

Stage 1-2 Archaeological Assessment 97 Gorham Road, Fort Erie

Part of Lot 25, Concession 1 Lake Erie
Geographic Township of Bertie,
in the Town of Fort Erie, Historical Welland County
Now Regional Municipality of Niagara, Ontario

Submitted to:
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and

Ontario's Ministry of Heritage, Sport, Tourism and Culture Industries

Submitted by:



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ORIGINAL REPORT

April 15, 2020

Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by Mr. Greg Hynde ('the Proponent') to conduct a Stage 1-2 archaeological assessment on part of Lot 25, Concession 1 Lake Erie, Geographic Township of Bertie, in the Town of Fort Erie, historical Welland County, now Regional Municipality of Niagara, Ontario (Figure 1). The assessment was conducted in advance of the construction of a proposed 74-unit apartment building located at 97 Gorham Road, Fort Erie (the 'Study Area'; Figure 3). The Study Area, known as Ridge Garden Apartments, is a square multi-residential lot measuring 0.65 hectares (ha). At the time of assessment, the Study Area comprised a house with a pool; a wooden deck; two multi-unit apartment buildings; two asphalt laneways and various parking areas; various concrete sidewalks; three sheds; various landscaped gardens; a gravel patio, and a landscaped garden with an artificial pond, which are surrounded by manicured lawn with trees throughout.

The assessment was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet this condition, a Stage 1-2 assessment of the Study Area was conducted during the pre-approval phase of development under archaeological consulting license P389 issued to Dr. Walter McCall by the Ministry of Heritage, Sport, Tourism and Culture Industries ('MHSTCI') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario 1990b) and the MHSTCI's *Standards and Guidelines for Consultant Archaeologists* ('Standards and Guidelines'; Government of Ontario 2011).

The Stage 1 background research indicated that the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources. Therefore, a Stage 2 assessment was recommended for the manicured lawn with trees throughout the Study Area (Figure 3). The house with the pool; the wooden deck; the two multi-unit apartment buildings; the two asphalt laneways and various parking areas; the various concrete sidewalks; the three sheds; the various landscaped gardens with mature trees; the gravel patio, and the landscaped garden with an artificial pond, were evaluated as having no potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources, as per Section 2.1, Standard 2b of the *Standards and Guidelines* (Government of Ontario 2011). These areas of disturbance, as confirmed during the Stage 2 field survey, were mapped and photo documented in accordance with Section 2.1, Standard 6 and Section 7.8.1, Standard 1b of the *Standards and Guidelines* (Government of Ontario 2011).

The Stage 2 field assessment was conducted on March 25 and April 14, 2020. This investigation consisted of a typical test pit survey at 5 metre (m) intervals across the manicured lawn component of the Study Area, which was unable to be ploughed. Furthermore, the large landscaped garden with the artificial pond, and the gravel patio to the southeast of the shed in the centre of the Study Area were over 5m wide and therefore test pits were placed adjacent on all sides to test the area as per Section 2.1.2 Guideline 1 of the *Standards and Guidelines* (Government of Ontario 2011). Additionally, the various small landscaped gardens and sidewalks throughout the Study Area did not affect the test pit intervals of 5m. The assessment resulted in the identification and documentation of no archaeological resources. No archaeological resources were documented during the Stage 2 assessment of the Study Area therefore, **no further archaeological assessment is required for the Study Area.**

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

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Acknowledgments

Generous contributions by the following individual made this report possible.

- Mr. Greg Hynde

1.0 Project Context

1.1 Development Context

Detritus Consulting Ltd. ('Detritus') was retained by Mr. Greg Hynde ('the Proponent') to conduct a Stage 1-2 archaeological assessment on part of Lot 25, Concession 1 Lake Erie, Geographic Township of Bertie, in the Town of Fort Erie, historical Welland County, now Regional Municipality of Niagara, Ontario (Figure 1). The assessment was conducted in advance of the construction of a proposed 74-unit apartment building located at 97 Gorham Road, Fort Erie (the 'Study Area'; Figure 3).

The assessment was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet this condition, a Stage 1-2 assessment of the Study Area was conducted during the pre-approval phase of development under archaeological consulting license P389 issued to Dr. Walter McCall by the Ministry of Heritage, Sport, Tourism and Culture Industries ('MHSTCI') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario 1990b) and the MHSTCI's *Standards and Guidelines for Consultant Archaeologists* ('Standards and Guidelines'; Government of Ontario 2011).

The purpose of a Stage 1 Background Study is to compile all available information about the known and potential archaeological heritage resources within the Study Area and to provide specific direction for the protection, management and/or recovery of these resources. In compliance with the *Standards and Guidelines* (Government of Ontario 2011), the objectives of the following Stage 1 assessment are as follows:

- To provide information about the Study Area's geography, history, previous archaeological fieldwork and current land conditions;
- to evaluate in detail, the Study Area's archaeological potential which will support recommendations for Stage 2 survey for all or parts of the property; and
- to recommend appropriate strategies for Stage 2 survey.

To meet these objectives Detritus archaeologists employed the following research strategies:

- A review of relevant archaeological, historic and environmental literature pertaining to the Study Area;
- a review of the land use history, including pertinent historic maps; and
- an examination of the Ontario Archaeological Sites Database ('ASDB') to determine the presence of known archaeological sites in and around the Study Area.

The purpose of a Stage 2 Property Assessment is to provide an overview of any archaeological resources within the Study Area; to determine whether any of the resources might be archaeological sites with cultural heritage value or interest ('CHVI'); and to provide specific direction for the protection, management and/or recovery of these resources. In compliance with the *Standards and Guidelines* (Government of Ontario 2011), the objectives of the following Stage 2 assessment are as follows:

- To document all archaeological resources within the Study Area;
- to determine whether the Study Area contains archaeological resources requiring further assessment; and
- to recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

The licensee received permission from the Proponent to enter the land and conduct all required archaeological fieldwork activities, including the recovery of artifacts.

1.2 Historical Context

1.2.1 Post-Contact Aboriginal Resources

Prior to the arrival of European settlers, the Niagara region was occupied by the Neutral, or Attawandaron tribe. The earliest recorded visit was undertaken by Étienne Brûlé, an interpreter and guide for Samuel de Champlain. In June 1610, Brûlé requested permission to live among the Algonquin people and to learn their language and customs. In return, Champlain agreed to take on a young Huron named Savignon and to teach him the language and customs of the French. The purpose of this endeavour was to establish good relations with Aboriginal communities in advance of future military and colonial enterprises in the area. In 1615, Brûlé joined twelve Huron warriors on a mission to cross enemy territory and seek out the Andaste people, allies of the Huron, to ask for their assistance in an expedition being planned by Champlain. The mission was a success, but took much longer than anticipated. Brûlé returned with the Andaste two days too late to help Champlain and the Hurons, who had already been defeated by the Iroquois (Heidenreich 1990).

Throughout the middle of the 17th century, the Iroquois of the Five Nations sought to expand upon their territory and to monopolise the local fur trade as well as trade between the European markets and the tribes of the western Great Lakes. A series of bloody conflicts followed known as the Beaver Wars, or the French and Iroquois Wars, were contested between the Iroquois and the French with their Huron and other Algonquian speaking allies of the Great Lakes region. Many communities were destroyed including the Huron, Neutral, Erie, Susquehannock, and Shawnee leaving the Iroquois as the dominant group in the region. By 1653 after repeated attacks, the Niagara peninsula and most of Southern Ontario had been vacated. By 1667, all members of the Five Nations had signed a peace treaty with the French and allowed their missionaries to visit their villages (Heidenreich 1990).

Ten years later, hostilities between the French and the Iroquois resumed after the latter formed an alliance with the British through an agreement known as the Covenant Chain (Heidenreich 1990). In 1696, an aging Louis de Buade, Comte de Frontenac et de Palluau, the Governor General of New France, rallied the Algonquin forces and drove the Iroquois out of the territories north of Lake Erie, as well as those to the west of present-day Cleveland, Ohio. A second treaty was concluded between the French and the Iroquois in 1701, after which the Iroquois remained mostly neutral (Jamieson 1992; Noble 1978).

Throughout the late 17th and early 18th centuries, various Iroquoian-speaking communities had been migrating into southern Ontario from New York State. In 1722, the Five Nations adopted the Tuscarora in New York becoming the Six Nations (Pendergast 1995). This period also marks the arrival of the Mississaugas into Southern Ontario and, in particular, the watersheds of the lower Great Lakes (Konrad 1981; Schmalz 1991). The oral traditions of the Mississaugas, as told by Chief Robert Paudash suggest that the Mississaugas defeated the Mohawk nation, who retreated to their homeland south of Lake Ontario. Following this conflict, a peace treaty was negotiated and, at the end of the 17th century, the Mississaugas settled permanently in Southern Ontario (Praxis Research Associates n.d.). Around this same time, members of the Three Fires Confederacy (Chippewa, Ottawa, and Potawatomi) began immigrating from Ohio and Michigan into southwestern Ontario (Feest and Feest 1978).

The Study Area first entered the record as a result of Treaty No. 3, which...

...was made with the Mississaugas Indians 7th December, 1792, though purchased as early as 1784. This purchase in 1784 was to procure for that part of the Six Nation Indians coming into Canada a permanent abode. The area included in this Treaty is, Lincoln County excepting Niagara Township; Saltfleet, Binbrook, Barton, Glanford and Ancaster Townships, in Wentworth County; Brantford, Onondaga, Tuscarora, Oakland and Burford Townships in Brant County; East and West Oxford, North and South Norwich, and Dereham Townships in Oxford County; North Dorchester Township in Middlesex County; South Dorchester, Malahide and Bayham Township in Elgin County; all Norfolk

and Haldimand Counties; Pelham, Wainfleet, Thorold, Cumberland and Humberstone Townships in Welland County.

Morris 1943:17-18

The size and nature of the pre-contact settlements and the subsequent spread and distribution of Aboriginal material culture in Southern Ontario began to shift with the establishment of European settlers. Lands in the Lower Grand River area were surrendered by the Six Nations to the British Government in 1832, at which point most Six Nations people moved into Tuscarora Township in Brant County and a narrow portion of Oneida Township (Page & Co. 1879; Tanner 1987; Weaver 1978). Despite the inevitable encroachment of European settlers on previously established Aboriginal territories, “written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought” (Ferris 2009:114). As Ferris observes, despite the arrival of a competing culture, First Nations communities throughout Southern Ontario have left behind archaeologically significant resources that demonstrate continuity with their pre-contact predecessors, even if they have not been recorded extensively in historical Euro-Canadian documentation.

1.2.2 Euro-Canadian Resources

The current Study Area is located in the Geographic Township of Bertie, in the Town of Fort Erie, historical Welland County, now Regional Municipality of Niagara, Ontario.

Following the Treaty of Paris of 1763, which ended the Seven Years War, Canada was transferred from France to Britain becoming the Province of Québec. On July 24, 1788, Sir Guy Carleton, the Governor-General of British North America, divided the Province of Québec into the administrative districts of Hesse, Nassau, Mecklenburg and Lunenburg (Archives of Ontario 2012-2015). Further change came in December 1791 when the Province of Québec was rearranged into Upper Canada and Lower Canada under the Constitutional Act. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada; he initiated several initiatives to populate the province including the establishment of shoreline communities with effective transportation links between them (Coyne 1895).

In July 1792, Simcoe divided Upper Canada into 19 counties, including Lincoln County, stretching from Essex in the west to Glengarry in the east. Later that year, the four districts originally established in 1788 were renamed as the Western, Home, Midland and Eastern Districts. As population levels in Upper Canada increased, smaller and more manageable administrative bodies were needed resulting in the establishment of many new counties and townships. As part of this realignment, the boundaries of the Home and Western Districts were shifted and the London and Niagara Districts were established. Under this new territorial arrangement, the Study Area became part of Lincoln County in the Niagara District (Archives of Ontario 2012-2015).

Settlement within future Bertie Township began in 1764, immediately following the end of the Seven Years War. To help defend his newly acquired territory, King George III built a series of military forts along the Niagara River. Fort Erie was the first to be constructed, and represents earliest permanent British Army Fort in Ontario. The Military Reserve around the fort was also set aside by the Crown at that time to demarcate the ordinance boundary for the garrison stationed there (Bradford 1988).

During the American Revolutionary War, contested between 1775 and 1783, Fort Erie was used as a supply depot for British troops. In 1784, following the conflict, the land around the fort, later designated as the Town of Fort Erie, was granted to members of the disbanded Butler’s Rangers. A number of Loyalist settlements emerged including the village of Ridgeway, which was named after the limestone ridge that passes through it from north to south (Niagara Parks 2020).

The earliest roads throughout the township followed existing Aboriginal trails along the river and along the Onondaga Escarpment. Lakeshore Road connected Fort Erie and its occupants to growing community around it. The first survey of Bertie Township was completed in 1789 by Amos Chapman, who referred to the area as ‘Quaker Township’; the name Bertie was not used

until 1793 (ASI 2003). Settlers continued to arrive throughout the remainder of the 18th and early 19th centuries, attracted by the fertile soil throughout the township, which was suitable for growing barley, wheat, oats amongst other crops (Niagara Parks 2020). In 1808, approximately 40 homes were located throughout the township. By 1812, the township boasted several mills, schools, and churches. Stevensville was the largest community at that time (ASI 2003).

Following the winter of 1803, a new stone fort was constructed inland from the site of the original Fort Erie, which was made of wood and susceptible to ice damage. This new fort remained incomplete at the start of the War of 1812. American troops captured it on two occasions during the conflict. In 1814, following a long, protracted siege by British forces, the Americans destroyed the fort before retreating back to Buffalo (Niagara Parks 2020).

In 1845, after years of increasing settlement that began after the War of 1812, the southern portion of Lincoln County was severed to form Welland County (the two counties would be amalgamated once again in 1970 to form the Regional Municipality of Niagara).

In 1850, Bertie was officially incorporated as a township. By this time, the township, and in particular Bertie Hall, had become a major stopping point for the underground railroad (Calarco *et al* 2011). Later, on June 2, 1866, between 1,000 and 1,350 Irish-American invaders known as the Fenians crossed the Niagara River and defeated the local militia at the Battle of Ridgeway. The next day, as they were withdrawing back to America, the Fenian raiders met with another small force of Canadian volunteers and defeated them at the Battle of Fort Erie. Eventually, the Fenians retired back across the river and surrendered to American authorities. This conflict was the largest engagement of the Fenian raids and the only armed victory for the Irish during their battle for Irish Independence between 1798 and 1919 (Niagara Parks 2020).

Much of the development of Bertie Township during the second half of the 19th century can be attributed to the advancement of the railroad. In the 1850s, Ridgeway received an arm of the Buffalo, Brantford and Goderich Railway, the earliest railway to be built in southwestern Ontario. Later, in 1873, the Grand Trunk Railway built the International Railway Bridge, resulting in large population increases throughout the township and the establishment of a new town just north of the original settlement of Fort Erie. This town was originally called Victoria, but would later be renamed Bridgeburg. By 1876, Victoria had three railway stations (Scrimgeour 1990). The population of Fort Erie, meanwhile, had reached approximately 1,200 and the village of Ridgeway, 800. A decade later the population of Fort Erie had climbed to around 4,000 while Victoria boasted nearly 700 residents. Ridgeway, conversely, experienced a slight decrease in its growth, with a population of around 600 at that time. The following year witnessed the opening of a new amusement park at Crystal Beach. The park remained active for just over a century before closing its doors in 1989. In 1970, Bertie Township amalgamated with Fort Erie and Crystal Beach to form the Town of Fort Erie (Niagara Parks 2020).

The *Illustrated Historical Atlas of the Counties of Lincoln and Welland* ('*Historical Atlas*'), demonstrates the extent to which Bertie Township had been settled by 1876 (Page & Co 1876; Figure 2). Landowners are listed for every lot within the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19th century. Structures and orchards are prevalent throughout the township, almost all of which front early roads an especially the Niagara River and Lake Erie.

According to the *Historical Atlas* map of Bertie Township, Lot 25, Concession 1 Lake Erie was owned by James J. Moore in 1876. A structure and an orchard are illustrated on Mr. Moore's property to the north of the Study Area. A road, now known as Farr Ave, is illustrated transecting the southern half of Mr. Moore's lot, and the Grand Trunk Railway the northern half. Furthermore, the town of Ridgeway is visible to the northeast of the Study Area. Additionally, the Canada Southern Railway and the Glencoe Loop Line are illustrated to the northeast of Ridgeway.

Significant and detailed landowner information is available on the current *Historical Atlas* map of Bertie Township (Page & Co 1876; Figure 2), however, it should be recognized that historical county atlases were funded by subscriptions fees and were produced primarily to identify factories, offices, residences and landholdings of subscribers. Landowners who did not subscribe were not always listed on the maps (Caston 1997). Moreover, associated structures were not necessarily depicted or placed accurately (Gentilcore and Head 1984).

1.3 Archaeological Context

1.3.1 Property Description and Physical Setting

The Study Area is a square multi-residential lot measuring 0.65 hectares (ha). At the time of assessment, the Study Area, known as Ridge Garden Apartments, comprised a house with a pool; a wooden deck; two multi-unit apartment buildings; two asphalt laneways and various parking areas; various concrete sidewalks; three sheds; various landscaped gardens with mature trees; a gravel patio, and a landscaped garden with an artificial pond, which are surrounded by manicured lawn with trees throughout. The majority of the region surrounding the Study Area has been subject to European-style agricultural practices for over 100 years, having been settled by Euro-Canadian farmers by the late 19th century. Much of the region today continues to be used for agricultural and viticultural purposes.

The Niagara Region as a whole is located within the Deciduous Forest Region of Canada, and contains tree species that are typical of the more northern Great Lakes-St. Lawrence Biotic zone, such as beech, sugar maple, white elm, basswood, white oak and butternut (MacDonald & Cooper 1997). During pre-contact and early contact times, the land in the vicinity of the Study Area comprised a mixture of hardwood trees such as sugar maple, beech, oak and cherry. This pattern of forest cover is characteristic of areas of clay soil within the Maple-Hemlock Section of the Great Lakes-St. Lawrence Forest Province-Cool Temperate Division (McAndrews and Manville 1987). In the early 19th, Euro-Canadian settlers began to clear the forests for agricultural purposes.

The Study Area is situated within the Haldimand Clay Plain. According to Chapman and Putnam

...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

Haldimand clay is slowly permeable, imperfectly drained with medium to high water-holding capacities. Surface runoff is usually rapid, but water retention of the clayey soils can cause it to be droughty during dry periods (Kingston and Present 1989). The soil is suitable for corn and soy beans in rotation with cereal grains as well as alfalfa and clover (Huffman and Dumanski 1986).

The closest source of potable water is a tributary of Lake Erie, which is located 872 metres (m) to the northeast of the Study Area.

1.3.2 Pre-Contact Aboriginal Land Use

This portion of southwestern Ontario has been demonstrated to have been occupied by people as far back as 11,000 years ago as the glaciers retreated. For the majority of this time, people were practicing hunter gatherer lifestyles with a gradual move towards more extensive farming practices. Table 1 provides a general outline of the cultural chronology of Bertie Township, based on Ellis and Ferris (1990).

Table 1: Cultural Chronology for Bertie Township

Time Period	Cultural Period	Comments
9500 – 7000 BC	Paleo Indian	first human occupation hunters of caribou and other extinct Pleistocene game nomadic, small band society
7500 - 1000 BC	Archaic	ceremonial burials increasing trade network hunter gatherers
1000 - 400 BC	Early Woodland	large and small camps spring congregation/fall dispersal introduction of pottery
400 BC – AD 800	Middle Woodland	kinship based political system incipient horticulture long distance trade network
AD 800 - 1300	Early Iroquoian (Late Woodland)	limited agriculture developing hamlets and villages
AD 1300 - 1400	Middle Iroquoian (Late Woodland)	shift to agriculture complete increasing political complexity large palisaded villages
AD 1400 - 1650	Late Iroquoian	regional warfare and political/tribal alliances destruction of Huron and Neutral

1.3.3 Previous Identified Archaeological Work

In order to compile an inventory of archaeological resources, the registered archaeological site records kept by the MHSTCI were consulted. In Ontario, information concerning archaeological sites stored in the ASDB (Government of Ontario n.d.) is maintained by the MHSTCI. 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 kilometres (km) east to west and approximately 18.5km 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 Area under review is situated within Borden Block AfGs.

Information concerning specific site locations is protected by provincial policy, and is not fully subject to the *Freedom of Information and Protection of Privacy Act*. The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MHSTCI will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

According to the ASDB, ten archaeological sites have been registered within a 1km radius of the Study Area (Table 2). Of the ten sites, seven are identified as pre-contact Aboriginal sites, three dating to the Archaic period. Additionally, two sites are identified as Euro-Canadian and one as multi-component.

Table 2: Registered Archaeological Sites within 1km of the Study Area

Borden Number	Site Name	Time Period	Affinity	Site Type
AfGs-97	-	Pre-Contact	Aboriginal	scatter
AfGs-110	Wood Tick Ridge	Archaic, Middle	Aboriginal	camp/campsite
AfGs-129	-	Pre-Contact	Aboriginal	findspot
AfGs-130	-	Post-Contact, Pre-Contact	Aboriginal, Euro-Canadian	findspot, midden
AfGs-131	-	Pre-Contact	Aboriginal	unknown
AfGs-132	-	Post-Contact	Euro-Canadian	midden
AfGs-134	-	Post-Contact	Euro-Canadian	farmstead
AfGs-136	Lot 34 Site	Archaic, Late	Aboriginal	camp / campsite
AfGs-137	Block 80	Archaic, Middle	Aboriginal	camp / campsite
AfGs-141	-	Pre-Contact	Aboriginal	scatter

To the best of Detritus' knowledge, no assessments have been conducted adjacent to the Study Area, and no sites are registered within 50m of the Study Area.

1.3.4 Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Detritus applied archaeological potential criteria commonly used by the MHSTCI (Government of Ontario 2011) to determine areas of archaeological potential within Study Area. These variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography, and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect sites locations and types to varying degrees. The MHSTCI (Government of Ontario 2011) categorizes water sources in the following manner:

- Primary water sources: lakes, rivers, streams, creeks;
- secondary water sources: intermittent streams and creeks, springs, marshes and swamps;
- past water sources: glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes; and
- accessible or inaccessible shorelines: high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

As was discussed above, the closest source of potable water is a tributary of Lake Erie, which is located 872m to the northeast of the Study Area.

Soil texture can also be an important determinant of past settlement, usually in combination with other factors such as topography. The primary soils within the area have been documented as being well suited for corn and soy beans in rotation with cereal grains as well as alfalfa and clover (Huffman and Dumanski 1986) making them suitable for pre-contact and post-contact agriculture in the Niagara Region. Considering also the length of occupation of Bertie Township prior to the arrival of Euro-Canadian settlers, as evidenced by the seven pre-contact Aboriginal

sites and one multi-component site within 1km of the Study Area producing pre-contact artifacts, and the potential for pre-contact and post-contact Aboriginal archaeological material culture is judged to be moderate to high.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario 1990b); or properties that local histories or informants have identified with possible historical events.

The *Historical Atlas* (Page & Co 1876; Figure 2) map of Bertie Township shows the Study Area in close proximity to historical roads, and the early community of Ridgeway and the Grand Trunk Railway. Furthermore, the Town of Fort Erie's Official Plan (ASI 2003) was consulted and it was determined that the Study Area is located within an area retaining Archaeological Potential. Considering these factors, the potential for post-contact Euro-Canadian archaeological resources is judged to be moderate to high.

Finally, despite the factors mentioned above, extensive land disturbance can eradicate archaeological potential within a Study Area, as outlined in Section 1.3.2 of the *Standards and Guidelines* (Government of Ontario 2011). Current aerial imagery of the Study Area identified a number of potential disturbance areas within the Study Area in the form of a house with a pool; a two multi-unit apartment buildings; two asphalt laneways and various parking areas; various concrete sidewalks; two sheds; various landscaped gardens with mature trees; a gravel patio, and a landscaped garden with an artificial pond (see Section 1.3.1 above). As per Section 2.1.8 of the *Standards and Guidelines* (Government of Ontario 2011), it is recommended that these areas be subject to a Stage 2 property inspection to confirm and document the disturbed areas.

2.0 Field Methods

The Stage 2 assessment of the Study Area was conducted on March 25 and April 14, 2020 under archaeological consulting license P389 issued to Dr. Walter McCall by the MHSTCI (P389-0478-2020). The limits of the Study Area were surveyed and marked with coloured wooden stakes by the Proponent prior to the assessment.

The weather during the assessment was overcast and 7 °C; the soil was dry and screened easily. Assessment conditions were excellent and at no time were the field, weather, or lighting conditions detrimental to the recovery of archaeological material. Photos 1 to 17 demonstrate the land conditions at the time of the survey throughout the Study Area. Figure 3 illustrates the field assessment methods used across the Study Area, including photo locations and directions.

Approximately 60% of the Study Area comprised manicured lawn with trees throughout, which was inaccessible for ploughing; these areas were subject to a test pit survey at 5m intervals in accordance with Section 2.1.2 of the *Standards and Guidelines* (Government of Ontario 2011; Photos 1 to 17). Test pits were excavated to within 1m of all standing structures or until test pits showed evidence of recent ground disturbance as per Standard 4 of this section. Furthermore, the large landscaped garden and brick patio to the southeast of the shed were over 5m wide and therefore test pits were placed adjacent on all sides of these areas to test the area as per Section 2.1.2 Guideline 1 of the *Standards and Guidelines* (Government of Ontario 2011). Additionally, the small landscaped gardens and sidewalks throughout the Study Area did not affect the test pit intervals of 5m. All test pits were at least 30 centimetres (cm) in diameter and were excavated 5cm into sterile subsoil. The excavated soil was examined for stratigraphy, cultural features, or evidence of fill. All soil from the test pits was screened through six-millimetre (mm) hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit. No further archaeological methods were employed since no artifacts were identified during the test pit survey.

The remaining 40% of the Study Area comprised the possible disturbance areas identified on the current aerial imagery of the Study Area (see Section 1.3.4 above). Following a Stage 2 property inspection, conducted according to Section 2.1.8, Standard 1 of the *Standards and Guidelines* (Government of Ontario 2011), the house with the pool; the wooden deck; the two multi-unit apartment buildings; the two asphalt laneways and various parking areas; the various concrete sidewalks; three sheds; the various landscaped gardens with mature trees; the gravel patio, and the landscaped garden with an artificial pond (Photos 1 to 7, 10 to 17) were evaluated as having no potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources, as per Section 2.1, Standard 2b of the *Standards and Guidelines* (Government of Ontario 2011). All of the disturbed areas documented within the Study Area were mapped and photo documented in accordance with Section 2.1, Standard 6 and Section 7.8.1, Standard 1b of the *Standards and Guidelines* (Government of Ontario 2011).

3.0 Record of Finds

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 3 below.

Table 3: Inventory of Document Record

Document Type	Current Location of Document Type	Additional Comments
1 Page of Field Notes	Detritus' office	Stored digitally in project file
1 Map provided by the Proponent	Detritus' office	Stored digitally in project file
1 Field Map	Detritus' office	Stored digitally in project file
36 Digital Photographs	Detritus' office	Stored digitally in project file

No archaeological resources were identified within the Study Area during the Stage 2 assessment; therefore, no artifacts were collected. As a result, no storage arrangements were required.

4.0 Analysis and Conclusions

Detritus was retained by the Proponent to conduct a Stage 1-2 archaeological assessment on part of Lot 25, Concession 1 Lake Erie, Geographic Township of Bertie, in the Town of Fort Erie, historical Welland County, now Regional Municipality of Niagara, Ontario. The assessment was conducted in advance of the construction of a proposed 74-unit apartment building located at 97 Gorham Road, Fort Erie. The Study Area is a square multi-residential lot measuring 0.65ha. At the time of assessment, the Study Area, known as Ridge Garden Apartments, comprised a house with a pool; two multi-unit apartment buildings; two asphalt laneways and various parking areas; various concrete sidewalks; two sheds; various landscaped gardens with mature trees; a gravel patio, and a landscaped garden with an artificial pond, which are surrounded by manicured lawn with trees throughout.

The Stage 1 background research indicated that the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources. Therefore, a Stage 2 assessment was recommended for the manicured lawn with trees throughout the Study Area. The house with the pool; the wooden deck; the two multi-unit apartment buildings; the two asphalt laneways and various parking areas; the various concrete sidewalks; three sheds; the various landscaped gardens with mature trees; the gravel patio, and the landscaped garden with an artificial pond, were evaluated as having no potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources, as per Section 2.1, Standard 2b of the *Standards and Guidelines* (Government of Ontario 2011). These areas of disturbance, as confirmed during the Stage 2 field survey, were mapped and photo documented in accordance with Section 2.1, Standard 6 and Section 7.8.1, Standard 1b of the *Standards and Guidelines* (Government of Ontario 2011).

The Stage 2 field assessment was conducted on March 25 and April 14, 2020. This investigation consisted of a typical test pit survey at 5m intervals across the manicured lawn component of the Study Area, which was unable to be ploughed. Furthermore, the large landscaped garden with the artificial pond, and the gravel patio to the southeast of the shed in the centre of the Study Area were over 5m wide and therefore test pits were placed adjacent on all sides to test the area as per Section 2.1.2 Guideline 1 of the *Standards and Guidelines* (Government of Ontario 2011). Additionally, the various small landscaped gardens and sidewalks throughout the Study Area did not affect the test pit intervals of 5m. The assessment resulted in the identification and documentation of no archaeological resources.

5.0 Recommendations

The Stage 2 assessment of the Study Area resulted in the identification of no archaeological resources; therefore, **no additional archaeological assessment of the Study Area is recommended.**

8.0 Maps



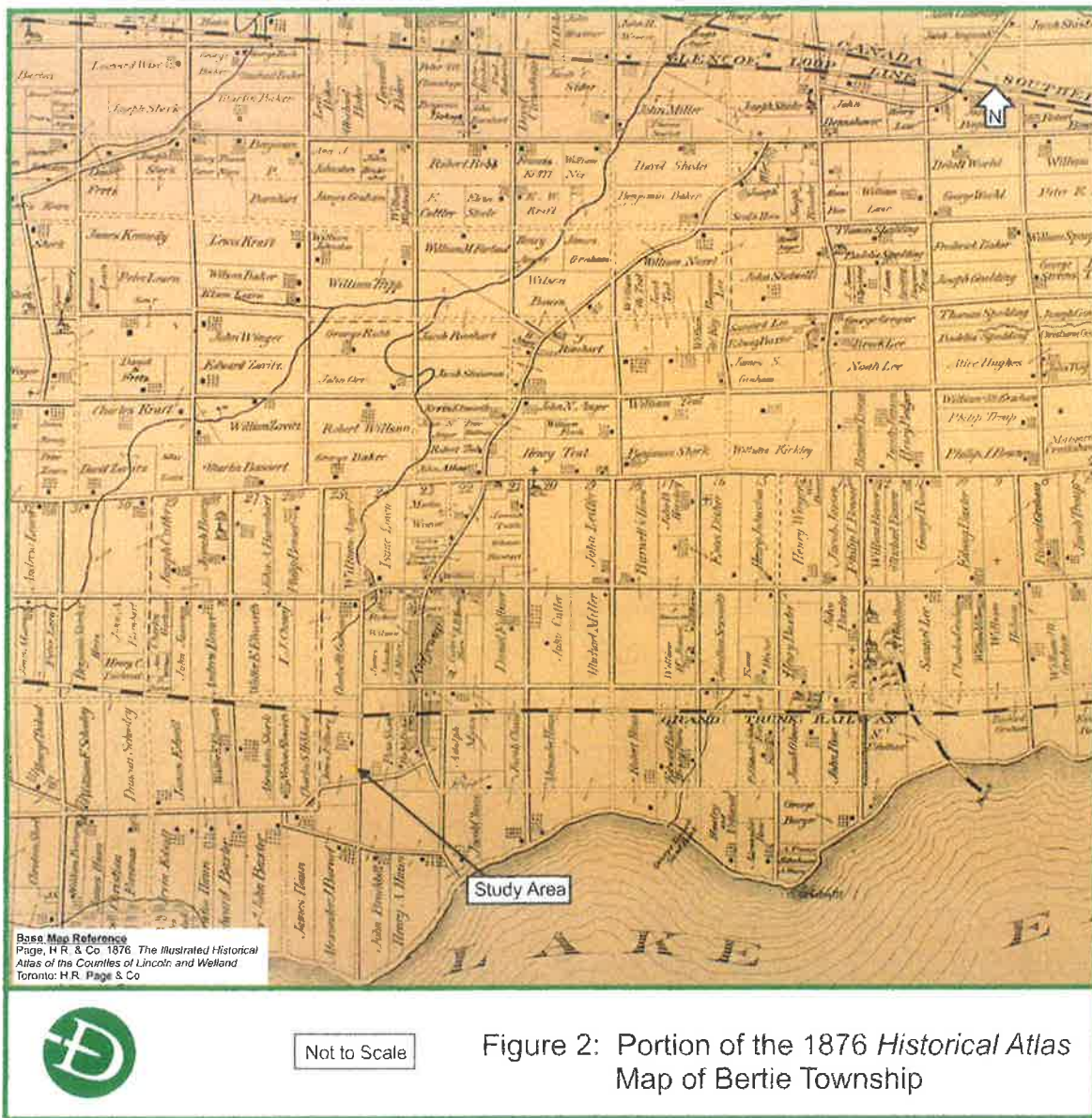




Figure 4: Development Map



9.0 Images

9.1 Photos

Photo 1: Manicured Lawn Test Pit Surveyed at 5m Intervals; Test Pits Dug Adjacent to Landscaped Garden; Disturbed House, Gravel Laneway and Parking Area, and Sidewalks Not Assessed, facing north



Photo 2: Manicured Lawn Test Pit Surveyed at 5m Intervals; Test Pits Dug Adjacent to Landscaped Garden; Disturbed House, Gravel Laneway and Parking Area, Apartment Building, and Sidewalks Not Assessed, facing northwest



Photo 3: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed House, Apartment Building, Gravel Laneways Not Assessed, facing southwest



Photo 4: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed House and Gravel Laneway Not Assessed, facing south



Photo 5: Manicured Lawn Test Pit Surveyed at 5m Intervals; Test Pits Dug Adjacent to Landscaped Garden; Disturbed Gravel Laneway and Parking Area, and Apartment Building Not Assessed, facing west



Photo 6: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed Apartment Building, House, Sidewalks, and Gravel Laneway and Parking Area Not Assessed, facing east



Photo 7: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed House, Sidewalks, Shed Not Assessed; Test Pits Dug Adjacent to Landscaped Garden and Pond Area, facing south



Photo 8: Manicured Lawn Test Pit Surveyed at 5m Intervals, facing east



Photo 9: Manicured Lawn with Mature Trees Throughout Test Pit Surveyed at 5m Intervals, facing north



Photo 10: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed Shed, and Gravel Laneway and Parking Area Not Assessed, facing southeast



Photo 11: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed Apartment Building Not Assessed, facing east



Photo 12: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed Shed, Gravel Laneway and Parking Area Not Assessed, facing northwest



Photo 13: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed House, Apartment Building, Sidewalks, Gravel Laneway and Parking Area Not Assessed, facing east



Photo 14: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed House, Shed, Sidewalks, Landscaped Garden and Artificial Pond, and Gravel Laneway and Parking Area Not Assessed, facing northeast



Photo 15: Manicured Lawn Test Pit Surveyed at 5m Intervals; Test Pits Dug Adjacent to the Gravel Patio and Landscaped Garden and Pond Area, Disturbed Shed, Sidewalks, and Landscaped Garden and Artificial Pond Not Assessed, facing east



Photo 16: Manicured Lawn Test Pit Surveyed at 5m Intervals; Disturbed House, Wooden Deck and Pool Not Assessed, facing northeast



**Photo 17: Manicured Lawn Test Pit
Surveyed at 5m Intervals; Disturbed Sheds
Not Assessed, facing northwest**

