The Town of Niagara-On-The-Lake

Telephone (905) 468-3266
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1593 Four Mike Creek Road
P.O. Box 190
Virgil, Ontario
L0S 1T0

Report:	**MHC-20-008**	**Committee Date:**	**June 23, 2020**

Report To: **Municipal Heritage Committee**
Subject: **46 Paxton Lane**
Heritage Permit Application
Conservation Plan for Paxton House

1. RECOMMENDATION

It is respectfully recommended that:

1.1 Council approve the alterations to the heritage property at 46 Paxton Lane in accordance with section 33 of the *Ontario Heritage Act,* to allow for alterations to the existing building on the lands known municipally in the year 2020 as 46 Paxton Lane, with such alterations substantially in accordance with Phase 1 of the Conservation Plan prepared by Golders, dated May 5, 2020, to the satisfaction of the Director of Community and Development Services and subject to the following additional conditions that:

1.1.1 There shall be no soil disturbance or excavation on site until such time as the Town receives all archaeological reports for the property and all associated compliance letters from the from the Ministry of Heritage, Sport, Tourism and Culture Industries confirming that all licensing requirements have been met and there are no further archaeological concerns prior to site disturbance/excavation, to the satisfaction of the Director of Community and Development Services.

1.1.2 The owner/applicant provide securities, including provision for upwards indexing, in a form and amount and from a bank satisfactory to the Director of Community and Development Services, to secure all work included in the approved Heritage Permit and Conservation Plan. And that, prior to the reduction or release of securities, the owner shall provide a letter of substantial completion prepared and signed by a qualified heritage consultant confirming that the required conservation work has been completed in accordance with the Heritage Permit and Conservation Plan and that an appropriate standard of conservation has been maintained.

1.1.3 The Conservation Plan be updated as necessary, to the satisfaction of the

Director of Community and Development Services, if and when new site analyses, research or investigative work reveals more information about the structural integrity of the building and/or the cultural heritage value of the property; and

1.1.4 The early wooden beams in the basement which have been identified as heritage attributes be retained in situ where possible, and if removal is necessary, the beams are salvaged and properly stored until they can be re-used within the dwelling or another appropriate re-use is found to the satisfaction of the Director of Community and Development Services.

2. PURPOSE / PROPOSAL

The purpose of this report is to provide a recommendation to Council regarding the Heritage Permit Application (attached as **Appendix A**) for the implementation of Phase 1 of the Heritage Conservation Plan (attached as **Appendix B**) to guide alterations and conservation treatments at 46 Paxton Lane. The Conservation Plan provides a detailed outline for conservation objectives and tasks related to conservation. A letter from the property owner's representative has been included as **Appendix C**. The Designation By-law for the property is attached as **Appendix D**.

3. BACKGROUND

3.1 Site Description

The subject property, municipally addressed as 46 Paxton Lane, is located at the end of the oldest portion of Paxton Lane. The dwelling is located on the escarpment, just above, and east of, Four Mile Creek and Four Mile Creek Road as shown in **Figure 1**. A barn was previously located on the property but has since been demolished with Council approval.

Figure 1 - Subject property outlined in blue

The subject property contains a 1.5 storey dwelling, which survived the 1814 burning of St. Davids. The remaining dwelling is of simple Georgian form with 5-bay facade and medium pitched roof. The dwelling has undergone significant alterations (see **Figure 2**) including a change to the roof-pitch and the addition of large gabled dormers on the east and west elevations in the 20th century (still extant). Previous additions to the dwelling are no longer extant above grade, however, early foundations remain intact underground.

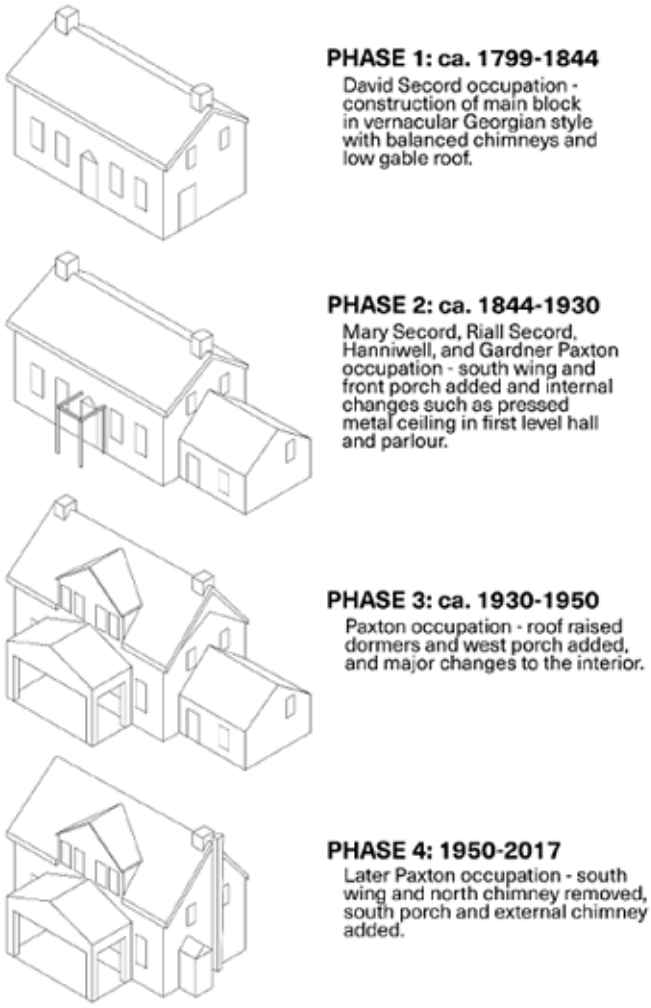


Figure 2 - Phases of development and alteration to the Paxton House as illustrated in the Heritage Conservation Plan prepared by Golder, dated May 5, 2020.

4. DISCUSSION / ANALYSIS

4.1 *Ontario Heritage Act, R.S.O. 1990, c. O.18*

Section 33(1) of the *Ontario Heritage Act* provides the following direction with respect to alterations to designated properties:

> *No owner of property designated under section 29 shall alter the property or permit the alteration of the property if the alteration is likely to affect the property's heritage attributes, as set out in the description of the property's heritage attributes that was required to be served and registered under subsection 29 (6) or (14), as the case may be, unless the owner applies to the council of the municipality in which the property is situate and receives consent in writing to the alteration.*

Designating By-law 4831-15 (attached as **Appendix D**) for the subject property, identifies the following heritage attributes:

- Fieldstone masonry, harled surface rendered in limestone
- Original window opening locations and sizes
- Very early wooden beams in the basement which appear hand-hewn, and still have bark on them. Documents indicate that these pre-date the War of 1812
- Location on a large naturally vegetated lot with the front facade facing Four Mile Creek
- 1.5 storey original, simple Georgian form of the building with 5 bay facade
- Narrow Georgian door

Any proposed alterations that are likely to impact heritage attributes must first be approved by Council and receive a municipal Heritage Permit. It is the applicant's responsibility to ensure that all necessary approvals have been obtained.

4.2 Town of Niagara-on-the-Lake Official Plan, 2017 Consolidation, as amended
The Town Official Plan provides the following relevant goals with respect to heritage conservation in section 18.2:

> *(1) To protect, preserve and encourage the restoration of the original architectural detail wherever feasible on all buildings having architectural and historical merit within the context of the Town of Niagara-on-the-Lake, as well as on all buildings contributing towards the heritage value of the Town of Niagara-on-the-Lake.*
> *(2) ...To restrict building design that is not compatible with existing structures or unsympathetic alterations to buildings that would detract from the character of a Heritage Resource. Where lands or buildings have been designated pursuant to the Ontario Heritage Act the provisions of that Act regarding buildings and additions shall apply. In the Queen-Picton Heritage Conservation District the design of new buildings and structures shall also be subject to the requirements of the Queen-Picton Street Heritage District Plan.*
> *(3) To prevent the demolition, destruction or inappropriate alteration or use of heritage resources.*
> *(5) To develop and encourage creative, appropriate and economically viable uses of heritage resources.*
> *(7) To recognize the importance of archaeological sites within the municipality that represent the physical remains of a lengthy settlement history and a fragile non-renewable cultural legacy.*

Section 18.3 provides policies for new development which includes assessment of the following:

> *a) The impact of the development on existing heritage resources*
> *b) The proposed building design and its effect on the historic character of abutting properties and the streetscape.*

The Conservation Plan provides a detailed plan for stabilization of the dwelling with a clear a rationale for each proposed conservation task and alteration, based on

today's best practices in heritage conservation. The goals guiding the Conservation Plan are to:

- *Conserve the building and its surrounding curtilage as a pre-War of 1812 stone structure with cultural heritage significance to the community; and,*
- *Explore converting the structure from a designated residence to a possible community asset for the St. Davids community and historical and cultural advocacy organizations such as the Willowbank School of the Restoration Arts.*

The proposed goals for the project meet the Town's Official Plan policies as they relate to conservation and creative uses for cultural heritage resources.

4.3 Standards and Guidelines for the Conservation of Historic Places in Canada, 2010

The primary purpose of the Standards and Guidelines for the Conservation of Historic Places in Canada (the "Standards and Guidelines") is to provide practical guidance to achieve good conservation practice. The Standards and Guidelines provide the following definitions:

> *Conservation: all actions or processes that are aimed at safeguarding the character-defining elements of an historic place so as to retain its heritage value and extend its physical life. This may involve Preservation, Rehabilitation, Restoration, or a combination of these actions or processes.*
>
> *Preservation: the action or process of protecting, maintaining, and/or stabilizing the existing materials, form, and integrity of an historic place, or of an individual component, while protecting its heritage value.*
>
> *Rehabilitation: the action or process of making possible a continuing or compatible contemporary use of an historic place, or an individual component, while protecting its heritage value.*
>
> *Restoration: the action or process of accurately revealing, recovering or representing the state of an historic place, or of an individual component, as it appeared at a particular period in its history, while protecting its heritage value.*

The Standards and Guidelines indicate that it is important to identify the primary and secondary conservation treatments for a project during the planning stages of a project. The Conservation Plan identifies that the primary conservation treatment guiding alterations is rehabilitation since "sympathetic rehabilitation of Secord-Paxton House will retain the building's early 19th century heritage attributes, reflect its change through time, and accommodate contemporary use without compromising its authenticity or cultural heritage significance." Secondary treatments include stabilization, preservation and restoration. Staff are in support of the proposed conservation treatment for the cultural heritage resource.

4.4 Review of Phase 1 Stabilization as outlined in the Conservation Plan

The applicant's heritage consultant has prepared a comprehensive Conservation Plan that offers a phased approach to conservation work as prioritized from high to low priority, outlining applicable and appropriate best practice conservation standards.

The current Heritage Permit deals with implementation of Phase 1, as outlined in section 5.1, of the Conservation Plan, which addresses the following matters (provided in greater detail in the Conservation Plan) for the immediate stabilization of the dwelling:

1. Immediate actions
2. Actions during adjacent construction
3. Understand and document existing conditions
4. Investigate the foundation's below-grade conditions and drainage, and repair breaches
5. Remove the exterior concrete masonry units chimney, and repair and repoint the south brick chimney
6. Remove the east dormer and repair the roof
7. Remediate any designated substances and hazardous materials and clean the interior

At this time, only Phase 1 is recommended for implementation for several reasons: firstly, archaeological research is still being completed; and, secondly, the cleaning up of the property and further investigative work may alter future conservation tasks depending on what is revealed about the structural integrity of the dwelling and/or the cultural heritage value of the site. Once Phase 1 is complete, the property owner/applicant's heritage consultant may revisit the Conservation Plan and provide revisions or addendums to address any new circumstances or information that may come to light in Phase 1.

Phase 1 will result in impacts to heritage attributes, primarily the "very early wooden beams in the basement which appear hand-hewn, and still have bark on them." These are proposed to be removed as they are in poor condition and are likely no longer structurally sound. Further analysis of the structural integrity will be undertaken, however, staff recommend that the wooden beams be retained in situ, if possible. If it is not possible to leave the wooden beams in place while stabilizing the structure, it is recommended that the beams are salvaged and properly stored until they can be re-used within the dwelling or another appropriate re-use of the beams is found. Phase 1 also proposes to remove the existing 20th century dormers and alter the roof pitch to its earlier form as the dormers appear to be adding significant weight to the structure causing further structural issues. Staff support this proposal, which will maintain the Georgian form of the building.

4.5 Adoption of New Designating By-law

The Conservation Plan recommends that a new designating by-law be adopted to

more fully articulate the cultural heritage value of the property, since further research and site analysis has allowed for a more thorough understanding of the property's history. The new designating by-law proposes the recognition of additional heritage attributes to those currently recognized by By-law 4831-15. The OHA provides a procedure for amending a designating by-law in section 30.1, which can include "to clarify or correct the statement explaining the property's cultural heritage value or interest or the description of the property's heritage attributes." However, in general, if existing attributes are removed and new attributes are proposed, then the process is beyond clarification and general practice is to undertake the designation process from the beginning and to repeal the old by-law upon passing of the new designating by-law. As such, Staff recommend that the process be initiated to adopt a new designating by-law once further information is received regarding archaeological resources to be conserved.

A basis for the revised designating by-law is provided in section 3.5 of the Conservation Plan. Staff support the proposal to adopt a new by-law for the property in order to ensure that the cultural heritage value of the property is conserved with future proposed alterations. In addition to the suggested revisions in the Conservation Plan, Staff recommend that archaeological resources that are to remain in situ on the property be included in the list of heritages attributes. Future interpretation of these resources is encouraged in future. Archaeological research is being finalized, and the final reports will provide additional information on resources to be conserved. The following is a list of revised heritage attributes as suggested in the Conservation Plan, many of which are comparable to the attributes identified in Designating By-law 4831-15:

- Thick walls constructed of coursed rubble limestone and covered in lime render;
- Evidence of an earlier, lower pitch side-gable roof in the end walls;
- Five-bay principal façade in a simple Georgian style and symmetrical fenestration of tall window and door openings on all façades;
- First level with open and hall-and-parlour floorplan; and,
- Chimney base with relieving arch in the basement.
- Siting near —with principal façade facing— Four Mile Creek and the Village of St. Davids.

The above list, as provided in the Conservation Plan identifies several new heritage attributes including the floor plan on the first floor and the chimney base with relieving arch in the basement. Staff recommend that archaeological resources, which speak to the early development of the dwelling, also be recognized.

Attributes proposed to be removed with the adoption of a revised by-law include the early wooden beams in the basement that appear to be hand-hewn. It is clear that the wooden beams are in poor condition and suffering from rot. Salvage and reuse of the early logs is recommended as dicussed earluer in this report.

The detailed list of heritage attributes can be finalized in consultation with the

property owner/applicant and their heritage consultant at a later date.

5. STRATEGIC PLAN
Not applicable.

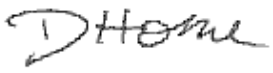
6. OPTIONS
Not applicable.

7. FINANCIAL IMPLICATIONS
There is no fee for a Heritage Permit Application and any Staff review and administrative costs are borne by the Town. Any Building Permit fees are borne by the applicant.

8. COMMUNICATIONS
Once Council has made a decision on the Application, notice of the decision will be given as required in the OHA. The decision of Council is subject to a 30-day appeal period following notice of Council's decision. If no appeals are received during the appeal period, the decision of Council is final.

9. CONCLUSION
The Heritage Permit Application to adopt the conservation measures, as outlined in Phase 1, section 5.1, of the Conservation Plan prepared by Golders, dated May 5, 2020, for the property at 46 Paxton Lane is recommended for approval, subject to the recommended conditions. The Conservation Plan outlines a clear plan for stabilization of the dwelling as per best practices in heritage conservation.

Respectfully submitted,



Denise Horne, MA, Diploma Heritage Conservation
Planner II

ATTACHMENTS

Appendix A - Heritage Permit Application.pdf
Appendix B - Conservation Plan Paxton House - May 5.2020.pdf
Appendix C - HPA Addendum Letter June17.2020.pdf
Appendix D - Designating by-law.pdf

Appendix A

2233497 Ontario Limited
25 Sable Road
Toronto, ON
M5M 3K8

Ms. Denise Horne
Planner II/Heritage /Heritage Advisor
Town of Niagara-on-The-Lake
1593 Four Mile Creek Road
P.O. Box 100
Virgil, ON
L0S 1TO

Dear Ms. Horne:

RE: Paxton Lane
Heritage Permit Application

Further to our recent conversation on the above matter, please find attached to this letter, the following documents

1. Town of Niagara-on-the-Lake Heritage Permit Application
2. Copy of Town of Niagara-on-the-Lake Order RN 378 395 896 CA
3. Appeal of that Order

You will have already received

4. Golder Heritage Conservation Plan (HCP) Paxton House, St. Davids, May 5, 2020
5. Golder Heritage Impact Assessment (HIA), March 2018
6. PHC Archaeological Consultants Work Plan, March 30, 2020
7. Hallex Environmental Phase 1 Environmental Report, March 2019
8. B Design Engineering Services Inc. Structural Review, March 2020
9. PCH and Golder Submissions to MTSC and MHSTCI and their notice of acceptance of the reports into the Archaeological Registry.

You will note from the HCP that the tasks for the surveyed lot of the Paxton House and the surrounding lands are underway. As they had no impact on the cultural attributes of the house itself, several of those recommendations have been acted upon. As we discussed, the archaeological review of the lot will begin in the middle of May and should be completed and a report submitted to the Ministry of Heritage, Sport, Tourism and Cultural Industries for their review shortly thereafter.

You will note from the HCP that there are several options that need to be explored after additional comprehensive structural and environmental studies are concluded. As our focus has now turned to the structure itself, we have determined that a permit is required. We cannot, however present a "to completion" plan because the unknowns of the stability of the structure itself will dictate what

remediation and restoration steps come next. You will note that the HCP also recommends a staged approach to the potential restoration.

As we also discussed, the economic viability of returning the structure to a residence has been assessed by a leading architectural firm who specialize in these kinds of reviews and their estimates to return the structure to a building code-ready dwelling would be close to $1M. This is economically unviable. You will note from the HCP and HIA that the structure itself is likely to require replacement of log beams and supports to brace the main floor. As the only originally significant built-heritage attributes are in the basement, this presents additional challenges which can only be addressed after the stabilization plan in Phase 1 is completed.

Before any of that can even be contemplated, a phase 2 environmental remediation report and work plan will have to be devised and implemented. We cannot begin that work until the detritus and garbage left by the last owners is cleared and the modern additions removed to expose the bones of the structure to gauge the potential for restoration. This work will be carried out with hazmat gear and subject to strict conditions set down under the current emergency orders. We have made arrangement for a wash station and restroom facilities for both the cleanup and archaeological workforces. This work is beginning immediately and we are thankful for your help on this step.

As we discussed, these staged strategies can begin almost immediately, and the stabilization of the structure completed in short order. We are making arrangements to engage a qualified heritage restoration oversight person to advise us on these Phase 1 works.

It should be noted that the ownership group collectively has over 100 years of experience building and rehabilitating structures in the province of Ontario. They are prepared to deploy specialized teams to undertake the 7 strategies in Phase 1. Safety is there number 1 concern, so all required gear and equipment is being arranged for the site. It is our intention to fence the structure once Phase 1 is complete in preparation for the beginning of the subdivision works.

We have also discussed the ongoing discussions we have had with groups and individuals who have shown an interest in the project. These will continue.

The only heritage attribute that could be altered in Phase 1 is the removal of the east roof gable and returning the roof line to the original 1799 pitch. This is being done to relieve the pressure on the east wall, which is bowing, and the NE building corner that has evidence of significant cracking. All other work on the facia and related materials will simply be repairing or replacing what is there at present. We have discovered a significant amount of compatible wood in the attic and where possible, it will be utilized in the roof and other required repairs.

This plan we are proposing takes the works up to the Rehabilitation stage when definitive plans for the restoration and ultimate end use can be made. Therefore, we are seeking your guidance as to the logic and acceptance of this phased approach. These measures will also fulfill the Town's Order and ensure protection for the interior of the structure as well as provide a clearer comprehension of the structural stability of the building.

Once the current crisis is over, it is 2233497 Ontario Limited's intention to hold a public information session in St. Davids to detail the archaeological, cultural and consultations that have been undertaken on the site and present plans for the lands and the Paxton House.

So, please accept this application for a 4 Phased Heritage restoration plan for the Paxton House and for your active consideration of allowing us to proceed with Phase 1 in May and June of this year.

We would also be grateful if you could help us understand the timelines for the water and sewer line works that were surveyed last year by the Town. This will help determine the best way to bring power and related infrastructures to the house.

I am available to discuss this request at your convenience.

Sincerely;

Steven Megannety
Project Coordinator
Local Address
15-4025 Dorchester Road – Box 141
Niagara, ON L2E 6N1
289.690.5860
megannety@megannety.ca

Cc: Mr. Tom Richardson, Sullivan Mahoney
2233497 Ontario Limited

Niagara-on-the-Lake EST.1781

Department of Community & Development Services
1593 Four Mile Creek Road
P.O. Box 100, Virgil, ON L0S 1T0
905-468-3266 • Fax: 905-468-0301

www.notl.org

APPLICATION FOR HERITAGE PERMIT

A. APPLICANT INFORMATION

Applicant Name	Steven Megannety
Mailing Address	15-4025 Dorchester Road Box 141 Niagara, ON L2E6N1
Phone Number	2896905860
E-mail ***	megannety@megannety.ca
Is the applicant the owner of the property?	☐ Yes ☑ No

B. PROPERTY OWNER INFORMATION

Property Owner Name	2233497 Ontario Limited
Mailing Address	25 Sable Avenue, Toronto, ON, M6M 3K8
Phone Number	4168183464
E-mail ***	vanmali@look.ca

*** By providing an e-mail address you agree to receive communications and notices from the Town and the Municipal Heritage Committee by email

C. SUBJECT PROPERTY & PROPOSED PROJECT

Application is made to:

☐ Construct	☑ Alter	☐ Demolish	☐ Erect a Sign

Subject Property Address	46 Paxton Lane
Explain all work to be undertaken as part of this project (for detailed projects and any project with an associated building permit or planning application attach extra pages as necessary)	A phased schedule to stabilize, assess and address the issues in the work order issued by the Town of Niagara-on-the-Lake - attached here. These steps are detailed in the Heritage Conservation Plan on file with the Town.

Explain: Reasons for proposed alterations	The house is open to the elements and several instances of vandalism have been noted.
Explain: How the proposal enhances the cultural heritage attributes of the property and/or meets the policies of the Heritage Conservation District Plan	The house is uninhabitable and deteriorating rapidly. Without these steps, the structure cannot be secured or assessed for structural integrity and public safety.
Are any other works or projects being considered in the near future? If so, please explain	

Other necessary approvals include:

☐ Building Permit(s) ☐ Site Plan ☐ Sign Permit ☐ Other

For (specify work):

D. MATERIAL DETAILS

Attribute to be impacted	Existing Material	Proposed Material	Proposed Colours
Exterior Treatment	Removal of selection sections of 20th century stucco to assess bowing of the rear and north walls.	NA	NA
Roof	Phase 2 of this plan is to remove the roof and return the structure to its original configuration.	Wood and or other structural materials as required	NA

Trim	NA	NA	NA
Doors	Temporary security doors	Temporary security doors	Temporary security doors
Windows	NA	NA	NA
Porch/ Verandah	NA	NA	NA
Fencing	NA	NA	NA
Landscaping	Archaeological assessment will be undertaken in the summer of 2020	Archaeological assessment will be undertaken in the summer of 2020	Archaeological assessment will be undertaken in the summer of 2020
Interior Features	Removal of garbage and modern fixtures	Removal of garbage and modern fixtures	Removal of garbage and modern fixtures
Other			

The following information must be submitted with <u>every</u> Heritage Permit Application:

- [x] Recent photos of all elevations to be impacted (current condition within last 2 months)
- [x] Site Plan of property and buildings
- [x] Perspective Drawings
- [x] Building Elevations
- [ ] Proposed colours & materials (where there is a change or repair)
- [ ] Specifications for type and application of materials (where there is a change or repair)
- [x] Historic photos of property (where available)

Information which may be required in consultation with staff depending on the project includes:

- [x] Heritage Impact Assessment
- [x] Streetscape Study
- [ ] Landscape Plan
- [ ] Floor Plans
- [ ] Other: _____

I hereby certify that I am the [x] property owner or their [x] authorized agent and that the above information is true to the best of my knowledge.

I/We the Owner(s)/Agent of the subject property, and the applicant(s) of this subject application, by signing this application agree to allow either staff and/or a Committee Member of the Town of Niagara-on-the-Lake Municipal Heritage Committee the right to enter onto my property, as necessary, to view & photograph the property for the proposal. Failure to allow access onto the property may result in the application being considered incomplete.

The applicant acknowledges that the Municipality considers the application forms and all supporting materials including studies and drawings, filed with any application to be public information and to form part of the public record. With the filing of an application, the applicant consents and hereby confirms that the consent of the authors of all supporting reports have been obtained, to permit the Municipality and Region to release the application and any supporting materials either for its own use in processing the application, or at the request of a third party, without further notification to, or permission from, the applicant.

Date: MAY-13-20 Print Name: JAY VANMALI

OWNER Signature: Jay V

**Email Heritage Permit to: vanmali@look.ca

** By providing an e-mail address you agree to receive communications and notices from the Town and the Municipal Heritage Committee by email

Department of Community & Development Services
1593 Four Mile Creek Road
P.O. Box 100, Virgil, ON L0S 1T0
905-468-3266 • Fax: 905-468-0301
www.notl.org

March 17, 2020

2233497 ONTARIO LIMITED
25 SABLE STREET
TORONTO. ON, M6M 3K8

By Registered Mail
RN 378 395 896 CA
Ref: MLE-INV-03877

ORDER

Issued pursuant to section 15.2(2) of
The Building Code Act, S.O. 1992, Chapter 23, as amended

Re: 46 PAXTON LANE
PT LOT 90RP
30R3213 PART 1
NIAGARA-ON-THE-LAKE

The above described property which is owned by you or in which you have an interest was inspected on **March 04, 2020.**

The inspection revealed that in some respects the property does not conform to the standards prescribed by the Property Standards By-Law No. 5192-19

IT IS ORDERED THAT the repairs necessary to correct the defects as set out in Schedule "A" attached hereto be carried out and the property be brought into a condition of compliance with the prescribed standards on or before: **May 01, 2020**.

Where any permit is required to undertake any repair to conform to the standards as prescribed in this Order, it is the responsibility of the owner to obtain any such permit.

Where it has been determined that the necessary repair or demolition has not been completed in accordance with this Order as confirmed or modified. The Town of Niagara-on-the-Lake may cause the property to be repaired or demolished and the cost of such action may be registered as a lien on the land and shall be deemed to be municipal real property taxes and may be added by the clerk of the municipality to the collector's roll and collected in the same manner and with the same priorities as municipal real property taxes.

YOU ARE HEREBY ADVISED THAT if you are not satisfied with the terms or conditions of this Order you may appeal to the Property Standards Committee by sending a Notice of Appeal by Registered Mail to the Secretary, Property Standards Committee, Town Administration Building, 1593 Four Mile Creek Rd., P.O. Box 100, Virgil, On., L0S 1T0.The fee for an Appeal is $471.00 and must accompany the Notice of Appeal. The final date for giving notice of Appeal from this Order is **April 04, 2020.**

In the event that no appeal is taken by the date specified above, the Order shall be deemed to be confirmed and shall be final and binding upon you, requiring you to comply with its terms within the time and in the manner specified in the Order.

Warwick R. Perrin. C.P.S.O., M.L.E.O.(C)
Supervisor of Enforcement & Property Standards Officer
Town of Niagara on the Lake
905.468.3266 Ext.278
warwick.perrin@notl.com

March 16, 2019

Schedule "A"

Re: 46 PAXTON LANE
PT LOT 90RP
30R3213 PART 1
NIAGARA-ON-THE-LAKE

File. MLE-INV-03877

Item #	Location	Necessary Repair	By-Law Sec
1.	Heritage Property	Maintain property to ensure the Heritage Attributes are maintained.	2(a)1i
2.	East Elevation, North and South Ends.	Repair holes through masonry walls	3.05 (1)
3.	All sides and elevations.	Repairs holes through soffits and facia boards.	3.05 (1)
4.	West elevation, Front of building	Re-attach eavestrough and downpipe to facia.	3.07 (3)
5.	South Elevation, Brick and Block Chimneys.	Point (fill) open mortar joints.	3.05 (1)
6.	South Elevation – Block Chimney	Secure chimney cap.	3.07 (1)
7.	South Elevation, Entrance canopy.	Repair and re-store to original condition.	2.06 (1)
8.	South Elevation	Repair hole through masonry wall.	3.05 (1)
9.	West Elevation. South end.	Replace missing Eavestrough downpipe	3.07 (3)
10.	West Elevation, south End	Clean obstructions from eavestrough	3.07 (3)
11.	Front door	Replace two beveled glass panels.	3.06 (1)
12.	Front door and 2nd floor windows.	Board as required to maintain building security.	4.03 (2)

FOR YOUR INFORMATION:

By-Law No. 5192-19 Sec 2.01 & Sec 5.01State: All repairs and maintenance of property shall be carried out with suitable and sufficient materials and in a manner accepted as good workmanship within the trades concerned. All necessary construction or repairs shall conform to the Ontario Building Code, Ontario Fire Code and the Fire Prevention and Protection Act.

NOTE: Any repair required pursuant PART II (a) **General Standards for Heritage Properties** will require a Heritage Permit, for details please contact the Heritage Adviser at 905-468-3266.

2233497 Ontario Limited
25 Sable Street
North York, ON
M5M 3KA

Mr. Warwick R. Perrin, C.P.S.O. M.L.E. O (C)
Supervisor of Enforcement and Property Standards Officer
Town of Niagara-on-The-Lake
1593 Four Mile Creek Road
P.O. Box 100
Virgil, ON
L0S 1TO

Tuesday, March 24, 2020

Dear Mr. Perrin:

RE: 46 Paxton Lane
PT Lot 90RP
30R3213 Part 1
Niagara-on-the-Lake

I represent the ownership group of 2233497 Ontario Limited the owners of the above property. I was provided with your ORDER on March 23, 2020 at 2:30PM. Please accept this as an appeal of the ORDER. The specifics are as follows. This letter and payment for the appeal will have been dropped at the Town Hall effective Wednesday March 25, 12PM

We have undertaken the following steps to define the realities of preserving the house on Paxton Lane and have been working diligently to address realities of restoring the house.

1. A Heritage Impact Assessment which is on file with the Town
2. A Phase 1 Environmental Assessment
3. Consulted on a Phase 2 Environmental Assessment and Remediation plan
4. A comprehensive archaeological remediation plan for the lot
5. A Phase 1 Engineering Assessment
6. Regulatory consultations with interested First Nations
7. Analysis of Town Strategic and Heritage Plans
8. Analysis of St. Davids Development Plans
9. Analysis of Glendale District Development Plan
10. Analysis of historical data for the Village of St. Davids
11. Analysis of the Tourism Strategy for the Town
12. Analysis of the St. Davids Heritage Conservation District proposal
13. Consultations with Heritage Ontario
14. Consultations with Heritage Canada
15. Consultations with the Ministry of Heritage, Sport, Tourism and Culture
16. Consultations with the immediate neighbours

17. Consultations with the Niagara Region Conservation Authority – this is specifically to allow for the clean-up of the creek and removal of 30 years of farming detritus on the bank. We would appreciate if you could provide us with the authority, permits and rationale for the water course works on the creek undertaken by the Town in 2019.
18. Discussion with arborists to inventory the trees and remove weeds and invasive species and completed a removal of bush and overgrowth
19. Pruned and trimmed trees and other plans impacting the structure.
20. Discussions with environmental and remediation consultancies and contractors
21. Discussions with building heritage consultants to assess the structural and cultural preservation strategies available to us.
22. Contracted and conducted surveys for the approved Plan of Subdivision and heritage conservation areas along with the GPS coordinates for the lot lines and creek bed exclusion area for the designated property.
23. Four site visits and a comprehensive review by the Willowbank Schools of Restoration Arts to assess the foundation and structural soundness of same.
24. Engaged a heritage architectural consultancy.
25. Developed an architectural plan for the subdivision that reflects the original configuration and design of the house.
26. Mapped and catalogued all the interior features of cultural significance.
27. Held and continue to hold consultations with heritage and charitable organizations to explore all options for the eventual use of the house.

AND spent $1.8M on archaeological and cultural assessment and remediation.

If this appeal is not accepted, before we can proceed to address the ORDER, we will require clear definitions of the following items

1. What structural "Heritage Attributes" are to be maintained; the current 20th century or the original 18th.
2. How the soffits, facia eavestrough and downspouts from the existing 20th century roof can be "re-attached", "replaced" and "repaired" before the original roof configuration can be restored to eliminate the bowing to the original walls and structural damage to the foundation caused by the 20th century addition of dormers and other renovations.
3. How to address the 1950 block chimney on the south elevation that has to be removed as original cooking and heating chimneys are on the north elevation and how it fits into heritage attributes.
4. How the replacement of "beveled glass panels" in the rear – not front - door can be "replaced" to meet the Town's heritage standards
5. How the "South elevation, Entrance Canopy" which was apparently added in the 1920's and sealed over later in that century adds to the cultural significance of the house.

I would appreciate receiving copies of the survey and plans for the replacement of the watermains along Paxton Lane that were undertaken by Town staff in 2019. These plans will be critical to the planning of the restoration.

I will assume that you have read and comprehended the HIA on file with the Town outlining the cultural significance of the property and the preliminary discussions on the a possible comprehensive restoration plan.

Thank you for your consideration of this Appeal and if you deem it unacceptable, could you please provide me with a Heritage Permit, the necessary Building Permits, authorization to use Paxton Lane for the conveyance of heavy equipment at your earliest convenience – preferably dated prior to April 4th, 2020 – your approval to allow us to bypass the Ontario Heritage Act and other relevant legislation to governing the actions you have ordered to allow us to undertake to complete the necessary repairs so we can comply with By-Law No. 5192-19 Sec. 2.01 & Section 5.01State prior to May 1, 2020.

We would also be willing to consider an FMV offer from the Town or any interested party willing to take on this project subject to a severance of the lot from the OMB Approved Plan of Subdivision.

Without the completion of the steps we have undertaken and outlined above, we could not apply for a restoration permit as the structural integrity of the house, the environmental abatement issues and the archaeological concerns on the whole lot are completely unknown. We cannot remove any modern stucco or parging that is necessary to assess the obvious structural problems with the east wall without a Heritage Permit. We would like to proceed with ONE Heritage Permit, not a series, so we have engaged with outside experts to define and clarify the issues we are likely to face once we start. We anticipate that we can begin the Heritage Permit Application process with a comprehensive restoration plan in the summer of 2020.

The requisite fees are included with this letter.

I eagerly anticipate your response prior to April 4th, 2020.

Or you can rescind your ORDER and schedule a teleconference so we can inform you and Town staff the steps we have already taken to proceed with heritage restoration. In either case, your deadline of May 1, 2020 for the restorations to be compliant with the By-Law cannot be met unless we can count on divine intervention.

Sincerely

Signed Electronically – Hard Copy Delivered 25/3/20

Steven Megannety
Agent for 2233497 Ontario Limited
megannety@megannety.ca
2896905860

Cc: 2233497 Ontario Limited
Mr. Tom Richardson, Sullivan Mahoney
Lord Mayor Betty Disero

Appendix B

GOLDER

REPORT

Secord-Paxton House, 46 Paxton Lane, Village of St. Davids, Town of Niagara-on-the-Lake, Ontario

Heritage Conservation Plan

Submitted to:

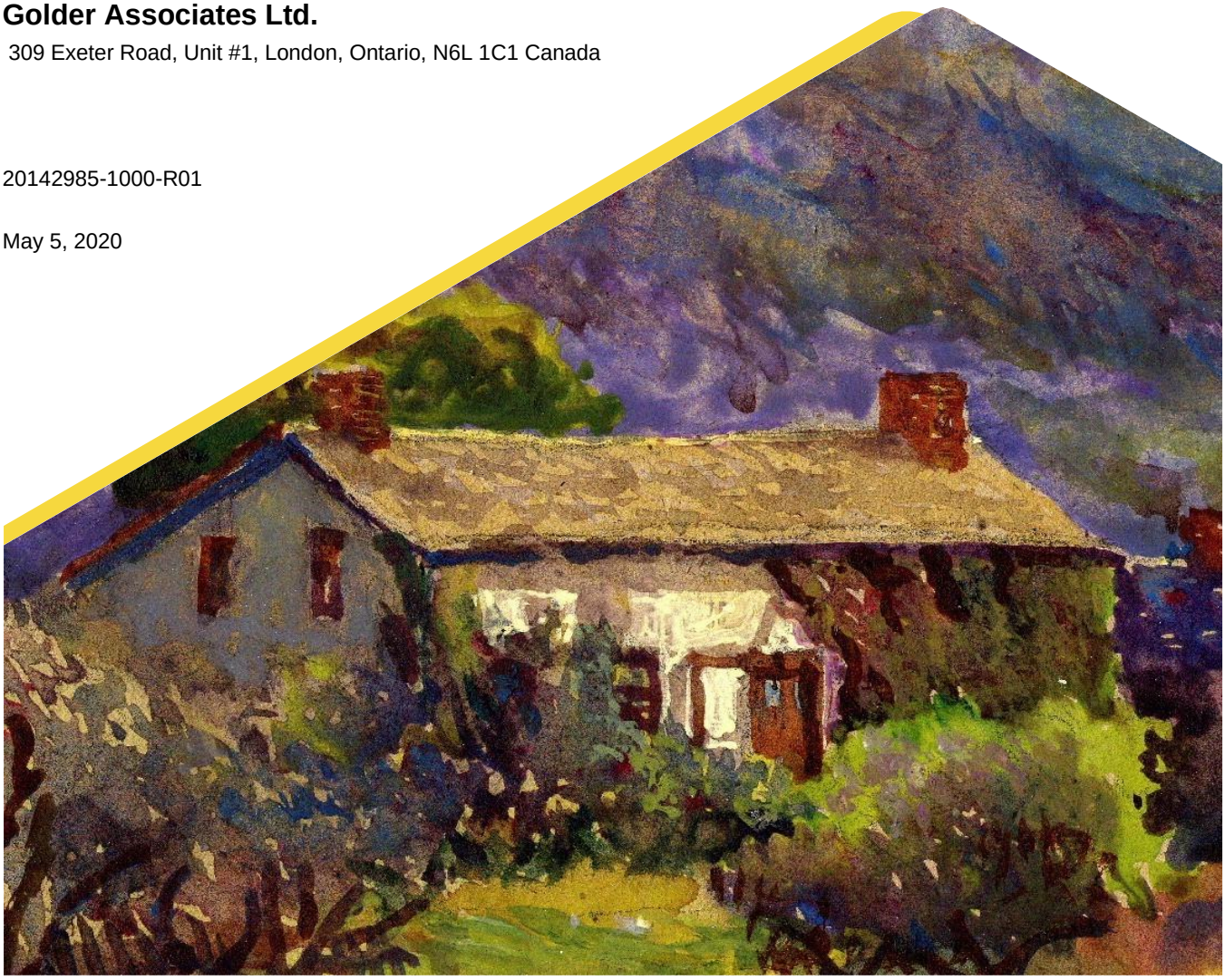
2233497 Ontario Ltd.
c/o Steven Megannety
25 Sable Street
Toronto
M6M 3K8

Submitted by:

Golder Associates Ltd.
309 Exeter Road, Unit #1, London, Ontario, N6L 1C1 Canada

20142985-1000-R01

May 5, 2020



Distribution List

1 e-copy - 2233497 Ontario Ltd.

1 e-copy - Golder

Personnel

Project Director	Michael Teal, M.A., Associate, Senior Archaeologist
Project Manager	Henry Cary, Ph.D., CAHP, RPA, Senior Cultural Heritage Specialist
HCP Lead	Henry Cary, Ph.D., CAHP, RPA
Historical Research	Henry Cary, Ph.D., CAHP, RPA
Field Investigations	Henry Cary, Ph.D., CAHP, RPA
Report Production	Henry Cary, Ph.D., CAHP Elizabeth Nicoll, M.Pl., CAHP Intern, Cultural Heritage Specialist
Maps & Illustrations	Henry Cary, Ph.D., CAHP, RPA Zachary Bush, CAD/GIS Technician
Senior Review	Bradley Drouin, M.A.

Acknowledgements

2233497 Ontario Limited	Steven Megannety
Town of Niagara-on-the-Lake	Denise Horne, M.A., Dip. Heritage Conservation, Planner Jesse Auspitz, Planner

Executive Summary

The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.

In August 2017, 2233497 Ontario Inc. retained Golder to conduct a Heritage Impact Assessment (HIA) for the property at 46 Paxton Lane in the Village of St. Davids, within the Town of Niagara-on-the-Lake, Ontario. At that time, the 1.994-hectare property included a storey-and-a-half stone residence and outbuilding and is known locally as Secord House or Paxton House (hereafter Secord-Paxton House). The house is believed to have been constructed prior to the War of 1812, and the property was designated in 2015 under municipal by-law 4831-15, enabled under Part IV of the *Ontario Heritage Act.* 2233497 Ontario Limited is proposing to subdivide the property for townhouse and single-detached residential development, demolish the outbuilding, and retain Secord-Paxton House on a severed lot.

Golder's HIA recommended several mitigation measures to reduce potential adverse impacts to Secord-Paxton House and included conducting a heritage conservation plan (HCP) to guide future management of the house and its surrounding curtilage. These recommendations were central to the design of the approved plan of subdivision and architectural designs for new construction, and the HIA was accepted by the Town of Niagara-on-the-Lake. In March 2018, 2233497 Ontario Limited retained Golder to conduct the HCP.

Following international, federal, provincial and municipal guidance, this HCP takes an understanding, planning and intervening approach to conservation, with goals to:

- ***Conserve the building and its surrounding curtilage as a pre-War of 1812 stone structure with cultural heritage significance to the community; and,***
- ***Explore converting the structure from a designated residence to a possible community asset for the St. Davids community and historical and cultural advocacy organizations such as the Willowbank School of the Restoration Arts.***

To achieve these goals, Golder has recommended within this HCP twenty stabilization, rehabilitation, restoration, and preservation strategies to be implemented in four phases over the next two years (see Sections 5.0 and 6.0).

Study Limitations

Golder has prepared this report in a manner consistent with standards and guidelines developed by the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries, the Ontario Heritage Trust, and Canada's Historic Places, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied, is made.

This report has been prepared for the specific site, design objective, developments and purpose described to Golder by 2233597 Ontario Ltd. (the Client). The factual data, interpretations and recommendations pertain to as specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's expressed written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the Client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of tis report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges the electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder's report or other work products.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

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FIGURES

1.0 INTRODUCTION

In August 2017, 2233497 Ontario Inc. retained Golder Associate Ltd. (Golder) to conduct a Heritage Impact Assessment (HIA) for the property at 46 Paxton Lane in the Village of St. Davids, within the Town of Niagara-on-the-Lake, Ontario (Figure 1). At that time, the 1.994-hectare property included a storey-and-a-half stone residence and outbuilding and is known locally as Secord House or Paxton House (hereafter Secord-Paxton House). The house is believed to have been constructed prior to the War of 1812, and the property was designated in 2015 under municipal by-law 4831-15, enabled under Part IV of the *Ontario Heritage Act.* 2233497 Ontario Limited is proposing to subdivide the property for townhouse and single-detached residential development, demolish the outbuilding, and retain Secord-Paxton House on a severed lot.

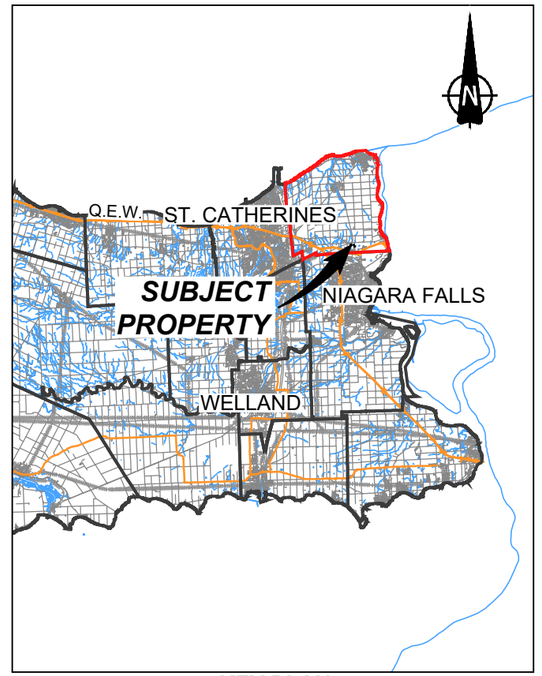
Golder's HIA recommended several mitigation measures to reduce potential adverse impacts to Secord-Paxton House, which included conducting a heritage conservation plan (HCP) to guide future management of the house and its surrounding curtilage. These recommendations were central to the proposed subdivision plan and architectural designs for new construction, and the HIA was accepted by the Town of Niagara-on-the-Lake. In March 2018, 2233497 Ontario Limited retained Golder to conduct the HCP.

This HCP describes the current understanding of Secord-Paxton House, then recommends planning and intervening measures that recognize and respect what is important about the historic place (Canada's Historic Places 2010:4). Overall, this HCP:

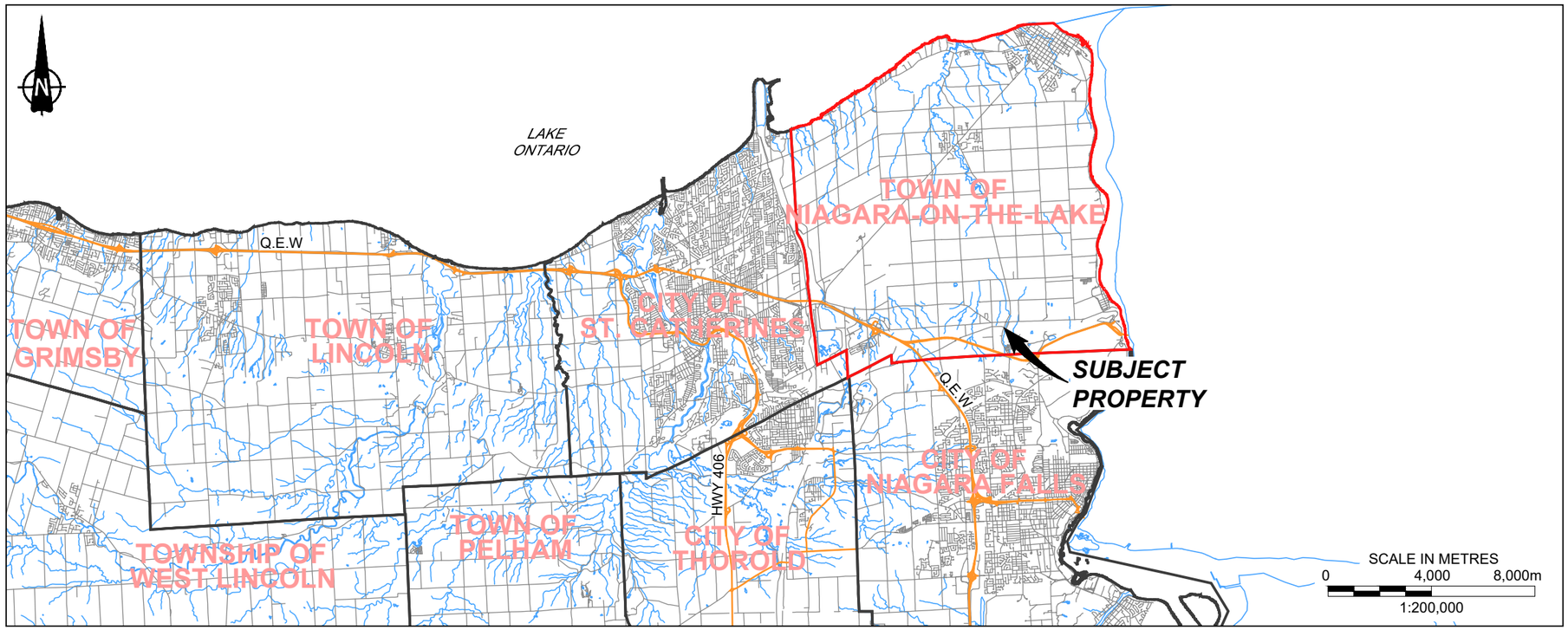
- Summarizes the heritage policies relevant to conserving the Secord-Paxton House;
- Provides an overview of the building's setting and structural history;
- Revises the previous draft Statement of CHVI and list of heritage attributes to reflect the current understanding of the Secord-Paxton House;
- Describes the building's physical condition;
- Develops goals for the Secord-Paxton House, and identifies the objectives to achieve these goals;
- Recommends the primary and secondary conservation treatment options and a series of strategies to ensure the heritage attributes of the Secord-Paxton House are conserved; and,
- Outlines the schedule to achieve the goals and objectives and complete the recommended strategies.

Following heritage conservation pioneer James Kerr (2013:2), this HCP only includes what is relevant to conserving the Secord-Paxton House and does not extensively cover the previous historical research nor the theoretical basis for heritage conservation.

BING AERIAL IMAGERY and OBM MAPPING



KEY PLAN



REGIONAL MAP

LEGEND

- APPROXIMATE SUBJECT PROPERTY
- TOWN OF NIAGARA-ON-THE-LAKE BOUNDARY
- TOWNSHIP/MUNICIPALITY BOUNDARY
- LINCOLN — TOWNSHIP/MUNICIPALITY

REFERENCE

DRAWING BASED ON MNR LIO, OBTAINED 2017, PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2017;

BING AERIAL IMAGE AS OF MAY 4, 2020 (IMAGE DATE UNKNOWN);

AND CANMAP STREETFILES V2008.4.

NOTES

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.

BING IMAGERY USED FOR ILLUSTRATION PURPOSES ONLY AND NOT TO BE USED FOR MEASURMENTS.

ALL LOCATIONS ARE APPROXIMATE.

PROJECT

HERITAGE CONSERVATION PLAN
46 PAXTON LANE
TOWN OF NIAGARA-ON-THE-LAKE, ONTARIO

TITLE

LOCATION MAP

GOLDER

PROJECT No.		20142985	FILE No20142985-1000-R01001
			SCALE AS SHOWN REV.
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FIGURE 1

2.0 PLANNING FRAMEWORK

Heritage properties are subject to several provincial and municipal planning and policy regimes, as well as guidance developed at the federal and international levels (Figure 2). These have varying levels of authority at the local level, though generally are all considered when making decisions about heritage assets.

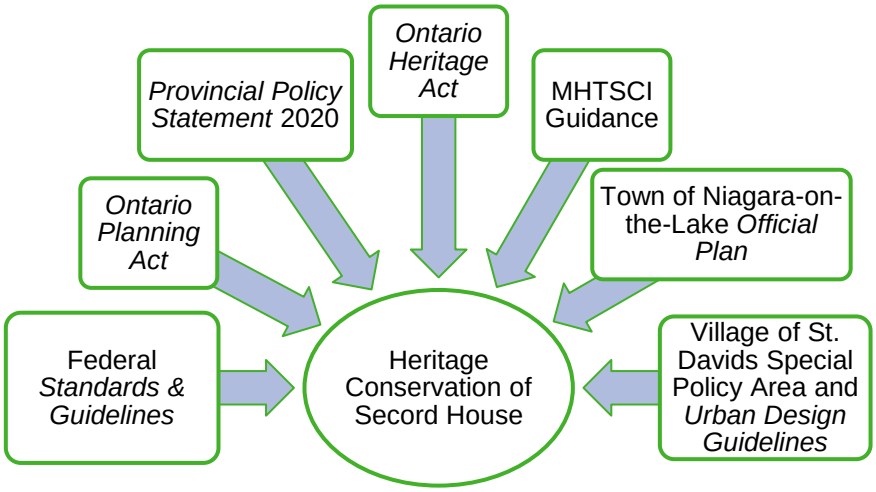


Figure 2: Federal, Provincial, and municipal policies relevant to the heritage conservation and development at Secord-Paxton House.

2.1 International & Federal Heritage Policies

No federal heritage policies apply to the property, although many of the provincial and municipal policies detailed below align in approach to that of Canada's Historic Places (CHP) *Standards and Guidelines for the Conservation of Historic Places in Canada* (Canada's Historic Places 2010; hereafter CHP *Standards and Guidelines).* Drafted in response to international and national agreements such as the *International Charter for the Conservation and Restoration of Monuments and Sites (*the Venice Charter, 1964), *Australia ICOMOS* [International Council on Monuments & Sites], *Charter for Places of Cultural Significance (*the Burra Charter, updated 2013) and *Canadian Appleton Charter for the Protection and Enhancement of the Built Environment* (1983), the national *Standards and Guidelines* define three conservation treatments – preservation, rehabilitation, and restoration – and outline the process and required and suggested actions relevant to each treatment. The principles provided in the national *Standards and Guidelines* form the basis of this HCP and are outlined in greater detail in Sections 3.0, 4.0 and 5.0.

2.2 Provincial Heritage Policies

2.2.1 Planning Act and Provincial Policy Statement

The Ontario *Planning Act* (1990) and associated *Provincial Policy Statement*, 2020 (PPS 2020) provide the legislative imperative for heritage conservation in land use planning. Both documents identify conservation of resources of significant architectural, cultural, historical, archaeological, or scientific interest as a provincial interest. PPS 2020 recognizes that protecting cultural heritage and archaeological resources has economic, environmental, and social benefits, and contributes to the long-term prosperity, environmental health, and social well-being of Ontarians. The *Planning Act* serves to integrate this interest with planning decisions at the provincial and municipal level, and states that all decisions affecting land use planning 'shall be consistent with' PPS 2020.

The importance of conserving built heritage and cultural heritage landscapes is recognized in Section 2.6.1 of PPS 2020 ('significant built heritage resources and significant heritage landscapes shall be conserved'), and defines *significant* as resources 'that have been determined to have cultural heritage value or interest', and *conserved* as 'the identification, protection, management and use of built heritage resources, cultural heritage landscapes, and archaeological resources in a manner that ensures their cultural heritage value of interest is retained.' Built heritage resources, cultural heritage landscapes, heritage attributes, and protected heritage properties are also defined in the PPS:

- ***Built heritage resources:*** a building, structure, monument, installation or any manufactured or constructed part or remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an Indigenous community. Built heritage resources are located on property that may be designated under Parts IV or V of the *Ontario Heritage Act*, or that may be included on local, provincial, federal and/or international registers.
- ***Cultural heritage landscapes:*** a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Indigenous community. The area may include features such as buildings, structures, spaces, views, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Cultural heritage landscapes may be properties that have been determined to have cultural heritage value or interest under the *Ontario Heritage Act*, or have been included on federal and/or international registers, and/or protected through official plan, zoning by-law, or other land use planning mechanisms.
- ***Heritage attribute:*** the principal features or elements that contribute to a protected heritage property's cultural heritage value or interest, and may include the property's built, constructed, or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting (eg. significant views or vistas to or from a protected heritage property).
- ***Protected heritage property:*** property designated under Parts IV, V or VI of the *Ontario Heritage Act*; property subject to a heritage conservation easement under Parts II or IV of the *Ontario Heritage Act*; property identified by the Province and prescribed public bodies as provincial heritage property under the Standards and Guidelines for Conservation of Provincial Heritage Properties; property protected under federal legislation, and UNESCO World Heritage Sites.

For municipalities, PPS 2020 is implemented through an Official Plan, which may outline further heritage policies (Section 2.3.1).

2.2.2 Ontario Heritage Act and Ontario Regulation 9/06

The *Ontario Heritage Act (OHA)* enables the Province and municipalities to conserve significant individual properties and areas. For Provincially-owned and administered heritage properties, compliance with the Ministry of Heritage, Sport, Tourism and Culture Industries (MHTSCI) *Standards and Guidelines for the Conservation of Provincial Heritage Properties* (MHSTCI S&Gs) is mandatory under Part III of the *OHA* and holds the same authority for ministries and prescribed public bodies as a Management Board or Cabinet directive.

For municipalities, Part IV and Part V of the *OHA* empowers council to 'designate' individual properties (Part IV), or properties within a heritage conservation district (HCD; Part V), as being of 'cultural heritage value or interest' (CHVI). Evaluation for CHVI under the *OHA* is guided by *Ontario Regulation 9/06* (*O. Reg. 9/06*), which prescribes the *criteria for determining cultural heritage value or interest*. These include:

1) The property has ***design value or physical value*** because it:

i) Is a rare, unique, representative or early example of a style, type, expression, material or construction method;

ii) Displays a high degree of craftsmanship or artistic merit; or

iii) Demonstrates a high degree of technical or scientific achievement.

2) The property has ***historic value or associative value*** because it:

i) Has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community;

ii) Yields, or has the potential to yield information that contributes to an understanding of a community or culture; or

iii) Demonstrates or reflects the work or ideas of an architect, artist, builder, designer, or theorist who is significant to a community.

3) The property has ***contextual value*** because it:

i) Is important in defining, maintaining or supporting the character of an area;

ii) Is physically, functionally, visually or historically linked to its surroundings; or

iii) Is a landmark.

Designated properties, which are formally described and recognized through by-law, must then be included on a 'Register' maintained by the municipal clerk. Secord-Paxton House was designated in 2015 under By-law 4831-15, enabled under Part IV of the *OHA*. The designation by-law includes a Statement of Cultural Heritage Value or Interest with description of heritage attributes.

2.2.3 Provincial Guidance

As mentioned above, heritage conservation on provincial properties must comply with the MHSTCI S&Gs, but these also provide 'best practice' approaches for evaluating cultural heritage resources not under provincial jurisdiction. The *Standards and Guidelines for the Conservation of Provincial Heritage Properties - Info Bulletin 2* advises on the contents and possible strategies for an HCP. The Ontario Heritage Trust, an agency of the Province, has also developed terms of reference and suggested contents for conservation plans under their management, although these are less detailed (OHT 2012; OHT 2011).

To advise municipalities, organizations and individuals on heritage protection and conservation, the MHSTCI developed a series of products under the *Ontario Heritage Tool Kit.* Of these, *Heritage Resources in the Land Use Planning Process* (MHSTCI 2006) provides an outline for the contents of a HCP, which it defines as:

- a document that details how a cultural heritage resource can be conserved. The conservation plan may be supplemental to a heritage impact assessment but is typically a separate document. The recommendations of a plan should include description of repairs, stabilization and preservation activities as well as long term conservation, monitoring and maintenance measures.

Determining the optimal conservation strategy is further guided by the MHSTCI *Eight Guiding Principles in the Conservation of Historic Properties* (2012), which encourage respect for:

1) Documentary evidence (restoration should not be based on conjecture);

2) Original location (do not move buildings unless there is no other means to save them since any change in site diminishes heritage value considerably);

3) Historic material (follow 'minimal intervention' and repair or conserve building materials rather than replace them);

4) Original fabric (repair with like materials);

5) Building history (do not destroy later additions to reproduce a single period);

6) Reversibility (any alterations should be reversible);

7) Legibility (new work should be distinguishable from old); and,

8) Maintenance (historic places should be continually maintained).

2.3 Municipal Heritage Policies

2.3.1 Niagara-on-the-Lake Official Plan

The *Official Plan* (2017) for Niagara-on-the-Lake has several goals, objectives and policies pertaining to cultural heritage resources under Section 18: Heritage Conservation. Of relevance to Secord-Paxton House, these include:

- To protect, preserve and encourage the restoration of the original architectural detail wherever feasible on all buildings having architectural and historical merit within the context of the Town of Niagara-on-the-Lake, as well as on all buildings contributing towards the heritage value of the Town of Niagara-on-the-Lake.
- To encourage good contemporary building design by using sympathetic forms while avoiding simply copying historic architecture. To restrict building design that is not compatible with existing structures or unsympathetic alterations to buildings that would detract from the character of a Heritage Resource. Where lands or buildings have been designated pursuant to the Ontario Heritage Act the provisions of that Act regarding buildings and additions shall apply.
- To prevent the demolition, destruction or inappropriate alteration or use of heritage resources.
- To develop and encourage creative, appropriate and economically viable uses of heritage resources.

2.3.2 Village of St. Davids Special Policy Area and Urban Design Guidelines

Management of cultural heritage resources is sometimes addressed under Secondary Plans or other special policies. Secord-Paxton House is within the Special Policy Area A-3 (St. Davids), and specifically the St. Davids Established Village Area, for which there are a number of considerations for cultural heritage. The overall objectives for the Special Policy Area are to 'preserve the ambience and character of the historic village' (Section 1.1), and 'provide for well-designed new development through urban design guidelines to address streetscape character, infill opportunities, and community focal points' (Section 1.13). For the Established Village Area, the following four of fourteen policies are relevant to conserving Secord-Paxton House:

- Policy 1 – Conservation and enhancement of the character and ambience of the Area, and the preservation of buildings of architectural merit and historic interest shall be encouraged;

- Policy 2 – Conservation and enhancement of the Area character include elements constituting or supporting the quality of exterior spaces, streetscapes, and public spaces;
- Policy 3 – Conservation and rehabilitation of historic buildings in a compatible manner shall be encouraged for any proposal for re-use or redevelopment of existing properties; and
- Policy 6 – Where adaptive re-use of existing historic buildings is being considered, any alterations, additions or renovations shall be compatible in scale and architectural treatment with the design and character of both the original building and adjacent buildings and shall be designed to enhance the streetscape.

Further advice to meet the objectives and policies of the secondary plan are the *St. Davids Urban Design Guidelines*, which have the overall goal of providing 'strong physical connections between St. Davids' natural landscape, the existing Village neighbourhoods and its emerging communities.' The community's 'cultural legacy' is central to the Guidelines, and architectural elements and materials derived from several historic buildings in the village are recommended for new construction. Paxton Lane is addressed in the *Guidelines* as an 'established neighbourhood' and described as having an 'informal character of a tree-lined country lane, without sidewalks and a formal curb and gutter edge.' Despite the brevity of this description, the Guidelines advise that 'even if Paxton Lane is called upon to provide access to new houses, care should be exercised not to lose its unique character'.

3.0 UNDERSTANDING

Most of the information in the following sections is excerpted from Golder's HIA, although some information has been updated or added to reflect the current understanding of Secord-Paxton House as of May 2018.

3.1 Location and Setting

The property of Secord-Paxton House is on the Niagara Peninsula of southwestern Ontario, approximately 11 km south of Lake Ontario and 4.5 west of the Niagara River. It is within the Iroquois Plain physiographic zone, an area of rolling terrain encompassing much of the Lake Ontario shoreline from Niagara to Cobourg, and just 320 m to the south is the Niagara Escarpment zone. The physiographic context of the property can be further defined as within the Niagara Fruit Belt subsection of the Iroquois Plain, which is a composed of well-to-imperfectly drained, stone-free, and fine textured clays. As the name of this subsection suggests, the soils and climate make the area ideal for fruit growing (Chapman & Putnam 1984:190-191). Naturally occurring trees of the area are predominately deciduous, but coniferous species are also present, as is typical of the Lake Erie to Lake Ontario subsection of the Mixedwood Plains Ecoregion.

In reference to cultural boundaries and features, the currently 1.994-hectare lot was formerly located on Lot 90 of Niagara Township, Lincoln County, and was amalgamated into the Town of Niagara-on-the-Lake, Regional Municipality of Niagara, in 1970. It is located approximately 350 m south of the centre of the Village of St. Davids at the intersection of Four Mile Creek Road and York Road (Regional Road 81) and bounded on the north and east by the St. Davids Golf Club, on the south by new subdivision development on 'new' Paxton Lane, and on the west by 'old' Paxton Lane as well as a residential property at 33 Paxton Lane and Four Mile Creek.

Secord-Paxton House is at the end of the narrow, two-lane Paxton Lane, which is entered from the north at York Road. Except for the two-storey, red-brick Locust Hall at 1 Paxton Lane, either side of the lane are large residential properties with predominately small, one-storey 20th century houses and garages with medium setback. At its south extent Paxton Lane narrows to a single lane with shallow ditch and passes three residential properties on the west before continuing to Secord-Paxton House as a gravel driveway.

Most of the property is covered in small trees and tall grasses that have grown recently over the formerly cleared fields, while the west portion is densely covered in taller mature and new growth trees (Figure 3). The house and outbuilding are clustered in the west-central portion of the property. Trees and vegetation surrounding the house block all views into the lot from surrounding properties, and mature trees and tall vegetation either side of Four Mile Creek completely obscure views of and from Secord-Paxton House.

Figure 3: View facing northwest of Secord-Paxton House and its surrounding thick vegetation (2018).

3.2 Secord-Paxton House Today

3.2.1 Exterior

Secord-Paxton House is a single-detached, five-bay, and storey-and-a-half dwelling with rectangular plan measuring 12.38 m (40 feet 7 ½ inches) on the long east and west facades, and 7.77 m (25 feet 6 inches) on the north and south end walls (Figure 4 to Figure 7). Its up to 90-cm thick foundations and walls are coursed rubble masonry of angular and medium-to-small sedimentary rocks bonded with lime mortar, which is covered in lime render incised to mimic ashlar masonry. Apart from these incised lines there is no other wall decoration. Under the entire structure is basement with that is just under full height, and partially above ground level; in addition to access from the interior, the basement can be entered directly via an exterior stairwell on the north end wall.

The roof is a medium side-gable with large centre dormers on both the east and west facades, but in the north and south gables is evidence of an earlier roof line, which was a low side-gable type. Both eaves and verges are projecting and have plain wood fasciae and tongue-and-groove plank soffits. Projecting eaves and verges are also found on the centre dormers, and like the main roof have plain fascia and plank soffits. Although the dormers extend from the wall and appear as lucarnes or wall dormers, they are constructed in wood and are visually separated from the wall by a minor overhang. The only decorative element on both the main roof and dormers are slightly curved returns at the eaves of the verges.

At the south gable are two chimneys. The older of the two is a short, single-stack internal chimney constructed of red brick, while on the exterior is a taller, single-stack chimney constructed of Concrete Masonry Units (CMUs). No other roof features could be seen on the roof, which is covered in asphalt shingles.

Fenestration is symmetrical throughout, with a central entrance flanked by four tall windows on the west facade, and a central door flanked by two windows on the east facade. The south facade has two symmetrically placed windows at the gable, and a door with enclosed gabled porch at the ground level. On the north end wall and gable are four, tall and symmetrically placed windows. All of these openings are covered in plywood hoarding but from the interior can be seen to be wood and double-hung with either one-over-one (for the gable windows), one-over-six, or six-over-one lights. Interestingly, only the east facade windows have lug sills, which appear to be formed in concrete.

The entrances are also boarded up but are all single-leaf and lack special features. Over the west entrance and two nearest windows is a large open porch with concrete deck, plain and square concrete pillars, and low front gable roof. Like the main roof and dormers, the porch has projecting eaves and verges with plain wood facia and soffits, while the gable of the porch has a central diamond-shaped decorative feature formed in concrete.

Figure 4: West façade of Secord-Paxton House (2018, photographed with pole-mounted camera and rectified).

Figure 5: South end wall (2018, photographed with pole-mounted camera and rectified).

Figure 6: East façade (2018, photographed with pole-mounted camera and rectified).

Figure 7: North end wall (2018, photographed with pole-mounted camera and rectified).

3.2.2 Interior

Although significantly altered during the second half of the 20th century, the interior of the house can be characterized as having a double-pile and open plan based on a hall-and-parlour with unusual subdivisions on the north, east and southwest (Figure 8). The first level of the main block is divided into three rooms and stairs. In the southeast corner is a small room used as a kitchen. In the hall and parlour is a late 20th century acoustic panel drop-ceiling, but where the panels have been removed can be seen a pressed metal with panels of a four-pointed variation of the triquetra and an egg-and-dart border (Figure 9). In the south main room is a fireplace that has since been blocked up, covered in wood panelling and used as a chase for metal heating pipe.

Sections of walling have been removed on a partition near the east wall, revealing hand-squared studs (with bark still adhering) that are through-mortised to take the tenons of rails, and split-board lathe-and-plaster (Figure 10). These rails are flush with the floor joists of the second level but are unlikely to be load bearing.

The second level is entered via an enclosed staircase from the central hall and rises as a dogleg with half-pace landing. This opens onto a narrow hallway running north-south with doorways to rooms on the south and three rooms on the north (Figure 11). The doors, baseboard, and architraves at the second level are all dark stained wood and in design appear to date to the second and third quarter of the 20th century (Figure 12). Access to the attic is via a drop-down hatch with stairs located in the ceiling of the central hallway. Exposed in the attic are the common rafters and plank sheathing of the roof construction, all of which is in dimensional lumber (Figure 13).

Access to the basement is via a doorway near the rear central door and leads with straight stairs to the three-quarter height lower space. Evidence of an earlier stairway is evident in the stringers and the staircase is further enclosed by riven lath-and-plaster. A thin layer of poured concrete was laid for the floor but has heaved from frost action, exposing the dirt floor and a subfloor clay drainage pipe. A substantial buttress of formed concrete supports the southwest corner of the foundation and centred on the north end wall is a massive stone feature.

This was reported in the Golder HIA to be a hearth but is now believed to be a chimney base with relieving arch as seen in other 18th century houses (Figure 14 and Figure 15). All the flooring is exposed and includes a combination of hand-squared timbers and later sawn and finished joists, some of which are sintered to the original hewn logs.

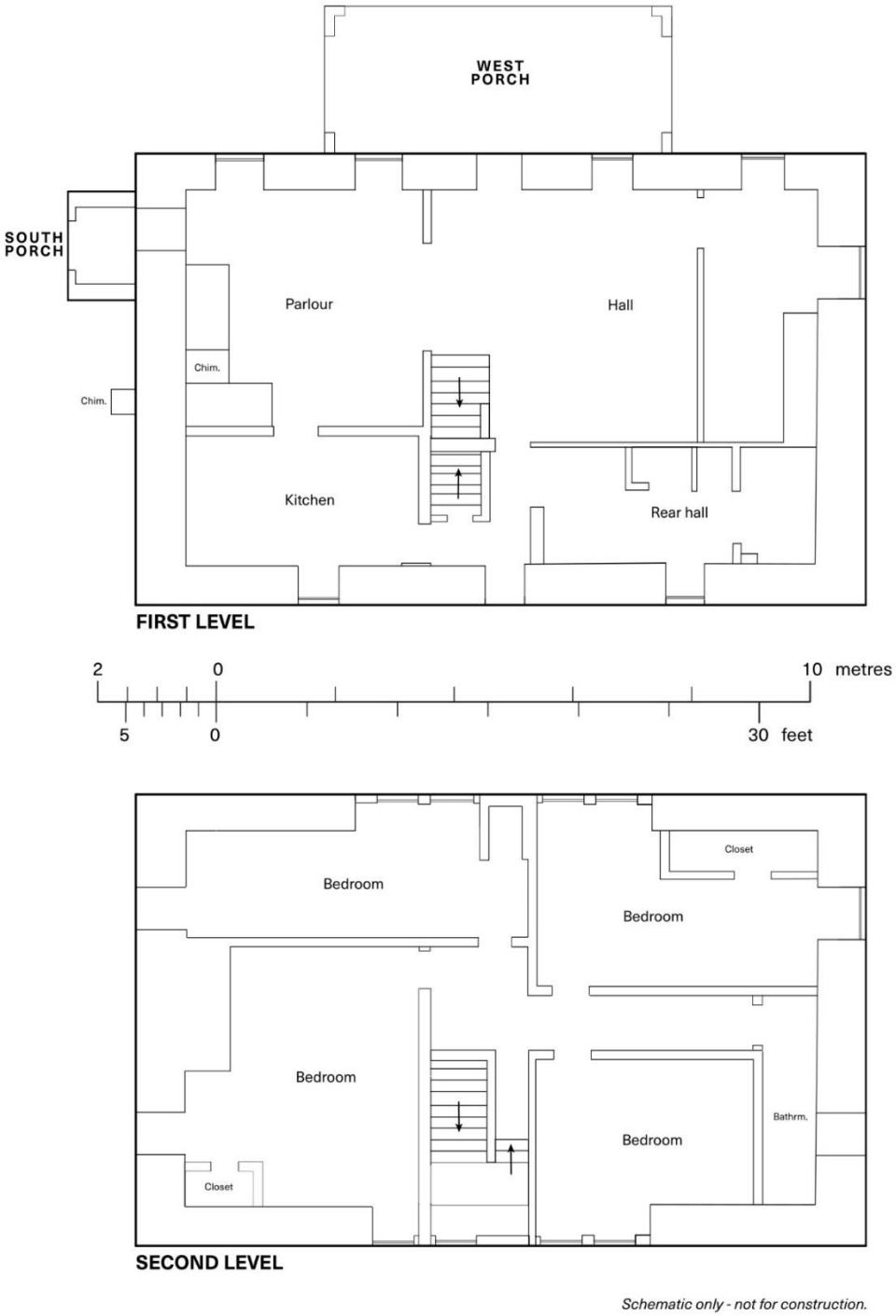


Figure 8: Schematic floorplans of first and second level.

Figure 9: Pressed metal ceiling in the southwest room (2017).

Figure 10: Partition of split-board lath-and-plaster between two hewn studs near the south entrance (2017).

Figure 11: Second level hallway, facing south toward the staircase (2017).

Figure 12: Windows on the west dormer (2017).

Figure 13: Attic space with exposed dimensional lumber common rafters and sheathing (2017).

Figure 14: Chimney base on the north foundation wall with remnants of a relieving arch at far right (2017).

Figure 15: Large chimney base with relieving arch in Liston House, Delaware, circa 1740 (Herman 1987:90).

3.3 Occupation and Structural History

3.3.1 Occupation History

The earliest historical reference to the property is Frey's 1787 survey map, which indicates the area of 46 Paxton Lane as owned by Peter Secord. Peter Secord was born in New Rochelle, New York around 1726 to Daniel Secord and Catherine Mabie. A United Empire Loyalist, Peter served as a sergeant with the Butler's Rangers from 1777 to 1780 and was subsequently given permission by Governor Haldimand to settle lands on the west side of the Niagara River as tenants of the Crown. In 1780, Peter, his wife Abigail, and seven of their twelve children, settled on the west side of Four Mile Creek, and by the time of the first census in 1782 had managed to clear 24 acres. By 1798, the Crown patents for Lots 90, 91, and 92 were finally issued to Peter Secord. Peter sold all three 100-acre lots to his son Captain David Secord, who in turn sold them to his cousin, Major David Secord in 1799.

Major David Secord was born in New Rochelle, New York in 1759, the third son of James Secord and Madelaine Badeau. Like other members of the Secord family, David joined Butler's Rangers in 1777 and served as a corporal until their disbandment in 1784. David then settled a land grant given to his father near Queenston. Following his father's death that same year, ownership of this property, comprising Lots 42-45, passed to David

and his brother, James. David remained at the family home until shortly after he acquired Lots 90 to 92, when he moved to the southern portion of Lot 90, just east of Four Mile Creek. In 1806, David sold Lots 91 and 92 to his brother Stephen but retained Lot 90 for himself. It eventually became the Village of St. Davids.

By the time the War of 1812 broke out, David had cleared approximately 200 acres and acquired three houses, a grist mill, a blacksmith shop, a general store, barns, and other property. He had also become a Justice of the Peace, received a Major's commission in the 2nd Lincoln Militia, and represented the 2nd Lincoln riding in the House of Assembly. During the war Major Secord participated in the battles of Queenston Heights, Beaverdams, Chippawa, Lundy's Lane, and Fort Erie. Recognized by the Americans, his property was targeted during the burning of St. Davids of 1814.

After the war, David submitted a war claim in 1815 for household goods, crops, animals, a grist mill, a shed, a stable, and four dwelling houses, including a stone house "1 ½ storey high, 40 feet by 24 with a sellar [sic] under the same." The stone house has been interpreted as the building presently standing at 46 Paxton Lane, and this is supported by the 1818 'A Plan of the Position of Queenston' map surveyed by British officers Alexander and Vavasour, which shows a house in approximately the same position. Despite his claim, David was denied adequate compensation, and was forced to sell off much of his land holdings. He died in 1844, with the probate of his will giving the homestead on Lot 90 at the east side of Four Mile Creek to his wife Mary, and the remainder of the property to his sons Elijah and Riall. At the time of Mary's death in 1861, the house passed to Riall, as depicted on Tremaine's 1862 Map of the Counties of Lincoln and Welland. The property remained with members of the Secord family until 1873, when it was sold to David Hanniwell, whose name is shown on the 1875 *Historical Atlas of Niagara Township*.

The Hanniwells owned the land until 1915 when it was sold to Gardner Paxton for $2,400. The Paxton's owned the property until at least 2007. Topographical mapping and aerial photography reviewed for the area indicates that the outbuilding at 46 Paxton Lane was constructed sometime between 1939 and 1960. A graphical chronology of significant events in the property's history and depictions of Secord House through time is provided in Figure 16.

ca. 1799

Crown patents for Lots 90, 91, and 92 were issued to Peter Secord in 1798 and Peter sold all three 100 acre lots to his son Captain David Secord, who in turn sold them to his cousin, Major David Secord in 1799.

1815

David Secord submits a war claim in for household goods, crops, animals, a grist mill, a shed, a stable, and four dwelling houses, including a stone house "1 ½ storey high, 40 feet by 24 with a sellar [sic] under the same."

1844

David Secord dies, leaving the homestead on Lot 90 to his wife Mary, and the remainder of the property to his sons Elijah and Riall.

1861

Mary Secord dies, and the house passes to Riall Secord.

1875

The house and property is sold to David Hanniwell

1915

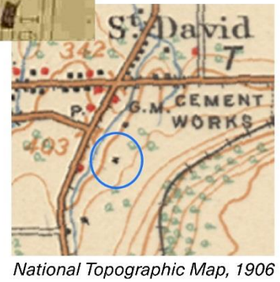
Gardner Paxton purchases the property for $2,400

2007

The property is purchased for future development.

Vavasour, 1818

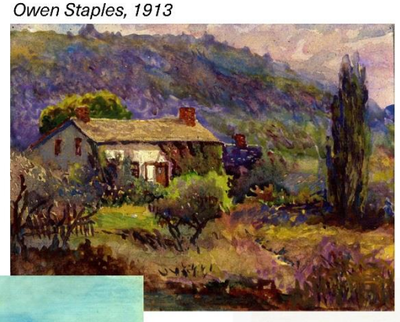
1876 Historical Atlas

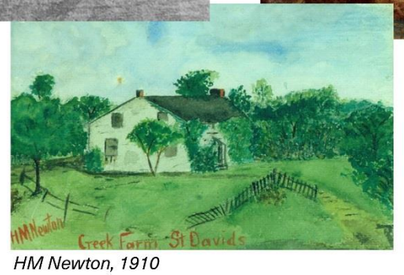


National Topographic Map, 1906

Homestead of Major David Secord, 1894

Owen Staples, 1913

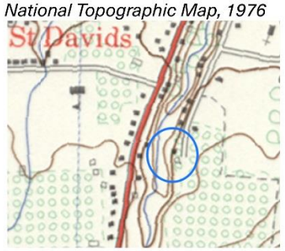




HM Newton, 1910

circa 1940s/50s

National Topographic Map, 1976



circa 1920s

AA MacLeod, 1931

circa 1940s/50s

Figure 16: Occupation history of Secord-Paxton House.

3.3.2 Structural History

Though lacking decoration, the style of the house in plan and elevation is typical of the ‘Georgian’ style, named for the generally symmetrical and proportioned buildings constructed during the successive reigns of King George I through to King George IV (1714 to 1811, and 1820 to 1837) (Humphrey & Sykes 1980; Maitland 1984). The term ‘Loyalist’ is often appended to early 19th century Georgian houses in Ontario (McCrae & Adamson 1964; Fram 2003), and while this is appropriate for Secord-Paxton House since David Secord had served in an American Loyalist regiment and granted land in Canada for his service, the term is generally avoided since the Loyalists had no specific architectural practices or preferences that differentiated them from other American or British colonial building traditions (Ennals & Holdsworth 1998:84).

The heavy wall construction combined with the overall lack of refined decoration, further defines the house as a vernacular expression of the Georgian style. However, high or polite style may have been applied the placement of Secord-Paxton House on the property. In its siting and orientation with Four Mile Creek, back-dropped by the Escarpment and facing the emerging village, Secord-Paxton House may have been influenced by the Picturesque, a late 18th century aesthetic movement that emphasized architecture ‘as integral parts of their landscape setting’ (Wright 2011:6). Further study of construction events at Secord-Paxton House conducted for this HCP revealed four development phases, which are summarized and illustrated in Figure 17.

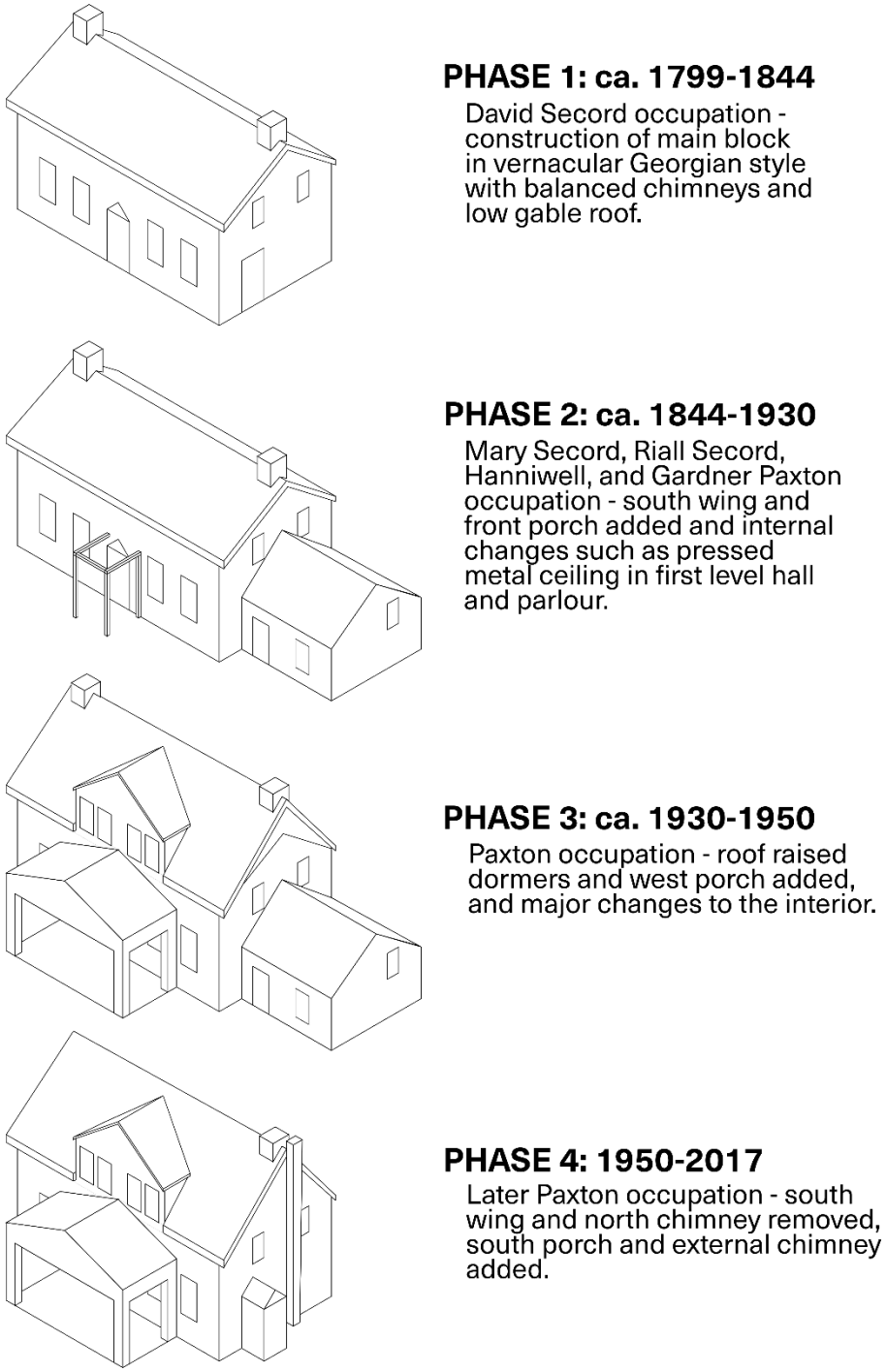


Figure 17: The evolution of Secord-Paxton House, based on archival research and structural investigations.

3.4 Physical Condition

A condition assessment based on Golder's superficial visual inspection in 2018 is presented Table 1 and uses an extensive checklist developed by Historic England (Watt 2010: 356-361). This was supplemented by a:

- Phase One Environmental Assessment Report (ESA) by Hallex Environmental Ltd. in April 2019 by (APPENDIX A)
- structural review by B-design Engineering Services Inc. in February 5, 2020 (APPENDIX B).
- Observations provided by Steven Megannety in April 2020.

This supplementary information is referenced in Table 1 where appropriate.

Table 1: Physical Condition Assessment of Secord-Paxton House

Element	Observed Conditions
General structure	■ Overall fair to poor condition based on the state of interior and exterior fabric. Considered stable and safe to enter (APPENDIX B) ■ Possibly the most critical element is wall movement at the northwest corner (Figure 18) (APPENDIX B)
Roof	■ Overall in poor condition (APPENDIX B) ■ Numerous areas of rotted, lost, or damaged fasciae, soffits, eaves, and covering (Figure 19) ■ At least one hole in the asphalt covering and sheathing, found on the east roof slope ■ Some shingles have vegetation growth and in poor condition ■ Flashing around the chimneys is poorly executed ■ Minor sagging in the roof ridge ■ Tree growth has breached the southwest corner of the roof (Megannety)
Rainwater disposal	■ All gutters have heavy vegetation growth and debris (Figure 19) ■ Some gutters unseated, and rainwater leaders removed or damaged
Walls, foundations & chimneys, exterior features	■ The east dormer is loading and bowing the east façade wall (APPENDIX B) ■ Two small breaches in south wall and one near north corner of west wall (Figure 20) ■ Render failure and mortar washout in numerous locations (Figure 21)

Element	Observed Conditions
	■ Trees near southwest corner may be impacting walls (Figure 22) ■ Cracking on west wall near the north corner and associated with wall movement (Figure 18) ■ CMU chimney separating from south end wall and gable and in poor condition ■ Brick chimney exhibits frost cracking and mortar washout (Figure 23) ■ Evidence of efflorescence in basement and frost movement has damaged clay drainage piping ■ Concrete porch in good condition ■ Extensive vine growth on the walls (Megannety)
Windows & doors	■ Only one door in use – all other doors and windows covered in hoarding ■ As seen from interior, condition of doors and windows appear to be fair to good
Internal roof structure/ ceilings	■ Internal roof structure appears sound structurally ■ Evidence of significant water infiltration, which has damaged pressed metal ceiling on first level and lathe and plaster at dormers (Figure 24 and Figure 25)
Floors	■ Noticeable deflection on the first level floor hall and parlour and widespread evidence of insect infestation on the joists visible in basement, and in overall poor condition (APPENDIX B) ■ Basement and first floor level in poor condition (APPENDIX B) ■ Second level floor in good condition (APPENDIX B)
Stairways, galleries, balconies	■ Stairs to second level appear sound
Interior decorations/ finishes	■ Paint and plaster very badly affected by damp (Figure 25) ■ Surviving trim appears to be in sound condition ■ Potential designated substances and hazardous materials (APPENDIX A)
Fixtures & fittings	■ Fireplaces on first level and basement in poor condition ■ No surviving fixed furniture except for late 20th century kitchen cabinets

Element	Observed Conditions
Building services	■ Electrical and heating services disconnected ■ Standing water in the southeast corner ■ No security or fire prevention currently in place
Site & Environment	■ Thick new and old growth surrounding the house that is impacting the house foundations, walls, and extending through roof ■ Potentially contaminating activities from underground fuel storage tanks, pesticide use, imported fill (APPENDIX A) ■ No areas of standing water noted in 2018, however, pools of standing water have been noted on several occasions (Megannety).
General environment	■ Heavy vegetation surrounding the house and to the north and west obscures views of the house

Figure 18: Evidence of wall movement at the northwest corner, just below the window opening (2018).

Figure 19: Vegetation growth in the gutter and lost and deteriorated fabric at the soffit (2018).

Figure 20: Poorly executed breach in the south end wall (2018).

Figure 21: Render failure, mortar washout, and Portland cement repair (far left) under the north window on the east façade (2018).

Figure 22: Mature tree growth near the southwest corner. Note spalling on the wall (2018).

Figure 23: Chimneys in poor condition with inadequate flashing (2018).

Figure 24: Water infiltration and damage to the lath and plaster surrounding the west dormer (2017).

Figure 25: Extensive moisture infiltration in the ceiling of the second level at the staircase (2017).

3.5 Significance

Understanding a heritage resource includes not only being able to trace its date of construction and modifications through time, but also its overall cultural heritage significance and what elements should be prioritized for conservation. This is usually demonstrated through a 'Statement of Cultural Heritage Value of Interest', which includes a 'Description' (where the resource is located), its 'Heritage Value' (why a resource is important) and its 'Heritage Attributes' (what elements demonstrate the heritage value and therefore should be prioritized for conservation). In the *Standards and Guidelines for the Conservation of Historic Places in Canada,* the latter are referred to as 'character-defining elements', explicitly referencing why an element is important to the significance of a historic place.

The Statement of CHVI proposed in Golder's HIA has been slightly revised below and is suggested to replace the Statement in the designating by-law, as the original has several errors, omissions, and elements that do not sufficiently highlight the CHVI of the property. Golder's HIA also determined that the house has a fair level of heritage integrity, defined as the 'wholeness' or 'honesty' of a historic place, and measured by understanding how much of the asset is 'complete' or changed from its original or 'valued subsequent configuration' (Historic England 2008:45; Kalman 2014:203).

Description of Property – 46 Paxton Lane, Village of St. Davids

Secord-Paxton House is a storey-and-a-half residence between Four Mile Creek and Paxton Lane in the Village of St. Davids, now part of the Town of Niagara-on-the-Lake.

Statement of Cultural Heritage Value or Interest

Secord-Paxton House is a significant built heritage resource for its design or physical value, historical or associative value, and its contextual value. Possibly constructed in the late 18th century, the five-bay and storey-and-a-half house is a rare and early expression of a vernacular Georgian style and may be only one of two pre-War of 1812 structures still standing in the municipality. Its fieldstone walls covered in lime render are nearly a

metre thick, and in the basement are the remains of a substantial chimney base with relieving arch. The orientation of its principal façade is unusual, as it does not face a street or survey lines but the natural feature of Four Mile Creek to the west. Despite substantial alterations to the house in the 20th century, the structure retains the massing and fenestration representative of an early 19th century Georgian residence.

The historical value of the house lies with its association with David Secord, a locally significant family, who purchased the lot in 1799 and lived on the property until 1844. Local tradition holds that during the War of 1812 the house was visited by Laura Secord during her famous trek to Beaverdams to warn the British of an impending American attack, and that it was used as headquarters by high ranking British officers Francis De Rottenburg and Gordon Drummond.

Secord-Paxton House also has contextual value since it supports the historic character of the Village of St. Davids and its surviving early 19th century masonry buildings. It is historically linked to the earliest establishment of the Village, and long recognized as an architectural and historical landmark, as evidenced by the number of photographs and paintings of the house produced since the early 20th century.

Description of Key Heritage Attributes

Key attributes that reflect the design or physical value of Secord-Paxton House include its:

- Thick walls constructed of coursed rubble limestone and covered in lime render;
- Evidence of an earlier, lower pitch side-gable roof in the end walls;
- Five-bay principal façade in a simple Georgian style and symmetrical fenestration of tall window and door openings on all façades;
- First level with open and hall-and-parlour floorplan; and,
- Chimney base with relieving arch in the basement.

Key attributes reflecting the contextual value of Secord-Paxton House is its:

- Siting near —with principal façade facing— Four Mile Creek and the Village of St. Davids.

4.0 PLANNING

4.1 Planning for Future Use: Conservation Treatments and Standards

4.1.1 Conservation Treatments

The CHP *Standards and Guidelines* outline three ‘treatments’ to guide intervention on a historic place. Although in theory a single treatment would be selected, nearly all projects involve a combination of all three depending on a variety of factors including level of understanding, practicality, and projected future uses.

‘Conservation’, as presented in the CHP *Standards and Guidelines,* includes:

> All actions or processes that are aimed at safeguarding the character-defining elements of an historic place to retain its heritage value and extend its physical life. This may involve Preservation, Rehabilitation, Restoration, or a combination of these actions or processes.

The latter ‘actions or processes’ are then defined in the CHP *Standards and Guidelines,* but perhaps are best summarized in illustrations provided in Volume 4 of the Public Works and Government Services (PWGSC) *Architectural Conservation Technology Manual* (1994). The first shows a resource ‘as found’ with the remaining four depicting a conservation treatment.

Figure 26: A historic resource as found

Figure 27: Preservation (Interim Protection)

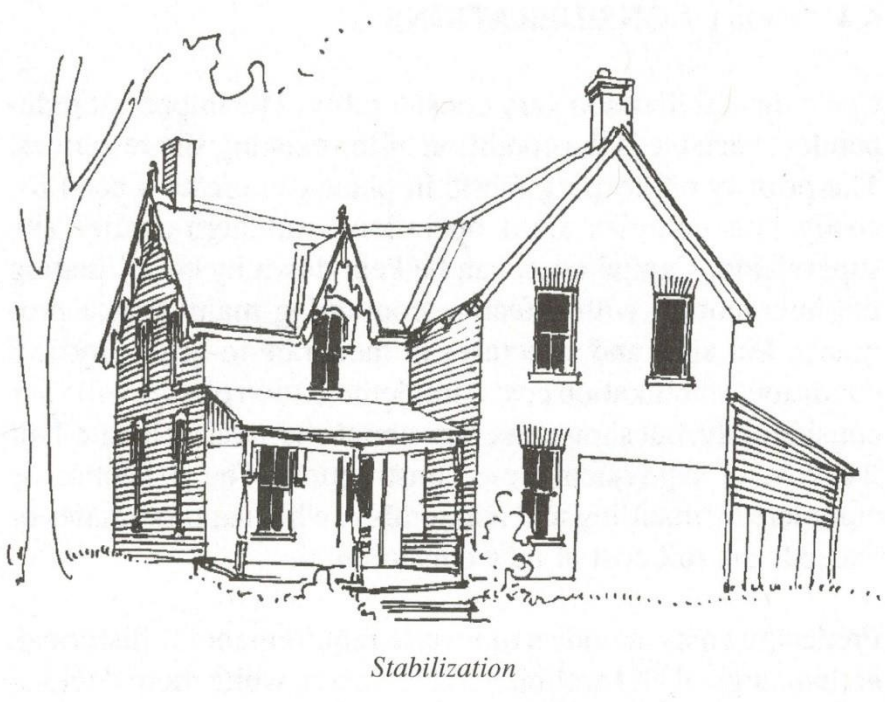


Figure 28: Preservation (Stabilization)

Preservation: the action or process of protecting, maintaining and/or stabilizing the existing materials, form and integrity of an historic place, or of an individual component, while protecting its heritage value (Figure 27 and Figure 28).

Figure 29: Rehabilitation

Rehabilitation (or adaptive reuse): the action or process of making possible a continuing or compatible contemporary use of an historic place, or an individual component, while protecting its heritage value (Figure 29).

Figure 30: Restoration

Restoration: the action or process of accurately revealing, recovering or representing the state of an historic place, or of an individual component, as it appeared at a particular period in its history, while protecting its heritage value (Figure 30).

A fourth treatment, which does not appear in the CHP *Standards and Guidelines* yet is occasionally applied is redevelopment. As defined in the PWGSC Manual (1994:7), redevelopment is ‘construction of compatible

contemporary facilities to replace missing element [sic] or to increase density in a historic environment.' As the illustration in Figure 31 shows, what sets redevelopment apart from the other treatments is 'that there is no direct emphasis on protection', and 'procedures are used which are basically unrelated to the preservation of historic fabric'. There is also a 'continual interaction between contemporary design intentions and the constraints of existing historic resources' (PWGSC 1994:7). Conservation of heritage value remains central in this approach, even if it is expressed less tangibly than that seen in the other treatments.

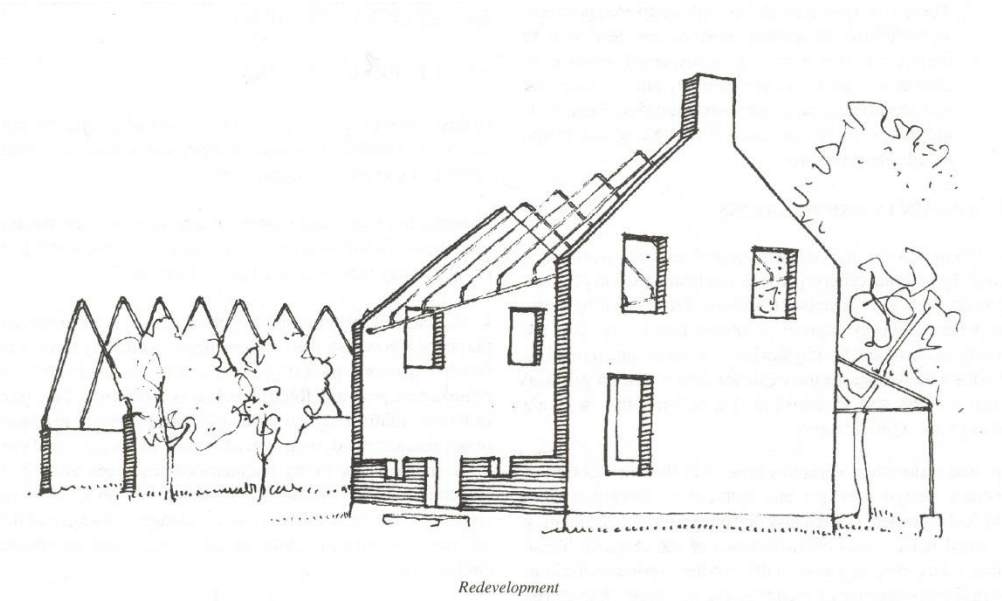


Figure 31: Redevelopment.

4.1.2 Conservation Standards

Nine standards apply to the preservation, rehabilitation, and restoration treatments, with a further three added for rehabilitation and two for restoration. The nine standards for all treatments are:

1) Conserve the heritage value of an historic place. Do not remove, replace, or substantially alter its intact or repairable character-defining elements. Do not move a part of an historic place if its current location is a character-defining element.

2) Conserve changes to a historic place that, over time, have become character-defining elements in their own right.

3) Conserve heritage value by adopting an approach calling for minimal intervention.

4) Recognize each historic place as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties, or by combining features of the same property that never coexisted.

5) Find a use for an historic place that requires minimal or no change to its character-defining elements.

6) Protect and, if necessary, stabilize an historic place until any subsequent intervention is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbing archaeological resources, take mitigation measures to limit damage and loss of information.

7) Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

8) Maintain character-defining elements on an ongoing basis. Repair character-defining elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving prototypes.

9) Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

The additional standards that apply to Rehabilitation are:

10) Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the historic place.

11) Conserve the heritage value and character-defining elements when creating new additions to an historic place or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.

12) Create any new additions or related new construction so that the essential form and integrity of an historic place will not be impaired if the new work is removed in the future.

The additional standards that apply to Restoration are:

13) Repair rather than replace character-defining elements from the restoration period. Where character-defining elements are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements

14) Replace missing features from the restoration period with new features whose forms, materials and details are based on sufficient physical, documentary and/or oral evidence.

A key principle explicitly or implicitly repeated in the CHP Standards and Guidelines is minimal intervention, that is, ‘doing enough, but only enough to meet realistic objectives while protecting heritage values’ (CHP 2010:26). On any given project, minimal intervention can mean very little work, or a significant amount —the degree is based on whatever is required to protect the heritage value of a place.

4.2 Proposed Future Use, Goals & Objectives

The current proposed plan is to explore adaptive re-use of Secord-Paxton House and its surrounding curtilage as a community asset. No detailed plans have been developed but options identified to date include:

- returning the roof to its pre-1931 low pitch form
- removing interior partitions on the ground floor, and potentially all or a portion of the second level floor, to open up the interior space for a lecture space or special events
- rebuild the chimney base in the north portion of the basement and replace the flooring directly above it in Plexiglas to allow for the structure to be viewed from the ground level floor.

The design vision to open the interior space for a lecture space, learning resource, or special events has been applied creatively and successfully to heritage structures elsewhere (see Hunt & Boyd 2017), while the widespread changes to the interior of Secord-Paxton House since 1950 allows for alterations to be considered that would not be acceptable in buildings with a greater amount of surviving historic fabric. The design vision has been informed by discussions with local residents and business operators, as well as with the Friends of Laura Secord and the Willowbank School of the Restoration Arts. The latter have led three student tours of the house and provided invaluable advice and connections to implement this HCP once approved.

The goals for Secord-Paxton House are therefore to:

- ***Conserve the building and its surrounding curtilage as a pre-War of 1812 stone structure with cultural heritage significance to the community; and,***
- ***Explore converting the structure from a designated residence to a possible community asset for the St. Davids community and historical and cultural advocacy organizations such as the Willowbank School of the Restoration Arts.***

It is recognized that the second goal for Secord-Paxton House does not meet a conservation ideal, which is to continue using a structure for the function it was originally designed (Historic Environment Scotland 2019:6). However, extensive study considering factors such as the age, construction, and size of the building, and its future location within a townhouse community has concluded it is economically and practically infeasible to rehabilitate the structure as a residence. The second goal, in addition to being a compatible new use and providing an opportunity for members of the public to appreciate Secord-Paxton House, aligns with the Town *Official Plan* (2017) polices:

- To protect, preserve and encourage the restoration of the original architectural detail wherever feasible on all buildings having architectural and historical merit within the context of the Town of Niagara-on-the-Lake, as well as on all buildings contributing towards the heritage value of the Town of Niagara-on-the-Lake.
- To develop and encourage creative, appropriate and economically viable uses of heritage resources.

Both goals meet the Special Policy Area A-3 (St. Davids) objectives to ‘provide for…community focal points’ (Section 1.13) and in the Established Village Area meet:

- Policy 1 – Conservation and enhancement of the character and ambience of the Area, and the preservation of buildings of architectural merit and historic interest shall be encouraged;

- Policy 3 – Conservation and rehabilitation of historic buildings in a compatible manner shall be encouraged for any proposal for re-use or redevelopment of existing properties

Based on the goals identified for Secord-Paxton House, the objectives of this HCP are to:

- ***Select the most appropriate conservation treatments***
- ***Identify conservation strategies that are sustainable, and adaptable to the new proposed use***
- ***Develop an implementation schedule to complete the conservation of Secord-Paxton House within two years.***

4.3 Recommended Conservation Treatment for Secord-Paxton House

Based on the identified goals, this HCP recommends that the preferred primary treatment of the Secord-Paxton House is ***rehabilitation.*** Sympathetic rehabilitation of Secord-Paxton House will retain the building's early 19th century heritage attributes, reflect its change through time, and accommodate contemporary use without compromising its authenticity or cultural heritage significance. Secondary treatments, selected to conserve the heritage attributes of the Secord-Paxton House for the future, are ***stabilization***, ***preservation, restoration,*** and ***commemoration***. Strategies to achieve these conservation treatments are provided in Section 5.0, and a potential vision suggested in Figure 32.

Figure 32: Conceptual options for Secord-Paxton House. Clockwise from top left: south and east elevations; west elevation; interior facing north from east entrance (for discussion purposes only - not accurate in scale nor proportion).

5.0 INTERVENING

This section provides a series of conservation strategies —in priority order and linked to the *Standards and Guidelines*— to enact as part of the future stabilization, rehabilitation, restoration, preservation, and commemoration of Secord-Paxton House. As stressed above, the overall goal is to conserve the heritage attributes of Secord-Paxton House through minimal intervention yet adapt it for contemporary use.

Conservation work should be undertaken by professionals familiar with heritage properties. Many technical heritage conservation professionals are members in good standing of the Canadian Association of Heritage Professionals (CAHP). For a list of qualified heritage professionals, refer to the Craft and Trade Specialists listed on the Directory of Professionals for CAHP (www.cahp-acecp.ca). The trades and expertise required for each action are also included under each conservation strategy.

5.1 Stabilize

As recommended in the 2017 HIA, several actions should be undertaken to stabilize Secord-Paxton House and prepare the property for further interventions. These include immediate action items, those for during adjacent construction, and to understand the existing conditions. Where relevant, it is noted where an action is complete or currently underway.

5.1.1 Immediate Actions

- Initiate and conduct regular (weekly or bi-weekly) exterior and interior monitoring taking special note of any change to the walls in the northwest corner (***ongoing***).
- Comply with actions outlined in the Town's Property Standards By-law (3681-02) and Clean Yard By-law (4114-07) including the creek bank (***ongoing with approval from local conservation authority secured***);
- Implement a site stabilization and mothballing plan that includes the following actions:
  - Remove new growth and mature tree limbs in contact with the roof and walls of Secord-Paxton House to prevent further damage, and to open sightlines into the property (***ongoing***);
    - Trees should be cut to a height where they are not tripping hazards, and the stumps left in place until they can be safely removed without damaging the foundations. Re-establishing clear sightlines into the property may help to deter unauthorized access.
    - On both the north end wall and gable and west façade clinging vegetation has been allowed to grow up the walls. As this vegetation may chemically and physically break down the render and prevents the walls from drying it should be carefully removed. This is achieved by first cutting the roots at grade to kill the plants, then waiting until the branches dry out and become brittle before cutting and removing them from the walls (**ongoing**).
  - Seal the foundation breach and other openings using easily reversible materials and methods until more intensive conservation measures can be applied;
  - Clear out all gutters and downspouts and ensure these shed water away from the foundations;
  - Minimally expose any surrounding landscape features, such as the low wall on the east side of Secord-Paxton House (***completed***);

- If feasible, install a simple venting system through existing openings to reduce further moisture damage inside Secord-Paxton House;
- Establish security barriers such as concrete slabs over entrances to the house to prevent or dissuade unauthorized entry (***plywood hoarding has been installed over entrances and windows***);
  - Care should be taken when installing these heavy security barriers not to damage the masonry or other features of the house.
- Install prominent 'Trespassers will be prosecuted' and 'This Area Under 24-Hour Video Surveillance & Security Patrols' signs to the outbuilding or the plywood hoarding over the windows of Secord-Paxton House to dissuade unauthorized entry; and,
- Document all stabilization work with photographs and notes, if necessary (***ongoing***).

- Survey the new lot boundaries for Secord-Paxton House with side yards that include the north triangular area and potential archaeological remains of the south wing (***completed***);
  - A south side yard wide enough to include the possible archaeological remains of the south wing will in the immediate term spatially separate it from new construction to the south and protect any buried resources until they can be further investigated. In the longer term, this side yard will provide the option of adding a south extension to Secord-Paxton House, one that is in keeping with the building's historic appearance. This could be accomplished with minimal impact to the historic fabric since there is an existing opening on the south end wall.
- Finalize the archaeological review of the lot and surrounding curtilage (***planned for 2020***);
- Clean the interior of the structure and finalize the engineering review.

Related Conservation Standards:

No. 6: Protect and, if necessary, stabilize an historic place until any subsequent intervention is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbing archaeological resources, take mitigation measures to limit damage and loss of information.

Required Trades and Expertise:

- No cultural heritage expertise required.

5.1.2 Actions during Adjacent Construction

To reduce the risk of damage to Secord-Paxton House during construction of the adjacent residential subdivision, the following measures are recommended (***integrated into the new build scheduling models***):

- Site plan control & communication
  - Secord-Paxton House and its new property boundaries should be clearly marked on project mapping and communicated to all project personnel during construction.

- Create a physical buffer
  - Temporary fencing should be erected at the new south and east lot lines to ensure that all excavation, utility installation, and associated heavy vehicle traffic during construction will not impact the heritage attributes of the property.
- Monitor for vibration impact during adjacent construction
  - Continuous ground vibration monitoring should be carried out near the foundations of Secord-Paxton House using a digital seismograph capable of measuring and recording ground vibration intensities in digital format in each of three (3) orthogonal directions. The instrument should also be equipped with a wireless cellular modem for remote access and transmission of data.
  - The installed instrument should be programmed to record continuously, providing peak ground vibration levels at a specified time interval (e.g. 5 minutes) as well as waveform signatures of any ground vibrations exceeding a threshold level that would be determined during monitoring. The instrument should also be programmed to provide a warning should the peak ground vibration level exceed the guideline limits specified. In the event of either a threshold trigger or exceedance warning, data would be retrieved remotely and forwarded to designated recipients.

Related Conservation Standards:

No. 6: Protect and, if necessary, stabilize an historic place until any subsequent intervention is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbing archaeological resources, take mitigation measures to limit damage and loss of information.

Required Trades and Expertise:

- No cultural heritage expertise required.

5.1.3 Understand and document existing conditions

- Conduct a Phase One ESA to understand the risks to human health and recommend subsequent study or mitigation (**complete**)
  - The Phase One ESA (APPENDIX A) recommended conducting a Phase Two ESA and Designated Substances & Hazardous Materials survey
- Conduct a structural engineering review to assess the current condition of the house, and recommend future actions (**complete**)
  - The structural engineering review recommended exposing the footings in two locations to gain a more thorough understanding of conditions, waterproofing the basement, pouring concrete walls to buttress the interior of the foundation, laying a concrete slab on grade, and removing and rebuilding the basement wood framing. It also recommended removing the dormers and returning the roof to its original form (APPENDIX B). These have been incorporated into the actions under Stabilize (Sections 5.1.4 and 5.1.6) and Rehabilitate (Section 5.2.3) and Restore (5.3.3).

- Document the existing conditions
  - 2233497 Ontario Inc. has approached Brock University to use Secord-Paxton House as a field site for creating a three-dimensional digital model of the structure's interior and exterior (***ongoing***).

Related Conservation Standards:

No. 7. Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

Required Trades and Expertise:

- No cultural heritage expertise required for the ESA.
- Structural engineer with historic structure experience to inspect the wall, recommend monitoring measures, and determine subsequent interventions if required.
- An understanding of best practice for cultural heritage recording is desired for the Brock University documentation project.

5.1.4 Investigate the foundation's below-grade conditions and drainage, and repair breaches

As is true of roofs, a sound foundation is critical to the survival of a historic structure. As recommended in the structural engineering review, two locations should be selected to investigate the foundation's below-grade condition and determine the scope for subsequent repair. On the west façade at the northeast corner is a large vertical crack and evidence of settling that has affected the symmetry of the northwest window opening. It is unknown if this occurred historically and has since stabilized or is an ongoing issue. On the advice of a structural engineer, this section of the wall should be inspected then periodically monitored for movement; if the movement is considered critical, further measures such as buttressing or erecting a false wall on the interior may be required to arrest movement and reduce the amount of downward thrust exerted on this section of the wall.

In addition to being free of roots and vegetation, foundations should be well drained with grading sloped away from the walls on all sides, and ventilated to keep the wood beams, joists, and floorboards dry and free of mould and rot (Fram 2003:114). At Secord-Paxton House, this work will include filling all breaches at ground level (noted in the northwest corner) with masonry, and extensively repointing in lime mortar. A heritage mason can advise on the mortar mixture, but it should be slightly weaker than the stones of the wall (Weaver 1993:134).

Flooding in the cellar noted during the 2018 field investigations as well as frost cracked and heaved concrete flooring indicates that drainage is an ongoing issue, and a structural engineer should be retained to determine if the issue can be rectified with a simple weeping tile or French drain, or if more intensive works involving grouting, installing exterior damp proofing, and laying a sophisticated drainage system is required.

Related Conservation Standards:

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 7: Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

Required Trades and Expertise:

- Structural engineer with heritage structure experience to inspect the foundation, recommend monitoring measures, determine subsequent interventions, and design the drainage system (***retained and work ongoing***).
- Oversight by a qualified heritage mason to remove vegetation impacting foundations and repair the breaches.

5.1.5 Remove the exterior concrete masonry unit chimney, and repair and repoint the south brick chimney

The exterior chimney at the south end wall and gable is constructed of concrete masonry units (CMUs) and in poor condition. Since this element is not a heritage attribute, nor contributes to the cultural heritage value of Secord-Paxton House, it can be removed. This action must be undertaken before the roof is repaired as the CMU chimney extends through the soffit and fascia. Dismantling should be carefully executed to ensure that the walls are not damaged in the process, and the breach created for the heating pipe should be temporarily covered until it can be fully repaired.

The south end wall brick chimney is intact but exhibits significant mortar washout. The masonry should be repointed with lime mortar, and any repairs undertaken including filling cracks with mortar, making dutchman repairs, or re-facing eroded masonry with replacement brick or mortar mixed with brick dust. Stable, soft, and flexible lime mortar is an important ‘safety valve’ to ensure the long-term conservation of masonry as it allows ‘moisture to migrate and evaporate through the mortar, not the brick’ (Fram 2003:126). Stepped flashing mortared into the joints should also be installed as part of the chimney rehabilitation.

Related Conservation Standards:

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 8: Maintain character-defining elements on an ongoing basis. Repair character-defining elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving prototypes.

No. 10: Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the historic place.

Required Trades and Expertise:

- Oversight by a qualified heritage mason to repair and repoint the south end wall brick chimney.

5.1.6 Remove the east dormer and repair the roof

A sound roof is one of the most significant components for ensuring the long-term survival of a heritage building. It is integral that the roofing be well sealed, and all water and snow be directed away from the walls.

Under a minimal intervention and rehabilitation approach, the existing medium gable profile with dormers should be retained instead of restoring the roof to its original low gable pitch. However, since the medium gable roof with dormers is not a heritage attribute, and because it is suspected that the east dormer is impacting the east façade wall (which is a heritage attribute), rehabilitating the roof could include removing the east dormer.

The preferred option at this stabilization stage is to re-clad the roof in asphalt shingle, and replace the existing wood fascia, frieze and soffit either in wood or a compatible alternative such as HardieTrim®. The fascia does not have to replicate the existing profile. New flashing will likely be required at the west dormer valleys and around the newly-repointed brick chimney (Strategy 5.2.1).

Currently there are prefabricated metal gutters and rainwater leaders only on the west façade. These should be removed and a replaced with an aluminium system for the whole roof that directs runoff to the west and downslope.

Rehabilitating the roof will provide an opportunity to ensure it is properly vented, sealed, insulated and that all rot is removed. Venting with the least visual impact, such as at the ridgeline or gables, should be selected.

Related Conservation Standards:

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 7: Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

No 10: Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the historic place.

Required Trades and Expertise:

- Oversight by a qualified heritage carpenter for the fascia and soffit, and to repair any rot in the roof system; and,
- Roofing contractor with experience in historic structures.

5.1.7 Remediate any designated substances & hazardous materials and clean the interior

As recommended in the Phase One ESA, a Phase Two ESA and Designated Substances & Hazardous Materials survey should be conducted, then followed by full remediation of any designated substances and hazardous materials. All remediation work should be documented with photographs and written notes, and care taken to ensure that no historical building fabric or artifacts are removed without the consent of a qualified heritage consultant.

Related Conservation Standards:

No. 1: Conserve the heritage value of an historic place. Do not remove, replace, or substantially alter its intact or repairable character-defining elements. Do not move a part of an historic place if its current location is a character-defining element.

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 6: Protect and, if necessary, stabilize an historic place until any subsequent intervention is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbing archaeological resources, take mitigation measures to limit damage and loss of information.

No. 7: Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

Required Trades and Expertise:

- No cultural heritage expertise required for environmental remediation
- Qualified heritage consultant retained on an on-call basis to advise on any remediation actions that may impact historical fabric or artifacts

5.2 Rehabilitate

5.2.1 Remove the south porch and rehabilitate entrance

Similar to the CMU chimney, the south porch is in poor condition, not considered a heritage attribute, and can therefore be removed. As some of the stones may have been salvaged from the now-demolished south wing, these should be retained where possible and used to repair wall breaches, such as where the heating pipe was installed through the south end wall.

Given the need for additional security measures the entrance should initially be securely blocked. Once the interior rehabilitation work is complete, the entrance can then be opened for a panelled exterior door with heritage design and set in a wood frame; if partially glazed, this door would help to light the interior.

Related Conservation Standards:

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 7: Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

No. 9: Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

No. 10: Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of the new elements compatible with the character of the historic place.

Required Trades and Expertise:

- Heritage mason to repair the masonry around the south end wall and salvage any stones for future repairs.
- Heritage carpenter to install a new exterior door and architrave.

5.2.2 Repoint masonry and patch exterior render

Covering the walls is a mix of smoothed lime render and Portland cement. Several sections, particularly on the east façade, have fallen away to reveal the rubble walling beneath. Although the Portland cement is much stronger than the underlying stones and restricts the free movement of moisture, under a minimal intervention approach these sections should be left unaltered until they fail and then can be replaced in a mortar render. However, replacement can be attempted where sections of Portland cement are fragmentary or can be removed without impacting the underlying masonry.

As mentioned above, it is integral that all repointing and rendering use a lime mortar mix that is durable enough to survive the weather yet soft enough not to damage the underlying masonry. Also, in keeping with minimal intervention, patching the render instead of total replacement is preferred, although lime rendering is most effective with two to three coats (Rock 2012:93). Part of this operation should include scoring the surface to create the mock ashlar appearance of the existing. To create a uniform appearance and seal the render, a whitened limewash could be applied, which is available pre-made or can be created from mixing water and lime putty (Hunt & Boyd 2017:72).

All significant interventions should be preceded by archaeological investigations to ensure that historic features, such as the foundations of the south wing, are not damaged or destroyed. These investigations should be focussed on the areas around the west and south entrances, and within the now-demolished south wing. Archaeological investigations could also explore south of the house to determine if the end wall of the south wing survives below grade; this will potentially yield a greater understanding of the south wing construction and dimensions, as well as its suitability to support a new wing in the future.

Related Conservation Standards:

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 6: Protect and, if necessary, stabilize an historic place until any subsequent intervention is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbing archaeological resources, take mitigation measures to limit damage and loss of information.

No. 7: Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

No 9: Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

No. 10: Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of the new elements compatible with the character of the historic place.

Required Trades and Expertise:

- Heritage mason with experience working with lime render
- Licensed professional archaeologist

5.2.3 Repair or strengthen all floor beams and joists as necessary

A critical element to address before Secord-Paxton House can be rehabilitated is the deflection in the first level floor. All flooring members should be inspected by a qualified structural engineer and any rotted or damaged sections should be repaired, sistered, or supported with jack posts using a minimal intervention approach. However, the structural engineer may determine that in some case total replacement is required, and that steel 'I'-beams be installed as supports. As a precise date of construction for Secord-Paxton House is unknown, all removed fabric should be retained and stored for future dendrochronological analysis.

Related Conservation Standards:

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 7: Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

No. 9: Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

No. 10: Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of the new elements compatible with the character of the historic place.

Required Trades and Expertise:

- Structural engineer with historic structure experience to inspect the floor and recommend stabilization measures.
- Heritage carpenter to carry out any required repairs or replacement.

5.2.4 Rehabilitate the wood windows

All the current windows are wood, with six-over-one pane divisions on the first level, and one-over-one at the gables. In keeping with a rehabilitation treatment and to increase energy efficiency the windows should retained but repaired and re-sealed. Wood is by far the preferred material for historic house windows despite their initial expense and need for ongoing maintenance as their aesthetics and authenticity far outweigh other types; additionally, they often match or exceed the thermal and sustainability performance of PVC inserts (Sedovic & Gotthelf 2005).

Related Conservation Standards:

No. 2: Conserve changes to a historic place that, over time, have become character-defining elements in their own right.

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 4: Recognize each historic place as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties, or by combining features of the same property that never coexisted.

No. 10: Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of the new elements compatible with the character of the historic place.

Required Trades and Expertise:

- Heritage carpenter to repair and re-seal the existing windows.

5.2.5 Install new exterior doors

The current east and west exterior doors are wood but date to the late 20th century and not considered heritage attributes. These can be replaced with six-panel 'Georgian', 'Federal' or 'Colonial' types with glazing (Garvin 2001: 141-145). Building Code may require that these be fire-proof instead of wood, but many manufacturers now offer types that approximate historic design and construction. A metal door that attempts to replicate the texture of wood should be avoided.

Related Conservation Standards:

No. 4: Recognize each historic place as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties, or by combining features of the same property that never coexisted.

No. 10: Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of the new elements compatible with the character of the historic place.

Required Trades and Expertise:

- Heritage carpenter to install the new doors and frames.

5.2.6 Rehabilitate the interior

As detailed in Section 3.2.2, much of the interior of Secord-Paxton House was significantly altered in the mid-to-late 20th century, providing a wide range of opportunities to adapt the space for an existing or new use. On the first level, the non-load bearing partitions could be removed to create larger spaces, and potentially all or a portion of the second level could be removed to create a hall-like space for the first level. A portion of flooring in the north central portion of the first level could also be replaced in Plexiglas to provide an 'archaeological' view of the large chimney base in the basement.

Walling at the first level is late 20th century wood panelling or gypsum plasterboard while at the second level is lathe and plaster dating to when the roof was raised, and the cross-gables installed sometime after 1913 and possibly before 1934. While representative of the building's evolution, the lathe-and-plaster is not linked to the Secord occupation and would not be a significant loss if large portions are found to beyond salvage.

In contrast to the first level walling, the lathe-and-plaster should be either repaired or replaced in kind as this construction is permeable and will not trap damp like gypsum or plasterboard (Rock 2012:22). For this reason, all non-permeable materials at the first level should be entirely replaced. The need for free movement of air and moisture makes insulating difficult, so the most cost-effective measures to improve energy efficiency are generally limited to insulating the attic (ensuring this does not block the ventilation) and draught-proofing the doors and windows (Fram 2003:185, Rock 2012:222). A more expensive option to insulate the walls is to cover them with a lime pargecoat and breathable wood fibre insulation, which is subsequently walled with a lime plaster (Hunt & Boyd 2017:73).

The pressed metal ceilings in the north and south main rooms of the first level appear to be in varying states of repair but will need to be carefully removed to inspect the spaces and timber members above for rot or other decay, and to install new heating or electrical services (see below). Once these inspections and installations are complete, it may be desirable to replace the pressed metal; this is optional though, as the ceiling covering is also a late addition in the building's history, possibly from the 1880s through to early 20th century.

In the basement, all broken and heaved concrete should be removed and replaced with limecrete flooring, which is permeable and can include insulation (Hunt & Boyd 2017:72). Lime mortar parging can then be used to cover the foundation walls, and the masonry of the chimney base should be stabilized.

Modern electrical wiring is present but it is unknown if it connects to earlier systems, so should be thoroughly inspected and replaced if necessary. It is highly recommended that power be restored to the house, preferably underground, and this will require coordination with the Town. All sewer and water connections to local infrastructure should also be restored in coordination with the Town. The condition and suitability of the heating system is also unknown and may require replacement. Any new system should be routed with flexible flue through the south chimney and exit the building with a non-visually intrusive cap, such as one made in clay.

Related Conservation Standards:

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 5: Find a use for an historic place that requires minimal or no change to its character-defining elements.

No. 9: Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

No. 11: Conserve the heritage value and character-defining elements when creating new additions to an historic place or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.

No. 12: Create any new additions or related new construction so that the essential form and integrity of an historic place will not be impaired if the new work is removed in the future.

Required Trades and Expertise:

- A general contractor and interior designer experienced in heritage structure rehabilitation.

5.2.7 Rehabilitate the setting

Although Paxton Lane is noted in the *Village of St. Davids Design Guidelines* as a 'Special Area' for its informal character as a tree-lined country lane, vegetation around Secord-Paxton House historically was sparse and

relatively low. As noted above, the trees impacting the foundations should be removed, but new plantings can be established further from the building for shade and aesthetic purposes, with selection of tree species informed by the Regional Municipality of Niagara's *Regional Tree and Forest Conservation By-law No.30-2008.* Flower beds with species selected from contemporary or historic sources can also be established (Skinner 1983), as can low wood fencing in a heritage or heritage compatible design.

Vehicle parking should be placed a sufficient distance from the building to prevent damage from accidental collision and de-icing salt and snow clearing piles, and paths can be laid to direct visitors to the front and rear entrances. Both landscaping actions may require raising or levelling the elevations around the house; if so, planning will need to take into account the drainage system established as part of Strategy 5.1.4.

Related Conservation Standards:

No. 7: Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

Required Trades and Expertise:

- Landscape architect with heritage expertise.

5.3 Restore

As outlined in the CHP *Standards and Guidelines* (2010:17) restoration is most used today as secondary treatment applied to specific heritage attributes. It is considered when:

- A historic place's significance during a particular period in its history significantly outweighs the potential loss of existing, non-character defining materials, features, and spaces from other periods;
- Substantial physical and documentary or oral evidence exists to accurately carry out the work; and,
- Contemporary additions or alterations are not planned.

Secord-Paxton House meets all these conditions since:

- Its significance is linked primarily with the Secord occupation, rather than changes made during the Paxton tenure;
- For a small residential structure there is an unusually high degree of physical and documentary evidence (the latter in the form of photographs and paintings) and,
- Contemporary additions or alterations are not planned in this HCP.

Therefore, although the restoration strategies outlined below represent comparatively major interventions, each can be completed without adversely impacting the significance of Secord-Paxton House. Additionally, Strategies 5.3.1 and 5.3.2 prioritise conservation of the original fabric as they may remedy structural issues caused by the Paxton occupation dormers and west porch.

5.3.1 Replace the west porch

The west porch is a significant element of the east façade and is contemporaneous with the dormers, raised roof and other features added during the Paxton occupation. Under a minimal intervention approach the west porch

would not be altered, but since it is impermeable and hard concrete it may be adversely impacting the stone walls by trapping moisture against the walls; in the summer, water cannot evaporate, accelerating mortar deterioration, while in winter this water will freeze and expand toward the least resistance, which is the weaker wall masonry. Conversely, the west porch may be currently buttressing the walls of Secord-Paxton House. As the west porch and its interaction with Secord-Paxton House is unknown, an engineering assessment should be conducted to determine whether the west porch is negatively impacting the walls, or if the construction is stable or beneficial. Based on this assessment, the west porch can either be replaced with a smaller porch of compatible design or left as-is.

Related Conservation Standards:

No. 3: Conserve heritage value by adopting an approach calling for minimal intervention.

No. 9: Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

No. 14: Replace missing features from the restoration period with new features whose forms, materials and details are based on sufficient physical, documentary and/or oral evidence.

Required Trades and Expertise:

- Structural engineer with historic structure experience to inspect the west porch and recommend if further action is required.

5.3.2 Restore the north chimney base and top

There is sufficient physical evidence of the north chimney base, including several voussoirs of relieving arch, to restore it to its original form. The base should be extensively documented with photographs and drawings prior to restoration, and the new stone or brick should be subtly but permanently marked to differentiate it from the surviving construction. As with the other masonry repairs recommended in this HCP, a stable, soft, and flexible lime mortar should be applied when rebuilding the chimney base.

Since restoring the first to second level portion of the chimney would be entirely conjectural, it is only recommended that the chimney be restored from the roof line and above and held in position with a heavy wood frame. Reconstruction of this chimney can be based on the paintings of Secord-Paxton House as well as the surviving south chimney. However, caution should be exercised when using the south chimney as a model because it may have been built in the mid-to-late 20th century.

Related Conservation Standards:

No. 9: Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

No. 14: Replace missing features from the restoration period with new features whose forms, materials and details are based on sufficient physical, documentary and/or oral evidence.

Required Trades and Expertise:

- Heritage mason to repair the chimney base masonry and recreate the north chimney top.

5.3.3 Restore roof to pre-1931 configuration

There is sufficient physical and documentary evidence to restore the roof to its pre-1931 form. Not only is the outline of the original roof visible in the north and south gables, the lower pitch roof is shown in paintings and photographs dating between 1894 and the 1920s (Figure 5, Figure 7, and Figure 17). All show that the roof had projecting eaves and verges with both a plain wood frieze and narrow plain fascia; presumably the soffit was plain wood as well, although may have had quarter-round moulding where it met the frieze.

Less clear in the documentary record is what was used to cover the roof, how it was framed, and the form and materials used for the rainwater system. Based on contemporary examples, it can be suggested that the roof was covered in shingles, and that the framing was either square common rafters without bracing, or square common rafters with collars (Rempel 1967:119). Gutters and rainwater leaders could have been copper and with proper maintenance will be more durable than prefabricated galvanized or aluminum systems.

Related Conservation Standards:

No. 9: Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

No. 14: Replace missing features from the restoration period with new features whose forms, materials and details are based on sufficient physical, documentary and/or oral evidence.

Required Trades and Expertise:

- Heritage carpenter to design the framing and build the roof.

5.4 Preserve

5.4.1 Develop and follow a maintenance and monitoring program

Cyclical building maintenance is vital for the short and long-term conservation of any building, and historic structures are no exception. In addition to cyclical maintenance schedules, heritage properties should also have a detailed monitoring program to establish a baseline condition for the property and monitor any deterioration that may require more frequent maintenance or periodic repair. The Province of Manitoba and Canada's Historic Places have produced a comprehensive maintenance manual for heritage buildings that can be adapted to Secord-Paxton House once restoration and rehabilitation actions are completed.

Related Conservation Standards:

No. 8: Maintain character-defining elements on an ongoing basis. Repair character-defining elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving prototypes.

Required Trades and Expertise:

- No special expertise or skills required.

5.4.2 Optional item – Expose and preserve the pre-1894 stone south wing

Exposing and preserving the south wing is considered optional as repairing the foundation of the main block should take precedence.

The south wing of Secord-Paxton House dates to at least before 1894 and may have been built in the early 19th century during the Secord occupation. Although partially standing as a ruin in the 1940s, the extent of its archaeological survival is unknown. As a landscape element to display the structural history of Secord-Paxton House, the top surface of the south wing foundation walls could be exposed at grade, stabilized with lime mortar, then capped in a stronger hydraulic lime mortar that serves as waterproofing and to shed water away from the walls (Government of Ireland 2010:51). Any missing sections of the wall should be restored with stones that are subtly but permanently marked to differentiate them from the surviving construction. To provide additional public display of the south wing, its walls and roof line could be reproduced in the south end wall using either paint or a lime render tinted in a colour that contrasts with the render applied to the rest of the walls.

Related Conservation Standards:

No. 6: Protect and, if necessary, stabilize an historic place until any subsequent intervention is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbing archaeological resources, take mitigation measures to limit damage and loss of information.

Required Trades and Expertise:

- Licensed professional archaeologist to expose the foundation walls.
- Heritage mason to repair, stabilize, and cap the exposed foundation walls.

5.5 Commemorate

5.5.1 Erect a commemorative plaque and request the property be added to Canadian Register

Once Secord-Paxton House is rehabilitated and surrounded by new residential housing, its cultural heritage significance can be reinforced through official naming and signage. As recommended in the HIA, a Town of Niagara-on-the-Lake heritage property plaque should be installed in a location that will be visible from public rights of way but on a free-standing mounting that will not adversely impact the wall fabric, which is a heritage attribute. Additionally, a request should be made to the Canada's Historic Places *Canadian Register of Historic Places* (CRHP) to add an entry for 'Secord-Paxton House' with statement of significance (or statement of cultural heritage value or interest), character-defining elements (or heritage attributes), and representative photographs to the online register.

6.0 IMPLEMENTING

The strategies identified in this HCP can be implemented in four phases over the next two years. Table 2 lists the conservation strategies by phase and includes a relative scale of importance and resource requirements. Table 3 provides a schedule for each phase, as well as dependencies such as approval of a Town Heritage Permit, which is required for all 'alterations (including new construction, re-construction, restoration, additions, demolition, etc.) to heritage properties designated under Part IV and Part V of the *Ontario Heritage Act*)' (Town of Niagara-on-the-Lake 2020).

Table 2: Implementation Plan (adapted from Kalman 2014:291).

Phase	Strategy	No.	Action	Importance	Responsibility	Resources
1	**Stabilize**	5.1.1	Immediate Actions	H	2233497 Ontario Inc.	$
		5.1.2	Actions during Adjacent Construction	H	2233497 Ontario Inc.	$
		5.1.3	Understand and document existing conditions	H	2233497 Ontario Inc.	$
		5.1.4	Investigate the foundation's below-grade conditions and drainage, and repair breaches	H	2233497 Ontario Inc.	$
		5.1.5	Remove the exterior concrete masonry unit chimney, and repair and repoint the south brick chimney	H	2233497 Ontario Inc.	$
		5.1.6	Remove the east dormer and repair the roof	H	2233497 Ontario Inc.	$$
		5.1.7	Remediate any designated substances & hazardous materials and clean the interior	H	2233497 Ontario Inc.	$$
2	**Rehabilitate**	5.2.1	Remove the south porch and rehabilitate entrance	M	New owner	$
		5.2.2	Repoint masonry and patch exterior render	M	New owner	$$
		5.2.3	or strengthen all floor beams and joists as necessary	H	New owner	$$
		5.2.4	Rehabilitate the wood windows	M	New owner	$
		5.2.5	Install new exterior doors	M	New owner	$
		5.2.6	Rehabilitate the interior	H	New owner	$$$
		5.2.7	Rehabilitate the setting	L	New owner	$
3	**Restore**	5.3.1	Replace the west porch	M	New owner	$

Phase	Strategy	No.	Action	Importance	Responsibility	Resources
		5.3.2	Restore the north chimney base and top	M	New owner	$$
		5.3.3	Restore roof to pre-1931 configuration	M	New owner	$$
4	**Preserve**	5.4.1	Develop and follow a maintenance and monitoring program	M	New owner	$
		5.4.2	Optional item – Expose and preserve the pre-1894 stone south	L	New owner	$
	Commemorate	5.5.1	Erect a commemorative plaque and request the property be added to Canadian Register	L	New owner	$

Key					
Importance	H	High	**Resources**	$	Low cost
	M	Medium		$$	Moderate Cost
	L	Low		$$$	High Cost

Table 3: Implementation Schedule.

Phase	Duration	Year	Dependency
1	First 6 months	2020	Approval of Town Heritage Permit for Phase 1
2	Within 6 months of completing Phase 1	2020-2021	Approval of Town Heritage Permit for Phases 2-4
3	Within 12 months of Completing Phase 2	2021-2022	N/A
4	Within 12 months of Completing Phase 2	2021-2022	N/A

7.0 SUMMARY STATEMENT

This HCP has recommended twenty strategies to rehabilitate and conserve Secord-Paxton House as a valued built heritage resource in the Village of St. Davids, and one with a sustainable future within a contemporary housing development. However, these strategies are based only on our current understanding of the building and its setting, and it is expected that new conditions will be discovered throughout the rehabilitation effort and require changes to this plan. Although dynamic, this HCP nevertheless aims to provide a clear set of goals and objectives for the house, as well as an overall framework to approach new challenges or opportunities. Additionally, 2233497 Ontario Inc. have engaged The School of Restoration Arts at Willowbank in Queenston, Ontario in discussions of the conservation and restoration of the Secord-Paxton House over the past two years, and anticipate the Willowbank's involvement in the work and development of a knowledge base as plans for the house develop. Discussions with other interested parties have been undertaken and efforts to build community support for these initiatives are ongoing.

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APPENDIX A

Phase One Environmental Site Assessment of 46 Paxton Lane, Niagara-on-the-Lake, ON - Hallex Environmental Ltd., May 7, 2019

PHASE ONE
ENVIRONMENTAL SITE ASSESSMENT

of

46 Paxton Lane, Niagara on the Lake, ON

For:
2233497 Ontario Inc.
46 Paxton Lane
St. Davids, ON
L0S 1P0

May 7, 2019
Project: E-19-14-1

4999 Victoria Avenue
Niagara Falls, ON, L2E 4C9
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PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

of:

46 Paxton Lane, Niagara on the Lake, ON

Prepared by **Hallex Environmental Ltd**. on behalf of:

2233497 Ontario Inc.

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Date: May 7th , 2019

Project #: E-19-14-1

Dist'n: 2233497 Ontario Inc. (pdf)
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This document has been prepared for the exclusive reliance and use of 2233497 Ontario Inc. and any third party they may so designate via letter of transmittal from Hallex Environmental Ltd.

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EXECUTIVE SUMMARY

Hallex Environmental Ltd. was retained by 2233497 Ontario Ltd. to conduct a Phase One Environmental Site Assessment (ESA) of the property known as *The Paxton House* located at 46 Paxton Lane, Niagara on the Lake, ON (study site). Potentially Contaminating Activities (PCAs), and contaminants or materials of potential concern, if revealed, were identified as 'Areas of Potential Environmental Concern' (APECs), and individually evaluated whether they were triggers for additional investigation via a Phase Two ESA and/or a Designated Substance/Hazardous Materials Survey. The Phase One ESA scope of investigation included:

- Review of historical background research via:
    - EcoLog ERIS (Environmental Risk Information System);
    - Examination of historical topographic and geological maps, and aerial photographic search and interpretation; and
    - Ontario Oil, Gas & Salt Resources Library & Ministry of the Environment, Conservation and Parks Well Map Library.
- Site reconnaissance: for observations of the site grounds, structures, and adjacent properties (Site photograph log);
- Evaluation of information in terms of Potentially Contaminating Activities (PCA), and Areas of Potential Environmental Concern (APEC); and
- Formation of a preliminary Conceptual Site Model regarding potential contaminants, contaminant migration pathways, and human and/or ecological receptors.

FINDINGS

1. Designated Substances and Hazardous Materials Survey

Potential designated substances and hazardous materials ie: lead-based paints, suspected Asbestos Containing Materials: parging, pipe wrap, ceiling board, wall board, drywall joint compound, laminate flooring, ceiling tile, heat plate, plaster, tar paper, black insulation, drywall coating, and shingles were observed at the time of site reconnaissance.

2. Potentially Contaminating Activities

The Phase One ESA findings as identified from aerial photographs, fire insurance plans, ERIS EcoLog, and the site reconnaissance revealed three (3) on-site PCAs that resulted in three (3) on-site 'Areas of Potential Environmental Concern' (APEC) at the study site with the potential to have impacted the soil and/or groundwater at the study site.

- ***PCA-1/APEC-1: #28 Gasoline and Associated Products Storage in Fixed Tanks –*** The presence of an aboveground storage tank in the basement of the residence, as discovered during site reconnaissance, represents a PCA resulting in an on-site APEC. The tank was

historically used for heating oil and is considered to still contain heating oil. Target contaminants of concern include Petroleum Hydrocarbons (PHC), Benzene, Toluene, Ethylbenzene and Xylene (BTEX), Metals, and Polycyclic Aromatic Hydrocarbons (PAHs).

- ***PCA-2/APEC-2: #40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications*** – Site use in the 1950's and 1960's, as determined through historical air photos, included an orchard in the eastern portion of the site. The use of pesticides to control insects and pests, and herbicides for weed control purposes were common during this time. The use of herbicides and pesticides represents an on-site PCA resulting in an on-site APEC along the eastern portion of the site with potential impact to the soil medium.
- ***PCA-3/APEC-3: #30 Importation of Fill Material of Unknown Quality*** **–** It is unclear whether the bank of the Four Mile Creek valley along the southwestern edge of the site was historically backfilled with fill of unknown origin. Timber lags and rebar were noticed during site reconnaissance to stabilize the bank and to hold back fill material; therefore, this area is considered to represent an APEC at the study site. Contaminants of concern to soil within this area include various Metals and Sodium Adsorption Ratio (SAR), Electrical Conductivity (EC), and pH in the soil medium.

One (1) other property within the study area (250 m radius of the site) revealed a PCA but did not result in an on-site APEC at the study site.

CONCLUSIONS

The information gathered from the Phase One Environmental Site Assessment warrants further investigation into the environmental conditions of soil and groundwater at the study site. Therefore, Hallex recommends a **Phase Two Environmental Site Assessment to determine the presence/absence of potential contaminants of concern at the subject property**. **Hallex also recommends a Designated Substances & Hazardous Materials survey be conducted prior to any renovation or future building demolition in order to classify building materials for proper safety and disposal purposes, as required by provincial regulations.**

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1.0 INTRODUCTION

Hallex Environmental Ltd. was retained by 2233497 Ontario Ltd. to conduct a Phase One Environmental Site Assessment (ESA) of the property known as ***The Paxton House*** located at 46 Paxton Lane, Niagara on the Lake, ON (study site).

The environmental work was requested by the client as due diligence prior to commencing restoration activities at the site. The current proposed plan, as identified in 2017, is to rehabilitate the Paxton House and its surrounding curtilage as well as subdivide the lot for new residential developments. The site location is shown on Figure 1 and the site layout and adjacent land uses are depicted on Figure 2.

1.1 Phase One Property Information

Municipal address:	46 Paxton Lane, Niagara on the Lake, ON
Client(s):	2233497 Ontario Ltd.
UTM co-ordinates:	4779825.06 m N 654337.76 m E
Elevation:	121.89 masl
Approx. site area:	19, 800 m^2 or 1.9 hectares

1.2 Limitations and Exceptions of Report

Hallex Environmental Ltd. prepared this report for the account of: 2233497 Ontario Ltd. The material in it reflects Hallex Environmental Ltd. best judgement based on the information discovered at the time of preparation within the Phase One ESA scope of work. The investigative procedures and format of this report generally follow the guidelines established in: Part XV.1 of the Environmental Protection Act, per Ontario Regulations (O. Reg) 153/04 and O. Reg 511/09. Any information presented concerning materials at the site is based on information gathered during historical document search and site reconnaissance only. There may be materials and/or subsurface soil and/or groundwater conditions on-site, which are not represented by these non-invasive investigations. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Hallex Environmental Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Declaration: Hallex Environmental Ltd., and its' Officers and Directors, declare no conflicting business or interests with the client or the subject property.

2.0 SCOPE OF INVESTIGATION

The objectives of the Phase One ESA were an investigation of the subject property and adjacent lands conducted in accordance with O. Reg. 153/04 as amended and under the supervision of a qualified person in order to determine the likelihood that one or more contaminants may have affected any land or water on, in or under the property. Potentially Contaminating Activities (PCAs), and contaminants or materials of potential concern, if revealed, were identified as 'Areas of Potential Environmental Concern' (APECs), and individually evaluated whether they were triggers for additional investigation via a Phase Two ESA and/or a Designated Substance/Hazardous Materials Survey.

2.1 Procedures

The Phase One ESA scope of work included:

- Review of historical background information via:
    - Chain of Title;
    - Vernon's City Directory Search;
    - Fire Insurance Plans;
    - NPCA Watershed Explorer Mapping;
    - EcoLog ERIS (Environmental Risk Information System);
    - Examination of historical topographic and geological maps, and aerial photographic search and interpretation; and
    - Ontario Oil, Gas & Salt Resources Library & Ministry of the Environment, Conservation and Parks Water Well Records;
- Site reconnaissance: for observations of the site grounds, structures, and adjacent properties (site photograph log, record of interview);
- Evaluation of information in terms of a PCA resulting in an APEC; and
- Formation of a preliminary Conceptual Site Model regarding potential contaminants, contaminant migration pathways, and human and/or ecological receptors.

3.0 RECORDS REVIEW

3.1 General

3.1.1 Phase One Study Area Determination

Based upon the research completed for the Phase One ESA, it was not necessary to expand the study area beyond a 250 m radius of the property.

3.1.2 First Developed Use Determination

The first developed land use was residential, as determined through historical documents research dating back to 1799 and aerial photographs dating to 1934. Published records of the Secord family indicate the property was owned by Major Secord prior to the war of 1812. The property was also designated in 2015 under the Ontario Heritage Act.

3.1.3 Fire Insurance Plans

Fire Insurance Plans (FIP) are available at Brock University Special Collections Library for the Niagara Region, however, no FIPs were available for the study area.

3.1.4 Chain of Title

A chain of title was not obtained from ***Terranet Express*** for the study site at this time as there was ample historical ownership information available back to Crown land transfer.

3.1.4.1 City Directory Search

The Vernon's City Directories are also available at Brock University Special Collections Library for the Niagara Region. Vernon's City Directories contain street directory listings of all inhabitants (residences, businesses, factories, parks, etc.) during the years of the published study and can aid in determining land ownership from the 1900's to early 2010's. No directories were available for the study area.

3.1.5 Existing Reports

One (1) existing report was provided to Hallex Environmental Ltd. to review concerning the subject site. The following pertinent information was gleaned from the report and is highlighted below:

Heritage Conservation Plan Report: Secord House, 46 Paxton Lane, Village of St. David's, Town of Niagara-on-the-Lake, Ontario; Golder Associated Ltd.; May 30, 2018

- The purpose of the report was to conduct a Heritage Impact Assessment prior to subdividing the property for townhouse and single-detached residential development and demolishing the outbuilding, as well as retain the Secord House on a severed lot.
- At the time of report, the 1.994-hectare property included a storey-and-a-half stone residence and outbuilding, locally known as the Secord House or the Paxton House. Most

of the property was covered in small trees and tall grasses that have grown recently over the cleared fields, while the west portion is densely covered in taller mature and new-growth trees. The house and outbuilding are clustered in the west central portion of the property.

- The earliest historical reference to the property is Frey's 1787 survey map, which indicates the area of 46 Paxton Lane as owned by Peter Secord. By 1789, the Crown patents for Lots 90, 91 & 92 were finally issued to Peter Secord. Ownership was then transferred to his son, Captain David Secord, who in turn sold to his cousin, Major David Secord in 1799. Upon David's death, the land remained with his wife, Laura Secord from 1844-1861 until her eventual death when the land was passed to their son, Rial Secord. The house and property were sold to David Hanniwell in 1875, and again sold to Gardner Paxton in 1915. The Paxton's owned the property until 2007 when it was purchased for future development.
- No environmental investigation (via soil, groundwater, or sediment) was conducted as part of the Heritage Impact Assessment.

An archaeological assessment was also conducted; however, the report was not available to Hallex.

3.2 Environmental Source Information

The following agencies, databases and documents were reviewed where available and discussed further where necessary for information regarding the study site and the surrounding area to determine the presence of any activity or material of potential environmental concern.

Source	Description of Data Analysis
National Pollutant Release Inventory (NPRI)	No pertinent information was gleaned from NPRI document regarding the subject site or properties located within the study area.
PCB Waste Storage Inventory	A review of the "Ontario Inventory of PCB Storage Sites" (MOE July 2000) indicated the study site is not a registered PCB storage site. Adjacent sites were also not listed in PCB Inventory.
Environmental Compliance Approvals	No ECAs were found for the study site.
Permit to take Water	No Permits were found for the study site.
Certificate of Property Use	No CPUs were listed on title for the study site.
Coal Gasification Plants	A review of the "Inventory of Coal Gasification Plant Waste Sites" (MOE, April 1989) did not identify any former coal gasification plants for the study site or within the study area. There was only one plant listed within the Niagara Region, located in St. Catharines.
Waste Disposal Site Inventory	No former or historic waste disposal sites were identified at the study site, adjacent sites, or within the study area.

Source	Description of Data Analysis
TSSA Retail Fuel Storage Tank Info	Based on the largely residential and commercial (golf course) area surrounding the study site, as well as the historical ownership gleaned from the previous ***Golder Associates*** report, a request was not submitted to the Technical Safety and Standards Authority (TSSA) for information concerning fueling systems (USTs, ASTs) at the study site.
Record of Site Condition (RSC)	Hallex searched the Brownfield Environmental Site Registry and there were no RSCs identified for the study site or adjacent sites.
Niagara Peninsula Conservation Authority (NPCA)	NPCA mapping showed the study site to include a highly vulnerable aquifer, and a significant groundwater recharge zone. The map showing the NPCA regulated areas is provided in Appendix A.

3.2.1 EcoLog ERIS Database

The EcoLog ERIS report returned sixteen (16) environmental records, of which none (0) of the records were affiliated with the study site and all sixteen (16) from within 0.25 km of the study site. Records of significance have been summarized below, with the full EcoLog ERIS report located in Appendix B.

Municipal Address	Company	EcoLog ERIS Record	Description	Distance (m) from Study Site	PCA and/or APEC to Study Site
22 Paxton Lane	St. Davids Golf Course	FST	2001; Private fuel outlet, single wall AST; 1345-gallon diesel tank	52 m E	PCA not resulting in APEC
	Queenston Golf Club Limited	GEN	2003-2016; Generation of aliphatic solvents, waste oil & lubricants		

GEN = Ontario Regulation 347 Waste Generators, FST = Fuel Storage Tank.

3.3 Physical Setting

3.3.1 Aerial Photographs

Aerial photographs were examined and supported the finding of the study site being a residential lot from 1934 to present day, and surrounding area being a mix of residential and commercial (golf course) developments. The following years were available for review: 1934, 1954-1955, 1965, 1971, 1989, 2000, 2013 and 2018. Aerial photographs are in Appendix C with a brief summary provided below.

Date	Comments
1934	The 1934 air photo illustrates the study site as mostly agricultural with one residential dwelling at this time. North, south and east adjacent sites appear agricultural (field crops) with some orchards nearby. Residential developments are evident west of the study site. The Village of St. Davids is northwest of the study site.
1954-55, 1965	In the 1954-55 and 1965 air photos, an orchard area appears to cover the majority of the eastern portion of the site. The residential dwelling is still located at the south end of Paxton Lane. Surrounding land use at this time is residential west of Paxton Lane and Four Mile Creek Road, and agricultural / undeveloped along the north, south, and eastern adjacent sites.

Date	Comments
1971, 1989	Due to the scale of the air photos, details pertaining to site use at these times are unavailable. Surrounding land use appears the same as 1954-55 and 1965.
2000, 2013	The 2000 and 2013 air photos illustrate the orchard area of the study site as cleared. No trees appear to cover the site between these times. Details concerning the residential dwelling are not available due to the scale of the air photo. The east adjacent site appears developed as a commercial golf course. More residential development is evident within the Village of St. Davids and west of the study area. The 2013 air photo also shows residential development south of the study site.
2018	No major changes are noted for the study site from 2013, except several test pits were seen in the north central portion of the site. During site reconnaissance, it was discovered that the test pits were dug for archaeological investigations. Additional residential developments are noted in the study area.

3.3.2 Topography, Hydrology, Geology

Topography

Ontario Base Map (OBM) was reviewed for the Phase One study area. The geodetic ground surface elevation of the site is approximately 121.89 meters above sea level (masl). The study site was generally flat, with a gradual slope from west of the residence towards the Four Mile Creek valley (east to west) within the southern portion of the site.

Geology and Physiography

The Phase One property is located in the broad physiographic region known as the Iroquois Plain in the Niagara Region which lies between Lake Ontario and the Niagara Escarpment, extending from Hamilton to the Niagara River. This area is generally characterized by a thin layer of sandy soils (1.0-2.0 m) over clay as reviewed on map "Physiography of South-Central Portion of Southern Ontario, Map 2226" (***Chapman and Putnam, 1984***). Bedrock in this area is known to be limestone and/or red shale and encountered at approximately 12.0 metres below ground surface (mbgs) (***Ontario Oil, Gas, Salt Resources, 1978***). The site is situated on a feature known as the "St. Davids Buried Gorge", a bedrock channel orientated north-south through the area from Niagara Falls to north of St. Davids. The channel is known to extend to depths of 91 – 122 m in some zones.

Hydrology:

The depth to the water table is not specifically known for the site. Site specific surface water and groundwater flow direction would both be west-northwest towards the adjacent Four Mile Creek. The overall groundwater flow for the area is inferred as north-northwest. The site is noted to be within the Four Mile Creek Watershed, which drains north to Lake Ontario.

3.3.3 Fill Materials

As identified through site reconnaissance, a retaining wall was placed along the western property boundary (edge of the eastern bank of the creek) with some built up soil and timber lag protecting

the bank of the Four Mile Creek valley. This fill material has an unknown origin and may have originated from an off-site location.

3.3.4 Water Bodies and Areas of Natural Significance

Four Mile Creek is located adjacent to the west side of the study site. The center channel, situated approximately 25 m west of the subject site boundary, lies within a floodplain valley that varies in width from 25 m to 50 m along the west side of the subject site. The Niagara River is located approximately 4 km east of the site and Lake Ontario is approximately 11 km north of the site.

3.3.5 Well Records

According to the Ministry of the Environment, Conservation and Parks (MECP) Well Record database, there were no well records associated with the study site, and five (5) records available from within 250 m of the study site (considered part of the study area). Based on water well records, the depth to groundwater in the confined aquifer within the study area is inferred to be at 30-40 mbgs. No information was found regarding the unconfined aquifer in the study area. The stratigraphy within the study area was described as follows:

Well ID: 10240009	
Location: Approximately 590 m north from study site	
Depth (mbgs)	**Stratigraphy**
0 – 3.7	Brown SAND
3.7 – 16.8	Grey CLAY and SAND and GRAVEL
16.8 – 18	Red SAND and GRAVEL
18 – 21.3	Grey LIMESTONE
21.3 – 28.35	Red SHALE

mbgs = meters below ground surface

Details of the well records are located in Appendix D.

3.4 Site Operating Records

There were no applicable site operating records available for review.

4.0 INTERVIEW

On April 26th, 2019 during site reconnaissance, an interview was conducted with Mr. Steven Megannety, site representative for the Phase One ESA property. The information gathered from the interviewed party is considered accurate and is consistent with the historical records review for the Phase One ESA property and adjacent sites. The following is a summary of the information provided to Hallex:

- The site is currently owned by 2233497 Ontario Ltd.
- There have not been any previous environmental studies conducted at the study site (Phase One ESA, Phase Two ESA, Remediation, Designated Substance Survey, etc.). There was however a Heritage Impact Assessment Study done in 2017/2018.
- A heating oil AST, not in use, was observed in the basement by Hallex. Mr. Megannety was aware of the AST in the basement of the dwelling formally used for heating oil purposes. No other information was available regarding the heating oil AST.

The full record of interview and site observations is located in Appendix E.

5.0 SITE RECONNAISSANCE

5.1 General Requirements

The site investigation took place on Friday April 26th, 2019 at approximately 11:15 am and was conducted by Hallex staff member Nicole Metz, ***Environmental Technician*** and overseen by Kevin Christian, ***Profession Geoscientist, Qualified Person***. The Phase One property is **not** considered an Enhanced Investigation Property (EIP). The weather conditions during site reconnaissance were clear, and all areas of the Phase One property were accessible the entire time spent on site (11:15 am – 12:45 pm).

5.2 Specific Observations at Phase One Property

The purpose of the site reconnaissance was to identify any PCAs and/or APECs that could present the potential for contaminant sources available for migration via air, surface drainage, soil, and/or groundwater flow to human and/or ecological receptors. A photo log highlights the site (as referenced below) in addition to surrounding land uses and is provided in Appendix F. Findings are summarized below and discussed further where necessary.

Exterior Observations:

- There is currently one (1) building on site, approximately 200 years old (Photos 1-4)
- The building was constructed of stone and block with a parge/stucco exterior layer over the block walls.
- No ASTs/USTs were found in exterior locations at the site
- Below-ground structures and utilities were unknown at the time of site reconnaissance, including the type and locations of water, sewer, electrical, gas, etc.
- No equipment or chemical storage was noted at the study site during site reconnaissance, however there was some debris located west of the residential dwelling (Photo 5).
- There was one (1) suspected well located at the study site (concrete well) approximately 15 m east of the southeast corner of the house (Photo 6); however, it was not considered to be in use as the study site and study area are serviced by municipal water and sewer coming from Paxton Lane.
- Majority of the ground cover at the site consisted of grass/weeds with multiple shallow excavations (< 1 m) from past archaeological testing (Photos 7-9).
- Former heating system included a heating oil tank (estimated 250-300 gallons) in the basement of the residence and fill and vent pipes noted along the front façade of the residence (Photos 1, 10).
- No stressed vegetation was noted on-site.

- Fill material was noted within the southwestern portion of the site, specifically the embankment of the western adjacent Four Mile Creek valley.
- No current or former railways were located on-site or adjacent to the study site
- The site occupies an area of approximately 1.9 hectares of land with the residence footprint covering approximately 152 m^2.

46 Paxton Lane, Niagara on the Lake, ON	
Exterior Focus Items	**Exterior Location / Description**
Storage tanks (AST/UST)	None observed.
Wells	One (1) formerly used potable well located southeast of the residence.
Wastewater	Municipal hook up along Paxton Lane.
Pits and lagoons	None observed.
Stained materials	None observed.
Stressed vegetation	None observed.
Fill	Fill of unknown origin noted within the southwestern portion of the site, used for retaining wall of Four Mile Creek valley
Surface Water	Surface drainage via swales/ditches along Paxton Lane and property boundaries.
Watercourses, ditches, standing water	Only man-made test pits for archaeological dig.
Equipment	None observed.
Debris	Residential debris throughout southwestern corner of the study site.
Chemical storage	None observed.

Interior Observations:

The only structure on-site was a residential dwelling, accessed from the back door entrance within the main floor. The interior of the residence was in very poor condition, including peeling paint, fallen ceiling tiles, rotten wood beams, unstable walls, wet basement, as well as remnants of rodents and various residential debris strewn throughout each floor. Some wall coverings, ceiling tiles, carpet and vinyl floor tiles and cabinetry remained throughout. A former heating oil tank also remained in the basement, previously used for heating purposes. It is suspected that some oil still remains in the tank. Petroleum odour and staining was noted in the tank's vicinity.

Asbestos Containing Materials (ACM)

Potential hazardous materials and designated substances were observed in the parging, pipe wrap, ceiling board, wall board, drywall joint compound, laminate flooring, ceiling tile, heat plate, plaster, tar paper, black insulation, drywall coating, and shingles. Asbestos is classified as a Designated Substance under the Occupational Health and Safety Act.

Lead-Based Paint

The potential for the presence of lead-based paint was documented due to the age of the original building (pre 1960's).

Lead is classified as a Designated Substance under O. Reg. 843 of the Occupational Health and Safety Act.

Mould

Mould was also noted throughout the dwelling.

The interior condition of the residence appears in Photos 10-18 in Appendix F: Site Photograph Log. A tabulated summary of the interior observations can be seen below.

Interior Focus Items	Interior Location & Description
UFFI (urea formaldehyde foam insulation)	None observed
PCB's (polychlorinated biphenyl)	None observed.
Ozone Depleting Substances	None observed
Designated Substances under O. Reg 490/09 of the Occupational Health and Safety Act, including:	
Acrylonitrile	None observed
Isocyanates	None observed
Arsenic	None observed
Lead (Paint)	The presence of lead-based paint could exist given the age of the original building.
Asbestos Containing Materials (ACM)	Potential ACM was noted on materials: parging, pipe wrap, ceiling board, wall board, drywall joint compound, laminate flooring, ceiling tile, heat plate, plaster, tar paper, black insulation, drywall coating, and shingles.
Mercury	Observed within thermostat.
Benzene	None observed
Silica	Building materials
Ethylene Oxide	None observed
Vinyl Chloride	None observed
Radon	Survey not conducted
Mould	On the main level floorboards, throughout basement, and in the ceiling on the upper floor.
Water damage	
Noise	None observed
Electromagnetic field sources	None observed
Heating and cooling systems	Historically was heating oil (aboveground storage tank), then switched to Natural Gas
Drains and sumps	Within basement
Hydraulic equipment	None observed
Chemical storage	None observed
Odours	None observed
Other	None observed

Surrounding Properties in the Phase One ESA Study Area

The surrounding land uses were a mix of commercial and institutional properties. Further descriptions of surrounding property use are presented below:

Adjacent Land	Current Use	Past Use	Source used
North	Commercial (Golf Course)	Agricultural / Undeveloped	Historical document research, aerial photos and site investigation (April 2019).
South	Residential / Vacant (Stormwater Pond)	Agricultural / Undeveloped	
East	Commercial (Golf Course)	Agricultural / Undeveloped	
West	Residential	Residential	

6.0 REVIEW AND EVALUATION OF INFORMATION

6.1 Current and Past Uses – Subject Site

The historic documents research and the site reconnaissance revealed the subject site has been developed for residential purposes from 1799 to present day.

6.2 Potentially Contaminating Activities

An analysis of the historical research and information gathered during site reconnaissance, was used to determine if there were any PCAs, current or historic, found on-site and/or within the study area that may have resulted in creating on-site APECs. PCA's within the study area are depicted in Figure 3.

6.2.1 Historical On-site PCAs

Three (3) historical PCA's were identified at the study site.

- ***PCA-1/APEC-1: #28 Gasoline and Associated Products Storage in Fixed Tanks –*** The presence of an aboveground storage tank in the basement of the residence, as discovered during site reconnaissance, represents a PCA resulting in an on-site APEC. The tank was historically used for heating oil and is considered to still contain heating oil. Target contaminants of concern include Petroleum Hydrocarbons (PHC), Benzene, Toluene, Ethylbenzene and Xylene (BTEX), Metals, and Polycyclic Aromatic Hydrocarbons (PAHs).
- ***PCA-2/APEC-2: #40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications*** – Site use in the 1950's and 1960's, as determined through historical air photos, included an orchard in the eastern portion of the site. The use of pesticides to control insects and pests, and herbicides for weed control purposes were common during this time. The use of herbicides and pesticides represents an on-site PCA resulting in an on-site APEC along the eastern portion of the site with potential impact to the soil medium.
- ***PCA-3/APEC-3: #30 Importation of Fill Material of Unknown Quality*** – It is unclear whether the bank of the Four Mile Creek valley along the southwestern edge of the site was historically backfilled with fill of unknown origin. Timber lags and rebar were noticed during site reconnaissance to stabilize the bank and to hold back fill material; therefore, this area is considered to represent an APEC at the study site. Contaminants of concern to soil within this area include various Metals and Sodium Adsorption Ratio (SAR), Electrical Conductivity (EC), and pH within the soil medium.

6.2.2 Recent On-site PCAs

No recent PCAs were identified at the study site.

6.2.3 Adjacent Sites PCAs

One (1) PCA was identified at the east adjacent site to the Phase One property.

- ***PCA-4: #28 Gasoline and Associated Products Storage in Fixed Tanks –*** The EcoLog ERIS revealed the use of an aboveground storage tank at the east adjacent golf course for fueling maintenance vehicles in 2001. During site reconnaissance, the fuel tank was seen along the southern wall of the maintenance shop. The presence of an AST represents a PCA not resulting in an APEC due to distance to study site and inferred northwest groundwater flow direction.

6.2.4 Study Area PCAs

Other land uses within the study area north, south, east, and west of the study site did not exhibit visible items of concern that would constitute PCAs to the subject site regarding potential for impact to soil and/or groundwater.

6.3 Areas of Potential Environmental Concern

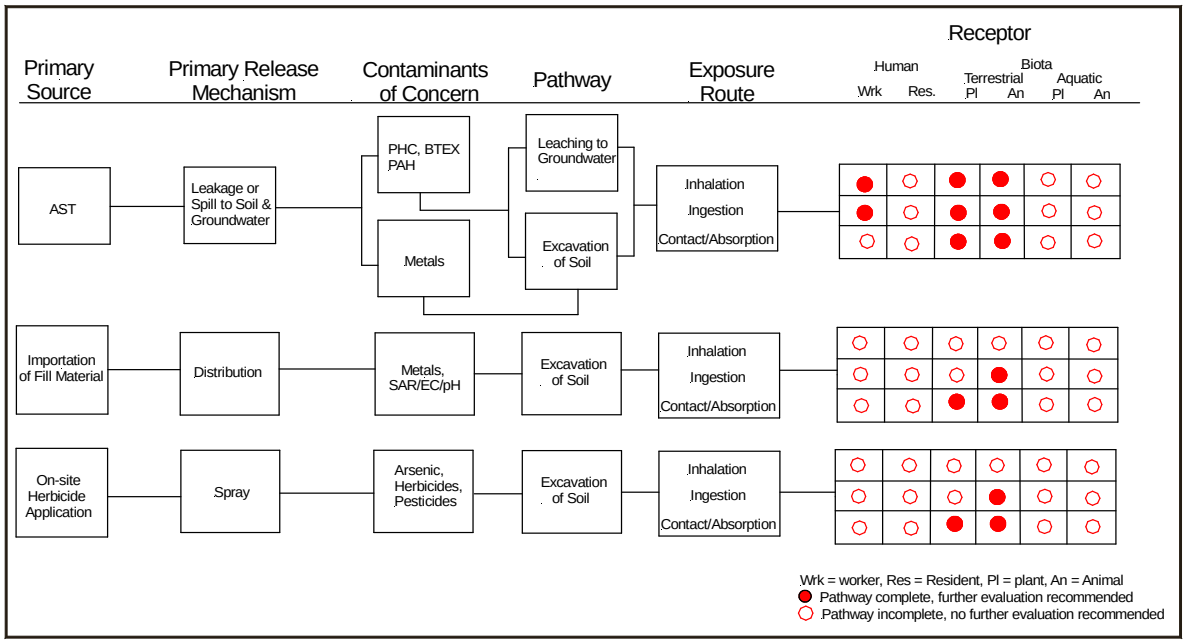
Three (3) PCAs, as described above in Section 6.2.1, were determined to create on-site APECs with the potential to impact the Phase One study site's soil and/or groundwater. On-site APECs are illustrated in Figure 3, with further details provided below in table format.

Areas of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	Basement (near front) of the residential dwelling	#28 Gasoline and Associated Products Storage in Fixed Tanks	On-site	PHCs, PAHs, BTEX, Metals	Soil and Groundwater
APEC-2	Eastern portion of site	#40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-site	Pesticides, Herbicides, Arsenic	Soil
APEC-3	Southwestern edge of site (within creek bank)	#30 Importation of Fill Material of Unknown Quality	On-site	Metals, SAR/EC/pH	Soil

The Phase One research is considered valid with no absence of information and was completed in full and considered accurate in determining the APECs located on-site.

6.4 Phase One Conceptual Site Model

The conceptual site model qualitatively considers the potential interaction of primary sources of environmental concern, with suspected contaminants of concern, and the pathway(s) and exposure route(s) to the receptors. Target contaminants of SAR/EC/pH, PHCs, BTEX, PAHs, Metals, Herbicides, Pesticides, and arsenic were identified with potential migration pathways to human and/or biota receptors.



7.0 CONCLUSIONS & RECOMMENDATIONS

Hallex Environmental Ltd. was retained by 2233497 Ontario Ltd. to conduct a Phase One Environmental Site Assessment (ESA) of the property known as ***The Paxton House*** located at 46 Paxton Lane, Niagara on the Lake, ON (study site). Potentially Contaminating Activities (PCAs), and contaminants or materials of potential concern, if revealed, were identified as 'Areas of Potential Environmental Concern' (APECs), and individually evaluated whether they were triggers for additional investigation via a Phase Two ESA and/or a Designated Substance/Hazardous Materials Survey. The Phase One ESA scope of investigation included:

- Review of historical background research via:
    - EcoLog ERIS (Environmental Risk Information System);
    - Examination of historical topographic and geological maps, and aerial photographic search and interpretation; and
    - Ontario Oil, Gas & Salt Resources Library & Ministry of the Environment, Conservation and Parks Well Map Library.
- Site reconnaissance: for observations of the site grounds, structures, and adjacent properties (Site photograph log);
- Evaluation of information in terms of Potentially Contaminating Activities (PCA), and Areas of Potential Environmental Concern (APEC); and
- Formation of a preliminary Conceptual Site Model regarding potential contaminants, contaminant migration pathways, and human and/or ecological receptors.

FINDINGS

1. Designated Substances and Hazardous Materials Survey

Potential designated substances and hazardous materials ie: lead-based paints, suspected Asbestos Containing Materials: parging, pipe wrap, ceiling board, wall board, drywall joint compound, laminate flooring, ceiling tile, heat plate, plaster, tar paper, black insulation, drywall coating, and shingles were observed at the time of site reconnaissance.

2. Potentially Contaminating Activities

The Phase One ESA findings as identified from aerial photographs, fire insurance plans, ERIS EcoLog, and the site reconnaissance revealed three (3) on-site PCAs that resulted in three (3) on-site 'Areas of Potential Environmental Concern' (APEC) at the study site with the potential to have impacted the soil and/or groundwater at the study site.

- ***PCA-1/APEC-1: #28 Gasoline and Associated Products Storage in Fixed Tanks –*** The presence of an aboveground storage tank in the basement of the residence, as discovered during site reconnaissance, represents a PCA resulting in an on-site APEC. The tank was

historically used for heating oil and is considered to still contain heating oil. Target contaminants of concern include Petroleum Hydrocarbons (PHC), Benzene, Toluene, Ethylbenzene and Xylene (BTEX), Metals, and Polycyclic Aromatic Hydrocarbons (PAHs).

- ***PCA-2/APEC-2: #40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications*** – Site use in the 1950's and 1960's, as determined through historical air photos, included an orchard in the eastern portion of the site. The use of pesticides to control insects and pests, and herbicides for weed control purposes were common during this time. The use of herbicides and pesticides represents an on-site PCA resulting in an on-site APEC along the eastern portion of the site with potential impact to the soil medium.
- ***PCA-3/APEC-3: #30 Importation of Fill Material of Unknown Quality*** – It is unclear whether the bank of the Four Mile Creek valley along the southwestern edge of the site was historically backfilled with fill of unknown origin. Timber lags and rebar were noticed during site reconnaissance to stabilize the bank and to hold back fill material; therefore, this area is considered to represent an APEC at the study site. Contaminants of concern to soil within this area include various Metals and Sodium Adsorption Ratio (SAR), Electrical Conductivity (EC), and pH in the soil medium.

One (1) other property within the study area (250 m radius of the site) revealed a PCA but did not result in an on-site APEC at the study site.

7.1 Recommendations

The information gathered from the Phase One Environmental Site Assessment warrants further investigation into the environmental conditions of soil and groundwater at the study site. Therefore, Hallex recommends a **Phase Two Environmental Site Assessment to determine the presence/absence of potential contaminants of concern at the subject property**. **Hallex also recommends a Designated Substances & Hazardous Materials survey be conducted prior to any renovation or future building demolition in order to classify building materials for proper safety and disposal purposes, as required by provincial regulations.**

7.2 Concluding Statements and Signatures

The CSM is considered valid with no absence of information. The Phase One ESA research pertaining to the study site was completed in full and considered accurate. Uncertainties are possible in that soil and groundwater sampling are not included in a Phase One ESA. It should also be recognized that the passage of time may affect the views, conclusions, and

recommendations provided in this report since environmental conditions of a property can change over time. Should additional information become available, Hallex requests that it be brought to our attention in order that we may re-assess the contents of the Phase One ESA report.

_____

Kevin Christian, M.Sc., P.Geo. Qualified Person
Principal Geoscientist

8.0 AUTHORS

Hallex Environmental Ltd. has conducted this Phase One Environmental Site Assessment as permitted by Hallex Certificate of Authorization (#90252). The following employees authored the report:

Nicole Metz **-** Ms. Nicole Metz, ETPD, ERPC, was the Environmental Technician for the project with over four years of experience in the environmental consulting field. Nicole conducted the site reconnaissance. Some projects Mrs. Metz have worked on included: Phase One & Two Environmental Site Assessments, water sampling, Records of Site Condition Filing, Environmental Compliance Approvals, National Pollutant Release Inventory, Hazardous Waste Information Network training, Designated Substances and Hazardous Materials Surveys, Site Investigations, and Remediation Studies.

Jade Anema **-** Ms. Jade Anema, MBA, B. Eng, CAPM, E.I.T, was the Project Coordinator for the project. Ms. Anema conducted the research for this report. Jade Anema recently graduated with a Bachelor of Environmental Engineering and has over three years of environmental project experience including work on Phase One & Two Environmental Site Assessments, Records of Site Condition Filing, Environmental Compliance Approvals, Designated Substances and Hazardous Materials Surveys, Site Investigations, and Remediation Studies.

Jodie Glasier **-** Mrs. Jodie Glasier, B.A.(Hons), PD-EMA, M.MM, EP, is a Project Manager with over ten + years of diverse environmental project experience including work on Phase One & Two Environmental Site Assessments, Records of Site Condition Filing, Environmental Compliance Approvals, Designated Substances and Hazardous Materials Surveys, Site Investigations, Remediation Studies, and Environmental Planning.

Kevin Christian **-** Mr. Kevin Christian, M.Sc., P.Geo., a Professional Geoscientist (#0387) registered with the Association of Professional Geoscientists of Ontario, and a Qualified Person (Environmental Site Assessment & Risk Assessment) as per Ontario Regulations 153/04 and 511/09, has thirty-two years of experience in the environmental geoscience consulting industry.

9.0 REFERENCES

The following reports, documents and databases were reviewed for the completion of this Phase One ESA.

- EcoLog ERIS
- Brock University Map Library
- Brock University Special Collections Library
- National Pollutant Release Inventory (NPRI) database www.ec.gc.ca.
- Ontario Inventory of PCB Storage Site October 1991, Ministry of the Environment, January 1992.
- Inventory of Coal Gasification Plant Waste Sites in Ontario, Volume II; MOE, 1987
- Ontario Oil, Gas, and Salt Resources Library, www.ogsrlibrary.com.
- Waste Disposal Site Inventory, Ministry of the Environment, 1991.
- Niagara Peninsula Conservation Authority (NPCA) Watershed Explorer; https://npca.ca/conservation#conservation-watershed
- Search Record of Site Condition, Ontario Ministry of Environment, Conservations and Parks; https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/searchFiledRsc_search?request_locale=en
- Environmental Registry: Search Certificate of Property Use; https://www.ebr.gov.on.ca/ERS-WEB-External/searchNotice.do
- Ministry of Natural Resources (ANSIs) mapping; https://www.gisapplication.lrc.gov.on.ca/matm/Index.html?viewer=Make_A_Topographic_Map.MATM&locale=en-US
- Search Access Environment for Environmental Compliance Approvals; http://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/GoSearch.action?search=basic&lang=en

FIGURES

0 m 1 km 2 km

Legend

Study Site

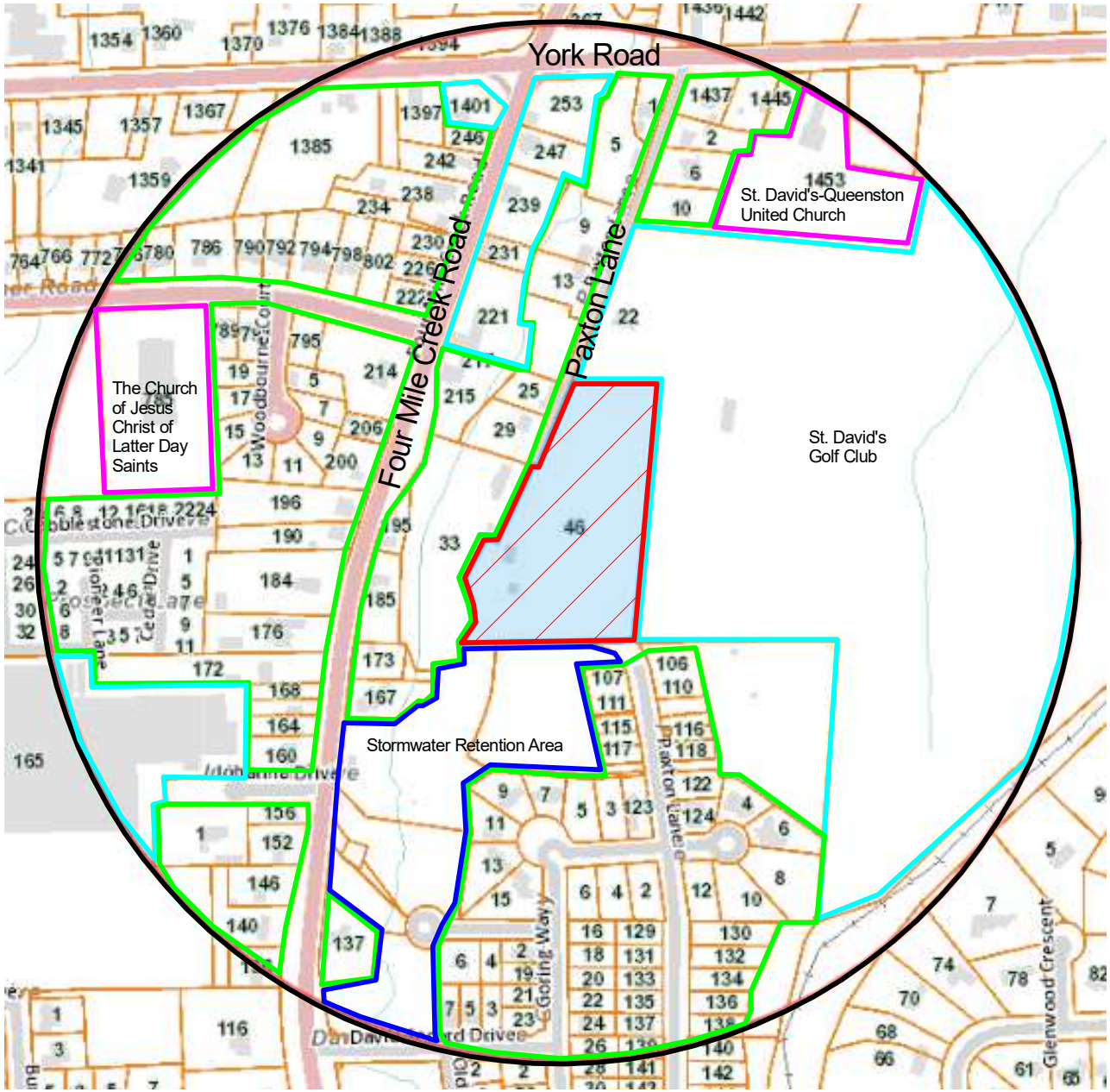
Client
2233497 Ontario Inc.
c/o Mr. Steven Megannety

Project
Phase One ESA
46 Paxton Lane,
Niagara on the Lake,
ON

Figure Name
Site Location

Project	E-19-14-1
Date	April 2019
Drafted: N. Metz Reviewed:JG	

Figure 1



0 m 50 m 150 m 250 m 500 m

Legend

- Phase One Property
- Phase One Study Area
- Residential Land Use
- Vacant Land Use
- Commercial Land Use
- Community Land Use

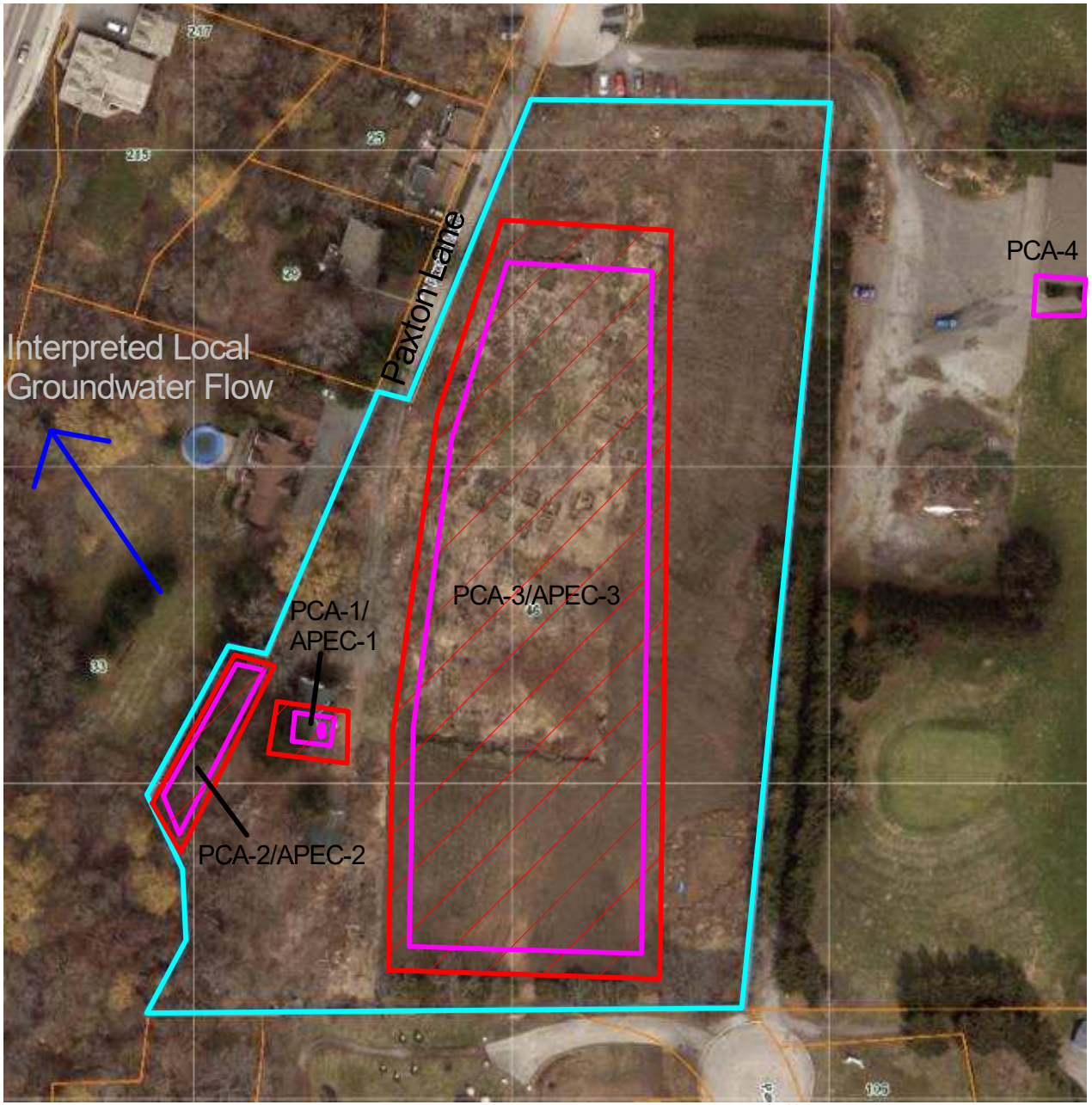
Client: 2233497 Ontario Inc.

Project: Phase One ESA
46 Paxton Lane,
Niagara on the Lake, ON

Figure Name: Site Layout and Adjacent Land Use

Project E-19-14-1
Date April 2019
Drafted: J. Anema
Reviewed: JG

Figure 2



0 m 20 m 40 m 100 m
10 m 30 m 50 m

HALLEX ENVIRONMENTAL LTD.

Legend

Phase One Property

PCA-#

PCA-1: On-site AST
PCA-2: Unknown Fill
PCA-3: Historic Orchards
PCA-4: Off-site AST

APEC-#

APEC-1: On-site AST
APEC-2: Unknown Fill
APEC-3: Historic Orchards

Historic & Current AST

Interpreted Local Groundwater Flow

Client
2233497 Ontario Inc.

Project
Phase One ESA
46 Paxton Lane,
Niagara on the Lake, ON

Figure Name
Potentially Contaminating Activities and Areas of Potential Environmental Concern

Project E-19-14-1
Date April 2019
Drafted: J. Anema
Reviewed: JG

Figure 3

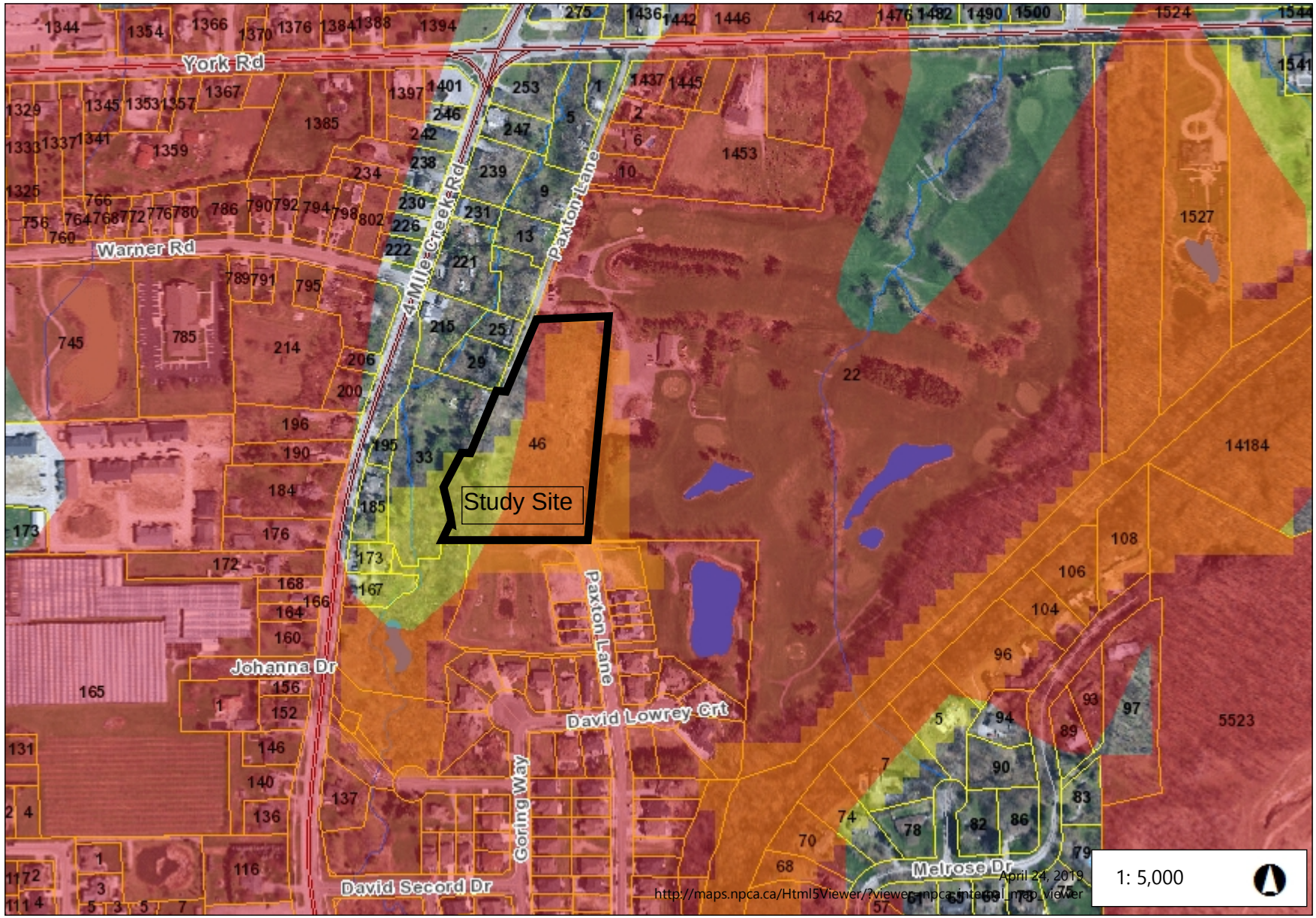
Appendix A:

NPCA Watershed Map

NIAGARA PENINSULA CONSERVATION AUTHORITY

Watershed Explorer

NPCA Map



Legend

- Corporate Watershed Divide
- Regulated Wetlands
- Wetland Allowance
- Highly Vulnerable Aquifers
- Significant Groundwater Recharge Zone
- Watershed Planning Areas
- NPCA Member Municipalities
- Roads
  - Major Highways
  - Arterial Roads
  - Local Roads
- Parcels
- Waterbodies
- Watercourses
- SWOOP_2015
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

Notes

254.0 0 127.00 254.0 Meters

NAD_1983_UTM_Zone_17N

Appendix B:

EcoLog ERIS

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*Phase One ESA: 46 Paxton Lane, St. Davids* *46 Paxton Lane* *Niagara-on-the-Lake ON L0S 1J0*
Project No:	*E-19-14-1*
Report Type:	*Standard Report*
Order No:	*20190423184*
Requested by:	*Hallex Environmental Ltd.*
Date Completed:	*April 29, 2019*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:	*Phase One ESA: 46 Paxton Lane, St. Davids* *46 Paxton Lane Niagara-on-the-Lake ON L0S 1J0*
Project No:	*E-19-14-1*

Coordinates:

Latitude:	*43.155437*
Longitude:	*-79.10171*
UTM Northing:	*4,779,825.06*
UTM Easting:	*654,337.76*
UTM Zone:	*UTM Zone 17T*

Elevation: *400 FT*
121.89 M

Order Information:

Order No:	*20190423184*
Date Requested:	*April 23, 2019*
Requested by:	*Hallex Environmental Ltd.*
Report Type:	*Standard Report*

Historical/Products:

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	*Abandoned Aggregate Inventory*	Y	0	0	0
AGR	*Aggregate Inventory*	Y	0	0	0
AMIS	*Abandoned Mine Information System*	Y	0	0	0
ANDR	*Anderson's Waste Disposal Sites*	Y	0	0	0
AUWR	*Automobile Wrecking & Supplies*	Y	0	0	0
BORE	*Borehole*	Y	0	0	0
CA	*Certificates of Approval*	Y	0	0	0
CFOT	*Commercial Fuel Oil Tanks*	Y	0	0	0
CHEM	*Chemical Register*	Y	0	0	0
CNG	*Compressed Natural Gas Stations*	Y	0	0	0
COAL	*Inventory of Coal Gasification Plants and Coal Tar Sites*	Y	0	0	0
CONV	*Compliance and Convictions*	Y	0	0	0
CPU	*Certificates of Property Use*	Y	0	0	0
DRL	*Drill Hole Database*	Y	0	0	0
DRYCLEANERS	*Dry Cleaning Facilities*	Y	0	0	0
EASR	*Environmental Activity and Sector Registry*	Y	0	0	0
EBR	*Environmental Registry*	Y	0	0	0
ECA	*Environmental Compliance Approval*	Y	0	1	1
EEM	*Environmental Effects Monitoring*	Y	0	0	0
EHS	*ERIS Historical Searches*	Y	0	0	0
EIIS	*Environmental Issues Inventory System*	Y	0	0	0
EMHE	*Emergency Management Historical Event*	Y	0	0	0
EXP	*List of TSSA Expired Facilities*	Y	0	0	0
FCON	*Federal Convictions*	Y	0	0	0
FCS	*Contaminated Sites on Federal Land*	Y	0	0	0
FOFT	*Fisheries & Oceans Fuel Tanks*	Y	0	0	0
FST	*Fuel Storage Tank*	Y	0	1	1
FSTH	*Fuel Storage Tank - Historic*	Y	0	2	2
GEN	*Ontario Regulation 347 Waste Generators Summary*	Y	0	10	10
GHG	*Greenhouse Gas Emissions from Large Facilities*	Y	0	0	0
HINC	*TSSA Historic Incidents*	Y	0	0	0
IAFT	*Indian & Northern Affairs Fuel Tanks*	Y	0	0	0
INC	*TSSA Incidents*	Y	0	0	0
LIMO	*Landfill Inventory Management Ontario*	Y	0	0	0
MINE	*Canadian Mine Locations*	Y	0	0	0
MISA PENALTY	*Environmental Penalty Annual Report*	Y	0	0	0

Database	Name	Searched	Project Property	Within 0.25 km	Total
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBW	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGW	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	TSSA Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	1	1
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	0	0	0
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	TSSA Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	1	1
	Total:		0	16	16

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	ECA	Centennial Developments (Niagara) Inc.	214 Four Mile Creek Rd Niagara-on-the-Lake ON L0S 1J0	NW/183.9	0.75	15
2	WWIS		Niagara-on-the-Lake ON ***Well ID:*** 7146572	SSW/232.3	3.66	15
3	FST	ST DAVIDS GOLF COURSE	22 PAXTON LANE ST DAVIDS ON L0S 1P0	ENE/250.0	-0.76	17
3	FSTH	ST DAVIDS GOLF COURSE	22 PAXTON LANE ST DAVIDS ON	ENE/250.0	-0.76	17
3	FSTH	ST DAVIDS GOLF COURSE	22 PAXTON LANE ST DAVIDS ON	ENE/250.0	-0.76	18
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE/250.0	-0.76	18
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE/250.0	-0.76	18
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE/250.0	-0.76	19
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE/250.0	-0.76	19
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE/250.0	-0.76	19
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE/250.0	-0.76	20
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON L0S 1L0	ENE/250.0	-0.76	20

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON L0S 1L0	ENE/250.0	-0.76	20
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON L0S 1L0	ENE/250.0	-0.76	21
3	GEN	QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON L0S 1L0	ENE/250.0	-0.76	21
3	PTTW	Queenston Golf Club Ltd.	Property of St. David's Golf Club 22 Paxton Lane, Town of Niagara-on-the-Lake, Regional Municipality of Niagara TOWN OF NIAGARA-ON-THE-LAKE ON	ENE/250.0	-0.76	21

Executive Summary: Summary By Data Source

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011-Mar 31, 2019 has found that there are 1 ECA site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
Centennial Developments (Niagara) Inc.	214 Four Mile Creek Rd Niagara-on-the-Lake ON L0S 1J0	NW	183.92	1

FST - Fuel Storage Tank

A search of the FST database, dated Feb 28, 2017 has found that there are 1 FST site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
ST DAVIDS GOLF COURSE	22 PAXTON LANE ST DAVIDS ON L0S 1P0	ENE	250.00	3

FSTH - Fuel Storage Tank - Historic

A search of the FSTH database, dated Pre-Jan 2010* has found that there are 2 FSTH site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
ST DAVIDS GOLF COURSE	22 PAXTON LANE ST DAVIDS ON	ENE	250.00	3
ST DAVIDS GOLF COURSE	22 PAXTON LANE ST DAVIDS ON	ENE	250.00	3

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Dec 31, 2018 has found that there are 10 GEN site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE	250.00	3

QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON L0S 1L0	ENE	250.00	3
QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE	250.00	3
QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE	250.00	3
QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE	250.00	3
QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE	250.00	3
QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON	ENE	250.00	3
QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON L0S 1L0	ENE	250.00	3
QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON L0S 1L0	ENE	250.00	3
QUEENSTON GOLF CLUB LIMITED	22 PAXTON LANE ST. DAVIDS ON L0S 1L0	ENE	250.00	3

PTTW - Permit to Take Water

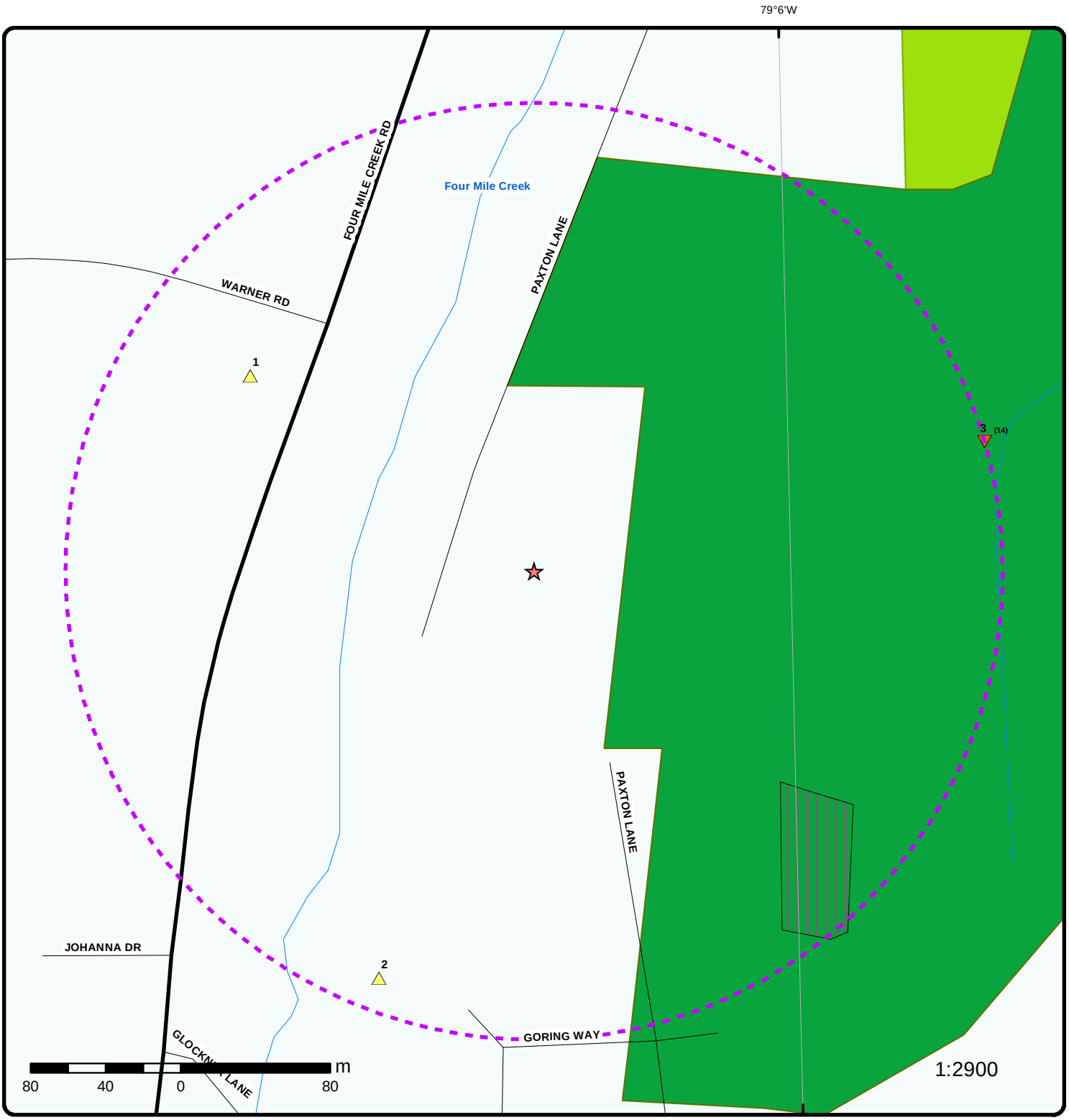
A search of the PTTW database, dated 1994-Mar 31, 2019 has found that there are 1 PTTW site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
Queenston Golf Club Ltd.	Property of St. David's Golf Club 22 Paxton Lane, Town of Niagara-on-the-Lake, Regional Municipality of Niagara TOWN OF NIAGARA-ON-THE-LAKE ON	ENE	250.00	3

WWIS - Water Well Information System

A search of the WWIS database, dated Dec 31, 2017 has found that there are 1 WWIS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	Niagara-on-the-Lake ON ***Well ID:*** 7146572	SSW	232.31	2



Map : 0.25 Kilometer Radius

Order No: 20190423184

Address: 46 Paxton Lane, Niagara-on-the-Lake, ON, L0S 1J0

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Expressway
- Principal Highway
- Secondary Highway
- Major Road
- Local road
- Trail
- Proposed Road
- Ferry Route/Ice Road
- Industrial and Resource - Regions
- Main Line
- Sidetrack
- Transit Line
- Abandoned Line
- National Park
- Provincial or Territorial Park
- Other Park
- Golf Course or Driving Range
- Park or Sports Field
- Other Recreation Area

Source: © 2015 DMTI Spatial Inc.

79°6'W

43°6'N

43°9'N

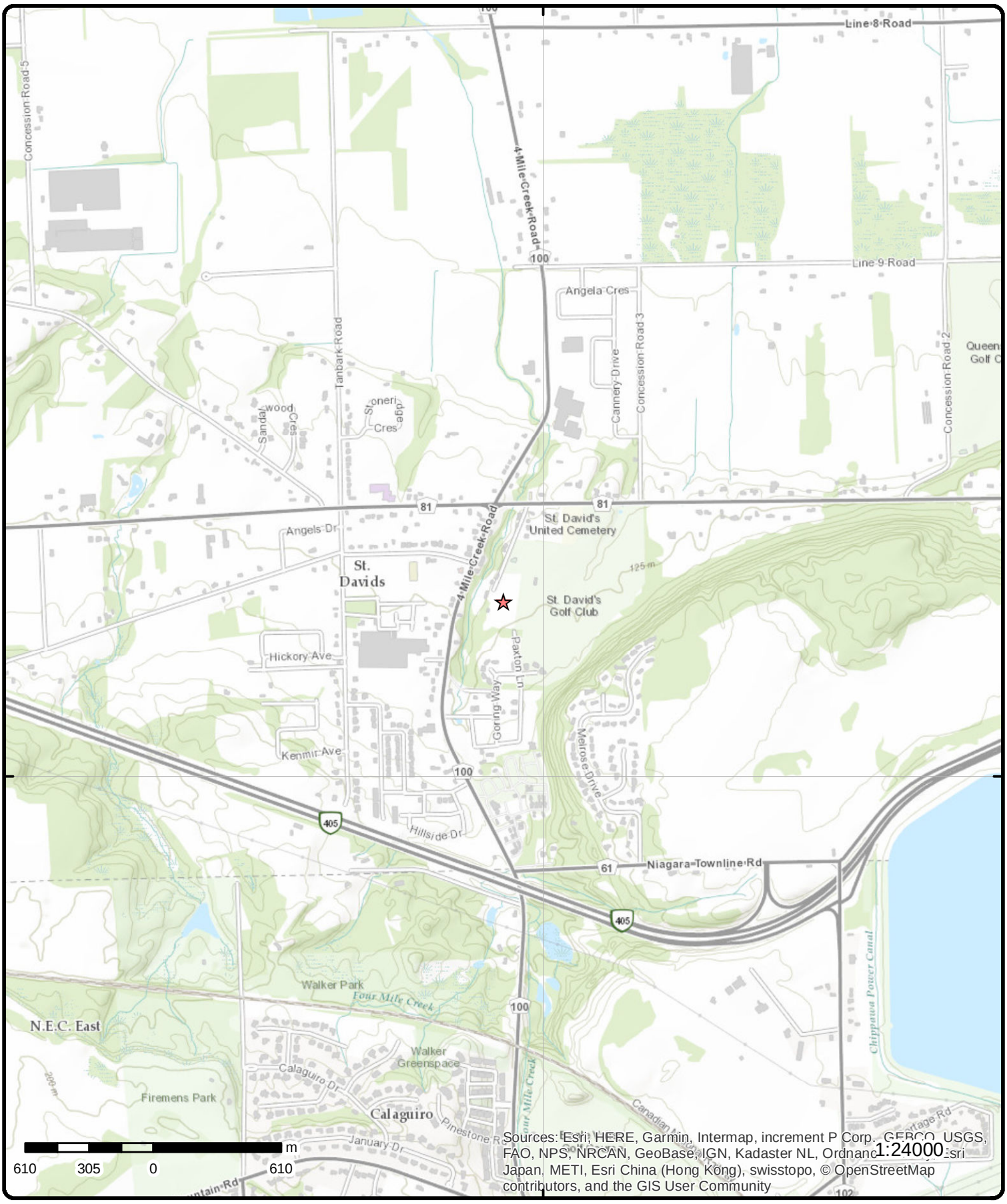
Aerial (2017)

Address: 46 Paxton Lane, Niagara-on-the-Lake, ON, L0S 1J0

Source: ESRI World Imagery

Order No: 20190423184

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES



Topographic Map

Address: 46 Paxton Lane, Niagara-on-the-Lake, ON, L0S 1J0

Source: ESRI World Topographic Map

Order No: 20190423184

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	NW/183.9	122.6 / 0.75	Centennial Developments (Niagara) Inc. 214 Four Mile Creek Rd Niagara-on-the-Lake ON L0S 1J0	ECA

Approval No:	4581-AXZSHP	**MOE District:**	Niagara
Approval Date:	2018-05-30	**City:**	
Status:	Approved	**Longitude:**	-79.10366
Record Type:	ECA	**Latitude:**	43.156451
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Niagara Peninsula	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	214 Four Mile Creek Rd		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/2810-AUXJEJ-14.pdf		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	SSW/232.3	125.6 / 3.66	Niagara-on-the-Lake ON	WWIS

Well ID:	7146572	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	6/14/2010
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Abandoned-Other	**Abandonment Rec:**	Yes
Water Type:		**Contractor:**	2123
Casing Material:		**Form Version:**	7
Audit No:	Z103536	**Owner:**	
Tag:	A064728	**Street Name:**	11 GORING WAY
Construction Method:		**County:**	NIAGARA (LINCOLN)
Elevation (m):		**Municipality:**	NIAGARA-ON-THE-LAKE TOWN (NIAGARA TWP)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1003021620	**Elevation:**	125.29
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	654255
Code OB Desc:		**North83:**	4779608
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	04-JUN-10	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			

Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1003199637
Layer: 2
Plug From: 7
Plug To: 6
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1003199636
Layer: 1
Plug From: 150
Plug To: 7
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1003199641
Method Construction Code:
Method Construction:
Other Method Construction:

Pipe Information

Pipe ID: 1003199632
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003199639
Layer:
Material:
Open Hole or Material:
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1003199640
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Results of Well Yield Testing

Pump Test ID:	1003199633
Pump Set At:	
Static Level:	30
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	0
Water State After Test:	
Pumping Test Method:	0
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Water Details

Water ID:	1003199638
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1003199635
Diameter:	
Depth From:	
Depth To:	
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

3	*1 of 14*	***ENE/250.0***	***121.1 / -0.76***	***ST DAVIDS GOLF COURSE*** ***22 PAXTON LANE*** ***ST DAVIDS ON L0S 1P0***	***FST***

Instance No:	11646998
Cont Name:	
Instance Type:	FS Liquid Fuel Tank
Fuel Type:	Diesel
Status:	Active
Capacity:	1345
Tank Material:	Steel
Corrosion Protection:	Painted
Tank Type:	Single Wall Horizontal AST
Install Year:	2001
Parent Facility Type:	Fuels Safety Private Fuel Outlet - Self Serve
Facility Type:	FS Liquid Fuel Tank

3	*2 of 14*	***ENE/250.0***	***121.1 / -0.76***	***ST DAVIDS GOLF COURSE*** ***22 PAXTON LANE*** ***ST DAVIDS ON***	***FSTH***

License Issue Date:	9/13/2001
Tank Status:	Licensed

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Tank Status As Of: August 2007
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 2001
Corrosion Protection:
Capacity: 1345
Tank Fuel Type: Liquid Fuel Single Wall AST - Diesel

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
3	3 of 14	ENE/250.0	121.1 / -0.76	ST DAVIDS GOLF COURSE 22 PAXTON LANE ST DAVIDS ON	FSTH

License Issue Date: 9/13/2001
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 2001
Corrosion Protection:
Capacity: 1345
Tank Fuel Type: Liquid Fuel Single Wall AST - Diesel

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
3	4 of 14	ENE/250.0	121.1 / -0.76	QUEENSTON GOLF CLUB LIMITED 22 PAXTON LANE ST. DAVIDS ON	GEN

Generator No: ON2540746
Status:
Approval Years: 03,04,05,06,07,08
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: Golf Courses & Country Clubs

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
3	5 of 14	ENE/250.0	121.1 / -0.76	QUEENSTON GOLF CLUB LIMITED 22 PAXTON LANE ST. DAVIDS ON	GEN

Generator No: ON2540746
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: Golf Courses and Country Clubs

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

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3 ***6 of 14*** ***ENE/250.0*** ***121.1 / -0.76*** ***QUEENSTON GOLF CLUB LIMITED*** ***GEN***
22 PAXTON LANE
ST. DAVIDS ON

Generator No: ON2540746
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: Golf Courses and Country Clubs

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

--Details--
Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

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3 ***7 of 14*** ***ENE/250.0*** ***121.1 / -0.76*** ***QUEENSTON GOLF CLUB LIMITED*** ***GEN***
22 PAXTON LANE
ST. DAVIDS ON

Generator No: ON2540746
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: Golf Courses and Country Clubs

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

---

3 ***8 of 14*** ***ENE/250.0*** ***121.1 / -0.76*** ***QUEENSTON GOLF CLUB LIMITED*** ***GEN***
22 PAXTON LANE
ST. DAVIDS ON

Generator No: ON2540746
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: Golf Courses and Country Clubs

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

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3 ***9 of 14*** ***ENE/250.0*** ***121.1 / -0.76*** ***QUEENSTON GOLF CLUB LIMITED***
22 PAXTON LANE
ST. DAVIDS ON ***GEN***

Generator No: ON2540746
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: GOLF COURSES AND COUNTRY CLUBS

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

--Details--
Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

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3 ***10 of 14*** ***ENE/250.0*** ***121.1 / -0.76*** ***QUEENSTON GOLF CLUB LIMITED***
22 PAXTON LANE
ST. DAVIDS ON L0S 1L0 ***GEN***

Generator No: ON2540746
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 713910
SIC Description: GOLF COURSES AND COUNTRY CLUBS

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

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3 ***11 of 14*** ***ENE/250.0*** ***121.1 / -0.76*** ***QUEENSTON GOLF CLUB LIMITED***
22 PAXTON LANE
ST. DAVIDS ON L0S 1L0 ***GEN***

Generator No: ON2540746
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 713910
SIC Description: GOLF COURSES AND COUNTRY CLUBS

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

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3 | ***12 of 14*** | ***ENE/250.0*** | ***121.1 / -0.76*** | ***QUEENSTON GOLF CLUB LIMITED***
22 PAXTON LANE
ST. DAVIDS ON L0S 1L0 | ***GEN***

Generator No: ON2540746
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 713910
SIC Description: GOLF COURSES AND COUNTRY CLUBS

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

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3 | ***13 of 14*** | ***ENE/250.0*** | ***121.1 / -0.76*** | ***QUEENSTON GOLF CLUB LIMITED***
22 PAXTON LANE
ST. DAVIDS ON L0S 1L0 | ***GEN***

Generator No: ON2540746
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

--Details--
Waste Code: 252 L
Waste Description: Waste crankcase oils and lubricants

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3 | ***14 of 14*** | ***ENE/250.0*** | ***121.1 / -0.76*** | ***Queenston Golf Club Ltd.***
Property of St. David's Golf Club 22 Paxton Lane, Town of Niagara-on-the-Lake, Regional Municipality of Niagara TOWN OF NIAGARA-ON-THE-LAKE
ON | ***PTTW***

EBR Registry No: 011-0058
Ministry Ref. No: 7132-855LEE
Notice Type: Instrument Decision
Company Name: Queenston Golf Club Ltd.
Proponent Name:
Proponent Address: 22 Paxton Lane, Post Office 157, Queenston Ontario, Canada L0S 1L0
Instrument Type: (OWRA s. 34) - Permit to Take Water
Location Other:
URL:

Proposal Date: May 18, 2010
Notice Date: July 04, 2016
Year: 2010

Location:

Property of St. David's Golf Club 22 Paxton Lane, Town of Niagara-on-the-Lake, Regional Municipality of Niagara TOWN OF NIAGARA-ON-THE-LAKE

Unplottable Summary

Total: 25 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	R.M. OF NIAGARA	WARNER RD. WATER BOOSTER P.S.	NIAGARA-ON-THE-LAKE TOWN ON	
CA	NIAGARA-ON-THE-LAKE TOWN	FOUR MILE CREEK RD.	NIAGARA-ON-THE-LAKE TOWN ON	
CA	PLEASANT MANOR CARE SERVICES	FOUR MILE CREEK RD./S.W.M.FAC.	NIAGARA-ON-THE-LAKE TOWN ON	
CA	NIAGARA-ON-THE-LAKE TOWN	FOUR MILE CREEK RD.	NIAGARA-ON-THE-LAKE TOWN ON	
CA	Queenston Golf Club Limited	Part of Lots 91 and 92 and Part Road Allowance between Lots 91 and 92	Niagara-on-the-Lake ON	
CA		Warner Road	Niagara-on-the-Lake ON	
CA	R.M. OF NIAGARA	RR #100/FOUR MILE CREEK ROAD	NIAGARA-ON-THE-LAKE TOWN ON	
CA	Queenston Golf Club Limited, The Settlement (Glockner Property) Inc. and The Set	Part of Lots 91 & 92, Part Road Allowance between Lots 91 & 92	Niagara-on-the-Lake ON	
CA	The Corporation of the Town of Niagara-on-the-Lake	Warner Road from Four Mile Creek to Tanbark Rd	Niagara-on-the-Lake ON	
CA		Warner Road Allowance	Niagara-On-The-Lake ON	
CA	The Corporation of the Town of Niagara-on-the-Lake	Warner Road	Niagara-on-the-Lake ON	
CA	NESTOR AND ELLA CHEMERIKA	FOUR MILE CREEK RD/R.RD.85	NIAGARA-ON-THE-LAKE ON	
ECA	The Corporation of the Town of Niagara-on-the-Lake	Line 2 Rd, b/w Four Mile Creek Rd. & Conc 4 Rd	Niagara-on-the-Lake ON	L0S 1T0
ECA	The Corporation of the Town of Niagara-on-the-Lake	Warner Rd	Niagara-on-the-Lake ON	L0S 1T0
ECA	The Corporation of the Town of Niagara-on-the-Lake	Warner Road Allowance	Niagara-on-the-Lake ON	L0S 1T0
ECA	The Corporation of the Town of Niagara-on-the-Lake	Warner Road from Four Mile Creek to Tanbark Rd	Niagara-on-the-Lake ON	L0S 1T0
ECA	Queenston Golf Club Limited, The Settlement (Glockner	Settlement (Steele Property) Inc. Part of Lots 91 & 92, Part Road Allowance between Lots 91 & 92	Niagara-on-the-Lake ON	L0S 1L0

	Property) Inc. and The		
PINC		Lot # 51 Paxton Lane. Niagara	ON
PTTW	Queenston Golf Club Limited		ON
PTTW	Queenston Golf Club Limited	Part of Lots 90 and 91	Niagara-on-the-Lake ON
PTTW	Queenston Golf Club Limited	St. David's Golf Club Part of Lots 90 and 91, Part 2, Plan Niagara North No 30R-4328 Town of Niagara-on-the-Lake, Regional Municipality of Niagara, Ontario	TOWN OF NIAGARA-ON-THE-LAKE ON
SPL	WILLIAM KNOX FUELS	TOWN WORKS YARD FOUR MILE CREEK RD NIAGARA-ON-THE-LAKE	NIAGARA-ON-THE-LAKE TOWN ON
WWIS		lot 90	ON
WWIS		lot 90	ON
WWIS		lot 90	ON

Unplottable Report

Site: ***R.M. OF NIAGARA***
WARNER RD. WATER BOOSTER P.S. NIAGARA-ON-THE-LAKE TOWN ON

Database: ***CA***

Certificate #:	7-0352-87-
Application Year:	87
Issue Date:	4/10/1987
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***NIAGARA-ON-THE-LAKE TOWN***
FOUR MILE CREEK RD. NIAGARA-ON-THE-LAKE TOWN ON

Database: ***CA***

Certificate #:	7-1763-87-
Application Year:	87
Issue Date:	11/26/1987
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***PLEASANT MANOR CARE SERVICES***
FOUR MILE CREEK RD./S.W.M.FAC. NIAGARA-ON-THE-LAKE TOWN ON

Database: ***CA***

Certificate #:	3-1522-92-
Application Year:	92
Issue Date:	12/1/1992
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***NIAGARA-ON-THE-LAKE TOWN***
FOUR MILE CREEK RD. NIAGARA-ON-THE-LAKE TOWN ON

Database: ***CA***

Certificate #:	7-1559-88-
Application Year:	88

Issue Date: 9/29/1988
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Queenston Golf Club Limited***
Part of Lots 91 and 92 and Part Road Allowance between Lots 91 and 92 Niagara-on-the-Lake ON

Database: ***CA***

Certificate #: 4230-6YZQTU
Application Year: 2007
Issue Date: 3/13/2007
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site:
Warner Road Niagara-on-the-Lake ON

Database: ***CA***

Certificate #: 9186-5DUN46
Application Year: 02
Issue Date: 9/12/02
Approval Type: Municipal & Private water
Status: Approved
Application Type: New Certificate of Approval
Client Name: The Corporation of the Town of Niagara-on-the-Lake
Client Address: 1593 Creek Road, P.O. Box 100
Client City: Virgil
Client Postal Code: L0S 1T0
Project Description: Installation of watermain on Warner Road
Contaminants:
Emission Control:

Site: ***R.M. OF NIAGARA***
RR #100/FOUR MILE CREEK ROAD NIAGARA-ON-THE-LAKE TOWN ON

Database: ***CA***

Certificate #: 7-0351-94-
Application Year: 94
Issue Date: 5/16/1994
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Queenston Golf Club Limited, The Settlement (Glockner Property) Inc. and The Set***
Part of Lots 91 & 92, Part Road Allowance between Lots 91 & 92 Niagara-on-the-Lake ON

Database: ***CA***

Certificate #: 7117-6UFQTR
Application Year: 2007
Issue Date: 1/23/2007
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***The Corporation of the Town of Niagara-on-the-Lake***
Warner Road from Four Mile Creek to Tanbark Rd Niagara-on-the-Lake ON

Database: ***CA***

Certificate #: 7661-88FHGB
Application Year: 2010
Issue Date: 8/31/2010
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site:
Warner Road Allowance Niagara-On-The-Lake ON

Database: ***CA***

Certificate #: 1574-4KUMNN
Application Year: 00
Issue Date: 6/5/00
Approval Type: Municipal & Private water
Status: Approved
Application Type: New Certificate of Approval
Client Name: Town of Niagara-on-the-Lake
Client Address: P.O. Box 100
Client City: Virgil
Client Postal Code: L0S 1T0
Project Description: This application is for the installation of watermains on Warner Road Allowance between Tanbark and Four Mile Creek Road, York Road allowance between Tanbark Road and Four Mile Creek Road.
Contaminants:
Emission Control:

Site: ***The Corporation of the Town of Niagara-on-the-Lake***
Warner Road Niagara-on-the-Lake ON

Database: ***CA***

Certificate #: 0314-6SXKLK
Application Year: 2006
Issue Date: 8/24/2006
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:

Project Description:
Contaminants:
Emission Control:

Site: ***NESTOR AND ELLA CHEMERIKA***
FOUR MILE CREEK RD/R.RD.85 NIAGARA-ON-THE-LAKE ON

Database: ***CA***

Certificate #: 3-0403-98-
Application Year: 98
Issue Date: 4/27/1998
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***The Corporation of the Town of Niagara-on-the-Lake***
Line 2 Rd, b/w Four Mile Creek Rd. & Conc 4 Rd Niagara-on-the-Lake ON L0S 1T0

Database: ***ECA***

Approval No: 8233-5J4KQW
Approval Date: 2003-01-31
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City: Niagara-on-the-Lake
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: Line 2 Rd, b/w Four Mile Creek Rd. & Conc 4 Rd
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0585-5HMSMQ-14.pdf

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Site: ***The Corporation of the Town of Niagara-on-the-Lake***
Warner Rd Niagara-on-the-Lake ON L0S 1T0

Database: ***ECA***

Approval No: 9186-5DUN46
Approval Date: 2002-09-12
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Address: Warner Rd
Full Address:
Full PDF Link:

Site: ***The Corporation of the Town of Niagara-on-the-Lake***
Warner Road Allowance Niagara-on-the-Lake ON L0S 1T0

Database: ***ECA***

Approval No: 1574-4KUMNN
Approval Date: 2000-06-05
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Address: Warner Road Allowance

Full Address:
Full PDF Link:

Site: ***The Corporation of the Town of Niagara-on-the-Lake***
Warner Road from Four Mile Creek to Tanbark Rd Niagara-on-the-Lake ON L0S 1T0

Database: ***ECA***

Approval No:	7661-88FHGB	***MOE District:***	
Approval Date:	2010-08-31	***City:***	Niagara-on-the-Lake
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	Warner Road from Four Mile Creek to Tanbark Rd		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/1147-85KNEW-14.pdf		

Site: ***Queenston Golf Club Limited, The Settlement (Glockner Property) Inc. and The Settlement (Steele Property) Inc. Part of Lots 91 & 92, Part Road Allowance between Lots 91 & 92 Niagara-on-the-Lake ON L0S 1L0***

Database: ***ECA***

Approval No:	7117-6UFQTR	***MOE District:***	
Approval Date:	2007-01-23	***City:***	Niagara-on-the-Lake
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	Part of Lots 91 & 92, Part Road Allowance between Lots 91 & 92		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/7539-6NEPE2-14.pdf		

Site:
Lot # 51 Paxton Lane. Niagara ON

Database: ***PINC***

Incident ID:	2700596	***Health Impact:***	No
Incident No:	544124	***Environment Impact:***	No
Type:	FS-Pipeline Incident	***Property Damage:***	No
Status Code:	Pipeline Damage Reason Est	***Service Interupt:***	No
Fuel Occurrence Tp:	Pipeline Strike	***Enforce Policy:***	No
Fuel Type:	Natural Gas	***Public Relation:***	No
Tank Status:	RC Established	***Pipeline System:***	
Task No:	3253455	***Depth:***	
Spills Action Centre:		***Pipe Material:***	
Method Details:	E-mail	***PSIG:***	
Fuel Category:	Natural Gas	***Attribute Category:***	FS-Perform P-line Inc Invest
Date of Occurrence:	2/16/2011 0:00	***Regualtor Location:***	
Occurrence Start Date:	2011/03/10		
Operation Type:	Construction Site (pipeline strike)		
Pipeline Type:			
Regulator Type:			
Summary:	Lot # 51 Paxton Lane. Niagara - 1/2" Pipeline Hit		
Reported By:	Imineo, Vito - Enbridge		
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)		
Occurrence Desc:	no locates damage 1/2 pe line		
Damage Reason:	Excavation practices not sufficient		
Notes:			

Site: ***Queenston Golf Club Limited***
ON

Database: ***PTTW***

EBR Registry No: 012-6763
Ministry Ref. No: 6673-A6KKZ4
Notice Type: Instrument Decision
Company Name: Queenston Golf Club Limited
Proponent Name:
Proponent Address: 269 Concession 2 Road, Post Office Box Delivery 157, Queenston Ontario, Canada L0S 1L0
Instrument Type: (OWRA s. 34) - Permit to Take Water
Location Other:
URL:
Proposal Date: February 10, 2016
Notice Date: March 01, 2018
Year: 2016

Location:

Site #1: Lot 42 Concession 2 Geographic Township: Grantham, Town of Niagara-on-the-Lake, Regional Municipality of Niagara Site #2: Lot 43 Concession 2 Geographic Township: Grantham, Town of Niagara-on-the-Lake, Regional Municipality of Niagara GRANTHAM REGIONAL MUNICIPALITY OF NIAGARA TOWN OF NIAGARA-ON-THE-LAKE

Site: ***Queenston Golf Club Limited***
Part of Lots 90 and 91 Niagara-on-the-Lake ON

Database: ***PTTW***

EBR Registry No: 011-6386
Ministry Ref. No: 2330-8TPLLM
Notice Type: Instrument Proposal
Company Name:
Proponent Name:
Proponent Address: 22 Paxton Lane Post Office 157 Niagara-on-the-Lake Ontario Canada L0S 1L0
Instrument Type: (OWRA s. 34) - Permit to take water
Location Other:
URL:
Proposal Date: May 23, 2012
Notice Date:
Year: 2012

Location:

St. David's Golf Club Part of Lots 90 and 91, Part 2, Plan Niagara North No 30R-4328 Town of Niagara-on-the-Lake, Regional Municipality of Niagara, Ontario TOWN OF NIAGARA-ON-THE-LAKE

Site: ***Queenston Golf Club Limited***
St. David's Golf Club Part of Lots 90 and 91, Part 2, Plan Niagara North No 30R-4328 Town of Niagara-on-the-Lake, Regional Municipality of Niagara, Ontario TOWN OF NIAGARA-ON-THE-LAKE ON

Database: ***PTTW***

EBR Registry No: 011-6386
Ministry Ref. No: 2330-8TPLLM
Notice Type: Instrument Decision
Company Name: Queenston Golf Club Limited
Proponent Name:
Proponent Address: 22 Paxton Lane, Post Office 157, Niagara-on-the-Lake Ontario, Canada L0S 1L0
Instrument Type: (OWRA s. 34) - Permit to Take Water
Location Other:
URL:
Proposal Date: May 23, 2012
Notice Date: March 12, 2015
Year: 2012

Location:

St. David's Golf Club Part of Lots 90 and 91, Part 2, Plan Niagara North No 30R-4328 Town of Niagara-on-the-Lake, Regional Municipality of Niagara, Ontario TOWN OF NIAGARA-ON-THE-LAKE

Site: ***WILLIAM KNOX FUELS***
TOWN WORKS YARD FOUR MILE CREEK RD NIAGARA-ON-THE-LAKE NIAGARA-ON-THE-LAKE TOWN ON

Database: ***SPL***

Ref No: 19496
Site No:
Incident Dt: 1/29/1988
Year:
Incident Cause: UNDERGROUND TANK LEAK
Incident Event:
Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type:
Agency Involved:

Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	NOT ANTICIPATED	***Site Municipality:***	18404
Nature of Impact:		***Site Lot:***	
Receiving Medium:	LAND / WATER	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	NOL WORKS DEPT/FIRE DEPT
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	1/29/1988	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	NEGLIGENCE (APPARENT)	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BACKENTRY - WORKS DEPT 50 LTRS DIESEL FUEL OVERFLOW FROM TANK		
Contaminant Qty:			

Site:
lot 90 ON

Database:
WWIS

Well ID:	3803173	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Irrigation	***Date Received:***	4/21/1987
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Abandoned-Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	2123
Casing Material:		***Form Version:***	1
Audit No:	08117	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	NIAGARA (LINCOLN)
Elevation (m):		***Municipality:***	NIAGARA-ON-THE-LAKE TOWN (NIAGARA TWP)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	090
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10240860	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	x	***East83:***	
Code OB Desc:	Unknown type in the lower layers(s)	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	01-AUG-86	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931746542

Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 20
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746543
Layer: 2
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 20
Formation End Depth: 55
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746546
Layer: 5
Color:
General Color:
Mat1: 00
Most Common Material: UNKNOWN TYPE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 95
Formation End Depth: 160
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746544
Layer: 3
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 55
Formation End Depth: 79
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746545
Layer: 4
Color: 7
General Color: RED
Mat1: 28
Most Common Material: SAND
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 79
Formation End Depth: 95
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 963803173
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10789430
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930407902
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 160
Casing Diameter: 8
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 993803173
Pump Set At:
Static Level: 22
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate: 5
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: N

Water Details

Water ID: 933709077
Layer: 1
Kind Code: 1

Kind: FRESH
Water Found Depth: 120
Water Found Depth UOM: ft

Site:
lot 90 ON

Database:
WWIS

Well ID: 3803240
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: Abandoned-Supply
Water Type:
Casing Material:
Audit No: NA
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 3/4/1988
Selected Flag: Yes
Abandonment Rec:
Contractor: 2123
Form Version: 1
Owner:
Street Name:
County: NIAGARA (LINCOLN)
Municipality: NIAGARA-ON-THE-LAKE TOWN
Site Info:
Lot: 090
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10240916
DP2BR:
Spatial Status:
Code OB: x
Code OB Desc: Unknown type in the lower layers(s)
Open Hole:
Cluster Kind:
Date Completed: 06-MAY-87
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 931746771
Layer: 2
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Other Materials: SAND
Mat3:
Other Materials:
Formation Top Depth: 16
Formation End Depth: 46
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746774

Layer: 5
Color:
General Color:
Mat1: 00
Most Common Material: UNKNOWN TYPE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 146
Formation End Depth: 150
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746772
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 46
Formation End Depth: 120
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746773
Layer: 4
Color: 7
General Color: RED
Mat1: 28
Most Common Material: SAND
Mat2: 11
Other Materials: GRAVEL
Mat3: 05
Other Materials: CLAY
Formation Top Depth: 120
Formation End Depth: 146
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746770
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 02
Other Materials: TOPSOIL
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 16
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 963803240
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10789486
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930407974
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 150
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Site:
lot 90 ON

Database:
WWIS

Well ID: 3803174
Construction Date:
Primary Water Use: Irrigation
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 08114
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 4/21/1987
Selected Flag: Yes
Abandonment Rec:
Contractor: 2123
Form Version: 1
Owner:
Street Name:
County: NIAGARA (LINCOLN)
Municipality: NIAGARA-ON-THE-LAKE TOWN (NIAGARA TWP)
Site Info:
Lot: 090
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10240861
DP2BR: 85
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 24-JUL-86
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 931746551
Layer: 5
Color:
General Color:
Mat1: 17
Most Common Material: SHALE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 85
Formation End Depth: 125
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746550
Layer: 4
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 76
Formation End Depth: 85
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746549
Layer: 3
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 48
Formation End Depth: 76
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746547
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0

Formation End Depth: 15
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931746548
Layer: 2
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 15
Formation End Depth: 48
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 963803174
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10789431
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930407903
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 125
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930407904
Layer: 2
Material:
Open Hole or Material:
Depth From:
Depth To: 125
Casing Diameter: 8
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 993803174
Pump Set At:
Static Level: 40
Final Level After Pumping: 110

Recommended Pump Depth: 85
Pumping Rate: 15
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: N

Water Details

Water ID: 933709078
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 100
Water Found Depth UOM: ft

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Sep 2018

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Oct 2018

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Jan 31, 2019

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2014

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Commercial Fuel Oil Tanks: Provincial CFOT

List of commercial underground fuel oil tanks made available by the Fuels Safety Program of the Technical Standards & Safety Authority (TSSA). Ontario Regulation 213/01 of the Technical Standards and Safety Act (2000) requires that all underground tanks be registered with the TSSA. Note: the Fuels Safety Division does not register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of commercial fuel tanks in the province. The TSSA updates information in its system on an ongoing basis; this listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Chemical Register: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-Jan 31, 2019

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 - Mar 2019

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Mar 2019

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994-Mar 31, 2019

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Oct 2018

Dry Cleaning Facilities: Federal DRYCLEANERS

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2017

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011-Mar 31, 2019

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994-Mar 31, 2019

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011-Mar 31, 2019

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Jan 31, 2019

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

List of TSSA Expired Facilities: Provincial EXP

List of facilities and tanks - for which there was once a registration - no longer registered with the Fuels Safety Program of the Technical Standards and Safety Authority (TSSA). Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc. Tanks which have been removed from the ground are included in the expired facilities inventory held by the TSSA. Notes: the Fuels Safety Division did not register private fuel underground/aboveground storage tanks prior to January of 1990, or furnace oil tanks prior to May 1, 2002; nor does the Division register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Federal Convictions: Federal FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government.

Government Publication Date: Jun 2000-Oct 2018

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2018

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks made available by the Fuels Safety Program of the Technical Standards & Safety Authority (TSSA). Ontario Regulation 213/01 of the Technical Standards and Safety Act (2000) requires that all underground tanks be registered with the TSSA. Notes: the Fuels Safety Division did not register private fuel underground/aboveground storage tanks prior to January of 1990, or furnace oil tanks prior to May 1, 2002; nor does the Division register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of fuel storage tanks/tank facilities in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Dec 31, 2018

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2016

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

TSSA Incidents: Provincial INC

List of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC) and made available by the Technical Standards and Safety Authority (TSSA). Under the Technical Standards & Safety Act (2000), the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors, and equipment or appliances that use fuels. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Sep 30, 2017

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Environmental Penalty Annual Report: Provincial MISA PENALTY

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2018

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Jan 2018

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 2017

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Dec 31, 2018

National Energy Board Wells: Federal NEBW

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGW

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Feb 28, 2019

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-May 2018

Inventory of PCB Storage Sites: Provincial OPCB

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994-Mar 31, 2019

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: 1988-Sep 2018

TSSA Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills) made available by the Technical Standards and Safety Authority (TSSA). Under the Technical Standards & Safety Act (2000), the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors, and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of pipeline incidents in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Private and Retail Fuel Storage Tanks: Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994-Mar 31, 2019

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-2016

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Mar 2019

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Jan 31, 2019

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Government Publication Date: 1988-Dec 2018

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2016

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Aug 2018

TSSA Variances for Abandonment of Underground Storage Tanks: Provincial VAR

List of variances granted for abandoned tanks. Under the Technical Standards and Safety Authority (TSSA) Liquid Fuels Handling Code and Fuel Oil Code, all underground storage tanks must be removed within two years of disuse. If removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of tank variances in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011-Mar 31, 2019

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Dec 31, 2017

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

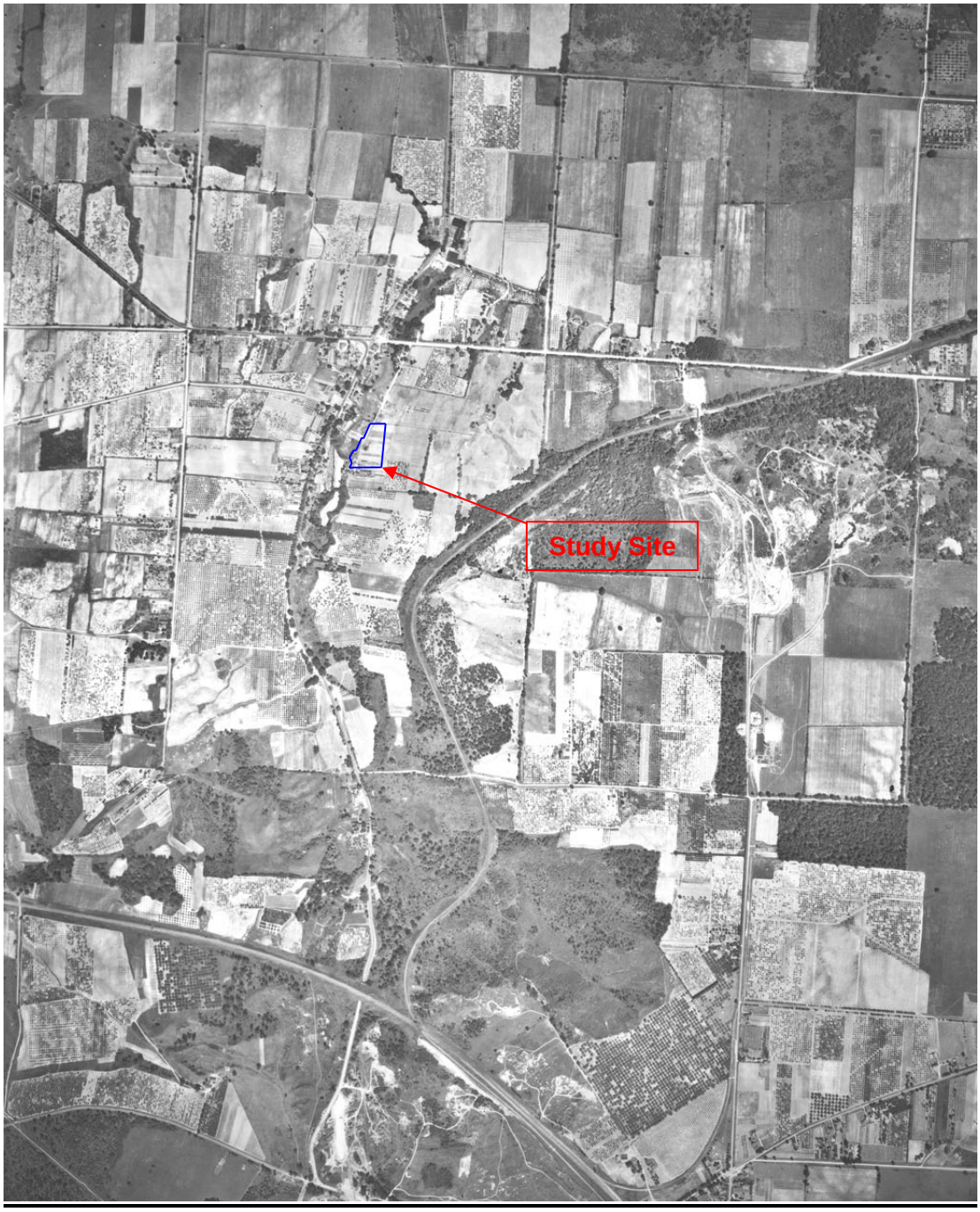
Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix C:

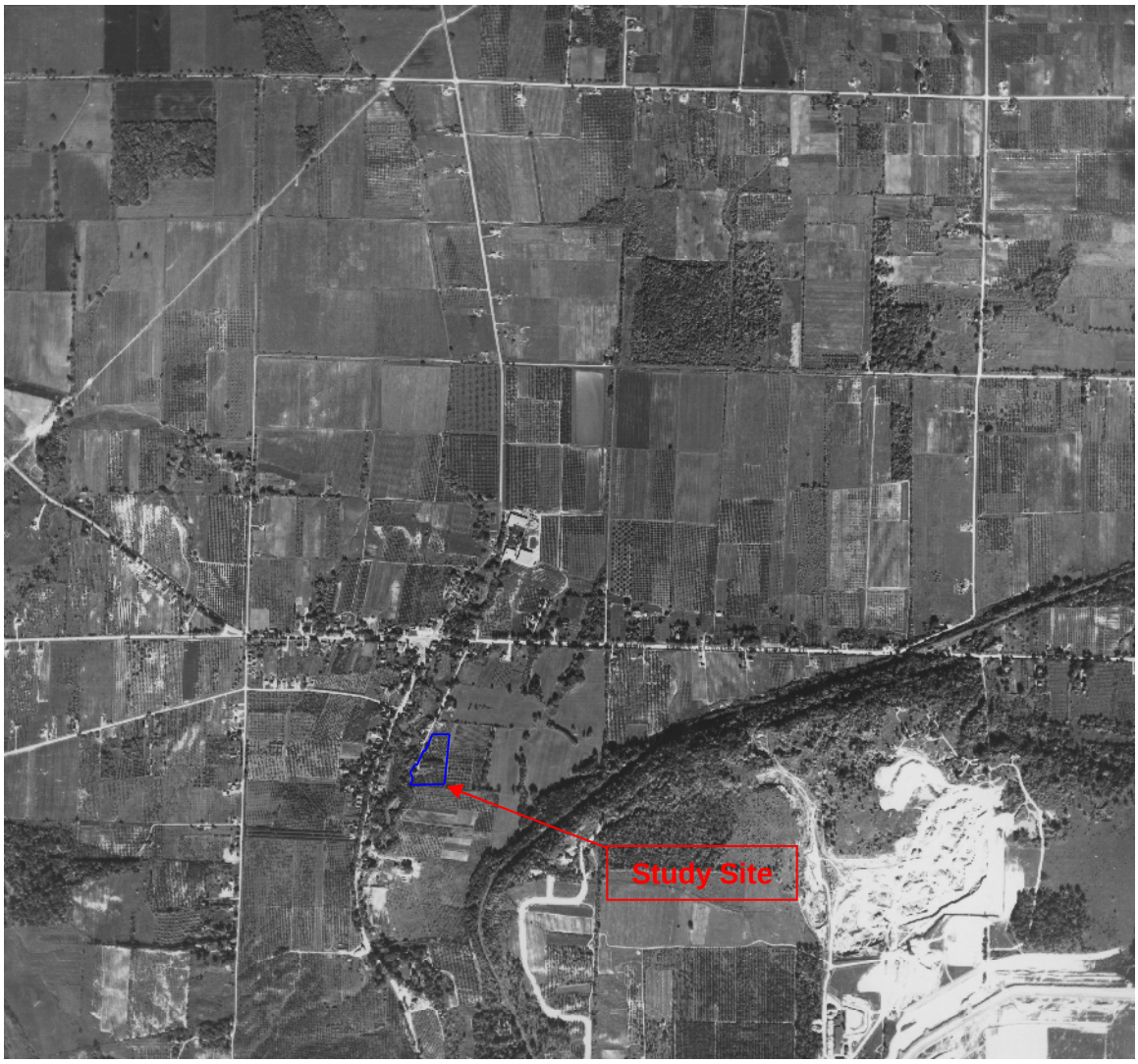
Aerial Photographs

Aerial Photographs

1934

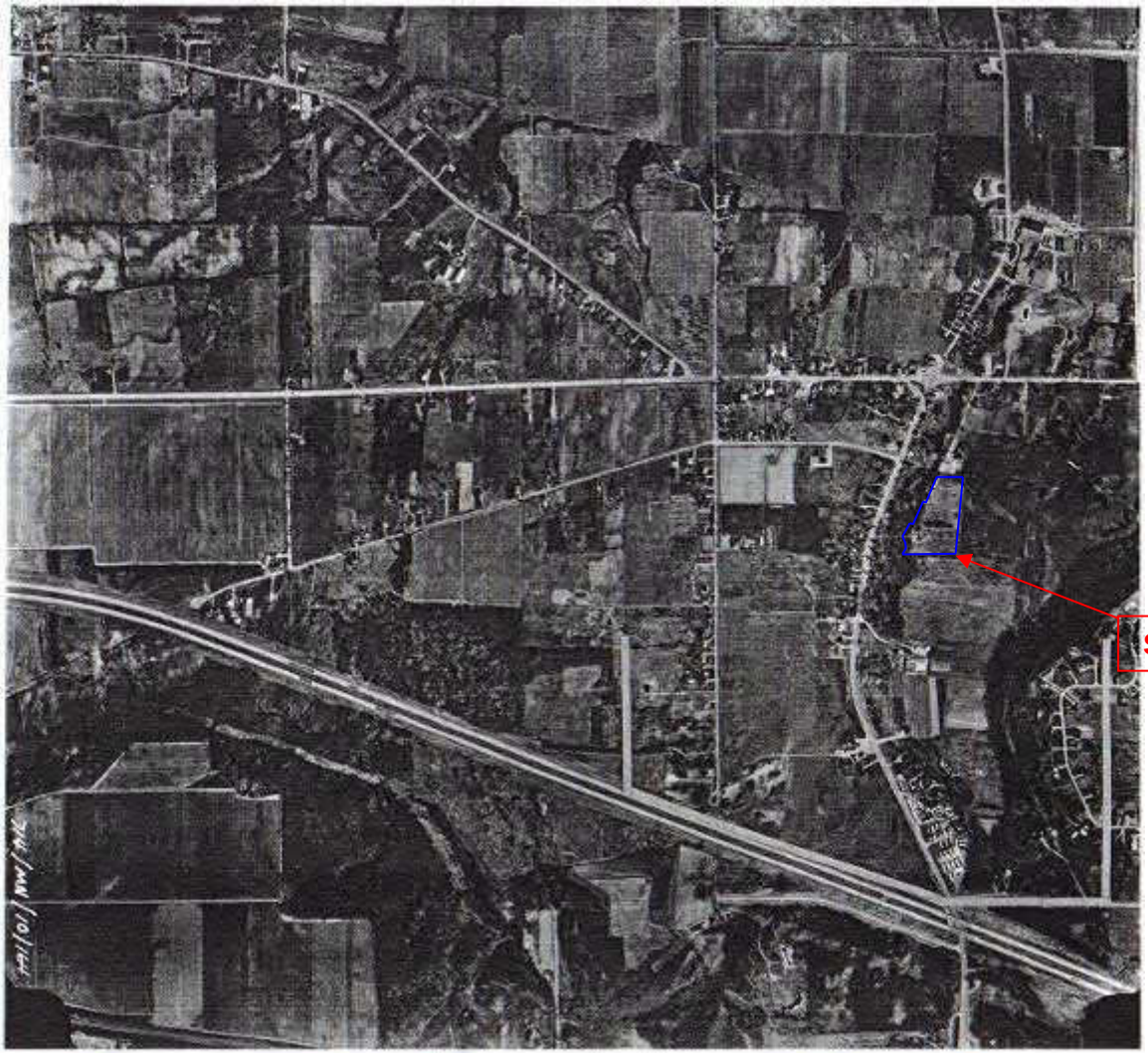


1954

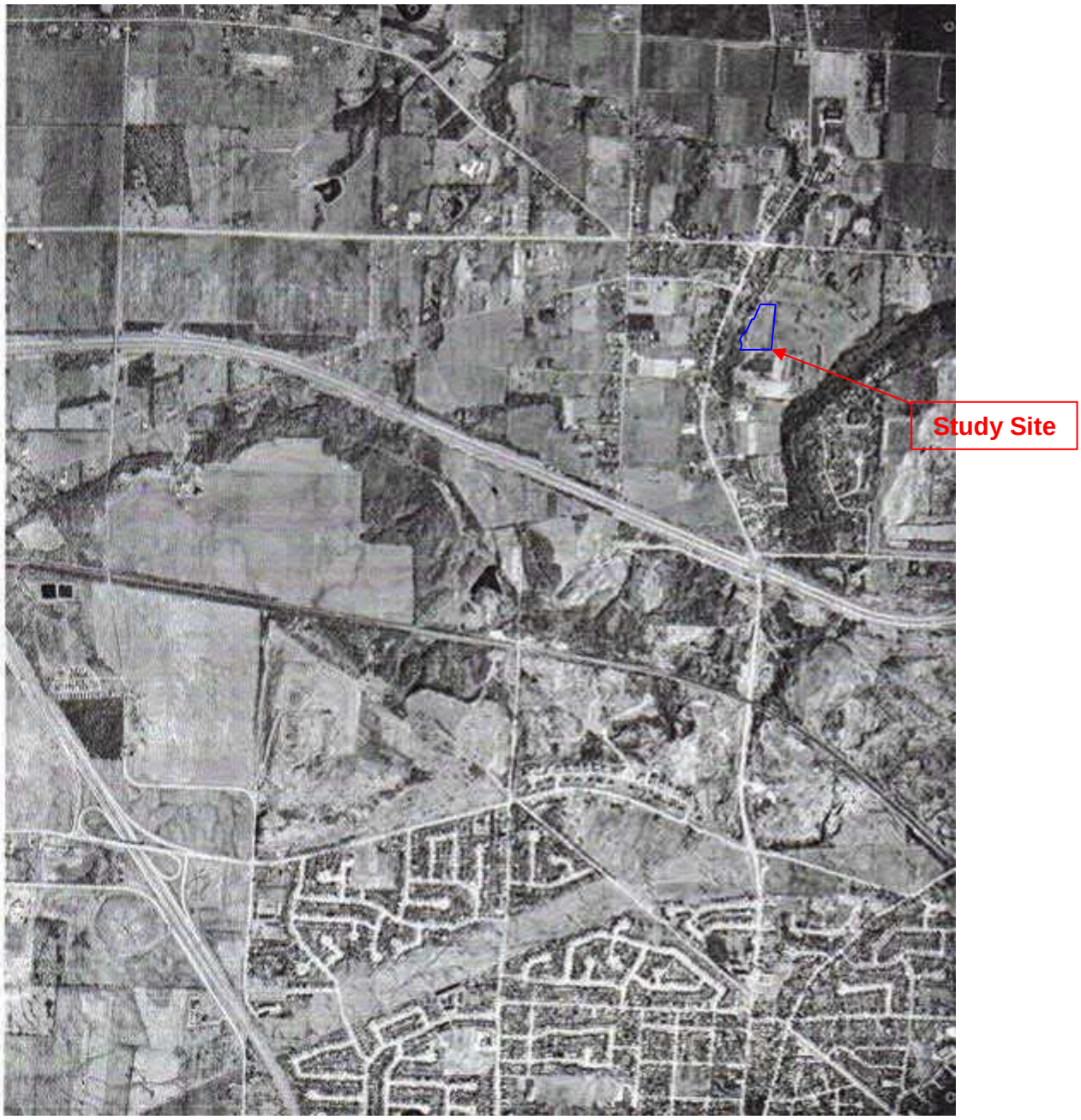


1965

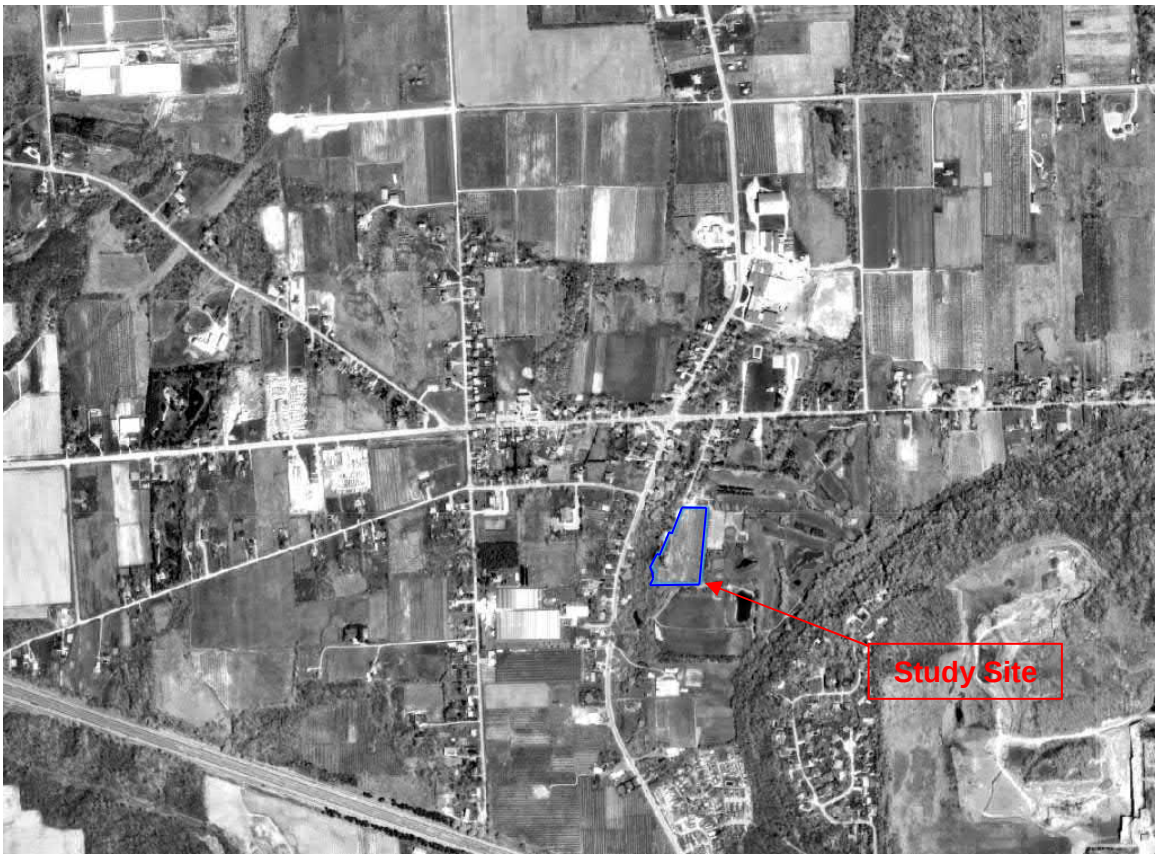
1971



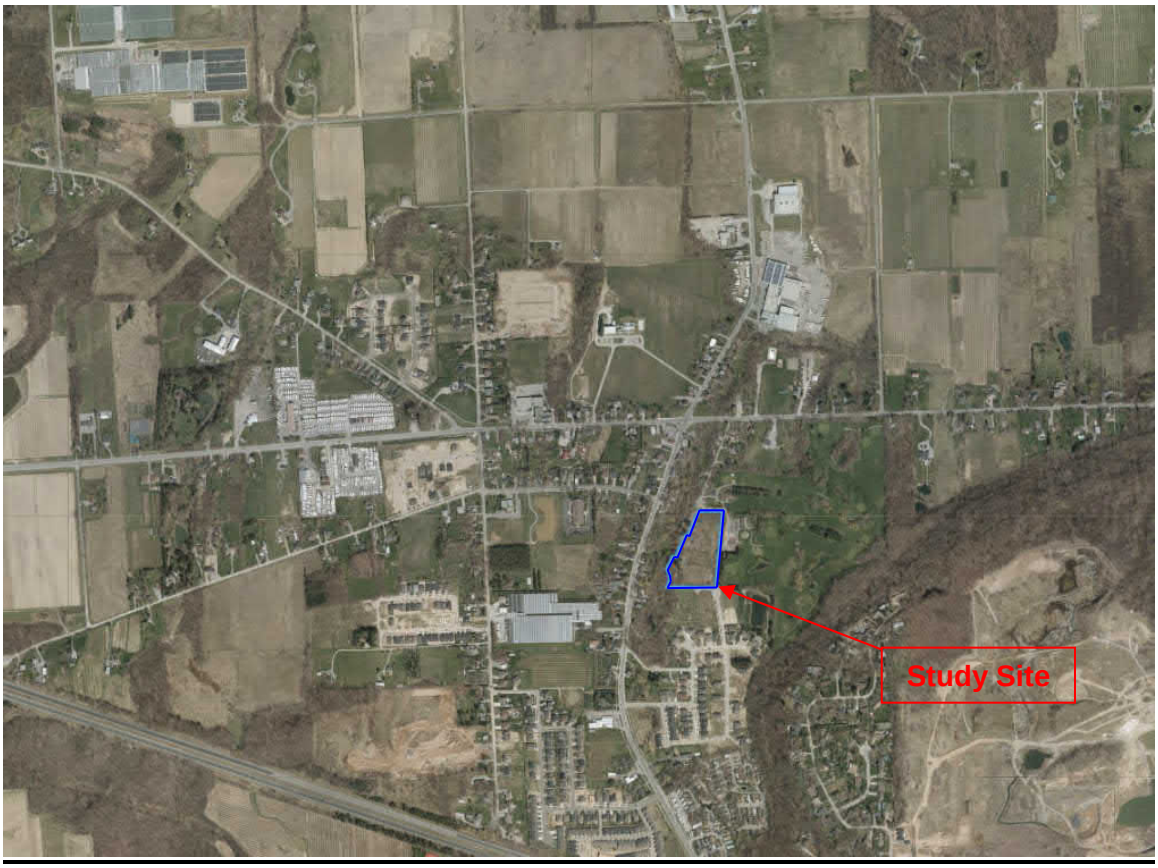
1989



2000



2013



2018

Appendix D:

Ontario Oil, Gas & Salt Resources Library and Ministry of the Environment, Conservation and Parks Water Well Records

Oil, Gas & Salt Resources Library & Ministry of the Environmental, Conservation and Parks Map Well Records: 46 Paxton Lane, Niagara on the Lake, ON

According to the Ministry of the Environment, Conservation and Parks Well Records database, there were no well records associated with the study site, however, five (5) records were available from within the study area (250 m radius). One (1) of the wells (ID #7146572) described a well decommissioning and did not reveal any stratigraphic information. Each record can contain information pertaining to date of installation, well use, type of stratigraphy encountered and groundwater levels. The available records are included below.

Well ID

Well ID Number: 7256235
Well Audit Number: *Z223678*
Well Tag Number: *A191792*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	246 FOUR MILE CREEK
Township	NIAGARA-ON-THE-LAKE TOWN (NIAGARA TWP)
County/District/Municipality	NIAGARA (LINCOLN)
City/Town/Village	NIAGARA ON THE LAKE
Province	ON
UTM Coordinates	NAD83 — Zone 17 Easting: 654247.00 Northing: 4780111.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SILT	CLAY		0 ft	6 ft
GREY	CLAY	SILT		6 ft	18 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 ft	6 ft	BENSEAL	
6 ft	18 ft	#2 SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Digging	
	Monitoring and Test Hole

Status of Well

Monitoring and Test Hole

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
1.25 inch	PLASTIC	0 ft	8 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
1.27 inch	PLASTIC	8 ft	18 ft

Hole Diameter

Depth From	Depth To	Diameter
0 ft	18 ft	10 inch

Audit Number: Z223678
Date Well Completed: November 19, 2015
Date Well Record Received by MOE: January 19, 2016

Well ID

Well ID Number: 7256236
Well Audit Number: *Z223679*
Well Tag Number: *A191794*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	246 FOUR MILL CREEK RD
Township	NIAGARA-ON-THE-LAKE TOWN (NIAGARA TWP)
County/District/Municipality	NIAGARA (LINCOLN)
City/Town/Village	ST.DAVID'S
Province	ON
UTM Coordinates	NAD83 — Zone 17 Easting: 654241.00 Northing: 4780101.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SILT	CLAY		0 ft	6 ft
GREY	CLAY	SILT		6 ft	18 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 ft	6 ft	BENSEAL	
6 ft	18 ft	#2 SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Driving	
	Monitoring

Status of Well

Observation Wells

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
1.25 inch	PLASTIC	0 ft	8 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
1.27 inch	PLASTIC	8 ft	18 ft

Hole Diameter

Depth From	Depth To	Diameter
0 ft	18 ft	10 inch

Audit Number: Z223679
Date Well Completed: November 19, 2015
Date Well Record Received by MOE: January 19, 2016

Well ID

Well ID Number: 7256237
Well Audit Number: *Z223677*
Well Tag Number: *A191793*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	246 FOUR MILE CREEK RD
Township	NIAGARA-ON-THE-LAKE TOWN (NIAGARA TWP)
County/District/Municipality	NIAGARA (LINCOLN)
City/Town/Village	NIAGARA ON THE LAKE
Province	ON
UTM Coordinates	NAD83 — Zone 17 Easting: 654258.00 Northing: 4780098.00

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SILT	CLAY		0 ft	6 ft
GREY	CLAY	SILT		6 ft	18 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 ft	6 ft	BENSEAL	
6 ft	18 ft	#2 SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Driving	
	Monitoring and Test Hole

Status of Well

Monitoring and Test Hole

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
1.25 inch	PLASTIC	0 ft	8 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
1.27 inch	PLASTIC	8 ft	18 ft

Hole Diameter

Depth From	Depth To	Diameter
0 ft	18 ft	10 inch

Audit Number: Z223677

Date Well Completed: November 19, 2015

Date Well Record Received by MOE: January 19, 2016

UTM Z E
5 R N
Elev. 1[illegible] R
Basin 24

GROUND WATER BRANCH
38 No 1054
JAN 12 1960
RESOURCES COMMISSION
NIAGARA-ON-THE-LAKE

The Ontario Water Resources Commission Act, 1957

Lot 91

WATER WELL RECORD

County or District [redacted] Township, Village, Town or City St. Davids

completed 14 NOV 1959 (day month year)

Address ST. DAVIDS ONT

Casing and Screen Record

Inside diameter of casing 6 5/8"
Total length of casing 132 ft.
Type of screen No screen
Length of screen
Depth to top of screen
Diameter of finished hole 6 5/8"

Pumping Test

Static level 45 ft.
Test-pumping rate 30 G.P.M.
Pumping level 78 ft.
Duration of test pumping 1 day
Water clear or cloudy at end of test clear
Recommended pumping rate 45-50 G.P.M.
with pumping level of 90 ft.

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)
Red sand	0	14			
blue clay	14	68			
Red sand	68	130			
course gravel	130	132	130'	85'	fresh

Water Record

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

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

Drilling Firm W. A. Lounsbury & Sons

Address 30 Dunlop Rd St Catharines

Licence Number 310

Name of Driller Wm Lounsbury

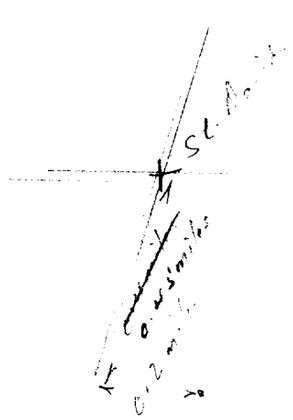
Address 35 Spruce St St Catharines

Date Dec 14/59

Wm Lounsbury
(Signature of Licensed Drilling Contractor)

Location of Well

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



CSS.S8

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☐ Imperial

Well Tag No. (Place Sticker and/or Print Below) A 064728

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
11 [redacted] Goring Way	Formerly Niagara Township	91	N/A

County/District/Municipality	City/Town/Village	Province	Postal Code
Niagara Region	Town of Niagara-on-the-Lake	Ontario	L0S 1P0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	0654255	4309204	30M375 Lot 6	UTM 4779608

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	Depth (m/ft) To
	well Decomission				

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
150	7	Quickgrout	
7	6	3/8 granular cap	

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

Construction Record - Casing

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

Construction Record - Screen

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

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 Decomission ☐ Other, specify

Water Details

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

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)

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)

Pumping rate (l/min / GPM)

Duration of pumping _____ hrs + _____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

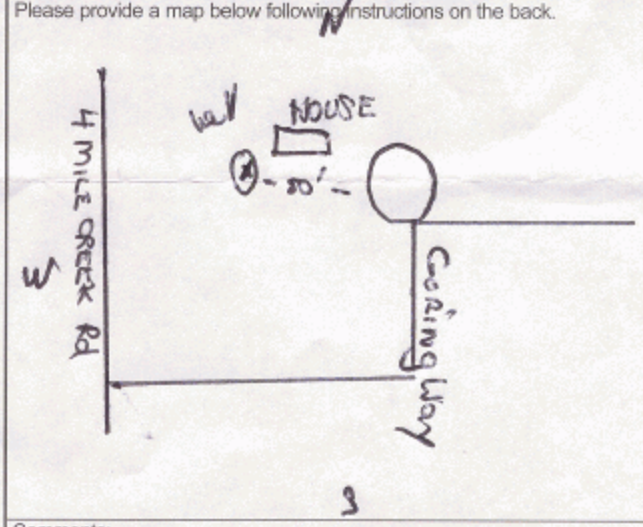
Well production (l/min / GPM)

Disinfected? ☒ Yes ☐ No

	Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level		30		
1			1	
2			2	
3			3	
4			4	
5			5	
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60			60	

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	Well Contractor's Licence No.
FIELD WELL DRILLING	2123

Business Address (Street Number/Name)	Municipality
4703 Spring Creek	Vineland

Province	Postal Code	Business E-mail Address
ONT	L0R 2E0	

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
9056637355	FIELD MARSHALL

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
T0365		2010 M 6 10

Well owner's information package delivered: ☐ Yes ☒ No

Date Package Delivered: Y Y Y Y M M D D

Date Work Completed: 2010 06 04

Ministry Use Only

Audit No. Z 103536

Received JUN 14 2010

0506E (12/2007)

Ministry's Copy

Appendix E:

Record of Interview & Site Observations

RECORD OF INTERVIEW & SITE OBSERVATIONS

Date & Time of Interview	April 26, 2019 @ 11:15am
Site Address	46 Paxton Lane, St. Davids, Niagara on the Lake, ON
Project Number	E-19-14-1
Interviewer Name & Position	Nicole Metz, Technician
Interviewee Name & Position	Steve Megannety
Interviewee Contact Information	289-690-5860
SITE INFORMATION	
Describe land use history. Was the property ever used for industrial use, as a dry cleaner, a garage, or bulk liquid dispensing facility (including gasoline)	No
Are you aware of any environmental issues associated with the study site such as waste disposal, landfilling, chemical use and/or storage (AST or UST)	Unknown
Are you aware of any environmental building management issues such as asbestos containing materials, PCBs, odour, mould, indoor air quality, UFFI's, ODS, lead paint, mercury, radon, etc.	Yes – mould and poor indoor air quality
Are you aware of any site-specific permits, waste generation number, certificate of approval, ECA, water well records or sewer discharge permits	No
Are you aware of any current or historical environmental concerns associated with adjacent properties	No
Did you ever apply salt in the parking area?	Unknown
Is there anyone else Hallex could contact for additional information?	Unknown
BUILDING INFORMATION & FEATURES	
Building footprint size	Approximately 113 Square meters
Year of construction	Mid-1700s
Year of addition/renovation/demolition 1	Unknown
Year of addition/renovation/demolition 2	
Number of storeys	2
Number of exits/entrances	3
Number of current occupants/ tenants	None/vacant
Type of manufacturing/warehousing/processing in building (current and past)	N/A
Full/partial/no basement	Full
Wall material / paint type	Drywall board/potential lead-based paints

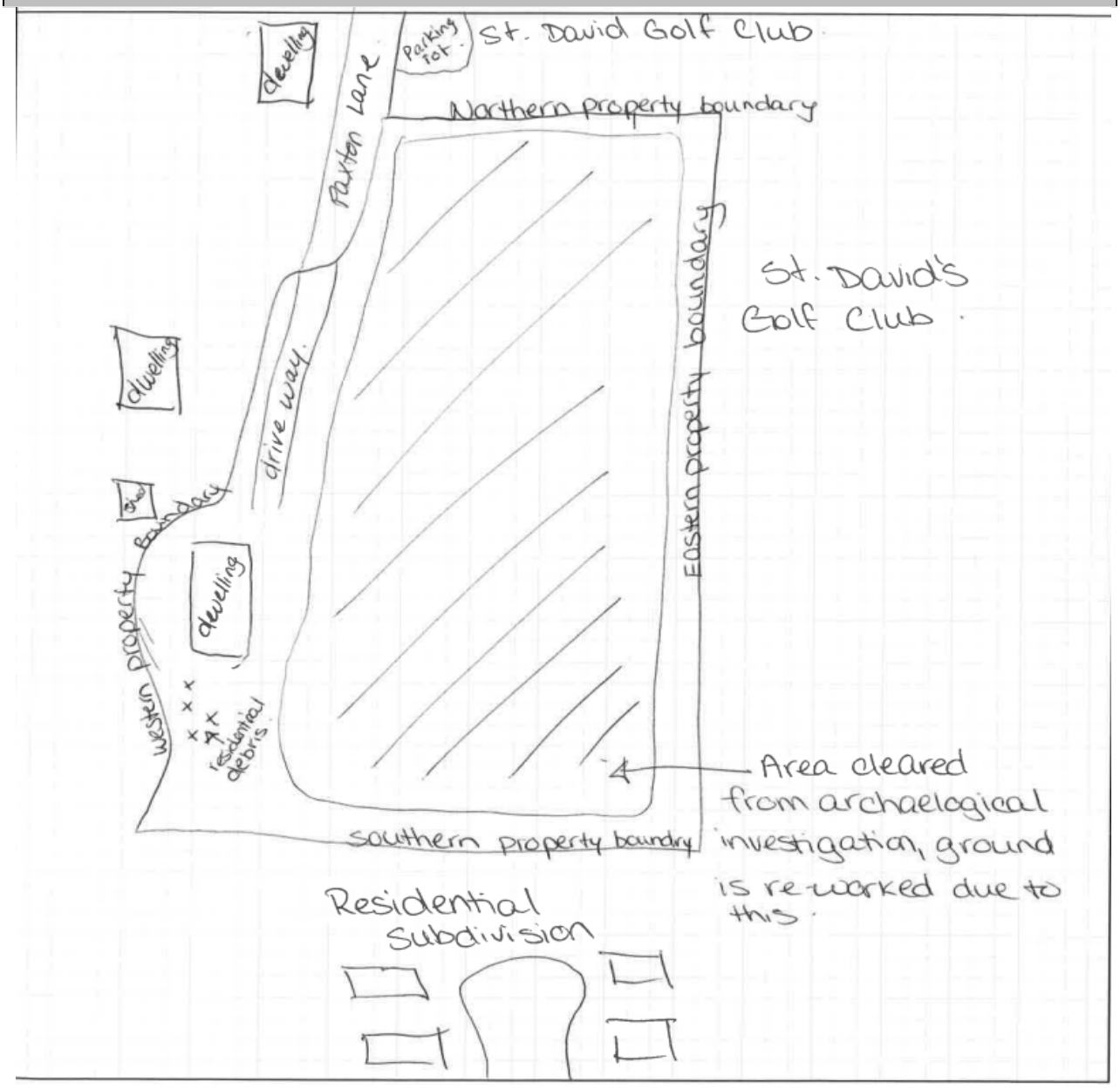
Floor material	Wood, carpet & laminate flooring
Ceiling material	Wood
Exterior wall material	Stone and mortar mixture
Roof material	Shingles
Foundation type	Rocks with lime mortar
Lighting type	Bulbs
Water damage?	On main level floorboards, and upper level ceiling
Has a DSS/HMS/ACM report previously been done?	Unknown

EXTERIOR SITE FEATURES		
Municipal water/sewers?	**Yes** / No	Along Paxton Lane
Wells on site?	**Yes** / No	Historic water well, no longer in use
Historic heating type	Yes / No	Historic heating oil
Current heating type	Yes / No	Forced air
Transformers on site?	Yes / **No**	
Electrical generator on site?	Yes / **No**	
Chemical storage on site?	Yes / **No**	
Pits/lagoons/stressed vegetation?	Yes / **No**	
Fill material?	**Yes** / No	Potentially along the embankment of tributary
Watercourses/ ditches/ standing water?	Yes / **No**	Only man made from the archaeological dig
Debris?	**Yes** / No	Within the southwest corner of the study site
Equipment?	Yes / **No**	
Miscellaneous?	Yes / **No**	

ON SITE ISSUES	
Historic /Current AST	
Location of AST	Under the stairs in the basement
Contents of AST	Heating oil
Current / historic	Currently in residence – historically used
Material (fiberglass, steel)	Steel
Year installed/removed	Unknown when it was installed– not removed
Secondary containment	No
How often filled	Unknown
Staining around base	Yes
Distressed vegetation?	No vegetation in the basement
Historic / Current UST	
Location of UST	N/A
Contents of UST	
Current / historic	
Material (fiberglass, steel)	
Year installed/removed	
Secondary containment	
How often filled	
Staining around base	
Distressed vegetation?	

SURROUNDING LAND USE FEATURES	
North	Commercial (St. David's Golf Club)
South	Residential
East	Commercial (St. David's Golf Club)
West	Residential

STUDY SITE AND ADJACENT LAND USE SKETCH



Appendix F:

Site Photograph Log

Photo #	Study Site – Exterior	Description
1		Front façade of the dwelling on the study site, facing west. Note the fill pipes connected to the aboveground storage tank in the basement.
2		West side of the dwelling, facing east-southeast. Potential Designated Substance & Hazardous Materials (DSHM): cement parging, shingles & paints.

Photo #	Study Site – Exterior	Description
3		North side of dwelling, facing southwest.
4		South side of dwelling, facing north.

Photo #	Study Site – Exterior	Description
5		Residential debris throughout the southwest corner of the study site, facing west-southwest.
6		Historical water well by the southeast corner of the dwelling, facing south.

Photo #	Study Site – Exterior	Description
7		View of the study site, facing south along the northern property boundary.
8		View of the study site, facing north. Picture taken from in-front of the dwelling.

Photo #	Study Site – Exterior	Description
9		View of the southern portion of the study site, facing south. Picture taken in-front of the dwelling.

Photo #	Study Site – Interior	Description
10		Potential DSHM within the basement: pipe wrap in poor condition, also note an above ground storage tank historically used for heating oil, also in deteriorated condition.
11		Potential DSHM within the basement: mould along the bottom main floor floorboards & potential lead-based paint.

Photo #	Study Site – Interior	Description
12		Potential DSHM in dining room on main floor: heat plate, parging & paint on metal ceiling.
13		Potential DSHM within the living room on the main floor: Mercury within thermostat.

Photo #	Study Site – Interior	Description
14		Potential DSHM within north bedroom on main floor: ceiling tiles, plaster and paint on walls.
15		Potential DSHM within the kitchen, hall and bathroom on the main floor: laminate flooring, wall board, drywall joint compound & paint on walls & ceiling.

Photo #	Study Site – Interior	Description
16		Potential DSHM within all four (4) bedrooms upstairs: ceiling board, wall board, drywall joint compound, tar paper, black insulation, mould & painted surfaces (walls & ceiling).
17		Potential DSHM within the bathroom upstairs: ceiling board, wall board, drywall coating, & paint on walls & ceiling.

Photo #	Study Site – Interior	Description
18		Attic space.

Photo #	Study Site – Surrounding Properties	Description
19		West adjacent residential property, facing southwest from the study site.
20		Residential property west of the study site, facing southwest along Paxton Lane.

Photo #	Study Site – Surrounding Properties	Description
21		Commercial properties (parking area & St. David's Golf Club) north of the study site, facing north.
22		East commercial property (St. David's Golf Club), facing southeast from the laneway into the club.

Photo #	Study Site – Surrounding Properties	Description
23		Residential properties south of the study site, facing southeast.

APPENDIX B

Structural Review of the House at 46 Paxton Lane, Niagara-on-the-Lake - B-design Engineering Services, March 27, 2020

B design
ENGINEERING SERVICES Inc.
1506-38 Fontenay Court, Etobicoke, ON, M9A 5H5
viktor@bdesign.ca tel: 416-712-5200

March 27, 2020

Structural Review of the House
at 46 Paxton Lane, Niagara-on-The-Lake

February 5, 2020 we reviewed the structure of the two story single dwelling unit at the above noted address. Our objective was to determine the structural condition of this old house. Our review was visual without removal of the soil or exposing major structural elements. Our scope of work was not including the removal and taking any samples of material for the further testing.

Our Observations :

Basement – Footings and Foundation Walls

The foundation walls were constructed out of the stone. The basement floor is dirt, without the basement slab. Some areas of the foundation walls have the poured concrete portion and some kind of benching at the bottom of the foundation walls.

In many areas the mortar joints between the stones in the foundation walls were not present. There were traces of pulverized soil seeping through empty cavities between the stones.

The stone wall without joint mortar

Benching at the bottom of the wall

There is little or no waterproofing in the basement. The mortar joints have been reduced to sand and have disintegrated. It's difficult to assess the strength of the existing structure but it is evident that over the years someone has tried to add more support to the building.

The condition of the footings is unknown as they are not visible.

The basement floor is in poor condition.

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Basement Wood Framing

Basement wood framing consists of wood joists and wood sub floor. At some locations the new floor joists were installed between the old floor joists. The old floor joists are in bad condition with a lot of traces of damage done by wood eating insects.

At many locations new vertical wood posts were installed, probably to reduce the increased floor deflection.

Old and new floor joist/post

Damaged floor joists

The floor joists are damaged and we can not determine it's capacity. The wood posts are resting on dirt or flat pieces of wood, which is structurally unacceptable.

Ground Floor Framing and Interior Walls

Through the existing second floor hole we measured the floor joists to be 2x10 @16". Based on our review the ground floor framing and interior walls are in relatively good structural condition. The floor structure is strong and the walls appears to be straight.

Interior partition walls

Exposed floor structure

The floor and walls appears to be in good condition, but need to be cleaned end exposed for further review.

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viktor@bdesign.ca tel: 416-712-5200

Exterior Walls

Exterior house walls were made out of stone and parged. Due to damaged gutters and downspouts the sections of the exterior walls were damaged.

Damaged exterior wall

Damaged wall and missing gutter

It appears that the dormers were added to the structure at a later date. Where the dormer was added the wall is showing some bowing.

The Roof

It is obvious from the side elevation that the roof was replaced and reshaped sometime in the past. The dormers were introduced at front and at the back. The roof is in bad shape. We noted a lot of the roof leak damages in the second floor ceiling.

The new roof line

Ceiling damaged due to roof leak

B design
ENGINEERING SERVICES Inc.
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viktor@bdesign.ca tel: 416-712-5200

RECOMMENDATIONS:

Basement – Footings and Foundation Walls

Waterproofing is needed in the entire basement and should be addressed by installing either external or internal waterproofing. However, before any waterproofing is done the foundation walls would have to be addressed. To achieve the required structural strength of the foundation walls, we would recommend building additional poured concrete walls at the interior side of the existing stone foundation wall.

The footings should be carefully exposed at couple locations and assessed before the commencement of any structural work.

New concrete slab on grade is required at the basement floor.

The basement wood framing would have to be removed and rebuilt.

Roof

The newly built dormers should be removed and the roof should be restored to its original form.

CONCLUSION:

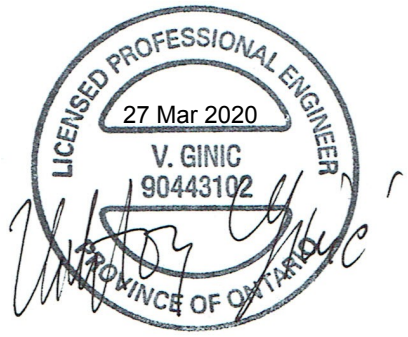
The house structure is stable and the house is safe for people to come in.

The condition of the Paxton house is what would be expected of a building that age. To try and salvage this house as is, may be a challenge. The basement is in need of much restructuring and support. Consideration needs to be given to ensuring a safe working environment if this work is to be undertaken. A detailed plan would have to be devised to dictate how each section would be restored/rebuilt/repaired. This would also require more investigation into the condition of the house.

We trust this report provides the information you require at this time. However, if you have any questions or require further clarification, please do not hesitate to contact me.

Sincerely,

Viktor Ginic, P. Eng.



golder.com

Appendix C

2233497 Ontario Limited
25 Sable Road
Toronto, ON
M5M 3K8

Ms. Denise Horne
Planner II/Heritage /Heritage Advisor
Town of Niagara-on-The-Lake
1593 Four Mile Creek Road
P.O. Box 100
Virgil, ON
L0S 1TO

Dear Ms. Horne:

RE: Paxton Lane
Heritage Permit Application

Further to our conversation June 10 on the above matter, I offer these additional thoughts and some photographs to help frame the discussion. As we discussed, the archaeological works on the house lot is almost completed and that further complicates the conservation planning. We would appreciate if this letter be included in the information packet with the application for the Heritage Committee meeting on June 23.

You will note from the photographs below that the main beams supporting the ground floor are in exceptionally poor condition. One shows severe insect damage and the other is almost entirely waterlogged. Both are supported by logs that in one instance is sitting in a pool of water; another on a rotten board on the dirt floor and yet another held in place with a single nail. It is my opinion that sistering the beams would not resolve the issues and that they should be removed and stored for further study.

That likely necessitates replacing 3-4 beams, reshoring the walls, pouring an internal foundation, floor and walls to support the span. You will note from the HCP that ¾ of the walls have already had modern concrete reinforcements added.

Our quick estimates for this work range to $45,000 - $50,000

The key factor we are dealing with is the structural integrity of the building itself. The HCB points out the bow in the eastern wall and spaul in the NE corner are signs of pressure on the walls from either above or a failing of the foundation. With the removal of the brush and plants growing up the wall, this damage is even more noticeable.

I must also point out, that the main floor with the single exception of the window wells, is all modern lumber, faux wooden panelling and a small bit of lath and plaster. There is very little of any cultural value on that floor.

The only culturally relevant physical features in the structure are in the basement, so preservation of those elements in situ will require creative planning and significant capital. The potential for a culturally and historically significant refurbishment that could be viewed by the public is essentially non-existent. Add to that, the archaeological works just carried out on the lot has resulted in additional cautions. I am providing you some additional information that has not been submitted to the province for verification, so at this point it is unverified:

> The Stage 4 excavations have uncovered the remains (foundation and associated cultural heritage features) of a portion of the house that was demolished. There is no evidence of this room or building other than drawings and paintings from the 19th Century. According to the Heritage Impact Assessment: Of relevance to an archaeological study of the building, as well as future conservation and use options, is an understanding of the one-storey wing that once stood at the south wall of the building. ... No indication of the wing can be seen on the south end wall or ground surface, but it may have substantial footings surviving below grade. Depending on its level of preservation as an archaeological feature, the wing could be considered a heritage attribute, but the known addition also provides a historical precedent for any future plans to extend the current living space in Paxton House.
>
> From an archaeological and heritage perspective, this area needs to be excavated by hand to uncover the heritage features associated with the room. The objective is to further understand the function of the structure and provide further information on the social and economic conditions of the individuals who constructed and used this structure. Also of importance is understanding when this structure may have been constructed and who it is associated with - the Secords of the late-18th through to the mid- to late 19th Century or the Hanniwells who purchased the property in 1873.

What this creates is additional physical/structural/cultural impediments to the rehabilitation of the structure for use as a residence as was envisioned when the plans were first developed. As we discussed, the cost estimate to bring the building to today's code has been pegged at $1.2M. Add the additional costs of environmental remediation, additional archaeological and heritage work, the economic viability of bringing the structure to conventional use is rapidly becoming unviable.

We need to find alternative uses and explore them with you and the Heritage Committee after the stabilization of the structure is complete.

So, as you asked for a possible timeline of the works to be undertaken in Phase 1 of the rehabilitation, I present the following.

1. Finish the engineering analysis of the structure and develop a stabilization strategy – 2-3 weeks
2. Develop an engineering strategy to stabilize the foundation and min floor – 2-3 weeks.

Some additional interior and exterior examination removing some of the stucco would be required and that is why I have included it in the Heritage Permit application here.

3. Undertake the required environmental remediation to the interior of the structure
4. Remove all non-structural walls from the main floor
5. Remove the eastern gable, re-sheet and shingle the roof. This would allow the facia and soffits to be replaced and include gutters to divert rain from further eroding the foundation – 3-4 weeks.
6. At that point, a realistic assessment of the potential use of the structure can be made.

It must be pointed out that if the structure does not prove sound, we are simply patching holes in an unstable structure and that the costs to further protect it serve no economically sound or viable purpose. That would be reported immediately to you and the Heritage Committee for further discussion. As we have done in the past, all reports, studies and potential change in plans will be made after we have informed you and the Committee.

We are going to need wide community support to potentially rehabilitate this structure, and we hope that we can count on both the Town and wider engaged community to participate in these difficult decisions. As we also discussed, the window to assign crews and equipment to undertake the items in Phase I is closing as we emerge from the restrictions of the emergency orders. We therefore ask you to help us address the immediate plans to stabilize the structure this year which will allow us the time and information to hopefully create a plan for alternative uses.

Again, thank you for your help and suggestions; they are greatly appreciated.

Sincerely;

Signed electronically

Steven Megannety
Project Coordinator
Local Address
15-4025 Dorchester Road – Box 141
Niagara, ON L2E 6N1
289.690.5860
megannety@megannety.ca

Cc: Mr. Tom Richardson, Sullivan Mahoney
2233497 Ontario Limited

Appendix D

LRO # 30 **Application To Register Bylaw** **Receipted as NR394773** on 2015 10 13 at 11:41

The applicant(s) hereby applies to the Land Registrar. yyyy mm dd

Properties

PIN	46374 - 0031 LT
Description	PT TWP LT 90 NIAGARA PT 1, 30R3213 EXCEPT PT 2, 30R1960; NIAGARA ON THE LAKE
Address	NIAGARA ON THE LAKE

Applicant(s)

This Order/By-law affects the selected PINs.

Name	THE CORPORATION OF THE TOWN OF NIAGARA-ON-THE-LAKE
Address for Service	1593 Four Mile Creek Road, P.O. Box 100 Virgil, Ontario L0S 1T0

I, Lord Mayor Pat Darte and I, Holly Dowd, Town Clerk, have the authority to bind the corporation.

This document is not authorized under Power of Attorney by this party.

Statements

This application is based on the Municipality By-Law No. 4831-15 dated 2015/09/21.

Schedule: See Schedules

Signed By

Monica Evelyn Wolfe	39 Queen St. P.O. Box 24022 St. Catharines L2R 7P7	acting for Applicant(s)	Signed	2015 10 13

Tel 905-688-1125

Fax 905-688-5725

I have the authority to sign and register the document on behalf of the Applicant(s).

Submitted By

DANIEL & PARTNERS LLP	39 Queen St. P.O. Box 24022 St. Catharines L2R 7P7	2015 10 13

Tel 905-688-1125

Fax 905-688-5725

Fees/Taxes/Payment

Statutory Registration Fee	$60.00
Total Paid	$60.00

File Number

Applicant Client File Number : 36765

THE CORPORATION

OF THE

TOWN OF NIAGARA-ON-THE-LAKE

BY-LAW NO. 4831-15

(46 Paxton Lane Street, Roll No. 2627-020-025-00600-0000)

A BY-LAW TO DESIGNATE THE PROPERTY KNOWN MUNICIPALY AS, PAXTON HOUSE, 46 PAXTON LANE, IN THE TOWN OF NIAGARA-ON-THE-LAKE, IN THE PROVINCE OF ONTARIO, AS BEING OF CULTURAL HERITAGE VALUE OR INTEREST.

WHEREAS Section 29 of the Ontario Heritage Act, R.S.O. 1990, Chapter 0.18, authorizes the Council of a municipality to enact by-laws to designate real property, including all buildings and structures thereon, to be of cultural heritage value or interest; and

WHEREAS the Council of the Corporation of the Town of Niagara-on-the Lake has caused to be served on the owner of the lands and premises known as the Paxton House, 46 Paxton Lane, in the Town of Niagara-on-the-Lake in the Province of Ontario and upon the Ontario Heritage Trust, notice of intention to so designate the aforesaid real property and has caused such notice of intention to be published in a newspaper having general circulation in the municipality; and

WHEREAS the reasons for designation are set out in Schedule 'B' hereto; and

WHEREAS no notice of objection to the proposed designation has been served on the cLerk of the municipality;

THEREFORE the Council of the Corporation of the Town of Niagara-on-the-Lake enacts as follows:

1. There is designated as being of cultural heritage value or interest the real property known as the Paxton House, 46 Paxton Lane in the Town of Niagara-on-the-Lake in the Province of Ontario, more particularly described in Schedule 'A' hereto.

2. The municipal solicitor is hereby authorized to cause a copy of this By-law to be registered against the property described in Schedule 'A' hereto.

3. The Clerk is hereby authorized to cause copy of this By-law to be served on the owners of the aforesaid property and on the Ontario Heritage Foundation and to cause notice of the passing of this By-law to be published in a newspaper having general circulation.

READ A FIRST, SECOND AND THIRD TIME AND PASSED ON THIS 21ST DAY OF SEPTEMBER, 2015.

LORD MAYOR PAT DARTE

TOWN CLERK HOLLY DOWD

SCHEDULE 'A'

PIN: 46374 – 0031 (LT)

Legal Description:

Part Township Lot 90 Niagara, being Part 1, 30R-3213 Except Part 2, 30R-1960; NIAGARA-ON-THE-LAKE

SCHEDULE 'B'

46 Paxton Lane

Description of Property

46 Paxton Lane is a two-storey residence, which sits upon a large lot at the farthest end of Paxton Lane, in the Village of St. Davids, Niagara-on-the-Lake.

Statement of Cultural Heritage Value or Interest

The cultural heritage value of 46 Paxton Lane lies mainly in its historical associations. The property can be traced back to a Crown Patent granted to Peter Secord Sr. in 1798, one of the earliest settlers in the area. It was originally to be part of the 600 acre grant promised to Secord by General Powell at Fort Niagara in 1780. In the end, as a result of contested treaty rights Secord did not receive the entire parcel. Secord cleared the land he did receive in 1780, and lived nearby with his wife and large family. He built a mill on the creek and prospered. David Secord, his relation, was a Major in the local militia and namesake of the current community of St. Davids. David purchased the land in 1799 and built the existing dwelling on the property. He lived there until his death in 1844. Interestingly, it was oral tradition in the Paxton family that Laura Secord rested at the house on her way to Beaverdams to warn Lieutenant Fitzgibbon of the impending American attack. Generals De Rottenburg and Drummond may also have used the house as a headquarters.

The cultural heritage value of 46 Paxton Lane also lies in the fact that it is one of only two extant buildings in the area which pre-dates the War of 1812. The house managed to survive the incendiary American attack on the village in 1814.

Riall and Elijah Secord inherited the land from David, and it was owned by Flotyes Secord in 1873, when he sold it to David Hanniwell. The Hanniwells owned the land until 1915, when they sold to Gardner S. Paxton and his wife Lucinda. Their descendants owned the house until around 2008. The long history of the home is well documented in paintings and photographs.

Description of Key Heritage Attributes

Key attributes that embody the heritage value of 46 Paxton Lane as one of the best examples, and a rare example, of a pre-War of 1812 dwelling in Niagara-on-the-Lake include its:

- Fieldstone masonry, harled surface rendered in limestone
- Original window opening locations and sizes
- Very early wooden beams in the basement which appear hand-hewn, and still have bark on them. Documents indicate that these pre-date the War of 1812
- Location on a large naturally vegetated lot with the front façade facing Four Mile Creek
- 1.5 storey original, simple Georgian form of the building with 5 bay façade
- Narrow Georgian door

N.B. Documentation indicates that this house pre-dates the War of 1812. A house belonging to David Secord, and matching the measurements and description of the Paxton House, is mentioned in a war claim for the damages caused in 1814 after an American attack.