impacted. It is understood that 132 College Street will be developed inevitably and even the new residents of that site would be able to appreciate and enjoy this stand if trees. There should be a recommendation writing of a clause to save the tree stand as part of park space. Trees of this size and importance to animals and people cannot be replaced for decades.

Planning Staff recognize there is a balance between the preservation of trees and the availability of land for development, with that being said, a tree preservation plan should be required at the time of the zoning by-law amendment application stage to identify opportunities to preserve the healthy trees and maintain visual buffers to adjacent properties, where appropriate. This will be evaluated as part of the future development applications.

CONCLUSION:
Based on the above analysis, Planning Staff recommend APPROVAL of the proposed consent application B06/2024WL as outlined in report COA-28-2024 to permit severance where where Parcel 1 (±2,378.5 square metres) will be added to 132 College Street which are the abutting lands to the north and planned for future residential development, and where Parcel 2 (±1,638.8 square metres) the balance of 131 St. Catharines Street will be retained and continued for residential use subject to conditions.

ATTACHMENTS:

1. Survey Sketch
2. Agency Comments
3. Public Comments

Prepared & Submitted by:

Susan Smyth, CPT
Senior Planner

Approved by:

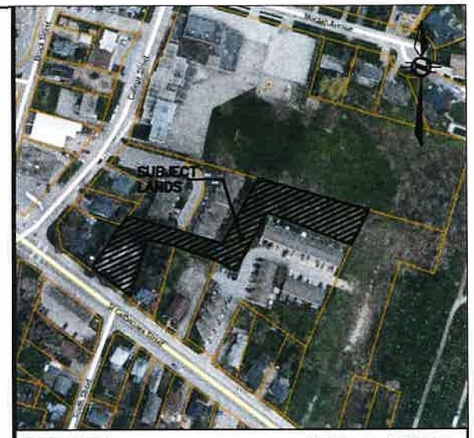
Gerrit Boerema, RPP, MCIP
Manager of Planning

SKETCH FOR SEVERANCE APPLICATION
OF
131 ST. CATHARINE STREET
IN THE
TOWNSHIP OF WEST LINCOLN
REGIONAL MUNICIPALITY OF NIAGARA

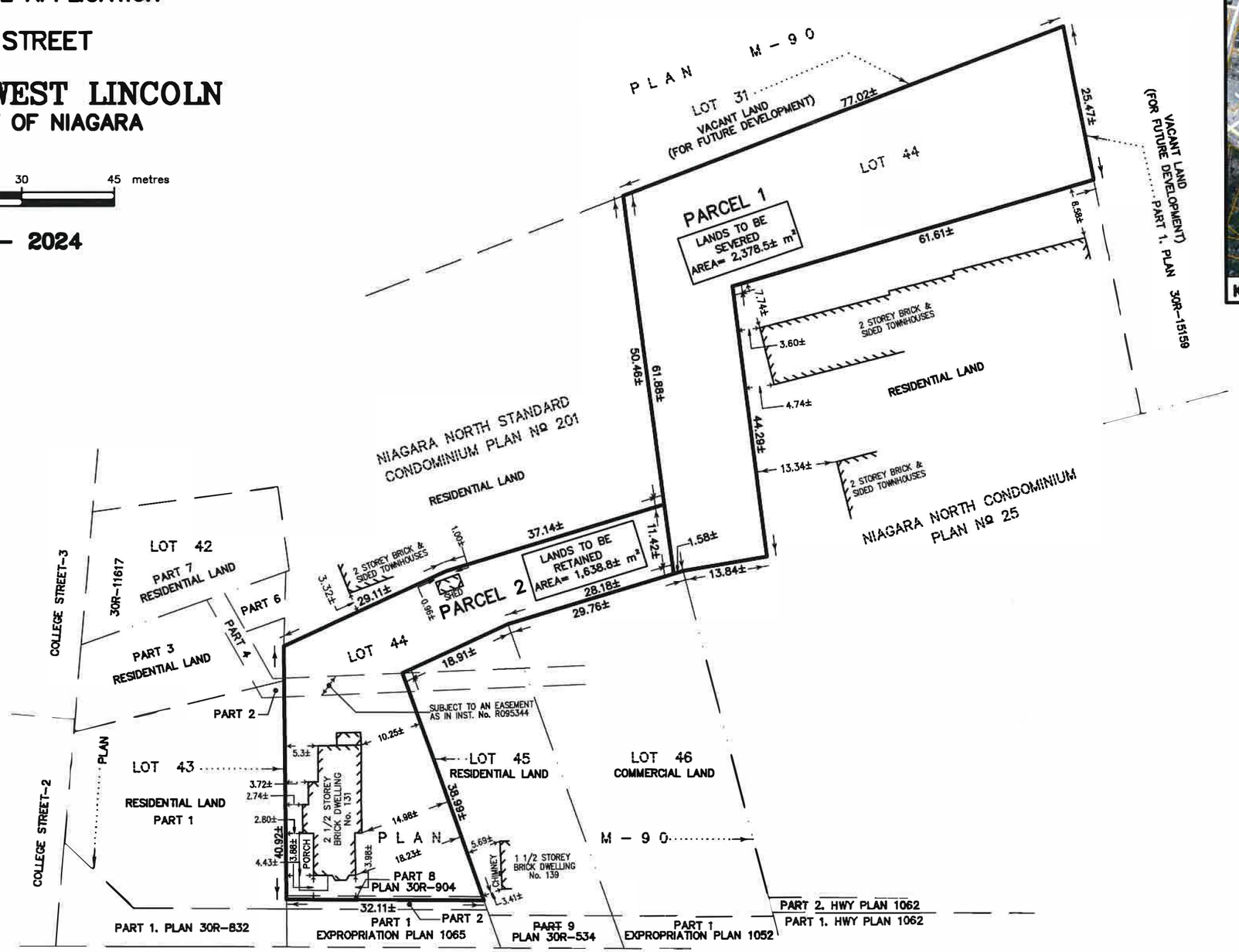
SCALE 1:750 METRIC

15 7.5 0 15 30 45 metres

R.A. McLAREN, O.L.S. – 2024



KEY MAP NOT TO SCALE



131 ST. CATHARINE STREET

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

NOTE:
DISTANCES SHOWN ON THIS PLAN WERE DERIVED FROM PLAN BY A.T. McLAREN LTD. DATED JUNE 27, 2019 (FILE No. 35990).

THIS PLAN IS COMPRISED OF LOT 44, REGISTERED PLAN No. M-90 IN THE TOWNSHIP OF WEST LINCOLN, REGIONAL MUNICIPALITY OF NIAGARA.

CAUTION:
A) THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE INDICATED IN THE TITLE BLOCK.

B) THIS PLAN IS PROTECTED BY COPYRIGHT ©

15 JUL 2024
DATE

ROB A. McLAREN, O.L.S.

A.T. McLaren Limited
LEGAL AND ENGINEERING SURVEYS
69 JOHN STREET SOUTH, SUITE 230
HAMILTON, ONTARIO, L8N 2B9
PHONE (905) 527-8559 FAX (905) 527-0032

Drawn	Checked	Crew Chief	Scale	Dwg.No.
MN	RAM	MW	1:750	35990-SK

West Lincoln
Your Future Naturally

318 Canborough St. P.O. Box 400
Smithville, ON
L0R 2A0
T: 905-957-3346
F: 905-957-3219
www.westlincoln.ca

Memo

To: Stephanie Pouliot, Planner

From: Jennifer Bernard, Coordinator of Engineering Services

Date: August 9, 2024

Re: File B06/2024WL – 131 St. Catharines St

A review has been completed of this consent application to severe ~2,378.5 m^2 of land from #131 St. Catharines St.

Public Works staff notes there is an easement through the property for a sanitary sewer however the proposed severance will have no impact as the easement is located solely on the retained parcel (referenced as Parcel 2 on the sketch provided with the application).

Public Works staff have no further comments to provide.

Stephanie Pouliot

From: Paige Pearson <ppearson@npca.ca>
Sent: August 13, 2024 11:38 AM
To: Stephanie Pouliot
Subject: Committee of Adjustment (August 28, 2024): NPCA Comments, File no. B062024WL
Attachments: 1. Notice of Hearing B062024WL.PDF; Full Package - B062024L.PDF; NPCA Regulated Features Map (Karst).pdf

Hi Stephanie,

Thank you for circulating the NPCA on the Committee of Adjustment file no. B062024WL for the municipal address, 131 St. Catharine Street, West Lincoln. The NPCA has reviewed the application for consent and can offer the following:

Based on the NPCA Mapping, the southern Parcel (Parcel 2) of the land appears to have potential karsts (along St. Catharine Street) of which would be a NPCA regulated feature. Please refer to the included map attachment for your reference. The proposed lot creation do not appear to intersect with the regulated feature and future development has been proposed within Parcel 1 outside the of the Parcel 2 regulated features area. Based on the proposed lot line placement, the NPCA supports the proposed application for consent and will not require circulation of a fee.

Please be advised that if future development is proposed within an NPCA regulated area, the NPCA will require issued work permits (with fees) prior to the start of development. Completion of studies or site visits may be required depending on proposed works on the subject property.

Please let me know if there are any questions.

Thank you,

Paige Pearson **(She/Her)**
Watershed Planner
Niagara Peninsula Conservation Authority (NPCA)
3350 Merrittville Highway, Unit 9, Thorold, Ontario L2V 4Y6

(O) 905.788.3135 Ext 205
www.npca.ca
ppearson@npca.ca

131 St. Catharine Street - NPCA Regulated Features Map

8/13/2024, 9:03:07 AM

1:1,128

0 0.01 0.01 0.02 mi

0 0.01 0.02 0.04 km

SWOOP 2020 NPCA

Red: Band_1

Green: Band_2

Blue: Band_3

Lines

Override 1

Override 2

Roads

Assessment Parcels

Niagara Region Ortho 2023

Red: Red

Green: Green

Blue: Blue

NPCA, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

Web AppBuilder for ArcGIS

City of Hamilton, City of Welland, Haldimand County, Niagara Region, Regional Municipality of Niagara, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan | Niagara Region, Ministry of Natural

Stephanie Pouliot

From: Wilson, Connor <Connor.Wilson@niagararegion.ca>
Sent: August 15, 2024 1:12 PM
To: Stephanie Pouliot
Cc: Development Planning Applications; Busnello, Pat; Boudens, Adam
Subject: RE: Notice of Hearing and Full Package -Wednesday August 28th CofA Hearing
Attachments: Regional Comment Letter - 5324 Canborough Road.pdf

Good afternoon Stephanie

Please see the attached Regional comments for your files regarding 5324 Canborough Road.

Additionally, please see below for additional regional comments with regards to the remaining CoA items for your files. Comments regarding 141 Mill Street will be sent by our Development Approvals Technician later today.

131 St. Catharines Street – B06/2024WL

Archaeological Potential

Regional staff note the subject property is identified as containing Archaeological Potential. As no development is proposed, staff wish to provide the archaeological warning clause for the applicants information. Please note that any future development applications may require an archaeological assessment.

"If deeply buried or previously undiscovered archaeological remains/resources are found during development activities on the subject lands, all activities must stop immediately. If the discovery is human remains, contact the police and coroner to secure the site. If the discovery is not human remains, the area must be secured to prevent site disturbance. The project proponent must then follow the steps outlined in the Niagara Region Archaeological Management Plan: Appendix C."

Natural Heritage

The subject property is impacted by the Region's Natural Environment System (NES), consisting of an 'other woodland' located adjacent to the property. However, the woodland is located more than 50 metres from the location of the proposed lot severance. As the proposed severance will not bisect the woodland or its buffer, staff offer no objection to the application.

It should be noted that any future development or site alteration applications may require an Environmental Impact Study or similar environmental study, as per NOP policies.

Canborough Road - A17/2024WL

Archaeological Potential

Regional staff note that through a previous consent application (Township File No.: B05/2022WL), the applicant had completed a Stage 1 and 2 Archaeological Assessment dated August 18, 2022 (prepared by Seguin Archaeological Services) which was determined that no further assessments are

recommended. Staff has also received the associated Ministry Acknowledgement Letter (dated August 19, 2022). As such, Regional staff offer no further requirements. Regional staff wish to provide the archaeological warning clause for the applicants information.

"If deeply buried or previously undiscovered archaeological remains/resources are found during development activities on the subject lands, all activities must stop immediately. If the discovery is human remains, contact the police and coroner to secure the site. If the discovery is not human remains, the area must be secured to prevent site disturbance. The project proponent must then follow the steps outlined in the Niagara Region Archaeological Management Plan: Appendix C."

Change In Entrance

Regional staff advise the applicant that a change of the entrance location will require a Regional Road Permit, and drawings for restoration and the new entrance are to be submitted for review and approval through the permitting process. Permit applications can be found using the following link: https://www.niagararegion.ca/living/roads/permits/default.aspx

Let me know if you have any questions or concerns with the contents.

All the Best,

Growing Better Together
Niagara Region

Connor Wilson
Development Planner

Niagara Region, 1815 Sir Isaac Brock Way,
Thorold, ON, L2V 4T7

P: (905) 980-6000 ext. 3399
W: www.niagararegion.ca
E: connor.wilson@niagararegion.ca

Chris Tsiropoulos
Brantwood Homes Inc.
[redacted]
August 13th, 2023

Attention: Stephanie Pouliot
Township of West Lincoln
131 St. Catharines Street
Smithville, ON

Re: File: B06/2024WL

I have reviewed the notice of public hearing for the Committee of Adjustment as it pertains to 131 St. Catharines Street (Plan M90, Lot 44) in Smithville, Ontario. The write-up you provided states:

"A consent application for a minor boundary adjustment has been applied for by Fernick Investments Inc. to sever off +/- 2,378.5 square meters of land, referenced as Parcel 1 on the survey sketch from 131 St. Catharines Street, referenced as Parcel 2, being the retained parcel. The proposed severed lands will be consolidated with the abutting lands to the rear known as 132 College Street for a future residential development. (Please see the attached sketch)."

Upon reviewing the attached sketch plan, I have identified three critical issues:

1. There is no reference to Parcel 1 on the map provided
2. There is no reference to Parcel 2 on the map provided
3. There are many address numbers provided on the sketch, but none that clearly reference 132 College Street.

The absence of these crucial details means that the proper data required for abutting landowners has not been provided, making it impossible to have a serious notice of public hearing for the Committee of Adjustment on this file.

This oversight is unacceptable, and I expect an immediate correction and clarification of these issues. Please provide the necessary information and ensure that all affected parties are properly informed well before the scheduled hearing.

Sincerely,

Chris Tsiropoulos
Brantwood Homes Inc.
Abutting Landowner

Stephanie Pouliot

From: Malcolm High <[redacted]>
Sent: August 15, 2024 2:43 PM
To: Stephanie Pouliot
Subject: Comment on Application for consent B06/202WL, Fernick Investments boundary adjustment

I would like to make a comment and on the Application for consent B06/202WL, Fernick Investments boundary adjustment.

If the future intent is to cut down the trees on the North end of Parcel 1, lot 44, then I am directly affected. I realize that the current question is of consolidating land but looking to the future it is obvious that these trees are in danger of being removed for development, which this consolidation will enable.

I currently have a view of these trees from my house and back yard. My enjoyment of the view and my property value will be negatively affected if these trees are cut. These trees can be seen from several points in the area, not just my yard. The trees are well matured and it would be a shame to cut them, thereby reducing the natural appeal of my home and Smithville. Additionally there are several bird species in the area which quite likely use this stand of trees for habitat. Robin's, finches, cardinals, blue jay's and others frequent the area. Even bats, which play an important role in controlling insects, can be seen nightly in this area.

132 College Street will be developed inevitably and even the new residents of that site would be able to appreciate and enjoy this stand if trees. The builder of that site might potentially even sell at higher prices since these mature trees would be included in the surrounding area. Consolidating these lands would allow more space to build but most likely be the end of this stand of trees.

Since there is a requirement to create park space in any new development, if you allow the consolidation of these lands I recommend writing in a clause to save this tree stand as part of that park space. Trees of this size and importance to animals and people cannot be replaced for decades.

Malcolm High

REPORT
COMMITTEE OF ADJUSTMENT

DATE: August 28, 2024

REPORT NO: COA-29-2024

SUBJECT: **Recommendation Report –Application for Consent (Gillian Mary Han and Theodore Yuag-Ti Han) 141 Mill Street B07/2024WL**

CONTACT: Stephanie Pouliot, Secretary Treasurer of the Committee of Adjustment

OVERVIEW:

- A consent application for a minor boundary adjustment and partial discharge of mortgage has been applied by Mr. and Mrs. Han who reside at 141 Mill Street referenced as Parcel 1 and 2 on the attached survey sketch.
- This proposed boundary adjustment is to sever ±735.7 square metres of land referenced as Parcel 2 on the survey sketch and merge the lands with 135 Mill Street referenced as Parcel 3 on the survey sketch, which is the adjoining parcel to the west.
- The purpose of the boundary adjustment is to allow for the continued long term maintenance of the natural heritage features and floodplain along Lower Twenty Mile Creek by the owners of 135 Mill Street.
- The partial discharge of mortgage is required for the proposed lands to be severed (Parcel 2) prior to the benefitting lands (Parcel 3) merging and becoming one larger parcel.
- Site alteration and development is prohibited on Parcel 2.

RECOMMENDATION:

That, the Application for Consent made by Mr. and Mrs. Han, as outlined in Report COA-29-2024, to permit the minor boundary adjustment where ±735.7 square metres of land referenced as Parcel 2 will be merged with 135 Mill Street referenced as Parcel 3, the adjoining parcel to the west, BE APPROVED, subject to the following conditions:

1. That the approval applies to the transaction as applied for.
2. That all municipal requirements be met to the satisfaction of the municipality including servicing connections if required, cash-in-lieu of park land dedication, property maintenance, compliance with Zoning By-Law provisions for structures, and any related requirements, financial or otherwise.

3. That an undertaking be provided and certified by a solicitor that the ownership for Parcel 2 (severed – 141 Mill Street) on the attached sketch will have a PIN consolidation with the abutting lands to the west referenced as Parcel 3 (benefitting lands – 135 Mill Street) following consent approval to the satisfaction of the Township of West Lincoln.
4. That the Applicant provides the Secretary-Treasurer with a copy of the transfer documents for the conveyance of the subject parcel, or a legal description of the subject parcel to be registered, together with a copy of the deposited reference plan, if applicable, for use in the issuance of the Certificate of Consent.
5. That a final certification fee, payable to the Township of West Lincoln, be submitted to the Secretary-Treasurer.
6. That all of these conditions shall be fulfilled within a period of two years after the giving of the Notice of Decision of the Committee of Adjustment, pursuant to Subsection 53(41) of the Planning Act, failing which this consent shall be deemed to be refused.

BACKGROUND:
The subject lands are located on the south side of Mill Street and east of Canborough Street, in the Smithville's urban boundary area limits.

Currently the lands are ±5,222.3 square metres (0.52 hectares) in size.

The lot configuration has a backward flag shape of which the proposed severed lands (Parcel 2) lies directly behind 135 Mill Street. This piece of land is primarily natural cover with woodland and wetland features including the floodplain of the Lower Twenty Mile Creek. The owners of 135 Mill Street (Ron and Cheryl Peter) have been maintaining this piece of land for over ten years. Recently the owners of 141 Mill Street (Gillian and Theodore Han) have decided to sell the property and Mr. and Mrs. Peter would like to purchase and own the land they have maintained for years prior to the future sale of 141 Mill Street.

The subject lands contains significant natural heritage features including a wetland complex and floodplain of which under the Provincial, Regional and Local policy framework for lot boundary adjustments, these features shall avoid fragmentation. Consequently, with assistance from the Region and Niagara Peninsula Conservation Authority (NPCA) the proposed lot boundary alignment was refined to avoid the natural feature and be conform to Natural Environment System policies.

CURRENT SITUATION:
Planning Staff have completed an analysis of the proposed consent and can provide the following evaluation:

Provincial Policy Statement and A Place to Grow: Growth Plan for the Greater Golden Horseshoe

The Provincial Policy Statement (PPS) 2020, provides guidance on all land use planning

matters in Ontario. All planning decisions must conform to the policies of the PPS. The PPS promotes building and sustaining strong, healthy communities through efficient development and land use patterns. Development should be planned to protect and preserve natural and cultural heritage features, and should avoid natural and man-made hazards.

Section 2.1 Natural Heritage, specifically Policy 2.1.5 development and site alteration shall not be permitted in (a) significant wetlands and (b) significant woodlands, of which Parcel 2 contains both natural heritage features and the proposed boundary adjustment is avoiding the fragmentation of the features and no negative impacts on the natural features or the ecological function is expected as the lands will continue to be maintained in its natural state. As such, the proposed development is consistent with the PPS.

The Growth Plan (2020 Consolidation) provides policies for where and how to grow with a focus on directing population growth to urban areas and rural settlement areas. The Growth Plan also emphasizes the importance for the long term protection of natural heritage features and areas that are essential for the quality of life, economic prosperity, environmental health and ecological integrity of the region. According to the Growth Plan, Section 4.2 Policies for Protecting What is Valuable, Policy 4.2.2 Natural Heritage System, 3 (a) New development or site alteration will demonstrate that (i) there are no negative impacts on key natural heritage features or key hydrological features and their functions. In this circumstance, the proposed boundary adjustment is not proposing any site alteration or development that would negatively impact the function or feature itself, the proposed boundary will be delineated outside of the feature and therefore is consistent with the Growth Plan.

Niagara Official Plan

The Niagara Region Official Plan (2022) designates the subject lands as “Delineated Built up Area” although is impacted by the Region’s Natural Environment System (NES), consisting of the Lower Twenty Mile Creek Provincially Significant Wetland Complex (PSW), and permanent/intermittent stream.

Policy 3.1.9.8.1 requires the completion of an Environmental Impact Study (EIS) when development or site alteration is proposed on lands adjacent to natural heritage features. The EIS must demonstrate that there will be no negative impact on the features or their ecological function. Within settlement areas, mandatory buffers from PSW’s are required. The ecologically appropriate widths of the mandatory buffers are to be determined through the EIS.

Policies 3.1.4.9 prohibits lot boundary adjustments which would fragment PSW’s or significant woodlands. Additionally, as per NOP Policy 3.1.4.10, applications for lot boundary adjustment should avoid the fragmentation of other natural heritage features and areas, key natural heritage features or key hydrologic features wherever possible and practical. Given the proposed boundary adjustment avoids the features entirely, there is no requirement for an EIS and the potential fragmentation and no negative impact on the

features and their function is anticipated. Therefore, the proposed boundary adjustment is consistent with the Niagara Official Plan.

Township of West Lincoln Official Plan

The Township's Official Plan (2021 Consolidation) designates the subject lands as "Medium Density Residential" and "Natural Heritage System". Section 10 Natural Environment, provides direction and the objectives for a Healthy Landscape that is concerned with the ecosystem health and environmental sustainability throughout the Township. The policies aim to maintain a healthy natural environment for present and future generations and conserve the distinctive natural character and support and encourage environmental stewardship and restoration.

Policy 10.2.2 requires decisions for planning and development to protect the health and integrity of the broader landscape, including impacts on the natural environment and any long term and cumulative impacts on the ecosystem. Furthermore, any new development should maintain or enhance the natural features and functions of a site.

Policy 10.6.2 requires that development and site alteration shall be directed away from hazardous lands and hazardous sites where there is an unacceptable risk to public health, safety or property. Hazardous lands are lands that could be unsafe due to naturally occurring processes such as flooding, erosion, and slope failure. Additionally, there are policies that permit development and site alteration within floodplains that are regulated by the NPCA, if it has been demonstrated to the satisfaction of NPCA that it is in accordance with their regulations.

Policy 10.7.2 provides policies for the protection of the Core Natural Heritage System (NES) which contains environmental features and functions of special importance to the character of the Township. The NES is significant in the context of the surrounding landscape because of their size, location, outstanding quality or ecological functions and contribute to the health of the broader landscape, protecting water resources, providing wildlife habitat, reducing air pollution and combating climate change. In this situation, the proposed boundary adjustment is not considered as 'development' in the context of actual and physical changes to the NES and it features because the severed boundary line is avoiding any disturbances and is set back away from any features and the hazardous lands (floodplain and slope) of the Lower Twenty Mile Creek.

Policy 18.13.3 are the policies directed to the Environment Protection Area (EPA) and Environment Conservation Area (ECA) lands. In these areas, consents for conveyance may be granted where both the severed and retained parcels satisfy the Natural Environmental policies and may be granted for title correction purposes and for minor lot boundary adjustments. In this situation, the owners of 135 Mill Street would like to purchase the proposed severed lands referenced as Parcel 2 on the survey sketch and consolidate the lands on title for ownership and the long term protection and maintenance of the NES features of the Lower Twenty Mile Creek.

Given there is no actual physical development or site alteration to occur on the proposed severed lands, Planning Staff are of the opinion that the general intent and conformance of the Official Plan are being satisfied.

Township of West Lincoln Zoning By-law

The subject lands to be severed (Parcel 2) are currently zoned "Environmental Protection – EP". As noted previously, the intent of the proposed boundary is to avoid fragmentation of the natural heritage features and the zoning after merging of the lands to Parcel 3 will keep the EP zone and the same provisions for no development or site alteration would apply.

INTER-DEPARTMENTAL & AGENCY COMMENTS:
Building Department: At the time of writing this report, no comments have been received.

Public Works: There is an easement through both properties for a sanitary sewer however the proposed severance will have no impact as the easement is located outside of the lands to be severed and therefore there are no issues.

Septic System Inspection Manager: No comments or objections to provide on this application as this is within an area of municipal services.

Niagara Peninsula Conservation Authority (NPCA): The NPCA regulates watercourses, flood plains (up to the 100-year flood level), Great Lakes shorelines, hazardous land, valleylands, and wetlands under Ontario Regulation 155/06 of the Conservation Authorities Act. The NPCA Policy Document: Policies for Planning and Development in the Watersheds of the Niagara Peninsula Conservation Authority (NPCA policies) provides direction for managing NPCA regulated features.

The subject properties (Parcel 1, 2, and 3) contain the following regulated features: a watercourse (Twenty Mile Creek), and associated floodplain elevation of 183.28 metres and floodplain study Datum of CGVD 28:78. In addition, a Provincially Significant Wetland (Lower Twenty Mile Creek Wetland Complex) and 30 metre buffer were identified.

As per the NPCA Policies, development and site alterations (including placement of fill, and lot grading) are not permitted within a Provincially Significant Wetland or within the 30-metre buffer. Further, the NPCA is not generally supportive of new lot lines crossing regulated features and their buffers. From the proposed boundary adjustment, allowing for Parcel 2 to consolidate with Parcel 3, there will be no lot creation taking place and no negative impact on proposed building envelopes, servicing and amenities. Therefore, NPCA offers no objection.

Niagara Region:
As there is no development and/or site alteration proposed through this application, and no archaeological assessments are required. An archaeological warning clause has been provided for the Applicants' information. Please note that any future development

applications may require an archaeological assessment.

The subject lands are impacted by the Region's Natural Environment System (NES), consisting of the Lower Twenty Mile Creek Provincially Significant Wetland (PSW) Complex and a permanent watercourse (including associated riparian area). Niagara Official Plan (NOP) policy 3.1.4.9 states that 'applications for a lot boundary adjustment shall avoid the fragmentation of provincially significant wetlands…'. Regional Staff have reviewed the proposed location of the consent and are satisfied that the new lot line is located outside of the mapped PSW. As such, Regional Staff offer no objection to the application.

PUBLIC COMMENTS:
An email was provided by a concerned resident located on Ellis Street across the creek and noted concerns for the flooding that can cover an extensive area at the bottom of their lot. Muskrats also cause erosion and damage in this area. Concerns for any retaining walls that would cause the flooding and damage to become more severe and want assurance that no changes like this would be approved or allowed.

Staff note that the proposed boundary adjustment will not create a new lot or permit any site alteration or development due to the natural heritage constraints and the environmental protection on this section of the property, the severed lands will remain as is with no physical changes. The Region and NPCA provided no objections to the proposed boundary adjustment since there will be no fragmentation or planned development and site alteration and the change is to the lot lines between the two properties. Therefore, the concerns for additional flooding impacts is not expected with this proposal.

CONCLUSION:
Based on the above analysis, Planning Staff recommend APPROVAL of the proposed consent application B07/2024WL as outlined in report COA-29-2024 to permit severance where ±735.7 square metres of land referenced as Parcel 2 will be merged with 135 Mill Street referenced as Parcel 3, the adjoining parcel to the west, to maintain the natural heritage feature and floodplain of the Lower Twenty Mile Creek, subject to aforementioned conditions.

ATTACHMENTS:
1. Survey Sketch
2. Agency Comments
3. Public Comments

Prepared & Submitted by:

Susan Smyth, CPT
Senior Planner

Approved by:

Gerrit Boerema, RPP, MCIP
Manager of Planning

SKETCH FOR PLANNING ACT APPLICATION
No. 141 MILL STREET
TOWNSHIP OF WEST LINCOLN
REGIONAL MUNICIPALITY OF NIAGARA

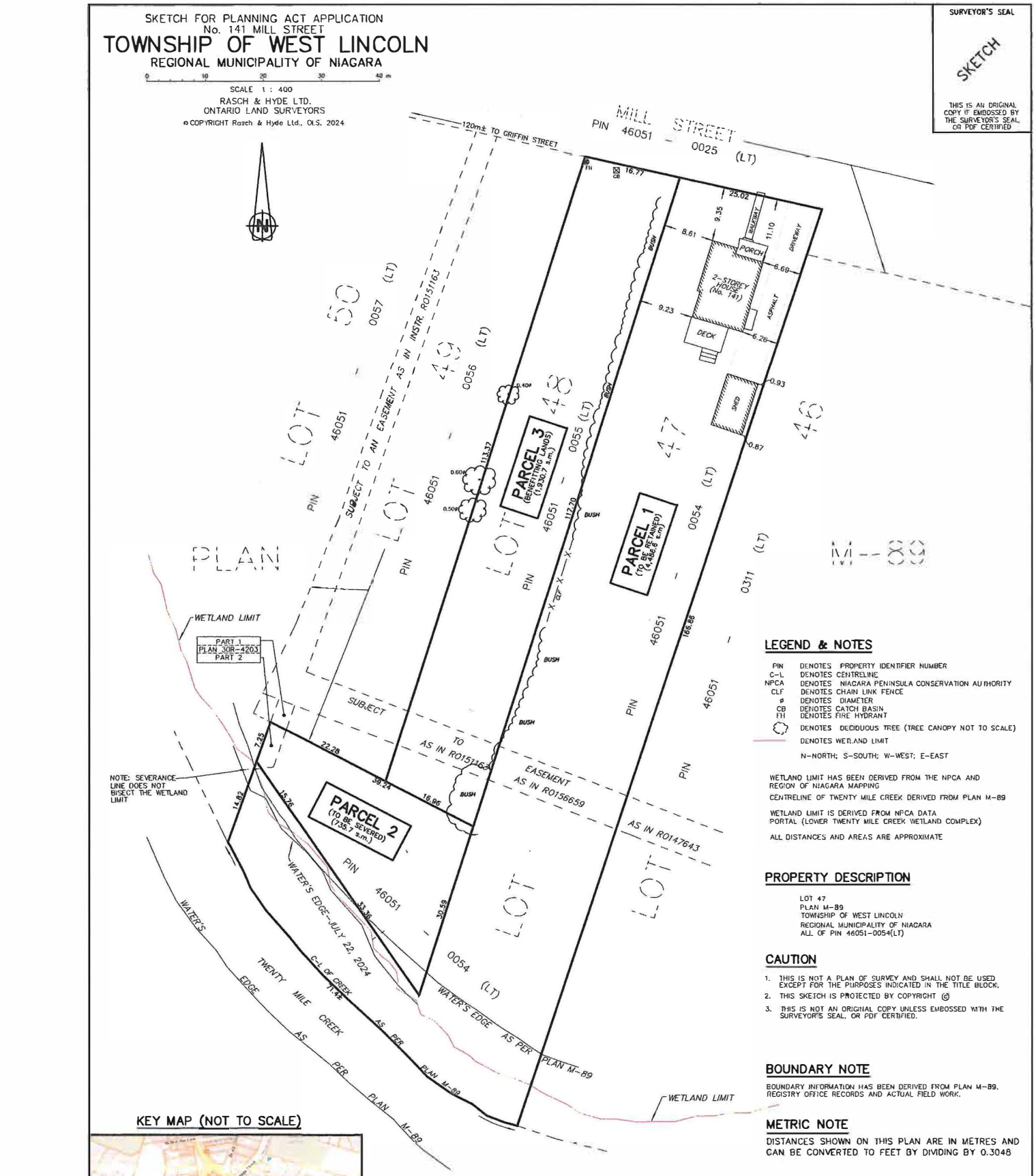
0 10 20 30 40 m
SCALE 1 : 400

RASCH & HYDE LTD.
ONTARIO LAND SURVEYORS

SURVEYOR'S SEAL

SKETCH

THIS IS AN ORIGINAL COPY IF EMBOSSED BY THE SURVEYOR'S SEAL OR PDF CERTIFIED



LEGEND & NOTES

PIN	DENOTES PROPERTY IDENTIFIER NUMBER
C-L	DENOTES CENTRELINE
NPCA	DENOTES NIAGARA PENINSULA CONSERVATION AUTHORITY
CLF	DENOTES CHAIN LINK FENCE
ø	DENOTES DIAMETER
CB	DENOTES CATCH BASIN
FH	DENOTES FIRE HYDRANT
	DENOTES DECIDUOUS TREE (TREE CANOPY NOT TO SCALE)
	DENOTES WETLAND LIMIT

N-NORTH; S-SOUTH; W-WEST; E-EAST

WETLAND LIMIT HAS BEEN DERIVED FROM THE NPCA AND REGION OF NIAGARA MAPPING

CENTRELINE OF TWENTY MILE CREEK DERIVED FROM PLAN M-89

WETLAND LIMIT IS DERIVED FROM NPCA DATA PORTAL (LOWER TWENTY MILE CREEK WETLAND COMPLEX)

ALL DISTANCES AND AREAS ARE APPROXIMATE

PROPERTY DESCRIPTION

LOT 47
PLAN M-89
TOWNSHIP OF WEST LINCOLN
REGIONAL MUNICIPALITY OF NIAGARA
ALL OF PIN 46051-0054(LT)

CAUTION

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2. THIS SKETCH IS PROTECTED BY COPYRIGHT ©
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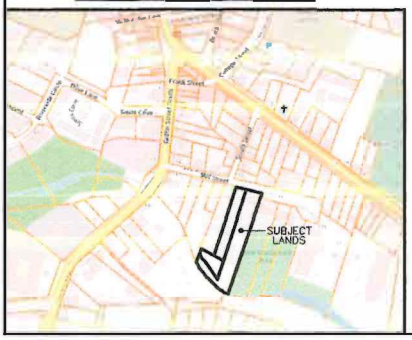
BOUNDARY NOTE

BOUNDARY INFORMATION HAS BEEN DERIVED FROM PLAN M-89, REGISTRY OFFICE RECORDS AND ACTUAL FIELD WORK.

METRIC NOTE

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

KEY MAP (NOT TO SCALE)



FIELD WORK COMPLETED: JULY 22, 2024

JULY 25, 2024
DATE

HAROLD D. HYDE
ONTARIO LAND SURVEYOR

RASCH + HYDE LTD.
Ontario Land Surveyors
P.O. Box 6, 1333 Highway #3 East, Unit B
DUNNVILLE, ONT. N1A 2X1
DUNNVILLE: 905-774-7188 FORT ERIE: 905-871-9757
(FAX 905-774-4000)

HAROLD D. HYDE O.L.S.

SCALE 1 : 400	SURVEY : 24-166-V2	DRWN BY : J.H.

West Lincoln
Your Future Naturally

318 Canborough St. P.O. Box 400
Smithville, ON
L0R 2A0
T: 905-957-3346
F: 905-957-3219
www.westlincoln.ca

Memo

To: Stephanie Pouliot, Planner

From: Jennifer Bernard, Coordinator of Engineering Services

Date: August 9, 2024

Re: File B07/2024WL – 141 Mill St

A review has been completed of this consent application to severe ~735.7 m^2 of land from #141 Mill St and consolidate that land with #135 Mill St.

Public Works staff notes there is an easement through both properties for a sanitary sewer however the proposed severance will have no impact as the easement is located outside of the lands to be severed.

Public Works staff have no further comments to provide.

Niagara Peninsula CONSERVATION nature for all

3350 Merrittville Hwy. Unit 9
Thorold Ontario L2V 4Y6
905.788.3135 | info@npca.ca | npca.ca

August 13, 2024

NPCA File No.: PLCON202401034

VIA EMAIL ONLY

Committee of Adjustment
Township of West Lincoln
318 Canborough St. P.O. Box 400
Smithville, ON, L0R 2A0

Attention: Stephanie Pouliot, Secretary Treasurer

Subject: **Application for Consent, (B07/2024WL)**
Gillian Mary Han and Theodore Yuag-Ti Han
141 Mill Street (Plan M89, Lot 47)
ARN 260203001546400

To the Committee of Adjustment,

Further to your request for comments for the consent for the above noted property, the Niagara Peninsula Conservation Authority (NPCA) can offer the following.

The applicant (whom resides on Parcel 1 and 2) proposes to apply a boundary adjustment to Parcel 3. This proposal is to sever ±735.7 square metres of land referenced as Parcel 2 and consolidate with 135 Mill Street referenced as Parcel 3, which is the adjoining parcel to the west.

The NPCA has reviewed the NPCA Mapping of **ARN 260203001546400 & 260203001546501** and notes that the property is impacted by NPCA regulated features.

The NPCA regulates watercourses, flood plains (up to the 100-year flood level), Great Lakes shorelines, hazardous land, valleylands, and wetlands under Ontario Regulation 155/06 of the Conservation Authorities Act. The NPCA Policy Document: Policies for Planning and Development in the Watersheds of the Niagara Peninsula Conservation Authority (NPCA policies) provides direction for managing NPCA regulated features.

The subject properties (Parcel 1, 2, and 3) contain the following regulated features: a watercourse (Twenty Mile Creek), and associated floodplain elevation of 183.28 m and floodplain study Datum of CGVD 28:78. In addition, a Provincially Significant Wetland (Lower Twenty Mile Creek Wetland Complex) and 30 metre buffer were identified.

As per the NPCA Policies, development and site alterations (including placement of fill, and lot grading) are not permitted within a Provincially Significant Wetland or within the 30-metre buffer. Further, the NPCA is not generally supportive of new lot lines crossing regulated features and their buffers. From the proposed boundary adjustment, allowing for Parcel 2 to consolidate with Parcel 3, there will be no lot creation taking place and no negative impact on proposed building envelopes, servicing and amenities.

Niagara Peninsula CONSERVATION nature for all

3350 Merrittville Hwy. Unit 9
Thorold Ontario L2V 4Y6
905.788.3135 | info@npca.ca | npca.ca

Conclusion

At this time, the NPCA staff have no objections to the application for Consent **B07/2024WL.**

Please be advised that as the subject properties are within NPCA regulated areas, any future development will require NPCA review, approval, and Permits from this office prior to the commencement of any works on site. Depending on future proposed development, the NPCA may require a completed Site Visit or required studies prior to approval.

I trust the above will be of assistance to you. Please do not hesitate to call should you have any further questions in this matter.

Sincerely,

Paige Pearson
Watershed Planner
(905) 788-3135, ext. 205
ppearson@npca.ca

Niagara Region

Growth Strategy & Economic Development
1815 Sir Isaac Brock Way, Thorold, ON L2V 4T7
905-980-6000 Toll-free:1-800-263-7215

Via Email Only

August 15, 2024

File No.: PLCS202400991

Stephanie Pouliot
Planner
Township of West Lincoln
318 Canborough Street
Smithville, ON,
L0R 2A0
Dear Stephanie,

Re: Regional and Provincial Comments
Consent Applications
Address: 141 Mill Street, Township of West Lincoln

Niagara Region staff have completed a review of materials which have been submitted in support of the above-mentioned consent application. Application is to permit the conveyance of a parcel of land and easements for access and servicing. The following updated Provincial and Regional comments are provided to assist the Committee in considering these applications.

Archaeological Potential

Staff note that the property is mapped within an area of archaeological potential on Schedule K of the NOP. The Provincial Policy Statement ("PPS") and NOP state that that development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved or the land has been investigated and cleared or mitigated following clearance from the Province. NOP Policy 6.4.2.6 states that where a site proposed for development is located within an area of archaeological potential, a Stage 1-2 Archaeological Assessment by a licensed archaeologist is required.

As there is no development and/or site alteration proposed through this application, staff offers no archaeological assessment requirements. Staff wish to provide the archaeological warning clause for the applicants information. Please note that any future development applications may require an archaeological assessment.

If deeply buried or previously undiscovered archaeological remains/resources are found during development activities on the subject lands, all activities must stop immediately. If the discovery is human remains, contact the police and coroner to secure the site. If the discovery is not human remains, the area must be secured to prevent site disturbance. The project proponent must then follow the steps outlined in the Niagara Region Archaeological Management Plan: Appendix C.

Natural Heritage

The subject lands are impacted by the Region's Natural Environment System (NES), consisting of the Lower Twenty Mile Creek Provincially Significant Wetland (PSW) Complex and a permanent watercourse (including associated riparian area). Niagara Official Plan (NOP) policy 3.1.4.9 states that 'applications for a lot boundary adjustment shall avoid the fragmentation of provincially significant wetlands…'. Staff have reviewed the proposed location of the consent and are satisfied that the new lot line is located outside of the mapped PSW. As such, Regional environmental planning staff offer no objection to the application.

Conclusion

Based on the analysis and comments above, Regional staff offers no objection to the proposed Minor Variance and Consent applications. Please send notice of the Committee's decision with regard to these applications.

If you have any questions or wish to discuss these comments please contact the undersigned at extension 3268, or Susan Dunsmore, Manager of Development Engineering at extension 3661.

Regards,

Regards,

Philippe Biba
Development Approvals Technician
Niagara Region

Cc: Connor Wilson, Planner, Niagara Region
Susan Dunsmore, Manager, Development Engineering, Niagara Region
Adam Boudens, Senior Environmental Planner, Niagara Region

Stephanie Pouliot

From: John and Pat <[redacted]>
Sent: August 14, 2024 7:44 PM
To: Stephanie Pouliot
Subject: B07/2024WL comments/questions for August 28 meeting

Good evening,

I am a concerned citizen who is interested in this application for consent and will be attending the meeting on August 28.
I am located at 17 Ellis Street, which is located across the creek from the Mill street lots.
We experience flooding every spring and after heavy rains. The flooding can cover an extensive area at the bottom of my lot. Muskrats also cause erosion and damage in this area.
I have lived in this same house for over 50 years and am concerned that any changes to the property across the creek ie. retaining walls, would cause the flooding and damage to become more severe and want assurance that no changes like this would be approved or allowed.
I look forward to attending the meeting to obtain more information.

Sincerely,
Patricia Wilson

Stephanie Pouliot

From: Douglas McMaster <[redacted]>
Sent: August 16, 2024 9:20 AM
To: Stephanie Pouliot
Subject: B07/202WL RE: Transfer of land from 141 Mill ST. to 135 Mill ST.

The only concern I have is with this is the people at 135 Mill St., as they put his structures on other peoples properties or right on the property line .
Their 2 sheds are over the property line and another one is on the line .
I am ok with this transfer , but please let them know I DO NOT want to see any type of structure on or near my property line .

Thank You
Douglas McMaster
E MAILS ARE NOT CHECK ON A REGULAR BASIS
IF A RESPONSE IS NEEDED IMMEDIATELY
PLEASE CALL ME A.S.A.P .
[redacted]

REPORT
COMMITTEE OF ADJUSTMENT

DATE: August 28, 2024

REPORT NO: COA-30-2024

FILE NO: A17/2024WL

SUBJECT: **Recommendation Report Application for Minor Variance, Henley Heights Construction Inc. (Lecki Developments Inc. / Thomas Chmielecki., –Agent)**

LOCATION: Canborough Road, GAINSBOROUGH CON 1 BF PT LOT;14 RP 30R16006 PART 2 (260202000712902 0000)

CONTACT: Stephanie Pouliot, Secretary Treasurer to the Committee of Adjustment

OVERVIEW:
A Minor Variance application has been submitted by Thomas Chmielecki (Lecki Developments Inc.), on behalf of the property owners, Henley Heights Construction Inc. of Canborough Road/Regional Road 63, being roll number 260202000712902 0000 (GAINSBOROUGH CON 1 BF PT LOT;14 RP 30R16006 PART 2)

A Minor Variance application has been applied for to permit the construction of a new single detached dwelling with a proposed attached private garage projecting 5.79 metres closer to the front lot line than the main wall, whereas, Part 3.12.7 *Private Garages* of the Township's Zoning By-Law identifies the maximum projection for an attached private garage as 1.5 metres closer to the front lot line than the main front wall of the dwelling on the same lot. The private garage would have a front yard setback of 10.7 metres, whereas the main front wall of the dwelling would have a front yard setback of 15.5 metres.

RECOMMENDATION:
That, the application for Minor Variance, submitted by Lecki Developments Inc.), on behalf of the property owners, Henley Heights Construction Inc., as outlined in Report COA-30-24, to permit the attached private garage with a garage width no greater than 16 metres which will be projecting 5.79 metres closer to the front lot line than the main wall of the proposed new dwelling on the subject property, BE APPROVED, subject to the following conditions:

1. That the Applicant submit a report from a licensed sewage system installer and/or engineer indicating compliance with minimal separation distance requirement as per Tables 8.2.1.6 A and 8.2.1.6 B of the Ontario Building Code

as part of the required septic permit.
2. That the applicant applies for and obtains a 911 house number (sign, post and installation) to the Township of West Lincoln.

BACKGROUND & SURROUNDING LAND USES:
The subject property is approximately 0.40 hectares (One Acre) in size and is located on the south side of Canborough (Regional Road 63), east of Baldwin Road, and west of Highway 20 (Regional Road 20).

The subject property is also located within the Hamlet of Wellandport. The property was severed off of 5274 Canborough Road in 2022 through consent B05/2022WL. The existing accessory building on the property will be demolished prior to the construction of the new single detached dwelling and attached private garage.

A Minor Variance application has been applied for to permit the construction of a new single detached dwelling with a proposed attached private garage which would project 5.79 metres closer to the front lot line than the main wall of the dwelling, whereas, Part 3.12.7 *Private Garages* of the Township's Zoning By-Law, identifies the maximum projection for an attached private garage as 1.5 metres closer to the front lot line than the main front wall of the dwelling on the same lot. The main front wall of the dwelling would have a front yard setback of 15.5 metres whereas, the private garage would have a front yard setback of 10.7 metres.

The majority of the surrounding land uses are designated in the Township's Official Plan as *Hamlet Settlement Area*, *Good General Agricultural Lands* and *Natural Heritage System.* The subject property is located within the Hamlet Settle Area of Wellandport and there are no present natural heritage system features on the property.

The surrounding lands to the south west of the property is actively farmed while the majority of the surrounding area consists of a small rural residential properties within the Hamlet of Wellandport. The proposed single detached dwelling and attached private garage are compatible with the existing residential land uses in the area.

CURRENT SITUATION:
Staff have completed an analysis of the proposed Minor Variance application and can provide the following evaluation:

Does the Proposal Maintain the General Intent of the Official Plan? Yes
The subject property is designated as *Hamlet Settlement Area* in the Township's Official Plan, specifically located in the Hamlet of Wellandport. Lands within the *Hamlet Settlement Area Designation* (Section 7 of the OP) are intended for residential and associated commercial, institutional, and recreational uses.

The predominant use of land within Hamlets are single-detached dwellings, with other uses necessary to serve the Hamlet as well as the surrounding agricultural area and rural community. One of the main objectives of this designation is to provide an

alternate place for residential uses to be accommodated outside the *Urban Area of Smithville* and the *Agricultural Area*. The proposed single detached dwelling is permitted and encouraged within *Hamlet Settlement Areas.* The proposed attached private garage is also a permitted accessory use in conjunction with the new residence.

Given the proposed dwelling and attached private garage are permitted on the property and will be designed to be compatible with the surrounding residential uses and abutting farmland. As this proposal will be supporting residential growth which is encouraged within a *hamlet settlement area*, Staff can consider the proposal in alignment with the Township's Official Plan (OP).

Does the proposal maintain the general intent and purpose of the Zoning Bylaw? Yes
The subject property is zoned Residential Low Density 'R1A' in the Township's Zoning By-Law. One single detached dwelling is permitted on the property with accessory buildings and structures also permitted in conjunction with the principal use.

Aside from the below noted variance, the proposed single detached dwelling with the attached garage is a permitted use and complies with the remainder of the zoning regulations outlined in Table 14 in Part 6 of the Township's Zoning Bylaw, 2017-70, as amended.

In addition, as there is a proposed attached private garage, Part 3.12.7 *Private Garages* of the Township's Zoning By-Law is applicable which identifies the maximum projection for an attached private garage as 1.5 metres closer to the front lot line than the main front wall of the dwelling on the same lot. The intent of the zoning bylaw is to discourage building design where the attached private garage is the prominent feature of the dwelling. The variance being requested is to allow the attached private garage to project 5.79 metres from the main front wall of the dwelling to the front lot line. The main front wall of the dwelling would have a front yard setback of 15.5 metres whereas, the private garage would have a front yard setback of 10.7 metres.

The applicant has indicated that the variance is required for the preferred architectural roof design and covered front porch for the new dwelling. It appears the garage width is 16 metres measured between the inside faces of the interior walls (at the narrowest point). Staff are not opposed to the dwelling design, given the garage doors will be facing the east interior side lot line rather than the front lot line. Given the positioning of the garage doors facing east, the proposed design is more aligned with the intent of the provisions outlined in Part 3.12.7 of the Township's Zoning By-Law.

For these reasons, Staff can consider the proposed application consistent with the general purpose of the Township's Zoning By-law.

Additionally, as shown on the site sketch (see Attachment 2) a future accessory building is shown (9.14 metres by 10.67 metres). Table 1-2 (Part 3) is applicable and the future accessory building complies with the current interior and rear yard setbacks, is located in the rear yard, and would comply with the applicable lot coverage requirements, the

future accessory building would total 2.4% in accessory coverage. In terms of total lot coverage as identified by Table 14 (Part 6), the new dwelling and future accessory building would total 13.1% complying with the maximum of 20% which is permitted on the lot. As elevations for the accessory building have not be provided, it's important to note, the maximum height permitted by Table 1-2 is 5 metres.

Is the proposal desirable for the appropriate development or use of the land? Yes
Staff consider the proposal to be appropriate development and use of land since there are no adverse impacts anticipated on the surrounding area, including the abutting agricultural land uses and existing residences in proximity to the property. The proposed dwelling and attached private garage are permitted uses which are encouraged within the hamlets of West Lincoln. There is also an existing driveway that accesses the existing accessory building (to be demolished) which will be utilized for the new residence and attached private garage.

The requested variance will not increase concerns or have a negative impact on the surrounding area, especially as the proposed garage doors are facing the east interior side property line rather than the front lot line. Given both the front yard setbacks are complying with the required minimum of 7.5 metres (as outlined in Table 14) from the front lot line and the proposed of 15.5 metres measured from the main front wall of the dwelling and 10.7 metres for the attached private garage would still provide an adequate and appropriate front yard setback for the new residence.

For these reasons, Staff consider the proposed residence appropriate development and a desirable use of the lands.

Is the proposal minor in nature? Yes
Staff consider this proposal to be minor in nature as the general intent of the Township's Official Plan and Zoning By-law provisions are being maintained. The requested variance is required to support the proposed residential development on the subject property which is appropriate as the lands are located within the Hamlet of Wellandport.

Hamlets support and encourage residential growth outside of the *Settlement Area of Smithville*. Due to the preferred architectural design to facilitate the new residential build, the proposed projection of 5.79 metres to the front lot line than the main front wall of the dwelling can be considered minor in this case.

As such, Staff can recommend approval of this Minor Variance Application to permit the attached private garage with a width no greater than 16 metres which will project 5.79 metres closer to the front lot line than the main wall of the proposed new residence on the subject property.

INTER-DEPARTMENTAL & AGENCY COMMENTS:

Building Department: At the time of writing this report, no comments have been received from the building department. It appears the subject property does not have an assigned

911 house number. This has been added as a condition of approval to satisfy the noted concern.

Public Works: Has reviewed the application and have no objections or comments to provide.

Septic System Inspection Manager: Has reviewed the application as submitted and as there were no documentation provided regarding the proposed sewage system. A condition has been included to satisfy the septic concern regarding compliance with the minimal distance requirements per Tables 8.2.1.6 A and 8.2.1.6 B of the Ontario Building Code. Please see above for the applicable condition of approval and Attachment 3 for the comments received.

Niagara Peninsula Conservation Authority (NPCA): The NPCA has reviewed the subject property and the proposed development and offer no objections to the proposal as the development and subject property are outside of the NPCA regulated features.

Niagara Region: Have no objections to the request to allow the attached private garage to project closer than the main front wall of the new single detached dwelling. The property is located within an area designated for Archaeological Potential. It appears as a condition of approval of the related consent B05/2022WL, a Stage 1-2 Archaeological Assessment was completed and prepared by Seguin Archaeological Services. The assessment was also registered with the Ministry of Tourism, Culture and Sport dated August 19th, 2022. As such, Regional staff offer no further requirements.

Regional staff wish to provide the Archaeological Potential warning clause for the applicants' information should any deeply buried artefacts or remains be found. Staff have also noted that if there is a change in the entrance, a Regional Road Permit will be required as Canborough Road is a Regional Road. Please see Attachment 3 for more information.

"If deeply buried or previously undiscovered archaeological remains/resources are found during development activities on the subject lands, all activities must stop immediately. If the discovery is human remains, contact the police and coroner to secure the site. If the discovery is not human remains, the area must be secured to prevent site disturbance. The project proponent must then follow the steps outlined in the Niagara Region Archaeological Management Plan: Appendix C."

PUBLIC COMMENTS:
At the time of writing this report, no public comments have been received.

CONCLUSION:

Based on the above analysis, Staff recommend APPROVAL of the proposed Minor Variance Application (A17/2024WL) as outlined in Report COA-30-24, to permit the construction of a new dwelling with an attached private garage with a garage width no greater than 16 metres which will project 5.79 metres closer to the front lot line than the

main wall of the proposed single detached dwelling on the subject property.

ATTACHMENTS:

1. Location Map
2. Site Plan
3. Agency Comments

Prepared & Submitted by:

Stephanie Pouliot,
Planner

Approved by:

Gerrit Boerema, RPP, MCIP
Manager of Planning

Location Map

5280 Canborough Road

0 15 30 60 Meters

West Lincoln
Your Future Naturally

Legend

ZoneBoundary

Subject Property

Document Path: X:\pb-Planning\Committee of Adjustment\Minor Variance\2024\A17 - Lecki Developments Inc. 5280 Canborough\2. Notice of Hearing - A172024WL\5280 Canborough Road Zoning Map.mxd

August 2024

SKETCH FOR APPLICATION FOR MINOR VARIANCE
AT NO. 5280 CANBOROUGH ROAD

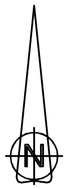
TOWNSHIP OF WEST LINCOLN

REGIONAL MUNICIPALITY OF NIAGARA

0 10 20 30 40 m

SCALE 1 : 400

RASCH & HYDE LTD.
ONTARIO LAND SURVEYORS



DETAIL (NOT TO SCALE)

LOT DETAILS

LOT AREA: 4084.9 s.m. (100%)
PROPOSED HOUSE: 424.4 s.m. (10.4%)
FUTURE SHOP: 97.5 s.m. (2.4%)

PROPERTY DESCRIPTION

PART OF LOT 14
CONESSION 1
GEOGRAPHIC TOWNSHIP OF GAINSBOROUGH
TOWNSHIP OF WEST LINCOLN
REGIONAL MUNICIPALITY OF NIAGARA
PIN 46072-0462(LT); PART 2, PLAN 30R-16006

CAUTION

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JULY 22, 2024
DATE

HAROLD D. HYDE
ONTARIO LAND SURVEYOR

SURVEYOR'S SEAL

SKETCH

THIS IS AN ORIGINAL COPY IF EMBOSSED BY THE SURVEYOR'S SEAL, OR PDF CERTIFIED

RASCH + HYDE LTD.
Ontario Land Surveyors
P.O. Box 6, 1333 Highway #3 East, Unit B
DUNNVILLE, ONT, N1A 2X1
DUNNVILLE: 905-774-7188 FORT ERIE: 905-871-9757
(FAX 905-774-4000)
HAROLD D. HYDE O.L.S.

SCALE 1 : 400	SURVEY : 24-157 MV SKETCH	DRWN BY : J.H.

LEGEND & NOTES

PIN	DENOTES PROPERTY IDENTIFIER NUMBER
C-L	DENOTES CENTRELINE
OUL	DENOTES OVERHEAD HYDRO/UTILITY LINE
HP	DENOTES HYDRO/UTILITY POLE
ANC	DENOTES GUY ANCHOR
ø	DENOTES DIAMETER

ALL DIMENSIONS AND AREAS ARE APPROXIMATE

BOUNDARY NOTE

BOUNDARY INFORMATION HAS BEEN DERIVED FROM PLAN 30R-16006

METRIC NOTE

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

KEY PLAN (NOT TO SCALE)

West Lincoln
Your Future Naturally

318 Canborough St. P.O. Box 400
Smithville, ON
L0R 2A0
T: 905-957-3346
F: 905-957-3219
www.westlincoln.ca

PLANNING & DEVELOPMENT DEPARTMENT

MEMORANDUM

TO: **Stephanie Pouliot – Planner / Secretary Treasurer Committee of Adjustments**

FROM: **Lyle Killins, Septic Inspection Manager**

DATE: **August 15, 2024**

SUBJECT: **A17 /2024 WL**
Henley Heights Construction Inc. (Lecki Developments Inc. / Thomas Chmielecki., –Agent), Canborough Road, 2602020007129020000

Dear Stephanie,

Please be advised the application as submitted does not provide required information relating to the proposed sewage system. Thus, a report from a licensed sewage system installer and/or engineer should be provided to indicate compliance with minimal separation distance requirement as per Tables 8.2.1.6 A and 8.2.1.6 B of the Ontario Building Code.

Respectfully submitted,

Lyle Killins C.P.H.I.(c)
BCIN #11112

Stephanie Pouliot

From: Paige Pearson <ppearson@npca.ca>
Sent: August 14, 2024 9:59 AM
To: Stephanie Pouliot
Subject: NPCA Comments File No. A17/2024WL -Wednesday August 28th CofA Hearing
Attachments: 1. Notice of Hearing -A172024WL.PDF; Full Package- A172024WL.PDF

Hi Stephanie,

The following email regards the Committee of Adjustment application for the Minor Variance A17/2024WL – Henley Heights Construction lnc. (Lecki Developments Inc. / Thomas Chmielecki., –Agent) for the property located at Canborough Road, 2602020007129020000 (GAINSBOROUGH CON 1 BF PT LOT;14 RP 30R16006 PART 2). The NPCA can offer the following comments below.

The NPCA has reviewed the subject property and proposed development. Based on the NPCA mapping, the proposed development and subject property are outside of NPCA regulated features. As such, the NPCA has no objections to the following proposal.

If there are any questions, please advise and the NPCA would be happy to provide further assistance.

Thank you,

Paige Pearson **(She/Her)**
Watershed Planner
Niagara Peninsula Conservation Authority (NPCA)
3350 Merrittville Highway, Unit 9, Thorold, Ontario L2V 4Y6

(O) 905.788.3135 Ext 205
www.npca.ca
ppearson@npca.ca

From: Stephanie Pouliot <spouliot@westlincoln.ca>
Sent: Tuesday, August 6, 2024 2:43 PM
To: Paige Pearson <ppearson@npca.ca>
Subject: FW: Notice of Hearing and Full Package -Wednesday August 28th CofA Hearing

Hi Paige,

Please see below circulation for the upcoming Committee of Adjustment hearing on August 28th.

If you can please provide your comments by the date noted in the notice that would be greatly appreciated.

Kind regards,
Stephanie

Stephanie Pouliot

From: Wilson, Connor <Connor.Wilson@niagararegion.ca>
Sent: August 15, 2024 1:12 PM
To: Stephanie Pouliot
Cc: Development Planning Applications; Busnello, Pat; Boudens, Adam
Subject: RE: Notice of Hearing and Full Package -Wednesday August 28th CofA Hearing
Attachments: Regional Comment Letter - 5324 Canborough Road.pdf

Good afternoon Stephanie

Please see the attached Regional comments for your files regarding 5324 Canborough Road.

Additionally, please see below for additional regional comments with regards to the remaining CoA items for your files. Comments regarding 141 Mill Street will be sent by our Development Approvals Technician later today.

131 St. Catharines Street – B06/2024WL

Archaeological Potential

Regional staff note the subject property is identified as containing Archaeological Potential. As no development is proposed, staff wish to provide the archaeological warning clause for the applicants information. Please note that any future development applications may require an archaeological assessment.

"If deeply buried or previously undiscovered archaeological remains/resources are found during development activities on the subject lands, all activities must stop immediately. If the discovery is human remains, contact the police and coroner to secure the site. If the discovery is not human remains, the area must be secured to prevent site disturbance. The project proponent must then follow the steps outlined in the Niagara Region Archaeological Management Plan: Appendix C."

Natural Heritage

The subject property is impacted by the Region's Natural Environment System (NES), consisting of an 'other woodland' located adjacent to the property. However, the woodland is located more than 50 metres from the location of the proposed lot severance. As the proposed severance will not bisect the woodland or its buffer, staff offer no objection to the application.

It should be noted that any future development or site alteration applications may require an Environmental Impact Study or similar environmental study, as per NOP policies.

Canborough Road - A17/2024WL

Archaeological Potential

Regional staff note that through a previous consent application (Township File No.: B05/2022WL), the applicant had completed a Stage 1 and 2 Archaeological Assessment dated August 18, 2022 (prepared by Seguin Archaeological Services) which was determined that no further assessments are

recommended. Staff has also received the associated Ministry Acknowledgement Letter (dated August 19, 2022). As such, Regional staff offer no further requirements. Regional staff wish to provide the archaeological warning clause for the applicants information.

"If deeply buried or previously undiscovered archaeological remains/resources are found during development activities on the subject lands, all activities must stop immediately. If the discovery is human remains, contact the police and coroner to secure the site. If the discovery is not human remains, the area must be secured to prevent site disturbance. The project proponent must then follow the steps outlined in the Niagara Region Archaeological Management Plan: Appendix C."

Change In Entrance

Regional staff advise the applicant that a change of the entrance location will require a Regional Road Permit, and drawings for restoration and the new entrance are to be submitted for review and approval through the permitting process. Permit applications can be found using the following link: https://www.niagararegion.ca/living/roads/permits/default.aspx

Let me know if you have any questions or concerns with the contents.

All the Best,

Growing Better Together

Niagara Region

Connor Wilson
Development Planner

Niagara Region, 1815 Sir Isaac Brock Way,
Thorold, ON, L2V 4T7

P: (905) 980-6000 ext. 3399
W: www.niagararegion.ca
E: connor.wilson@niagararegion.ca

REPORT
COMMITTEE OF ADJUSTMENT

DATE: August 28, 2024

REPORT NO: COA-31-2024

SUBJECT: **Application for Minor Variance – 5324 Canborough Road Mark and Lauren Vandenberg**

CONTACT: Stephanie Pouliot, Secretary Treasurer of the Committee of Adjustment

OVERVIEW:

- A Minor Variance application has been applied for in conjunction with consent application B05/2024WL, by property owners Mark and Lauren Vandenberg.
- Relief is being requested for the existing dwelling on Part 1 of the attached severance sketch (attachment 1) to have a minimum front yard setback of 4.5 metres whereas 7.5 metres is required. Relief is also being requested for the existing accessory garage to allow a minimum interior side yard setback of 1.1 metres where 1.2 metres is required. A third variance has been requested to recognize a total lot frontage of 43.89 metres whereas 45 metres is required.
- Relief from the Township's Zoning Bylaw 2017-70 is also being requested for Part 2 of the attached severance sketch which will require a variance to the minimum lot frontage within a Residential Low Density Zone (R1A), the proposed lot frontage is 12.88 metres where 45 metres is required.
- This application has been reviewed against the four tests of a Minor Variance and can be recommended for approval.

RECOMMENDATION:

That, the application for Minor Variance, submitted by Mark and Lauren Vandenberg, as outlined in Report COA-31-2024, to permit a consent application at 5324 Canborough Road, BE APPROVED.

BACKGROUND:

The subject lands are located on the south side of Canborough Road, east of Baldwin Road and west of Wellandport Road, being legally described as Concession 1, Part Lot 13, in the former Township of Gainsborough, now in the Township of West Lincoln, Regional Municipality of Niagara. The subject property is municipally known as 5324 Canborough Road. Please see attachment 1 for a site sketch.

The subject property is currently 2.80 acres (1.13 hectares) in size. Following the consent application Part 1 is proposed to be 1 acre in size, and Part 2 is proposed to be 1.80 acres in size. The property is designated as within the Hamlet Settlement Area of Wellandport and Natural Heritage System in the Townships Official Plan and is zoned Low Density Residential 'R1A' in the Townships Zoning By-law. The properties surrounding the subject lands are also small residential holdings within the Hamlet.

Planning Staff have completed an analysis of the proposed Minor Variance application and can provide the following evaluation:

Does the Proposal Maintain the General Intent of the Official Plan? Yes
The property is designated as within the Hamlet Settlement Area of Wellandport, as well as Natural Heritage System in the Township's Official Plan. The purpose of the Townships Hamlet Settlement areas are to provide residential and associated commercial, institutional, and open space land uses within an existing and established hamlet settlement area of the Township. All recognized hamlet areas are designated as Hamlets in the Township Official Plan are consistent with the Niagara Official Plan. Residential uses and accessory residential uses are permitted within the Hamlet Settlement Areas.

The subject property also contains a small portion of Natural Heritage System. The specific portion of the Natural Heritage System that exists on this subject property is Environmental Conservation Area (Valley Shoreline and Significant Woodlands)

Township planning staff are of the opinion that the requested minor variances for Part 1 of the attached severance sketch meets the general intent and purpose of the Official Plan. as the dwelling has been existing with this established front yard setback since 1950's, and continues to fit the character of the surrounding agricultural area, the existing accessory building has been established in the current location since the dwelling was constructed as well.

Township staff are also of the opinion that the requested variance for the minimum frontage of Part 2 of the attached severance sketch meets the intent and purpose of the Official Plan. The intent of the Hamlet Settlement Area designation is to recognize and encourage further development within the defined Hamlet communities that provides both residential accommodation and a service function to the larger agricultural and rural community. This application also will provide an alternate place for residential uses to be accommodated outside of the Urban Area of Smithville and the Agricultural Area.

Although a 'flag' shaped property where there is minimal frontage for the driveway is not ideal, the lot is of a sufficient size to accommodate another lot and dwelling and the minimum lot frontage cannot be achieved for both lots.

Does the proposal maintain the general intent and purpose of the Zoning Bylaw? Yes
The subject property is currently zoned Low Density Residential 'R1A 'in the Township's

Zoning Bylaw. Following this consent application, the two parcels will remain zoned Low Density Residential 'R1A'. The applicant has applied for a Minor Variance application as a condition of consent. The Minor Variance application will recognize deficiencies on both Part 1 and Part 2 of the attached severance sketch.

Below are the proposed variance requests for Part 1 of the attached severance sketch in relation to the existing single detached dwelling.

Regulation 'R1A'	Requirement	Proposed
Min Front Yard Setback	7.5 metres	4.5 metres
Min Lot Frontage	45 metres	43.89
Min Interior Side Yard Setback	3 metres	4.6 metres
Min Rear Yard Setback	10 metres	+10 metres
Maximum Height	10 metres	-10 metres

Part 1 will recognize a deficient front yard setback to the existing house of 4.7 metres where 7.5 metres is required as well as a deficient lot frontage of 43.89 metres where 45 metres is required. As the existing single detached dwelling was constructed in the 1950's and its building footprint has not been altered or touched since, planning staff believe that this is considered legal non-conforming as the application is not looking to further increase the degree to which the front yard setback will be diverting from the Township's Zoning By-law 2017-70, as amended, staff feel that these variances can be supported.

Both lot frontages are deficient in size, however staff feel that the visibility on both parcels entrances satisfy the policies outlined in the Townships Zoning Bylaw.

Below are the proposed variance requests for Part 1 of the attached severance sketch in relation to the existing accessory building.

Regulation 'R1A' Accessory Building	Requirement	
Maximum Ground Floor Area	120 metres squared	120 metres squared
Interior Side Yard Setback	1.2 metres	1.1 metres
Rear Yard Setback	1.2 metres	+100 metres
Maximum Height	5 metres	5 metres
Minimum Setback from main building	1.5 metres	+1.5 metres

The second proposed variance on Part 1 is to recognize the existing accessory buildings side yard setback. This accessory building has existed on the property since 1947, a new accessory building was constructed and replaced in the same location in 2023. Planning staff had approved the interior side yard setback of 1.2 metres in 2023. However, the applicants site plan submitted with their Minor Variance application contained a 1.1 metre setback. Therefore, staff want to recognize the 0.1 metre deficiency.

Below are the proposed variance requests for Part 2 of the attached severance sketch:

Regulation 'R1A'	Requirement	Proposed
Min lot frontage	45 metres	12.88 metres

The applicant plans to eventually build a single detached dwelling on the newly created lot for his growing family and plans to eventually sell the existing dwelling. Based on staff's review, other than the required variances, the application outlined conforms to the Township's Zoning Bylaw 2017-70.

Is the Proposal desirable for the appropriate development or use of the land? Yes
The applicants are proposing a lot creation within the Hamlet Settlement Area of Wellandport, through this lot creation a variance application was required to recognize some existing deficiencies for the existing buildings and address new deficiencies as a result of the severance. The subject lands are currently being used for residential purposes and will continue to be used for residential purposes in the future as the applicant wishes to build a new dwelling on Parcel 2 in the next few years.

As this will continue expanding the hamlet settlement area and encourage growth within the hamlets with a newly created lot, staff feel that this is appropriate development and use of the land.

Is the proposal minor in nature? Yes
The subject application has been submitted in conjunction with Severance application B02024WL which is proposing to create two 1 acre lots in the Hamlet Settlement Area of Wellandport.

There are three requested variances on Parcel 1 of the attached severance sketch. The first variance is requesting a 3-meter reduction of the front yard setback to the existing dwelling. The proposed setback is 4.5 metres and 7.5 metres is required. The second variance is regarding the setback to the existing accessory building. Staff want to recognize a 0.1 metre deficiency in the interior side yard setback. The required interior side yard setback is 1.2 metres and the existing accessory building is about 1.1 metres. The third variance is to recognize the deficient lot frontage of 43.89 metres where 45 metres is required.

The requested variance on Part 2 of the attached severance sketch is requesting a 32.12 metre reduction in the required lot frontage from 45 metres to 12.88 metres, for a newly created lot in a Low Density Residential Zone (R1B). The proposed lot frontage continues to be wide enough to obtain an entrance permit from the regional road and provide safe access. As this proposal is creating a new lot, and recognizing and encouraging future development within the Hamlet Settlement Area staff feel that this proposal is minor in nature.

INTER-DEPARTMENTAL & AGENCY COMMENTS:
Notification was mailed to all applicable agencies and departments on August 6th 2024. A yellow sign was also posted on the property a minimum of 10 days before the hearing.

The Niagara Peninsula Conservation Authority provided comments on August 14th 2024. These comments stated that they have no objections to the proposed Minor Variances, however the subject properties are within the NPCA regulated areas, and any future development will require an NPCA review, approval and permits prior to the commencement of any works on site. Please see attachment 4 for full agency comments.

The Niagara Region had provided comments on August 15th 2024 as part of the consent application, and stated that they had no objections to the proposed minor variance application. See attachment 4 for full comments.

Township Public Works Department had provided comments on August 2nd and have stated that they have no objections to this application.

The Township Septic System Inspector had provided comments on August 15th 2024 relating to the proposed consent application. The Township Septic System Inspector has no objections to the proposed Minor Variance application.

PUBLIC COMMENTS:
Notification was mailed to all neighbouring properties within a 60 m radius of the subject lands on August 2nd 2024. A notice was posted to the Township's website on the same day and a yellow sign was posted on the property a minimum of 10 days before the hearing.

Administration staff have received no public comments regarding this Minor Variance Application.

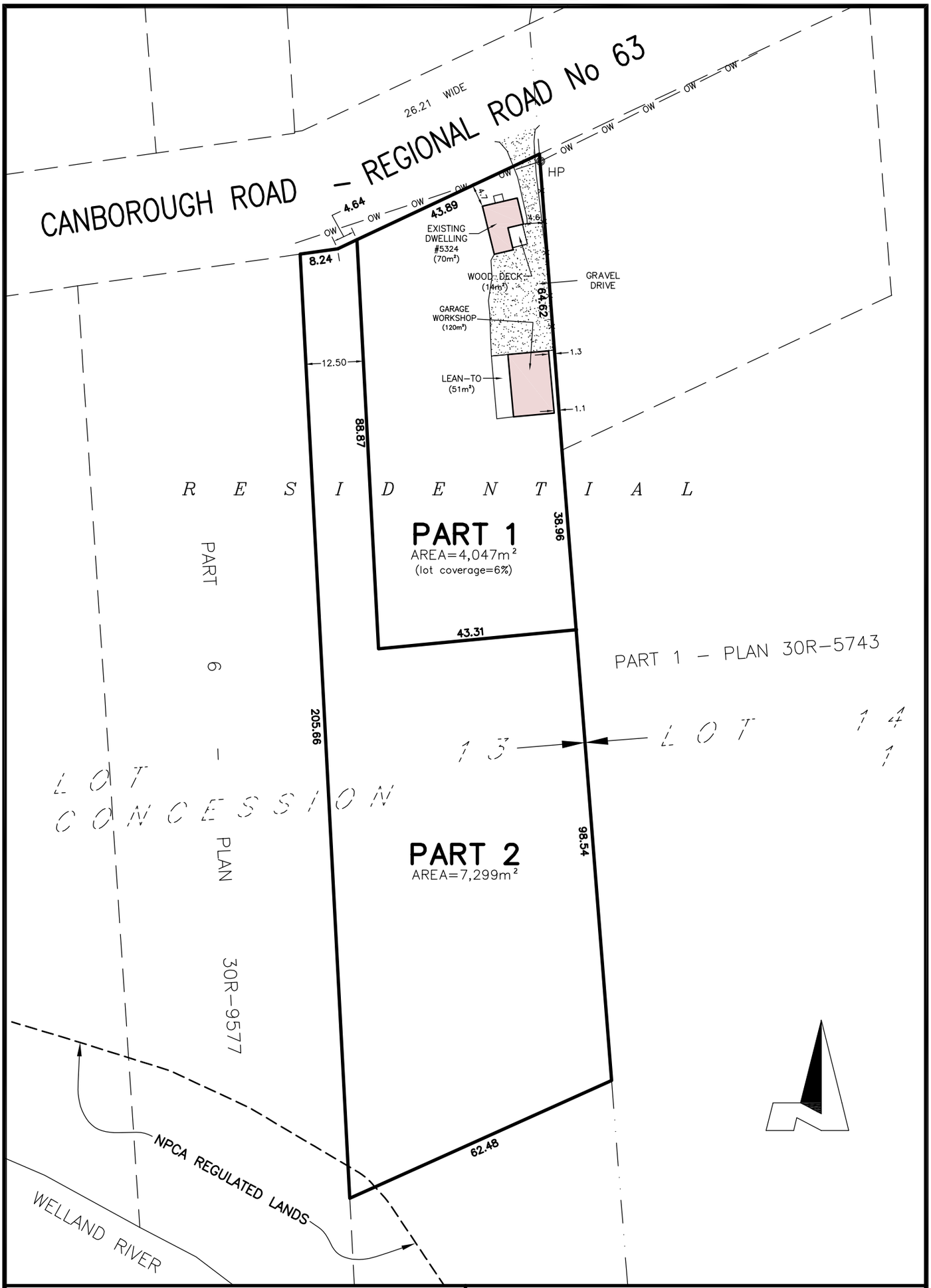
CONCLUSION:
Based on the above analysis, Planning Staff recommend APPROVAL of the proposed Minor Variance as outlined in Report COA-31-2024, submitted by Mark and Lauren Vandenberg, property owners at 5324 Canborough Road. This variance will permit an existing single detached dwelling with a front yard setback of 4.5 metres whereas 7.5 metres is required, an interior side yard setback to the existing accessory building of 1.1. metres where 1.2 metres is required, a lot frontage on Parcel 1 of 43.89 metres where 45 metres is required and a proposed lot frontage on Parcel 2 of 12.88 metres where 45 metres is required on Part 2.

ATTACHMENTS:
1. Severance Sketch
2. Hydrogeological Study
3. Archaeological Study
4. Agency Comments

Prepared & Submitted by: **Approved by:**

Madyson Etzl
Senior Planner

Gerrit Boerema, RPP, MCIP
Manager of Planning



SKETCH

PREPARED FOR SEVERANCE APPLICATION

PART OF LOT 13, CONCESSION 1

GEOGRAPHIC TOWNSHIP OF GAINSBOROUGH

IN THE

TOWNSHIP OF WEST LINCOLN

REGIONAL MUNICIPALITY OF NIAGARA

SCALE 1 : 1000 (METRIC)

NOTE: THIS SKETCH IS PREPARED FROM COMPILED AND CALCULATED INFORMATION, NOT FROM AN ACTUAL SURVEY.
ALL MEASUREMENTS ARE +/– MEASUREMENTS.
DO NOT SCALE FROM THIS DRAWING.

CAUTION: THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE INDICATED IN THE TITLE BLOCK.

"THIS IS NOT AN ORIGINAL COPY UNLESS EMBOSSED WITH SEAL"

DONALD G. CHAMBERS, B. Sc., O.L.S.

CHAMBERS AND ASSOCIATES SURVEYING LTD
12 THOROLD ROAD EAST
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(905) 735–7841 / 735–7844
FAX (905) 735–7333
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DATE MARCH 21, 2024 FILE No 24–11 (24011_SEV)

Terra-Dynamics Consulting Inc.
432 Niagara Street, Unit 2 St. Catharines, ON L2M 4W3

June 26, 2024

Mr. Mark VandenBerg
5324 Canborough Road
Wellandport, Ontario
L0R 2J0

Re: Hydrogeological Assessment, Consent (Severance), 5324 Canborough Road, Wellandport, Township of West Lincoln, Ontario

Dear Mr. VandenBerg,

1.0 Introduction, Background Information and Purpose

Mr. VandenBerg retained Terra-Dynamics Consulting Inc. (Terra-Dynamics) to complete a Hydrogeological Assessment to assess sewage impacts for a proposed residential consent (land severance) from 5324 Canborough located in the Hamlet of Wellandport, Township of West Lincoln (referred to herein as the Site) (Township, 2024) (refer to Figure 1). The consents consist of Part 1 which contains the existing dwelling with a lot size of 0.40 hectares (1.0 acre) and Part 2 which is approximately 0.73 hectares (1.8 acre) in size (refer to Appendix A, Russel Technical Services, 2024). This assessment's purpose is to assess the risk to groundwater supplies from the reduction in the size of Part 1 and its existing infrastructure, as well as the new private sewage system proposed for Parcel 2. The hydrogeological assessment is required by the Township of West Lincoln (Township), and Niagara Region, as the proposed lots are smaller than 1 hectare (Township, 2019, Niagara Region, 2022, respectively). The purpose of the assessment is to satisfy relevant municipal policies including:

1. Township of West Lincoln policy 18.13.5 Hamlet Settlement Area

   "The minimum lot size for lots created in a Hamlet designation shall be approximately 1.0 hectare as required to satisfy the Township Building Department and Part 8 of the Ontario Building Code for long term operation of a waste disposal system, unless a hydrological assessment determines that a smaller lot size will be adequate to accommodate private water and sewage treatment facilities."

2. Niagara Region Official Plan 2022 policy 4.1.9.2(b):

   " ...the minimum size of the proposed and retained lots shall each be 1 hectare unless it is determined through a hydrogeological study, that considers potential cumulative impacts, that a smaller size lot will adequately accommodate private water and sewage treatment facilities for long-term operation but not be less than 0.4 hectares..."

2.0 Methodology

Terra-Dynamics began the assessment once confirmation of the appropriateness of the Terms of Reference was received from Niagara Region (Niagara Region, 2024) and the Township of West Lincoln

(Township of West Lincoln, 2024). Our work program (as per the Terms of Reference) included the following components, described below.

2.1 Description of Geologic and Hydrogeologic Setting

The Site's geologic and hydrogeologic settings were described using published information to assess the aquifer's vulnerability and sensitivity, which included the following:

i. MECP water well records (refer to Figure 2, Appendix B);
ii. Ontario Geological Survey (OGS) nearby continuous boreholes (Figure 1, Burt, 2020, Appendix D);
iii. Available soil mapping and geologic golden spike boreholes (refer to Figure 1 and Appendix D); and
iv. Niagara Peninsula Source Protection Area Assessment Report (NPCA, 2013).

2.2 Water Well and Sewage System Survey

A water well and sewage system survey questionnaire, and explanation letter pertaining to the need for the survey, was mailed to neighbouring properties in March of 2024. A total of eight developed properties were identified within 100 metres of the Site that could receive a survey by mail. A copy of the questionnaire and information letter is provided in Appendix C.

2.3 Site Visit

The Site was visited by Terra-Dynamics on April 9, 2024, to assess site conditions and to complete the following (i) evaluation of any on-site or nearby private water supply wells, (ii) hand-augering at two locations to determine shallow soil conditions on-site, and (iii) submission of one representative soil sample for laboratory grain-size analyses.

2.4 Water Well Record Search and Documentation

Water well records located within 500 metres of the Site were mapped out using the Ministry of the Environment Conservation and Parks (MECP) water well records database. The locations of these water well records are provided on a map (refer to Figure 2) and well log information is summarized in Section 3.1 and included in Appendix B.

2.5 Assessment of Impact on Water Resources

The potential sewage effluent impacts to the groundwater flow regime and private wells were assessed using the provincial procedure D-5-4 (MECP, 1996a). As the new lot development will be provided potable water via cistern, this report does not include a water supply assessment (MECP, 1996b), and it is recommended that a development agreement be implemented that will indicate water supply by cistern only. There is currently an existing cistern and septic at the existing property on Parcel 1 (refer to Figure 4).

3.0 Hydrogeological Assessment

3.1 Ministry of Environment, Conservation and Parks (MECP) Water Well Records

MECP water well records located within 500 m of the Site were reviewed and three records were identified (refer to Figure 2 and Appendix B). The well records indicate that water is taken from the bedrock aquifer which is identified in the records as limestone, although it is Salina Formation dolostone, shale and gypsum (refer to Section 4.2). The thickness of the overlying clay is recorded as between 25.3 and 33.5 metres below ground surface (83 to 110 feet) (refer to Figure 3). The closest water well record is located approximately 100 m to the east (Water Well Record (WWR) #3800419).

The well records date from 1961 to 2020 and indicate that the wells were constructed primarily for domestic or farm water supply purposes. All the water well records indicate that the well casings extended to bedrock, and general water quality observations by the water well contractors described the water as fresh and/or sulphurous (refer to Appendix B).

3.2 Water Well and Sewage System Results

A water use and septic system survey was mailed in March, 2024 to the eight developed parcels located within 100 m of the Site (refer to Figure 2, Table 1, and Appendix C). No responses were received as of June 12, 2024, which is over 2 months since the mail-out. A low response rate is not uncommon in this type of assessment and does not impact the efficacy of the findings.

Table 1: Summary of Water Well Survey Results

Address	Comments
5340 Canborough Road	No response received
5336 Canborough Road	No response received
5316 Canborough Road	No response received
5294 Canborough Road	No response received
5298 Beavercreek Crescent	No response received
5304 Beavercreek Crescent	No response received
5335 Canborough Road	No response received
5344 Canborough Road	No response received

4.0 Physical Setting

The Site topography is classified by Agriculture Canda (2024) as slope class A (little or no slope) to the south towards the Welland River, with a ground surface elevation ranging between 179 and 177 metres above sea level (m ASL) (refer to Figure 2). The Site is within the Welland River watershed, however, there are no mapped watercourses on the Site (refer to Figure 2). There are also no tile drains mapped for the Site (OMAFRA, 2024). No watercourses or waterbodies were observed during the site visit on April 9, 2024. The site plan (refer to Appendix A) displays "NPCA Regulated Lands" in the southwest portion of the property on the proposed Parcel 2, the available online mapping from the NPCA

Watershed Explorer indicates that this line designates a "Top of Slope Allowance" as noted in Appendix A.

4.1 Soils

The Site is located on the Haldimand Clay Plain physiographic region (Chapman and Putnam, 1984). The soil for the Site is mapped as Brantford soil (i.e mainly lacustrine silty clay) and the adjacent lands immediately to the south are mapped as modern alluvium (i.e. fine-textured floodplain deposits) (OMAFRA, 2024) (refer to Appendix D). Brantford soils are classified as moderately to poorly drained silty clay overlying glaciolacustrine silty clay parent material (OMAFRA, 1989). Brantford soils are associated with Beverly Soils and are depicted as such below in Figure 5 (OMAFRA, 1989).

The soils on the Site have been assigned a Hydrologic Soil Group C characterized as moderately fine to fine textured with slow infiltration rates (OMAFRA, 2024) (refer to Appendix D).

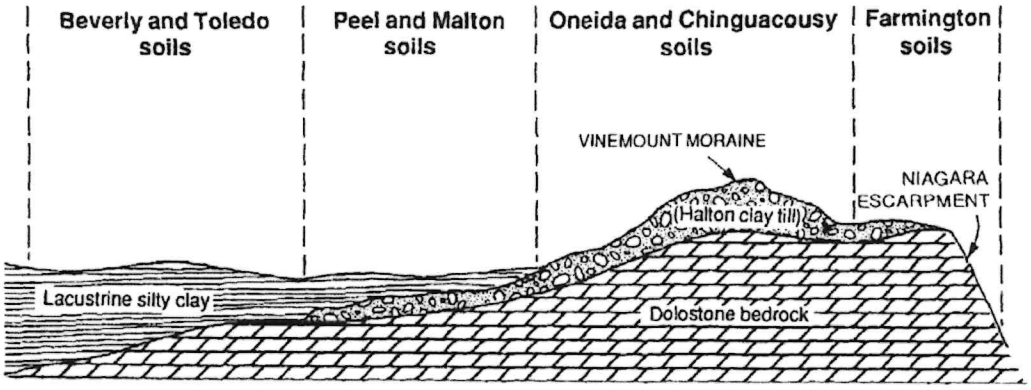


Figure 5 – Schematic cross-section showing the relationship of soils on the Haldimand Clay Plain (OMAFRA, 1989)

Soil samples were collected by hand-auger at each of the two Parts (Figure 2) on April 9, 2024, and one representative sample, HA-1 was submitted for laboratory grain-size analyses (Appendix D). This sample was collected from below 80 cm depth and is compared to Horizon C values for the mapped soil types (Table 2).

Table 2 – Horizon C Grain-size Analyses Summary

Soil Name/Location	Gravel%	Sand%	Silt%	Clay%	Texture[1]
Brantford Soil[2]	0	6	45	49	Silty Clay
HA-1	0	3	35	65	Silty Clay

Note: [1] - Texture as per Fetter (1994), [2] - Kingston and Presant, 1989

4.2 Overburden geology

The surficial geology of the Site is mapped as clay and silt associated with fine-textured glaciolacustrine deep water deposits (refer to Figure 2) (OGS, 2003), and the overburden was regionally mapped as 28 metres thick at the Site (NPCA, 2013). This correlates well with the hydrogeologic section provided on Figure 3, as the depth to bedrock at the Site was approximately between 25.3 and 33.5 metres based on previously mentioned nearby water well records (refer to Section 3.1).

4.3 Bedrock Geology

The underlying bedrock is mapped as the Salina Formation shale, dolostone and gypsum (Armstrong and Dodge, 2007). The bedrock topography dips regionally to the south (NPCA, 2013), and is at approximately 152 m ASL beneath the Site based on available mapping and nearby water well records (refer to Section 3.1, Appendix B, and Figure 3).

4.4 Hydrogeologic Setting

4.4.1 Overburden Aquitard and Water Table

The Site is in mid-way between Ontario Geological Survey (OGS) boreholes BH07-NP-2014, BH29-NP-2014, BH34-NP-2014, and BH90-NP-2014 (Burt, 2020, Appendix D) (refer to Figure 1). These boreholes identify the uppermost clay and silt as the Upper Whittlesey Aquitard overlying the silt/clay diamicton of the Upper Halton, Lower Whittlesey, and Wentworth Aquitards (Burt, 2020) (refer to Appendix D). This is consistent with the classification of this upper glaciolacustrine unit as an overburden aquitard by Gartner Lee Limited (GLL), with the hydraulic conductivity of this silty clay aquitard expected to be $7x10^{-7}$ m/s or less (GLL, 1987).

Two shallow soil samples were collected from the Site using a hand-auger during the April 9, 2024 site visit (Section 4.1) One of these samples, HA-1, which was collected from a depth of 0.80 m BGS, was submitted for laboratory grain-size analyses (Appendix D). The Excel-tool HydrogeoSieveXL (Devlin, 2015) was used to process the grain-size analyses to provide a shallow soil hydraulic conductivity estimate of $6x10^{-11}$ m/s for HA-1 (Appendix D). This result is within published ranges for clay (Fetter, 1995).

Gartner Lee Limited (1987) provides a good description of the expected water table conditions within the overburden aquitard:

> *"Detailed studies indicate that the water table fluctuates over the weathered/fractured upper two to three metres of the glaciolacustrine silts and clays comprising the overburden aquitard...flow in this shallow zone responds to daily climatic changes such that, during precipitation, the open fractures from weathering will quickly fill with water. The bulk of the discharge will then occur locally in swales that carry intermittent surface water .... The remainder will go to depth to recharge the ground water system."*

Groundwater flow in the overburden aquitard is expected to follow topography to the southeast (refer to Figure 2) while being limited in velocity by the low hydraulic conductivity (Haitjema and Mitchell-Bruker, 2005).

This overburden aquitard is protecting the underlying bedrock aquifer. The thickness of the low permeability overburden materials has been mapped between 25.3 and 33.5 metres at and around the Site as summarized in the hydrogeologic section provided on Figure 3 and in the OGS borehole information provided in Appendix D (Burt, 2020), which shows this overburden aquitard protecting the bedrock (Salina Formation) aquifer from land use activities (i.e. private sewage disposal) at ground surface.

4.4.2 Bedrock Aquifer and Groundwater Flow

The uppermost part of the bedrock is an aquifer where weathered, having "*...a higher hydraulic conductivity than the same formation at depth...attributed to weathering of the bedrock surface...*" (GLL, 1987). The potentiometric surface of the bedrock aquifer is approximately 175-173.6 m ASL (refer to Figure 3) with regional flow towards the northwest (NPCA, 2013). Water quality in the Salina Formation bedrock aquifer has been measured to have several water quality treatment challenges including hydrogen sulphide, sodium, sulphate, chloride, iron and manganese above Ontario Drinking Water Quality Aesthetic Objectives (Campbell and Burt, 2016).

4.4.3 Confined Bedrock Aquifer Conceptual Model

The Section 4.0 information is summarized in the schematic below, as a conceptual model for the assessment of potential sewage system impacts to groundwater and private wells (refer to Figure 5).

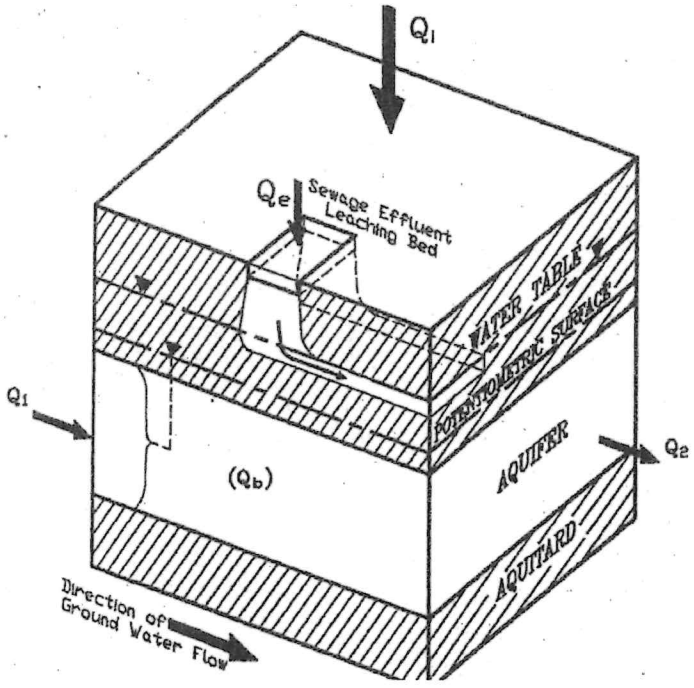


Figure 6 - Confined Aquifer Impact Assessment Subsurface Sewage System (MECP, 1995)

5.0 Assessment of Potential Sewage Impacts

Provincial Procedure D-5-4 (MECP, 1996) provides an assessment process for assessing the groundwater impact potential of private sewage systems. The purpose of the assessment process "*is to ensure that the combined effluent discharges from all the individual on-site sewage systems in a development will have a minimal effect on the groundwater and the present or potential use of the adjacent property*" (MECP, 1996).

This assessment process involves two main steps: (i) consideration of system isolation and (ii) contaminant attenuation, as visualized below in Figure 7.

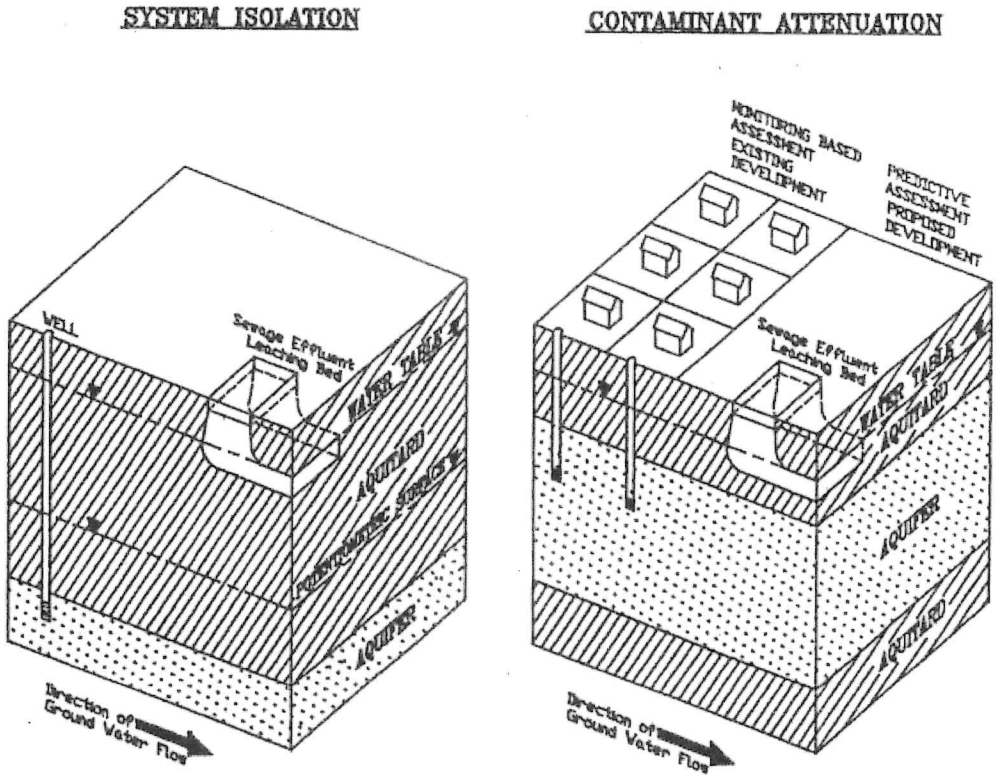


Figure 7– Water Quality Assessment Process (MECP, 1995)

5.1 System Isolation

As stated in Provincial Procedure D-5-4:

> *"Developments will normally be considered as low risk where it can be demonstrated that sewage effluent is hydrogeologically isolated from ... supply aquifer(s)"* (MECP, 1996).

The Design Guidelines for Sewage Works (MECP, 2008) provide criteria for evaluation of sewage system isolation from the underlying bedrock aquifer:

> *"Where it can be shown that the uppermost subsurface unit(s) at an infiltration facility have a vertical hydraulic conductivity of 10^{-5} cm/sec* (10^{-7} m/sec) *or less, is at least 10 metres (33 feet) thick and extends at least 100 m (330 ft) downgradient of the infiltration area, attenuation calculations may not be required."*

The surficial aquitard has a sufficiently low hydraulic conductivity (Section 4.3.1), and mapping of the aquitard thickness shows over 10 metres of material at the Site (refer to Section 4.1 and Figure 3).

Consequently, private sewage servicing of the proposed severance is (i) a low risk to the water supply aquifer, and (ii) nearby water supply wells, because the Site is hydrogeologically isolated from the bedrock aquifer. This conclusion is based upon the following:

- The bedrock aquifer has been mapped as having low intrinsic susceptibility (WHI, 2005); and
- The thickness and extent of the underlying aquitard is greater than the 10 m MECP criterion for hydrogeologic isolation.

As there is considerable consistent documentation confirming these conditions at the Site, no new collection of geologic information is required.

Further responding to the guidance of Provincial Procedure D-5-4 under Step 2, it is worth noting that the effluent will infiltrate into the surficial clay and silt soils, become anaerobic, and consequently denitrify (Robertson et al, 1996). No sewage effluent will enter the water supply aquifer, hence *"the lot density of the proposed development may be dictated by... the need for sewage system replacement areas... and by the minimum distances... as defined by Ontario Regulations..."* (MECP, 1996).

Consequently, no Step 3 contamination attenuation calculations are required to be completed, because:

> *"...where it has been demonstrated that the sewage effluent will not enter supply aquifers, the lot density of the proposed development may be dictated by factors such as the need for sewage system replacement areas, and by the minimum distances between individual on-site beds and wells* (or cisterns)*, as defined by Ontario Regulations..."* (MECP, 1996)

5.2 Sewage System Effluent Disposal Location Considerations

Future sewage system effluent disposal locations (e.g. raised leaching or filter bed) are constrained by a series of Part 8 Ontario Building Code set-backs including at least 15 metres from a cistern (referred to as a reservoir in the code) (Refer to Figure 4). In addition, the current septic bed for the dwelling on Part 1 exerts a set-back for the future cistern on Part 2.

No water supplies have been identified outside of the Site within 30 metres. Therefore, there is no reason to exert external building code set-backs on the proposed severances.

6.0 Conclusions and Recommendations

6.1 Conclusions

The following conclusions are provided:

1. The existing residence (Part 1) and the proposed consent (severance, Part 2) are isolated from the underlying water supply aquifer; and

2. There are no hydrogeological-based impediments to site development as long as the following recommendations are implemented.

6.2 Recommendations

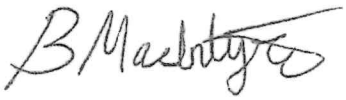
The following recommendations are provided for your consideration:

1. A private sewage system and cistern may be sustainability created on the consent area (Part 2) of 0.73 ha (1.8 acre) as long as Ontario Building Code set-backs are met; and

2. A development agreement should be completed indicating that the water supplies will be by cistern.

We trust this information is sufficient for your present needs. Please do not hesitate to contact the undersigned if you have any questions.

Yours truly,
TERRA-DYNAMICS CONSULTING INC.



Briar MacIntyre, B.Sc., P.Geo.
Environmental Geologist

Attachments
Figure 1 - Location of Site
Figure 2 – Regional Details
Figure 3 – Hydrogeologic Cross-Section
Figure 4 - Site Details
Appendix A – Site Plan
Appendix B – MECP Water Well Records
Appendix C – Water Use and Septic System Survey
Appendix D – Supporting Information

7.0 References

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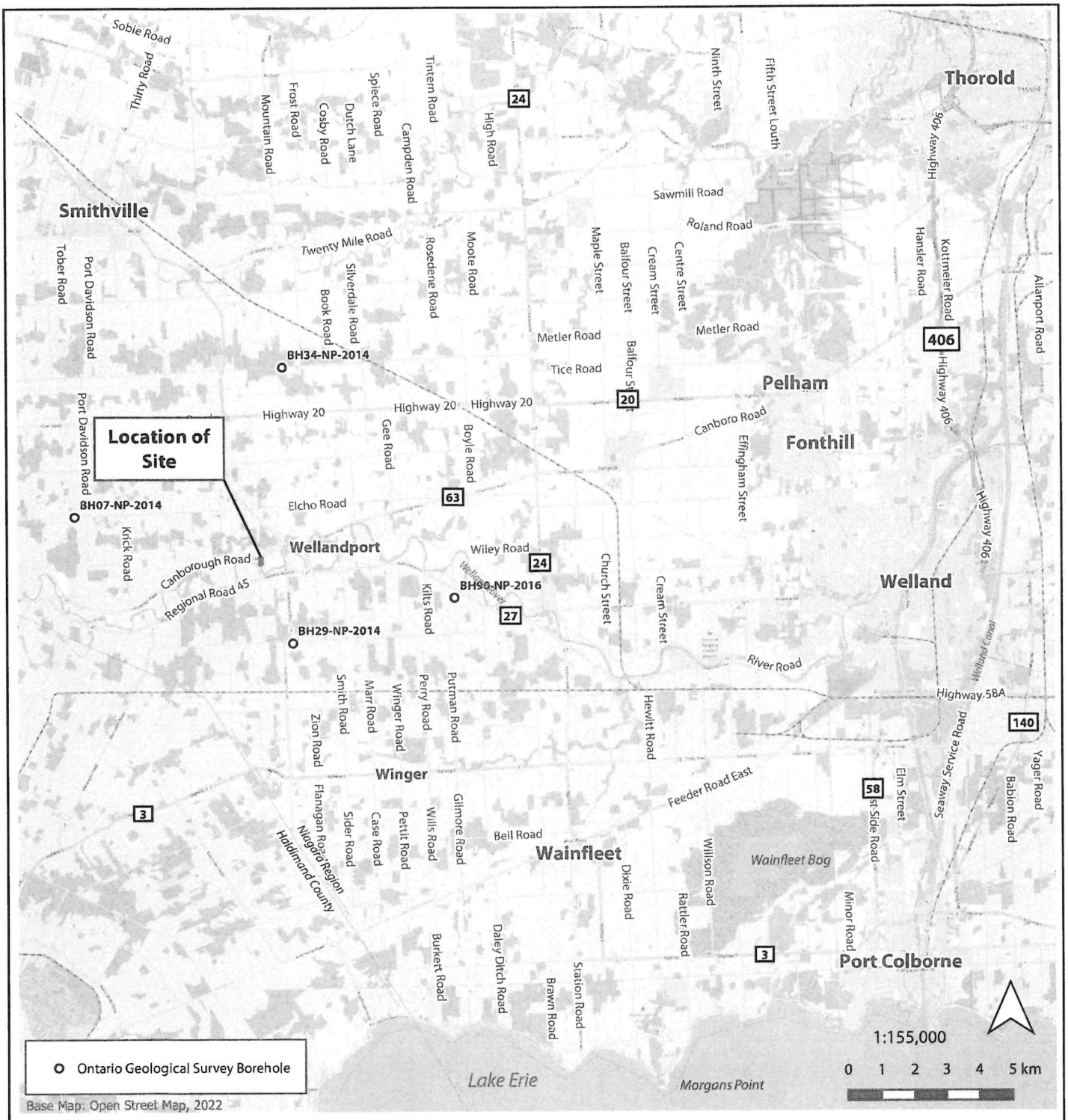
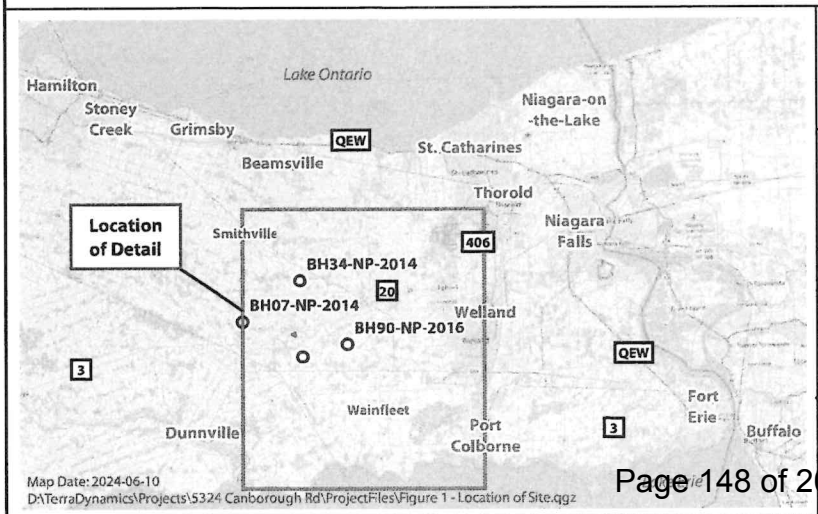
Figures





Location of Subject Lands

5324 Canborough Road, Wellandport, ON
Hydrogeological Assessment

Terra-Dynamics Consulting Inc.

Prepared for:
Mark VandenBerg

Figure 1

MECP Water Well Records Within 500m of Site

Hand Auger Locations

Contour (1m)

Line Of Hydrogeologic Cross-Section A-A'

Site

Proposed Consents

100m Buffer for Water Well Survey

Watercourse

Waterbody

Subwatershed Boundary

Surficial Geology

Clay and silt

Clay, silt, sand and gravel, with organic matter

References: Niagara Peninsula Conservation Authority: Contemporary Mapping of Watercourses, 2018; Subwatersheds. Ontario Geological Survey: Surficial Geology. Ministry of the Environment, Conservation and Parks: Water Well Information System Records 2022.

Map Date: 2024-06-24 D:\TerraDynamics\Projects\5324 Canborough Rd\ProjectFiles\Figure 2 - Regional Setting.qgz

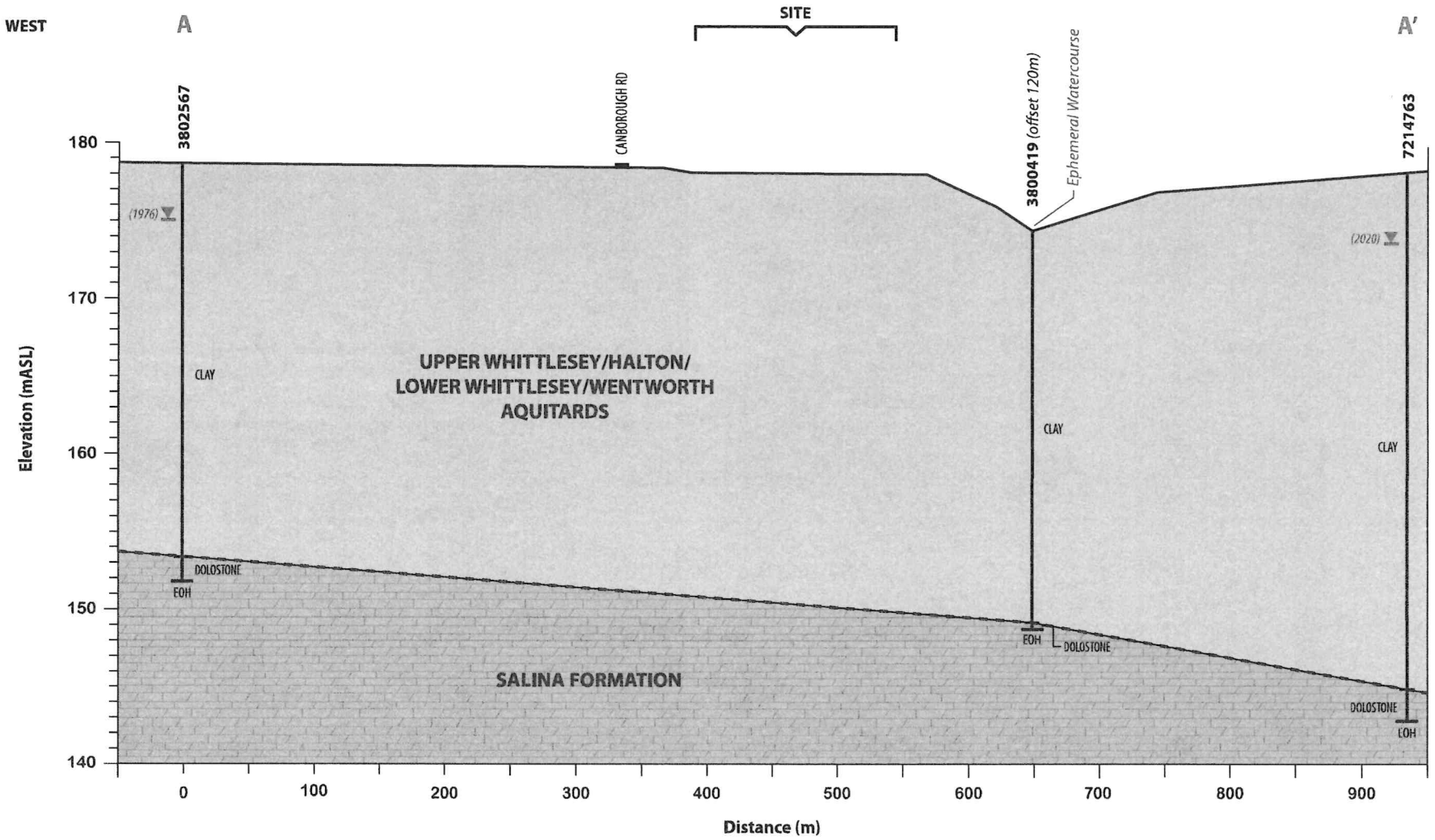
Regional Setting

5324 Canborough Road, Wellandport, ON
Hydrogeological Assessment

Terra-Dynamics Consulting Inc.

Prepared for:
Mark VandenBerg

Figure 2



▼ Well Water Level on date as noted

EOH End of Hole

See Figure 2 for line of cross-section

Hydrogeologic Cross-Section A-A'	
5324 Canborough Road, Wellandport, ON Hydrogeological Assessment	
Terra-Dynamics Consulting Inc.	
Prepared For: Mark VandenBerg	Figure 3

D:\TerraDynamics\Projects\5324 Canborough Rd\ProjectFiles\Figure 3 - Cross Section A-A'ai June 11, 2024

MECP Water Well Record Within 100m of Site

Hand Auger Locations

Contour (1m)

Watercourse

Approximate Location of Septic Bed and Mantle

Septic Bed

Mantle

15m Buffer of Existing Septic

Existing Cistern

15m Buffer of Cistern

Site

Proposed Consents

100m Buffer for Water Well Survey

Site Details

5324 Canborough Road, Wellandport, ON
Hydrogeological Assessment

Terra-Dynamics Consulting Inc.

Prepared for: Mark VandenBerg

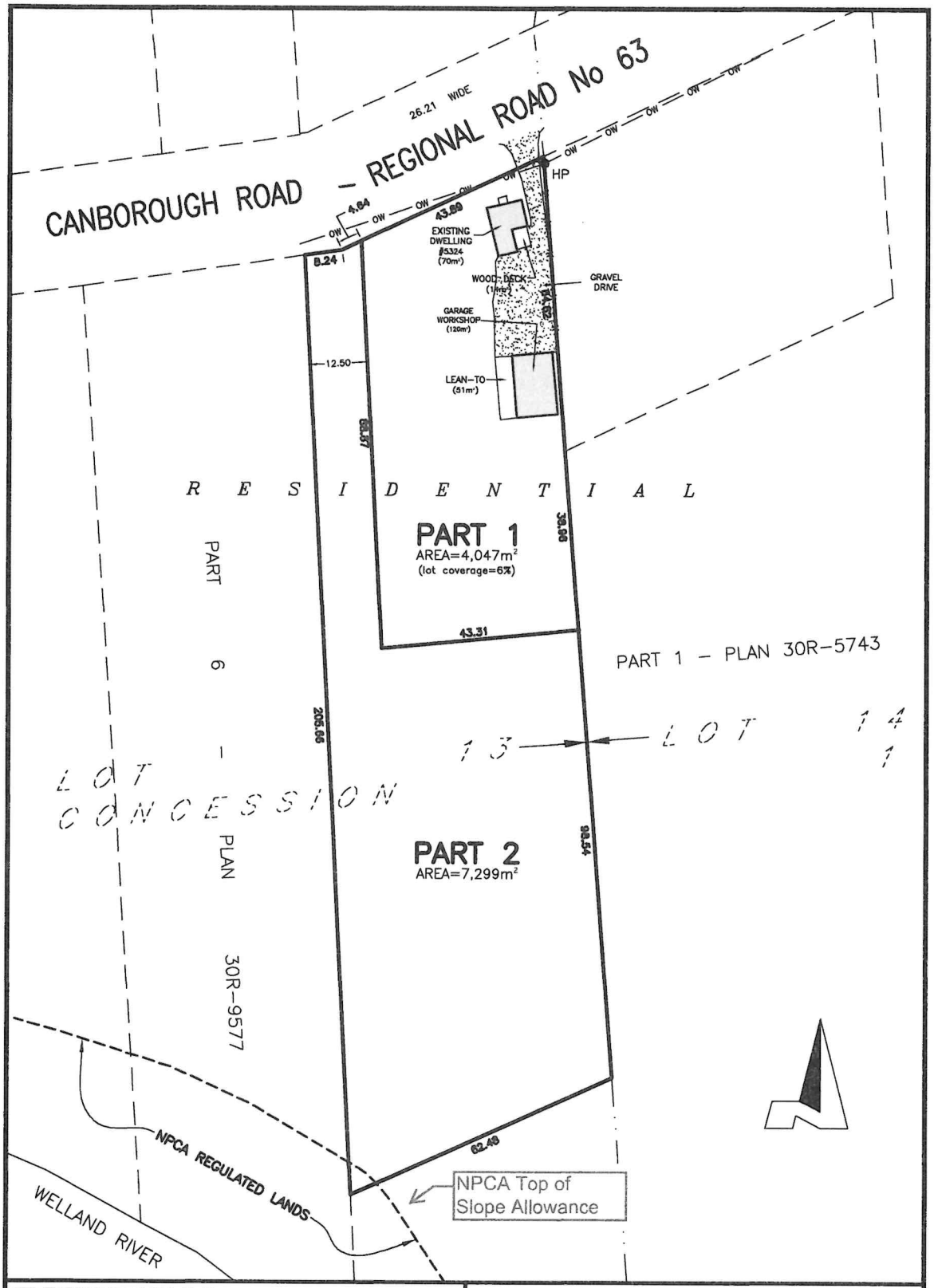
Figure 4

References: Niagara Peninsula Conservation Authority: Contemporary Mapping of Watercourses, 2018; Subwatersheds. Ontario Geological Survey: Surficial Geology. Ministry of the Environment, Conservation and Parks: Water Well Information [illegible] Record, 2022.

Map Date: 2024-06-25 D:\TerraDynamics\Projects\5324 Canborough Rd\ProjectFiles\Figure 4 - Site Details.qgz

Appendix A

Preliminary Site Plan



SKETCH

PREPARED FOR SEVERANCE APPLICATION

PART OF LOT 13, CONCESSION 1

GEOGRAPHIC TOWNSHIP OF GAINSBOROUGH

IN THE

TOWNSHIP OF WEST LINCOLN

REGIONAL MUNICIPALITY OF NIAGARA

SCALE 1 : 1000 (METRIC)

NOTE: THIS SKETCH IS PREPARED FROM COMPILED AND CALCULATED INFORMATION, NOT FROM AN ACTUAL SURVEY.
ALL MEASUREMENTS ARE +/- MEASUREMENTS.
DO NOT SCALE FROM THIS DRAWING.

CAUTION: THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE INDICATED IN THE TITLE BLOCK.

"THIS IS NOT AN ORIGINAL COPY UNLESS EMBOSSED WITH SEAL"

DONALD G. CHAMBERS, B. Sc., O.L.S.

CHAMBERS AND ASSOCIATES SURVEYING LTD
12 THOROLD ROAD EAST
WELLAND ONTARIO
L3C 3T2
(905) 735-7841 / 735-7844
FAX (905) 735-7333
www.casl-surveying.com

DATE MARCH 21, 2024 FILE No 24-11 (24011_SEV)

Appendix B

Water Well Records

UTM Z E
R N
Elev. F
Basin 24

Con 1
Lot 14

The Ontario Water Resources Commission Act, 1957

GROUND WATER BRANCH
38 No. 419
JAN 5 1961
ONTARIO WATER RESOURCES COMMISSION

WATER WELL RECORD

WEST LINCOLN

County or District Lincoln Township, Village, ~~Town or City~~ Gainsboro

[redacted] te completed 20 (day) Dec. (month) 60 (year)

[redacted] dress Wellandport

Casing and Screen Record

Inside diameter of casing 5"
Total length of casing 83'
Type of screen —
Length of screen —
Depth to top of screen —
Diameter of finished hole 5"

Pumping Test

Static level Flows
Test-pumping rate 10 G.P.M.
Pumping level 5"
Duration of test pumping 30 min
Water clear or cloudy at end of test Clear
Recommended pumping rate 10 G.P.M.
with pumping level of 5"

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
Clay	0'	83'			
Limestone	83'	84'	84'	84'	some sulphur

For what purpose(s) is the water to be used?
Farm purposes

Is well on upland, in valley, or on hillside?
Valley

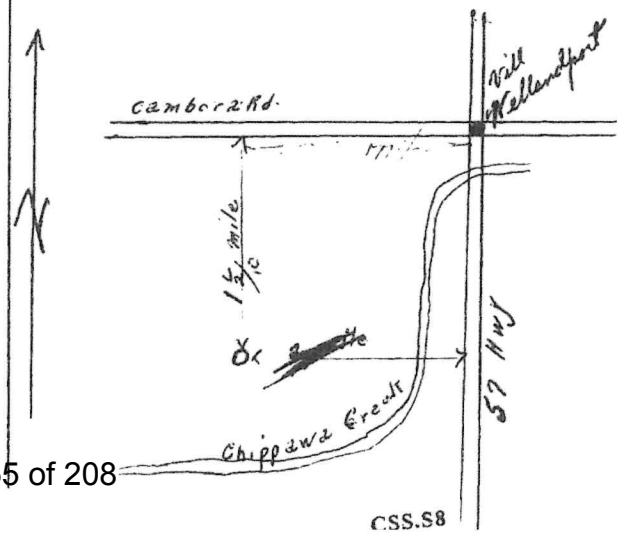
Drilling Firm Frank Merritt
Address R. R. 1, Smithville, Ont.

Licence Number 443
Name of Driller Frank Merritt
Address R. R. 1, Smithville, Ont.
Date Dec 31 / 60

Frank Merritt
(Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 5

CSS.S8

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

30m/30d

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 3802567 | MUNICIP. 38003 | CON. CON | 01

COUNTY OR DISTRICT: Niagara (S. Lincoln) | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Caistorborough | CON., BLOCK, TRACT, SURVEY, ETC.: Con 1 | LOT: 013

OWNER (SURNAME FIRST): B.M.C Construction | ADDRESS: 8 Greenwood Ave St. Catherines | DATE COMPLETED: DAY 30 MO 09 YR 76

21 | UTM ZONE 17 | EASTING 622540 | NORTHING 4761980 | ELEVATION 05586 | BASIN CODE 4 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	clay		packed	0	20
grey	clay		dense	20	60
brown	clay	gravel	packed	60	83
grey	shale		layered	83	86-6"
grey	limestone			86-6"	87

31 | 00206057A | 00602056G | 00836051179 | 00872177A | 00872157

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0086-87	1 FRESH 3 SULPHUR ☒ MINERAL; 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR; 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR; 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR; 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR; 2 SALTY 4 MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
06	☒ STEEL; GALVANIZED; CONCRETE; OPEN HOLE	.188	0	86-6
6	STEEL; GALVANIZED; CONCRETE; ☒ OPEN HOLE		86-6	87
	STEEL; GALVANIZED; CONCRETE; OPEN HOLE			

0087

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
10-13	14-17	
18-21	22-25	
26-29	30-33	

71 PUMPING TEST

PUMPING TEST METHOD: 1 PUMP 2 ☒ BAILER | PUMPING RATE: 0014 GPM | DURATION OF PUMPING: HOURS 01 MINS 00

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
012 FEET	030 FEET	012 FEET	012 FEET	012 FEET	012 FEET

1 ☐ PUMPING 2 ☒ RECOVERY

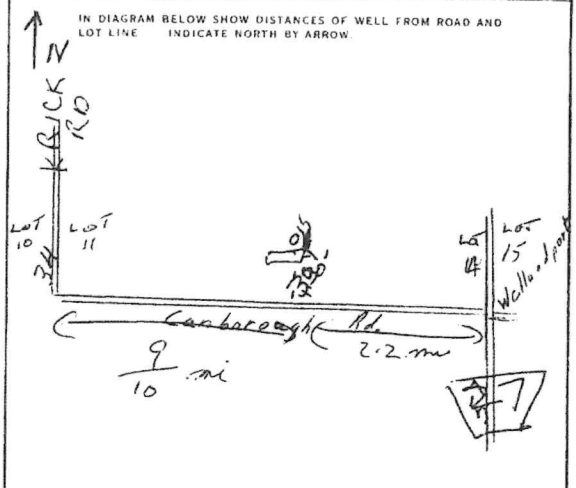
IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP | RECOMMENDED PUMP SETTING: 060 FEET | RECOMMENDED PUMPING RATE: 0012 GPM

GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL 54: 1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED INSUFFICIENT SUPPLY; 6 ☐ ABANDONED POOR QUALITY; 7 ☐ UNFINISHED

WATER USE 55-56: 01 — 1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; ☐ OTHER; 9 ☐ NOT USED

METHOD OF DRILLING 57: 1 ☒ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☐ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Donald Merritt | LICENCE NUMBER: 3640

ADDRESS: RR#1 Smithville

NAME OF DRILLER OR BORER: Donald Merritt | LICENCE NUMBER: 3640

SIGNATURE OF CONTRACTOR: Donald Merritt | SUBMISSION DATE: DAY 4 MO Oct YR 1976

OFFICE USE ONLY

DATA SOURCE 58: 1 | CONTRACTOR 59-62: 3640 | DATE RECEIVED 63-68: 131076

DATE OF INSPECTION: Aug 16/77 | INSPECTOR: JMT

REMARKS:

P

WI

CSS.S8

MINISTRY OF THE ENVIRONMENT COPY

FORM 7

Ontario — Ministry of the Environment, Conservation and Parks

Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag No. *(Place Sticker and/or Print Below)* Tag#:A268408

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name): 5274 Canborough Rd

Township: West Lincoln

Lot: \ Concession: \

County/District/Municipality: Niagara Region

City/Town/Village: Wellandport

Province: Ontario

Postal Code: L0R2J0

UTM Coordinates: NAD | Zone: 8 | Easting: 17T0623495 | Northing: 4780179

Municipal Plan and Sublot Number: UTM 4762257

Other:

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
Brown	clay			0	4
Grey	clay			4	20
Red	clay			20	110
Grey	limestone		Bedrock	110	116.7

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	21	Bensee1	5 BAGS

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☒ Air percussion ☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, specify FARM

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
6"	steel	188	0	110

Status of Well

☒ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Abandoned, other, specify FARM ☐ Other, specify

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Water Details

Water found at Depth (m/ft)	Gas	Other, specify	Kind of Water: Fresh ☒ Untested
108	☐	☐	
	☐	☐	☐ Fresh ☐ Untested
	☐	☐	☐ Fresh ☐ Untested

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	20	10"
20	116.7	6"

Results of Well Yield Testing

After test of well yield, water was: ☒ Clear and sand free ☐ Other, specify

If pumping discontinued, give reason: ~

Pump intake set at (m/ft): 65

Pumping rate (l/min / GPM): 10

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 25.1

If flowing give rate (l/min / GPM): ~

Recommended pump depth (m/ft): 65

Recommended pump rate (l/min / GPM): 10

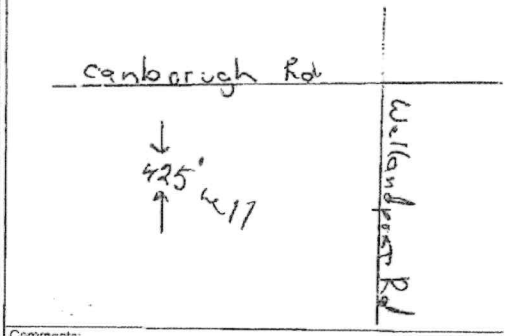
Well production (l/min / GPM): 20

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	15.6		25.1
1	20.1	1	19.2
2	21.9	2	16.2
3	22.5	3	15.6
4	23.0	4	15.6
5	23.2	5	15.6
10	23.8	10	15.6
15	24.1	15	15.6
20	24.3	20	15.6
25	24.5	25	15.6
30	24.6	30	15.6
40	24.9	40	15.6
50	25.0	50	15.6
60	25.1	60	15.6

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor: FIELDWELL DRILLING INC

Well Contractor's Licence No.: 7713

Business Address (Street Number/Name): 4622 Spring Creek Rd

Municipality: Vineland

Province: ONT

Postal Code: L0R2C0

Business E-mail Address: fieldwelldrilling@gmail.com

Bus. Telephone No. (inc. area code): 9059941341

Name of Well Technician (Last Name, First Name): FIELD MARSHALL

Well Technician's Licence No.: TO365

Signature of Technician and/or Contractor

Date Submitted: 2020/07/14

Well owner's information package delivered ☑ Yes ☐ No

Date Package Delivered: 2020/07/14

Date Work Completed: 2020/06/30

Ministry Use Only

Audit No. Z329623

Received JUL 23 2020

0506E (2018/12)

Ministry's Copy

Appendix C

Well Use & Septic System Survey

Terra-Dynamics Consulting Inc.
432 Niagara Street, Unit 2 St. Catharines, ON L2M 4W3

March 8, 2024

Dear Resident:

On behalf of Mr. Mark VandenBerg Terra-Dynamics Consulting Inc. is completing a water well and septic system survey as part of a Hydrogeological Study of 5324 Canborough Road. This is a survey of properties in the vicinity of 5324 Canborough Road, as shown on the attached map (Site). We are seeking to map nearby private wells in order to ensure protection of water quantity and quality as part of future residential development. This well and septic system survey is a recommended part of a hydrogeologic, or groundwater, study of the subject lands which informs water supplies and septic system designs and locations. This is a standard questionnaire for properties on private services.

The purpose of this survey is to collect information on private or residential water wells, cisterns and septic systems within approximately 100 metres of the Site (as shown by the outline on the attached map). **Participation is voluntary.** Participation involves completing the attached questionnaire on municipal, well and/or cistern use, groundwater quantity, quality and your septic system. Please complete it as best as you can. Please fill out the questionnaire and mail it back to Terra-Dynamics Consulting Inc. in the self-addressed and stamped envelope. The information you provide will be summarized in our report and personal information (e.g. name, address, etc.) will be kept confidential and will not be included in our report.

If you have any questions about the questionnaire, please contact Briar MacIntyre at 905-906-2311 or via email at bmacintyre@terra-dynamics.com.

Thank you in advance for your assistance.

Yours truly,

TERRA-DYNAMICS CONSULTING INC.

B MacIntyre

Briar MacIntyre, P.Geo.
Environmental Geologist

Legend

100m Buffer

Address Points

Water Well and Septic System Survey Area- 100m from 5324 Canborough Rd

0.04 0.08 0.16 0.24 0.32 km

Date: 2024-03-08 Time: 10:06 AM

Terra-Dynamics Consulting Inc.
432 Niagara Street, Unit 2 St. Catharines, ON L2M 4W3

WATER WELL SURVEY FORM

Date:_____

Contact Person:_____

Property Address:_____

Telephone: _____

Email (if further information requested): _____

1.0 GENERAL QUESTIONS

Do you know your drinking water source? Please circle one or more of the following three options:

1.Well (20+ feet casing) 2.Shallow Well (less than 20 feet of casing)
3.Cistern 4. Municipal

Further comments:

_____

_____

Use page 3 or a separate sheet of paper for additional comments.

If your water supply is from a cistern, the rest of the questions do not apply. If you have both a cistern and a well, please complete the well questionnaire (Section 2.0 or 3.0). Please let us know where your place is located either on the supplied map or the area for a sketch on the second last page of this form. Please mail the completed form back to Terra-Dynamics in the provided envelope. Thank you for your assistance.

- If you have a drilled deep well (20+ feet of casing) please complete Sections 2 & 4
- If you have a shallow well (less than 20 feet of casing), please complete Sections 3&4

2.0 DRILLED WELL (greater than 20 feet of casing)

How deep is your well?_____

Is your well drilled into rock?_____What is the well casing diameter?_____

Do you know when your well was drilled?_____

Do you know the name of the well driller?_____

905-646-7931 Fax: 905-935-0397 www.terra-dynamics.com

Do you have a well log? (i.e. a description of the geology encountered when drilling your well and if yes, can you supply a copy or write down the information in the Comments Section).

_____

What is the use of your well water? (i.e. drinking water for house, garden irrigation, etc.)

_____

Has your well ever run dry? _____

Do you experience problems with taste, colour or odour? (if yes, please explain).

_____

Do you have any water purification systems for your well water? (i.e. water softeners, UV Light for bacteria, Sulphur/Iron Filter for odour or staining, etc.).

_____

Do you perform regular maintenance on your well? (i.e. pump service, silt removal, etc.)

_____

3.0 SHALLOW WELL (less than 20 feet of casing)

What is the well casing material and diameter? _____

What is the expected age of the well? _____

How deep is the well? _____

Does you utilize a jet pump or a submersible pump?_____

Is there problems with water quality (colour, odour, etc.)? Yes_____ No_____

If yes, please explain_____

Do you have any water purification systems for your dug well water? (i.e. water softeners, UV Light for bacteria, Sulphur/Iron Filter for odour or staining, etc.).

_____

Have you ever experienced freeze-up during the winter?_____

What is the use of your shallow dug well water? (i.e. drinking water for house, irrigation, etc.)

_____

Has your dug well ever run dry?

Do you perform regular maintenance on your pump? (i.e. pump service, silt removal)

Additional comments:

4.0 LOCATION MAP

Can you please draw a sketch map of the location of your well(s), septic tank and sewage bed on your property (please show the location relative to buildings and roads).

SKETCH MAP OF WELL(S) and SEWAGE SYSTEM LOCATIONS

Other Comments: (Use a separate sheet, if required)

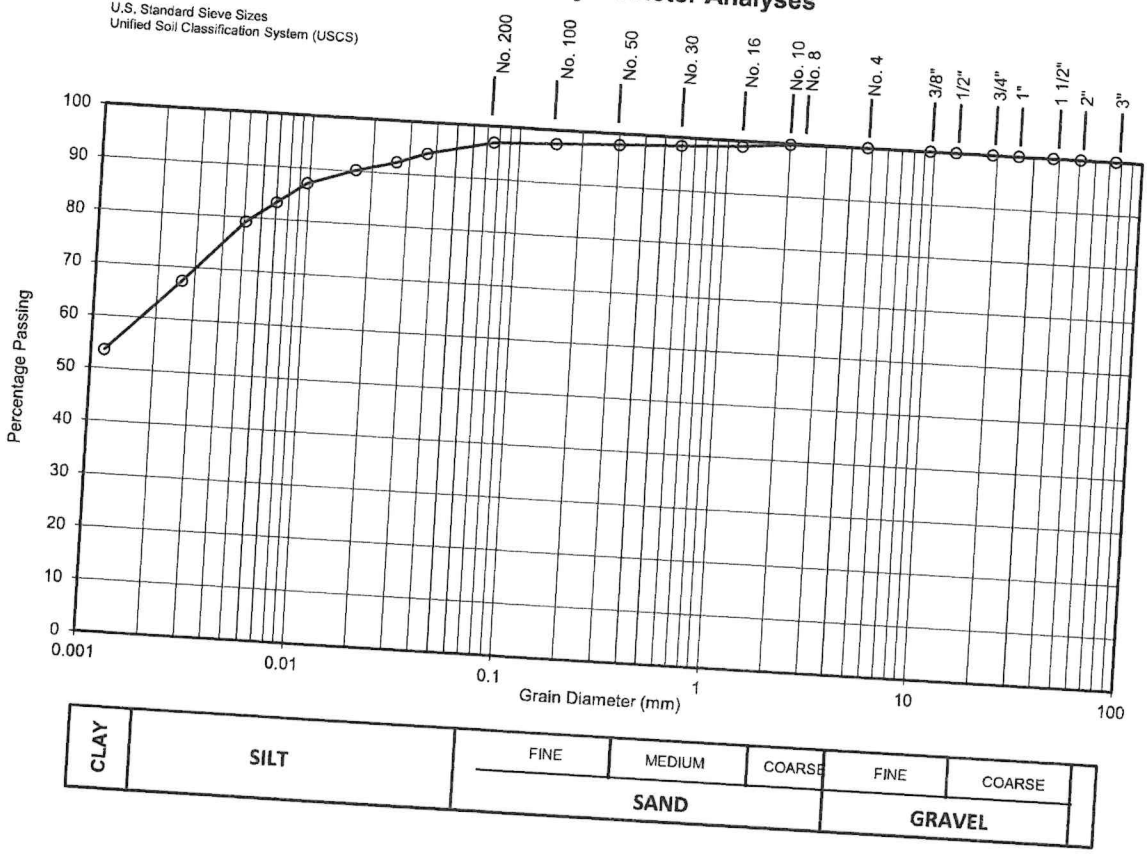
Please mail the completed form back to Terra-Dynamics in the provided envelope.
Thank you for your help.

Briar MacIntyre, P. Geo., Environmental Geologist
432 Niagara Street, Unit 2, St. Catharines, ON L2M 4W3
905-906-2311

Appendix D

Supporting Information

Mechanical & Hydrometer Analyses



Lab No.:	24-156
Borehole No.:	
Sample No.:	HA-1
CLAY [%]:	62
SILT [%]:	35
SAND [%]:	3
GRAVEL [%]:	0
D_{10} (Effective Diam. in mm):	0.0001

Notes: Sampled on April 9, 2024. Sample obtained from the south half of the property. Sample was taken at a depth of 80 cm.

Soil Description: **Brown Silty Clay w/ a trace of Sand**
C.L. - Silty clays, inorganic clays of low to medium plasticity to M.L. - Inorganic silts and very fine sands

Estimated Infiltration Rate [mm/hr] :	< 5	Estimated Permeability, k [cm/s]	10^{-8}
Coefficient of Uniformity C_U:	18.0	Coefficient of Curvature C_C:	0.5

SOIL-MAT ENGINEERS & CONSULTANTS LTD.

5324 Canborough Road, Wellandport ON

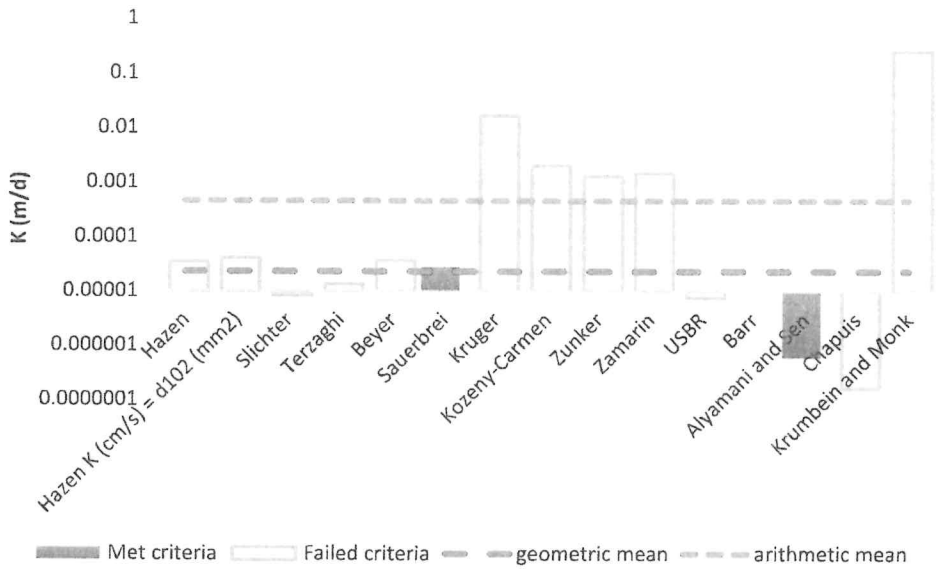
April 2024	Grain Size Analysis No. 1	Project No.: SM 230001-T

K from Grain Size Analysis Report Date: 09-Apr-24

Sample Name: HA-1, 0.80 m, 5324 Canborough

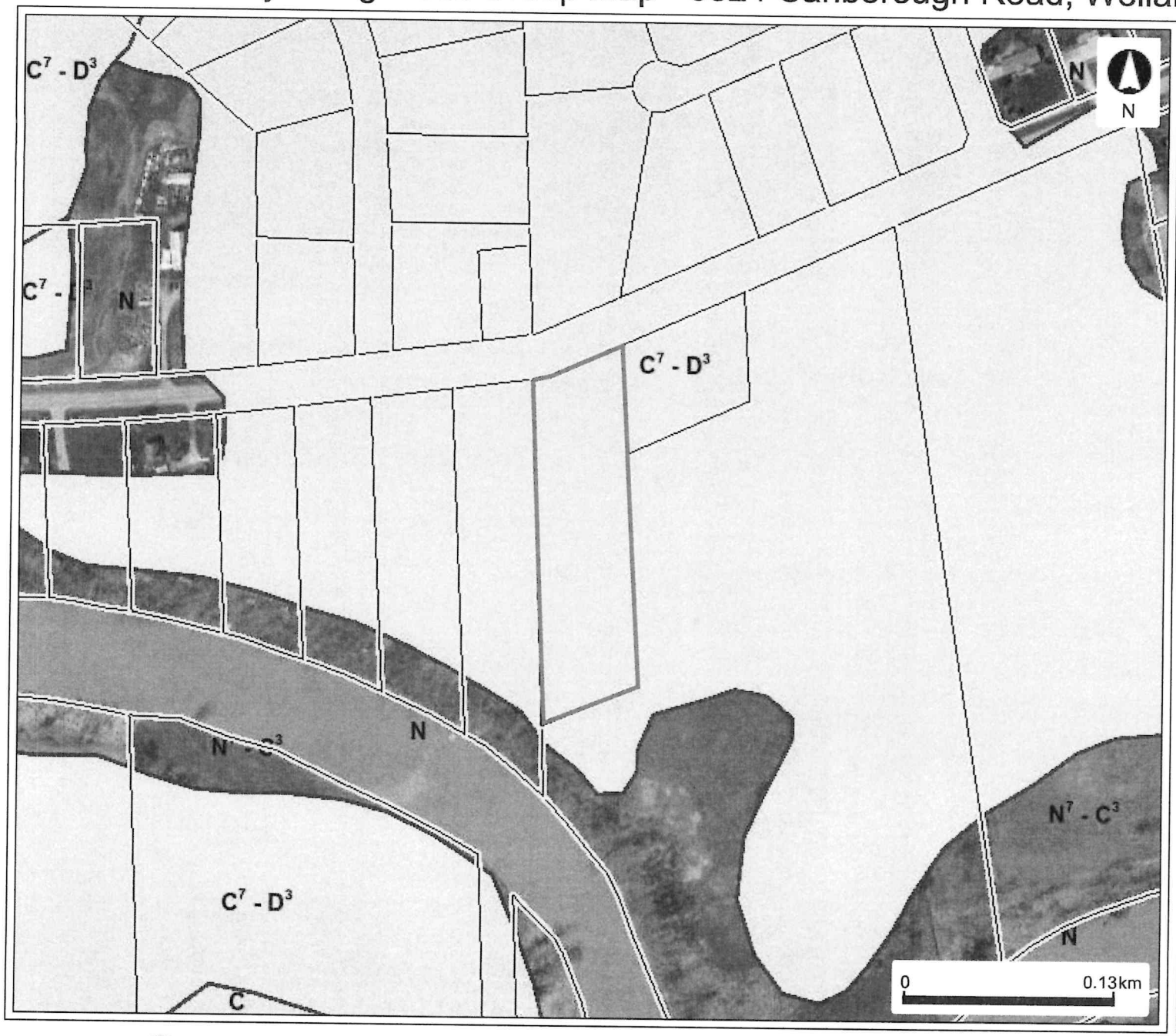
Mass Sample (g): 242.2 T (oC) 20

Poorly sorted clay with fines



Estimation of Hydraulic Conductivity	cm/s	m/s	m/d	de
Hazen	.409E-07	.409E-09	0.00	
Hazen K (cm/s) = d_{10} (mm)	.467E-07	.467E-09	0.00	
Slichter	.956E-08	.956E-10	0.00	
Terzaghi	.156E-07	.156E-09	0.00	
Beyer	.426E-07	.426E-09	0.00	
Sauerbrei	.319E-07	.319E-09	0.00	
Kruger	.192E-04	.192E-06	0.02	
Kozeny-Carmen	.237E-05	.237E-07	0.00	
Zunker	.148E-05	.148E-07	0.00	
Zamarin	.172E-05	.172E-07	0.00	
USBR	.871E-08	.871E-10	0.00	
Barr	.112E-07	.112E-09	0.00	
Alyamani and Sen	.702E-09	.702E-11	0.00	
Chapuis	.191E-09	.191E-11	0.00	
Krumbein and Monk	.292E-03	.292E-05	0.25	
Shepherd	.211E-05	.211E-07	0.00	
geometric mean	6.E-09	6.E-11	0.00	
arithmetic mean	1.E-08	1.E-10	0.00	

Hydrologic Soil Group Map - 5324 Canborough Road, Wellandport



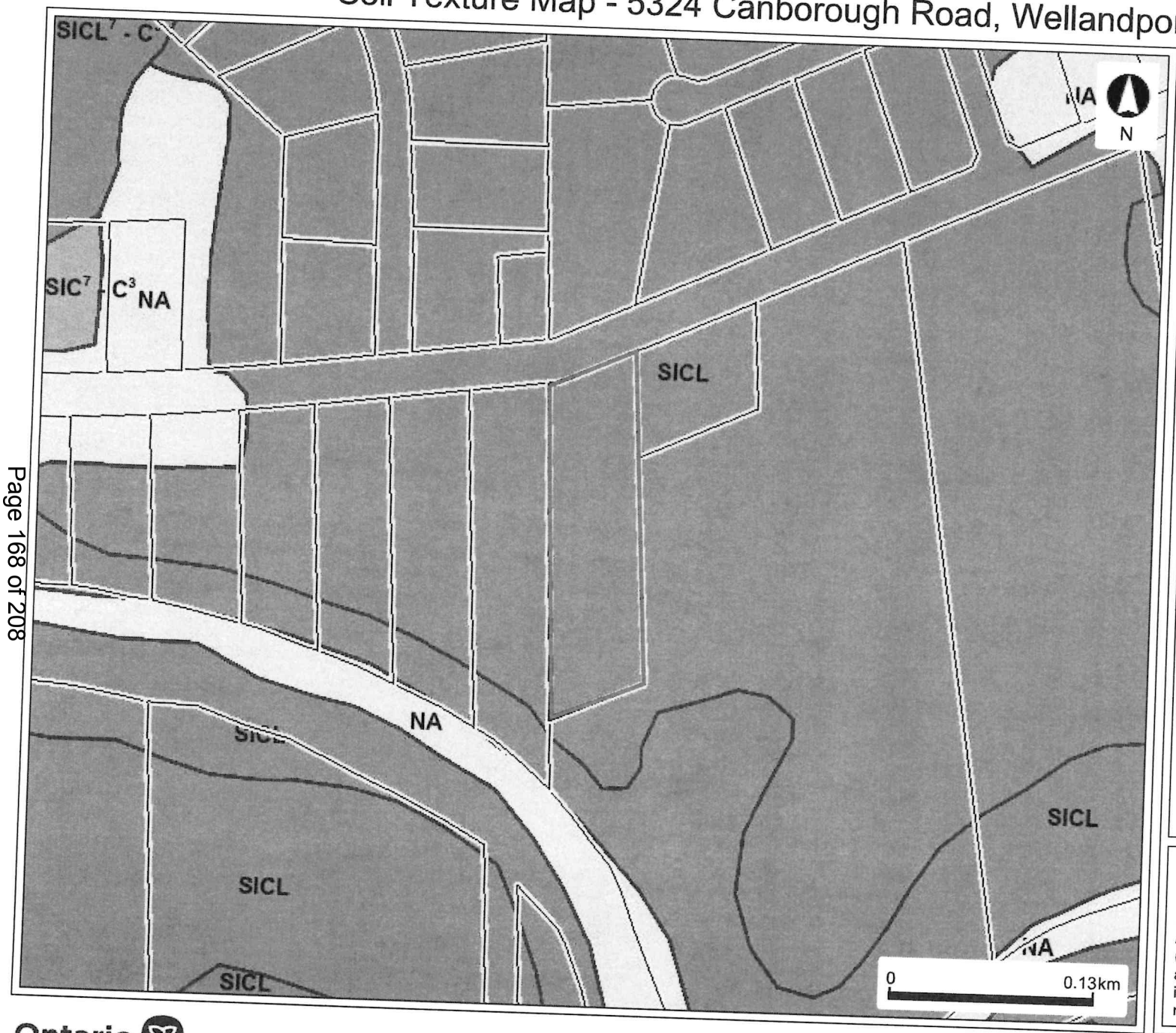
Legend

- Assessment Parcel
- Hydrologic Soil Group
  - A - High
  - B - Moderate
  - C - Slow
  - D - Very Slow
- Site

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) shall not be liable in any way for the use or any information on this map. of, or reliance upon, this map.

Map Created: 6/7/2024
Map Center: 43.00171 N, -79.4899 W

Soil Texture Map - 5324 Canborough Road, Wellandport



Legend

- Assessment Parcel
- Surface Texture
  - <Null>
  - C
  - CL
  - CSL
  - FSL
  - GL
  - GLS
  - GRAV
  - GS
  - GSL
  - L
  - LCS
  - LFS
  - LS
  - FS
  - LVFS
  - ORG
  - R
  - S
  - SIC
  - SICL
  - SIL
  - SL
  - VAR
  - VFSL
  - VSFL
- Site

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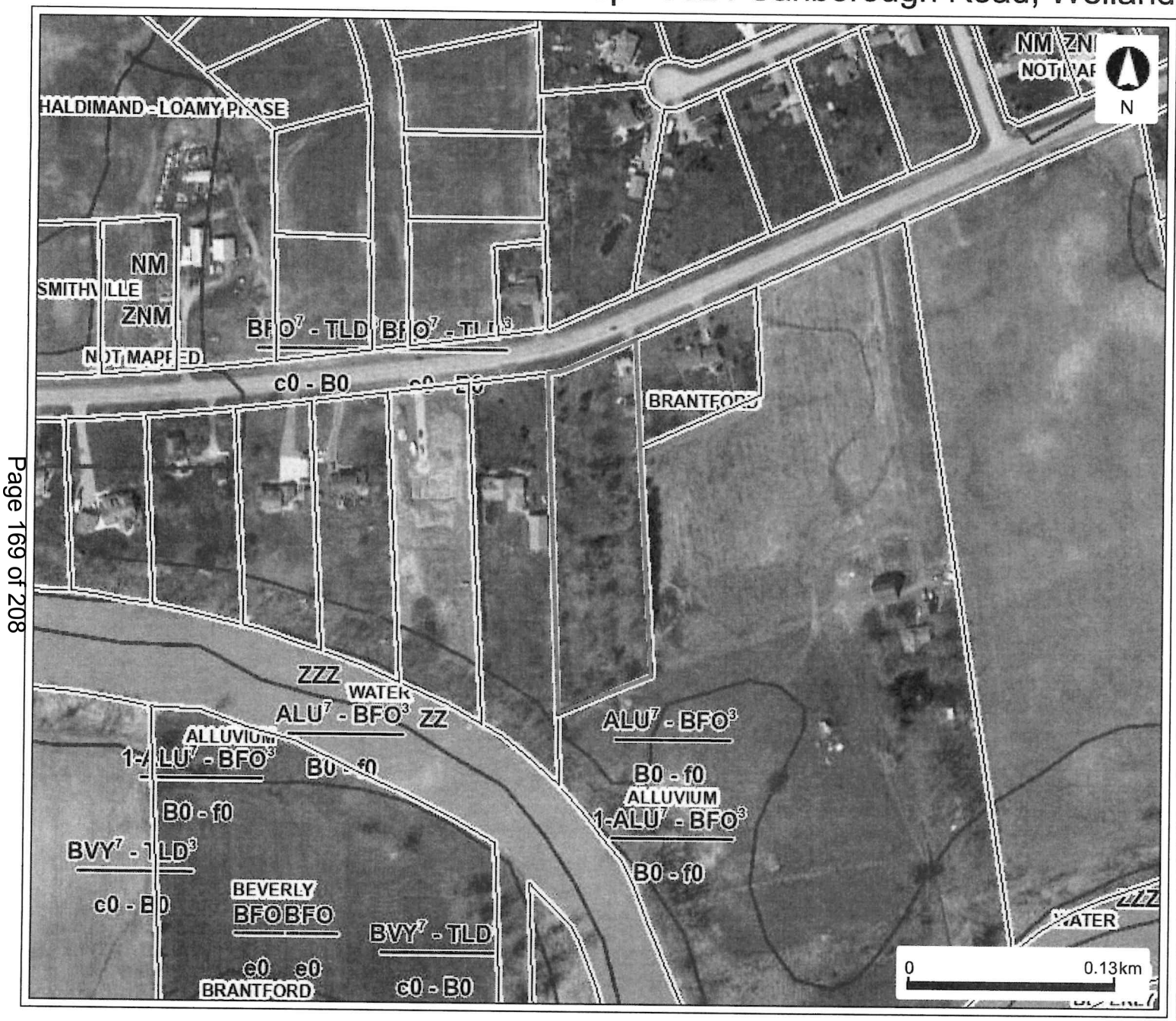
Map Created: 6/7/2024
Map Center: 43.00171 N, -79.48995 W

Soil Classification Map - 5324 Canborough Road, Wellandport

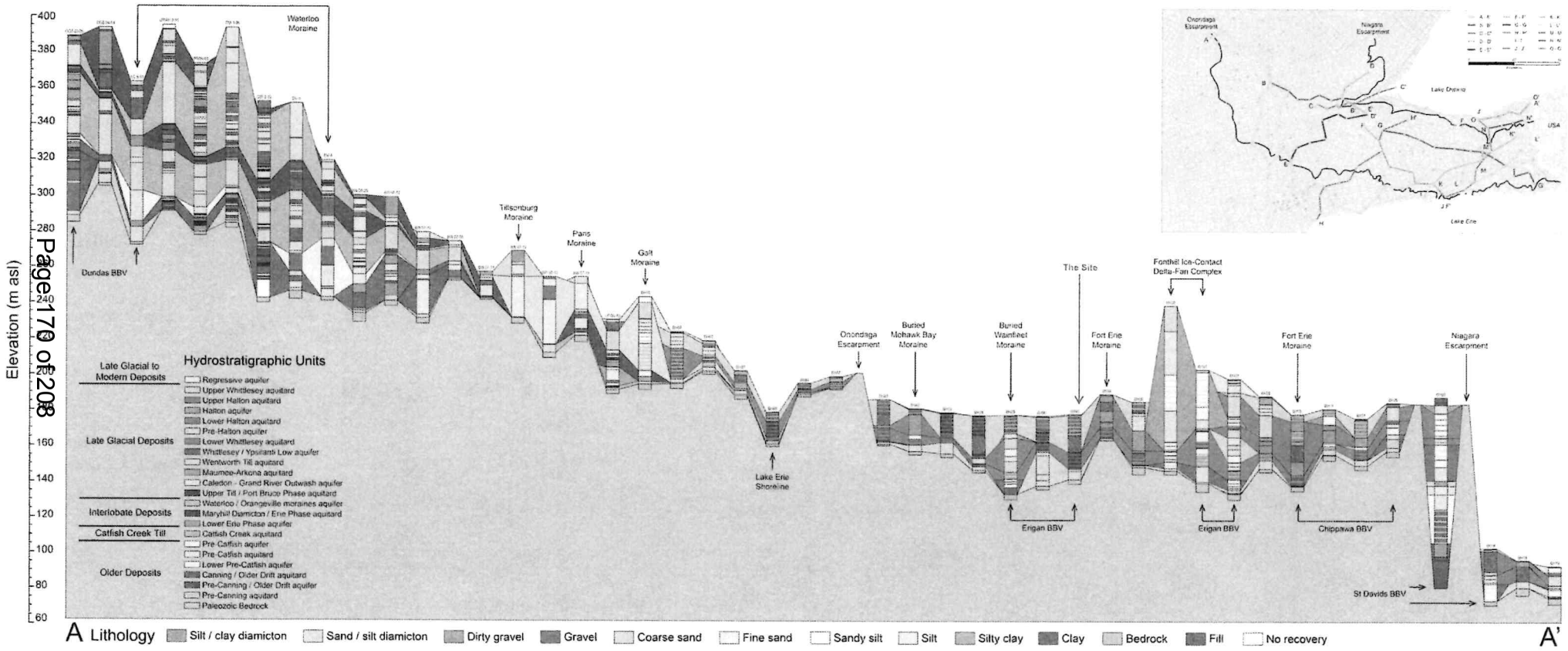


Legend

- Assessment Parcel
- Soil Name Label
- Soil Code
- Soil Symbol
- Site

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) shall not be liable in any way for the use or any information on this map. of, or reliance upon, this map.

Map Created: 6/7/2024
Map Center: 43.00171 N, -79.48995 W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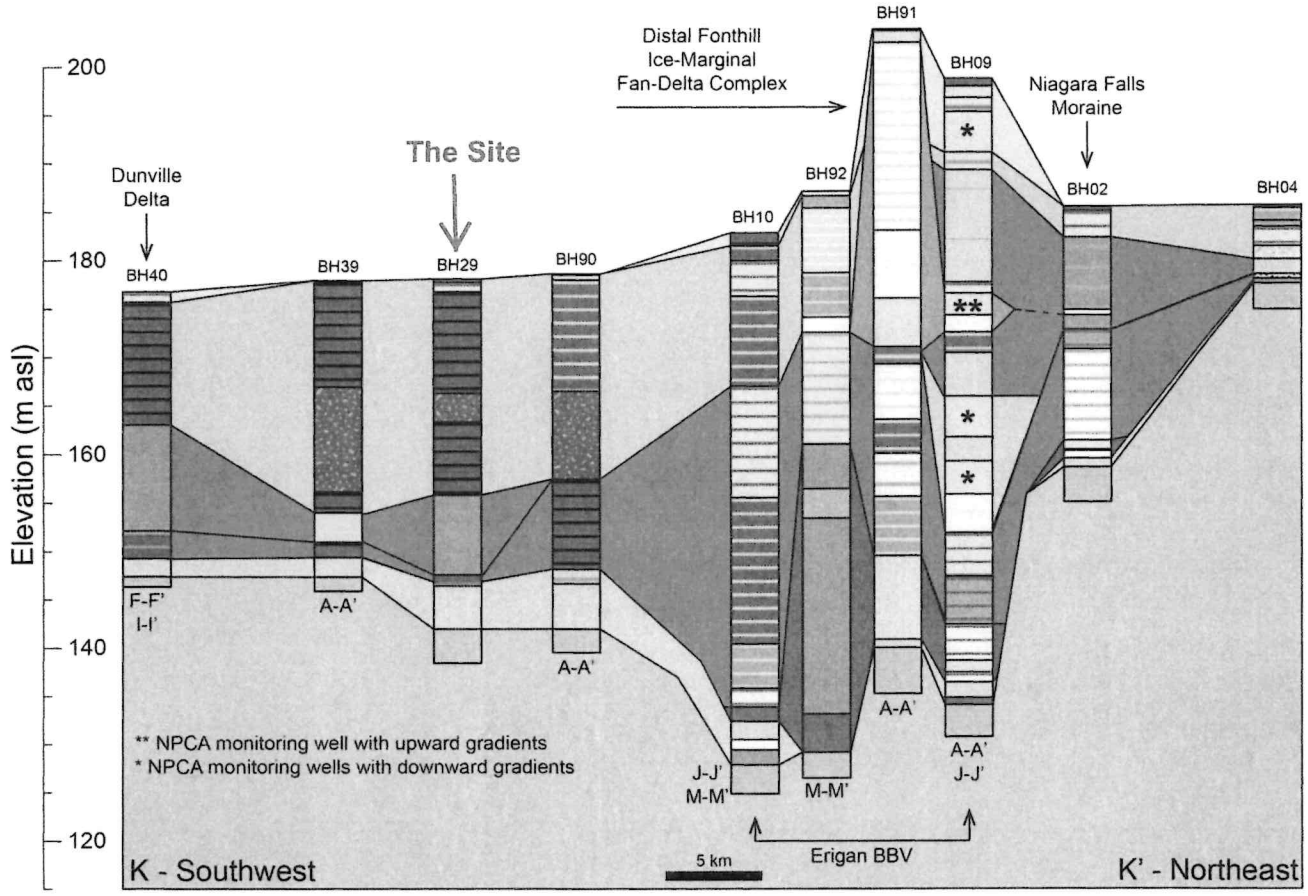
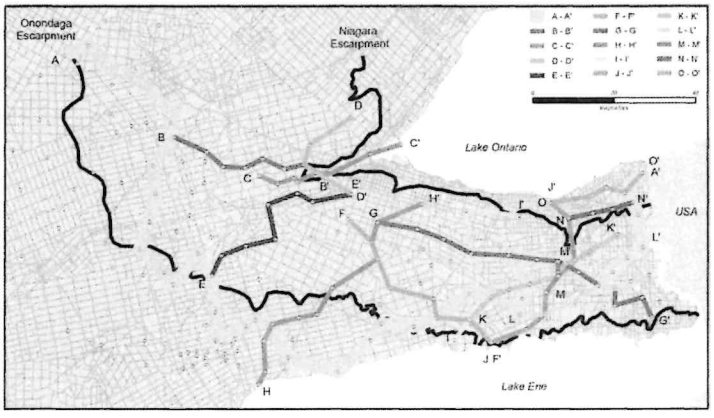
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
Waterloo Moraine
Dundas BBV
Tillsonburg Moraine
Paris Moraine
Galt Moraine
Lake Erie Shoreline
Onondaga Escarpment
Buried Mohawk Bay Moraine
Buried Waterloo Moraine
The Site
Fort Erie Moraine
Fonthill Ice-Contact Delta-Fan Complex
Erigan BBV
Erigan BBV
Fort Erie Moraine
Chippawa BBV
Niagara Escarpment
St Davids BBV
Hydrostratigraphic Units
Late Glacial to Modern Deposits
Regressive aquifer
Upper Whittlesey aquitard
Upper Halton aquitard
Halton aquifer
Lower Halton aquitard
Pre-Halton aquifer
Late Glacial Deposits
Lower Whittlesey aquitard
Whittlesey / Ypsilanti Low aquifer
Wentworth Till aquitard
Maumee-Arkona aquitard
Caledon - Grand River Outwash aquifer
Upper Till / Port Bruce Phase aquitard
Waterloo / Orangeville moraines aquifer
Interlobate Deposits
Maryhill Diamicton / Erie Phase aquitard
Lower Erie Phase aquifer
Catfish Creek Till
Catfish Creek aquitard
Pre-Catfish aquifer
Pre-Catfish aquitard
Lower Pre-Catfish aquifer
Older Deposits
Canning / Older Drift aquitard
Pre-Canning / Older Drift aquifer
Pre-Canning aquitard
Paleozoic Bedrock
Onondaga Escarpment
Niagara Escarpment
Lake Ontario
USA
Lake Erie
A Lithology
Silt / clay diamicton
Sand / silt diamicton
Dirty gravel
Gravel
Coarse sand
Fine sand
Sandy silt
Silt
Silty clay
Clay
Bedrock
Fill
No recovery
A'





Hydrostratigraphic Units

- Regressive aquifer
- Upper Whittlesey aquitard
- Upper Halton aquitard
- Halton aquifer
- Lower Halton aquitard
- Pre-Halton aquifer
- Lower Whittlesey aquitard
- Whittlesey / Ypsilanti Low aquifer
- Wentworth Till aquitard
- Maumee-Arkona aquitard
- Caledon - Grand River Outwash aquifer
- Upper Till / Port Bruce Phase aquitard
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- Maryhill Diamicton / Erie Phase aquitard
- Lower Erie Phase aquifer
- Catfish Creek aquitard
- Pre-Catfish aquifer
- Pre-Catfish aquitard
- Lower Pre-Catfish aquifer
- Canning / Older Drift aquitard
- Pre-Canning / Older Drift aquifer
- Pre-Canning aquitard
- Paleozoic Bedrock

Lithology

- Silt / clay diamicton
- Sand / silt diamicton
- Dirty gravel
- Gravel
- Coarse sand
- Fine sand
- Sandy silt
- Silt
- Silty clay
- Clay
- Ice-rafted debris
- Rhythmic bedding
- Bedrock
- Fill
- No recovery

Stage 1 Archaeological Assessment

5324 Canborough Road,
(Formerly Part of Lot 13, Concession 1,
Geographic Township of Gainsborough, Lincoln County),
Now in the Township of West Lincoln, Regional Municipality of Niagara, Ontario

Prepared by:

AS&G Archaeological Consulting

16-Jul-24

MCM Archaeological Consulting License # P354 (Mr. Jason Seguin)
MCM P.I.F. # P354-0088-2024

ORIGINAL REPORT

EXECUTIVE SUMMARY

AS&G Archaeological Consulting Inc. was contracted to conduct a Stage 1 Archaeological Assessment of 5324 Canborough Road, (Formerly Part of Lot 13, Concession 1, Geographic Township of Gainsborough, Lincoln County), Now in the Township of West Lincoln, Regional Municipality of Niagara, Ontario. The proposed development project was triggered by the *Planning Act* and the Archaeological Assessment was performed in advance of a severance application.

The property includes an existing dwelling with a wood deck, a gravel driveway, a garage workshop and grassed lawn areas. The property is roughly rectangular in shape and measures approximately 206 m north-south by 63 m east-west (~1.15 hectares in size). The property is bound on the north by Canborough Road (Regional Road No. 63), and by residential lands to the west, east and south.

The Stage 1 archaeological background study established there is potential for the recovery of archaeologically significant materials within the property. To determine if the archaeological potential classification of the property is relevant, a site inspection and desktop review of ground conditions was undertaken using contemporary satellite imagery and historical atlas maps.

The Stage 1 desktop review identified that portions of the property retain archaeological potential. **Therefore, the report recommends that further archaeological assessment of the property is required in the form of a Stage 2 archaeological assessment.**

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PROJECT PERSONNEL

Project Manager:	Mr. Jason Seqguin (P354)
Project Director:	Mr. Norbert Stanchly (R149)
Field Director:	Mr. Norbert Stanchly
Report Preparation:	Mr. Norbert Stanchly Mr. Pete Demarte (R1073)
Graphics:	Mr. Pete Demarte Mr. Norbert Stanchly

INTRODUCTION

The *Ontario Heritage Act*, R.S.O. 1990 c. O.18, requires anyone wishing to carry out archaeological fieldwork in Ontario to have a license from the Ministry of Citizenship and Multiculturalism (MCM). All licensees are to file a report with the MCM containing details of the fieldwork that has been done for each project. Following standards and guidelines set out by the MCM is a condition of a licence to conduct archaeological fieldwork in Ontario. **AS&G Archaeological Consulting Inc. (AS&G)** confirms that this report meets ministry report requirements as set out in the *2011 Standards and Guidelines for Consultant Archaeologists* (MCM 2011) and is filed in fulfillment of the terms and conditions an archaeological license.

1.0 PROJECT CONTEXT

This section of the report will provide the context for the archaeological fieldwork, including the development context, the historical context, and the archaeological context.

1.1 Development Context

AS&G was contracted to conduct a Stage 1 Archaeological Assessment of 5324 Canborough Road, (Formerly Part of Lot 13, Concession 1, Geographic Township of Gainsborough, Lincoln County), Now in the Township of West Lincoln, Regional Municipality of Niagara, Ontario. The proposed development project was triggered by the *Planning Act* and the Archaeological Assessment was performed in advance of a severance application.

The property includes an existing dwelling with a wood deck, a gravel driveway, a garage workshop and grassed lawn areas. The property is roughly rectangular in shape and measures approximately 206 m north-south by 63 m east-west (~1.15 hectares in size). The property is bound on the north by Canborough Road (Regional Road No. 63), and by residential lands to the west, east and south.

1.2 Historical Context

Several sources were referenced to determine if features or characteristics indicating archaeological potential for Pre-Contact and Post-Contact resources exist within the property. These included contemporary satellite imagery and historical atlas maps.

1.3 Archaeological Context

1.3.1 Known Archaeological Sites

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (O.A.S.D.), an inventory of the documented archaeological record in Ontario. Summary information on the known archaeological sites in the vicinity of the property was obtained from the MCM site database (MCM 2024).

There are ten (10) known archaeological sites within a one-kilometre radius of the property, two (2) of which are located within 300 metres of the property limits (Table 1).

Table 1: Known Archaeological Sites within 1-Km of Property

Borden Number	Site Name	Time Period	Affinity	Site Type	Current Development Review Status
AgGv-136		Pre-Contact	Aboriginal	Findspot	No Further CHVI
AgGu-43*	Beaver Creek 1-3	Pre-Contact	Aboriginal	Findspot	
AgGu-221	SE21-3				
AfGv-99*	Putnam Farm	Archaic; Post-Contact	Aboriginal; Euro-Canadian	Agricultural; Manufacturing	No Further CHVI
AfGv-150	NRWC 52	Archaic Late	Aboriginal	Scatter	Further CHVI
AfGv-146	SE3(1H)-5				
AfGv-132	SE3(1H)-2	Pre-Contact	Aboriginal	Scatter	Further CHVI
AfGv-131	SE3(1H)-1	Archaic Late		Scatter	Further CHVI
AfGu-63	NRWC-50	Pre-Contact	Aboriginal	Processing; Scatter	Further CHVI

Borden Number	Site Name	Time Period	Affinity	Site Type	Current Development Review Status
AfGu-62		Pre-Contact	Aboriginal	Scatter	Further CHVI

* Sites Located within 300 metres of the property limits.

The following is a brief description of the two (2) known archaeological site located within 300 metres of the property limits, based on the available information provided by the MCM archaeological sites database:

The Beaver Creek 1-3 (AgGu-43) Site

The Beaver Creek 1-3 (AgGu-43) Site is a Pre-Contact aboriginal findspot site. The site was first identified during a project carried out by the Museum of Indian Archaeology in August of 1988. The AgGu-43 site is located north of Canboro Road, south of Beaver Creek along the western edge of Wellandport in an agricultural field. The site consists of three isolated findspots. Locations 1 and 2 included utilized chert flakes and one fire-cracked rock within a 5 metre area, while Location 3 consisted of a single chert flake. There is no other information or reports available regarding this site in the MCM archaeological sites database.

The Putnam Farm (AfGv-99) Site

The Putnam Farm (AfGv-99) Site is a multi-component site with both Archaic Period and early Euro-Canadian cultural affiliations. The site was first identified in May 1999, by Jon Jouppien during a Stage 1-3 archaeological assessment consisting of a pedestrian survey and test unit excavations. The AfGv-99 site is located along the north shore of the Welland River, south of the former Putnam Farm farmhouse and approximately 1.6 km west of the Village of Wellandport in a former agricultural field. Approximately 488 artifacts were recovered from area spanning 100 x 40 metres. The aboriginal component of the site, consisting of 462 lithics (primary debitage) dates to approximately 4,500-3,000 BP, with an inferred date of 4,500 BP, while the early Euro-Canadian Post-Contact affiliation and artifact assemblage consisting of 26 glass, ceramic and metal fragments ranges from c.1850-1950, with an inferred date of c.1870s. The results of the assessment determined that the integrity of the site has been lost due to agricultural activities and looting in the area. There is no other information or reports available regarding this site in the MCM archaeological sites database.

1.3.2 Environmental Conditions

The property is situated within the Haldimand Clay Plain physiographic region of southern Ontario (Chapman and Putnam 1984:156-159). The Haldimand Clay Plain is among the largest of the 53 defined physiographic regions in southern Ontario, comprising approximately 3,500 square kilometres. Generally, this region is flat and poorly drained, although it includes several distinctive landforms including dunes, cobble, clay, and sand beaches, limestone pavements, and backshore wetland basins. Soils within the subject property consist primarily of fine-textured glaciolacustrine deposits of silt and clay, minor and sand gravel.

The property includes an existing dwelling with a wood deck, a gravel driveway, a garage workshop and grassed lawn areas. The property is roughly rectangular in shape and measures approximately 206 m north-south by 63 m east-west (~1.15 hectares in size). The property is bound on the north by Canborough Road (Regional Road No. 63), and by residential lands to the west, east and south.

AS&G is unaware of any previous findings and recommendations relevant to the current stage of work with the exception of those discussed above. There are no unusual physical features that may have affected fieldwork strategy decisions or the identification of artifacts or cultural features. There is no additional archaeological information that may be relevant to understanding the choice of fieldwork techniques or the recommendations of this report.

2.0 BACKGROUND STUDY

A Stage 1 Archaeological Assessment is a systematic qualitative process executed to assess the archaeological potential of a property based on its historical use and its potential for early Euro-Canadian (early settler) and pre-contact Indigenous occupation. The objectives of a Stage 1 Background Study are: 1) to provide information about the property's geography, history, previous archaeological fieldwork and current land condition; 2) to evaluate in detail the property's archaeological potential, which will support recommendations for Stage 2 Property Assessment for all or parts of the property if warranted; and 3) to recommend appropriate strategies for Stage 2 property assessment if warranted.

This Stage 1 Background Study was conducted in accordance with the *Standards and Guidelines for Consultant Archaeologists,* set out by the MCM (2011) pursuant to the Ontario Heritage Act, R.S.O. 1990, c.0.18.

The scope of work for the Stage 1 Background Study consisted of the following tasks:

- **AS&G** requested a Project Information Number (PIF) from the MCM VIA PastPort.
- Contacted the MCM to determine if recorded archaeological sites exist in the vicinity (1-km radius) of the property, through a search of the Ontario Archaeological Sites Database maintained by the MCM.
- Contacted the MCM to determine if there are any known reports of previous archaeological fieldwork within a 50 m radius of the property.
- Conducted a desktop review of the property's physical setting to determine its potential for both historic and pre-contact human occupation, including its topography, hydrology, soils, and proximity to important resources and historical transportation routes and settlements.
- Reviewed the potential for historic period occupation as documented in historical atlases.
- Prepared a report of findings with recommendations regarding the need for further archaeological work if deemed necessary.

In Ontario, the framework for determining the presence of archaeological potential is taken from the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011, Sections 1.3.1 & 1.3.2). Characteristics indicating archaeological potential include the near-by presence of previously identified archaeological sites, primary and secondary water sources, features indicating past water sources, accessible or inaccessible shoreline, pockets of well-drained sandy soil, distinctive land formations that might have special or spiritual places (such as waterfalls, rock outcrops, caverns, mounds, promontories and their bases, as well as resource areas that include food or medicinal plants, or scarce raw materials), early Euro-Canadian industry, areas of early Euro-Canadian settlement, early historical transportation routes, properties listed on a municipal register or designated under the *Ontario Heritage Act* as a federal, provincial, or municipal historic landmark or site; as well as properties that local histories or informants have identified as important locations for historical events, activities, and/or occupations.

Archaeological potential can be determined not to be present for the entire property or a part of it when the area under consideration has been subjected to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly

referred to as 'disturbed' or 'disturbance', and it may include quarrying, major landscaping involving grading below topsoil, building footprints, and sewage or infrastructure development. Archaeological potential is not removed where there is documented potential for deeply buried intact archaeological resources beneath land alterations, or where it cannot be clearly demonstrated through background research and property inspection that there has been complete and intensive disturbance of an area. When complete disturbance cannot be demonstrated in Stage 1, it will be necessary to undertake a Stage 2 Assessment.

The Background Study determined that the following features or characteristics indicate archaeological potential for the property:

- The property is located within an area of early Euro-Canadian settlement.
- The property is located in close proximity to historic transportation routes.
- The property is located in close to a primary water source (Welland River).
- There are ten (10) known archaeological sites within a one-kilometre radius of the property.
- There are two (2) of which are located within 300 metres of the property limits (Table 1).

2.1 Indigenous Settlement History

The property is situated in an area of Ontario that has a rich and diverse cultural history that extends back at least 11,000 years ago. To provide context for this report, the settlement history is summarized below.

2.1.1 Pre-Contact Indigenous Period

Drawn from Ellis and Ferris (1990), Table 2 provides a general outline of the pre- and post-contact cultural history of Northumberland County, Ontario. The Study Area is situated in an area of Ontario that has evidence of extended periods of human settlement, dating back at least 11,000 years.

Table 2: General Archaeological Chronology for South-Central Ontario

Period	Archeological/Material Culture	Date Range	Comments
PALEO			
Early	Gainey, Barnes, Crowfield, Fluted Points	11,000-10,500 BP	Big game hunters, i.e., caribou
Late	Holcombe, Hi-Lo, Lanceolate	10,500-9,500 BP	Paleo Point Technology
ARCHAIC			
Early	Bifurcate-base, Nettling, Side Notched	9,800-8,000 BP	Nomadic hunters/gathers
Middle	Stanley, Kirk, Brewerton, Laurentian	8,000-4,000 BP	Focused seasonal resource areas
Late	Lamoka, Genesee, Innes, Crawford Knoll	4,500-2,500 BP	Polished/ground stone tools
	Hind	3,000-2,600 BP	Burial ceremonialism
WOODLAND			
Early	Meadowood, Middlesex	2,800-2,000 BP	Introduction of pottery, elaborate burials
Middle	Princess Point, Saugeen, Point Peninsula	2,000-950 BP	Long-distance trade, burial mounds, horticulture
Late	Pickering, Uren, Middleport (Anishinabek/Iroquois), Algonkian-Wendat Alliance	950-300 BP	Emergence of agricultural villages Large, palisaded villages Trade, alliances, and warfare
HISTORIC			
	Huron, Neutral, Petun, Odawa, Ojibwa Six Nations Iroquois, Ojibwa, Mississauga	350 BP-Present	Mission villages and Reserves
	Euro-Canadian		European settlement

2.1.1.1 Paleo

Archaeological evidence demonstrates that people inhabited South-central Ontario just after the end of the Wisconsin Glacial Period, approximately 11,000 years ago. This early settlement period is known as the Paleo Period (Ellis and Deller 1990). Based upon current archaeological knowledge, Indigenous groups originally living south of the Great Lakes migrated to the area. The settlement patterns of Early Paleo peoples consisting of small bands, i.e., less than 35 individuals, maintained a seasonal pattern of mobility over vast territories. For example, the most studied groups appeared to migrate seasonally between Chatham, Ontario, to the Horseshoe Valley north of Barrie, Ontario (Ellis and Deller 1990).

These Early Paleo sites are typically located in elevated locations, with well-drained loamy soils, with many known sites found on former beach ridges,

associated with glacial lakes (Ellis and Deller 1990). These sites were likely formed when they were occupied for short increments, over the course of many years, possibly as communal hunting camps. Their locations appear conducive to hunting migratory mammals, such as caribou (Ellis and Deller 1990).

During the Late Paleo Period (10,500-9,500 BP), the south-central Ontario environment started to become dominated by closed coniferous forests, with only some minor deciduous elements. The hunting landscape had also changed, as many of the large game species that had been hunted in the early part of the Paleo Period either migrated further north, or in some cases, had become extinct, i.e., mastodons and mammoths (Ellis and Deller 1990). Comparable to the early Paleo peoples, late Paleo peoples covered large territories as a response to seasonal resource fluctuations. In Ontario, Late Paleo Period inhabitation appears more frequently in the archaeological record, comparable to the Early Paleo Period. Thus, it has been suggested that migratory populations had increased in size (Ellis and Deller 1990).

2.1.1.2 Archaic Period

During the Early Archaic Period (9,800-8,000 BP), the jack and red pine forests that characterized the Late Paleo environment, were replaced by forests of white pine, with a few correlated deciduous trees (Ellis et al. 1990). Based on material culture, the Early Archaic Period is recognized by the shift to side and corner-notched projectile points (Ellis et al. 1990). Other notable innovations, include the introduction of ground stone tools such as celts and axes. These tools suggest that there was a woodworking industry. Additionally, the presence of these, often large and not easily portable tools, suggests that there may have been a reduction in seasonal movement. However, the current understanding of the Period suspects that population densities were still low, and seasonal territories were still large (Ellis et al. 1990).

During the Middle Archaic Period (8,000-4,000 BP), it is speculated that there was an increase in regional population growth, which precipitated a decrease in overall seasonal migration territory. Additionally, as a consequence of population growth, a shift in subsistence patterns occurred, as more people needed to be supported from the resources contained within the smaller area (Ellis et al 1990). Thus, the Middle Archaic is characterized by the diversification of toolkits and diets, with the introduction of net-sinkers and bannerstones, as well as stone tools specifically designed for the preparation of wild plant foods. The appearance of net-sinkers suggests that fishing was becoming an

important aspect of the subsistence economy. In contrast, bannerstones were carefully crafted ground stone devices that served as a counterbalance for *atlatls* or spear-throwers, used in hunting game (Ellis et al 1990).

Another characteristic of the Middle Archaic Period is an increased reliance on local, often poor-quality chert resources, for the manufacturing of projectile points. Unlike earlier periods, when nomadic groups occupied vast territories, at least once in their seasonal migration it was possible for them to visit a primary outcrop of high-quality chert. However, during the Middle Archaic Period, groups inhabited smaller territories, which usually did not contain a source of high-quality raw material, and were forced to use the locally sourced, poorer quality resources (Ellis et al. 1990). It was also during the latter part of the Middle Archaic Period, that long-distance trade routes began to develop, which spanned the northeastern part of the continent. For instance, copper tools, which were manufactured from a source located northwest of Lake Superior, were being widely traded (Ellis et al. 1990).

The trend towards a decreasing territory size and a broadening subsistence economy continued during the Late Archaic Period (4,500-2,500 BP). Similarly, archaeologically Late Archaic sites are more numerous than Early or Middle Archaic sites, which is correlated to an increasing population (Ellis et al. 1990). With the trend towards larger groups, the first cemeteries have also been dated to the Late Archaic Period. Prior to this, individuals were interred close to the location where they died. Furthermore, during the Late Archaic Period, if an individual died while away from their home territory, the bones would be kept until they could be placed in the group cemetery. Therefore, it is not unusual to find disarticulated skeletons, and/or skeletons lacking minor elements, i.e., fingers, toes and/or ribs (Ellis et al. 1990).

The appearance of cemeteries during the Late Archaic Period has been interpreted as a response to increased population densities. The increased populations also demonstrated evidence of regionalized variation in Late Archaic projectile point styles (Ellis et al. 1990). The differences were likely indicative of the different relationships the people had to the land and waters they inhabited. Additionally, trade networks established during the Middle Archaic continued to flourish. For instance, copper native to northern Ontario and marine shell artifacts from as far away as the Mid-Atlantic coast, are frequently encountered as grave goods. Other artifacts such as polished stone pipes and banded slate gorgets, also appear on Late Archaic sites. One of the more unusual and interesting of the Late Archaic artifacts is the *birdstone*. Birdstones are small, bird-like effigies usually manufactured from green banded slate (Ellis et al. 1990).

2.1.1.3 Woodland Period

For archaeologists, the Early Woodland Period (2,000-2,000 BP) is distinguished from the Late Archaic Period primarily by the addition of ceramic technology. The first pots were crudely constructed, had undecorated thick walls, and were friable. Spence et al. (1990) suggests they were used in the processing of nut oils, which required boiling crushed nut fragments in water and skimming off the oil. As these vessels were not easily portable, individual pots were likely not used for extended periods of time. Additionally, as there are many Early Woodland sites where no pottery was recovered, it has been suggested that these poorly constructed vessels were not utilized by all Early Woodland peoples (Spence et al. 1990).

Other than the limited use of ceramics, there were other subtle differences between the Late Archaic and the Early Woodland Periods. For example, 'pop-eyes', a protrusion from the side of the head, was added to birdstones. Similarly, a slight modification was made to the thin, well-made projectile points made during the Archaic Period, i.e. Early Woodland variants were side-notched rather than corner-notched (Spence et al. 1990). The trade networks which were established in the Middle and Late Archaic Periods, continued to flourish; however, there appeared to be a decrease in the trade of marine shell during the Early Woodland Period. Projectile points crafted from high quality American Midwest materials, began to be found on southwestern Ontario sites, dated towards the end of the Early Woodland Period (Spence et al. 1990).

The Middle Woodland (2,000-950 BP) is characterized by rich, densely occupied sites, which are usually found bordering major rivers and lakes. While these locations were inhabited periodically by earlier peoples, Middle Woodland sites are significant as they represent long periods of continuous occupations, i.e., hundreds of years (Spence et al. 1990). The shift in settlement pattern created large deposits of artifacts, as the sites appear to have functioned as home bases that were occupied throughout the year. Numerous smaller Middle Woodland sites have been found inland, and likely functioned as specialized camps, for the exploitation of local resources (Spence et al. 1990).

The shift to a more sedentary lifestyle also resulted in a shift in subsistence patterns, comparable to the Early Woodland Period. Although they still relied on hunting and gathering, fish became a predominant diet staple, to meet their growing subsistence needs (Spence et al. 1990). Additionally, the people of the Middle Woodland relied more on ceramic technology, with many being heavily decorated with impressed designs covering the

entire exterior surface, and the upper portion of the interior of vessels (Spence at al. 1990).

Material culture changes that occurred in the early portion of the Late Woodland (950-300 BP), include the appearance of triangular projectile point styles, first seen with the Levanna form, and a change to more intricate design patterns on ceramics. Designs included cord-wrapped stick decorated ceramics, which were created using the paddle and anvil forming technique (Bursey 1995; Ferris and Spence 1995; Spence et al. 1990; Williamson 1990).

The Late Woodland Period is marked by an increasing reliance on corn (*Zea mays*) horticulture (Crawford et al. 1997; Fox 1990; Martin 2004; Smith 1990; Williamson 1990). Although corn was possibly introduced into southwestern Ontario from the American Midwest as early as 2,500 BP, it was not considered a dietary staple until at three to four hundred years later. From there, corn cultivation gradually spread into south-central and southeastern Ontario. Thus, the Late Woodland Period is widely accepted as the beginning of a reliance on agriculture, for subsistence. Researchers have suggested that a warming trend, which increased the number of frost-free days, was likely a catalyst for the spread of maize into southern Ontario (Stothers and Yarnell 1977). Additionally, sites have been identified in a wider variety of environments, including riverine, lacustrine and wetlands (Dieterman 2001).

In southern Ontario, the first agricultural villages have been dated to approximately 1,200 BP to 700 BP. These sites are typically found on elevated areas, with well-drained sandy soils. These early villages share many characteristics with Iroquoian settlements that were recorded at the time European contact, including longhouses and/or palisades (Dodd et al. 1990; Williamson 1990). However, the scale is much smaller, with early longhouses only averaging 12.4 m in length. Furthermore, the excavation and exposure of cultural features archaeologically indicate that there were possibly overlapping structures. This has been interpreted as evidence of long-term occupation, as it indicates that the structures were present long enough to require them to be re-built (Dodd et al. 1990; Williamson 1990).

Due to soil depletion resulting from farming, and the scarcity of easily accessible firewood, the Jesuits reported that the Huron moved their villages every 10-15 years (Pearce 2010). Since the more sedentary sites were occupied for considerably longer amounts of time, it is hypothesized that the Indigenous communities relied less heavily on corn. Furthermore, small seasonally occupied sites have been documented, which relate specifically to nut collection, deer procurement, and fishing activities. Thus,

the smaller demand on resources within close proximity to the settlement, coupled with the smaller reliance on crops, indicates that they maintained a considerably smaller population size (Pearce 2010).

Around 700-600 BP, the size of villages increased from approximately 0.6 hectares, to approximately 1 to 2 hectares. Correspondingly, the size of longhouses also significantly increased in size to an average of 30 m, with some longhouses being documented as 45 m in length (Dodd et al. 1990; Smith 1990). Although the increase in longhouse size can be explained by the significant increase in overall population within villages, other possible hypotheses include changes to the socio-political and economic structure of the communities (Dodd et al. 1990). For instance, Dodd et al. (1990) has suggested that several smaller communities may have merged to increase protection and defense from neighboring tribes. This hypothesis is supported by the presence of a few sites with up to seven rows of palisades, which indicates the potential need for strong protective measures (Dodd et al. 1990).

With the increase in population and village sizes, it is postulated that there was increased community planning and organization. Whereas longhouses were originally haphazardly placed, the increase in population required more organization. For instance, archaeologists have documented the organization of two or more discrete groups of parallel, tightly spaced longhouses on several sites. It has been hypothesized that the organization and grouping of different habitations may indicate the initial development of clans, a characteristic historically attributed to the Iroquoian peoples (Dodd et al. 1990).

Towards the end of the Late Woodland (approximately 600 BP), village sizes continued to increase, as did longhouse lengths i.e., an average length of 62 m. However, around approximately 500 BP, longhouse lengths become significantly shorter, with an average length of only 30 m (Lennox and Fitzgerald 1990). The significant decrease in the overall length of longhouses in a short amount of time, is not well understood; however, it has been hypothesized that it is directly correlated to introduction of European diseases, i.e., smallpox, which caused a steep reduction in Indigenous population sizes (Lennox and Fitzgerald 1990).

Even with the decrease in the length of longhouses, archaeologists have noted that some village populations continued to grow, with periodic expansions visually documented. With an increase in disease and subsequently a rise in warfare between communities, it is postulated that the expansion was the result of the amalgamation of smaller villages. These sites also appeared to be heavily fortified with many rows of wooden

palisades, again supporting the hypothesis that smaller villages united for defensive purposes (Anderson 2009).

2.2 Post-Contact Settlement History

2.2.1 Early Euro-Canadian History

At the end of the 17th and beginning of the 18th century, the dispersal of several Iroquoian-speaking peoples by the New York State Iroquois, coupled with the return of the Algonkian-speaking groups from Northern Ontario, formed the post-contact Indigenous occupation landscape of southern Ontario (Schmalz 1991). As European settlers encroached on traditional Indigenous territories, settlement sizes, populations, and material culture shifted. Despite this shift, there remains a continuity from ancient Indigenous groups to the communities written about in historical accounts (Ferris and Spence 2009). Thus, it should be noted that the Indigenous peoples of southern Ontario have deposited archaeologically significant resources throughout the province, demonstrating a shared traditional and continuing history, regardless of whether their presence is recorded in historic Euro-Canadian documents.

Lincoln County and Gainsborough Township History

In 1792, Lieutenant Governor John Graves Simcoe issued a proclamation dividing Upper Canada into nineteen counties. Lincoln County was one of the original nineteen (Lincoln County Council 1956). The townships were given the names of British towns in Lincoln County, England. Lincoln County was established though a Provincial Act in 1798, which stated that "the township of Clinton, Grimsby, Saltfleet, Barton, Ancaster, Glanford, Binbrook, Gainsborough and Caistor do form and constitute the first riding of the county of Lincoln…" (Lincoln County Council 1956).

People had already been living in Gainsborough (or Gainsboro) Township since the early 1780s, many of them Loyalists who left the United States during the Revolutionary War. John Dochstader was the first European settler to arrive in Gainsborough in 1783. Dochstader settled on Lots 1 and 2, along Concessions 1 and 2, although the township wasn't officially surveyed until 1789 by Augustus Jones (Lincoln County Council 1956). The surrounding land was settled in the following years by members of the Heaslip, Henry, Hodges, Reese, Comfort, Gee, and Hutt families, among others (Lincoln County Council 1956).

Schoolhouses were constructed near Gee Bridge and in St. Anns prior to 1800 and the first log church was constructed on Lot 13, Concession 6 in

1799. Settlement of Gainsborough Township was slower than others in the region due to its "inland" location (Lincoln County Council 1956). Despite the lack of infrastructure, several small communities developed in the 18th and 19th century which still survive today, including St. Anns, Wellandport, and Bismark. In general, land-use in Gainsborough Township remains largely agricultural.

In 1970, Gainsborough joined with the neighbouring townships of Caistor and South Grimsby to form the new township or municipality of West Lincoln in the newly formed Regional Municipality of Niagara.

2.3 Past Land Use of the Property

The property is located within Part of Historic Lot 13, Concession 1, Geographic Township of Gainsborough, Lincoln County, Ontario.

2.3.1 Historic Atlas Maps

Tremaine's 1862 Historical Atlas Map of the County of Lincoln, indicates that Lot 13, Concession 1 were owned by a "John Wilson", and does not depict any structures within the limits of the property.

According to the *Walker & Miles 1876 Illustrated Historical Atlas of the County of York, Ontario*, indicates that Lot 13, Concession 1 were owned by a "Abram Henslip", and although it does not depict any structures or features within the limits of the property, the property is in close proximity to a former homestead and orchard.

In discussing 19th century mapping, it must be remembered that historical county atlases were produced primarily to identify factories, offices, residences, and landholdings of subscribers, and were funded by subscription fees. Landowners who did not subscribe were not always listed on the maps. As such, all structures were not necessarily depicted or placed accurately. Regardless of these limitations, the property depicted on these maps was illustrated directly adjacent to historical transportation routes.

2.3.2 Current Conditions

The property includes an existing dwelling with a wood deck, a gravel driveway, a garage workshop and grassed lawn areas. The property is roughly rectangular in shape and measures approximately 206 m north-south by 63 m east-west (~1.15 hectares in size). The property is bound on the north by Canborough Road (Regional Road No. 63), and by residential lands to the west, east and south.

In summary, the Stage 1 background study indicates that there is potential for the recovery of Pre-Contact or Post-Contact early Euro-Canadian archaeological resources within the property associated with the current development project.

An inventory of the documentary record generated is provided in Table 3.

Table 3: Inventory of the Documentary Record

Document Type	Description
Field Notes	• This report constitutes the field notes for this project
Maps	• The report figures represent all of the maps generated in the field.

3.0 ANALYSIS AND CONCLUSIONS

Section 1.3.1 of the *2011 MCM Standards and Guidelines for Consultant Archaeologists* outlines features and characteristics of a property which indicate archaeological potential. Based on the research outlined in the preceding sections of this report, these criteria are addressed as follows:

Previously identified archaeological sites: No previously identified archaeological sites are recorded in the MCM Archaeological Sites Database within the property limits, however there are 10 known sites within a one-kilometre radius of the property, and two located within 300 metres of the property limits.

Water sources: A primary water source (Welland River) is located within 300 metres of its limits.

Elevated topography: The property does not contain any examples of elevated topography.

Pockets of well-drained sandy soil: The soils of the property belong to the Bevelled Till Plains loam variety and are of excellent quality for farming.

Distinctive land formations: No distinctive land formations are identified within the property.

Resource areas: No resource areas are identified within the property.

Areas of early Euro-Canadian settlement: The property is within an area of early Euro-Canadian settlement.

Property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations: We are not aware of any such property.

In summary, the archaeological potential of the property is supported by the following factors:

- The property is located within an area of early Euro-Canadian settlement.
- The property is located in close proximity to historic transportation routes.
- The property is located in close to a primary water source (Welland River).
- There are ten (10) known archaeological sites within a one-kilometre radius of the property.
- There are two (2) of which are located within 300 metres of the property limits (Table 1).

Section 1.3.2 of the 2011 MCM Standards and Guidelines for Consultant Archaeologists outlines features that may indicate the removal or disturbance of archaeological potential. Such features may include quarrying, major landscaping involving grading below topsoil, building footprints, sewage and infrastructure development, etc.

According to the desktop study, portions of the property contain features which indicate the removal or disturbance of archaeological potential. These include the existing structures and gravel driveway. These areas must be subject to Stage 2 assessment to confirm disturbance to be excluded from further archaeological investigation.

The Stage 1 background study concluded that the property exhibits archaeological potential.

4.0 RECOMMENDATIONS

The report makes recommendations only regarding archaeological matters.

The Stage 1 archaeological background study determined there is potential for the recovery of archaeologically significant materials within portions of the property proposed for development. **Therefore, the report recommends that further archaeological assessment of the property is required in the form of a Stage 2 archaeological assessment.**

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

Section 7.5.9, Standard 1a
This report is submitted to the Minister of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

Section 7.5.9, Standard 1b
It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Section 7.5.9, Standard 1c
Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site

immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

Section 7.5.9, Standard 1d

The *Cemeteries Act*, R.S.O, 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Section 7.5.9, Standard 2

Not applicable.

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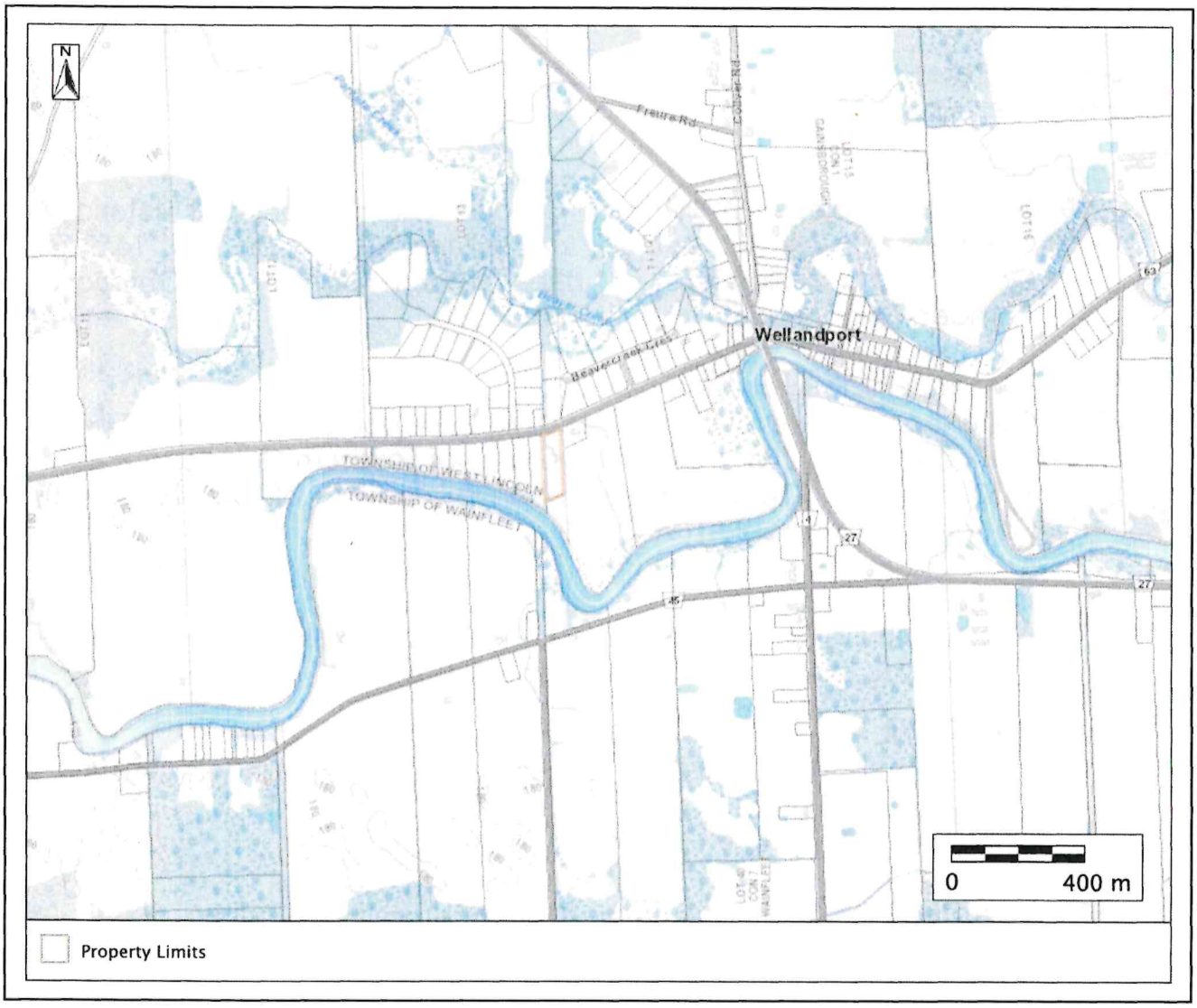
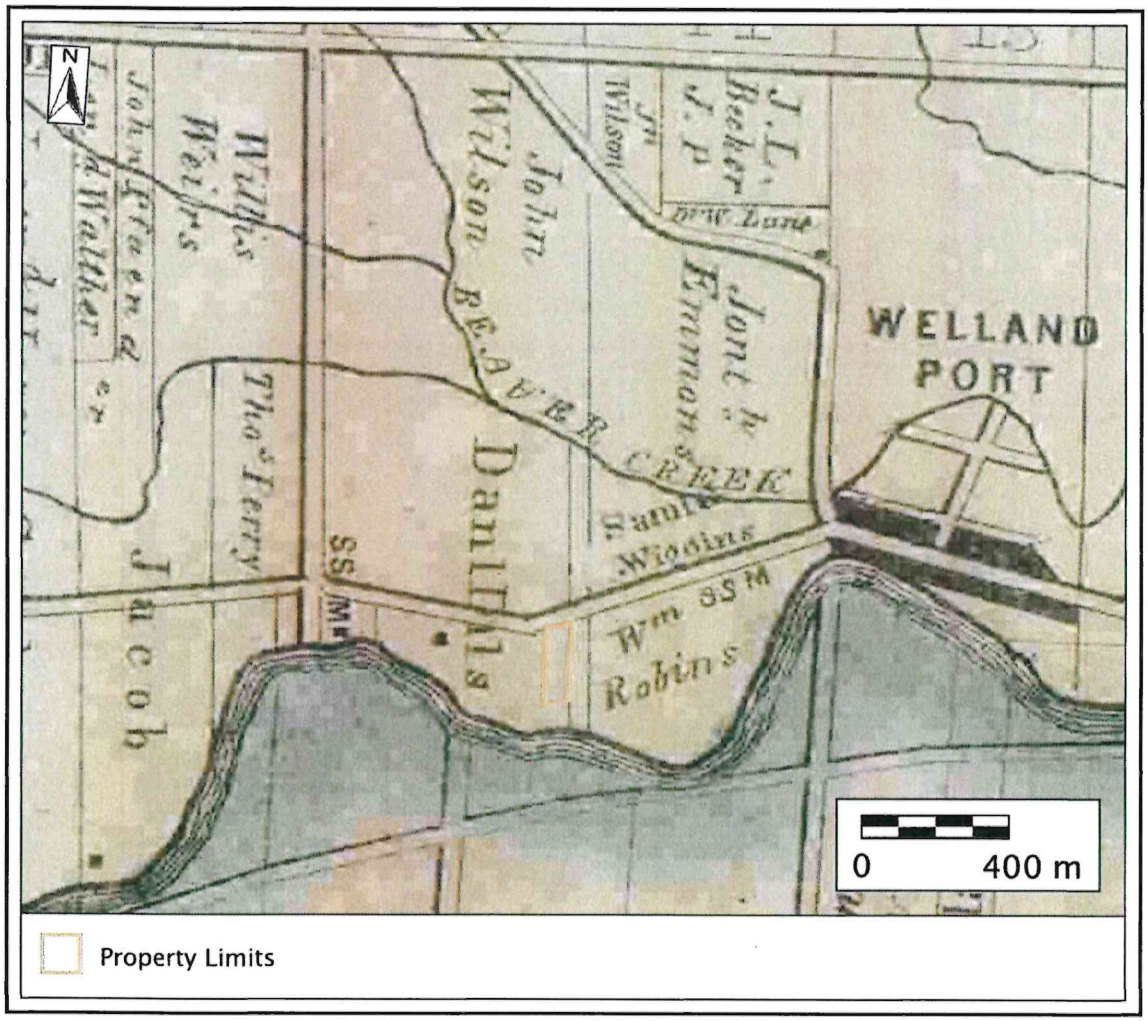
7.0 MAPS

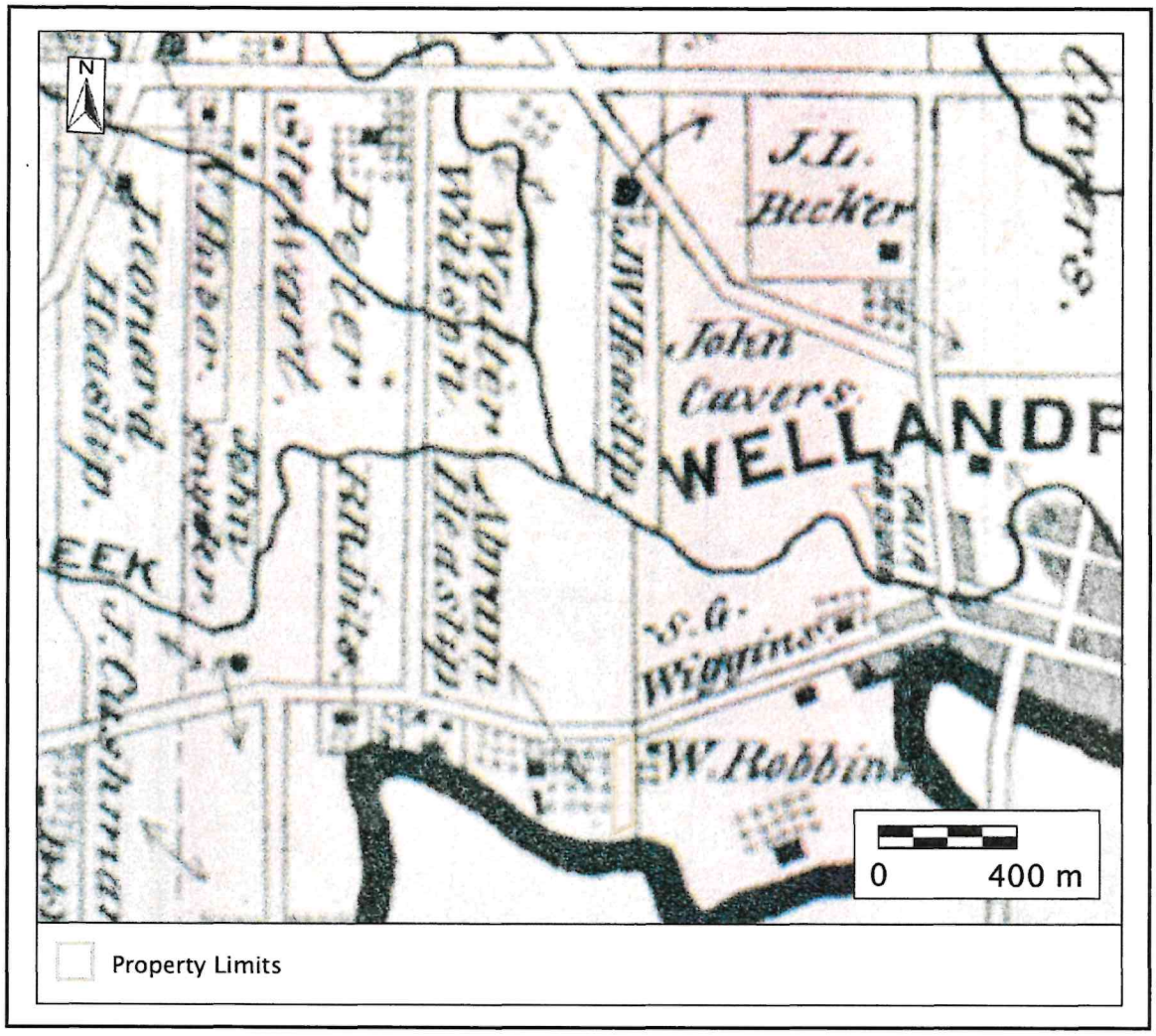


Map 1: General Location of Property Limits (MNRF 2024).

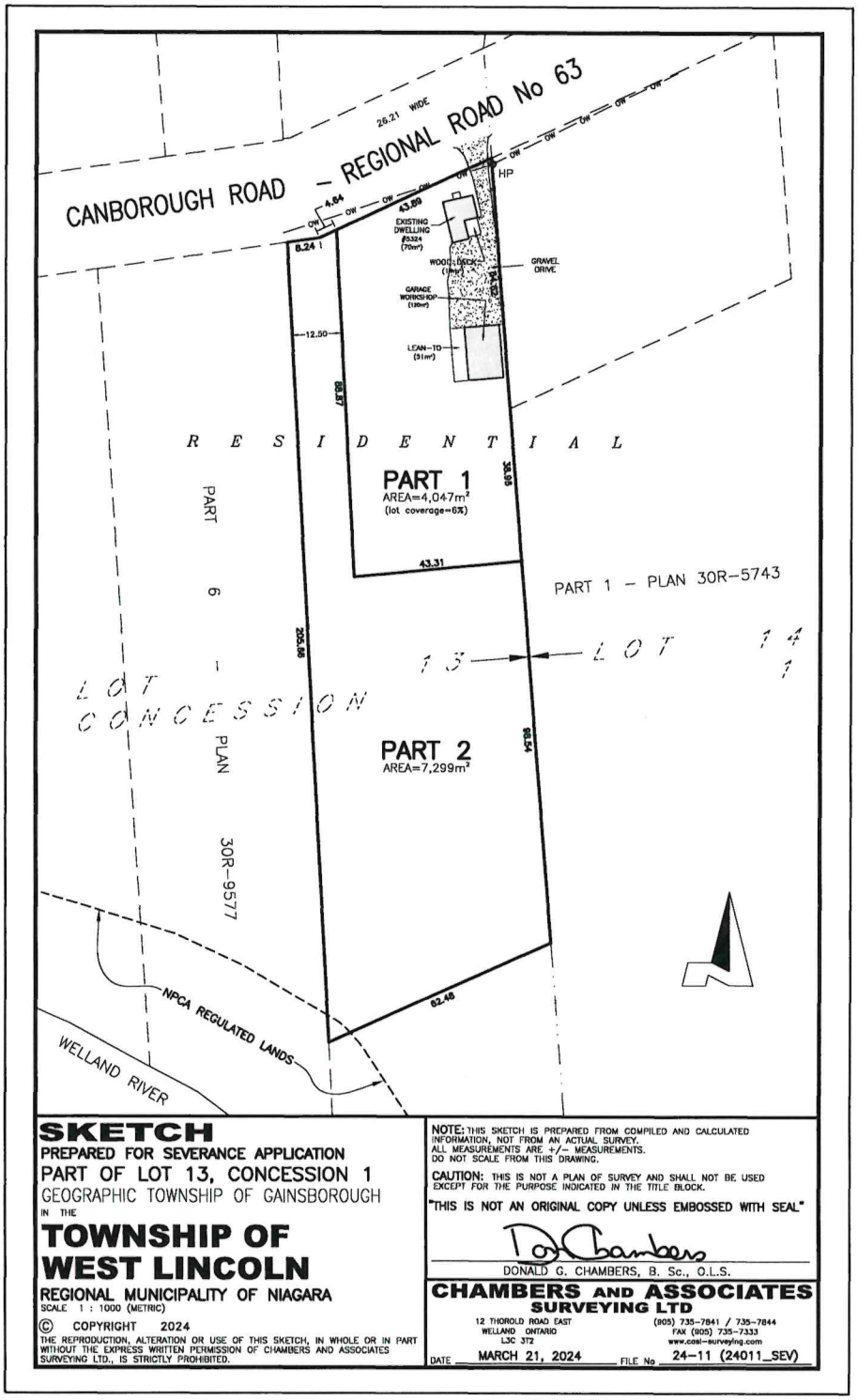
Map 2: Property Limits Overlaid on Recent Aerial Imagery (MNRF 2024).



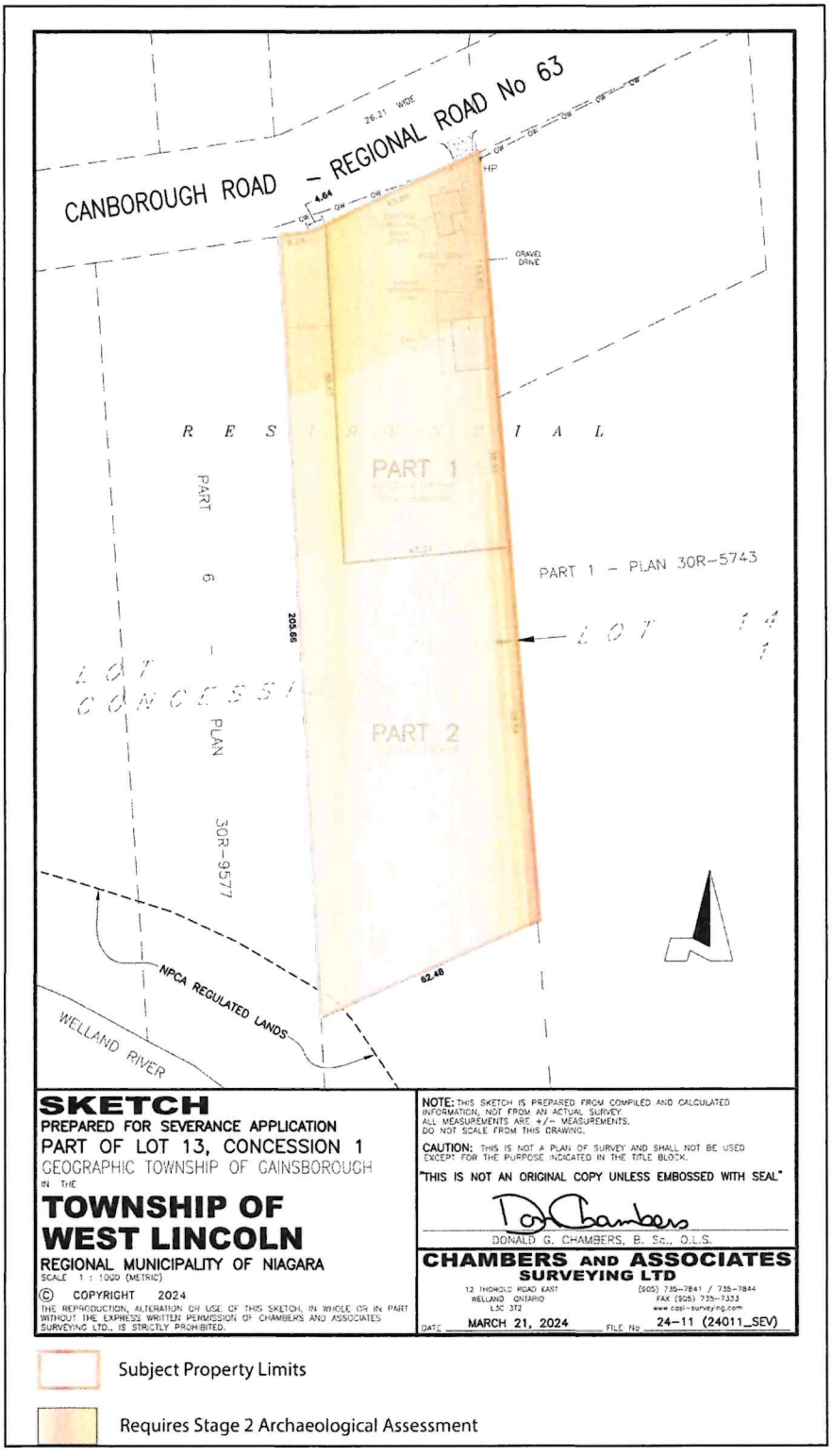
Map 3: Property Limits Overlaid on 1862 Historical Atlas Map (Tremaine 1862).



Map 4: Property Limits Overlaid on 1879 Historical Atlas Map (Walker & Miles 1879).



Map 5: Copy of Sketch Prepared for Severance Application.



Map 6: Results of the Stage 1 Archaeological Assessment.

West Lincoln
Your Future Naturally

Planning Application Review

Application Number:	B05/2024WL, A182024WL
Date:	August 14th, 2022
Property Address:	5324 Canborough road
Project:	Mark and Lauren Vandenberg

Planning Staff,

Please be advised Terra-Dynamics Consulting Inc. has submitted a Hydrogeological Report prepared by Ms. Briar MacIntyre. The submitted report addressed concerns relating to the feasibility of an on-site sewage system servicing a single detached dwelling. Upon review, it would appear that the site is adequate to allow the installation of an on-site sewage system which would comply with the requirements of Part 8 (Sewage Systems) Ontario Building Code.

To ensure that this process continues this department would ask the Committee to consider the following as a condition of severance for file 'B052024WL'.

"That the applicant makes an application for sewage system approval to the satisfaction of the Township of West Lincoln Building Department.

Be further advised that the right is reserved to make additional comment with regard to this application should any additional information be made available. Any further requests of this office should be directed to the undersigned.

Respectfully,

Lyle Killins, C.P.H.I.(c)
Part 8, O.B.C., Septic System Inspector Manager
Building and Bylaw Enforcement Services Department

Niagara Peninsula CONSERVATION nature for all

3350 Merrittville Hwy. Unit 9
Thorold Ontario L2V 4Y6
905.788.3135 | info@npca.ca | npca.ca

August 14, 2024

NPCA File No.: PLMV202401032

VIA EMAIL ONLY

Committee of Adjustment
Township of West Lincoln
318 Canborough Street., P.O. Box 400
Smithville, ON, L0R 2A0

Attention: Stephanie Pouliot, Secretary Treasurer

Subject: **Application for Minor Variance, A18/2024WL**
Mark and Lauren Vandenberg
5324 Canborough Road, West Lincoln
ARN 260202000713300

To the Committee of Adjustment,

Further to your request for comments for the consent for the above noted property, the Niagara Peninsula Conservation Authority (NPCA) can offer the following.

The applicant has submitted a Minor Variance application in conjunction with consent application B05/2024WL to permit a severance which will create two new parcels referred to as Part 1 and Part 2. Part 1 is proposed to be 4,047 metres squared and Part 2 is proposed to be 7,299 metres squared. The Minor Variance pertains to a relief requested for both the existing dwelling on Part 1 and for the proposed lot, Part 2.

The NPCA regulates watercourses, flood plains (up to the 100-year flood level), Great Lakes shorelines, hazardous land, valleylands, and wetlands under Ontario Regulation 155/06 of the Conservation Authorities Act. The NPCA Policy Document: Policies for Planning and Development in the Watersheds of the Niagara Peninsula Conservation Authority (NPCA policies) provides direction for managing NPCA regulated features.

The NPCA has reviewed the NPCA Mapping of **ARN 260202000713300** and notes that the property is impacted by NPCA regulated features.

The subject property contains the following NPCA Regulated Features: a possible unevaluated wetland (both Parts 1 and 2) and encroachment on a Provincially Significant Wetland (PSW) buffer known as the Welland River West Wetland Complex (Part 2 only).

Please be advised that prior to future development, the NPCA will require formal circulation of proposed development (i.e., Site Plan) for review. If the proposed development has possible encroachment on the possible unevaluated wetlands, the NPCA may require a site visit to determine the extent of the regulated feature and appropriate setbacks. Following a review of future proposed work and a completed site visit, the NPCA may provide additional comments and/or requirements pertaining to the verified features and proposed development.

Niagara Peninsula CONSERVATION nature for all

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In respect to future proposed development on Part 2, please be advised that development and site alterations (including placement of fill, and lot grading) are not permitted (unless otherwise exempt) within a Provincially Significant Wetland or within the 30-metre buffer as per NPCA Policies.

Please be advised that as the subject properties are within NPCA regulated areas, any future development will require NPCA review, approval, and Permits from this office prior to the commencement of any works on site.

Conclusion

At this time, the NPCA staff have no objections to the Application for Minor Variance (A18/2024WL).

Please be advised that as the subject properties are within NPCA regulated areas, any future development will require NPCA review, approval, and Permits from this office prior to the commencement of any works on site. Depending on future proposed development, the NPCA may require a completed Site Visit. The NPCA may provide additional comments or requirements following a completed site visit and the review of a provided site plan.

I trust the above will be of assistance to you. Please do not hesitate to call should you have any further questions in this matter.

Sincerely,

Paige Pearson
Watershed Planner
(905) 788-3135, ext. 205
ppearson@npca.ca

Stephanie Pouliot

From: Wilson, Connor <Connor.Wilson@niagararegion.ca>
Sent: August 15, 2024 1:12 PM
To: Stephanie Pouliot
Cc: Development Planning Applications; Busnello, Pat; Boudens, Adam
Subject: RE: Notice of Hearing and Full Package -Wednesday August 28th CofA Hearing
Attachments: Regional Comment Letter - 5324 Canborough Road.pdf

Good afternoon Stephanie

Please see the attached Regional comments for your files regarding 5324 Canborough Road.

Additionally, please see below for additional regional comments with regards to the remaining CoA items for your files. Comments regarding 141 Mill Street will be sent by our Development Approvals Technician later today.

131 St. Catharines Street – B06/2024WL

Archaeological Potential

Regional staff note the subject property is identified as containing Archaeological Potential. As no development is proposed, staff wish to provide the archaeological warning clause for the applicants information. Please note that any future development applications may require an archaeological assessment.

"If deeply buried or previously undiscovered archaeological remains/resources are found during development activities on the subject lands, all activities must stop immediately. If the discovery is human remains, contact the police and coroner to secure the site. If the discovery is not human remains, the area must be secured to prevent site disturbance. The project proponent must then follow the steps outlined in the Niagara Region Archaeological Management Plan: Appendix C."

Natural Heritage

The subject property is impacted by the Region's Natural Environment System (NES), consisting of an 'other woodland' located adjacent to the property. However, the woodland is located more than 50 metres from the location of the proposed lot severance. As the proposed severance will not bisect the woodland or its buffer, staff offer no objection to the application.

It should be noted that any future development or site alteration applications may require an Environmental Impact Study or similar environmental study, as per NOP policies.

Canborough Road - A17/2024WL

Archaeological Potential

Regional staff note that through a previous consent application (Township File No.: B05/2022WL), the applicant had completed a Stage 1 and 2 Archaeological Assessment dated August 18, 2022 (prepared by Seguin Archaeological Services) which was determined that no further assessments are

recommended. Staff has also received the associated Ministry Acknowledgement Letter (dated August 19, 2022). As such, Regional staff offer no further requirements. Regional staff wish to provide the archaeological warning clause for the applicants information.

"If deeply buried or previously undiscovered archaeological remains/resources are found during development activities on the subject lands, all activities must stop immediately. If the discovery is human remains, contact the police and coroner to secure the site. If the discovery is not human remains, the area must be secured to prevent site disturbance. The project proponent must then follow the steps outlined in the Niagara Region Archaeological Management Plan: Appendix C."

Change In Entrance

Regional staff advise the applicant that a change of the entrance location will require a Regional Road Permit, and drawings for restoration and the new entrance are to be submitted for review and approval through the permitting process. Permit applications can be found using the following link: https://www.niagararegion.ca/living/roads/permits/default.aspx

Let me know if you have any questions or concerns with the contents.

All the Best,

Growing Better Together

Niagara Region

Connor Wilson
Development Planner

Niagara Region, 1815 Sir Isaac Brock Way,
Thorold, ON, L2V 4T7

P: (905) 980-6000 ext. 3399
W: www.niagararegion.ca
E: connor.wilson@niagararegion.ca

From: Stephanie Pouliot <spouliot@westlincoln.ca>
Sent: Friday, August 2, 2024 5:08 PM
To: Busnello, Pat <pat.busnello@niagararegion.ca>; Development Planning Applications <devtplanningapplications@niagararegion.ca>; Dunsmore, Susan <Susan.Dunsmore@niagararegion.ca>; Wilson, Connor <Connor.Wilson@niagararegion.ca>; mbirbeck@npca.ca; Mike DiPaola <mdipaola@westlincoln.ca>; Jennifer Bernard <jbernard@westlincoln.ca>; Taf Tsuro <ttsuro@westlincoln.ca>; Lyle Killins <lkillins@live.com>; Barb Behring <bbehring@westlincoln.ca>; Ray Vachon <rvachon@westlincoln.ca>; DL-Council Members <DL-CouncilMembers@westlincoln.ca>
Cc: Gerrit Boerema <gboerema@westlincoln.ca>; Susan Smyth <ssmyth@westlincoln.ca>; Jeni Fisher <jfisher@westlincoln.ca>; Madyson Etzl <metzl@westlincoln.ca>; Justin Paylove <jpaylove@westlincoln.ca>
Subject: RE: Notice of Hearing and Full Package -Wednesday August 28th CofA Hearing