

## Stage 1 & 2 Archaeological Assessment

9-11 Kerman Avenue
Part of Lot 13, Concession 2
Geographic Township of Grimsby
Town of Grimsby
Regional Municipality of Niagara

Prepared for: Tarbutt Construction Ltd. 189 South Service Road Grimsby, ON L3M 4H6

Licensee: Shane McCartney PIF: P321-0270-2021 Original Report



Earthworks Archaeological Services Inc. 2365 Watts Road, Haliburton, Ontario K0M 1SO

July 28, 2021

### **Executive Summary**

Earthworks Archaeological Services Inc. was retained to conduct a Stage 1 & 2 archaeological assessment of a 2.26 hectare area located at 9-11 Kerman Avenue, part of Lot 13, Concession 2, Geographic Township of Grimsby, Town of Grimsby, Regional Municipality of Niagara, historically part of Lincoln County, Ontario. The assessment is undertaken in support of a future Plan of Subdivision Application and was conducted as part of the requirements defined in Section 8.22 of the *Town of Grimsby Official Plan*, which only permits development and site alteration on lands containing archaeological resources or areas of archaeological potential as determined through a Stage 1 or Stage 2 archaeological assessment, if the significant archaeological resources is conserved by removal and documentation or by preservation on site

The study area contains evidence of archaeological potential. The location of the study area within 300 metres of four registered archaeological sites indicates the potential for locating Pre-Contact Indigenous and Historic Euro-Canadian archaeological material. Additionally, the location of the study area in close proximity a prominent early historic transportation route, further indicates the potential for locating historic Euro-Canadian archaeological material. The inaccessibility of the study area to any form of ploughing equipment precluded the possibility of ploughing for a pedestrian survey, and as a result, a test pitting survey was determined to be required.

The Stage 2 archaeological assessment of the study area was conducted between May 11 and June 23, 2021 under PIF #: P321-0270-2021, issued to Shane McCartney, M.A. (P321). The weather during the survey was sunny and warm. At no time were weather or lighting conditions detrimental to the observation or recovery of archaeological material.

Approximately 68% of the study area was not assessed due to evidence of deep subsurface alteration from the construction of two households, the greenhouse and its accompanying subsurface irrigation lines, and gravel driveways. The remaining 32% of the study area was assessed through a test pit survey. Test pits were spaced at maximum intervals of 5 metres apart and to within one metre of standing structures. Each test pit was excavated by hand to 30 cm in diameter and were excavated into the first 5 centimetres of subsoil. Test Pit depth averaged approximately 25 centimetres. Each test pit was examined for stratigraphy, cultural features, or evidence of fill, and all soil was screened through wire mesh of 6 millimetre width. All test pits were backfilled. The soil consisted of a light brown sand topsoil horizon overlaying an orange sand subsoil. No archaeological material was recovered during the survey.

Based on the results of the Stage 1 background investigation and the subsequent Stage 2 test pit survey, the study area is considered to be free of archaeological material. Therefore, no additional archaeological assessments are recommended.

The Ministry of Heritage, Sport, Tourism and Culture Industries is requested to review this report and provide a letter indicating their satisfaction that the fieldwork and reporting for this archaeological assessment are consistent with the Ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences, and to enter this report into the Ontario Public Register of Archaeological Reports.



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### **Project Personnel**

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Report Production: Shane McCartney, M.A. (P321)



### 1.0 Project Context

#### 1.1 Development Context

Earthworks Archaeological Services Inc. was retained by Tarbutt Construction to conduct a Stage 1 & 2 archaeological assessment of a 2.26 hectare area located at 9-11 Kerman Avenue, part of Lot 13, Concession 2, Geographic Township of Grimsby, Town of Grimsby, Regional Municipality of Niagara, historically part of Lincoln County, Ontario (Map 1). The assessment is undertaken in support of a future Plan of Subdivision Application (Map 2) and was conducted as part of the requirements defined in Section 8.22 of the *Town of Grimsby Official Plan*, which only permits development and site alteration on lands containing archaeological resources or areas of archaeological potential as determined through a Stage 1 or Stage 2 archaeological assessment, if the significant archaeological resources is conserved by removal and documentation or by preservation on site (Town of Grimsby 2012a:177)

The objective of the Stage 1 & 2 archaeological assessment, as outlined by the Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), are as follows:

- To provide information about the property's geography, history, previous archaeological fieldwork and current land condition
- To evaluate the property's archaeological potential.
- To document archaeological resources located on the property
- To determine whether any identified archaeological resources require further assessment
- To recommend Stage 3 assessment strategies for any archaeological sites determined to require additional assessment.

As part of this assessment, background research was conducted in Earthworks corporate library, the OnLand Registry Database, and the Federal Canadian Census located online at Library and Archives Canada.

Permission to access the property was provided by the Owner.



### 1.2 Historic Context

### 1.2.1 Pre-Contact Indigenous History

Table 1 provides a breakdown of the general culture history of southern Ontario, as based on Ellis and Ferris (1990)

Table 1 Pre-contact Culture History of Ontario

Culture Period	Diagnostic Artifacts	Time Span (Years B.P.)	Detail
Early Paleo-Indian	Fluted Projectile Points	11,000-10,400	Nomadic caribou hunters
Late Paleo-Indian	Hi-Lo, Holcombe, Plano Projectile Points	10,400-10,000	Gradual population increase
Early Archaic	Nettling and Bifurcate Points	10,000-8,000	More localized tool sources
Middle Archaic	Brewerton and Stanly- Neville Projectile Points	8,000-4,500	Re-purposed projectile points and greater amount of endscrapers
Narrow Point Late Archaic	Lamoka and Normanskill Projectile Points	4,000-3,800	Larger site size
Broad Point Late Archaic	Genessee, Adder Orchard Projectile Points	3,800-3,500	Large bifacial tools. First evidence of houses
Small Point Late Archaic	Crawford Knoll, Innes Projectile Points	3,500-3,100	Bow and Arrow Introduction
Terminal Archaic	Hind Projectile Points	3,100-2,950	First evidence of cemeteries
Early Woodland	Meadowood Points, Cache Blades, and pop-eyed birdstones	2,950-2,400	First evidence of Vinette I Pottery
	Pseudo-scallop shell	2,450-1550	Burial Mounds
Middle Woodland	Princess Point pottery	1550-1100	First evidence of corn horticulture
	Levanna Point	1,100-700	Early longhouses
Late Woodland	Saugeen Projectile Points	700-600	Agricultural villages
Late Woodland	Nanticoke Notched Points	600-450	Migrating villages, tribal warfare



#### 1.2.2 Post Contact Indigenous History

The surrounding area enters the historic record in 1626, when Father La Roche Daillon, a French Jesuit missionary, spent three months in the Hamilton region attempting to conclude a trading alliance with the Neutral Confederacy. These negotiations ultimately failed due to opposition from Huron allies (White 1978:409). By 1638, the Neutral had expanded east to the Niagara River in response to a void left by the Wenro migrating to Huronia and the Erie migrating southwest. By the early 1640s, the Neutrals were engaged in large scale warfare with the Assistaeronons to the west while maintaining a neutral stance between the Huron and the League of Five Nations Iroquois. European influence in the region was generally restricted to the beaver pelt trade, and Aboriginal groups practiced a way of life that did not differ significantly from the pre-Contact period. By the late 1640's, the increasing scarcity of beaver pelts prompted the invasion of the Neutral by the League of Five Nations Iroquois. By 1651, the Neutral Confederacy was destroyed and its members either moved west out of Ontario or were absorbed into the League of Five Nations (Trigger 1994:57).

The region appears to have been relatively unpopulated by permanent settlements in the latter half of the seventeenth century, with much of southern Ontario used as a hunting territory by the Iroquois. However, Ojibway groups previously thought to have settled along the northern shores of Georgian Bay and Lake Superior gradually migrated into southern Ontario, and by 1707 had settled in the Niagara region (Rogers 1978:761).

By 1784, the British government purchased from the Mississauga over a million hectares of land between Lake Ontario and Lake Erie, which became known as the Between the Lakes Purchase (Surtees 1994:102). The Mississauga eventually relocated to the Grand River at New Credit in 1847.

### 1.2.3 European Settlement History

The study area is situated within the Geographic Township of Grimsby, which was first surveyed in 1791 by Augustus Jones (Winearls 1991:506) It first settled by United Empire Loyalists and disbanded members of Butler's Rangers following the conclusion of the American Revolutionary War in 1783. One of the main founders was Robert Nelles, a Colonel during the War of 1812 who migrated to Upper Canada in the 1780s and developed the area around Forty Mile Creek with numerous mills and a store. The first township meeting in Upper Canada was held in Grimsby in 1790, when the Town of Grimsby was founded. Early settlement radiated out from this area, and favourable farming conditions resulted in steady agricultural improvement and population growth. By 1846 the Township population was 1,784. The establishment of the Great Western Railway in 1853 and the switch to commercial fruit farming in the latter half of the nineteenth century further increased local prosperity. The Village of Grimsby was incorporated in 1876 and the township was subdivided into North and South Grimsby in 1882. In 1970, the Townships were amalgamated into the Town of Grimsby as part of the larger Regional Municipality of Niagara.



#### 1.2.4 Land Use History of Study Area

The land patent for Lot 13, Concession 2 dates to 1801 when the Crown awarded Allen Nixon 100 acres in 1797. He was one of the first United Empire Loyalists to settle in the Grimsby area. The lot was sold primarily within the Nixon family and in 1846 Dennis Nixon was sold a portion of the lot. In 1851 Dennis Nixon is listed as an Irish farmer residing in in a one storey frame home (Government of Canada 1853:65-66). By 1854/1855 Dennis Nixon would build the Nixon House which is still standing on the original lot today.

By 1861 Dennis Nixon is listed residing in a two storey brick house (presumably the Nixon House) and owning 140 acres between Lot 13 on both Concession 1 and 2, including 70 acres under crops, 20 acres under pasture, 10 acres under orchard/ garden and 40 acres being woodlot (Government of Canada 1863:14,21).

An 1862 map of the area has Dennis Nixon owning the land to the north of Main Street West and the rest of the lot to the south is owned by Johnathan R. Pettit, and the Nixon house is depicted on the 1876 *Illustrated Historical Atlas of the Counties of Lincoln and Welland* (Map 3).

Analysis of historic topographic maps indicates the study area was a wooded, residential lot in the early twentieth century before its conversion to a greenhouse property by 1938 (Map 4).

#### 1.3 Archaeological Context

#### 1.3.1 Current Conditions

The study area consists of a residential lot attached to an active green house with associated gravel driveways and outbuildings (Images 1 thru 18).

#### 1.3.2 Natural Environment

The study area is located within a sand plain (Map 5) of the Iroquois Plain Physiographic Region of Southern Ontario. This region is a sloping plateau from the Lake Iroquois bluff to the Lake Ontario shoreline. The glacier that once covered the area laid down several deposits of glacial till (a poorly sorted sediment of silt/sand/clay with boulder/gravel inclusions). These deposits were eventually covered by silt and clay. As the glacier retreated, the area was filled with meltwater, creating glacial Lake Iroquois around 12500 years ago (Chapman & Putnam 1984:190). The surficial geology consists of glaciolacustrine sand (Map 6), and nearby soils consist of a mix of Vineland and Flamborough very fine sandy loam (Map 7; Kingston and Presant 1989).

The nearest water source is an unnamed creek depicted in the 1907 topographic map, which was once located approximately 663 metres southwest of the study area and drained into Lake Ontario approximately 1.5 kilometres to the northwest.



The study area is located within the Grimsby District of the Lake Erie – Lake Ontario Ecoregion, which itself is situated within the Mixedwood Plains Ecozone. This region encompasses 2,185,845 hectares, and contains a diverse array of flora and fauna. It characterized by a mix of Carolinian forest remnants of tulip-tree, black gum, sycamore, Kentucky coffee-tree, pawpaw, various oaks and hickories, and common hackberry, in addition to the more widespread sugar maple, American beech, white ash, eastern hemlock, and eastern white pine.

Typical mammals inhabiting this ecoregion include white-tailed deer, northern raccoon, striped skunk, and the Virginia opossum which has increased its distribution and abundance since the latter half of the 20th century. Characteristic birds include green heron, Virginia rail, Cooper's hawk, eastern kingbird, willow flycatcher, brown thrasher, yellow warbler, common yellowthroat, northern cardinal, and savannah sparrow. Wild turkey has been re-introduced into the ecoregion. Herpetofauna, is diverse, including several provincially rare species (e.g., spiny softshell turtle), as well as more frequent species such as eastern red-backed salamander, American toad, eastern gartersnake, and Midland painted turtle. Longnose gar, channel catfish, smallmouth bass, yellow perch, walleye, northern hogsucker, banded killifish, and spottail shiner are among the fish species found in the lakes and rivers in this ecoregion.

(Crins et al. 2009:52)

#### 1.3.3 Known Archaeological Sites

A search of registered archaeological sites within the MHSTCI Archaeological Sites Database was conducted. A total of four archaeological sites, summarized in Table 2, were identified within one kilometre of the study area, and are also located within 300 metres of the study area.

Table 2: Registered Archaeological Sites Located within one kilometre of the Study Area

Borden Number	Site Name	Time Period	Affinity	Site Type
AhGv-20		Pre-Contact	Aboriginal	findspot
AhGv-21		Post-Contact	Euro-Canadian	findspot
AhGv-43		Post- Contact, Pre- Contact	Euro-Canadian	
AhGv-56	Nixon	Post-Contact	Euro-Canadian	midden

The neighbouring property to the west was surveyed in 1999 by Archaeological Services Inc. (ASI 1999). The property was subjected to a pedestrian survey, resulting in the identification of AhGv-21, an isolated lithic biface, and AhGv-21, an isolated gunflint, for which no further archaeological assessments were recommended.



### 1.4 Summary

As documented in Section 1.0 the study area contains evidence of archaeological potential. The location of the study area within 300 metres of four registered archaeological sites indicates the potential for locating Pre-Contact Indigenous and Historic Euro-Canadian archaeological material. Additionally, the location of the study area in close proximity a prominent early historic transportation route, further indicates the potential for locating historic Euro-Canadian archaeological material. The inaccessibility of the study area to any form of ploughing equipment precluded the possibility of ploughing for a pedestrian survey, and as a result, a test pitting survey was determined to be required.



#### 2.0 Field Methods

The Stage 2 archaeological assessment of the study area was conducted between May 11 and June 23, 2021 under PIF #: P321-0270-2021, issued to Shane McCartney, M.A. (P321). The weather during the survey was sunny and warm. At no time were weather or lighting conditions detrimental to the observation or recovery of archaeological material.

Approximately 68% of the study area was not assessed due to evidence of deep subsurface alteration from the construction of two households, the greenhouse and its accompanying subsurface irrigation lines (Image 19), and gravel driveways.

The remaining 32% of the study area was assessed through a test pit survey (Images 20 and 21).

Test pits were spaced at maximum intervals of 5 metres apart and to within one metre of standing structures. Each test pit was excavated by hand to 30 cm in diameter and were excavated into the first 5 centimetres of subsoil. Test Pit depth averaged approximately 25 centimetres. Each test pit was examined for stratigraphy, cultural features, or evidence of fill, and all soil was screened through wire mesh of 6 millimetre width. All test pits were backfilled. The soil consisted of a light brown sand topsoil horizon overlaying an orange sand subsoil (Image 22). No archaeological material was recovered during the survey.

The results of the Stage 2 archaeological survey are presented in Map 8.



### 3.0 Record of Finds

Table 3 provides an inventory of the documentary record generated in the field

Table 3 Information Inventory of Documentary Record

Document	Location	Description
Field Notes	Earthworks Office Project File	1 page of notes
Photographs	Earthworks Office Project File	125 digital photographs
Field Map	Earthworks Office Project File	1 page



### 4.0 Analysis and Conclusions

A Stage 1 & 2 Archaeological Assessment was conducted on a 2.26 hectare area located at 9-11 Kerman Avenue, part of Lot 13, Concession 2, Geographic Township of Grimsby, Town of Grimsby, Regional Municipality of Niagara, historically part of Lincoln County, Ontario.

A Stage 2 test pit survey was conducted between May 11 and June 23, 2021. The Stage 2 archaeological survey did not yield any evidence of archaeological material. As a result, no additional archaeological assessments are required



### 5.0 Recommendations

Based on the results of the Stage 1 background investigation and the subsequent Stage 2 test pit survey the study area is considered to be free of archaeological material, and no additional archaeological assessments are recommended.

The MHSTCI is requested to review this report and provide a letter indicating their satisfaction that the fieldwork and reporting for this archaeological assessment are consistent with the Ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences, and to enter this report into the Ontario Public Register of Archaeological Reports



### 6.0 Advice on Compliance with Legislation

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

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

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act*.

The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.



### 7.0 References

ASI (Archaeological Services Inc.)

1999 Stage 1-2 A. A. of Silver Maple Estates (26T-1698-01), Part Lot 13, Con. 2, Town of Grimsby, R. M. of Niagara, Ontario. Report on file with the Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.

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- 1863 Enumeration District No. 2 of the Township of Grimsby in the County of Lincoln. In *Abstracted Census of the* Canadas, 1860-1861. S.B. Foote, Quebec.

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### 8.0 Images



Image 1: Study Area Conditions. Facing Northeast.



Image 2: Study Area Conditions. Facing Northwest.





Image 3: Study Area Conditions. Facing Northeast.



Image 4: Study Area Conditions. Facing Southeast.





Image 5: Study Area Conditions. Facing Northwest.



Image 6: Study Area Conditions. Facing Northeast.





Image 7: Study Area Conditions. Facing Northeast.



Image 8: Study Area Conditions. Facing Southwest.





Image 9: Study Area Conditions. Facing Northeast.



Image 10: Study Area Conditions. Facing Southwest.





Image 11: Study Area Conditions. Facing Northwest.



Image 12: Study Area Conditions. Facing Southwest.





Image 13: Study Area Conditions. Facing Northeast.



Image 14: Study Area Conditions. Facing West.





Image 15: Study Area Conditions. Facing Northwest.



Image 16: Study Area Conditions. Facing Southwest.





Image 17: Study Area Conditions. Facing Southeast.



Image 18: Study Area Conditions. Facing Northwest.





Image 19: Subsurface Irrigation Lines within Greenhouse.



Image 20: Test Pit Survey in Progress. Facing West.





Image 21: Test Pit Survey in Progress. Facing Southeast.

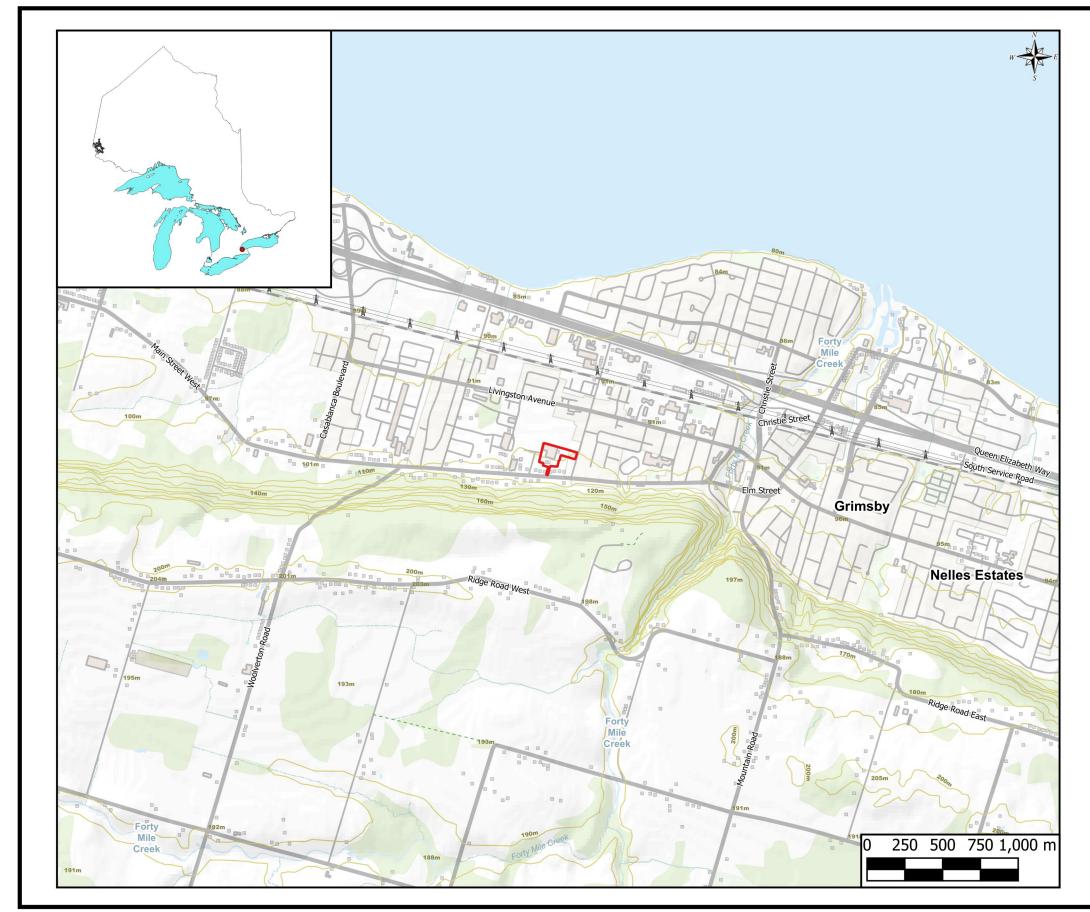


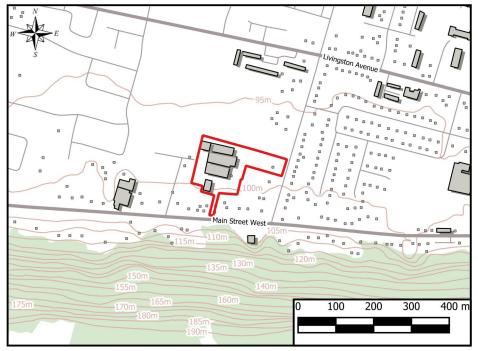
Image 22: Open Test Pit showing Subsurface Stratigraphy.



### 9.0 Maps







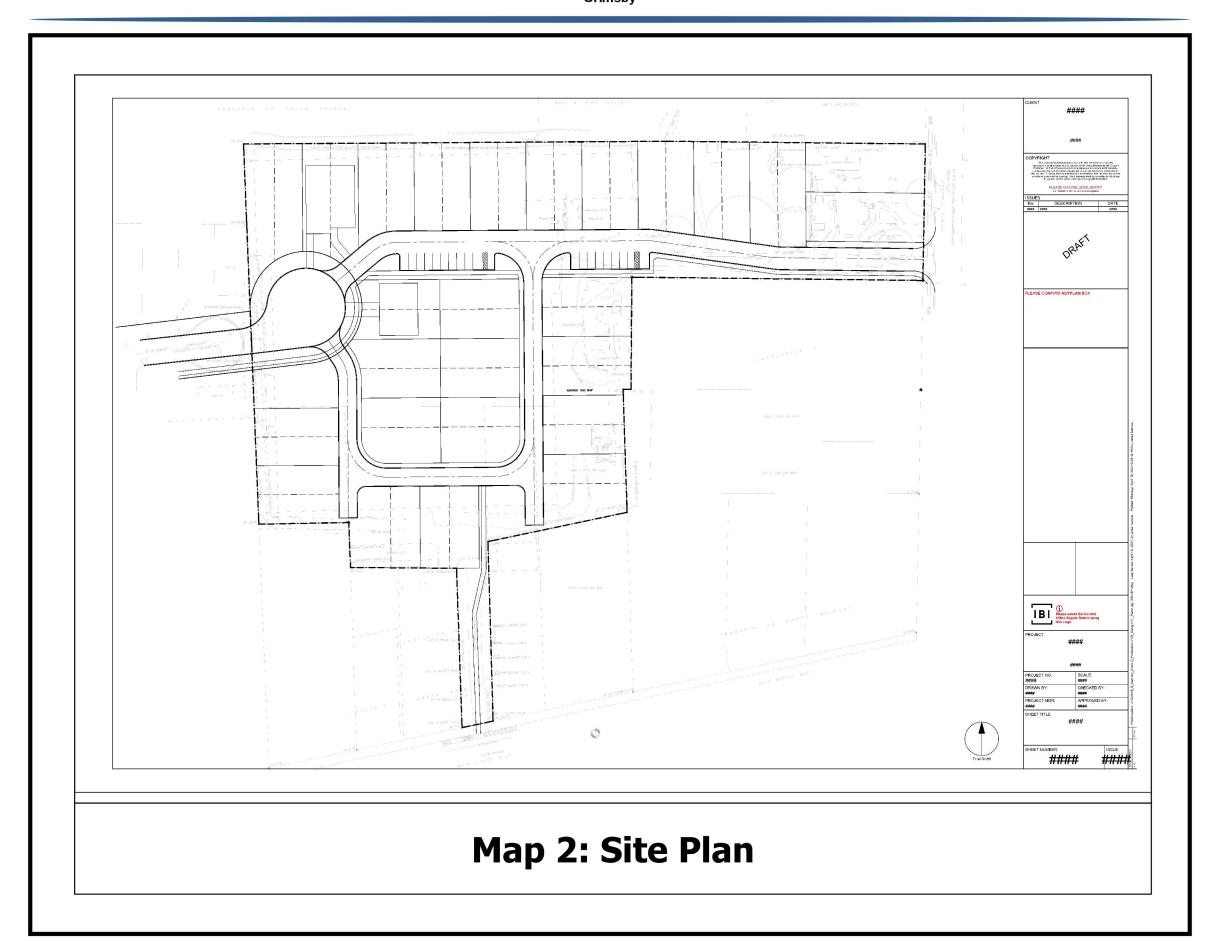


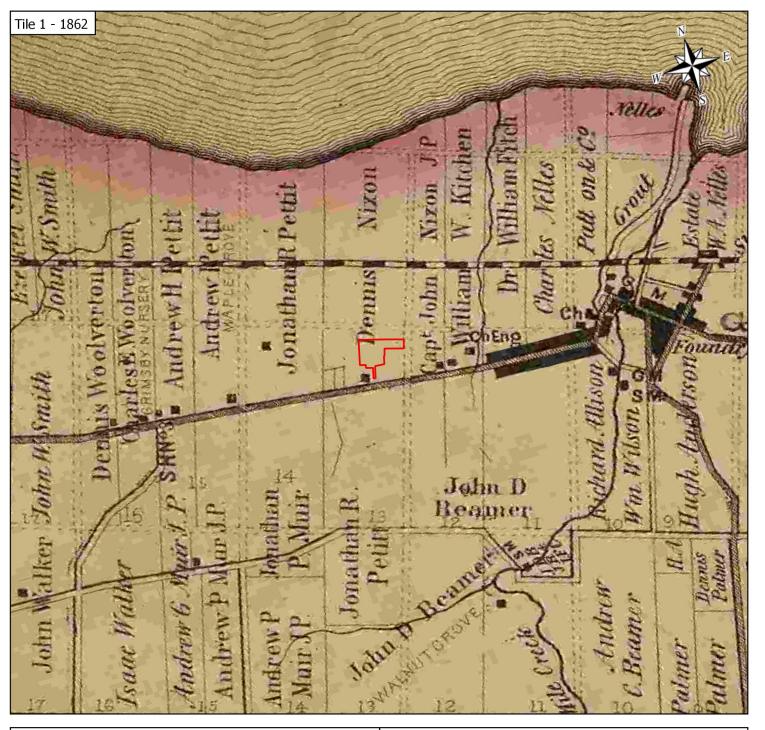
### <u>Legend</u>

Study Area

Reference: Canvec Data. Scale 1:50000 Ontario Basic Mapping. Scale 1:10000 Esri Basemap

**Map 1: Regional Map** 







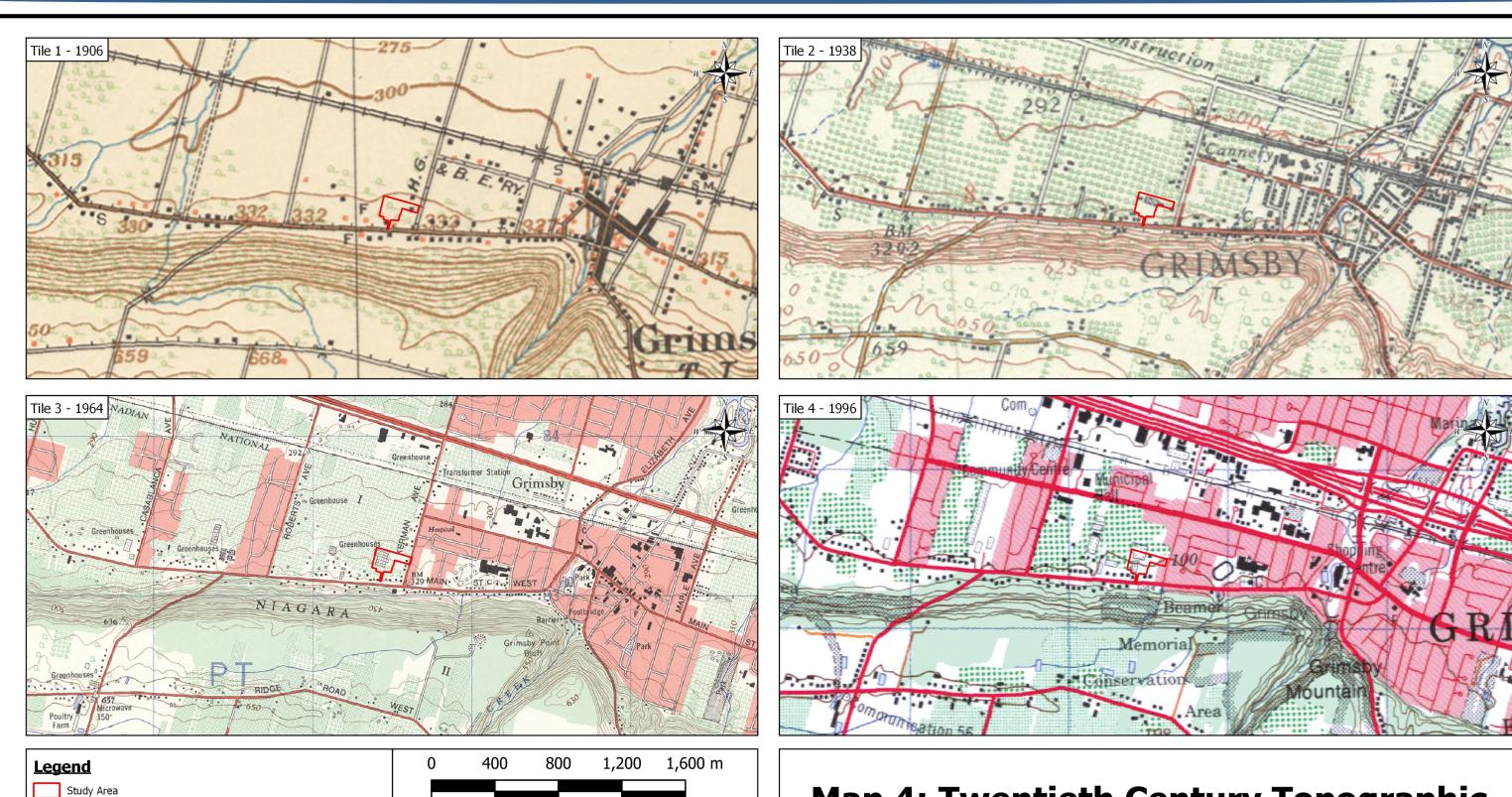
Legend
Study Area
Not to Scale

Tile 1 - Tremaine's Map of the Counties of Lincoln and Welland, Canada West. Compiled and Drawn from actual surveys by the Publishers Geo. R. Tremaine & G.M. Tremaine. Toronto, 1862.

Tile 1 - Tremaine's Map of the Counties of Lincoln and Welland, Canada West. Compiled and Drawn from actual surveys by the Publishers Geo. R. Tremaine & G.M. Tremaine. Toronto, 1862.

Tile 2 - Illustrated historical atlas of the counties of Lincoln & Welland, Ont. H.R. Page & Co. 1876

Map 3: Nineteenth Century Historic Mapping



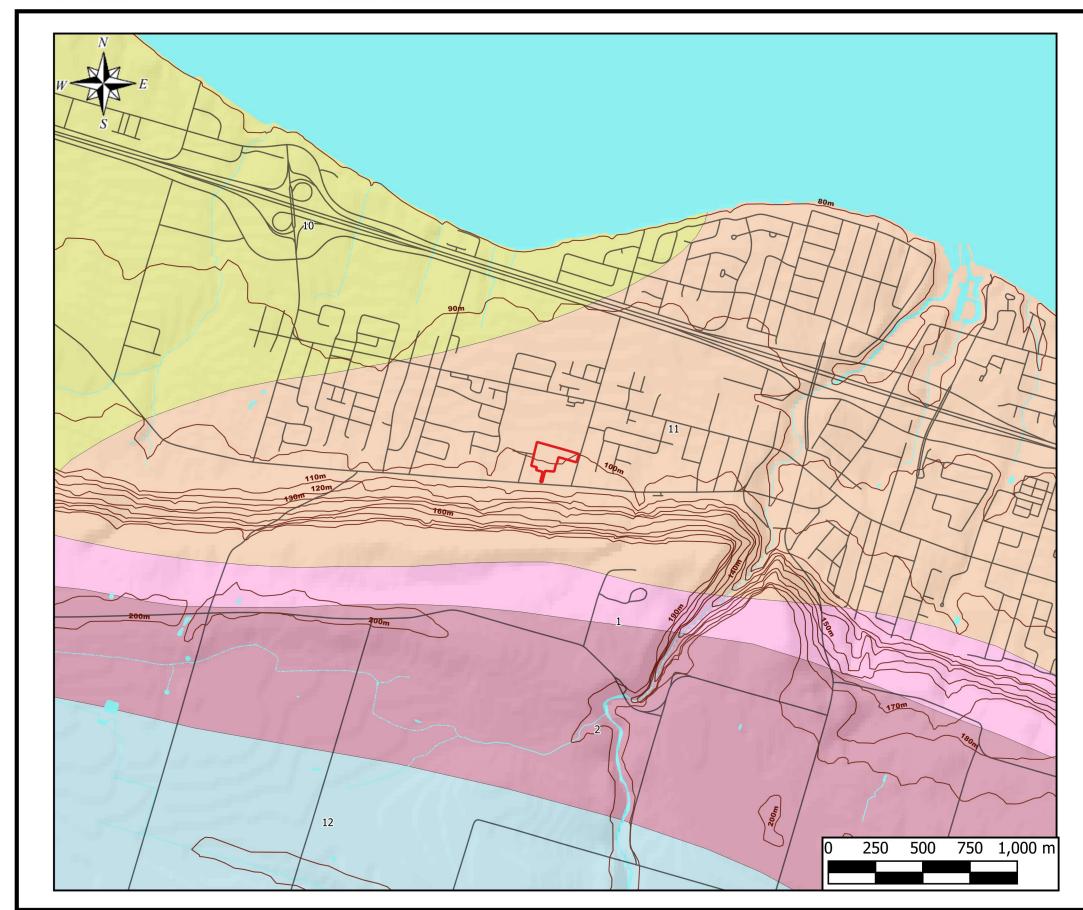
Tile 1 - Canada, Department of Militia and Defence [Department of National Defence]. Grimsby, Ontario. 1:63,360. Map Sheet 030M04, [ed. 1], 1907.

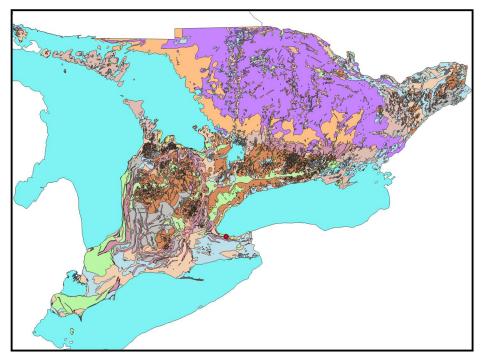
Tile 3 - Canada, Department of Energy, Mines and Resources [Natural Resources Canada]. Grimsby, Ontario. 1:25,000. Map Sheet 030M04h, ed. 2, 1973

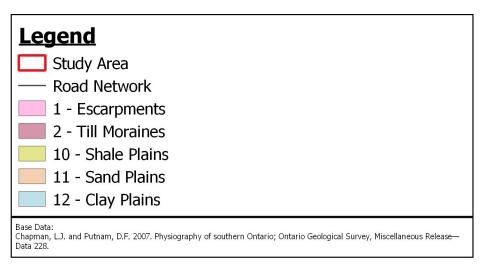
Tile 2 - Canada, Department of National Defence. Grimsby, Ontario. 1:63,360. Map Sheet 030M04, [ed. 9], 1938.

Tile 4 - Canada, Natural Resources Canada. Hamilton-Grimsby, Ontario. 1:50,000. Map Sheet 30 M/3, ed. 7, 1996

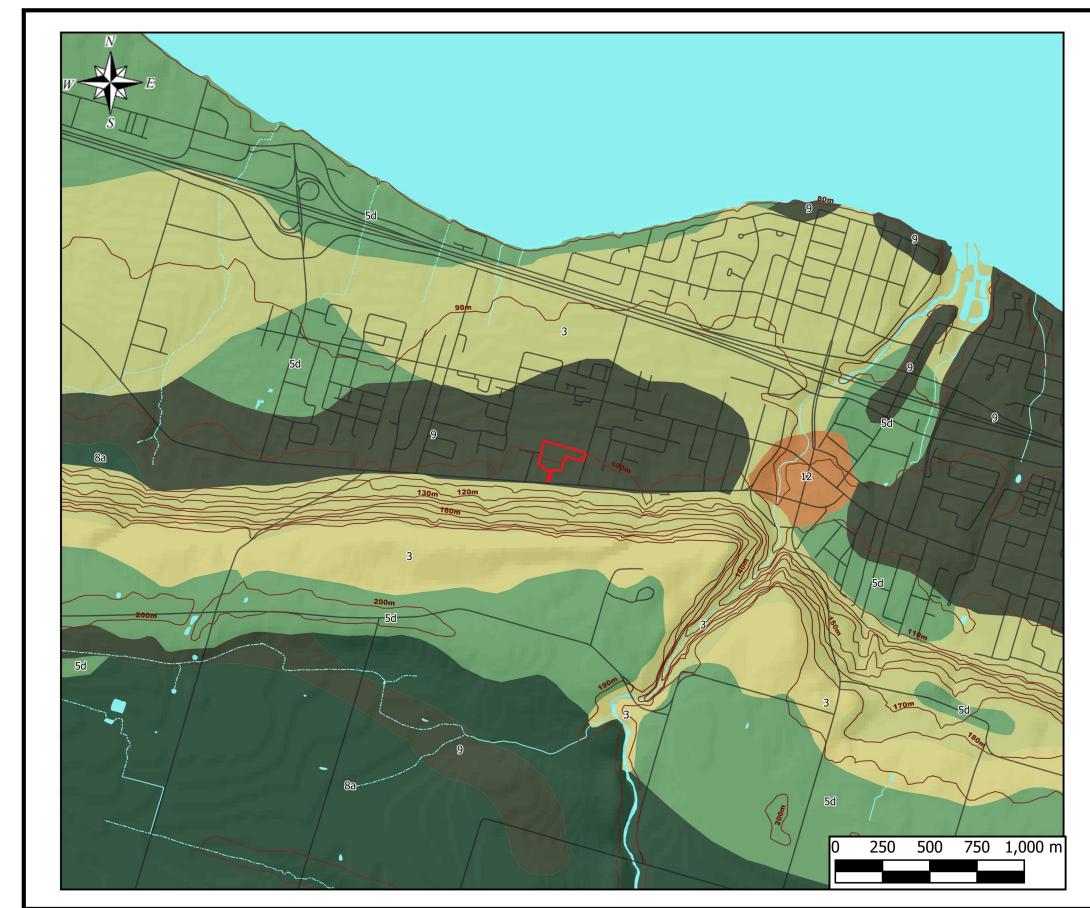
Map 4: Twentieth Century Topographic Maps

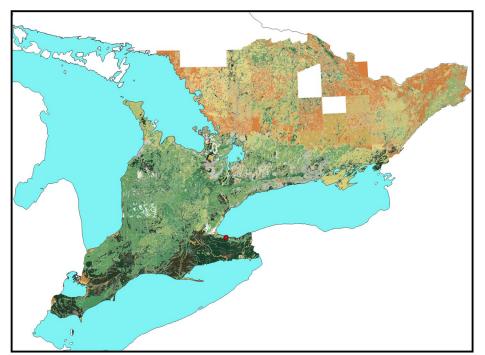






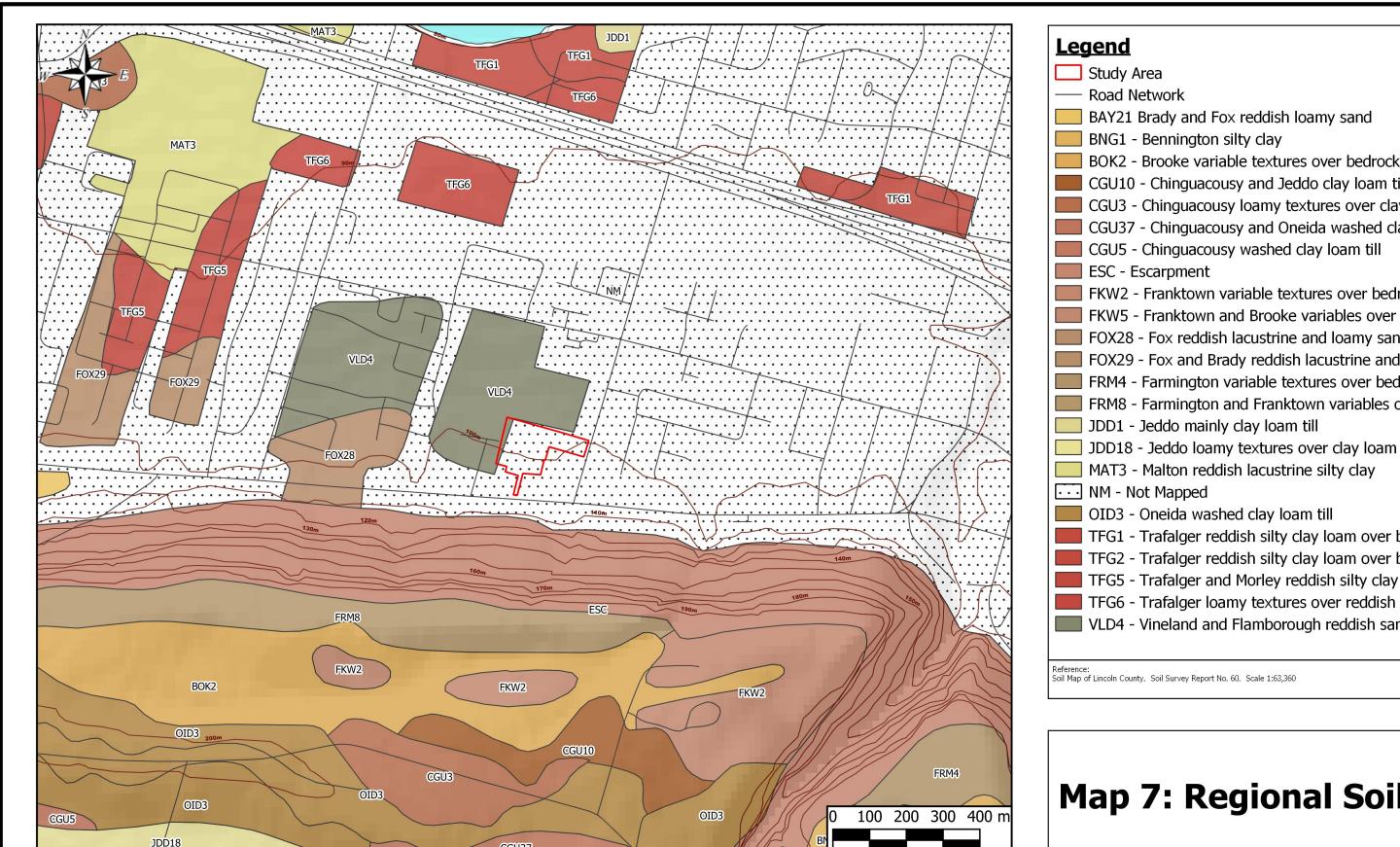
**Map 5: Physiographic Landforms** 







### **Map 6: Surficial Geology**



CGU37

BOK2 - Brooke variable textures over bedrock CGU10 - Chinguacousy and Jeddo clay loam till CGU3 - Chinguacousy loamy textures over clay loam CGU37 - Chinguacousy and Oneida washed clay loam till FKW2 - Franktown variable textures over bedrock FKW5 - Franktown and Brooke variables over bedrock FOX28 - Fox reddish lacustrine and loamy sand FOX29 - Fox and Brady reddish lacustrine and loamy sand FRM4 - Farmington variable textures over bedrock FRM8 - Farmington and Franktown variables over bedrock JDD18 - Jeddo loamy textures over clay loam TFG1 - Trafalger reddish silty clay loam over bedrock TFG2 - Trafalger reddish silty clay loam over bedrock TFG5 - Trafalger and Morley reddish silty clay TFG6 - Trafalger loamy textures over reddish silty clay loam VLD4 - Vineland and Flamborough reddish sand

**Map 7: Regional Soil Map** 



# Legend Study Area Area Subject to Stage 2 Test Pit Survey at 5 metre intervals

- Area of Subsurface Disturbance Not Assessed
- # Photo Location and Direction

Reference: Esri Basemap

Map 8: Stage 2
Assessment Results