

Appendix E Archaeological Assessments Report



Stage 1 Archaeological Assessment - Fort Erie Elevated Water Tank Environmental Assessment, Town of Fort Erie, Regional Municipality of Niagara

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1. Executive Summary

Parslow Heritage Consultancy Inc. (PHC) completed a Stage 1 archaeological background assessment on behalf of the Regional Municipality of Niagara (Niagara Region), as part of a Schedule B Municipal Class Environmental. Niagara Region will be considering and evaluating suitable sites within the Town of Fort Erie for the construction of the elevated water storage tank.

Three alternative locations for the construction of the elevated water storage tank are the subject of this Stage 1 background assessment. Alternative 1 is located at the northeast corner of the intersection of Pettit Road and Bridge Street, on Part Lot 7, Concession 4 Niagara River. Alternative 2 is located at the northwest corner of the intersection of Bowen Road and Sunset Drive, just east of the Queen Elizabeth Way (QEW), on Part Lot 9, Concession 6 Niagara River. Alternative 3 is located on the North side of Bowen Road, approximately 380 metres west of the QEW, also on Part Lot 9, Concession 6 Niagara River. Map 1 illustrates the location of the three Alternatives on a topographical map while Map 2 outline the location of the Alternatives over an aerial image.

The objectives of the Stage 1 archaeological assessment are to gather information about the project location's geography, history, current land conditions as well as any previous archaeological research and listed archaeological sites on or within the vicinity. Methods to achieve these objectives include:

- ▶ Review of relevant historic and environmental literature pertaining to the study area;
- ▶ Review of an updated listing of archaeological sites within 1 km from the MTCS Archaeological Sites Database;
- ▶ Review of all archaeological assessments within 50 m of the study area;
- ▶ Consultation with individuals knowledgeable about the study area; and
- ▶ Review of historic maps of the study area.

Based on the features or characteristics of archaeological potential listed in Section 6.1, the following statements can be made for each Alternative:

Alternative 1:

1. There are no registered or known archaeological sites within 300 metres of Alternative 1.
2. There is a known water source within 300 metres of Alternative 1.
3. There is a potential historic transportation road (Pettit Road) within 100 metres of Alternative 1.

4. There are no identifiable features such as elevated topography, sandy pockets of soil, or resource areas within or near Alternative 1.

Alternative 2:

1. There are 31 registered or known archaeological sites within 300 metres of Alternative 2.
2. There is no known water source within 300 metres of Alternative 2.
3. There is a potential historic transportation route (Bowen Road) within 100 metres of Alternative 2.
4. There are no identifiable features such as elevated topography, sandy pockets of soil, or resource areas within or near Alternative 2.

Alternative 3:

1. There are 6 registered or known archaeological sites within 300 metres of Alternative 3.
2. There is no known water source within 300 metres of Alternative 3.
3. There is a potential historic transportation route (Bowen Road) within 100 metres of Alternative 3.
4. There are no identifiable features such as elevated topography, sandy pockets of soil, or resource areas within or near Alternative 3.

Based on the findings of the Stage 1 archaeological background assessment, it is determined that Stage 2 archaeological survey is recommended for Alternative 1, Alternative 2 and Alternative 3.

As per Section 7.7.4, Standard 2, all areas where ploughing is viable are recommended for pedestrian survey (Alternative 3). All other areas that cannot be ploughed will undergo test pit archaeological survey as per Section 2.1.2, Standards 1 through 9 of the *Standards and Guidelines for Consultant Archaeologists* (Alternatives 1 and 2) (MTCS 2011).

2. Project Personnel

Project/Field Director	Carla Parslow, Ph.D. (P243)
Report/Graphics Preparation	Paulina Scheck, MA; Carla Parslow

Acknowledgements

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3. Project Context

This section of the report provides the context for the archaeological assessment and covers three areas: development context, historical context and archaeological context.

3.1 Development Context

Parslow Heritage Consultancy Inc. (PHC) completed a Stage 1 archaeological background assessment on behalf of the Regional Municipality of Niagara (Niagara Region), as part of a Schedule B Municipal Class Environmental. Niagara Region will be considering and evaluating suitable sites within the Town of Fort Erie for the construction of the elevated water storage tank.

Three alternative locations for the construction of the elevated water storage tank are the subject of this Stage 1 background assessment. Alternative 1 is located at the northeast corner of the intersection of Pettit Road and Bridge Street, on Part Lot 7, Concession 4 Niagara River. Alternative 2 is located at the northwest corner of the intersection of Bowen Road and Sunset Drive, just east of the Queen Elizabeth Way (QEW), on Part Lot 9, Concession 6 Niagara River. Alternative 3 is located on the North side of Bowen Road, approximately 380 metres west of the QEW, also on Part Lot 9, Concession 6 Niagara River. Map 1 illustrates the location of the three Alternatives on a topographical map while Map 2 outline the location of the Alternatives over an aerial image.

The objectives of the Stage 1 archaeological assessment are to gather information about the project location's geography, history, current land conditions as well as any previous archaeological research and listed archaeological sites on or within the vicinity. Methods to achieve these objectives include:

- ▶ Review of relevant historic and environmental literature pertaining to the study area;
- ▶ Review of an updated listing of archaeological sites within 1 km from the MTCS Archaeological Sites Database;
- ▶ Review of all archaeological assessments within 50 m of the study area;
- ▶ Consultation with individuals knowledgeable about the study area; and
- ▶ Review of historic maps of the study area.

All archaeological work documented in this report was completed under the Ministry of Tourism, Culture and Sport's (MTCS) *Standards and Guidelines for Consultant Archaeologists*.

3.2 Historical Context

This section describes the past and present land use and the settlement history, and any other relevant historical information gathered through the background research (MTCS Section 7.5.7 Standard 1).

3.2.1 Indigenous History

Indigenous peoples of southern Ontario have left behind archaeologically significant resources throughout the province which show continuity with past peoples, even if they were not recorded in historic Euro-Canadian documents. Table 1 illustrates this continuity demonstrating over 11,000 years of Indigenous occupation of southern Ontario (Ellis and Ferris 1990).

European contact with Indigenous peoples in the Niagara Region began with the arrival of Samuel de Champlain in 1615. Although there appears to have been no direct contact, Champlain described a group of Native peoples throughout the Niagara Peninsula whom he called “la nation neutre” as they were situated between the Huron and the New York Iroquois and remained at peace (Lennox and Fitzgerald 1990:405). Estimates of the population of the Neutral Iroquois in Ontario have ranged between 12,000 to 40,000 people distributed between 28 and 40 villages and smaller settlements; while population estimated vary, it has been documented that the Neutral were dispersed by the Five Nations Iroquois between 1647 and 1651 (Lennox and Fitzgerald 1990:405- 406). Throughout the middle of the 17th century, the Iroquois sought to expand upon their territory and to monopolize the local fur trade as well as trade between the European markets and the tribes of the western Great Lakes region. A series of conflicts followed known as the Beaver Wars, or the French and Iroquois Wars, contested between the Iroquois confederacy and the Algonkian speaking communities of the Great Lakes region. This led to the dispersal, or rather absorption of the Neutral into the various warring Iroquois and Algonkian parties.

Prior to the dispersion of the Neutral in the mid-17th century Jesuits and missionaries had visited Neutral settlements in the Niagara region, including Joseph de la Roche Daillon in 1626 and Jean de Brebauf and Joseph Pierre-Marie Chaumonot in 1640. Following the dispersal of the Neutral, the Five Nations Iroquois briefly settled along the Niagara River.

The late 17th and early 18th centuries represent a turning point in the evolution of the post-contact Indigenous occupation of Southern Ontario. It was at this time that various Iroquoian-speaking communities began migrating from New York State, followed by the arrival of new Algonkian speaking groups from northern Ontario (Konrad 1981; Schmalz 1991).

Table 1: Overview of the cultural chronology for southern Ontario.

Period	Characteristics	Time	Comments
Early Paleo	Fluted Points	9,000 – 8,400 BC	Caribou hunters
Late Paleo	Hi-Lo Points	8,400 – 8,000 BC	Smaller but more numerous sites
Early Archaic	Kirk, Nettling and Bifurcate Base Points	8,000-6,000 BC	Slow population growth
Middle Archaic I	Stanley/Neville, Stemmed Points	6,000-4,000 BC	Environment similar to present
Middle Archaic II	Thebes, Otter Creek Points	4,000- 3,000 BC	
Middle Archaic III	Brewerton Side and Corner Notched Points	3,000 – 2,000 BC	
Late Archaic I	Narrow Point (Lamoka, Normanskill); Broad Point (Genesee, Adder Orchard); Small Point (Crawford Knoll, Innes, Ace-of-Spades)	2,000-1,800 BC; 1,800-1,500 BC; 1,500-1,100 BC	Increasing site size; Large chipped lithic tools; Introduction of bow hunting
Terminal Archaic	Hind Points	1,100-950 BC	Emergence of true cemeteries
Early Woodland	Meadowood Points	950-400 BC	introduction of pottery
Middle Woodland	Dentate/Pseudo-Scallop Pottery; Princess Point	400 BC-AD 500; AD 550-900	Increased sedentism; introduction of Corn
Late Woodland	Early Ontario Iroquoian; Middle Ontario Iroquoian; Late Ontario Iroquoian	AD 900-1,300; AD 1,300-1,400; AD 1,400-1,650	Emergence of agricultural villages; Large longhouses (100m +); Tribal warfare and displacement
Contact Period	Various Algonkian Groups	AD 1,700-1,875	early written records and treaties

The study area is part of a large swath of land that made up the 19 July 1701 Deed, or Nanfan Treaty, between the Five Nations of the Iroquois Confederacy

and John Nanfan, on behalf of the British Crown. The deed granted a large area of the Five Nations as beaver hunting grounds to the Crown, “after mature deliberation out of a deep sence of the many Royall favours extended to us by the present great Monarch of England King William the third” (Six Nations n.d.). New France, aligned with the Algonquin, also had claim on this territory and therefore, did not recognize the deed of land to the Iroquois. Both the French claims to the land and the British deed to the land were completed solely for domination over each other in the fur trade industry and were a direct response to the Beaver Wars, or the French and Iroquois Wars. The Canadian Federal Government does not currently recognize this Deed/Treaty.

The study area also first enters the Euro-Canadian historical record as part of Treaty Number 381, known as the Niagara purchase, made between the Mississaugas and Chippewas and the Crown on 9 May 1781. The Niagara purchase is described as follows:

...made in the year 1764 at Fort Niagara from the Iroquois and Chippewa Indians, but it was not until May 9th, 1781 that a treaty was signed with the Mississa[ug]as and Chippewas for a strip of land four miles in width along the western bank of the Niagara River. This strip comprises the greater parts of the Townships of Lincoln, Stamford, Willoughby and Bertie.

(Morris 1943:15)

The Niagara purchase was instigated by Sir William Johnson, the first official representative of an Indian Department in British North America, and later made by Colonel Guy Johnson, the acting superintendent general of Indian Affairs. The purpose for this treaty was to make way for British settlers into the country.

3.2.2 Euro-Canadian Settler History

Settlement History

Following the Toronto Purchase, the Province of Quebec (which then included Ontario) was divided into four political districts: Lunenburg, Mechlenburg, Nassau, and Hesse. When the Province of Upper Canada was formed in 1791, the names of the four districts were changed to Eastern, Midland, Home, and Western, respectively. The Alternatives, which are located within the former Township of Bertie, fell within the Home District.

The Alternatives are located within the former Home District, which originally included all lands between an arbitrary line on the west running from Long Point on Lake Erie to Georgian bay, and a line on the east running north from Presqu'ile Point on Lake Ontario to the Ottawa River. Each district was further subdivided into counties and townships by Colonel John Grave Simcoe, the first Lieutenant Governor of Upper Canada, with the Alternatives originally falling within part of the County of Welland and the Township of Bertie.

Bertie Township

Bertie Township was first settled in the year 1784 by U. E. Loyalists and others from the American colonies, prior to the Toronto Purchase. The first recorded history of the Township of Bertie was on March 7, 1807 where the first Township meeting was held at Andrew Miller's Tavern (exploringniagara.com 2014). This meeting consisted of 30 individuals representing the families of the Township of Bertie. During the war of 1812-15, Bertie Township was the scene of many contests between the Canadians (British) and Americans (H.R. Page & Co., 1876).

By 1880, the Township consisted of three villages: Stevensville, Ridgeway and Victoria, all located along the major rail line. By 1885, the census indicates that there were 4,000 inhabitants of the Township. The primary means of living was farming as 971 acres of the township were orchards with another 4,100 acres of winter wheat (H.R. Page & Co., 1876).

Part Lot 7 Concession 4 from the Niagara River (Alternative 1)

To understand the history of Euro-Canadian settlement, earlier mapping was consulted. The 1862 Tremaine Illustrated Atlas and the 1876 H.R. Page & Co. show that Peter E. Miller owned the property. While the 1862 map does not show any structures on the property, the 1876 map show what can be interpreted as a residence on the property, along with an orchard. This house and orchard are north of Alternative 1. In the 1876 Atlas, Peter Miller is listed as a Farmer (H.R. Page & Co. 1876).

Part Lot 9 Concession 6 from the Niagara River

The 1862 Tremaine Illustrated Atlas and the 1876 H.R. Page & Co. show that Henry Laur owned a 25-acre parcel (quarter section) while Jacob Boyer owned the remaining 75 acres or three-quarter section. Alternative 2 lies on Boyer's property while Alternative 3 is located on the Laur property.

Both the 1862 and 1876 Atlases show that there was a building on the Laur property, within Alternative 3. There is also an orchard in the 1876 Atlas. The Boyer property does not show any buildings on the property in 1862. Rather, there is a building on the property directly north of Part Lot 9, (Lot 10) that is also owned by Boyer. By 1876 there is a residence and orchard on the property within Lot 9 that is owned by Boyer, that can be interpreted as a residence on the property, along with an orchard. This house and orchard are showing to be west and potentially north of Alternative 2. No occupation is listed for either Laur or Boyer.

Maps 3 and 4 illustrate the location of all three Alternatives in 1862 and 1876.

Past and Current Land Uses

The land was historically used for agricultural purposes and has continued to be used for agricultural purposes throughout the 19th and 20th century. In the 21st century, the land remains predominantly agricultural, with some industrial use near

the Alternatives. The Bridge Street Waste Management Facility is just east of Alternative 1 and Miller's Auto Recycling is south and east of Alternative 2.

3.3 Archaeological Context

3.3.1 Archaeological Sites and Assessments

For an inventory of archaeological resources to be compiled, the registered archaeological site records kept by the MTCS were consulted. In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database maintained by the MTCS. This database contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 km east to west and approximately 18.5 km north to south. Each Borden block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The study areas are located within Borden block *AfGr*.

In accordance with Section 7.5.8, Standard 1 of the Standards and Guidelines, all registered or known archaeological sites within a minimum one-kilometre distance from the study area are to be listed. A search concluded that there are 99 registered archaeological sites, both aboriginal and Euro-Canadian, within a kilometre of the study areas. One factor determining archaeological potential is the distance of archaeological sites to the study area. An archaeological site within 300 metres of an area of interest is a feature of archaeological potential.

In reviewing the 99 archaeological sites that are registered within 1 km of the three Alternatives, a total of 37 sites are within 300 metres. Sites AfGr73, AfGr-67, -66, -65, -64 and AfGr60 are located within 300 metres of Alternative 3. The remaining 31 sites are within 300 m of Alternative 2: AfGr-17 through to -36; AfGr- 41 through -47; AfGr-59; AfGr-50; AfGr-62 and AfGr-63. No registered sites are within 300 metres of Alternative 1. Table 2 provides a listing of all archaeological sites within 300 metres.

Furthermore, there are six archaeological sites within the boundary of Alternative 2. These sites (AfGr-17 through to 22) are all small Indigenous sites. Based on the information available, three of the six sites (AfGr-17, -18, and -19) have cultural heritage value or interest and a Stage 3 site specific survey is recommended.

Table 2: Archaeological Sites Within 300 metres of the Study Areas.

Borden Number	Site name	Time Period	Site Type	300 m from Alternative
AfGr-73	P9	Woodland, Late	Unknown	3
AfGr-67	Woehl3	Post-Contact, Pre-Contact	Unknown, homestead	3
AfGr-66	Woehl2	Post-Contact, Pre-Contact	Camp/campsite, homestead	3
AfGr-65	Woehl1	Post-Contact, Pre-Contact	Camp/campsite, homestead	3
AfGr-64	Bowen	Pre-Contact	Camp/campsite	3
AfGr-60	Boyer	Post-Contact, Woodland, Early	Unknown, homestead	3
AfGr-50	Oriole Site	Pre-Contact	camp / campsite	2
AfGr-49	Beadroot	Pre-Contact	Unknown	2
AfGr-47		Pre-Contact		2
AfGr-46		Pre-Contact, Woodland, Late		2
AfGr-45		Pre-Contact		2
AfGr-44		Archaic, Late, Woodland, Late	Findspot	2
AfGr-43		Pre-Contact, Woodland, Late		2
AfGr-42	Salamander	Pre-Contact, Woodland, Late	Unknown	2
AfGr-41	Twin Salamander	Pre-Contact	Village	2
AfGr-37		Pre-Contact		2
AfGr-36		Pre-Contact		2
AfGr-35		Pre-Contact		2
AfGr-34		Pre-Contact		2
AfGr-33		Pre-Contact		2
AfGr-32		Pre-Contact		2
AfGr-31		Post-Contact	Farmstead	2
AfGr-30		Pre-Contact		2
AfGr-29		Post-Contact		2
AfGr-28		Pre-Contact		2
AfGr-27		Post-Contact	House	2
AfGr-26		Pre-Contact		2
AfGr-25		Archaic, Early	Findspot	2
AfGr-24		Pre-Contact		2
AfGr-23	Mini Potato	Pre-Contact		2
AfGr-22		Pre-Contact		2
AfGr-21		Pre-Contact		2
AfGr-20		Pre-Contact		2
AfGr-19		Pre-Contact		2

There are three archaeological assessments, two Stage 2 property assessments and one Stage 3 site-specific assessment conducted within the limits of, or immediately adjacent (50 m) to one of the study areas, namely Alternative 2 (MTCS Section 7.5.8 Standard 4). The following archaeological reports have been identified and consulted:

Stage 1 Archaeological Assessment and Heritage Background Study for the Ambassador Niagara Signature Bridge and International Corridor Project, Fort Erie, Ontario (P014-037 2005)

Stage 2 Archaeological Fieldwork Completed in 2005 for the Ambassador Niagara Signature Bridge Project, Town of Fort Erie, Regional Municipality of Niagara (P014-041 2007)

Stage 2 Archaeological Assessment: Queen Elizabeth Way and Bowen Road Interchange Improvements Parts of Lots 8, 9, Concessions V, and VI Town of Fort Erie, Niagara Region, Ontario (P123-0251-2014)

Stage 3 Archaeological Assessment: QEW Bertie CN Bridge, Oriole Site (AfGr-50), Part of Lot 9, Concession 6, Town of Fort Erie, Township of Bertie, Niagara Region, Ontario (P1006-0006-2018)

3.3.2 The Natural and Physical Environment

The study area is situated within the “Haldimand Clay Plain” physiographic region that spans the Niagara Peninsula, south of the Niagara Escarpment:

“Although it was all submerged in Lake Warren, the till is not all buried by stratified clay; it comes to the surface generally in low morainic ridges in the north. In fact, there is in that area a confused intermixture of stratified clay and till. The northern part has more relief than the southern part where the typically level lake plains occur” (Chapman and Putnam, 1984:156).

“The southeastern part of the peninsula might almost be considered as a separate subregion, characterized by levelness and poor drainage. The main part of Welland county comprises heavy clay, while the lowest part of the plain lies in the southern portion of that country. Here the watershed is provided by the Onondaga cuesta, which, though quite low and lying close to the shore of Lake Erie, nevertheless forces the drainage to the north and east” (Chapman and Putnam, 1984: 157)

Examination of topographic maps has revealed that a ridge formation extends northeast, from Crystal Beach, immediately to the south of the study areas. The study areas are located on the gentle slopes that define the north and east sides of this formation. Miller Creek flows 169 metres north of Alternative 1. A tributary of Miller Creek is depicted flowing 25 metres east of Alternative 1 on the Ministry of

Natural Resources and Forestry Topographic Map. A review of contemporary aerial photography of the area suggests it may be a seasonal stream or an old stream bed, no longer active.

Small natural wetlands are found in vicinity of Alternative 2. A natural wetland associated with Alternative 2 is bounded by a wetland to the north. According to the *Stage 1 Archaeological Assessment and Heritage Background Study for the Ambassador Niagara Signature Bridge and International Corridor Project*, these wetlands have developed at the site of abandoned borrow pits associated with the construction of the railways.

4. Analysis and Conclusion

4.1 Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. In accordance with the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* the following are features or characteristics that indicate archaeological potential:

- ▶ Previously identified archaeological sites;
- ▶ Water sources:
 - Primary water sources (lakes, rivers, streams, creeks);
 - Secondary water sources (intermittent streams and creeks; springs; marshes; swamps);
 - Features indicating past water sources (e.g. glacial lake shorelines indicated by the presence of raised gravel, sand, or beach ridges; relic river or stream channels indicated by clear dip or swale in the topography; shorelines of drained lakes or marshes; and cobble beaches);
 - Accessible or inaccessible shoreline (e.g. high bluffs, swamps or marsh fields by the edge of a lake; sandbars stretching into marsh);
- ▶ Elevated topography (eskers, drumlins, large knolls, plateaux);
- ▶ Pockets of well drained sandy soil, especially near areas of heavy soil or rocky ground; Distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases (there may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings);
- ▶ Resource areas including:
 - Food or medicinal plants;
 - Scarce raw minerals (e.g. quartz, copper, ochre or outcrops of chert);
 - Early Euro-Canadian industry (fur trade, mining, logging);
- ▶ Areas of Euro-Canadian settlement; and,
- ▶ Early historical transportation routes.

Archaeological Integrity

A negative indicator of archaeological potential is extensive land disturbance. This includes widespread earth movement activities that would have eradicated or

relocated any cultural material to such a degree that the information potential and cultural heritage value or interest has been lost.

Section 1.3.2 of the MTCS' 2011 Standards and Guidelines for Consultant Archaeologists states that:

Archaeological potential can be determined not to be present for either the entire property or a part(s) of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources (MTCS 2011:18)

The types of disturbance referred to above includes, but is not restricted to, quarrying, sewage and infrastructure development, building footprints and major landscaping involving grading below topsoil.

4.1.1 Archaeological Potential for the Study Area

In recommending a Stage 2 property survey based on determining archaeological potential for a study area, MTCS stipulates the following:

- ▶ No areas within 300 metres of a previously identified site; water sources; areas of early Euro-Canadian Settlement; or locations identified through local knowledge or informants can be recommended for exemption from further assessment;
- ▶ No areas within 100 metres of early transportation routes can be recommended for exemption from further assessment; and,
- ▶ No areas within the property containing an elevated topography; pockets of well-drained sandy soil; distinctive land formations; or resource areas can be recommended for exemption from further assessment.

Based on the features or characteristics of archaeological potential listed in Section 6.1, the following statements can be made for each Alternative:

Alternative 1:

1. There are no registered or known archaeological sites within 300 metres of Alternative 1.
2. There is a known water source within 300 metres of Alternative 1 (Miller Creek).
3. There is a potential historic transportation road (Pettit Road) within 100 metres of Alternative 1.
4. There are no identifiable features such as elevated topography, sandy pockets of soil, or resource areas within or near Alternative 1.

Alternative 2:

1. There are 31 registered or known archaeological sites within 300 metres of Alternative 2.
2. There is no known water source within 300 metres of Alternative 2 (wetland).
3. There is a potential historic transportation route (Bowen Road) within 100 metres of Alternative 2.
4. There are no identifiable features such as elevated topography, sandy pockets of soil, or resource areas within or near Alternative 2.

Alternative 3:

1. There are 6 registered or known archaeological sites within 300 metres of Alternative 3.
2. There is no known water source within 300 metres of Alternative 3.
3. There is a potential historic transportation route (Bowen Road) within 100 metres of Alternative 3.
4. There are no identifiable features such as elevated topography, sandy pockets of soil, or resource areas within or near Alternative 3.

4.2 Conclusion

Based on background research, it is determined that Alternative 1 and 3 have archaeological potential for both historical and precontact archaeological sites. Furthermore, Alternative 2 contains three sites with further cultural heritage value or interest.

5. Recommendations

Based on the findings of the Stage 1 archaeological background assessment, it is determined that Stage 2 archaeological survey is recommended for Alternative 1 and Alternative 3.

As per Section 7.7.4, Standard 2, all areas where ploughing is viable are recommended for pedestrian survey (Alternative 3). All other areas that cannot be ploughed will undergo test pit archaeological survey as per Section 2.1.2, Standards 1 through 9 of the *Standards and Guidelines for Consultant Archaeologists* (Alternatives 1) (MTCS 2011).

Alternative 2 retains cultural heritage value or interest for three sites: AfGr-17, AfGr-18 and AfGr-19 and Stage 3 sites specific survey was recommended in the 2007 Stage 2 archaeological report (P014-041 2007).

As per Section 3.2.2, and Table 3.1 of the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011), place and excavate one metre squared units at five metre intervals plus additional units, in the amount of 20% of the grid unit total.

It is requested that this report be entered into the Ontario Public Register of Archaeological Reports, as provided for in Section 65.1 of the Ontario Heritage Act.

Study Limitations: All information, recommendations and opinions provided 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 the Client's or PHC's express written consent. 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. Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study, if any, comply with those identified in the Ministry of Tourism, Culture and Sport's 2011 Standards and Guidelines for Consultant Archaeologists.

6. Advice on Compliance with Legislation

Advice on the compliance with legislation is not part of the archaeological record. However, for the benefit of the proponent and approval authority in the land use planning and development process, the report must include the following standard statements:

- ▶ This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c O.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 Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regards 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 licenced 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 licenced archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating 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 representative of a new archaeological site or sites 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 or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

As per MTCS *Standards and Guidelines* (MTCS 2011, Section 7.5.9 Standard 2):

- ▶ Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

7. References

AECOM (Formerly URS)

Stage 2 Archaeological Assessment: Queen Elizabeth Way and Bowen Road Interchange Improvements Parts of Lots 8, 9, Concessions V, and VI Town of Fort Erie, Niagara Region, Ontario (P123-0251-2014)

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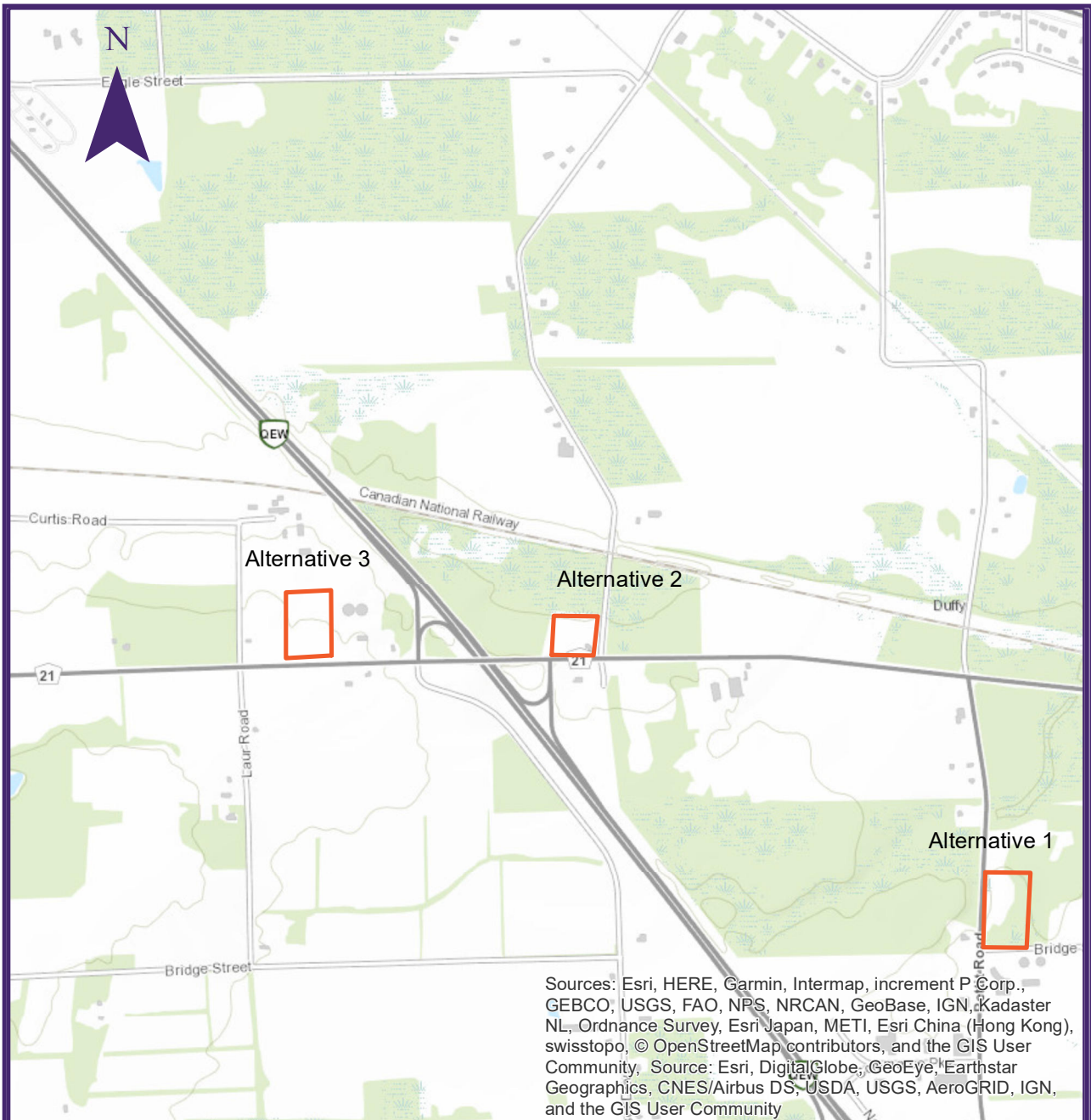
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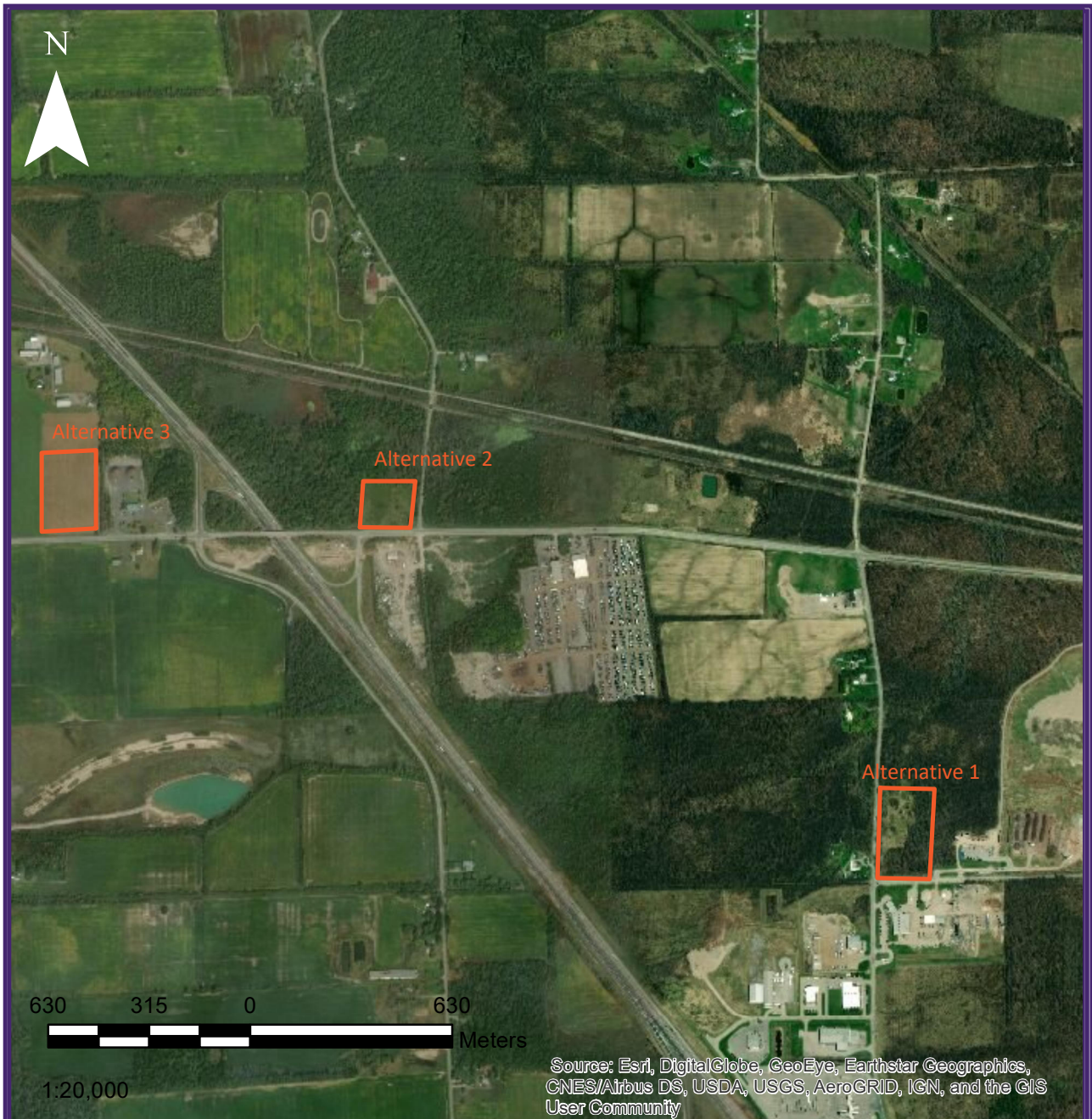
Map1- Alternatives on Topographic Map



Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 1 Archaeological Assessment



Map 2-Alternatives on Aerial Imagery



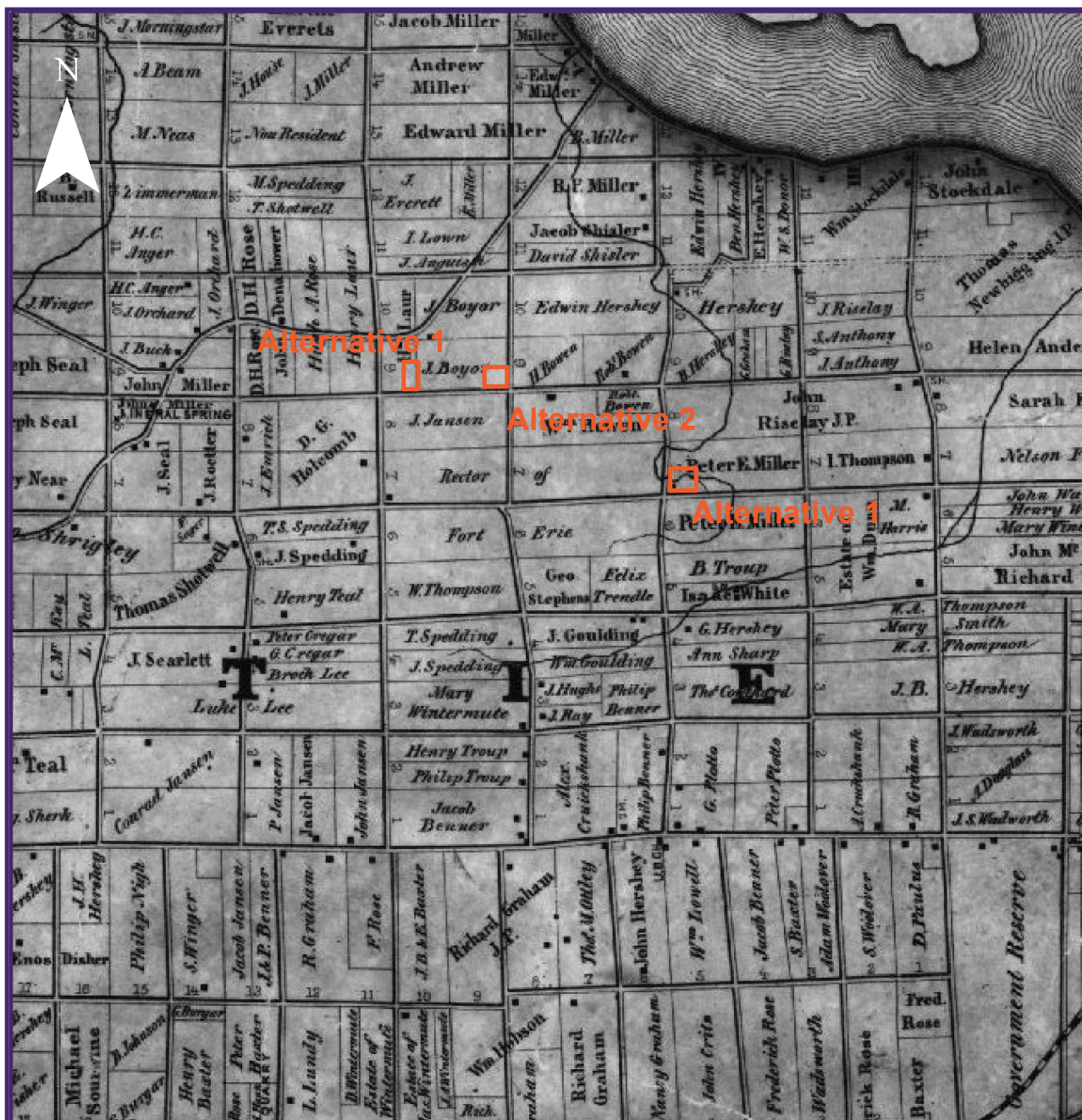
Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 1 Archaeological Assessment

Legend

— Alternatives



Map 3: Alternatives on 1862 Historic Atlas



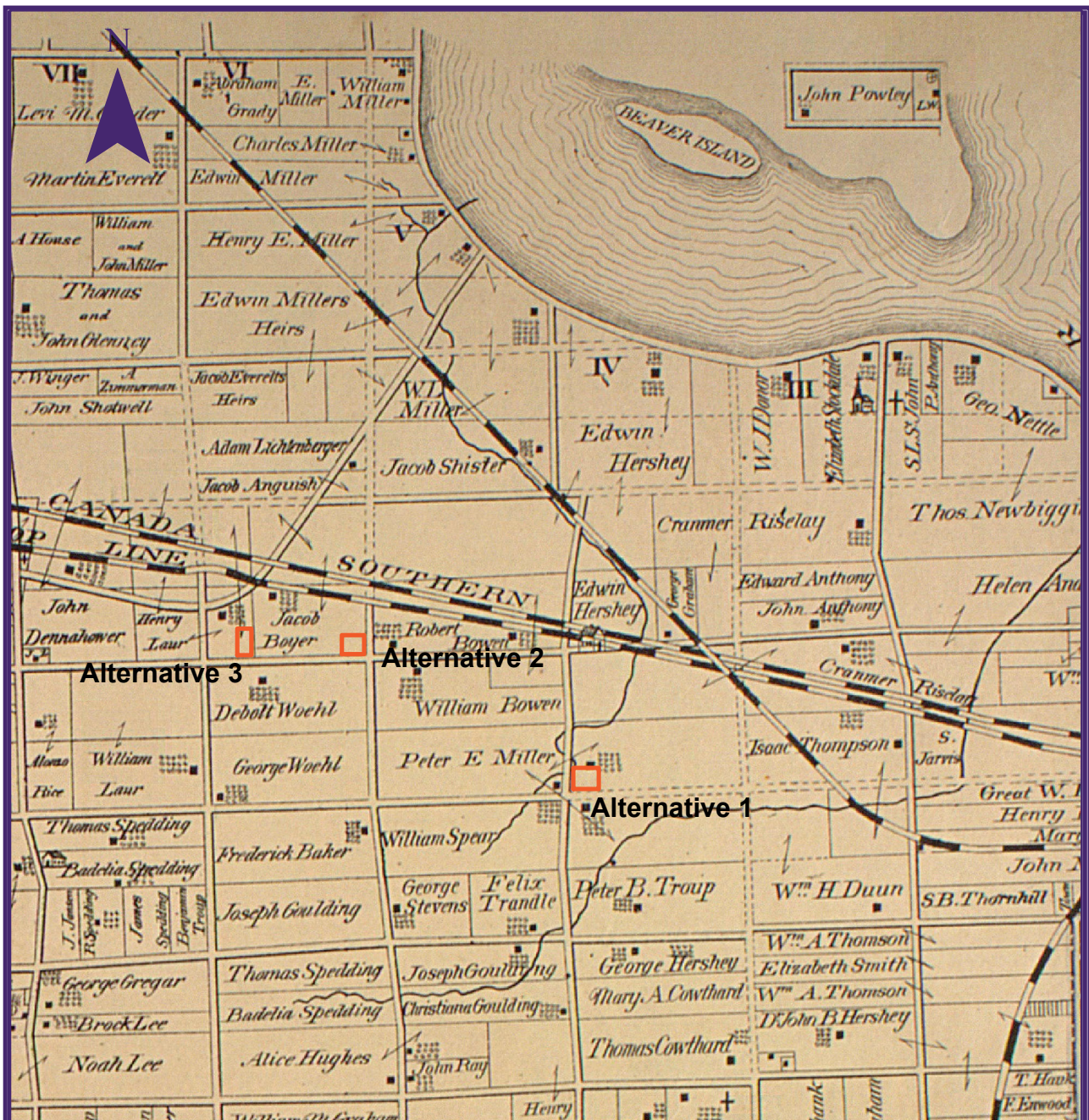
Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 1 Archaeological Assessment

Legend

— Alternatives



Map 3: Alternatives on 1876 Historic Atlas



Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 1 Archaeological Assessment

Legend

— Alternatives



Map 5 - Alternative 1 Archaeological Potential



Stage 1 Archaeological Assessment

Fort Erie Elevated Tank Municipal Class Environmental Assessment

Legend

-  Study Area
-  Archaeological Potential
Stage 2 Test Pit Survey Recommended



Map 6 - Alternative 2 Archaeological Potential



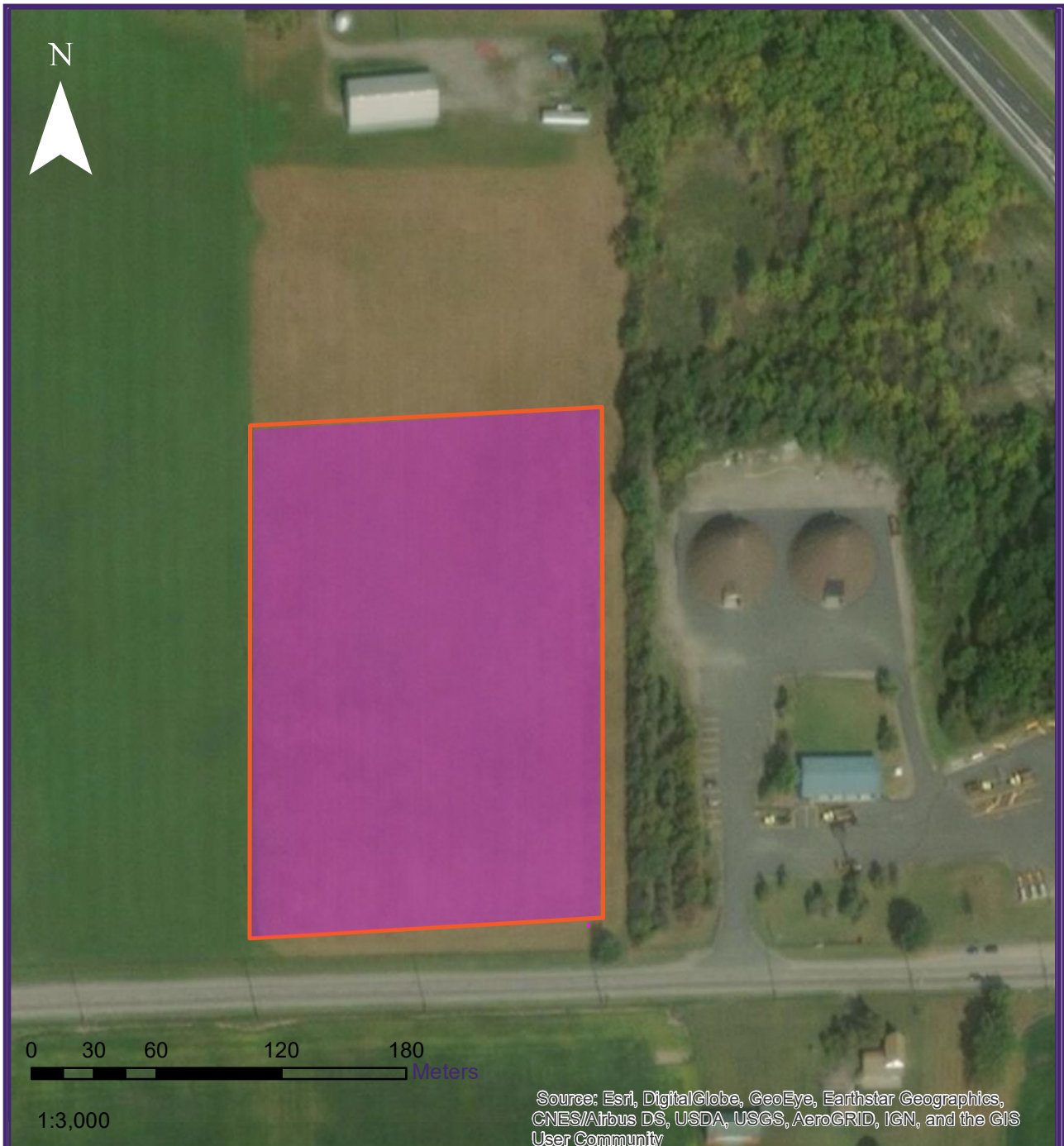
Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 1 Archaeological Assessment

Legend

-  Study Area
-  Archaeological Potential
Stage 2 Test Pit Survey Recommended



Map 7 - Alternative 3 Archaeological Potential



Stage 1 Archaeological Assessment Fort Erie Elevated Tank Municipal Class Environmental Assessment

Legend

-  Study Area
-  Archaeological Potential
Stage 2 Pedestrian Survey Recommended



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Stage 2 Archaeological Assessment for the Preferred Alternative Fort Erie Elevated Water Tank Located on Part Lot 7, Concession 4 Niagara River, Town of Fort Erie, Regional Municipality of Niagara

Project number: PHC-2019-1024

Report Date: 12 November 2019

Report Type: Original

Licensee: Dr. Carla Parslow P243

Parslow Heritage Consultancy Ltd. (PHC Inc.)

PIF Number: P243-0411-2019

Proponents: Regional Municipality of Niagara

Address: 1815 Sir Issac Brock Way, P.O. Box 402, Thorold, ON, L2V 4T7

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1. Executive Summary

Parslow Heritage Consultancy Inc. (PHC) completed a Stage 2 archaeological assessment at Part Lot 7, Concession 4 Niagara River on behalf of the Regional Municipality of Niagara (Niagara Region), as part of a Schedule B Municipal Class Environmental Assessment prior to commencement of construction of a new, elevated water storage tank within the Town of Fort Erie.

The objectives of the Stage 2 assessment are to determine if there are archaeological resources present on the property and to assess whether the identified resources have cultural heritage value or interest.

The study area consists of a combination of mixed forest and scrubland environments, as such it was subject to test pit survey at 5 m transects as per Section 2.1.2, Standards 1 through 9 of the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011).

Archaeological resources were identified in 5 test pits located throughout the study area. The areas surrounding these positive test pits were further intensified as per Section 2.1.3, Standard 2 of the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011); however the types and quantities of materials recovered did not meet the Cultural Heritage Value or Interest criteria required for further Stage 3 archaeological assessment; as such the study area is considered clear of further archaeological concern.

2. Project Personnel

Project Manager/Licensee	Carla Parslow, Ph.D. (P243)
Field Director	Adam Long, MSc (R1153)
Field Crew	Tina Kagi (R1173)
	Leo O'Reilly
	Charlotte Scott
	Alicia Yuan
Report Writing	Adam Long, MSc (R1153),
Paulina Scheck (MA)	
Report Graphics	Carla Parslow, Ph.D. (P243)

ACKNOWLEDGEMENTS

Derek Falardeau-Mercier, Project Manager, Water and Wastewater Engineering
Regional Municipality of Niagara

Rika Law, Associate, Project Manager
RV Anderson Associates Limited

3. Project Context

This section of the report provides the context for the archaeological assessment and covers three areas: development context, historical context and archaeological context.

3.1 Development Context

Parslow Heritage Consultancy Inc. (PHC) completed a Stage 2 archaeological assessment at Part Lot 7, Concession 4 Niagara River on behalf of the Regional Municipality of Niagara (Niagara Region), as part of a Schedule B Municipal Class Environmental Assessment prior to commencement of construction of a new, elevated water storage tank within the Town of Fort Erie (Map 1 and 2).

The objectives of the Stage 2 assessment are to determine if there are archaeological resources present on the property and to assess whether the identified resources have cultural heritage value or interest. Permission to enter the study area was given by Derek Falardeau-Mercier of Niagara Region (MTCS Section 7.5.6 Standard 3).

The study area consists of a combination of mixed forest and scrubland environments, as such it was subject to test pit survey at 5 m transects as per Section 2.1.2, Standards 1 through 9 of the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011). Permission to access the study area was provided by the Region of Niagara (MTCS Section 7.5.6 Standard 3).

All archaeological work documented in this report was completed under the Ministry of Tourism, Culture and Sport's (MTCS) *Standards and Guidelines for Consultant Archaeologists*.

3.2 Historical Context

This section describes the past and present land use and the settlement history, and any other relevant historical information gathered through the background research (MTCS Section 7.5.7 Standard 1).

3.2.1 Indigenous History

Indigenous peoples of southern Ontario have left behind archaeologically significant resources throughout the province which show continuity with past peoples, even if they were not recorded in historic Euro-Canadian documents. Table 1 illustrates this continuity demonstrating over 11,000 years of Indigenous occupation of southern Ontario (Ellis and Ferris 1990).

Table 1: Overview of the cultural chronology for southern Ontario.

PERIOD	CHARACTERISTICS	TIME	COMMENTS
Early Paleo	Fluted Points	9,000 – 8,400 BC	Caribou hunters
Late Paleo	Hi-Lo Points	8,400 – 8,000 BC	Smaller but more numerous sites
Early Archaic	Kirk, Nettling and Bifurcate Base Points	8,000-6,000 BC	Slow population growth
Middle Archaic I	Stanley/Neville, Stemmed Points	6,000-4,000 BC	Environment similar to present
Middle Archaic II	Thebes, Otter Creek Points	4,000- 3,000 BC	
Middle Archaic III	Brewerton Side and Corner Notched Points	3,000 – 2,000 BC	
Late Archaic I	Narrow Point (Lamoka, Normanskill); Broad Point (Genesee, Adder Orchard); Small Point (Crawford Knoll, Innes, Ace-of-Spades)	2,000-1,800 BC; 1,800-1,500 BC; 1,500-1,100 BC	Increasing site size; Large chipped lithic tools; Introduction of bow hunting
Terminal Archaic	Hind Points	1,100-950 BC	Emergence of true cemeteries
Early Woodland	Meadowood Points	950-400 BC	introduction of pottery
Middle Woodland	Dentate/Pseudo-Scallop Pottery; Princess Point	400 BC-AD 500; AD 550-900	Increased sedentism; introduction of Corn
Late Woodland	Early Ontario Iroquoian; Middle Ontario Iroquoian; Late Ontario Iroquoian	AD 900-1,300; AD 1,300-1,400; AD 1,400-1,650	Emergence of agricultural villages; Large longhouses (100m +); Tribal warfare and displacement
Contact Period	Various Algonkian Groups	AD 1,700-1,875	early written records and treaties

European contact with Indigenous peoples in the Niagara Region began with the arrival of Samuel de Champlain in 1615. Although there appears to have been no

direct contact, Champlain described a group of Native peoples throughout the Niagara Peninsula whom he called “la nation neutre” as they were situated between the Huron and the New York Iroquois and remained at peace (Lennox and Fitzgerald 1990:405). Estimates of the population of the Neutral Iroquois in Ontario have ranged between 12,000 to 40,000 people distributed between 28 and 40 villages and smaller settlements; while population estimated vary, it has been documented that the Neutral were dispersed by the Five Nations Iroquois between 1647 and 1651 (Lennox and Fitzgerald 1990:405- 406). Throughout the middle of the 17th century, the Iroquois sought to expand upon their territory and to monopolize the local fur trade as well as trade between the European markets and the tribes of the western Great Lakes region. A series of conflicts followed known as the Beaver Wars, or the French and Iroquois Wars, contested between the Iroquois confederacy and the Algonkian speaking communities of the Great Lakes region. This led to the dispersal, or rather absorption of the Neutral into the various warring Iroquois and Algonkian parties.

Prior to the dispersion of the Neutral in the mid-17th century Jesuits and missionaries had visited Neutral settlements in the Niagara region, including Joseph de la Roche Daillon in 1626 and Jean de Brebauf and Joseph Pierre-Marie Chaumonot in 1640. Following the dispersal of the Neutral, the Five Nations Iroquois briefly settled along the Niagara River.

The late 17th and early 18th centuries represent a turning point in the evolution of the post-contact Indigenous occupation of Southern Ontario. It was at this time that various Iroquoian-speaking communities began migrating from New York State, followed by the arrival of new Algonkian speaking groups from northern Ontario (Konrad 1981; Schmalz 1991).

The study area is part of a large swath of land that made up the 19 July 1701 Deed, or Nanfan Treaty, between the Five Nations of the Iroquois Confederacy and John Nanfan, on behalf of the British Crown. The deed granted a large area of the Five Nations as beaver hunting grounds to the Crown, “after mature deliberation out of a deep sence of the many Royall favours extended to us by the present great Monarch of England King William the third” (Six Nations n.d.). New France, aligned with the Algonquin, also had claim on this territory and therefore, did not recognized the deed of land to the Iroquois. Both the French claims to the land and the British deed to the land were completed solely for domination over each other in the fur trade industry and were a direct response to the Beaver Wars, or the French and Iroquois Wars. The Canadian Federal Government does not currently recognize this Deed/Treaty.

The study area also first enters the Euro-Canadian historical record as part of Treaty Number 381, known as the Niagara purchase, made between the Mississaugas and Chippewas and the Crown on 9 May 1781. The Niagara purchase is described as follows:

...made in the year 1764 at Fort Niagara from the Iroquois and Chippewa Indians, but it was not until May 9th, 1781 that a treaty was signed with the Mississa[ug]as and Chippewas for a strip of land four miles in width along the western bank of the Niagara River. This strip comprises the greater parts of the Townships of Lincoln, Stamford, Willoughby and Bertie.

(Morris 1943:15)

The Niagara purchase was instigated by Sir William Johnson, the first official representative of an Indian Department in British North America, and later made by Colonel Guy Johnson, the acting superintendent general of Indian Affairs. The purpose for this treaty was to make way for British settlers into the country.

3.2.2 Euro-Canadian Settler History

Settlement History

Following the Toronto Purchase, the Province of Quebec (which then included Ontario) was divided into four political districts: Lunenburg, Mechlenburg, Nassau, and Hesse. When the Province of Upper Canada was formed in 1791, the names of the four districts were changed to Eastern, Midland, Home, and Western, respectively. The Alternatives, which are located within the former Township of Bertie, fell within the Home District.

The preferred alternative (study area) is located within the former Home District, which originally included all lands between an arbitrary line on the west running from Long Point on Lake Erie to Georgian bay, and a line on the east running north from Presqu'ile Point on Lake Ontario to the Ottawa River. Each district was further subdivided into counties and townships by Colonel John Grave Simcoe, the first Lieutenant Governor of Upper Canada, with the study area originally falling within part of the County of Welland and the Township of Bertie.

Bertie Township

Bertie Township was first settled in the year 1784 by U. E. Loyalists and others from the American colonies, prior to the Toronto Purchase. The first recorded history of the Township of Bertie was on March 7, 1807 where the first Township meeting was held at Andrew Miller's Tavern (exploringniagara.com 2014). This meeting consisted of 30 individuals representing the families of the Township of Bertie. During the war of 1812-15, Bertie Township was the scene of many contests between the Canadians (British) and Americans (H.R. Page & Co., 1876).

By 1880, the Township consisted of three villages: Stevensville, Ridgeway and Victoria, all located along the major rail line. By 1885, the census indicates that there were 4,000 inhabitants of the Township. The primary means of living was farming as 971 acres of the township were orchards with another 4,100 acres of winter wheat (H.R. Page & Co., 1876).

Part Lot 7 Concession 4 from the Niagara River (Alternative 1)

To understand the history of Euro-Canadian settlement, earlier mapping was consulted. The 1862 Tremaine Illustrated Atlas and the 1876 H.R. Page & Co. show that Peter E. Miller owned the property where the study area is located (Map 3). While the 1862 map does not show any structures on the property, the 1876 map show what can be interpreted as a residence on the property, along with an orchard. This house and orchard are north of the study area. In the 1876 Atlas, Peter Miller is listed as a Farmer (H.R. Page & Co. 1876) (Map 4).

3.3 Archaeological Context

3.3.1 Archaeological Sites and Assessments

For an inventory of archaeological resources to be compiled, the registered archaeological site records kept by the MTCS were consulted. In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database maintained by the MTCS. This database contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 km east to west and approximately 18.5 km north to south. Each Borden block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The study areas are located within Borden block AfGr.

In accordance with Section 7.5.8, Standard 1 of the Standards and Guidelines, all registered or known archaeological sites within a minimum one-kilometre distance from the study area are to be listed. A search concluded that there are no registered archaeological sites, both aboriginal and Euro-Canadian, within a kilometre of the study area. To our knowledge, no previous archaeological fieldwork was carried out within the limits of, or immediately adjacent (within 50 metres) to the study area with the exception of the Stage 1 report completed by Parslow Heritage Consultancy on the property that concluded that Stage 2 is recommended for the entire study area (PHC 2019) (MTCS Section 7.5.8 Standard 4) (Map 5).

3.3.2 The Natural and Physical Environment

The study area is situated within the “Haldimand Clay Plain” physiographic region that spans the Niagara Peninsula, south of the Niagara Escarpment:

“Although it was all submerged in Lake Warren, the till is not all buried by stratified clay; it comes to the surface generally in low morainic ridges in the north. In fact, there is in that area a confused intermixture of stratified clay and till. The northern part has more relief than the southern part where the typically level lake plains occur” (Chapman and Putnam, 1984:156).

“The southeastern part of the peninsula might almost be considered as a separate subregion, characterized by levelness and poor drainage.

The main part of Welland county comprises heavy clay, while the lowest part of the plain lies in the southern portion of that country. Here the watershed is provided by the Onondaga cuesta, which, though quite low and lying close to the shore of Lake Erie, nevertheless forces the drainage to the north and east” (Chapman and Putnam, 1984: 157)

Examination of topographic maps has revealed that a ridge formation extends northeast, from Crystal Beach, immediately to the south of the study areas. The study areas are located on the gentle slopes that define the north and east sides of this formation. Miller Creek flows 169 metres north of the study area. A tributary of Miller Creek is depicted flowing 25 metres east of the study area on the Ministry of Natural Resources and Forestry Topographic Map. A review of contemporary aerial photography of the area suggests it may be a seasonal stream or an old stream bed, no longer active.

4. Field Methods

The Stage 2 property survey was conducted under archaeological consulting license P243 issued to Dr. Carla Parslow by the MTCS (P243-0411-2019). Field director duties were delegated to PHC senior archaeologist Mr. Adam Long (R1153). The field director delegated the responsibility of undertaking the archaeological fieldwork at the study area as per Section 12 of the MTCS 2013 *Terms and Conditions for Archaeological Licences*, issued in accordance with clause 48(4)(d) of the *Ontario Heritage Act*.

Fieldwork was conducted over 2 days, the conditions of which are included in Table 2. On both days' conditions were appropriate for proper identification and recovery of archaeological materials.

Table 2: Weather Conditions

Date	Temperature	Conditions
September 12 2019	Low 20s°C	Overcast and light drizzle
September 16 2019	High 20s°C	Partly sunny

As previously mentioned, the study area consists of mature forest, and scrubland; therefore, the area was subject to test pit survey at 5 m intervals, per MTCS Section 2.1.2. Standard 3 (2011). As can be seen in Map 6, areas immediately adjacent to Bridge St. and Pettit Rd. were disturbed due to previous ditch building activities (Image 4, 10). Disturbance was also found within southern portions of the study area, as well as along a gravel path that runs north-south beginning at approximately the midpoint of the study area (Image 3) – all of these regions have been clearly identified on the map, and test pitting was expanded to 10 m intervals in these regions until natural soil profiles were once again observed. A majority of the forested portion of the study area, as well as the scrubland area in the Northern portion of the study area is also seasonally low and wet (Images 5 and 6); these portions of the property were not subject to test pit survey.

All test pits were approximately 30 centimetres in diameter and excavated, where possible, to within the first five centimetres of subsoil and examined for stratigraphy, cultural features, or evidence of fill. All soil was screened through six millimetre mesh to facilitate the recovery of cultural material. All test pits were backfilled once screened. Images 1 and 2 photo document these activities. Cultural material was recovered from a total of 5 test pits located across the study area; each of these test pits was intensified around with eight additional test pits dug around them at a 2.5 m radius (Image 7), as per Section 2.1.3, Standard 2 of the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011). No archaeological material was recovered from within these intensified pits, however 1 m² test units were placed over the two most prolific positive test pits. These test units were excavated to subsoil, examined for stratigraphy, cultural features, or evidence of fill, and were then excavated at least 5 cm into subsoil. All soil fill was

screened through six millimetre mesh to facilitate the recovery of cultural material. Several additional artifacts were recovered from these units, this will be discussed further in the Record of Finds section.

The stratigraphy observed across the study area shows a topsoil layer consisting of a dark brown clay loam, between 12-34 cm in depth, followed by reddish brown clay subsoil (see Images 2, 8, and 9).

5. Record of Finds

The purpose of this section is to document all finds according to the standards (MTCS Section 7.8.2). An inventory of the documentary record generated by the property Inspection is provided in Table 3 (MTCS Section 7.8.2 Standard 2).

Table 3: Record of Documentation.

Document Type	Location of Document	Additional Comments	Quantity
Field Notes	PHC Office	Field notes, observation and photo log	2 pages, typed
Maps Provided by Client	PHC Office	In project file (Site Map)	1
Digital Photographs	PHC Office	Stored digitally in project file	24

Archaeological materials were collected from a total of 5 test pits, and 2 test units across the study area. Test unit 1 (see Image 8 for profile) was placed over test pit 14, while test unit 2 (see Image 9) was placed over test pit 45. See Table 4 below for a complete record of finds.

Pre-contact Lithics (Image 12)

A total of 5 pre-contact lithic flakes were recovered during the Stage 2 property assessment in test pits 7 (no. = 1) and 14 (no. = 3) as well as test unit 1 (no. = 1), excavated over test pit 14. These lithics were all made from Onondaga chert, a material with many abundant outcrops throughout the Niagara escarpment. The flakes recovered include two tertiary flakes, one secondary flake, and 2 pieces of shatter.

Historic Ceramics (Image 13)

A total of 12 pieces of historic ceramic were recovered during the stage 2 property assessment, consisting of 4 pieces of refined white earthenware, 6 pieces of ironstone, 1 piece of salt glazed stoneware, and 1 piece of coarse yellow earthenware.

Refined white earthenware is slightly porous, white-pasted earthenware with a near colourless glaze that replaced earlier near white ceramics, such as pearlware and creamware, by the early 1830s. First developed in 1805, this ware type declined considerably in popularity by the 1840s with the introduction of ironstone and vitrified white earthenware (Miller 2000:10, 13). Transfer printed RWE became popular quite early in the 19th century and involved the transfer of an intricate pattern from a sheet of treated paper to the unglazed surface of the clay vessel. Before 1830, almost all transfer printed wares were blue. After 1830, colours such

as light blue, black, brown, green, purple, and red became more common. The recovered pieces were decorated with blue and black suggesting a mid-19th century production date.

Ironstone is a type of whiteware introduced in the 1840s that became extremely popular in Upper Canada by the 1860s (Kenyon 1985). It is usually much thicker than other whitewares and is often decorated with raised moulded designs of wheat or fruit cast directly into the fabric of the vessel.

Coarse red and yellow earthenware vessels were manufactured throughout the late 18th and 19th centuries and were the most common utilitarian ware in the first half of the 19th century, eventually being replaced by more durable stoneware vessels such as salt glazed earthenware in the latter 19th-early 20th century.

Glass (Household) (Image 14)

A total of 3 pieces of glass were recovered from the study area, 2 shards of clear window glass and 1 shard of olive bottle glass. None of the pieces were marked in any way that could aid in further identification.

Nails (Construction) (Image 14)

One wire drawn nail was recovered from Test Pit 7. Unlike earlier machine cut nails, which are flat headed, wire drawn nails have a rounded head and first went into production around 1900.

Table 4: Artifacts recovered during Stage 2 assessment

Cat #	Source	Depth (cm)	Artifact Class	Frequency	Attributes
1	TU2	0-24	Ceramic – refined white earthenware	1	Transferprint, black, scalloped edge
2	TU1	0-17	Glass – window glass	1	Glass, clear window
3	TU1	0-17	Pre-contact - Lithic	1	Onondaga, tertiary flake
4	TP25		Ceramic – coarse yellow earthenware	1	Coarse Earthenware, yellow (broken into two pcs.)
5	TP7		Glass – window glass	1	Glass, clear window
6	TP7		Metal - nail	1	Nail, wire
7	TP7		Pre-contact - Lithic	1	Onondaga, 1 tertiary
8	TP7		Ceramic – refined white earthenware	1	Transferprint, blue
9	TP14		Pre-contact - Lithic	3	Onondaga, 1 secondary, 2 shatter
10	TP20		Ceramic – refined white earthenware	2	1 plain, 1 edged blue
11	TP45		Ceramic – salt glazed stoneware	1	Stoneware, salt glazed
12	TP45		Ceramic - Ironstone	6	Stoneware, plain
13	TP45		Glass – bottle glass	1	olive bottle glass

6. Analysis and Conclusion

6.1 Analysis and Conclusion

While archaeological materials were recovered from the study area, their low frequency and wide distribution across the study area (see Supplementary Documentation) do not meet requirements for further work under Section 2.2 Standards 1 and 2 of the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011).

Further, the dates of the ceramic types recovered indicate a late 19th-early 20th century range, potentially related to the farming activities of the landowner Peter Miller that was identified just north of the study area on the 1876 *Historical Atlas*. As stated in the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011), and *Rural Historical Farmsteads Bulletin* (MTCS 2014), only domestic archaeological sites where 80% of the occupation pre-dates 1870 are considered to hold CHVI and require Stage 3 work. The material collected during this property assessment suggests a post-1870 occupation of the area; therefore, it does not hold any further cultural heritage value or interest and is no longer of any archaeological concern.

7. Recommendations

Based on the findings of this Stage 2 assessment, it is determined that the study area does not hold any further cultural heritage value or interest under S& G Section 2.2, Standards 1 and 2 (MTCS, 2011) and is free of any further archaeological concern.

It is requested that this report be entered into the Ontario Public Register of Archaeological Reports, as provided for in Section 65.1 of the Ontario Heritage Act.

STUDY LIMITATIONS: All information, recommendations and opinions provided 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 the Client's or PHC's express written consent. 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. Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study, if any, comply with those identified in the Ministry of Tourism, Culture and Sport's 2011 Standards and Guidelines for Consultant Archaeologists.

8. Advice on Compliance with Legislation

Advice on the compliance with legislation is not part of the archaeological record. However, for the benefit of the proponent and approval authority in the land use planning and development process, the report must include the following standard statements:

- ▶ This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c O.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 Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regards 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 licenced 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 licenced archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating 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 representative of a new archaeological site or sites 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 or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

As per MTCS *Standards and Guidelines* (MTCS 2011, Section 7.5.9 Standard 2):

- ▶ Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

9. References

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10. Images



Image 1: Test pit survey at edge of forested area. Facing North.



Image 2: Typical test pit profile. North is to the right.



Image 3: Disturbed gravel path running though property. Facing north.



Image 4: Ditch along Bridge St. Facing West.



Image 5: Seasonally low and wet area typical of forested region. Facing North.



Image 6: Seasonally low and wet area in northern portion of scrubland. Facing North.



Image 7: Excavation of test pits at 2.5m from positive TP45. Facing South.



Image 8: North profile of Test Unit 1 (over TP 14). Facing North.



Image 9: North profile of Test Unit 2 (Over TP 45). Facing North.



Image 10: Bell phone box and remnants of old driveway onto property. Facing East.



Image 11: Excavation of Test Unit 2 (over TP 45). Facing South.



Image 12: Lithics recovered from Test Pit 14 and Test Unit 1.

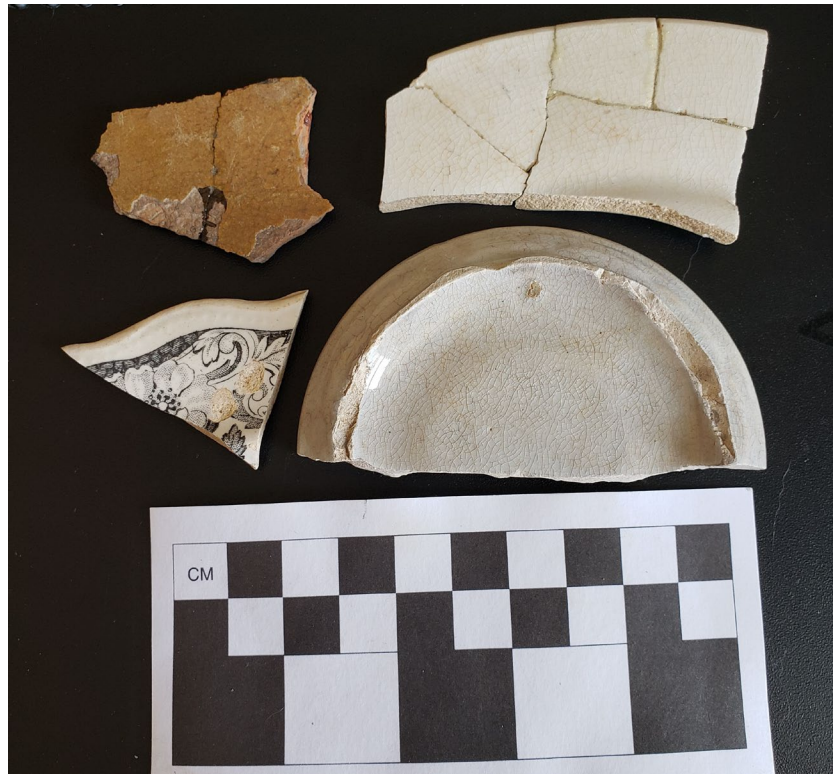


Image 13: Historic Ceramics from Test Pits 25 and 45 as well as Test Unit 2.

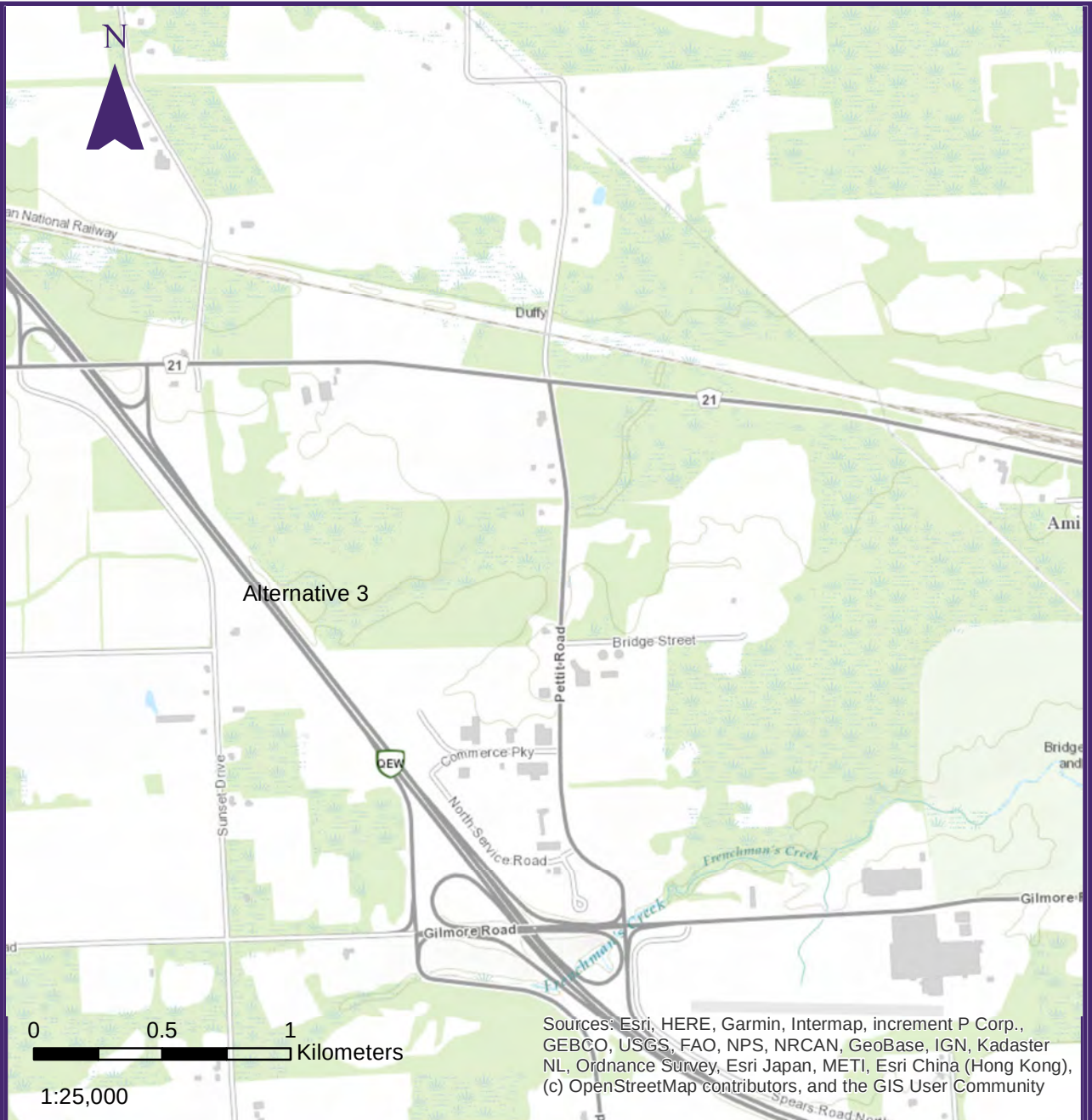


Image 14: Historic Glass and Ceramics from Test Pits 7 and 45 as well as Test Unit 1.

11. Maps

All maps on succeeding pages.

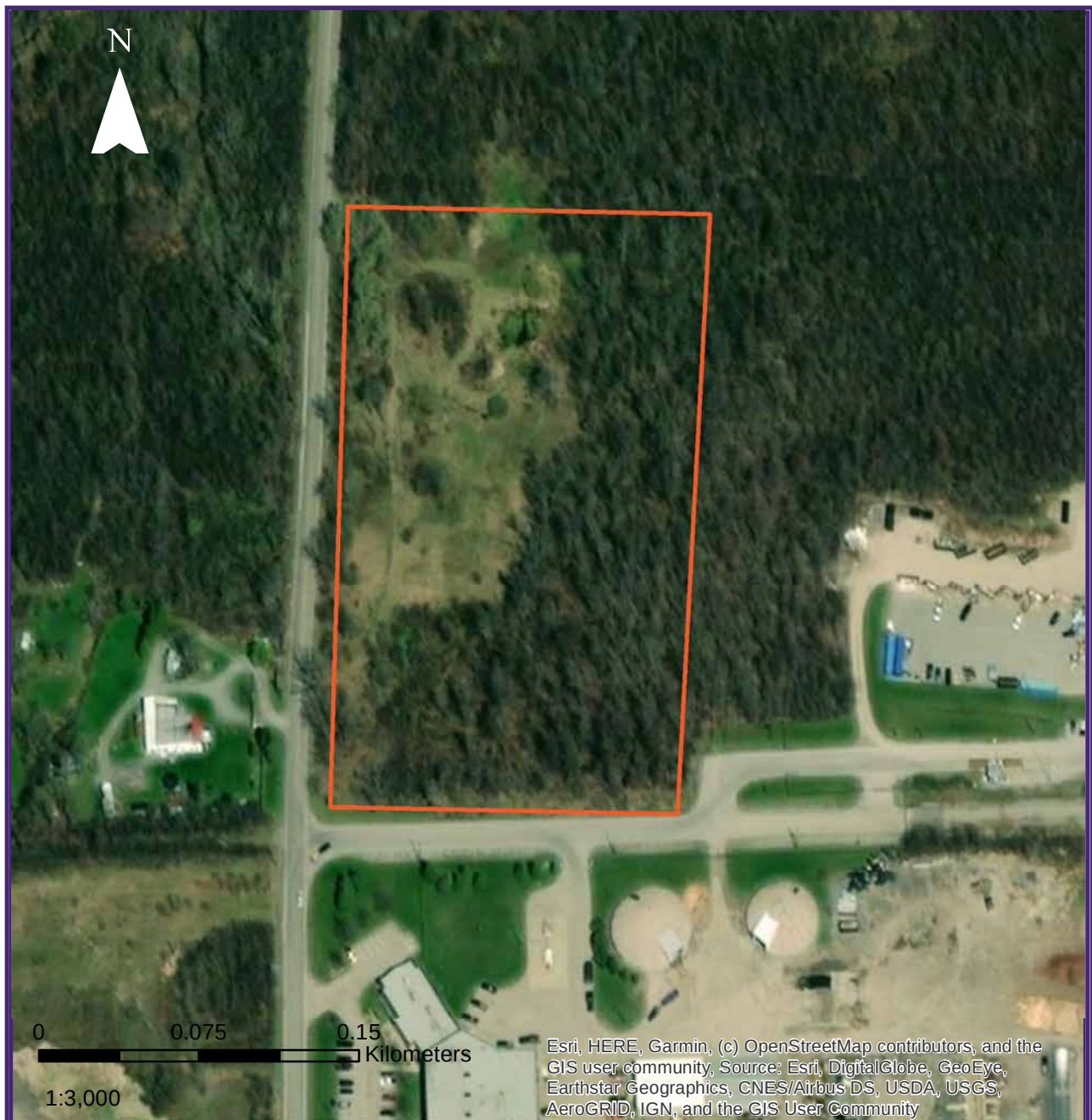
Map 1 - Preferred Alternative on Topographic Map



Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 2 Archaeological Assessment



Map 2 - Preferred Alternative on Aerial Image



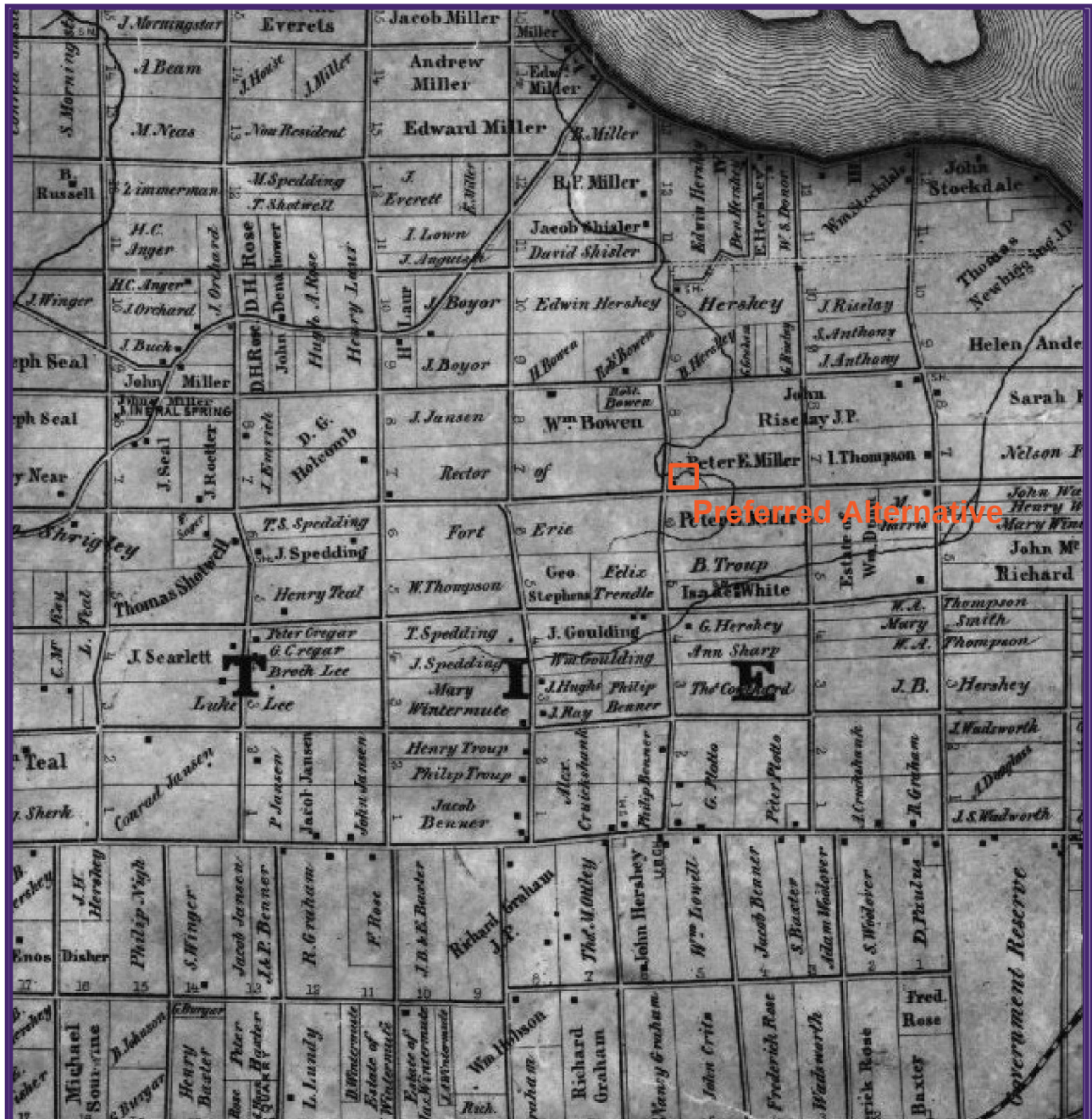
Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 2 Archaeological Assessment

Legend

— Preferred Alternative



Map 3 - Preferred Alternative on 1862 Historic Atlas



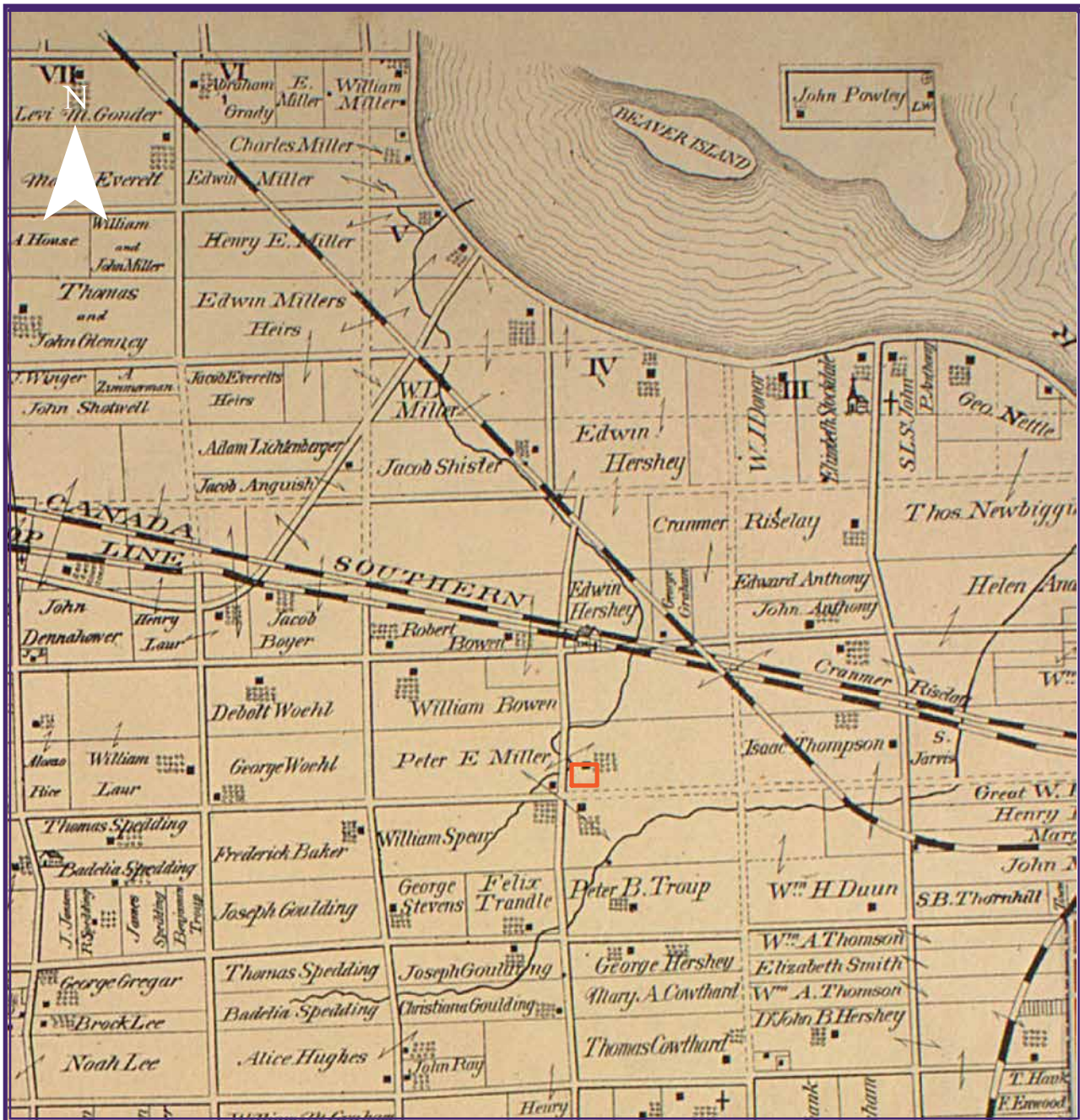
Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 2 Archaeological Assessment

Legend

— Preferred Alternative



Map 4 - Preferred Alternative on 1876 Historic Atlas



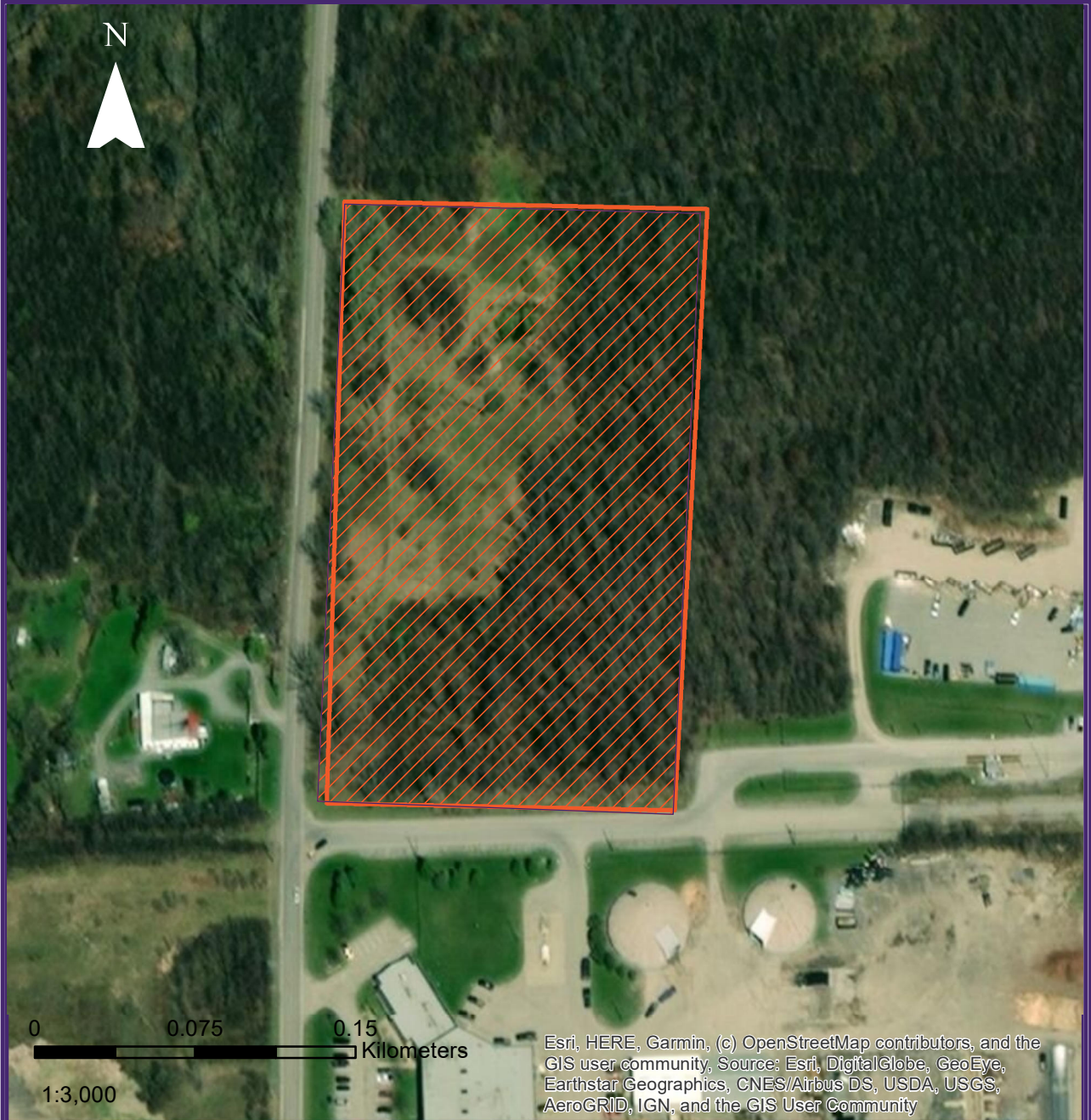
Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 2 Archaeological Assessment

Legend

— Alternative



Map 5 - Stage 1 Recommendation for Preferred Alternative



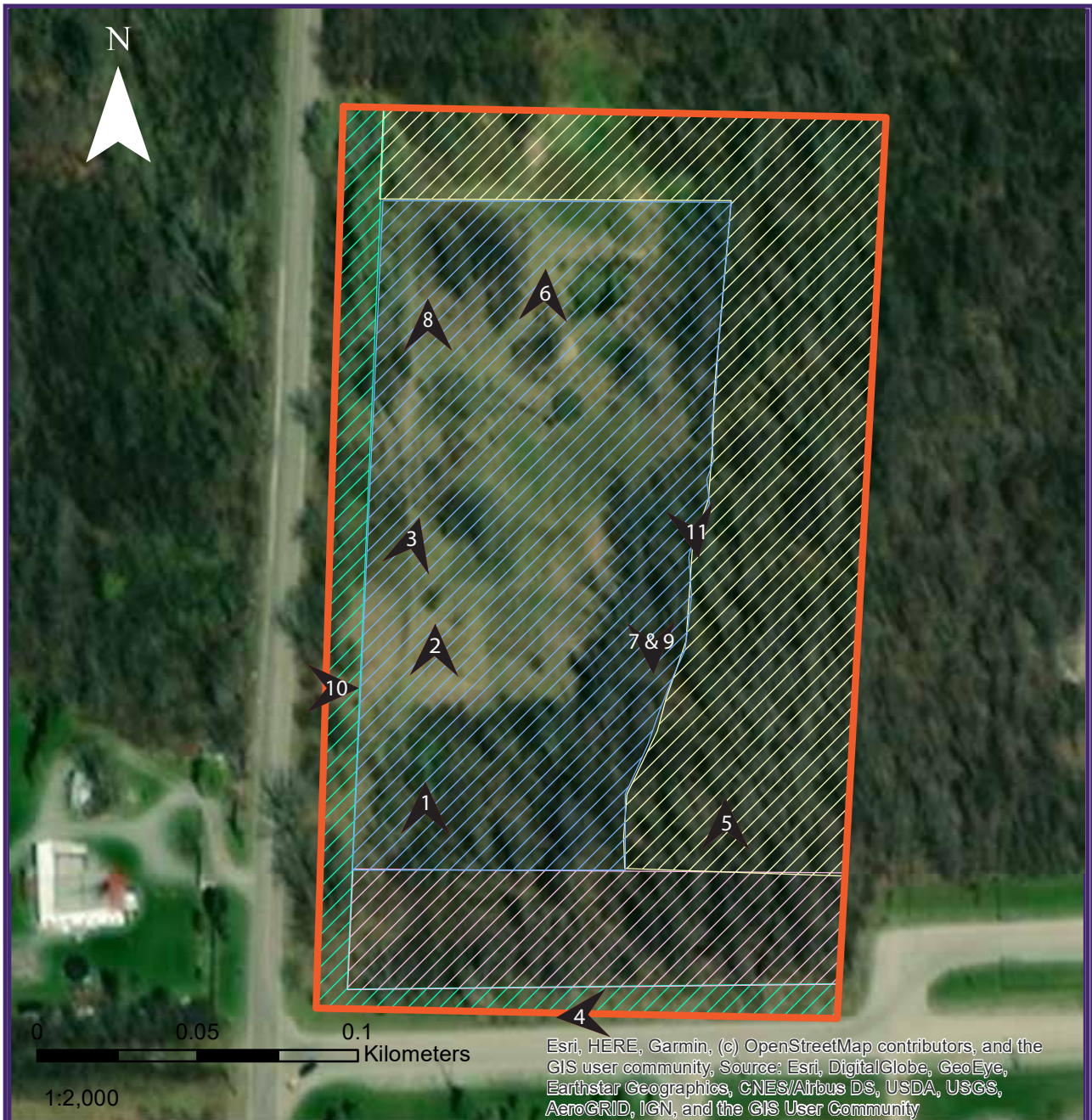
Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 2 Archaeological Assessment

Legend

-  Archaeological Potential - Stage 2 Property Survey Recommended
-  Preferred Alternative



Map 6 - Stage 2 Methods and Photo Directions



Fort Erie Elevated Tank Municipal Class Environmental Assessment Stage 2 Archaeological Assessment

Legend

- Preferred Alternative
- ▨ Test_Pit_Survey_at_5m_Intervals
- ▨ Not_Tested_Low_and_Wet
- ▨ Test_Pit_Survey_at_10m_Intervals
- ▨ Not_Tested_Disturbed_Ditch
- Photo_Number_and_Direction



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