

Stage 1 Archaeological Assessment of the Port Colborne Lands Parcel 4, Part of Lots 21 and 22, Concession 2, Geographic Township of Humberstone, County of Welland, City of Port Colborne, Regional Municipality of Niagara

Original Report

Prepared for:

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Executive Summary

Archaeological Services Inc. was contracted by Elite MD Developments to undertake a Stage 1 Archaeological Assessment of the Port Colborne Lands Parcel 4, part of Lots 21 and 22, Concession 2, in the Geographic Township of Humberstone, County of Welland, now in the City of Port Colborne, Regional Municipality of Niagara. The project area is approximately 20.2 hectares and is divided into two large, separate properties (Properties A and B). Permission to access the project area and to carry out all activities necessary for the completion of the assessment was granted by the proponent on October 27, 2023.

The Stage 1 background research entailed consideration of the proximity of previously registered archaeological sites and the original environmental setting of the project area, along with nineteenth- and twentieth-century settlement trends. This research has led to the conclusion that there is potential for the presence of both Indigenous and Euro-Canadian archaeological resources within the project area.

The Stage 1 assessment has determined that the entire project area retains archaeological potential and will require a Stage 2 Archaeological Assessment in accordance with the Ministry of Citizenship and Multiculturalism's 2011 *Standards and Guidelines for Consultant Archaeologists*.



Table of Contents

Executive Summary	1
1.0 Project Context	4
1.1 Development Context	4
1.2 Historical Context	5
1.2.1 Pre-Contact Settlement	5
1.2.2 Post-Contact Settlement	8
1.2.3 Review of Map Sources	9
1.2.4 Review of Aerial Imagery	11
1.3 Archaeological Context	12
1.3.1 Registered Archaeological Sites	12
1.3.2 Previous Assessments	13
1.3.3 Physiography	16
1.3.4 Existing Conditions	17
1.3.5 Review of Archaeological Potential	18
2.0 Field Methods	20
2.1 Findings	20
3.0 Analysis and Conclusions	21
4.0 Recommendations	21
5.0 Advice on Compliance with Legislation	22
6.0 Bibliography and Sources	24
7.0 Images	29
8.0 Maps	34
9.0 Appendix A: Registered Sites within One Kilometre of the Project Area	41

List of Images

Image 1: Northeast part of Property A from Highway 3 (June 2023).	29
Image 2: Centre and west parts of Property A from Highway 3 (June 2023).	29



Image 3: Residence in the northwest corner of Property A (June 2023).	30
Image 4: Backyard area of residence in the northwest corner of Property A (June 2014).	30
Image 5: Southwest part of Property A from the west limit of the property (June 2014).	31
Image 6: Northeast corner of Property B, looking southwest towards the central farm complex (June 2023).	31
Image 7: Southeast corner of Property B, looking west along the south part of the property (June 2023).	32
Image 8: Laneway to farm complex from Killaly Street East in Property B (June 2023).	32
Image 9: Southwest corner of Property B, looking northwest towards farm complex and woodlot in the west of the property (June 2023).	33
Image 10: Woodlot in the west of Property B (June 2023).	33

List of Maps

Figure 1: Location of the Project Area	35
Figure 2: Port Colborne Lands Development – Parcels 1-4	36
Figure 3: Existing Conditions of the Project Area	37
Figure 4: Project Area Located on the 1862 <i>Tremaine Map of the Counties of Lincoln and Welland</i>	38
Figure 5: Project Area Located on the 1876 <i>Illustrated Historical Atlas of the Counties of Lincoln and Welland</i>	38
Figure 6: Project Area Located on the 1907 Welland Topographic Map	38
Figure 7: Project Area Located on 1934, 2000, and 2010 Aerial Imagery	39
Figure 8: Stage 1 Archaeological Assessment Results	40



1.0 Project Context

Archaeological Services Inc. was contracted by Elite MD Developments to undertake a Stage 1 Archaeological Assessment of the Port Colborne Lands Parcel 4, part of Lots 21 and 22, Concession 2, in the Geographic Township of Humberstone, County of Welland, now in the City of Port Colborne, Regional Municipality of Niagara (Figure 1). The project area comprises two parcels, Property A (7.6 hectares) and Property B (12.6 hectares), which together are approximately 20.2 hectares.

1.1 Development Context

This assessment was conducted under the senior project management of Jennifer Ley (R376), the project management of Jamie Houston-Dickson (P398), and the project direction of Robb Bhardwaj (P449); the work was completed under Ministry of Citizenship and Multiculturalism (hereafter the Ministry) Project Information Form P449-0752-2023. All activities carried out during this assessment were completed as part of proposed Zoning By-law and Secondary Plan Amendments and a Draft Plan of Subdivision, as required by the City of Port Colborne and the *Planning Act* (Ministry of Municipal Affairs and Housing, 1990). All work was completed in accordance with the *Ontario Heritage Act* (Ministry of Culture [now the Ministry], 1990) and the *Standards and Guidelines for Consultant Archaeologists* (hereafter “the Standards”) (Ministry of Tourism and Culture [now the Ministry], 2011).

The overall Port Colborne Lands development area encompasses a large assembly of lands comprised of multiple property parcels (a mix of former residential and commercial lands and actively cultivated and fallow agricultural fields) situated between Highway 3 (also referred to as Main Street East) to the north, Elizabeth Street to the west, Lorraine Road to the east, and Killaly Street East to the south (part of Lots 21 through 24, Concession 2), with an additional property located south of Killaly Street East (part of Lot 22, Concession 1) (Figure 2); not all properties within this general area are included in the Port Colborne Lands development area. The various properties within the overall Port Colborne Lands



development area have been grouped into four distinct project areas (“Parcels”), each of which will be subject to separate archaeological assessments.

Parcel 4, the focus of the current assessment, is divided into two separate properties totalling 20.2 hectares (Figure 3). Property A is a single 7.6-hectare rectangular property parcel (current street address 705 Main Street East) fronting the south side of Highway 3 and east side of Snider Road within the central-west part of Lot 22, Concession 2. Property B is a single 12.6-hectare rectangular-shaped property parcel (current street address 869 Killaly Street East) fronting the north side of Killaly Street East and the west side of Lorraine Road at the south end of Lot 21, Concession 2. Permission to access the Parcel 4 project area and to carry out all activities necessary for the completion of the assessment was granted by the proponent on October 27, 2023.

Parcel 1, the largest of the three project areas, consists of a 62.1-hectare block of land on the west side of Snider Road within Lots 23 and 24, Concession 2, and an additional 12.6-hectare block of land on the east side of Snider Road in the southwest portion of Lot 22, Concession 2, for a total of 74.7 hectares. Parcel 2 is comprised of three non-contiguous properties on portions of Lot 21, Concession 2, Lots 23 and 24, Concession 2, and Lot 22, Concession 1, for a total of 34.4 hectares. Parcel 3 consists of a single 12.7-hectare property in the southeast portion of Lot 22, Concession 2 (Figure 2). The Stage 1 and 2 Archaeological Assessments of Parcel 1, Parcel 2, and Parcel 3 are being conducted under Ministry Project Information Forms P449-0542-2021, P449-0556-2021, and P449-0552-2021, respectively.

1.2 Historical Context

The purpose of this section is to describe the past and present land use and settlement history of the project area, and any other relevant historical information gathered through the Stage 1 background research.

1.2.1 Pre-Contact Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (B.P.).



Populations at this time would have been highly mobile, inhabiting a boreal parkland similar to the modern sub-arctic. By approximately 10,000 B.P., the environment had progressively warmed (Edwards and Fritz, 1988) and populations now occupied less extensive territories (Ellis and Deller, 1990).

Between approximately 10,000-5,500 B.P., the Great Lakes basins experienced low-water levels, and many sites that would have been located on those former shorelines were now submerged. This period produced the earliest evidence of heavy woodworking tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production, and indication of prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 B.P.; the latter was acquired from the north shore of Lake Superior, which suggests extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 B.P., which demonstrates increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Ellis *et alia*, 1990; Ellis *et alia*, 2009; Brown, 1995:13).

Between 3,000-2,500 B.P., populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period began around 2,500 B.P. and exchange and interaction networks broadened at this time (Spence *et alia*, 1990:136, 138). By approximately 2,000 B.P., evidence exists for macro-band camps, focusing on the seasonal harvesting of resources (Spence *et alia*, 1990:155, 164). By 1,500 B.P., there is macro botanical evidence for maize in southern Ontario. Although it is thought that maize only supplemented people's diet, phytolith evidence for maize in central New York State by 2,300 B.P. suggests that similar analyses conducted on Ontario ceramic vessels of the same period could result in the same evidence here (Birch and Williamson, 2013:13-15). It is probable that these bands, most likely Algonquian speakers, retreated to interior camps during the winter.

From the beginning of the Late Woodland period at approximately 1,000 B.P., lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (C.E.), the communal site was



replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson, 1990:317), but by 1300-1450 C.E., this episodic community disintegration waned and populations now occupied sites communally throughout the year (Dodd *et alia*, 1990:343). By the mid-sixteenth century, these small villages had coalesced into larger communities (Birch *et alia*, 2021). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed.

By 1600 C.E., the Huron-Wendat communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries. Samuel de Champlain in 1615 reported that a group of Iroquoian-speaking people situated between the Haudenosaunee and the Huron-Wendat were at peace and remained “*la nation neutre*.” Like the Huron-Wendat, Petun, and Haudenosaunee, the Neutral or Attawandaron people were settled village agriculturalists. In the 1640s, devastating epidemics and the traditional enmity between the Haudenosaunee and the Attawandaron and the Huron-Wendat (and their Algonquian allies such as the Nippissing and Odawa) led to their dispersal from southern Ontario. Shortly afterwards, the Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario. By the 1690s, however, the Anishinaabeg were the only communities with a permanent presence in southern Ontario. From the beginning of the eighteenth century to the assertion of British sovereignty in 1763, there was no interruption to Anishinaabeg control and use of southern Ontario.

The lands between Lake Erie and Lake Huron were highly contested during the contact period of southwestern Ontario. An early Jesuit map entitled *Nouvelle France* depicts this area as a border zone between peoples of difference cultures and languages. The introduction of European trade goods, weapons, missionaries, and diseases served to exacerbate previous tensions between Indigenous groups (Johnston, 2004:9). The period between 1400 and 1600 C.E. in southwestern Ontario is the least understood. The evidence that does exist indicates a trend towards population aggregation and construction of larger, fortified settlements.



Settlement locations are also situated in areas typically less well-suited towards agriculture but quite well suited to alternate resource utilization, and so this pattern of supplementary agriculture seems to continue in this period (Murphy and Ferris, 1990). The Western Basin Tradition has conventionally been considered to represent an Anishinaabek population living in the area at the western end of the Lake Erie north shore to Lake St. Clair, ancestral to the groups of the Great Lakes region during the seventeenth century (Murphy and Ferris, 1990:277). Late Western Basin Tradition populations may have been related to the seventeenth-century Kickapoo, Miami, Potawatomi, Fox, and Sauk Nations (Heidenreich, 1990:Figure 15.1).

1.2.2 Post-Contact Settlement

Between the Lakes Purchase (Treaty 3)

The project area is within Treaty 3, the Between the Lakes Purchase. Following the 1764 Niagara Peace Treaty and the follow-up treaties with Pontiac, the English colonial government considered the Mississaugas to be their allies since they had accepted the Covenant Chain. The English administrators followed the terms of the Royal Proclamation and insured that no settlements were made in the hunting grounds that had been reserved for their use (Johnston, 1964; Lytwyn, 2005). In 1784, under the terms of the Between the Lakes Purchase, signed by Sir Frederick Haldimand and the Mississaugas, the Crown acquired over one million acres of land in-part spanning westward from near modern day Niagara-on-the-Lake along the south shore of Lake Ontario to modern day Burlington (Aboriginal Affairs and Northern Development Canada, 2016).

Geographic Township of Humberstone

The land within Humberstone Township was acquired by the British from the Mississaugas (Ojibwa) in 1784. The first township survey was undertaken in 1789, and the first legal settlers occupied their land holdings the same year. The township was named after a town in Lincolnshire, England. Humberstone was initially settled by disbanded soldiers, mainly Butler's Rangers, following the end of the American Revolutionary War. In 1805, Boulton noted that, due to its remote location from Niagara, Humberstone was "but little cultivated." The



township began to flourish more following the construction of the first Welland Canal during the early 1830s. By the 1840s, the township was said to contain good land but that the farms were not well cultivated. The population was comprised mainly of a large community of Pennsylvania Dutch settlers, with some Canadians and Americans (Armstrong, 1985:144; Boulton, 1805:82; Ott, 1967; Rayburn, 1997:163; Smith, 1846:84).

Early Development of Port Colborne

The City of Port Colborne is located at the Lake Erie end of the Welland Ship Canal. First named Gravelly Bay, and later renamed in honour of the Lieutenant-Governor of Upper Canada, Sir John Colborne, the village was established in 1832 when the Welland Canal was extended in a direct line to Lake Erie from the Chippawa Creek, or Welland River, and a lock was constructed near the settlement. The settlement was laid out on parts of Lots 26, 27, and 28, Concession 1, and registered plans of subdivision for the village date from 1847 to 1863.

Port Colborne became a port of entry during the nineteenth century and was served by the Buffalo, Brantford and Goderich Railway (which later became the Buffalo and Lake Huron Railway and then the Grand Trunk Railway) and the Welland Railway. In 1873, the population of the village was about 1,500 and there were several stores and hotels, as well as a brewery (Crossby, 1873:256). By 1876, there was one public and one separate school, four churches and burial grounds, a town hall, one grist mill, one sawmill, three planing mills, a sash and door factory, one bank, two telegraph offices, and a grain elevator, and a protective pier with a lighthouse extended into Lake Erie on the west side of the canal. Port Colborne became a town in 1918 and later incorporated as a city in 1966 (Wainfleet Historical Society, 1992:281-289; City of Port Colborne, 1970; Page, 1876:11; Rayburn, 1997:276; Scott, 1997:182; Winearls, 1991:783-784).

1.2.3 Review of Map Sources

A review of nineteenth- and early twentieth-century mapping was completed to determine if these sources depict any nineteenth-century Euro-Canadian settlement features that may represent potential historical archaeological sites



within or adjacent to the project area. Historical map sources are used to reconstruct/predict the location of former features within the modern landscape by cross-referencing points between the various sources and then georeferencing them in order to provide the most accurate determination of the location of any property from historical mapping sources. The results can be imprecise (or even contradictory) because sources of error, such as the vagaries of map production, differences in scale or resolution, and distortions caused by the reproduction of the sources, introduce error into the process. The impacts of this error are dependent on the size of the feature in question, the constancy of reference points on mapping, the distances between them, and the consistency with which both are depicted on historical mapping.

In addition, not all settlement features were depicted systematically in the compilation of these historical map sources, given that they were financed by subscription, and subscribers were given preference with regards to the level of detail provided. Thus, not every feature of interest from the perspective of archaeological resource management would have been within the scope of these sources.

Figures 4 and 5 show the overall Parcel 4 project area overlaid on the 1862 *Tremaine Map of the Counties of Lincoln and Welland* (Tremaine and Tremaine, 1862) and the 1876 *Illustrated Historical Atlas of the Counties of Lincoln and Welland* (Page, 1876), respectively. In addition to nineteenth-century historical mapping, the 1907 Welland topographic map (Department of Militia and Defence, 1907), which identifies waterways, wetlands, woodlots, elevation, and other land features, was also reviewed for the presence of potential historical features; both properties appear just below the 600-foot (182-metre) elevation contour (Figure 6).

Property A

Both the 1862 map and 1876 atlas show Property A situated in the central-west of Lot 22, Concession 2, within a parcel owned by J. Stone in 1862 and Henry Stone in 1876 (Figures 4 and 5). The north limit fronts the south side of Fort Erie Road (present-day Highway 3), and the west side fronts present-day Snider Road, which are both represented as settlement roads. A watercourse flows on a north-south



axis immediately east of Property A. No structures are identified on or in the immediate vicinity of Property A on either map.

The 1907 topographic map shows Property A on cleared land. The south-flowing watercourse previously illustrated immediately east of the property is now shown bending through the centre of Property A from the northeast corner to the central west boundary, where it exits under a bridge over Snider Road. It is inferred that this relocation of the watercourse represents the channelization associated with the first iteration of the Wignell Drain. No structures or other settlement features are depicted within the limits of Property A, but a frame house is illustrated abutting the northeast corner, fronting Highway 3 to the north.

Property B

The 1862 map and 1876 atlas show Property B overlying the southeast corner of Lot 21, Concession 2, within a parcel owned by P. Weaver in 1862 and David Fry in 1876 (Figures 4 and 5). Settlement roads are depicted aligning the south (present-day Killaly Road East) and east (present-day Lorraine Road) limits of Property B but there are no structures illustrated on the property or in the immediate vicinity on either map. The only nearby source of water identified on the maps is the same north-south watercourse located east of Property A, which continues southward approximately 150 metres west of Property B.

The 1907 topographic map shows Property B on mostly cleared land with the southeast part of a woodlot extending into the northwest part of the property. A frame house is illustrated in the southeast, fronting present-day Killaly Road East (now illustrated as connected to the telegraph) to the south. The watercourse from earlier mapping is now shown diverted southwest far north of the property.

1.2.4 Review of Aerial Imagery

In order to further understand the previous land use on the project area, aerial imagery was reviewed. Figure 7 depicts the project area on aerial photographs from 1934, 2000, and 2010 (Ministry of Natural Resources, 1934; Google Earth Pro, 2023).



Property A

All three images show the majority of Property A overlying agricultural fields. In the 1934 image, there is a residence just beyond the northeast limit, corresponding to the earlier 1907 topographic map, and the Wignell Drain can be seen adjacent to the property to the east and bending southwest into Property A in the southeast corner. In the images from 2000 and 2010, there is now a residence inside the northwest corner of the property and a new residence has been built immediately northeast of the property, situated between the property limit and the older house from earlier aerial imagery.

Property B

All three images show Property B overlapping parts of several ploughed agricultural fields and a woodlot in the west. There is a farm complex consisting of a house and barns in the centre of the property, connected to Killaly Road East by a driveway. It is worth noting that the 1907 topographic map depicts the wooded area in the west part of Property B as being only a portion of a much larger woodlot extending to the north and northwest, but the 1934 aerial shows no continuation of the woodlot beyond Property B. In fact, the west and north edges of the woodlot on the aerial match exactly the limits of Property B, suggesting the boundaries of the current 896 Killaly Street East address were already established by 1934.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the project area, its environment characteristics (including drainage, soils, surficial geology, and topography), and current land use and field conditions.

1.3.1 Registered Archaeological Sites

In order that an inventory of archaeological resources could be compiled for the project area, three sources of information were consulted: the site record forms for registered sites housed at the Ministry, published and unpublished documentary sources, and the files of Archaeological Services Inc.



In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database, which is maintained by the Ministry. This database contains archaeological sites registered within the Borden system. The Borden system was first proposed by Doctor Charles E. Borden and is based on a block of latitude and longitude. Each Borden block measures approximately 13 kilometres east to west by 18.5 kilometres north to south and is referenced by a four-letter designator. Sites within a block are numbered sequentially as they are found. The project area is located in the centre-east of the AfGt Borden block.

Twenty-one archaeological sites have been registered with an approximate one-kilometre radius of the overall Parcel 4 project area (Ministry of Citizenship and Multiculturalism, 2023). A detailed summary of all 21 sites is available in Appendix A. All sites are affiliated with Indigenous occupations, except for AfGt-306, which has Euro-Canadian affiliation.

Three of the previously registered sites are located within 100 metres east of Property A: Ott 2 (AfGt-55) is approximately 100 metres east, Ott 3 (AfGt-56) is 80 metres distant, and Ott 4 (AfGt-57) is 65 metres east (Pengelly, 1984). In addition to these eastern sites, Snider 3 (AfGt-37) partially overlaps the southeast corner of Property A and Augustine 1 (AfGt-41) is 40 metres southwest. The Snider 1 (AfGt-35) site is between Property A and Property B, approximately 100 metres to the southeast and 100 metres to the northwest, respectively. Snider 2 (AfGt-36) is approximately 185 metres south of Property A, Ott 5 (AfGt-59) is approximately 210 metres east, and Ott 1 is approximately 135 metres east of Property A. See section 1.3.2 below for further discussion of these sites. No other registered sites are within 300 metres of Properties A or B.

1.3.2 Previous Assessments

Two archaeological assessments are known to have been completed on portions of the Parcel 4 project area.

In 1984, James W. Pengelly conducted an archaeological survey of a small portion of the Wignell Drain Basin as part of the Archaeological Conservation Program, an initiative to identify and record archaeological sites in the Regional Municipality of Niagara (Pengelly, 1984; Pengelly and Pengelly, 1986). The work was conducted



under Ontario Ministry of Citizenship and Culture (now the Ministry) licence #84-90.

The survey was carried out from 1984 to 1985 over approximately one square kilometre of the 18-square-kilometre Wignell Drain Basin area and resulted in the identification of 30 sites dating from the Middle Archaic to the Contact periods (Pengelly and Pengelly, 1986:3-5). One cluster of sites, which Pengelly refers to as the Snider-Ott sites, are immediately adjacent to the Property A portion of the Parcel 4 project area under review¹; all of these sites were encountered during pedestrian survey of the agricultural fields.

The Snider-Ott complex consists of the Snider 1 (AfGt-35), Snider 2 (AfGt-36), Snider 3 (AfGt-37), Ott 1 (AfGt-54), Ott 2 (AfGt-55), Ott 3 (AfGt-56), Ott 4 (AfGt-57), and Ott 5 (AfGt-59) sites, which were documented east of Snider Road in Lot 22 and Lot 21, Concession 2. The Snider 3 (AfGt-37) site overlaps the southeast corner of Property A, and Ott 2 (AfGt-55), Ott 3 (AfGt-56), and Ott 4 (AfGt-57) are all within 100 metres to the east of Property A. Snider 1 (AfGt-35) is located between Property A and Property B, approximately 100 metres to the southeast and northwest, respectively. The Ott 1 (AfGt-54), Ott 5 (AfGt-59), and Snider 2 (AfGt-36) sites are more than 100 metres from any portion of the current project area. In addition to the Snider-Ott sites, the Augustine 1 (AfGt-41) site is approximately 40 metres southwest, on the opposite side of Snider Road; the Augustine complex consists of three Indigenous sites all located west of Snider Road, two of which are not in proximity to the project area. Only the Augustine 1 (AfGt-41) site and the five Snider-Ott sites within 100 metres of the project area are summarized in this section.

¹ The locations of the sites discussed in this report are based on field mapping supplied in Pengelly's 1984 report (Pengelly, 1984: Figures 4 and 6), which shows the sites relative to known topographic features, current roadways, and property boundaries. These locations may deviate from location coordinates listed in the Ontario Archaeological Sites Database, which were recalculated from their original North American Datum 27 coordinates during the mass data migration to the new Ontario Past Portal system in 2015.



The Ott 2 (AfGt-55), Ott 3 (AfGt-56), Ott 4 (AfGt-57), Snider 1 (AfGt-35), and Snider 3 (AfGt-37) sites, located in the southeast part of Lot 22, Concession 2, are in the vicinity of the watercourse indicated on the nineteenth-century historical mapping (Figures 4 and 5), before the Wignell Drain diverted drainage to the west side of Snider Road. The Snider 3 (AfGt-37) site, which overlaps with the southeast corner of Property A, approximately 200 metres east of Snider Road, consisted of a scatter of lithic flakes, cores, scrapers, bifaces, utilized flakes, a preform blade, and a non-diagnostic projectile point; the overall artifact scatter measured approximately 60 metres by 40 metres and was comprised of four distinct loci of activity (Pengelly, 1984:13). The majority portion of Snider 3 (AfGt-37) is actually located within Parcel 3 of the Port Colborne Lands development. The Ott 2 (AfGt-55) site, located approximately 100 metres east of the northeast corner of Property A, consisted of a non-diagnostic Indigenous lithic scatter measuring approximately 30 metres by 20 metres, from which a sample of four bifaces, two scrapers, and two possible projectile point fragments were recovered (Pengelly, 1984:11, 15). The Ott 3 (AfGt-56) site, located approximately 80 metres east of Property A and between approximately 150 metres and 175 metres south of Highway 3, was a small, non-diagnostic Indigenous lithic scatter measuring approximately 25 metres by 20 metres, from which a sample of two bifaces and one scraper were recovered (Pengelly, 1984:11, 15-16). The Ott 4 (AfGt-57) site, located approximately 65 metres east of Property A and between approximately 200 metres and 250 metres south of Highway 3, was a large, dense, non-diagnostic Indigenous lithic scatter measuring approximately 80 metres by 50 metres, from which a sample of two bifaces and one scraper were recovered (Pengelly, 1984:11, 16). The Snider 1 (AfGt-35) site, located approximately 100 metres southeast of Property A and 100 metres northwest of Property B and between 400 metres and 450 metres north of Killaly Street East (within Parcel 3 of the Port Colborne Lands development area), consisted of a large Indigenous lithic scatter approximately 0.5 hectare in size, from which a sample of eight bifaces, five scrapers, two blade fragments, one preform, and one diagnostic Otter Creek projectile point indicative of a Middle Archaic occupation were recovered (Pengelly, 1984:11-13).

Augustine 1 (AfGt-41) is located along the west side of Snider Road in the southeast portion of Lot 23, Concession 2, approximately 40 metres southwest of



Property A. The site consisted of a lithic assemblage of flakes, cores, and debitage over an area of 10-15 metres in diameter. A non-diagnostic scraper and a blade fragment were recovered from this site. The site is within Parcel 1 of the Port Colborne Lands development area.

In 2009, Archaeological Services Inc. conducted a Stage 1 Archaeological Assessment for a proposed new South Niagara East-West Arterial Road Corridor (Archaeological Services Inc., 2009). The purpose of the overall study was to confirm the need and preferred route for a new or improved east to west arterial road in the southern tier of the Regional Municipality of Niagara. The study area, located east of the Welland Canal, spanned over 200 square kilometres across four townships (Humberstone, Bertie, Crowland, and Willoughby), with the southern limit in Port Colborne terminating at Killaly Street East. Both Properties A and B of the Port Colborne Lands Parcel 4 project area currently under review fall within the southwest corner of the 2009 study area. The Stage 1 assessment, which consisted of a map-based review and did not include a field review, determined that 94% of the overall assessment area, including Property A and Property B of the current Parcel 4 project area, had potential for the recovery of archaeological sites (Archaeological Services Inc., 2009: Figure 4F). The final assessment report recommended an archaeological field review of the preferred route chosen for the east to west arterial road be undertaken to confirm the extent of archaeological potential along the chosen route.

No other archaeological assessments are known to have been completed on or within 100 metres of the project area.

1.3.3 Physiography

The project area is in the Haldimand Clay Plain physiographic region. The Haldimand Clay Plain is among the largest of the 53 defined physiographic regions in southern Ontario, comprising approximately 3,500-square kilometres (Chapman and Putnam, 1984:156-159; MacDonald, 1980:3). Generally, this region is flat and poorly drained, although it includes several distinctive landforms, including dunes, limestone pavements, back-shore wetland basins, and cobble, clay, and sand beaches.



A number of environmental sub-regions have been described in this part of the Niagara peninsula, including the Niagara Slough Clay Plain, the Fort Erie Clay Plain, the Calcareous Rock Plain (Onondaga Escarpment), the Buried Moraines, the Lake Erie Coast, and the Niagara River Valley (MacDonald, 1980). The distribution and nature of these sub-regions, and the specific environmental features they contain, have influenced land use in the region throughout history and pre-history. Properties A and B are both located on a clay plain.

The surficial geology of Property A and the west part of Property B consists of fine-textured glaciolacustrine deposits of silt and clay with minor sand and gravel that is massive to well-laminated. The remainder of Property B contains Paleozoic bedrock (Ontario Geological Survey, 2018).

The project area is within the Lake Erie North Shore watershed (Niagara Peninsula Conservation Authority, 2022). The Wignell Drain flows through the southeast corner and along the south limit of Property A and then continues west and south to empty at the north shore of Lake Erie (Ministry of Natural Resources and Forestry, 2020).

1.3.4 Existing Conditions

The Parcel 4 lands are divided into two separate properties (Properties A and B) distributed across Lots 21 and 22, Concession 2, for an overall project area of approximately 20.2 hectares (Figure 3) (Esri *et alia*, 2020).

Property A

Property A is a single, 7.6-hectare rectangular property parcel (705 Main Street East) fronting Highway 3 to the north and the former Snider Road to the west. Property A consists mainly of the majority portion of a large agricultural field, with a residence and surrounding lawn in the northwest corner. Agricultural fields bound the property to the east and south, and there are two residences immediately northeast.



Property B

Property B is a single, 12.6-hectare square property parcel (869 Killaly Street East) fronting Killaly Road East to the south and Lorraine Road to the east, within the south of Lot 21, Concession 2. There are agricultural fields in majority of the property, surrounding a central farm complex that consists of a farmhouse, outbuildings, and barns. A gravel driveway connects the farm complex to Killaly Street East to the south. The west of Property B is comprised of a woodlot and areas of scrub. There are agricultural fields to the north and west of Property B and the remains of a demolished school are immediately southwest.

1.3.5 Review of Archaeological Potential

The Standards, Section 1.3.1 stipulates that undisturbed lands within 300 metres of primary water sources (lakes, rivers, streams, creeks), secondary water sources (intermittent streams and creeks, springs, marshes, and swamps), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, and cobble beaches), and accessible and inaccessible shorelines (bluffs, swamps or marsh fields by the edge of a lake, sandbars stretching into marsh) are considered, at a generic level, to exhibit archaeological potential.

Potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in south-central Ontario after the Pleistocene era, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most common variables used for predictive modelling of site location. Historical mapping indicates a watercourse once flowed south, within approximately 50 metres of Property A and approximately 100 metres from Property B in the nineteenth century (Figures 4 and 5). This watercourse appears to have been redirected by the early twentieth century to create the Wignell Drain, which cuts southwest through the southeast corner and along the south limit of Property A and crosses to the west side of Snider Road before continuing south (Figures 1, 2, 6, and 7).



Other geographic characteristics that can indicate pre-contact archaeological potential include elevated topography (eskers, drumlins, large knolls, plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, and distinctive land formations that might have been special or spiritual places for Indigenous populations, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use by Indigenous peoples, such as burials, structures, offerings, and rock paintings or carvings. Resource areas, including food or medicinal plants (migratory routes, spawning areas, prairie) and scarce raw materials (quartz, copper, ochre, or outcrops of chert and bedrock), are also considered characteristics that indicate pre-contact archaeological potential.

For the post-contact period, Section 1.3.1 of the Standards stipulates those areas of early Euro-Canadian settlement, including places of early military or pioneer settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches, and early cemeteries, are considered to have archaeological potential. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks. Also considered to have archaeological potential are early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historical landmark or site, and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations.

The majority of early nineteenth-century farmsteads, which are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth-century maps, are likely to be captured by the basic proximity to water model, since these occupations were subject to similar environmental constraints. An added factor, however, is the development of the network of concession roads and railroads through the course of the nineteenth century. These transportation routes frequently influenced the siting of farmsteads and businesses. Accordingly, the Standards considers undisturbed lands within 100 metres of early settlement roads or railroads to have potential for the presence of Euro-Canadian archaeological sites.



In addition to the above criteria for Indigenous and historical archaeological potential, the Standards also defines potential buffers of 300 metres around registered Indigenous and historical archaeological sites. While no historical sites have been registered in the general vicinity, currently there are nine Indigenous sites registered within 300 metres of the project area, six of which are within 100 metres.

In addition to the presence of water and registered Indigenous sites, Properties A and B front multiple historical roads (Figure 5). Early topographic mapping indicates a house was in the southeast of Property B in the early twentieth century. The project area thus meets the criteria for both Indigenous and Euro-Canadian archaeological potential.

2.0 Field Methods

The optional field review was not required as part of this assessment, as per the Standards, Section 1.2. In order to provide images to support the analysis, conclusions, and recommendations of this report, current orthographic imagery (Figure 3) and images available through Google Earth Street View were reviewed (Images 1-10) (Google Earth Pro, 2023). The Google Earth Street View images were taken in June 2014 and June 2023 and are presented in Section 7.0 of this report. Photo locations and assessment conclusions have been compiled on project mapping (Figure 8).

2.1 Findings

The project area consists of agricultural fields, a small area of trees, a residence, and a farm complex (Images 1-10). Upon review of the available background sources, including historical and modern mapping and aerial imagery, it is concluded that the entirety of Properties A and B, comprising the Parcel 4 project area, is considered to have archaeological potential and both locations will require a Stage 2 Archaeological Assessment (Figure 8).



3.0 Analysis and Conclusions

Archaeological Services Inc. was contracted by Elite MD Developments to complete a Stage 1 Archaeological Assessment of the Port Colborne Lands Parcel 4, part of Lots 21 and 22 Concession 2, Geographic Township of Humberstone, Welland County, now in the City of Port Colborne, Regional Municipality of Niagara. The Parcel 4 project area totals 20.2 hectares and is divided into two separate properties comprising the north-central (Property A, 7.6 hectares), and southeast (Property B, 12.6 hectares) portions of the overall Port Colborne Lands development. Parcels 1, 2, and 3 comprise separate portions of the larger development and will be assessed separately.

The Stage 1 background research entailed consideration of the proximity of previously registered archaeological sites and the original environmental setting of the property, along with nineteenth- and twentieth-century settlement trends. This research indicates there is potential for both Indigenous and Euro-Canadian archaeological resources on the project area.

The Stage 1 background review has determined the entire Parcel 4 project area (Properties A and B) retains archaeological potential and will require a Stage 2 Archaeological Assessment.

4.0 Recommendations

In light of these results, the following recommendation is made:

1. Prior to any land-disturbing activities within the Parcel 4 project area (Properties A and B), a Stage 2 Archaeological Assessment must be conducted on all lands within the project area in accordance with the Ministry of Citizenship and Multiculturalism 2011 *Standards and Guidelines for Consultant Archaeologists*.
 - a) The Stage 2 Archaeological Assessment of all agricultural or open lands within the project area must be carried out by means of a pedestrian survey. The lands must be ploughed in advance of survey and allowed to weather for at least one substantial rainfall. Ploughing must be deep enough to provide total topsoil exposure, but not deeper than previous



ploughing. The pedestrian survey must be completed at five-metre transect intervals, as outlined in Section 2.1.1 of the *Standards and Guidelines for Consultant Archaeologists*.

- b) The Stage 2 Archaeological Assessment of all remaining portions of the project area where ploughing is not possible or viable must be carried out by means of a test pit survey. All test pits must be excavated at least five centimetres into sterile subsoil, with all soils being screened through six-millimetre wire mesh to facilitate artifact recovery. All test pits must be at least 30 centimetres in diameter and backfilled upon completion. Test pits must be excavated at five-metre transect intervals, as outlined in Section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists*.

NOTWITHSTANDING the results and recommendations presented in this study, Archaeological Services Inc. notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the Ministry of Citizenship and Multiculturalism must be immediately notified.

The above recommendations are subject to Ministry approval, and it is an offence to alter any archaeological site without Ministry of Citizenship and Multiculturalism concurrence. No grading or other activities that may result in the destruction or disturbance of any archaeological sites are permitted until notice of Ministry of Citizenship and Multiculturalism approval has been received.

5.0 Advice on Compliance with Legislation

Archaeological Services Inc. advises compliance with the following legislation:

- This report is submitted to the Ministry of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 2005, 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 field work and report recommendations ensure the conservation, preservation, and protection 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 Citizenship and Multiculturalism, a letter will be issued by the Ministry stating that there are no further concerns with regards to alterations to archaeological sites by the proposed development.

- It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a 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 field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar, Funeral, Burial and Cremation Services Act, Ministry of Public and Business Services Delivery is also immediately notified.
- Archaeological sites recommended for further archaeological field work or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, nor may artifacts be removed from them, except by a person holding an archaeological license.



6.0 Bibliography and Sources

Aboriginal Affairs and Northern Development Canada. (2016). *Between the Lakes Purchase and Collins Purchase, No. 3*. Treaty Texts – Upper Canada Land Surrenders. <https://www.aadnc-aandc.gc.ca/eng/1370372152585/1370372222012#ucls5>

Archaeological Services Inc. (2009). *Stage 1 Archaeological Assessment (Background Research) South Niagara East-West Arterial Road Corridor, Regional Municipality of Niagara, Ontario (08EA-107)*. Report on file with the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries.

Armstrong, F. H. (1985). *Handbook of Upper Canadian Chronology*. Dundurn Press.

Birch, J., Manning, S. W., Sanft, S., & Conger, M. A. (2021). Refined Radiocarbon Chronologies for Northern Iroquoian Site Sequences: Implications for Coalescence, Conflict, and the Reception of European Goods. *American Antiquity*, 86(1), 61–89.

Birch, J., & Williamson, R. F. (2013). *The Mantle Site: An Archaeological History of an Ancestral Wendat Community*. Rowman & Littlefield Publishers, Inc.

Boulton, D. (1805). *Sketch of His Majesty's Province of Upper Canada* (Reprinted in Toronto by the Baxter Publishing Company, 1961). C. Rickaby.

Brown, J. (1995). On Mortuary Analysis – with Special Reference to the Saxe-Binford Research Program. In L. A. Beck (Ed.), *Regional Approaches to Mortuary Analysis* (pp. 3–23). Plenum Press.

Chapman, L. J., & Putnam, F. (1984). *The Physiography of Southern Ontario* (3rd ed., Vol. 2). Ontario Ministry of Natural Resources.

City of Port Colborne. (1970). *City of Port Colborne Centennial 1870-1970*. Moss Press.

Crossby, P. A. (1873). *Lovell's Gazetteer of British North America*. John Lovell.

Department of Militia and Defence. (1907). *Welland Sheet* [Map].



- Dodd, C. F., Poulton, D. R., Lennox, P. A., Smith, D. G., & Warrick, G. A. (1990). The Middle Ontario Iroquoian Stage. In C. J. Ellis & N. Ferris (Eds.), *The Archaeology of Southern Ontario to A.D. 1650* (pp. 321–360). Ontario Archaeological Society Inc.
- Edwards, T. W. D., & Fritz, P. (1988). Stable-Isotope Paleoclimate Records from Southern Ontario, Canada: Comparison of Results from Marl and Wood. *Canadian Journal of Earth Sciences*, 25, 1397–1406.
- Ellis, C. J., & Deller, D. B. (1990). Paleo-Indians. In C. J. Ellis & N. Ferris (Eds.), *The Archaeology of Southern Ontario to A.D. 1650* (pp. 37–64). Ontario Archaeological Society Inc.
- Ellis, C. J., Kenyon, I. T., & Spence, M. W. (1990). The Archaic. In C. J. Ellis & N. Ferris (Eds.), *The Archaeology of Southern Ontario to A.D. 1650* (pp. 65–124). Ontario Archaeological Society Inc.
- Ellis, C. J., Timmins, P. A., & Martelle, H. (2009). At the Crossroads and Periphery: The Archaic Archaeological Record of Southern Ontario. In T. D. Emerson, D. L. McElrath, & A. C. Fortier (Eds.), *Archaic Societies: Diversity and Complexity across the Midcontinent*. (pp. 787–837). State University of New York Press.
- Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, and the GIS User Community. (2020). *World Topographic Map* [Map]. <http://www.arcgis.com/home/item.html?id=30e5fe3149c34df1ba922e6f5bbf808f>.
- Google Earth Pro. (2023). *Google Earth v7.3.6.9345* [Map]. Google Inc.
- Heidenreich, C. E. (1990). History of the St. Lawrence-Great Lakes Area to A.D. 1650. In C. J. Ellis & N. Ferris (Eds.), *The Archaeology of Southern Ontario to A.D. 1650*.
- Johnston, C. E. (1964). *The Valley of the Six Nations: A Collection of Documents on the Indian Lands of the Grand River*. The Champlain Society.



Johnston, D. (2004). *Connecting People to Place: Great Lakes Aboriginal in Cultural Context* (Unpublished Paper Prepared for the Ipperwash Commission of Inquiry).

<http://www.attorneygeneral.jus.gov.on.ca/inquiries/ipperwash/transcripts.pdf>

Lytwyn, V. P. (2005). *Historical research report: Aboriginal Settlement and Use of the North Pickering Development Planning Area and Adjacent Lands, 1690-1923*.

MacDonald, I. D. (1980). *Life Science Features of the Haldimand Clay Plain Physiographic Region*. Ontario Ministry of Natural Resources, Parks and Recreation Section, Central Region.

Ministry of Citizenship and Multiculturalism. (2023). *Ontario's Past Portal*. PastPortal. <https://www.pastport.mtc.gov.on.ca>

Ministry of Culture. (1990). *Ontario Heritage Act, R.S.O. c.O.18, 1990 [as amended in 2021]*.

Ministry of Municipal Affairs and Housing. (1990). *Planning Act, R.S.O. 1990, c. P.13, (1990)*.

Ministry of Natural Resources. (1934). *Aerial Photographs* [Map].

Ministry of Natural Resources and Forestry. (2020). *Ontario Flow Assessment Tool* [Map]. Ontario Flow Assessment Tool. <https://www.lioapplications.lrc.gov.on.ca/OFAT/index.html?viewer=OFAT.OFAT&locale=en-ca>

Ministry of Tourism and Culture. (2011). *Standards and Guidelines for Consultant Archaeologists*. Cultural Programs Branch, Ministry of Tourism and Culture.

Murphy, C., & Ferris, N. (1990). The Late Woodland Western Basin Tradition in southwestern Ontario. *London Chapter, Ontario Archaeological Society, The Archaeology of Southern Ontario to A.D. 1650(5)*, 189–278.

Niagara Peninsula Conservation Authority. (2022). *Niagara Peninsula Conservation Authority Watershed Explorer* [Map].



<https://www.arcgis.com/apps/webappviewer/index.html?id=c7555050c8f24a7cbc829395557a7988>

Ontario Geological Survey. (2018). *Quaternary Geology of Ontario* [Map].
https://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm_dir.asp?type=pub&id=eds014-rev

Ott, E. F. (1967). *A Condensed History of the Township of Humberstone in the County of Welland, To Commemorate Canada's Centennial 1967*.

Page, H. R. (1876). *Illustrated Atlas of the Counties of Lincoln & Welland, Ontario* [Map]. H. R. & Page Co.

Pengelly and Pengelly, J. and S. (1986). A Port Colborne Archaeological Survey. *Kewa, Newsletter of the London Chapter, Ontario Archaeological Society*, 86(6), 3–21.

Pengelly, J. (1984). *The Port Colborne Archaeological Survey. 1984—Year 1. Volume 1*. Ontario Ministry of Citizenship and Culture.

Rayburn, A. (1997). *Place Names of Ontario*. University of Toronto Press.

Scott, W. B. (1997). *Ontario Place Names: The Historical, Offbeat or Humorous Origins of More Than 1,000 Communities*. Lone Pine Publishing.

Smith, W. H. (1846). *Smith's Canadian Gazetteer*.

Spence, M. W., Pihl, R. H., & Murphy, C. (1990). Cultural Complexes of the Early and Middle Woodland Periods. In C. J. Ellis & N. Ferris (Eds.), *The Archaeology of Southern Ontario to A.D. 1650*. Ontario Archaeological Society Inc.

Tremaine, G. M., & Tremaine, G. R. (1862). *Map of the Counties of Lincoln and Welland* [Map].

Wainfleet Historical Society. (1992). *Chronicles of Wainfleet Township: 200 Years of History*. Book Committee Wainfleet Historical.



Williamson, R. F. (1990). The Early Iroquoian Period of Southern Ontario. In C. J. Ellis & N. Ferris (Eds.), *The Archaeology of Southern Ontario to A.D. 1650* (pp. 291–320). Ontario Archaeological Society Inc.

Winearls, J. (1991). *Mapping Upper Canada 1780-1867. An Annotated Bibliography of Manuscript and Printed Maps*. University of Toronto.



7.0 Images



Image 1: Northeast part of Property A from Highway 3 (June 2023).



Image 2: Centre and west parts of Property A from Highway 3 (June 2023).



Image 3: Residence in the northwest corner of Property A (June 2023).



Image 4: Backyard area of residence in the northwest corner of Property A (June 2014).



Image 5: Southwest part of Property A from the west limit of the property (June 2014).



Image 6: Northeast corner of Property B, looking southwest towards the central farm complex (June 2023).



Image 7: Southeast corner of Property B, looking west along the south part of the property (June 2023).



Image 8: Laneway to farm complex from Killaly Street East in Property B (June 2023).



Image 9: Southwest corner of Property B, looking northwest towards farm complex and woodlot in the west of the property (June 2023).

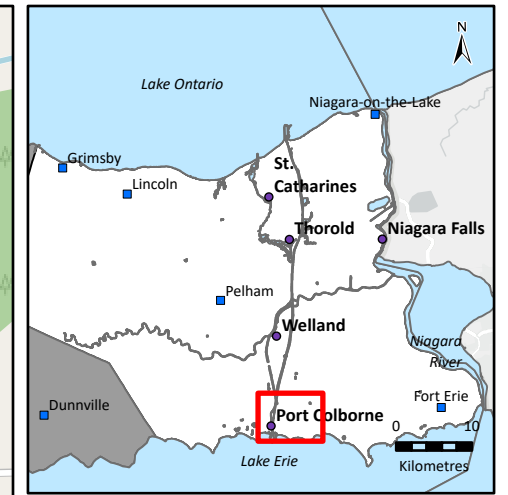
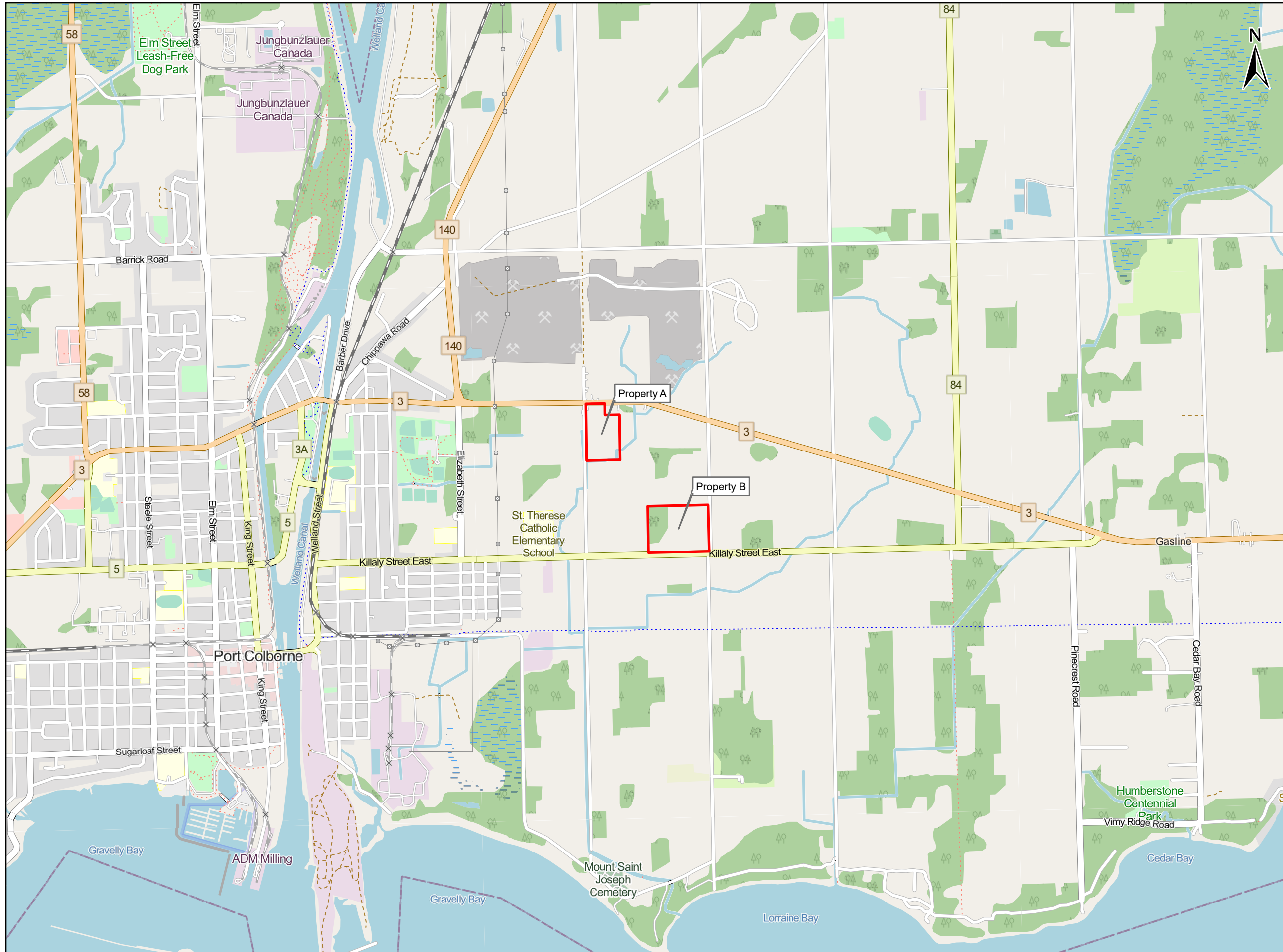


Image 10: Woodlot in the west of Property B (June 2023).

8.0 Maps

See following pages for detailed assessment mapping and figures.

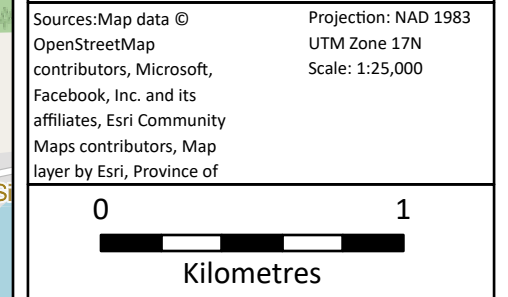




PROJECT AREA

Sources: Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri, Province of

Projection: NAD 1983
UTM Zone 17N
Scale: 1:25,000

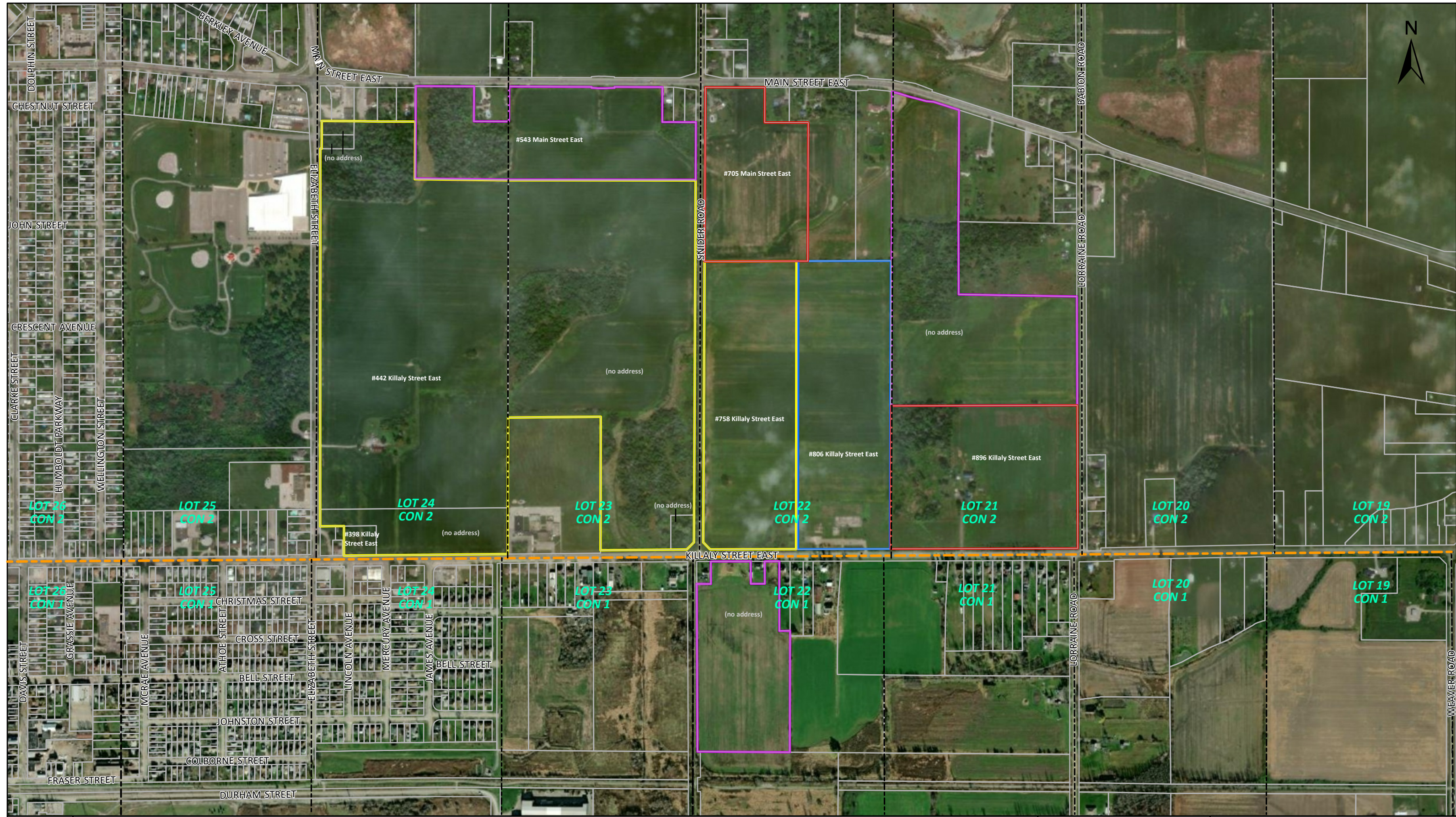


ASI Project No: 23PL-408
Date: 11/9/2023 9:53 AM

Drawn By: jfernandez
File: 23PL408_Fig1

ASI Providing Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
T 416-966-1069 F 416-966-9723 asiheritage.ca

Figure 1: Location of the Project Area



	 PARCEL 1 LANDS	 LOT BOUNDARY	
	 PARCEL 2 LANDS	 CONCESSION BOUNDARY	
	 PARCEL 3 LANDS	 PROPERTY PARCEL LIMIT	Projection: NAD 1983 MTM 10 Scale: 1:7,500 Page Size: 11 x 17
	 PARCEL 4 LANDS		Drawn By: rlatour File: Fig2_N

Figure 2: Port Colborne Lands Development - Parcels 1-4






	 PROJECT AREA	Source: Maxar	 0 125 Metres	
		Projection: NAD 1983 UTM Zone 17N Scale: 1:6,178 Page Size: 8.5x11	ASI Project No.: 23PL-408 Date: 11/9/2023	Drawn By: jfernandez File: 23PL408_Fig3_Existing

Figure 3: Existing Conditions of the Project Area



Figure 4: Project Area located on the 1862 Tremaine Map of the Counties of Lincoln and Welland



Figure 5: Project Area located on the 1876 Illustrated Historical Atlas of the Counties of Lincoln and Welland

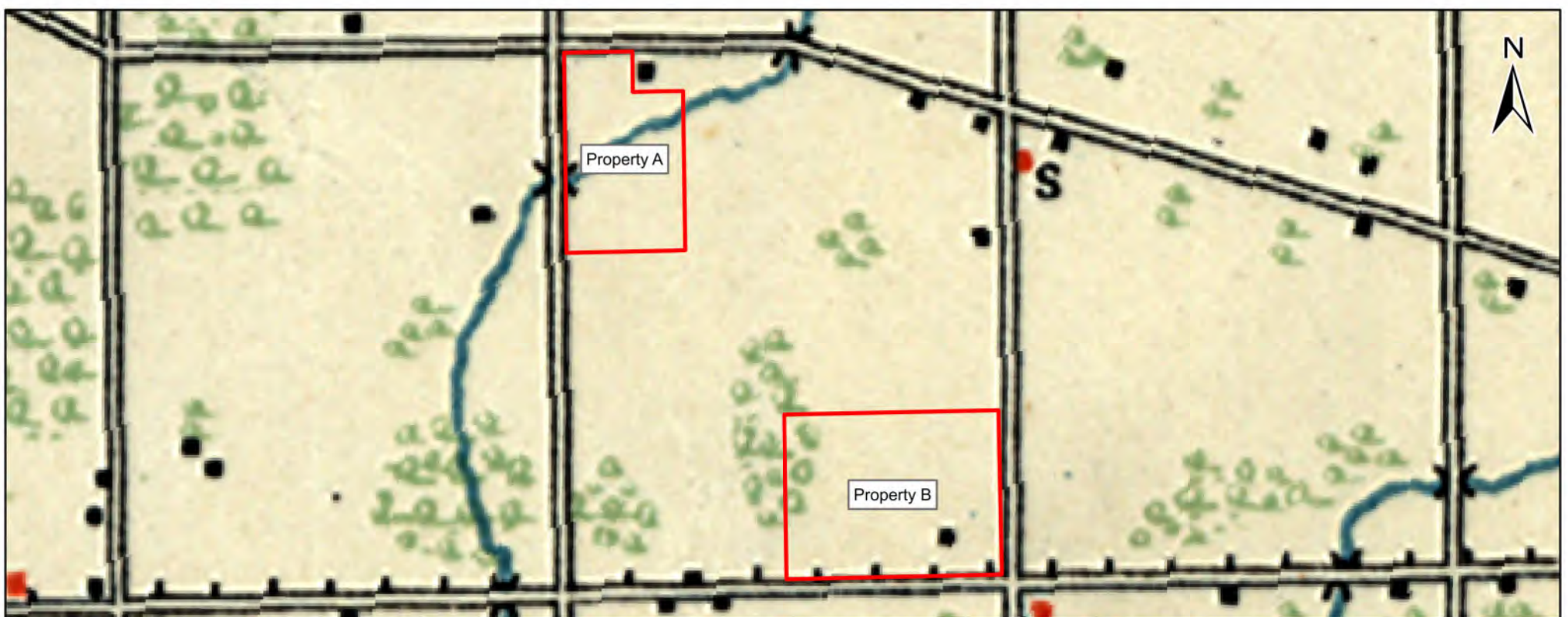
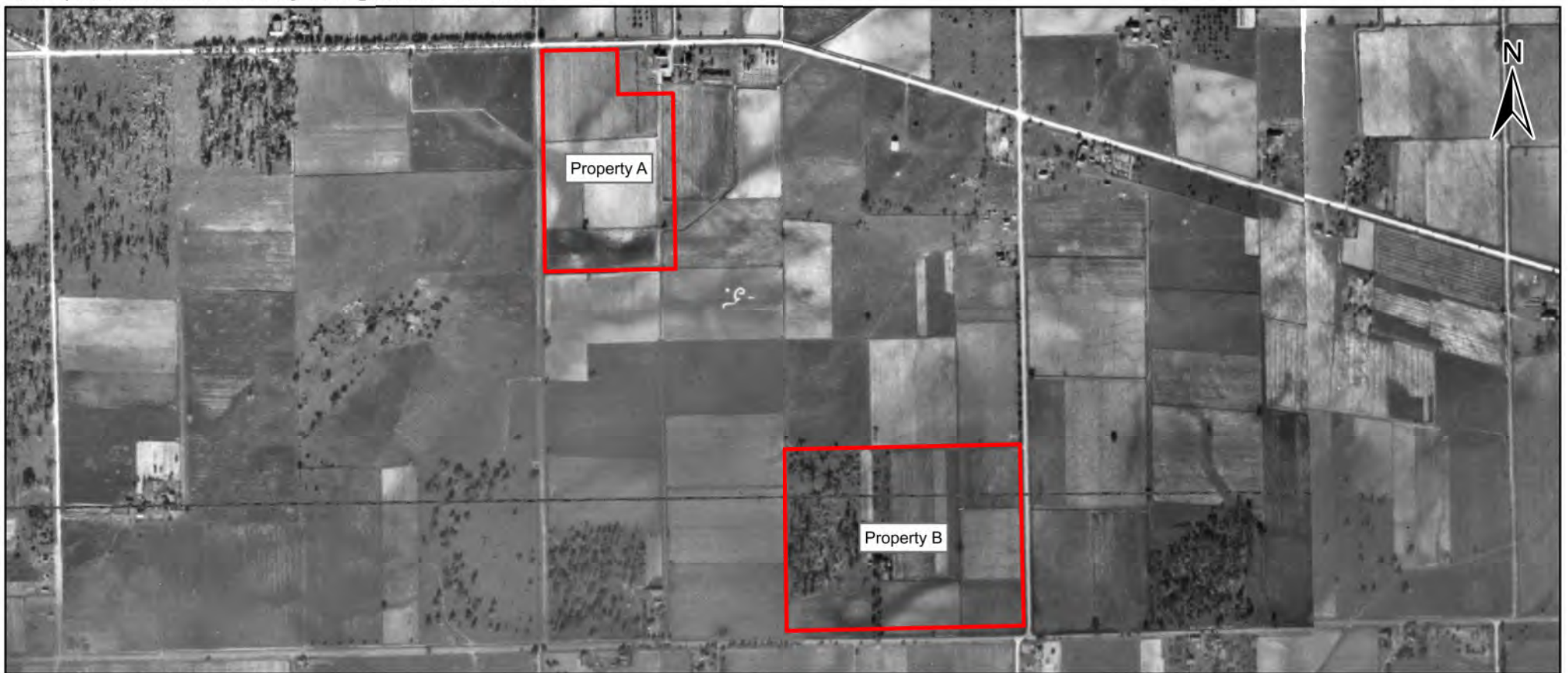


Figure 6: Project Area located on the 1907 Welland Topographic Map

	 PROJECT AREA	Source: Tremaine Map of the Counties of Lincoln and Welland, 1862 Illustrated Historical Atlas of the Counties of Lincoln and Welland, 1876 DND Topographic Map, Welland 1907	0 500  Metres
		Projection: NAD 1983 UTM Zone 17N Scale: 1:11,000 Page Size: 11 x 17	ASI Project No.: 23PL-408 Date: 11/9/2023 10:23 AM Drawn By: jfernandez File: 23PL408_Fig4_5_6_Hist



1934



2000



2010




	 PROJECT AREA	Source: Niagara Region, Niagara Region, Ministry of Natural Resources	0  500 Metres	
		Projection: NAD 1983 UTM Zone 17N Scale: 1:10,000 Page Size: 11 x 17	ASI Project No.: 23PL-408 Date: 11/14/2023 9:15 AM	Drawn By: jfernandez File: 23PL408_Fig7_Aerial

Figure 7: Project Area located on 1934, 2000, and 2010 Aerial Imagery



	 PROJECT AREA	Source: Maxar	0  200 Metres	
	 STAGE 2 ARCHAEOLOGICAL ASSESSMENT REQUIRED		Projection: NAD 1983 UTM Zone 17N Scale: 1:6,178 Page Size: 8.5x11	ASI Project No.: 23PL-408 Date: 11/22/2023
 PHOTOS			Drawn By: rlatour File: Fig8_result	

Figure 8: Stage 1 Archaeological Assessment Results

9.0 Appendix A: Registered Sites within One Kilometre of the Project Area

Twenty-one archaeological sites have been registered with an approximate one-kilometre radius of the project area (Ministry of Citizenship and Multiculturalism, 2023).

Borden	Site Name	Temporal/Cultural Affiliation	Site Type	Researcher
AfGt-35	Snider 1	N/A	N/A	Pengelly, 1984
AfGt-36	Snider 2	N/A	N/A	Pengelly, 1984
AfGt-37	Snider 3	Middle Archaic	Campsite	Pengelly, 1984
AfGt-41	Augustine 1	Pre-contact Indigenous	Findspot	Pengelly, 1984
AfGt-42	Augustine 2	Pre-contact Indigenous	Findspot	Pengelly, 1984
AfGt-43	Augustine 3	Pre-contact Indigenous	Findspot	Pengelly, 1984
AfGt-54	Ott 1	N/A	N/A	Pengelly, 1984
AfGt-55	Ott 2	N/A	N/A	Pengelly, 1984

Borden	Site Name	Temporal/Cultural Affiliation	Site Type	Researcher
AfGt-56	Ott 3	N/A	N/A	Pengelly, 1984
AfGt-57	Ott 4	N/A	N/A	Pengelly, 1984
AfGt-58	Port Colborne Quarry	Late Archaic, Early Woodland, Late Woodland	Workshop	Pengelly, 1984
AfGt-59	Ott 5	Early Archaic, Late Archaic, Late Woodland	Quarry	Pengelly, 1984; Woodley, 1997
AfGt-87	Eeyore	Late Paleo, Early Woodland, Late Woodland	N/A	Warrick, 1996
AfGt-306	Location 20	Euro-Canadian	N/A	Archeoworks Inc., 2018
AfGt-307	Location 25	Pre-contact Indigenous	Scatter	Archeoworks Inc., 2018; Golder Associates Limited, 2019
AfGt-309	Location 31	Pre-contact Indigenous	Scatter	Archeoworks Inc., 2018; Golder Associates Limited, 2019

Borden	Site Name	Temporal/Cultural Affiliation	Site Type	Researcher
AfGt-310	Location 26/27	Pre-contact Indigenous	Scatter	Archeoworks Inc., 2018
AfGt-316	N/A	Pre-contact Indigenous	Scatter	Archeoworks Inc., 2019
AfGt-329	N/A	Pre-contact Indigenous	Campsite	Earthworks Archaeological Services, 2021
AfGt-330	N/A	Pre-contact Indigenous	Scatter	Earthworks Archaeological Services, 2021
AfGt-331	N/A	Pre-contact Indigenous	Scatter	Archaeological Research Associates Limited, 2021
