

Stage 1-2 Archaeological Assessment 0 Pin Oak Dr, Niagara Falls

Part of Lots 179 and 186, Geographic Township of Stamford,
Historical County of Welland, Regional Municipality of Niagara, Ontario

Submitted to:

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Submitted by:



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ORIGINAL REPORT

October 12, 2022

Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by Mr. Dave Pitblado of Penta Properties, Inc. ('the Proponent') to conduct a Stage 1-2 archaeological assessment on Part of Lots 179 and 186, Geographic Township of Stamford, Historical County of Welland, Regional Municipality of Niagara, Ontario (Maps

Figure 1). This investigation was conducted in advance of a proposed residential development at 0 Pin Oak Drive, Niagara Falls ('Study Area', Figure 4).

This investigation 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 the conditions of this legislation, a Stage 1-2 assessment of the Study Area was conducted during the pre-approval phase of the proposed development under archaeological consulting license P462 issued to Mr. Michael Pitul 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 2011 *Standards and Guidelines for Consultant Archaeologists* ('Standards and Guidelines'; Government of Ontario, 2011)

The Assessment Property is located to the west of the QEW highway and to the south of McLeod Road (Figure 3). It is a rectangular-shaped parcel, except for a small residential property that has been severed at its southwest corner, and it measures 14.11 hectares ('ha'). The Assessment Property is bound to the east and west by two roads, Pin Oak Drive and Kalar Road respectively, both running north to south, and to the north by an industrial property called Niagara Peninsula Energy. Almost the entire land to the south of the Assessment Property is occupied by Provincially Significant Wetland ('PSW') that a part of the Warren Wetland Complex. This PSW encroaches onto the Assessment Property its southeast and northeast corners. Following advice provided the Regional Municipality of Niagara (the 'Approval Authority'; see correspondence in Supplementary Documentation) no development or site alteration are permitted within at least 15 metres ('m') of the PSW; the archaeological assessment was then permitted to be scoped to exclude the PSW and follow the limit of the developable area. Therefore, no assessment took place within the PSW in the southeast and northeast portions of the Assessment Property (Figure 3). As per Section 7.8.1 Standard 13:5 of the *Standards and Guidelines* (Government of Ontario, 2011) a no-go letter has been signed by the Proponent, indicating no development is to occur within the unassessed PSW (see Supplementary Documentation). Permission has been granted by the Approval Authority for the removal of the PSW in several areas that are key to the development, such as to make way for the road connection to Pin Oak Drive (Figure 6; see also Supplementary Documentation). Assessments took place within these areas plus an additional 10m buffer on all sides. Figure 7 shows the limits of the PSW and the allowable Residential Medium Density zone within the Assessment Property.

The reduced Study Area is an irregular-shaped parcel measuring 9.8ha and comprises vacant land and wooded overgrown greenspace. The limits of Study Area were marked by a fenced to north and Kalar Road to the west. Prior to commencement of work, the extent of the Study Area was staked out by the proponent in the areas to the east to mark the edges of the PSW.

The Stage 1 background research indicated that the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources. A Stage 2 field assessment was recommended for the vacant land and wooded overgrown greenspace. At the time of assessment there were no visible disturbances.

The subsequent Stage 2 assessment of the Study Area was conducted on August 3rd, 2022 and consisted of a typical pedestrian survey across the vacant land and a typical test pit survey of the wooded overgrown greenspace, both at a five-metre interval. No archaeological resources were observed.

Given the results of the Stage 2 investigation and the identification and documentation of no archaeological resources, **no further archaeological assessment of the Study Area is recommended.**

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 Dave Pitblado of Penta Properties, Inc. made this report possible.

1.0 Project Context

1.1 Development Context

Detritus was retained by the Proponent to conduct a Stage 1-2 archaeological assessment on Part of Lots 179 and 186, Geographic Township of Stamford, Historical County of Welland, Regional Municipality of Niagara, Ontario (Maps

Figure 1). This investigation was conducted in advance of a proposed residential development within the Study Area (Figure 4).

This investigation 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 the conditions of this legislation, a Stage 1-2 assessment of the Study Area was conducted during the pre-approval phase of the proposed development under archaeological consulting license P462 issued to Mr. Michael Pitul 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 2011 *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 were 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 was 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 Stage 2 assessment were 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 Indigenous Resources

The earliest documented pre-European settlers arrived to the Niagara Peninsula from southwestern Ontario during the 14th century AD, at the peak of Iroquois culture. By 1400, the majority of the region was occupied by an Iroquoian speaking tribe referred to as the Attawandaran (aka the Atiquandaronk or Attouanderonks), who exploited the fertile land and abundant water sources throughout the region for fishing, hunting and agriculture (Niagara Falls Info, 2022) This moniker was given to the community by the neighbouring Wendat as a slur against their unusual dialect. Those Attawandaran tribes who settled along the Niagara River were referred to as the Onguiaahra (later the Ongiara), which has been loosely translated as one of “the Straight,” “the Throat,” or “the Thunder of Waters” (Niagara-on-the-Lake Realty, 2022, Niagara-on-the-Lake, 2016) The name ‘Neutral’ was given to the Attawandaran by French explorers who began arriving in the 17th century. This new designation referred to the community’s status as peacekeepers between the warring Huron and Iroquois tribes (Niagara Falls Info, 2022)

The earliest recorded European visit to the Niagara region 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 (Heindereich, 1990) It is believed that Brûlé first visited the future site of Niagara-on-the-Lake during this excursion (Niagara-on-the-Lake Realty, 2022). 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 (Heindereich, 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 during this protracted conflict 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 (Heindereich, 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 (Heindereich, 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 (Jameison 1992, 80; Noble, 1978, 161)

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, p. 107). This period also marks the arrival of the Mississaugas into Southern Ontario and, in particular, the watersheds of the lower Great Lakes (Konrad, 2003; 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 (the Chippewa,

Ottawa, and Potawatomi) began immigrating from Ohio and Michigan into southwestern Ontario (Feest & Feest, 1978, pp. 778–9).

The Study Area first enters the Euro-Canadian historic record on May 9th, 1781 as part of the Niagara Treaty No. 381 with the Mississauga and Chippewa. This treaty involved the surrender of,

...all that certain tract of land situated on the west side of the said strait or river, leading from Lake Erie to Lake Ontario, beginning at a large white oak tree, forked six feet from the ground, on the bank of the said Lake Ontario, at the distance of four English miles measured in a straight line, from the West side of the bank of the said strait, opposite to the Fort Niagara and extending from thence by a southerly course to the Chipewigh River, at the distance of four miles on a direct line from where the said river falls into the said strait about the great Fall of Niagara or such a line as will pass at four miles west of the said Fall in its course to the said river and running from thence by a southeasterly course to the northern bank of Lake Erie at the distance of four miles on a straight line, westerly from the Post called Fort Erie, thence easterly along the said Lake by the said Post, and northerly up the west side of the said strait to the said lake Ontario, thence westerly to the place of beginning.

(Morris, 1943, pp. 15–6)

Throughout southern Ontario, the size and nature of the pre-contact settlements and the subsequent spread and distribution of Aboriginal material culture began to shift with the establishment of European settlers. By 1834 it was accepted by the Crown that losses of portions of the Haldimand Tract to Euro-Canadian settlers were too numerous for all lands to be returned. 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, 1879; Weaver, 1978; Tanner, 1987). Following the population decline and the surrender of most of their lands along the Credit River, the Mississaugas were given 6000 acres of land on the Six Nations Reserve, establishing the Mississaugas of New Credit First Nation, now the Mississaugas of the Credit First Nation ('MCFN'), in 1847 (Smith, 2022).

Despite the 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, p. 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 Study Area is located within the Geographic Township of Stamford, Historical County of Welland, Ontario (Figure 2).

In 1763, the Treaty of Paris brought an end to the Seven Years War, contested between the British, the French, and their respective allies. Under the Royal Proclamation of 1763, the large stretch of land from Labrador in the east, moving southeast through the Saint Lawrence River Valley to the Great Lakes and on to the confluence of the Ohio and Mississippi Rivers became the British Province of Québec (Niagara Historical Society and Museum, 2008).

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 former Province of Québec was rearranged into Upper Canada and Lower Canada under the provisions of the Constitutional Act. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada; he spearheaded 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 stretching from Essex in the west to Glengarry in the east. Each new county was named after a county in England or Scotland; the constituent townships were then given the names of the corresponding townships from each original British county (Powell & Coffman, 1956).

Later that year, the four districts originally established in 1788 were renamed 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 the Niagara District, comprising Lincoln County, Haldimand County and other lands (Archives of Ontario, 2012-2015). 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, of which Stamford Township was a part.

The Township of Stamford was first surveyed in 1776 and was the second township to be surveyed within Welland County. It was originally referred to as Township #2 or Mount Dorchester, after Sir Guy Dorchester, the Governor for the Province of Québec from 1768 to 1778 and again between 1785 and 1795. The initial survey covered a portion of the county adjacent to the west side of the Niagara River for a distance of 12 miles (Page, 1876). This area was initially granted to United Empire Loyalists, primarily from New York State, as compensation for losses suffered during the American Revolutionary War. Stamford Village was founded in 1783 and was the largest community within the township, although it received no official status. The name derived from Stamford Village in Delaware County, New York State, from which many of the settlers had arrived (Berketa, 2017).

A second survey was completed in 1787, following the Revolutionary War, at which time the township was renamed Stamford Township by John Graves Simcoe, the first Lieutenant Governor of Upper Canada. As part of this survey, the first meeting house was constructed in Stamford Village next to a local cemetery referred to by the locals as God's Half Acre. In 1844, this meeting house would become the Stamford Presbyterian Church, the first Presbyterian Church in Upper Canada. Lots along the river were among the first to be granted in the 1780s and 1790s as Governor Simcoe sought to develop the area quickly in the tense atmosphere between the Revolutionary War and the War of 1812. After the land near the Niagara River and Niagara Falls was divided up, farmsteads were situated as far from the river as possible (Berketa, 2017).

According to the *Illustrated Historical Atlas of the Counties of Lincoln and Welland* (Page, 1876; *Illustrated Atlas*), the Study Area is located in the southern portion of Stamford Township which is bound by the Welland River to the south and by the Niagara River to the east. A branch of the Welland Railway known as the Canadian Airline (constructed in 1878; Hughes, 2009) and the early communities of Drummondville and Stamford are visible to the north of the Study Area. The Study Area itself spans the western half of two north to south adjacent lots, Lot 179 and 186 respectively. Lot 179 is listed as a part of the Howey Estate and Lot 186 is owned by Richard Howey, who also owns a portion of Lot 185, adjacent to the west, on which a small structure and orchard are depicted. No structures or orchards are visible within the Study Area itself.

It should be recognised, however, that although significant and detailed landowner information is available on the current *Illustrated Atlas*, 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 & Head, 1984).

1.3 Archaeological Context

1.3.1 Property Description and Physical Setting

The Assessment Property is located to the west of the QEW highway and to the south of McLeod Road (Figure 3). It is a rectangular-shaped parcel, except for a small residential property that has been severed at its southwest corner, and measures 14.11 hectares ('ha'). The Assessment Property is bound to the east and west by two roads, Pin Oak Drive and Kalar Road respectively, both running north to south, and to the north by an industrial property called Niagara Peninsula Energy. Almost the entire land to the south of the Assessment Property is occupied by Provincially Significant Wetland ('PSW') that is a part of the Warren Wetland Complex. This PSW encroaches onto the Assessment Property its southeast and northeast corners. Following advice provided the Regional Municipality of Niagara (the 'Approval Authority'; see correspondence in Supplementary Documentation) no development or site alteration are permitted within at least 15 metres ('m') of the PSW; the archaeological assessment was then permitted to be scoped to exclude the PSW and follow the limit of the developable area. Therefore, no assessment took place within the PSW in the southeast and northeast portions of the Assessment Property (Figure 3). As per Section 7.8.1 Standard 13:5 of the *Standards and Guidelines* (Government of Ontario, 2011) a no-go letter has been signed by the Proponent, indicating no development is to occur within the unassessed PSW (see Supplementary Documentation). Permission has been granted by the Approval Authority for the removal of the PSW in several areas that are key to the development, such as to make way for the road connection to Pin Oak Drive (Figure 6; see also Supplementary Documentation). Assessments took place within these areas plus an additional 10m buffer on all sides. Figure 7 shows the limits of the PSW and the allowable Residential Medium Density zone within the Assessment Property.

The reduced Study Area is an irregular-shaped parcel measuring 9.8ha and comprises vacant land and wooded overgrown greenspace. The limits of Study Area were marked by a fenced to north and Kalar Road to the west. Prior to commencement of work, the extent of the Study Area was staked out by the proponent in the areas to the east to mark the edges of the PSW.

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 mid-19th century. Much of the region today continues to be used for agricultural purposes.

The Study Area is located within Haldimand Clay Plain physiographic region (Chapman & Putnam, 1984). During pre-contact and early contact times, this area comprised a mixture of deciduous trees and open areas. In the early 19th century, Euro-Canadian settlers began to clear the forests for agricultural purposes, which have been ongoing in the vicinity of the four sites for over 100 years.

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 & Presant, 1989). 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 & Putnam, 1984, p. 156)

Huffman and Dumanski add that the soil within the region is suitable for corn and soy beans in rotation with cereal grains as well as alfalfa and clover (Huffman & Dumanski, 1986).

The Niagara Region as a whole is located within the Deciduous Forest Region of Canada, and contains tree species which 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 & Manville, 1987). In the early 19th, Euro-Canadian settlers began to clear the forests for agricultural purposes.

The closest source of potable water is an unnamed creek that runs through the northwestern portion of the Study Area.

1.3.2 Pre-contact Indigenous Land Use

This portion of southwestern Ontario was 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 Stamford Township, based on (Ellis & Ferris, 1990)

Table 1: Cultural Chronology for Stamford 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 known archaeological resources in the vicinity of the Study Area, Detritus consulted the *Archaeological Sites Database* ('ASDB'). The ASDB, which is maintained by the MHSTCI (Government of Ontario, n.d.), 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 lies within block AgGs.

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* (Government of Ontario, 1990c) 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, thirty archaeological sites have been registered within a 1km radius of the Study Area (Table 2). There are sixteen pre-contact Aboriginal sites, of which five can be dated to

the Early Archaic, two to the Middle Archaic, one to the early Woodland, and two to the Late Woodland periods. There are also five post-contact Euro-Canadian sites. The remaining nine sites had no time period or cultural affinity recorded in the ADSB.

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

Borden Number	Site Name	Time Period	Affinity	Site Type
AgGs-296		Pre-Contact	Aboriginal	camp / campsite
AgGs-289		Pre-Contact	Aboriginal	scatter
AgGs-286		Pre-Contact	Unknown	Unknown
AgGs-302		Archaic, Early	Aboriginal	findspot
AgGs-298		Archaic, Early	Aboriginal	camp / campsite
AgGs-297		Archaic, Early	Aboriginal	findspot
AgGs-288		Archaic, Early	Aboriginal	Unknown, scatter
AgGs-282		Archaic, Early	Aboriginal	scatter
AgGs-303		Archaic, Late	Aboriginal	findspot
AgGs-301		Archaic, Late	Aboriginal	findspot
AgGs-290		Archaic, Late	Aboriginal	scatter
AgGs-300		Archaic, Middle	Aboriginal	findspot
AgGs-291		Archaic, Middle	Aboriginal	scatter
AgGs-279		Woodland, Early	Aboriginal	findspot
AgGs-295		Woodland, Late	Aboriginal	findspot
AgGs-292		Woodland, Late	Aboriginal	findspot
AgGs-410		Post-Contact	Euro-Canadian	homestead
AgGs-395		Post-Contact	Euro-Canadian	Unknown
AgGs-387	AgGs-387	Post-Contact	Euro-Canadian	homestead
AgGs-280		Post-Contact	Euro-Canadian	homestead
AgGs-116	Garner Estates	Post-Contact	Euro-Canadian	homestead
AgGs-287		Other		Other findspot_
AgGs-283		Other		Other findspot_
AgGs-281		Other		Other findspot_
AgGs-278		Other		Other findspot_
AgGS-277		Other		Other findspot_
AgGs-299				
AgGs-294				
AgGs-293	P23			
AgGs-284				

To the best of Detritus' knowledge, no assessments have been conducted 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 the 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, when 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 stated above, the closest source of potable water is an unnamed creek that runs through the northwestern portion of the Study Area.

Soil texture is also an important determinant of past settlement, usually in combination with other factors such as topography. The Study Area is situated within the Haldimand Clay Plain physiographic region. As was discussed earlier, the soils within this region are suitable for pre-contact and post contact Indigenous agriculture. Furthermore, given the sixteen pre-contact Aboriginal sites located within 1km of the Study Area, the potential for pre-contact Indigenous, post-contact Indigenous material culture within the Study Area is deemed 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; and properties listed on the municipal register or designated under the Ontario Heritage Act (Government of Ontario, 1990b) or property that local histories or informants have identified with possible historical events.

The *Illustrated Atlas* demonstrates the extent to which Stamford Township had been settled by 1876 (Page, 1876; Figure 2). Landowners are listed for a large majority of the lots within the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19th century. Much of the established road system and agricultural systems throughout the township is still visible today. Structures and orchards are prevalent throughout the township, almost all of which front early roads. Given these findings, along with the presence of five Euro-Canadian sites within 1km, the Euro-Canadian archaeological potential of the Study Area is judged to be moderate to high.

2.0 Field Methods

The Stage 2 archaeological assessment was conducted on August 3rd, 2022, under archaeological consulting license P462 issued to Mr. Michael Pitul by the MHSTCI. The limits of Study Area were marked by a fenced to north and Kalar Road to the west. Prior to commencement of work, the extent of the Study Area was staked out by the proponent in the areas to the east to mark the edges of the PSW.

The weather during the assessment was sunny and 30°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 11 demonstrate the land conditions at the time of the survey throughout the Study Area, including areas that met the requirements for a Stage 2 field assessment, as per Section 7.8.6, Standards 1a, 1b, and 1c of the *Standards and Guidelines* (Government of Ontario, 2011). Figure 4 provides an illustration of the Stage 2 assessment methods, as well as all photograph locations and directions.

Approximately 77% of the Study Area comprised vacant land which was ploughed and allowed to weather as per Section 2.1.1, Standards 2 and 3 of the *Standards and Guidelines* (Government of Ontario, 2011; Photos 1 to 6). The ploughing was deep enough to provide total topsoil exposure, and to provide a minimum of 80% surface visibility as per Section 2.1.1, Standards 4 and 5 of the *Standards and Guidelines* (Government of Ontario, 2011). The ploughed area was subject to pedestrian survey at five-metre intervals in accordance with Section 2.1.1, Standard 6 of the *Standards and Guidelines* (Government of Ontario, 2011).

Approximately 23% of the Study Area consisted of wooded overgrown greenspace. The area was deemed inaccessible to ploughing and was subject to a typical Stage 2 test pit survey at five-metre intervals in accordance with Section 2.1.2 of the *Standards and Guidelines* (Government of Ontario, 2011). The test pit survey was conducted to within 1m of the built structures or until test pits showed evidence of recent ground disturbance, as per Section 2.1.2, Standard 4 of the *Standards and Guidelines* (Government of Ontario, 2011). Each test pit was at least 30cm centimetres ('cm') in diameter and excavated 5cm into sterile subsoil. The soils were then examined for stratigraphy, cultural features, or evidence of fill. A single soil layer was observed comprising sandy soil with clay subsoil. All soil from the test pits was screened through six-millimetre hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit.

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
23 Digital Photographs	Detritus office	Stored digitally in project file

No archaeological resources were identified within the Study Area and so no material culture was 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 Lots 179 and 186, Geographic Township of Stamford, Historical County of Welland, Regional Municipality of Niagara, Ontario (Maps

Figure 1). This investigation was conducted in advance of a proposed residential development within the Study Area (Figure 4).

The Stage 1 background research indicated that the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources. A Stage 2 field assessment was recommended for the vacant land and wooded overgrown greenspace. At the time of assessment there were no visible disturbances.

The subsequent Stage 2 assessment of the Study Area was conducted on August 3rd, 2022 and consisted of a typical pedestrian survey across the vacant land and a typical test pit survey of the wooded overgrown greenspace, both at a five-metre interval. No archaeological resources were observed.

5.0 Recommendations

Given the results of the Stage 2 investigation and the identification and documentation of no archaeological resources, **no further archaeological assessment of the Study Area is recommended.**

6.0 Advice on Compliance with Legislation

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

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

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

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

7.0 Bibliography and Sources

- Archives of Ontario. (2012-2015). *The Evolution of the District and County System, 1788-1899*. Retrieved January 2021, from <http://www.archives.gov.on.ca/en/maps/ontario-districts.aspx>
- Berketa, R. (2017). *Niagara Falls: Tale of Two Cities*. Retrieved 03 4, 2020, from <http://www.niagarafontier.com/niagarafallscity.html>
- Caston, W. A. (1997). Evolution in the Mapping of Southern Ontario and Wellington County. *Wellington County History, 10*, 91-106.
- Chapman, L. J., & Putnam, D. F. (1984). *The Physiography of Southern Ontario. Ontario Geological Survey. Special Volume 2* (3rd Edition ed.). Ontario Ministry of Natural Resources.
- Coyne, J. H. (1895). *The Country of Neutrals (As Far as Comprised in the County of Elfin): From Champlain to Talbot*. St. Thomas: The St. Thomas Print.
- Ellis, C. J., & Ferris, N. (Eds.). (1990). *The Archaeology of Southern Ontario to A.D. 1650*. (Vol. 5). Occasional Publication of the London Chapter, Ontario Archaeology Society Inc.
- Feest, C. F., & Feest, J. E. (1978). The Ottawa. In B. G. Trigger (Ed.), *Handbook of North American Indians. Vol. 15 Northeast* (pp. 772-786). Smithsonian Institute.
- Ferris, N. (2009). *The Archaeology of Native-Lived Colonialism: Challenging History in the Great Lakes*. University of Arizona.
- Gentilcore, L. R., & Head, G. (1984). *Ontario's History in Maps*. Toronto: University of Toronto Press.
- Government of Ontario. (1990a). Retrieved 01 24, 2022, from Ontario Planning Act, R.S.O. 1990, CHAPTER P. 13. Last Amendment: 2021, c. 25, Sched. 24: <https://www.ontario.ca/laws/statute/90p13>
- Government of Ontario. (1990b). Retrieved 01 24, 2022, from Ontario Heritage Act, R.S.O. 1990, CHAPTER O.18. Last amendment: 2021, c. 4, Sched. 6, s. 74: <https://www.ontario.ca/laws/statute/90o18>
- Government of Ontario. (1990c). Retrieved 01 24, 2022, from Freedom of Information and Protection of Privacy Act, R.S.O. 1990, CHAPTER F.31. Last amendment: 2021, c. 4, Sched. 11, s. 11: <https://www.ontario.ca/laws/statute/90f31>.
- Government of Ontario. (2011). *Standards and Guidelines for Consultant Archaeologists*. Toronto: MHSTCI.
- Government of Ontario. (n.d.). *Archaeological Sites Database Files*. MHSTCI.
- Heindereich, C. (1990). History of the St. Lawrence–Great lakes Area to 1650. In C. J. Ellis, & N. Ferris (Ed.), *The Archaeology of Southern Ontario, Occasional papers of the London Chapter. 5*, pp. 475–92. OAS.
- Huffman, E., & Dumanski, J. (1986). *Agricultural Land Use Systems in the Regional Municipality of Niagara*. Ottawa: Land Resource Research Institute.
- Hughes, R. (2009). *Welland Railway*. Retrieved October 2022, from Niagara Rails: <http://www.niagararails.com/h3.html>
- Jameison, S. M. (1992). Regional Interaction and Ontario Iroquois Evolution. *Canadian Journal of Archaeology, 16*, 70–88.
- Kingston, M. S., & Presant, E. W. (1989). *The Soils of the Regional Municipality of Niagara*. Report no. 60, Ontario Ministry of Agriculture, Ontario Institute of Pedology.
- Konrad, V. (2003). An Iroquois Frontier: the North Shore of Lake Ontario During the Late Seventeenth Century. *Journal of Historical Geography, 7*(2), 129-144.

- MacDonald, R., & Cooper, M. S. (1997). Environmental Context. In R. F. Williamson, & R. I. MacDonald (Ed.), *The Shadow of the Bridge—The Archaeology of the Peace Bridge Site (AfGr-9), 1994–1996 Investigations. Occasional Publications. 1.* Toronto: Archaeological Services, Inc.
- McAndrews, J. H., & Manville, G. C. (1987). Descriptions of Ecological Regions. In R. C. Harris (Ed.), *Historical Atlas of Canada from the Beginning to 1800.* Toronto: University of Toronto Press.
- Morris, J. L. (1943). *Indians of Ontario (1964 reprint).* Department of Lands and Forests, Government of Ontario.
- Niagara Falls Info. (2022). *Native American Settlement in NIagara.* Retrieved August 2022, from <https://www.niagarafallsinfo.com/niagara-falls-history/niagara-falls-municipal-history/the-chronicles-of-settlement-in-niagara/native-american-settlement-in-niagara/>
- Niagara Historical Society and Museum. (2008). *Our Glory: A brief History of Niagara-on-the-Lake.* Niagara-on-the-lake: Niagara Historical Society and Museum.
- Niagara-on-the-Lake. (2016). *Queen-Picton Streets Heritage Conservation District Expansion Study (Second Draft).*
- Niagara-on-the-Lake Realty. (2022). *History of Niagara On the Lake.* Retrieved August 2022, from <https://notlrealty.com/history-of-niagara-on-the-lake/>
- Noble, W. (1978). The Neutral Indians. In Essays in Northeastern Anthropology in Memory of Marian E. White, Occasional Publications. In W. Englebrecht, & G. Donald (Ed.), *Northeastern Anthropology 5* (pp. 152-64). Rindge, NH: Department of Anthropology, Franklin Pierce College.
- Page, H. R. (1876). *The Illustrated Historical Atlas of the Counties of Lincoln and Welland.* Toronto: H. R. Page & co.
- Page, H. R. (1879). *The Illustrated Historical Atlas of the County of Haldimand, Ontario.* Toronto: H. R. Page & Co.
- Pendergast, J. (1995). The Identity of Jacques Cartier's Stadaconans and Hochelagans: The Huron-Iroquois Option. In A. Bekerman, & G. Warrick (Ed.), *Origins of the People of the Longhouse: Proceedings of the 21st Annual Symposium of the Ontario Archaeological Society* (pp. 106-118). Ontario Archaeological Society.
- Powell, J. R., & Coffman, F. (1956). *Lincoln County, 1856–1956.* St. Catharines: Lincoln County Council.
- Praxis Research Associates. (n.d.). *The History of the Mississaugas of the New Credit First Nation.* Lands, Research, and Membership: Mississaugas of the New Credit First Nation.
- Schmalz, P. S. (1991). *The Ojibwa of Southern Ontario.* Toronto: University of Toronto Press.
- Smith, D. (2022). Their Century and a Half on the Credit: The Mississaugas. In F. Dieterman (Ed.), *Mississauga: The First 10,000 Years* (pp. 107-122). Easted Books.
- Tanner, H. (Ed.). (1987). *Atlas of Great Lakes Indian History.* University of Oklahoma Press.
- Weaver, S. (1978). Six Nations of the Grand River, Ontario. *Handbook of North American Indians. Vol. 15 Northeast* (pp. 525-536). Smithsonian Institute Press.

8.0 Maps

Figure 1: Study Area Location

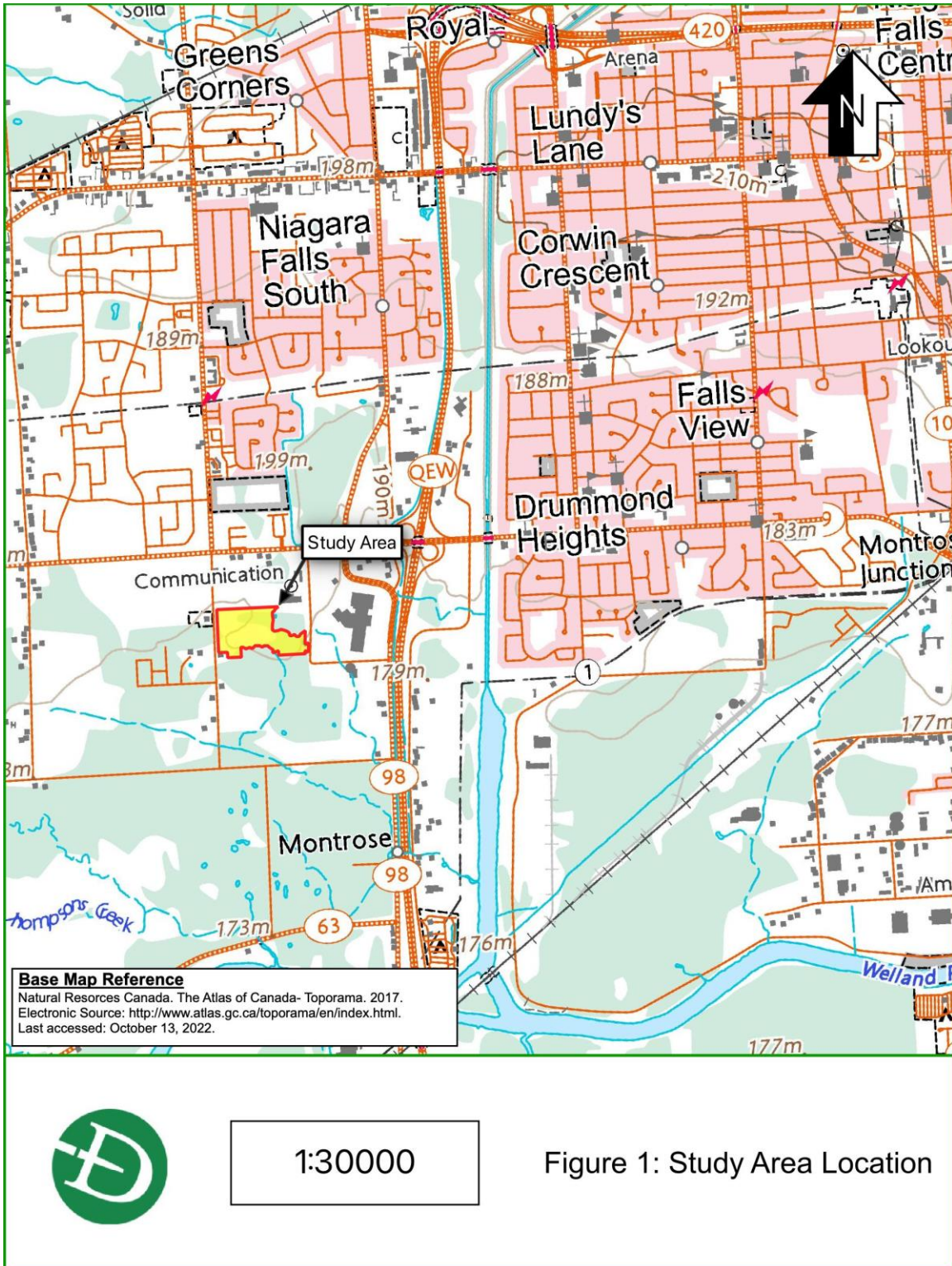


Figure 2: Historic Map Showing Study Area Location



Figure 3: Map of the Study Area Within the Assessment Property

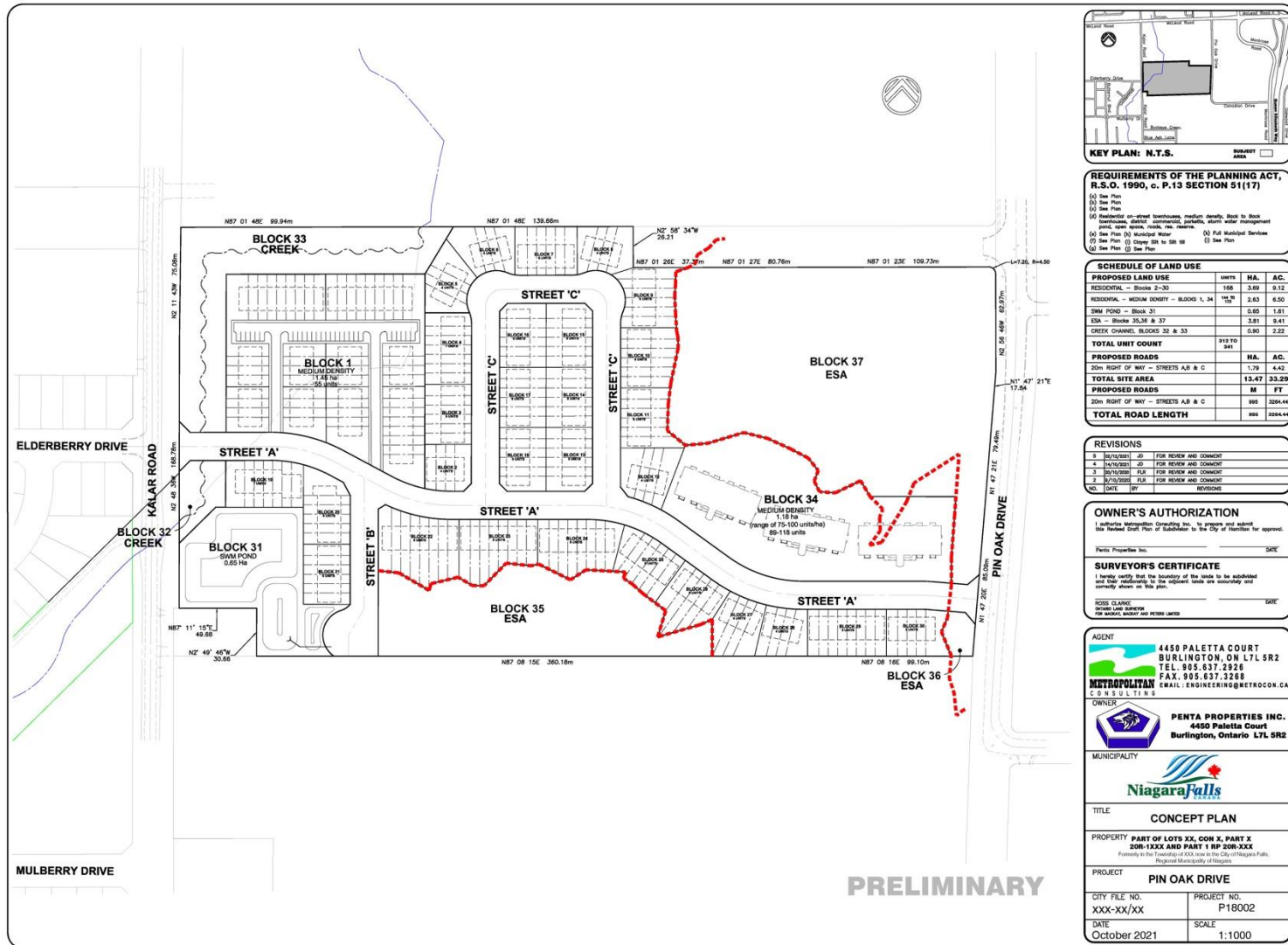


Figure 4: Stage 2 Field Methods Map



Stage 1-2 Archaeological Assessment, o Pin Oak Drive, Niagara Falls

Figure 5: Development Plan



KEY PLAN: N.T.S.

REQUIREMENTS OF THE PLANNING ACT, R.S.O. 1990, c. P.13 SECTION 51(17)

(a) See Plan
 (b) See Plan
 (c) See Plan
 (d) Residential on-street townhouses, medium density Block to Block townhouses, duplex, semi-detached, parkville, smart water management ponds, open areas, parks, etc. Refer to...
 (e) See Plan (f) Municipal Water (g) Full Municipal Services
 (h) See Plan (i) Open Stit to Stit St (j) See Plan
 (k) See Plan (l) See Plan

SCHEDULE OF LAND USE

PROPOSED LAND USE	UNITS	HA.	AC.
RESIDENTIAL - Blocks 2-30	168	3.69	9.12
RESIDENTIAL - MEDIUM DENSITY - BLOCKS 1, 34	105 ¹	2.63	6.50
SWIM POND - Block 31		0.65	1.61
ESA - Blocks 35,36 & 37		3.81	9.41
CREEK CHANNEL, BLOCKS 32 & 33		0.80	2.22
TOTAL UNIT COUNT	312 TO 341		
PROPOSED ROADS		HA.	AC.
20m RIGHT OF WAY - STREETS A,B & C		1.79	4.42
TOTAL SITE AREA		13.47	33.29
PROPOSED ROADS		M	FT
20m RIGHT OF WAY - STREETS A,B & C	995	3284.44	
TOTAL ROAD LENGTH	995	3284.44	

REVISIONS

NO.	DATE	BY	REVISIONS
3	3/21/2021	JD	FOR REVIEW AND COMMENT
4	4/16/2021	OP	FOR REVIEW AND COMMENT
3	3/21/2021	FLR	FOR REVIEW AND COMMENT
2	3/21/2021	FLR	FOR REVIEW AND COMMENT

OWNER'S AUTHORIZATION

I authorize Metropolitan Consulting Inc. to prepare and submit the attached Final Plan of Subdivision to the City of Niagara for approval.

Field Property Inc. DATE

SURVEYOR'S CERTIFICATE

I hereby certify that the accuracy of the work to be submitted and that the work is in accordance with the original title and is generally shown on this plan.

DATE DATE

AGENT

4458 PALETTA COURT
 BURLINGTON, ON L7L 5R2
 TEL. 905.637.2926
 FAX. 905.637.3288
 EMAIL: ENGINEERING@METROCON.CA
 CONSULTING

METROPOLITAN CONSULTING

OWNER

PENTA PROPERTIES INC.
 4450 Paletta Court
 Burlington, Ontario L7L 5R2

MUNICIPALITY

Niagara Falls

TITLE

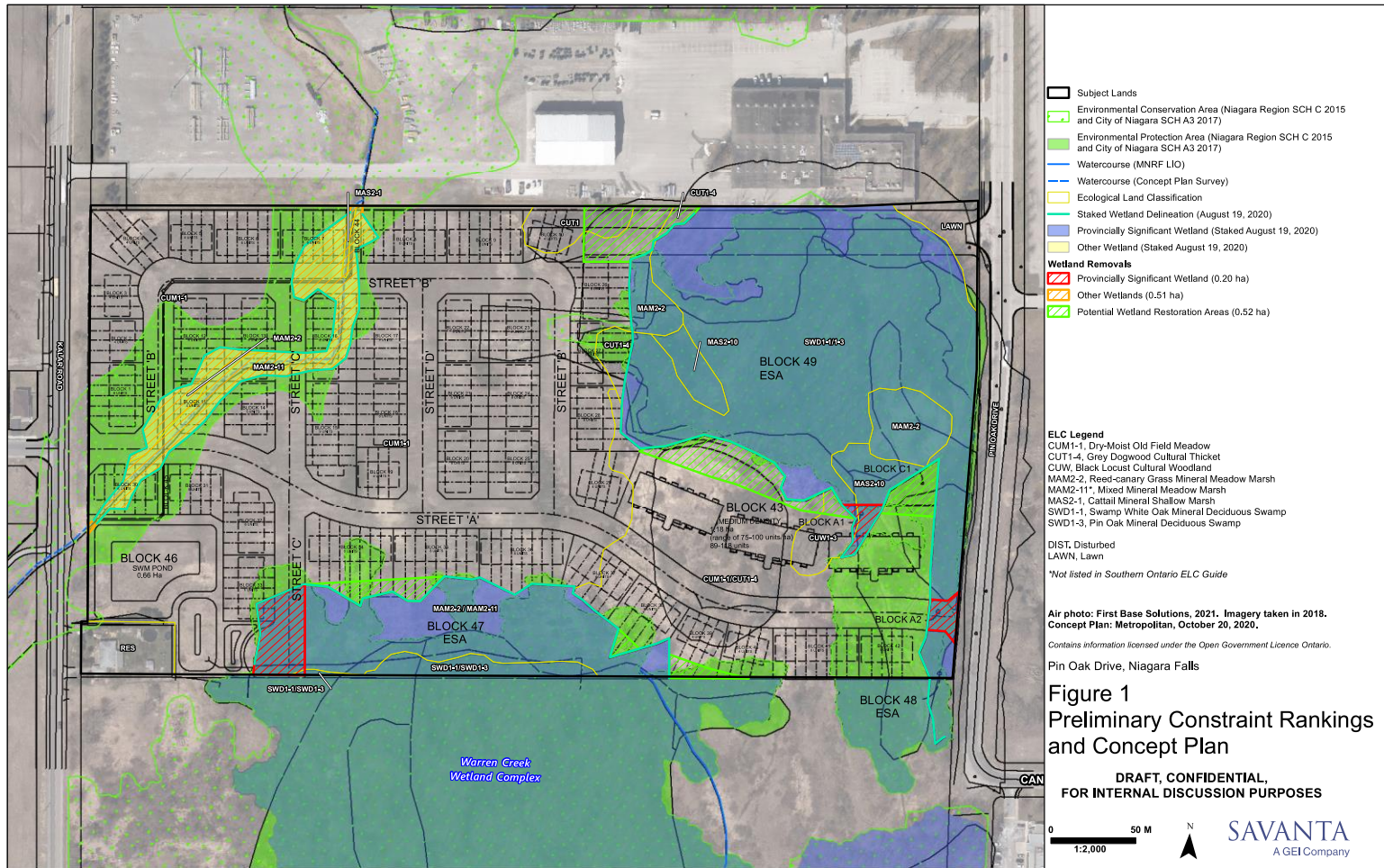
CONCEPT PLAN

PROPERTY PART OF LOTS XX, CON X, PART X
 20R-1XXX AND PART 1 RP 20R-XXX
 Formerly in the Township of Niagara Falls in the City of Niagara Falls,
 Regional Municipality of Niagara

PROJECT PIN OAK DRIVE

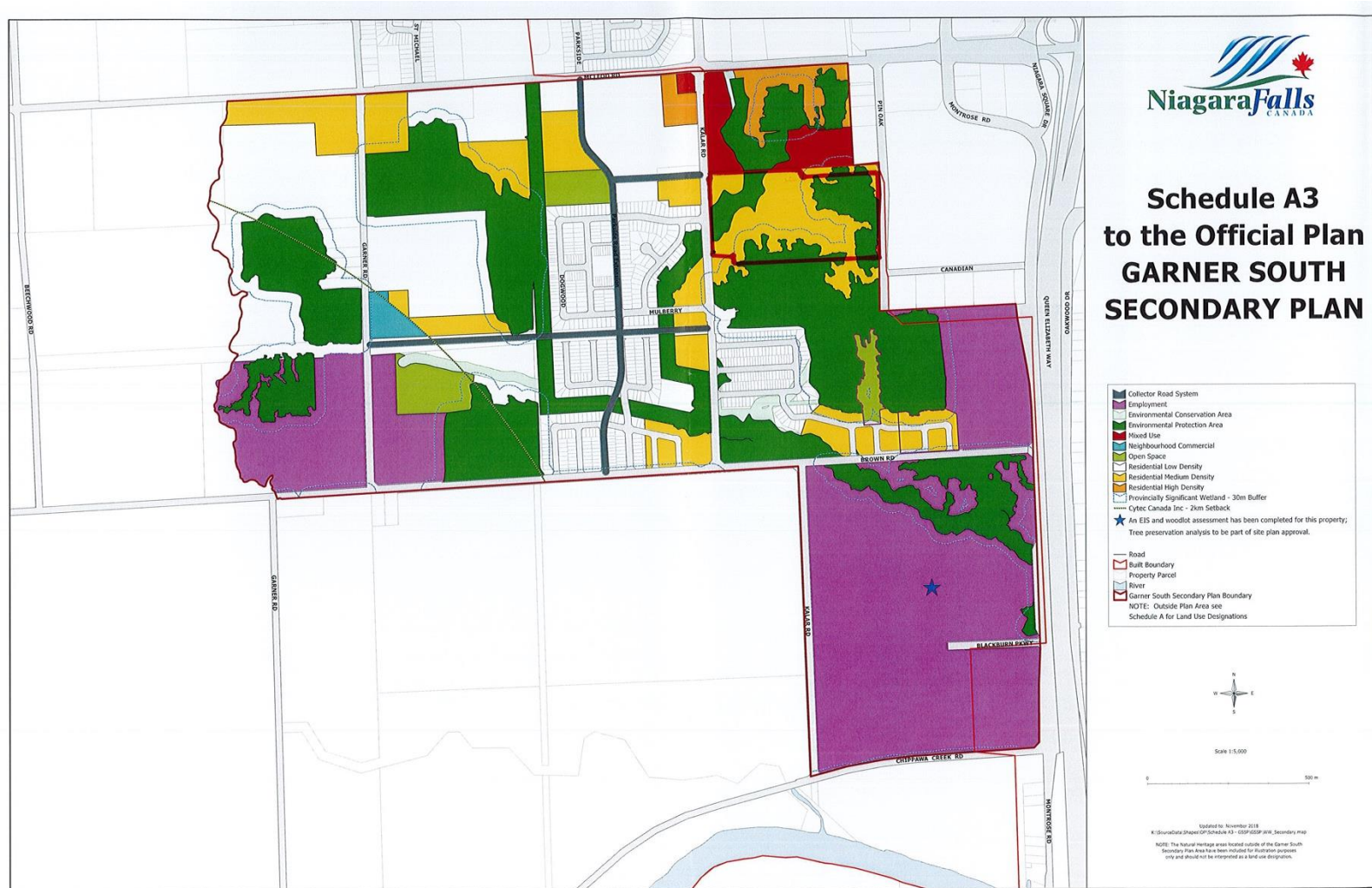
CITY FILE NO. XXX-XX/XX	PROJECT NO. P18002
DATE October 2021	SCALE 1:1000

Figure 6: Preliminary Constraint Rankings and Concept plans



Path: Z:\Shared\PROJECTS\GIS\6166 - Pin Oak Drive\gis\mxd\2021 02 02\Figure 1 Preliminary Constraints Ranking and Concept Plan.mxd REVISED: Monday, March 22, 2021

Figure 7: Development Constraints For the Assessment Property



9.0 Images

9.1 Photos

Photo 1: Ploughed field, Pedestrian Surveyed, from northwest corner of Study Area looking southeast



Photo 2: Ploughed field, Pedestrian Surveyed, from west edge of Study Area looking southeast



Photo 3: Ploughed field, Pedestrian Surveyed, from southwest corner of Study Area looking north



Photo 4: Ploughed field, Pedestrian Surveyed, from south edge of the PSW looking west



Photo 5: Ploughed field, Pedestrian Surveyed, from southeast corner of Study Area looking northwest



Photo 6: Ploughed field, Pedestrian Surveyed, from southeast corner of Study Area looking north



Photo 7: Overgrown area in southeast corner, Test Pit Surveyed, looking east



Photo 8: Overgrown area in southeast corner, Test Pit Surveyed, looking southwest



Photo 9: Ploughed field, Pedestrian Surveyed, looking toward overgrown area in northeast corner, Test Pit Surveyed, looking northeast



Photo 10: Overgrown area in northeast corner, Test Pit Surveyed, work photo looking east



Photo 11: North edge of property, Test Pit Surveyed, looking east



Photo 12: Sample test pit photo



Photo 13: Sample test pit photo

